



03/28/12

## Technical Report for

**XTO Energy**

**FRU 297-32A**

**1108-12A**

**Accutest Job Number: D32939**

**Sampling Date: 03/20/12**

### Report to:

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

**Total number of pages in report: 36**



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)

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

Test results relate only to samples analyzed.

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Sample Summary

XTO Energy

Job No: D32939

FRU 297-32A

Project No: 1108-12A

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D32939-1	03/20/12	09:45 DS	03/21/12	SO	Soil	RP SUBLINER POST MIX (COMPOSITE)

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

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** XTO Energy**Job No** D32939**Site:** FRU 297-32A**Report Date** 3/28/2012 2:26:48 PM

On 03/21/2012, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D32939 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

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

### Volatiles by GC By Method SW846 8015B

**Matrix** SO**Batch ID:** GGB862

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32908-2MS, D32908-2MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846-8015B

**Matrix** SO**Batch ID:** OP5608

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32939-1MS, D32939-1MSD were used as the QC samples indicated.

### Wet Chemistry By Method SM19 2540B M

**Matrix** SO**Batch ID:** GN14177

- 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:	RP SUBLINER POST MIX (COMPOSITE)					Date Sampled:	03/20/12
Lab Sample ID:	D32939-1					Date Received:	03/21/12
Matrix:	SO - Soil					Percent Solids:	88.5
Method:	SW846 8015B						
Project:	FRU 297-32A						

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15354.D	1	03/21/12	SK	n/a	n/a	GGB862
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)	ND	12	6.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	94%		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

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## Report of Analysis

Page 1 of 1

Client Sample ID:	RP SUBLINER POST MIX (COMPOSITE)					Date Sampled:	03/20/12
Lab Sample ID:	D32939-1					Date Received:	03/21/12
Matrix:	SO - Soil					Percent Solids:	88.5
Method:	SW846-8015B SW846 3546						
Project:	FRU 297-32A						

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH002597.D	1	03/26/12	TR	03/26/12	OP5608	GFH135
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)	498	15	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	58%		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

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D32930

[illegible]

### D32939: Chain of Custody

Page 1 of 2

# Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D32939

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 3/21/2012 10:30:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO FRU 297-32A

Airbill #'s: HD/CO

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

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

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

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

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

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

Comments

Accutest Laboratories  
V:(303) 425-6021

4036 Youngfield Street  
F: (303) 425-6854

Wheat Ridge, CO  
www.accutest.com

## GC Volatiles

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### QC Data Summaries

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**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: D32939

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB862-MB	GB15348.D	1	03/21/12	SK	n/a	n/a	GGB862

The QC reported here applies to the following samples:

Method: SW846 8015B

D32939-1

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

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

## Blank Spike Summary

Page 1 of 1

Job Number: D32939

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB862-BS	GB15349.D	1	03/21/12	SK	n/a	n/a	GGB862

The QC reported here applies to the following samples:

Method: SW846 8015B

D32939-1

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

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

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D32939

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32908-2MS	GB15351.D	1	03/21/12	SK	n/a	n/a	GGB862
D32908-2MSD	GB15352.D	1	03/21/12	SK	n/a	n/a	GGB862
D32908-2	GB15350.D	1	03/21/12	SK	n/a	n/a	GGB862

The QC reported here applies to the following samples:

Method: SW846 8015B

D32939-1

CAS No.	Compound	D32908-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		173	176	102	177	103	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D32908-2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%	102%	97%	60-140%

## GC Volatiles

## Raw Data



Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032112\GB15354.D\FID1A.CH Vial: 10  
Signal #2 : Y:\1\DATA\032112\GB15354.D\FID2B.CH  
Acq On : 21 Mar 2012 8:48 pm Operator: StephK  
Sample : D32939-1, 50X Inst : GC/MS Ins  
Misc : GC2689,GGB862,5.064,,100,5,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 22 08:51:00 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Mar 16 15:05:09 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	2827559	93.730 %	m
10) S 1,2,4-Trichlorobenzene (P)	14.32	22235917	95.548 %	
Target Compounds				
1) H TVH-Gasoline	7.26	5882457	<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	170724	0.312	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	10.41	309555	0.553	ug/L
9) T o-Xylene	10.91	99175	0.216	ug/L
11) T Naphthalene	14.50	952529	3.645	ug/L

