Mountain States ACCUTEST LABORATORIES

06/04/12

Technical Report for

XTO Energy

FRU 297-17A

1108-13A

Accutest Job Number: D34640

Sampling Date: 05/16/12

Report to:

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

Total number of pages in report: 77

ACCREDITED IN ACCORDANCE WITH nelac

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)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

XTO Energy

Job No: D34640

FRU 297-17A
Project No: 1108-13A

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D34640-1	05/16/12	08:45	DS	05/18/12	SO	Soil	RP SUBLINER #1
D34640-2	05/16/12	08:50	DS	05/18/12	SO	Soil	RP SUBLINER #2
D34640-3	05/16/12	08:55	DS	05/18/12	SO	Soil	RP SUBLINER #3
D34640-4	05/16/12	09:00	DS	05/18/12	SO	Soil	RP SUBLINER #4
D34640-5	05/16/12	09:05	DS	05/18/12	SO	Soil	RP SUBLINER #5

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	XTO Energy	**Job No**	D34640
Site:	FRU 297-17A	**Report Date**	6/4/2012 3:58:45 PM

On 05/18/2012, 5 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 D34640 was assigned to the project. The lab sample IDs, client sample IDs, and date of sample collection are detailed in the report's Results Summary.

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

Volatiles by GC By Method SW846 8015B

Matrix SO **Batch ID:** GGB897

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D34781-1MS, D34781-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO **Batch ID:** OP5975

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D34640-2MS, D34640-2MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO **Batch ID:** GN15169

- 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.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	RP SUBLINER #1		
Lab Sample ID:	D34640-1	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846 8015B	**Percent Solids:**	87.3
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16133.D	1	05/29/12	BR	n/a	n/a	GGB897
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	100%		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

Client Sample ID:	RP SUBLINER #1		
Lab Sample ID:	D34640-1	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	87.3
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13832.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	405	15	9.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		43-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	RP SUBLINER #2		
Lab Sample ID:	D34640-2	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846 8015B	**Percent Solids:**	92.5
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16134.D	1	05/29/12	BR	n/a	n/a	GGB897
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	5.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	97%		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

Client Sample ID:	RP SUBLINER #2		
Lab Sample ID:	D34640-2	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	92.5
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13833.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	891	14	9.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		43-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	RP SUBLINER #3		
Lab Sample ID:	D34640-3	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846 8015B	**Percent Solids:**	94.0
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16135.D	1	05/29/12	BR	n/a	n/a	GGB897
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	96%		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

Client Sample ID:	RP SUBLINER #3		
Lab Sample ID:	D34640-3	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	94.0
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13834.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	433	14	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	63%		43-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	RP SUBLINER #4		
Lab Sample ID:	D34640-4	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846 8015B	**Percent Solids:**	86.2
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16136.D	1	05/29/12	BR	n/a	n/a	GGB897
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.6	mg/kg	

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

Client Sample ID:	RP SUBLINER #4		
Lab Sample ID:	D34640-4	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	86.2
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13835.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	487	15	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		43-136%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	RP SUBLINER #5		
Lab Sample ID:	D34640-5	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846 8015B	**Percent Solids:**	92.4
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16137.D	1	05/30/12	BR	n/a	n/a	GGB897
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	11	5.7	mg/kg	

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

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	RP SUBLINER #5		
Lab Sample ID:	D34640-5	**Date Sampled:**	05/16/12
Matrix:	SO - Soil	**Date Received:**	05/18/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	92.4
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD13836.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1400	14	9.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		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

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

PAGE ___ OF ___

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 # D34640

Client / Reporting Information

Company Name: KRW Consulting
Street Address: 8000 W. 14th Ave. Ste. 200
City: Lakewood State: Co Zip: 80214
Project Contact: Dwayne Knudson E-mail:
Phone #: 970-488-1098 Fax #:
Sampler(s) Name(s): David Sanders Phone #:

Project Information

Project Name: XTO FIRM 297-124
Street:
City:
Project#: 1108-13A
Client PO#:
Project Manager:

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
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

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfite	LAB USE ONLY
	RP Subliner #1		5-16-12	845	DS	SO	2										01
	RP Subliner #2		5-16-12	850	DS	SO	2										02
	RP Subliner #3		5-16-12	855	DS	SO	2										03
	RP Subliner #4		5-16-12	900	DS	SO	2										04
	RP Subliner #5		5-16-12	905	DS	SO	2										05

(*) Please Hold Samples. KRW will contract with analyses to run on samples if needed.

5/18/12

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [x] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] Commercial "B" +Narrative
- [ ] FULLT1 (Level 3+4)
- [ ] State Forms
- [ ] EDD Format
- [x] PDF

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Please email results to KRW
Please ream

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/17/12	1	2		2 5/18 8:30
3			3	4		4
5			5			

Custody Seal # AD — [x] Intact [ ] Not Intact
Preserved where applicable [ ] NA
On Ice
Cooler Temp. 4.0

D34640: Chain of Custody
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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D34640 **Client:** KRW CONSULTING **Immediate Client Services Action Required:** No

Date / Time Received: 5/18/2012 8:00:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: XTO FRU 297-17A **Airbill #'s:** HD

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

D34640: Chain of Custody
Page 2 of 3

Job Change Order: D34640_5/29/2012

Requested	5/29/2012	**Received Date:**	5/18/2012
Account Name:	XTO Energy	**Due Date:**	5/25/2012
Project	FRU 297-17A	**Deliverable:**	COMMBN+
CSR:	RR	**TAT (Days):**	5

Sample #:
D34640-1, 2, 3, 4, 5

Change: Please remove the hold and analyze for B8015DRO and V8015GRO for samples 1, 2, 3, 4, and 5.

Above Changes Per: Client - David Sanders **Date:** 5/29/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

D34640: Chain of Custody
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Mountain States ACCUTEST LABORATORIES

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: D34640
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB897-MB	GB16124.D	1	05/29/12	BR	n/a	n/a	GGB897

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

D34640-1, D34640-2, D34640-3, D34640-4, D34640-5

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	110%	60-140%

Blank Spike Summary

Job Number: D34640
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB897-BS	GB16125.D	1	05/29/12	BR	n/a	n/a	GGB897

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

D34640-1, D34640-2, D34640-3, D34640-4, D34640-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	113	103	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	116%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D34640
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D34781-1MS	GB16127.D	1	05/29/12	BR	n/a	n/a	GGB897
D34781-1MSD	GB16128.D	1	05/29/12	BR	n/a	n/a	GGB897
D34781-1	GB16126.D	1	05/29/12	BR	n/a	n/a	GGB897

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

D34640-1, D34640-2, D34640-3, D34640-4, D34640-5

CAS No.	Compound	D34781-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		258	277	107	272	106	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D34781-1	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	110%	108%	60-140%

Mountain States ACCUTEST LABORATORIES

GC Volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 05/30/12 14:30

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16133.D\FID1A.CH Vial: 18
Signal #2 : Y:\1\DATA\052912\GB16133.D\FID2B.CH
Acq On : 29 May 2012 9:45 pm Operator: BRIANR
Sample : D34640-1, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.038,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 09:42:22 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 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	14.29	3135860	100.078	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.28	17275165	106.291	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	4896747	<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	7.53	145128	0.366	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L	d
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.48	738184	3.741	ug/L	

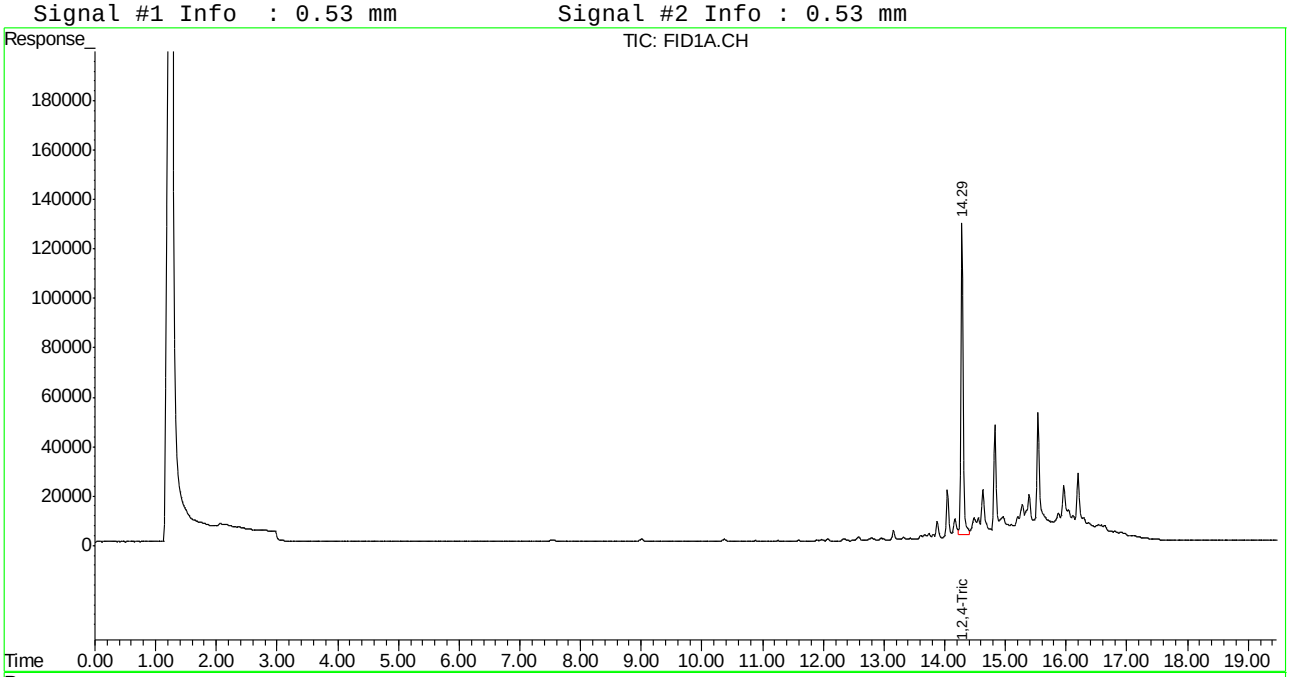
(f)=RT Delta > 1/2 Window (m)=manual int.

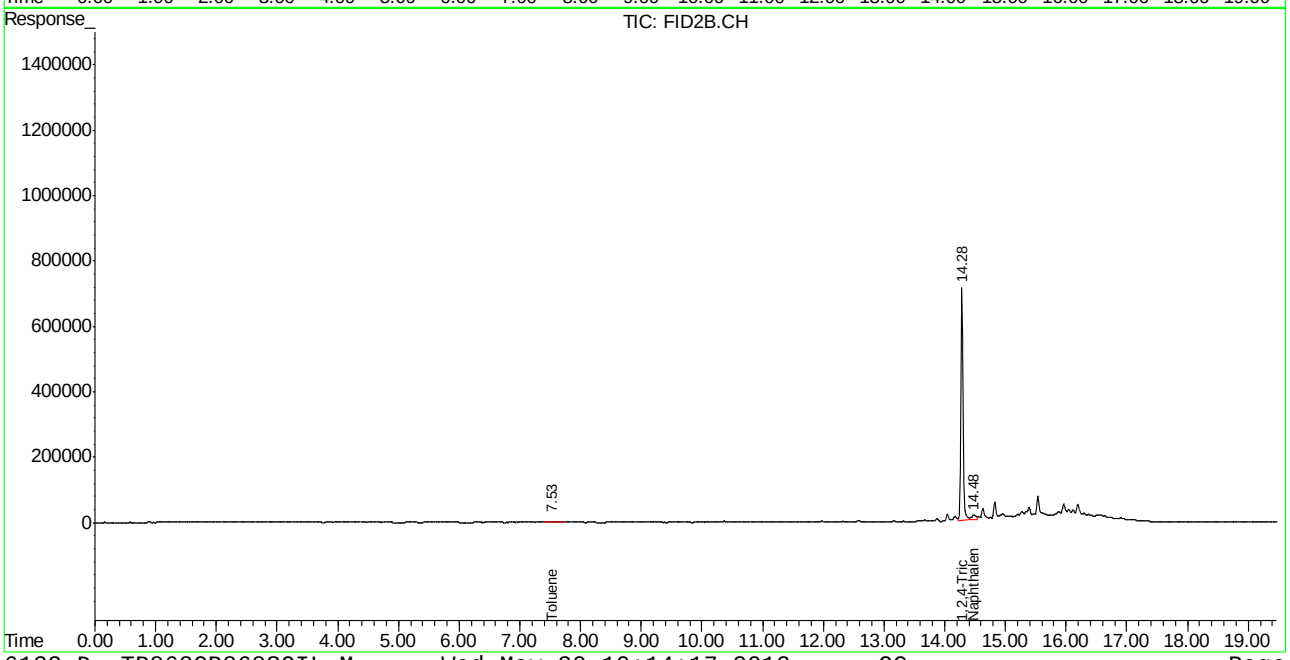
Quantitation Report (QT Reviewed)

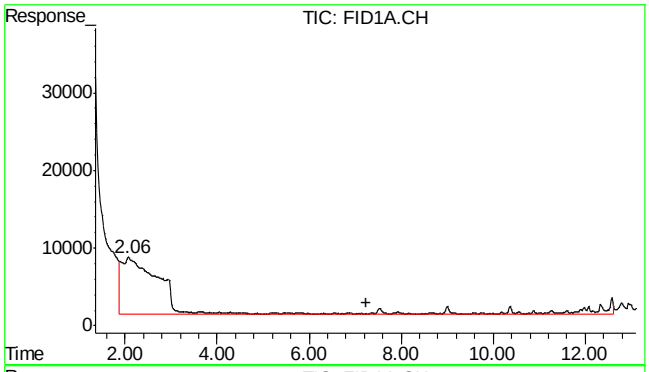
Signal #1 : Y:\1\DATA\052912\GB16133.D\FID1A.CH Vial: 18
Signal #2 : Y:\1\DATA\052912\GB16133.D\FID2B.CH
Acq On : 29 May 2012 9:45 pm Operator: BRIANR
Sample : D34640-1, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.038,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 9:05 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

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

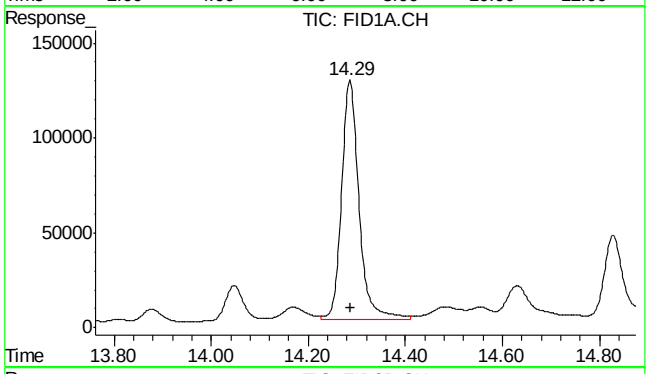






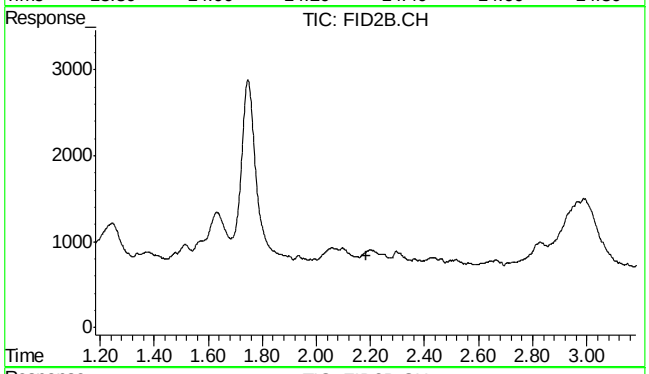
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4896747
Conc: N.D.



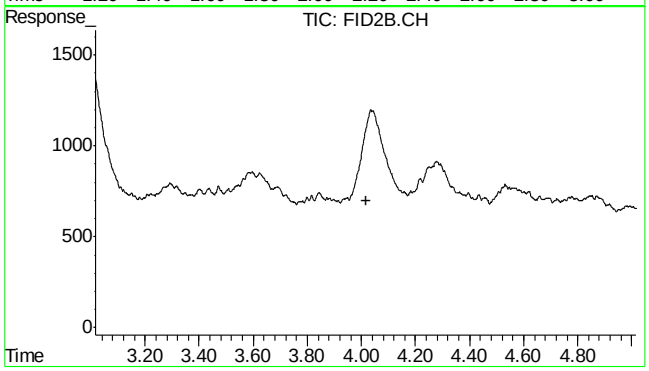
#2 1,2,4-Trichlorobenzene

R.T.: 14.285 min
Delta R.T.: -0.003 min
Response: 3135860
Conc: 100.08 % m



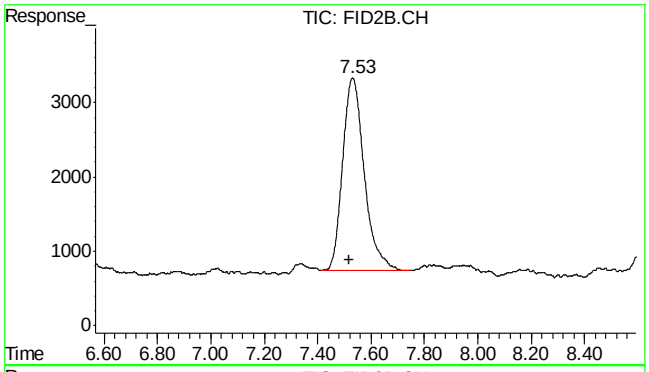
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.183 min
Response: 0
Conc: N.D.



