



09/03/10

Technical Report for

KRW Consulting, Inc.

296-7A

1006-11 Confirmation

Accutest Job Number: D16721

Sampling Date: 08/23/10

Report to:

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Total number of pages in report: 73



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.

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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: D16721

296-7A

Project No: 1006-11 Confirmation

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
D16721-1	08/23/10	09:44	PJ	08/25/10	SO	Soil	EAST WALL
D16721-1A	08/23/10	09:44	PJ	08/25/10	SO	Soil	EAST WALL
D16721-2	08/23/10	11:01	PJ	08/25/10	SO	Soil	SOUTH WALL
D16721-2A	08/23/10	11:01	PJ	08/25/10	SO	Soil	SOUTH WALL
D16721-3	08/23/10	11:34	PJ	08/25/10	SO	Soil	WEST WALL
D16721-3A	08/23/10	11:34	PJ	08/25/10	SO	Soil	WEST WALL
D16721-4	08/23/10	13:24	PJ	08/25/10	SO	Soil	NORTH WALL
D16721-4A	08/23/10	13:24	PJ	08/25/10	SO	Soil	NORTH WALL
D16721-5	08/23/10	15:55	PJ	08/25/10	SO	Soil	BOTTOM TIER #1 DOWN 3'
D16721-5A	08/23/10	15:55	PJ	08/25/10	SO	Soil	BOTTOM TIER #1 DOWN 3'
D16721-6	08/23/10	16:21	PJ	08/25/10	SO	Soil	BOTTOM TIER #2 DOWN '6
D16721-6A	08/23/10	16:21	PJ	08/25/10	SO	Soil	BOTTOM TIER #2 DOWN '6

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D16721

Site: 296-7A

Report Dat 9/3/2010 4:48:57 PM

On 08/25/2010, six (6) samples, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 5.1°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D16721 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 8015

Matrix SO	Batch ID: M:GBD1842
------------------	----------------------------

- The data for SW846 8015 meets quality control requirements.
- Analysis performed at Accutest Laboratories, Marlborough, MA.

Volatiles by GC By Method SW846 8021

Matrix SO	Batch ID: M:GBD1841
------------------	----------------------------

- The data for SW846 8021 meets quality control requirements.
- Samples D16721-1, D16721-2, D16721-3, D16721-4, and D16721-5 have analytes reported with a 'B' qualifier, indicating the analyte is found in the associated method blank.
- Analysis performed at Accutest Laboratories, Marlborough, MA.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP2420
------------------	-------------------------

- 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 D16721-1MS and D16721-1MSD were used as the QC samples indicated.

Matrix SO	Batch ID: OP2443
------------------	-------------------------

- 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 D16720-1MS and D16720-1MSD were used as the QC samples indicated.

Metals By Method SW846 6010B

Matrix AQ	Batch ID: MP2761
------------------	-------------------------

- All samples were digested 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 D16864-1AMS and D16864-1AMSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method LADNR29B

Matrix SO

Batch ID: MP2761

- Sodium Adsorption Ratio: Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+(Mg meq/L)/2]

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN6081

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

Wet Chemistry By Method SW846 9045C

Matrix SO

Batch ID: GN6073

- The following samples were run outside of holding time for method SW846 9045C: D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

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 DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States**Job No** D16721**Site:** KRWCCOL: 296-7A**Report Date** 9/1/2010 12:01:45 PM

6 Sample(s) were collected on 08/23/2010 and were received at Accutest on 08/25/2010 properly preserved, at 1.8 Deg. C and intact. These Samples received an Accutest job number of D16721. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method SW846 8015

Matrix SO**Batch ID:** GBD1842

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D16721-1MS, D16721-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8021

Matrix SO**Batch ID:** GBD1841

- All samples were analyzed within the recommended method holding time.
- Sample(s) D16721-1MS, D16721-1MSD were used as the QC samples indicated.
- Sample(s) D16721-1, D16721-2, D16721-3, D16721-4, D16721-5 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- Only selected compounds requested.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D16721).



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EAST WALL						
Lab Sample ID:	D16721-1				Date Sampled:	08/23/10	
Matrix:	SO - Soil				Date Received:	08/25/10	
Method:	SW846 8015				Percent Solids:	90.3	
Project:	296-7A						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38755.D	1	08/30/10	AMA	n/a	n/a	M:GBD1842
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	ND	6.0	4.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
615-59-8	2,5-Dibromotoluene	75%		36-148%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	EAST WALL		
Lab Sample ID:	D16721-1	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Method:	SW846 8021	Percent Solids:	90.3
Project:	296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38755A.D	1	08/30/10	AMA	n/a	n/a	M:GBD1841
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	60	8.3	ug/kg	
108-88-3	Toluene	ND	60	9.3	ug/kg	
100-41-4	Ethylbenzene	ND	60	10	ug/kg	
1330-20-7	Xylenes (total)	21.3	60	11	ug/kg	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	73%		70-130%
	2,3,4-Trifluorotoluene	96%		70-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	EAST WALL		Date Sampled:	08/23/10
Lab Sample ID:	D16721-1		Date Received:	08/25/10
Matrix:	SO - Soil		Percent Solids:	90.3
Method:	SW846-8015B SW846 3550B			
Project:	296-7A			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE3974.D	1	08/29/10	EH	08/27/10	OP2420	GFE222
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)	356	15	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	86%		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:	EAST WALL	Date Sampled:	08/23/10
Lab Sample ID:	D16721-1	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	90.3
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.3		%	1	08/26/10	SWT	SM19 2540B M
Specific Conductivity	933	1.0	umhos/cm	1	08/27/10	CJ	DEPT.OF AG, BOOK N9
pH	9.38		su	1	08/25/10 15:00	JD	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EAST WALL		
Lab Sample ID:	D16721-1A	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Project:	296-7A	Percent Solids:	90.3

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	63.2	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	19.1	1.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	97.6	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA941
(2) Prep QC Batch: MP2761

RL = Reporting Limit

Report of Analysis

Client Sample ID:	EAST WALL	Date Sampled:	08/23/10
Lab Sample ID:	D16721-1A	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	90.3
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	2.76		ratio	1	08/31/10 20:43	JM	LADNR29B

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SOUTH WALL						
Lab Sample ID:	D16721-2				Date Sampled:	08/23/10	
Matrix:	SO - Soil				Date Received:	08/25/10	
Method:	SW846 8015				Percent Solids:	91.9	
Project:	296-7A						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38758.D	1	08/30/10	AMA	n/a	n/a	M:GBD1842
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	ND	5.9	4.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
615-59-8	2,5-Dibromotoluene	86%		36-148%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	SOUTH WALL		
Lab Sample ID:	D16721-2	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Method:	SW846 8021	Percent Solids:	91.9
Project:	296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38758A.D	1	08/30/10	AMA	n/a	n/a	M:GBD1841
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	59	8.1	ug/kg	
108-88-3	Toluene	ND	59	9.0	ug/kg	
100-41-4	Ethylbenzene	ND	59	10	ug/kg	
1330-20-7	Xylenes (total)	16.7	59	11	ug/kg	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	89%		70-130%
	2,3,4-Trifluorotoluene	95%		70-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	SOUTH WALL			Date Sampled:	08/23/10
Lab Sample ID:	D16721-2			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	91.9
Method:	SW846-8015B SW846 3550B				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE3977.D	1	08/29/10	EH	08/27/10	OP2420	GFE222
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)	64.7	14	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	86%		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:	SOUTH WALL	Date Sampled:	08/23/10
Lab Sample ID:	D16721-2	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	91.9
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.9		%	1	08/26/10	SWT	SM19 2540B M
Specific Conductivity	466	1.0	umhos/cm	1	08/27/10	CJ	DEPT.OF AG, BOOK N9
pH	9.38		su	1	08/25/10 15:00	JD	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SOUTH WALL		
Lab Sample ID:	D16721-2A	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Project:	296-7A	Percent Solids:	91.9

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	38.5	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	10.9	1.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	40.8	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA941
(2) Prep QC Batch: MP2761

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SOUTH WALL	Date Sampled:	08/23/10
Lab Sample ID:	D16721-2A	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	91.9
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	1.49		ratio	1	08/31/10 21:00	JM	LADNR29B

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WEST WALL		Date Sampled:	08/23/10
Lab Sample ID:	D16721-3		Date Received:	08/25/10
Matrix:	SO - Soil		Percent Solids:	94.9
Method:	SW846 8015			
Project:	296-7A			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38763.D	1	08/30/10	AMA	n/a	n/a	M:GBD1842
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	ND	5.5	4.0	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
615-59-8	2,5-Dibromotoluene	80%		36-148%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	WEST WALL		
Lab Sample ID:	D16721-3	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Method:	SW846 8021	Percent Solids:	94.9
Project:	296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38763A.D	1	08/30/10	AMA	n/a	n/a	M:GBD1841
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	55	7.6	ug/kg	
108-88-3	Toluene	ND	55	8.5	ug/kg	
100-41-4	Ethylbenzene	ND	55	9.6	ug/kg	
1330-20-7	Xylenes (total)	12.9	55	10	ug/kg	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	86%		70-130%
	2,3,4-Trifluorotoluene	96%		70-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	WEST WALL			Date Sampled:	08/23/10					
Lab Sample ID:	D16721-3			Date Received:	08/25/10					
Matrix:	SO - Soil			Percent Solids:	94.9					
Method:	SW846-8015B SW846 3550B									
Project:	296-7A									

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE3978.D	1	08/29/10	EH	08/27/10	OP2420	GFE222
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)	118	14	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	87%		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:	WEST WALL		
Lab Sample ID:	D16721-3	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
		Percent Solids:	94.9
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	94.9		%	1	08/26/10	SWT	SM19 2540B M
Specific Conductivity	453	1.0	umhos/cm	1	08/27/10	CJ	DEPT.OF AG, BOOK N9
pH	9.40		su	1	08/25/10 15:00	JD	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WEST WALL		
Lab Sample ID:	D16721-3A	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Project:	296-7A	Percent Solids:	94.9

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	29.3	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	8.33	1.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	52.3	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA941
(2) Prep QC Batch: MP2761

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WEST WALL	Date Sampled:	08/23/10
Lab Sample ID:	D16721-3A	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	94.9
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	2.19		ratio	1	08/31/10 21:18	JM	LADNR29B

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	NORTH WALL				
Lab Sample ID:	D16721-4			Date Sampled:	08/23/10
Matrix:	SO - Soil			Date Received:	08/25/10
Method:	SW846 8015			Percent Solids:	92.0
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38764.D	1	08/30/10	AMA	n/a	n/a	M:GBD1842
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	ND	5.8	4.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
615-59-8	2,5-Dibromotoluene	91%		36-148%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	NORTH WALL		
Lab Sample ID:	D16721-4	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Method:	SW846 8021	Percent Solids:	92.0
Project:	296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38764A.D	1	08/30/10	AMA	n/a	n/a	M:GBD1841
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	58	8.0	ug/kg	
108-88-3	Toluene	ND	58	8.9	ug/kg	
100-41-4	Ethylbenzene	ND	58	10	ug/kg	
1330-20-7	Xylenes (total)	12.4	58	11	ug/kg	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	95%		70-130%
	2,3,4-Trifluorotoluene	97%		70-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	NORTH WALL		Date Sampled:	08/23/10
Lab Sample ID:	D16721-4		Date Received:	08/25/10
Matrix:	SO - Soil		Percent Solids:	92.0
Method:	SW846-8015B SW846 3550B			
Project:	296-7A			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE3979.D	1	08/29/10	EH	08/27/10	OP2420	GFE222
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)	23.0	14	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	93%		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:	NORTH WALL		
Lab Sample ID:	D16721-4	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
		Percent Solids:	92.0
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92		%	1	08/26/10	SWT	SM19 2540B M
Specific Conductivity	650	1.0	umhos/cm	1	08/27/10	CJ	DEPT.OF AG, BOOK N9
pH	9.49		su	1	08/25/10 15:00	JD	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	NORTH WALL		
Lab Sample ID:	D16721-4A	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
Project:	296-7A	Percent Solids:	92.0

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	45.4	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	12.9	1.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	77.0	2.0	mg/l	1	08/31/10	08/31/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA941
(2) Prep QC Batch: MP2761

RL = Reporting Limit

Report of Analysis



Client Sample ID:	NORTH WALL		
Lab Sample ID:	D16721-4A	Date Sampled:	08/23/10
Matrix:	SO - Soil	Date Received:	08/25/10
		Percent Solids:	92.0
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	2.60		ratio	1	08/31/10 21:24	JM	LADNR29B

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BOTTOM TIER #1 DOWN 3'			Date Sampled:	08/23/10
Lab Sample ID:	D16721-5			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	96.4
Method:	SW846 8015				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38765.D	1	08/30/10	AMA	n/a	n/a	M:GBD1842
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.2 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	14.9	5.3	3.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
615-59-8	2,5-Dibromotoluene	114%		36-148%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	BOTTOM TIER #1 DOWN 3'			Date Sampled:	08/23/10
Lab Sample ID:	D16721-5			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	96.4
Method:	SW846 8021				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38765A.D	1	08/30/10	AMA	n/a	n/a	M:GBD1841
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.2 g	10.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	7.5	53	7.3	ug/kg	JB
108-88-3	Toluene	ND	53	8.1	ug/kg	
100-41-4	Ethylbenzene	19.9	53	9.2	ug/kg	J
1330-20-7	Xylenes (total)	23.9	53	9.8	ug/kg	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	103%		70-130%
	2,3,4-Trifluorotoluene	95%		70-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	BOTTOM TIER #1 DOWN 3'			Date Sampled:	08/23/10
Lab Sample ID:	D16721-5			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	96.4
Method:	SW846-8015B SW846 3550B				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE4015.D	1	09/02/10	JB	09/01/10	OP2443	GFE226
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)	1650	14	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	108%		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:	BOTTOM TIER #1 DOWN 3'	Date Sampled:	08/23/10
Lab Sample ID:	D16721-5	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	96.4
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	96.4		%	1	08/26/10	SWT	SM19 2540B M
Specific Conductivity	669	1.0	umhos/cm	1	08/27/10	CJ	DEPT.OF AG, BOOK N9
pH	9.40		su	1	08/25/10 15:00	JD	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BOTTOM TIER #1 DOWN 3'			Date Sampled:	08/23/10
Lab Sample ID:	D16721-5A			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	96.4
Project:	296-7A				

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By		Method	Prep Method
Calcium	49.8	2.0	mg/l	1	08/31/10	08/31/10	JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	13.4	1.0	mg/l	1	08/31/10	08/31/10	JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	67.6	2.0	mg/l	1	08/31/10	08/31/10	JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA941
(2) Prep QC Batch: MP2761

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BOTTOM TIER #1 DOWN 3'	Date Sampled:	08/23/10
Lab Sample ID:	D16721-5A	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	96.4
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	2.19		ratio	1	08/31/10 21:30	JM	LADNR29B

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BOTTOM TIER #2 DOWN '6			Date Sampled:	08/23/10
Lab Sample ID:	D16721-6			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	86.4
Method:	SW846 8015				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38766.D	1	08/30/10	AMA	n/a	n/a	M:GBD1842
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.2 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	77.7	6.5	4.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
615-59-8	2,5-Dibromotoluene	117%		36-148%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	BOTTOM TIER #2 DOWN '6					Date Sampled:	08/23/10
Lab Sample ID:	D16721-6					Date Received:	08/25/10
Matrix:	SO - Soil					Percent Solids:	86.4
Method:	SW846 8021						
Project:	296-7A						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	BD38766A.D	1	08/30/10	AMA	n/a	n/a	M:GBD1841
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.2 g	10.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	65	8.9	ug/kg	
108-88-3	Toluene	ND	65	10	ug/kg	
100-41-4	Ethylbenzene	228	65	11	ug/kg	
1330-20-7	Xylenes (total)	ND	65	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	105%		70-130%
	2,3,4-Trifluorotoluene	95%		70-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	BOTTOM TIER #2 DOWN '6			Date Sampled:	08/23/10
Lab Sample ID:	D16721-6			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	86.4
Method:	SW846-8015B SW846 3550B				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE4045.D	2	09/03/10	JB	09/01/10	OP2443	GFE227
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)	3550	31	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	100%		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:	BOTTOM TIER #2 DOWN '6	Date Sampled:	08/23/10
Lab Sample ID:	D16721-6	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	86.4
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.4		%	1	08/26/10	SWT	SM19 2540B M
Specific Conductivity	602	1.0	umhos/cm	1	08/27/10	CJ	DEPT.OF AG, BOOK N9
pH	9.38		su	1	08/25/10 15:00	JD	SW846 9045C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BOTTOM TIER #2 DOWN '6			Date Sampled:	08/23/10
Lab Sample ID:	D16721-6A			Date Received:	08/25/10
Matrix:	SO - Soil			Percent Solids:	86.4
Project:	296-7A				

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By		Method	Prep Method
Calcium	26.1	2.0	mg/l	1	08/31/10	08/31/10	JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	7.67	1.0	mg/l	1	08/31/10	08/31/10	JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	92.6	2.0	mg/l	1	08/31/10	08/31/10	JM	SW846 6010B ¹	EPA 200.7 ²

- (1) Instrument QC Batch: MA941
(2) Prep QC Batch: MP2761

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BOTTOM TIER #2 DOWN '6	Date Sampled:	08/23/10
Lab Sample ID:	D16721-6A	Date Received:	08/25/10
Matrix:	SO - Soil	Percent Solids:	86.4
Project:	296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	4.09		ratio	1	08/31/10 21:36	JM	LADNR29B

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit



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

D16721

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Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes												
Company Name: KRW CONSULTING Street Address: 8000 W. 146th AVE STE 200 City: LAKEWOOD, CO 80214 Project Contact: JOE HESS jhess@krwconsulting.com Phone #: 303-299-9011 Fax #: 303-299-0945 Sampler(s) Name(s): PAT JOHNSON Phone #: 700-273-9944		Project Name: 246-7A CONFIRMATION Street: Billing Information (if different from Report to): Company Name: Street Address: City: State: Zip: Project #: 1006-11 Client Purchase Order #: Project Manager: JOE HESS Attention:		Requested Analysis (see TEST CODE sheet): BTEX TPH-GRD TPH-DEO EC PH SAR (Handwritten: BTEX, TPH-GRD, TPH-DEO, EC, PH, SAR)												Matrix Codes: 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 - Waste FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank												
Accutest Sample #	Field ID / Point of Collection	MECH/ID Vial #	Date	Time	Sampled by	Matrix	# of bottles	HC	MDH	PMO3	PMO4	PMO5	PMO6	PMO7	PMO8	PMO9	PMO10	PMO11	PMO12	PMO13	PMO14	PMO15	PMO16	PMO17	PMO18	PMO19	PMO20	LAB USE ONLY
	EAST WALL		8-23-10	0944	PRO	SO	4																					01
	SOUTH WALL		8-23-10	1101	PRO	SO	4																					02
	WEST WALL		8-23-10	1134	PRO	SO	4																					03
	NORTH WALL		8-23-10	1324	PRO	SO	4																					04
	BOTTOM TIER #1 DOWN 3'		8-23-10	1555	PRO	SO	4																					05
	BOTTOM TIER #2 DOWN 6'		8-23-10	1621	PRO	SO	4																					06
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"/> UST Analysis 3-5 Days <input type="checkbox"/> 6 - 9 Day RUSH <input checked="" type="checkbox"/> 2 - 5 Day RUSH <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<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 T/A data available VIA Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.												Also email to: gkraell@krwconsulting.com djohnson@krwconsulting.com												
Relinquished By:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:											
3	08/20/10 8:15 AM	3	08/20/10 8:15 AM	2		2		4		4		2		2		4												
Relinquished by:	Date Time:	Received By:	Date Time:	Custody Seal #	Intact	Not Intact	Preserved where applicable	On Ice	Cooler Temp.																			
5		5							5.18																			

D16721: Chain of Custody

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GC Semi-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

Job Number: D16721
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2420-MB	FE3970.D	1	08/29/10	EH	08/27/10	OP2420	GFE222

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

D16721-1, D16721-2, D16721-3, D16721-4

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	89% 63-130%

Method Blank Summary

Job Number: D16721
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2443-MB	FE4010.D	1	09/02/10	JB	09/01/10	OP2443	GFE226

The QC reported here applies to the following samples:

Method: SW846-8015B

D16721-5, D16721-6

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	103% 63-130%

Blank Spike Summary

Job Number: D16721
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2420-BS	FE3971.D	1	08/29/10	EH	08/27/10	OP2420	GFE222

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

D16721-1, D16721-2, D16721-3, D16721-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	613	92	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	92%	63-130%

Blank Spike Summary

Job Number: D16721
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2443-BS	FE4011.D	1	09/02/10	JB	09/01/10	OP2443	GFE226

The QC reported here applies to the following samples:

Method: SW846-8015B

D16721-5, D16721-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	702	105	70-130

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

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D16721
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2420-MS	FE3972.D	1	08/29/10	EH	08/27/10	OP2420	GFE222
OP2420-MSD	FE3973.D	1	08/29/10	EH	08/27/10	OP2420	GFE222
D16721-1	FE3974.D	1	08/29/10	EH	08/27/10	OP2420	GFE222

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

D16721-1, D16721-2, D16721-3, D16721-4

CAS No.	Compound	D16721-1 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	356		738	905	74	1080	98	18	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D16721-1	Limits
84-15-1	o-Terphenyl	86%	92%	86%	63-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D16721
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2443-MS	FE4012.D	1	09/02/10	JB	09/01/10	OP2443	GFE226
OP2443-MSD	FE4013.D	1	09/02/10	JB	09/01/10	OP2443	GFE226
D16720-1	FE4014.D	1	09/02/10	JB	09/01/10	OP2443	GFE226

The QC reported here applies to the following samples:

Method: SW846-8015B

D16721-5, D16721-6

CAS No.	Compound	D16720-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	22.2		675	722	104	604	86	18	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D16720-1	Limits
84-15-1	o-Terphenyl	105%	91%	102%	63-130%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

QC Batch ID: MP2761
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date: 08/31/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	35	250		
Antimony	150	8.5	65		
Arsenic	130	14	33		
Barium	50	.7	12		
Beryllium	50	7	22		
Boron	250	18	93		
Cadmium	50	1.1	6		
Calcium	2000	85	46	116	<2000
Chromium	50	1.4	8		
Cobalt	25	2.4	1.5		
Copper	25	8	14		
Iron	350	39	50		
Lead	250	6.5	16		
Lithium	10	3.8	8		
Magnesium	1000	29	62	-13	<1000
Manganese	25	1.1	3.5		
Molybdenum	50	2.1	6		
Nickel	150	1.9	3		
Phosphorus	500	75	270		
Potassium	5000	1900	2700		
Selenium	250	14	36		
Silicon	250	60	100		
Silver	150	4.9	1.5		
Sodium	2000	1200	110	-470	<2000
Strontium	25	.46	17		
Thallium	50	16	11		
Tin	250	70	22		
Titanium	50	.49	3.5		
Uranium	250	11	20		
Vanadium	50	1.4	1.5		
Zinc	150	3.8	8.5		

Associated samples MP2761: D16721-1A, D16721-2A, D16721-3A, D16721-4A, D16721-5A, D16721-6A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

QC Batch ID: MP2761
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

QC Batch ID: MP2761
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date: 08/31/10

Metal	D16864-1A Original MS		Spikelot MPICPALL % Rec		QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	39700	165000	125000	100.2	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	5370	126000	125000	96.5	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	8290	136000	125000	102.2	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP2761: D16721-1A, D16721-2A, D16721-3A, D16721-4A, D16721-5A, D16721-6A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

QC Batch ID: MP2761
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16721
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 296-7A

QC Batch ID: MP2761
 Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
 Units: ug/l

Prep Date: 08/31/10

Metal	D16864-1A Original MSD	Spikelot MPICPAL % Rec	MSD RPD	QC Limit
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	39700	161000	125000	97.0
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	5370	121000	125000	92.5
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	8290	132000	125000	99.0
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP2761: D16721-1A, D16721-2A, D16721-3A, D16721-4A, D16721-5A, D16721-6A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

QC Batch ID: MP2761
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D16721

Account: KRWCCOL - KRW Consulting, Inc.

Project: 296-7A

QC Batch ID: MP2761

Methods: LADNR29B, SW846 6010B

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

08/31/10

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	123000	125000	98.4	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	116000	125000	92.8	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	123000	125000	98.4	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP2761: D16721-1A, D16721-2A, D16721-3A, D16721-4A, D16721-5A, D16721-6A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

QC Batch ID: MP2761
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested



General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D16721
Account: KRWCCOL - KRW Consulting, Inc.
Project: 296-7A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP2672/GN6139			umhos/cm	9984	9970	99.9	90-110%
pH	GN6073			su	8.00	8.01	100.1	99.3-100.7%
pH	GN6073			su	8.00	8.01	100.1	99.3-100.7%

Associated Samples:
Batch GN6073: D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6
Batch GP2672: D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6
(*) Outside of QC limits



Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D16721

Client: AMS

Immediate Client Services Action Required: No

Date / Time Received: 8/28/2010 10:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: N/A

Airbill #'s: N/A

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

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D16721: Chain of Custody

Page 2 of 2



GC Volatiles

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

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

Method Blank Summary

Job Number: D16721
Account: ALMS Accutest Mountain States
Project: KRWCCOL: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBD1842-MB	BD38751.D	1	08/30/10	AF	n/a	n/a	GBD1842

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

D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (VOA)	ND	5.0	3.6	mg/kg	

CAS No.	Surrogate Recoveries	Limits
615-59-8	2,5-Dibromotoluene	71% 36-148%

9.1.1
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Method Blank Summary

Job Number: D16721
Account: ALMS Accutest Mountain States
Project: KRWCCOL: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBD1841-MB	BD38751A.D1		08/30/10	AF	n/a	n/a	GBD1841

The QC reported here applies to the following samples: Method: SW846 8021

D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	7.4	50	6.9	ug/kg	J
100-41-4	Ethylbenzene	ND	50	8.7	ug/kg	
108-88-3	Toluene	ND	50	7.7	ug/kg	
1330-20-7	Xylenes (total)	15.4	50	9.3	ug/kg	J

CAS No.	Surrogate Recoveries	Limits
615-59-8	2,5-Dibromotoluene	70% 70-130%
	2,3,4-Trifluorotoluene	94% 70-130%

Blank Spike Summary

Job Number: D16721
Account: ALMS Accutest Mountain States
Project: KRWCCOL: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBD1842-BSP	BD38752.D	1	08/30/10	AF	n/a	n/a	GBD1842

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

D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (VOA)	20	17.1	86	67-133

CAS No.	Surrogate Recoveries	BSP	Limits
615-59-8	2,5-Dibromotoluene	72%	36-148%

Blank Spike/Blank Spike Duplicate Summary

Job Number: D16721
Account: ALMS Accutest Mountain States
Project: KRWCCOL: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBD1841-BSP	BD38753.D	1	08/30/10	AF	n/a	n/a	GBD1841
GBD1841-BSD	BD38754.D	1	08/30/10	AF	n/a	n/a	GBD1841

The QC reported here applies to the following samples: Method: SW846 8021

D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2500	2440	98	2470	99	1	70-130/25
100-41-4	Ethylbenzene	2500	2470	99	2500	100	1	70-130/25
108-88-3	Toluene	2500	2470	99	2510	100	2	70-130/25
1330-20-7	Xylenes (total)	7500	7260	97	7350	98	1	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
615-59-8	2,5-Dibromotoluene	77%	73%	70-130%
	2,3,4-Trifluorotoluene	99%	99%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D16721
Account: ALMS Accutest Mountain States
Project: KRWCCOL: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D16721-1MS	BD38761.D	1	08/30/10	AF	n/a	n/a	GBD1842
D16721-1MSD	BD38762.D	1	08/30/10	AF	n/a	n/a	GBD1842
D16721-1	BD38755.D	1	08/30/10	AF	n/a	n/a	GBD1842

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

D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

CAS No.	Compound	D16721-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (VOA)	ND		24.1	25.2	105	24.8	103	1	40-154/20

CAS No.	Surrogate Recoveries	MS	MSD	D16721-1	Limits
615-59-8	2,5-Dibromotoluene	86%	87%	75%	36-148%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D16721
Account: ALMS Accutest Mountain States
Project: KRWCCOL: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D16721-1MS	BD38756.D	1	08/30/10	AF	n/a	n/a	GBD1841
D16721-1MSD	BD38757.D	1	08/30/10	AF	n/a	n/a	GBD1841
D16721-1	BD38755A.D1		08/30/10	AF	n/a	n/a	GBD1841

The QC reported here applies to the following samples: Method: SW846 8021

D16721-1, D16721-2, D16721-3, D16721-4, D16721-5, D16721-6

CAS No.	Compound	D16721-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3010	2920	97	2990	99	2	70-130/30
100-41-4	Ethylbenzene	ND		3010	2940	98	3060	102	4	70-130/30
108-88-3	Toluene	ND		3010	2950	98	3050	101	3	70-130/30
1330-20-7	Xylenes (total)	21.3	JB	9040	8630	95	8970	99	4	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D16721-1	Limits
615-59-8	2,5-Dibromotoluene	92%	102%	73%	70-130%
	2,3,4-Trifluorotoluene	97%	101%	96%	70-130%



06/13/11

Technical Report for

KRW Consulting, Inc.

PCU 296-7A

1104-03B

Accutest Job Number: D24249

Sampling Dates: 06/07/11 - 06/08/11

Report to:

KRW Consulting, Inc.
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Total number of pages in report: **75**



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)

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Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D24249

PCU 296-7A
Project No: 1104-03B

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D24249-1	06/07/11	15:00 CAB	06/09/11	SO	Soil	296-7A_BH-01-5.5'-8'
D24249-2	06/07/11	15:30 CAB	06/09/11	SO	Soil	296-7A_BH-01-10.5'-13'
D24249-3	06/07/11	16:00 CAB	06/09/11	SO	Soil	296-7A_BH-01-15.5'-17.5'
D24249-4	06/08/11	09:00 CAB	06/09/11	SO	Soil	296-7A_BH-02-3'-5.5'
D24249-5	06/08/11	11:00 CAB	06/09/11	SO	Soil	296-7A_BH-01-15.5'-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** D24249**Site:** PCU 296-7A**Report Dat** 6/13/2011 12:45:51 PM

On 06/09/2011, five (5) samples, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 4.9°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D24249 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:** 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.

Extractables by GC By Method SW846-8015B

Matrix SO**Batch ID:** OP3828

- All samples were extracted and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D24249-1MS and D24249-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO**Batch ID:** GN9938

- 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: 296-7A_BH-01-5.5'-8'
Lab Sample ID: D24249-1
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 06/07/11
Date Received: 06/09/11
Percent Solids: 85.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12108.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)	51.5	13	6.7	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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A_BH-01-5.5'-8'**Lab Sample ID:** D24249-1**Date Sampled:** 06/07/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 85.2**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06957.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
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)	567	16	10	mg/kg	

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

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Client Sample ID: 296-7A_BH-01-10.5' -13'
Lab Sample ID: D24249-2
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 06/07/11
Date Received: 06/09/11
Percent Solids: 85.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12109.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)	ND	13	6.6	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

Accutest Laboratories

Report of Analysis

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Client Sample ID: 296-7A_BH-01-10.5' -13'**Lab Sample ID:** D24249-2**Date Sampled:** 06/07/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 85.8**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06959.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
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	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	87%		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

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Client Sample ID: 296-7A_BH-01-15.5'-17.5'**Lab Sample ID:** D24249-3**Date Sampled:** 06/07/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846 8015B**Percent Solids:** 85.9**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12110.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	6.6	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

Accutest Laboratories

Report of Analysis

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Client Sample ID: 296-7A_BH-01-15.5' -17.5'**Lab Sample ID:** D24249-3**Date Sampled:** 06/07/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 85.9**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06960.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
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	87%		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

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Client Sample ID: 296-7A_BH-02-3' -5.5'
Lab Sample ID: D24249-4
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 06/08/11
Date Received: 06/09/11
Percent Solids: 84.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12111.D	1	06/12/11	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)	53.0	14	6.8	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

Accutest Laboratories

Report of Analysis

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Client Sample ID: 296-7A_BH-02-3' -5.5'**Lab Sample ID:** D24249-4**Date Sampled:** 06/08/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 84.7**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06961.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
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)	381	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	93%		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

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Client Sample ID: 296-7A_BH-01-15.5' -18'
Lab Sample ID: D24249-5
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 06/08/11
Date Received: 06/09/11
Percent Solids: 84.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12112.D	1	06/12/11	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	14	6.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	84%		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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Client Sample ID: 296-7A_BH-01-15.5' -18'**Lab Sample ID:** D24249-5**Date Sampled:** 06/08/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 84.8**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06962.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
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	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		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

GC 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: D24249
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

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

D24249-1, D24249-2, D24249-3, D24249-4, D24249-5

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: D24249
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

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

D24249-1, D24249-2, D24249-3, D24249-4, D24249-5

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: D24249
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

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

D24249-1, D24249-2, D24249-3, D24249-4, D24249-5

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



Judy Melson
06/13/11 11:19

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12108.D\FID1A.CH Vial: 20
 Signal #2 : Z:\061111\GA12108.D\FID2B.CH
 Acq On : 11 Jun 2011 10:40 pm Operator: StephK
 Sample : D24249-1, 50X Inst : BTEX2
 Misc : GC1941,GGA659,5.036,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:38:15 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	14.47	3087218	86.761 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.47	5959578	91.877 %	m
Target Compounds					
1) H	TVH-Gasoline	7.39	72863262	0.769 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	68411	0.326 ug/L	
7) T	Ethylbenzene	10.45	125509	0.669 ug/L	
8) T	m,p-Xylene	10.66	880928	4.081 ug/L	
9) T	o-Xylene	11.12	387453	2.127 ug/L	
11) T	Naphthalene	14.66	9349311	79.431 ug/L	m

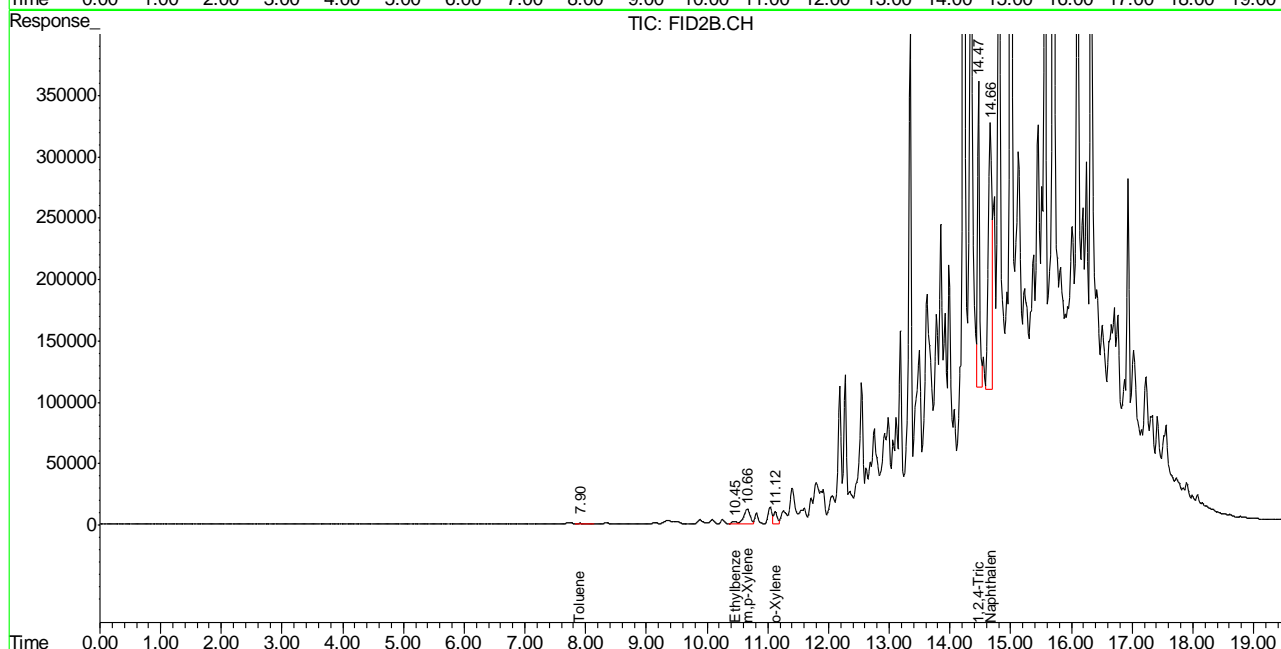
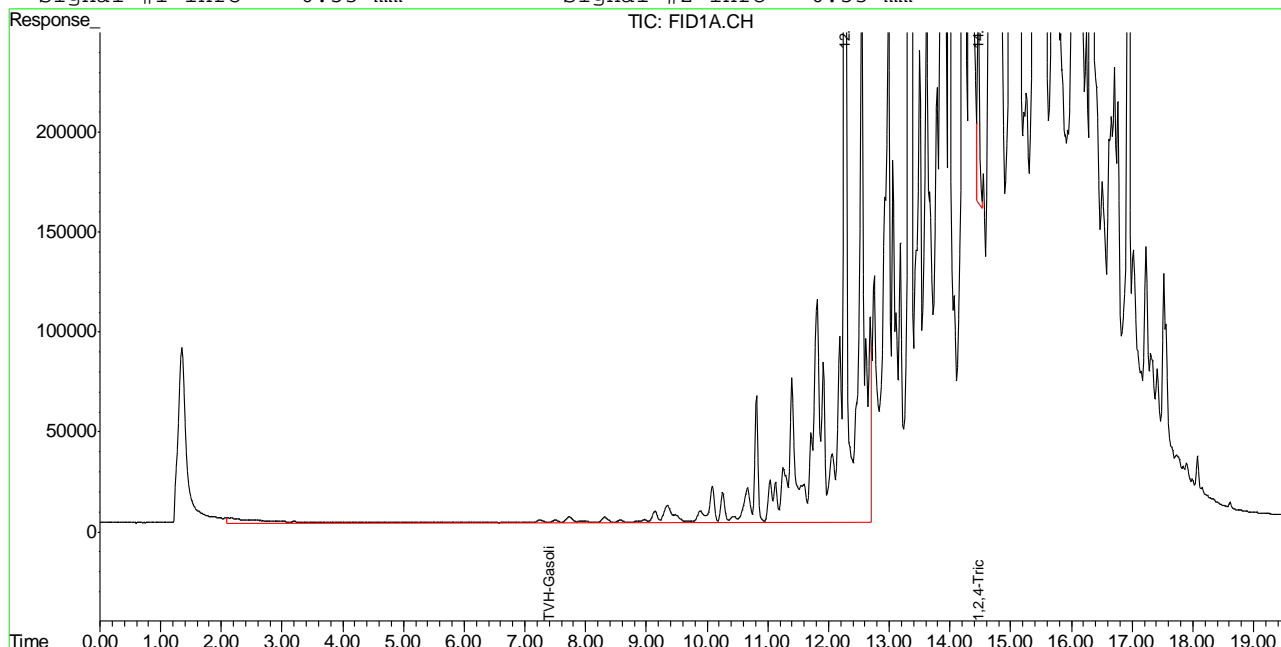
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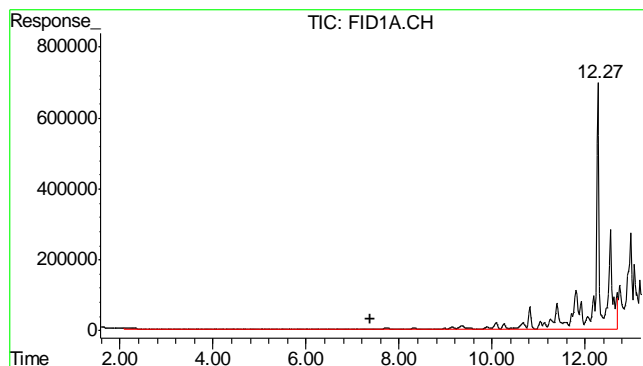
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12108.D\FID1A.CH Vial: 20
 Signal #2 : Z:\061111\GA12108.D\FID2B.CH
 Acq On : 11 Jun 2011 10:40 pm Operator: StephK
 Sample : D24249-1, 50X Inst : BTEX2
 Misc : GC1941,GGA659,5.036,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:41 2011 Quant Results File: TA620GA620.RES

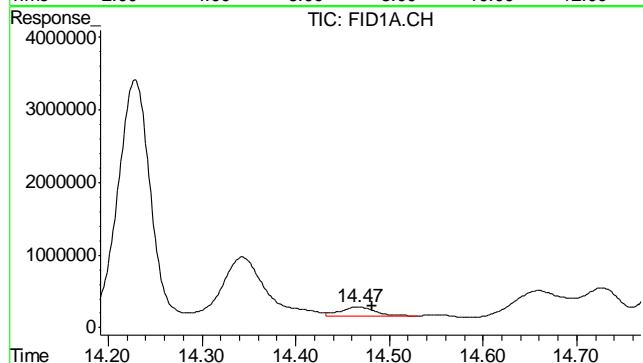
Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jun 13 09:19:46 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

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

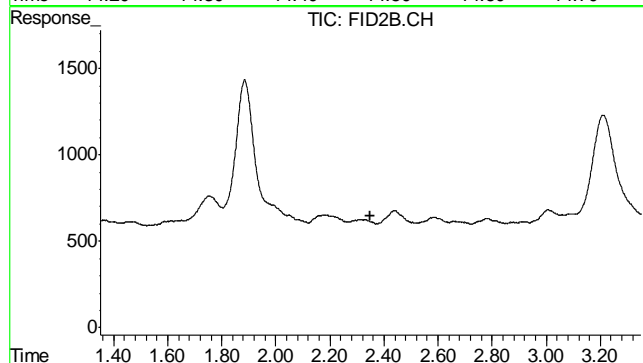




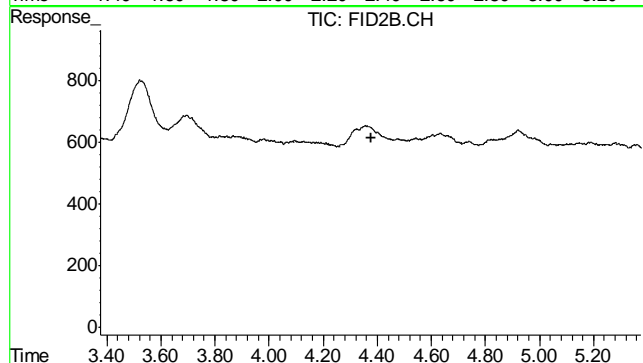
#1 TVH-Gasoline
 R.T.: 7.390 min
 Delta R.T.: 0.000 min
 Response: 72863262
 Conc: 0.77 mg/L m



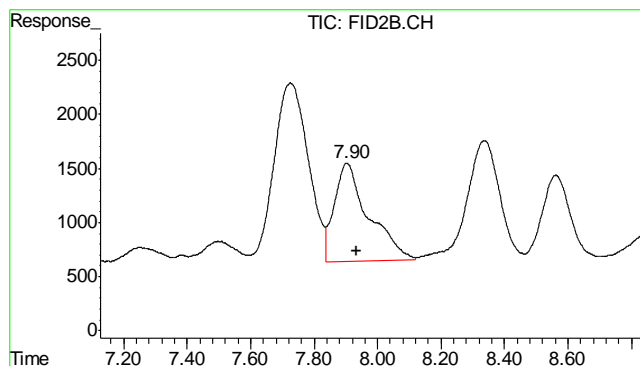
#2 1,2,4-Trichlorobenzene
 R.T.: 14.466 min
 Delta R.T.: -0.015 min
 Response: 3087218
 Conc: 86.76 % m



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

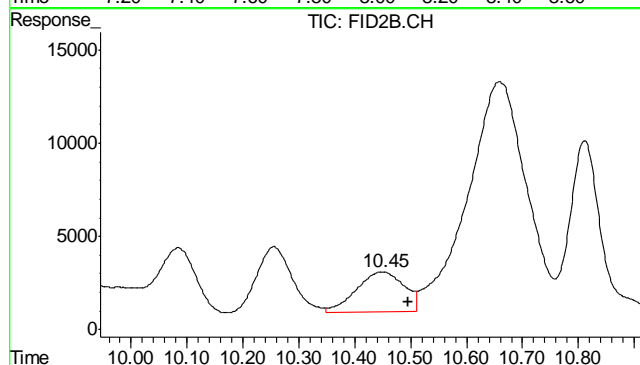


#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.376 min
 Response: 0
 Conc: N.D.



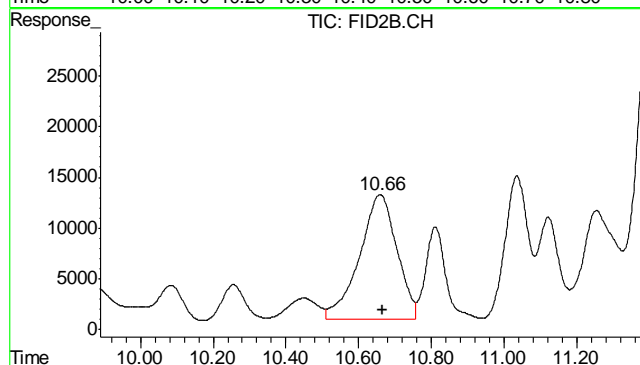
#6 Toluene

R.T.: 7.903 min
Delta R.T.: -0.031 min
Response: 68411
Conc: 0.33 ug/L



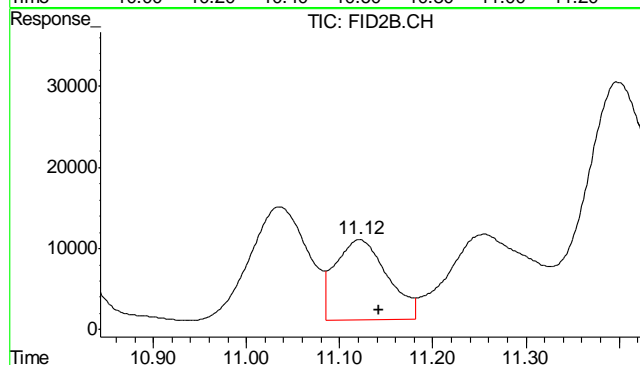
#7 Ethylbenzene

R.T.: 10.450 min
Delta R.T.: -0.046 min
Response: 125509
Conc: 0.67 ug/L



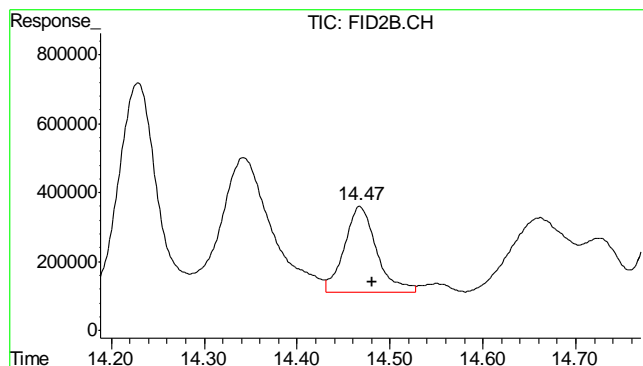
#8 m,p-Xylene

R.T.: 10.659 min
Delta R.T.: -0.008 min
Response: 880928
Conc: 4.08 ug/L



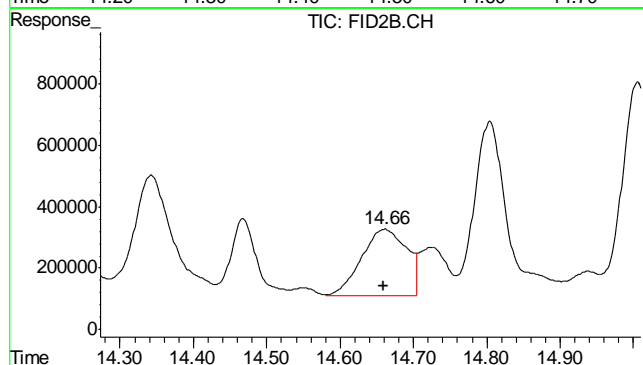
#9 o-Xylene

R.T.: 11.122 min
Delta R.T.: -0.020 min
Response: 387453
Conc: 2.13 ug/L



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

R.T.: 14.467 min
Delta R.T.: -0.014 min
Response: 5959578
Conc: 91.88 % m



#11 Naphthalene

R.T.: 14.662 min
Delta R.T.: 0.002 min
Response: 9349311
Conc: 79.43 ug/L m

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12109.D\FID1A.CH Vial: 21
 Signal #2 : Z:\061111\GA12109.D\FID2B.CH
 Acq On : 11 Jun 2011 11:16 pm Operator: StephK
 Sample : D24249-2, 50X Inst : BTEX2
 Misc : GC1941,GGA659,5.074,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:38:18 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	3102734	87.197	%
10) S	1,2,4-Trichlorobenzene (P)	14.47	5444398	80.572	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2907114	<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	7.90	38287	0.182	ug/L
7) T	Ethylbenzene	10.47	32966	0.176	ug/L
8) T	m,p-Xylene	10.64	182578	0.846	ug/L
9) T	o-Xylene	11.12	101589	0.558	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

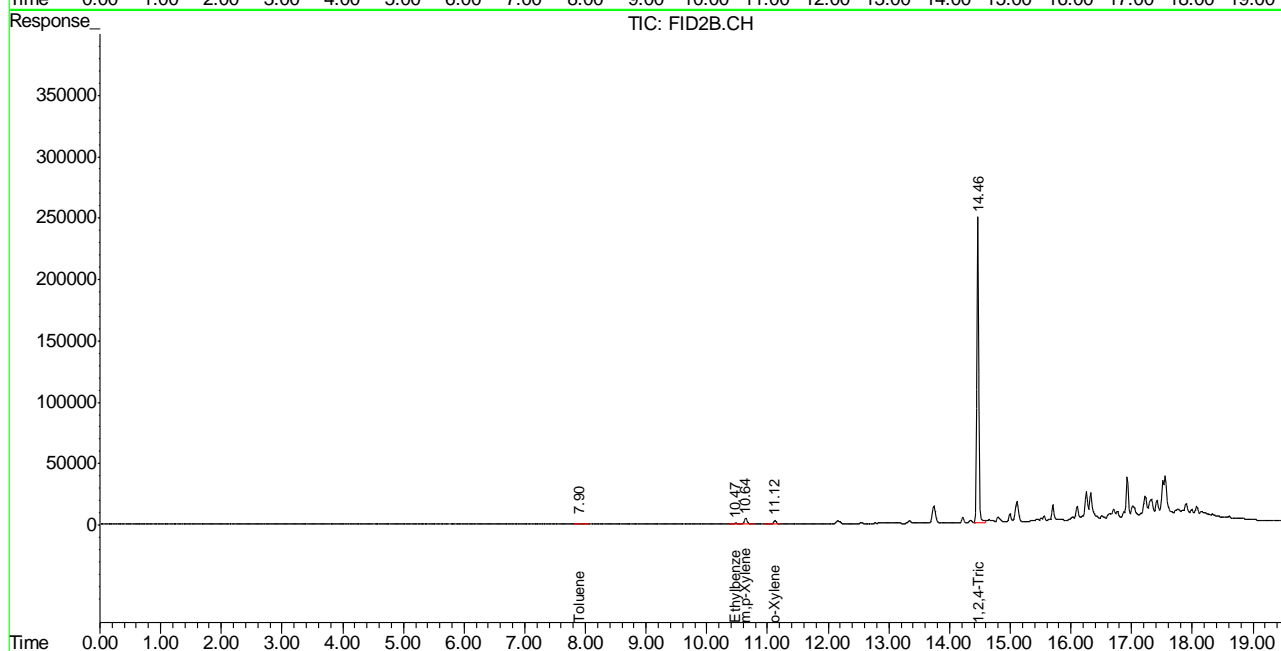
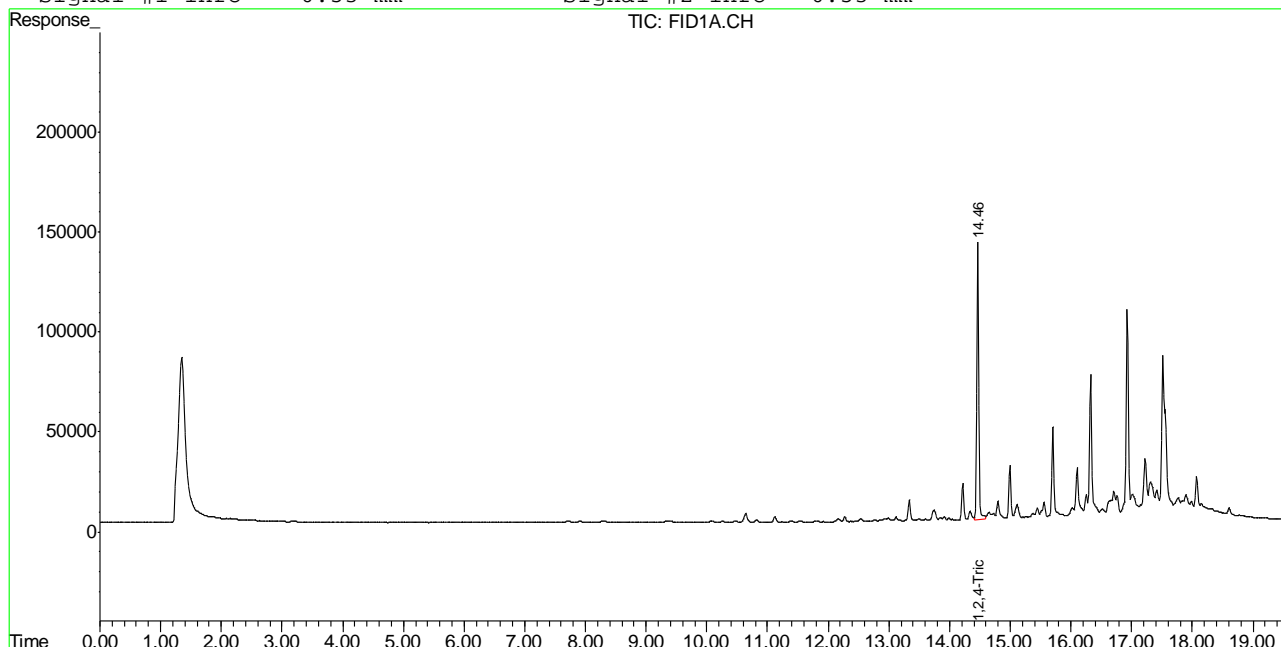
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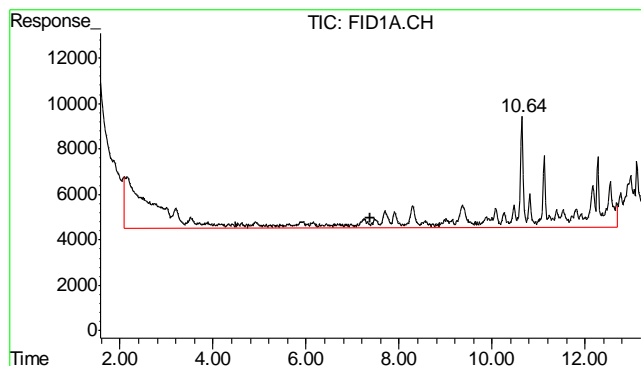
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12109.D\FID1A.CH Vial: 21
 Signal #2 : Z:\061111\GA12109.D\FID2B.CH
 Acq On : 11 Jun 2011 11:16 pm Operator: StephK
 Sample : D24249-2, 50X Inst : BTEX2
 Misc : GC1941,GGA659,5.074,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 7:42 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

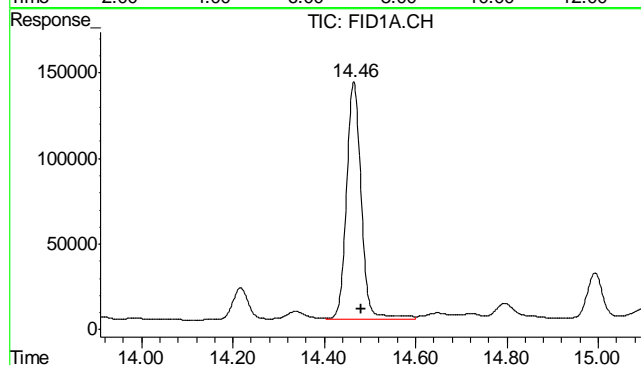
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





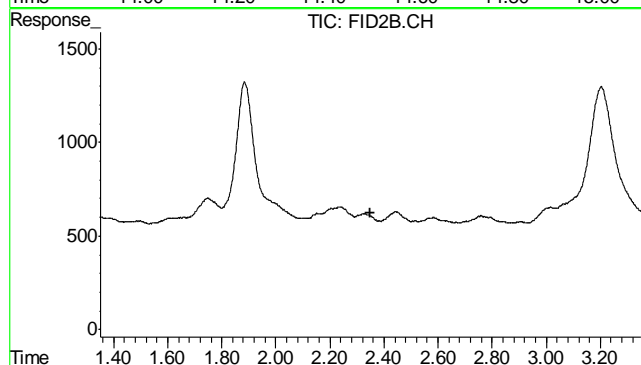
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2907114
Conc: N.D.



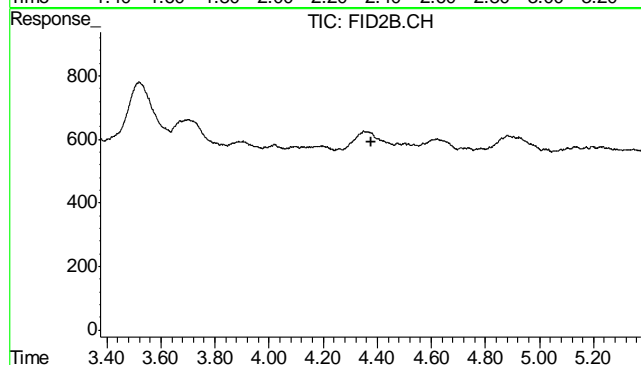
#2 1,2,4-Trichlorobenzene

R.T.: 14.465 min
Delta R.T.: -0.016 min
Response: 3102734
Conc: 87.20 %



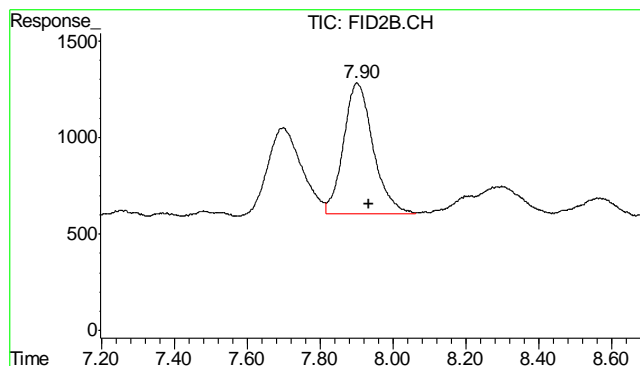
#4 Methyl-t-butyl-ether

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



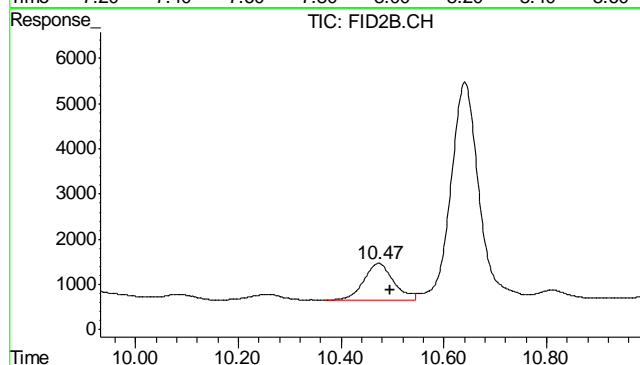
#5 Benzene

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



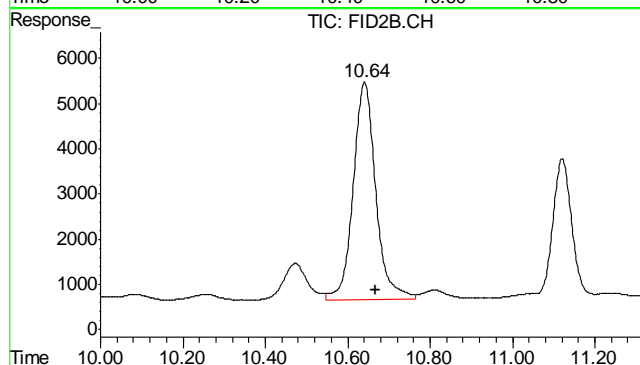
#6 Toluene

R.T.: 7.902 min
Delta R.T.: -0.032 min
Response: 38287
Conc: 0.18 ug/L



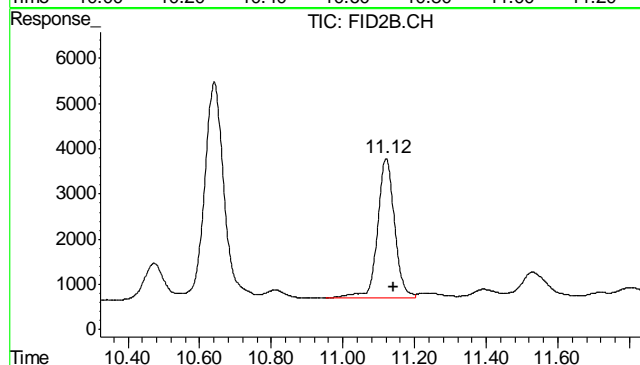
#7 Ethylbenzene

R.T.: 10.473 min
Delta R.T.: -0.023 min
Response: 32966
Conc: 0.18 ug/L



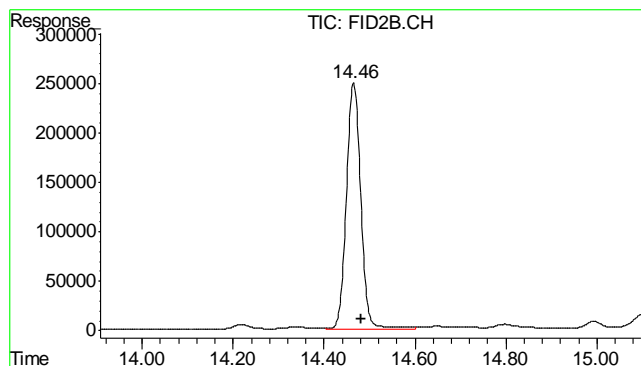
#8 m,p-Xylene

R.T.: 10.641 min
Delta R.T.: -0.026 min
Response: 182578
Conc: 0.85 ug/L



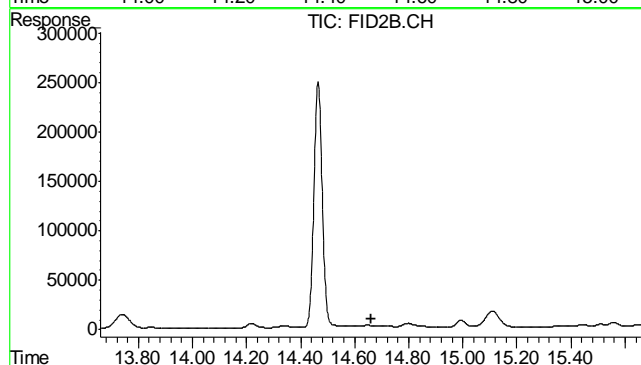
#9 o-Xylene

R.T.: 11.121 min
Delta R.T.: -0.021 min
Response: 101589
Conc: 0.56 ug/L



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

R.T.: 14.465 min
 Delta R.T.: -0.015 min
 Response: 5444398
 Conc: 80.57 %



#11 Naphthalene

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

6.1.2
6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12110.D\FID1A.CH Vial: 22
 Signal #2 : Z:\061111\GA12110.D\FID2B.CH
 Acq On : 11 Jun 2011 11:53 pm Operator: StephK
 Sample : D24249-3, 50X Inst : BTEX2
 Misc : GC1941,GGA659,5.006,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:38:21 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	14.48	3073784	86.383	%
10) S	1,2,4-Trichlorobenzene (P)	14.47	5413538	79.895	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2549498	<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	44359	0.211	ug/L
7) T	Ethylbenzene	10.48	32053	0.171	ug/L
8) T	m,p-Xylene	10.65	165304	0.766	ug/L
9) T	o-Xylene	11.13	89072	0.489	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

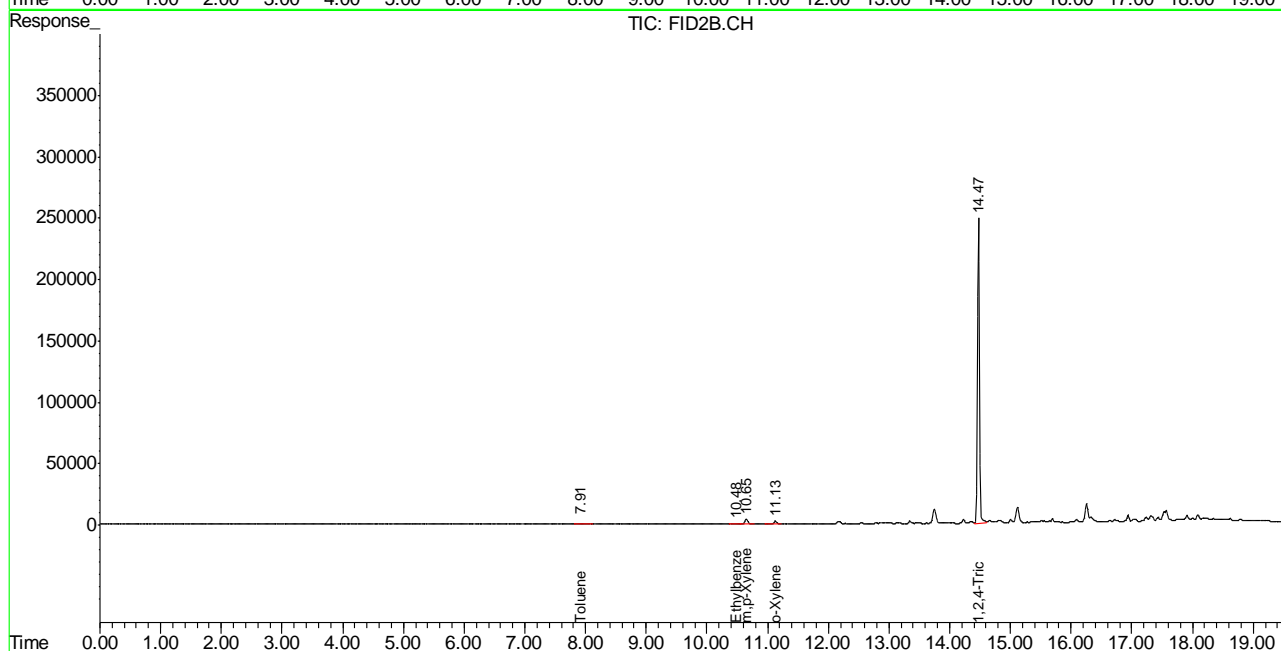
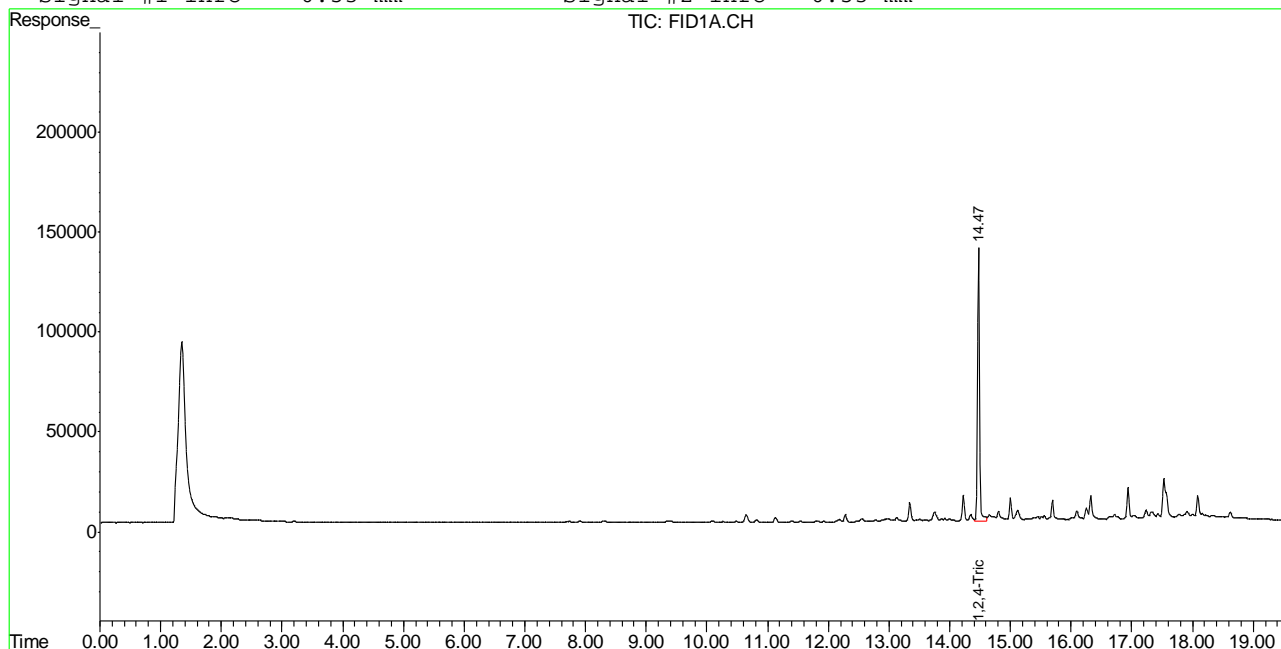
(f)=RT Delta > 1/2 Window (m)=manual int.
 GA12110.D TA620GA620.M Mon Jun 13 10:38:57 2011 GC

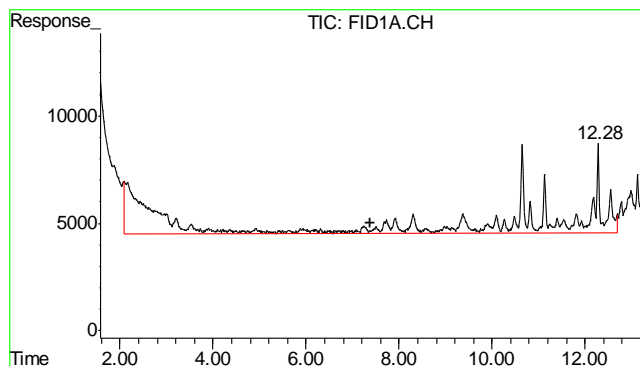
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12110.D\FID1A.CH Vial: 22
Signal #2 : Z:\061111\GA12110.D\FID2B.CH
Acq On : 11 Jun 2011 11:53 pm Operator: StephK
Sample : D24249-3, 50X Inst : BTEX2
Misc : GC1941,GGA659,5.006,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 7:42 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

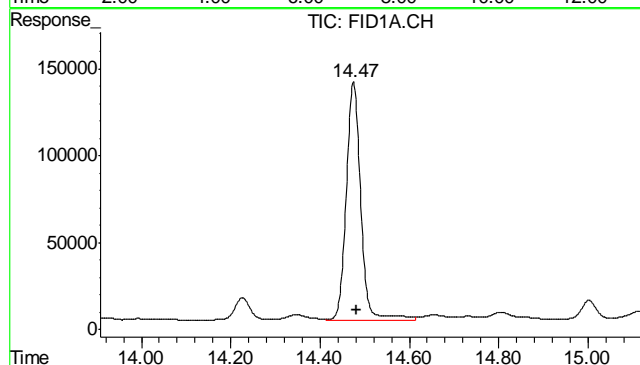
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





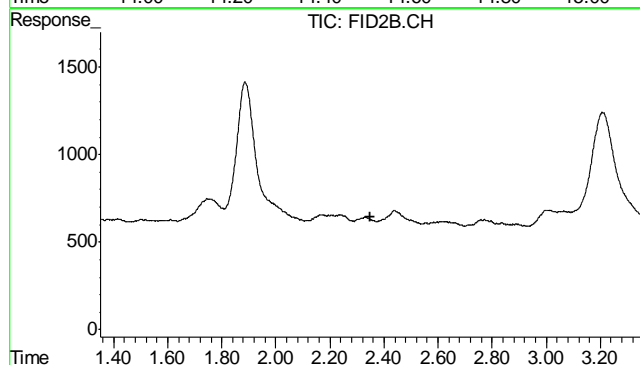
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2549498
Conc: N.D.



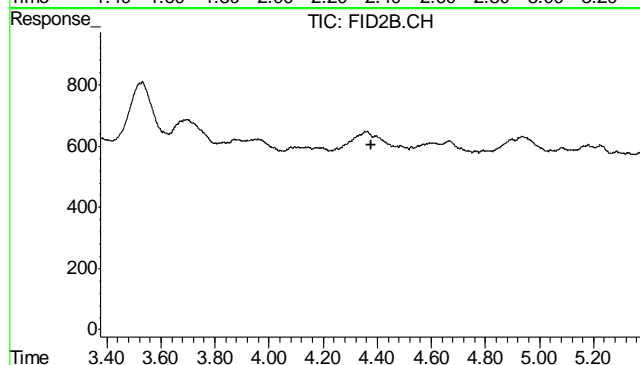
#2 1,2,4-Trichlorobenzene

R.T.: 14.475 min
Delta R.T.: -0.006 min
Response: 3073784
Conc: 86.38 %



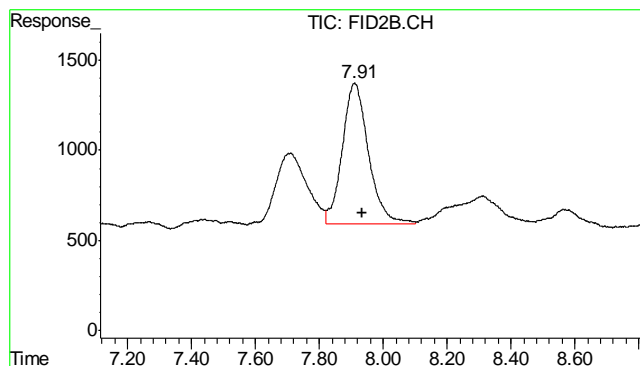
#4 Methyl-t-butyl-ether

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



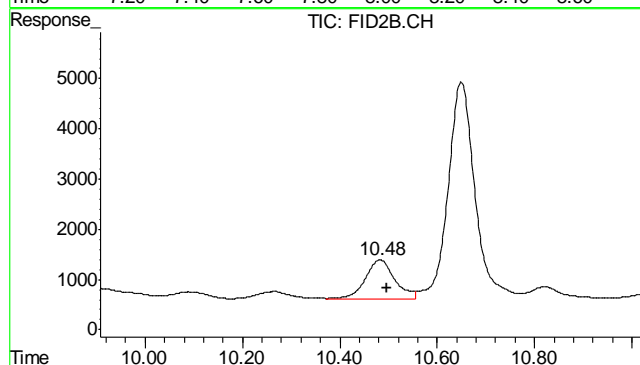
#5 Benzene

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



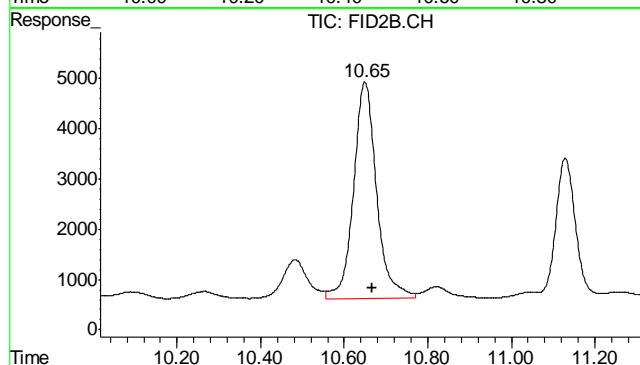
#6 Toluene

R.T.: 7.911 min
Delta R.T.: -0.023 min
Response: 44359
Conc: 0.21 ug/L



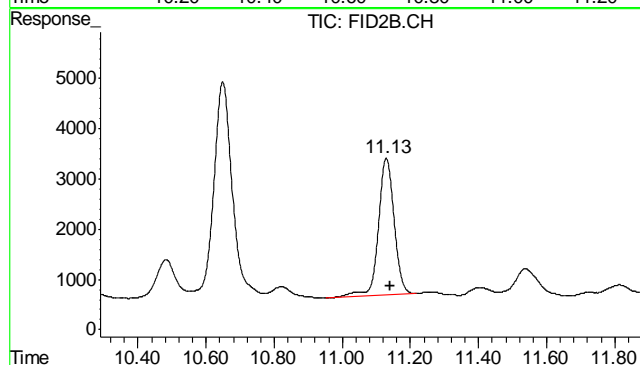
#7 Ethylbenzene

R.T.: 10.483 min
Delta R.T.: -0.013 min
Response: 32053
Conc: 0.17 ug/L



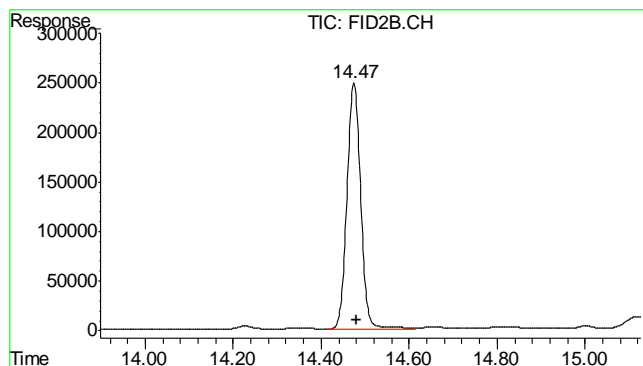
#8 m,p-Xylene

R.T.: 10.650 min
Delta R.T.: -0.017 min
Response: 165304
Conc: 0.77 ug/L



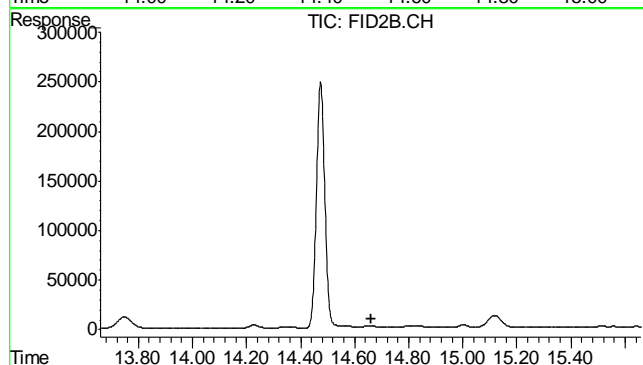
#9 o-Xylene

R.T.: 11.129 min
Delta R.T.: -0.013 min
Response: 89072
Conc: 0.49 ug/L



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

R.T.: 14.475 min
Delta R.T.: -0.006 min
Response: 5413538
Conc: 79.90 %



#11 Naphthalene

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

6.1.3

6

Judy Melson
06/13/11 11:19

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12111.D\FID1A.CH Vial: 23
Signal #2 : Z:\061111\GA12111.D\FID2B.CH
Acq On : 12 Jun 2011 12:29 am Operator: StephK
Sample : D24249-4, 50X Inst : BTEX2
Misc : GC1941,GGA659,5.001,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 09:38:24 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	3094011	86.952 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.48	5790833	88.174 %	m
Target Compounds					
1) H	TVH-Gasoline	7.39	73889618	0.780 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	7.94	46011	0.219 ug/L	
7) T	Ethylbenzene	10.48	140365	0.748 ug/L	
8) T	m,p-Xylene	10.68	1432788	6.637 ug/L	
9) T	o-Xylene	11.14	550936	3.024 ug/L	
11) T	Naphthalene	14.67	3738461	31.107 ug/L	m

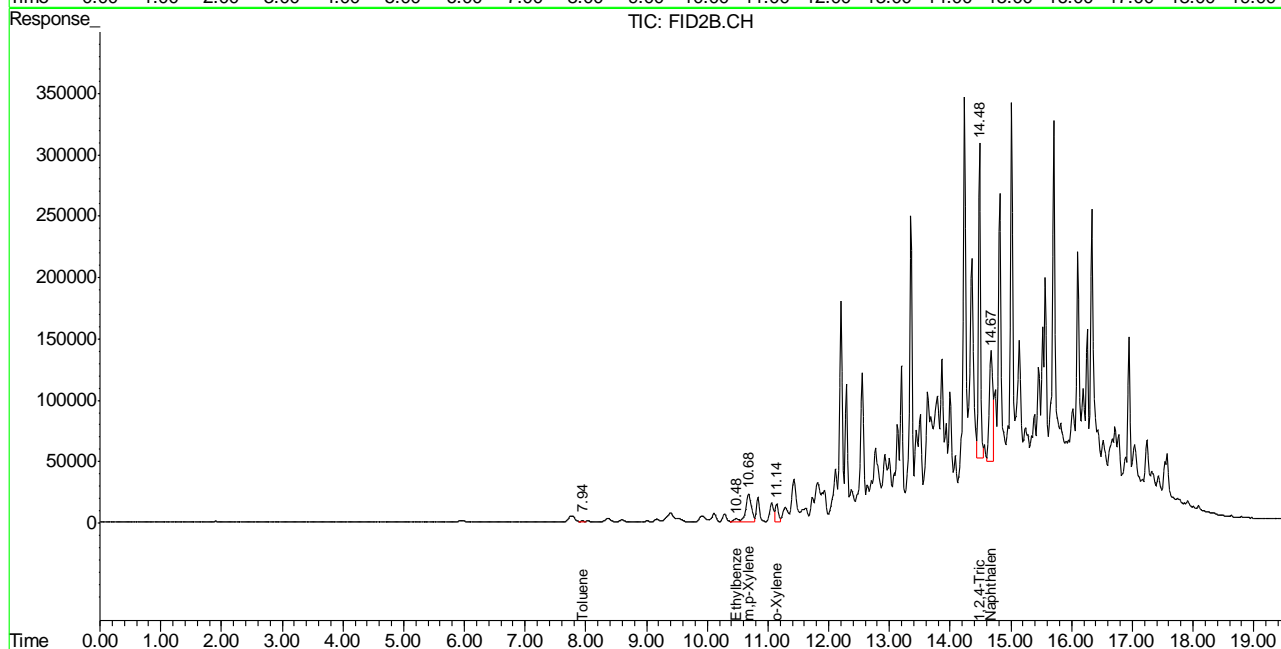
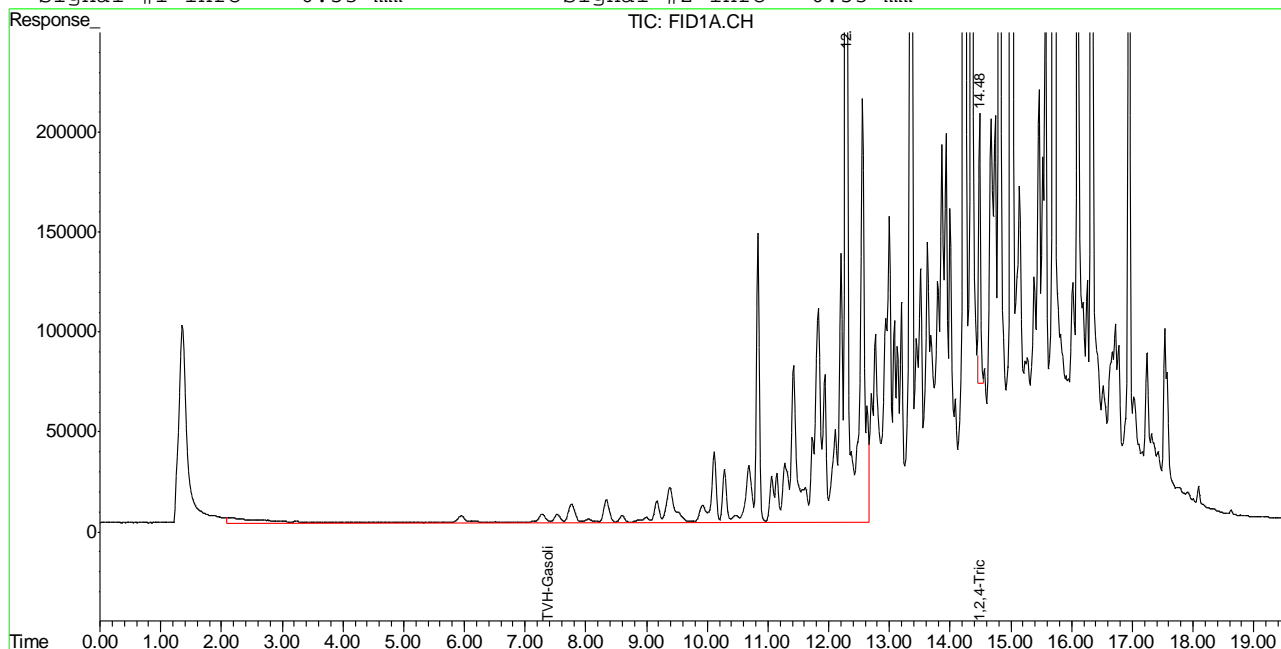
(f)=RT Delta > 1/2 Window (m)=manual int.
GA12111.D TA620GA620.M Mon Jun 13 10:39:00 2011 GC

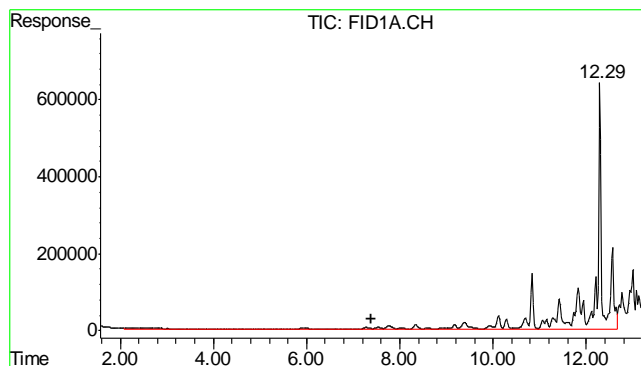
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12111.D\FID1A.CH Vial: 23
Signal #2 : Z:\061111\GA12111.D\FID2B.CH
Acq On : 12 Jun 2011 12:29 am Operator: StephK
Sample : D24249-4, 50X Inst : BTEX2
Misc : GC1941,GGA659,5.001,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 7:43 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

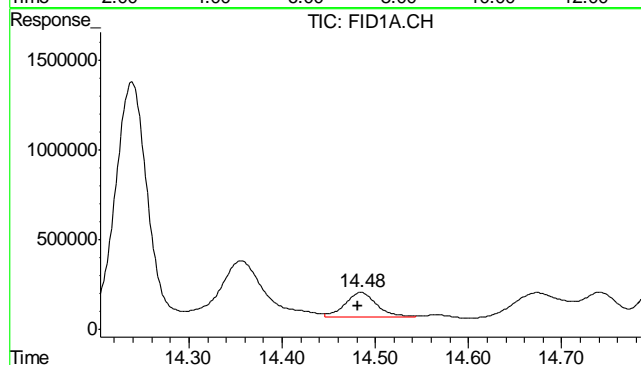
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





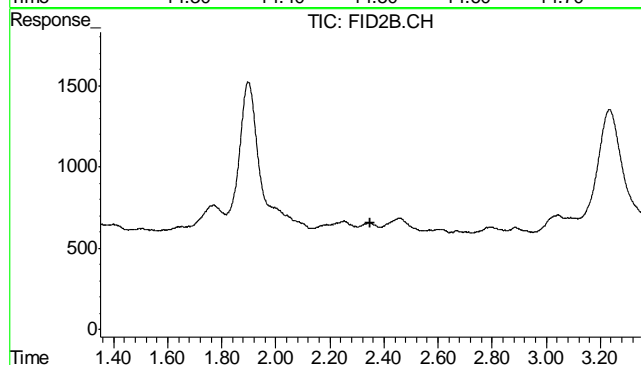
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 73889618
Conc: 0.78 mg/L m



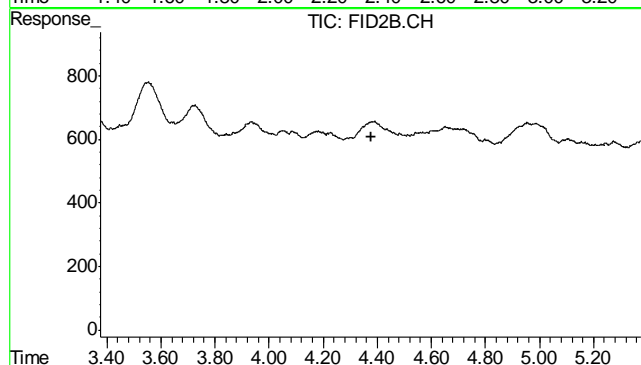
#2 1,2,4-Trichlorobenzene

R.T.: 14.484 min
Delta R.T.: 0.003 min
Response: 3094011
Conc: 86.95 % m



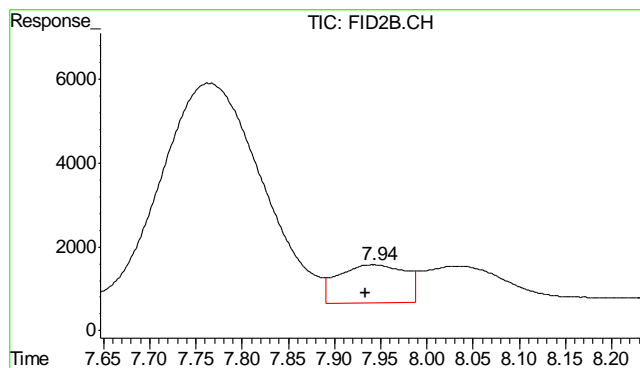
#4 Methyl-t-butyl-ether

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



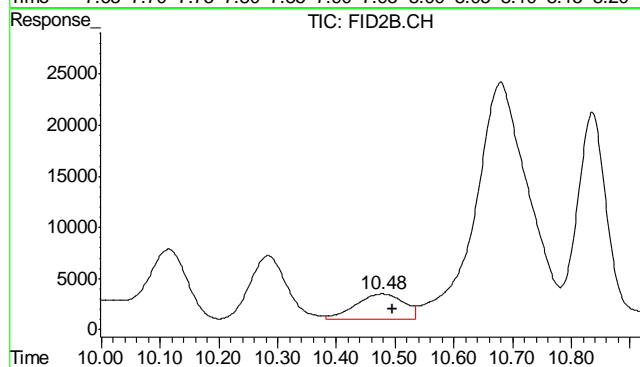
#5 Benzene

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



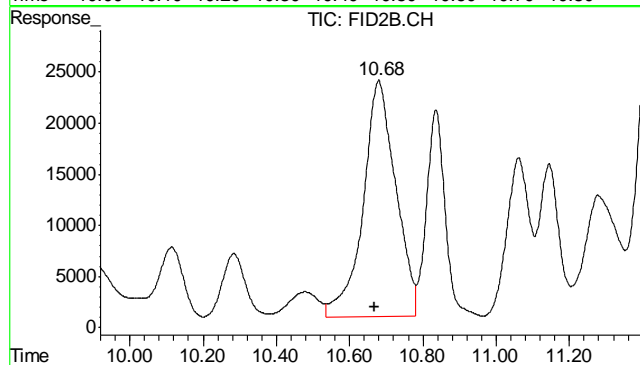
#6 Toluene

R.T.: 7.942 min
Delta R.T.: 0.008 min
Response: 46011
Conc: 0.22 ug/L



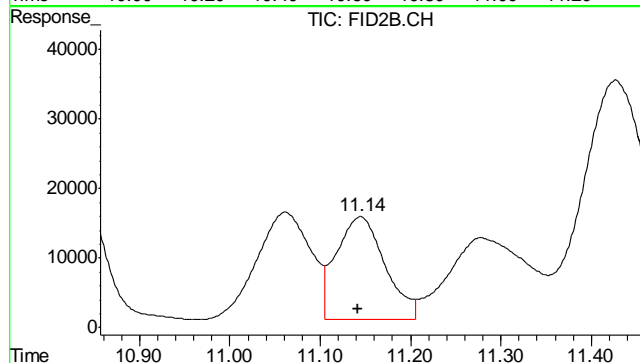
#7 Ethylbenzene

R.T.: 10.477 min
Delta R.T.: -0.019 min
Response: 140365
Conc: 0.75 ug/L



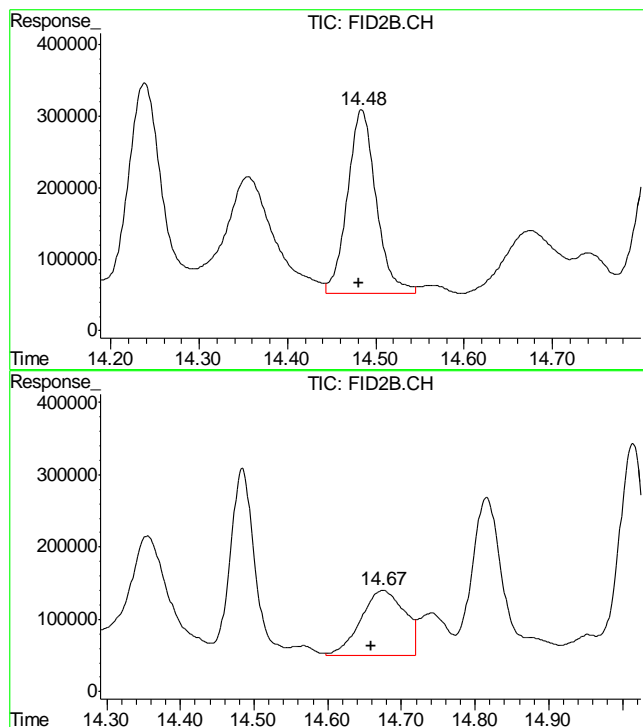
#8 m,p-Xylene

R.T.: 10.680 min
Delta R.T.: 0.013 min
Response: 1432788
Conc: 6.64 ug/L



#9 o-Xylene

R.T.: 11.145 min
Delta R.T.: 0.003 min
Response: 550936
Conc: 3.02 ug/L



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

R.T.: 14.484 min
Delta R.T.: 0.003 min
Response: 5790833
Conc: 88.17 % m

#11 Naphthalene

R.T.: 14.673 min
Delta R.T.: 0.014 min
Response: 3738461
Conc: 31.11 ug/L m

6.1.4
6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12112.D\FID1A.CH Vial: 24
 Signal #2 : Z:\061111\GA12112.D\FID2B.CH
 Acq On : 12 Jun 2011 1:06 am Operator: StephK
 Sample : D24249-5, 50X Inst : BTEX2
 Misc : GC1941,GGA659,5.027,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 13 09:38:27 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 : 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

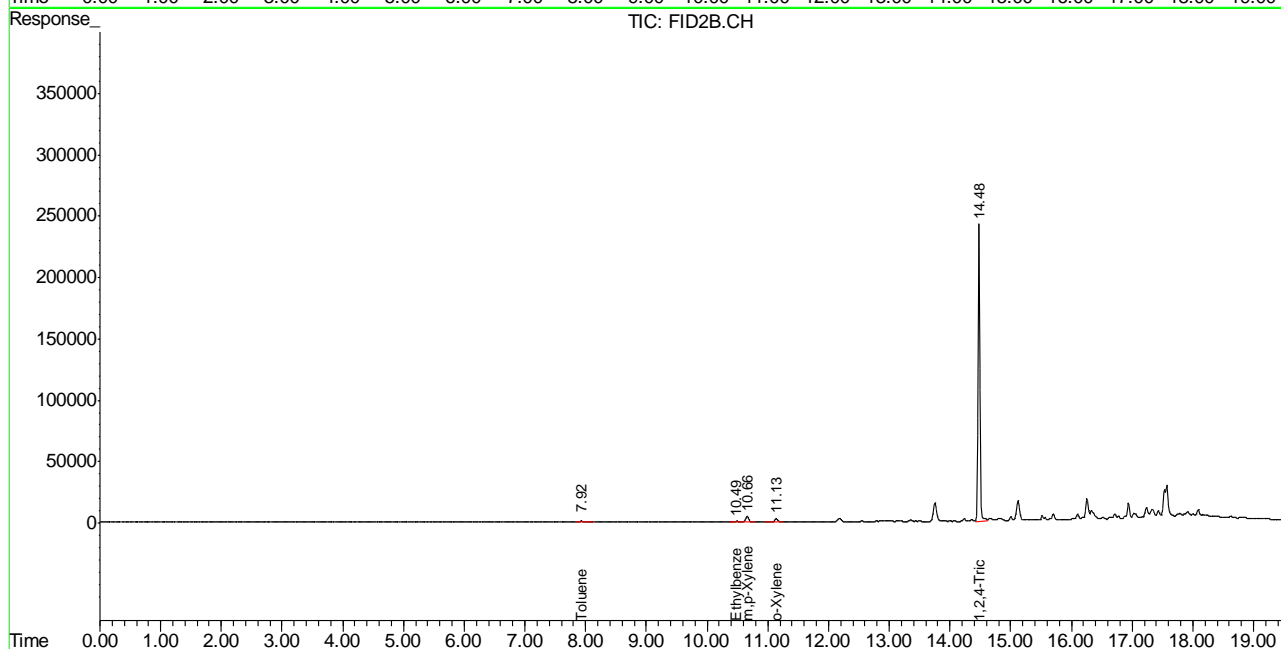
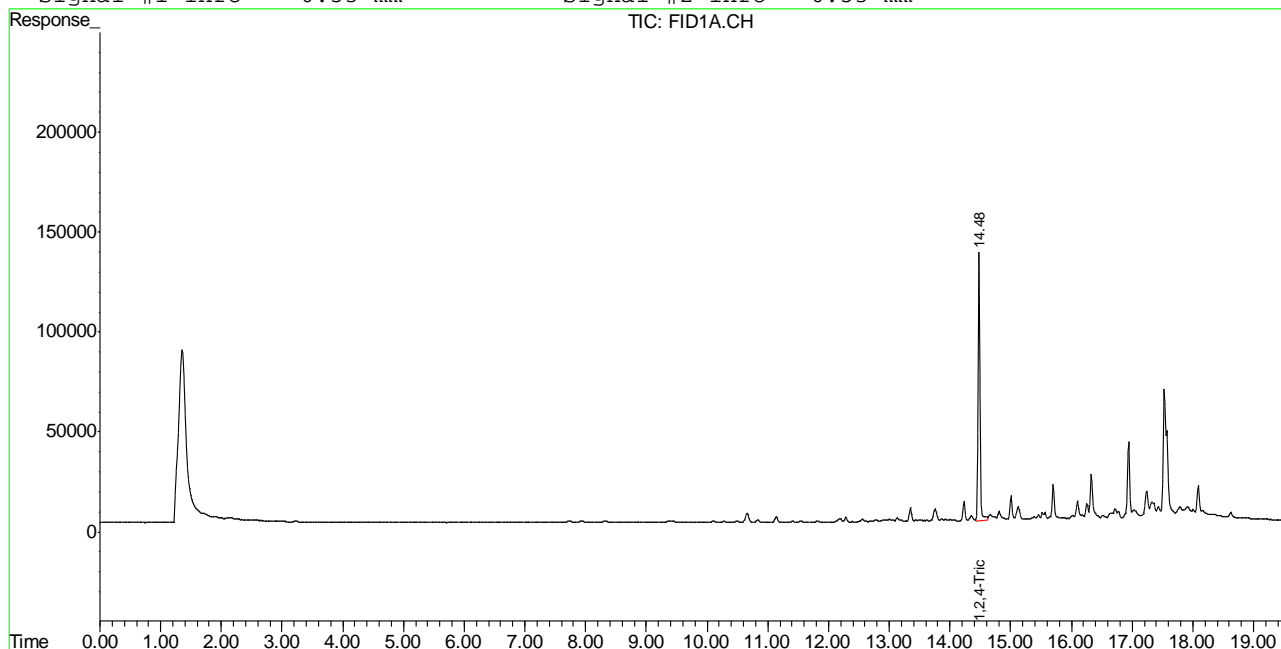
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.48	2993437	84.125	%
10) S	1,2,4-Trichlorobenzene (P)	14.48	5269538	76.736	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2808656	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.92	52693	0.251	ug/L
7) T	Ethylbenzene	10.49	35049	0.187	ug/L
8) T	m,p-Xylene	10.66	198791	0.921	ug/L
9) T	o-Xylene	11.13	110238	0.605	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

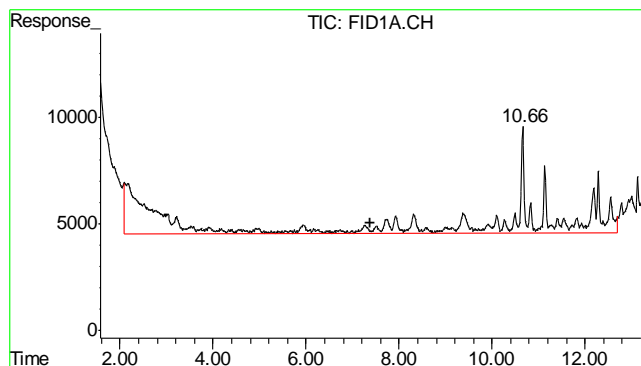
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061111\GA12112.D\FID1A.CH Vial: 24
Signal #2 : Z:\061111\GA12112.D\FID2B.CH
Acq On : 12 Jun 2011 1:06 am Operator: StephK
Sample : D24249-5, 50X Inst : BTEX2
Misc : GC1941,GGA659,5.027,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 13 7:44 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

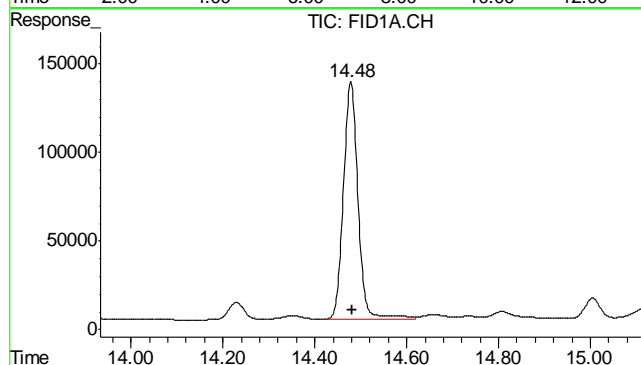
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





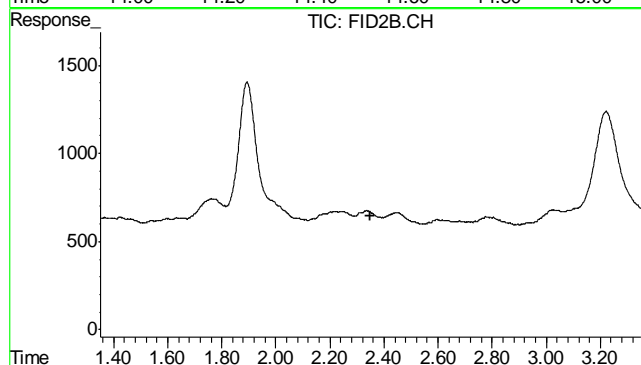
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2808656
Conc: N.D.



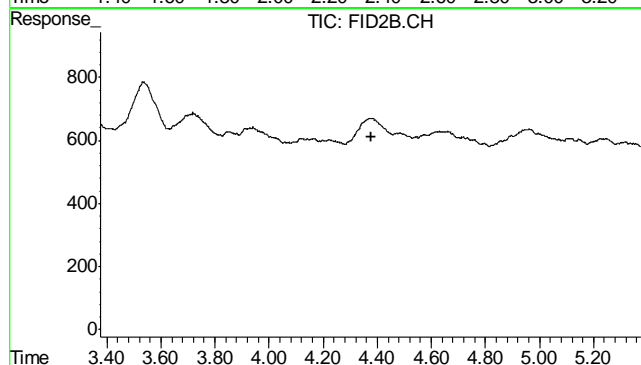
#2 1,2,4-Trichlorobenzene

R.T.: 14.478 min
Delta R.T.: -0.003 min
Response: 2993437
Conc: 84.13 %



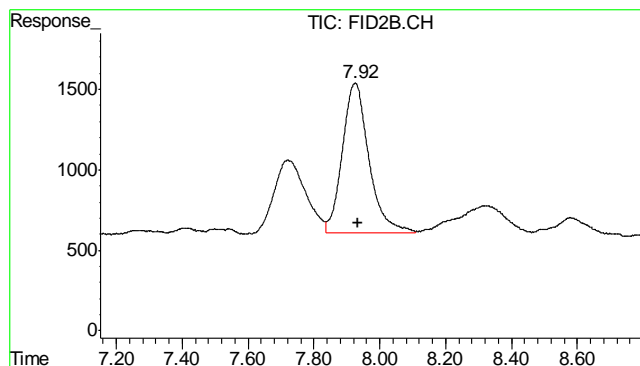
#4 Methyl-t-butyl-ether

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



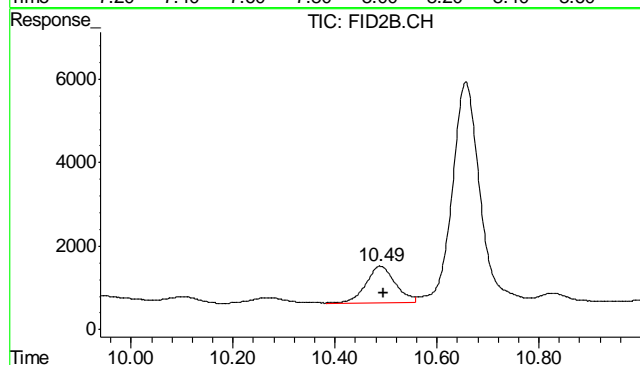
#5 Benzene

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



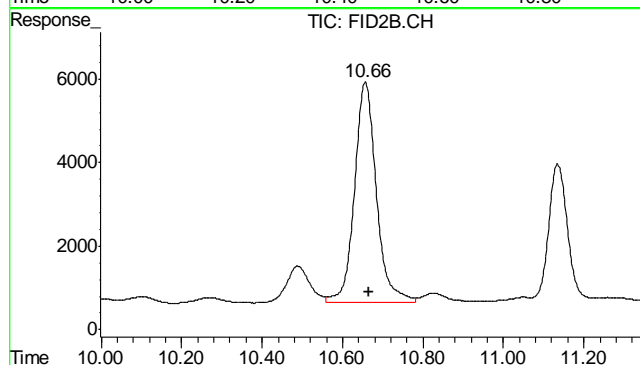
#6 Toluene

R.T.: 7.925 min
Delta R.T.: -0.009 min
Response: 52693
Conc: 0.25 ug/L



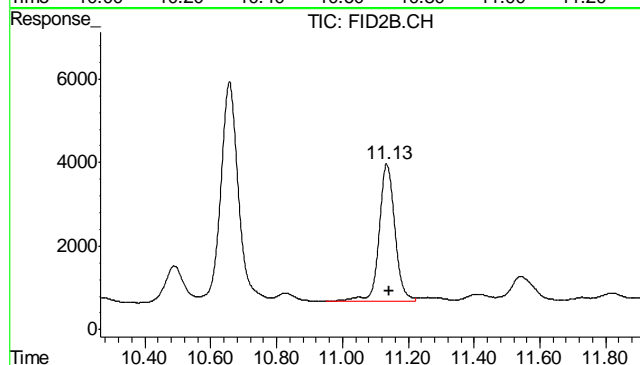
#7 Ethylbenzene

R.T.: 10.489 min
Delta R.T.: -0.007 min
Response: 35049
Conc: 0.19 ug/L



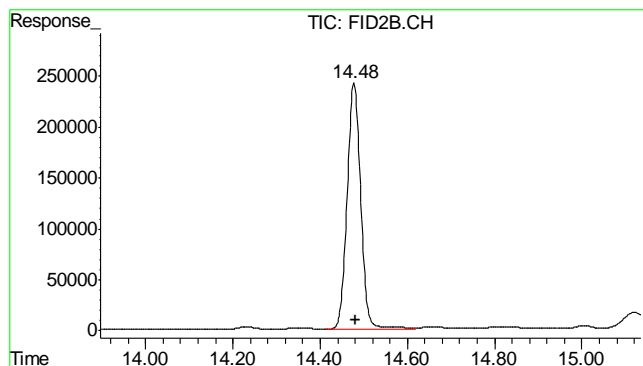
#8 m,p-Xylene

R.T.: 10.657 min
Delta R.T.: -0.010 min
Response: 198791
Conc: 0.92 ug/L



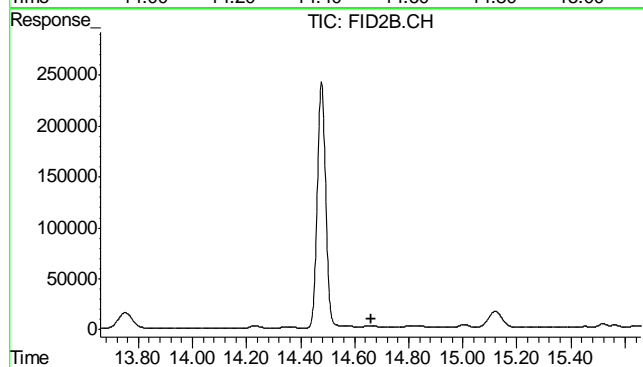
#9 o-Xylene

R.T.: 11.135 min
Delta R.T.: -0.007 min
Response: 110238
Conc: 0.61 ug/L



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

R.T.: 14.478 min
Delta R.T.: -0.003 min
Response: 5269538
Conc: 76.74 %



#11 Naphthalene

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

6.15

6

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

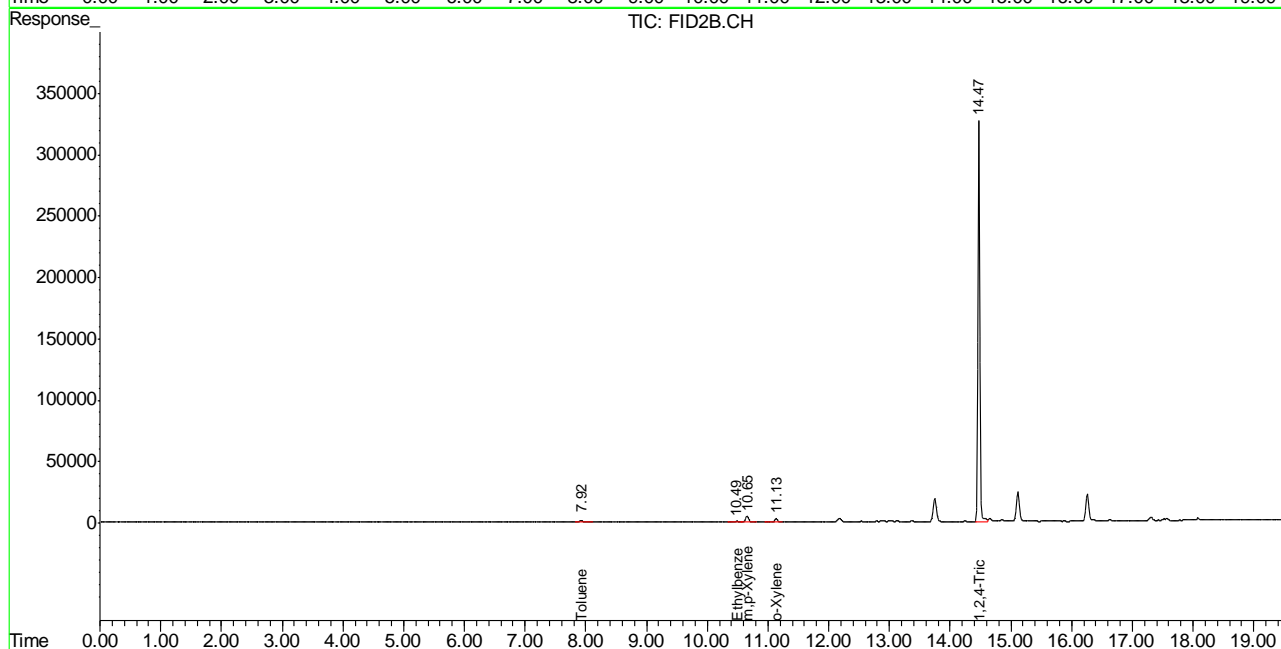
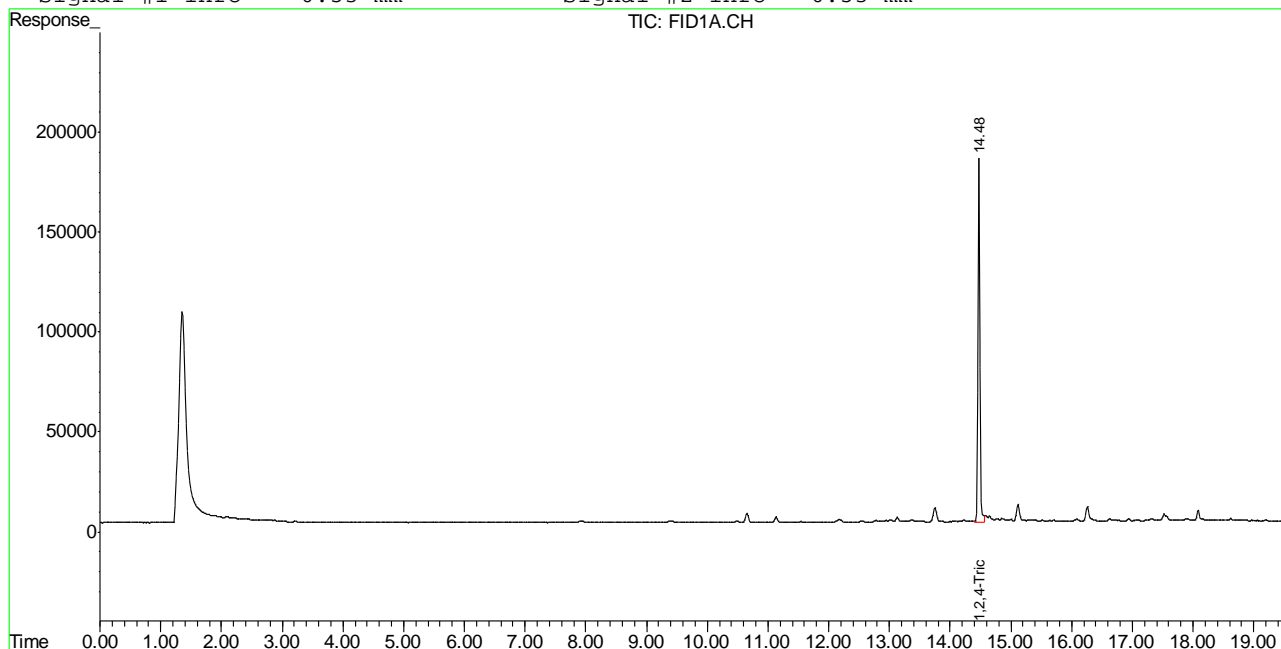
(f)=RT Delta > 1/2 Window (m)=manual int.
GA12091.D TA620GA620.M Mon Jun 13 09:52:57 2011 GC

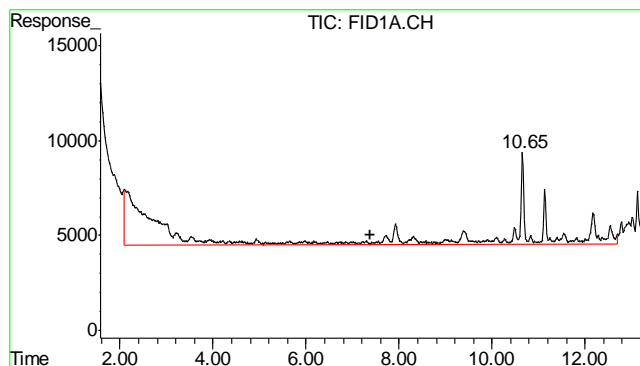
Quantitation Report (QT Reviewed)

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

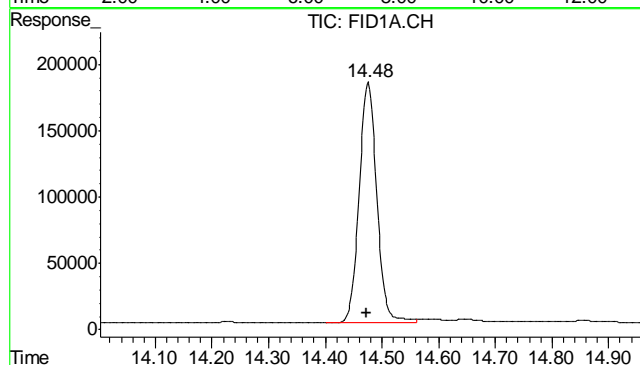
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





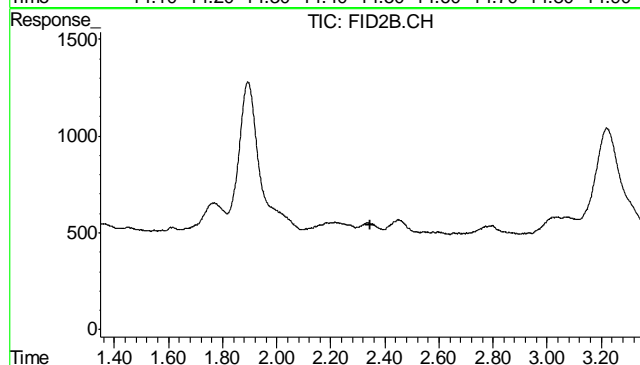
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2479001
Conc: N.D.



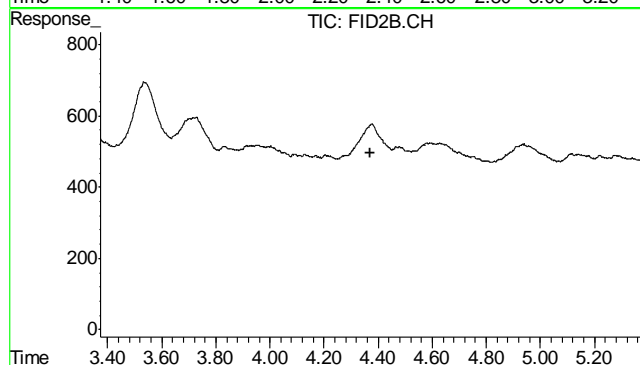
#2 1,2,4-Trichlorobenzene

R.T.: 14.476 min
Delta R.T.: 0.003 min
Response: 3957849
Conc: 111.23 %



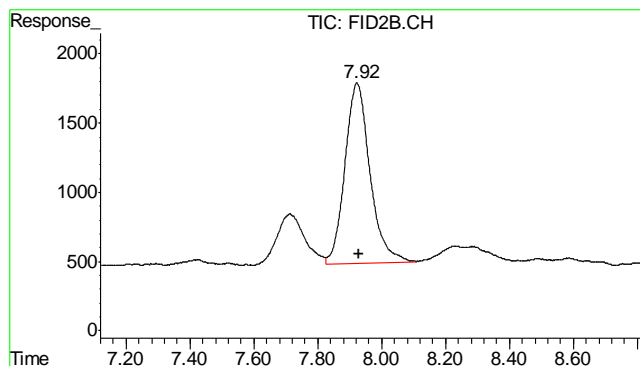
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.347 min
Response: 0
Conc: N.D.



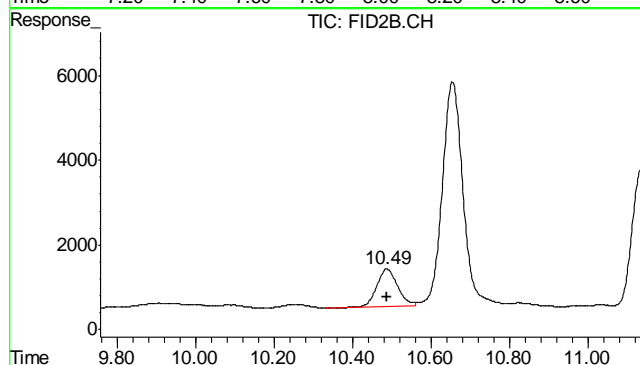
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.372 min
Response: 0
Conc: N.D.



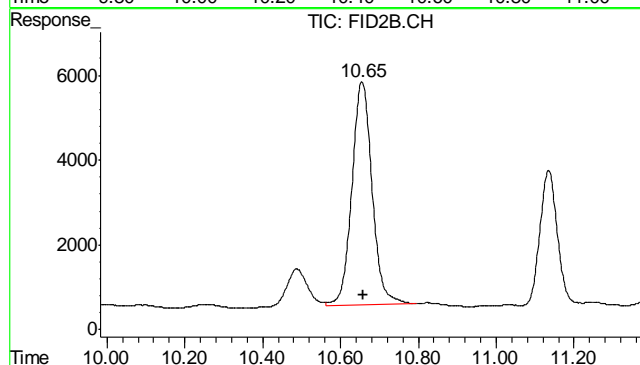
#6 Toluene

R.T.: 7.923 min
Delta R.T.: -0.004 min
Response: 71238
Conc: 0.34 ug/L



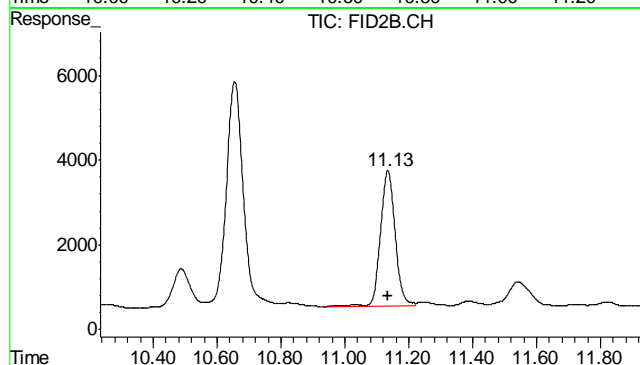
#7 Ethylbenzene

R.T.: 10.488 min
Delta R.T.: 0.000 min
Response: 33251
Conc: 0.18 ug/L



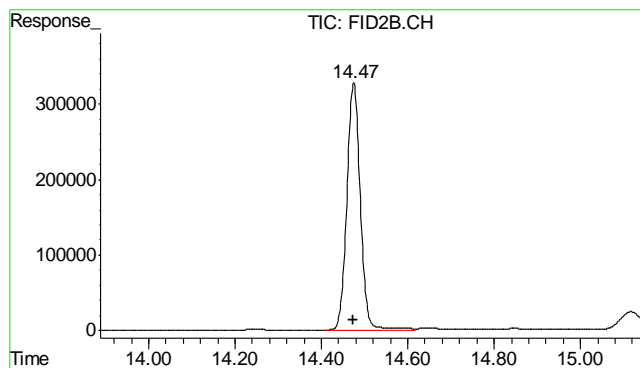
#8 m,p-Xylene

R.T.: 10.655 min
Delta R.T.: -0.003 min
Response: 190386
Conc: 0.88 ug/L



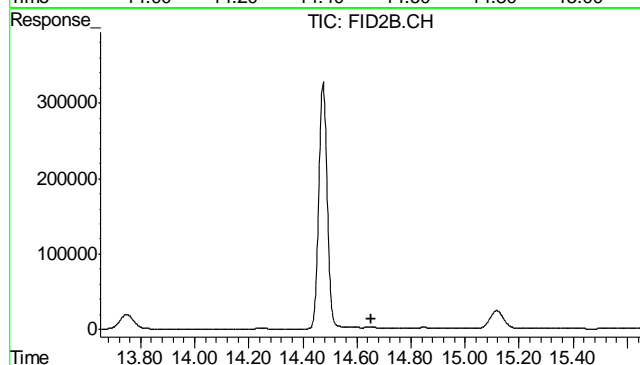
#9 o-Xylene

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.

6.2.1

6

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: D24249
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3828-MB	FD06952.D	1	06/10/11	JB	06/10/11	OP3828	GFD304

The QC reported here applies to the following samples:

Method: SW846-8015B

D24249-1, D24249-2, D24249-3, D24249-4, D24249-5

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	97% 61-142%

Blank Spike Summary

Job Number: D24249
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3828-BS	FD06953.D	1	06/10/11	JB	06/10/11	OP3828	GFD304

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

D24249-1, D24249-2, D24249-3, D24249-4, D24249-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	624	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	99%	61-142%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24249
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3828-MS	FD06955.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
OP3828-MSD	FD06956.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
D24249-1	FD06957.D	1	06/10/11	JB	06/10/11	OP3828	GFD304

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

D24249-1, D24249-2, D24249-3, D24249-4, D24249-5

CAS No.	Compound	D24249-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	567		782	1520	122	1480	117	3	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D24249-1	Limits
84-15-1	o-Terphenyl	81%	91%	84%	61-142%

GC Semi-volatiles

Raw Data

∞

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06957.D Vial: 8
Acq On : 6-10-2011 04:48:51 PM Operator: JACOB
Sample : D24249-1 Inst : FID5
Misc : OP3828,GFD304,30.10,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 17:11:01 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	44144437	844.494 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	354524477	7269.099 mg/L

8.1.1

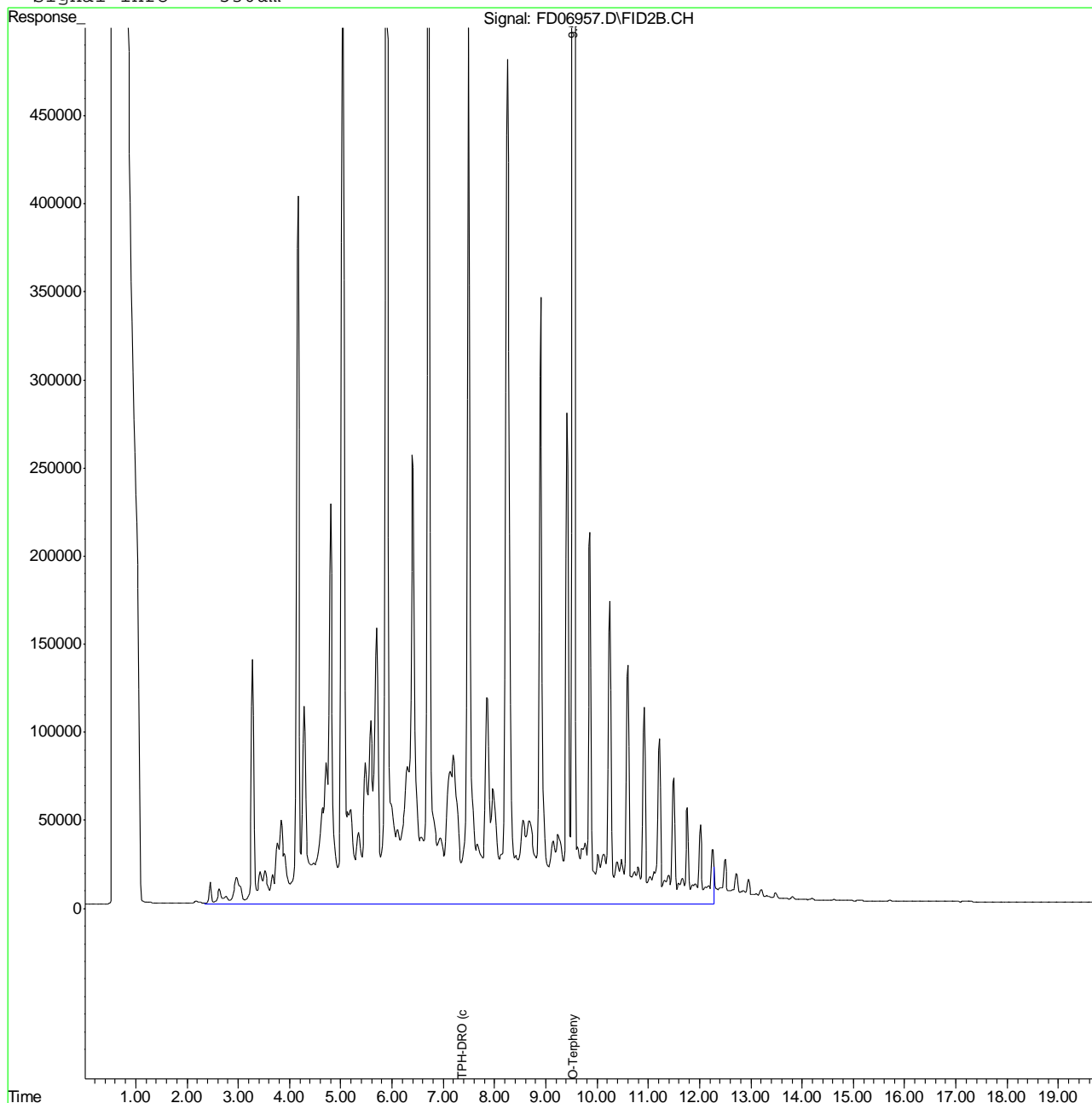
8

Quantitation Report (QT Reviewed)

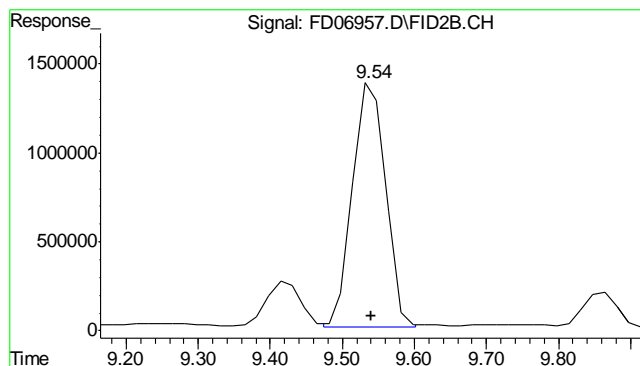
Data File : C:\MSDCHEM\2\DATA\FD061011\FD06957.D Vial: 8
 Acq On : 6-10-2011 04:48:51 PM Operator: JACOB
 Sample : D24249-1 Inst : FID5
 Misc : OP3828,GFD304,30.10,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Jun 10 17:11 2011 Quant Results File: DR-GFD294.RES

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

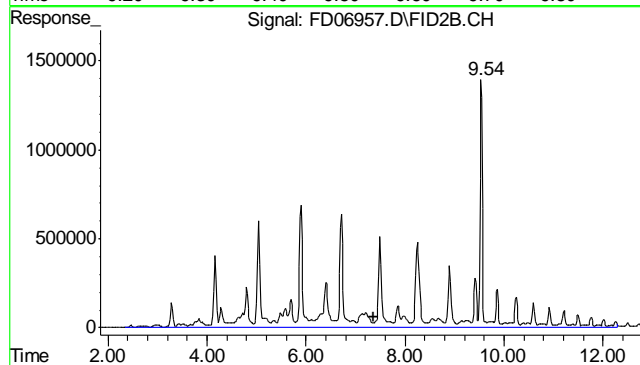
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



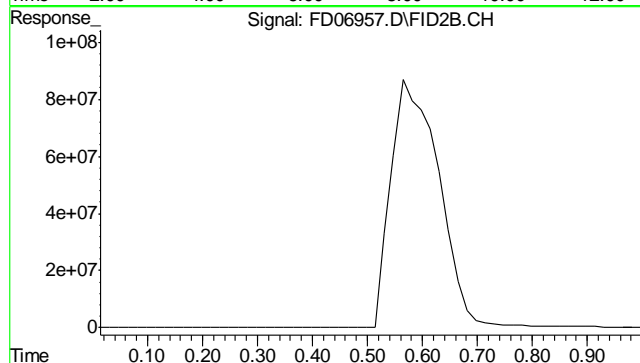
8.1.1
8



#1 O-Terphenyl
 R.T.: 9.537 min
 Delta R.T.: -0.003 min
 Response: 44144437
 Conc: 844.49 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 354524477
 Conc: 7269.10 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

8.1.1
8

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06959.D Vial: 10
Acq On : 6-10-2011 05:43:54 PM Operator: erikah
Sample : D24249-2 Inst : FID5
Misc : OP3828,GFD304,30.05,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 08:26:17 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	45323995	867.059 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	3614243	14.278 mg/L

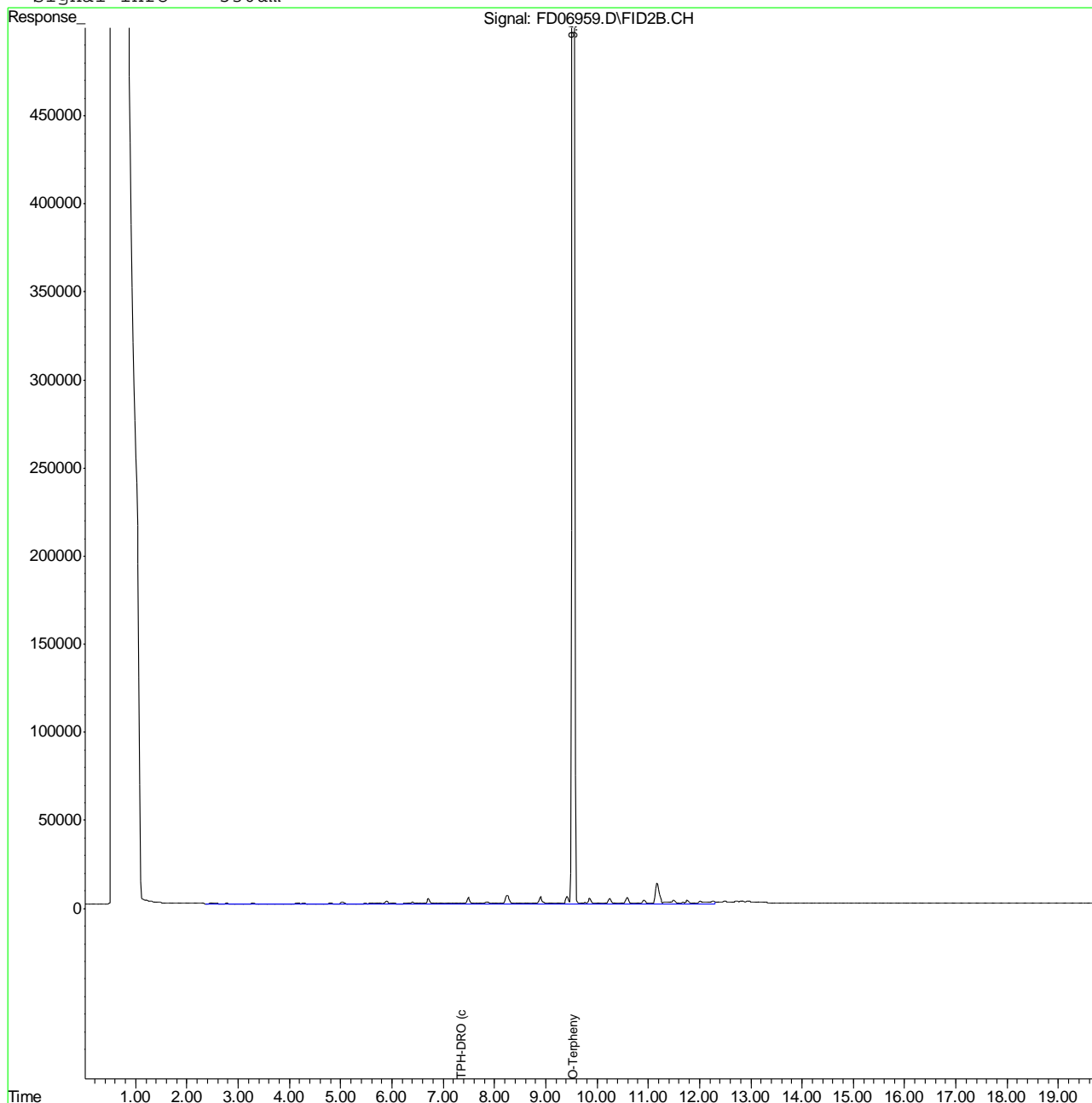
8.12
8

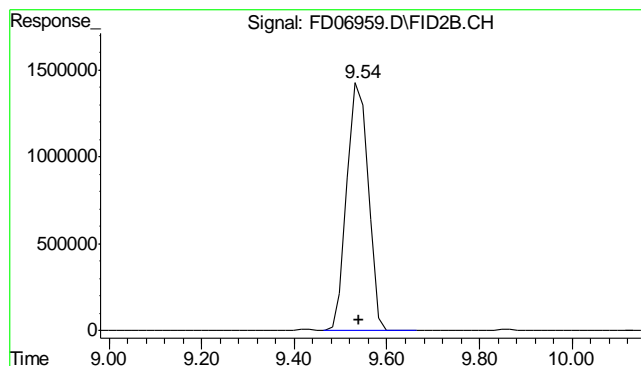
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06959.D Vial: 10
Acq On : 6-10-2011 05:43:54 PM Operator: erikah
Sample : D24249-2 Inst : FID5
Misc : OP3828,GFD304,30.05,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 8:26 2011 Quant Results File: DR-GFD294.RES

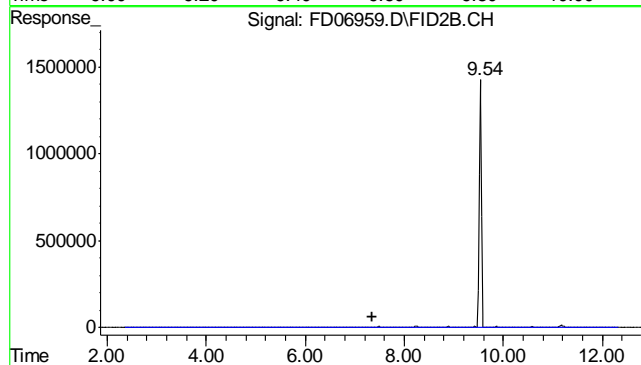
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

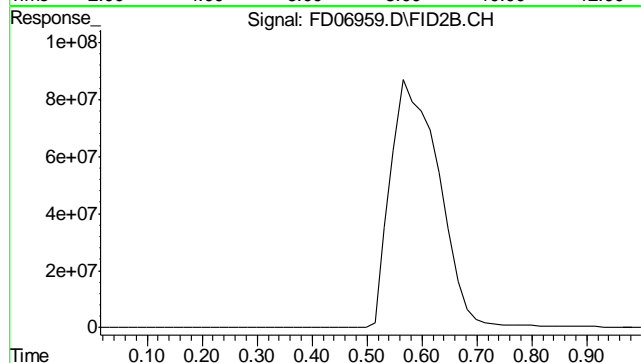




#1 O-Terphenyl
 R.T.: 9.537 min
 Delta R.T.: -0.003 min
 Response: 45323995
 Conc: 867.06 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 3614243
 Conc: 14.28 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

8.12
 8

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06960.D Vial: 11
Acq On : 6-10-2011 06:09:28 PM Operator: erikah
Sample : D24249-3 Inst : FID5
Misc : OP3828,GFD304,30.09,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 08:26:49 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	45731766	874.860 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	4265990	27.752 mg/L

8.1.3

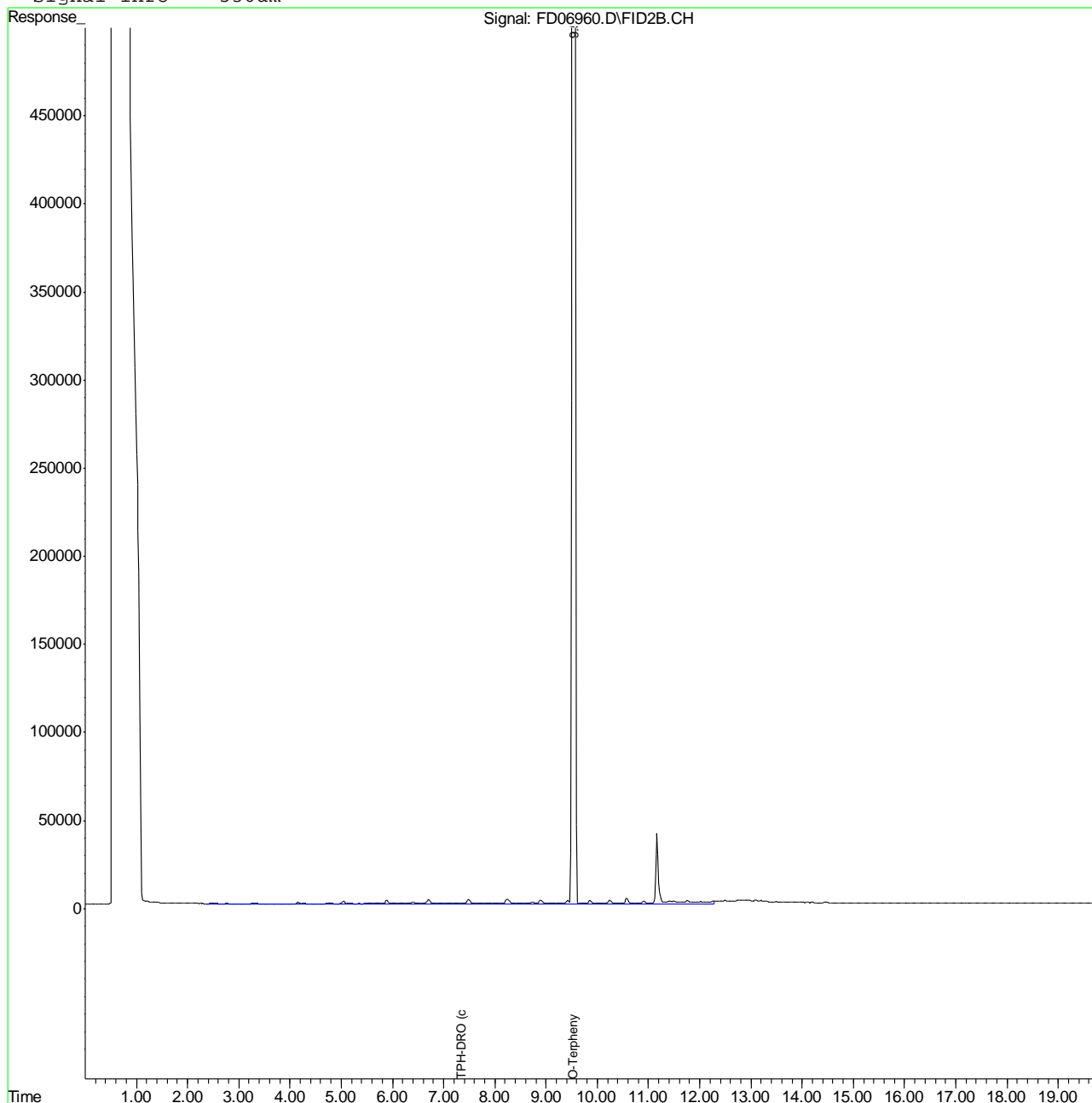
8

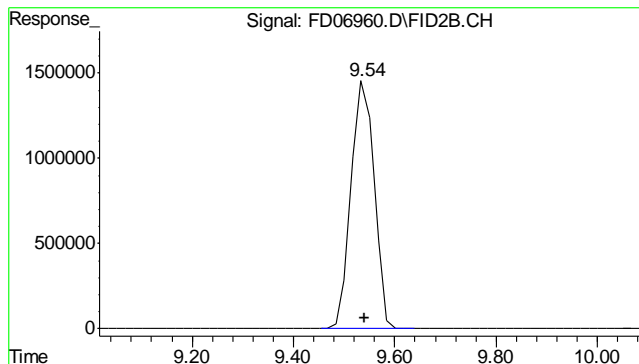
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06960.D Vial: 11
Acq On : 6-10-2011 06:09:28 PM Operator: erikah
Sample : D24249-3 Inst : FID5
Misc : OP3828,GFD304,30.09,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 8:27 2011 Quant Results File: DR-GFD294.RES

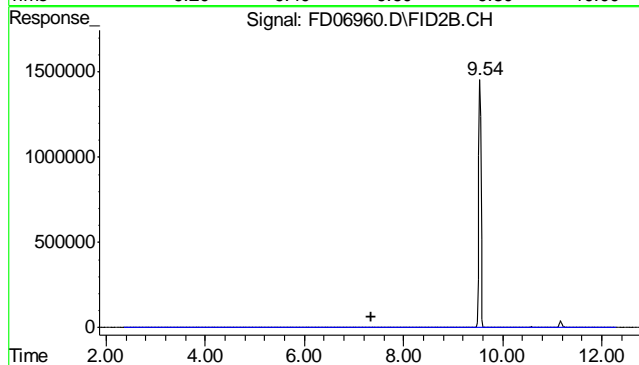
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

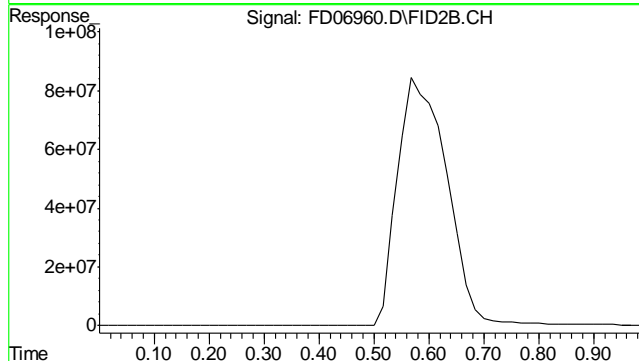




#1 O-Terphenyl
 R.T.: 9.537 min
 Delta R.T.: -0.003 min
 Response: 45731766
 Conc: 874.86 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 4265990
 Conc: 27.75 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

8.1.3

8

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06961.D Vial: 12
Acq On : 6-10-2011 06:35:04 PM Operator: erikah
Sample : D24249-4 Inst : FID5
Misc : OP3828,GFD304,30.07,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 08:27:21 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	48730033	932.217 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	237488703	4849.467 mg/L

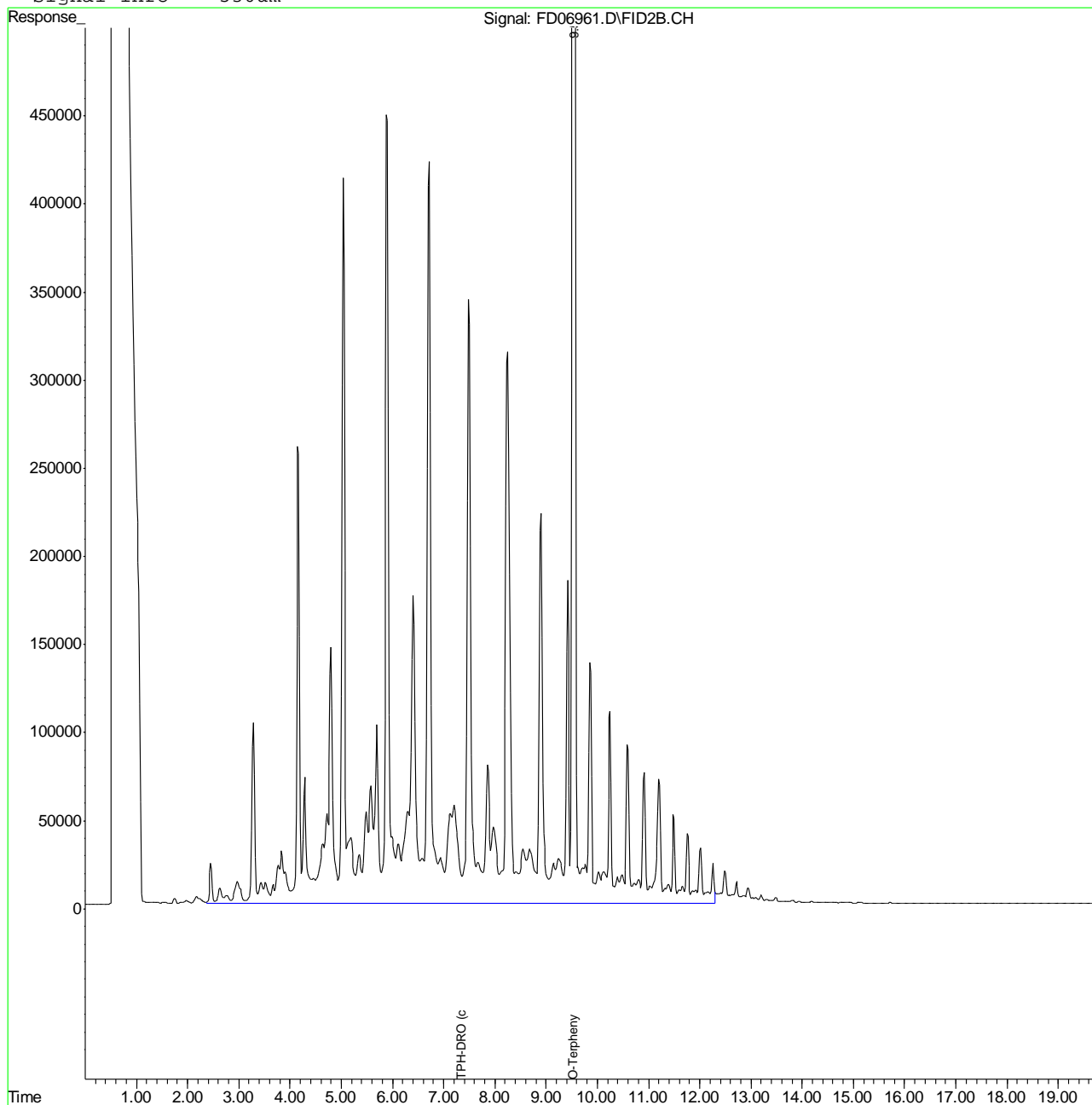
8.14
8

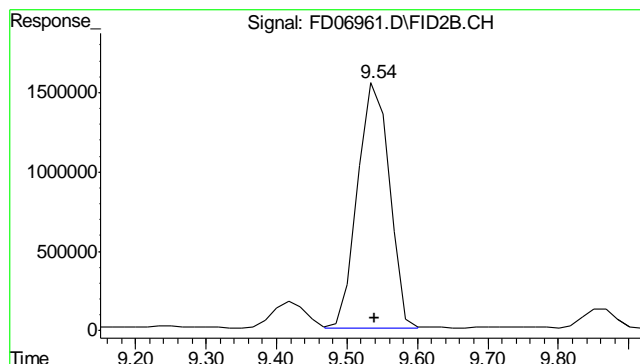
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06961.D Vial: 12
Acq On : 6-10-2011 06:35:04 PM Operator: erikah
Sample : D24249-4 Inst : FID5
Misc : OP3828,GFD304,30.07,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 8:27 2011 Quant Results File: DR-GFD294.RES

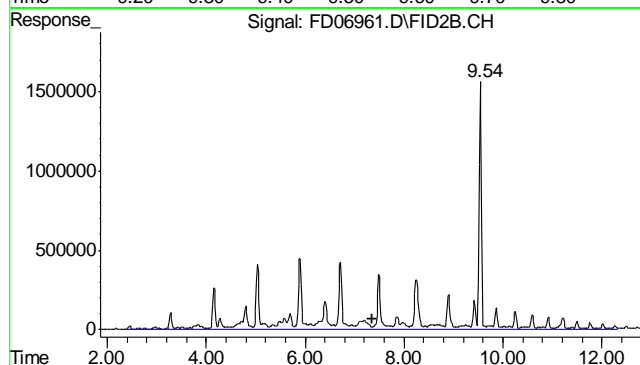
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

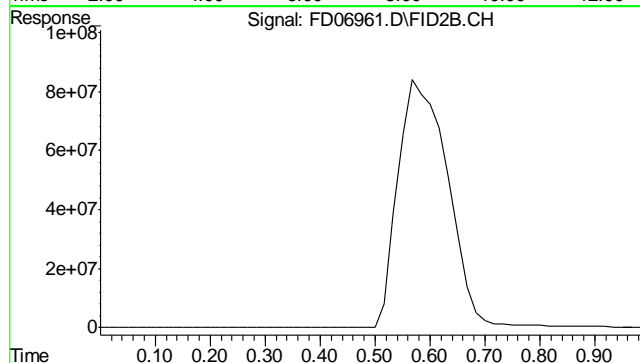




#1 O-Terphenyl
 R.T.: 9.538 min
 Delta R.T.: -0.002 min
 Response: 48730033
 Conc: 932.22 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 237488703
 Conc: 4849.47 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

8.14
8

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06962.D Vial: 13
Acq On : 6-10-2011 07:00:40 PM Operator: erikah
Sample : D24249-5 Inst : FID5
Misc : OP3828,GFD304,30.10,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 08:28:01 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	38575940	737.967 mg/L
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	3637820	14.765 mg/L

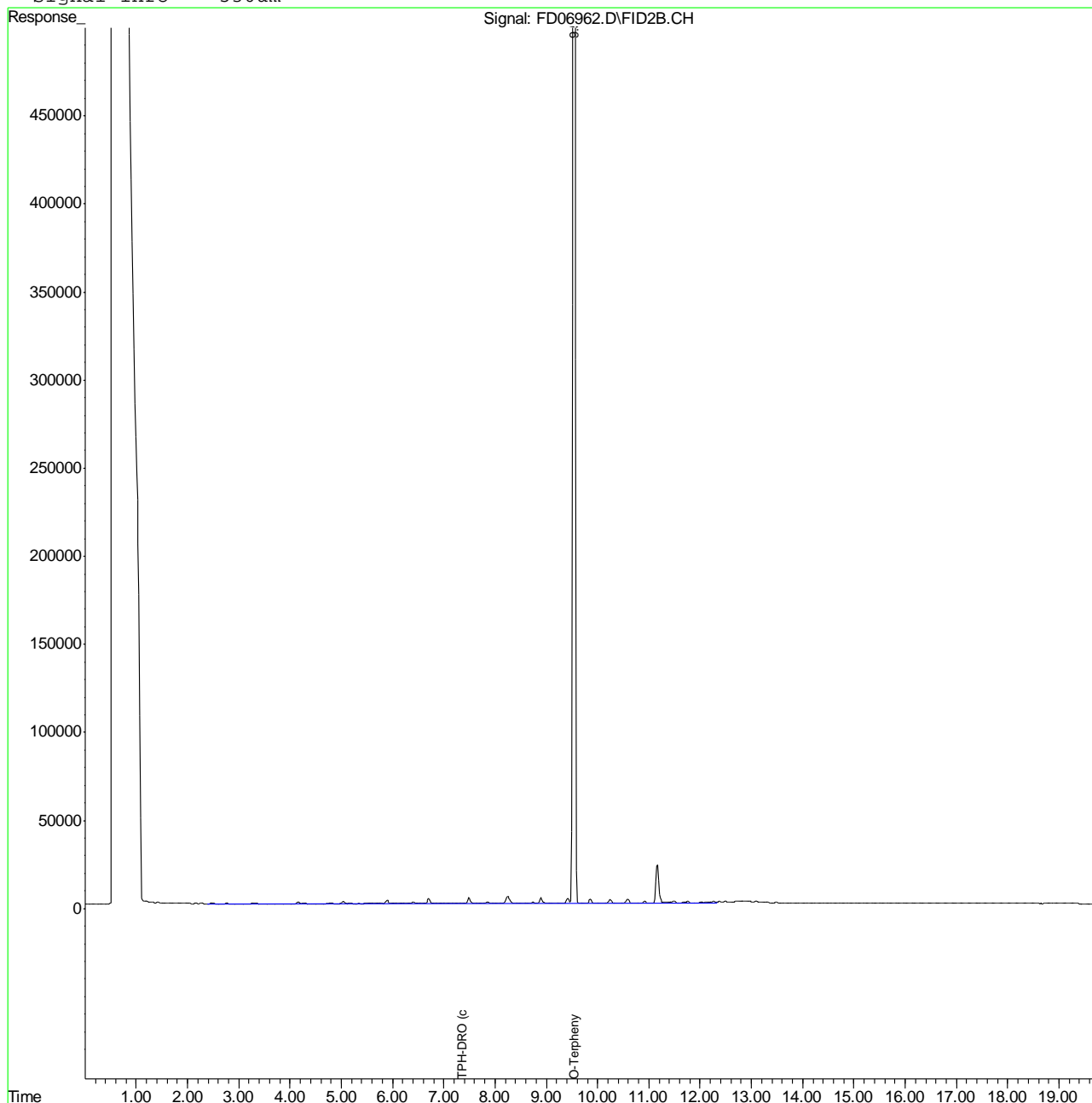
8.1.5
8

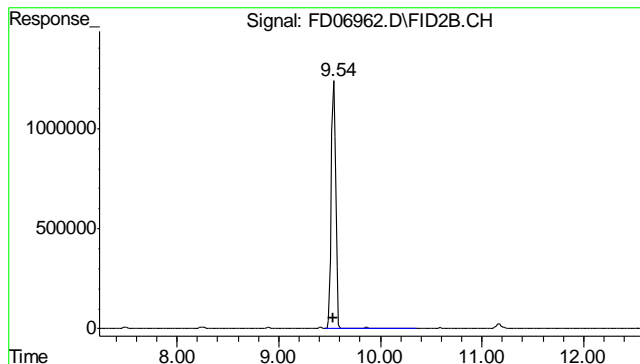
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06962.D Vial: 13
Acq On : 6-10-2011 07:00:40 PM Operator: erikah
Sample : D24249-5 Inst : FID5
Misc : OP3828,GFD304,30.10,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 8:28 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

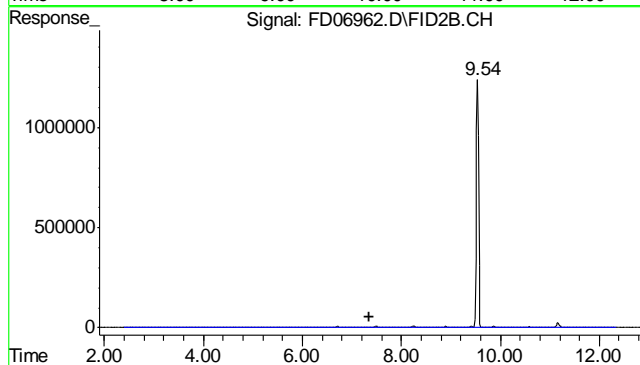
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





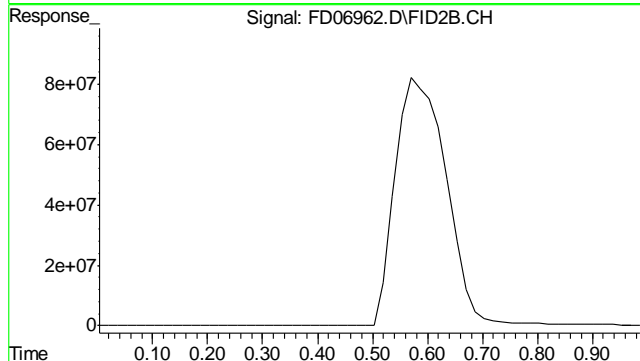
#1 O-Terphenyl

R.T.: 9.543 min
Delta R.T.: 0.003 min
Response: 38575940
Conc: 737.97 mg/L



#2 TPH-DRO (c10-c28)

R.T.: 7.355 min
Delta R.T.: 0.000 min
Response: 3637820
Conc: 14.77 mg/L m



#9 5a-Androstane

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

8.15
8

Judy Melson
06/13/11 09:07

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06952.D Vial: 3
Acq On : 6-10-2011 02:40:54 PM Operator: JACOB B
Sample : OP3828-MB Inst : FID5
Misc : OP3828,GFD304,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 15:41:46 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

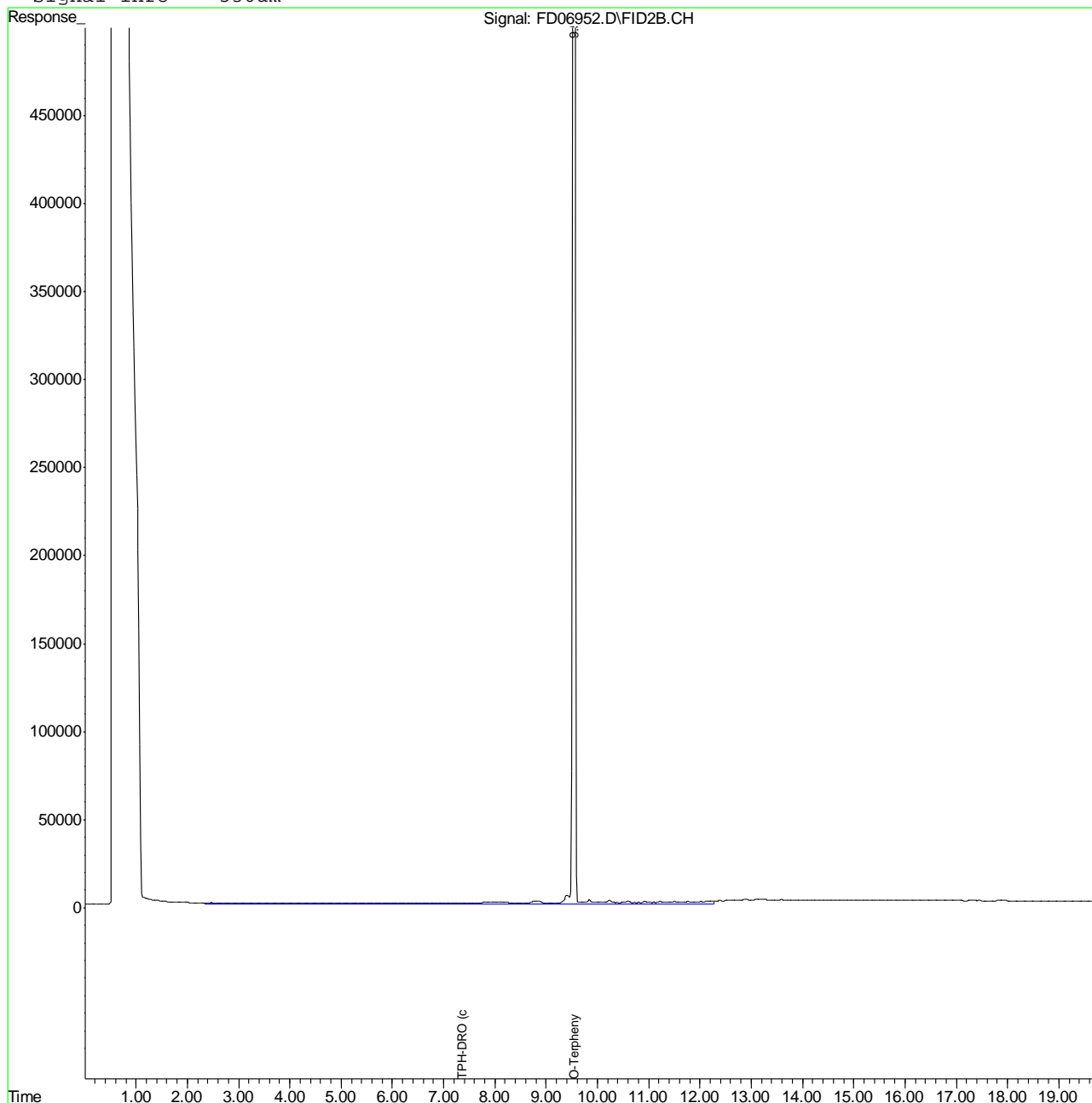
System Monitoring Compounds			
1) S O-Terphenyl	9.54	50681698	969.553 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	3719070	16.445 mg/L

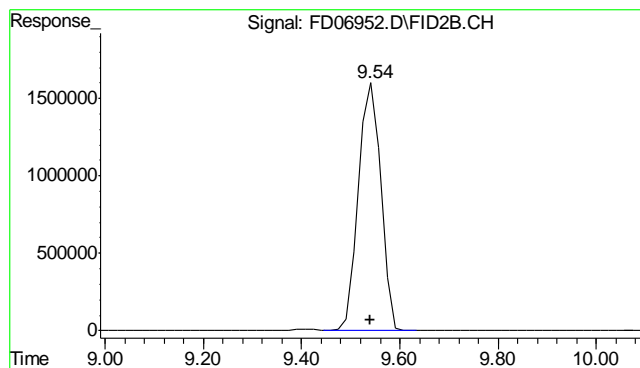
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06952.D Vial: 3
Acq On : 6-10-2011 02:40:54 PM Operator: JACOB
Sample : OP3828-MB Inst : FID5
Misc : OP3828,GFD304,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 15:42 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 : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

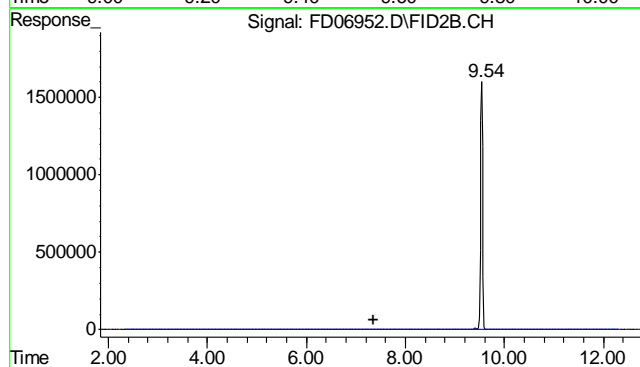
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





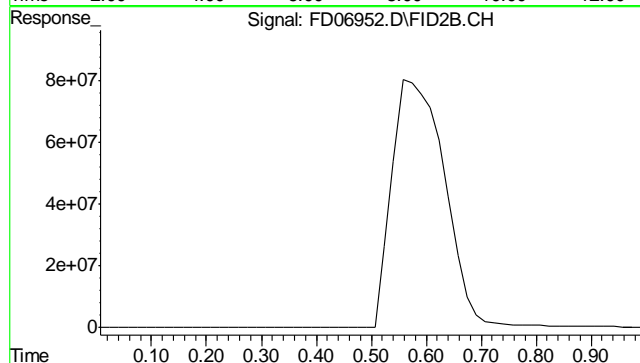
#1 O-Terphenyl

R.T.: 9.539 min
Delta R.T.: -0.001 min
Response: 50681698
Conc: 969.55 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.355 min
Delta R.T.: 0.000 min
Response: 3719070
Conc: 16.44 mg/L m



#9 5a-Androstane

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

8.2.1

8

Accutest Mountain States					Jun 13, 2011 13:02 pm	
Job Number:	D24249					
Account:	KRW Consulting, Inc.					
Project:	PCU 296-7A					
Project Number:	1104-03B					
					Legend:	Hit
Client Sample ID:		296-7A_BH-01-10.5'-13'	296-7A_BH-01-15.5'-17.5'	296-7A_BH-01-15.5'-18'	296-7A_BH-01-5'-8'	296-7A_BH-02-3'-5.5'
Lab Sample ID:		D24249-2	D24249-3	D24249-5	D24249-1	D24249-4
Date Sampled:		06/07/2011	06/07/2011	06/08/2011	06/07/2011	06/08/2011
Matrix:		Soil	Soil	Soil	Soil	Soil
GC Volatiles (SW846 8015B)						
TPH-GRO (C6-C10)	mg/kg	ND (6.6)	ND (6.6)	ND (6.8)	51.5	53.0
GC Semi-volatiles (SW846-8015B)						
TPH-DRO (C10-C28)	mg/kg	ND (10)	ND (10)	ND (10)	567	381
General Chemistry						
Solids, Percent	%	85.8	85.9	84.8	85.2	84.7



06/23/11

Technical Report for

KRW Consulting, Inc.

PCU 296-7A

1104-03B

Accutest Job Number: D24251

Sampling Dates: 06/07/11 - 06/08/11

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: **180**



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: D24251

PCU 296-7A
Project No: 1104-03B

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D24251-1	06/07/11	16:30	CAB	06/09/11	SO	Soil	296-7A-BH-01-17.5' -20.5'
D24251-1A	06/07/11	16:30	CAB	06/09/11	SO	Soil	296-7A-BH-01-17.5' -20.5'
D24251-2	06/08/11	11:30	CAB	06/09/11	SO	Soil	296-7A-BH-02-18' -20'
D24251-2A	06/08/11	11:30	CAB	06/09/11	SO	Soil	296-7A-BH-02-18' -20'

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D24251

Site: PCU 296-7A

Report Dat 6/23/2011 4:33:02 PM

On 06/09/2011, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D24251 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: V6V340

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24242-1MS, D24242-1MSD were used as the QC samples indicated.

Matrix SO

Batch ID: V6V342

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24562-1MS, D24562-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO

Batch ID: OP3869

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D24345-1MS, D24345-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The matrix spike and matrix spike duplicate (MS/MSD) recovery(s) of multiple analytes are outside control limits. Outside control limits due to dilution.
- The matrix spike and matrix spike duplicate (MS/MSD) required dilution due to matrix interference; extract was viscous.

Volatiles by GC By Method SW846 8015B

Matrix SO

Batch ID: GGA664

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24354-1MS, D24354-1MSD were used as the QC samples indicated.

Matrix SO

Batch ID: GGA665

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24264-1MS, D24264-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP3828
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D24249-1MS, D24249-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010B

Matrix AQ	Batch ID: MP4924
------------------	-------------------------

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24304-1AMS, D24304-1AMSD were used as the QC samples for the metals analysis.

Matrix SO	Batch ID: MP4922
------------------	-------------------------

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24251-1MS, D24251-1MSD, D24251-1SDL were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Barium, Chromium, Lead, Nickel, Zinc are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- The serial dilution RPD(s) for Cadmium, Selenium, Silver are outside control limits for sample MP4922-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- The serial dilution RPD(s) for Barium, Chromium, Nickel, Zinc are outside control limits for sample MP4922-SD1. Serial dilution indicates possible matrix interference.

Metals By Method SW846 6020

Matrix SO	Batch ID: MP4923
------------------	-------------------------

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24251-1MS, D24251-1MSD, D24251-1SDL were used as the QC samples for the metals analysis.

Metals By Method SW846 7471A

Matrix SO	Batch ID: MP4931
------------------	-------------------------

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24304-1MS, D24304-1MSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D1498-76M

Matrix SO	Batch ID: GN9967
------------------	-------------------------

- Sample(s) D24242-1DUP were used as the QC samples for the Redox Potential Vs H2 analysis.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN9984
------------------	-------------------------

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

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO	Batch ID: R7912
------------------	------------------------

- The data for SW846 3060/7196A M meets quality control requirements.
- Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO	Batch ID: M:GP13102
------------------	----------------------------

- The data for SW846 3060A/7196A meets quality control requirements.
- Chromium, Hexavalent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method SW846 9045C

Matrix SO	Batch ID: GN9953
------------------	-------------------------

- The following samples were run outside of holding time for method SW846 9045C: D24251-1, D24251-2.

Wet Chemistry By Method USDA HANDBOOK 60

Matrix SO	Batch ID: MP4924
------------------	-------------------------

- Sodium Adsorption Ratio: Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+(Mg meq/L)/2]

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 DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States

Job No D24251

Site: KRWCCOL: PCU 296-7A

Report Date 6/21/2011 11:40:12 AM

2 Sample(s) were collected on between 06/07/2011 and 06/08/2011 and were received at Accutest on 06/09/2011 properly preserved, at 2.9 Deg. C and intact. These Samples received an Accutest job number of D24251. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO

Batch ID: GP13102

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24283-1AMS, D24283-1ADUP were used as the QC samples for Chromium, Hexavalent.
- RPD(s) for Duplicate for Chromium, Hexavalent are outside control limits for sample GP13102-D1. RPD acceptable due to low duplicate and sample concentrations.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D24251).

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	296-7A-BH-01-17.5'-20.5'	Date Sampled:	06/07/11
Lab Sample ID:	D24251-1	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	87.0
Method:	SW846 8260B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6V06658.D	1	06/20/11	DC	n/a	n/a	V6V342
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.11 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	88%		70-130%
460-00-4	4-Bromofluorobenzene	93%		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

Report of Analysis

Client Sample ID:	296-7A-BH-01-17.5'-20.5'	Date Sampled:	06/07/11
Lab Sample ID:	D24251-1	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	87.0
Method:	SW846 8270C BY SIM SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G04499.D	1	06/16/11	TMB	06/15/11	OP3869	E3G168
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	7.6	6.1	ug/kg	
120-12-7	Anthracene	ND	7.6	6.9	ug/kg	
56-55-3	Benzo(a)anthracene	ND	19	9.9	ug/kg	
50-32-8	Benzo(a)pyrene	ND	19	14	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	19	14	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	19	8.4	ug/kg	
218-01-9	Chrysene	ND	19	8.4	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	19	14	ug/kg	
206-44-0	Fluoranthene	ND	7.6	7.6	ug/kg	
86-73-7	Fluorene	ND	7.6	6.5	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	23	21	ug/kg	
91-20-3	Naphthalene	ND	7.6	7.3	ug/kg	
129-00-0	Pyrene	ND	7.6	7.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	50%		10-193%
321-60-8	2-Fluorobiphenyl	48%		20-138%
1718-51-0	Terphenyl-d14	76%		17-174%

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:	296-7A-BH-01-17.5' -20.5'	Date Sampled:	06/07/11
Lab Sample ID:	D24251-1	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	87.0
Method:	SW846 8015B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12237.D	1	06/16/11	SK	n/a	n/a	GGA664
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	77%		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:	296-7A-BH-01-17.5' -20.5'		Date Sampled:	06/07/11
Lab Sample ID:	D24251-1		Date Received:	06/09/11
Matrix:	SO - Soil		Percent Solids:	87.0
Method:	SW846-8015B SW846 3546			
Project:	PCU 296-7A			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06995.D	1	06/13/11	EH	06/10/11	OP3828	GFD305
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	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

Report of Analysis

Client Sample ID: 296-7A-BH-01-17.5'-20.5'**Lab Sample ID:** D24251-1**Matrix:** SO - Soil**Project:** PCU 296-7A**Date Sampled:** 06/07/11**Date Received:** 06/09/11**Percent Solids:** 87.0**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.6	0.46	mg/kg	5	06/14/11	06/15/11 GJ	SW846 6020 ³	SW846 3050B ⁶
Barium	134	1.1	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Cadmium	< 1.1	1.1	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Chromium	28.2	1.1	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Copper	10.7	1.1	mg/kg	1	06/14/11	06/16/11 JM	SW846 6010B ⁴	SW846 3050B ⁵
Lead	11.6	5.7	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Mercury	< 0.11	0.11	mg/kg	1	06/15/11	06/15/11 JY	SW846 7471A ²	SW846 7471A ⁷
Nickel	13.4	3.4	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Selenium	< 5.7	5.7	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Silver	< 3.4	3.4	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Zinc	40.6	3.4	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵

(1) Instrument QC Batch: MA1593

(2) Instrument QC Batch: MA1594

(3) Instrument QC Batch: MA1595

(4) Instrument QC Batch: MA1600

(5) Prep QC Batch: MP4922

(6) Prep QC Batch: MP4923

(7) Prep QC Batch: MP4931

RL = Reporting Limit

Report of Analysis

Client Sample ID: 296-7A-BH-01-17.5' -20.5'**Lab Sample ID:** D24251-1**Matrix:** SO - Soil**Project:** PCU 296-7A**Date Sampled:** 06/07/11**Date Received:** 06/09/11**Percent Solids:** 87.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 0.45	0.45	mg/kg	1	06/17/11 15:45	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	27.8	1.6	mg/kg	1	06/17/11 15:45	AMA	SW846 3060/7196A M
Redox Potential Vs H2	422		mv	1	06/11/11 05:00	JK	ASTM D1498-76M
Solids, Percent	87		%	1	06/14/11	MM	SM19 2540B M
Specific Conductivity	167	1.0	umhos/cm	1	06/15/11	CJ	DEPT.OF AG, BOOK N9
pH	9.52		su	1	06/10/11 13:30	JK	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	296-7A-BH-01-17.5' -20.5'	Date Sampled:	06/07/11
Lab Sample ID:	D24251-1A	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	87.0
Project:	PCU 296-7A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	9.08	2.0	mg/l	1	06/15/11	06/15/11 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	5.20	1.0	mg/l	1	06/15/11	06/15/11 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	28.7	2.0	mg/l	1	06/15/11	06/15/11 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA1598
(2) Prep QC Batch: MP4924

RL = Reporting Limit

Report of Analysis

Client Sample ID:	296-7A-BH-01-17.5' -20.5'	Date Sampled:	06/07/11
Lab Sample ID:	D24251-1A	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	87.0
Project:	PCU 296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	1.88		ratio	1	06/15/11 18:08	JM	USDA HANDBOOK 60

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	296-7A-BH-02-18'-20'	Date Sampled:	06/08/11
Lab Sample ID:	D24251-2	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	85.7
Method:	SW846 8260B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6V06599.D	1	06/18/11	DC	n/a	n/a	V6V340
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	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	91%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%
17060-07-0	1,2-Dichloroethane-D4	87%		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:	296-7A-BH-02-18'-20'	Date Sampled:	06/08/11
Lab Sample ID:	D24251-2	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	85.7
Method:	SW846 8270C BY SIM SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G04500.D	1	06/17/11	TMB	06/15/11	OP3869	E3G168
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	7.8	6.2	ug/kg	
120-12-7	Anthracene	ND	7.8	7.0	ug/kg	
56-55-3	Benzo(a)anthracene	ND	19	10	ug/kg	
50-32-8	Benzo(a)pyrene	ND	19	14	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	19	14	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	19	8.5	ug/kg	
218-01-9	Chrysene	ND	19	8.5	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	19	14	ug/kg	
206-44-0	Fluoranthene	ND	7.8	7.8	ug/kg	
86-73-7	Fluorene	ND	7.8	6.6	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	23	21	ug/kg	
91-20-3	Naphthalene	ND	7.8	7.4	ug/kg	
129-00-0	Pyrene	ND	7.8	7.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	44%		10-193%
321-60-8	2-Fluorobiphenyl	44%		20-138%
1718-51-0	Terphenyl-d14	73%		17-174%

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: 296-7A-BH-02-18' -20'
Lab Sample ID: D24251-2
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 06/08/11
Date Received: 06/09/11
Percent Solids: 85.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA12241.D	1	06/16/11	SK	n/a	n/a	GGA665
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	6.6	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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A-BH-02-18'-20'**Lab Sample ID:** D24251-2**Date Sampled:** 06/08/11**Matrix:** SO - Soil**Date Received:** 06/09/11**Method:** SW846-8015B SW846 3546**Percent Solids:** 85.7**Project:** PCU 296-7A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD06996.D	1	06/13/11	EH	06/10/11	OP3828	GFD305
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)	1060	16	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		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: 296-7A-BH-02-18'-20'**Lab Sample ID:** D24251-2**Matrix:** SO - Soil**Project:** PCU 296-7A**Date Sampled:** 06/08/11**Date Received:** 06/09/11**Percent Solids:** 85.7**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.2	0.45	mg/kg	5	06/14/11	06/15/11 GJ	SW846 6020 ³	SW846 3050B ⁶
Barium	132	1.1	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Cadmium	< 1.1	1.1	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Chromium	33.0	1.1	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Copper	10.4	1.1	mg/kg	1	06/14/11	06/16/11 JM	SW846 6010B ⁴	SW846 3050B ⁵
Lead	12.7	5.7	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Mercury	< 0.11	0.11	mg/kg	1	06/15/11	06/15/11 JY	SW846 7471A ²	SW846 7471A ⁷
Nickel	14.7	3.4	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Selenium	< 5.7	5.7	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Silver	< 3.4	3.4	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵
Zinc	43.1	3.4	mg/kg	1	06/14/11	06/14/11 JY	SW846 6010B ¹	SW846 3050B ⁵

(1) Instrument QC Batch: MA1593

(2) Instrument QC Batch: MA1594

(3) Instrument QC Batch: MA1597

(4) Instrument QC Batch: MA1600

(5) Prep QC Batch: MP4922

(6) Prep QC Batch: MP4923

(7) Prep QC Batch: MP4931

RL = Reporting Limit

Report of Analysis

Client Sample ID: 296-7A-BH-02-18' -20'**Lab Sample ID:** D24251-2**Matrix:** SO - Soil**Project:** PCU 296-7A**Date Sampled:** 06/08/11**Date Received:** 06/09/11**Percent Solids:** 85.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 0.46	0.46	mg/kg	1	06/17/11 15:45	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	32.7	1.6	mg/kg	1	06/17/11 15:45	AMA	SW846 3060/7196A M
Redox Potential Vs H2	406		mv	1	06/11/11 05:00	JK	ASTM D1498-76M
Solids, Percent	85.7		%	1	06/14/11	MM	SM19 2540B M
Specific Conductivity	149	1.0	umhos/cm	1	06/15/11	CJ	DEPT.OF AG, BOOK N9
pH	9.57		su	1	06/10/11 13:30	JK	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	296-7A-BH-02-18' -20'	Date Sampled:	06/08/11
Lab Sample ID:	D24251-2A	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	85.7
Project:	PCU 296-7A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11.4	2.0	mg/l	1	06/15/11	06/15/11 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	6.15	1.0	mg/l	1	06/15/11	06/15/11 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	26.4	2.0	mg/l	1	06/15/11	06/15/11 JM	SW846 6010B ¹	EPA 200.7 ²

- (1) Instrument QC Batch: MA1598
(2) Prep QC Batch: MP4924

RL = Reporting Limit

Report of Analysis

Client Sample ID:	296-7A-BH-02-18' -20'	Date Sampled:	06/08/11
Lab Sample ID:	D24251-2A	Date Received:	06/09/11
Matrix:	SO - Soil	Percent Solids:	85.7
Project:	PCU 296-7A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	1.57		ratio	1	06/15/11 18:14	JM	USDA HANDBOOK 60

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

GC/MS 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: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6V340-MB	6V06593.D	1	06/18/11	DC	n/a	n/a	V6V340

The QC reported here applies to the following samples:

Method: SW846 8260B

D24251-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.44	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/kg	
108-88-3	Toluene	ND	2.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	93% 70-130%
460-00-4	4-Bromofluorobenzene	97% 70-130%
17060-07-0	1,2-Dichloroethane-D4	87% 70-130%

Method Blank Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6V342-MB	6V06652.D	1	06/20/11	DC	n/a	n/a	V6V342

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

D24251-1

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	92% 70-130%
460-00-4	4-Bromofluorobenzene	96% 70-130%
17060-07-0	1,2-Dichloroethane-D4	96% 70-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6V340-BS	6V06594.D	1	06/18/11	DC	n/a	n/a	V6V340

The QC reported here applies to the following samples:

Method: SW846 8260B

D24251-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	49.6	99	68-130
100-41-4	Ethylbenzene	50	51.8	104	70-130
108-88-3	Toluene	50	46.2	92	70-130
1330-20-7	Xylene (total)	100	94.9	95	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	92%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	70-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6V342-BS	6V06653.D	1	06/20/11	DC	n/a	n/a	V6V342

The QC reported here applies to the following samples:

Method: SW846 8260B

D24251-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	44.1	88	68-130
100-41-4	Ethylbenzene	50	46.5	93	70-130
108-88-3	Toluene	50	41.4	83	70-130
1330-20-7	Xylene (total)	100	84.8	85	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	88%	70-130%
460-00-4	4-Bromofluorobenzene	103%	70-130%
17060-07-0	1,2-Dichloroethane-D4	84%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24242-1MS	6V06596.D	1	06/18/11	DC	n/a	n/a	V6V340
D24242-1MSD	6V06597.D	1	06/18/11	DC	n/a	n/a	V6V340
D24242-1	6V06595.D	1	06/18/11	DC	n/a	n/a	V6V340

The QC reported here applies to the following samples:

Method: SW846 8260B

D24251-2

CAS No.	Compound	D24242-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2860	3270	114	3380	118	3	55-140/30
100-41-4	Ethylbenzene	ND		2860	3570	125	3650	127	2	56-139/30
108-88-3	Toluene	ND		2860	3100	108	3270	114	5	57-144/30
1330-20-7	Xylene (total)	ND		5730	6640	116	6770	118	2	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24242-1	Limits
2037-26-5	Toluene-D8	91%	90%	90%	70-130%
460-00-4	4-Bromofluorobenzene	109%	105%	96%	70-130%
17060-07-0	1,2-Dichloroethane-D4	84%	79%	85%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24562-1MS	6V06655.D	1	06/20/11	DC	n/a	n/a	V6V342
D24562-1MSD	6V06656.D	1	06/20/11	DC	n/a	n/a	V6V342
D24562-1	6V06654.D	1	06/20/11	DC	n/a	n/a	V6V342

The QC reported here applies to the following samples:

Method: SW846 8260B

D24251-1

CAS No.	Compound	D24562-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	28.5	J	2500	2460	97	2530	100	3	55-140/30
100-41-4	Ethylbenzene	ND		2500	2550	102	2600	104	2	56-139/30
108-88-3	Toluene	221		2500	2420	88	2510	92	4	57-144/30
1330-20-7	Xylene (total)	323		4990	5080	95	5240	98	3	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24562-1	Limits
2037-26-5	Toluene-D8	84%	85%	91%	70-130%
460-00-4	4-Bromofluorobenzene	102%	98%	96%	70-130%
17060-07-0	1,2-Dichloroethane-D4	88%	83%	91%	70-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6062011\
Data File : 6V06658.D
Acq On : 20 Jun 2011 4:10 pm
Operator : DONC
Sample : D24251-1, 50x
Misc : MS2251,V6V342,5.111,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 10:07:08 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	171182	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.064	114	227466	50.00	ug/l	-0.01
48) Chlorobenzene-d5	14.720	117	221058	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	16.653	152	140395	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	11.649	102	14122	42.19	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	84.38%
55) Toluene-d8	13.475	98	306819	43.82	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.64%
59) 4-Bromofluorobenzene	15.657	95	180292	46.63	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.26%

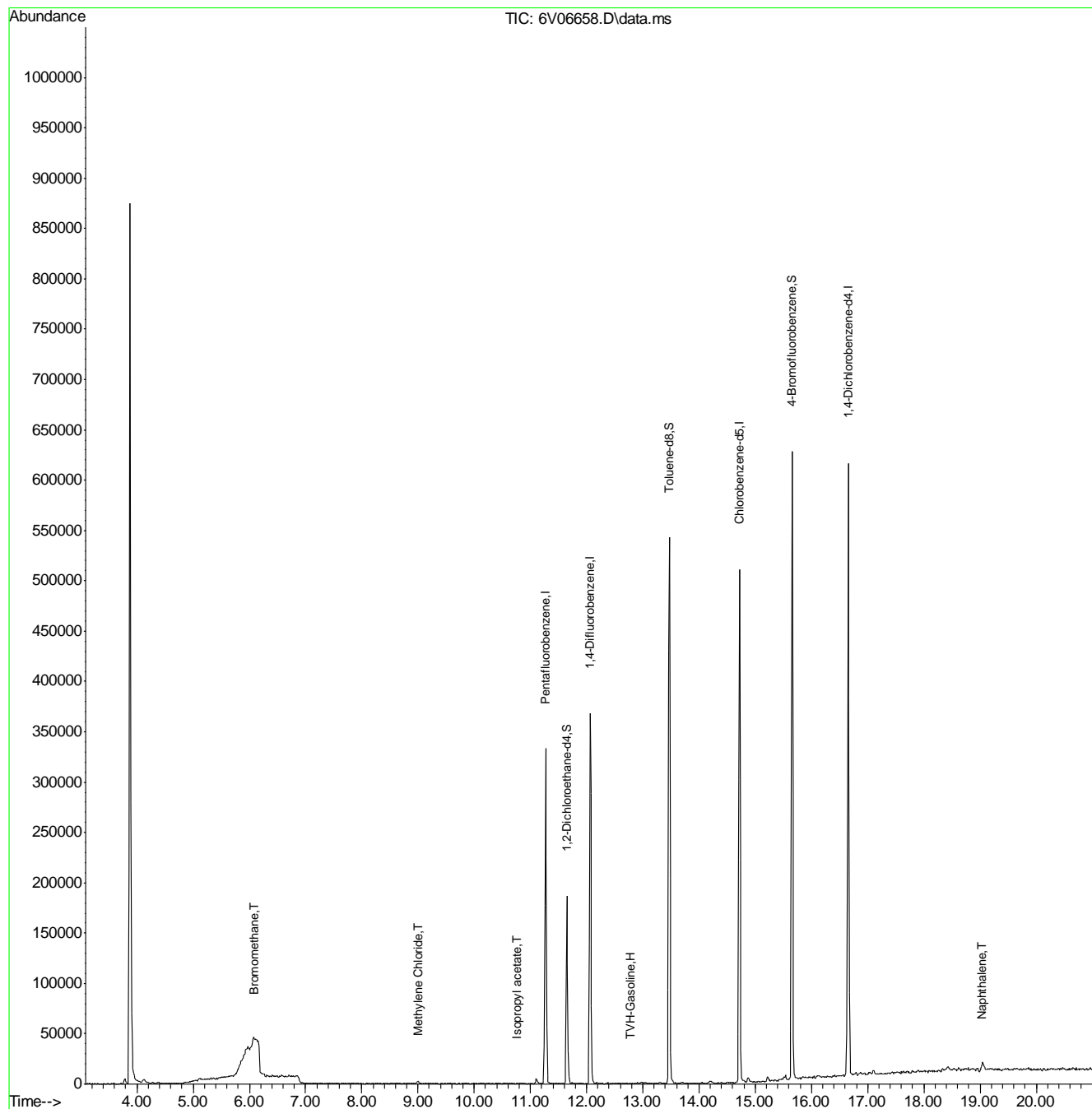
Target Compounds					Qvalue
1) TVH-Gasoline	12.776	TIC	70148m	36.48	ug/l
6) Bromomethane	6.087	94	11450	3.67	ug/l # 71
16) Methylene Chloride	9.004	84	1363	0.34	ug/l # 85
26) Isopropyl acetate	10.759	43	676	0.72	ug/l # 70
72) Naphthalene	19.036	128	4212	0.59	ug/l 100

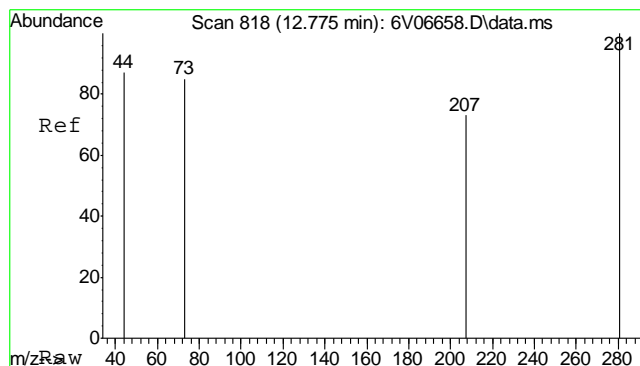
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

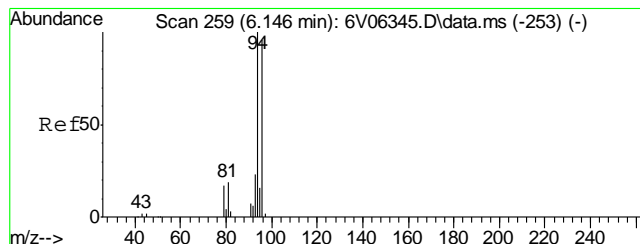
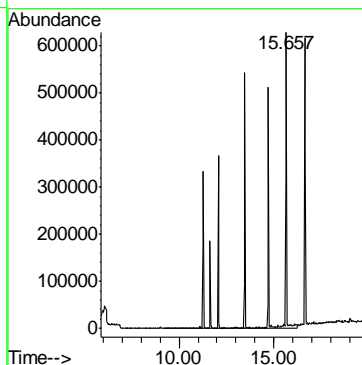
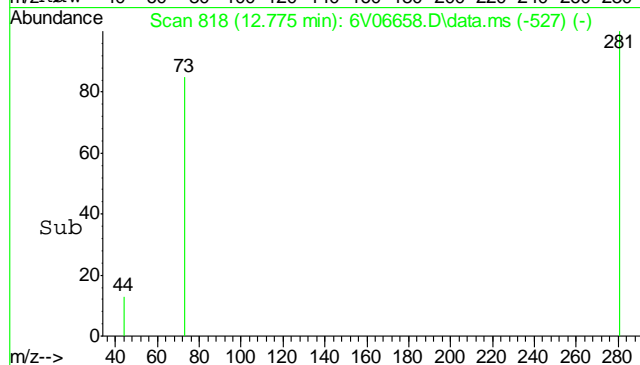
Data Path : C:\msdchem\1\DATA\V6062011\
Data File : 6V06658.D
Acq On : 20 Jun 2011 4:10 pm
Operator : DONC
Sample : D24251-1, 50x
Misc : MS2251,V6V342,5.111,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 10:07:08 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration



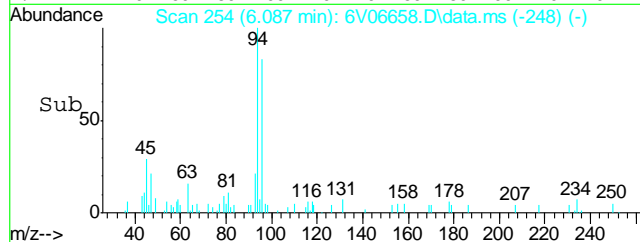
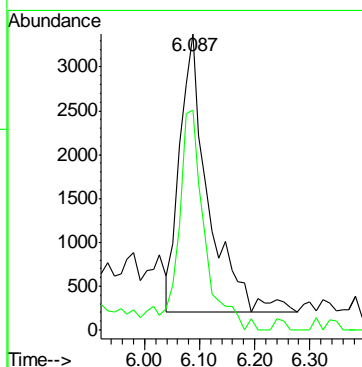
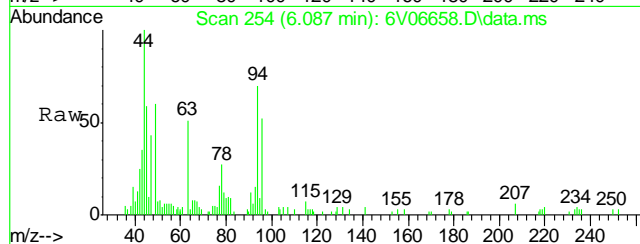


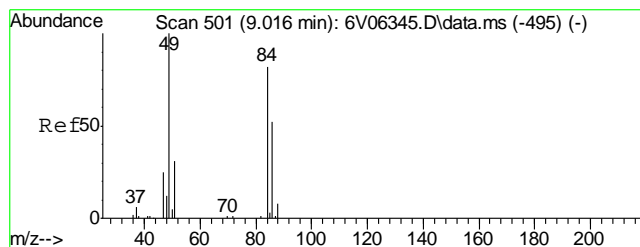
#1
TVH-Gasoline
Concen: 36.48 ug/l m
RT: 12.776 min Scan# 818
Delta R.T. 0.000 min
Lab File: 6V06658.D
Acq: 20 Jun 2011 4:10 pm
Tgt Ion:TIC Resp: 70148



#6
Bromomethane
Concen: 3.67 ug/l
RT: 6.087 min Scan# 254
Delta R.T. -0.024 min
Lab File: 6V06658.D
Acq: 20 Jun 2011 4:10 pm

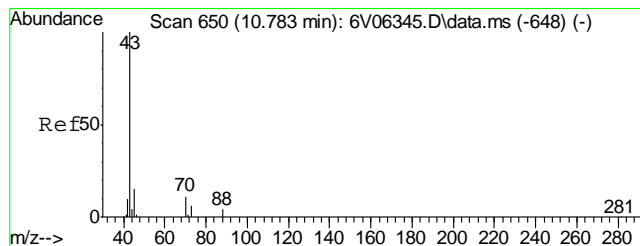
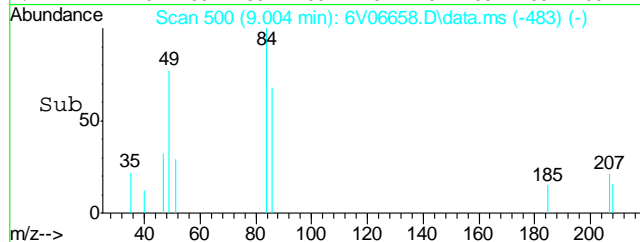
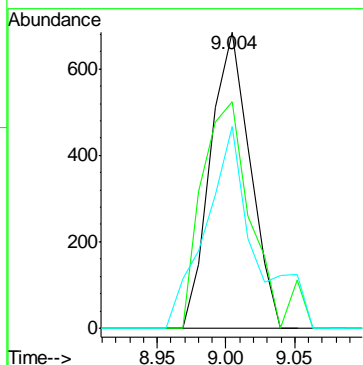
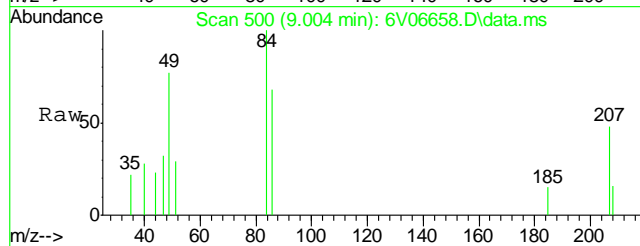
Tgt Ion: 94 Resp: 11450
Ion Ratio Lower Upper
94 100
96 68.4 76.4 116.4#





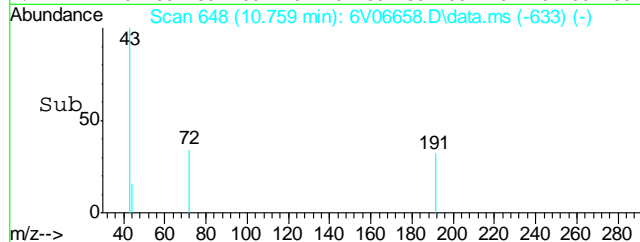
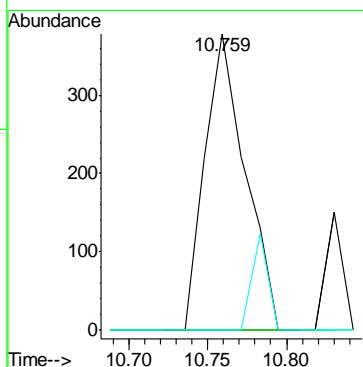
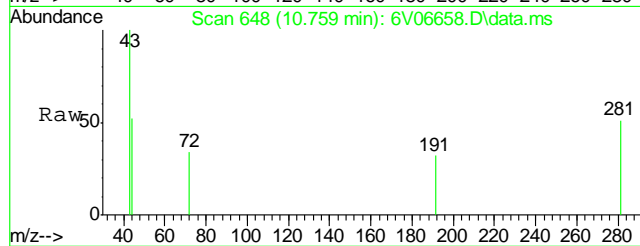
#16
Methylene Chloride
Concen: 0.34 ug/l
RT: 9.004 min Scan# 500
Delta R.T. 0.000 min
Lab File: 6V06658.D
Acq: 20 Jun 2011 4:10 pm

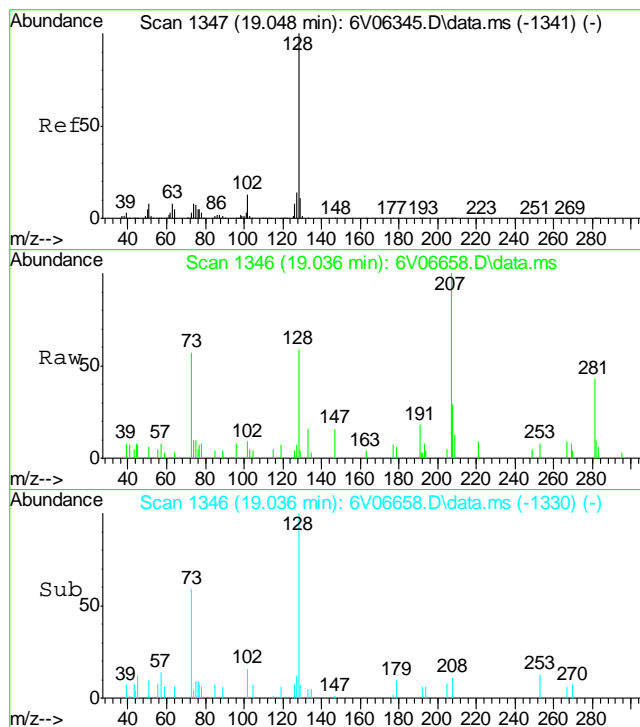
Tgt Ion	Ratio	Lower	Upper
84	100		
49	96.8	84.4	124.4
86	85.0	43.1	83.1#



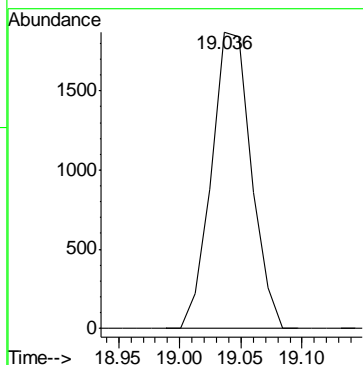
#26
Isopropyl acetate
Concen: 0.72 ug/l
RT: 10.759 min Scan# 648
Delta R.T. -0.024 min
Lab File: 6V06658.D
Acq: 20 Jun 2011 4:10 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
61	0.0	0.0	20.0
41	13.0	0.0	21.5





#72
 Naphthalene
 Concen: 0.59 ug/l
 RT: 19.036 min Scan# 1346
 Delta R.T. -0.012 min
 Lab File: 6V06658.D
 Acq: 20 Jun 2011 4:10 pm
 Tgt Ion:128 Resp: 4212



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6061811\
Data File : 6V06599.D
Acq On : 18 Jun 2011 12:45 pm
Operator : DONC
Sample : D24251-2, 50x
Misc : MS2299,V6V340,5.070,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 22 19:27:19 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	122818	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.063	114	162674	50.00	ug/l	-0.01
48) Chlorobenzene-d5	14.720	117	153880	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	16.653	152	95511	50.00	ug/l	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	11.648	102	10395	43.29	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.58%
55) Toluene-d8	13.475	98	220780	45.30	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.60%
59) 4-Bromofluorobenzene	15.657	95	129465	48.10	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.20%

