



01/29/13

Technical Report for

XTO Energy

XTO Love Ranch 8

1108-07A

Accutest Job Number: D42784

Sampling Date: 01/21/13

Report to:

KRW Consulting, Inc.
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Lakewood, CO 80214
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ATTN: Dwayne Knudson

Total number of pages in report: 37



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 C000049), 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: D42784

XTO Love Ranch 8
Project No: 1108-07A

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D42784-1	01/21/13	13:40	DS	01/23/13	SO	Soil	FW EX MATL-2'

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



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D42784

Site: XTO Love Ranch 8

Report Date 1/29/2013 11:55:15 AM

On 01/23/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D42784 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: GGB1049

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42787-1MS, D42787-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP7276

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42746-1MS, D42746-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN18539

- 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.

Summary of Hits

Job Number: D42784
Account: XTO Energy
Project: XTO Love Ranch 8
Collected: 01/21/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
D42784-1	FW EX MATL-2'					
TPH-DRO (C10-C28)		150	7.8	4.7	mg/kg	SW846-8015B

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	FW EX MATL-2'	Date Sampled:	01/21/13
Lab Sample ID:	D42784-1	Date Received:	01/23/13
Matrix:	SO - Soil	Percent Solids:	85.1
Method:	SW846 8015B		
Project:	XTO Love Ranch 8		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB19208.D	1	01/23/13	BD	n/a	n/a	GGB1049
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.23	0.12	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	FW EX MATL-2'	Date Sampled:	01/21/13
Lab Sample ID:	D42784-1	Date Received:	01/23/13
Matrix:	SO - Soil	Percent Solids:	85.1
Method:	SW846-8015B SW846 3546		
Project:	XTO Love Ranch 8		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD21402.D	1	01/28/13	AV	01/25/13	OP7276	GFD1079
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	150	7.8	4.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	55%		35-130%		

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

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

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D42784

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 1/23/2013 1:00:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO LR8

Airbill #'s: HDCO

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

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: D42784
Account: XTOKRWR XTO Energy
Project: XTO Love Ranch 8

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1049-MB	GB19197.D	1	01/23/13	BD	n/a	n/a	GGB1049

The QC reported here applies to the following samples:

Method: SW846 8015B

D42784-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.10	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	106% 60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D42784

Account: XTOKRWR XTO Energy

Project: XTO Love Ranch 8

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1049-BS	GB19198.D	1	01/23/13	BD	n/a	n/a	GGB1049

The QC reported here applies to the following samples:

Method: SW846 8015B

D42784-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.37	108	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	104%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D42784
Account: XTOKRWR XTO Energy
Project: XTO Love Ranch 8

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D42787-1MS	GB19200.D	1	01/23/13	BD	n/a	n/a	GGB1049
D42787-1MSD	GB19201.D	1	01/23/13	BD	n/a	n/a	GGB1049
D42787-1	GB19199.D	1	01/23/13	BD	n/a	n/a	GGB1049

The QC reported here applies to the following samples:

Method: SW846 8015B

D42784-1

CAS No.	Compound	D42787-1 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		2.58	2.83	110	2.83	110	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D42787-1	Limits
120-82-1	1,2,4-Trichlorobenzene	100%	98%	98%	60-140%

* = Outside of Control Limits.

GC Volatiles

Raw Data

7

John Hamilton
01/25/13 08:36

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\012313\GB19208.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\012313\GB19208.D\FID2B.CH
 Acq On : 23 Jan 2013 11:29 pm Operator: BRET D
 Sample : D42784-1 Inst : GC/MS Ins
 Misc : GC3371,GGB1049,5.042,,,,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jan 24 08:29:36 2013 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jan 21 14:04:44 2013
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

