



06/04/12

Technical Report for

XTO Energy

PCU 296-7A

1007-02

Accutest Job Number: D34860

Sampling Date: 05/24/12

Report to:

KRW Consulting, Inc.
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Lakewood, CO 80214
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jhess@krwconsulting.com; crachak@krwconsulting.com;
ATTN: Dwayne Knudson

Total number of pages in report: 66



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: Renea Jackson 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

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Test results relate only to samples analyzed.

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Sample Summary

XTO Energy

Job No: D34860

PCU 296-7A
Project No: 1007-02

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D34860-1	05/24/12	11:00	DS	05/26/12	SO	Soil	RP EXCAVATION CRUSHED 5/21
D34860-2	05/24/12	11:10	DS	05/26/12	SO	Soil	RP EXCAVATION CRUSHED 5/22
D34860-3	05/24/12	11:15	DS	05/26/12	SO	Soil	RP EXCAVATION CRUSHED 5/23
D34860-4	05/24/12	11:25	DS	05/26/12	SO	Soil	RP EXCAVATION CRUSHED 5/24

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



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D34860

Site: PCU 296-7A

Report Date 6/4/2012 8:09:08 AM

On 05/26/2012, 4 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.2 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D34860 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 GC By Method SW846 8015B

Matrix SO

Batch ID: GGB898

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D34773-1MS, D34773-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP5972

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D34860-2MS, D34860-2MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN15150

- 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

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Client Sample ID:	RP EXCAVATION CRUSHED 5/21			Date Sampled:	05/24/12
Lab Sample ID:	D34860-1			Date Received:	05/26/12
Matrix:	SO - Soil			Percent Solids:	90.3
Method:	SW846 8015B				
Project:	PCU 296-7A				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16154.D	1	05/30/12	BR	n/a	n/a	GGB898
Run #2							

Run #	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)	9.56	12	6.0	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

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Client Sample ID:	RP EXCAVATION CRUSHED 5/21					Date Sampled:	05/24/12
Lab Sample ID:	D34860-1					Date Received:	05/26/12
Matrix:	SO - Soil					Percent Solids:	90.3
Method:	SW846-8015B SW846 3546						
Project:	PCU 296-7A						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13792.D	1	05/31/12	AV	05/29/12	OP5972	GFD730
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)	1720	15	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	66%		43-136%		

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

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Client Sample ID:	RP EXCAVATION CRUSHED 5/22					Date Sampled:	05/24/12
Lab Sample ID:	D34860-2					Date Received:	05/26/12
Matrix:	SO - Soil					Percent Solids:	89.5
Method:	SW846 8015B						
Project:	PCU 296-7A						

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16155.D	1	05/30/12	BR	n/a	n/a	GGB898
Run #2							

Run #	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)	11.1	12	6.1	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

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Client Sample ID:	RP EXCAVATION CRUSHED 5/22				Date Sampled:	05/24/12
Lab Sample ID:	D34860-2				Date Received:	05/26/12
Matrix:	SO - Soil				Percent Solids:	89.5
Method:	SW846-8015B SW846 3546					
Project:	PCU 296-7A					

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13793.D	1	05/31/12	AV	05/29/12	OP5972	GFD730
Run #2							

Run #	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)	1540	15	9.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	75%		43-136%		

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:	RP EXCAVATION CRUSHED 5/23					Date Sampled:	05/24/12
Lab Sample ID:	D34860-3					Date Received:	05/26/12
Matrix:	SO - Soil					Percent Solids:	86.6
Method:	SW846 8015B						
Project:	PCU 296-7A						

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16156.D	1	05/30/12	BR	n/a	n/a	GGB898
Run #2							

Run #	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)	7.35	13	6.5	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

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Client Sample ID:	RP EXCAVATION CRUSHED 5/23				Date Sampled:	05/24/12
Lab Sample ID:	D34860-3				Date Received:	05/26/12
Matrix:	SO - Soil				Percent Solids:	86.6
Method:	SW846-8015B SW846 3546					
Project:	PCU 296-7A					

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13794.D	1	05/31/12	AV	05/29/12	OP5972	GFD730
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)	986	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	61%		43-136%		

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:	RP EXCAVATION CRUSHED 5/24					Date Sampled:	05/24/12
Lab Sample ID:	D34860-4					Date Received:	05/26/12
Matrix:	SO - Soil					Percent Solids:	86.5
Method:	SW846 8015B						
Project:	PCU 296-7A						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16157.D	1	05/30/12	BR	n/a	n/a	GGB898
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	101%		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:	RP EXCAVATION CRUSHED 5/24				Date Sampled:	05/24/12
Lab Sample ID:	D34860-4				Date Received:	05/26/12
Matrix:	SO - Soil				Percent Solids:	86.5
Method:	SW846-8015B SW846 3546					
Project:	PCU 296-7A					

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13796.D	1	05/31/12	AV	05/29/12	OP5972	GFD730
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)	800	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	70%		43-136%		

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]

D34860: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D34860

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 5/26/2012 10:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO 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 Volatiles

5

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

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Job Number: D34860

Account: XTOKRWR XTO Energy

Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB898-MB	GB16149.D	1	05/30/12	BR	n/a	n/a	GGB898

The QC reported here applies to the following samples:

Method: SW846 8015B

D34860-1, D34860-2, D34860-3, D34860-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	9.9	4.9	mg/kg	

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

Blank Spike Summary

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Job Number: D34860
Account: XTOKRWR XTO Energy
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB898-BS	GB16150.D	1	05/30/12	BR	n/a	n/a	GGB898

The QC reported here applies to the following samples:

Method: SW846 8015B

D34860-1, D34860-2, D34860-3, D34860-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	109	108	99	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: D34860
Account: XTOKRWR XTO Energy
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34773-1MS	GB16152.D	1	05/30/12	BR	n/a	n/a	GGB898
D34773-1MSD	GB16153.D	1	05/30/12	BR	n/a	n/a	GGB898
D34773-1	GB16151.D	1	05/30/12	BR	n/a	n/a	GGB898

The QC reported here applies to the following samples:

Method: SW846 8015B

D34860-1, D34860-2, D34860-3, D34860-4

CAS No.	Compound	D34773-1 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	144	142	99	138	96	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D34773-1	Limits
120-82-1	1,2,4-Trichlorobenzene	112%	111%	100%	60-140%

GC Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16154.D\FID1A.CH Vial: 39
Signal #2 : Y:\1\DATA\052912\GB16154.D\FID2B.CH
Acq On : 30 May 2012 10:01 am Operator: BRIANR
Sample : D34860-1, 50X Inst : GC/MS Ins
Misc : GC2866,GGB898,5.063,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 13:34:00 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:46:04 2012
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

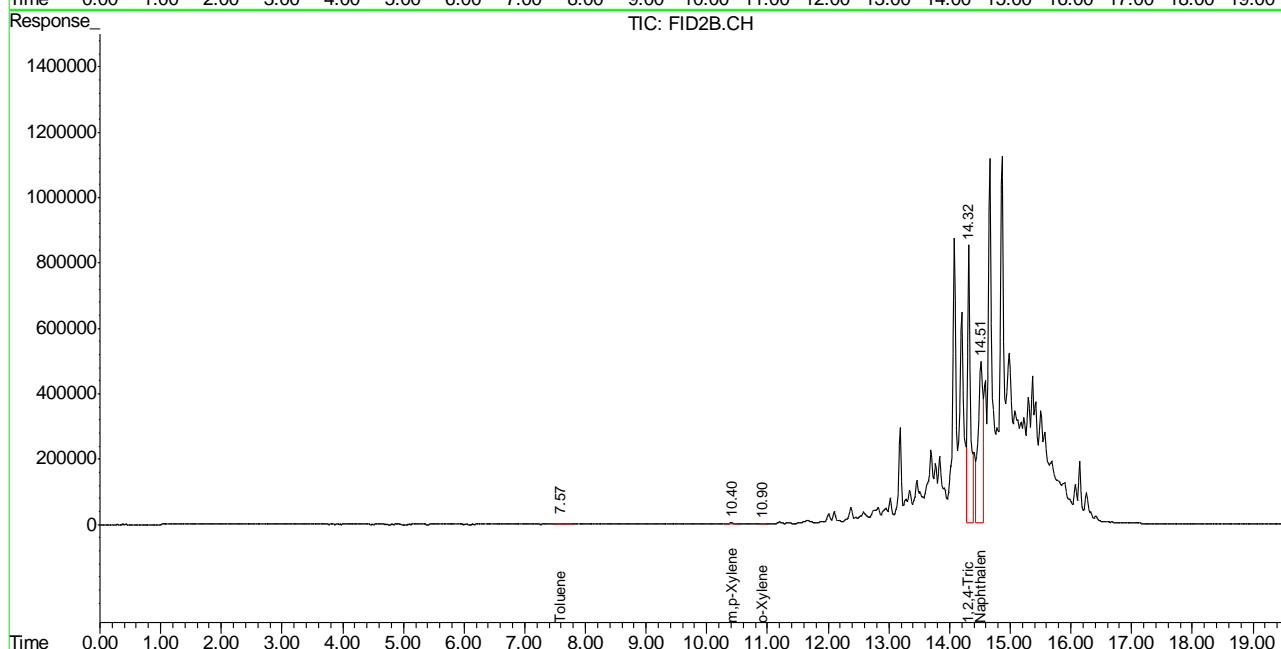
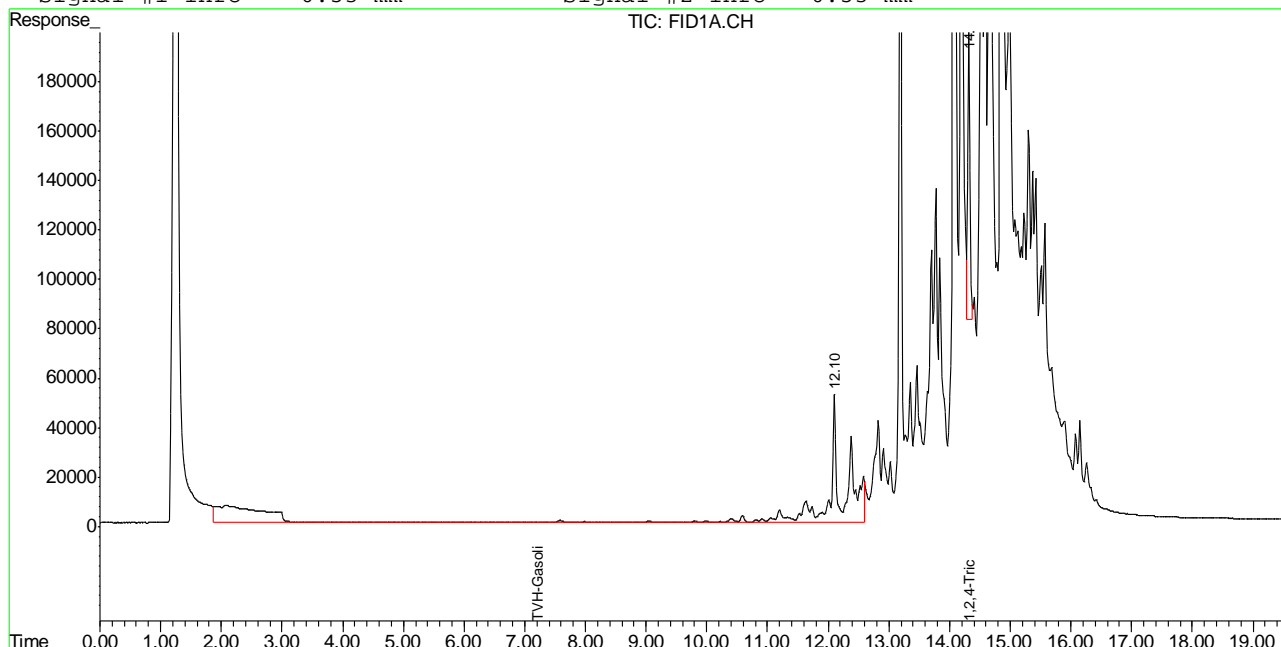
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.32	2982756	95.192 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.32	28595672	175.944 %	
Target Compounds					
1) H	TVH-Gasoline	7.23	12109923	0.159 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.58	200082	0.505 ug/L	
7) T	Ethylbenzene	0.00	0	N.D. ug/L	d
8) T	m,p-Xylene	10.40	272229	0.372 ug/L	
9) T	o-Xylene	10.91	95398	0.291 ug/L	
11) T	Naphthalene	14.52	26811848	135.888 ug/L	

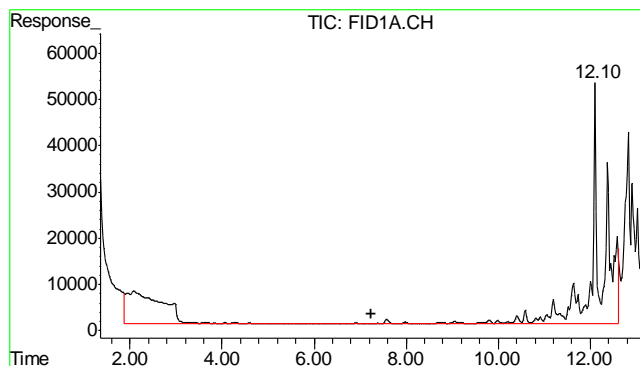
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16154.D\FID1A.CH Vial: 39
 Signal #2 : Y:\1\DATA\052912\GB16154.D\FID2B.CH
 Acq On : 30 May 2012 10:01 am Operator: BRIANR
 Sample : D34860-1, 50X Inst : GC/MS Ins
 Misc : GC2866,GGB898,5.063,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 30 12:38 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed May 30 09:46:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

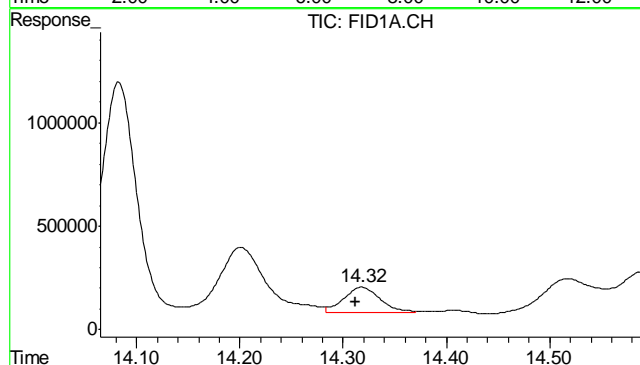
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





