



05/29/12

Technical Report for

XTO Energy

PCU 297-10B

1105-20A

Accutest Job Number: D34642

Sampling Date: 05/17/12

Report to:

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Total number of pages in report: 56



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: D34642

PCU 297-10B

Project No: 1105-20A

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D34642-1	05/17/12	10:55 RR	05/18/12	SO	Soil	FW PIT NW E 1/3 9-14'
D34642-2	05/17/12	10:40 RR	05/18/12	SO	Soil	FW PIT NW N 1/3 9-14'
D34642-3	05/17/12	10:30 RR	05/18/12	SO	Soil	FW PIT NW W 1/3 9-14'

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



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D34642

Site: PCU 297-10B

Report Date 5/29/2012 10:14:51 AM

On 05/18/2012, 3 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 D34642 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: GGB894

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D34664-1MS, D34664-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP5925

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D34642-1MSD, D34642-1MS, D34642-1MSD were used as the QC samples indicated.
- The matrix spike (MS) recovery(s) of TPH-DRO (C10-C28) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Sample(s) D34642-1, OP5925-MS, OP5925-MSD, OP5925-MB have surrogates outside control limits. Probable cause due to matrix interference.
- D34642-1 for o-Terphenyl: Outside control limits due to dilution.
- OP5925-MSD for o-Terphenyl: Outside control limits due to dilution.
- OP5925-MS for o-Terphenyl: Outside control limits due to dilution.
- OP5925-MB for o-Terphenyl: Outside control limits. Since the bias is high and DRO is ND, no further action is required.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN15031

- 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:	FW PIT NW E 1/3 9-14'			Date Sampled:	05/17/12
Lab Sample ID:	D34642-1			Date Received:	05/18/12
Matrix:	SO - Soil			Percent Solids:	86.4
Method:	SW846 8015B				
Project:	PCU 297-10B				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16066.D	1	05/19/12	SK	n/a	n/a	GGB894
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)	95.1	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	98%		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:	FW PIT NW E 1/3 9-14'			Date Sampled:	05/17/12
Lab Sample ID:	D34642-1			Date Received:	05/18/12
Matrix:	SO - Soil			Percent Solids:	86.4
Method:	SW846-8015B SW846 3546				
Project:	PCU 297-10B				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004720.D	20	05/25/12	AW	05/21/12	OP5925	GFH265
Run #2							

Run #	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)	9450	310	200	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	23% ^a		43-136%		

(a) Outside control limits due to dilution.

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:	FW PIT NW N 1/3 9-14'			Date Sampled:	05/17/12
Lab Sample ID:	D34642-2			Date Received:	05/18/12
Matrix:	SO - Soil			Percent Solids:	89.8
Method:	SW846 8015B				
Project:	PCU 297-10B				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16067.D	1	05/19/12	SK	n/a	n/a	GGB894
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)	ND	12	6.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	FW PIT NW N 1/3 9-14'				
Lab Sample ID:	D34642-2			Date Sampled:	05/17/12
Matrix:	SO - Soil			Date Received:	05/18/12
Method:	SW846-8015B	SW846	3546	Percent Solids:	89.8
Project:	PCU 297-10B				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004828.D	1	05/28/12	AV	05/21/12	OP5925	GFH269
Run #2							

Run #	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)	122	15	9.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	47%		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

Page 1 of 1

Client Sample ID:	FW PIT NW W 1/3 9-14'			Date Sampled:	05/17/12
Lab Sample ID:	D34642-3			Date Received:	05/18/12
Matrix:	SO - Soil			Percent Solids:	86.3
Method:	SW846 8015B				
Project:	PCU 297-10B				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16068.D	1	05/19/12	SK	n/a	n/a	GGB894
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)	30.3	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	108%		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:	FW PIT NW W 1/3 9-14'				
Lab Sample ID:	D34642-3			Date Sampled:	05/17/12
Matrix:	SO - Soil			Date Received:	05/18/12
Method:	SW846-8015B	SW846	3546	Percent Solids:	86.3
Project:	PCU 297-10B				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH004830.D	2	05/28/12	AV	05/21/12	OP5925	GFH269
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)	6090	31	20	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	108%		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
4836 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 # D34642

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 LAKEWOOD CO 80214 Project Contact JOE HESS E-mail jhe55@krwconsulting.com Phone # 303.239.9011 Fax # 303.239.0795 Sampler(s) Name(s) RON PISANIC 970.756.2093 Phone # Project Manager DWAYNE KUNDSAN Attention: JESSICA DOOLING		Project Name XTO PCU 297-10B Street Billing Information (If different from Report to) Company Name XTO ENERGY, INC Street Address 21459 CR 5 City State Zip RIFLE CO 81650		TPH (GCO + P20)												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	MEOH/DI Vial #	Collection	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HN03	H2SO4	NONE	DI Water	MEOH	ENCORE	Blank	LAB USE ONLY																				
1	FW PIT NW E 1/3 9-14'			05/17/12	1055	RR	SO	2					2					01																				
2	FW PIT NW N 1/3 9-14'			05/17/12	1040	RR	SO	2					2					02																				
3	FW PIT NW W 1/3 9-14'			05/17/12	1030	RR	SO	2					2					03																				
<table border="1"> <thead> <tr> <th colspan="4">Turnaround Time (Business days)</th> <th colspan="2">Approved By (Accutest PM): / Date:</th> <th colspan="2">Data Deliverable Information</th> <th colspan="2">Comments / Special Instructions</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Std. 10 Business Days</td> <td><input checked="" type="checkbox"/> Std. 5 Business Days (By Contract only)</td> <td><input type="checkbox"/> 5 Day #/ SH</td> <td><input type="checkbox"/> 3 Day EMERGENT</td> <td><input type="checkbox"/> 2 Day EMERGENT</td> <td><input type="checkbox"/> 1 Day EMERGENT</td> <td> <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" + Narrative <input type="checkbox"/> FULLT1 (Level 3+4) </td> <td> <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> PDF </td> <td colspan="2"> PLEASE E-MAIL RESULTS TO KRW/PICEANCE CREEK TEAM </td> </tr> </tbody> </table>																			Turnaround Time (Business days)				Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions		<input type="checkbox"/> Std. 10 Business Days	<input checked="" type="checkbox"/> Std. 5 Business Days (By Contract only)	<input type="checkbox"/> 5 Day #/ SH	<input type="checkbox"/> 3 Day EMERGENT	<input type="checkbox"/> 2 Day EMERGENT	<input type="checkbox"/> 1 Day EMERGENT	<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	PLEASE E-MAIL RESULTS TO KRW/PICEANCE CREEK TEAM	
Turnaround Time (Business days)				Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions																														
<input type="checkbox"/> Std. 10 Business Days	<input checked="" type="checkbox"/> Std. 5 Business Days (By Contract only)	<input type="checkbox"/> 5 Day #/ SH	<input type="checkbox"/> 3 Day EMERGENT	<input type="checkbox"/> 2 Day EMERGENT	<input type="checkbox"/> 1 Day EMERGENT	<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	PLEASE E-MAIL RESULTS TO KRW/PICEANCE CREEK TEAM																														
Emergency & Rush T/A data available VIA Lablink																																						
Sample Custody must be documented below each time samples change possession, including courier delivery.																																						
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:																				
1 <i>[Signature]</i>		5-17-12 3:45		1 <i>[Signature]</i>		5/17/12 3:45		2 <i>[Signature]</i>		5/18/12		3 <i>[Signature]</i>		5/18/12		4 <i>[Signature]</i>		5/18/12																				
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:																				
3				3				4				4				4																						
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		Intact		Preserved where applicable		On Ice		Cooler Temp.																						
5				5				HD		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>		4.0																						

D34642: Chain of Custody

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D34642

Client: KRW CONSULTING INC.

Immediate Client Services Action Required: No

Date / Time Received: 5/18/2012 8:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO PCU 297-10B

Airbill #'s: HD

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 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: D34642

Account: XTOKRWR XTO Energy

Project: PCU 297-10B

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB894-MB	GB16046.D	1	05/18/12	SK	n/a	n/a	GGB894

The QC reported here applies to the following samples:

Method: SW846 8015B

D34642-1, D34642-2, D34642-3

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

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	90% 60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D34642
Account: XTOKRWR XTO Energy
Project: PCU 297-10B

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB894-BS	GB16047.D	1	05/18/12	SK	n/a	n/a	GGB894

The QC reported here applies to the following samples:

Method: SW846 8015B

D34642-1, D34642-2, D34642-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	127	115	70-130

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

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D34642
Account: XTOKRWR XTO Energy
Project: PCU 297-10B

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34664-1MS	GB16049.D	1	05/18/12	SK	n/a	n/a	GGB894
D34664-1MSD	GB16050.D	1	05/18/12	SK	n/a	n/a	GGB894
D34664-1	GB16048.D	1	05/18/12	SK	n/a	n/a	GGB894

The QC reported here applies to the following samples:

Method: SW846 8015B

D34642-1, D34642-2, D34642-3

CAS No.	Compound	D34664-1 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	144	167	116	166	115	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D34664-1	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	100%	93%	60-140%

GC Volatiles

Raw Data



Judy Melson
05/21/12 14:25

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16066.D\FID1A.CH Vial: 22
 Signal #2 : Y:\1\DATA\051812\GB16066.D\FID2B.CH
 Acq On : 19 May 2012 5:30 am Operator: StephK
 Sample : D34642-1, 50X Inst : GC/MS Ins
 Misc : GC2848,GGB894,5.053,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 21 08:25:16 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon May 21 08:24:34 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	3066282	97.858 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.33	79368746	488.340 %	
Target Compounds				
1) H TVH-Gasoline	7.23	93879663	1.460 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	155487	0.392 ug/L	
7) T Ethylbenzene	10.22	186320	0.551 ug/L	
8) T m,p-Xylene	10.41	2668826	6.938 ug/L	
9) T o-Xylene	10.91	849327	2.587 ug/L	
11) T Naphthalene	14.52	86978484	440.824 ug/L	