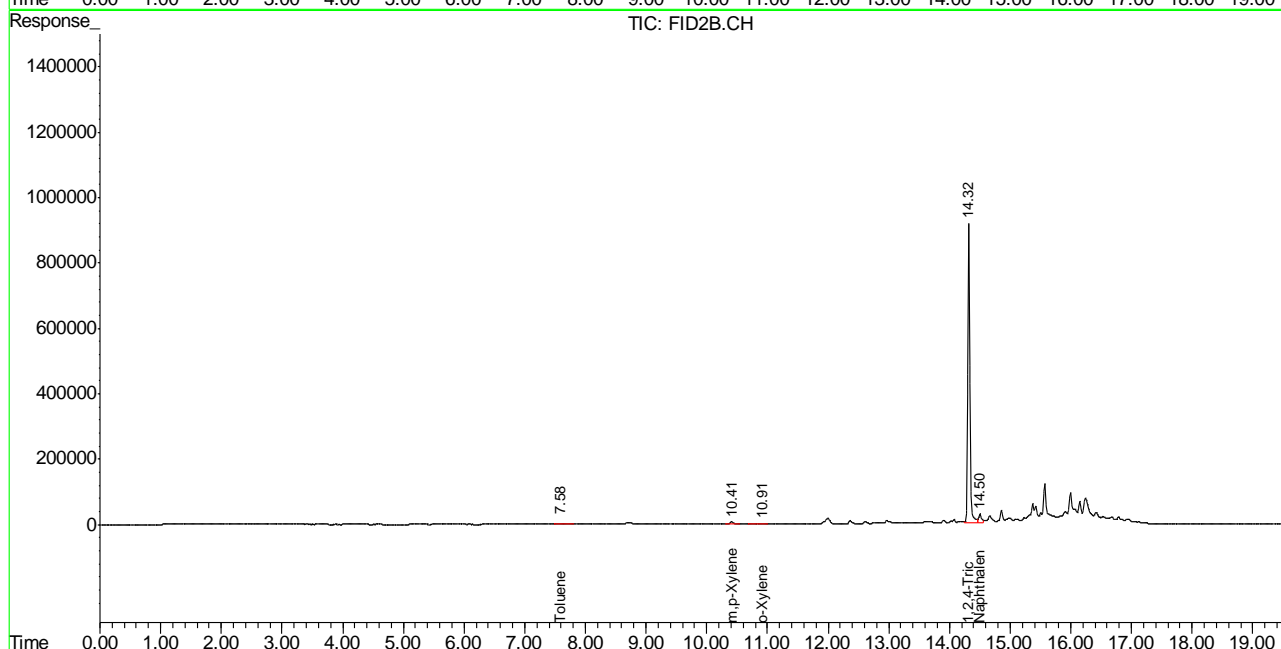
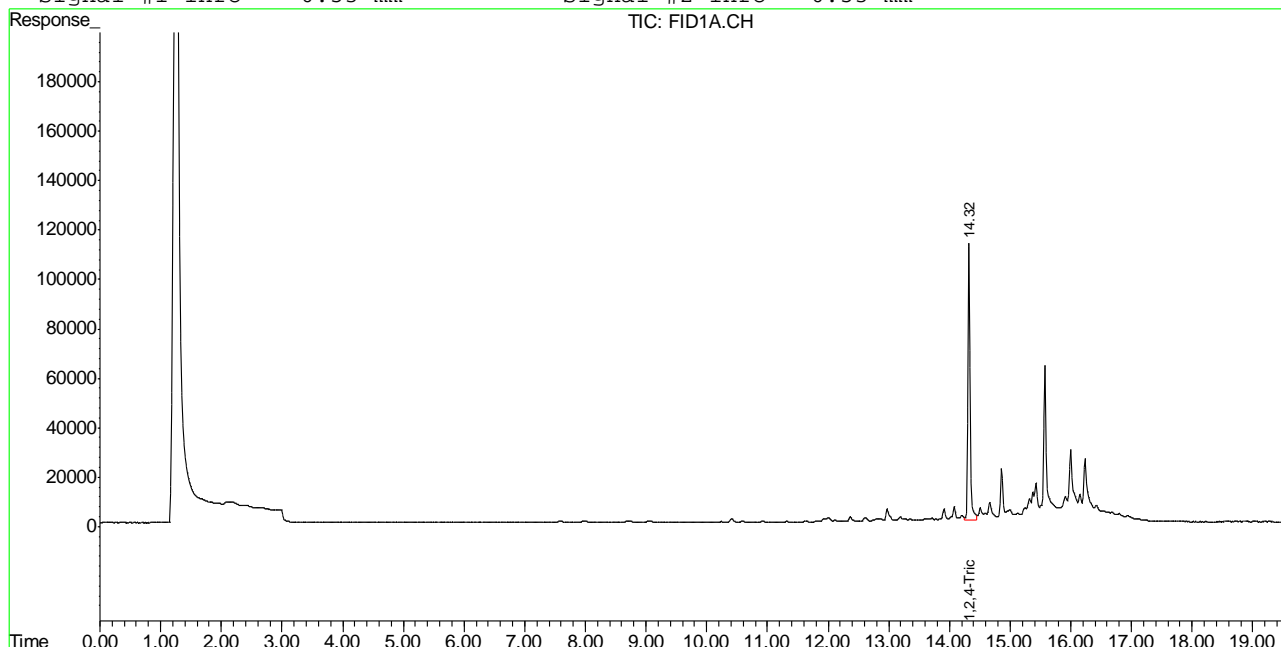


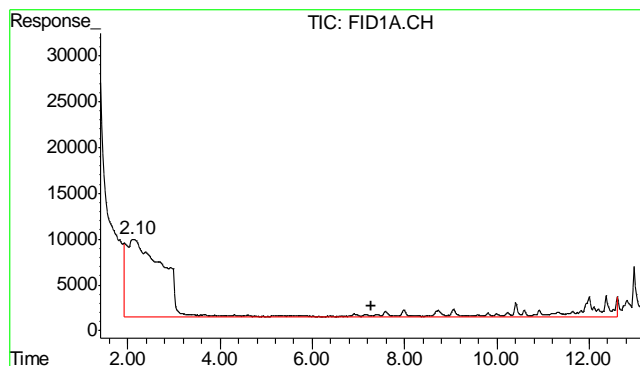
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032112\GB15354.D\FID1A.CH Vial: 10  
 Signal #2 : Y:\1\DATA\032112\GB15354.D\FID2B.CH  
 Acq On : 21 Mar 2012 8:48 pm Operator: StephK  
 Sample : D32939-1, 50X Inst : GC/MS Ins  
 Misc : GC2689,GGB862,5.064,,100,5,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 22 9:39 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Mar 16 15:05:09 2012  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB4.M

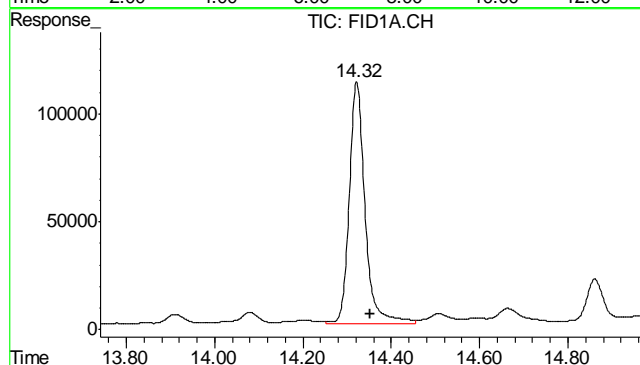
Volume Inj. :  
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





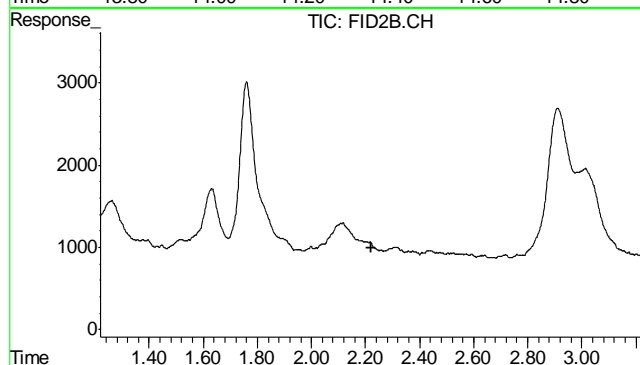
#1 TVH-Gasoline

R.T.: 7.265 min  
Delta R.T.: 0.000 min  
Response: 5882457  
Conc: N.D.