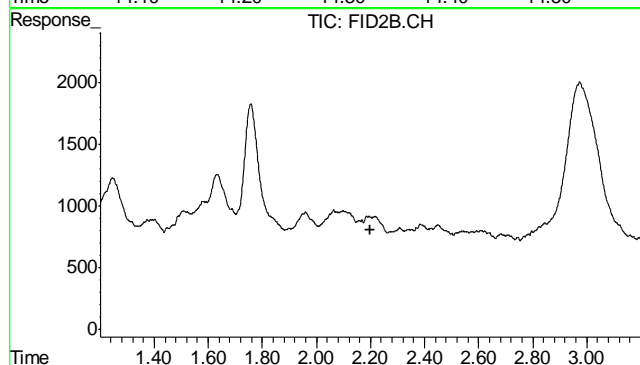
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 12109923
Conc: 0.16 mg/L m



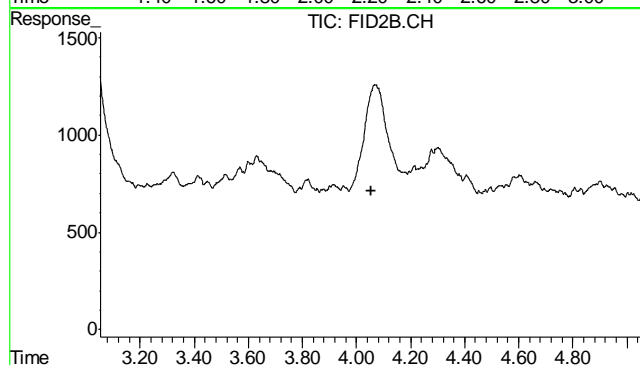
#2 1,2,4-Trichlorobenzene

R.T.: 14.318 min
Delta R.T.: 0.006 min
Response: 2982756
Conc: 95.19 % m



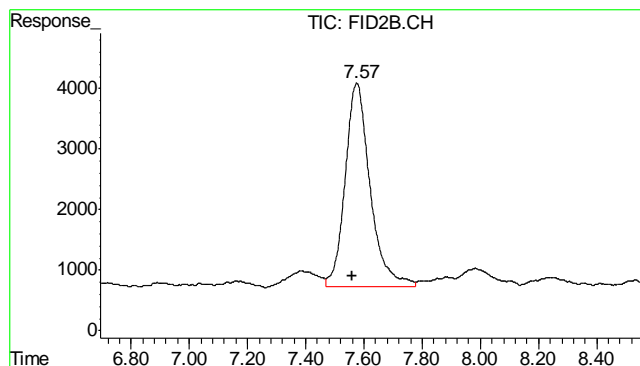
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.201 min
Response: 0
Conc: N.D.



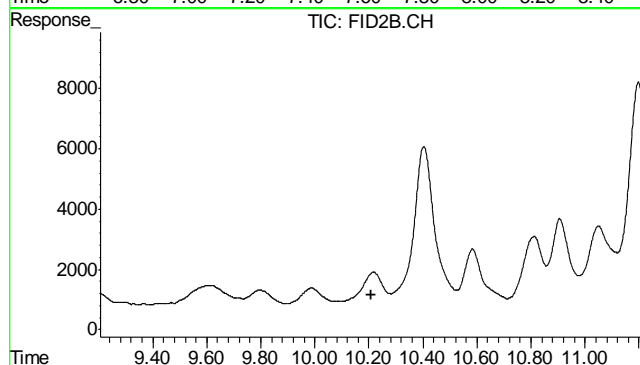
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.053 min
Response: 0
Conc: N.D.



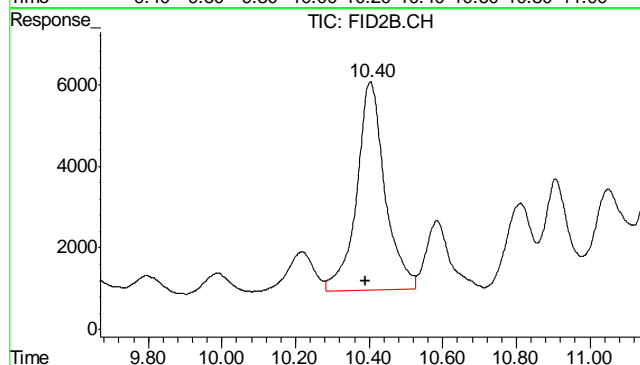
#6 Toluene

R.T.: 7.576 min
Delta R.T.: 0.016 min
Response: 200082
Conc: 0.50 ug/L



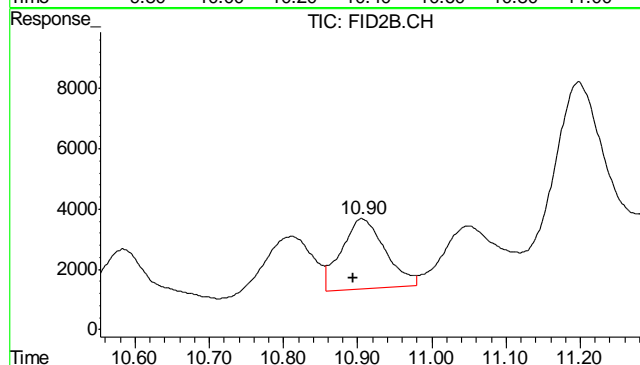
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.207 min
Response: 0
Conc: N.D.



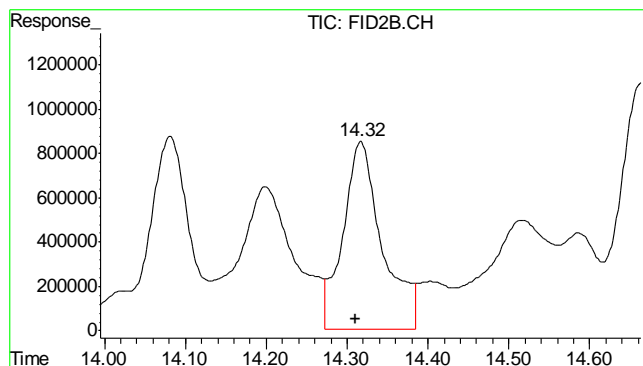
#8 m,p-Xylene

R.T.: 10.403 min
Delta R.T.: 0.012 min
Response: 272229
Conc: 0.37 ug/L



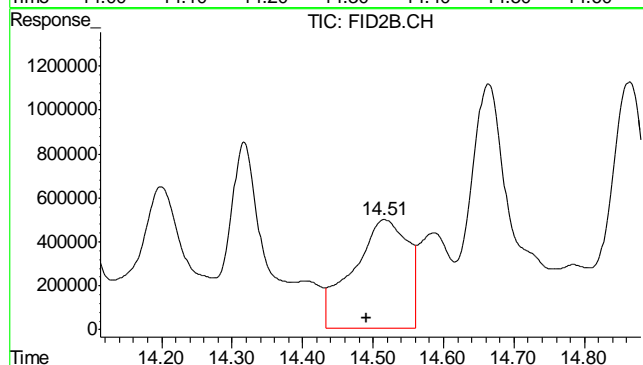
#9 o-Xylene

R.T.: 10.907 min
Delta R.T.: 0.012 min
Response: 95398
Conc: 0.29 ug/L



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

R.T.: 14.317 min
Delta R.T.: 0.007 min
Response: 28595672
Conc: 175.94 %



#11 Naphthalene

R.T.: 14.517 min
Delta R.T.: 0.025 min
Response: 26811848
Conc: 135.89 ug/L

6.1.1

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16155.D\FID1A.CH Vial: 40
Signal #2 : Y:\1\DATA\052912\GB16155.D\FID2B.CH
Acq On : 30 May 2012 10:36 am Operator: BRIANR
Sample : D34860-2, 50X Inst : GC/MS Ins
Misc : GC2866,GGB898,5.091,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 13:34:04 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:46:04 2012
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

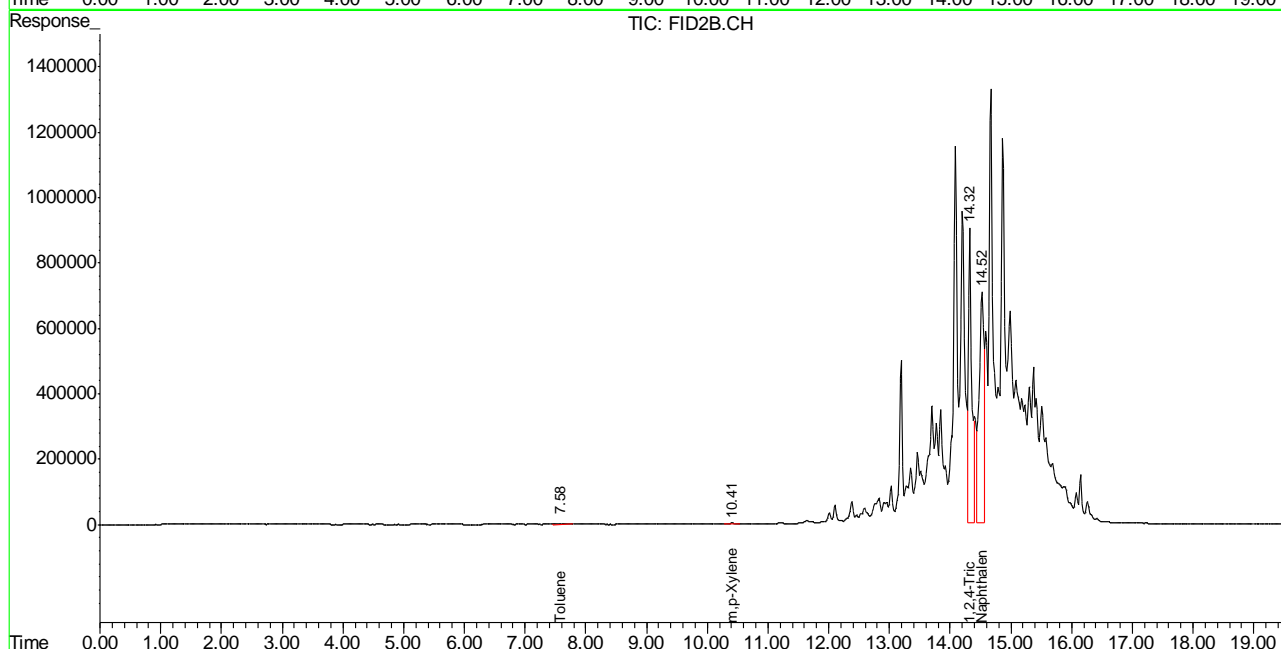
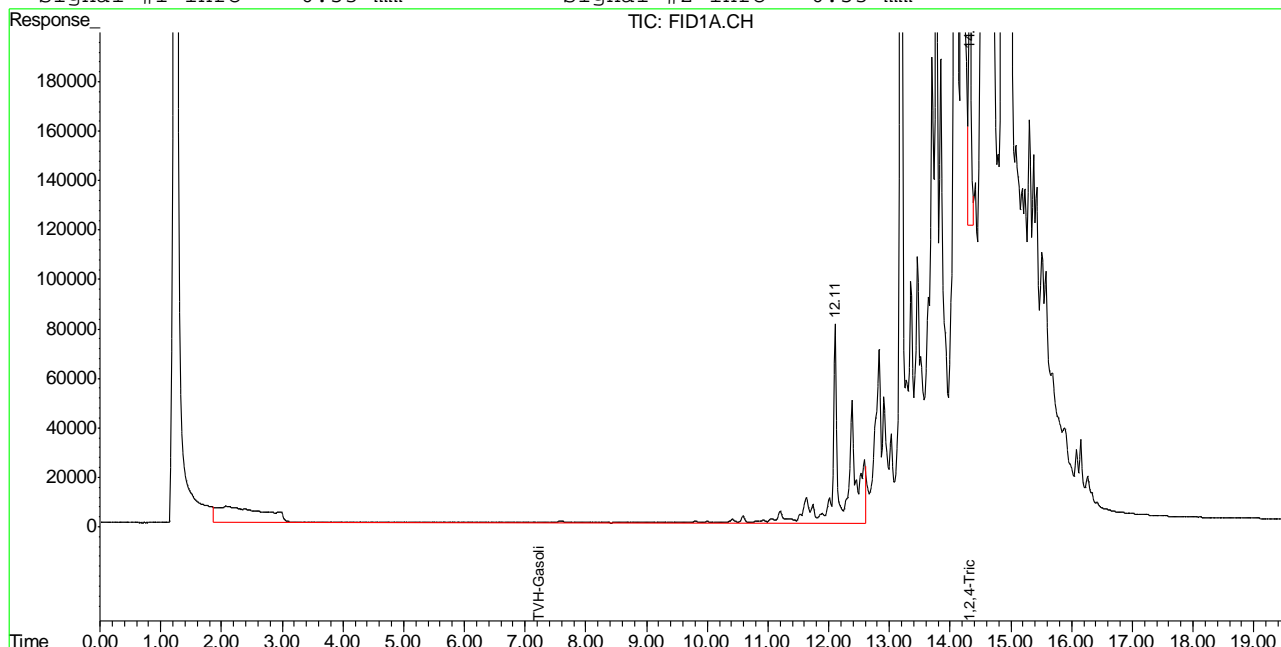
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.32	3219910	102.761 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.32	33986624	209.113 %	
Target Compounds				
1) H TVH-Gasoline	7.23	13621854	0.183 mg/L	
4) T Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T Benzene	0.00	0	N.D. ug/L	d
6) T Toluene	7.58	169229	0.427 ug/L	
7) T Ethylbenzene	0.00	0	N.D. ug/L	d
8) T m,p-Xylene	10.41	232345	0.263 ug/L	
9) T o-Xylene	0.00	0	N.D. ug/L	d
11) T Naphthalene	14.52	39796633	201.697 ug/L	

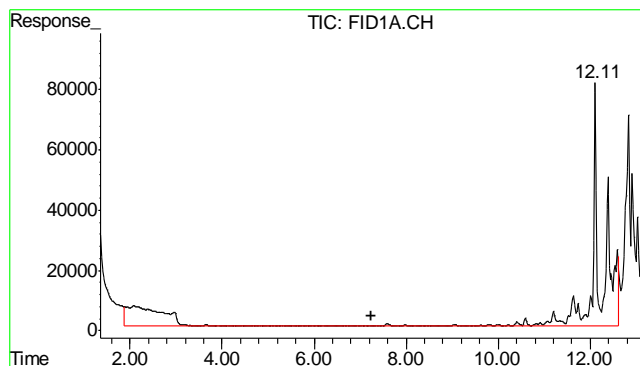
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16155.D\FID1A.CH Vial: 40
 Signal #2 : Y:\1\DATA\052912\GB16155.D\FID2B.CH
 Acq On : 30 May 2012 10:36 am Operator: BRIANR
 Sample : D34860-2, 50X Inst : GC/MS Ins
 Misc : GC2866,GGB898,5.091,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 30 12:39 2012 Quant Results File: TB868GB868SOIL.RES

