



December 4, 2013

API # 03-103-08175

Location: PCU T73-19G

REM #7997

XTO Energy (XTO) completed closure on November 7, 2013 of the Partially Buried Tank Pit on the PCU T73-19G location in accordance with COGCC 900 and 1000 Series Rules.

The out of service Partially Buried Tank (PBT) at the subject site was removed from this location (see Figure 1). As approved in REM #7997, a discrete soil sample was collected from beneath the former tank location at the low point of the excavation and sampled for an abbreviated Table 910-1 analyte list (TPH & BTEX) to assess COGCC compliance. Results were below Table 910-1 concentration levels (see Table 1) and therefore confirm COGCC compliance.

Soil sample results from beneath the tank confirm no groundwater impact potential exists (see Table 1). Available information for the area indicates that the uppermost groundwater bearing zone is greater than 100 feet below the ground surface for this PBT location.

XTO herein requests a Notice of Completion (NOC) for the PCU T73-19G location listed in the October 3, 2013 COGCC approved Form 27, REM #7997.

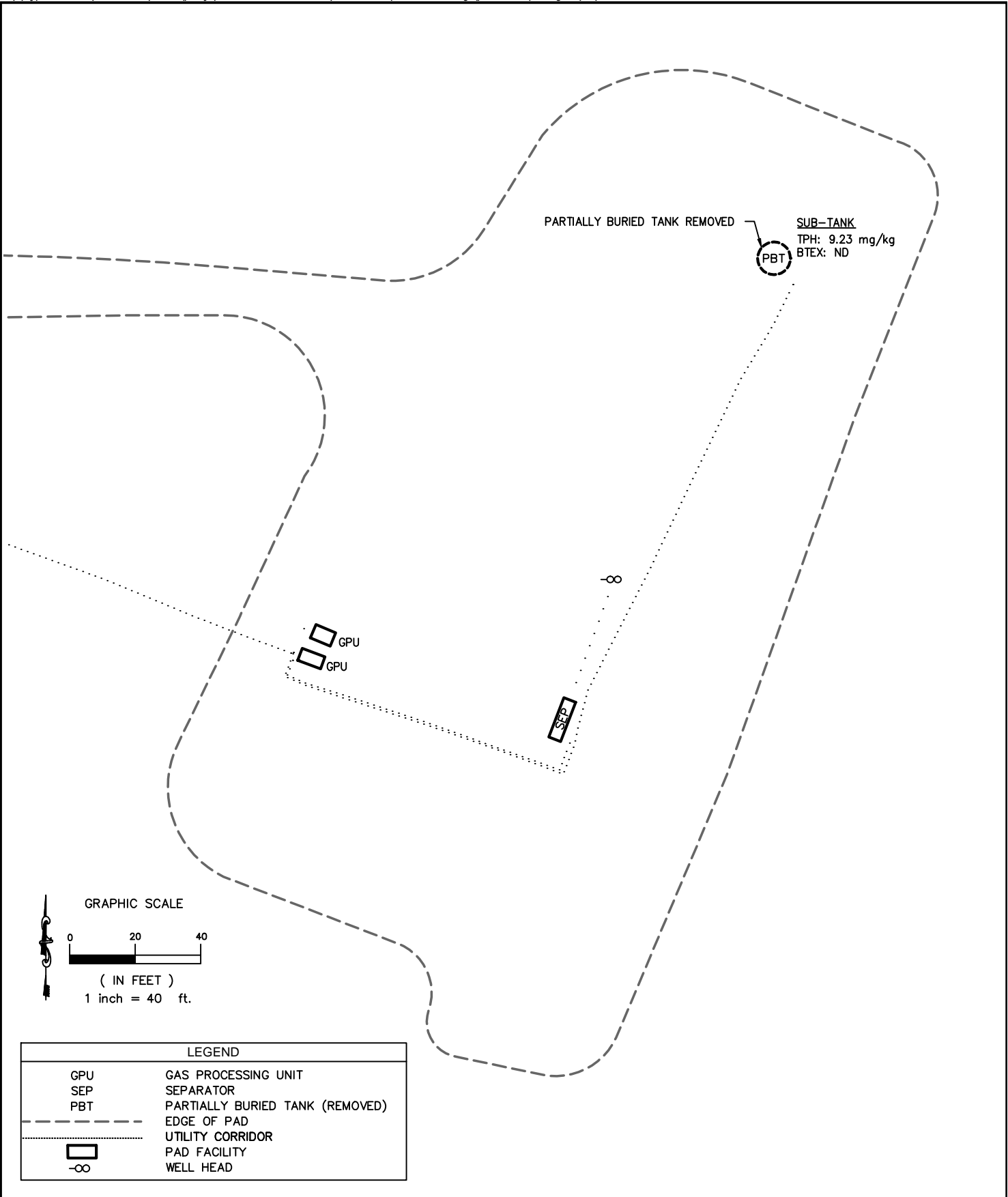
Table 1
Location: PCU T73-19G
Lab Summary - Partially Buried Tank

Last update 10/1/2013

Analytical Parameter	Subtank	COGCC
(with units)	<i>Subtank 9/23/13</i>	<i>Table 910-1 Concentration Levels</i>
Accutest Job #	D50828	-
Sample type (C omposite/ D iscrete)	D	-
TPH (GRO) (mg/Kg)	ND	-
TPH (DRO) (mg/Kg)	9.23	-
TPH (GRO + DRO) (mg/Kg)	9.23	500
Benzene (mg/Kg)	ND	0.170
Toluene (mg/Kg)	ND	85
Ethylbenzene (mg/Kg)	ND	100
Xylenes (total) (mg/Kg)	ND	175
% Solids	84.3	-

Notes:

- 1) ND = not detectible to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels.
- 3) "-" indicates no analysis.
- 4) See site map for sample locations.



GPS: DK	CHECKED: JH	FIGURE 1	DATE	REVISIONS	KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011	FIGURE 1 PICEANCE CREEK PCU T73-19G PARTIALLY BURIED TANK SAMPLE LOCATIONS PREPARED FOR XTO ENERGY
DATE: 12/4/13	DRAWN: DF					
FILE NAME: pbt samp		SHEET NO. 1 of 1				
PROJECT NO. 1309-17		SCALE: 1" = 40'				



09/30/13

Technical Report for

XTO Energy

PCU T73-19G

1309-17 Subtank

Accutest Job Number: D50828

Sampling Date: 09/23/13

Report to:

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

Total number of pages in report: 57



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'Scott Heideman'.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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: D50828

PCU T73-19G

Project No: 1309-17 Subtank

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
D50828-1	09/23/13	11:40 DS	09/24/13	SO Soil	SUBTANK

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



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D50828

Site: PCU T73-19G

Report Date 9/30/2013 4:08:38 PM

On 09/24/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.3 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D50828 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

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

Volatiles by GCMS By Method SW846 8260B

Matrix: SO

Batch ID: V5V1759

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50828-1MS, D50828-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix: SO

Batch ID: GGB1225

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50798-1MS, D50798-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix: SO

Batch ID: OP8630

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50828-1MS, D50828-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM2540B-2011 M

Matrix: SO

Batch ID: GN22025

- The data for SM2540B-2011 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: D50828
Account: XTO Energy
Project: PCU T73-19G
Collected: 09/23/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D50828-1	SUBTANK					
TPH-DRO (C10-C28)		9.23	7.9	5.9	mg/kg	SW846-8015B



Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	SUBTANK	Date Sampled:	09/23/13
Lab Sample ID:	D50828-1	Date Received:	09/24/13
Matrix:	SO - Soil	Percent Solids:	84.3
Method:	SW846 8260B		
Project:	PCU T73-19G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V29255.D	1	09/26/13	BD	n/a	n/a	V5V1759
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.068	0.034	mg/kg	
108-88-3	Toluene	ND	0.14	0.068	mg/kg	
100-41-4	Ethylbenzene	ND	0.14	0.026	mg/kg	
1330-20-7	Xylene (total)	ND	0.27	0.14	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		64-130%
460-00-4	4-Bromofluorobenzene	98%		62-131%
17060-07-0	1,2-Dichloroethane-D4	101%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	SUBTANK	
Lab Sample ID:	D50828-1	Date Sampled: 09/23/13
Matrix:	SO - Soil	Date Received: 09/24/13
Method:	SW846 8015B	Percent Solids: 84.3
Project:	PCU T73-19G	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB22285.D	1	09/24/13	EV	n/a	n/a	GGB1225
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	14	6.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	84%		60-140%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	SUBTANK						
Lab Sample ID:	D50828-1				Date Sampled:	09/23/13	
Matrix:	SO - Soil				Date Received:	09/24/13	
Method:	SW846-8015B	SW846	3546		Percent Solids:	84.3	
Project:	PCU T73-19G						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH013389.D	1	09/25/13	TU	09/25/13	OP8630	GFH710
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)	9.23	7.9	5.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		20-130%		

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

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

PAGE 1 OF 1

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.acctest.com

FED-Ex Tracking #	Bottle Order Control #
Accutest Client #	Accutest Job # D50828
Client / Reporting Information	
Company Name KRW Consulting	
Street Address 8000 West 14th Street, Suite 200	
City Lakewood, CO 80214	
Project Contact Dwayne Knudson	
Phone # 970-488-1098	
Sampler(s) Name(s) DAVID SANDERS	
Project Name XTO PCU T73-19G	
Street 21458 CR 5	
City Rifle, CO 81650	
Project # 1309-17	
Client Purchase Order #	
Project Manager Joe Hess	
Attention Jessica Dooling	
Billing Information (if different from Report to) XTO Energy	
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
LAB USE ONLY	
01	
9/23/13	
Turnaround Time (Business days)	
Data Deliverable Information	
Comments / Special Instructions	
Please email to: KRW Pissance 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: 1	
Received By: 2	
Relinquished By: 3	
Received By: 4	
Relinquished By: 5	
Received By: 6	
Custody Seal # HDCO	
Intact <input checked="" type="checkbox"/> Not Intact <input type="checkbox"/>	
Preserved where applicable <input checked="" type="checkbox"/>	
On Ice <input checked="" type="checkbox"/> Cooler Temp. 2.3	

D50828: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D50828

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 9/24/2013 1:00:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO PCU T73-19G

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

D50828: Chain of Custody
Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1759-MB	5V29253.D	1	09/26/13	BD	n/a	n/a	V5V1759

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

D50828-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	25	ug/kg	
100-41-4	Ethylbenzene	ND	100	19	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	100% 64-130%
460-00-4	4-Bromofluorobenzene	86% 62-131%
17060-07-0	1,2-Dichloroethane-D4	102% 70-130%

6.1.1
6

Blank Spike Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1759-BS	5V29254.D	1	09/26/13	BD	n/a	n/a	V5V1759

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

D50828-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2710	108	70-130
100-41-4	Ethylbenzene	2500	2820	113	70-130
108-88-3	Toluene	2500	2750	110	70-130
1330-20-7	Xylene (total)	7500	8810	117	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	101%	64-130%
460-00-4	4-Bromofluorobenzene	103%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50828-1MS	5V29256.D	1	09/26/13	BD	n/a	n/a	V5V1759
D50828-1MSD	5V29257.D	1	09/26/13	BD	n/a	n/a	V5V1759
D50828-1	5V29255.D	1	09/26/13	BD	n/a	n/a	V5V1759

The QC reported here applies to the following samples:

Method: SW846 8260B

D50828-1

CAS No.	Compound	D50828-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3400	3540	104	3560	105	1	64-139/30
100-41-4	Ethylbenzene	ND		3400	3540	104	3520	104	1	68-136/30
108-88-3	Toluene	ND		3400	3410	100	3320	98	3	60-130/30
1330-20-7	Xylene (total)	ND		10200	11400	112	11200	110	2	58-142/30

CAS No.	Surrogate Recoveries	MS	MSD	D50828-1	Limits
2037-26-5	Toluene-D8	95%	94%	97%	64-130%
460-00-4	4-Bromofluorobenzene	109%	107%	98%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	95%	101%	70-130%

* = Outside of Control Limits.