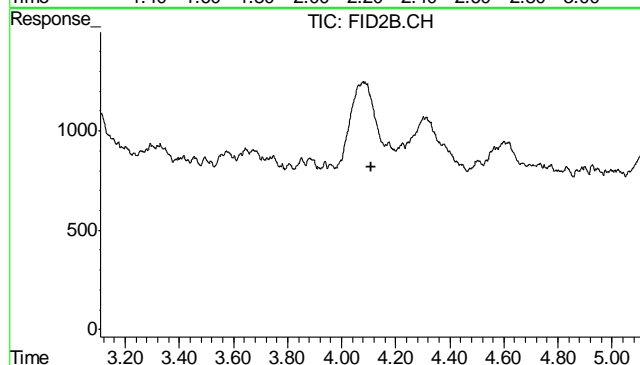
#2 1,2,4-Trichlorobenzene

R.T.: 14.321 min  
Delta R.T.: -0.032 min  
Response: 2827559  
Conc: 93.73 % m



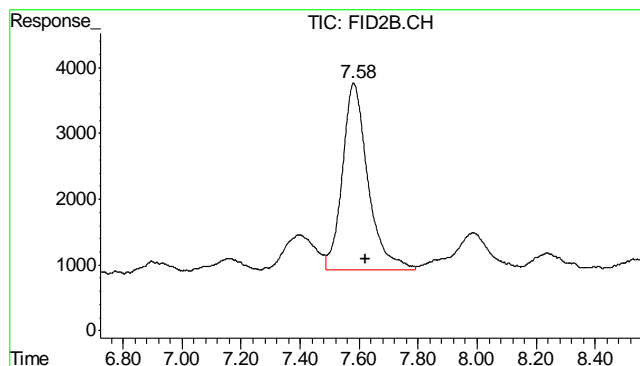
#4 Methyl-t-butyl-ether

R.T.: 0.000 min  
Exp R.T.: 2.219 min  
Response: 0  
Conc: N.D.



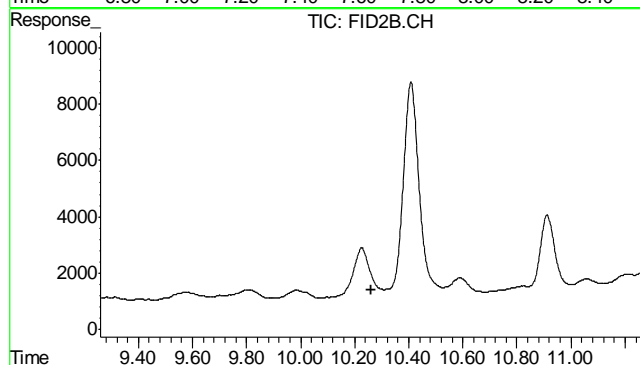
#5 Benzene

R.T.: 0.000 min  
Exp R.T.: 4.108 min  
Response: 0  
Conc: N.D.



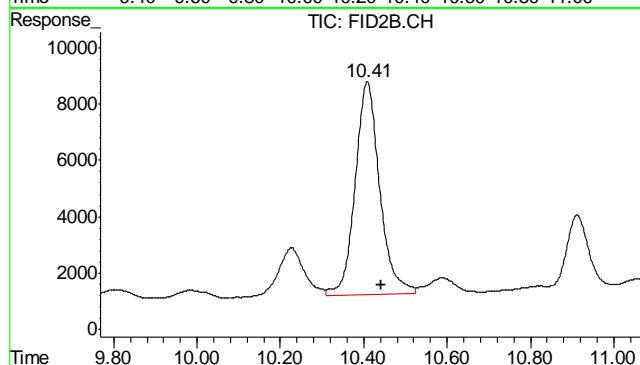
#6 Toluene

R.T.: 7.582 min  
Delta R.T.: -0.041 min  
Response: 170724  
Conc: 0.31 ug/L



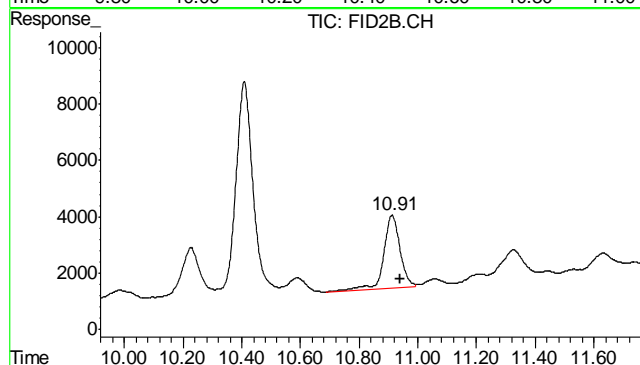
#7 Ethylbenzene

R.T.: 0.000 min  
Exp R.T.: 10.260 min  
Response: 0  
Conc: N.D.