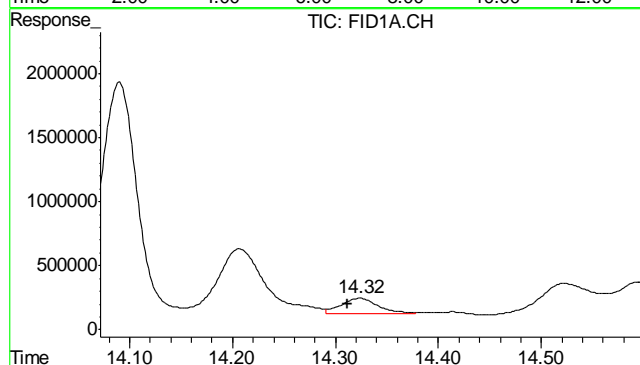
Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed May 30 09:46:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

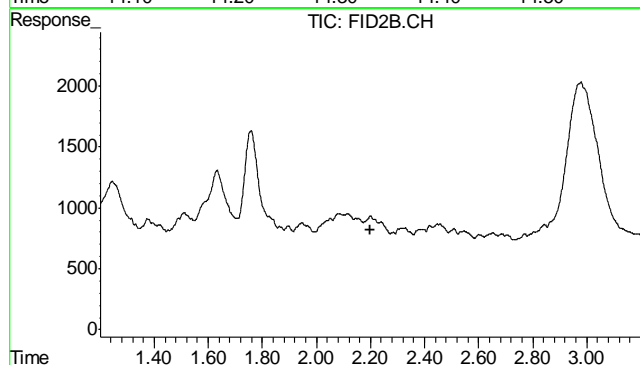




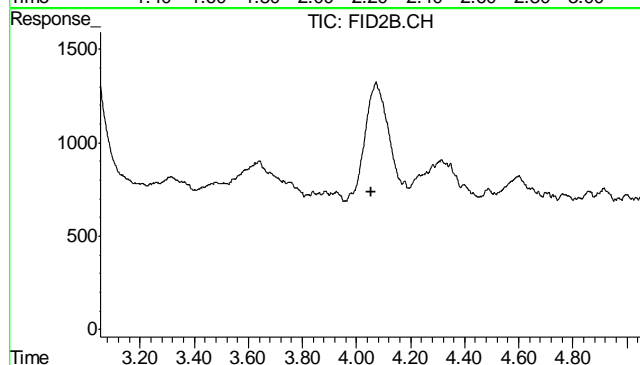
#1 TVH-Gasoline
 R.T.: 7.230 min
 Delta R.T.: 0.000 min
 Response: 13621854
 Conc: 0.18 mg/L m



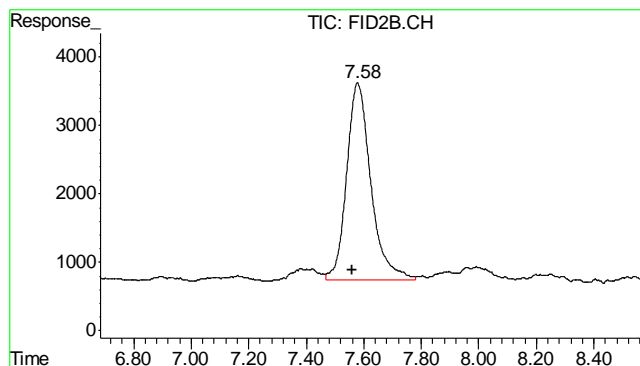
#2 1,2,4-Trichlorobenzene
 R.T.: 14.323 min
 Delta R.T.: 0.011 min
 Response: 3219910
 Conc: 102.76 % m



#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.201 min
 Response: 0
 Conc: N.D.

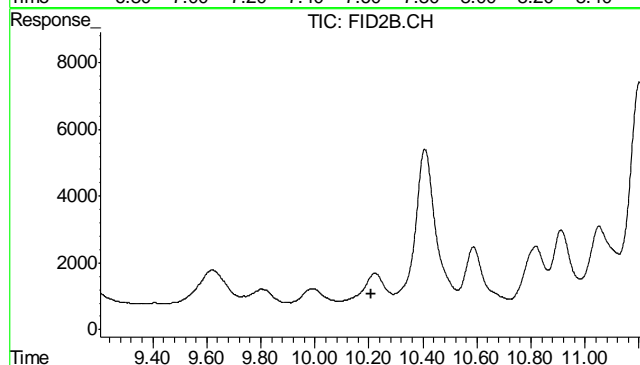


#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.053 min
 Response: 0
 Conc: N.D.



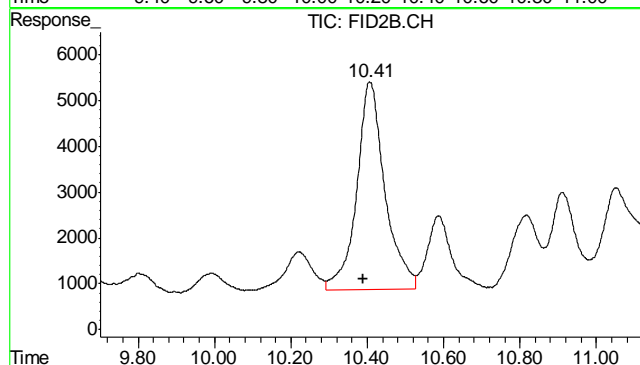
#6 Toluene

R.T.: 7.579 min
Delta R.T.: 0.019 min
Response: 169229
Conc: 0.43 ug/L



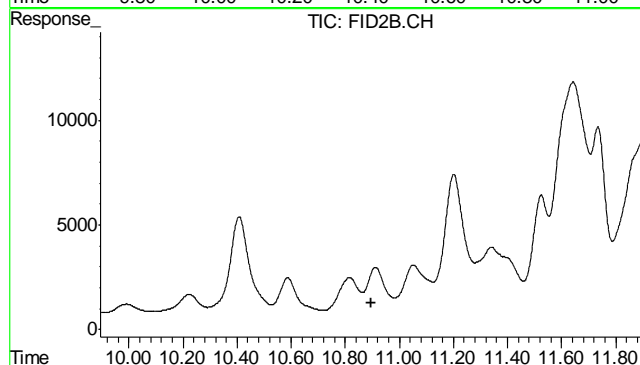
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.207 min
Response: 0
Conc: N.D.



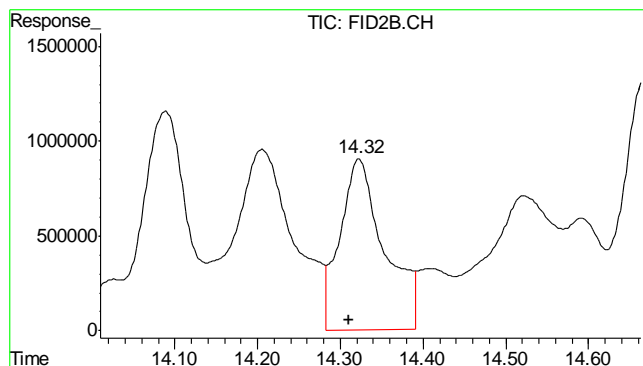
#8 m,p-Xylene

R.T.: 10.407 min
Delta R.T.: 0.016 min
Response: 232345
Conc: 0.26 ug/L



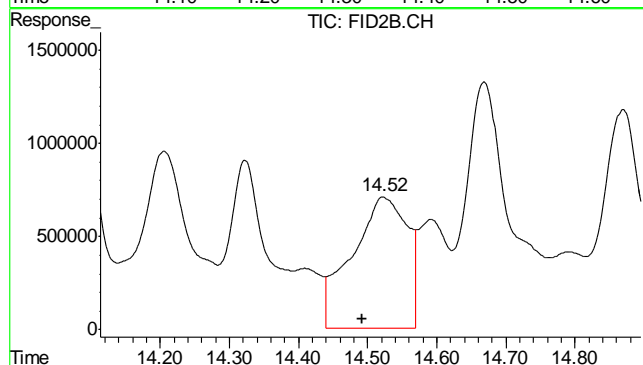
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 10.895 min
Response: 0
Conc: N.D.



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

R.T.: 14.323 min
Delta R.T.: 0.012 min
Response: 33986624
Conc: 209.11 %



#11 Naphthalene

R.T.: 14.523 min
Delta R.T.: 0.031 min
Response: 39796633
Conc: 201.70 ug/L

6.1.2
6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16156.D\FID1A.CH Vial: 41
Signal #2 : Y:\1\DATA\052912\GB16156.D\FID2B.CH
Acq On : 30 May 2012 11:12 am Operator: BRIANR
Sample : D34860-3, 50X Inst : GC/MS Ins
Misc : GC2866,GGB898,5.014,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 13:34:08 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:46:04 2012
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

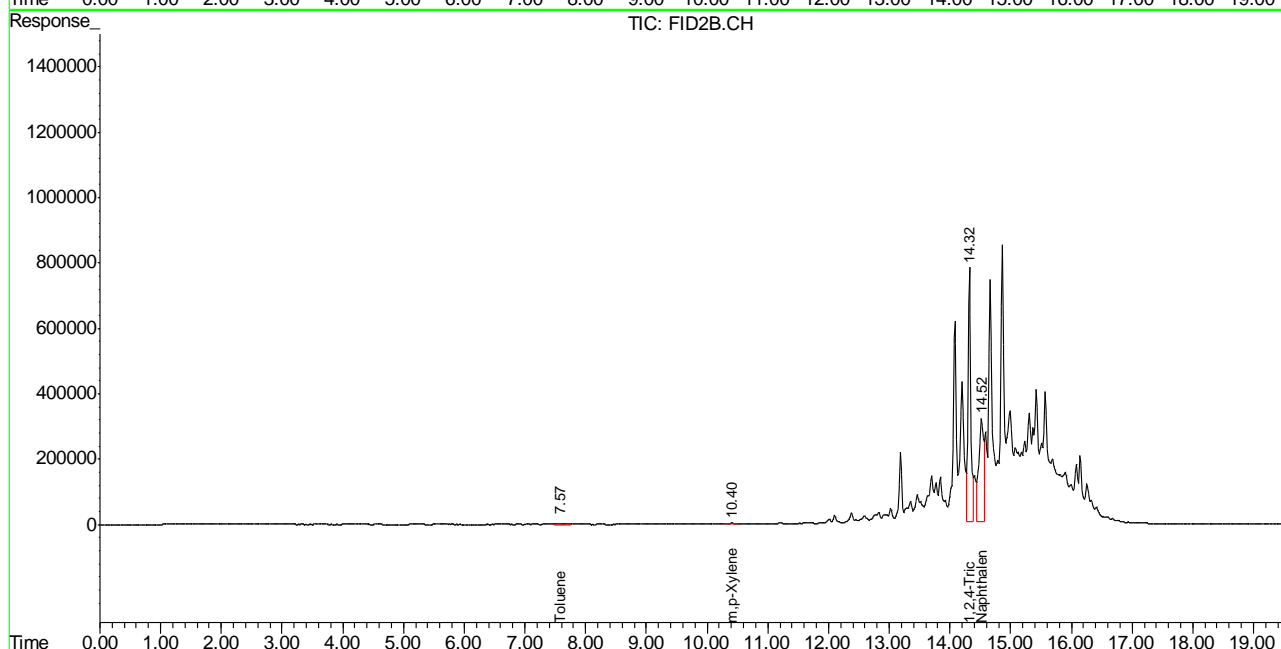
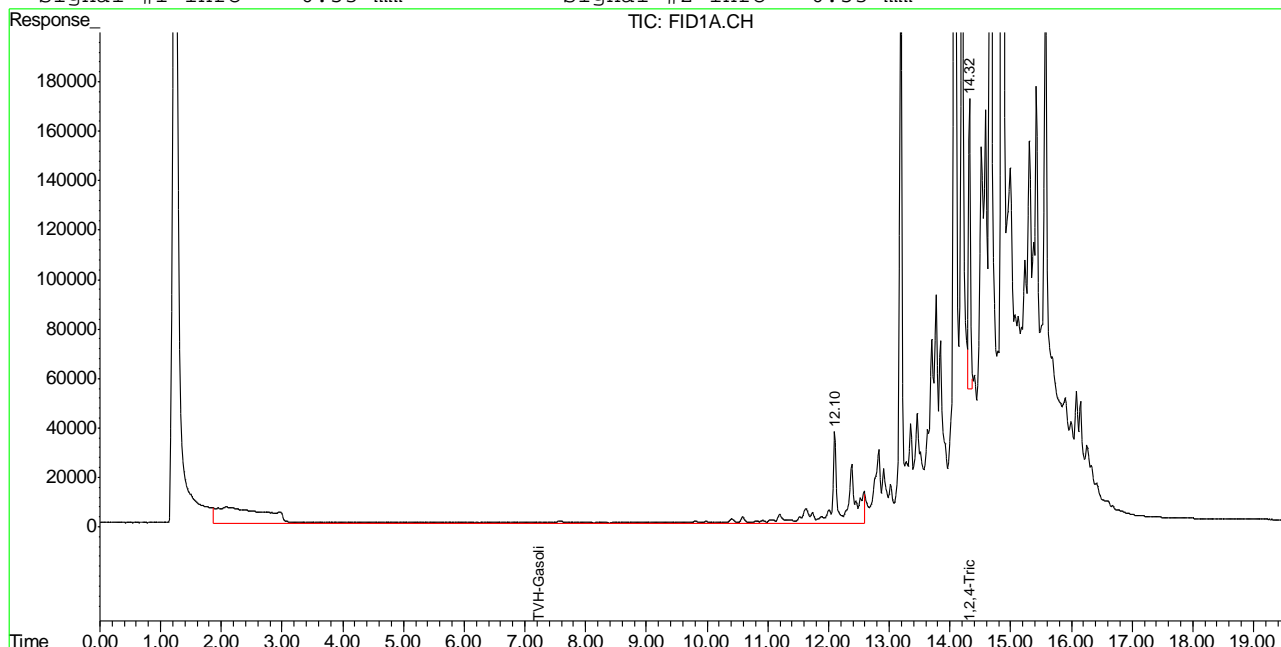
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.32	2835765	90.501 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.32	23938240	147.287 %	
Target Compounds					
1) H	TVH-Gasoline	7.23	9184070	0.113 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.57	180958	0.457 ug/L	
7) T	Ethylbenzene	0.00	0	N.D. ug/L	d
8) T	m,p-Xylene	10.40	229239	0.254 ug/L	
9) T	o-Xylene	0.00	0	N.D. ug/L	d
11) T	Naphthalene	14.52	17079611	86.563 ug/L	