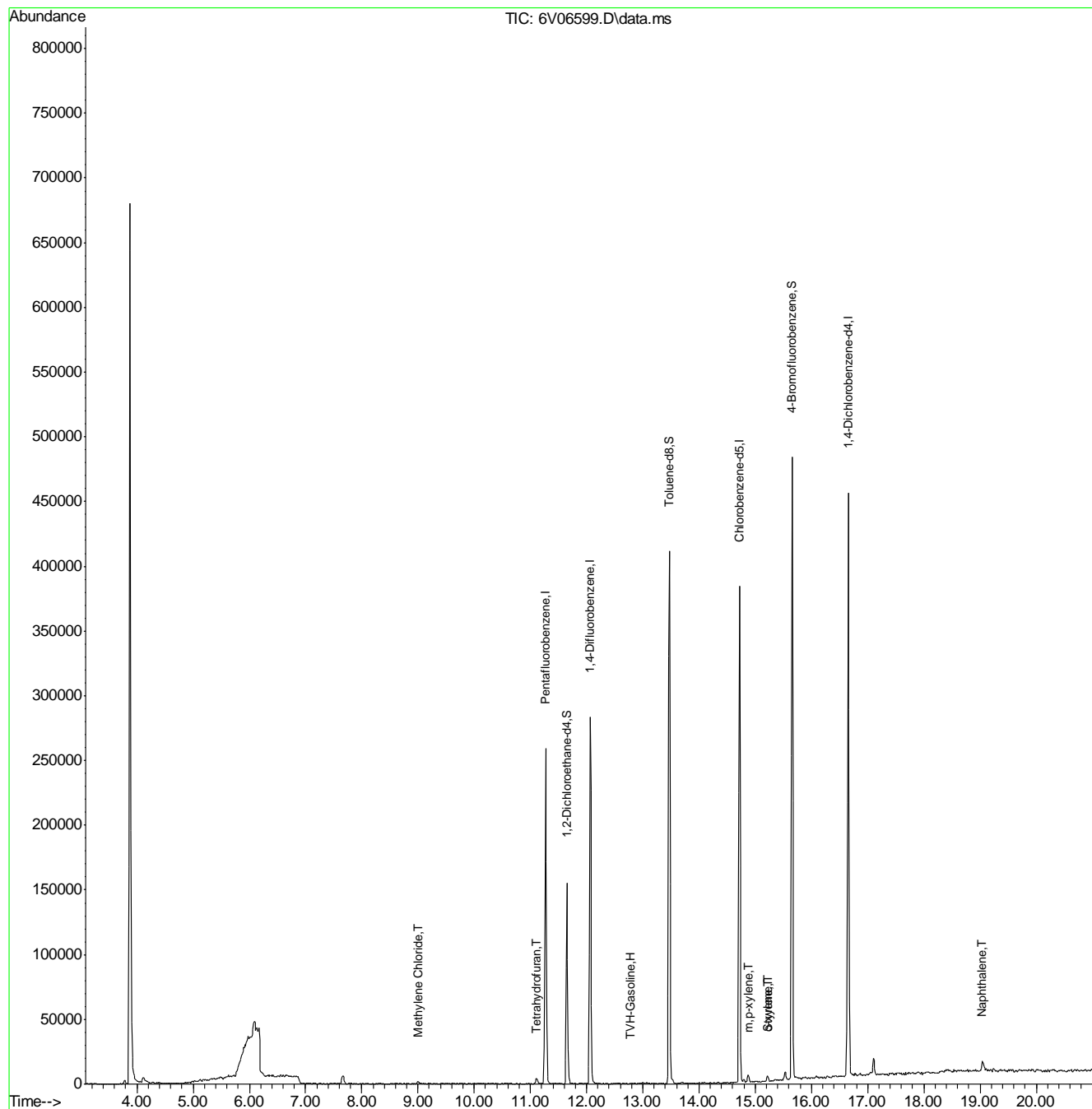
Target Compounds					Qvalue
1) TVH-Gasoline	12.776	TIC	59420m	35.39	ug/l
16) Methylene Chloride	9.004	84	1076	0.42	ug/l
28) Tetrahydrofuran	11.103	42	1670	1.37	ug/l
60) Styrene	15.218	104	537	0.38	ug/l
61) m,p-xylene	14.886	106	1121	0.45	ug/l
62) o-xylene	15.218	106	818	0.31	ug/l
72) Naphthalene	19.036	128	3328	0.69	ug/l

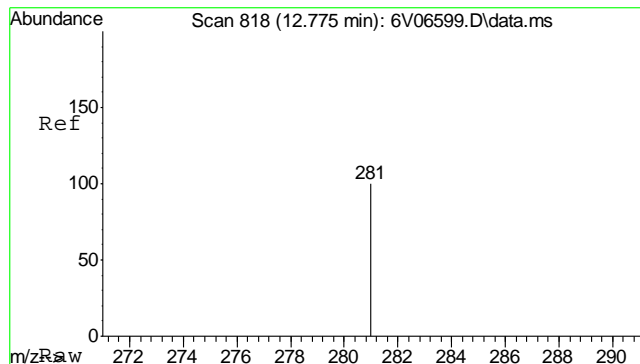
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6061811\
Data File : 6V06599.D
Acq On : 18 Jun 2011 12:45 pm
Operator : DONC
Sample : D24251-2, 50x
Misc : MS2299,V6V340,5.070,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

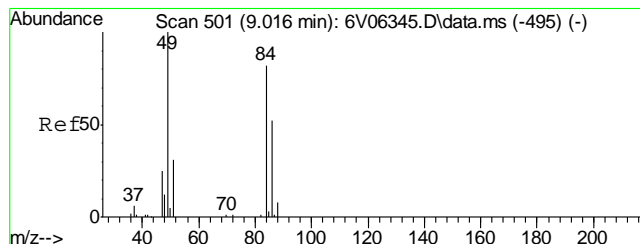
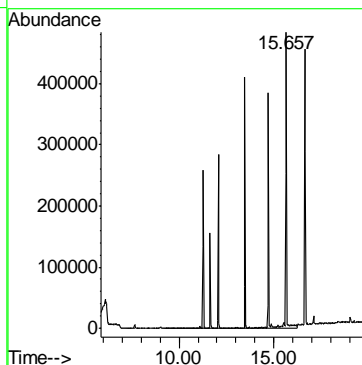
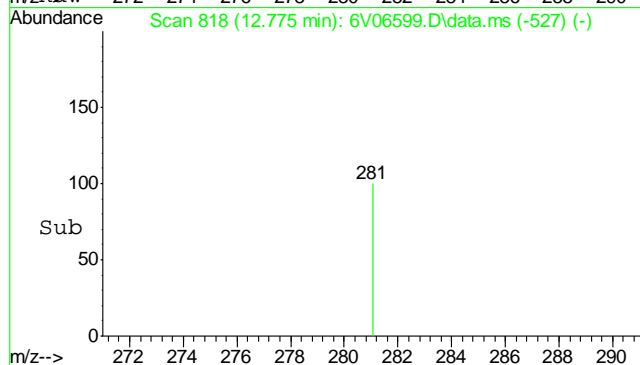
Quant Time: Jun 22 19:27:19 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration





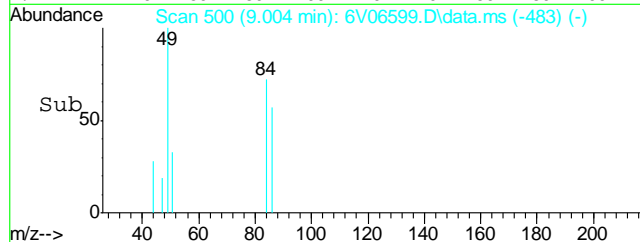
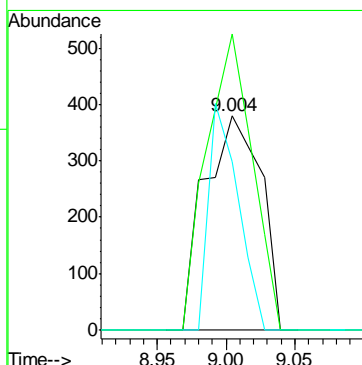
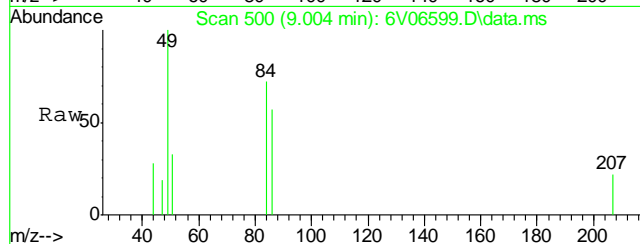
#1
TVH-Gasoline
Concen: 35.39 ug/l m
RT: 12.776 min Scan# 818
Delta R.T. 0.000 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

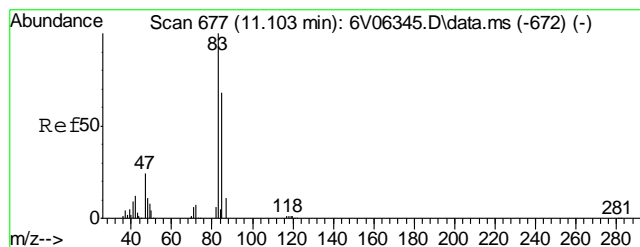
Tgt Ion:TIC Resp: 59420



#16
Methylene Chloride
Concen: 0.42 ug/l
RT: 9.004 min Scan# 500
Delta R.T. 0.000 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

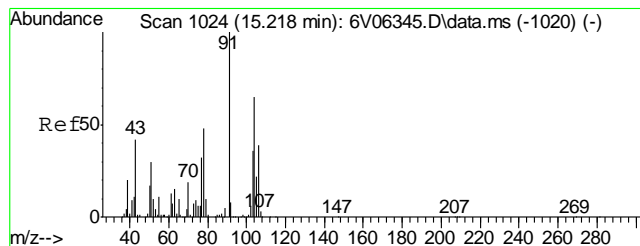
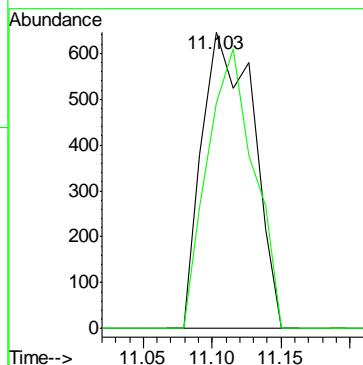
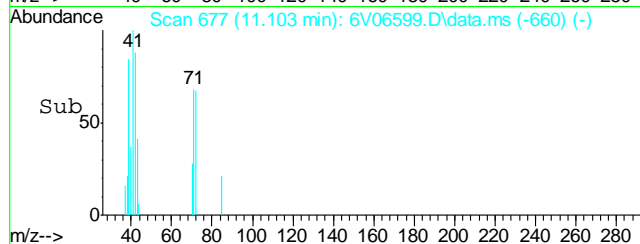
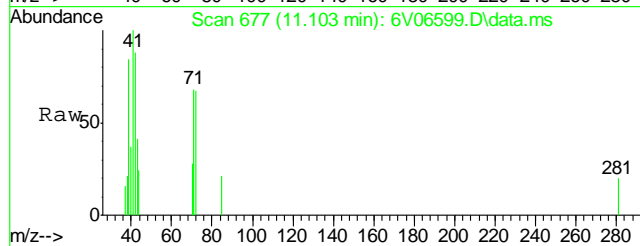
Tgt Ion: 84 Resp: 1076
Ion Ratio Lower Upper
84 100
49 112.5 84.4 124.4
86 54.8 43.1 83.1





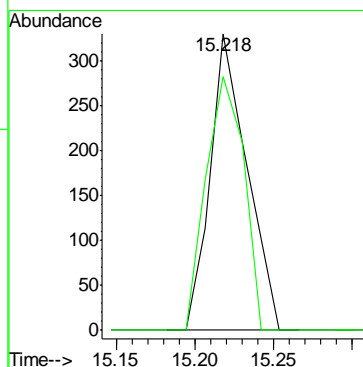
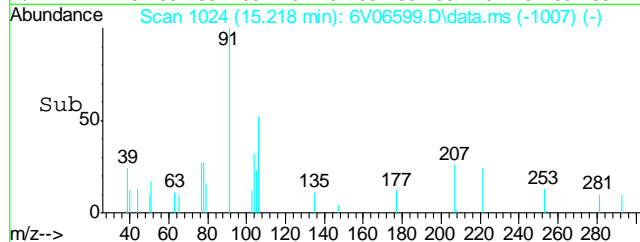
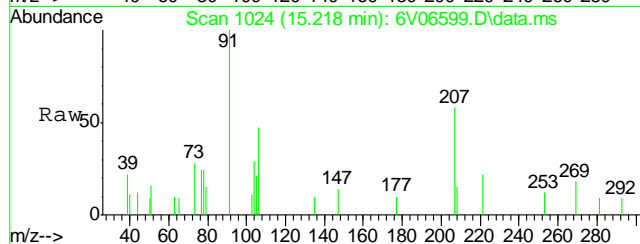
#28
Tetrahydrofuran
Concen: 1.37 ug/l
RT: 11.103 min Scan# 677
Delta R.T. -0.000 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

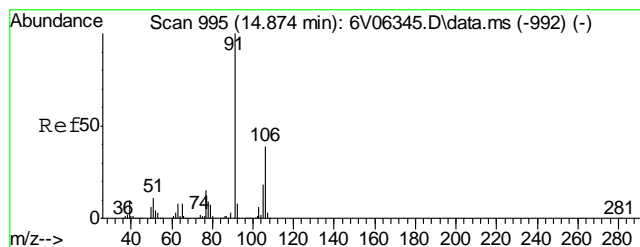
Tgt Ion: 42 Resp: 1670
Ion Ratio Lower Upper
42 100
72 85.6 70.7 106.1



#60
Styrene
Concen: 0.38 ug/l
RT: 15.218 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

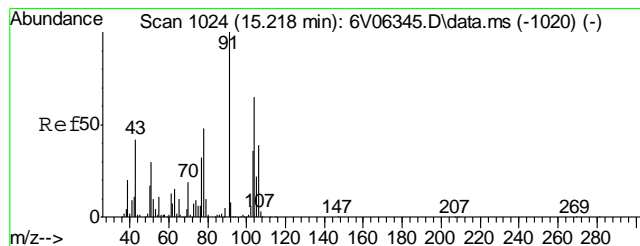
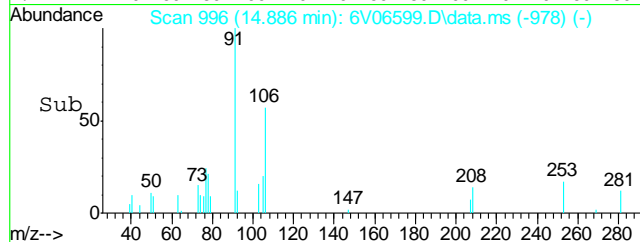
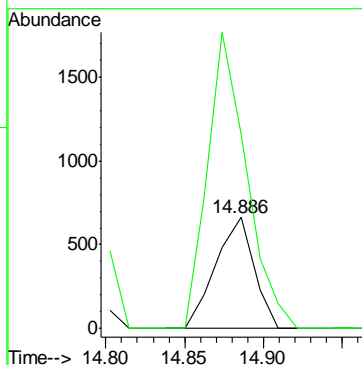
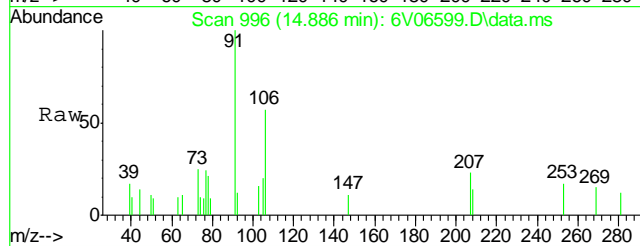
Tgt Ion: 104 Resp: 537
Ion Ratio Lower Upper
104 100
78 87.5 61.0 101.0





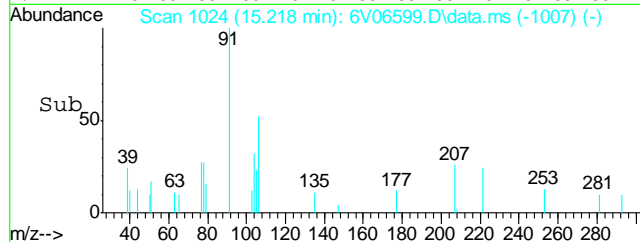
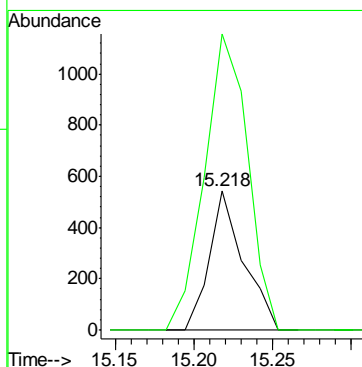
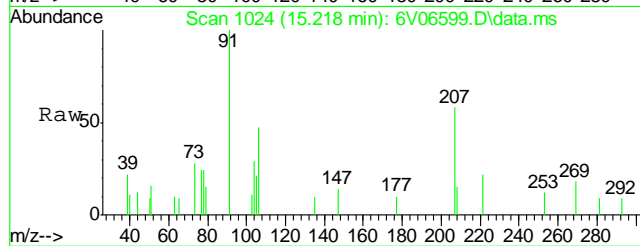
#61
m,p-xylene
Concen: 0.45 ug/l
RT: 14.886 min Scan# 996
Delta R.T. 0.012 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

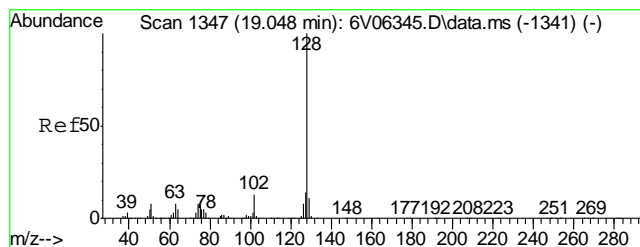
Tgt Ion:106 Resp: 1121
Ion Ratio Lower Upper
106 100
91 271.9 243.3 283.3



#62
o-xylene
Concen: 0.31 ug/l
RT: 15.218 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

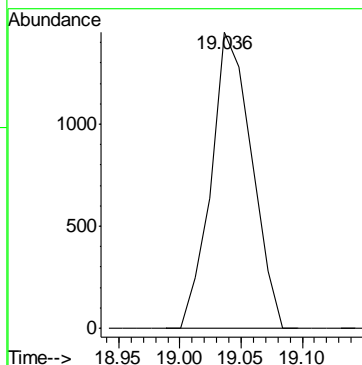
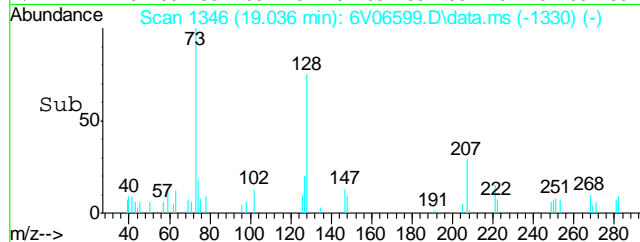
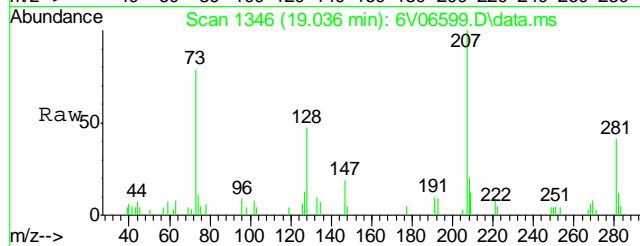
Tgt Ion:106 Resp: 818
Ion Ratio Lower Upper
106 100
91 268.8 222.3 333.5





#72
Naphthalene
Concen: 0.69 ug/l
RT: 19.036 min Scan# 1346
Delta R.T. -0.012 min
Lab File: 6V06599.D
Acq: 18 Jun 2011 12:45 pm

Tgt Ion:128 Resp: 3328



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6061811\
 Data File : 6V06593.D
 Acq On : 18 Jun 2011 9:19 am
 Operator : DONC
 Sample : MB
 Misc : MS2299,V6V340,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 22 19:26:01 2011
 Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
 Quant Title : 8260
 QLast Update : Fri Jun 17 15:40:23 2011
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	117746	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.064	114	157499	50.00	ug/l	-0.01
48) Chlorobenzene-d5	14.720	117	150971	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	16.653	152	94534	50.00	ug/l	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	11.649	102	10063	43.71	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.42%
55) Toluene-d8	13.475	98	221506	46.32	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.64%
59) 4-Bromofluorobenzene	15.657	95	128398	48.62	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.24%

Target Compounds

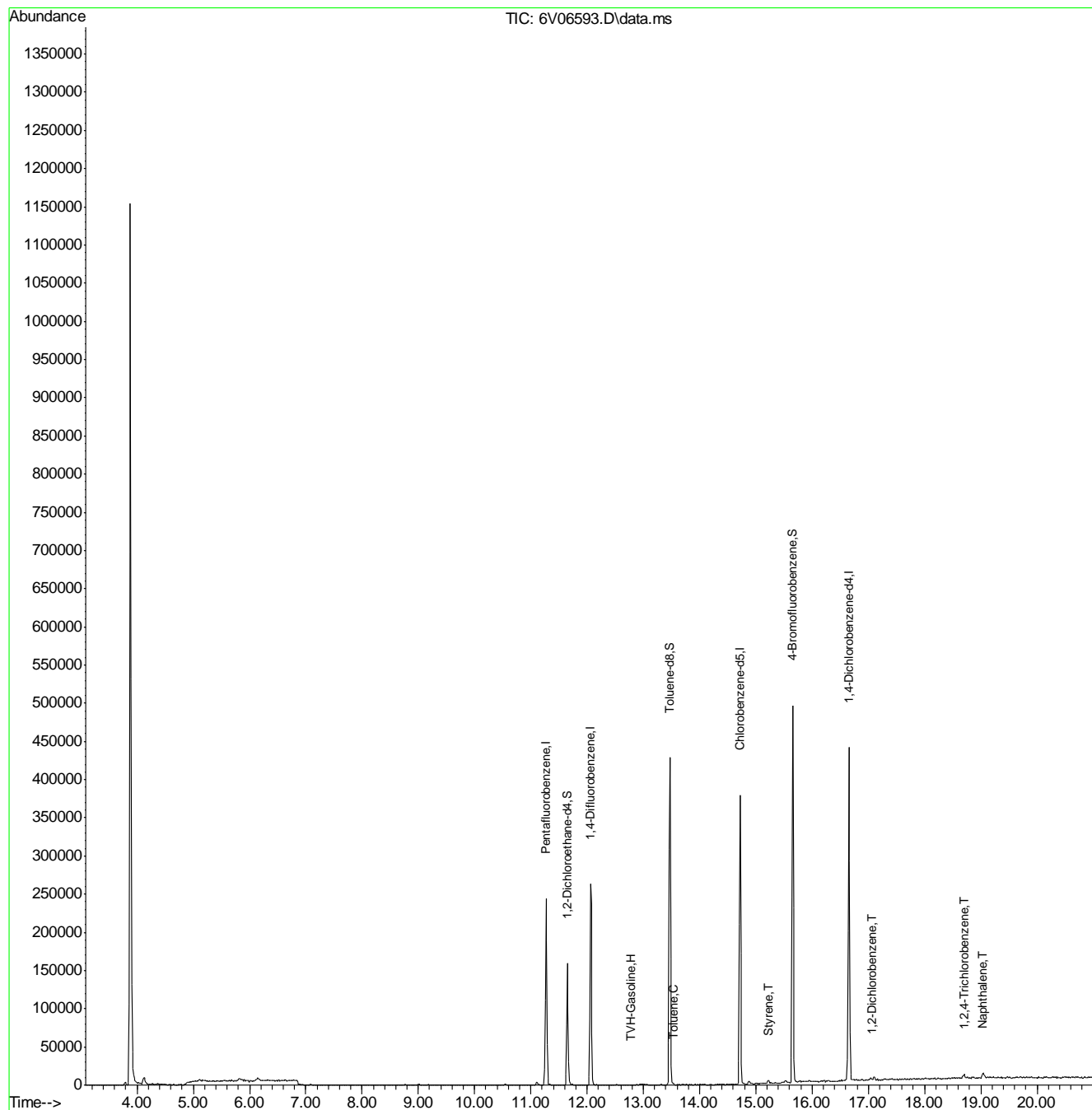
					Qvalue
1) TVH-Gasoline	12.776	TIC	8509m	30.19	ug/l
56) Toluene	13.534	92	556	0.32	ug/l
60) Styrene	15.218	104	692	0.43	ug/l #
70) 1,2-Dichlorobenzene	17.056	146	1114	0.39	ug/l #
71) 1,2,4-Trichlorobenzene	18.704	180	1739	0.60	ug/l #
72) Naphthalene	19.036	128	4989	1.04	ug/l

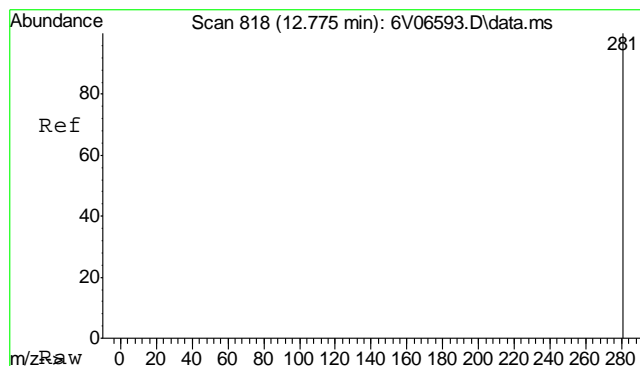
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6061811\
Data File : 6V06593.D
Acq On : 18 Jun 2011 9:19 am
Operator : DONC
Sample : MB
Misc : MS2299,V6V340,,,,,1
ALS Vial : 3 Sample Multiplier: 1

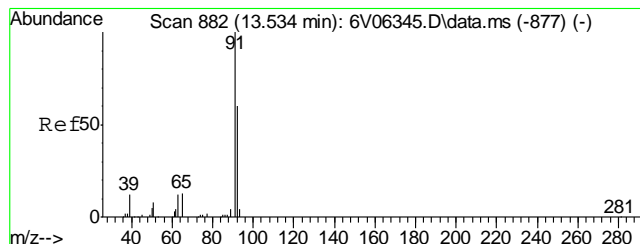
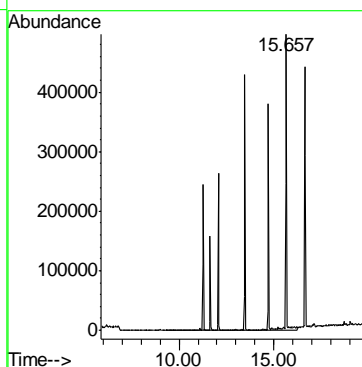
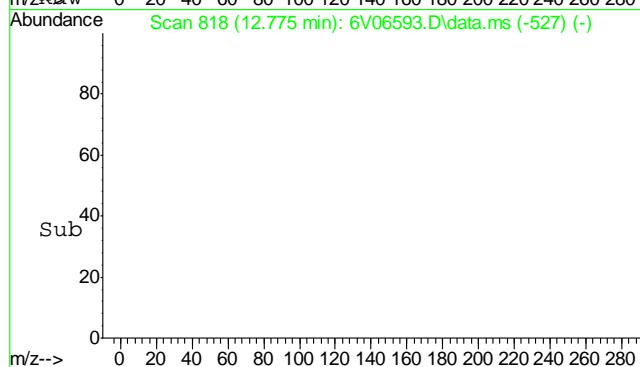
Quant Time: Jun 22 19:26:01 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration





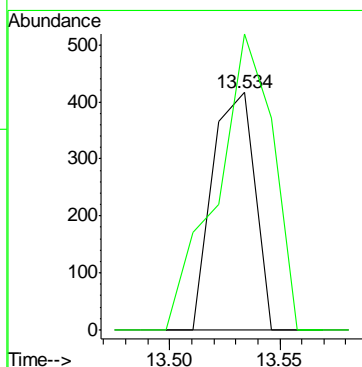
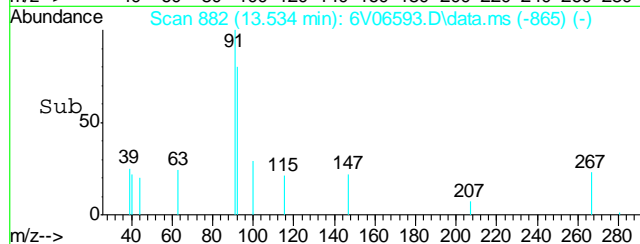
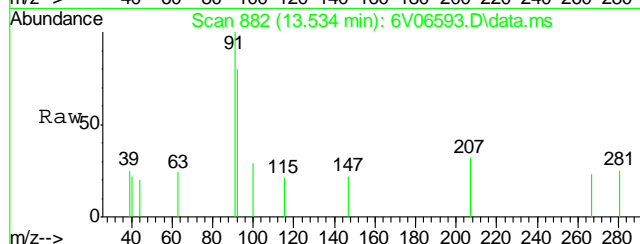
#1
TVH-Gasoline
Concen: 30.19 ug/l m
RT: 12.776 min Scan# 818
Delta R.T. 0.000 min
Lab File: 6V06593.D
Acq: 18 Jun 2011 9:19 am

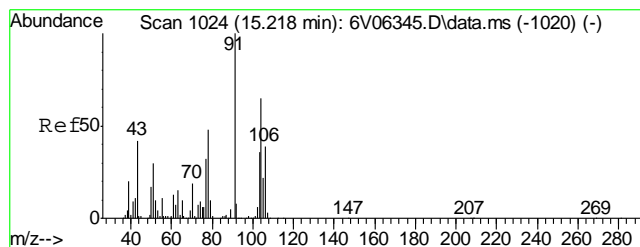
Tgt Ion:TIC Resp: 8509



#56
Toluene
Concen: 0.32 ug/l
RT: 13.534 min Scan# 882
Delta R.T. 0.000 min
Lab File: 6V06593.D
Acq: 18 Jun 2011 9:19 am

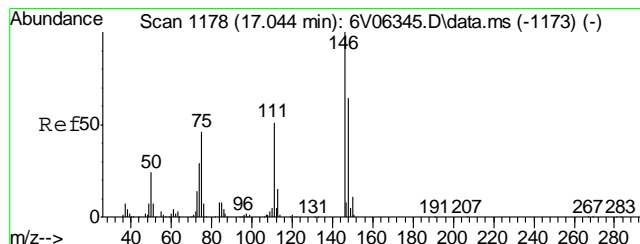
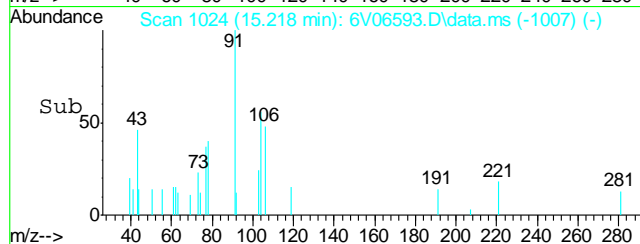
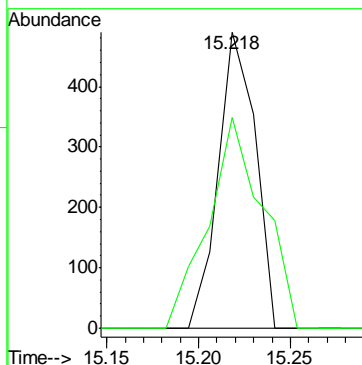
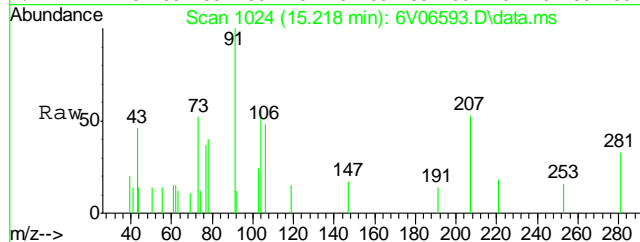
Tgt Ion: 92 Resp: 556
Ion Ratio Lower Upper
92 100
91 163.8 150.2 190.2





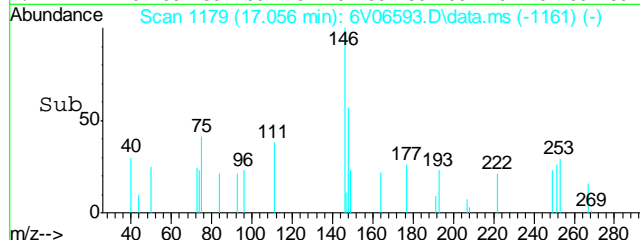
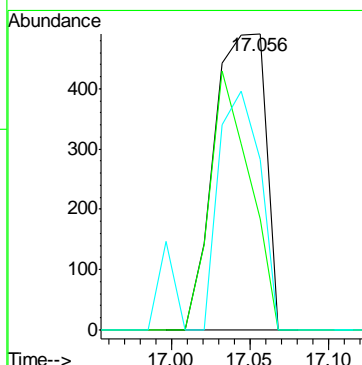
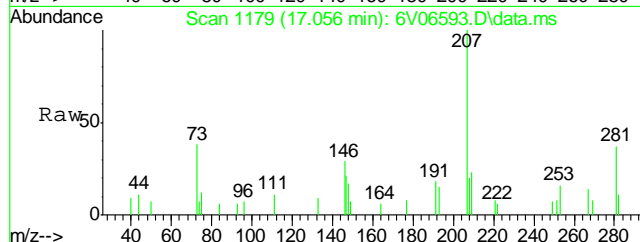
#60
Styrene
Concen: 0.43 ug/l
RT: 15.218 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 6V06593.D
Acq: 18 Jun 2011 9:19 am

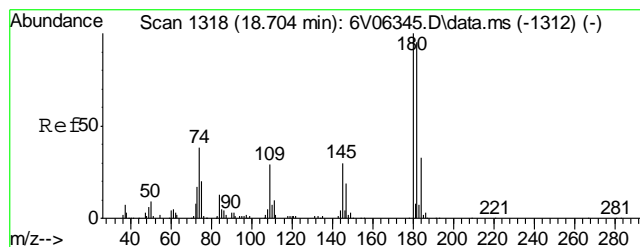
Tgt Ion:104 Resp: 692
Ion Ratio Lower Upper
104 100
78 104.5 61.0 101.0#



#70
1,2-Dichlorobenzene
Concen: 0.39 ug/l
RT: 17.056 min Scan# 1179
Delta R.T. 0.012 min
Lab File: 6V06593.D
Acq: 18 Jun 2011 9:19 am

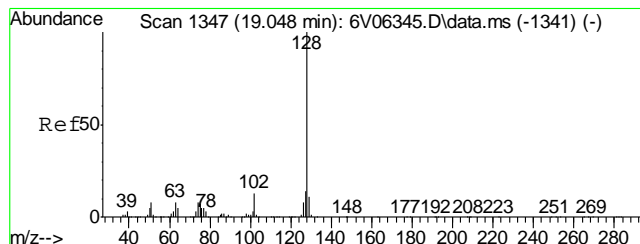
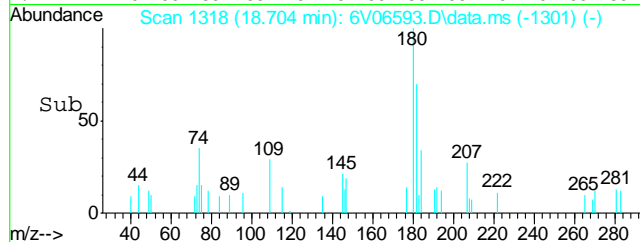
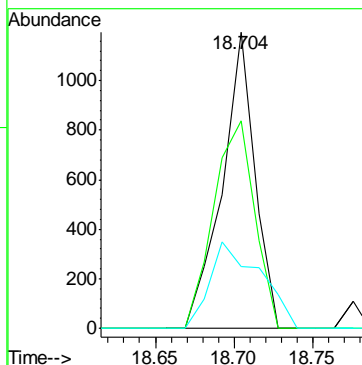
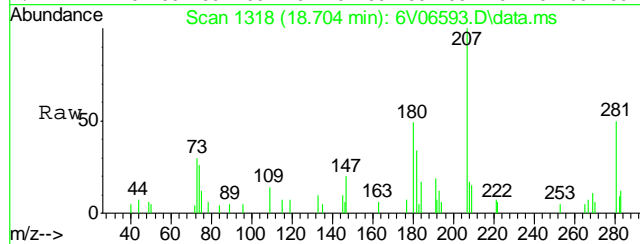
Tgt Ion:146 Resp: 1114
Ion Ratio Lower Upper
146 100
111 68.0 40.8 61.2#
148 65.0 51.4 77.2





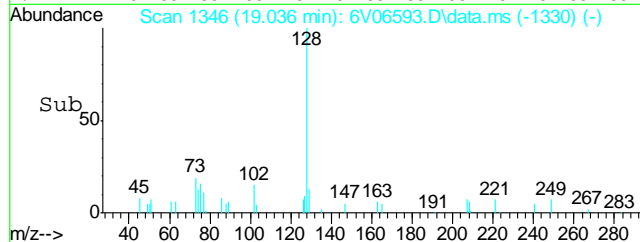
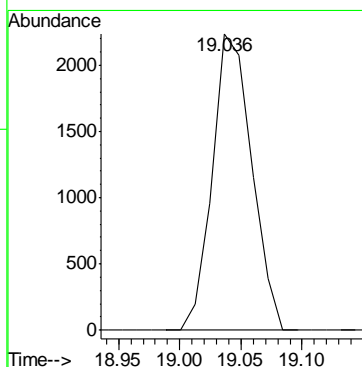
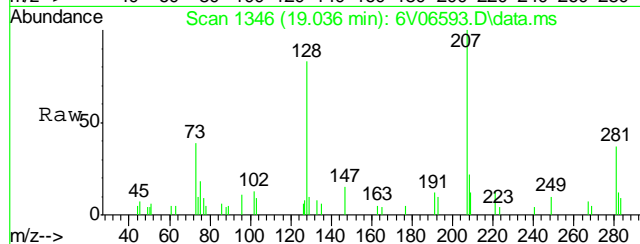
#71
1,2,4-Trichlorobenzene
Concen: 0.60 ug/l
RT: 18.704 min Scan# 1318
Delta R.T. 0.000 min
Lab File: 6V06593.D
Acq: 18 Jun 2011 9:19 am

Tgt Ion:	180	Resp:	1739
Ion Ratio	Lower	Upper	
180	100		
182	87.7	76.2	114.2
145	44.9	24.2	36.2#



#72
Naphthalene
Concen: 1.04 ug/l
RT: 19.036 min Scan# 1346
Delta R.T. -0.012 min
Lab File: 6V06593.D
Acq: 18 Jun 2011 9:19 am

Tgt Ion:	128	Resp:	4989
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6062011\
Data File : 6V06652.D
Acq On : 20 Jun 2011 12:44 pm
Operator : DONC
Sample : MB
Misc : MS2305,V6V342,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 10:06:30 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	165570	50.00	ug/l	0.00
32) 1,4-Difluorobenzene	12.076	114	230998	50.00	ug/l	0.00
48) Chlorobenzene-d5	14.720	117	220268	50.00	ug/l	0.00
63) 1,4-Dichlorobenzene-d4	16.653	152	134859	50.00	ug/l	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	11.649	102	15473	47.79	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.58%
55) Toluene-d8	13.475	98	319346	45.77	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	91.54%
59) 4-Bromofluorobenzene	15.657	95	184345	47.85	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.70%

Target Compounds

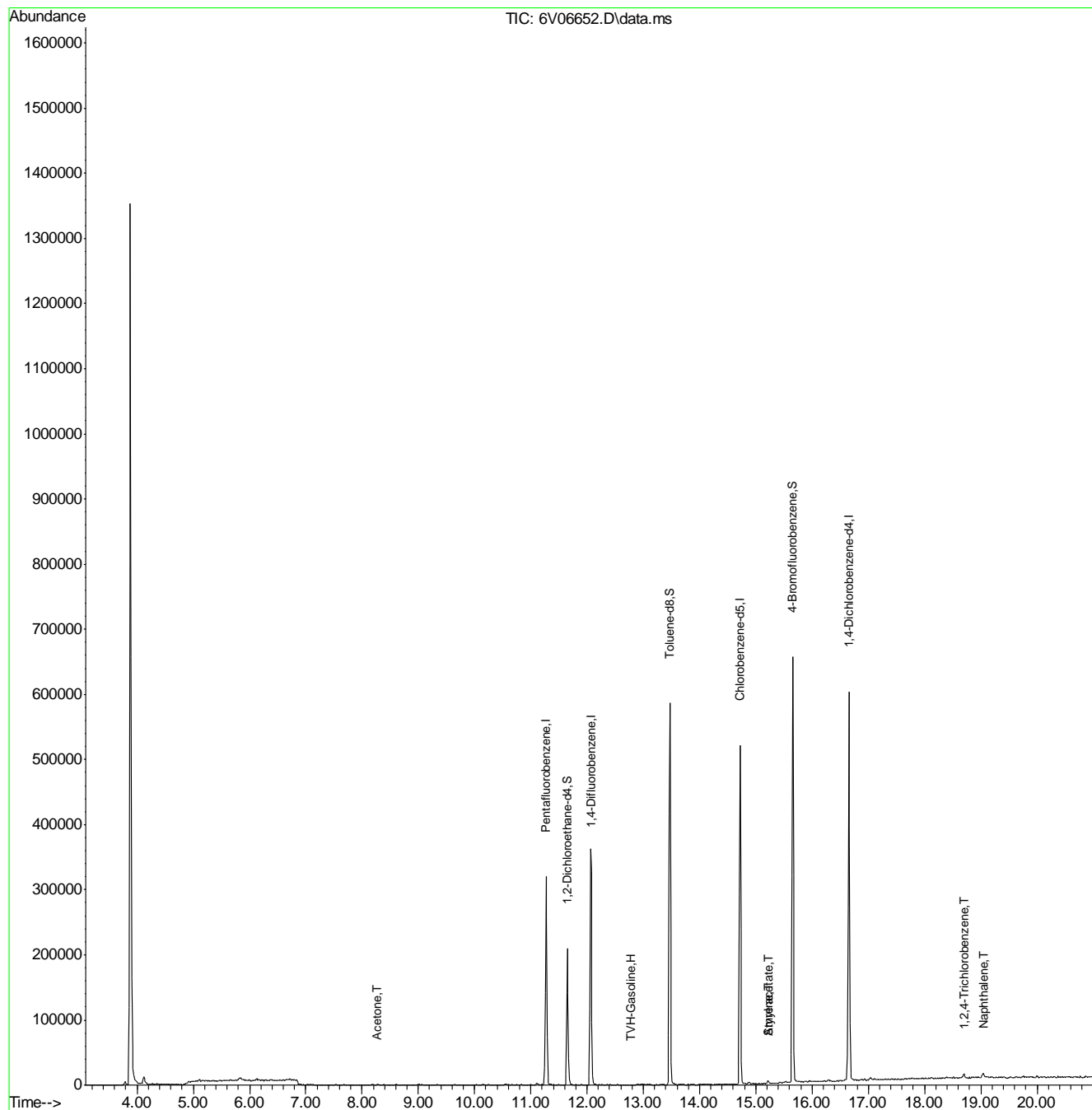
					Qvalue
1) TVH-Gasoline	12.776	TIC	70704m	36.54	ug/l
14) Acetone	8.269	58	224	3.21	ug/l # 80
52) Amyl acetate	15.218	70	343	0.74	ug/l # 81
60) Styrene	15.218	104	549	0.34	ug/l 83
71) 1,2,4-Trichlorobenzene	18.704	180	2154	0.52	ug/l 95
72) Naphthalene	19.048	128	5931	0.87	ug/l 100

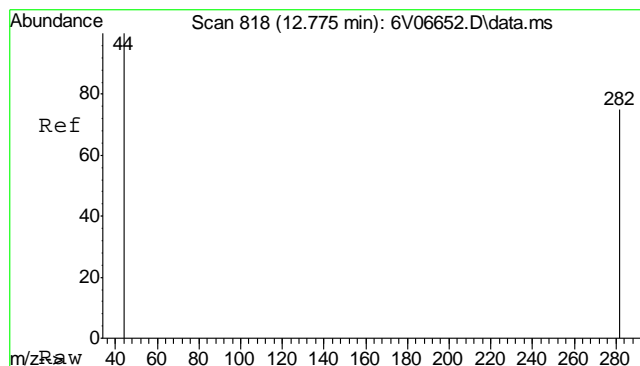
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6062011\
Data File : 6V06652.D
Acq On : 20 Jun 2011 12:44 pm
Operator : DONC
Sample : MB
Misc : MS2305,V6V342,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

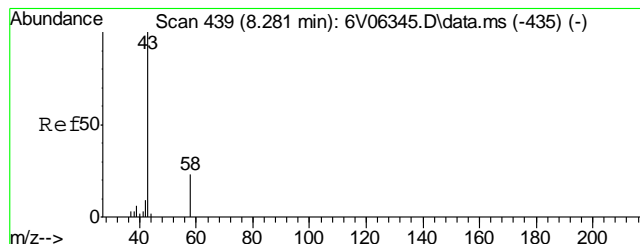
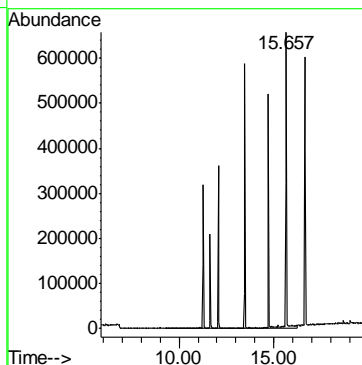
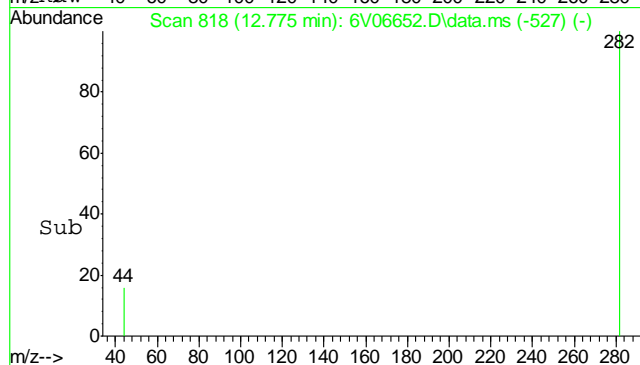
Quant Time: Jun 21 10:06:30 2011
Quant Method : C:\msdchem\1\METHODS\V6HSL337TVH337.M
Quant Title : 8260
QLast Update : Fri Jun 17 15:40:23 2011
Response via : Initial Calibration



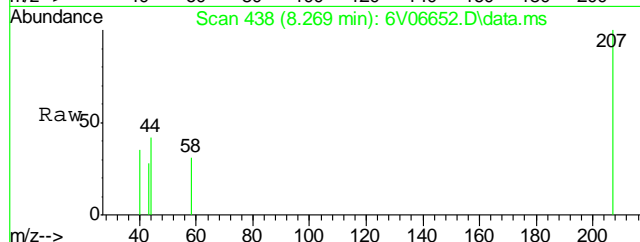


#1
TVH-Gasoline
Concen: 36.54 ug/l m
RT: 12.776 min Scan# 818
Delta R.T. 0.000 min
Lab File: 6V06652.D
Acq: 20 Jun 2011 12:44 pm

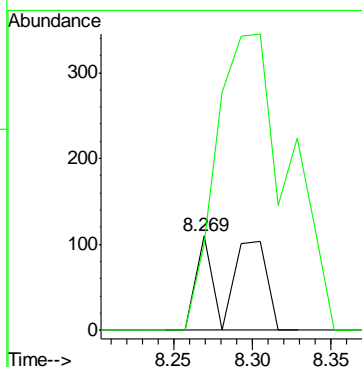
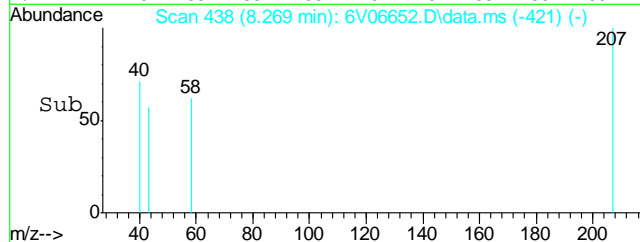
Tgt Ion:TIC Resp: 70704

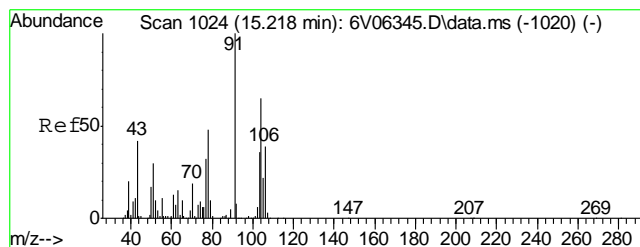


#14
Acetone
Concen: 3.21 ug/l
RT: 8.269 min Scan# 438
Delta R.T. 0.001 min
Lab File: 6V06652.D
Acq: 20 Jun 2011 12:44 pm



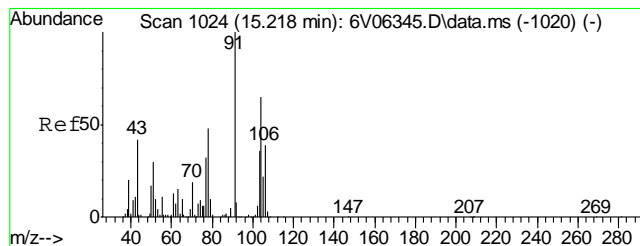
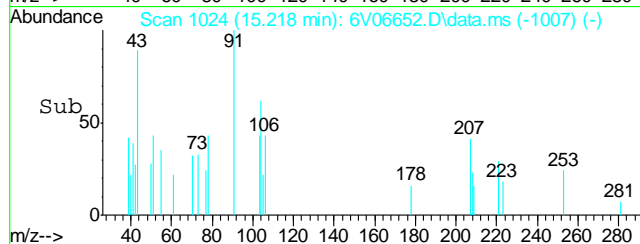
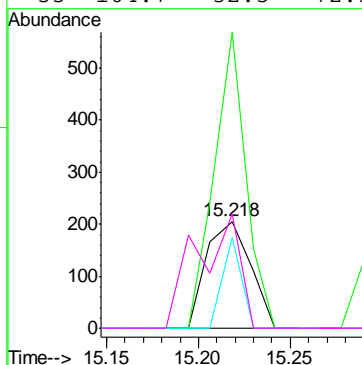
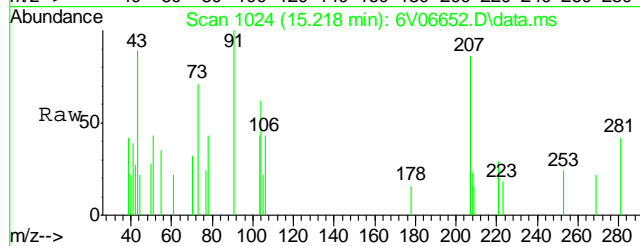
Tgt Ion: 58 Resp: 224
Ion Ratio Lower Upper
58 100
43 493.3 532.0 572.0#





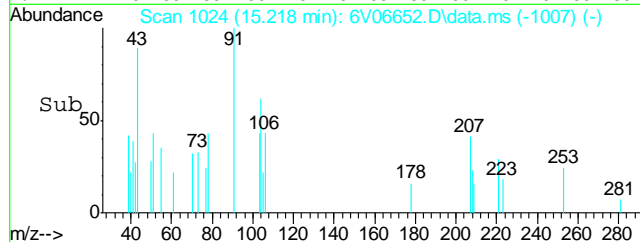
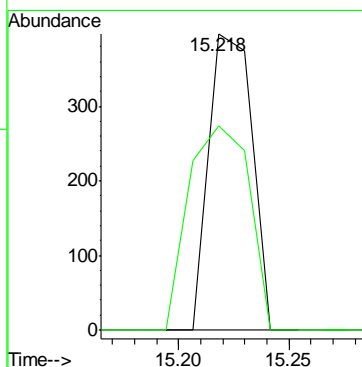
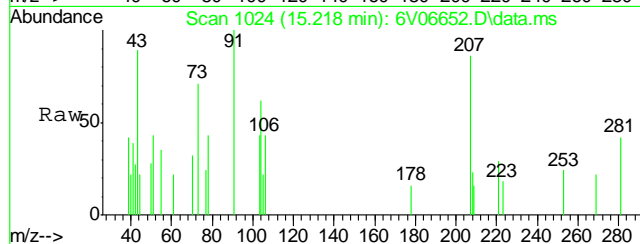
#52
Amyl acetate
Concen: 0.74 ug/l
RT: 15.218 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 6V06652.D
Acq: 20 Jun 2011 12:44 pm

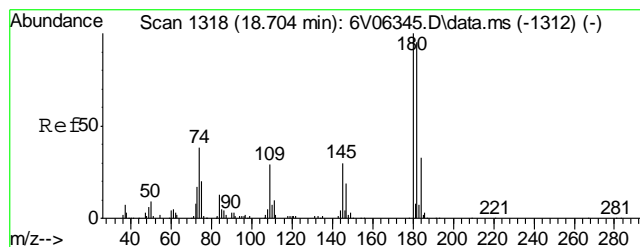
Tgt Ion: 70 Resp: 343
Ion Ratio Lower Upper
70 100
43 200.0 172.5 212.5
42 36.2 28.0 68.0
55 104.7 32.5 72.5#



#60
Styrene
Concen: 0.34 ug/l
RT: 15.218 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 6V06652.D
Acq: 20 Jun 2011 12:44 pm

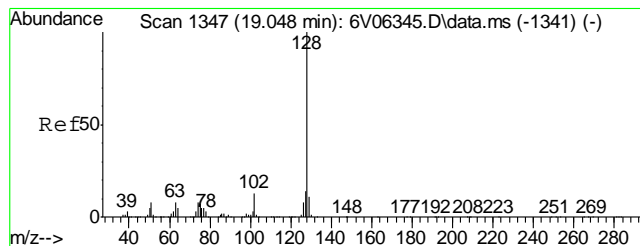
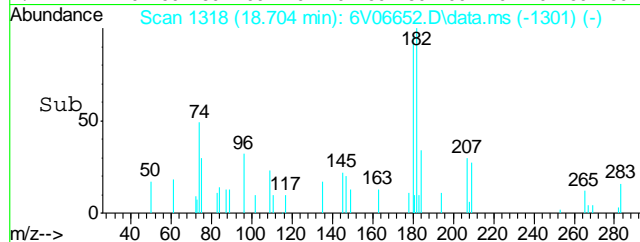
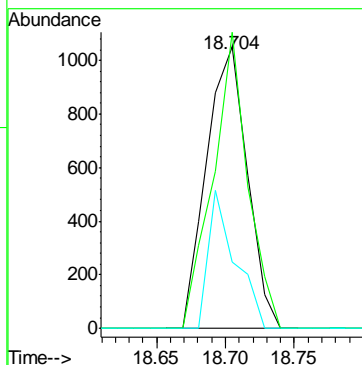
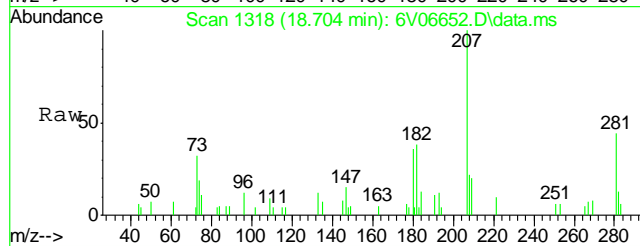
Tgt Ion: 104 Resp: 549
Ion Ratio Lower Upper
104 100
78 96.0 61.0 101.0





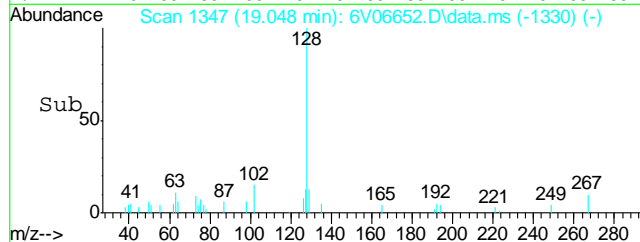
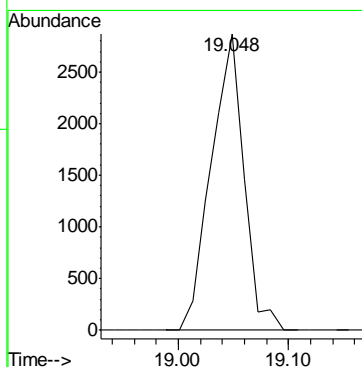
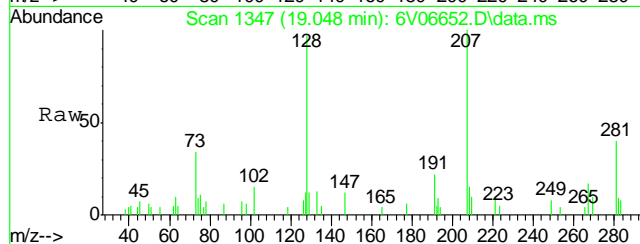
#71
1,2,4-Trichlorobenzene
Concen: 0.52 ug/l
RT: 18.704 min Scan# 1318
Delta R.T. 0.000 min
Lab File: 6V06652.D
Acq: 20 Jun 2011 12:44 pm

Tgt Ion:180	Resp:	2154
Ion Ratio	Lower	Upper
180	100	
182	89.9	76.2 114.2
145	31.8	24.2 36.2



#72
Naphthalene
Concen: 0.87 ug/l
RT: 19.048 min Scan# 1347
Delta R.T. 0.000 min
Lab File: 6V06652.D
Acq: 20 Jun 2011 12:44 pm

Tgt Ion:128 Resp: 5931



GC/MS 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: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3869-MB	3G04480.D	1	06/16/11	TMB	06/15/11	OP3869	E3G168

The QC reported here applies to the following samples:**Method:** SW846 8270C BY SIM

D24251-1, D24251-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	6.7	5.3	ug/kg	
120-12-7	Anthracene	ND	6.7	6.0	ug/kg	
56-55-3	Benzo(a)anthracene	ND	17	8.7	ug/kg	
50-32-8	Benzo(a)pyrene	ND	17	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	17	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	17	7.3	ug/kg	
218-01-9	Chrysene	ND	17	7.3	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	17	12	ug/kg	
206-44-0	Fluoranthene	ND	6.7	6.7	ug/kg	
86-73-7	Fluorene	ND	6.7	5.7	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	20	18	ug/kg	
91-20-3	Naphthalene	ND	6.7	6.3	ug/kg	
129-00-0	Pyrene	ND	6.7	6.3	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	79% 10-193%
321-60-8	2-Fluorobiphenyl	74% 20-138%
1718-51-0	Terphenyl-d14	105% 17-174%

Blank Spike Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3869-BS	3G04481.D	1	06/16/11	TMB	06/15/11	OP3869	E3G168

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D24251-1, D24251-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	83.3	60.3	72	40-136
120-12-7	Anthracene	83.3	66.3	80	40-141
56-55-3	Benzo(a)anthracene	83.3	63.4	76	38-143
50-32-8	Benzo(a)pyrene	83.3	67.5	81	39-145
205-99-2	Benzo(b)fluoranthene	83.3	72.3	87	38-151
207-08-9	Benzo(k)fluoranthene	83.3	65.3	78	38-147
218-01-9	Chrysene	83.3	64.6	78	39-137
53-70-3	Dibenzo(a,h)anthracene	83.3	58.1	70	35-139
206-44-0	Fluoranthene	83.3	63.4	76	34-132
86-73-7	Fluorene	83.3	63.8	77	41-136
193-39-5	Indeno(1,2,3-cd)pyrene	83.3	58.3	70	31-144
91-20-3	Naphthalene	83.3	60.3	72	36-130
129-00-0	Pyrene	83.3	72.8	87	29-157

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	76%	10-193%
321-60-8	2-Fluorobiphenyl	69%	20-138%
1718-51-0	Terphenyl-d14	96%	17-174%

7.2.1

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Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3869-MS ^a	3G04483.D	25	06/16/11	TMB	06/15/11	OP3869	E3G168
OP3869-MSD ^a	3G04484.D	25	06/16/11	TMB	06/15/11	OP3869	E3G168
D24345-1 ^a	3G04482.D	25	06/16/11	TMB	06/15/11	OP3869	E3G168

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D24251-1, D24251-2

CAS No.	Compound	D24345-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	20-151/30
120-12-7	Anthracene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	25-149/30
56-55-3	Benzo(a)anthracene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	22-157/30
50-32-8	Benzo(a)pyrene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	23-153/30
205-99-2	Benzo(b)fluoranthene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	22-161/30
207-08-9	Benzo(k)fluoranthene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	17-161/30
218-01-9	Chrysene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	16-159/30
53-70-3	Dibenzo(a,h)anthracene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	21-154/30
206-44-0	Fluoranthene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	16-140/30
86-73-7	Fluorene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	15-153/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	21-159/30
91-20-3	Naphthalene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	10-176/30
129-00-0	Pyrene	ND		99.7	ND	0* ^b	ND	0* ^b	nc	10-200/30

CAS No.	Surrogate Recoveries	MS	MSD	D24345-1	Limits
4165-60-0	Nitrobenzene-d5	43%	50%	47%	10-193%
321-60-8	2-Fluorobiphenyl	51%	58%	56%	20-138%
1718-51-0	Terphenyl-d14	63%	71%	71%	17-174%

(a) Dilution required due to matrix interference; extract was viscous.

(b) Outside control limits due to dilution.

GC/MS Semi-volatiles

Raw Data

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\061611\
 Data File : 3g04499.D
 Acq On : 16 Jun 2011 11:35 pm
 Operator : TamiB
 Sample : D24251-1
 Misc : OP3869,E3G168,30.06,,,1,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 17 09:34:18 2011
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G161.M
 Quant Title : PAHSIM BASE
 QLast Update : Wed Jun 08 15:32:22 2011
 Response via : Initial Calibration

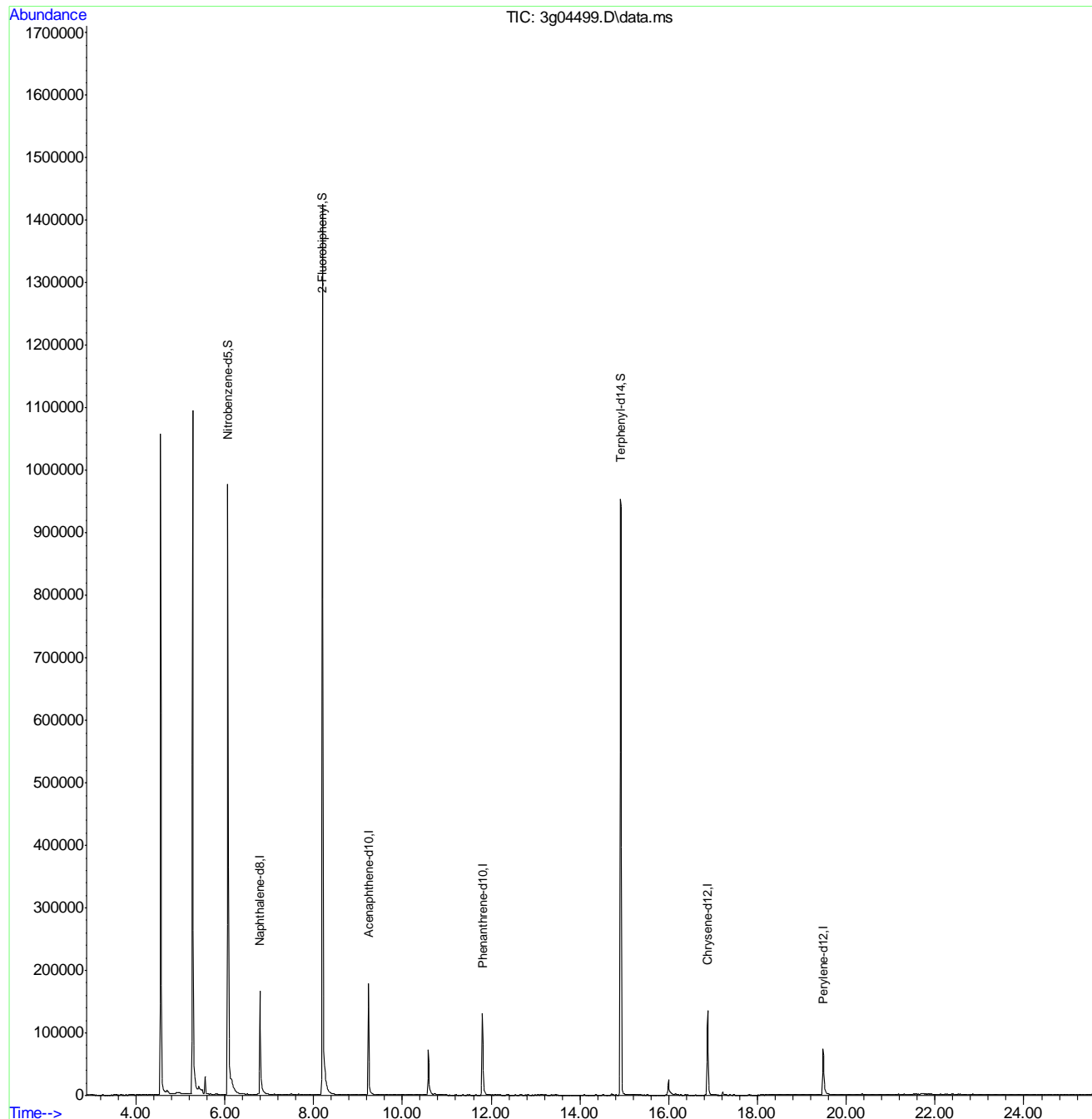
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	6.793	136	218581	4.00	ug/mL	-0.01
6) Acenaphthene-d10	9.239	164	123237	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.807	188	188057	4.00	ug/mL	0.00
18) Chrysene-d12	16.875	240	165665	4.00	ug/mL	0.00
23) Perylene-d12	19.477	264	117571	4.00	ug/mL	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	6.069	82	711519	24.89	ug/mL	0.00
7) 2-Fluorobiphenyl	8.199	172	1465947	23.76	ug/mL	0.00
20) Terphenyl-d14	14.925	244	1212035	37.80	ug/mL	0.00
Target Compounds						
						Qvalue
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	0.000		0	N.D.	d	
8) 2-Methylnaphthalene	0.000		0	N.D.	d	
9) 1-Methylnaphthalene	0.000		0	N.D.	d	
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	0.000		0	N.D.	d	
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	0.000		0	N.D.	d	
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	0.000		0	N.D.	d	
22) Chrysene	0.000		0	N.D.	d	
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

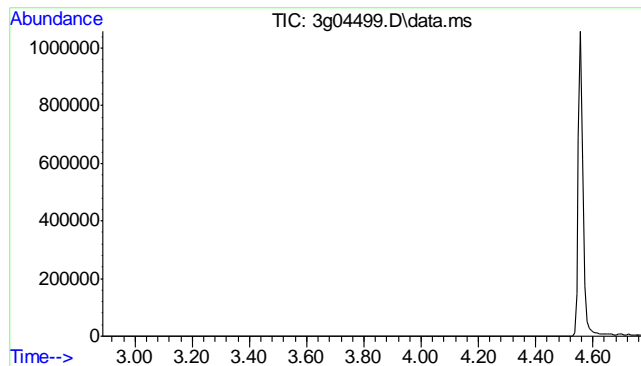
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\061611\
 Data File : 3g04499.D
 Acq On : 16 Jun 2011 11:35 pm
 Operator : TamiB
 Sample : D24251-1
 Misc : OP3869,E3G168,30.06,,,1,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 17 09:34:18 2011
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G161.M
 Quant Title : PAHSIM BASE
 QLast Update : Wed Jun 08 15:32:22 2011
 Response via : Initial Calibration

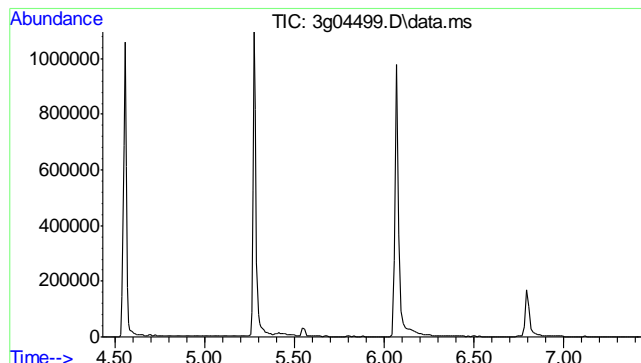
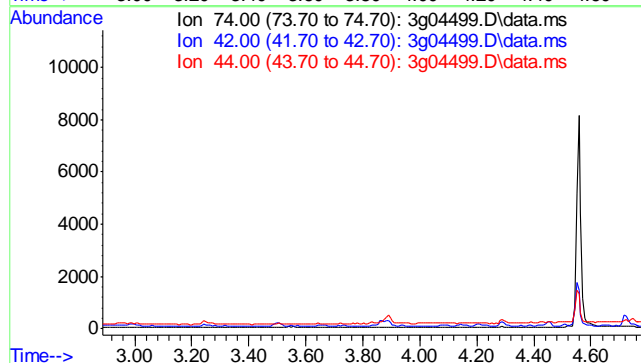




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 3.27 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

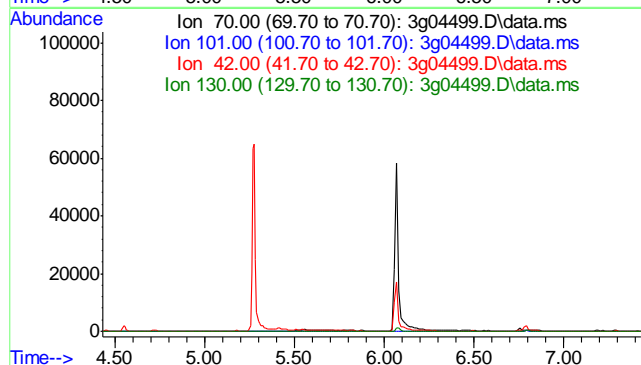
Tgt Ion:	74
Sig	Exp Ratio
74	100
42	44.2
44	3.0

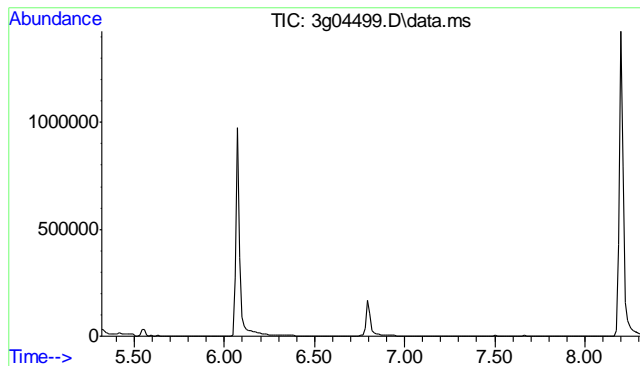


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.93 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

Tgt Ion:	70
Sig	Exp Ratio
70	100
101	12.6
42	38.3
130	24.2

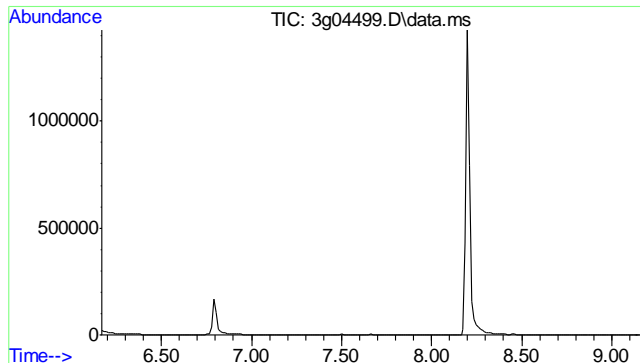
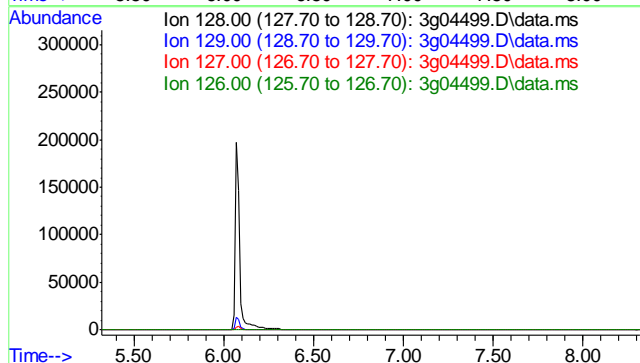




#5
Naphthalene
Concen: N.D. ug/mL
Expected RT: 6.82 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

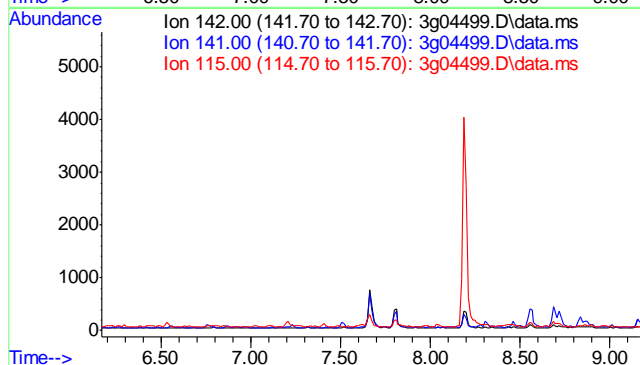
Tgt Ion:	128
Sig	Exp Ratio
128	100
129	11.0
127	12.3
126	7.0

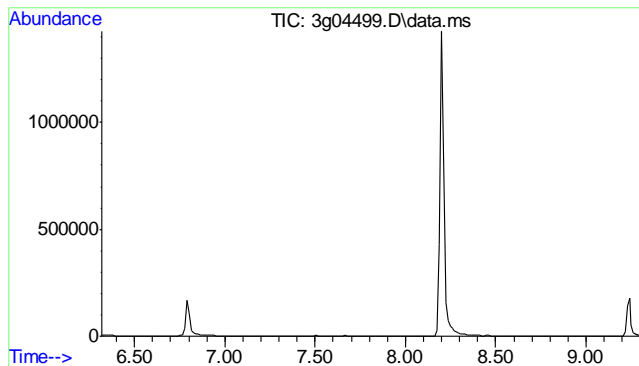


#8
2-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.67 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

Tgt Ion:	142
Sig	Exp Ratio
142	100
141	83.3
115	32.4

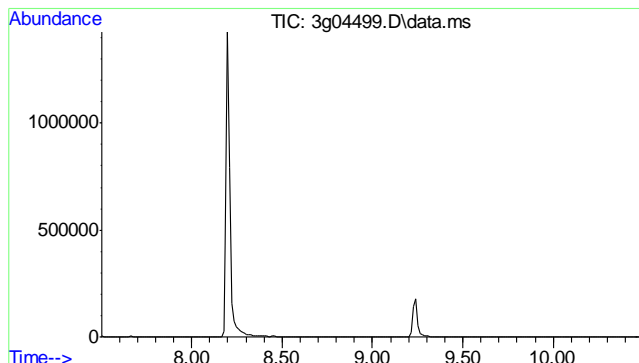
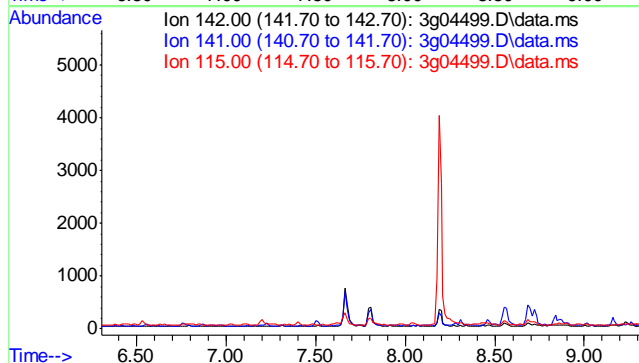




#9
1-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.81 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

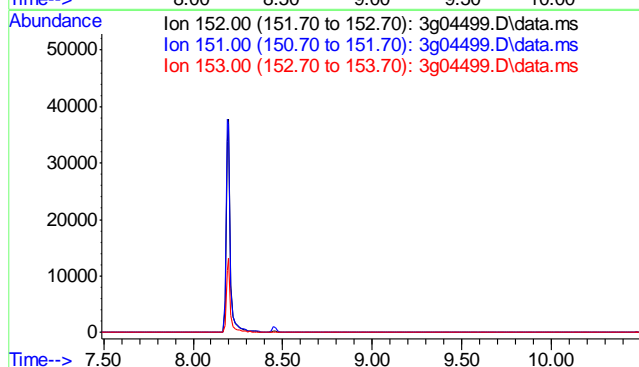
Tgt Ion	Exp Ratio
142	100
141	86.3
115	34.3



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.99 min

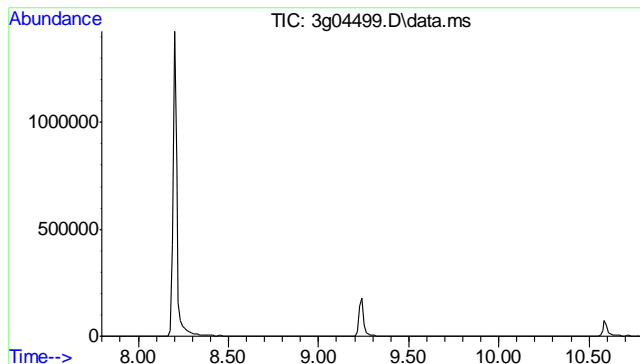
Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
152	100
151	18.9
153	12.9



8.1.1

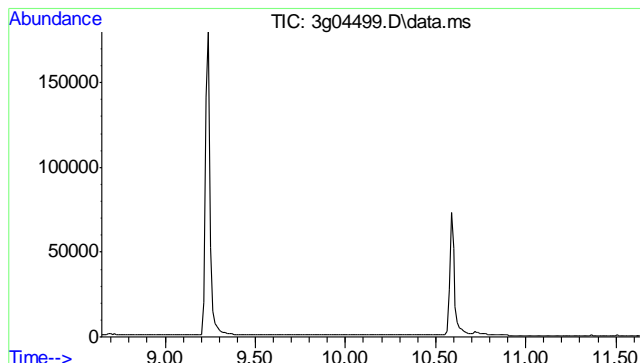
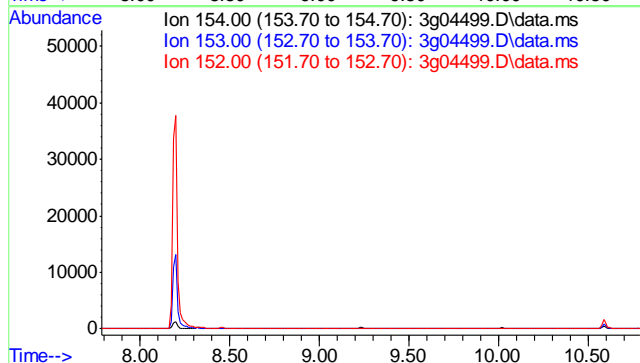
8



#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 9.29 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

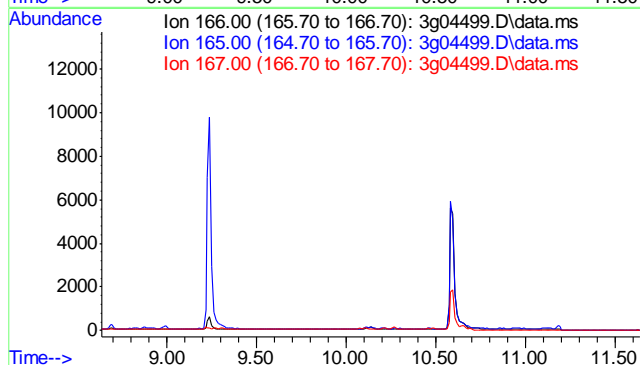
Tgt Ion	Exp Ratio
154	100
153	112.5
152	52.9

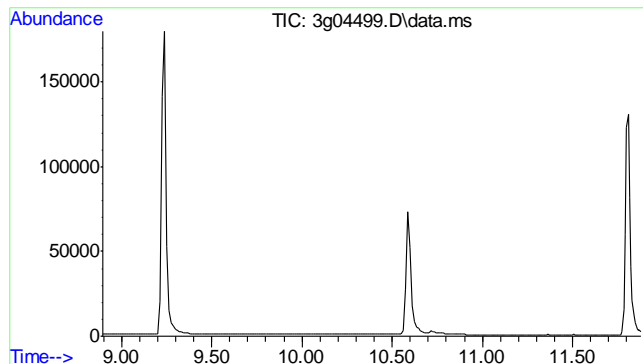


#12
Fluorene
Concen: N.D. ug/mL
Expected RT: 10.14 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
166	100
165	90.5
167	13.4

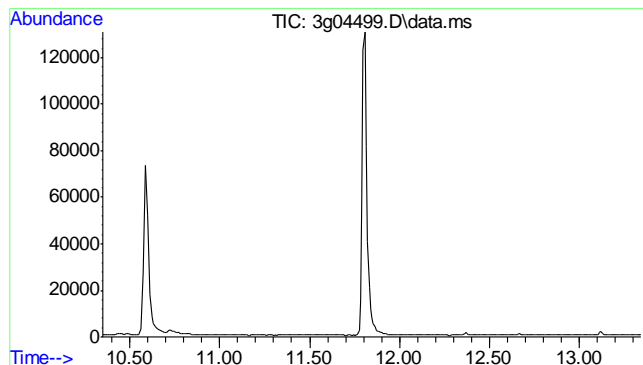
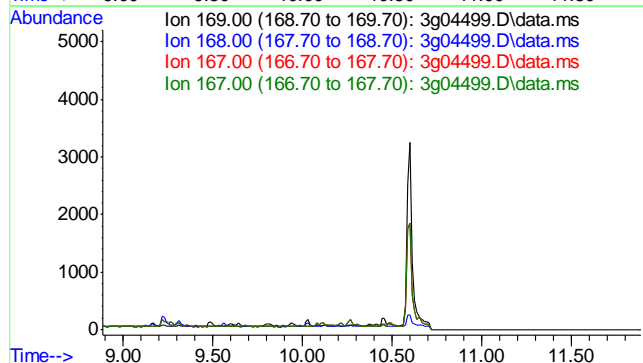




#13
 Diphenylamine
 Concen: N.D. ug/mL
 Expected RT: 10.39 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

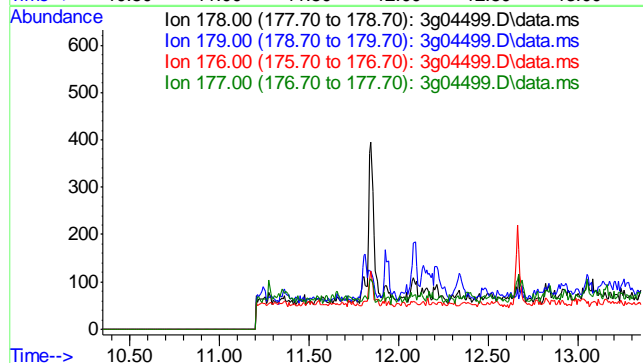
Tgt Ion	Sig	Exp Ratio
169	100	
168	61.3	
167	32.9	
167	32.9	

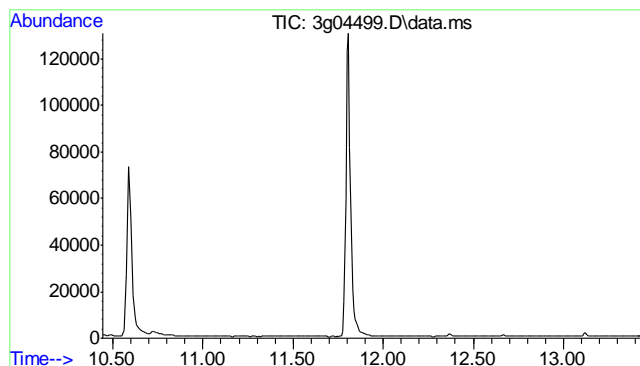


#15
 Phenanthrene
 Concen: N.D. ug/mL
 Expected RT: 11.85 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

Tgt Ion	Sig	Exp Ratio
178	100	
179	15.2	
176	18.1	
177	10.1	

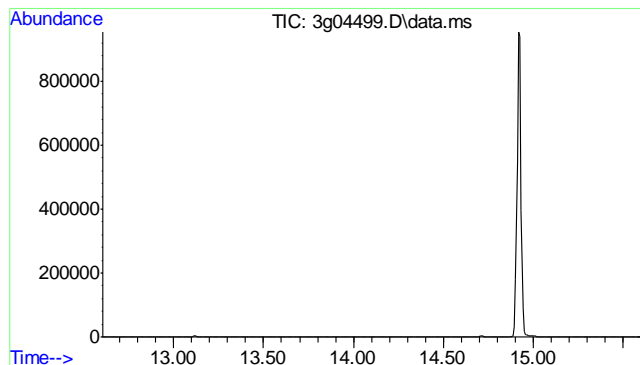
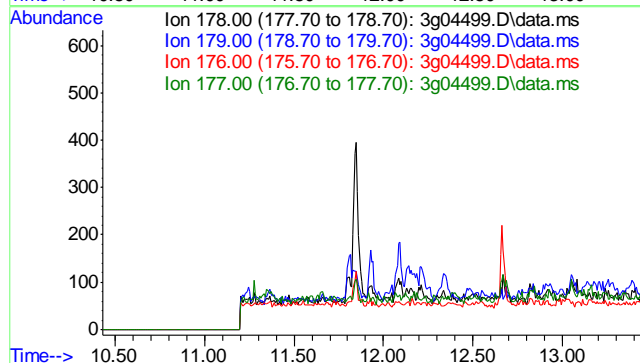




#16
 Anthracene
 Concen: N.D. ug/mL
 Expected RT: 11.93 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

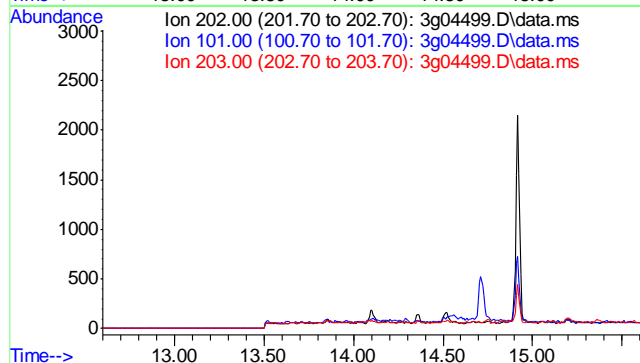
Tgt Ion	Exp Ratio
178	100
179	15.2
176	17.5
177	8.4

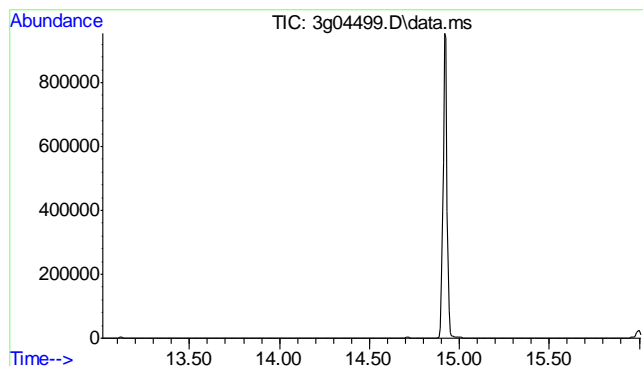


#17
 Fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 14.10 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
202	100
101	16.8
203	17.2

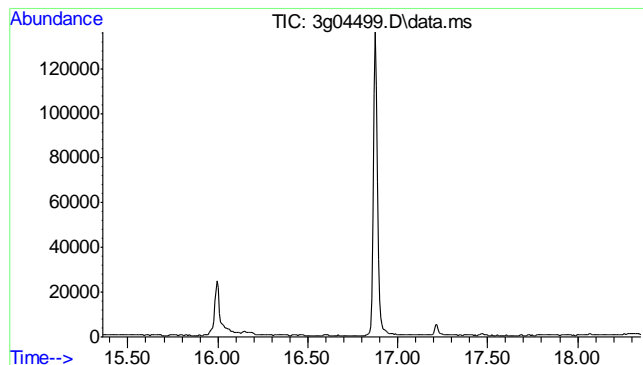
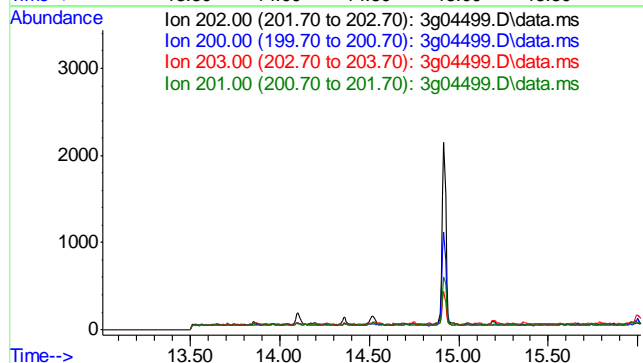




#19
 Pyrene
 Concen: N.D. ug/mL
 Expected RT: 14.51 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

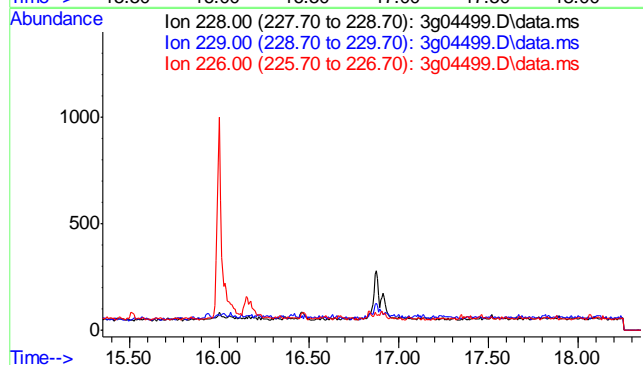
Tgt Ion	Exp Ratio
202	100
200	19.7
203	17.8
201	16.4

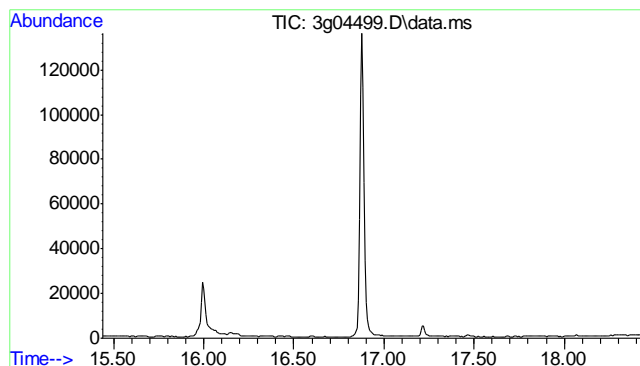


#21
 Benzo(a)anthracene
 Concen: N.D. ug/mL
 Expected RT: 16.86 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
228	100
229	19.5
226	25.4

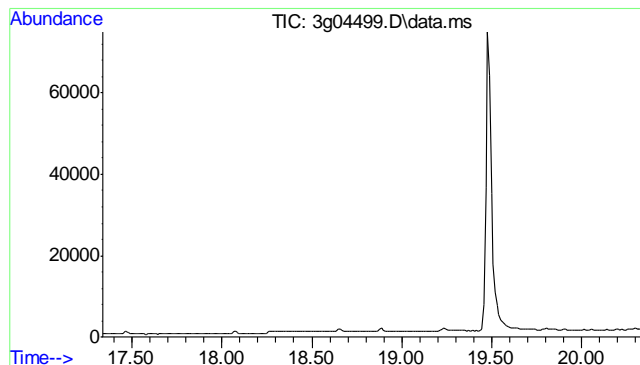
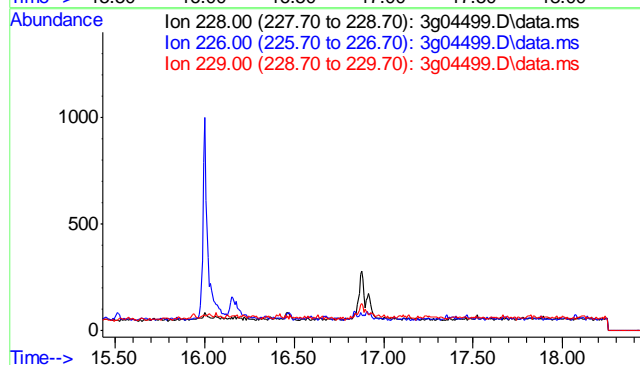




#22
 Chrysene
 Concen: N.D. ug/mL
 Expected RT: 16.93 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

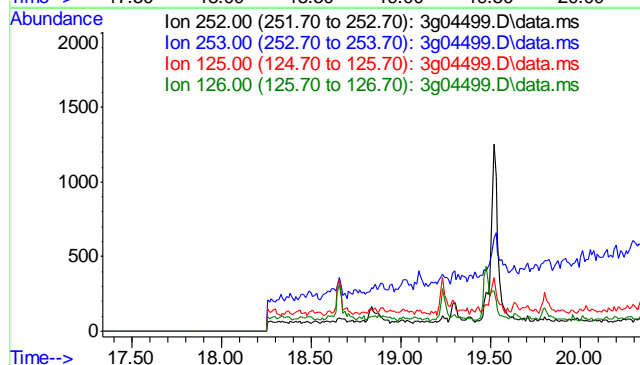
Tgt Ion	Exp Ratio
228	100
226	27.8
229	19.2

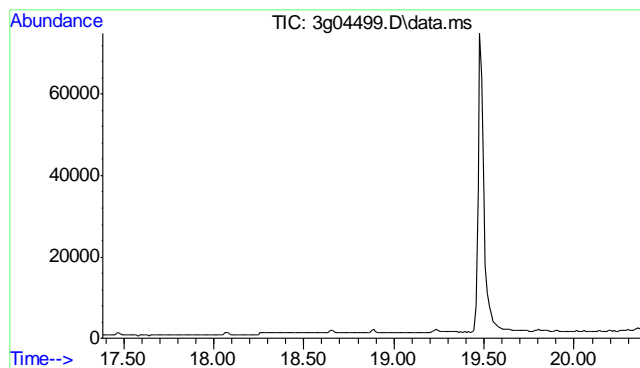


#24
 Benzo(b)fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 18.84 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
252	100
253	21.8
125	13.0
126	16.1

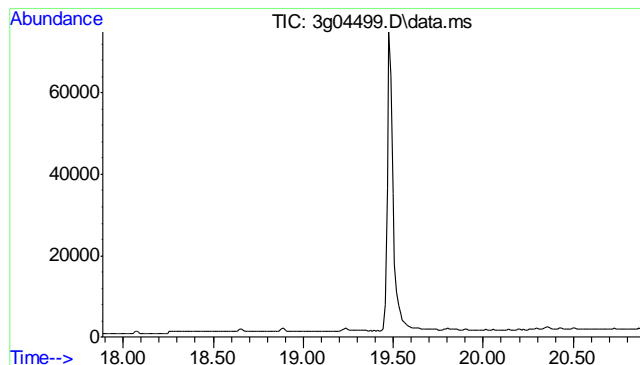
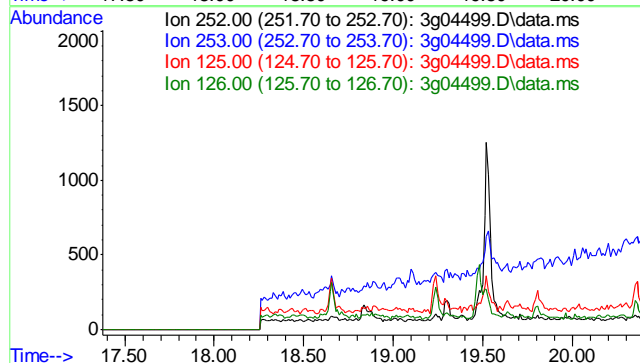




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.88 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

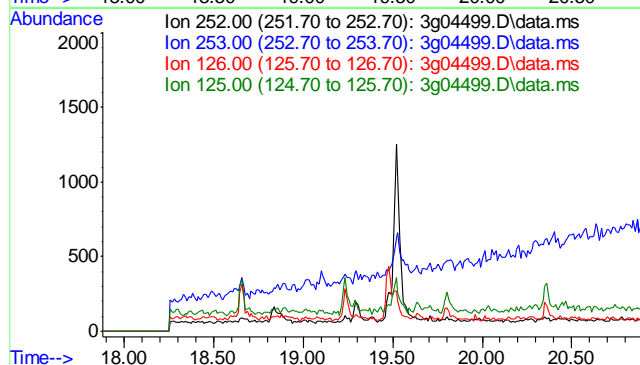
Tgt Ion	Exp Ratio
252	100
253	21.3
125	11.2
126	15.8

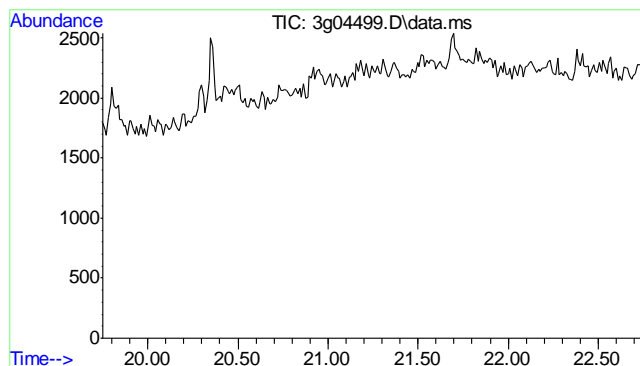


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.38 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
252	100
253	20.9
126	15.3
125	13.3

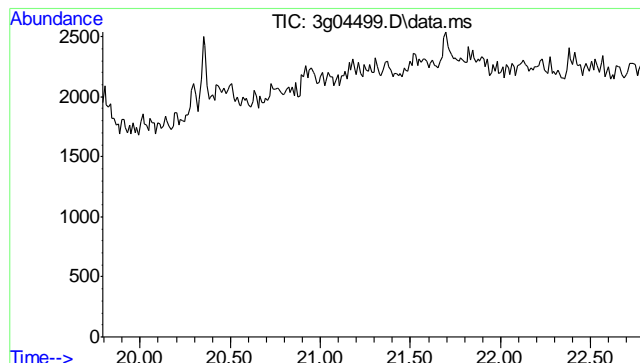
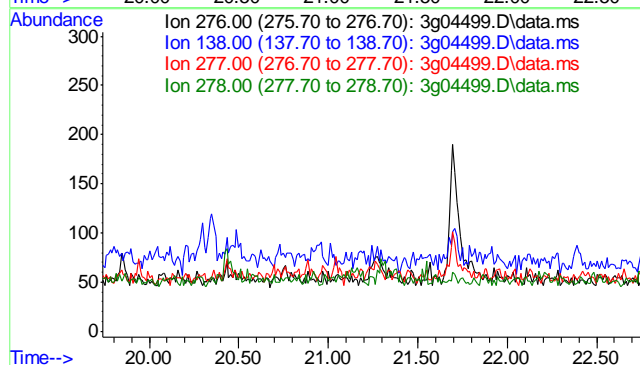




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 21.24 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

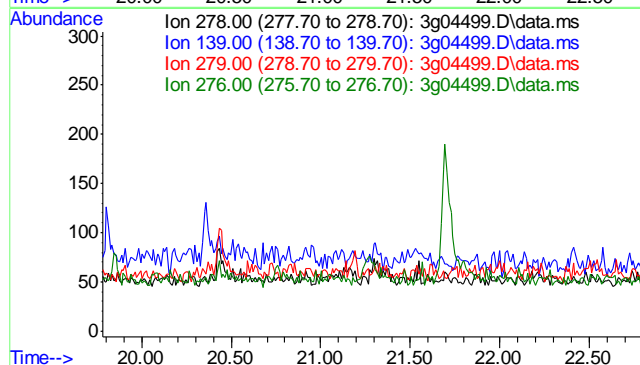
Tgt Ion	Exp Ratio
276	100
138	21.1
277	34.0
278	111.5

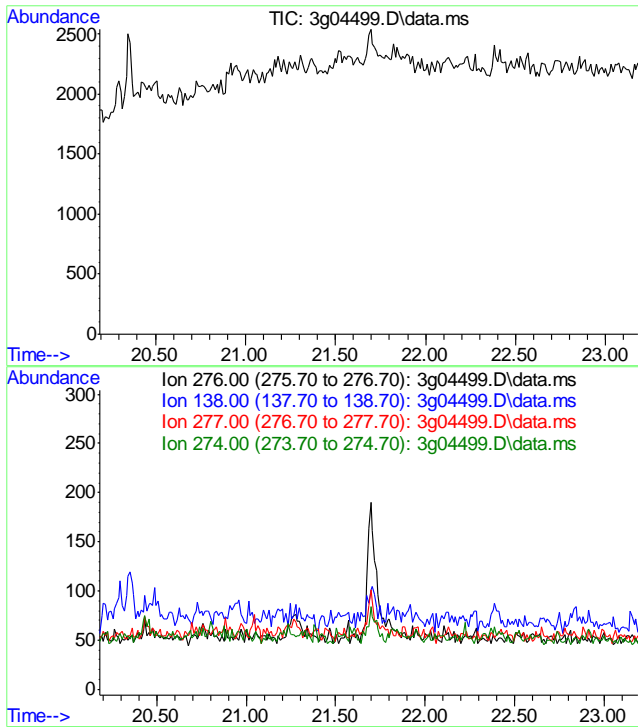


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 21.29 min

 Lab File: 3g04499.D
 Acq: 16 Jun 11 11:35 pm

Tgt Ion	Exp Ratio
278	100
139	17.5
279	23.3
276	122.1





#29
Benzo(g,h,i)perylene
Concen: N.D. ug/mL
Expected RT: 21.69 min

Lab File: 3g04499.D
Acq: 16 Jun 11 11:35 pm

Tgt Ion: 276

Sig	Exp Ratio
276	100
138	22.1
277	23.6
274	20.3

8.1.1

8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\061611\
 Data File : 3g04500.D
 Acq On : 17 Jun 2011 12:14 am
 Operator : TamiB
 Sample : D24251-2
 Misc : OP3869,E3G168,30.07,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 17 09:34:47 2011
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G161.M
 Quant Title : PAHSIM BASE
 QLast Update : Wed Jun 08 15:32:22 2011
 Response via : Initial Calibration

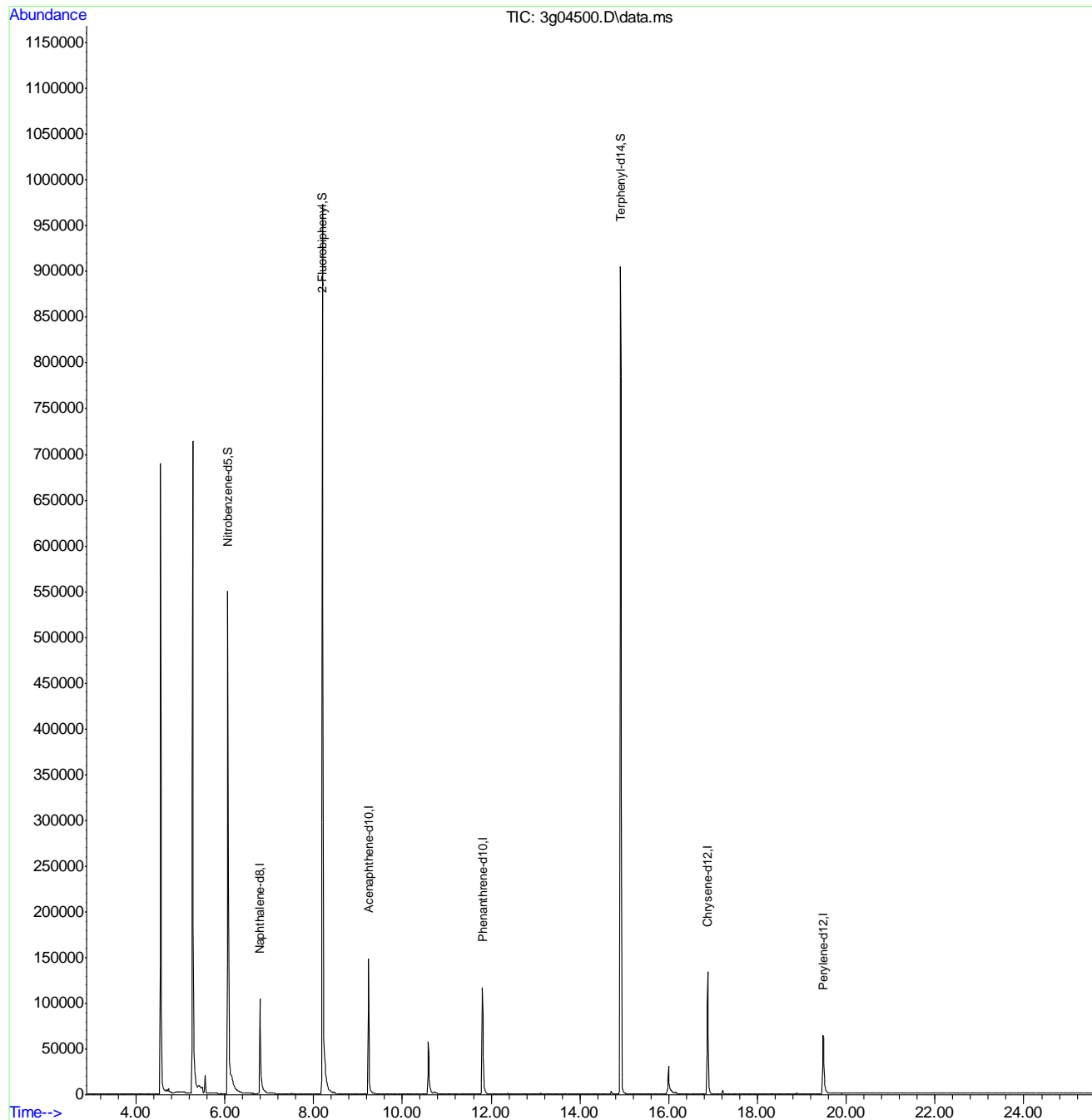
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	6.793	136	152368	4.00	ug/mL	-0.01
6) Acenaphthene-d10	9.239	164	95144	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.807	188	172053	4.00	ug/mL	0.00
18) Chrysene-d12	16.875	240	156840	4.00	ug/mL	0.00
23) Perylene-d12	19.477	264	111702	4.00	ug/mL	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	6.069	82	441483	22.16	ug/mL	0.00
7) 2-Fluorobiphenyl	8.200	172	1037743	21.78	ug/mL	0.00
20) Terphenyl-d14	14.917	244	1108052	36.50	ug/mL	0.00
Target Compounds						
						Qvalue
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	0.000		0	N.D.	d	
8) 2-Methylnaphthalene	0.000		0	N.D.	d	
9) 1-Methylnaphthalene	0.000		0	N.D.	d	
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	0.000		0	N.D.	d	
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	0.000		0	N.D.	d	
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	0.000		0	N.D.	d	
22) Chrysene	0.000		0	N.D.	d	
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

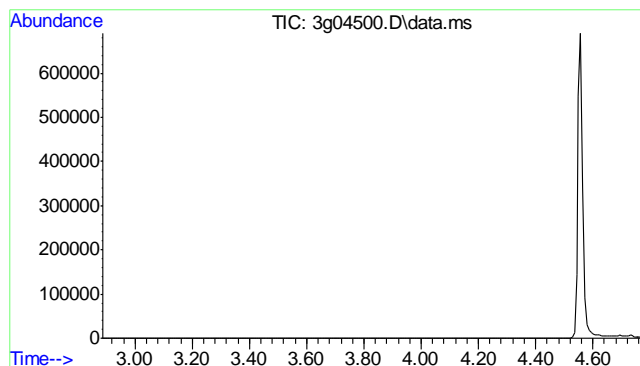
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\061611\
Data File : 3g04500.D
Acq On : 17 Jun 2011 12:14 am
Operator : TamiB
Sample : D24251-2
Misc : OP3869,E3G168,30.07,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 17 09:34:47 2011
Quant Method : C:\msdchem\1\METHODS\SIMPE3G161.M
Quant Title : PAHSIM BASE
QLast Update : Wed Jun 08 15:32:22 2011
Response via : Initial Calibration

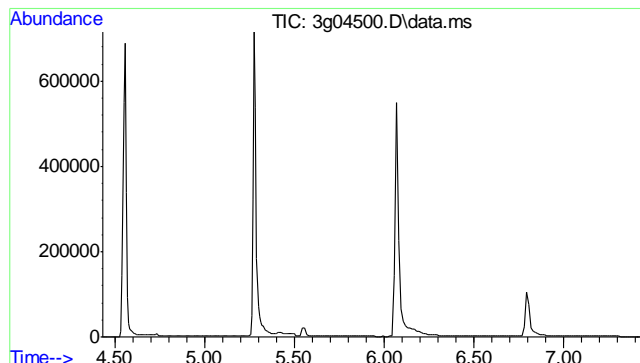
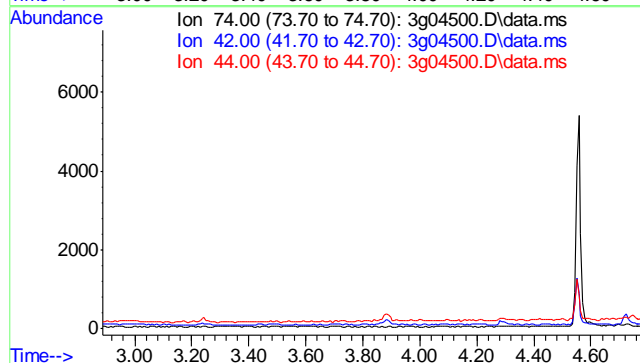




#3
 N-Nitrosodimethylamine
 Concen: N.D. ug/mL
 Expected RT: 3.27 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

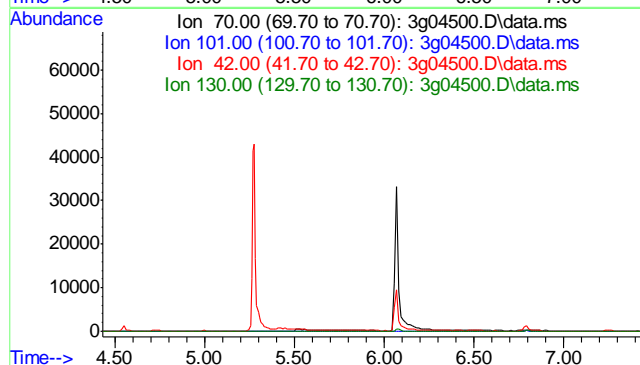
Tgt Ion	Exp Ratio
74	100
42	44.2
44	3.0

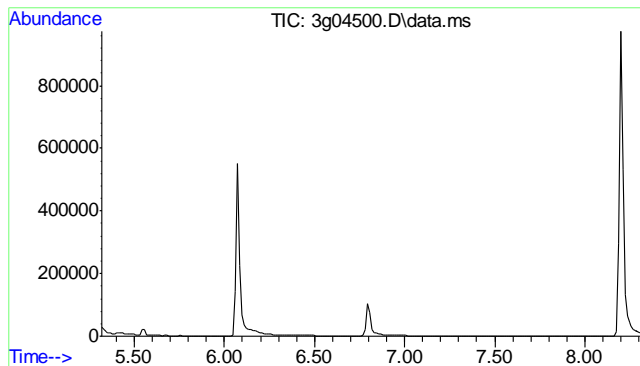


#4
 N-Nitrosodi-propylamine
 Concen: N.D. ug/mL
 Expected RT: 5.93 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
70	100
101	12.6
42	38.3
130	24.2

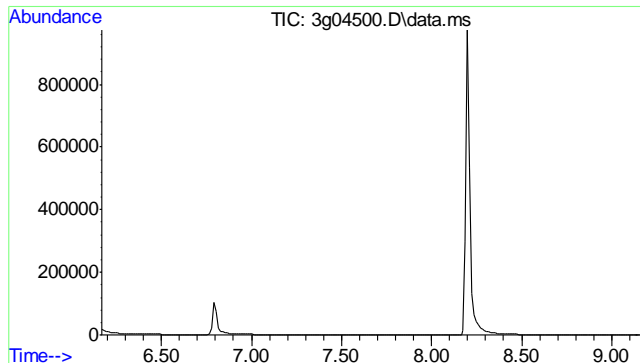
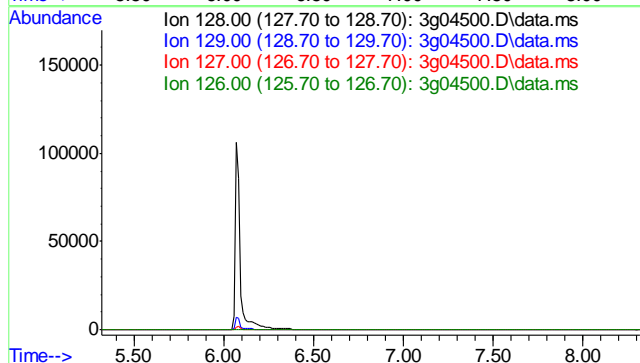




#5
Naphthalene
Concen: N.D. ug/mL
Expected RT: 6.82 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

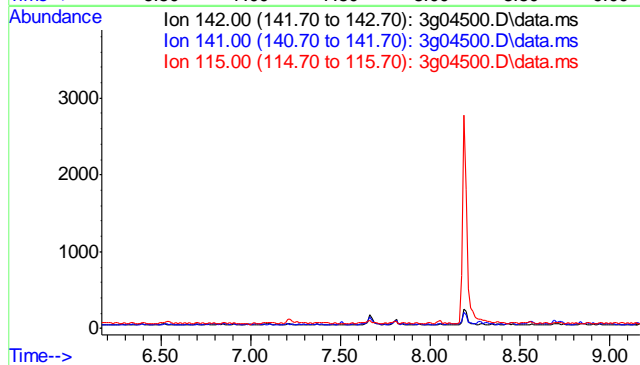
Tgt Ion:	128
Sig	Exp Ratio
128	100
129	11.0
127	12.3
126	7.0

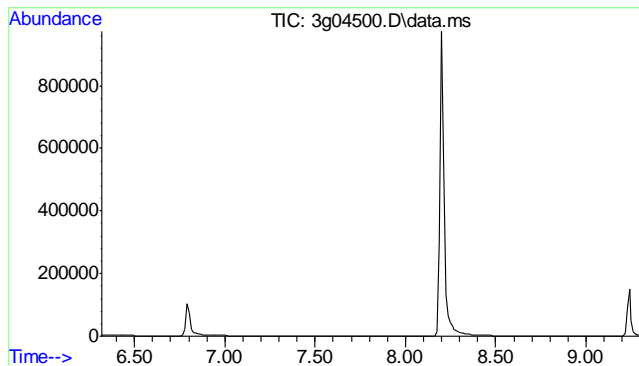


#8
2-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.67 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

Tgt Ion:	142
Sig	Exp Ratio
142	100
141	83.3
115	32.4

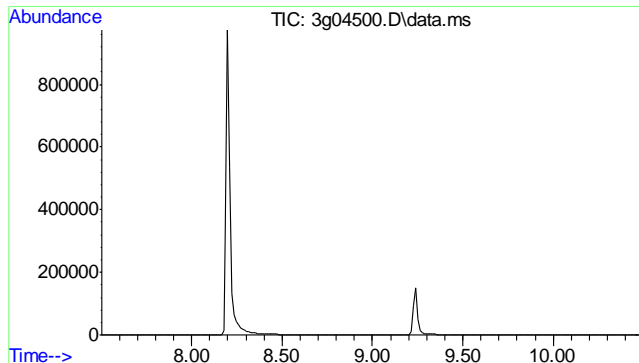
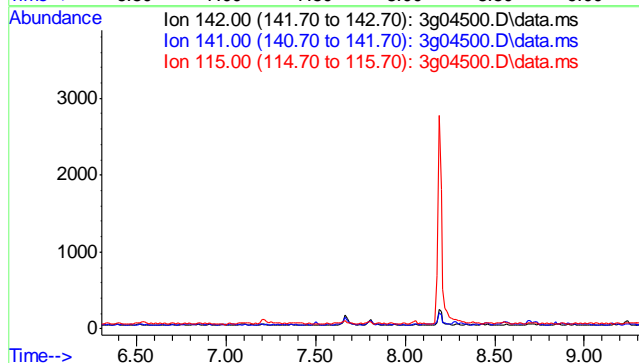




#9
1-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.81 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

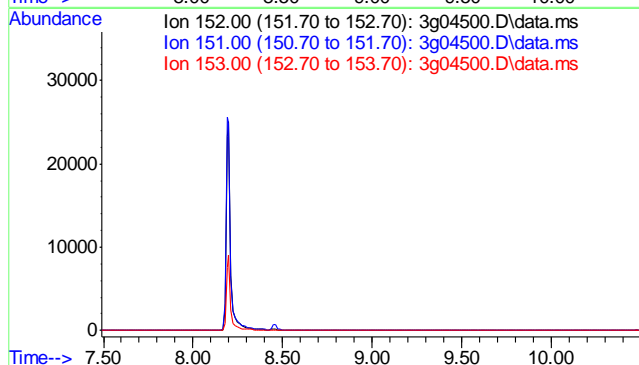
Tgt Ion: 142
Sig Exp Ratio
142 100
141 86.3
115 34.3

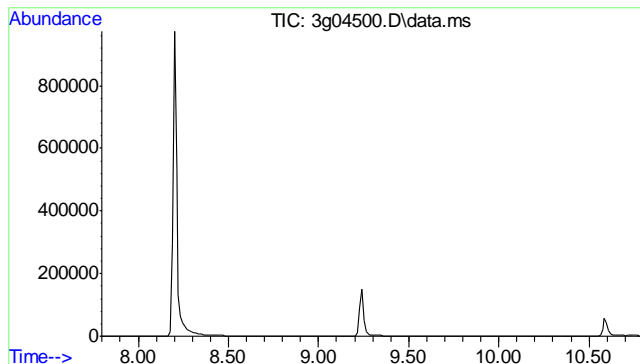


#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.99 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

Tgt Ion: 152
Sig Exp Ratio
152 100
151 18.9
153 12.9

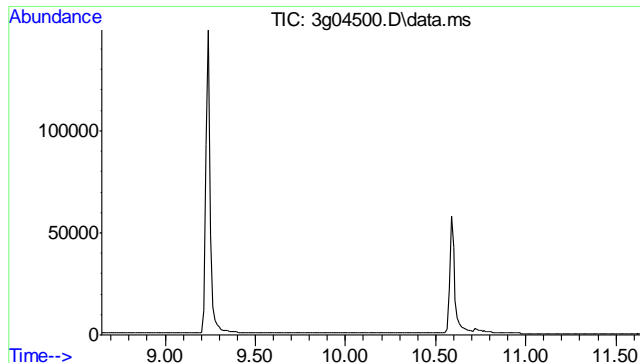
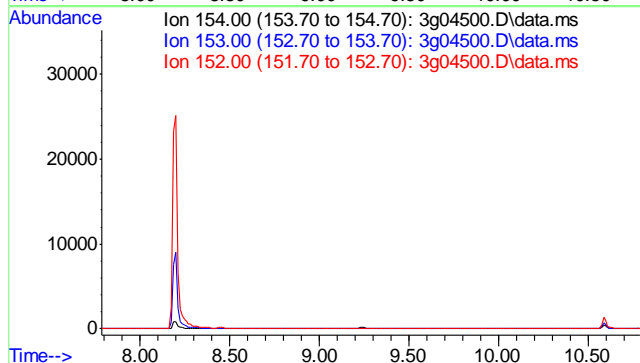




#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 9.29 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

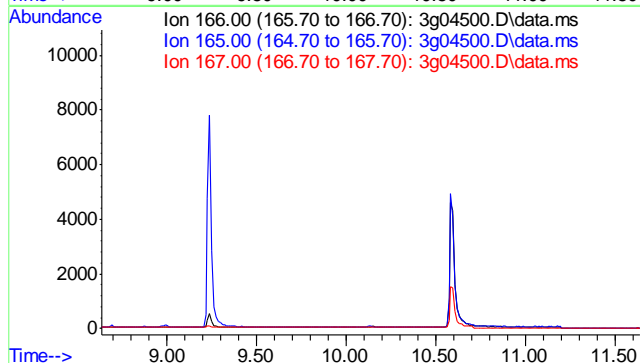
Tgt Ion	Exp Ratio
154	100
153	112.5
152	52.9

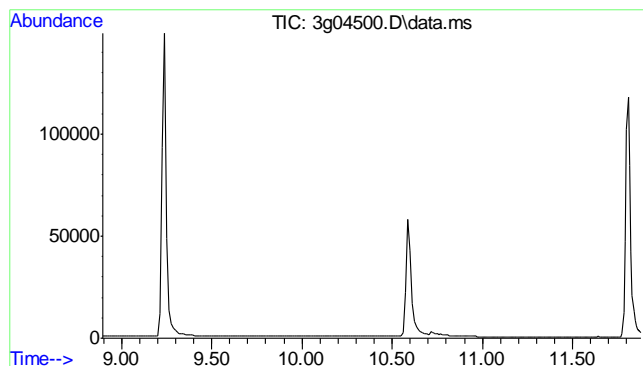


#12
Fluorene
Concen: N.D. ug/mL
Expected RT: 10.14 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
166	100
165	90.5
167	13.4

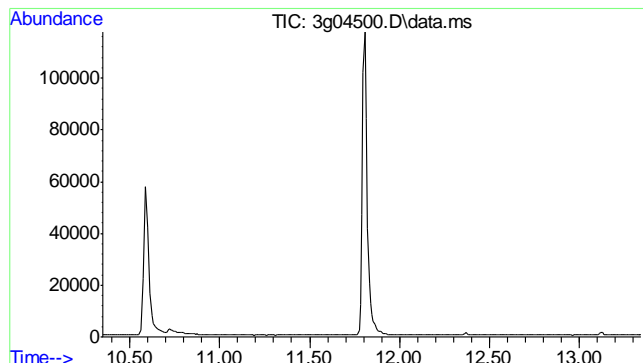
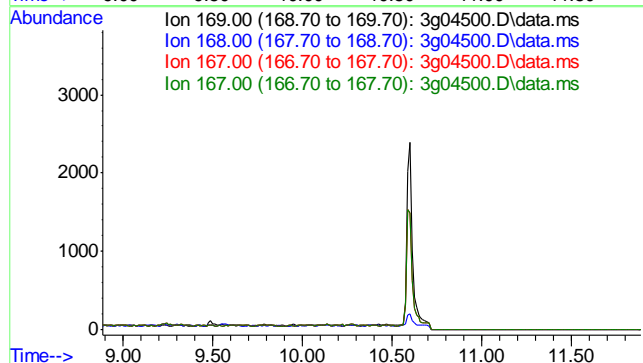




#13
 Diphenylamine
 Concen: N.D. ug/mL
 Expected RT: 10.39 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

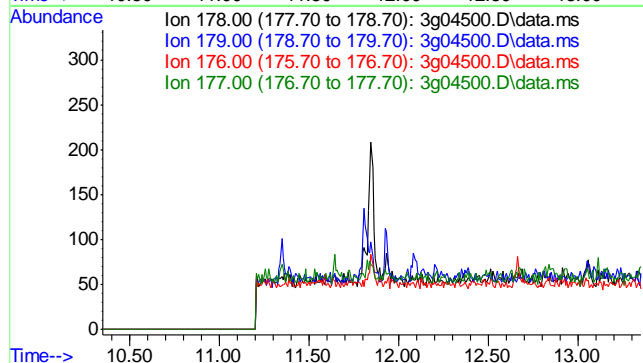
Tgt Ion	Exp Ratio
169	100
168	61.3
167	32.9
167	32.9

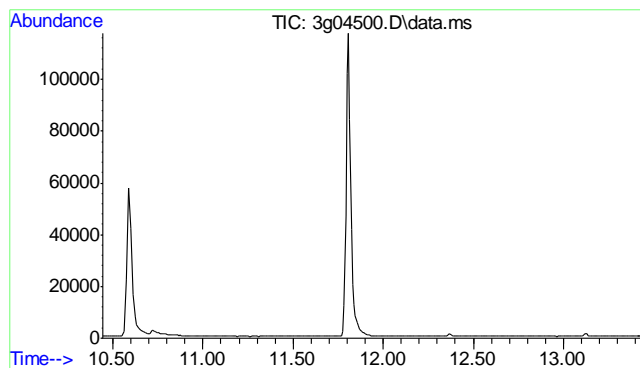


#15
 Phenanthrene
 Concen: N.D. ug/mL
 Expected RT: 11.85 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
178	100
179	15.2
176	18.1
177	10.1

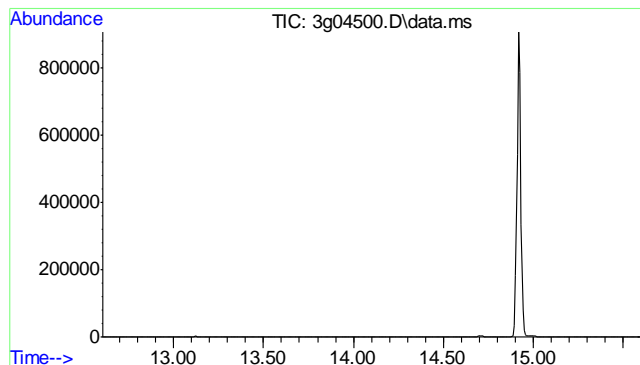
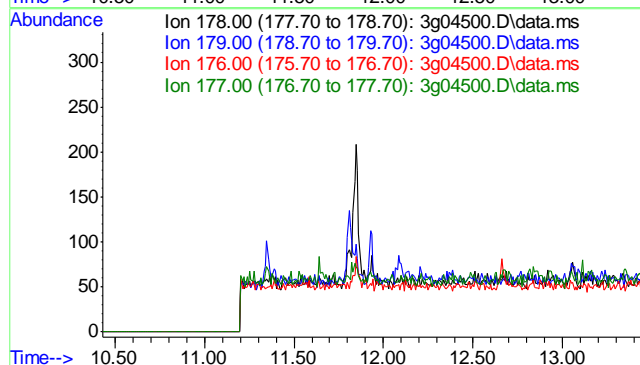




#16
 Anthracene
 Concen: N.D. ug/mL
 Expected RT: 11.93 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

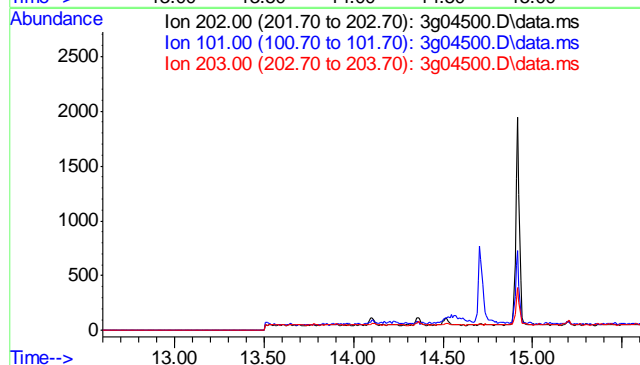
Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.2
176	17.5
177	8.4

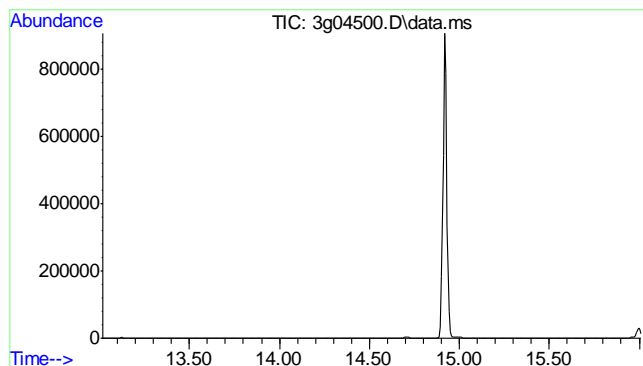


#17
 Fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 14.10 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion:	202
Sig	Exp Ratio
202	100
101	16.8
203	17.2

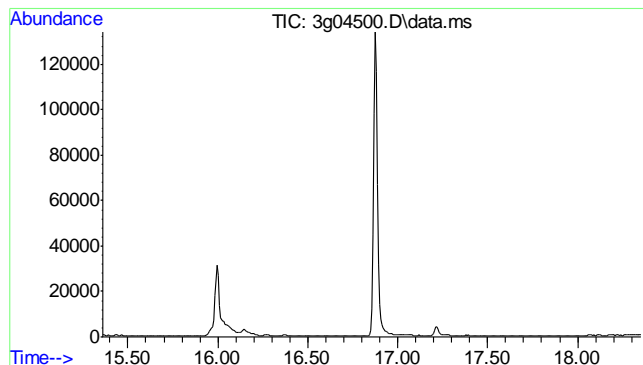
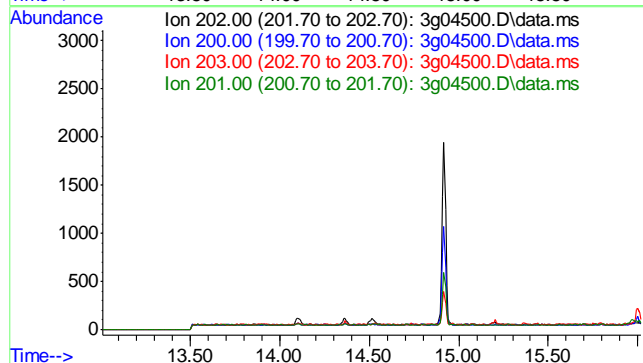




#19
 Pyrene
 Concen: N.D. ug/mL
 Expected RT: 14.51 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

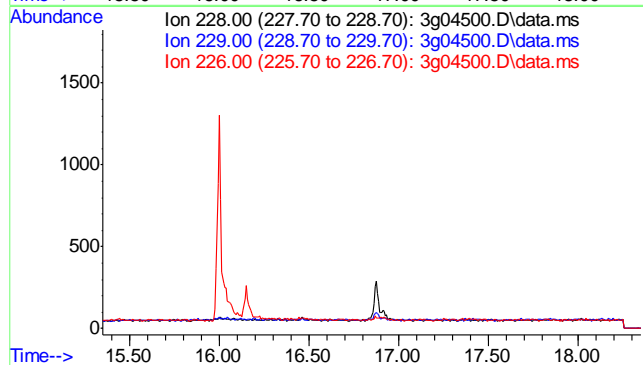
Tgt Ion	Exp Ratio
202	100
200	19.7
203	17.8
201	16.4

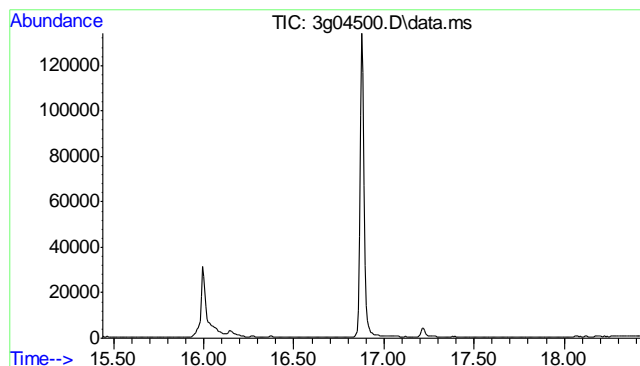


#21
 Benzo(a)anthracene
 Concen: N.D. ug/mL
 Expected RT: 16.86 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
228	100
229	19.5
226	25.4

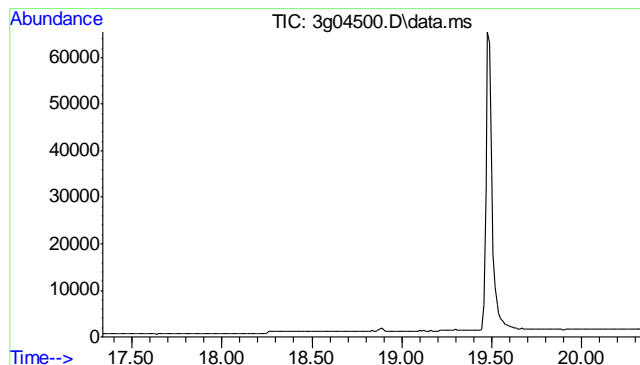
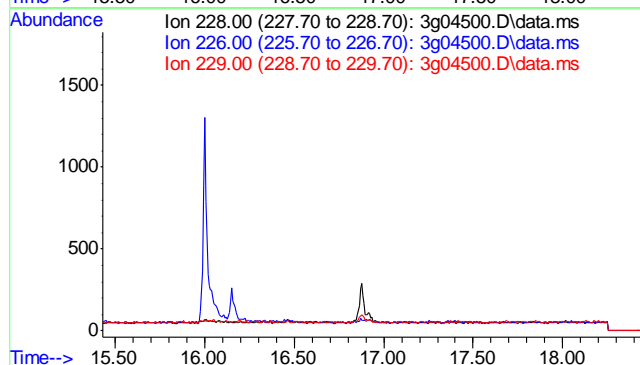




#22
 Chrysene
 Concen: N.D. ug/mL
 Expected RT: 16.93 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

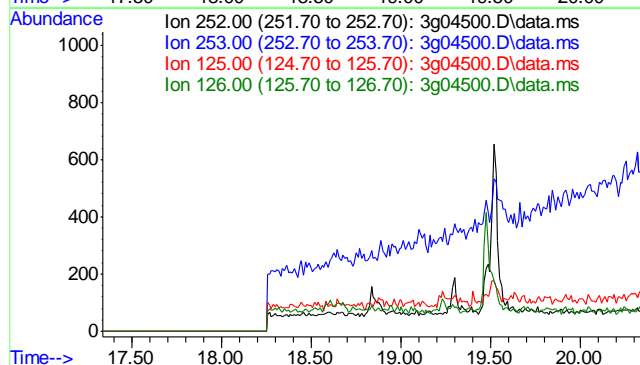
Tgt Ion	Exp Ratio
228	100
226	27.8
229	19.2

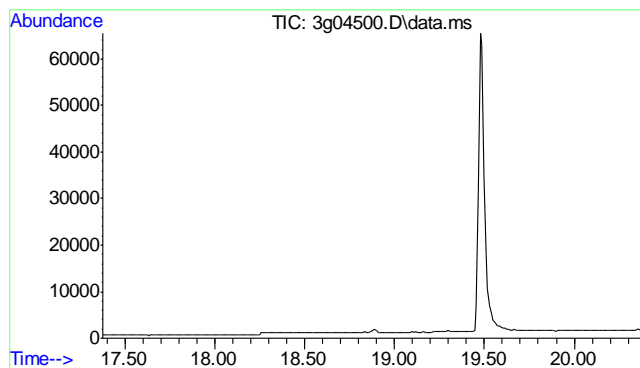


#24
 Benzo(b)fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 18.84 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
252	100
253	21.8
125	13.0
126	16.1

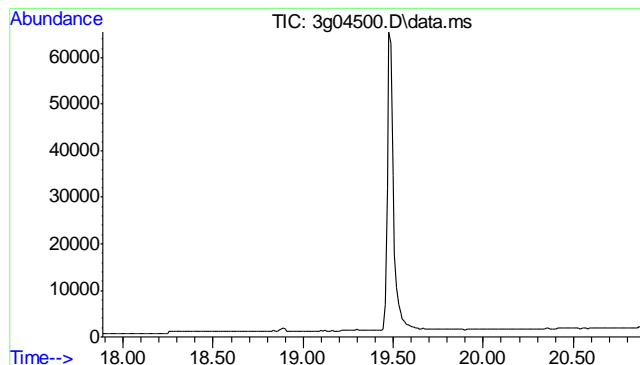
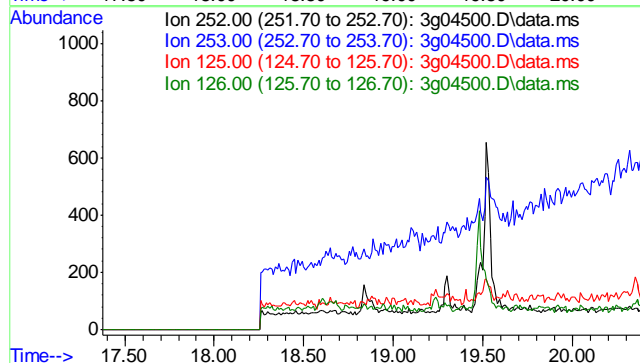




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.88 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

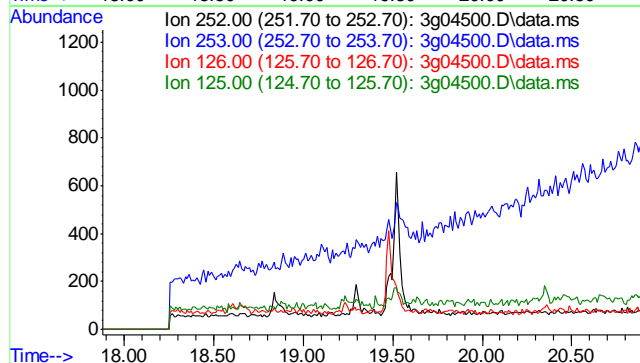
Tgt Ion	Exp Ratio
252	100
253	21.3
125	11.2
126	15.8

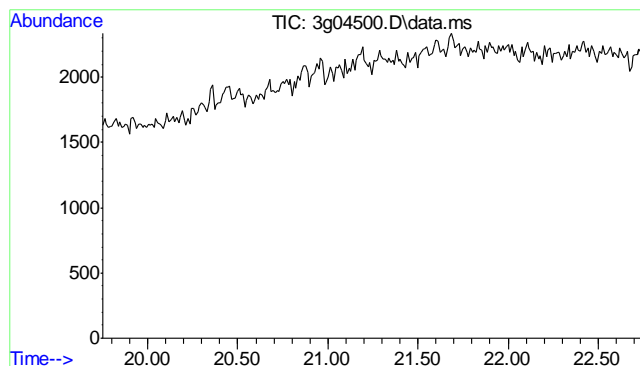


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.38 min

Lab File: 3g04500.D
Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
252	100
253	20.9
126	15.3
125	13.3

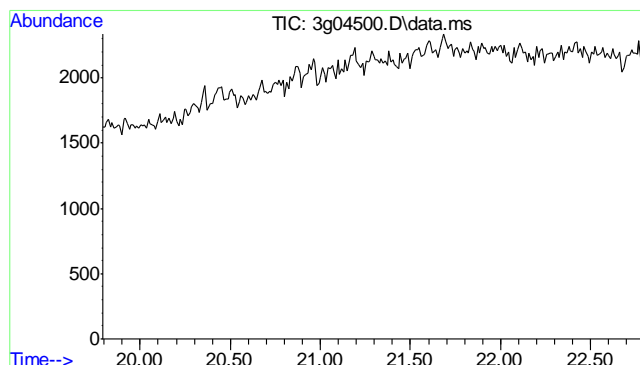
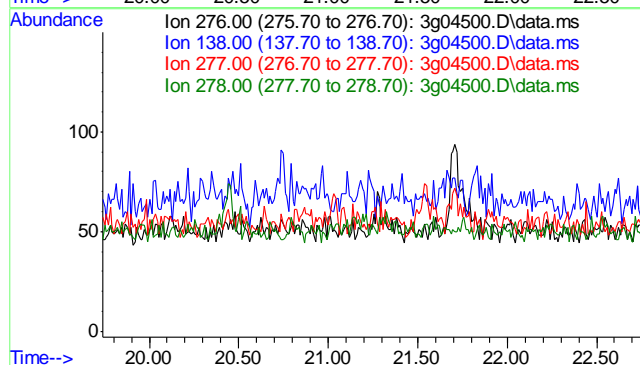




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 21.24 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

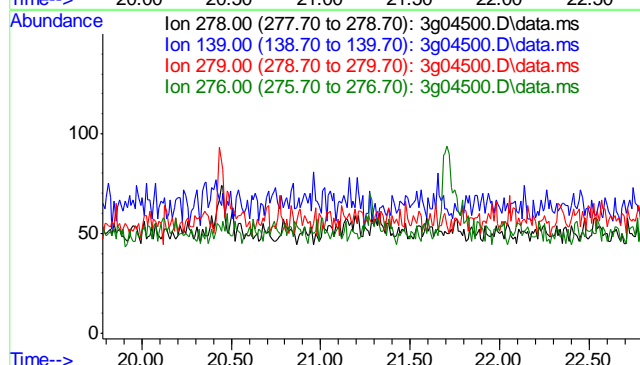
Tgt Ion	Exp Ratio
276	100
138	21.1
277	34.0
278	111.5

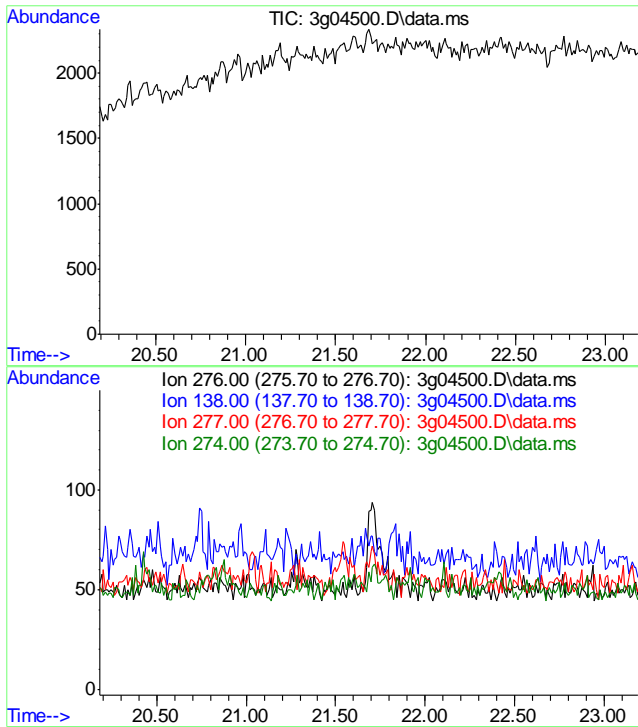


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 21.29 min

 Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion	Exp Ratio
278	100
139	17.5
279	23.3
276	122.1





#29
 Benzo(g,h,i)perylene
 Concen: N.D. ug/mL
 Expected RT: 21.69 min

Lab File: 3g04500.D
 Acq: 17 Jun 11 12:14 am

Tgt Ion: 276

Sig	Exp Ratio
276	100
138	22.1
277	23.6
274	20.3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\061611\
 Data File : 3g04480.D
 Acq On : 16 Jun 2011 11:03 am
 Operator : TamiB
 Sample : OP3869-MB
 Misc : OP3869,E3G168,30,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 16 12:05:28 2011
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G161.M
 Quant Title : PAHSIM BASE
 QLast Update : Wed Jun 08 15:32:22 2011
 Response via : Initial Calibration

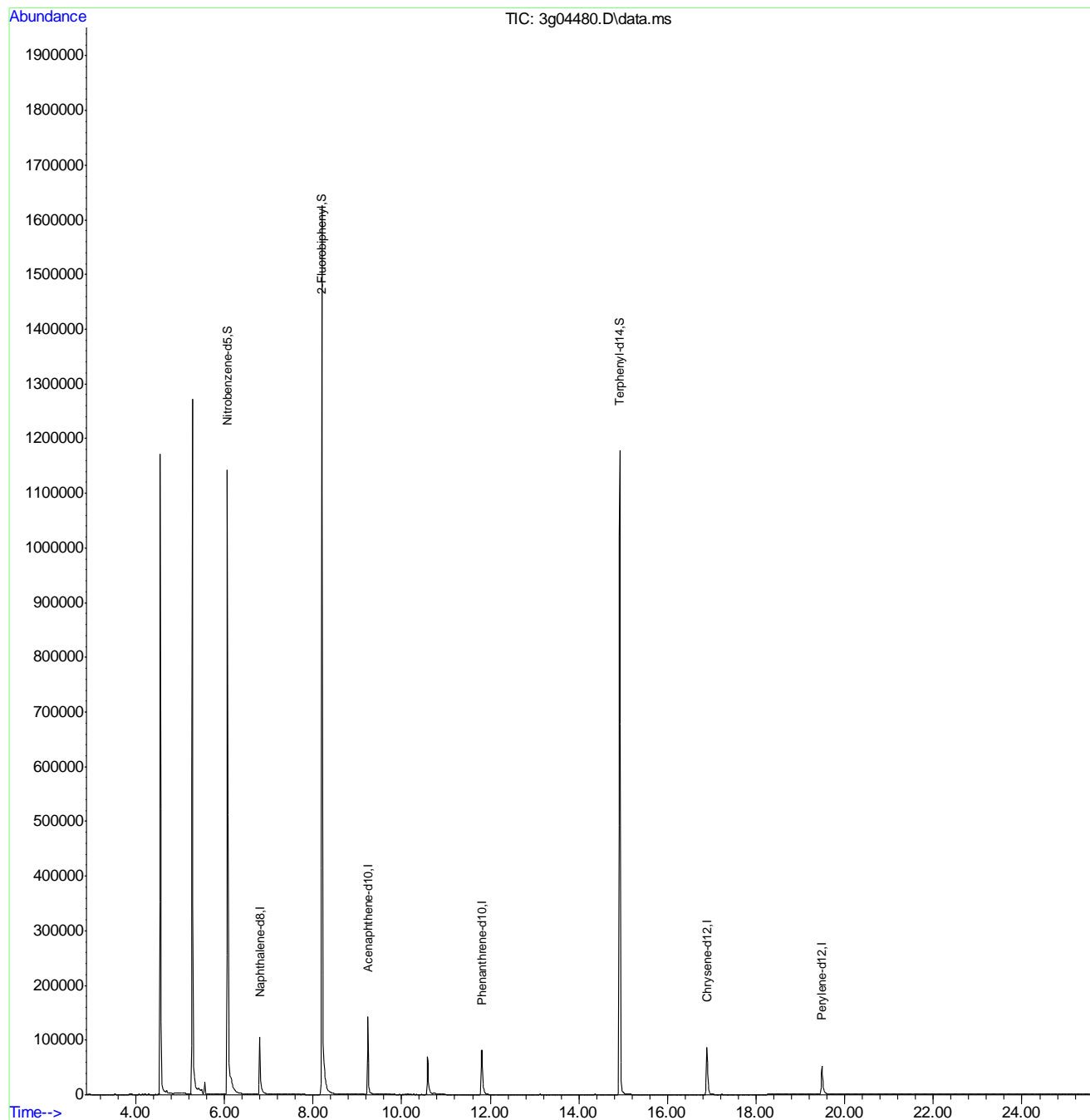
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	6.805	136	167165	4.00	ug/mL	0.00
6) Acenaphthene-d10	9.239	164	94995	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.815	188	146237	4.00	ug/mL	0.00
18) Chrysene-d12	16.888	240	145166	4.00	ug/mL	0.00
23) Perylene-d12	19.488	264	97852	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.069	82	858675	39.28	ug/mL	0.00
7) 2-Fluorobiphenyl	8.200	172	1760511	37.02	ug/mL	0.00
20) Terphenyl-d14	14.925	244	1470870	52.35	ug/mL	0.00
Target Compounds						
						Qvalue
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	0.000		0	N.D.	d	
8) 2-Methylnaphthalene	0.000		0	N.D.	d	
9) 1-Methylnaphthalene	0.000		0	N.D.	d	
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	0.000		0	N.D.	d	
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	0.000		0	N.D.	d	
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	0.000		0	N.D.	d	
22) Chrysene	0.000		0	N.D.	d	
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

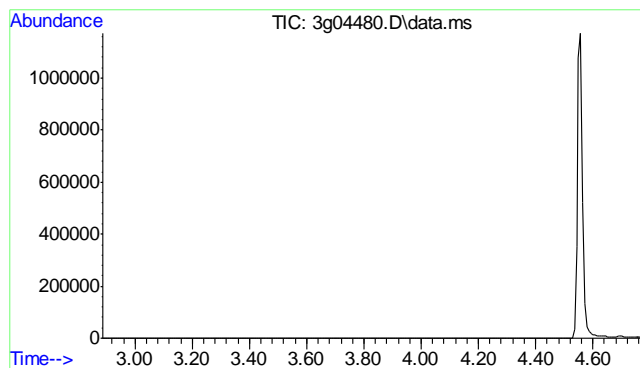
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\061611\
Data File : 3g04480.D
Acq On : 16 Jun 2011 11:03 am
Operator : TamiB
Sample : OP3869-MB
Misc : OP3869,E3G168,30,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 16 12:05:28 2011
Quant Method : C:\msdchem\1\METHODS\SIMPE3G161.M
Quant Title : PAHSIM BASE
QLast Update : Wed Jun 08 15:32:22 2011
Response via : Initial Calibration

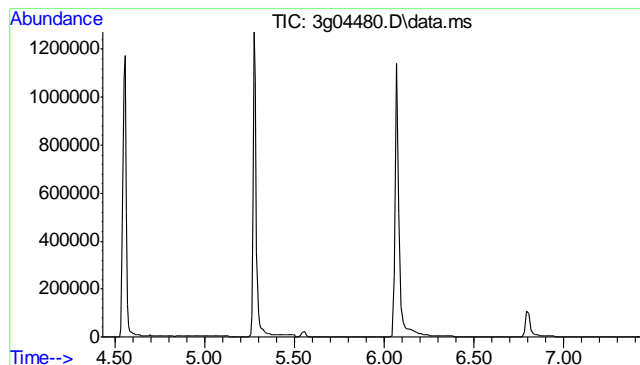
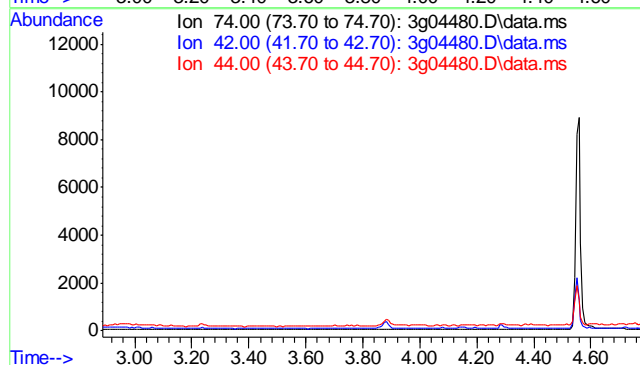




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 3.27 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

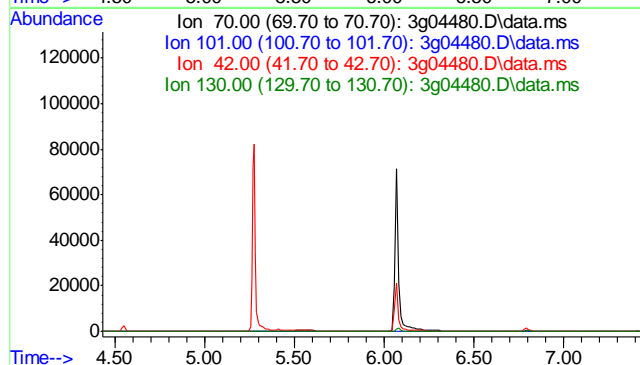
Tgt Ion:	74
Sig	Exp Ratio
74	100
42	44.2
44	3.0

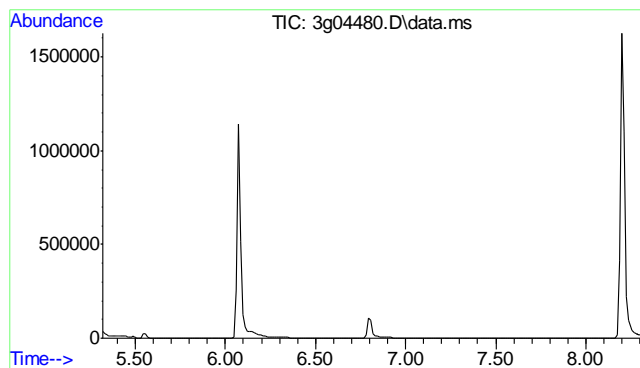


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.93 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	70
Sig	Exp Ratio
70	100
101	12.6
42	38.3
130	24.2

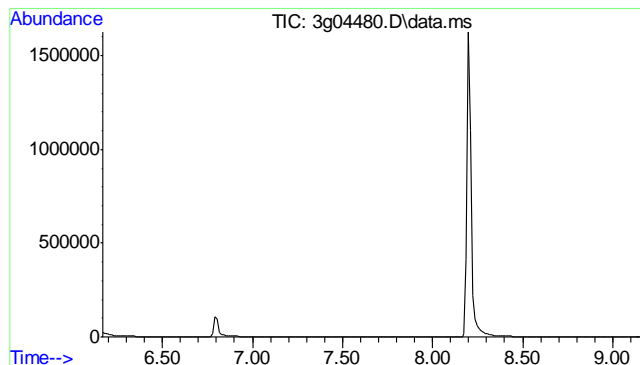
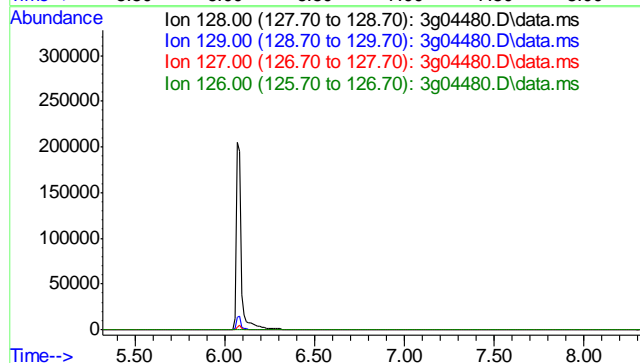




#5
Naphthalene
Concen: N.D. ug/mL
Expected RT: 6.82 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

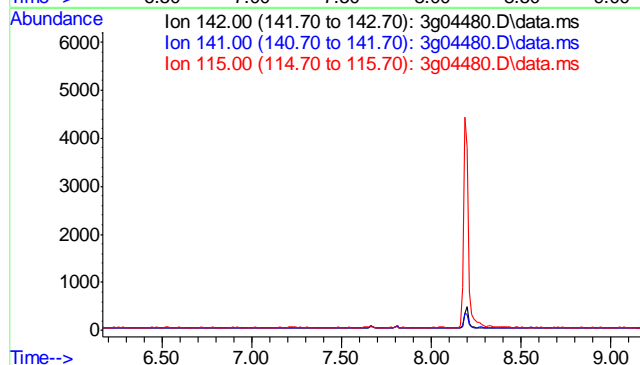
Tgt Ion:	128
Sig	Exp Ratio
128	100
129	11.0
127	12.3
126	7.0

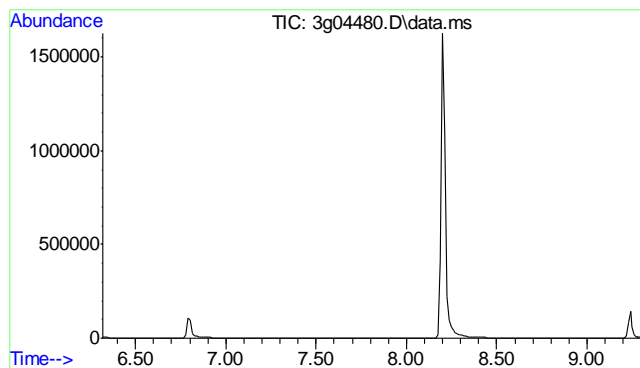


#8
2-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.67 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	142
Sig	Exp Ratio
142	100
141	83.3
115	32.4

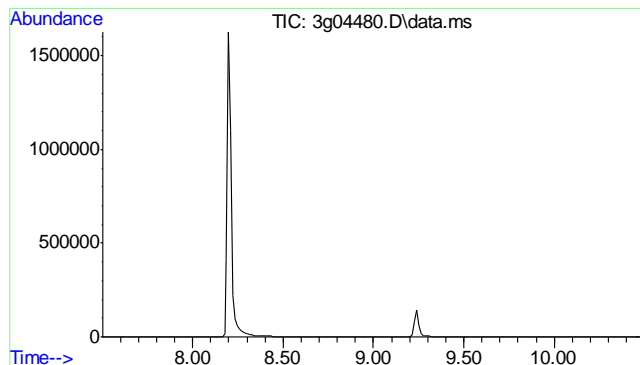
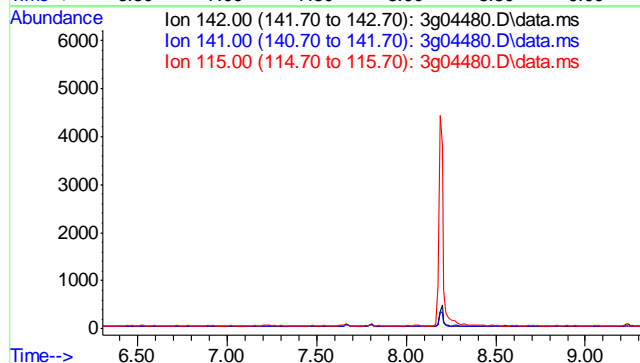




#9
1-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.81 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

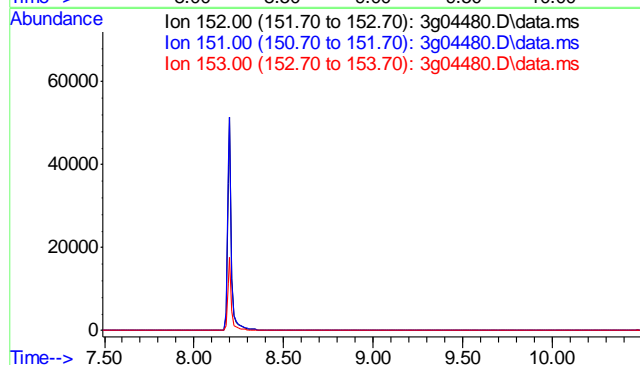
Tgt Ion:	142
Sig	Exp Ratio
142	100
141	86.3
115	34.3

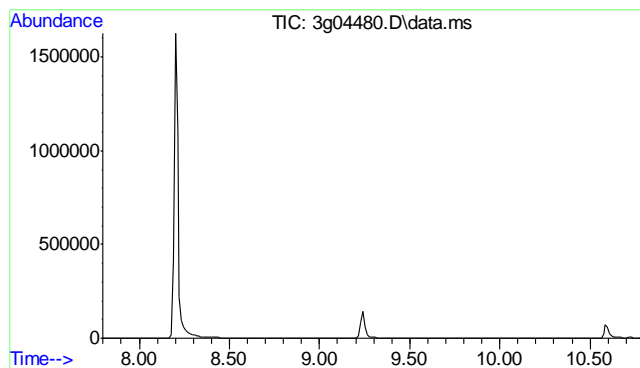


#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.99 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	152
Sig	Exp Ratio
152	100
151	18.9
153	12.9

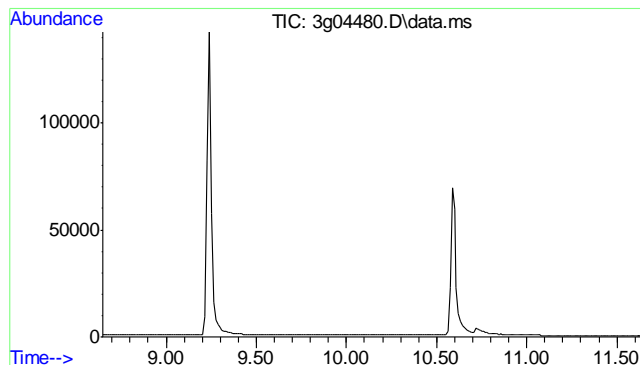
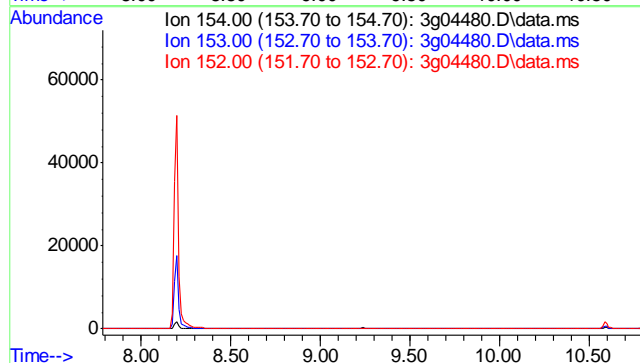




#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 9.29 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

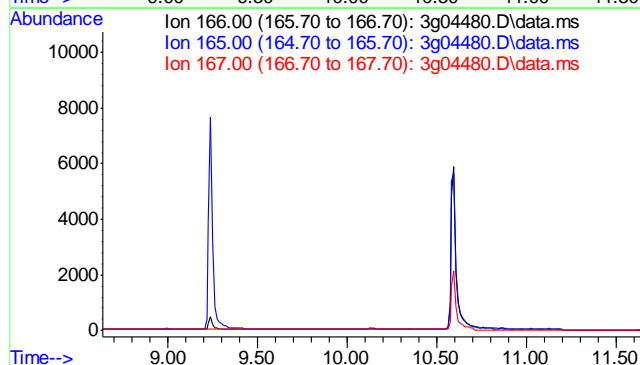
Tgt Ion:	154
Sig	Exp Ratio
154	100
153	112.5
152	52.9

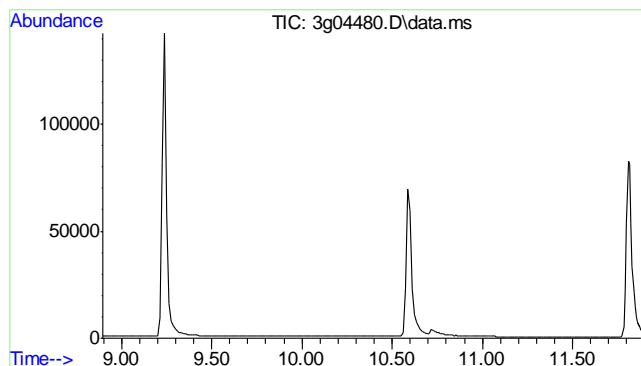


#12
Fluorene
Concen: N.D. ug/mL
Expected RT: 10.14 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	166
Sig	Exp Ratio
166	100
165	90.5
167	13.4

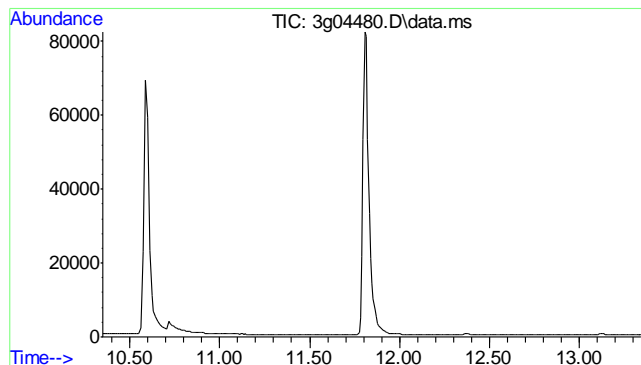
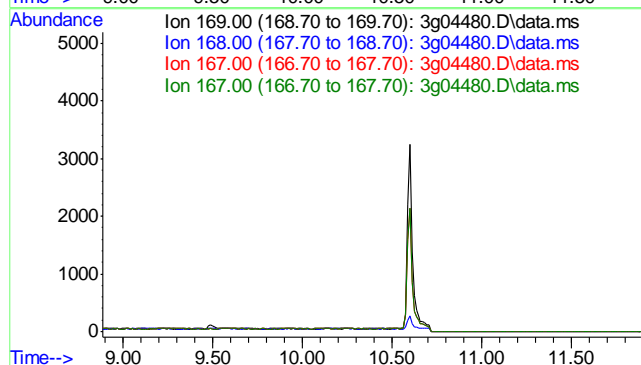




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.39 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

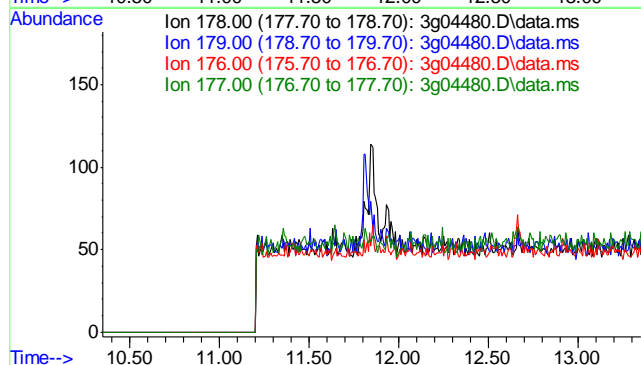
Tgt Ion:	169
Sig	Exp Ratio
169	100
168	61.3
167	32.9
167	32.9

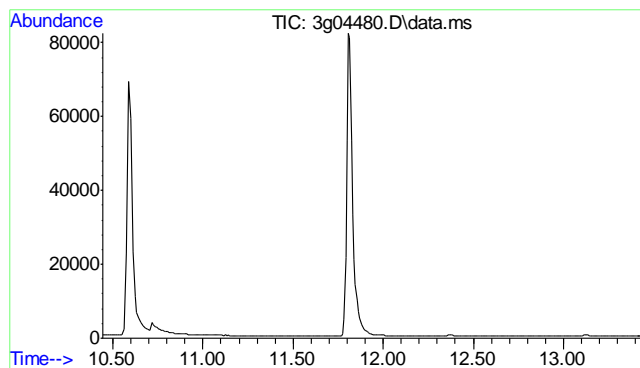


#15
Phenanthrene
Concen: N.D. ug/mL
Expected RT: 11.85 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.2
176	18.1
177	10.1

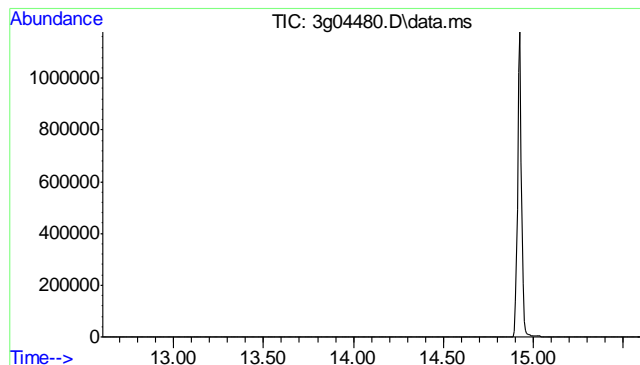
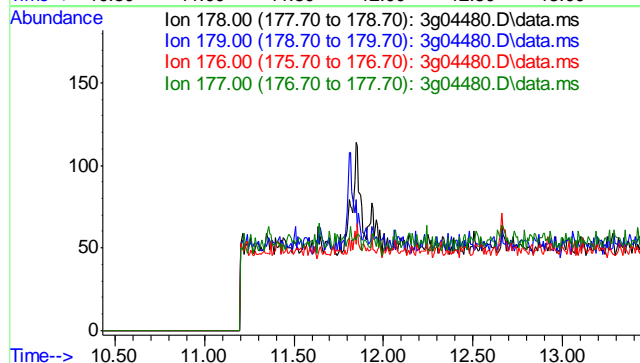




#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.93 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

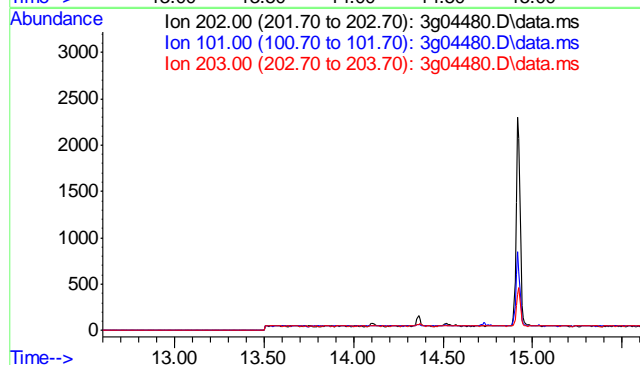
Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.2
176	17.5
177	8.4

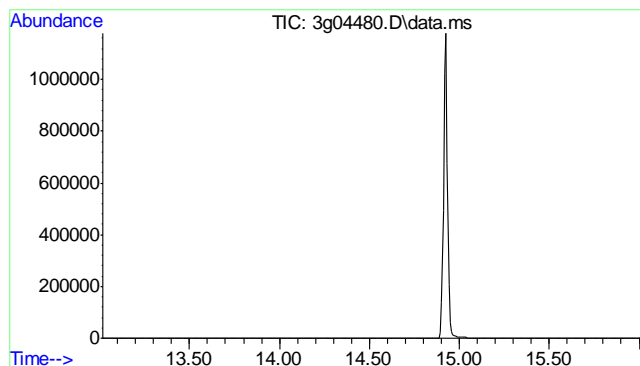


#17
Fluoranthene
Concen: N.D. ug/mL
Expected RT: 14.10 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	202
Sig	Exp Ratio
202	100
101	16.8
203	17.2

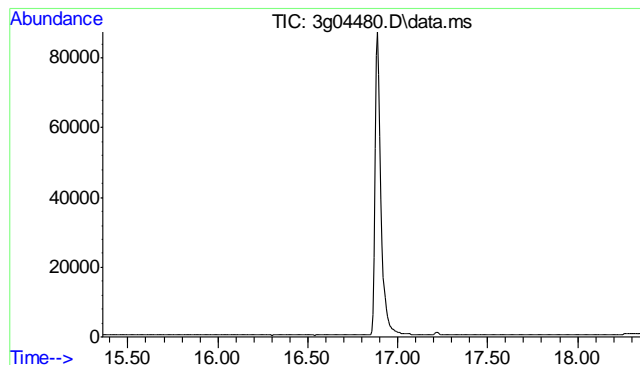
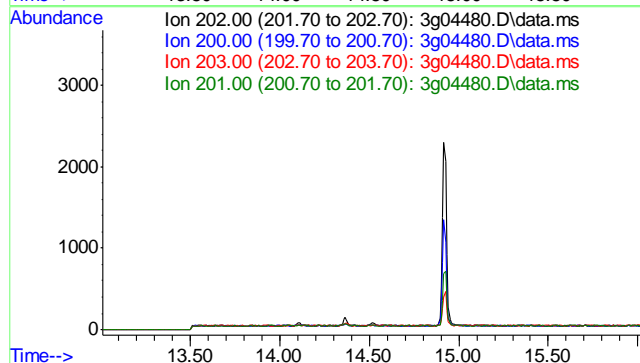




#19
Pyrene
Concen: N.D. ug/mL
Expected RT: 14.51 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

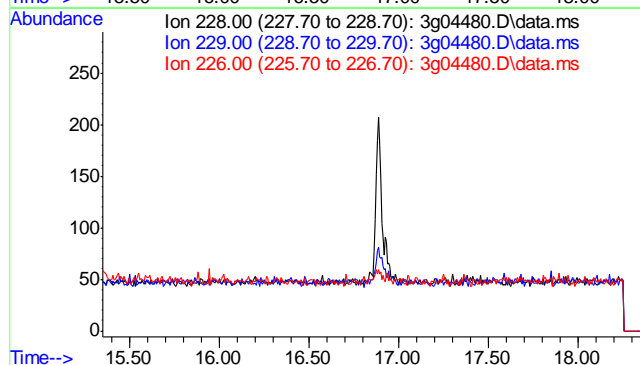
Tgt Ion:	202
Sig	Exp Ratio
202	100
200	19.7
203	17.8
201	16.4

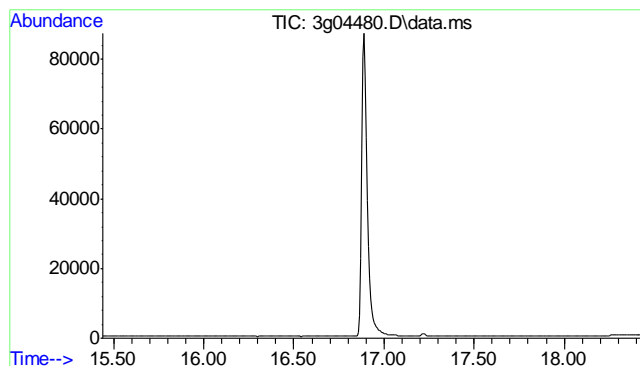


#21
Benzo(a)anthracene
Concen: N.D. ug/mL
Expected RT: 16.86 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	228
Sig	Exp Ratio
228	100
229	19.5
226	25.4

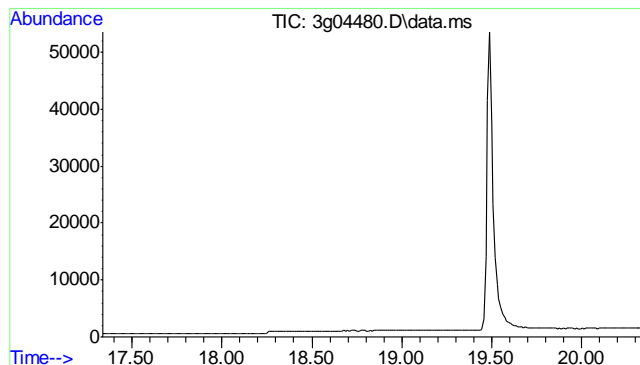
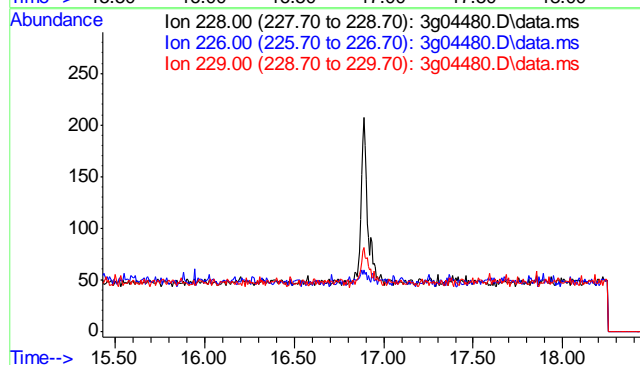




#22
Chrysene
Concen: N.D. ug/mL
Expected RT: 16.93 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

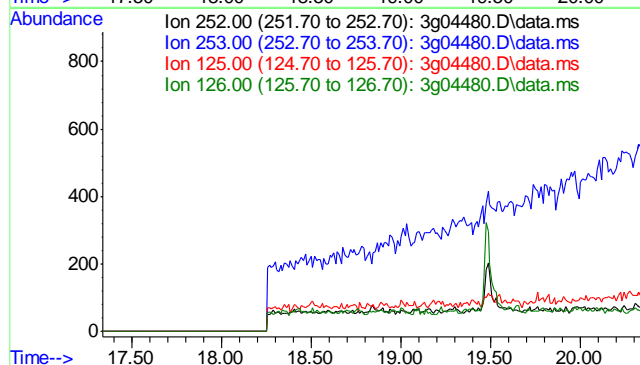
Tgt Ion:	228
Sig	Exp Ratio
228	100
226	27.8
229	19.2

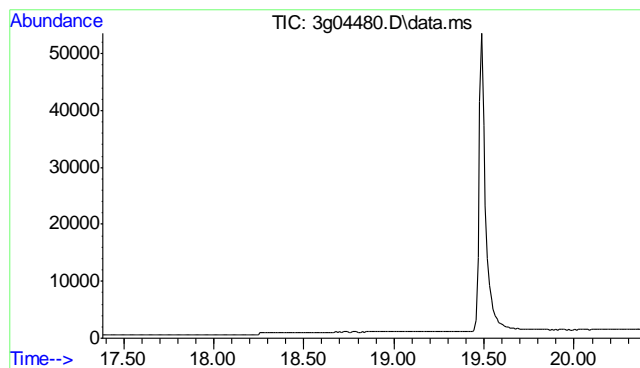


#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.84 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.8
125	13.0
126	16.1

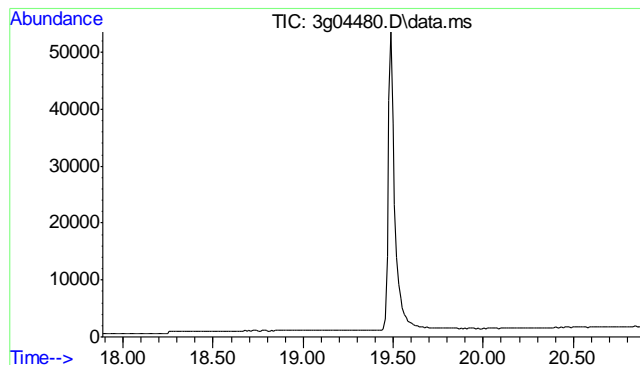
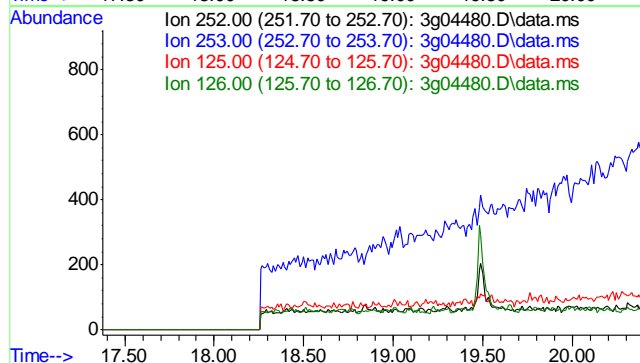




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.88 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

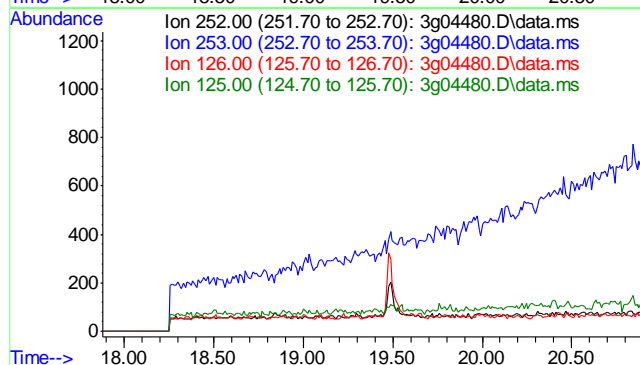
Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.3
125	11.2
126	15.8

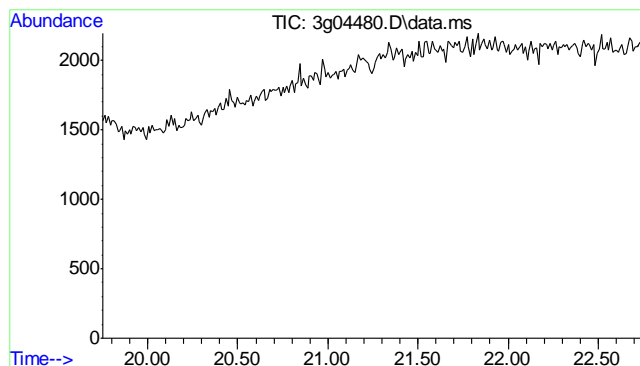


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.38 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	20.9
126	15.3
125	13.3

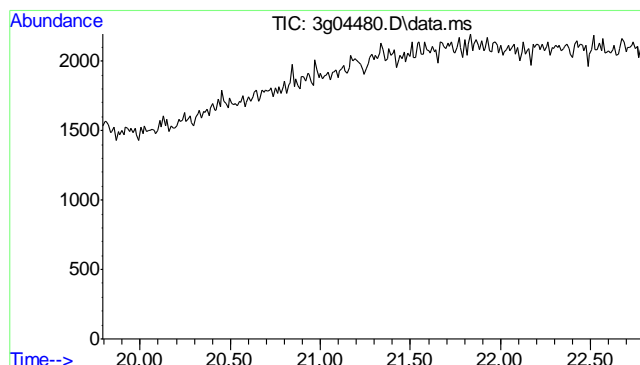
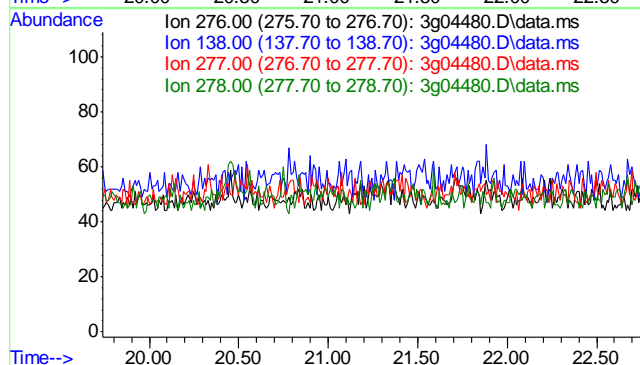




#27
Indeno(1,2,3-cd)pyrene
Concen: N.D. ug/mL
Expected RT: 21.24 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

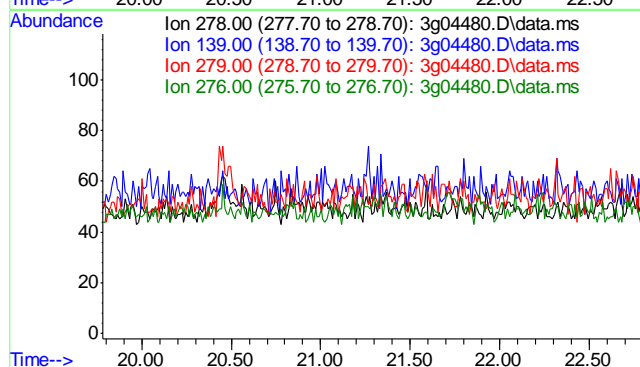
Tgt Ion:	276
Sig	Exp Ratio
276	100
138	21.1
277	34.0
278	111.5

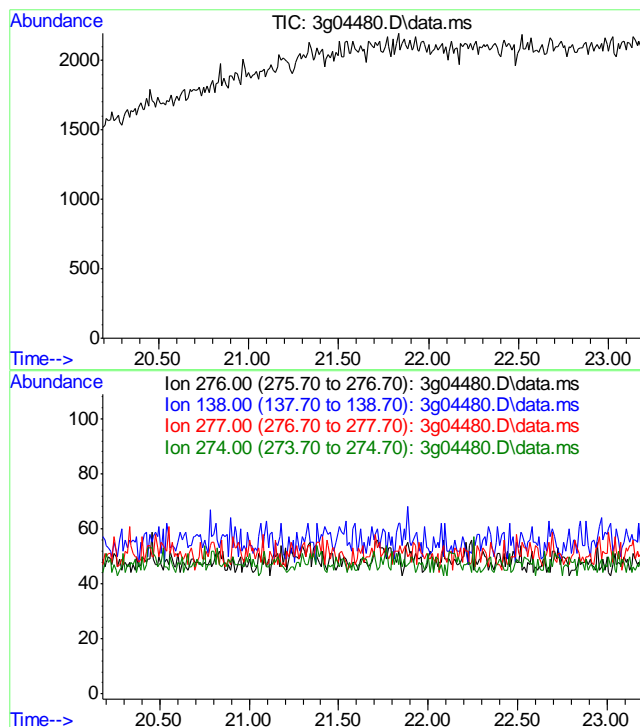


#28
Dibenz(a,h)anthracene
Concen: N.D. ug/mL
Expected RT: 21.29 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion:	278
Sig	Exp Ratio
278	100
139	17.5
279	23.3
276	122.1





#29
Benzo(g,h,i)perylene
Concen: N.D. ug/mL
Expected RT: 21.69 min

Lab File: 3g04480.D
Acq: 16 Jun 11 11:03 am

Tgt Ion: 276
Sig Exp Ratio
276 100
138 22.1
277 23.6
274 20.3

8.2.1

8

GC 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: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA664-MB	GA12213.D	1	06/15/11	SK	n/a	n/a	GGA664

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

D24251-1

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	79% 60-140%

9.1.1
9

Method Blank Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA665-MB	GA12239.D	1	06/16/11	SK	n/a	n/a	GGA665

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

D24251-2

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	79% 60-140%

9.1.2
9

Blank Spike Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA664-BS	GA12214.D	1	06/15/11	SK	n/a	n/a	GGA664

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

D24251-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	107	97	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	84%	60-140%

Blank Spike Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA665-BS	GA12240.D	1	06/16/11	SK	n/a	n/a	GGA665

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

D24251-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	104	95	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	88%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24354-1MS	GA12216.D	1	06/15/11	SK	n/a	n/a	GGA664
D24354-1MSD	GA12217.D	1	06/15/11	SK	n/a	n/a	GGA664
D24354-1	GA12215.D	1	06/15/11	SK	n/a	n/a	GGA664

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

D24251-1

CAS No.	Compound	D24354-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	7.27	J	113	115	95	114	94	1	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24354-1	Limits
120-82-1	1,2,4-Trichlorobenzene	79%	80%	75%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24264-1MS	GA12243.D	1	06/16/11	SK	n/a	n/a	GGA665
D24264-1MSD	GA12244.D	1	06/16/11	SK	n/a	n/a	GGA665
D24264-1	GA12242.D	1	06/16/11	SK	n/a	n/a	GGA665

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

D24251-2

CAS No.	Compound	D24264-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		114	105	92	104	91	1	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24264-1	Limits
120-82-1	1,2,4-Trichlorobenzene	82%	84%	72%	60-140%

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12237.D\FID1A.CH Vial: 17
Signal #2 : Z:\061511\GA12237.D\FID2B.CH
Acq On : 16 Jun 2011 5:22 am Operator: StephK
Sample : D24251-1, 50X Inst : BTEX2
Misc : GC1954,GGA664,5.111,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 16 09:43:08 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Jun 16 09:42:47 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	14.45	2727058	76.639	%
10) S	1,2,4-Trichlorobenzene (P)	14.45	4699071	64.218	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2547972	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L
5) T	Benzene	0.00	0	N.D.	ug/L
6) T	Toluene	7.86	42272	0.201	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L
8) T	m,p-Xylene	10.61	124007	0.574	ug/L
9) T	o-Xylene	11.09	72464	0.398	ug/L
11) T	Naphthalene	14.63	75115	N.D.	ug/L

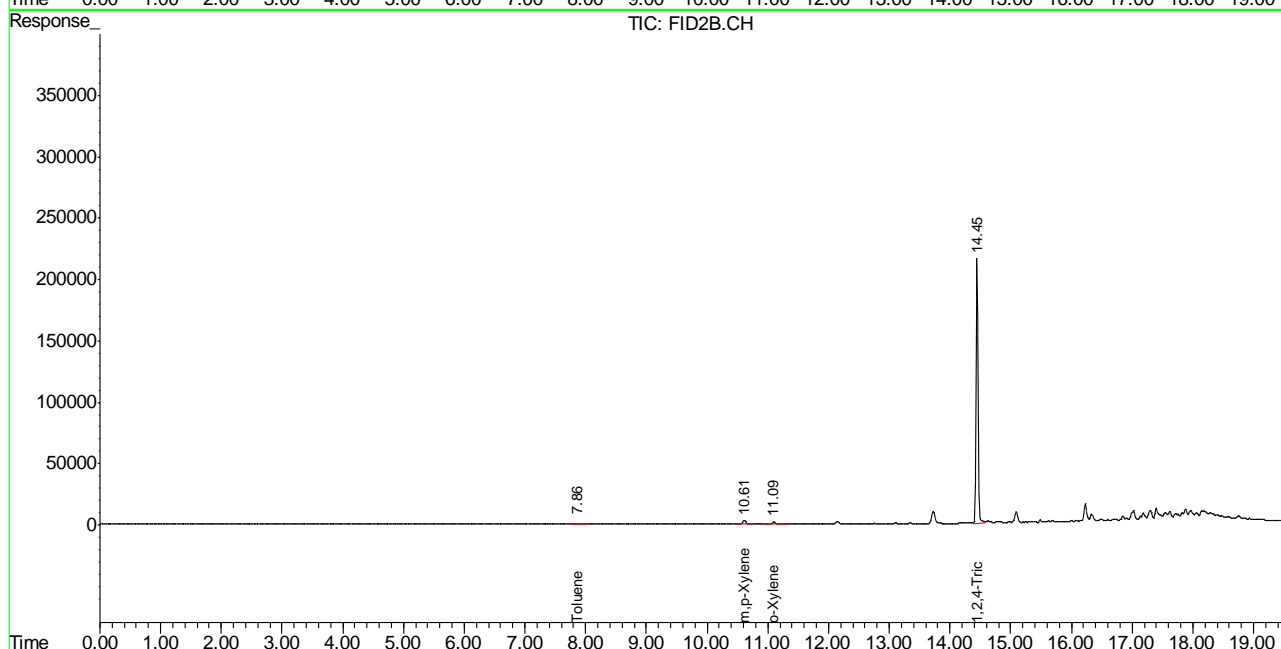
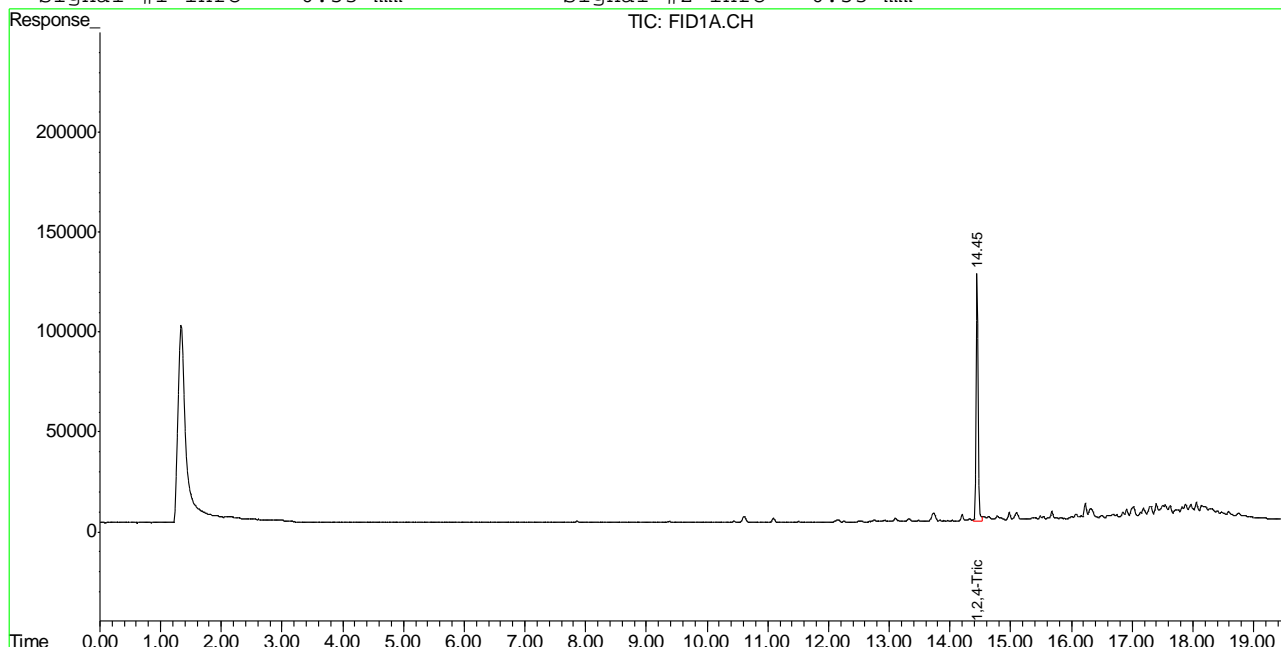
(f)=RT Delta > 1/2 Window (m)=manual int.
GA12237.D TA620GA620.M Thu Jun 16 10:11:06 2011 GC

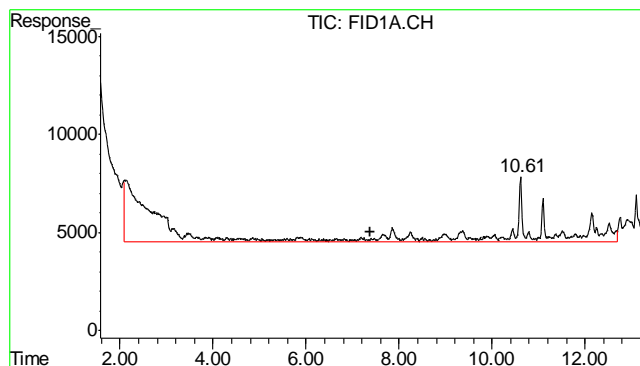
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12237.D\FID1A.CH Vial: 17
 Signal #2 : Z:\061511\GA12237.D\FID2B.CH
 Acq On : 16 Jun 2011 5:22 am Operator: StephK
 Sample : D24251-1, 50X Inst : BTEX2
 Misc : GC1954,GGA664,5.111,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 16 7:43 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Jun 16 09:42:47 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

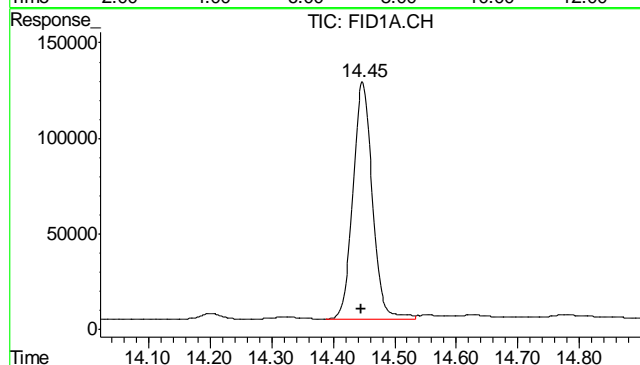
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





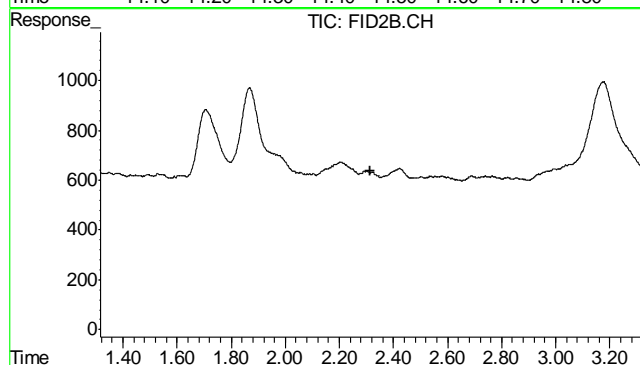
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2547972
Conc: N.D.



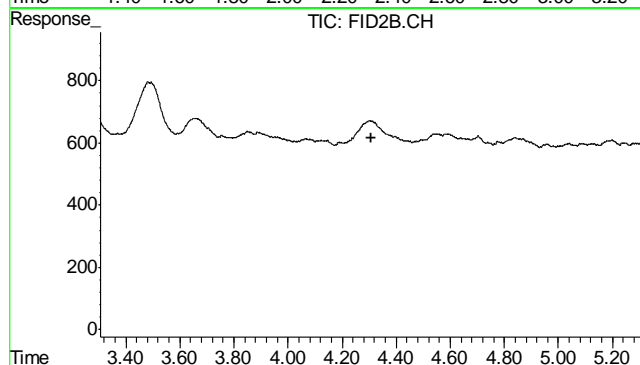
#2 1,2,4-Trichlorobenzene

R.T.: 14.448 min
Delta R.T.: 0.003 min
Response: 2727058
Conc: 76.64 %



#4 Methyl-t-butyl-ether

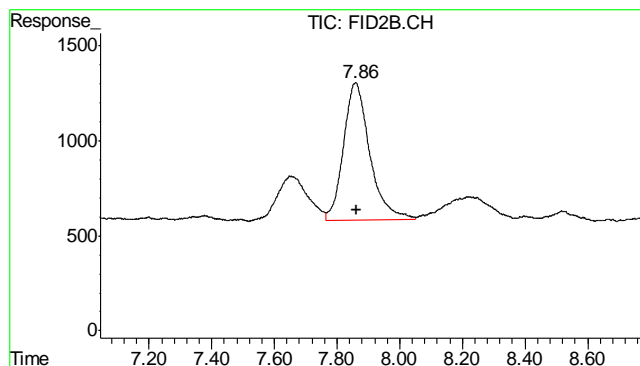
R.T.: 0.000 min
Exp R.T.: 2.315 min
Response: 0
Conc: N.D.



#5 Benzene

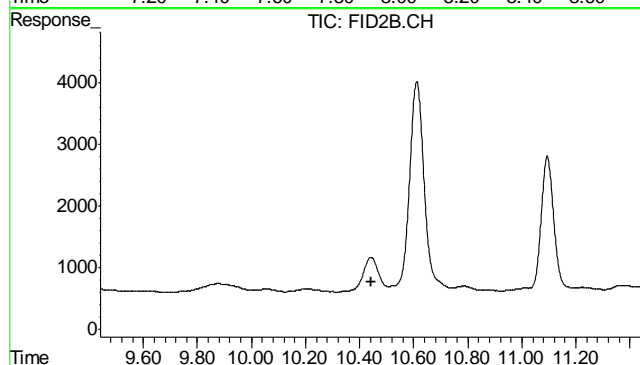
R.T.: 0.000 min
Exp R.T.: 4.306 min
Response: 0
Conc: N.D.

10.1.1
10



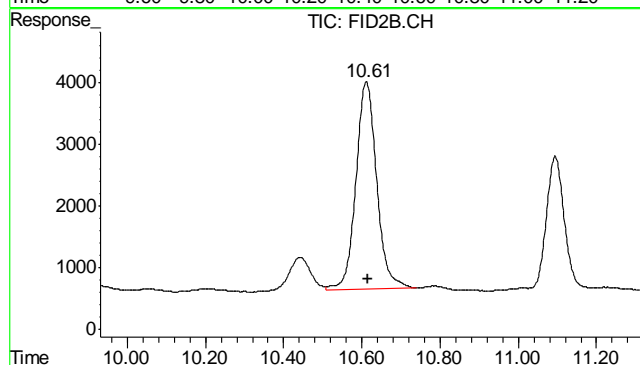
#6 Toluene

R.T.: 7.859 min
Delta R.T.: -0.003 min
Response: 42272
Conc: 0.20 ug/L



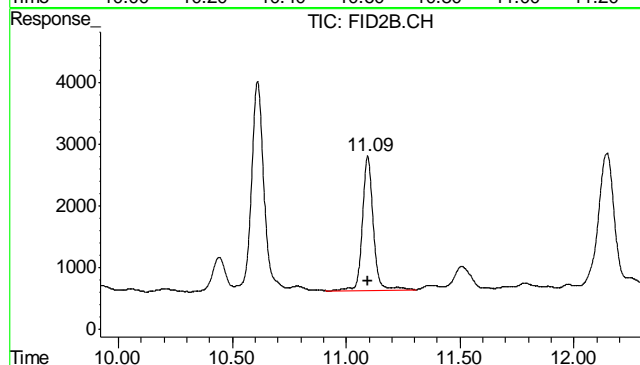
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.441 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

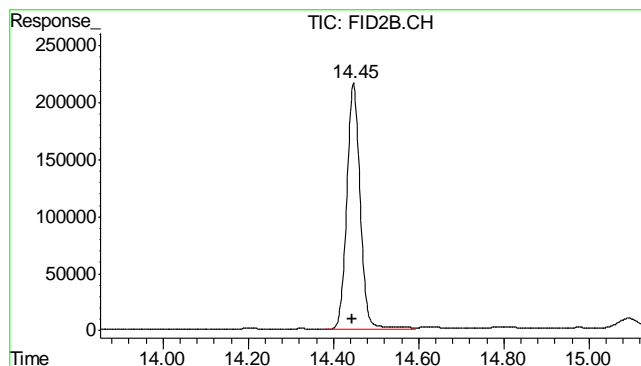
R.T.: 10.611 min
Delta R.T.: -0.003 min
Response: 124007
Conc: 0.57 ug/L



#9 o-Xylene

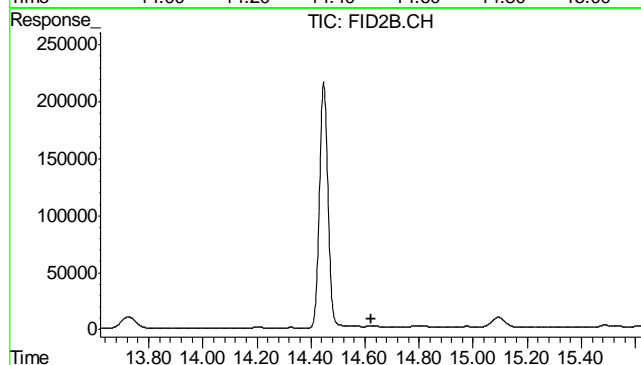
R.T.: 11.094 min
Delta R.T.: 0.000 min
Response: 72464
Conc: 0.40 ug/L

10.1.1
10



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

R.T.: 14.447 min
Delta R.T.: 0.004 min
Response: 4699071
Conc: 64.22 %



#11 Naphthalene

R.T.: 14.627 min
Delta R.T.: 0.006 min
Response: 75115
Conc: N.D.

