Mountain States ACCUTEST LABORATORIES

06/11/12

Technical Report for

XTO Energy

FRU 297-17A

1108-13A

Accutest Job Number: D35038

Sampling Date: 06/01/12

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: **128**

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 9 10

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Sample Summary

XTO Energy

Job No: D35038

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

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D35038-1	06/01/12	10:40	DS	06/02/12	SO	Soil	CUT 1&2 MB DAY 1 (5/30)
D35038-2	06/01/12	10:50	DS	06/02/12	SO	Soil	CUT 1&2 MB DAY 2 (5/31)
D35038-3	06/01/12	11:00	DS	06/02/12	SO	Soil	CUT 1&2 MB DAY 3 (6/1)

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	XTO Energy	**Job No**	D35038
Site:	FRU 297-17A	**Report Date**	6/11/2012 10:15:22 AM

On 06/02/2012, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.8 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D35038 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 GCMS By Method SW846 8260B

Matrix SO **Batch ID:** V5V1323

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D35038-3MS, D35038-3MSD were used as the QC samples indicated.
- Sample(s) D35038-3MSD have surrogates outside control limits. Probable cause due to matrix interference.
- D35038-3MSD for 4-Bromofluorobenzene: Outside control limits due to possible matrix interference.

Volatiles by GC By Method SW846 8015B

Matrix SO **Batch ID:** GGB903

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D35033-2MS, D35033-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO **Batch ID:** OP6010

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D35039-1MS, D35039-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO **Batch ID:** GN15246

- 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: CUT 1&2 MB DAY 1 (5/30)
Lab Sample ID: D35038-1
Matrix: SO - Soil
Method: SW846 8260B
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 88.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V21712.D	1	06/04/12	BD	n/a	n/a	V5V1323
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0279	0.063	0.024	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	95%		61-130%
460-00-4	4-Bromofluorobenzene	105%		53-131%
17060-07-0	1,2-Dichloroethane-D4	94%		62-130%

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

Client Sample ID: CUT 1&2 MB DAY 1 (5/30)
Lab Sample ID: D35038-1
Matrix: SO - Soil
Method: SW846 8015B
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 88.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16226.D	1	06/05/12	SK	n/a	n/a	GGB903
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)	9.87	13	6.3	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%

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

Accutest Laboratories

Report of Analysis

Client Sample ID: CUT 1&2 MB DAY 1 (5/30)
Lab Sample ID: D35038-1
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 88.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH005175.D	1	06/08/12	AV	06/06/12	OP6010	GFH285
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)	591	15	9.8	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

Accutest Laboratories

Report of Analysis

Client Sample ID: CUT 1&2 MB DAY 2 (5/31)
Lab Sample ID: D35038-2
Matrix: SO - Soil
Method: SW846 8260B
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 87.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V21711.D	1	06/04/12	BD	n/a	n/a	V5V1323
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.04 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0465	0.064	0.024	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		61-130%
460-00-4	4-Bromofluorobenzene	108%		53-131%
17060-07-0	1,2-Dichloroethane-D4	99%		62-130%

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

Client Sample ID:	CUT 1&2 MB DAY 2 (5/31)		
Lab Sample ID:	D35038-2	**Date Sampled:**	06/01/12
Matrix:	SO - Soil	**Date Received:**	06/02/12
Method:	SW846 8015B	**Percent Solids:**	87.4
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16227.D	1	06/05/12	SK	n/a	n/a	GGB903
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)	11.8	13	6.4	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	85%		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: CUT 1&2 MB DAY 2 (5/31)
Lab Sample ID: D35038-2
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 87.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH005177.D	1	06/08/12	AV	06/06/12	OP6010	GFH285
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	182	15	9.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		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: CUT 1&2 MB DAY 3 (6/1)
Lab Sample ID: D35038-3
Matrix: SO - Soil
Method: SW846 8260B
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 86.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V21708.D	1	06/04/12	BD	n/a	n/a	V5V1323
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0321	0.065	0.025	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		61-130%
460-00-4	4-Bromofluorobenzene	98%		53-131%
17060-07-0	1,2-Dichloroethane-D4	93%		62-130%

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

Client Sample ID:	CUT 1&2 MB DAY 3 (6/1)		
Lab Sample ID:	D35038-3	**Date Sampled:**	06/01/12
Matrix:	SO - Soil	**Date Received:**	06/02/12
Method:	SW846 8015B	**Percent Solids:**	86.7
Project:	FRU 297-17A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB16228.D	1	06/06/12	SK	n/a	n/a	GGB903
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)	12.9	13	6.5	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	85%		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: CUT 1&2 MB DAY 3 (6/1)
Lab Sample ID: D35038-3
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: FRU 297-17A

Date Sampled: 06/01/12
Date Received: 06/02/12
Percent Solids: 86.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH005181.D	1	06/08/12	AV	06/06/12	OP6010	GFH285
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)	192	15	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		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

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL. 303-425-6021 877-737-4521
FAX 303-425-6021

PAGE 1 OF 1

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # D35038

Client / Reporting Information

Company Name: KRW CONSULTING INC
Street Address: 8000 W. 14TH AV STE 200
City State Zip: LAKEWOOD, CO. 80214
Project Contact: DWAYNE KNUDSON E-mail:
Phone #: 970)488-1098 Fax #:
Sampler(s) Name(s): DAVID SANDERS Phone #:

Project Information

Project Name: XTO FRU 297-17A
Street:
City:
Project#: 1108-13A
Client PO#:
Project Manager: JOE HESS

Billing Information (If different from Report to)

Company Name: XTO ENERGY INC
Street Address: 21459 CR 5
City State Zip: RIFLE, CO. 81650
Attention: JES DOOLING PO#:

Requested Analysis (see TEST CODE sheet)

TPH (GRO/DRO)
BENZENE

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	Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfite	LAB USE ONLY
	CWT 1 & 2 MB DAY 1 (5/30)		6-1-12	10:40	DS	SO	3					X					01
	CWT 1 & 2 MB DAY 2 (5/31)		6-1-12	10:50	DS	SO	3					X					02
	CWT 1 & 2 MB DAY 3 (6/1)		6-1-12	11:00	DS	SO	3					X					03
																	DR 6/2

Turnaround Time (Business days)

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

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

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 PICEANCE TEAM

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		6/1/12		6/1/12		2
2						
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal# FedEx	Intact / Not Intact	Preserved where applicable	On Ice	Cooler Temp. 3.8

D35038: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D35038 **Client:** KRW CONSULTING, INC **Immediate Client Services Action Required:** No

Date / Time Received: 6/2/2012 9:15:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: XTO PCU 297-17A **Airbill #'s:** FedEx

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

Mountain States ACCUTEST LABORATORIES

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: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1323-MB	5V21706.D	1	06/04/12	BD	n/a	n/a	V5V1323

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	19	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	97%	61-130%
460-00-4	4-Bromofluorobenzene	95%	53-131%
17060-07-0	1,2-Dichloroethane-D4	99%	62-130%

Blank Spike Summary

Job Number: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1323-BS	5V21707.D	1	06/04/12	BD	n/a	n/a	V5V1323

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	46.8	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	61-130%
460-00-4	4-Bromofluorobenzene	110%	53-131%
17060-07-0	1,2-Dichloroethane-D4	100%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D35038-3MS	5V21709.D	1	06/04/12	BD	n/a	n/a	V5V1323
D35038-3MSD	5V21710.D	1	06/04/12	BD	n/a	n/a	V5V1323
D35038-3	5V21708.D	1	06/04/12	BD	n/a	n/a	V5V1323

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	D35038-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	32.1	J	3260	3240	98	3940	120	19	70-134/30

CAS No.	Surrogate Recoveries	MS	MSD	D35038-3	Limits
2037-26-5	Toluene-D8	94%	118%	89%	61-130%
460-00-4	4-Bromofluorobenzene	117%	147%* [a]	98%	53-131%
17060-07-0	1,2-Dichloroethane-D4	100%	122%	93%	62-130%

(a) Outside control limits due to possible matrix interference.

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21712.D
Acq On : 4 Jun 2012 4:26 pm
Operator : BRETD
Sample : D35038-1
Misc : MS4023,V5V1323,5.010,,100,5,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 05 09:12:39 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

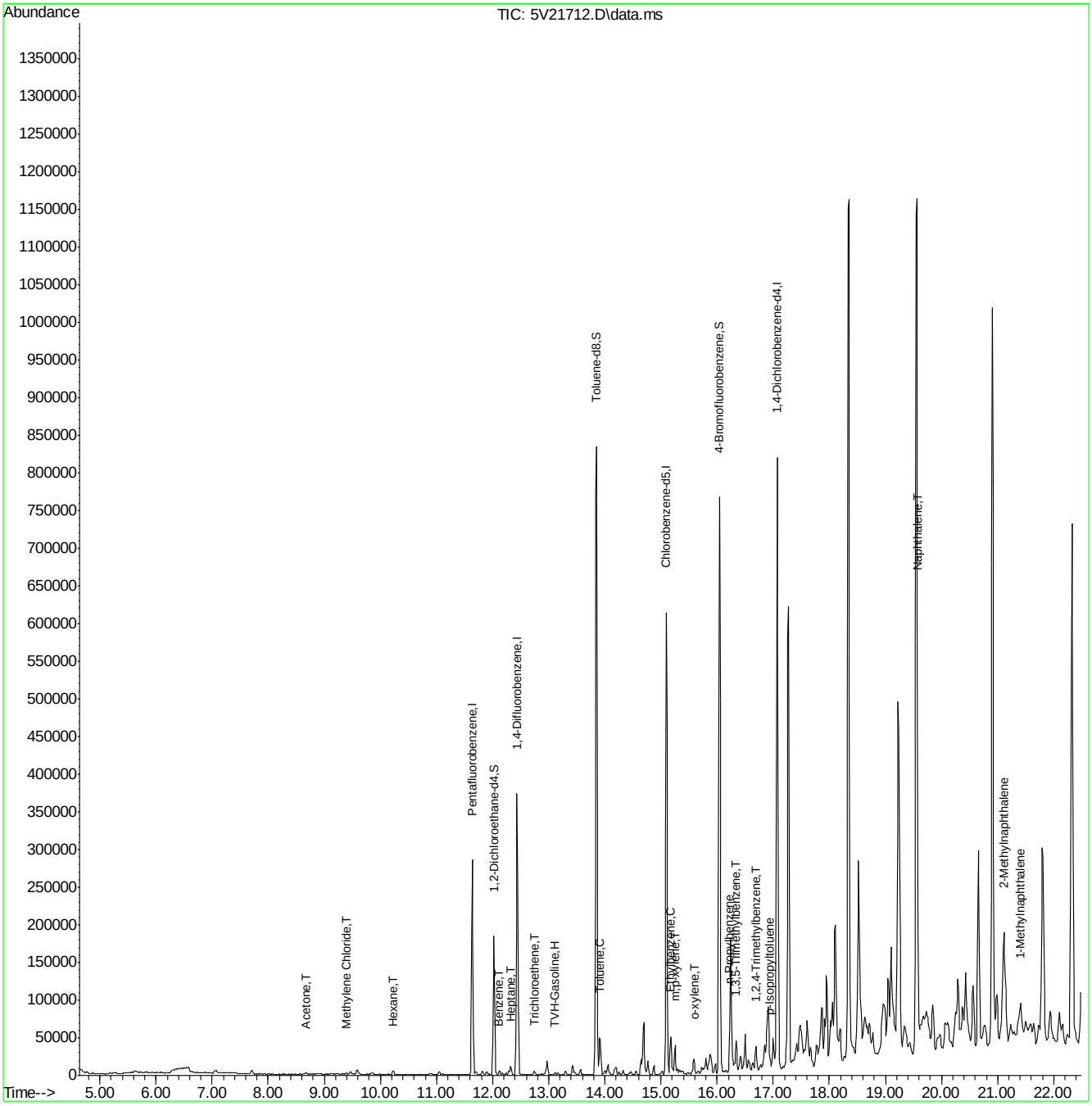
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.635	168	213510	50.00	ug/l	-0.01
35) 1,4-Difluorobenzene	12.435	114	317576	50.00	ug/l	-0.01
53) Chlorobenzene-d5	15.095	117	375464	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	270008	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.024	102	30927	47.11	ug/l	-0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.22%			
61) Toluene-d8	13.850	98	601104	47.37	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.74%			
69) 4-Bromofluorobenzene	16.042	95	272530	52.43	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.86%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.102	TIC	1143132m	58.42	ug/l	
15) Acetone	8.667	58	937	0.87	ug/l #	79
17) Methylene Chloride	9.398	84	653	0.18	ug/l #	74
41) Hexane	10.231	57	2641	0.60	ug/l	100
43) Heptane	12.320	43	4499	0.96	ug/l	95
48) Trichloroethene	12.743	95	2041	0.58	ug/l	92
50) Benzene	12.115	78	5854	0.44	ug/l	100
62) Toluene	13.907	92	14616	1.50	ug/l	99
66) Ethylbenzene	15.175	91	6711	0.37	ug/l	100
72) m,p-xylene	15.255	106	12636	1.75	ug/l	91
73) o-xylene	15.597	106	1650	0.24	ug/l #	66
77) n-Propylbenzene	16.225	91	3326	0.14	ug/l	100
80) 1,3,5-Trimethylbenzene	16.339	105	14771	0.86	ug/l	88
82) 1,2,4-Trimethylbenzene	16.693	105	17034	0.98	ug/l	92
86) p-Isopropyltoluene	16.944	119	4286	0.22	ug/l	94
91) Naphthalene	19.570	128	28402	2.62	ug/l	100
94) 2-Methylnaphthalene	21.111	142	99461	18.63	ug/l	98
95) 1-Methylnaphthalene	21.408	142	32382	6.93	ug/l #	91

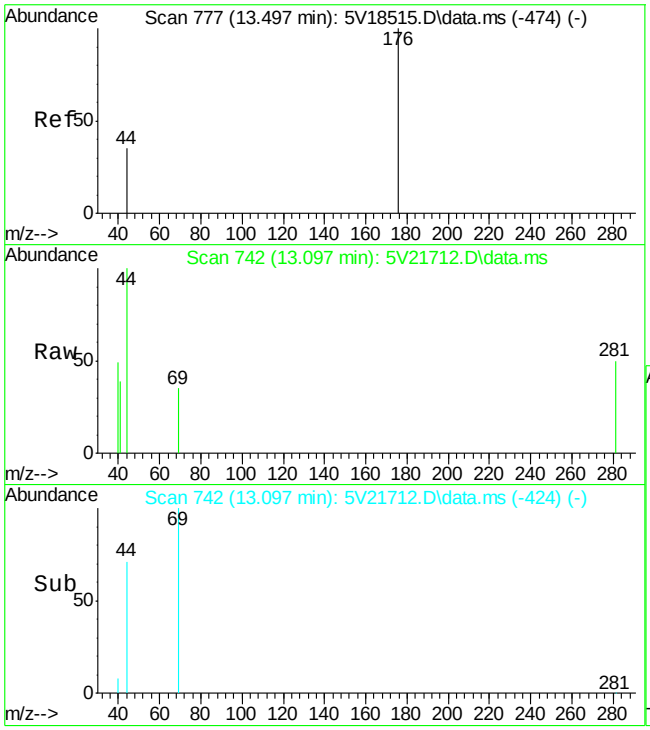
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21712.D
Acq On : 4 Jun 2012 4:26 pm
Operator : BRETD
Sample : D35038-1
Misc : MS4023,V5V1323,5.010,,100,5,1
ALS Vial : 10 Sample Multiplier: 1

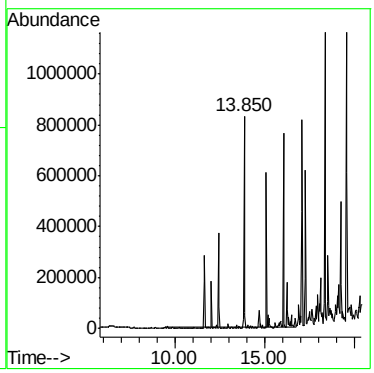
Quant Time: Jun 05 09:12:39 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

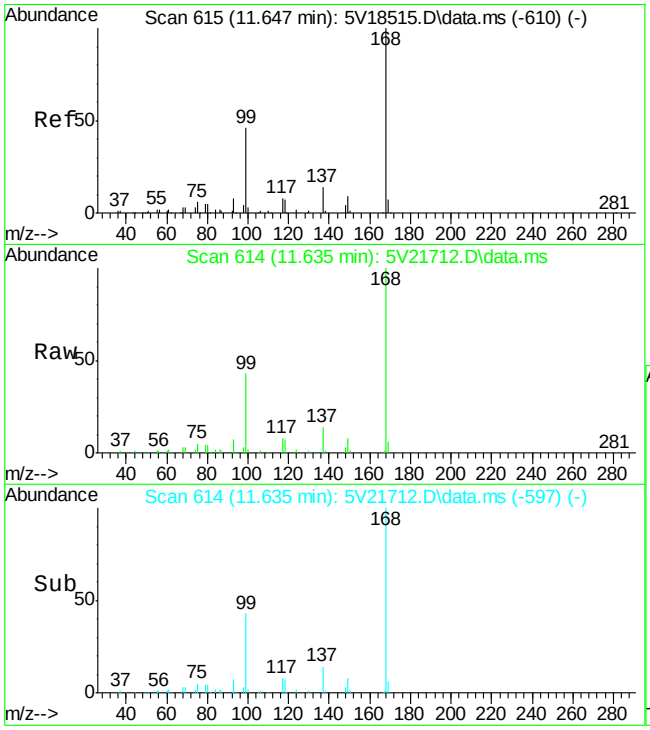




#1
TVH-Gasoline
Concen: 58.42 ug/l m
RT: 13.102 min Scan# 742
Delta R.T. 0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:TIC Resp: 1143132

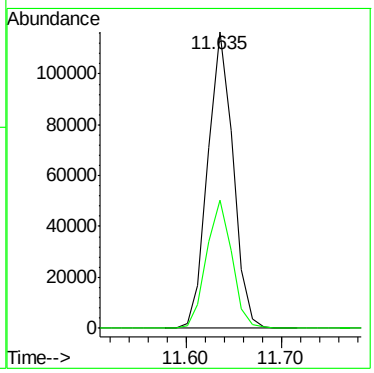


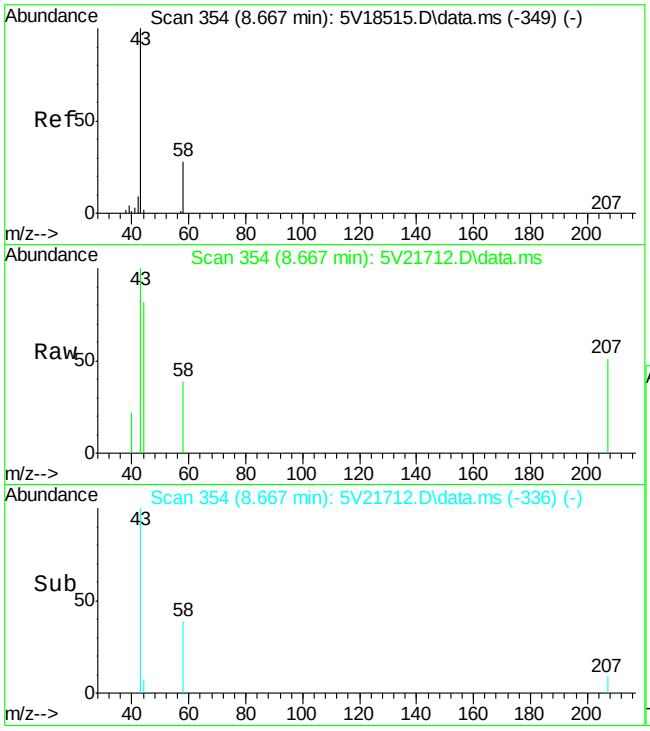


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.635 min Scan# 614
Delta R.T. -0.012 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:168 Resp: 213510

Ion	Ratio	Lower	Upper
168	100		
99	43.2	37.4	56.2

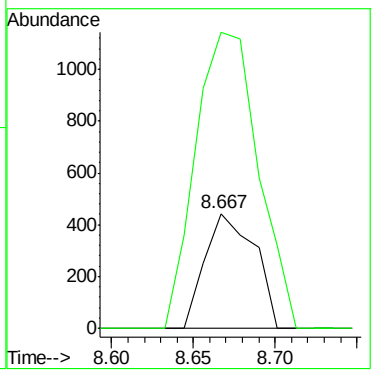


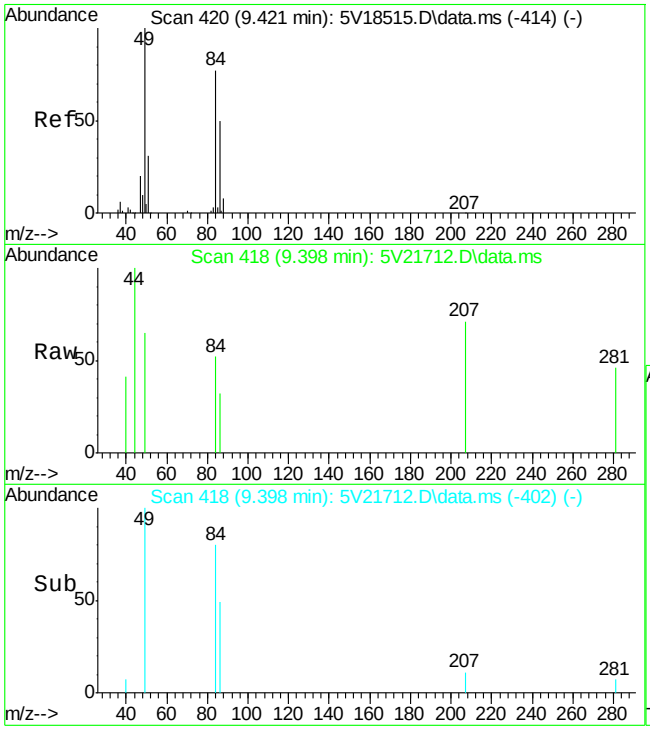


#15
Acetone
Concen: 0.87 ug/l
RT: 8.667 min Scan# 354
Delta R.T. 0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 58 Resp: 937

Ion	Ratio	Lower	Upper
58	100		
43	325.2	353.6	393.6#

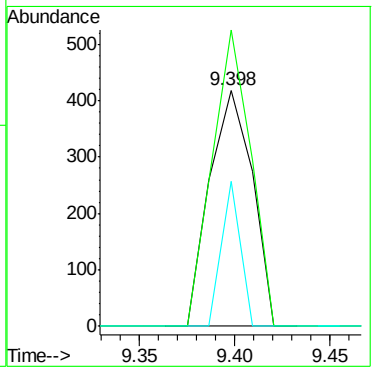


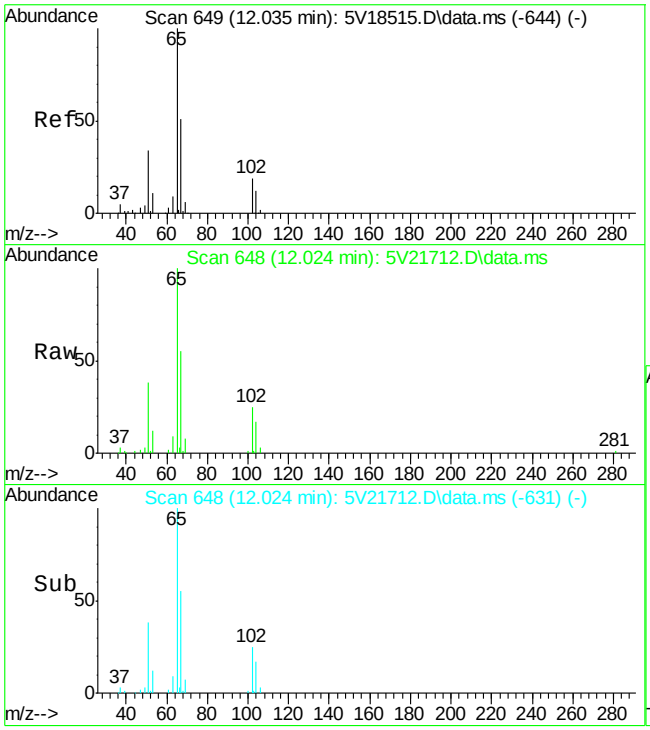


#17
Methylene Chloride
Concen: 0.18 ug/l
RT: 9.398 min Scan# 418
Delta R.T. -0.023 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 84 Resp: 653

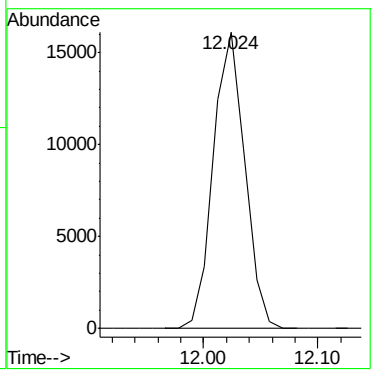
Ion	Ratio	Lower	Upper
84	100		
49	113.0	110.4	150.4
86	27.1	44.0	84.0#

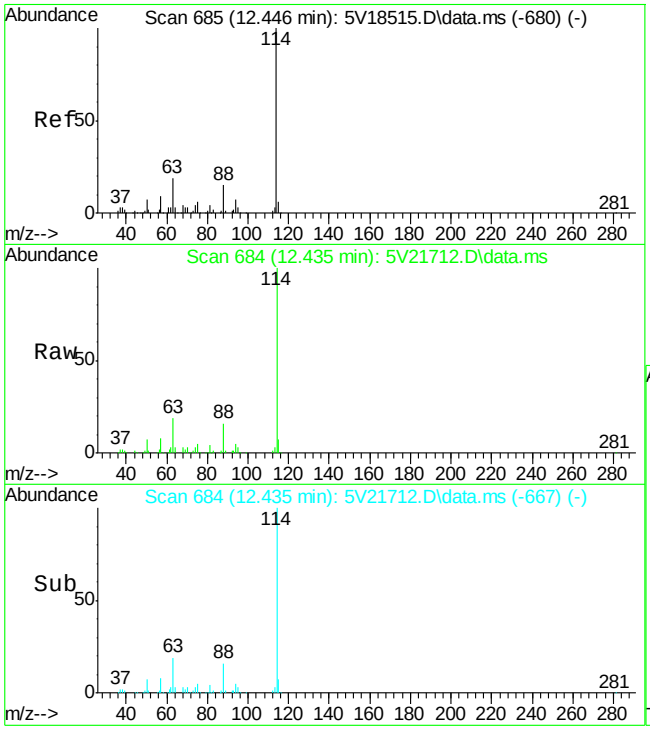




#33
1,2-Dichloroethane-d4
Concen: 47.11 ug/l
RT: 12.024 min Scan# 648
Delta R.T. -0.011 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

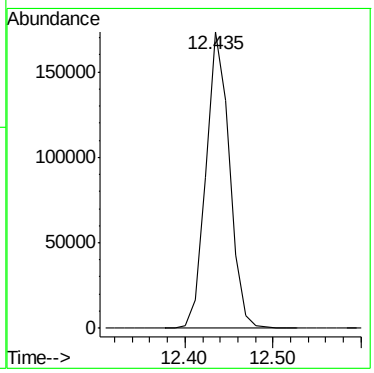
Tgt Ion:102 Resp: 30927

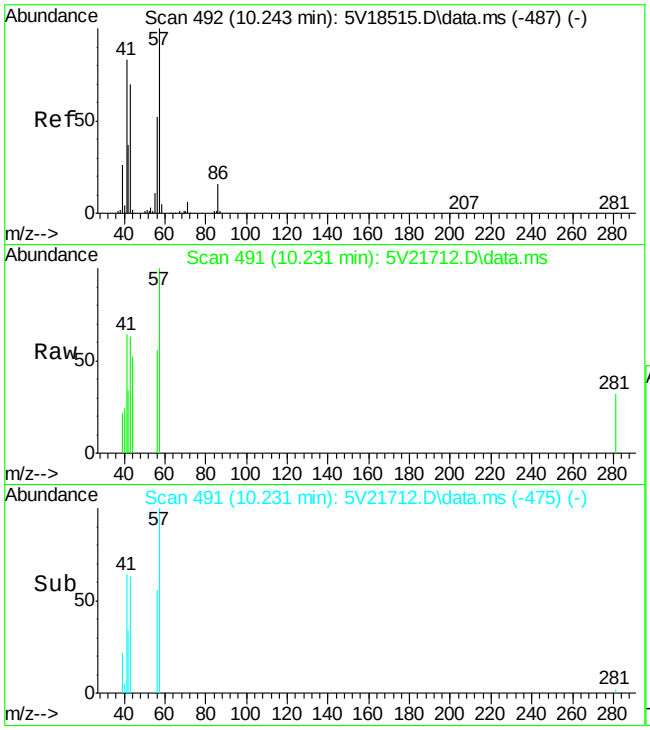




#35
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.435 min Scan# 684
Delta R.T. -0.012 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

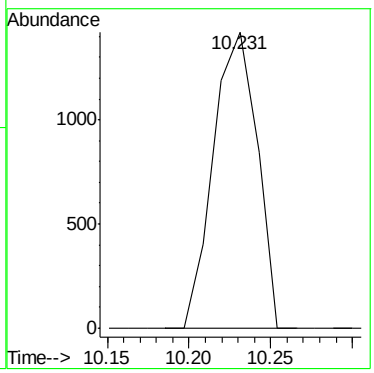
Tgt Ion:114 Resp: 317576

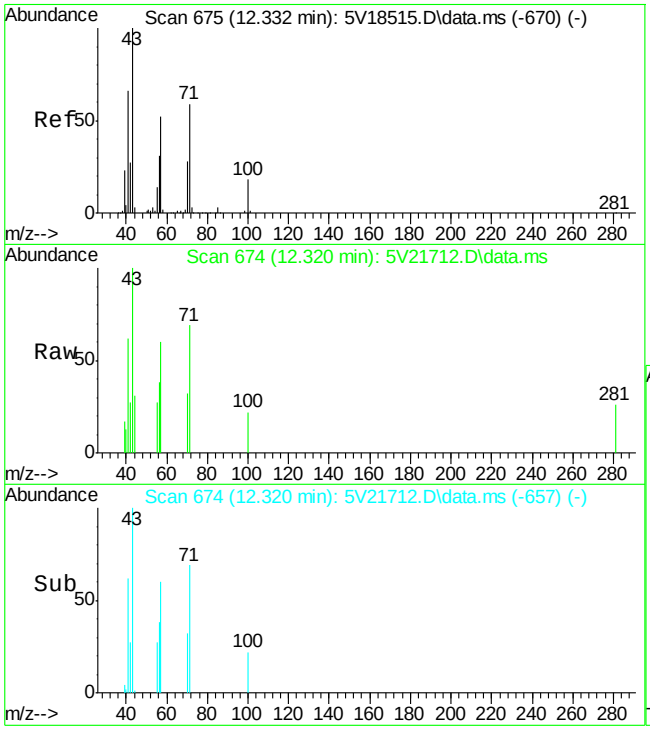




#41
Hexane
Concen: 0.60 ug/l
RT: 10.231 min Scan# 491
Delta R.T. -0.023 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 57 Resp: 2641

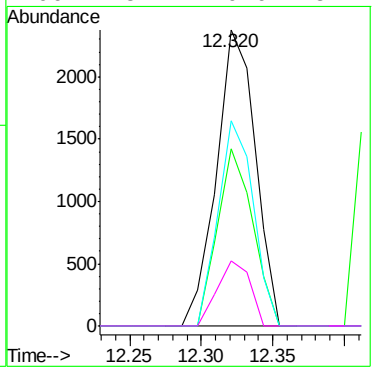


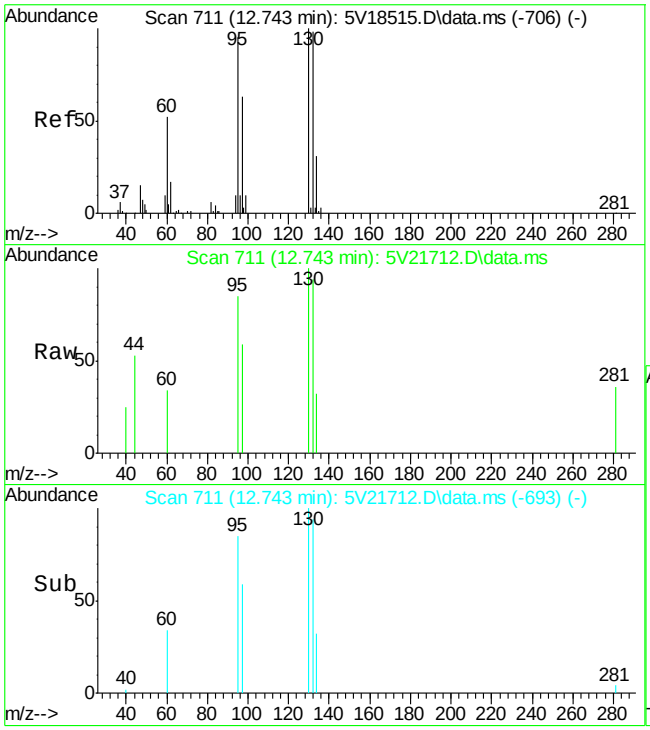


#43
Heptane
Concen: 0.96 ug/l
RT: 12.320 min Scan# 674
Delta R.T. -0.012 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 43 Resp: 4499

Ion	Ratio	Lower	Upper
43	100		
57	54.2	30.6	70.6
71	62.3	38.9	78.9
100	18.4	0.0	37.4

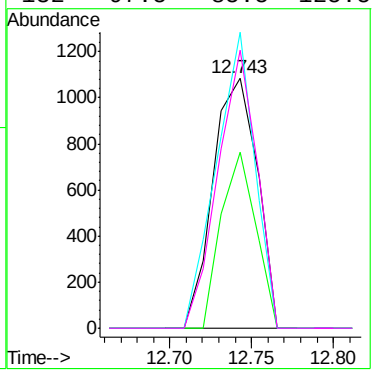


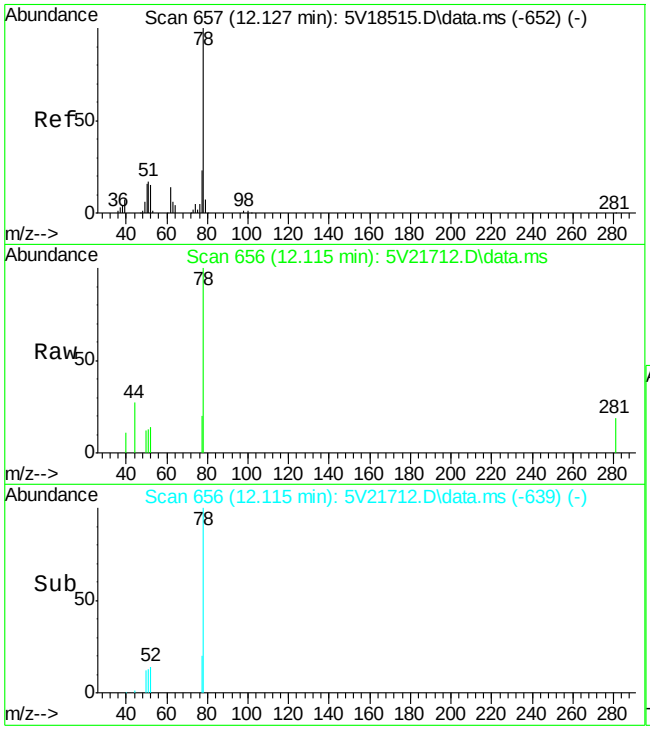


#48
Trichloroethene
Concen: 0.58 ug/l
RT: 12.743 min Scan# 711
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 95 Resp: 2041

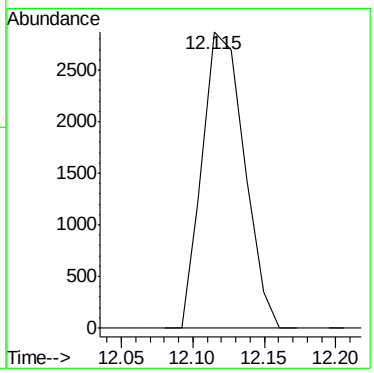
Ion	Ratio	Lower	Upper
95	100		
97	55.0	47.1	87.1
130	102.4	85.2	125.2
132	97.5	85.5	125.5

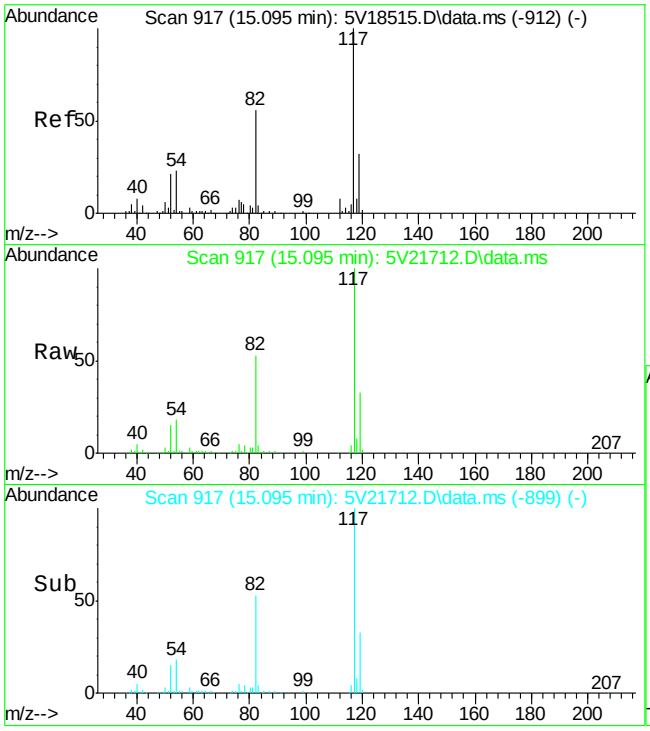




#50
Benzene
Concen: 0.44 ug/l
RT: 12.115 min Scan# 656
Delta R.T. -0.012 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

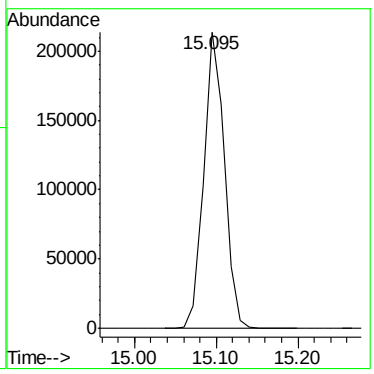
Tgt Ion: 78 Resp: 5854

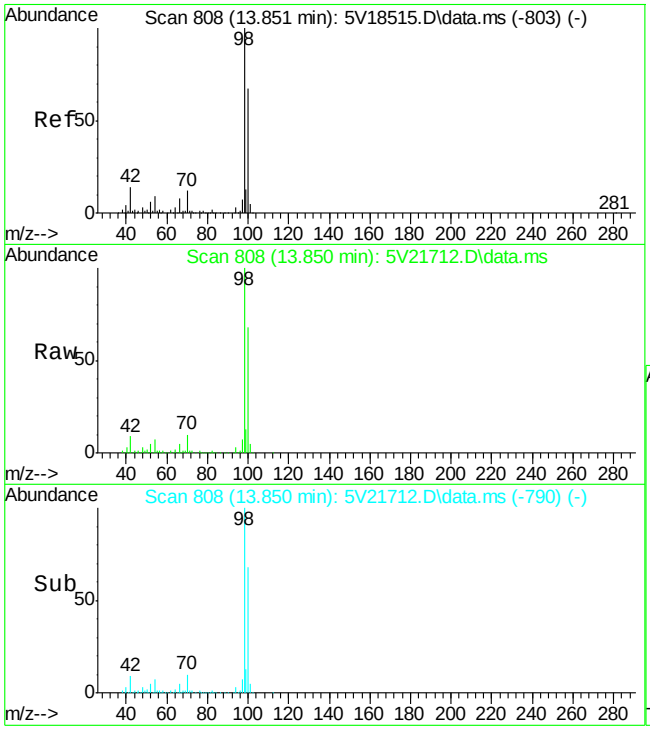




#53
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.095 min Scan# 917
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

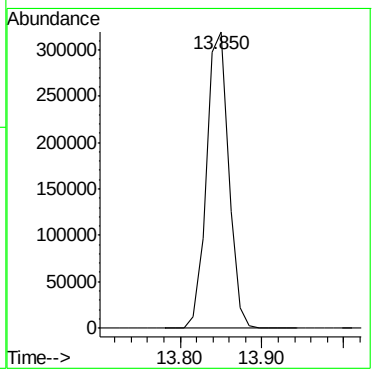
Tgt Ion:117 Resp: 375464

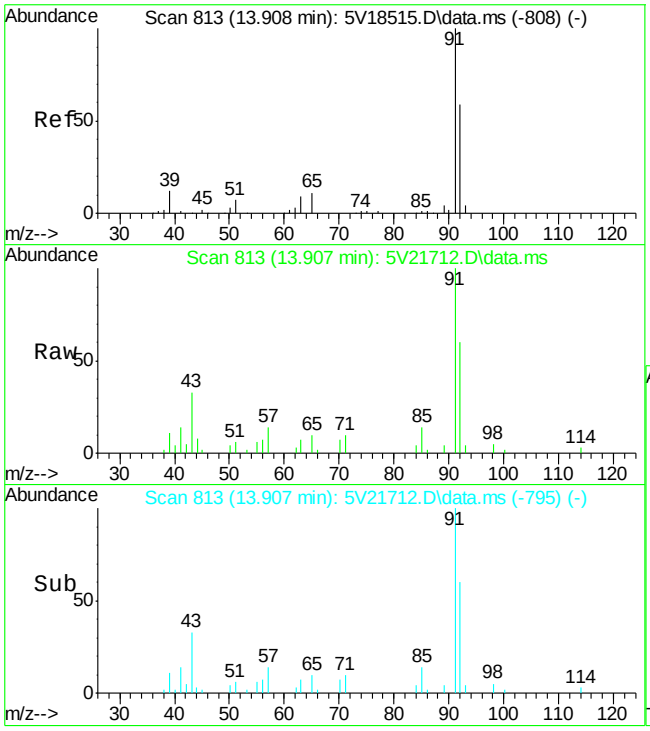




#61
Toluene-d8
Concen: 47.37 ug/l
RT: 13.850 min Scan# 808
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 98 Resp: 601104

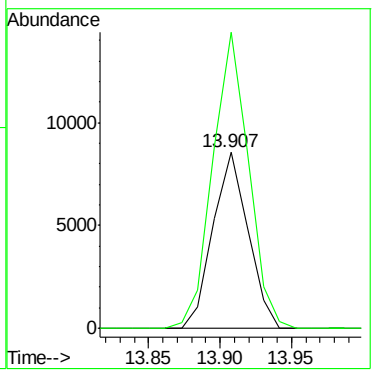


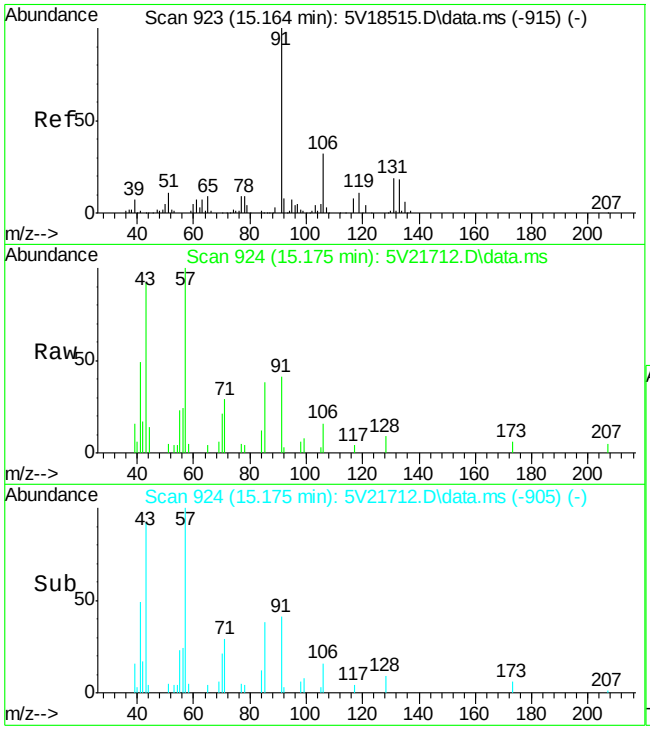


#62
Toluene
Concen: 1.50 ug/l
RT: 13.907 min Scan# 813
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 92 Resp: 14616