6.3.1

6



GC/MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29255.D
Acq On : 26 Sep 2013 10:38 am
Operator : BRETD
Sample : D50828-1
Misc : MS6447,V5V1759,5.055,,100,5,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 08:56:13 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.613	168	152591	50.00	ug/l	0.00
37) 1,4-Difluorobenzene	12.412	114	205610	50.00	ug/l	0.00
56) Chlorobenzene-d5	15.061	117	207900	50.00	ug/l	0.00
77) 1,4-Dichlorobenzene-d4	17.025	152	157272	50.00	ug/l	-0.01

System Monitoring Compounds

35) 1,2-Dichloroethane-d4	12.013	102	15634	50.42	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.84%
64) Toluene-d8	13.805	98	228283	48.47	ug/l	-0.01
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.94%
72) 4-Bromofluorobenzene	16.009	95	107519	48.98	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.96%

Target Compounds

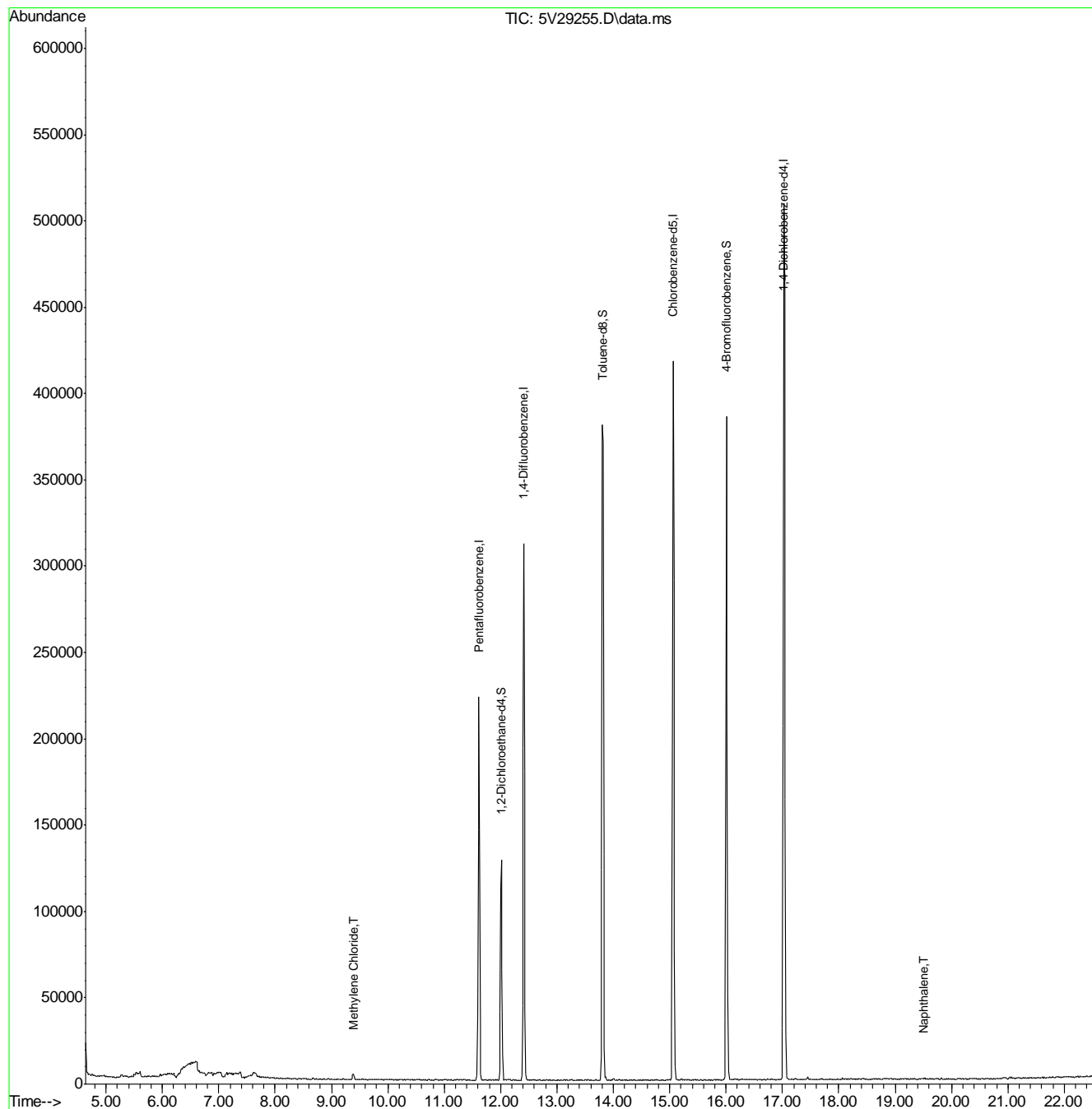
					Qvalue
1) TVH-Gasoline	13.006	TIC	-12432m	56.89	ug/l
18) Methylene Chloride	9.387	84	1137	0.90	ug/l # 83
94) Naphthalene	19.514	128	1173	0.98	ug/l 100

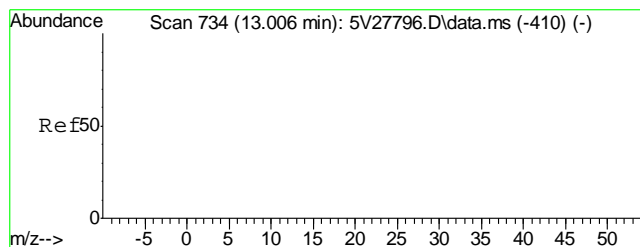
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29255.D
Acq On : 26 Sep 2013 10:38 am
Operator : BRETD
Sample : D50828-1
Misc : MS6447,V5V1759,5.055,,100,5,1
ALS Vial : 5 Sample Multiplier: 1

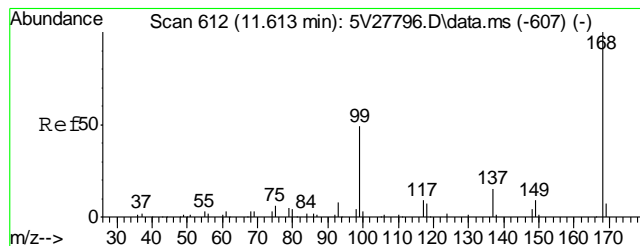
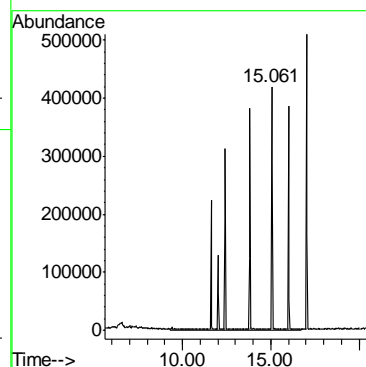
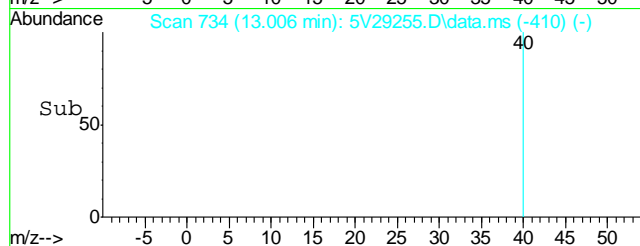
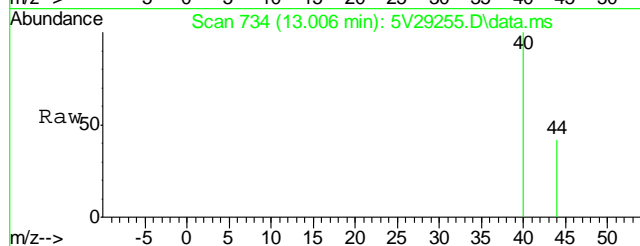
Quant Time: Sep 27 08:56:13 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration





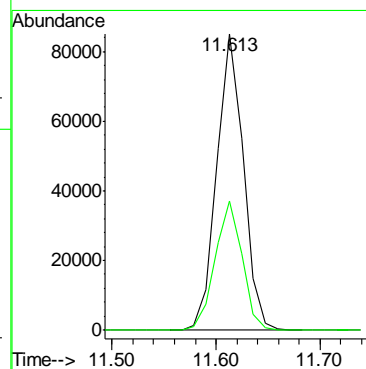
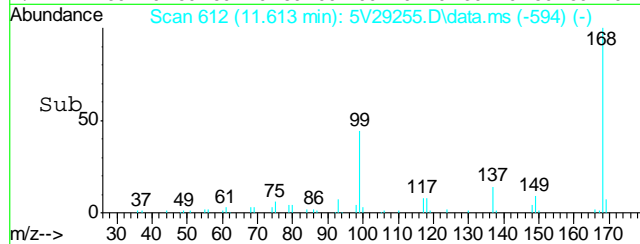
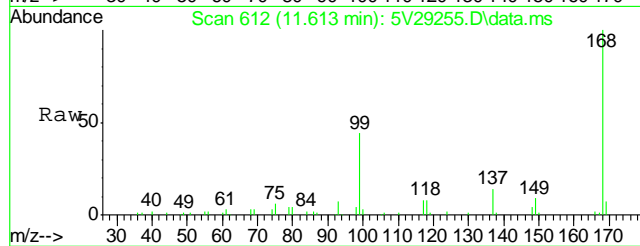
#1
TVH-Gasoline
Concen: 56.89 ug/l m
RT: 13.006 min Scan# 734
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

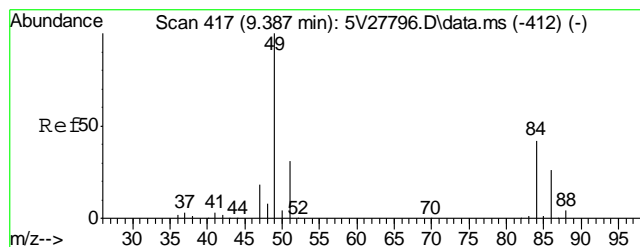
Tgt Ion:TIC Resp: -12432



#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.613 min Scan# 612
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

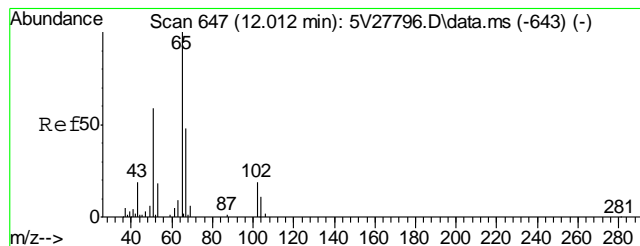
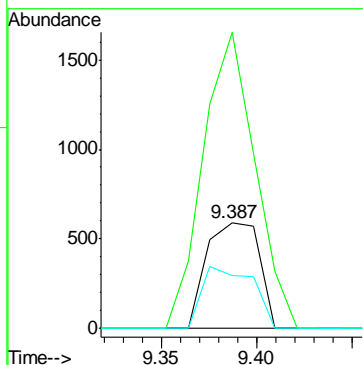
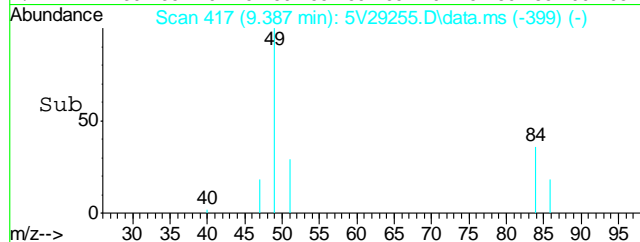
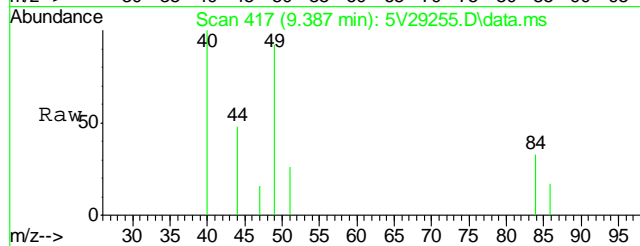
Tgt Ion:168 Resp: 152591
Ion Ratio Lower Upper
168 100
99 43.9 41.4 62.2





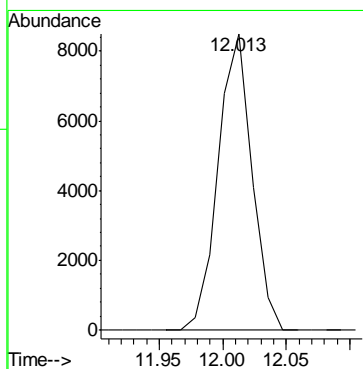
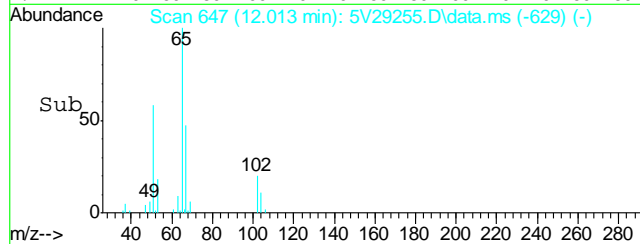
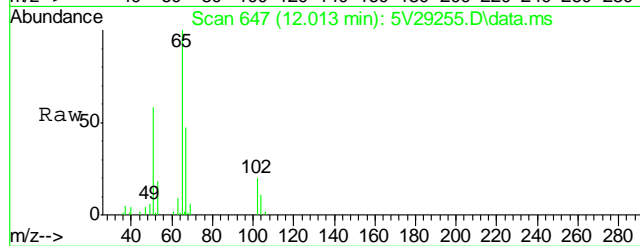
#18
Methylene Chloride
Concen: 0.90 ug/l
RT: 9.387 min Scan# 417
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