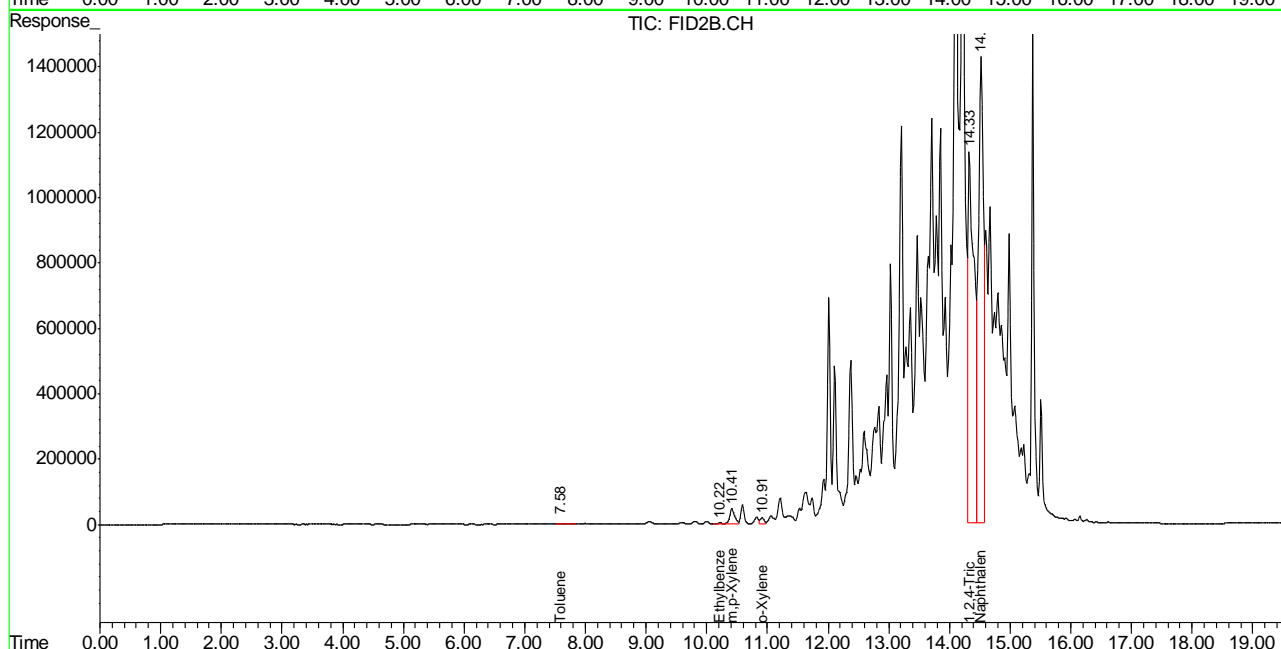
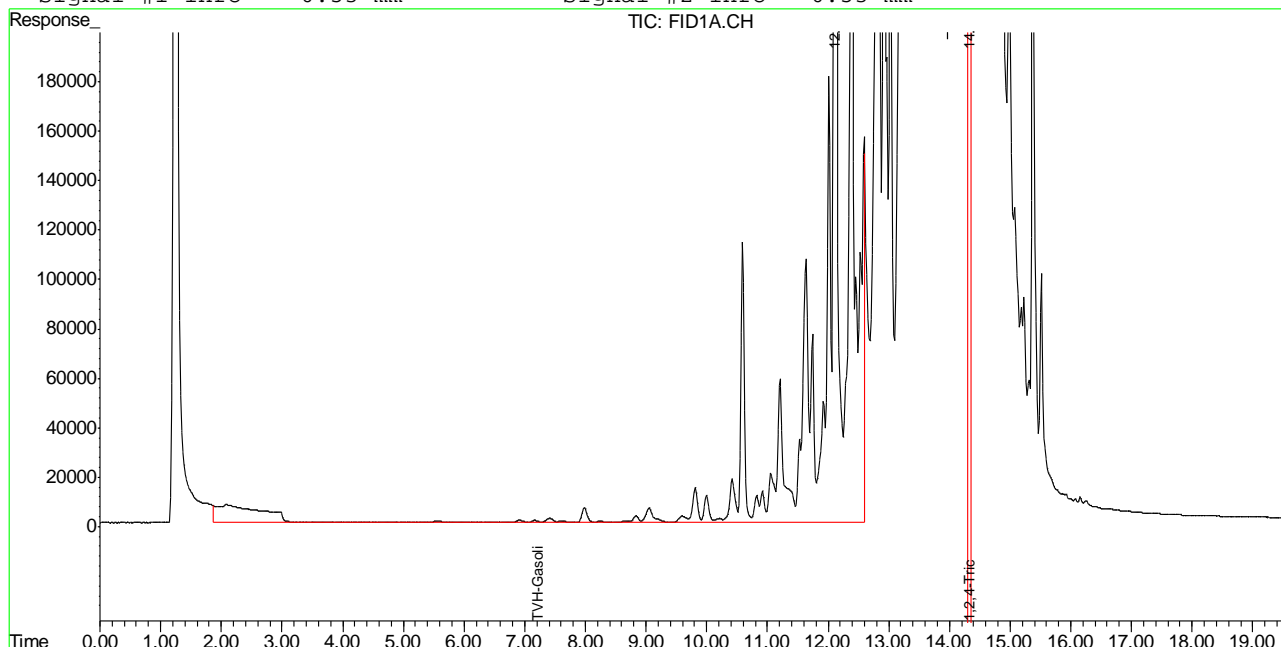
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB16066.D TB868GB868SOIL.M Mon May 21 08:41:16 2012 GC

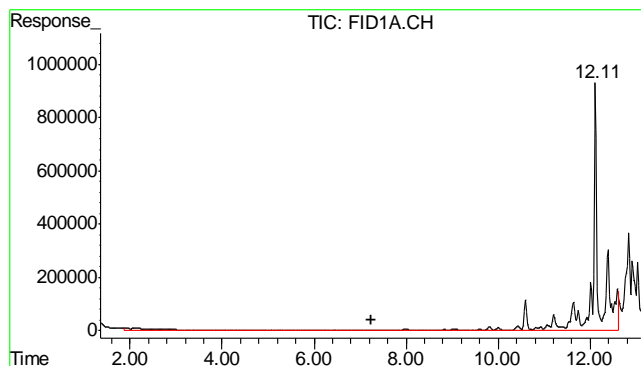
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16066.D\FID1A.CH Vial: 22
 Signal #2 : Y:\1\DATA\051812\GB16066.D\FID2B.CH
 Acq On : 19 May 2012 5:30 am Operator: StephK
 Sample : D34642-1, 50X Inst : GC/MS Ins
 Misc : GC2848,GGB894,5.053,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 21 7:42 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon May 21 08:24:34 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

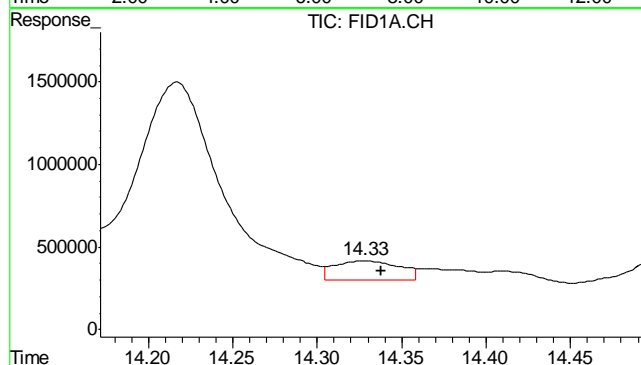
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





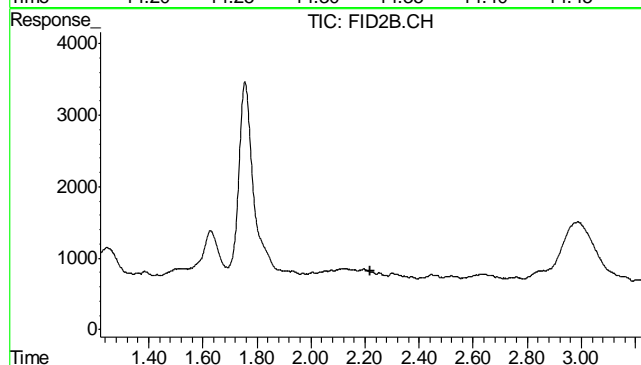
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 93879663
Conc: 1.46 mg/L m



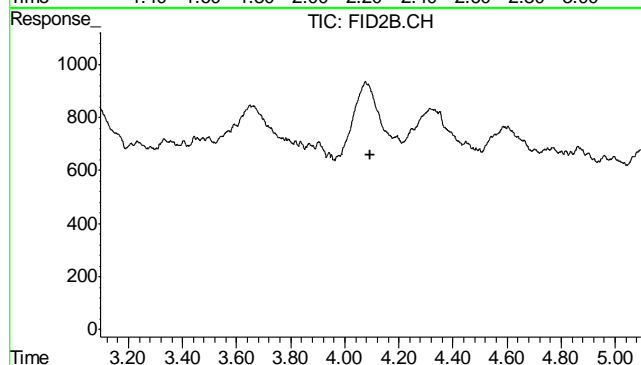
#2 1,2,4-Trichlorobenzene

R.T.: 14.327 min
Delta R.T.: -0.011 min
Response: 3066282
Conc: 97.86 % m



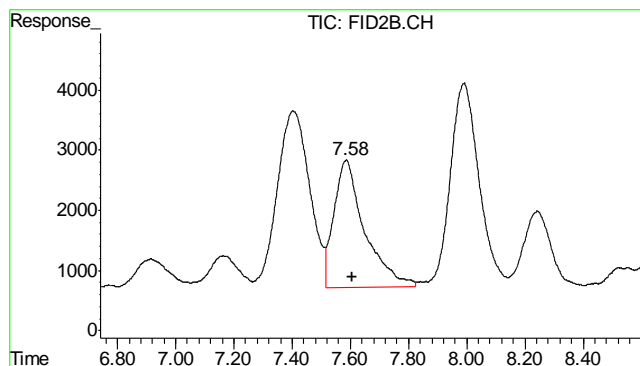
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.220 min
Response: 0
Conc: N.D.



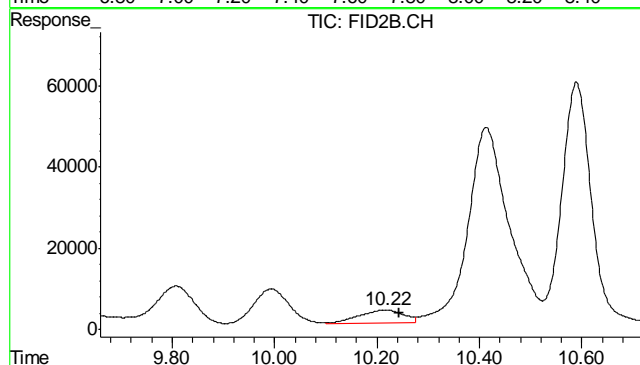
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.095 min
Response: 0
Conc: N.D.



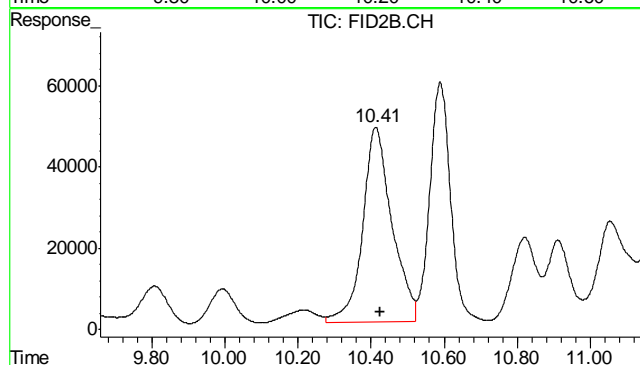
#6 Toluene

R.T.: 7.586 min
Delta R.T.: -0.019 min
Response: 155487
Conc: 0.39 ug/L



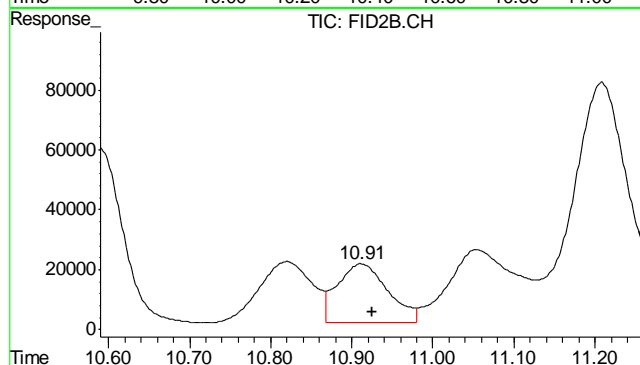
#7 Ethylbenzene

R.T.: 10.216 min
Delta R.T.: -0.027 min
Response: 186320
Conc: 0.55 ug/L



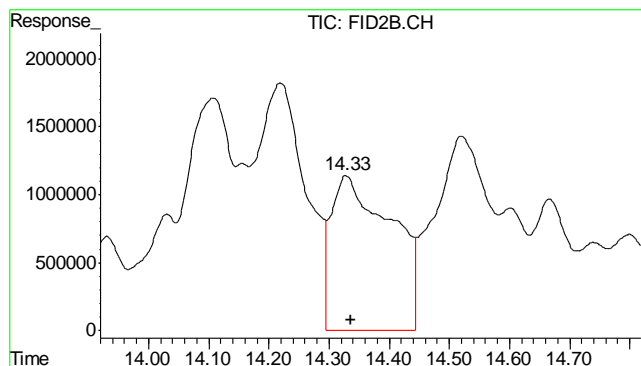
#8 m,p-Xylene

R.T.: 10.413 min
Delta R.T.: -0.012 min
Response: 2668826
Conc: 6.94 ug/L



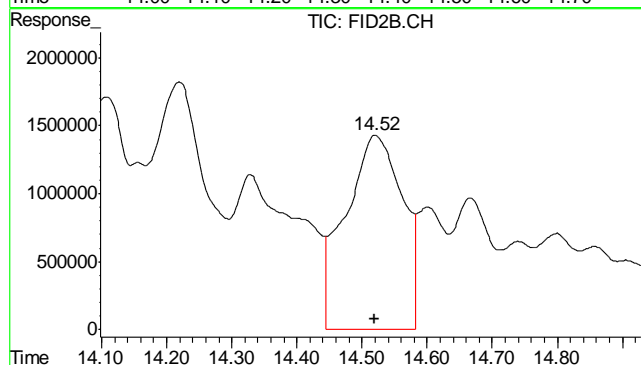
#9 o-Xylene

R.T.: 10.912 min
Delta R.T.: -0.014 min
Response: 849327
Conc: 2.59 ug/L



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

R.T.: 14.329 min
Delta R.T.: -0.008 min
Response: 79368746
Conc: 488.34 %



#11 Naphthalene

R.T.: 14.521 min
Delta R.T.: 0.002 min
Response: 86978484
Conc: 440.82 ug/L

6.1.1

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16067.D\FID1A.CH Vial: 23
Signal #2 : Y:\1\DATA\051812\GB16067.D\FID2B.CH
Acq On : 19 May 2012 6:05 am Operator: StephK
Sample : D34642-2, 50X Inst : GC/MS Ins
Misc : GC2848,GGB894,5.048,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 21 08:25:20 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon May 21 08:24:34 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