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

	Compound	R.T.	Response	Conc	Units

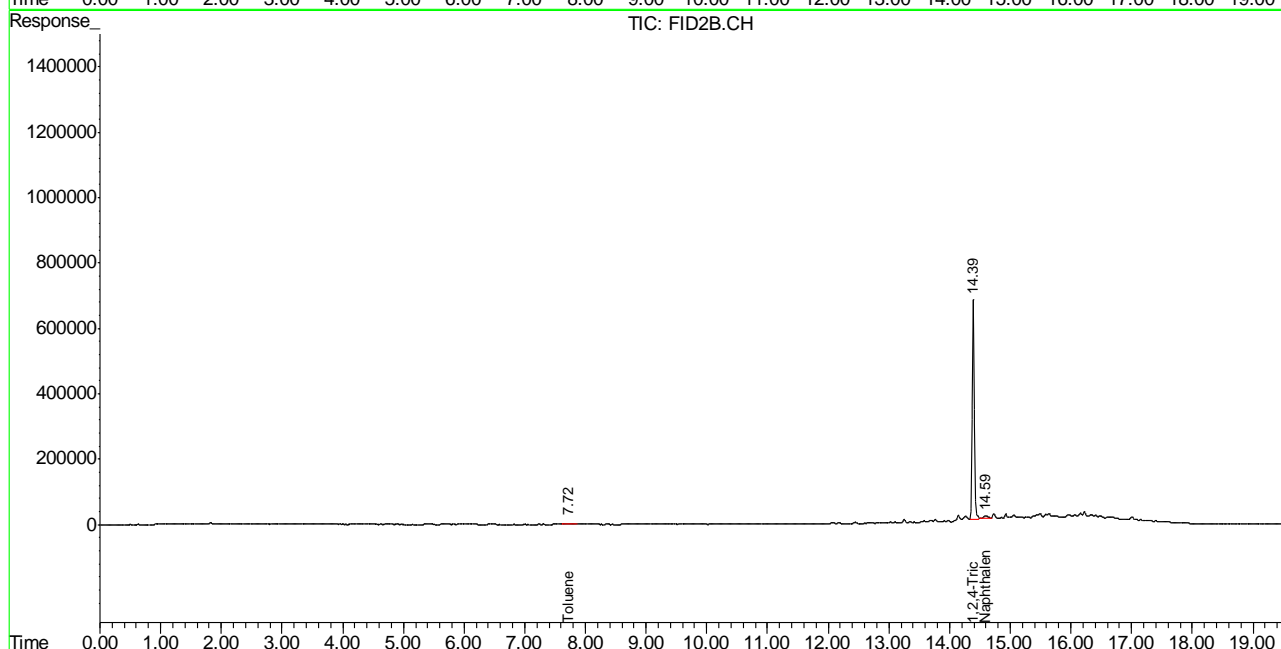
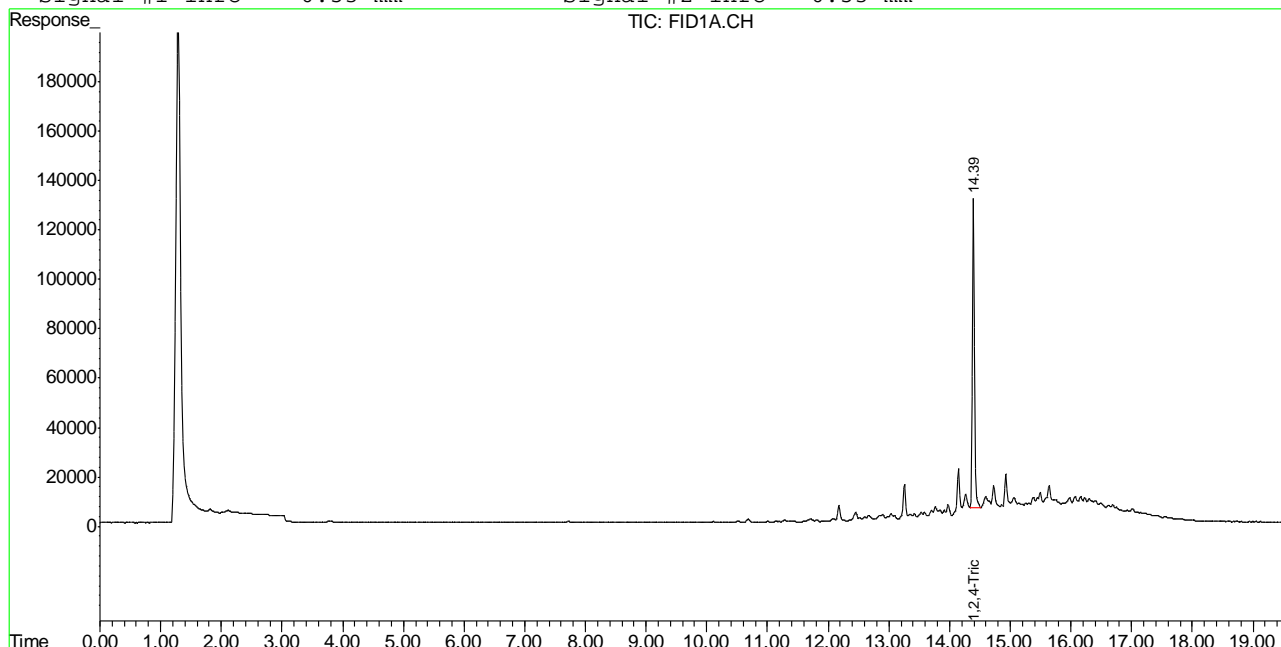
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.39	2963920	94.591 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.39	15840086	97.461 %	m
Target Compounds					
1) H	TVH-Gasoline	7.25	4052015	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.72	84535	0.213	ug/L m
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.59	448839	2.275	ug/L m

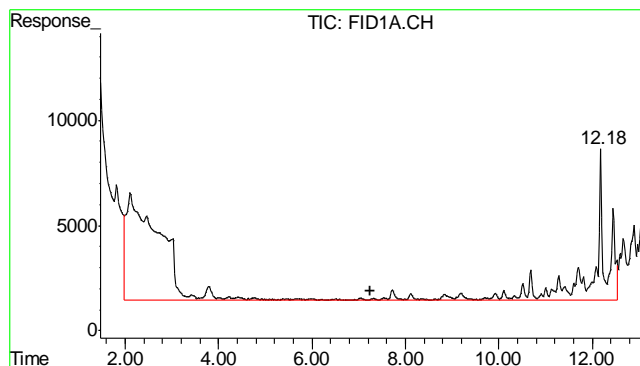
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\012313\GB19208.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\012313\GB19208.D\FID2B.CH
 Acq On : 23 Jan 2013 11:29 pm Operator: BRETD
 Sample : D42784-1 Inst : GC/MS Ins
 Misc : GC3371,GGB1049,5.042,,,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Jan 24 8:52 2013 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Mon Jan 21 14:04:44 2013
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

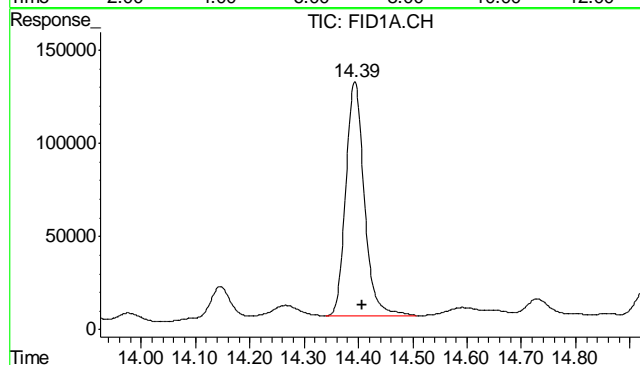
Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





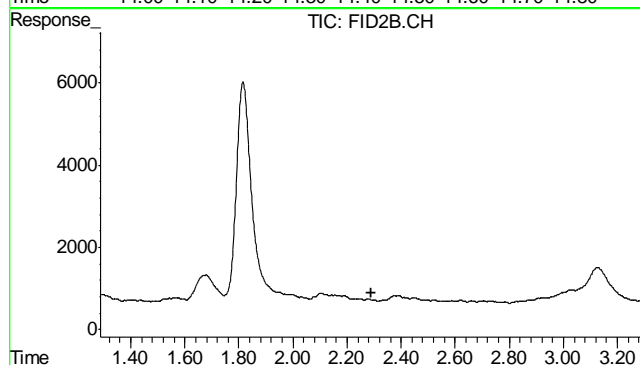
#1 TVH-Gasoline

R.T.: 7.255 min
Delta R.T.: 0.000 min
Response: 4052015
Conc: N.D.