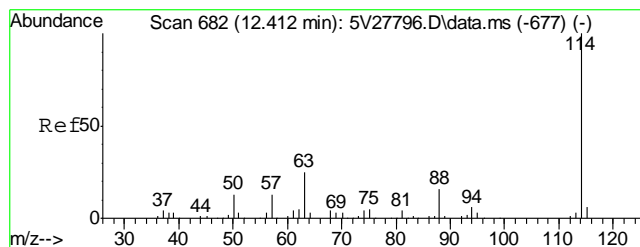
Tgt Ion: 84 Resp: 1137
Ion Ratio Lower Upper
84 100
49 276.4 224.8 264.8#
86 56.3 44.5 84.5



#35
1,2-Dichloroethane-d4
Concen: 50.42 ug/l
RT: 12.013 min Scan# 647
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

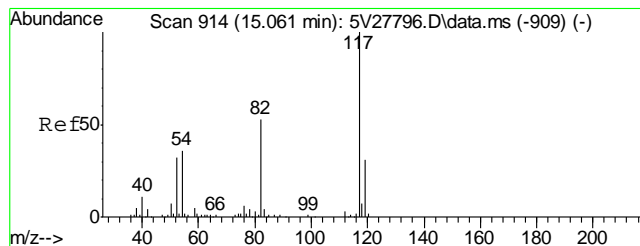
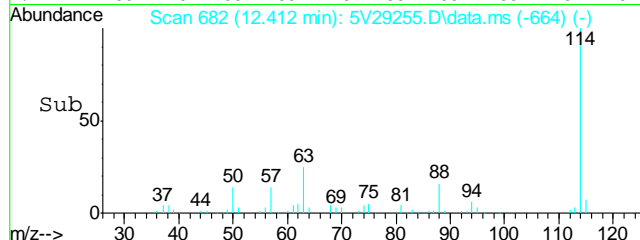
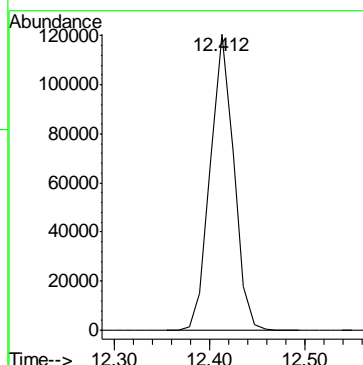
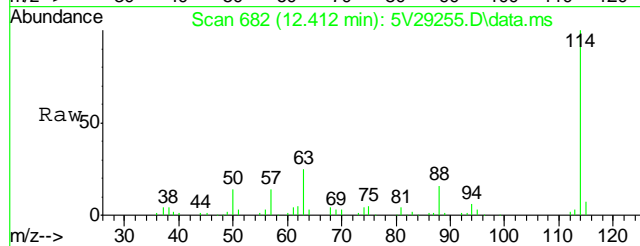
Tgt Ion: 102 Resp: 15634





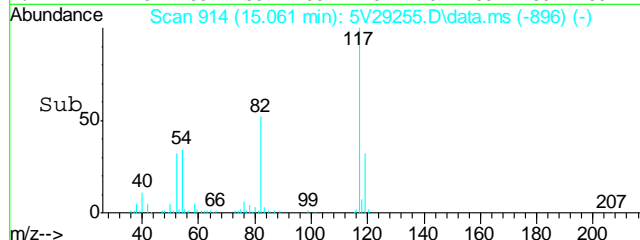
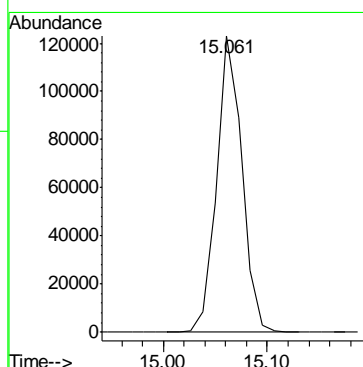
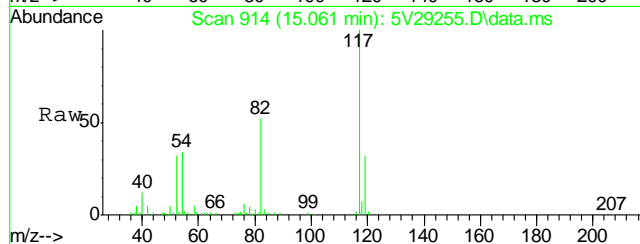
#37
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.412 min Scan# 682
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

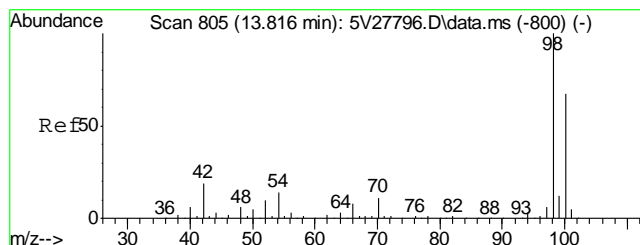
Tgt Ion:114 Resp: 205610



#56
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.061 min Scan# 914
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

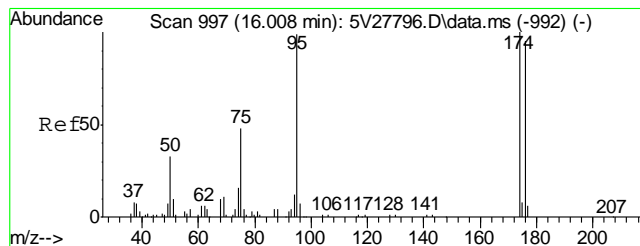
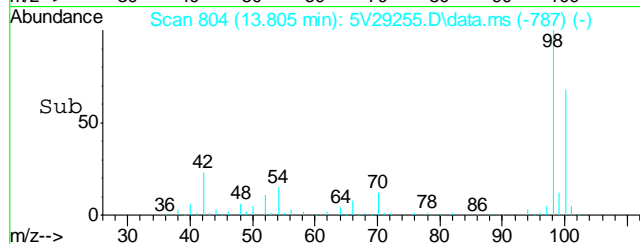
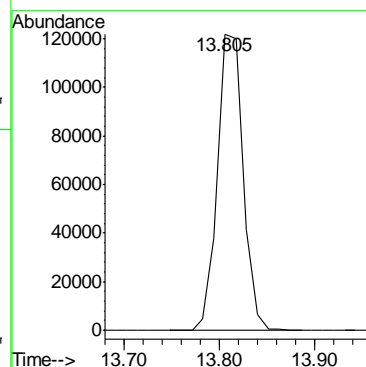
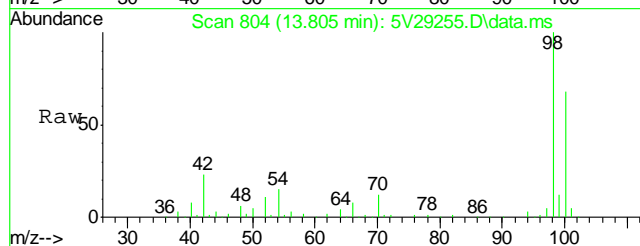
Tgt Ion:117 Resp: 207900





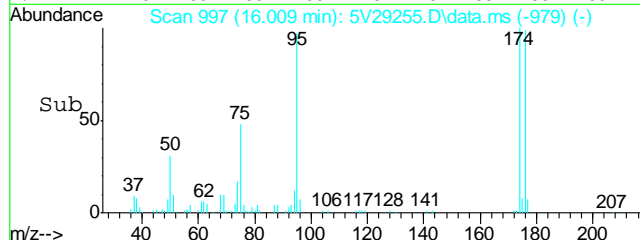
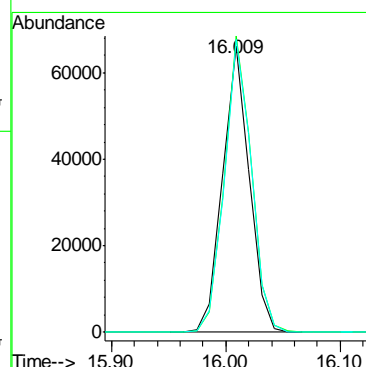
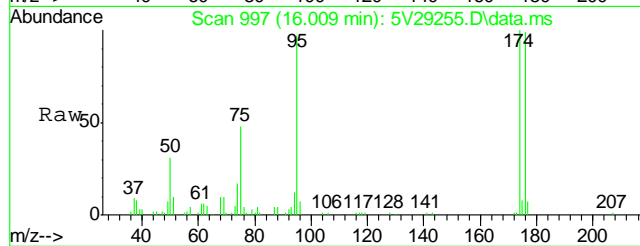
#64
Toluene-d8
Concen: 48.47 ug/l
RT: 13.805 min Scan# 804
Delta R.T. -0.011 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

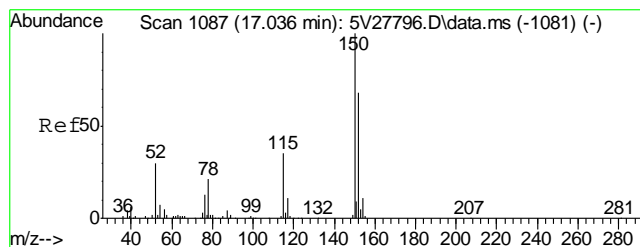
Tgt Ion: 98 Resp: 228283



#72
4-Bromofluorobenzene
Concen: 48.98 ug/l
RT: 16.009 min Scan# 997
Delta R.T. 0.000 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

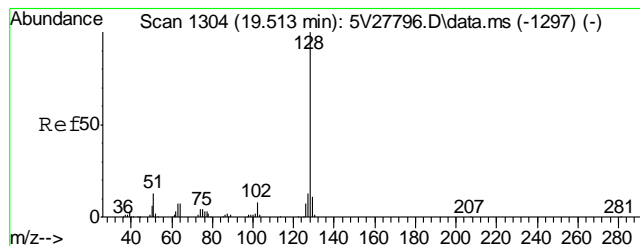
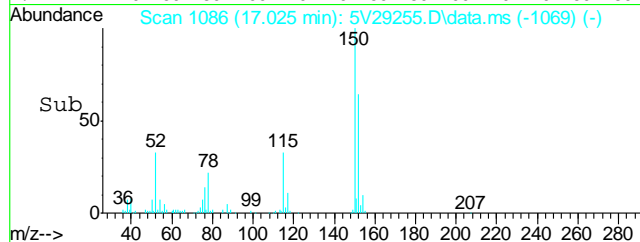
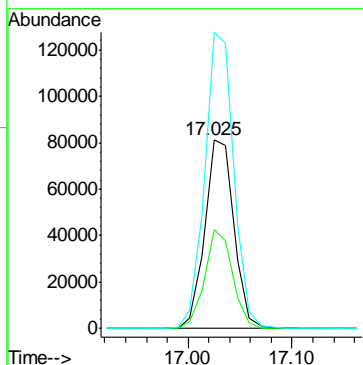
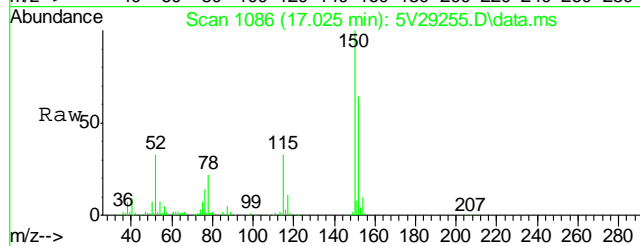
Tgt Ion: 95 Resp: 107519
Ion Ratio Lower Upper
95 100
174 104.3 85.4 125.4
176 103.3 80.6 120.6





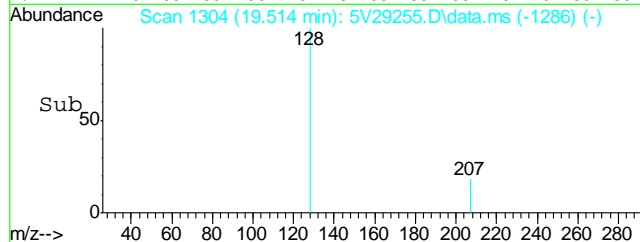
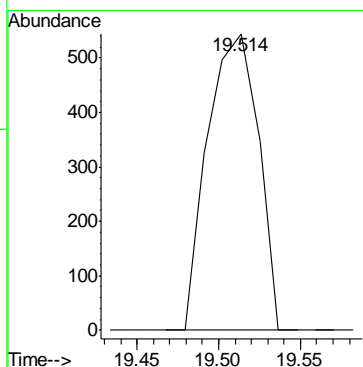
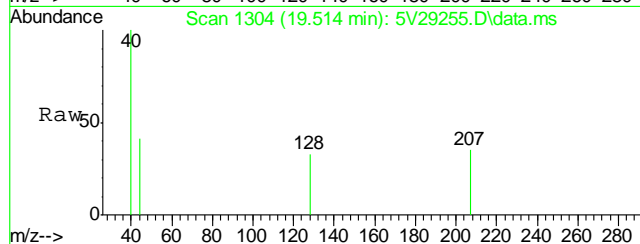
#77
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.025 min Scan# 1086
Delta R.T. -0.011 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

Tgt Ion	Ratio	Lower	Upper
152	100		
115	49.9	43.4	65.2
150	156.5	142.9	214.3



#94
Naphthalene
Concen: 0.98 ug/l
RT: 19.514 min Scan# 1304
Delta R.T. 0.001 min
Lab File: 5V29255.D
Acq: 26 Sep 2013 10:38 am