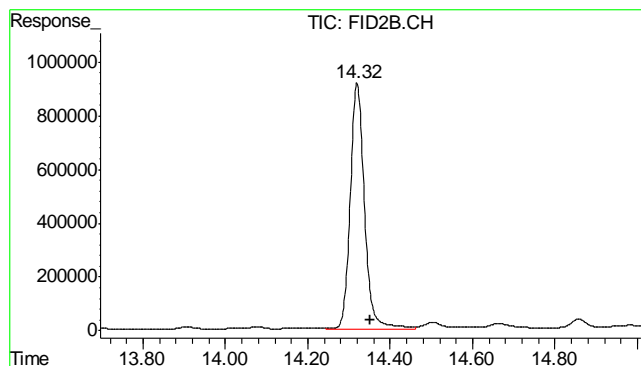
#8 m,p-Xylene

R.T.: 10.409 min  
Delta R.T.: -0.033 min  
Response: 309555  
Conc: 0.55 ug/L



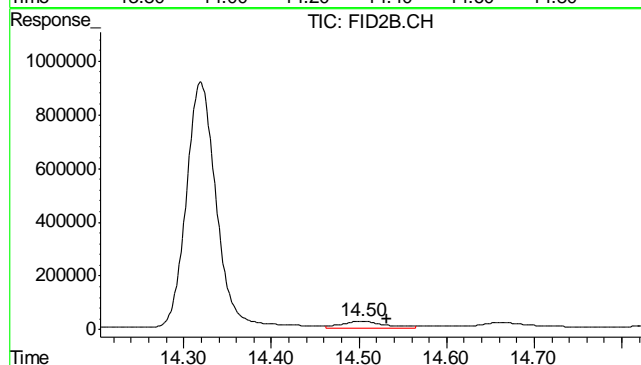
#9 o-Xylene

R.T.: 10.912 min  
Delta R.T.: -0.029 min  
Response: 99175  
Conc: 0.22 ug/L



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

R.T.: 14.320 min  
Delta R.T.: -0.031 min  
Response: 22235917  
Conc: 95.55 %



#11 Naphthalene

R.T.: 14.503 min  
Delta R.T.: -0.030 min  
Response: 952529  
Conc: 3.65 ug/L

6.1.1

6

Judy Melson  
03/23/12 14:40

## Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032112\GB15348.D\FID1A.CH Vial: 4  
Signal #2 : Y:\1\DATA\032112\GB15348.D\FID2B.CH  
Acq On : 21 Mar 2012 5:13 pm Operator: StephK  
Sample : MB Inst : GC/MS Ins  
Misc : GC2689,GGB862,5.000,,100,5,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 22 08:50:36 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Mar 16 15:05:09 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	14.34	2981859	98.845 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.34	23891787	102.663 %	
Target Compounds					
1) H	TVH-Gasoline	7.26	5731852	<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	7.61	200759	0.367	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.43	214212	0.383	ug/L
9) T	o-Xylene	10.93	83273	0.182	ug/L
11) T	Naphthalene	14.52	343001	1.313	ug/L

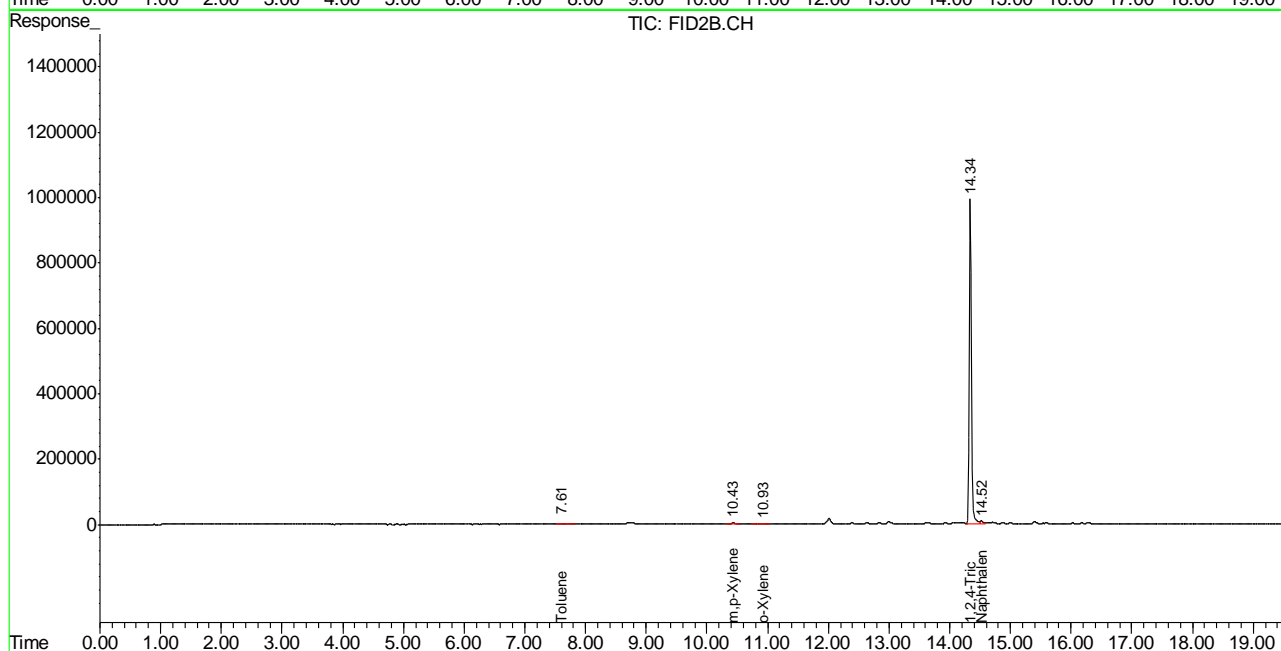
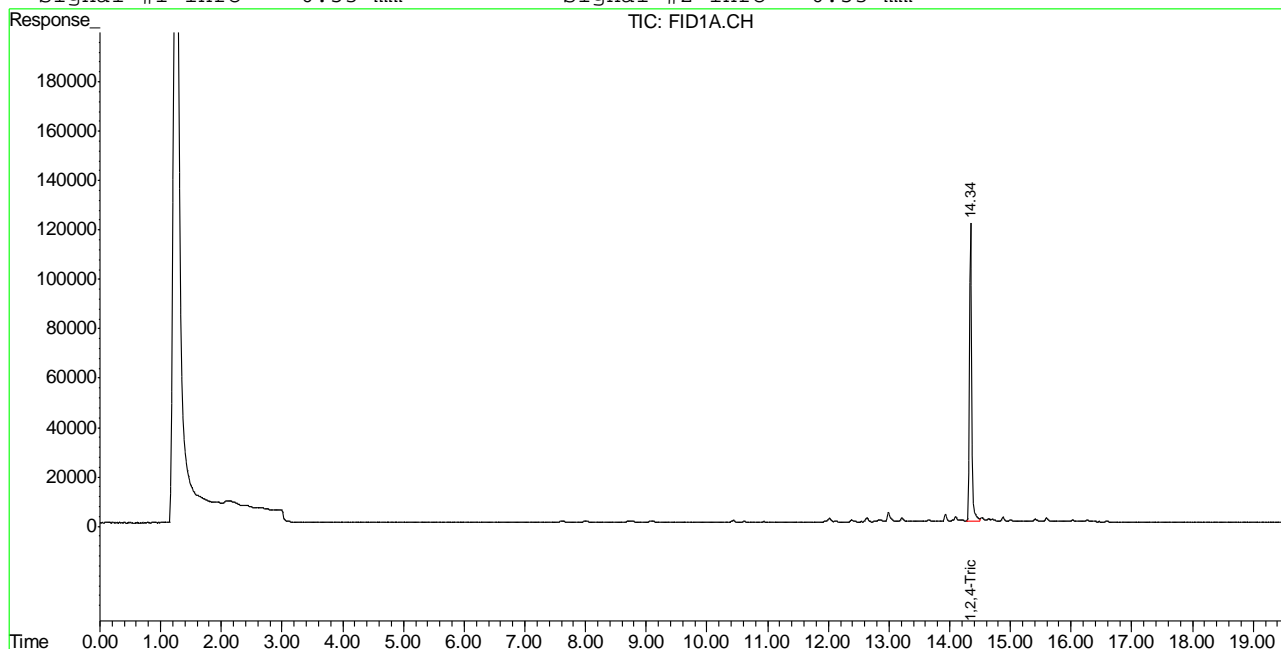
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(f)=RT Delta > 1/2 Window (m)=manual int.  
GB15348.D TB851GB851SOIL.M Thu Mar 22 09:43:25 2012 GC