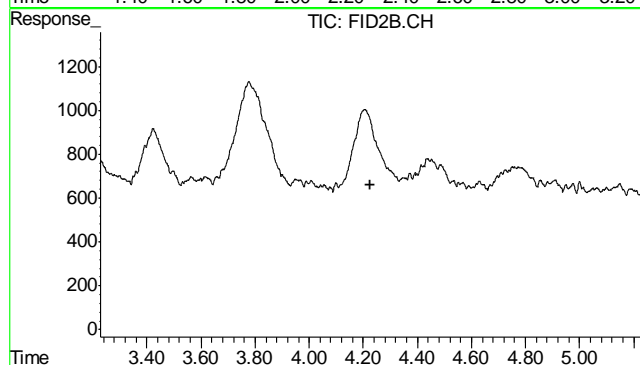
#2 1,2,4-Trichlorobenzene

R.T.: 14.393 min
Delta R.T.: -0.014 min
Response: 2963920
Conc: 94.59 % m



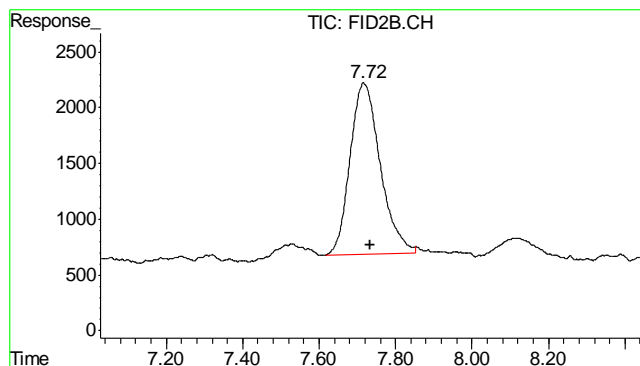
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.288 min
Response: 0
Conc: N.D.

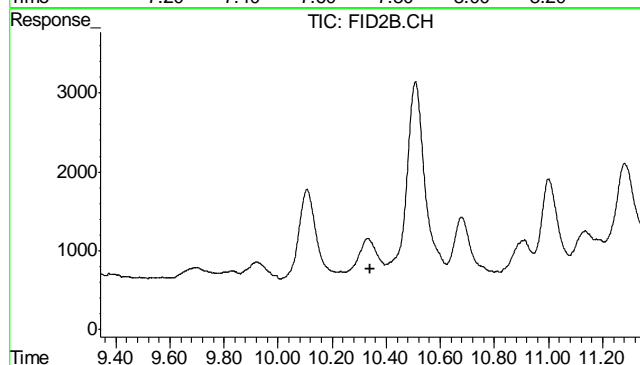


#5 Benzene

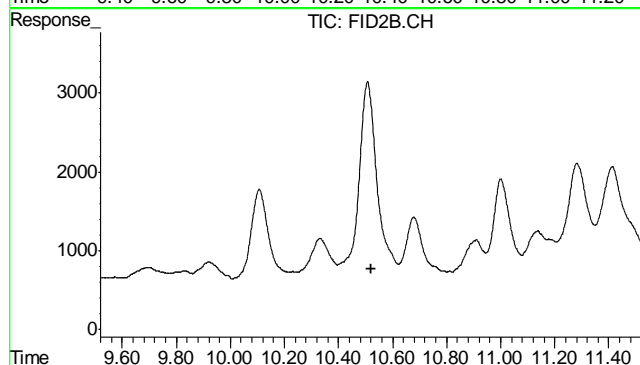
R.T.: 0.000 min
Exp R.T.: 4.227 min
Response: 0
Conc: N.D.



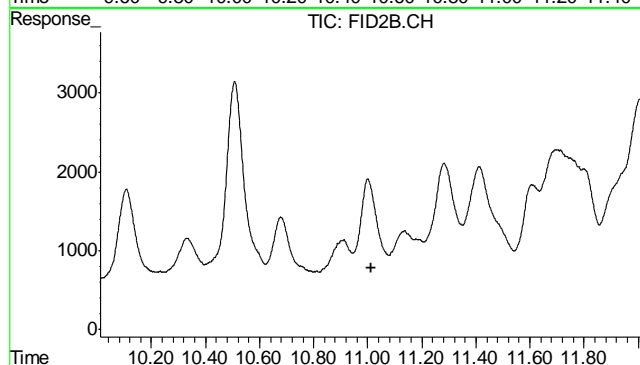
#6 Toluene
 R.T.: 7.716 min
 Delta R.T.: -0.017 min
 Response: 84535
 Conc: 0.21 ug/L m



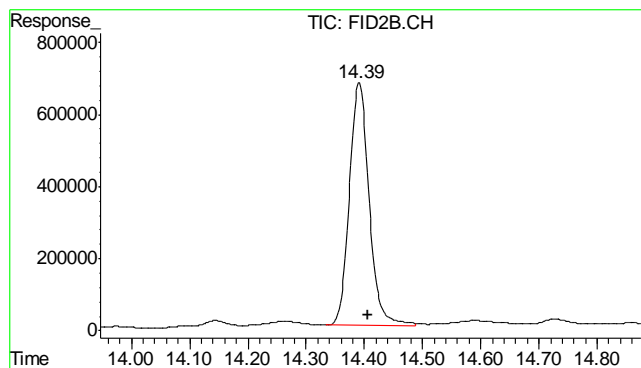
#7 Ethylbenzene
 R.T.: 0.000 min
 Exp R.T.: 10.342 min
 Response: 0
 Conc: N.D.



#8 m,p-Xylene
 R.T.: 0.000 min
 Exp R.T.: 10.520 min
 Response: 0
 Conc: N.D.

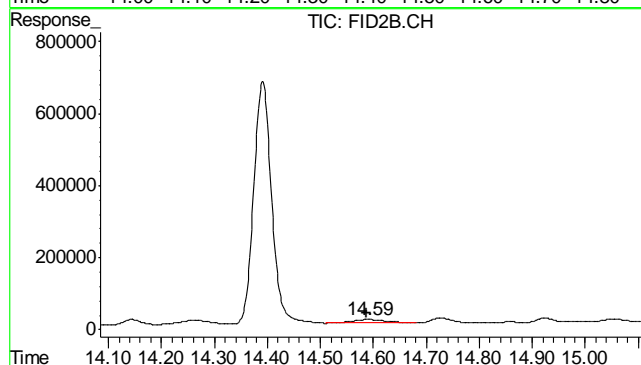


#9 o-Xylene
 R.T.: 0.000 min
 Exp R.T.: 11.011 min
 Response: 0
 Conc: N.D.