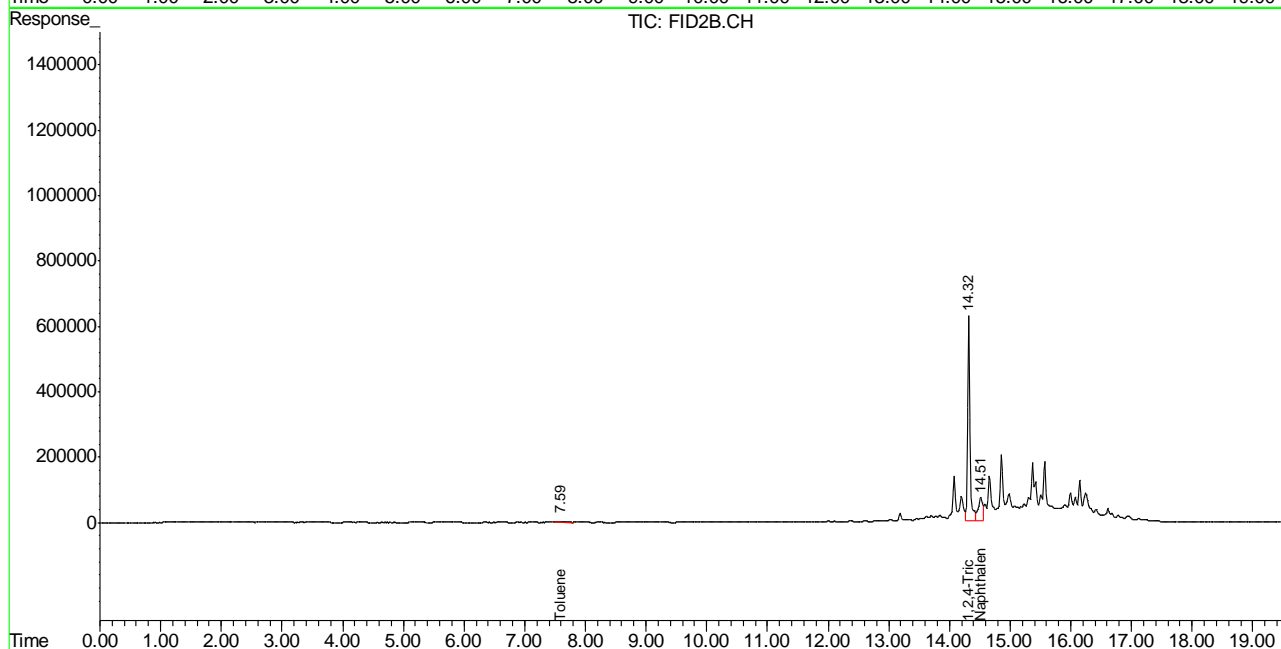
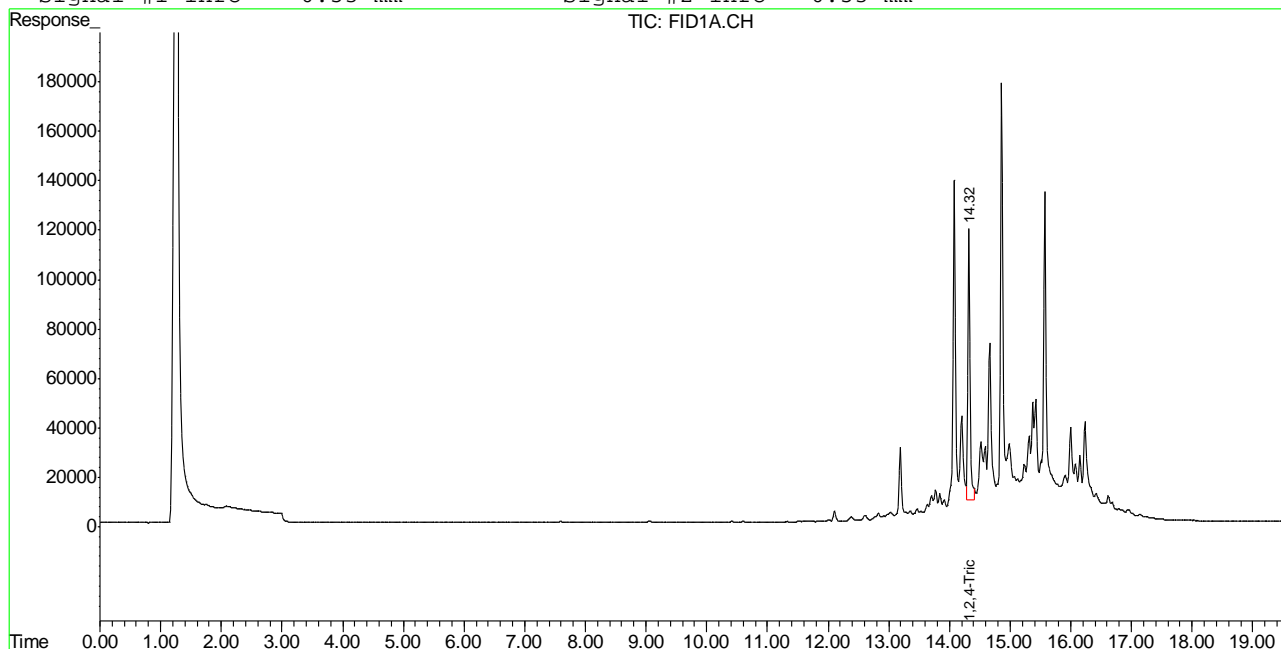
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.32	2771966	88.465 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.32	16626503	102.300 %	
Target Compounds					
1) H	TVH-Gasoline	7.23	4999233	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.59	89164	0.225	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	14.51	3818549	19.353	ug/L

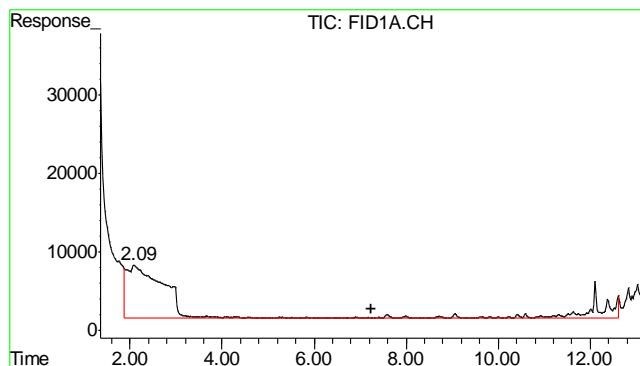
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16067.D\FID1A.CH Vial: 23
 Signal #2 : Y:\1\DATA\051812\GB16067.D\FID2B.CH
 Acq On : 19 May 2012 6:05 am Operator: StephK
 Sample : D34642-2, 50X Inst : GC/MS Ins
 Misc : GC2848,GGB894,5.048,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 21 7:42 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon May 21 08:24:34 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

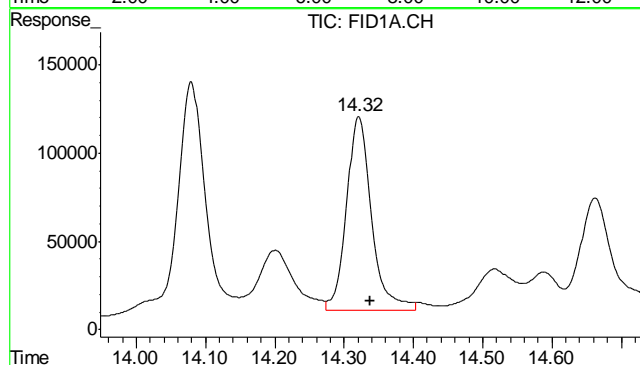
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





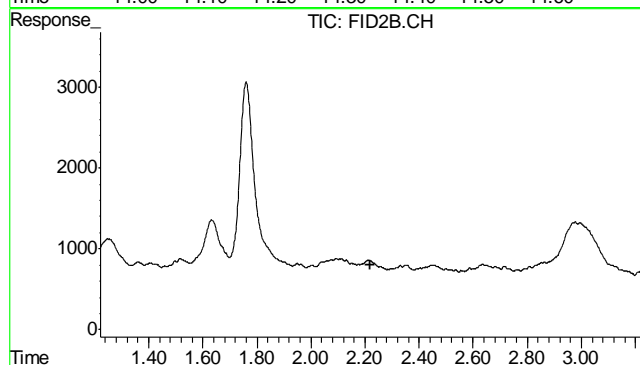
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4999233
Conc: N.D.



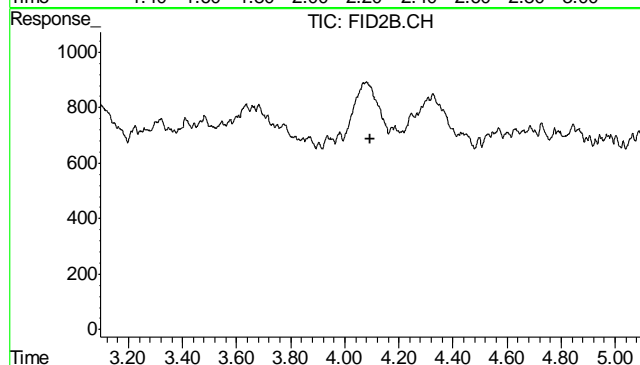
#2 1,2,4-Trichlorobenzene

R.T.: 14.320 min
Delta R.T.: -0.018 min
Response: 2771966
Conc: 88.47 % m



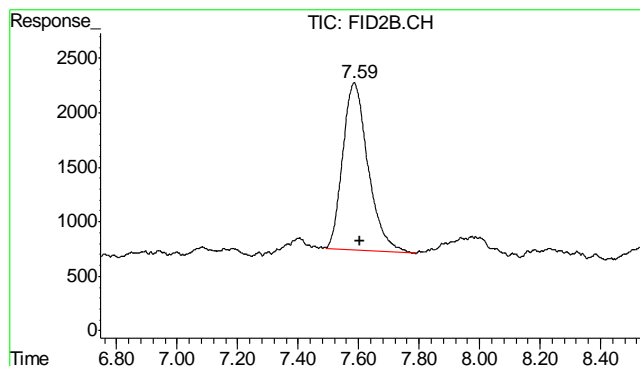
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.220 min
Response: 0
Conc: N.D.



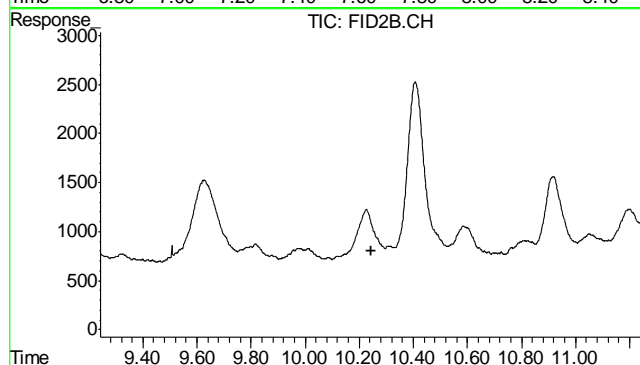
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.095 min
Response: 0
Conc: N.D.