Tgt Ion	Ratio
128	1173



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29253.D
Acq On : 26 Sep 2013 9:33 am
Operator : BRETD
Sample : MB
Misc : MS6447,V5V1759,5.000,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 09:34:37 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.613	168	152367	50.00	ug/l	0.00
37) 1,4-Difluorobenzene	12.412	114	213561	50.00	ug/l	0.00
56) Chlorobenzene-d5	15.061	117	205133	50.00	ug/l	0.00
77) 1,4-Dichlorobenzene-d4	17.024	152	139005	50.00	ug/l	-0.01

System Monitoring Compounds

35) 1,2-Dichloroethane-d4	12.012	102	15843	51.17	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.34%
64) Toluene-d8	13.816	98	232139	49.95	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.90%
72) 4-Bromofluorobenzene	16.008	95	93439	43.14	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	86.28%

Target Compounds

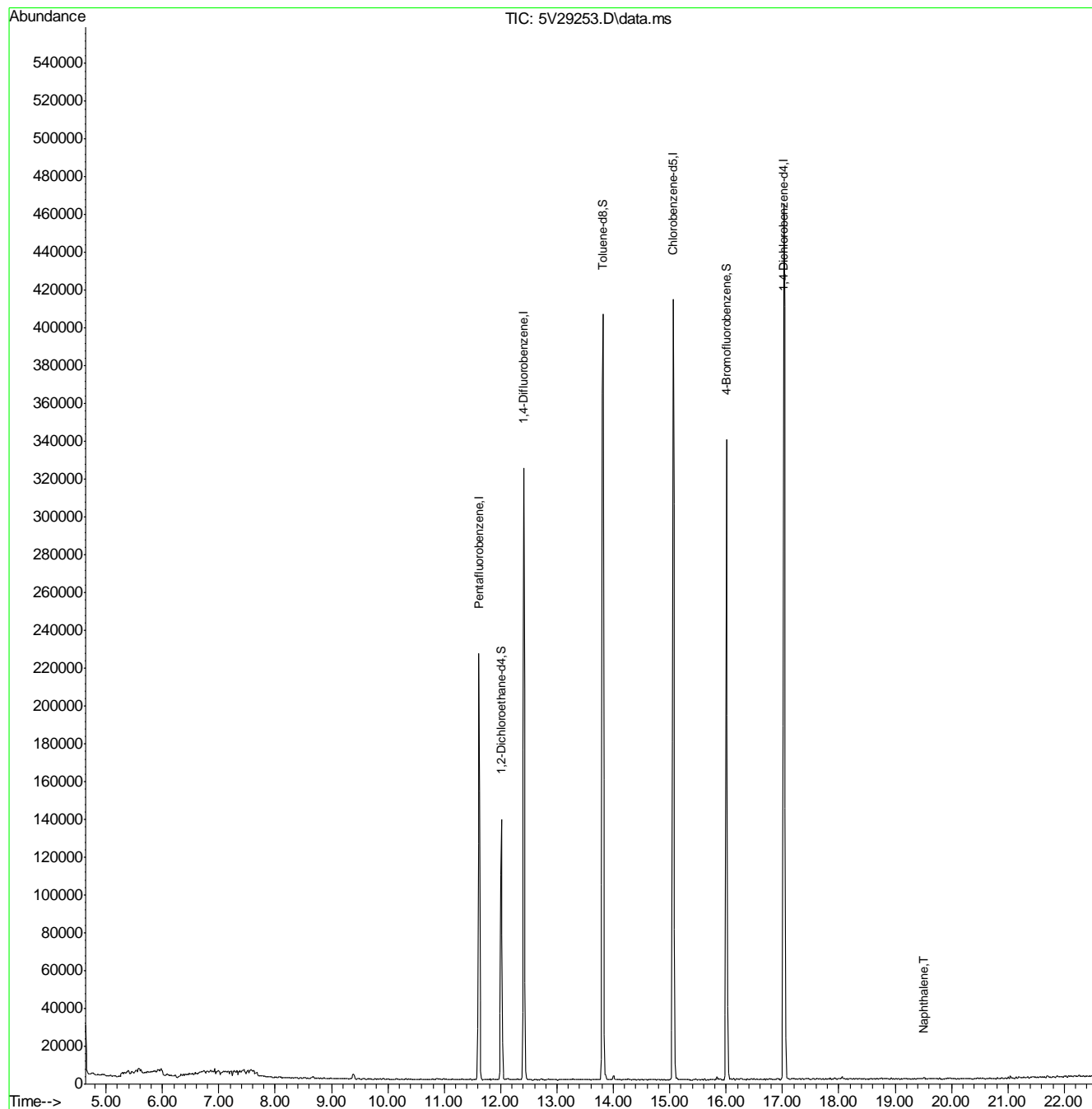
					Qvalue
1) TVH-Gasoline	13.006	TIC	-47449m	54.34	ug/l
94) Naphthalene	19.513	128	836	0.94	ug/l

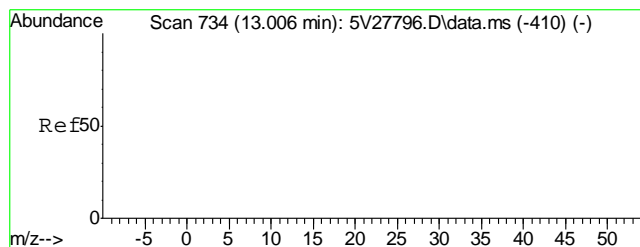
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29253.D
Acq On : 26 Sep 2013 9:33 am
Operator : BRETD
Sample : MB
Misc : MS6447,V5V1759,5.000,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

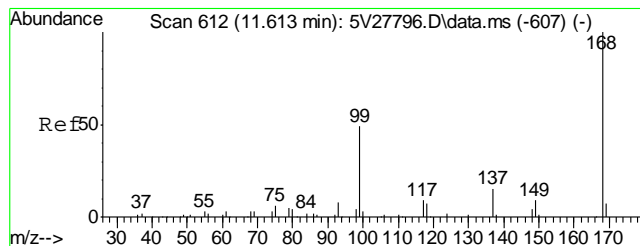
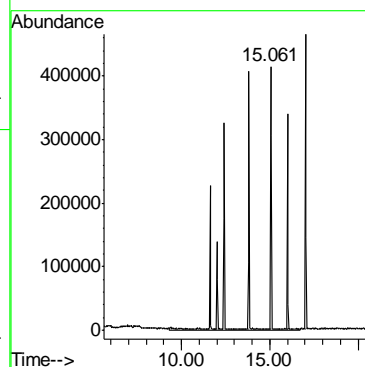
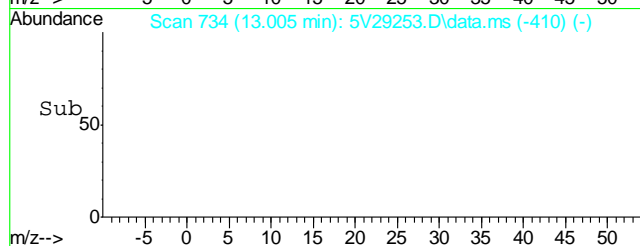
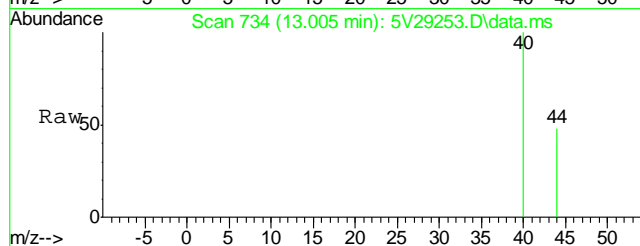
Quant Time: Sep 27 09:34:37 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration





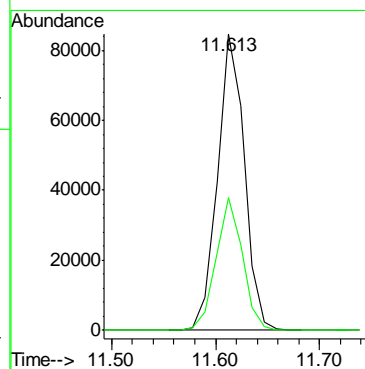
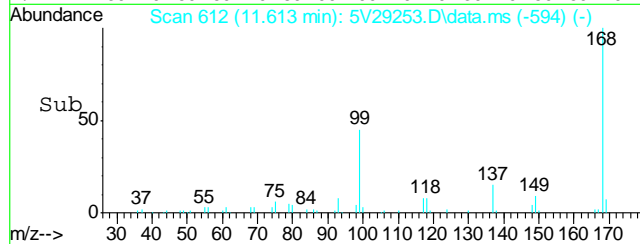
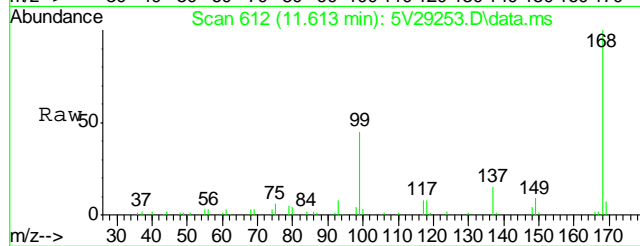
#1
TVH-Gasoline
Concen: 54.34 ug/l m
RT: 13.006 min Scan# 734
Delta R.T. 0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

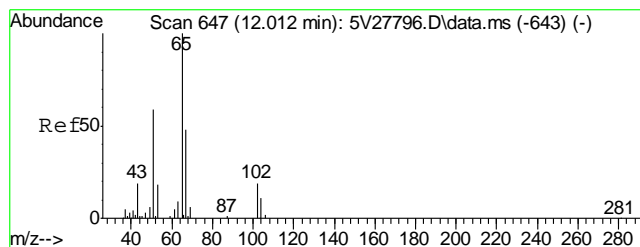
Tgt Ion:TIC Resp: -47449



#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.613 min Scan# 612
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

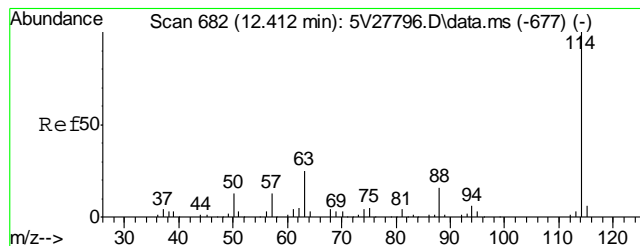
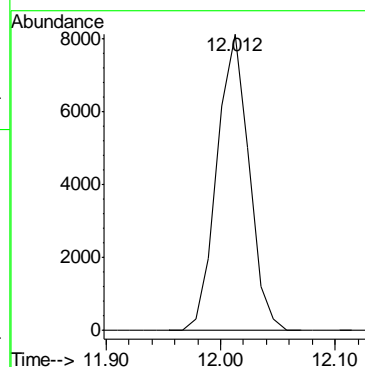
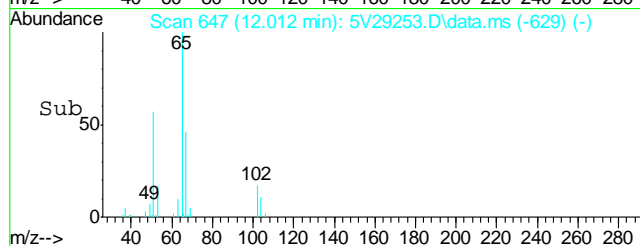
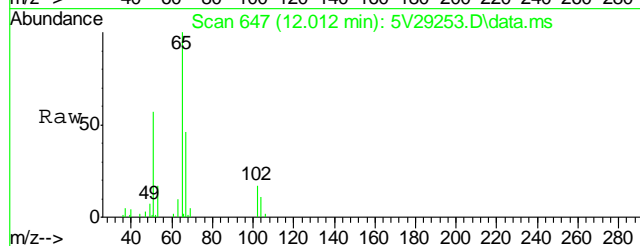
Tgt Ion:168 Resp: 152367
Ion Ratio Lower Upper
168 100
99 44.0 41.4 62.2





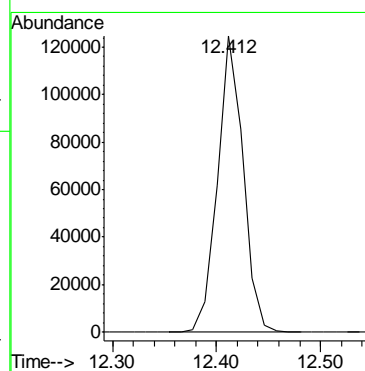
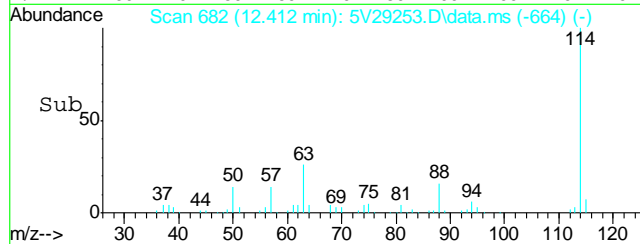
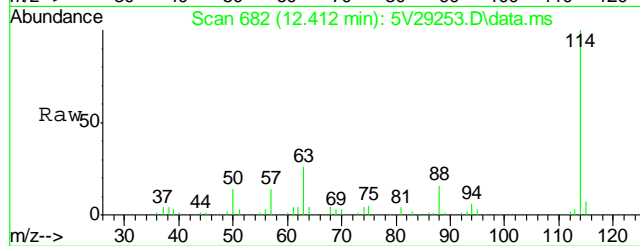
#35
1,2-Dichloroethane-d4
Concen: 51.17 ug/l
RT: 12.012 min Scan# 647
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