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

R.T.: 14.391 min
 Delta R.T.: -0.015 min
 Response: 15840086
 Conc: 97.46 % m



#11 Naphthalene

R.T.: 14.589 min
 Delta R.T.: 0.000 min
 Response: 448839
 Conc: 2.27 ug/L m

7.1.1
7

John Hamilton
01/24/13 13:03

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\012313\GB19197.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\012313\GB19197.D\FID2B.CH
Acq On : 23 Jan 2013 4:57 pm Operator: BRETD
Sample : MB Inst : GC/MS Ins
Misc : GC3371,GGB1049,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jan 24 08:28:52 2013 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Jan 21 14:04:44 2013
Response via : Initial Calibration
DataAcq Meth : TVB4.M

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

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	14.40	3323205	106.057 %	
10) S 1,2,4-Trichlorobenzene (P)	14.39	17303883	106.467 %	m
Target Compounds				
1) H TVH-Gasoline	7.25	3215981	<MDL	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.72	121798	0.307	ug/L m
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.57	88477	0.448	ug/L m

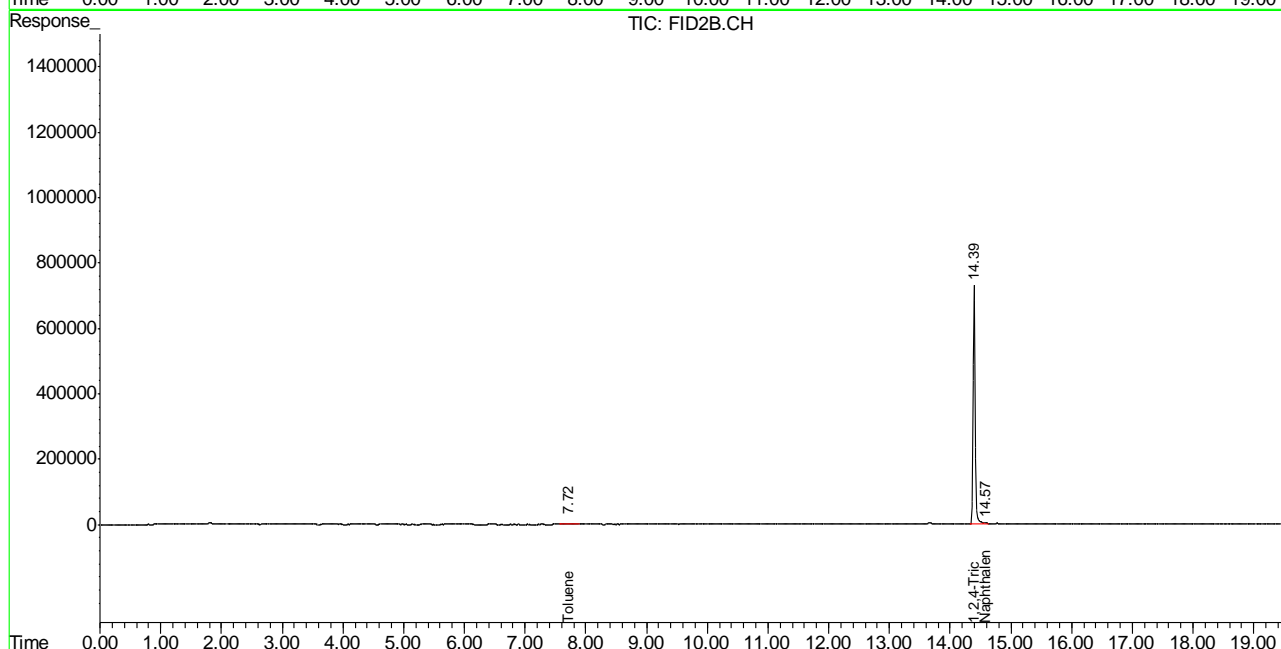
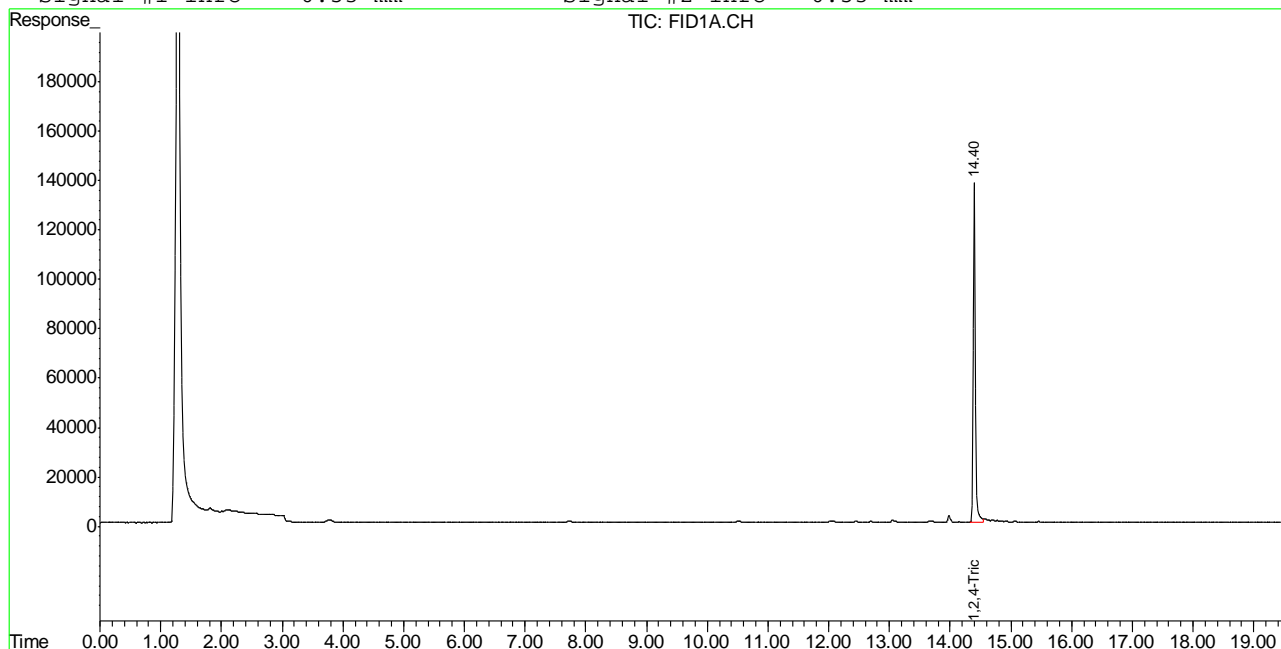
(f)=RT Delta > 1/2 Window (m)=manual int.
GB19197.D TB868GB868SOIL.M Thu Jan 24 09:12:10 2013 GC