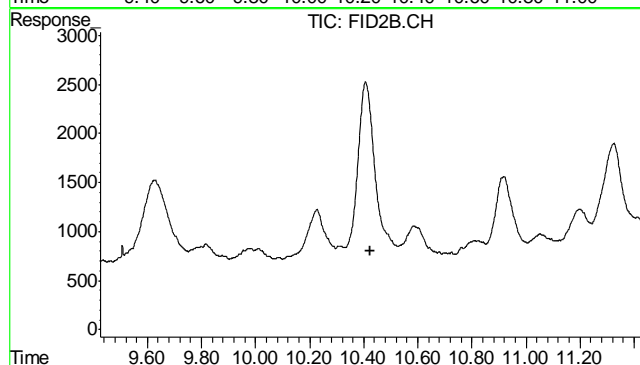
#6 Toluene

R.T.: 7.586 min
Delta R.T.: -0.019 min
Response: 89164
Conc: 0.23 ug/L



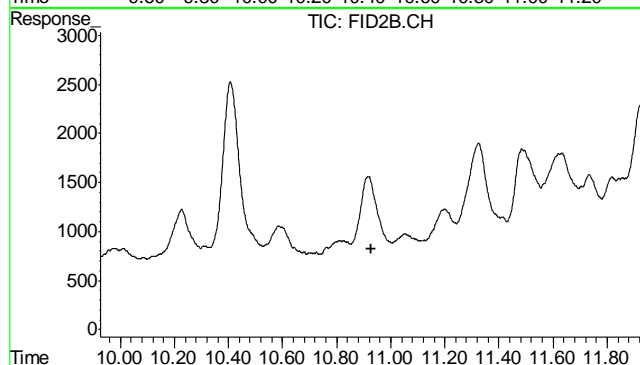
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.243 min
Response: 0
Conc: N.D.



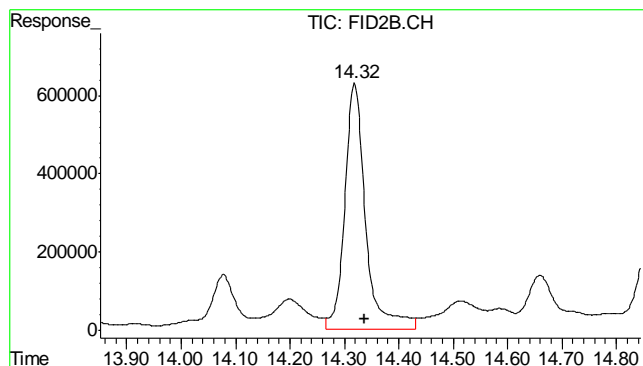
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T.: 10.425 min
Response: 0
Conc: N.D.



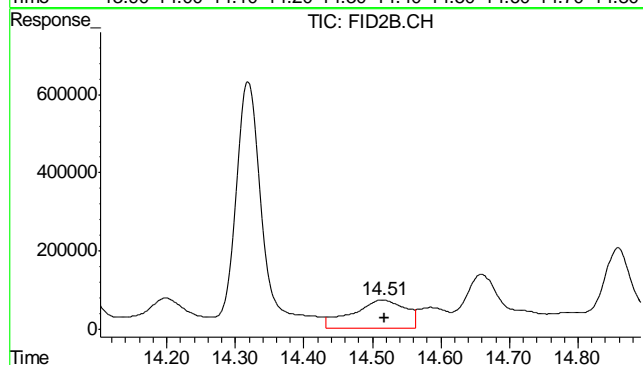
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 10.926 min
Response: 0
Conc: N.D.



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

R.T.: 14.319 min
Delta R.T.: -0.018 min
Response: 16626503
Conc: 102.30 %



#11 Naphthalene

R.T.: 14.515 min
Delta R.T.: -0.004 min
Response: 3818549
Conc: 19.35 ug/L

6.12

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16068.D\FID1A.CH Vial: 24
Signal #2 : Y:\1\DATA\051812\GB16068.D\FID2B.CH
Acq On : 19 May 2012 6:40 am Operator: StephK
Sample : D34642-3, 50X Inst : GC/MS Ins
Misc : GC2848,GGB894,5.057,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 21 08:25:24 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon May 21 08:24:34 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

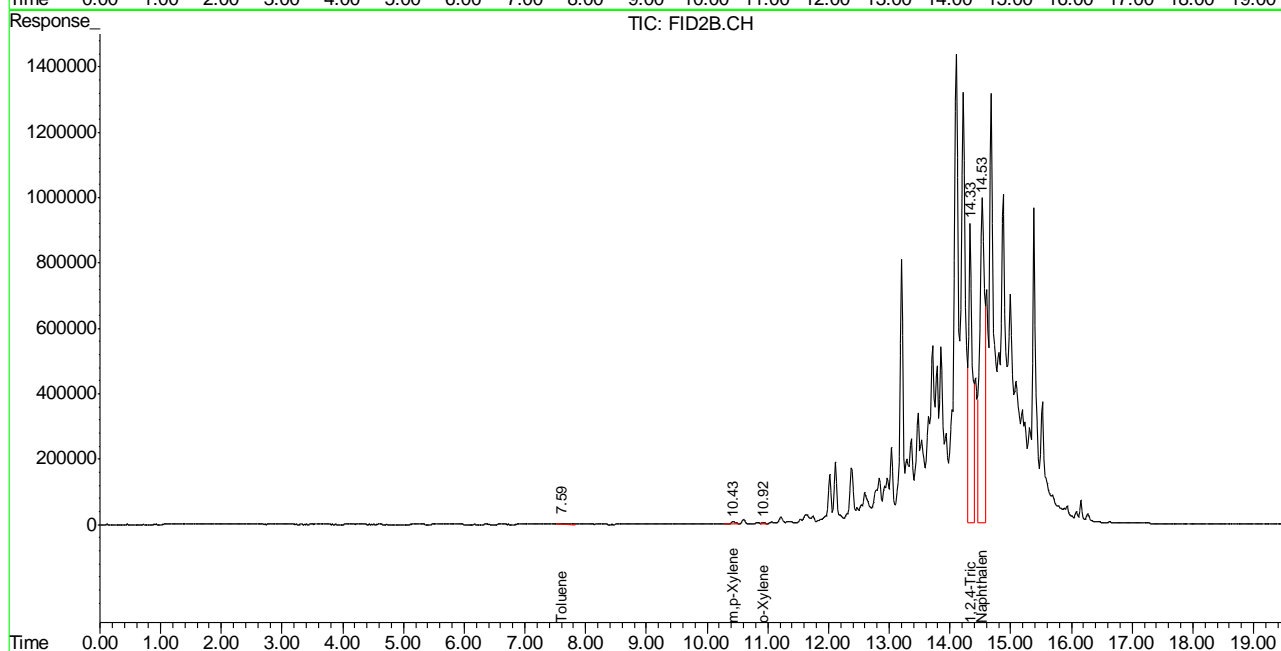
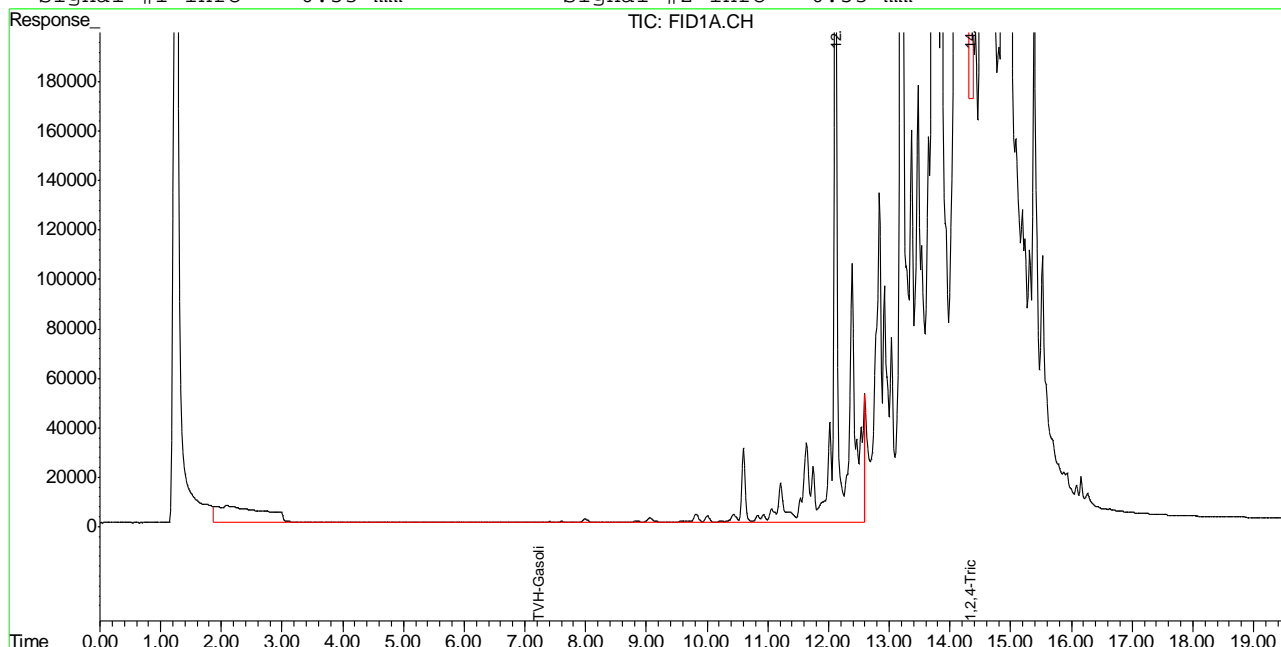
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.33	3378978	107.837 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.33	37010999	227.721 %	
Target Compounds					
1) H	TVH-Gasoline	7.23	31277957	0.464 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.59	107490	0.271 ug/L	
7) T	Ethylbenzene	0.00	0	N.D. ug/L	d
8) T	m,p-Xylene	10.43	492661	0.976 ug/L	
9) T	o-Xylene	10.92	202905	0.618 ug/L	
11) T	Naphthalene	14.53	54969498	278.596 ug/L	

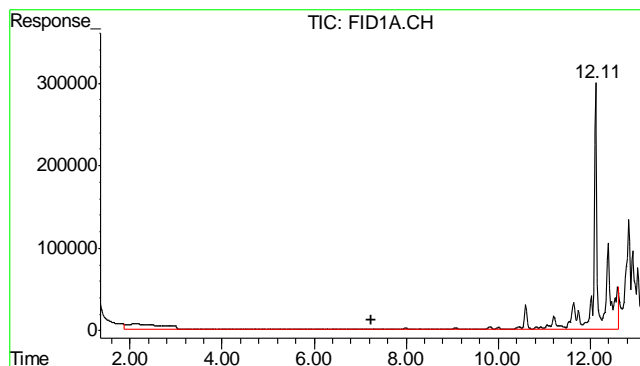
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16068.D\FID1A.CH Vial: 24
 Signal #2 : Y:\1\DATA\051812\GB16068.D\FID2B.CH
 Acq On : 19 May 2012 6:40 am Operator: StephK
 Sample : D34642-3, 50X Inst : GC/MS Ins
 Misc : GC2848,GGB894,5.057,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 21 7:42 2012 Quant Results File: TB868GB868SOIL.RES

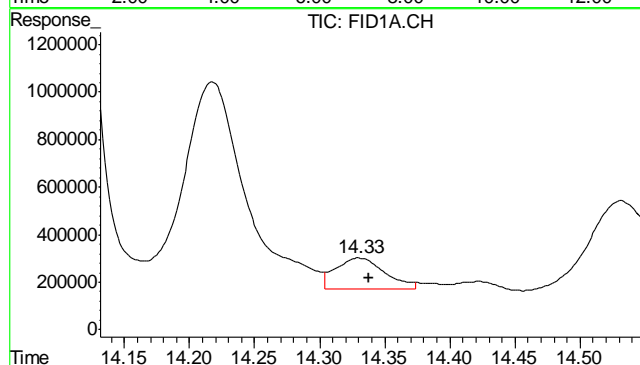
Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon May 21 08:24:34 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

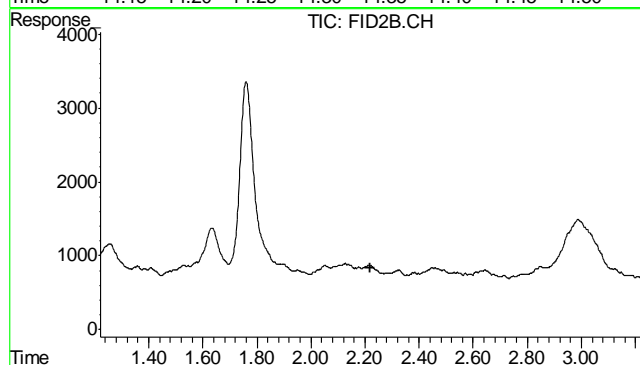




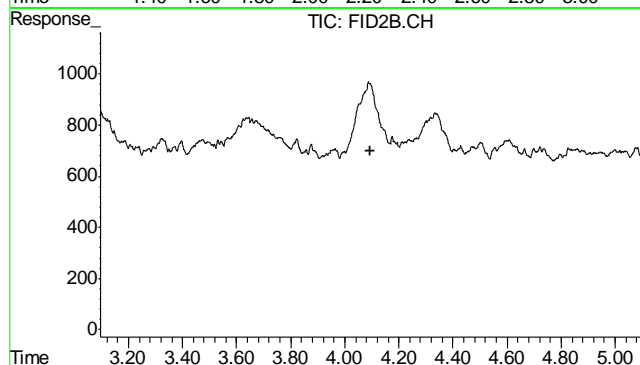
#1 TVH-Gasoline
 R.T.: 7.230 min
 Delta R.T.: 0.000 min
 Response: 31277957
 Conc: 0.46 mg/L m



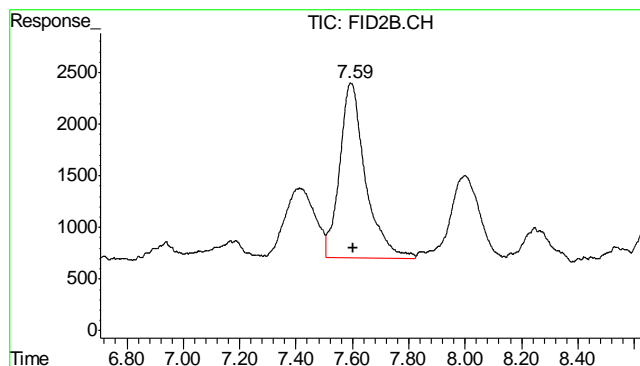
#2 1,2,4-Trichlorobenzene
 R.T.: 14.330 min
 Delta R.T.: -0.008 min
 Response: 3378978
 Conc: 107.84 % m



#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.220 min
 Response: 0
 Conc: N.D.