10.1.1
10

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12241.D\FID1A.CH Vial: 21
 Signal #2 : Z:\061511\GA12241.D\FID2B.CH
 Acq On : 16 Jun 2011 7:48 am Operator: StephK
 Sample : D24251-2, 50X Inst : BTEX2
 Misc : GC1955,GGA665,5.070,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 17 07:22:10 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Jun 16 09:42:47 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	14.44	2708189	76.109	%
10) S	1,2,4-Trichlorobenzene (P)	14.44	4689950	64.018	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2504611	<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	7.84	74505	0.355	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.60	148398	0.687	ug/L
9) T	o-Xylene	11.09	67239	0.369	ug/L
11) T	Naphthalene	14.62	169716	0.370	ug/L

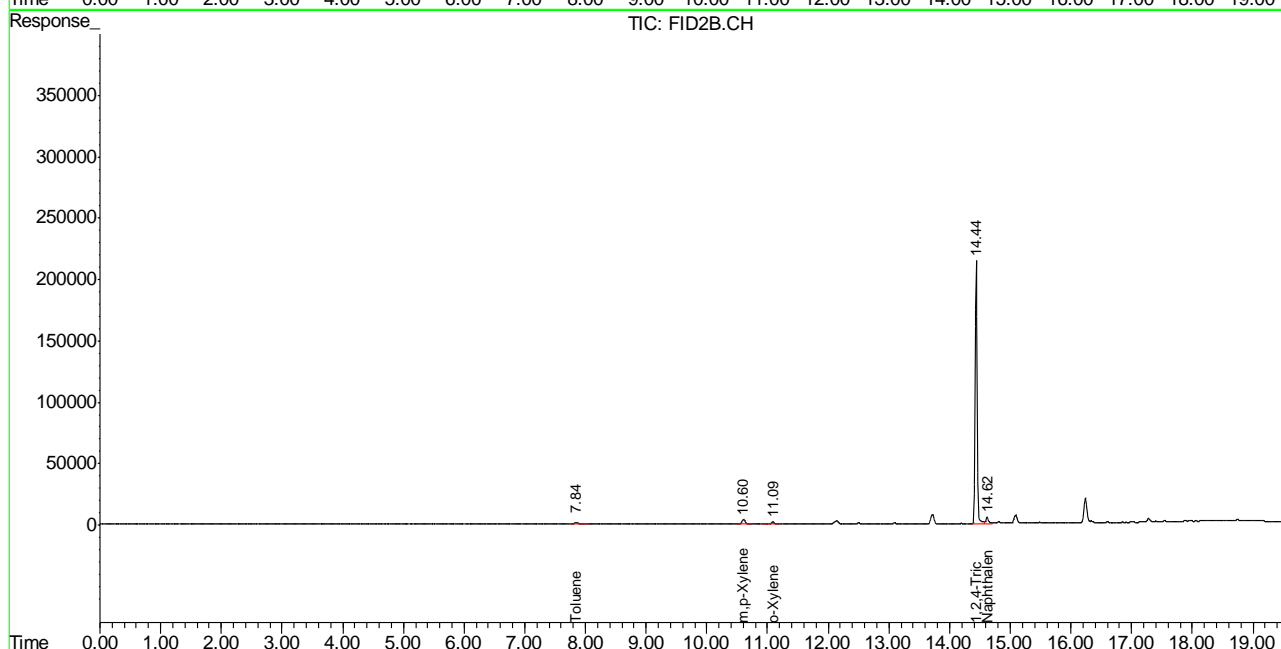
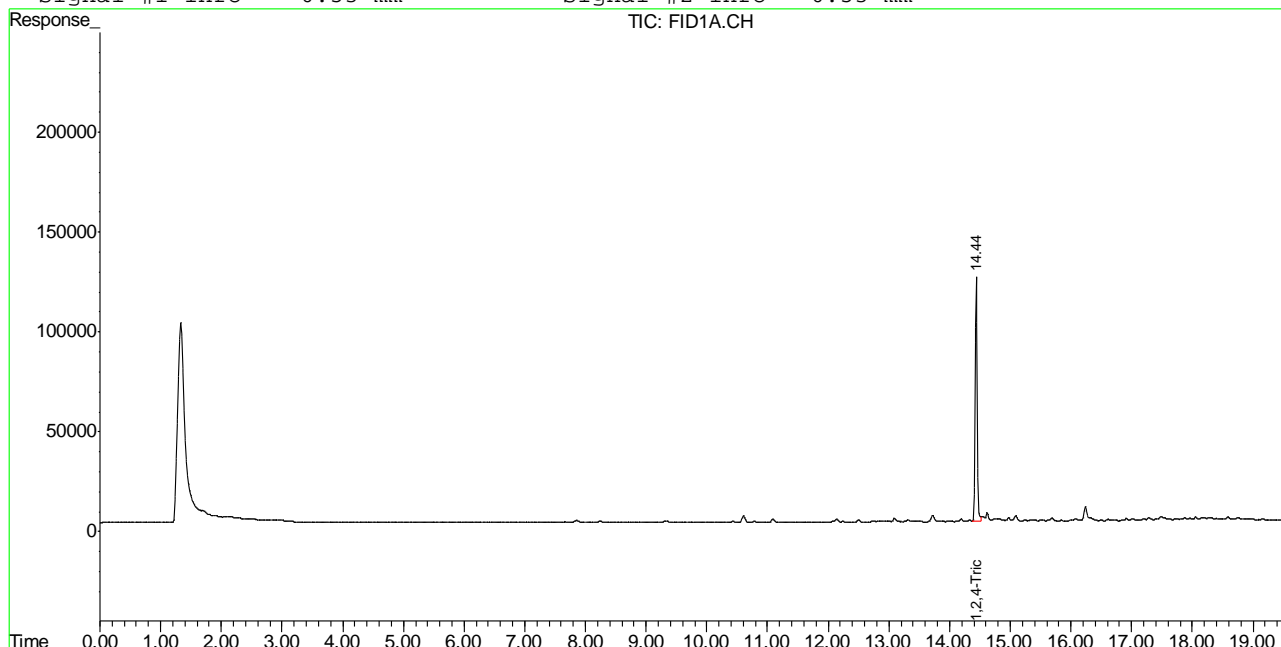
10.12 10

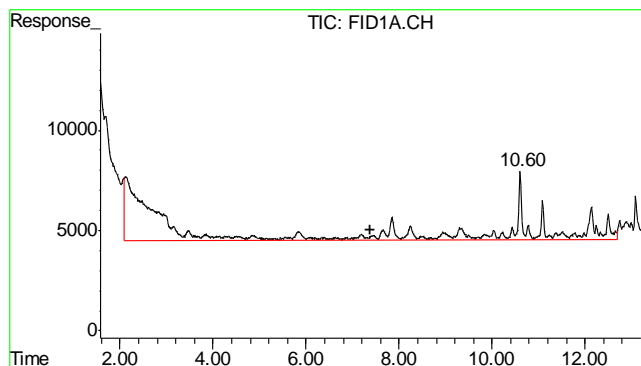
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12241.D\FID1A.CH Vial: 21
 Signal #2 : Z:\061511\GA12241.D\FID2B.CH
 Acq On : 16 Jun 2011 7:48 am Operator: StephK
 Sample : D24251-2, 50X Inst : BTEX2
 Misc : GC1955,GGA665,5.070,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 17 5:45 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Jun 16 09:42:47 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB2.M

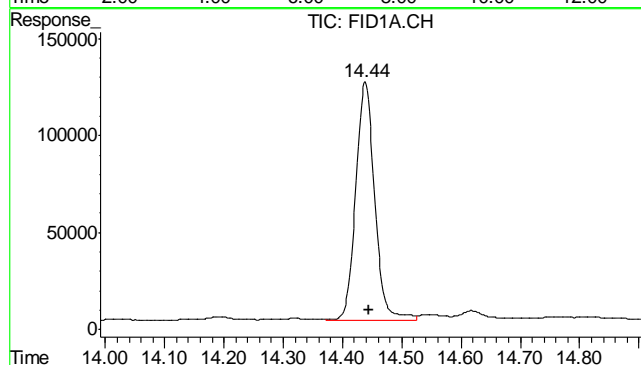
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





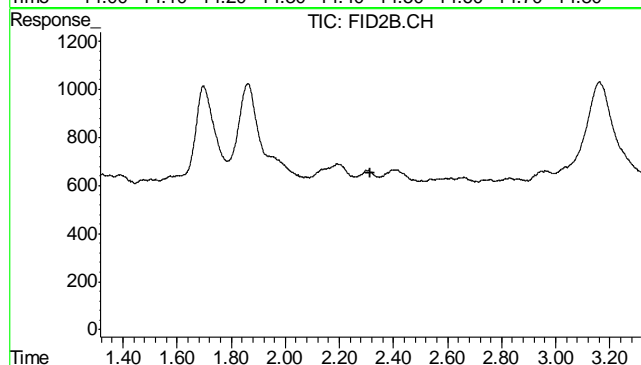
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2504611
Conc: N.D.



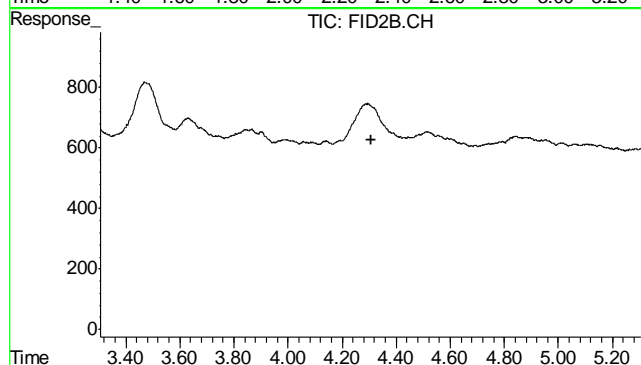
#2 1,2,4-Trichlorobenzene

R.T.: 14.439 min
Delta R.T.: -0.006 min
Response: 2708189
Conc: 76.11 %



#4 Methyl-t-butyl-ether

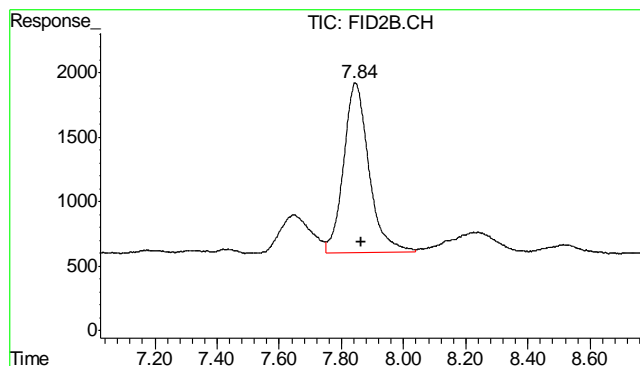
R.T.: 0.000 min
Exp R.T.: 2.315 min
Response: 0
Conc: N.D.



#5 Benzene

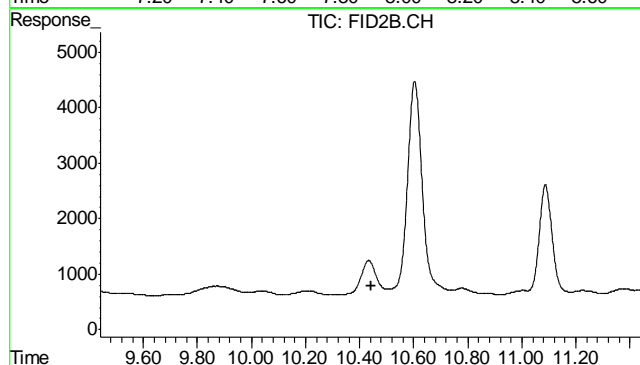
R.T.: 0.000 min
Exp R.T.: 4.306 min
Response: 0
Conc: N.D.

10.12 10



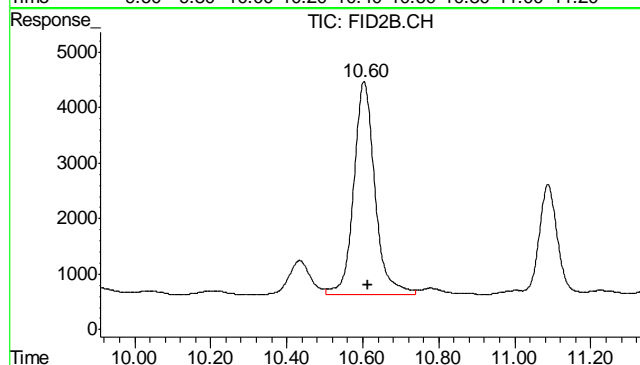
#6 Toluene

R.T.: 7.845 min
Delta R.T.: -0.018 min
Response: 74505
Conc: 0.35 ug/L



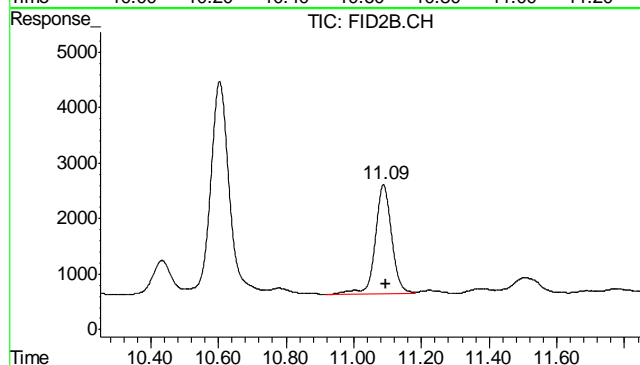
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.441 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

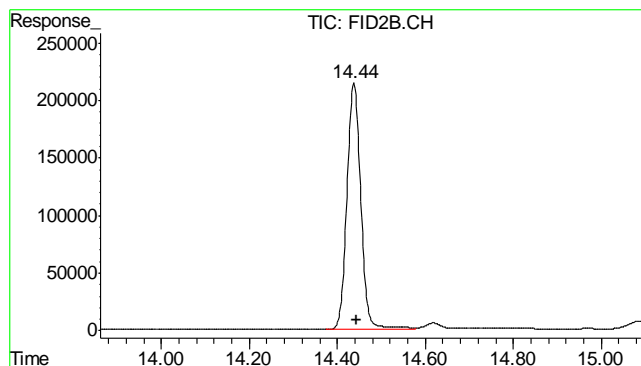
R.T.: 10.603 min
Delta R.T.: -0.011 min
Response: 148398
Conc: 0.69 ug/L



#9 o-Xylene

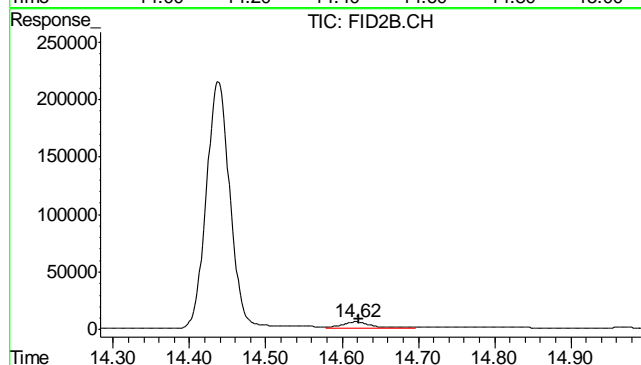
R.T.: 11.088 min
Delta R.T.: -0.007 min
Response: 67239
Conc: 0.37 ug/L

10.1.2 10



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

R.T.: 14.438 min
Delta R.T.: -0.006 min
Response: 4689950
Conc: 64.02 %



#11 Naphthalene

R.T.: 14.618 min
Delta R.T.: -0.003 min
Response: 169716
Conc: 0.37 ug/L

10.1.2
10

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12213.D\FID1A.CH Vial: 2
Signal #2 : Z:\061511\GA12213.D\FID2B.CH
Acq On : 15 Jun 2011 2:41 pm Operator: StephK
Sample : MB, S Inst : BTEX2
Misc : GC1954,GGA664,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 16 09:17:18 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 15 13:45:23 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	14.43	2797785	78.627	%
10) S	1,2,4-Trichlorobenzene (P)	14.43	4810827	66.670	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2662768	<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	7.85	69538	0.331	ug/L
7) T	Ethylbenzene	10.44	35854	0.191	ug/L
8) T	m,p-Xylene	10.61	190010	0.880	ug/L
9) T	o-Xylene	11.09	102579	0.563	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

(f)=RT Delta > 1/2 Window

(m)=manual int.

GA12213.D TA620GA620.M

Thu Jun 16 10:09:54 2011

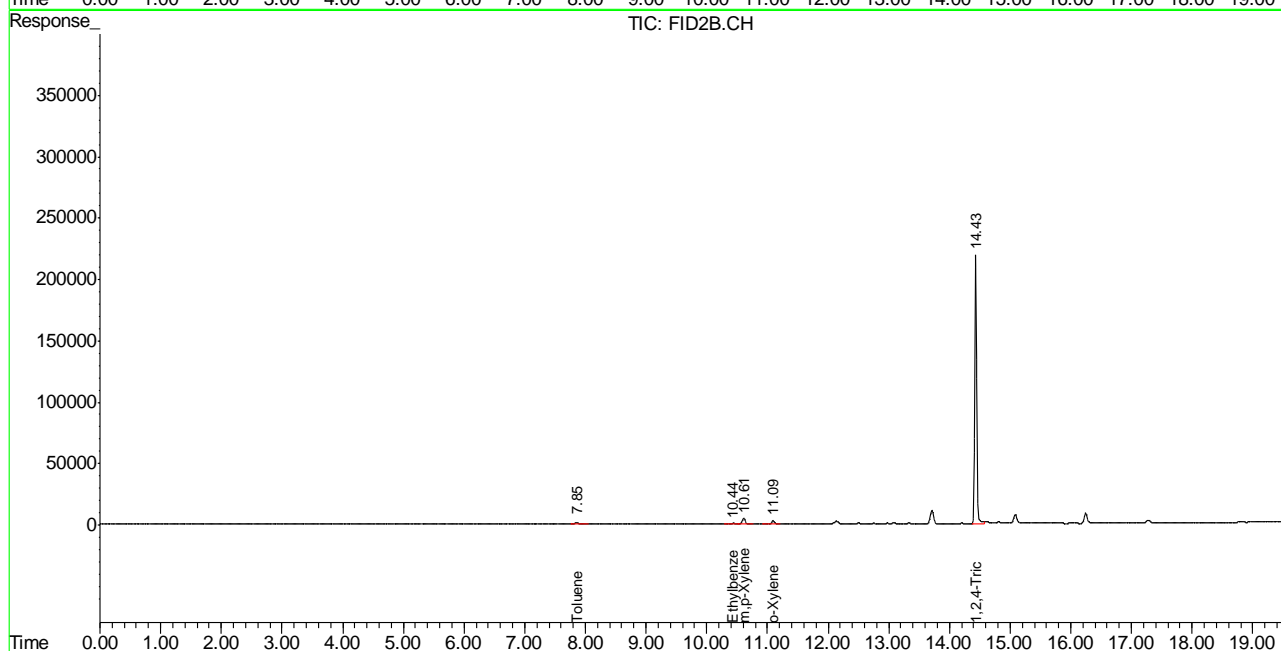
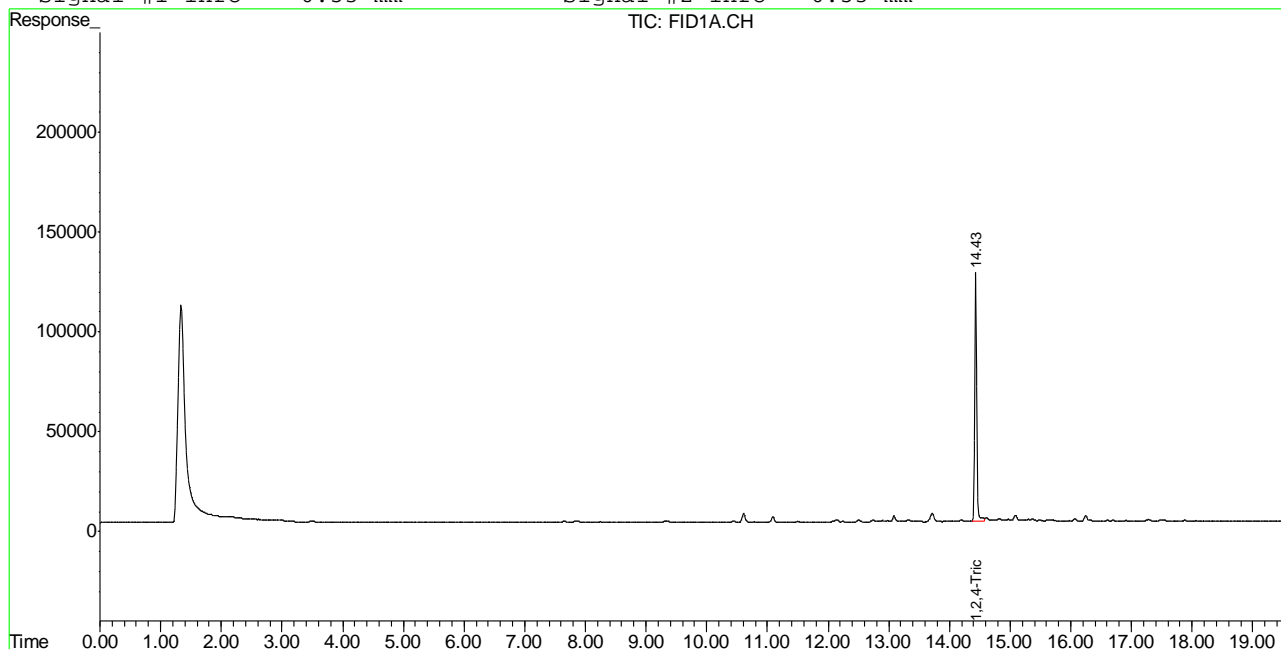
GC

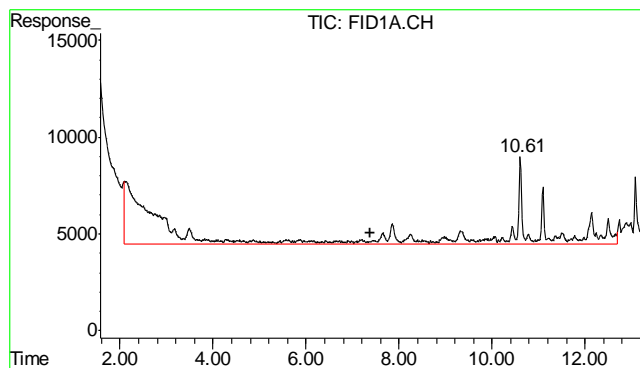
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12213.D\FID1A.CH Vial: 2
Signal #2 : Z:\061511\GA12213.D\FID2B.CH
Acq On : 15 Jun 2011 2:41 pm Operator: StephK
Sample : MB, S Inst : BTEX2
Misc : GC1954,GGA664,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 16 7:19 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 15 13:45:23 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB2.M

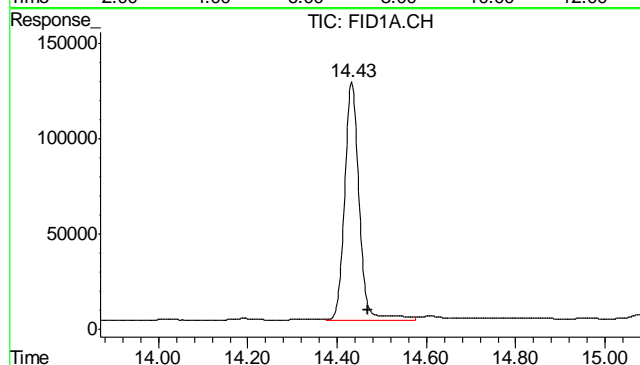
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





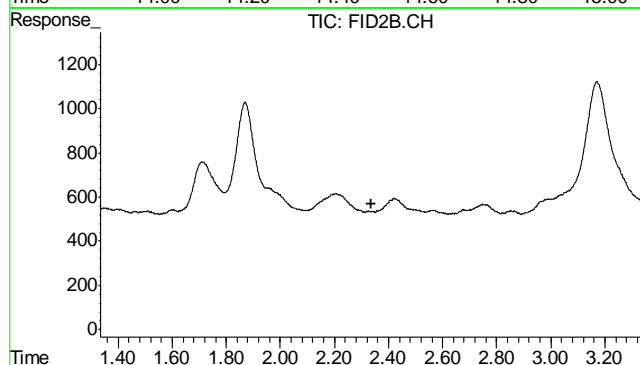
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2662768
Conc: N.D.



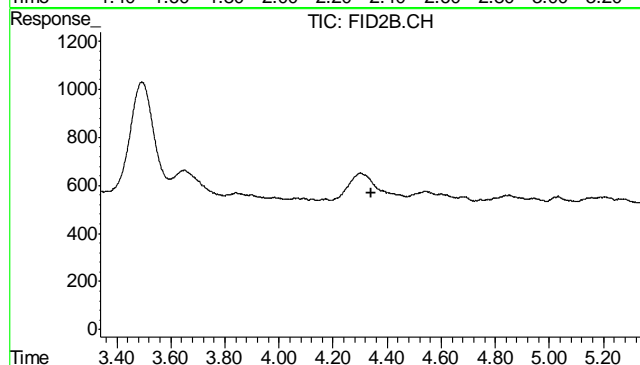
#2 1,2,4-Trichlorobenzene

R.T.: 14.433 min
Delta R.T.: -0.036 min
Response: 2797785
Conc: 78.63 %



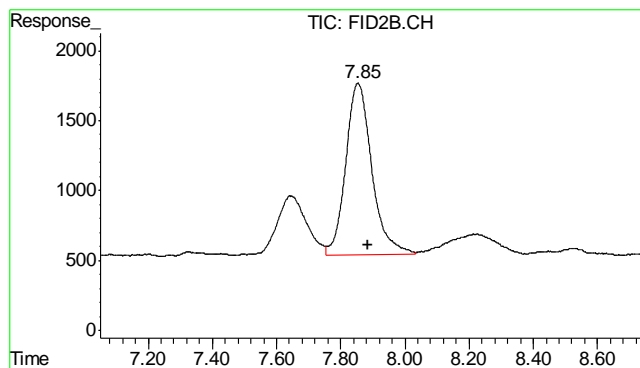
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.334 min
Response: 0
Conc: N.D.



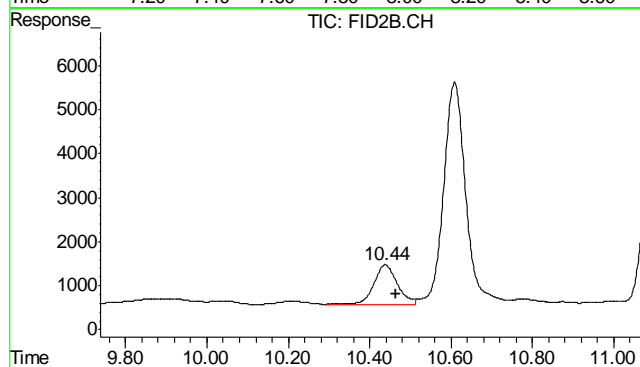
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.340 min
Response: 0
Conc: N.D.



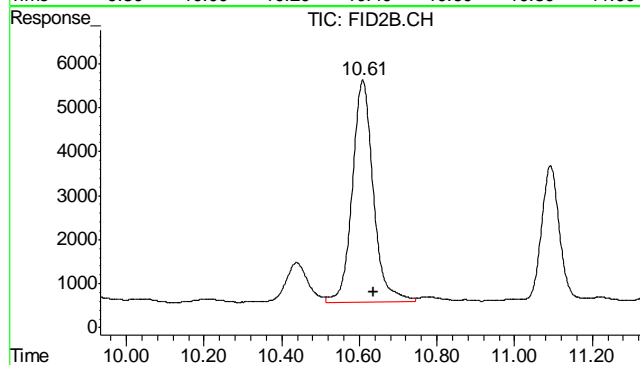
#6 Toluene

R.T.: 7.854 min
Delta R.T.: -0.030 min
Response: 69538
Conc: 0.33 ug/L



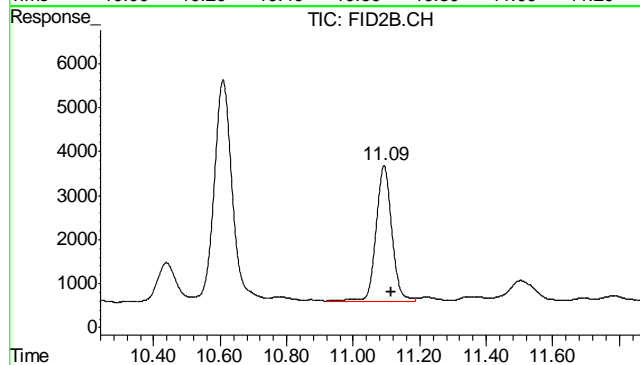
#7 Ethylbenzene

R.T.: 10.439 min
Delta R.T.: -0.026 min
Response: 35854
Conc: 0.19 ug/L



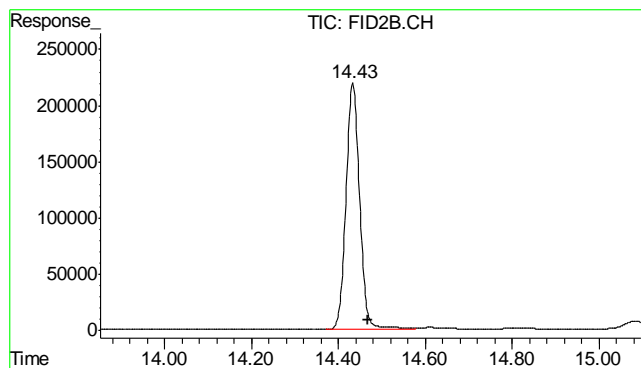
#8 m,p-Xylene

R.T.: 10.609 min
Delta R.T.: -0.028 min
Response: 190010
Conc: 0.88 ug/L



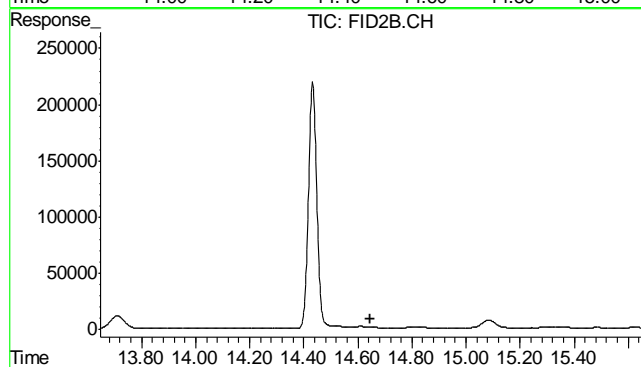
#9 o-Xylene

R.T.: 11.092 min
Delta R.T.: -0.023 min
Response: 102579
Conc: 0.56 ug/L



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

R.T.: 14.433 min
Delta R.T.: -0.035 min
Response: 4810827
Conc: 66.67 %



#11 Naphthalene

R.T.: 0.000 min
Exp R.T. : 14.647 min
Response: 0
Conc: N.D.

10.2.1
10

Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12239.D\FID1A.CH Vial: 19
 Signal #2 : Z:\061511\GA12239.D\FID2B.CH
 Acq On : 16 Jun 2011 6:35 am Operator: StephK
 Sample : MB, S Inst : BTEX2
 Misc : GC1955,GGA665,5.000,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jun 17 07:22:04 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Jun 16 09:42:47 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	14.44	2814612	79.100	%
10) S	1,2,4-Trichlorobenzene (P)	14.44	4841727	67.348	%
Target Compounds					
1) H	TVH-Gasoline	7.39	2375731	<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	7.86	65944	0.314	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.61	129638	0.601	ug/L
9) T	o-Xylene	11.09	58766	0.323	ug/L
11) T	Naphthalene	0.00	0	N.D.	ug/L d

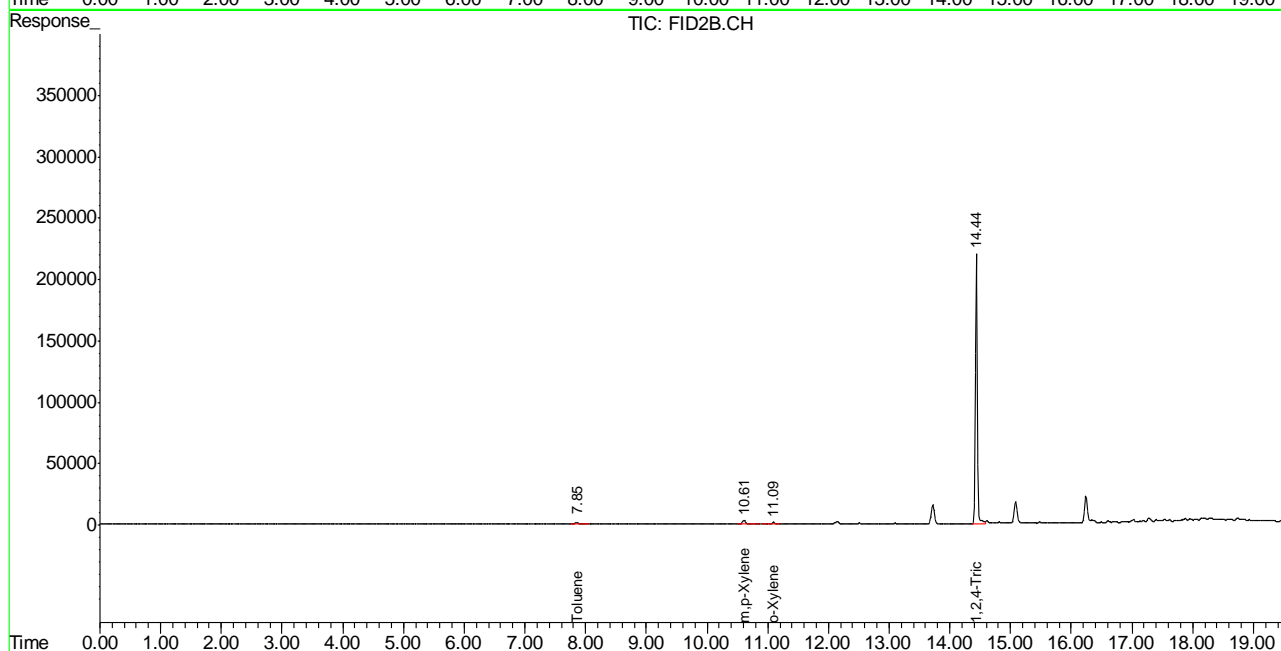
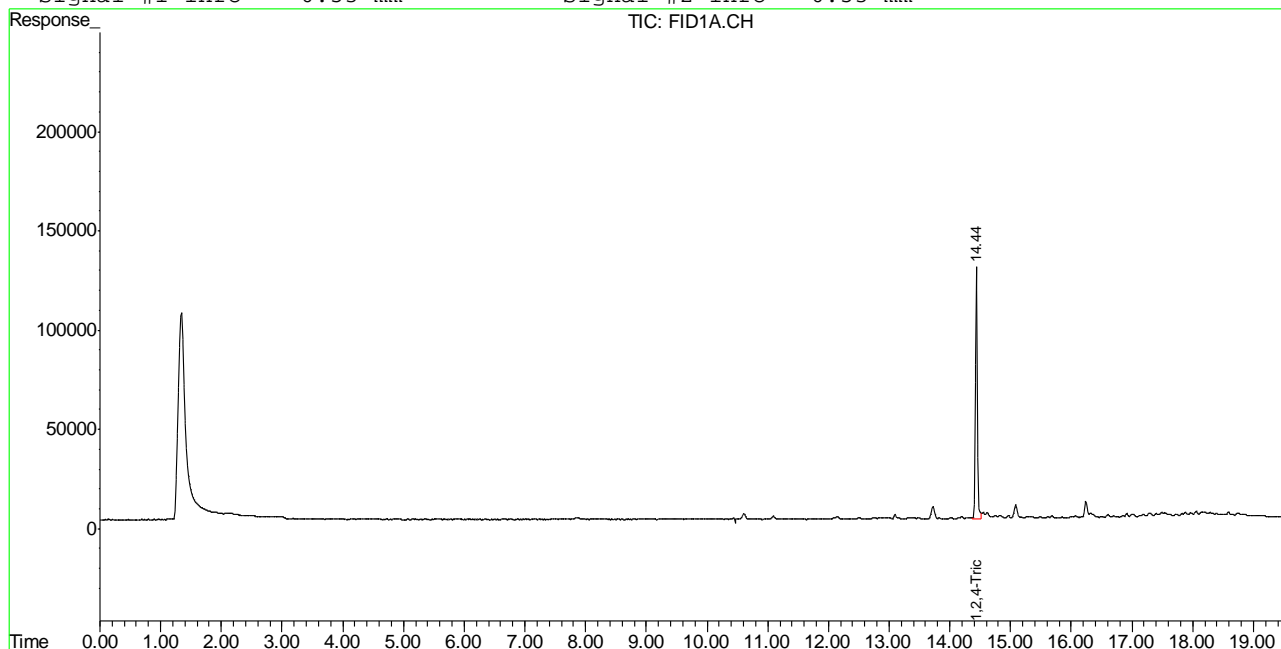
 (f)=RT Delta > 1/2 Window (m)=manual int.
 GA12239.D TA620GA620.M Fri Jun 17 07:56:33 2011 GC

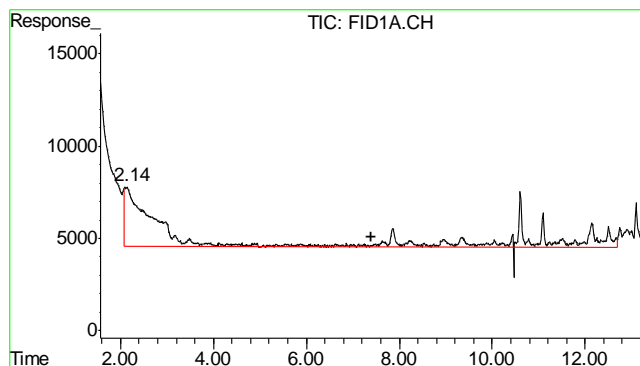
Quantitation Report (QT Reviewed)

Signal #1 : Z:\061511\GA12239.D\FID1A.CH Vial: 19
Signal #2 : Z:\061511\GA12239.D\FID2B.CH
Acq On : 16 Jun 2011 6:35 am Operator: StephK
Sample : MB, S Inst : BTEX2
Misc : GC1955,GGA665,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 17 5:45 2011 Quant Results File: TA620GA620.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA620GA620.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Jun 16 09:42:47 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB2.M

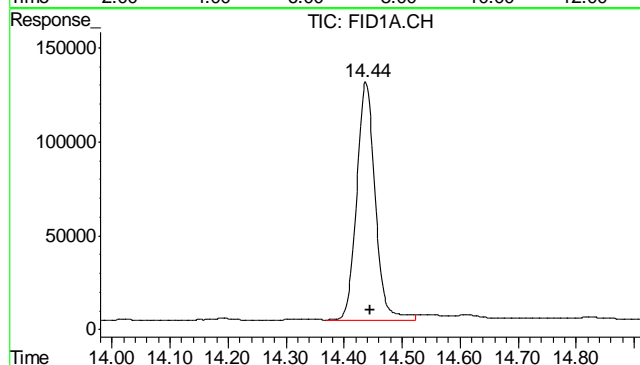
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





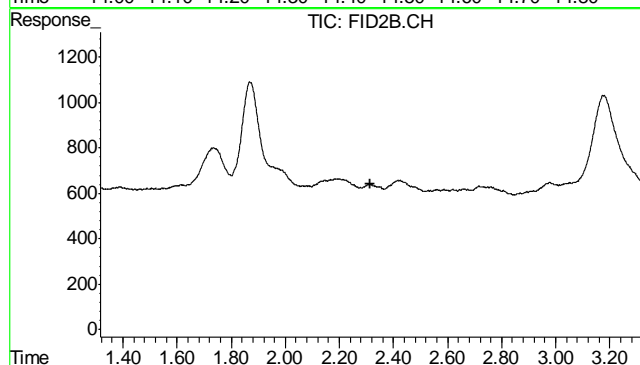
#1 TVH-Gasoline

R.T.: 7.390 min
Delta R.T.: 0.000 min
Response: 2375731
Conc: N.D.



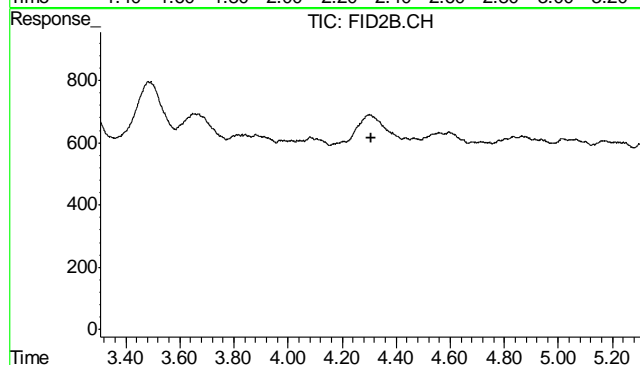
#2 1,2,4-Trichlorobenzene

R.T.: 14.438 min
Delta R.T.: -0.007 min
Response: 2814612
Conc: 79.10 %



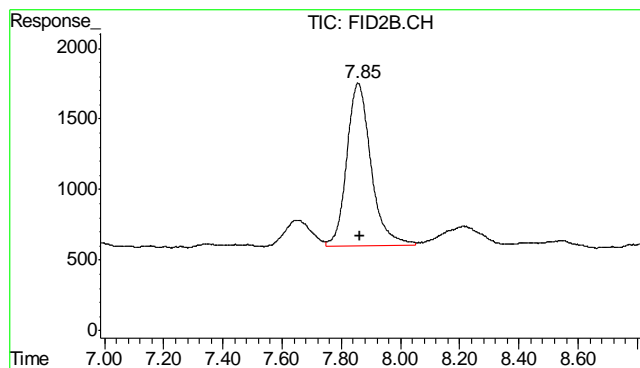
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.315 min
Response: 0
Conc: N.D.



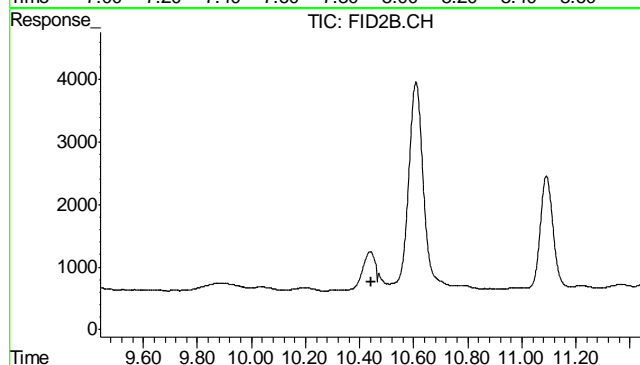
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.306 min
Response: 0
Conc: N.D.



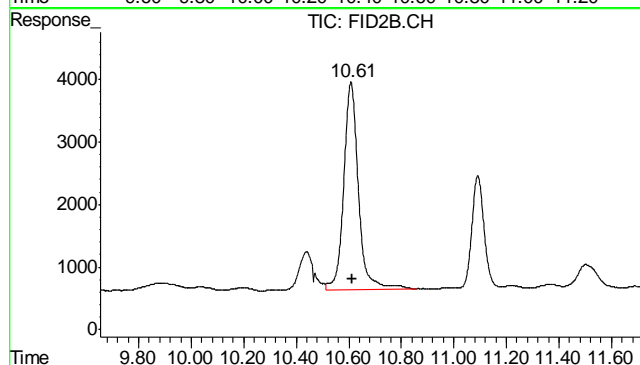
#6 Toluene

R.T.: 7.857 min
Delta R.T.: -0.006 min
Response: 65944
Conc: 0.31 ug/L



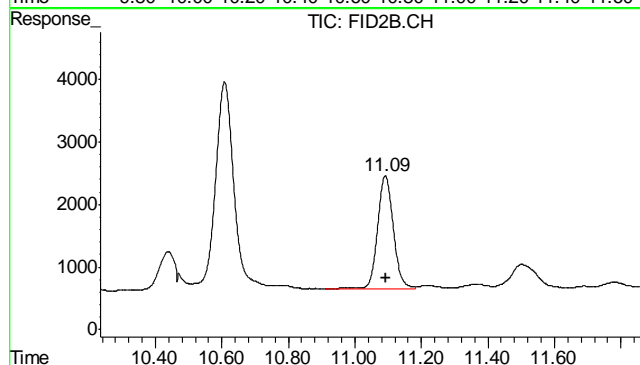
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.441 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

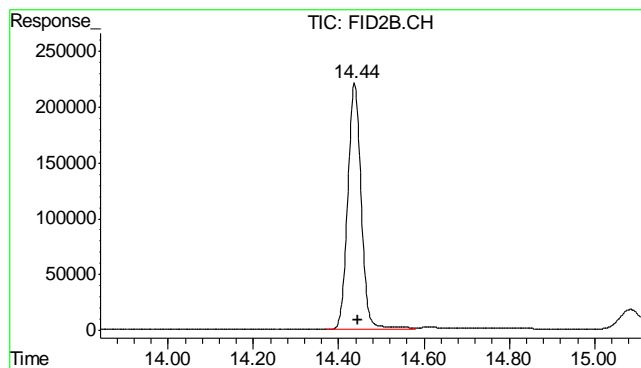
R.T.: 10.608 min
Delta R.T.: -0.006 min
Response: 129638
Conc: 0.60 ug/L



#9 o-Xylene

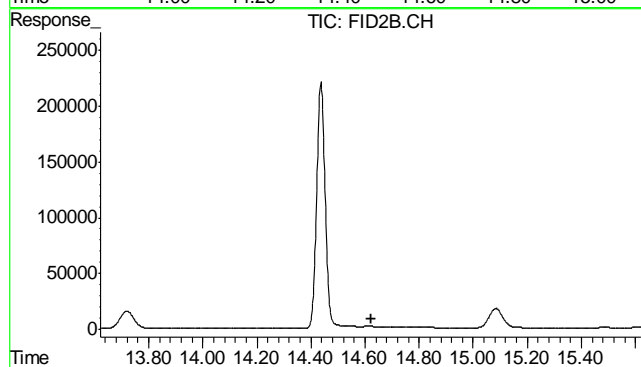
R.T.: 11.091 min
Delta R.T.: -0.003 min
Response: 58766
Conc: 0.32 ug/L

10.2.2 10



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

R.T.: 14.437 min
Delta R.T.: -0.006 min
Response: 4841727
Conc: 67.35 %



#11 Naphthalene

R.T.: 0.000 min
Exp R.T. : 14.621 min
Response: 0
Conc: N.D.

10.2.2
10

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: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3828-MB	FD06952.D	1	06/10/11	JB	06/10/11	OP3828	GFD304

The QC reported here applies to the following samples:

Method: SW846-8015B

D24251-1, D24251-2

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	97% 61-142%

Blank Spike Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3828-BS	FD06953.D	1	06/10/11	JB	06/10/11	OP3828	GFD304

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

D24251-1, D24251-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	624	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	99%	61-142%

11.2.1
11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24251
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP3828-MS	FD06955.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
OP3828-MSD	FD06956.D	1	06/10/11	JB	06/10/11	OP3828	GFD304
D24249-1	FD06957.D	1	06/10/11	JB	06/10/11	OP3828	GFD304

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

D24251-1, D24251-2

CAS No.	Compound	D24249-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	567	782	1520	122	1480	117	3	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D24249-1	Limits
84-15-1	o-Terphenyl	81%	91%	84%	61-142%

11.3.1
11

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061311\FD06995.D Vial: 4
Acq On : 6-13-2011 01:50:15 PM Operator: erikah
Sample : D24251-1 Inst : FID5
Misc : OP3828,GFD305,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 15:25:01 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

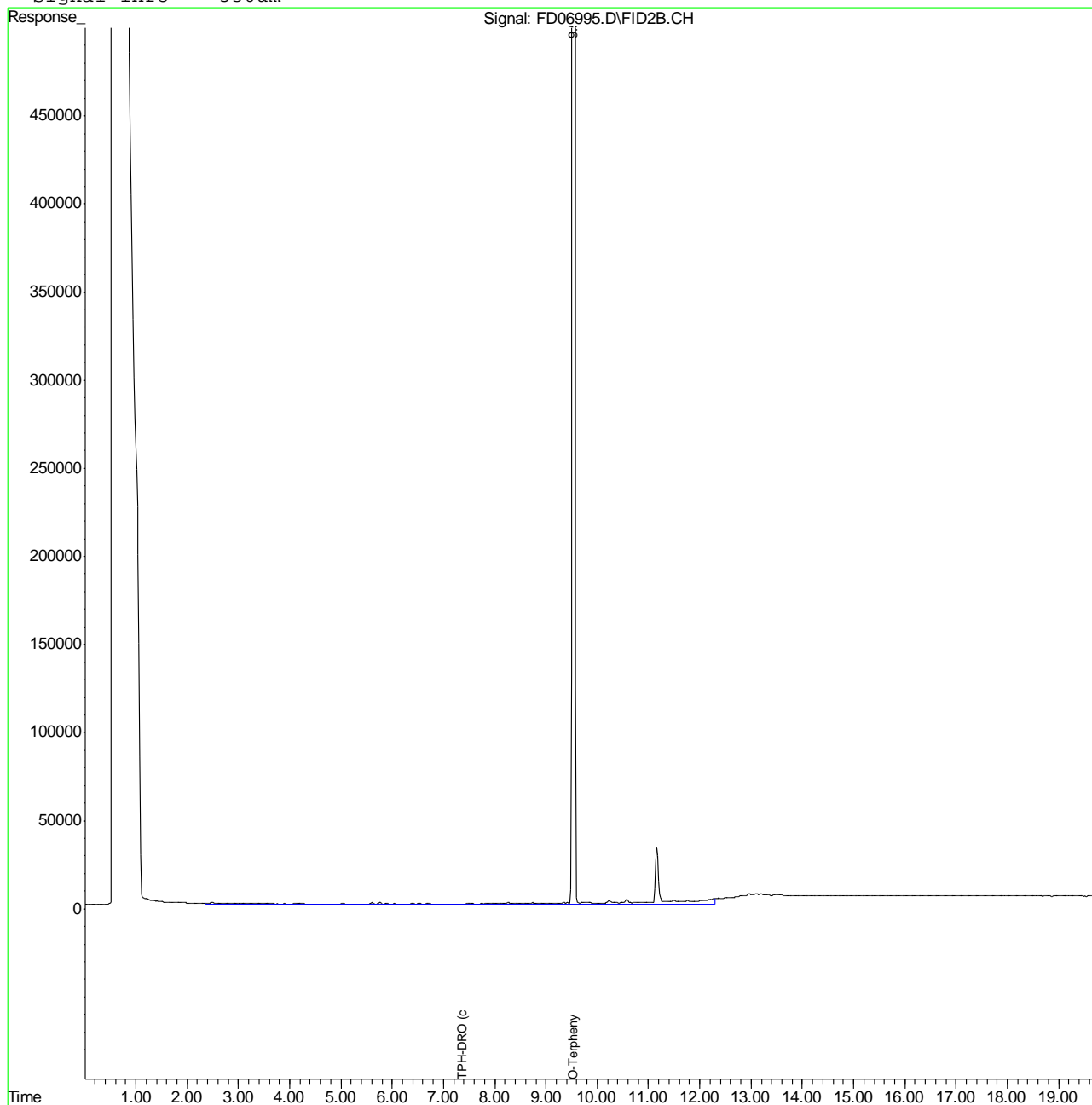
System Monitoring Compounds			
1) S O-Terphenyl	9.54	42070310	804.815 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	3896048	20.104 mg/L

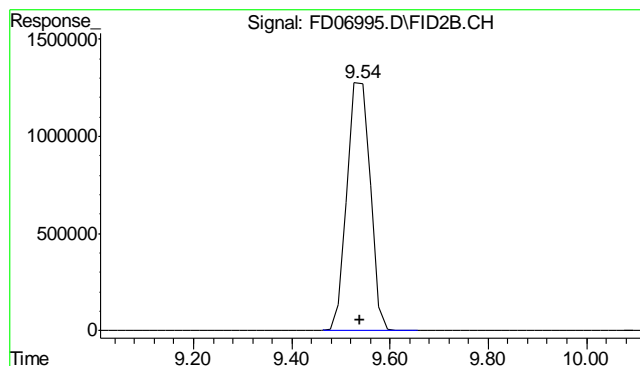
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061311\FD06995.D Vial: 4
Acq On : 6-13-2011 01:50:15 PM Operator: erikah
Sample : D24251-1 Inst : FID5
Misc : OP3828,GFD305,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 15:25 2011 Quant Results File: DR-GFD294.RES

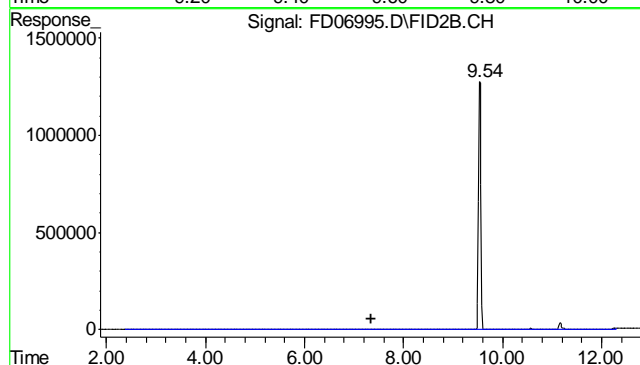
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

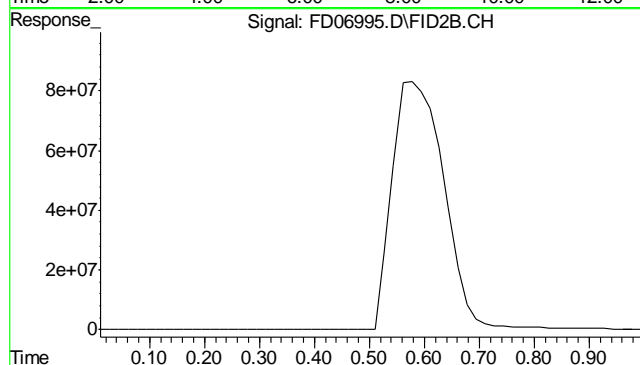




#1 O-Terphenyl
 R.T.: 9.536 min
 Delta R.T.: -0.004 min
 Response: 42070310
 Conc: 804.82 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 3896048
 Conc: 20.10 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

12.1.1
12

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061311\FD06996.D Vial: 5
Acq On : 6-13-2011 02:15:53 PM Operator: erikah
Sample : D24251-2 Inst : FID5
Misc : OP3828,GFD305,30.04,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 15:25:22 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	43554974	833.217 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	661071609	13606.745 mg/L

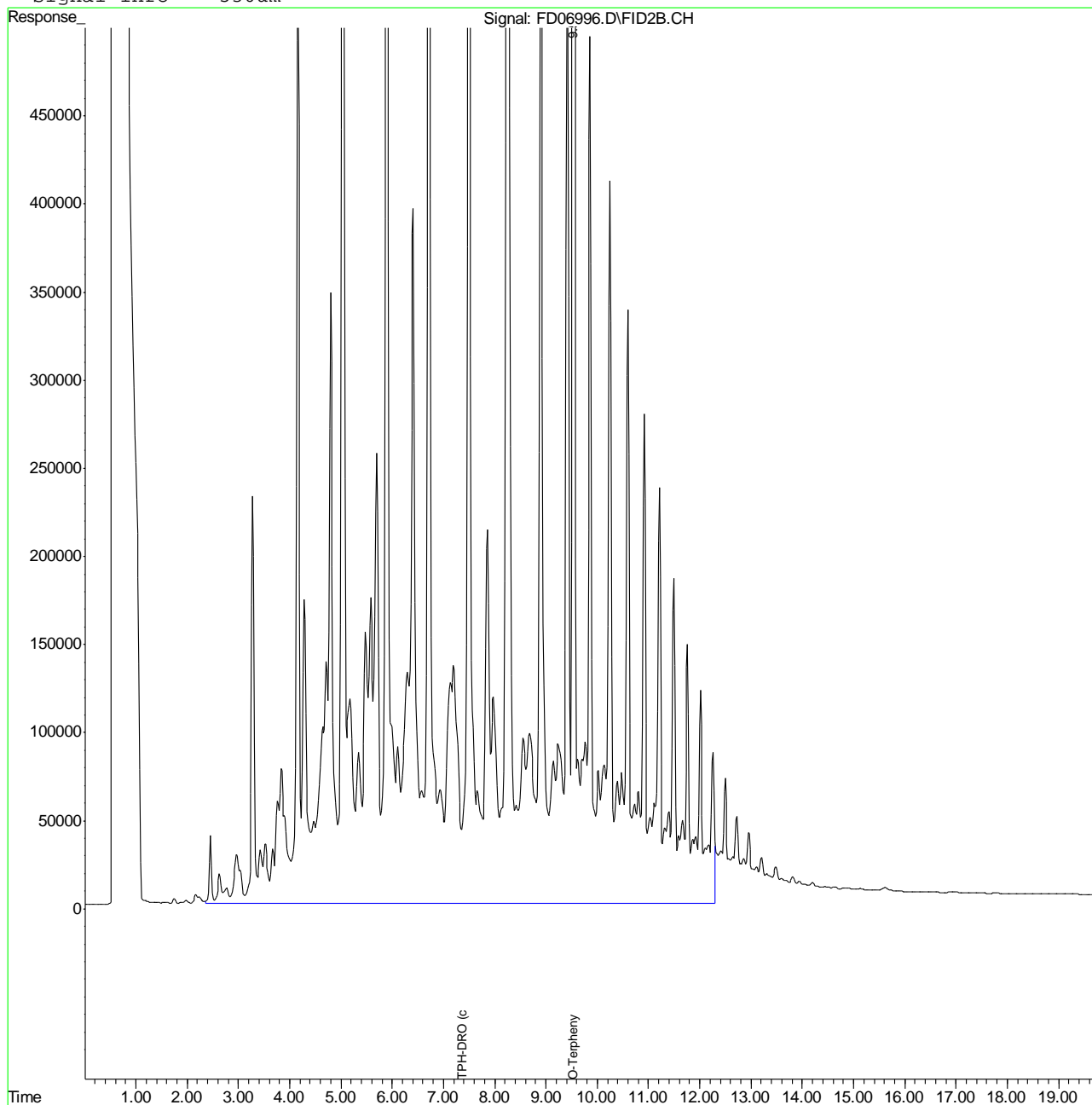
12.1.2
12

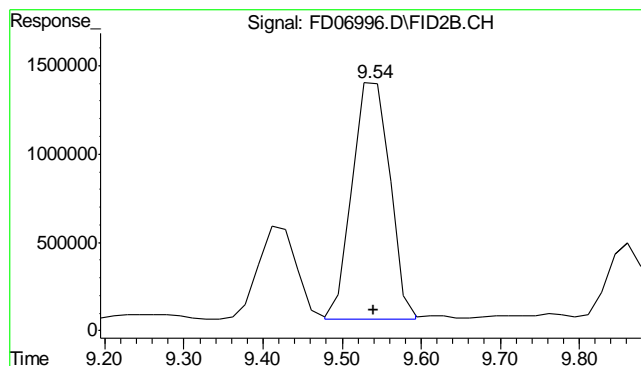
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061311\FD06996.D Vial: 5
Acq On : 6-13-2011 02:15:53 PM Operator: erikah
Sample : D24251-2 Inst : FID5
Misc : OP3828,GFD305,30.04,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 13 15:25 2011 Quant Results File: DR-GFD294.RES

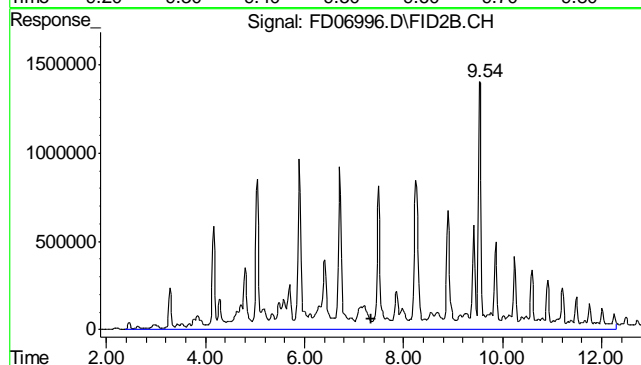
Quant Method : C:\MSDCHEM\2\METHODS\DR-GFD294.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 12 13:23:22 2011
Response via : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

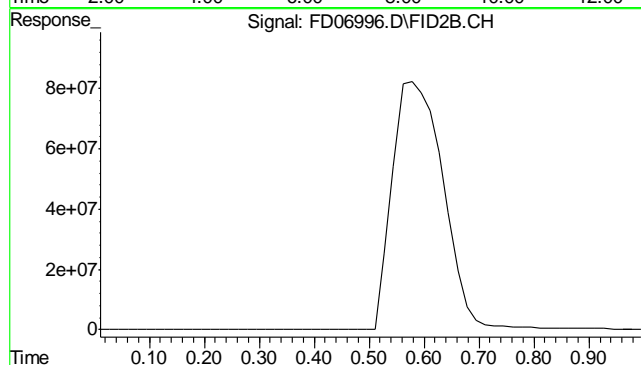




#1 O-Terphenyl
 R.T.: 9.536 min
 Delta R.T.: -0.004 min
 Response: 43554974
 Conc: 833.22 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.355 min
 Delta R.T.: 0.000 min
 Response: 661071609
 Conc: 13606.74 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

12.1.2
 12

Judy Melson
06/13/11 09:07

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06952.D Vial: 3
Acq On : 6-10-2011 02:40:54 PM Operator: JACOB
Sample : OP3828-MB Inst : FID5
Misc : OP3828,GFD304,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 15:41:46 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

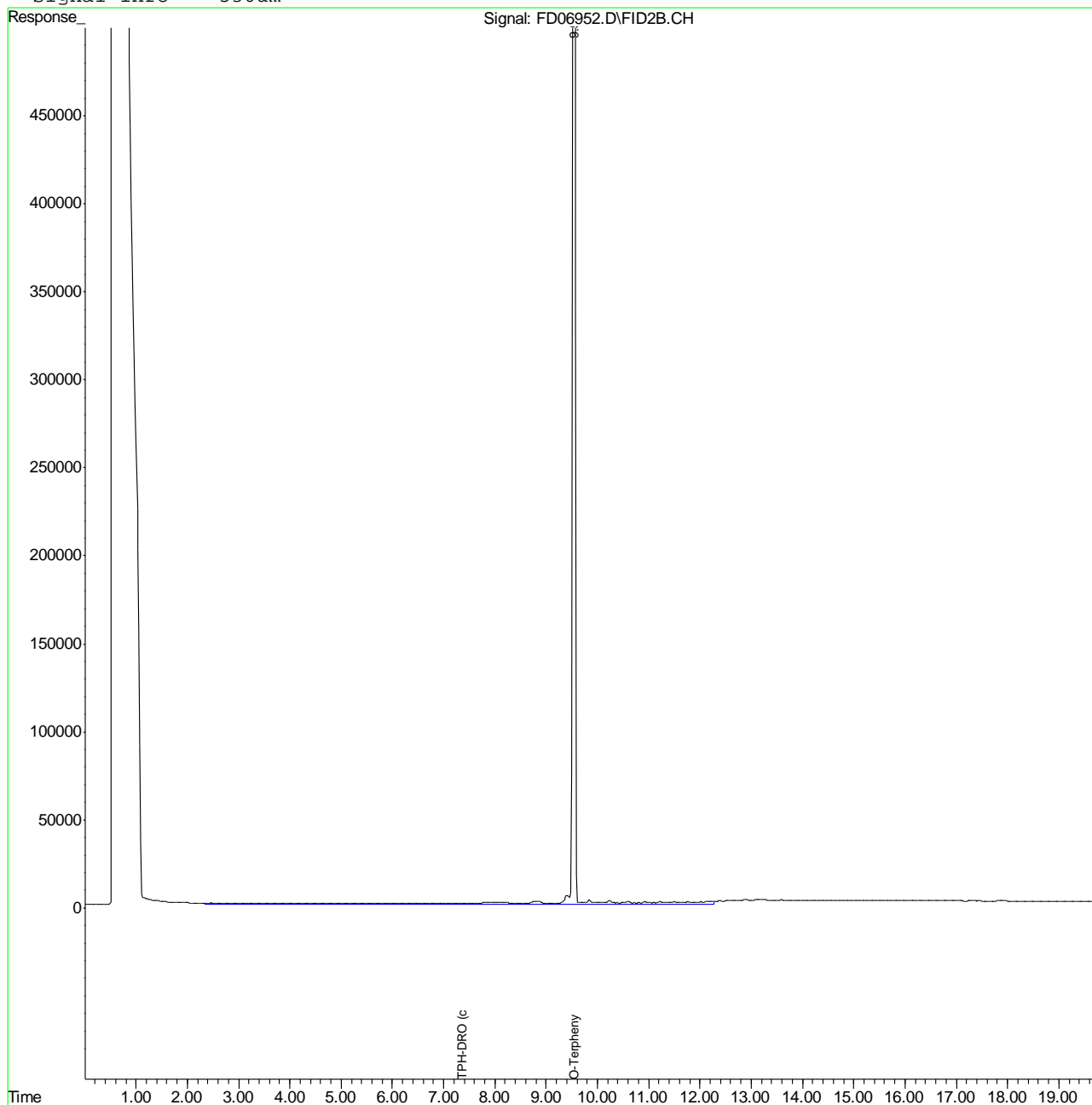
System Monitoring Compounds			
1) S O-Terphenyl	9.54	50681698	969.553 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.36	3719070	16.445 mg/L

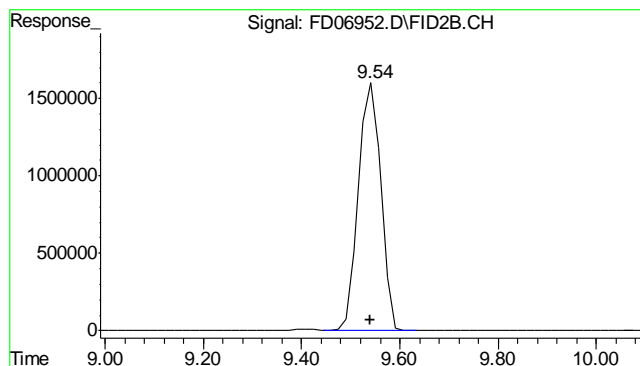
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\FD061011\FD06952.D Vial: 3
Acq On : 6-10-2011 02:40:54 PM Operator: JACOB
Sample : OP3828-MB Inst : FID5
Misc : OP3828,GFD304,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Jun 10 15:42 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 : Multiple Level Calibration
DataAcq Meth : RR_BASE4.M

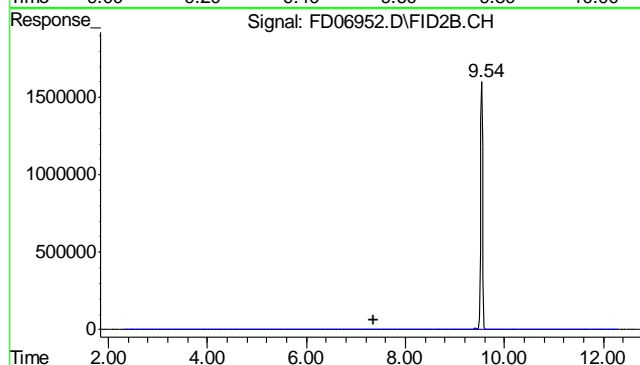
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





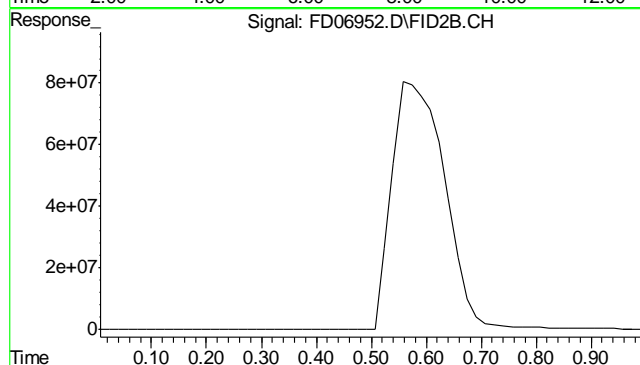
#1 O-Terphenyl

R.T.: 9.539 min
Delta R.T.: -0.001 min
Response: 50681698
Conc: 969.55 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.355 min
Delta R.T.: 0.000 min
Response: 3719070
Conc: 16.44 mg/L m



#9 5a-Androstane

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

12.2.1
12

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/14/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.59	.59		
Antimony	3.0	.31	.31		
Arsenic	2.5	.59	.59		
Barium	1.0	.11	.11	0.070	<1.0
Beryllium	1.0	.044	.1		
Boron	5.0	.48	.48		
Cadmium	1.0	.027	.27	0.020	<1.0
Calcium	40	.96	1.1		
Chromium	1.0	.018	.031	0.010	<1.0
Cobalt	0.50	.035	.035		
Copper	1.0	.085	.16	-0.17	<1.0
Iron	7.0	.34	2		
Lead	5.0	.16	.21	-0.090	<5.0
Lithium	0.20	.028	.031		
Magnesium	20	.58	1.4		
Manganese	0.50	.0053	.012		
Molybdenum	1.0	.045	.054		
Nickel	3.0	.043	.099	-0.040	<3.0
Phosphorus	10	1.1	1.2		
Potassium	200	5.5	9.2		
Selenium	5.0	.38	.5	-0.40	<5.0
Silicon	5.0	.38	.51		
Silver	3.0	.018	.051	-0.020	<3.0
Sodium	40	11	11		
Strontium	5.0		.017		
Thallium	1.0	.29	.34		
Tin	5.0	.55	1.3		
Titanium	1.0	.011	.1		
Uranium	5.0	.15	.2		
Vanadium	1.0	.016	.025		
Zinc	3.0	.028	.06	0.15	<3.0

Associated samples MP4922: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/14/11

Metal	D24251-1 Original MS		Spikelot MPICPALL	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	134	286	213	71.4N(a)	75-125
Beryllium					
Boron	anr				
Cadmium	0.19	40.7	53.2	76.1	75-125
Calcium	anr				
Chromium	28.2	66.1	53.2	71.2N(a)	75-125
Cobalt					
Copper	10.7	53.6	53.2	80.6	75-125
Iron					
Lead	11.6	90.2	106	73.9N(a)	75-125
Lithium					
Magnesium					
Manganese	anr				
Molybdenum	anr				
Nickel	13.4	51.3	53.2	71.2N(a)	75-125
Phosphorus	anr				
Potassium	anr				
Selenium	0.49	84.4	106	78.8	75-125
Silicon					
Silver	0.16	17.2	21.3	80.1	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	40.6	76.6	53.2	67.7N(a)	75-125

Associated samples MP4922: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/14/11

Metal	D24251-1 Original	MSD	Spikelot MPICPAL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	134	309	217	80.7	7.7	20
Beryllium						
Boron	anr					
Cadmium	0.19	44.5	54.2	81.7	8.9	20
Calcium	anr					
Chromium	28.2	72.2	54.2	81.2	8.8	20
Cobalt						
Copper	10.7	59.0	54.2	89.1	9.6	20
Iron						
Lead	11.6	98.3	108	80.0	8.6	20
Lithium						
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	13.4	55.2	54.2	77.1	7.3	20
Phosphorus	anr					
Potassium	anr					
Selenium	0.49	91.9	108	84.3	8.5	20
Silicon						
Silver	0.16	18.9	21.7	86.4	9.4	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	40.6	81.5	54.2	75.4	6.2	20

Associated samples MP4922: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

13.1.2
13

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4922
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 06/14/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	176	200	88.0	80-120
Beryllium				
Boron	anr			
Cadmium	44.8	50	89.6	80-120
Calcium	anr			
Chromium	45.2	50	90.4	80-120
Cobalt				
Copper	45.1	50	90.2	80-120
Iron				
Lead	90.8	100	90.8	80-120
Lithium				
Magnesium				
Manganese	anr			
Molybdenum	anr			
Nickel	44.7	50	89.4	80-120
Phosphorus	anr			
Potassium	anr			
Selenium	95.1	100	95.1	80-120
Silicon				
Silver	18.8	20	94.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	44.8	50	89.6	80-120

Associated samples MP4922: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

13.1.3
13

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/14/11

Metal	D24251-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	1180	1360	15.0*(a)	0-10
Beryllium				
Boron	anr			
Cadmium	1.70	0.00	100.0(b)	0-10
Calcium	anr			
Chromium	248	291	17.0*(a)	0-10
Cobalt				
Copper	90.4	94.5	1.0	0-10
Iron				
Lead	102	103	0.8	0-10
Lithium				
Magnesium				
Manganese	anr			
Molybdenum	anr			
Nickel	118	139	18.1*(a)	0-10
Phosphorus	anr			
Potassium	anr			
Selenium	4.30	0.00	100.0(b)	0-10
Silicon				
Silver	1.40	4.00	185.7(b)	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	357	447	25.1*(a)	0-10

Associated samples MP4922: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4922
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4923
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 06/14/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.14	1.2		
Antimony	0.20	.001	.0095		
Arsenic	0.40	.049	.22	-0.15	<0.40
Barium	1.0	.0035	.1		
Beryllium	0.10	.0075	.014		
Boron	20	.97	1		
Cadmium	0.050	.023	.048		
Calcium	200	1.8	8.2		
Chromium	1.0	.021	.24		
Cobalt	0.10	.0033	.003		
Copper	1.0	.011	.063		
Iron	20	.81	3.7		
Lead	0.25	.0012	.015		
Magnesium	50	.067	2.6		
Manganese	0.50	.007	.029		
Molybdenum	0.50	.0044	.023		
Nickel	1.0	.0029	.031		
Phosphorus	30	1.8	3.5		
Potassium	100	2	3.2		
Selenium	0.20	.075	.19		
Silver	0.050	.0008	.002		
Sodium	250	.8	4.4		
Strontium	10	.004	.04		
Thallium	0.10	.015	.02		
Tin	5.0	.006	.028		
Titanium	1.0	.035	.062		
Uranium	0.25	.00038	.0009		
Vanadium	2.0	.052	.29		
Zinc	5.0	.039	.12		

Associated samples MP4923: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4923
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 06/14/11

Metal	D24251-1 Original MS	Spikelot MPICPAL % Rec	QC Limits
Aluminum			
Antimony			
Arsenic	1.6	91.8	106
Barium	anr		
Beryllium			
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt			
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel			
Phosphorus			
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium			
Tin			
Titanium			
Uranium			
Vanadium			
Zinc			

Associated samples MP4923: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4923
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 06/14/11

Metal	D24251-1 Original	MSD	Spikelot MPICPAL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	1.6	101	108	91.7	9.5	20
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel						
Phosphorus						
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP4923: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D24251

Account: KRWCCOL - KRW Consulting, Inc.

Project: PCU 296-7A

QC Batch ID: MP4923

Methods: SW846 6020

Matrix Type: SOLID

Units: mg/kg

Prep Date:

06/14/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	93.6	100	93.6	80-120
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP4923: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4923
 Matrix Type: SOLID

Methods: SW846 6020
 Units: ug/l

Prep Date: 06/14/11

Metal	D24251-1	QC
	Original SDL 5:25 %DIF	Limits

Aluminum		
Antimony		
Arsenic	13.8	14.3
Barium	anr	
Beryllium		
Boron		
Cadmium	anr	
Calcium	anr	
Chromium	anr	
Cobalt		
Copper	anr	
Iron	anr	
Lead	anr	
Magnesium	anr	
Manganese	anr	
Molybdenum		
Nickel		
Phosphorus		
Potassium	anr	
Selenium	anr	
Silver	anr	
Sodium	anr	
Strontium		
Thallium		
Tin		
Titanium		
Uranium		
Vanadium		
Zinc		

Associated samples MP4923: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

13.24
13

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4924
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date: 06/15/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	30	30		
Antimony	150	16	16		
Arsenic	130	30	30		
Barium	50	5.5	5.5		
Beryllium	50	2.2	2.5		
Boron	250	24	24		
Cadmium	50	1.4	1.4		
Calcium	2000	48	75	26.5	<2000
Chromium	50	.9	4		
Cobalt	25	1.8	1.8		
Copper	50	4.3	14		
Iron	350	17	65		
Lead	250	8	11		
Lithium	10	1.4	6		
Magnesium	1000	29	50	13.0	<1000
Manganese	25	.27	1.6		
Molybdenum	50	2.3	4.4		
Nickel	150	2.2	5		
Phosphorus	500	55	100		
Potassium	5000	280	280		
Selenium	250	19	19		
Silicon	250	19	19		
Silver	150	.9	1.6		
Sodium	2000	570	570	-220	<2000
Strontium	25		1.3		
Thallium	50	15	15		
Tin	250	28	50		
Titanium	50	.55	1.6		
Uranium	250	7.5	18		
Vanadium	50	.8	1.1		
Zinc	150	1.4	9		

Associated samples MP4924: D24251-1A, D24251-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4924
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4924
 Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 06/15/11

Metal	D24304-1A Original MS		Spikelot MPICPALL % Rec		QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	24200	163000	125000	111.0	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	5830	137000	125000	104.9	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	111000	252000	125000	112.8	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP4924: D24251-1A, D24251-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

13.32
13

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4924
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

13.3.2
13

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4924
 Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 06/15/11

Metal	D24304-1A Original MSD		Spikelot MPICPAL % Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	24200	164000	125000	111.8	0.6	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	5830	138000	125000	105.7	0.7	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	111000	255000	125000	115.2	1.2	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP4924: D24251-1A, D24251-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4924
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D24251

Account: KRWCCOL - KRW Consulting, Inc.

Project: PCU 296-7A

QC Batch ID: MP4924

Methods: SW846 6010B, USDA HANDBOOK 60

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

06/15/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	132000	125000	105.6	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	128000	125000	102.4	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	131000	125000	104.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP4924: D24251-1A, D24251-2A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

13.3.3
13

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4924
Matrix Type: AQUEOUS

Methods: SW846 6010B, USDA HANDBOOK 60
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

QC Batch ID: MP4931
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 06/15/11

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.10	.0011	.013	-0.0042	<0.10

Associated samples MP4931: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4931
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 06/15/11

Metal	D24304-1 Original MS	Spikelot HGWSR1	% Rec	QC Limits
-------	-------------------------	--------------------	-------	--------------

Mercury 0.026 0.44 0.404 102.5 85-115

Associated samples MP4931: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4931
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 06/15/11

Metal	D24304-1 Original MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit
Mercury	0.026 0.45	0.397	106.9	2.2	20

Associated samples MP4931: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D24251
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: PCU 296-7A

QC Batch ID: MP4931
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 06/15/11

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.42	0.4	105.0	80-120

Associated samples MP4931: D24251-1, D24251-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP4669/GN10033			umhos/cm	9961	9870	99.1	90-110%
pH	GN9953			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:
Batch GN9953: D24251-1, D24251-2
Batch GP4669: D24251-1, D24251-2
(*) Outside of QC limits

14.1
14

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D24251
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 296-7A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Redox Potential Vs H2	GN9967	D24242-1	mv	418	423	1.2	0-20%

Associated Samples:

Batch GN9967: D24251-1, D24251-2

(*) Outside of QC limits

14.2
14

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24251

Client: AMS

Immediate Client Services Action Required: No

Date / Time Received: 6/14/2011

Delivery Method:

Client Service Action Required at Login: No

Project:

No. Coolers: 1

Airbill #'s:

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"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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 recvd 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

General Chemistry

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D24251
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: PCU 296-7A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP13102/GN35203	0.40	0.18	mg/kg	12	12.3	102.5	80-120%
Chromium, Hexavalent	GP13102/GN35203			mg/kg	1040	1080	103.8	80-120%

Associated Samples:
Batch GP13102: D24251-1, D24251-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D24251
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: PCU 296-7A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP13102/GN35203	D24283-1A	mg/kg	0.41	0.26	44.8(a)	0-20%

Associated Samples:

Batch GP13102: D24251-1, D24251-2

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D24251
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: PCU 296-7A

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP13102/GN35203	D24283-1A	mg/kg	0.41	12.2	11.1	87.7	75-125%
Chromium, Hexavalent	GP13102/GN35203	D24283-1A	mg/kg	0.41	1070	1080	100.8	75-125%

Associated Samples:

Batch GP13102: D24251-1, D24251-2

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

Accutest Mountain States				Jun 23, 2011 16:30 pm	
Job Number:	D24251				
Account:	KRW Consulting, Inc.				
Project:	PCU 296-7A				
Project Number:	1104-03B				
Legend:					Hit
Client Sample ID:		296-7A-BH-01-17.5'-20.5'	296-7A-BH-01-17.5'-20.5'	296-7A-BH-02-18'-20'	296-7A-BH-02-18'-20'
Lab Sample ID:		D24251-1	D24251-1A	D24251-2	D24251-2A
Date Sampled:		06/07/2011	06/07/2011	06/08/2011	06/08/2011
Matrix:		Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260B)					
Benzene	ug/kg	ND (28)	-	ND (29)	-
Toluene	ug/kg	ND (64)	-	ND (66)	-
Ethylbenzene	ug/kg	ND (32)	-	ND (33)	-
Xylene (total)	ug/kg	ND (130)	-	ND (130)	-
GC/MS Semi-volatiles (SW846 8270C BY SIM)					
Acenaphthene	ug/kg	ND (6.1)	-	ND (6.2)	-
Anthracene	ug/kg	ND (6.9)	-	ND (7.0)	-
Benzo(a)anthracene	ug/kg	ND (9.9)	-	ND (10)	-
Benzo(a)pyrene	ug/kg	ND (14)	-	ND (14)	-
Benzo(b)fluoranthene	ug/kg	ND (14)	-	ND (14)	-
Benzo(k)fluoranthene	ug/kg	ND (8.4)	-	ND (8.5)	-
Chrysene	ug/kg	ND (8.4)	-	ND (8.5)	-
Dibenzo(a,h)anthracene	ug/kg	ND (14)	-	ND (14)	-
Fluoranthene	ug/kg	ND (7.6)	-	ND (7.8)	-
Fluorene	ug/kg	ND (6.5)	-	ND (6.6)	-
Indeno(1,2,3-cd)pyrene	ug/kg	ND (21)	-	ND (21)	-
Naphthalene	ug/kg	ND (7.3)	-	ND (7.4)	-
Pyrene	ug/kg	ND (7.3)	-	ND (7.4)	-
GC Volatiles (SW846 8015B)					
TPH-GRO (C6-C10)	mg/kg	ND (6.4)	-	ND (6.6)	-
GC Semi-volatiles (SW846-8015B)					
TPH-DRO (C10-C28)	mg/kg	ND (10)	-	1060	-
Metals Analysis					
Arsenic	mg/kg	1.6	-	4.2	-
Barium	mg/kg	134	-	132	-
Cadmium	mg/kg	<1.1	-	<1.1	-
Calcium	mg/l	-	9.08	-	11.4

Chromium	mg/kg	28.2	-	33.0	-
Copper	mg/kg	10.7	-	10.4	-
Lead	mg/kg	11.6	-	12.7	-
Magnesium	mg/l	-	5.20	-	6.15
Mercury	mg/kg	<0.11	-	<0.11	-
Nickel	mg/kg	13.4	-	14.7	-
Selenium	mg/kg	<5.7	-	<5.7	-
Silver	mg/kg	<3.4	-	<3.4	-
Sodium	mg/l	-	28.7	-	26.4
Zinc	mg/kg	40.6	-	43.1	-
General Chemistry					
Chromium, Hexavalent	mg/kg	<0.45 ^a	-	<0.46 ^a	-
Chromium, Trivalent	mg/kg	27.8 ^b	-	32.7 ^b	-
Redox Potential Vs H2	mv	422	-	406	-
Sodium Adsorption Ratio	ratio	-	1.88 ^c	-	1.57 ^c
Solids, Percent	%	87	-	85.7	-
Specific Conductivity	umhos/cm	167	-	149	-
pH	su	9.52	-	9.57	-
Footnotes:					
^a Analysis performed at Accutest Laboratories, Marlborough, MA.					
^b Calculated as: (Chromium) - (Chromium, Hexavalent)					
^c Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+(Mg meq/L)/2]					



09/30/11

Technical Report for

KRW Consulting, Inc.

PCU 296-7A

1104-03B

Accutest Job Number: D27990

Sampling Dates: 09/22/11 - 09/23/11

Report to:

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

Total number of pages in report: **143**



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: D27990

PCU 296-7A

Project No: 1104-03B

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
D27990-1	09/22/11	13:20	RR	09/24/11	SO	Soil	296-7A_BH-03 14' -19'
D27990-2	09/22/11	14:00	RR	09/24/11	SO	Soil	296-7A_BH-03 24' -29'
D27990-3	09/22/11	16:05	RR	09/24/11	SO	Soil	296-7A_BH-04 14' -19'
D27990-4	09/22/11	16:25	RR	09/24/11	SO	Soil	296-7A_BH-04 19' -24'
D27990-5	09/22/11	17:30	RR	09/24/11	SO	Soil	296-7A_BH-04 34' -39'
D27990-6	09/23/11	12:10	RR	09/24/11	SO	Soil	296-7A_BH-05 29' -34'
D27990-7	09/23/11	12:50	RR	09/24/11	SO	Soil	296-7A_BH-05 39' -44'

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.**Job No** D27990**Site:** PCU 296-7A**Report Dat** 9/30/2011 5:15:57 PM

On 09/24/2011, 7 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 D27990 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:** V5V1051

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27990-1MS, D27990-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO**Batch ID:** GGB750

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D27967-1MS, D27967-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO**Batch ID:** OP4559

- 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) D27990-4MS, D27990-4MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO**Batch ID:** GN11739

- 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: 296-7A_BH-03 14' -19'
Lab Sample ID: D27990-1
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 80.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17675.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	74	33	ug/kg	
108-88-3	Toluene	ND	150	74	ug/kg	
100-41-4	Ethylbenzene	ND	150	37	ug/kg	
1330-20-7	Xylene (total)	ND	300	150	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	104%		61-130%
460-00-4	4-Bromofluorobenzene	107%		53-131%
17060-07-0	1,2-Dichloroethane-D4	122%		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: 296-7A_BH-03 14' -19'
Lab Sample ID: D27990-1
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 80.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13182.D	1	09/26/11	SK	n/a	n/a	GGB750
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	15	7.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	83%		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:	296-7A_BH-03 14' -19'	Date Sampled:	09/22/11
Lab Sample ID:	D27990-1	Date Received:	09/24/11
Matrix:	SO - Soil	Percent Solids:	80.4
Method:	SW846-8015B SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10365.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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	17	11	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	73%		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: 296-7A_BH-03 24' -29'
Lab Sample ID: D27990-2
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17686.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	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	102%		61-130%
460-00-4	4-Bromofluorobenzene	105%		53-131%
17060-07-0	1,2-Dichloroethane-D4	118%		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: 296-7A_BH-03 24' -29'
Lab Sample ID: D27990-2
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13183.D	1	09/26/11	SK	n/a	n/a	GGB750
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	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: 296-7A_BH-03 24' -29'
Lab Sample ID: D27990-2
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10366.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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	73%		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:	296-7A_BH-04 14' -19'	Date Sampled:	09/22/11
Lab Sample ID:	D27990-3	Date Received:	09/24/11
Matrix:	SO - Soil	Percent Solids:	85.6
Method:	SW846 8260B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17687.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	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	102%		61-130%
460-00-4	4-Bromofluorobenzene	104%		53-131%
17060-07-0	1,2-Dichloroethane-D4	120%		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: 296-7A_BH-04 14' -19'
Lab Sample ID: D27990-3
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 85.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13184.D	1	09/26/11	SK	n/a	n/a	GGB750
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	6.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	84%		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: 296-7A_BH-04 14' -19'
Lab Sample ID: D27990-3
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 85.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10367.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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)	11.6	16	10	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	68%		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

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Report of Analysis

Page 1 of 1

Client Sample ID:	296-7A_BH-04 19'-24'	Date Sampled:	09/22/11
Lab Sample ID:	D27990-4	Date Received:	09/24/11
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8260B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17688.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	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	103%		61-130%
460-00-4	4-Bromofluorobenzene	106%		53-131%
17060-07-0	1,2-Dichloroethane-D4	117%		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: 296-7A_BH-04 19'-24'
Lab Sample ID: D27990-4
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 87.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13185.D	1	09/26/11	SK	n/a	n/a	GGB750
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	80%		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: 296-7A_BH-04 19'-24'
Lab Sample ID: D27990-4
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 87.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10364.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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)	12.2	15	9.9	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	70%		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: 296-7A_BH-04 34' -39'
Lab Sample ID: D27990-5
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 87.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17689.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	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	104%		61-130%
460-00-4	4-Bromofluorobenzene	106%		53-131%
17060-07-0	1,2-Dichloroethane-D4	117%		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: 296-7A_BH-04 34' -39'
Lab Sample ID: D27990-5
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/22/11
Date Received: 09/24/11
Percent Solids: 87.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13186.D	1	09/26/11	SK	n/a	n/a	GGB750
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:	296-7A_BH-04 34' -39'	Date Sampled:	09/22/11
Lab Sample ID:	D27990-5	Date Received:	09/24/11
Matrix:	SO - Soil	Percent Solids:	87.0
Method:	SW846-8015B SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10368.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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)	25.3	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		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: 296-7A_BH-05 29' -34'
Lab Sample ID: D27990-6
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 09/24/11
Percent Solids: 86.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17690.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	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	104%		61-130%
460-00-4	4-Bromofluorobenzene	107%		53-131%
17060-07-0	1,2-Dichloroethane-D4	121%		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: 296-7A_BH-05 29' -34'
Lab Sample ID: D27990-6
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 09/24/11
Percent Solids: 86.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13187.D	1	09/26/11	SK	n/a	n/a	GGB750
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)	6.74	13	6.4	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	93%		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: 296-7A_BH-05 29' -34'
Lab Sample ID: D27990-6
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 09/24/11
Percent Solids: 86.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10369.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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)	52.7	15	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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A_BH-05 39' -44'
Lab Sample ID: D27990-7
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 09/24/11
Percent Solids: 86.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17691.D	1	09/26/11	DC	n/a	n/a	V5V1051
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	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	102%		61-130%
460-00-4	4-Bromofluorobenzene	103%		53-131%
17060-07-0	1,2-Dichloroethane-D4	118%		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: 296-7A_BH-05 39' -44'
Lab Sample ID: D27990-7
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 09/24/11
Percent Solids: 86.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13188.D	1	09/26/11	SK	n/a	n/a	GGB750
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	84%		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:	296-7A_BH-05 39' -44'	Date Sampled:	09/23/11
Lab Sample ID:	D27990-7	Date Received:	09/24/11
Matrix:	SO - Soil	Percent Solids:	86.3
Method:	SW846-8015B SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10370.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
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)	15.6	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	72%		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

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

FED-EX Tracking #	Bottle Order Control # <u>D27990</u>
Accutest Quote #	Accutest Job #

Client / Reporting Information			Project Information			Requested Analysis (see TEST CODE sheet)										Matrix Codes										
Company Name KRW CONSULTING, INC Street Address 8000 W 14TH AVE, STE 200 City State Zip LAKWOOD, CO 80214 Project Contact JOE HESS j.hess@krcconsulting.com Phone # 303.239.9011 / 303.239.0745 Fax # 303.239.9011			Project Name: PCU 296-7A Street: City State Billing Information (If different from Report to) Company Name Street Address City State Zip Attention:			Project # 1104-03B Client Purchase Order # Project Manager JOE HESS										Matrix Codes 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										
Field ID / Point of Collection 296-7A-BH-03 14'-19' 296-7A-BH-03 24'-29' 296-7A-BH-04 14'-19' 296-7A-BH-04 19'-24' 296-7A-BH-04 34'-39' 296-7A-BH-05 24'-34' 296-7A-BH-05 39'-44'			Date 09/22/11 09/22/11 09/22/11 09/22/11 09/23/11 09/23/11			Sampled by RR RR RR RR RR RR			Matrix 50 50 50 50 50 50			# of bottles 3 3 3 3 3 3			Number of preserved Bottles HCL HNO3 H2SO4 NONE DI Water MEQ ENCORE X X X X X X										LAB USE ONLY 01 02 03 04 05 06 07	
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> UST Analysis 3-5 Days <input type="checkbox"/> 6-9 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: _____ _____ _____			Data Deliverable Information <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										Comments / Special Instructions PLEASE EMAIL RESULTS TO XOM/ PICEANCE CREEK TEAM INCLUDING emchak@krcconsulting.com							
Relinquished by Sampler: 1 Joe Hess Date Time: 9-23 17:00			Relinquished by: 2 Rifle Service Center Date Time: 9-24/11			Relinquished by: 3 Date Time: 9:00			Relinquished by: 4 Date Time: 9:00			Relinquished by: 5 Date Time: 9:00														
Emergency & Rush T/A data available VIA Lablink			Sample Custody must be documented below each time samples change possession, including courier delivery.			Custody Seal Intact <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact			Preserved where applicable <input type="checkbox"/> NR			On Ice <input checked="" type="checkbox"/> R			Cooler Temp 3.0											

D27990: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D27990

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 9/24/2011 9:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: PCU 296-7A

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: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1051-MB	5V17671A.D 1		09/26/11	DC	n/a	n/a	V5V1051

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

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

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	108% 61-130%
460-00-4	4-Bromofluorobenzene	98% 53-131%
17060-07-0	1,2-Dichloroethane-D4	121% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D27990

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1051-BS	5V17672A.D	1	09/26/11	DC	n/a	n/a	V5V1051

The QC reported here applies to the following samples:

Method: SW846 8260B

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	50.3	101	70-130
100-41-4	Ethylbenzene	50	47.9	96	70-130
108-88-3	Toluene	50	48.7	97	70-130
1330-20-7	Xylene (total)	150	149	99	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	109%	61-130%
460-00-4	4-Bromofluorobenzene	111%	53-131%
17060-07-0	1,2-Dichloroethane-D4	121%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D27990-1MS	5V17676.D	1	09/26/11	DC	n/a	n/a	V5V1051
D27990-1MSD	5V17677.D	1	09/26/11	DC	n/a	n/a	V5V1051
D27990-1	5V17675.D	1	09/26/11	DC	n/a	n/a	V5V1051

The QC reported here applies to the following samples:

Method: SW846 8260B

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

CAS No.	Compound	D27990-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3720	3510	94	3800	102	8	70-134/30
100-41-4	Ethylbenzene	ND		3720	3310	89	3520	95	6	70-137/30
108-88-3	Toluene	ND		3720	3300	89	3540	95	7	70-130/30
1330-20-7	Xylene (total)	ND		11100	10600	95	11300	101	6	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D27990-1	Limits
2037-26-5	Toluene-D8	105%	104%	104%	61-130%
460-00-4	4-Bromofluorobenzene	119%	117%	107%	53-131%
17060-07-0	1,2-Dichloroethane-D4	118%	116%	122%	62-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17675.D
Acq On : 26 Sep 2011 12:11 pm
Operator : DONC
Sample : D27990-1, 50x
Misc : MS2745,V5V1051,5.006,,100,5,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 14:03:20 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

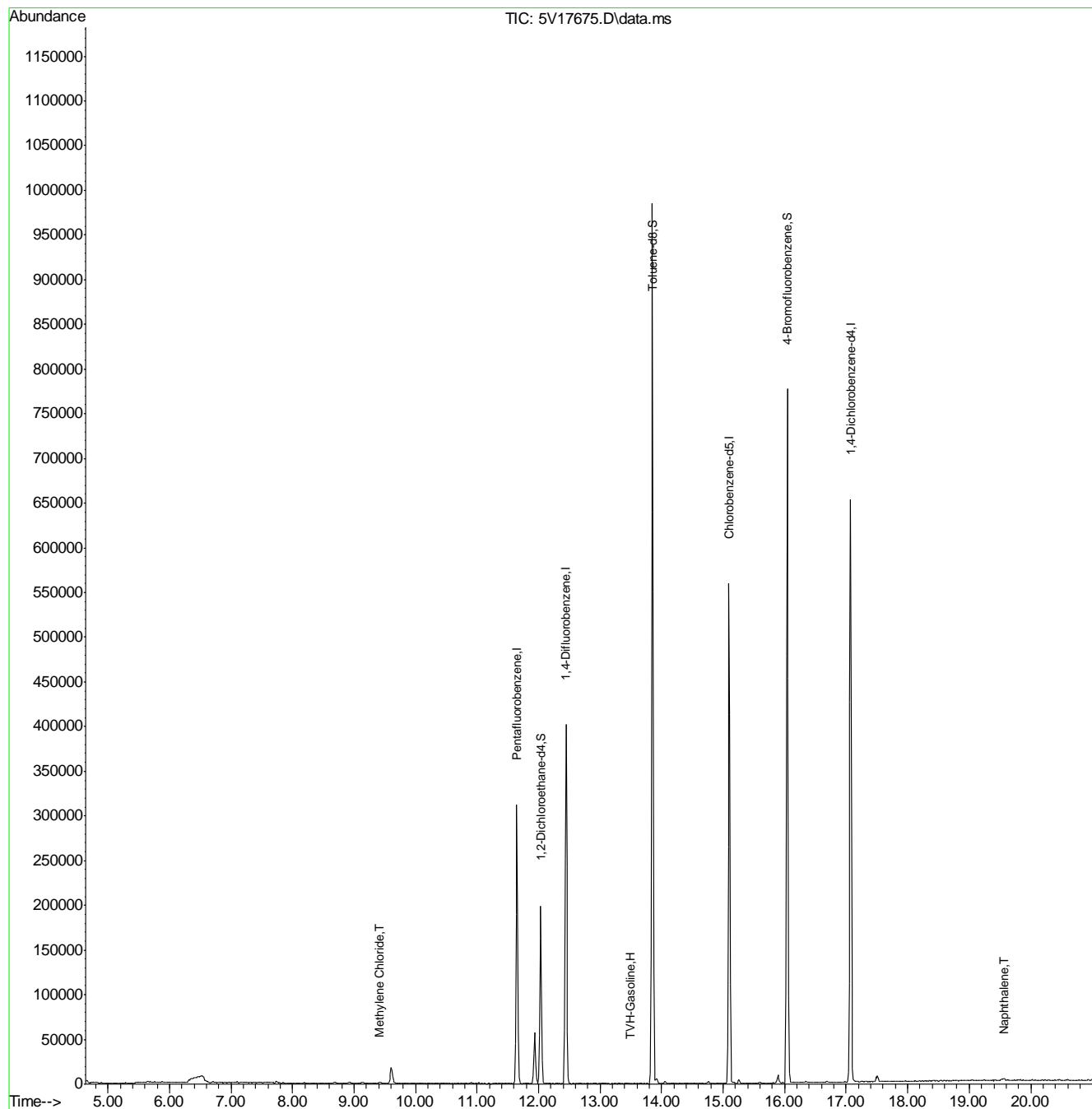
Internal Standards			R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene			11.647	168	235706	50.00	ug/l	0.00
35) 1,4-Difluorobenzene			12.446	114	340499	50.00	ug/l	0.00
53) Chlorobenzene-d5			15.095	117	347492	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4			17.070	152	218760	50.00	ug/l	0.00
System Monitoring Compounds								
33) 1,2-Dichloroethane-d4			12.035	102	35036	60.79	ug/l	0.00
Spiked Amount		50.000	Range 70 - 130		Recovery	= 121.58%		
61) Toluene-d8			13.851	98	641285	51.93	ug/l	0.00
Spiked Amount		50.000	Range 70 - 130		Recovery	= 103.86%		
69) 4-Bromofluorobenzene			16.043	95	273420	53.36	ug/l	0.00
Spiked Amount		50.000	Range 70 - 130		Recovery	= 106.72%		
Target Compounds								Qvalue
1) TVH-Gasoline			13.491	TIC	148892m	7.47	ug/l	
17) Methylene Chloride			9.421	84	992	0.35	ug/l	91
91) Naphthalene			19.559	128	1297	0.96	ug/l	100

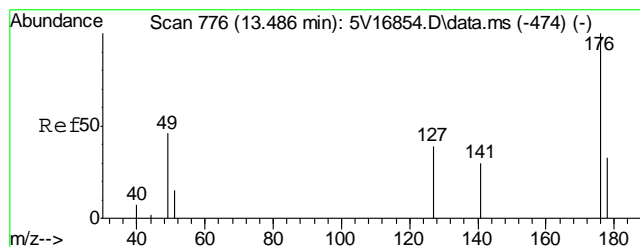
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17675.D
Acq On : 26 Sep 2011 12:11 pm
Operator : DONC
Sample : D27990-1, 50x
Misc : MS2745,V5V1051,5.006,,100,5,1
ALS Vial : 7 Sample Multiplier: 1

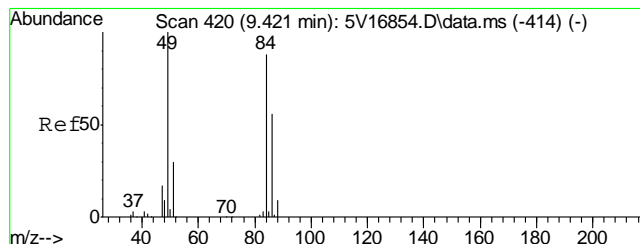
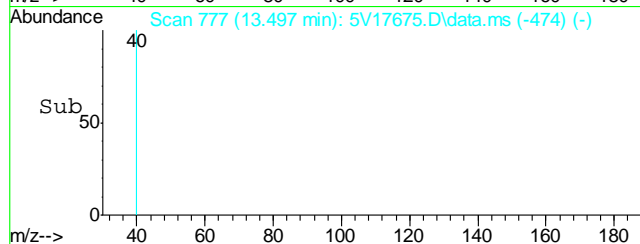
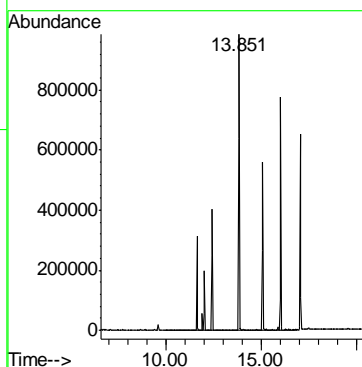
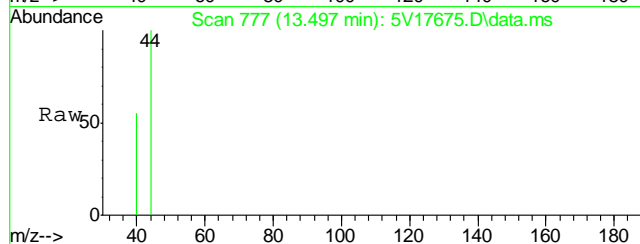
Quant Time: Sep 27 14:03:20 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





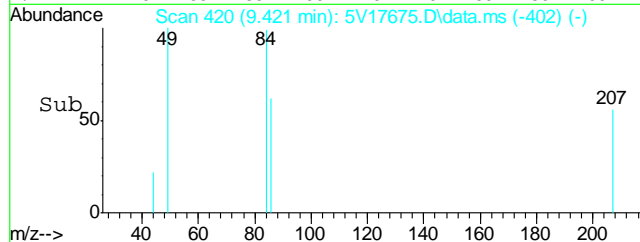
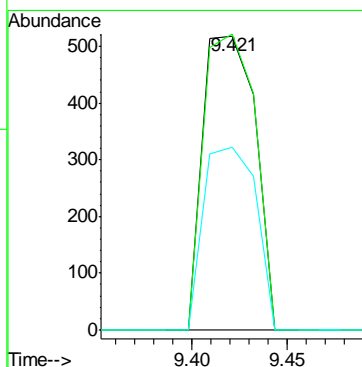
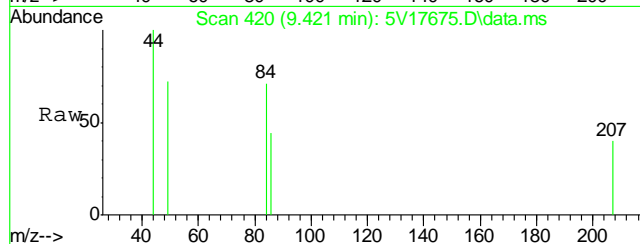
#1
TVH-Gasoline
Concen: 7.47 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17675.D
Acq: 26 Sep 2011 12:11 pm

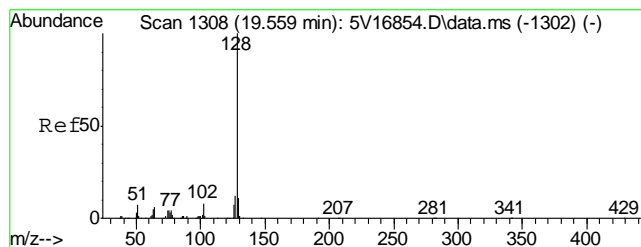
Tgt Ion:TIC Resp: 148892



#17
Methylene Chloride
Concen: 0.35 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17675.D
Acq: 26 Sep 2011 12:11 pm

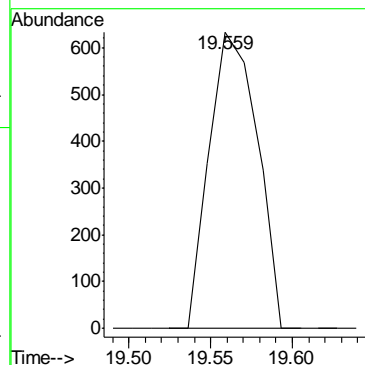
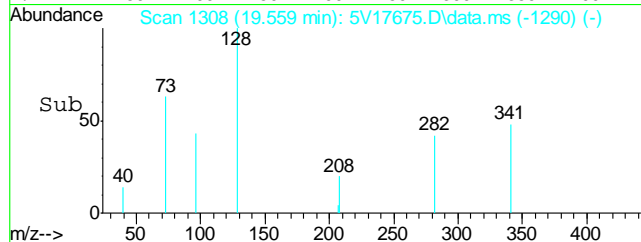
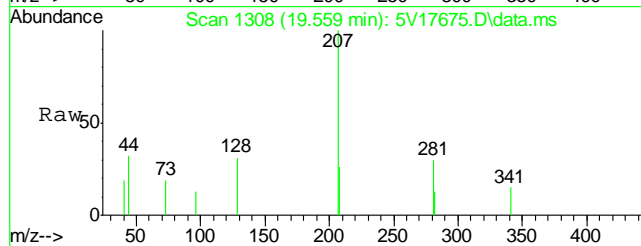
Tgt Ion: 84 Resp: 992
Ion Ratio Lower Upper
84 100
49 99.3 93.6 133.6
86 62.5 44.2 84.2





#91
Naphthalene
Concen: 0.96 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.000 min
Lab File: 5V17675.D
Acq: 26 Sep 2011 12:11 pm

Tgt Ion:128 Resp: 1297



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17686.D
Acq On : 26 Sep 2011 6:00 pm
Operator : DONC
Sample : D27990-2, 50x
Misc : MS2745,V5V1051,5.028,,100,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 27 14:16:23 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	236272	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	338491	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	341814	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	217134	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33962	58.79	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	117.58%
61) Toluene-d8	13.851	98	622019	51.20	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.40%
69) 4-Bromofluorobenzene	16.043	95	263552	52.29	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.58%

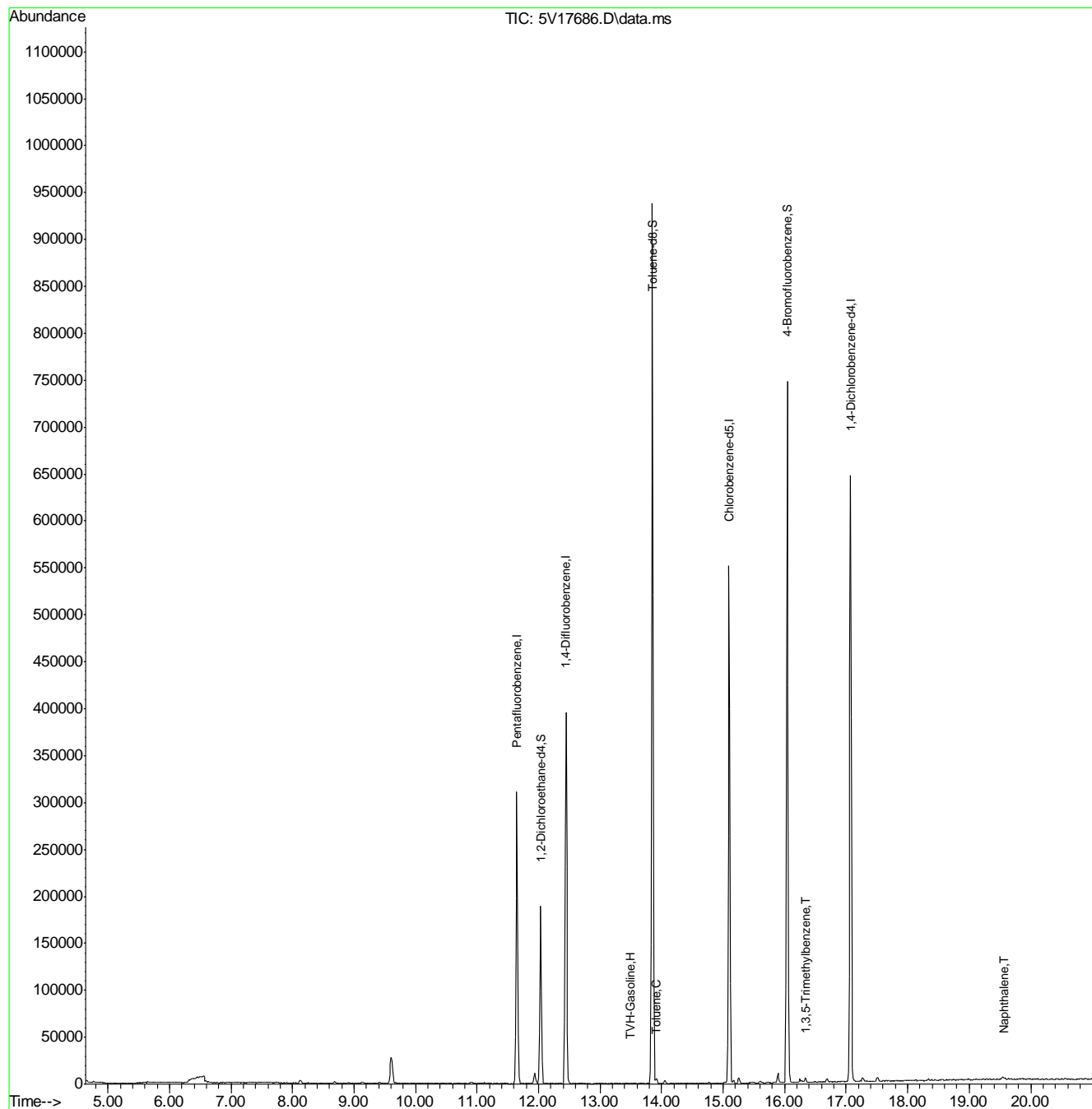
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	11472m	0.58	ug/l
62) Toluene	13.908	92	1869	0.22	ug/l
80) 1,3,5-Trimethylbenzene	16.339	105	4909	0.33	ug/l
91) Naphthalene	19.570	128	1099	0.94	ug/l

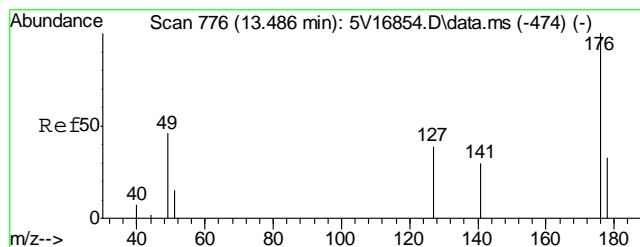
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17686.D
Acq On : 26 Sep 2011 6:00 pm
Operator : DONC
Sample : D27990-2, 50x
Misc : MS2745,V5V1051,5.028,,100,5,1
ALS Vial : 18 Sample Multiplier: 1

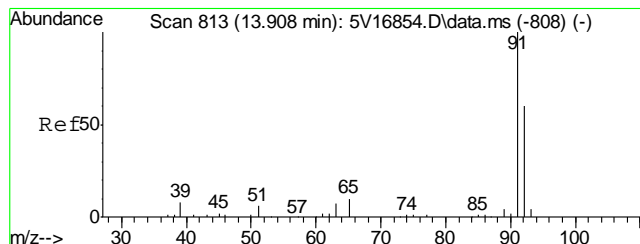
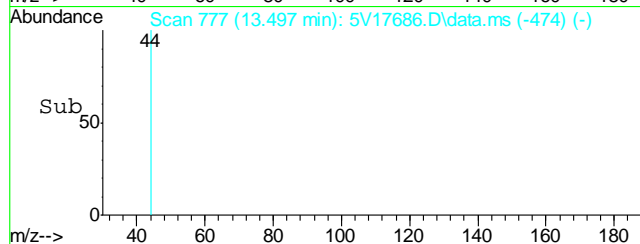
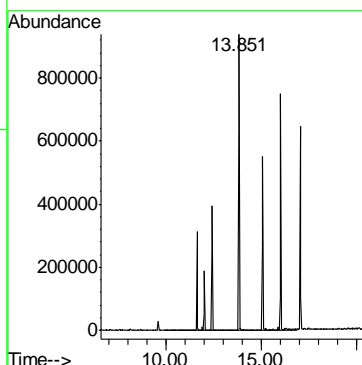
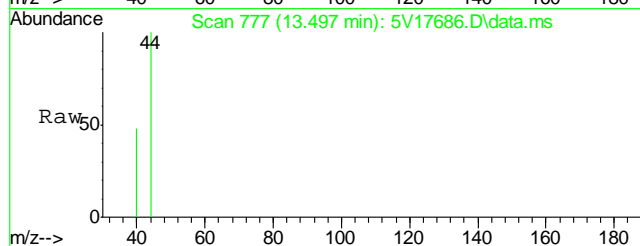
Quant Time: Sep 27 14:16:23 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





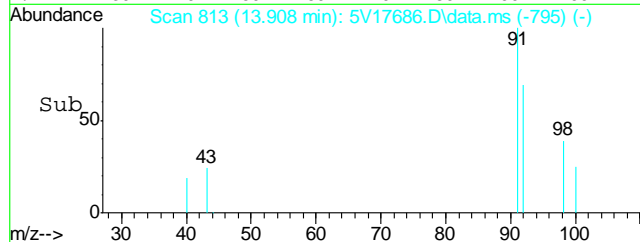
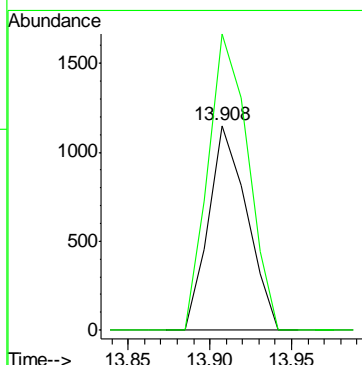
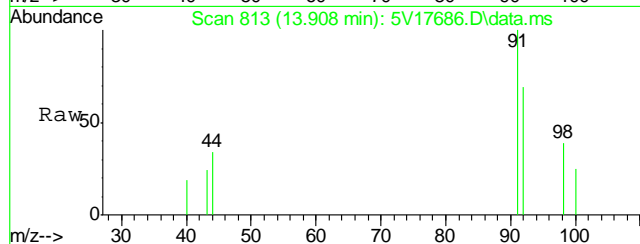
#1
TVH-Gasoline
Concen: 0.58 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17686.D
Acq: 26 Sep 2011 6:00 pm

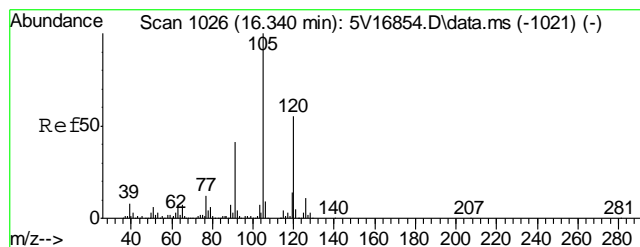
Tgt Ion:TIC Resp: 11472



#62
Toluene
Concen: 0.22 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17686.D
Acq: 26 Sep 2011 6:00 pm

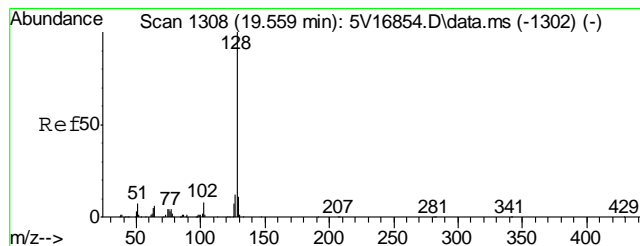
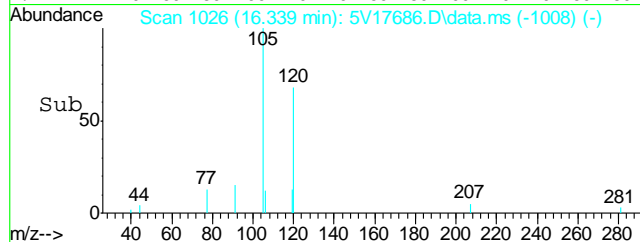
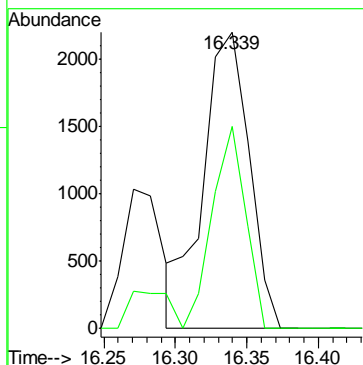
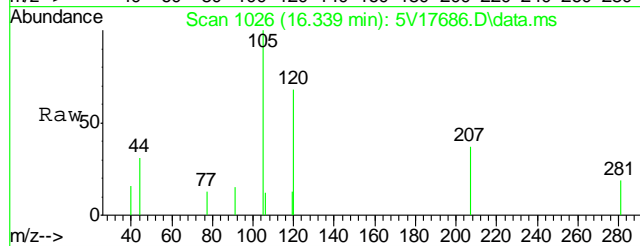
Tgt Ion: 92 Resp: 1869
Ion Ratio Lower Upper
92 100
91 151.6 146.7 186.7





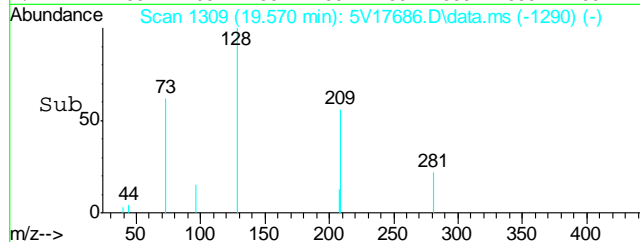
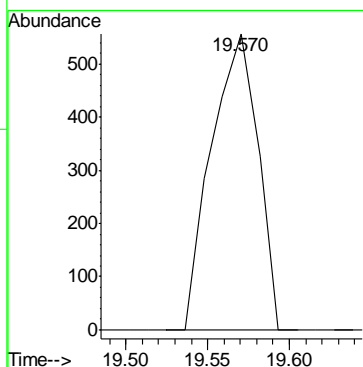
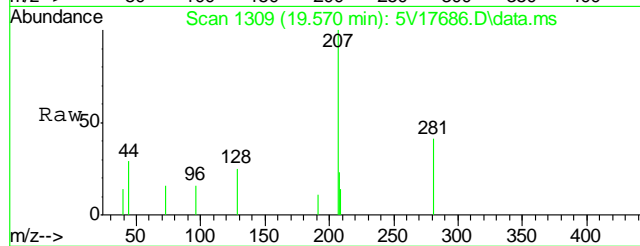
#80
1,3,5-Trimethylbenzene
Concen: 0.33 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17686.D
Acq: 26 Sep 2011 6:00 pm

Tgt Ion:105 Resp: 4909
Ion Ratio Lower Upper
105 100
120 49.3 43.5 65.3



#91
Naphthalene
Concen: 0.94 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17686.D
Acq: 26 Sep 2011 6:00 pm

Tgt Ion:128 Resp: 1099



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17687.D
Acq On : 26 Sep 2011 6:31 pm
Operator : DONC
Sample : D27990-3, 50x
Misc : MS2745,V5V1051,5.014,,100,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 14:17:44 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	238177	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	344306	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	348125	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	219692	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	34978	60.06	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	120.12%
61) Toluene-d8	13.850	98	632121	51.09	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.18%
69) 4-Bromofluorobenzene	16.042	95	265762	51.77	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.54%

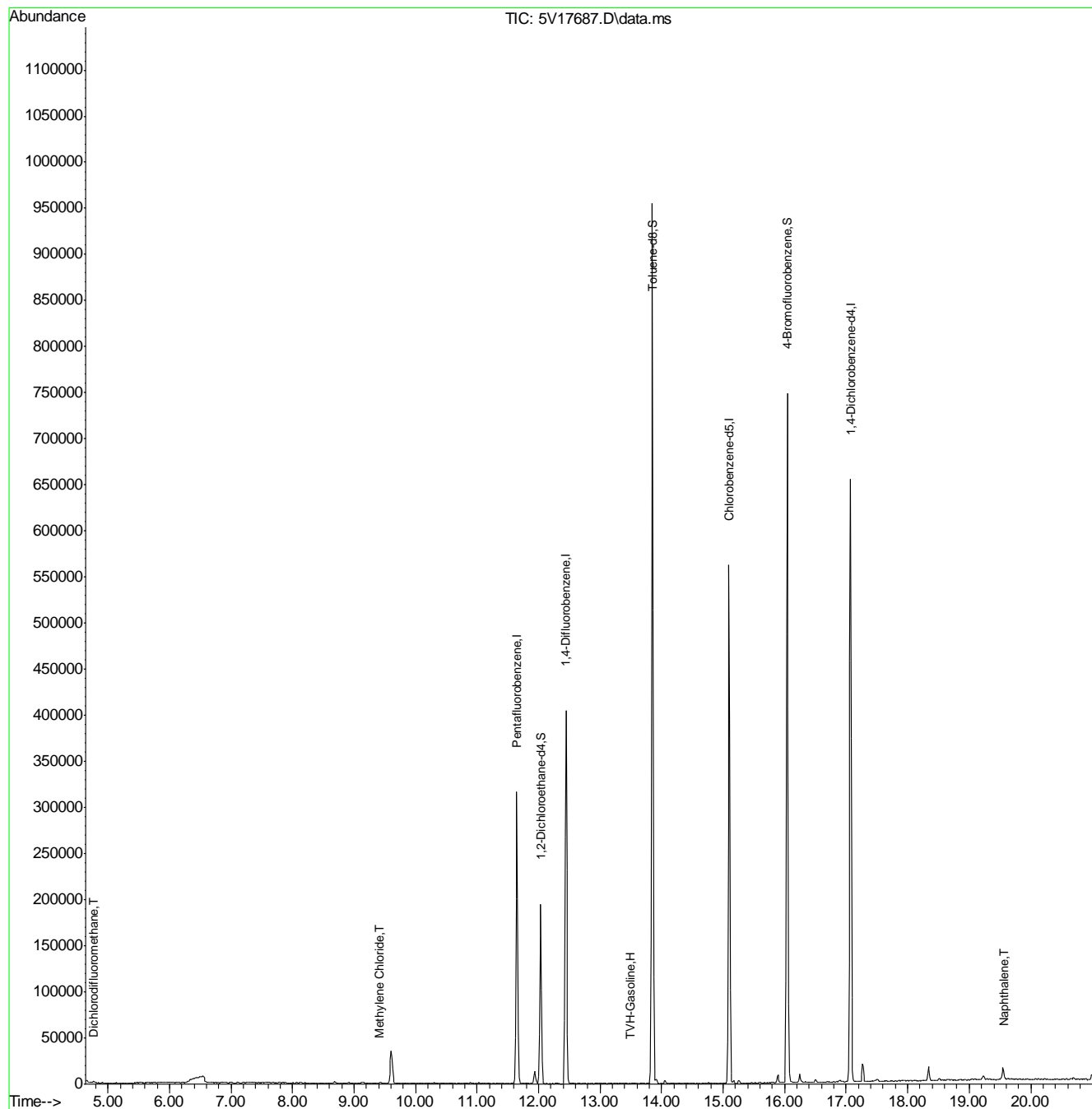
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	41317m	2.07	ug/l
3) Dichlorodifluoromethane	4.763	85	1758	0.49	ug/l
17) Methylene Chloride	9.421	84	635	0.22	ug/l #
91) Naphthalene	19.559	128	899	0.92	ug/l

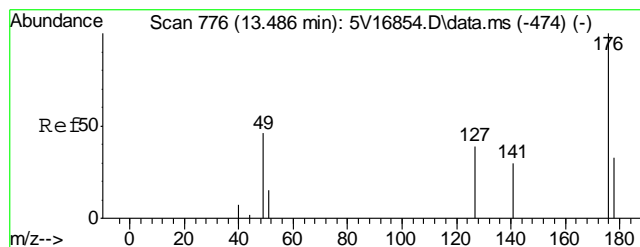
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17687.D
Acq On : 26 Sep 2011 6:31 pm
Operator : DONC
Sample : D27990-3, 50x
Misc : MS2745,V5V1051,5.014,,100,5,1
ALS Vial : 19 Sample Multiplier: 1

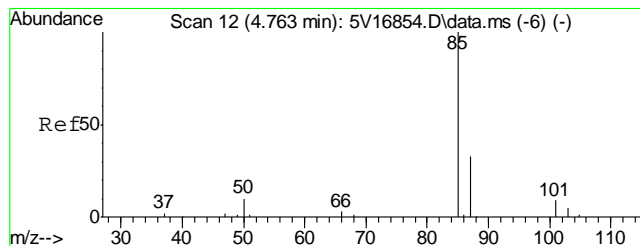
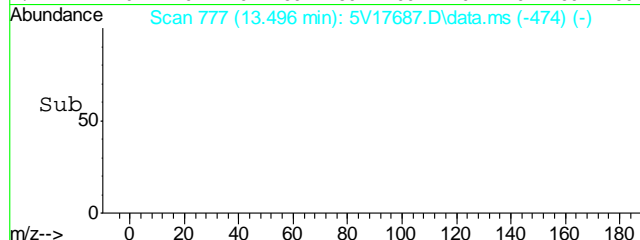
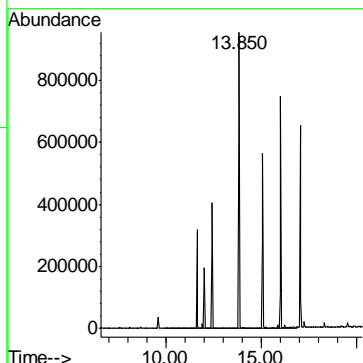
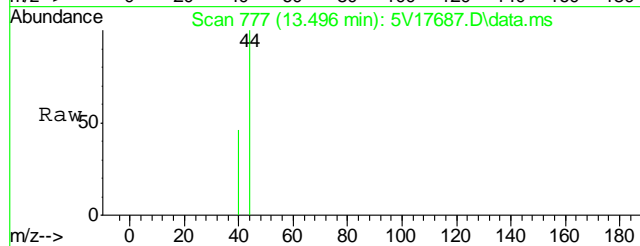
Quant Time: Sep 27 14:17:44 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





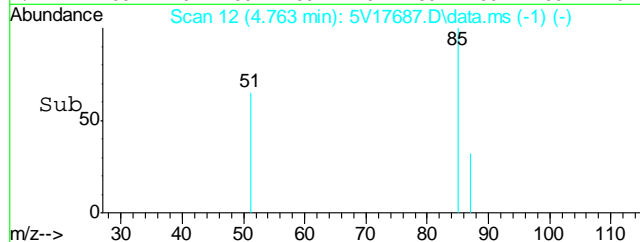
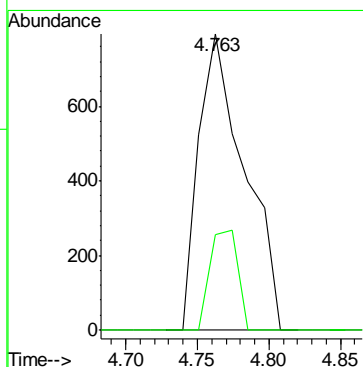
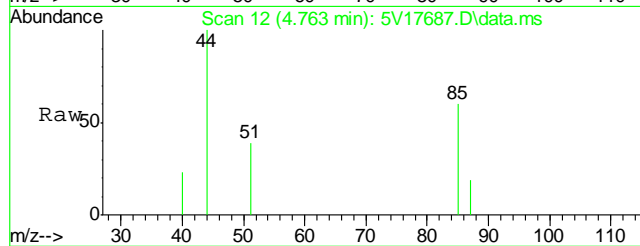
#1
TVH-Gasoline
Concen: 2.07 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17687.D
Acq: 26 Sep 2011 6:31 pm

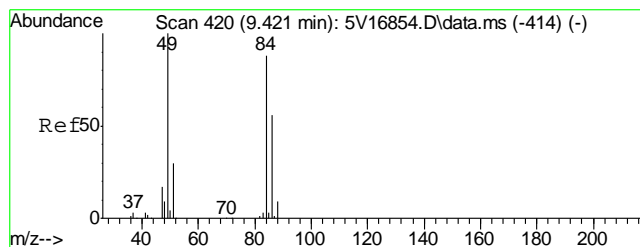
Tgt Ion:TIC Resp: 41317



#3
Dichlorodifluoromethane
Concen: 0.49 ug/l
RT: 4.763 min Scan# 12
Delta R.T. -0.000 min
Lab File: 5V17687.D
Acq: 26 Sep 2011 6:31 pm

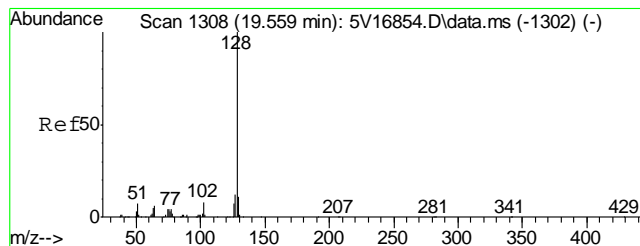
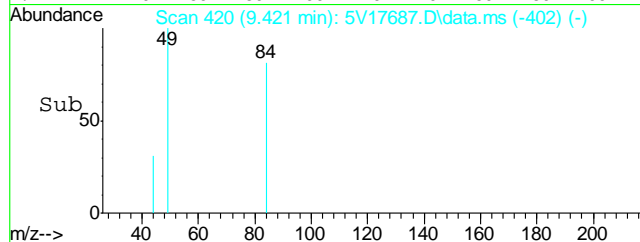
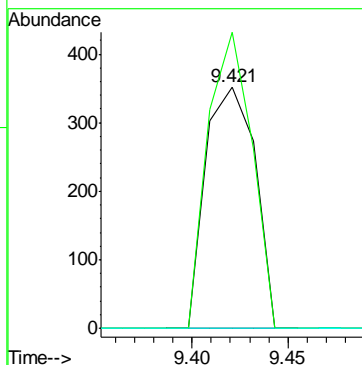
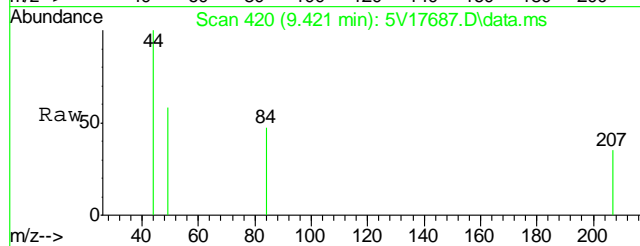
Tgt Ion: 85 Resp: 1758
Ion Ratio Lower Upper
85 100
87 20.4 12.3 52.3





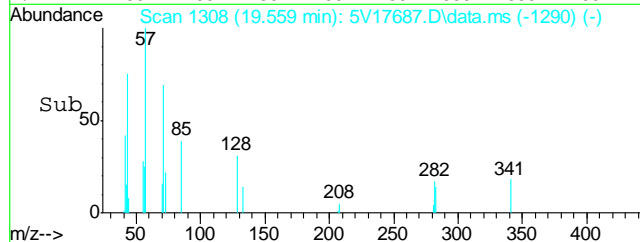
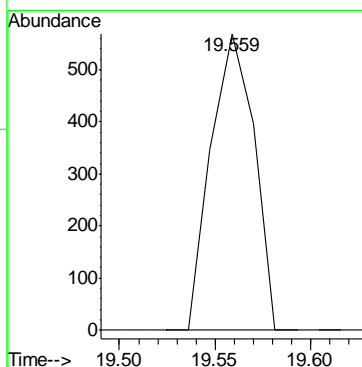
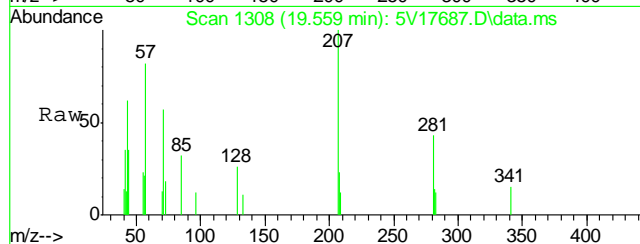
#17
Methylene Chloride
Concen: 0.22 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17687.D
Acq: 26 Sep 2011 6:31 pm

Tgt Ion: 84 Resp: 635
Ion Ratio Lower Upper
84 100
49 109.3 93.6 133.6
86 0.0 44.2 84.2#



#91
Naphthalene
Concen: 0.92 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17687.D
Acq: 26 Sep 2011 6:31 pm

Tgt Ion: 128 Resp: 899



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17688.D
Acq On : 26 Sep 2011 7:03 pm
Operator : DONC
Sample : D27990-4, 50x
Misc : MS2745,V5V1051,5.045,,100,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 27 14:18:59 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	243250	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	351965	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	352412	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	221367	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	34789	58.49	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	116.98%
61) Toluene-d8	13.850	98	646617	51.63	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.26%
69) 4-Bromofluorobenzene	16.043	95	274943	52.91	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.82%

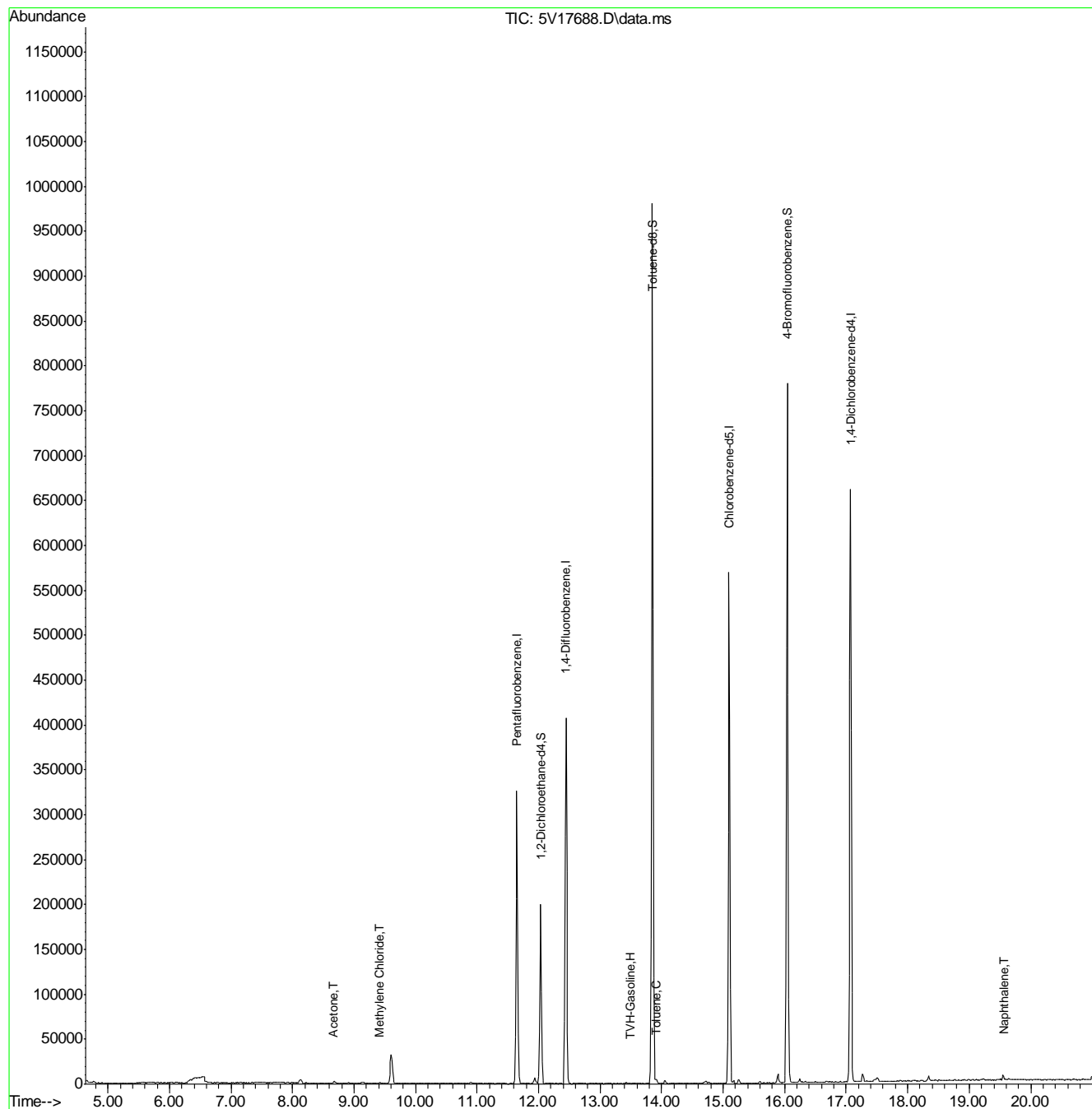
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	11378m	0.57	ug/l
15) Acetone	8.667	58	712	0.21	ug/l # 58
17) Methylene Chloride	9.421	84	708	0.24	ug/l # 78
62) Toluene	13.908	92	1830	0.21	ug/l 95
91) Naphthalene	19.570	128	796	0.92	ug/l 100

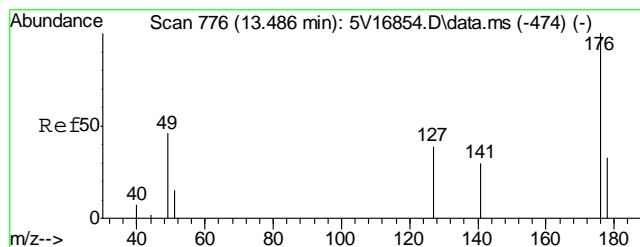
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17688.D
Acq On : 26 Sep 2011 7:03 pm
Operator : DONC
Sample : D27990-4, 50x
Misc : MS2745,V5V1051,5.045,,100,5,1
ALS Vial : 20 Sample Multiplier: 1

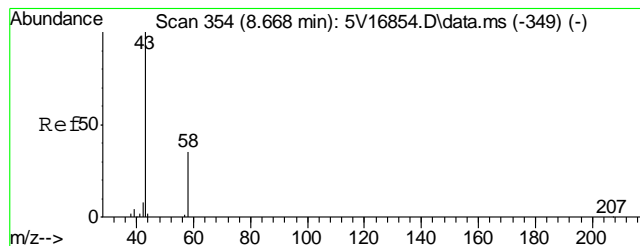
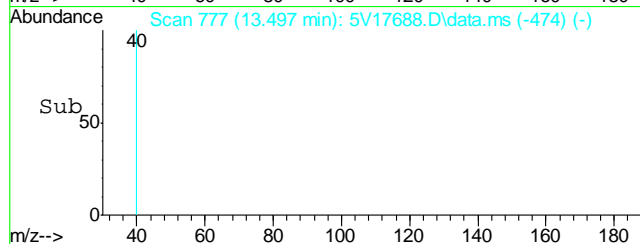
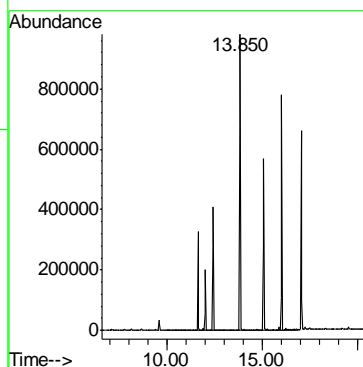
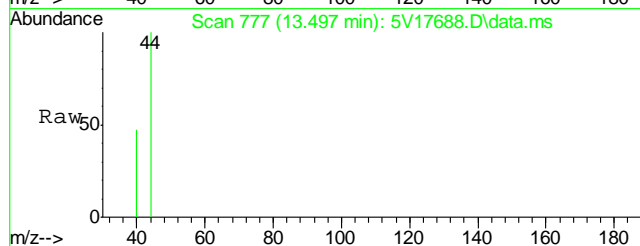
Quant Time: Sep 27 14:18:59 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





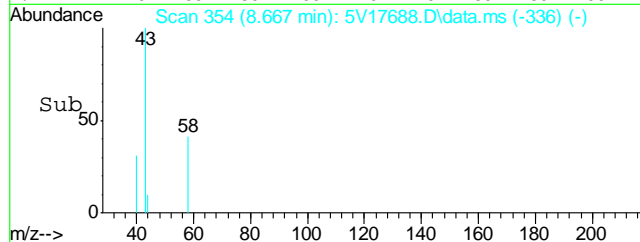
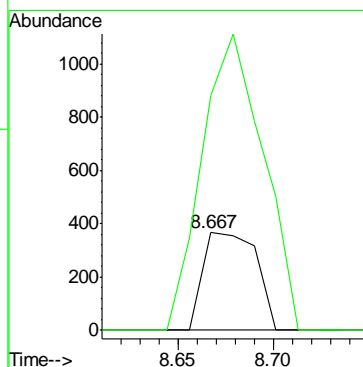
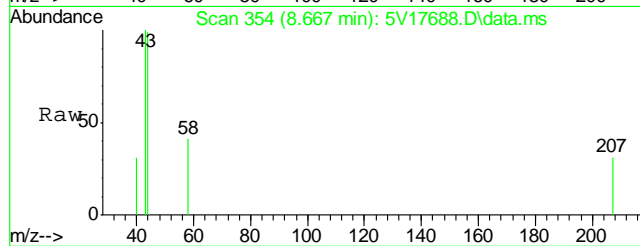
#1
TVH-Gasoline
Concen: 0.57 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17688.D
Acq: 26 Sep 2011 7:03 pm

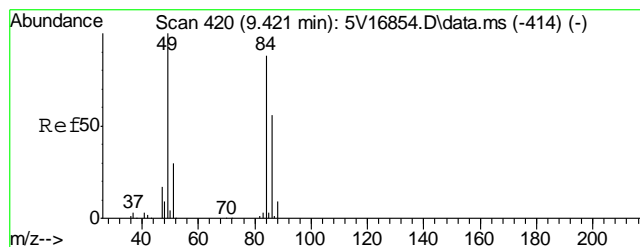
Tgt Ion:TIC Resp: 11378



#15
Acetone
Concen: 0.21 ug/l
RT: 8.667 min Scan# 354
Delta R.T. 0.000 min
Lab File: 5V17688.D
Acq: 26 Sep 2011 7:03 pm

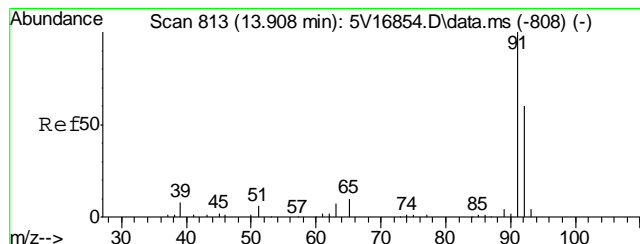
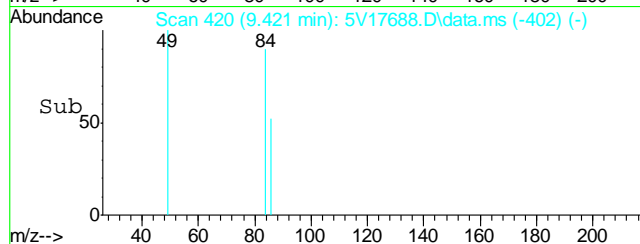
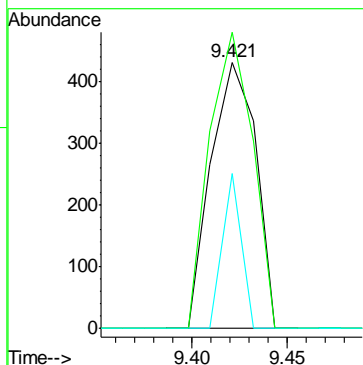
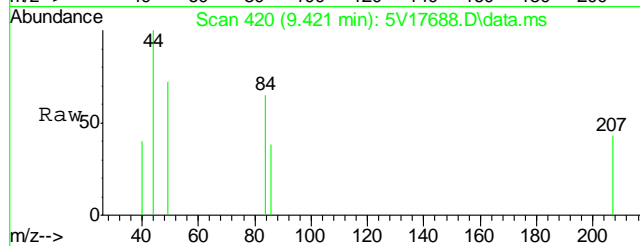
Tgt Ion: 58 Resp: 712
Ion Ratio Lower Upper
58 100
43 349.3 252.4 292.4#





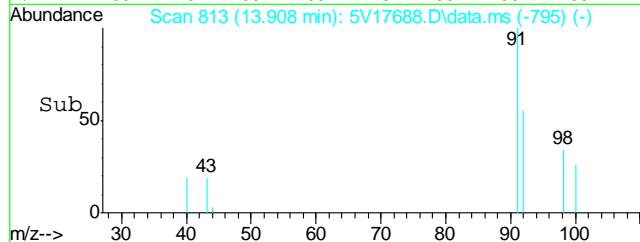
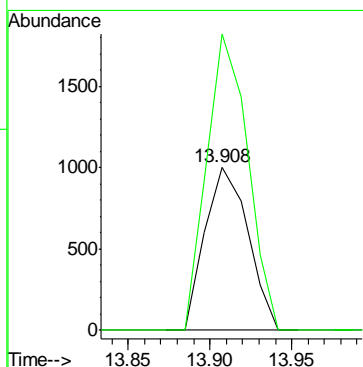
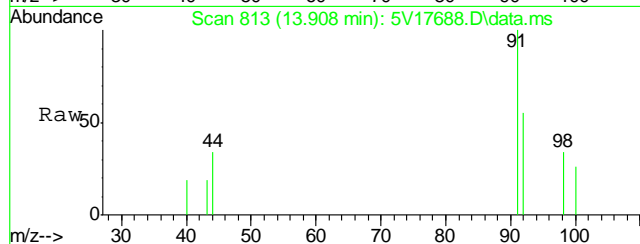
#17
Methylene Chloride
Concen: 0.24 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17688.D
Acq: 26 Sep 2011 7:03 pm

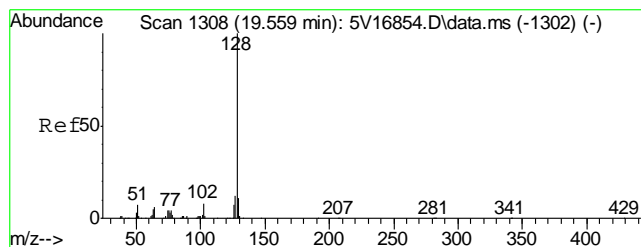
Tgt Ion	Ratio	Lower	Upper
84	100		
49	106.8	93.6	133.6
86	24.3	44.2	84.2#



#62
Toluene
Concen: 0.21 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17688.D
Acq: 26 Sep 2011 7:03 pm

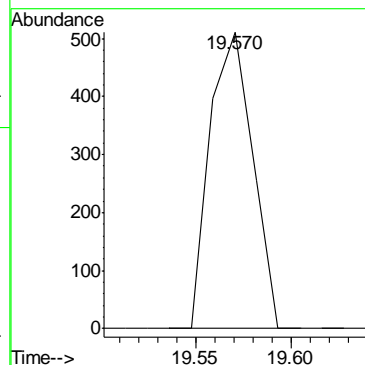
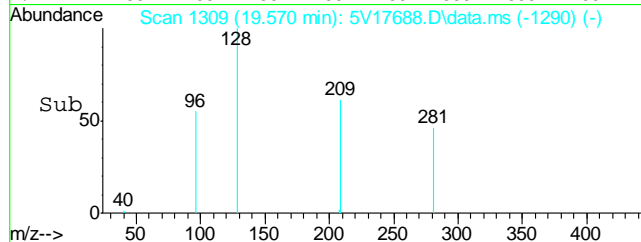
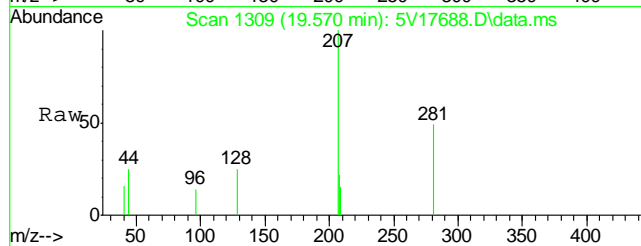
Tgt Ion	Ratio	Lower	Upper
92	100		
91	173.8	146.7	186.7





#91
 Naphthalene
 Concen: 0.92 ug/l
 RT: 19.570 min Scan# 1309
 Delta R.T. 0.011 min
 Lab File: 5V17688.D
 Acq: 26 Sep 2011 7:03 pm

Tgt Ion:128 Resp: 796



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17689.D
Acq On : 26 Sep 2011 7:34 pm
Operator : DONC
Sample : D27990-5, 50x
Misc : MS2745,V5V1051,5.070,,100,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 27 14:20:18 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	240767	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	345997	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	347715	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	224148	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	34492	58.59	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	117.18%
61) Toluene-d8	13.851	98	644494	52.15	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.30%
69) 4-Bromofluorobenzene	16.043	95	272091	53.07	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.14%

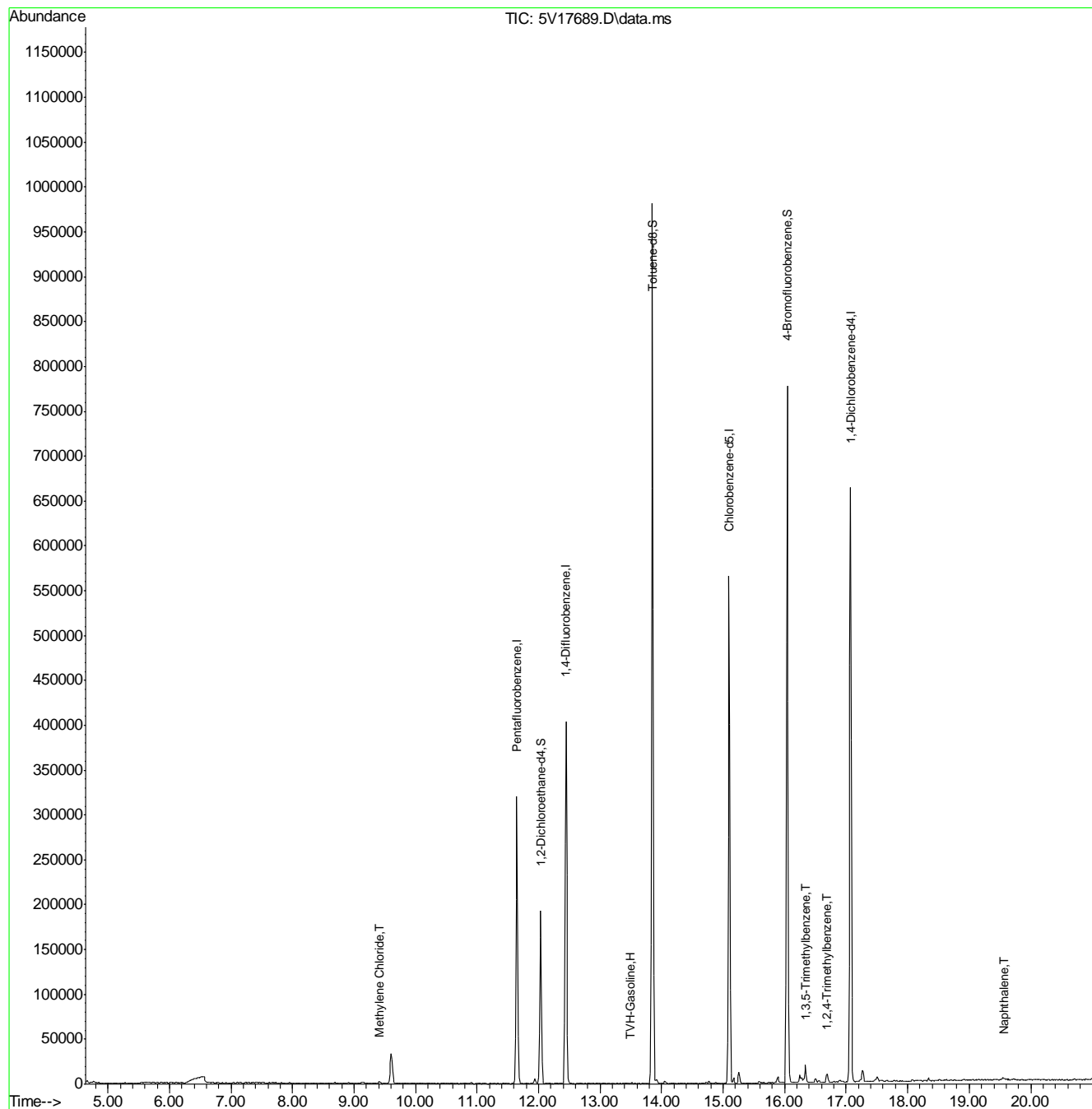
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	21163m	1.06	ug/l
17) Methylene Chloride	9.421	84	1024	0.35	ug/l
80) 1,3,5-Trimethylbenzene	16.339	105	14587	0.95	ug/l
82) 1,2,4-Trimethylbenzene	16.693	105	7550	0.49	ug/l
91) Naphthalene	19.570	128	1075	0.94	ug/l

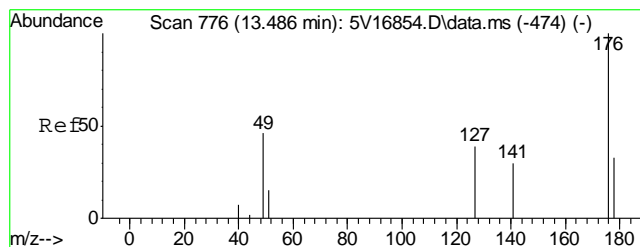
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17689.D
Acq On : 26 Sep 2011 7:34 pm
Operator : DONC
Sample : D27990-5, 50x
Misc : MS2745,V5V1051,5.070,,100,5,1
ALS Vial : 21 Sample Multiplier: 1

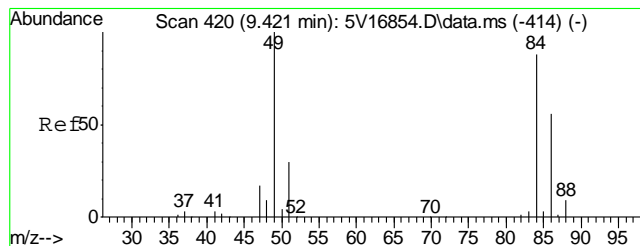
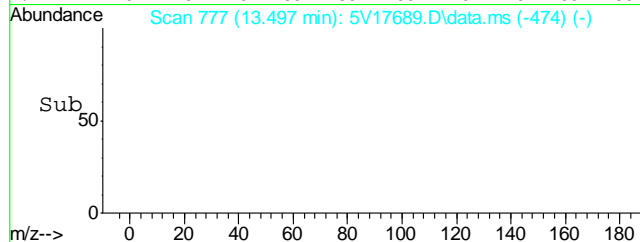
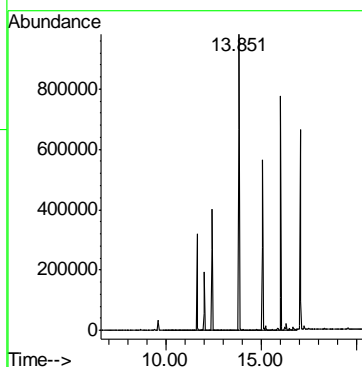
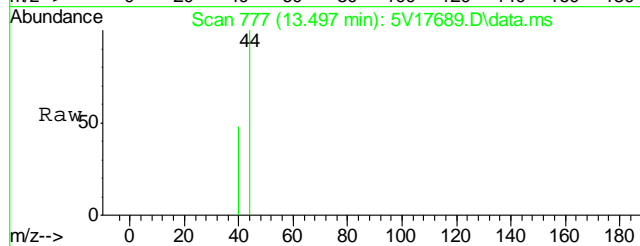
Quant Time: Sep 27 14:20:18 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





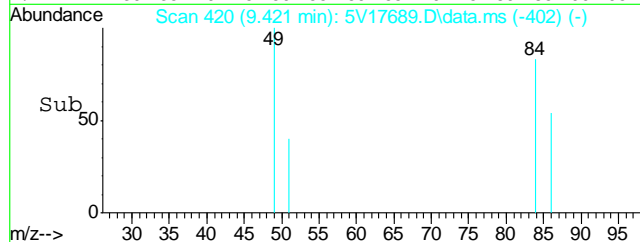
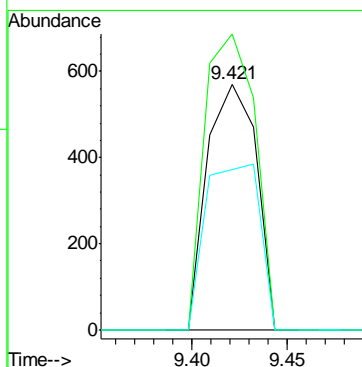
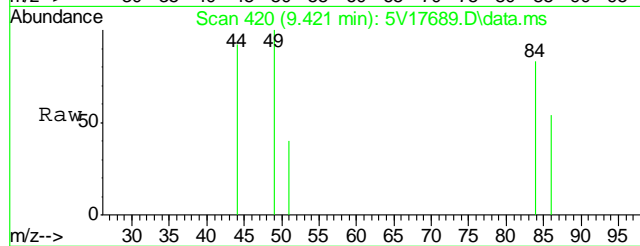
#1
TVH-Gasoline
Concen: 1.06 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17689.D
Acq: 26 Sep 2011 7:34 pm

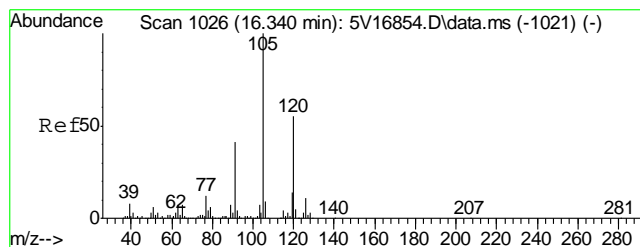
Tgt Ion:TIC Resp: 21163



#17
Methylene Chloride
Concen: 0.35 ug/l
RT: 9.421 min Scan# 420
Delta R.T. 0.000 min
Lab File: 5V17689.D
Acq: 26 Sep 2011 7:34 pm

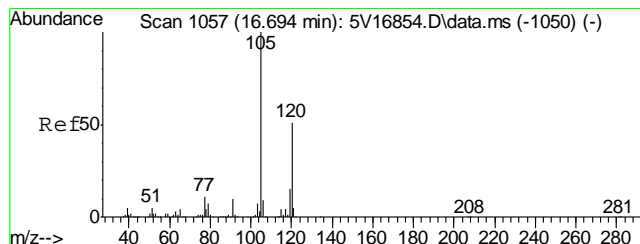
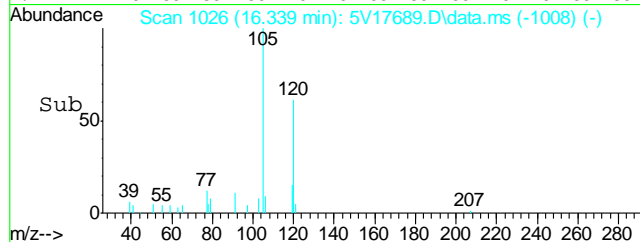
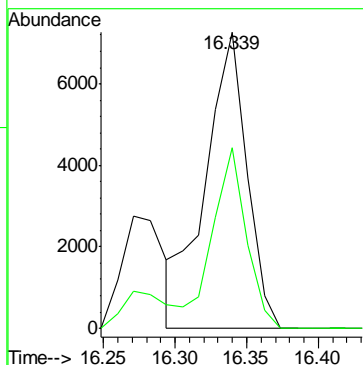
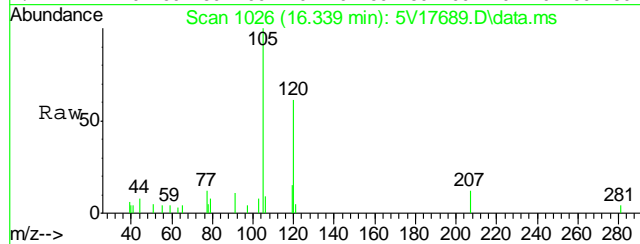
Tgt Ion: 84 Resp: 1024
Ion Ratio Lower Upper
84 100
49 123.3 93.6 133.6
86 74.6 44.2 84.2





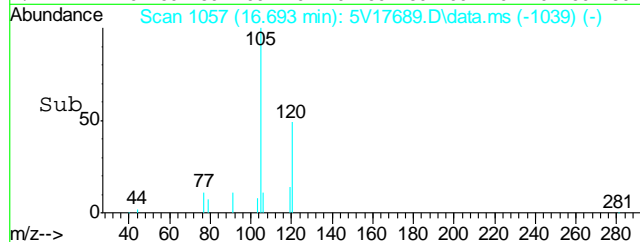
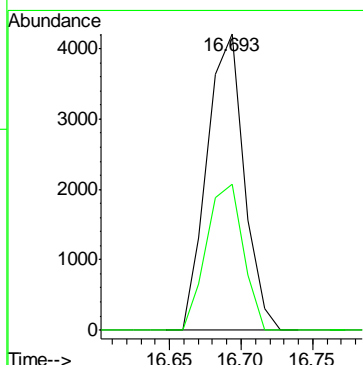
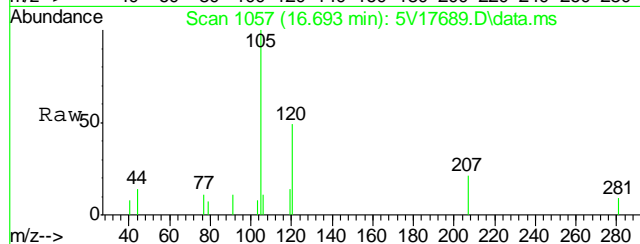
#80
1,3,5-Trimethylbenzene
Concen: 0.95 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. 0.000 min
Lab File: 5V17689.D
Acq: 26 Sep 2011 7:34 pm

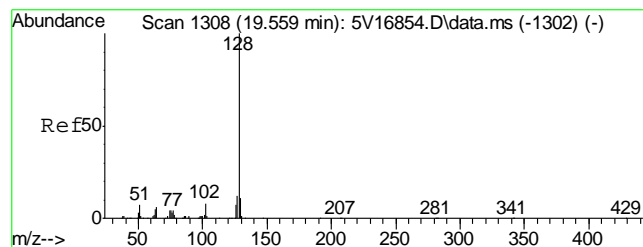
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.9	43.5	65.3



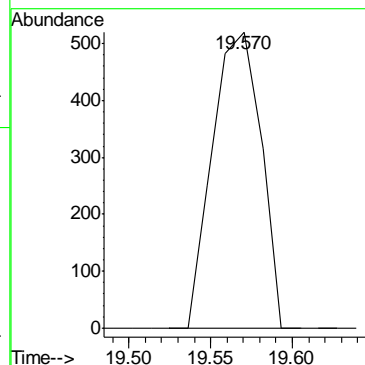
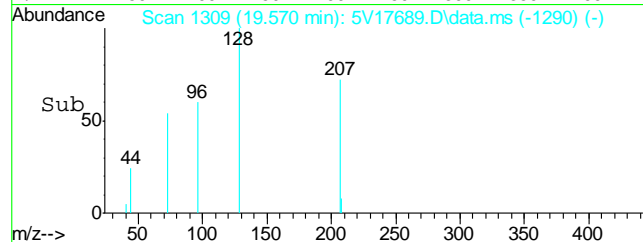
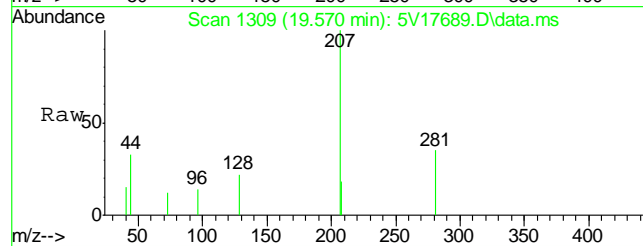
#82
1,2,4-Trimethylbenzene
Concen: 0.49 ug/l
RT: 16.693 min Scan# 1057
Delta R.T. 0.000 min
Lab File: 5V17689.D
Acq: 26 Sep 2011 7:34 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.9	47.4	71.0





#91
Naphthalene
Concen: 0.94 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17689.D
Acq: 26 Sep 2011 7:34 pm
Tgt Ion:128 Resp: 1075



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17690.D
Acq On : 26 Sep 2011 8:06 pm
Operator : DONC
Sample : D27990-6, 50x
Misc : MS2745,V5V1051,5.075,,100,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 27 14:21:51 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	225892	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	325210	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	327994	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	212173	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33431	60.53	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	121.06%
61) Toluene-d8	13.850	98	608471	52.20	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.40%
69) 4-Bromofluorobenzene	16.043	95	258318	53.41	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.82%

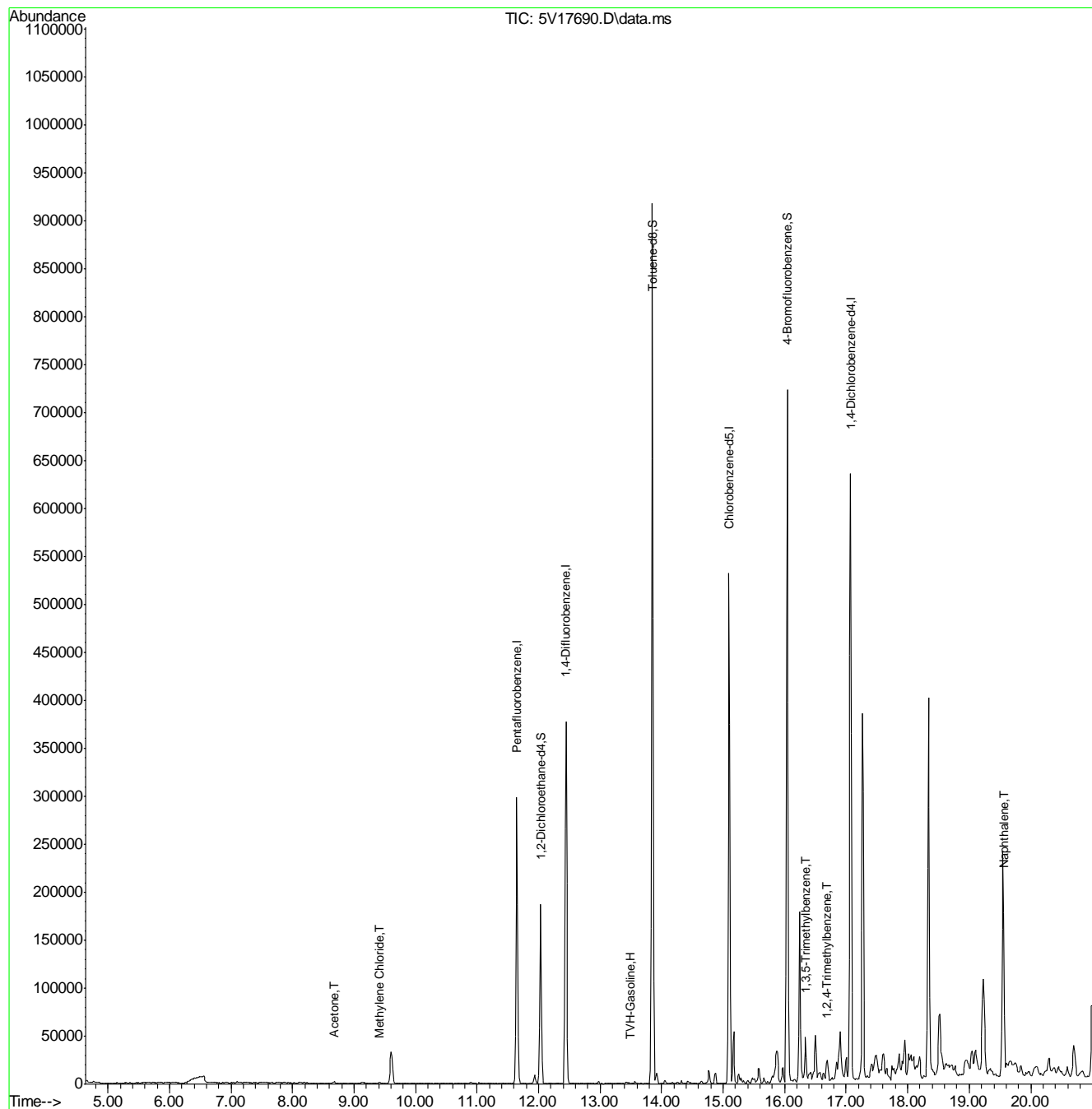
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	726865m	36.46	ug/l
15) Acetone	8.679	58	799	0.67	ug/l # 68
17) Methylene Chloride	9.421	84	679	0.25	ug/l # 82
80) 1,3,5-Trimethylbenzene	16.339	105	22898	1.58	ug/l 91
82) 1,2,4-Trimethylbenzene	16.682	105	13001	0.88	ug/l 87
91) Naphthalene	19.559	128	7641	1.55	ug/l 100

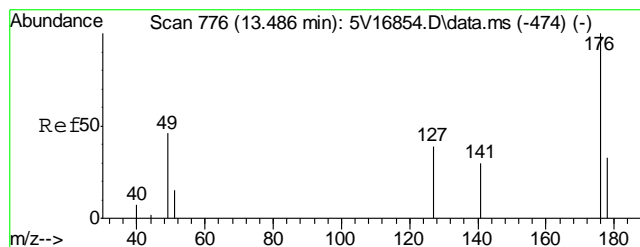
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17690.D
Acq On : 26 Sep 2011 8:06 pm
Operator : DONC
Sample : D27990-6, 50x
Misc : MS2745,V5V1051,5.075,,100,5,1
ALS Vial : 22 Sample Multiplier: 1

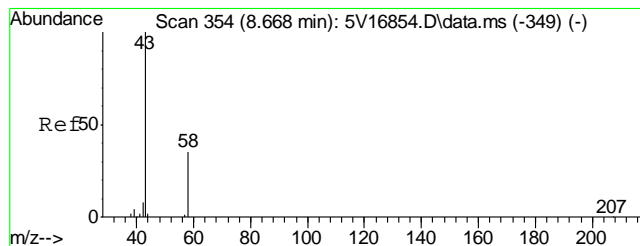
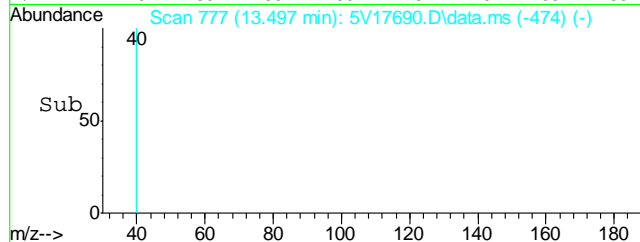
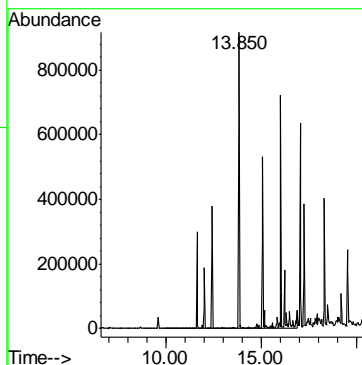
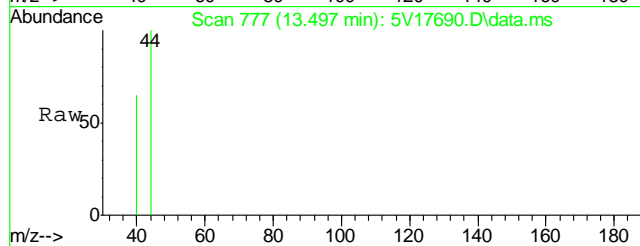
Quant Time: Sep 27 14:21:51 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





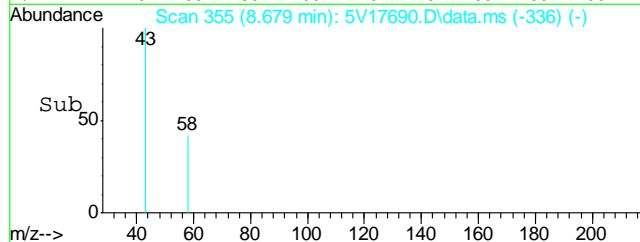
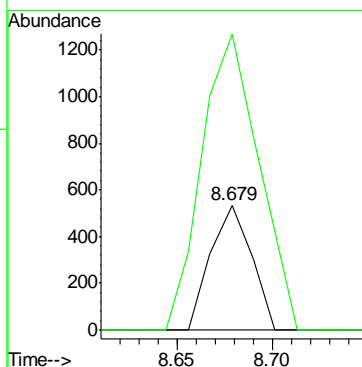
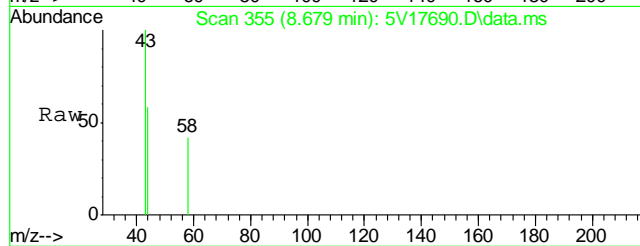
#1
TVH-Gasoline
Concen: 36.46 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17690.D
Acq: 26 Sep 2011 8:06 pm

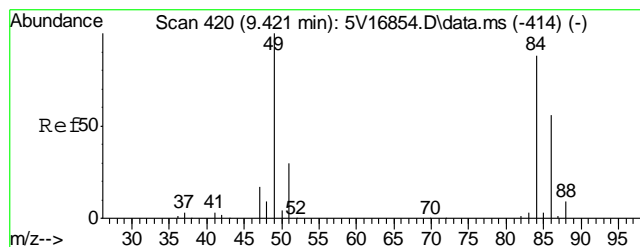
Tgt Ion:TIC Resp: 726865



#15
Acetone
Concen: 0.67 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17690.D
Acq: 26 Sep 2011 8:06 pm

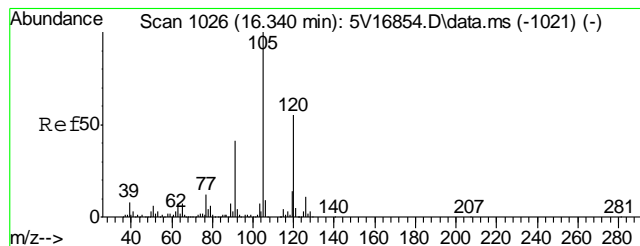
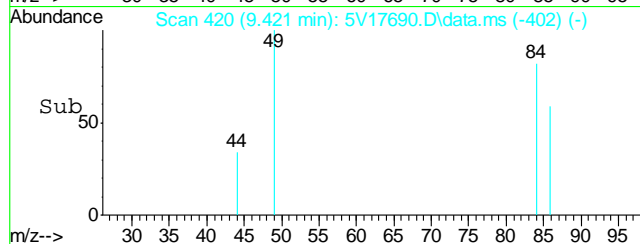
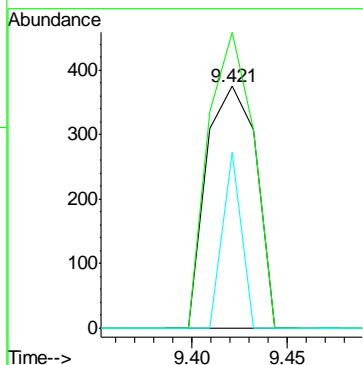
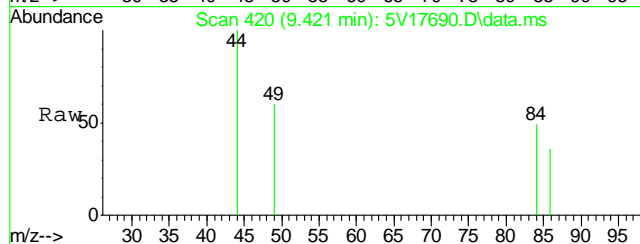
Tgt Ion: 58 Resp: 799
Ion Ratio Lower Upper
58 100
43 330.5 252.4 292.4#





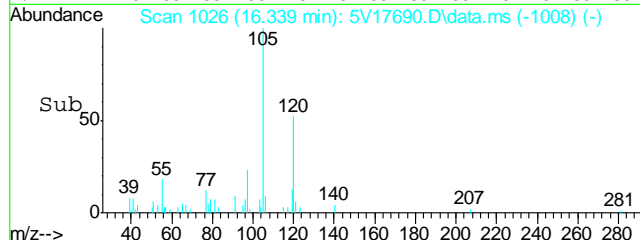
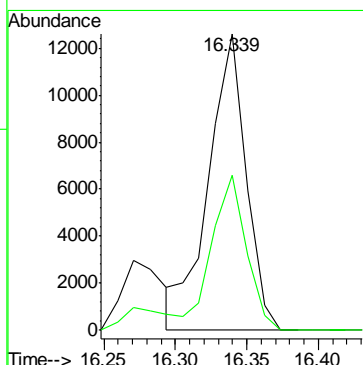
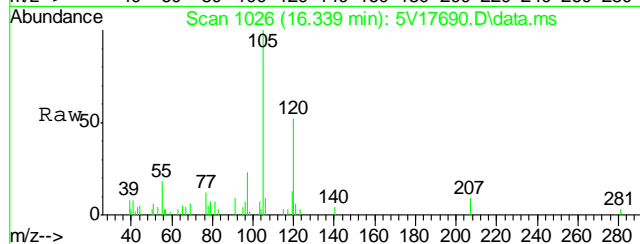
#17
Methylene Chloride
Concen: 0.25 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17690.D
Acq: 26 Sep 2011 8:06 pm

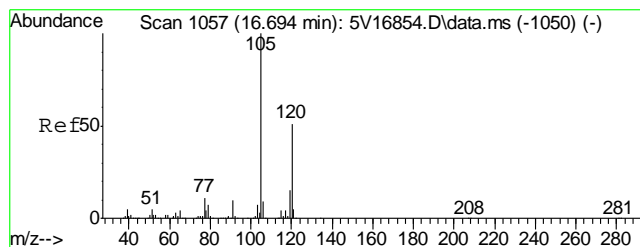
Tgt Ion	Ratio	Lower	Upper
84	100		
49	111.2	93.6	133.6
86	27.5	44.2	84.2#



#80
1,3,5-Trimethylbenzene
Concen: 1.58 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17690.D
Acq: 26 Sep 2011 8:06 pm

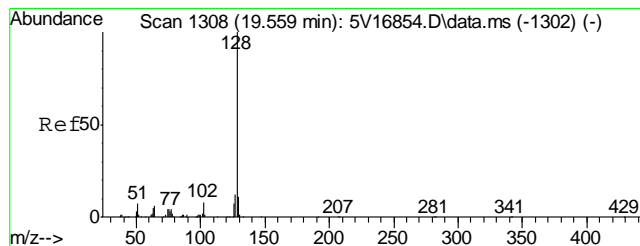
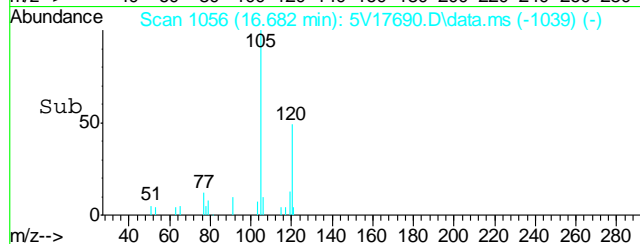
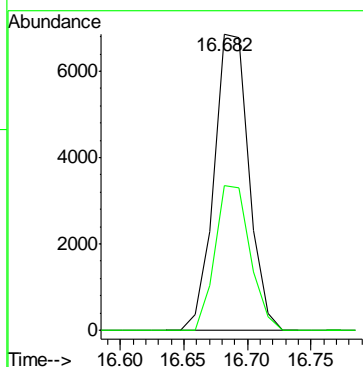
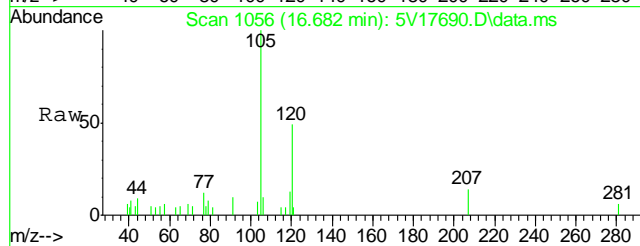
Tgt Ion	Ratio	Lower	Upper
105	100		
120	47.8	43.5	65.3





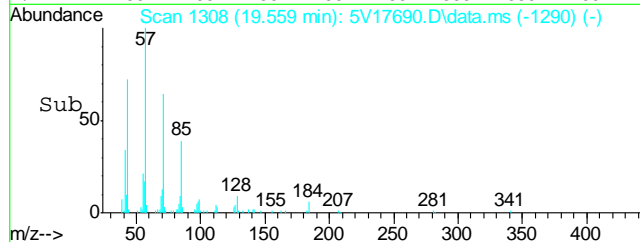
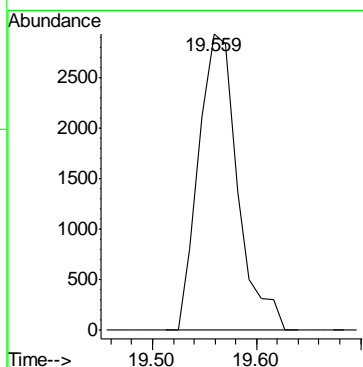
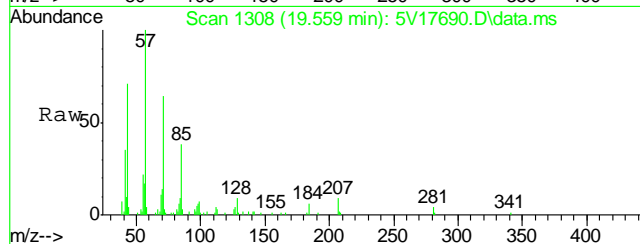
#82
1,2,4-Trimethylbenzene
Concen: 0.88 ug/l
RT: 16.682 min Scan# 1056
Delta R.T. -0.012 min
Lab File: 5V17690.D
Acq: 26 Sep 2011 8:06 pm

Tgt Ion	Resp	Lower	Upper
105	13001		
105	100		
120	49.3	47.4	71.0



#91
Naphthalene
Concen: 1.55 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17690.D
Acq: 26 Sep 2011 8:06 pm

Tgt Ion	Resp
128	7641



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17691.D
Acq On : 26 Sep 2011 8:38 pm
Operator : DONC
Sample : D27990-7, 50x
Misc : MS2745,V5V1051,5.030,,100,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 27 14:23:04 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	232958	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	338566	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	345017	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	213458	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33614	59.01	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	118.02%
61) Toluene-d8	13.851	98	626370	51.08	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.16%
69) 4-Bromofluorobenzene	16.043	95	261573	51.42	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.84%

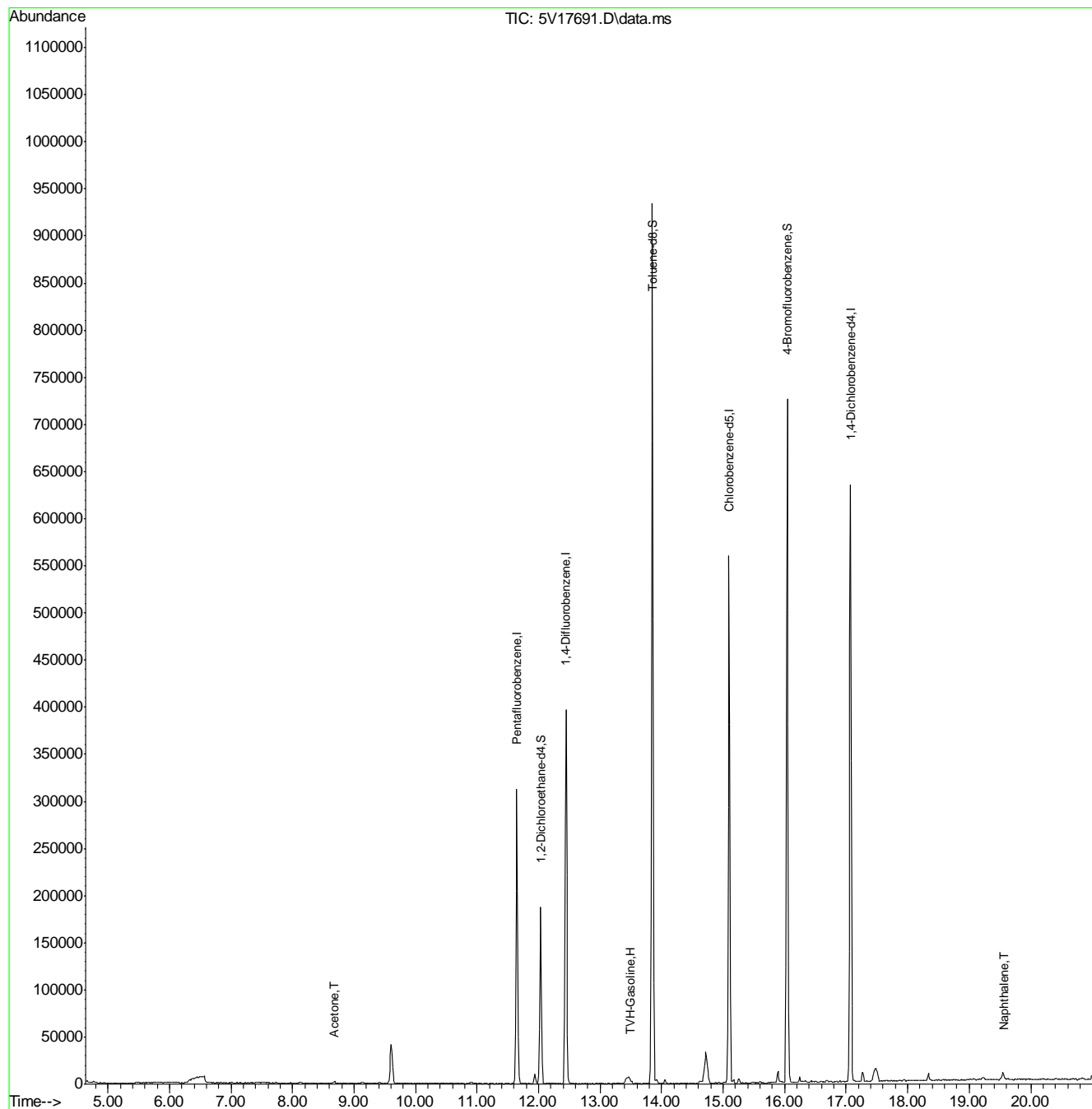
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	148722m	7.46	ug/l
15) Acetone	8.679	58	723	0.34	ug/l # 50
91) Naphthalene	19.559	128	505	0.89	ug/l 100

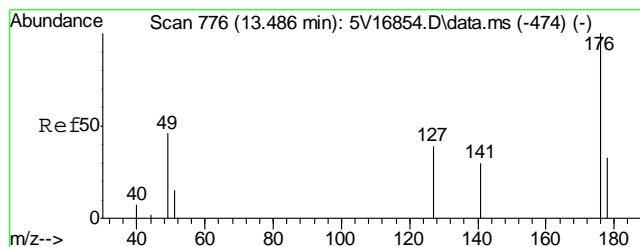
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17691.D
Acq On : 26 Sep 2011 8:38 pm
Operator : DONC
Sample : D27990-7, 50x
Misc : MS2745,V5V1051,5.030,,100,5,1
ALS Vial : 23 Sample Multiplier: 1

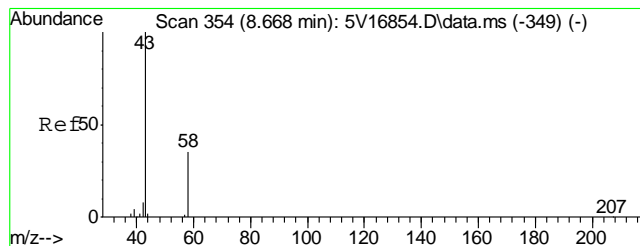
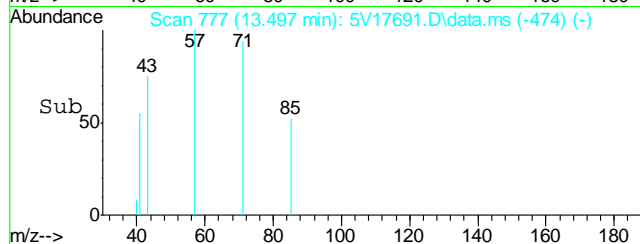
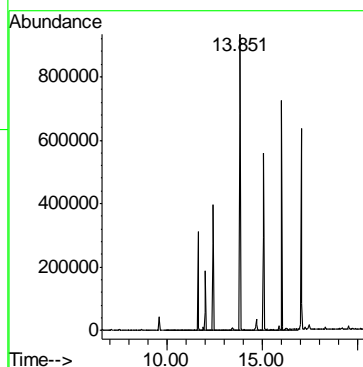
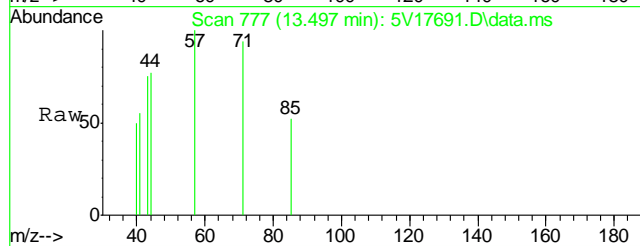
Quant Time: Sep 27 14:23:04 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





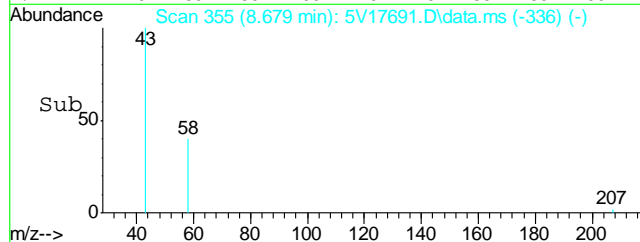
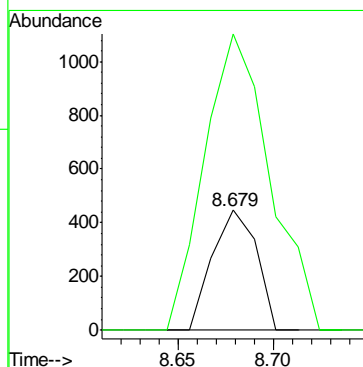
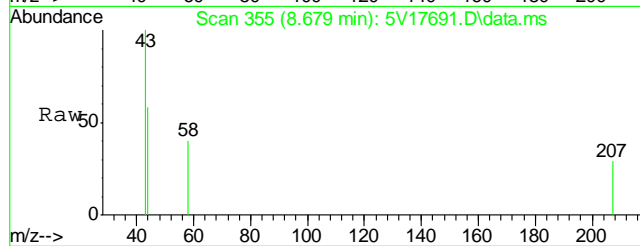
#1
TVH-Gasoline
Concen: 7.46 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17691.D
Acq: 26 Sep 2011 8:38 pm

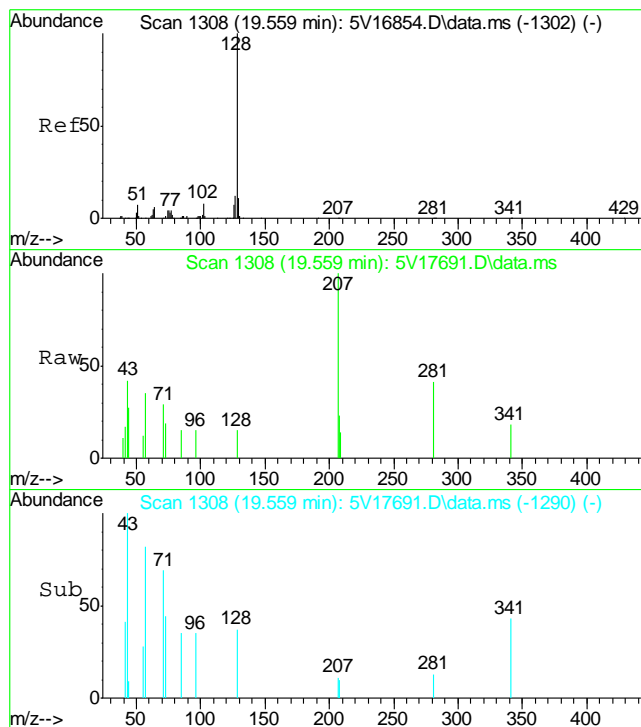
Tgt Ion:TIC Resp: 148722



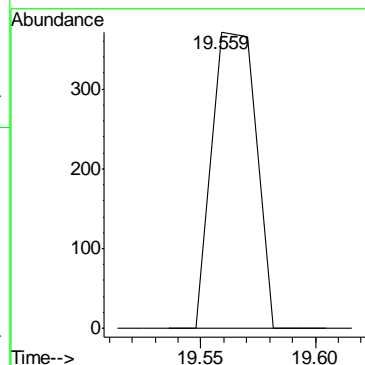
#15
Acetone
Concen: 0.34 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17691.D
Acq: 26 Sep 2011 8:38 pm

Tgt Ion: 58 Resp: 723
Ion Ratio Lower Upper
58 100
43 365.0 252.4 292.4#





#91
 Naphthalene
 Concen: 0.89 ug/l
 RT: 19.559 min Scan# 1308
 Delta R.T. 0.000 min
 Lab File: 5V17691.D
 Acq: 26 Sep 2011 8:38 pm
 Tgt Ion:128 Resp: 505



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17671A.D
Acq On : 26 Sep 2011 10:04 am
Operator : DONC
Sample : MB
Misc : MS2745,V5V1051,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 13:58:50 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	268240	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	389203	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	381148	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	217933	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	39782	60.66	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	121.32%
61) Toluene-d8	13.850	98	730483	53.93	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.86%
69) 4-Bromofluorobenzene	16.042	95	274658	48.87	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.74%

Target Compounds

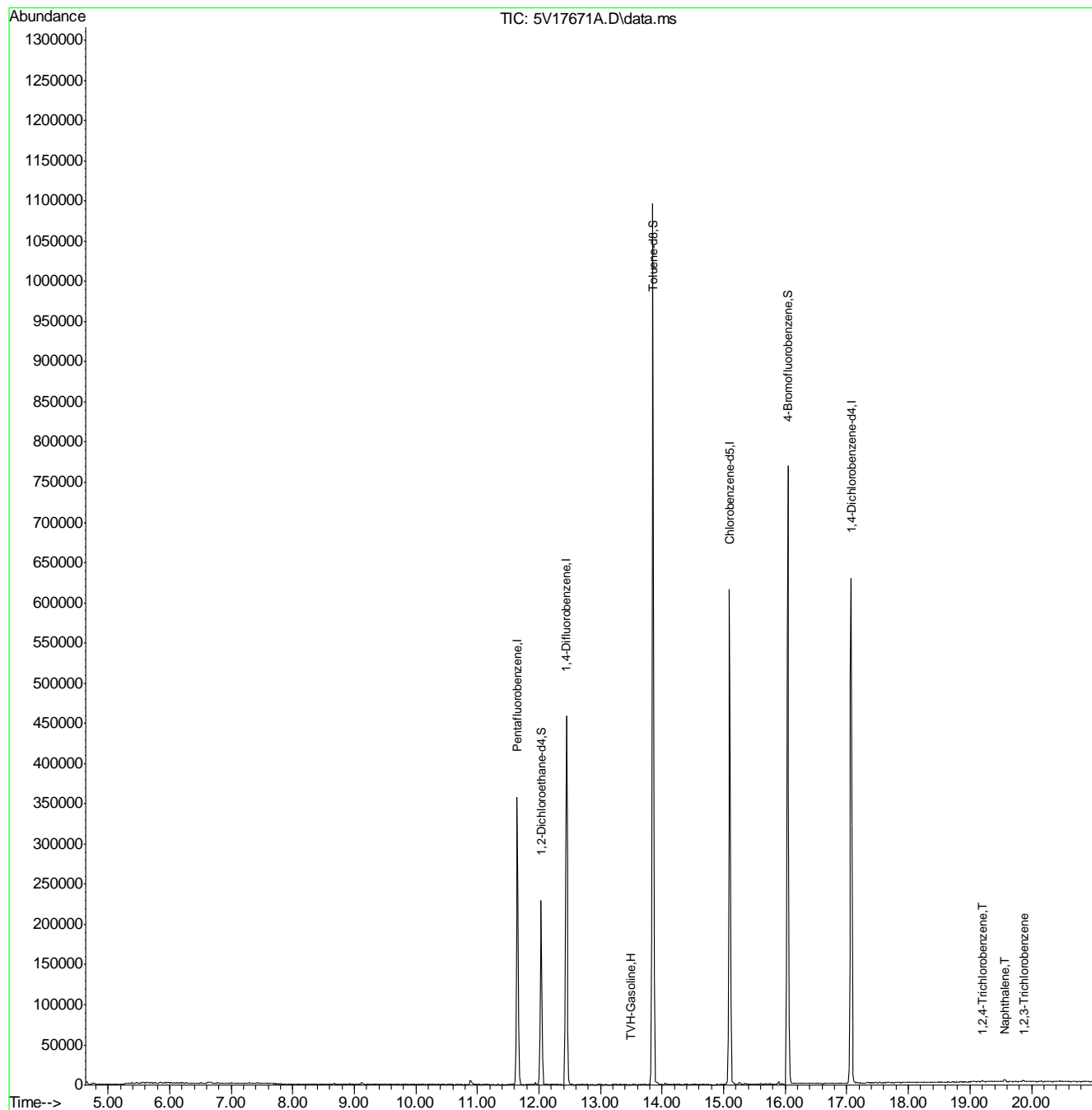
					Qvalue
1) TVH-Gasoline	13.491	TIC	42738m	2.14	ug/l
90) 1,2,4-Trichlorobenzene	19.205	180	1390	0.23	ug/l # 82
91) Naphthalene	19.559	128	4439	1.25	ug/l 100
93) 1,2,3-Trichlorobenzene	19.879	180	1259	0.23	ug/l # 84

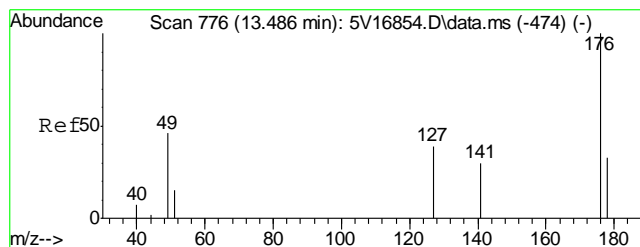
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092611.S\
Data File : 5V17671A.D
Acq On : 26 Sep 2011 10:04 am
Operator : DONC
Sample : MB
Misc : MS2745,V5V1051,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

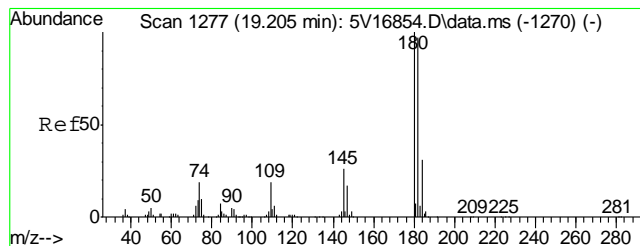
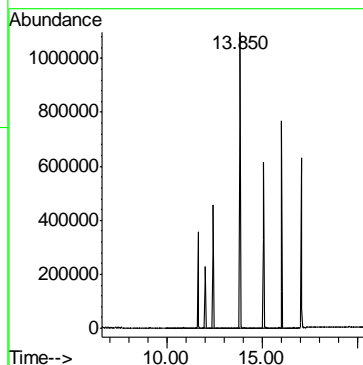
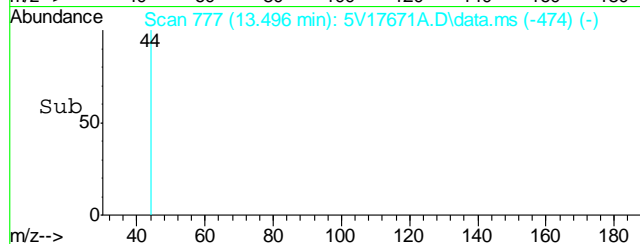
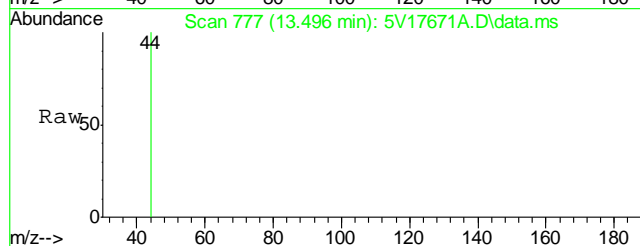
Quant Time: Sep 27 13:58:50 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





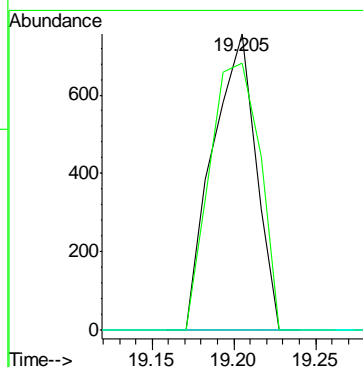
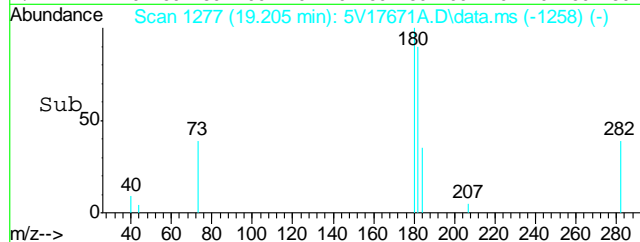
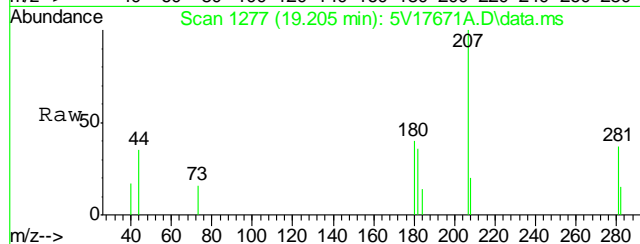
#1
TVH-Gasoline
Concen: 2.14 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17671A.D
Acq: 26 Sep 2011 10:04 am

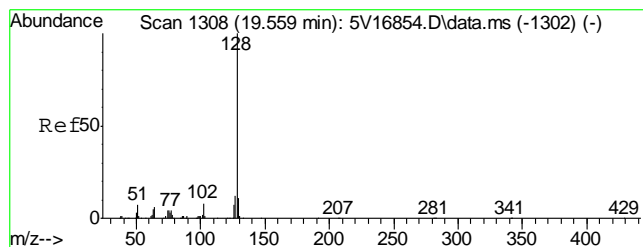
Tgt Ion:TIC Resp: 42738



#90
1,2,4-Trichlorobenzene
Concen: 0.23 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V17671A.D
Acq: 26 Sep 2011 10:04 am

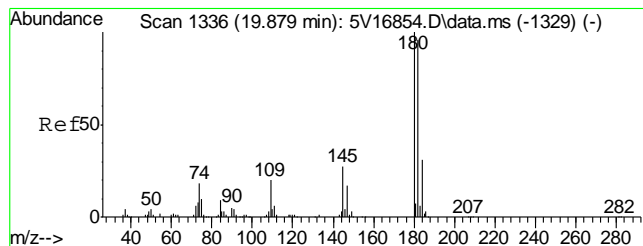
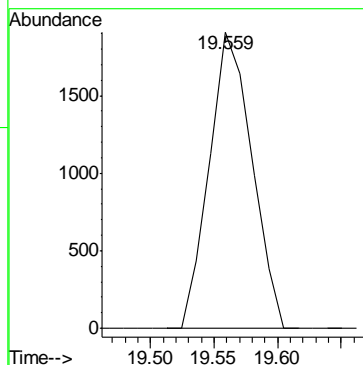
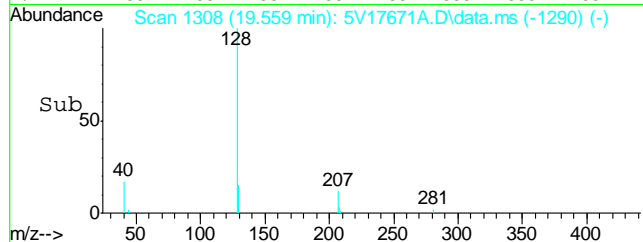
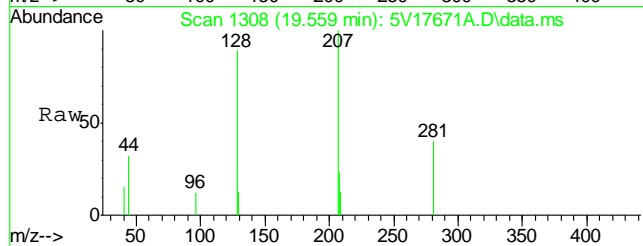
Tgt Ion:180 Resp: 1390
Ion Ratio Lower Upper
180 100
182 104.2 76.3 114.5
145 0.0 20.7 31.1#





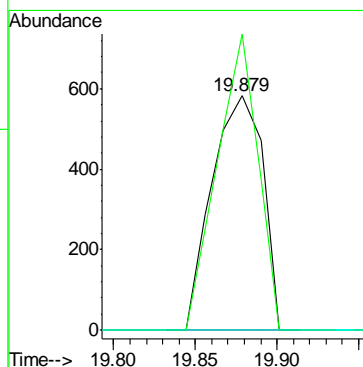
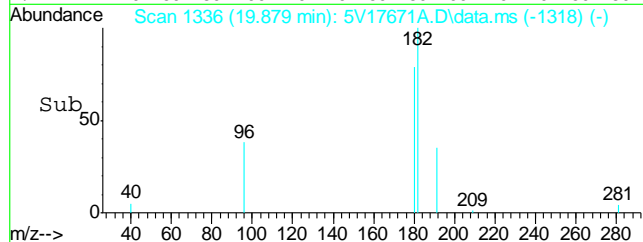
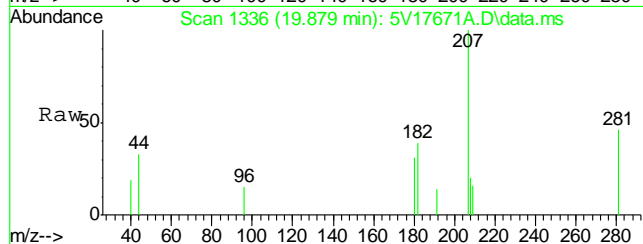
#91
Naphthalene
Concen: 1.25 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17671A.D
Acq: 26 Sep 2011 10:04 am

Tgt Ion:128 Resp: 4439



#93
1,2,3-Trichlorobenzene
Concen: 0.23 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. -0.000 min
Lab File: 5V17671A.D
Acq: 26 Sep 2011 10:04 am

Tgt Ion:180 Resp: 1259
Ion Ratio Lower Upper
180 100
182 101.2 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: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB750-MB	GB13166.D	1	09/25/11	SK	n/a	n/a	GGB750

The QC reported here applies to the following samples:

Method: SW846 8015B

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

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	80% 60-140%

Blank Spike Summary

Job Number: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB750-BS	GB13167.D	1	09/25/11	SK	n/a	n/a	GGB750

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

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	122	111	70-130

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

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D27967-1MS	GB13169.D	1	09/25/11	SK	n/a	n/a	GGB750
D27967-1MSD	GB13170.D	1	09/25/11	SK	n/a	n/a	GGB750
D27967-1	GB13168.D	1	09/25/11	SK	n/a	n/a	GGB750

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

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

CAS No.	Compound	D27967-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		119	132	111	133	112	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D27967-1	Limits
120-82-1	1,2,4-Trichlorobenzene	94%	92%	79%	60-140%

GC Volatiles

Raw Data

∞

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13182.D\FID1A.CH Vial: 18
 Signal #2 : Y:\1\DATA\092511\GB13182.D\FID2B.CH
 Acq On : 26 Sep 2011 2:49 am Operator: StephK
 Sample : D27990-1, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.006,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 08:26:32 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 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

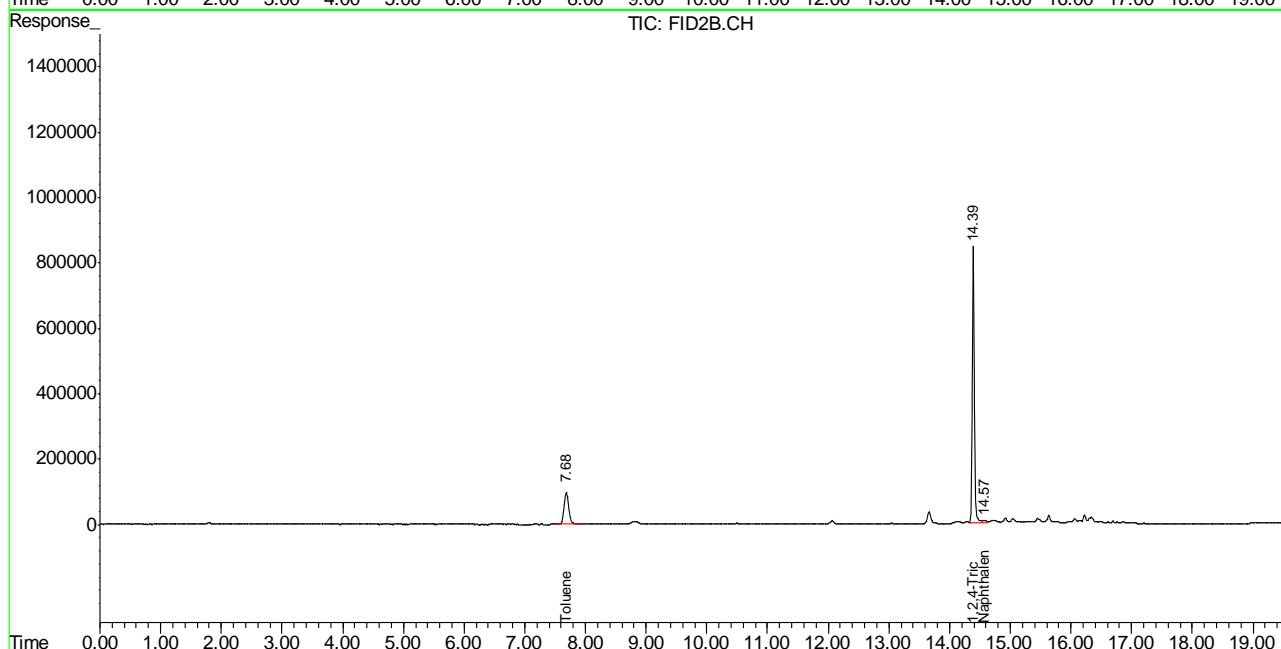
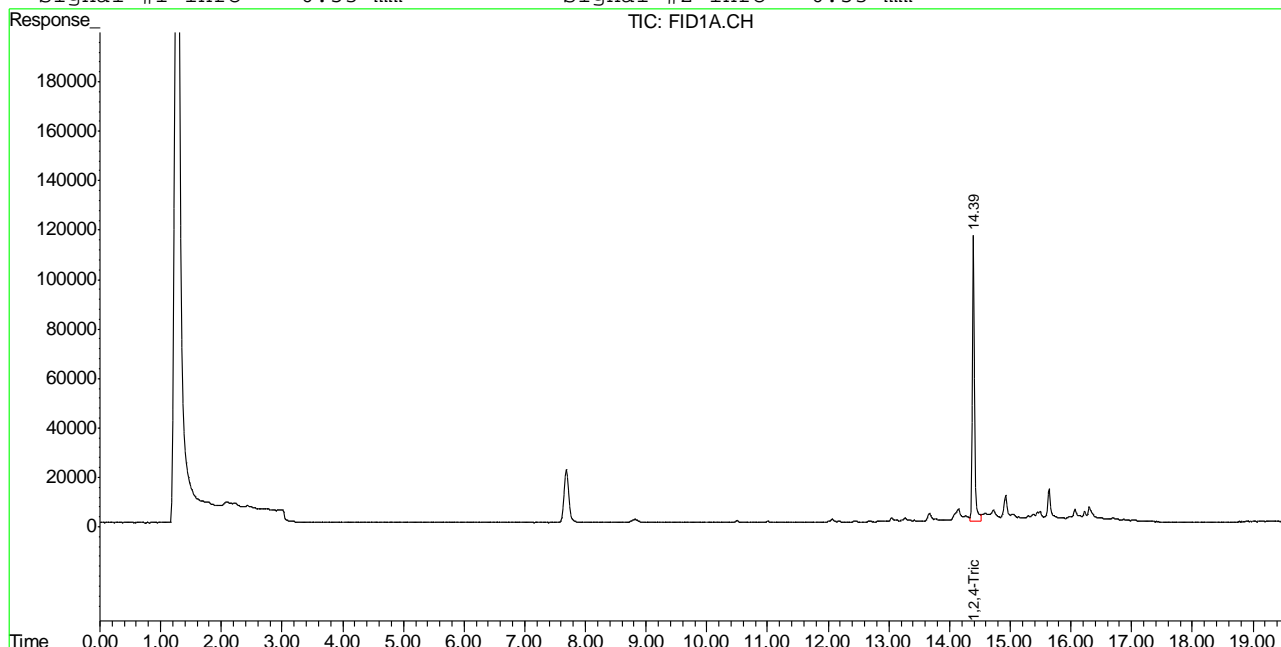
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.39	2890457	83.304	%
10) S	1,2,4-Trichlorobenzene (P)	14.39	20149124	94.885	%
Target Compounds					
1) H	TVH-Gasoline	7.33	6611413	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.68	5338840	11.493	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.57	339496	1.494	ug/L

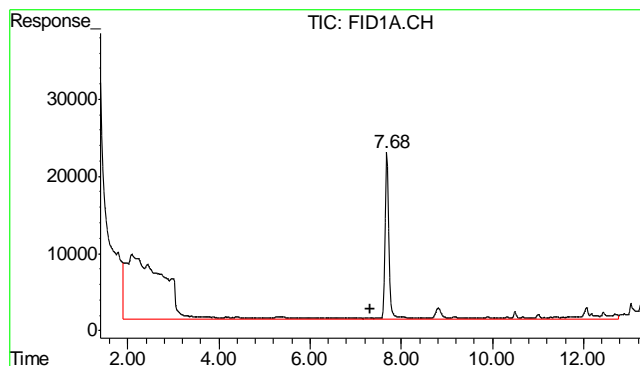
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13182.D\FID1A.CH Vial: 18
 Signal #2 : Y:\1\DATA\092511\GB13182.D\FID2B.CH
 Acq On : 26 Sep 2011 2:49 am Operator: StephK
 Sample : D27990-1, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.006,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:39 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

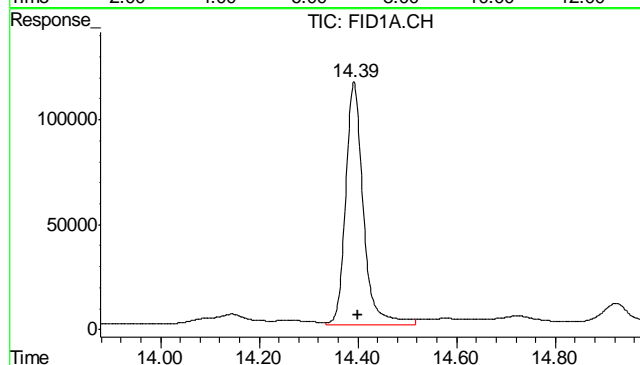
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





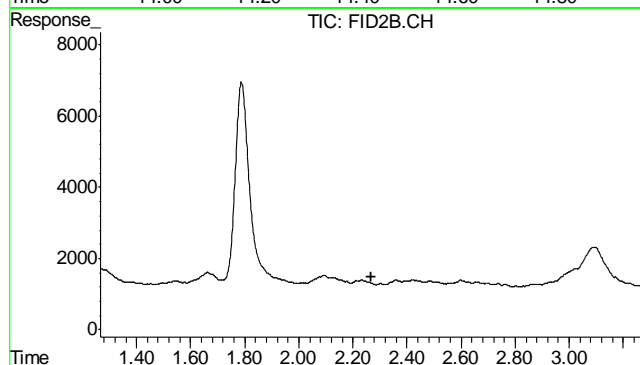
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6611413
Conc: N.D.