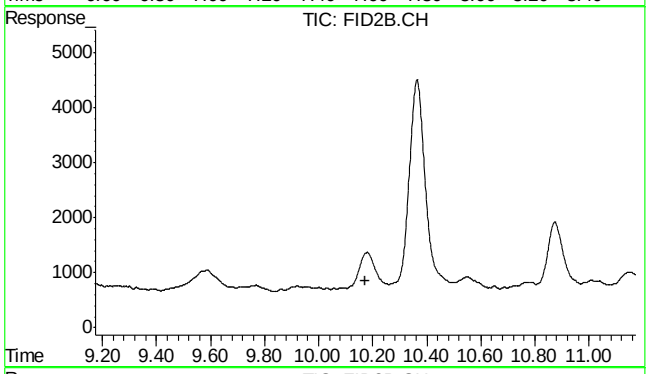
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.016 min
Response: 0
Conc: N.D.



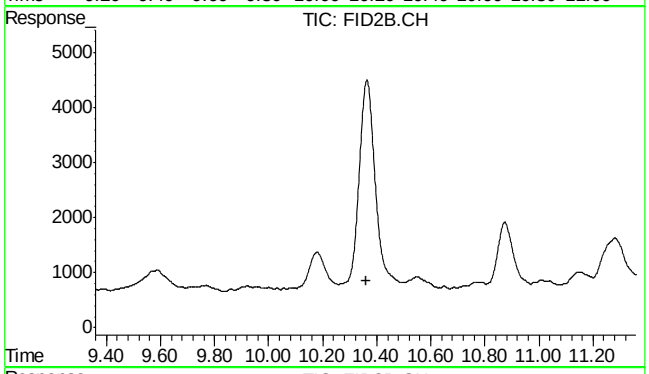
#6 Toluene

R.T.: 7.531 min
Delta R.T.: 0.011 min
Response: 145128
Conc: 0.37 ug/L



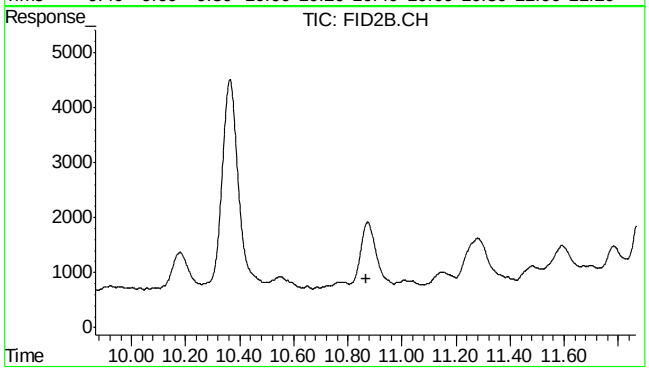
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.174 min
Response: 0
Conc: N.D.



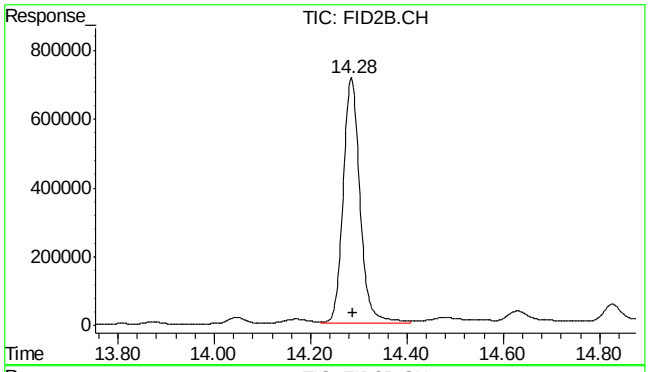
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.360 min
Response: 0
Conc: N.D.



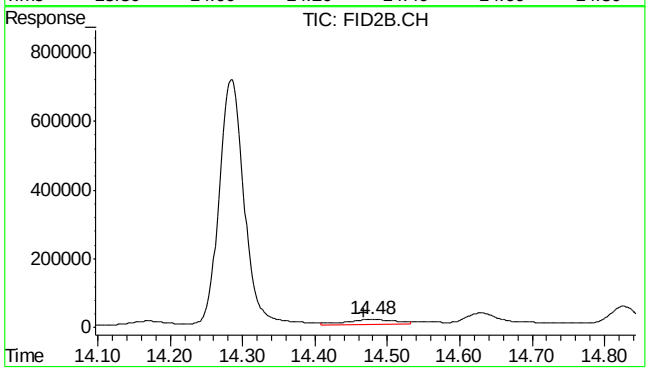
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.867 min
Response: 0
Conc: N.D.



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

R.T.: 14.285 min
Delta R.T.: -0.002 min
Response: 17275165
Conc: 106.29 %



#11 Naphthalene

R.T.: 14.478 min
Delta R.T.: 0.010 min
Response: 738184
Conc: 3.74 ug/L

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson
05/30/12 14:30

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16134.D\FID1A.CH Vial: 19
Signal #2 : Y:\1\DATA\052912\GB16134.D\FID2B.CH
Acq On : 29 May 2012 10:20 pm Operator: BRIANR
Sample : D34640-2, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.008,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 09:42:26 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 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	14.30	3046049	97.212	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.30	18059745	111.118	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	4882630	<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	7.54	167042	0.422	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L	d
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.50	3333633	16.896	ug/L	

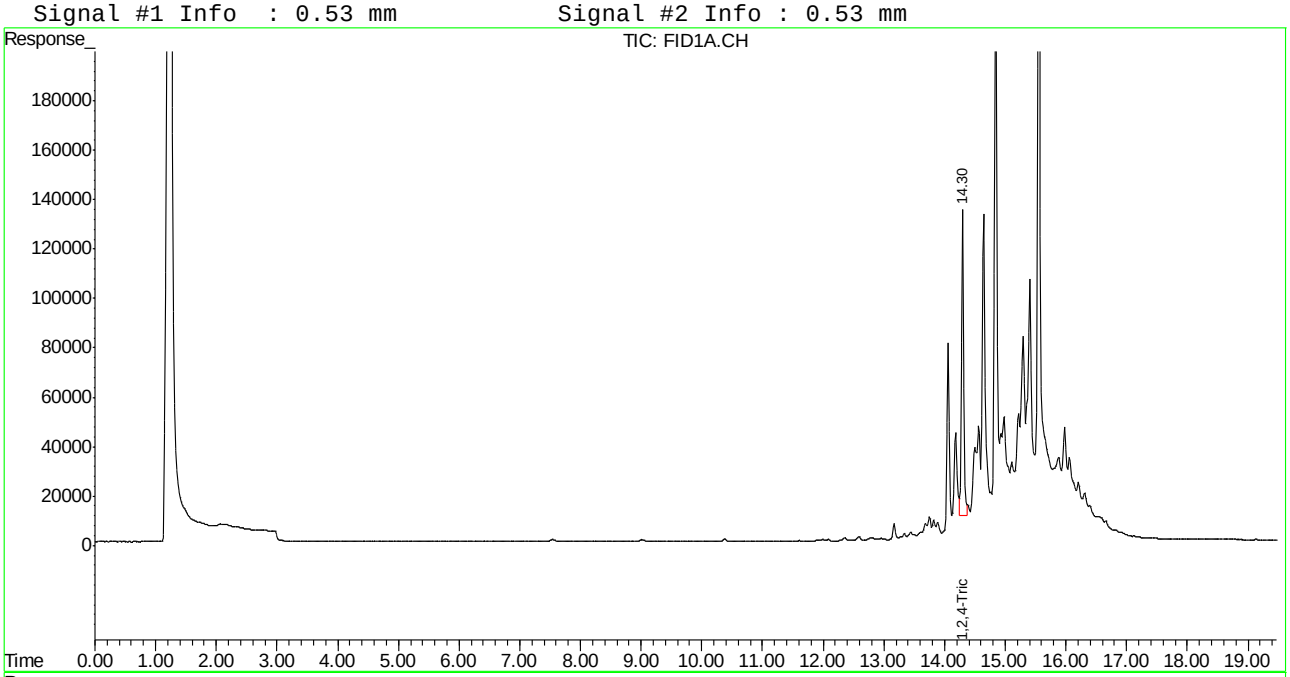
(f)=RT Delta > 1/2 Window (m)=manual int.

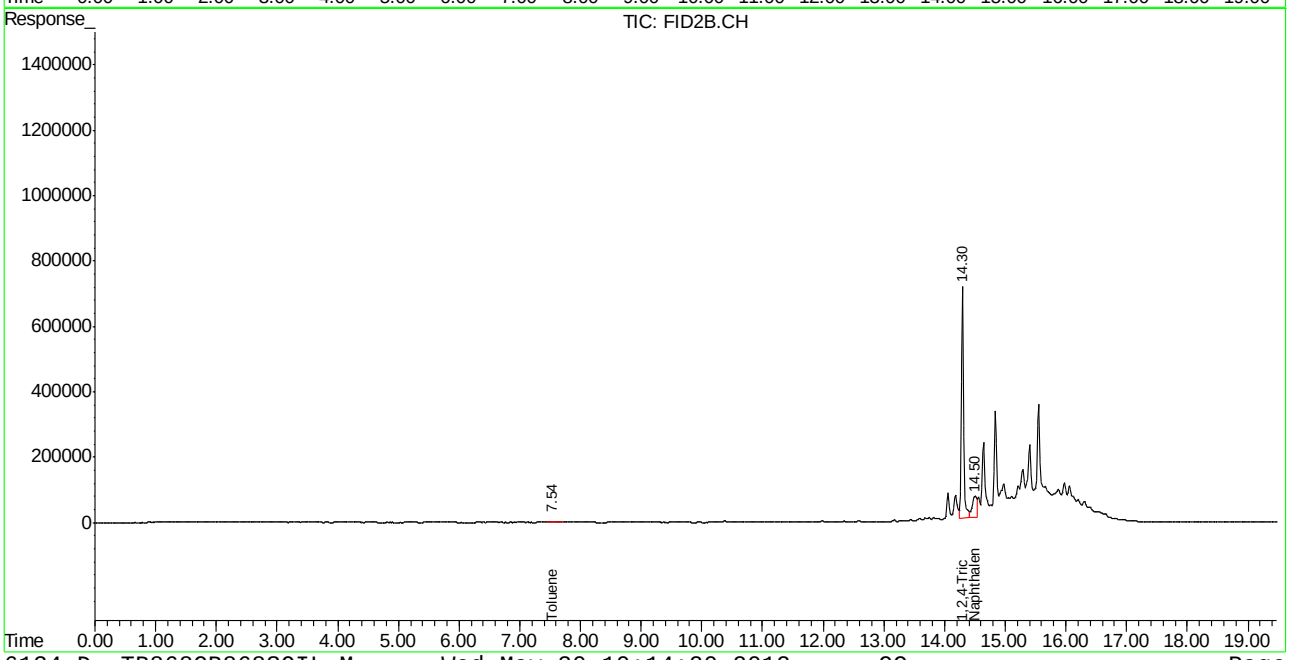
Quantitation Report (QT Reviewed)

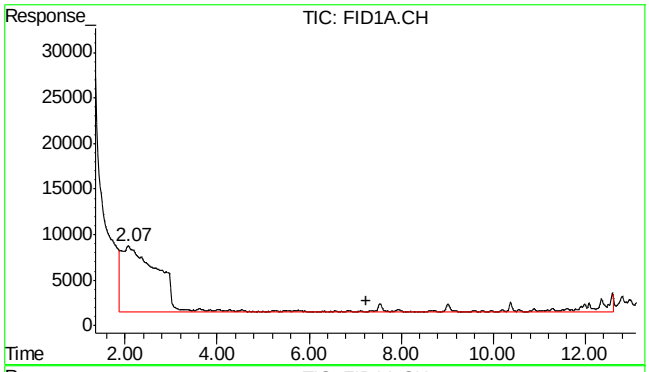
Signal #1 : Y:\1\DATA\052912\GB16134.D\FID1A.CH Vial: 19
Signal #2 : Y:\1\DATA\052912\GB16134.D\FID2B.CH
Acq On : 29 May 2012 10:20 pm Operator: BRIANR
Sample : D34640-2, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.008,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 9:05 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

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

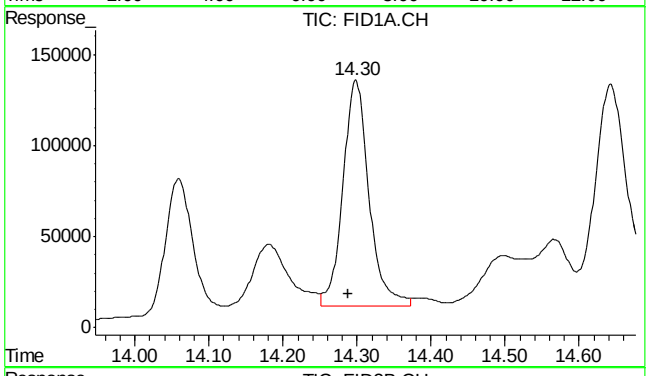






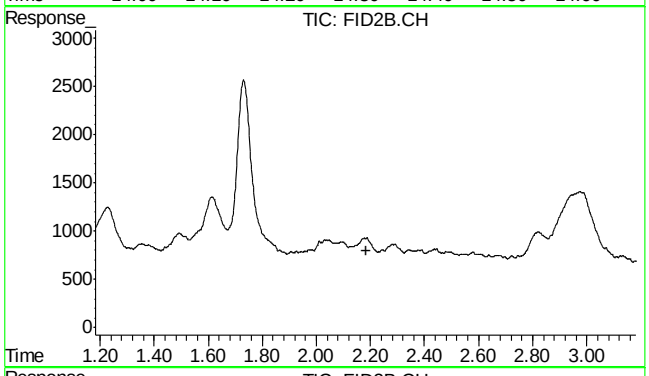
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4882630
Conc: N.D.



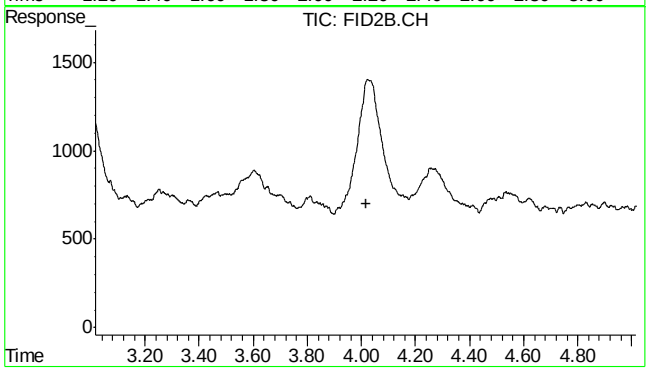
#2 1,2,4-Trichlorobenzene

R.T.: 14.298 min
Delta R.T.: 0.010 min
Response: 3046049
Conc: 97.21 % m



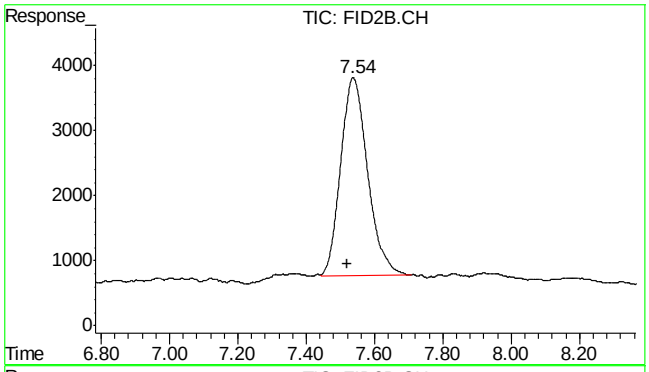
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.183 min
Response: 0
Conc: N.D.



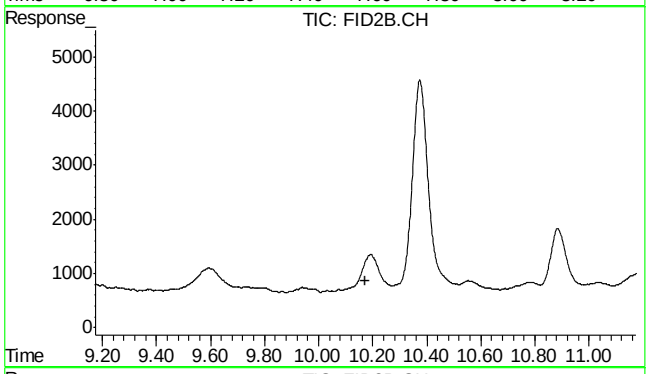
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.016 min
Response: 0
Conc: N.D.



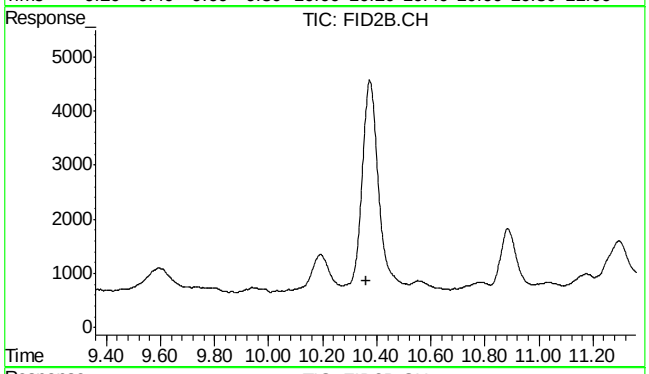
#6 Toluene

R.T.: 7.537 min
Delta R.T.: 0.017 min
Response: 167042
Conc: 0.42 ug/L



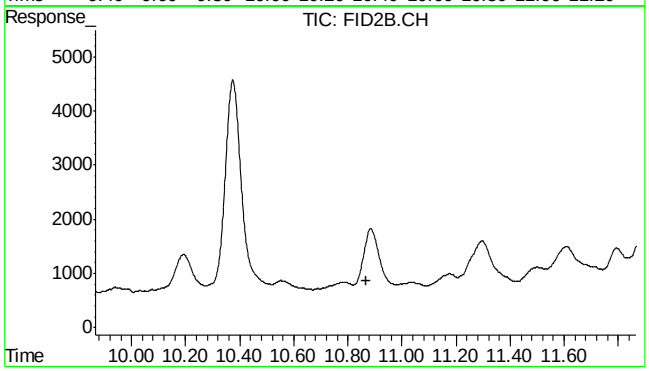
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.174 min
Response: 0
Conc: N.D.