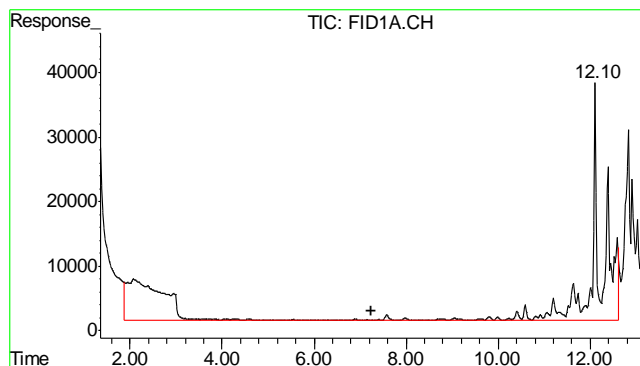
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16156.D\FID1A.CH Vial: 41
 Signal #2 : Y:\1\DATA\052912\GB16156.D\FID2B.CH
 Acq On : 30 May 2012 11:12 am Operator: BRIANR
 Sample : D34860-3, 50X Inst : GC/MS Ins
 Misc : GC2866,GGB898,5.014,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 30 12:39 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed May 30 09:46:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

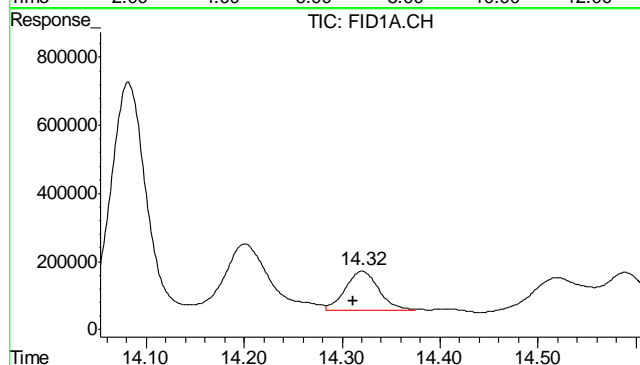
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





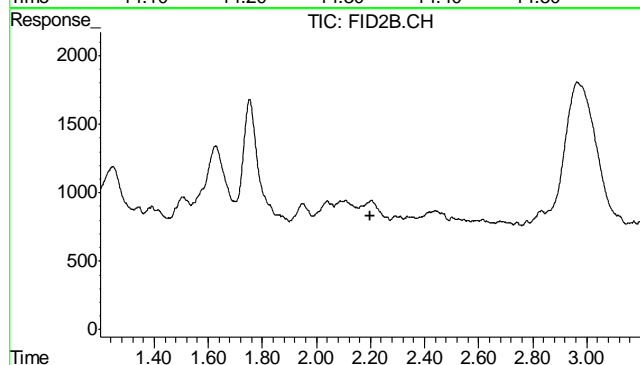
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 9184070
Conc: 0.11 mg/L m



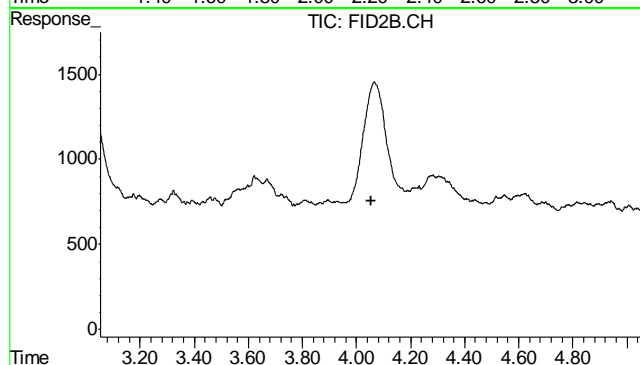
#2 1,2,4-Trichlorobenzene

R.T.: 14.320 min
Delta R.T.: 0.008 min
Response: 2835765
Conc: 90.50 % m



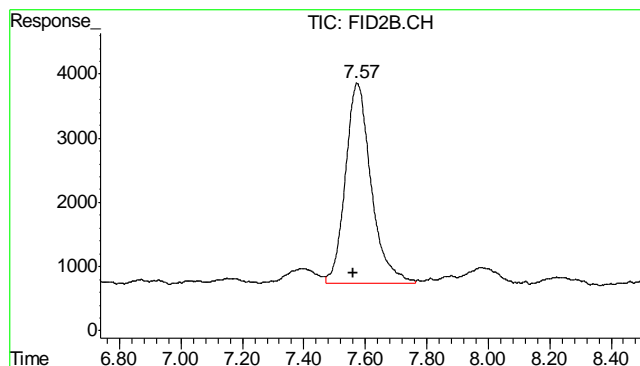
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.201 min
Response: 0
Conc: N.D.



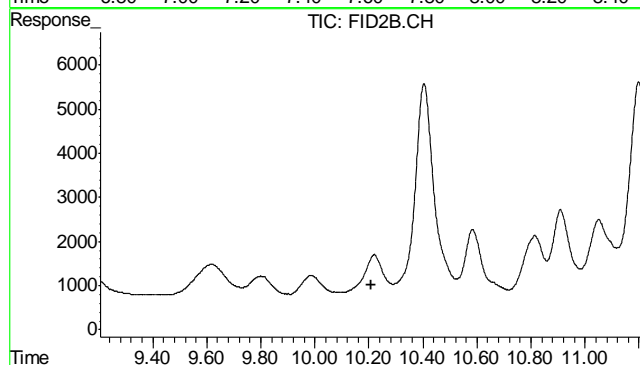
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.053 min
Response: 0
Conc: N.D.



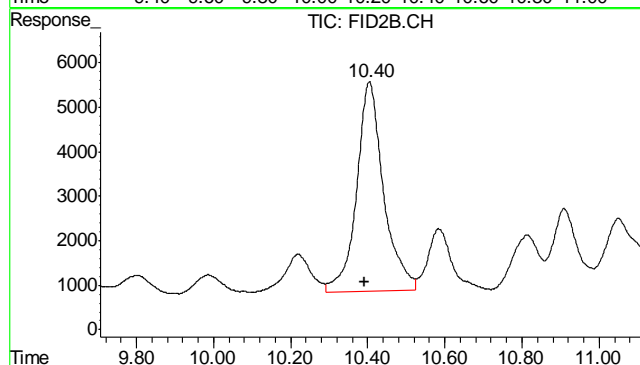
#6 Toluene

R.T.: 7.574 min
Delta R.T.: 0.014 min
Response: 180958
Conc: 0.46 ug/L



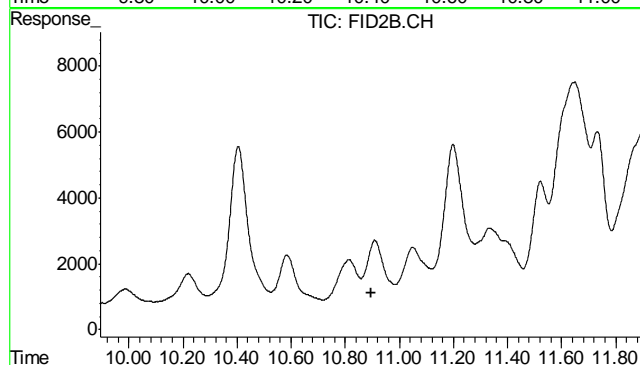
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.207 min
Response: 0
Conc: N.D.



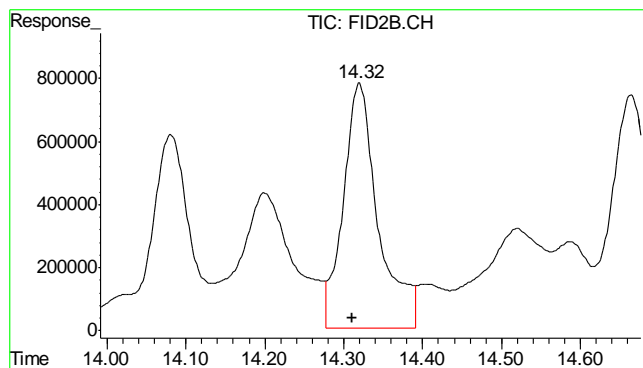
#8 m,p-Xylene

R.T.: 10.404 min
Delta R.T.: 0.013 min
Response: 229239
Conc: 0.25 ug/L



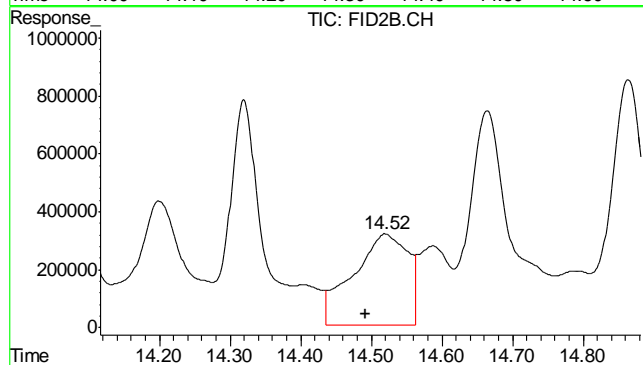
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 10.895 min
Response: 0
Conc: N.D.



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

R.T.: 14.320 min
 Delta R.T.: 0.010 min
 Response: 23938240
 Conc: 147.29 %



#11 Naphthalene

R.T.: 14.521 min
 Delta R.T.: 0.029 min
 Response: 17079611
 Conc: 86.56 ug/L

6.1.3

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16157.D\FID1A.CH Vial: 42
Signal #2 : Y:\1\DATA\052912\GB16157.D\FID2B.CH
Acq On : 30 May 2012 11:47 am Operator: BRIANR
Sample : D34860-4, 50X Inst : GC/MS Ins
Misc : GC2866,GGB898,5.003,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 13:34:12 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:46:04 2012
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	

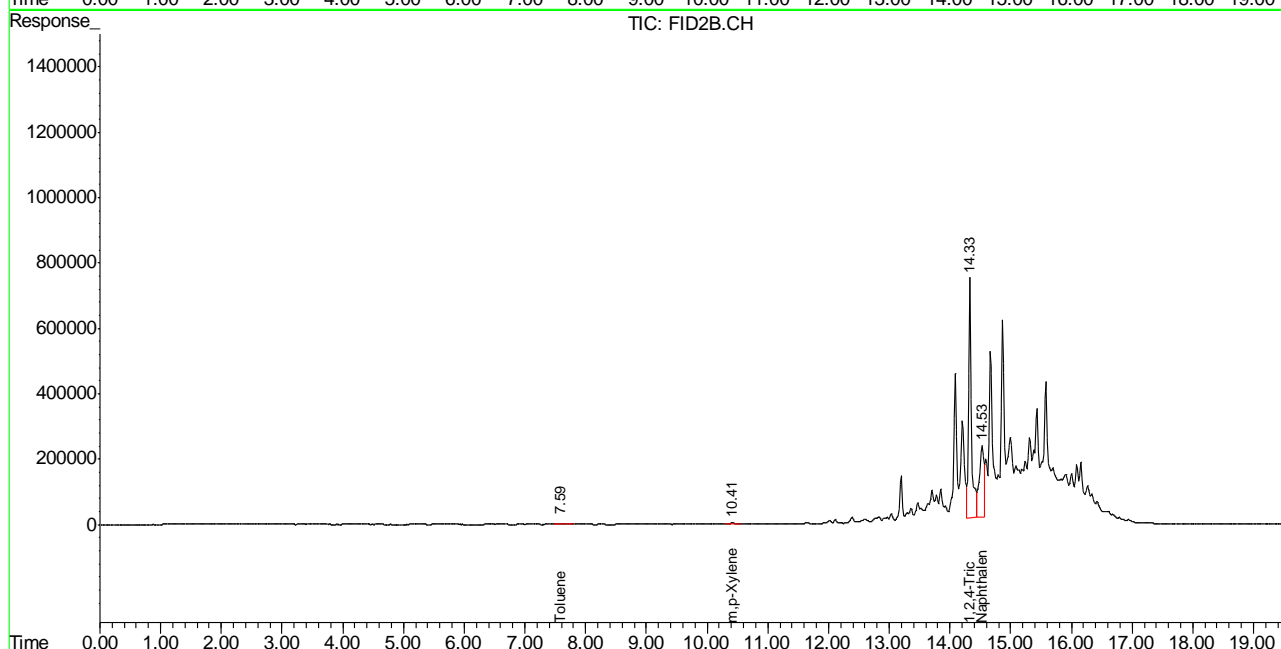
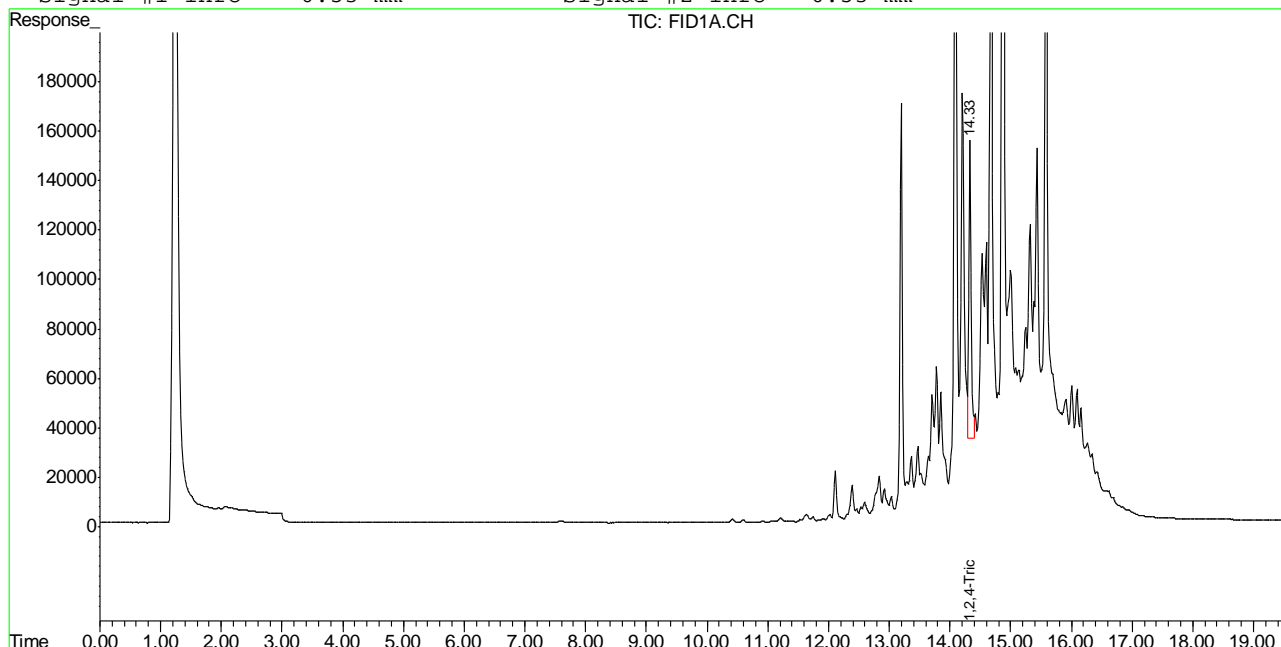
System Monitoring Compounds						
2) S	1,2,4-Trichlorobenzene	14.33	3157807	100.779 %	m	
10) S	1,2,4-Trichlorobenzene (P)	14.33	23274863	143.206 %		
Target Compounds						
1) H	TVH-Gasoline	7.23	7052299	<MDL	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	0.00	0	N.D.	ug/L	d
6) T	Toluene	7.59	178625	0.451	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	10.41	233094	0.265	ug/L	
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.53	11881151	60.216	ug/L	