Ion	Ratio	Lower	Upper
92	100		
91	171.0	149.8	189.8

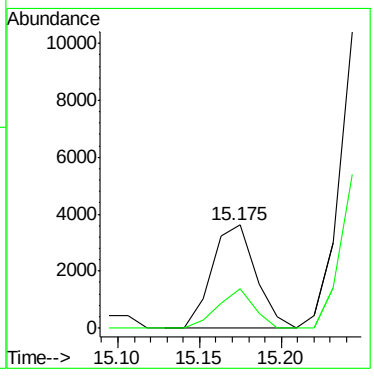


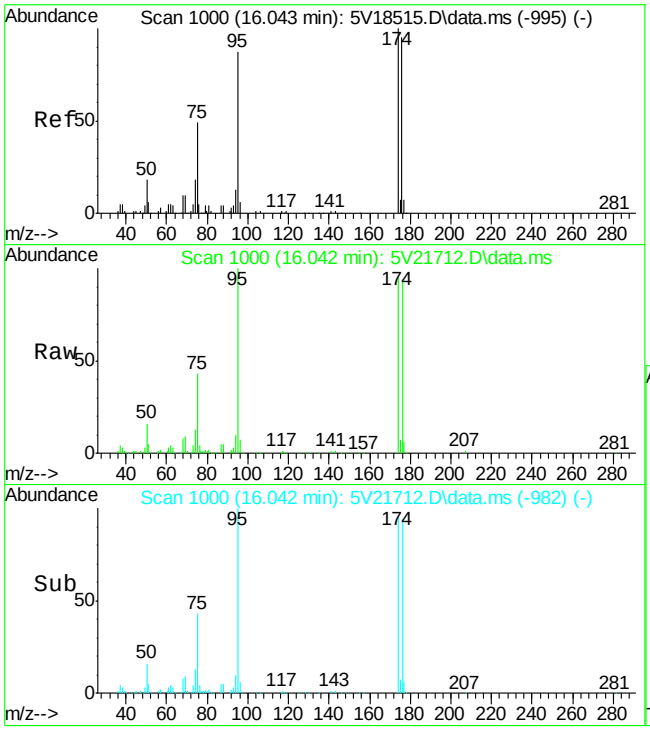


#66
Ethylbenzene
Concen: 0.37 ug/l
RT: 15.175 min Scan# 924
Delta R.T. 0.011 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 91 Resp: 6711

Ion	Ratio	Lower	Upper
91	100		
106	31.5	11.7	51.7

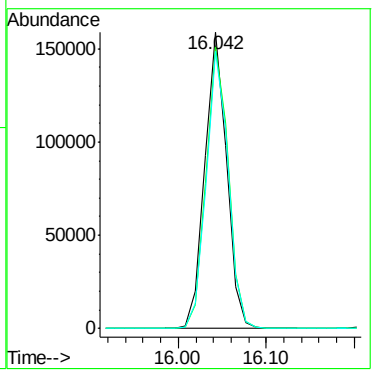


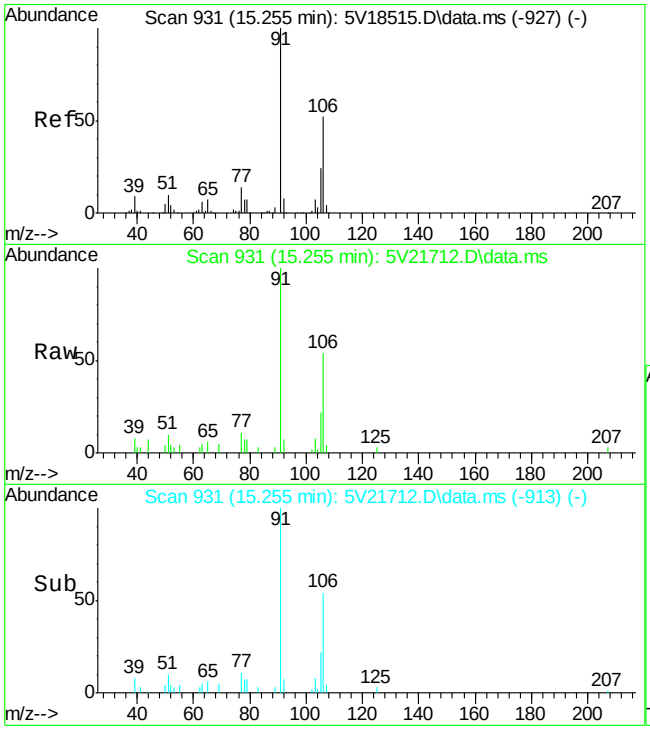


#69
4-Bromofluorobenzene
Concen: 52.43 ug/l
RT: 16.042 min Scan# 1000
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 95 Resp: 272530

Ion	Ratio	Lower	Upper
95	100		
174	97.1	77.1	117.1
176	94.4	73.4	113.4

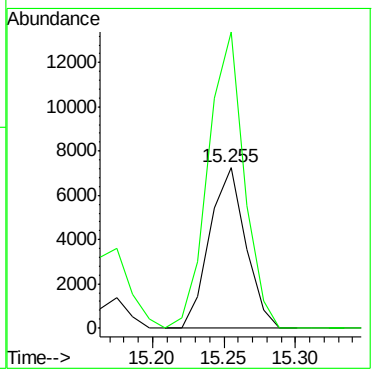


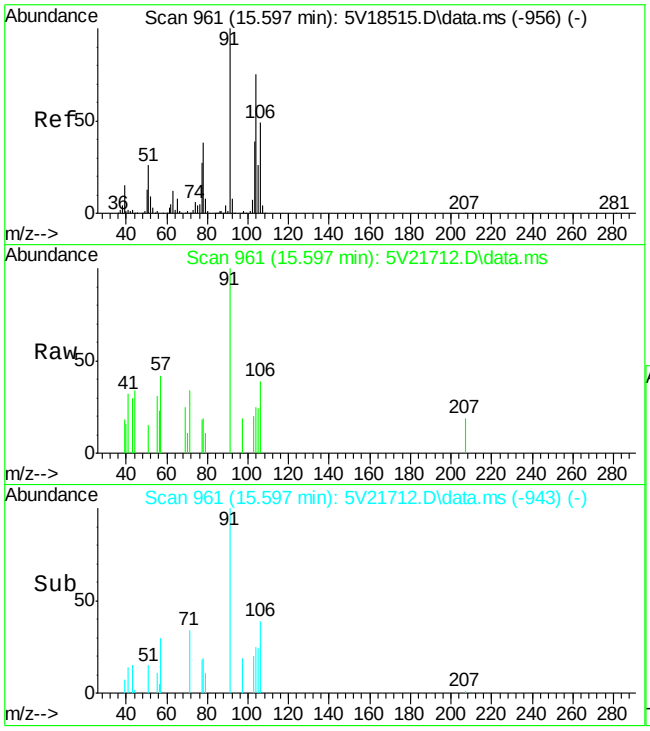


#72
m,p-xylene
Concen: 1.75 ug/l
RT: 15.255 min Scan# 931
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:106 Resp: 12636

Ion	Ratio	Lower	Upper
106	100		
91	184.0	177.1	217.1

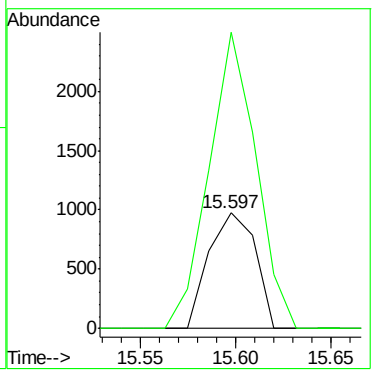


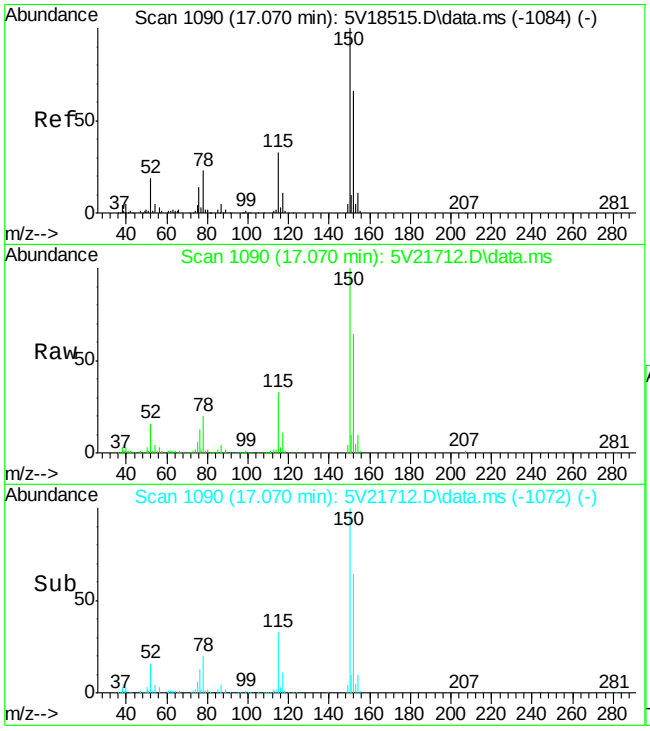


#73
o-xylene
Concen: 0.24 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:106 Resp: 1650

Ion	Ratio	Lower	Upper
106	100		
91	260.5	166.6	249.8#

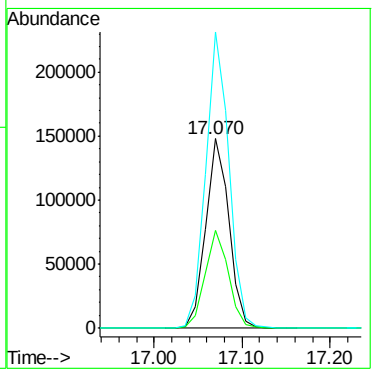


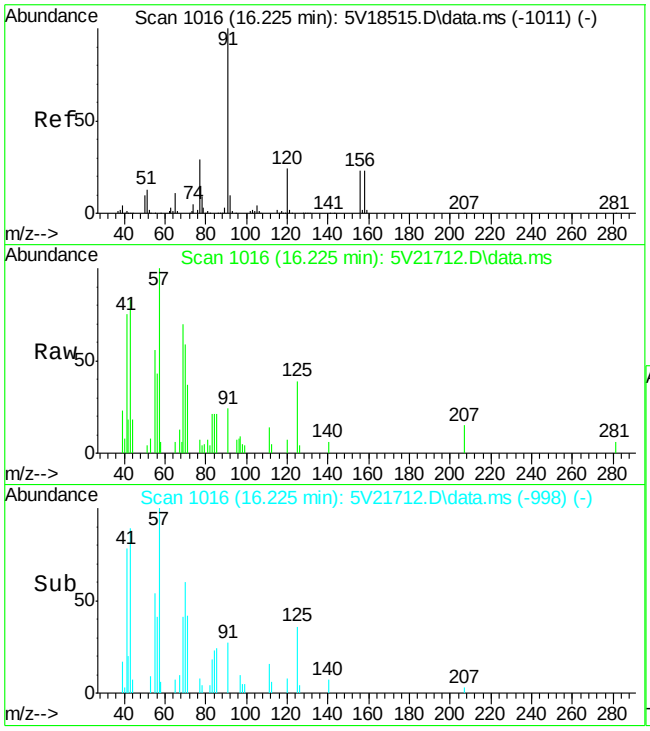


#74
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.070 min Scan# 1090
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:152 Resp: 270008

Ion	Ratio	Lower	Upper
152	100		
115	51.8	41.4	62.0
150	155.9	153.9	230.9

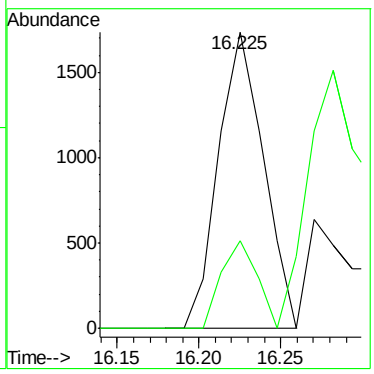


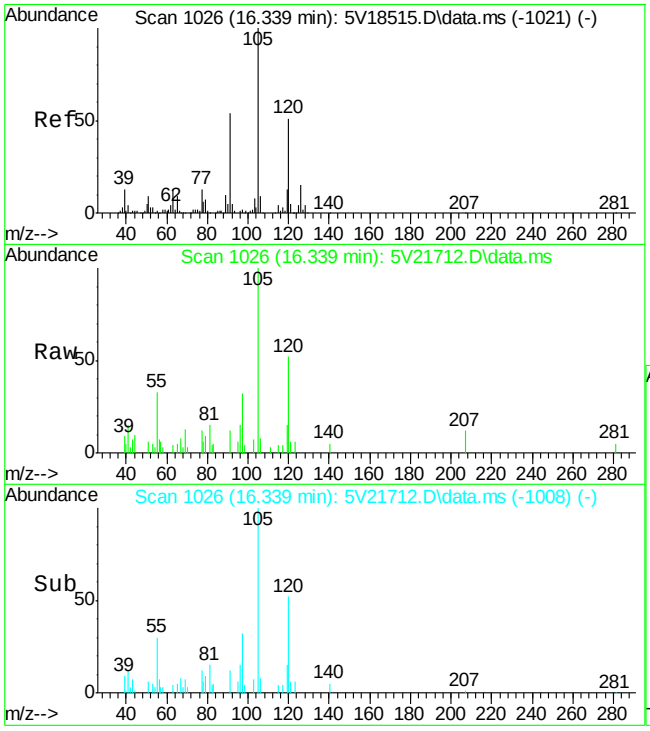


#77
n-Propylbenzene
Concen: 0.14 ug/l
RT: 16.225 min Scan# 1016
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion: 91 Resp: 3326

Ion	Ratio	Lower	Upper
91	100		
120	23.4	18.6	27.8

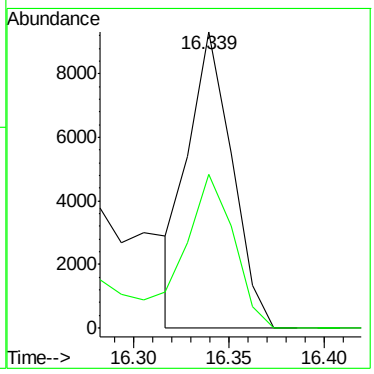


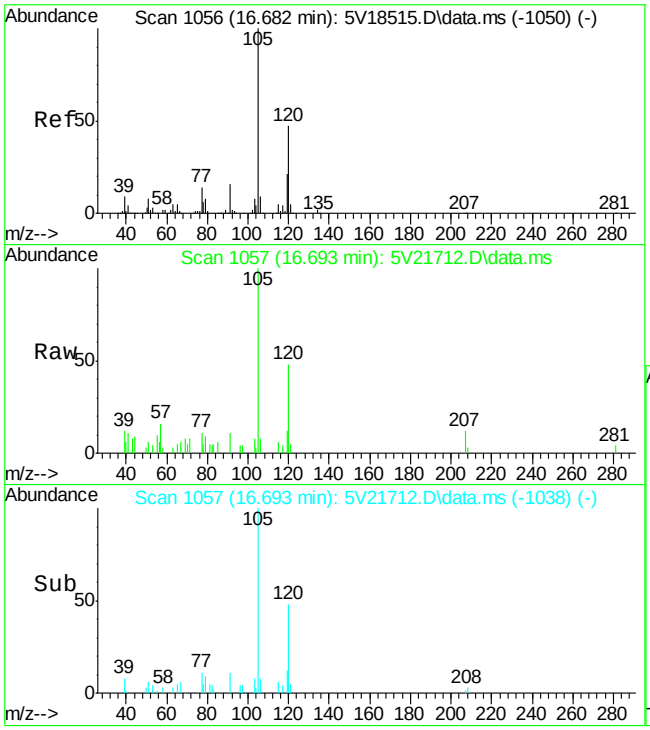


#80
1,3,5-Trimethylbenzene
Concen: 0.86 ug/l
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:105 Resp: 14771

Ion	Ratio	Lower	Upper
105	100		
120	58.1	40.1	60.1

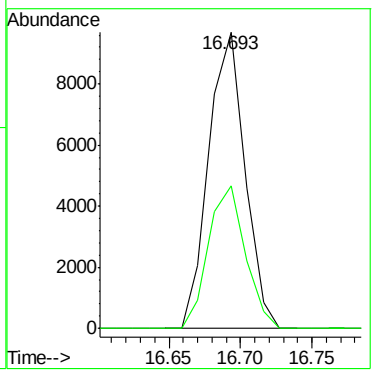


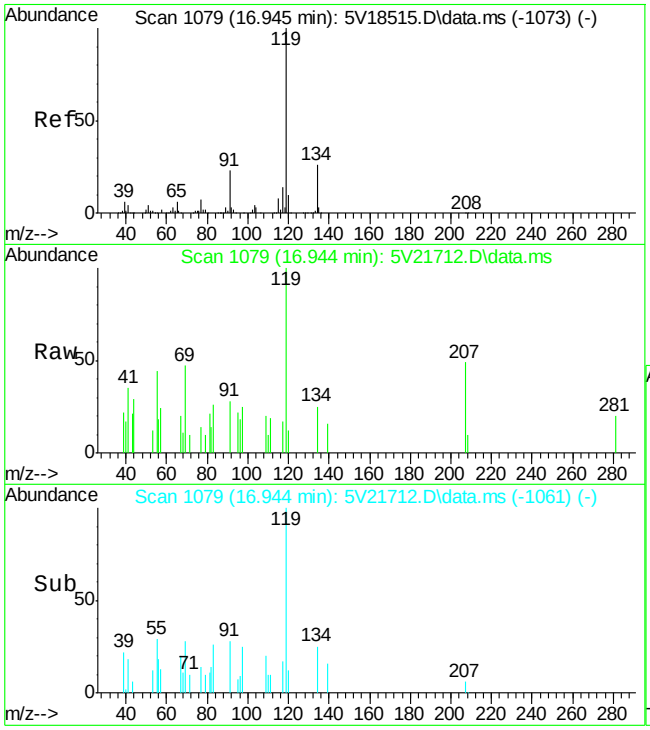


#82
1,2,4-Trimethylbenzene
Concen: 0.98 ug/l
RT: 16.693 min Scan# 1057
Delta R.T. 0.011 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:105 Resp: 17034

Ion	Ratio	Lower	Upper
105	100		
120	49.0	43.8	65.8

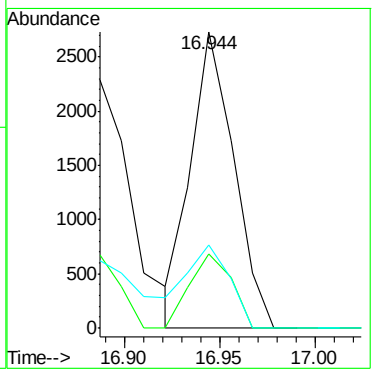


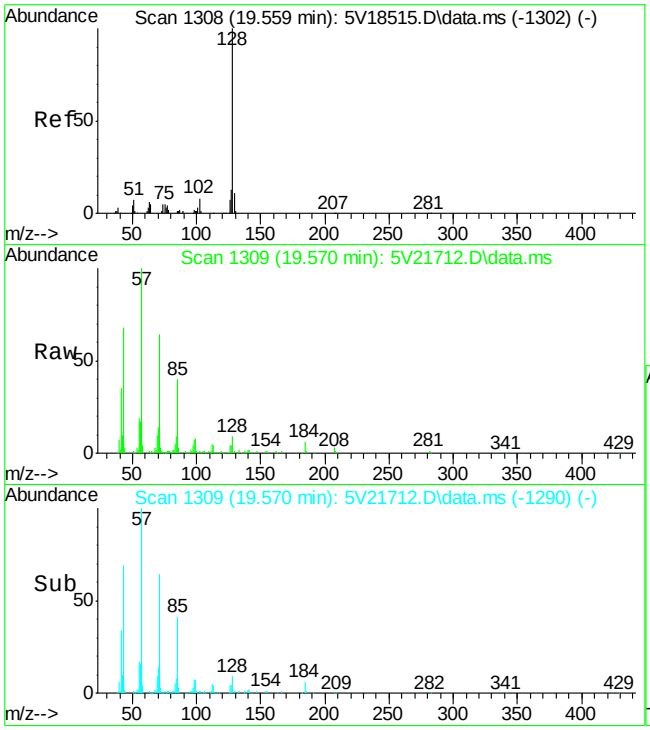


#86
p-Isopropyltoluene
Concen: 0.22 ug/l
RT: 16.944 min Scan# 1079
Delta R.T. -0.000 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:119 Resp: 4286

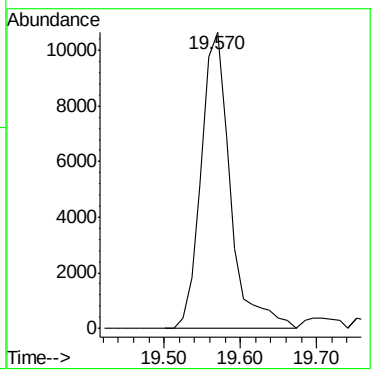
Ion	Ratio	Lower	Upper
119	100		
134	24.4	21.3	31.9
91	27.6	19.0	28.6

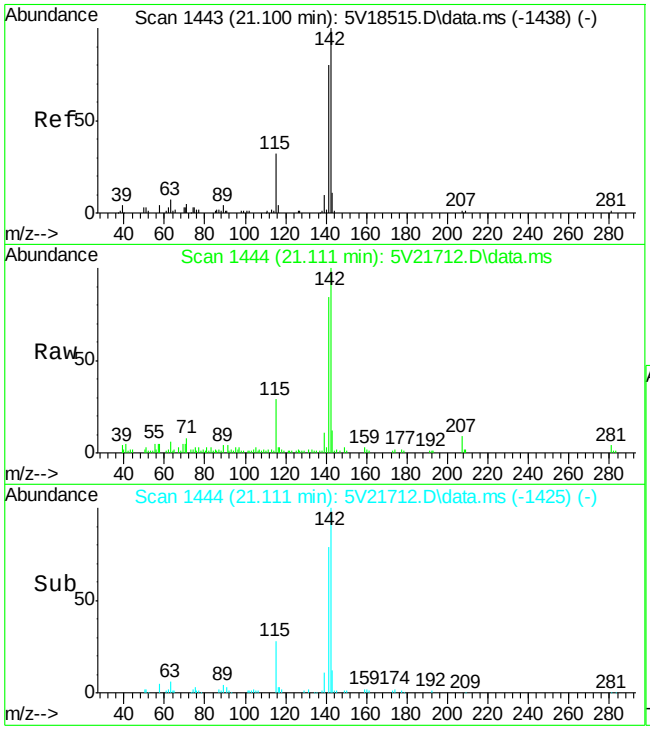




#91
Naphthalene
Concen: 2.62 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:128 Resp: 28402

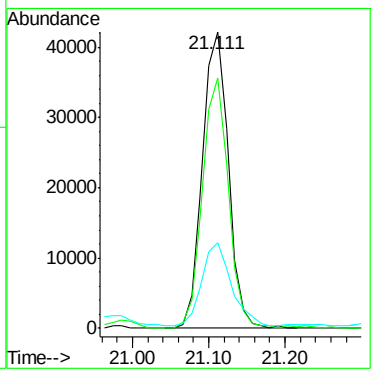


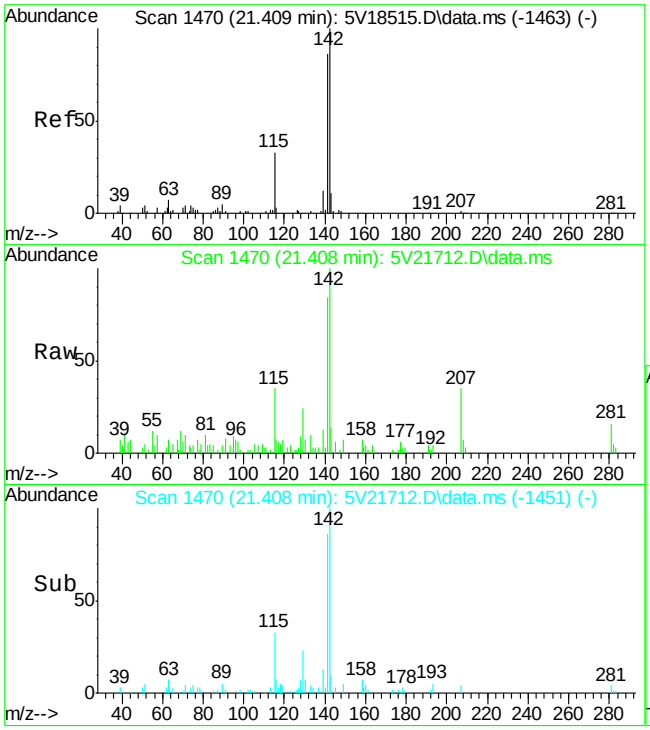


#94
2-Methylnaphthalene
Concen: 18.63 ug/l
RT: 21.111 min Scan# 1444
Delta R.T. 0.011 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:142 Resp: 99461

Ion	Ratio	Lower	Upper
142	100		
141	84.5	66.2	99.4
115	31.5	25.9	38.9

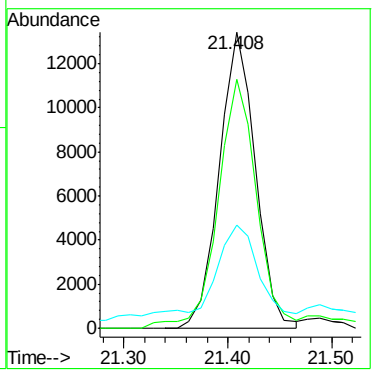




#95
1-Methylnaphthalene
Concen: 6.93 ug/l
RT: 21.408 min Scan# 1470
Delta R.T. 0.011 min
Lab File: 5V21712.D
Acq: 4 Jun 2012 4:26 pm

Tgt Ion:142 Resp: 32382

Ion	Ratio	Lower	Upper
142	100		
141	89.8	68.9	103.3
115	46.1	27.3	40.9#



Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/05/12 11:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21711.D
Acq On : 4 Jun 2012 3:48 pm
Operator : BRETD
Sample : D35038-2
Misc : MS4023,V5V1323,5.038,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 05 09:08:52 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

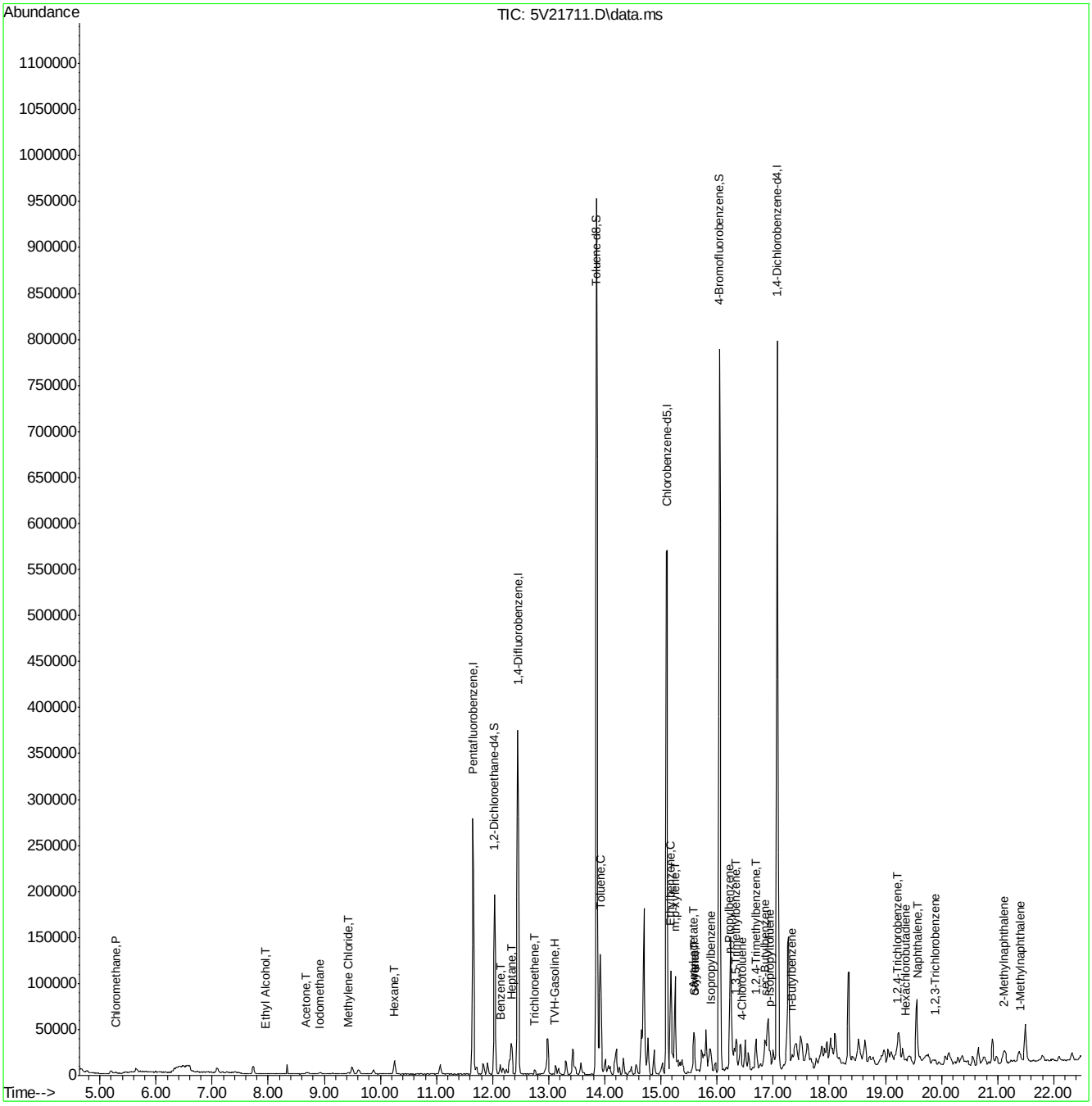
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
2) Pentafluorobenzene	11.647	168	214795	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	12.446	114	323910	50.00	ug/l		0.00
53) Chlorobenzene-d5	15.106	117	382100	50.00	ug/l		0.01
74) 1,4-Dichlorobenzene-d4	17.070	152	269282	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	12.035	102	32720	49.67	ug/l		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.34%				
61) Toluene-d8	13.851	98	631573	48.91	ug/l		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.82%				
69) 4-Bromofluorobenzene	16.043	95	285590	53.99	ug/l		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 107.98%				
Target Compounds							Qvalue
1) TVH-Gasoline	13.102	TIC	2496975m	125.94	ug/l		
4) Chloromethane	5.288	50	1341	0.42	ug/l		91
9) Ethyl Alcohol	7.959	45	662	26.44	ug/l	#	37
12) Iodomethane	8.918	142	1624	1.61	ug/l	#	48
15) Acetone	8.679	58	815	0.48	ug/l		95
17) Methylene Chloride	9.421	84	932	0.26	ug/l	#	70
41) Hexane	10.243	57	8452	1.89	ug/l		100
43) Heptane	12.332	43	13710	2.86	ug/l		89
48) Trichloroethene	12.743	95	1898	0.53	ug/l		92
50) Benzene	12.138	78	9770	0.73	ug/l		100
58) Amyl acetate	15.586	70	2461	2.58	ug/l	#	6
62) Toluene	13.919	92	36098	3.63	ug/l		97
66) Ethylbenzene	15.175	91	18401	1.00	ug/l		99
68) Isopropylbenzene	15.883	105	1992	0.11	ug/l		92
71) Styrene	15.597	104	2539	0.23	ug/l		98
72) m,p-xylene	15.255	106	31369	4.26	ug/l		99
73) o-xylene	15.597	106	4173	0.59	ug/l		100
77) n-Propylbenzene	16.225	91	7854m	0.32	ug/l		
79) 4-Chlorotoluene	16.442	91	1723	0.12	ug/l	#	87
80) 1,3,5-Trimethylbenzene	16.339	105	4232m	0.25	ug/l		
82) 1,2,4-Trimethylbenzene	16.693	105	14445	0.83	ug/l		94
83) sec-Butylbenzene	16.853	105	2506	0.10	ug/l	#	73
86) p-Isopropyltoluene	16.945	119	8536	0.44	ug/l	#	90
88) n-Butylbenzene	17.333	91	5594	0.31	ug/l		91
90) 1,2,4-Trichlorobenzene	19.205	180	4044	0.57	ug/l	#	88
91) Naphthalene	19.570	128	21015	2.10	ug/l		100
92) Hexachlorobutadiene	19.354	225	1780	0.34	ug/l		99
93) 1,2,3-Trichlorobenzene	19.879	180	4301	0.65	ug/l	#	96
94) 2-Methylnaphthalene	21.112	142	10238	3.16	ug/l	#	96
95) 1-Methylnaphthalene	21.409	142	4929	2.07	ug/l	#	83

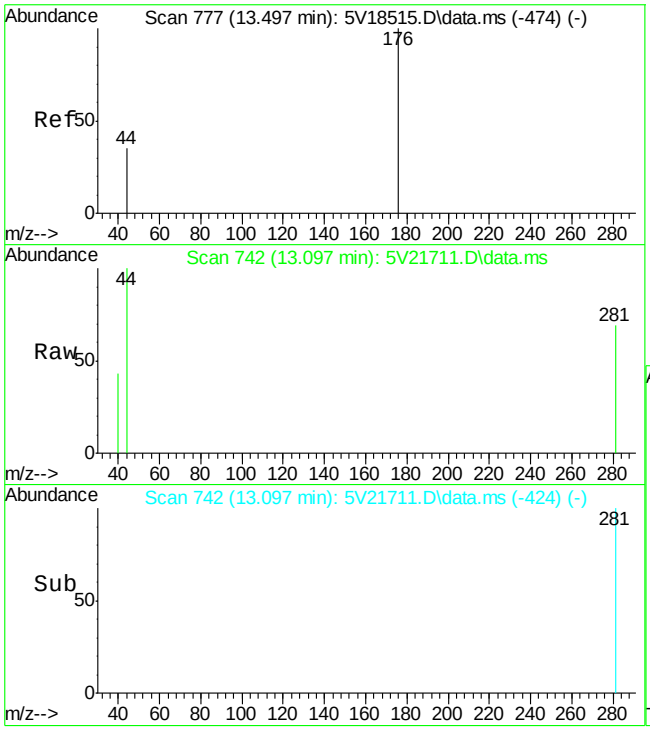
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21711.D
Acq On : 4 Jun 2012 3:48 pm
Operator : BRETD
Sample : D35038-2
Misc : MS4023,V5V1323,5.038,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

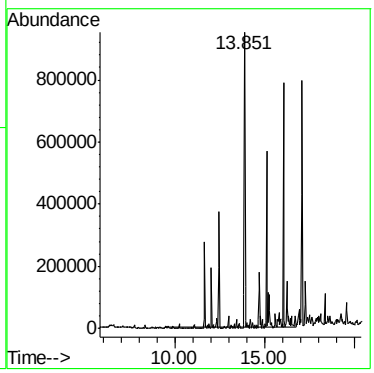
Quant Time: Jun 05 09:08:52 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

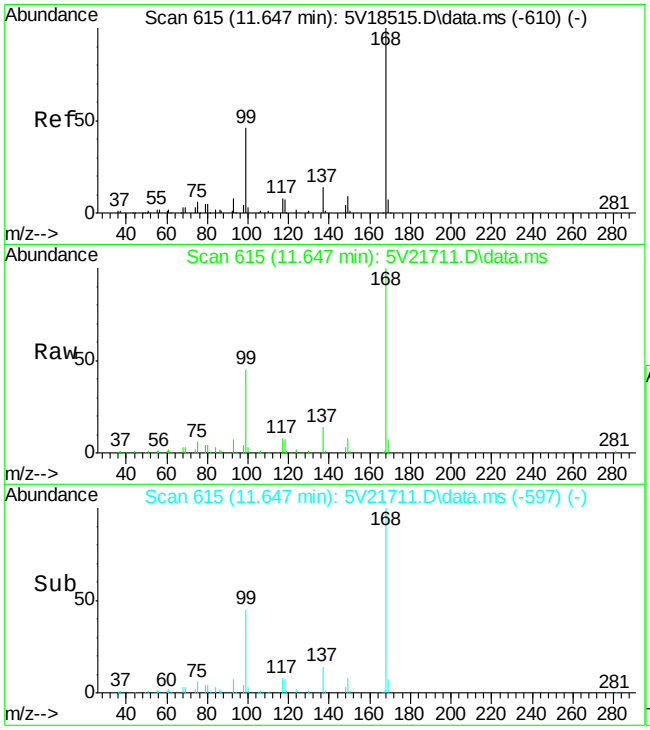




#1
TVH-Gasoline
Concen: 125.94 ug/l m
RT: 13.102 min Scan# 742
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:TIC Resp: 2496975

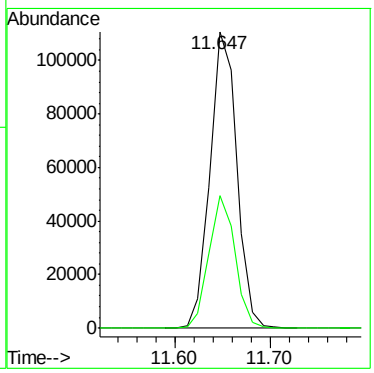


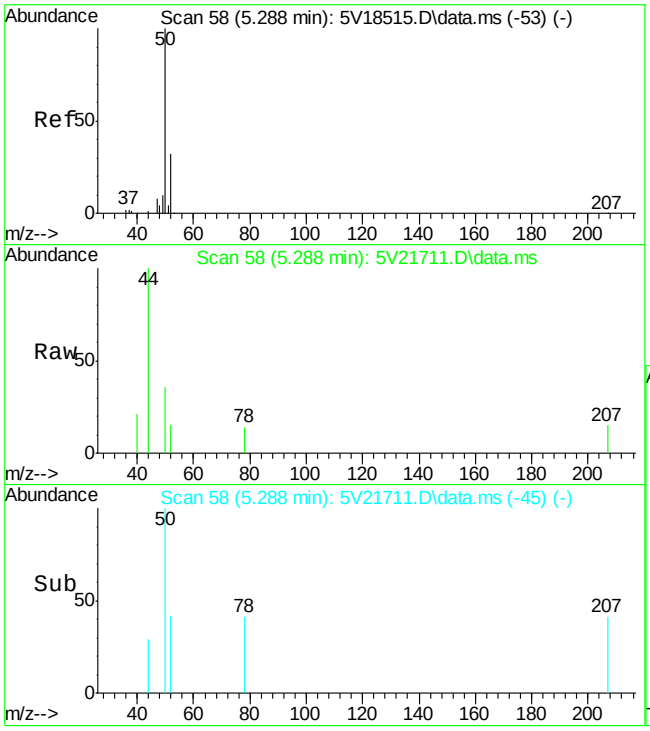


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.647 min Scan# 615
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:168 Resp: 214795

Ion	Ratio	Lower	Upper
168	100		
99	43.7	37.4	56.2

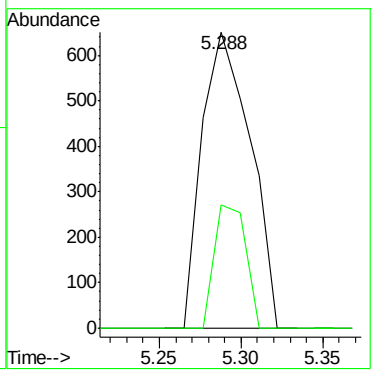


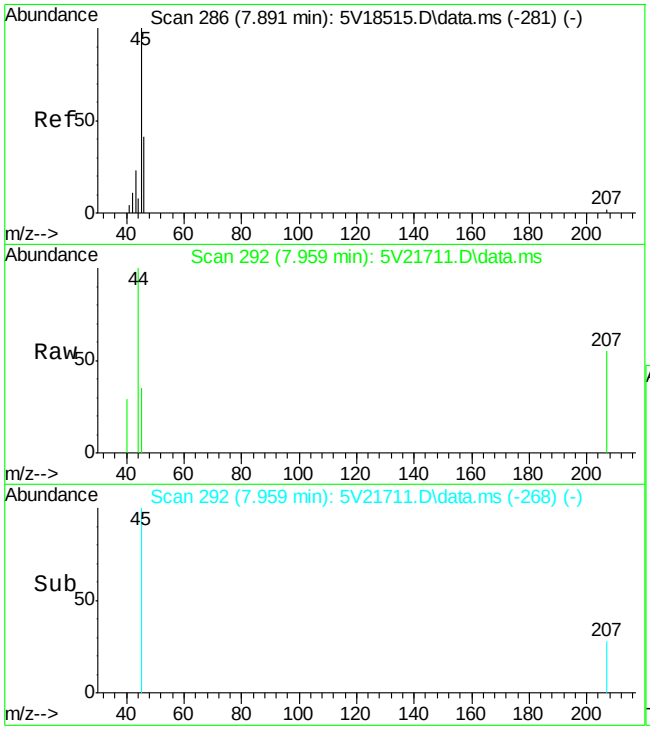


#4
Chloromethane
Concen: 0.42 ug/l
RT: 5.288 min Scan# 58
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 50 Resp: 1341

Ion	Ratio	Lower	Upper
50	100		
52	26.8	12.1	52.1

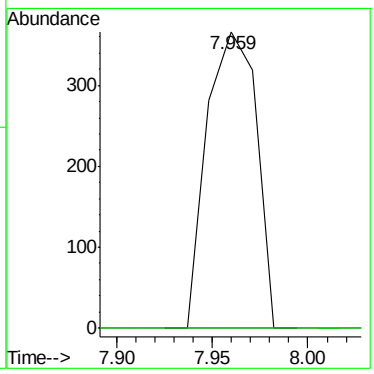


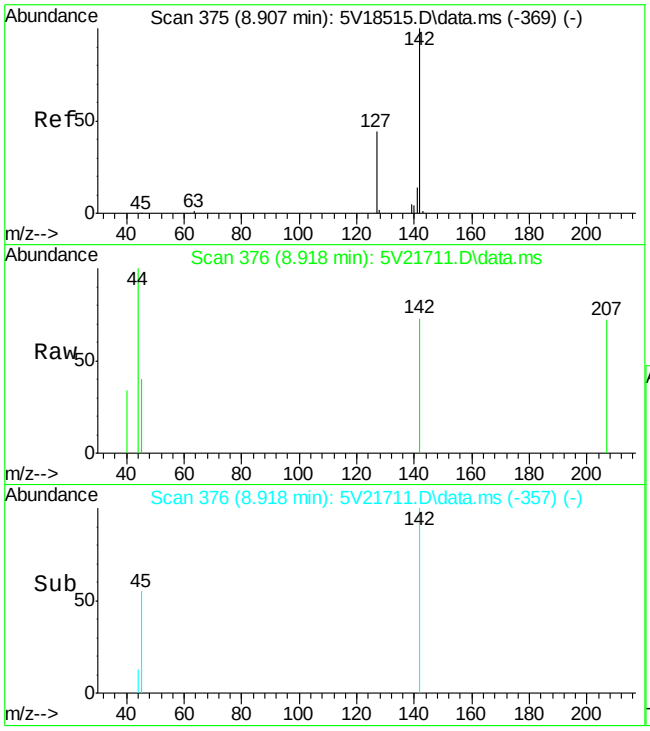


#9
Ethyl Alcohol
Concen: 26.44 ug/l
RT: 7.959 min Scan# 292
Delta R.T. 0.069 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 45 Resp: 662

Ion	Ratio	Lower	Upper
45	100		
46	0.0	30.5	45.7#

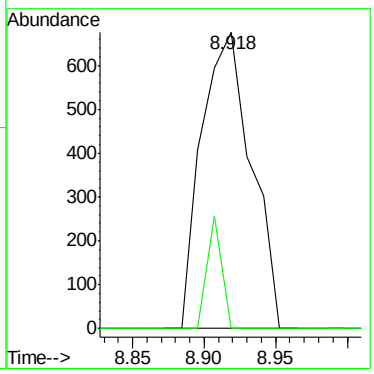


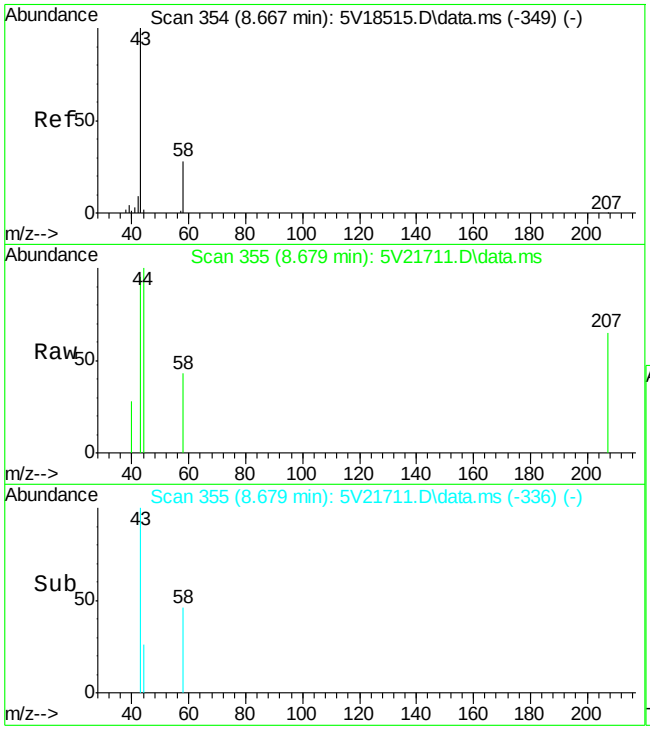


#12
Iodomethane
Concen: 1.61 ug/l
RT: 8.918 min Scan# 376
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:142 Resp: 1624