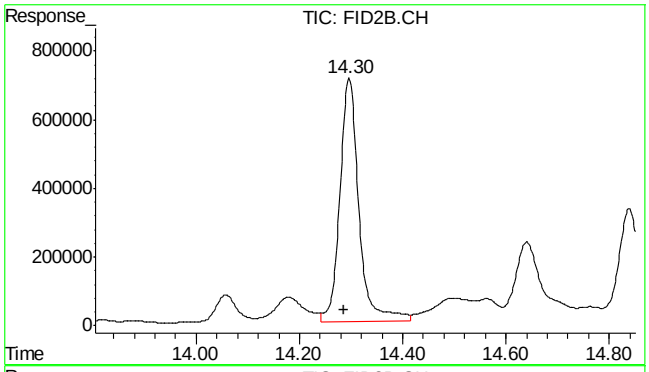
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.360 min
Response: 0
Conc: N.D.



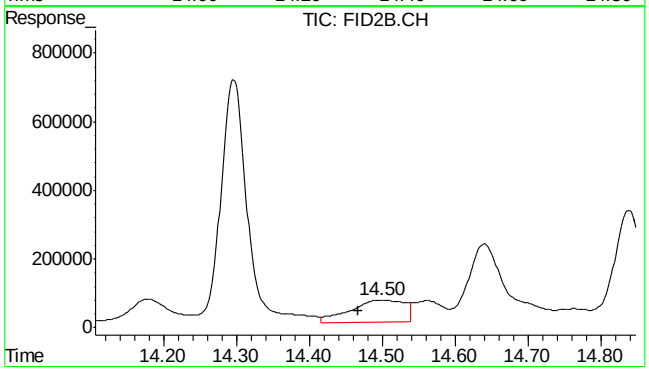
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.867 min
Response: 0
Conc: N.D.



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

R.T.: 14.296 min
Delta R.T.: 0.010 min
Response: 18059745
Conc: 111.12 %



#11 Naphthalene

R.T.: 14.497 min
Delta R.T.: 0.029 min
Response: 3333633
Conc: 16.90 ug/L

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 05/30/12 14:30

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16135.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\052912\GB16135.D\FID2B.CH
Acq On : 29 May 2012 10:55 pm Operator: BRIANR
Sample : D34640-3, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.043,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 09:42:30 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 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	14.30	3010926	96.091 %		m
10) S	1,2,4-Trichlorobenzene (P)	14.30	16617344	102.243 %		
	Target Compounds					
1) H	TVH-Gasoline	7.23	4785777	<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	7.55	148110	0.374	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L	d
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.50	948432	4.807	ug/L	

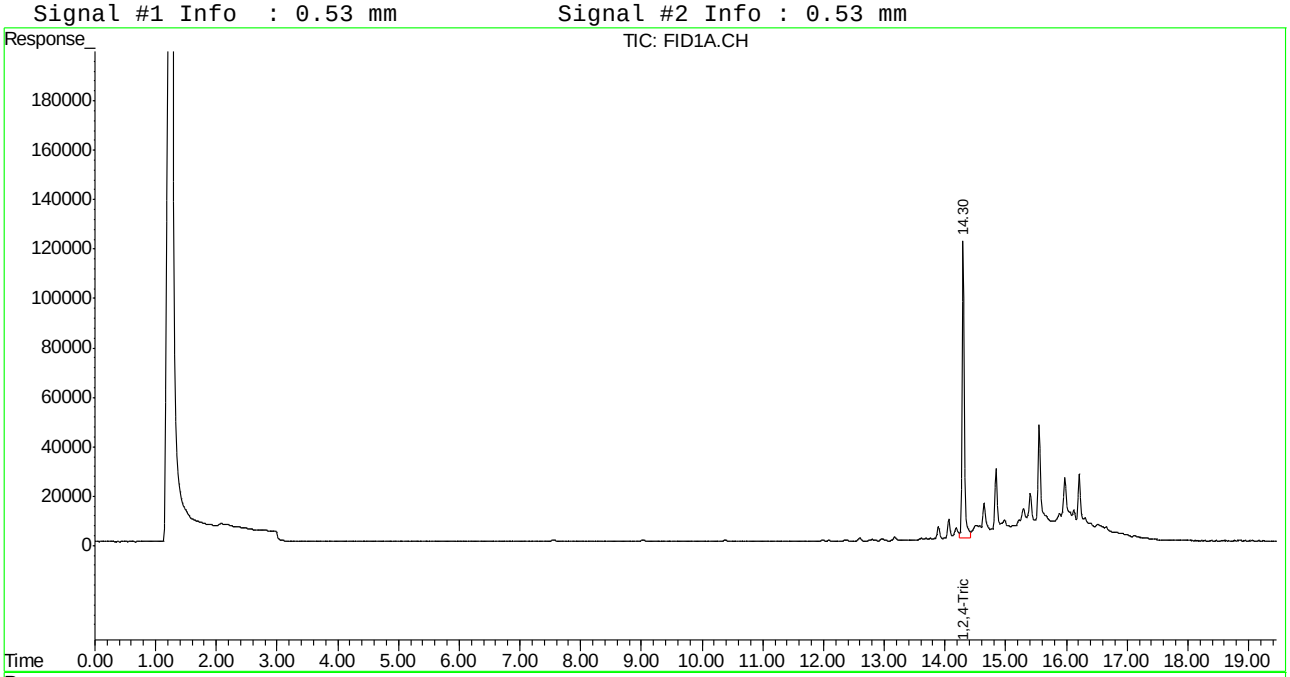
(f)=RT Delta > 1/2 Window (m)=manual int.

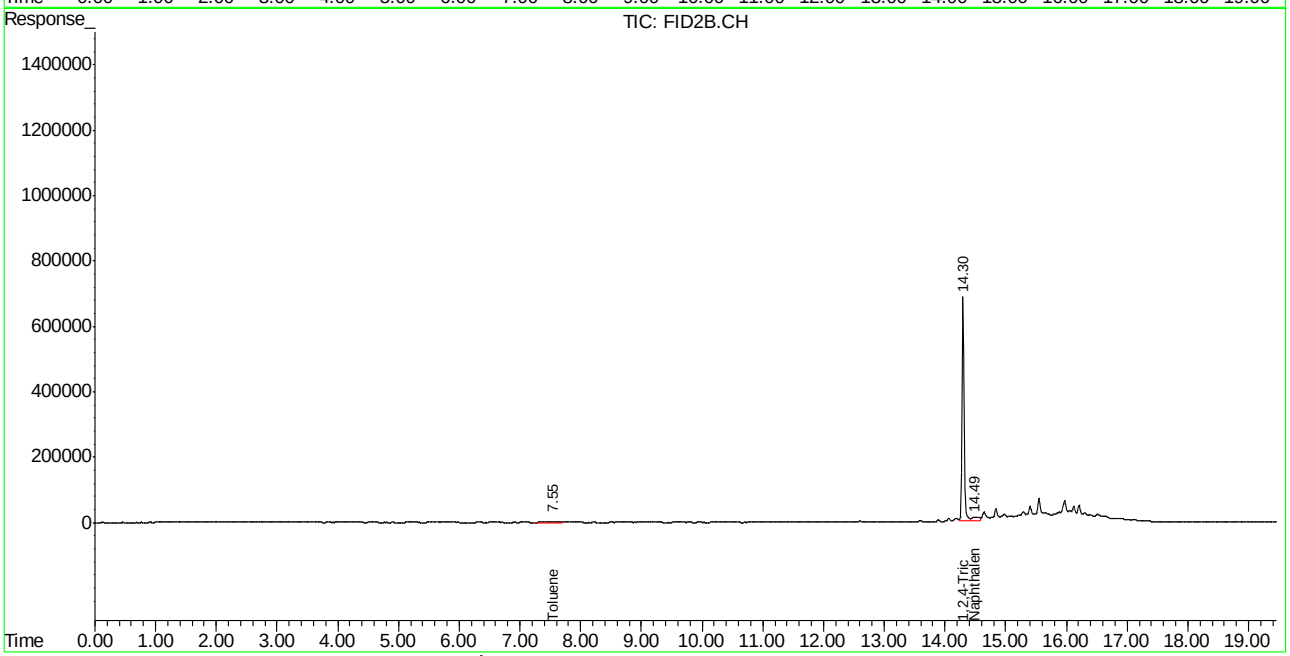
Quantitation Report (QT Reviewed)

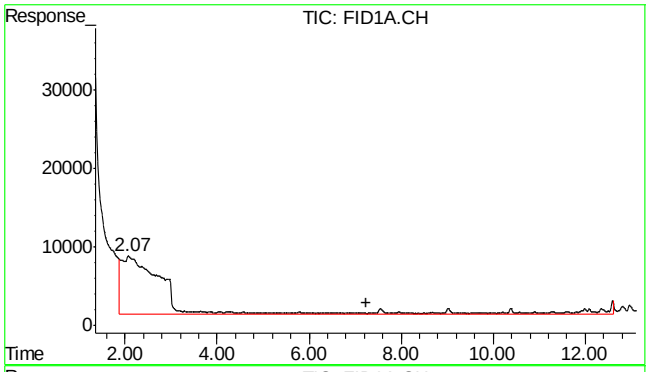
Signal #1 : Y:\1\DATA\052912\GB16135.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\052912\GB16135.D\FID2B.CH
Acq On : 29 May 2012 10:55 pm Operator: BRIANR
Sample : D34640-3, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.043,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 9:05 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

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

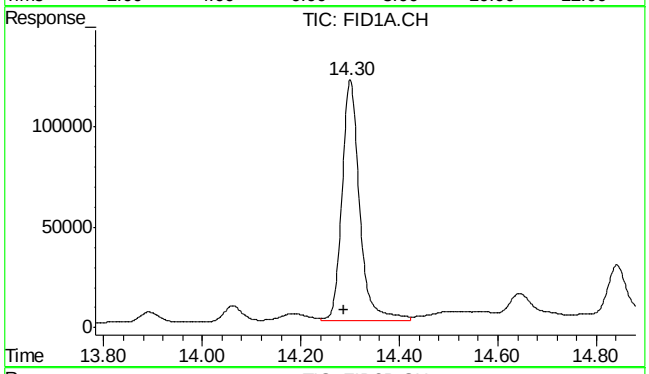






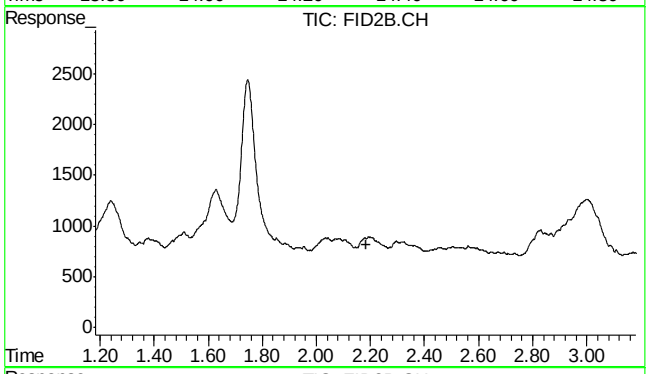
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4785777
Conc: N.D.



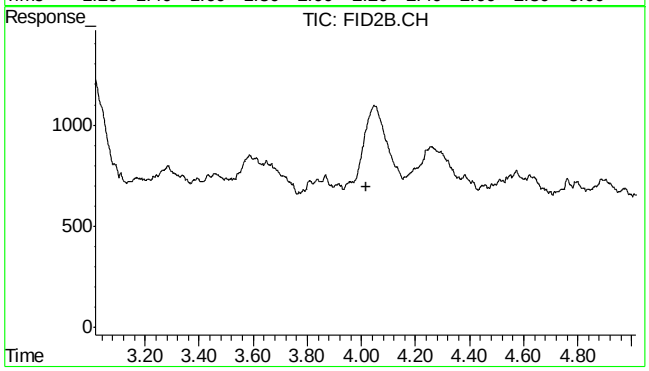
#2 1,2,4-Trichlorobenzene

R.T.: 14.300 min
Delta R.T.: 0.011 min
Response: 3010926
Conc: 96.09 % m



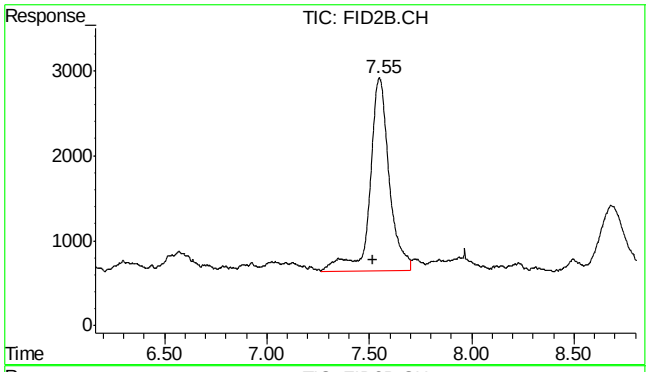
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.183 min
Response: 0
Conc: N.D.



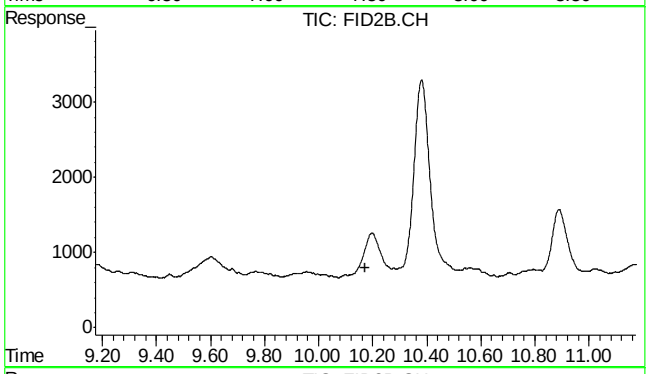
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.016 min
Response: 0
Conc: N.D.



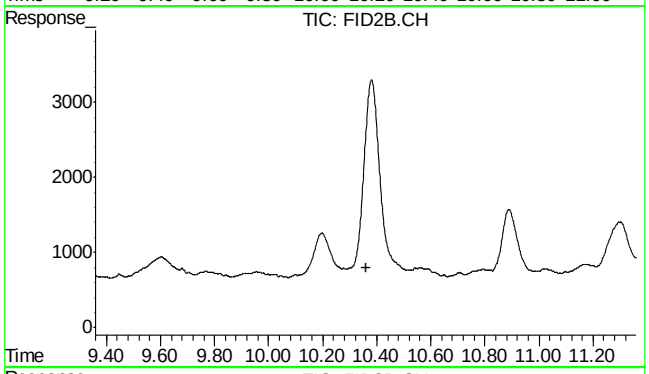
#6 Toluene

R.T.: 7.549 min
Delta R.T.: 0.029 min
Response: 148110
Conc: 0.37 ug/L



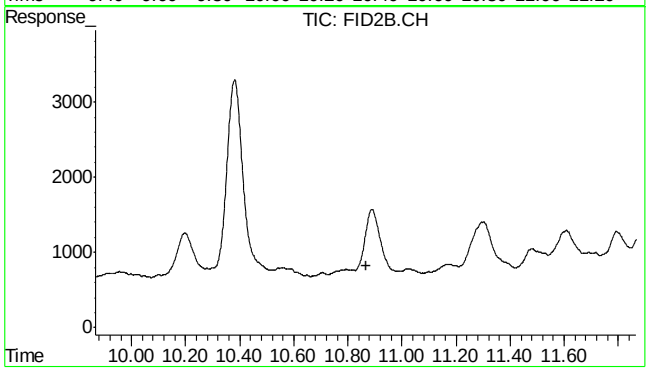
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.174 min
Response: 0
Conc: N.D.



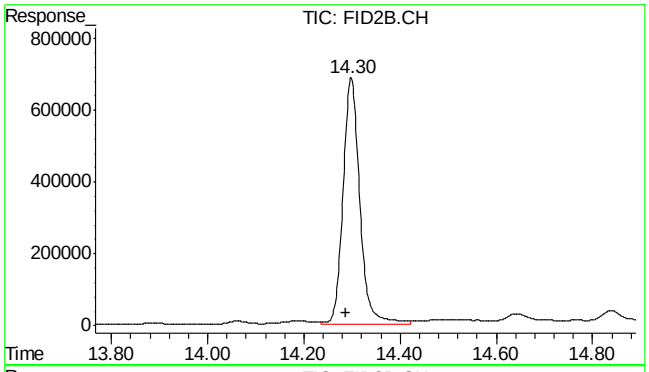
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.360 min
Response: 0
Conc: N.D.