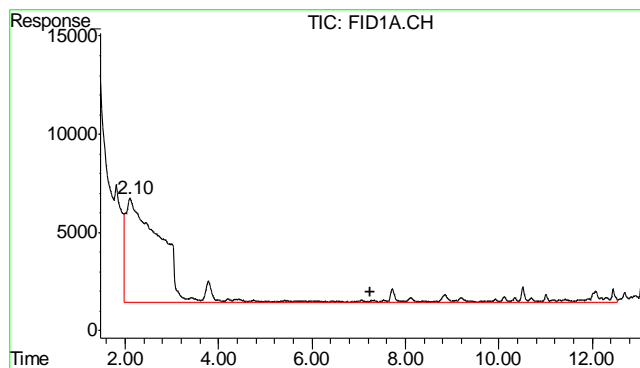
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\012313\GB19197.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\012313\GB19197.D\FID2B.CH
Acq On : 23 Jan 2013 4:57 pm Operator: BRET D
Sample : MB Inst : GC/MS Ins
Misc : GC3371,GGB1049,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jan 24 8:33 2013 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Jan 21 14:04:44 2013
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

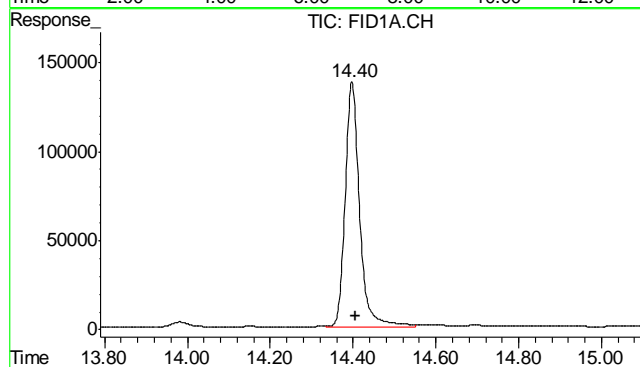
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





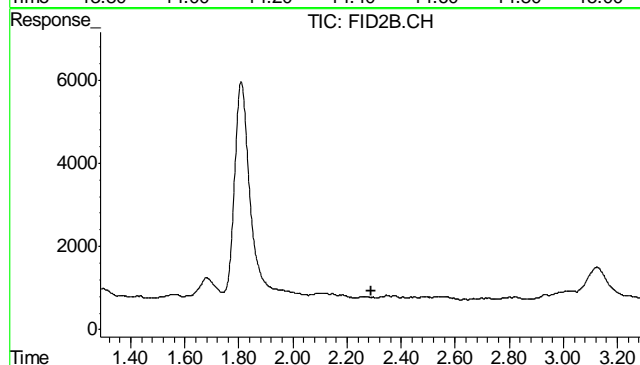
#1 TVH-Gasoline

R.T.: 7.255 min
Delta R.T.: 0.000 min
Response: 3215981
Conc: N.D.



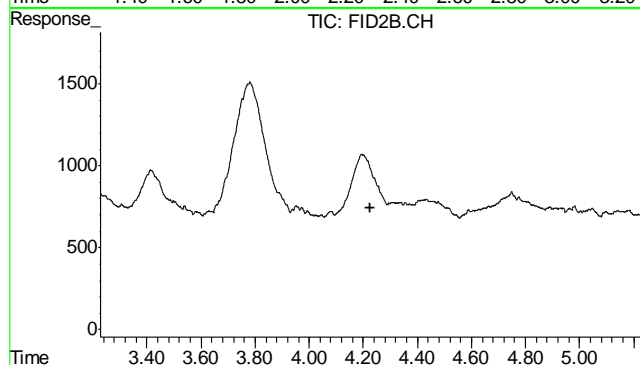
#2 1,2,4-Trichlorobenzene

R.T.: 14.398 min
Delta R.T.: -0.010 min
Response: 3323205
Conc: 106.06 %



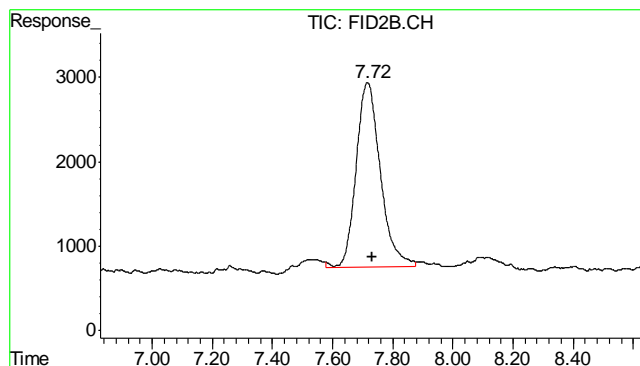
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.288 min
Response: 0
Conc: N.D.



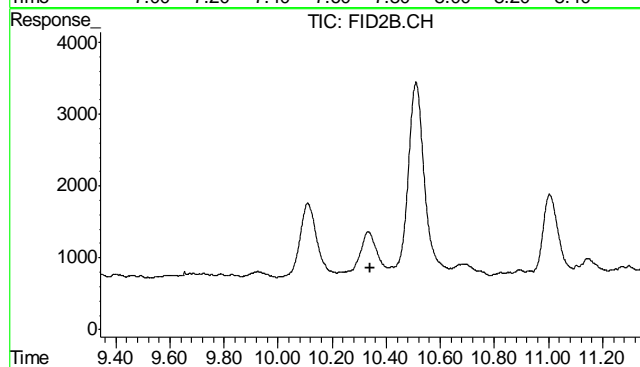
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.227 min
Response: 0
Conc: N.D.