Ion	Ratio	Lower	Upper
142	100		
127	10.8	35.4	53.0#

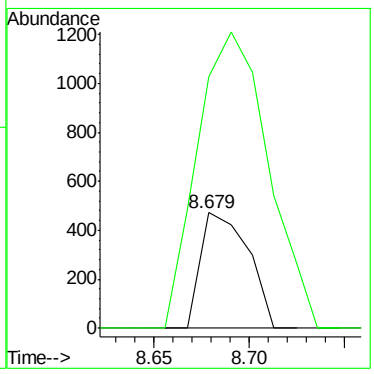


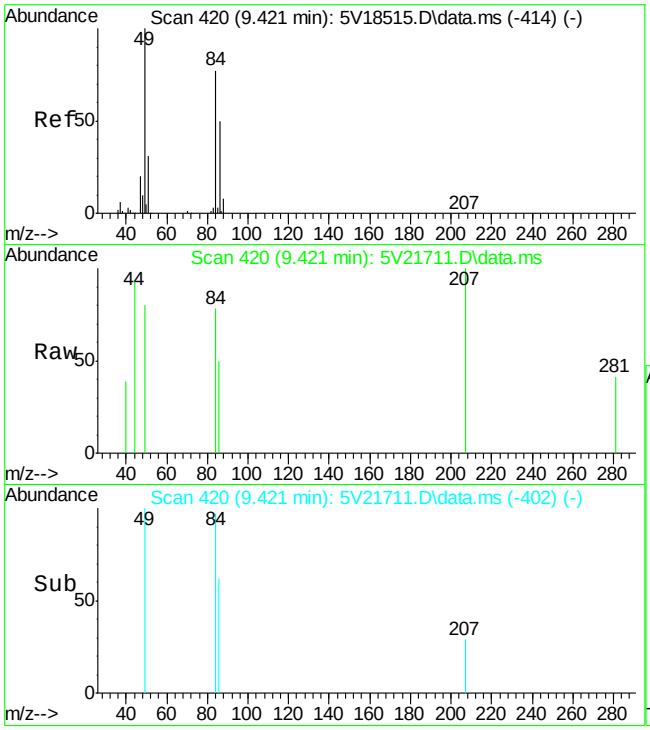


#15
Acetone
Concen: 0.48 ug/l
RT: 8.679 min Scan# 355
Delta R.T. 0.012 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 58 Resp: 815

Ion	Ratio	Lower	Upper
58	100		
43	385.4	353.6	393.6

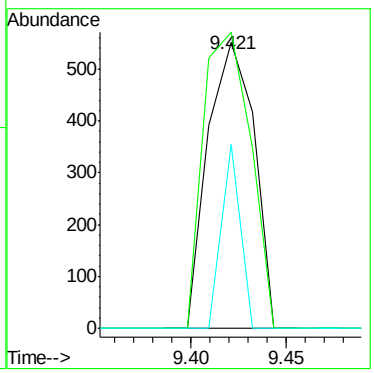


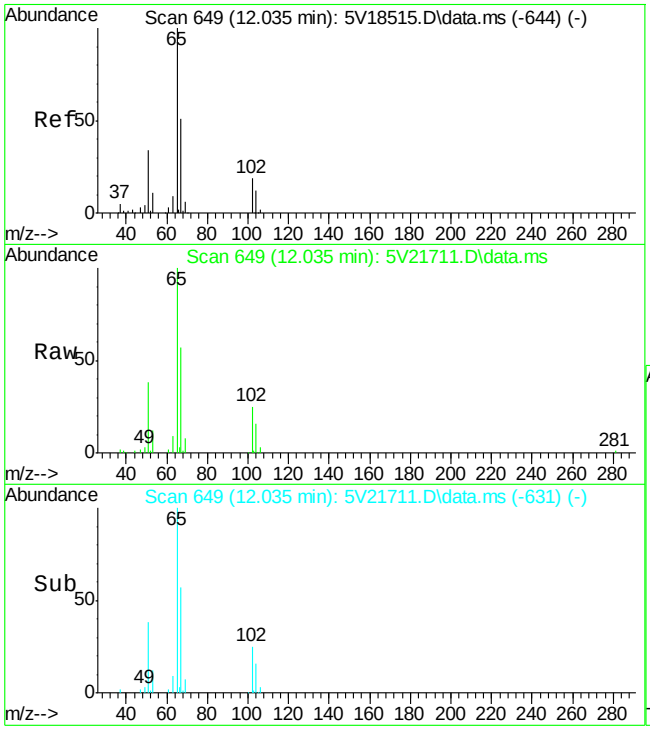


#17
Methylene Chloride
Concen: 0.26 ug/l
RT: 9.421 min Scan# 420
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 84 Resp: 932

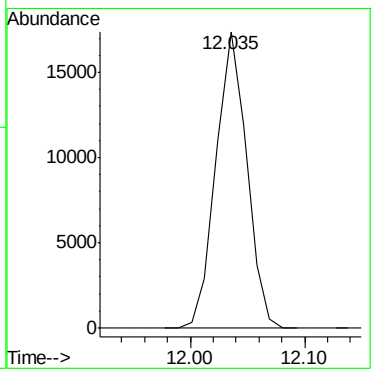
Ion	Ratio	Lower	Upper
84	100		
49	106.0	110.4	150.4#
86	26.0	44.0	84.0#

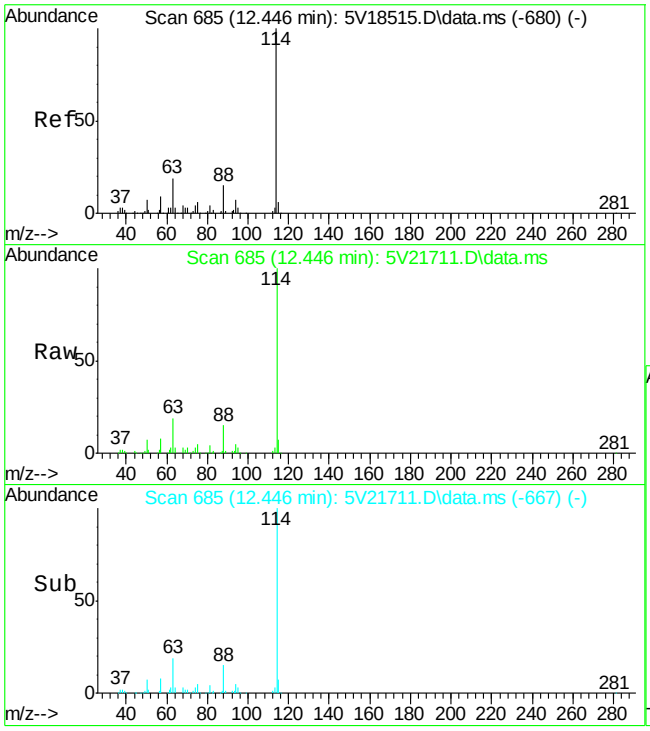




#33
1,2-Dichloroethane-d4
Concen: 49.67 ug/l
RT: 12.035 min Scan# 649
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

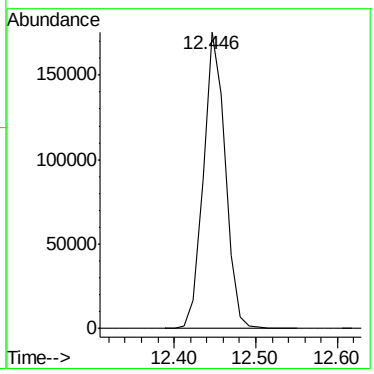
Tgt Ion:102 Resp: 32720

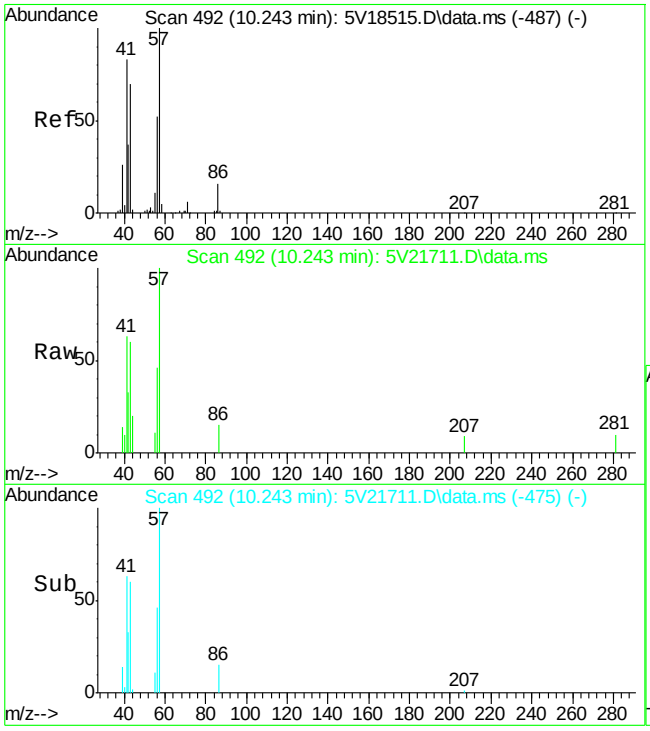




#35
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.446 min Scan# 685
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

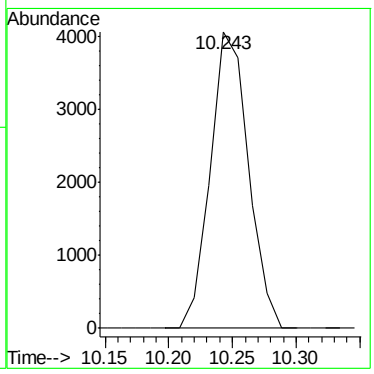
Tgt Ion:114 Resp: 323910

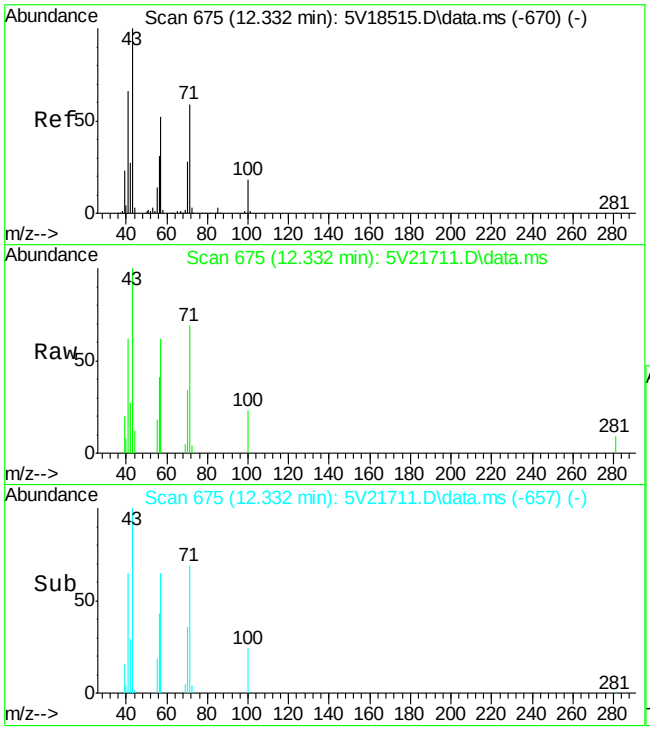




#41
Hexane
Concen: 1.89 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 57 Resp: 8452

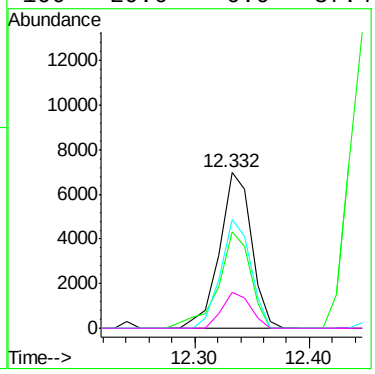


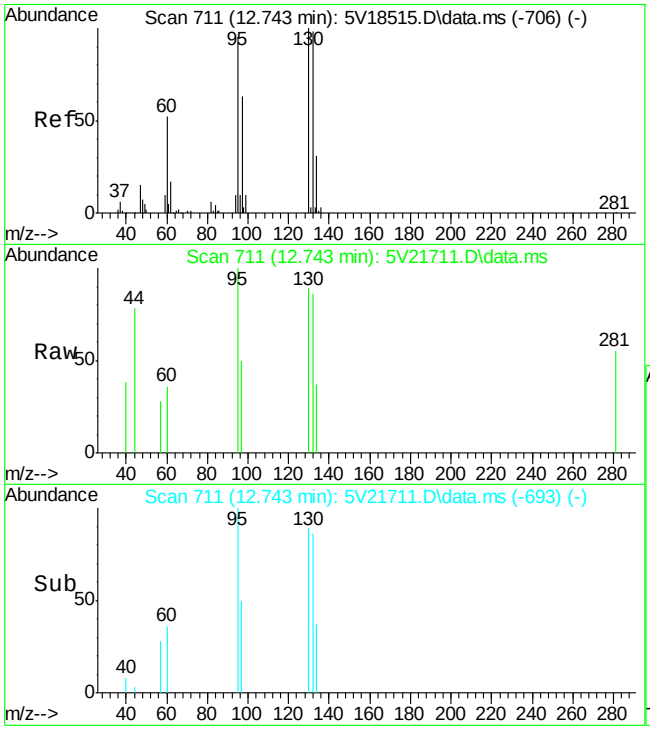


#43
Heptane
Concen: 2.86 ug/l
RT: 12.332 min Scan# 675
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 43 Resp: 13710

Ion	Ratio	Lower	Upper
43	100		
57	61.7	30.6	70.6
71	64.7	38.9	78.9
100	20.6	0.0	37.4

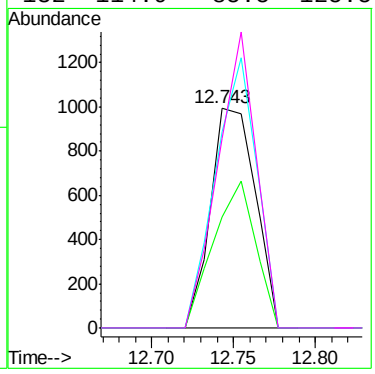


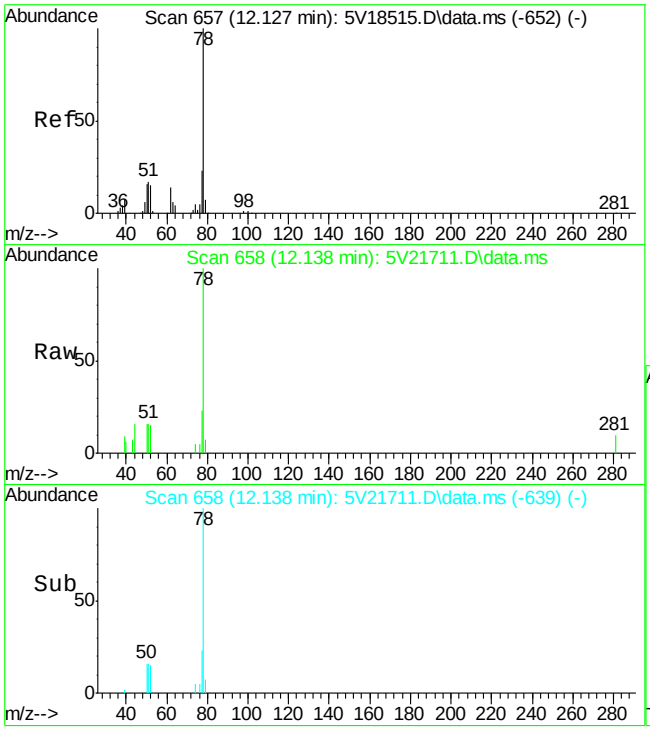


#48
Trichloroethene
Concen: 0.53 ug/l
RT: 12.743 min Scan# 711
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 95 Resp: 1898

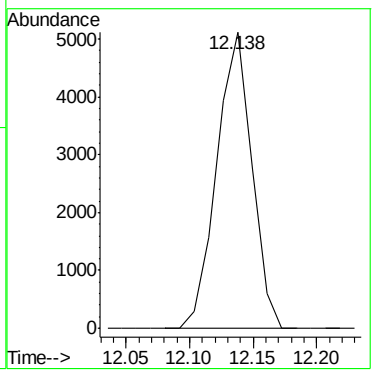
Ion	Ratio	Lower	Upper
95	100		
97	62.6	47.1	87.1
130	112.6	85.2	125.2
132	114.9	85.5	125.5

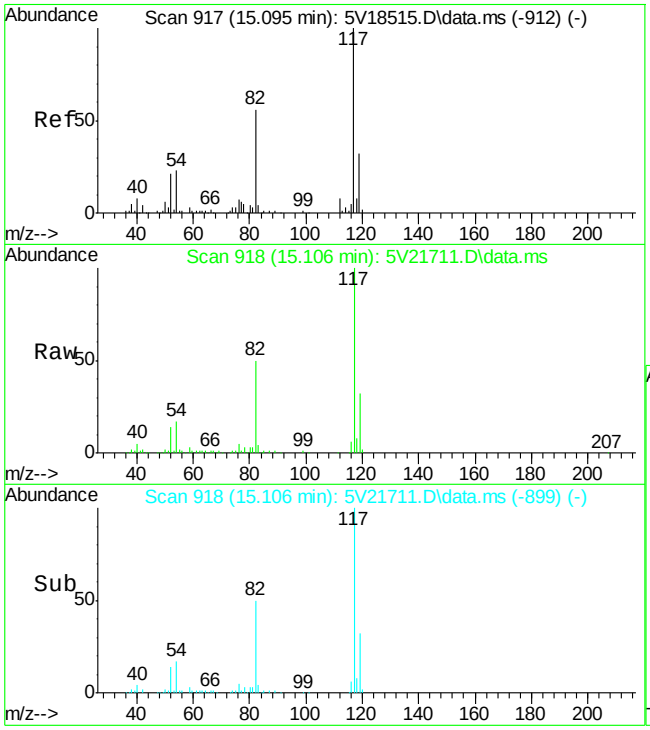




#50
Benzene
Concen: 0.73 ug/l
RT: 12.138 min Scan# 658
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

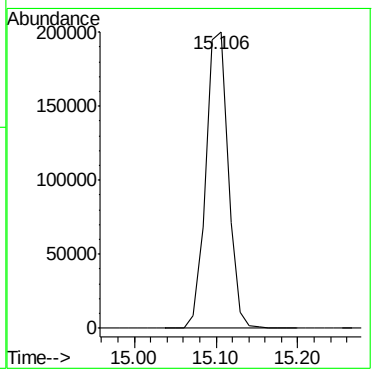
Tgt Ion: 78 Resp: 9770

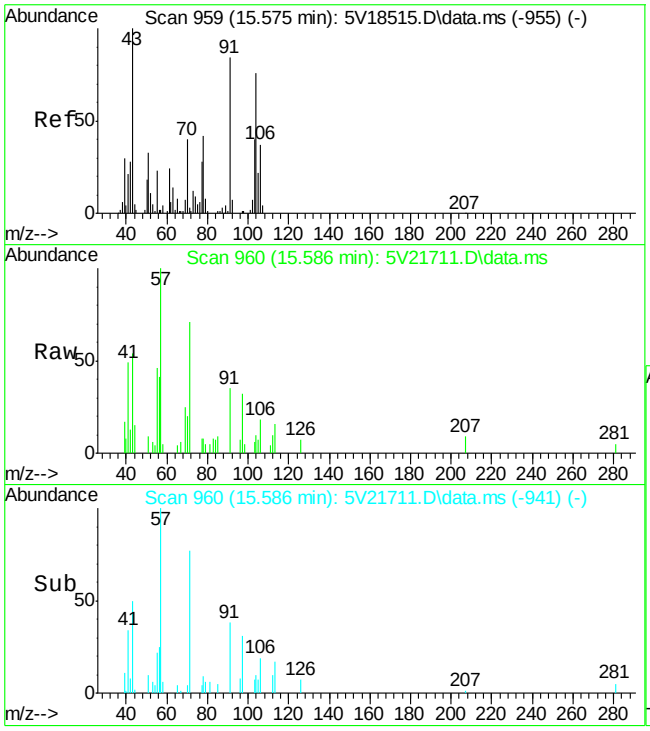




#53
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.106 min Scan# 918
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:117 Resp: 382100

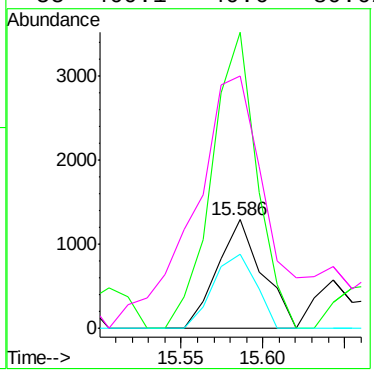


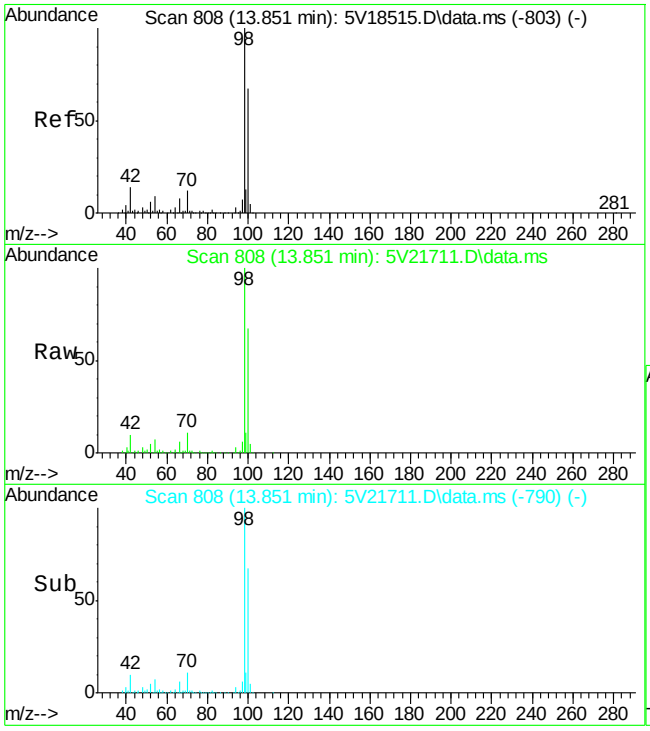


#58
Amyl acetate
Concen: 2.58 ug/l
RT: 15.586 min Scan# 960
Delta R.T. 0.012 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 70 Resp: 2461

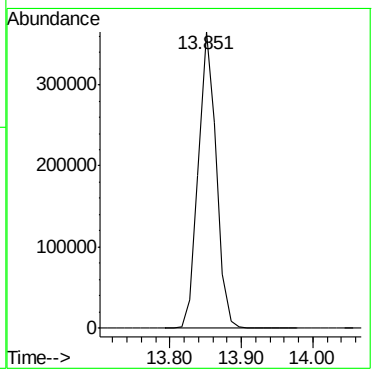
Ion	Ratio	Lower	Upper
70	100		
43	275.1	231.1	271.1#
42	64.9	51.5	91.5
55	460.1	40.6	80.6#

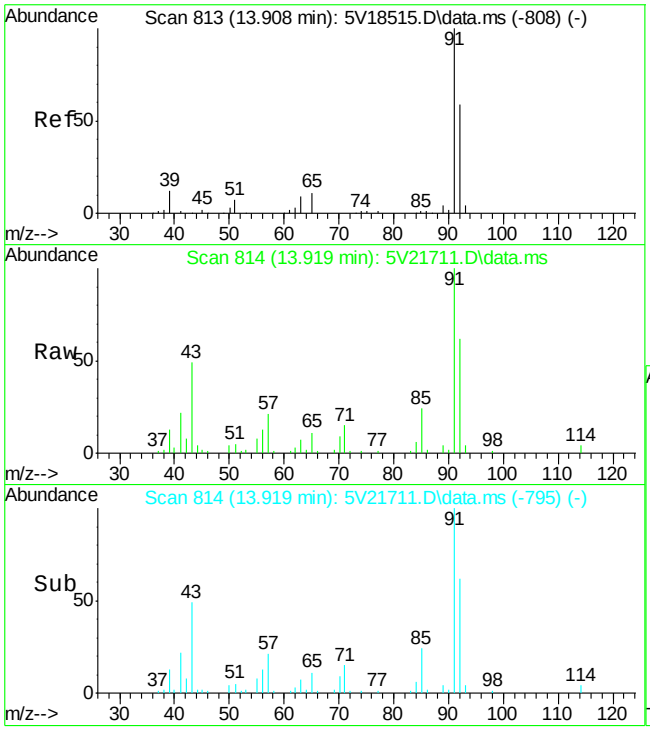




#61
Toluene-d8
Concen: 48.91 ug/l
RT: 13.851 min Scan# 808
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 98 Resp: 631573

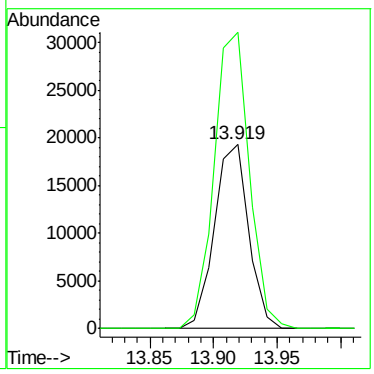


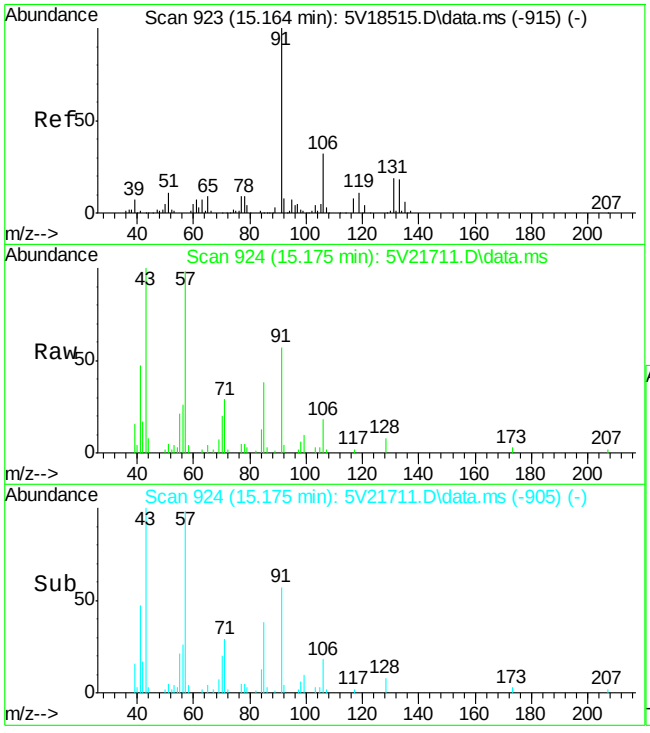


#62
Toluene
Concen: 3.63 ug/l
RT: 13.919 min Scan# 814
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 92 Resp: 36098

Ion	Ratio	Lower	Upper
92	100		
91	165.3	149.8	189.8

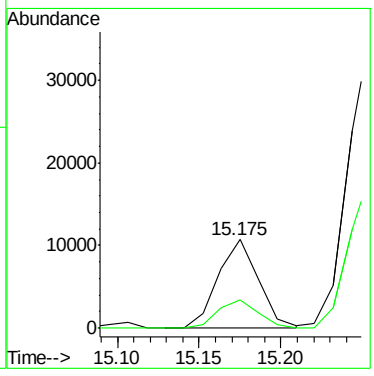


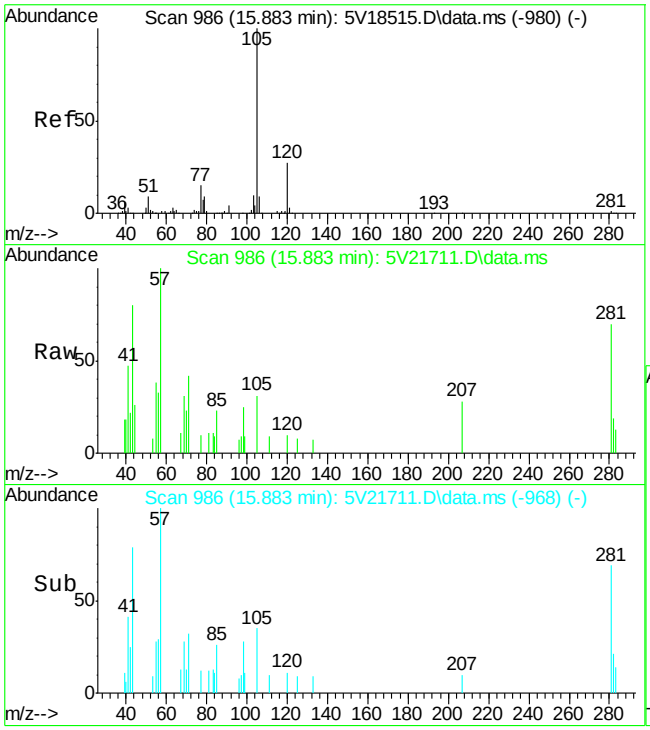


#66
Ethylbenzene
Concen: 1.00 ug/l
RT: 15.175 min Scan# 924
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 91 Resp: 18401

Ion	Ratio	Lower	Upper
91	100		
106	31.3	11.7	51.7

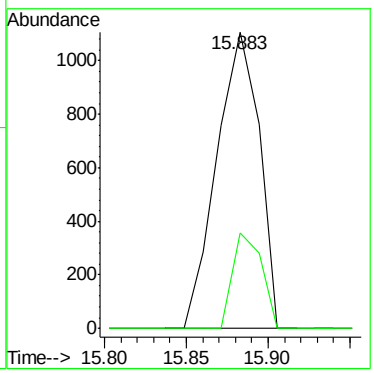


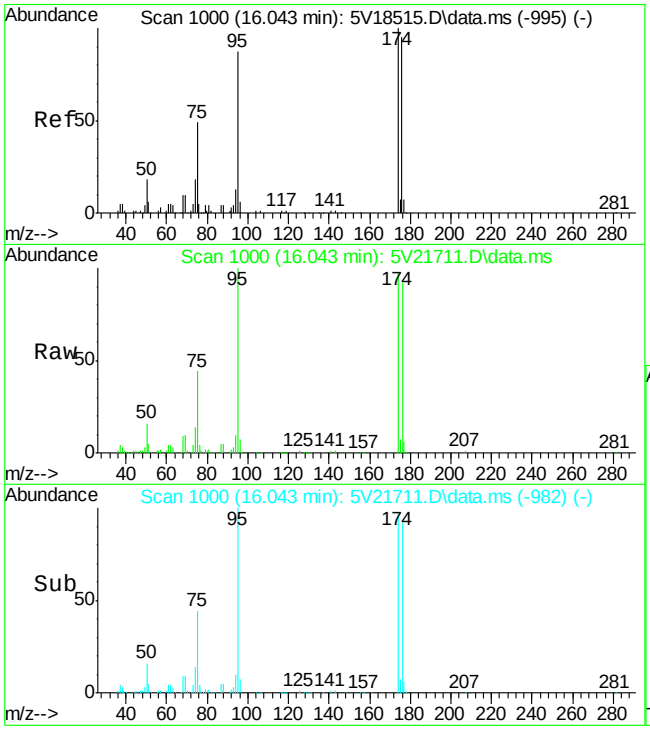


#68
Isopropylbenzene
Concen: 0.11 ug/l
RT: 15.883 min Scan# 986
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:105 Resp: 1992

Ion	Ratio	Lower	Upper
105	100		
120	21.9	21.0	31.4

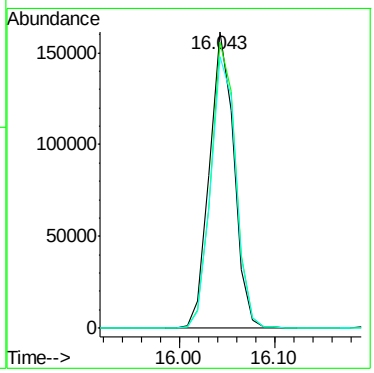


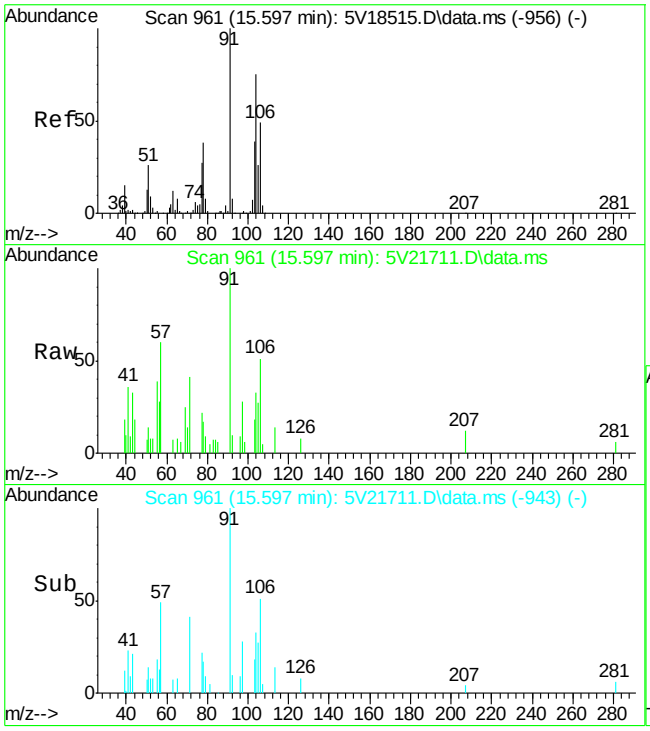


#69
4-Bromofluorobenzene
Concen: 53.99 ug/l
RT: 16.043 min Scan# 1000
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 95 Resp: 285590

Ion	Ratio	Lower	Upper
95	100		
174	97.8	77.1	117.1
176	94.5	73.4	113.4

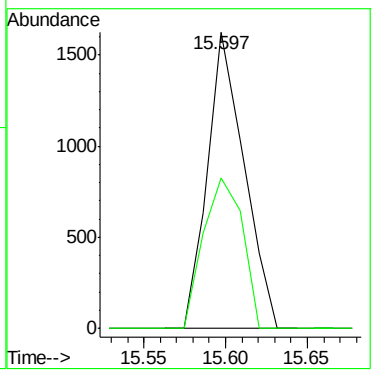


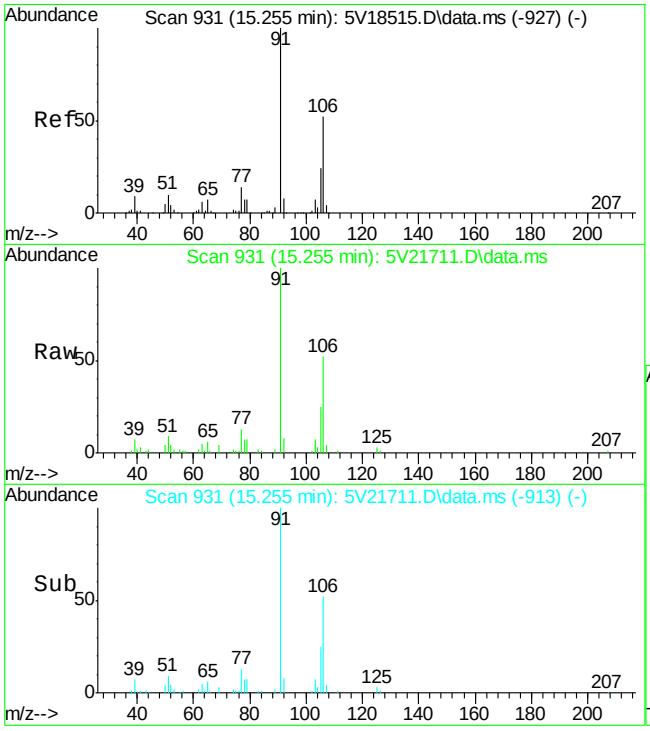


#71
Styrene
Concen: 0.23 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:104 Resp: 2539

Ion	Ratio	Lower	Upper
104	100		
78	53.8	32.6	72.6

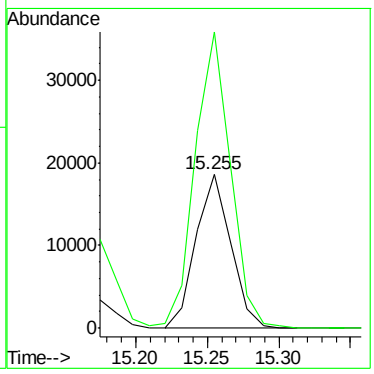


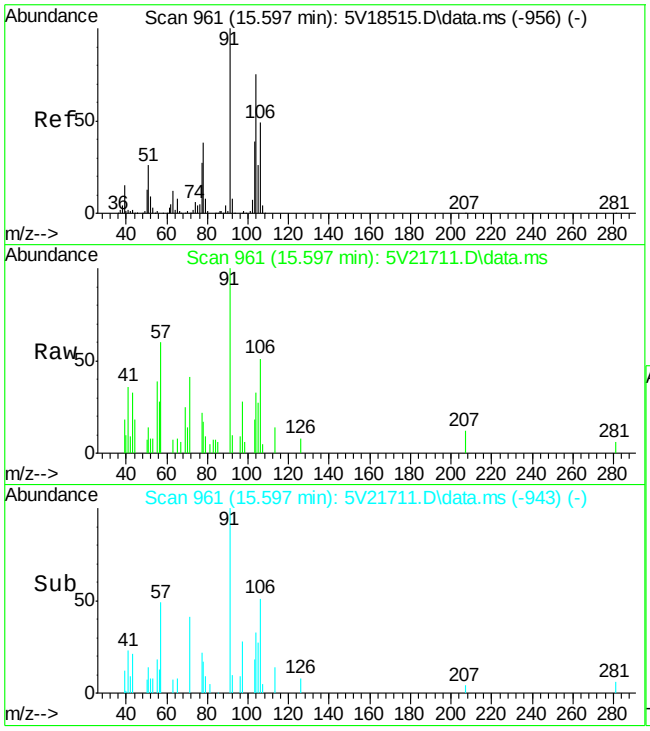


#72
m,p-xylene
Concen: 4.26 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:106 Resp: 31369

Ion	Ratio	Lower	Upper
106	100		
91	195.1	177.1	217.1

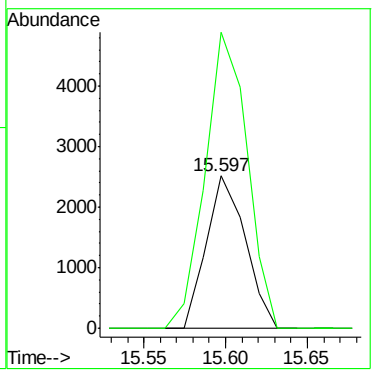


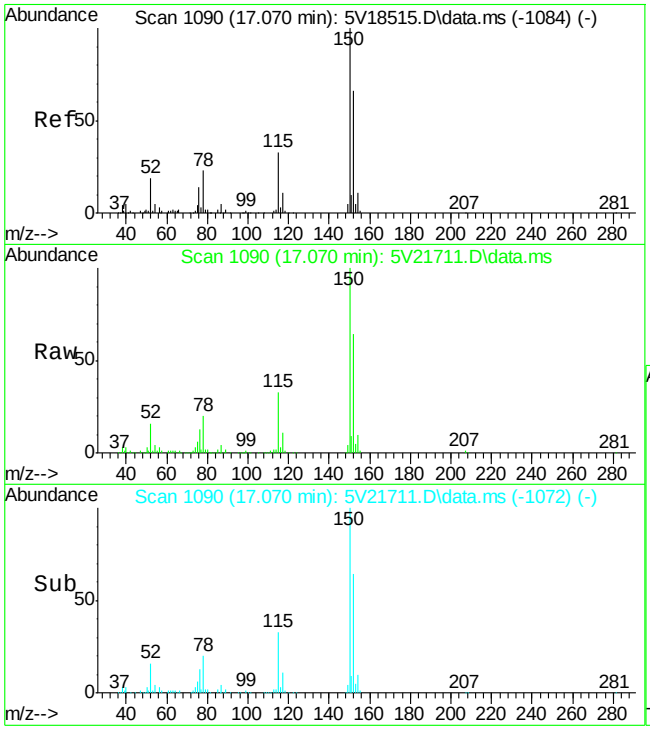


#73
o-xylene
Concen: 0.59 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:106 Resp: 4173

Ion	Ratio	Lower	Upper
106	100		
91	208.9	166.6	249.8

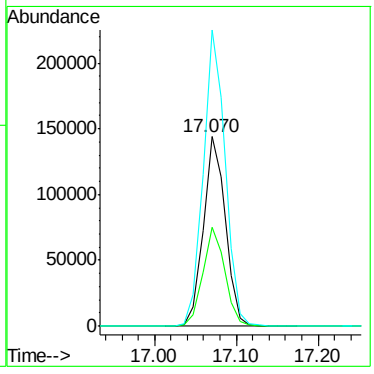


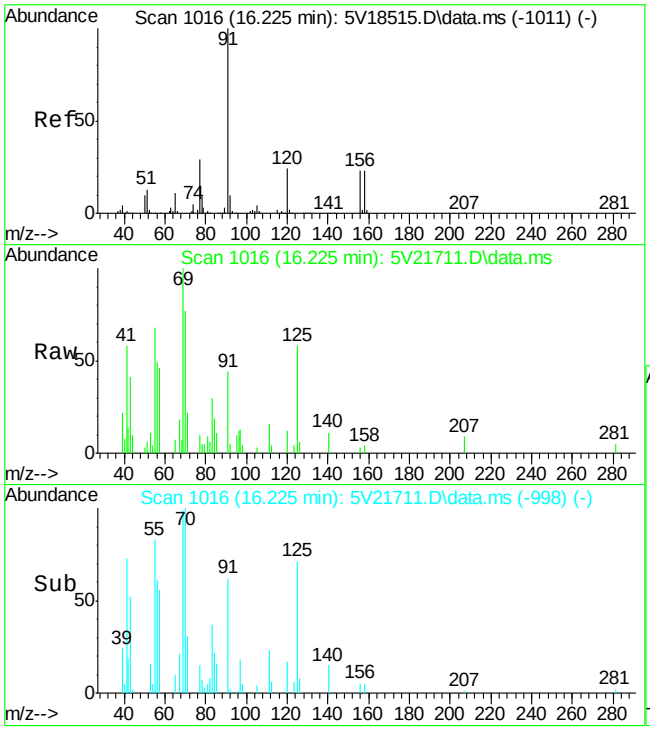


#74
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.070 min Scan# 1090
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:152 Resp: 269282

Ion	Ratio	Lower	Upper
152	100		
115	51.9	41.4	62.0
150	155.5	153.9	230.9

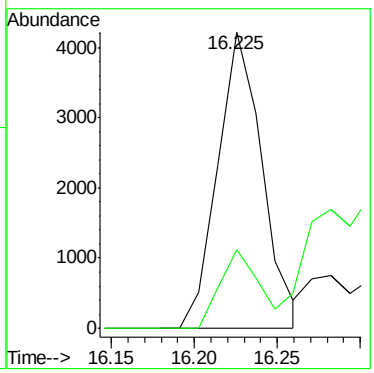


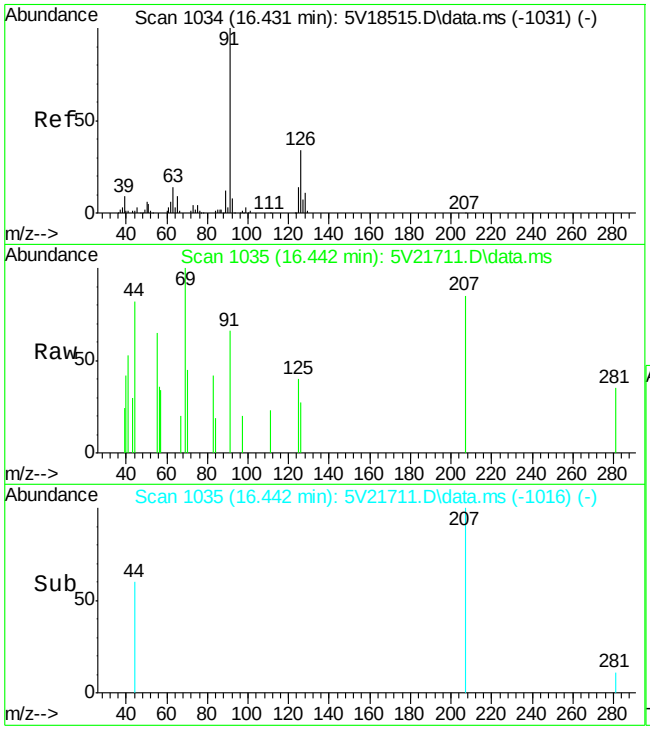


#77
n-Propylbenzene
Concen: 0.32 ug/l m
RT: 16.225 min Scan# 1016
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 91 Resp: 7854

Ion	Ratio	Lower	Upper
91	100		
120	23.5	18.6	27.8

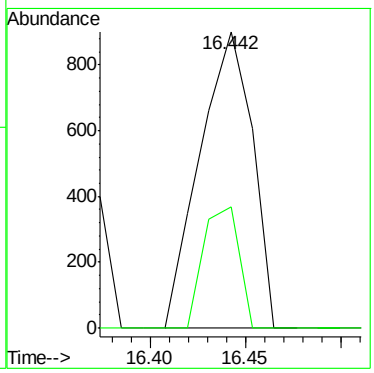


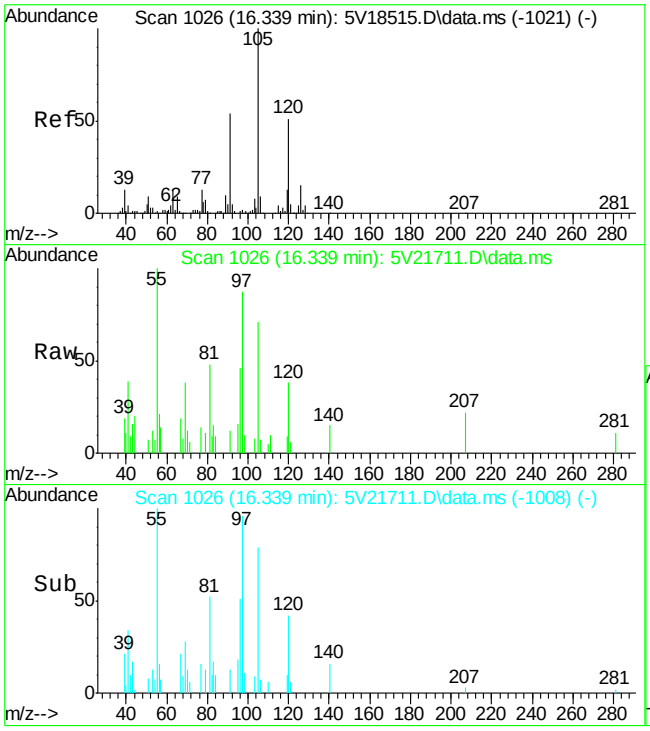


#79
4-Chlorotoluene
Concen: 0.12 ug/l
RT: 16.442 min Scan# 1035
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 91 Resp: 1723