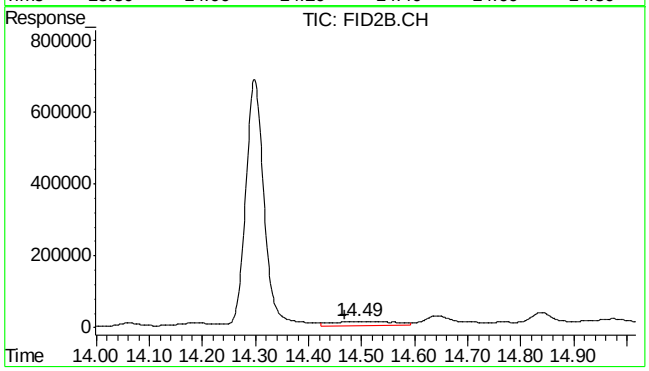
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.867 min
Response: 0
Conc: N.D.



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

R.T.: 14.298 min
Delta R.T.: 0.012 min
Response: 16617344
Conc: 102.24 %



#11 Naphthalene

R.T.: 14.497 min
Delta R.T.: 0.029 min
Response: 948432
Conc: 4.81 ug/L

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 05/30/12 14:30

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16136.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\052912\GB16136.D\FID2B.CH
Acq On : 29 May 2012 11:30 pm Operator: BRIANR
Sample : D34640-4, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.026,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 09:42:34 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 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	14.30	3104264	99.070	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.30	17455987	107.403	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	4577989	<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	7.55	139611	0.352	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L	d
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.50	1539635	7.803	ug/L	

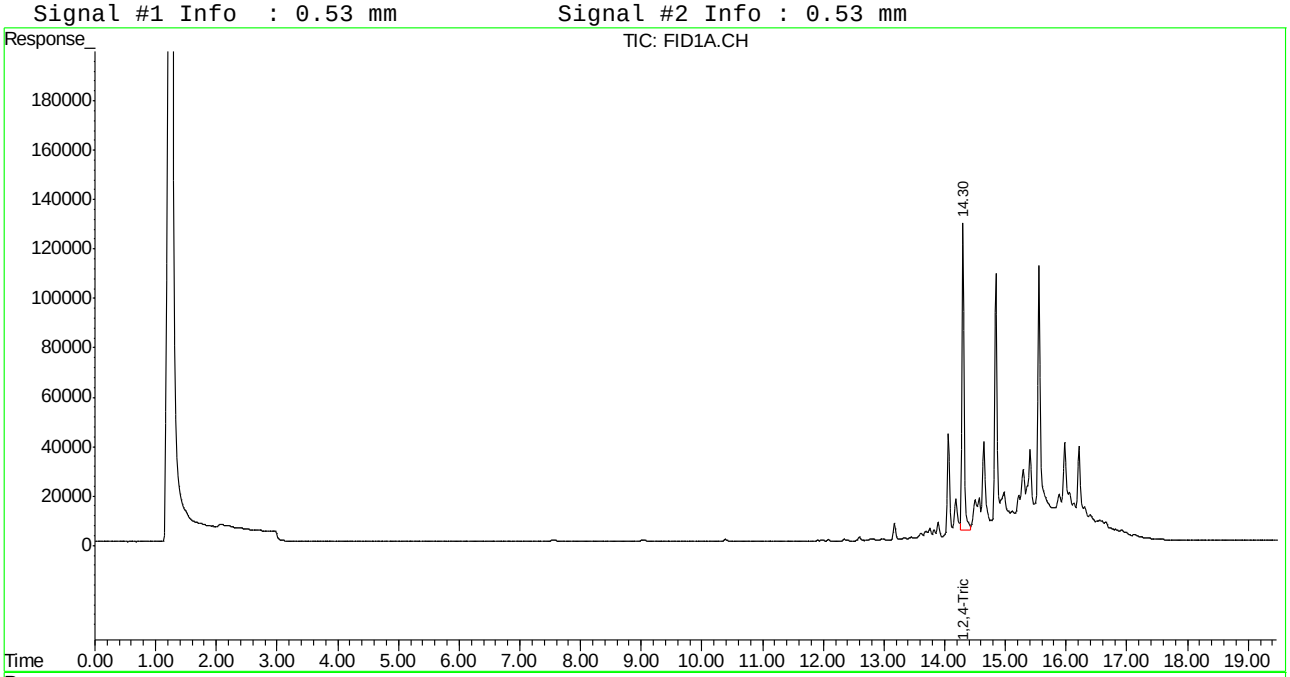
(f)=RT Delta > 1/2 Window (m)=manual int.

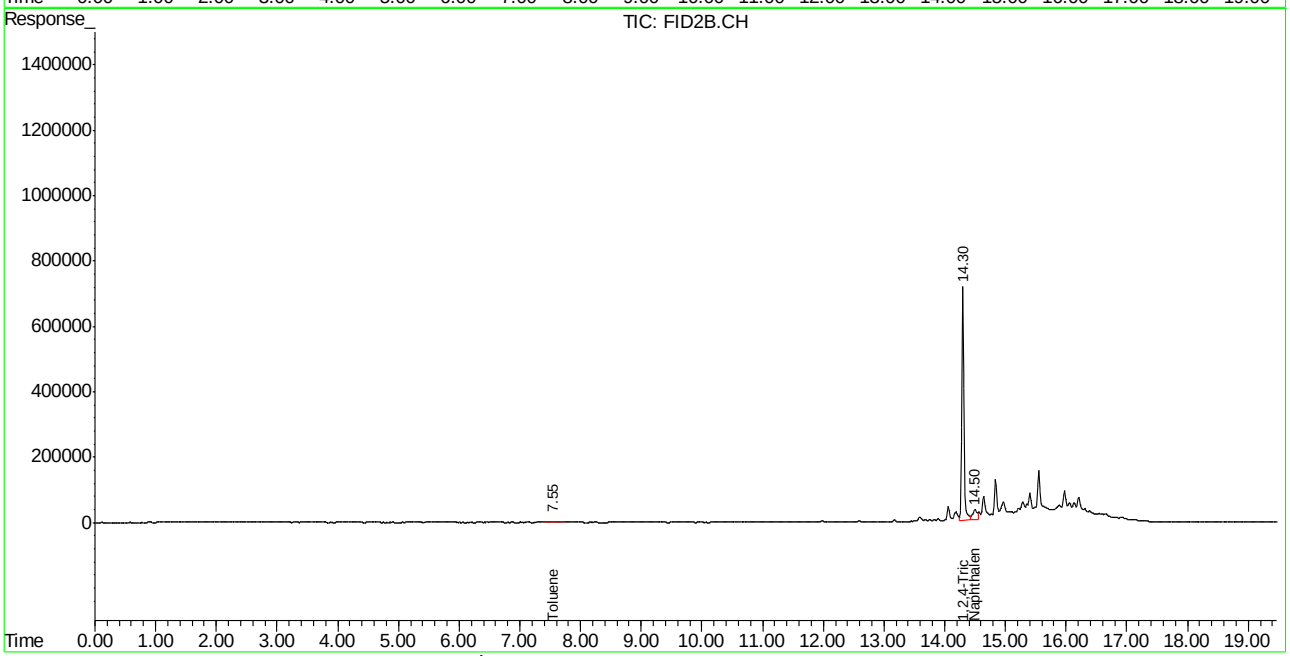
Quantitation Report (QT Reviewed)

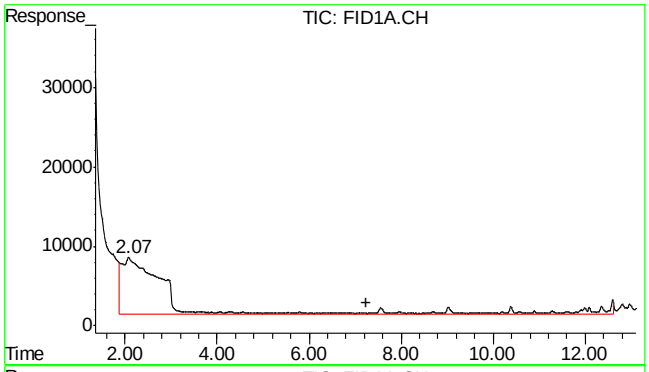
Signal #1 : Y:\1\DATA\052912\GB16136.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\052912\GB16136.D\FID2B.CH
Acq On : 29 May 2012 11:30 pm Operator: BRIANR
Sample : D34640-4, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.026,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 9:06 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

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

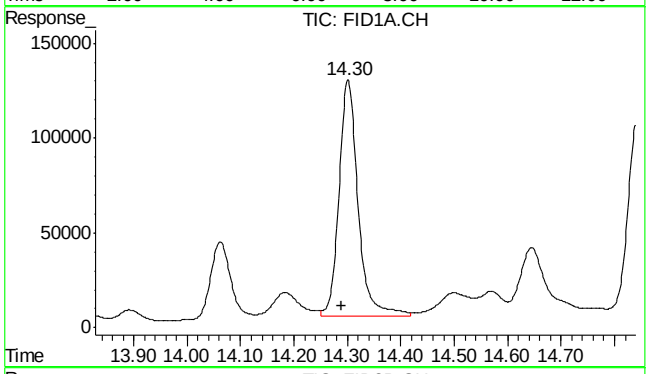






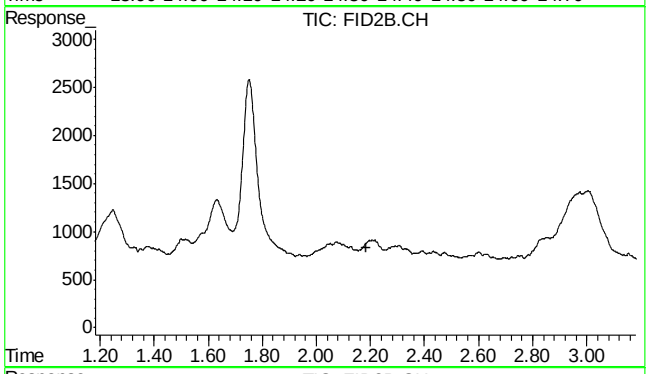
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4577989
Conc: N.D.



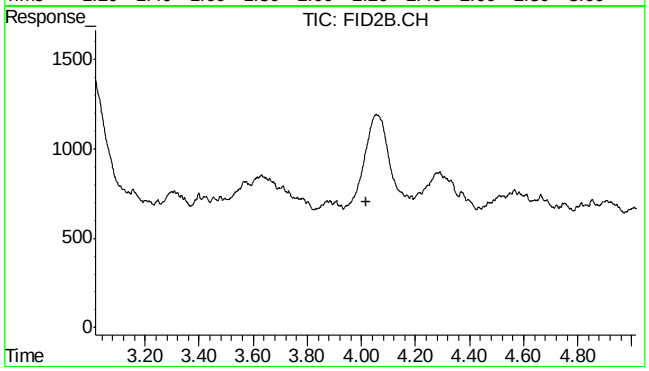
#2 1,2,4-Trichlorobenzene

R.T.: 14.300 min
Delta R.T.: 0.012 min
Response: 3104264
Conc: 99.07 % m



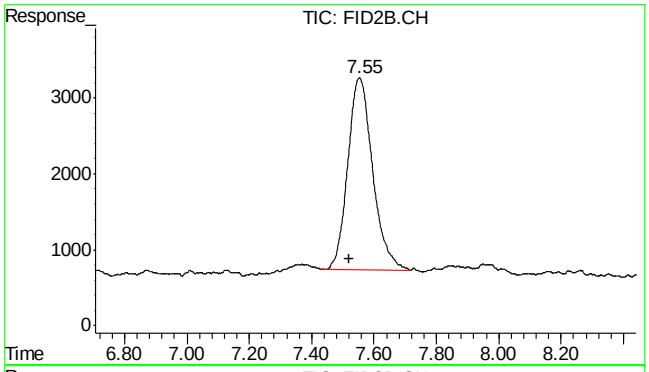
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.183 min
Response: 0
Conc: N.D.



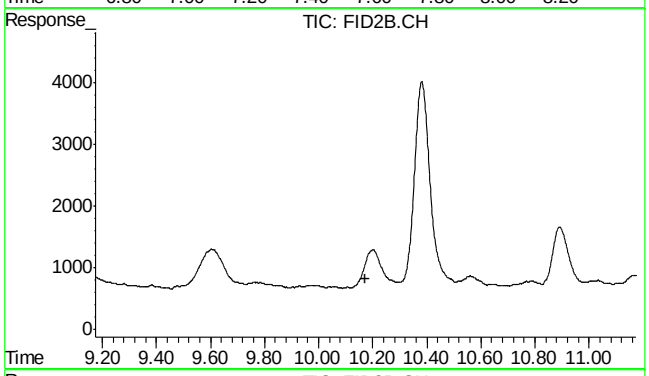
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.016 min
Response: 0
Conc: N.D.



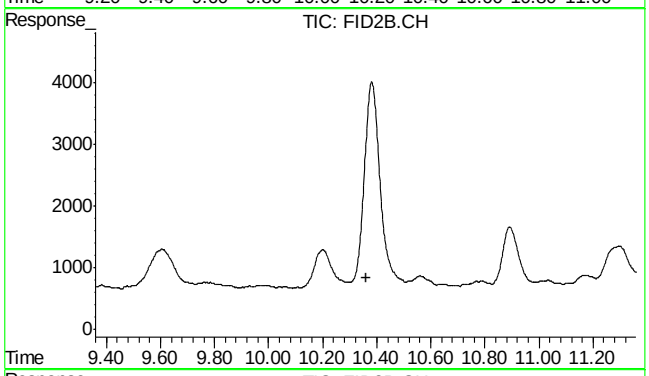
#6 Toluene

R.T.: 7.554 min
Delta R.T.: 0.034 min
Response: 139611
Conc: 0.35 ug/L



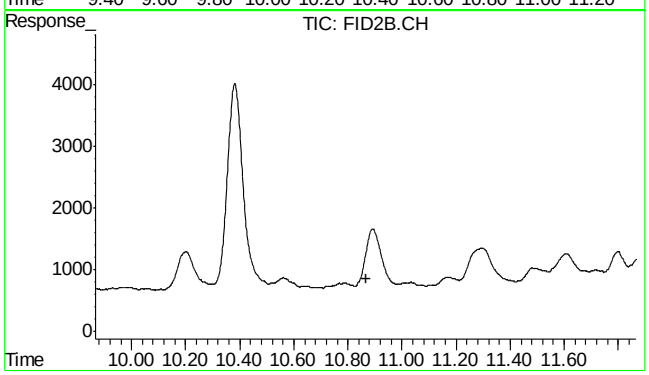
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.174 min
Response: 0
Conc: N.D.



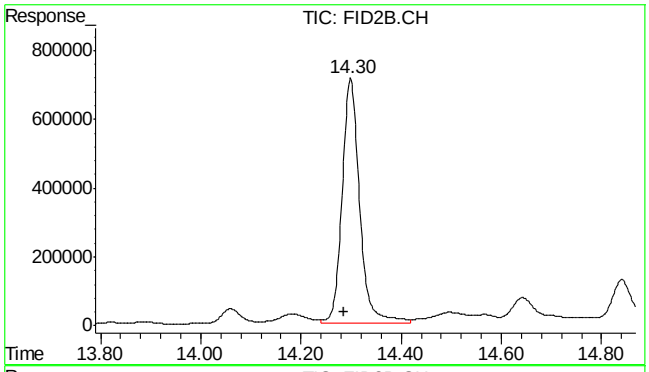
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.360 min
Response: 0
Conc: N.D.



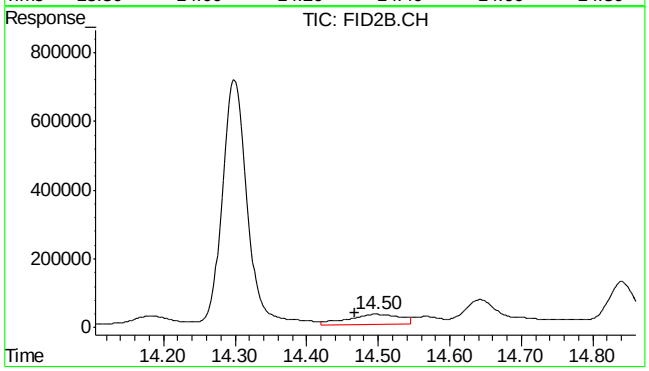
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.867 min
Response: 0
Conc: N.D.