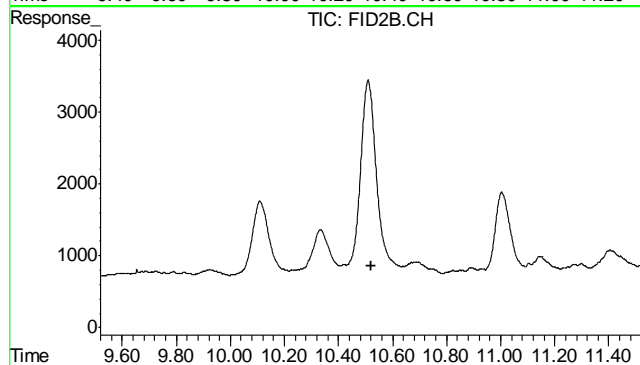
#6 Toluene

R.T.: 7.716 min
Delta R.T.: -0.017 min
Response: 121798
Conc: 0.31 ug/L m



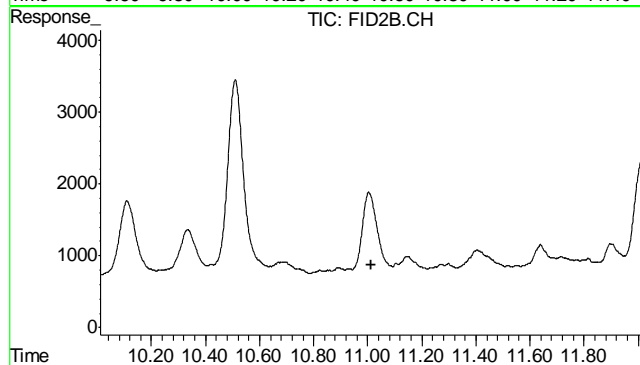
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.342 min
Response: 0
Conc: N.D.



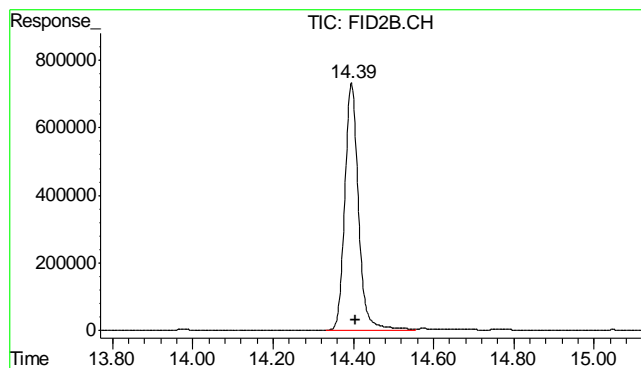
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T.: 10.520 min
Response: 0
Conc: N.D.



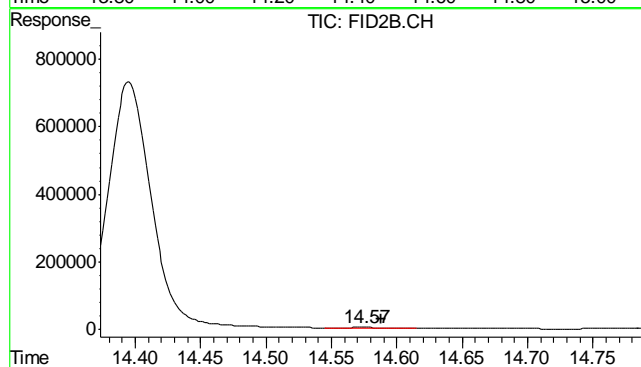
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 11.011 min
Response: 0
Conc: N.D.



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

R.T.: 14.395 min
Delta R.T.: -0.011 min
Response: 17303883
Conc: 106.47 % m



#11 Naphthalene

R.T.: 14.575 min
Delta R.T.: -0.013 min
Response: 88477
Conc: 0.45 ug/L m

7.2.1

7

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: D42784
Account: XTOKRWR XTO Energy
Project: XTO Love Ranch 8

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7276-MB	FD21369.D	1	01/28/13	AV	01/25/13	OP7276	GFD1077

The QC reported here applies to the following samples:

Method: SW846-8015B

D42784-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	6.7	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	64% 35-130%

8.1.1

8

Blank Spike Summary

Page 1 of 1

Job Number: D42784
Account: XTOKRWR XTO Energy
Project: XTO Love Ranch 8

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7276-BS	FD21370.D	1	01/28/13	AV	01/25/13	OP7276	GFD1077

The QC reported here applies to the following samples:

Method: SW846-8015B

D42784-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	495	74	48-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	65%	35-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D42784
Account: XTOKRWR XTO Energy
Project: XTO Love Ranch 8

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7276-MS	FD21371.D	1	01/28/13	AV	01/25/13	OP7276	GFD1077
OP7276-MSD	FD21372.D	1	01/28/13	AV	01/25/13	OP7276	GFD1077
D42746-1	FD21373.D	1	01/28/13	AV	01/25/13	OP7276	GFD1077

The QC reported here applies to the following samples:

Method: SW846-8015B

D42784-1

CAS No.	Compound	D42746-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	5.45	J	735	480	65	515	69	7	20-168/30

CAS No.	Surrogate Recoveries	MS	MSD	D42746-1	Limits
84-15-1	o-Terphenyl	38%	37%	23%* a	35-130%

(a) Outside control limits due to matrix interference. Confirmed by similar results for MS/MSD.

* = Outside of Control Limits.

GC Semi-volatiles

Raw Data

6

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2013\JAN\FD012813.SEC\FD21402.D Vial: 61
Acq On : 1-28-2013 08:44:38 PM Operator: ashleyv
Sample : D42784-1 Inst : FID5
Misc : OP7276,GFD1079,30.00,,,1,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 29 08:12:26 2013 Quant Results File: DRO-GFD983R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD983R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Wed Jan 23 16:52:18 2013
Response via : Initial Calibration
DataAcq Meth : DRODUAL.M

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	8.95	55732630	1090.024 mg/L m
Target Compounds			
2) H TPH-DRO (c10-c28)	6.93	141096861	3817.707 mg/L