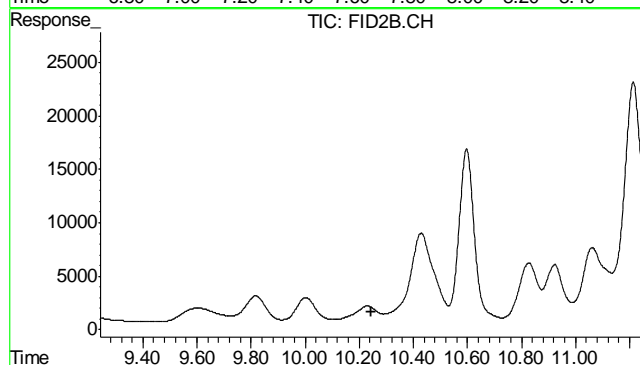


#5 Benzene
 R.T.: 0.000 min
 Exp R.T.: 4.095 min
 Response: 0
 Conc: N.D.



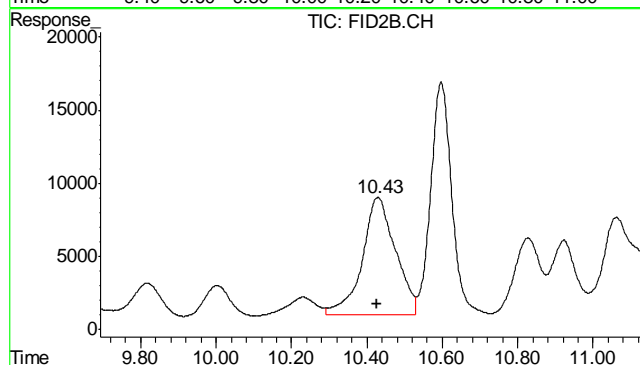
#6 Toluene

R.T.: 7.594 min
Delta R.T.: -0.011 min
Response: 107490
Conc: 0.27 ug/L



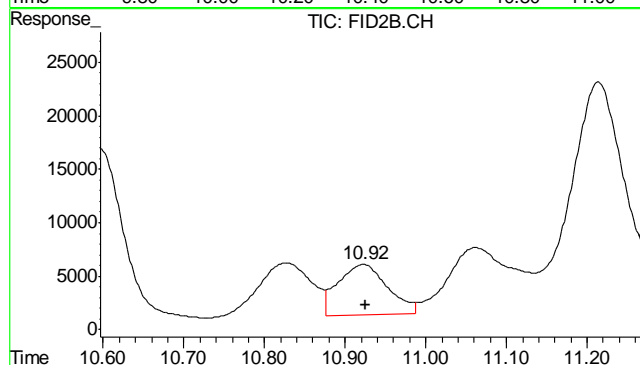
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.243 min
Response: 0
Conc: N.D.



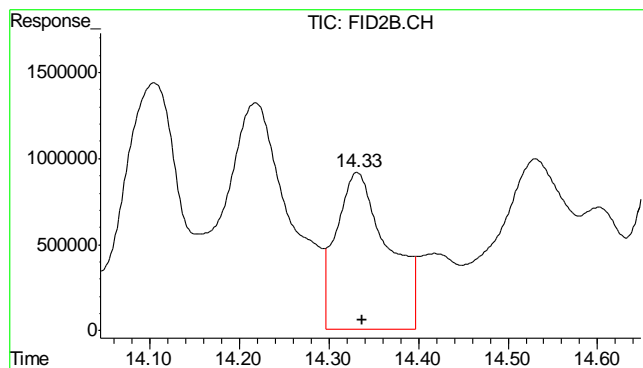
#8 m,p-Xylene

R.T.: 10.429 min
Delta R.T.: 0.004 min
Response: 492661
Conc: 0.98 ug/L



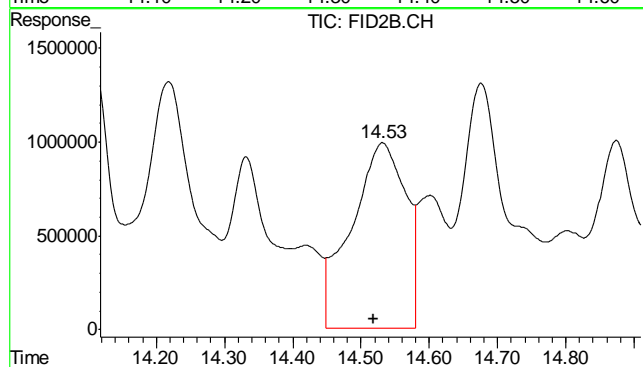
#9 o-Xylene

R.T.: 10.923 min
Delta R.T.: -0.003 min
Response: 202905
Conc: 0.62 ug/L



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

R.T.: 14.332 min
Delta R.T.: -0.005 min
Response: 37010999
Conc: 227.72 %



#11 Naphthalene

R.T.: 14.531 min
Delta R.T.: 0.012 min
Response: 54969498
Conc: 278.60 ug/L

6.1.3

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16046.D\FID1A.CH Vial: 2
 Signal #2 : Y:\1\DATA\051812\GB16046.D\FID2B.CH
 Acq On : 18 May 2012 5:47 pm Operator: StephK
 Sample : MB Inst : GC/MS Ins
 Misc : GC2848,GGB894,5.000,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: May 21 08:23:21 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon May 21 08:23:01 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	2812754	89.767	%
10) S	1,2,4-Trichlorobenzene (P)	14.32	15061670	92.672	%
Target Compounds					
1) H	TVH-Gasoline	7.23	4149318	<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	130423	0.329	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	240836	1.221	ug/L

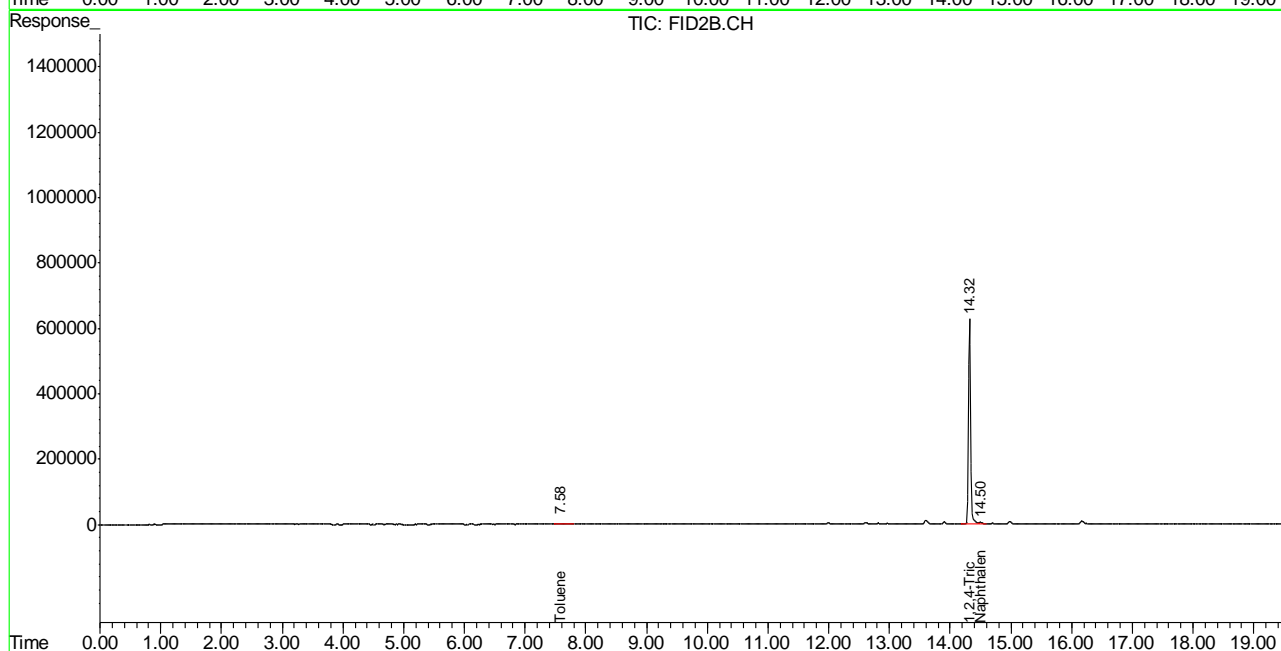
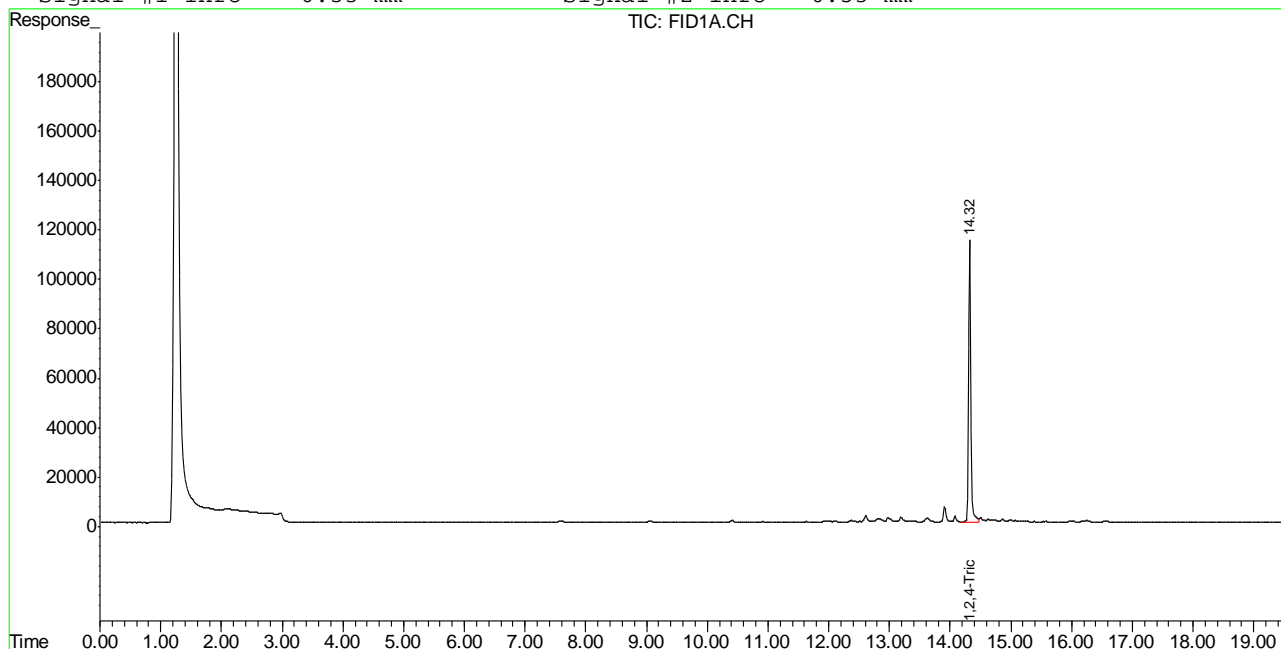
(f)=RT Delta > 1/2 Window (m)=manual int.
 GB16046.D TB868GB868SOIL.M Mon May 21 08:40:16 2012 GC