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

R.T.: 14.299 min
Delta R.T.: 0.012 min
Response: 17455987
Conc: 107.40 %



#11 Naphthalene

R.T.: 14.497 min
Delta R.T.: 0.029 min
Response: 1539635
Conc: 7.80 ug/L

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 05/30/12 14:30

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16137.D\FID1A.CH Vial: 22
Signal #2 : Y:\1\DATA\052912\GB16137.D\FID2B.CH
Acq On : 30 May 2012 12:06 am Operator: BRIANR
Sample : D34640-5, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.077,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 09:42:38 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 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	14.30	3171163	101.205	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.30	20174096	124.127	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	5109264	<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	7.56	185867	0.469	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	10.38	199734	0.174	ug/L	
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.50	7636177	38.702	ug/L	

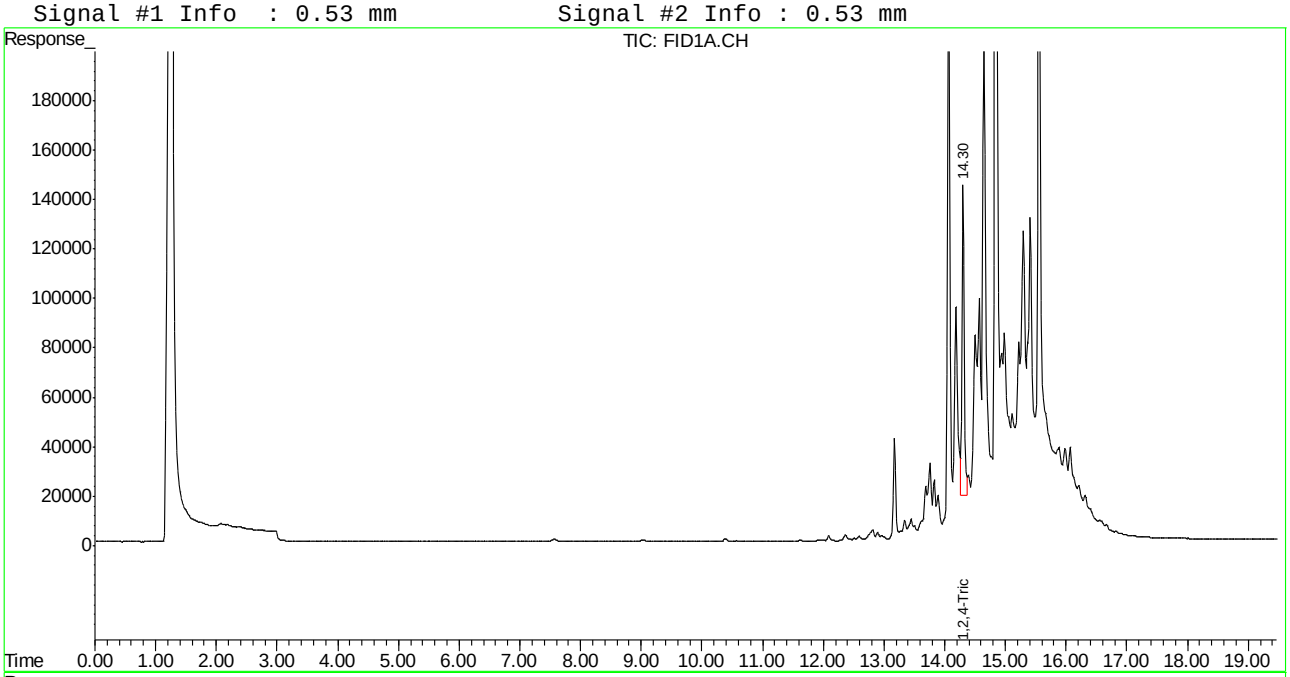
(f)=RT Delta > 1/2 Window (m)=manual int.

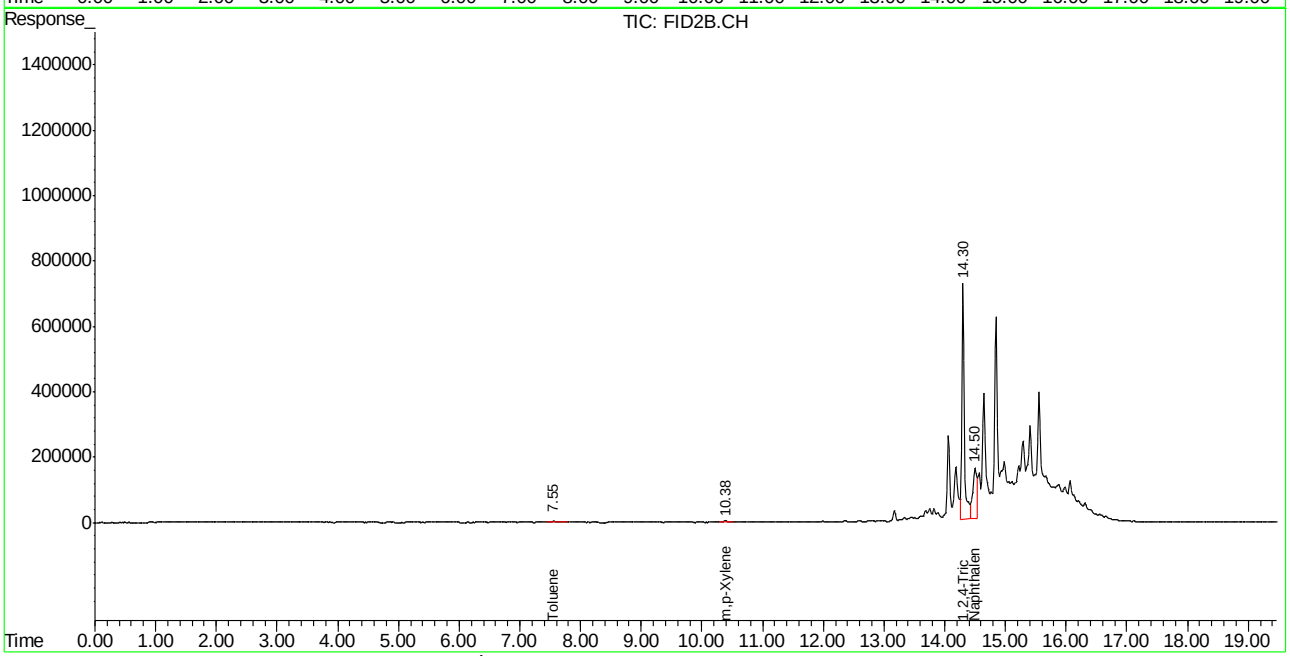
Quantitation Report (QT Reviewed)

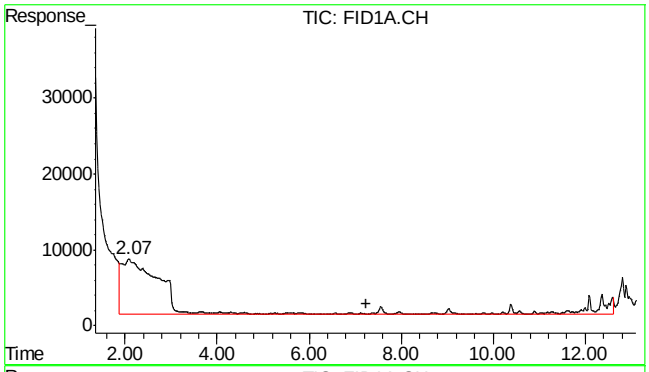
Signal #1 : Y:\1\DATA\052912\GB16137.D\FID1A.CH Vial: 22
Signal #2 : Y:\1\DATA\052912\GB16137.D\FID2B.CH
Acq On : 30 May 2012 12:06 am Operator: BRIANR
Sample : D34640-5, 50X Inst : GC/MS Ins
Misc : GC2865,GGB897,5.077,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 9:06 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

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

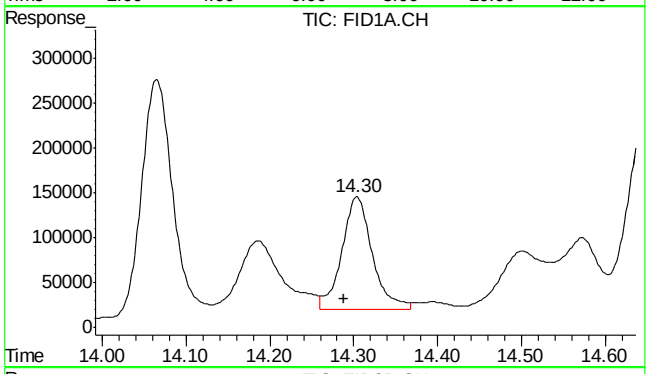






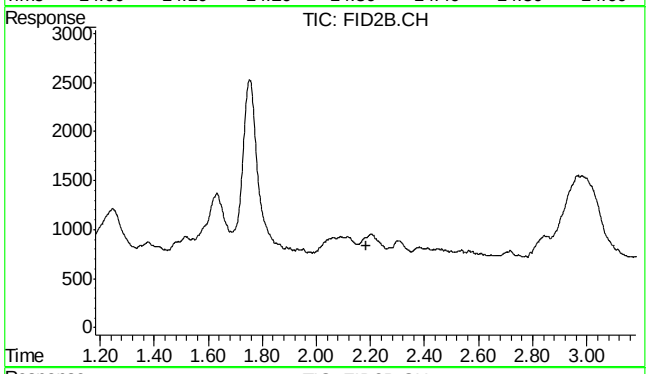
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 5109264
Conc: N.D.



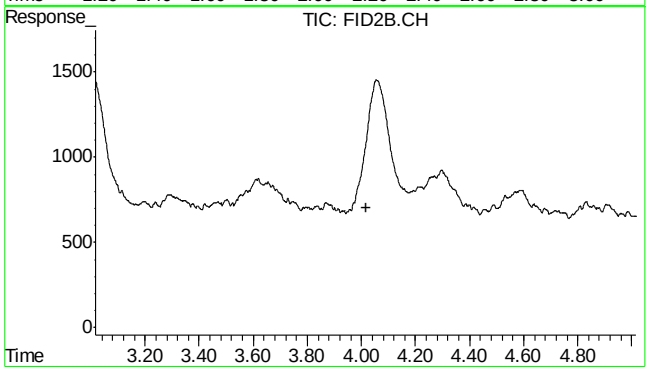
#2 1,2,4-Trichlorobenzene

R.T.: 14.303 min
Delta R.T.: 0.015 min
Response: 3171163
Conc: 101.21 % m



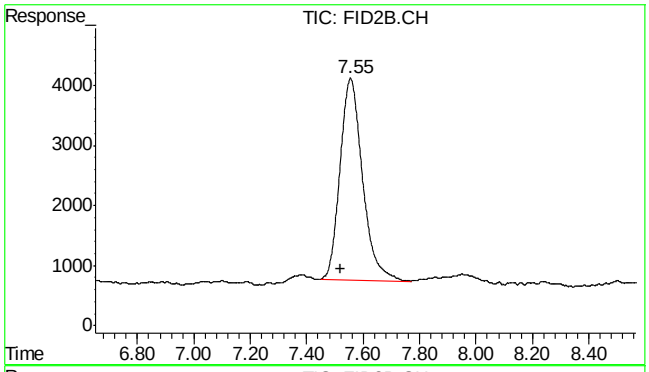
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.183 min
Response: 0
Conc: N.D.



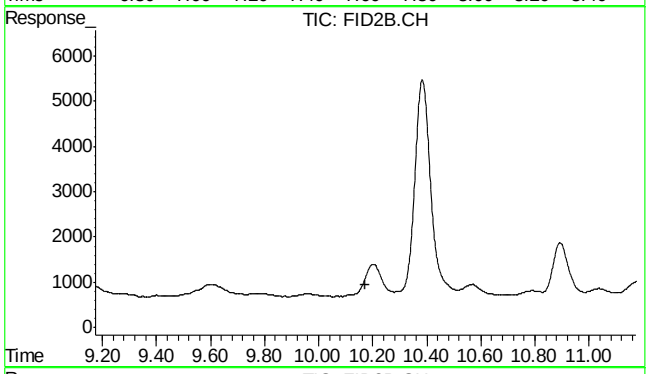
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.016 min
Response: 0
Conc: N.D.



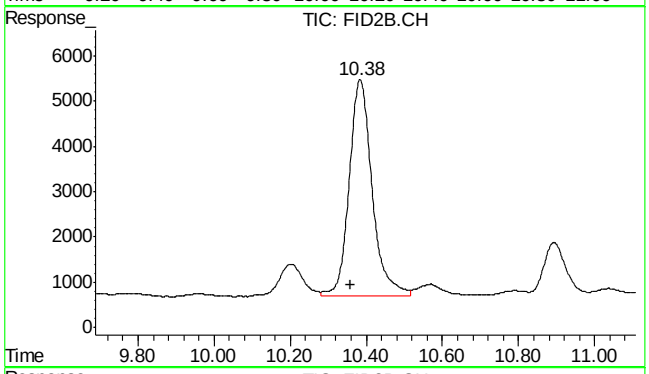
#6 Toluene

R.T.: 7.556 min
Delta R.T.: 0.035 min
Response: 185867
Conc: 0.47 ug/L



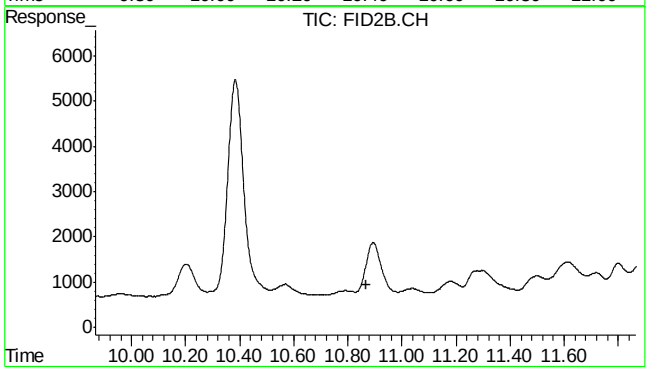
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.174 min
Response: 0
Conc: N.D.



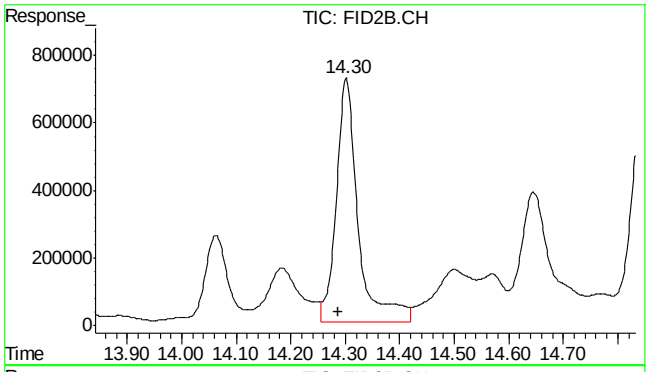
#8 m,p-Xylene

R.T.: 10.383 min
Delta R.T.: 0.024 min
Response: 199734
Conc: 0.17 ug/L



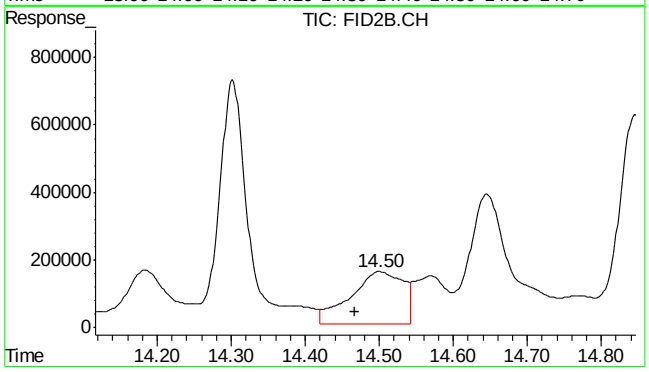
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.867 min
Response: 0
Conc: N.D.



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

R.T.: 14.302 min
Delta R.T.: 0.016 min
Response: 20174096
Conc: 124.13 %



#11 Naphthalene

R.T.: 14.501 min
Delta R.T.: 0.033 min
Response: 7636177
Conc: 38.70 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\052912\GB16124.D\FID1A.CH Vial: 9
Signal #2 : Y:\1\DATA\052912\GB16124.D\FID2B.CH
Acq On : 29 May 2012 4:29 pm Operator: BRIANR
Sample : MB, S Inst : GC/MS Ins
Misc : GC2865,GGB897,5.008,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 09:41:46 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 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	14.29	3451884	110.164	%
10) S	1,2,4-Trichlorobenzene (P)	14.29	18860464	116.045	%
	Target Compounds				
1) H	TVH-Gasoline	7.23	4169148	<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	7.53	153406	0.387	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	0.00	0	N.D.	ug/L d
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.46	240602	1.219	ug/L

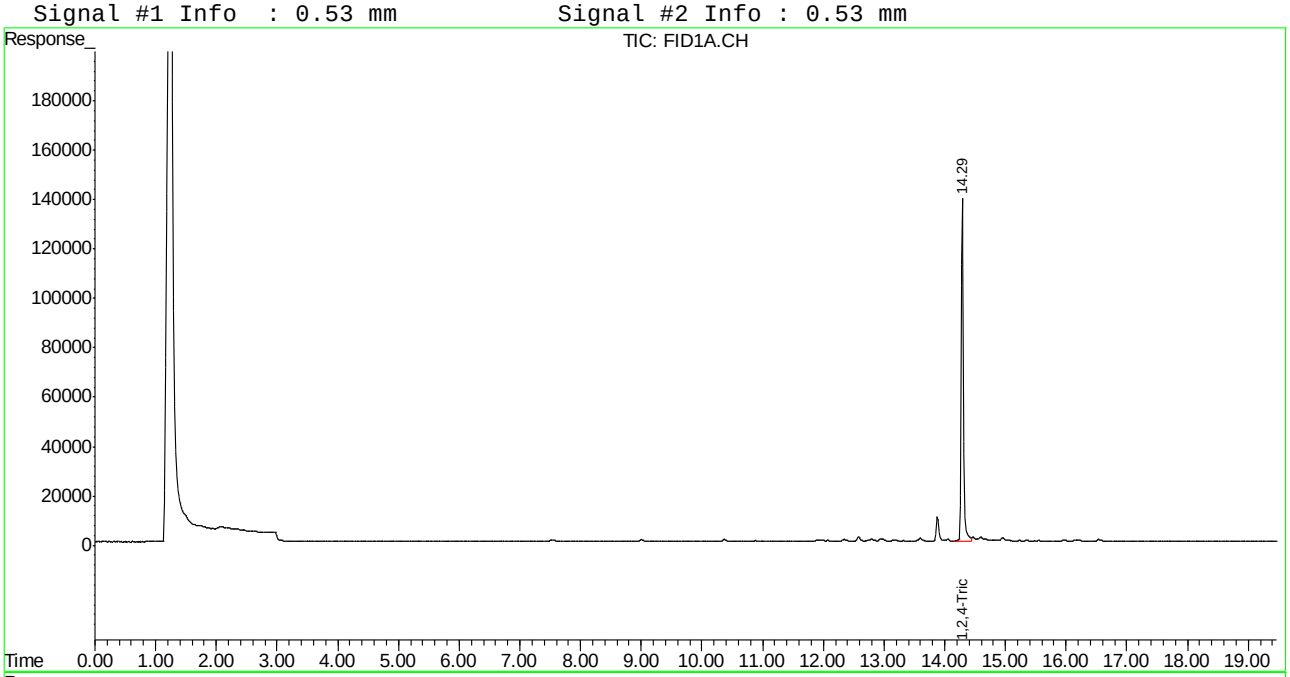
(f)=RT Delta > 1/2 Window (m)=manual int.