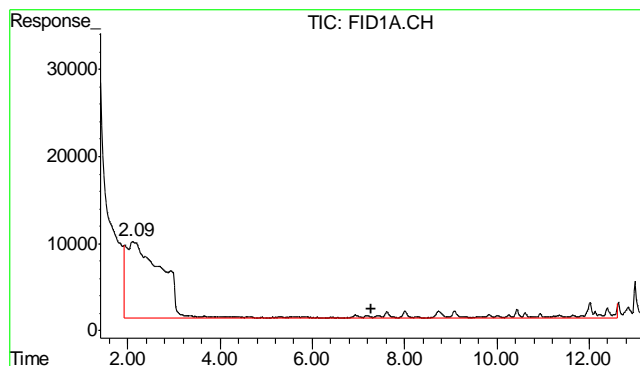
## Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032112\GB15348.D\FID1A.CH Vial: 4  
Signal #2 : Y:\1\DATA\032112\GB15348.D\FID2B.CH  
Acq On : 21 Mar 2012 5:13 pm Operator: StephK  
Sample : MB Inst : GC/MS Ins  
Misc : GC2689,GGB862,5.000,,100,5,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 22 9:37 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Mar 16 15:05:09 2012  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB4.M

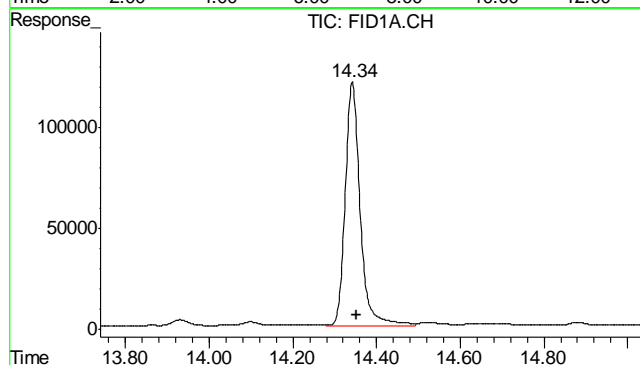
Volume Inj. :  
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





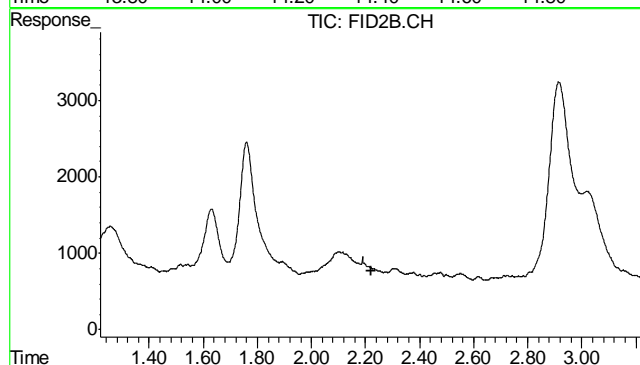
#1 TVH-Gasoline

R.T.: 7.265 min  
Delta R.T.: 0.000 min  
Response: 5731852  
Conc: N.D.



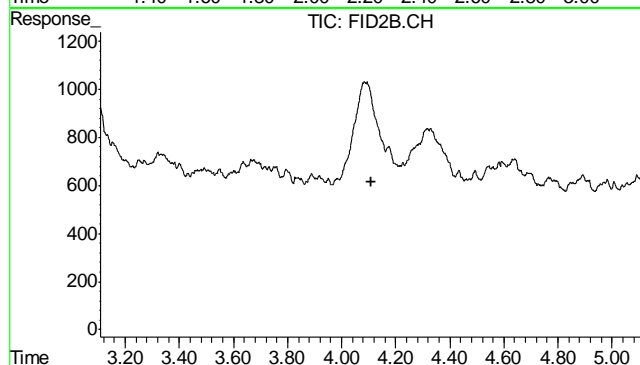
#2 1,2,4-Trichlorobenzene

R.T.: 14.341 min  
Delta R.T.: -0.012 min  
Response: 2981859  
Conc: 98.84 % m



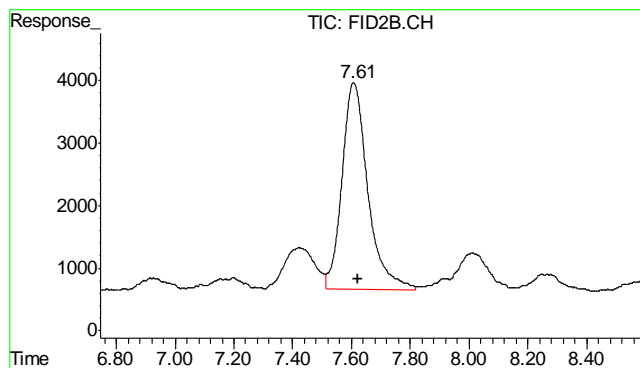
#4 Methyl-t-butyl-ether

R.T.: 0.000 min  
Exp R.T.: 2.219 min  
Response: 0  
Conc: N.D.



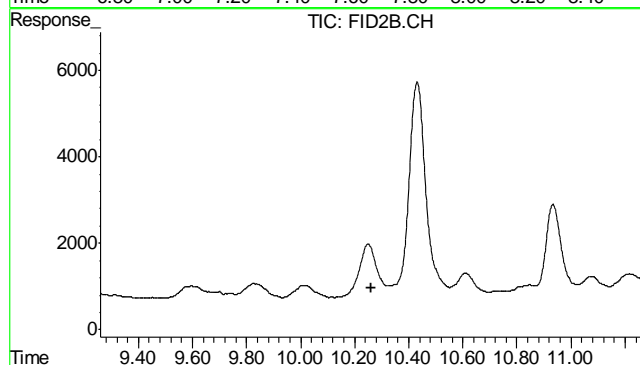
#5 Benzene

R.T.: 0.000 min  
Exp R.T.: 4.108 min  
Response: 0  
Conc: N.D.