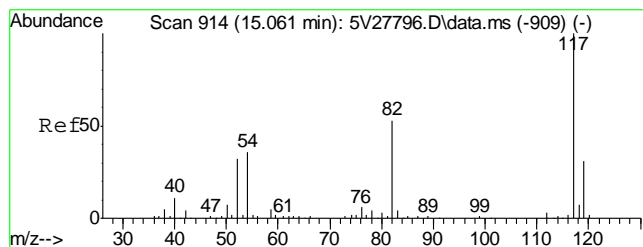
Tgt Ion:102 Resp: 15843



#37
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.412 min Scan# 682
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

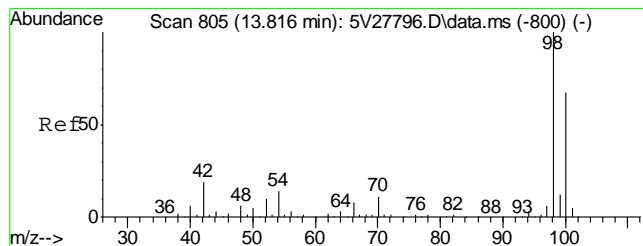
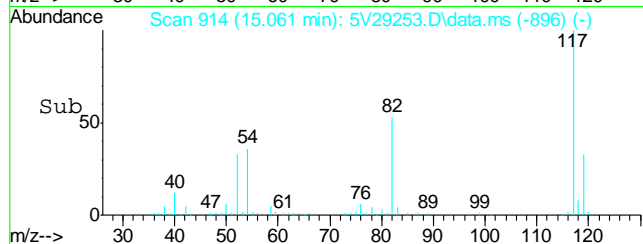
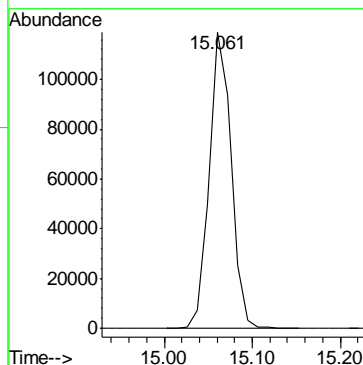
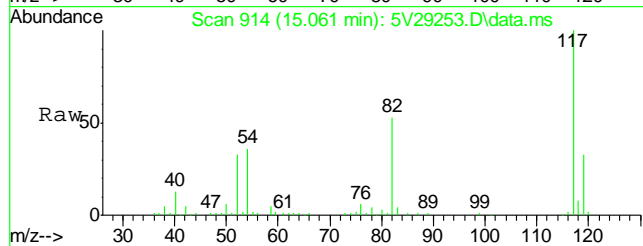
Tgt Ion:114 Resp: 213561





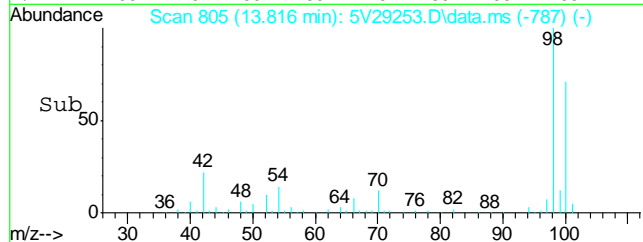
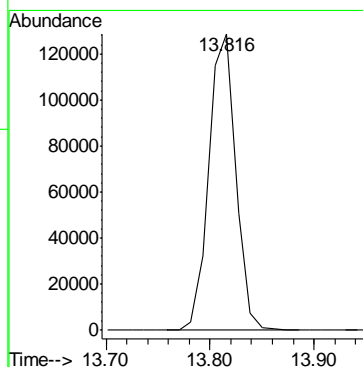
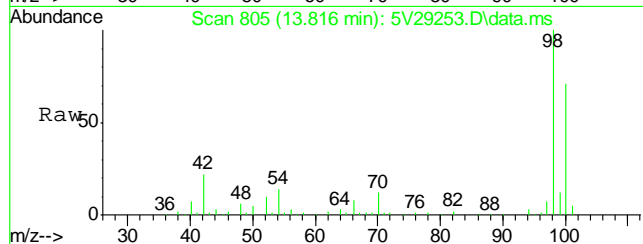
#56
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.061 min Scan# 914
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

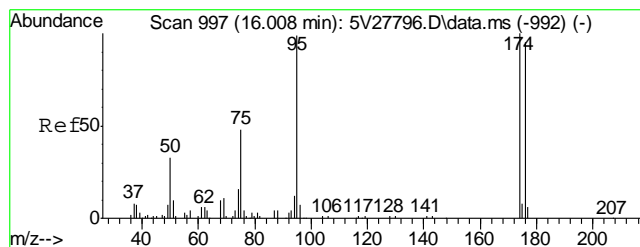
Tgt Ion:117 Resp: 205133



#64
Toluene-d8
Concen: 49.95 ug/l
RT: 13.816 min Scan# 805
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

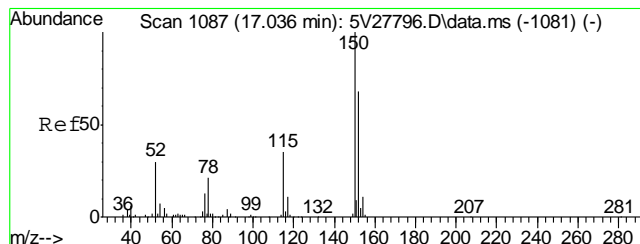
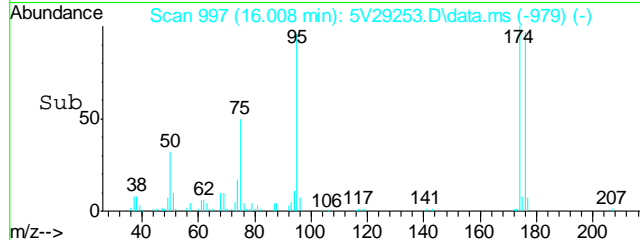
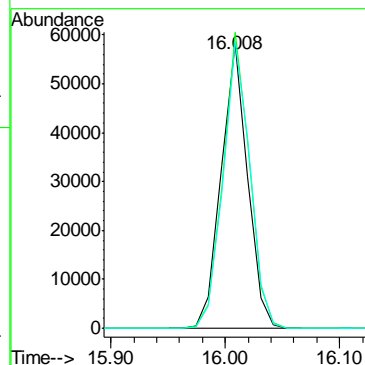
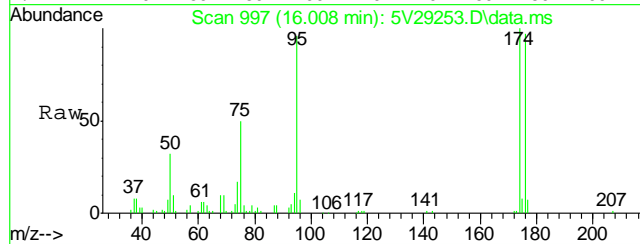
Tgt Ion: 98 Resp: 232139





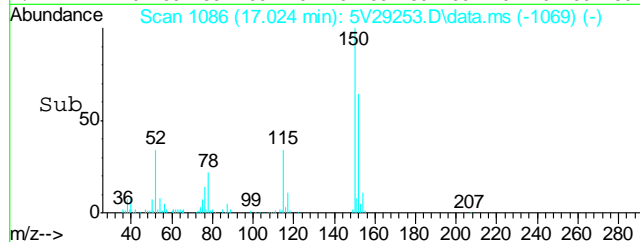
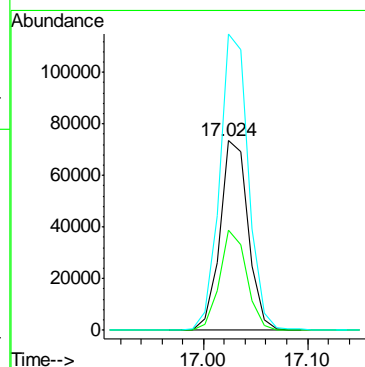
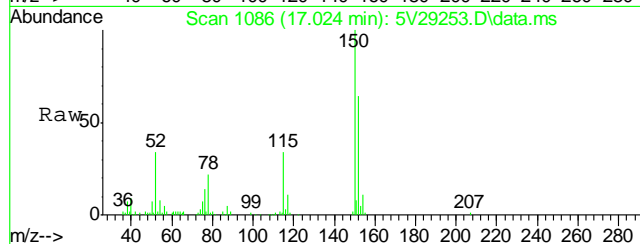
#72
 4-Bromofluorobenzene
 Concen: 43.14 ug/l
 RT: 16.008 min Scan# 997
 Delta R.T. -0.000 min
 Lab File: 5V29253.D
 Acq: 26 Sep 2013 9:33 am

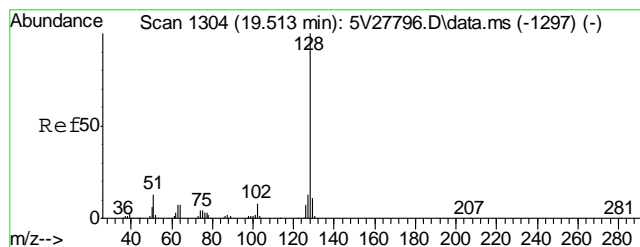
Tgt Ion	Ratio	Lower	Upper
95	100		
174	104.3	85.4	125.4
176	102.8	80.6	120.6



#77
 1,4-Dichlorobenzene-d4
 Concen: 50.00 ug/l
 RT: 17.024 min Scan# 1086
 Delta R.T. -0.011 min
 Lab File: 5V29253.D
 Acq: 26 Sep 2013 9:33 am

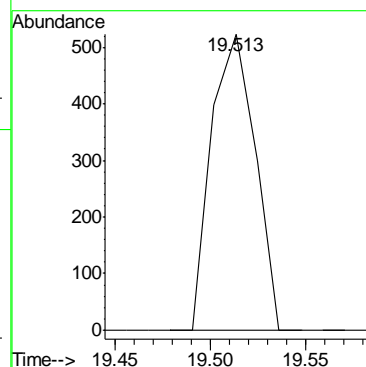
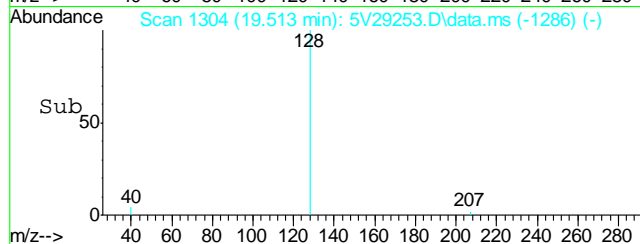
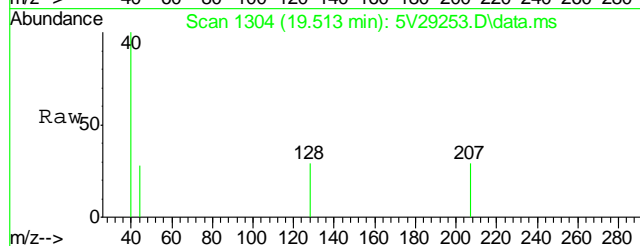
Tgt Ion	Ratio	Lower	Upper
152	100		
115	50.7	43.4	65.2
150	159.2	142.9	214.3





#94
Naphthalene
Concen: 0.94 ug/l
RT: 19.513 min Scan# 1304
Delta R.T. 0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion:128 Resp: 836





GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1225-MB	GB22269.D	1	09/24/13	EV	n/a	n/a	GGB1225

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

D50828-1

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	81% 60-140%

8.1.1
8

Blank Spike Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1225-BS	GB22270.D	1	09/24/13	EV	n/a	n/a	GGB1225

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

D50828-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	109	99	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	93%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50798-1MS	GB22272.D	1	09/24/13	EV	n/a	n/a	GGB1225
D50798-1MSD	GB22273.D	1	09/24/13	EV	n/a	n/a	GGB1225
D50798-1	GB22271.D	1	09/24/13	EV	n/a	n/a	GGB1225

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

D50828-1

CAS No.	Compound	D50798-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		136	136	100	137	101	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D50798-1	Limits
120-82-1	1,2,4-Trichlorobenzene	91%	95%	87%	60-140%

* = Outside of Control Limits.