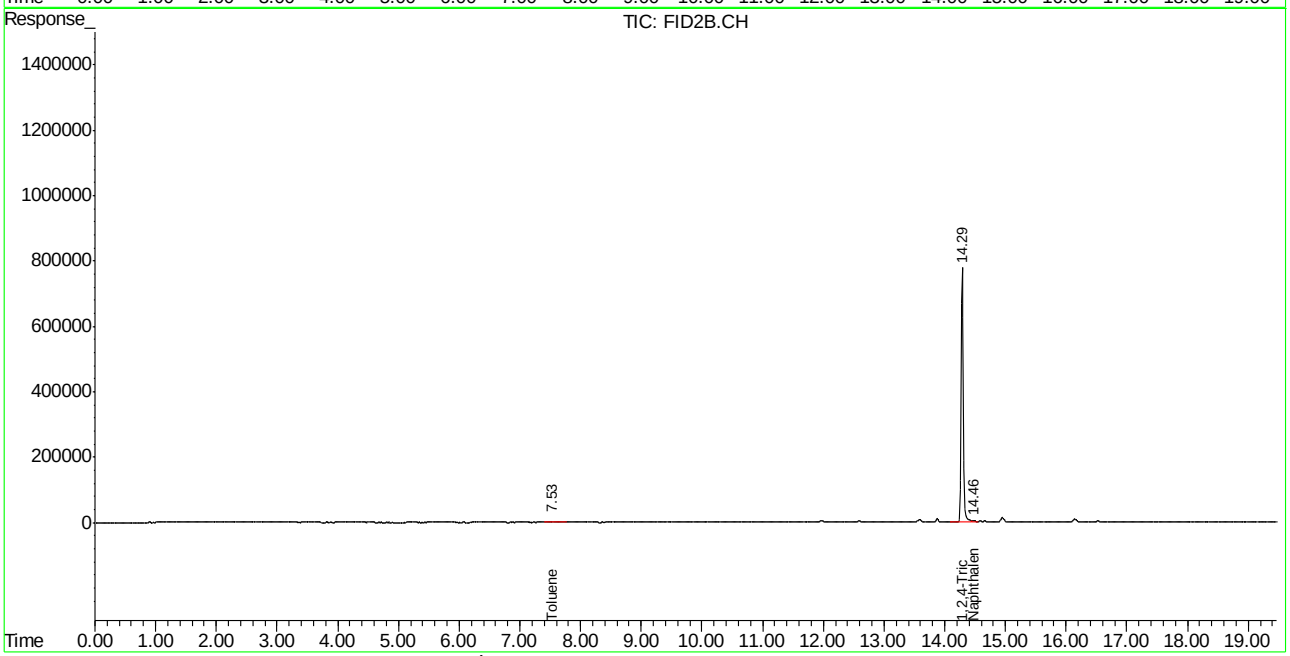
Quantitation Report (QT Reviewed)

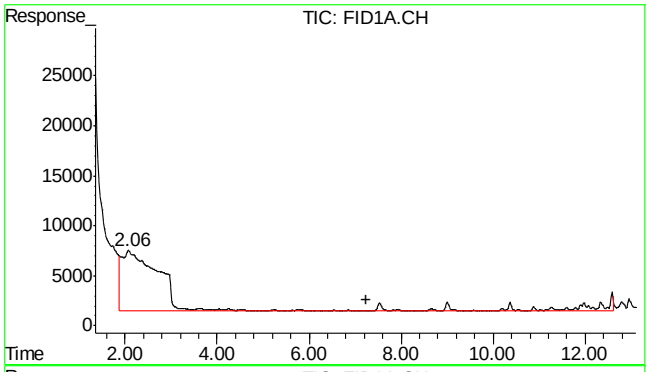
Signal #1 : Y:\1\DATA\052912\GB16124.D\FID1A.CH Vial: 9
Signal #2 : Y:\1\DATA\052912\GB16124.D\FID2B.CH
Acq On : 29 May 2012 4:29 pm Operator: BRIANR
Sample : MB, S Inst : GC/MS Ins
Misc : GC2865,GGB897,5.008,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: May 30 9:02 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed May 30 09:40:15 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

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

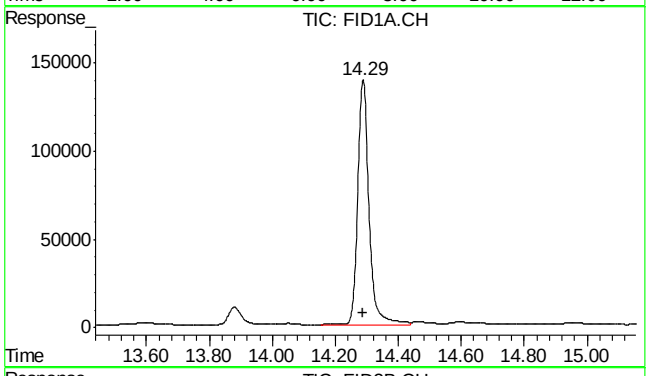






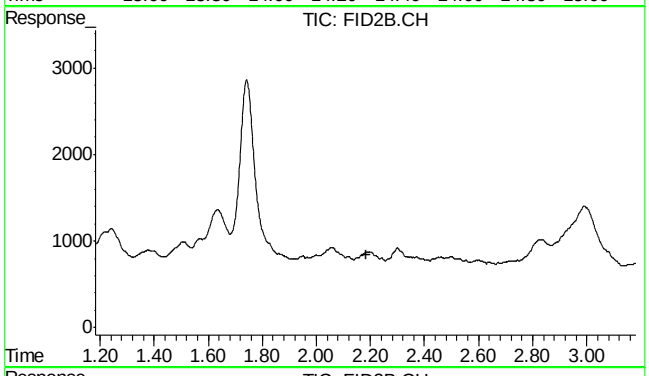
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 4169148
Conc: N.D.



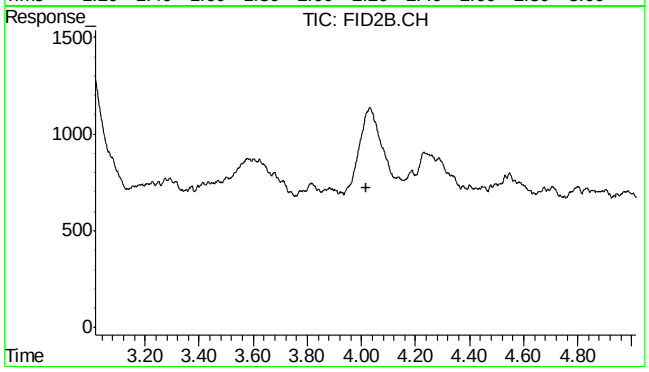
#2 1,2,4-Trichlorobenzene

R.T.: 14.289 min
Delta R.T.: 0.000 min
Response: 3451884
Conc: 110.16 %



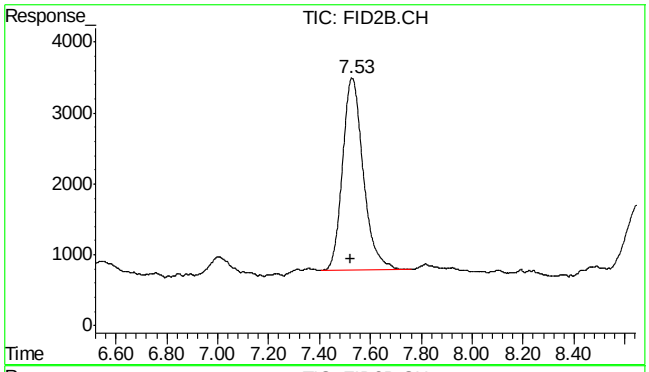
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.183 min
Response: 0
Conc: N.D.



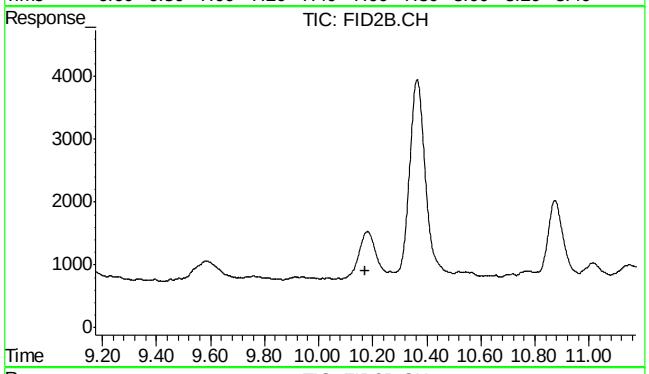
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.016 min
Response: 0
Conc: N.D.



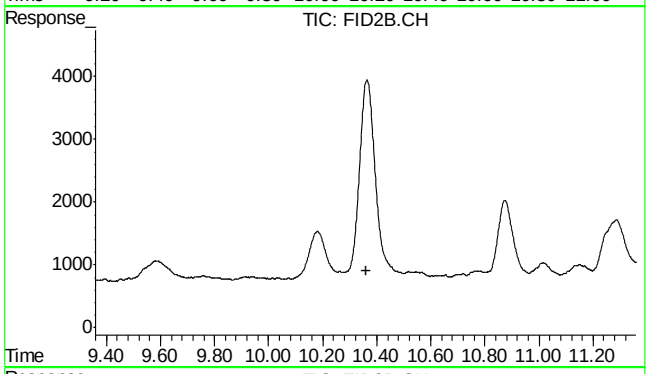
#6 Toluene

R.T.: 7.528 min
Delta R.T.: 0.008 min
Response: 153406
Conc: 0.39 ug/L



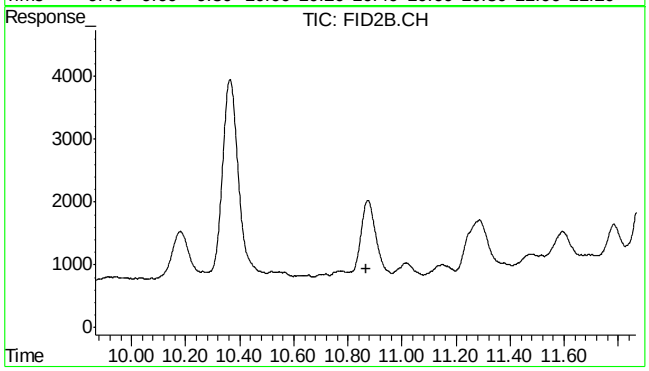
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.174 min
Response: 0
Conc: N.D.



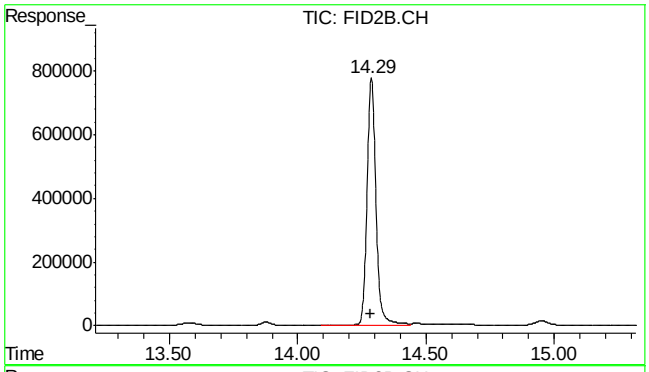
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.360 min
Response: 0
Conc: N.D.



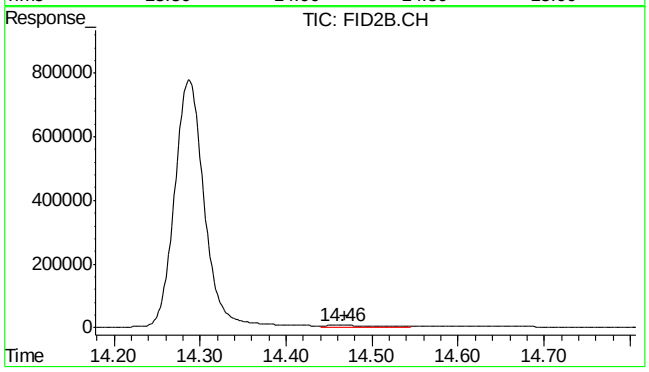
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.867 min
Response: 0
Conc: N.D.



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

R.T.: 14.287 min
Delta R.T.: 0.000 min
Response: 18860464
Conc: 116.04 %



#11 Naphthalene

R.T.: 14.464 min
Delta R.T.: -0.003 min
Response: 240602
Conc: 1.22 ug/L

Mountain States ACCUTEST LABORATORIES

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: D34640
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5975-MB	FD13828.D	1	06/01/12	AV	05/30/12	OP5975	GFD733

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

D34640-1, D34640-2, D34640-3, D34640-4, D34640-5

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	74%	43-136%

Blank Spike Summary

Job Number: D34640
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5975-BS	FD13829.D	1	06/01/12	AV	05/30/12	OP5975	GFD733

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

D34640-1, D34640-2, D34640-3, D34640-4, D34640-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	417	63	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	67%	43-136%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D34640
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5975-MS	FD13830.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
OP5975-MSD	FD13831.D	1	06/01/12	AV	05/30/12	OP5975	GFD733
D34640-2	FD13833.D	1	06/01/12	AV	05/30/12	OP5975	GFD733

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

D34640-1, D34640-2, D34640-3, D34640-4, D34640-5

CAS No.	Compound	D34640-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	891		721	1270	53	1290	55	2	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D34640-2	Limits
84-15-1	o-Terphenyl	57%	62%	62%	43-136%

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/04/12 12:18

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13832.D Vial: 63
Acq On : 6-1-2012 02:36:14 PM Operator: ashleyv
Sample : D34640-1 Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 15:51:56 2012 Quant Results File: DRO-GFD726R.RES

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

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

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	O-Terphenyl	9.55	28819999	643.785	mg/L	m
	Target Compounds					
2) H	TPH-DRO (c10-c28)	7.29	227320692	5303.970	mg/L	

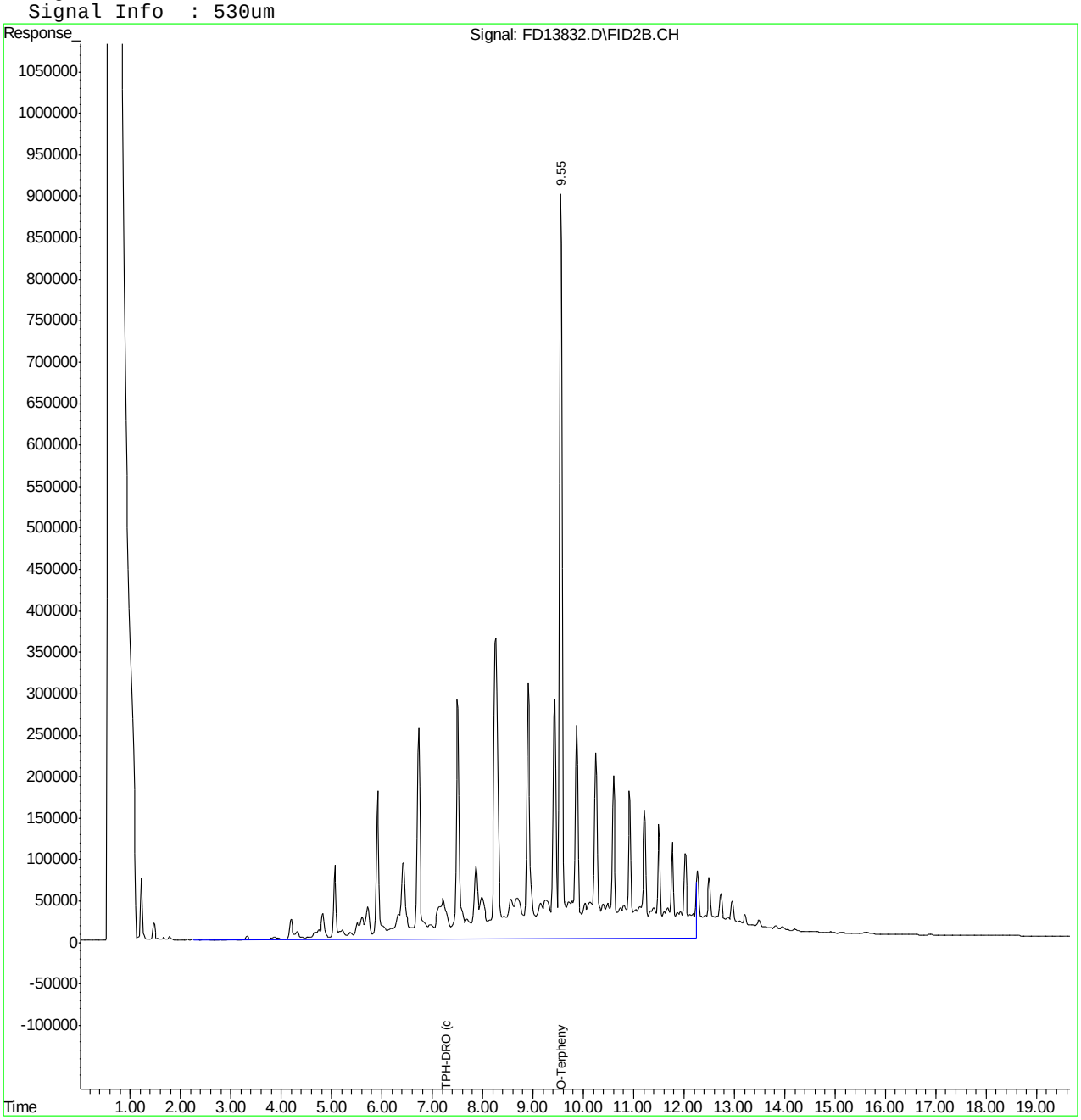
(f)=RT Delta > 1/2 Window (m)=manual int.
FD13832.D DRO-GFD726R.M Mon Jun 04 10:21:21 2012 GC Page 1