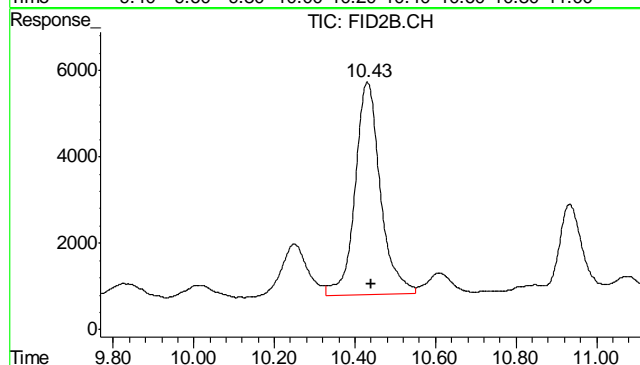
#6 Toluene

R.T.: 7.607 min  
Delta R.T.: -0.016 min  
Response: 200759  
Conc: 0.37 ug/L



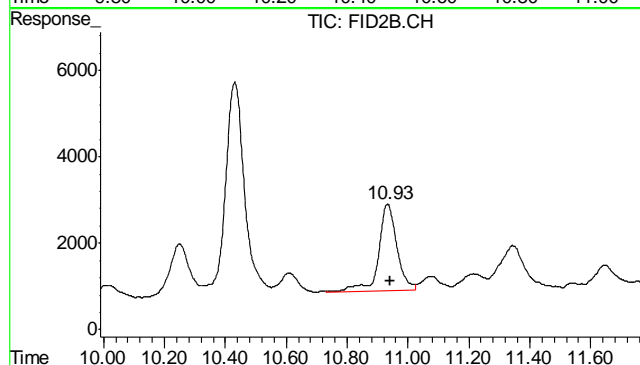
#7 Ethylbenzene

R.T.: 0.000 min  
Exp R.T.: 10.260 min  
Response: 0  
Conc: N.D.



#8 m,p-Xylene

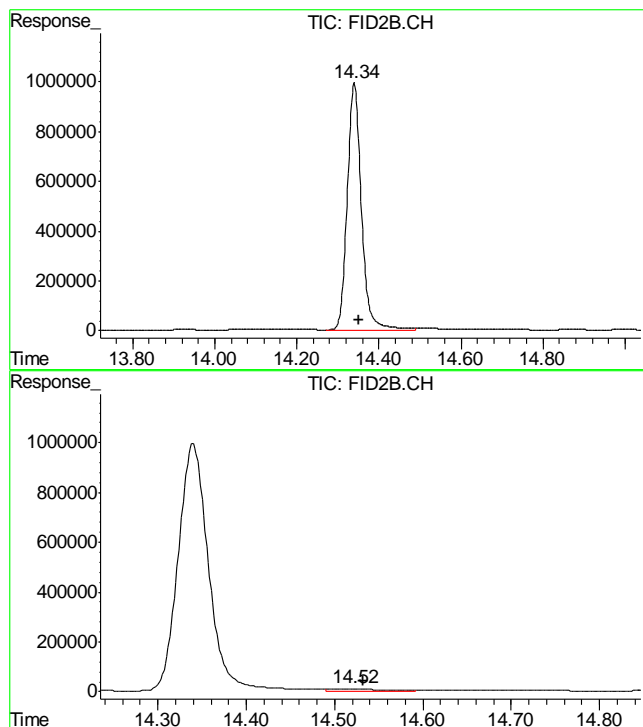
R.T.: 10.431 min  
Delta R.T.: -0.011 min  
Response: 214212  
Conc: 0.38 ug/L



#9 o-Xylene

R.T.: 10.933 min  
Delta R.T.: -0.008 min  
Response: 83273  
Conc: 0.18 ug/L





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

R.T.: 14.340 min  
Delta R.T.: -0.010 min  
Response: 23891787  
Conc: 102.66 %

#11 Naphthalene

R.T.: 14.521 min  
Delta R.T.: -0.012 min  
Response: 343001  
Conc: 1.31 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: D32939

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5608-MB	FH002589.D	1	03/26/12	TR	03/26/12	OP5608	GFH135

The QC reported here applies to the following samples:

Method: SW846-8015B

D32939-1

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	79% 43-136%

## Blank Spike Summary

Page 1 of 1

Job Number: D32939

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5608-BS	FH002591.D	1	03/26/12	TR	03/26/12	OP5608	GFH135

The QC reported here applies to the following samples:

Method: SW846-8015B

D32939-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	508	76	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

Page 1 of 1

Job Number: D32939  
Account: XTOKRWR XTO Energy  
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5608-MS	FH002593.D	1	03/26/12	TR	03/26/12	OP5608	GFH135
OP5608-MSD	FH002595.D	1	03/26/12	TR	03/26/12	OP5608	GFH135
D32939-1	FH002597.D	1	03/26/12	TR	03/26/12	OP5608	GFH135

The QC reported here applies to the following samples:

Method: SW846-8015B

D32939-1

CAS No.	Compound	D32939-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	498		751	1000	67	1030	71	3	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D32939-1	Limits
84-15-1	o-Terphenyl	56%	63%	58%	43-136%

7.3.1

7

**GC Semi-volatiles**

**Raw Data**



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH032612.SEC\  
Data File : FH002597.D  
Signal(s) : FID2B.ch  
Acq On : 26 Mar 2012 7:17 pm  
Operator : tedr  
Sample : D32939-1  
Misc : OP5608,GFH135,30.01,,,2,1  
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Mar 27 08:30:49 2012  
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M  
Quant Title : DRO-ORO REAR  
QLast Update : Sun Mar 04 19:15:40 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	12.327	997735362	582.667 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	10202585186	6611.169 ug/ml
-----			

(f)=RT Delta > 1/2 Window

(m)=manual int.