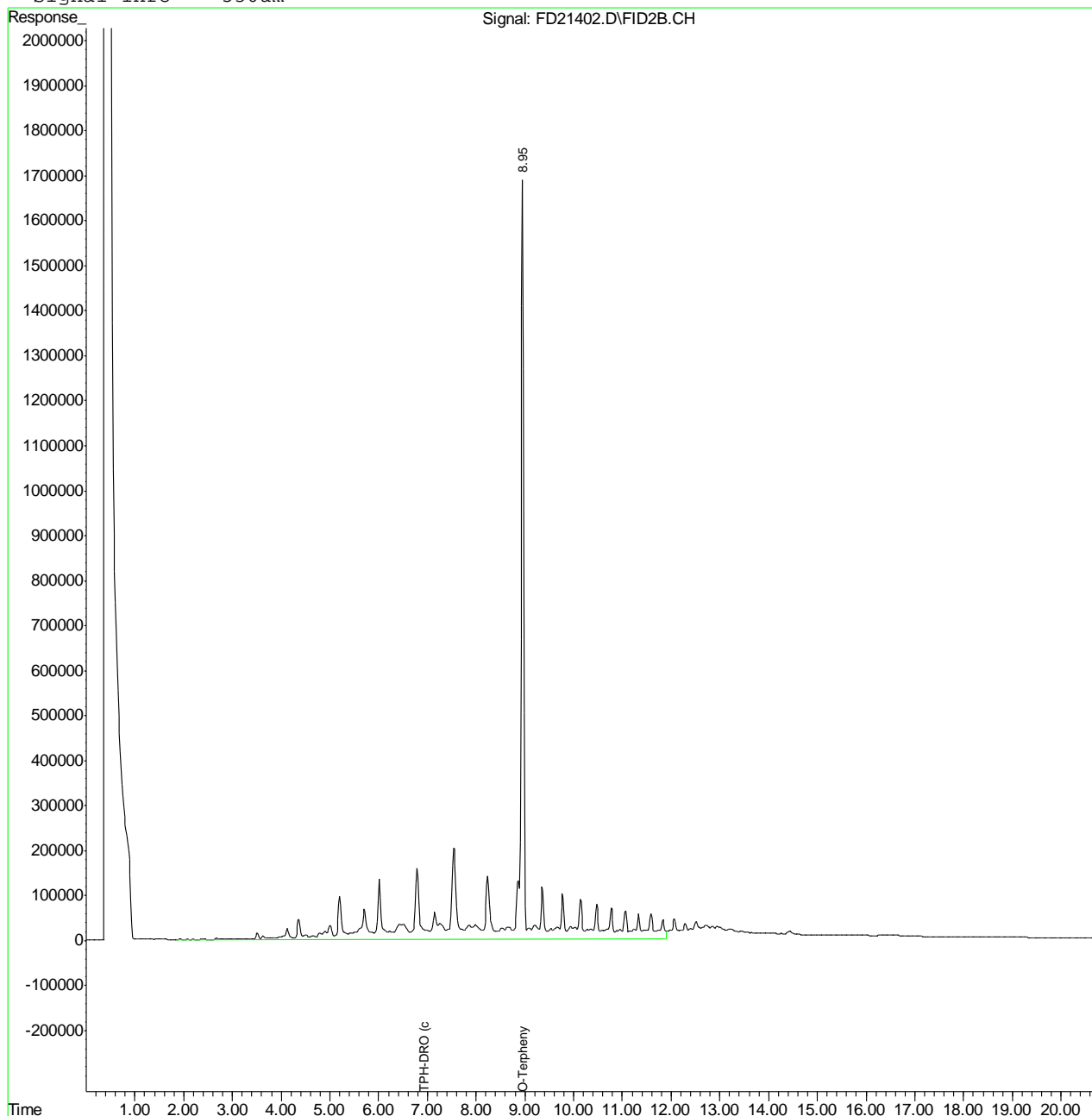
9.1.1
9

Quantitation Report (QT Reviewed)

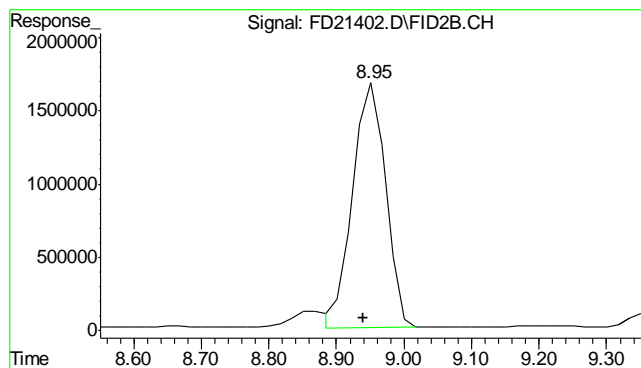
Data File : C:\MSDCHEM\2\DATA\2013\JAN\FD012813.SEC\FD21402.D Vial: 61
 Acq On : 1-28-2013 08:44:38 PM Operator: ashleyv
 Sample : D42784-1 Inst : FID5
 Misc : OP7276,GFD1079,30.00,,,1,1 Multiplr: 1.00
 IntFile : autoint1.e
 Quant Time: Jan 29 8:17 2013 Quant Results File: DRO-GFD983R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD983R.M (Chemstation Integrator)
 Title : 8015B TEH
 Last Update : Wed Jan 23 16:52:18 2013
 Response via : Multiple Level Calibration
 DataAcq Meth : DRODUAL.M

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

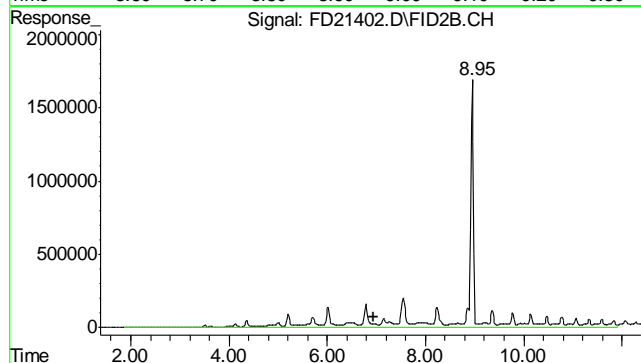


9.1.1
9



#1 O-Terphenyl

R.T.: 8.949 min
 Delta R.T.: 0.009 min
 Response: 55732630
 Conc: 1090.02 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 6.935 min
 Delta R.T.: 0.000 min
 Response: 141096861
 Conc: 3817.71 mg/L m

9.1.1
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2013\JAN\FD012813\FD21369.D Vial: 54
Acq On : 1-28-2013 09:58:17 AM Operator: ashleyv
Sample : OP7276-MB Inst : FID5
Misc : OP7276,GFD1077,30.00,,,1,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 28 10:24:46 2013 Quant Results File: DRO-GFD983R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD983R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Wed Jan 23 16:52:18 2013
Response via : Initial Calibration
DataAcq Meth : DRO_RR.M

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S O-Terphenyl	8.94	65171999	1274.640 mg/L
Target Compounds			
2) H TPH-DRO (c10-c28)	6.93	1207491	32.672 mg/L