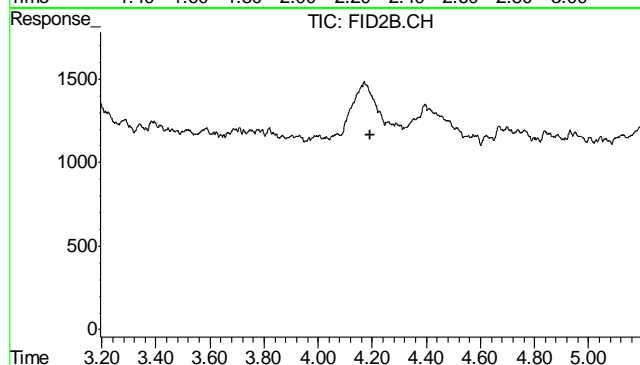
#2 1,2,4-Trichlorobenzene

R.T.: 14.392 min
Delta R.T.: -0.007 min
Response: 2890457
Conc: 83.30 %



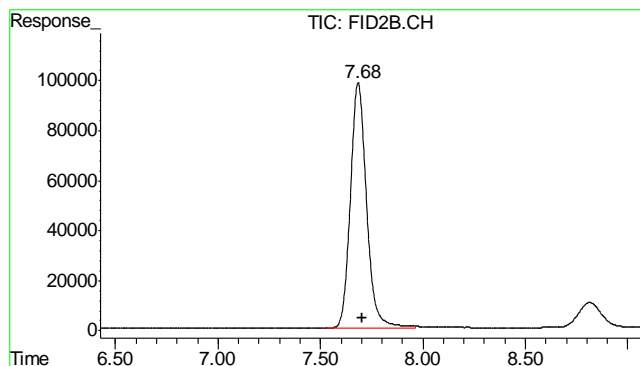
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.266 min
Response: 0
Conc: N.D.

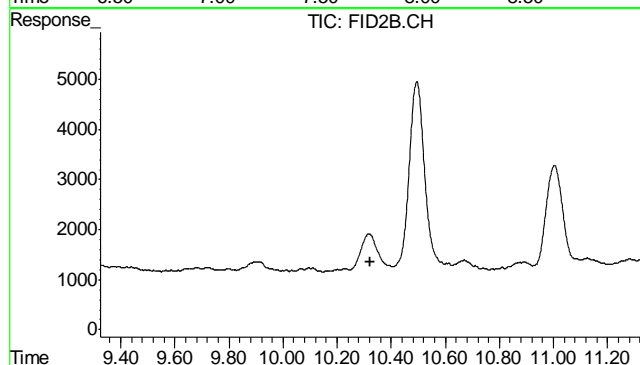


#5 Benzene

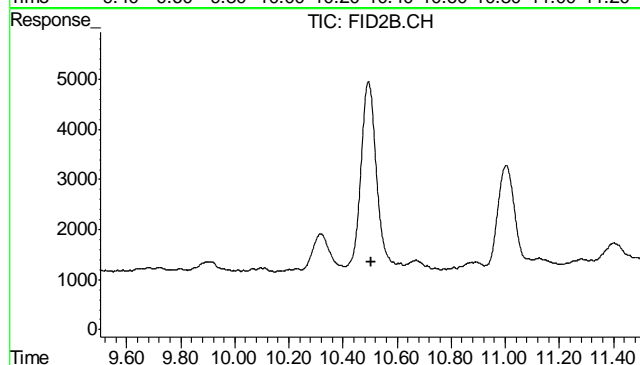
R.T.: 0.000 min
Exp R.T.: 4.194 min
Response: 0
Conc: N.D.



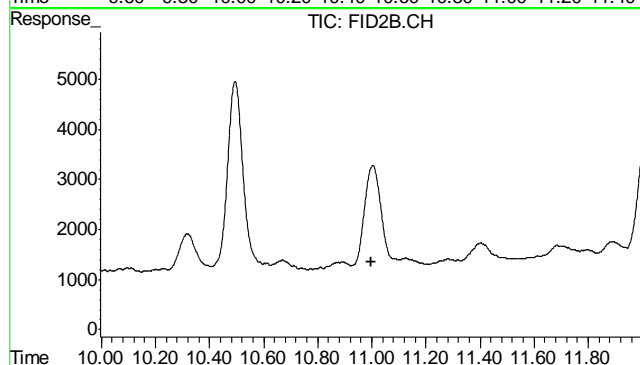
#6 Toluene
 R.T.: 7.684 min
 Delta R.T.: -0.020 min
 Response: 5338840
 Conc: 11.49 ug/L



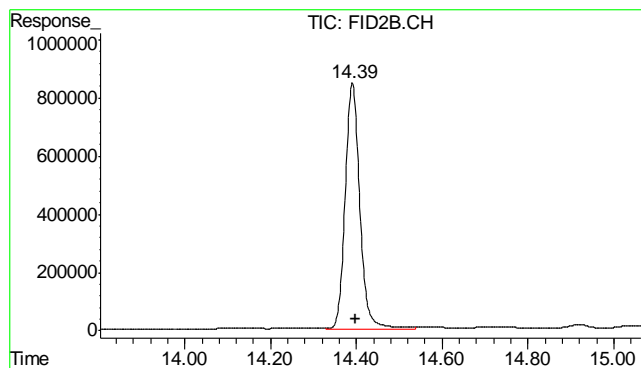
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.324 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.503 min
 Response: 0
 Conc: N.D.

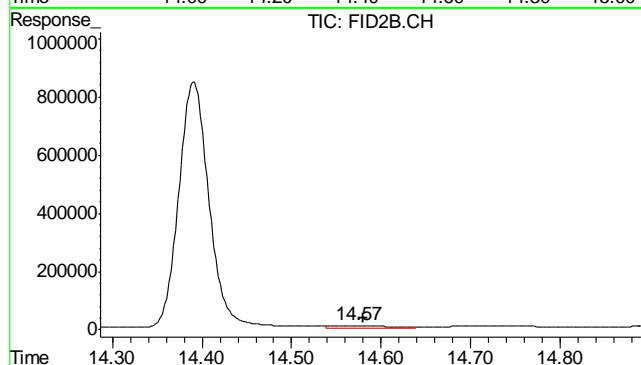


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.997 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.391 min
Delta R.T.: -0.007 min
Response: 20149124
Conc: 94.88 %



#11 Naphthalene

R.T.: 14.573 min
Delta R.T.: -0.007 min
Response: 339496
Conc: 1.49 ug/L

8.1.1

8

Judy Melson
09/28/11 08:44

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13183.D\FID1A.CH Vial: 19
 Signal #2 : Y:\1\DATA\092511\GB13183.D\FID2B.CH
 Acq On : 26 Sep 2011 3:24 am Operator: StephK
 Sample : D27990-2, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.028,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 08:26:36 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 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	14.40	2937637	84.664 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.40	20591291	96.967 %	
Target Compounds				
1) H TVH-Gasoline	7.33	6577822	<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	7.69	4222322	9.089	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.58	305351	1.348	ug/L

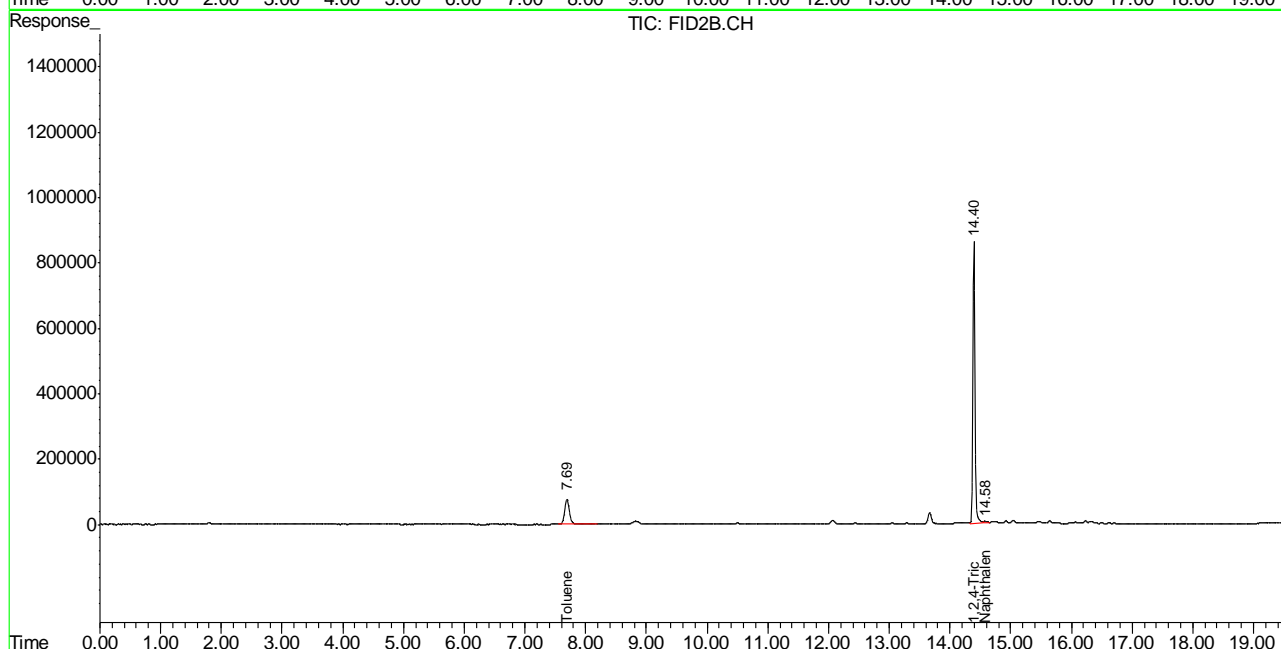
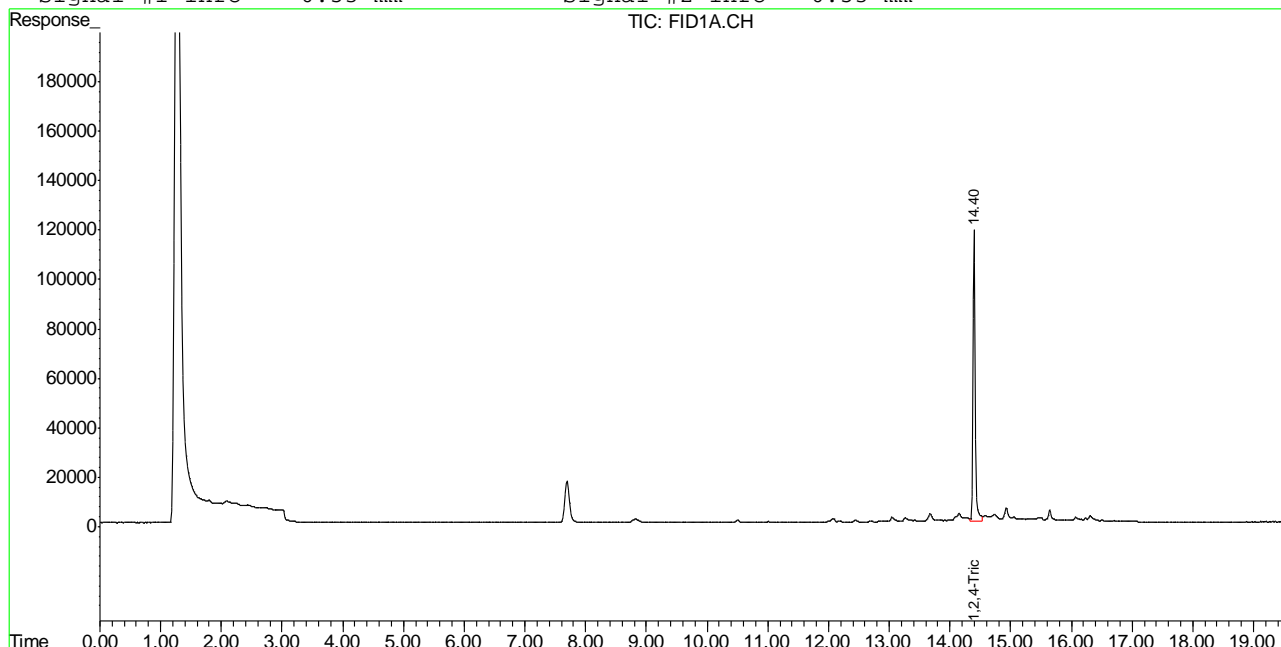
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB13183.D TB740GB740SOIL.M Mon Sep 26 08:41:36 2011 GC

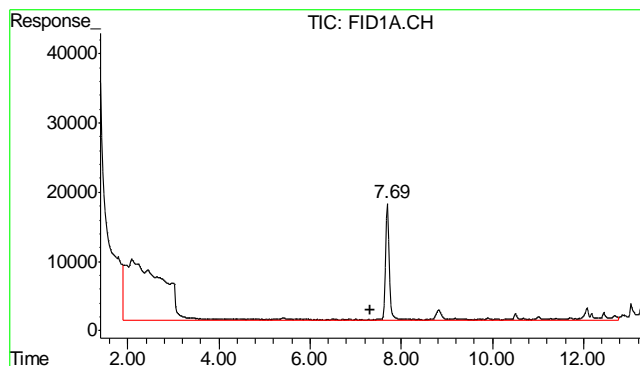
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13183.D\FID1A.CH Vial: 19
 Signal #2 : Y:\1\DATA\092511\GB13183.D\FID2B.CH
 Acq On : 26 Sep 2011 3:24 am Operator: StephK
 Sample : D27990-2, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.028,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:40 2011 Quant Results File: TB740GB740SOIL.RES

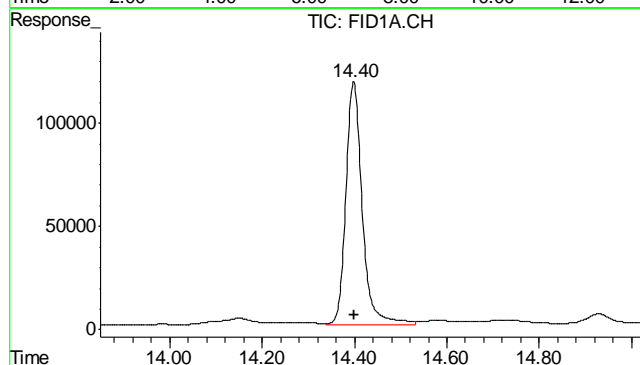
Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

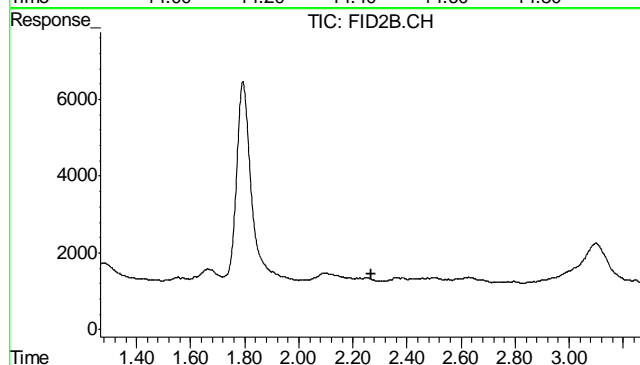




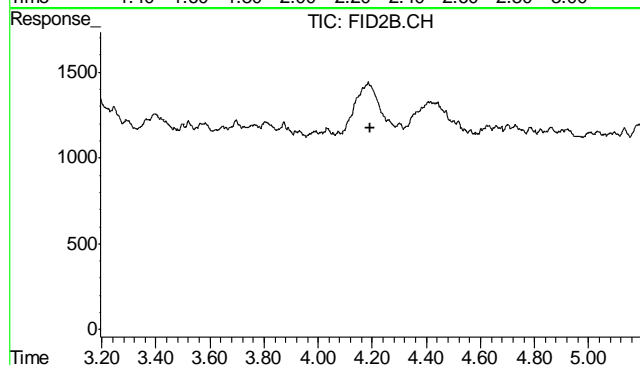
#1 TVH-Gasoline
R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6577822
Conc: N.D.



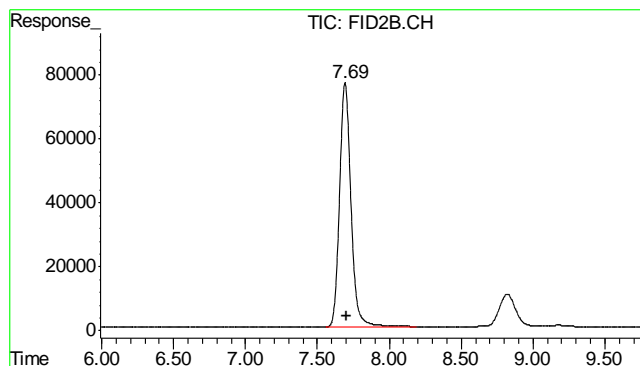
#2 1,2,4-Trichlorobenzene
R.T.: 14.397 min
Delta R.T.: -0.002 min
Response: 2937637
Conc: 84.66 % m



#4 Methyl-t-butyl-ether
R.T.: 0.000 min
Exp R.T.: 2.266 min
Response: 0
Conc: N.D.

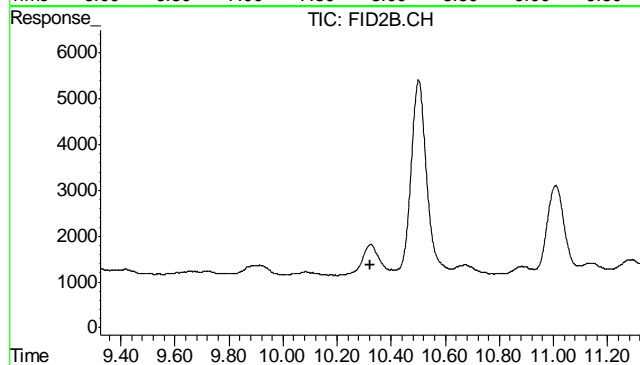


#5 Benzene
R.T.: 0.000 min
Exp R.T.: 4.194 min
Response: 0
Conc: N.D.



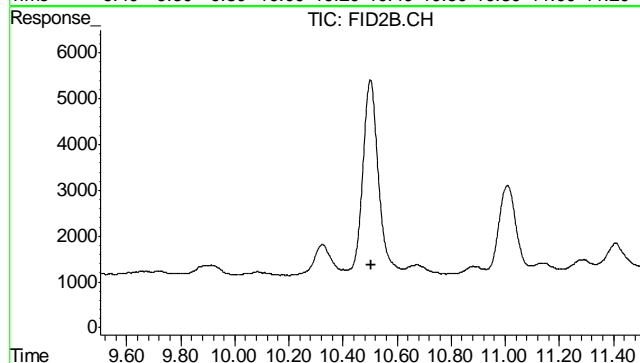
#6 Toluene

R.T.: 7.692 min
Delta R.T.: -0.012 min
Response: 422322
Conc: 9.09 ug/L



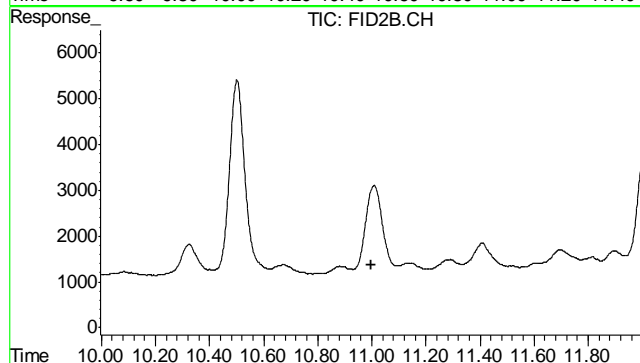
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.324 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

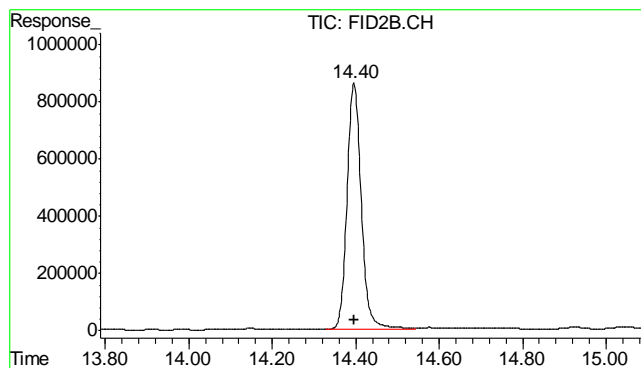
R.T.: 0.000 min
Exp R.T.: 10.503 min
Response: 0
Conc: N.D.



#9 o-Xylene

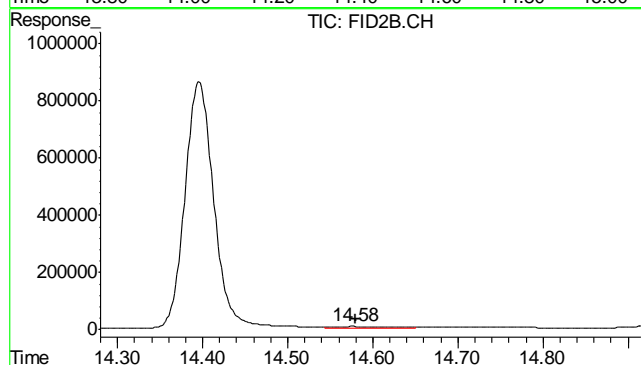
R.T.: 0.000 min
Exp R.T.: 10.997 min
Response: 0
Conc: N.D.

8.12
8



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

R.T.: 14.396 min
 Delta R.T.: -0.002 min
 Response: 20591291
 Conc: 96.97 %



#11 Naphthalene

R.T.: 14.577 min
 Delta R.T.: -0.004 min
 Response: 305351
 Conc: 1.35 ug/L

8.12
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13184.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\092511\GB13184.D\FID2B.CH
Acq On : 26 Sep 2011 4:00 am Operator: StephK
Sample : D27990-3, 50X Inst : GC/MS Ins
Misc : GC2272,GGB750,5.014,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 08:26:40 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Sep 26 08:26:10 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

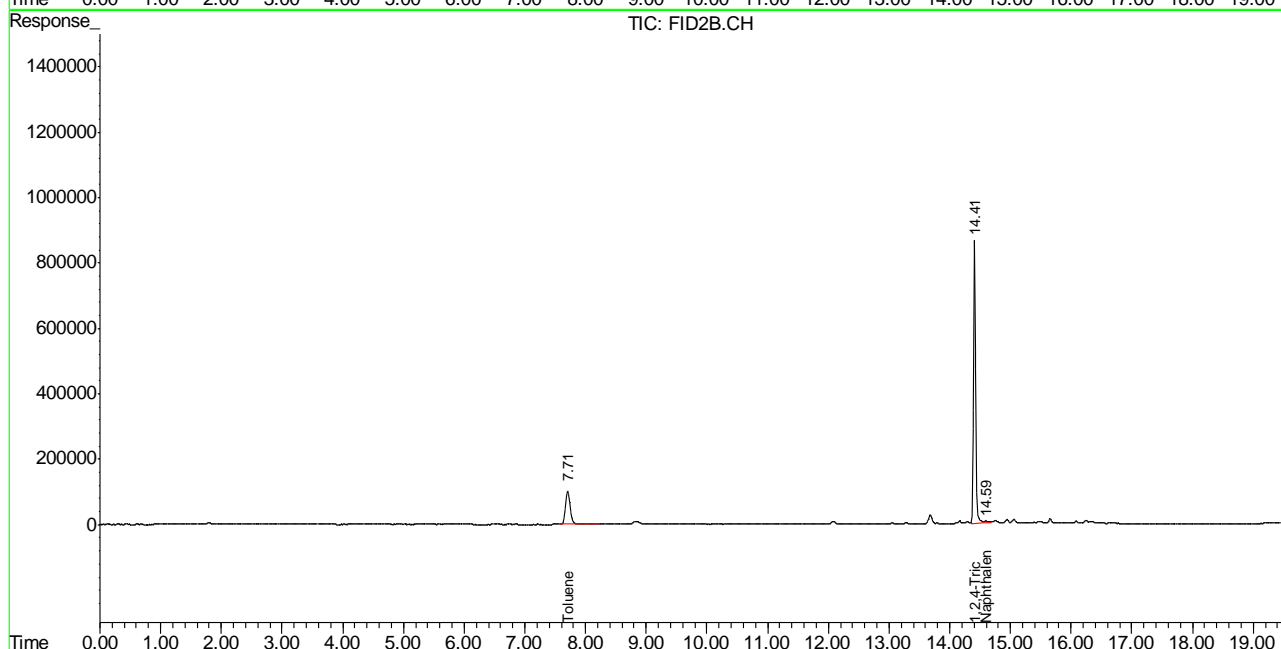
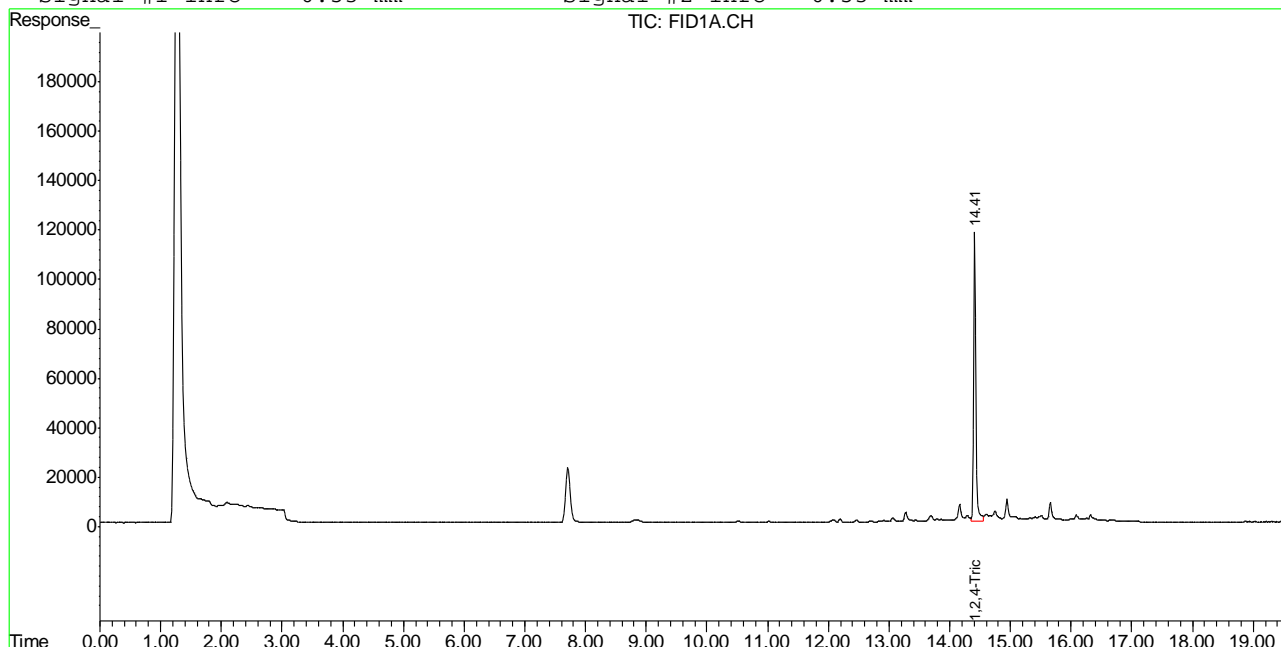
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.41	2925781	84.322 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.41	20619633	97.101 %	
Target Compounds				
1) H TVH-Gasoline	7.33	6592054	<MDL	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.71	5627452	12.114	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.59	397739	1.744	ug/L

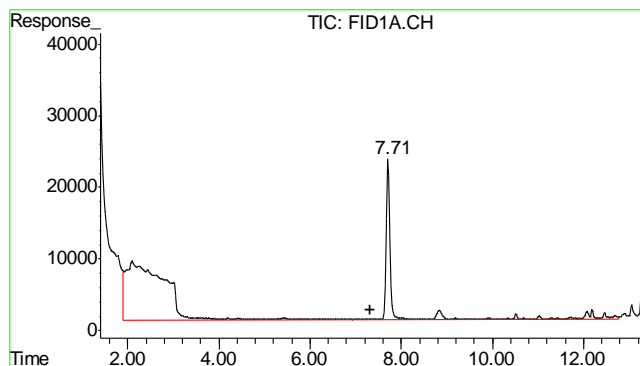
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13184.D\FID1A.CH Vial: 20
 Signal #2 : Y:\1\DATA\092511\GB13184.D\FID2B.CH
 Acq On : 26 Sep 2011 4:00 am Operator: StephK
 Sample : D27990-3, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.014,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:40 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

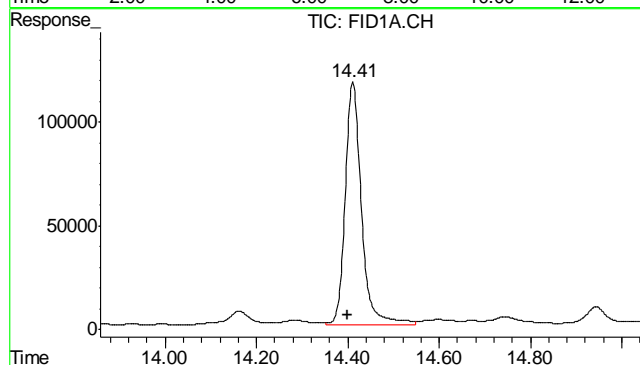
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





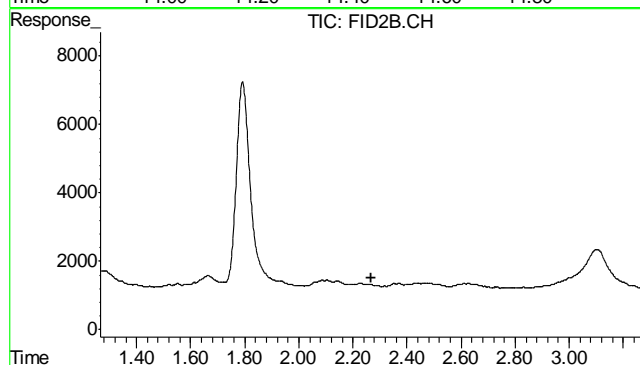
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6592054
Conc: N.D.



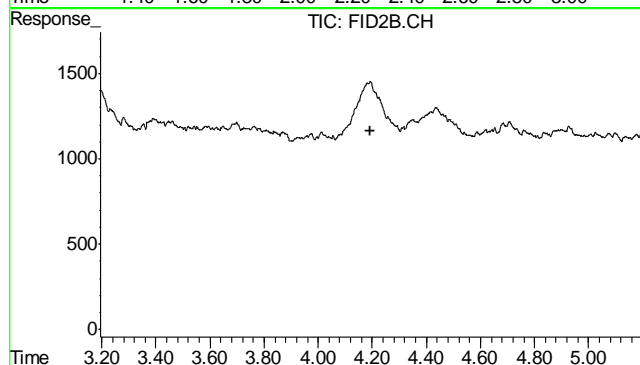
#2 1,2,4-Trichlorobenzene

R.T.: 14.411 min
Delta R.T.: 0.011 min
Response: 2925781
Conc: 84.32 % m



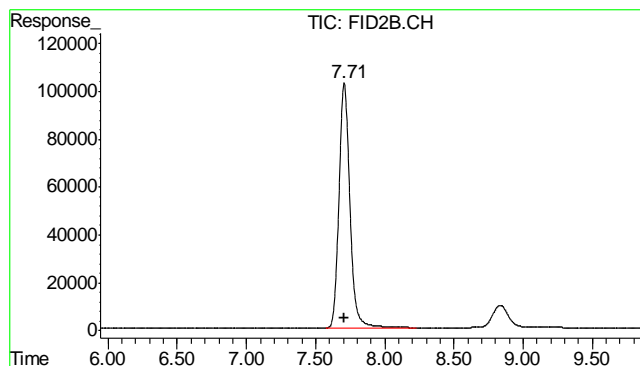
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.266 min
Response: 0
Conc: N.D.

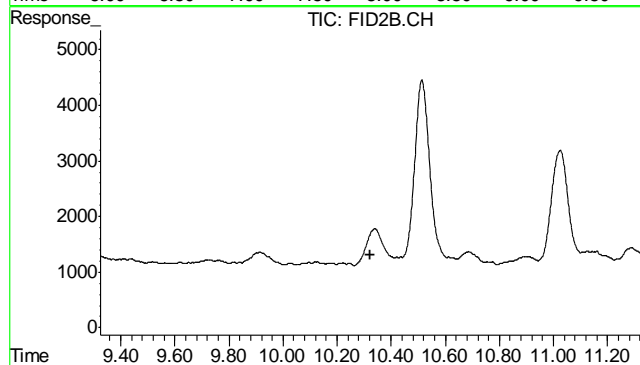


#5 Benzene

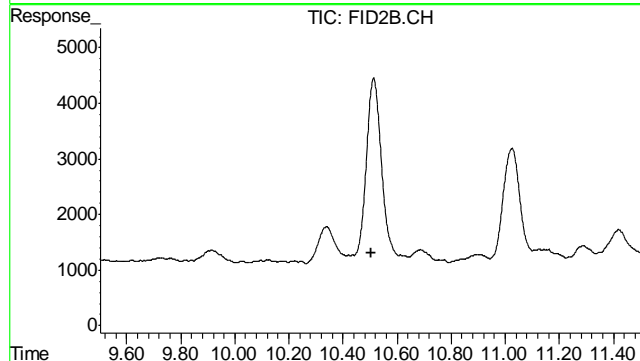
R.T.: 0.000 min
Exp R.T.: 4.194 min
Response: 0
Conc: N.D.



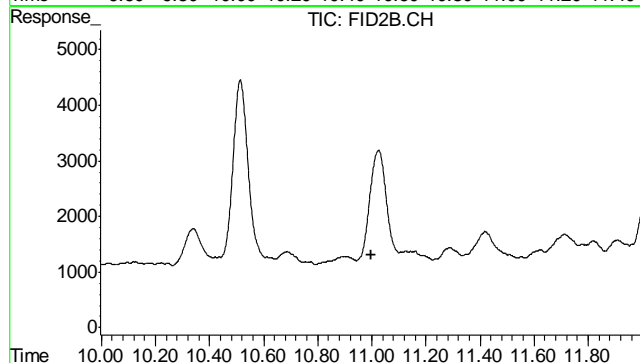
#6 Toluene
 R.T.: 7.708 min
 Delta R.T.: 0.003 min
 Response: 5627452
 Conc: 12.11 ug/L



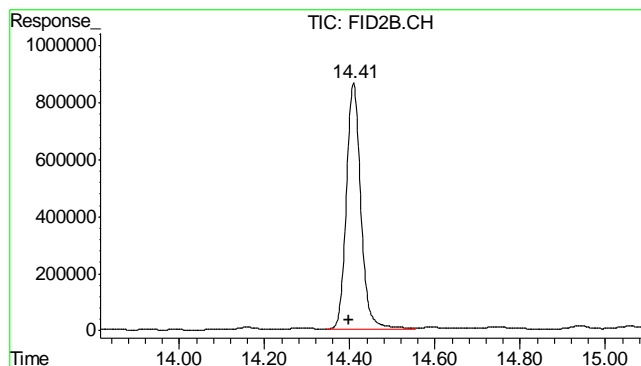
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.324 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.503 min
 Response: 0
 Conc: N.D.

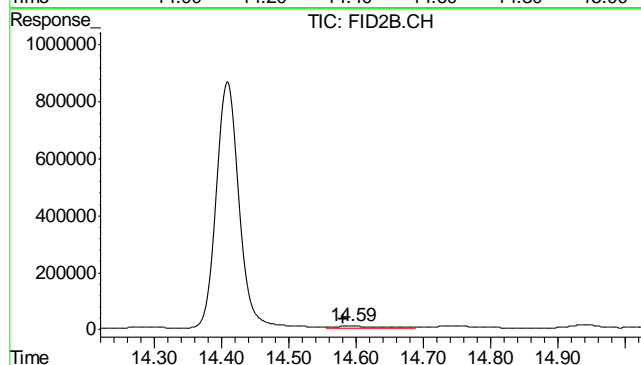


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.997 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.409 min
 Delta R.T.: 0.011 min
 Response: 20619633
 Conc: 97.10 %



#11 Naphthalene

R.T.: 14.592 min
 Delta R.T.: 0.012 min
 Response: 397739
 Conc: 1.74 ug/L

8.1.3

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13185.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\092511\GB13185.D\FID2B.CH
Acq On : 26 Sep 2011 4:36 am Operator: StephK
Sample : D27990-4, 50X Inst : GC/MS Ins
Misc : GC2272,GGB750,5.045,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 08:26:44 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Sep 26 08:26:10 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

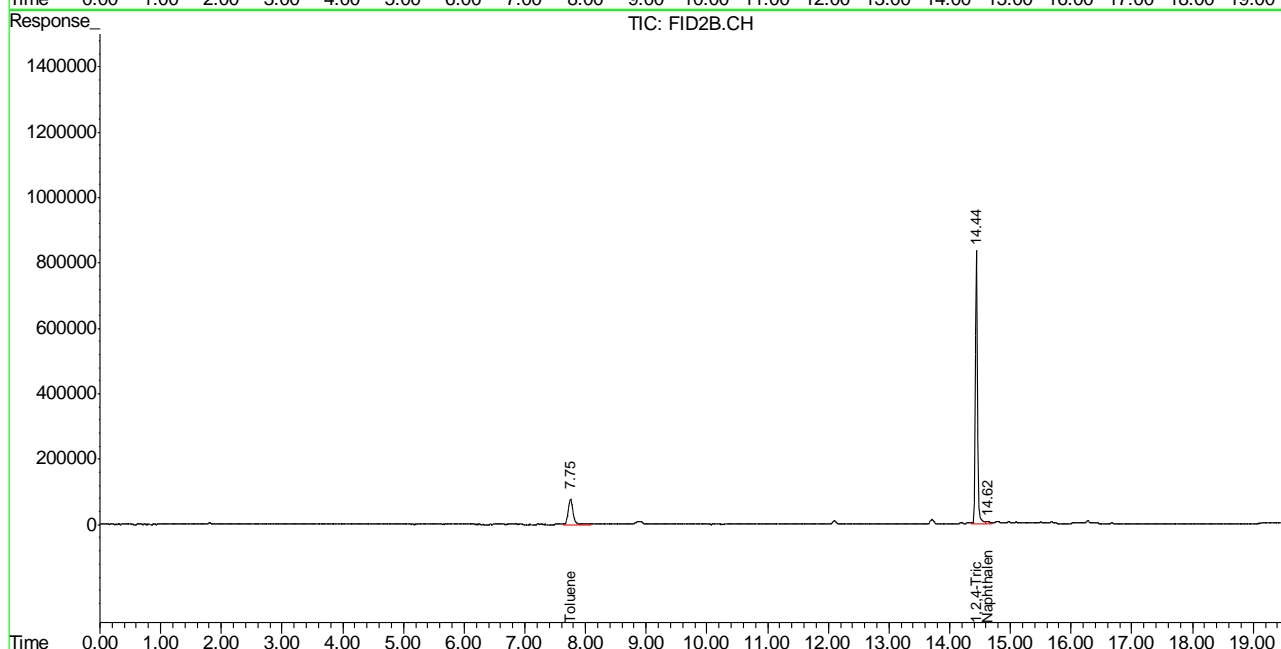
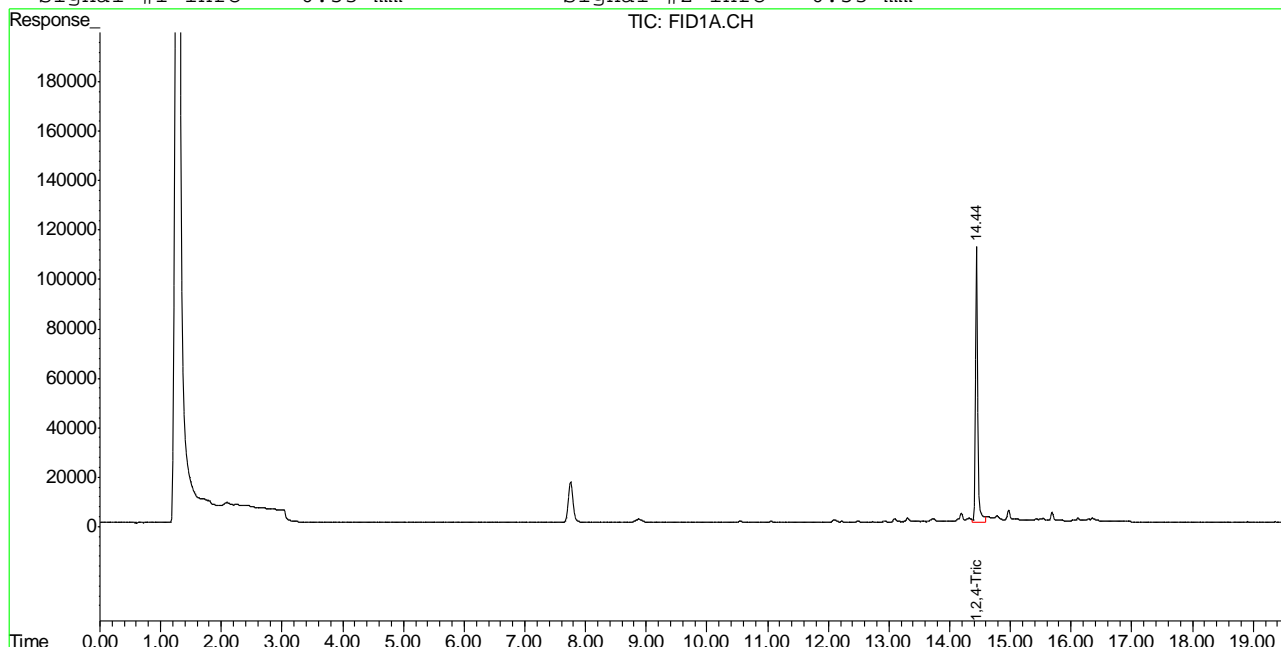
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.44	2791328	80.447 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.44	19982296	94.099 %	
Target Compounds				
1) H TVH-Gasoline	7.33	6287402	<MDL	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.75	4233946	9.114	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.62	280911	1.243	ug/L

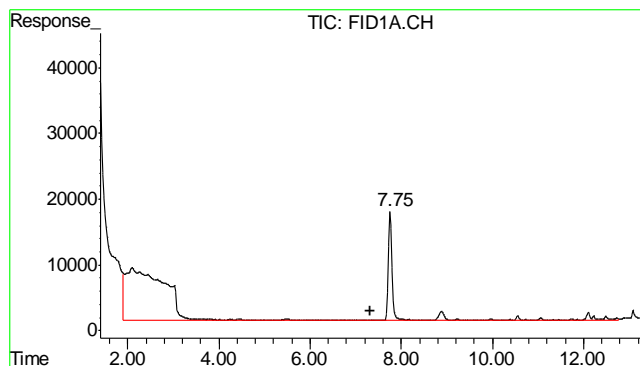
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13185.D\FID1A.CH Vial: 21
 Signal #2 : Y:\1\DATA\092511\GB13185.D\FID2B.CH
 Acq On : 26 Sep 2011 4:36 am Operator: StephK
 Sample : D27990-4, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.045,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:40 2011 Quant Results File: TB740GB740SOIL.RES

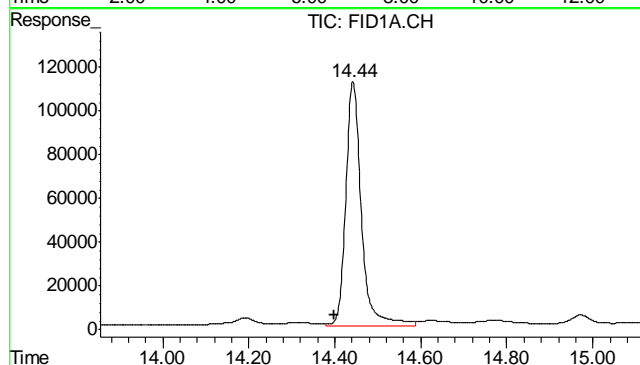
Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

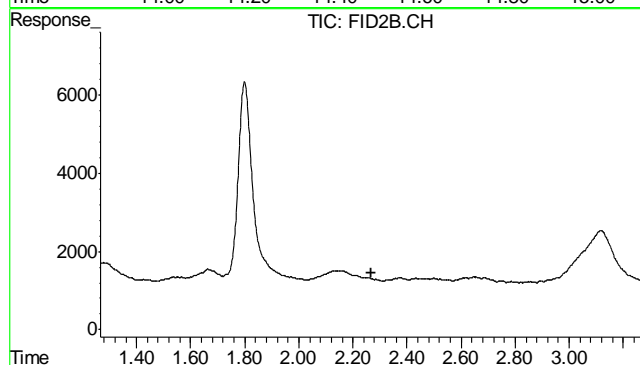




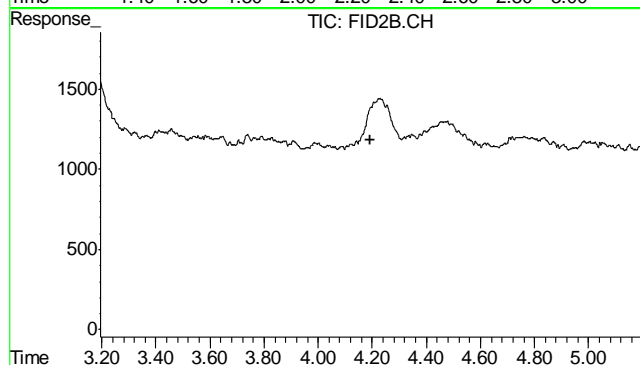
#1 TVH-Gasoline
 R.T.: 7.330 min
 Delta R.T.: 0.000 min
 Response: 6287402
 Conc: N.D.



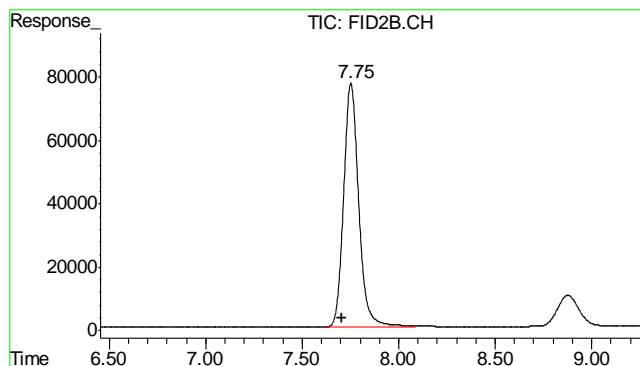
#2 1,2,4-Trichlorobenzene
 R.T.: 14.442 min
 Delta R.T.: 0.042 min
 Response: 2791328
 Conc: 80.45 % m



#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.266 min
 Response: 0
 Conc: N.D.

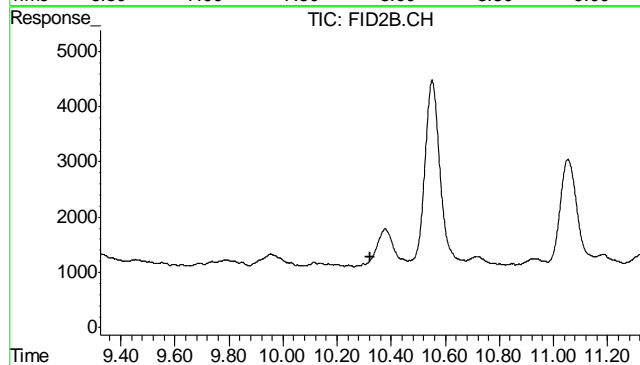


#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.194 min
 Response: 0
 Conc: N.D.



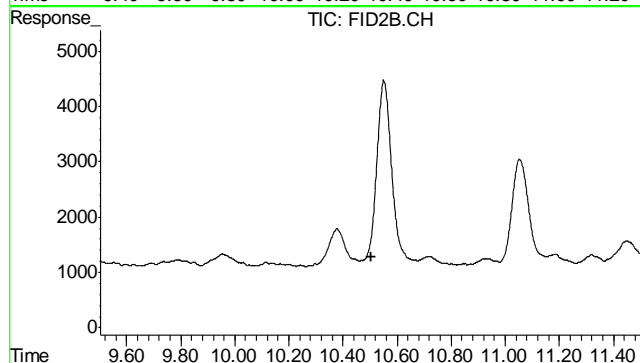
#6 Toluene

R.T.: 7.752 min
Delta R.T.: 0.048 min
Response: 4233946
Conc: 9.11 ug/L



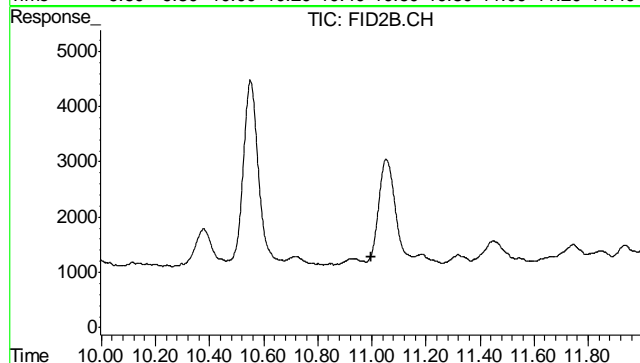
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.324 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

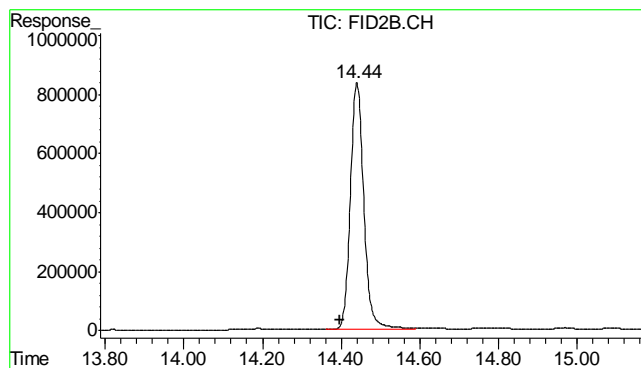
R.T.: 0.000 min
Exp R.T.: 10.503 min
Response: 0
Conc: N.D.



#9 o-Xylene

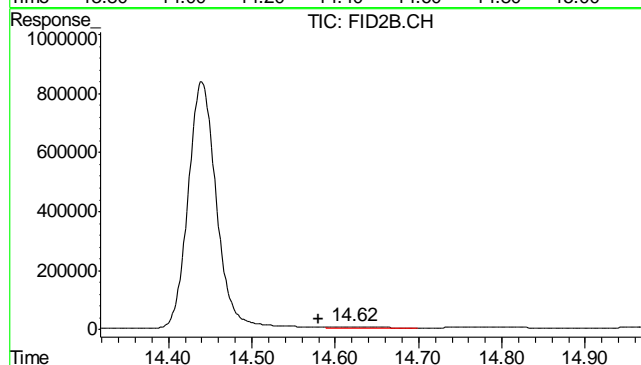
R.T.: 0.000 min
Exp R.T.: 10.997 min
Response: 0
Conc: N.D.

8.1.4
8



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

R.T.: 14.440 min
 Delta R.T.: 0.043 min
 Response: 19982296
 Conc: 94.10 %



#11 Naphthalene

R.T.: 14.620 min
 Delta R.T.: 0.040 min
 Response: 280911
 Conc: 1.24 ug/L

8.1.4
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13186.D\FID1A.CH Vial: 22
Signal #2 : Y:\1\DATA\092511\GB13186.D\FID2B.CH
Acq On : 26 Sep 2011 5:12 am Operator: StephK
Sample : D27990-5, 50X Inst : GC/MS Ins
Misc : GC2272,GGB750,5.070,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 08:26:48 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Sep 26 08:26:10 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	14.40	2955084	85.167 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.40	20753919	97.733 %	
Target Compounds				
1) H TVH-Gasoline	7.33	7219214	<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	7.69	5407672	11.641	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.58	298019	1.316	ug/L

8.15

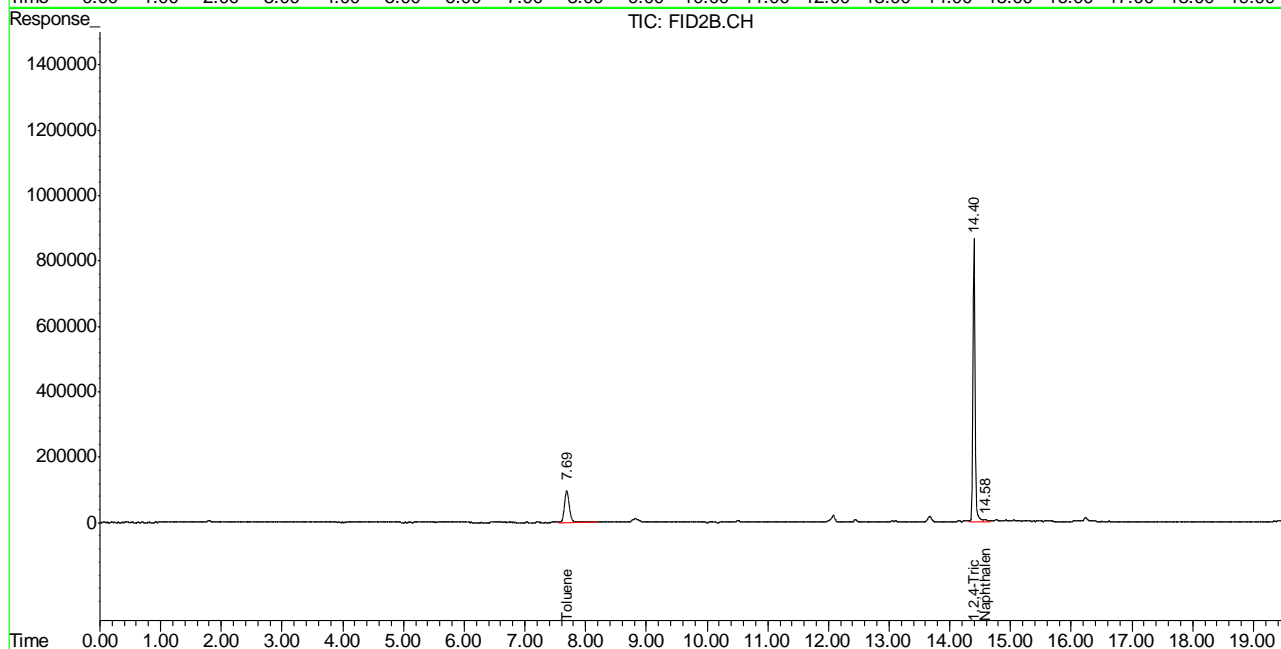
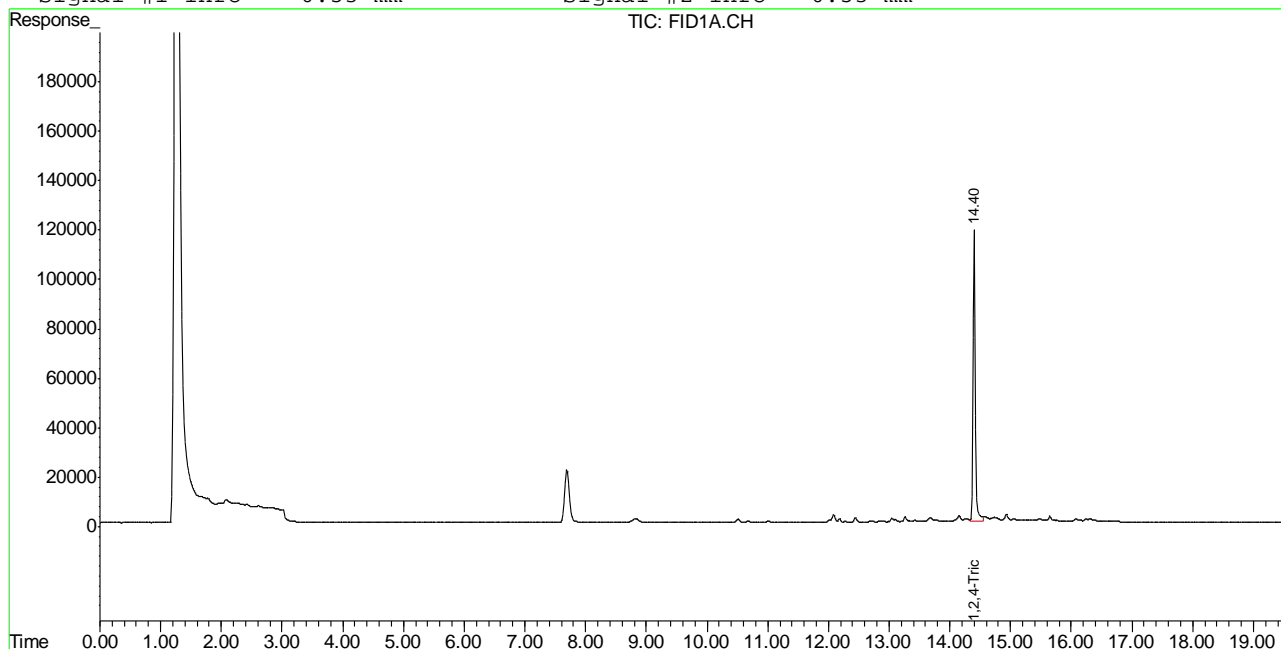
8

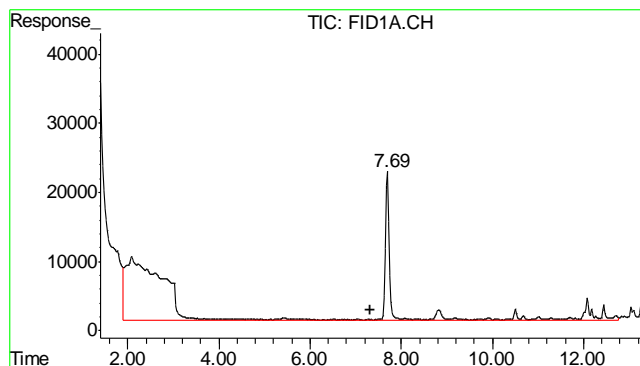
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13186.D\FID1A.CH Vial: 22
 Signal #2 : Y:\1\DATA\092511\GB13186.D\FID2B.CH
 Acq On : 26 Sep 2011 5:12 am Operator: StephK
 Sample : D27990-5, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.070,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:40 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

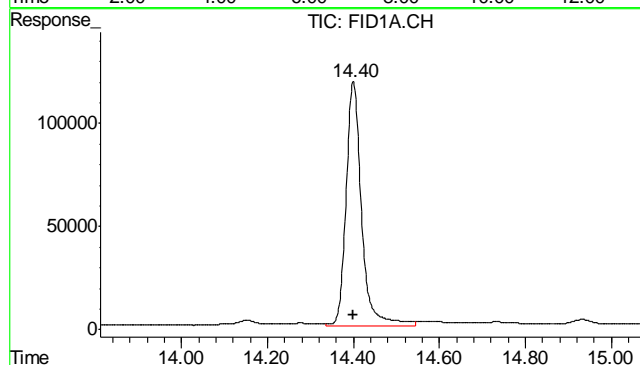
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





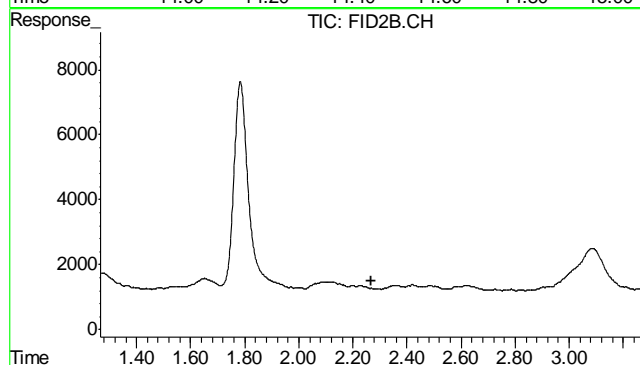
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 7219214
Conc: N.D.



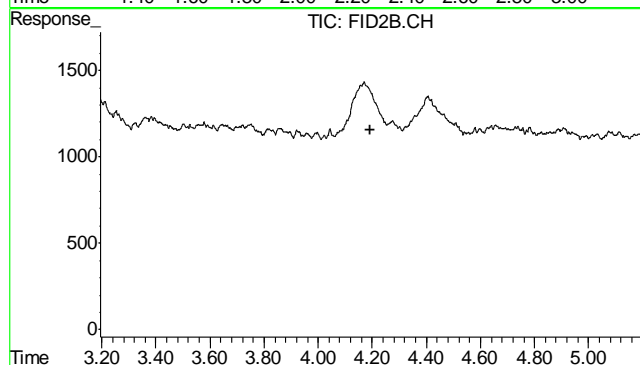
#2 1,2,4-Trichlorobenzene

R.T.: 14.399 min
Delta R.T.: 0.000 min
Response: 2955084
Conc: 85.17 % m



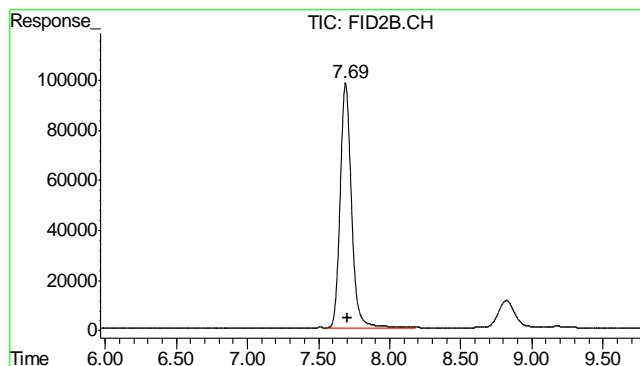
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.266 min
Response: 0
Conc: N.D.

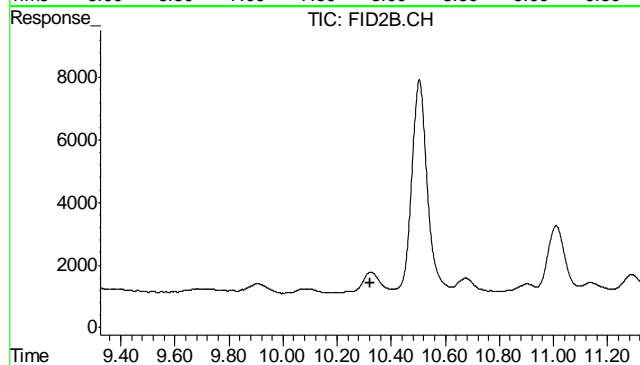


#5 Benzene

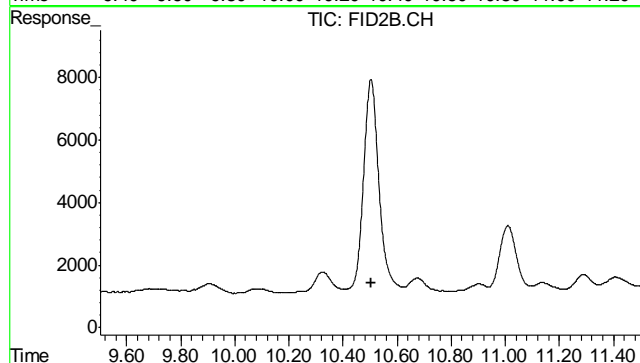
R.T.: 0.000 min
Exp R.T.: 4.194 min
Response: 0
Conc: N.D.



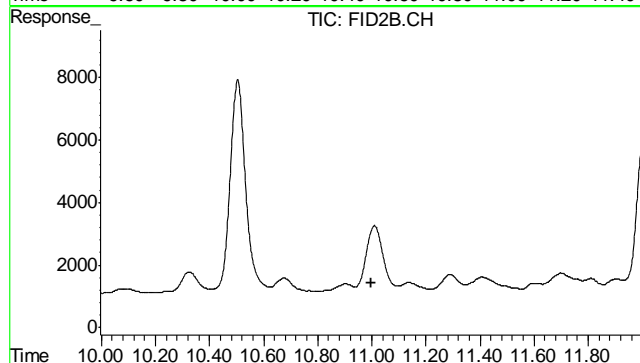
#6 Toluene
 R.T.: 7.689 min
 Delta R.T.: -0.015 min
 Response: 5407672
 Conc: 11.64 ug/L



#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.324 min
 Response: 0
 Conc: N.D.

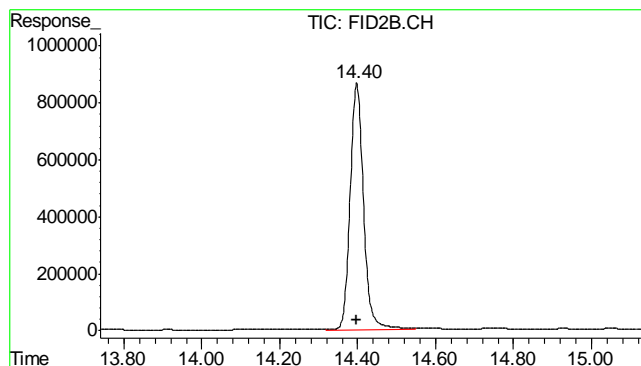


#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.503 min
 Response: 0
 Conc: N.D.



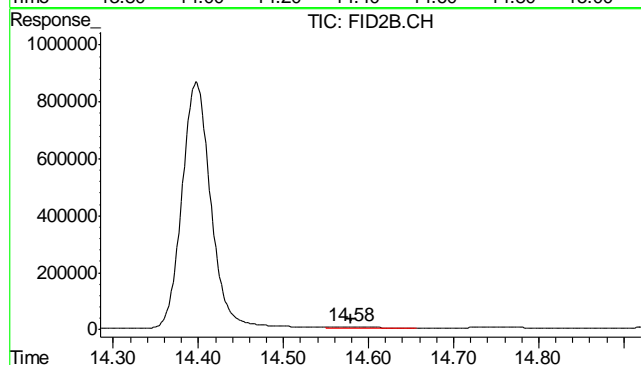
#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.997 min
 Response: 0
 Conc: N.D.

8.15
 8



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

R.T.: 14.398 min
 Delta R.T.: 0.000 min
 Response: 20753919
 Conc: 97.73 %



#11 Naphthalene

R.T.: 14.578 min
 Delta R.T.: -0.002 min
 Response: 298019
 Conc: 1.32 ug/L

8.1.5

8

Judy Melson
09/28/11 08:44

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13187.D\FID1A.CH Vial: 23
 Signal #2 : Y:\1\DATA\092511\GB13187.D\FID2B.CH
 Acq On : 26 Sep 2011 5:47 am Operator: StephK
 Sample : D27990-6, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.075,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 08:26:52 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 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	14.39	3229978	93.090 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.39	21891373	103.089 %	
Target Compounds				
1) H TVH-Gasoline	7.33	9560011	0.105 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	5454317	11.741 ug/L	
7) T Ethylbenzene	0.00	0	N.D. ug/L	d
8) T m,p-Xylene	0.00	0	N.D. ug/L	d
9) T o-Xylene	0.00	0	N.D. ug/L	d
11) T Naphthalene	14.58	1825431	7.868 ug/L	

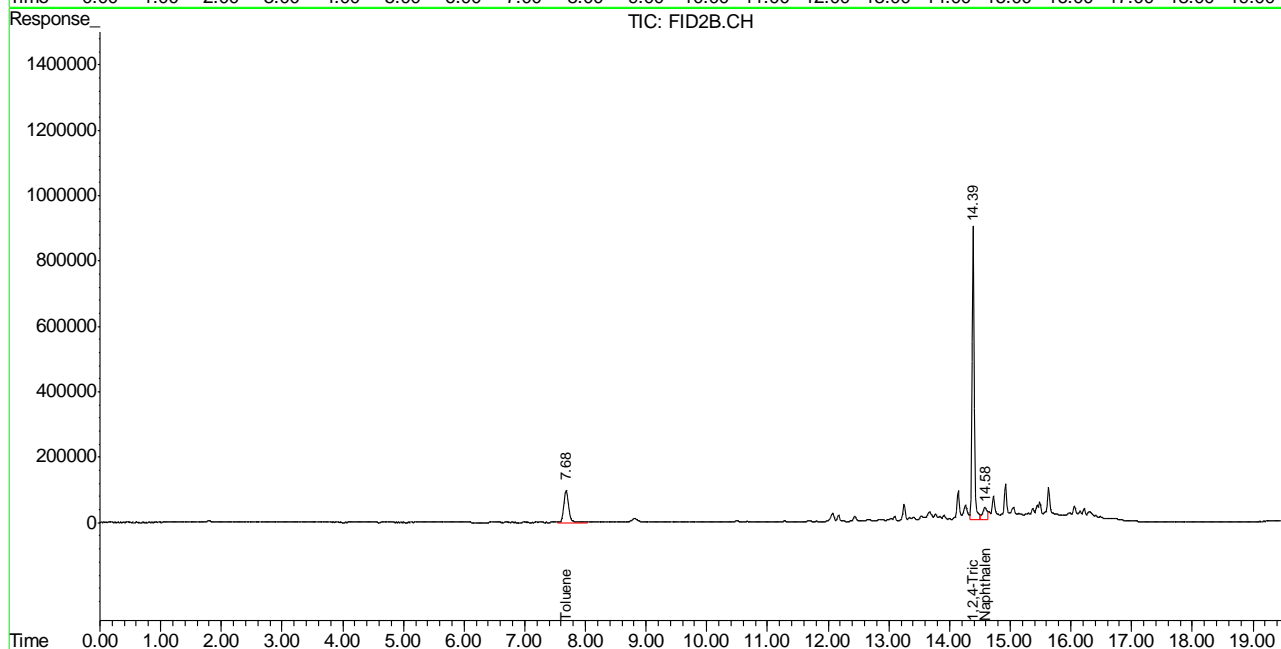
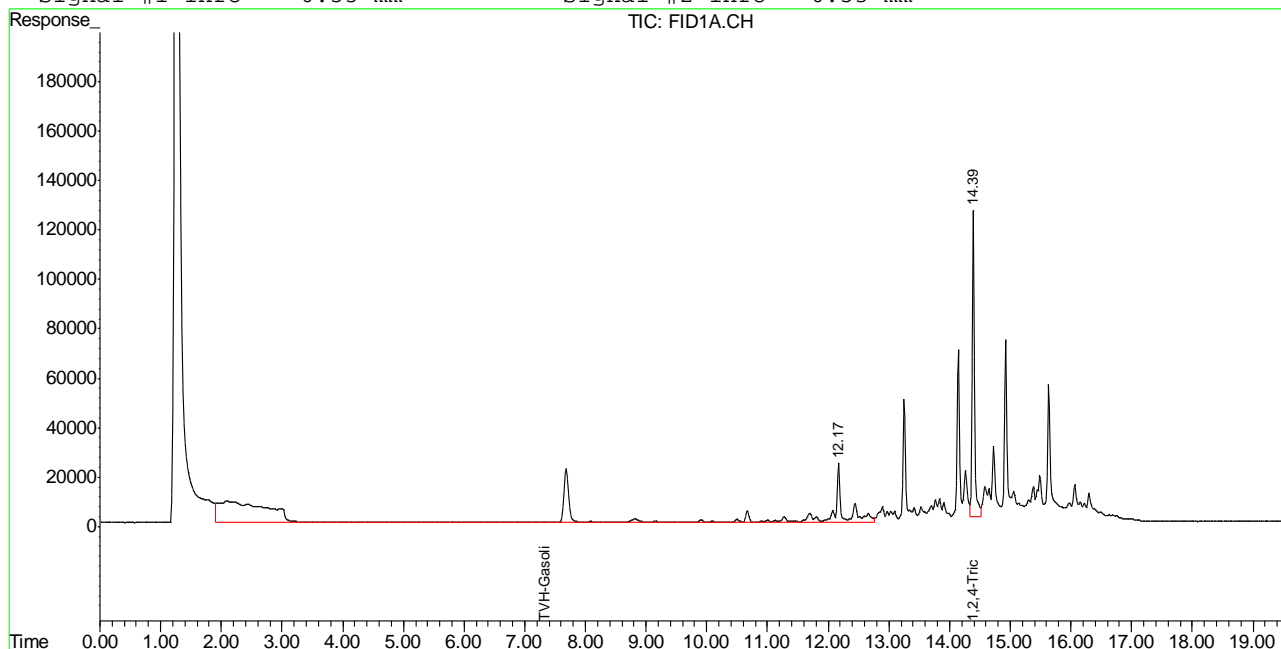
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB13187.D TB740GB740SOIL.M Mon Sep 26 08:41:48 2011 GC

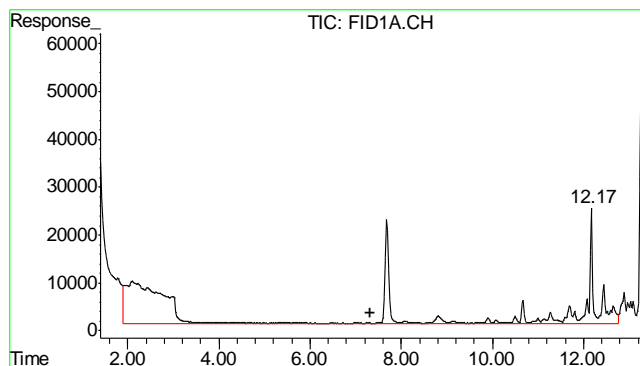
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13187.D\FID1A.CH Vial: 23
 Signal #2 : Y:\1\DATA\092511\GB13187.D\FID2B.CH
 Acq On : 26 Sep 2011 5:47 am Operator: StephK
 Sample : D27990-6, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.075,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:41 2011 Quant Results File: TB740GB740SOIL.RES

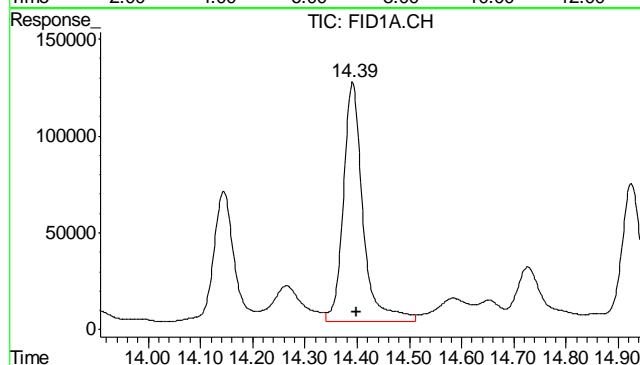
Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

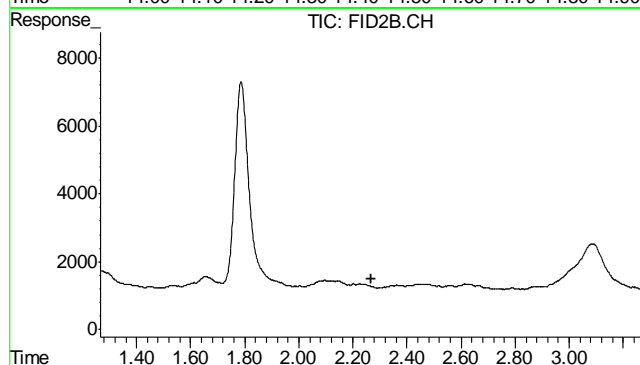




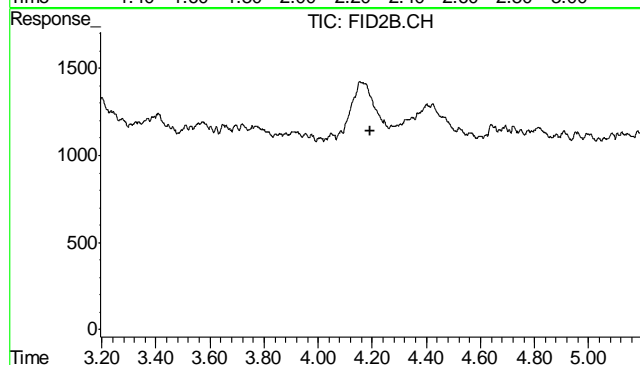
#1 TVH-Gasoline
 R.T.: 7.330 min
 Delta R.T.: 0.000 min
 Response: 9560011
 Conc: 0.10 mg/L m



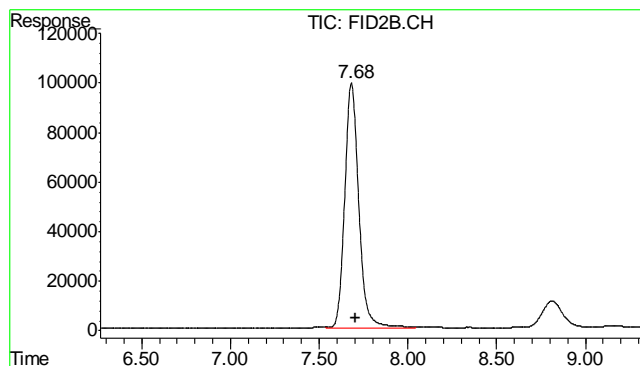
#2 1,2,4-Trichlorobenzene
 R.T.: 14.391 min
 Delta R.T.: -0.009 min
 Response: 3229978
 Conc: 93.09 % m



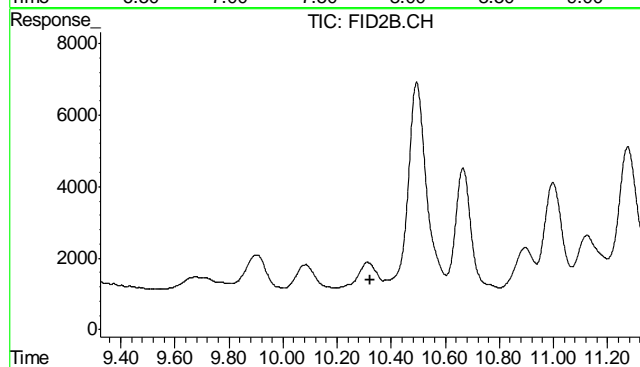
#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.266 min
 Response: 0
 Conc: N.D.



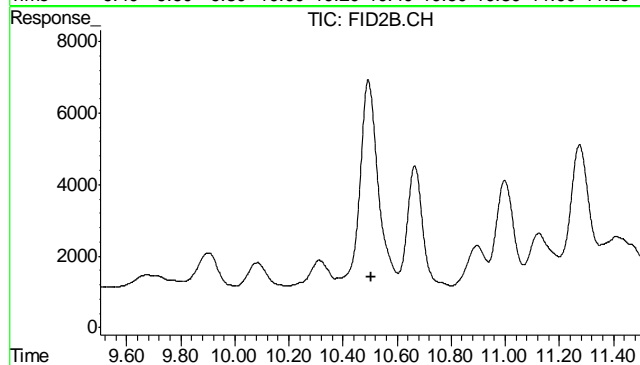
#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.194 min
 Response: 0
 Conc: N.D.



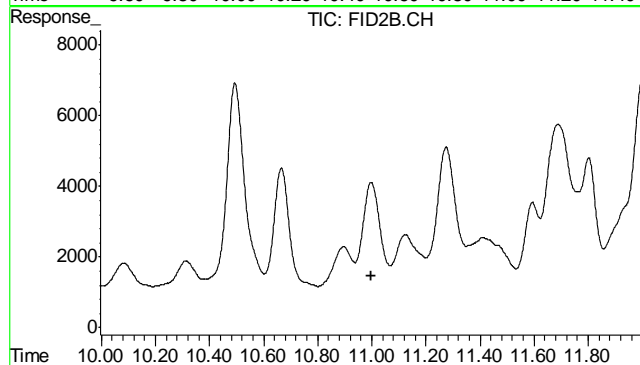
#6 Toluene
 R.T.: 7.681 min
 Delta R.T.: -0.023 min
 Response: 5454317
 Conc: 11.74 ug/L



#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.324 min
 Response: 0
 Conc: N.D.

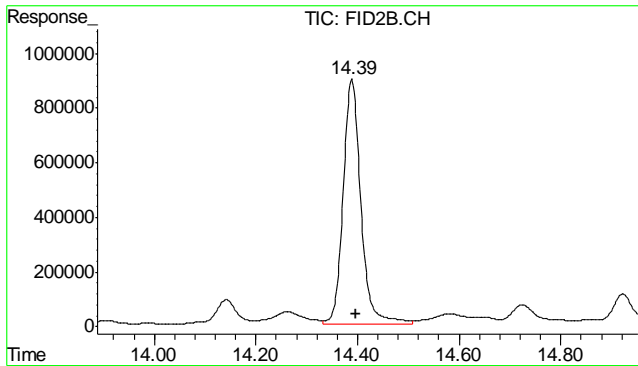


#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.503 min
 Response: 0
 Conc: N.D.



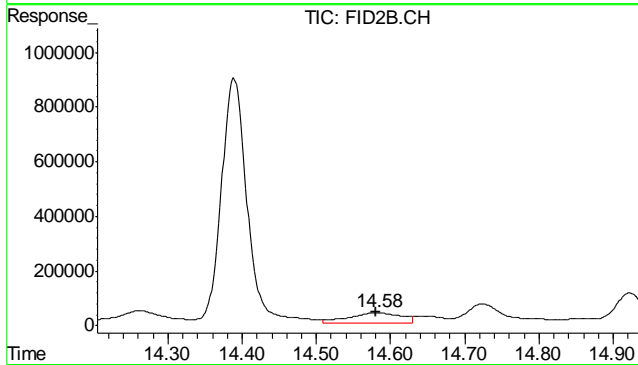
#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.997 min
 Response: 0
 Conc: N.D.

8.16
8



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

R.T.: 14.389 min
Delta R.T.: -0.008 min
Response: 21891373
Conc: 103.09 %



#11 Naphthalene

R.T.: 14.581 min
Delta R.T.: 0.001 min
Response: 1825431
Conc: 7.87 ug/L

8.1.6

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13188.D\FID1A.CH Vial: 24
 Signal #2 : Y:\1\DATA\092511\GB13188.D\FID2B.CH
 Acq On : 26 Sep 2011 6:23 am Operator: StephK
 Sample : D27990-7, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.030,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 08:26:56 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 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

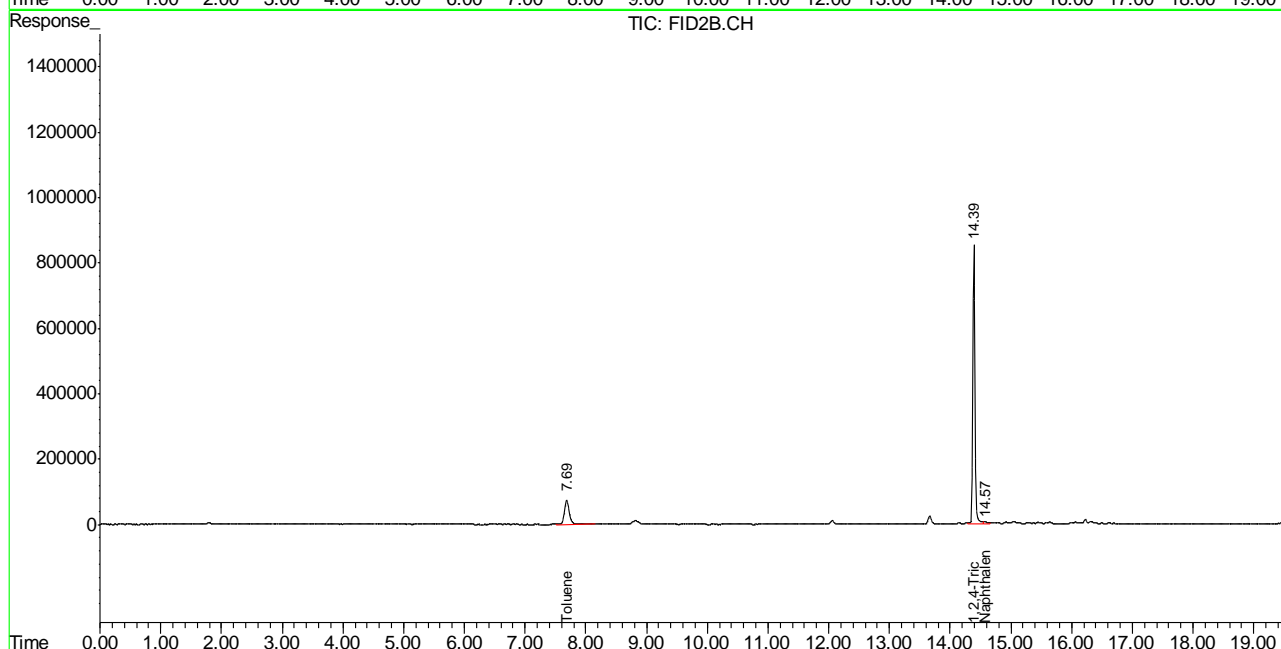
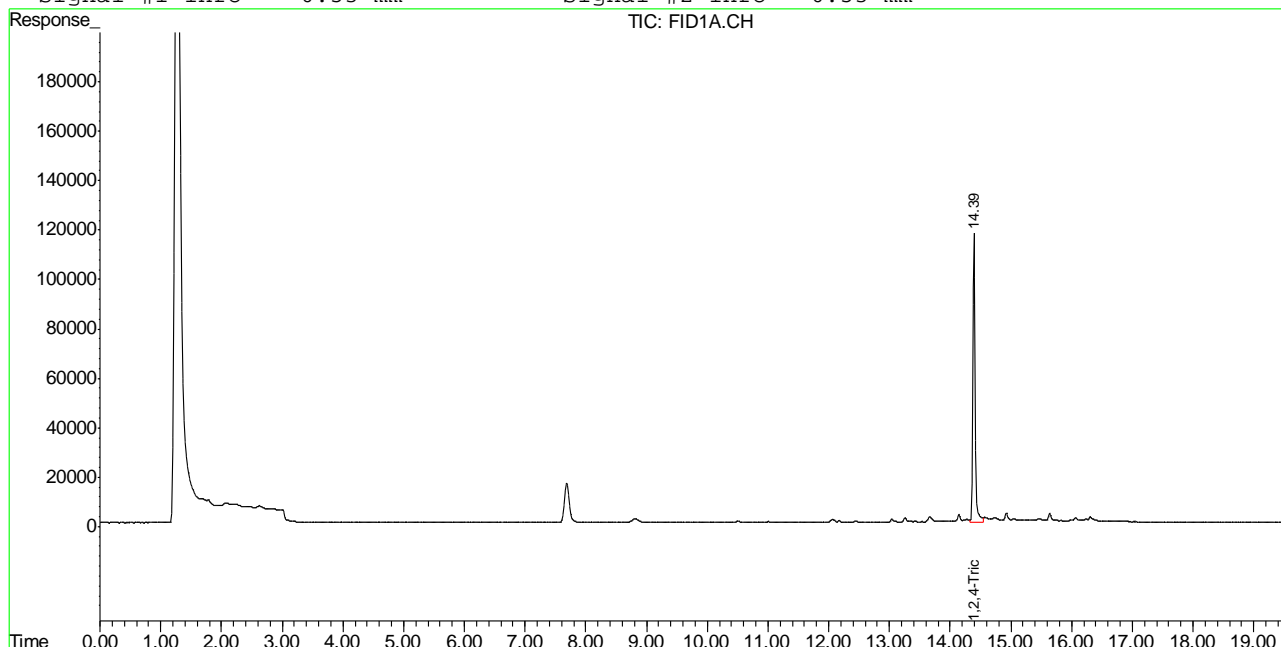
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.39	2908503	83.824	%
10) S	1,2,4-Trichlorobenzene (P)	14.39	20523990	96.650	%
Target Compounds					
1) H	TVH-Gasoline	7.33	6252550	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.69	4060882	8.742	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.57	314383	1.387	ug/L

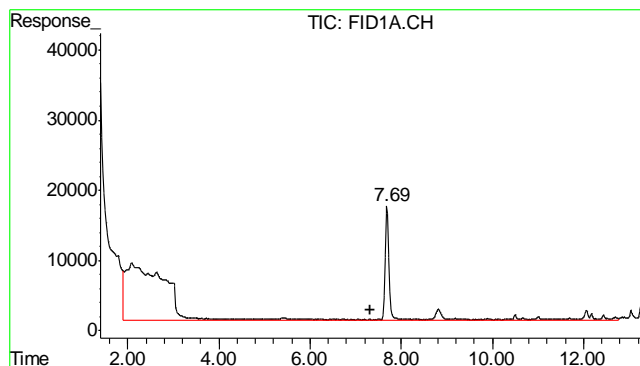
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13188.D\FID1A.CH Vial: 24
 Signal #2 : Y:\1\DATA\092511\GB13188.D\FID2B.CH
 Acq On : 26 Sep 2011 6:23 am Operator: StephK
 Sample : D27990-7, 50X Inst : GC/MS Ins
 Misc : GC2272,GGB750,5.030,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 26 7:41 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Sep 26 08:26:10 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

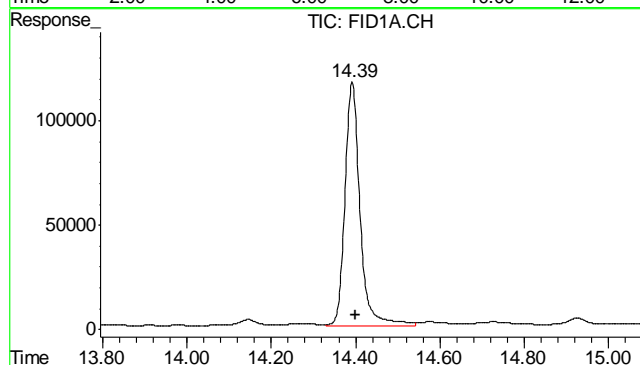
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





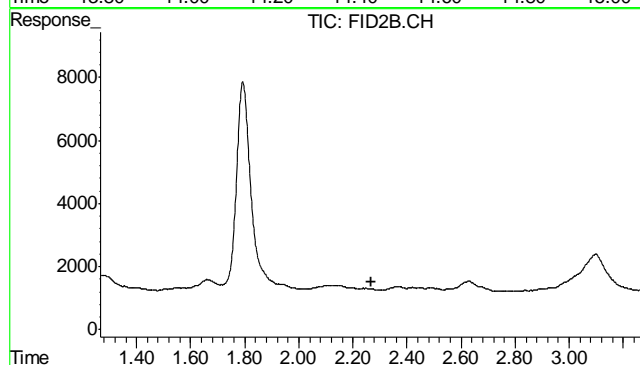
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6252550
Conc: N.D.



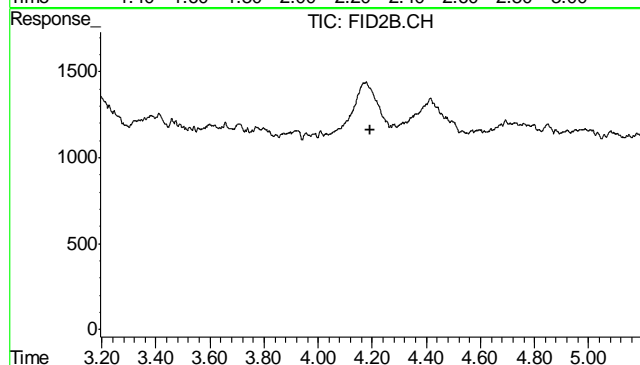
#2 1,2,4-Trichlorobenzene

R.T.: 14.392 min
Delta R.T.: -0.007 min
Response: 2908503
Conc: 83.82 %



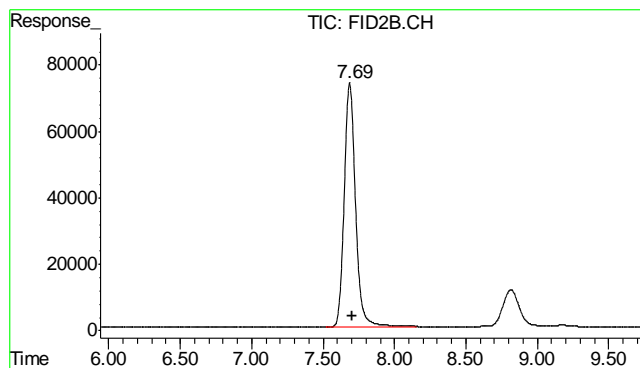
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.266 min
Response: 0
Conc: N.D.

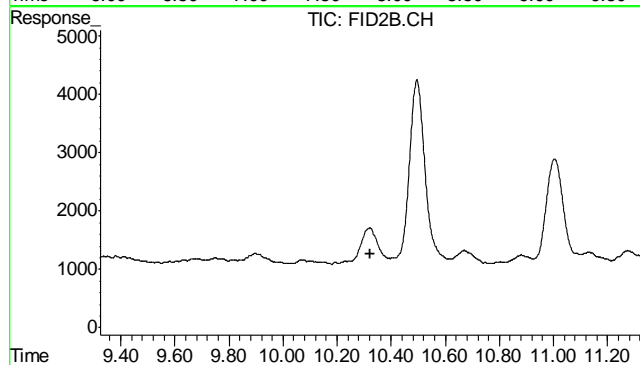


#5 Benzene

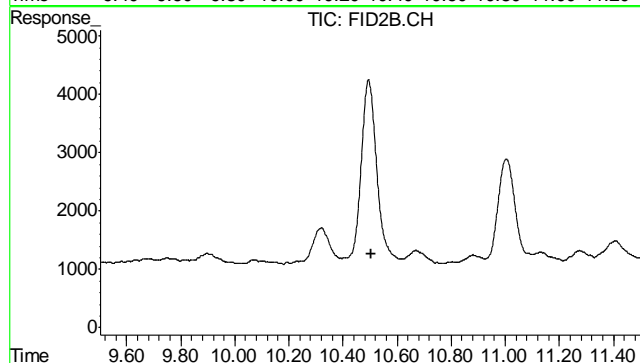
R.T.: 0.000 min
Exp R.T.: 4.194 min
Response: 0
Conc: N.D.



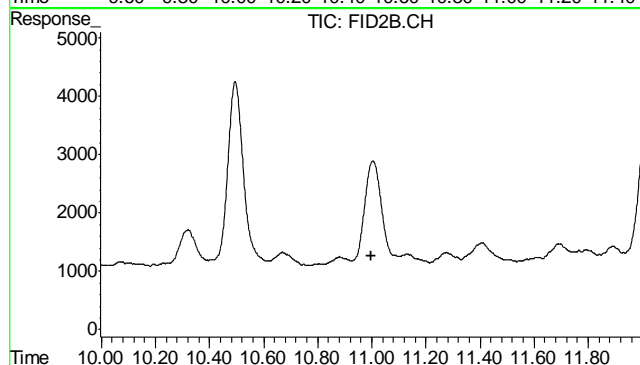
#6 Toluene
R.T.: 7.686 min
Delta R.T.: -0.019 min
Response: 4060882
Conc: 8.74 ug/L



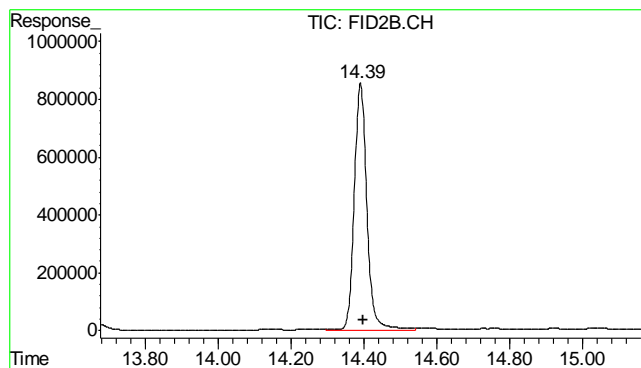
#7 Ethylbenzene
R.T.: 0.000 min
Exp R.T.: 10.324 min
Response: 0
Conc: N.D.



#8 m,p-Xylene
R.T.: 0.000 min
Exp R.T.: 10.503 min
Response: 0
Conc: N.D.

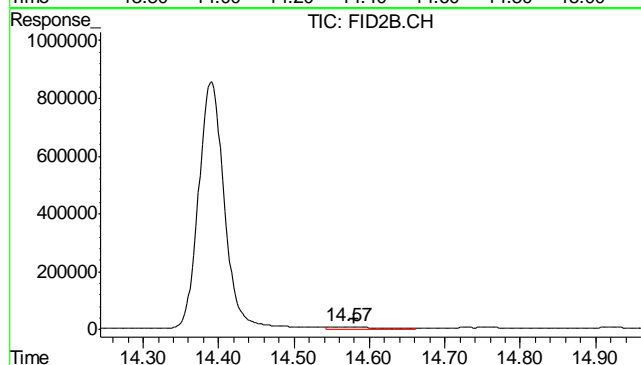


#9 o-Xylene
R.T.: 0.000 min
Exp R.T.: 10.997 min
Response: 0
Conc: N.D.



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

R.T.: 14.391 min
 Delta R.T.: -0.007 min
 Response: 20523990
 Conc: 96.65 %



#11 Naphthalene

R.T.: 14.571 min
 Delta R.T.: -0.009 min
 Response: 314383
 Conc: 1.39 ug/L

8.1.7
 8

Judy Melson
09/26/11 14:44

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13166.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\092511\GB13166.D\FID2B.CH
Acq On : 25 Sep 2011 5:16 pm Operator: StephK
Sample : MB, S Inst : GC/MS Ins
Misc : GC2272,GGB750,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 08:23:23 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Sep 26 08:22:52 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	

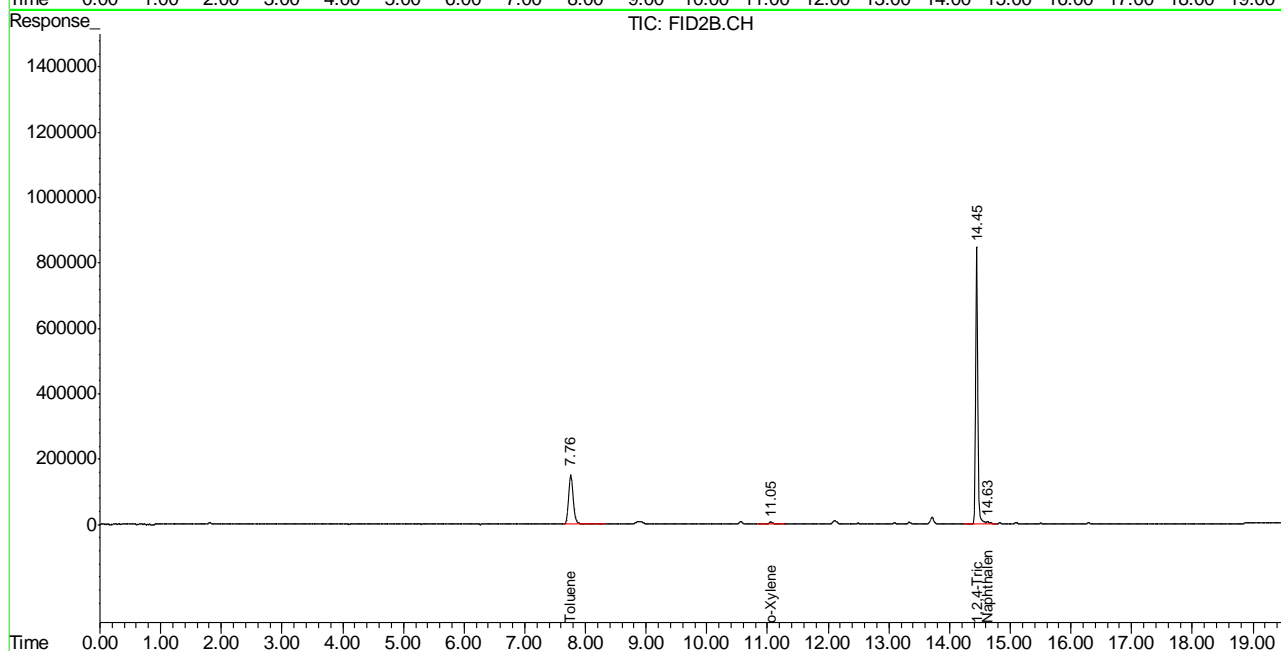
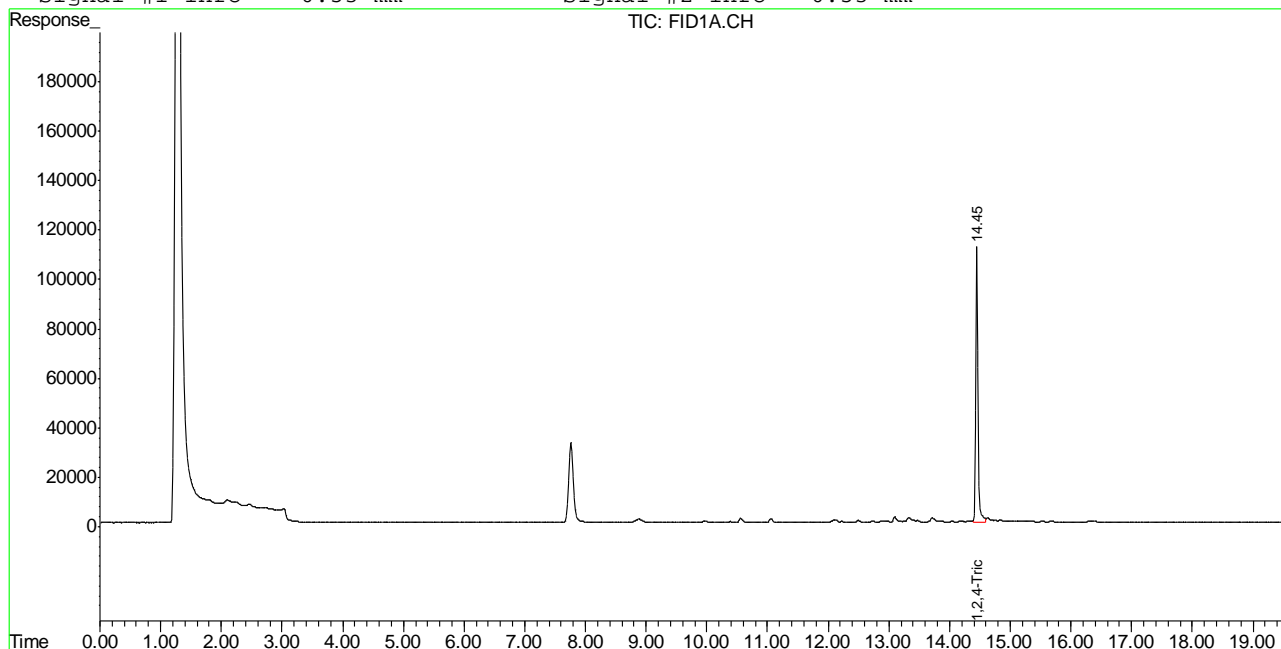
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.45	2773975	79.947 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.45	20397827	96.056 %	
Target Compounds					
1) H	TVH-Gasoline	7.33	7783674	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.76	8277421	17.819	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	11.05	292235	0.483	ug/L
11) T	Naphthalene	14.63	361007	1.587	ug/L

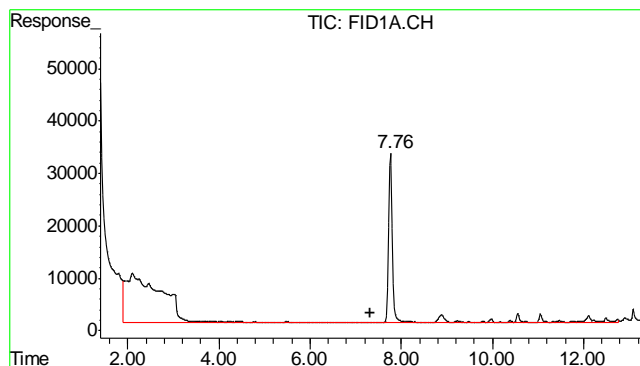
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092511\GB13166.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\092511\GB13166.D\FID2B.CH
Acq On : 25 Sep 2011 5:16 pm Operator: StephK
Sample : MB, S Inst : GC/MS Ins
Misc : GC2272,GGB750,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 7:31 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Sep 26 08:22:52 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

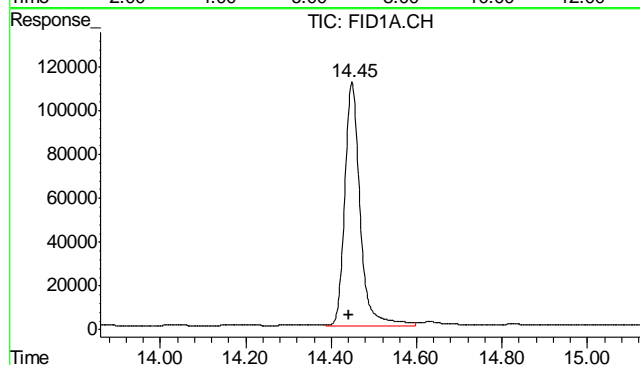
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





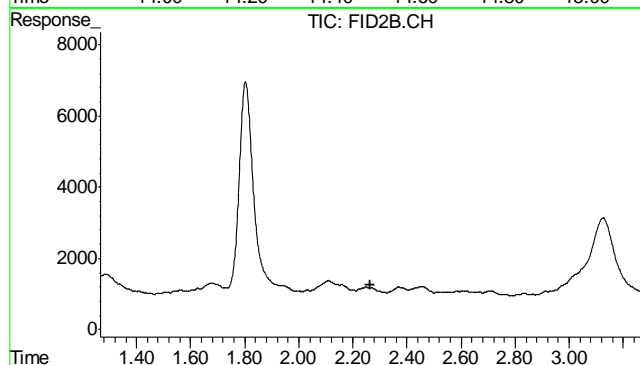
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 7783674
Conc: N.D.



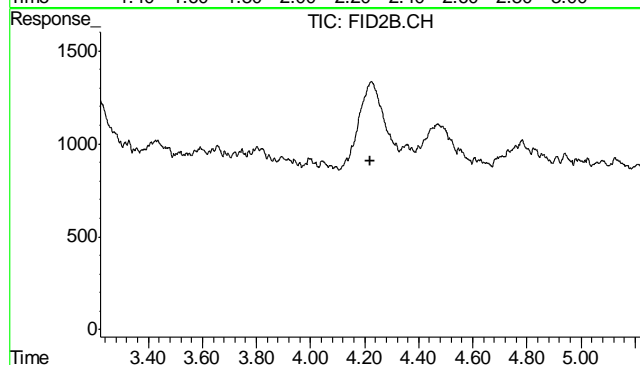
#2 1,2,4-Trichlorobenzene

R.T.: 14.448 min
Delta R.T.: 0.008 min
Response: 2773975
Conc: 79.95 % m



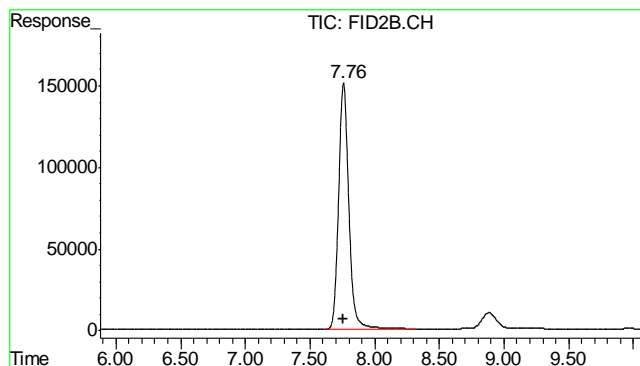
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.266 min
Response: 0
Conc: N.D.



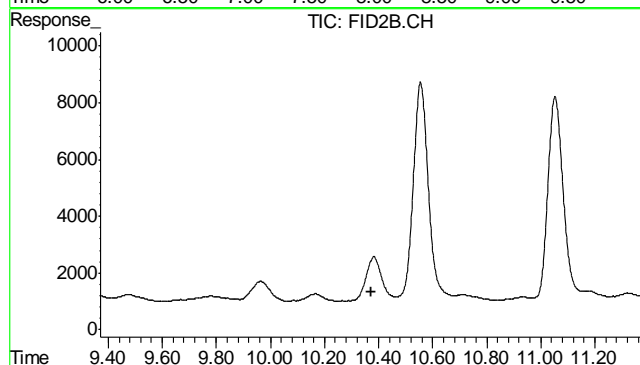
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.222 min
Response: 0
Conc: N.D.



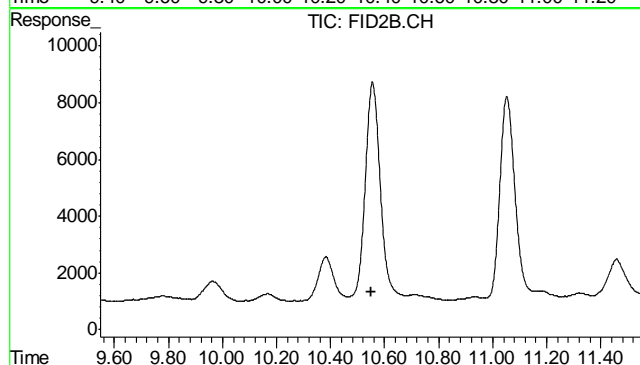
#6 Toluene

R.T.: 7.759 min
Delta R.T.: 0.006 min
Response: 8277421
Conc: 17.82 ug/L



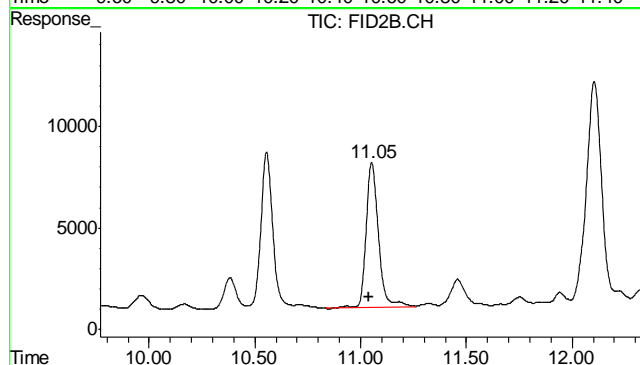
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.371 min
Response: 0
Conc: N.D.



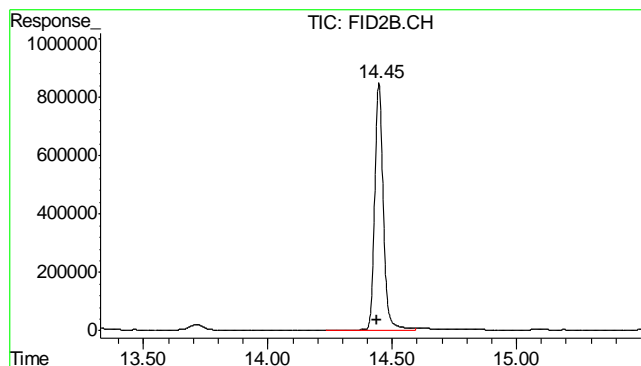
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T.: 10.548 min
Response: 0
Conc: N.D.



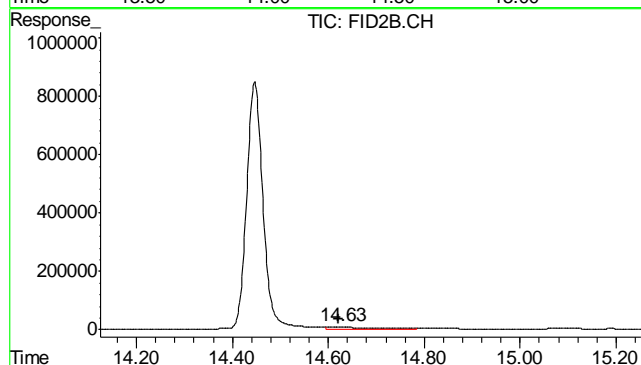
#9 o-Xylene

R.T.: 11.052 min
Delta R.T.: 0.014 min
Response: 292235
Conc: 0.48 ug/L



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

R.T.: 14.447 min
Delta R.T.: 0.008 min
Response: 20397827
Conc: 96.06 %



#11 Naphthalene

R.T.: 14.628 min
Delta R.T.: 0.007 min
Response: 361007
Conc: 1.59 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: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4559-MB	FD10360.D	1	09/28/11	CS	09/28/11	OP4559	GFD490

The QC reported here applies to the following samples:

Method: SW846-8015B

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

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	88% 61-142%

9.1.1

9

Blank Spike Summary

Job Number: D27990
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4559-BS	FD10361.D	1	09/28/11	CS	09/28/11	OP4559	GFD490

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

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	522	78	60-130

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

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D27990

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4559-MS	FD10362.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
OP4559-MSD	FD10363.D	1	09/28/11	CS	09/28/11	OP4559	GFD490
D27990-4	FD10364.D	1	09/28/11	CS	09/28/11	OP4559	GFD490

The QC reported here applies to the following samples:

Method: SW846-8015B

D27990-1, D27990-2, D27990-3, D27990-4, D27990-5, D27990-6, D27990-7

CAS No.	Compound	D27990-4 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	12.2	J	760	518	67	508	65	2	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D27990-4	Limits
84-15-1	o-Terphenyl	69%	71%	70%	61-142%

9.3.1

9

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10365.D Vial: 8
Acq On : 9-28-2011 03:55:24 PM Operator: chavalit
Sample : D27990-1 Inst : FID5
Misc : OP4559,GFD490,30.01,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:29:01 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	9.35f	33228973	726.753 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	3290323	74.794 mg/L

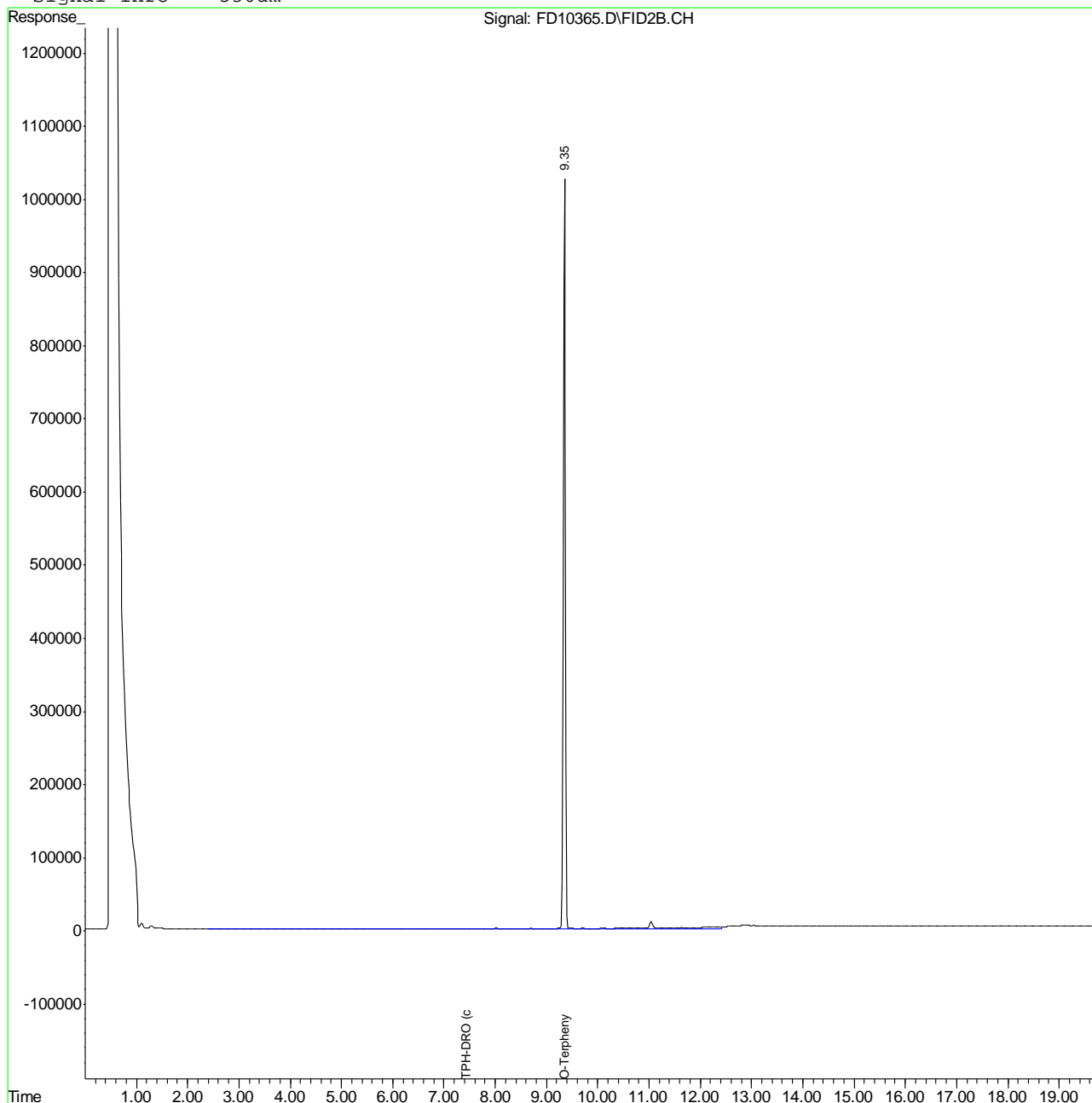
10.1.1
10

Quantitation Report (QT Reviewed)

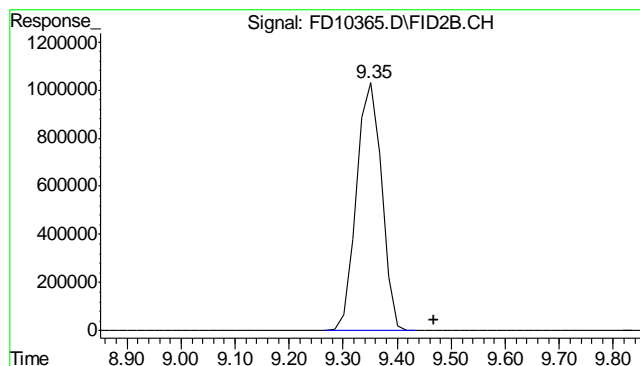
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10365.D Vial: 8
 Acq On : 9-28-2011 03:55:24 PM Operator: chavalit
 Sample : D27990-1 Inst : FID5
 Misc : OP4559,GFD490,30.01,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 29 8:29 2011 Quant Results File: GFD356.RES

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

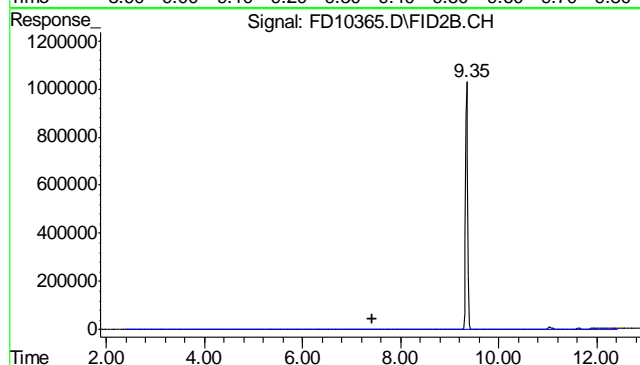
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



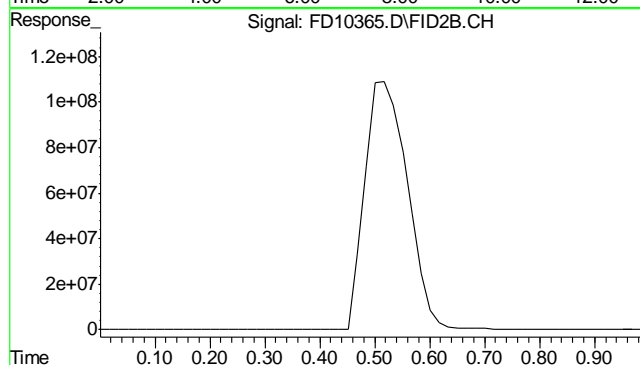
10.1.1
10



#1 O-Terphenyl
 R.T.: 9.348 min
 Delta R.T.: -0.120 min
 Response: 33228973
 Conc: 726.75 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 3290323
 Conc: 74.79 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\FD092811\FD10366.D Vial: 9
Acq On : 9-28-2011 04:21:10 PM Operator: chavalit
Sample : D27990-2 Inst : FID5
Misc : OP4559,GFD490,30.01,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:29:02 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	9.35f	33346161	729.316 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	5156936	117.225 mg/L

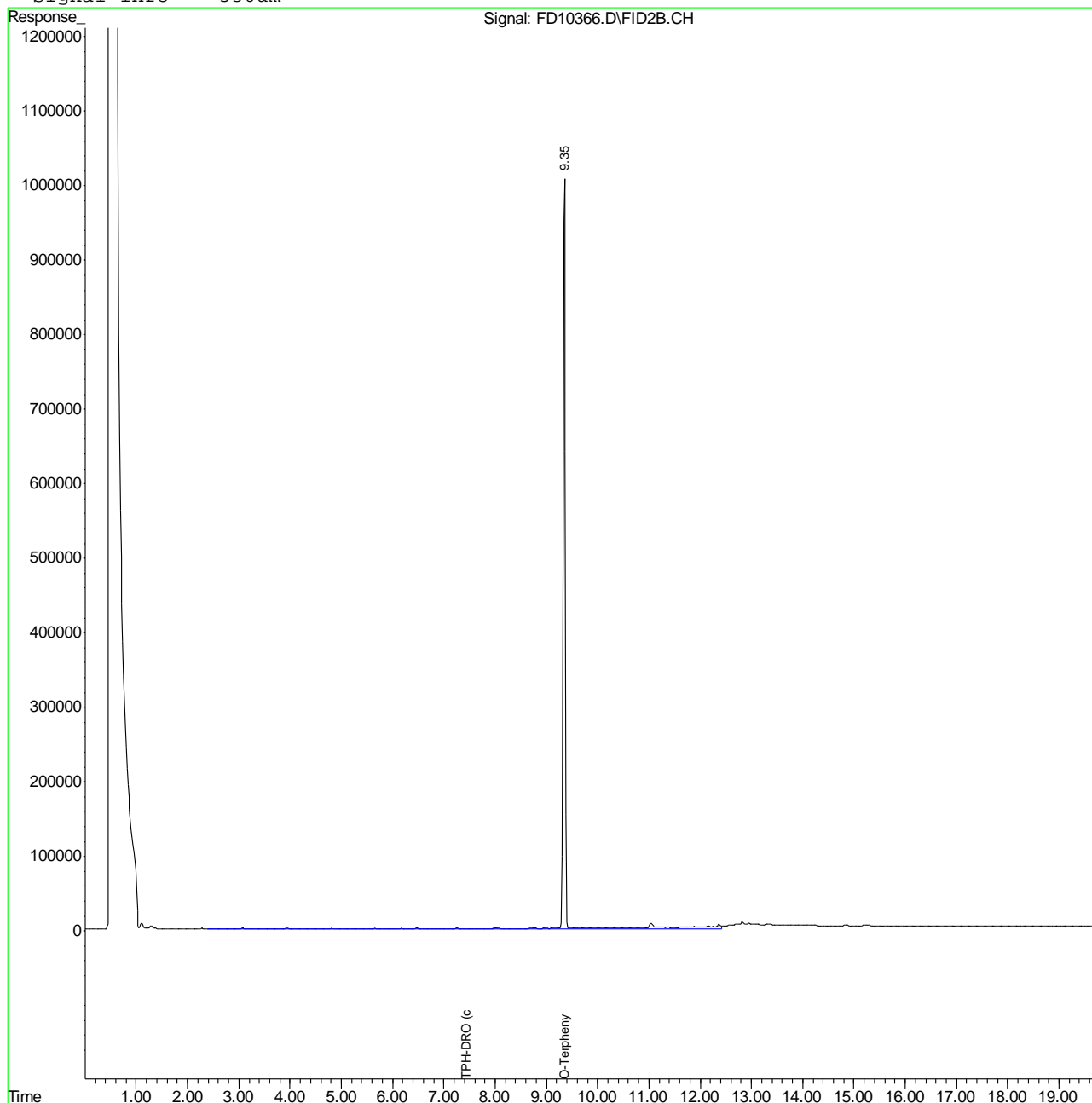
10.1.2
10

Quantitation Report (QT Reviewed)

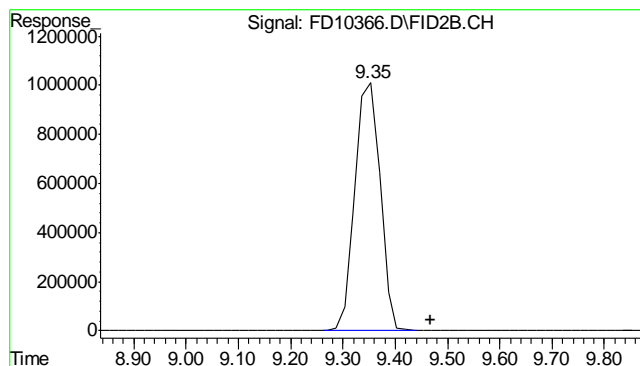
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10366.D Vial: 9
 Acq On : 9-28-2011 04:21:10 PM Operator: chavalit
 Sample : D27990-2 Inst : FID5
 Misc : OP4559,GFD490,30.01,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 29 8:30 2011 Quant Results File: GFD356.RES

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

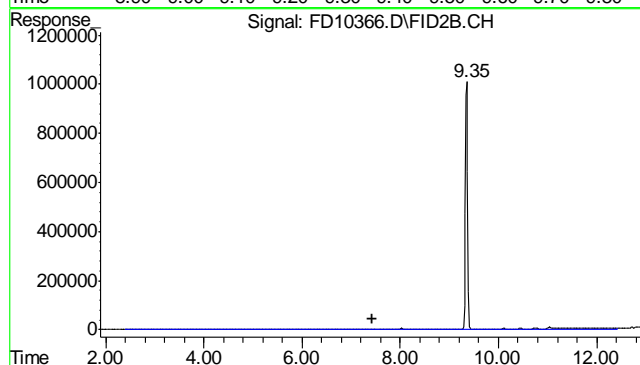
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



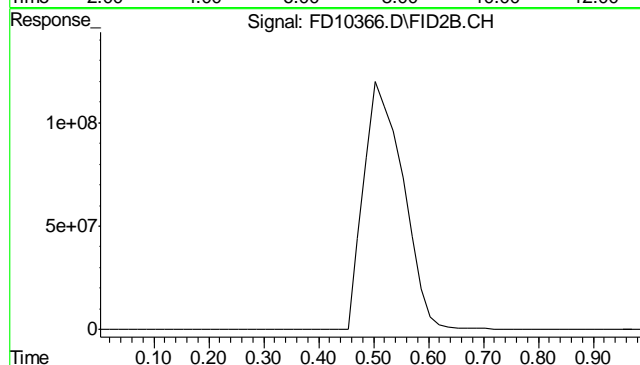
10.1.2
10



#1 O-Terphenyl
 R.T.: 9.347 min
 Delta R.T.: -0.121 min
 Response: 33346161
 Conc: 729.32 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 5156936
 Conc: 117.22 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\2011\SEP\FD092811\FD10367.D Vial: 10
Acq On : 9-28-2011 04:46:56 PM Operator: chavalit
Sample : D27990-3 Inst : FID5
Misc : OP4559,GFD490,30.04,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:29:03 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	9.35f	31282937	684.191 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	6559839	149.115 mg/L

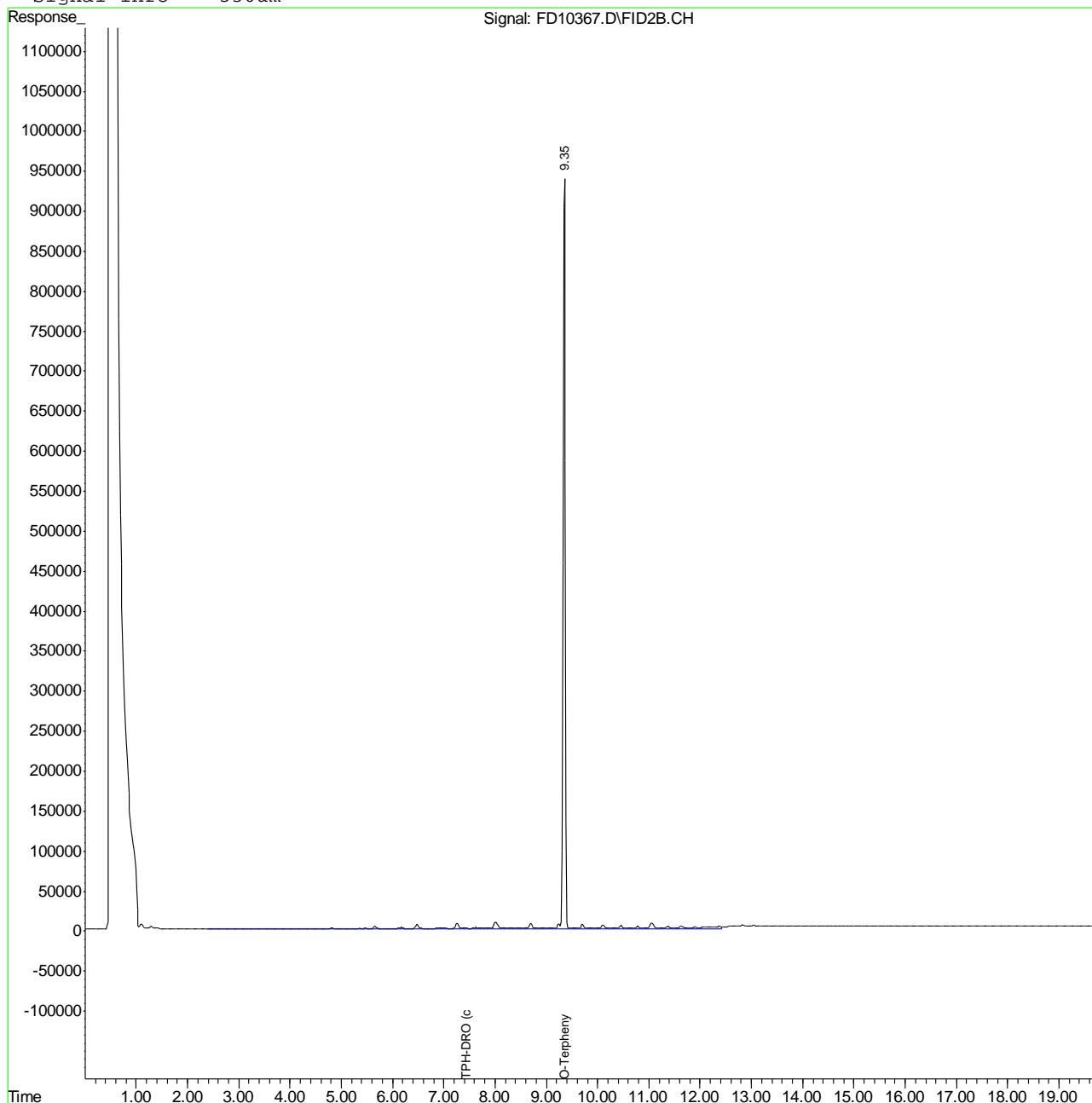
10.1.3
10

Quantitation Report (QT Reviewed)

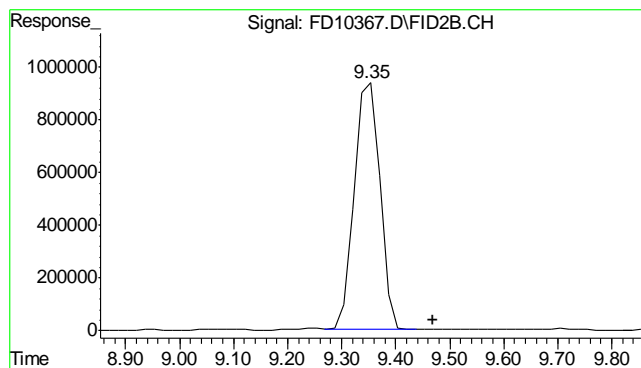
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10367.D Vial: 10
 Acq On : 9-28-2011 04:46:56 PM Operator: chavalit
 Sample : D27990-3 Inst : FID5
 Misc : OP4559,GFD490,30.04,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 29 8:31 2011 Quant Results File: GFD356.RES

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

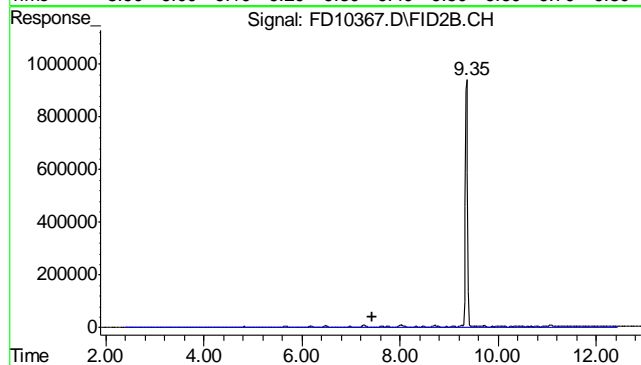
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



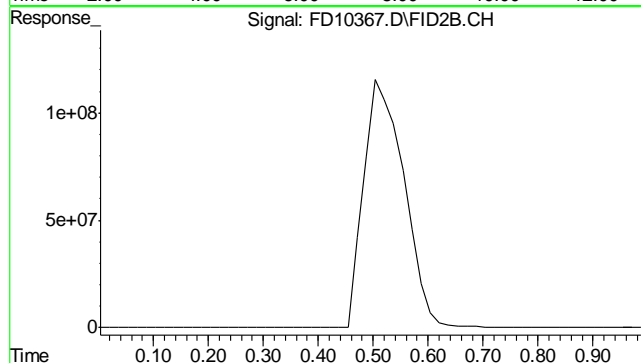
10.1.3
10



#1 O-Terphenyl
 R.T.: 9.347 min
 Delta R.T.: -0.121 min
 Response: 31282937
 Conc: 684.19 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 6559839
 Conc: 149.12 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

10.1.3
10

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10364.D Vial: 7
Acq On : 9-28-2011 03:29:43 PM Operator: chavalit
Sample : D27990-4 Inst : FID5
Misc : OP4559,GFD490,30.04,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:28:20 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	9.35f	31821275	695.965 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	7075630	160.840 mg/L

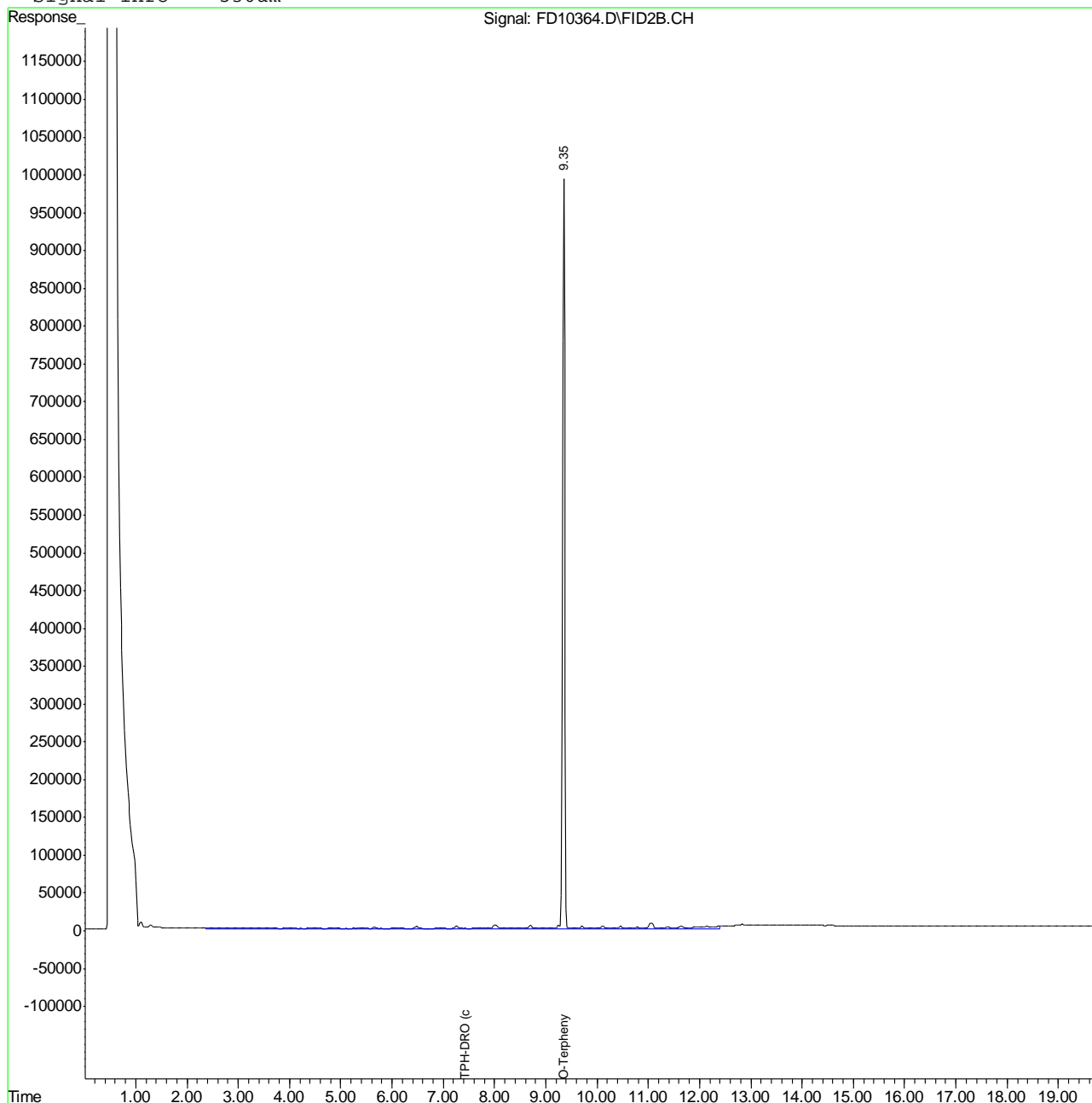
10.1.4
10

Quantitation Report (QT Reviewed)

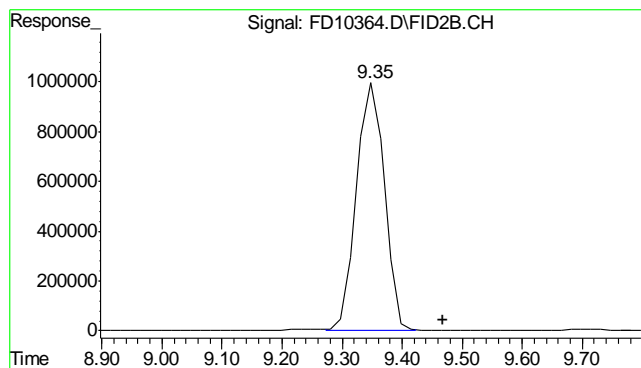
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10364.D Vial: 7
 Acq On : 9-28-2011 03:29:43 PM Operator: chavalit
 Sample : D27990-4 Inst : FID5
 Misc : OP4559,GFD490,30.04,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 29 8:28 2011 Quant Results File: GFD356.RES

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

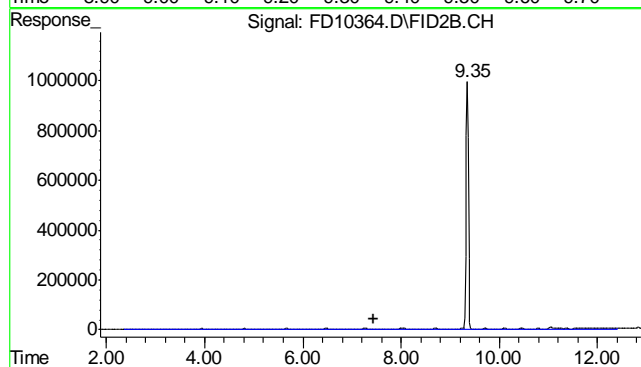


10.1.4
10



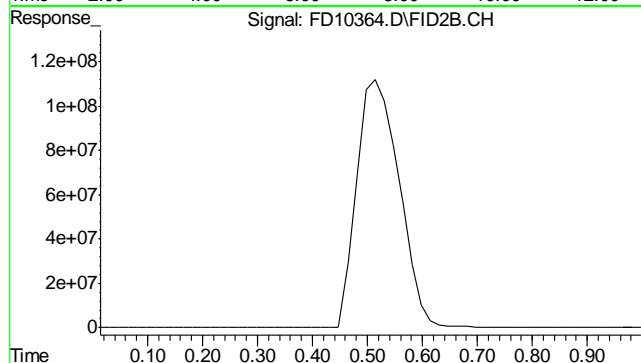
#1 O-Terphenyl

R.T.: 9.347 min
Delta R.T.: -0.121 min
Response: 31821275
Conc: 695.97 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.435 min
Delta R.T.: 0.000 min
Response: 7075630
Conc: 160.84 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\FD092811\FD10368.D Vial: 11
Acq On : 9-28-2011 05:12:40 PM Operator: chavalit
Sample : D27990-5 Inst : FID5
Misc : OP4559,GFD490,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:31:14 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 : 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	9.35f	33791167	739.049 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	14533896	330.377 mg/L

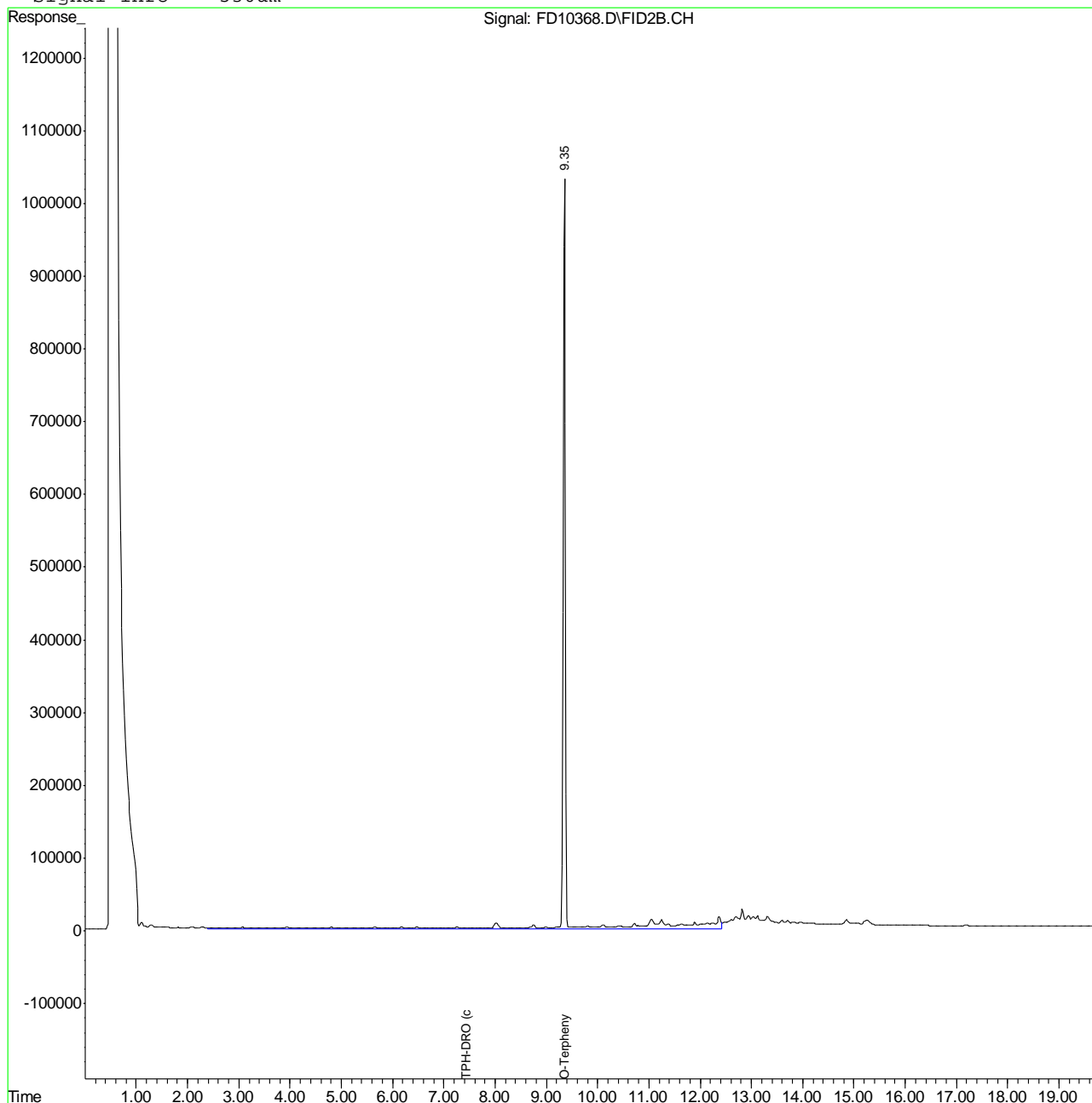
10.1.5
10

Quantitation Report (QT Reviewed)

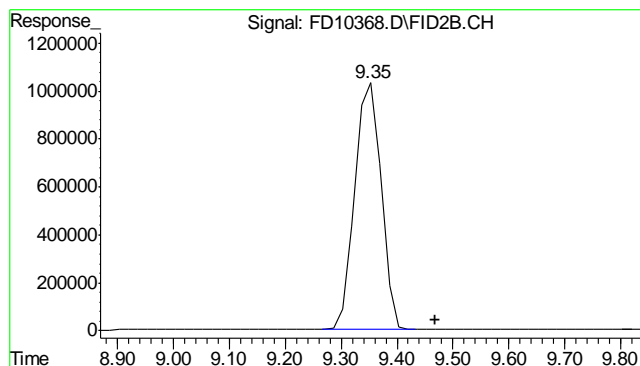
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10368.D Vial: 11
 Acq On : 9-28-2011 05:12:40 PM Operator: chavalit
 Sample : D27990-5 Inst : FID5
 Misc : OP4559,GFD490,30.02,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 29 8:31 2011 Quant Results File: GFD356.RES

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

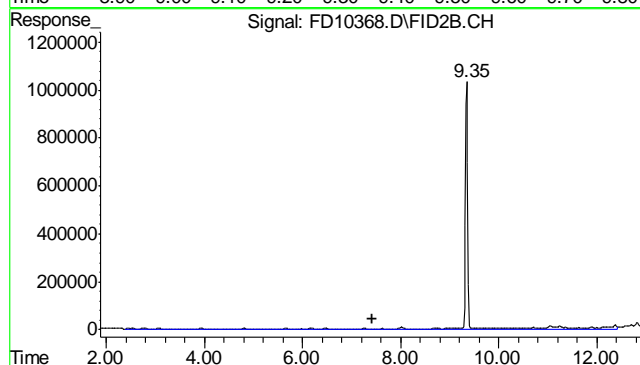
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



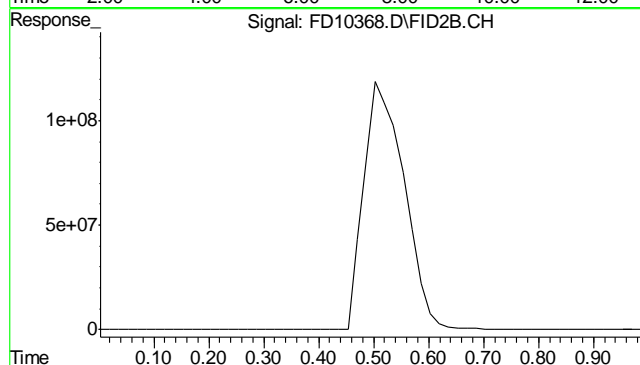
10.1.5
10



#1 O-Terphenyl
 R.T.: 9.348 min
 Delta R.T.: -0.120 min
 Response: 33791167
 Conc: 739.05 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 14533896
 Conc: 330.38 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\2011\SEP\FD092811\FD10369.D Vial: 12
Acq On : 9-28-2011 05:38:23 PM Operator: chavalit
Sample : D27990-6 Inst : FID5
Misc : OP4559,GFD490,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:31:35 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	9.35f	35396453	774.158 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	30246487	687.548 mg/L

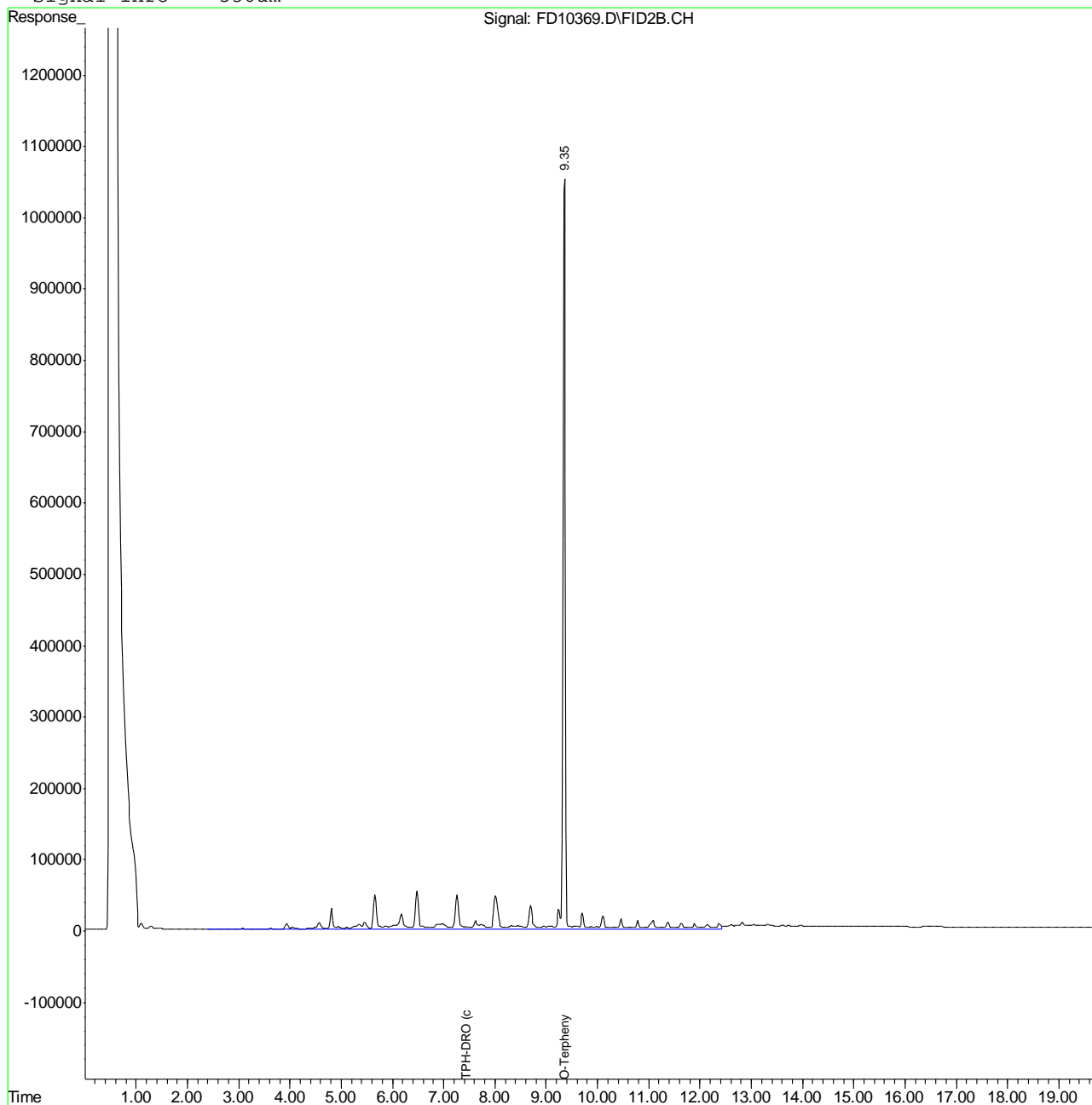
10.16
10

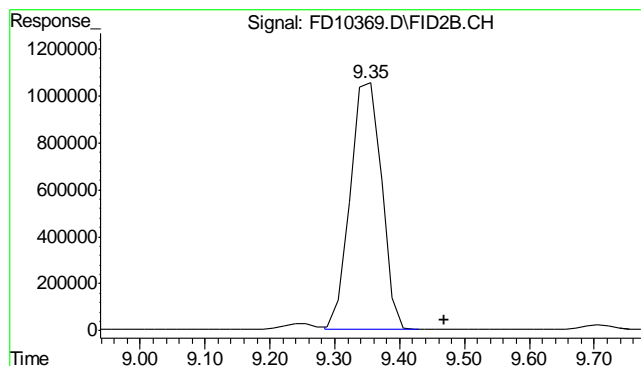
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10369.D Vial: 12
Acq On : 9-28-2011 05:38:23 PM Operator: chavalit
Sample : D27990-6 Inst : FID5
Misc : OP4559,GFD490,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 8:31 2011 Quant Results File: GFD356.RES

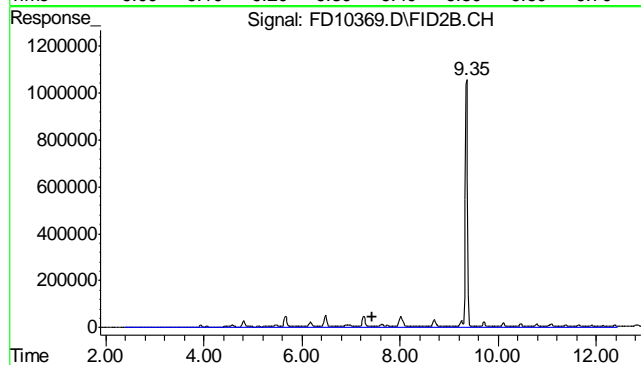
Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu Aug 11 11:51:33 2011
Response via : Multiple Level Calibration
DataAcq Meth : JH080911.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

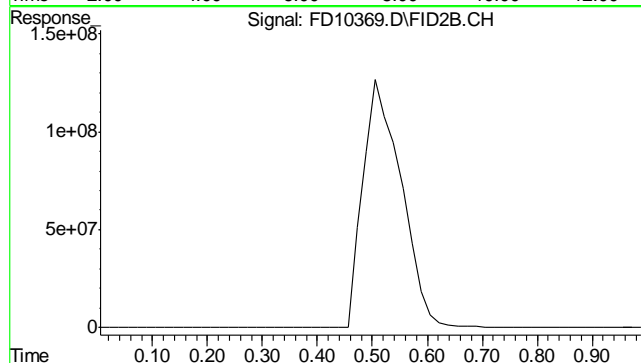




#1 O-Terphenyl
 R.T.: 9.348 min
 Delta R.T.: -0.120 min
 Response: 35396453
 Conc: 774.16 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 30246487
 Conc: 687.55 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\2011\SEP\FD092811\FD10370.D Vial: 13
Acq On : 9-28-2011 06:04:06 PM Operator: chavalit
Sample : D27990-7 Inst : FID5
Misc : OP4559,GFD490,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:31:56 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	9.35f	32757490	716.441 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	8868890	201.603 mg/L

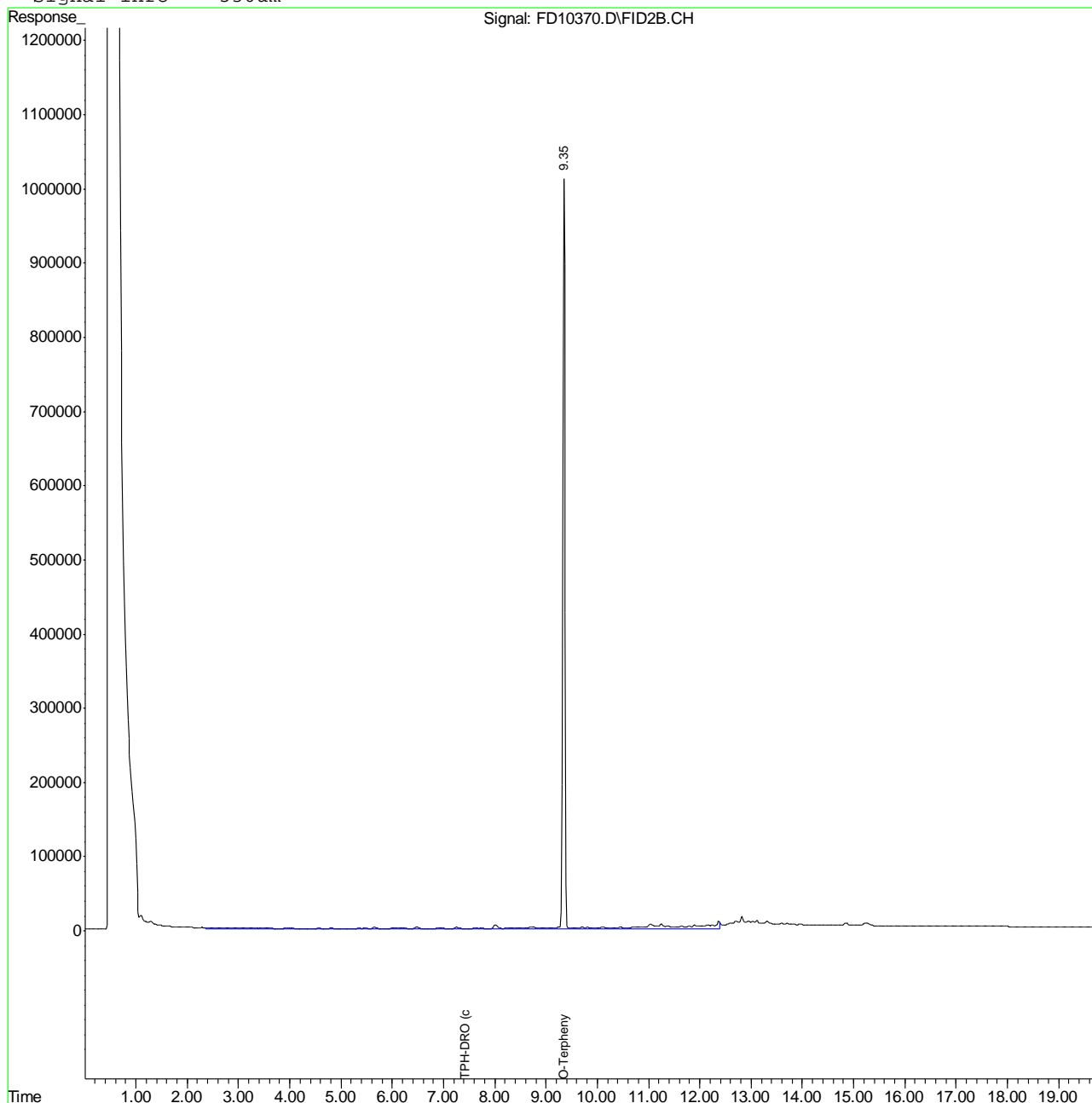
10.1.7
10

Quantitation Report (QT Reviewed)

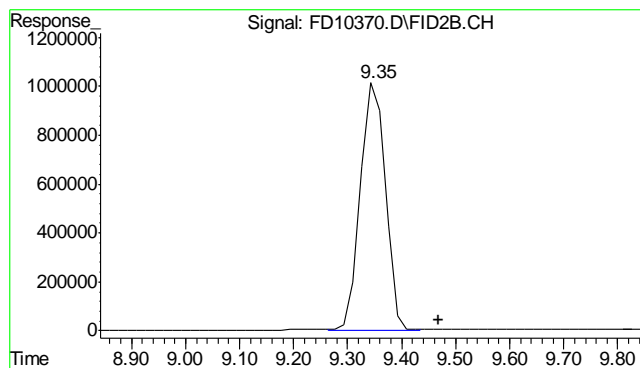
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10370.D Vial: 13
 Acq On : 9-28-2011 06:04:06 PM Operator: chavalit
 Sample : D27990-7 Inst : FID5
 Misc : OP4559,GFD490,30.02,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Sep 29 8:32 2011 Quant Results File: GFD356.RES

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

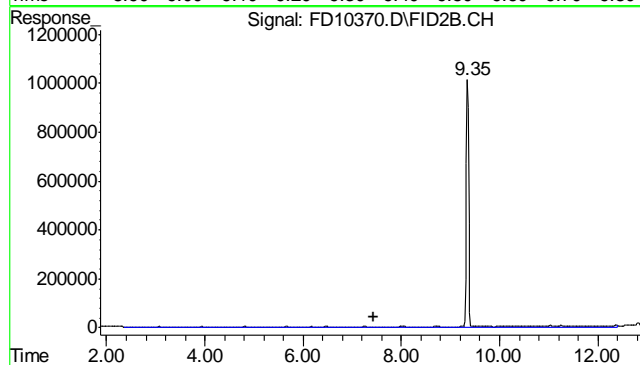
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



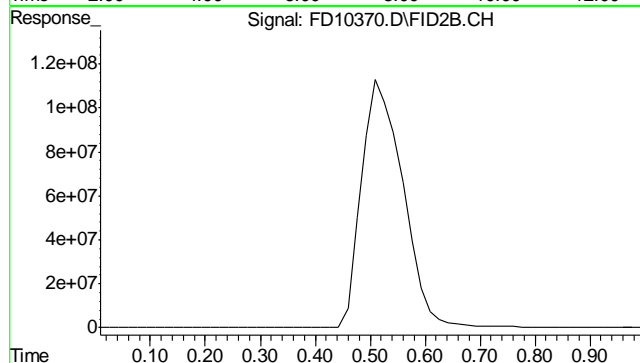
10.1.7
10



#1 O-Terphenyl
 R.T.: 9.347 min
 Delta R.T.: -0.121 min
 Response: 32757490
 Conc: 716.44 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 8868890
 Conc: 201.60 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
09/29/11 09:08

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10360.D Vial: 3
Acq On : 9-28-2011 01:46:50 PM Operator: chavalit
Sample : OP4559-MB Inst : FID5
Misc : OP4559,GFD490,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 08:25:59 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	9.35f	40221181	879.680 mg/L m
Target Compounds			

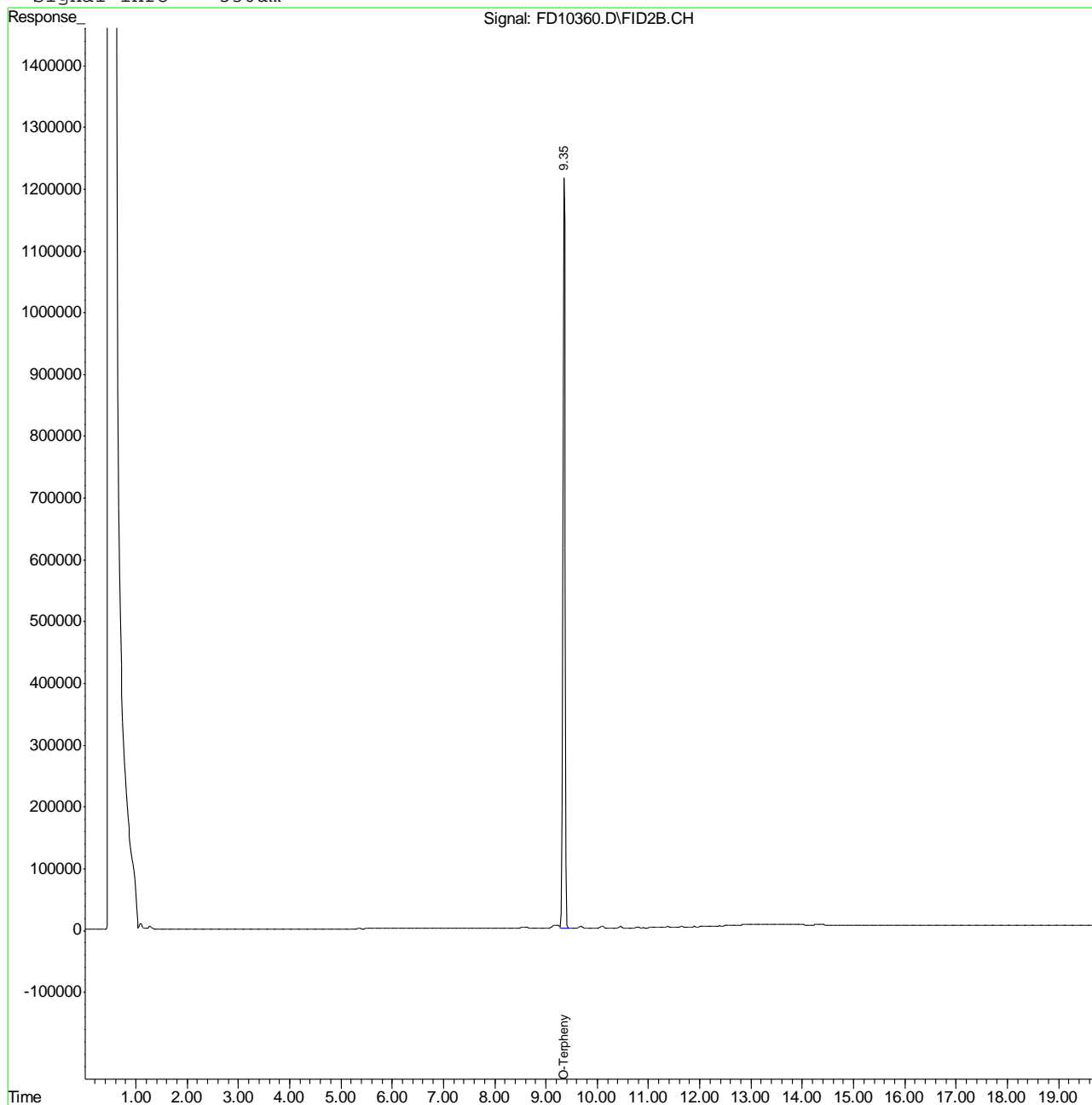
(f)=RT Delta > 1/2 Window (m)=manual int.
FD10360.D GFD356.M Thu Sep 29 08:39:05 2011 GC

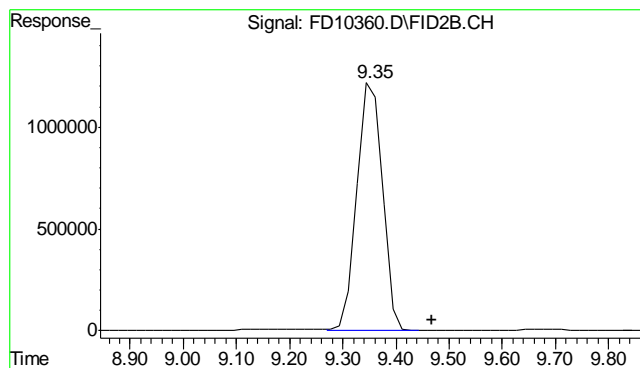
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD092811\FD10360.D Vial: 3
Acq On : 9-28-2011 01:46:50 PM Operator: chavalit
Sample : OP4559-MB Inst : FID5
Misc : OP4559,GFD490,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 29 8:26 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

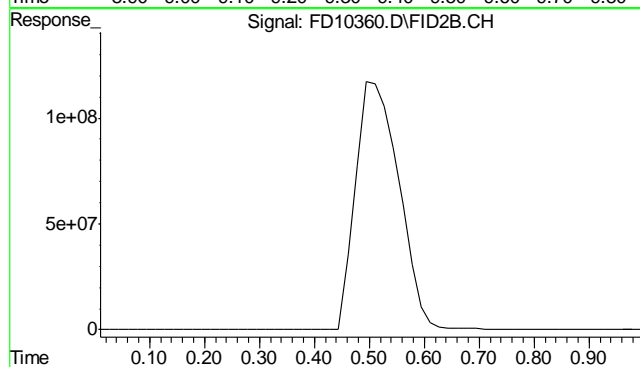
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.350 min
Delta R.T.: -0.118 min
Response: 40221181
Conc: 879.68 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



10/03/11

Technical Report for

KRW Consulting, Inc.