GC Volatiles

Raw Data

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092413\GB22285.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\092413\GB22285.D\FID2B.CH
Acq On : 24 Sep 2013 9:44 pm Operator: ELISEV
Sample : D50828-1 Inst : GC/MS Ins
Misc : GC3895,GGB1225,5.055,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 25 08:33:32 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Sep 25 08:31:56 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

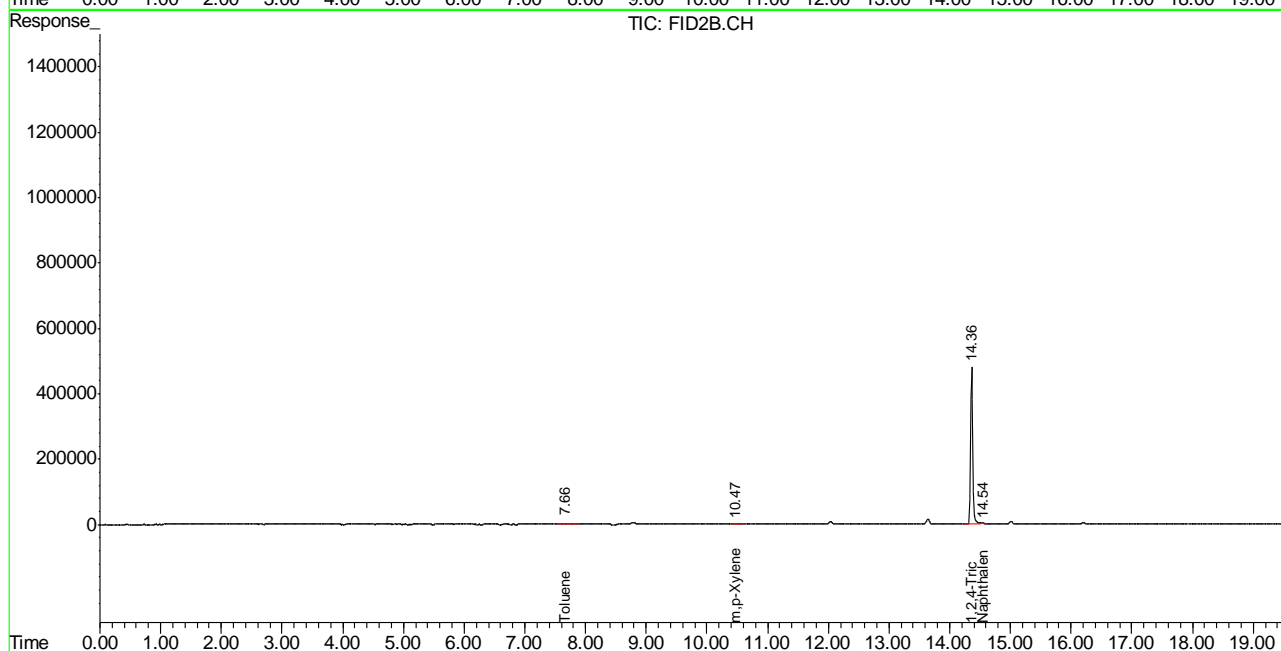
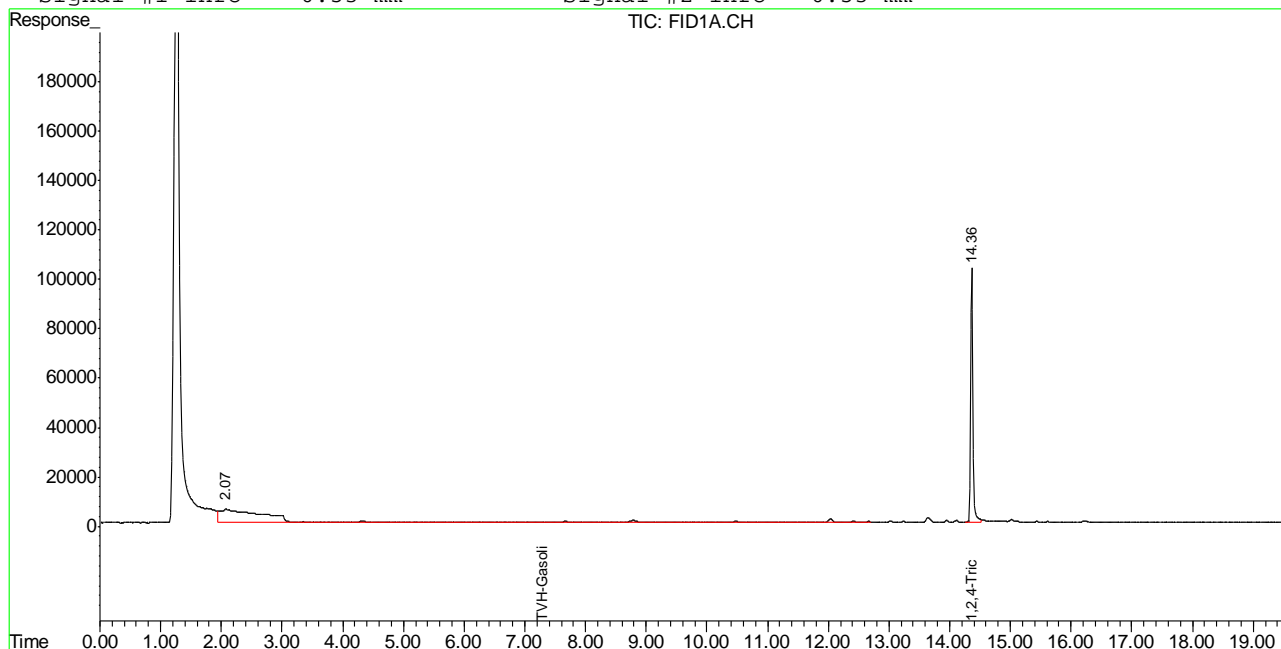
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	2545798	84.267 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.36	11666386	88.349 %	m
Target Compounds					
1) H	TVH-Gasoline	7.30	3483568	0.050 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d
5) T	Benzene	0.00	0	N.D. ug/L	d
6) T	Toluene	7.66	90730	0.245 ug/L	
7) T	Ethylbenzene	0.00	0	N.D. ug/L	d
8) T	m,p-Xylene	10.47	83416	0.221 ug/L	m
9) T	o-Xylene	0.00	0	N.D. ug/L	d
11) T	Naphthalene	14.54	17416	0.101 ug/L	m

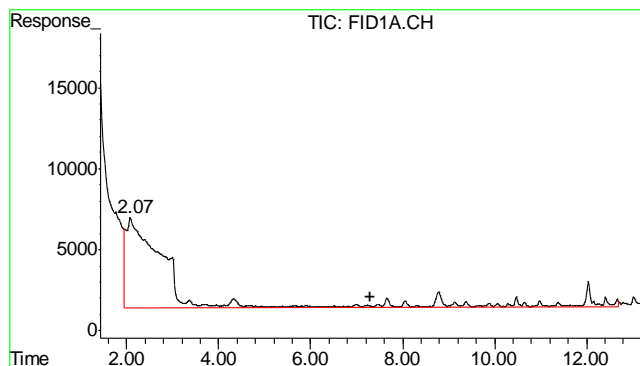
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092413\GB22285.D\FID1A.CH Vial: 20
 Signal #2 : Y:\1\DATA\092413\GB22285.D\FID2B.CH
 Acq On : 24 Sep 2013 9:44 pm Operator: ELISEV
 Sample : D50828-1 Inst : GC/MS Ins
 Misc : GC3895,GGB1225,5.055,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Sep 25 9:01 2013 Quant Results File: TB1125GB1125SOIL.RES

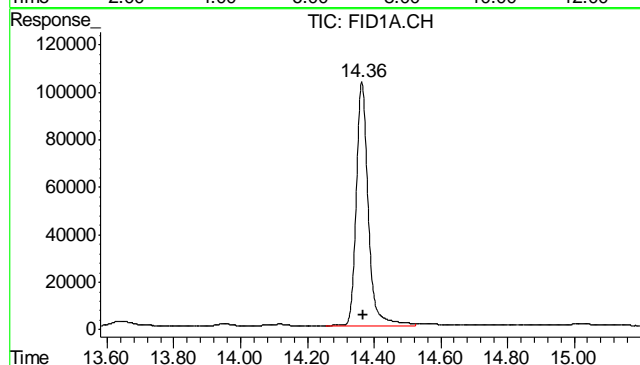
Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Wed Sep 25 08:31:56 2013
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

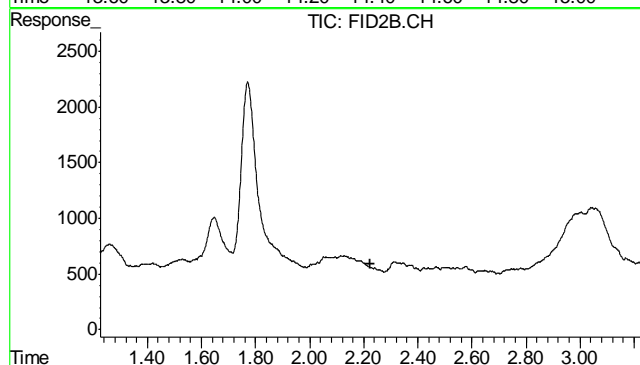




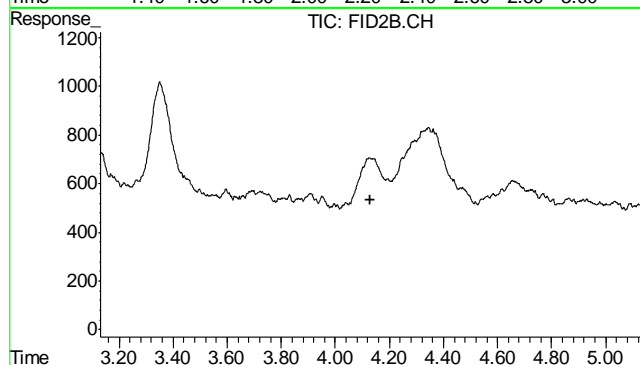
#1 TVH-Gasoline
R.T.: 7.305 min
Delta R.T.: 0.000 min
Response: 3483568
Conc: 0.05 mg/L m



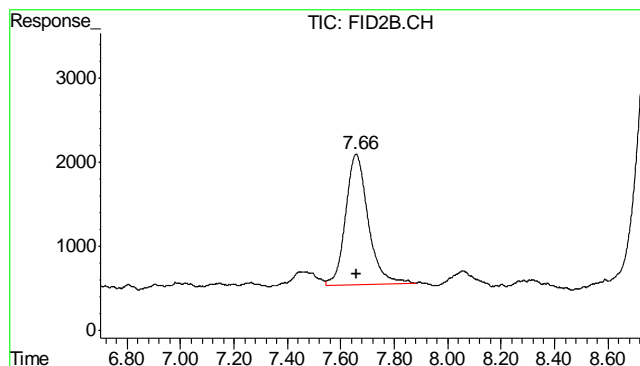
#2 1,2,4-Trichlorobenzene
R.T.: 14.362 min
Delta R.T.: -0.005 min
Response: 2545798
Conc: 84.27 % m



#4 Methyl-t-butyl-ether
R.T.: 0.000 min
Exp R.T.: 2.225 min
Response: 0
Conc: N.D.

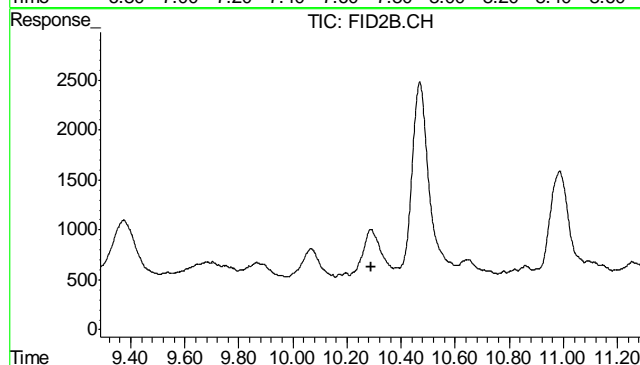


#5 Benzene
R.T.: 0.000 min
Exp R.T.: 4.131 min
Response: 0
Conc: N.D.



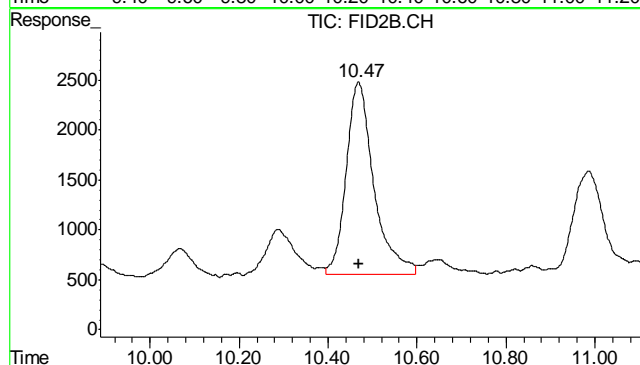
#6 Toluene

R.T.: 7.657 min
Delta R.T.: 0.000 min
Response: 90730
Conc: 0.25 ug/L



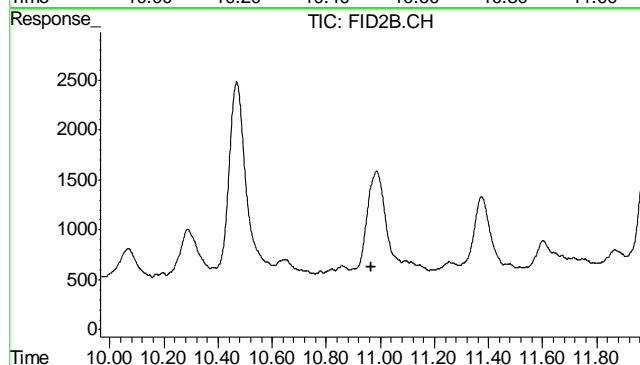
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.288 min
Response: 0
Conc: N.D.