Ion	Ratio	Lower	Upper
91	100		
126	27.8	28.4	42.6#

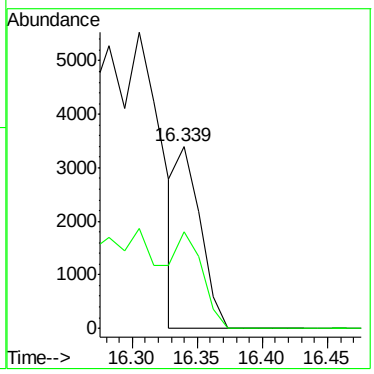


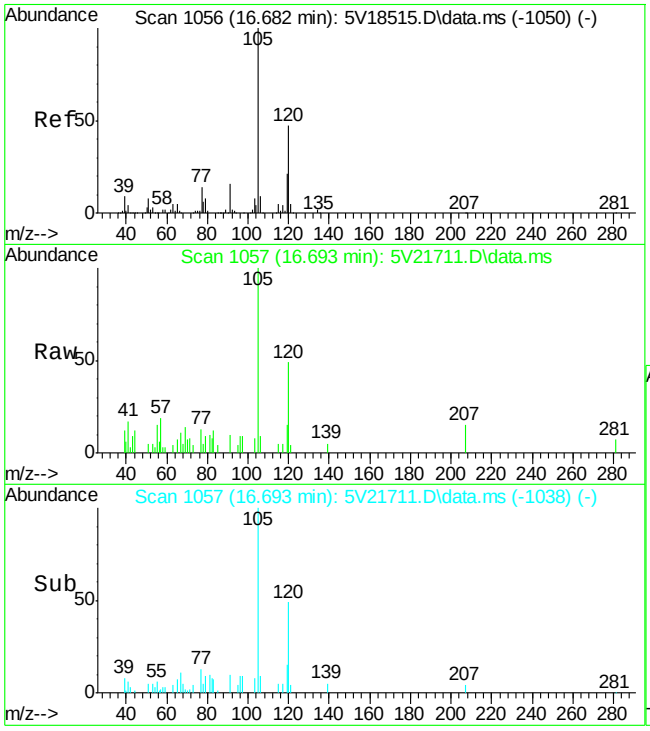


#80
1,3,5-Trimethylbenzene
Concen: 0.25 ug/l m
RT: 16.339 min Scan# 1026
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:105 Resp: 4232

Ion	Ratio	Lower	Upper
105	100		
120	208.6	40.1	60.1#

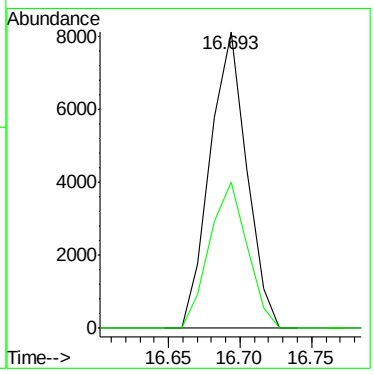


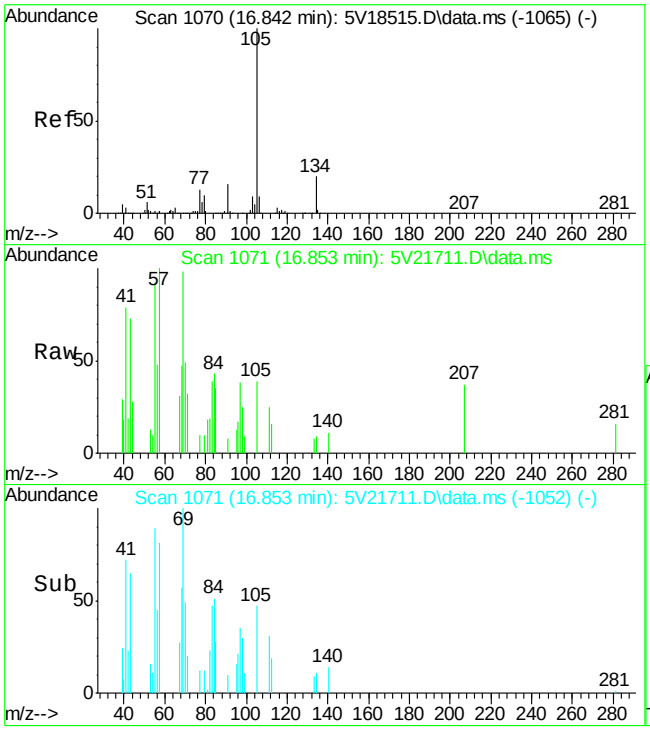


#82
1,2,4-Trimethylbenzene
Concen: 0.83 ug/l
RT: 16.693 min Scan# 1057
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:105 Resp: 14445

Ion	Ratio	Lower	Upper
105	100		
120	50.7	43.8	65.8

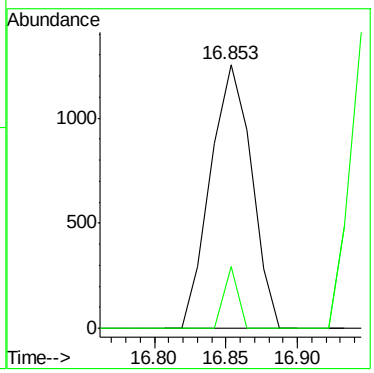


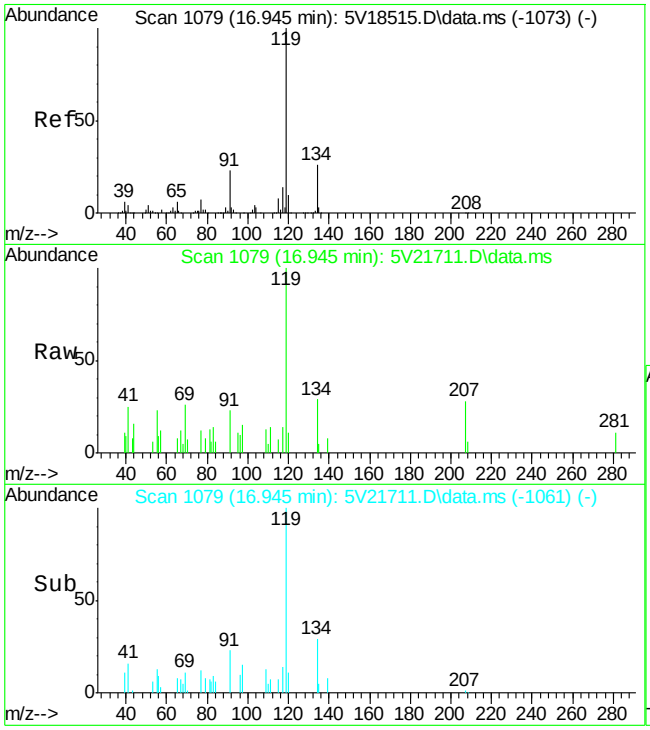


#83
sec-Butylbenzene
Concen: 0.10 ug/l
RT: 16.853 min Scan# 1071
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:105 Resp: 2506

Ion	Ratio	Lower	Upper
105	100		
134	8.1	16.5	24.7#

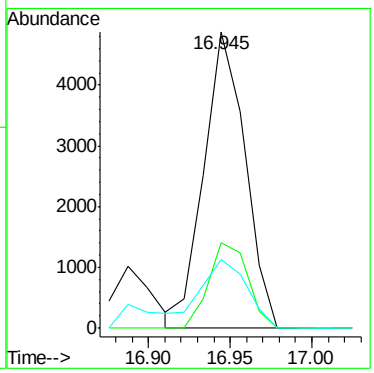


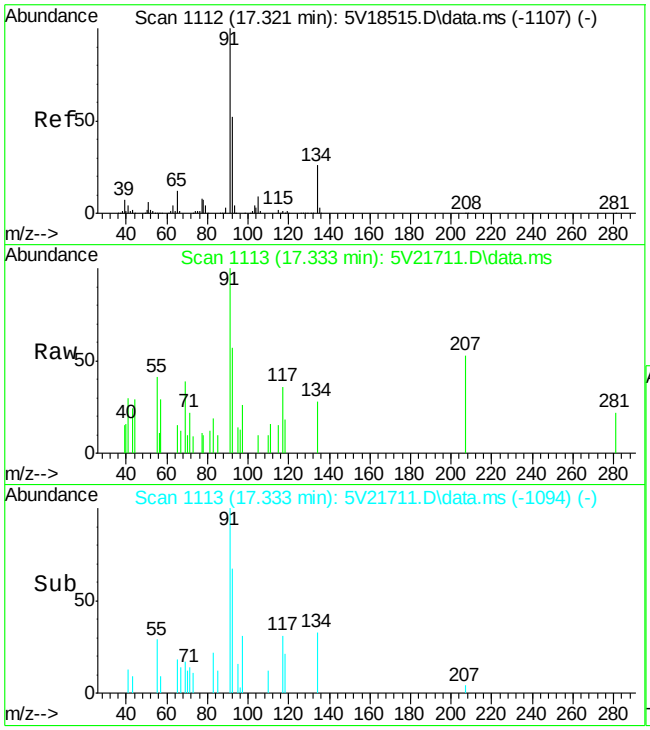


#86
p-Isopropyltoluene
Concen: 0.44 ug/l
RT: 16.945 min Scan# 1079
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:119 Resp: 8536

Ion	Ratio	Lower	Upper
119	100		
134	27.4	21.3	31.9
91	33.7	19.0	28.6#

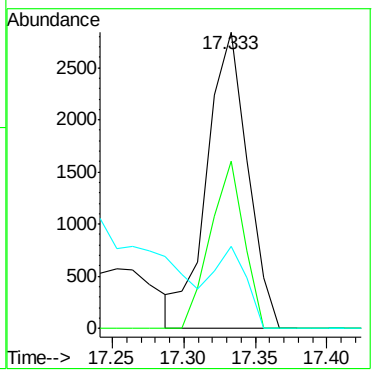


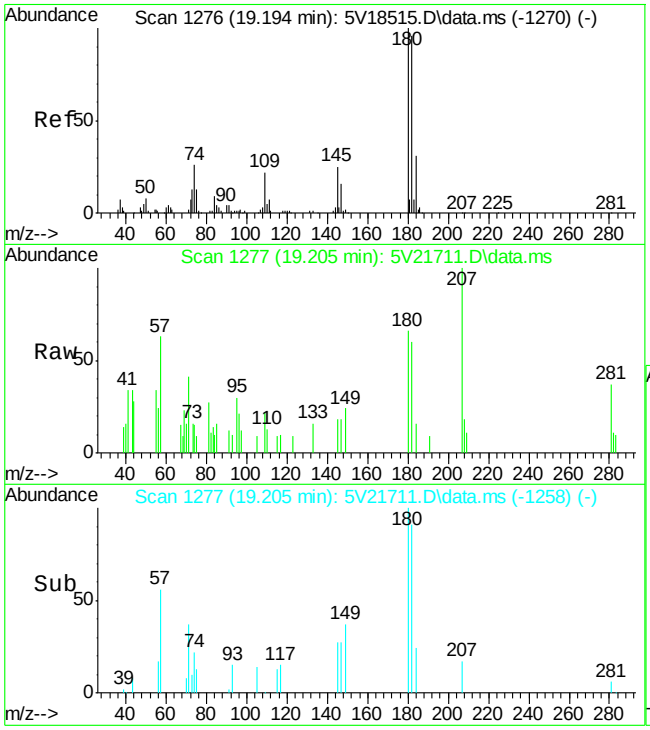


#88
n-Butylbenzene
Concen: 0.31 ug/l
RT: 17.333 min Scan# 1113
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion: 91 Resp: 5594

Ion	Ratio	Lower	Upper
91	100		
92	46.8	42.2	63.4
134	22.3	21.4	32.2

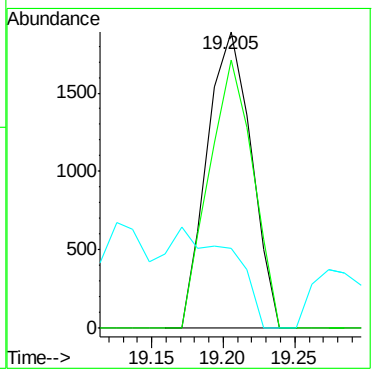


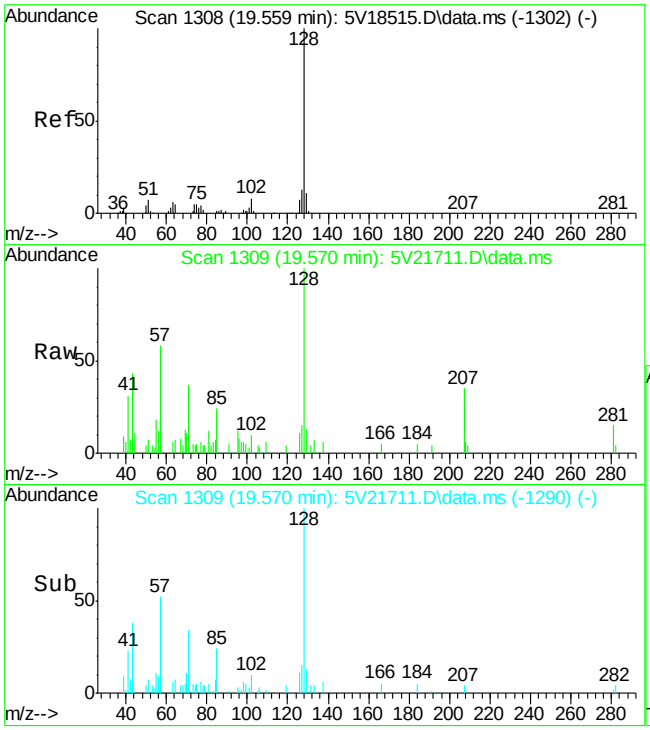


#90
1,2,4-Trichlorobenzene
Concen: 0.57 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:180 Resp: 4044

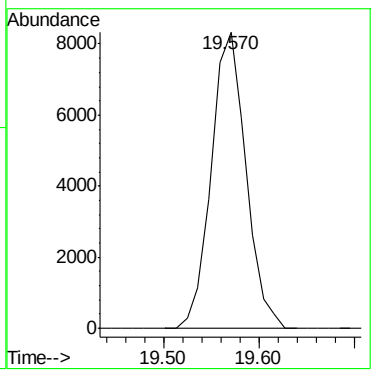
Ion	Ratio	Lower	Upper
180	100		
182	90.4	76.2	114.4
145	43.3	20.1	30.1#

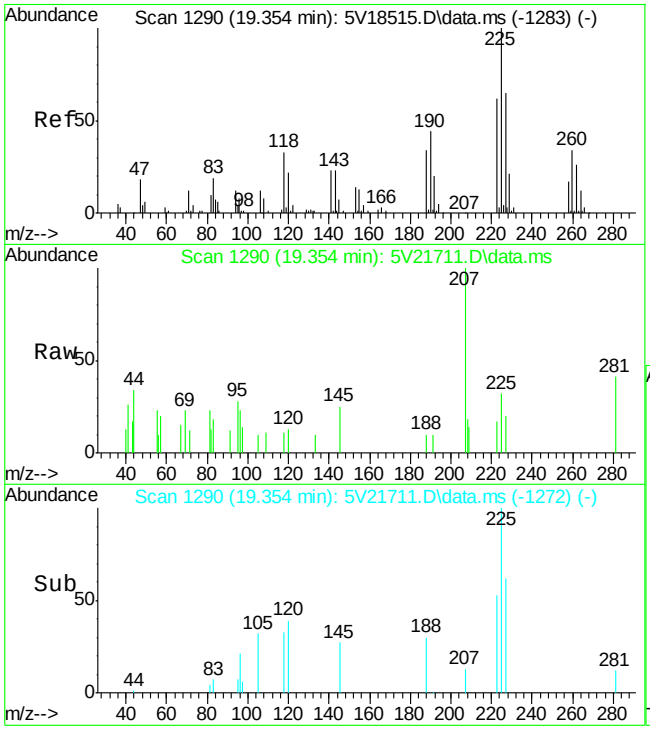




#91
Naphthalene
Concen: 2.10 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:128 Resp: 21015

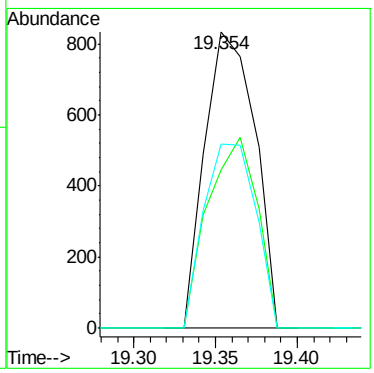


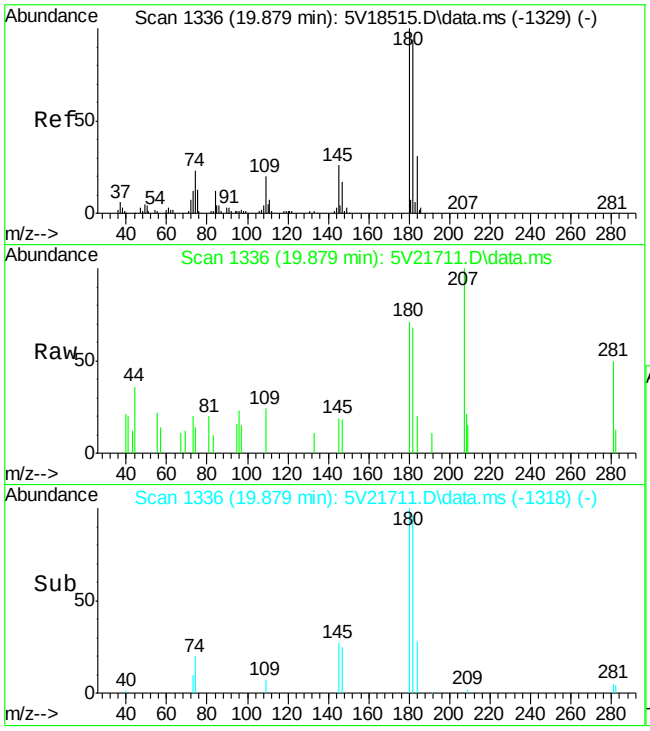


#92
Hexachlorobutadiene
Concen: 0.34 ug/l
RT: 19.354 min Scan# 1290
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:225 Resp: 1780

Ion	Ratio	Lower	Upper
225	100		
223	63.0	49.5	74.3
227	64.0	51.1	76.7

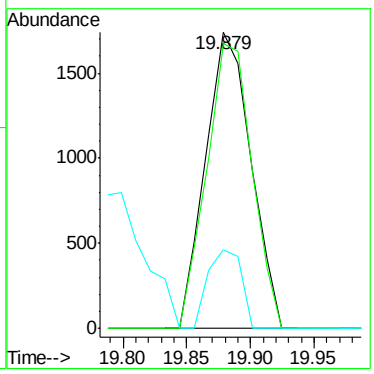


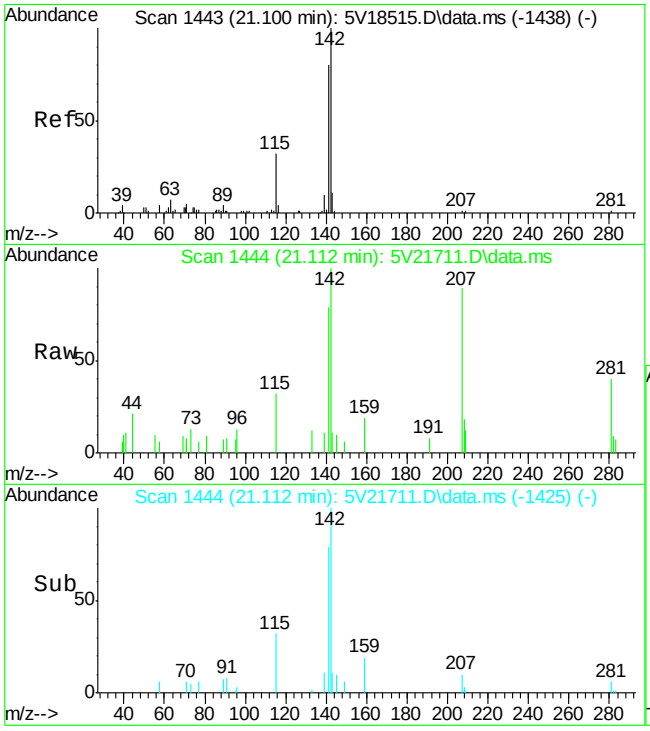


#93
1,2,3-Trichlorobenzene
Concen: 0.65 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. 0.000 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:180 Resp: 4301

Ion	Ratio	Lower	Upper
180	100		
182	96.5	76.0	114.0
145	19.6	21.4	32.0#

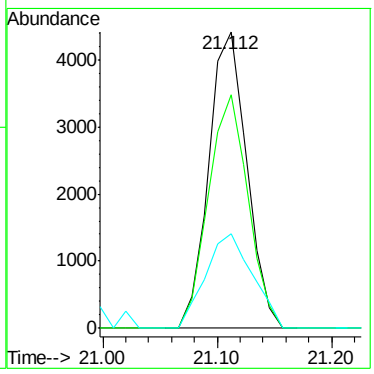


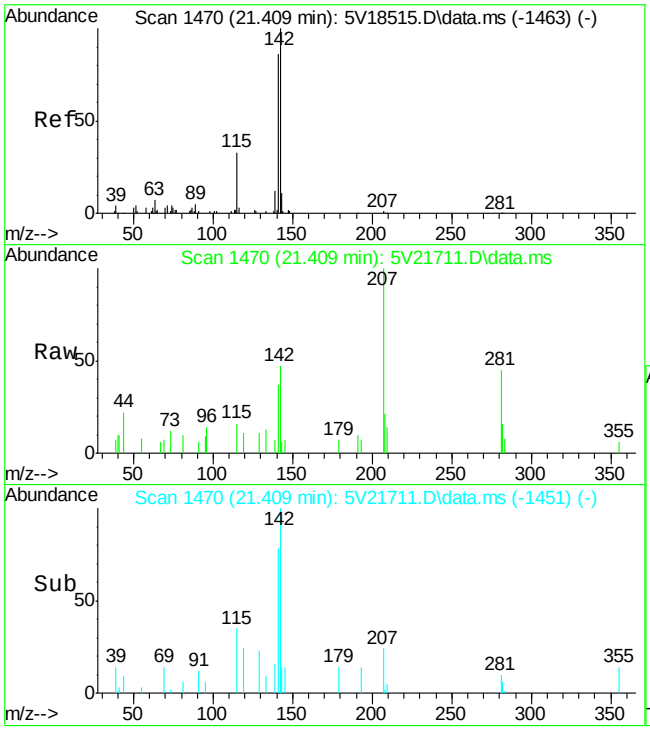


#94
2-Methylnaphthalene
Concen: 3.16 ug/l
RT: 21.112 min Scan# 1444
Delta R.T. 0.012 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:142 Resp: 10238

Ion	Ratio	Lower	Upper
142	100		
141	82.0	66.2	99.4
115	39.3	25.9	38.9#

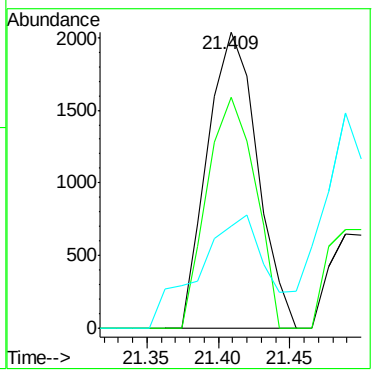




#95
1-Methylnaphthalene
Concen: 2.07 ug/l
RT: 21.409 min Scan# 1470
Delta R.T. 0.012 min
Lab File: 5V21711.D
Acq: 4 Jun 2012 3:48 pm

Tgt Ion:142 Resp: 4929

Ion	Ratio	Lower	Upper
142	100		
141	75.4	68.9	103.3
115	51.1	27.3	40.9#



Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/05/12 11:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21708.D
Acq On : 4 Jun 2012 2:01 pm
Operator : BRETD
Sample : D35038-3
Misc : MS4023,V5V1323,5.008,,100,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 05 09:02:39 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

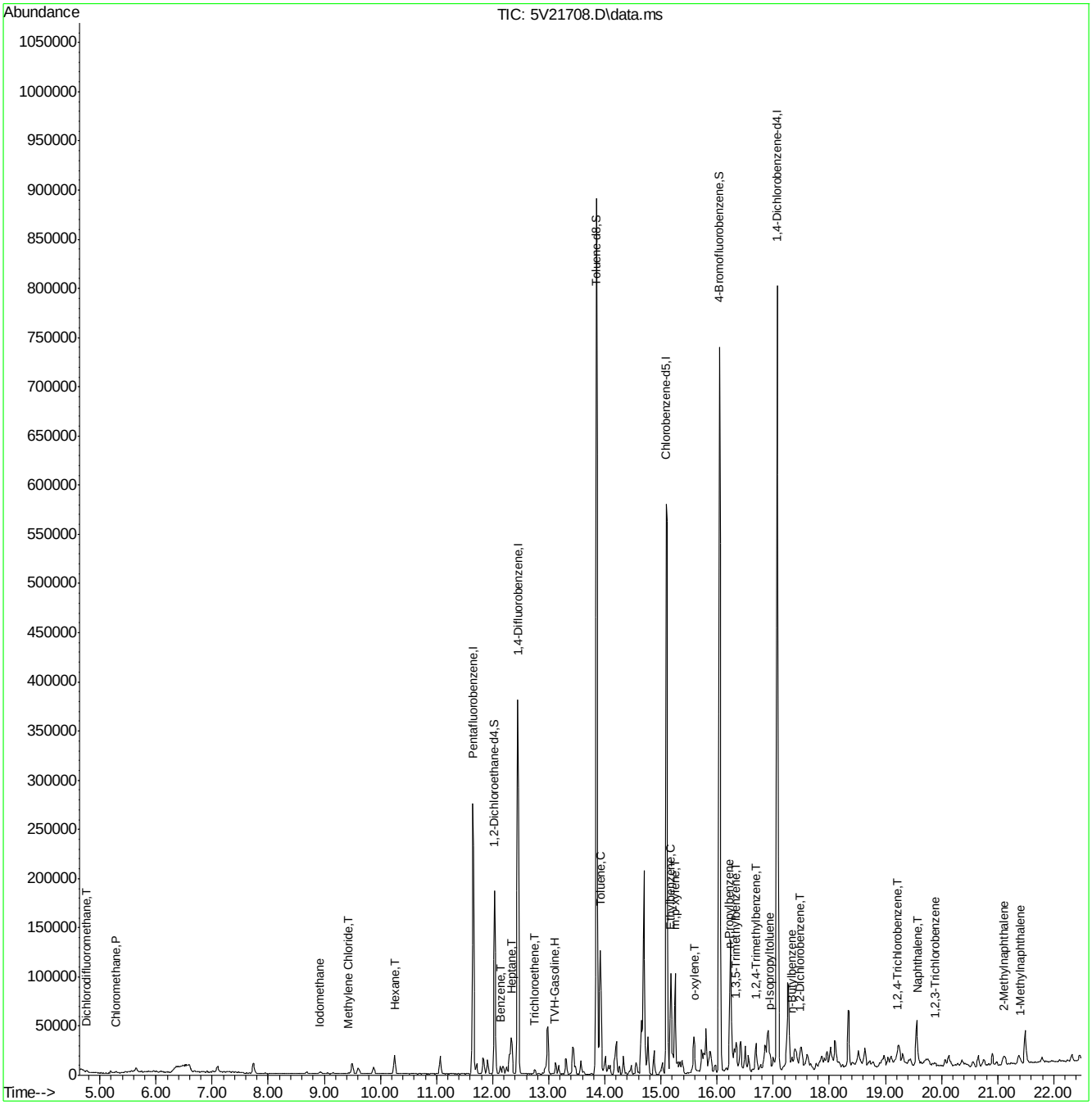
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	214187	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	327765	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	386286	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	270405	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	30752	46.68	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.36%			
61) Toluene-d8	13.850	98	581585	44.55	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 89.10%			
69) 4-Bromofluorobenzene	16.042	95	262904	49.16	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.32%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.102	TIC	2420755m	122.14	ug/l	
3) Dichlorodifluoromethane	4.763	85	1688	0.86	ug/l #	60
4) Chloromethane	5.288	50	1723	0.54	ug/l	83
12) Iodomethane	8.918	142	2421	1.78	ug/l #	72
17) Methylene Chloride	9.421	84	425	0.12	ug/l #	22
41) Hexane	10.254	57	10757	2.37	ug/l	100
43) Heptane	12.332	43	14962	3.08	ug/l	90
48) Trichloroethene	12.754	95	1723	0.47	ug/l	94
50) Benzene	12.138	78	6703	0.49	ug/l	100
62) Toluene	13.919	92	33373	3.32	ug/l	99
66) Ethylbenzene	15.175	91	18687	1.00	ug/l	100
72) m,p-xylene	15.255	106	29855	4.01	ug/l	96
73) o-xylene	15.597	106	3538	0.49	ug/l	96
77) n-Propylbenzene	16.225	91	7406	0.30	ug/l #	90
80) 1,3,5-Trimethylbenzene	16.339	105	3321m	0.19	ug/l	
82) 1,2,4-Trimethylbenzene	16.693	105	11069	0.64	ug/l	93
86) p-Isopropyltoluene	16.944	119	7787	0.40	ug/l	97
87) 1,2-Dichlorobenzene	17.470	146	1306	0.13	ug/l #	41
88) n-Butylbenzene	17.333	91	4832	0.27	ug/l #	94
90) 1,2,4-Trichlorobenzene	19.205	180	3046	0.43	ug/l #	70
91) Naphthalene	19.570	128	17909	1.87	ug/l	100
93) 1,2,3-Trichlorobenzene	19.879	180	3444	0.52	ug/l #	92
94) 2-Methylnaphthalene	21.112	142	7370	2.65	ug/l	91
95) 1-Methylnaphthalene	21.408	142	3804	1.87	ug/l #	88

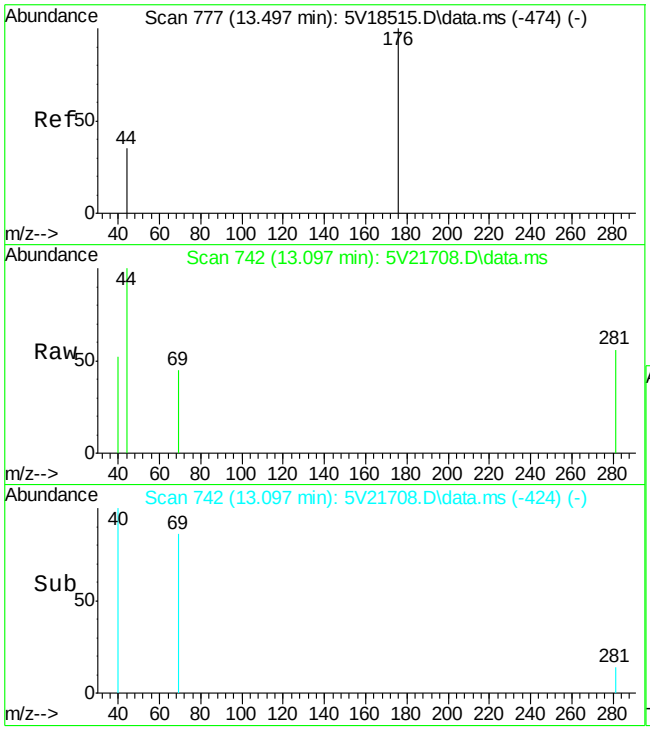
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21708.D
Acq On : 4 Jun 2012 2:01 pm
Operator : BRETD
Sample : D35038-3
Misc : MS4023,V5V1323,5.008,,100,5,1
ALS Vial : 6 Sample Multiplier: 1

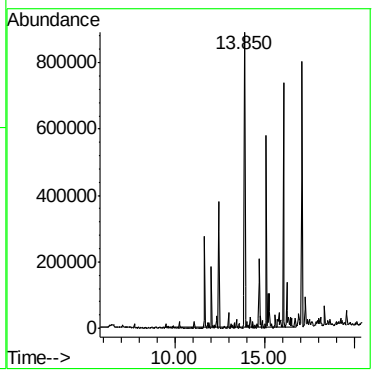
Quant Time: Jun 05 09:02:39 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

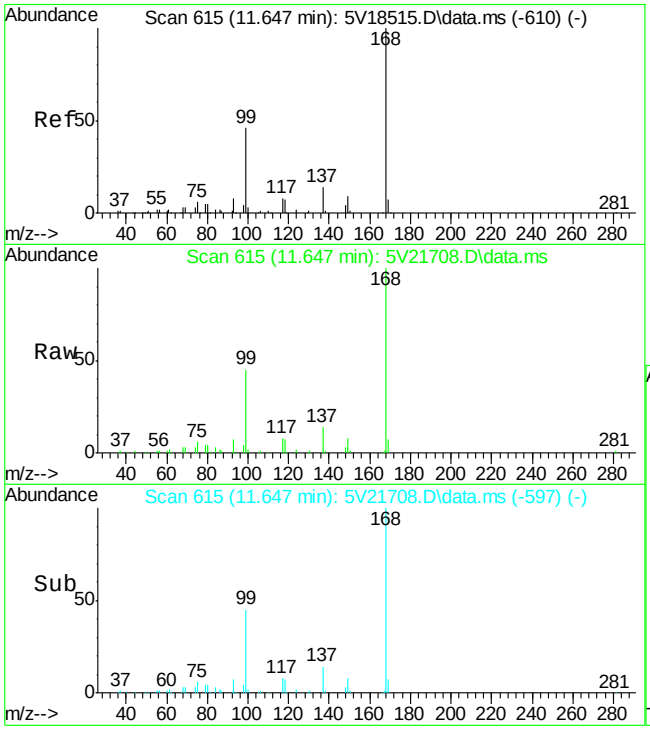




#1
TVH-Gasoline
Concen: 122.14 ug/l m
RT: 13.102 min Scan# 742
Delta R.T. 0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:TIC Resp: 2420755

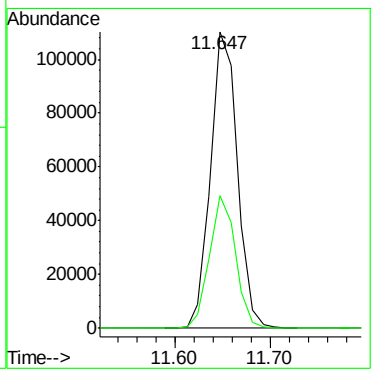


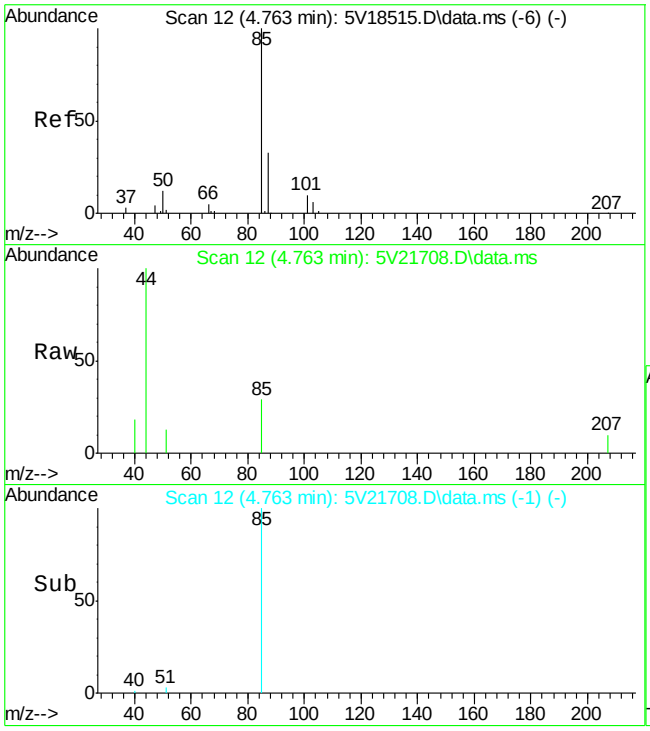


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.647 min Scan# 615
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:168 Resp: 214187

Ion	Ratio	Lower	Upper
168	100		
99	43.6	37.4	56.2

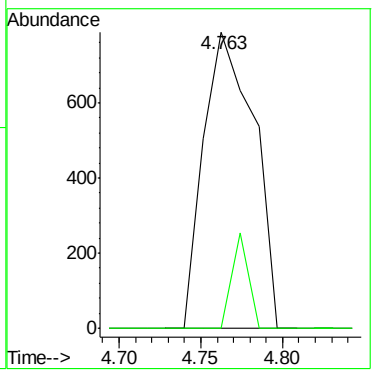


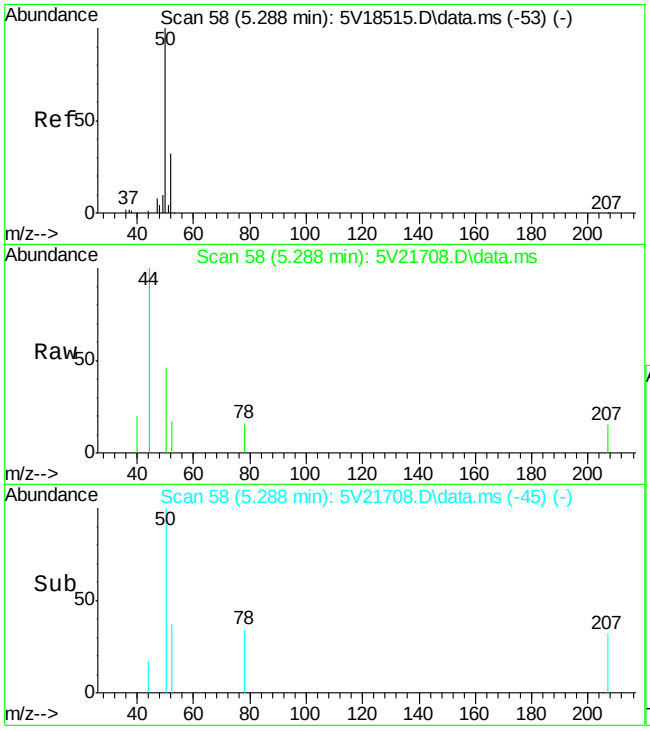


#3
Dichlorodifluoromethane
Concen: 0.86 ug/l
RT: 4.763 min Scan# 12
Delta R.T. 0.001 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 85 Resp: 1688

Ion	Ratio	Lower	Upper
85	100		
87	10.3	12.9	52.9#

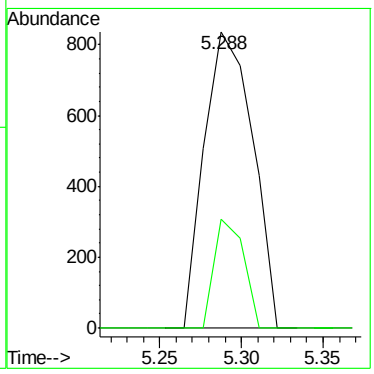


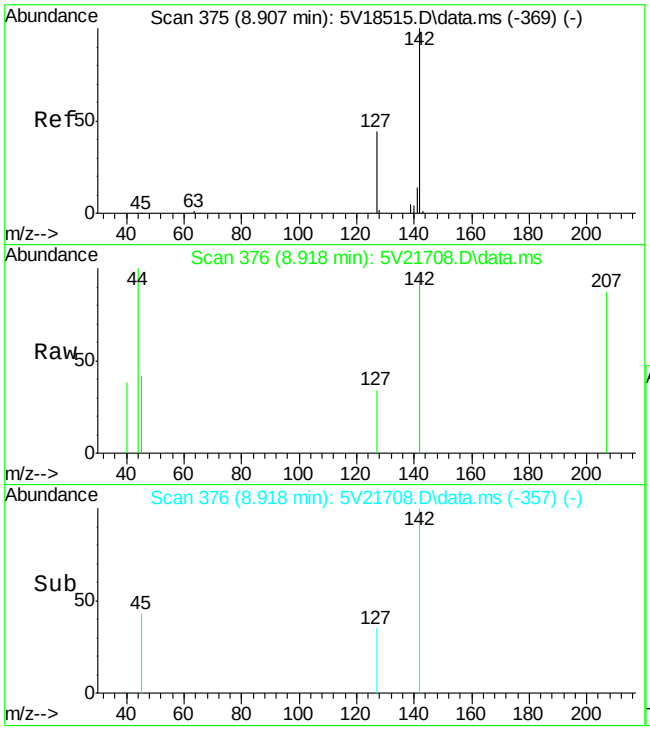


#4
Chloromethane
Concen: 0.54 ug/l
RT: 5.288 min Scan# 58
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 50 Resp: 1723

Ion	Ratio	Lower	Upper
50	100		
52	22.4	12.1	52.1

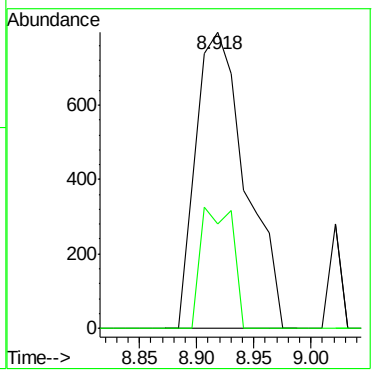


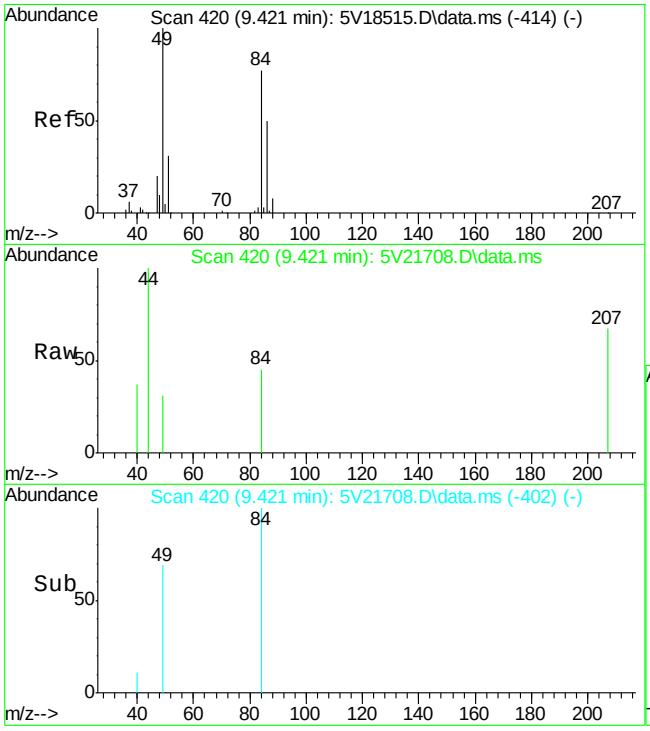


#12
Iodomethane
Concen: 1.78 ug/l
RT: 8.918 min Scan# 376
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:142 Resp: 2421

Ion	Ratio	Lower	Upper
142	100		
127	26.1	35.4	53.0#

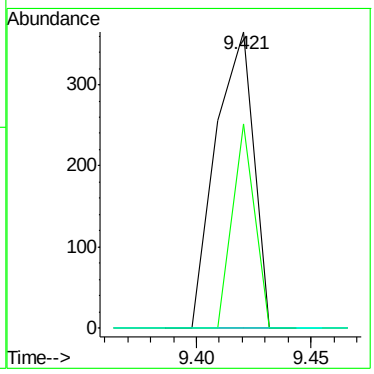


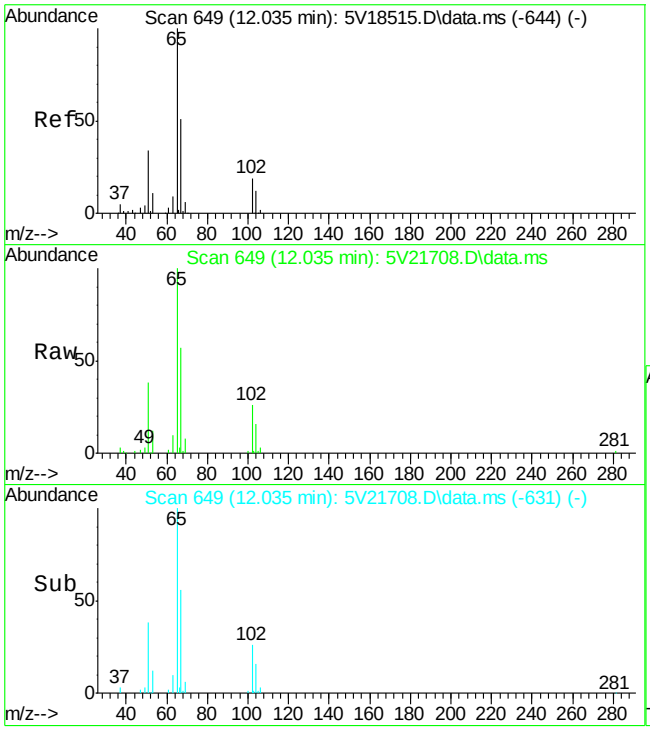


#17
Methylene Chloride
Concen: 0.12 ug/l
RT: 9.421 min Scan# 420
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 84 Resp: 425