9.2.1

9

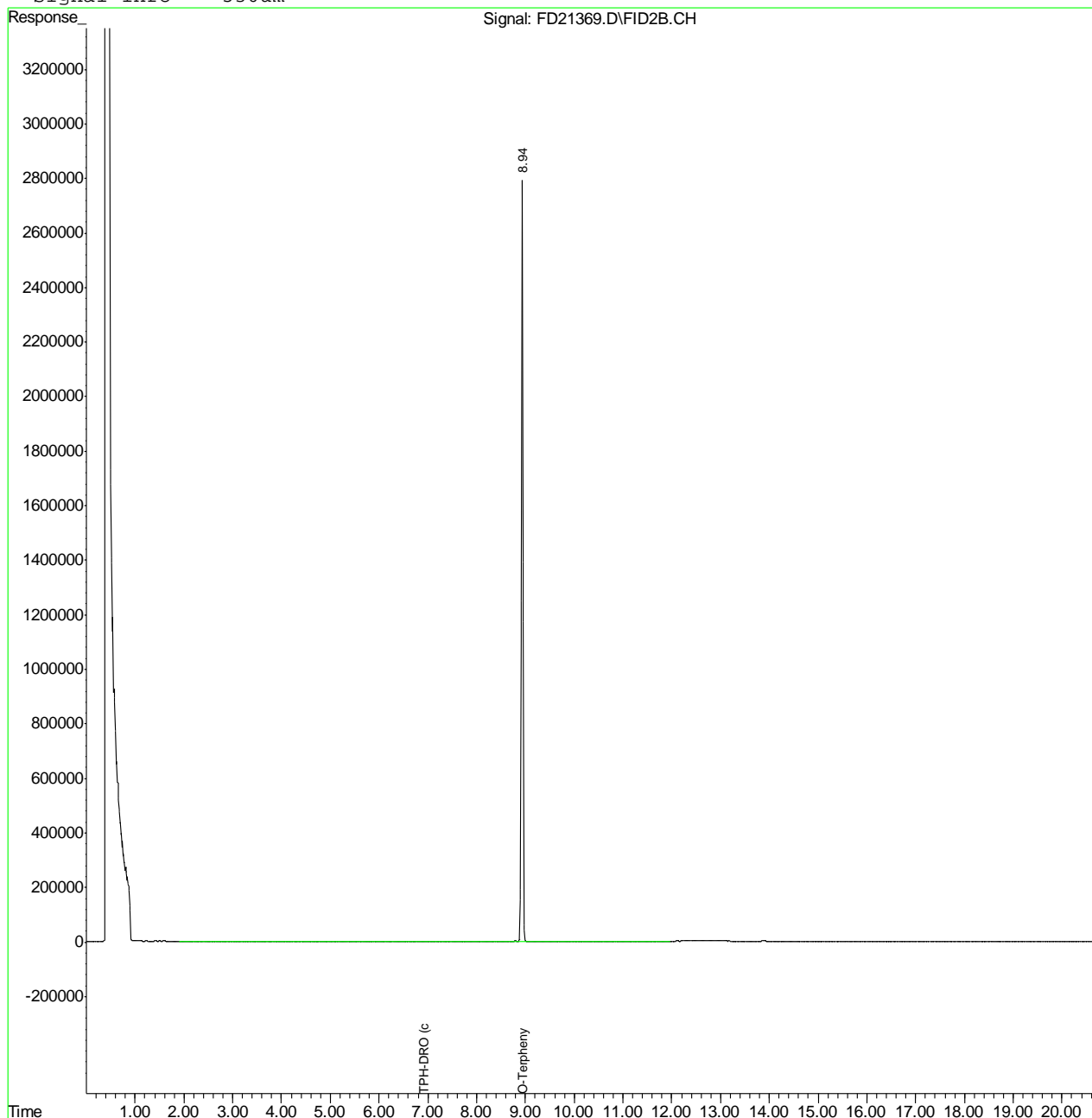
(f)=RT Delta > 1/2 Window (m)=manual int.
FD21369.D DRO-GFD983R.M Mon Jan 28 13:42:45 2013 GC

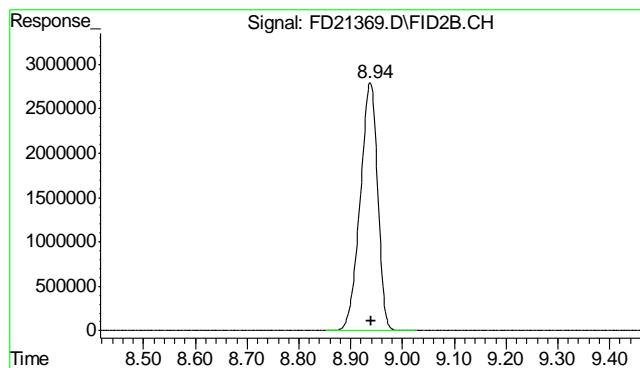
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2013\JAN\FD012813\FD21369.D Vial: 54
Acq On : 1-28-2013 09:58:17 AM Operator: ashleyv
Sample : OP7276-MB Inst : FID5
Misc : OP7276,GFD1077,30.00,,,1,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 28 10:24 2013 Quant Results File: DRO-GFD983R.RES

Quant Method : C:\MSDCHEM\2...\DRO-GFD983R.M (Chemstation Integrator)
Title : 8015B TEH
Last Update : Wed Jan 23 16:52:18 2013
Response via : Multiple Level Calibration
DataAcq Meth : DRO_RR.M

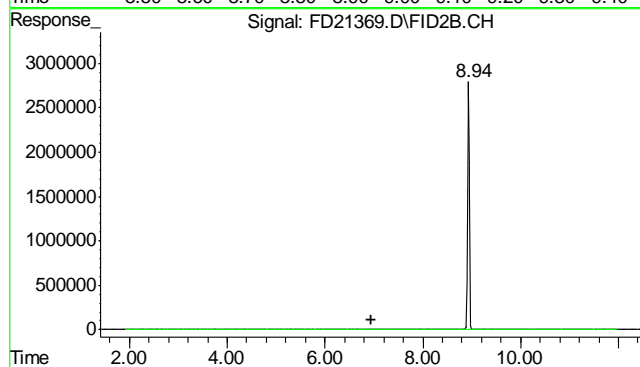
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 8.938 min
Delta R.T.: -0.002 min
Response: 65171999
Conc: 1274.64 mg/L



#2 TPH-DRO (c10-c28)

R.T.: 6.935 min
Delta R.T.: 0.000 min
Response: 1207491
Conc: 32.67 mg/L m

9.2.1
9