PCU 296-7A

1001-02

Accutest Job Number: D28127

Sampling Dates: 09/27/11 - 09/28/11

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: **96**



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: D28127

PCU 296-7A
Project No: 1001-02

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D28127-1	09/27/11	16:45	RR	09/29/11	SO	Soil	296-7A_BH-06 24' -29'
D28127-2	09/27/11	17:25	RR	09/29/11	SO	Soil	296-7A_BH-06 29' -34'
D28127-3	09/28/11	10:12	RR	09/29/11	SO	Soil	296-7A_BH-07 24' -29'
D28127-4	09/28/11	11:12	RR	09/29/11	SO	Soil	296-7A_BH-07 34' -39'

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D28127

Site: PCU 296-7A

Report Dat 10/3/2011 4:43:56 PM

On 09/29/2011, 4 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 D28127 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: V5V1056
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28125-1MS, D28125-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB753
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28125-1MS, D28125-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP4576
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28125-1MS, D28125-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN11798
------------------	--------------------------

- 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: 296-7A_BH-06 24' -29'
Lab Sample ID: D28127-1
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/27/11
Date Received: 09/29/11
Percent Solids: 88.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17764.D	1	09/29/11	DC	n/a	n/a	V5V1056
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	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		61-130%
460-00-4	4-Bromofluorobenzene	98%		53-131%
17060-07-0	1,2-Dichloroethane-D4	103%		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: 296-7A_BH-06 24' -29'
Lab Sample ID: D28127-1
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/27/11
Date Received: 09/29/11
Percent Solids: 88.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13240.D	1	09/29/11	SK	n/a	n/a	GGB753
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	80%		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:	296-7A_BH-06 24' -29'	Date Sampled:	09/27/11
Lab Sample ID:	D28127-1	Date Received:	09/29/11
Matrix:	SO - Soil	Percent Solids:	88.9
Method:	SW846-8015B SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10562.D	1	10/03/11	KV	09/30/11	OP4576	GFD500
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)	21.7	15	9.7	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: 296-7A_BH-06 29' -34'
Lab Sample ID: D28127-2
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/27/11
Date Received: 09/29/11
Percent Solids: 87.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17765.D	1	09/29/11	DC	n/a	n/a	V5V1056
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.04 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	86%		61-130%
460-00-4	4-Bromofluorobenzene	83%		53-131%
17060-07-0	1,2-Dichloroethane-D4	94%		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

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Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A_BH-06 29' -34'
Lab Sample ID: D28127-2
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/27/11
Date Received: 09/29/11
Percent Solids: 87.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13241.D	1	09/30/11	SK	n/a	n/a	GGB753
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	75%		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: 296-7A_BH-06 29' -34'
Lab Sample ID: D28127-2
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/27/11
Date Received: 09/29/11
Percent Solids: 87.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10446.D	1	09/30/11	CS	09/30/11	OP4576	GFD495
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)	11.8	15	9.9	mg/kg	J
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: 296-7A_BH-07 24' -29'
Lab Sample ID: D28127-3
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/28/11
Date Received: 09/29/11
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17766.D	1	09/29/11	DC	n/a	n/a	V5V1056
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	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	104%		61-130%
460-00-4	4-Bromofluorobenzene	102%		53-131%
17060-07-0	1,2-Dichloroethane-D4	115%		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: 296-7A_BH-07 24' -29'
Lab Sample ID: D28127-3
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/28/11
Date Received: 09/29/11
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13243.D	1	09/30/11	SK	n/a	n/a	GGB753
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	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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A_BH-07 24' -29'
Lab Sample ID: D28127-3
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/28/11
Date Received: 09/29/11
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10447.D	1	09/30/11	CS	09/30/11	OP4576	GFD495
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)	14.0	15	10	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	72%		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: 296-7A_BH-07 34' -39'
Lab Sample ID: D28127-4
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/28/11
Date Received: 09/29/11
Percent Solids: 88.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17767.D	1	09/29/11	DC	n/a	n/a	V5V1056
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	63	28	ug/kg	
108-88-3	Toluene	ND	130	63	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	98%		61-130%
460-00-4	4-Bromofluorobenzene	95%		53-131%
17060-07-0	1,2-Dichloroethane-D4	108%		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: 296-7A_BH-07 34' -39'
Lab Sample ID: D28127-4
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/28/11
Date Received: 09/29/11
Percent Solids: 88.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13244.D	1	09/30/11	SK	n/a	n/a	GGB753
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	73%		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: 296-7A_BH-07 34' -39'
Lab Sample ID: D28127-4
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/28/11
Date Received: 09/29/11
Percent Solids: 88.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10448.D	1	09/30/11	CS	09/30/11	OP4576	GFD495
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)	31.0	15	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	84%		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 # D28127	
Client / Reporting Information		Project Information	
Company Name KRW CONSULTING INC.		Project Name PCU 296-7A	
Street Address 8000 W 14TH AVE STE 200		Street:	
City LAKEWOOD CO		City:	
State CO		State:	
Zip 80214		Zip:	
Project Contact DWAYNE KIMADSON		Project # 1001-02	
E-mail		Street Address	
Phone # 970 675 4066		City	
Fax #		State	
Client PO#		Zip	
Project Manager JOE HESS		Attention:	
PO#		PO#	
Requested Analysis (see TEST CODE sheet)		Matrix Codes	
<input type="checkbox"/> DW - Drinking Water <input type="checkbox"/> GW - Ground Water <input type="checkbox"/> WW - Water <input type="checkbox"/> SW - Surface Water <input type="checkbox"/> SO - Soil <input type="checkbox"/> SL - Sludge <input type="checkbox"/> SED - Sediment <input type="checkbox"/> OI - Oil <input type="checkbox"/> LIQ - Other Liquid <input type="checkbox"/> AIR - Air <input type="checkbox"/> SOL - Other Solid <input type="checkbox"/> WP - Wipe <input type="checkbox"/> FB-Field Blank <input type="checkbox"/> EB-Equipment Blank <input type="checkbox"/> RB-Rinse Blank <input type="checkbox"/> TB-Trip Blank		LAB USE ONLY 01 02 03 04 70	

Client / Reporting Information			Project Information																	
Company Name KRW CONSULTING INC.			Project Name PCU 296-7A																	
Street Address 8000 W 14TH AVE STE 200			Street:																	
City State Zip LAKEWOOD CO 80214			City:																	
Project Contact DWAYNE KNUDSON			Project# 1001-02																	
Phone # 970 675 4066			Client PO#																	
Sample(s) Name(s) RON RASNIC			Project Manager JOE HESS																	
			Attendance: PO#																	
Accutest Sample #	Field ID / Point of Collection	MEOH/ID Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles												
			Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Blank				
	296-7A-BH-06 24'-29'		09/27/11	1645	RR	SO	3								X					
	296-7A-BH-06 29'-34'		09/27/11	1725	RR	SO	3								X					
	296-7A-BH-07 24'-29'		09/28/11	1012	RR	SO	3								X					
	296-7A-BH-07 34'-39'		09/28/11	1112	RR	SO	3								X					
	</																			

Turnaround Time (Business days)		Approved By (Accutest PMI): / 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 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"/> FULLT! (Level 3+4) Commercial "A" = Results Only Commercial "B" = Results + QC Summary		<input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> PDF PLEASE EMAIL RESULTS TO KRW PICEACE CREEK XOM TEAM	
Emergency & Rush TJA data available VIA Lablink							
Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by: 1 KRW	Date Time: 9/28/11 1900	Received By: 1 RMA Service Center	Date Time: 9/28/11 12:30	Relinquished By: 2 C 16	Date Time: 9/28/11 12:30	Received By: 2 MDL 9-28-11	Date Time: 9/28/11 12:30
Relinquished by: 3	Date Time: 9/29/11	Received By: 3	Date Time: 9/29/11	Relinquished By: 4	Date Time: 9/29/11	Received By: 4	Date Time: 9/29/11
Relinquished by: 5	Date Time: 9/29/11	Received By: 5	Date Time: 9/29/11	Custody Seal # CU	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/> N/A	On Ice <input checked="" type="checkbox"/>
				Cooler Temp. 4.0			

D28127: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D28127

Client: KRW

Immediate Client Services Action Required: No

Date / Time Received: 9/29/2011 12:30:00 PM

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: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1056-MB	5V17756.D	1	09/29/11	DC	n/a	n/a	V5V1056

The QC reported here applies to the following samples:

Method: SW846 8260B

D28127-1, D28127-2, D28127-3, D28127-4

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	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	104% 61-130%
460-00-4	4-Bromofluorobenzene	93% 53-131%
17060-07-0	1,2-Dichloroethane-D4	111% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28127

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1056-BS	5V17757.D	1	09/29/11	DC	n/a	n/a	V5V1056

The QC reported here applies to the following samples:

Method: SW846 8260B

D28127-1, D28127-2, D28127-3, D28127-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	58.2	116	70-130
100-41-4	Ethylbenzene	50	53.6	107	70-130
108-88-3	Toluene	50	56.1	112	70-130
1330-20-7	Xylene (total)	150	164	109	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	105%	61-130%
460-00-4	4-Bromofluorobenzene	104%	53-131%
17060-07-0	1,2-Dichloroethane-D4	112%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28125-1MS	5V17759.D	1	09/29/11	DC	n/a	n/a	V5V1056
D28125-1MSD	5V17760.D	1	09/29/11	DC	n/a	n/a	V5V1056
D28125-1	5V17758.D	1	09/29/11	DC	n/a	n/a	V5V1056

The QC reported here applies to the following samples:

Method: SW846 8260B

D28127-1, D28127-2, D28127-3, D28127-4

CAS No.	Compound	D28125-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	48.7	J	3200	3660	113	3940	122	7	70-134/30
100-41-4	Ethylbenzene	ND		3200	3240	101	3520	110	8	70-137/30
108-88-3	Toluene	174		3200	3400	101	3710	111	9	70-130/30
1330-20-7	Xylene (total)	145	J	9600	10300	106	11000	113	7	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D28125-1	Limits
2037-26-5	Toluene-D8	98%	101%	100%	61-130%
460-00-4	4-Bromofluorobenzene	110%	111%	100%	53-131%
17060-07-0	1,2-Dichloroethane-D4	114%	111%	112%	62-130%



GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
 Data File : 5V17764.D
 Acq On : 29 Sep 2011 6:46 pm
 Operator : DONC
 Sample : D28127-1, 50x
 Misc : MS2763,V5V1056,5.087,,100,5,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 30 09:25:46 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	268948	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	374295	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	369114	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	243880	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33974	51.66	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.32%
61) Toluene-d8	13.851	98	656720	50.06	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.12%
69) 4-Bromofluorobenzene	16.043	95	265359	48.75	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.50%

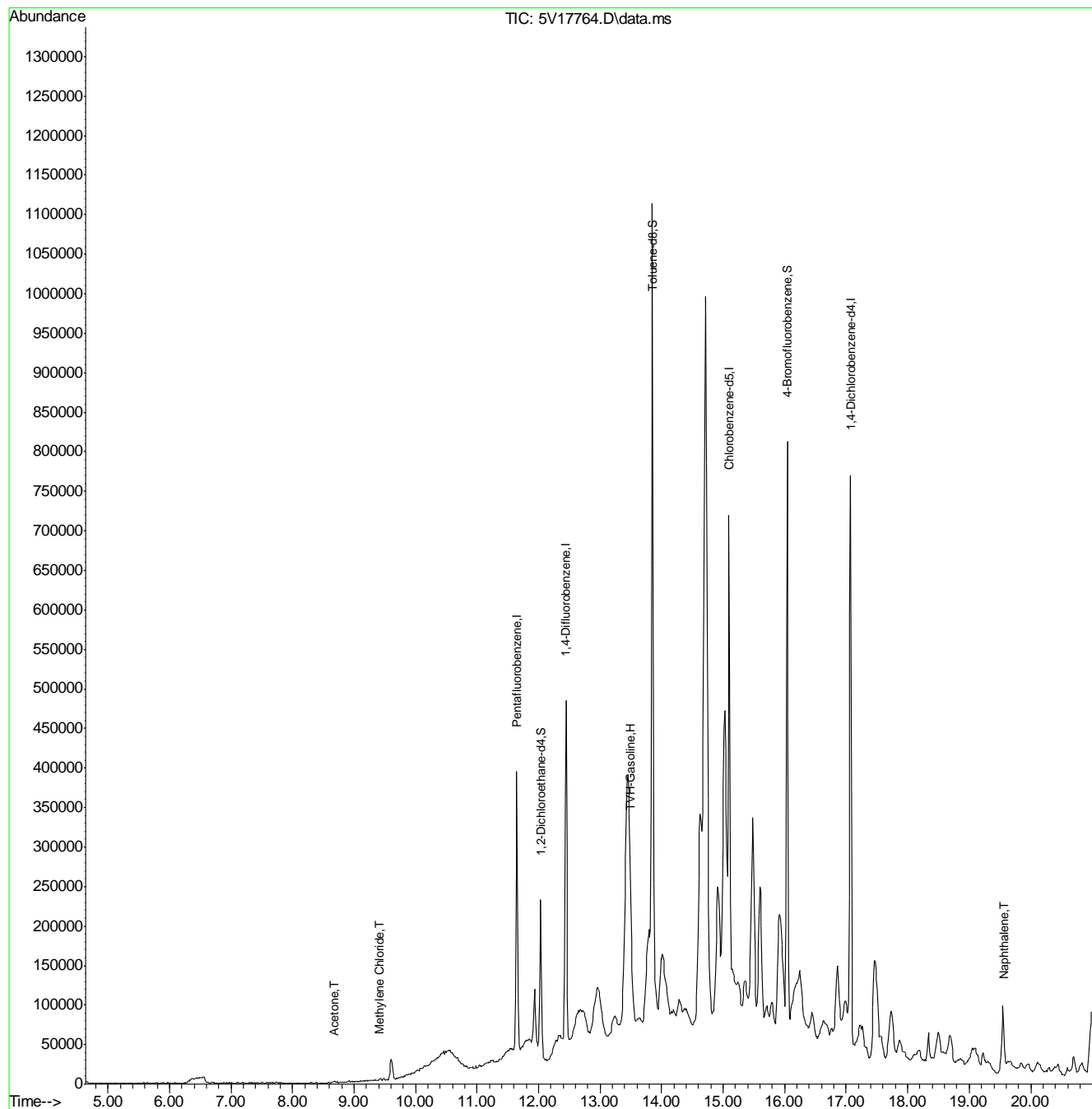
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	17450891m	875.31	ug/l
15) Acetone	8.679	58	801	0.25	ug/l # 1
17) Methylene Chloride	9.421	84	1371	0.42	ug/l 88
91) Naphthalene	19.559	128	13771	1.96	ug/l 100

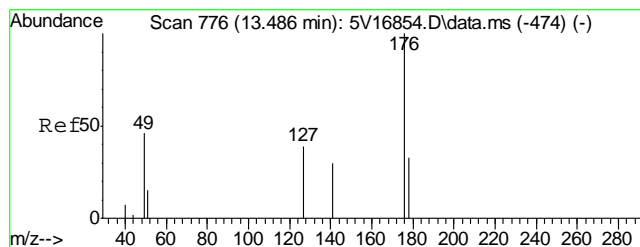
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17764.D
Acq On : 29 Sep 2011 6:46 pm
Operator : DONC
Sample : D28127-1, 50x
Misc : MS2763,V5V1056,5.087,,100,5,1
ALS Vial : 13 Sample Multiplier: 1

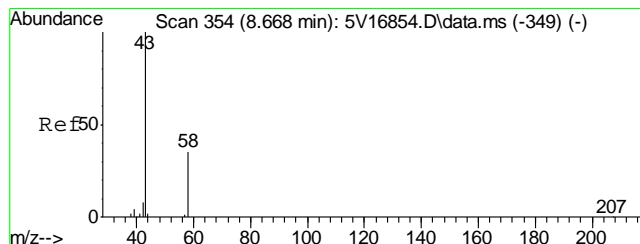
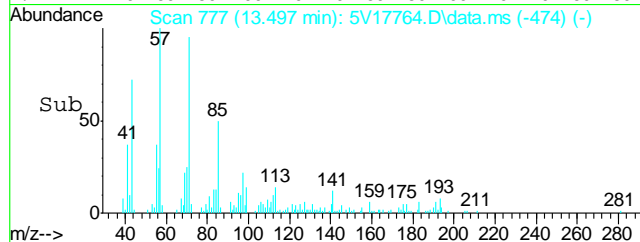
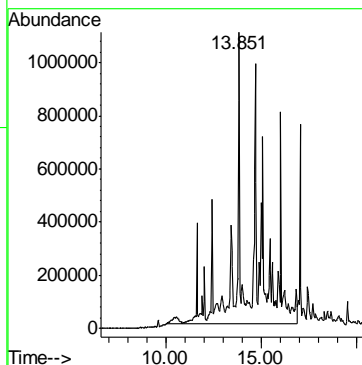
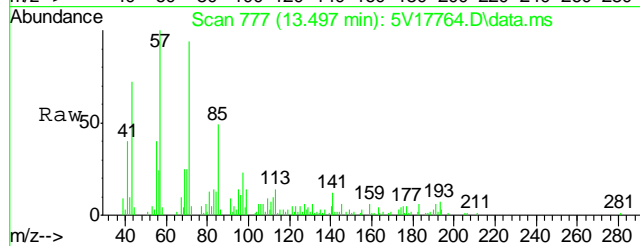
Quant Time: Sep 30 09:25:46 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





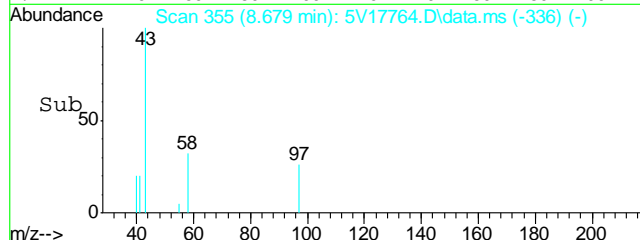
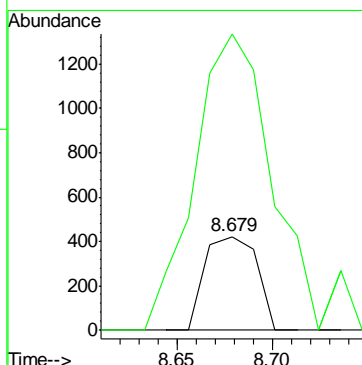
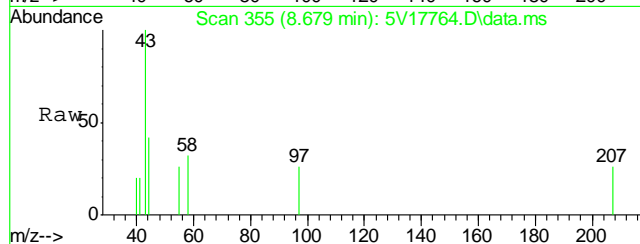
#1
TVH-Gasoline
Concen: 875.31 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17764.D
Acq: 29 Sep 2011 6:46 pm

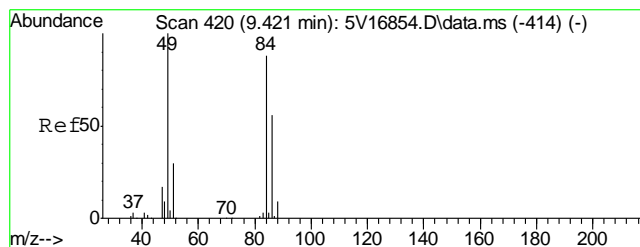
Tgt Ion:TIC Resp:17450891



#15
Acetone
Concen: 0.25 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17764.D
Acq: 29 Sep 2011 6:46 pm

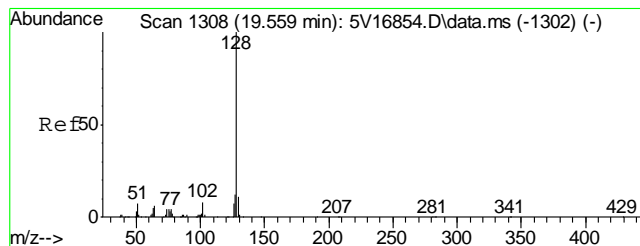
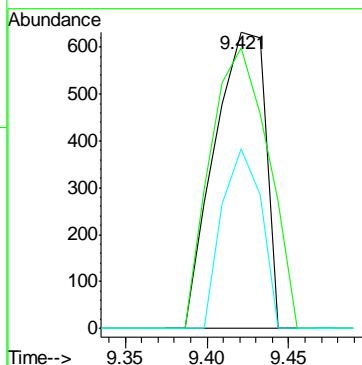
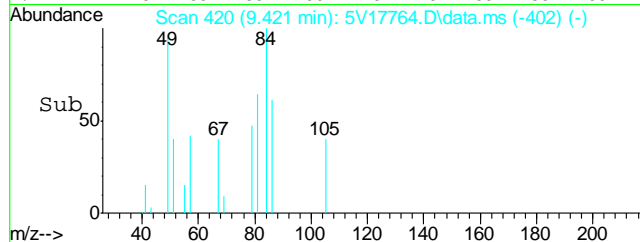
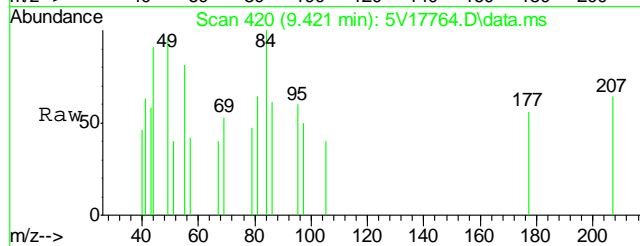
Tgt Ion: 58 Resp: 801
Ion Ratio Lower Upper
58 100
43 487.4 252.4 292.4#





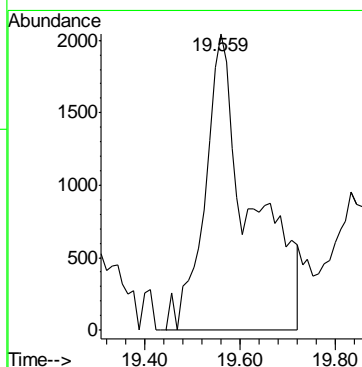
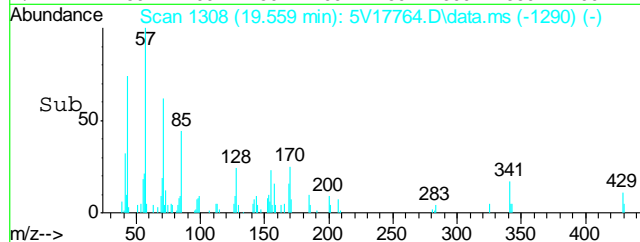
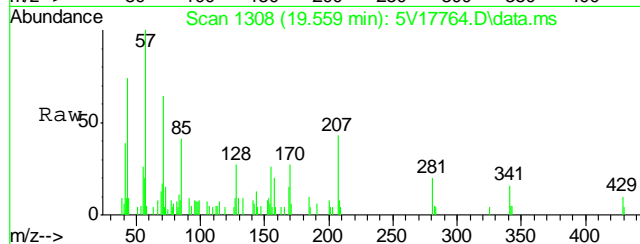
#17
Methylene Chloride
Concen: 0.42 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17764.D
Acq: 29 Sep 2011 6:46 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
49	107.4	93.6	133.6
86	46.7	44.2	84.2



#91
Naphthalene
Concen: 1.96 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17764.D
Acq: 29 Sep 2011 6:46 pm

Tgt Ion: 128 Resp: 13771



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17765.D
Acq On : 29 Sep 2011 7:17 pm
Operator : DONC
Sample : D28127-2, 50x
Misc : MS2763,V5V1056,5.040,,100,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 30 09:27:31 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

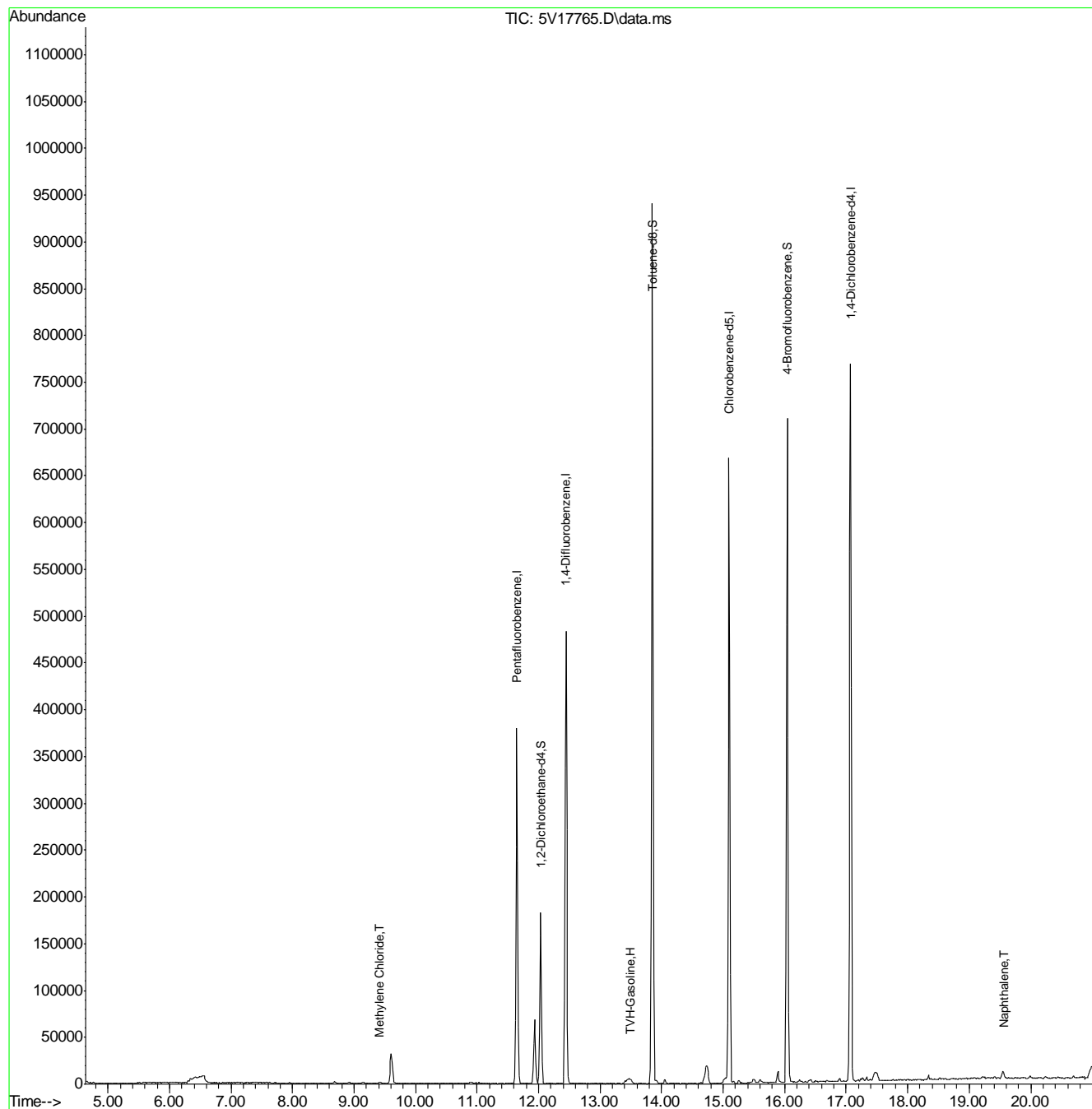
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	290459	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	419145	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	416098	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	262234	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33300	46.89	ug/l	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	93.78%	
61) Toluene-d8	13.851	98	633641	42.85	ug/l	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	85.70%	
69) 4-Bromofluorobenzene	16.043	95	253665	41.34	ug/l	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	82.68%	
Target Compounds						
1) TVH-Gasoline	13.491	TIC	263712m	13.23	ug/l	Qvalue
17) Methylene Chloride	9.421	84	795	0.23	ug/l	88
91) Naphthalene	19.559	128	1649	0.97	ug/l	100

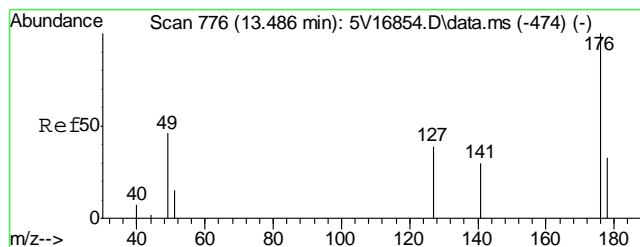
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17765.D
Acq On : 29 Sep 2011 7:17 pm
Operator : DONC
Sample : D28127-2, 50x
Misc : MS2763,V5V1056,5.040,,100,5,1
ALS Vial : 14 Sample Multiplier: 1

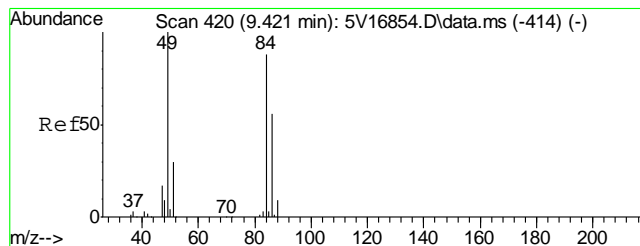
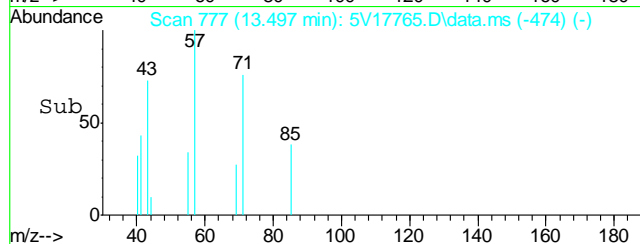
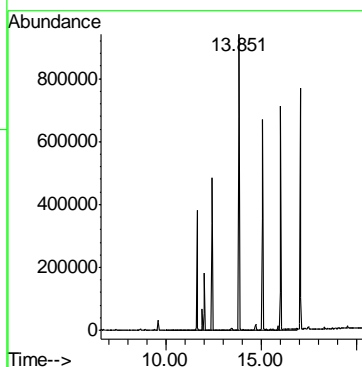
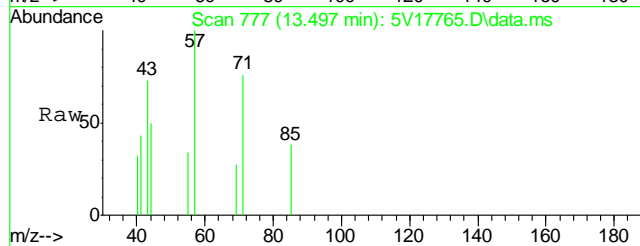
Quant Time: Sep 30 09:27:31 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





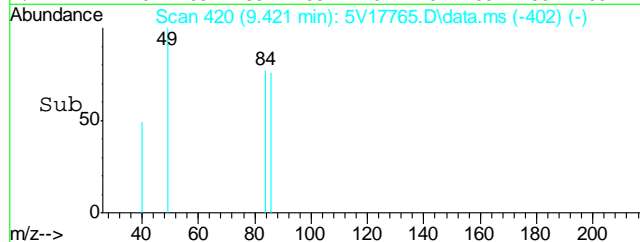
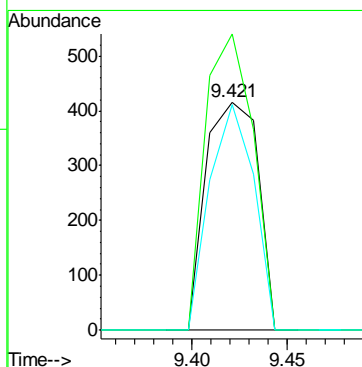
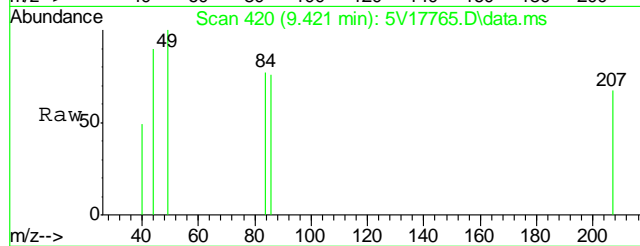
#1
TVH-Gasoline
Concen: 13.23 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17765.D
Acq: 29 Sep 2011 7:17 pm

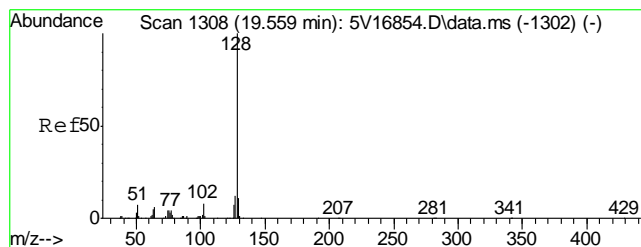
Tgt Ion:TIC Resp: 263712



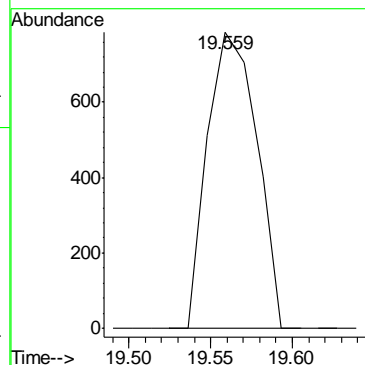
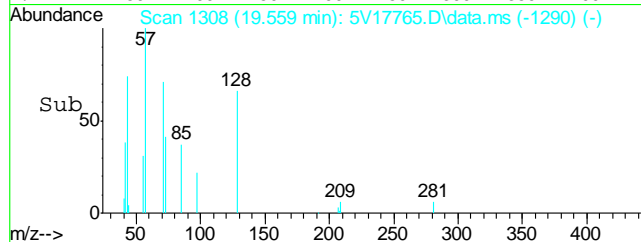
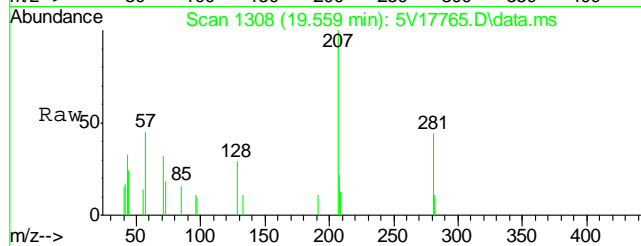
#17
Methylene Chloride
Concen: 0.23 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17765.D
Acq: 29 Sep 2011 7:17 pm

Tgt Ion: 84 Resp: 795
Ion Ratio Lower Upper
84 100
49 118.1 93.6 133.6
86 83.6 44.2 84.2





#91
 Naphthalene
 Concen: 0.97 ug/l
 RT: 19.559 min Scan# 1308
 Delta R.T. -0.000 min
 Lab File: 5V17765.D
 Acq: 29 Sep 2011 7:17 pm
 Tgt Ion:128 Resp: 1649



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17766.D
Acq On : 29 Sep 2011 7:49 pm
Operator : DONC
Sample : D28127-3, 50x
Misc : MS2763,V5V1056,5.071,,100,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 30 09:30:36 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	241281	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	344737	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	344932	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	220553	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33969	57.58	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	115.16%
61) Toluene-d8	13.851	98	637939	52.04	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.08%
69) 4-Bromofluorobenzene	16.043	95	260586	51.23	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.46%

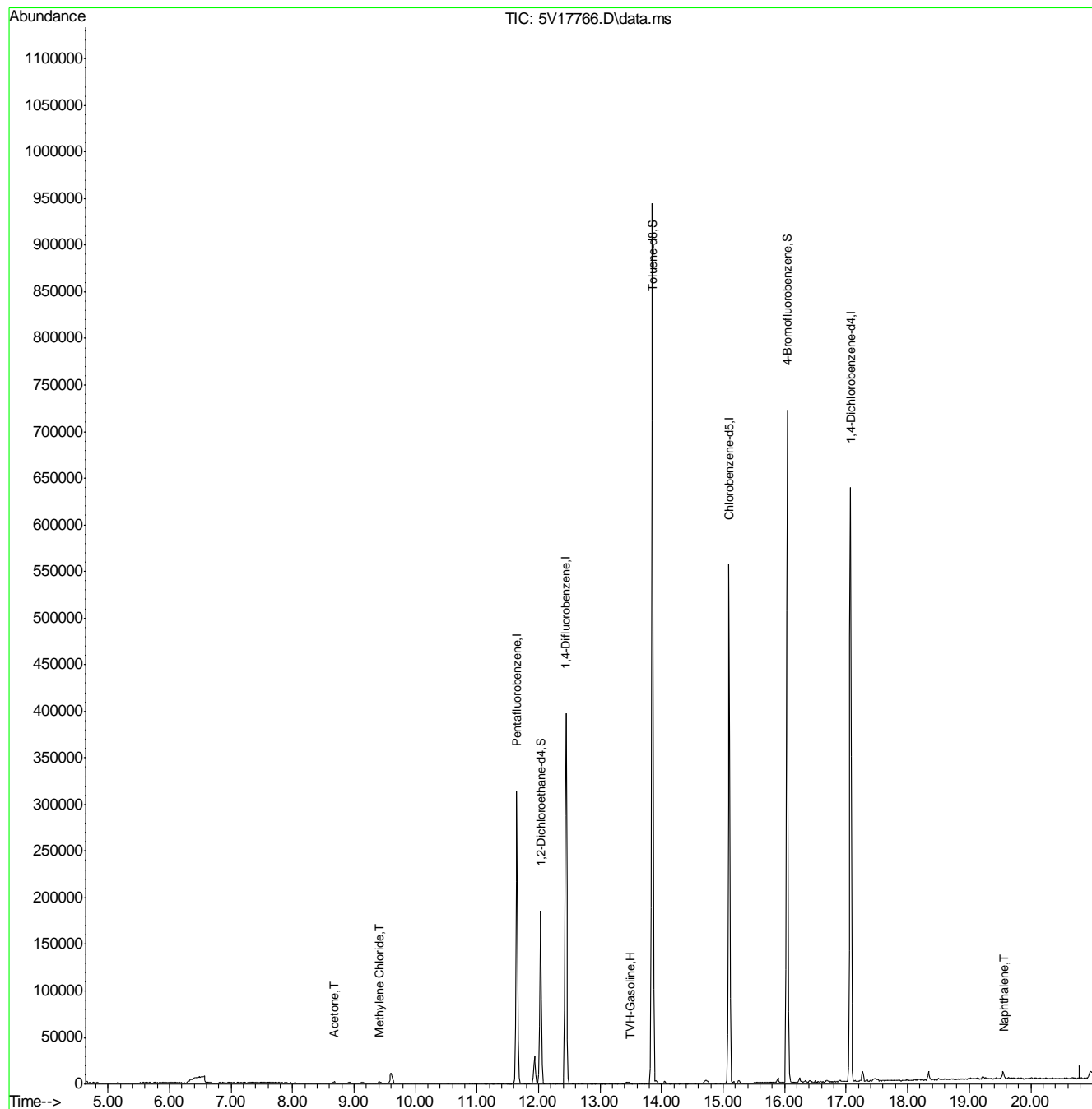
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	80861m	4.06	ug/l
15) Acetone	8.679	58	774	0.42	ug/l # 77
17) Methylene Chloride	9.421	84	937	0.32	ug/l 86
91) Naphthalene	19.570	128	1618	0.99	ug/l 100

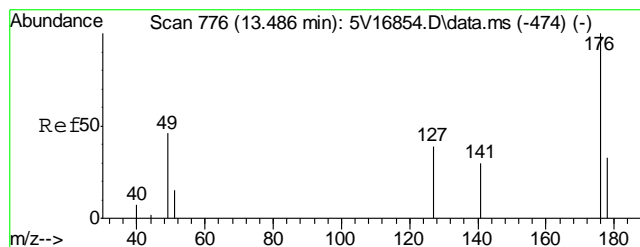
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17766.D
Acq On : 29 Sep 2011 7:49 pm
Operator : DONC
Sample : D28127-3, 50x
Misc : MS2763,V5V1056,5.071,,100,5,1
ALS Vial : 15 Sample Multiplier: 1

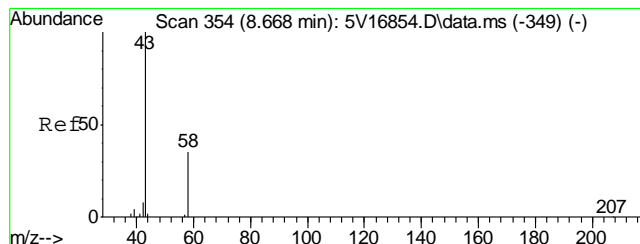
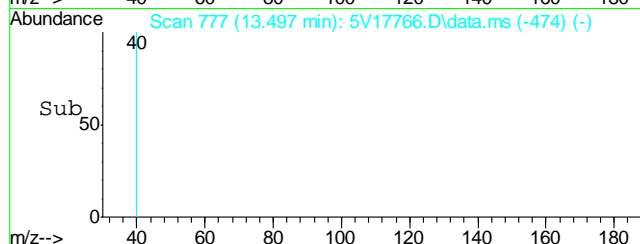
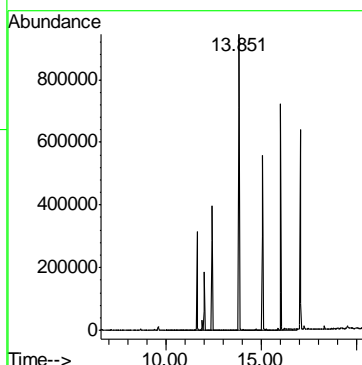
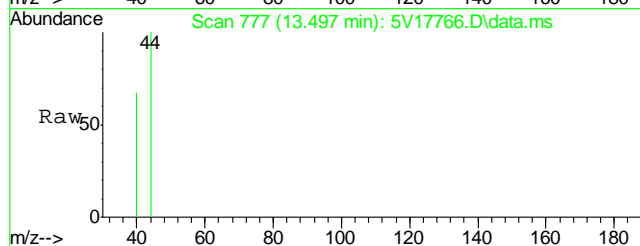
Quant Time: Sep 30 09:30:36 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





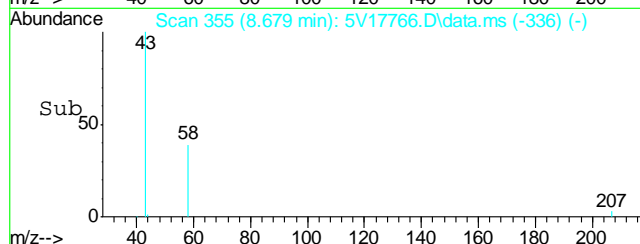
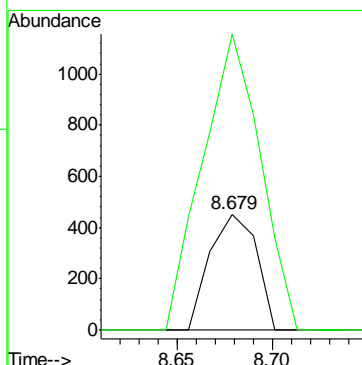
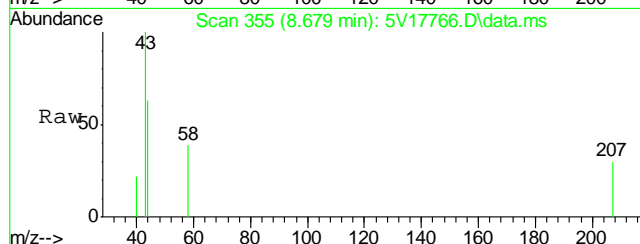
#1
TVH-Gasoline
Concen: 4.06 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17766.D
Acq: 29 Sep 2011 7:49 pm

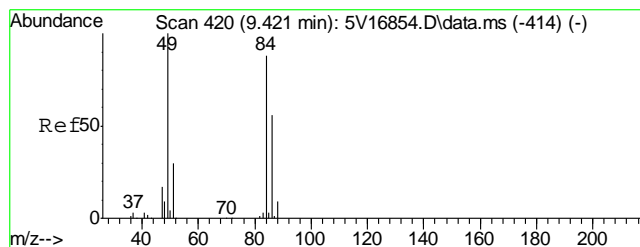
Tgt Ion:TIC Resp: 80861



#15
Acetone
Concen: 0.42 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17766.D
Acq: 29 Sep 2011 7:49 pm

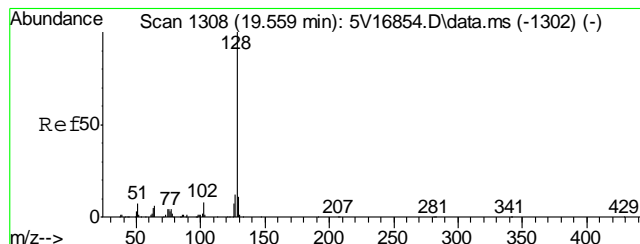
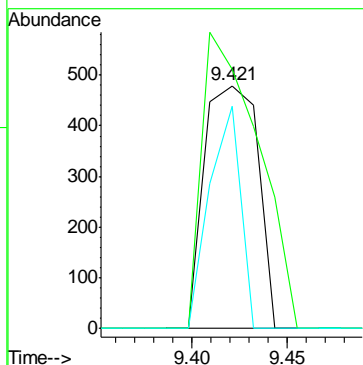
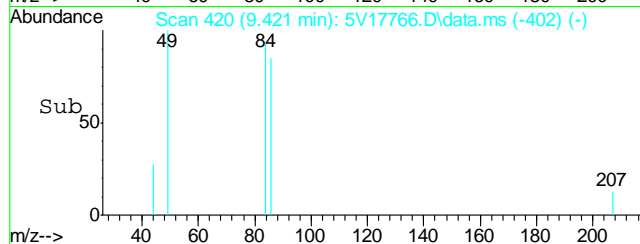
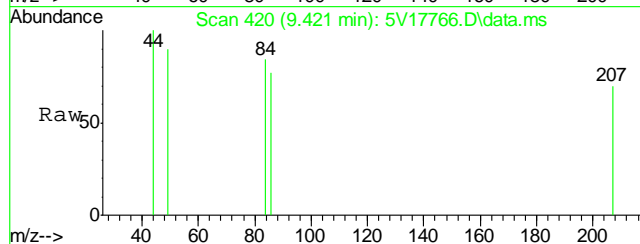
Tgt Ion: 58 Resp: 774
Ion Ratio Lower Upper
58 100
43 315.5 252.4 292.4#





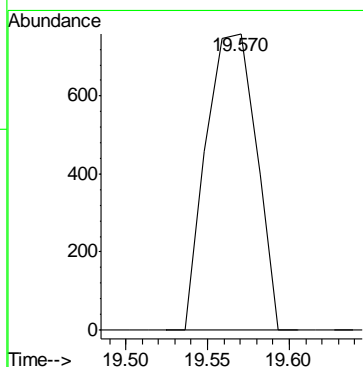
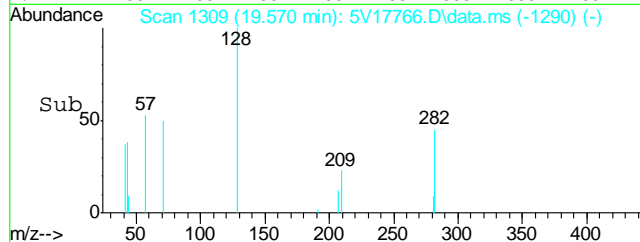
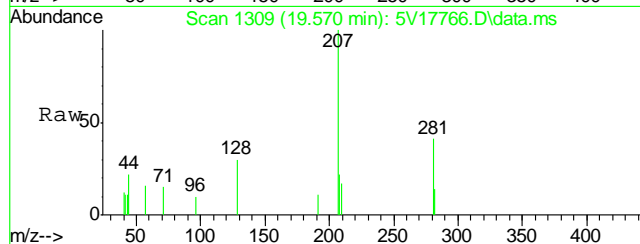
#17
Methylene Chloride
Concen: 0.32 ug/l
RT: 9.421 min Scan# 420
Delta R.T. 0.000 min
Lab File: 5V17766.D
Acq: 29 Sep 2011 7:49 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
49	128.5	93.6	133.6
86	52.9	44.2	84.2



#91
Naphthalene
Concen: 0.99 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17766.D
Acq: 29 Sep 2011 7:49 pm

Tgt Ion: 128 Resp: 1618



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17767.D
Acq On : 29 Sep 2011 8:20 pm
Operator : DONC
Sample : D28127-4, 50x
Misc : MS2763,V5V1056,5.015,,100,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 30 09:32:15 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	244614	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	351422	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	350996	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	226142	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	32393	54.16	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.32%
61) Toluene-d8	13.851	98	610101	48.91	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.82%
69) 4-Bromofluorobenzene	16.043	95	246742	47.67	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.34%

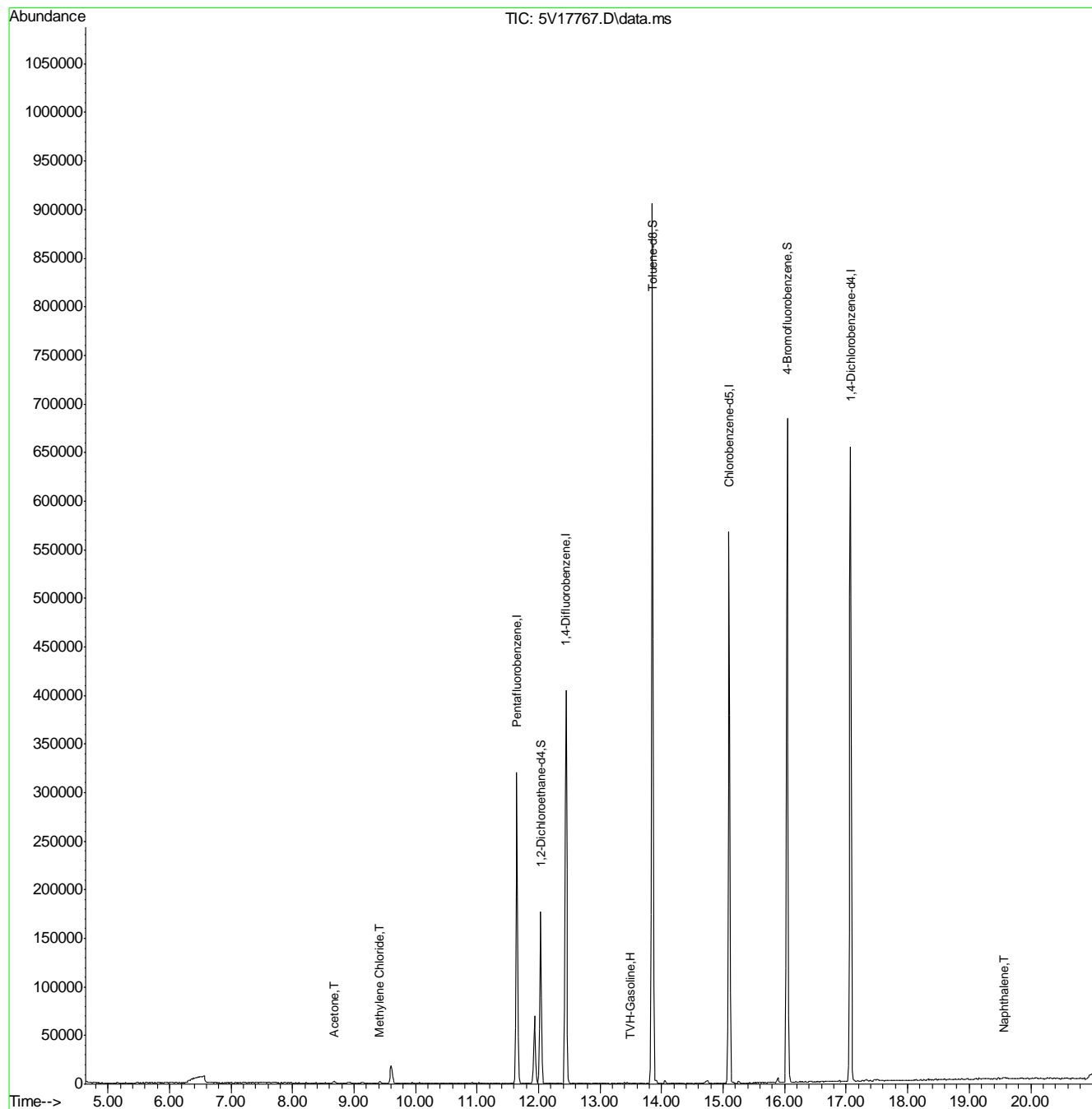
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	146743m	7.36	ug/l
15) Acetone	8.679	58	743	0.29	ug/l # 63
17) Methylene Chloride	9.421	84	1055	0.36	ug/l 95
91) Naphthalene	19.559	128	952	0.93	ug/l 100

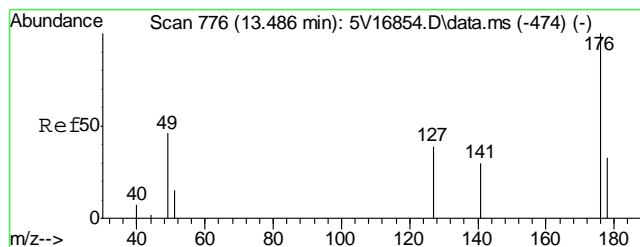
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17767.D
Acq On : 29 Sep 2011 8:20 pm
Operator : DONC
Sample : D28127-4, 50x
Misc : MS2763,V5V1056,5.015,,100,5,1
ALS Vial : 16 Sample Multiplier: 1

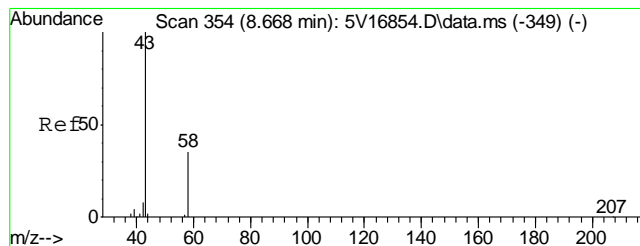
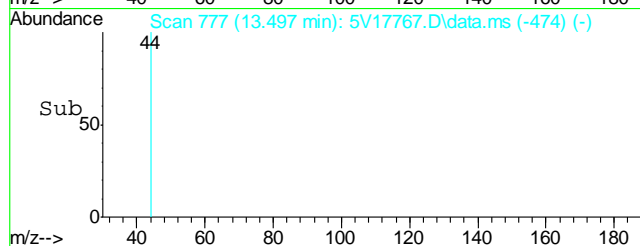
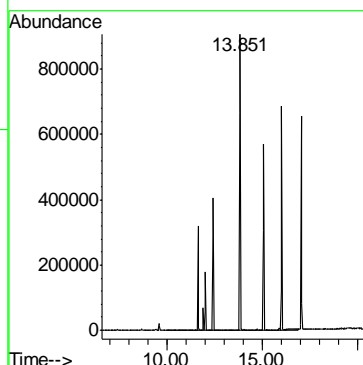
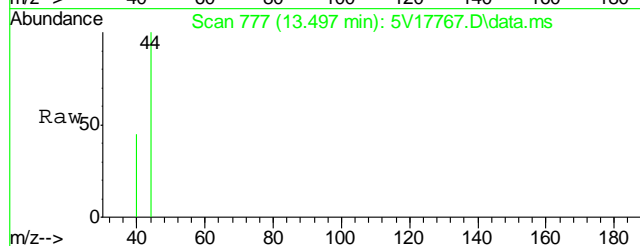
Quant Time: Sep 30 09:32:15 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





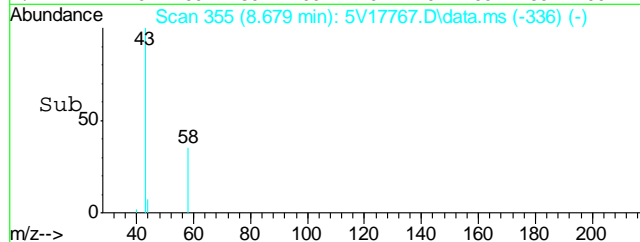
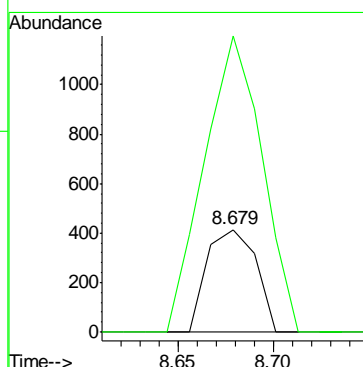
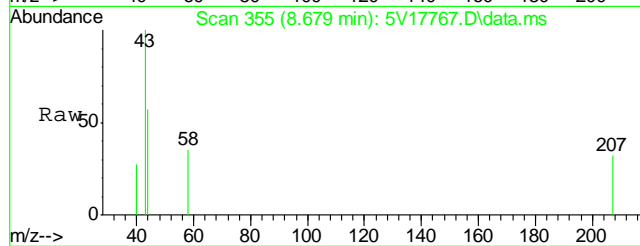
#1
TVH-Gasoline
Concen: 7.36 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17767.D
Acq: 29 Sep 2011 8:20 pm

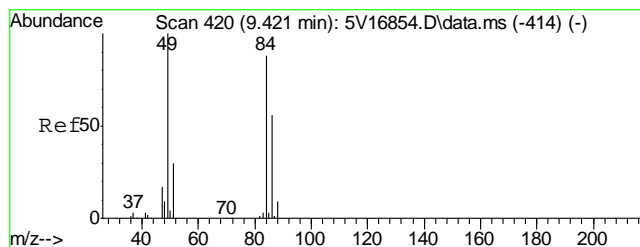
Tgt Ion:TIC Resp: 146743



#15
Acetone
Concen: 0.29 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V17767.D
Acq: 29 Sep 2011 8:20 pm

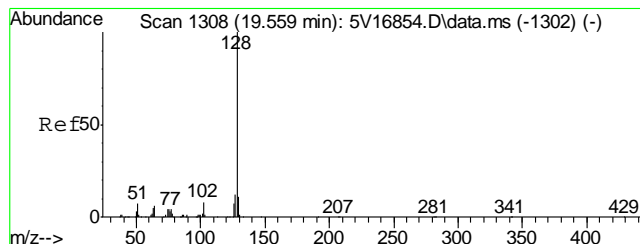
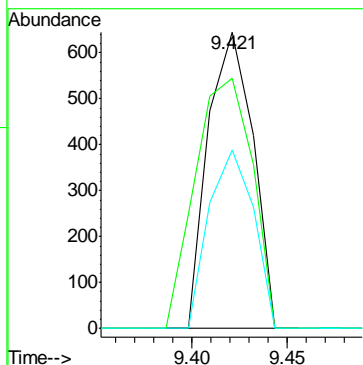
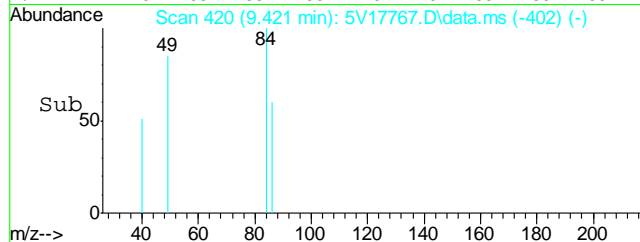
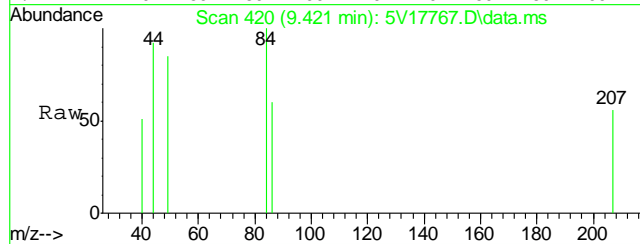
Tgt Ion: 58 Resp: 743
Ion Ratio Lower Upper
58 100
43 340.8 252.4 292.4#





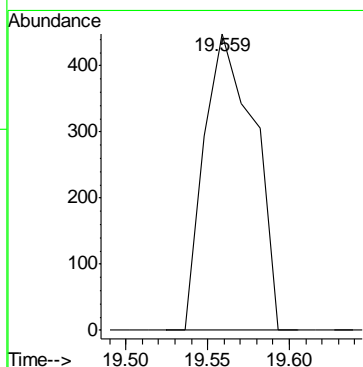
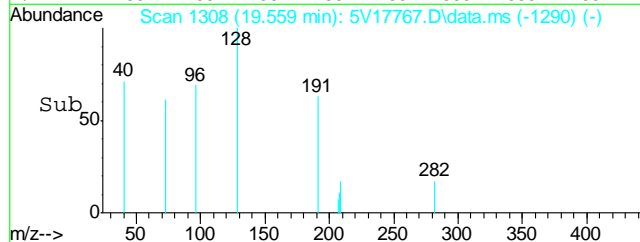
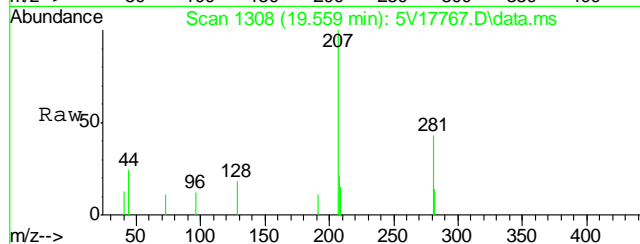
#17
Methylene Chloride
Concen: 0.36 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17767.D
Acq: 29 Sep 2011 8:20 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
49	107.7	93.6	133.6
86	60.1	44.2	84.2



#91
Naphthalene
Concen: 0.93 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17767.D
Acq: 29 Sep 2011 8:20 pm

Tgt Ion: 128 Resp: 952



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17756.D
Acq On : 29 Sep 2011 2:30 pm
Operator : DONC
Sample : MB
Misc : MS2763,V5V1056,5,,100,5,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 30 09:05:22 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	258612	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	368855	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	360057	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	208683	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	35156	55.60	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	111.20%
61) Toluene-d8	13.851	98	664379	51.92	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.84%
69) 4-Bromofluorobenzene	16.043	95	247173	46.56	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.12%

Target Compounds

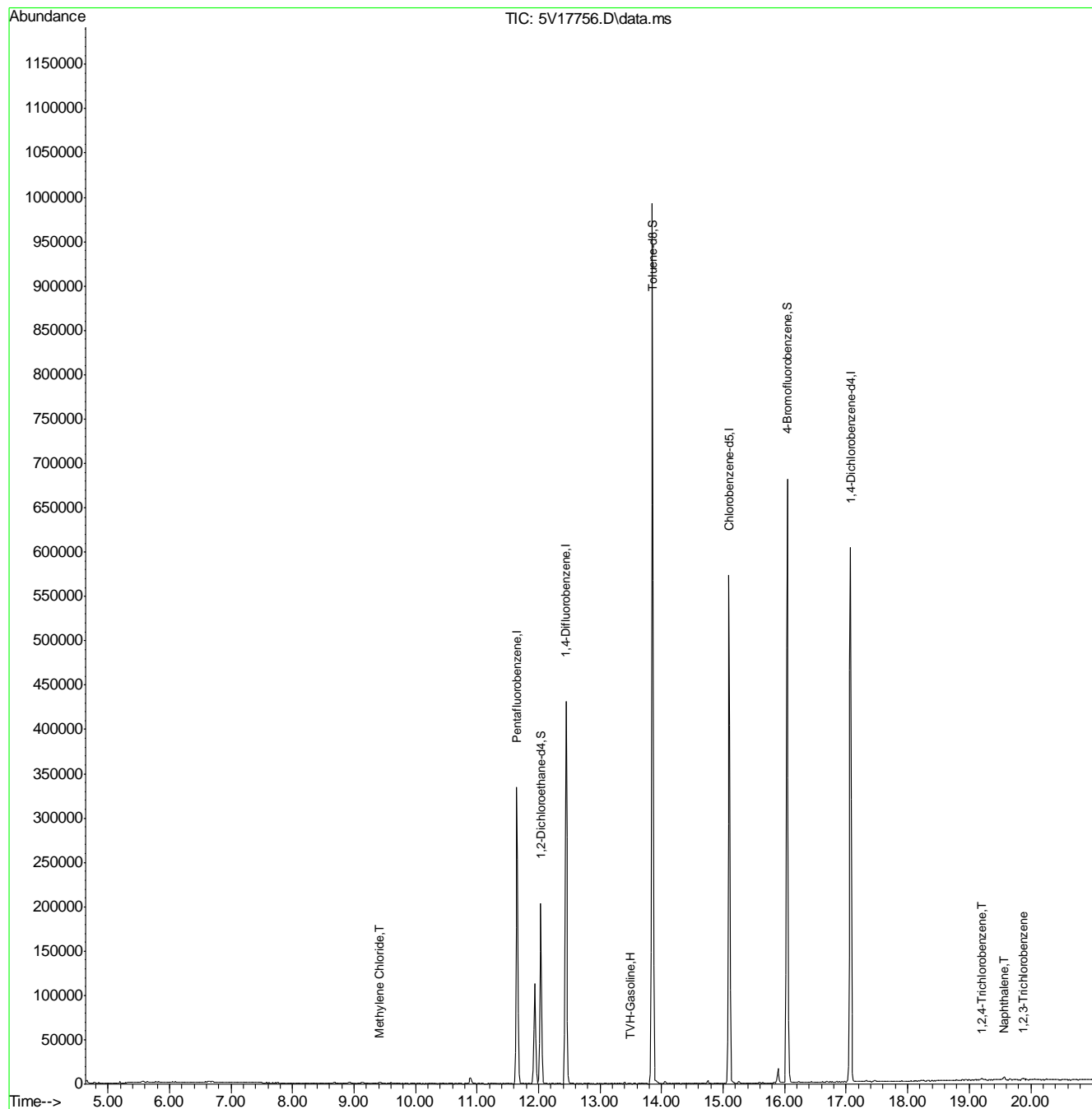
						Qvalue
1) TVH-Gasoline	13.491	TIC	253760m	12.73	ug/l	
17) Methylene Chloride	9.421	84	912	0.29	ug/l	97
90) 1,2,4-Trichlorobenzene	19.205	180	1509	0.26	ug/l #	92
91) Naphthalene	19.559	128	4719	1.29	ug/l	100
93) 1,2,3-Trichlorobenzene	19.879	180	1795	0.34	ug/l #	85

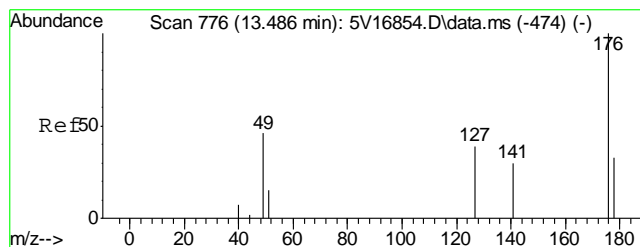
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092911.S\
Data File : 5V17756.D
Acq On : 29 Sep 2011 2:30 pm
Operator : DONC
Sample : MB
Misc : MS2763,V5V1056,5,,100,5,1
ALS Vial : 5 Sample Multiplier: 1

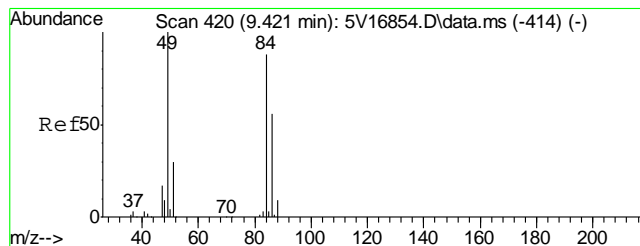
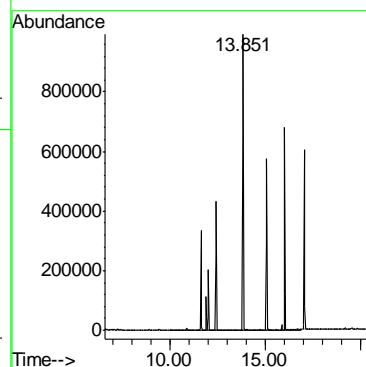
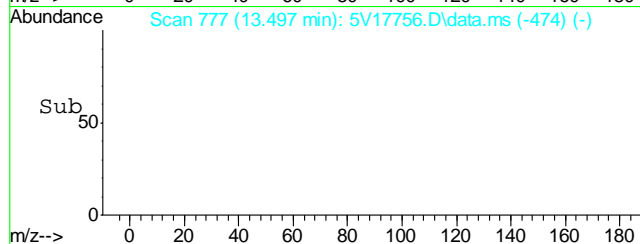
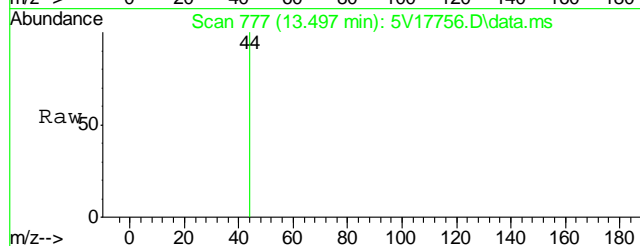
Quant Time: Sep 30 09:05:22 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





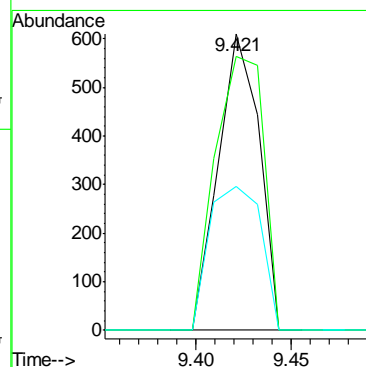
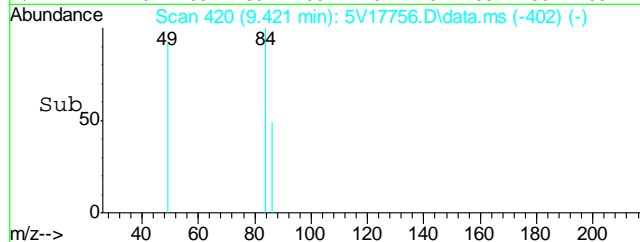
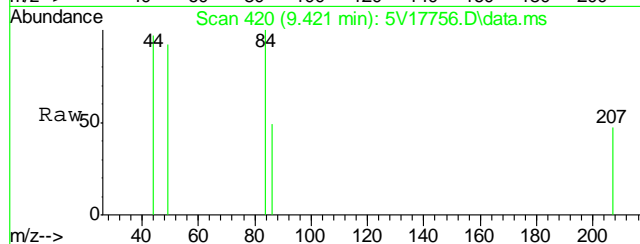
#1
TVH-Gasoline
Concen: 12.73 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17756.D
Acq: 29 Sep 2011 2:30 pm

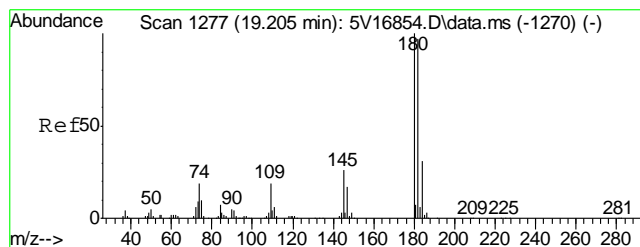
Tgt Ion:TIC Resp: 253760



#17
Methylene Chloride
Concen: 0.29 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17756.D
Acq: 29 Sep 2011 2:30 pm

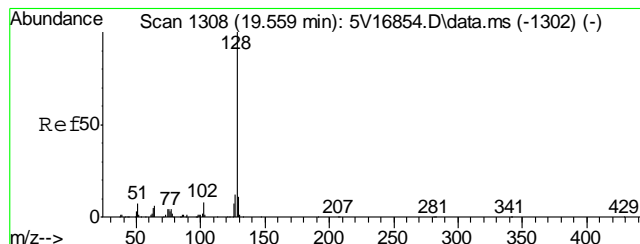
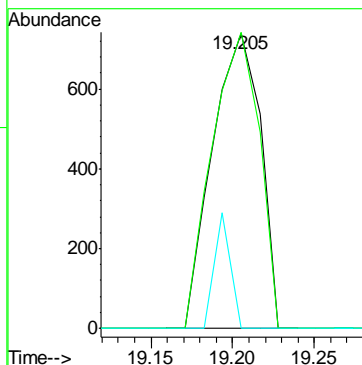
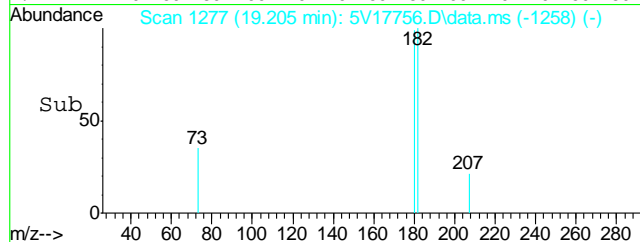
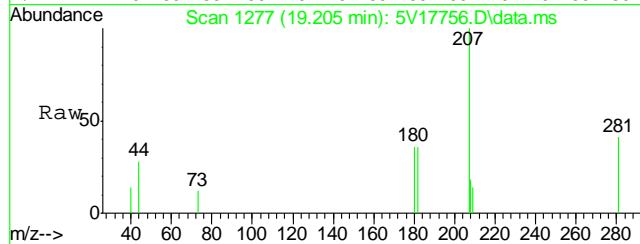
Tgt Ion: 84 Resp: 912
Ion Ratio Lower Upper
84 100
49 109.9 93.6 133.6
86 61.5 44.2 84.2





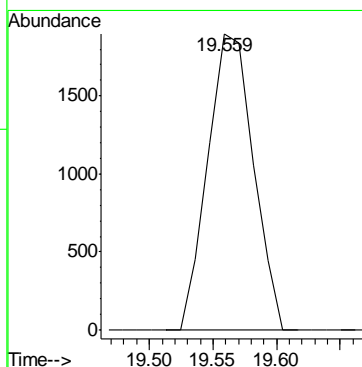
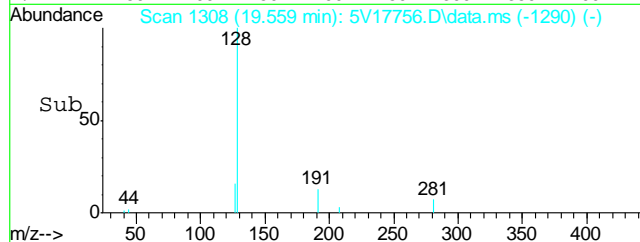
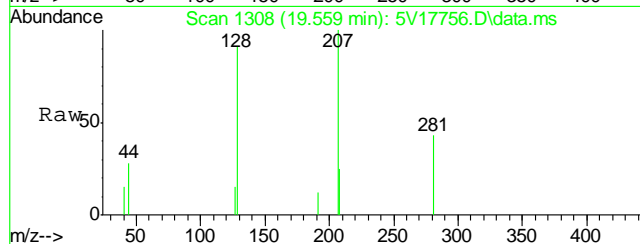
#90
1,2,4-Trichlorobenzene
Concen: 0.26 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V17756.D
Acq: 29 Sep 2011 2:30 pm

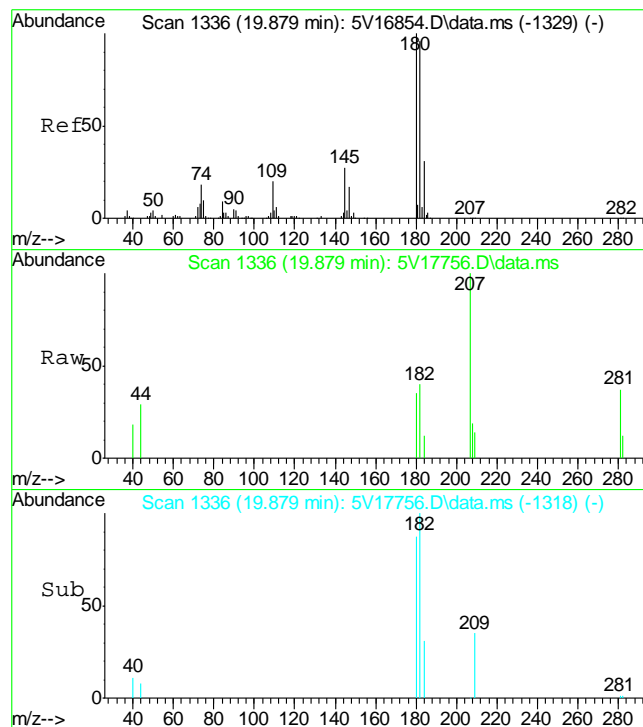
Tgt Ion:180	Resp:	1509
Ion Ratio	Lower	Upper
180	100	
182	98.7	76.3 114.5
145	13.2	20.7 31.1#



#91
Naphthalene
Concen: 1.29 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.000 min
Lab File: 5V17756.D
Acq: 29 Sep 2011 2:30 pm

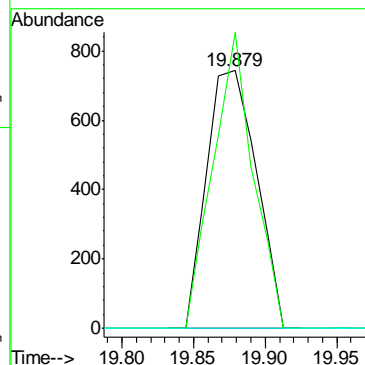
Tgt Ion:128	Resp:	4719
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#93
1,2,3-Trichlorobenzene
Concen: 0.34 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. -0.000 min
Lab File: 5V17756.D
Acq: 29 Sep 2011 2:30 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
182	92.4	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: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB753-MB	GB13228.D	1	09/29/11	SK	n/a	n/a	GGB753

The QC reported here applies to the following samples:

Method: SW846 8015B

D28127-1, D28127-2, D28127-3, D28127-4

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	83% 60-140%

Blank Spike Summary

Job Number: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB753-BS	GB13229.D	1	09/29/11	SK	n/a	n/a	GGB753

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

D28127-1, D28127-2, D28127-3, D28127-4

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	89%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28125-1MS	GB13231.D	1	09/29/11	SK	n/a	n/a	GGB753
D28125-1MSD	GB13232.D	1	09/29/11	SK	n/a	n/a	GGB753
D28125-1	GB13230.D	1	09/29/11	SK	n/a	n/a	GGB753

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

D28127-1, D28127-2, D28127-3, D28127-4

CAS No.	Compound	D28125-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		141	144	102	156	111	8	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D28125-1	Limits
120-82-1	1,2,4-Trichlorobenzene	81%	83%	80%	60-140%

GC Volatiles

Raw Data

∞

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13240.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\092911\GB13240.D\FID2B.CH
 Acq On : 29 Sep 2011 11:32 pm Operator: StephK
 Sample : D28127-1, 50X Inst : GC/MS Ins
 Misc : GC2289,GGB753,5.087,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 30 09:04:49 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Fri Sep 30 09:04:04 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

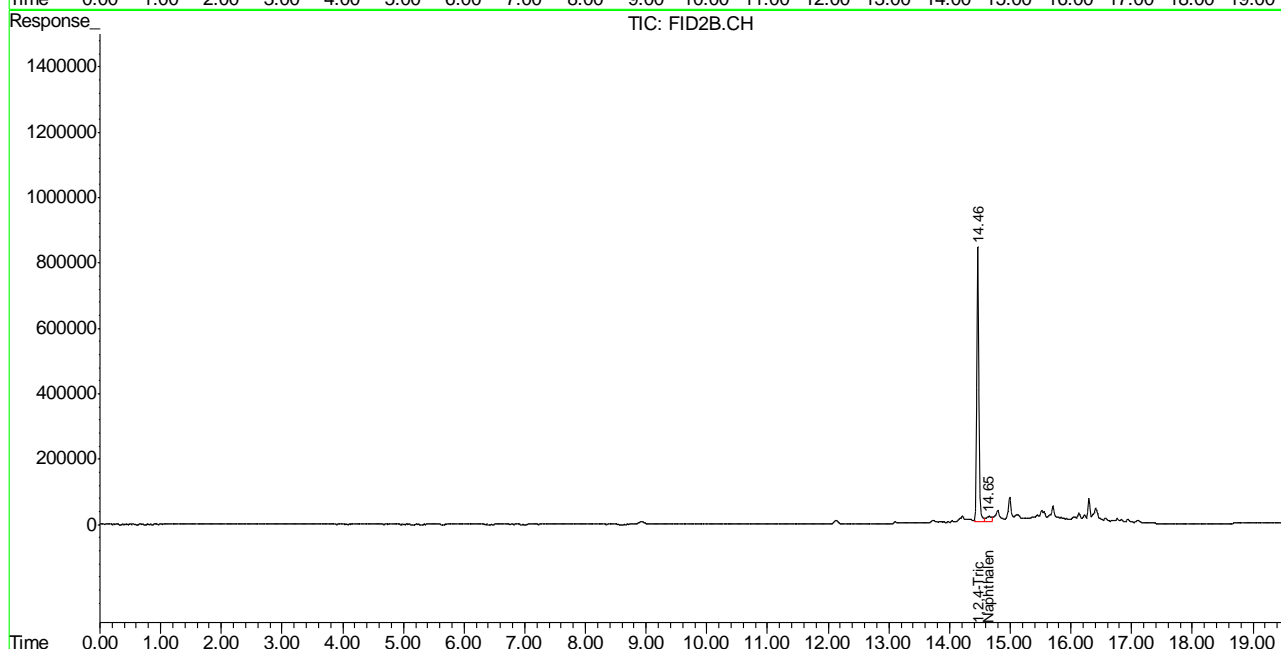
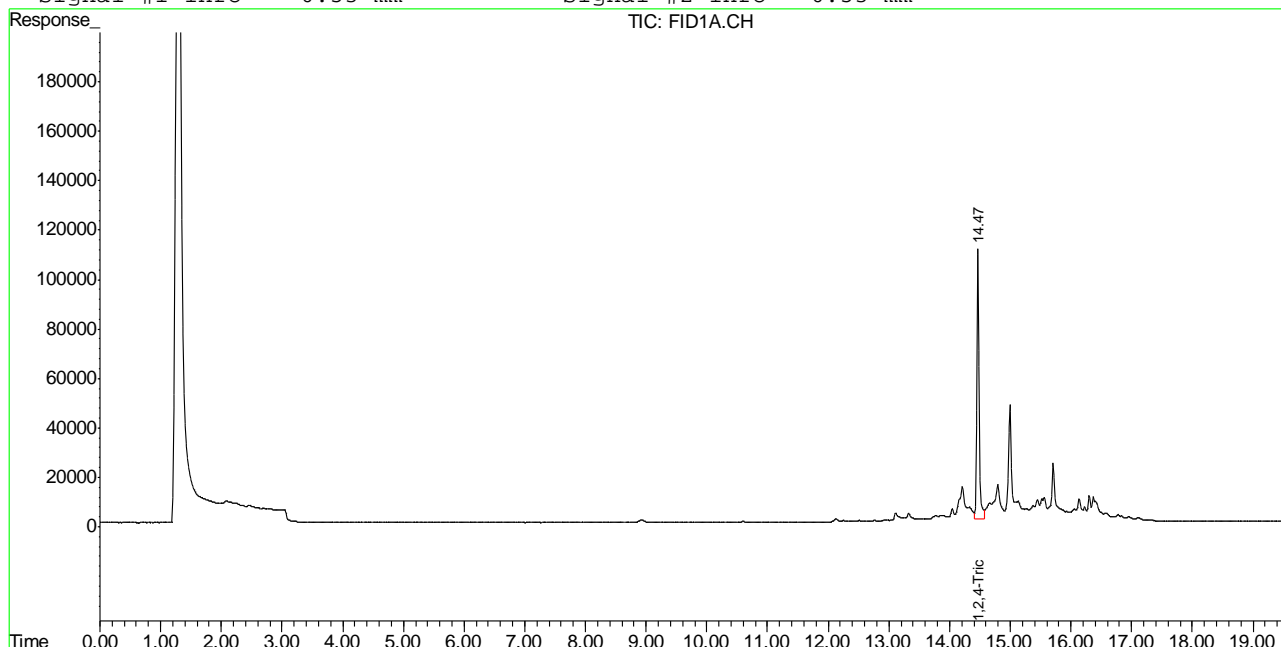
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.47	2779567	80.108	%
10) S	1,2,4-Trichlorobenzene (P)	14.46	19930572	93.856	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5792647	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	0.00	0	N.D.	ug/L d
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.65	872369	3.780	ug/L

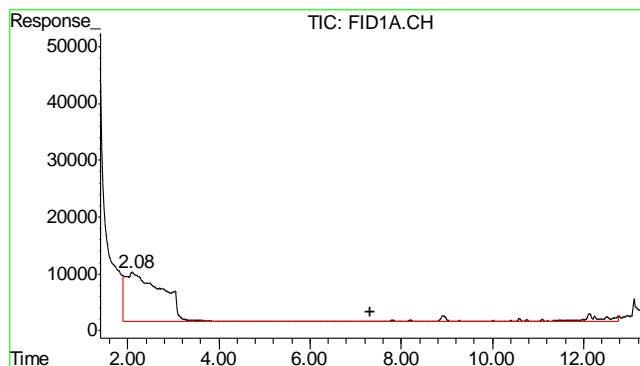
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13240.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\092911\GB13240.D\FID2B.CH
 Acq On : 29 Sep 2011 11:32 pm Operator: StephK
 Sample : D28127-1, 50X Inst : GC/MS Ins
 Misc : GC2289,GGB753,5.087,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 30 8:14 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Fri Sep 30 09:04:04 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

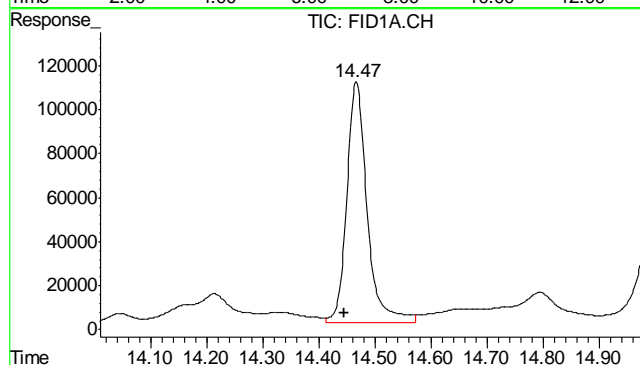
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





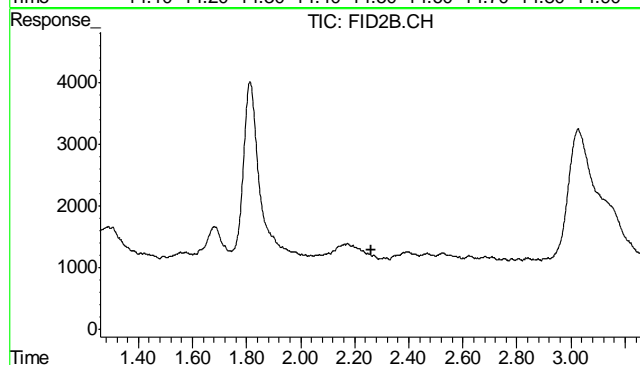
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5792647
Conc: N.D.



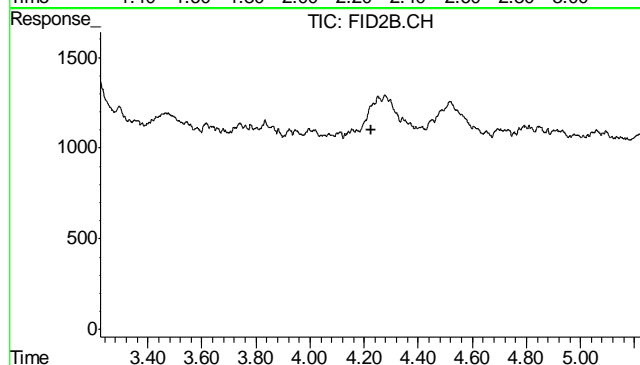
#2 1,2,4-Trichlorobenzene

R.T.: 14.467 min
Delta R.T.: 0.021 min
Response: 2779567
Conc: 80.11 %



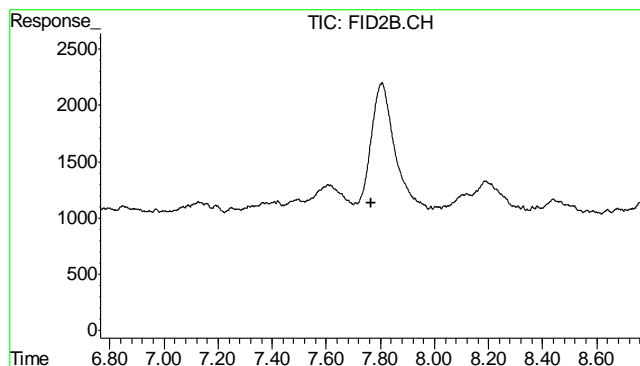
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.260 min
Response: 0
Conc: N.D.

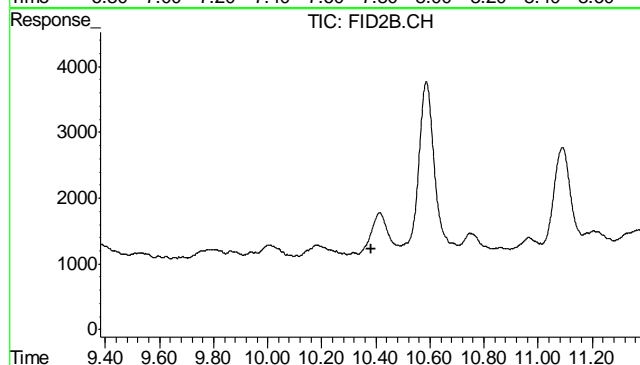


#5 Benzene

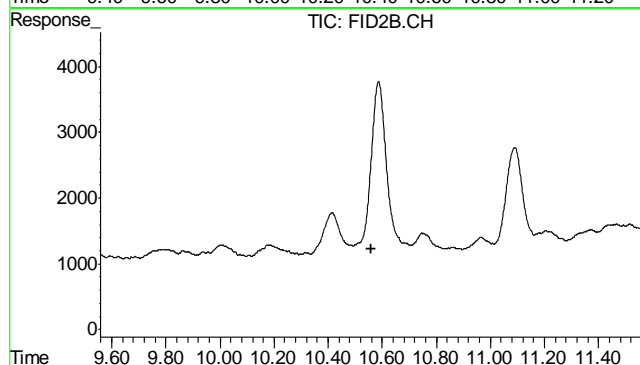
R.T.: 0.000 min
Exp R.T.: 4.225 min
Response: 0
Conc: N.D.



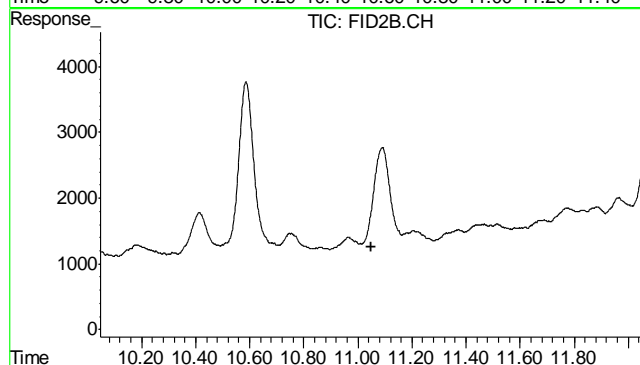
#6 Toluene
 R.T.: 0.000 min
 Exp R.T. : 7.765 min
 Response: 0
 Conc: N.D.



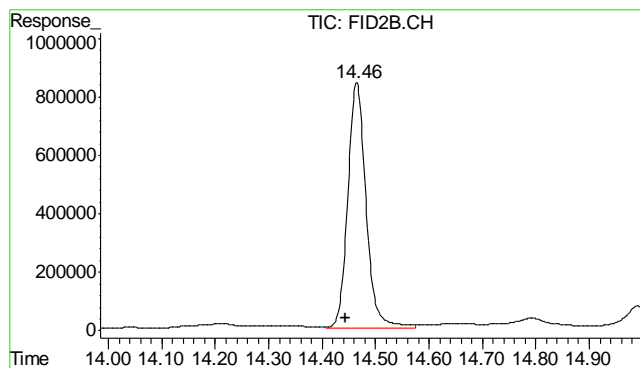
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T. : 10.381 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T. : 10.558 min
 Response: 0
 Conc: N.D.

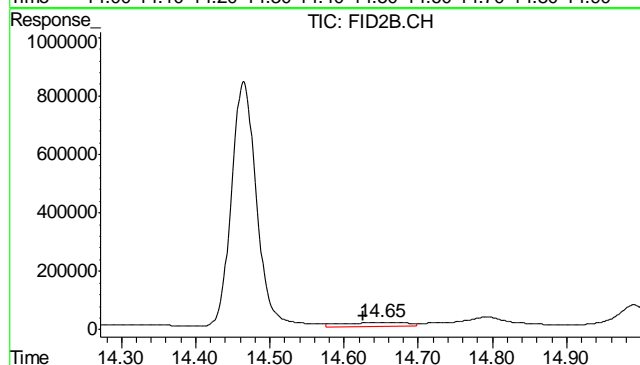


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T. : 11.048 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.465 min
Delta R.T.: 0.021 min
Response: 19930572
Conc: 93.86 %



#11 Naphthalene

R.T.: 14.649 min
Delta R.T.: 0.022 min
Response: 872369
Conc: 3.78 ug/L

8.1.1

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13241.D\FID1A.CH Vial: 15
Signal #2 : Y:\1\DATA\092911\GB13241.D\FID2B.CH
Acq On : 30 Sep 2011 12:08 am Operator: StephK
Sample : D28127-2, 50X Inst : GC/MS Ins
Misc : GC2289,GGB753,5.040,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 30 09:04:53 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 30 09:04:04 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	14.48	2609445	75.205 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.47	19265600	90.724 %	
Target Compounds				
1) H TVH-Gasoline	7.33	5555428	<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	0.00	0	N.D.	ug/L d
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.66	421618	1.847	ug/L

8.12

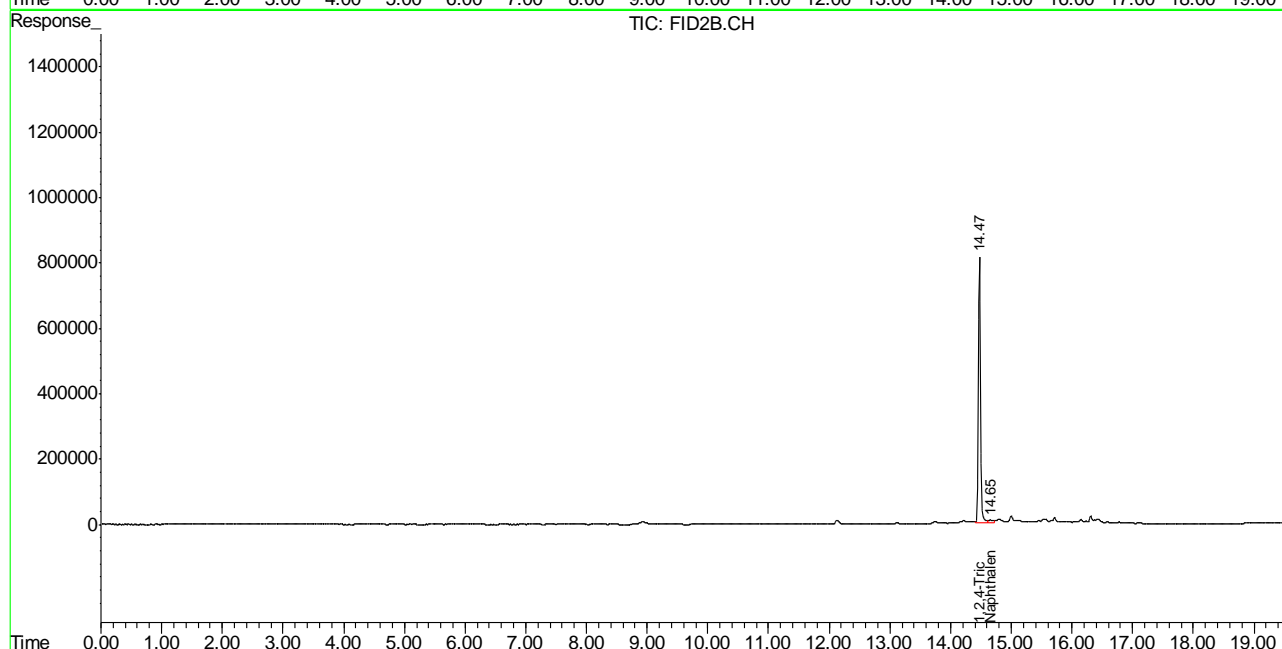
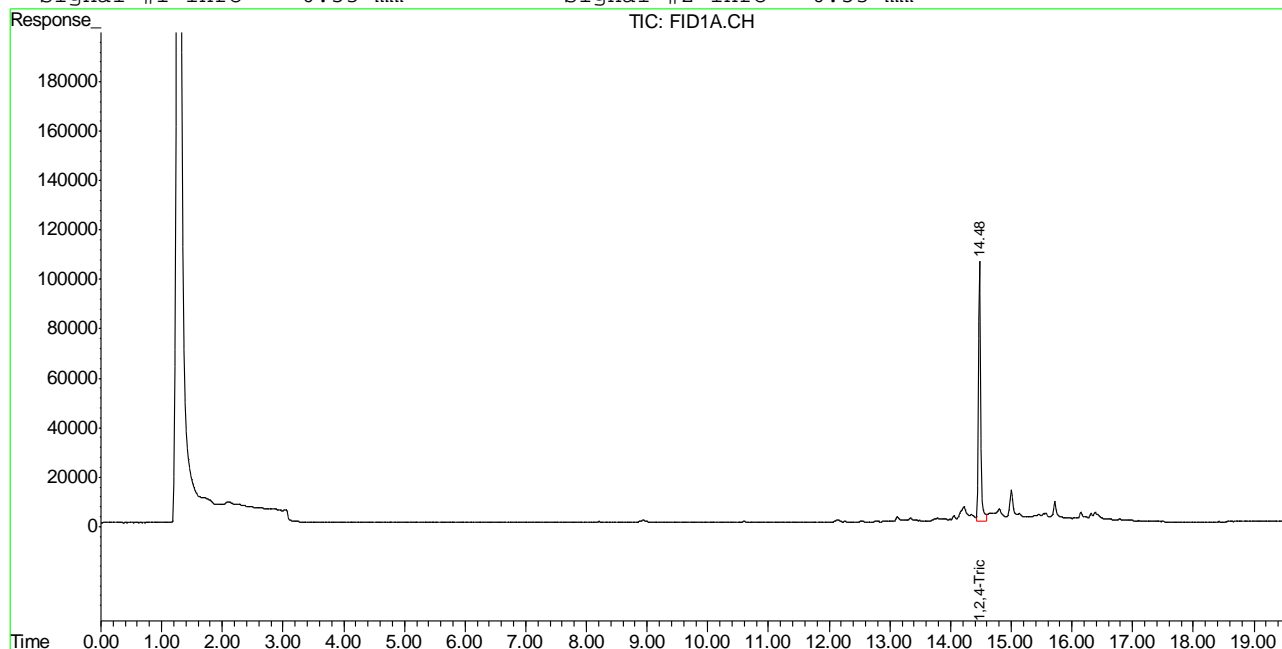
8

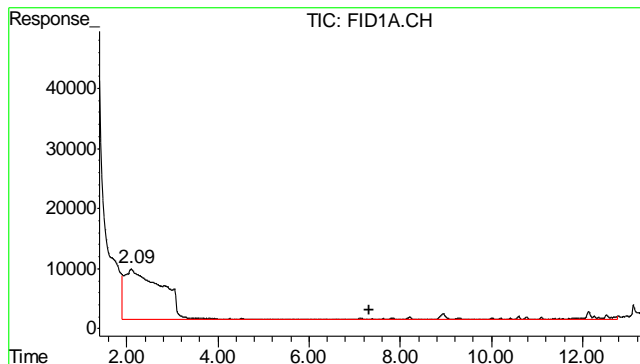
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13241.D\FID1A.CH Vial: 15
Signal #2 : Y:\1\DATA\092911\GB13241.D\FID2B.CH
Acq On : 30 Sep 2011 12:08 am Operator: StephK
Sample : D28127-2, 50X Inst : GC/MS Ins
Misc : GC2289,GGB753,5.040,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 30 8:15 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 30 09:04:04 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

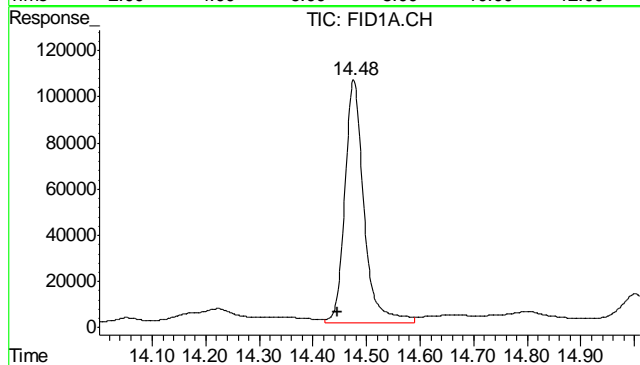
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





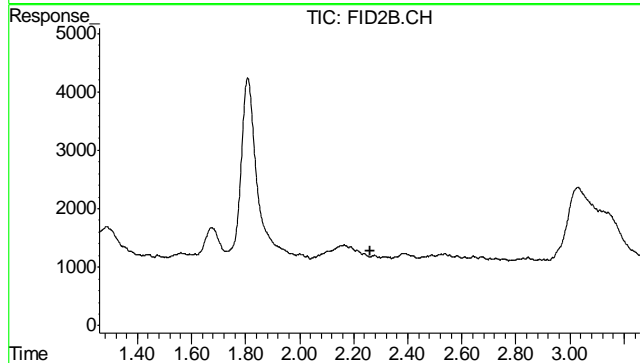
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5555428
Conc: N.D.



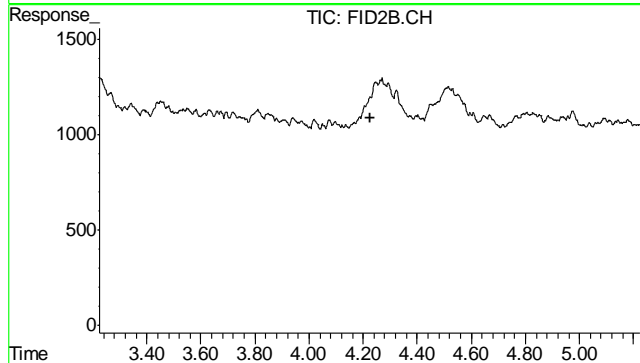
#2 1,2,4-Trichlorobenzene

R.T.: 14.476 min
Delta R.T.: 0.029 min
Response: 2609445
Conc: 75.21 % m



#4 Methyl-t-butyl-ether

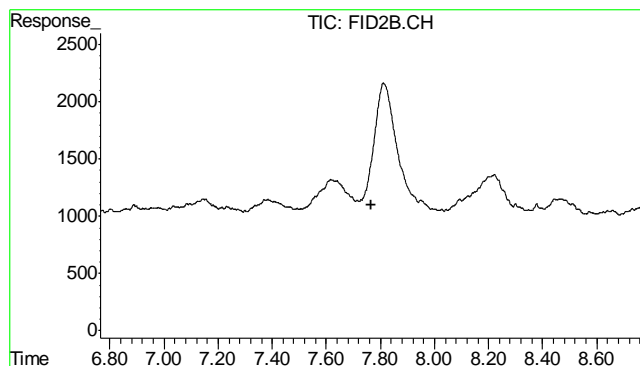
R.T.: 0.000 min
Exp R.T.: 2.260 min
Response: 0
Conc: N.D.



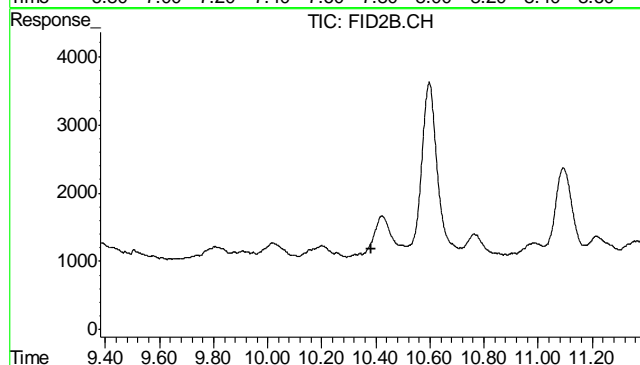
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.225 min
Response: 0
Conc: N.D.

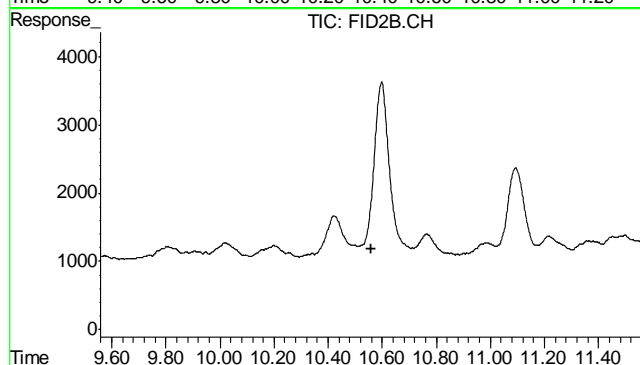
8.12
8



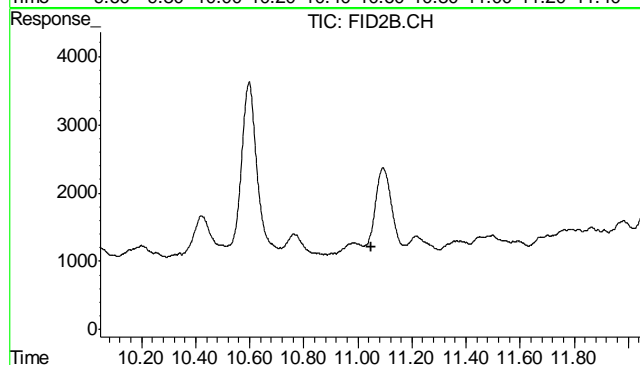
#6 Toluene
 R.T.: 0.000 min
 Exp R.T. : 7.765 min
 Response: 0
 Conc: N.D.



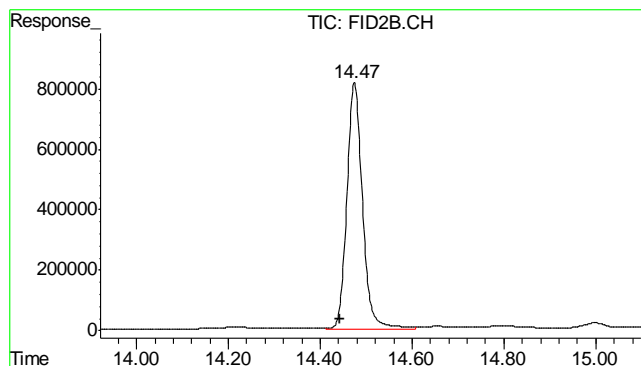
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T. : 10.381 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T. : 10.558 min
 Response: 0
 Conc: N.D.

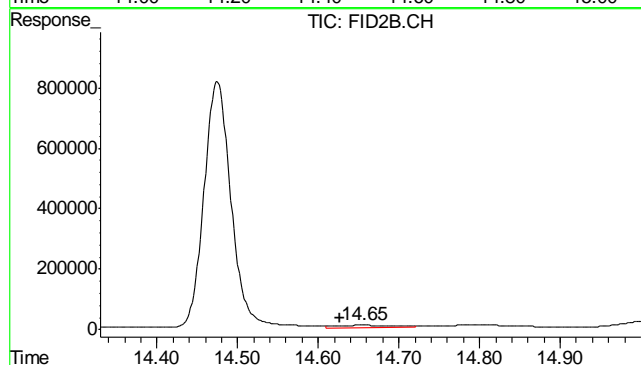


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T. : 11.048 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.475 min
 Delta R.T.: 0.031 min
 Response: 19265600
 Conc: 90.72 %



#11 Naphthalene

R.T.: 14.655 min
 Delta R.T.: 0.029 min
 Response: 421618
 Conc: 1.85 ug/L

8.1.2
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13243.D\FID1A.CH Vial: 17
Signal #2 : Y:\1\DATA\092911\GB13243.D\FID2B.CH
Acq On : 30 Sep 2011 1:20 am Operator: StephK
Sample : D28127-3, 50X Inst : GC/MS Ins
Misc : GC2289,GGB753,5.071,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 30 09:06:21 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 30 09:06:06 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

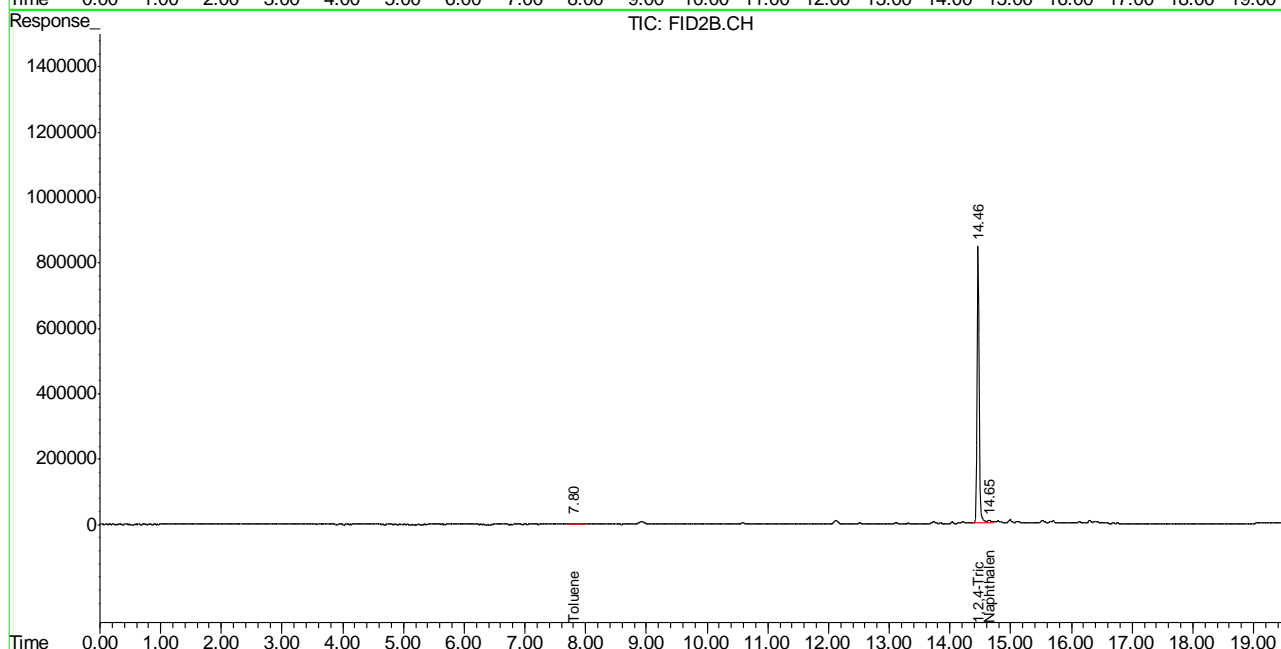
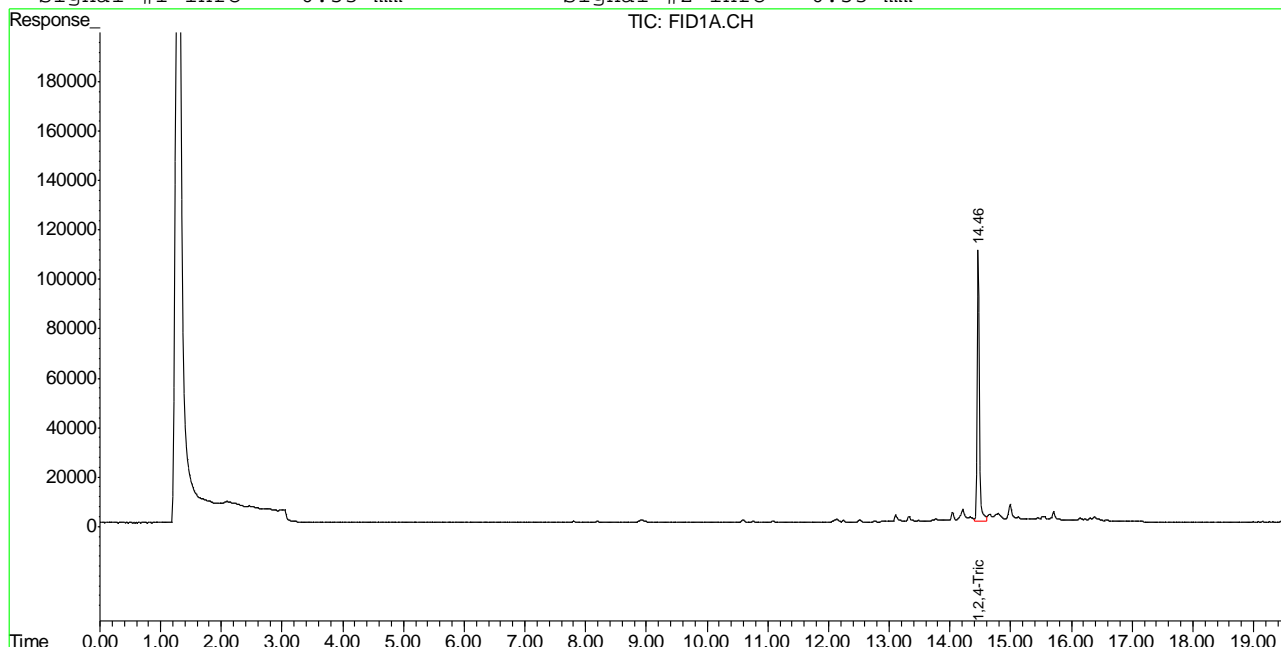
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.46	2738346	78.920 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.46	20132042	94.805 %	
Target Compounds				
1) H TVH-Gasoline	7.33	5693658	<MDL	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.80	130747	0.281	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.65	354184	1.557	ug/L

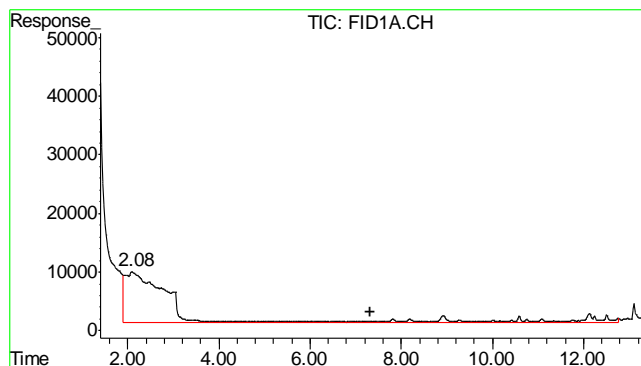
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13243.D\FID1A.CH Vial: 17
 Signal #2 : Y:\1\DATA\092911\GB13243.D\FID2B.CH
 Acq On : 30 Sep 2011 1:20 am Operator: StephK
 Sample : D28127-3, 50X Inst : GC/MS Ins
 Misc : GC2289,GGB753,5.071,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 30 8:15 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Fri Sep 30 09:06:06 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

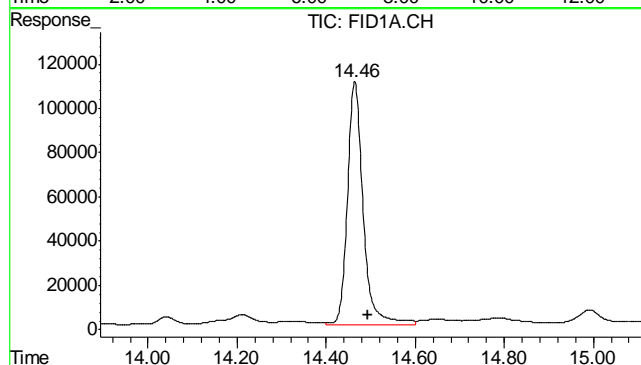
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





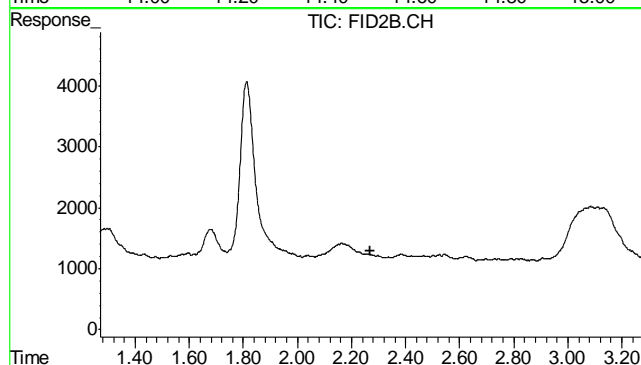
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5693658
Conc: N.D.



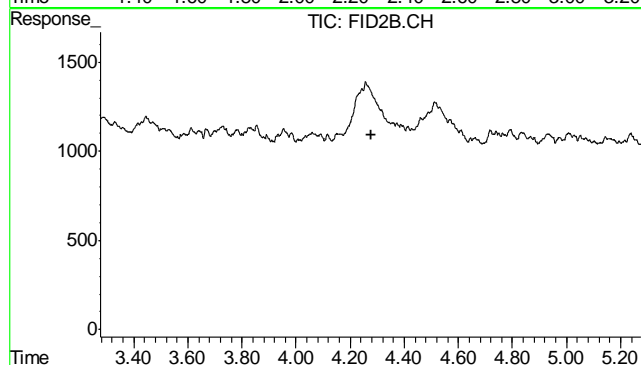
#2 1,2,4-Trichlorobenzene

R.T.: 14.464 min
Delta R.T.: -0.029 min
Response: 2738346
Conc: 78.92 % m



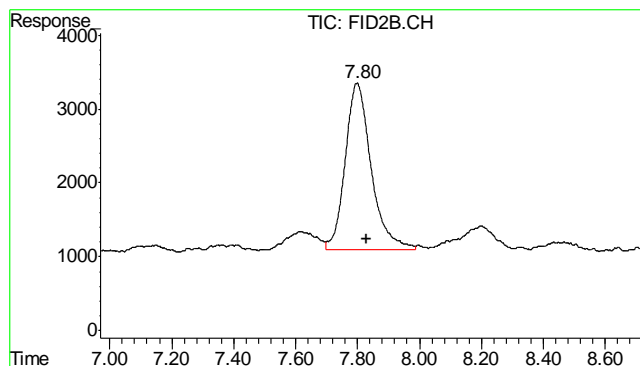
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.271 min
Response: 0
Conc: N.D.

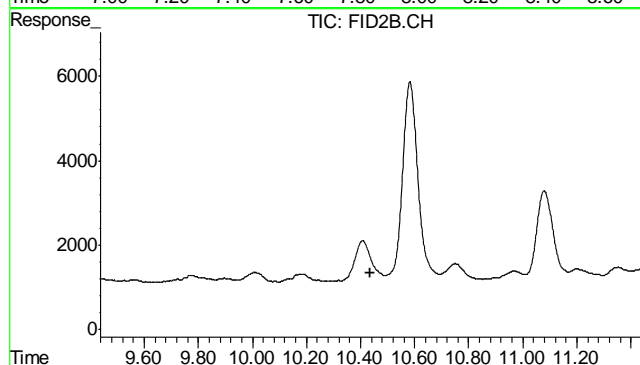


#5 Benzene

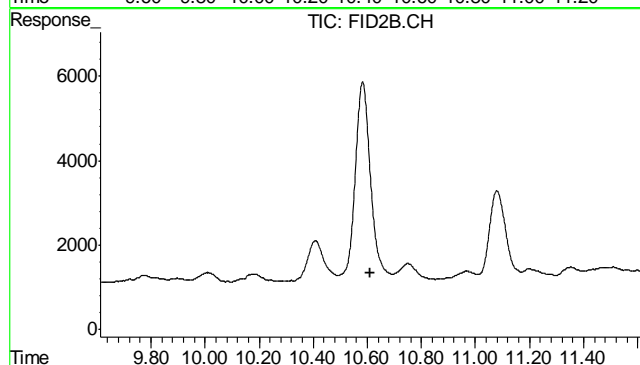
R.T.: 0.000 min
Exp R.T.: 4.276 min
Response: 0
Conc: N.D.



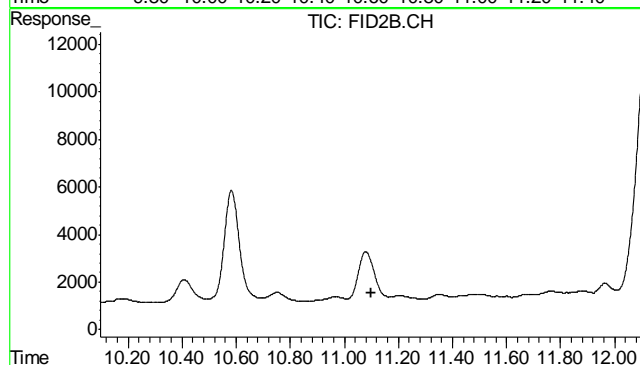
#6 Toluene
R.T.: 7.798 min
Delta R.T.: -0.032 min
Response: 130747
Conc: 0.28 ug/L



#7 Ethylbenzene
R.T.: 0.000 min
Exp R.T.: 10.437 min
Response: 0
Conc: N.D.

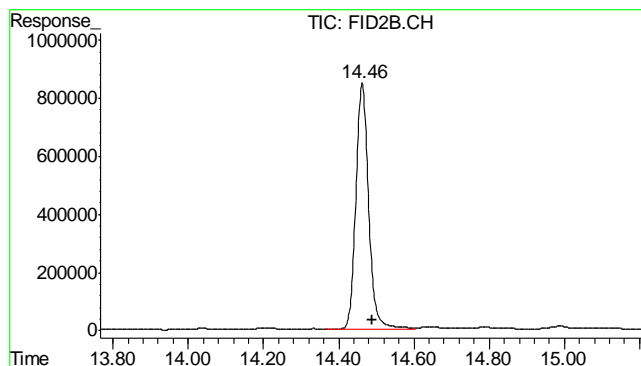


#8 m,p-Xylene
R.T.: 0.000 min
Exp R.T.: 10.612 min
Response: 0
Conc: N.D.



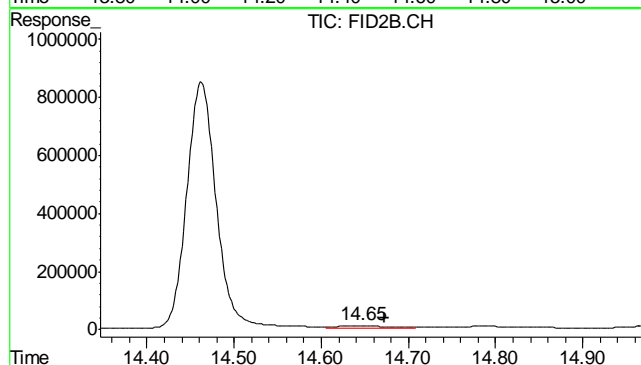
#9 o-Xylene
R.T.: 0.000 min
Exp R.T.: 11.098 min
Response: 0
Conc: N.D.

8.1.3
8



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

R.T.: 14.463 min
 Delta R.T.: -0.028 min
 Response: 20132042
 Conc: 94.80 %



#11 Naphthalene

R.T.: 14.645 min
 Delta R.T.: -0.028 min
 Response: 354184
 Conc: 1.56 ug/L

8.1.3

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13244.D\FID1A.CH Vial: 18
 Signal #2 : Y:\1\DATA\092911\GB13244.D\FID2B.CH
 Acq On : 30 Sep 2011 1:56 am Operator: StephK
 Sample : D28127-4, 50X Inst : GC/MS Ins
 Misc : GC2289,GGB753,5.015,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 30 09:06:25 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Fri Sep 30 09:06:06 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

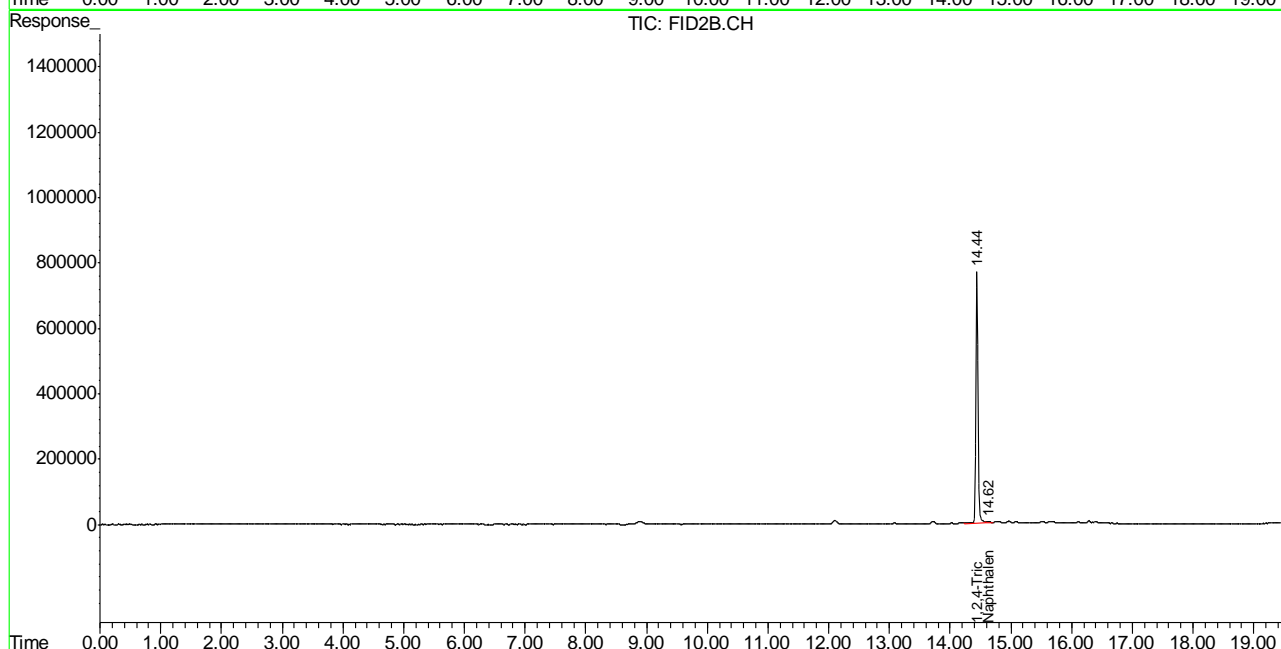
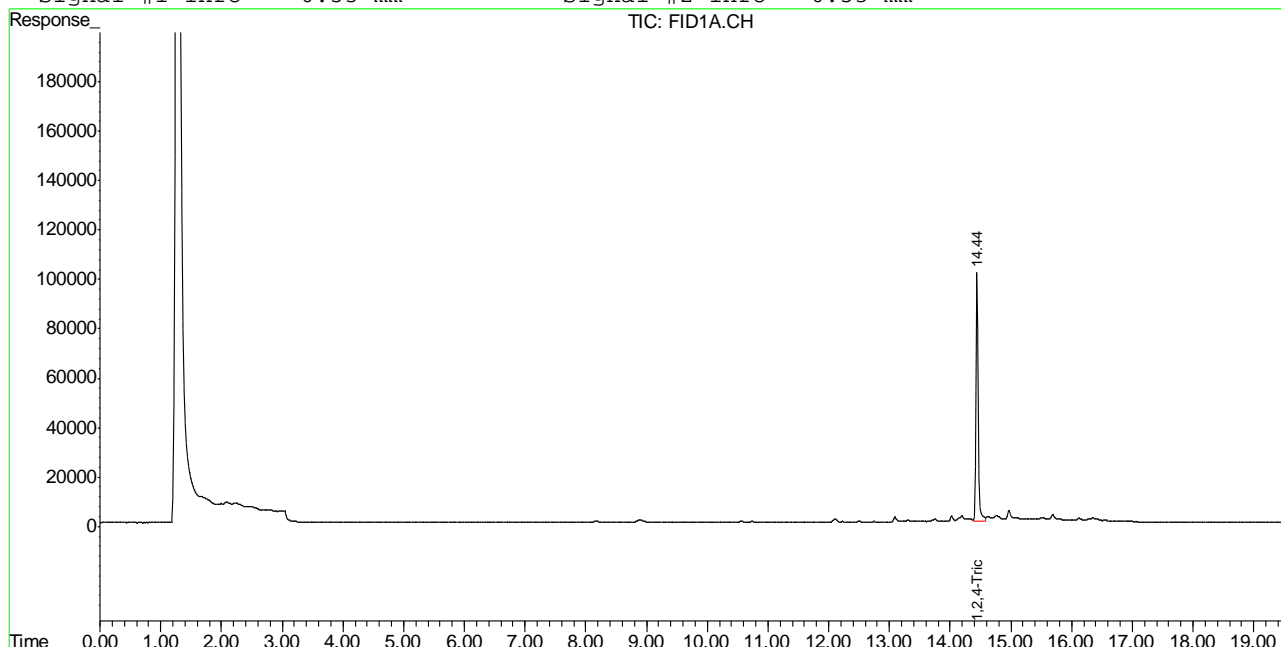
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.44	2529709	72.907	%
10) S	1,2,4-Trichlorobenzene (P)	14.44	18589435	87.540	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5412870	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	0.00	0	N.D.	ug/L d
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.62	266929	1.183	ug/L

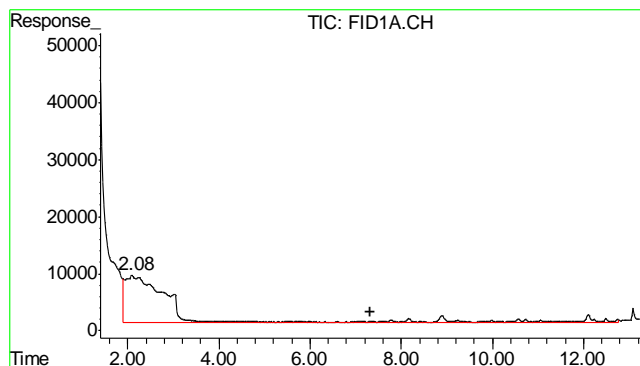
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13244.D\FID1A.CH Vial: 18
 Signal #2 : Y:\1\DATA\092911\GB13244.D\FID2B.CH
 Acq On : 30 Sep 2011 1:56 am Operator: StephK
 Sample : D28127-4, 50X Inst : GC/MS Ins
 Misc : GC2289,GGB753,5.015,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 30 8:15 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Fri Sep 30 09:06:06 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

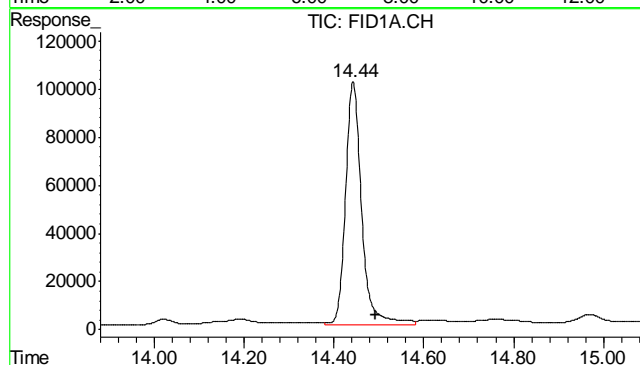
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





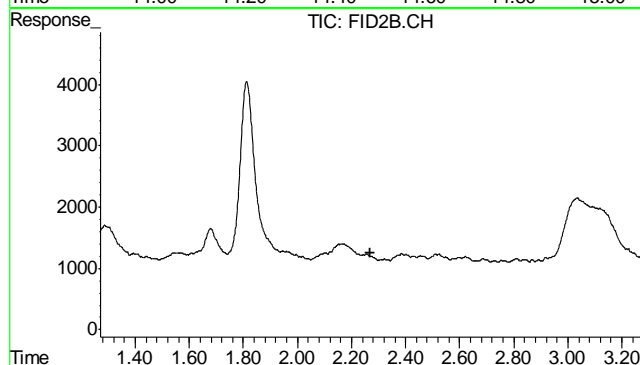
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5412870
Conc: N.D.



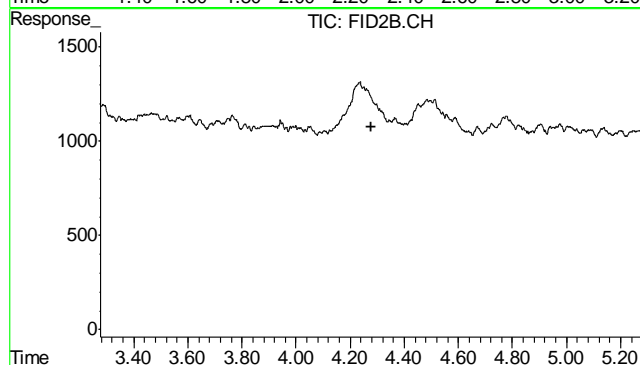
#2 1,2,4-Trichlorobenzene

R.T.: 14.443 min
Delta R.T.: -0.050 min
Response: 2529709
Conc: 72.91 %



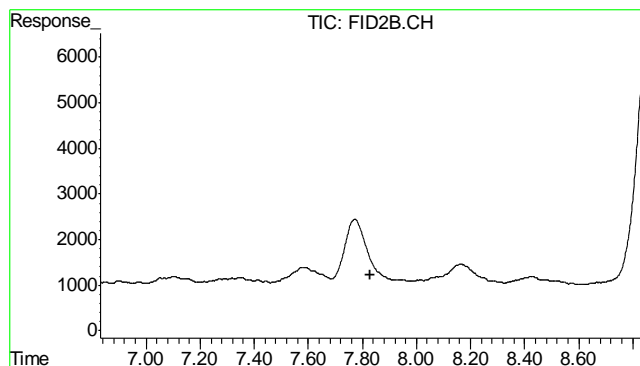
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.271 min
Response: 0
Conc: N.D.

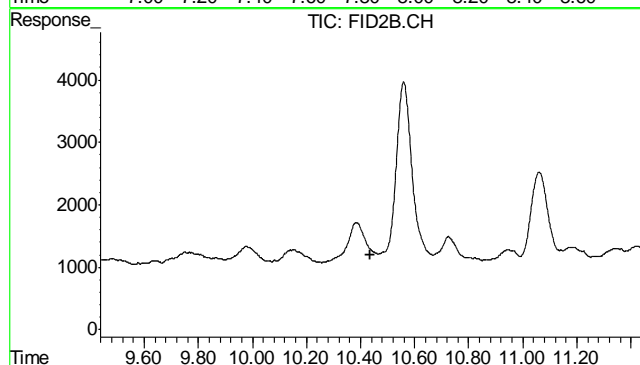


#5 Benzene

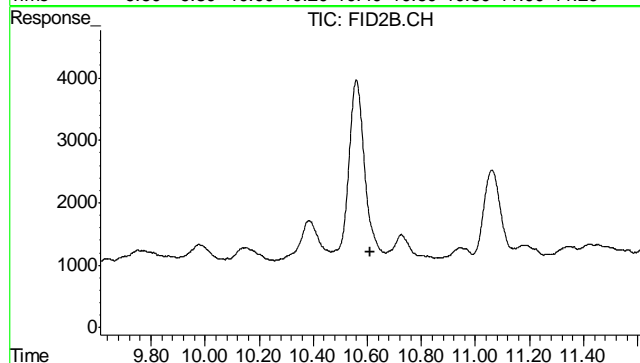
R.T.: 0.000 min
Exp R.T.: 4.276 min
Response: 0
Conc: N.D.



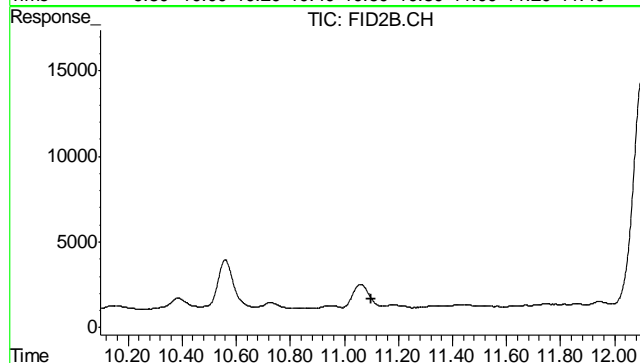
#6 Toluene
 R.T.: 0.000 min
 Exp R.T. : 7.831 min
 Response: 0
 Conc: N.D.



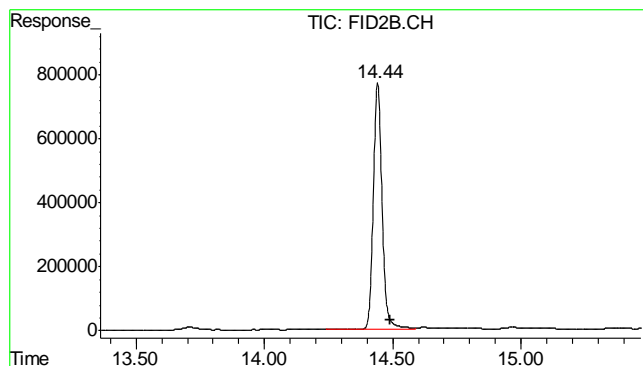
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T. : 10.437 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T. : 10.612 min
 Response: 0
 Conc: N.D.

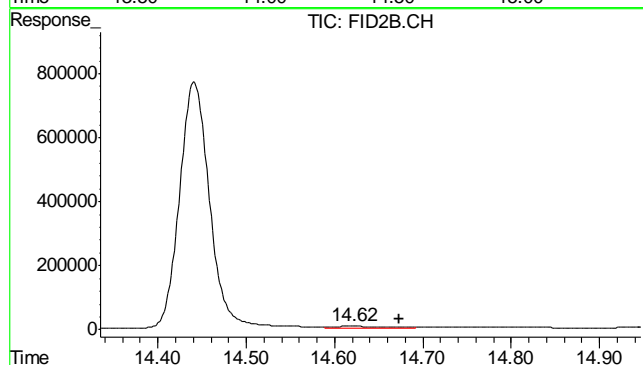


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T. : 11.098 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.441 min
 Delta R.T.: -0.049 min
 Response: 18589435
 Conc: 87.54 %



#11 Naphthalene

R.T.: 14.620 min
 Delta R.T.: -0.053 min
 Response: 266929
 Conc: 1.18 ug/L

8.1.4

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13228.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\092911\GB13228.D\FID2B.CH
Acq On : 29 Sep 2011 4:23 pm Operator: StephK
Sample : MB, S Inst : GC/MS Ins
Misc : GC2289,GGB753,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 30 09:02:37 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 30 09:02:21 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	14.47	2872032	82.773	%
10) S	1,2,4-Trichlorobenzene (P)	14.47	21784116	102.584	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5630077	<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	7.80	132475	0.285	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.65	273003	1.209	ug/L

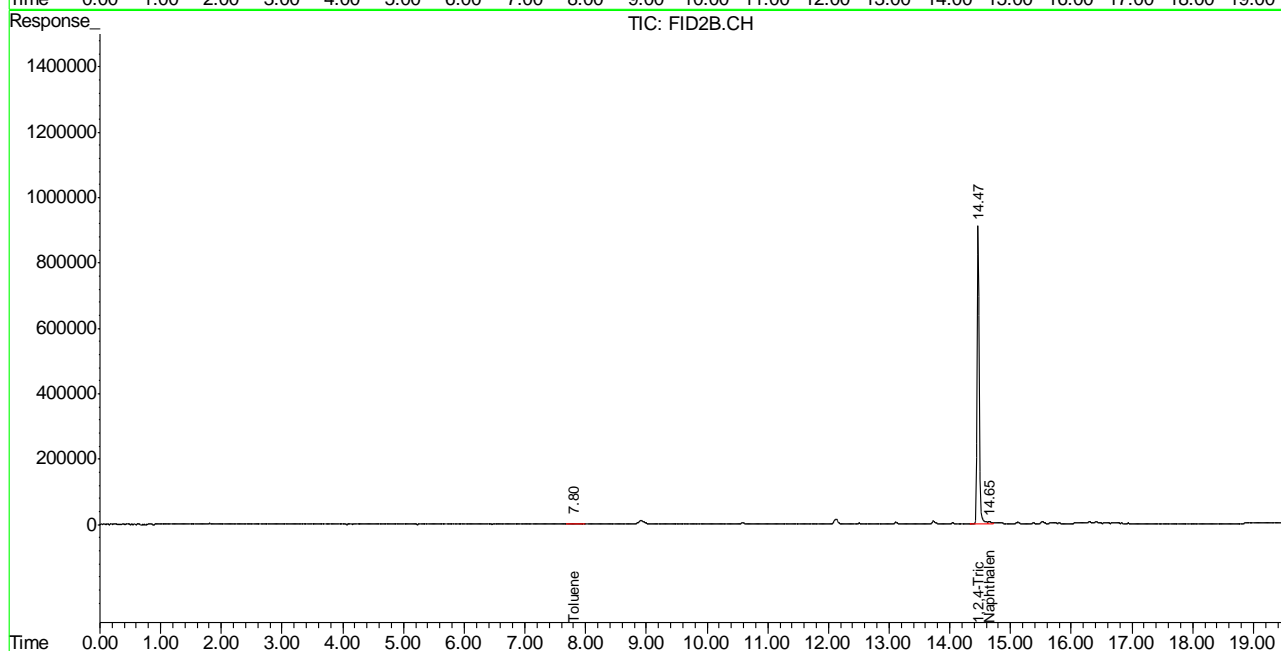
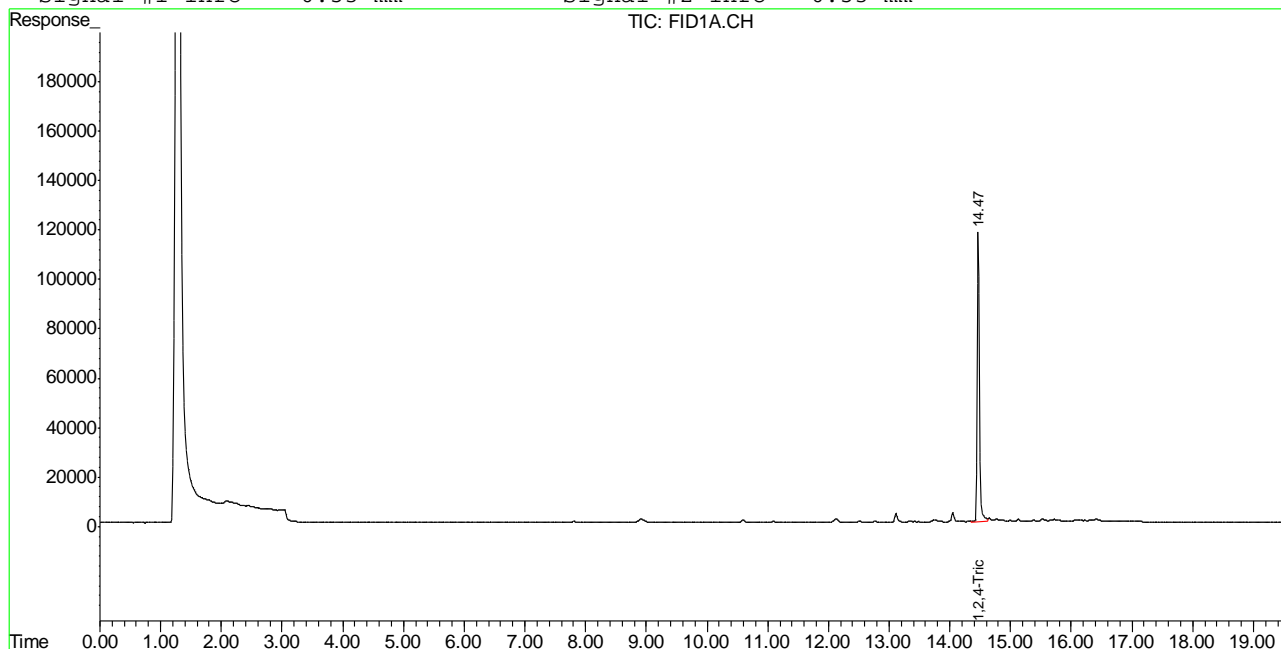
(f)=RT Delta > 1/2 Window (m)=manual int.
GB13228.D TB740GB740SOIL.M Fri Sep 30 15:10:59 2011 GC

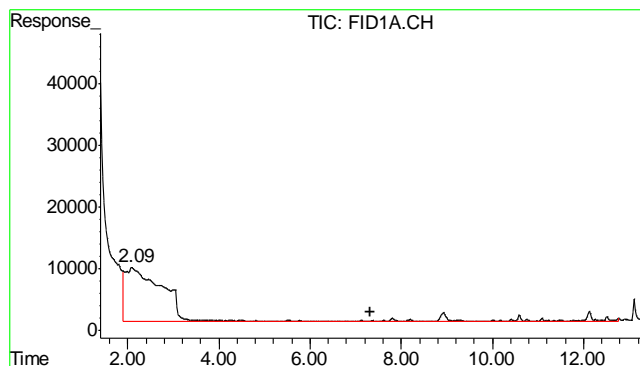
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092911\GB13228.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\092911\GB13228.D\FID2B.CH
Acq On : 29 Sep 2011 4:23 pm Operator: StephK
Sample : MB, S Inst : GC/MS Ins
Misc : GC2289,GGB753,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 30 8:09 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 30 09:02:21 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

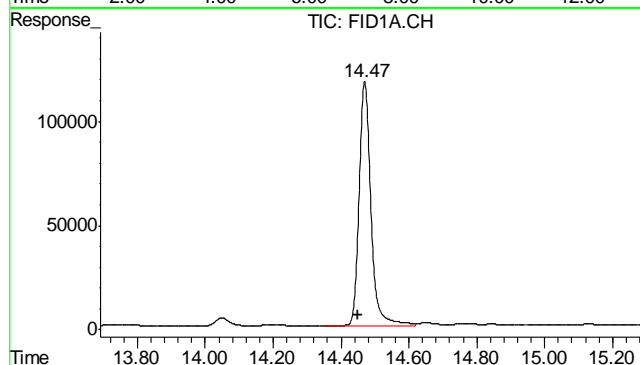
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





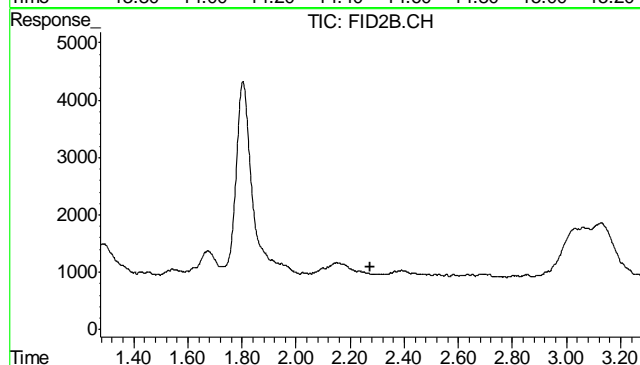
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5630077
Conc: N.D.



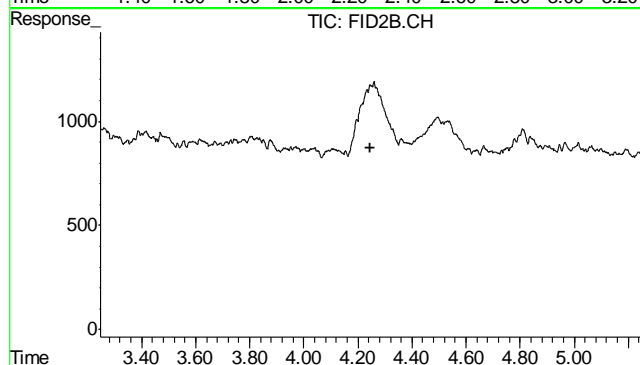
#2 1,2,4-Trichlorobenzene

R.T.: 14.470 min
Delta R.T.: 0.020 min
Response: 2872032
Conc: 82.77 %



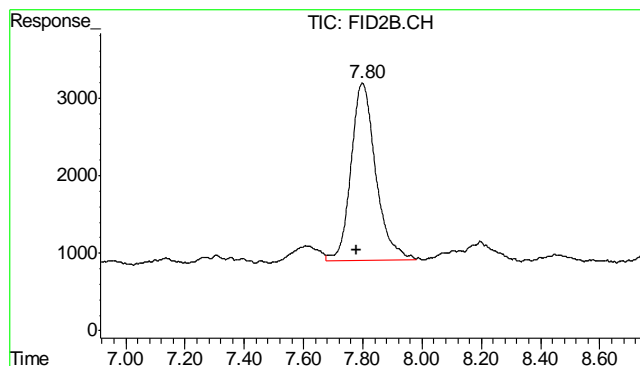
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.275 min
Response: 0
Conc: N.D.



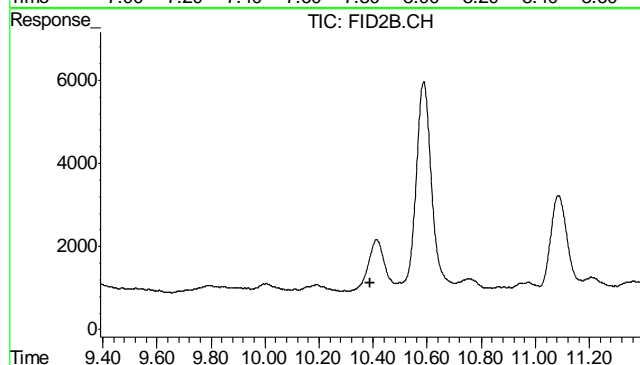
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.247 min
Response: 0
Conc: N.D.



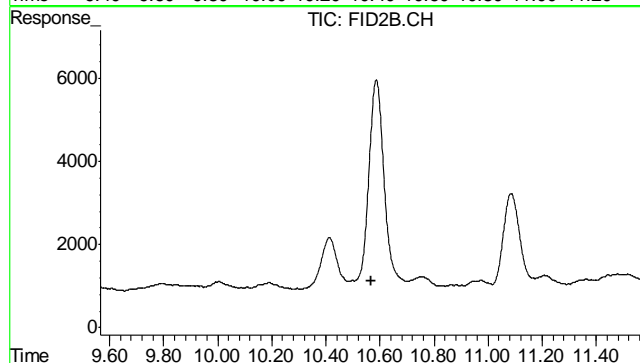
#6 Toluene

R.T.: 7.798 min
Delta R.T.: 0.018 min
Response: 132475
Conc: 0.29 ug/L



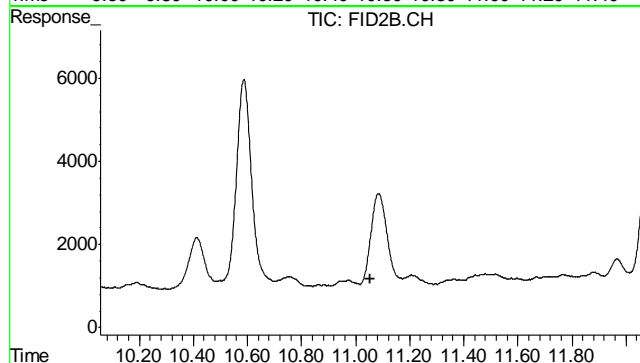
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.390 min
Response: 0
Conc: N.D.



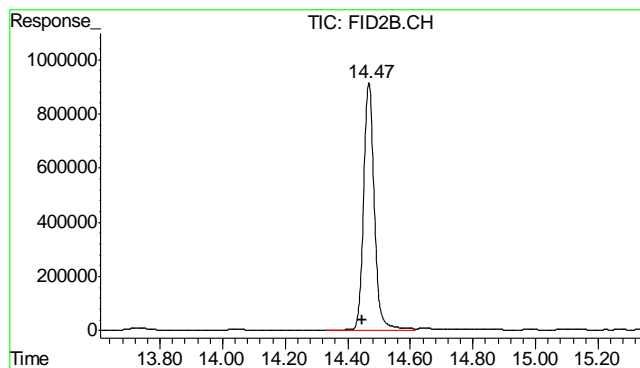
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T.: 10.566 min
Response: 0
Conc: N.D.



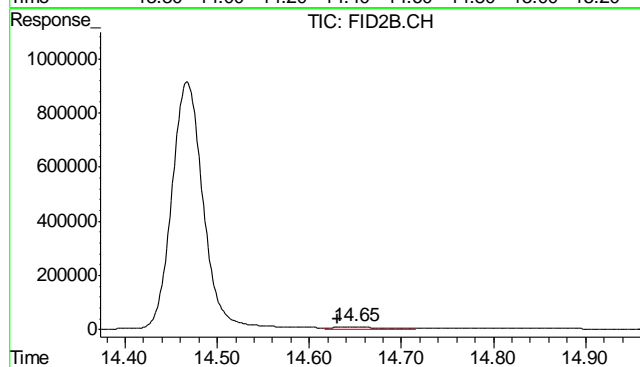
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 11.055 min
Response: 0
Conc: N.D.



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

R.T.: 14.468 min
Delta R.T.: 0.020 min
Response: 21784116
Conc: 102.58 %



#11 Naphthalene

R.T.: 14.649 min
Delta R.T.: 0.018 min
Response: 273003
Conc: 1.21 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: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4576-MB	FD10435.D	1	09/30/11	CS	09/30/11	OP4576	GFD495

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

D28127-1, D28127-2, D28127-3, D28127-4

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	92% 61-142%

9.1.1

9

Blank Spike Summary

Job Number: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4576-BS	FD10436.D	1	09/30/11	CS	09/30/11	OP4576	GFD495

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

D28127-1, D28127-2, D28127-3, D28127-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	541	81	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	95%	61-142%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28127
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4576-MS	FD10437.D	1	09/30/11	CS	09/30/11	OP4576	GFD495
OP4576-MSD	FD10438.D	1	09/30/11	CS	09/30/11	OP4576	GFD495
D28125-1	FD10439.D	1	09/30/11	CS	09/30/11	OP4576	GFD495

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

D28127-1, D28127-2, D28127-3, D28127-4

CAS No.	Compound	D28125-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	199	765	771	75	844	84	9	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D28125-1	Limits
84-15-1	o-Terphenyl	79%	85%	78%	61-142%



GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100311\FD10562.D Vial: 3
Acq On : 03 Oct 2011 10:53 am Operator: koroushv
Sample : D28127-1 Inst : FID5
Misc : OP4576,GFD500,30.04,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 03 12:45:59 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	9.32f	34623584	757.255 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	12744838	289.709 mg/L

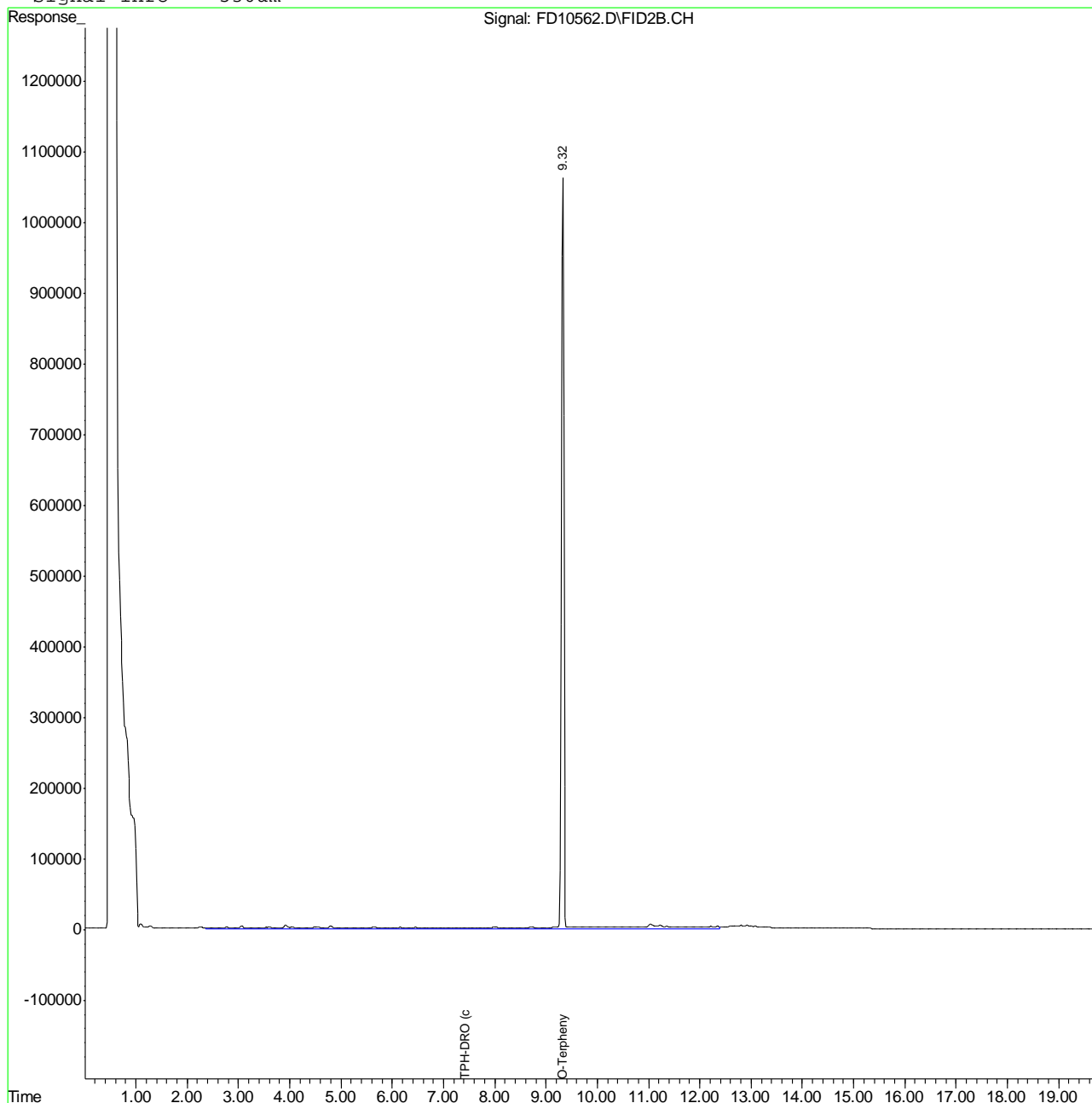
10.1.1
10

Quantitation Report (QT Reviewed)

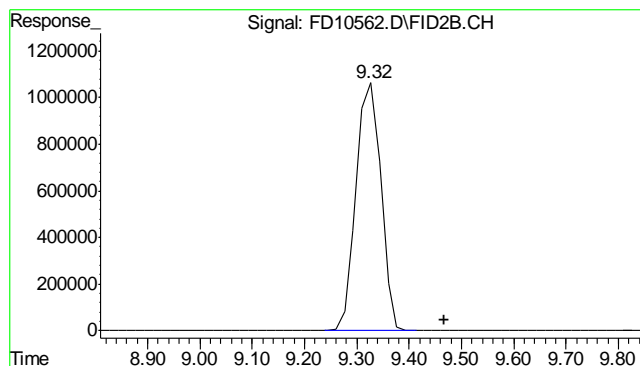
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100311\FD10562.D Vial: 3
 Acq On : 03 Oct 2011 10:53 am Operator: koroushv
 Sample : D28127-1 Inst : FID5
 Misc : OP4576,GFD500,30.04,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 3 12:46 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

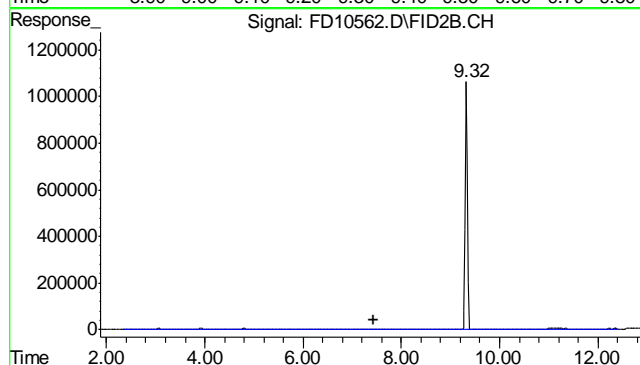
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



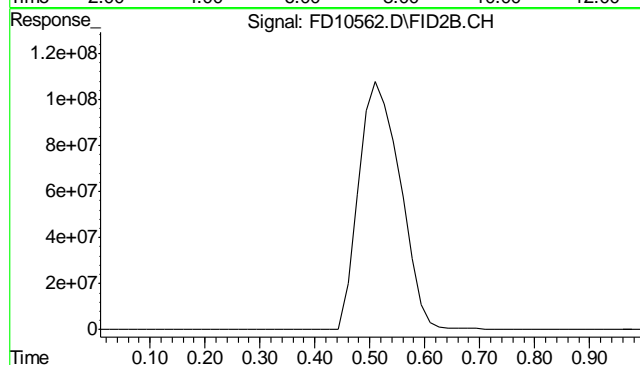
10.1.1
10



#1 O-Terphenyl
 R.T.: 9.322 min
 Delta R.T.: -0.146 min
 Response: 34623584
 Conc: 757.25 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 12744838
 Conc: 289.71 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\FD093011\FD10446.D Vial: 14
Acq On : 9-30-2011 03:29:07 PM Operator: chavalit
Sample : D28127-2 Inst : FID5
Misc : OP4576,GFD495,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 03 10:23:16 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 : 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	9.33f	40624832	888.508 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	6810203	154.806 mg/L

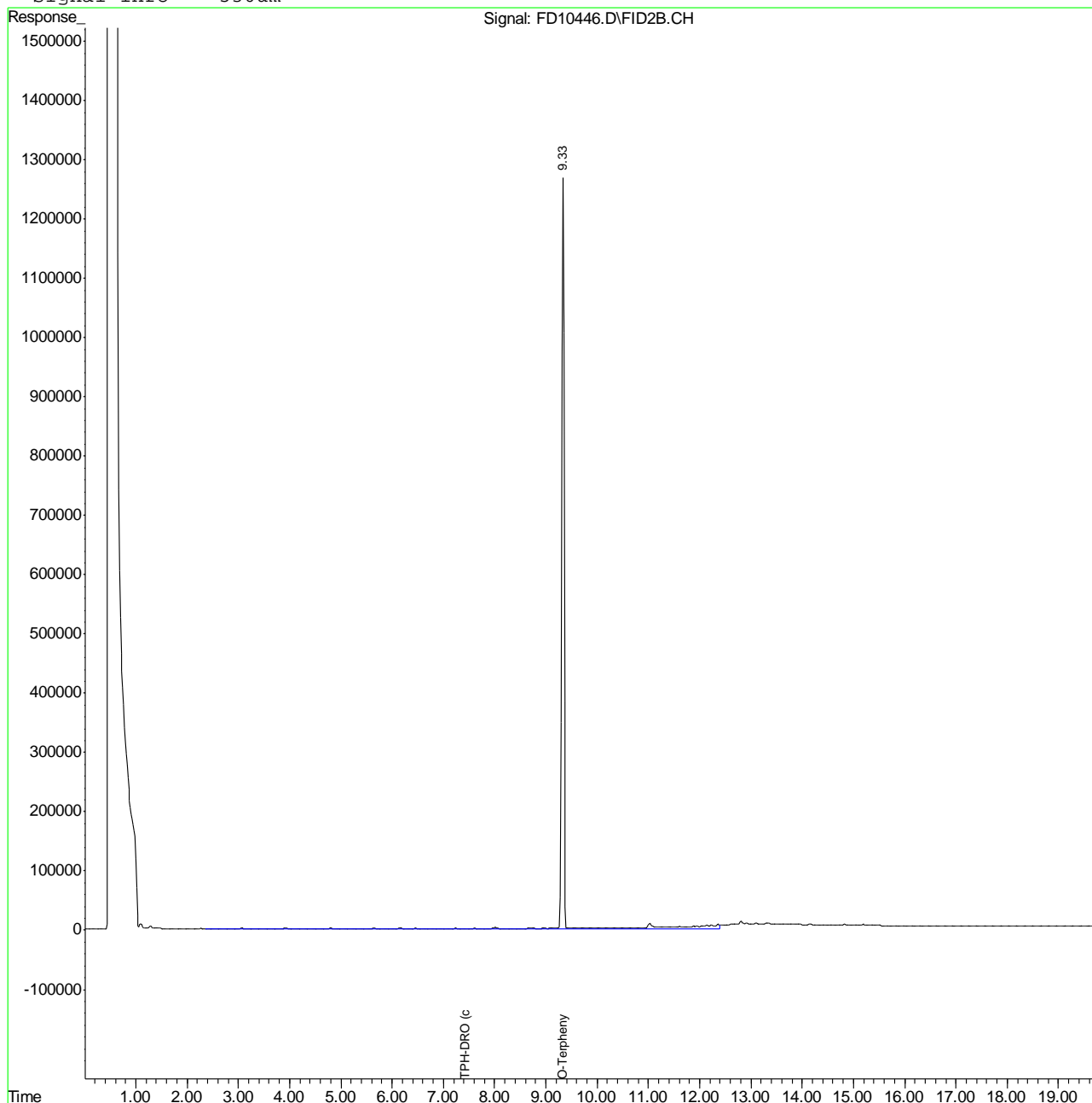
10.1.2
10

Quantitation Report (QT Reviewed)

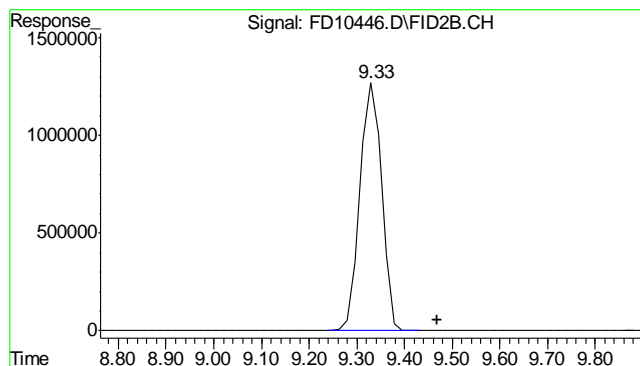
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD093011\FD10446.D Vial: 14
 Acq On : 9-30-2011 03:29:07 PM Operator: chavalit
 Sample : D28127-2 Inst : FID5
 Misc : OP4576,GFD495,30.02,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 3 10:23 2011 Quant Results File: GFD356.RES

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

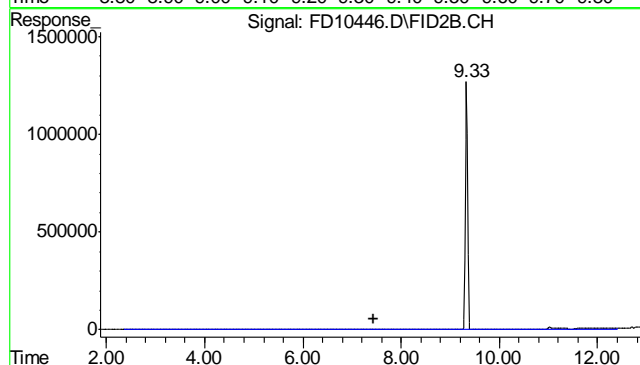
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



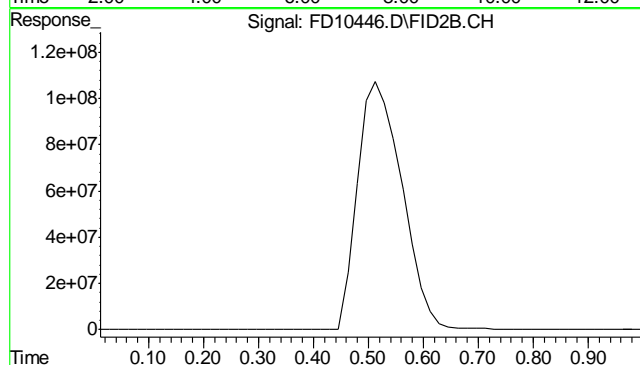
10.1.2
10



#1 O-Terphenyl
 R.T.: 9.330 min
 Delta R.T.: -0.138 min
 Response: 40624832
 Conc: 888.51 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 6810203
 Conc: 154.81 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\2011\SEP\FD093011\FD10447.D Vial: 15
Acq On : 9-30-2011 03:54:46 PM Operator: chavalit
Sample : D28127-3 Inst : FID5
Misc : OP4576,GFD495,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 03 10:23:46 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	9.33f	32805463	717.490 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	8006793	182.006 mg/L

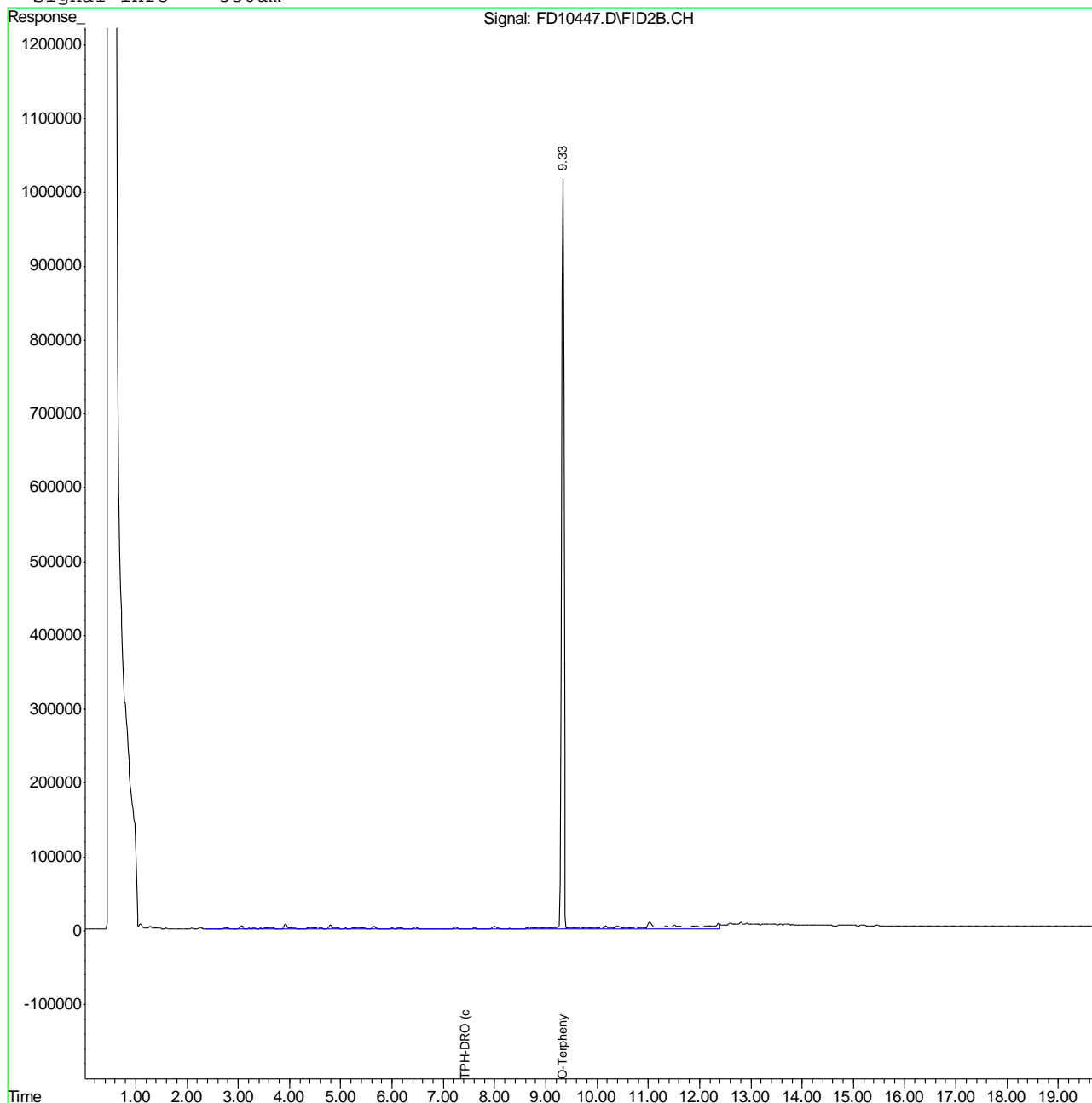
10.1.3
10

Quantitation Report (QT Reviewed)

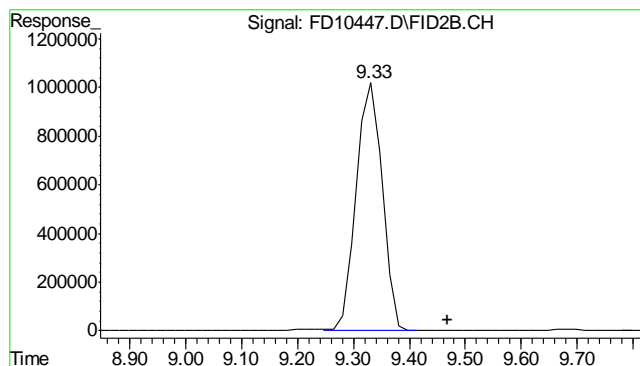
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD093011\FD10447.D Vial: 15
 Acq On : 9-30-2011 03:54:46 PM Operator: chavalit
 Sample : D28127-3 Inst : FID5
 Misc : OP4576,GFD495,30.00,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 3 10:24 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

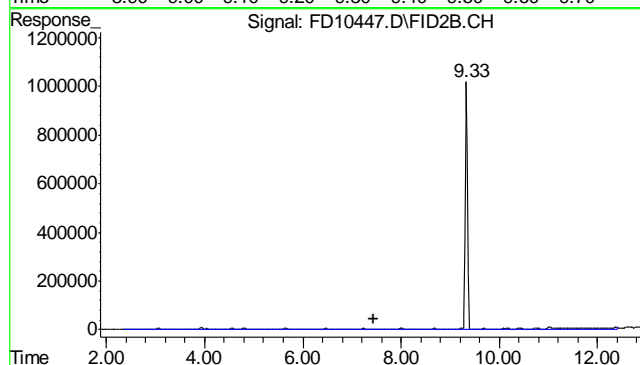
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



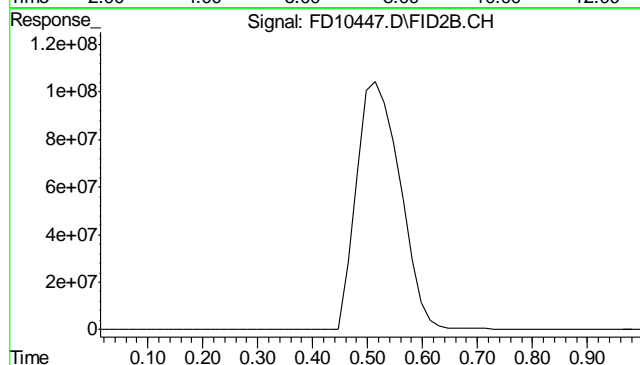
10.1.3
10



#1 O-Terphenyl
 R.T.: 9.328 min
 Delta R.T.: -0.140 min
 Response: 32805463
 Conc: 717.49 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 8006793
 Conc: 182.01 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\FD093011\FD10448.D Vial: 16
Acq On : 9-30-2011 04:20:31 PM Operator: chavalit
Sample : D28127-4 Inst : FID5
Misc : OP4576,GFD495,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 03 10:24:11 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	9.33f	38427321	840.446 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	18072828	410.823 mg/L

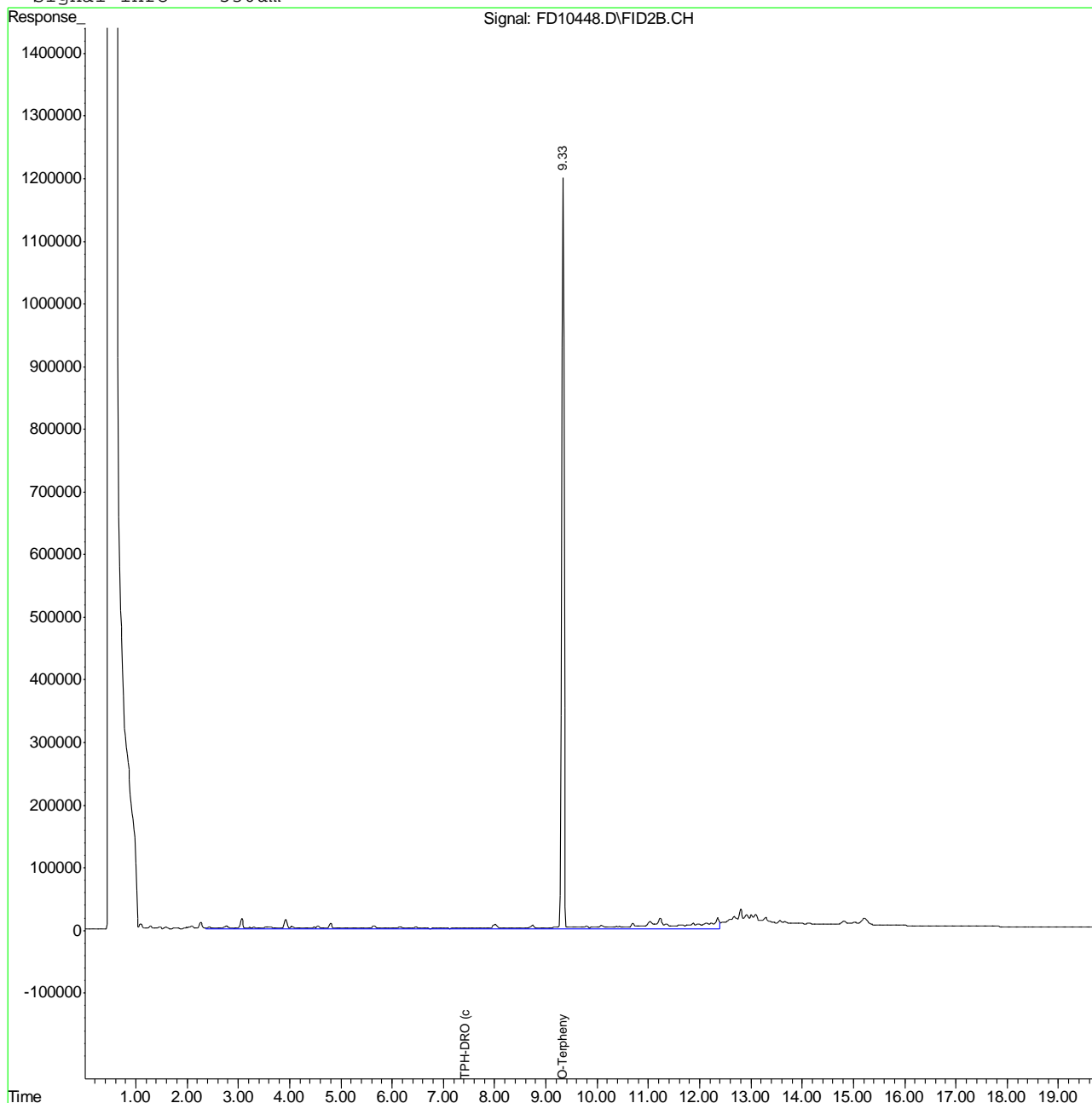
10.1.4
10

Quantitation Report (QT Reviewed)

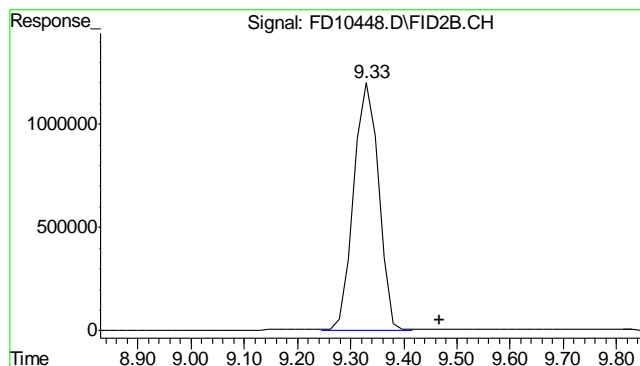
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD093011\FD10448.D Vial: 16
 Acq On : 9-30-2011 04:20:31 PM Operator: chavalit
 Sample : D28127-4 Inst : FID5
 Misc : OP4576,GFD495,30.02,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 3 10:24 2011 Quant Results File: GFD356.RES

Quant Method : C:\MSDCHEM\2\METHODS\GFD356.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu Aug 11 11:51:33 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

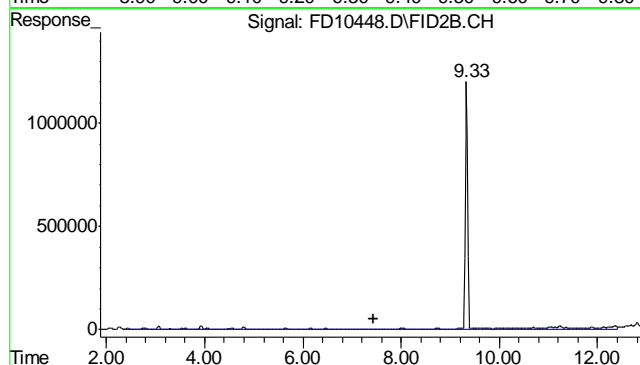
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



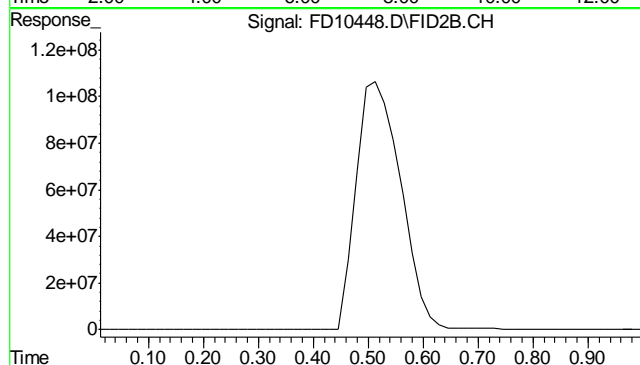
10.1.4
10



#1 O-Terphenyl
 R.T.: 9.330 min
 Delta R.T.: -0.138 min
 Response: 38427321
 Conc: 840.45 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 18072828
 Conc: 410.82 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
10/03/11 11:41

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD093011\FD10435.D Vial: 3
Acq On : 30 Sep 2011 10:32 am Operator: chavalit
Sample : OP4576-MB Inst : FID5
Misc : OP4576,GFD495,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 30 12:30:33 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

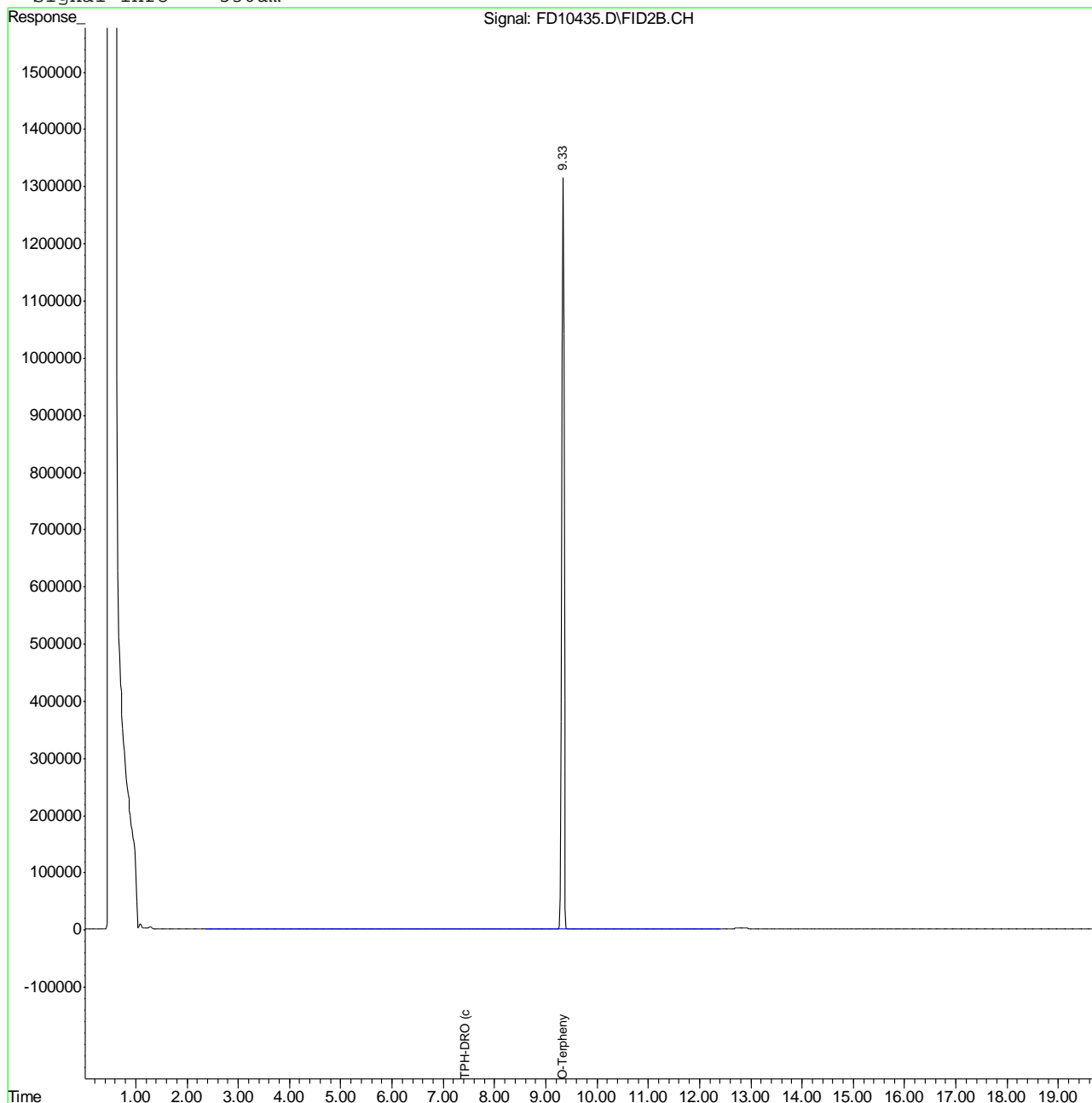
System Monitoring Compounds			
1) S O-Terphenyl	9.33f	42143942	921.733 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	454891	10.340 mg/L

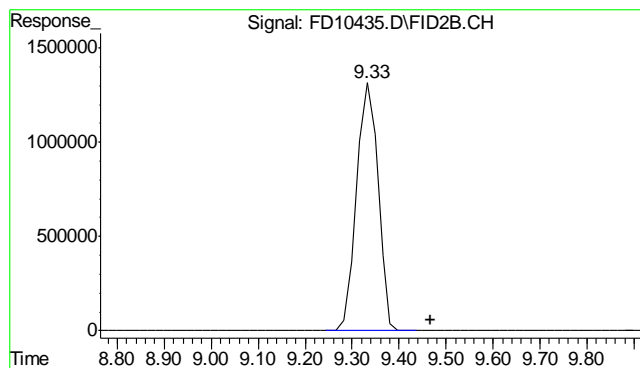
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD093011\FD10435.D Vial: 3
Acq On : 30 Sep 2011 10:32 am Operator: chavalit
Sample : OP4576-MB Inst : FID5
Misc : OP4576,GFD495,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Sep 30 12:30 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

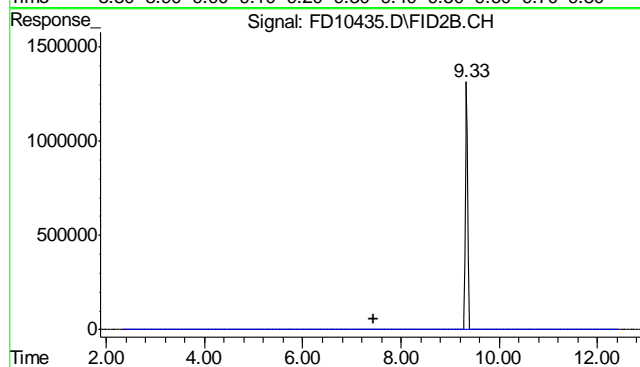
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





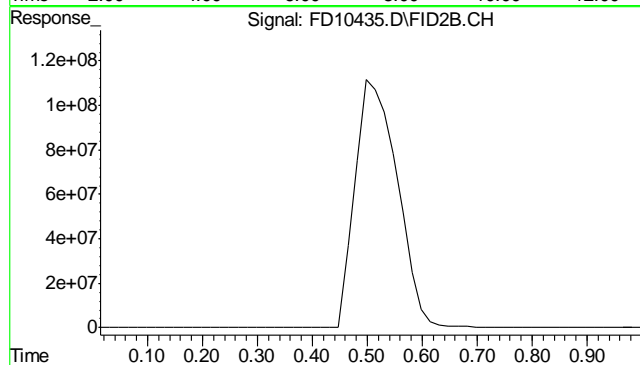
#1 O-Terphenyl

R.T.: 9.332 min
Delta R.T.: -0.136 min
Response: 42143942
Conc: 921.73 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.435 min
Delta R.T.: 0.000 min
Response: 454891
Conc: 10.34 mg/L m



#9 5a-Androstane

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



10/07/11

Technical Report for

KRW Consulting, Inc.

XOM PCU 296-7A

1104-03B

Accutest Job Number: D28215

Sampling Dates: 09/28/11 - 09/29/11

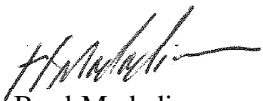
Report to:

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: **120**



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.


Brad Madadian
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: D28215

XOM PCU 296-7A
Project No: 1104-03B

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
D28215-1	09/29/11	09:55	RR	10/01/11	SO	Soil	BH_09_3-8'
D28215-2	09/29/11	12:00	RR	10/01/11	SO	Soil	BH_09_28-33'
D28215-3	09/28/11	14:20	RR	10/01/11	SO	Soil	BH_08_19-24'
D28215-4	09/28/11	16:27	RR	10/01/11	SO	Soil	BH_08_39-44'

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D28215

Site: XOM PCU 296-7A

Report Dat 10/7/2011 9:25:53 AM

On 10/01/2011, 4 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D28215 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: V5V1060
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28214-1MS, D28214-1MSD were used as the QC samples indicated.

Matrix SO	Batch ID: V5V1061
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28108-13MS, D28108-13MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB755
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28162-4MS, D28162-4MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP4585
------------------	-------------------------

- 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) D28215-1MS, D28215-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN11843
------------------	--------------------------

- 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_09_3-8'	Date Sampled:	09/29/11
Lab Sample ID:	D28215-1	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.7
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17816.D	1	10/03/11	DC	n/a	n/a	V5V1060
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.04 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	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	92%		61-130%
460-00-4	4-Bromofluorobenzene	92%		53-131%
17060-07-0	1,2-Dichloroethane-D4	95%		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

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Client Sample ID:	BH_09_3-8'	Date Sampled:	09/29/11
Lab Sample ID:	D28215-1	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.7
Method:	SW846 8015B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13294.D	1	10/03/11	SK	n/a	n/a	GGB755
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)	7.64	13	6.5	mg/kg	J

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH_09_3-8'	Date Sampled:	09/29/11
Lab Sample ID:	D28215-1	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.7
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03966.D	1	10/03/11	CS	10/02/11	OP4585	GFI282
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)	205	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	68%		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_09_28-33'	Date Sampled:	09/29/11
Lab Sample ID:	D28215-2	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	87.6
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17817.D	1	10/03/11	DC	n/a	n/a	V5V1060
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.04 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	103%		61-130%
460-00-4	4-Bromofluorobenzene	100%		53-131%
17060-07-0	1,2-Dichloroethane-D4	99%		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_09_28-33'	Date Sampled:	09/29/11
Lab Sample ID:	D28215-2	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	87.6
Method:	SW846 8015B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13295.D	1	10/03/11	SK	n/a	n/a	GGB755
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	81%		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_09_28-33'	Date Sampled:	09/29/11
Lab Sample ID:	D28215-2	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	87.6
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03984.D	1	10/04/11	CS	10/02/11	OP4585	GFI282
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	39.0	15	9.8	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_08_19-24'	Date Sampled:	09/28/11
Lab Sample ID:	D28215-3	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.5
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17818.D	1	10/03/11	DC	n/a	n/a	V5V1060
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	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	92%		61-130%
460-00-4	4-Bromofluorobenzene	89%		53-131%
17060-07-0	1,2-Dichloroethane-D4	90%		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_08_19-24'	Date Sampled:	09/28/11
Lab Sample ID:	D28215-3	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.5
Method:	SW846 8015B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13298.D	1	10/03/11	SK	n/a	n/a	GGB755
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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH_08_19-24'	Date Sampled:	09/28/11
Lab Sample ID:	D28215-3	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.5
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03985.D	1	10/04/11	CS	10/02/11	OP4585	GFI282
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)	16.8	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	65%		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

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Report of Analysis

Page 1 of 1

Client Sample ID:	BH_08_39-44'	Date Sampled:	09/28/11
Lab Sample ID:	D28215-4	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17833.D	1	10/04/11	DC	n/a	n/a	V5V1061
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	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	89%		61-130%
460-00-4	4-Bromofluorobenzene	84%		53-131%
17060-07-0	1,2-Dichloroethane-D4	85%		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_08_39-44'	Date Sampled:	09/28/11
Lab Sample ID:	D28215-4	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846 8015B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13299.D	1	10/03/11	SK	n/a	n/a	GGB755
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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	BH_08_39-44'	Date Sampled:	09/28/11
Lab Sample ID:	D28215-4	Date Received:	10/01/11
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846-8015B SW846 3546		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI03986.D	1	10/04/11	CS	10/02/11	OP4585	GFI282
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	20.9	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	72%		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



CHAIN OF CUSTODY

PAGE ____ OF ____

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

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D28215
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
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	
LAB USE ONLY	

GRD DRO BTEX

01
02
03
04

PP

Client / Reporting Information		Project Information	
Company Name KRW Consulting		Project Name XOM PCU 296-7A	
Address 2600 W 14th Ave Suite 200		Street	
City Denver CO 80214		City	
State CO		State	
Zip 80214		Zip	
Project Contact Dwayne Knudson		Project # 1104-038	
Phone # 303 706754066		Client Purchase Order #	
Fax # 303 706754066		City	
E-mail Ren.Rasnic		State	
Project Manager		Attention:	
Field ID / Point of Collection		MECH/ID Vial #	
Date		Time	
Sampled by		Matrix	
# of bottles		Number of preserved bottles	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
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RR		SO	
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09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
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09/28/11		1420	
09/28/11		1627	
RR		SO	
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RR		SO	
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RR		SO	
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09/29/11		1200	
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09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR		SO	
3		3	
09/29/11		0955	
09/29/11		1200	
09/28/11		1420	
09/28/11		1627	
RR</			

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D28215

Client: KRW CONSULTING INC.

Immediate Client Services Action Required: No

Date / Time Received: 10/1/2011 8:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XOM PCU 296-7A

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

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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: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1060-MB	5V17801.D	1	10/03/11	DC	n/a	n/a	V5V1060

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-1, D28215-2, D28215-3

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	105% 61-130%
460-00-4	4-Bromofluorobenzene	94% 53-131%
17060-07-0	1,2-Dichloroethane-D4	104% 62-130%

Method Blank Summary

Page 1 of 1

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1061-MB	5V17825.D	1	10/03/11	DC	n/a	n/a	V5V1061

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-4

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	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	99% 61-130%
460-00-4	4-Bromofluorobenzene	88% 53-131%
17060-07-0	1,2-Dichloroethane-D4	99% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28215

Account: KRWCCOL KRW Consulting, Inc.

Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1060-BS	5V17802.D	1	10/03/11	DC	n/a	n/a	V5V1060

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-1, D28215-2, D28215-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	55.1	110	70-130
100-41-4	Ethylbenzene	50	53.7	107	70-130
108-88-3	Toluene	50	56.1	112	70-130
1330-20-7	Xylene (total)	150	165	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	107%	61-130%
460-00-4	4-Bromofluorobenzene	106%	53-131%
17060-07-0	1,2-Dichloroethane-D4	100%	62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28215

Account: KRWCCOL KRW Consulting, Inc.

Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1061-BS	5V17826.D	1	10/03/11	DC	n/a	n/a	V5V1061

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	46.7	93	70-130
100-41-4	Ethylbenzene	50	46.1	92	70-130
108-88-3	Toluene	50	47.9	96	70-130
1330-20-7	Xylene (total)	150	141	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	97%	61-130%
460-00-4	4-Bromofluorobenzene	95%	53-131%
17060-07-0	1,2-Dichloroethane-D4	90%	62-130%

Blank Spike Summary

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1061-BS	5V17827.D	1	10/03/11	DC	n/a	n/a	V5V1061

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	103%	61-130%
460-00-4	4-Bromofluorobenzene	91%	53-131%
17060-07-0	1,2-Dichloroethane-D4	95%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28214-1MS	5V17814.D	1	10/03/11	DC	n/a	n/a	V5V1060
D28214-1MSD	5V17815.D	1	10/03/11	DC	n/a	n/a	V5V1060
D28214-1	5V17813.D	1	10/03/11	DC	n/a	n/a	V5V1060

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-1, D28215-2, D28215-3

CAS No.	Compound	D28214-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	153		4230	4360	99	5020	115	14	70-134/30
100-41-4	Ethylbenzene	98.5	J	4230	4250	98	4900	114	14	70-137/30
108-88-3	Toluene	536		4230	4760	100	5410	115	13	70-130/30
1330-20-7	Xylene (total)	557		12700	13700	104	15600	119	13	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D28214-1	Limits
2037-26-5	Toluene-D8	105%	106%	103%	61-130%
460-00-4	4-Bromofluorobenzene	113%	114%	104%	53-131%
17060-07-0	1,2-Dichloroethane-D4	103%	101%	108%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28108-13MS	5V17829.D	1	10/03/11	DC	n/a	n/a	V5V1061
D28108-13MSD	5V17830.D	1	10/04/11	DC	n/a	n/a	V5V1061
D28108-13	5V17828.D	1	10/03/11	DC	n/a	n/a	V5V1061

The QC reported here applies to the following samples:

Method: SW846 8260B

D28215-4

CAS No.	Compound	D28108-13 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3440	3370	98	3500	102	4	70-134/30
100-41-4	Ethylbenzene	ND		3440	3270	95	3430	100	5	70-137/30
108-88-3	Toluene	ND		3440	3390	99	3550	103	5	70-130/30
1330-20-7	Xylene (total)	ND		10300	10300	100	10800	105	5	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D28108-13	Limits
2037-26-5	Toluene-D8	104%	101%	105%	61-130%
460-00-4	4-Bromofluorobenzene	113%	111%	102%	53-131%
17060-07-0	1,2-Dichloroethane-D4	102%	101%	100%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28108-13MS	5V17831.D	1	10/04/11	DC	n/a	n/a	V5V1061
D28108-13MSD	5V17832.D	1	10/04/11	DC	n/a	n/a	V5V1061
D28108-13	5V17828.D	1	10/03/11	DC	n/a	n/a	V5V1061

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

D28215-4

CAS No.	Compound	D28108-13 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
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CAS No.	Surrogate Recoveries	MS	MSD	D28108-13	Limits
2037-26-5	Toluene-D8	103%	101%	105%	61-130%
460-00-4	4-Bromofluorobenzene	101%	98%	102%	53-131%
17060-07-0	1,2-Dichloroethane-D4	98%	94%	100%	62-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
 Data File : 5V17816.D
 Acq On : 3 Oct 2011 4:46 pm
 Operator : DONC
 Sample : D28215-1, 50x
 Misc : MS2780,V5V1060,5.038,,100,5,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:01:43 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	293936	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	406148	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	381671	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	242101	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	34264	47.68	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.36%
61) Toluene-d8	13.851	98	622639	45.90	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	91.80%
69) 4-Bromofluorobenzene	16.043	95	259103	46.04	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.08%

Target Compounds

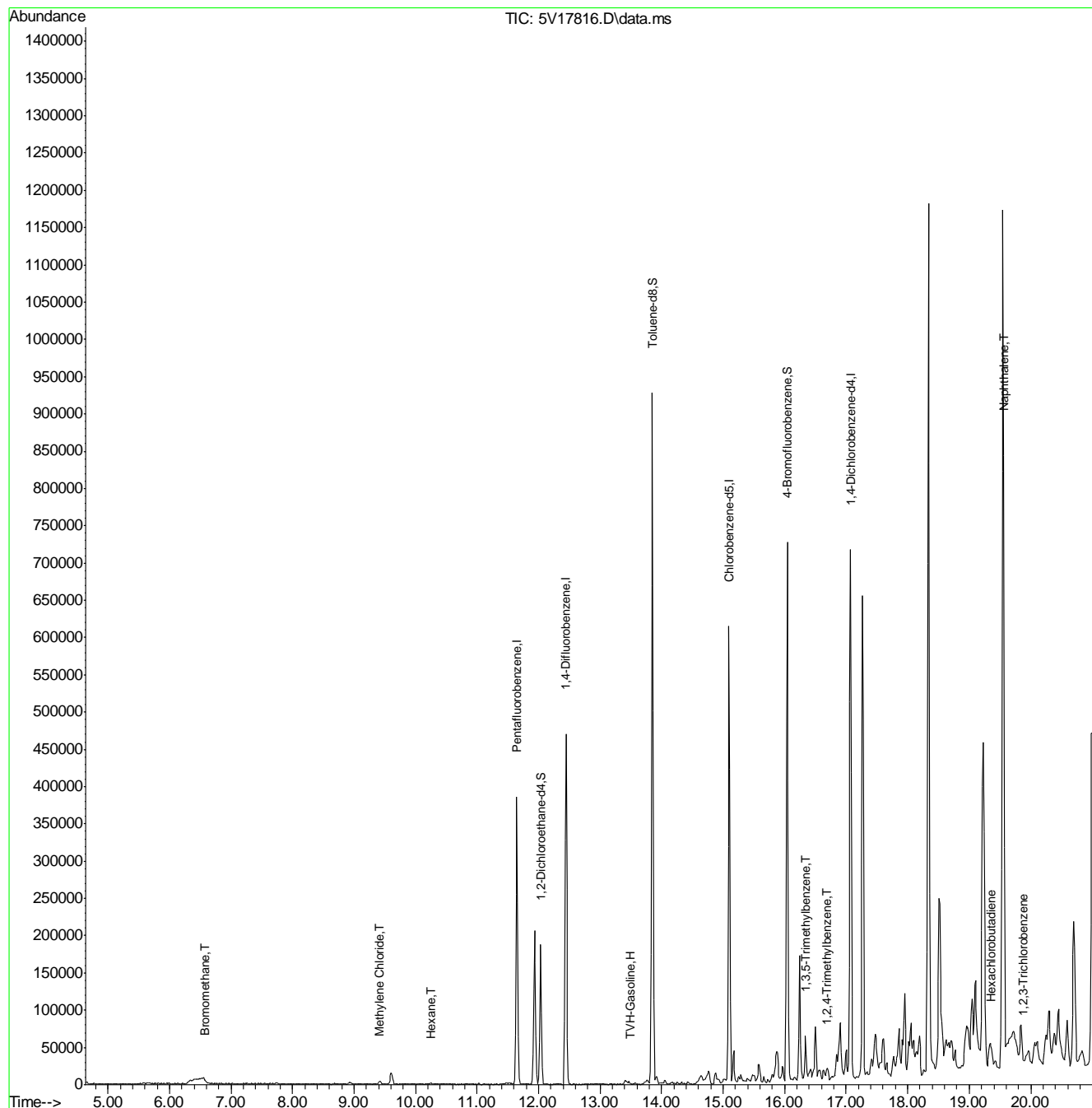
					Qvalue
1) TVH-Gasoline	13.491	TIC	1358412m	68.14	ug/l
6) Bromomethane	6.578	94	4062	0.30	ug/l # 69
17) Methylene Chloride	9.421	84	2140	0.60	ug/l 96
41) Hexane	10.254	57	1033	0.21	ug/l 100
80) 1,3,5-Trimethylbenzene	16.339	105	26244	1.59	ug/l 98
82) 1,2,4-Trimethylbenzene	16.682	105	8134	0.48	ug/l # 81
91) Naphthalene	19.559	128	17661	2.28	ug/l 100
92) Hexachlorobutadiene	19.353	225	1576	0.30	ug/l 90
93) 1,2,3-Trichlorobenzene	19.879	180	4483	0.73	ug/l # 68

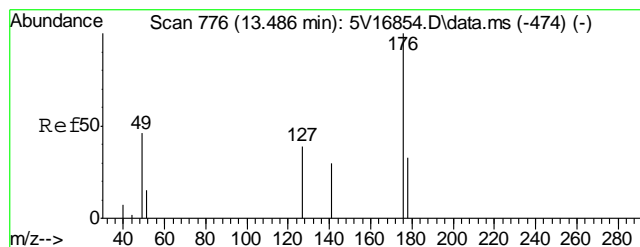
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17816.D
Acq On : 3 Oct 2011 4:46 pm
Operator : DONC
Sample : D28215-1, 50x
Misc : MS2780,V5V1060,5.038,,100,5,1
ALS Vial : 18 Sample Multiplier: 1

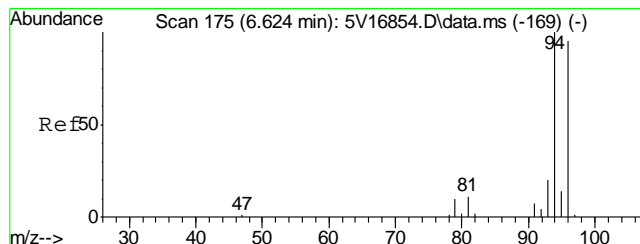
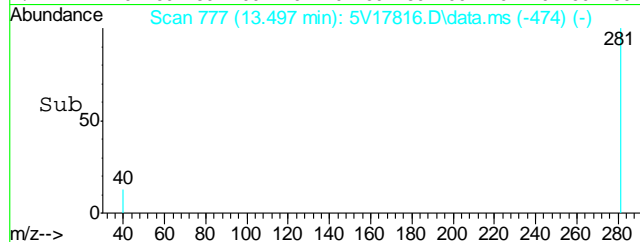
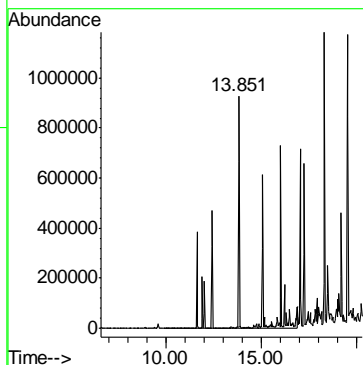
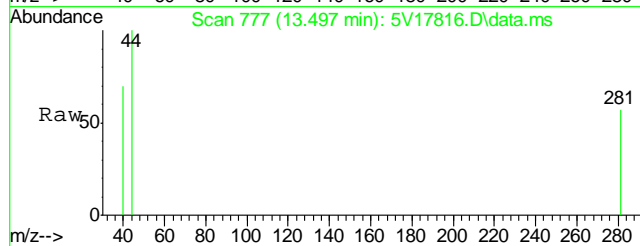
Quant Time: Oct 04 09:01:43 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





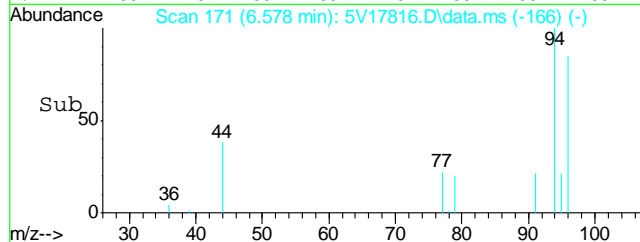
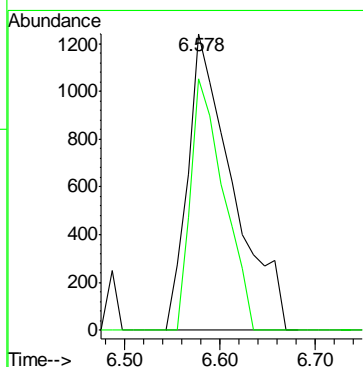
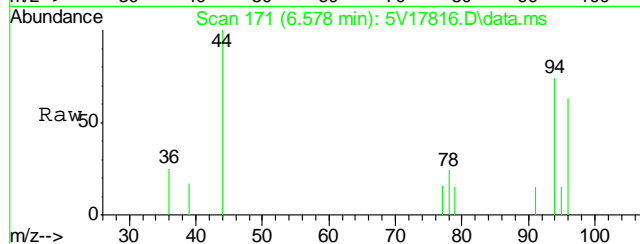
#1
TVH-Gasoline
Concen: 68.14 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

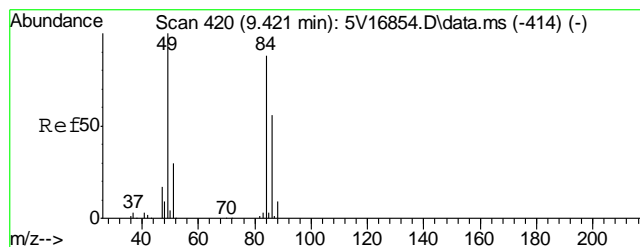
Tgt Ion:TIC Resp: 1358412



#6
Bromomethane
Concen: 0.30 ug/l
RT: 6.578 min Scan# 171
Delta R.T. -0.045 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

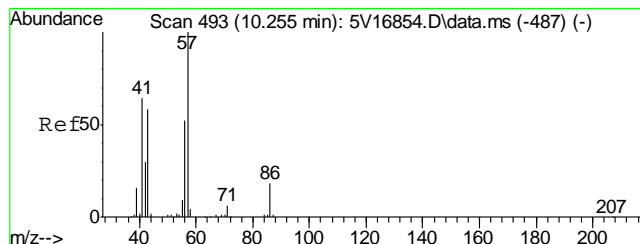
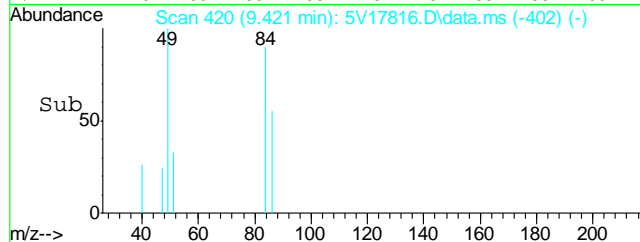
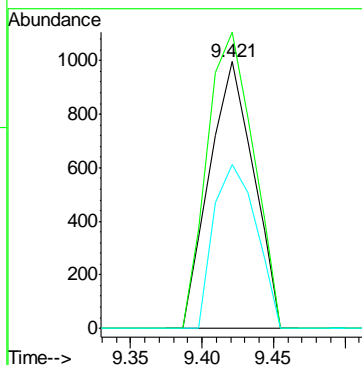
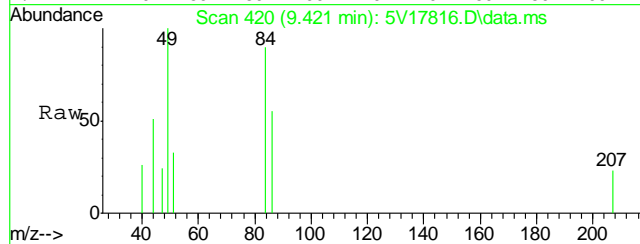
Tgt Ion: 94 Resp: 4062
Ion Ratio Lower Upper
94 100
96 62.9 72.9 112.9#





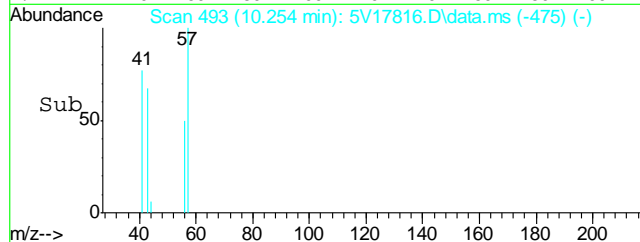
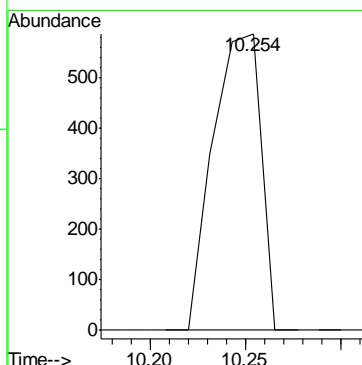
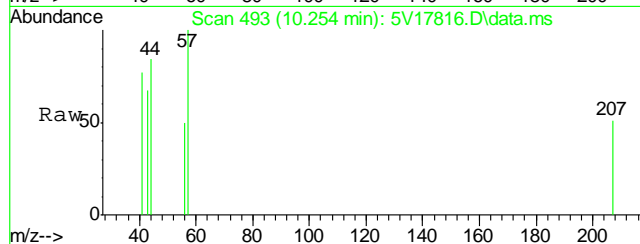
#17
Methylene Chloride
Concen: 0.60 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

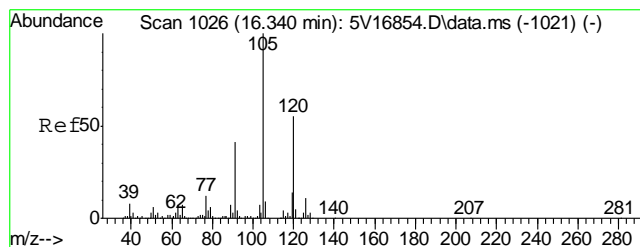
Tgt Ion: 84 Resp: 2140
Ion Ratio Lower Upper
84 100
49 116.1 93.6 133.6
86 59.3 44.2 84.2



#41
Hexane
Concen: 0.21 ug/l
RT: 10.254 min Scan# 493
Delta R.T. -0.000 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

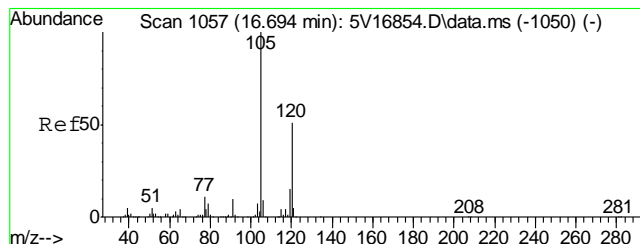
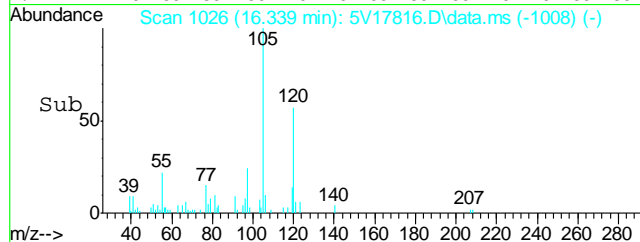
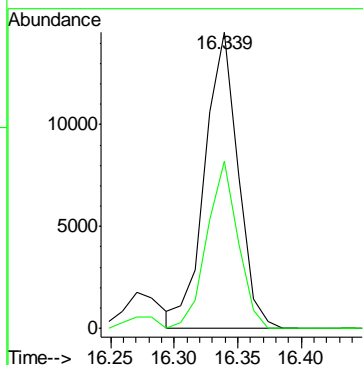
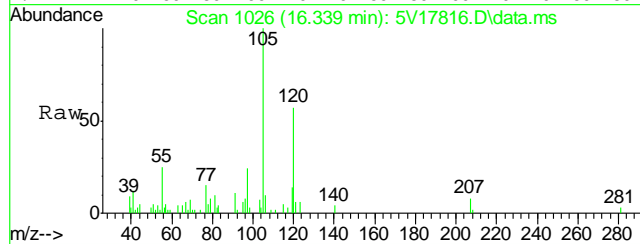
Tgt Ion: 57 Resp: 1033





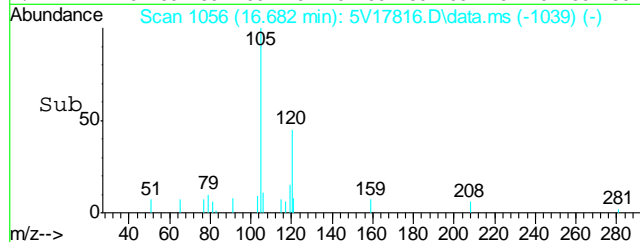
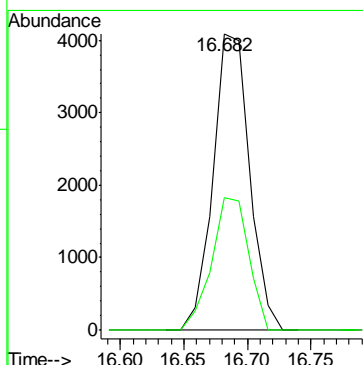
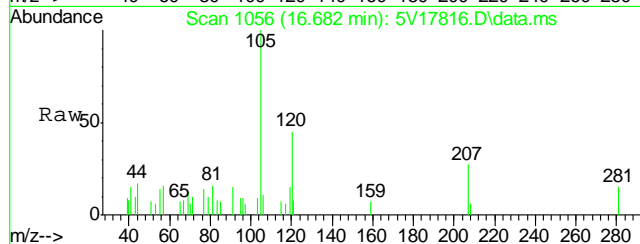
#80
1,3,5-Trimethylbenzene
Concen: 1.59 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

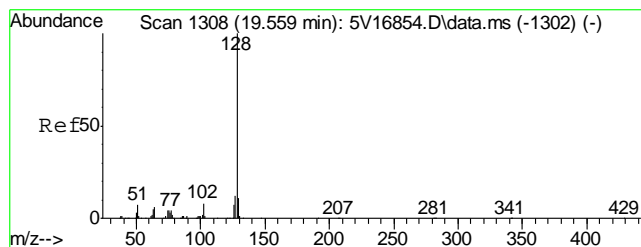
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.9	43.5	65.3



#82
1,2,4-Trimethylbenzene
Concen: 0.48 ug/l
RT: 16.682 min Scan# 1056
Delta R.T. -0.011 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

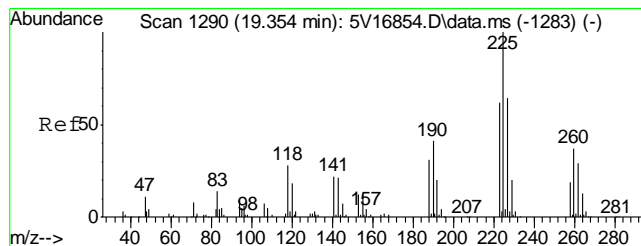
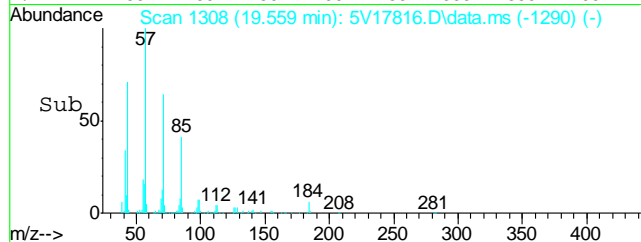
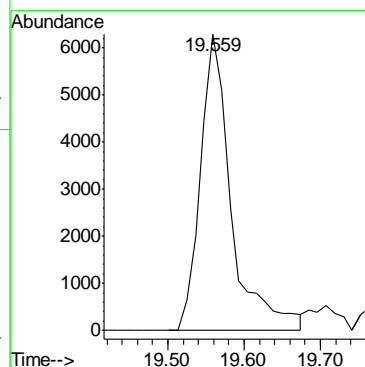
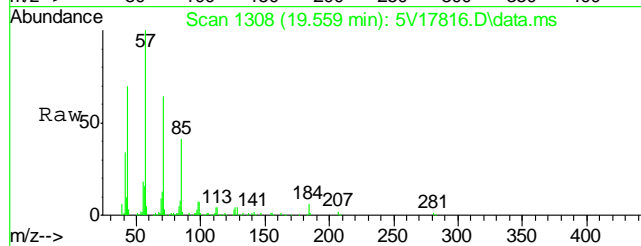
Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.3	47.4	71.0#





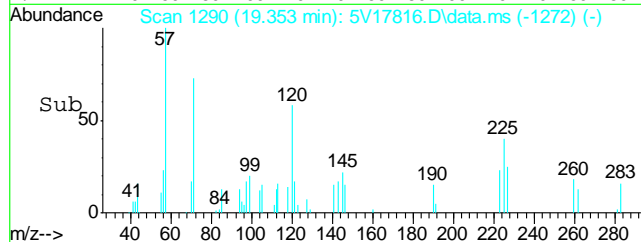
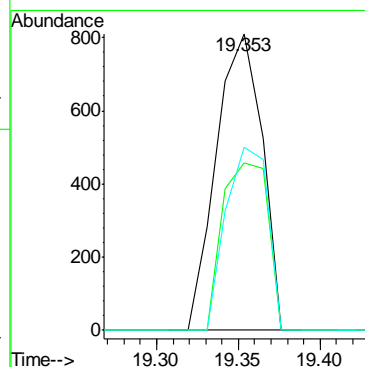
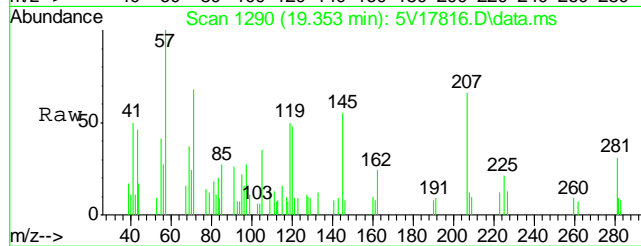
#91
Naphthalene
Concen: 2.28 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

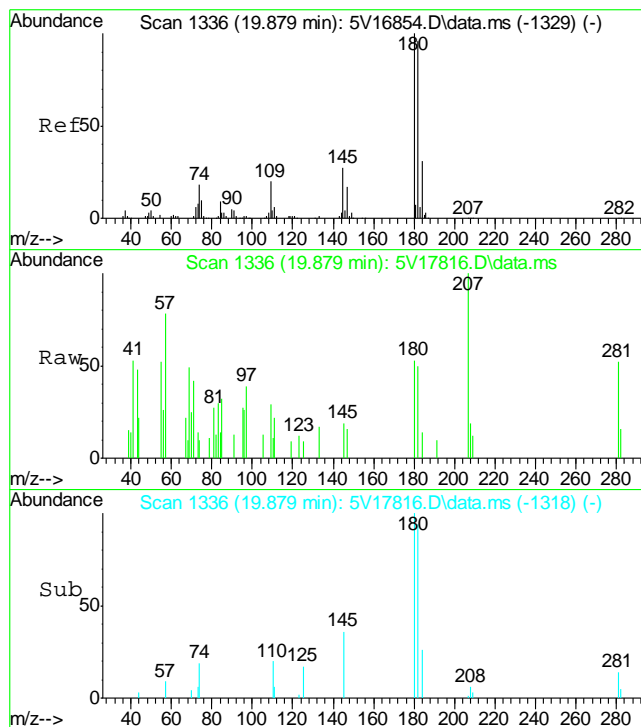
Tgt Ion:128 Resp: 17661



#92
Hexachlorobutadiene
Concen: 0.30 ug/l
RT: 19.353 min Scan# 1290
Delta R.T. -0.000 min
Lab File: 5V17816.D
Acq: 3 Oct 2011 4:46 pm

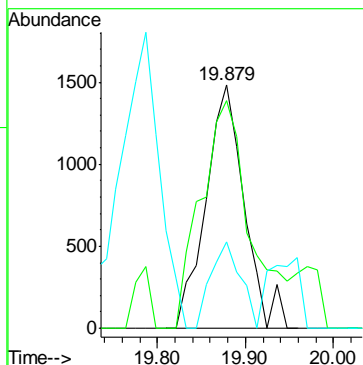
Tgt Ion:225 Resp: 1576
Ion Ratio Lower Upper
225 100
223 56.0 49.8 74.8
227 56.1 51.7 77.5





#93
 1,2,3-Trichlorobenzene
 Concen: 0.73 ug/l
 RT: 19.879 min Scan# 1336
 Delta R.T. -0.000 min
 Lab File: 5V17816.D
 Acq: 3 Oct 2011 4:46 pm

Tgt Ion:	180	Resp:	4483
Ion Ratio	Lower	Upper	
180	100		
182	136.7	77.0	115.6#
145	27.6	22.1	33.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17817.D
Acq On : 3 Oct 2011 5:18 pm
Operator : DONC
Sample : D28215-2, 50x
Misc : MS2780,V5V1060,5.039,,100,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 04 09:03:40 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	278216	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	380093	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	360218	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	220493	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33831	49.73	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.46%
61) Toluene-d8	13.850	98	662320	51.73	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.46%
69) 4-Bromofluorobenzene	16.042	95	266498	50.17	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.34%

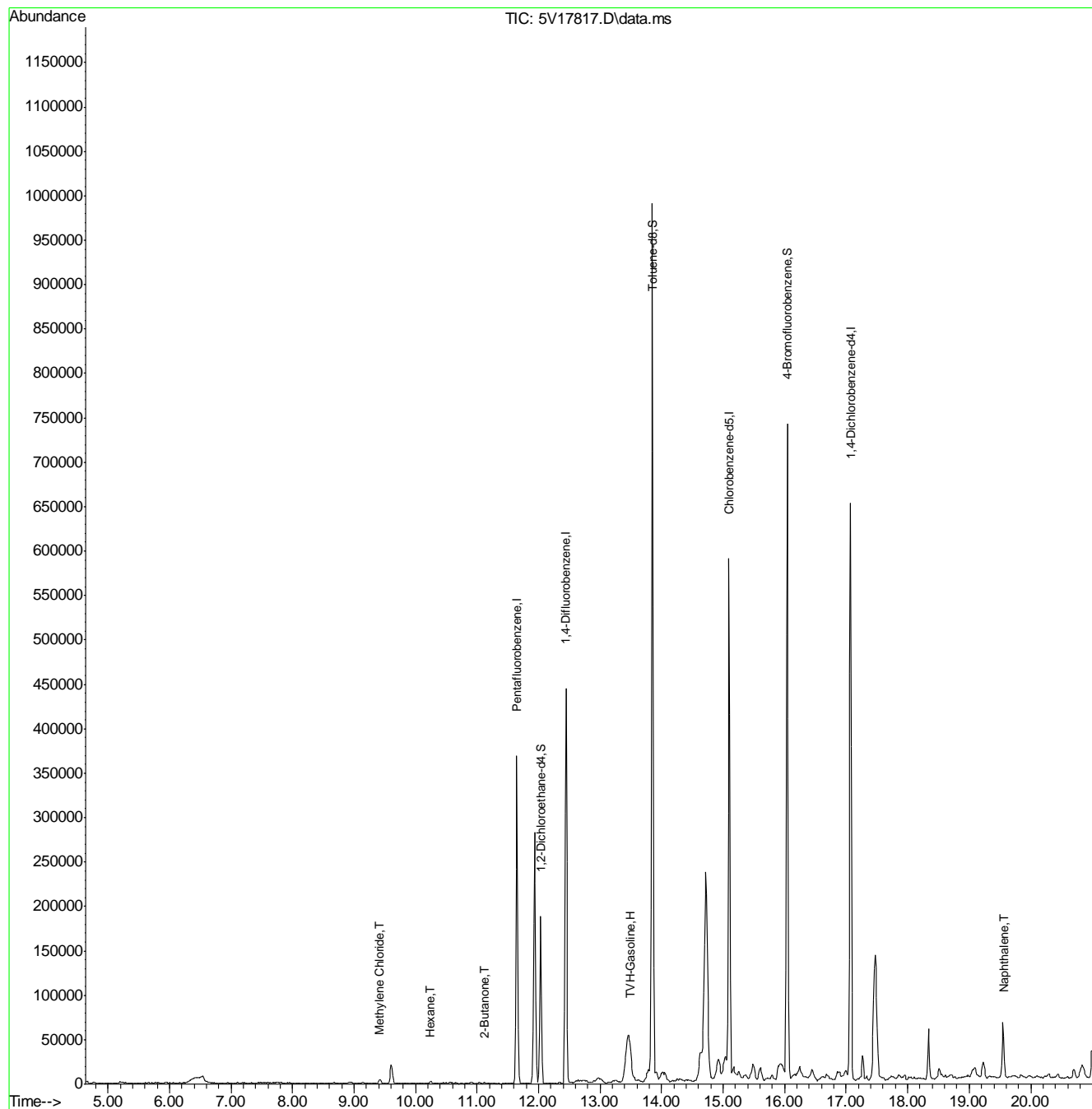
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	2650975m	132.97	ug/l
17) Methylene Chloride	9.421	84	2844	0.84	ug/l
25) 2-Butanone	11.122	72	425	1.80	ug/l
41) Hexane	10.243	57	1513	0.34	ug/l
91) Naphthalene	19.559	128	4558	1.25	ug/l

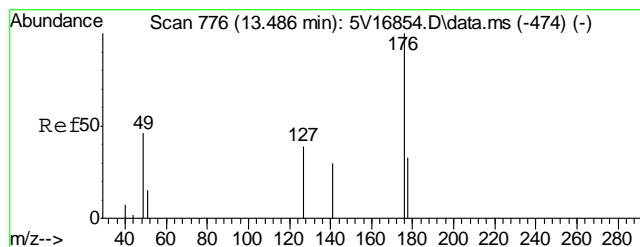
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17817.D
Acq On : 3 Oct 2011 5:18 pm
Operator : DONC
Sample : D28215-2, 50x
Misc : MS2780,V5V1060,5.039,,100,5,1
ALS Vial : 19 Sample Multiplier: 1

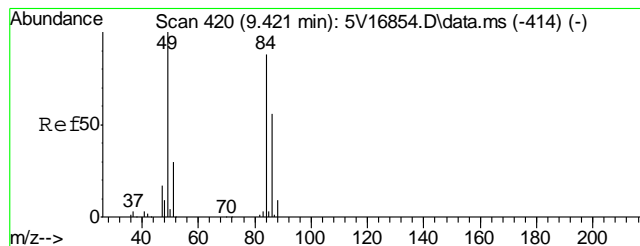
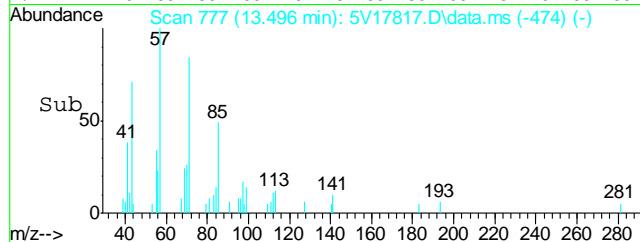
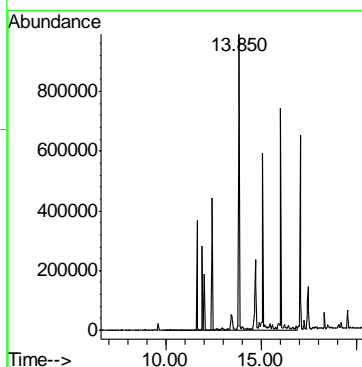
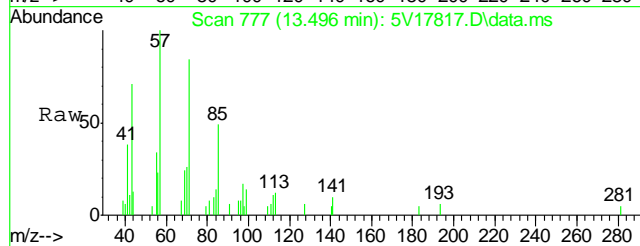
Quant Time: Oct 04 09:03:40 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





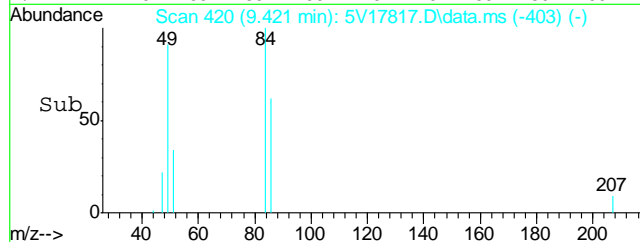
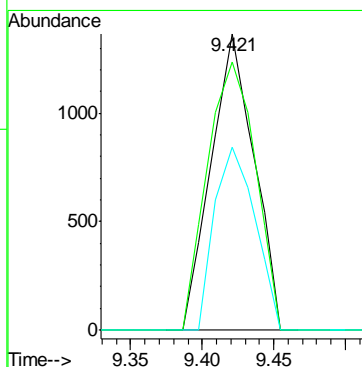
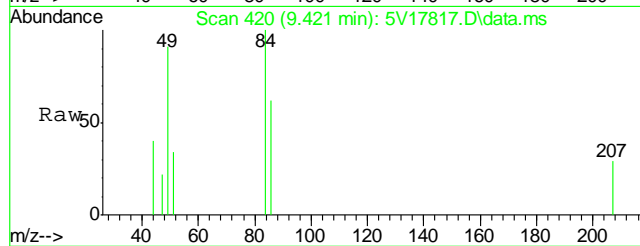
#1
TVH-Gasoline
Concen: 132.97 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17817.D
Acq: 3 Oct 2011 5:18 pm

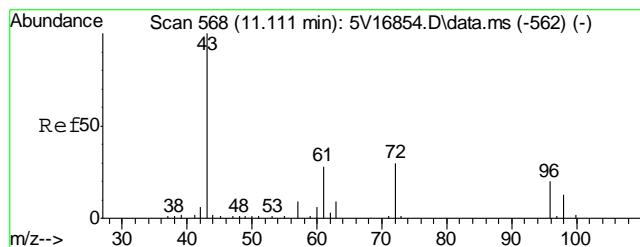
Tgt Ion:TIC Resp: 2650975



#17
Methylene Chloride
Concen: 0.84 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17817.D
Acq: 3 Oct 2011 5:18 pm

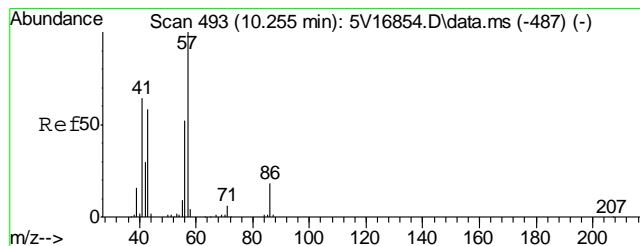
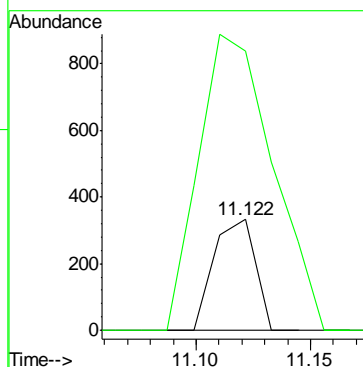
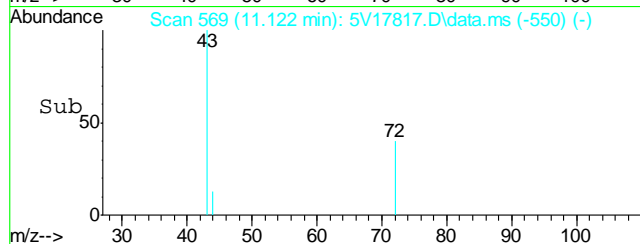
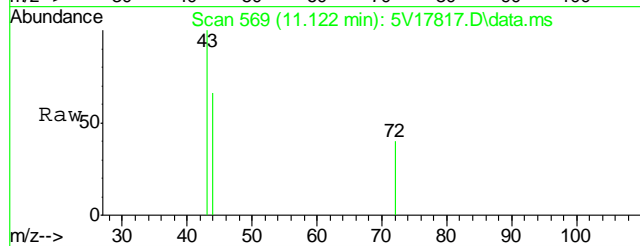
Tgt Ion: 84 Resp: 2844
Ion Ratio Lower Upper
84 100
49 101.4 93.6 133.6
86 58.5 44.2 84.2





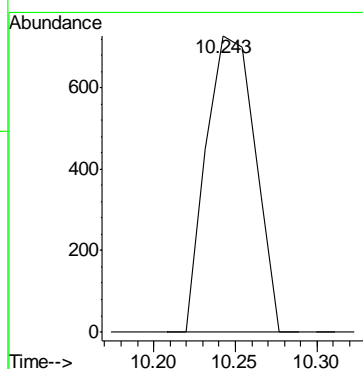
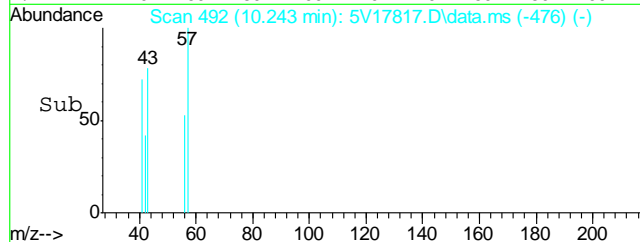
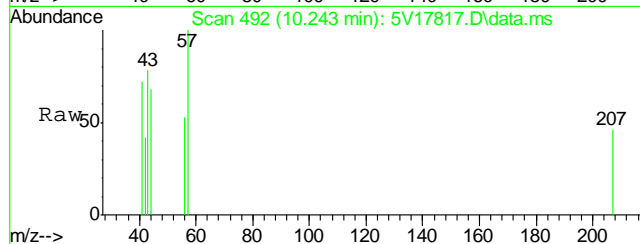
#25
2-Butanone
Concen: 1.80 ug/l
RT: 11.122 min Scan# 569
Delta R.T. 0.012 min
Lab File: 5V17817.D
Acq: 3 Oct 2011 5:18 pm

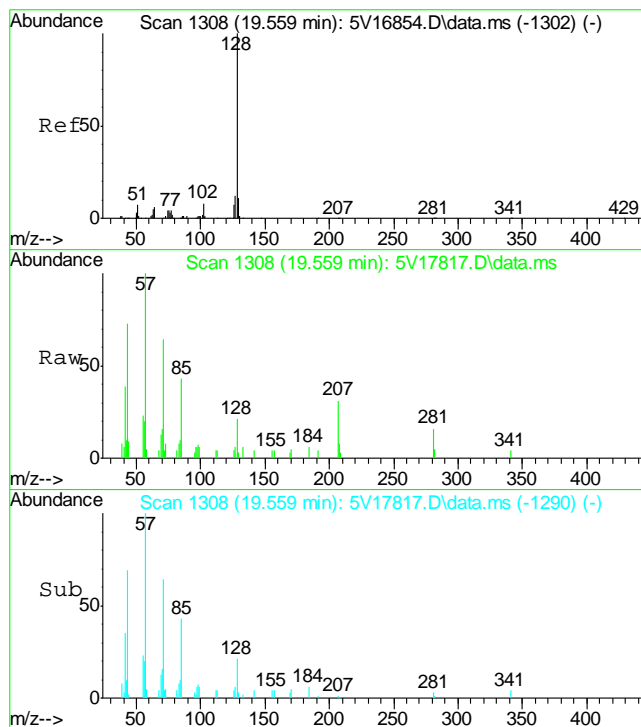
Tgt Ion: 72 Resp: 425
Ion Ratio Lower Upper
72 100
43 472.9 257.8 386.8#



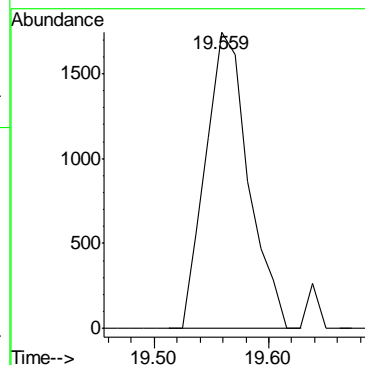
#41
Hexane
Concen: 0.34 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.012 min
Lab File: 5V17817.D
Acq: 3 Oct 2011 5:18 pm

Tgt Ion: 57 Resp: 1513





#91
 Naphthalene
 Concen: 1.25 ug/l
 RT: 19.559 min Scan# 1308
 Delta R.T. -0.000 min
 Lab File: 5V17817.D
 Acq: 3 Oct 2011 5:18 pm
 Tgt Ion:128 Resp: 4558



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17818.D
Acq On : 3 Oct 2011 5:49 pm
Operator : DONC
Sample : D28215-3, 50x
Misc : MS2780,V5V1060,5.077,,100,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 04 09:05:09 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

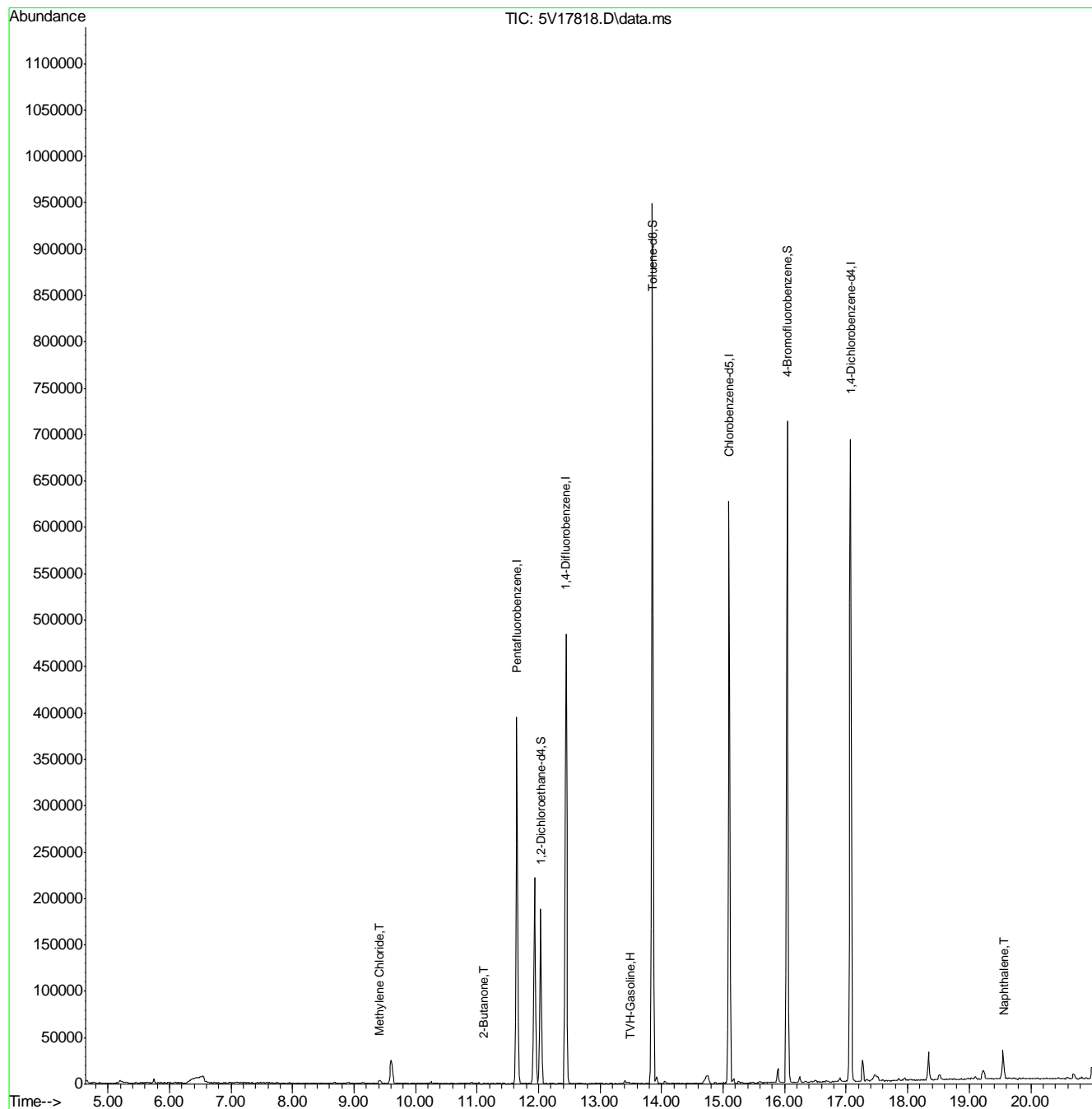
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	303287	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	416576	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	389187	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	236924	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33207	44.78	ug/l	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	89.56%	
61) Toluene-d8	13.850	98	634186	45.85	ug/l	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	91.70%	
69) 4-Bromofluorobenzene	16.042	95	254370	44.32	ug/l	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	88.64%	
Target Compounds						
						Qvalue
1) TVH-Gasoline	13.491	TIC	469503m	23.55	ug/l	
17) Methylene Chloride	9.421	84	2230	0.61	ug/l	89
25) 2-Butanone	11.110	72	174	1.08	ug/l	# 1
91) Naphthalene	19.559	128	1991	1.01	ug/l	100

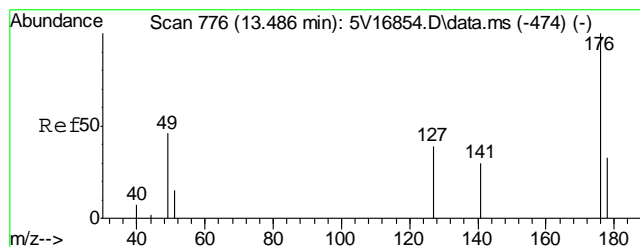
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17818.D
Acq On : 3 Oct 2011 5:49 pm
Operator : DONC
Sample : D28215-3, 50x
Misc : MS2780,V5V1060,5.077,,100,5,1
ALS Vial : 20 Sample Multiplier: 1

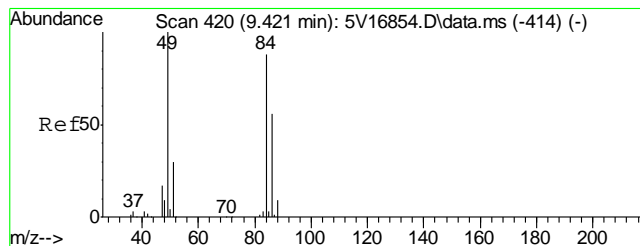
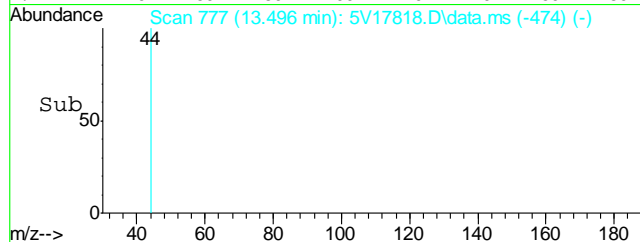
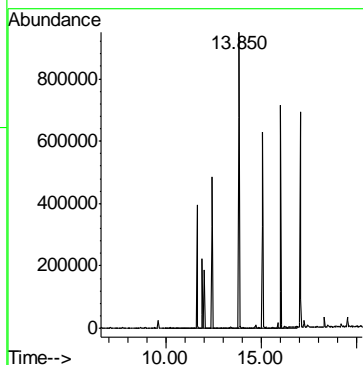
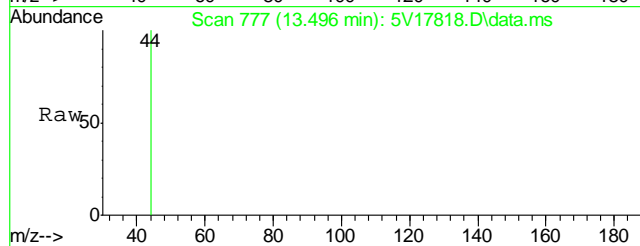
Quant Time: Oct 04 09:05:09 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





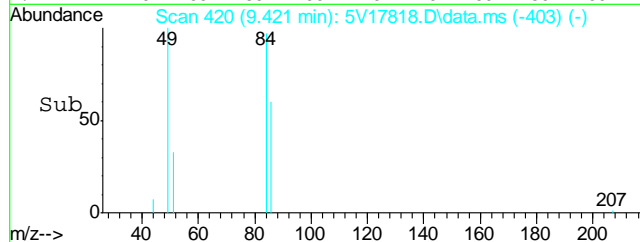
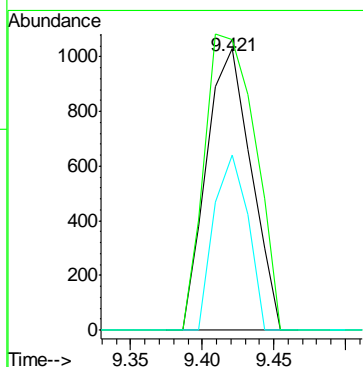
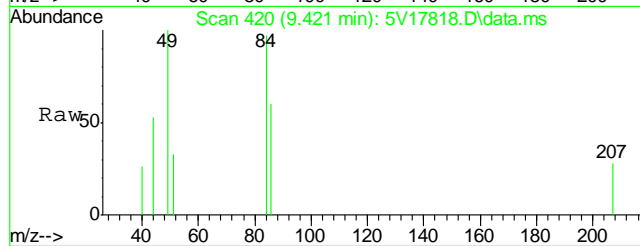
#1
TVH-Gasoline
Concen: 23.55 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17818.D
Acq: 3 Oct 2011 5:49 pm

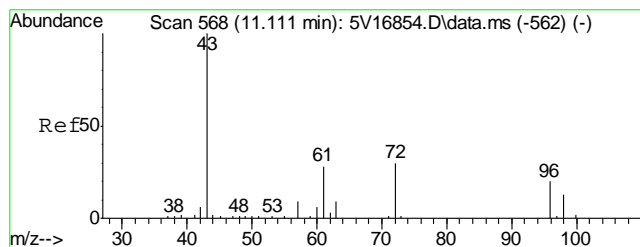
Tgt Ion:TIC Resp: 469503



#17
Methylene Chloride
Concen: 0.61 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17818.D
Acq: 3 Oct 2011 5:49 pm

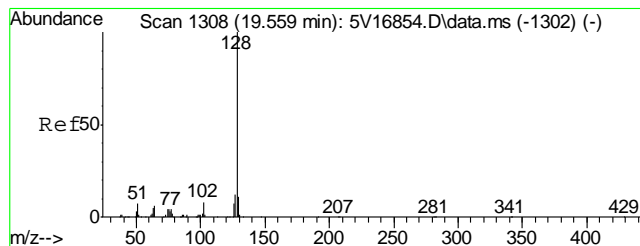
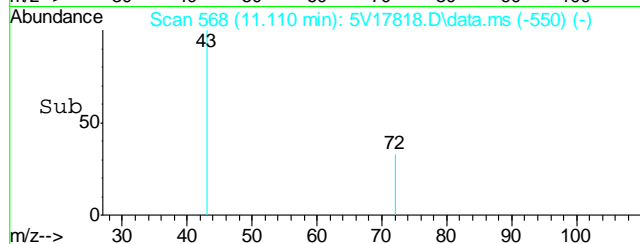
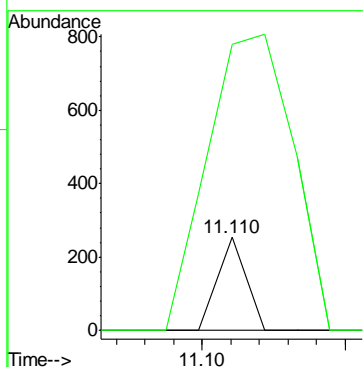
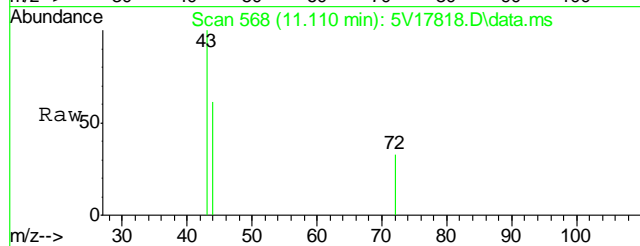
Tgt Ion: 84 Resp: 2230
Ion Ratio Lower Upper
84 100
49 119.6 93.6 133.6
86 47.0 44.2 84.2





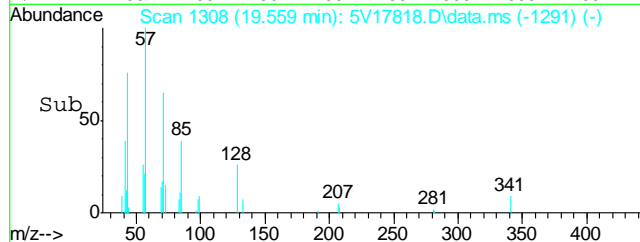
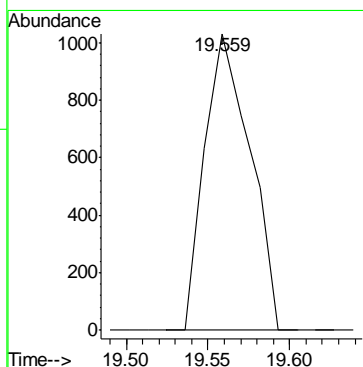
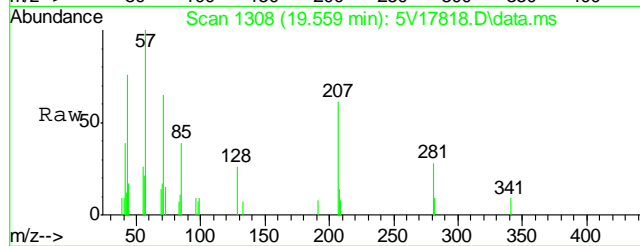
#25
2-Butanone
Concen: 1.08 ug/l
RT: 11.110 min Scan# 568
Delta R.T. 0.000 min
Lab File: 5V17818.D
Acq: 3 Oct 2011 5:49 pm

Tgt Ion: 72 Resp: 174
Ion Ratio Lower Upper
72 100
43 958.0 257.8 386.8#



#91
Naphthalene
Concen: 1.01 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17818.D
Acq: 3 Oct 2011 5:49 pm

Tgt Ion: 128 Resp: 1991



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
 Data File : 5V17833.D
 Acq On : 4 Oct 2011 1:43 am
 Operator : DONC
 Sample : D28215-4, 50x
 Misc : MS2781,V5V1061,5.087,,100,5,1
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 09:50:06 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	303467	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	414306	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	382007	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	230486	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	31658	42.67	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	85.34%
61) Toluene-d8	13.851	98	601904	44.33	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.66%
69) 4-Bromofluorobenzene	16.043	95	236359	41.96	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	83.92%

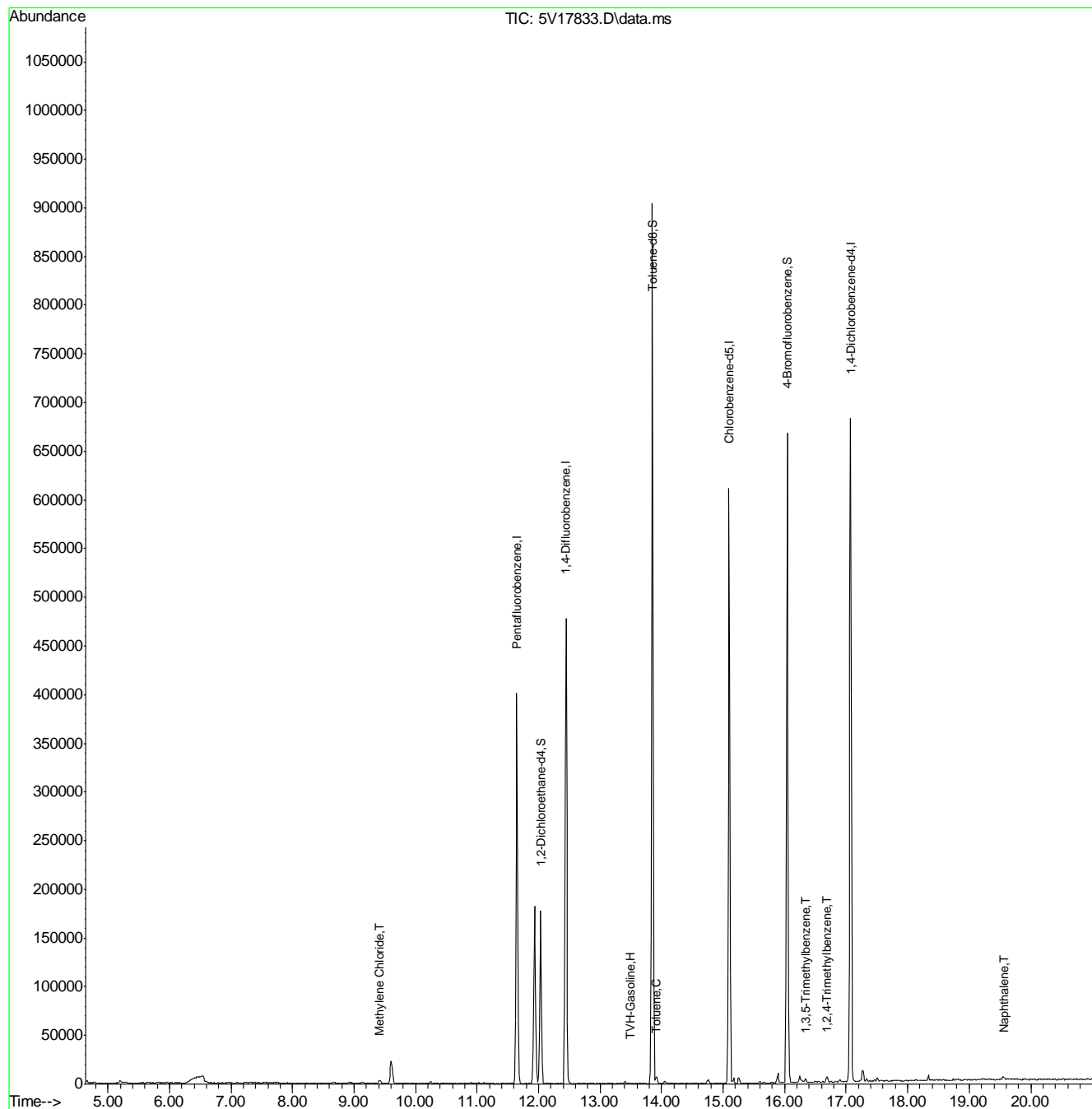
Target Compounds						Qvalue
1) TVH-Gasoline	13.491	TIC	403482m	20.24	ug/l	
17) Methylene Chloride	9.421	84	2312	0.63	ug/l	89
62) Toluene	13.908	92	2550	0.26	ug/l	92
80) 1,3,5-Trimethylbenzene	16.339	105	4210	0.27	ug/l	92
82) 1,2,4-Trimethylbenzene	16.693	105	4862	0.30	ug/l	85
91) Naphthalene	19.570	128	1791	1.00	ug/l	100

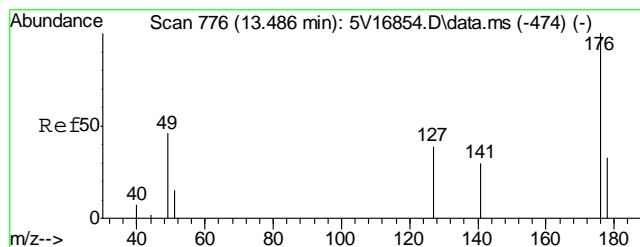
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17833.D
Acq On : 4 Oct 2011 1:43 am
Operator : DONC
Sample : D28215-4, 50x
Misc : MS2781,V5V1061,5.087,,100,5,1
ALS Vial : 35 Sample Multiplier: 1

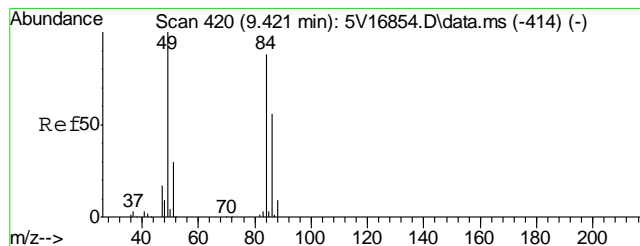
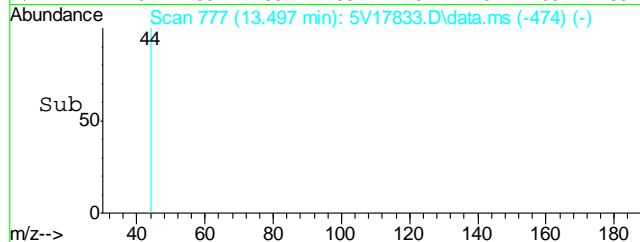
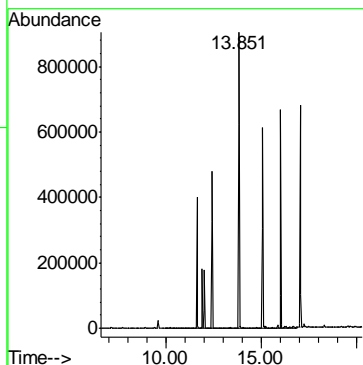
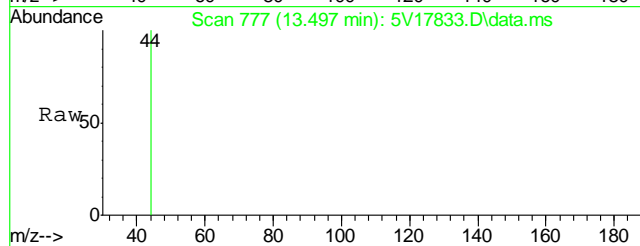
Quant Time: Oct 04 09:50:06 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





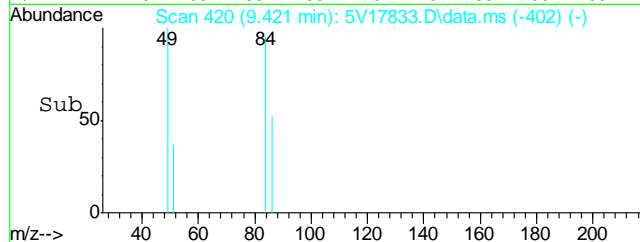
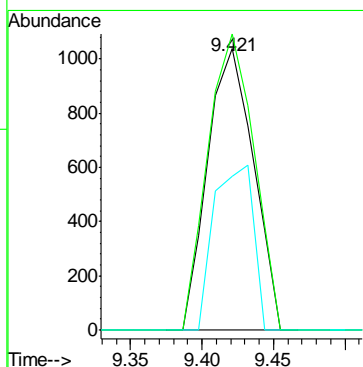
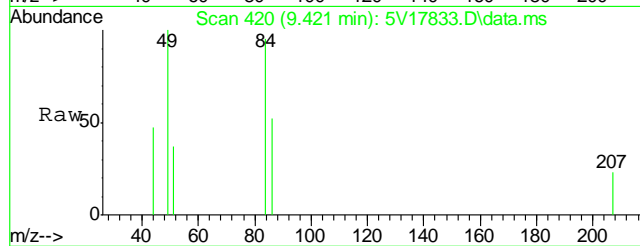
#1
TVH-Gasoline
Concen: 20.24 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17833.D
Acq: 4 Oct 2011 1:43 am

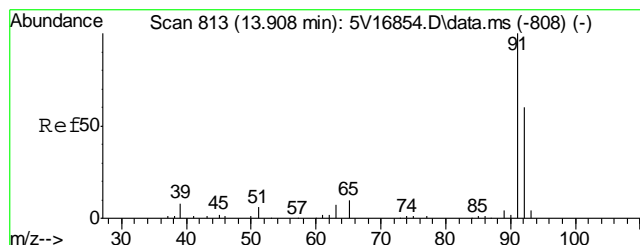
Tgt Ion:TIC Resp: 403482



#17
Methylene Chloride
Concen: 0.63 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17833.D
Acq: 4 Oct 2011 1:43 am

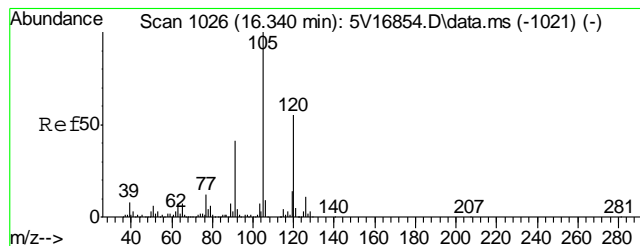
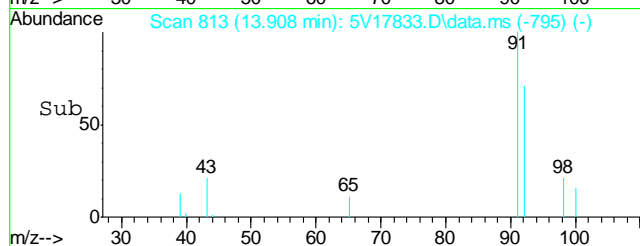
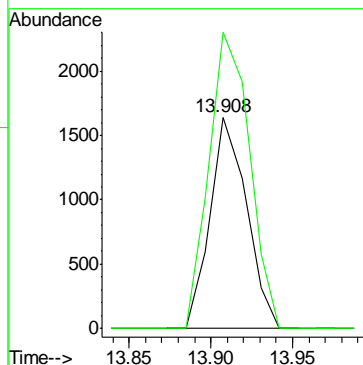
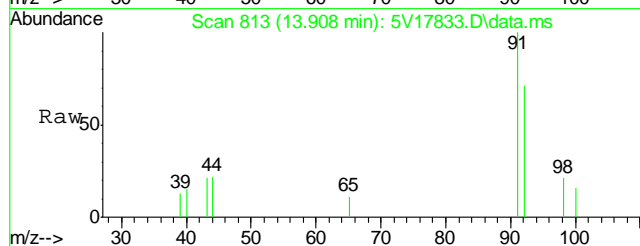
Tgt Ion: 84 Resp: 2312
Ion Ratio Lower Upper
84 100
49 106.0 93.6 133.6
86 50.0 44.2 84.2





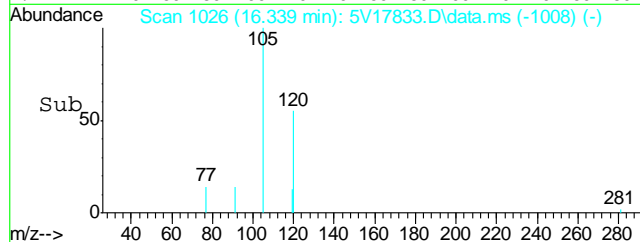
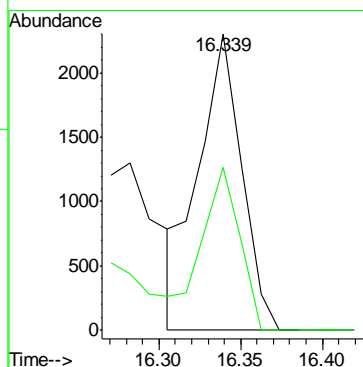
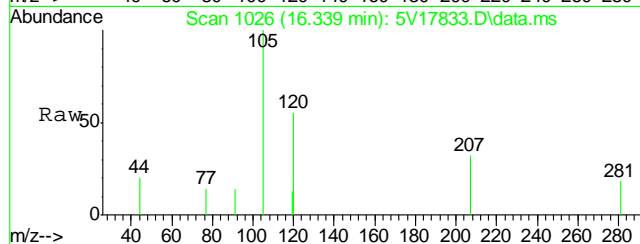
#62
Toluene
Concen: 0.26 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17833.D
Acq: 4 Oct 2011 1:43 am

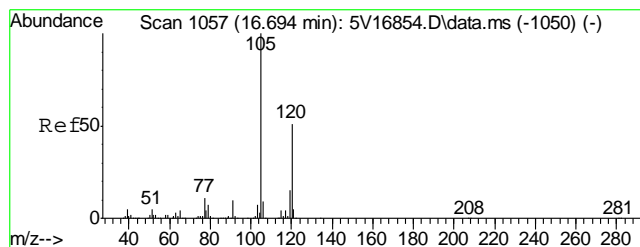
Tgt Ion: 92 Resp: 2550
Ion Ratio Lower Upper
92 100
91 156.2 146.7 186.7



#80
1,3,5-Trimethylbenzene
Concen: 0.27 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17833.D
Acq: 4 Oct 2011 1:43 am

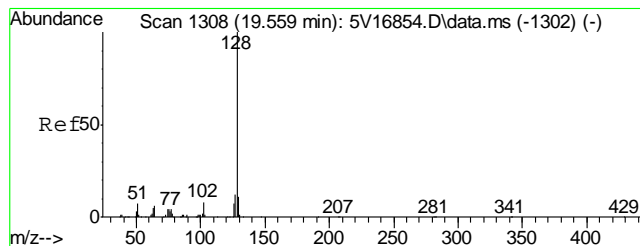
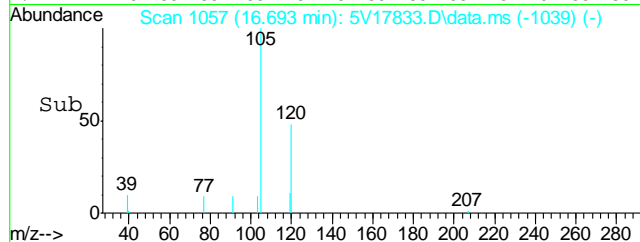
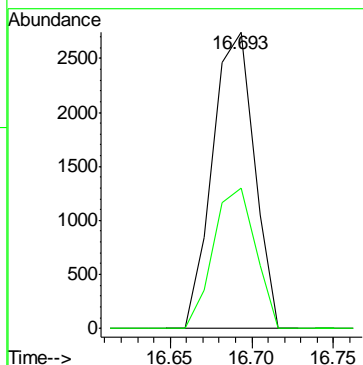
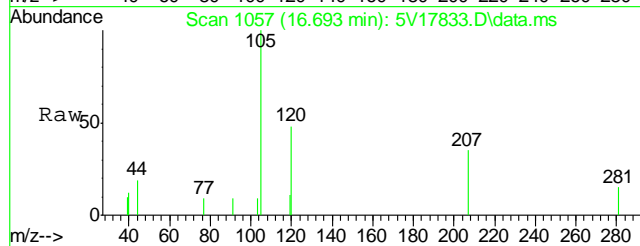
Tgt Ion: 105 Resp: 4210
Ion Ratio Lower Upper
105 100
120 48.9 43.5 65.3





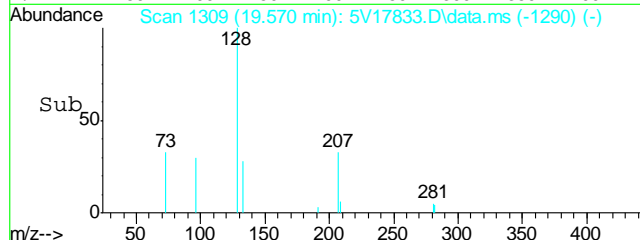
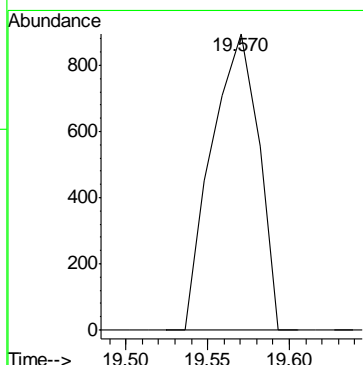
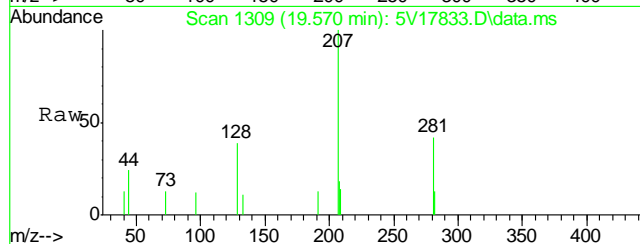
#82
1,2,4-Trimethylbenzene
Concen: 0.30 ug/l
RT: 16.693 min Scan# 1057
Delta R.T. -0.000 min
Lab File: 5V17833.D
Acq: 4 Oct 2011 1:43 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.1	47.4	71.0



#91
Naphthalene
Concen: 1.00 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.011 min
Lab File: 5V17833.D
Acq: 4 Oct 2011 1:43 am

Tgt Ion	Ratio
128	1791



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17801.D
Acq On : 3 Oct 2011 8:52 am
Operator : DONC
Sample : MB
Misc : MS2777,V5V1058,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 04 08:44:38 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	307488	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	428800	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	388457	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	219333	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	38979	51.85	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.70%
61) Toluene-d8	13.850	98	727695	52.71	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.42%
69) 4-Bromofluorobenzene	16.043	95	270274	47.18	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.36%

Target Compounds

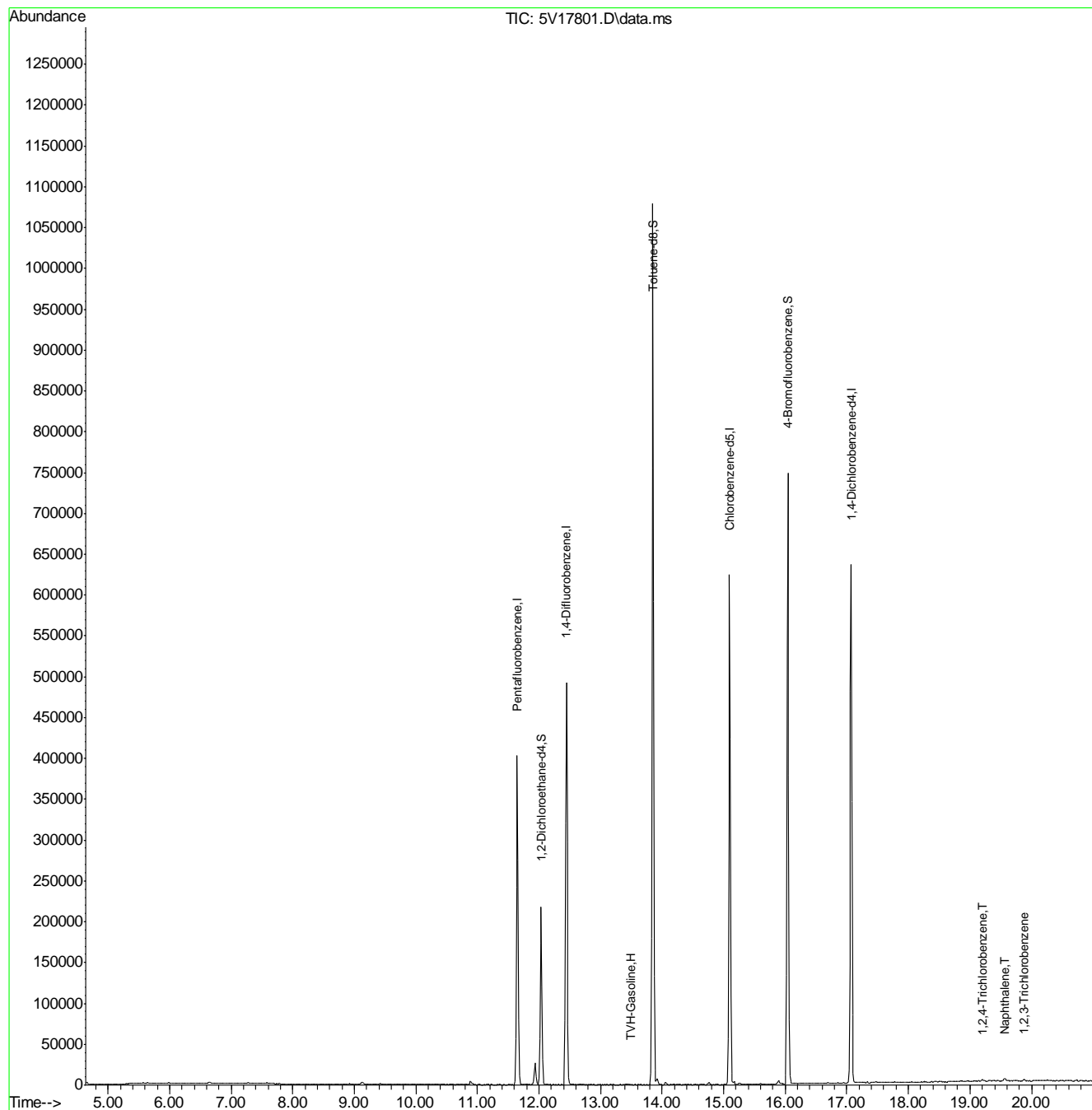
					Qvalue
1) TVH-Gasoline	13.491	TIC	59875m	3.00	ug/l
90) 1,2,4-Trichlorobenzene	19.205	180	1533	0.25	ug/l # 86
91) Naphthalene	19.559	128	5137	1.31	ug/l 100
93) 1,2,3-Trichlorobenzene	19.879	180	1746	0.31	ug/l # 82

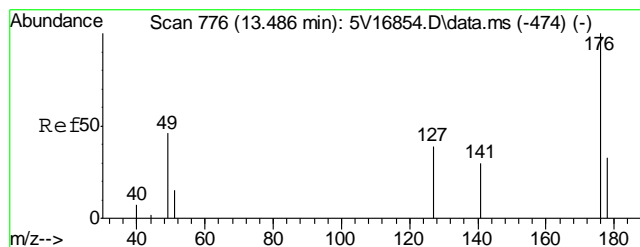
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17801.D
Acq On : 3 Oct 2011 8:52 am
Operator : DONC
Sample : MB
Misc : MS2777,V5V1058,5,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

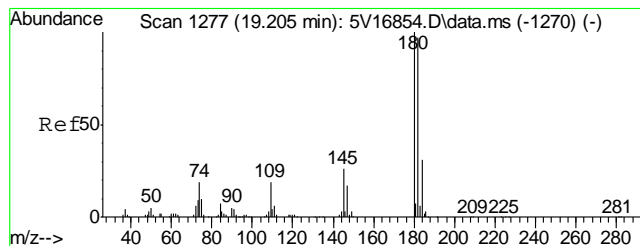
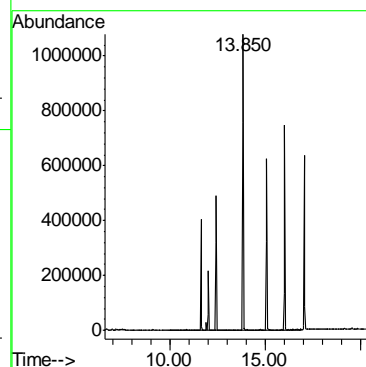
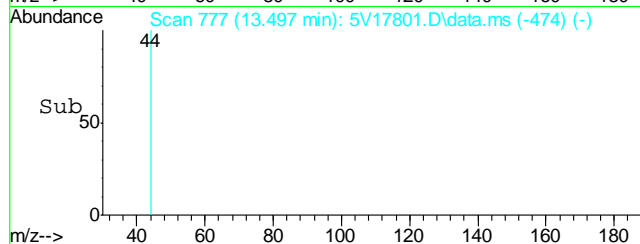
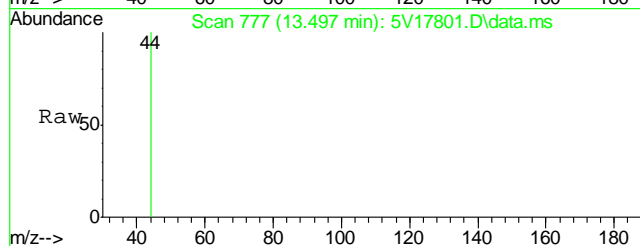
Quant Time: Oct 04 08:44:38 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





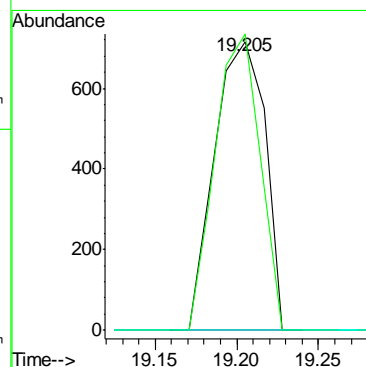
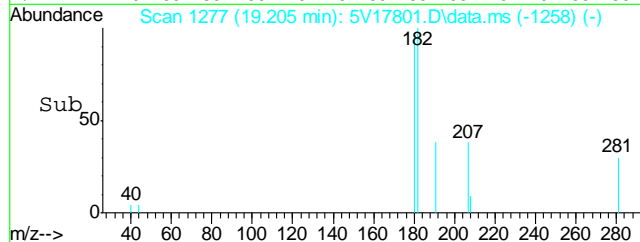
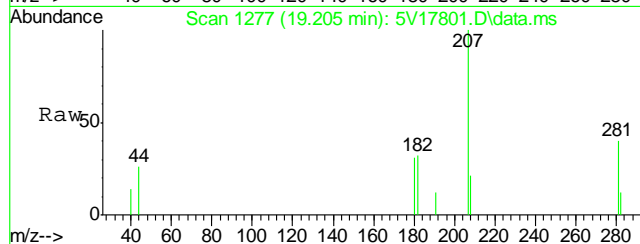
#1
TVH-Gasoline
Concen: 3.00 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17801.D
Acq: 3 Oct 2011 8:52 am

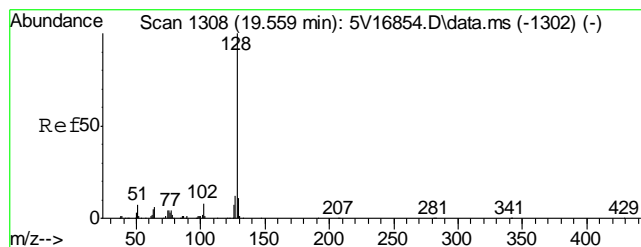
Tgt Ion:TIC Resp: 59875



#90
1,2,4-Trichlorobenzene
Concen: 0.25 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V17801.D
Acq: 3 Oct 2011 8:52 am

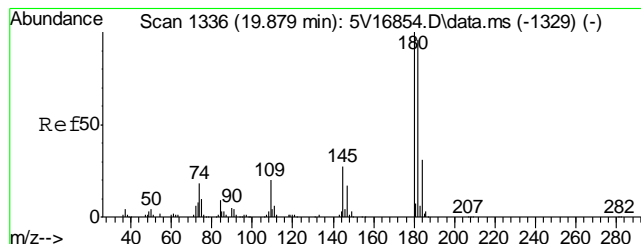
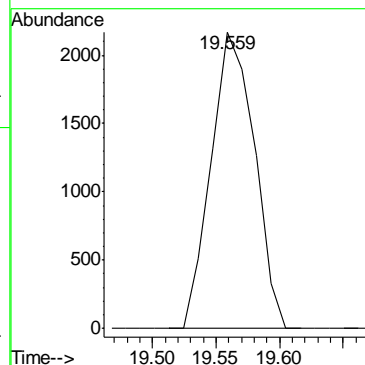
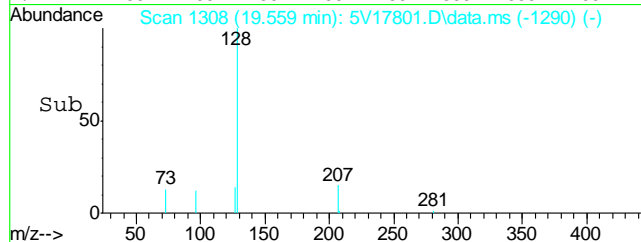
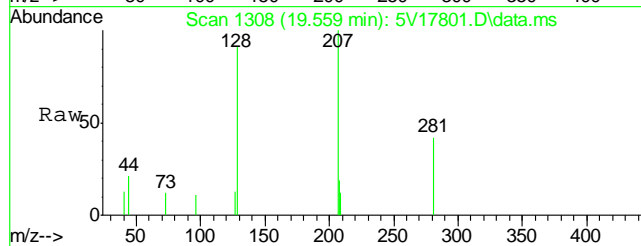
Tgt Ion:180 Resp: 1533
Ion Ratio Lower Upper
180 100
182 91.6 76.3 114.5
145 0.0 20.7 31.1#





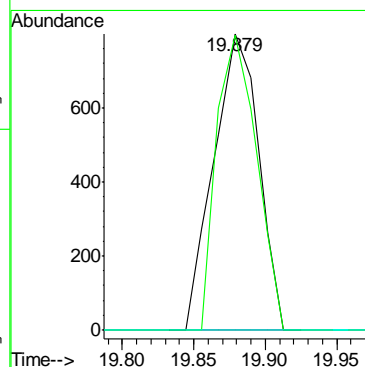
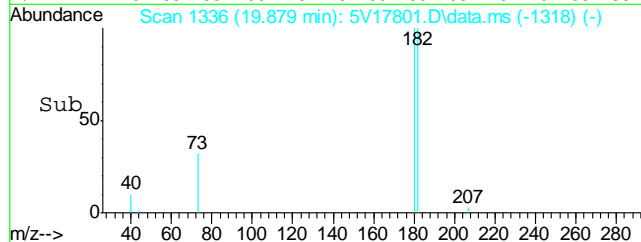
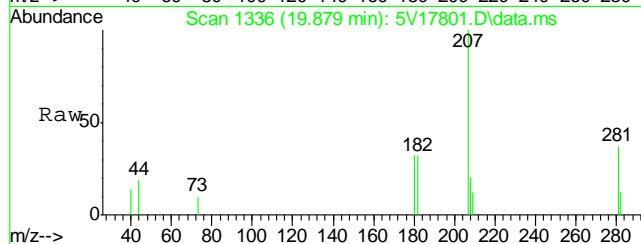
#91
Naphthalene
Concen: 1.31 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17801.D
Acq: 3 Oct 2011 8:52 am

Tgt Ion:128 Resp: 5137



#93
1,2,3-Trichlorobenzene
Concen: 0.31 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. -0.000 min
Lab File: 5V17801.D
Acq: 3 Oct 2011 8:52 am

Tgt Ion:180 Resp: 1746
Ion Ratio Lower Upper
180 100
182 88.4 77.0 115.6
145 0.0 22.1 33.1#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17825.D
Acq On : 3 Oct 2011 9:30 pm
Operator : DONC
Sample : MB
Misc : MS2781,V5V1061,5,,100,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 04 09:42:41 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	297275	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	414062	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	378644	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	219033	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	36010	49.54	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.08%
61) Toluene-d8	13.851	98	668198	49.65	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.30%
69) 4-Bromofluorobenzene	16.043	95	244345	43.76	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.52%

Target Compounds

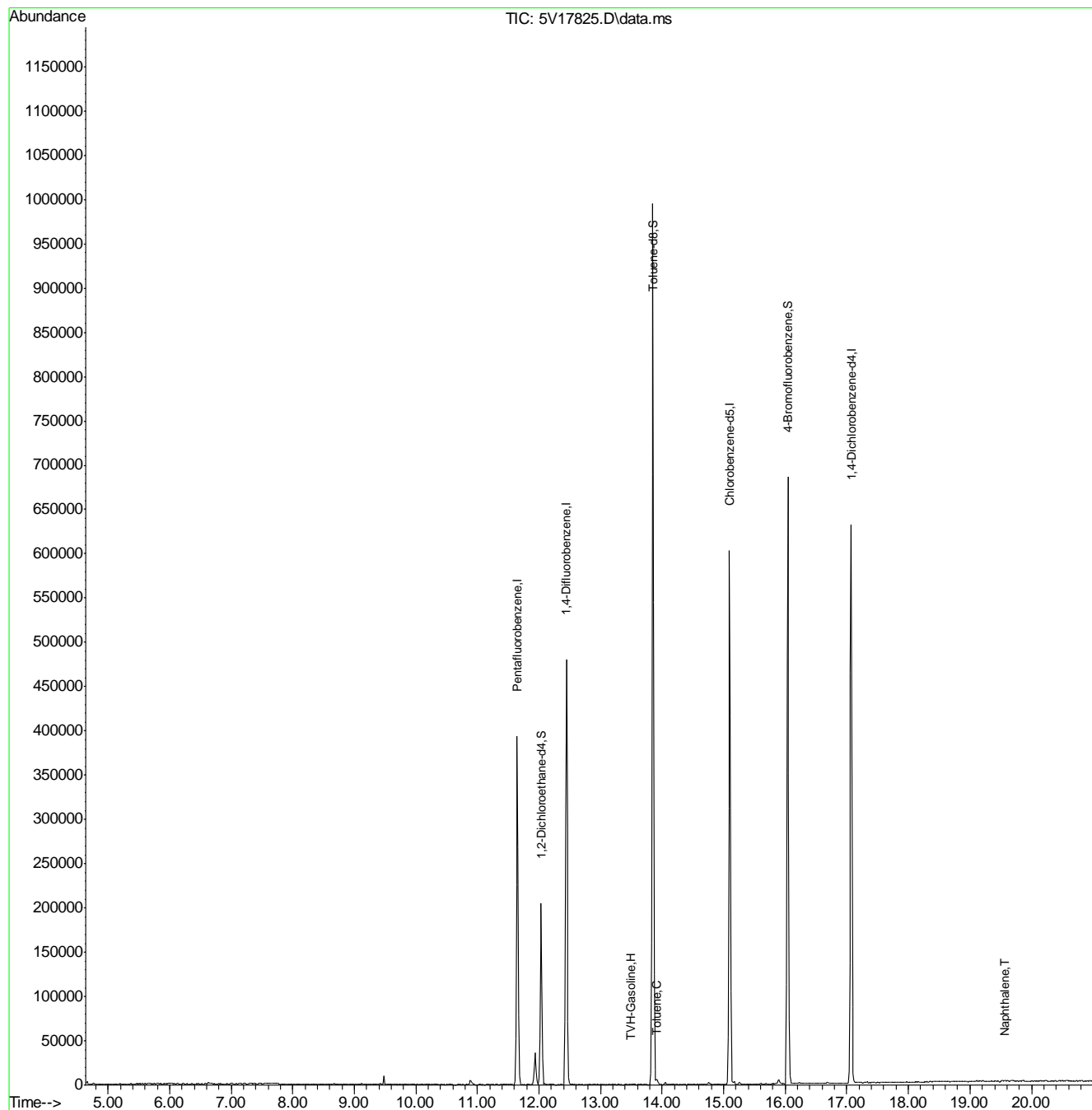
					Qvalue
1) TVH-Gasoline	13.491	TIC	76982m	3.86	ug/l
62) Toluene	13.908	92	1951	0.20	ug/l
91) Naphthalene	19.559	128	1134	0.95	ug/l

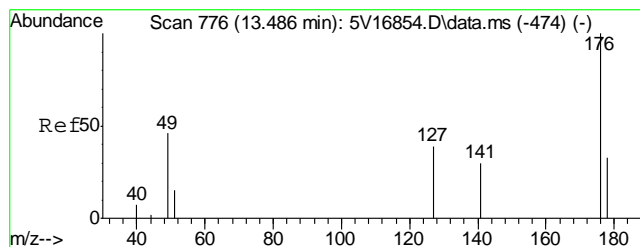
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100311.S\
Data File : 5V17825.D
Acq On : 3 Oct 2011 9:30 pm
Operator : DONC
Sample : MB
Misc : MS2781,V5V1061,5,,100,5,1
ALS Vial : 27 Sample Multiplier: 1

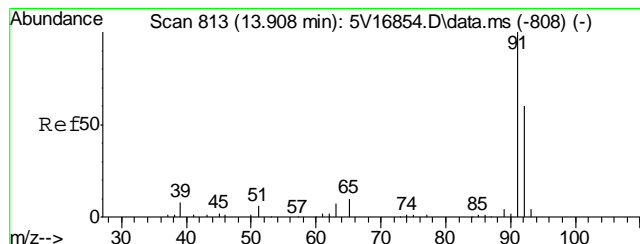
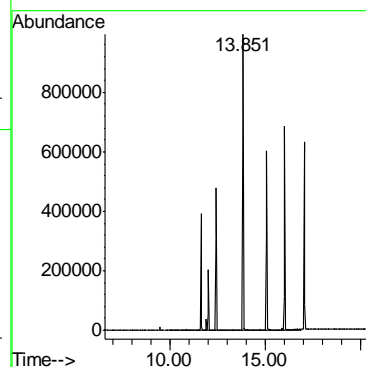
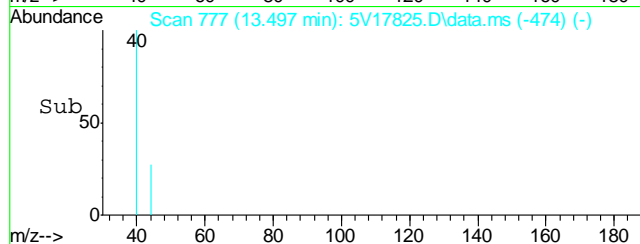
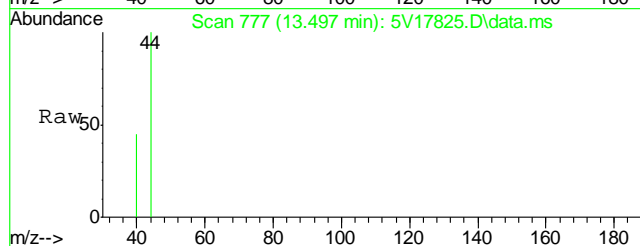
Quant Time: Oct 04 09:42:41 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





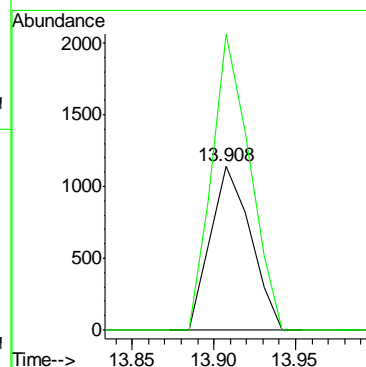
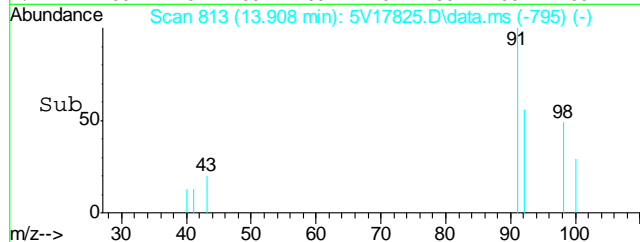
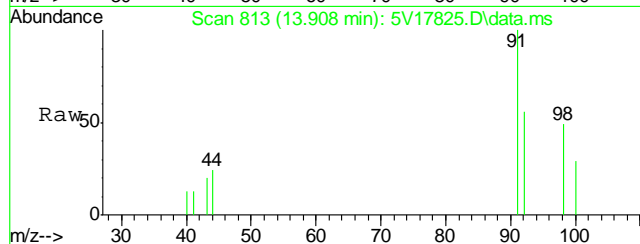
#1
TVH-Gasoline
Concen: 3.86 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17825.D
Acq: 3 Oct 2011 9:30 pm

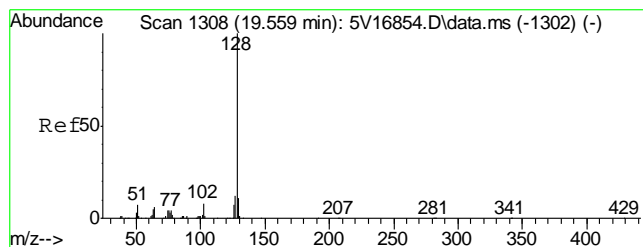
Tgt Ion:TIC Resp: 76982



#62
Toluene
Concen: 0.20 ug/l
RT: 13.908 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V17825.D
Acq: 3 Oct 2011 9:30 pm

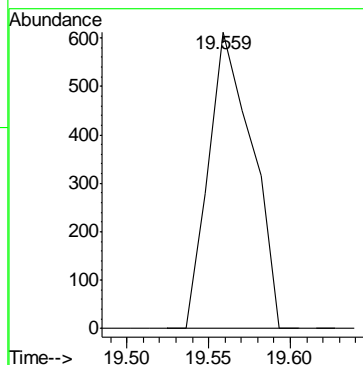
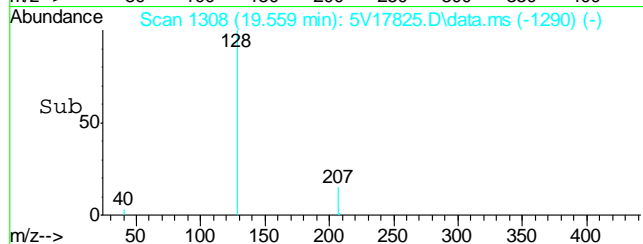
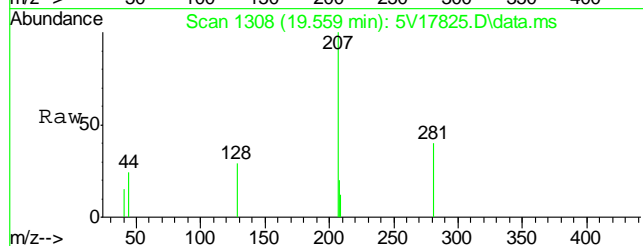
Tgt Ion: 92 Resp: 1951
Ion Ratio Lower Upper
92 100
91 170.8 146.7 186.7





#91
Naphthalene
Concen: 0.95 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.000 min
Lab File: 5V17825.D
Acq: 3 Oct 2011 9:30 pm

Tgt Ion:128 Resp: 1134



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: D28215**Account:** KRWCCOL KRW Consulting, Inc.**Project:** XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB755-MB	GB13281.D	1	10/03/11	SK	n/a	n/a	GGB755

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

D28215-1, D28215-2, D28215-3, D28215-4

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	82% 60-140%

Blank Spike Summary

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB755-BS	GB13282.D	1	10/03/11	SK	n/a	n/a	GGB755

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

D28215-1, D28215-2, D28215-3, D28215-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	121	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	89%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28162-4MS	GB13284.D	1	10/03/11	SK	n/a	n/a	GGB755
D28162-4MSD	GB13285.D	1	10/03/11	SK	n/a	n/a	GGB755
D28162-4	GB13283.D	1	10/03/11	SK	n/a	n/a	GGB755

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

D28215-1, D28215-2, D28215-3, D28215-4

CAS No.	Compound	D28162-4 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		127	142	111	139	109	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D28162-4	Limits
120-82-1	1,2,4-Trichlorobenzene	89%	85%	78%	60-140%

GC Volatiles

Raw Data

∞

Judy Melson
10/04/11 10:24

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13294.D\FID1A.CH Vial: 16
 Signal #2 : Y:\1\DATA\100311\GB13294.D\FID2B.CH
 Acq On : 3 Oct 2011 8:19 pm Operator: StephK
 Sample : D28215-1, 50X Inst : GC/MS Ins
 Misc : GC2296,GGB755,5.038,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 04 08:47:24 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Tue Oct 04 08:42:40 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	14.46	2856432	82.324 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.46	23387592	110.135 %	
Target Compounds				
1) H TVH-Gasoline	7.33	10331719	0.118 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	7.79	172708	0.372 ug/L	
7) T Ethylbenzene	10.40	95898	0.238 ug/L	
8) T m,p-Xylene	10.58	499393	0.415 ug/L	
9) T o-Xylene	11.07	229759	0.324 ug/L	
11) T Naphthalene	14.65	5687233	24.433 ug/L	

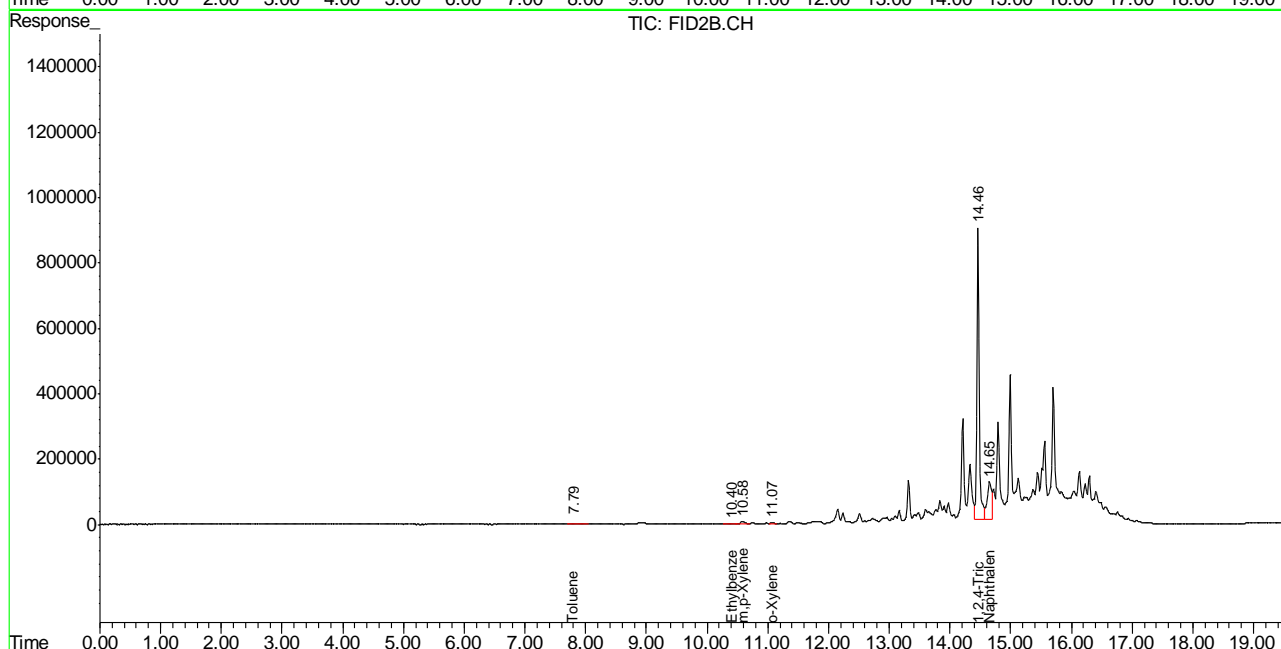
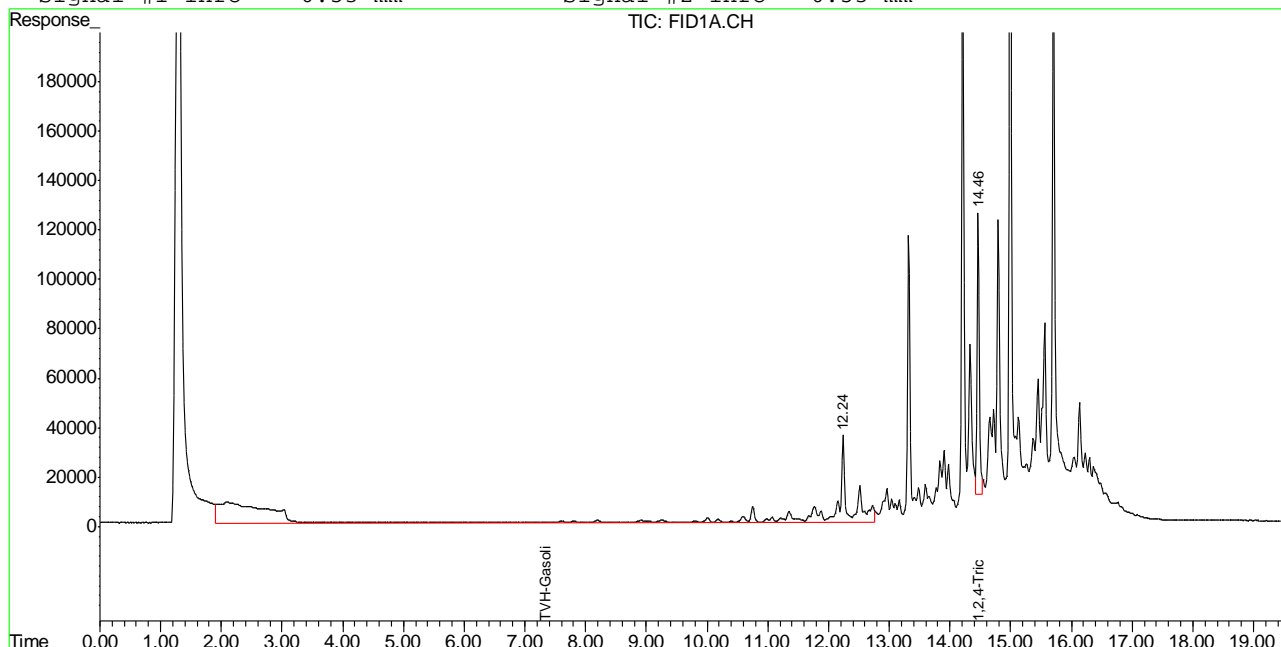
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB13294.D TB740GB740SOIL.M Tue Oct 04 08:55:47 2011 GC

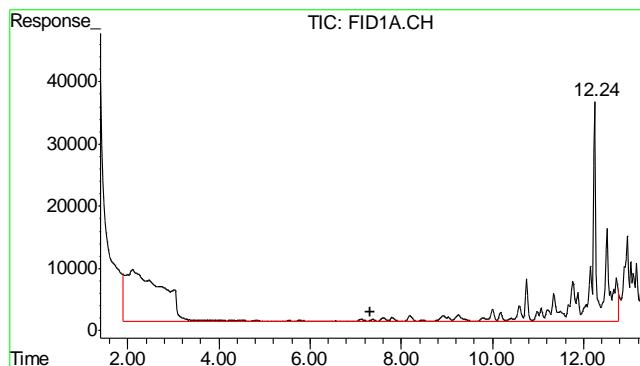
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13294.D\FID1A.CH Vial: 16
 Signal #2 : Y:\1\DATA\100311\GB13294.D\FID2B.CH
 Acq On : 3 Oct 2011 8:19 pm Operator: StephK
 Sample : D28215-1, 50X Inst : GC/MS Ins
 Misc : GC2296,GGB755,5.038,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 4 6:16 2011 Quant Results File: TB740GB740SOIL.RES

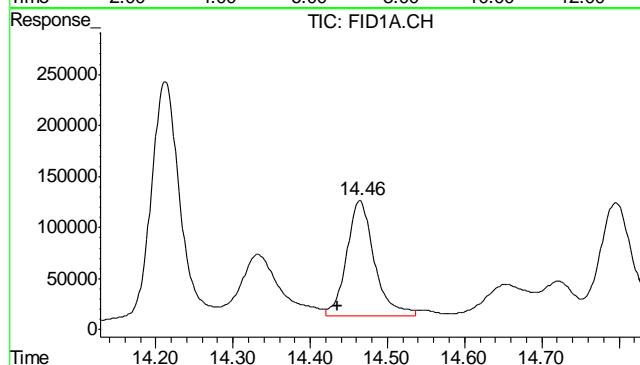
Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Tue Oct 04 08:42:40 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

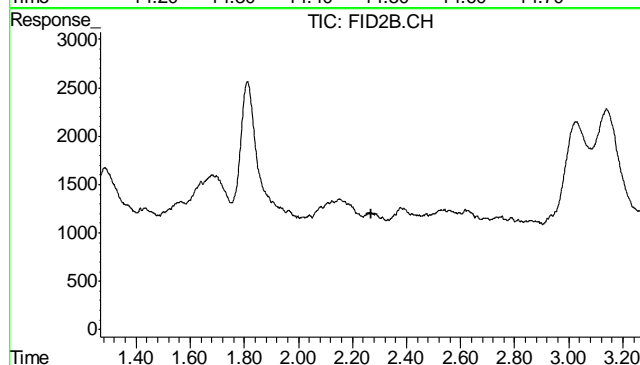




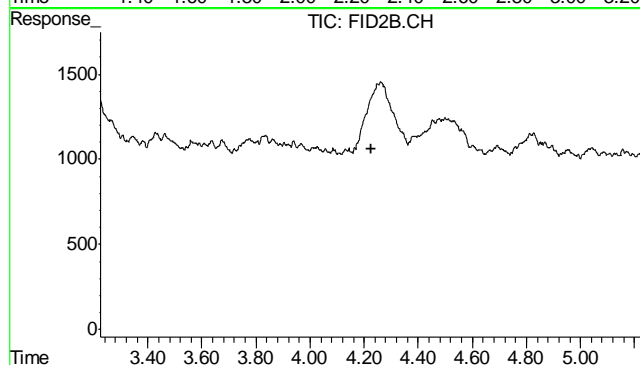
#1 TVH-Gasoline
 R.T.: 7.330 min
 Delta R.T.: 0.000 min
 Response: 10331719
 Conc: 0.12 mg/L m



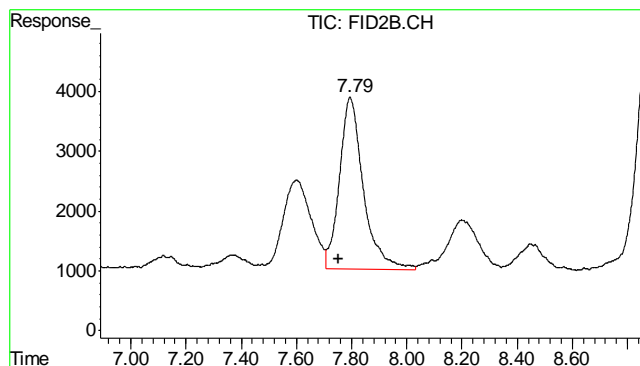
#2 1,2,4-Trichlorobenzene
 R.T.: 14.464 min
 Delta R.T.: 0.029 min
 Response: 2856432
 Conc: 82.32 % m



#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.268 min
 Response: 0
 Conc: N.D.

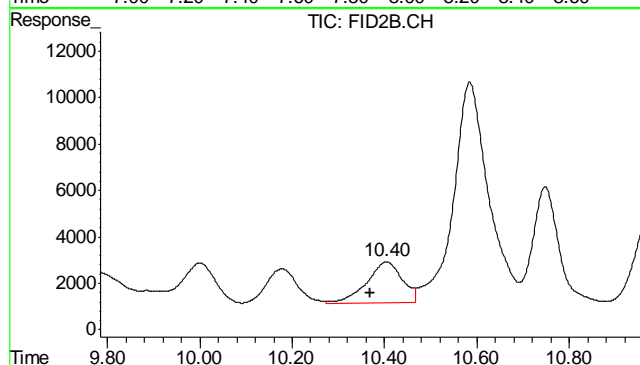


#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.225 min
 Response: 0
 Conc: N.D.



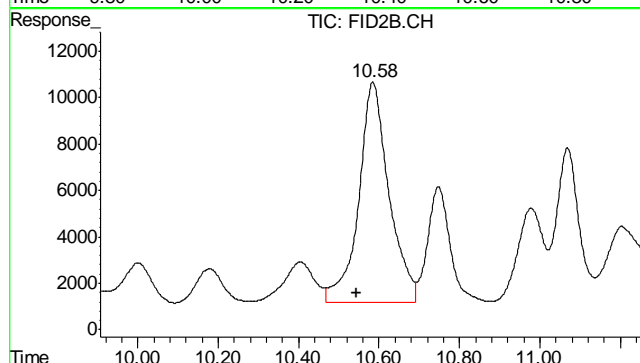
#6 Toluene

R.T.: 7.795 min
Delta R.T.: 0.042 min
Response: 172708
Conc: 0.37 ug/L



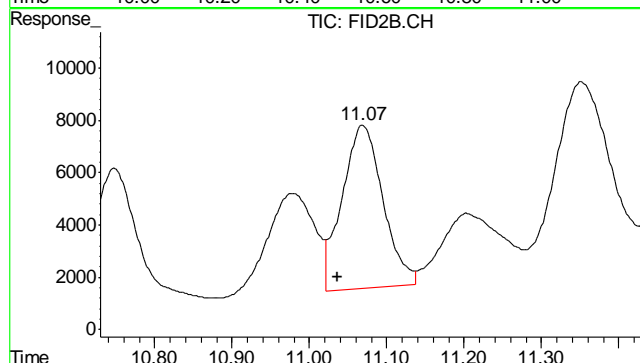
#7 Ethylbenzene

R.T.: 10.403 min
Delta R.T.: 0.035 min
Response: 95898
Conc: 0.24 ug/L



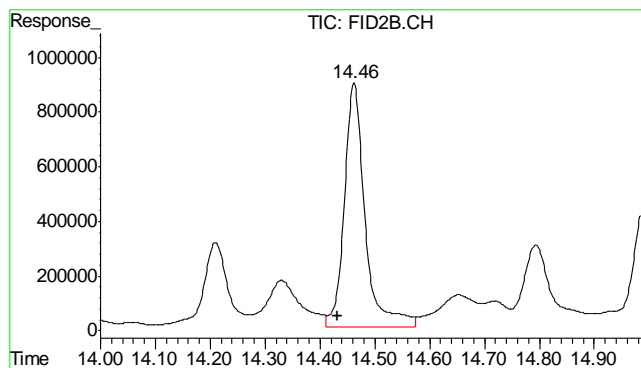
#8 m,p-Xylene

R.T.: 10.585 min
Delta R.T.: 0.039 min
Response: 499393
Conc: 0.42 ug/L



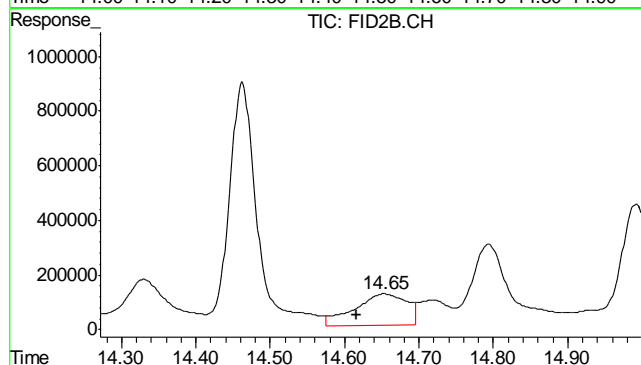
#9 o-Xylene

R.T.: 11.069 min
Delta R.T.: 0.033 min
Response: 229759
Conc: 0.32 ug/L



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

R.T.: 14.462 min
Delta R.T.: 0.030 min
Response: 23387592
Conc: 110.14 %



#11 Naphthalene

R.T.: 14.653 min
Delta R.T.: 0.038 min
Response: 5687233
Conc: 24.43 ug/L

8.1.1

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13295.D\FID1A.CH Vial: 17
 Signal #2 : Y:\1\DATA\100311\GB13295.D\FID2B.CH
 Acq On : 3 Oct 2011 8:55 pm Operator: StephK
 Sample : D28215-2, 50X Inst : GC/MS Ins
 Misc : GC2296,GGB755,5.039,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 04 08:47:28 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Tue Oct 04 08:42:40 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	14.44	2821342	81.312	%
10) S	1,2,4-Trichlorobenzene (P)	14.44	20605071	97.032	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5576610	<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	7.76	155732	0.335	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.63	682442	2.965	ug/L

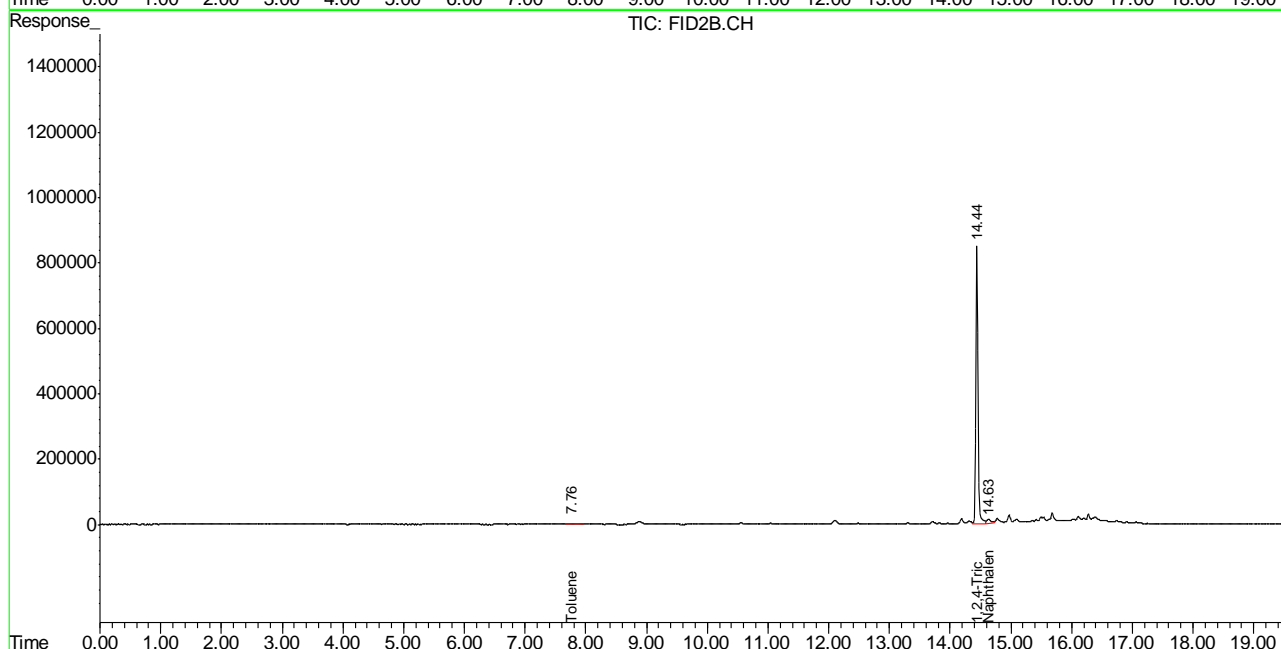
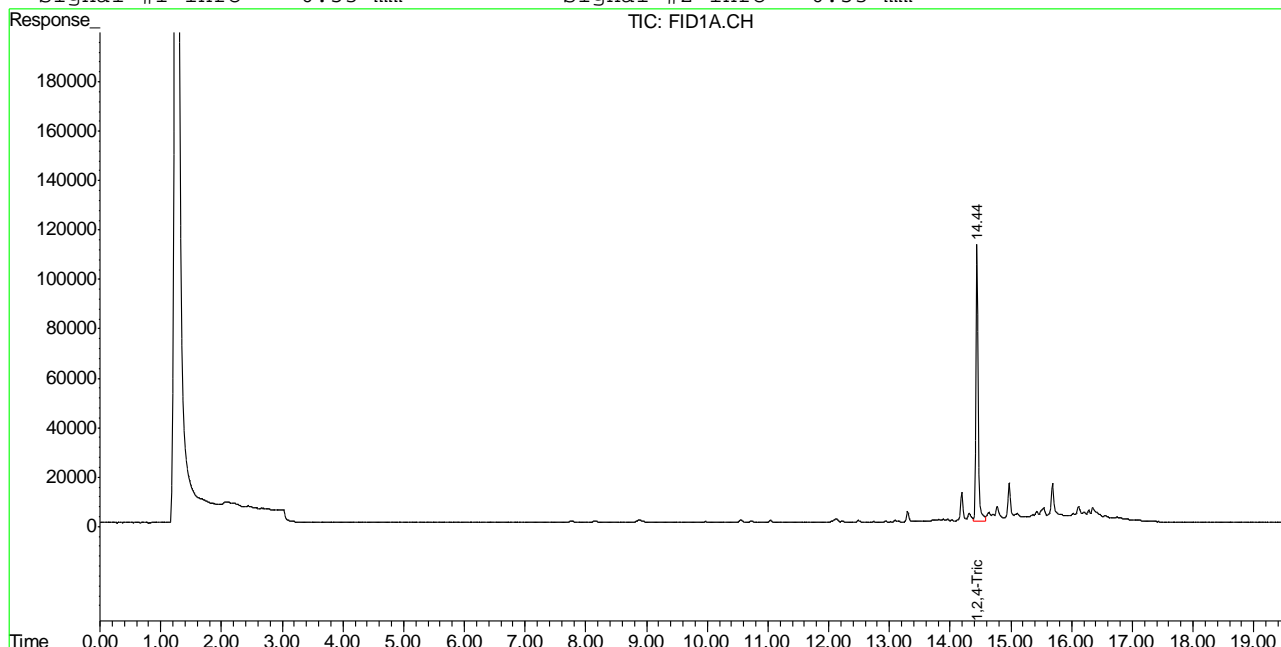
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB13295.D TB740GB740SOIL.M Tue Oct 04 08:55:50 2011 GC

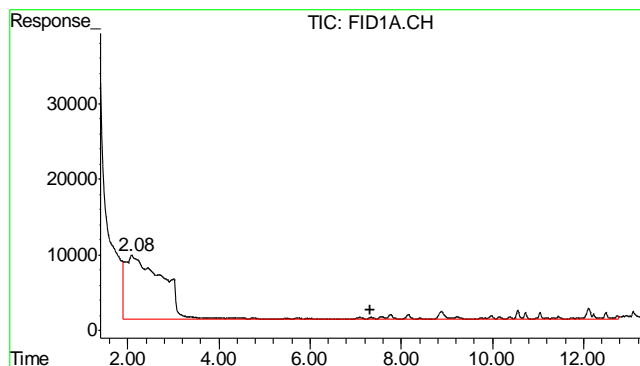
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13295.D\FID1A.CH Vial: 17
 Signal #2 : Y:\1\DATA\100311\GB13295.D\FID2B.CH
 Acq On : 3 Oct 2011 8:55 pm Operator: StephK
 Sample : D28215-2, 50X Inst : GC/MS Ins
 Misc : GC2296,GGB755,5.039,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 4 6:16 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Tue Oct 04 08:42:40 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

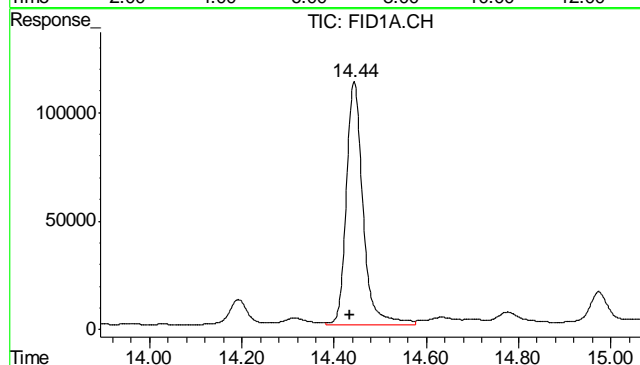
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





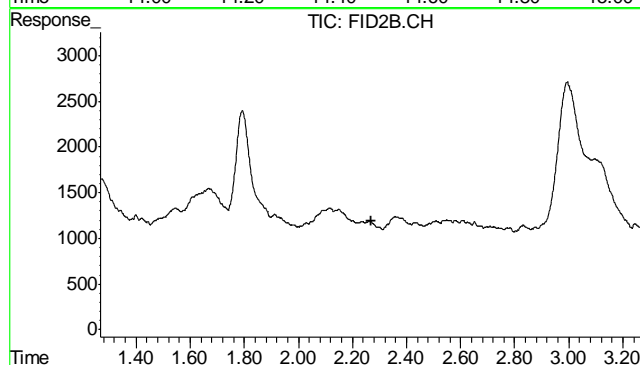
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5576610
Conc: N.D.



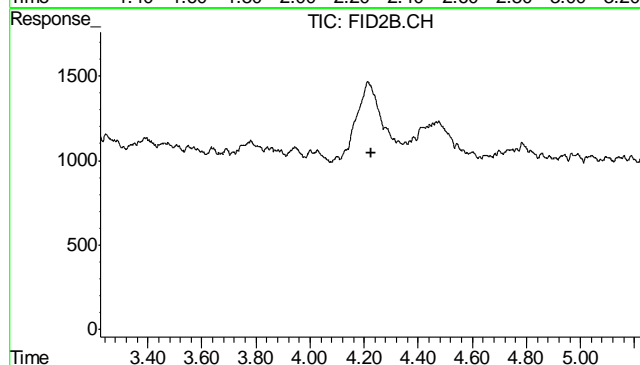
#2 1,2,4-Trichlorobenzene

R.T.: 14.444 min
Delta R.T.: 0.008 min
Response: 2821342
Conc: 81.31 %



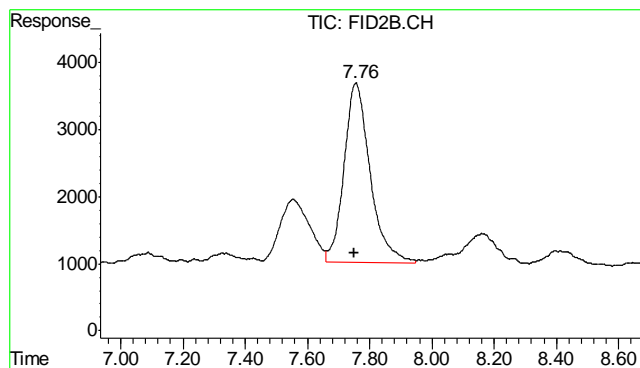
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.268 min
Response: 0
Conc: N.D.



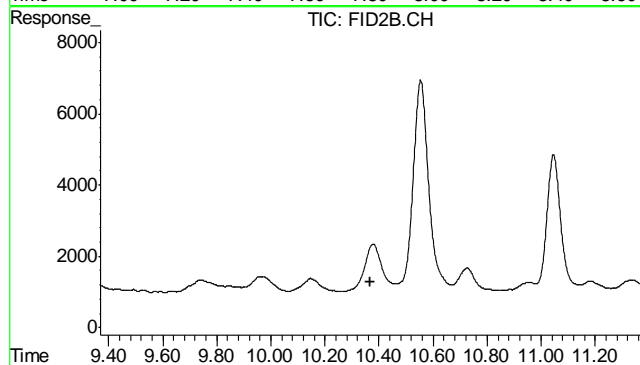
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.225 min
Response: 0
Conc: N.D.



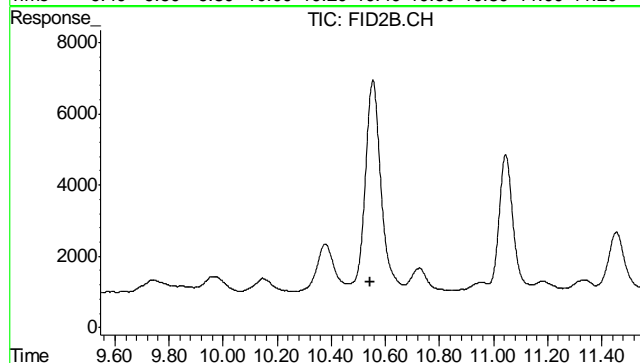
#6 Toluene

R.T.: 7.756 min
Delta R.T.: 0.004 min
Response: 155732
Conc: 0.34 ug/L



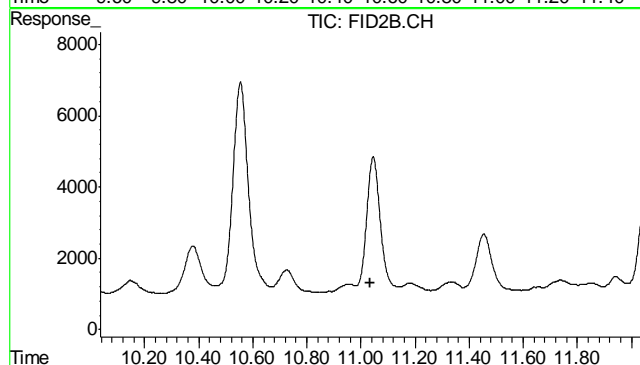
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.369 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

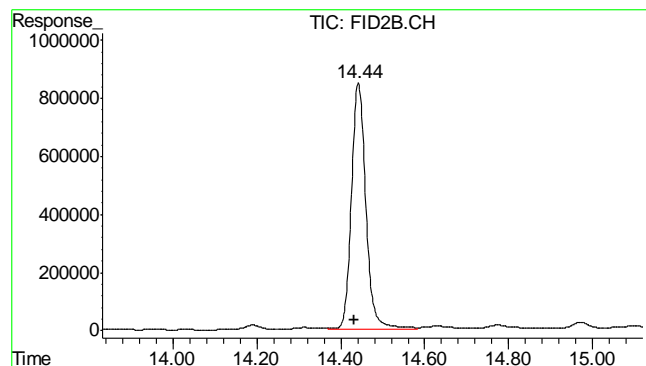
R.T.: 0.000 min
Exp R.T.: 10.545 min
Response: 0
Conc: N.D.



#9 o-Xylene

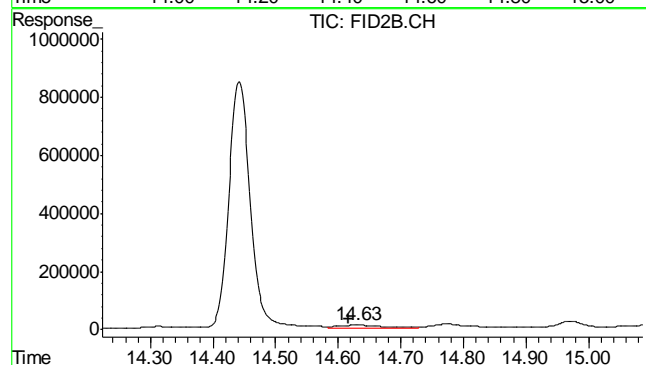
R.T.: 0.000 min
Exp R.T.: 11.036 min
Response: 0
Conc: N.D.

8.12
8



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

R.T.: 14.442 min
Delta R.T.: 0.009 min
Response: 20605071
Conc: 97.03 %



#11 Naphthalene

R.T.: 14.629 min
Delta R.T.: 0.014 min
Response: 682442
Conc: 2.97 ug/L

8.1.2
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13298.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\100311\GB13298.D\FID2B.CH
Acq On : 3 Oct 2011 10:42 pm Operator: StephK
Sample : D28215-3, 50X Inst : GC/MS Ins
Misc : GC2296,GGB755,5.077,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 04 08:43:00 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Tue Oct 04 08:42:40 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

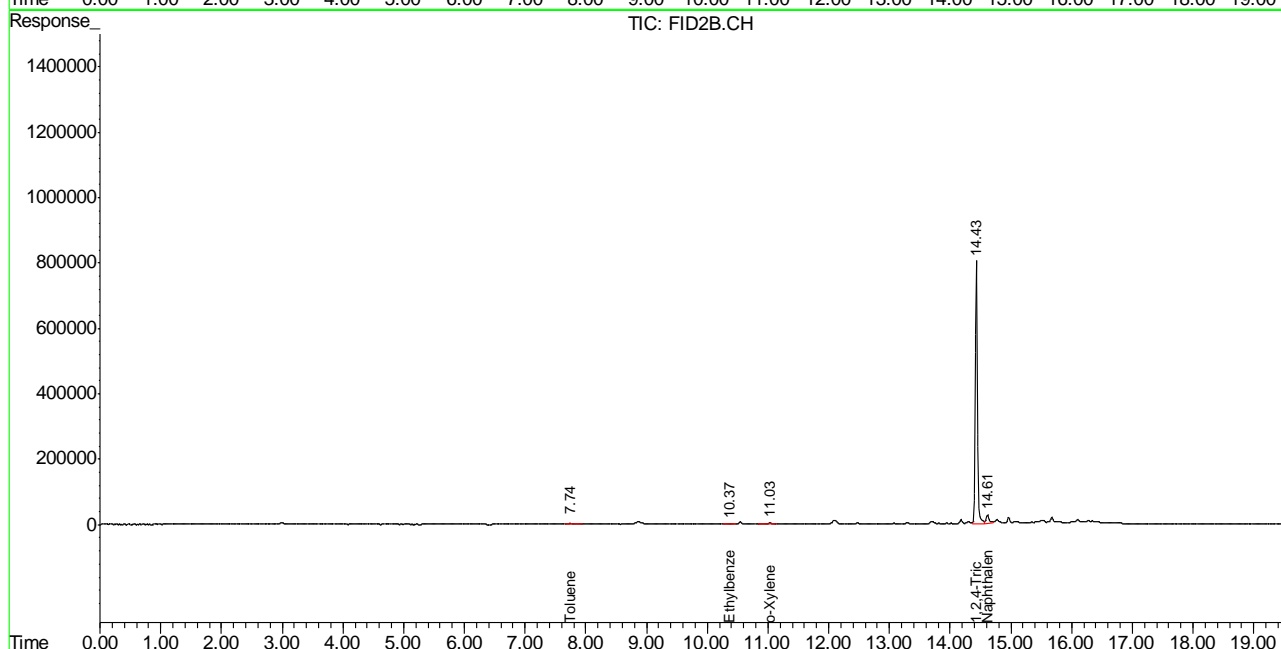
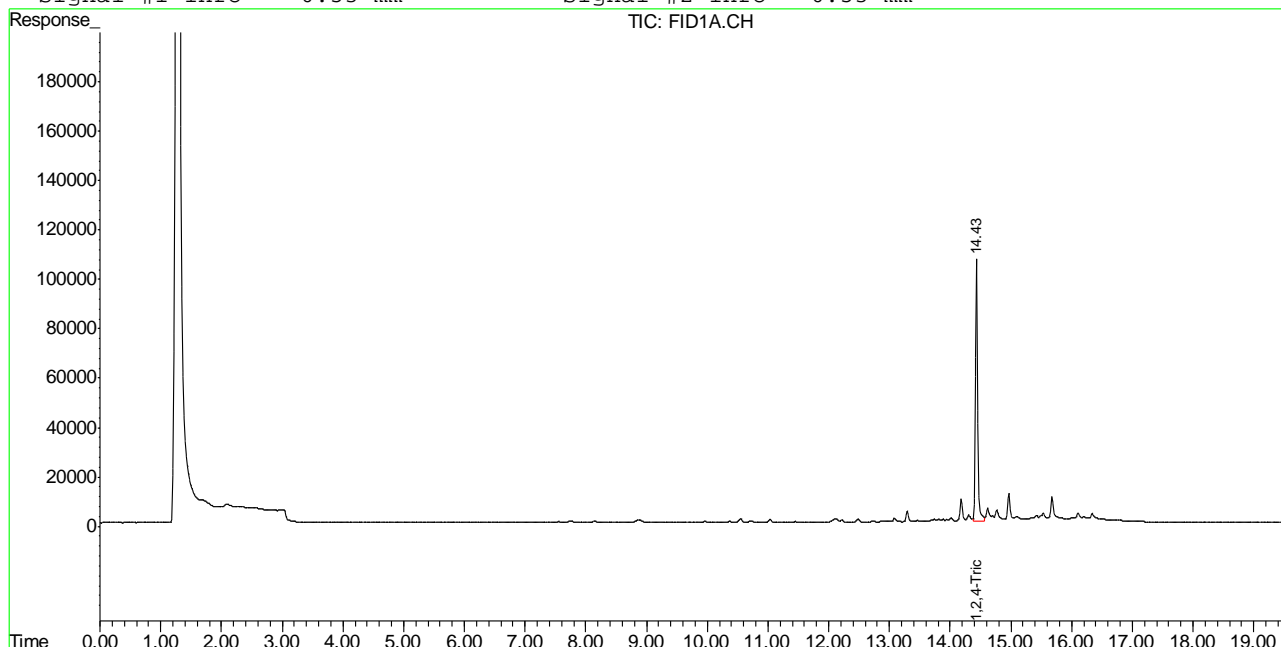
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.43	2631847	75.851	%
10) S	1,2,4-Trichlorobenzene (P)	14.43	19264341	90.718	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5420857	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.75	185785	0.400	ug/L
7) T	Ethylbenzene	10.37	88679	0.220	ug/L
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	11.03	174967	0.185	ug/L
11) T	Naphthalene	14.61	937141	4.058	ug/L

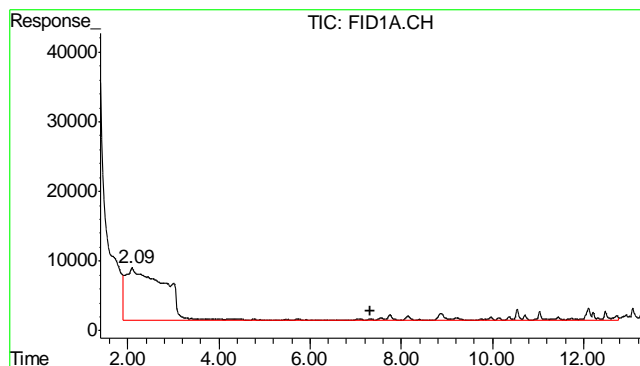
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13298.D\FID1A.CH Vial: 20
 Signal #2 : Y:\1\DATA\100311\GB13298.D\FID2B.CH
 Acq On : 3 Oct 2011 10:42 pm Operator: StephK
 Sample : D28215-3, 50X Inst : GC/MS Ins
 Misc : GC2296,GGB755,5.077,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 4 6:17 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Tue Oct 04 08:42:40 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

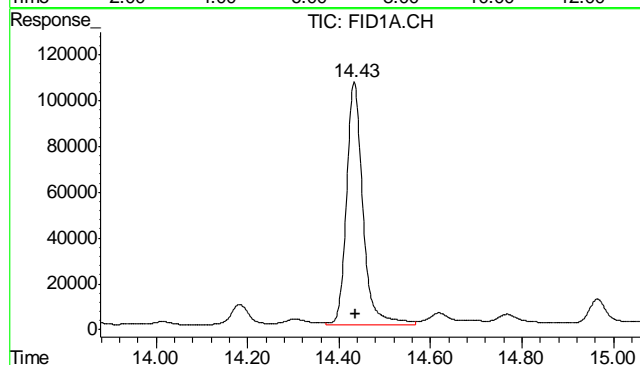
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





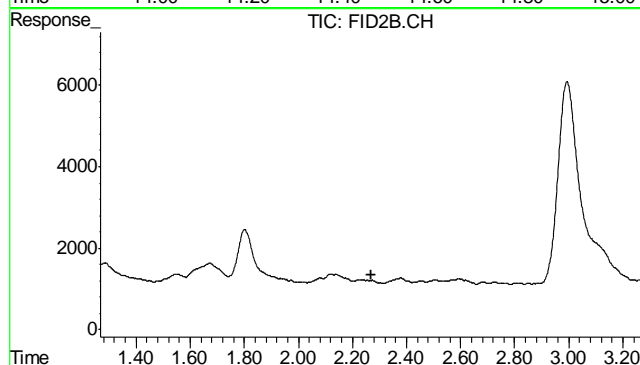
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5420857
Conc: N.D.



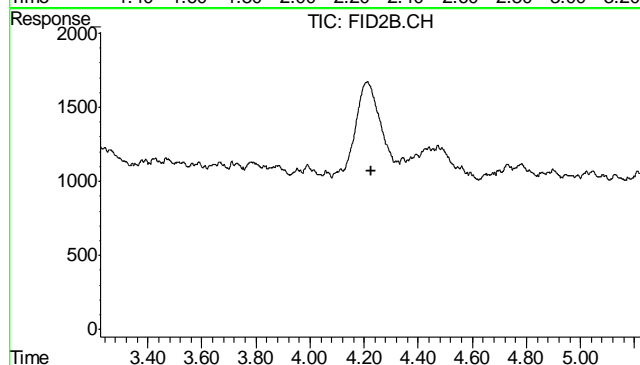
#2 1,2,4-Trichlorobenzene

R.T.: 14.433 min
Delta R.T.: -0.002 min
Response: 2631847
Conc: 75.85 %



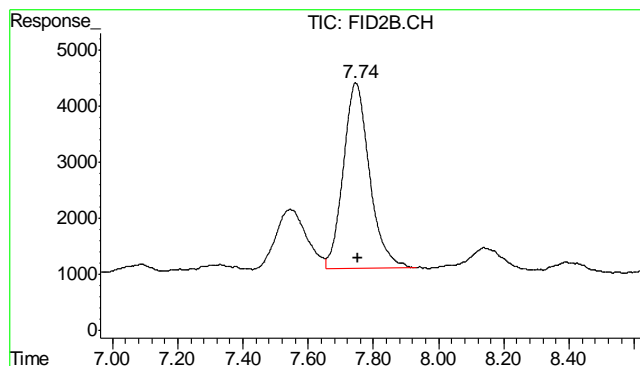
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.268 min
Response: 0
Conc: N.D.

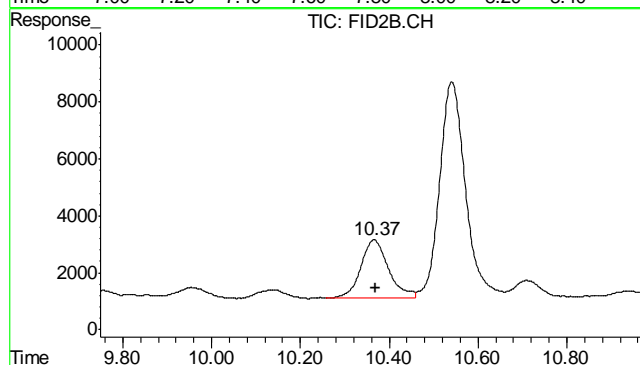


#5 Benzene

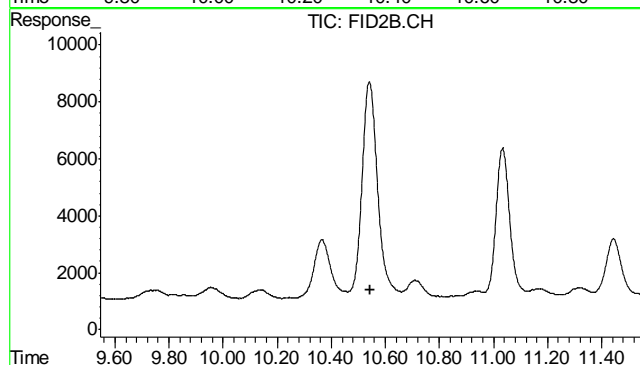
R.T.: 0.000 min
Exp R.T.: 4.225 min
Response: 0
Conc: N.D.



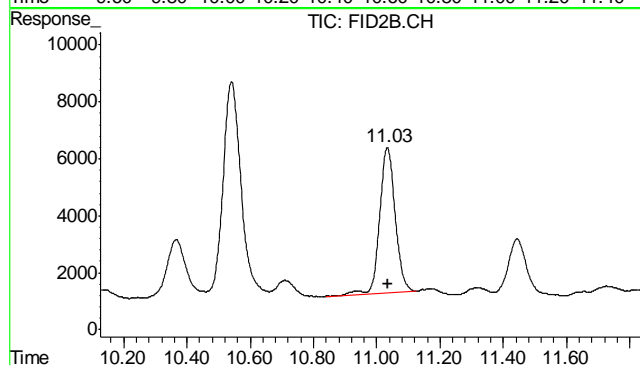
#6 Toluene
R.T.: 7.746 min
Delta R.T.: -0.006 min
Response: 185785
Conc: 0.40 ug/L



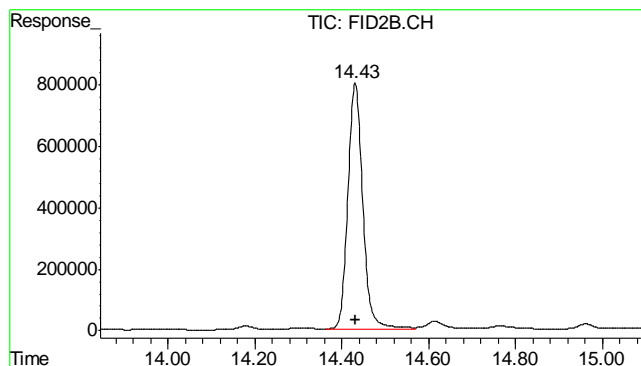
#7 Ethylbenzene
R.T.: 10.366 min
Delta R.T.: -0.002 min
Response: 88679
Conc: 0.22 ug/L



#8 m,p-Xylene
R.T.: 0.000 min
Exp R.T.: 10.545 min
Response: 0
Conc: N.D.

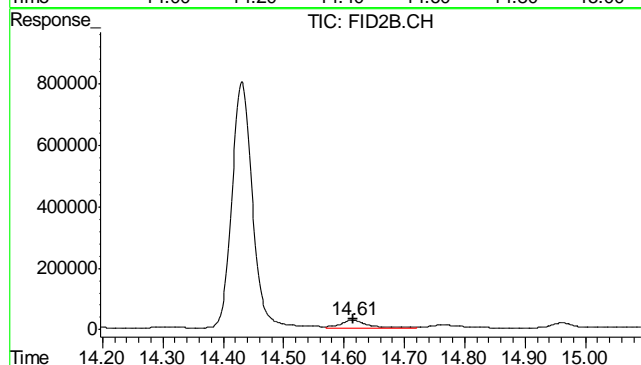


#9 o-Xylene
R.T.: 11.034 min
Delta R.T.: -0.002 min
Response: 174967
Conc: 0.18 ug/L



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

R.T.: 14.431 min
Delta R.T.: -0.002 min
Response: 19264341
Conc: 90.72 %



#11 Naphthalene

R.T.: 14.615 min
Delta R.T.: 0.000 min
Response: 937141
Conc: 4.06 ug/L

8.1.3

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13299.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\100311\GB13299.D\FID2B.CH
Acq On : 3 Oct 2011 11:18 pm Operator: StephK
Sample : D28215-4, 50X Inst : GC/MS Ins
Misc : GC2296,GGB755,5.087,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 04 08:43:04 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Tue Oct 04 08:42:40 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	14.42	2642323	76.153	%
10) S	1,2,4-Trichlorobenzene (P)	14.42	19172458	90.286	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5621515	<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	7.73	191052	0.411	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.53	367479	0.134	ug/L
9) T	o-Xylene	11.02	161398	0.150	ug/L
11) T	Naphthalene	14.60	393863	1.728	ug/L

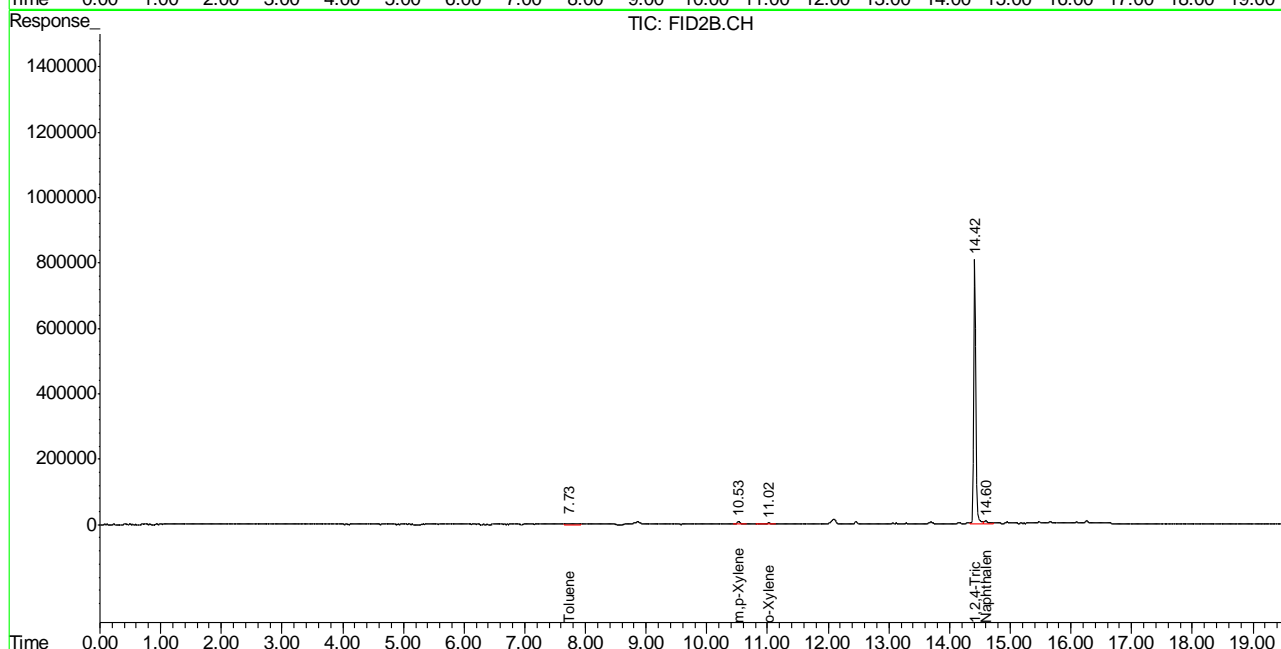
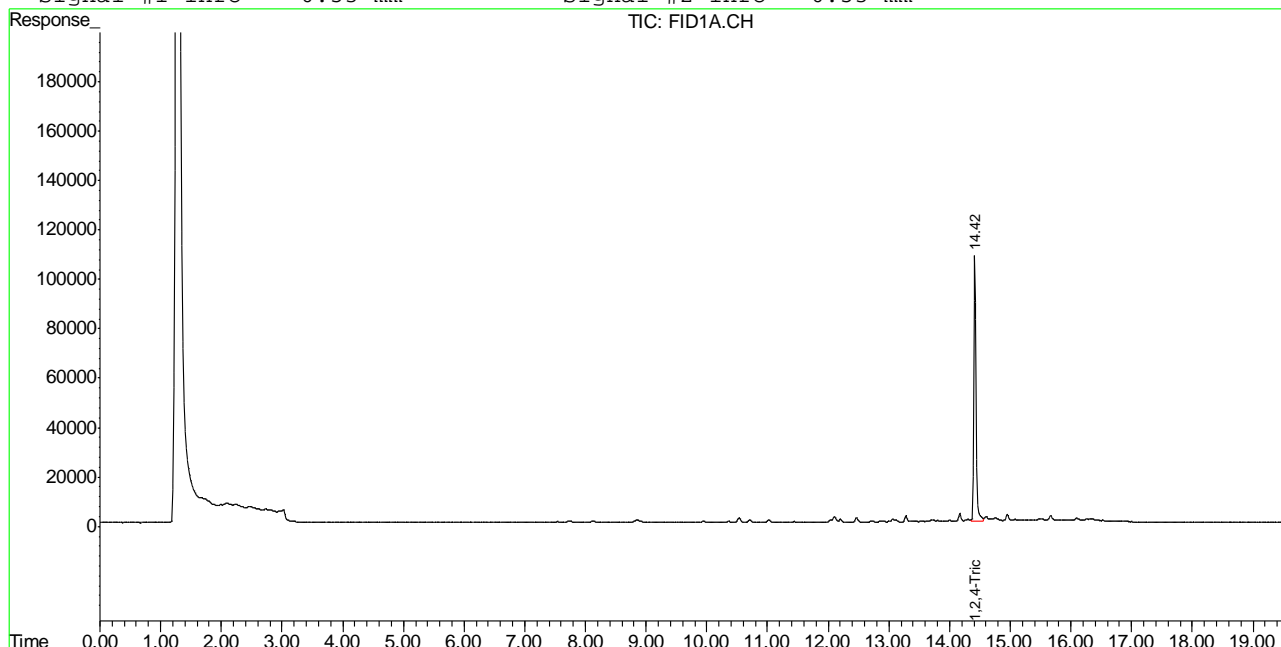
(f)=RT Delta > 1/2 Window (m)=manual int.
GB13299.D TB740GB740SOIL.M Tue Oct 04 08:55:59 2011 GC

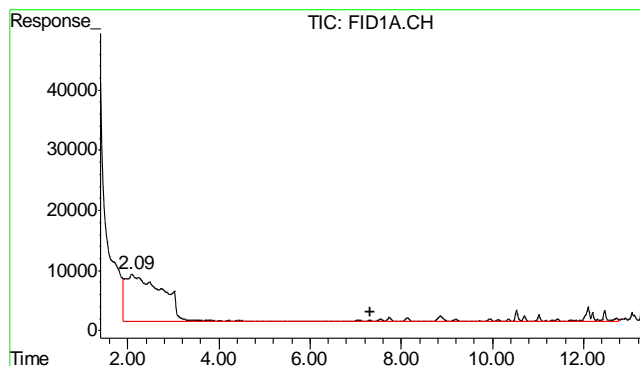
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GB13299.D\FID1A.CH Vial: 21
 Signal #2 : Y:\1\DATA\100311\GB13299.D\FID2B.CH
 Acq On : 3 Oct 2011 11:18 pm Operator: StephK
 Sample : D28215-4, 50X Inst : GC/MS Ins
 Misc : GC2296,GGB755,5.087,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 4 6:17 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Tue Oct 04 08:42:40 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

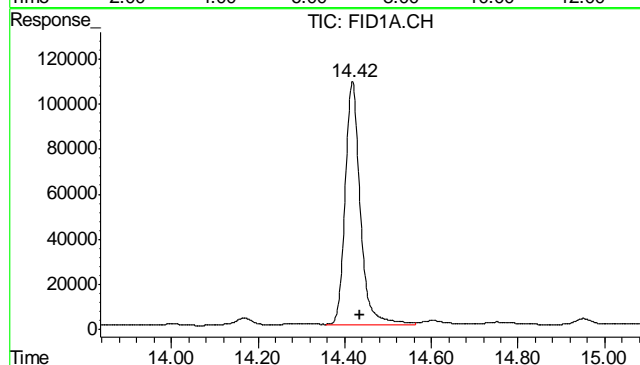
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





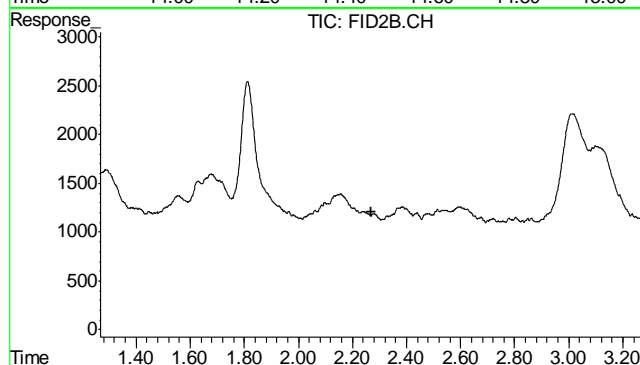
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5621515
Conc: N.D.



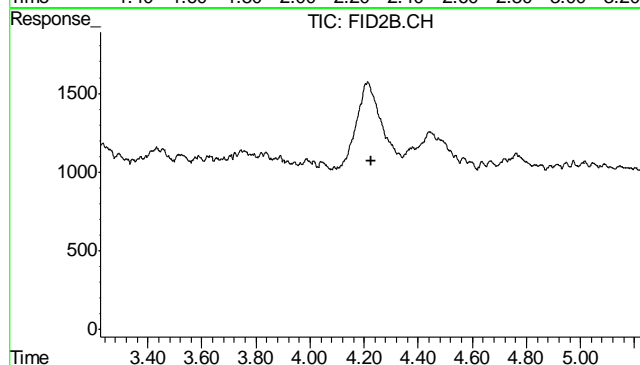
#2 1,2,4-Trichlorobenzene

R.T.: 14.418 min
Delta R.T.: -0.017 min
Response: 2642323
Conc: 76.15 %



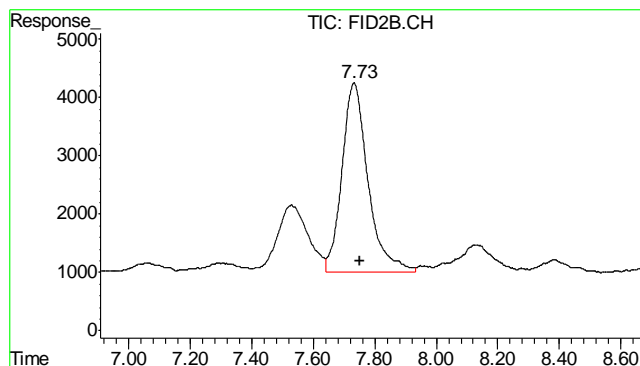
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.268 min
Response: 0
Conc: N.D.



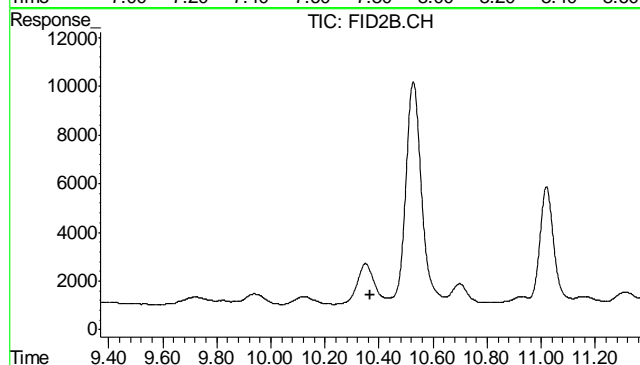
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.225 min
Response: 0
Conc: N.D.



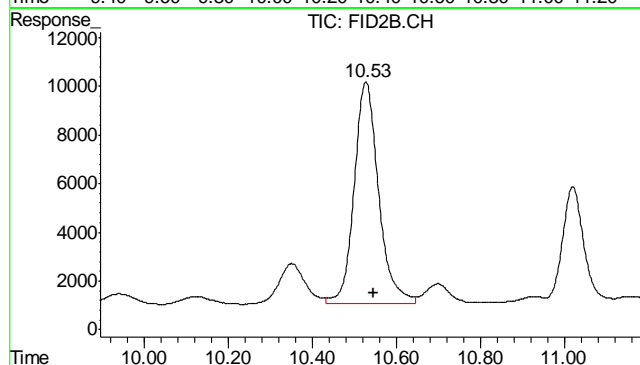
#6 Toluene

R.T.: 7.733 min
Delta R.T.: -0.020 min
Response: 191052
Conc: 0.41 ug/L



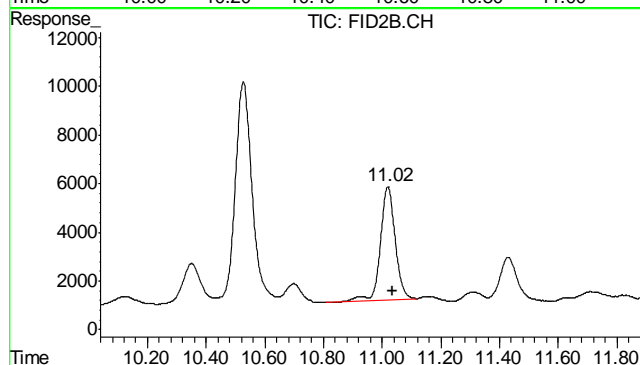
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.369 min
Response: 0
Conc: N.D.



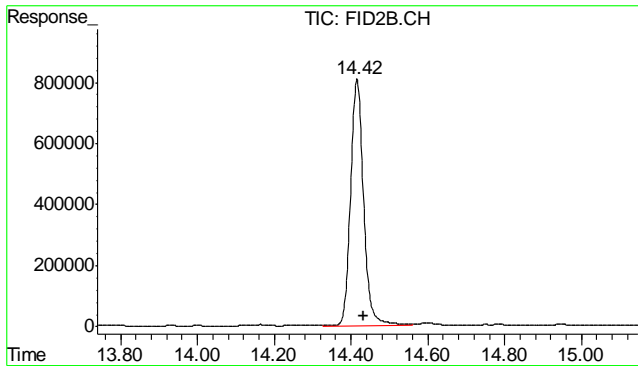
#8 m,p-Xylene

R.T.: 10.527 min
Delta R.T.: -0.018 min
Response: 367479
Conc: 0.13 ug/L



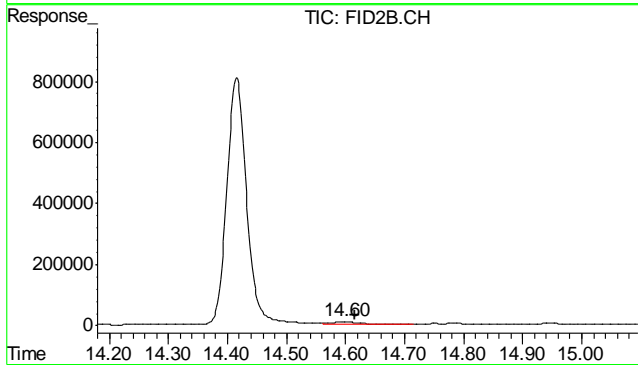
#9 o-Xylene

R.T.: 11.020 min
Delta R.T.: -0.016 min
Response: 161398
Conc: 0.15 ug/L



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

R.T.: 14.416 min
Delta R.T.: -0.017 min
Response: 19172458
Conc: 90.29 %



#11 Naphthalene

R.T.: 14.599 min
Delta R.T.: -0.017 min
Response: 393863
Conc: 1.73 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GRO AIR\GB13281.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\100311\GRO AIR\GB13281.D\FID2B.CH
Acq On : 3 Oct 2011 12:36 pm Operator: StephK
Sample : MB, A Inst : GC/MS Ins
Misc : GC2298,GGB756,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 03 14:41:17 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Oct 03 14:41:06 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	14.47	2831569	81.607	%
10) S	1,2,4-Trichlorobenzene (P)	14.47	21186060	99.768	%
Target Compounds					
1) H	TVH-Gasoline	7.33	6246181	<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	7.81	144493	0.311	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.65	364850	1.603	ug/L m

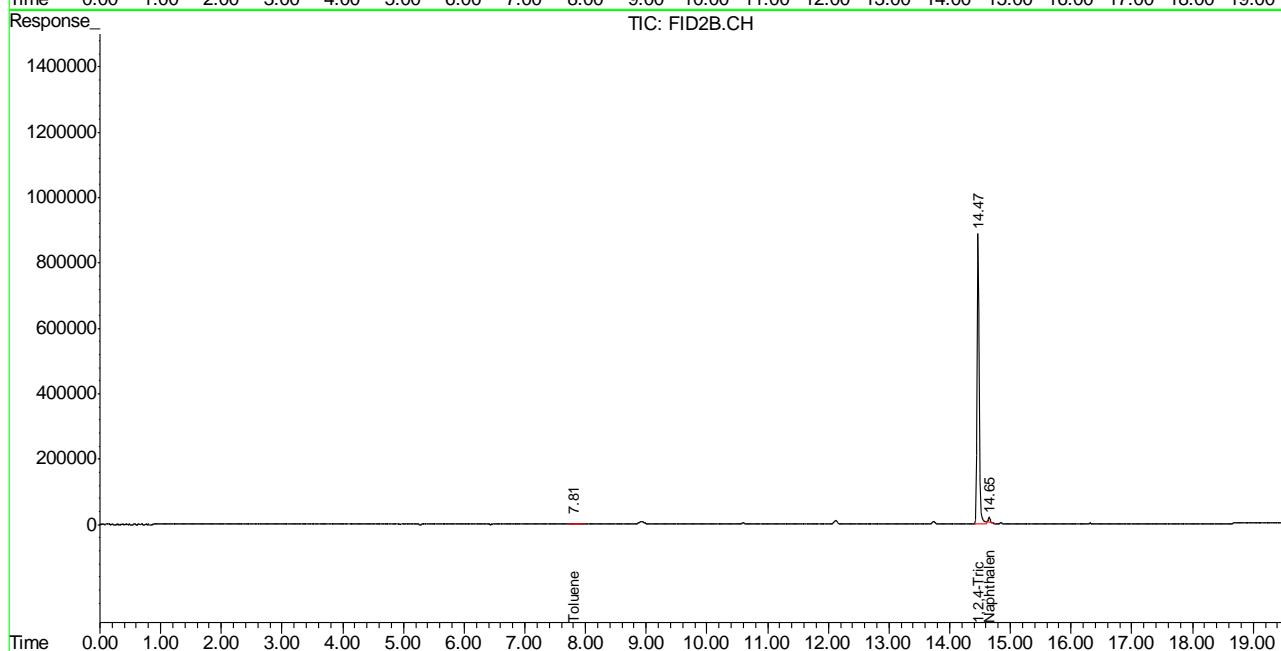
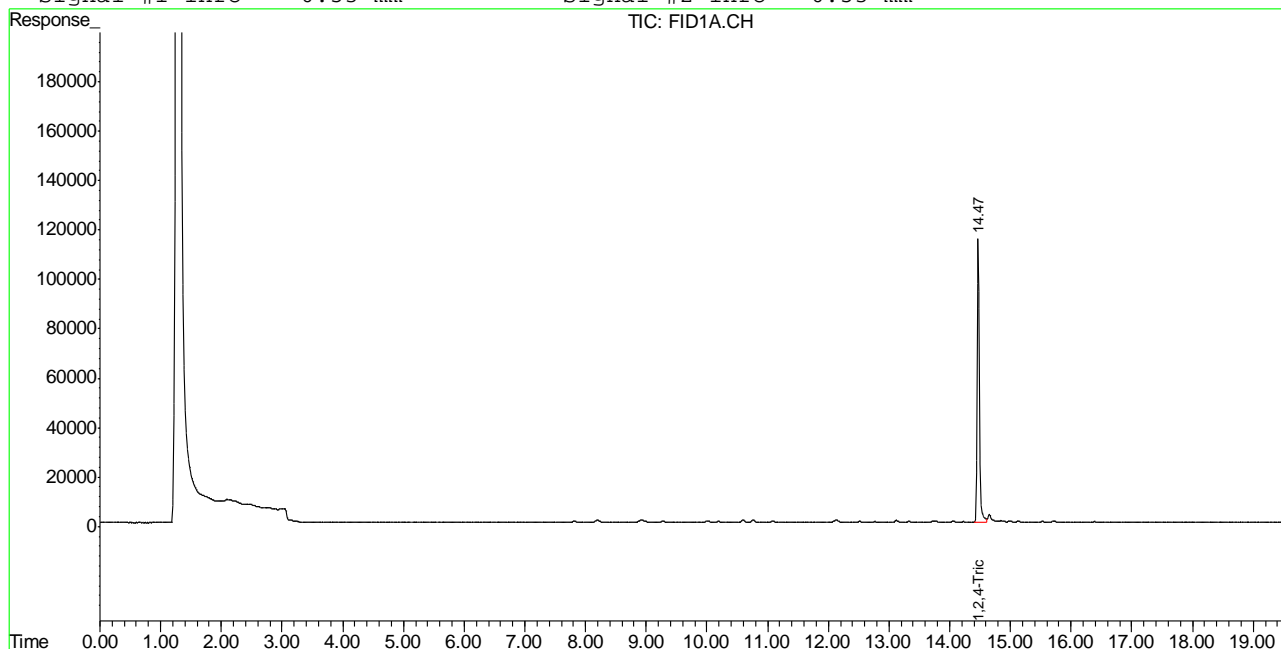
(f)=RT Delta > 1/2 Window (m)=manual int.
GB13281.D TB740GB740SOIL.M Tue Oct 04 09:14:35 2011 GC

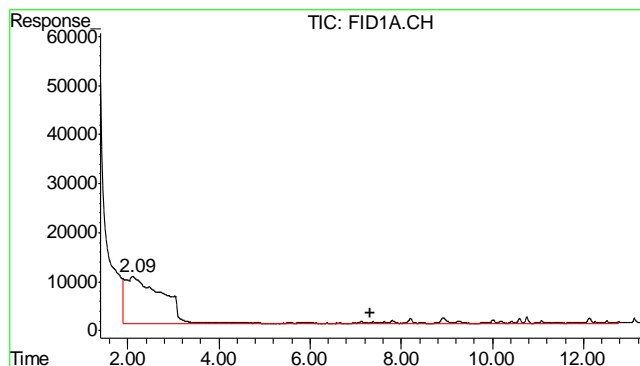
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100311\GRO AIR\GB13281.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\100311\GRO AIR\GB13281.D\FID2B.CH
Acq On : 3 Oct 2011 12:36 pm Operator: StephK
Sample : MB, A Inst : GC/MS Ins
Misc : GC2298,GGB756,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 3 12:49 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Oct 03 14:41:06 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

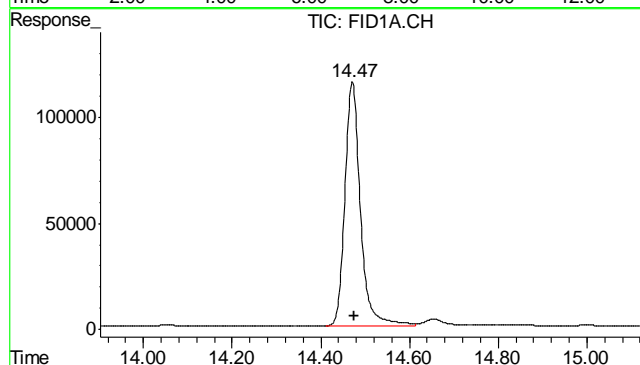
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





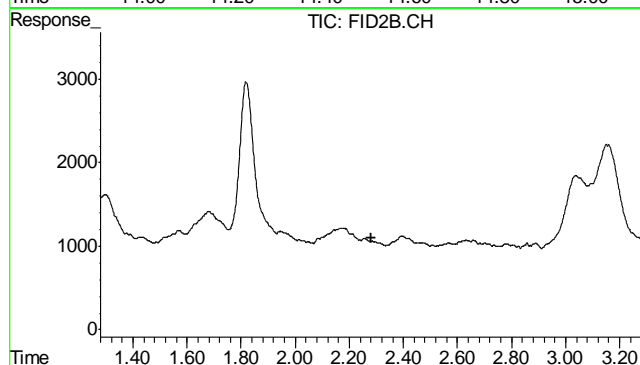
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6246181
Conc: N.D.



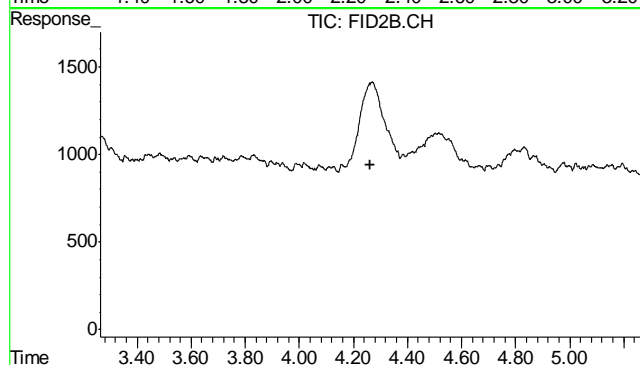
#2 1,2,4-Trichlorobenzene

R.T.: 14.471 min
Delta R.T.: -0.004 min
Response: 2831569
Conc: 81.61 %



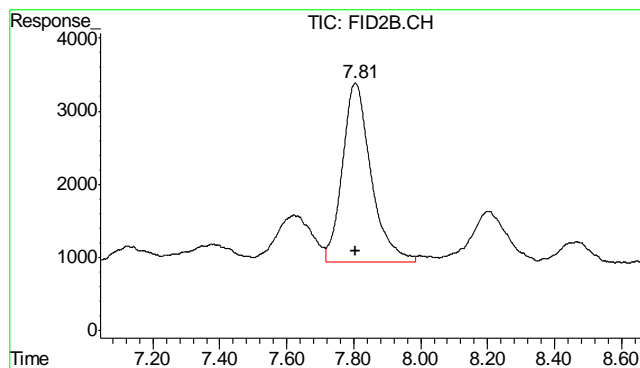
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.280 min
Response: 0
Conc: N.D.



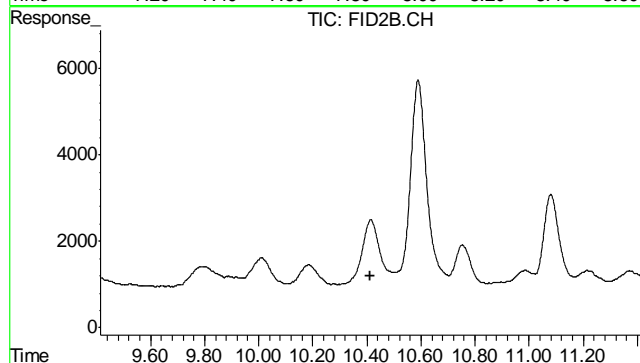
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.264 min
Response: 0
Conc: N.D.



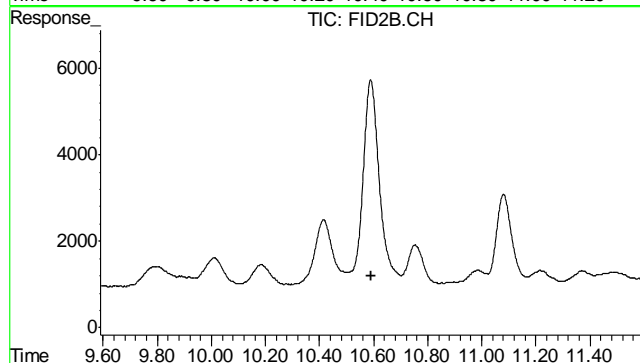
#6 Toluene

R.T.: 7.806 min
Delta R.T.: 0.002 min
Response: 144493
Conc: 0.31 ug/L



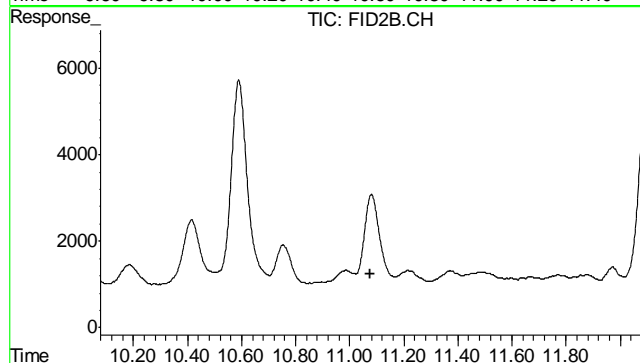
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.414 min
Response: 0
Conc: N.D.



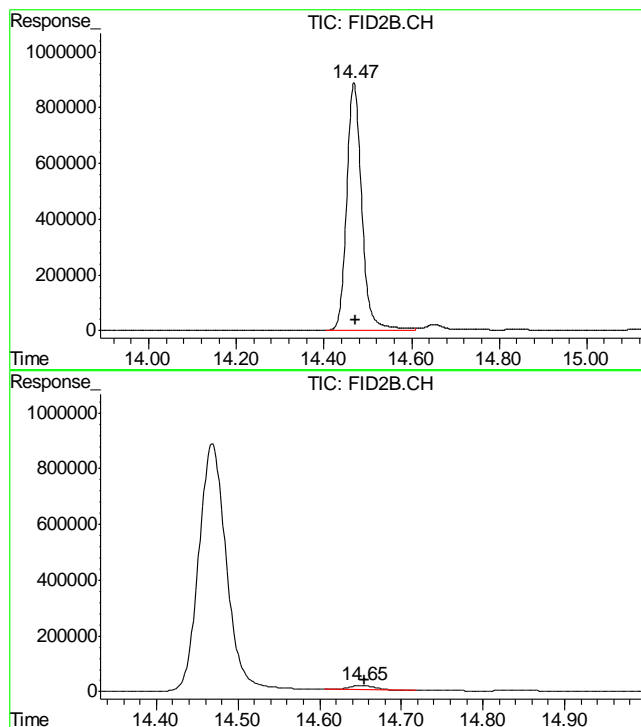
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.590 min
Response: 0
Conc: N.D.



#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 11.077 min
Response: 0
Conc: N.D.



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

R.T.: 14.469 min
Delta R.T.: -0.004 min
Response: 21186060
Conc: 99.77 %

#11 Naphthalene

R.T.: 14.652 min
Delta R.T.: -0.004 min
Response: 364850
Conc: 1.60 ug/L m

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

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4585-MB	F103962.D	1	10/03/11	CS	10/02/11	OP4585	GFI282

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

D28215-1, D28215-2, D28215-3, D28215-4

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	80% 61-142%

9.1.1
9

Blank Spike Summary

Page 1 of 1

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4585-BS	FI03963.D	1	10/03/11	CS	10/02/11	OP4585	GFI282

The QC reported here applies to the following samples:

Method: SW846-8015B

D28215-1, D28215-2, D28215-3, D28215-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	558	84	60-130

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

9.2.1

9

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28215
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4585-MS	FI03964.D	1	10/03/11	CS	10/02/11	OP4585	GFI282
OP4585-MSD	FI03965.D	1	10/03/11	CS	10/02/11	OP4585	GFI282
D28215-1	FI03966.D	1	10/03/11	CS	10/02/11	OP4585	GFI282

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

D28215-1, D28215-2, D28215-3, D28215-4

CAS No.	Compound	D28215-1 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	205		769	828	81	816	80	1	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D28215-1	Limits
84-15-1	o-Terphenyl	72%	70%	68%	61-142%

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03966.D Vial: 7
Acq On : 3 Oct 2011 4:52 pm Operator: chavalit
Sample : D28215-1 Inst : FID6
Misc : OP4585,GFI282,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 03 17:09:03 2011 Quant Results File: DF-GFI176.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Initial Calibration
DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	13.65f	54075963	676.293 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	12.23	199959231	2666.495 mg/L

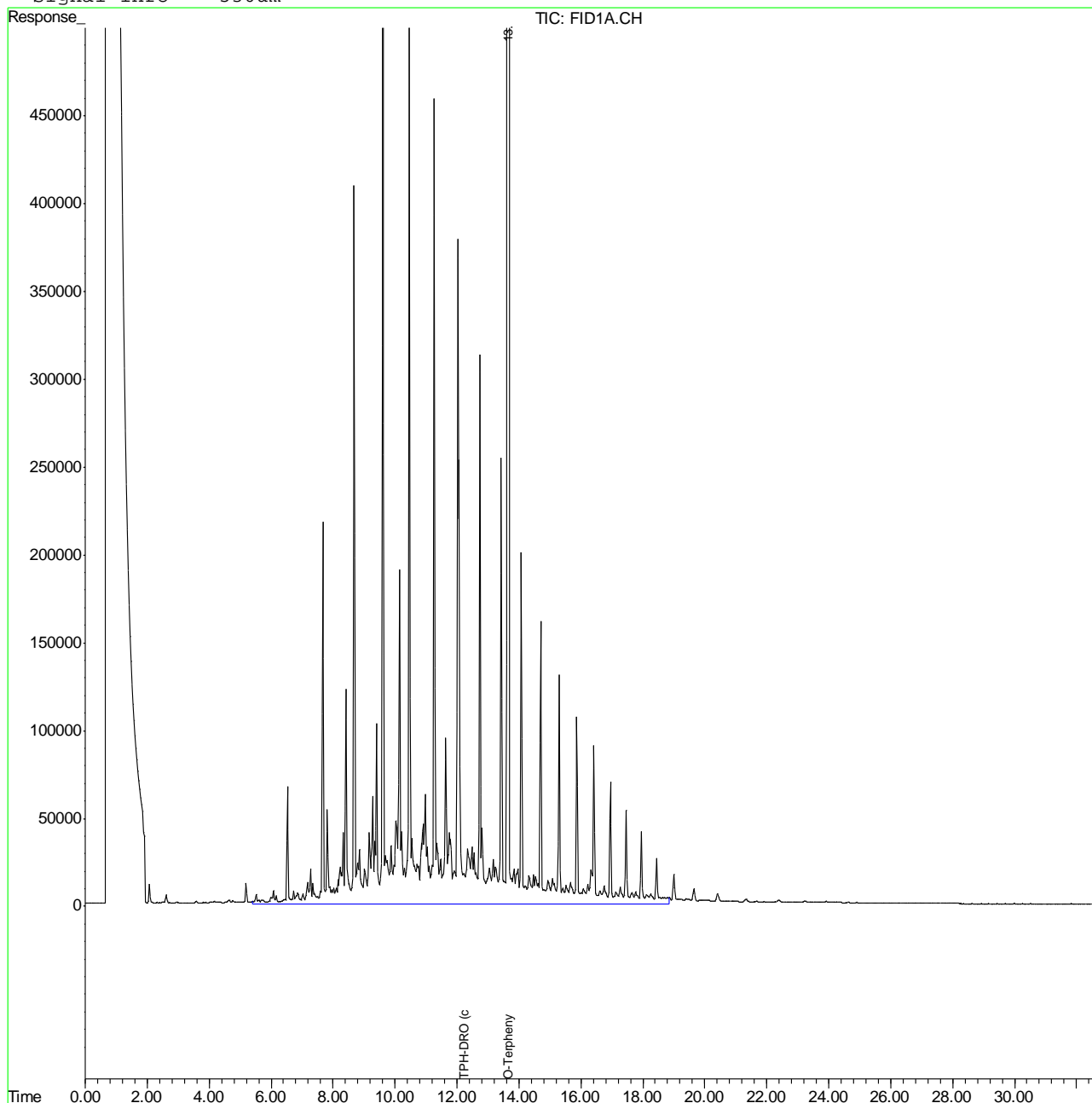
10.1.1
10

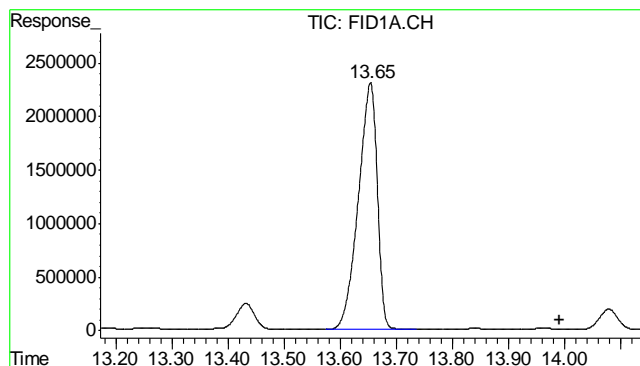
Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03966.D Vial: 7
Acq On : 3 Oct 2011 4:52 pm Operator: chavalit
Sample : D28215-1 Inst : FID6
Misc : OP4585,GFI282,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 3 17:49 2011 Quant Results File: DF-GFI176.RES

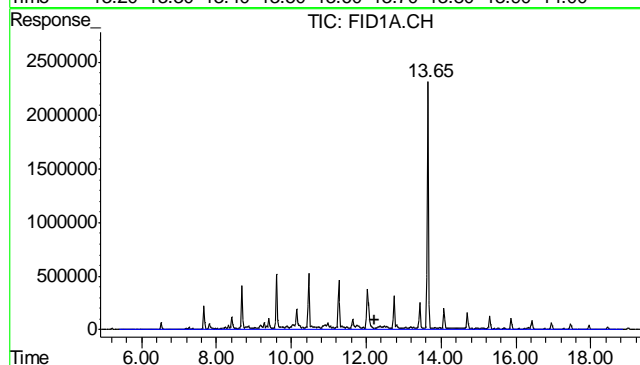
Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Multiple Level Calibration
DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

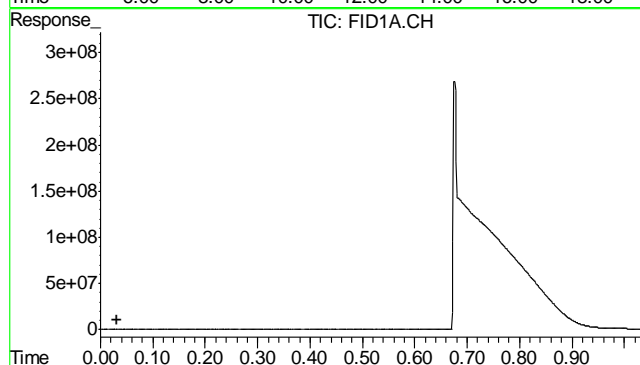




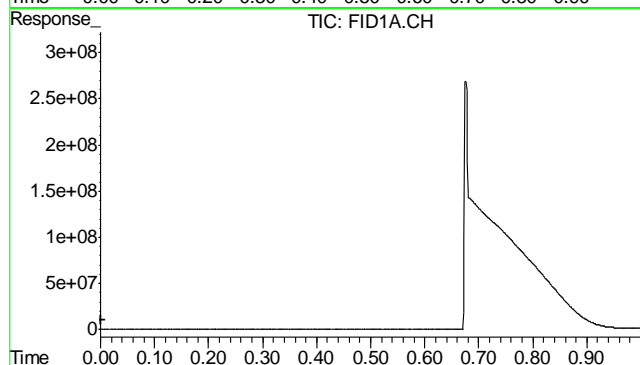
#1 O-Terphenyl
 R.T.: 13.654 min
 Delta R.T.: -0.336 min
 Response: 54075963
 Conc: 676.29 mg/L m



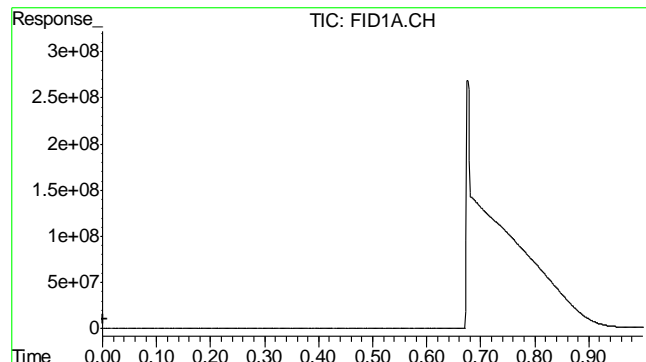
#2 TPH-DRO (c10-c28)
 R.T.: 12.225 min
 Delta R.T.: 0.000 min
 Response: 199959231
 Conc: 2666.50 mg/L m



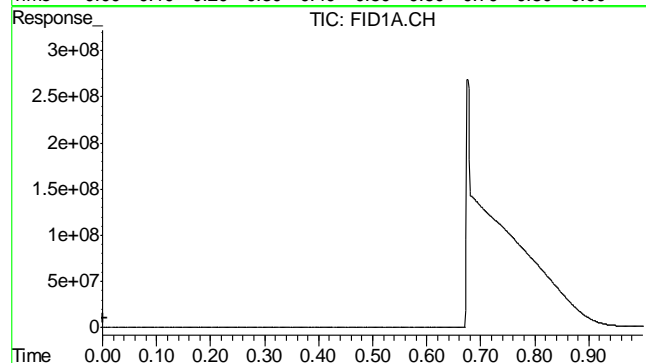
#9 5a-Androstane
 R.T.: 0.049 min
 Delta R.T.: 0.017 min
 Response: 51
 Conc: N.D.



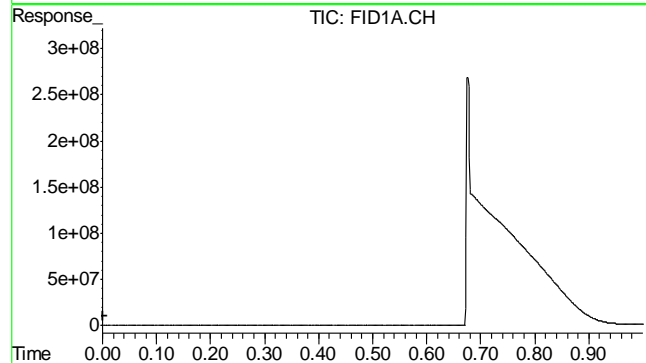
#10 2-Fluorophenol
 R.T.: 0.049 min
 Delta R.T.: 0.049 min
 Response: 51
 Conc: N.D.



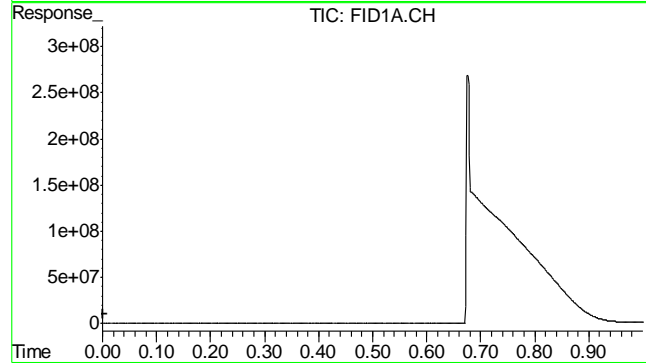
#11 Phenol-d5
R.T.: 0.049 min
Delta R.T.: 0.049 min
Response: 51
Conc: N.D.



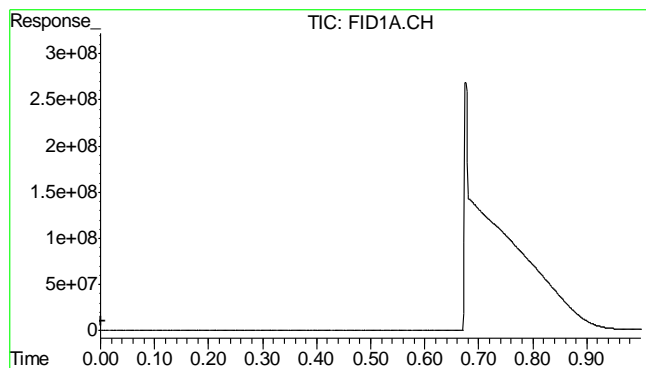
#12 Nitrobenzene-d5
R.T.: 0.049 min
Delta R.T.: 0.049 min
Response: 51
Conc: N.D.



#13 2-Fluorobiphenyl
R.T.: 0.049 min
Delta R.T.: 0.049 min
Response: 51
Conc: N.D.



#14 2,4,6-Tribromophenol
R.T.: 0.049 min
Delta R.T.: 0.049 min
Response: 51
Conc: N.D.



#15 Terphenyl-d14

R.T.: 0.049 min
Delta R.T.: 0.049 min
Response: 51
Conc: N.D.

10.1.1
10

Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03984.D Vial: 24
Acq On : 4 Oct 2011 4:46 am Operator: chavalit
Sample : D28215-2 Inst : FID6
Misc : OP4585,GFI282,30.15,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 04 09:16:44 2011 Quant Results File: DF-GFI176.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Initial Calibration
DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	13.66f	59989530	750.250 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	12.23	38669250	515.662 mg/L

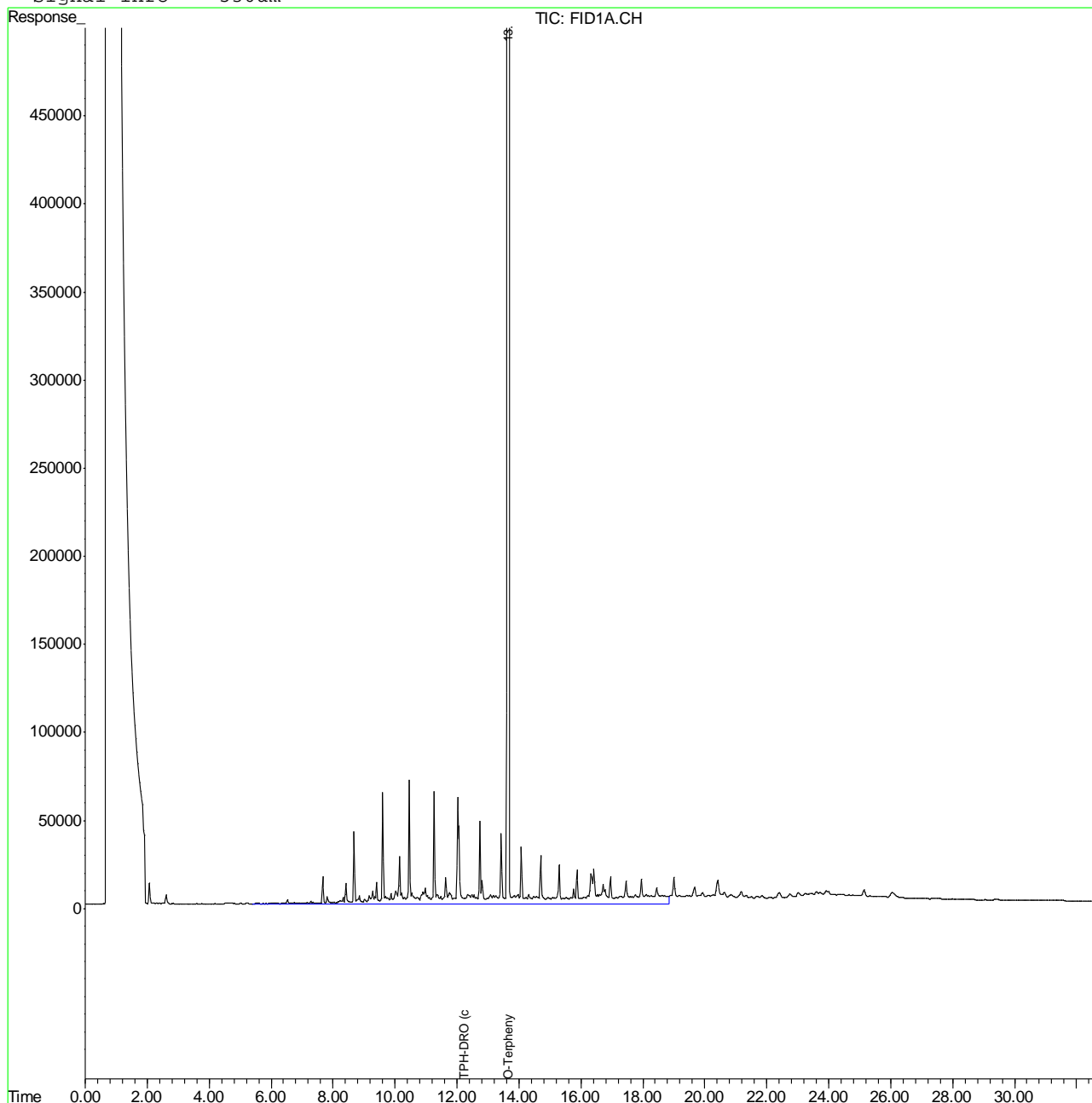
10.1.2
10

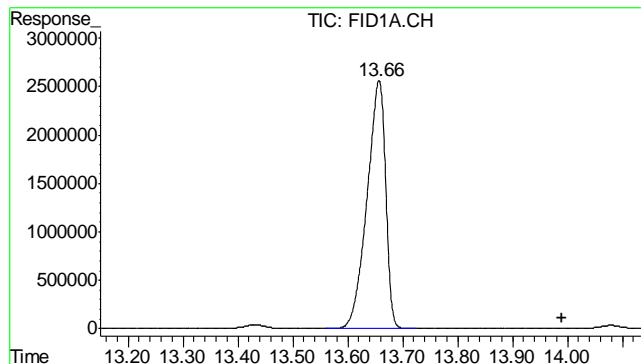
Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03984.D Vial: 24
 Acq On : 4 Oct 2011 4:46 am Operator: chavalit
 Sample : D28215-2 Inst : FID6
 Misc : OP4585,GFI282,30.15,,,2,1 Multiplr: 1.00
 IntFile : DF-GFE136.E
 Quant Time: Oct 4 9:55 2011 Quant Results File: DF-GFI176.RES

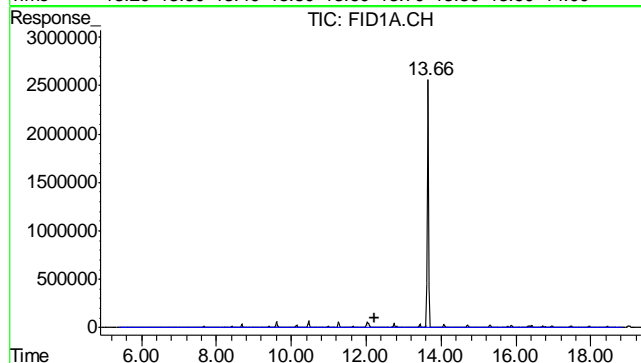
Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Tue Jul 26 13:26:11 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um

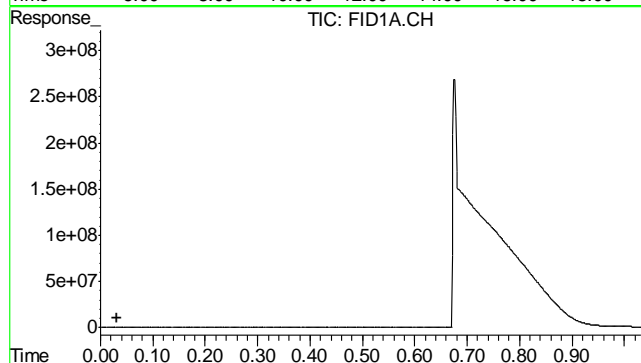




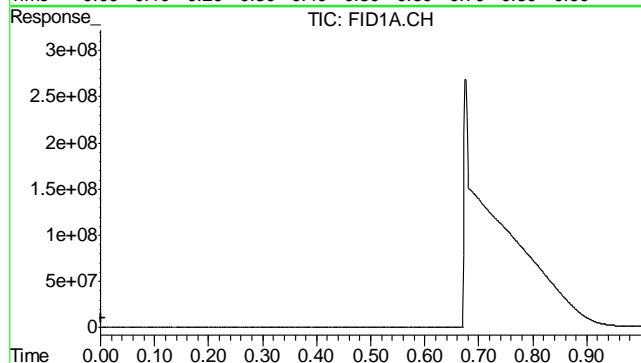
#1 O-Terphenyl
 R.T.: 13.656 min
 Delta R.T.: -0.334 min
 Response: 59989530
 Conc: 750.25 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 12.225 min
 Delta R.T.: 0.000 min
 Response: 38669250
 Conc: 515.66 mg/L m

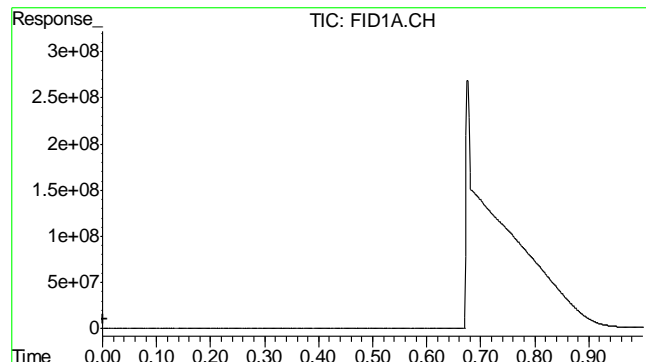


#9 5a-Androstane
 R.T.: 0.040 min
 Delta R.T.: 0.008 min
 Response: 237
 Conc: N.D.

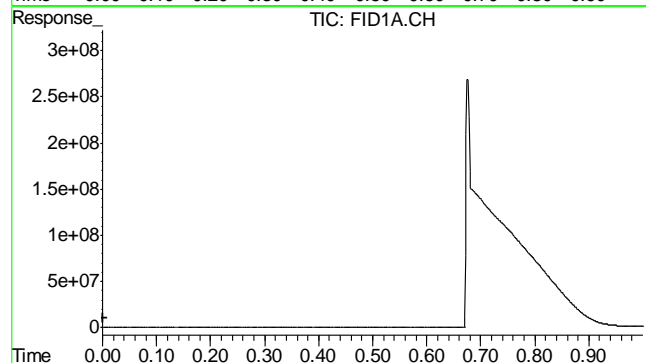


#10 2-Fluorophenol
 R.T.: 0.040 min
 Delta R.T.: 0.040 min
 Response: 237
 Conc: N.D.

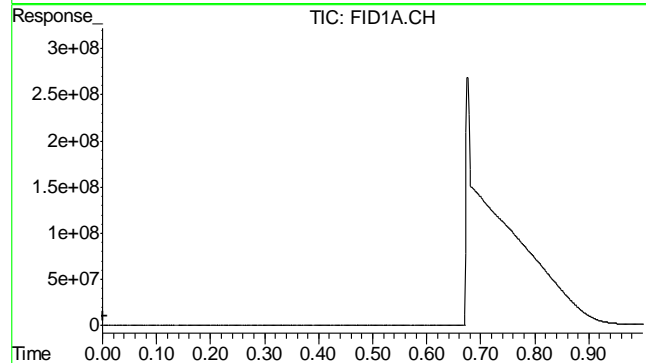
10.12
 10



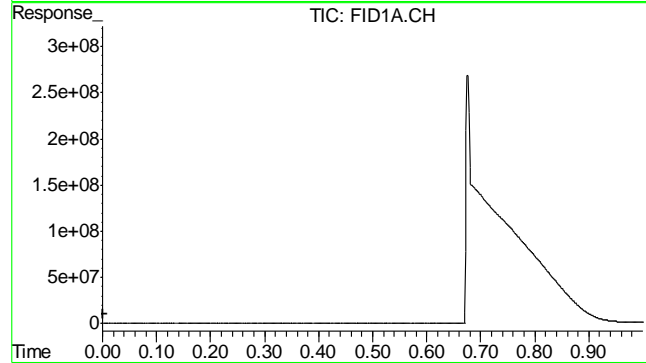
#11 Phenol-d5
R.T.: 0.040 min
Delta R.T.: 0.040 min
Response: 237
Conc: N.D.



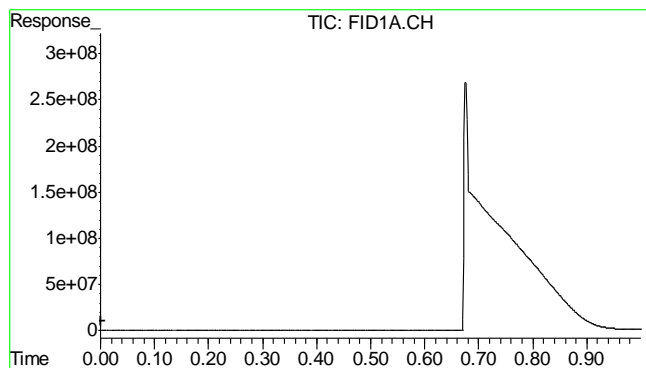
#12 Nitrobenzene-d5
R.T.: 0.040 min
Delta R.T.: 0.040 min
Response: 237
Conc: N.D.



#13 2-Fluorobiphenyl
R.T.: 0.040 min
Delta R.T.: 0.040 min
Response: 237
Conc: N.D.



#14 2,4,6-Tribromophenol
R.T.: 0.040 min
Delta R.T.: 0.040 min
Response: 237
Conc: N.D.



#15 Terphenyl-d14

R.T.: 0.040 min
Delta R.T.: 0.040 min
Response: 237
Conc: N.D.

10.1.2
10

Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03985.D Vial: 25
Acq On : 4 Oct 2011 5:26 am Operator: chavalit
Sample : D28215-3 Inst : FID6
Misc : OP4585,GFI282,30.08,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 04 09:17:25 2011 Quant Results File: DF-GFI176.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Initial Calibration
DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	13.65f	51745249	647.144 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	12.23	16429264	219.087 mg/L

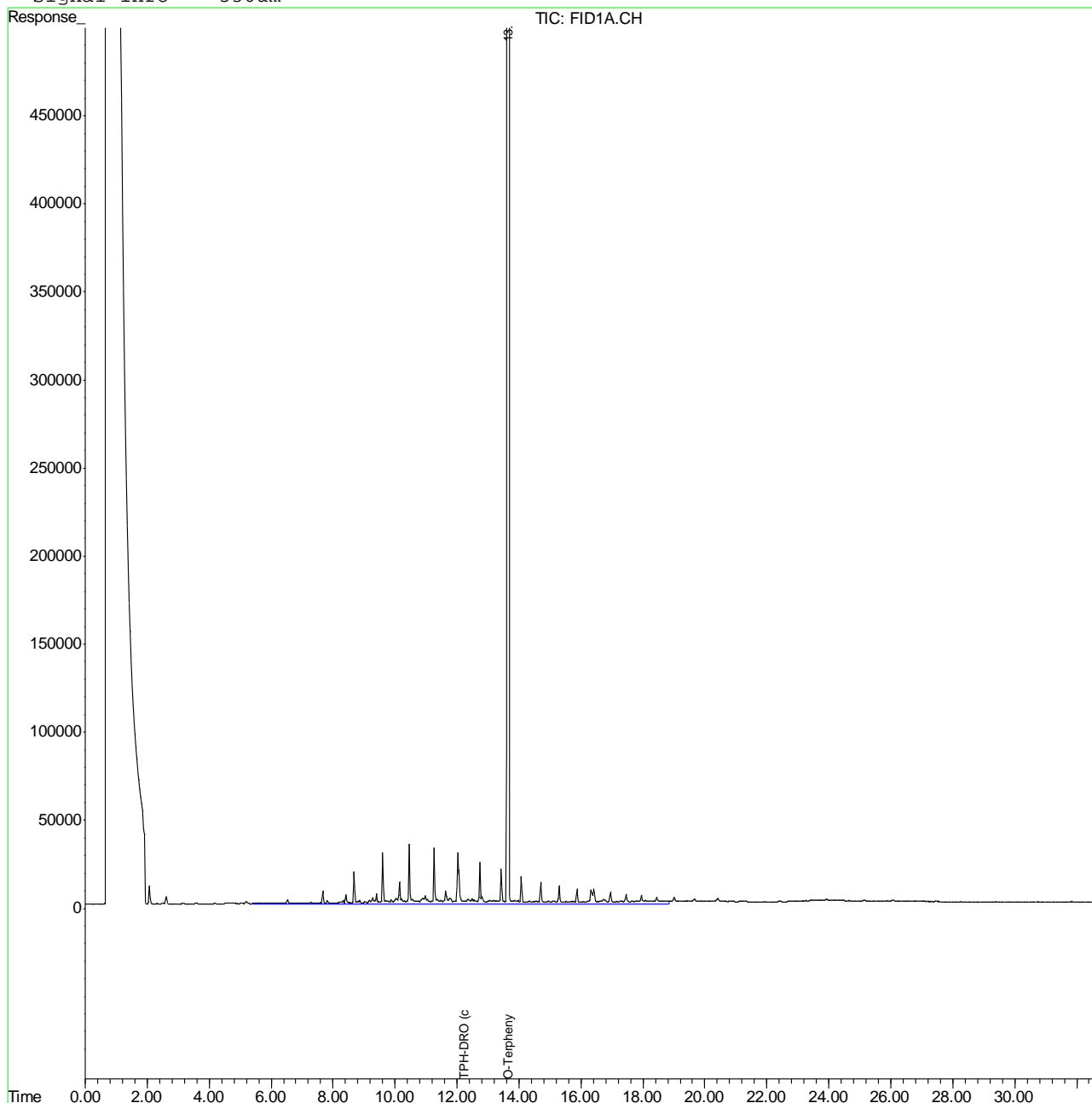
10.1.3
10

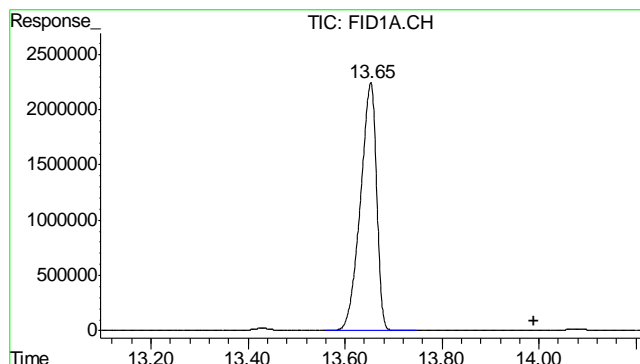
Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03985.D Vial: 25
 Acq On : 4 Oct 2011 5:26 am Operator: chavalit
 Sample : D28215-3 Inst : FID6
 Misc : OP4585,GFI282,30.08,,,2,1 Multiplr: 1.00
 IntFile : DF-GFE136.E
 Quant Time: Oct 4 9:56 2011 Quant Results File: DF-GFI176.RES

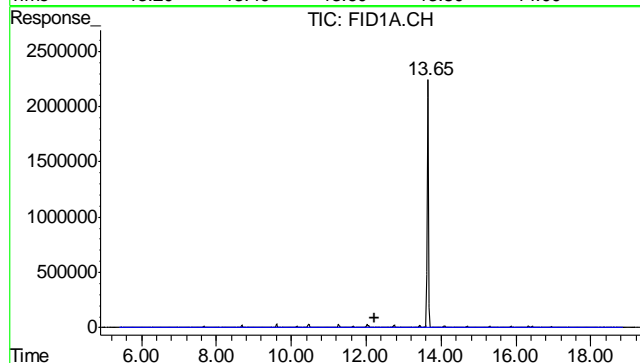
Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Tue Jul 26 13:26:11 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um

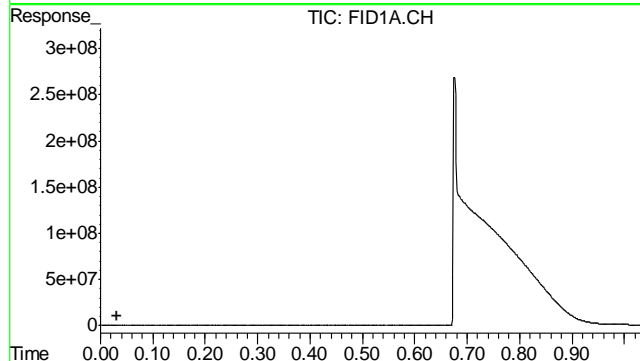




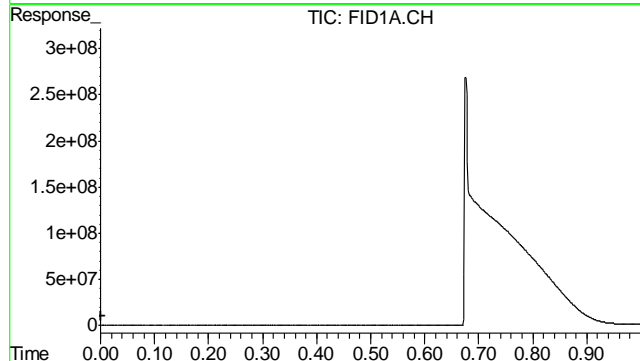
#1 O-Terphenyl
 R.T.: 13.653 min
 Delta R.T.: -0.337 min
 Response: 51745249
 Conc: 647.14 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 12.225 min
 Delta R.T.: 0.000 min
 Response: 16429264
 Conc: 219.09 mg/L m

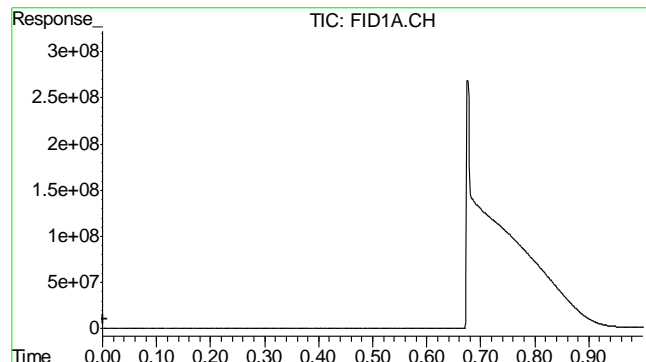


#9 5a-Androstane
 R.T.: 0.042 min
 Delta R.T.: 0.010 min
 Response: 42
 Conc: N.D.

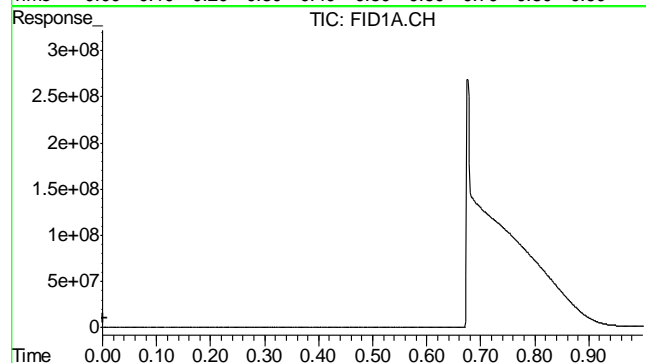


#10 2-Fluorophenol
 R.T.: 0.042 min
 Delta R.T.: 0.042 min
 Response: 42
 Conc: N.D.

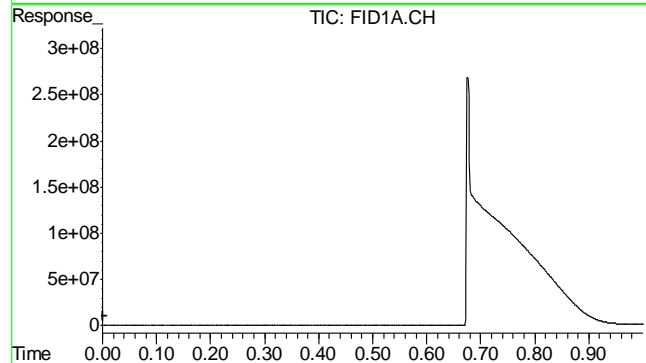
10.1.3
 10



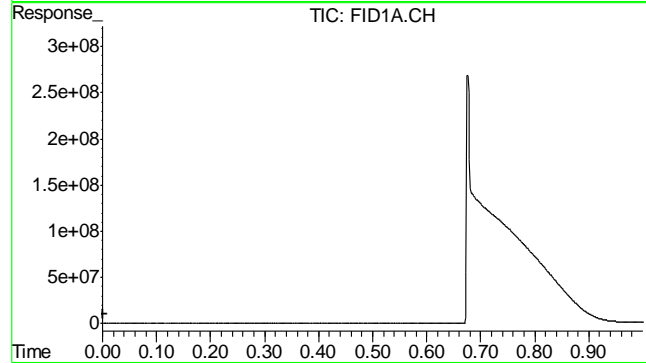
#11 Phenol-d5
R.T.: 0.042 min
Delta R.T.: 0.042 min
Response: 42
Conc: N.D.



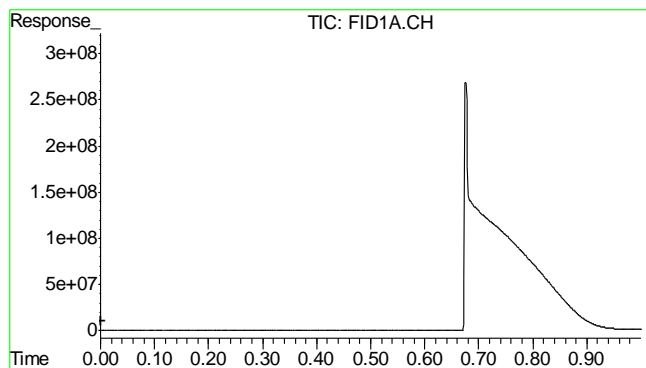
#12 Nitrobenzene-d5
R.T.: 0.042 min
Delta R.T.: 0.042 min
Response: 42
Conc: N.D.



#13 2-Fluorobiphenyl
R.T.: 0.042 min
Delta R.T.: 0.042 min
Response: 42
Conc: N.D.



#14 2,4,6-Tribromophenol
R.T.: 0.042 min
Delta R.T.: 0.042 min
Response: 42
Conc: N.D.



#15 Terphenyl-d14

R.T.: 0.042 min
Delta R.T.: 0.042 min
Response: 42
Conc: N.D.

10.1.3
10

Manual Integrations

APPROVED

(compounds with "m" flag)

Judy Melson

10/04/11 10:39

Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03986.D Vial: 26
Acq On : 4 Oct 2011 6:05 am Operator: chavalit
Sample : D28215-4 Inst : FID6
Misc : OP4585,GFI282,30.21,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 04 09:17:56 2011 Quant Results File: DF-GFI176.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Initial Calibration
DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	13.66f	57392225	717.767 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	12.23	20404468	272.098 mg/L

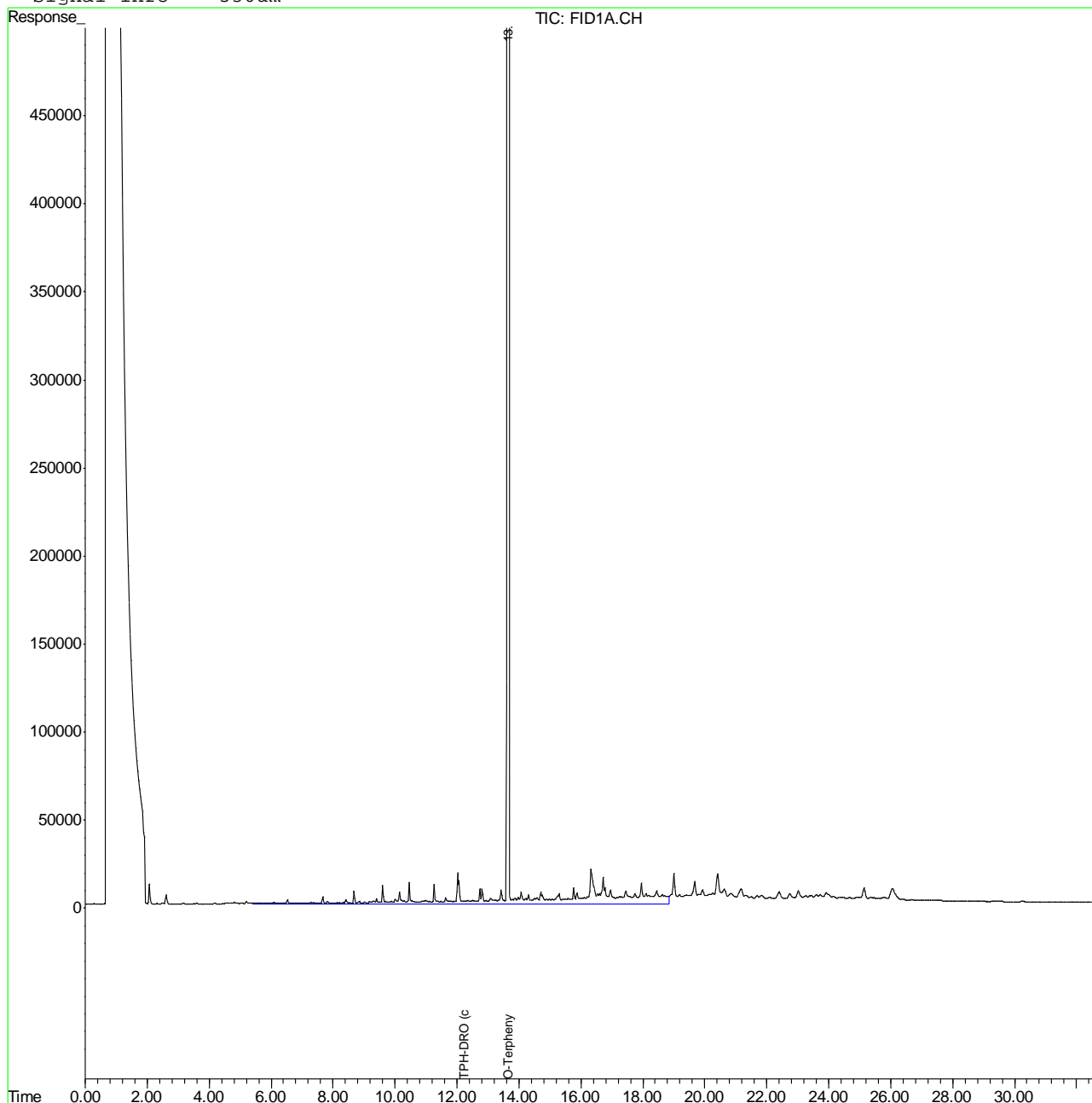
10.1.4
10

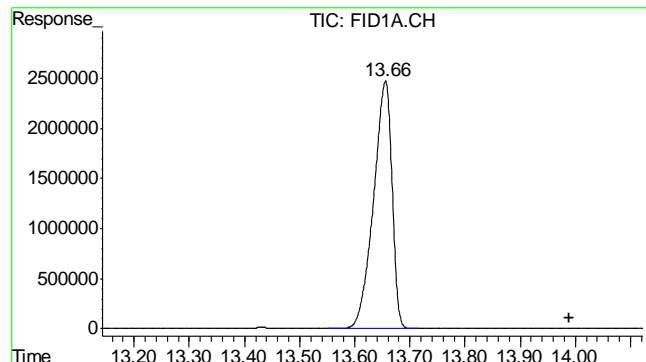
Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03986.D Vial: 26
 Acq On : 4 Oct 2011 6:05 am Operator: chavalit
 Sample : D28215-4 Inst : FID6
 Misc : OP4585,GFI282,30.21,,,2,1 Multiplr: 1.00
 IntFile : DF-GFE136.E
 Quant Time: Oct 4 9:56 2011 Quant Results File: DF-GFI176.RES

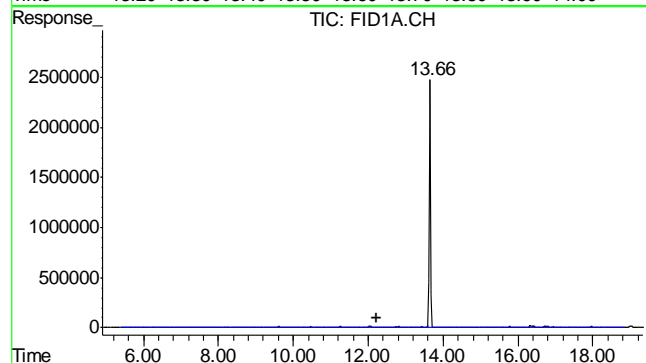
Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Tue Jul 26 13:26:11 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um

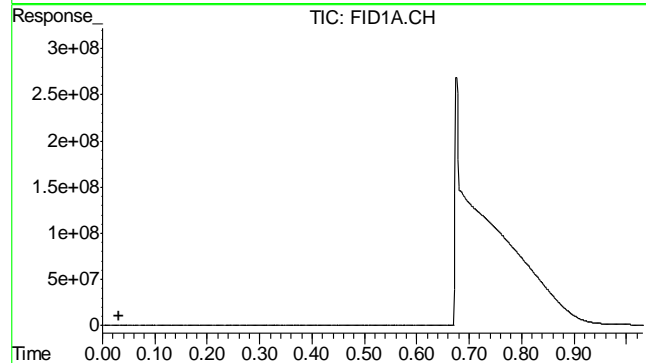




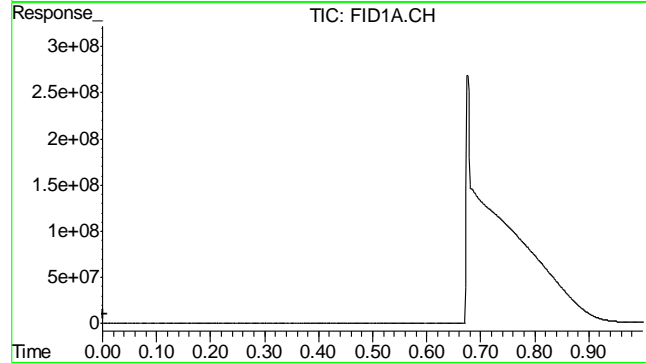
#1 O-Terphenyl
R.T.: 13.656 min
Delta R.T.: -0.334 min
Response: 57392225
Conc: 717.77 mg/L m



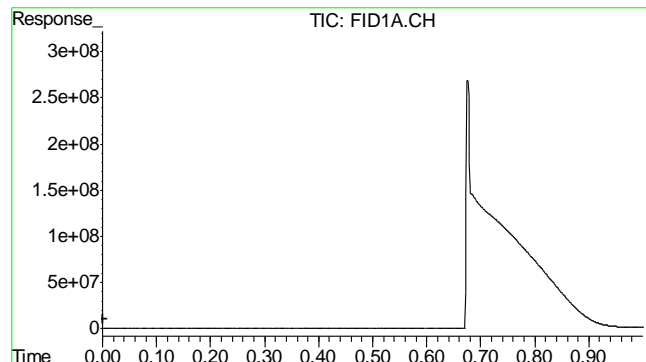
#2 TPH-DRO (c10-c28)
R.T.: 12.225 min
Delta R.T.: 0.000 min
Response: 20404468
Conc: 272.10 mg/L m



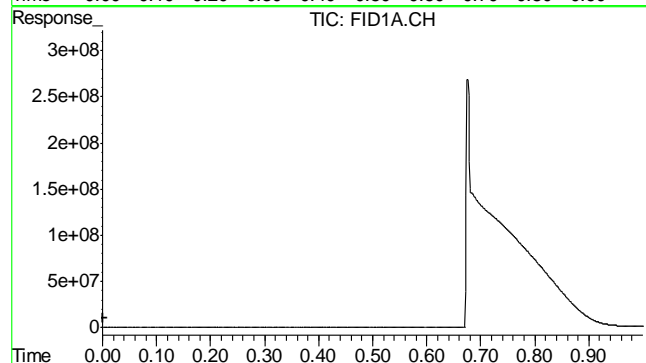
#9 5a-Androstane
R.T.: 0.062 min
Delta R.T.: 0.030 min
Response: 72
Conc: N.D.