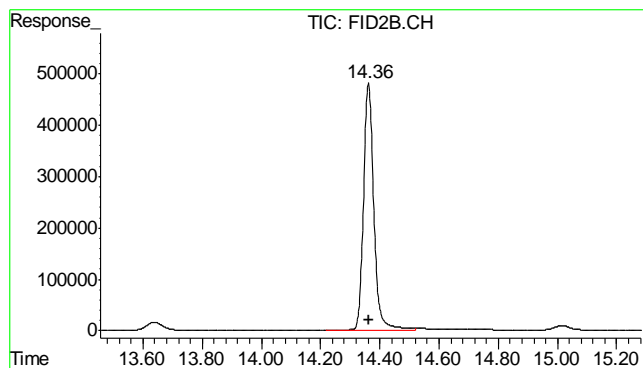
#8 m,p-Xylene

R.T.: 10.468 min
Delta R.T.: -0.001 min
Response: 83416
Conc: 0.22 ug/L m



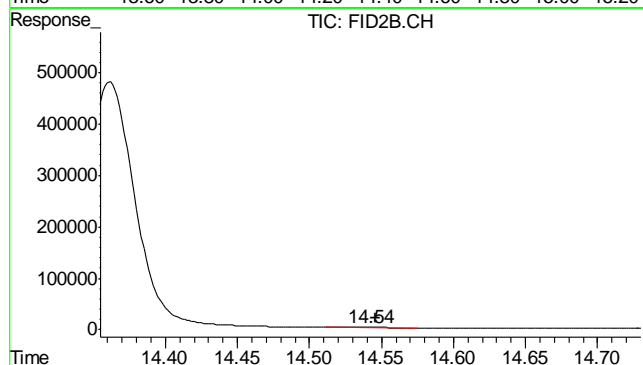
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 10.964 min
Response: 0
Conc: N.D.



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

R.T.: 14.361 min
Delta R.T.: -0.004 min
Response: 11666386
Conc: 88.35 % m



#11 Naphthalene

R.T.: 14.542 min
Delta R.T.: -0.004 min
Response: 17416
Conc: 0.10 ug/L m

Jennifer Laidlaw
09/25/13 09:50

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092413\GB22269.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\092413\GB22269.D\FID2B.CH
Acq On : 24 Sep 2013 11:43 am Operator: ELISEV
Sample : MB, S Inst : GC/MS Ins
Misc : GC3895,GGB1225,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 25 08:32:27 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Sep 25 08:31:56 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	

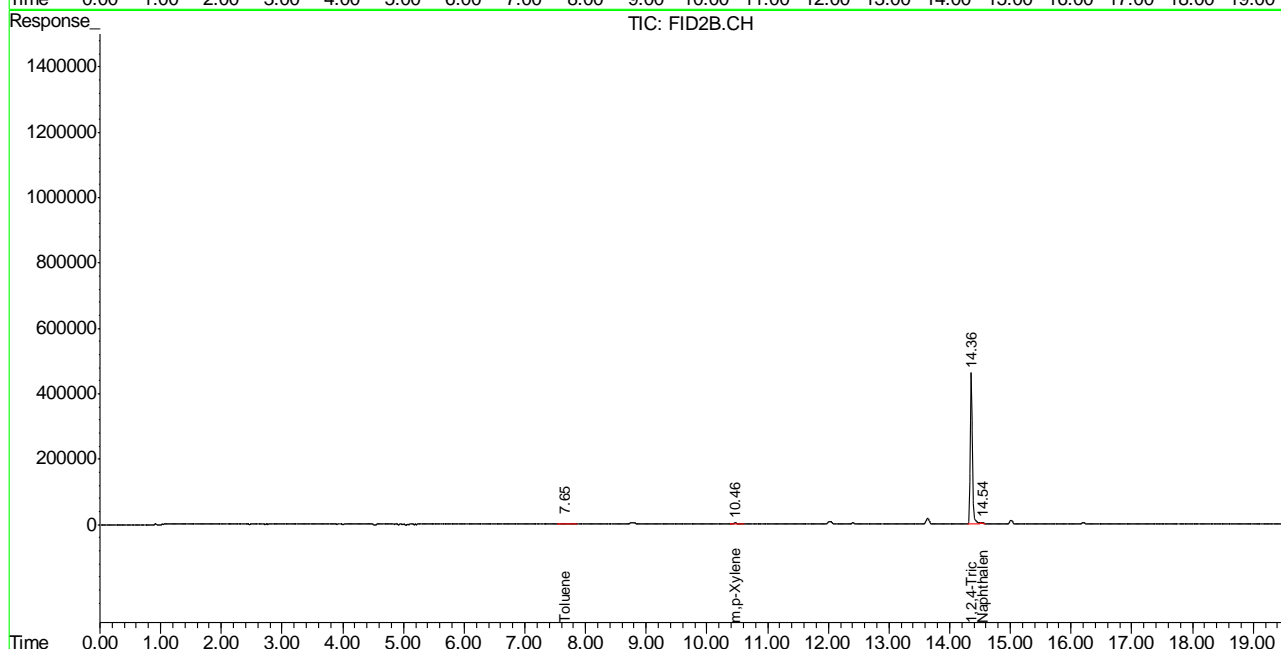
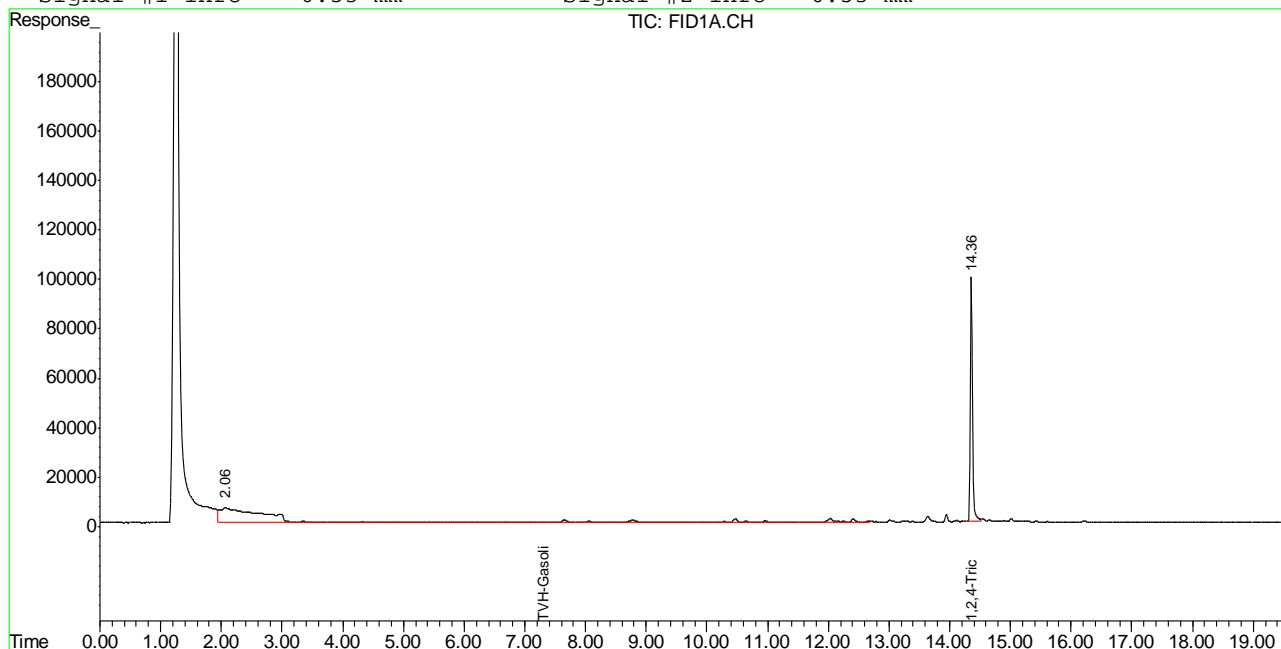
System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	2444106	80.901 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.36	11099233	84.054 %	m
Target Compounds					
1) H	TVH-Gasoline	7.30	3986775	0.057	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.65	164145	0.444	ug/L m
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.46	188091	0.498	ug/L m
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.54	38258	0.222	uq/L m

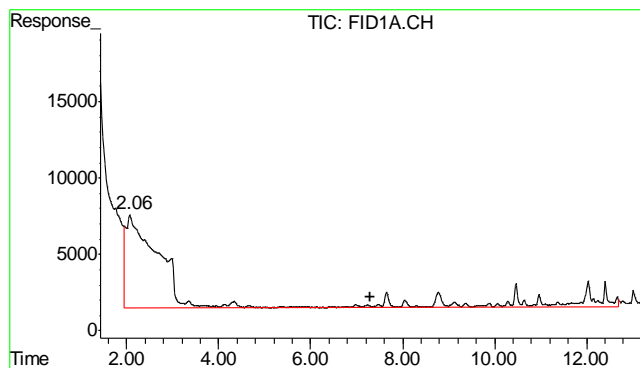
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092413\GB22269.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\092413\GB22269.D\FID2B.CH
Acq On : 24 Sep 2013 11:43 am Operator: ELISEV
Sample : MB, S Inst : GC/MS Ins
Misc : GC3895,GGB1225,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 25 8:42 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Sep 25 08:31:56 2013
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

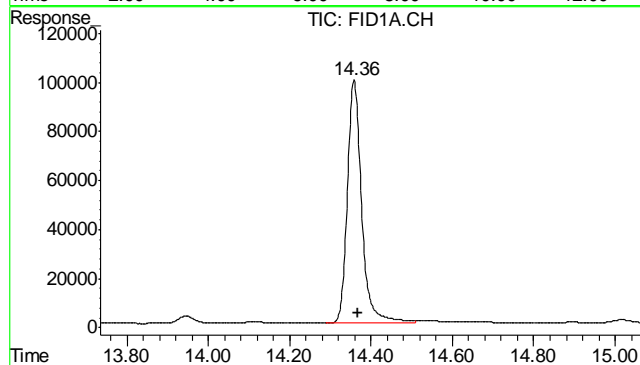
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





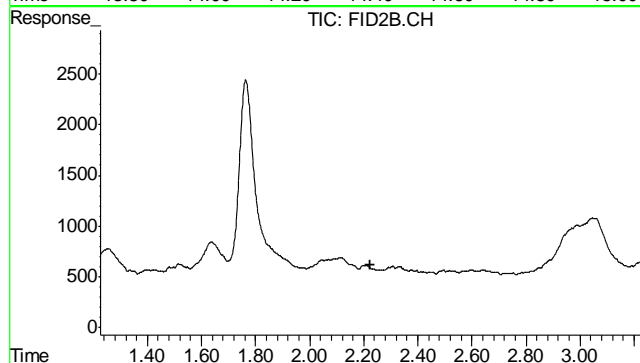
#1 TVH-Gasoline

R.T.: 7.305 min
Delta R.T.: 0.000 min
Response: 3986775
Conc: 0.06 mg/L m



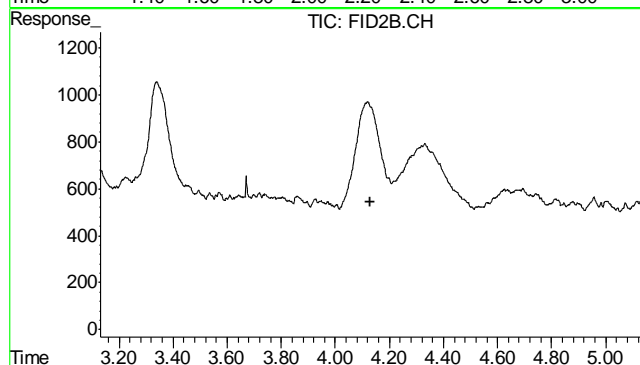
#2 1,2,4-Trichlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.009 min
Response: 2444106
Conc: 80.90 % m



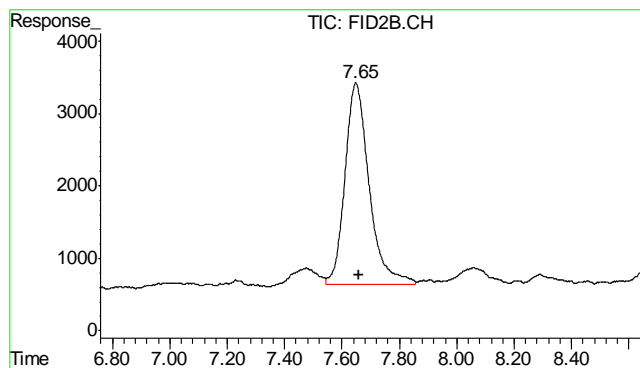
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.225 min
Response: 0
Conc: N.D.