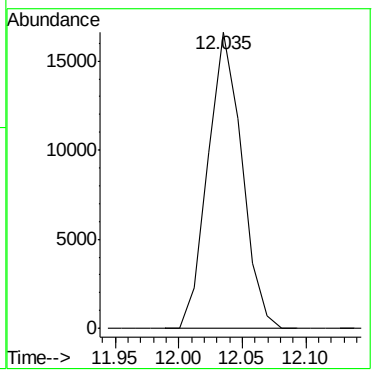
Ion	Ratio	Lower	Upper
84	100		
49	40.7	110.4	150.4#
86	0.0	44.0	84.0#

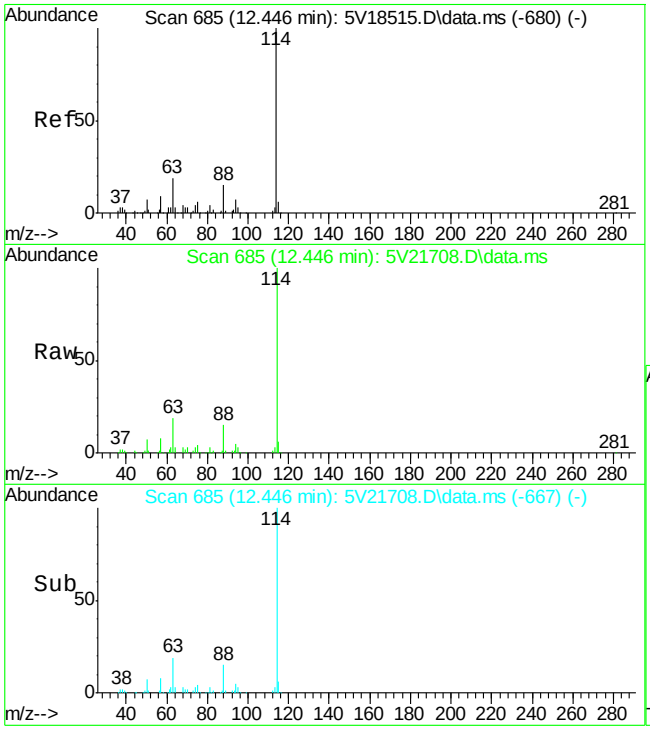




#33
1,2-Dichloroethane-d4
Concen: 46.68 ug/l
RT: 12.035 min Scan# 649
Delta R.T. 0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

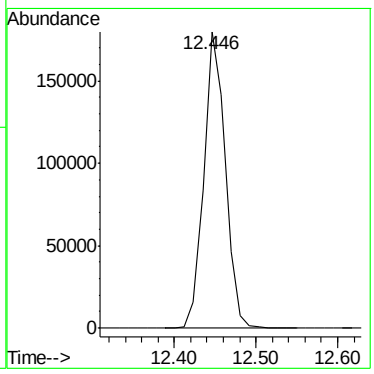
Tgt Ion:102 Resp: 30752

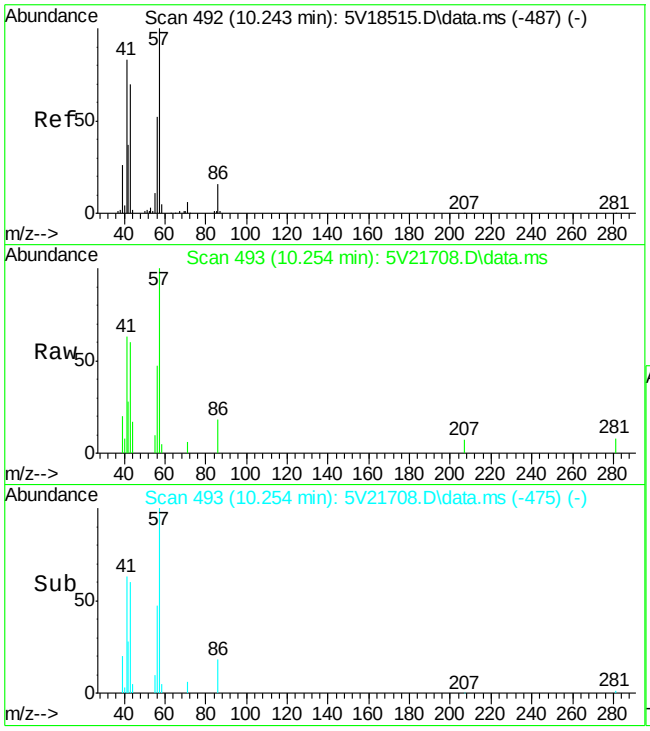




#35
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.446 min Scan# 685
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

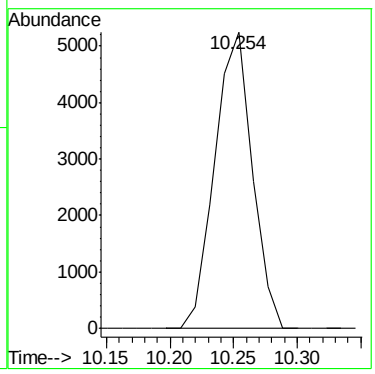
Tgt Ion:114 Resp: 327765

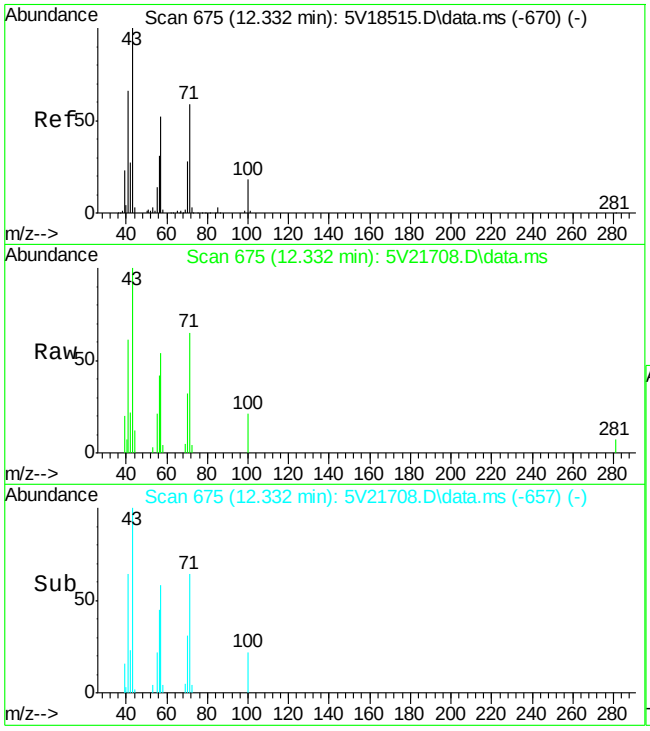




#41
Hexane
Concen: 2.37 ug/l
RT: 10.254 min Scan# 493
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 57 Resp: 10757

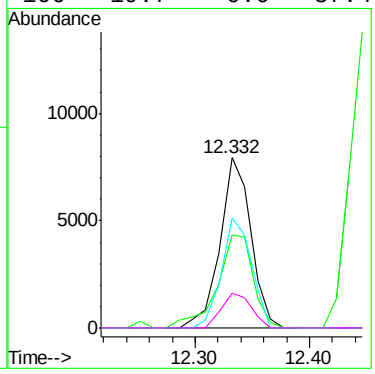


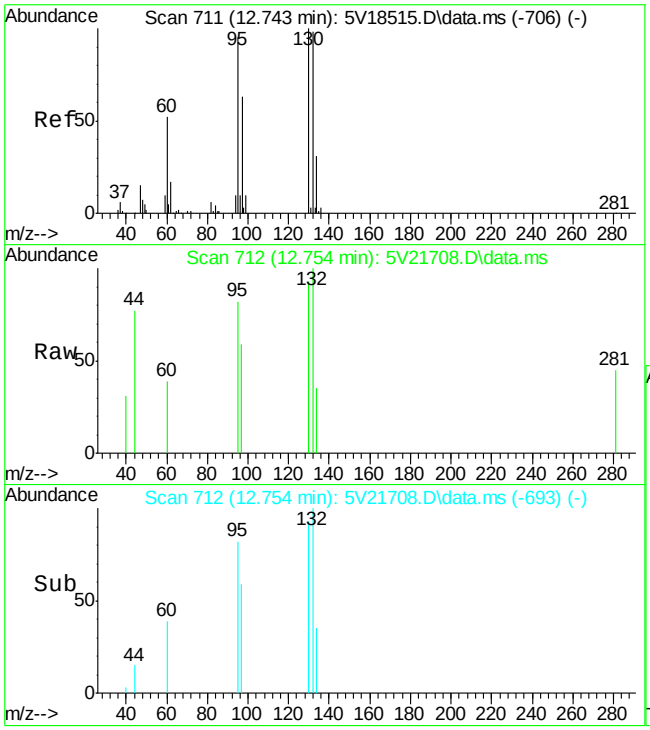


#43
Heptane
Concen: 3.08 ug/l
RT: 12.332 min Scan# 675
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 43 Resp: 14962

Ion	Ratio	Lower	Upper
43	100		
57	63.4	30.6	70.6
71	62.4	38.9	78.9
100	19.7	0.0	37.4

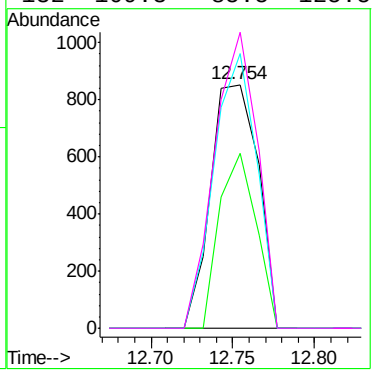


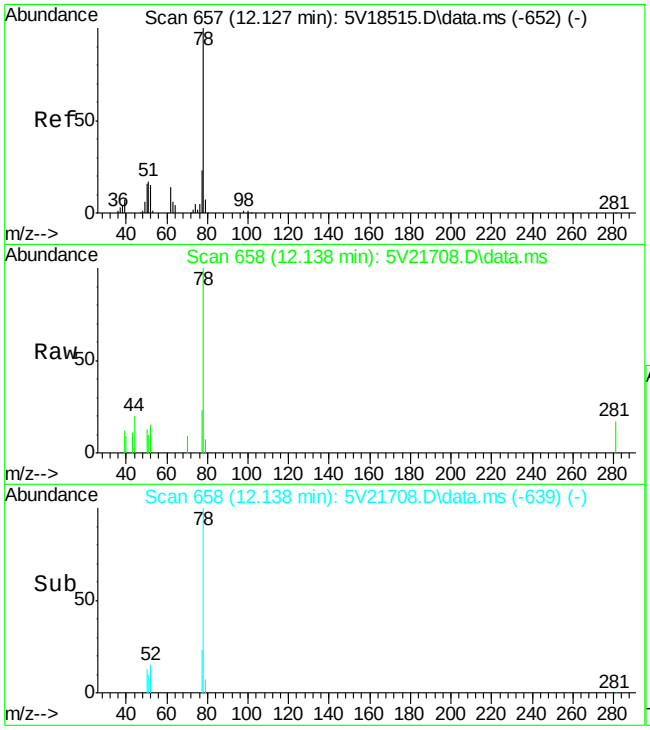


#48
Trichloroethene
Concen: 0.47 ug/l
RT: 12.754 min Scan# 712
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 95 Resp: 1723

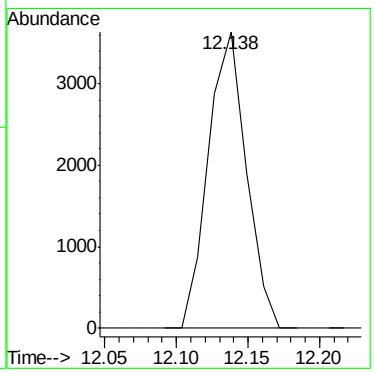
Ion	Ratio	Lower	Upper
95	100		
97	55.6	47.1	87.1
130	100.9	85.2	125.2
132	109.3	85.5	125.5

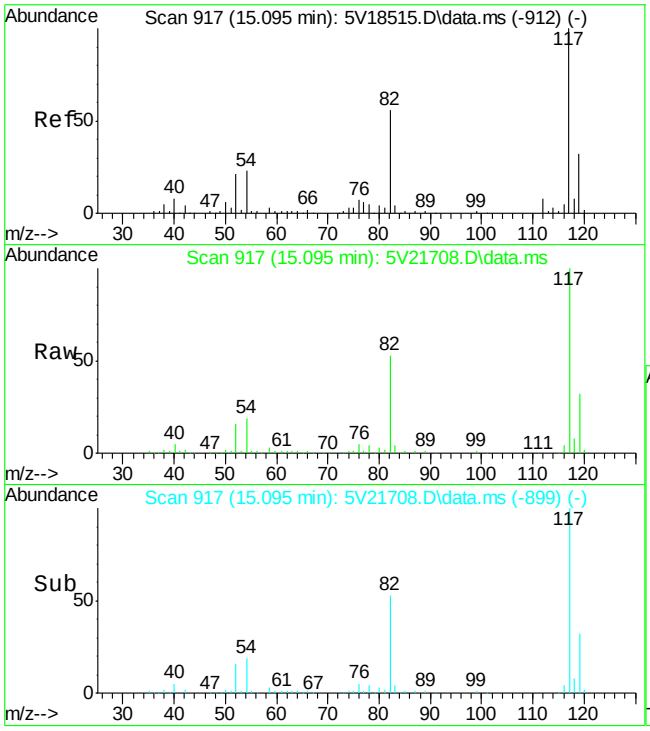




#50
Benzene
Concen: 0.49 ug/l
RT: 12.138 min Scan# 658
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

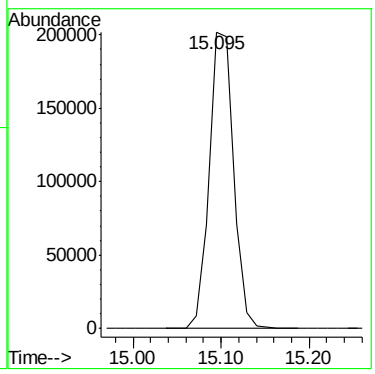
Tgt Ion: 78 Resp: 6703

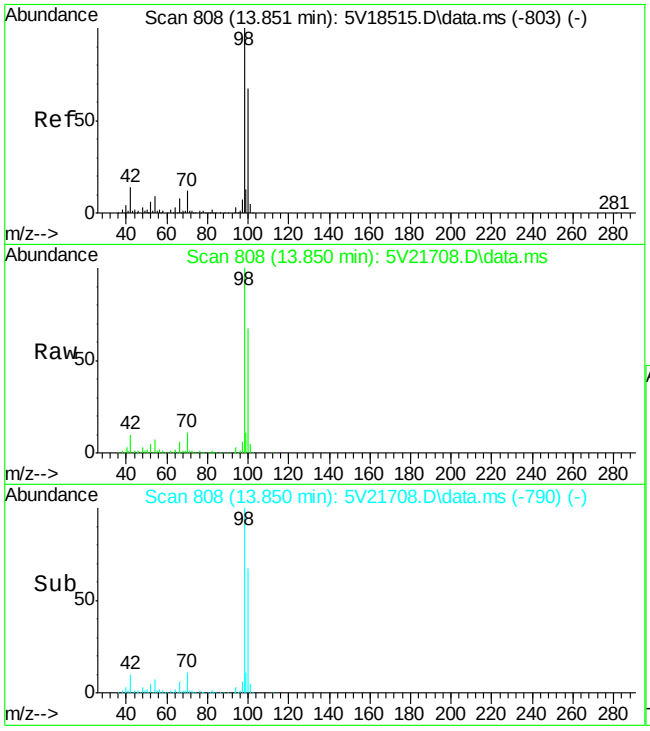




#53
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.095 min Scan# 917
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

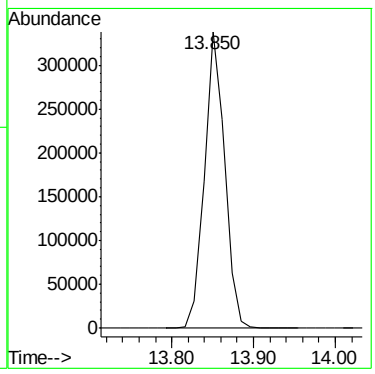
Tgt Ion:117 Resp: 386286

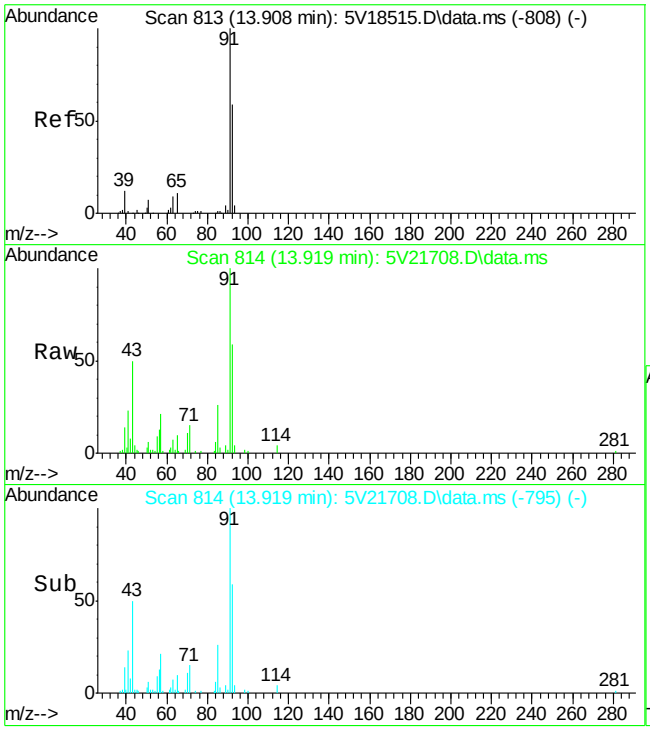




#61
Toluene-d8
Concen: 44.55 ug/l
RT: 13.850 min Scan# 808
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 98 Resp: 581585

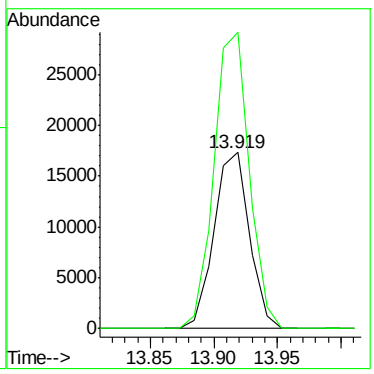


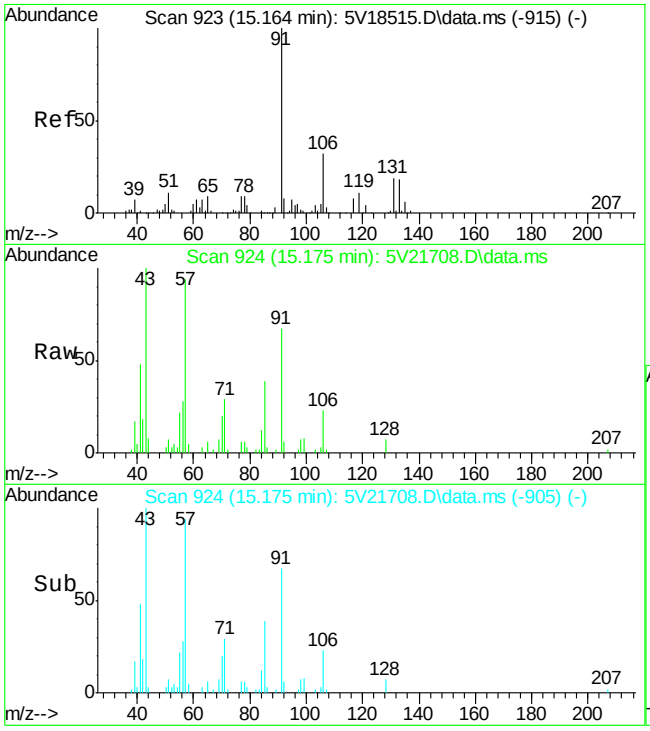


#62
Toluene
Concen: 3.32 ug/l
RT: 13.919 min Scan# 814
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 92 Resp: 33373

Ion	Ratio	Lower	Upper
92	100		
91	167.9	149.8	189.8

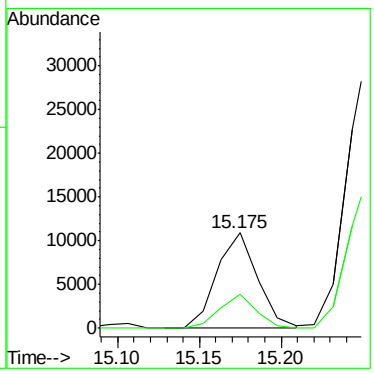


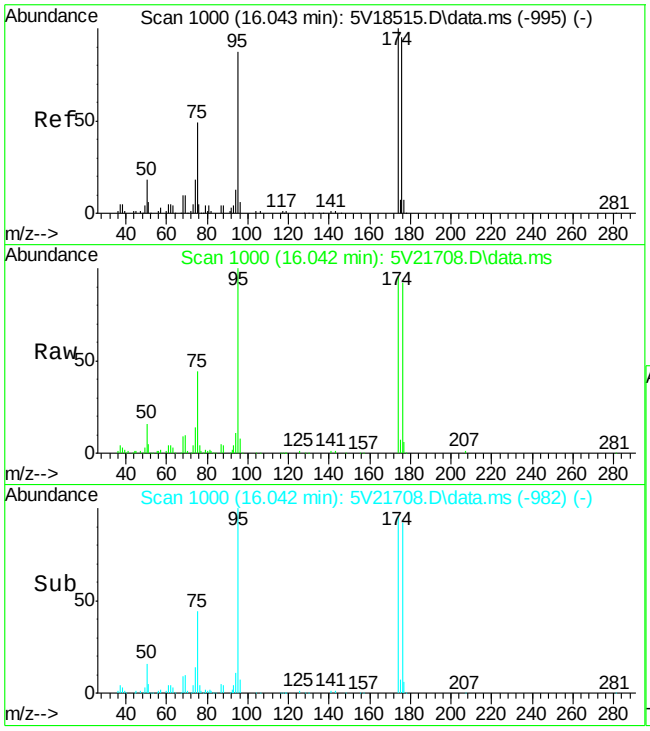


#66
Ethylbenzene
Concen: 1.00 ug/l
RT: 15.175 min Scan# 924
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 91 Resp: 18687

Ion	Ratio	Lower	Upper
91	100		
106	31.7	11.7	51.7

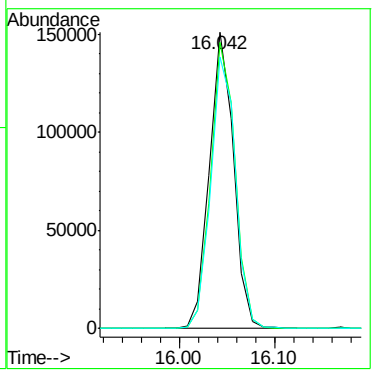


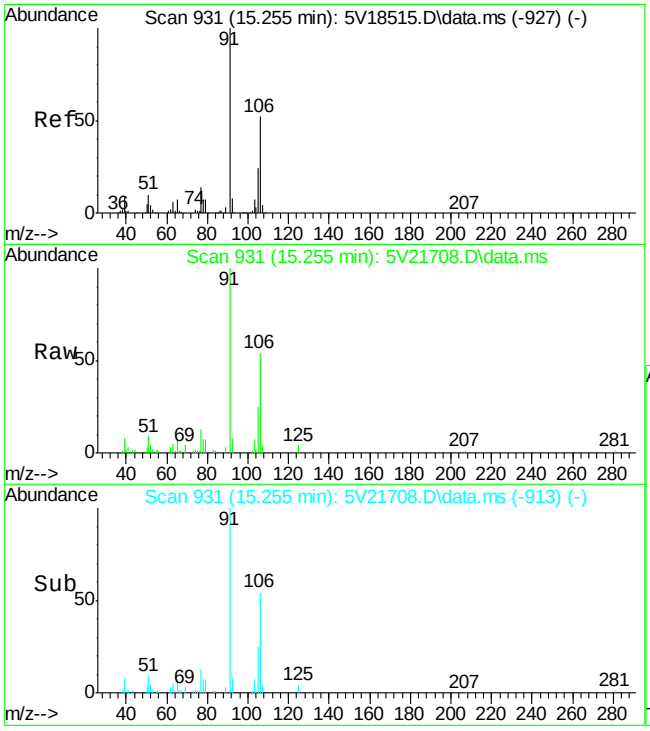


#69
4-Bromofluorobenzene
Concen: 49.16 ug/l
RT: 16.042 min Scan# 1000
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 95 Resp: 262904

Ion	Ratio	Lower	Upper
95	100		
174	98.1	77.1	117.1
176	94.7	73.4	113.4

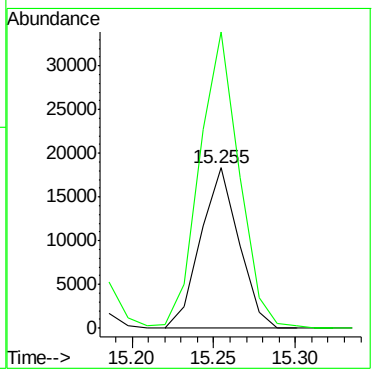


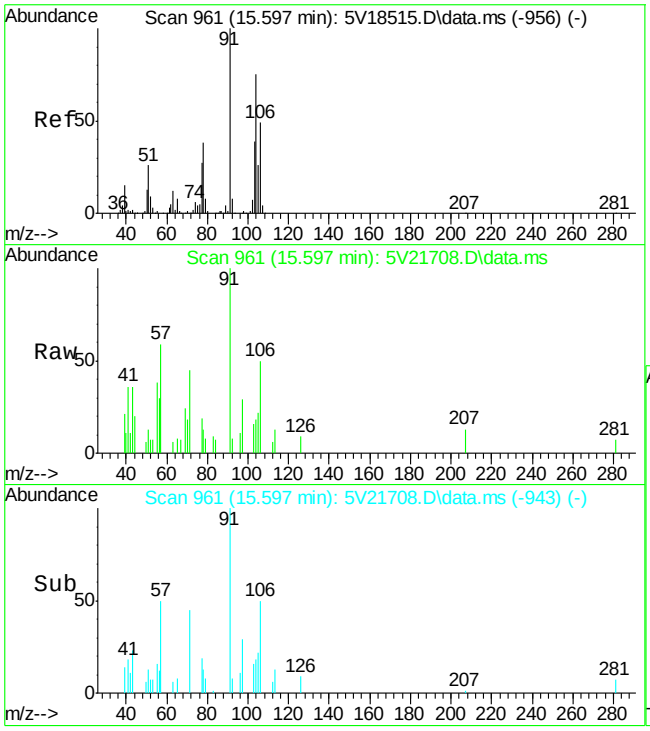


#72
m,p-xylene
Concen: 4.01 ug/l
RT: 15.255 min Scan# 931
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:106 Resp: 29855

Ion	Ratio	Lower	Upper
106	100		
91	191.4	177.1	217.1

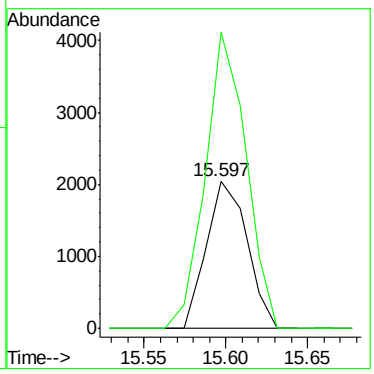


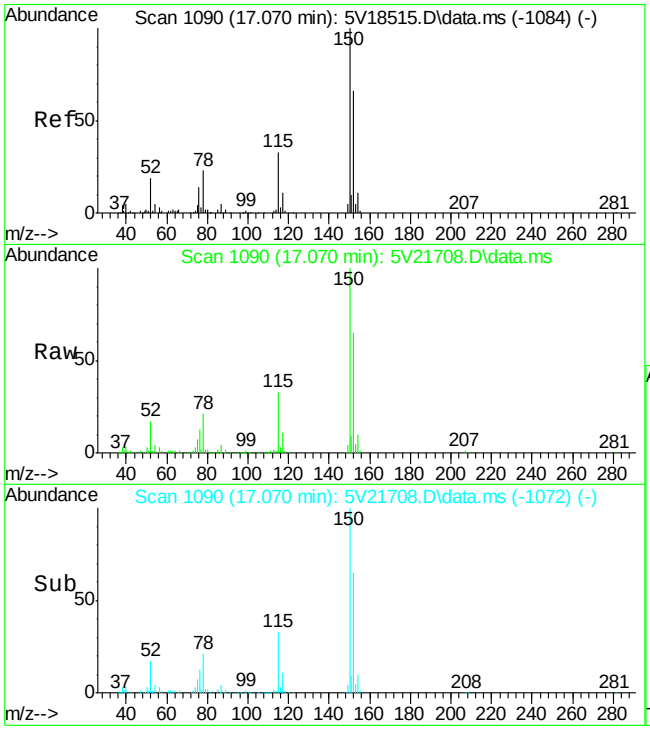


#73
o-xylene
Concen: 0.49 ug/l
RT: 15.597 min Scan# 961
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:106 Resp: 3538

Ion	Ratio	Lower	Upper
106	100		
91	201.4	166.6	249.8

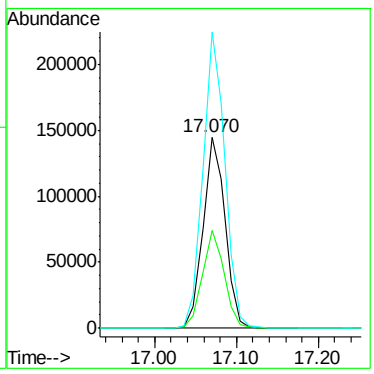


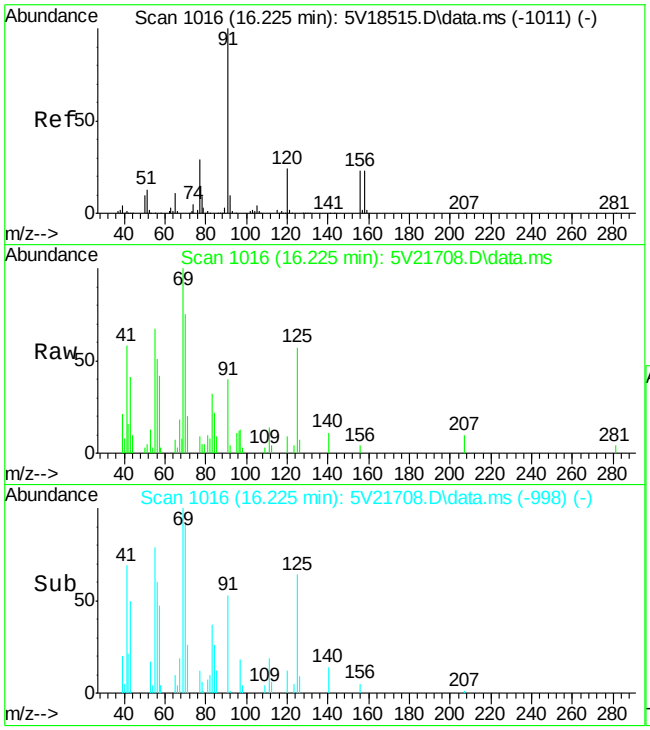


#74
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.070 min Scan# 1090
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:152 Resp: 270405

Ion	Ratio	Lower	Upper
152	100		
115	50.8	41.4	62.0
150	154.9	153.9	230.9

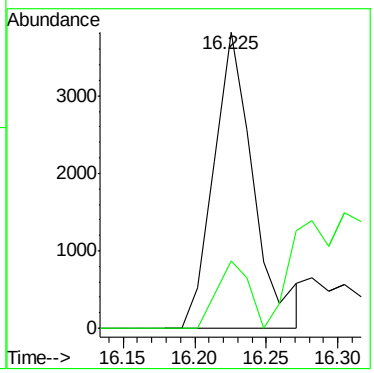


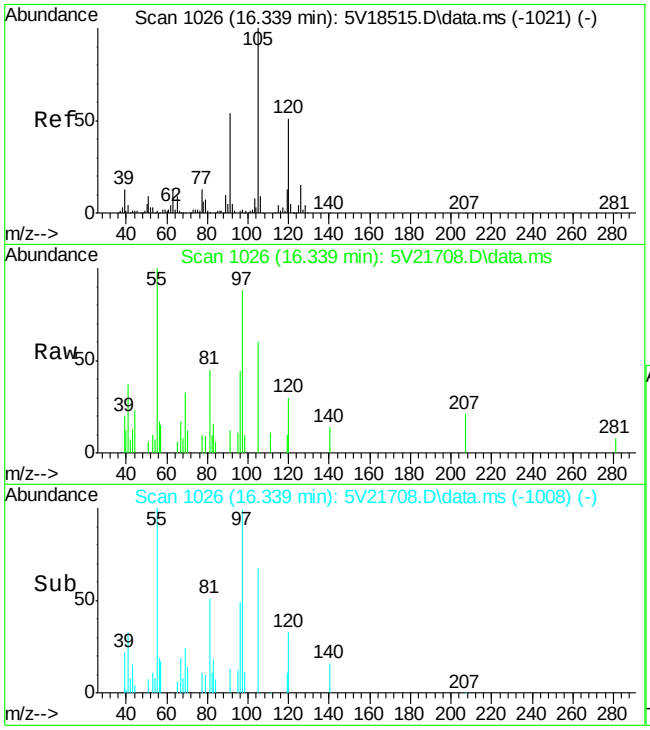


#77
n-Propylbenzene
Concen: 0.30 ug/l
RT: 16.225 min Scan# 1016
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 91 Resp: 7406

Ion	Ratio	Lower	Upper
91	100		
120	18.1	18.6	27.8#

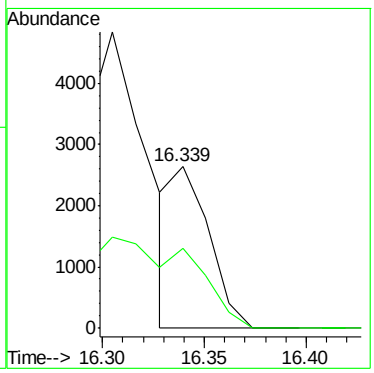


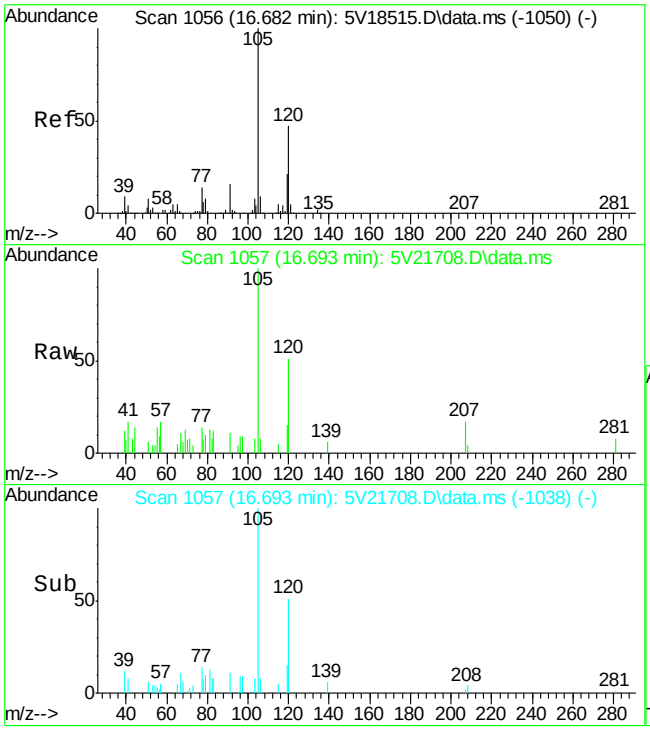


#80
1,3,5-Trimethylbenzene
Concen: 0.19 ug/l m
RT: 16.339 min Scan# 1026
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:105 Resp: 3321

Ion	Ratio	Lower	Upper
105	100		
120	212.9	40.1	60.1#

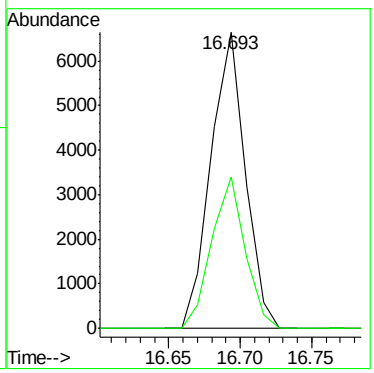


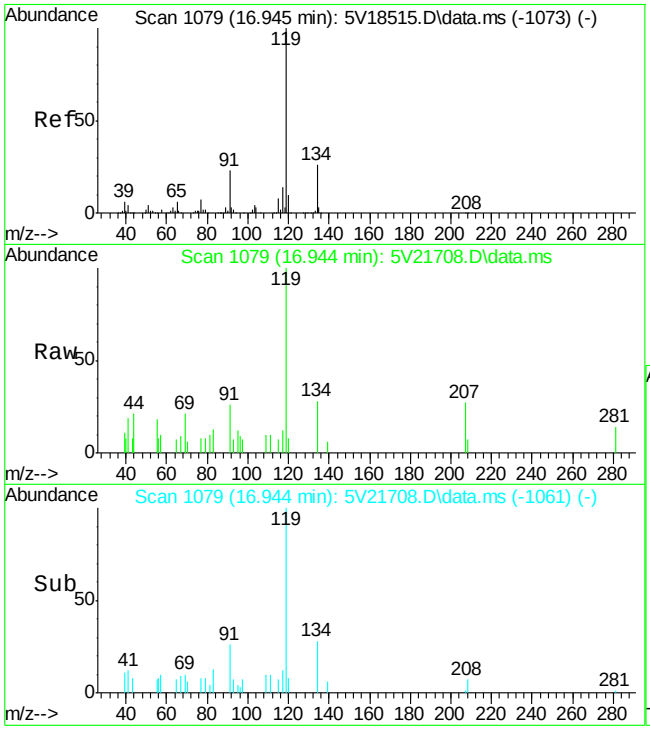


#82
1,2,4-Trimethylbenzene
Concen: 0.64 ug/l
RT: 16.693 min Scan# 1057
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:105 Resp: 11069

Ion	Ratio	Lower	Upper
105	100		
120	49.8	43.8	65.8

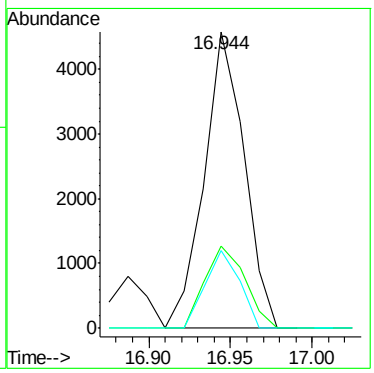


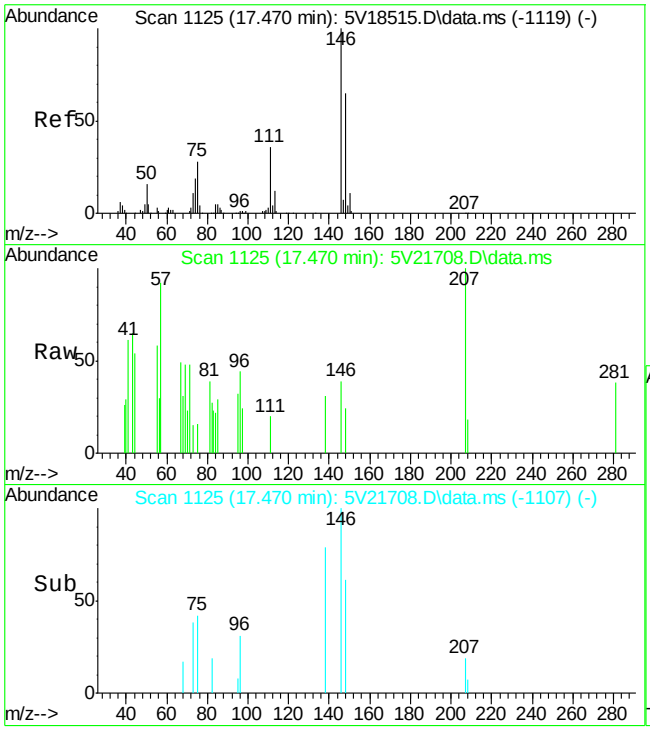


#86
p-Isopropyltoluene
Concen: 0.40 ug/l
RT: 16.944 min Scan# 1079
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:119 Resp: 7787

Ion	Ratio	Lower	Upper
119	100		
134	27.9	21.3	31.9
91	22.3	19.0	28.6

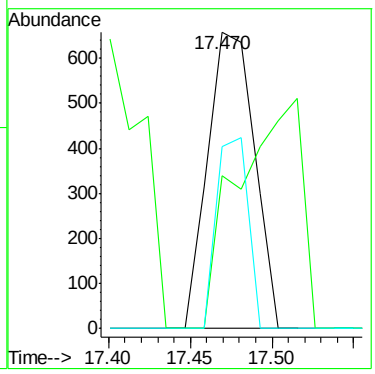


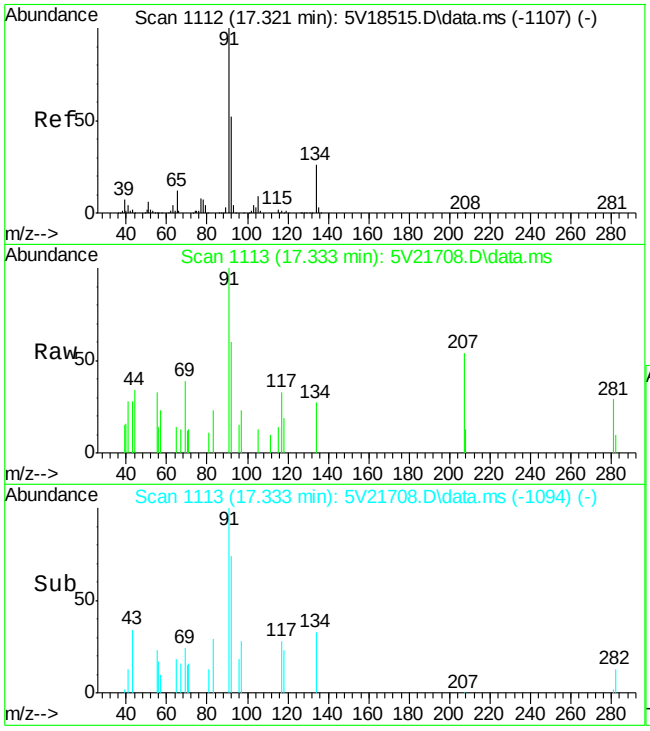


#87
1,2-Dichlorobenzene
Concen: 0.13 ug/l
RT: 17.470 min Scan# 1125
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:146 Resp: 1306

Ion	Ratio	Lower	Upper
146	100		
111	106.0	29.9	44.9#
148	43.4	51.9	77.9#

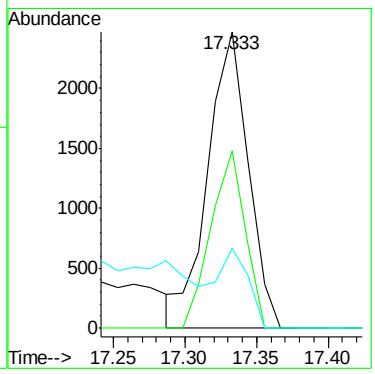


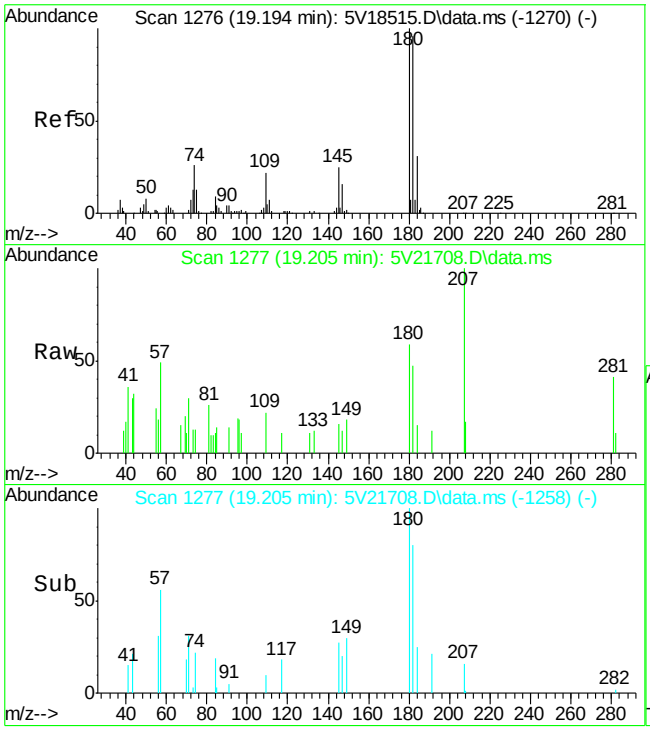


#88
n-Butylbenzene
Concen: 0.27 ug/l
RT: 17.333 min Scan# 1113
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion: 91 Resp: 4832