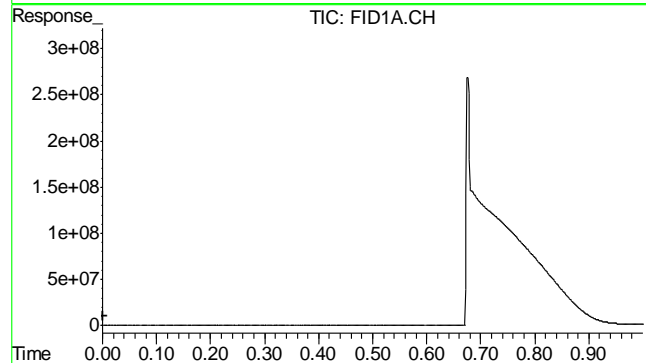
#10 2-Fluorophenol
R.T.: 0.062 min
Delta R.T.: 0.062 min
Response: 72
Conc: N.D.



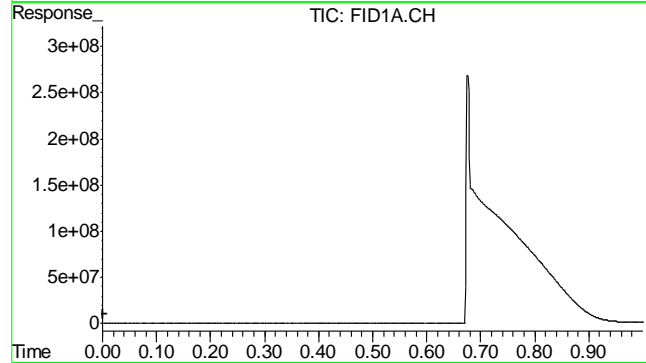
#11 Phenol-d5
R.T.: 0.062 min
Delta R.T.: 0.062 min
Response: 72
Conc: N.D.



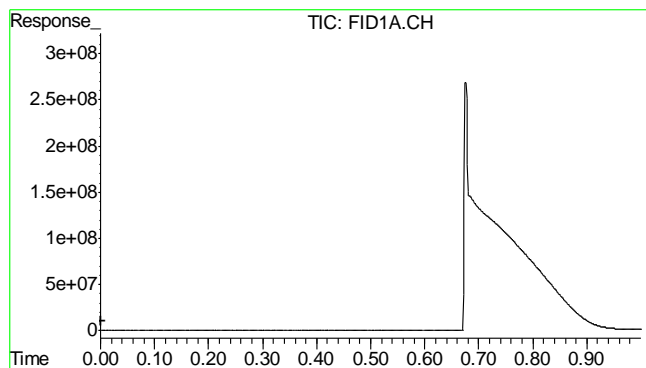
#12 Nitrobenzene-d5
R.T.: 0.062 min
Delta R.T.: 0.062 min
Response: 72
Conc: N.D.



#13 2-Fluorobiphenyl
R.T.: 0.062 min
Delta R.T.: 0.062 min
Response: 72
Conc: N.D.



#14 2,4,6-Tribromophenol
R.T.: 0.062 min
Delta R.T.: 0.062 min
Response: 72
Conc: N.D.



#15 Terphenyl-d14

R.T.: 0.062 min
Delta R.T.: 0.062 min
Response: 72
Conc: N.D.

10.1.4
10

Judy Melson
10/04/11 10:39

Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03962.D Vial: 3
Acq On : 3 Oct 2011 2:13 pm Operator: chavalit
Sample : OP4585-MB Inst : FID6
Misc : OP4585,GFI282,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 03 14:07:37 2011 Quant Results File: DF-GFI176.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Initial Calibration
DataAcq Meth : FR_BASE2.M

Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	13.66f	63850639	798.539 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	12.23	924034	12.322 mg/L

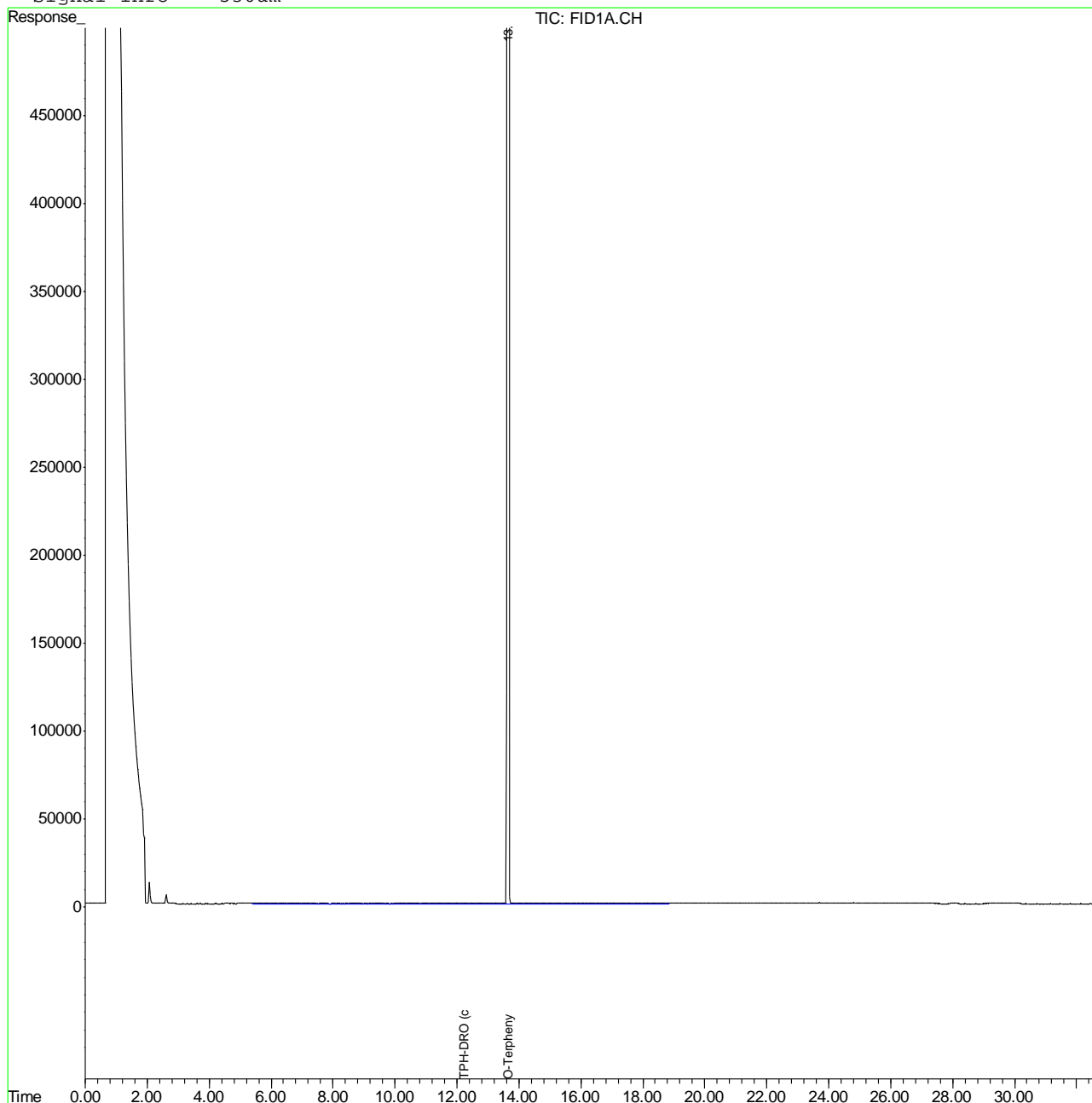
(f)=RT Delta > 1/2 Window (m)=manual int.
FI03962.D DF-GFI176.M Tue Oct 04 09:21:56 2011 TEH

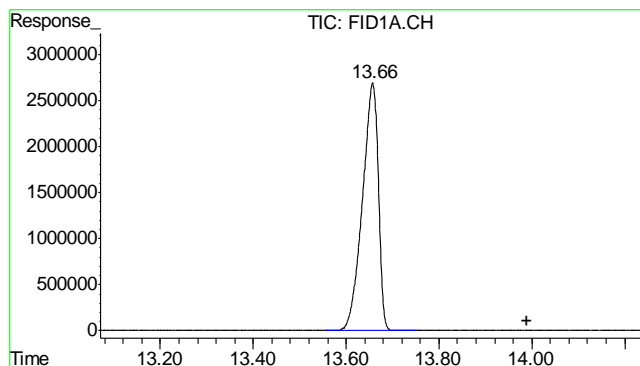
Quantitation Report (QT Reviewed)

Data File : E:\DATA\FI100311\FI03962.D Vial: 3
Acq On : 3 Oct 2011 2:13 pm Operator: chavalit
Sample : OP4585-MB Inst : FID6
Misc : OP4585,GFI282,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFE136.E
Quant Time: Oct 3 14:48 2011 Quant Results File: DF-GFI176.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFI176.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Tue Jul 26 13:26:11 2011
Response via : Multiple Level Calibration
DataAcq Meth : FR_BASE2.M

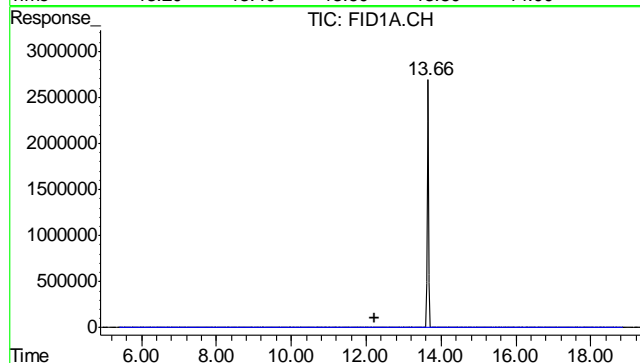
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





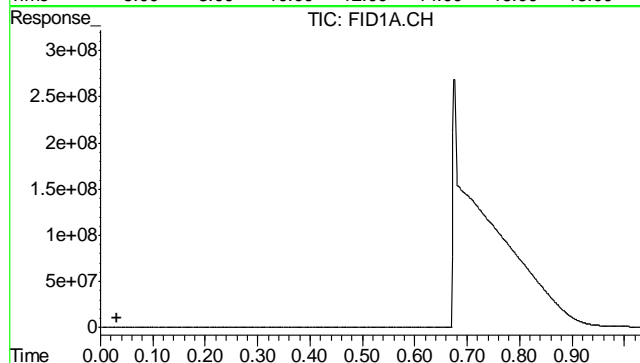
#1 O-Terphenyl

R.T.: 13.657 min
Delta R.T.: -0.333 min
Response: 63850639
Conc: 798.54 mg/L m



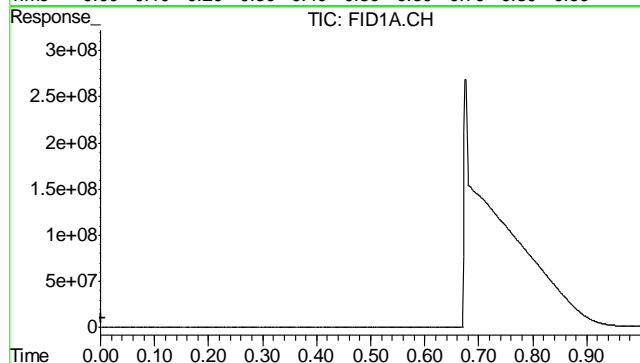
#2 TPH-DRO (c10-c28)

R.T.: 12.225 min
Delta R.T.: 0.000 min
Response: 924034
Conc: 12.32 mg/L m



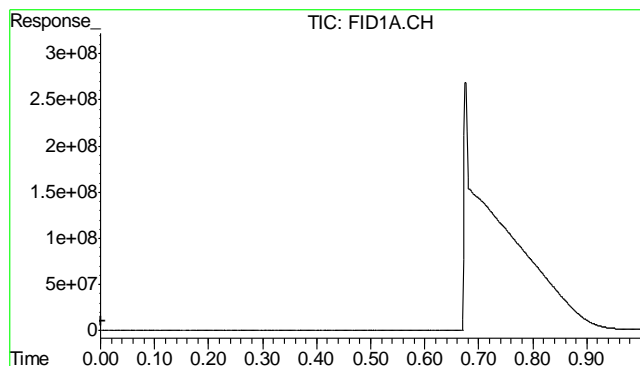
#9 5a-Androstane

R.T.: 0.000 min
Exp R.T.: 0.032 min
Response: 0
Conc: N.D.



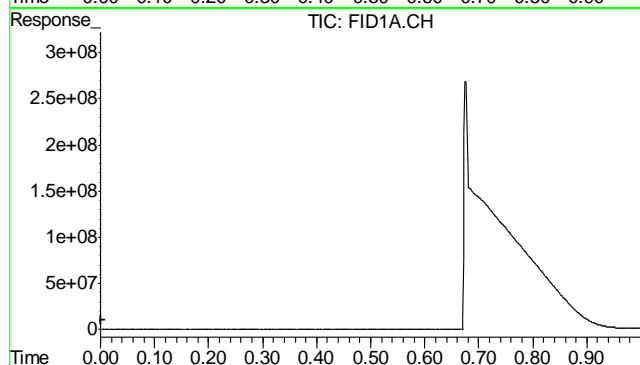
#10 2-Fluorophenol

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



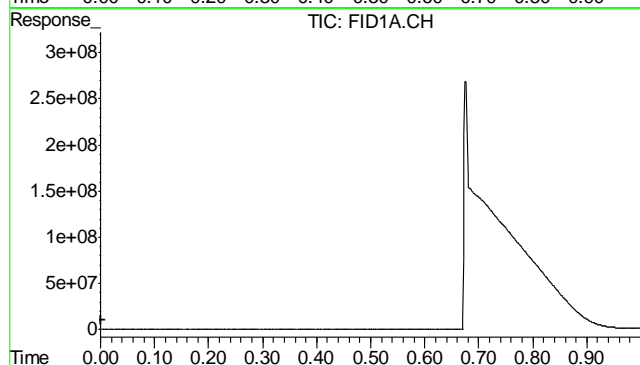
#11 Phenol-d5

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



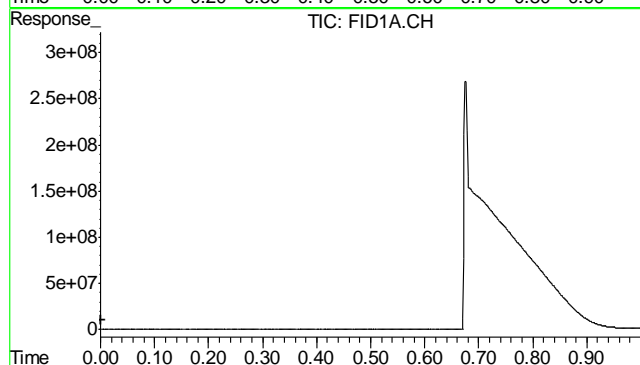
#12 Nitrobenzene-d5

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



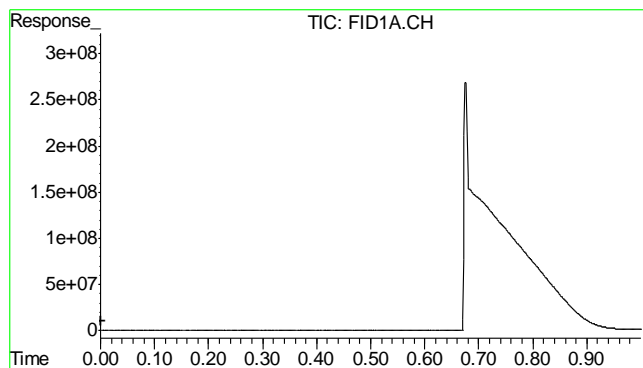
#13 2-Fluorobiphenyl

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



#14 2,4,6-Tribromophenol

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



#15 Terphenyl-d14

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

10.2.1
10



10/06/11

Technical Report for

KRW Consulting, Inc.

PCU 296-7A

1104-03B

Accutest Job Number: D28276

Sampling Dates: 09/22/11 - 09/29/11

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: Joe Hess

Total number of pages in report: **116**



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 'H. Madadian'.

Brad Madadian
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: D28276

PCU 296-7A
Project No: 1104-03B

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
D28276-1	09/22/11	15:30	RR	10/04/11	SO	Soil	296-7A_BH-04 4' -9'
D28276-2	09/23/11	11:05	RR	10/04/11	SO	Soil	296-7A_BH-05 14' -19'
D28276-3	09/29/11	16:00	RR	10/04/11	SO	Soil	296-7A_BH-10 34' -39'
D28276-4	09/29/11	16:45	RR	10/04/11	SO	Soil	296-7A_BH-10 40' -41'
D28276-5	09/29/11	16:45	RR	10/04/11	SO	Soil	296-7A_BH-10 42' -44'

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.**Job No** D28276**Site:** PCU 296-7A**Report Dat** 10/6/2011 4:28:54 PM

On 10/04/2011, 5 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.3 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D28276 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:** V5V1063

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28276-1MS, D28276-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO**Batch ID:** GGB757

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28251-2MS, D28251-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO**Batch ID:** OP4608

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28276-2MS, D28276-2MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO**Batch ID:** GN11865

- 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:	296-7A_BH-04 4' -9'	Date Sampled:	09/22/11
Lab Sample ID:	D28276-1	Date Received:	10/04/11
Matrix:	SO - Soil	Percent Solids:	82.1
Method:	SW846 8260B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17871.D	1	10/04/11	DC	n/a	n/a	V5V1063
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	71	31	ug/kg	
108-88-3	Toluene	ND	140	71	ug/kg	
100-41-4	Ethylbenzene	ND	140	36	ug/kg	
1330-20-7	Xylene (total)	ND	290	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	99%		53-131%
17060-07-0	1,2-Dichloroethane-D4	93%		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:	296-7A_BH-04 4' -9'	Date Sampled:	09/22/11
Lab Sample ID:	D28276-1	Date Received:	10/04/11
Matrix:	SO - Soil	Percent Solids:	82.1
Method:	SW846 8015B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13323.D	1	10/04/11	SK	n/a	n/a	GGB757
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)	41.9	14	7.1	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:	296-7A_BH-04 4' -9'	Date Sampled:	09/22/11
Lab Sample ID:	D28276-1	Date Received:	10/04/11
Matrix:	SO - Soil	Percent Solids:	82.1
Method:	SW846-8015B SW846 3546		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10651.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
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)	674	16	11	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	87%		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: 296-7A_BH-05 14' -19'
Lab Sample ID: D28276-2
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 10/04/11
Percent Solids: 85.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17877.D	1	10/05/11	DC	n/a	n/a	V5V1063
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	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	89%		61-130%
460-00-4	4-Bromofluorobenzene	89%		53-131%
17060-07-0	1,2-Dichloroethane-D4	86%		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: 296-7A_BH-05 14' -19'
Lab Sample ID: D28276-2
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 10/04/11
Percent Solids: 85.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13328.D	1	10/05/11	SK	n/a	n/a	GGB757
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	6.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	77%		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: 296-7A_BH-05 14' -19'
Lab Sample ID: D28276-2
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/23/11
Date Received: 10/04/11
Percent Solids: 85.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10646.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
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)	28.1	16	10	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: 296-7A_BH-10 34' -39'
Lab Sample ID: D28276-3
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 86.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17878.D	1	10/05/11	DC	n/a	n/a	V5V1063
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	65	29	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	98%		61-130%
460-00-4	4-Bromofluorobenzene	99%		53-131%
17060-07-0	1,2-Dichloroethane-D4	93%		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: 296-7A_BH-10 34' -39'
Lab Sample ID: D28276-3
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 86.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13329.D	1	10/05/11	SK	n/a	n/a	GGB757
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)	9.47	13	6.5	mg/kg	J

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: 296-7A_BH-10 34' -39'
Lab Sample ID: D28276-3
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 86.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10652.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
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)	126	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	85%		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: 296-7A_BH-10 40' -41'
Lab Sample ID: D28276-4
Matrix: SO - Soil
Method: SW846 8260B
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 85.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17879.D	1	10/05/11	DC	n/a	n/a	V5V1063
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.04 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	102%		61-130%
460-00-4	4-Bromofluorobenzene	101%		53-131%
17060-07-0	1,2-Dichloroethane-D4	97%		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: 296-7A_BH-10 40' -41'
Lab Sample ID: D28276-4
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 85.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13330.D	1	10/05/11	SK	n/a	n/a	GGB757
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	6.7	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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A_BH-10 40' -41'
Lab Sample ID: D28276-4
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 85.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10653.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
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)	79.3	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:	296-7A_BH-10 42' -44'	Date Sampled:	09/29/11
Lab Sample ID:	D28276-5	Date Received:	10/04/11
Matrix:	SO - Soil	Percent Solids:	84.8
Method:	SW846 8260B		
Project:	PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V17880.D	1	10/05/11	DC	n/a	n/a	V5V1063
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	107%		61-130%
460-00-4	4-Bromofluorobenzene	106%		53-131%
17060-07-0	1,2-Dichloroethane-D4	101%		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: 296-7A_BH-10 42' -44'
Lab Sample ID: D28276-5
Matrix: SO - Soil
Method: SW846 8015B
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 84.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB13331.D	1	10/05/11	SK	n/a	n/a	GGB757
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	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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: 296-7A_BH-10 42' -44'
Lab Sample ID: D28276-5
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: PCU 296-7A

Date Sampled: 09/29/11
Date Received: 10/04/11
Percent Solids: 84.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD10654.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
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)	14.5	16	10	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	85%		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

[illegible]

D28276: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D28276

Client: KRW CONSULTING INC.

Immediate Client Services Action Required: No

Date / Time Received: 10/4/2011 12:45:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: PCU 296-7A

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
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: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1063-MB	5V17869.D	1	10/04/11	DC	n/a	n/a	V5V1063

The QC reported here applies to the following samples:

Method: SW846 8260B

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

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	103% 61-130%
460-00-4	4-Bromofluorobenzene	93% 53-131%
17060-07-0	1,2-Dichloroethane-D4	101% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28276

Account: KRWCCOL KRW Consulting, Inc.

Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1063-BS	5V17870.D	1	10/04/11	DC	n/a	n/a	V5V1063

The QC reported here applies to the following samples:

Method: SW846 8260B

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	48.6	97	70-130
100-41-4	Ethylbenzene	50	49.3	99	70-130
108-88-3	Toluene	50	51.1	102	70-130
1330-20-7	Xylene (total)	150	152	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	103%	61-130%
460-00-4	4-Bromofluorobenzene	101%	53-131%
17060-07-0	1,2-Dichloroethane-D4	92%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28276-1MS	5V17872.D	1	10/04/11	DC	n/a	n/a	V5V1063
D28276-1MSD	5V17873.D	1	10/04/11	DC	n/a	n/a	V5V1063
D28276-1	5V17871.D	1	10/04/11	DC	n/a	n/a	V5V1063

The QC reported here applies to the following samples:

Method: SW846 8260B

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

CAS No.	Compound	D28276-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3570	3460	97	3490	98	1	70-134/30
100-41-4	Ethylbenzene	ND		3570	3400	95	3450	97	1	70-137/30
108-88-3	Toluene	ND		3570	3540	99	3560	100	1	70-130/30
1330-20-7	Xylene (total)	ND		10700	10500	98	10600	99	1	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D28276-1	Limits
2037-26-5	Toluene-D8	102%	99%	96%	61-130%
460-00-4	4-Bromofluorobenzene	108%	107%	99%	53-131%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	93%	62-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
 Data File : 5V17871.D
 Acq On : 4 Oct 2011 10:40 pm
 Operator : DONC
 Sample : D28276-1, 50x
 Misc : MS2785,V5V1063,5.027,,100,5,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 05 09:05:02 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	290737	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	396720	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	374760	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	242740	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	33212	46.72	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.44%
61) Toluene-d8	13.850	98	636575	47.79	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.58%
69) 4-Bromofluorobenzene	16.042	95	272250	49.27	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.54%

Target Compounds

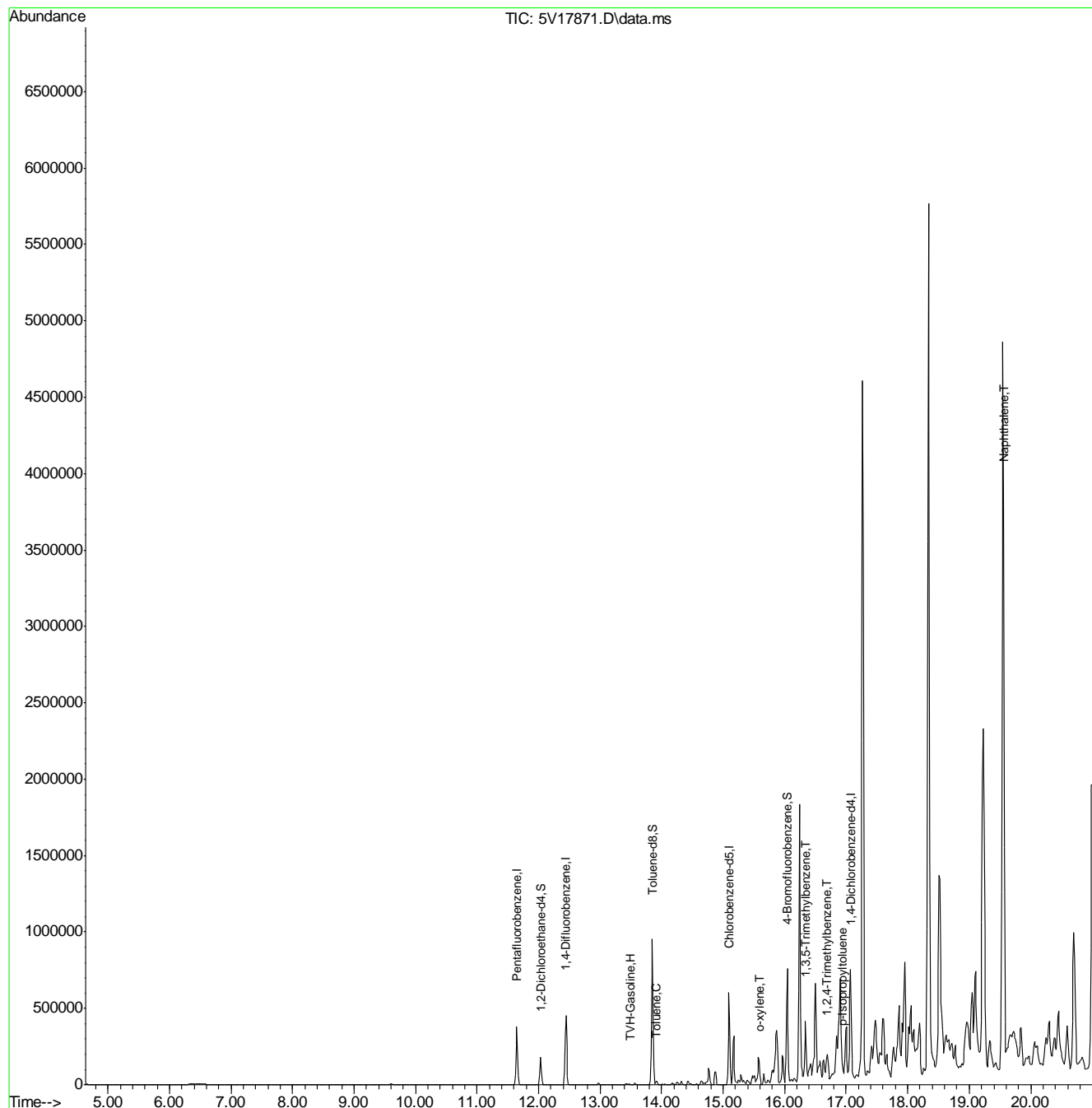
						Qvalue
1) TVH-Gasoline	13.491	TIC	9784622m	490.78	ug/l	
62) Toluene	13.907	92	3135	0.33	ug/l	96
73) o-xylene	15.597	106	3389	0.46	ug/l	96
80) 1,3,5-Trimethylbenzene	16.339	105	171864	10.38	ug/l	98
82) 1,2,4-Trimethylbenzene	16.682	105	74112	4.41	ug/l	88
86) p-Isopropyltoluene	16.944	119	12605m	0.66	ug/l	
91) Naphthalene	19.559	128	39480	4.05	ug/l	100

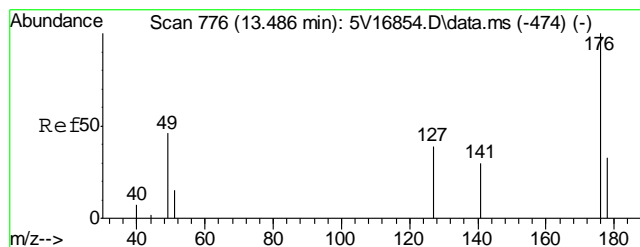
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17871.D
Acq On : 4 Oct 2011 10:40 pm
Operator : DONC
Sample : D28276-1, 50x
Misc : MS2785,V5V1063,5.027,,100,5,1
ALS Vial : 29 Sample Multiplier: 1

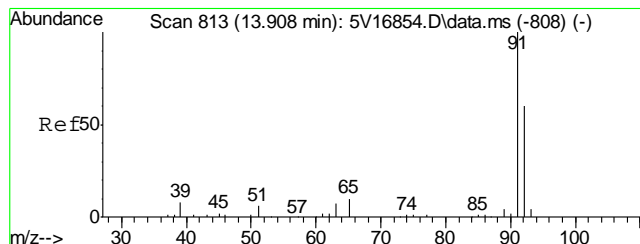
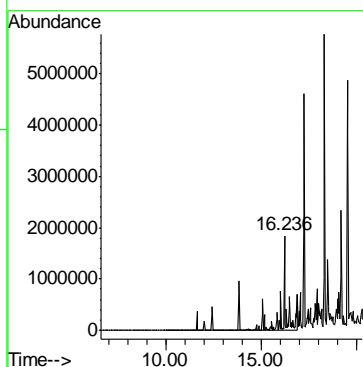
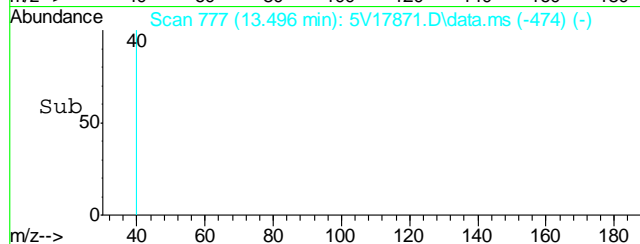
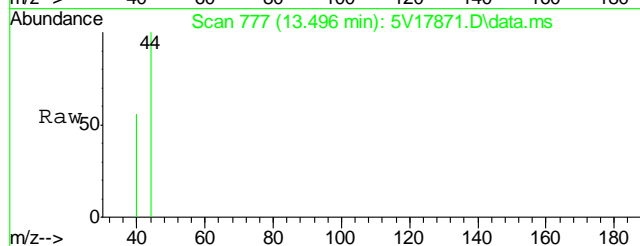
Quant Time: Oct 05 09:05:02 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





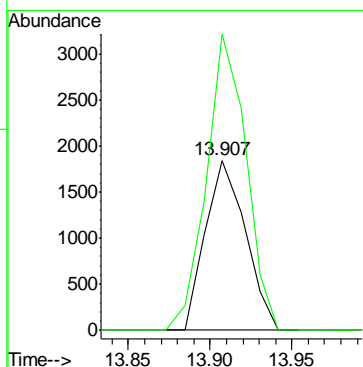
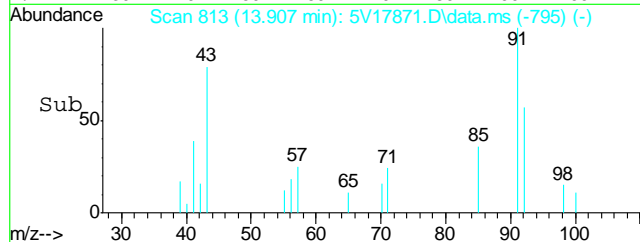
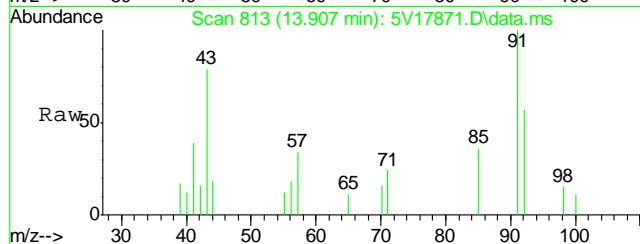
#1
TVH-Gasoline
Concen: 490.78 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm

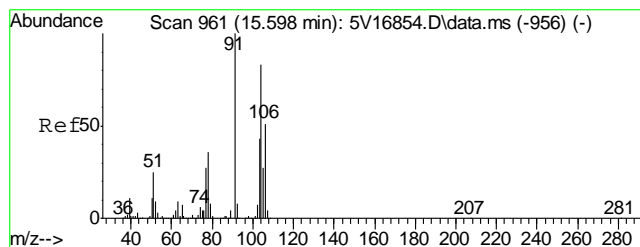
Tgt Ion:TIC Resp: 9784622



#62
Toluene
Concen: 0.33 ug/l
RT: 13.907 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm

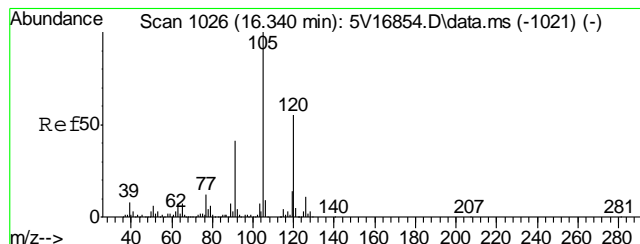
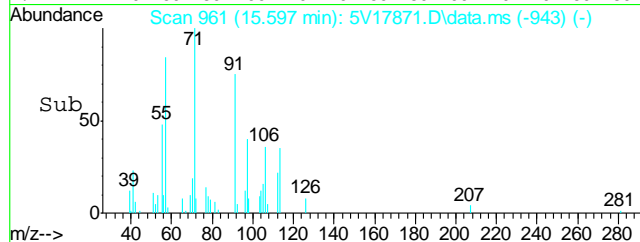
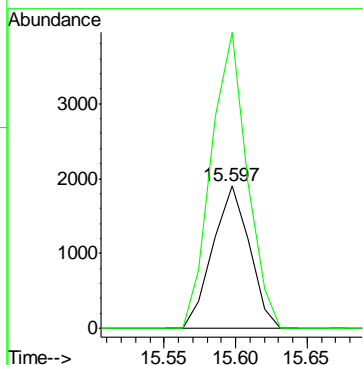
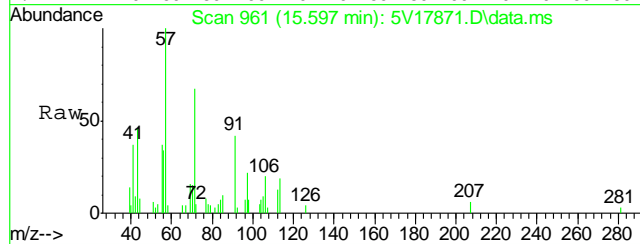
Tgt Ion: 92 Resp: 3135
Ion Ratio Lower Upper
92 100
91 172.7 146.7 186.7





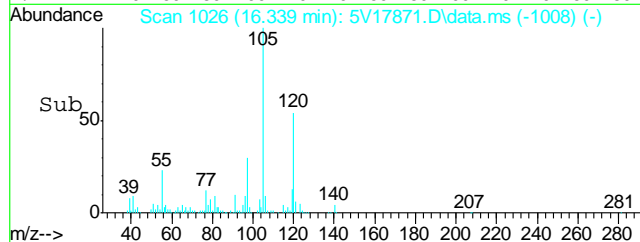
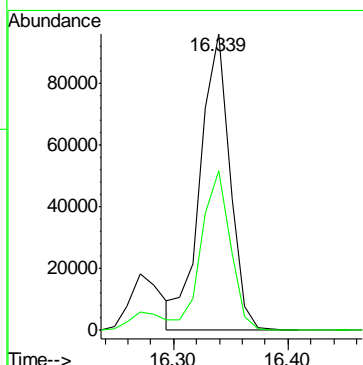
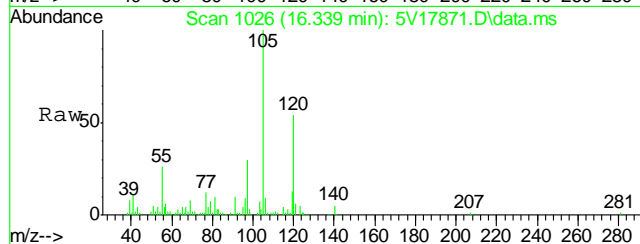
#73
o-xylene
Concen: 0.46 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm

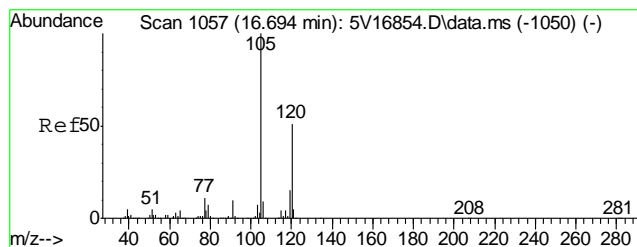
Tgt Ion	Ratio	Lower	Upper
106	100		
91	202.7	157.4	236.2



#80
1,3,5-Trimethylbenzene
Concen: 10.38 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm

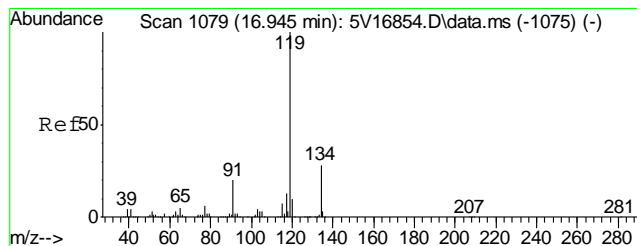
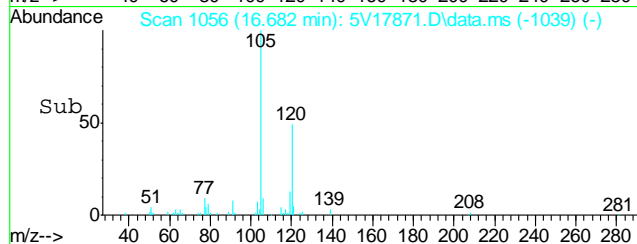
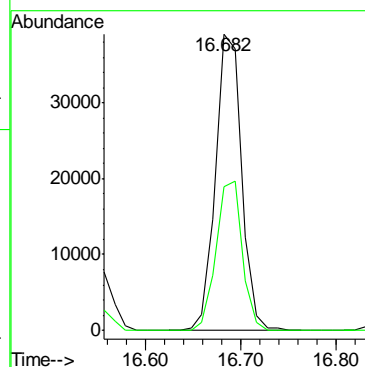
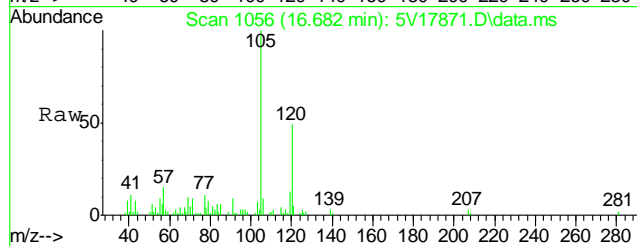
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.8	43.5	65.3





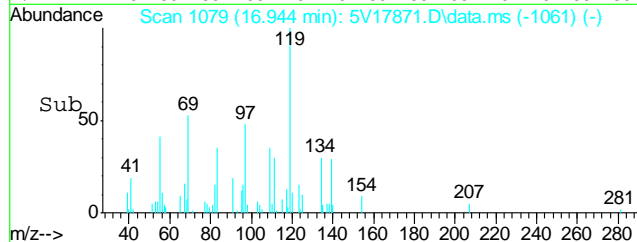
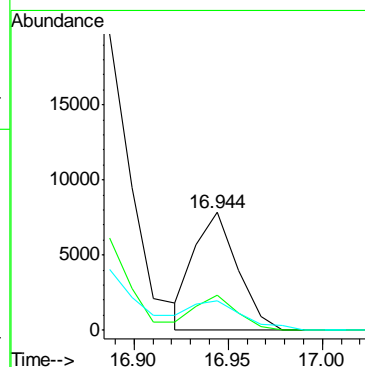
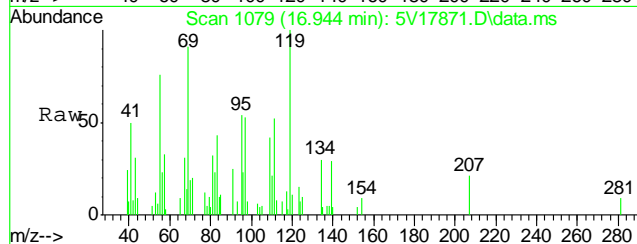
#82
1,2,4-Trimethylbenzene
Concen: 4.41 ug/l
RT: 16.682 min Scan# 1056
Delta R.T. -0.012 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm

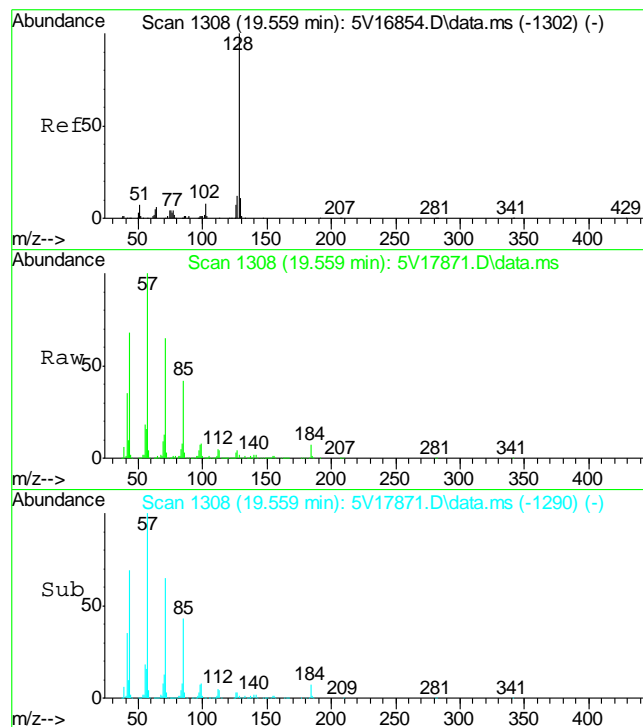
Tgt Ion	Ratio	Lower	Upper
105	100		
120	50.3	47.4	71.0



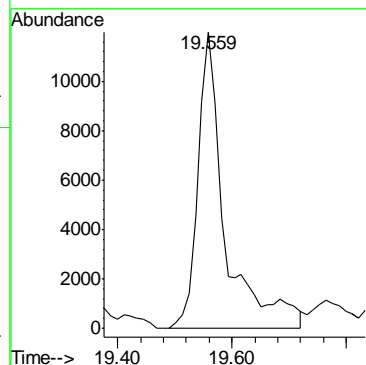
#86
p-Isopropyltoluene
Concen: 0.66 ug/l m
RT: 16.944 min Scan# 1079
Delta R.T. -0.000 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm

Tgt Ion	Ratio	Lower	Upper
119	100		
134	94.2	22.1	33.1#
91	57.0	15.8	23.6#





#91
Naphthalene
Concen: 4.05 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17871.D
Acq: 4 Oct 2011 10:40 pm
Tgt Ion:128 Resp: 39480



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17877.D
Acq On : 5 Oct 2011 1:49 am
Operator : DONC
Sample : D28276-2, 50x
Misc : MS2785,V5V1063,5.010,,100,5,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 05 09:20:22 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	327898	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	446250	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	421530	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	266730	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	34480	43.01	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.02%
61) Toluene-d8	13.850	98	669324	44.68	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.36%
69) 4-Bromofluorobenzene	16.043	95	275162	44.27	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.54%

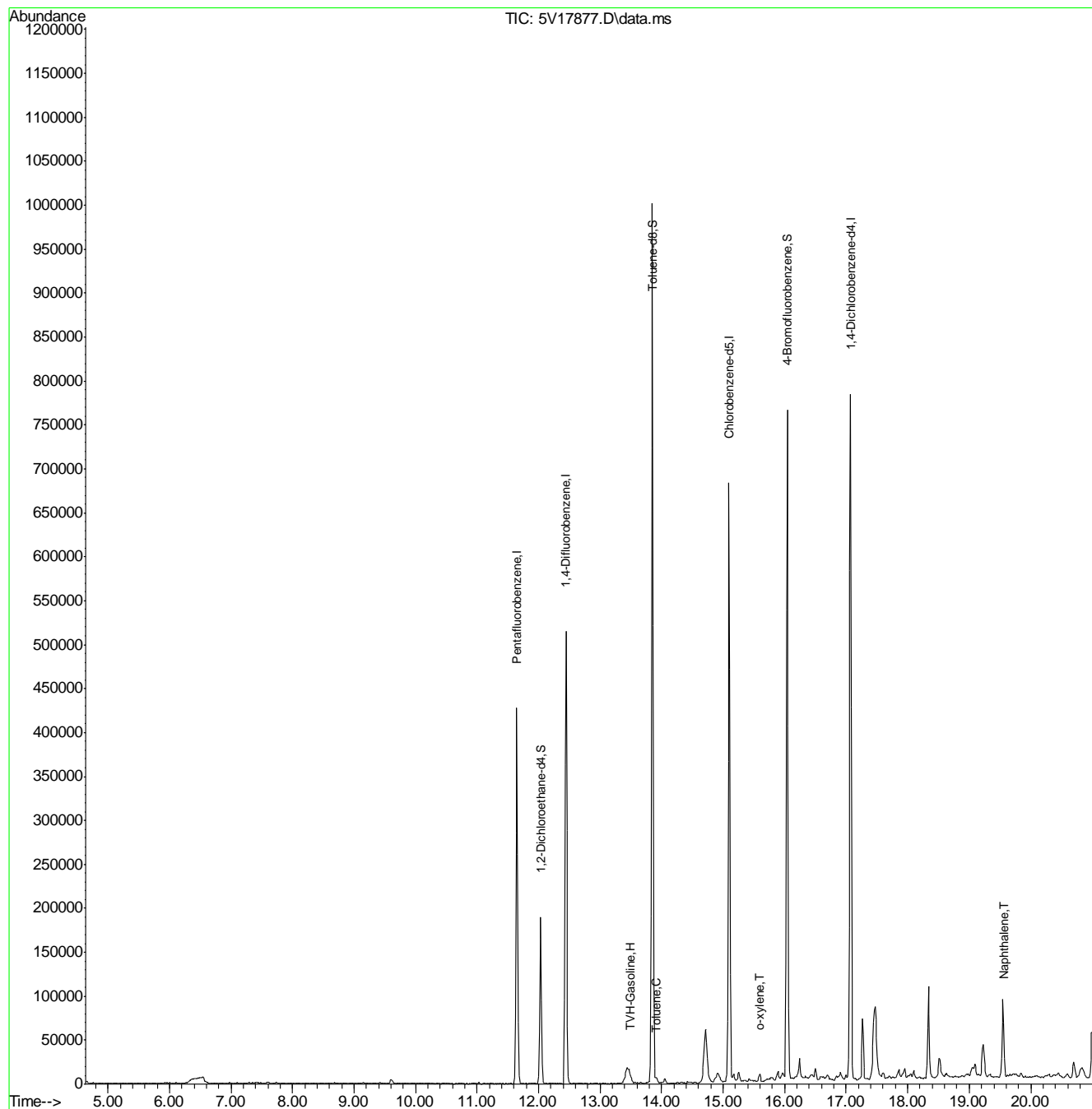
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	461363m	23.14	ug/l
62) Toluene	13.908	92	2177	0.20	ug/l # 75
73) o-xylene	15.597	106	2292	0.27	ug/l 87
91) Naphthalene	19.559	128	2299	1.01	ug/l 100

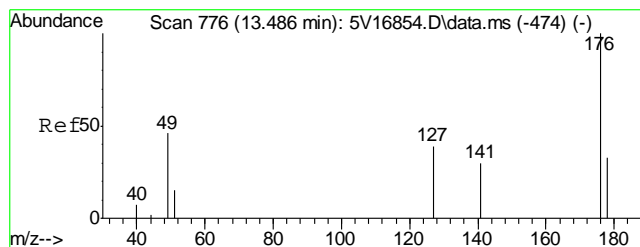
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17877.D
Acq On : 5 Oct 2011 1:49 am
Operator : DONC
Sample : D28276-2, 50x
Misc : MS2785,V5V1063,5.010,,100,5,1
ALS Vial : 35 Sample Multiplier: 1

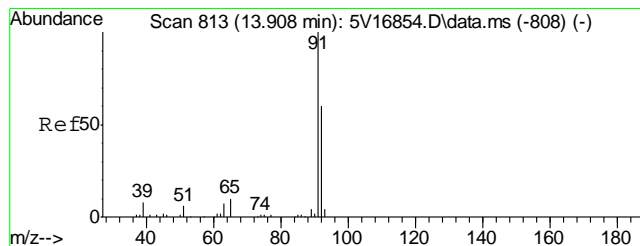
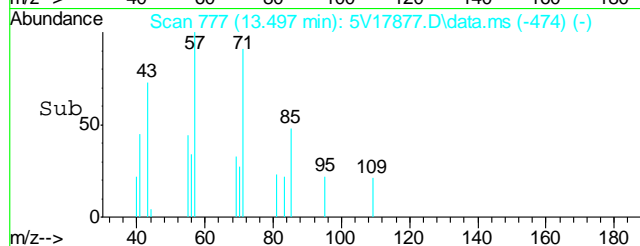
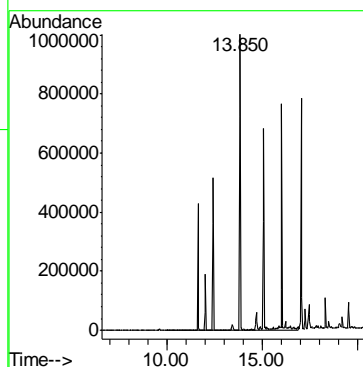
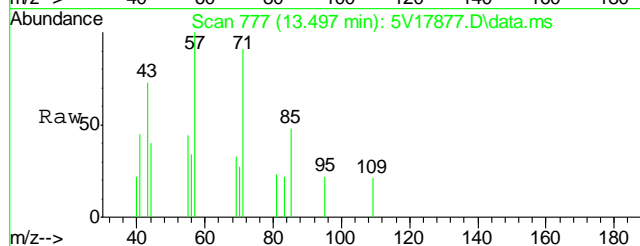
Quant Time: Oct 05 09:20:22 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





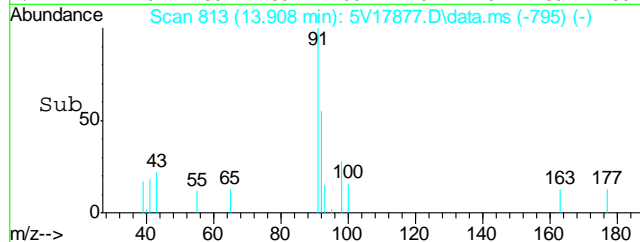
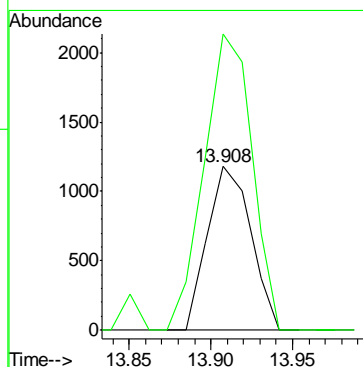
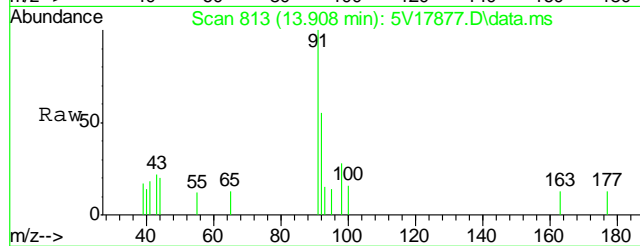
#1
TVH-Gasoline
Concen: 23.14 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17877.D
Acq: 5 Oct 2011 1:49 am

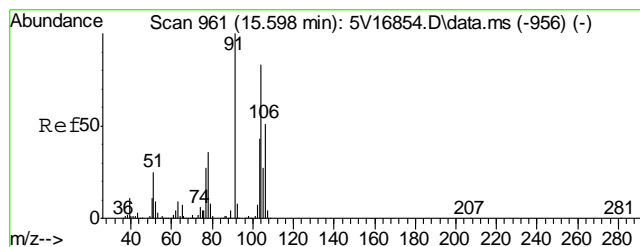
Tgt Ion:TIC Resp: 461363



#62
Toluene
Concen: 0.20 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17877.D
Acq: 5 Oct 2011 1:49 am

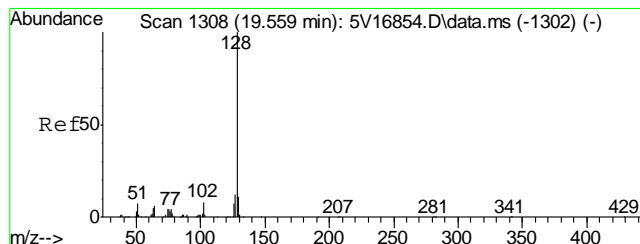
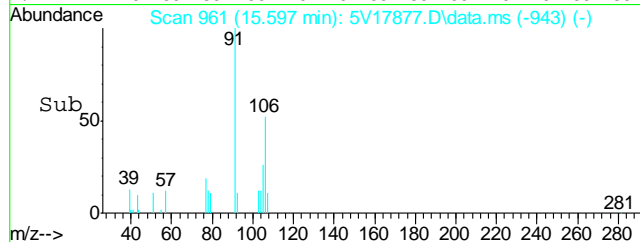
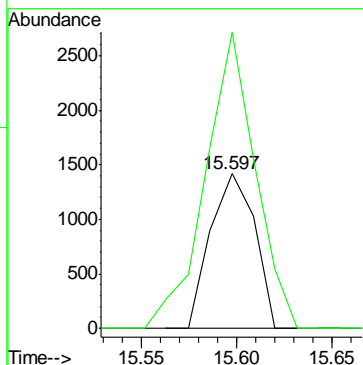
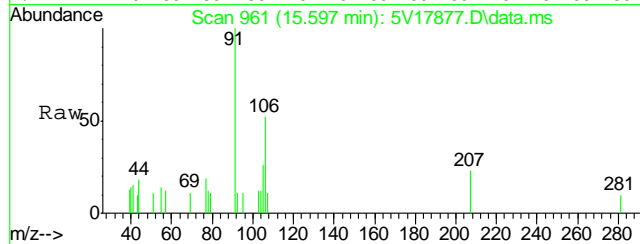
Tgt Ion: 92 Resp: 2177
Ion Ratio Lower Upper
92 100
91 199.9 146.7 186.7#





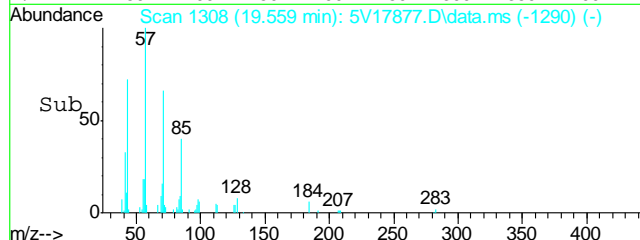
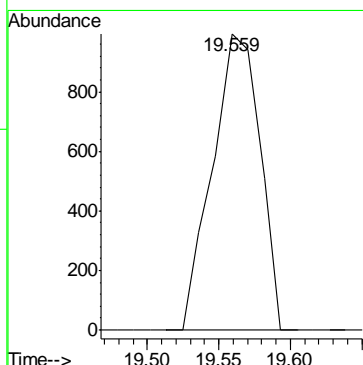
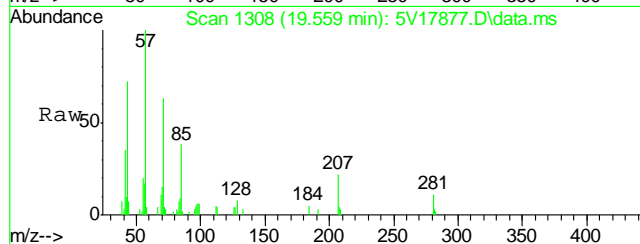
#73
o-xylene
Concen: 0.27 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17877.D
Acq: 5 Oct 2011 1:49 am

Tgt Ion	Ratio	Lower	Upper
106	100		
91	216.3	157.4	236.2



#91
Naphthalene
Concen: 1.01 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17877.D
Acq: 5 Oct 2011 1:49 am

Tgt Ion	Ratio	Lower	Upper
128	2299		



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
 Data File : 5V17878.D
 Acq On : 5 Oct 2011 2:21 am
 Operator : DONC
 Sample : D28276-3, 50x
 Misc : MS2785,V5V1063,5.058,,100,5,1
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 05 09:21:37 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	287976	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	394569	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	371612	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	239340	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	32644	46.36	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.72%
61) Toluene-d8	13.850	98	650055	49.22	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.44%
69) 4-Bromofluorobenzene	16.043	95	271604	49.57	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.14%

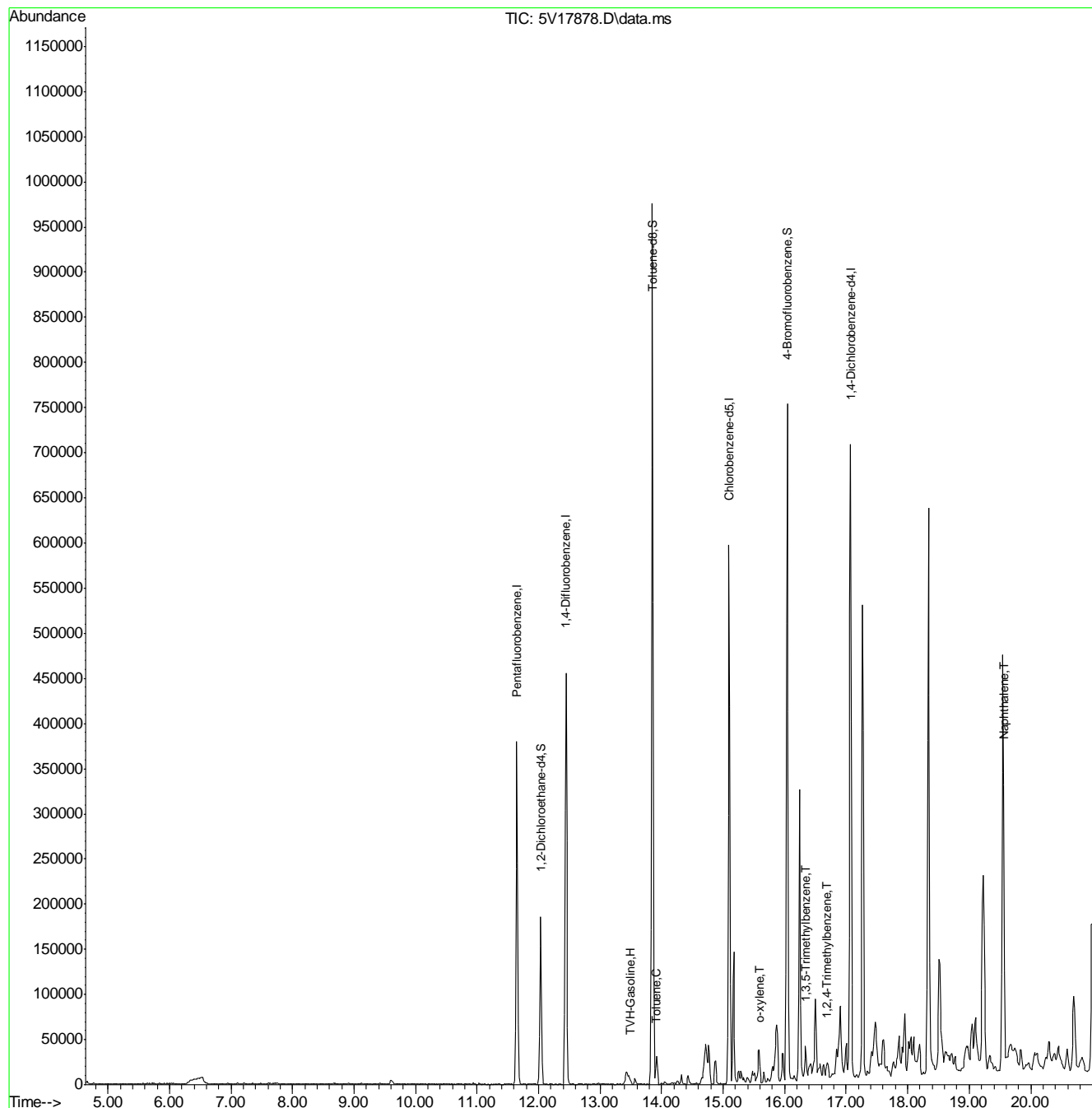
Target Compounds						Qvalue
1) TVH-Gasoline	13.491	TIC	1681474m	84.34	ug/l	
62) Toluene	13.908	92	2594	0.28	ug/l	94
73) o-xylene	15.597	106	2525	0.34	ug/l	83
80) 1,3,5-Trimethylbenzene	16.339	105	8971	0.55	ug/l	92
82) 1,2,4-Trimethylbenzene	16.693	105	8261	0.50	ug/l	87
91) Naphthalene	19.559	128	6897	1.41	ug/l	100

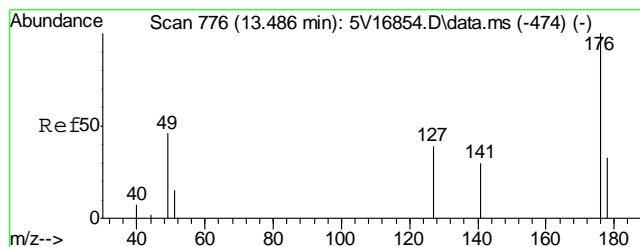
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17878.D
Acq On : 5 Oct 2011 2:21 am
Operator : DONC
Sample : D28276-3, 50x
Misc : MS2785,V5V1063,5.058,,100,5,1
ALS Vial : 36 Sample Multiplier: 1

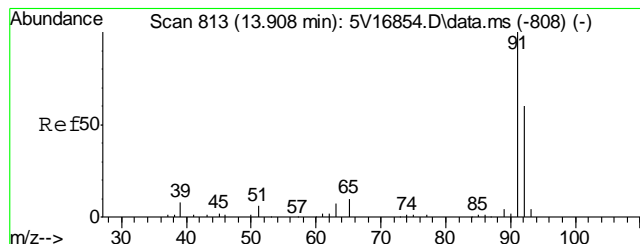
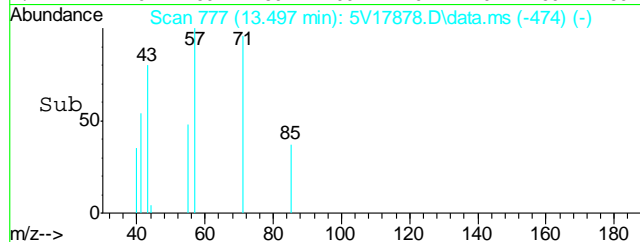
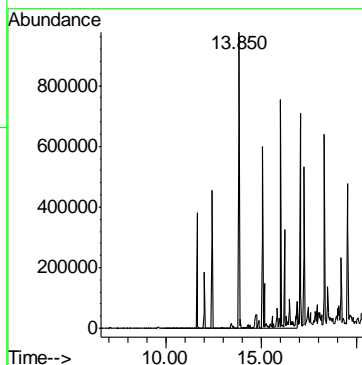
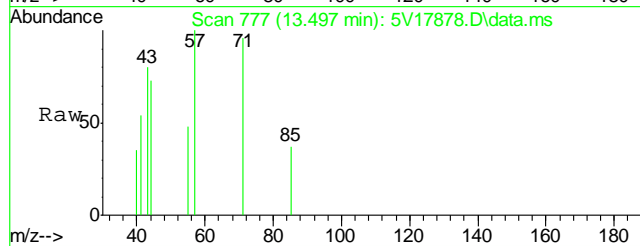
Quant Time: Oct 05 09:21:37 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





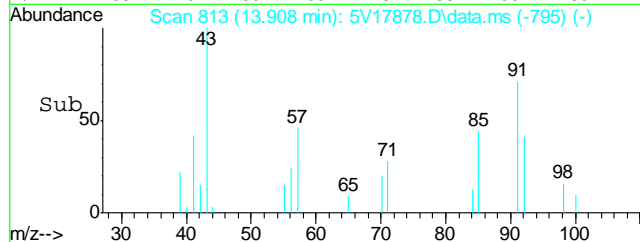
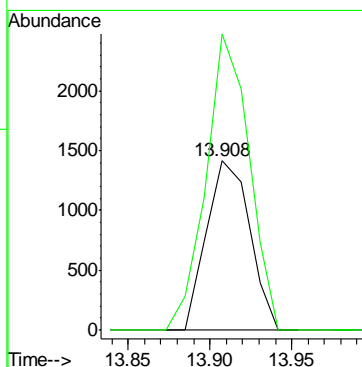
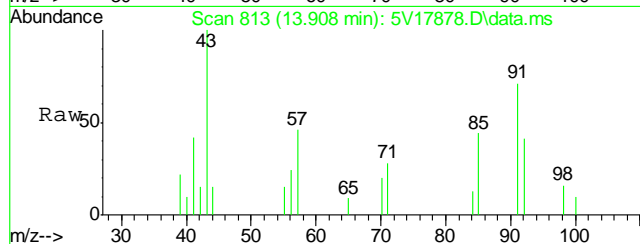
#1
TVH-Gasoline
Concen: 84.34 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17878.D
Acq: 5 Oct 2011 2:21 am

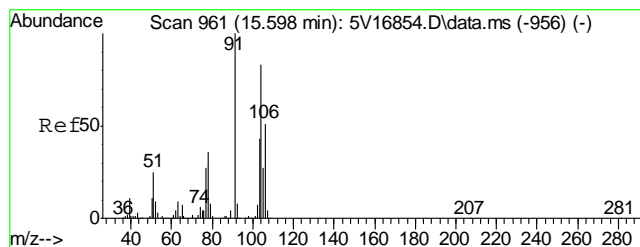
Tgt Ion:TIC Resp: 1681474



#62
Toluene
Concen: 0.28 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17878.D
Acq: 5 Oct 2011 2:21 am

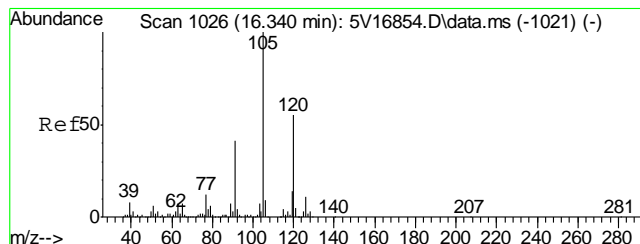
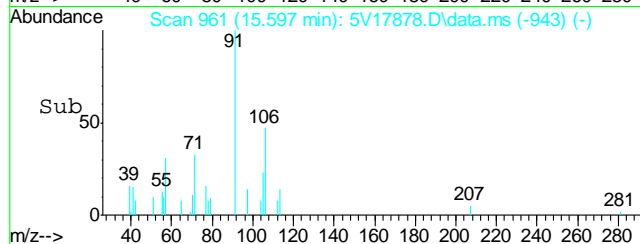
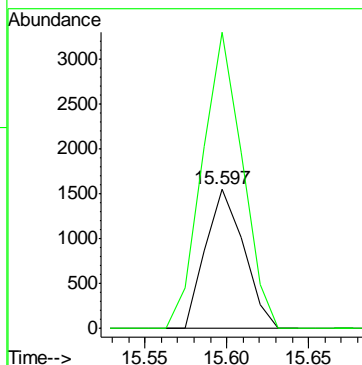
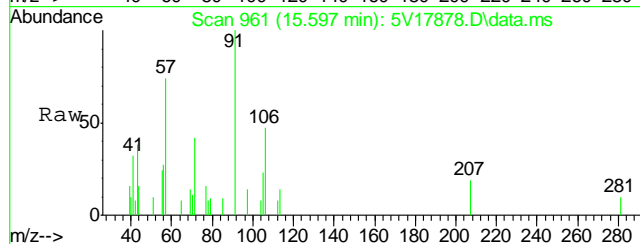
Tgt Ion: 92 Resp: 2594
Ion Ratio Lower Upper
92 100
91 174.5 146.7 186.7





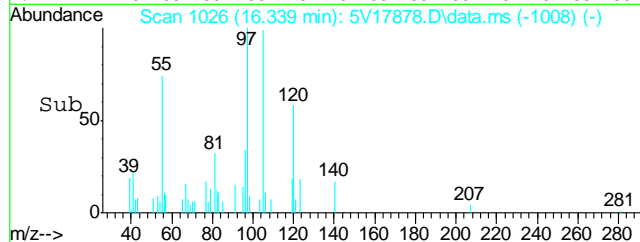
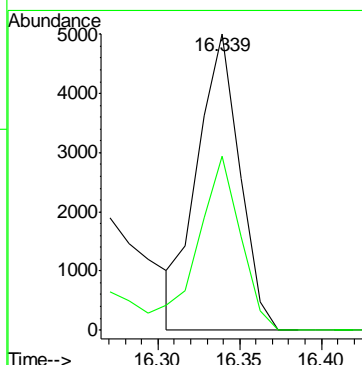
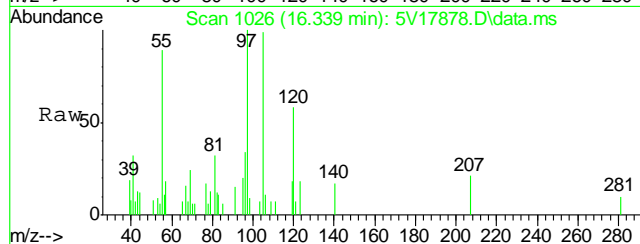
#73
o-xylene
Concen: 0.34 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17878.D
Acq: 5 Oct 2011 2:21 am

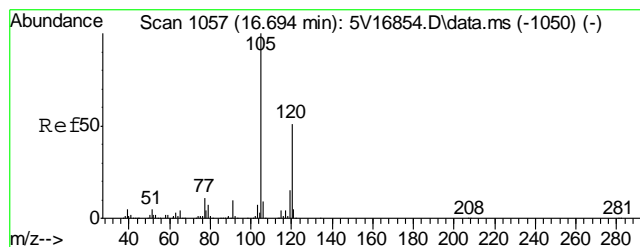
Tgt Ion:106 Resp: 2525
Ion Ratio Lower Upper
106 100
91 222.8 157.4 236.2



#80
1,3,5-Trimethylbenzene
Concen: 0.55 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17878.D
Acq: 5 Oct 2011 2:21 am

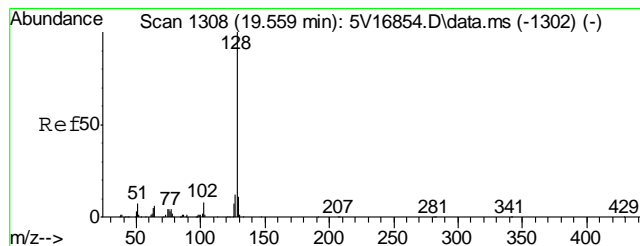
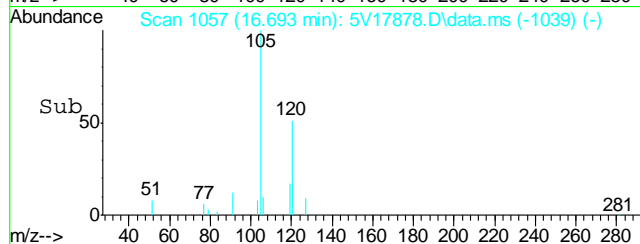
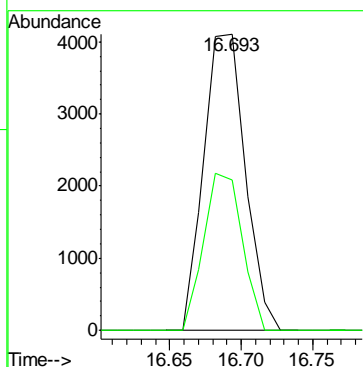
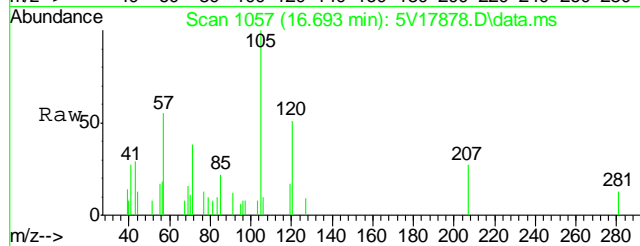
Tgt Ion:105 Resp: 8971
Ion Ratio Lower Upper
105 100
120 59.8 43.5 65.3





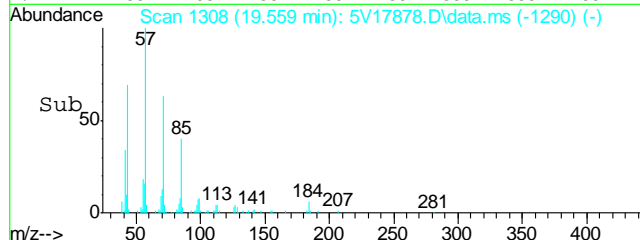
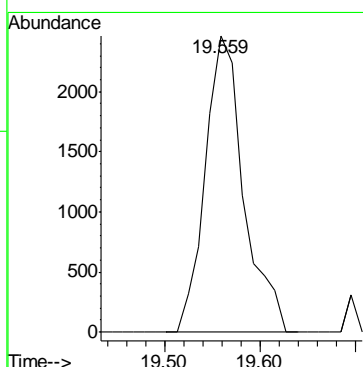
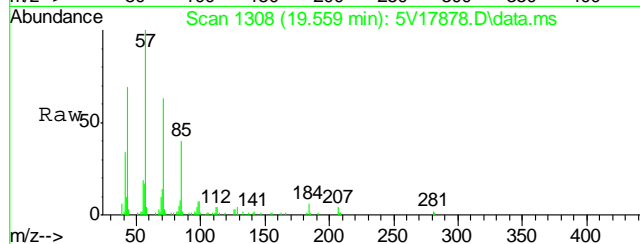
#82
1,2,4-Trimethylbenzene
Concen: 0.50 ug/l
RT: 16.693 min Scan# 1057
Delta R.T. -0.000 min
Lab File: 5V17878.D
Acq: 5 Oct 2011 2:21 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.1	47.4	71.0



#91
Naphthalene
Concen: 1.41 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17878.D
Acq: 5 Oct 2011 2:21 am

Tgt Ion	Ratio	Lower	Upper
128	100		
207	68.9	67.0	71.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17879.D
Acq On : 5 Oct 2011 2:53 am
Operator : DONC
Sample : D28276-4, 50x
Misc : MS2785,V5V1063,5.042,,100,5,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 05 09:22:49 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	286150	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	389072	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	364835	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	231887	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	33992	48.58	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.16%
61) Toluene-d8	13.851	98	659001	50.82	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.64%
69) 4-Bromofluorobenzene	16.043	95	272269	50.61	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.22%

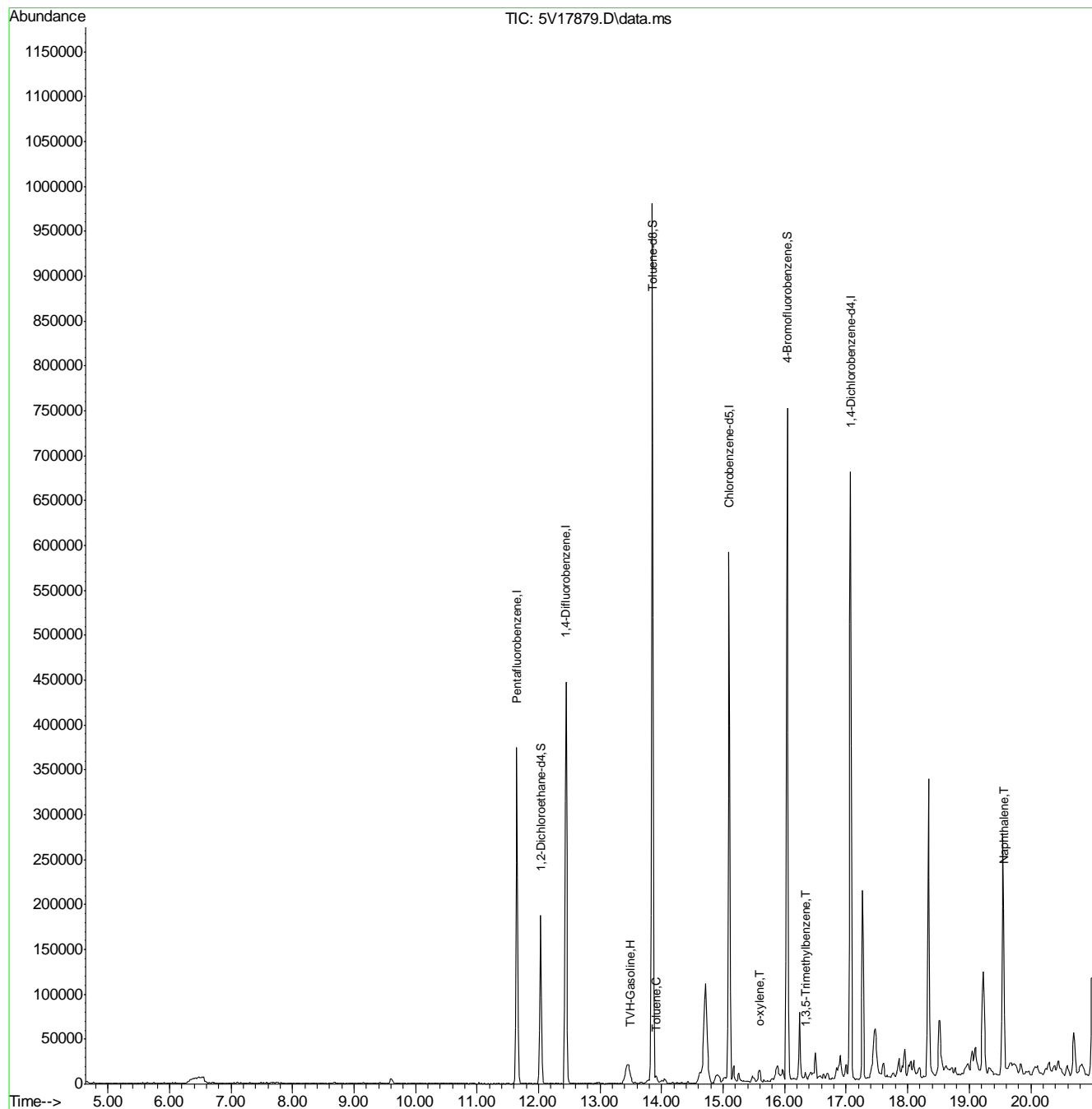
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	772231m	38.73	ug/l
62) Toluene	13.908	92	2578	0.28	ug/l # 83
73) o-xylene	15.597	106	2160	0.30	ug/l # 65
80) 1,3,5-Trimethylbenzene	16.339	105	3278	0.21	ug/l # 83
91) Naphthalene	19.559	128	4331	1.21	ug/l 100

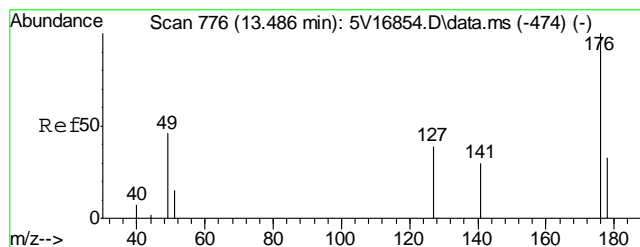
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17879.D
Acq On : 5 Oct 2011 2:53 am
Operator : DONC
Sample : D28276-4, 50x
Misc : MS2785,V5V1063,5.042,,100,5,1
ALS Vial : 37 Sample Multiplier: 1

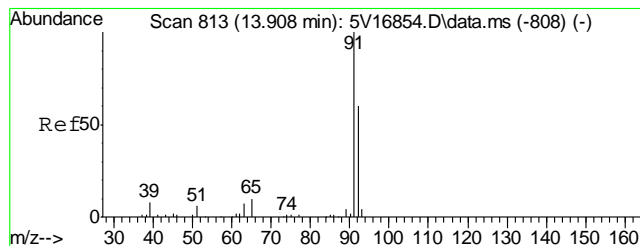
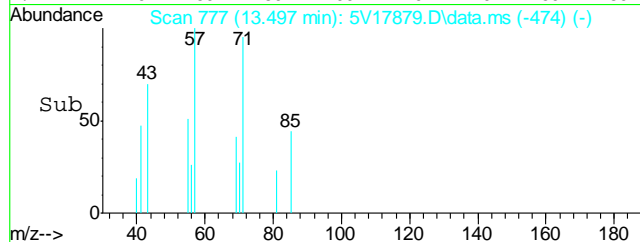
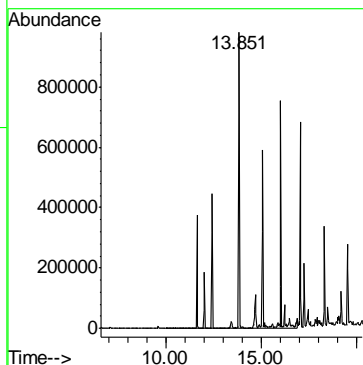
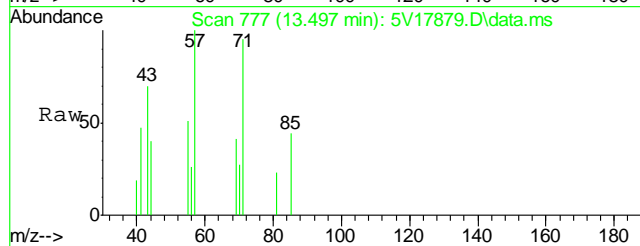
Quant Time: Oct 05 09:22:49 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





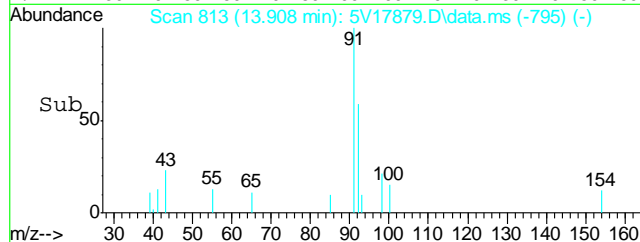
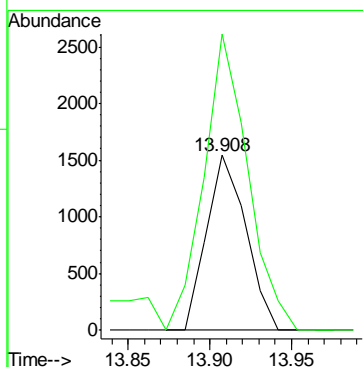
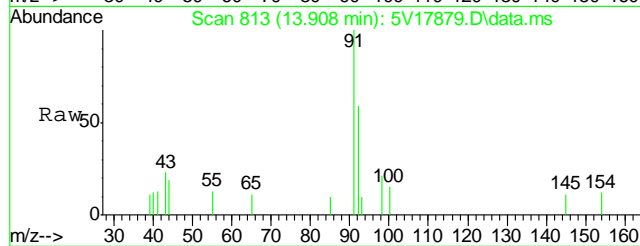
#1
TVH-Gasoline
Concen: 38.73 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17879.D
Acq: 5 Oct 2011 2:53 am

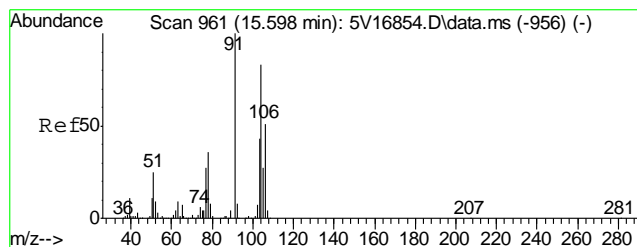
Tgt Ion:TIC Resp: 772231



#62
Toluene
Concen: 0.28 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17879.D
Acq: 5 Oct 2011 2:53 am

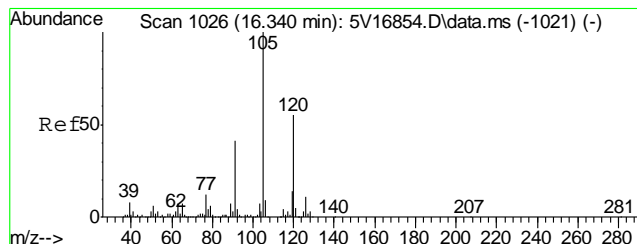
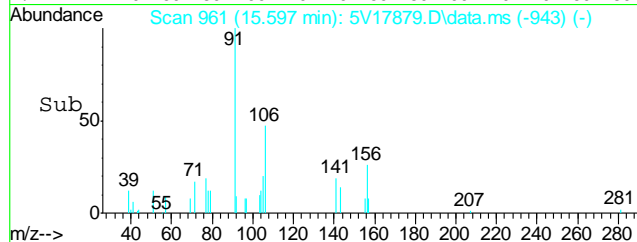
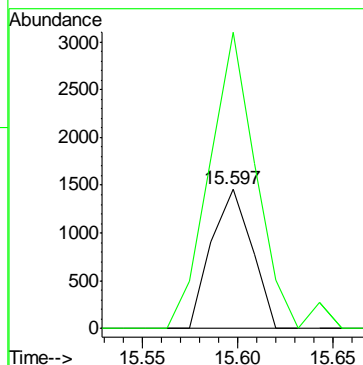
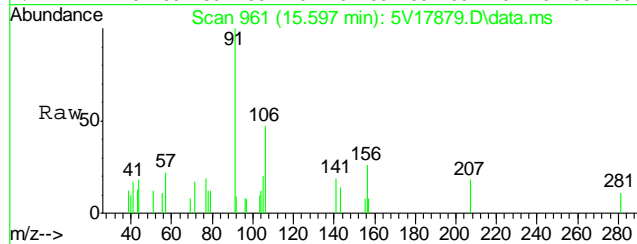
Tgt Ion: 92 Resp: 2578
Ion Ratio Lower Upper
92 100
91 189.7 146.7 186.7#





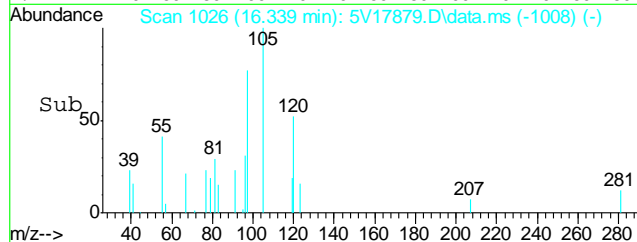
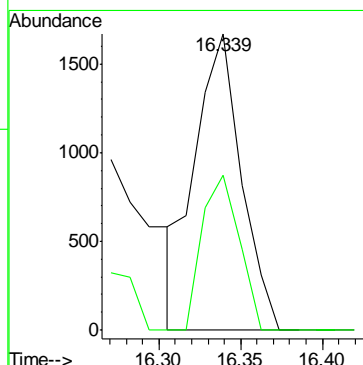
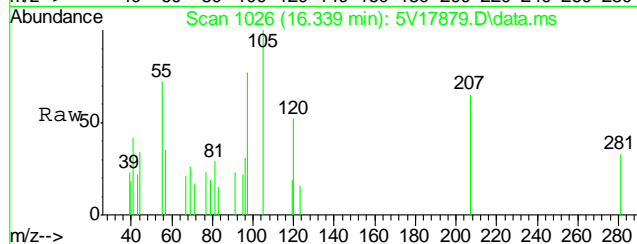
#73
o-xylene
Concen: 0.30 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17879.D
Acq: 5 Oct 2011 2:53 am

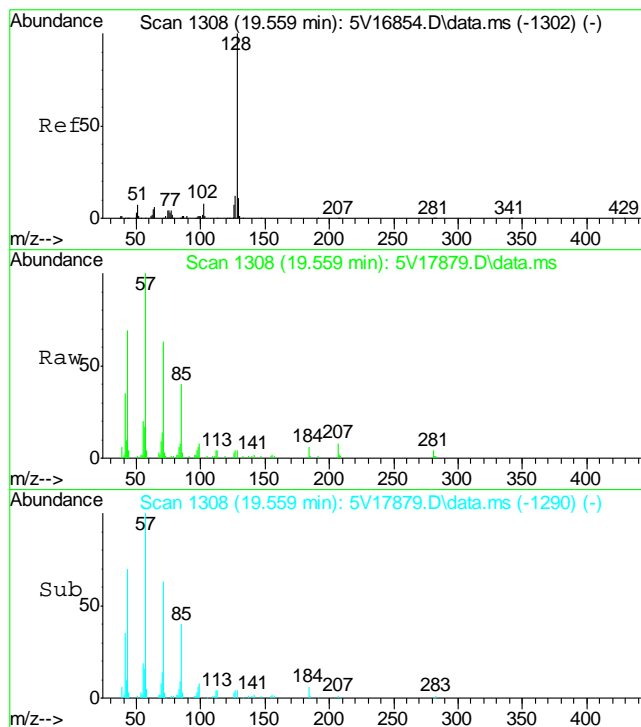
Tgt Ion	Ratio	Lower	Upper
106	100		
91	249.9	157.4	236.2#



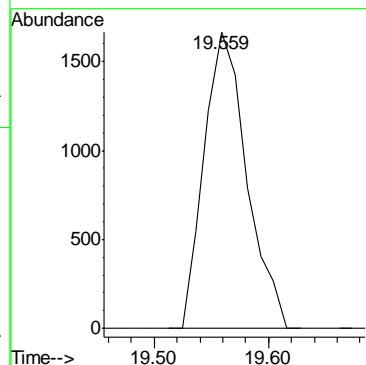
#80
1,3,5-Trimethylbenzene
Concen: 0.21 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V17879.D
Acq: 5 Oct 2011 2:53 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	42.2	43.5	65.3#





#91
Naphthalene
Concen: 1.21 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17879.D
Acq: 5 Oct 2011 2:53 am
Tgt Ion:128 Resp: 4331



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17880.D
Acq On : 5 Oct 2011 3:24 am
Operator : DONC
Sample : D28276-5, 50x
Misc : MS2785,V5V1063,5.004,,100,5,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 05 09:23:50 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	277412	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	379230	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	355895	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	225697	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	34215	50.44	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.88%
61) Toluene-d8	13.850	98	674369	53.32	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.64%
69) 4-Bromofluorobenzene	16.042	95	277097	52.80	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.60%

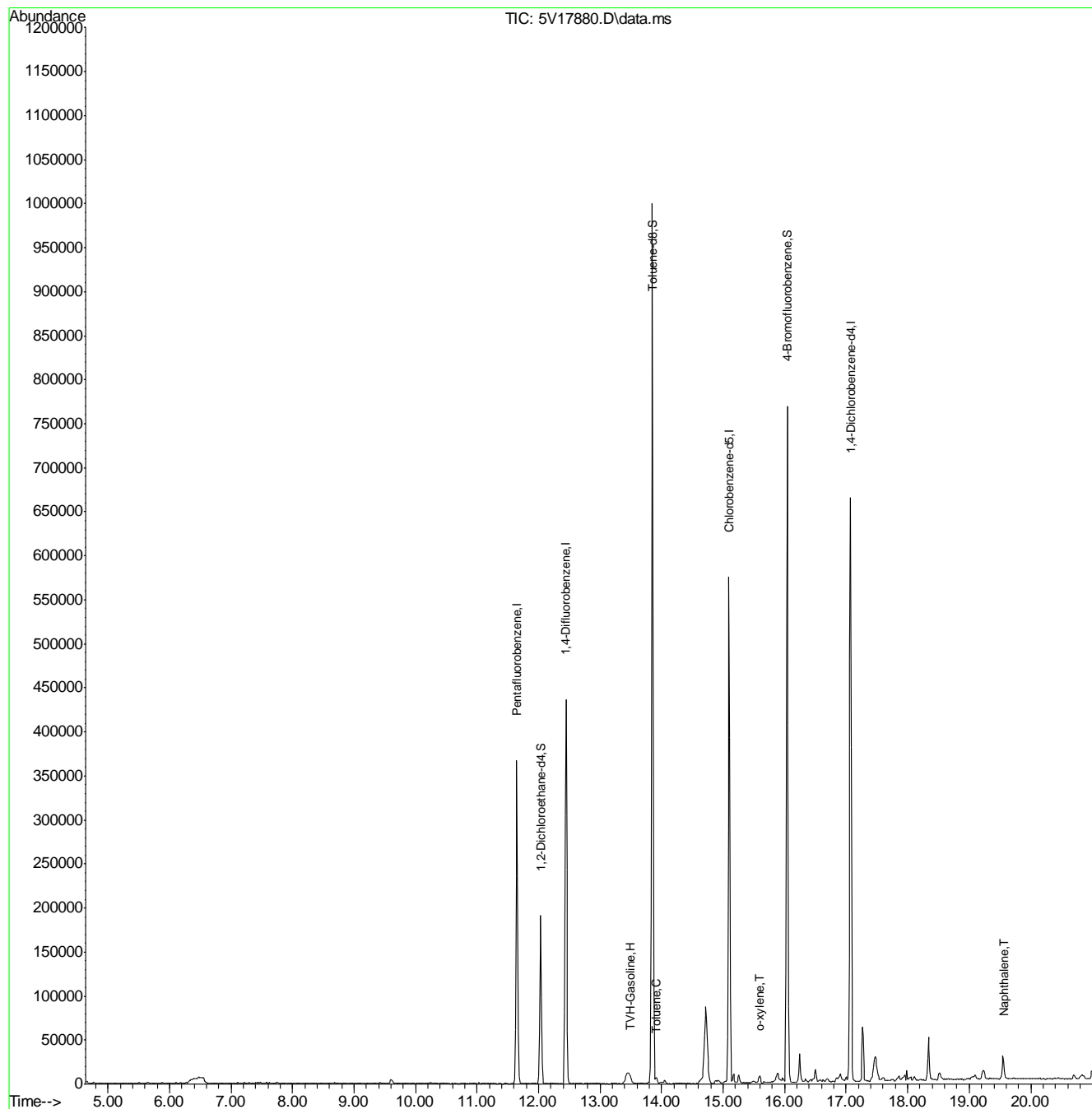
Target Compounds					Qvalue
1) TVH-Gasoline	13.491	TIC	482742m	24.21	ug/l
62) Toluene	13.908	92	2342	0.26	ug/l # 84
73) o-xylene	15.597	106	2400	0.34	ug/l 92
91) Naphthalene	19.559	128	1560	0.98	ug/l 100

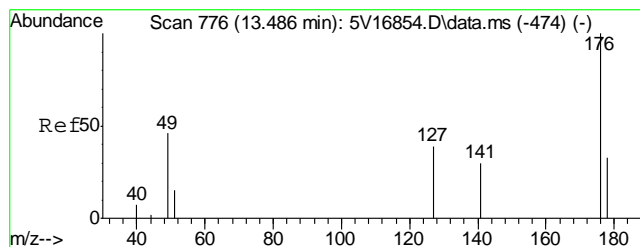
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17880.D
Acq On : 5 Oct 2011 3:24 am
Operator : DONC
Sample : D28276-5, 50x
Misc : MS2785,V5V1063,5.004,,100,5,1
ALS Vial : 38 Sample Multiplier: 1

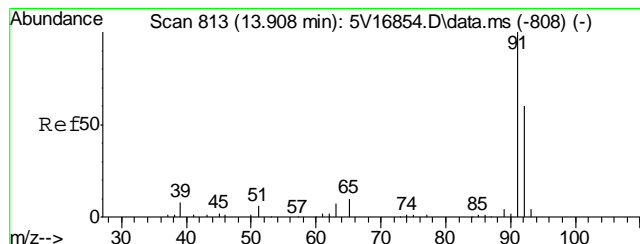
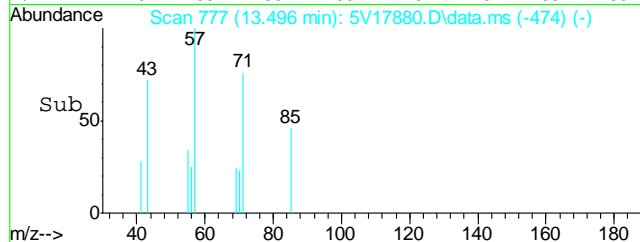
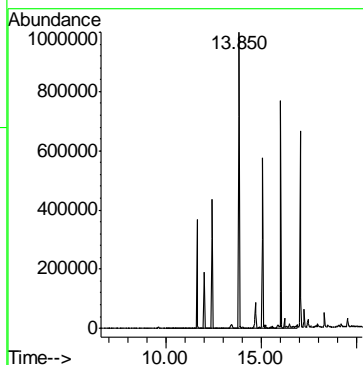
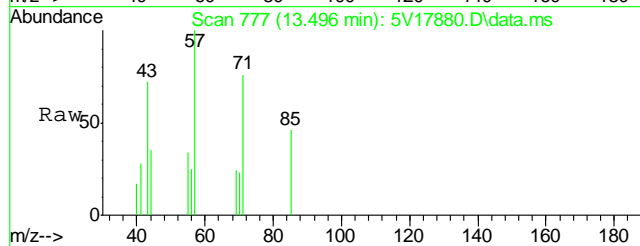
Quant Time: Oct 05 09:23:50 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





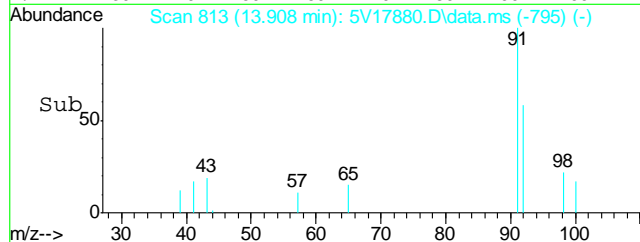
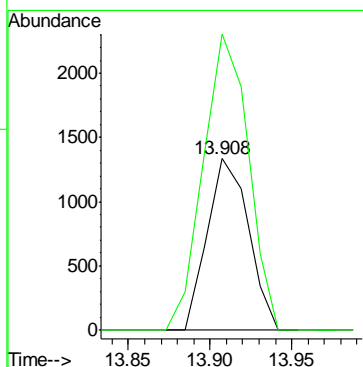
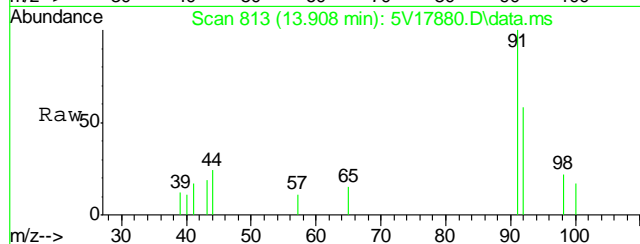
#1
TVH-Gasoline
Concen: 24.21 ug/l m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17880.D
Acq: 5 Oct 2011 3:24 am

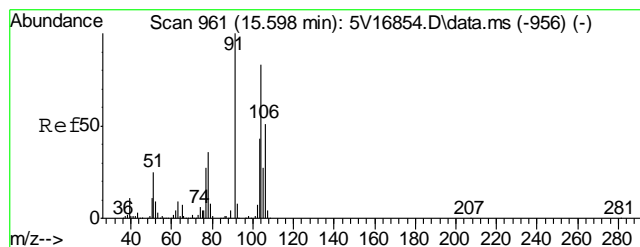
Tgt Ion:TIC Resp: 482742



#62
Toluene
Concen: 0.26 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17880.D
Acq: 5 Oct 2011 3:24 am

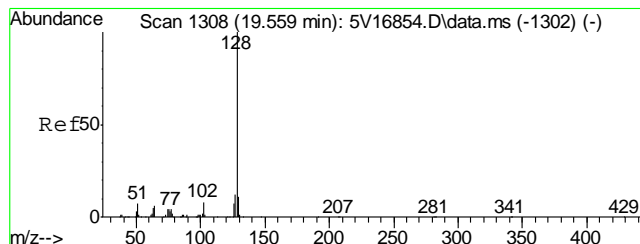
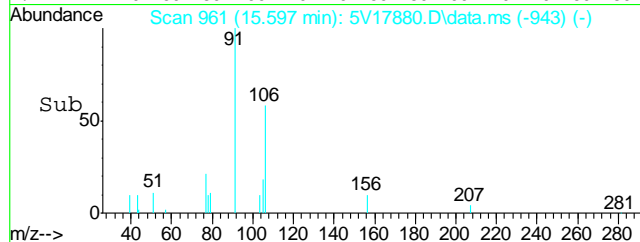
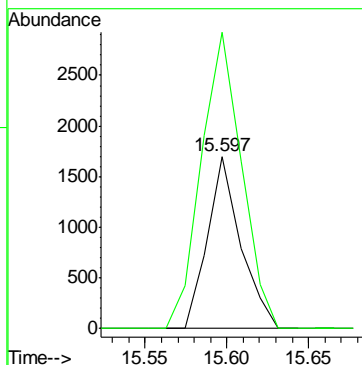
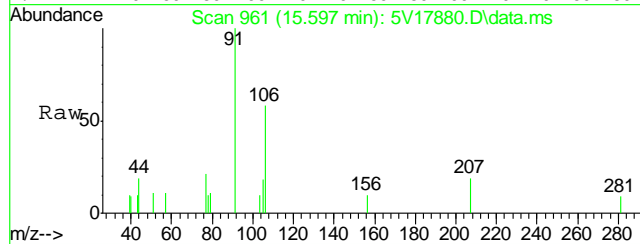
Tgt Ion: 92 Resp: 2342
Ion Ratio Lower Upper
92 100
91 189.0 146.7 186.7#





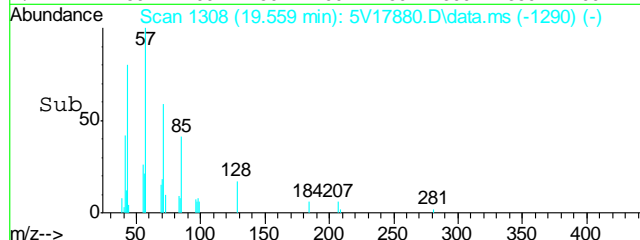
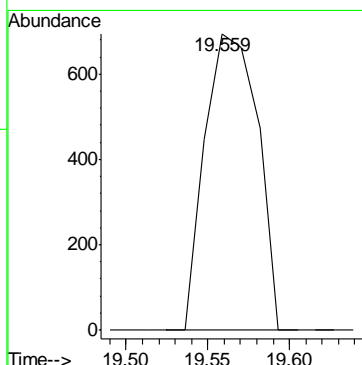
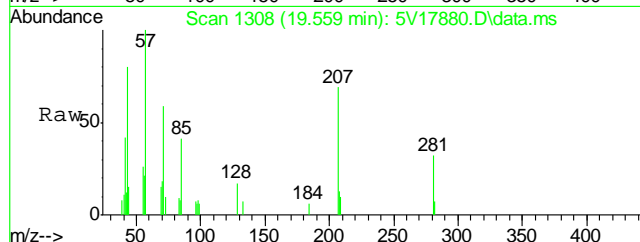
#73
o-xylene
Concen: 0.34 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V17880.D
Acq: 5 Oct 2011 3:24 am

Tgt Ion:106 Resp: 2400
Ion Ratio Lower Upper
106 100
91 209.3 157.4 236.2



#91
Naphthalene
Concen: 0.98 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 5V17880.D
Acq: 5 Oct 2011 3:24 am

Tgt Ion:128 Resp: 1560



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
 Data File : 5V17869.D
 Acq On : 4 Oct 2011 9:37 pm
 Operator : DONC
 Sample : MB
 Misc : MS2785,V5V1063,5,,100,5,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 05 09:00:25 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	296094	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	412110	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	374324	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	214879	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	36497	50.41	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.82%
61) Toluene-d8	13.851	98	685284	51.51	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.02%
69) 4-Bromofluorobenzene	16.043	95	256712	46.51	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.02%

Target Compounds

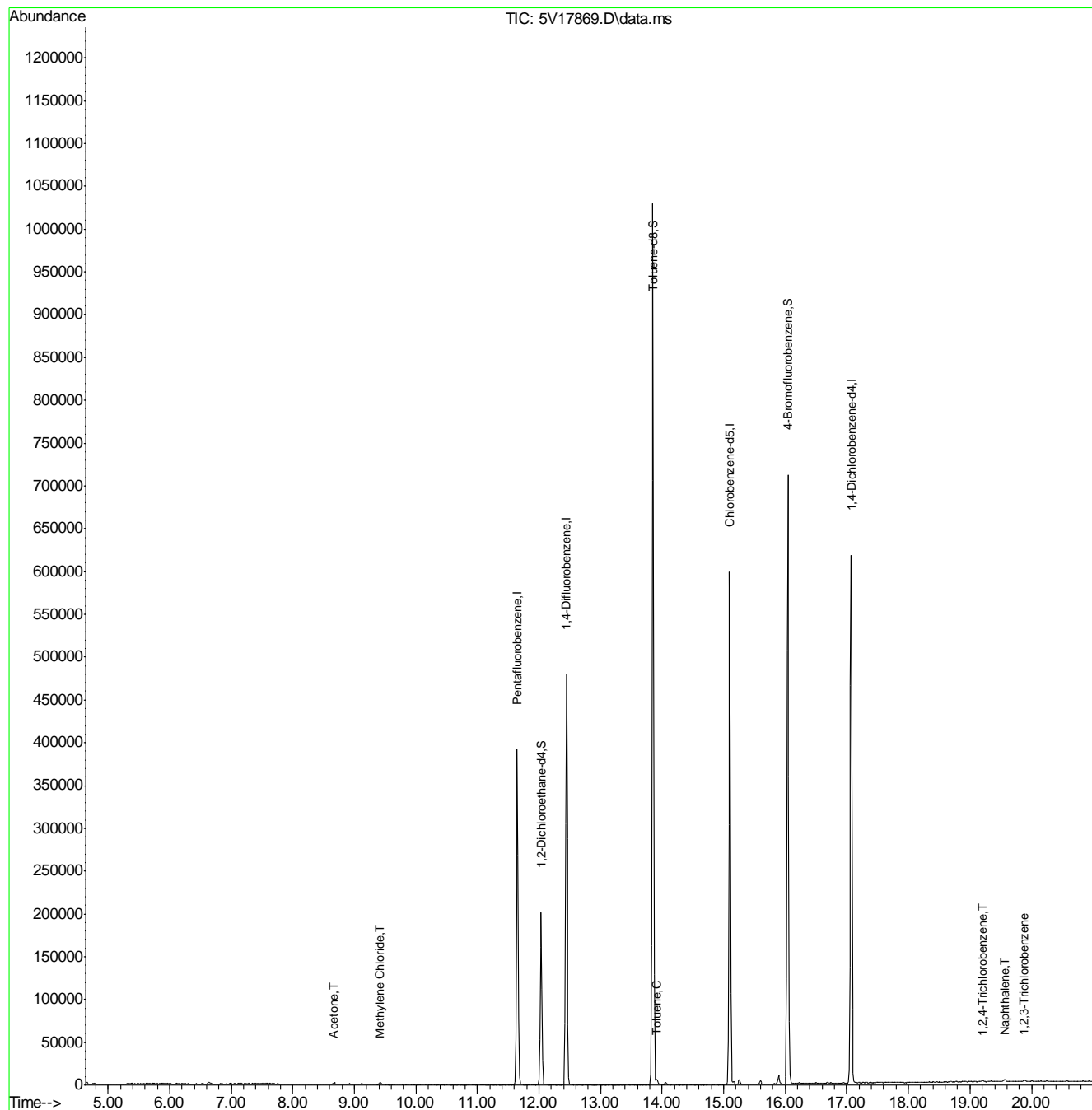
					Qvalue
1) TVH-Gasoline	13.491	TIC	-12847m	Below Cal	
15) Acetone	8.667	58	893	0.27 ug/l #	45
17) Methylene Chloride	9.421	84	1543	0.43 ug/l #	74
62) Toluene	13.908	92	2115	0.22 ug/l	93
90) 1,2,4-Trichlorobenzene	19.205	180	1281	0.21 ug/l #	88
91) Naphthalene	19.559	128	4657	1.27 ug/l	100
93) 1,2,3-Trichlorobenzene	19.879	180	1256	0.23 ug/l #	75

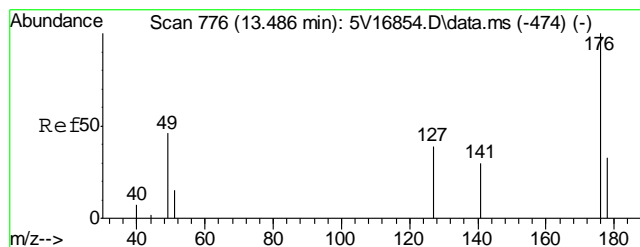
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5100411.S\
Data File : 5V17869.D
Acq On : 4 Oct 2011 9:37 pm
Operator : DONC
Sample : MB
Misc : MS2785,V5V1063,5,,100,5,1
ALS Vial : 27 Sample Multiplier: 1

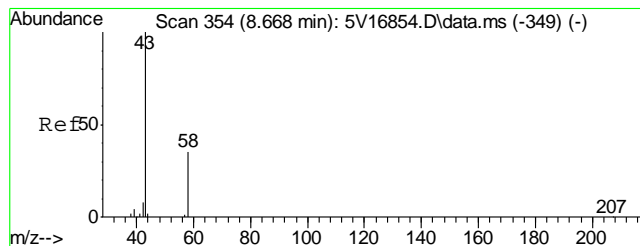
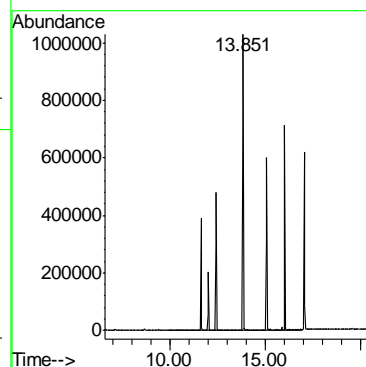
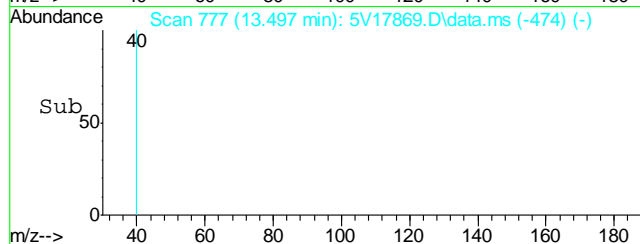
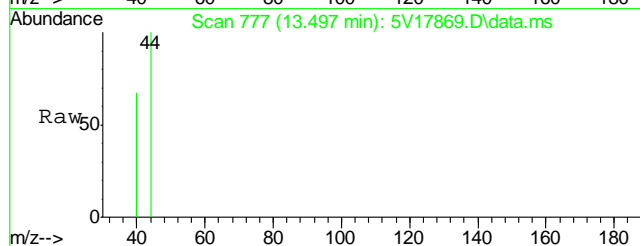
Quant Time: Oct 05 09:00:25 2011
Quant Method : C:\msdchem\1\METHODS\V5AP1030TVH1030.M
Quant Title : 8260
QLast Update : Thu Sep 08 11:29:08 2011
Response via : Initial Calibration





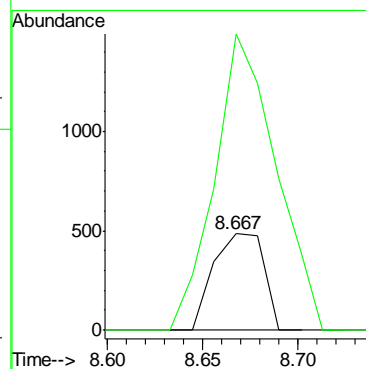
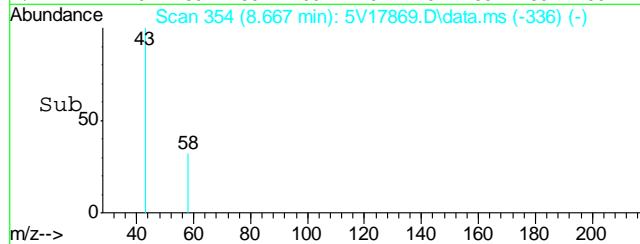
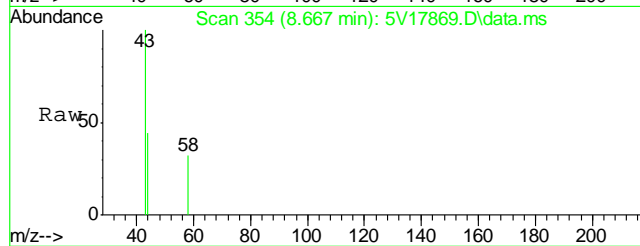
#1
TVH-Gasoline
Concen: Below Cal m
RT: 13.491 min Scan# 777
Delta R.T. 0.000 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

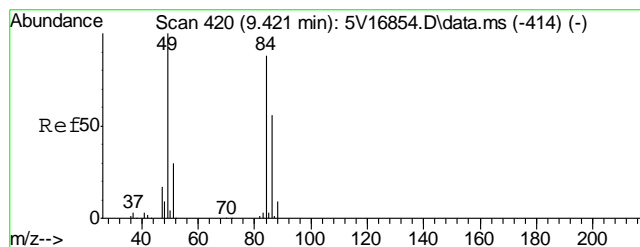
Tgt Ion:TIC Resp: -12847



#15
Acetone
Concen: 0.27 ug/l
RT: 8.667 min Scan# 354
Delta R.T. 0.000 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

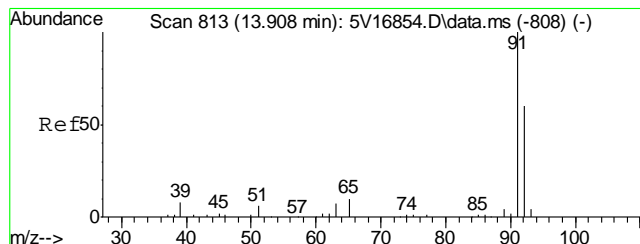
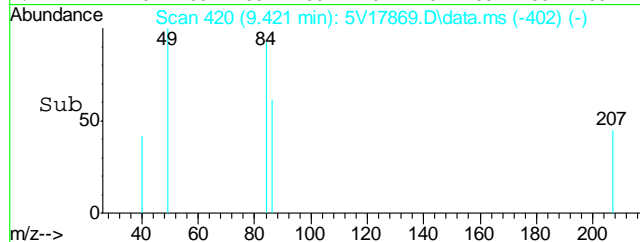
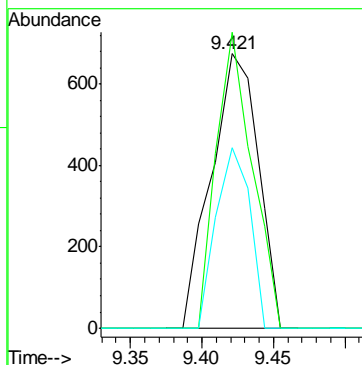
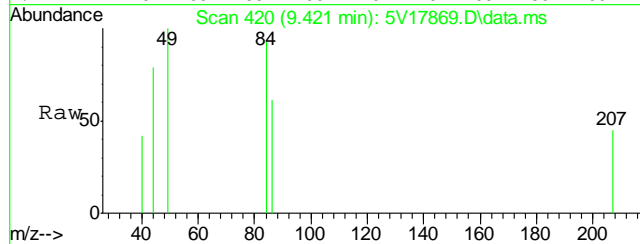
Tgt Ion: 58 Resp: 893
Ion Ratio Lower Upper
58 100
43 374.2 252.4 292.4#





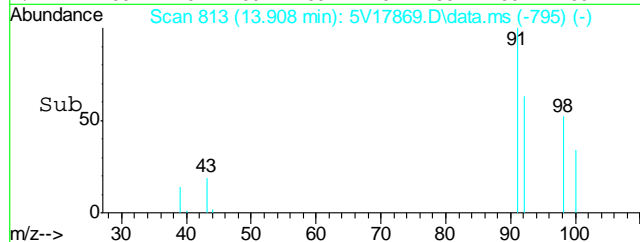
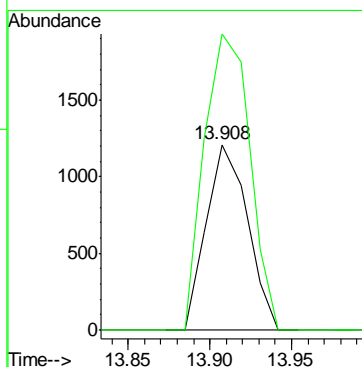
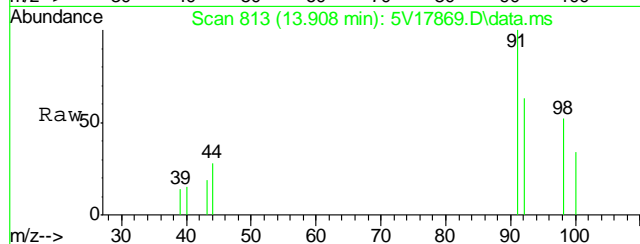
#17
Methylene Chloride
Concen: 0.43 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

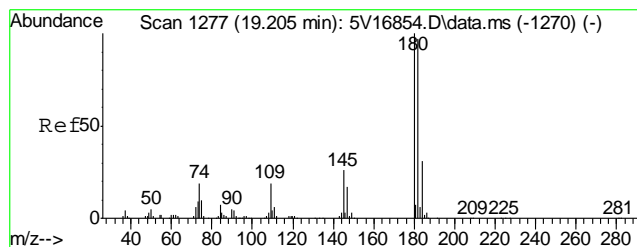
Tgt Ion	Ratio	Lower	Upper
84	100		
49	82.3	93.6	133.6#
86	47.1	44.2	84.2



#62
Toluene
Concen: 0.22 ug/l
RT: 13.908 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

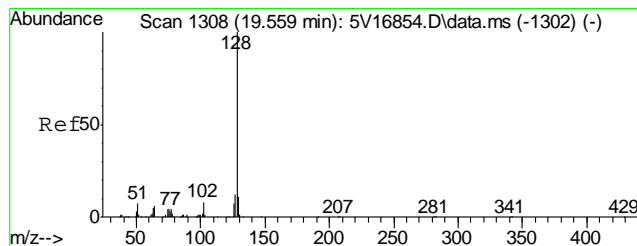
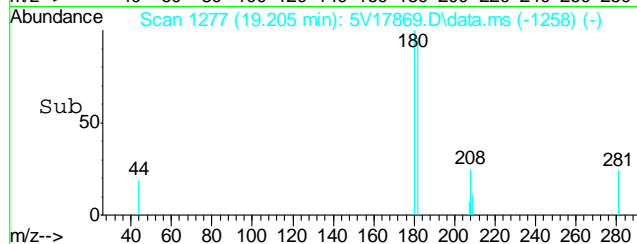
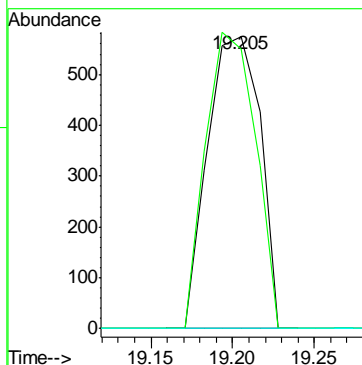
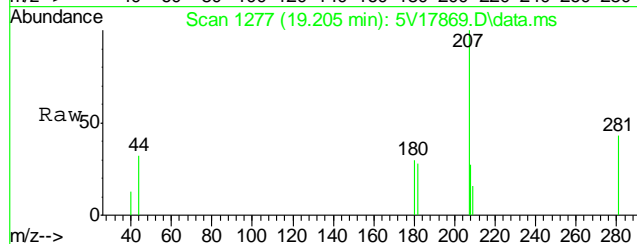
Tgt Ion	Ratio	Lower	Upper
92	100		
91	176.5	146.7	186.7





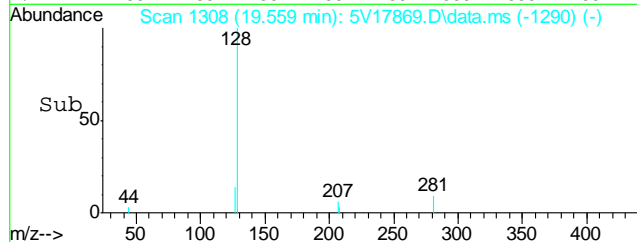
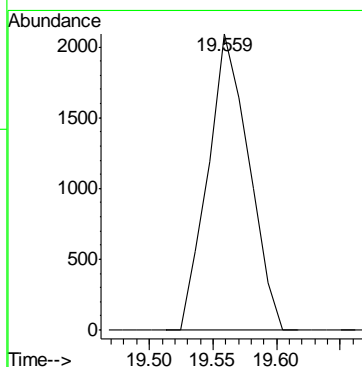
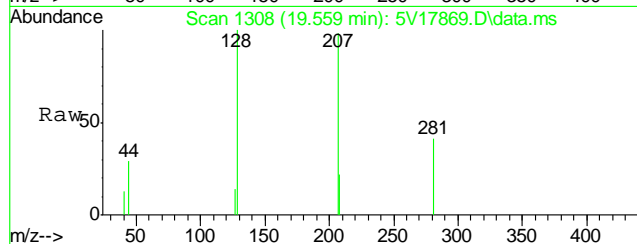
#90
1,2,4-Trichlorobenzene
Concen: 0.21 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

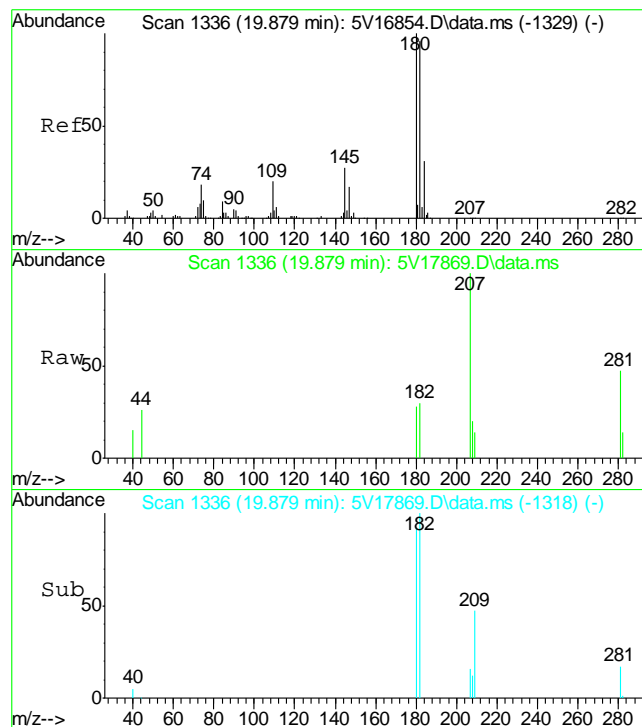
Tgt Ion:	180	Resp:	1281
Ion Ratio	Lower	Upper	
180	100		
182	96.4	76.3	114.5
145	0.0	20.7	31.1#



#91
Naphthalene
Concen: 1.27 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.000 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

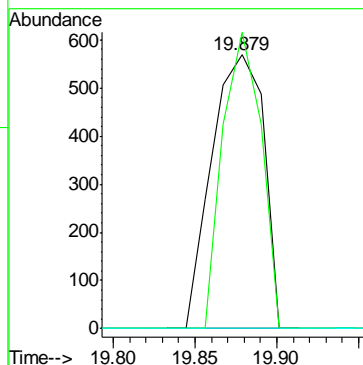
Tgt Ion:	128	Resp:	4657
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#93
1,2,3-Trichlorobenzene
Concen: 0.23 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. -0.000 min
Lab File: 5V17869.D
Acq: 4 Oct 2011 9:37 pm

Tgt Ion:	180	Resp:	1256
Ion Ratio	Lower	Upper	
180	100		
182	80.0	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: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB757-MB	GB13311.D	1	10/04/11	SK	n/a	n/a	GGB757

The QC reported here applies to the following samples:

Method: SW846 8015B

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

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	78% 60-140%

Blank Spike Summary

Job Number: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB757-BS	GB13312.D	1	10/04/11	SK	n/a	n/a	GGB757

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

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	121	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	92%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28251-2MS	GB13314.D	1	10/04/11	SK	n/a	n/a	GGB757
D28251-2MSD	GB13315.D	1	10/04/11	SK	n/a	n/a	GGB757
D28251-2	GB13313.D	1	10/04/11	SK	n/a	n/a	GGB757

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

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

CAS No.	Compound	D28251-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		144	160	111	157	109	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D28251-2	Limits
120-82-1	1,2,4-Trichlorobenzene	91%	89%	80%	60-140%

GC Volatiles

Raw Data

∞

Judy Melson
10/05/11 12:49

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13323.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\100411\GB13323.D\FID2B.CH
 Acq On : 4 Oct 2011 9:12 pm Operator: StephK
 Sample : D28276-1, 50X Inst : GC/MS Ins
 Misc : GC2302,GGB757,5.027,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 05 09:49:11 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Oct 05 09:48:19 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	14.42	3418045	98.510 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.42	34562274	162.758 %	
Target Compounds				
1) H TVH-Gasoline	7.33	39022130	0.587 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	7.73	275899	0.594 ug/L	
7) T Ethylbenzene	10.34	216234	0.537 ug/L	
8) T m,p-Xylene	10.54	1855861	3.304 ug/L	
9) T o-Xylene	11.02	718143	1.569 ug/L	
11) T Naphthalene	14.61	24975650	107.168 ug/L	

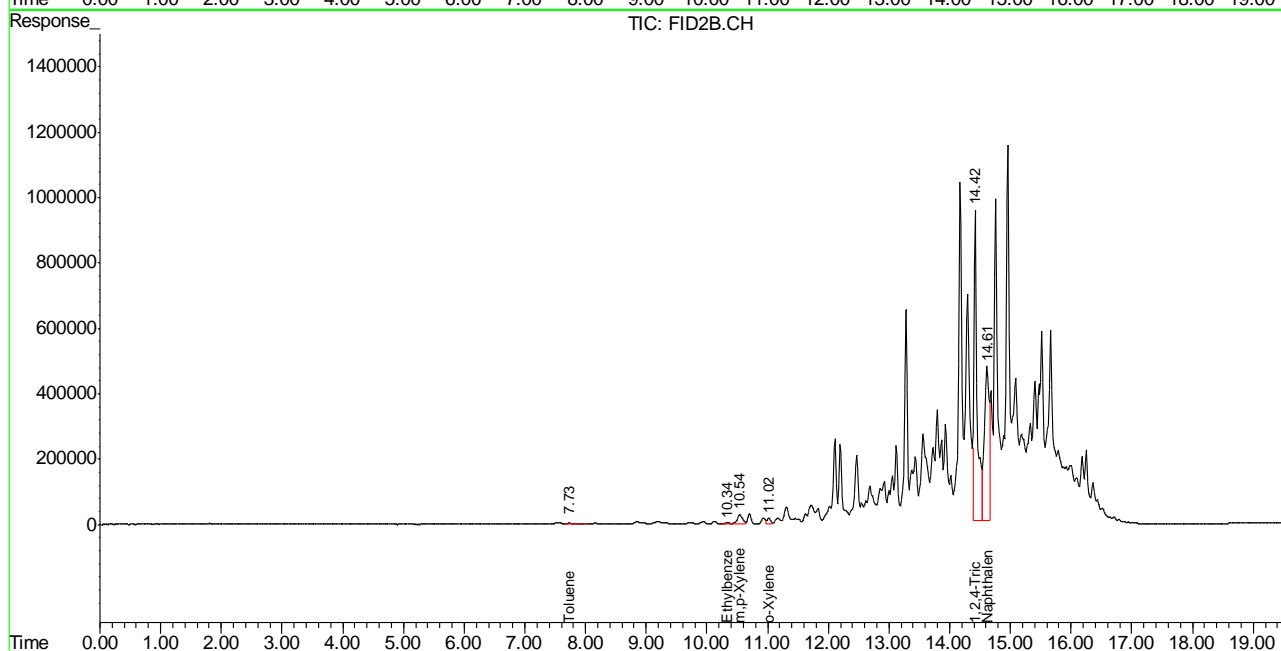
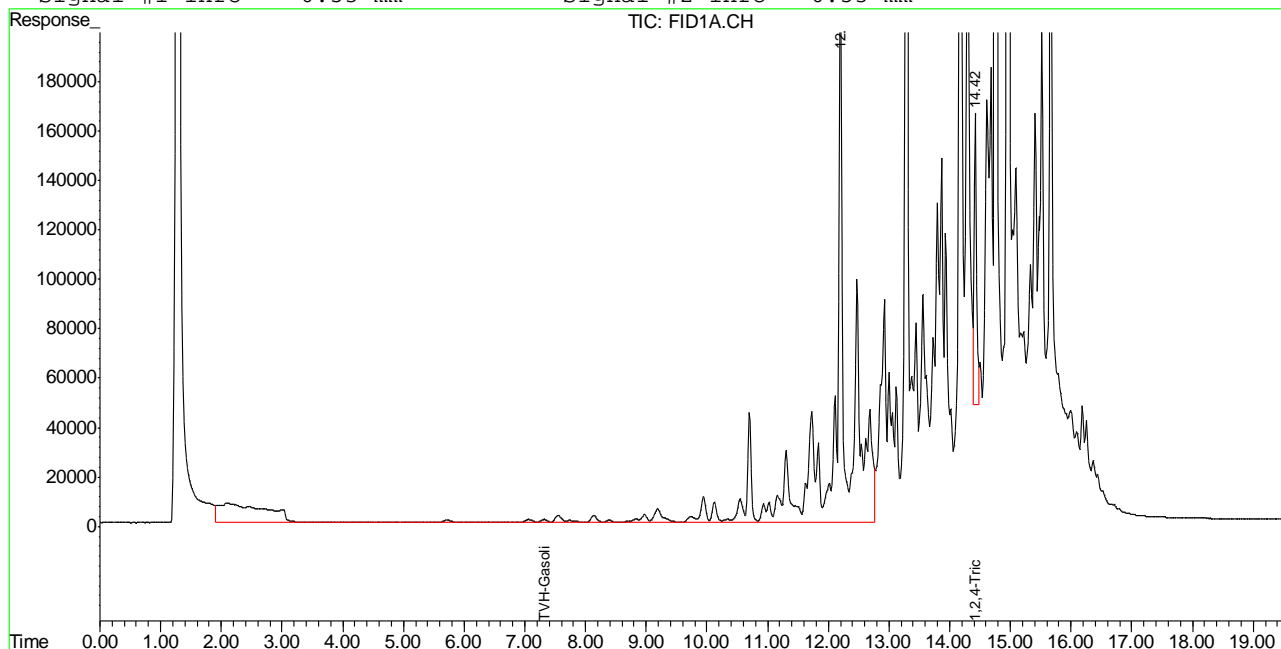
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB13323.D TB740GB740SOIL.M Wed Oct 05 10:00:58 2011 GC

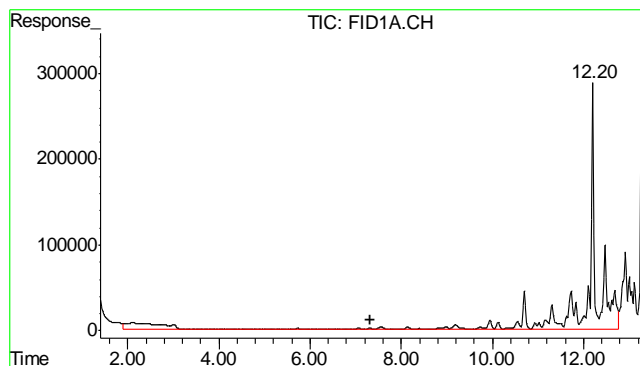
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13323.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\100411\GB13323.D\FID2B.CH
 Acq On : 4 Oct 2011 9:12 pm Operator: StephK
 Sample : D28276-1, 50X Inst : GC/MS Ins
 Misc : GC2302,GGB757,5.027,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 5 6:31 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Oct 05 09:48:19 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

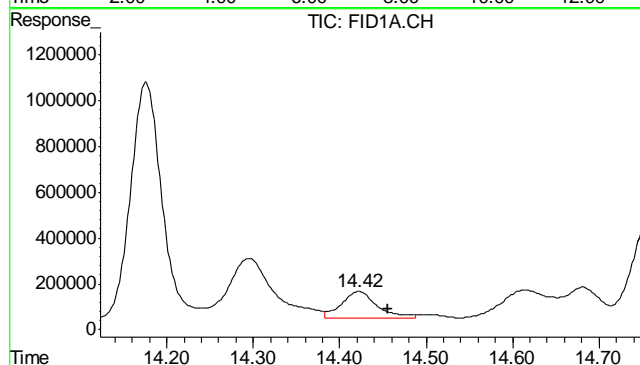
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





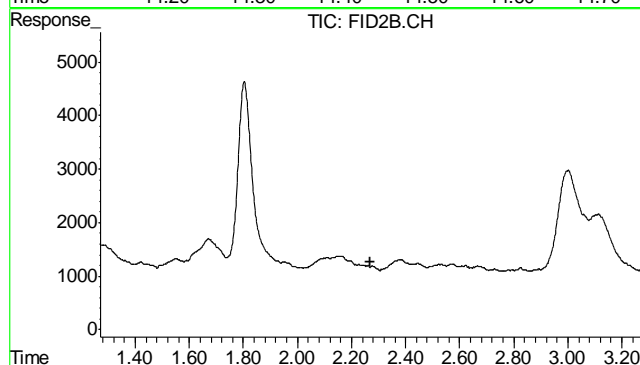
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 39022130
Conc: 0.59 mg/L m



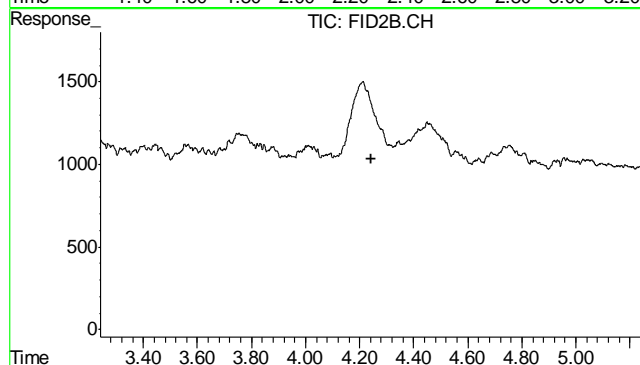
#2 1,2,4-Trichlorobenzene

R.T.: 14.421 min
Delta R.T.: -0.035 min
Response: 3418045
Conc: 98.51 % m



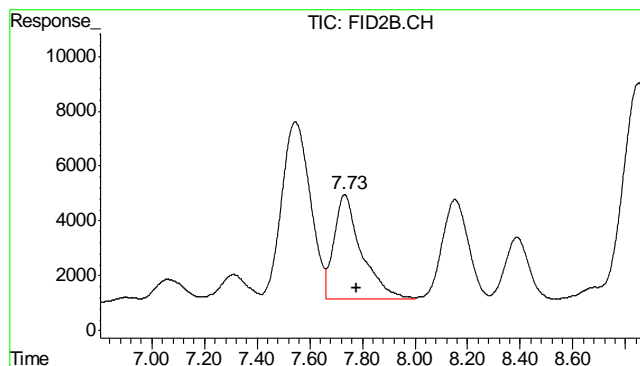
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.271 min
Response: 0
Conc: N.D.

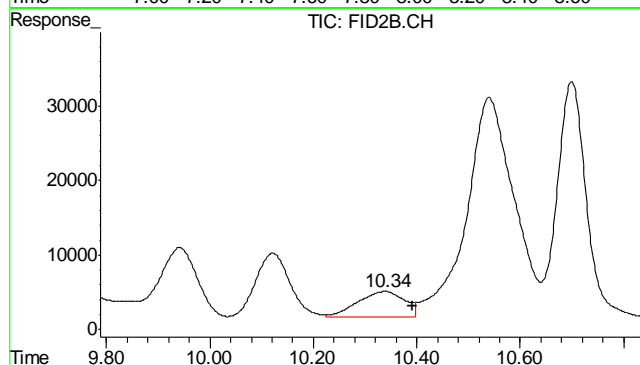


#5 Benzene

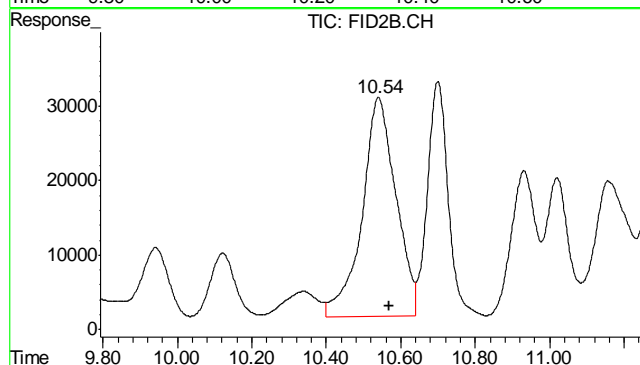
R.T.: 0.000 min
Exp R.T.: 4.242 min
Response: 0
Conc: N.D.



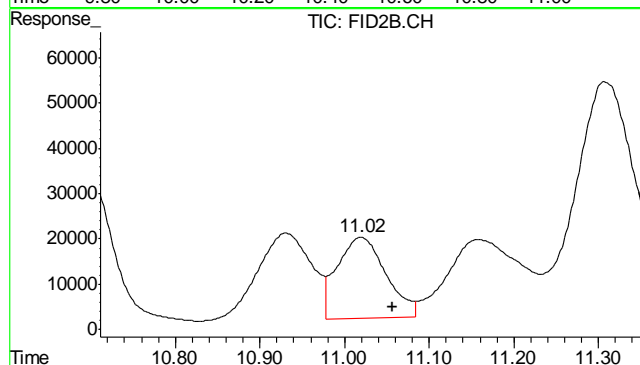
#6 Toluene
 R.T.: 7.734 min
 Delta R.T.: -0.044 min
 Response: 275899
 Conc: 0.59 ug/L



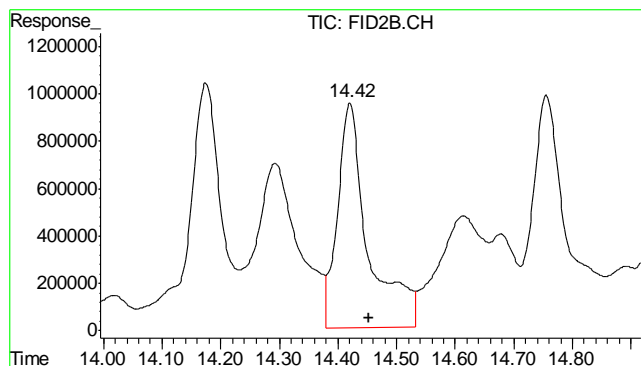
#7 Ethylbenzene
 R.T.: 10.339 min
 Delta R.T.: -0.052 min
 Response: 216234
 Conc: 0.54 ug/L



#8 m,p-Xylene
 R.T.: 10.540 min
 Delta R.T.: -0.028 min
 Response: 1855861
 Conc: 3.30 ug/L

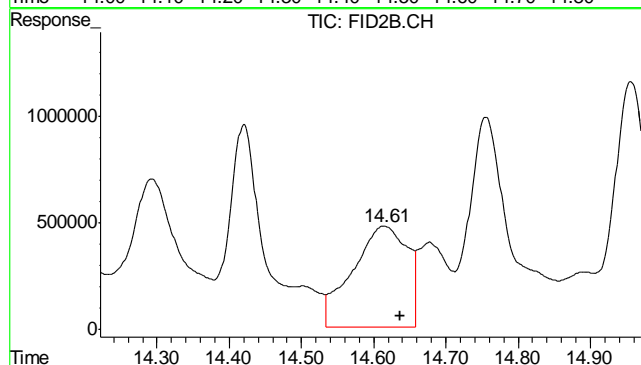


#9 o-Xylene
 R.T.: 11.020 min
 Delta R.T.: -0.037 min
 Response: 718143
 Conc: 1.57 ug/L



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

R.T.: 14.420 min
Delta R.T.: -0.034 min
Response: 34562274
Conc: 162.76 %



#11 Naphthalene

R.T.: 14.614 min
Delta R.T.: -0.022 min
Response: 24975650
Conc: 107.17 ug/L

8.1.1

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13328.D\FID1A.CH Vial: 19
Signal #2 : Y:\1\DATA\100411\GB13328.D\FID2B.CH
Acq On : 5 Oct 2011 12:10 am Operator: StephK
Sample : D28276-2, 50X Inst : GC/MS Ins
Misc : GC2302,GGB757,5.010,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 05 09:50:07 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Oct 05 09:49:41 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

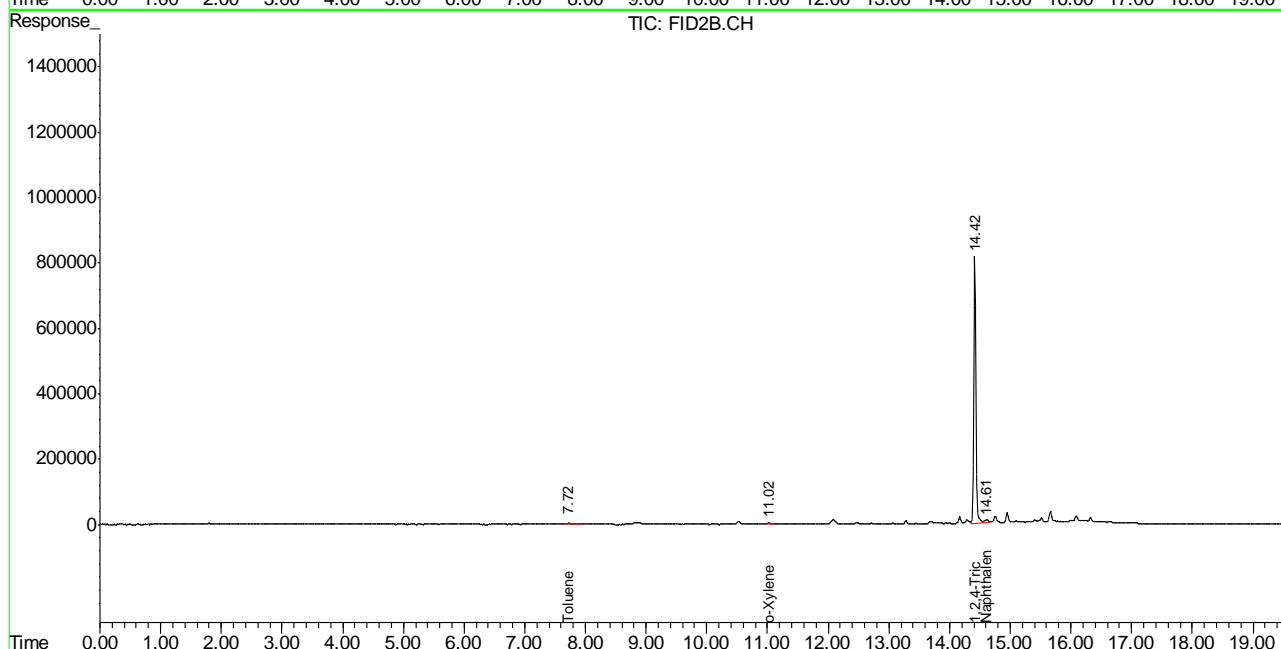
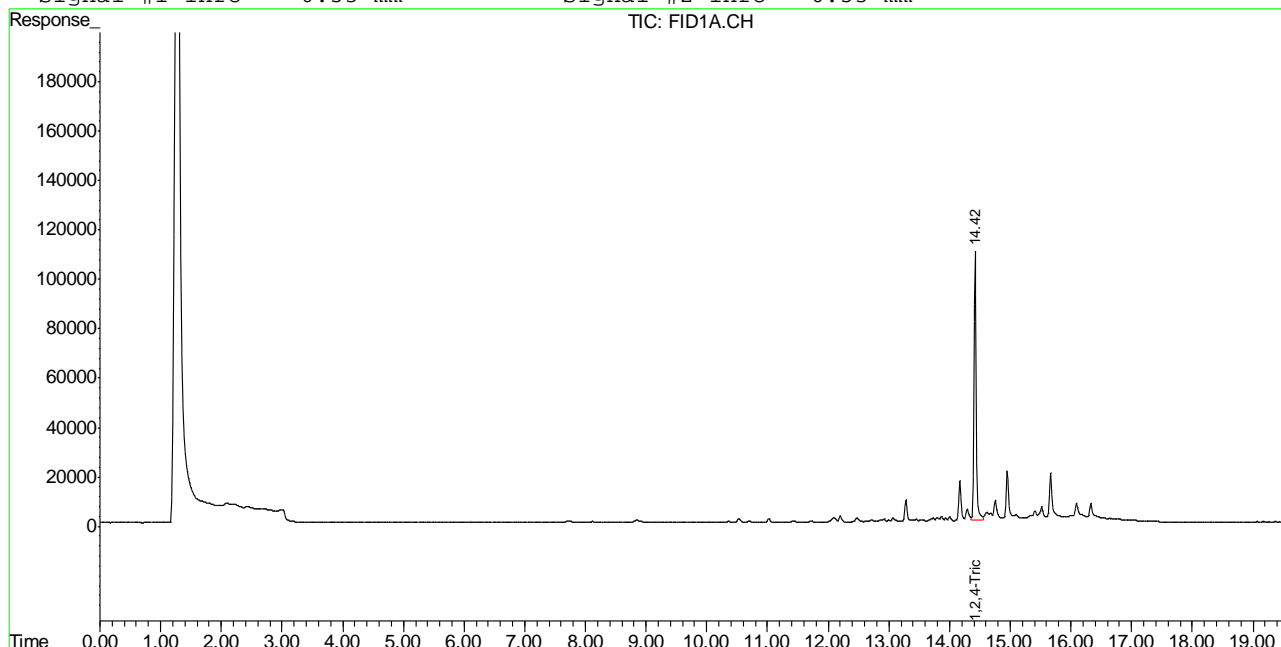
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.42	2666149	76.840	%
10) S	1,2,4-Trichlorobenzene (P)	14.42	19240968	90.608	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5709362	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.72	193405	0.416	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	11.02	199644	0.247	ug/L
11) T	Naphthalene	14.61	425331	1.863	ug/L

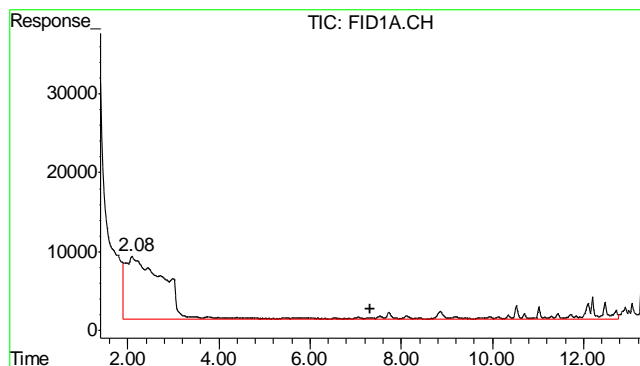
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13328.D\FID1A.CH Vial: 19
 Signal #2 : Y:\1\DATA\100411\GB13328.D\FID2B.CH
 Acq On : 5 Oct 2011 12:10 am Operator: StephK
 Sample : D28276-2, 50X Inst : GC/MS Ins
 Misc : GC2302,GGB757,5.010,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 5 6:32 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Oct 05 09:49:41 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

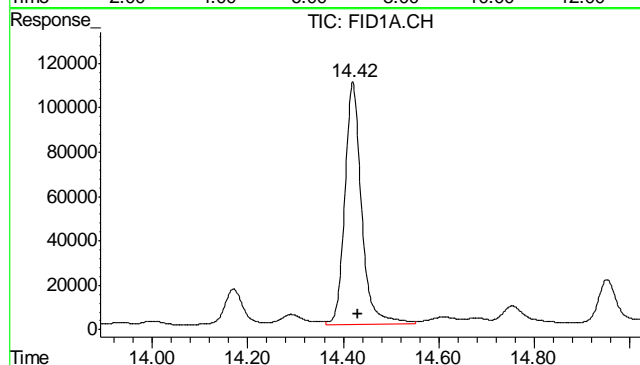
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





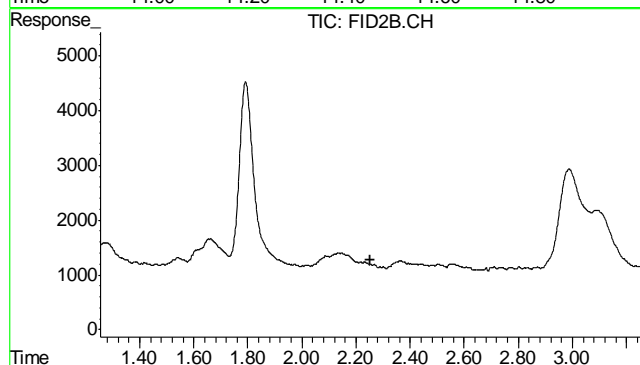
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5709362
Conc: N.D.



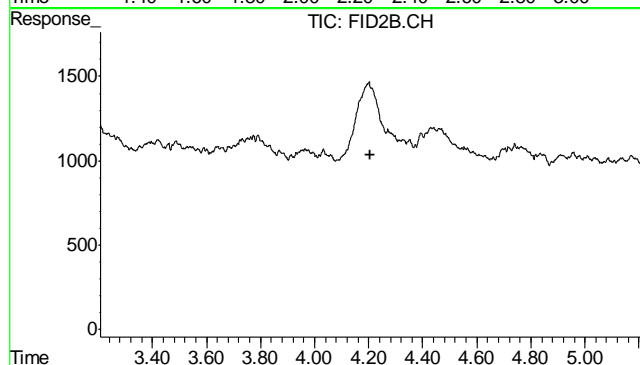
#2 1,2,4-Trichlorobenzene

R.T.: 14.420 min
Delta R.T.: -0.010 min
Response: 2666149
Conc: 76.84 %



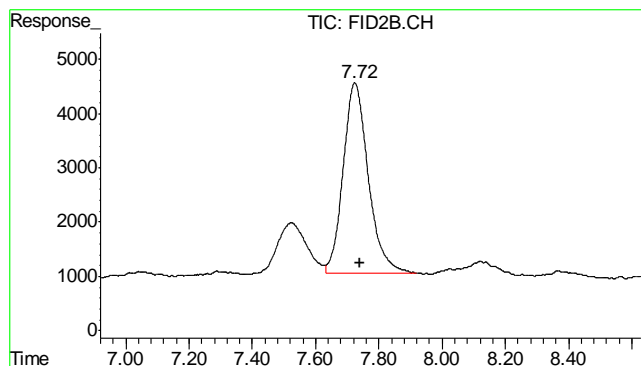
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.254 min
Response: 0
Conc: N.D.



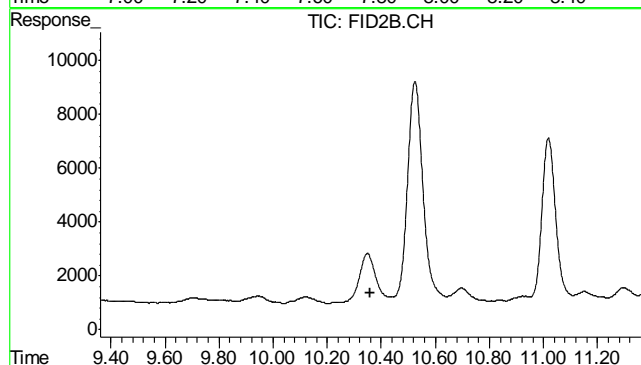
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.207 min
Response: 0
Conc: N.D.



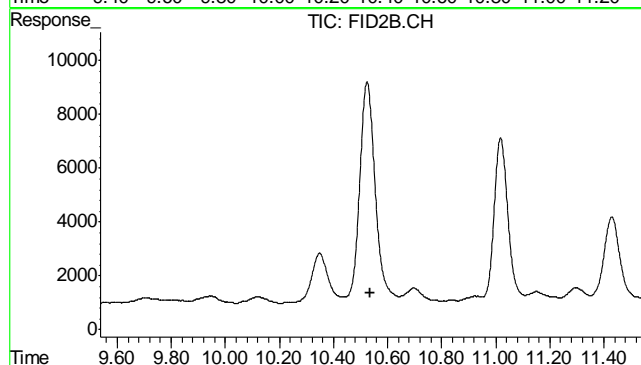
#6 Toluene

R.T.: 7.723 min
Delta R.T.: -0.017 min
Response: 193405
Conc: 0.42 ug/L



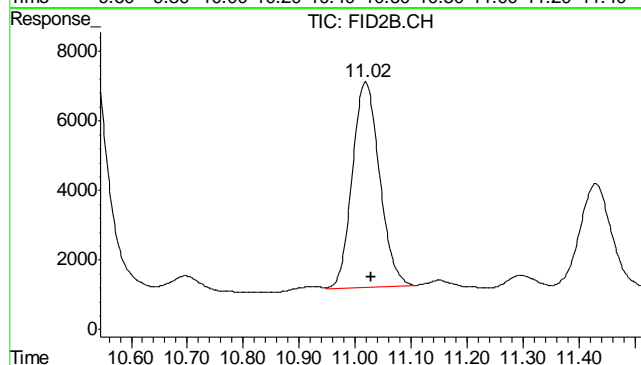
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.360 min
Response: 0
Conc: N.D.



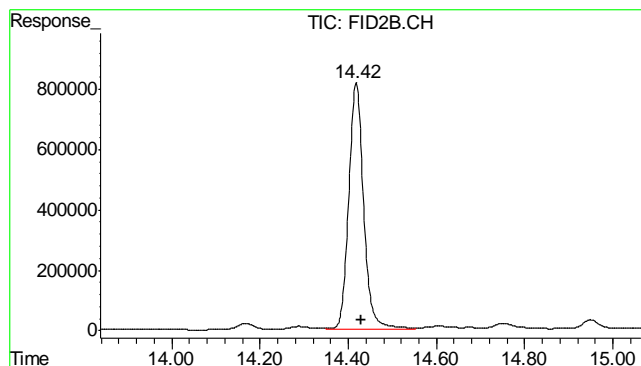
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T.: 10.537 min
Response: 0
Conc: N.D.



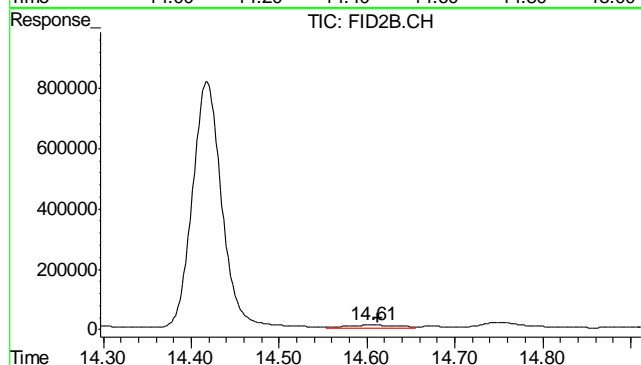
#9 o-Xylene

R.T.: 11.019 min
Delta R.T.: -0.010 min
Response: 199644
Conc: 0.25 ug/L



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

R.T.: 14.418 min
 Delta R.T.: -0.011 min
 Response: 19240968
 Conc: 90.61 %



#11 Naphthalene

R.T.: 14.605 min
 Delta R.T.: -0.006 min
 Response: 425331
 Conc: 1.86 ug/L

8.12
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13329.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\100411\GB13329.D\FID2B.CH
Acq On : 5 Oct 2011 12:46 am Operator: StephK
Sample : D28276-3, 50X Inst : GC/MS Ins
Misc : GC2302,GGB757,5.058,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 05 09:50:11 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Oct 05 09:49:41 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	14.42	2945525	84.891 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.42	20419158	96.157 %	
Target Compounds				
1) H TVH-Gasoline	7.33	12022303	0.146 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	7.73	187763	0.404 ug/L	
7) T Ethylbenzene	10.35	88081	0.219 ug/L	
8) T m,p-Xylene	10.53	572302	0.571 ug/L	
9) T o-Xylene	11.02	272851	0.434 ug/L	
11) T Naphthalene	14.61	2730414	11.750 ug/L	

8.1.3

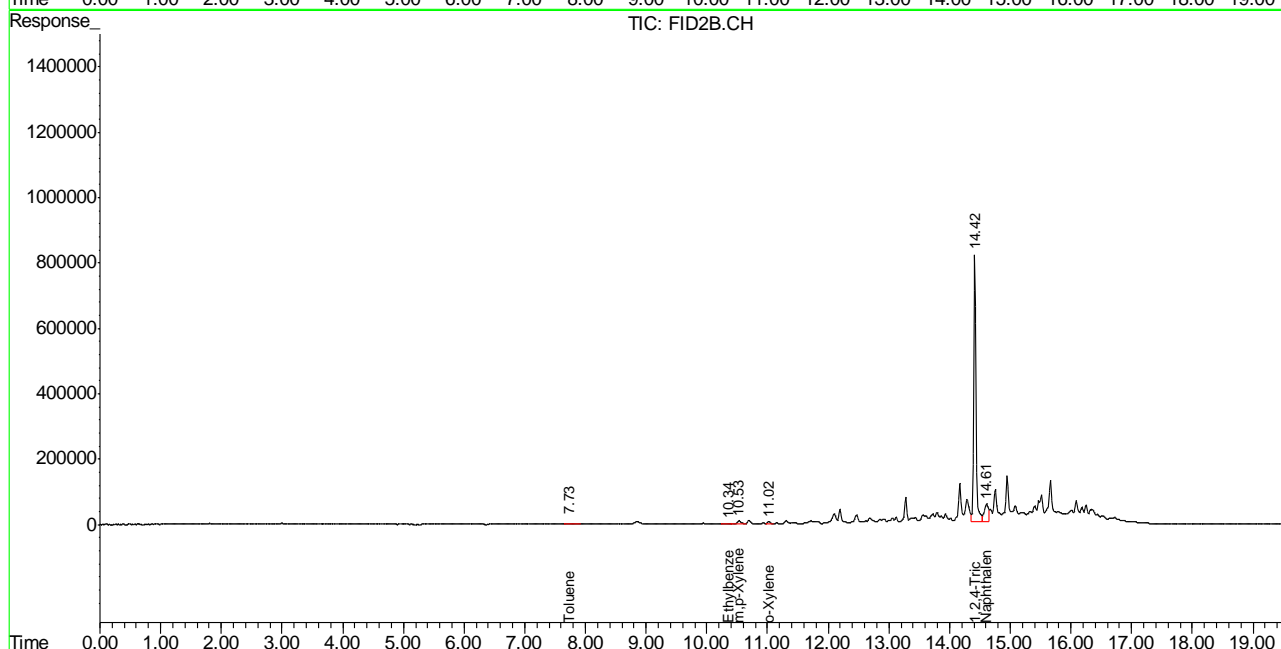
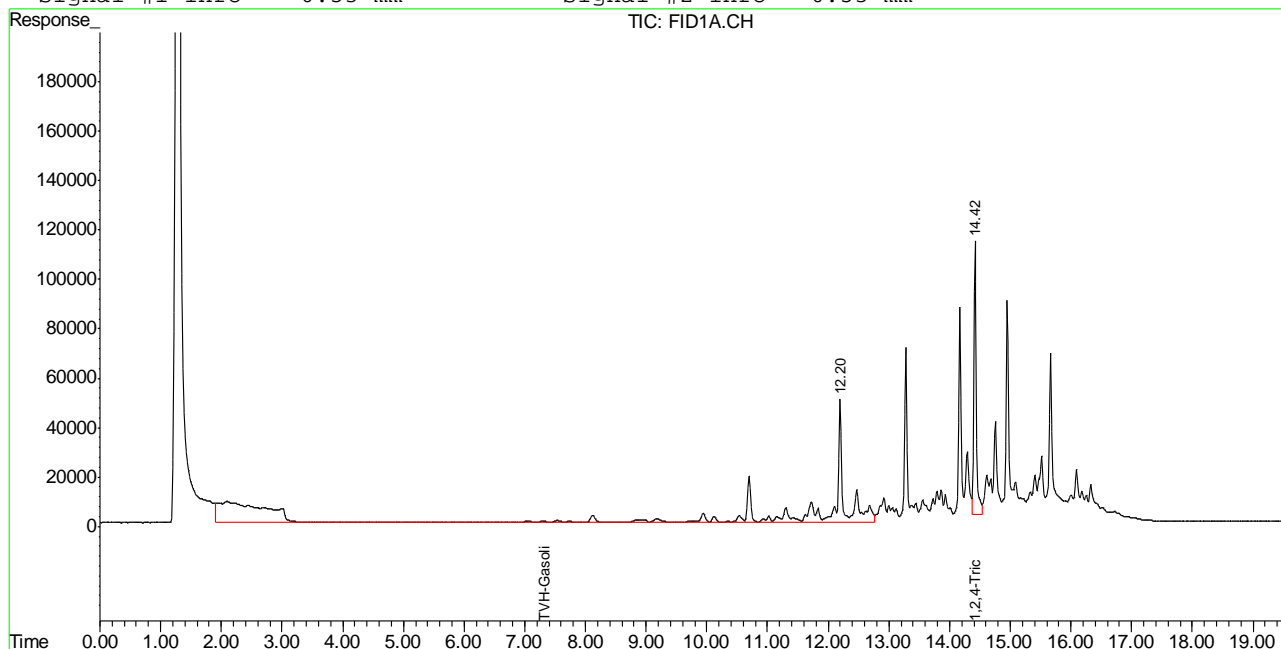
8

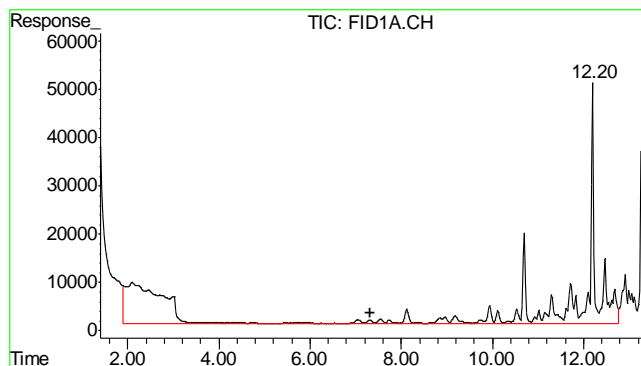
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13329.D\FID1A.CH Vial: 20
 Signal #2 : Y:\1\DATA\100411\GB13329.D\FID2B.CH
 Acq On : 5 Oct 2011 12:46 am Operator: StephK
 Sample : D28276-3, 50X Inst : GC/MS Ins
 Misc : GC2302,GGB757,5.058,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 5 6:33 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Oct 05 09:49:41 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

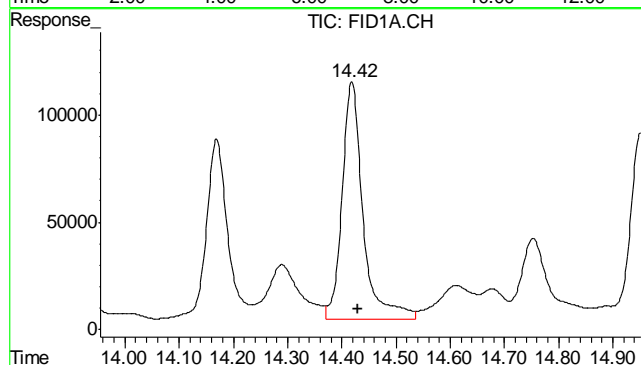
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





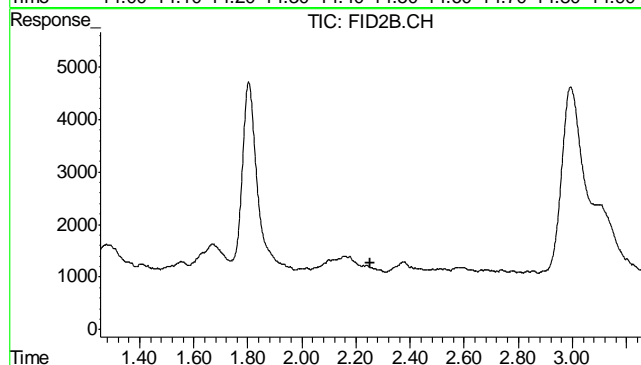
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 12022303
Conc: 0.15 mg/L m



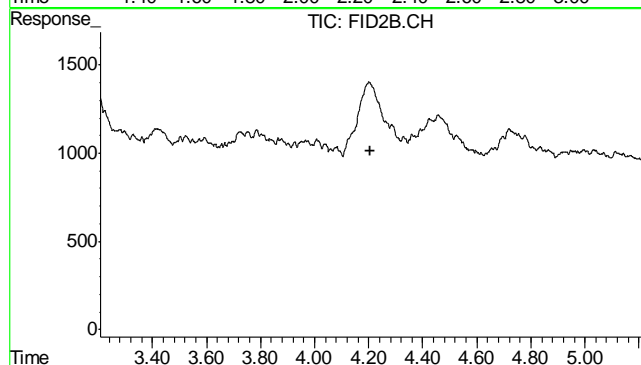
#2 1,2,4-Trichlorobenzene

R.T.: 14.418 min
Delta R.T.: -0.012 min
Response: 2945525
Conc: 84.89 % m



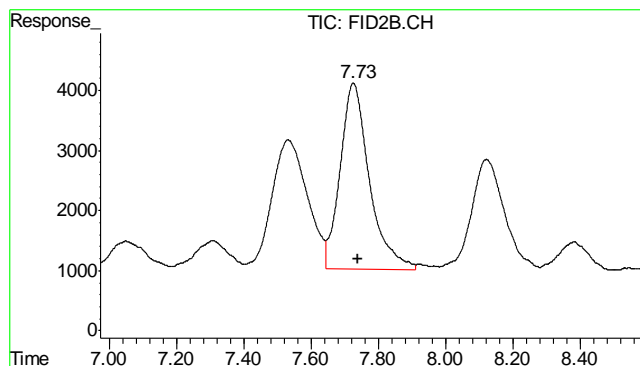
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.254 min
Response: 0
Conc: N.D.



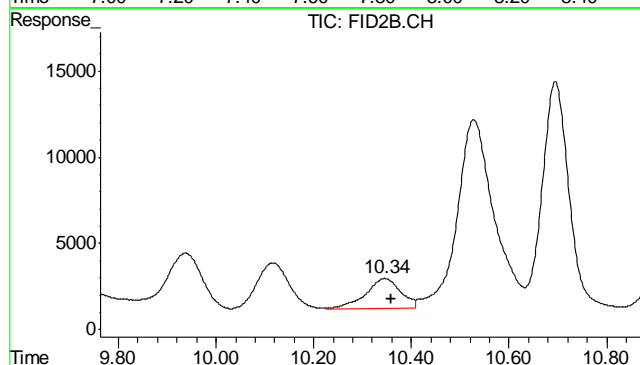
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.207 min
Response: 0
Conc: N.D.



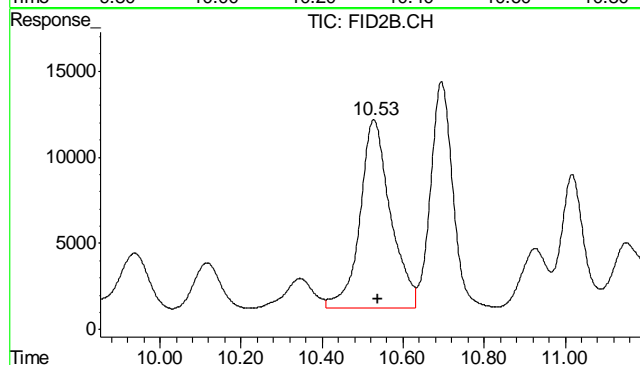
#6 Toluene

R.T.: 7.726 min
Delta R.T.: -0.015 min
Response: 187763
Conc: 0.40 ug/L



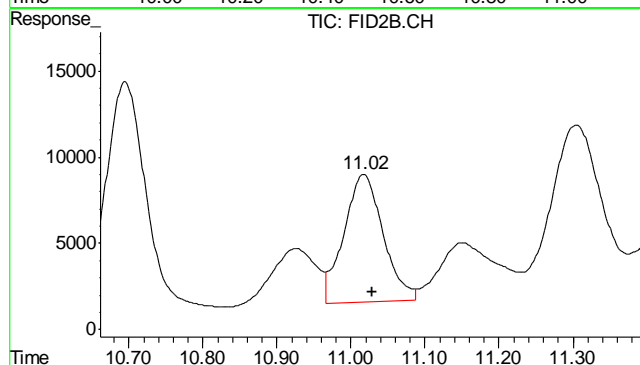
#7 Ethylbenzene

R.T.: 10.345 min
Delta R.T.: -0.015 min
Response: 88081
Conc: 0.22 ug/L



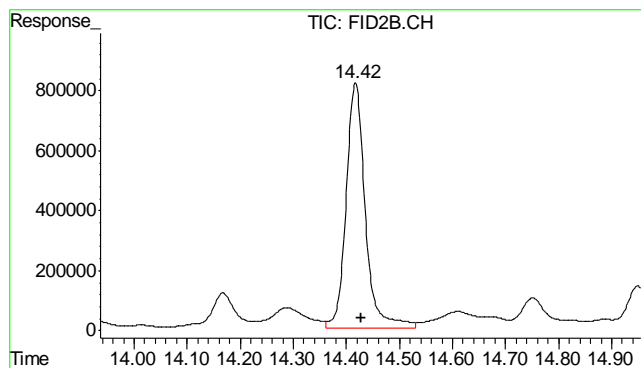
#8 m,p-Xylene

R.T.: 10.528 min
Delta R.T.: -0.009 min
Response: 572302
Conc: 0.57 ug/L



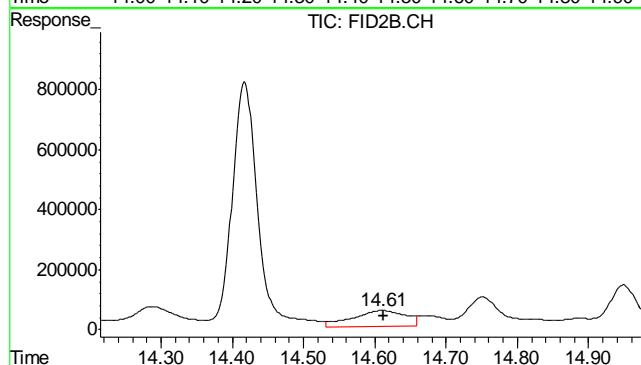
#9 o-Xylene

R.T.: 11.017 min
Delta R.T.: -0.012 min
Response: 272851
Conc: 0.43 ug/L



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

R.T.: 14.417 min
Delta R.T.: -0.011 min
Response: 20419158
Conc: 96.16 %



#11 Naphthalene

R.T.: 14.610 min
Delta R.T.: -0.002 min
Response: 2730414
Conc: 11.75 ug/L

8.1.3

8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13330.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\100411\GB13330.D\FID2B.CH
Acq On : 5 Oct 2011 1:22 am Operator: StephK
Sample : D28276-4, 50X Inst : GC/MS Ins
Misc : GC2302,GGB757,5.042,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 05 09:50:15 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Oct 05 09:49:41 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

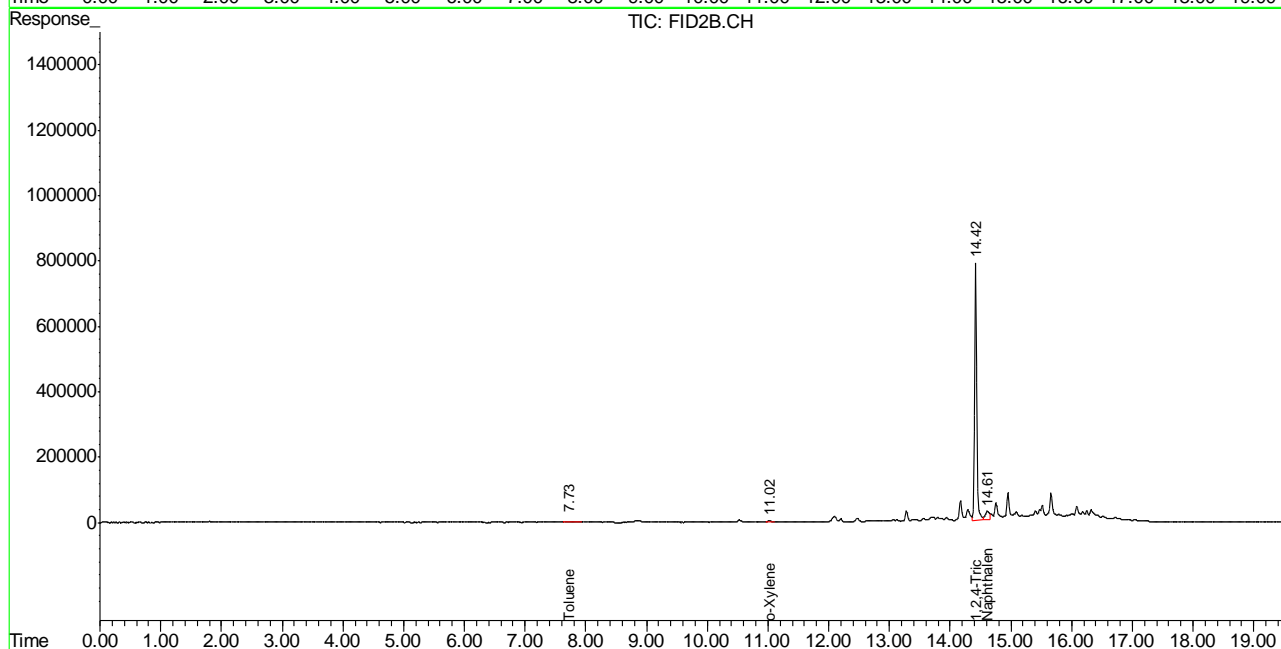
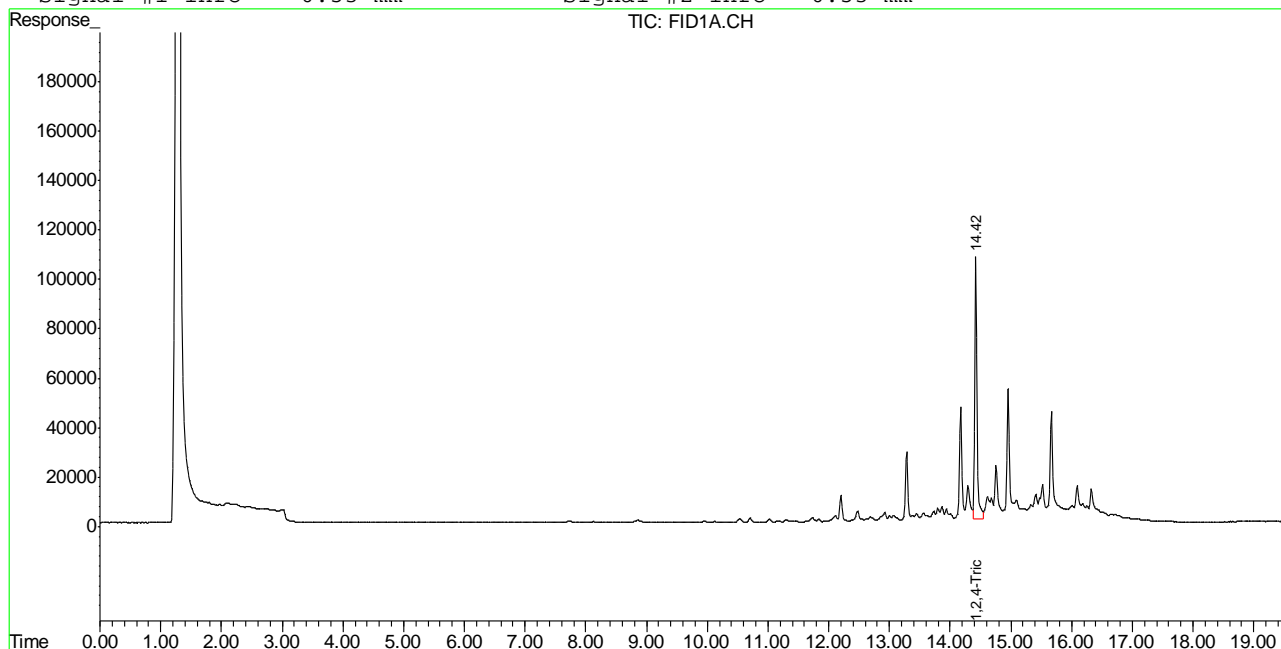
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.42	2706075	77.990 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.42	18917235	89.084 %	
Target Compounds				
1) H TVH-Gasoline	7.33	6701499	<MDL	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.73	167713	0.361	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	11.02	191313	0.226	ug/L
11) T Naphthalene	14.61	1333792	5.759	ug/L

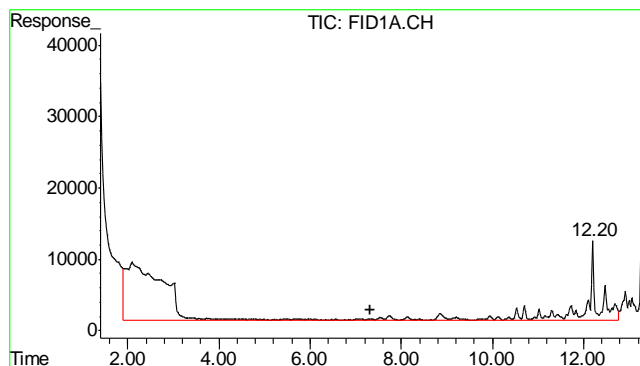
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13330.D\FID1A.CH Vial: 21
 Signal #2 : Y:\1\DATA\100411\GB13330.D\FID2B.CH
 Acq On : 5 Oct 2011 1:22 am Operator: StephK
 Sample : D28276-4, 50X Inst : GC/MS Ins
 Misc : GC2302,GGB757,5.042,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 5 6:33 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Oct 05 09:49:41 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

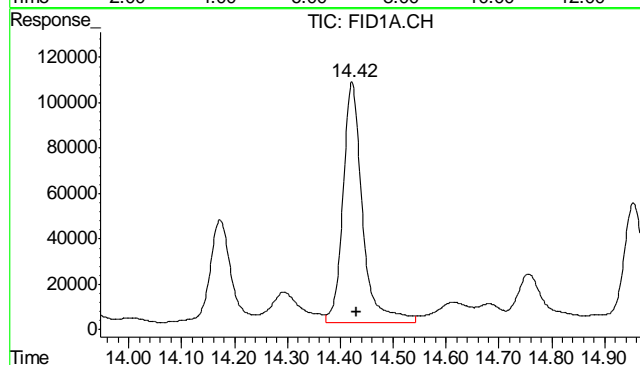
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





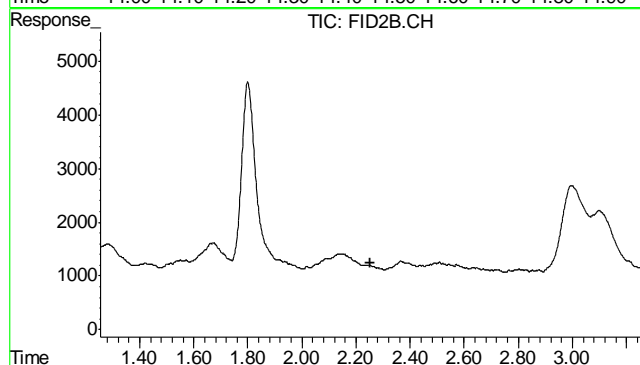
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 6701499
Conc: N.D.



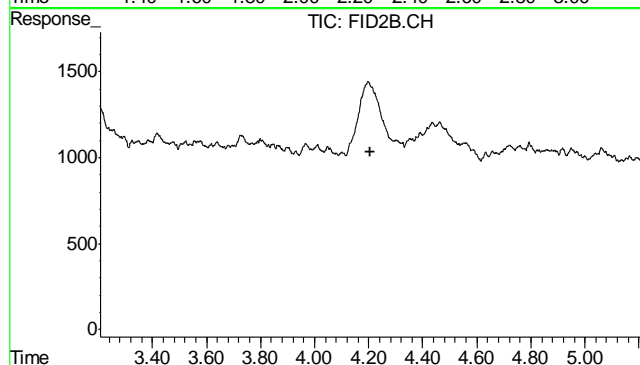
#2 1,2,4-Trichlorobenzene

R.T.: 14.421 min
Delta R.T.: -0.009 min
Response: 2706075
Conc: 77.99 % m



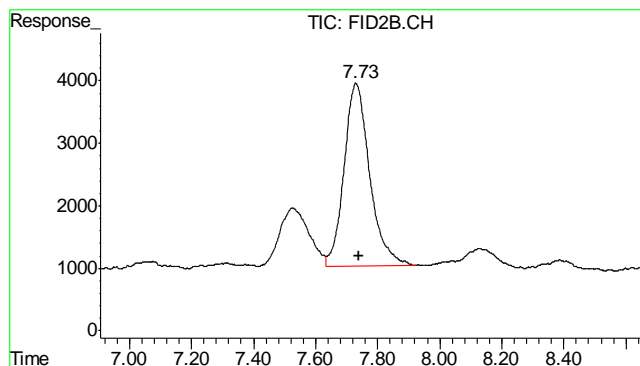
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.254 min
Response: 0
Conc: N.D.



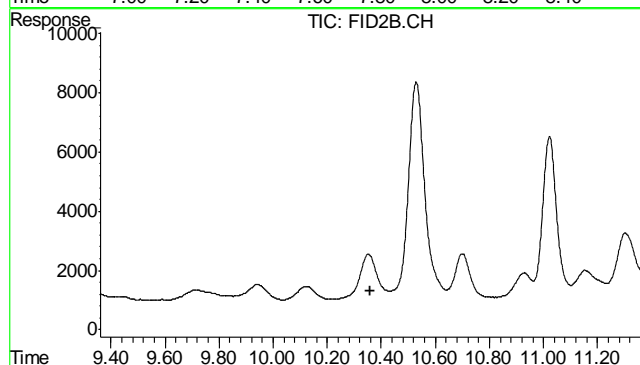
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.207 min
Response: 0
Conc: N.D.



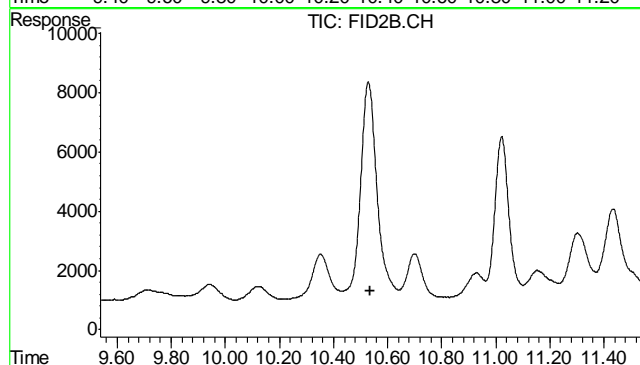
#6 Toluene

R.T.: 7.730 min
Delta R.T.: -0.011 min
Response: 167713
Conc: 0.36 ug/L



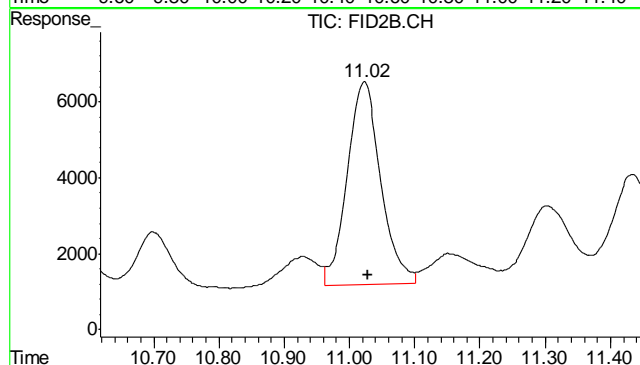
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.360 min
Response: 0
Conc: N.D.



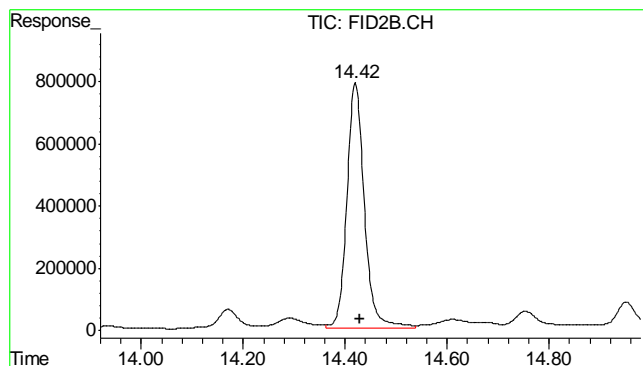
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T.: 10.537 min
Response: 0
Conc: N.D.



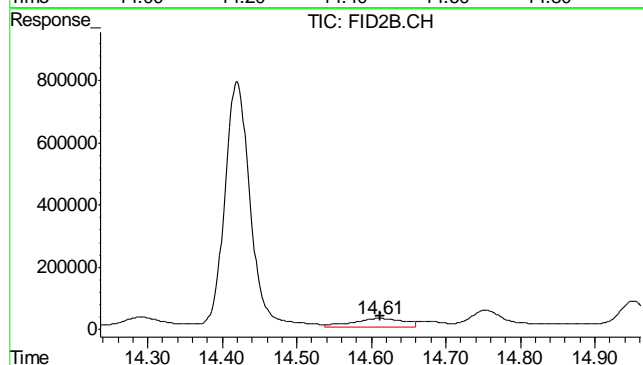
#9 o-Xylene

R.T.: 11.023 min
Delta R.T.: -0.006 min
Response: 191313
Conc: 0.23 ug/L



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

R.T.: 14.420 min
Delta R.T.: -0.009 min
Response: 18917235
Conc: 89.08 %



#11 Naphthalene

R.T.: 14.611 min
Delta R.T.: 0.000 min
Response: 1333792
Conc: 5.76 ug/L

8.1.4
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13331.D\FID1A.CH Vial: 22
Signal #2 : Y:\1\DATA\100411\GB13331.D\FID2B.CH
Acq On : 5 Oct 2011 1:57 am Operator: StephK
Sample : D28276-5, 50X Inst : GC/MS Ins
Misc : GC2302,GGB757,5.004,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 05 09:50:19 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Oct 05 09:49:41 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	14.41	2626428	75.695 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.41	18975561	89.359 %	
Target Compounds				
1) H TVH-Gasoline	7.33	5649041	<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	7.72	173248	0.373	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	11.01	194455	0.234	ug/L
11) T Naphthalene	14.60	368712	1.620	ug/L

8.15

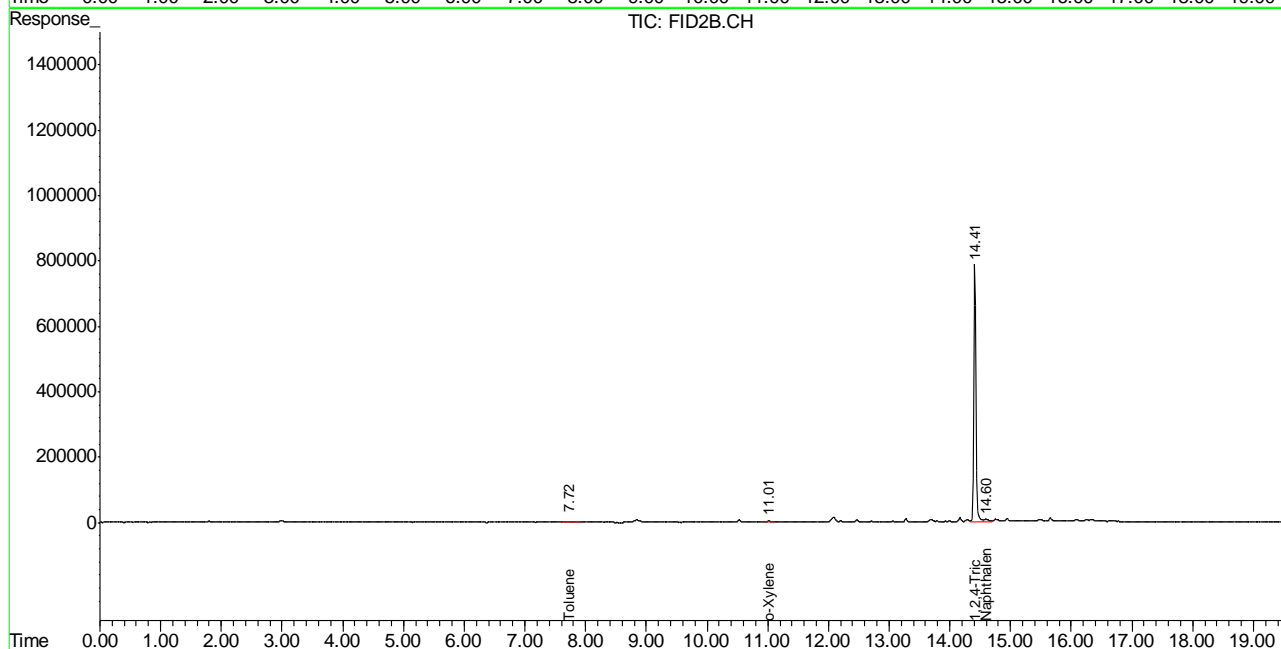
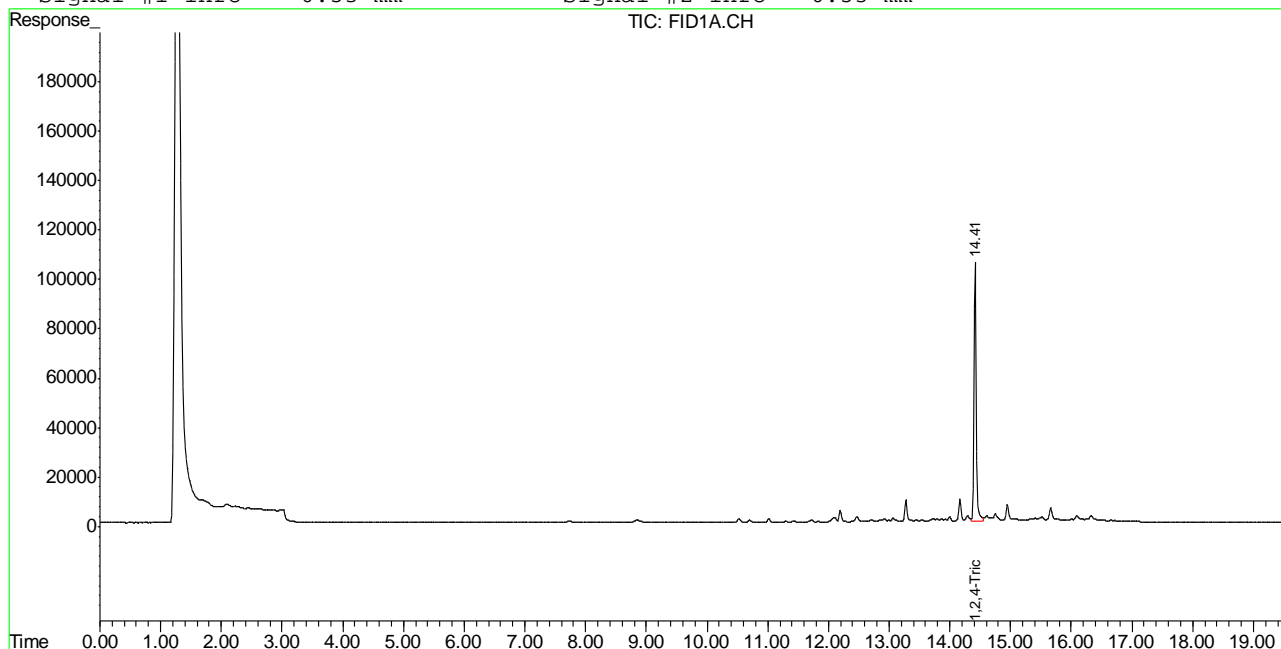
8

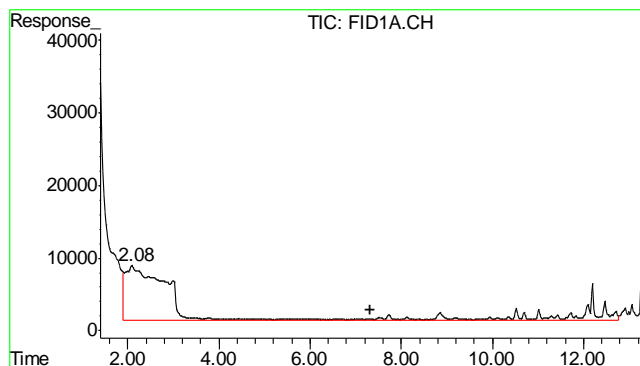
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13331.D\FID1A.CH Vial: 22
 Signal #2 : Y:\1\DATA\100411\GB13331.D\FID2B.CH
 Acq On : 5 Oct 2011 1:57 am Operator: StephK
 Sample : D28276-5, 50X Inst : GC/MS Ins
 Misc : GC2302,GGB757,5.004,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Oct 5 6:33 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Oct 05 09:49:41 2011
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

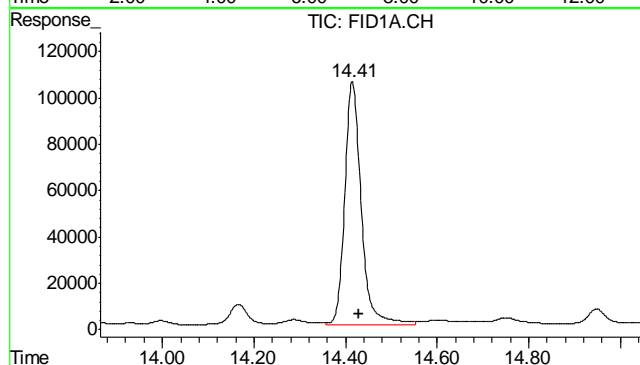
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





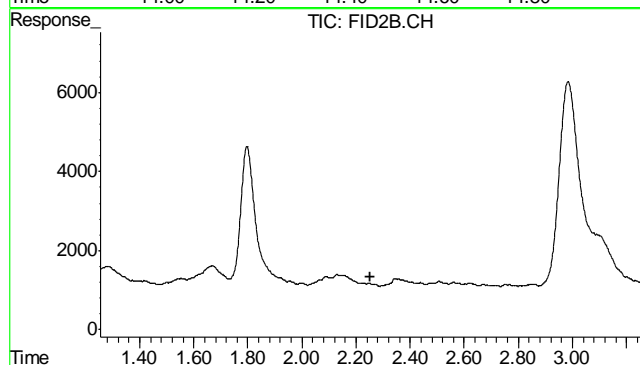
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5649041
Conc: N.D.



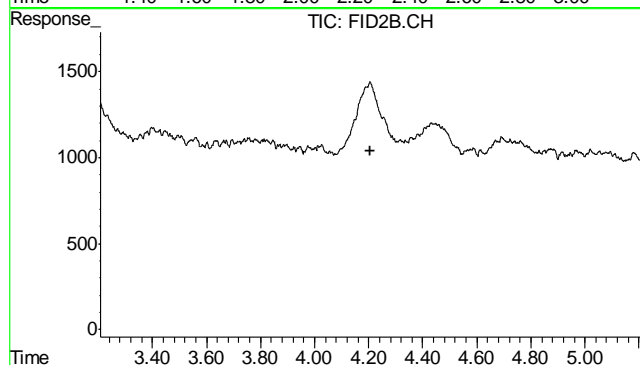
#2 1,2,4-Trichlorobenzene

R.T.: 14.414 min
Delta R.T.: -0.016 min
Response: 2626428
Conc: 75.69 % m



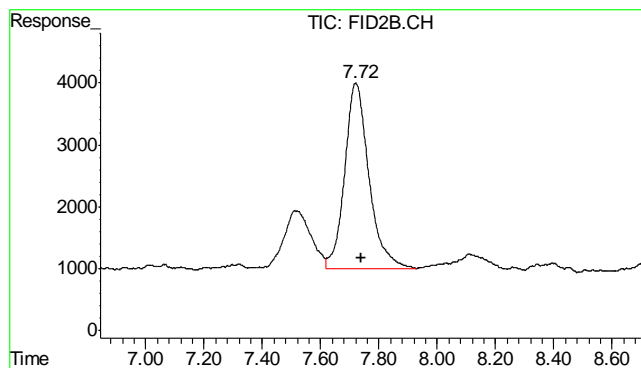
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.254 min
Response: 0
Conc: N.D.

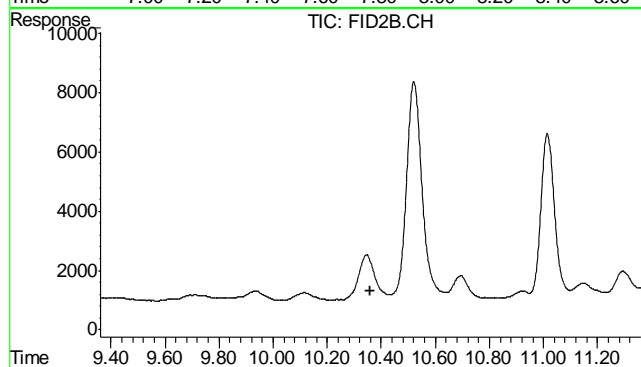


#5 Benzene

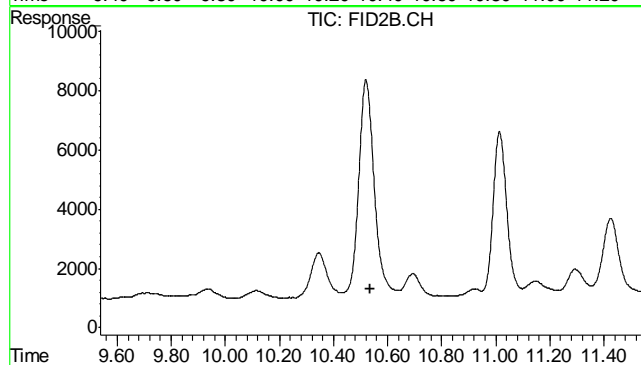
R.T.: 0.000 min
Exp R.T.: 4.207 min
Response: 0
Conc: N.D.



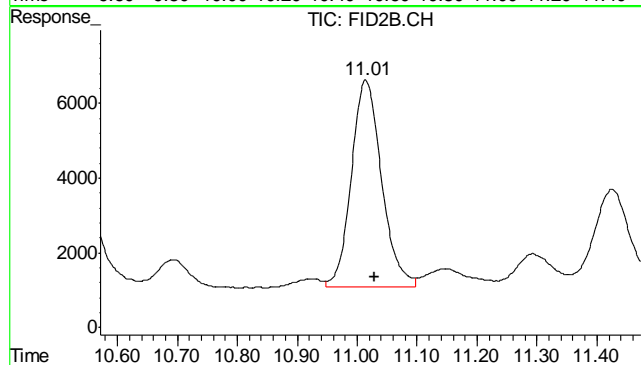
#6 Toluene
R.T.: 7.720 min
Delta R.T.: -0.020 min
Response: 173248
Conc: 0.37 ug/L



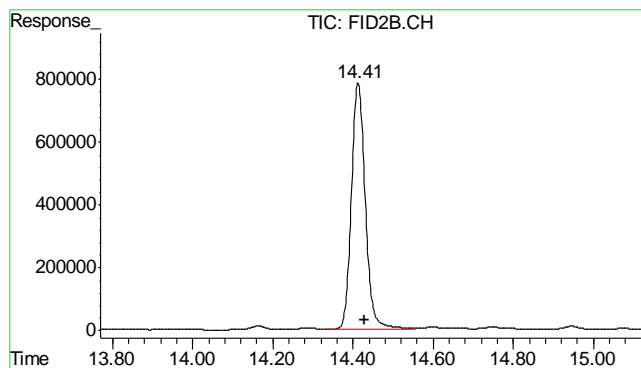
#7 Ethylbenzene
R.T.: 0.000 min
Exp R.T.: 10.360 min
Response: 0
Conc: N.D.



#8 m,p-Xylene
R.T.: 0.000 min
Exp R.T.: 10.537 min
Response: 0
Conc: N.D.