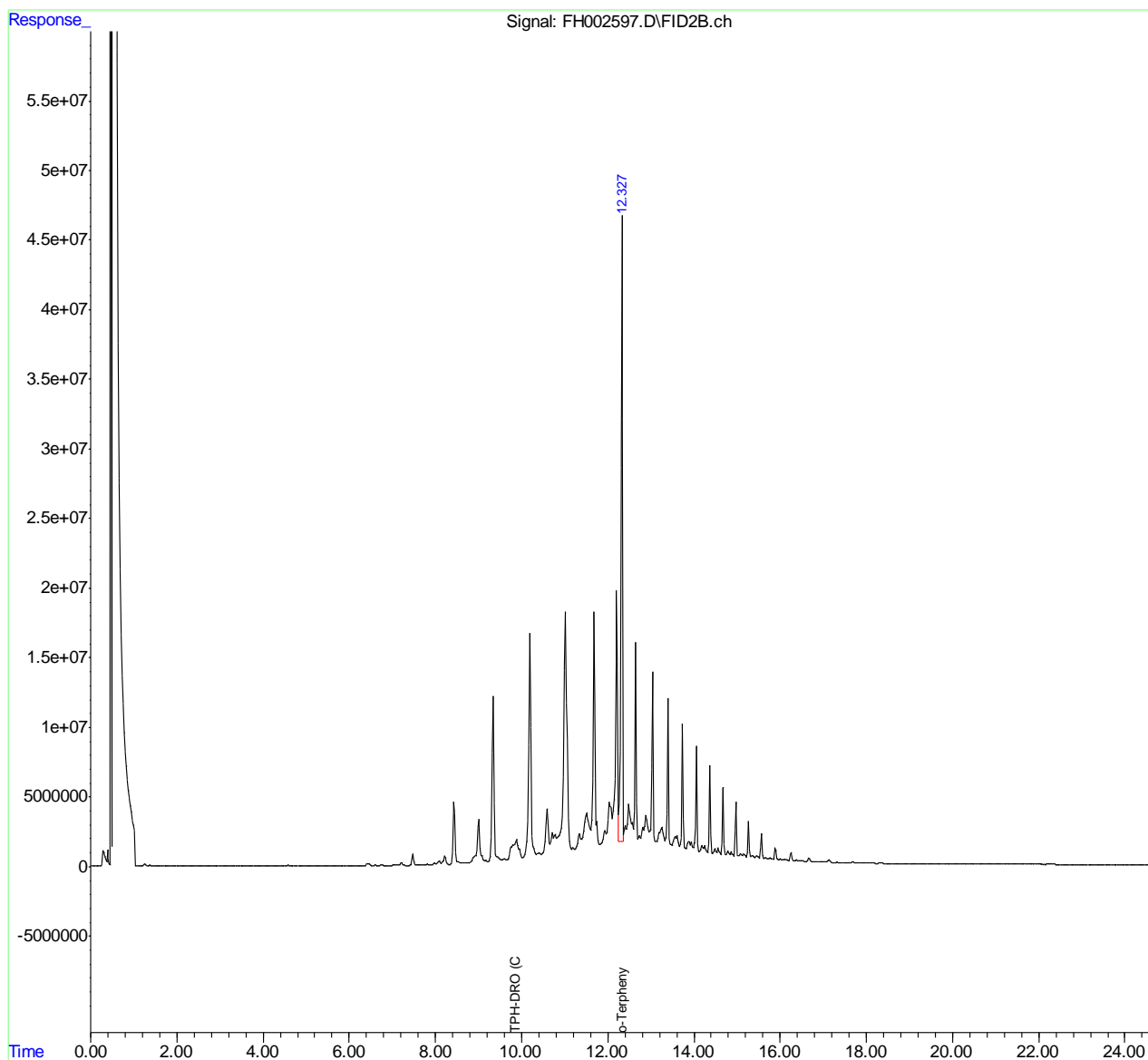
8.1.1  
8

## Quantitation Report (QT Reviewed)

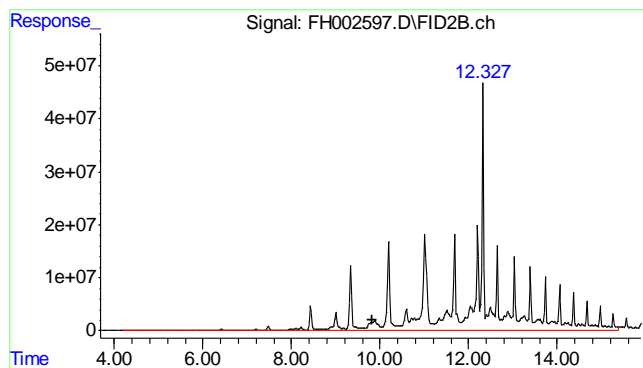
Data Path : C:\msdchem\1\DATA\FH032612.SEC\  
Data File : FH002597.D  
Signal(s) : FID2B.ch  
Acq On : 26 Mar 2012 7:17 pm  
Operator : tedr  
Sample : D32939-1  
Misc : OP5608,GFH135,30.01,,,2,1  
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Mar 27 08:30:49 2012  
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M  
Quant Title : DRO-ORO REAR  
QLast Update : Sun Mar 04 19:15:40 2012  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :

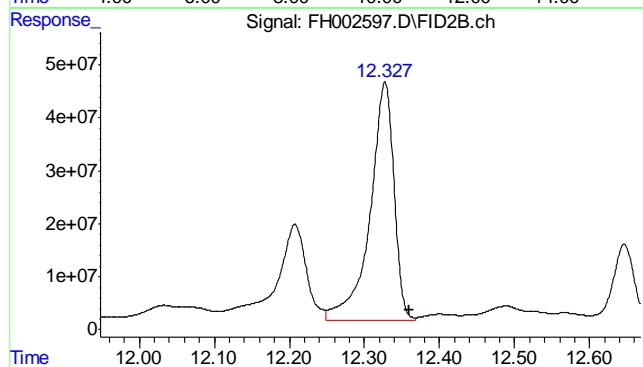






#1 TPH-DRO (C10-C28)

R.T.: 9.832 min  
 Delta R.T.: 0.000 min  
 Response: 10202585186  
 Conc: 6611.17 ug/ml m



#2 o-Terphenyl

R.T.: 12.327 min  
 Delta R.T.: -0.033 min  
 Response: 997735362  
 Conc: 582.67 ug/ml

8.1.1

8

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH032612.SEC\  
Data File : FH002589.D  
Signal(s) : FID2B.ch  
Acq On : 26 Mar 2012 4:52 pm  
Operator : tedr  
Sample : OP5608-MB  
Misc : OP5608,GFH135,30.00,,,2,1  
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Mar 27 08:28:12 2012  
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M  
Quant Title : DRO-ORO REAR  
QLast Update : Sun Mar 04 19:15:40 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	12.335	1352587739	789.896 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	32787432	21.246 ug/ml
-----			

(f)=RT Delta > 1/2 Window

(m)=manual int.