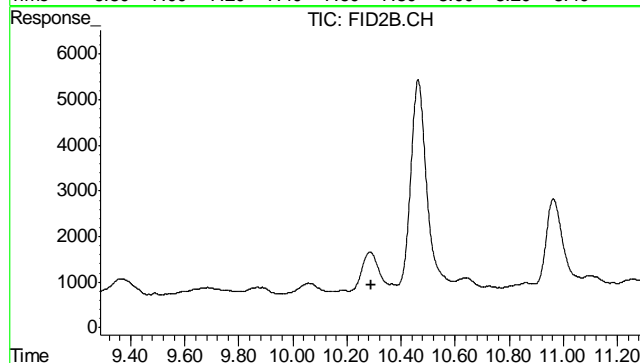
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.131 min
Response: 0
Conc: N.D.



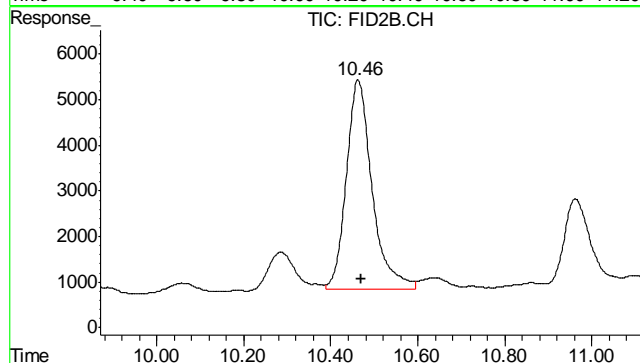
#6 Toluene

R.T.: 7.648 min
Delta R.T.: -0.011 min
Response: 164145
Conc: 0.44 ug/L m



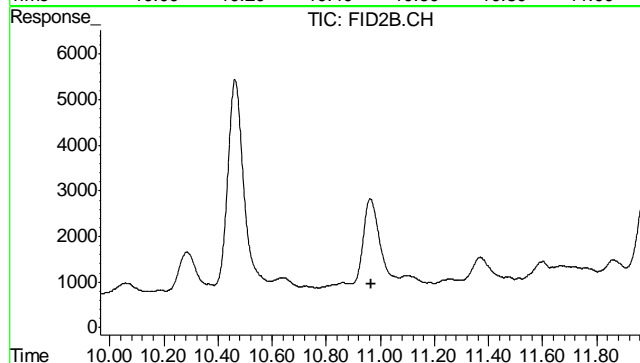
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.288 min
Response: 0
Conc: N.D.



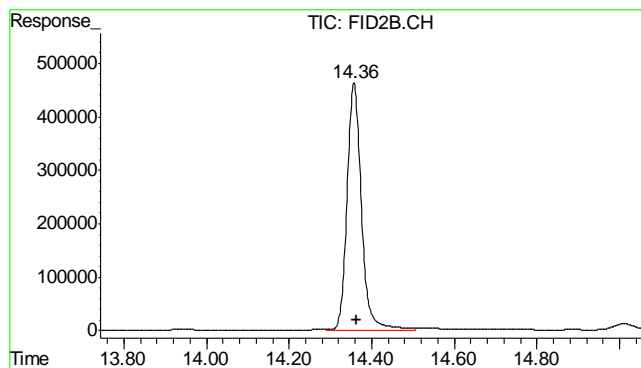
#8 m,p-Xylene

R.T.: 10.461 min
Delta R.T.: -0.008 min
Response: 188091
Conc: 0.50 ug/L m



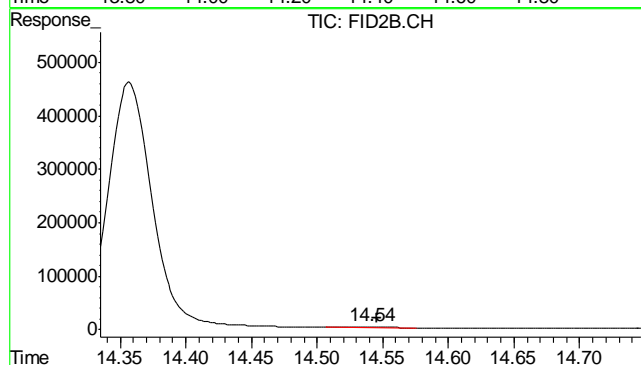
#9 o-Xylene

R.T.: 0.000 min
Exp R.T.: 10.964 min
Response: 0
Conc: N.D.



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

R.T.: 14.357 min
Delta R.T.: -0.008 min
Response: 11099233
Conc: 84.05 % m



#11 Naphthalene

R.T.: 14.540 min
Delta R.T.: -0.006 min
Response: 38258
Conc: 0.22 ug/L m



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8630-MB	FH013381.D	1	09/25/13	TU	09/25/13	OP8630	GFH710

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

D50828-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	6.7	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	77% 20-130%

10.1.1
10

Blank Spike Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8630-BS	FH013383.D	1	09/25/13	TU	09/25/13	OP8630	GFH710

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

D50828-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	499	75	42-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	75%	20-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50828
Account: XTOKRWR XTO Energy
Project: PCU T73-19G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8630-MS	FH013385.D	1	09/25/13	TU	09/25/13	OP8630	GFH710
OP8630-MSD	FH013387.D	1	09/25/13	TU	09/25/13	OP8630	GFH710
D50828-1	FH013389.D	1	09/25/13	TU	09/25/13	OP8630	GFH710

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

D50828-1

CAS No.	Compound	D50828-1 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	9.23	791	526	65	507	63	4	20-150/30

CAS No.	Surrogate Recoveries	MS	MSD	D50828-1	Limits
84-15-1	o-Terphenyl	65%	65%	74%	20-130%

* = Outside of Control Limits.



GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092513.SEC\
Data File : FH013389.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 2013 7:30 pm
Operator : TIMU
Sample : D50828-1
Misc : OP8630,GFH710,30.00,,,1,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 26 08:24:45 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) s o-Terphenyl	12.184	2583047621	1488.686 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	9.783	328234187	233.356 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

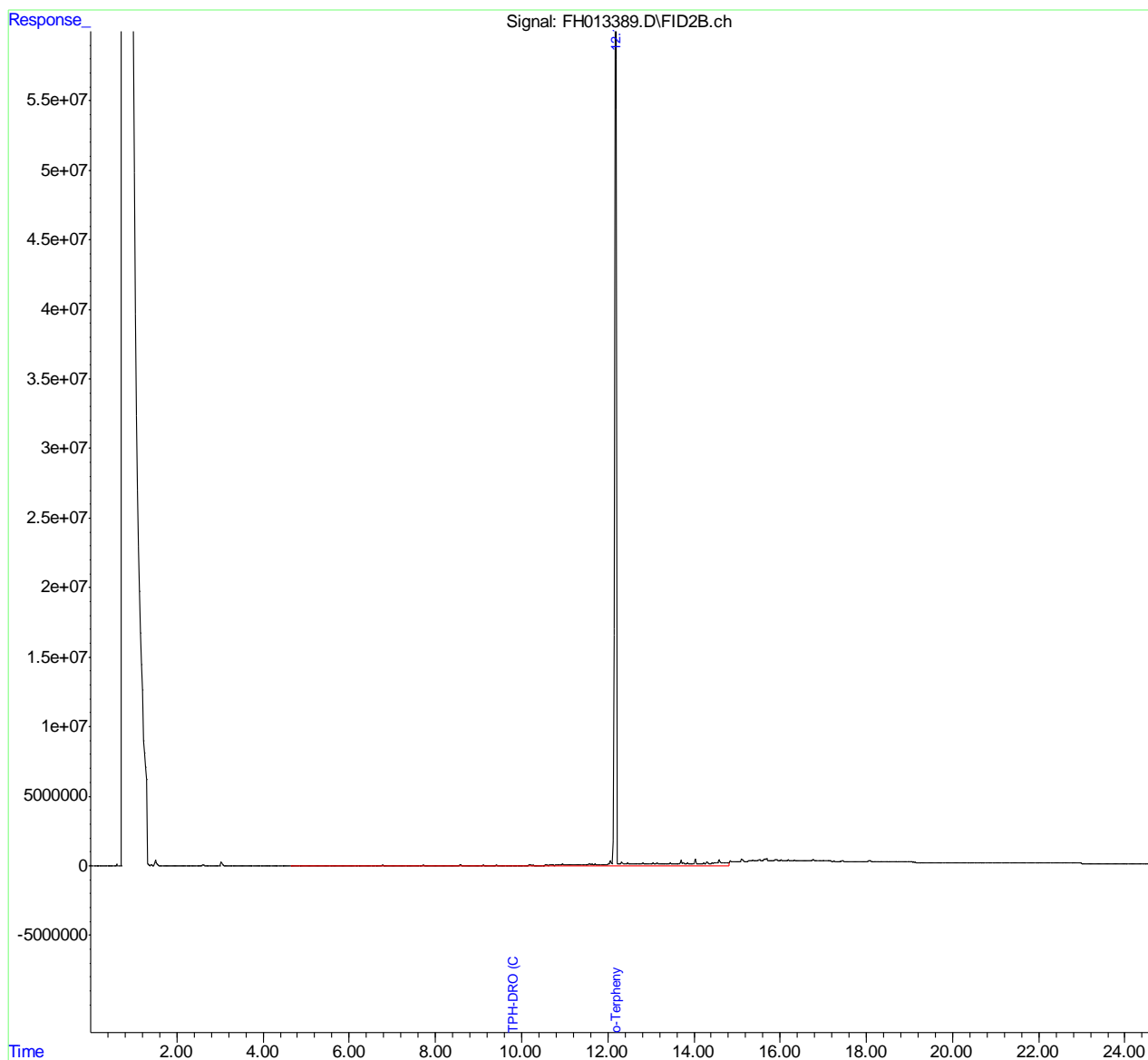
11.1.1

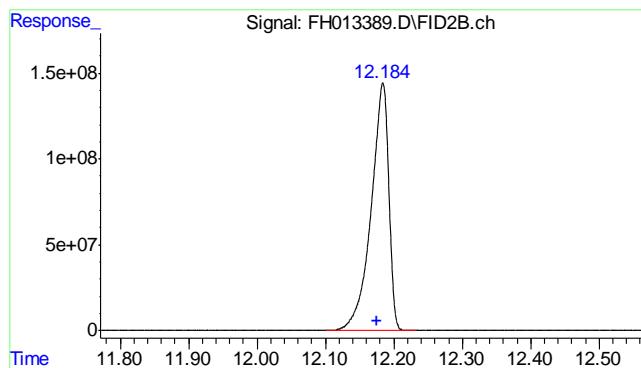
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092513.SEC\
Data File : FH013389.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 2013 7:30 pm
Operator : TIMU
Sample : D50828-1
Misc : OP8630,GFH710,30.00,,,1,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 26 08:24:45 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

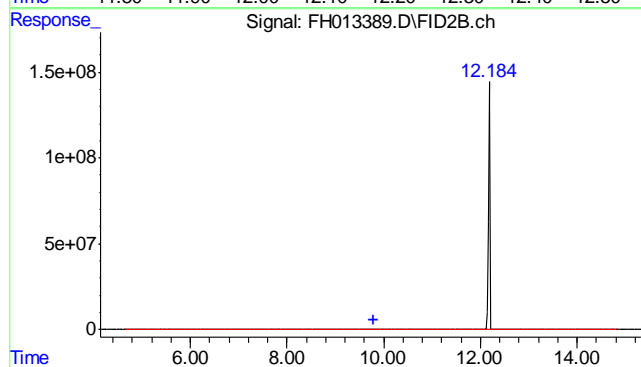
Volume Inj. :
Signal Phase :
Signal Info :





#1 o-Terphenyl

R.T.: 12.184 min
Delta R.T.: 0.009 min
Response: 2583047621
Conc: 1488.69 ug/ml



#2 TPH-DRO (C10-C28)

R.T.: 9.783 min
Delta R.T.: 0.000 min
Response: 328234187
Conc: 233.36 ug/ml m

11.1.1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092513.SEC\
Data File : FH013381.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 2013 5:05 pm
Operator : TIMU
Sample : OP8630-MB
Misc : OP8630,GFH710,30.00,,,1,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 26 08:21:30 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) s o-Terphenyl	12.187	2681575113	1545.470 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	9.783	67539585	48.017 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

11.2.1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092513.SEC\
Data File : FH013381.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 2013 5:05 pm
Operator : TIMU
Sample : OP8630-MB
Misc : OP8630,GFH710,30.00,,,1,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 26 08:21:30 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