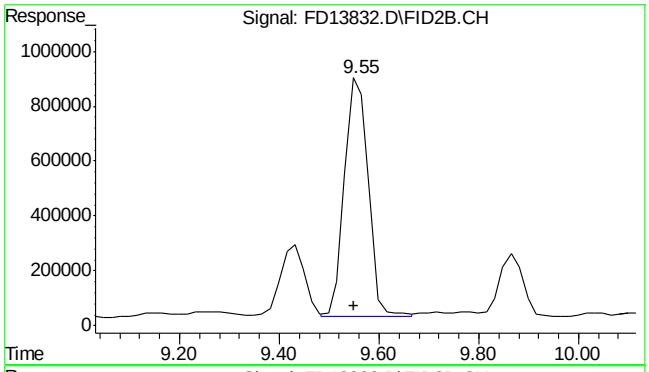
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13832.D Vial: 63
Acq On : 6-1-2012 02:36:14 PM Operator: ashleyv
Sample : D34640-1 Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 1 15:53 2012 Quant Results File: DRO-GFD726R.RES

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

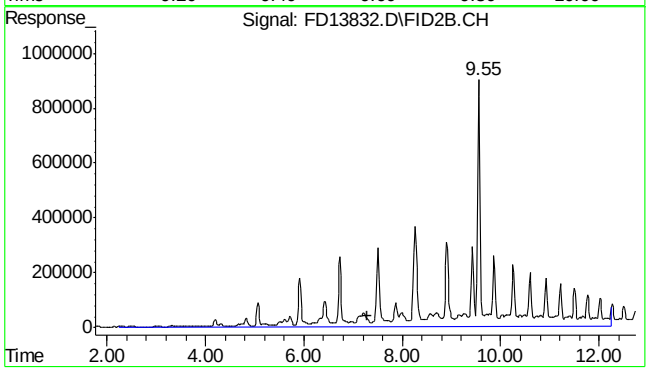
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.554 min
Delta R.T.: 0.004 min
Response: 28819999
Conc: 643.79 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 227320692
Conc: 5303.97 mg/L m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/04/12 12:18

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13833.D Vial: 64
Acq On : 6-1-2012 03:02:06 PM Operator: ashleyv
Sample : D34640-2 Inst : FID5
Misc : OP5975,GFD733,30.03,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 15:53:18 2012 Quant Results File: DRO-GFD726R.RES

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

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

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	O-Terphenyl	9.55	27682467	618.375	mg/L	m
	Target Compounds					
2) H	TPH-DRO (c10-c28)	7.29	530101291	12368.612	mg/L	

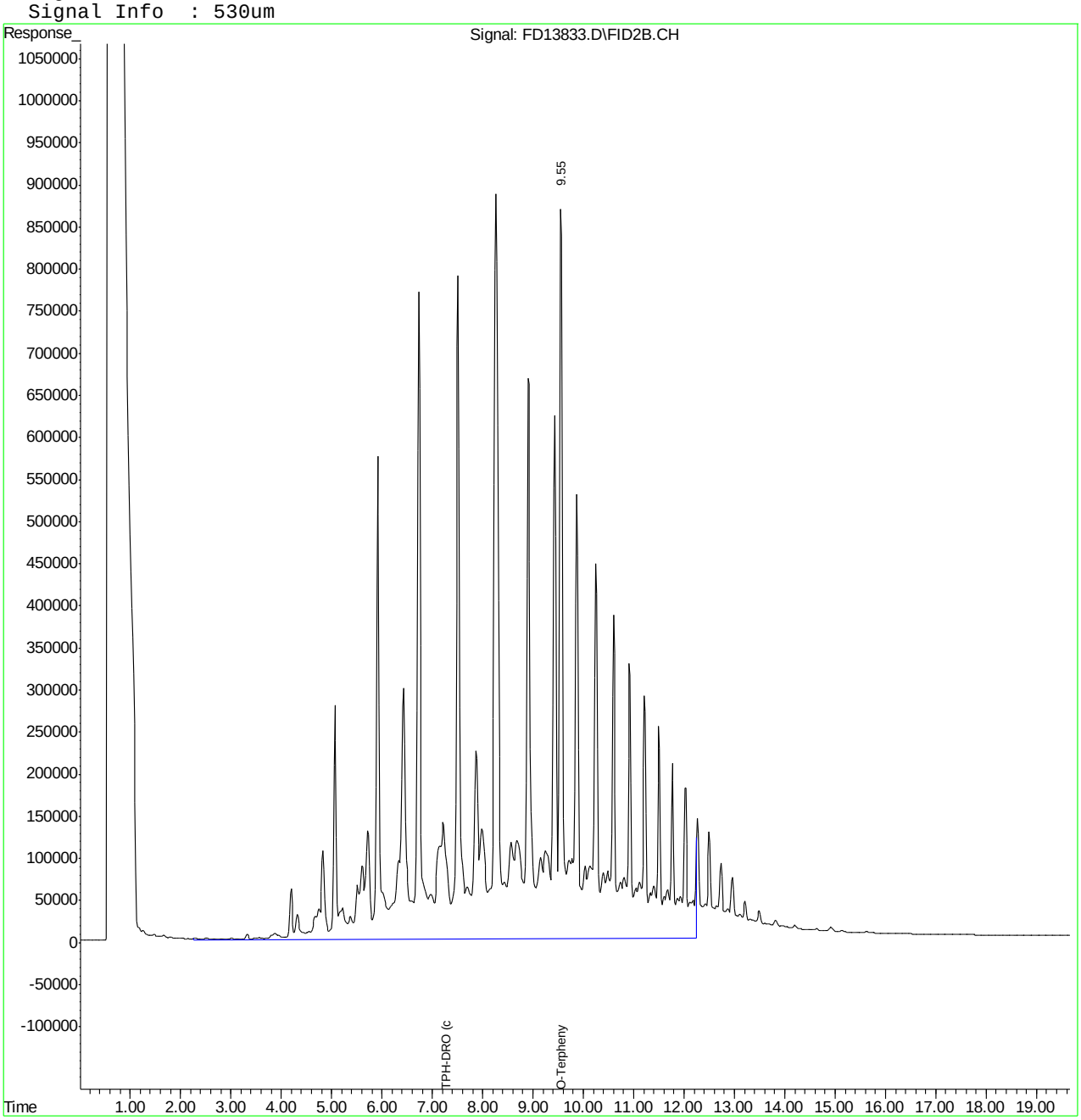
(f)=RT Delta > 1/2 Window (m)=manual int.
FD13833.D DRO-GFD726R.M Mon Jun 04 10:21:22 2012 GC Page 1

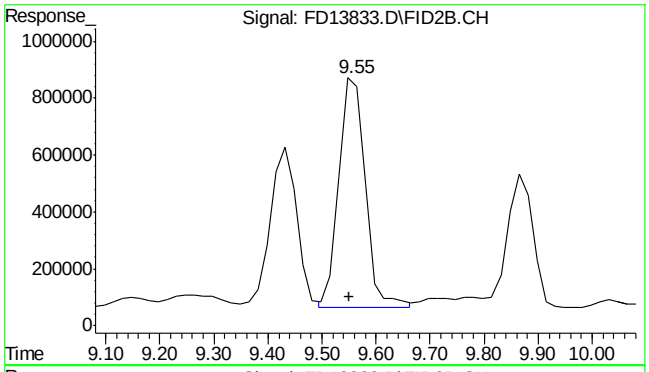
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13833.D Vial: 64
Acq On : 6-1-2012 03:02:06 PM Operator: ashleyv
Sample : D34640-2 Inst : FID5
Misc : OP5975,GFD733,30.03,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 1 15:55 2012 Quant Results File: DRO-GFD726R.RES

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

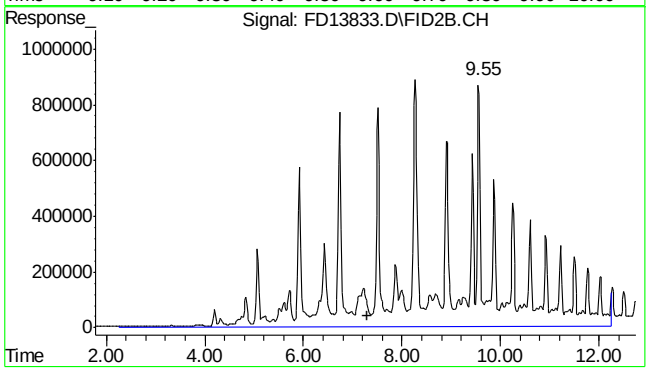
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.554 min
Delta R.T.: 0.004 min
Response: 27682467
Conc: 618.38 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 530101291
Conc: 12368.61 mg/L m

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13834.D Vial: 65
Acq On : 6-1-2012 03:28:01 PM Operator: ashleyv
Sample : D34640-3 Inst : FID5
Misc : OP5975,GFD733,30.03,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 15:55:22 2012 Quant Results File: DRO-GFD726R.RES

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

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

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl	9.56	28092478	627.534	mg/L
	Target Compounds				
2) H	TPH-DRO (c10-c28)	7.29	261898195	6110.751	mg/L

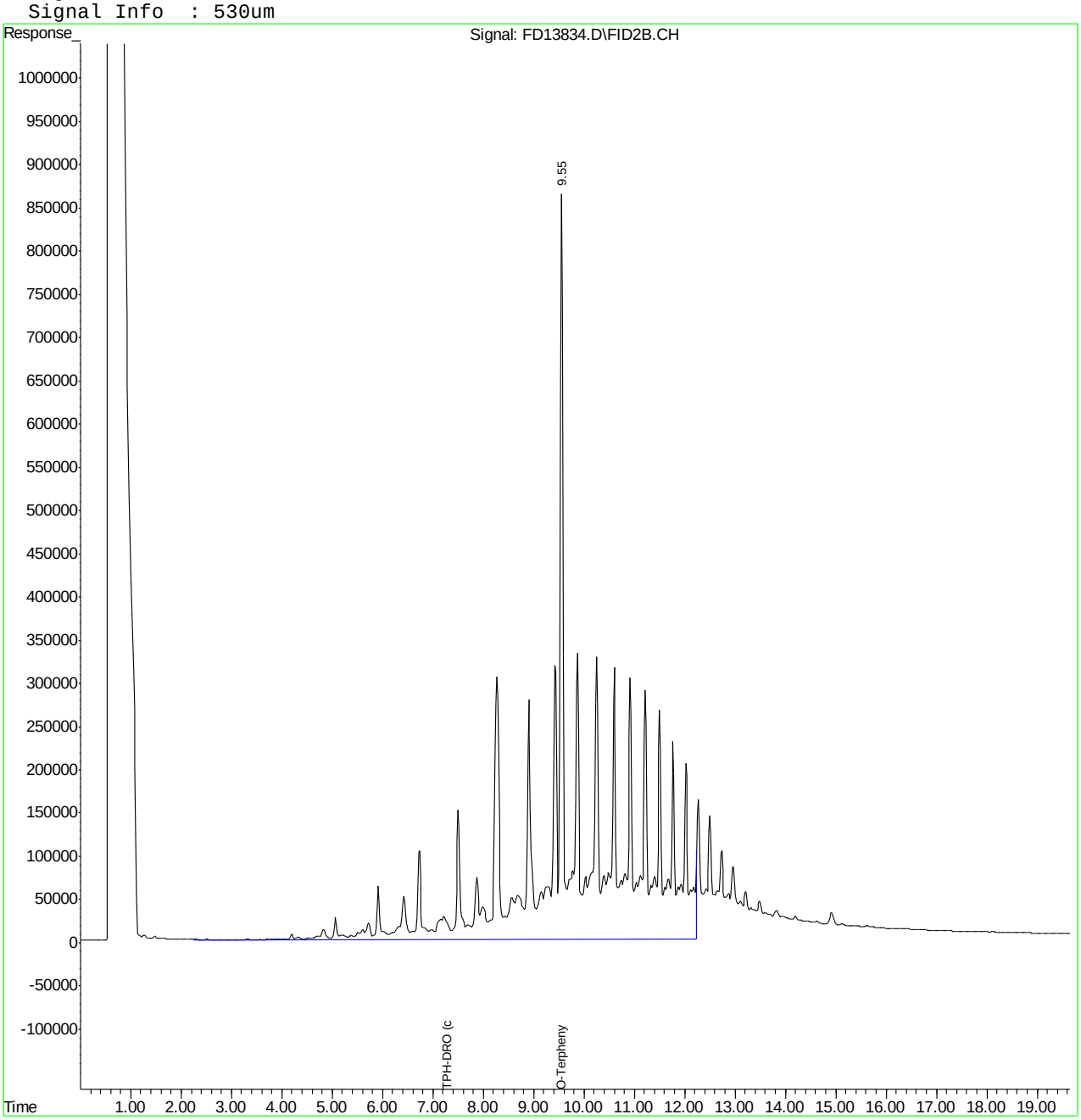
(f)=RT Delta > 1/2 Window (m)=manual int.
FD13834.D DRO-GFD726R.M Mon Jun 04 10:21:23 2012 GC Page 1

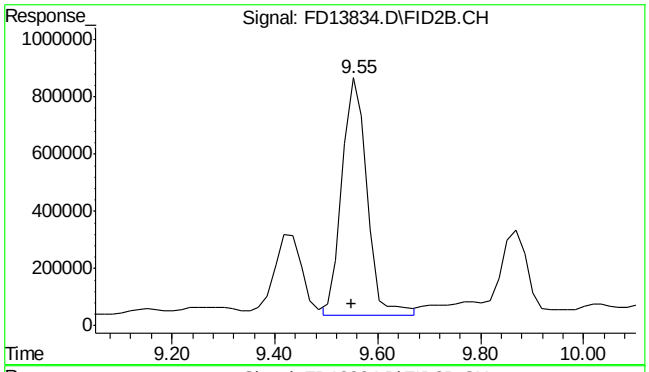
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13834.D Vial: 65
Acq On : 6-1-2012 03:28:01 PM Operator: ashleyv
Sample : D34640-3 Inst : FID5
Misc : OP5975,GFD733,30.03,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 1 15:55 2012 Quant Results File: DRO-GFD726R.RES

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

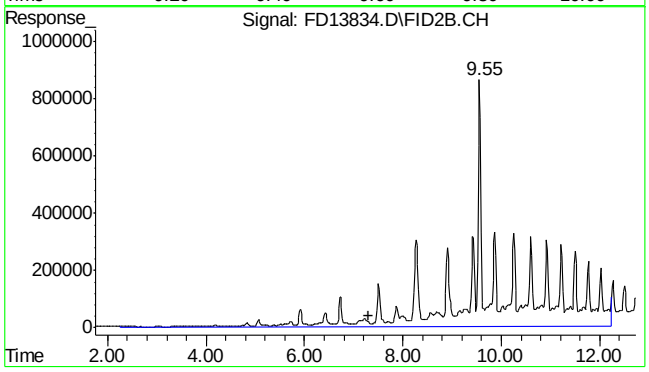
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.561 min
Delta R.T.: 0.011 min
Response: 28092478
Conc: 627.53 mg/L



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 261898195
Conc: 6110.75 mg/L m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/04/12 12:18

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13835.D Vial: 66
Acq On : 6-1-2012 03:53:57 PM Operator: ashleyv
Sample : D34640-4 Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 16:32:17 2012 Quant Results File: DRO-GFD726R.RES

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

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

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	O-Terphenyl	9.56	31752328	709.288	mg/L	m
	Target Compounds					
2) H	TPH-DRO (c10-c28)	7.29	270115056	6302.472	mg/L	

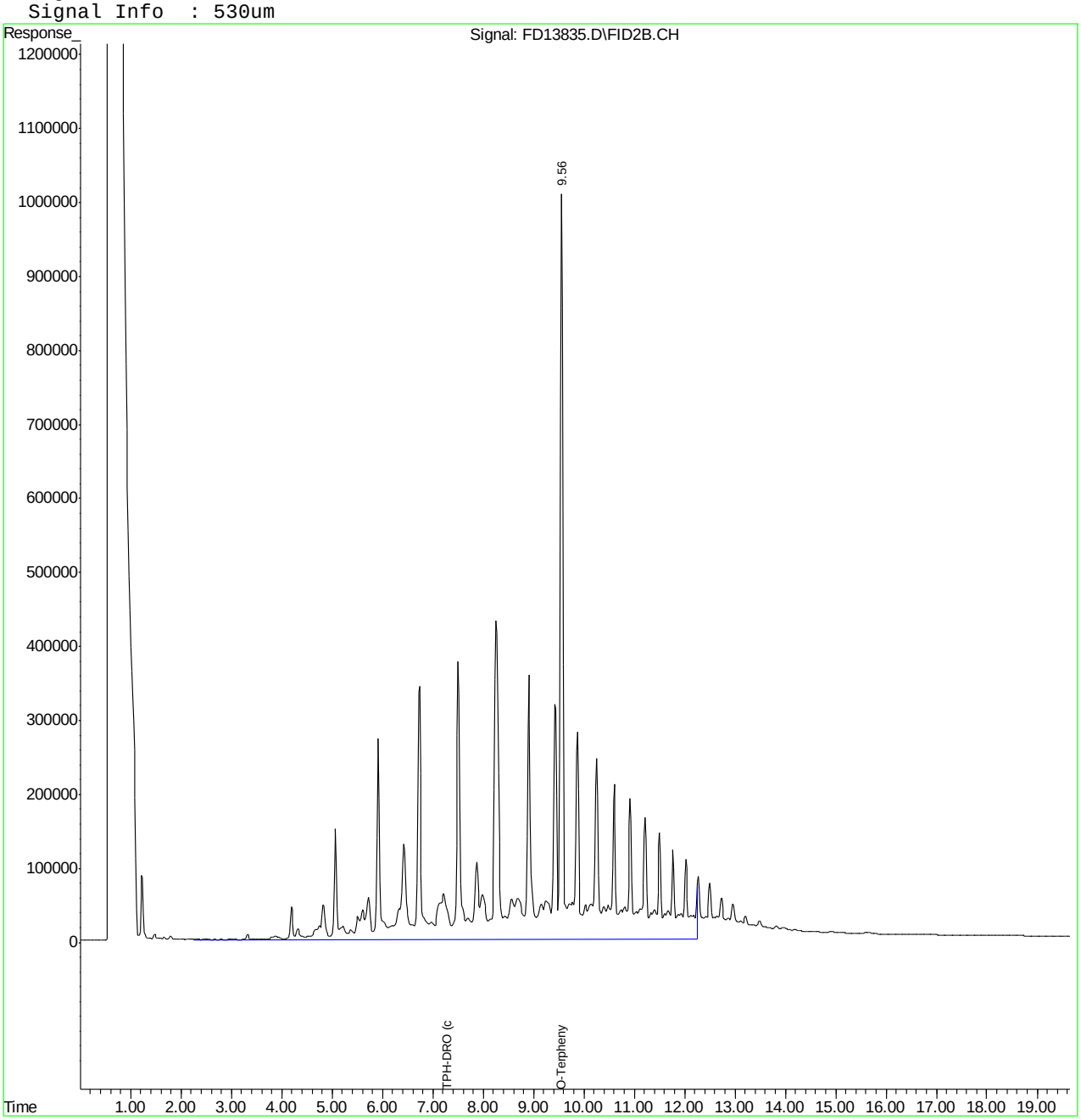
(f)=RT Delta > 1/2 Window (m)=manual int.