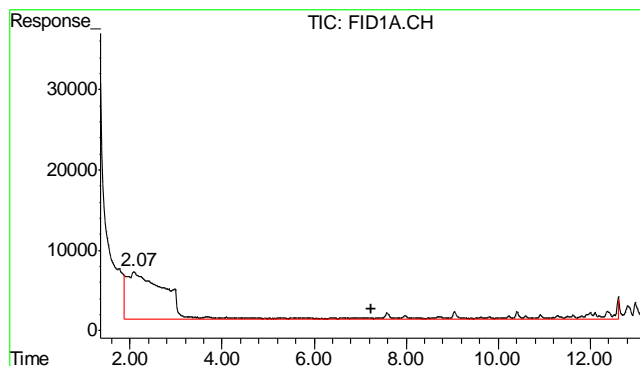
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\051812\GB16046.D\FID1A.CH Vial: 2
Signal #2 : Y:\1\DATA\051812\GB16046.D\FID2B.CH
Acq On : 18 May 2012 5:47 pm Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2848,GGB894,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 21 7:34 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon May 21 08:23:01 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

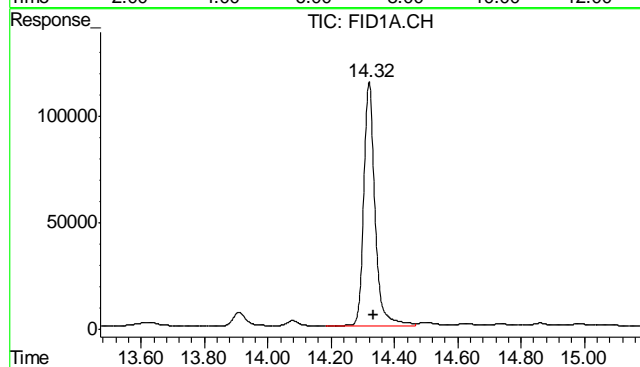
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





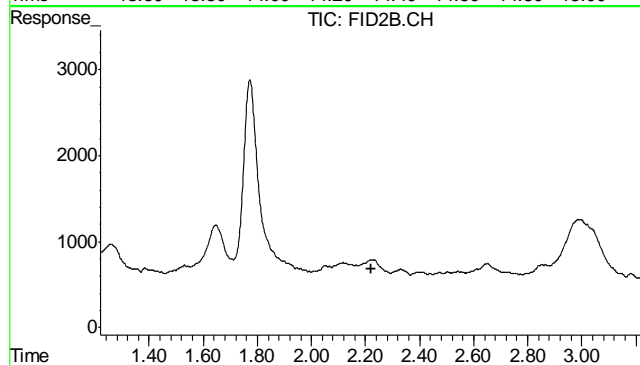
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4149318
Conc: N.D.



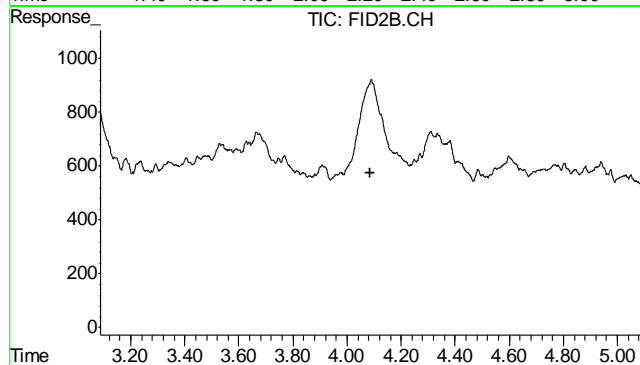
#2 1,2,4-Trichlorobenzene

R.T.: 14.320 min
Delta R.T.: -0.013 min
Response: 2812754
Conc: 89.77 %



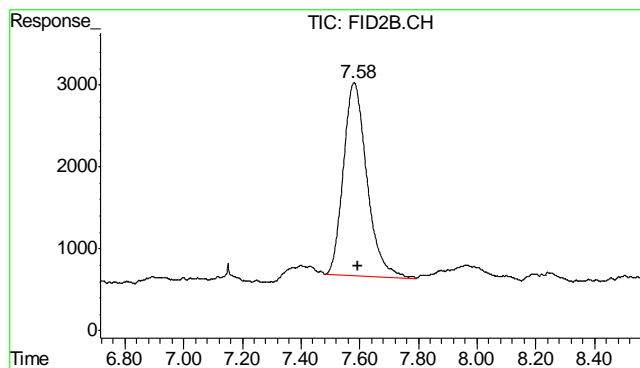
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.220 min
Response: 0
Conc: N.D.



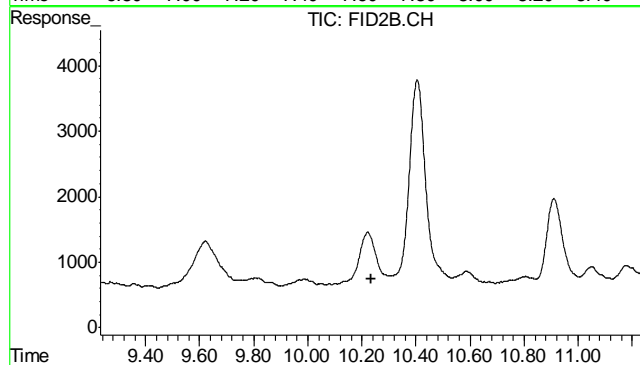
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.088 min
Response: 0
Conc: N.D.



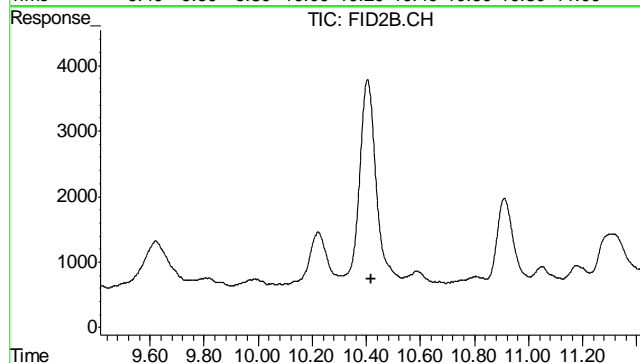
#6 Toluene

R.T.: 7.581 min
Delta R.T.: -0.011 min
Response: 130423
Conc: 0.33 ug/L



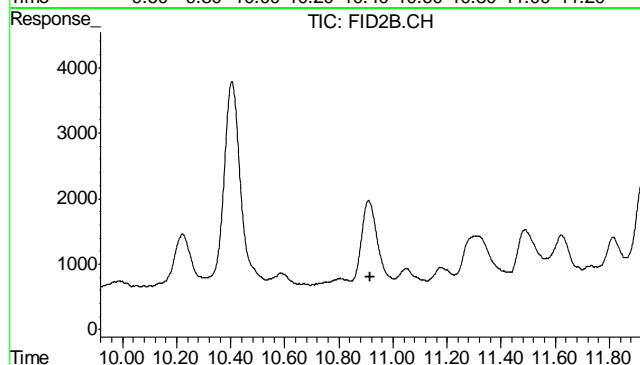
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.233 min
Response: 0
Conc: N.D.



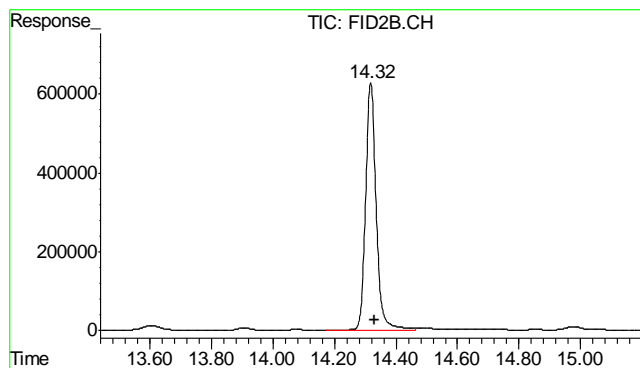
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.416 min
Response: 0
Conc: N.D.



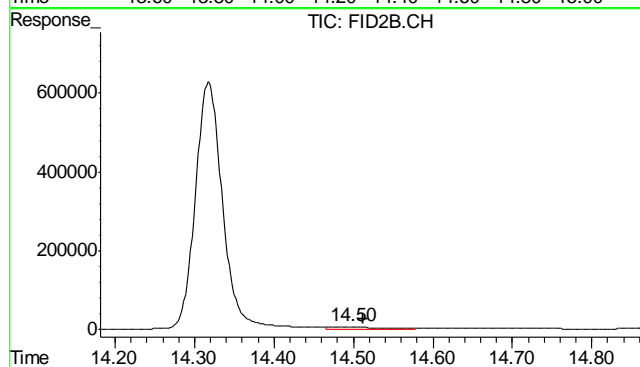
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.917 min
Response: 0
Conc: N.D.



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

R.T.: 14.318 min
Delta R.T.: -0.013 min
Response: 15061670
Conc: 92.67 %



#11 Naphthalene

R.T.: 14.498 min
Delta R.T.: -0.015 min
Response: 240836
Conc: 1.22 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: D34642
Account: XTOKRWR XTO Energy
Project: PCU 297-10B

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5925-MB	FH004704.D	1	05/25/12	AW	05/21/12	OP5925	GFH265

The QC reported here applies to the following samples:

Method: SW846-8015B

D34642-1, D34642-2, D34642-3

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

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	139%* a 43-136%

(a) Outside control limits. Since the bias is high and DRO is ND, no further action is required.

Blank Spike Summary

Page 1 of 1

Job Number: D34642
Account: XTOKRWR XTO Energy
Project: PCU 297-10B

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5925-BS	FH004706.D	1	05/25/12	AW	05/21/12	OP5925	GFH265

The QC reported here applies to the following samples:

Method: SW846-8015B

D34642-1, D34642-2, D34642-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	528	79	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	110%	43-136%

7.2.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D34642
Account: XTOKRWR XTO Energy
Project: PCU 297-10B

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5925-MS	FH004708.D	20	05/25/12	AW	05/21/12	OP5925	GFH265
OP5925-MSD	FH004710.D	20	05/25/12	AW	05/21/12	OP5925	GFH265
D34642-1	FH004720.D	20	05/25/12	AW	05/21/12	OP5925	GFH265

The QC reported here applies to the following samples:

Method: SW846-8015B

D34642-1, D34642-2, D34642-3

CAS No.	Compound	D34642-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	9450		769	9150	-39* a	10800	175	17	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D34642-1	Limits
84-15-1	o-Terphenyl	13%* b	31%* b	23%* b	43-136%

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

(b) Outside control limits due to dilution.