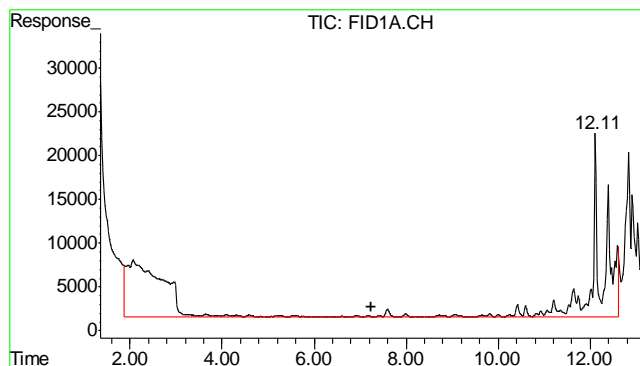
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16157.D\FID1A.CH Vial: 42
 Signal #2 : Y:\1\DATA\052912\GB16157.D\FID2B.CH
 Acq On : 30 May 2012 11:47 am Operator: BRIANR
 Sample : D34860-4, 50X Inst : GC/MS Ins
 Misc : GC2866,GGB898,5.003,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 30 12:39 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed May 30 09:46:04 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

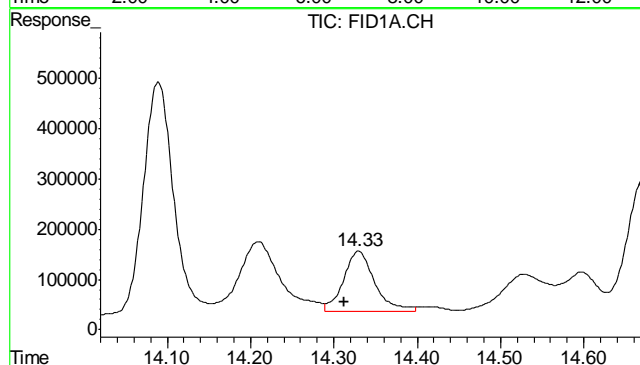
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





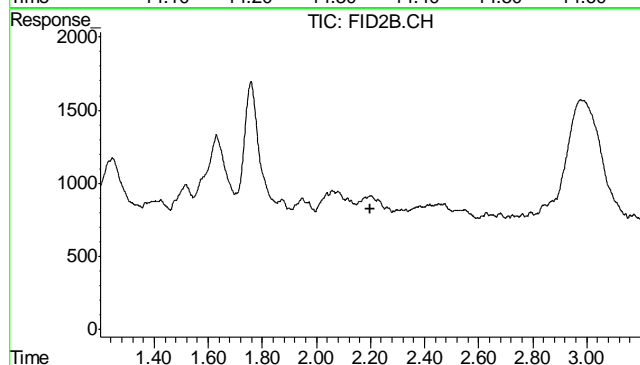
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 7052299
Conc: N.D.



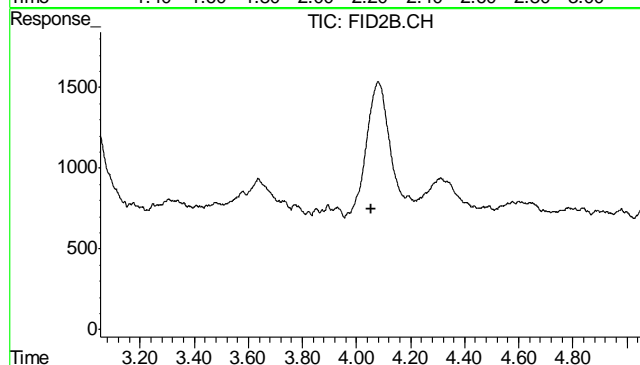
#2 1,2,4-Trichlorobenzene

R.T.: 14.329 min
Delta R.T.: 0.017 min
Response: 3157807
Conc: 100.78 % m



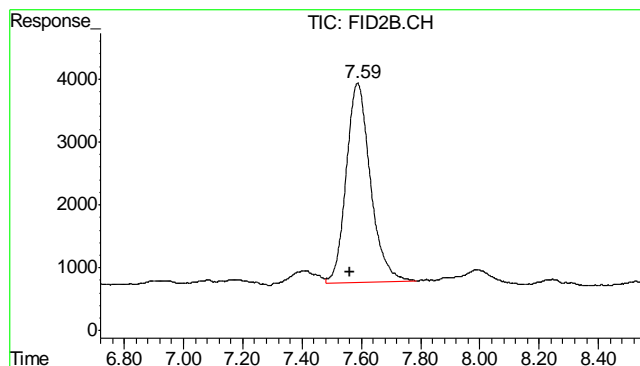
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.201 min
Response: 0
Conc: N.D.

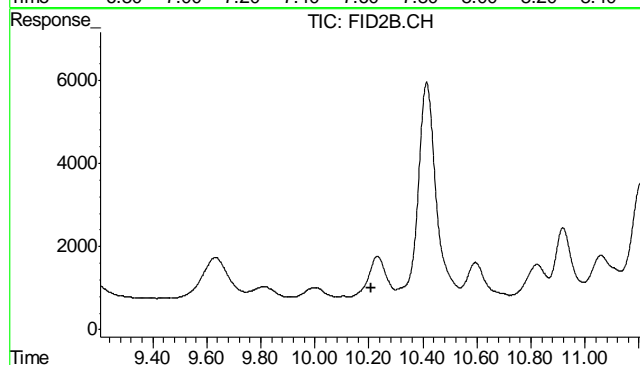


#5 Benzene

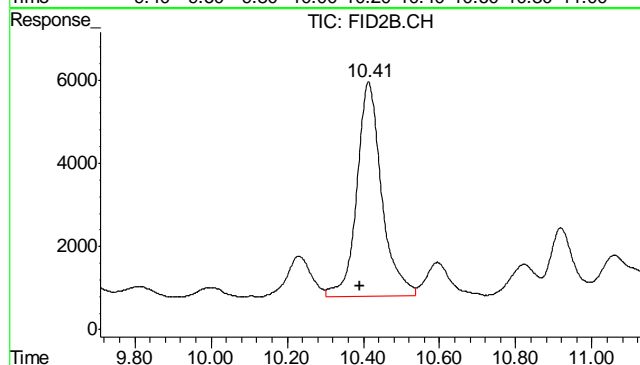
R.T.: 0.000 min
Exp R.T.: 4.053 min
Response: 0
Conc: N.D.



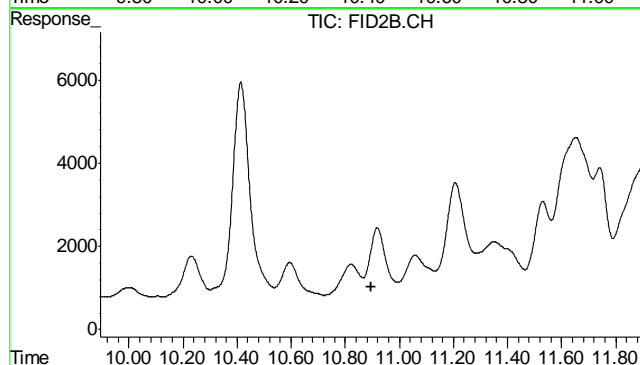
#6 Toluene
 R.T.: 7.588 min
 Delta R.T.: 0.028 min
 Response: 178625
 Conc: 0.45 ug/L



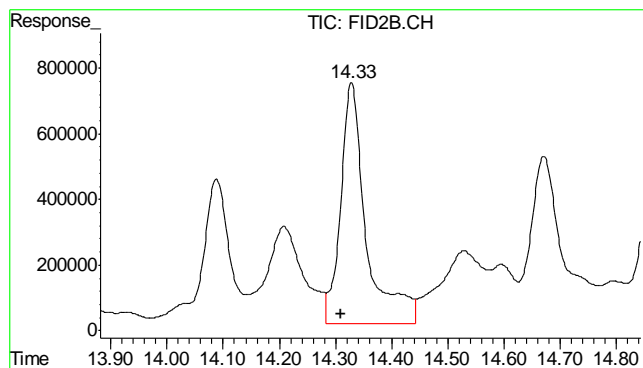
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.207 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 10.413 min
 Delta R.T.: 0.022 min
 Response: 233094
 Conc: 0.27 ug/L

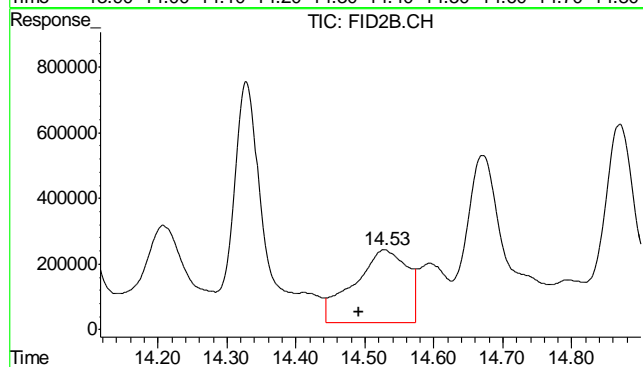


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.895 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.329 min
Delta R.T.: 0.018 min
Response: 23274863
Conc: 143.21 %



#11 Naphthalene

R.T.: 14.529 min
Delta R.T.: 0.037 min
Response: 11881151
Conc: 60.22 ug/L

6.1.4

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16149.D\FID1A.CH Vial: 34
 Signal #2 : Y:\1\DATA\052912\GB16149.D\FID2B.CH
 Acq On : 30 May 2012 7:06 am Operator: BRIANR
 Sample : MB, S Inst : GC/MS Ins
 Misc : GC2866,GGB898,5.054,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 30 13:33:40 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed May 30 09:46:04 2012
 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	14.32	3170819	101.194	%
10) S	1,2,4-Trichlorobenzene (P)	14.32	17816159	109.619	%
Target Compounds					
1) H	TVH-Gasoline	7.23	4691144	<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	7.58	145438	0.367	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	14.50	229850	1.165	ug/L

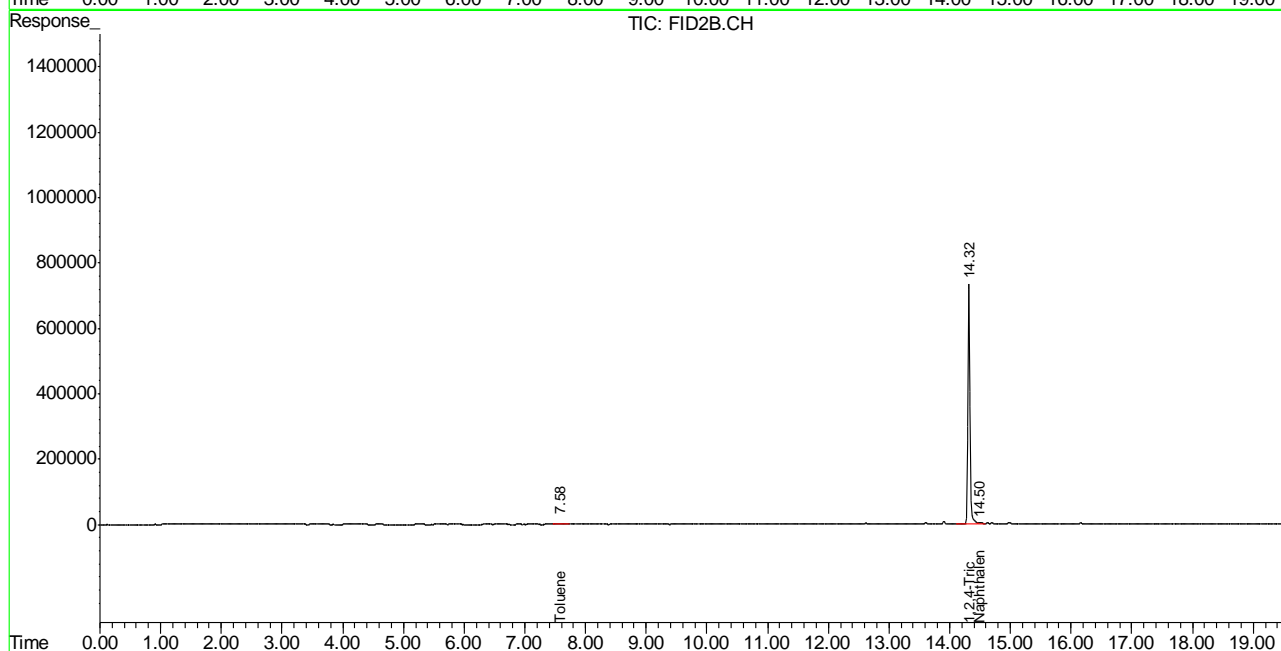
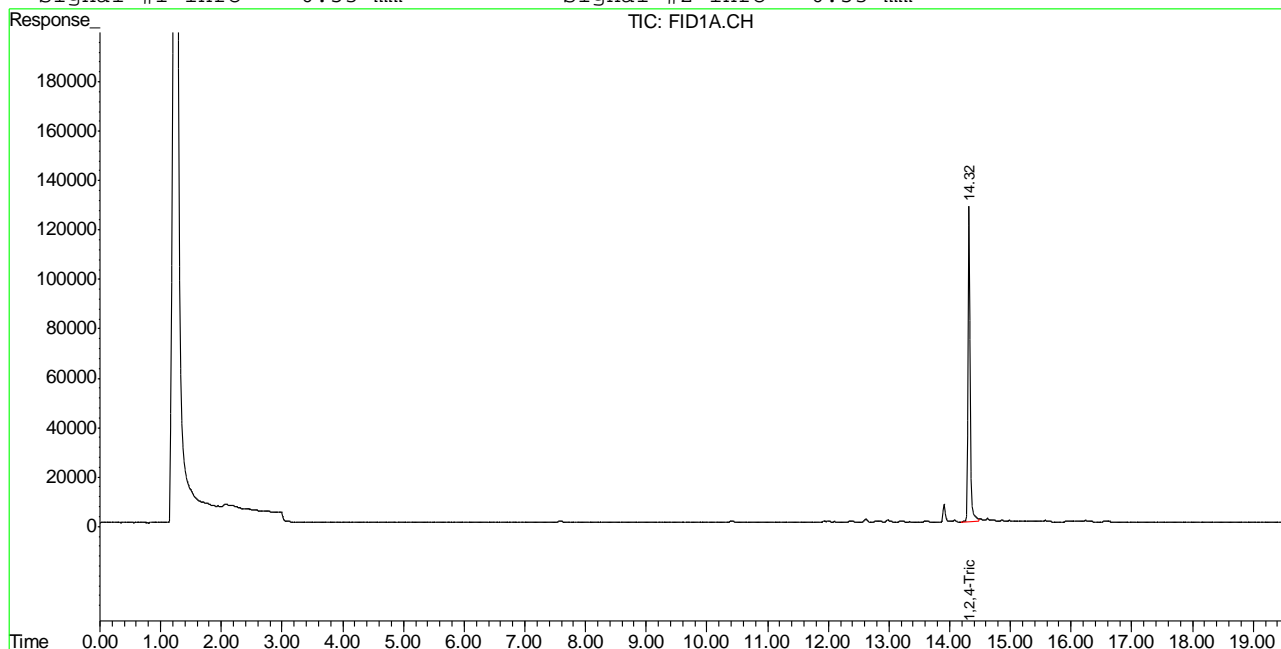
 (f)=RT Delta > 1/2 Window (m)=manual int.
 GB16149.D TB868GB868SOIL.M Wed May 30 13:38:05 2012 GC