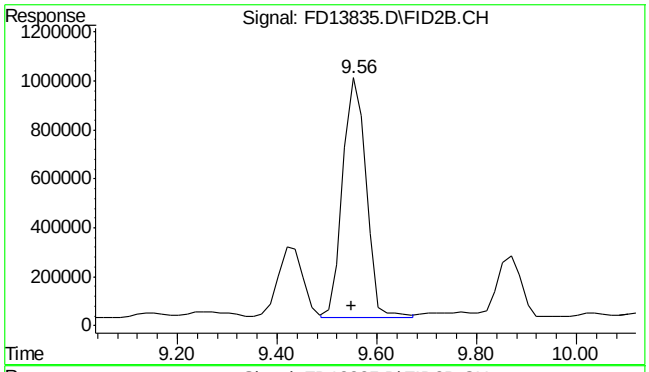
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13835.D Vial: 66
Acq On : 6-1-2012 03:53:57 PM Operator: ashleyv
Sample : D34640-4 Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 1 16:33 2012 Quant Results File: DRO-GFD726R.RES

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

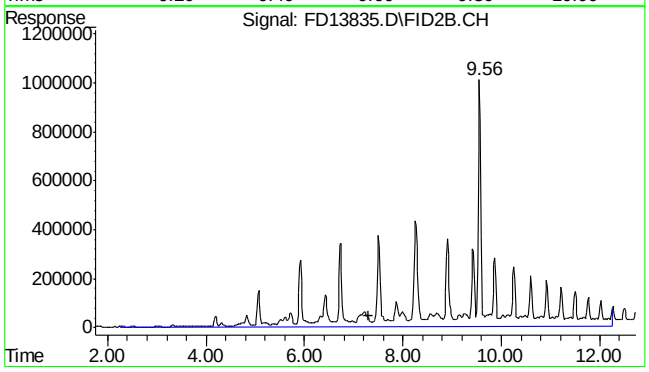
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.555 min
Delta R.T.: 0.005 min
Response: 31752328
Conc: 709.29 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 270115056
Conc: 6302.47 mg/L m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/04/12 12:18

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13836.D Vial: 67
Acq On : 6-1-2012 04:19:54 PM Operator: ashleyv
Sample : D34640-5 Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 16:46:14 2012 Quant Results File: DRO-GFD726R.RES

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

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

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl	9.56	35129108	784.719 mg/L m
	Target Compounds			
2) H	TPH-DRO (c10-c28)	7.29	830701628	19382.383 mg/L

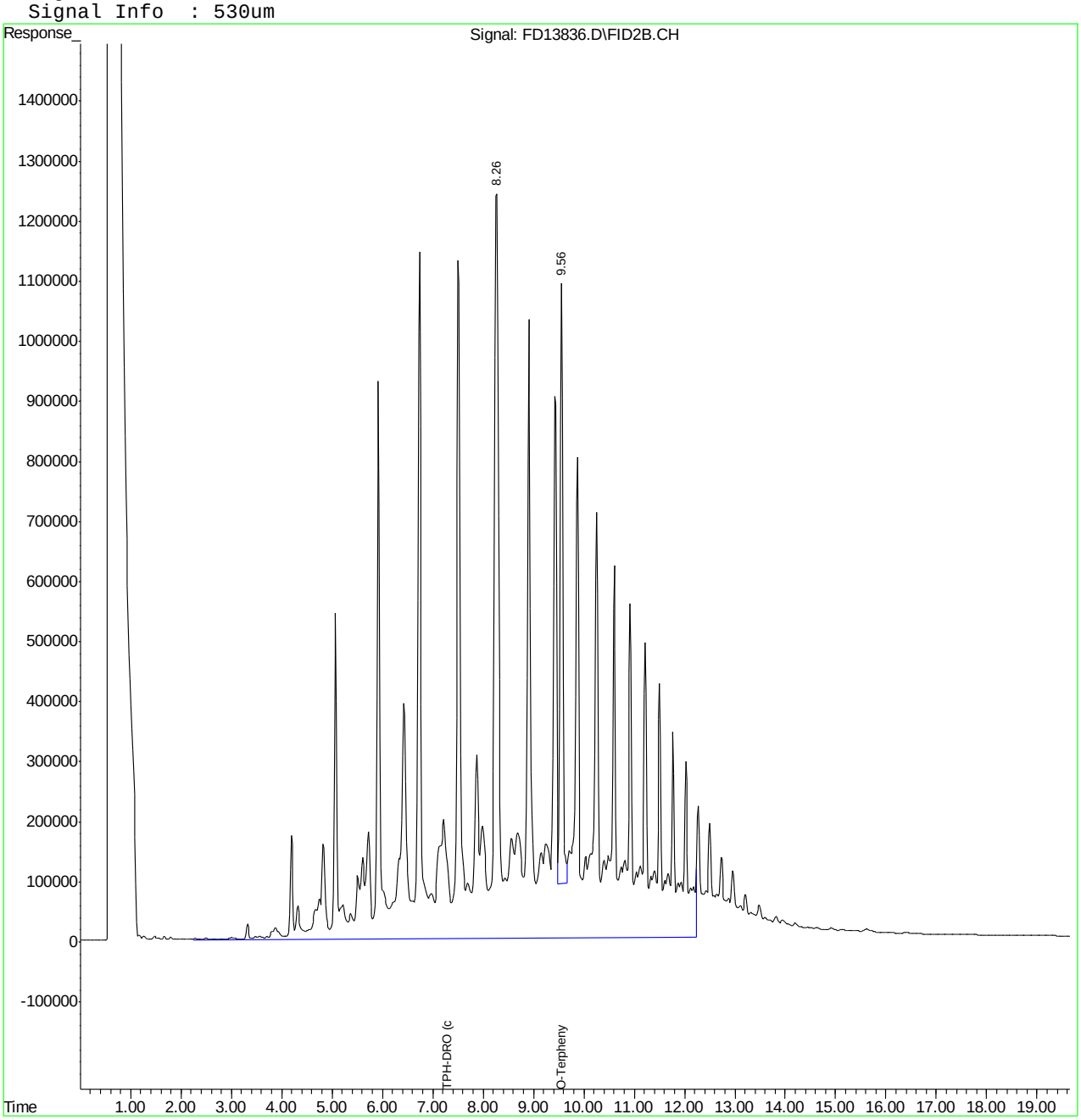
(f)=RT Delta > 1/2 Window (m)=manual int.

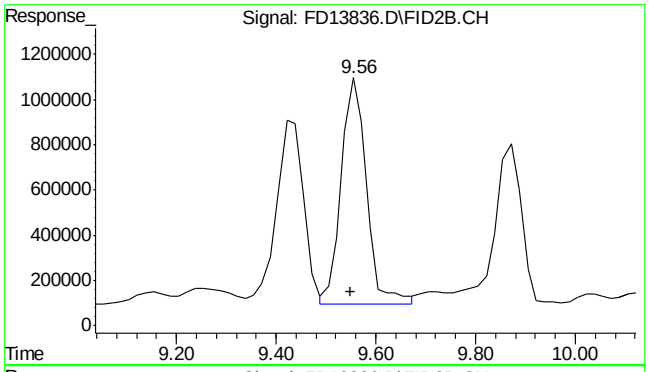
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13836.D Vial: 67
Acq On : 6-1-2012 04:19:54 PM Operator: ashleyv
Sample : D34640-5 Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 1 16:47 2012 Quant Results File: DRO-GFD726R.RES

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

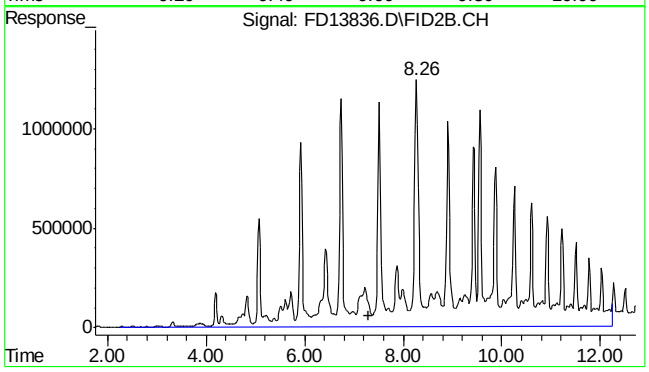
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.556 min
Delta R.T.: 0.005 min
Response: 35129108
Conc: 784.72 mg/L m



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 830701628
Conc: 19382.38 mg/L m

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13828.D Vial: 59
Acq On : 01 Jun 2012 12:52 pm Operator: ashleyv
Sample : OP5975-MB Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 01 13:40:33 2012 Quant Results File: DRO-GFD726R.RES

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

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl	9.56	33188974	741.380 mg/L
Target Compounds			
2) H TPH-DRO (c10-c28)	7.29	2430442	56.708 mg/L

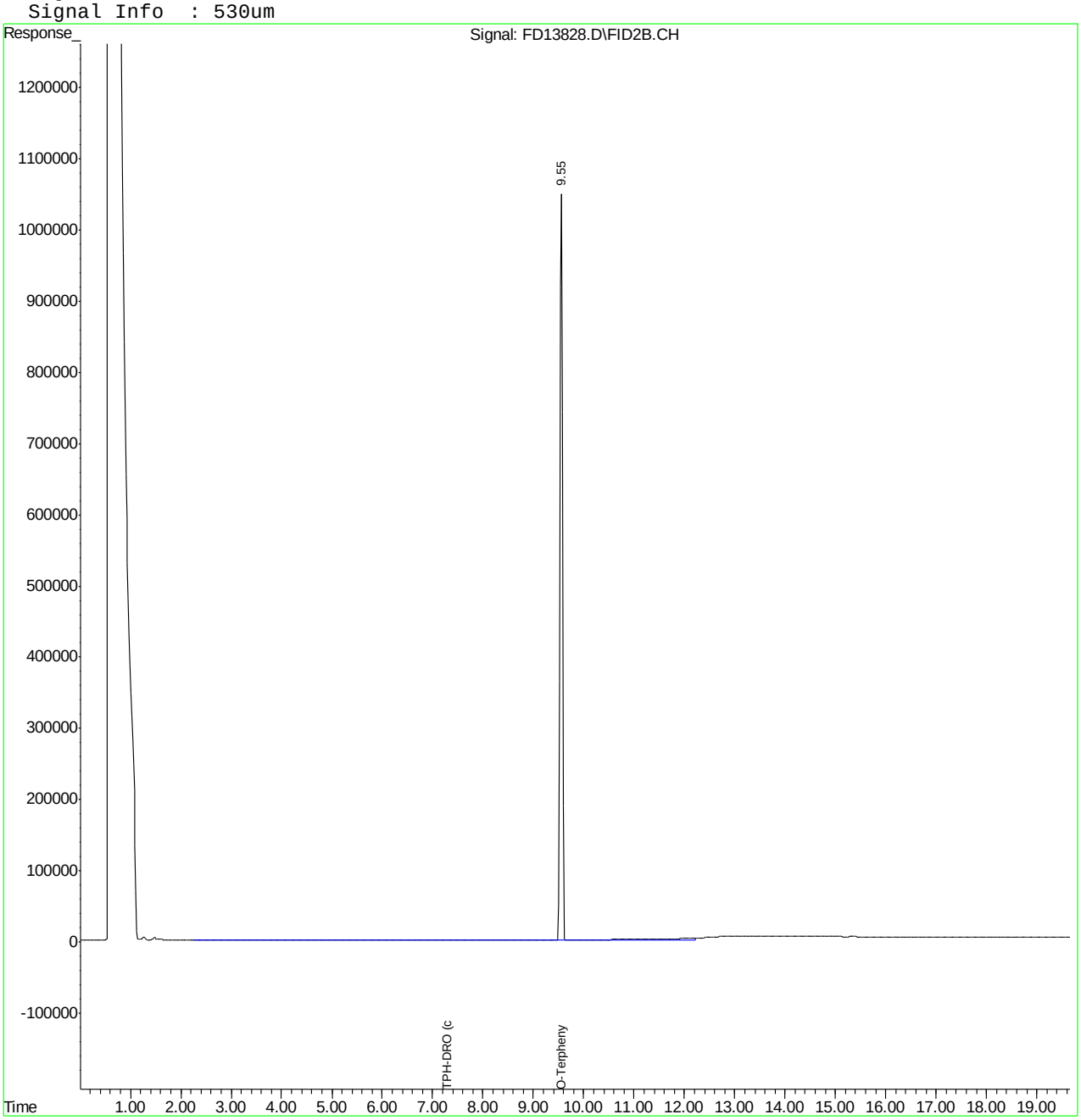
(f)=RT Delta > 1/2 Window (m)=manual int.
FD13828.D DRO-GFD726R.M Mon Jun 04 10:21:17 2012 GC Page 1

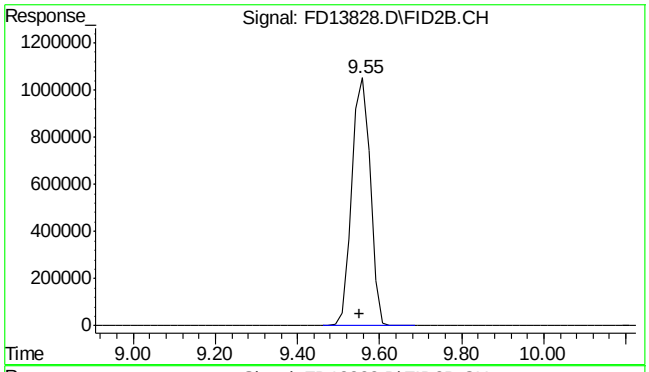
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\2\DATA\2012\JUNE\FD060112\FD13828.D Vial: 59
Acq On : 01 Jun 2012 12:52 pm Operator: ashleyv
Sample : OP5975-MB Inst : FID5
Misc : OP5975,GFD733,30.00,,,2,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 1 13:41 2012 Quant Results File: DRO-GFD726R.RES

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

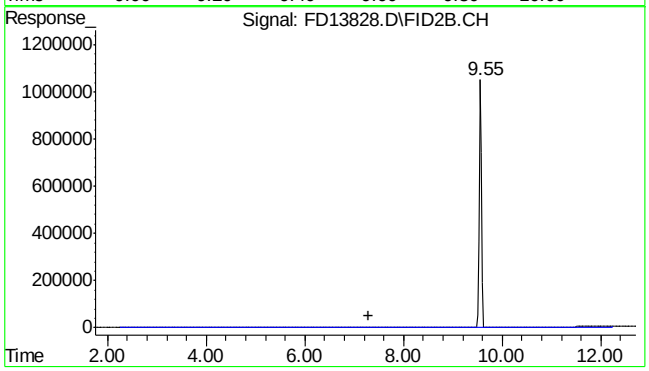
Volume Inj. : 1ul
Signal Phase : RTX-5
Signal Info : 530um





#1 O-Terphenyl

R.T.: 9.561 min
Delta R.T.: 0.011 min
Response: 33188974
Conc: 741.38 mg/L



#2 TPH-DRO (c10-c28)

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 2430442
Conc: 56.71 mg/L m