GC Semi-volatiles

Raw Data

∞

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052512.SEC\
 Data File : FH004720.D
 Signal(s) : FID2B.ch
 Acq On : 25 May 2012 2:55 pm
 Operator : alexwl
 Sample : D34642-1, 20x
 Misc : OP5925,GFH265,30.00,,,2,20
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 15:20:36 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH222R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Fri May 11 15:44:51 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.255	43763067	11.315 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.674	6996982933	6120.382 ug/ml

(f)=RT Delta > 1/2 Window

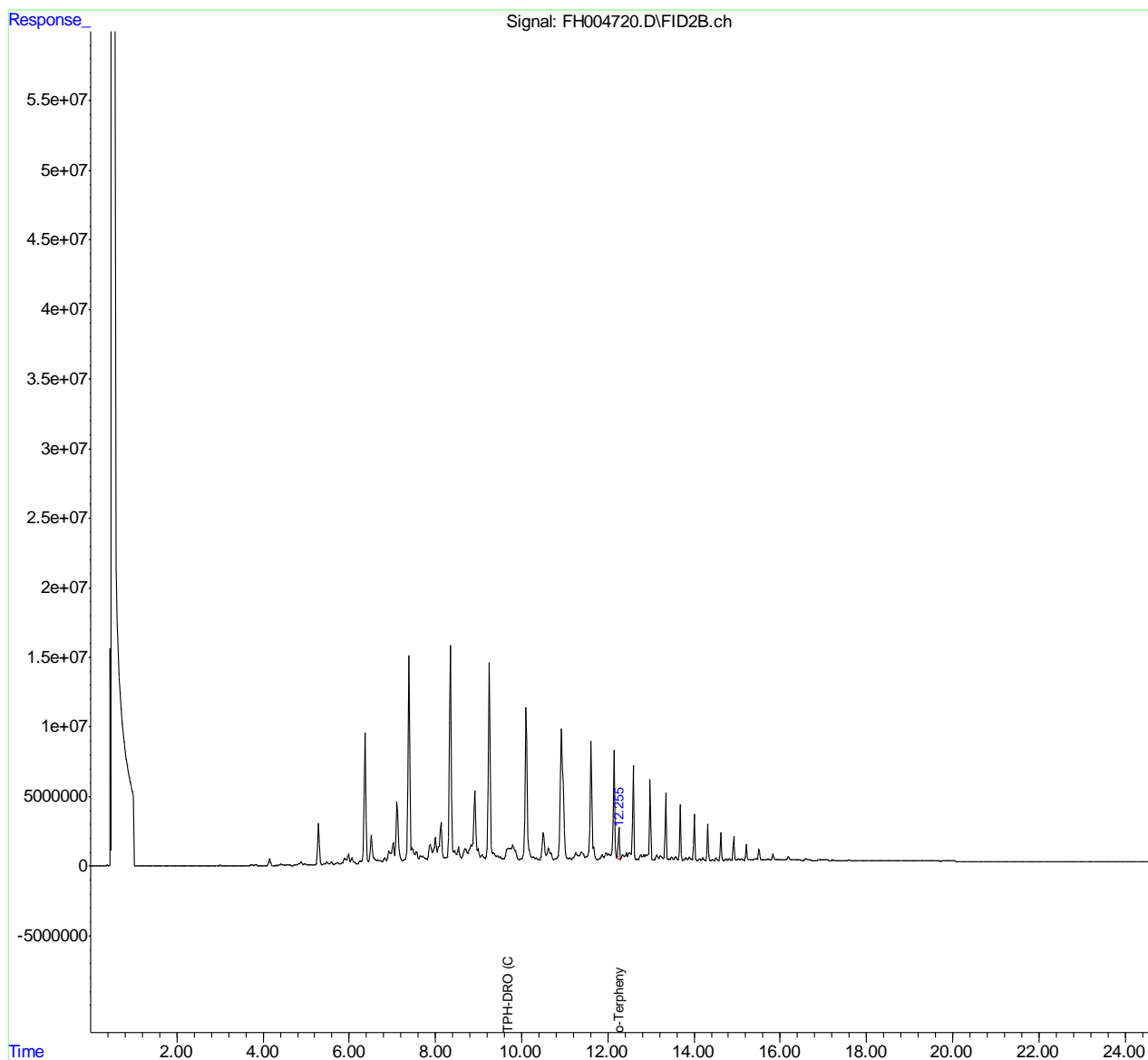
(m)=manual int.

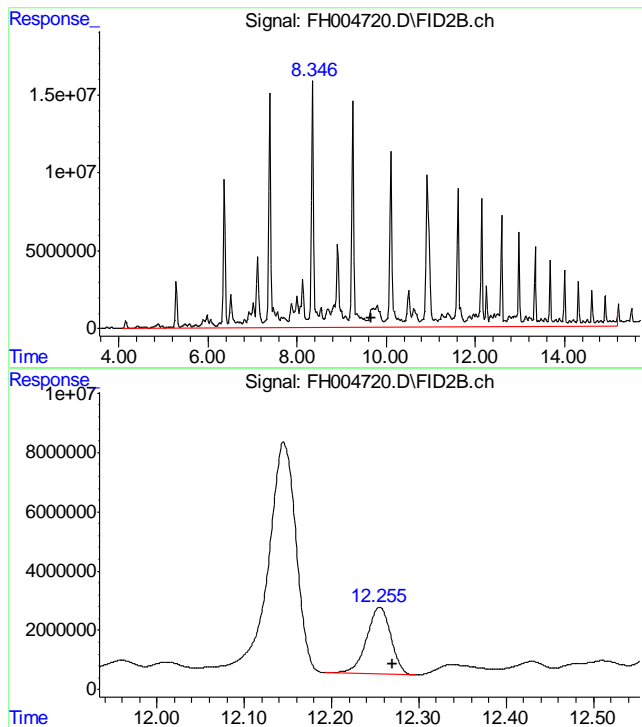
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052512.SEC\
Data File : FH004720.D
Signal(s) : FID2B.ch
Acq On : 25 May 2012 2:55 pm
Operator : alexwl
Sample : D34642-1, 20x
Misc : OP5925,GFH265,30.00,,,2,20
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 15:20:36 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH222R.M
Quant Title : DRO-ORO REAR
QLast Update : Fri May 11 15:44:51 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.674 min

Delta R.T.: 0.000 min

Response: 6996982933

Conc: 6120.38 ug/ml m

#2 o-Terphenyl

R.T.: 12.255 min

Delta R.T.: -0.015 min

Response: 43763067

Conc: 11.32 ug/ml

8.1.1

8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052712.SEC\
Data File : FH004828.D
Signal(s) : FID2B.ch
Acq On : 28 May 2012 10:57 am
Operator : ashleyv
Sample : D34642-2
Misc : OP5925,GFH269,30.00,,,2,1
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 28 16:58:35 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH267R.M
Quant Title : DRO-ORO REAR
QLast Update : Mon May 28 14:53:44 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.194	496447967	468.853 ug/mlm
Target Compounds			
1) H TPH-DRO (C10-C28)	9.588	2021227345	1648.749 ug/ml

(f)=RT Delta > 1/2 Window

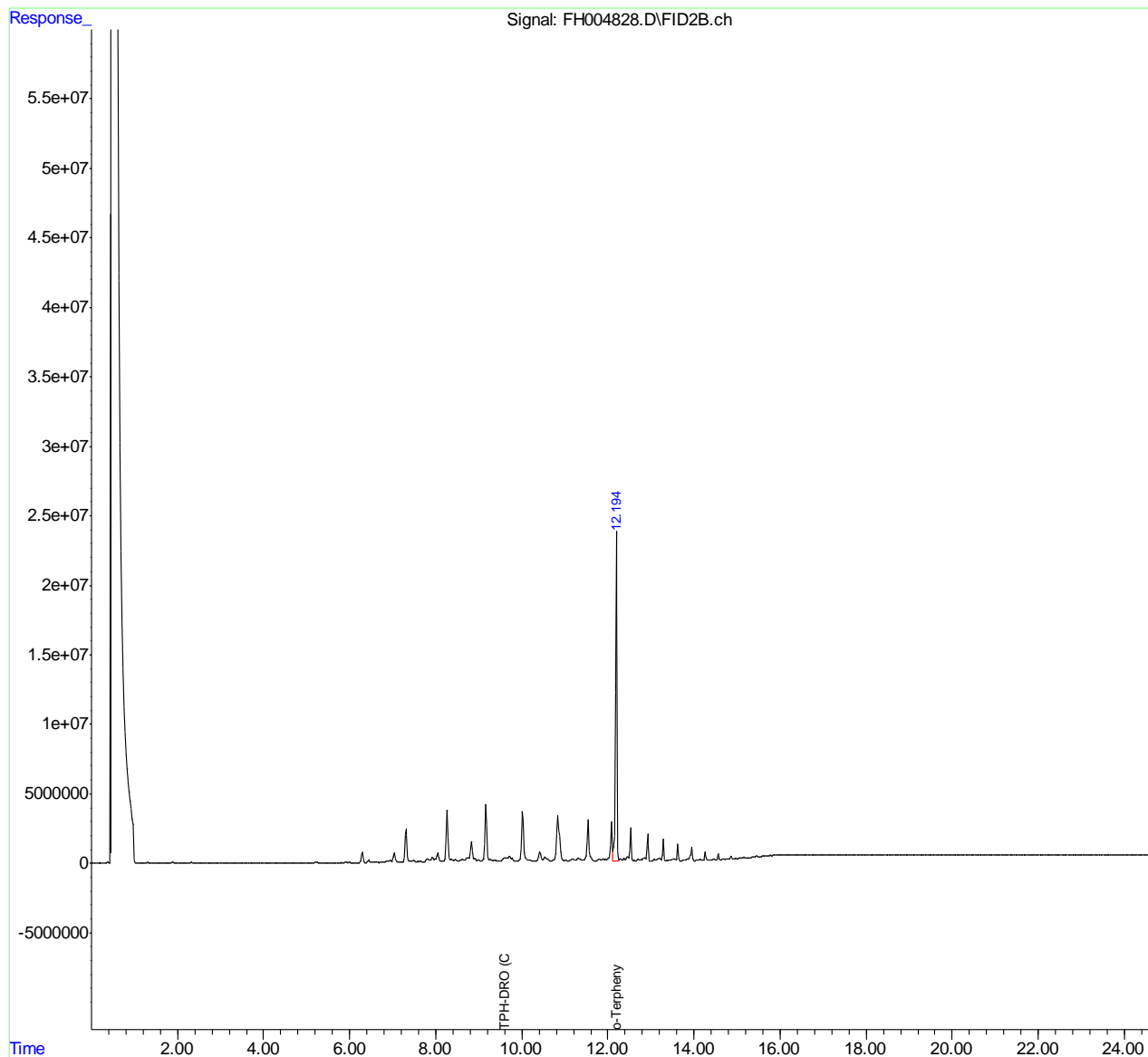
(m)=manual int.

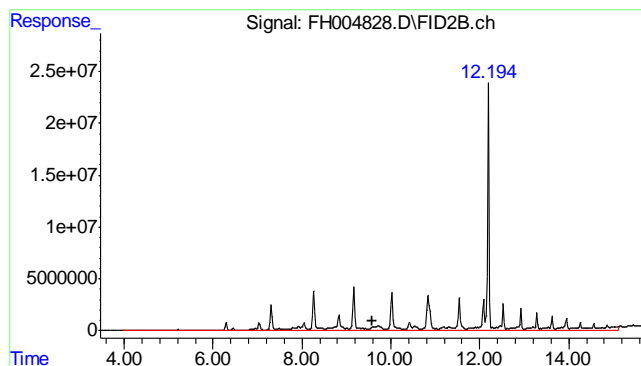
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052712.SEC\
Data File : FH004828.D
Signal(s) : FID2B.ch
Acq On : 28 May 2012 10:57 am
Operator : ashleyv
Sample : D34642-2
Misc : OP5925,GFH269,30.00,,,2,1
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 28 16:58:35 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH267R.M
Quant Title : DRO-ORO REAR
QLast Update : Mon May 28 14:53:44 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





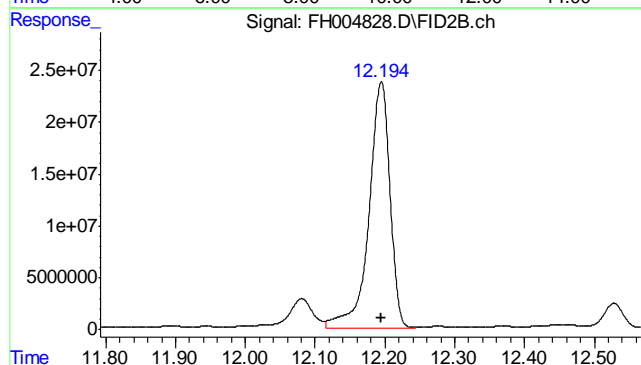
#1 TPH-DRO (C10-C28)

R.T.: 9.588 min

Delta R.T.: 0.000 min

Response: 2021227345

Conc: 1648.75 ug/ml m



#2 o-Terphenyl

R.T.: 12.194 min

Delta R.T.: 0.000 min

Response: 496447967

Conc: 468.85 ug/ml m

8.12
8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052712.SEC\
 Data File : FH004830.D
 Signal(s) : FID2B.ch
 Acq On : 28 May 2012 11:42 am
 Operator : ashleyv
 Sample : D34642-3, 2x
 Misc : OP5925,GFH269,30.00,,,2,2
 ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 28 16:59:01 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH267R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Mon May 28 14:53:44 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.199	564160525	540.645 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.588	48320321142	39415.689 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