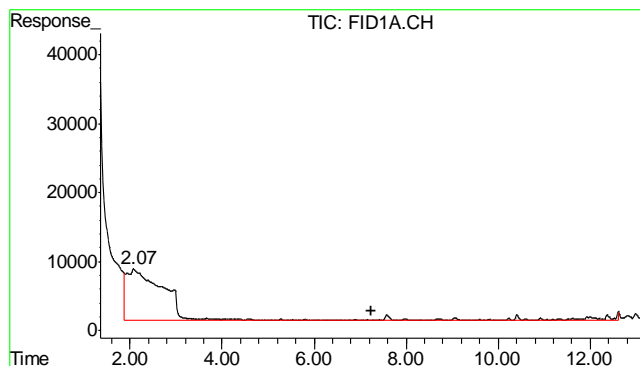
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16149.D\FID1A.CH Vial: 34
Signal #2 : Y:\1\DATA\052912\GB16149.D\FID2B.CH
Acq On : 30 May 2012 7:06 am Operator: BRIANR
Sample : MB, S Inst : GC/MS Ins
Misc : GC2866,GGB898,5.054,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 12:37 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:46:04 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

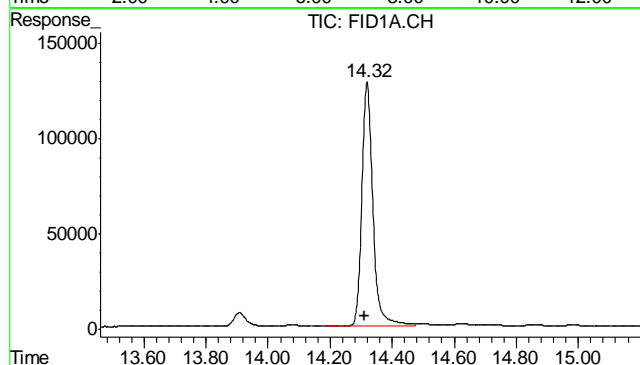
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





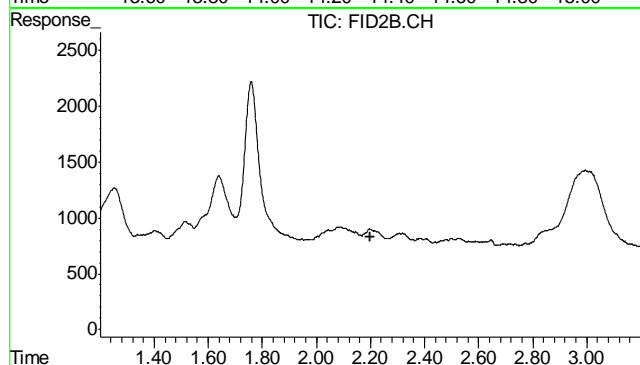
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4691144
Conc: N.D.



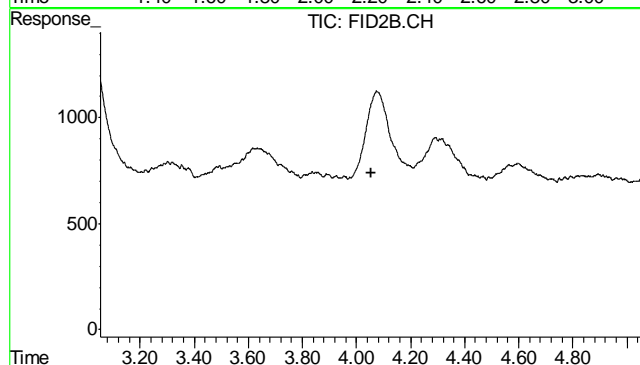
#2 1,2,4-Trichlorobenzene

R.T.: 14.319 min
Delta R.T.: 0.008 min
Response: 3170819
Conc: 101.19 %



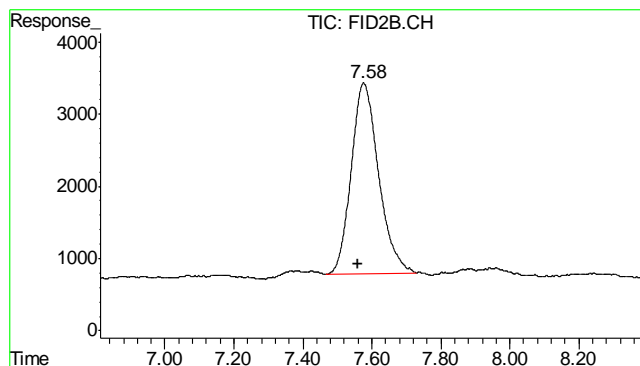
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.201 min
Response: 0
Conc: N.D.



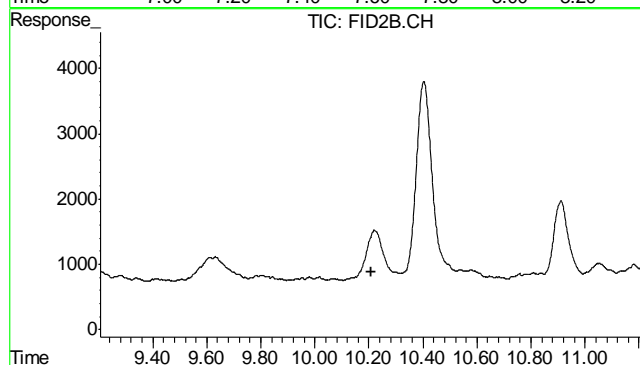
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.053 min
Response: 0
Conc: N.D.



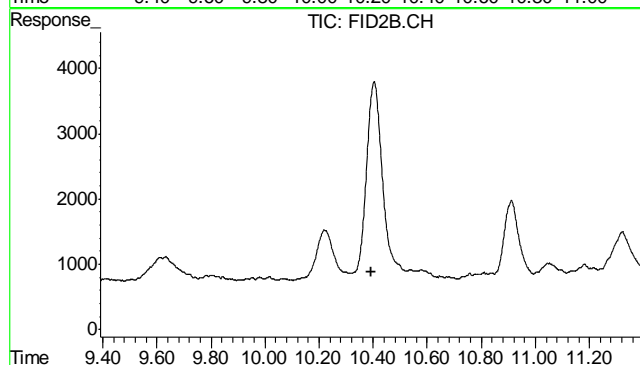
#6 Toluene

R.T.: 7.577 min
Delta R.T.: 0.017 min
Response: 145438
Conc: 0.37 ug/L



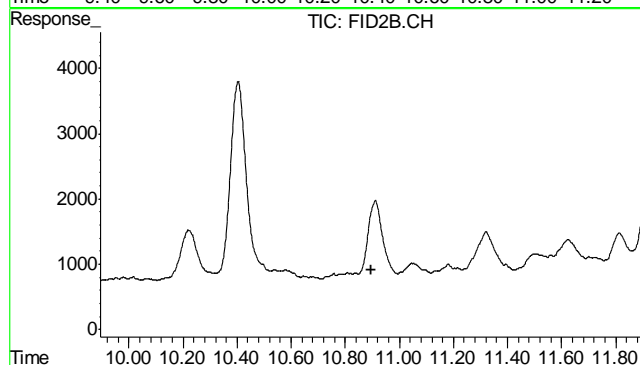
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.207 min
Response: 0
Conc: N.D.



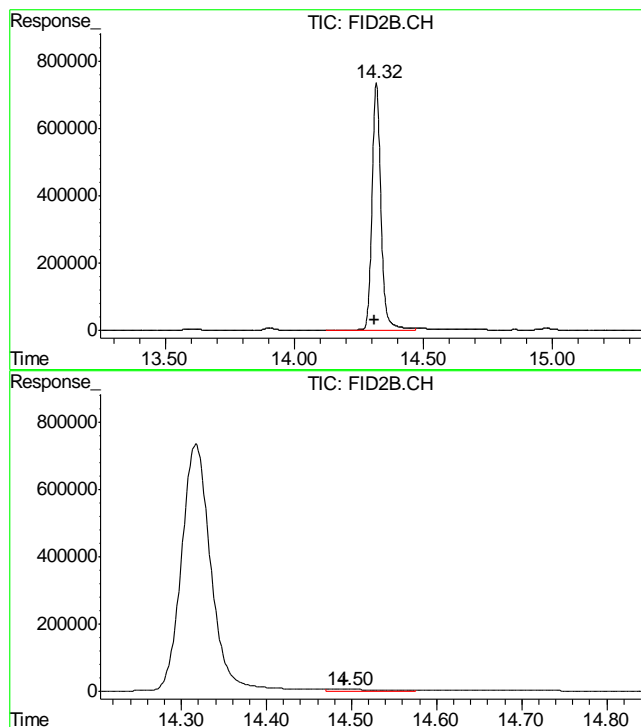
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.391 min
Response: 0
Conc: N.D.



#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.895 min
Response: 0
Conc: N.D.



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

R.T.: 14.317 min
Delta R.T.: 0.007 min
Response: 17816159
Conc: 109.62 %

#11 Naphthalene

R.T.: 14.496 min
Delta R.T.: 0.004 min
Response: 229850
Conc: 1.16 ug/L

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: D34860
Account: XTOKRWR XTO Energy
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5972-MB	FD13781.D	1	05/31/12	AV	05/29/12	OP5972	GFD730

The QC reported here applies to the following samples:

Method: SW846-8015B

D34860-1, D34860-2, D34860-3, D34860-4

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	77% 43-136%

Blank Spike Summary

Page 1 of 1

Job Number: D34860
Account: XTOKRWR XTO Energy
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5972-BS	FD13782.D	1	05/31/12	AV	05/29/12	OP5972	GFD730

The QC reported here applies to the following samples:

Method: SW846-8015B

D34860-1, D34860-2, D34860-3, D34860-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	496	74	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	80%	43-136%

7.2.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D34860
Account: XTOKRWR XTO Energy
Project: PCU 296-7A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5972-MS	FD13783.D	1	05/31/12	AV	05/29/12	OP5972	GFD730
OP5972-MSD	FD13784.D	1	05/31/12	AV	05/29/12	OP5972	GFD730
D34860-2	FD13793.D	1	05/31/12	AV	05/29/12	OP5972	GFD730

The QC reported here applies to the following samples:

Method: SW846-8015B

D34860-1, D34860-2, D34860-3, D34860-4

CAS No.	Compound	D34860-2 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	1540	744	1890	47	1720	24	9	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D34860-2	Limits
84-15-1	o-Terphenyl	73%	65%	75%	43-136%

GC Semi-volatiles

Raw Data

∞

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13792.D Vial: 64
Acq On : 5-31-2012 03:06:19 PM Operator: ashleyv
Sample : D34860-1 Inst : FID5
Misc : OP5972,GFD730,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 15:32:19 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
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	9.55	29373767	656.156 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.29	1000368868	23341.151 mg/L