Ion	Ratio	Lower	Upper
91	100		
92	50.5	42.2	63.4
134	21.2	21.4	32.2#

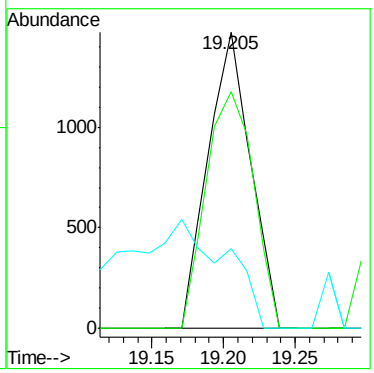


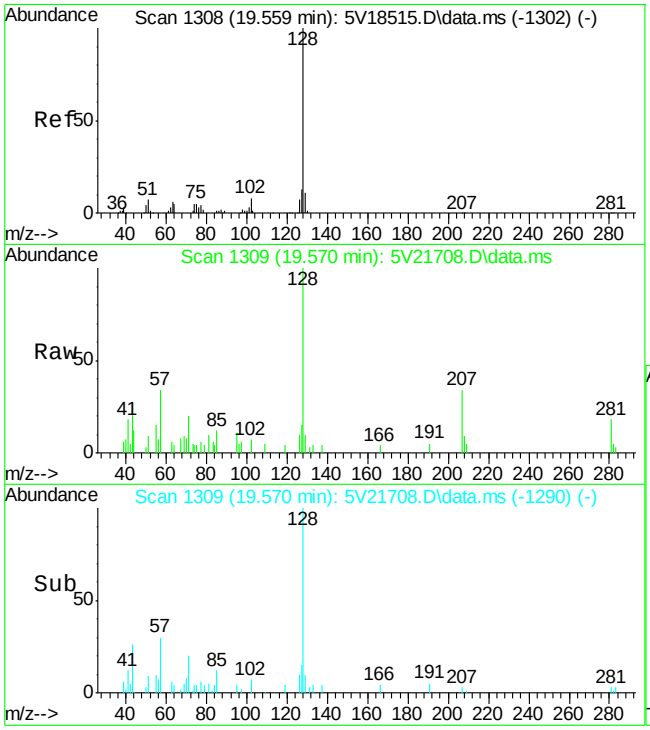


#90
1,2,4-Trichlorobenzene
Concen: 0.43 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:180 Resp: 3046

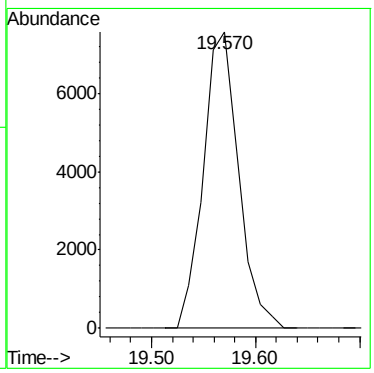
Ion	Ratio	Lower	Upper
180	100		
182	89.4	76.2	114.4
145	85.6	20.1	30.1#

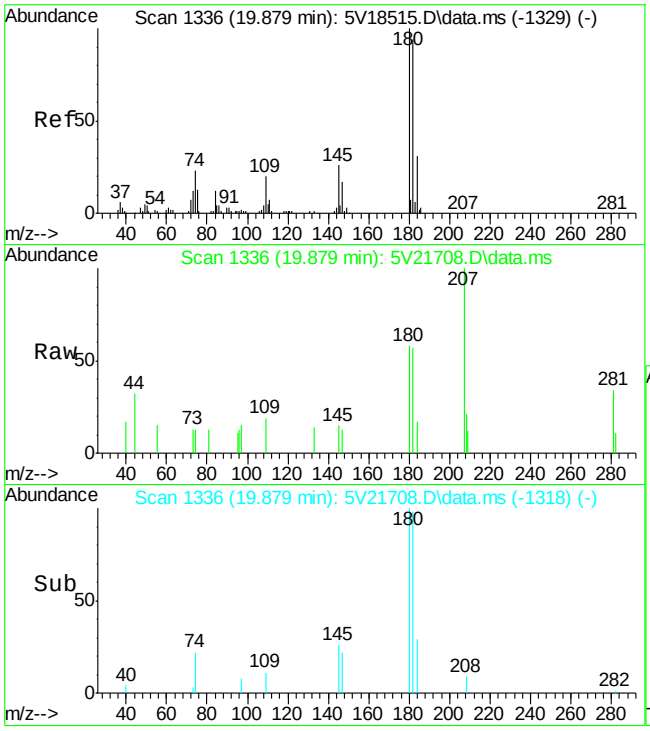




#91
Naphthalene
Concen: 1.87 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:128 Resp: 17909

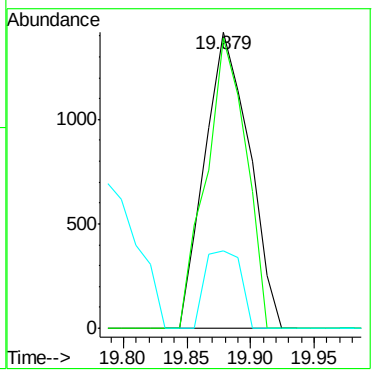


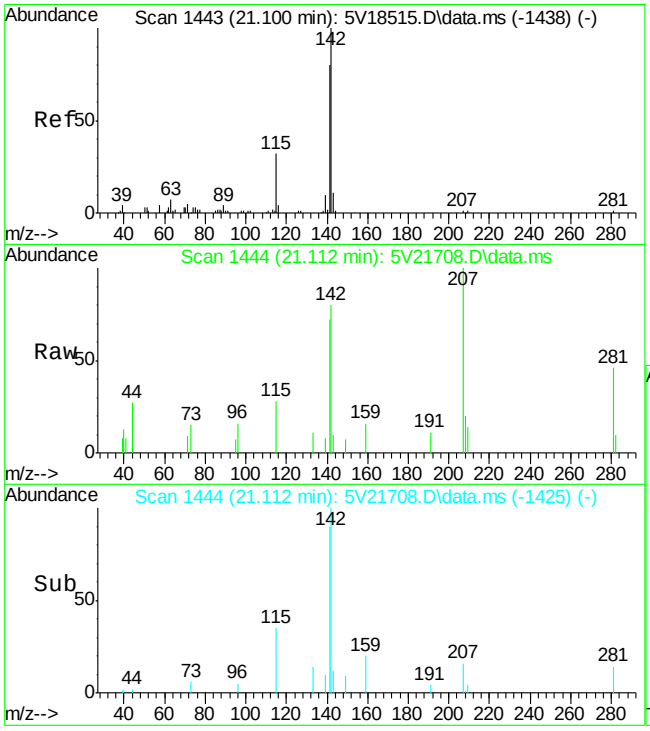


#93
1,2,3-Trichlorobenzene
Concen: 0.52 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. -0.000 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:180 Resp: 3444

Ion	Ratio	Lower	Upper
180	100		
182	87.9	76.0	114.0
145	21.1	21.4	32.0#

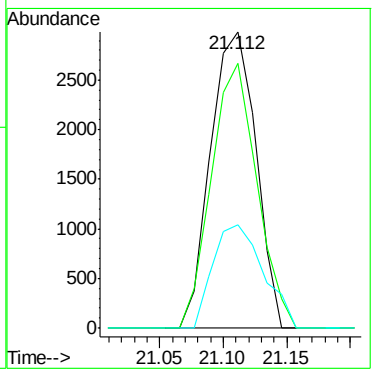


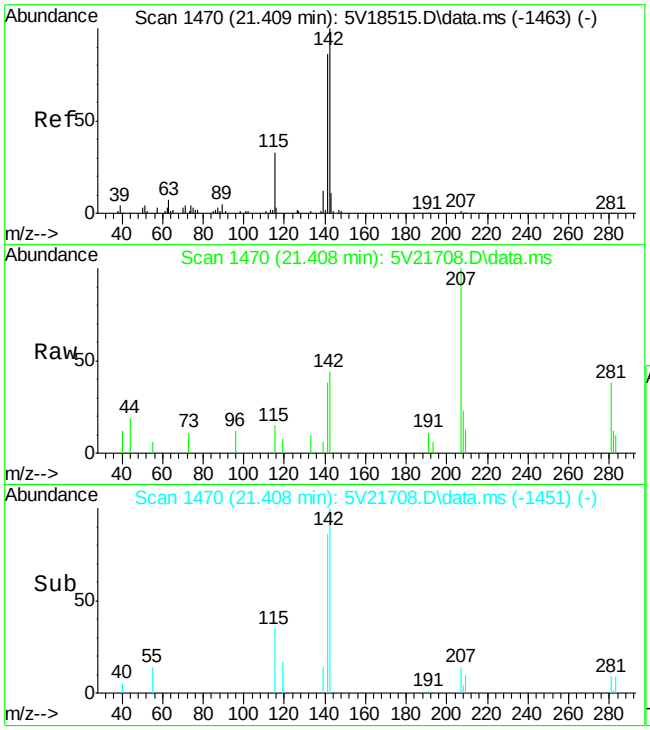


#94
2-Methylnaphthalene
Concen: 2.65 ug/l
RT: 21.112 min Scan# 1444
Delta R.T. 0.012 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:142 Resp: 7370

Ion	Ratio	Lower	Upper
142	100		
141	90.1	66.2	99.4
115	38.7	25.9	38.9

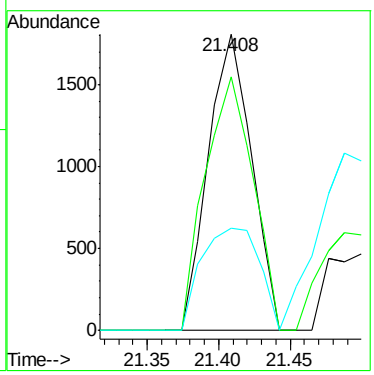




#95
1-Methylnaphthalene
Concen: 1.87 ug/l
RT: 21.408 min Scan# 1470
Delta R.T. 0.011 min
Lab File: 5V21708.D
Acq: 4 Jun 2012 2:01 pm

Tgt Ion:142 Resp: 3804

Ion	Ratio	Lower	Upper
142	100		
141	94.3	68.9	103.3
115	46.2	27.3	40.9#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21706.D
Acq On : 4 Jun 2012 12:52 pm
Operator : BRETD
Sample : MB
Misc : MS4023,V5V1323,5.00,,100,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 05 08:57:09 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

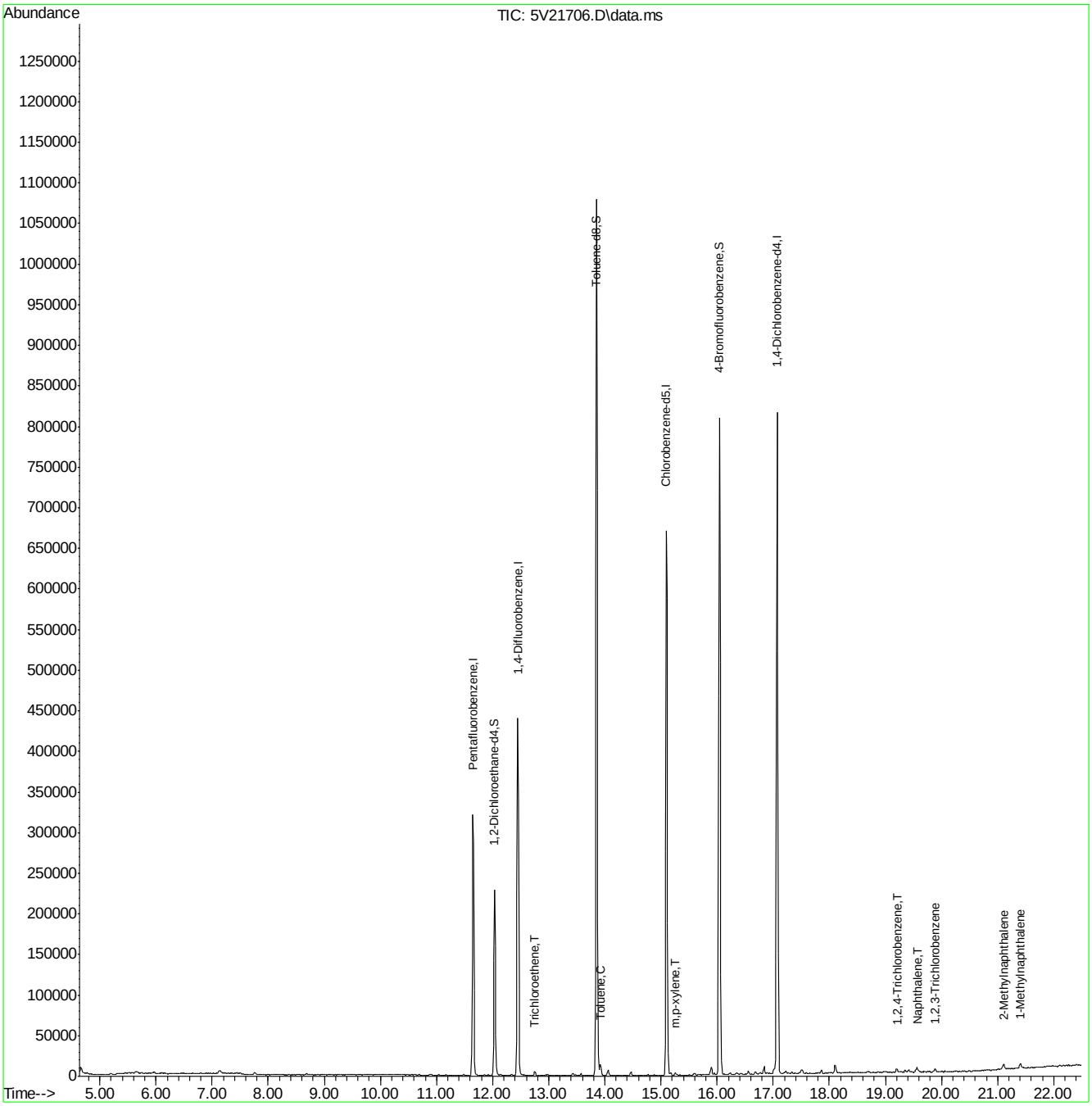
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	254847	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	380265	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	437669	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	269613	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	12.035	102	38564	49.33	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.66%			
61) Toluene-d8	13.851	98	718507	48.57	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.14%			
69) 4-Bromofluorobenzene	16.043	95	288634	47.63	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.26%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.102	TIC	-17443m	0.54	ug/l	
48) Trichloroethene	12.755	95	1838	0.43	ug/l	94
62) Toluene	13.919	92	3339	0.29	ug/l	95
72) m,p-xylene	15.255	106	1358	0.16	ug/l	95
90) 1,2,4-Trichlorobenzene	19.205	180	2165	0.31	ug/l	96
91) Naphthalene	19.570	128	7762	1.15	ug/l	100
93) 1,2,3-Trichlorobenzene	19.879	180	2774	0.42	ug/l	93
94) 2-Methylnaphthalene	21.112	142	5886	2.39	ug/l	93
95) 1-Methylnaphthalene	21.409	142	5600	2.19	ug/l	93

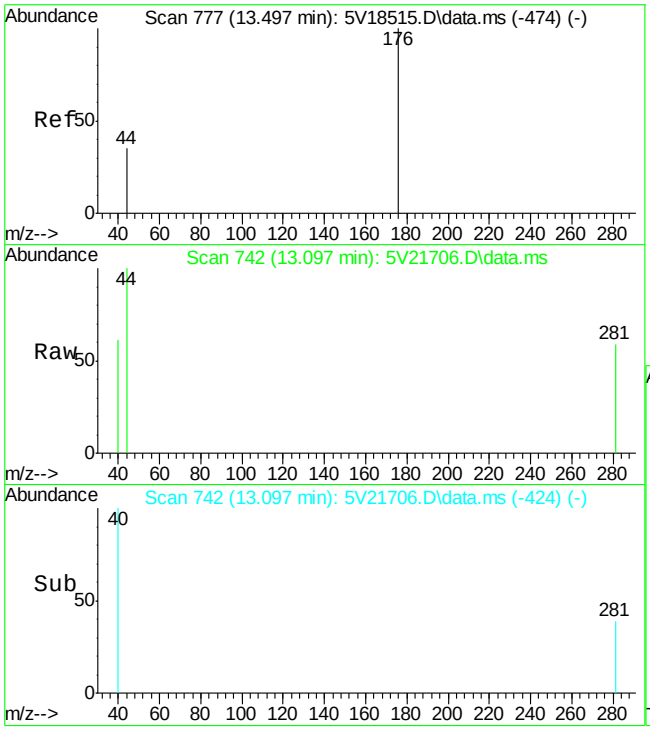
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5060412.S\
Data File : 5V21706.D
Acq On : 4 Jun 2012 12:52 pm
Operator : BRETD
Sample : MB
Misc : MS4023,V5V1323,5.00,,100,5,1
ALS Vial : 4 Sample Multiplier: 1

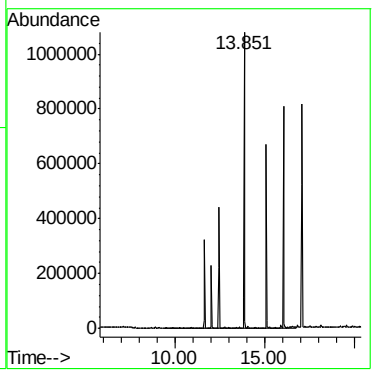
Quant Time: Jun 05 08:57:09 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1304TVH1304.M
Quant Title : 8260
QLast Update : Thu May 24 07:55:17 2012
Response via : Initial Calibration

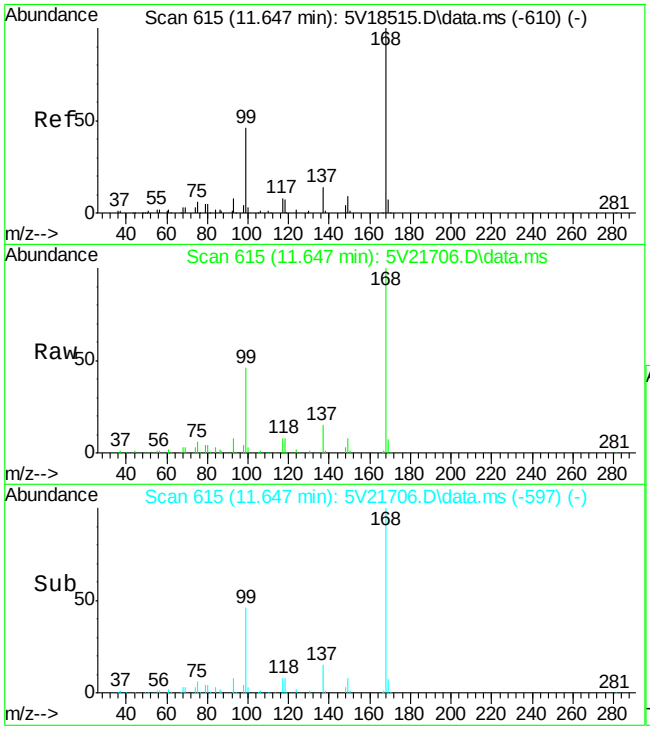




#1
TVH-Gasoline
Concen: 0.54 ug/l m
RT: 13.102 min Scan# 742
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:TIC Resp: -17443

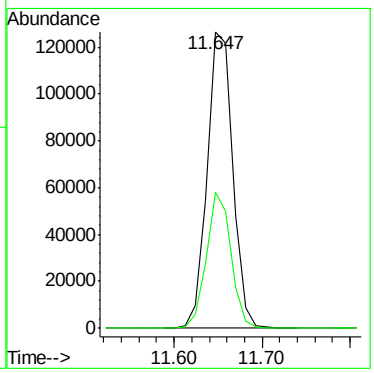


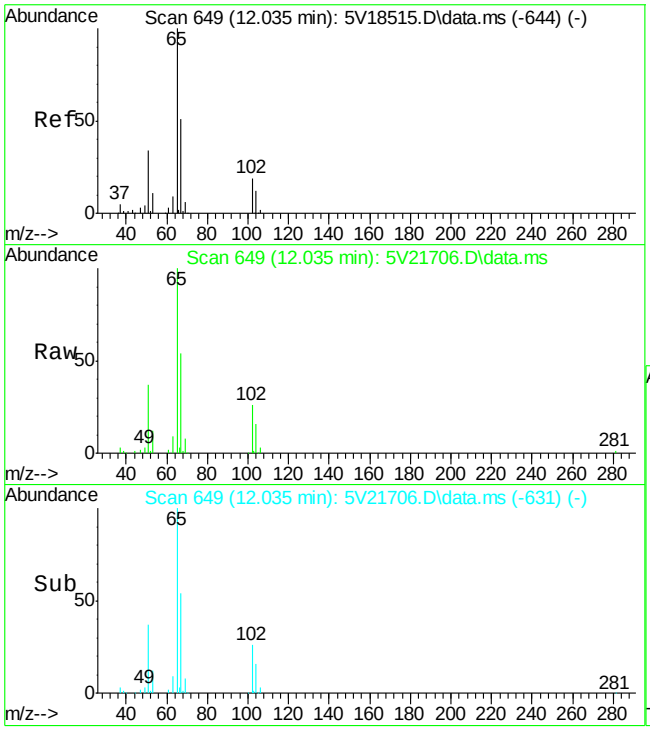


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.647 min Scan# 615
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:168 Resp: 254847

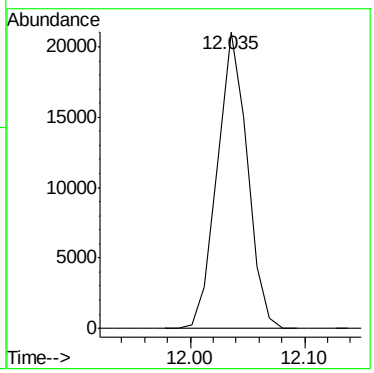
Ion	Ratio	Lower	Upper
168	100		
99	43.5	37.4	56.2

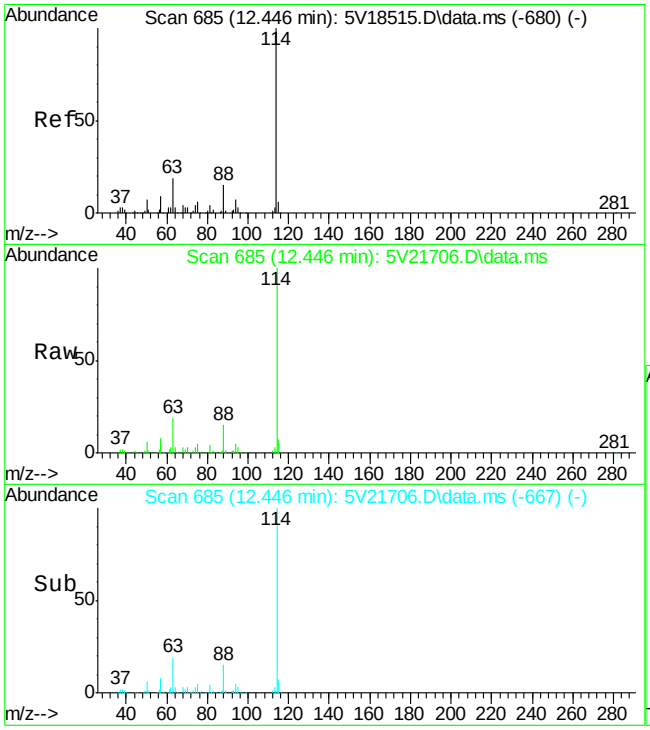




#33
1,2-Dichloroethane-d4
Concen: 49.33 ug/l
RT: 12.035 min Scan# 649
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

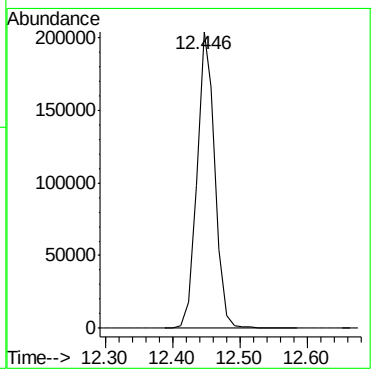
Tgt Ion:102 Resp: 38564

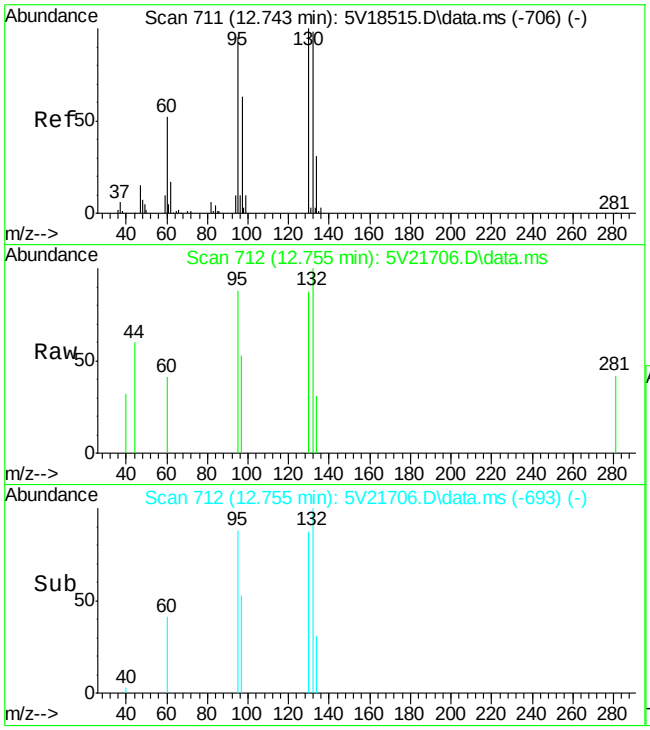




#35
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.446 min Scan# 685
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:114 Resp: 380265

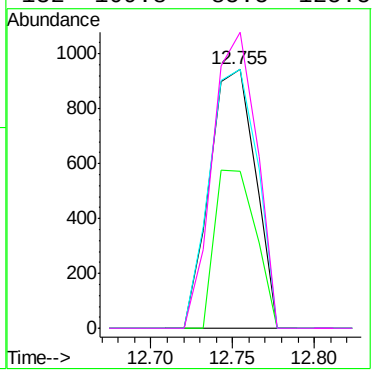


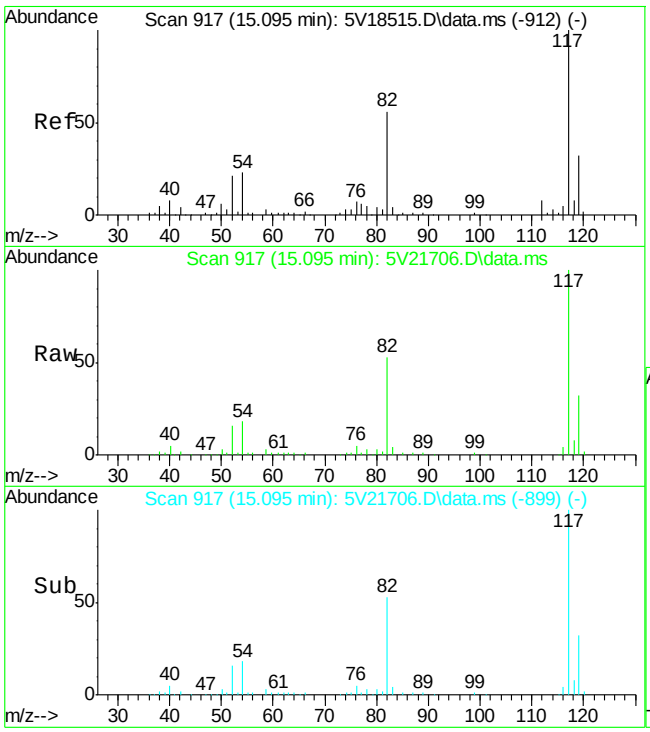


#48
Trichloroethene
Concen: 0.43 ug/l
RT: 12.755 min Scan# 712
Delta R.T. 0.011 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion: 95 Resp: 1838

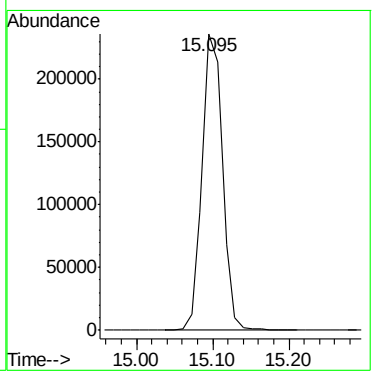
Ion	Ratio	Lower	Upper
95	100		
97	54.5	47.1	87.1
130	104.1	85.2	125.2
132	109.8	85.5	125.5

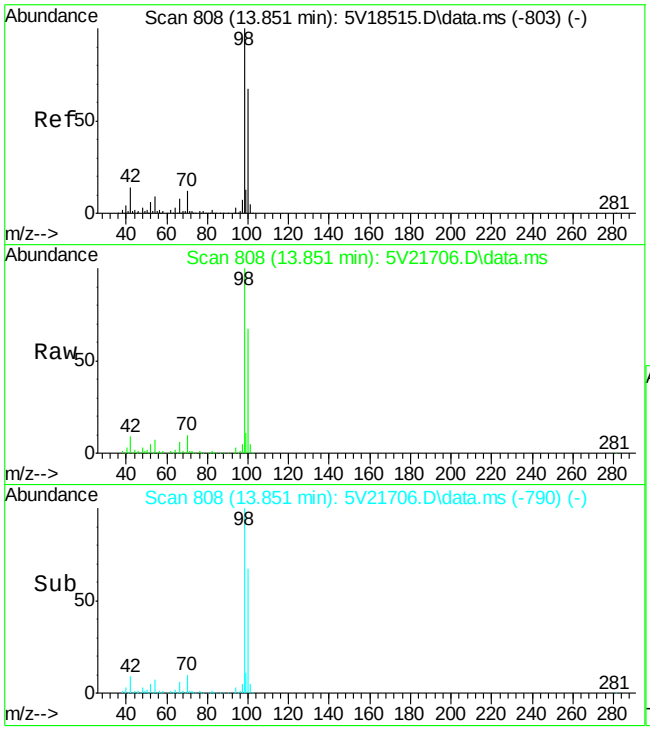




#53
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.095 min Scan# 917
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

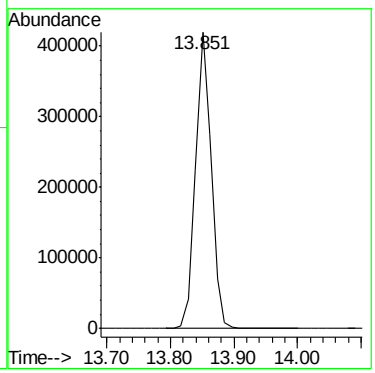
Tgt Ion:117 Resp: 437669

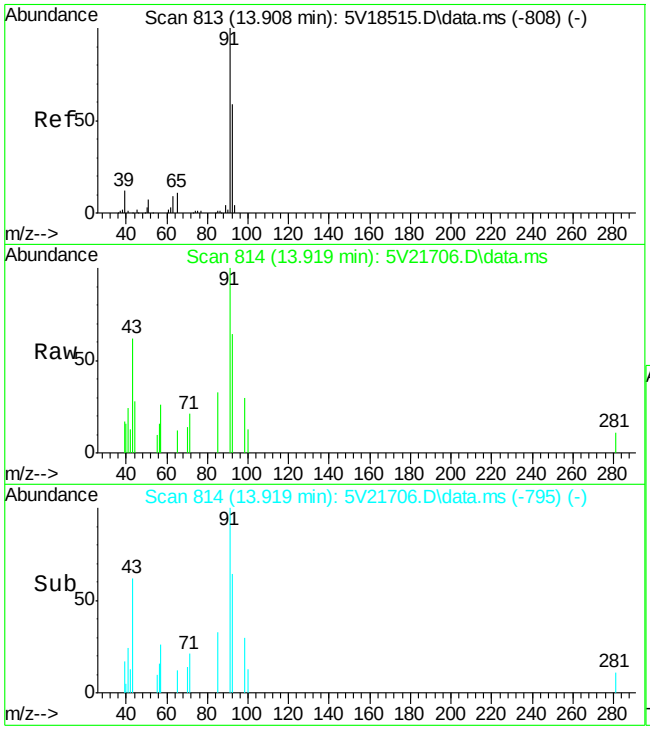




#61
Toluene-d8
Concen: 48.57 ug/l
RT: 13.851 min Scan# 808
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion: 98 Resp: 718507

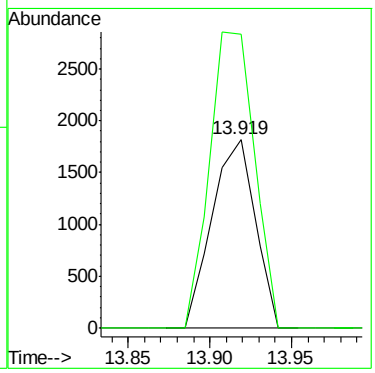


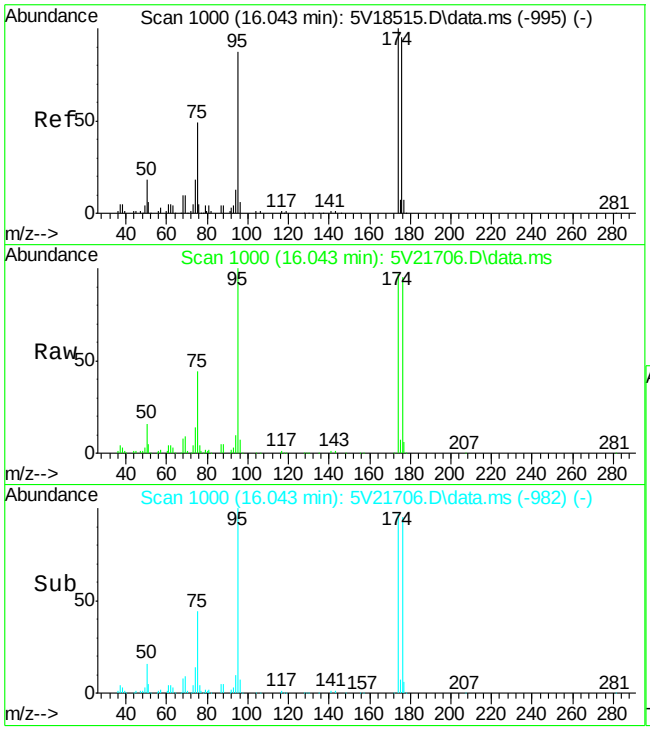


#62
Toluene
Concen: 0.29 ug/l
RT: 13.919 min Scan# 814
Delta R.T. 0.011 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion: 92 Resp: 3339

Ion	Ratio	Lower	Upper
92	100		
91	163.3	149.8	189.8

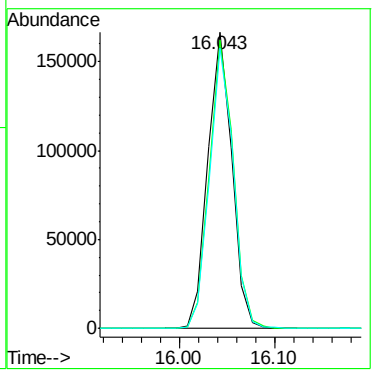


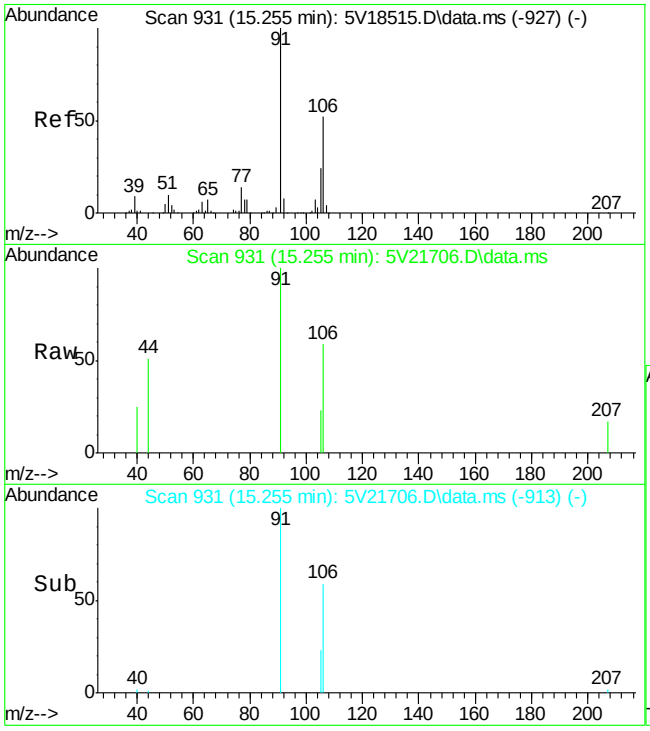


#69
4-Bromofluorobenzene
Concen: 47.63 ug/l
RT: 16.043 min Scan# 1000
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion: 95 Resp: 288634

Ion	Ratio	Lower	Upper
95	100		
174	97.2	77.1	117.1
176	94.1	73.4	113.4

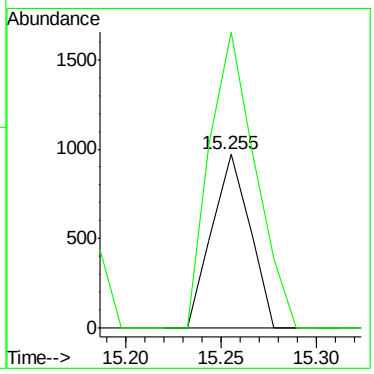


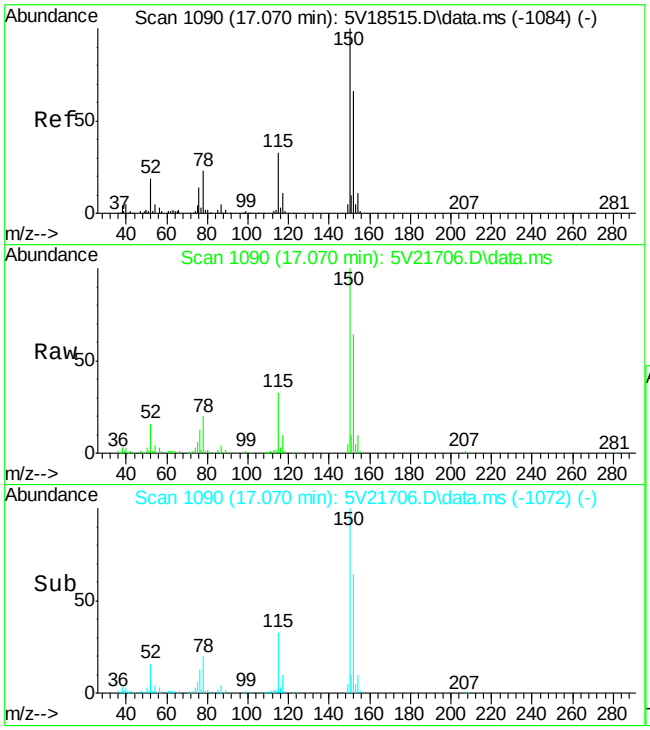


#72
m,p-xylene
Concen: 0.16 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:106 Resp: 1358

Ion	Ratio	Lower	Upper
106	100		
91	204.1	177.1	217.1

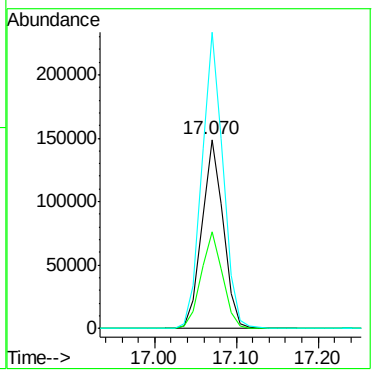


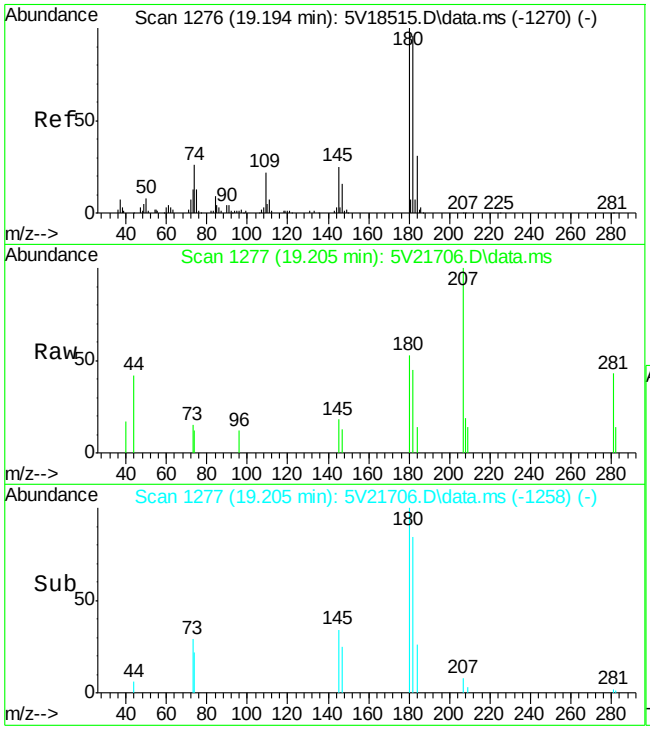


#74
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.070 min Scan# 1090
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:152 Resp: 269613

Ion	Ratio	Lower	Upper
152	100		
115	51.7	41.4	62.0
150	155.7	153.9	230.9

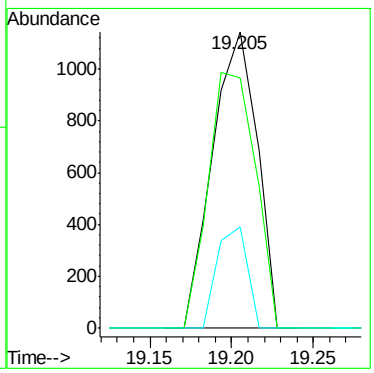


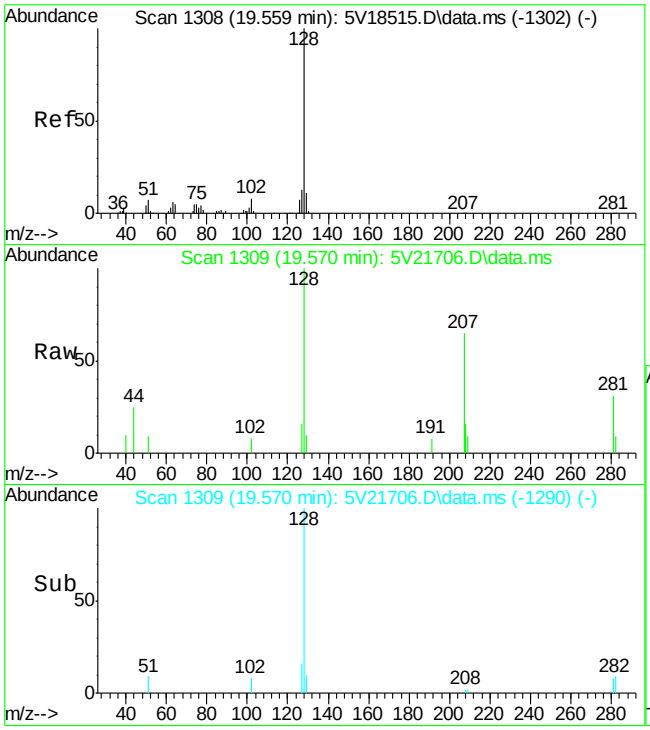


#90
1,2,4-Trichlorobenzene
Concen: 0.31 ug/l
RT: 19.205 min Scan# 1277
Delta R.T. 0.011 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:180 Resp: 2165

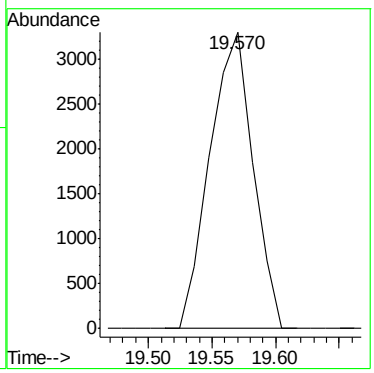
Ion	Ratio	Lower	Upper
180	100		
182	91.5	76.2	114.4
145	23.1	20.1	30.1