8.1.3

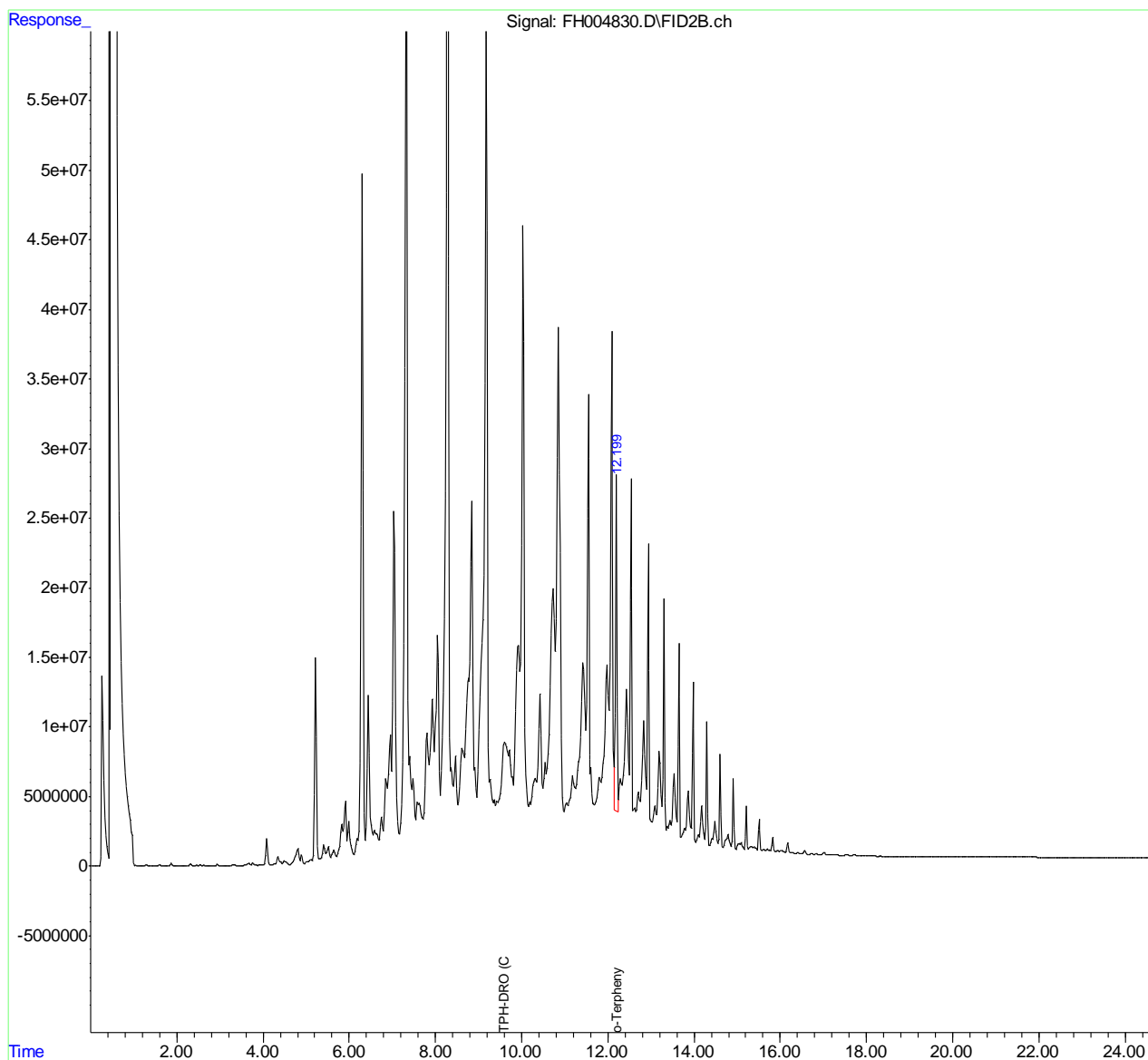
8

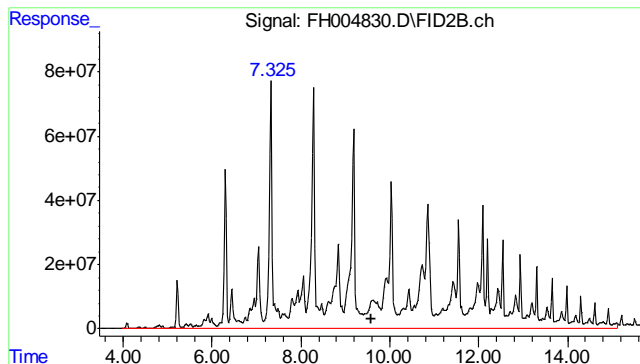
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052712.SEC\
Data File : FH004830.D
Signal(s) : FID2B.ch
Acq On : 28 May 2012 11:42 am
Operator : ashleyv
Sample : D34642-3, 2x
Misc : OP5925,GFH269,30.00,,,2,2
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 28 16:59:01 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH267R.M
Quant Title : DRO-ORO REAR
QLast Update : Mon May 28 14:53:44 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





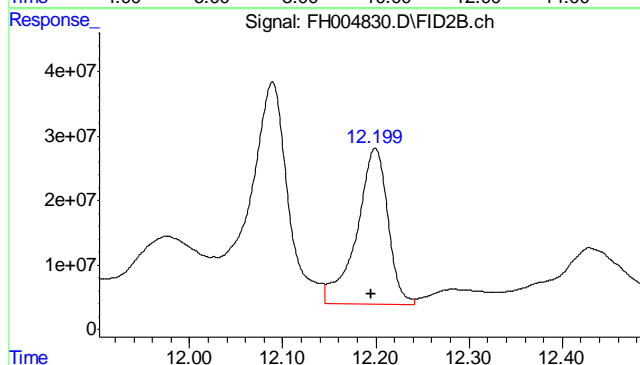
#1 TPH-DRO (C10-C28)

R.T.: 9.588 min

Delta R.T.: 0.000 min

Response: 48320321142

Conc: 39415.69 ug/ml m



#2 o-Terphenyl

R.T.: 12.199 min

Delta R.T.: 0.004 min

Response: 564160525

Conc: 540.65 ug/ml

8.1.3
8

James Rhudy
05/25/12 17:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052512.SEC\
Data File : FH004704.D
Signal(s) : FID2B.ch
Acq On : 25 May 2012 10:10 am
Operator : alexwl
Sample : OP5925-MB
Misc : OP5925,GFH265,30.00,,,2,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 10:35:02 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH222R.M
Quant Title : DRO-ORO REAR
QLast Update : Fri May 11 15:44:51 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.268	1356502245	1393.927 ug/mlm
Target Compounds			
1) H TPH-DRO (C10-C28)	9.674	44206324	38.668 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

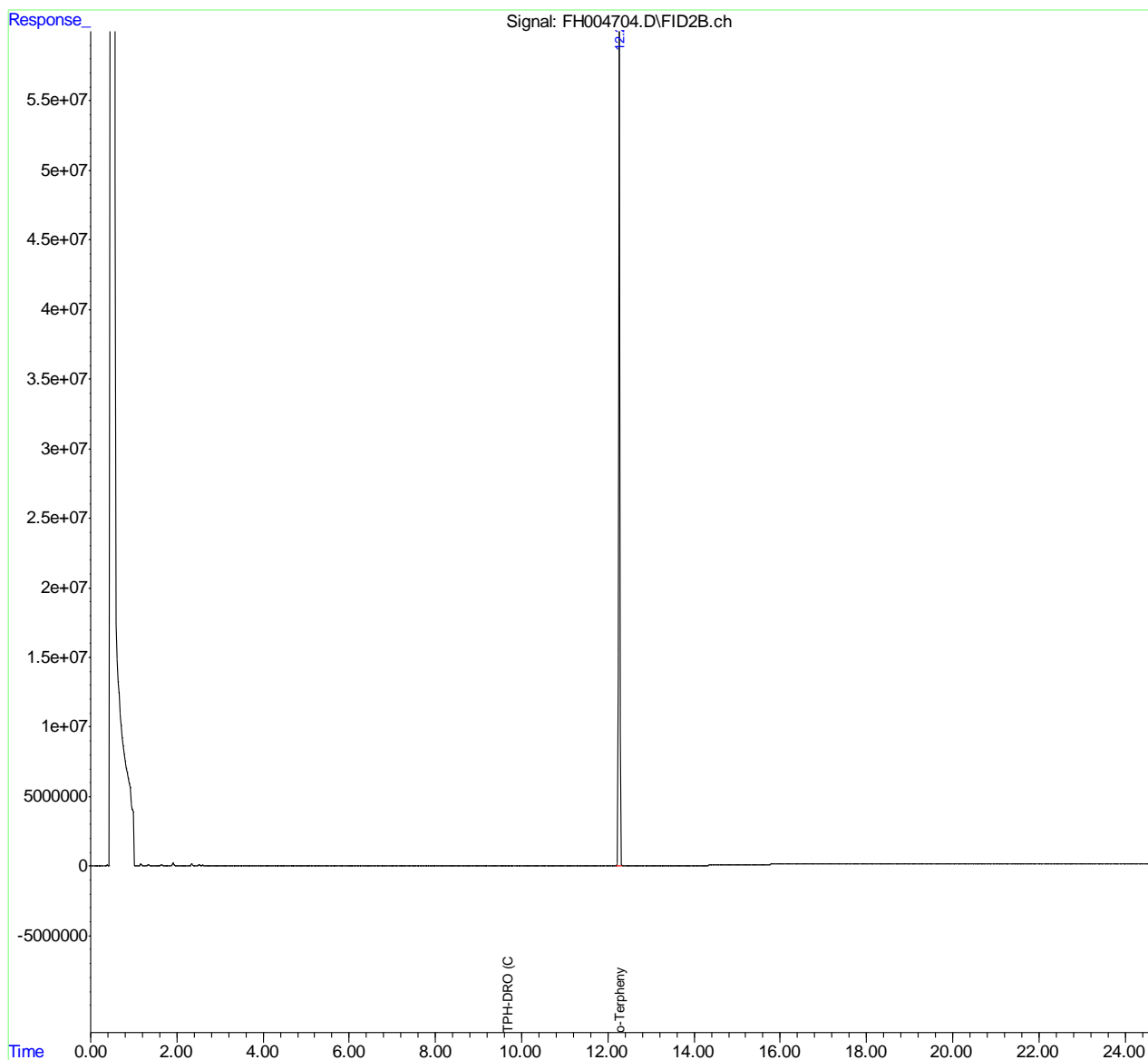
8.2.1
8

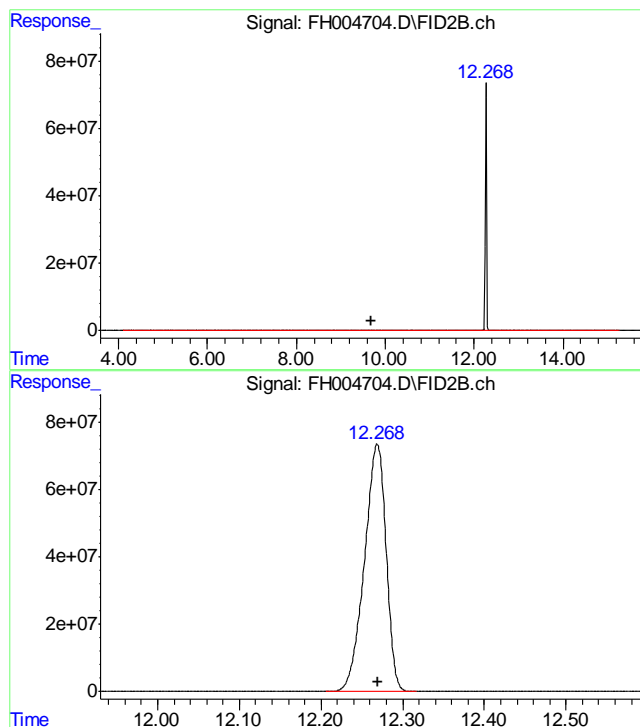
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH052512.SEC\
Data File : FH004704.D
Signal(s) : FID2B.ch
Acq On : 25 May 2012 10:10 am
Operator : alexwl
Sample : OP5925-MB
Misc : OP5925,GFH265,30.00,,,2,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 10:35:02 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH222R.M
Quant Title : DRO-ORO REAR
QLast Update : Fri May 11 15:44:51 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.674 min
Delta R.T.: 0.000 min
Response: 44206324
Conc: 38.67 ug/ml m

#2 o-Terphenyl

R.T.: 12.268 min
Delta R.T.: -0.002 min
Response: 1356502245
Conc: 1393.93 ug/ml m

8.2.1

8