8.1.1

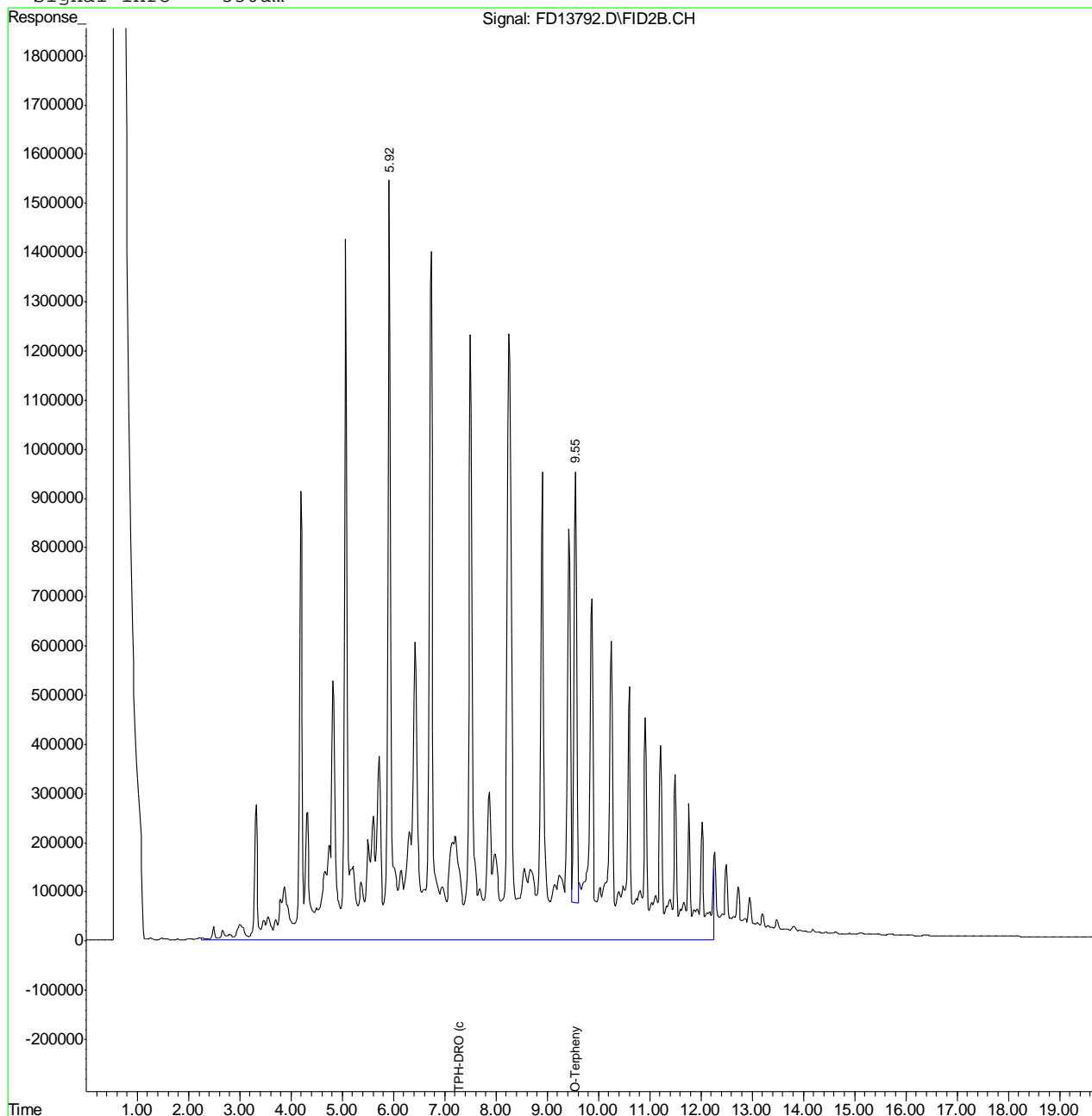
8

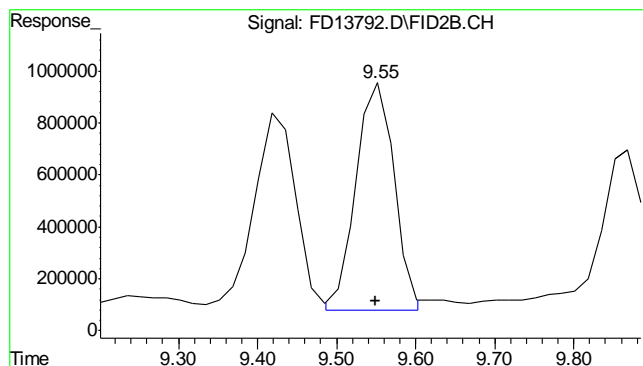
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13792.D Vial: 64
Acq On : 5-31-2012 03:06:19 PM Operator: ashleyv
Sample : D34860-1 Inst : FID5
Misc : OP5972,GFD730,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 15:33 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
Response via : Multiple Level Calibration
DataAcq Meth : JH080911.M

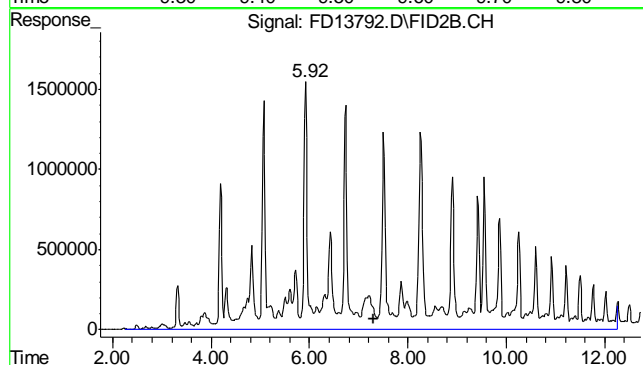
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.549 min
 Delta R.T.: -0.001 min
 Response: 29373767
 Conc: 656.16 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
 Delta R.T.: 0.000 min
 Response: 1000368868
 Conc: 23341.15 mg/L m

8.1.1

8

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13793.D Vial: 65
Acq On : 5-31-2012 03:32:09 PM Operator: ashleyv
Sample : D34860-2 Inst : FID5
Misc : OP5972,GFD730,30.08,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 15:59:26 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
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	9.55	33763815	754.221 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.29	888972797	20741.998 mg/L

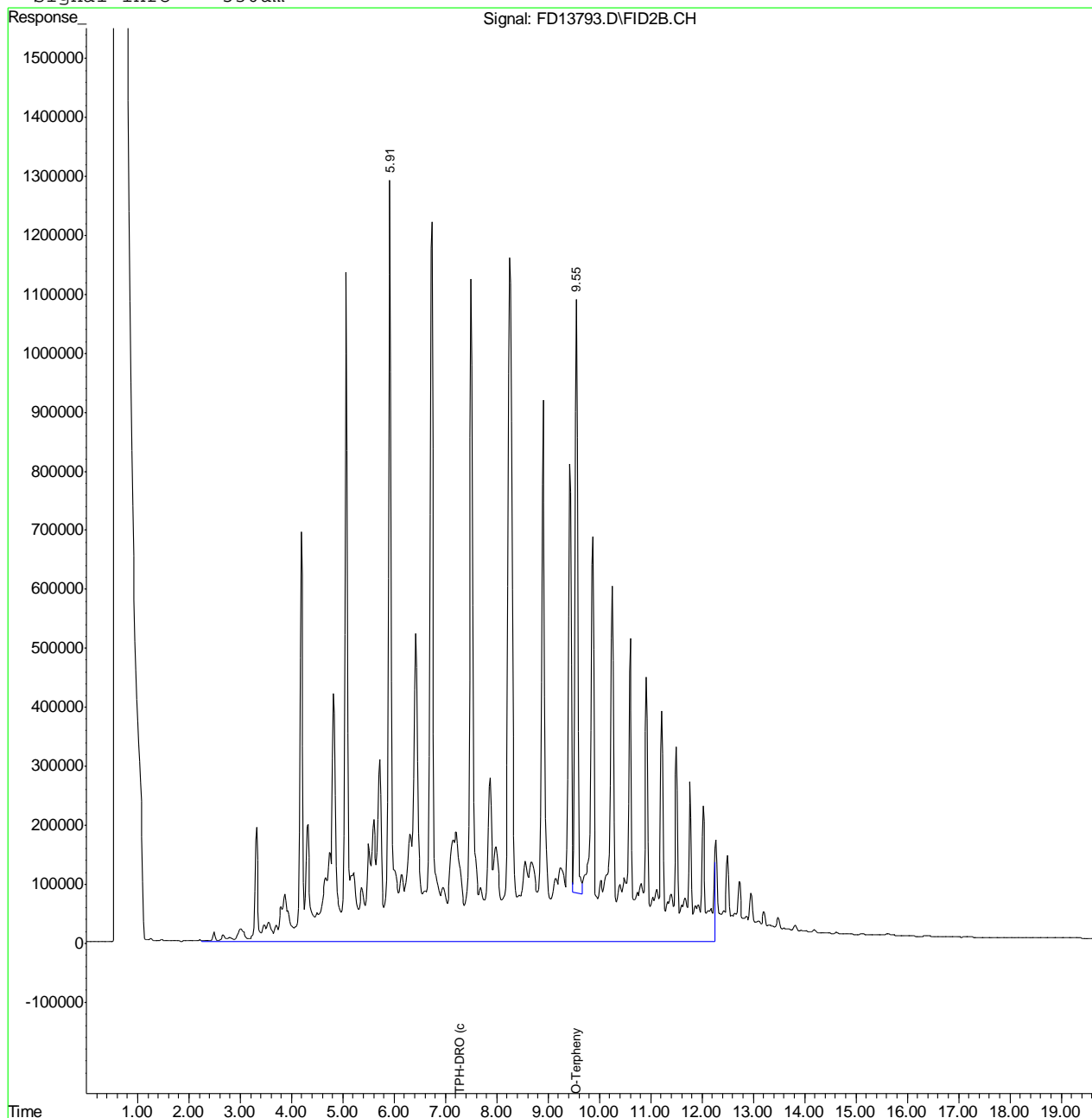
8.12
8

Quantitation Report (QT Reviewed)

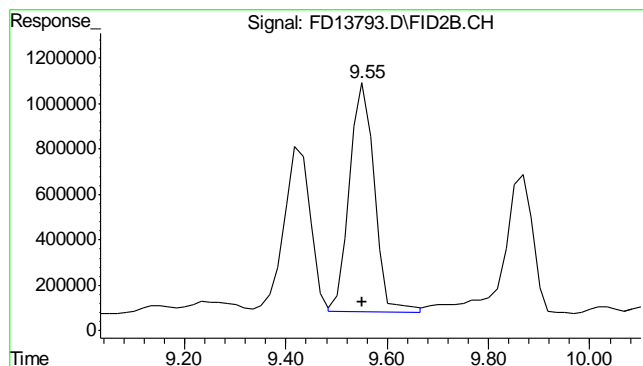
Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13793.D Vial: 65
 Acq On : 5-31-2012 03:32:09 PM Operator: ashleyv
 Sample : D34860-2 Inst : FID5
 Misc : OP5972,GFD730,30.08,,,2,1 Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: May 31 16:00 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu May 31 11:12:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

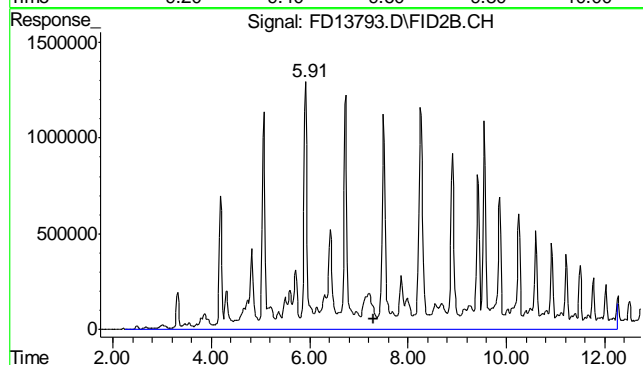
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um



8.12
8



#1 O-Terphenyl
 R.T.: 9.550 min
 Delta R.T.: 0.000 min
 Response: 33763815
 Conc: 754.22 mg/L m



#2 TPH-DRO (c10-c28)
 R.T.: 7.290 min
 Delta R.T.: 0.000 min
 Response: 888972797
 Conc: 20742.00 mg/L m

8.1.2
 8

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13794.D Vial: 66
Acq On : 5-31-2012 03:57:58 PM Operator: ashleyv
Sample : D34860-3 Inst : FID5
Misc : OP5972,GFD730,30.04,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 16:24:17 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
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	9.55	27259815	608.934 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.29	549789124	12827.979 mg/L

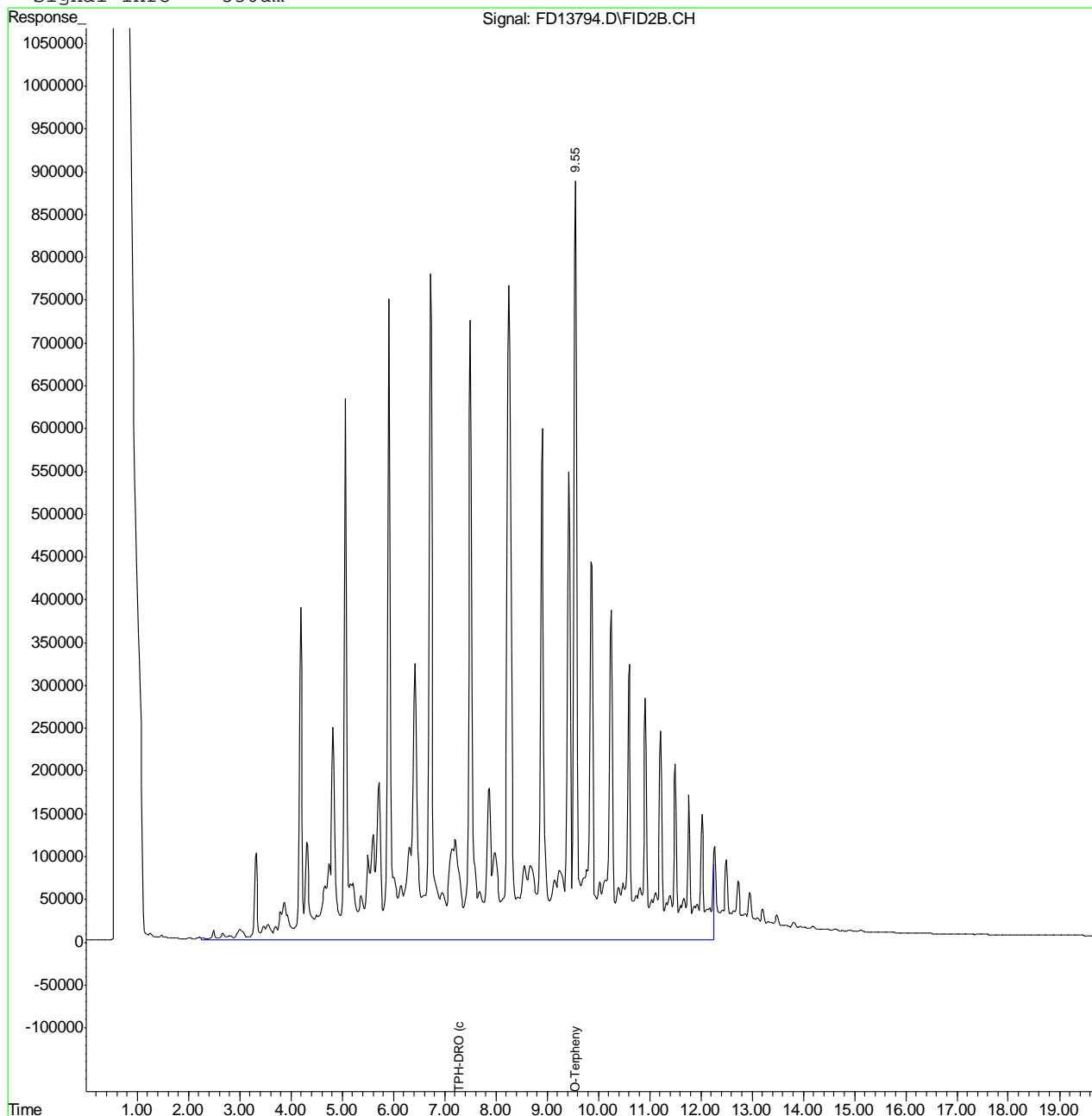
8.13
8

Quantitation Report (QT Reviewed)