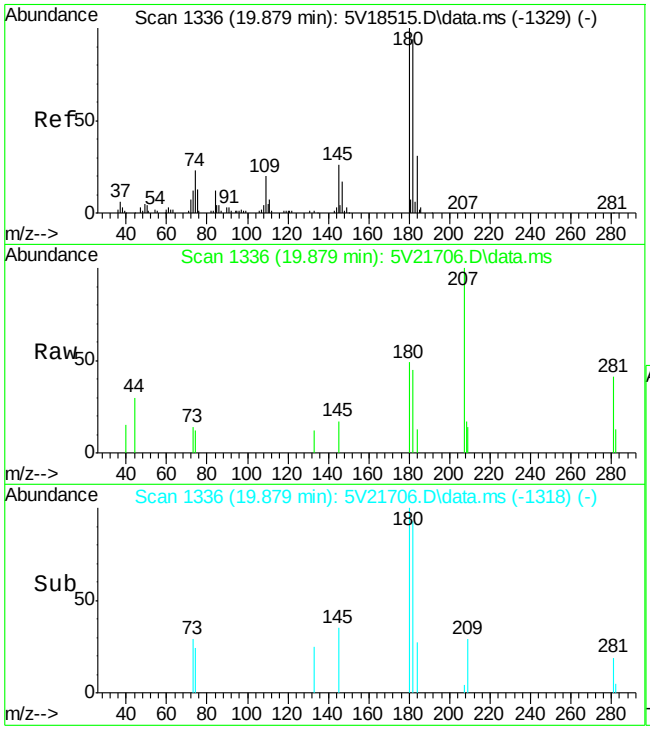




#91
Naphthalene
Concen: 1.15 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:128 Resp: 7762

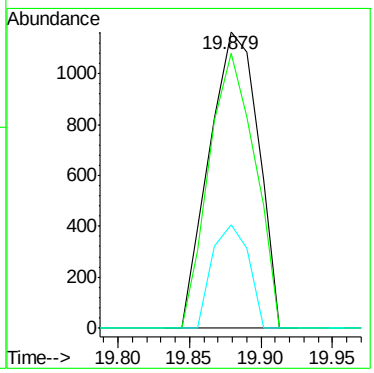


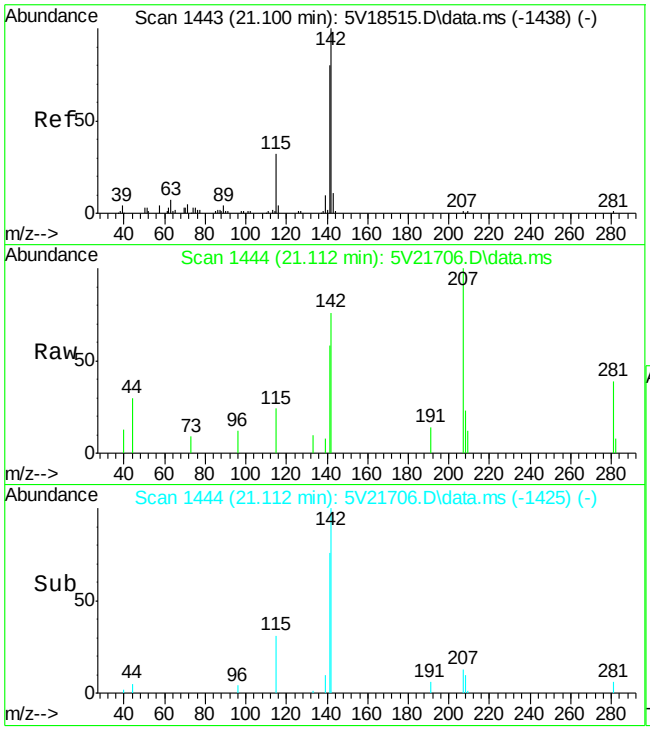


#93
1,2,3-Trichlorobenzene
Concen: 0.42 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. 0.000 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:180 Resp: 2774

Ion	Ratio	Lower	Upper
180	100		
182	86.7	76.0	114.0
145	25.7	21.4	32.0

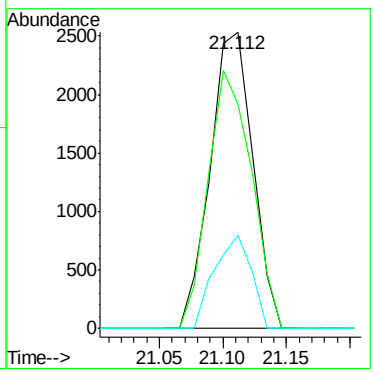


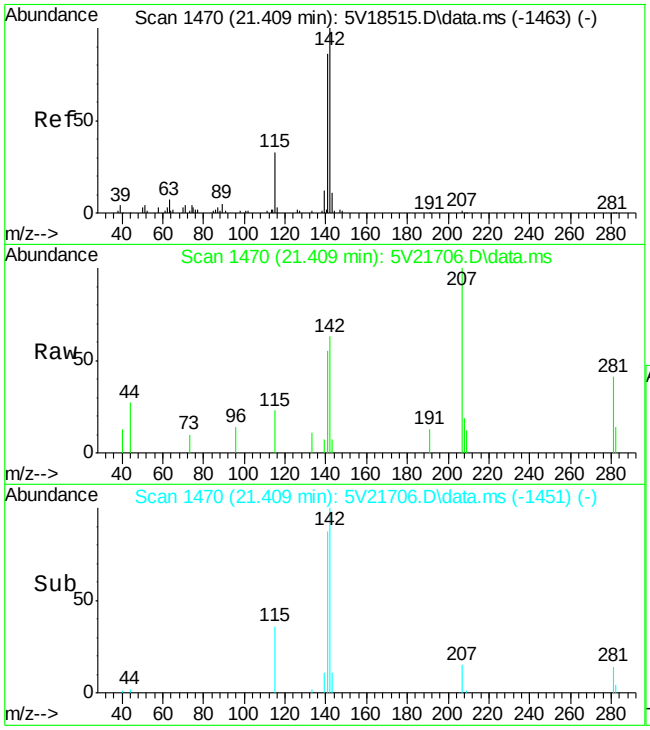


#94
2-Methylnaphthalene
Concen: 2.39 ug/l
RT: 21.112 min Scan# 1444
Delta R.T. 0.012 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:142 Resp: 5886

Ion	Ratio	Lower	Upper
142	100		
141	88.7	66.2	99.4
115	27.0	25.9	38.9

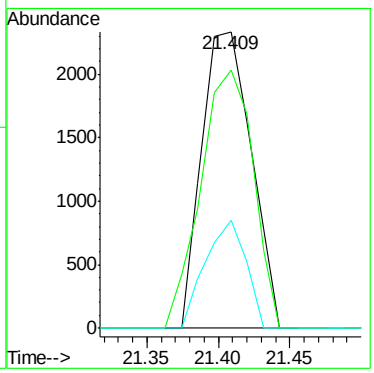




#95
1-Methylnaphthalene
Concen: 2.19 ug/l
RT: 21.409 min Scan# 1470
Delta R.T. 0.012 min
Lab File: 5V21706.D
Acq: 4 Jun 2012 12:52 pm

Tgt Ion:142 Resp: 5600

Ion	Ratio	Lower	Upper
142	100		
141	92.3	68.9	103.3
115	29.8	27.3	40.9



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: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB903-MB	GB16212.D	1	06/05/12	SK	n/a	n/a	GGB903

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

D35038-1, D35038-2, D35038-3

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

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

Blank Spike Summary

Job Number: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB903-BS	GB16213.D	1	06/05/12	SK	n/a	n/a	GGB903

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	120	109	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	122%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D35033-2MS	GB16217.D	1	06/05/12	SK	n/a	n/a	GGB903
D35033-2MSD	GB16218.D	1	06/05/12	SK	n/a	n/a	GGB903
D35033-2	GB16216.D	1	06/05/12	SK	n/a	n/a	GGB903

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	D35033-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		142	149	105	150	106	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D35033-2	Limits
120-82-1	1,2,4-Trichlorobenzene	109%	103%	98%	60-140%

Mountain States ACCUTEST LABORATORIES

GC Volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/06/12 09:39

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\060512\GB16226.D\FID1A.CH Vial: 18
Signal #2 : Y:\1\DATA\060512\GB16226.D\FID2B.CH
Acq On : 5 Jun 2012 10:50 pm Operator: StephK
Sample : D35038-1, 50X Inst : GC/MS Ins
Misc : GC2883,GGB903,5.010,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 06 08:08:10 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 06 08:07:51 2012
Response via : Initial Calibration
DataAcq Meth : TVB4.M

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

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.34	2742223	87.516	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.34	21321195	131.185	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	11992380	0.157	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	4.11	394455	0.979	ug/L	
6) T	Toluene	7.62	1251988	3.159	ug/L	
7) T	Ethylbenzene	10.25	250567	0.741	ug/L	
8) T	m,p-Xylene	10.43	1391415	3.439	ug/L	
9) T	o-Xylene	10.93	201709	0.614	ug/L	
11) T	Naphthalene	14.54	8887854	45.045	ug/L	

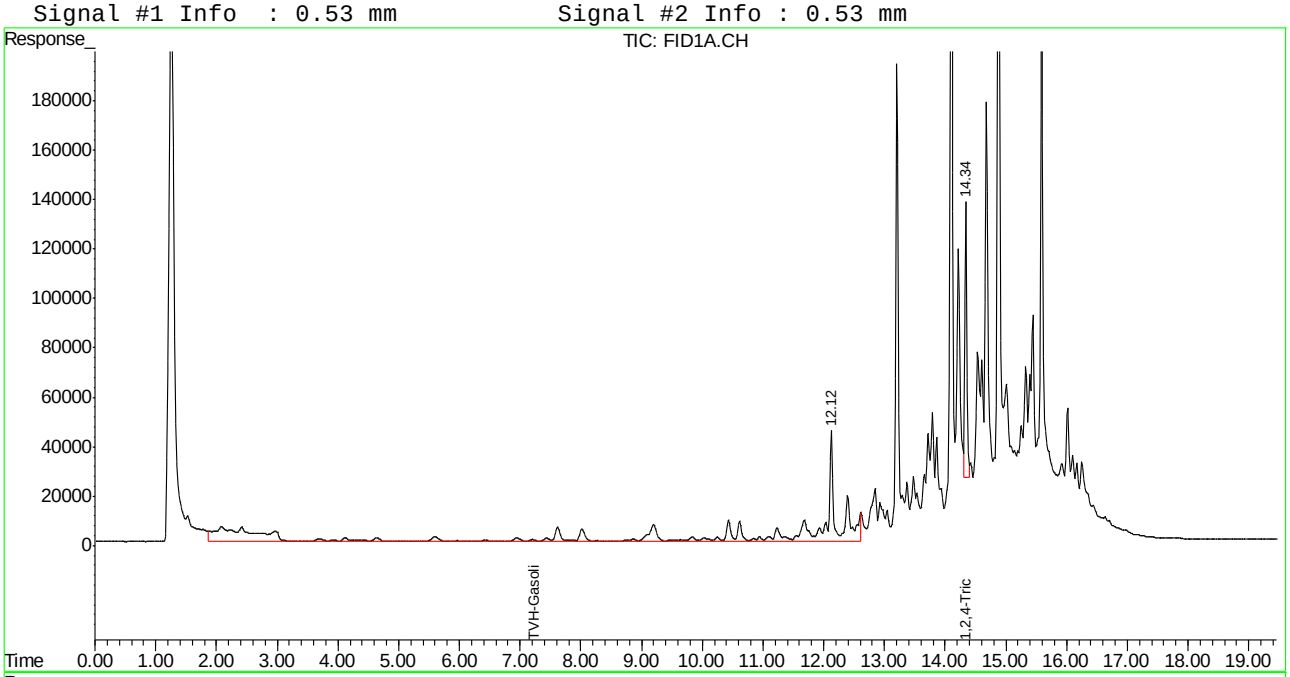
(f)=RT Delta > 1/2 Window (m)=manual int.

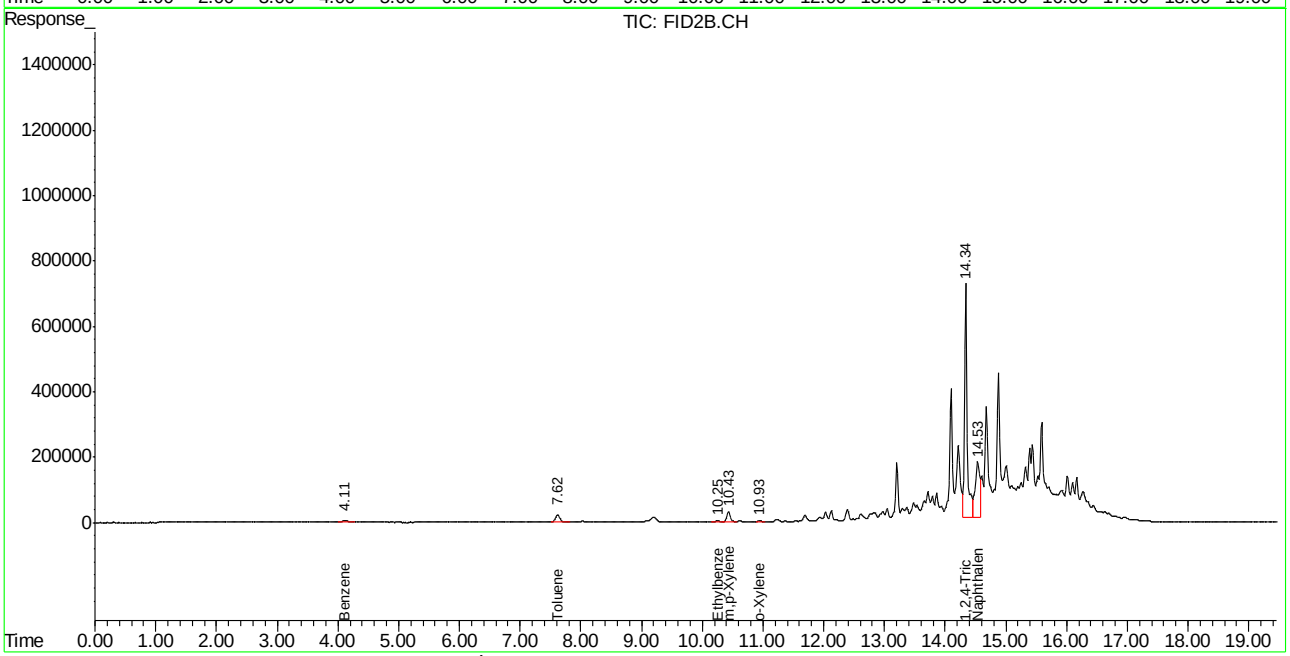
Quantitation Report (QT Reviewed)

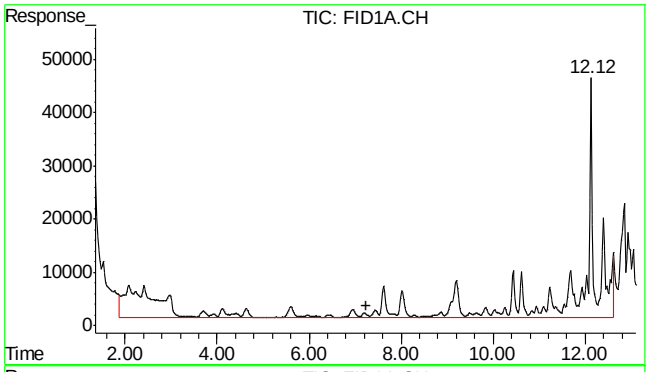
Signal #1 : Y:\1\DATA\060512\GB16226.D\FID1A.CH Vial: 18
Signal #2 : Y:\1\DATA\060512\GB16226.D\FID2B.CH
Acq On : 5 Jun 2012 10:50 pm Operator: StephK
Sample : D35038-1, 50X Inst : GC/MS Ins
Misc : GC2883,GGB903,5.010,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 6 7:15 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 06 08:07:51 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

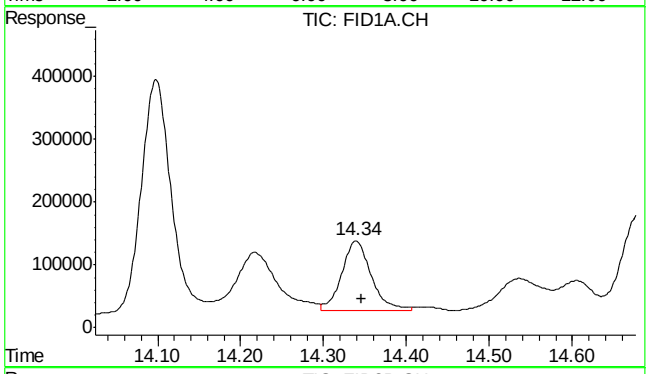






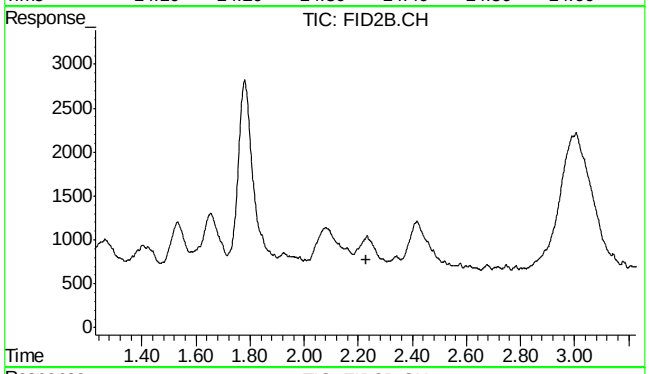
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 11992380
Conc: 0.16 mg/L m



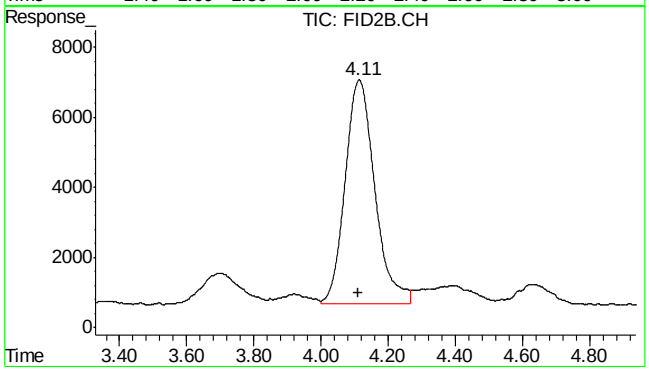
#2 1,2,4-Trichlorobenzene

R.T.: 14.339 min
Delta R.T.: -0.007 min
Response: 2742223
Conc: 87.52 % m



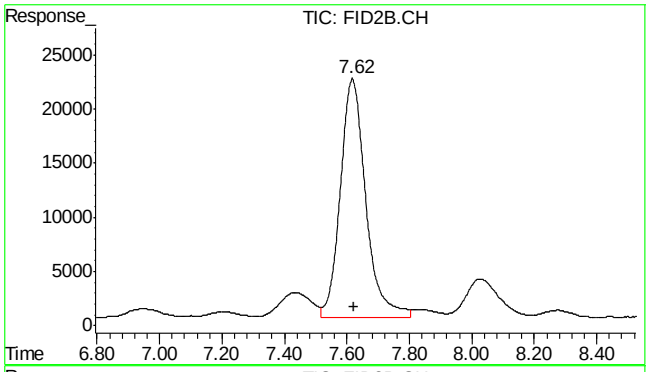
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.228 min
Response: 0
Conc: N.D.



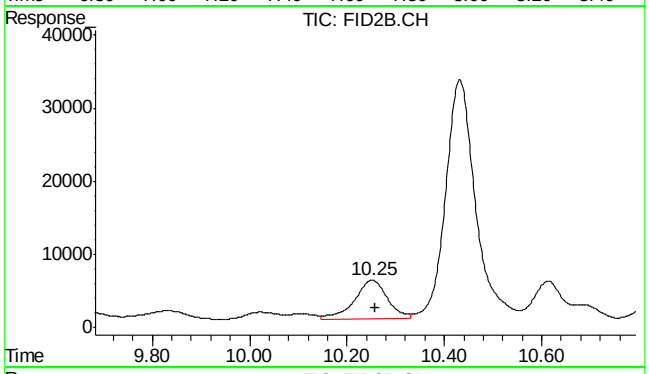
#5 Benzene

R.T.: 4.113 min
Delta R.T.: 0.002 min
Response: 394455
Conc: 0.98 ug/L



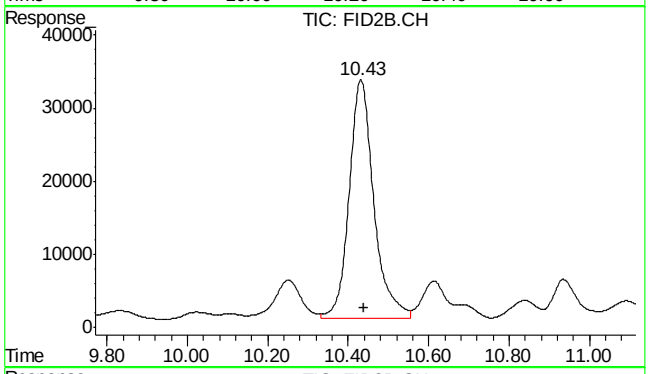
#6 Toluene

R.T.: 7.618 min
Delta R.T.: -0.006 min
Response: 1251988
Conc: 3.16 ug/L



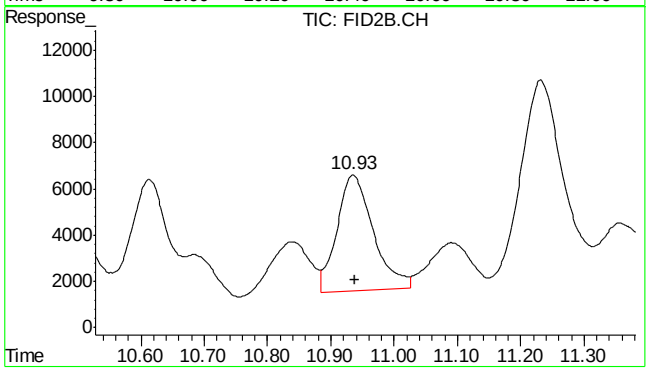
#7 Ethylbenzene

R.T.: 10.252 min
Delta R.T.: -0.006 min
Response: 250567
Conc: 0.74 ug/L



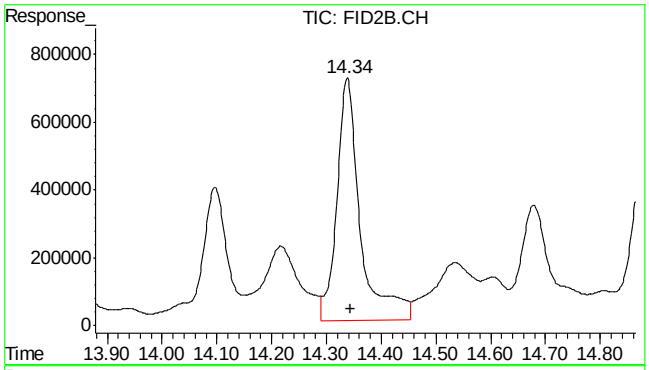
#8 m,p-Xylene

R.T.: 10.432 min
Delta R.T.: -0.007 min
Response: 1391415
Conc: 3.44 ug/L



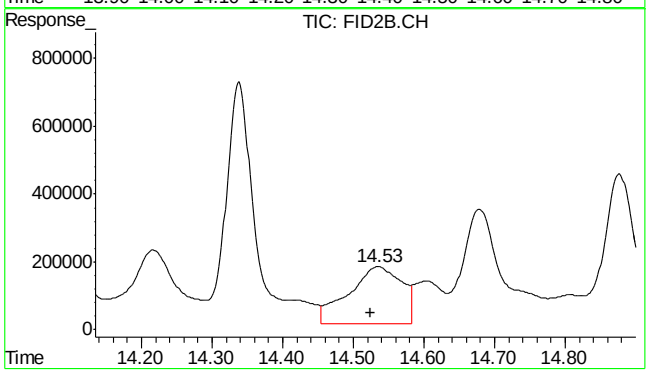
#9 o-Xylene

R.T.: 10.935 min
Delta R.T.: -0.003 min
Response: 201709
Conc: 0.61 ug/L



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

R.T.: 14.338 min
Delta R.T.: -0.005 min
Response: 21321195
Conc: 131.19 %



#11 Naphthalene

R.T.: 14.535 min
Delta R.T.: 0.010 min
Response: 8887854
Conc: 45.05 ug/L

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/06/12 09:39

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\060512\GB16227.D\FID1A.CH Vial: 19
Signal #2 : Y:\1\DATA\060512\GB16227.D\FID2B.CH
Acq On : 5 Jun 2012 11:25 pm Operator: StephK
Sample : D35038-2, 50X Inst : GC/MS Ins
Misc : GC2883,GGB903,5.038,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 06 08:08:14 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 06 08:07:51 2012
Response via : Initial Calibration
DataAcq Meth : TVB4.M

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

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.33	2653867	84.696	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.33	16992980	104.554	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	13663083	0.184	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	4.09	423248	1.050	ug/L	
6) T	Toluene	7.60	1801832	4.547	ug/L	
7) T	Ethylbenzene	10.24	442322	1.308	ug/L	
8) T	m,p-Xylene	10.42	2170715	5.574	ug/L	
9) T	o-Xylene	10.93	306642	0.934	ug/L	
11) T	Naphthalene	14.52	2330156	11.810	ug/L	

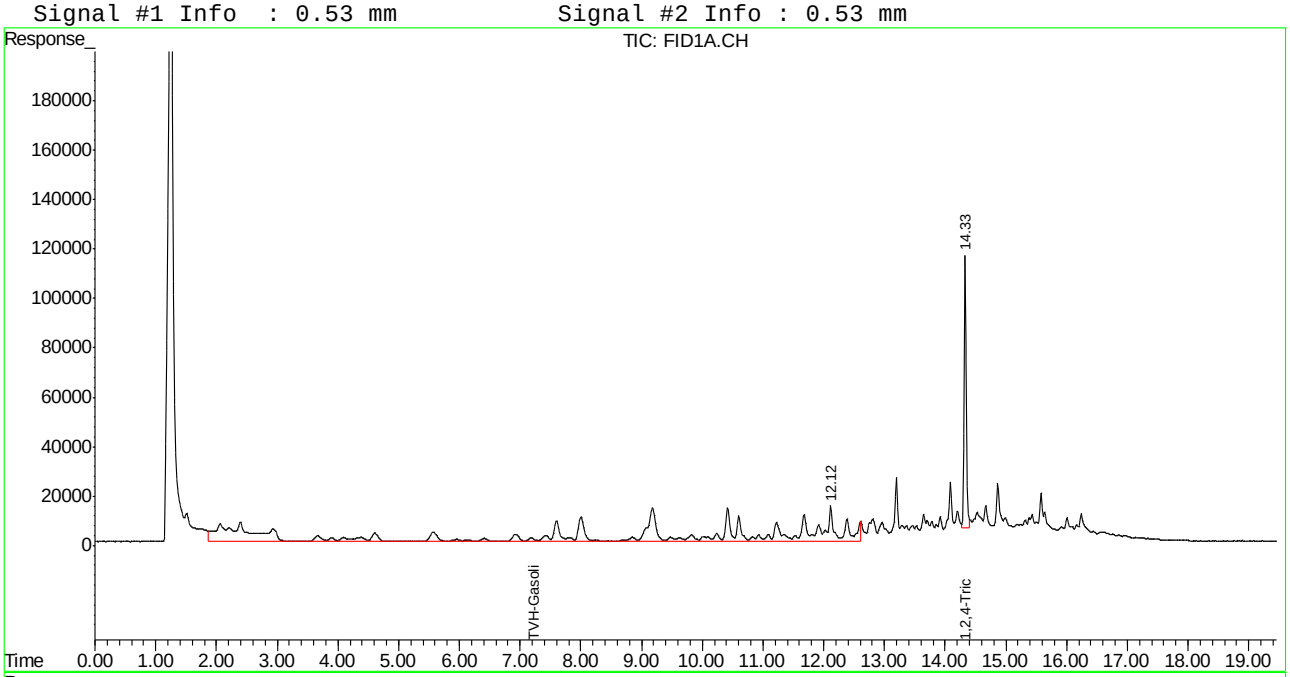
(f)=RT Delta > 1/2 Window (m)=manual int.

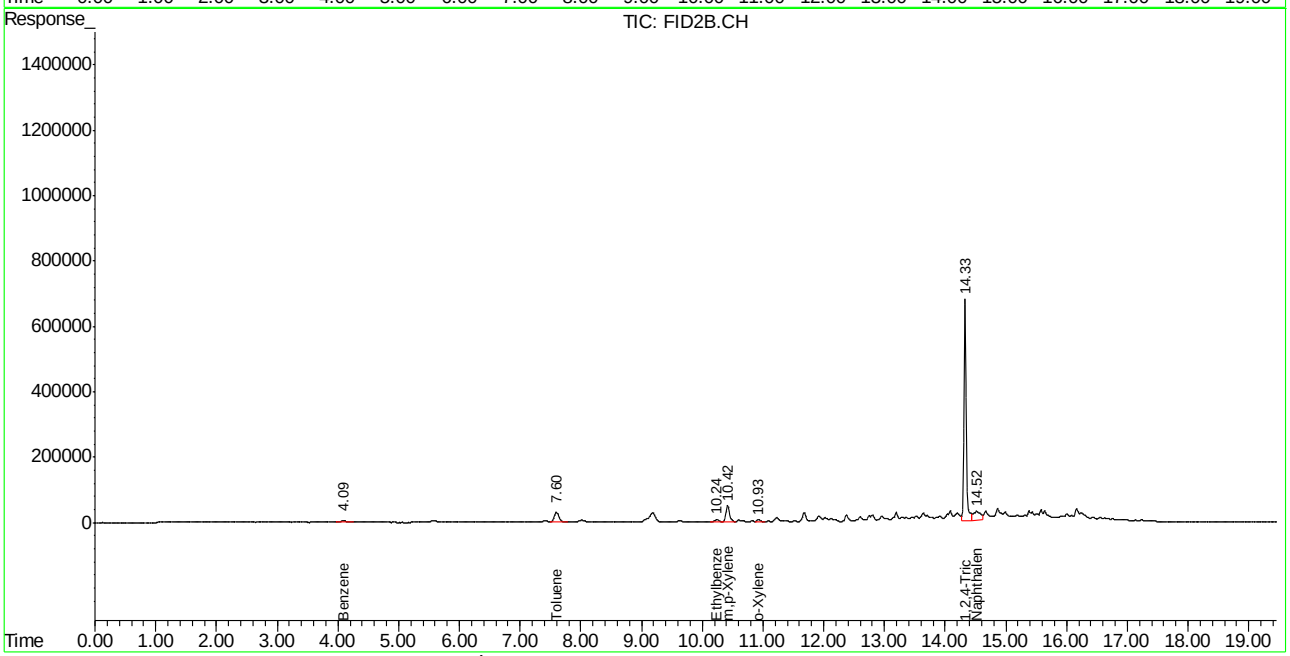
Quantitation Report (QT Reviewed)

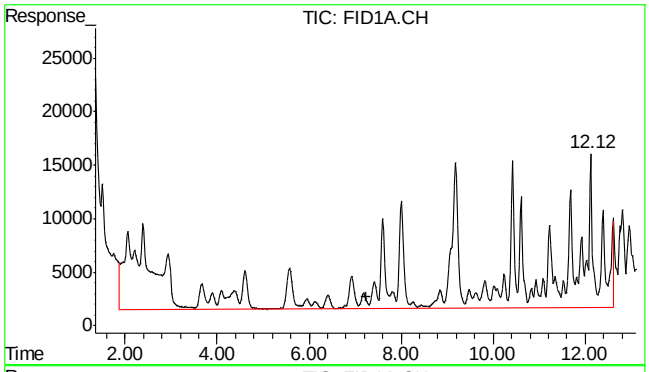
Signal #1 : Y:\1\DATA\060512\GB16227.D\FID1A.CH Vial: 19
Signal #2 : Y:\1\DATA\060512\GB16227.D\FID2B.CH
Acq On : 5 Jun 2012 11:25 pm Operator: StephK
Sample : D35038-2, 50X Inst : GC/MS Ins
Misc : GC2883,GGB903,5.038,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 6 7:15 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 06 08:07:51 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

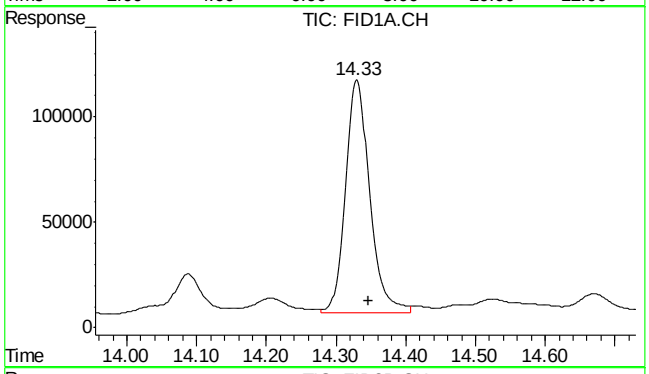






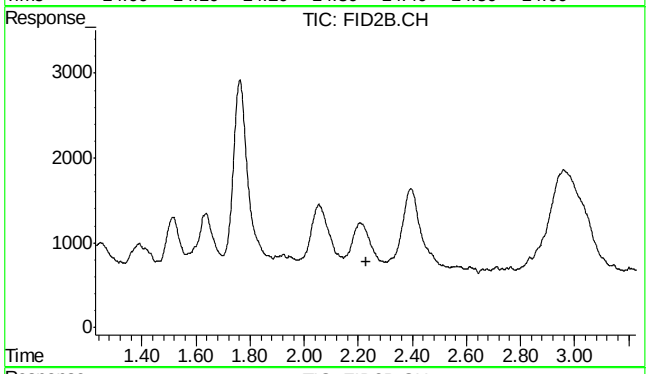
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 13663083
Conc: 0.18 mg/L m



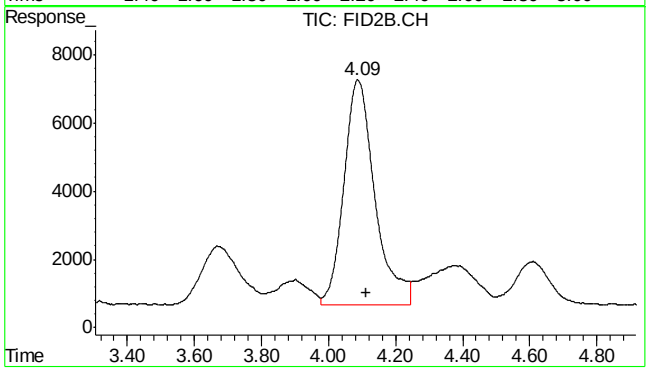
#2 1,2,4-Trichlorobenzene

R.T.: 14.330 min
Delta R.T.: -0.016 min
Response: 2653867
Conc: 84.70 % m



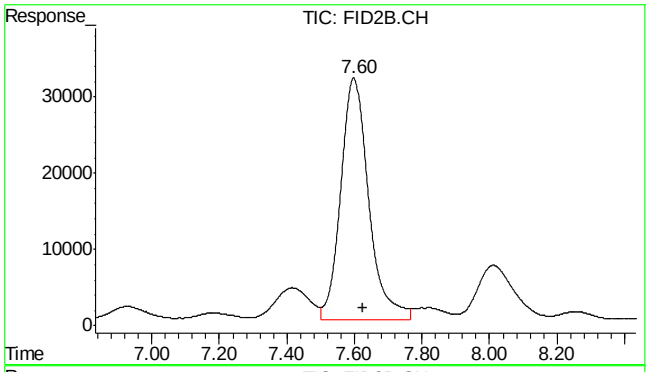
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.228 min
Response: 0
Conc: N.D.



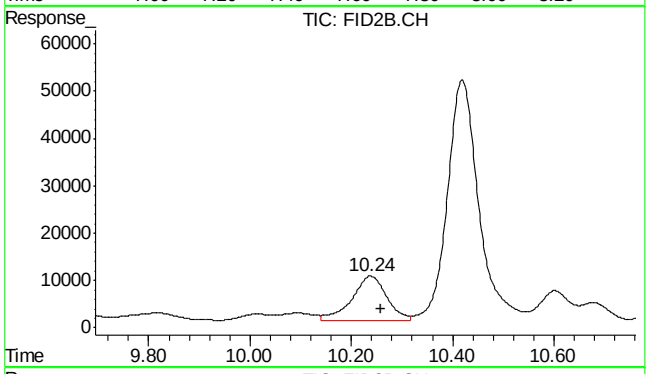
#5 Benzene

R.T.: 4.087 min
Delta R.T.: -0.025 min
Response: 423248
Conc: 1.05 ug/L



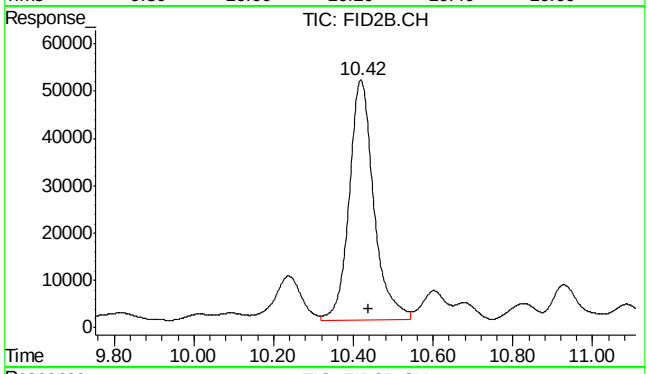
#6 Toluene

R.T.: 7.599 min
Delta R.T.: -0.025 min
Response: 1801832
Conc: 4.55 ug/L



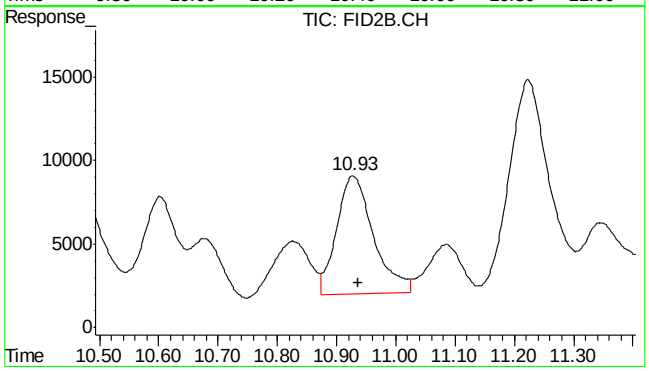
#7 Ethylbenzene

R.T.: 10.238 min
Delta R.T.: -0.020 min
Response: 442322
Conc: 1.31 ug/L



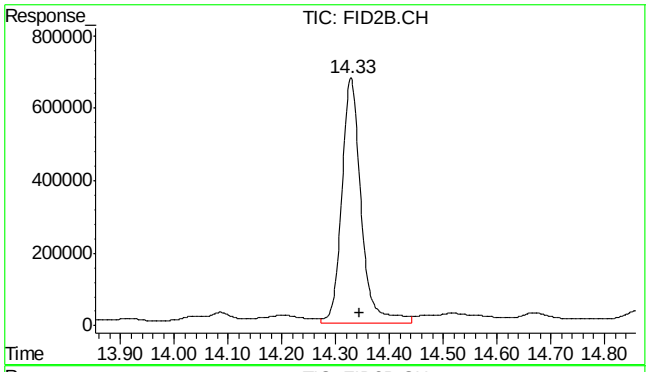
#8 m,p-Xylene

R.T.: 10.419 min
Delta R.T.: -0.020 min
Response: 2170715
Conc: 5.57 ug/L



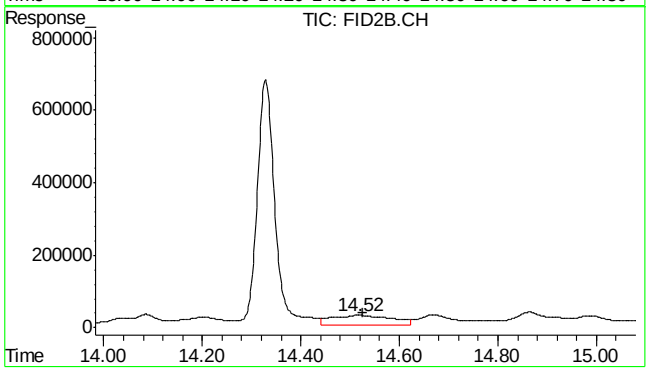
#9 o-Xylene

R.T.: 10.928 min
Delta R.T.: -0.010 min
Response: 306642
Conc: 0.93 ug/L



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

R.T.: 14.329 min
Delta R.T.: -0.015 min
Response: 16992980
Conc: 104.55 %



#11 Naphthalene

R.T.: 14.518 min
Delta R.T.: -0.007 min
Response: 2330156
Conc: 11.81 ug/L

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/06/12 09:39

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\060512\GB16228.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\060512\GB16228.D\FID2B.CH
Acq On : 6 Jun 2012 12:01 am Operator: StephK
Sample : D35038-3, 50X Inst : GC/MS Ins
Misc : GC2883,GGB903,5.008,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 06 08:08:18 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 06 08:07:51 2012
Response via : Initial Calibration
DataAcq Meth : TVB4.M

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

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.33	2674616	85.358	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.33	16751586	103.069	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	14560660	0.198	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	4.10	317937	0.789	ug/L	
6) T	Toluene	7.61	1824944	4.605	ug/L	
7) T	Ethylbenzene	10.24	487935	1.442	ug/L	
8) T	m,p-Xylene	10.42	2284067	5.884	ug/L	
9) T	o-Xylene	10.93	243443	0.741	ug/L	
11) T	Naphthalene	14.52	1420619	7.200	ug/L	

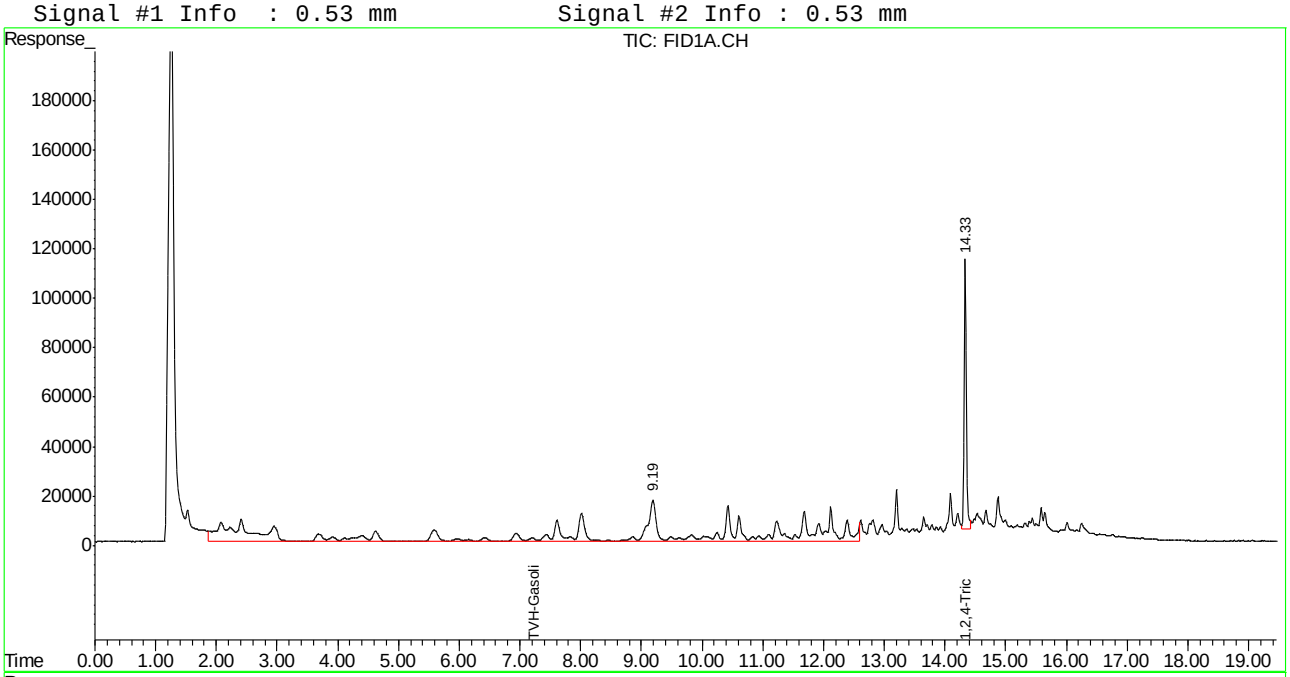
(f)=RT Delta > 1/2 Window (m)=manual int.