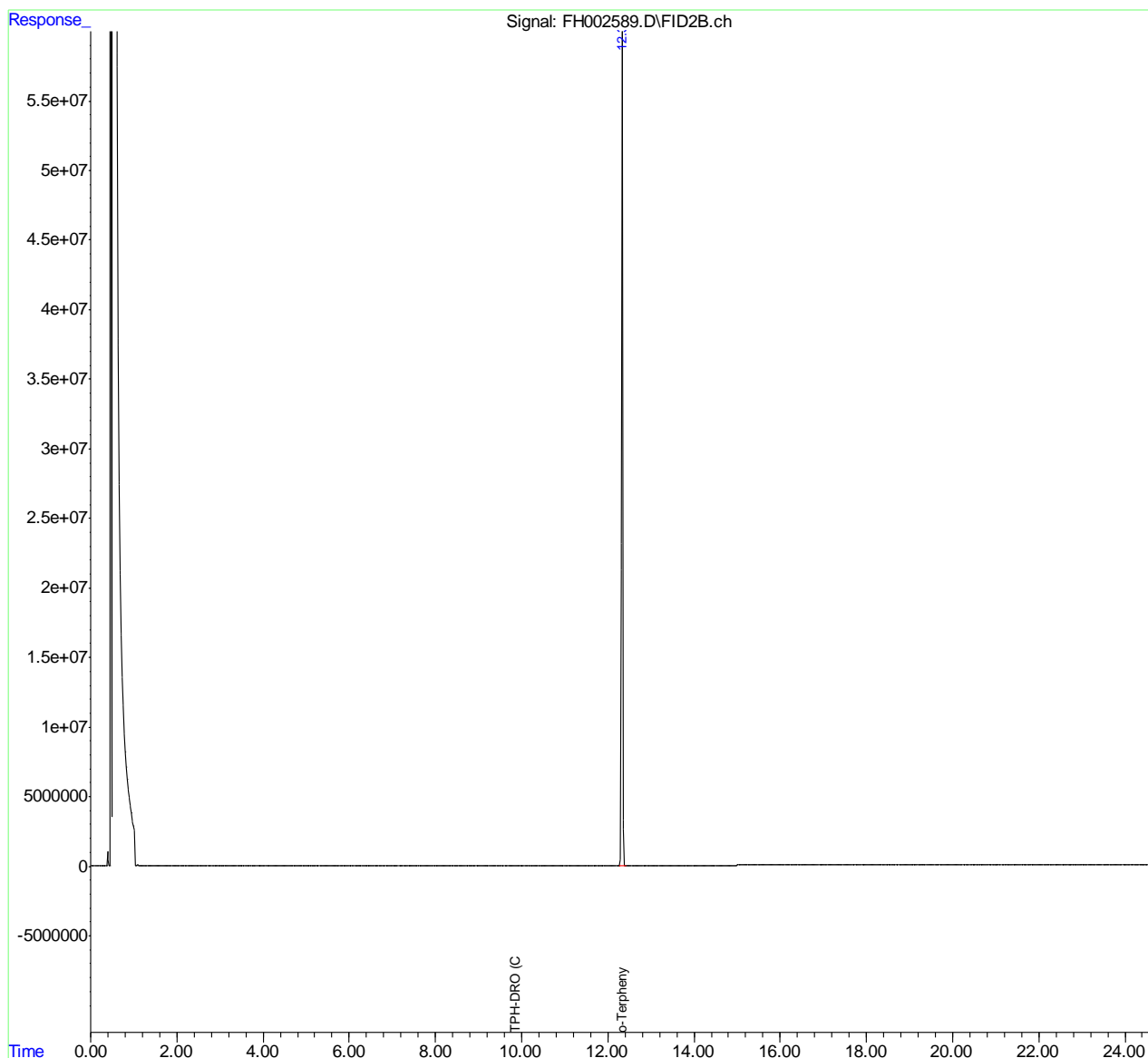
8.2.1  
8

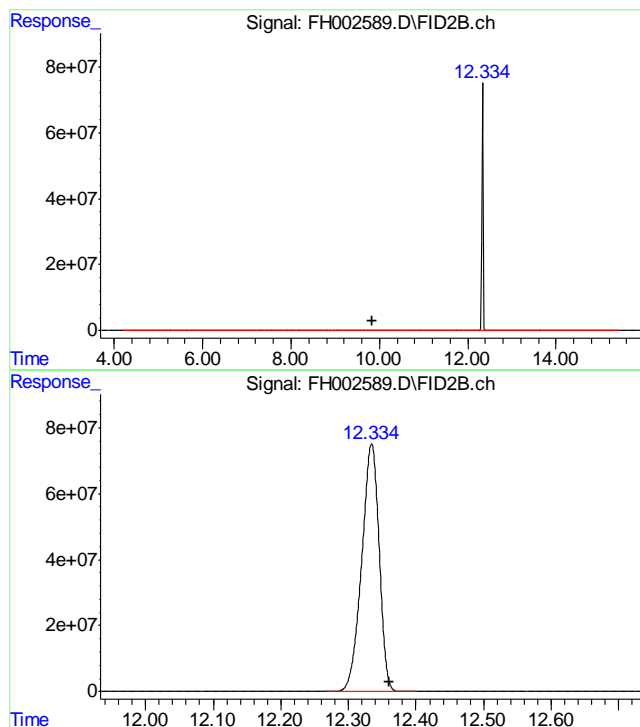
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH032612.SEC\  
Data File : FH002589.D  
Signal(s) : FID2B.ch  
Acq On : 26 Mar 2012 4:52 pm  
Operator : tedr  
Sample : OP5608-MB  
Misc : OP5608,GFH135,30.00,,,2,1  
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Mar 27 08:28:12 2012  
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M  
Quant Title : DRO-ORO REAR  
QLast Update : Sun Mar 04 19:15:40 2012  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.832 min  
Delta R.T.: 0.000 min  
Response: 32787432  
Conc: 21.25 ug/ml m

#2 o-Terphenyl

R.T.: 12.335 min  
Delta R.T.: -0.025 min  
Response: 1352587739  
Conc: 789.90 ug/ml

8.2.1

8