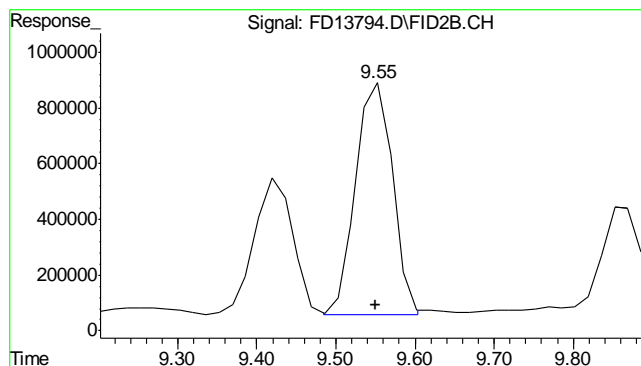
Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13794.D Vial: 66
Acq On : 5-31-2012 03:57:58 PM Operator: ashleyv
Sample : D34860-3 Inst : FID5
Misc : OP5972,GFD730,30.04,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 16:25 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
Response via : Multiple Level Calibration
DataAcq Meth : JH080911.M

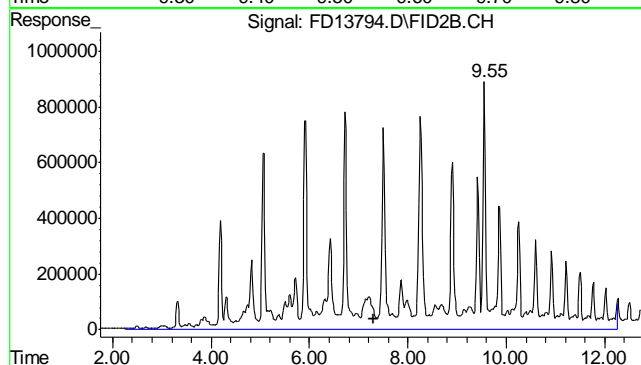
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um



8.1.3
8



#1 O-Terphenyl
R.T.: 9.548 min
Delta R.T.: -0.002 min
Response: 27259815
Conc: 608.93 mg/L m



#2 TPH-DRO (c10-c28)
R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 549789124
Conc: 12827.98 mg/L m

8.1.3
8

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13796.D Vial: 68
Acq On : 5-31-2012 04:50:12 PM Operator: ashleyv
Sample : D34860-4 Inst : FID5
Misc : OP5972,GFD730,30.06,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 08:29:23 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
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	9.55	31205950	697.083 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.29	445816218	10402.027 mg/L

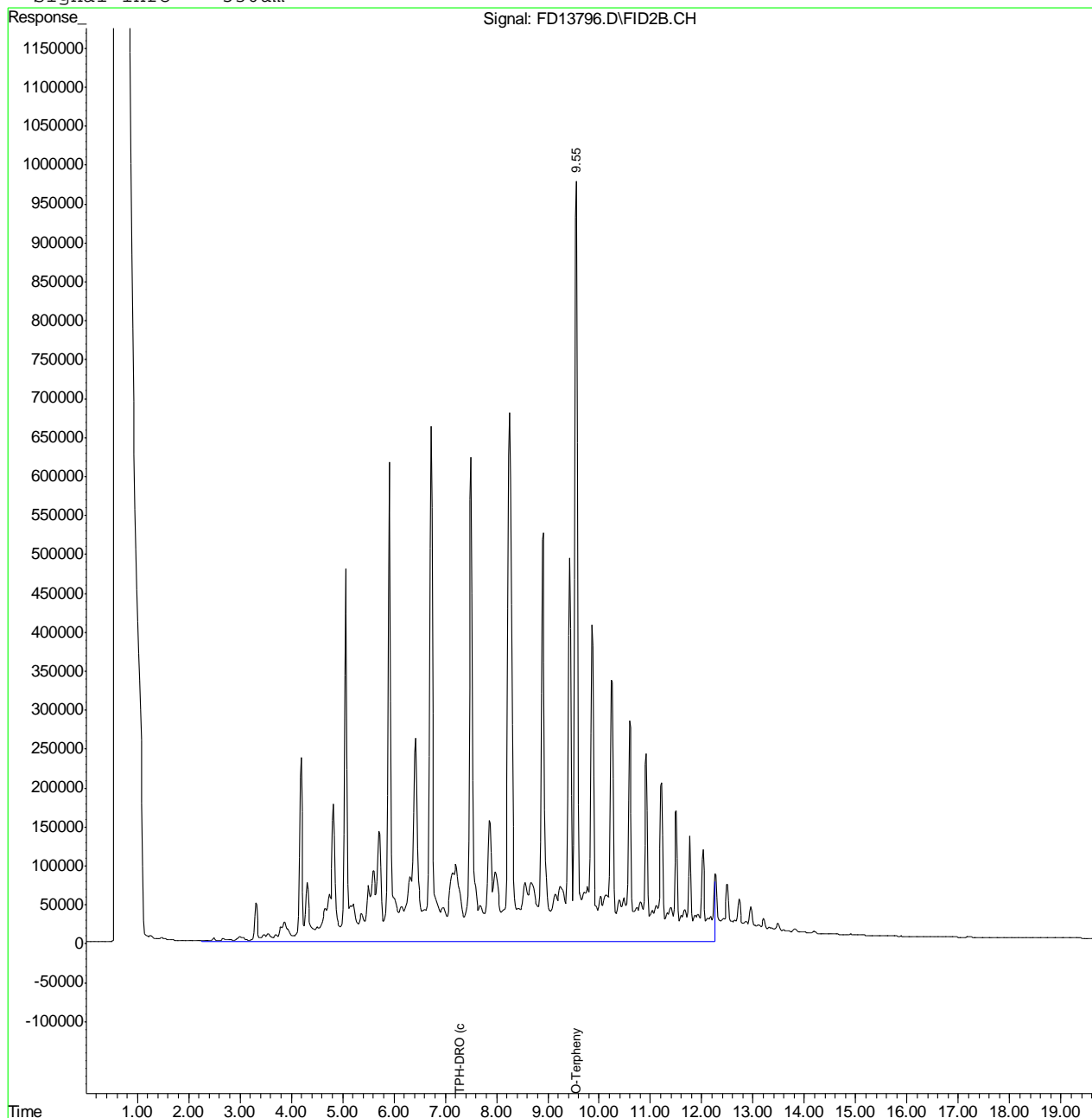
8.14
8

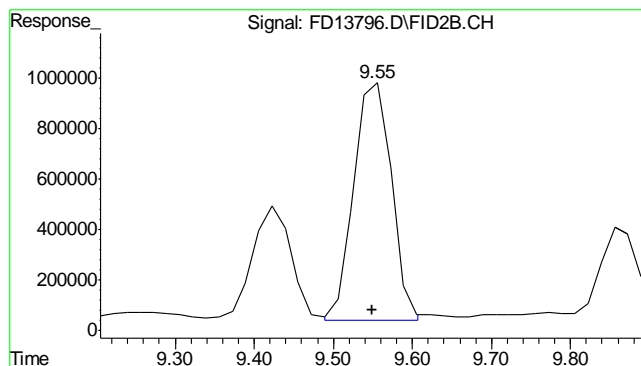
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13796.D Vial: 68
 Acq On : 5-31-2012 04:50:12 PM Operator: ashleyv
 Sample : D34860-4 Inst : FID5
 Misc : OP5972,GFD730,30.06,,,2,1 Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Jun 1 8:30 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Thu May 31 11:12:59 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : JH080911.M

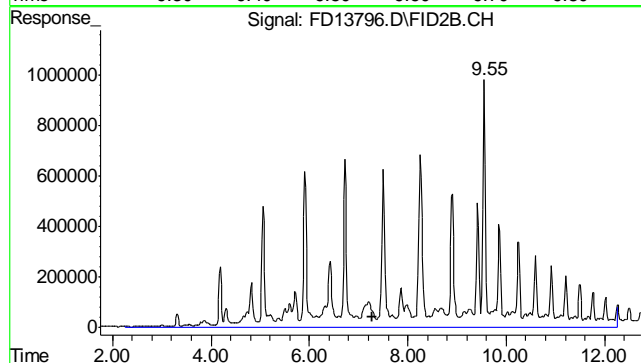
Volume Inj. : 1ul
 Signal Phase : RTX-5
 Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.549 min
Delta R.T.: 0.000 min
Response: 31205950
Conc: 697.08 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 445816218
Conc: 10402.03 mg/L m

8.1.4
8

Judy Melson
06/01/12 10:47

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13781.D Vial: 53
Acq On : 31 May 2012 10:21 am Operator: ashleyv
Sample : OP5972-MB Inst : FID5
Misc : OP5972,GFD730,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 11:13:07 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
Response via : Initial Calibration
DataAcq Meth : JH080911.M

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

Compound	R.T.	Response	Conc Units

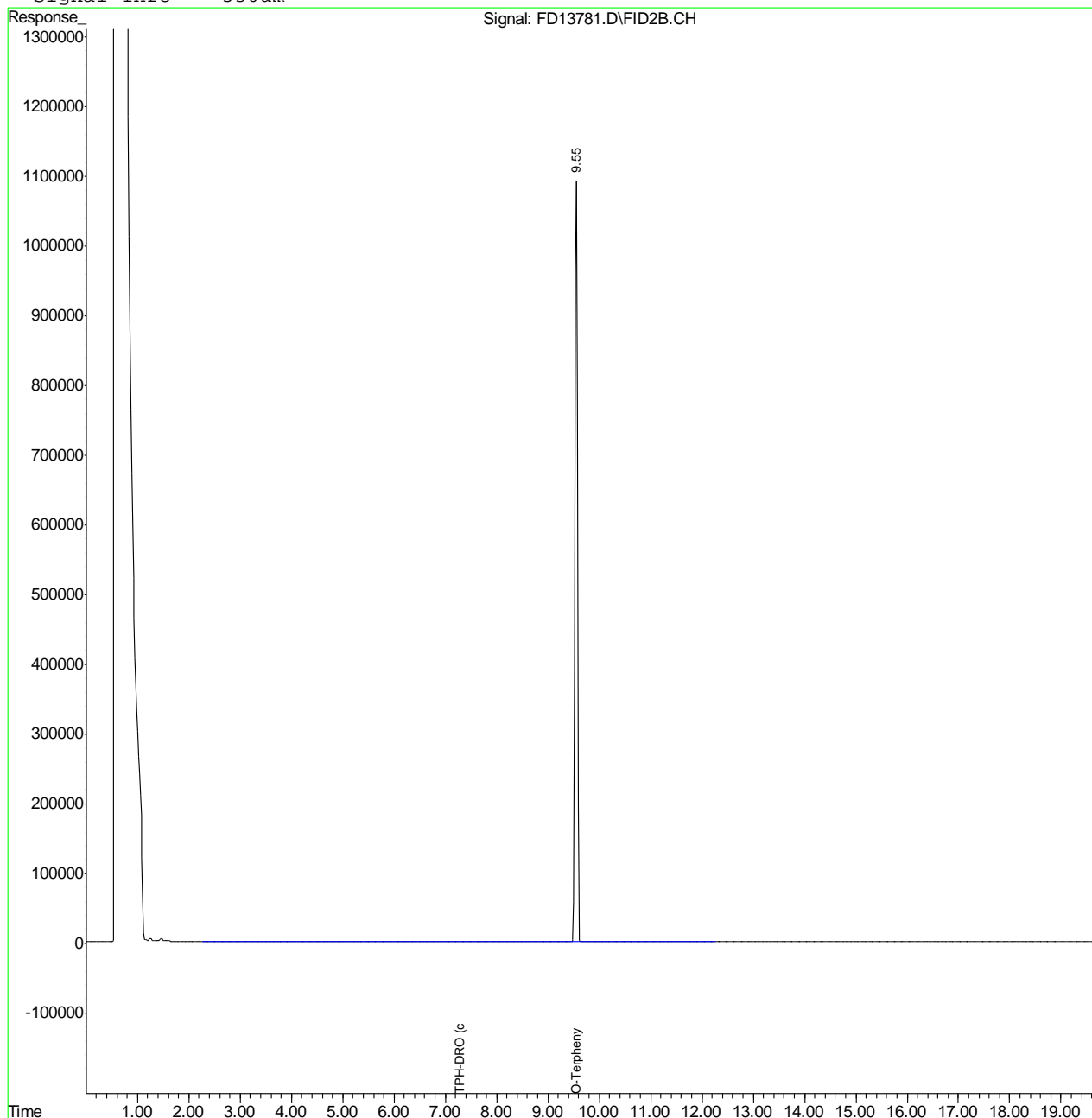
System Monitoring Compounds			
1) S O-Terphenyl	9.55	34690147	774.914 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	7.29	662444	15.457 mg/L

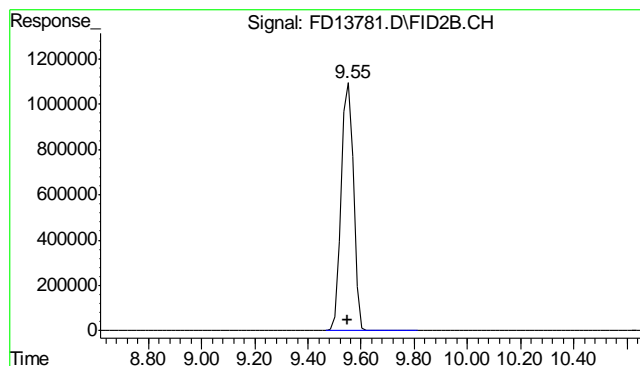
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\MAY\FD053112\FD13781.D Vial: 53
Acq On : 31 May 2012 10:21 am Operator: ashleyv
Sample : OP5972-MB Inst : FID5
Misc : OP5972,GFD730,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 31 11:13 2012 Quant Results File: DRO-GFD726R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD726R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Thu May 31 11:12:59 2012
Response via : Multiple Level Calibration
DataAcq Meth : JH080911.M

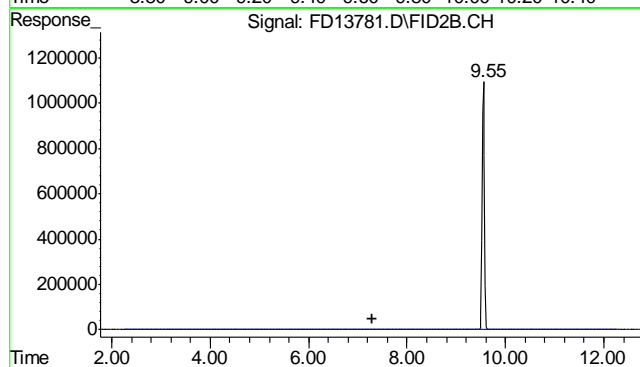
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.549 min
Delta R.T.: 0.000 min
Response: 34690147
Conc: 774.91 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 662444
Conc: 15.46 mg/L m

8.2.1

8