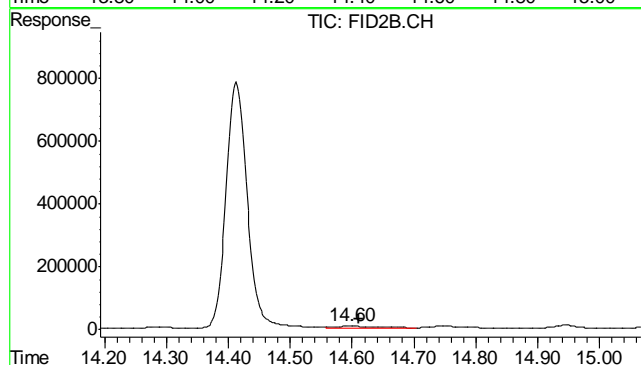


#9 o-Xylene
R.T.: 11.014 min
Delta R.T.: -0.015 min
Response: 194455
Conc: 0.23 ug/L



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

R.T.: 14.413 min
 Delta R.T.: -0.016 min
 Response: 18975561
 Conc: 89.36 %



#11 Naphthalene

R.T.: 14.598 min
 Delta R.T.: -0.014 min
 Response: 368712
 Conc: 1.62 ug/L

8.1.5
8

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13311.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\100411\GB13311.D\FID2B.CH
Acq On : 4 Oct 2011 2:04 pm Operator: StephK
Sample : MB, S Inst : GC/MS Ins
Misc : GC2302,GGB757,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 04 16:19:23 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Tue Oct 04 08:42:40 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	14.44	2714598	78.236	%
10) S	1,2,4-Trichlorobenzene (P)	14.44	20033894	94.342	%
Target Compounds					
1) H	TVH-Gasoline	7.33	5938708	<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	7.76	224890	0.484	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	11.04	147615	0.115	ug/L
11) T	Naphthalene	14.62	297752	1.315	ug/L

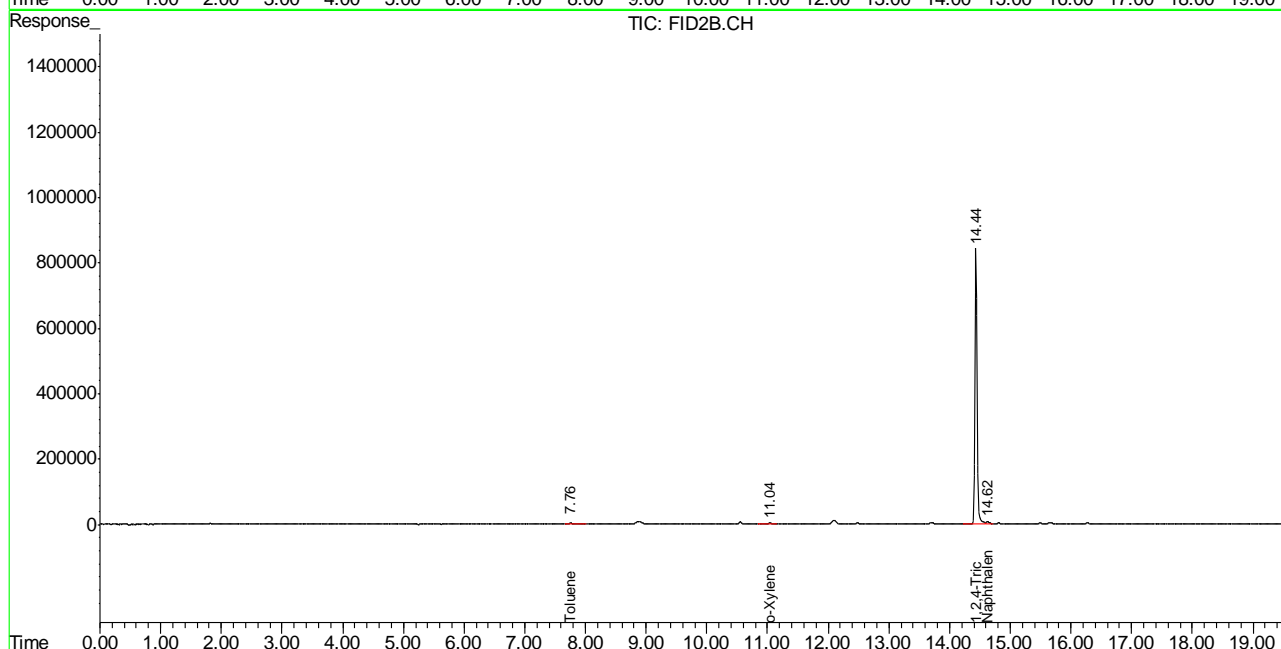
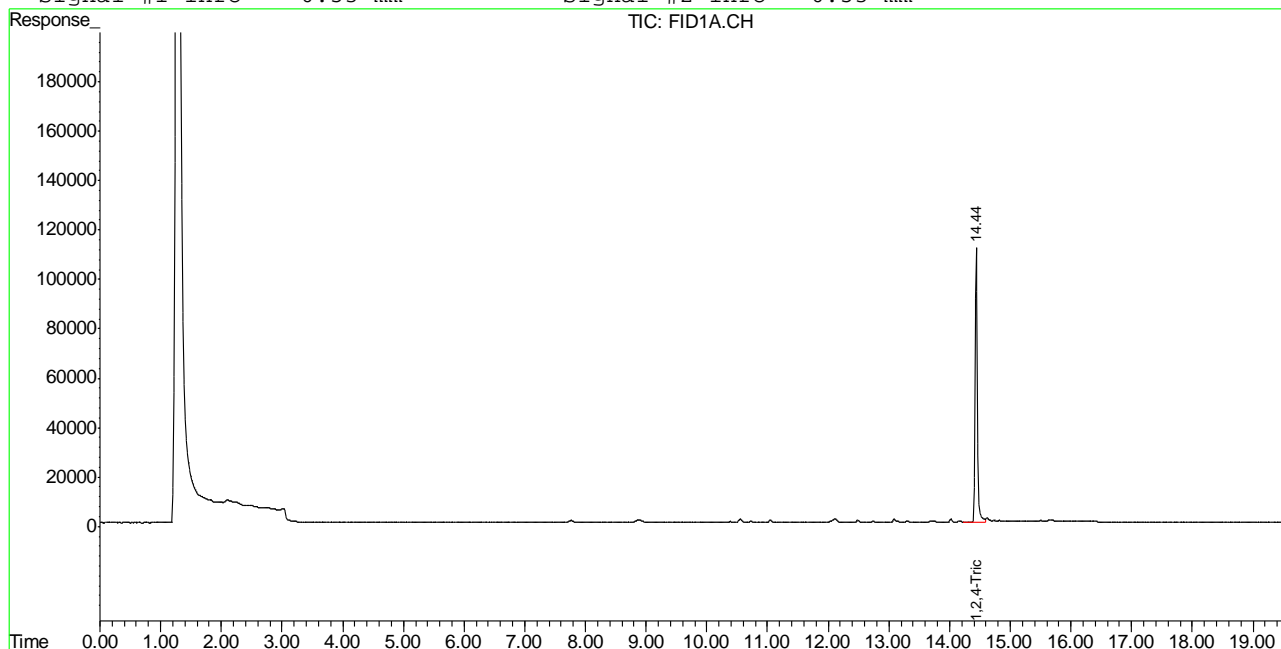
(f)=RT Delta > 1/2 Window (m)=manual int.
GB13311.D TB740GB740SOIL.M Wed Oct 05 10:00:22 2011 GC

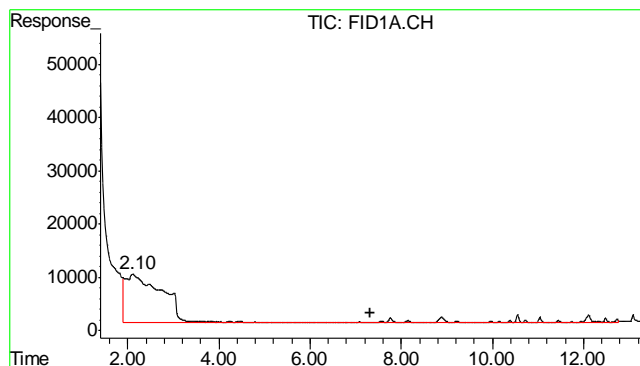
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\100411\GB13311.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\100411\GB13311.D\FID2B.CH
Acq On : 4 Oct 2011 2:04 pm Operator: StephK
Sample : MB, S Inst : GC/MS Ins
Misc : GC2302,GGB757,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Oct 4 13:42 2011 Quant Results File: TB740GB740SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB740GB740SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Tue Oct 04 08:42:40 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

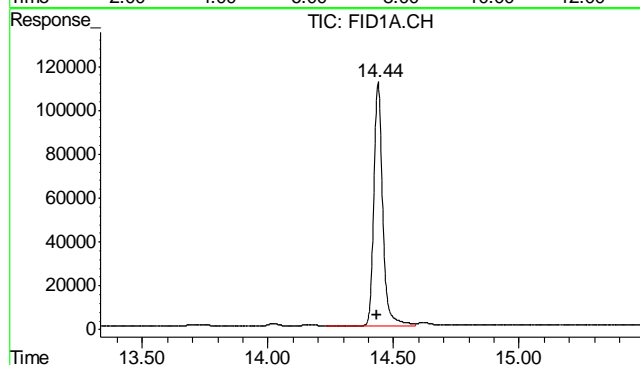
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





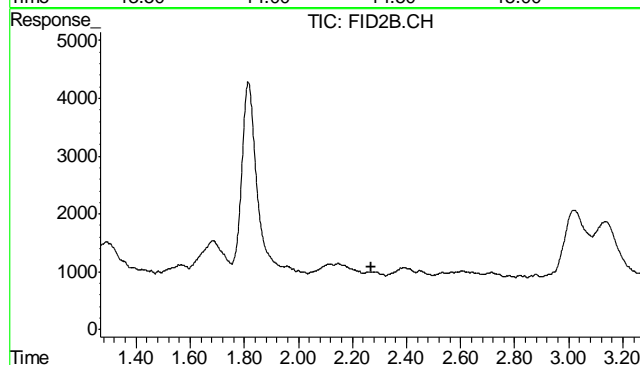
#1 TVH-Gasoline

R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 5938708
Conc: N.D.



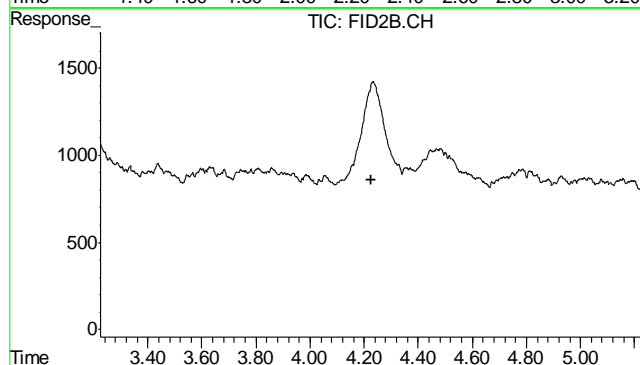
#2 1,2,4-Trichlorobenzene

R.T.: 14.439 min
Delta R.T.: 0.003 min
Response: 2714598
Conc: 78.24 %



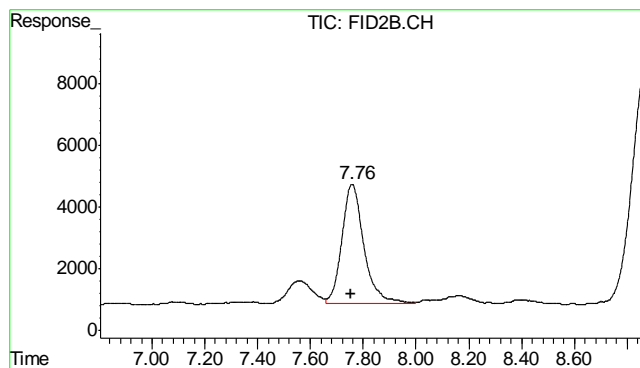
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.268 min
Response: 0
Conc: N.D.



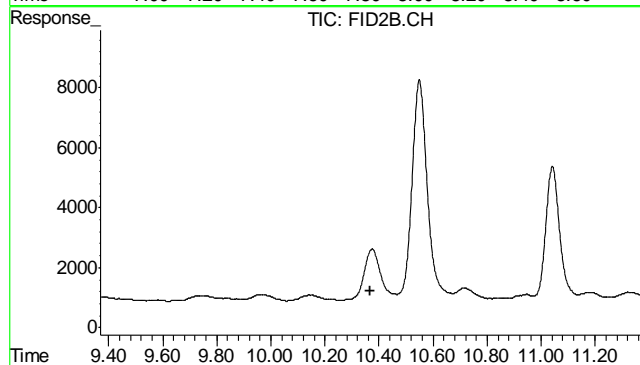
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.225 min
Response: 0
Conc: N.D.



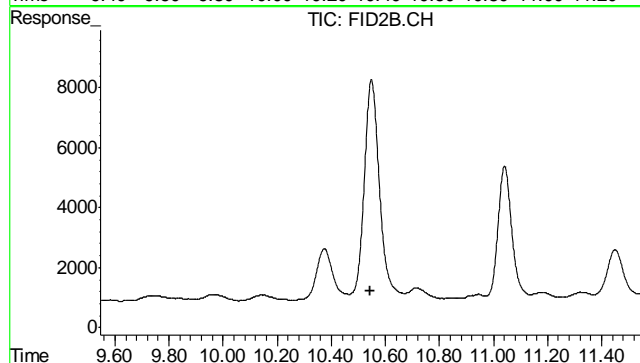
#6 Toluene

R.T.: 7.758 min
Delta R.T.: 0.006 min
Response: 224890
Conc: 0.48 ug/L



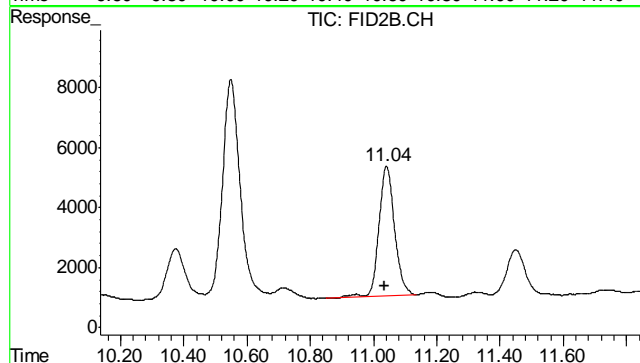
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.369 min
Response: 0
Conc: N.D.



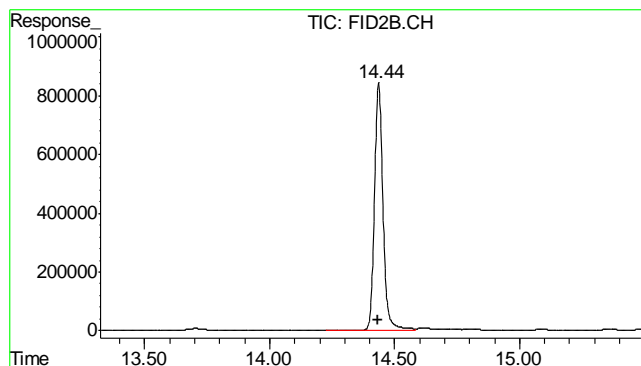
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.545 min
Response: 0
Conc: N.D.



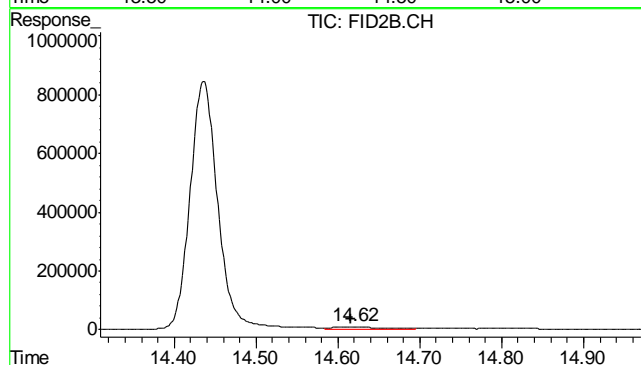
#9 o-Xylene

R.T.: 11.041 min
Delta R.T.: 0.005 min
Response: 147615
Conc: 0.11 ug/L



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

R.T.: 14.436 min
Delta R.T.: 0.003 min
Response: 20033894
Conc: 94.34 %



#11 Naphthalene

R.T.: 14.619 min
Delta R.T.: 0.003 min
Response: 297752
Conc: 1.32 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

Job Number: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4608-MB	FD10642.D	1	10/05/11	CS	10/05/11	OP4608	GFD506

The QC reported here applies to the following samples: Method: SW846-8015B
D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

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	92% 61-142%

9.1.1
9

Blank Spike Summary

Job Number: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4608-BS	FD10643.D	1	10/05/11	CS	10/05/11	OP4608	GFD506

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

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	554	83	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	97%	61-142%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D28276
Account: KRWCCOL KRW Consulting, Inc.
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4608-MS	FD10644.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
OP4608-MSD	FD10645.D	1	10/05/11	CS	10/05/11	OP4608	GFD506
D28276-2	FD10646.D	1	10/05/11	CS	10/05/11	OP4608	GFD506

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

D28276-1, D28276-2, D28276-3, D28276-4, D28276-5

CAS No.	Compound	D28276-2 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	28.1	780	594	73	582	71	2	24-157/35

CAS No.	Surrogate Recoveries	MS	MSD	D28276-2	Limits
84-15-1	o-Terphenyl	74%	77%	76%	61-142%

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10651.D Vial: 12
Acq On : 10-5-2011 05:44:13 PM Operator: CHAVALIT
Sample : D28276-1 Inst : FID5
Misc : OP4608,GFD506,30.01,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 06 08:33:51 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	9.32f	39790332	870.257 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	365212586	8301.833 mg/L

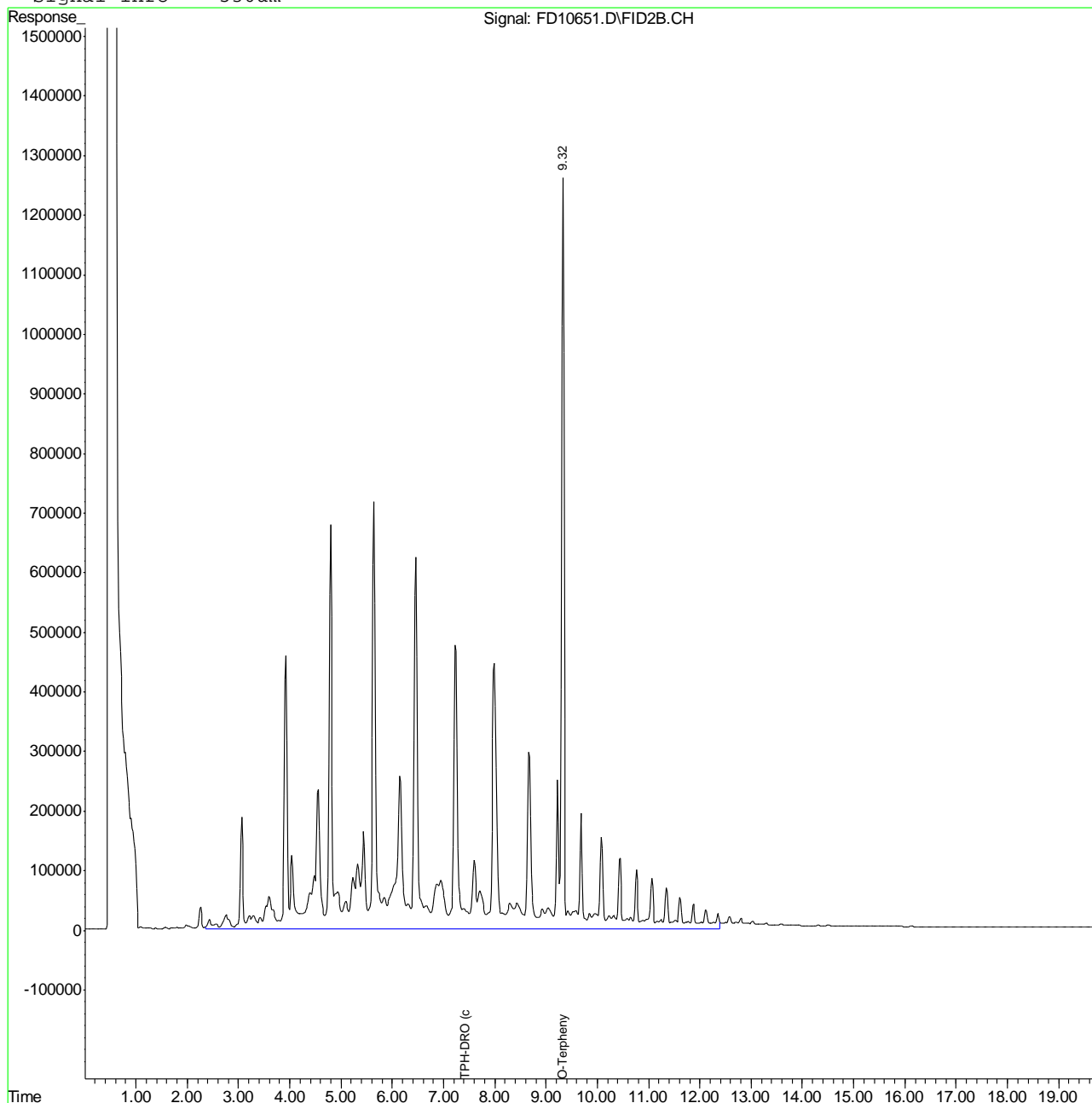
10.1.1
10

Quantitation Report (QT Reviewed)

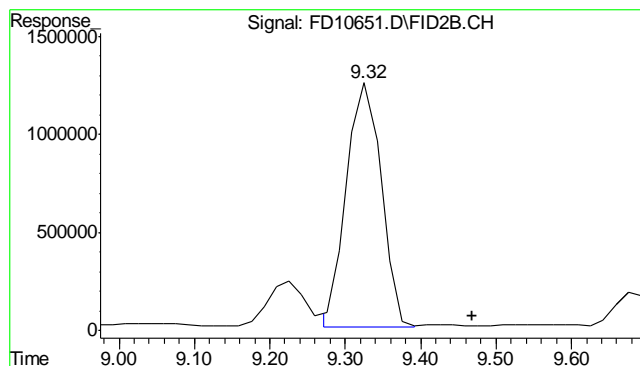
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10651.D Vial: 12
 Acq On : 10-5-2011 05:44:13 PM Operator: CHAVALIT
 Sample : D28276-1 Inst : FID5
 Misc : OP4608,GFD506,30.01,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 6 8:34 2011 Quant Results File: GFD356.RES

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

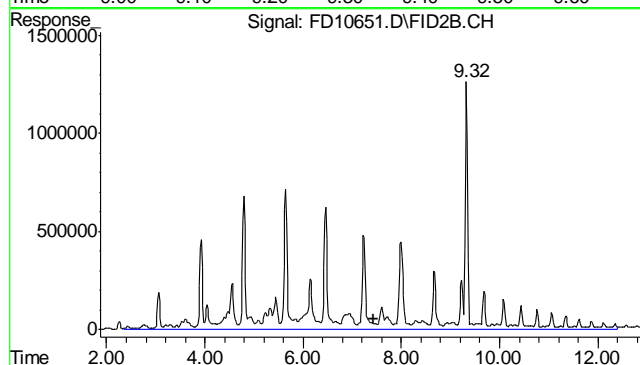
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



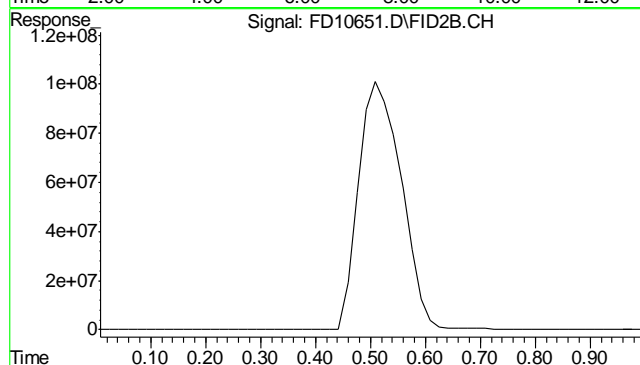
10.1.1
10



#1 O-Terphenyl
 R.T.: 9.325 min
 Delta R.T.: -0.143 min
 Response: 39790332
 Conc: 870.26 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 365212586
 Conc: 8301.83 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\FD100511\FD10646.D Vial: 7
Acq On : 10-5-2011 03:35:11 PM Operator: CHAVALIT
Sample : D28276-2 Inst : FID5
Misc : OP4608,GFD506,30.07,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 05 15:58:34 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	9.32f	34622350	757.228 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	15871639	360.786 mg/L

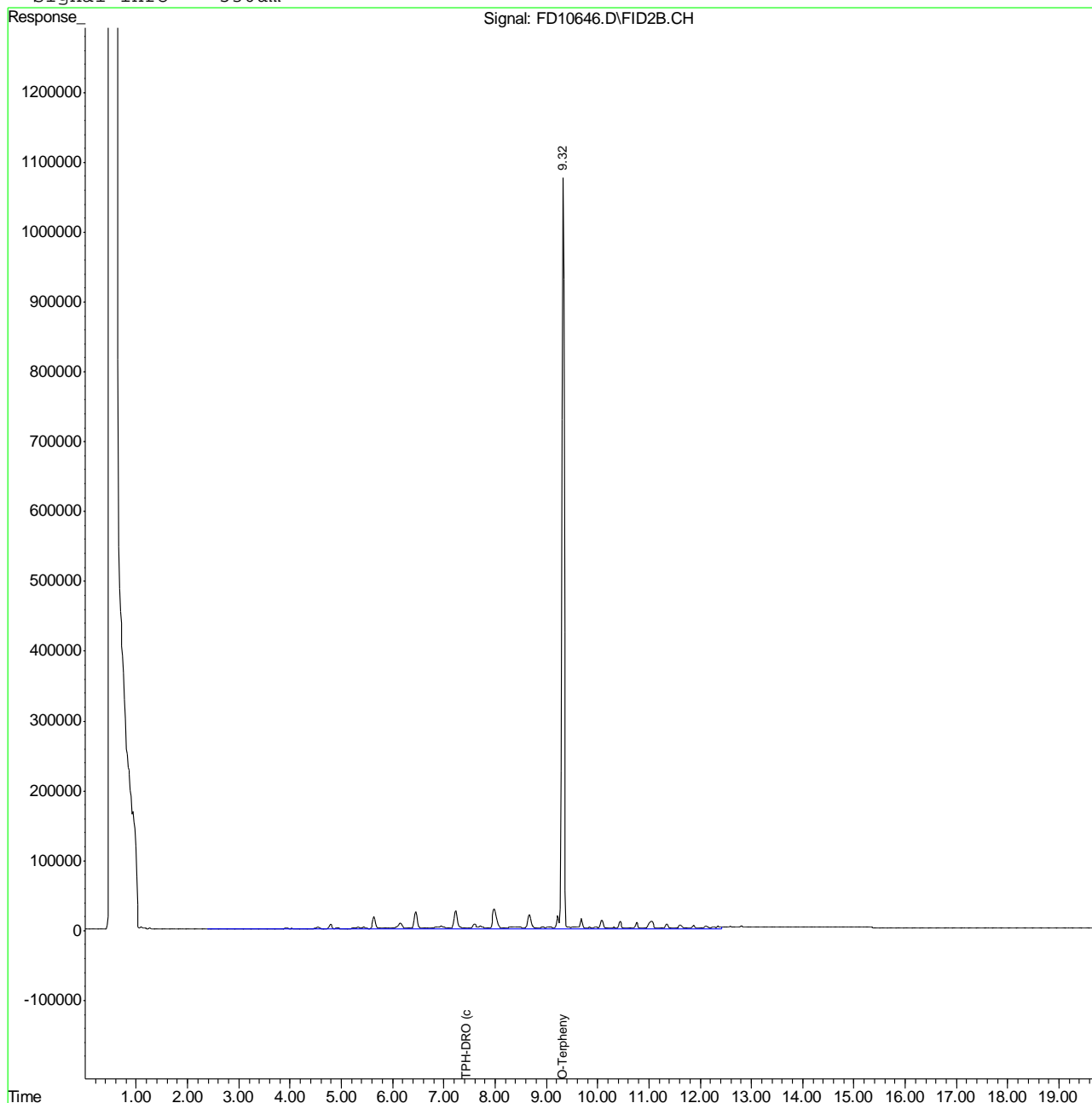
10.1.2
10

Quantitation Report (QT Reviewed)

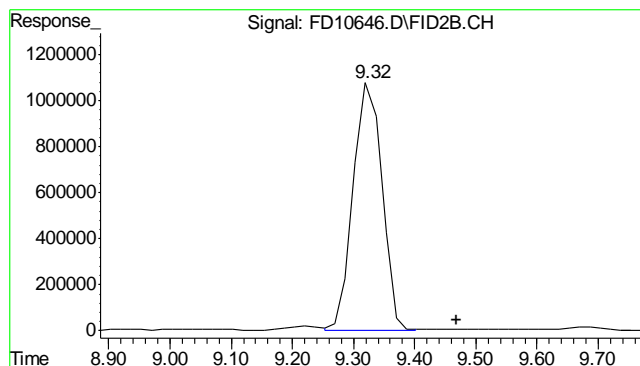
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10646.D Vial: 7
 Acq On : 10-5-2011 03:35:11 PM Operator: CHAVALIT
 Sample : D28276-2 Inst : FID5
 Misc : OP4608,GFD506,30.07,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 5 15:58 2011 Quant Results File: GFD356.RES

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

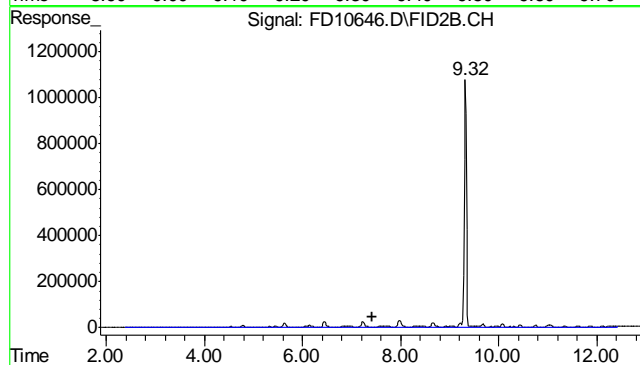
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



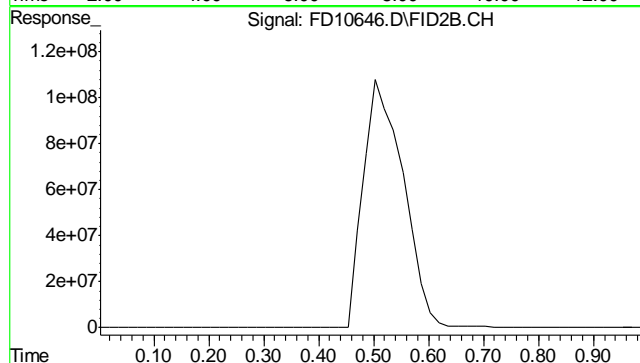
10.1.2
10



#1 O-Terphenyl
 R.T.: 9.323 min
 Delta R.T.: -0.145 min
 Response: 34622350
 Conc: 757.23 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 15871639
 Conc: 360.79 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\2011\SEP\FD100511\FD10652.D Vial: 13
Acq On : 10-5-2011 06:09:58 PM Operator: CHAVALIT
Sample : D28276-3 Inst : FID5
Misc : OP4608,GFD506,30.03,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 06 08:34:09 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	9.32f	38673557	845.832 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	71816403	1632.495 mg/L

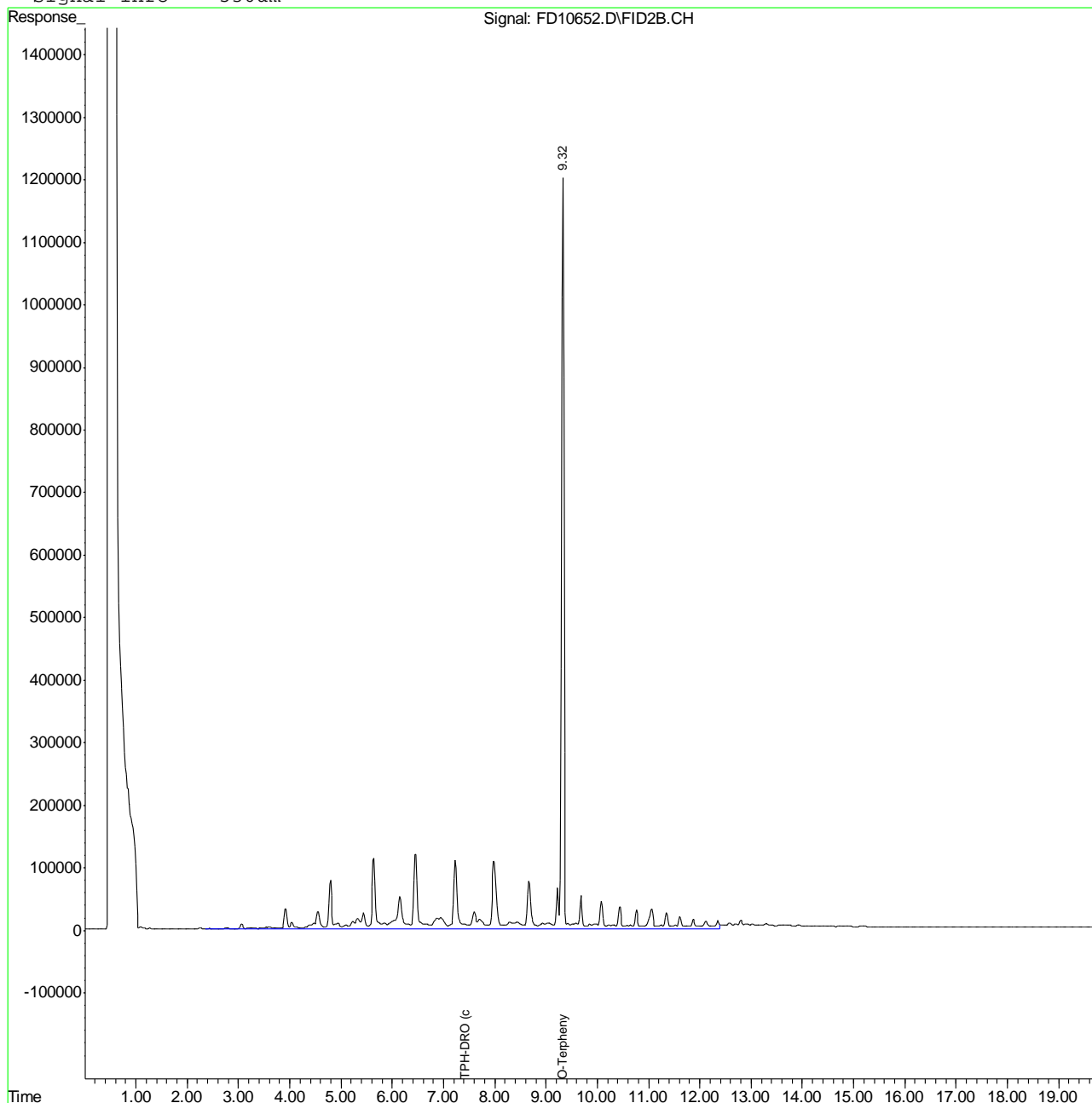
10.1.3
10

Quantitation Report (QT Reviewed)

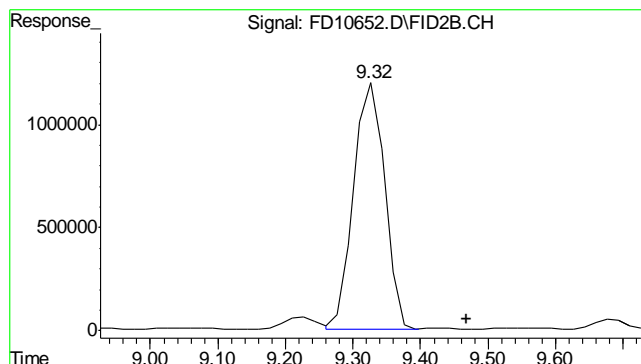
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10652.D Vial: 13
 Acq On : 10-5-2011 06:09:58 PM Operator: CHAVALIT
 Sample : D28276-3 Inst : FID5
 Misc : OP4608,GFD506,30.03,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 6 8:34 2011 Quant Results File: GFD356.RES

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

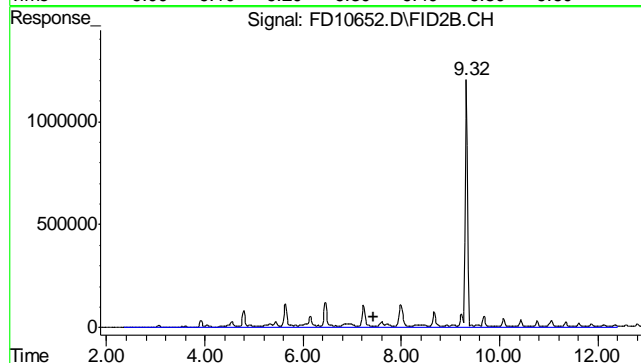
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



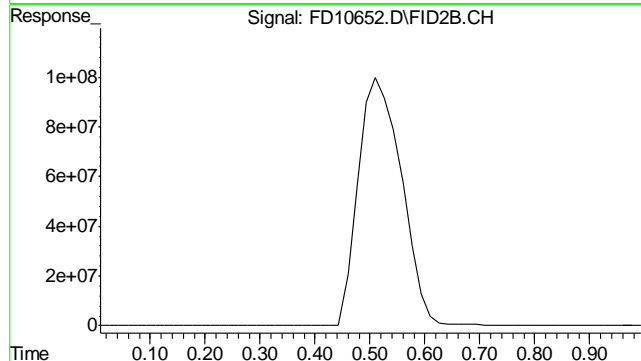
10.1.3
10



#1 O-Terphenyl
 R.T.: 9.324 min
 Delta R.T.: -0.144 min
 Response: 38673557
 Conc: 845.83 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 71816403
 Conc: 1632.50 mg/L m



#9 5a-Androstane
 R.T.: 0.000 min
 Exp R.T.: 0.000 min
 Response: 0
 Conc: N.D.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10653.D Vial: 14
Acq On : 10-5-2011 06:35:39 PM Operator: CHAVALIT
Sample : D28276-4 Inst : FID5
Misc : OP4608,GFD506,30.06,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 06 08:34:32 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	9.32f	40472919	885.186 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	44719637	1016.545 mg/L

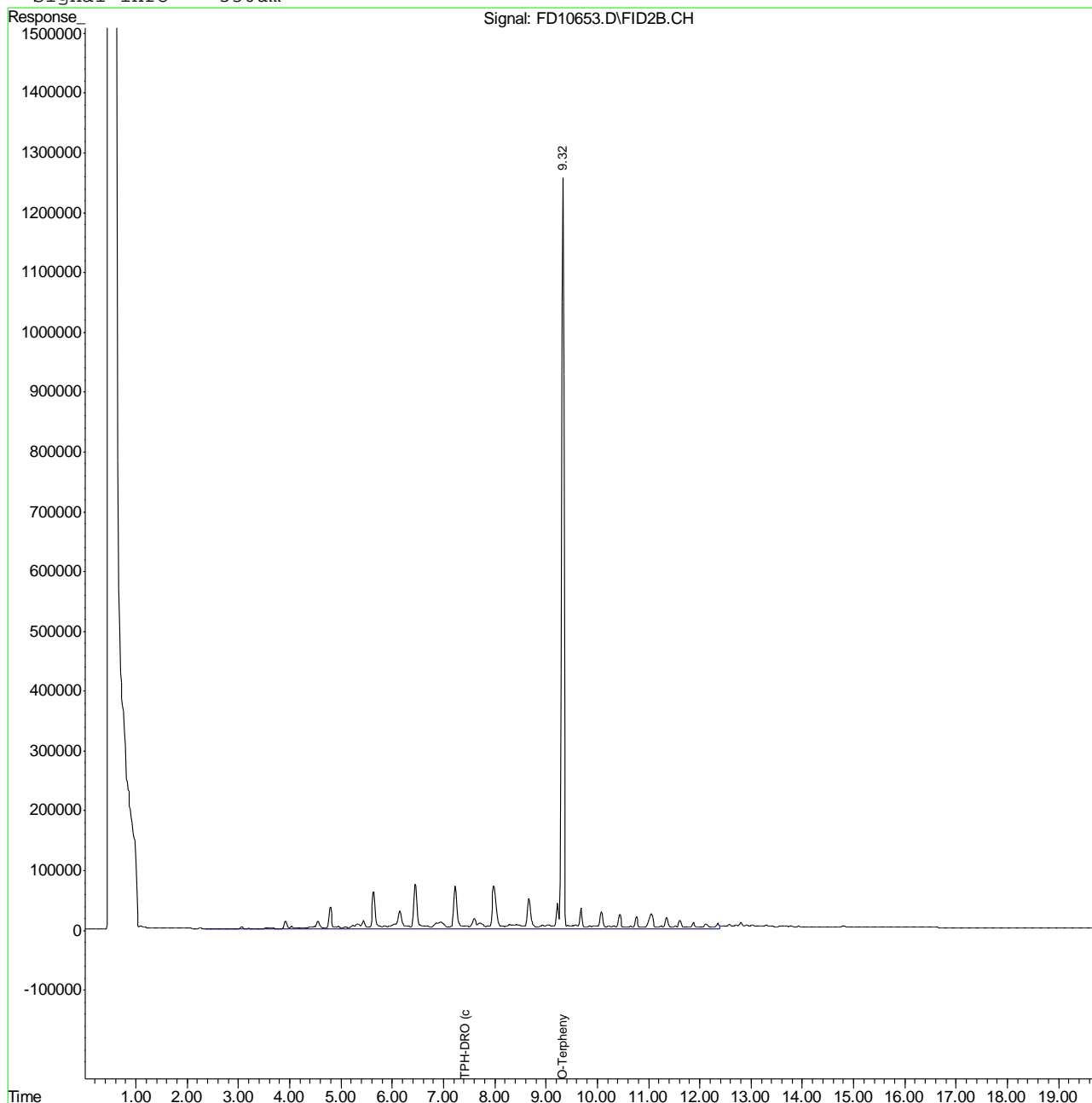
10.1.4
10

Quantitation Report (QT Reviewed)

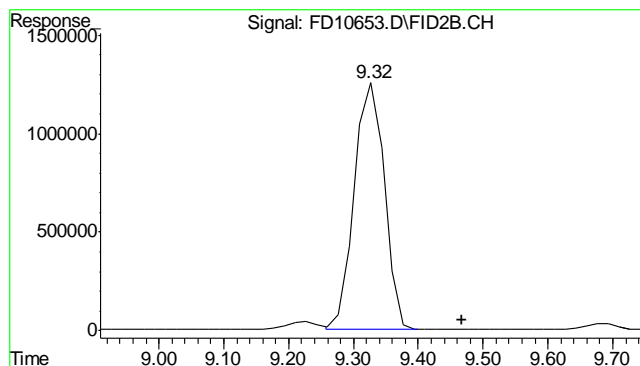
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10653.D Vial: 14
 Acq On : 10-5-2011 06:35:39 PM Operator: CHAVALIT
 Sample : D28276-4 Inst : FID5
 Misc : OP4608,GFD506,30.06,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 6 8:34 2011 Quant Results File: GFD356.RES

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

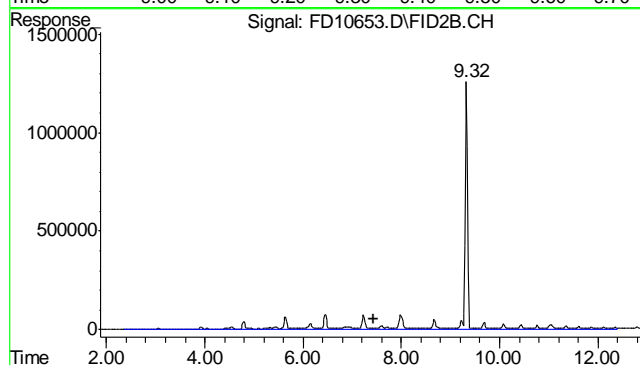
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



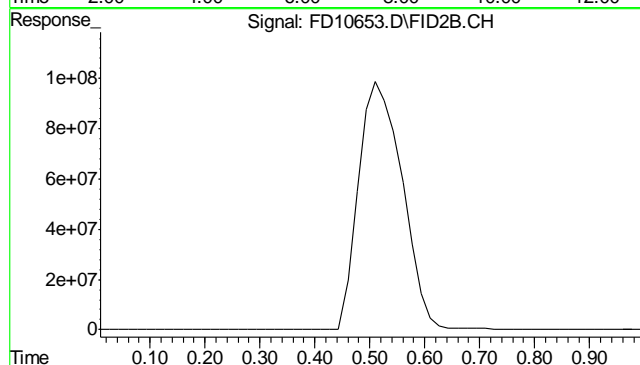
10.1.4
10



#1 O-Terphenyl
 R.T.: 9.325 min
 Delta R.T.: -0.143 min
 Response: 40472919
 Conc: 885.19 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 44719637
 Conc: 1016.54 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\FD100511\FD10654.D Vial: 15
Acq On : 10-5-2011 07:01:21 PM Operator: CHAVALIT
Sample : D28276-5 Inst : FID5
Misc : OP4608,GFD506,30.02,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 06 08:34:55 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	9.32f	39078801	854.695 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	8133086	184.877 mg/L

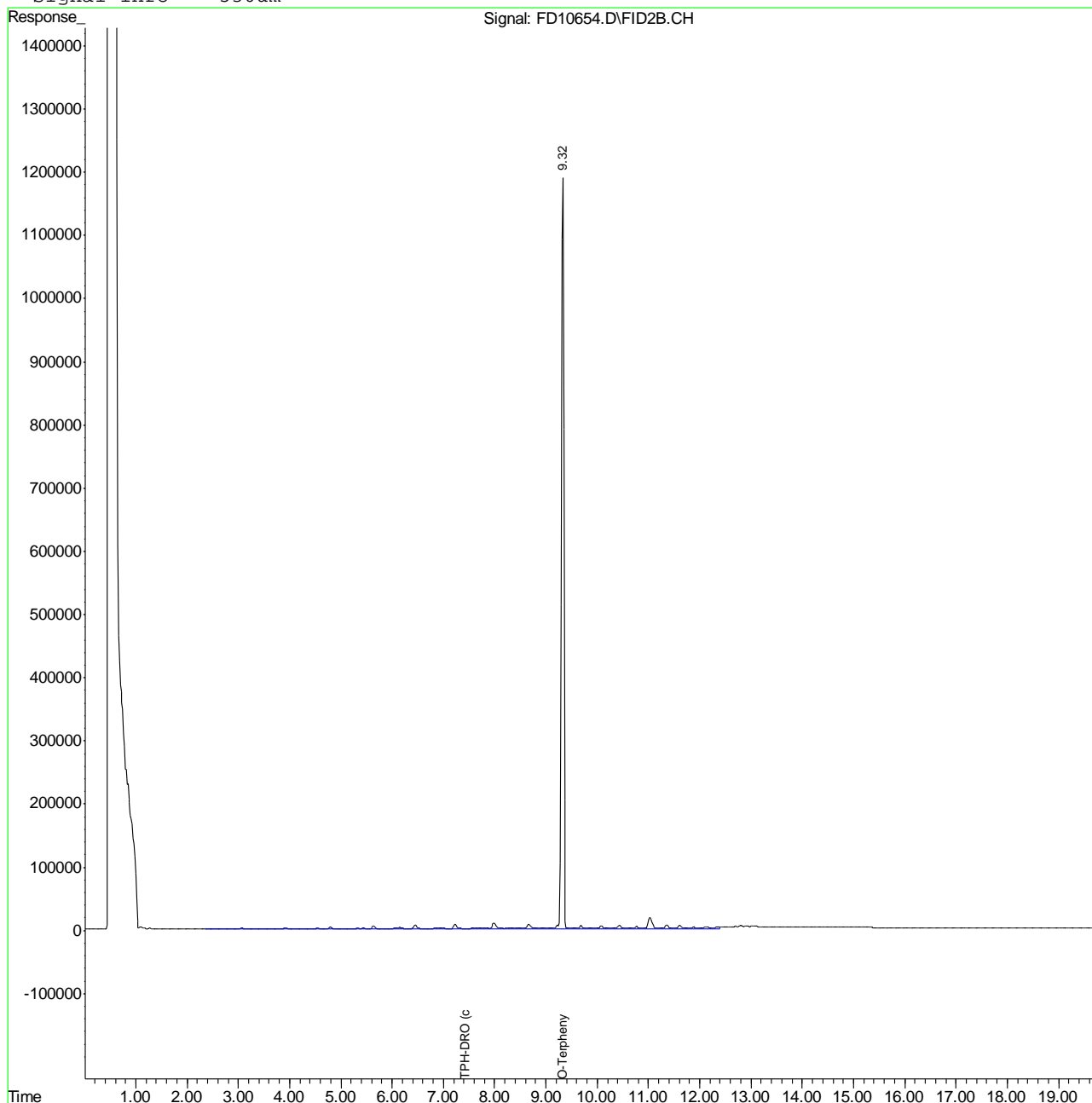
10.15
10

Quantitation Report (QT Reviewed)

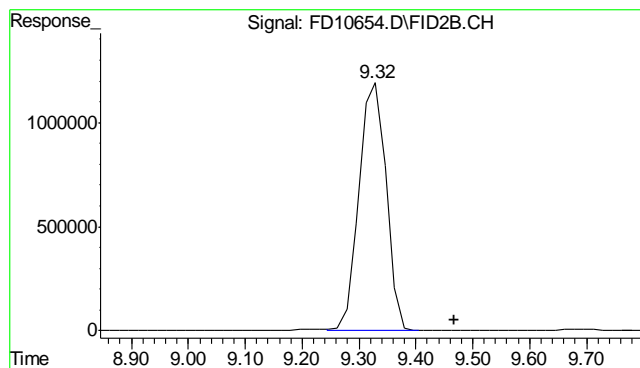
Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10654.D Vial: 15
 Acq On : 10-5-2011 07:01:21 PM Operator: CHAVALIT
 Sample : D28276-5 Inst : FID5
 Misc : OP4608,GFD506,30.02,,,2,1 Multiplr: 1.00
 IntFile : DF-GFC101.E
 Quant Time: Oct 6 8:35 2011 Quant Results File: GFD356.RES

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

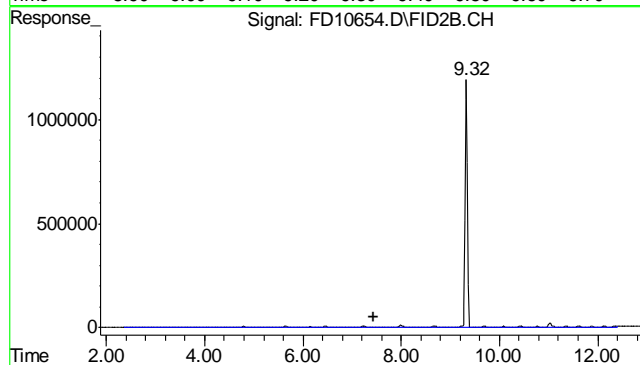
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



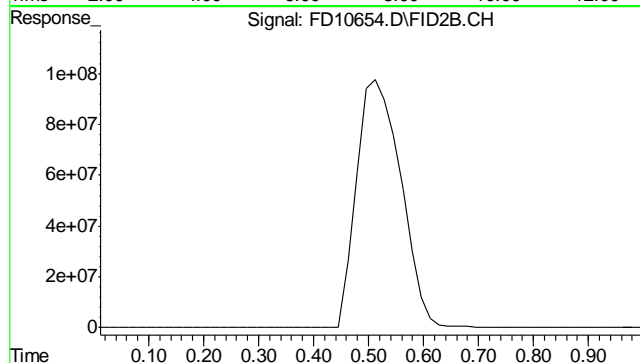
10.1.5
10



#1 O-Terphenyl
 R.T.: 9.324 min
 Delta R.T.: -0.144 min
 Response: 39078801
 Conc: 854.69 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.435 min
 Delta R.T.: 0.000 min
 Response: 8133086
 Conc: 184.88 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

Judy Melson
10/06/11 10:09

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10642.D Vial: 3
Acq On : 10-5-2011 01:52:06 PM Operator: CHAVALIT
Sample : OP4608-MB Inst : FID5
Misc : OP4608,GFD506,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 05 15:05:16 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 : 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	9.32f	42253435	924.128 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.43	1258340	28.604 mg/L

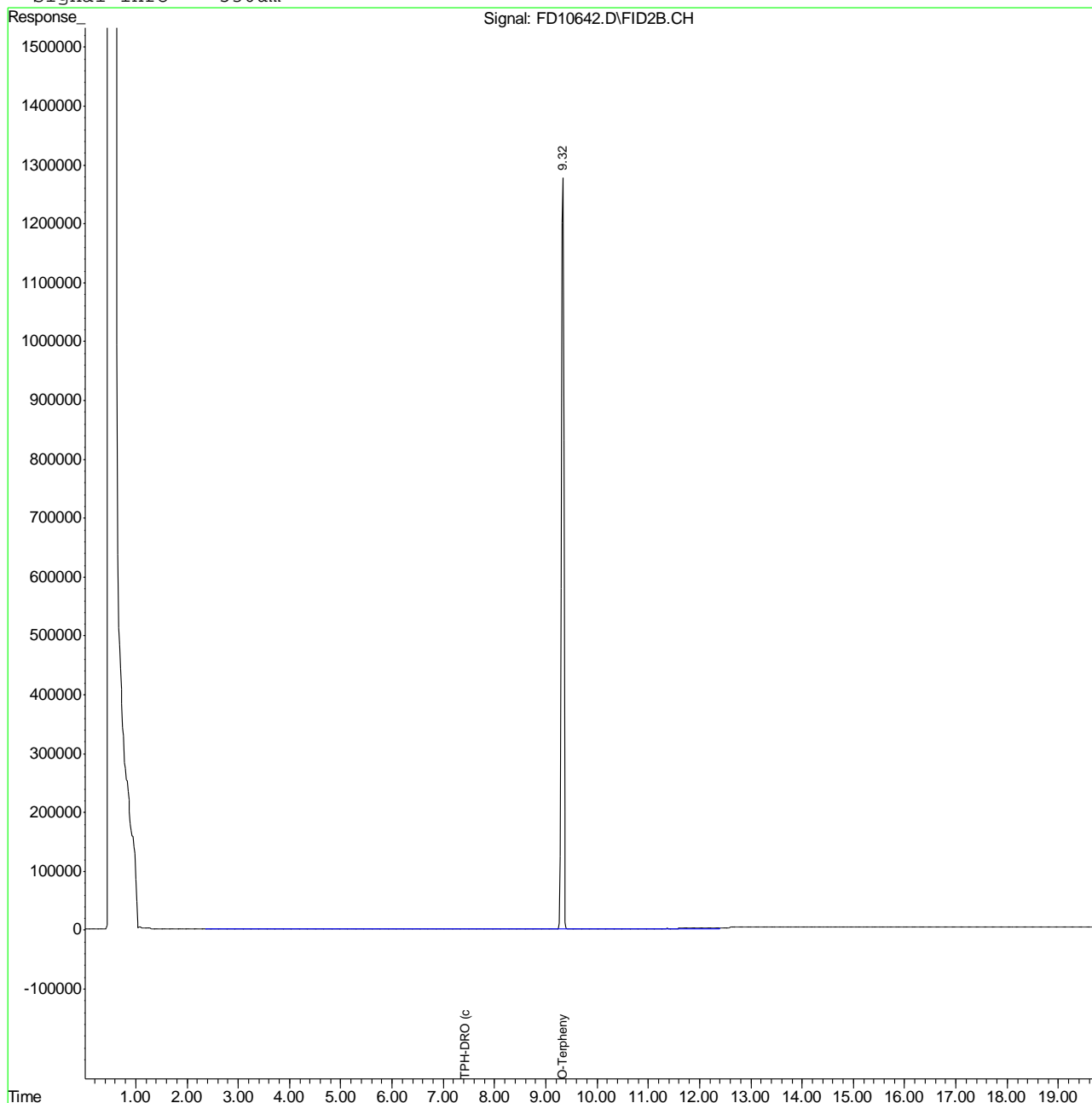
(f)=RT Delta > 1/2 Window (m)=manual int.
FD10642.D GFD356.M Thu Oct 06 08:43:11 2011 GC

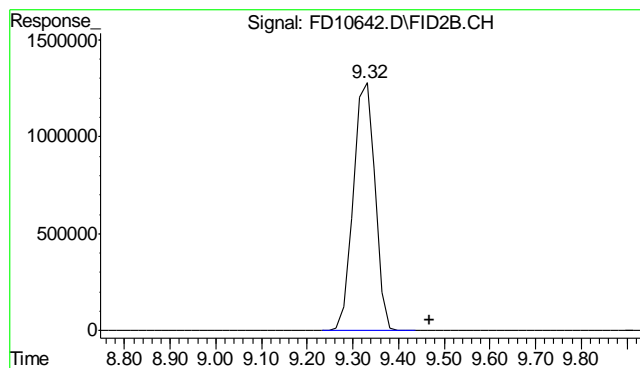
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2011\SEP\FD100511\FD10642.D Vial: 3
Acq On : 10-5-2011 01:52:06 PM Operator: CHAVALIT
Sample : OP4608-MB Inst : FID5
Misc : OP4608,GFD506,30.00,,,2,1 Multiplr: 1.00
IntFile : DF-GFC101.E
Quant Time: Oct 5 15:05 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

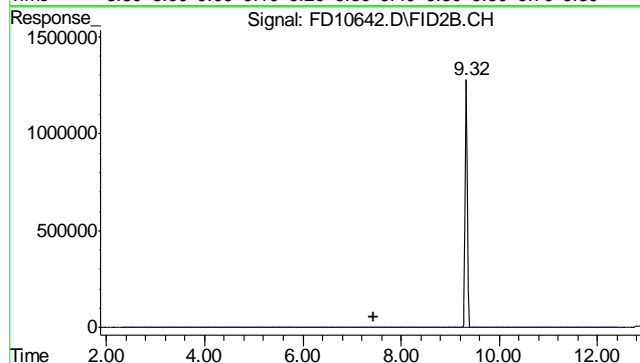
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





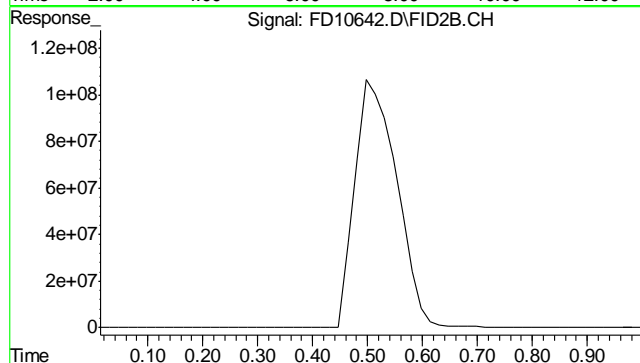
#1 O-Terphenyl

R.T.: 9.325 min
Delta R.T.: -0.143 min
Response: 42253435
Conc: 924.13 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.435 min
Delta R.T.: 0.000 min
Response: 1258340
Conc: 28.60 mg/L m



#9 5a-Androstane

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



06/30/11

Technical Report for

KRW Consulting, Inc.

296-7A

PCU

Accutest Job Number: D24780

Sampling Date: 06/22/11

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: Joe Hess

Total number of pages in report: **13**



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: D24780

296-7A
Project No: PCU

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
D24780-1	06/22/11	09:00 CB	06/23/11	AQ Surface Water	GULCH BELOW STOCK POND

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D24780

Site: 296-7A

Report Date 6/30/2011 5:16:33 PM

On 06/23/2011, 1 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 D24780 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 GCMS By Method SW846 8260B

Matrix AQ

Batch ID: V7V395

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24766-4MS, D24766-4MSD were used as the QC samples indicated.

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:	GULCH BELOW STOCK POND			Date Sampled:	06/22/11
Lab Sample ID:	D24780-1			Date Received:	06/23/11
Matrix:	AQ - Surface Water			Percent Solids:	n/a
Method:	SW846 8260B				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V07486.D	1	06/26/11	DC	n/a	n/a	V7V395
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		63-130%
2037-26-5	Toluene-D8	101%		68-130%
460-00-4	4-Bromofluorobenzene	89%		61-130%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Mountain States
4936 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 # D24780
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
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	
LAB USE ONLY	
01	

Client / Reporting Information		Project Information	
Company Name KRW Consulting	Project Name PCU 296-7A		
Street Address 8000 W. 14th Ave Ste 200	Street		
City Lakewood CO	City	Billing Information (If different from Report to)	
State CO	State	Company Name	
Zip 80214	Zip	Street Address	
Project Contact Joe Hess jhess@krcw.com	Project #	City	
Phone # 970-675-4040	Fax #	State	
Client PO#	Client PO#	Zip	
Sampler(s) Name(s) Craig Burger	Phone # 970-756-2993	Attention: Joe Hess	
Field ID / Point of Collection bulch below stock pond	MEOHDI Vial #	PO#	
Collection		Number of preserved Bottles	
Date 6-22-11	Time 9:00	Sampled by CHS	Matrix SW
		# of bottles 3	
		HCl	
		NaOH	
		HNO3	
		H2SO4	
		NONE	
		DI Water	
		MEOH	
		ENCORE	
		Blankline	

Turnaround Time (Business days)	Approved By (Accutest PM): / Date:	<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
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input checked="" type="checkbox"/> 5 Day R SH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Commercial "A" = Results Only Commercial "B" = Results + QC Summary	

Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler: 1	Date Time: 6-22-11-18:10	Received By: 1	Date Time:
Relinquished by Sampler: 3	Date Time:	Received By: 3	Date Time:
Relinquished by: 5	Date Time:	Received By: 5	Date Time:
Custody Seal # CO		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input checked="" type="checkbox"/> On Ice Cooler Temp. 4.0

D24780: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24780

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 6/23/2011 2:35:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: PCU 296-7A

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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input 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: D24780

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V395-MB	7V07472.D	1	06/26/11	DC	n/a	n/a	V7V395

The QC reported here applies to the following samples:

Method: SW846 8260B

D24780-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	88% 63-130%
2037-26-5	Toluene-D8	104% 68-130%
460-00-4	4-Bromofluorobenzene	88% 61-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24780

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V395-BS	7V07473.D	1	06/26/11	DC	n/a	n/a	V7V395

The QC reported here applies to the following samples:

Method: SW846 8260B

D24780-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	48.3	97	70-130
100-41-4	Ethylbenzene	50	51.2	102	70-130
108-88-3	Toluene	50	47.5	95	70-140
1330-20-7	Xylene (total)	100	97.4	97	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	91%	63-130%
2037-26-5	Toluene-D8	104%	68-130%
460-00-4	4-Bromofluorobenzene	97%	61-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24780

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24766-4MS	7V07475.D	1	06/26/11	DC	n/a	n/a	V7V395
D24766-4MSD	7V07476.D	1	06/26/11	DC	n/a	n/a	V7V395
D24766-4	7V07474.D	1	06/26/11	DC	n/a	n/a	V7V395

The QC reported here applies to the following samples:

Method: SW846 8260B

D24780-1

CAS No.	Compound	D24766-4 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	50	49.5	99	49.0	98	1	59-132/30
100-41-4	Ethylbenzene	ND	50	52.5	105	52.9	106	1	68-130/30
108-88-3	Toluene	ND	50	48.3	97	47.7	95	1	56-142/30
1330-20-7	Xylene (total)	ND	100	99.2	99	98.5	99	1	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D24766-4	Limits
17060-07-0	1,2-Dichloroethane-D4	88%	89%	89%	63-130%
2037-26-5	Toluene-D8	104%	105%	104%	68-130%
460-00-4	4-Bromofluorobenzene	96%	98%	88%	61-130%

Accutest Mountain States		Jun 30, 2011 17:24 pm
Job Number:	D24780	
Account:	KRW Consulting, Inc.	
Project:	296-7A	
Project Number:	PCU	
Legend:		Hit
Client Sample ID:		GULCH BELOW STOCK POND
Lab Sample ID:		D24780-1
Date Sampled:		06/22/2011
Matrix:		Surface Water
GC/MS Volatiles (SW846 8260B)		
Benzene	ug/l	ND (0.25)
Toluene	ug/l	ND (1.0)
Ethylbenzene	ug/l	ND (0.50)
Xylene (total)	ug/l	ND (2.0)



07/01/11

Technical Report for

KRW Consulting, Inc.

296-7A

PCU 1104-03B

Accutest Job Number: D24563

Sampling Date: 06/16/11

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: Joe Hess

Total number of pages in report: **14**



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)

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Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D24563

296-7A
Project No: PCU 1104-03B

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D24563-1	06/16/11	11:00	CAB	06/17/11	AQ	Surface Water	GULCH SOUTH OF 7A
D24563-2	06/16/11	11:40	CAB	06/17/11	AQ	Surface Water	BLM SPRING 160-06

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D24563

Site: 296-7A

Report Dat 7/1/2011 11:18:11 AM

On 06/17/2011, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.8 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D24563 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 AQ

Batch ID: V7V391

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24527-16MS, D24527-16MSD were used as the QC samples indicated.

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:	GULCH SOUTH OF 7A	Date Sampled:	06/16/11
Lab Sample ID:	D24563-1	Date Received:	06/17/11
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V07395.D	1	06/24/11	DC	n/a	n/a	V7V391
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	97%		63-130%
2037-26-5	Toluene-D8	101%		68-130%
460-00-4	4-Bromofluorobenzene	85%		61-130%

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:	BLM SPRING 160-06	Date Sampled:	06/16/11
Lab Sample ID:	D24563-2	Date Received:	06/17/11
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V07396.D	1	06/24/11	DC	n/a	n/a	V7V391
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	98%		63-130%
2037-26-5	Toluene-D8	101%		68-130%
460-00-4	4-Bromofluorobenzene	85%		61-130%

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

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

[illegible]

D24563: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24563

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 6/17/2011 2:45:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: PCU 296-7A

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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input 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: D24563

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V391-MB	7V07383.D	1	06/23/11	DC	n/a	n/a	V7V391

The QC reported here applies to the following samples:

Method: SW846 8260B

D24563-1, D24563-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	91% 63-130%
2037-26-5	Toluene-D8	100% 68-130%
460-00-4	4-Bromofluorobenzene	87% 61-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24563

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V391-BS	7V07384.D	1	06/23/11	DC	n/a	n/a	V7V391

The QC reported here applies to the following samples:

Method: SW846 8260B

D24563-1, D24563-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	50.5	101	70-130
100-41-4	Ethylbenzene	50	54.8	110	70-130
108-88-3	Toluene	50	48.9	98	70-140
1330-20-7	Xylene (total)	100	102	102	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	87%	63-130%
2037-26-5	Toluene-D8	101%	68-130%
460-00-4	4-Bromofluorobenzene	97%	61-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24563
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24527-16MS	7V07386.D	10	06/23/11	DC	n/a	n/a	V7V391
D24527-16MSD	7V07387.D	10	06/23/11	DC	n/a	n/a	V7V391
D24527-16	7V07385.D	10	06/23/11	DC	n/a	n/a	V7V391

The QC reported here applies to the following samples:

Method: SW846 8260B

D24563-1, D24563-2

CAS No.	Compound	D24527-16 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	328	500	948	124	935	121	1	59-132/30
100-41-4	Ethylbenzene	ND	500	568	114	560	112	1	68-130/30
108-88-3	Toluene	ND	500	509	102	496	99	3	56-142/30
1330-20-7	Xylene (total)	ND	1000	1070	107	1060	106	1	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D24527-16	Limits
17060-07-0	1,2-Dichloroethane-D4	88%	88%	91%	63-130%
2037-26-5	Toluene-D8	101%	101%	100%	68-130%
460-00-4	4-Bromofluorobenzene	98%	99%	87%	61-130%



06/30/11

Technical Report for

KRW Consulting, Inc.

296-7A

1104-03B

Accutest Job Number: D24517

Sampling Date: 06/15/11

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: Joe Hess

Total number of pages in report: **13**



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)

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Test results relate only to samples analyzed.

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Sample Summary

KRW Consulting, Inc.

Job No: D24517

296-7A
Project No: 1104-03B

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
D24517-1	06/15/11	11:40 CAB	06/16/11	AQ	Surface Water	UPPER HATCH GULCH NORTH OF 7A

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D24517

Site: 296-7A

Report Dat 6/30/2011 6:28:23 PM

On 06/16/2011, 1 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 D24517 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 GCMS By Method SW846 8260B

Matrix AQ

Batch ID: V7V389

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24665-2MS, D24665-2MSD were used as the QC samples indicated.

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:	UPPER HATCH GULCH NORTH OF 7A			Date Sampled:	06/15/11
Lab Sample ID:	D24517-1			Date Received:	06/16/11
Matrix:	AQ - Surface Water			Percent Solids:	n/a
Method:	SW846 8260B				
Project:	296-7A				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V07351.D	1	06/22/11	DC	n/a	n/a	V7V389
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	96%		63-130%
2037-26-5	Toluene-D8	102%		68-130%
460-00-4	4-Bromofluorobenzene	87%		61-130%

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

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

Client / Reporting Information Company Name: KRW Consulting Street Address: 8000 W. 14th Ave Ste 200 City: Lakewood CO State: 80214 Project Contact: Joe Hess E-mail: jhess@krc.com Phone #: 970-675-4040 Fax #: 970-756-2993 Sampler(s) Name(s): Craig Burger Phone #: 970-756-2993		Project Information Project Name: PCU 296-7A Street: _____ Billing Information (If different from Report to) Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project#: 1104-03B Client PO#: _____ Project Manager: _____ Attention: _____ PO#: _____		Requested Analysis (see TEST CODE sheet) Matrix Codes 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	
Accutest Sample # Field ID / Point of Collection: Upper Hatch Gulch North of 7A	MECHDI Vial # Date: 6-15-11 Time: 11:40	Collection Matrix: SW # of bottles: 3 Number of preserved bottles: HCl <input checked="" type="checkbox"/> NOH <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NONE <input type="checkbox"/> DI Water <input type="checkbox"/> MECH <input type="checkbox"/> ENCORE <input type="checkbox"/> Blue/White <input type="checkbox"/>	LAB USE ONLY 01 1/1		
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day SH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> State Forms <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "B" + Narrative <input checked="" type="checkbox"/> PDF <input type="checkbox"/> FULLT1 (Level 3+4) Commercial "A" = Results Only Commercial "B" = Results + QC Summary		Comments / Special Instructions Please email results to KRW	
Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: 1 [Signature]	Date Time: 6-15-11	Received By: 1 [Signature]	Relinquished By: 2 [Signature]	Date Time: 6/15/2011	Received By: 2 [Signature]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4 [Signature] 6-16-11 1415
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # CO <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input checked="" type="checkbox"/>	On Ice <input checked="" type="checkbox"/> Cooler Temp: 4.0

D24517: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24517

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 6/16/2011 2:15:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: PCU 296-7A

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 checked="" type="checkbox"/>		<input type="checkbox"/>	<input 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: D24517

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V389-MB	7V07337.D	1	06/22/11	DC	n/a	n/a	V7V389

The QC reported here applies to the following samples:

Method: SW846 8260B

D24517-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	91% 63-130%
2037-26-5	Toluene-D8	102% 68-130%
460-00-4	4-Bromofluorobenzene	87% 61-130%

Blank Spike Summary

Page 1 of 1

Job Number: D24517

Account: KRWCCOL KRW Consulting, Inc.

Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V389-BS	7V07338.D	1	06/22/11	DC	n/a	n/a	V7V389

The QC reported here applies to the following samples:

Method: SW846 8260B

D24517-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	51.7	103	70-130
100-41-4	Ethylbenzene	50	57.2	114	70-130
108-88-3	Toluene	50	50.6	101	70-140
1330-20-7	Xylene (total)	100	106	106	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	89%	63-130%
2037-26-5	Toluene-D8	102%	68-130%
460-00-4	4-Bromofluorobenzene	99%	61-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D24517
Account: KRWCCOL KRW Consulting, Inc.
Project: 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24665-2MS	7V07340.D	1	06/22/11	DC	n/a	n/a	V7V389
D24665-2MSD	7V07341.D	1	06/22/11	DC	n/a	n/a	V7V389
D24665-2	7V07339.D	1	06/22/11	DC	n/a	n/a	V7V389

The QC reported here applies to the following samples:

Method: SW846 8260B

D24517-1

CAS No.	Compound	D24665-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	50	49.9	100	52.1	104	4	59-132/30
100-41-4	Ethylbenzene	ND	50	54.9	110	57.8	116	5	68-130/30
108-88-3	Toluene	ND	50	48.5	97	51.1	102	5	56-142/30
1330-20-7	Xylene (total)	ND	100	101	101	105	105	4	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D24665-2	Limits
17060-07-0	1,2-Dichloroethane-D4	91%	90%	92%	63-130%
2037-26-5	Toluene-D8	102%	103%	102%	68-130%
460-00-4	4-Bromofluorobenzene	100%	99%	88%	61-130%



10/10/11

Technical Report for

KRW Consulting, Inc.

XOM PCU 296-7A

1104-03

Accutest Job Number: D28392

Sampling Date: 10/04/11

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: **47**



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 'Brad Madadian'.

Brad Madadian
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: D28392

XOM PCU 296-7A
Project No: 1104-03

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D28392-1	10/04/11	11:15	CB	10/06/11	AQ	Surface Water	CONFLUENCE WEST 7A
D28392-2	10/04/11	12:00	CB	10/06/11	AQ	Surface Water	BLM SPRING 160-06
D28392-3	10/04/11	12:30	CB	10/06/11	AQ	Surface Water	NORTH SPRING

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D28392

Site: XOM PCU 296-7A

Report Dat 10/10/2011 11:22:47 A

On 10/06/2011, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.7 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D28392 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 AQ

Batch ID: V6V458

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D28329-4MS, D28329-4MSD were used as the QC samples indicated.

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:	CONFLUENCE WEST 7A	Date Sampled:	10/04/11
Lab Sample ID:	D28392-1	Date Received:	10/06/11
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6V08880.D	1	10/07/11	BR	n/a	n/a	V6V458
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	107%		67-131%
2037-26-5	Toluene-D8	111%		65-130%
460-00-4	4-Bromofluorobenzene	109%		65-130%

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:	BLM SPRING 160-06	Date Sampled:	10/04/11
Lab Sample ID:	D28392-2	Date Received:	10/06/11
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6V08881.D	1	10/07/11	BR	n/a	n/a	V6V458
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	106%		67-131%
2037-26-5	Toluene-D8	108%		65-130%
460-00-4	4-Bromofluorobenzene	106%		65-130%

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:	NORTH SPRING	Date Sampled:	10/04/11
Lab Sample ID:	D28392-3	Date Received:	10/06/11
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	XOM PCU 296-7A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6V08882.D	1	10/07/11	BR	n/a	n/a	V6V458
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		67-131%
2037-26-5	Toluene-D8	108%		65-130%
460-00-4	4-Bromofluorobenzene	105%		65-130%

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

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

ACCUTEST LABORATORIES Accutest Laboratories Mountain States 4036 Youngfield Street Whent Ridge, Co 80033 TEL: 303-425-6021 877-737-4521 FAX: 303-425-6021										FED-EX Tracking # _____ Accutest Quote # _____		Bottle Order Control # _____ Accutest Job # D28392																																																							
Client / Reporting Information Company Name: KRW Consulting Street Address: 6000 W. 14th Ave Ste 200 City: Lakewood CO State: 80214 Project Contact: Dwayne Knutson E-mail: _____ Phone # 970 675 4066 Fax # _____ Sample(s) Name(s): Craig Burger 970 756 2993 Phone # _____				Project Information Project Name: XOM PCU 296-7A Street: _____ Billing Information (If different from Report to): Company Name: _____ Project # 1104-03 Street Address: _____ Client PO# _____ City: _____ State: _____ Zip: _____ Attention: _____ PO# _____				Requested Analysis (see TEST CODE sheet) <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> 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-Fixt Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank </div> <div style="width: 50%; text-align: center;"> LAB USE ONLY </div> </div>																																																											
Field ID / Point of Collection Confluence West 7A BLM Spring 160-06 North Spring				Collection <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Sampled by</th> <th>Matrix</th> <th># of bottles</th> <th>HCl</th> <th>NaOH</th> <th>HNO3</th> <th>H2SO4</th> <th>NONE</th> <th>D1 Water</th> <th>MEOH</th> <th>ENCORE</th> <th>Residue</th> </tr> </thead> <tbody> <tr> <td>10-4-11</td> <td>11:15</td> <td>CAB</td> <td>SW</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>10-4-11</td> <td>12:00</td> <td>CAB</td> <td>SW</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>10-4-11</td> <td>12:30</td> <td>CAB</td> <td>SW</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table>				Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	D1 Water	MEOH	ENCORE	Residue	10-4-11	11:15	CAB	SW	3					3				X	10-4-11	12:00	CAB	SW	3					3				X	10-4-11	12:30	CAB	SW	3					3				X	Number of preserved Bottles BTEX _____			
Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	D1 Water	MEOH	ENCORE	Residue																																																						
10-4-11	11:15	CAB	SW	3					3				X																																																						
10-4-11	12:00	CAB	SW	3					3				X																																																						
10-4-11	12:30	CAB	SW	3					3				X																																																						
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RI SH <input checked="" type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TJA data available VIA Lablink				Approved By (Accutest PM): / Date: _____ _____ _____ _____				<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) <div style="text-align: right;"> Commercial "A" = Results Only Commercial "B" = Results + QC Summary </div>				Comments / Special Instructions Please email results to KRW Pilence Co XOM Team																																																							
Sample Custody must be documented below each time samples change possession-including courier delivery.																																																																			
Relinquished by Sampler: 1 [Signature]		Date Time: 10/4/11 17:00		Received By: 1 RMC Service Center		Relinquished By: 2 [Signature]		Date Time: 10/4/11 14:35		Received By: 2 Jacob Portner		Date Time: 10/4/11 14:35																																																							
Relinquished by Sampler: 3		Date Time: 3		Received By: 3		Relinquished By: 4		Date Time: 4		Received By: 4		Date Time: 4																																																							
Relinquished by: 5		Date Time: 5		Received By: 5		Relinquished By: 5		Date Time: 5		Received By: 5		Date Time: 5																																																							
Custody Seal # 70160				<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact				Preserved where applicable <input checked="" type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp. 3.7																																																											

D28392: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D28392

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 10/6/2011 2:35:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XOM PCU 296-7A

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 checked="" type="checkbox"/>		<input type="checkbox"/>	<input 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: D28392
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6V458-MB	6V08871.D	1	10/06/11	BR	n/a	n/a	V6V458

The QC reported here applies to the following samples:

Method: SW846 8260B

D28392-1, D28392-2, D28392-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	4.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	103% 67-131%
2037-26-5	Toluene-D8	107% 65-130%
460-00-4	4-Bromofluorobenzene	105% 65-130%

Blank Spike Summary

Page 1 of 1

Job Number: D28392

Account: KRWCCOL KRW Consulting, Inc.

Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6V458-BS	6V08872.D	1	10/06/11	BR	n/a	n/a	V6V458

The QC reported here applies to the following samples:

Method: SW846 8260B

D28392-1, D28392-2, D28392-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	45.5	91	70-130
100-41-4	Ethylbenzene	50	47.9	96	70-130
108-88-3	Toluene	50	48.0	96	70-130
1330-20-7	Xylene (total)	150	149	99	56-138

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	107%	67-131%
2037-26-5	Toluene-D8	109%	65-130%
460-00-4	4-Bromofluorobenzene	109%	65-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D28392
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D28329-4MS	6V08877.D	200	10/07/11	BR	n/a	n/a	V6V458
D28329-4MSD	6V08878.D	200	10/07/11	BR	n/a	n/a	V6V458
D28329-4	6V08875.D	1	10/06/11	BR	n/a	n/a	V6V458
D28329-4	6V08876.D	100	10/07/11	BR	n/a	n/a	V6V458

The QC reported here applies to the following samples:

Method: SW846 8260B

D28392-1, D28392-2, D28392-3

CAS No.	Compound	D28329-4 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.29	J	10000	8180	82	8170	82	0	61-133/30
100-41-4	Ethylbenzene	ND		10000	9050	91	9000	90	1	70-130/30
108-88-3	Toluene	ND		10000	8850	89	8690	87	2	70-130/30
1330-20-7	Xylene (total)	ND		30000	27900	93	27300	91	2	56-138/30

CAS No.	Surrogate Recoveries	MS	MSD	D28329-4	D28329-4	Limits
17060-07-0	1,2-Dichloroethane-D4	104%	108%	106%	102%	67-131%
2037-26-5	Toluene-D8	108%	109%	110%	106%	65-130%
460-00-4	4-Bromofluorobenzene	106%	107%	105%	104%	65-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
 Data File : 6V08880.D
 Acq On : 7 Oct 2011 2:35 am
 Operator : BrianR
 Sample : D28392-1
 Misc : MS2797,V6V458,,,,,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 08 14:49:49 2011
 Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
 Quant Title : 8260
 QLast Update : Thu Sep 29 15:33:12 2011
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	383676	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.064	114	639605	50.00	ug/l	0.00
53) Chlorobenzene-d5	14.720	117	615090	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	16.653	152	330554	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	11.649	102	49868	53.68	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.36%
61) Toluene-d8	13.463	98	779087	55.34	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	110.68%
69) 4-Bromofluorobenzene	15.645	95	345557	54.39	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.78%

Target Compounds

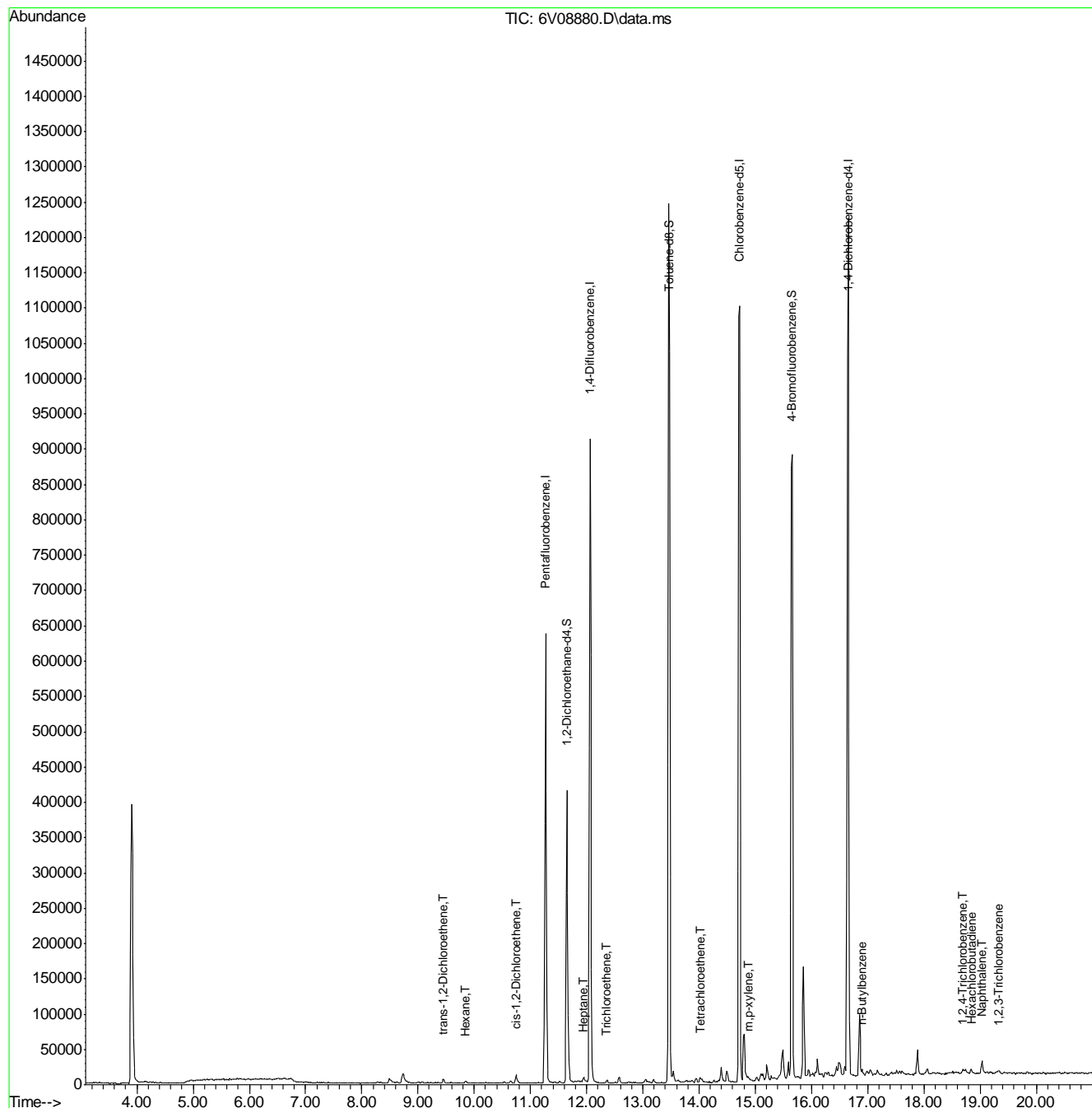
						Qvalue
20) trans-1,2-Dichloroethene	9.443	96	2594	0.61	ug/l #	86
26) cis-1,2-Dichloroethene	10.747	96	5542	1.15	ug/l #	75
41) Hexane	9.846	57	1188	0.32	ug/l	100
43) Heptane	11.945	43	3678	1.27	ug/l #	58
48) Trichloroethene	12.360	95	1282	0.26	ug/l	95
60) Tetrachloroethene	14.020	164	1203	0.39	ug/l #	85
72) m,p-xylene	14.874	106	2096	0.29	ug/l #	80
88) n-Butylbenzene	16.902	91	4770	0.33	ug/l #	92
90) 1,2,4-Trichlorobenzene	18.693	180	1501	0.33	ug/l #	90
91) Naphthalene	19.037	128	4465	0.41	ug/l	100
92) Hexachlorobutadiene	18.847	225	1225	0.62	ug/l #	85
93) 1,2,3-Trichlorobenzene	19.333	180	1434	0.40	ug/l #	97

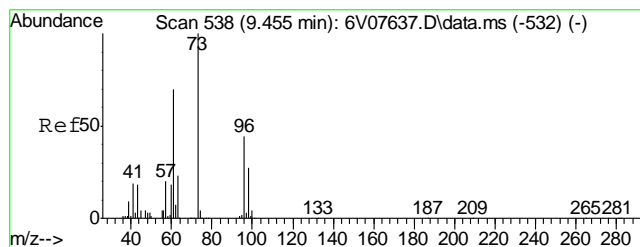
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
Data File : 6V08880.D
Acq On : 7 Oct 2011 2:35 am
Operator : BrianR
Sample : D28392-1
Misc : MS2797,V6V458,,,,,1
ALS Vial : 32 Sample Multiplier: 1

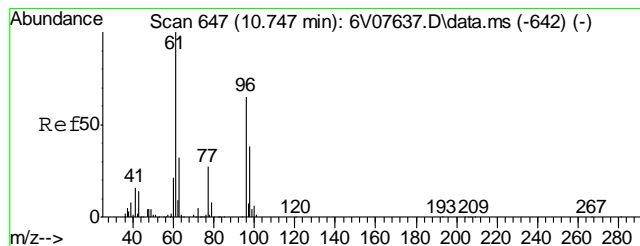
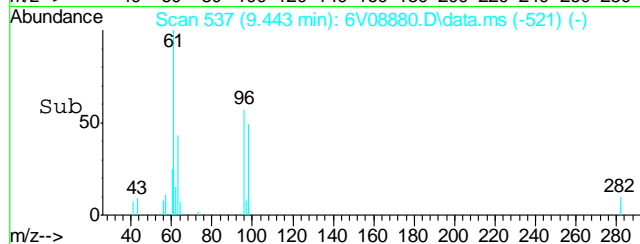
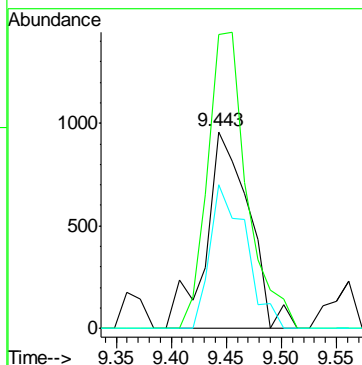
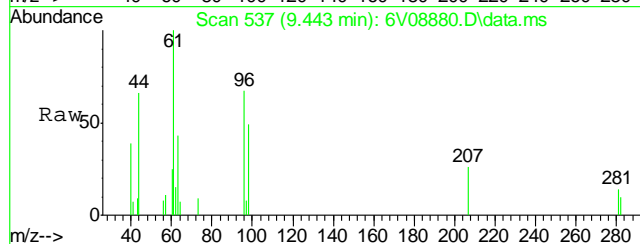
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Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
Quant Title : 8260
QLast Update : Thu Sep 29 15:33:12 2011
Response via : Initial Calibration





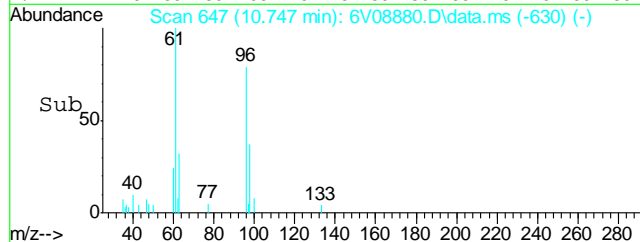
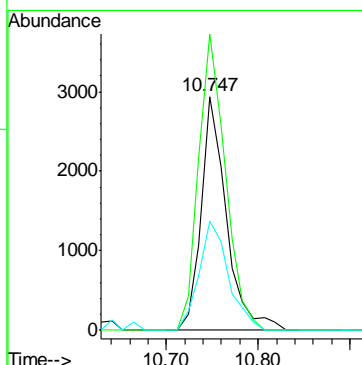
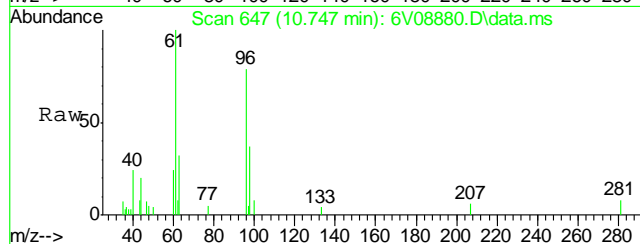
#20
trans-1,2-Dichloroethene
Concen: 0.61 ug/l
RT: 9.443 min Scan# 537
Delta R.T. -0.012 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

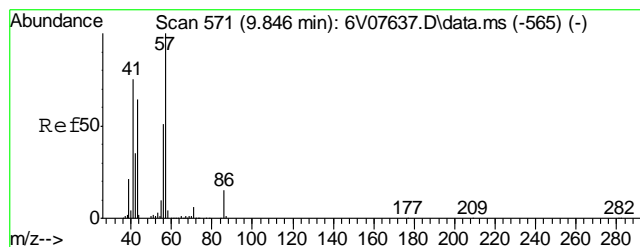
Tgt Ion	Ratio	Lower	Upper
96	100		
61	138.6	144.1	184.1#
98	61.7	41.2	81.2



#26
cis-1,2-Dichloroethene
Concen: 1.15 ug/l
RT: 10.747 min Scan# 647
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

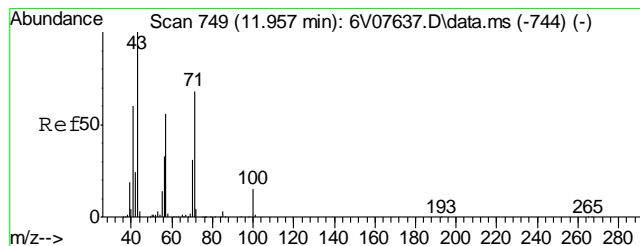
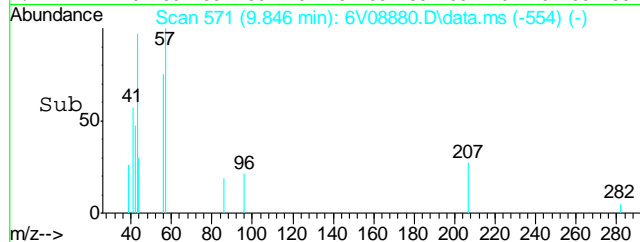
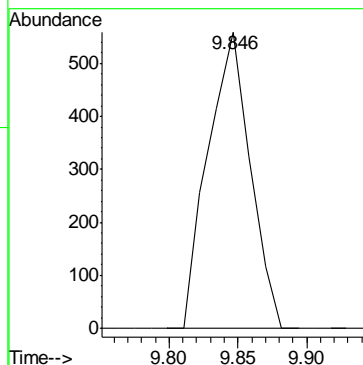
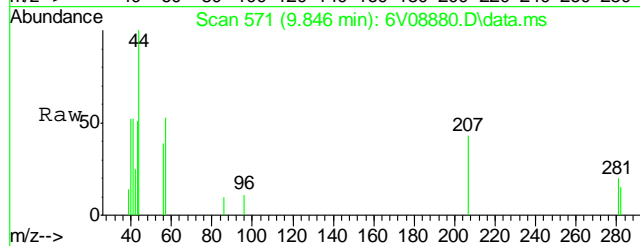
Tgt Ion	Ratio	Lower	Upper
96	100		
61	135.3	157.3	197.3#
98	54.5	42.2	82.2





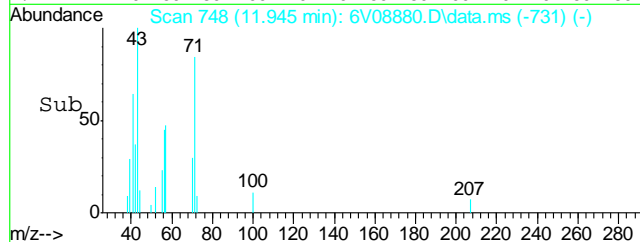
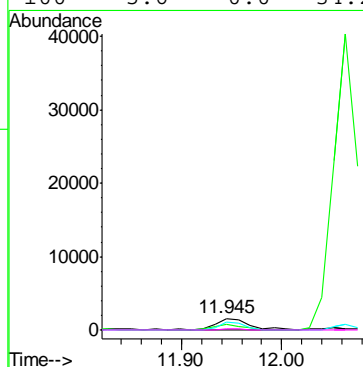
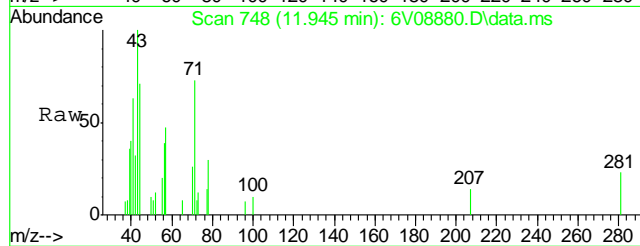
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Hexane
Concen: 0.32 ug/l
RT: 9.846 min Scan# 571
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

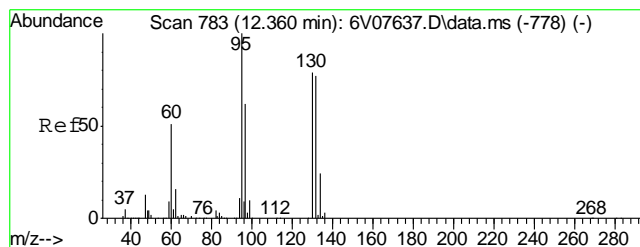
Tgt Ion: 57 Resp: 1188



#43
Heptane
Concen: 1.27 ug/l
RT: 11.945 min Scan# 748
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

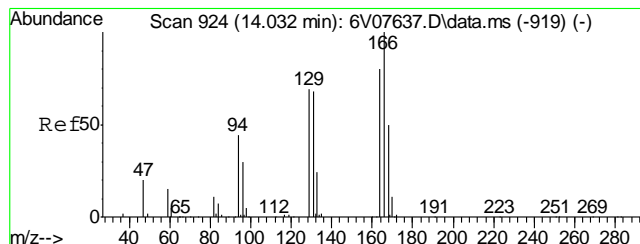
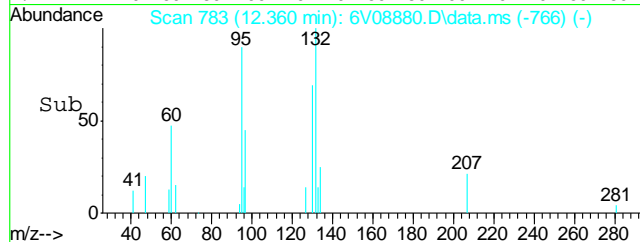
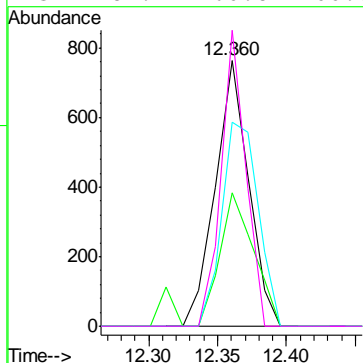
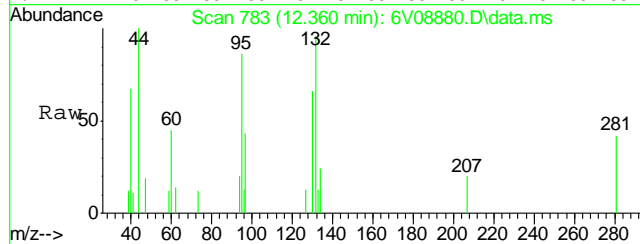
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Ion Ratio Lower Upper
43 100
57 0.0 34.3 74.3#
71 51.0 44.6 84.6
100 5.6 0.0 34.2





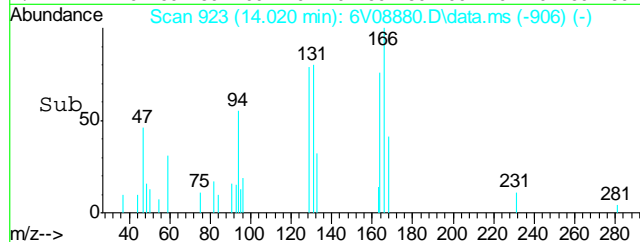
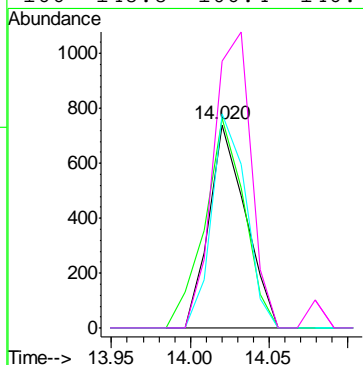
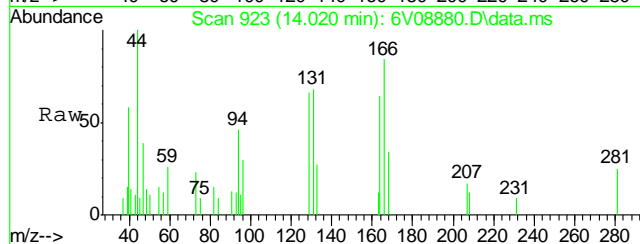
#48
 Trichloroethene
 Concen: 0.26 ug/l
 RT: 12.360 min Scan# 783
 Delta R.T. 0.000 min
 Lab File: 6V08880.D
 Acq: 7 Oct 2011 2:35 am

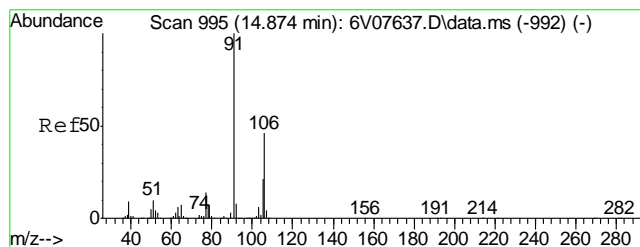
Tgt Ion:	95	Resp:	1282
Ion Ratio	Lower	Upper	
95	100		
97	51.4	42.9	82.9
130	84.4	64.2	104.2
132	82.1	60.8	100.8



#60
 Tetrachloroethene
 Concen: 0.39 ug/l
 RT: 14.020 min Scan# 923
 Delta R.T. 0.000 min
 Lab File: 6V08880.D
 Acq: 7 Oct 2011 2:35 am

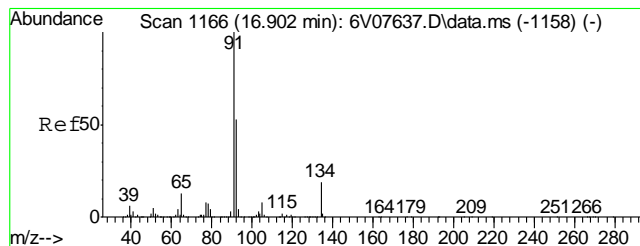
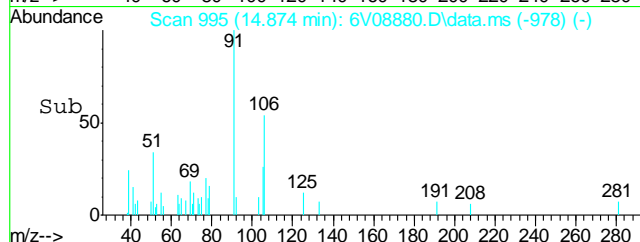
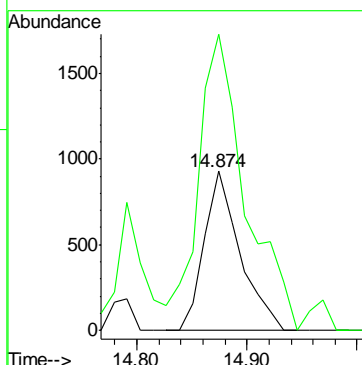
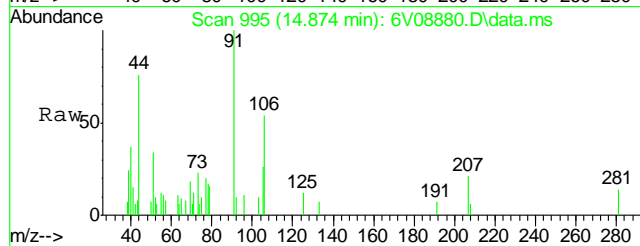
Tgt Ion:	164	Resp:	1203
Ion Ratio	Lower	Upper	
164	100		
129	111.2	74.8	114.8
131	98.2	71.7	111.7
166	148.8	106.4	146.4#





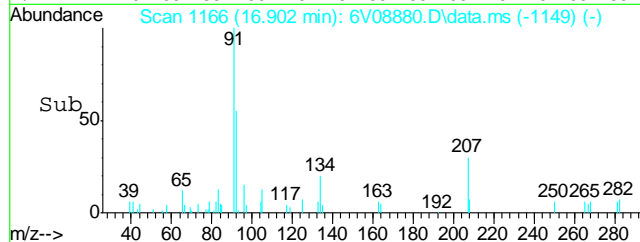
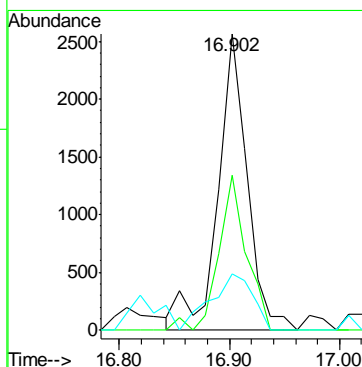
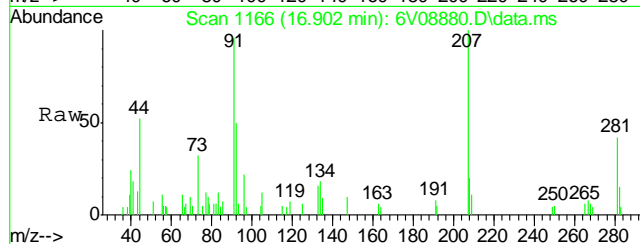
#72
m,p-xylene
Concen: 0.29 ug/l
RT: 14.874 min Scan# 995
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

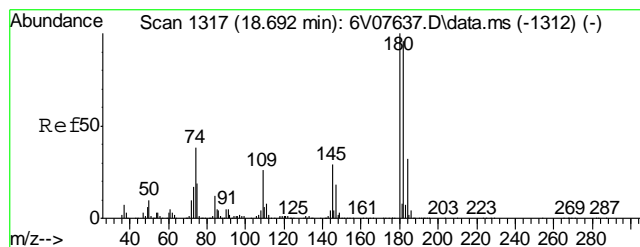
Tgt Ion	Ratio	Lower	Upper
106	100		
91	252.3	200.2	240.2#



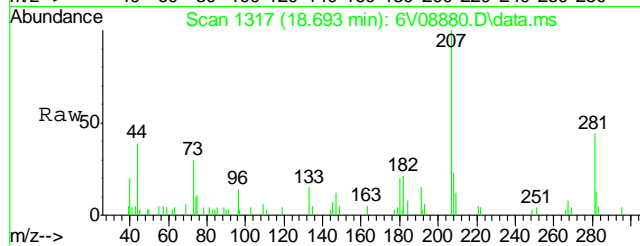
#88
n-Butylbenzene
Concen: 0.33 ug/l
RT: 16.902 min Scan# 1166
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

Tgt Ion	Ratio	Lower	Upper
91	100		
92	49.6	42.9	64.3
134	27.1	16.8	25.2#

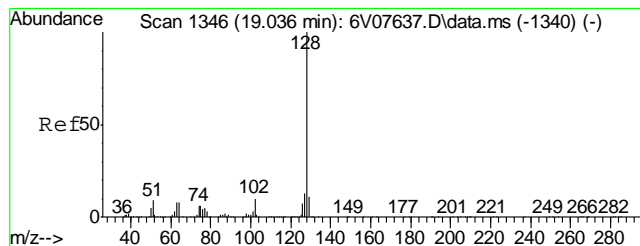
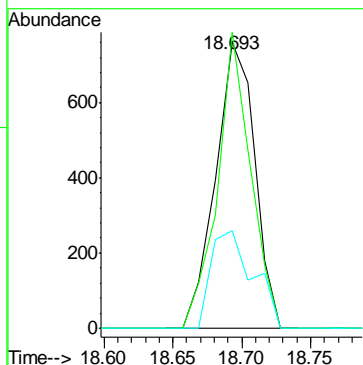
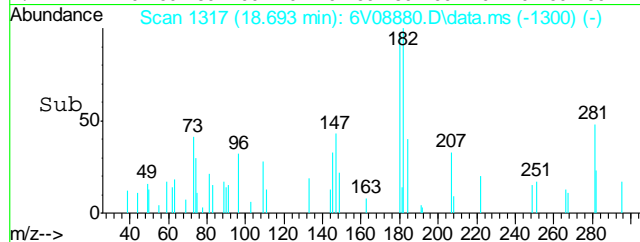




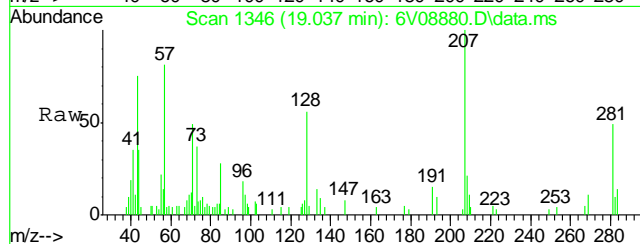
#90
1,2,4-Trichlorobenzene
Concen: 0.33 ug/l
RT: 18.693 min Scan# 1317
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am



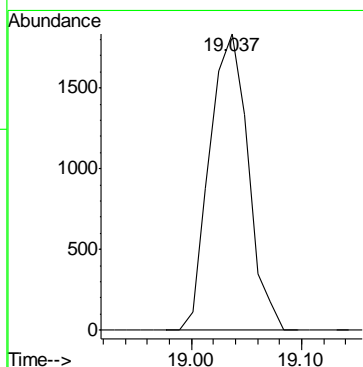
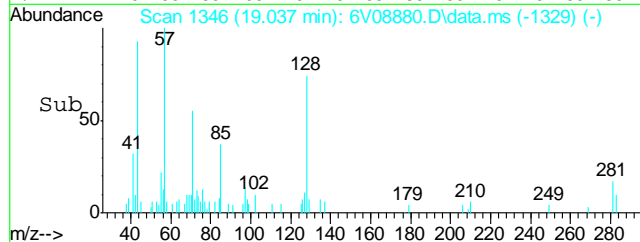
Tgt Ion	Ratio	Lower	Upper
180	100		
182	87.6	77.0	115.4
145	36.6	22.8	34.2#

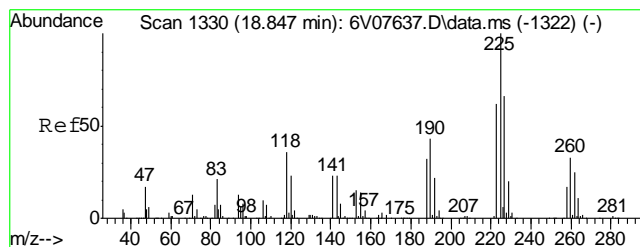


#91
Naphthalene
Concen: 0.41 ug/l
RT: 19.037 min Scan# 1346
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am



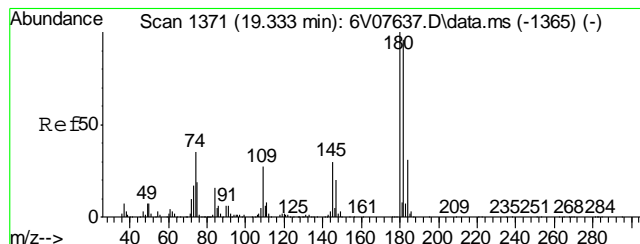
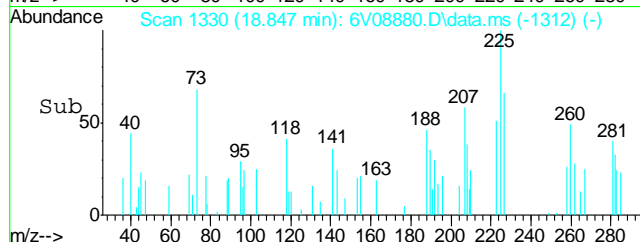
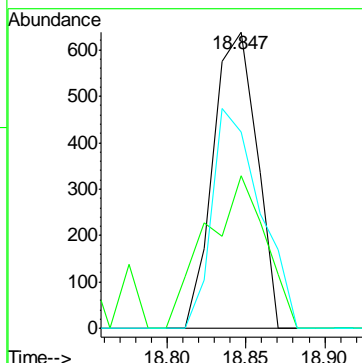
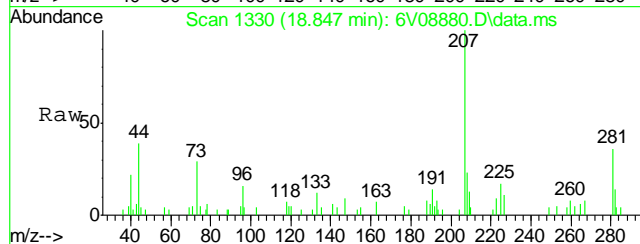
Tgt Ion:128 Resp: 4465





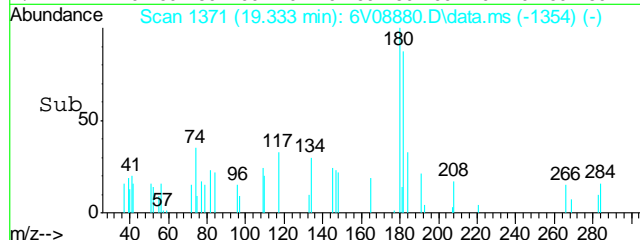
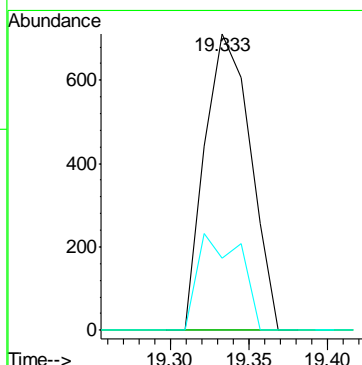
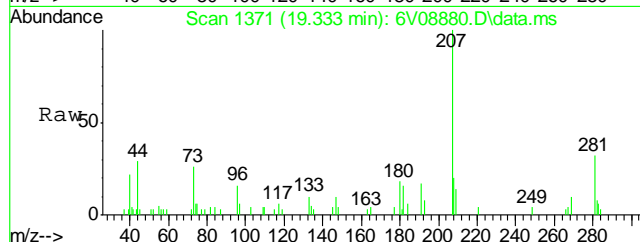
#92
Hexachlorobutadiene
Concen: 0.62 ug/l
RT: 18.847 min Scan# 1330
Delta R.T. 0.012 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

Tgt Ion	Ratio	Lower	Upper
225	100		
223	70.4	51.7	77.5
227	82.3	51.9	77.9#



#93
1,2,3-Trichlorobenzene
Concen: 0.40 ug/l
RT: 19.333 min Scan# 1371
Delta R.T. 0.000 min
Lab File: 6V08880.D
Acq: 7 Oct 2011 2:35 am

Tgt Ion	Ratio	Lower	Upper
180	100		
142	0.0	0.1	0.1#
145	30.5	23.0	34.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
 Data File : 6V08881.D
 Acq On : 7 Oct 2011 3:07 am
 Operator : BrianR
 Sample : D28392-2
 Misc : MS2797,V6V458,,,,,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 14:51:15 2011
 Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
 Quant Title : 8260
 QLast Update : Thu Sep 29 15:33:12 2011
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	378193	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.064	114	632647	50.00	ug/l	0.00
53) Chlorobenzene-d5	14.720	117	615045	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	16.653	152	328882	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	11.649	102	48759	53.25	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.50%
61) Toluene-d8	13.463	98	757664	53.82	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.64%
69) 4-Bromofluorobenzene	15.645	95	337971	53.20	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.40%

Target Compounds

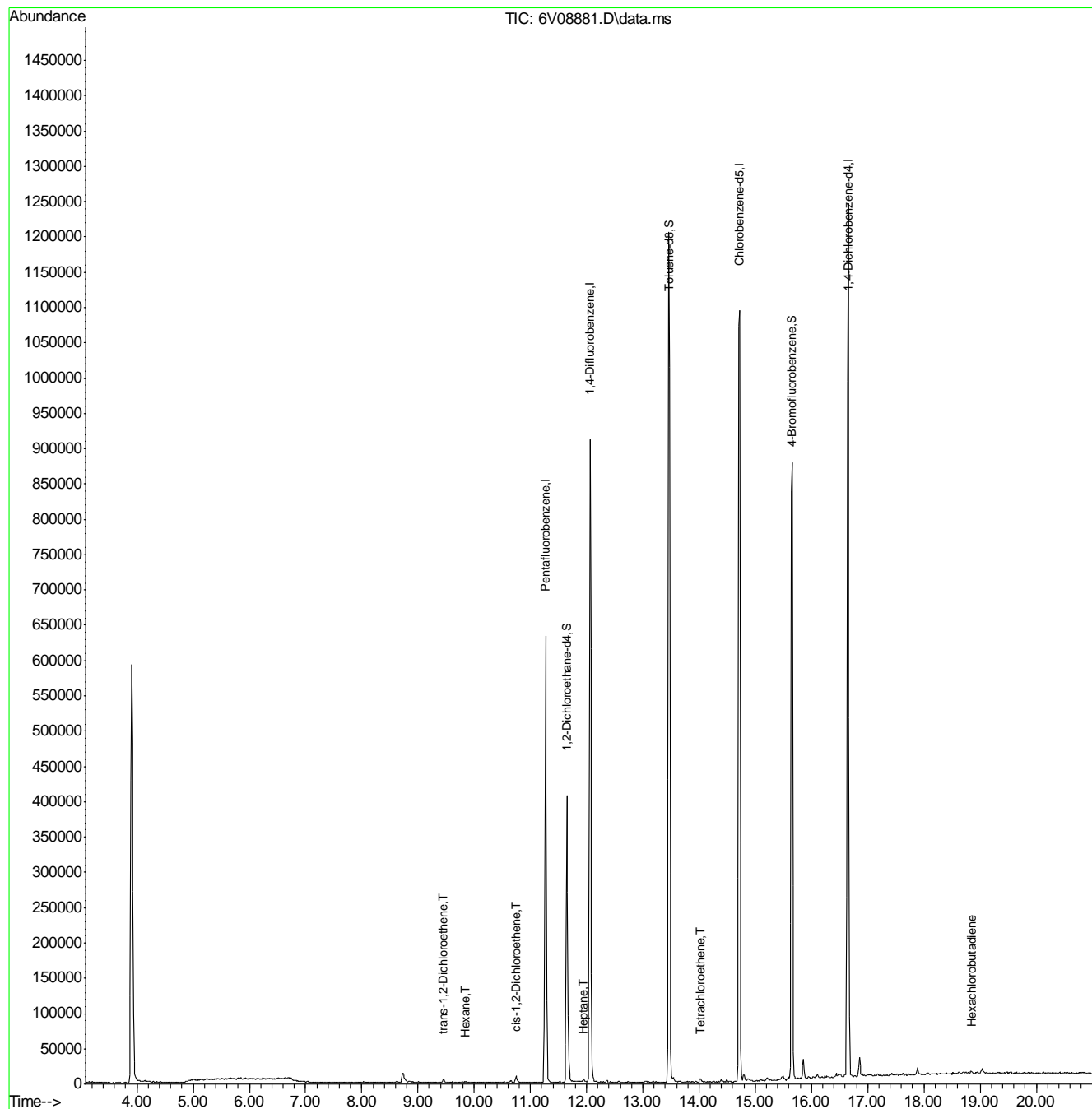
						Qvalue
20) trans-1,2-Dichloroethene	9.455	96	1620	0.39	ug/l	97
26) cis-1,2-Dichloroethene	10.747	96	4131	0.87	ug/l #	82
41) Hexane	9.846	57	736	0.20	ug/l	100
43) Heptane	11.945	43	1823	0.64	ug/l #	59
60) Tetrachloroethene	14.020	164	798	0.26	ug/l #	70
92) Hexachlorobutadiene	18.847	225	610	0.31	ug/l #	53

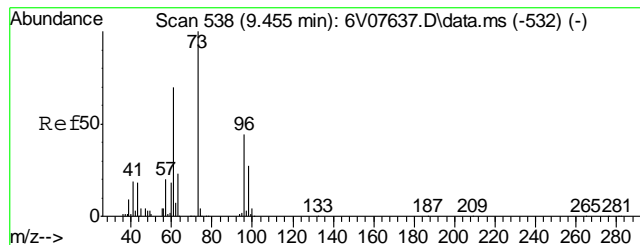
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
Data File : 6V08881.D
Acq On : 7 Oct 2011 3:07 am
Operator : BrianR
Sample : D28392-2
Misc : MS2797,V6V458,,,,,1
ALS Vial : 33 Sample Multiplier: 1

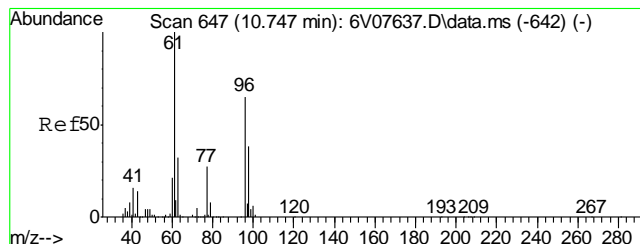
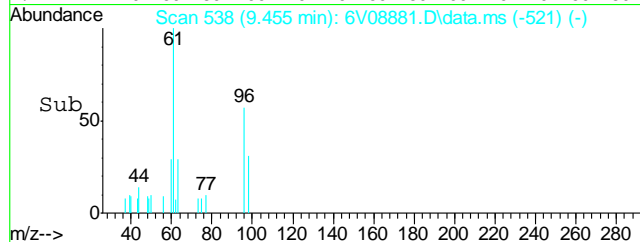
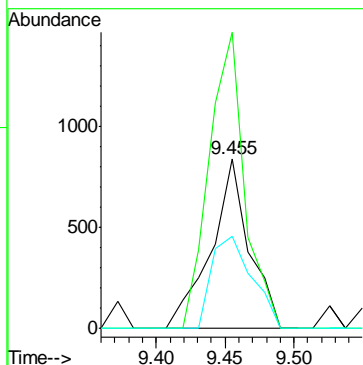
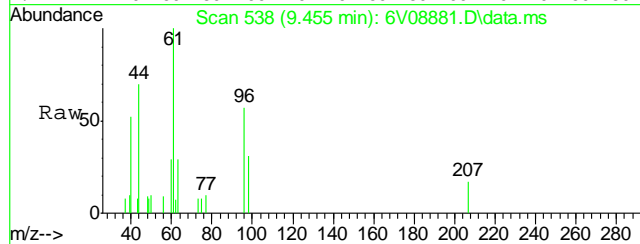
Quant Time: Oct 08 14:51:15 2011
Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
Quant Title : 8260
QLast Update : Thu Sep 29 15:33:12 2011
Response via : Initial Calibration





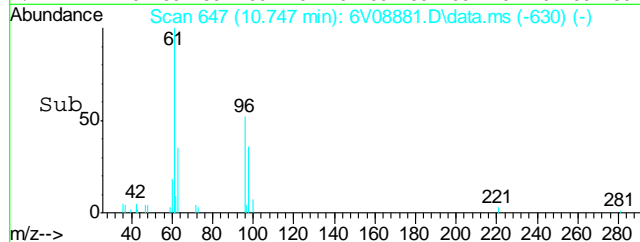
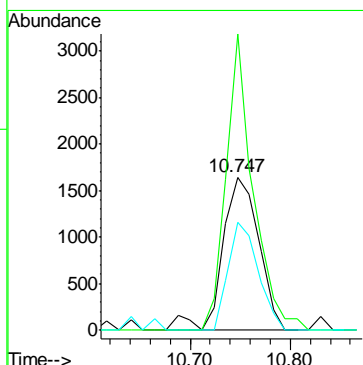
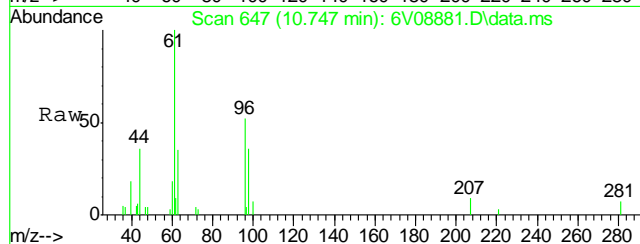
#20
trans-1,2-Dichloroethene
Concen: 0.39 ug/l
RT: 9.455 min Scan# 538
Delta R.T. -0.000 min
Lab File: 6V08881.D
Acq: 7 Oct 2011 3:07 am

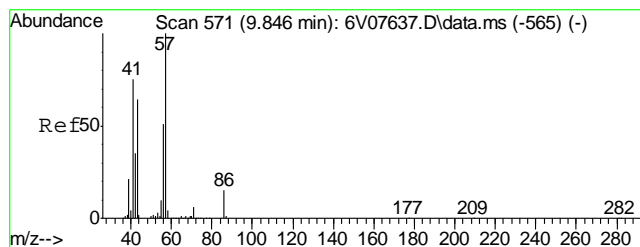
Tgt Ion	Ratio	Lower	Upper
96	100		
61	160.5	144.1	184.1
98	57.3	41.2	81.2



#26
cis-1,2-Dichloroethene
Concen: 0.87 ug/l
RT: 10.747 min Scan# 647
Delta R.T. -0.000 min
Lab File: 6V08881.D
Acq: 7 Oct 2011 3:07 am

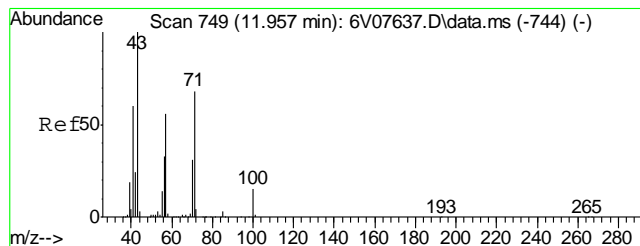
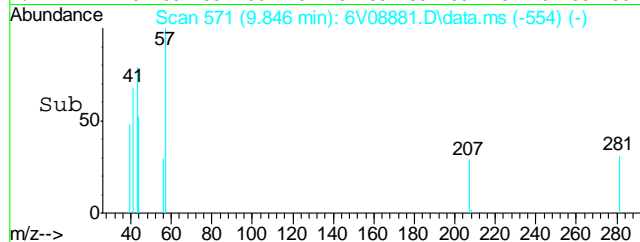
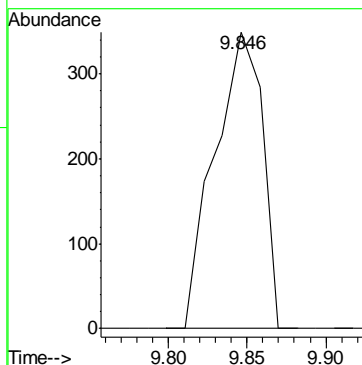
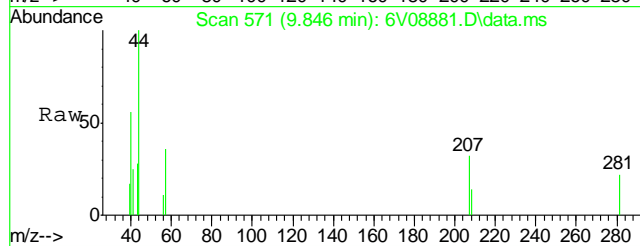
Tgt Ion	Ratio	Lower	Upper
96	100		
61	145.3	157.3	197.3#
98	58.3	42.2	82.2





#41
Hexane
Concen: 0.20 ug/l
RT: 9.846 min Scan# 571
Delta R.T. -0.000 min
Lab File: 6V08881.D
Acq: 7 Oct 2011 3:07 am

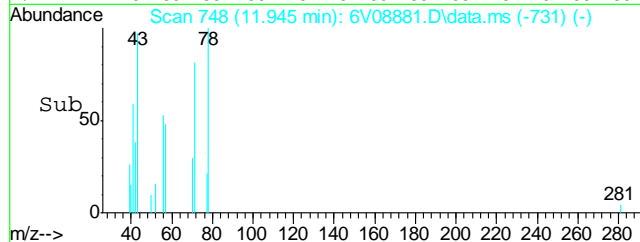
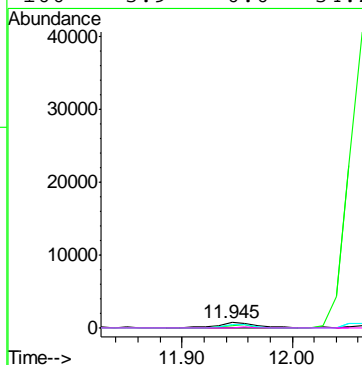
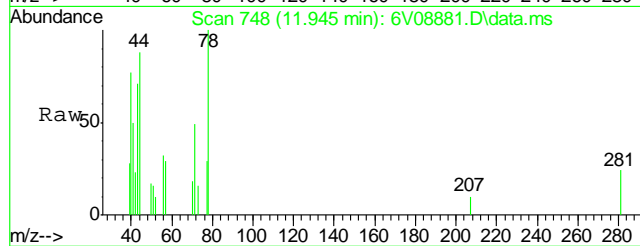
Tgt Ion: 57 Resp: 736

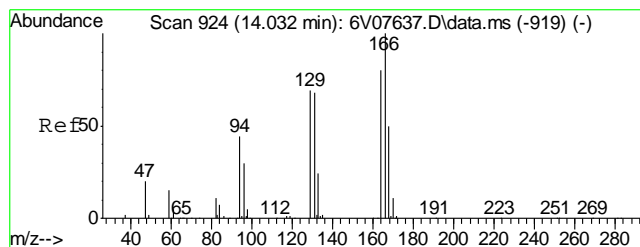


#43
Heptane
Concen: 0.64 ug/l
RT: 11.945 min Scan# 748
Delta R.T. 0.000 min
Lab File: 6V08881.D
Acq: 7 Oct 2011 3:07 am

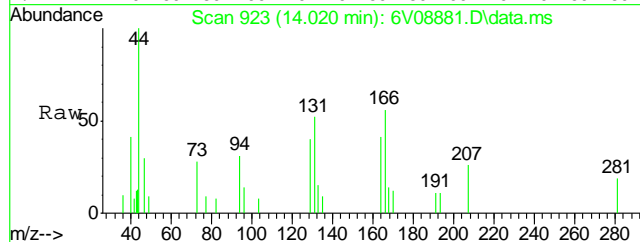
Tgt Ion: 43 Resp: 1823

Ion	Ratio	Lower	Upper
43	100		
57	0.0	34.3	74.3
71	53.0	44.6	84.6
100	3.9	0.0	34.2

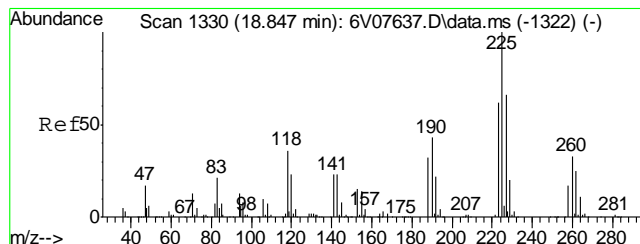
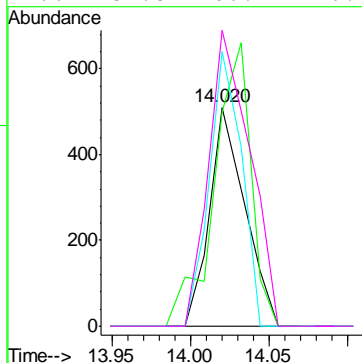
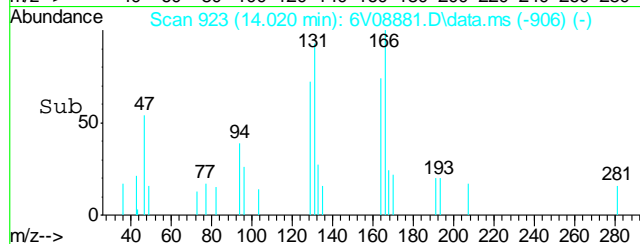




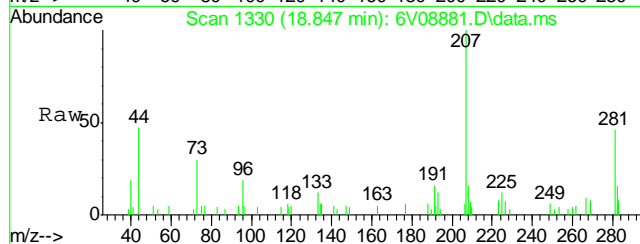
#60
Tetrachloroethene
Concen: 0.26 ug/l
RT: 14.020 min Scan# 923
Delta R.T. 0.000 min
Lab File: 6V08881.D
Acq: 7 Oct 2011 3:07 am



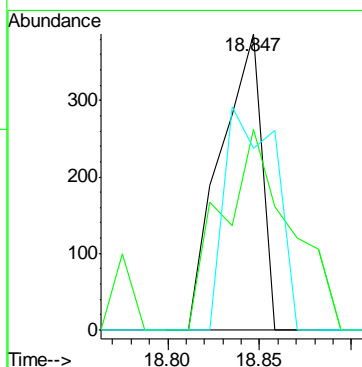
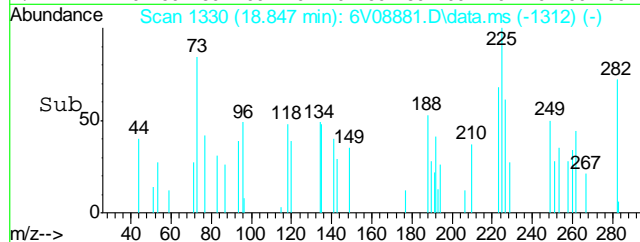
Tgt Ion	Ratio	Lower	Upper
164	100		
129	133.0	74.8	114.8#
131	114.5	71.7	111.7#
166	157.5	106.4	146.4#



#92
Hexachlorobutadiene
Concen: 0.31 ug/l
RT: 18.847 min Scan# 1330
Delta R.T. 0.012 min
Lab File: 6V08881.D
Acq: 7 Oct 2011 3:07 am



Tgt Ion	Ratio	Lower	Upper
225	100		
223	111.1	51.7	77.5#
227	92.0	51.9	77.9#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
Data File : 6V08882.D
Acq On : 7 Oct 2011 3:40 am
Operator : BrianR
Sample : D28392-3
Misc : MS2797,V6V458,,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 08 14:52:56 2011
Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
Quant Title : 8260
QLast Update : Thu Sep 29 15:33:12 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	367152	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.064	114	621286	50.00	ug/l	0.00
53) Chlorobenzene-d5	14.720	117	605645	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	16.653	152	329105	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	11.649	102	46021	51.77	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.54%
61) Toluene-d8	13.463	98	745397	53.77	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.54%
69) 4-Bromofluorobenzene	15.645	95	328854	52.57	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.14%

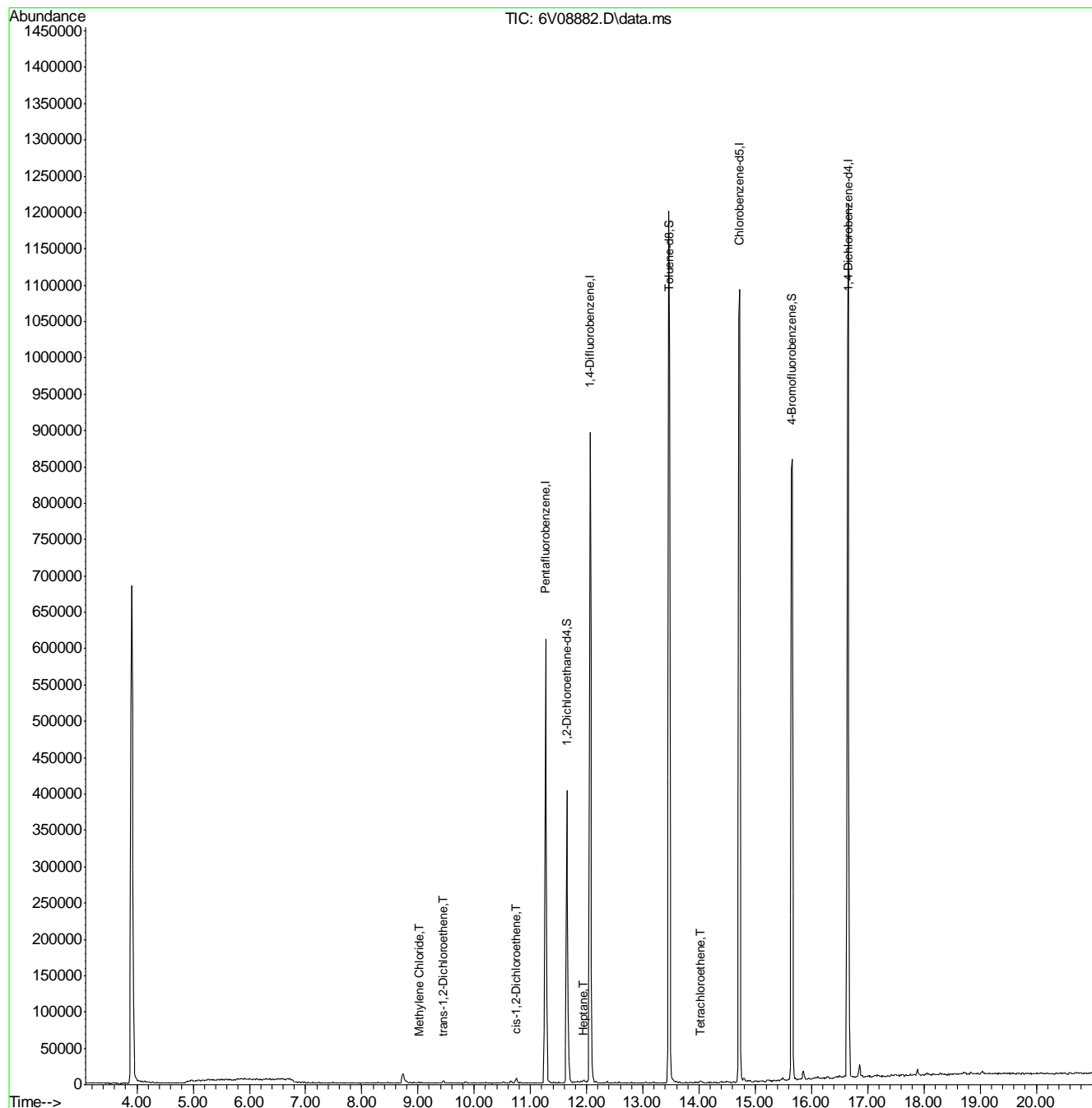
Target Compounds						Qvalue
17) Methylene Chloride	9.016	84	891	0.21	ug/l #	79
20) trans-1,2-Dichloroethene	9.455	96	1607	0.40	ug/l #	79
26) cis-1,2-Dichloroethene	10.747	96	3143	0.68	ug/l #	85
43) Heptane	11.945	43	1341	0.48	ug/l #	60
60) Tetrachloroethene	14.020	164	672	0.22	ug/l #	76

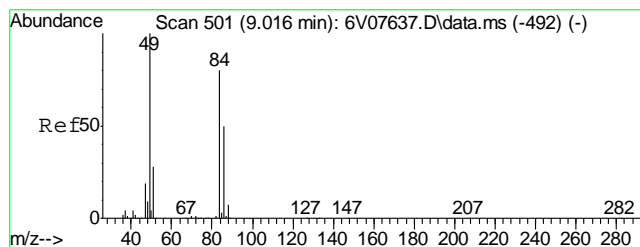
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
Data File : 6V08882.D
Acq On : 7 Oct 2011 3:40 am
Operator : BrianR
Sample : D28392-3
Misc : MS2797,V6V458,,,,,1
ALS Vial : 34 Sample Multiplier: 1

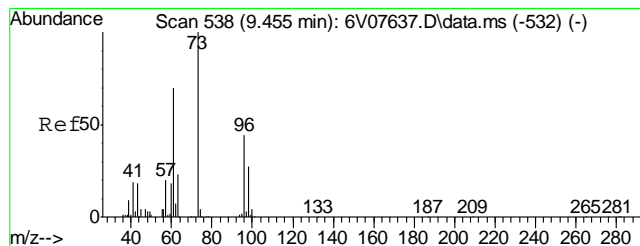
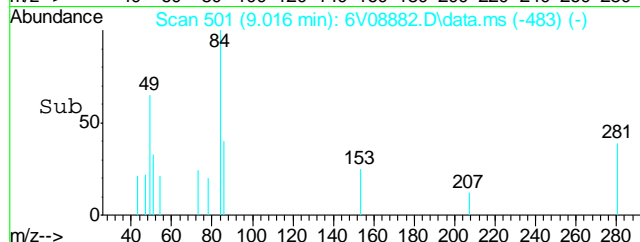
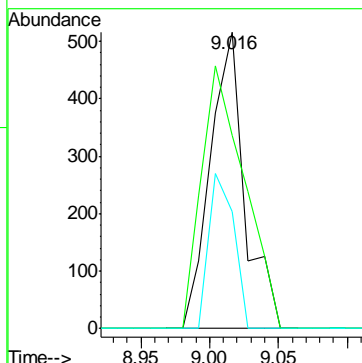
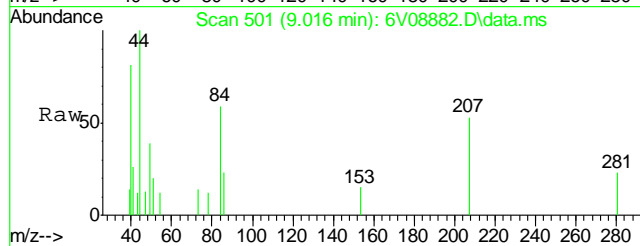
Quant Time: Oct 08 14:52:56 2011
Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
Quant Title : 8260
QLast Update : Thu Sep 29 15:33:12 2011
Response via : Initial Calibration





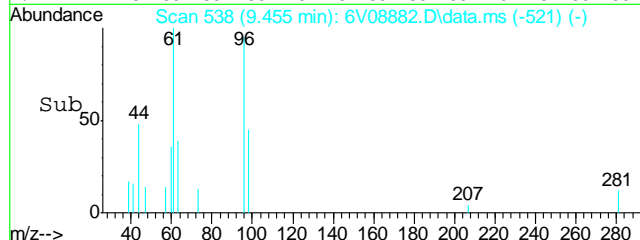
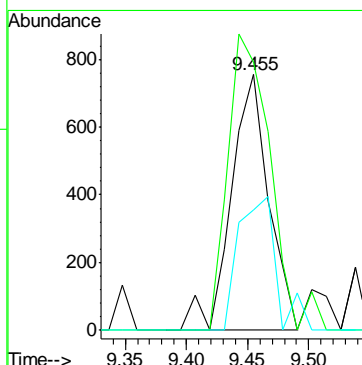
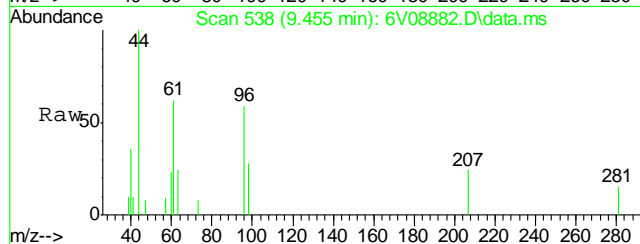
#17
Methylene Chloride
Concen: 0.21 ug/l
RT: 9.016 min Scan# 501
Delta R.T. 0.012 min
Lab File: 6V08882.D
Acq: 7 Oct 2011 3:40 am

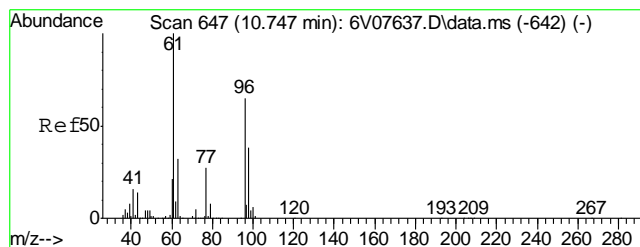
Tgt Ion	Ratio	Lower	Upper
84	100		
49	111.0	108.4	148.4
86	37.9	44.9	84.9#



#20
trans-1,2-Dichloroethene
Concen: 0.40 ug/l
RT: 9.455 min Scan# 538
Delta R.T. -0.000 min
Lab File: 6V08882.D
Acq: 7 Oct 2011 3:40 am

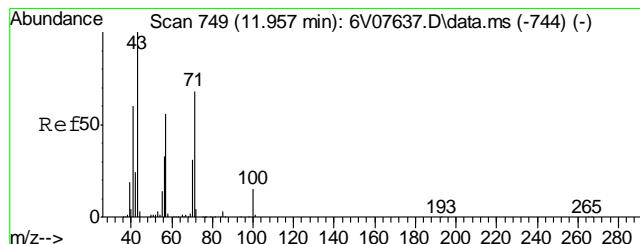
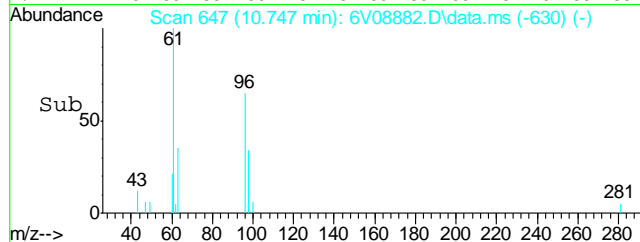
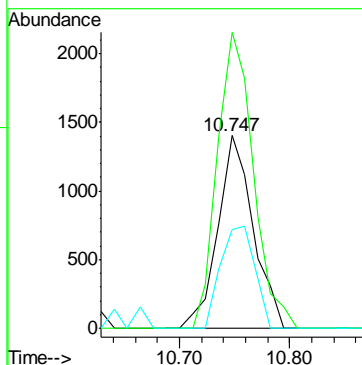
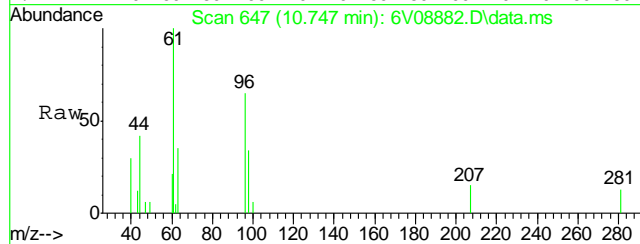
Tgt Ion	Ratio	Lower	Upper
96	100		
61	130.8	144.1	184.1#
98	52.1	41.2	81.2





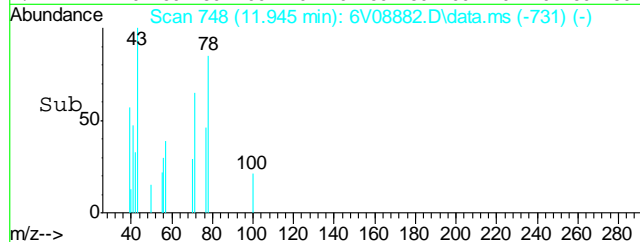
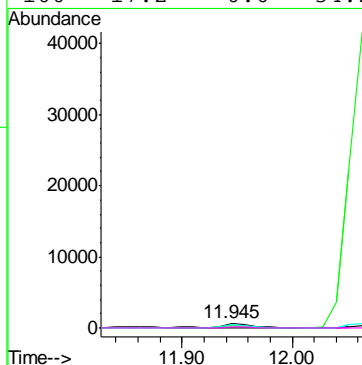
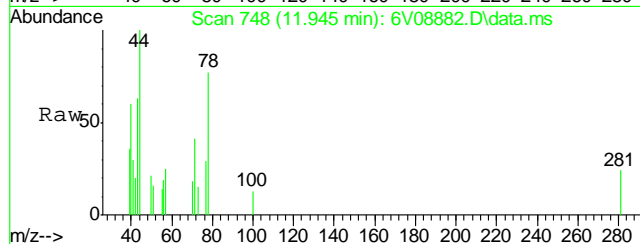
#26
 cis-1,2-Dichloroethene
 Concen: 0.68 ug/l
 RT: 10.747 min Scan# 647
 Delta R.T. -0.000 min
 Lab File: 6V08882.D
 Acq: 7 Oct 2011 3:40 am

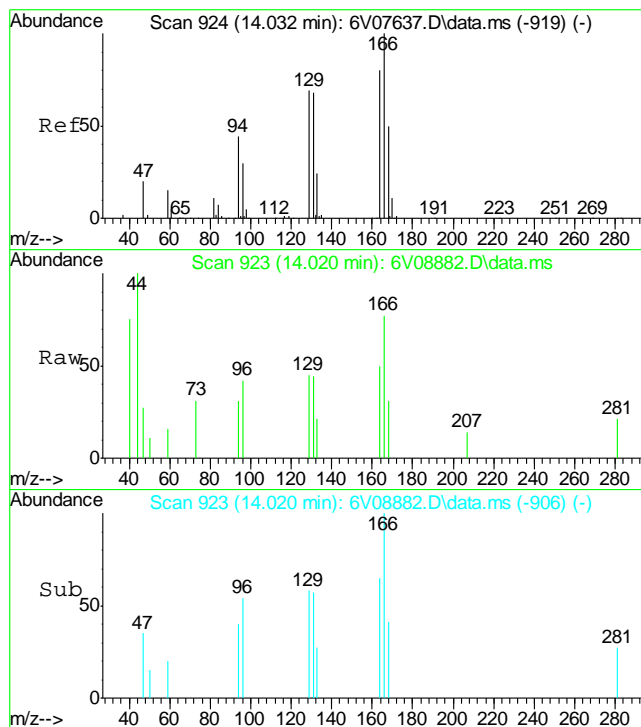
Tgt Ion	Resp	Lower	Upper
96	3143		
96	100		
61	156.7	157.3	197.3#
98	51.0	42.2	82.2



#43
 Heptane
 Concen: 0.48 ug/l
 RT: 11.945 min Scan# 748
 Delta R.T. 0.000 min
 Lab File: 6V08882.D
 Acq: 7 Oct 2011 3:40 am

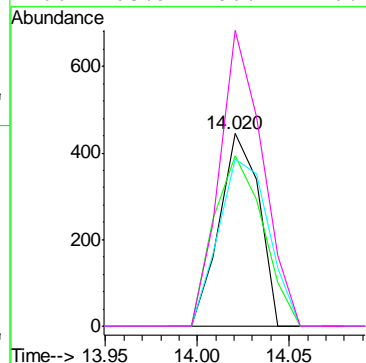
Tgt Ion	Resp	Lower	Upper
43	1341		
43	100		
57	0.0	34.3	74.3#
71	50.6	44.6	84.6
100	17.2	0.0	34.2





#60
Tetrachloroethene
Concen: 0.22 ug/l
RT: 14.020 min Scan# 923
Delta R.T. 0.000 min
Lab File: 6V08882.D
Acq: 7 Oct 2011 3:40 am

Tgt Ion:	164	Resp:	672
Ion Ratio	Lower	Upper	
164	100		
129	109.5	74.8	114.8
131	110.0	71.7	111.7
166	165.9	106.4	146.4#



6.1.3
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
 Data File : 6V08871.D
 Acq On : 6 Oct 2011 9:41 pm
 Operator : BrianR
 Sample : MB
 Misc : MS2797,V6V458,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 14:31:37 2011
 Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
 Quant Title : 8260
 QLast Update : Thu Sep 29 15:33:12 2011
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.269	168	386849	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.064	114	633516	50.00	ug/l	0.00
53) Chlorobenzene-d5	14.720	117	625244	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	16.653	152	335410	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	11.649	102	48063	51.31	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.62%
61) Toluene-d8	13.463	98	764712	53.44	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.88%
69) 4-Bromofluorobenzene	15.645	95	339188	52.52	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.04%

Target Compounds

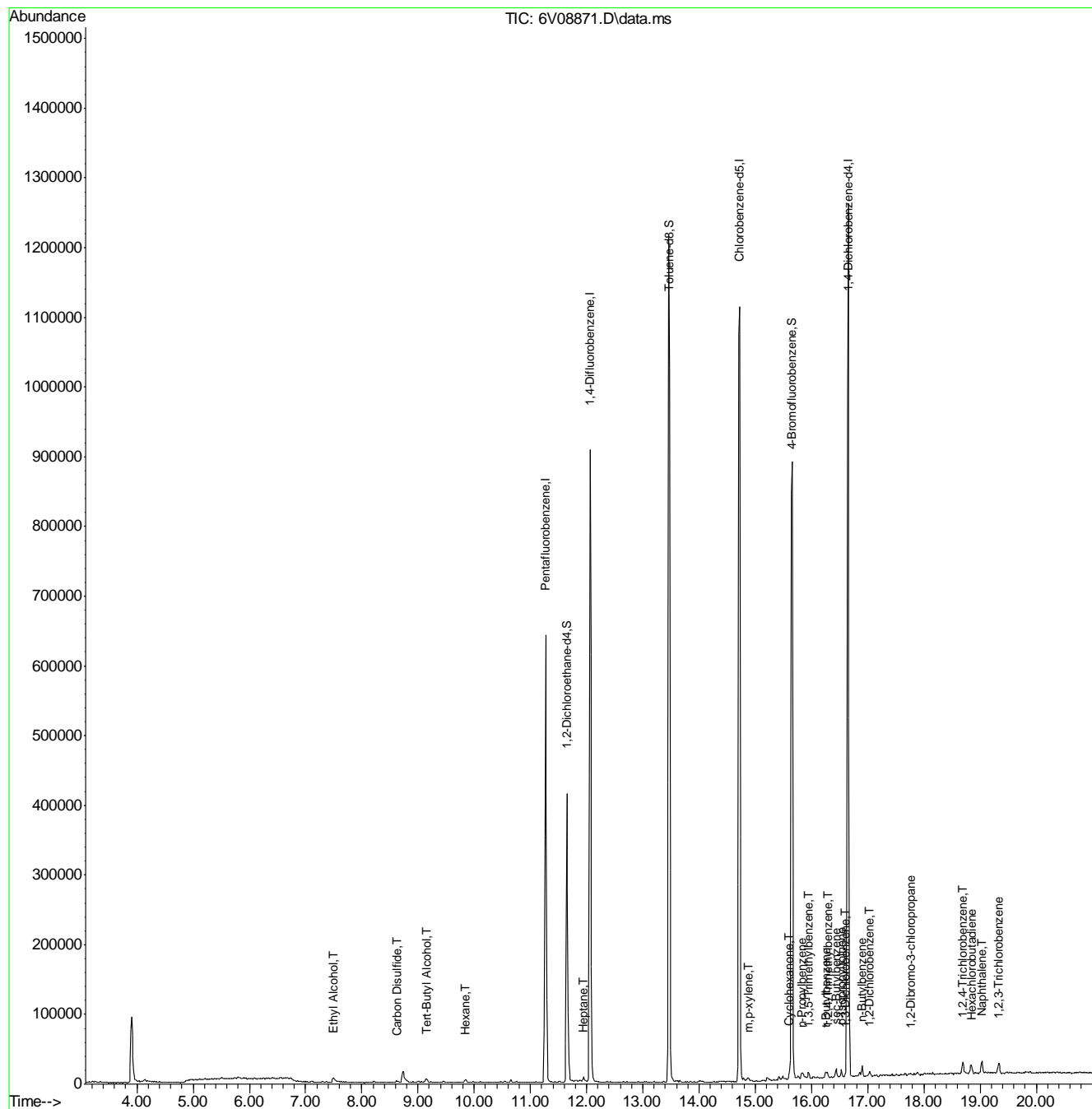
						Qvalue
9) Ethyl Alcohol	7.498	45	13089	299.20	ug/l	88
16) Carbon Disulfide	8.625	76	3514	0.24	ug/l #	81
18) Tert-Butyl Alcohol	9.146	59	6882	15.06	ug/l #	79
41) Hexane	9.846	57	1962	0.54	ug/l	100
43) Heptane	11.945	43	2946	1.03	ug/l #	56
72) m,p-xylene	14.874	106	1874	0.25	ug/l #	70
76) Cyclohexanone	15.609	55	6065	8.51	ug/l #	1
77) n-Propylbenzene	15.835	91	5416	0.23	ug/l	96
80) 1,3,5-Trimethylbenzene	15.941	105	3553	0.23	ug/l	98
81) t-Butylbenzene	16.262	119	4764	0.36	ug/l #	94
82) 1,2,4-Trimethylbenzene	16.285	105	3536	0.22	ug/l	88
83) sec-Butylbenzene	16.439	105	8248	0.48	ug/l	97
84) 1,3-Dichlorobenzene	16.605	146	1960	0.25	ug/l #	59
86) p-Isopropyltoluene	16.534	119	7206	0.52	ug/l	93
87) 1,2-Dichlorobenzene	17.032	146	2073	0.27	ug/l #	88
88) n-Butylbenzene	16.902	91	10185	0.70	ug/l	95
89) 1,2-Dibromo-3-chloropr...	17.768	75	1064	0.83	ug/l #	64
90) 1,2,4-Trichlorobenzene	18.693	180	5804	1.25	ug/l #	96
91) Naphthalene	19.036	128	16084	1.44	ug/l	100
92) Hexachlorobutadiene	18.847	225	3241	1.61	ug/l	93
93) 1,2,3-Trichlorobenzene	19.333	180	5639	1.55	ug/l #	94

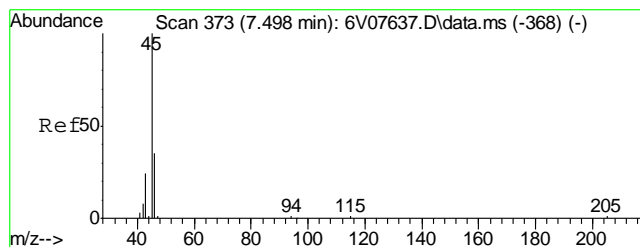
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6100611\
Data File : 6V08871.D
Acq On : 6 Oct 2011 9:41 pm
Operator : BrianR
Sample : MB
Misc : MS2797,V6V458,,,,,1
ALS Vial : 23 Sample Multiplier: 1

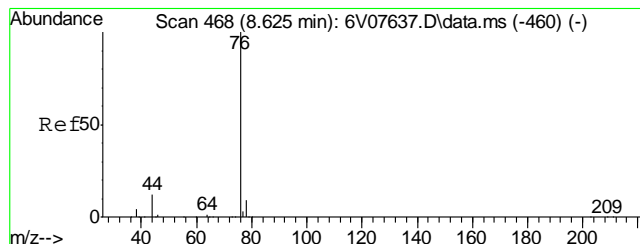
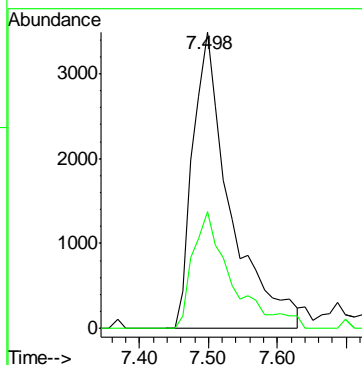
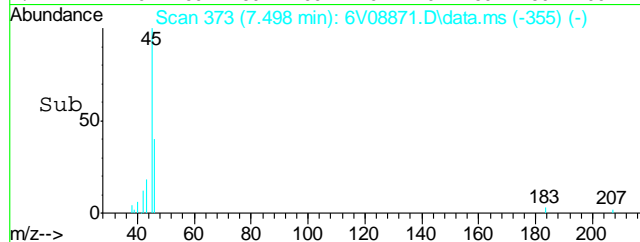
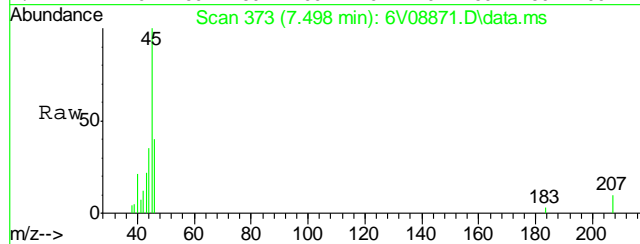
Quant Time: Oct 08 14:31:37 2011
Quant Method : C:\msdchem\1\METHODS\V6AP447TVH447.M
Quant Title : 8260
QLast Update : Thu Sep 29 15:33:12 2011
Response via : Initial Calibration





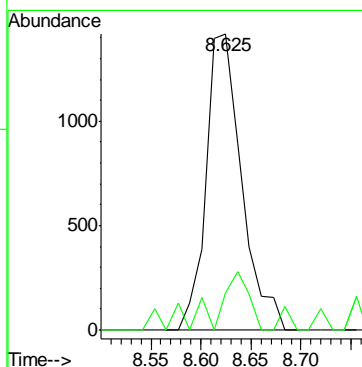
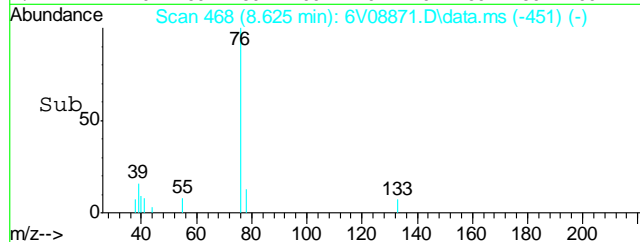
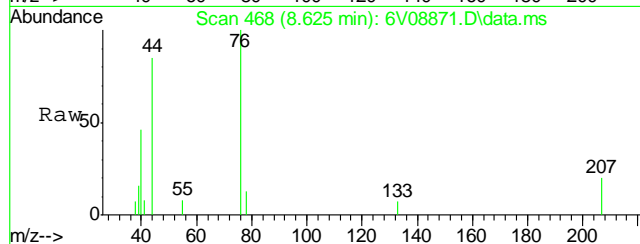
#9
Ethyl Alcohol
Concen: 299.20 ug/l
RT: 7.498 min Scan# 373
Delta R.T. 0.012 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

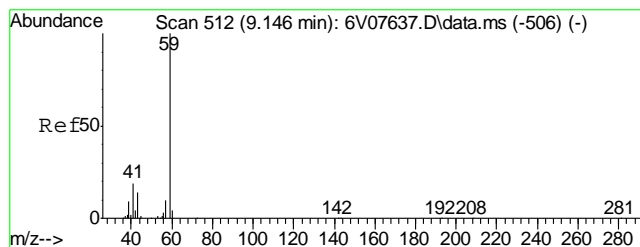
Tgt Ion:	45	Resp:	13089
Ion Ratio	45	Lower	Upper
	100		
	46	41.1	27.4 41.2



#16
Carbon Disulfide
Concen: 0.24 ug/l
RT: 8.625 min Scan# 468
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

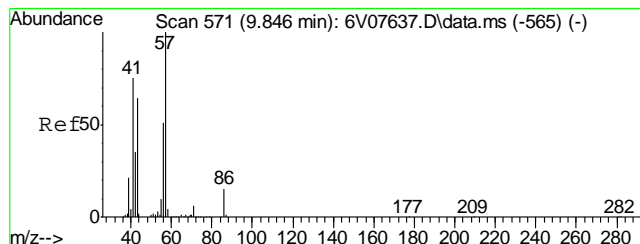
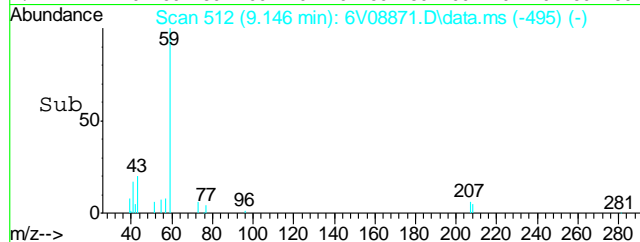
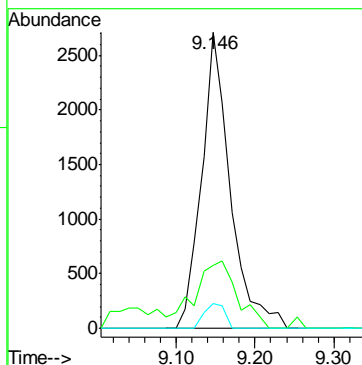
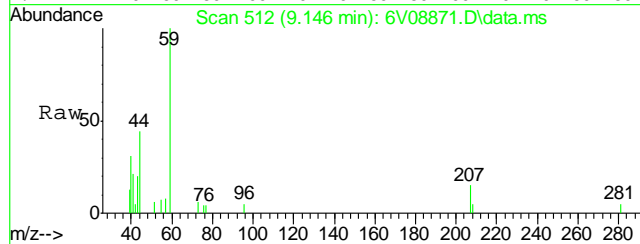
Tgt Ion:	76	Resp:	3514
Ion Ratio	76	Lower	Upper
	100		
	78	15.9	7.3 10.9#





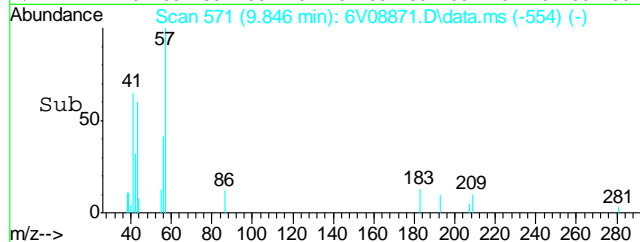
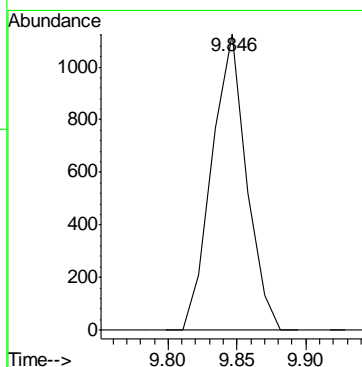
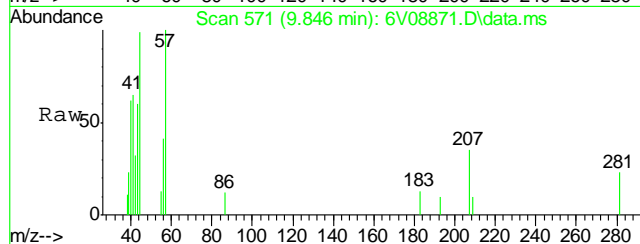
#18
Tert-Butyl Alcohol
Concen: 15.06 ug/l
RT: 9.146 min Scan# 512
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

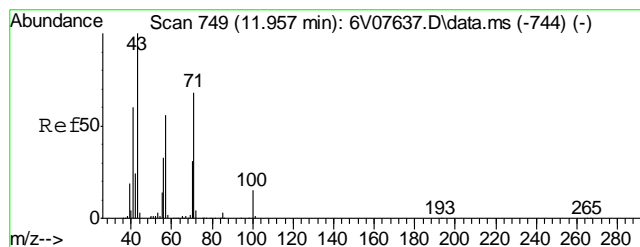
Tgt Ion:	59	Resp:	6882
Ion Ratio	Lower	Upper	
59	100		
41	33.6	17.0	25.4#
57	6.0	7.4	11.0#



#41
Hexane
Concen: 0.54 ug/l
RT: 9.846 min Scan# 571
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

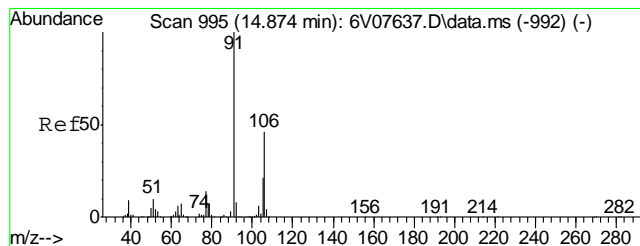
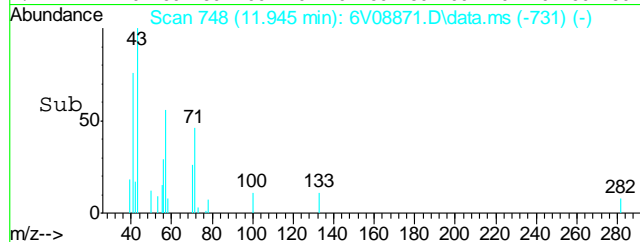
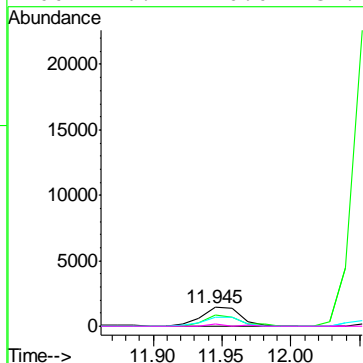
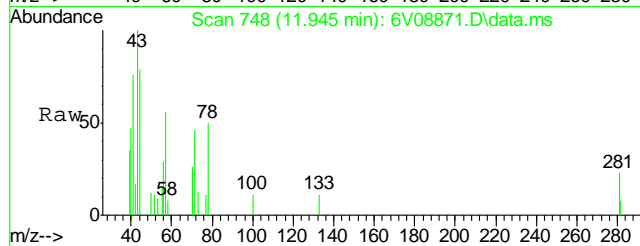
Tgt Ion:	57	Resp:	1962
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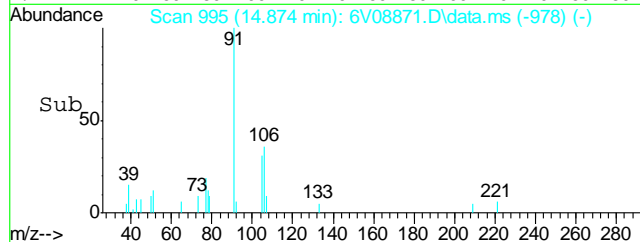
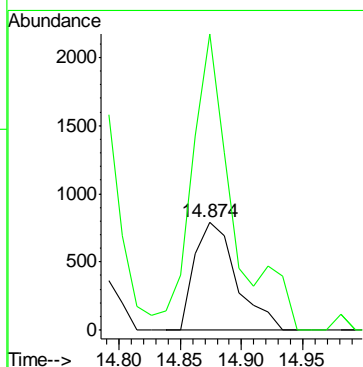
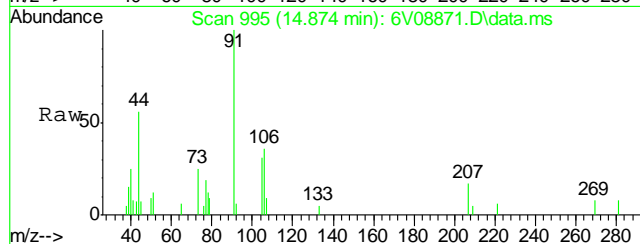
#43
Heptane
Concen: 1.03 ug/l
RT: 11.945 min Scan# 748
Delta R.T. 0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

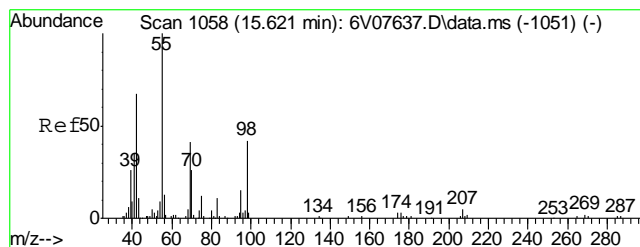
Tgt Ion:	43	Resp:	2946
Ion Ratio	Lower	Upper	
43	100		
57	0.0	34.3	74.3#
71	46.1	44.6	84.6
100	6.2	0.0	34.2



#72
m,p-xylene
Concen: 0.25 ug/l
RT: 14.874 min Scan# 995
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

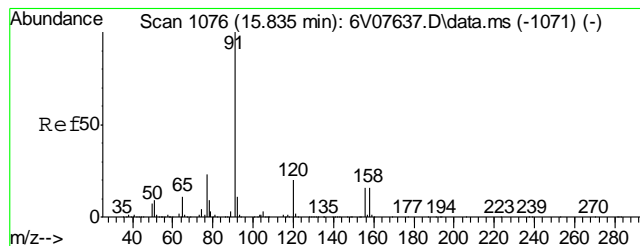
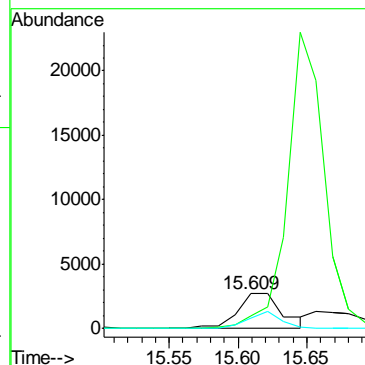
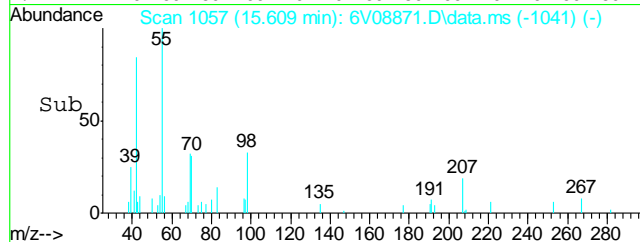
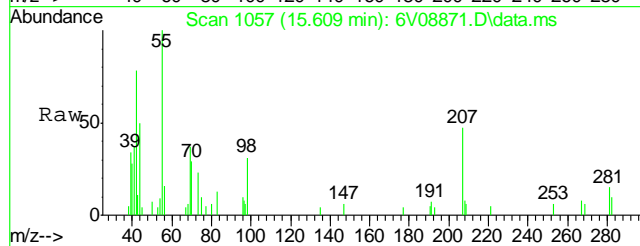
Tgt Ion:	106	Resp:	1874
Ion Ratio	Lower	Upper	
106	100		
91	268.5	200.2	240.2#





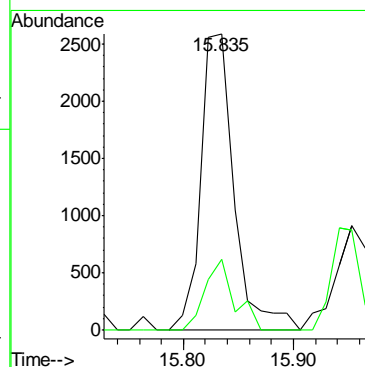
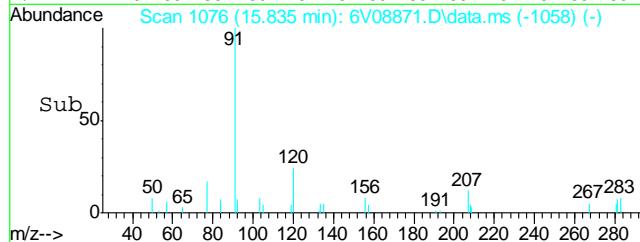
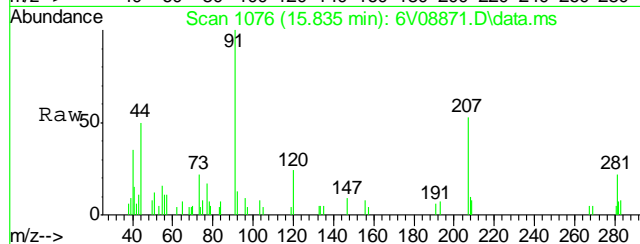
#76
Cyclohexanone
Concen: 8.51 ug/l
RT: 15.609 min Scan# 1057
Delta R.T. -0.012 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

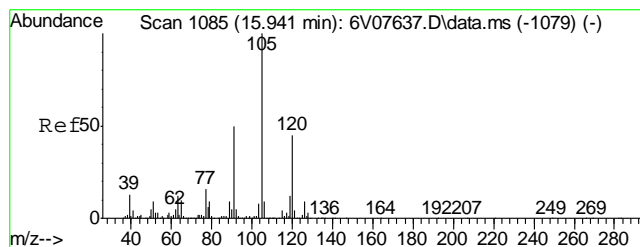
Tgt Ion:	55	Resp:	6065
Ion Ratio	Lower	Upper	
55	100		
69	0.0	135.2	202.8#
98	36.0	32.6	48.8



#77
n-Propylbenzene
Concen: 0.23 ug/l
RT: 15.835 min Scan# 1076
Delta R.T. 0.012 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

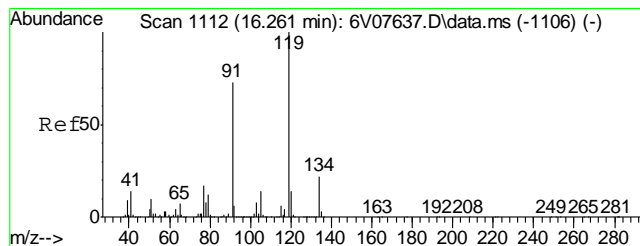
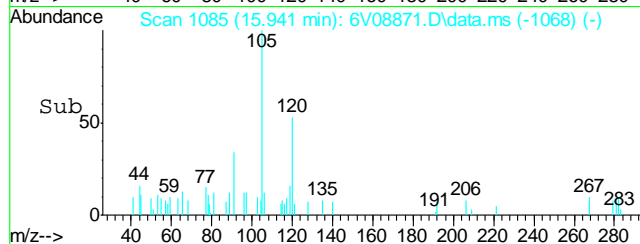
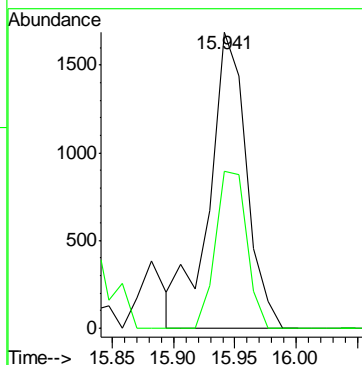
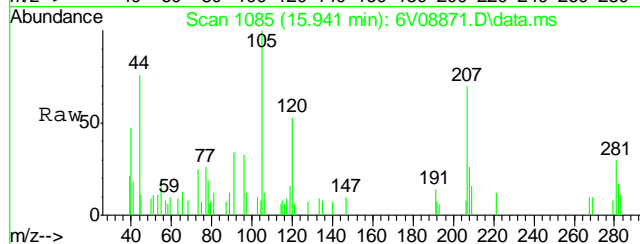
Tgt Ion:	91	Resp:	5416
Ion Ratio	Lower	Upper	
91	100		
120	21.0	15.4	23.2





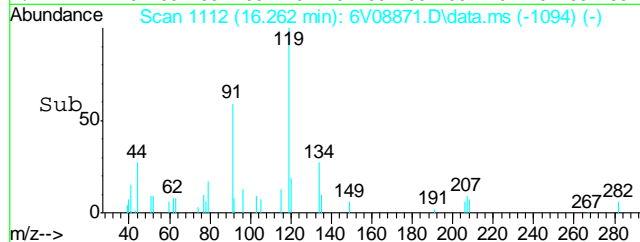
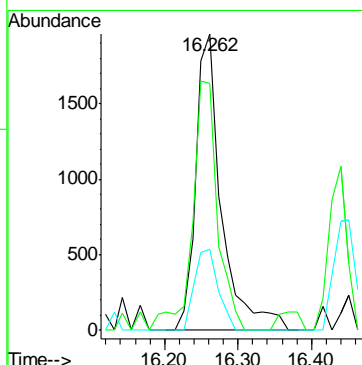
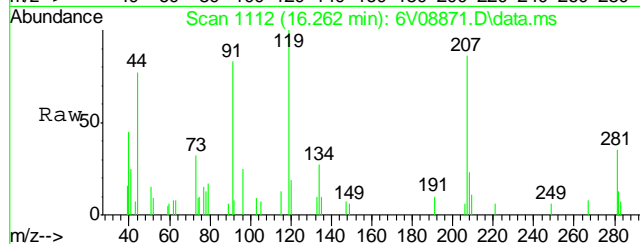
#80
1,3,5-Trimethylbenzene
Concen: 0.23 ug/l
RT: 15.941 min Scan# 1085
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

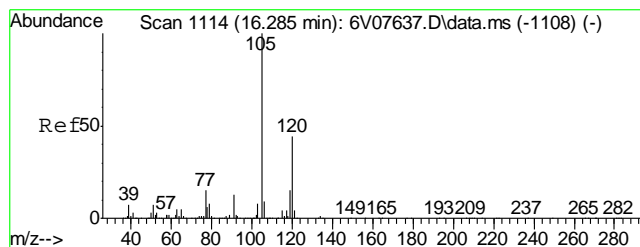
Tgt Ion:	105	Resp:	3553
Ion Ratio	Lower	Upper	
105	100		
120	44.6	36.8	55.2



#81
t-Butylbenzene
Concen: 0.36 ug/l
RT: 16.262 min Scan# 1112
Delta R.T. 0.012 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

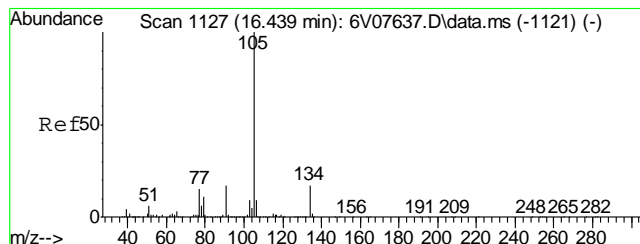
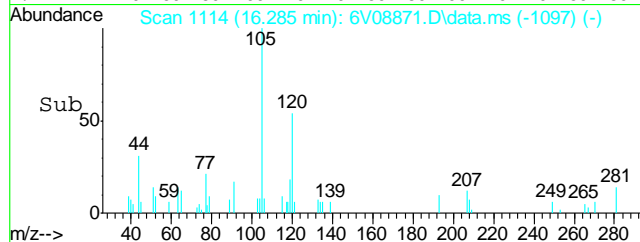
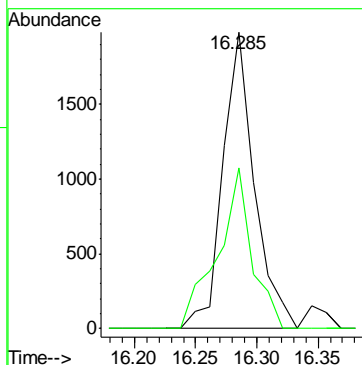
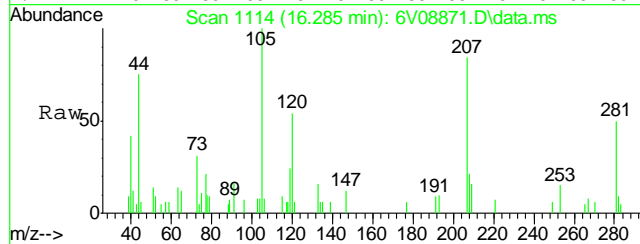
Tgt Ion:	119	Resp:	4764
Ion Ratio	Lower	Upper	
119	100		
91	83.8	63.6	95.4
134	25.1	15.4	23.2#





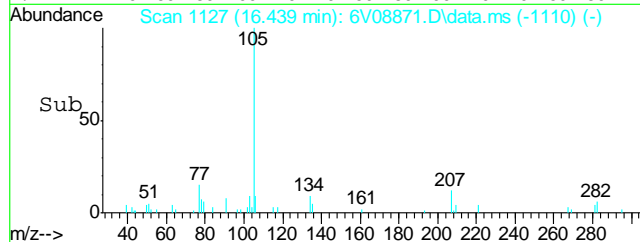
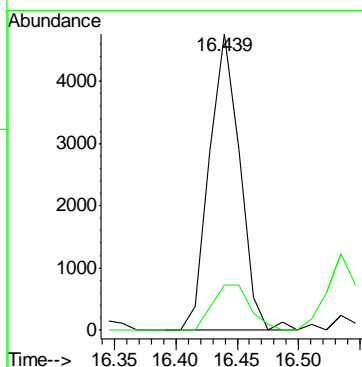
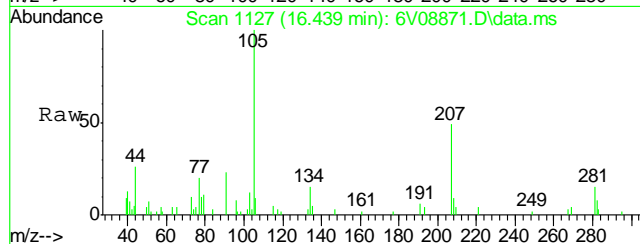
#82
1,2,4-Trimethylbenzene
Concen: 0.22 ug/l
RT: 16.285 min Scan# 1114
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

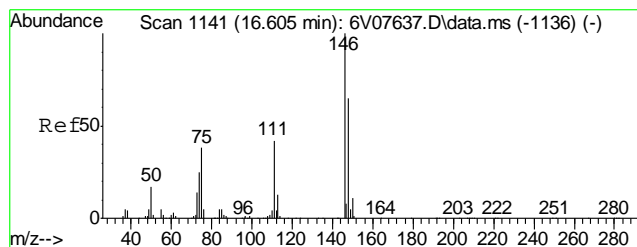
Tgt Ion:	105	Resp:	3536
Ion Ratio	Lower	Upper	
105	100		
120	58.7	40.1	60.1



#83
sec-Butylbenzene
Concen: 0.48 ug/l
RT: 16.439 min Scan# 1127
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

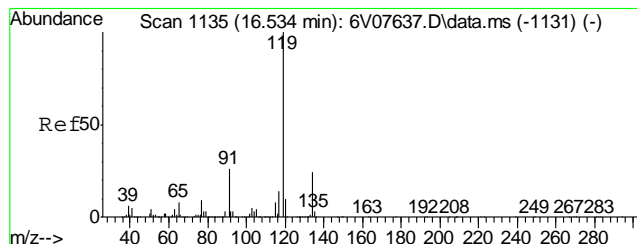
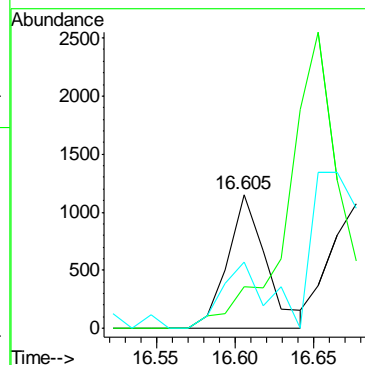
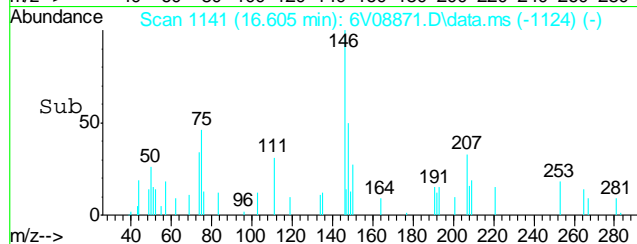
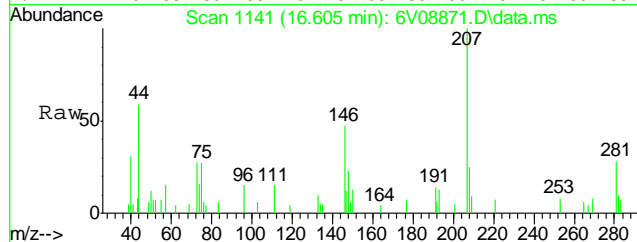
Tgt Ion:	105	Resp:	8248
Ion Ratio	Lower	Upper	
105	100		
134	18.8	14.2	21.2





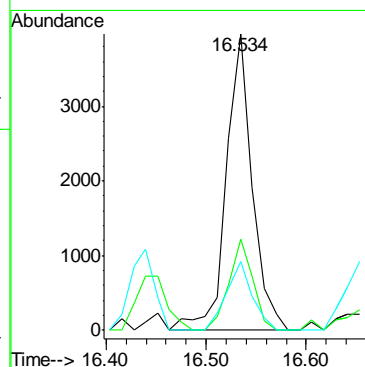
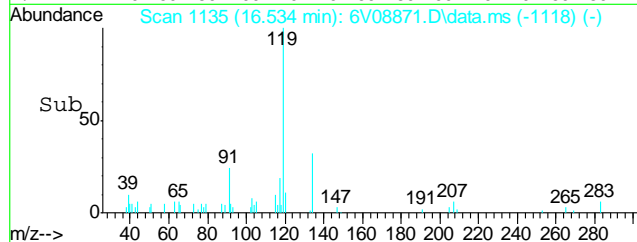
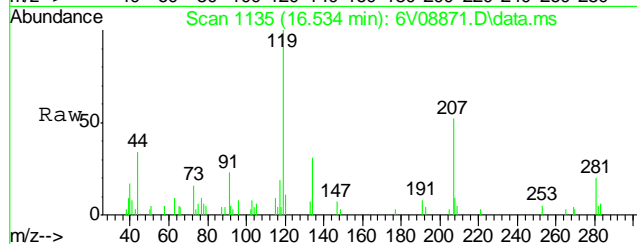
#84
1,3-Dichlorobenzene
Concen: 0.25 ug/l
RT: 16.605 min Scan# 1141
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

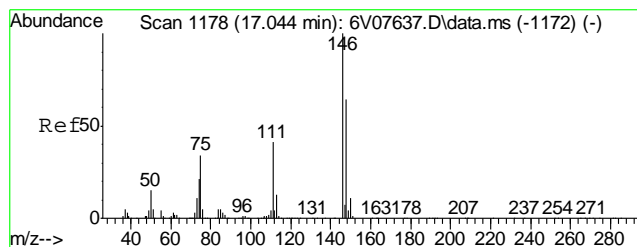
Tgt Ion:	146	Resp:	1960
Ion Ratio	Lower	Upper	
146	100		
111	0.0	35.0	52.4#
148	45.8	51.4	77.2#



#86
p-Isopropyltoluene
Concen: 0.52 ug/l
RT: 16.534 min Scan# 1135
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

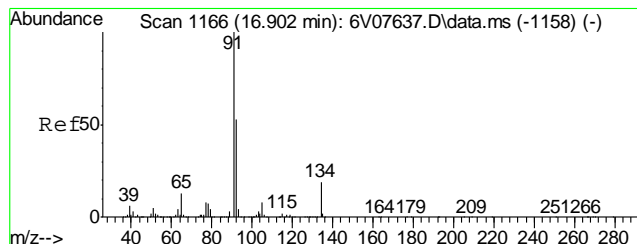
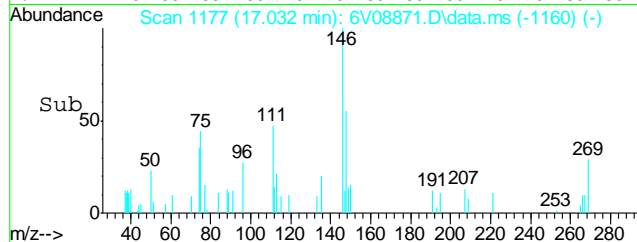
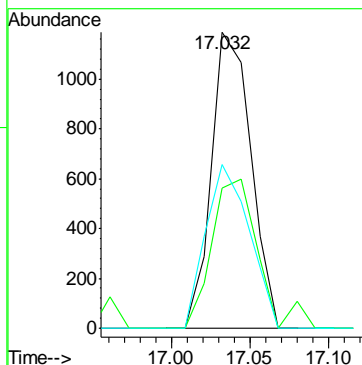
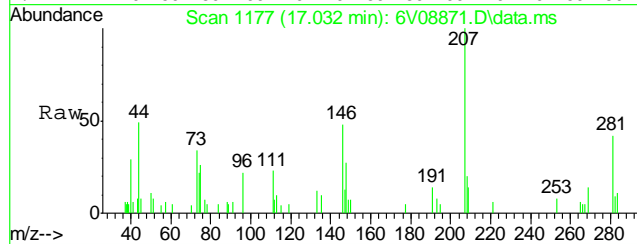
Tgt Ion:	119	Resp:	7206
Ion Ratio	Lower	Upper	
119	100		
134	28.1	19.3	28.9
91	23.1	21.1	31.7





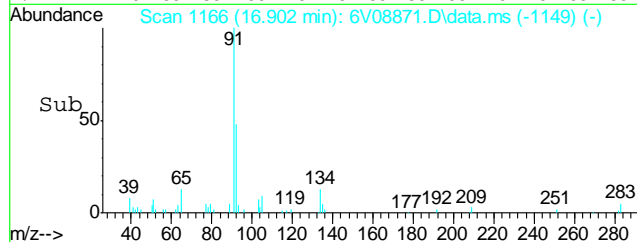
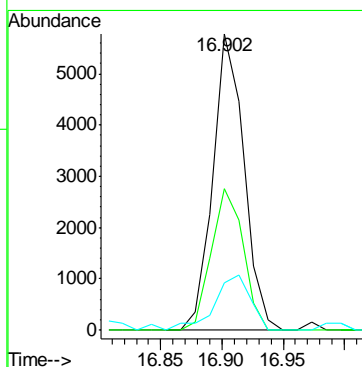
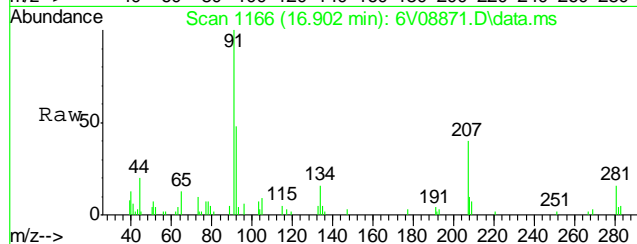
#87
1,2-Dichlorobenzene
Concen: 0.27 ug/l
RT: 17.032 min Scan# 1177
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

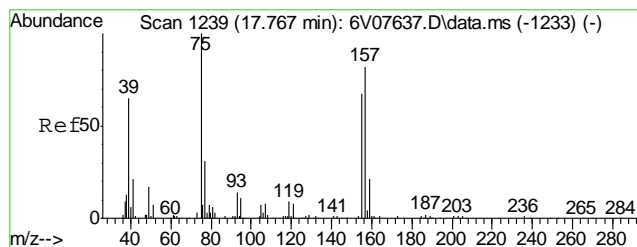
Tgt Ion:	146	Resp:	2073
Ion Ratio	Lower	Upper	
146	100		
111	59.2	35.4	53.0#
148	61.0	51.5	77.3



#88
n-Butylbenzene
Concen: 0.70 ug/l
RT: 16.902 min Scan# 1166
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

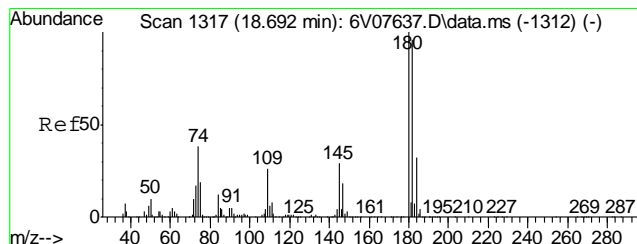
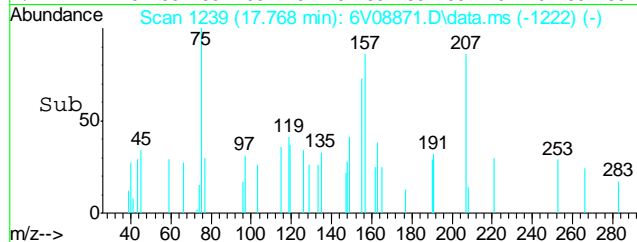
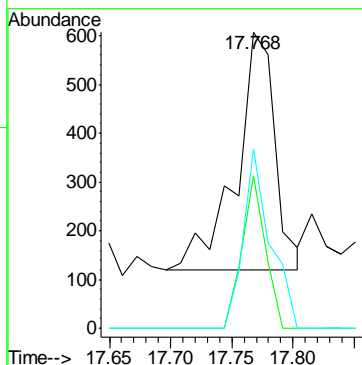
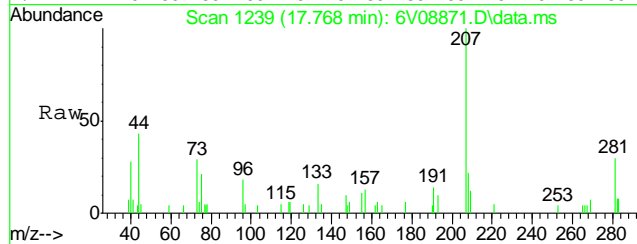
Tgt Ion:	91	Resp:	10185
Ion Ratio	Lower	Upper	
91	100		
92	49.0	42.9	64.3
134	21.3	16.8	25.2





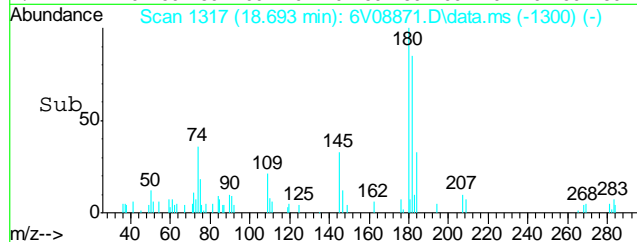
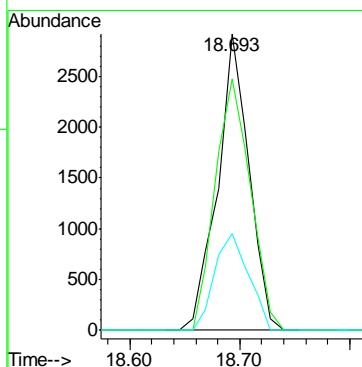
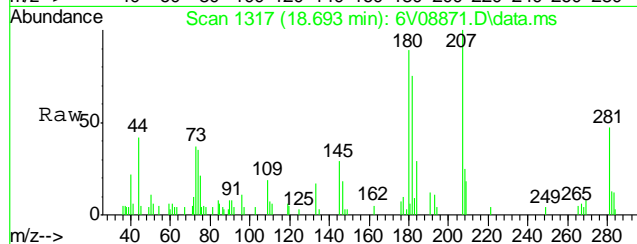
#89
1,2-Dibromo-3-chloropropane
Concen: 0.83 ug/l
RT: 17.768 min Scan# 1239
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

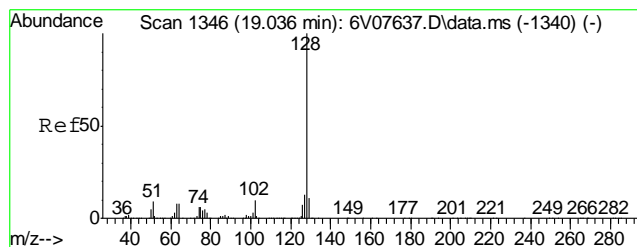
Tgt Ion:	75	Resp:	1064
Ion Ratio	Lower	Upper	
75	100		
155	38.5	53.6	80.4#
157	53.0	68.8	103.2#



#90
1,2,4-Trichlorobenzene
Concen: 1.25 ug/l
RT: 18.693 min Scan# 1317
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

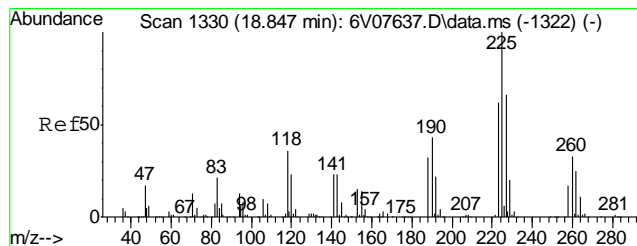
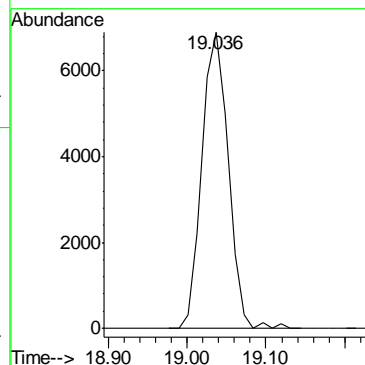
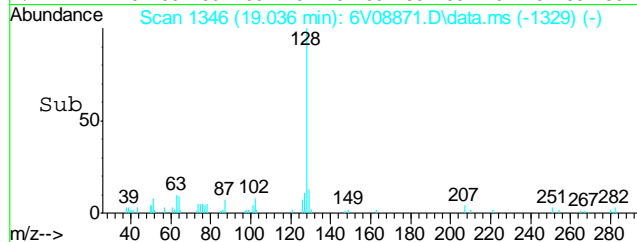
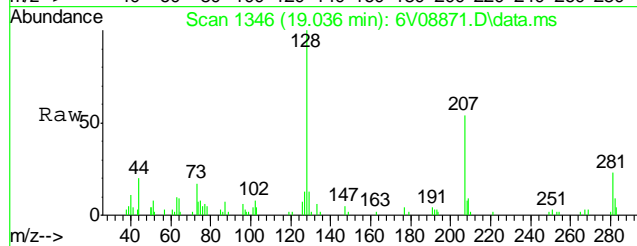
Tgt Ion:	180	Resp:	5804
Ion Ratio	Lower	Upper	
180	100		
182	95.3	77.0	115.4
145	35.2	22.8	34.2#





#91
Naphthalene
Concen: 1.44 ug/l
RT: 19.036 min Scan# 1346
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

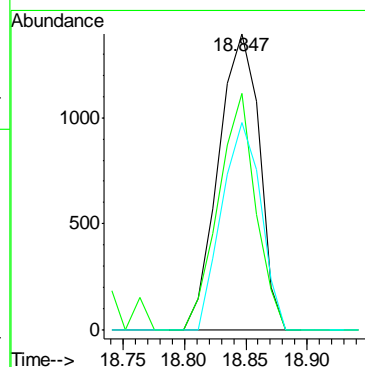
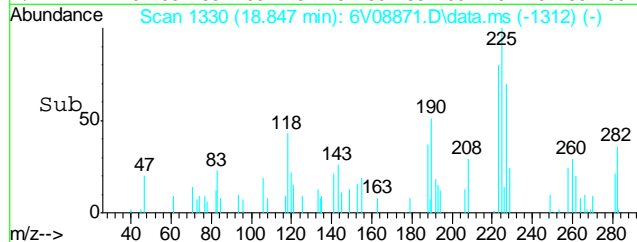
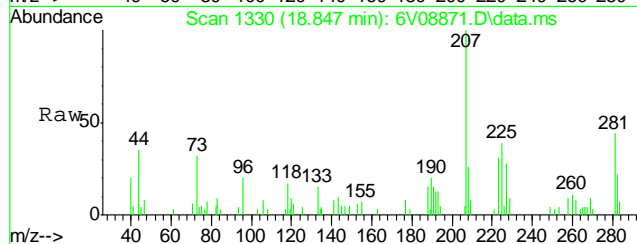
Tgt Ion:128 Resp: 16084

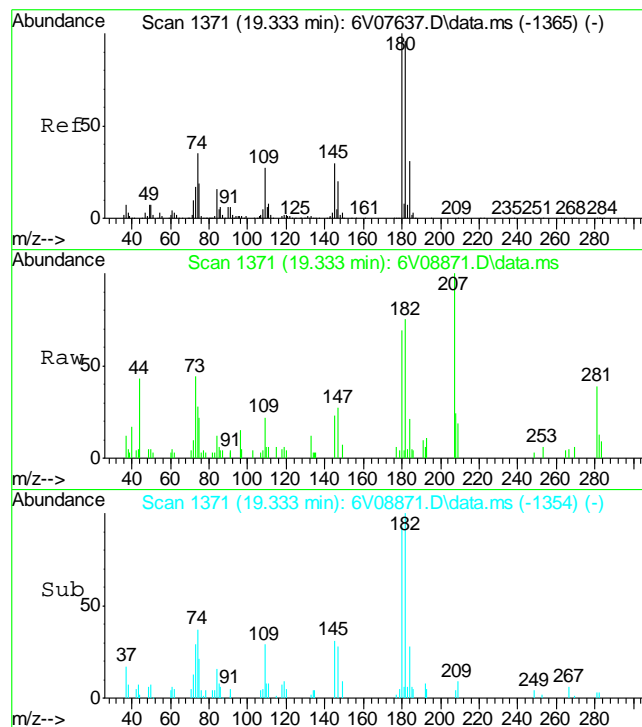


#92
Hexachlorobutadiene
Concen: 1.61 ug/l
RT: 18.847 min Scan# 1330
Delta R.T. 0.012 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

Tgt Ion:225 Resp: 3241

Ion	Ratio	Lower	Upper
225	100		
223	73.0	51.7	77.5
227	66.8	51.9	77.9





#93
1,2,3-Trichlorobenzene
Concen: 1.55 ug/l
RT: 19.333 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 6V08871.D
Acq: 6 Oct 2011 9:41 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
142	0.0	0.1	0.1#
145	31.7	23.0	34.4