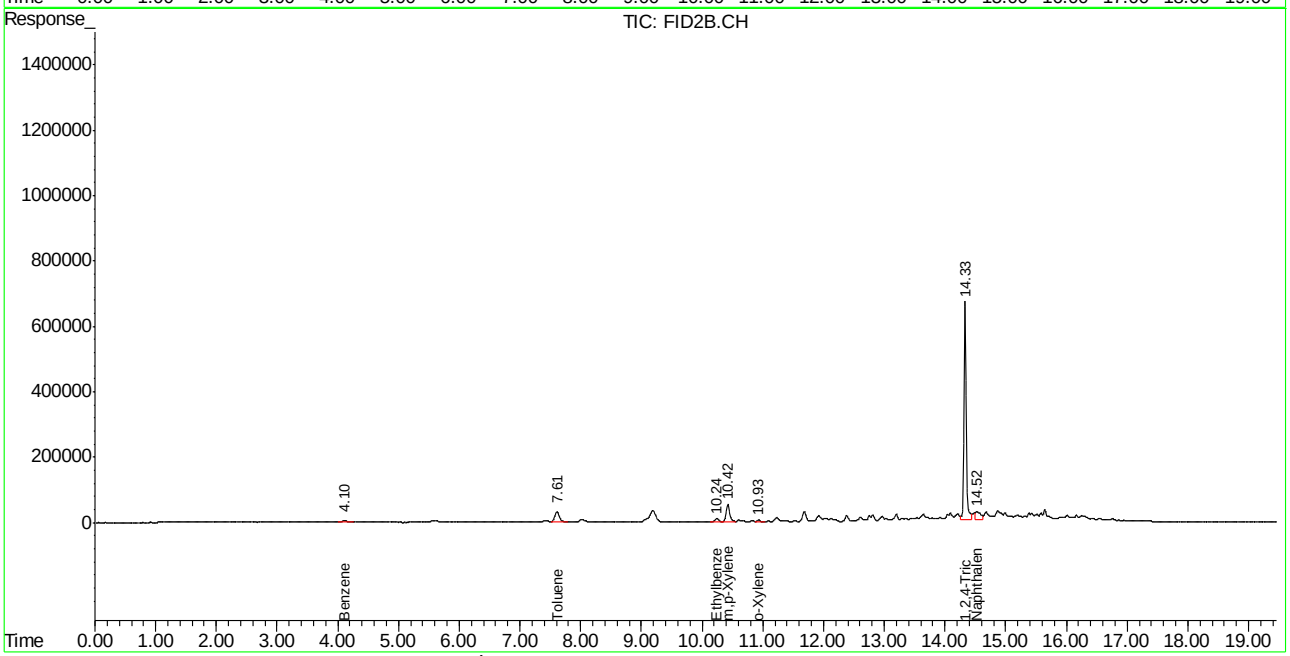
Quantitation Report (QT Reviewed)

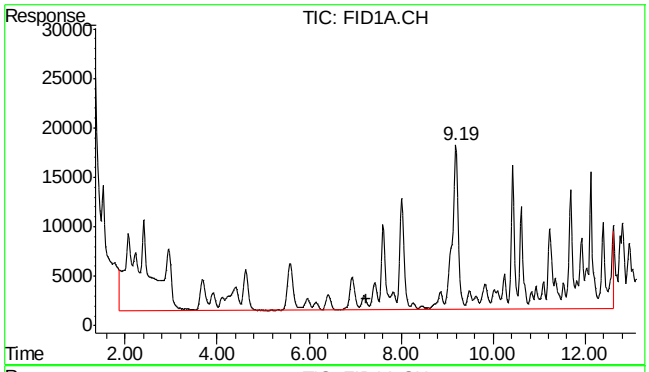
Signal #1 : Y:\1\DATA\060512\GB16228.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\060512\GB16228.D\FID2B.CH
Acq On : 6 Jun 2012 12:01 am Operator: StephK
Sample : D35038-3, 50X Inst : GC/MS Ins
Misc : GC2883,GGB903,5.008,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 6 7:15 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Wed Jun 06 08:07:51 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

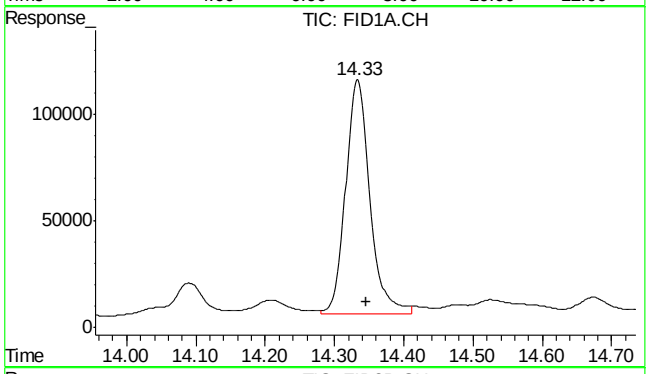






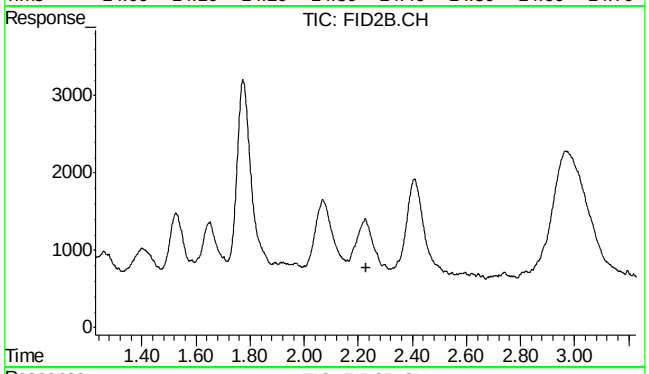
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 14560660
Conc: 0.20 mg/L m



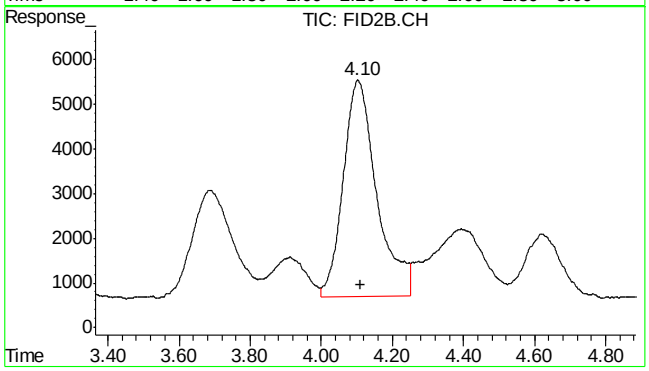
#2 1,2,4-Trichlorobenzene

R.T.: 14.332 min
Delta R.T.: -0.014 min
Response: 2674616
Conc: 85.36 % m



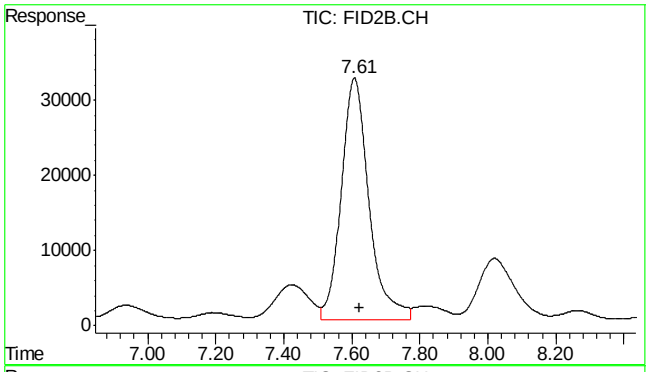
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.228 min
Response: 0
Conc: N.D.



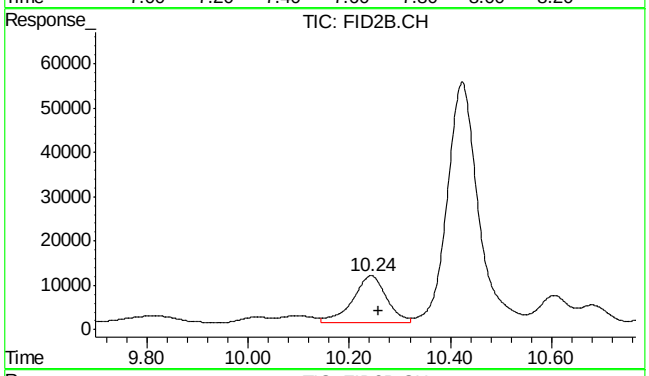
#5 Benzene

R.T.: 4.102 min
Delta R.T.: -0.009 min
Response: 317937
Conc: 0.79 ug/L



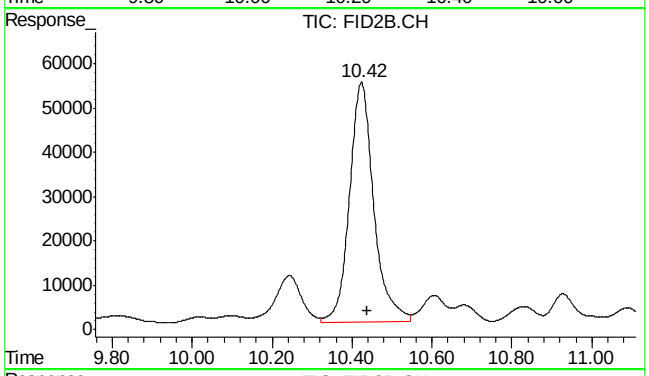
#6 Toluene

R.T.: 7.608 min
Delta R.T.: -0.016 min
Response: 1824944
Conc: 4.61 ug/L



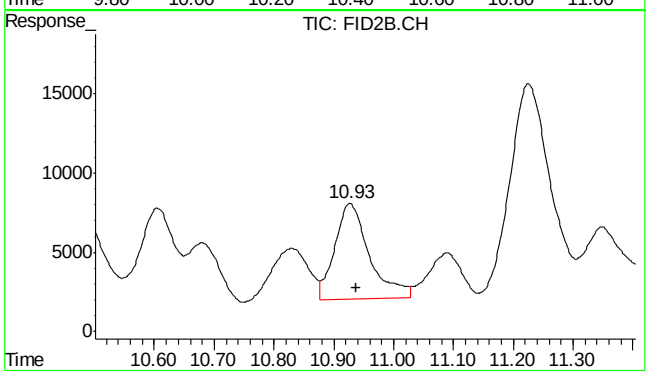
#7 Ethylbenzene

R.T.: 10.244 min
Delta R.T.: -0.014 min
Response: 487935
Conc: 1.44 ug/L



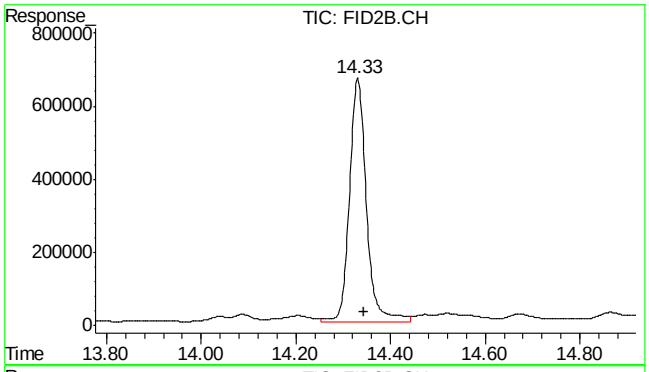
#8 m,p-Xylene

R.T.: 10.423 min
Delta R.T.: -0.016 min
Response: 2284067
Conc: 5.88 ug/L



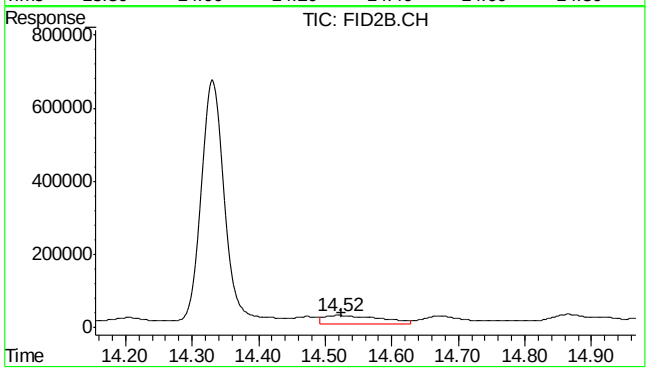
#9 o-Xylene

R.T.: 10.928 min
Delta R.T.: -0.010 min
Response: 243443
Conc: 0.74 ug/L



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

R.T.: 14.331 min
Delta R.T.: -0.012 min
Response: 16751586
Conc: 103.07 %



#11 Naphthalene

R.T.: 14.520 min
Delta R.T.: -0.005 min
Response: 1420619
Conc: 7.20 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\060512\GB16212.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\060512\GB16212.D\FID2B.CH
Acq On : 5 Jun 2012 2:05 pm Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2883,GGB903,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 05 15:54:49 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Tue Jun 05 13:51:36 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	14.35	3168671	101.126	%	
10) S	1,2,4-Trichlorobenzene (P)	14.35	18132914	111.568	%	
	Target Compounds					
1) H	TVH-Gasoline	7.23	3904612	<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	7.64	189995	0.479	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	14.52	255864	1.297	ug/L	

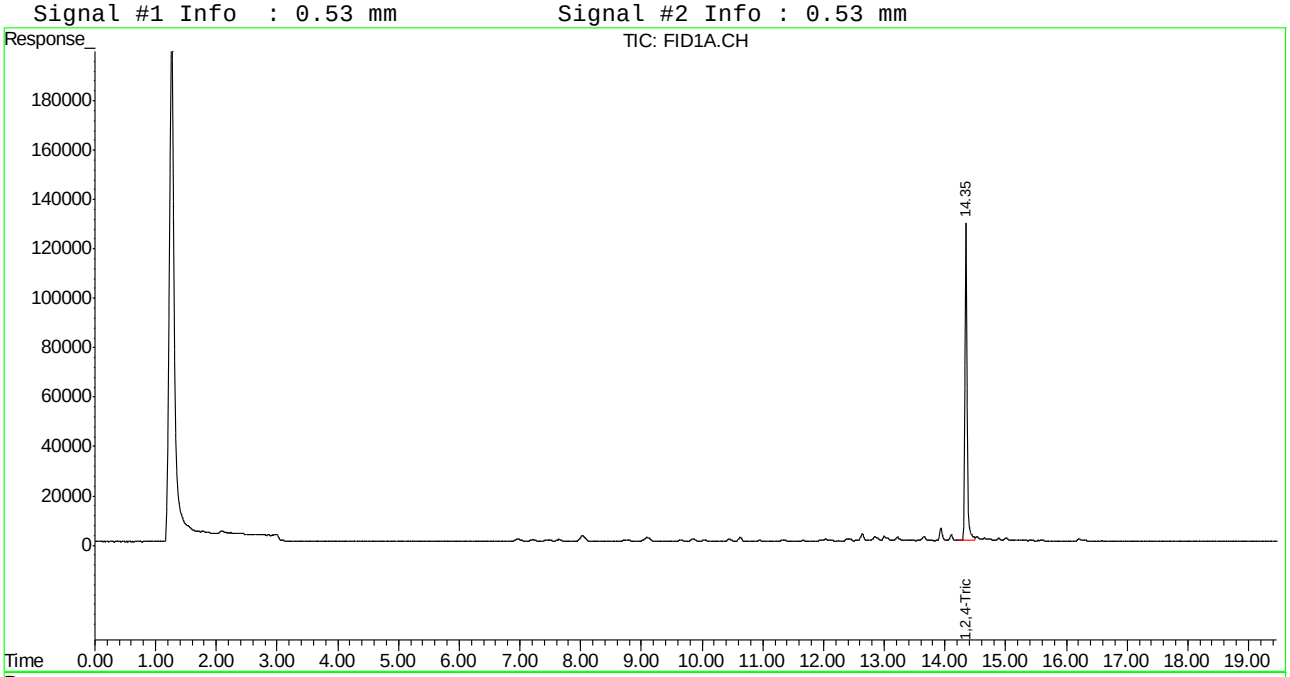
(f)=RT Delta > 1/2 Window (m)=manual int.

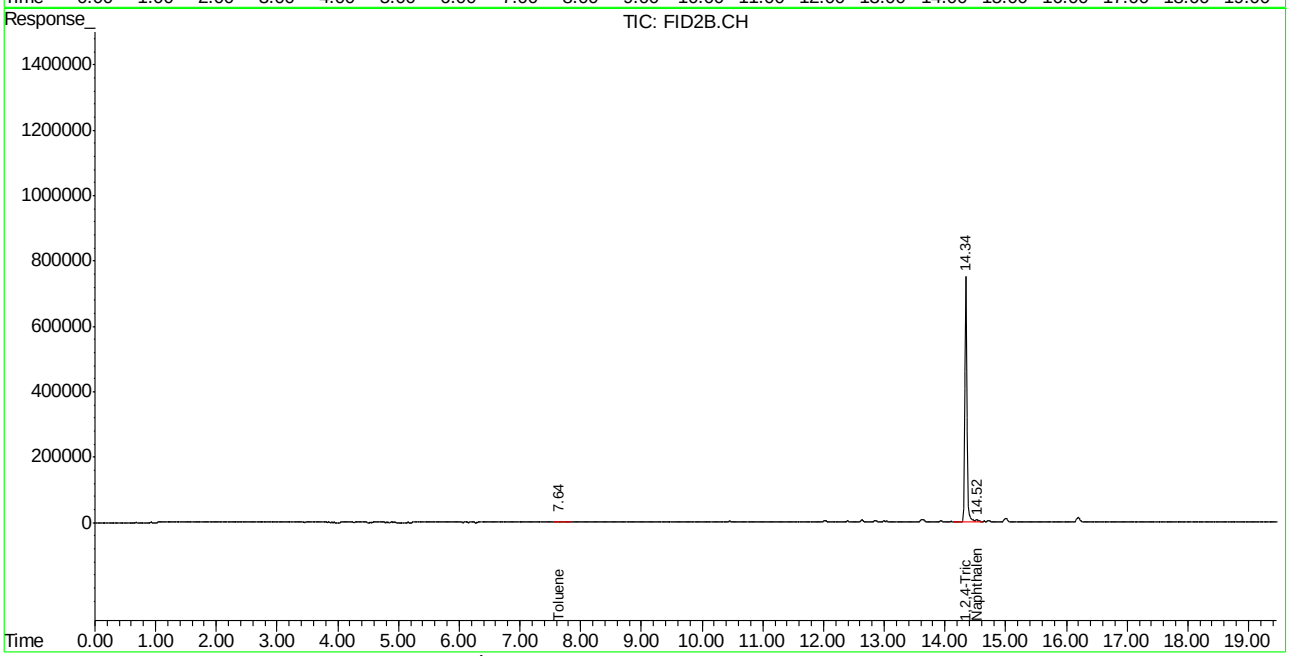
Quantitation Report (QT Reviewed)

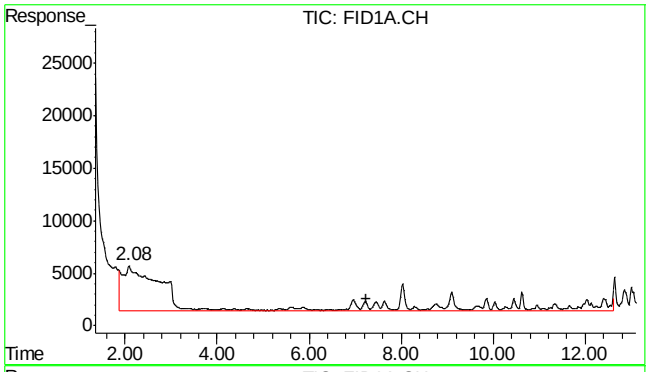
Signal #1 : Y:\1\DATA\060512\GB16212.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\060512\GB16212.D\FID2B.CH
Acq On : 5 Jun 2012 2:05 pm Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2883,GGB903,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Jun 5 14:58 2012 Quant Results File: TB868GB868SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB868GB868SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Tue Jun 05 13:51:36 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

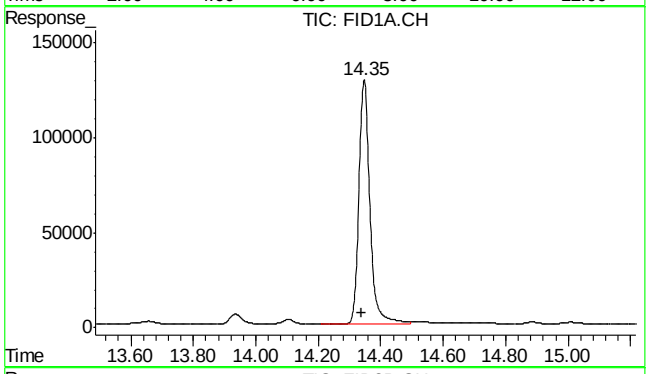






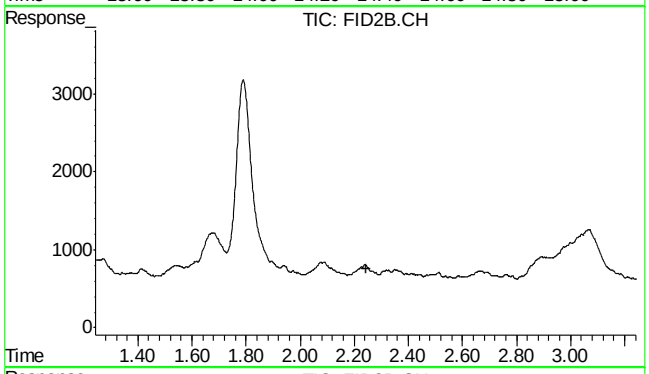
#1 TVH-Gasoline

R.T.: 7.230 min
Delta R.T.: 0.000 min
Response: 3904612
Conc: N.D.



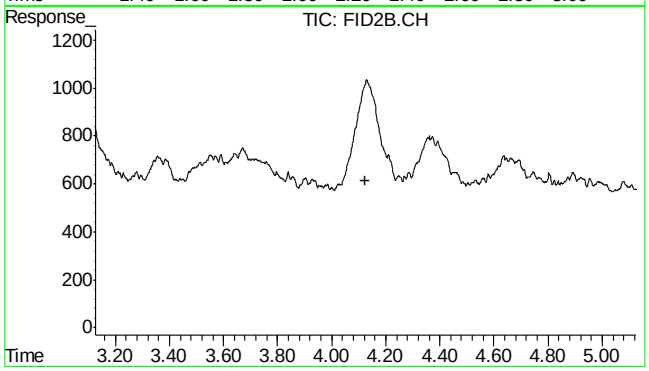
#2 1,2,4-Trichlorobenzene

R.T.: 14.347 min
Delta R.T.: 0.007 min
Response: 3168671
Conc: 101.13 %



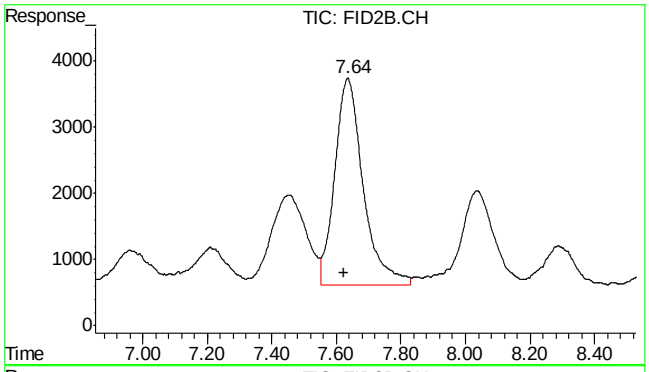
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.243 min
Response: 0
Conc: N.D.



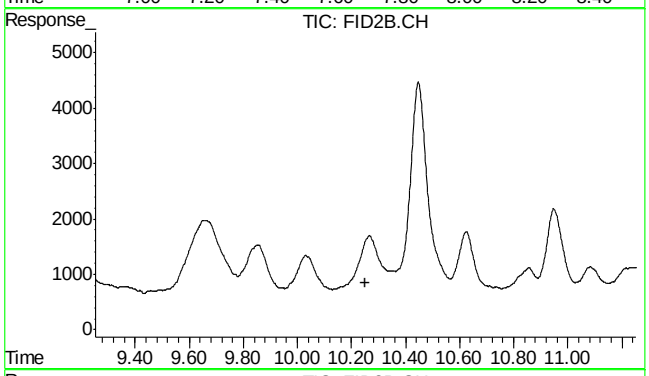
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.125 min
Response: 0
Conc: N.D.



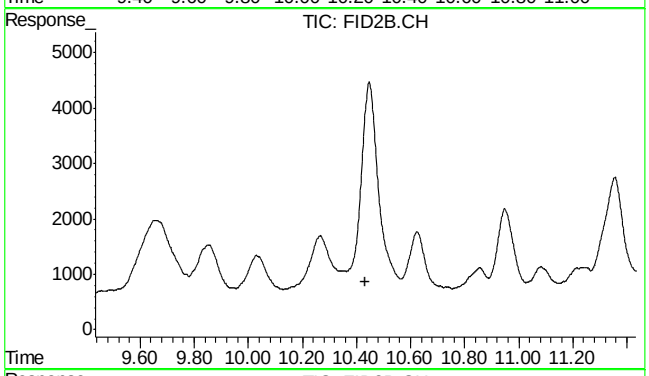
#6 Toluene

R.T.: 7.636 min
Delta R.T.: 0.013 min
Response: 189995
Conc: 0.48 ug/L



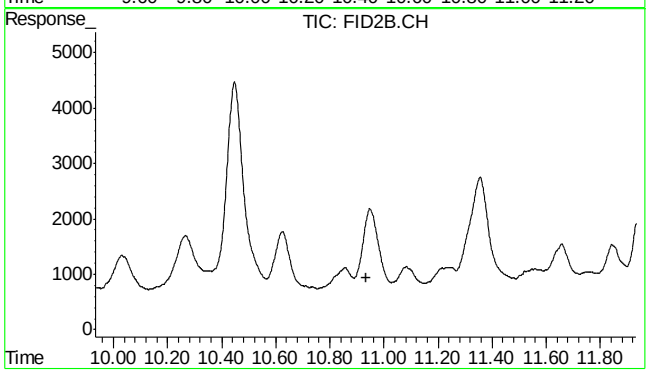
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.252 min
Response: 0
Conc: N.D.



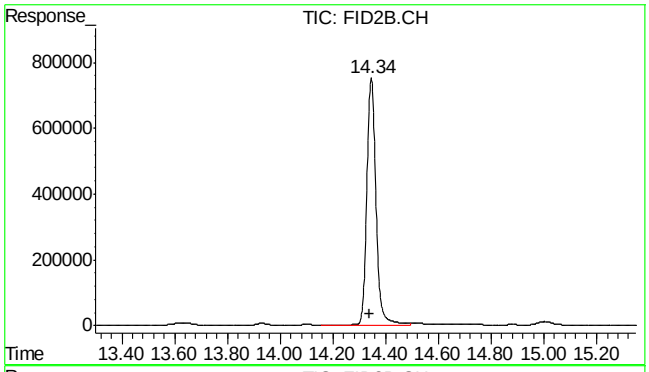
#8 m,p-Xylene

R.T.: 0.000 min
Exp R.T. : 10.434 min
Response: 0
Conc: N.D.



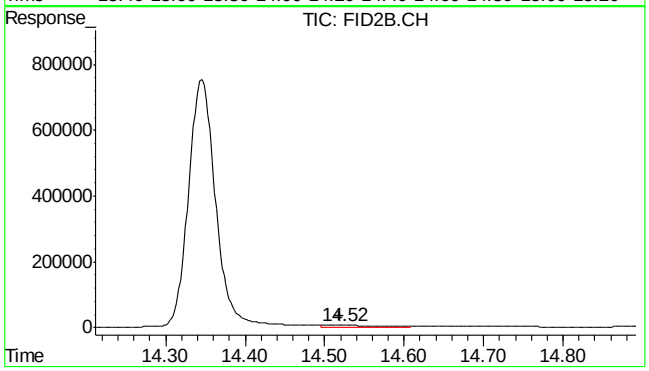
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.933 min
Response: 0
Conc: N.D.



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

R.T.: 14.346 min
Delta R.T.: 0.008 min
Response: 18132914
Conc: 111.57 %



#11 Naphthalene

R.T.: 14.523 min
Delta R.T.: 0.005 min
Response: 255864
Conc: 1.30 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: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6010-MB	FH005143.D	1	06/08/12	AV	06/06/12	OP6010	GFH285

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

D35038-1, D35038-2, D35038-3

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

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	111%	43-136%

Blank Spike Summary

Job Number: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6010-BS	FH005145.D	1	06/08/12	AV	06/06/12	OP6010	GFH285

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	589	88	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	111%	43-136%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D35038
Account: XTOKRWR XTO Energy
Project: FRU 297-17A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6010-MS	FH005147.D	1	06/08/12	AV	06/06/12	OP6010	GFH285
OP6010-MSD	FH005149.D	1	06/08/12	AV	06/06/12	OP6010	GFH285
D35039-1	FH005151.D	1	06/08/12	AV	06/06/12	OP6010	GFH285

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

D35038-1, D35038-2, D35038-3

CAS No.	Compound	D35039-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	178		723	795	85	726	76	9	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D35039-1	Limits
84-15-1	o-Terphenyl	97%	91%	91%	43-136%

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005175.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 6:40 pm
Operator : ashleyv
Sample : D35038-1
Misc : OP6010,GFH285,30.00,,,2,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 08:22:45 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
2) s	o-Terphenyl	11.675	918559468	776.834	ug/ml
Target Compounds					
1) H	TPH-DRO (C10-C28)	9.333	9614989204	7860.239	ug/ml

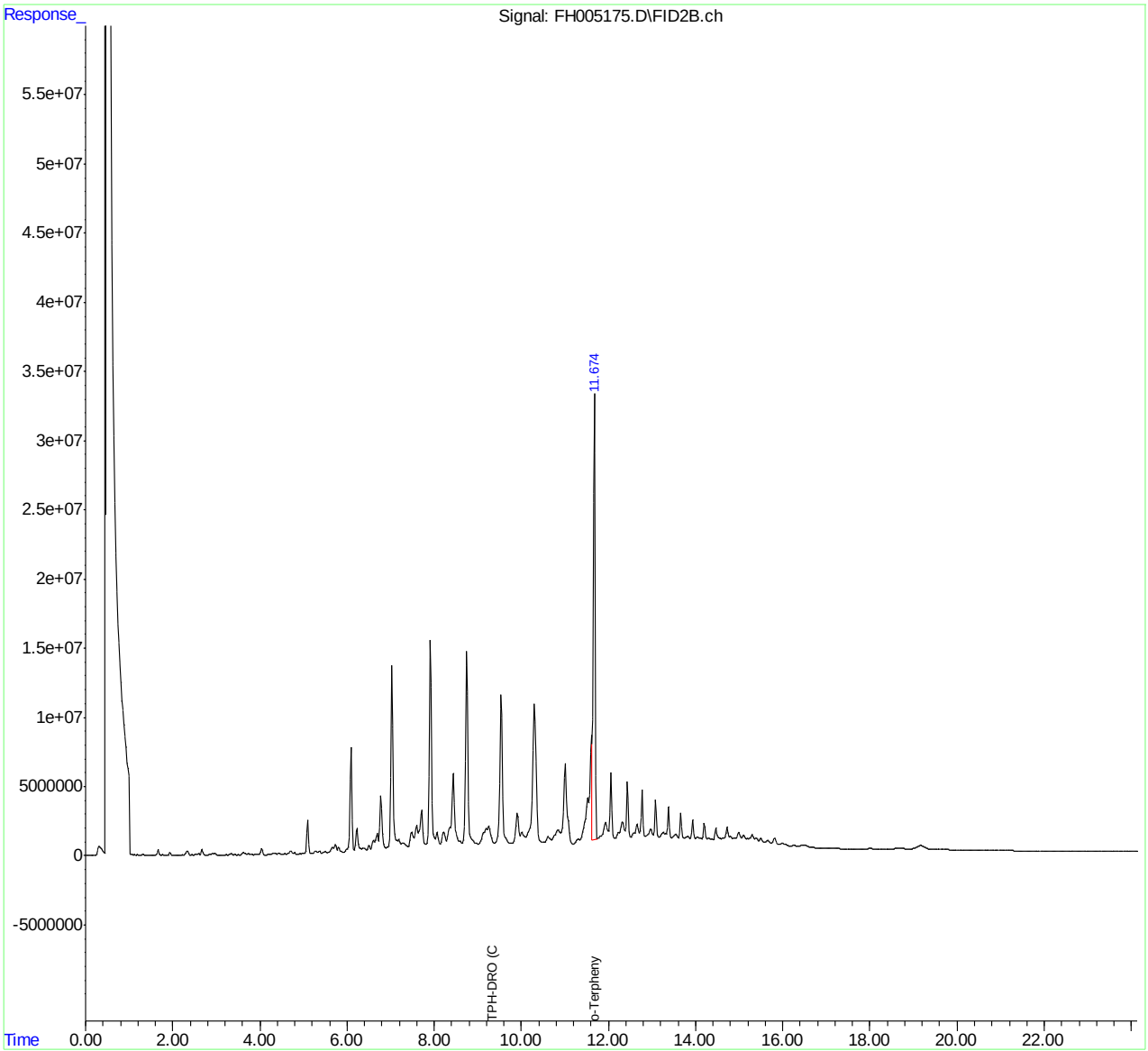
(f)=RT Delta > 1/2 Window (m)=manual int.

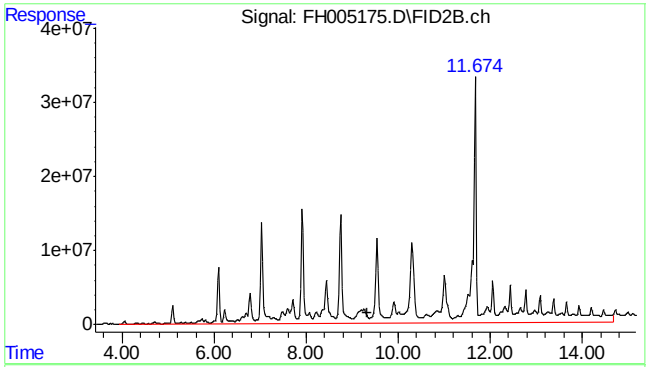
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005175.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 6:40 pm
Operator : ashleyv
Sample : D35038-1
Misc : OP6010,GFH285,30.00,,,2,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 08:22:45 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

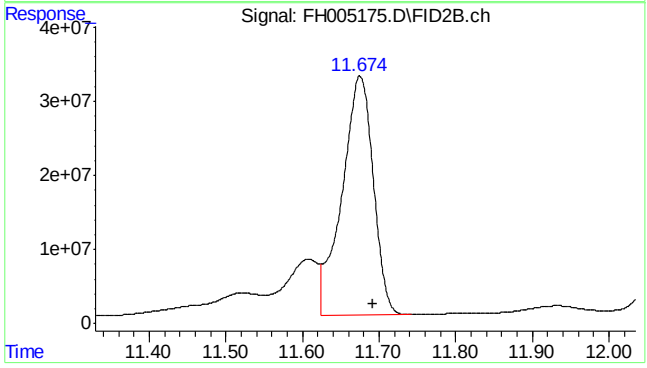
Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.333 min
Delta R.T.: 0.000 min
Response: 9614989204
Conc: 7860.24 ug/ml m



#2 o-Terphenyl

R.T.: 11.675 min
Delta R.T.: -0.017 min
Response: 918559468
Conc: 776.83 ug/ml

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/11/12 09:23

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005177.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 7:16 pm
Operator : ashleyv
Sample : D35038-2
Misc : OP6010,GFH285,30.09,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 08:23:22 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
2) s	o-Terphenyl	11.675	940294504	795.216	ug/mlm
Target Compounds					
1) H	TPH-DRO (C10-C28)	9.333	2922255030	2388.939	ug/ml

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

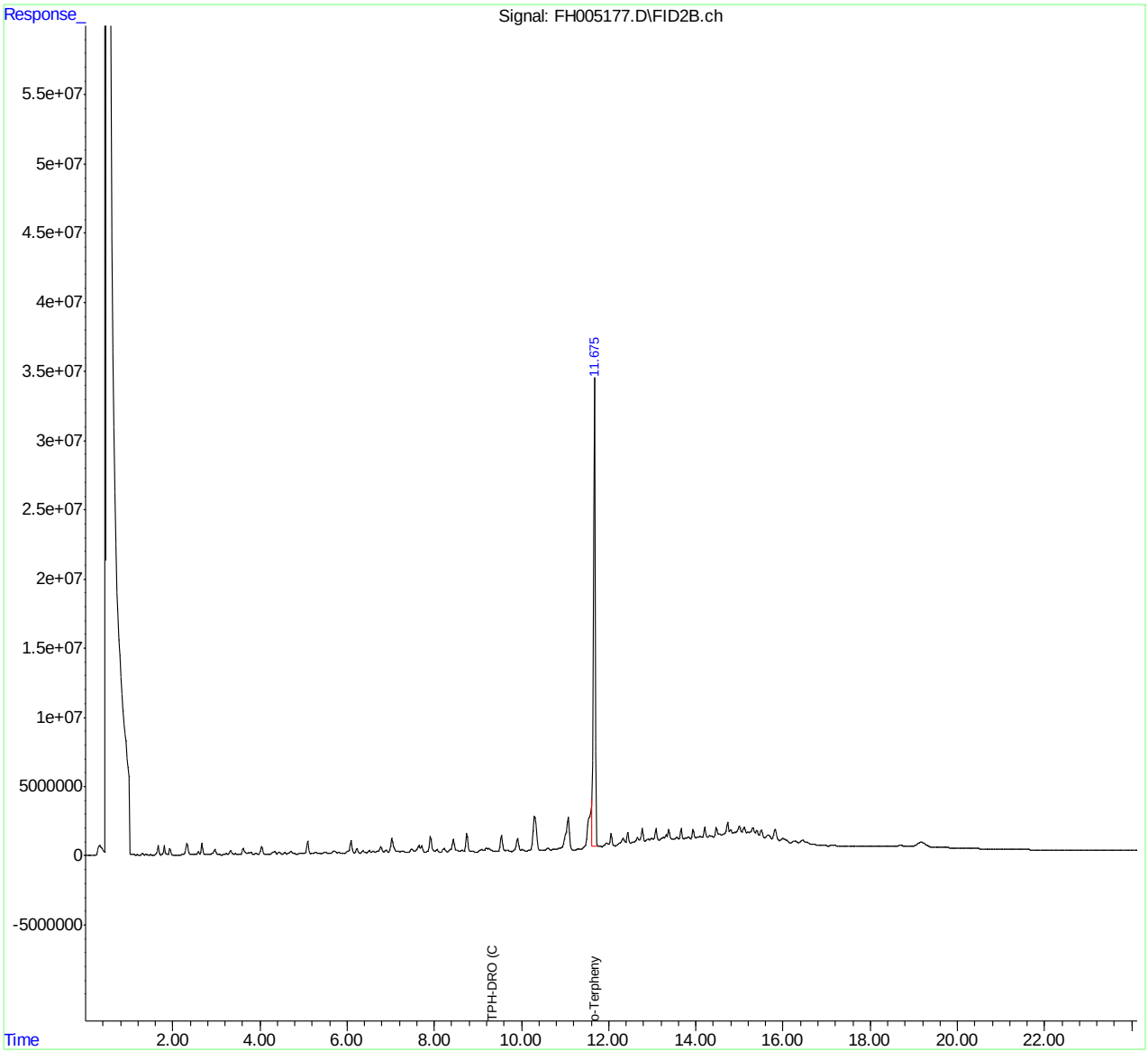
10.1.2 10

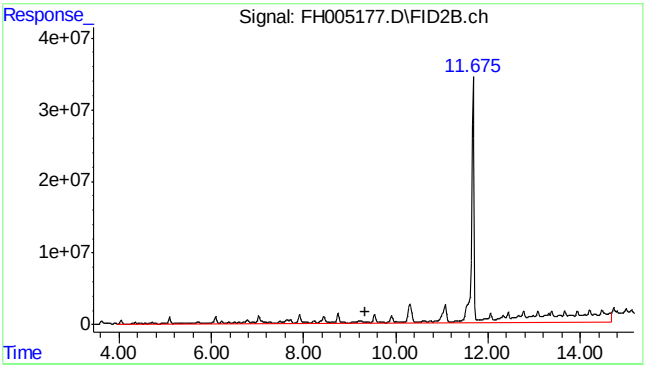
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005177.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 7:16 pm
Operator : ashleyv
Sample : D35038-2
Misc : OP6010,GFH285,30.09,,,2,1
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 08:23:22 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

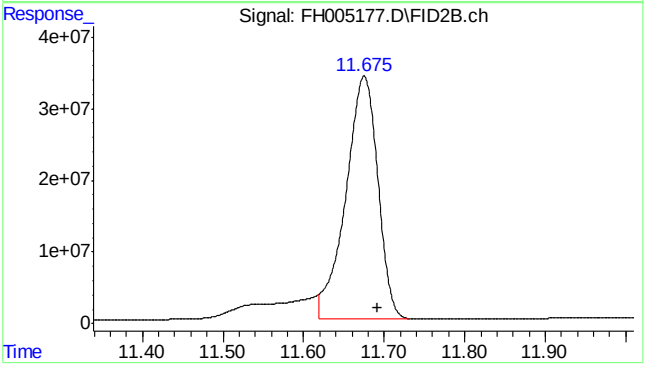
Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.333 min
Delta R.T.: 0.000 min
Response: 2922255030
Conc: 2388.94 ug/ml m



#2 o-Terphenyl

R.T.: 11.675 min
Delta R.T.: -0.017 min
Response: 940294504
Conc: 795.22 ug/ml m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 06/11/12 09:23

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005181.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 8:27 pm
Operator : ashleyv
Sample : D35038-3
Misc : OP6010,GFH285,30.02,,,2,1
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 08:24:37 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
2) s	o-Terphenyl	11.677	1064628526	900.366	ug/mlm
Target Compounds					
1) H	TPH-DRO (C10-C28)	9.333	3050798795	2494.023	ug/ml

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

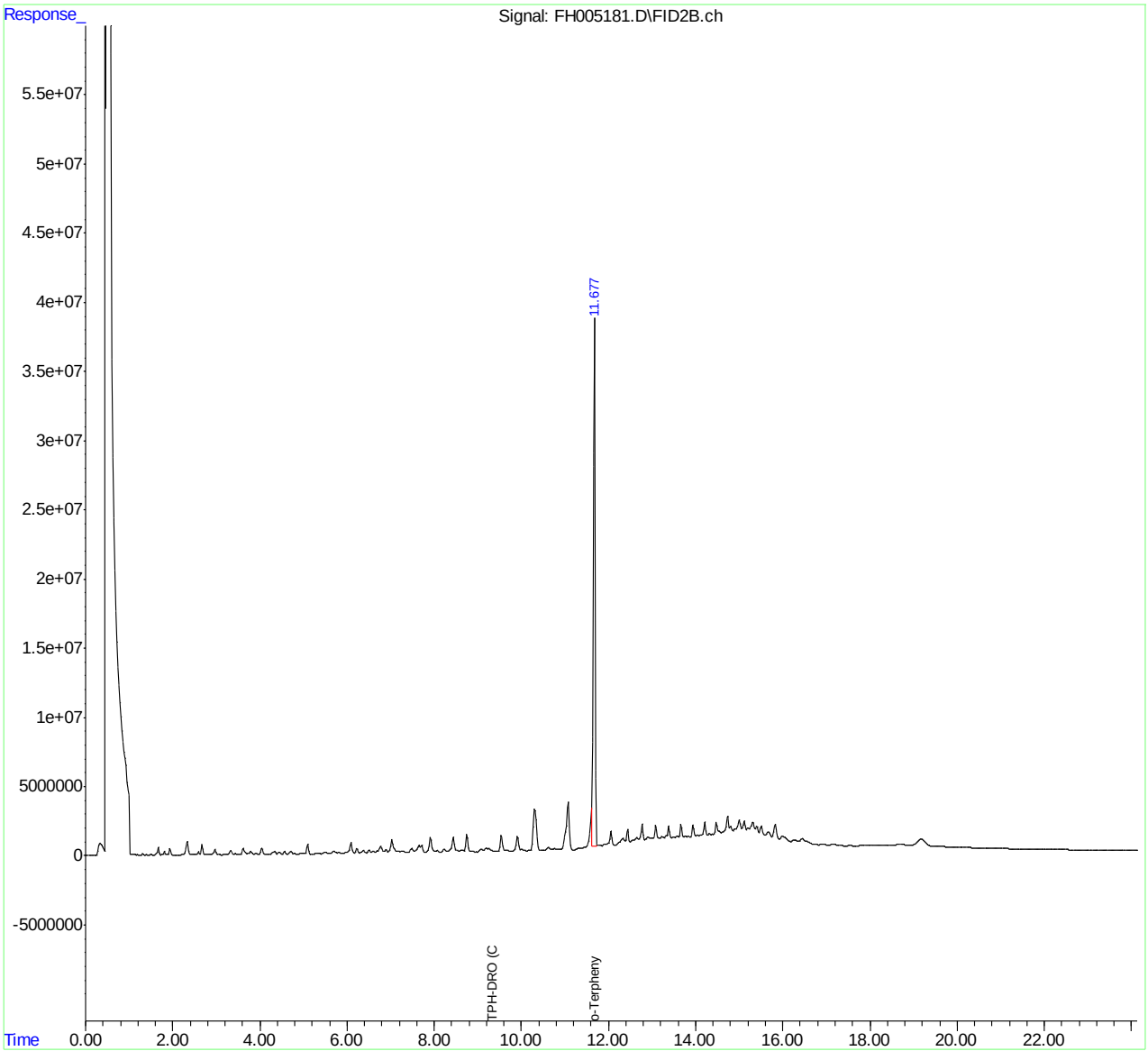
10.1.3 10

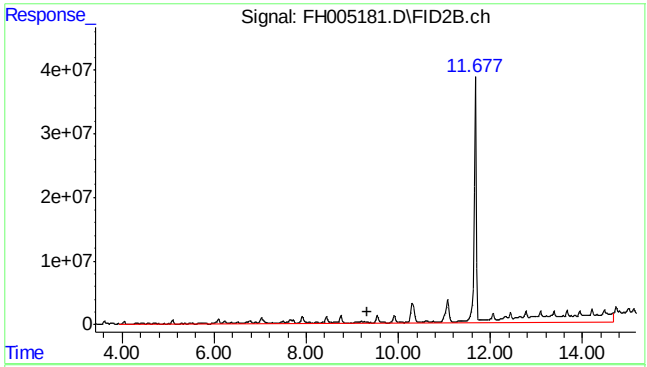
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005181.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 8:27 pm
Operator : ashleyv
Sample : D35038-3
Misc : OP6010,GFH285,30.02,,,2,1
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 08:24:37 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

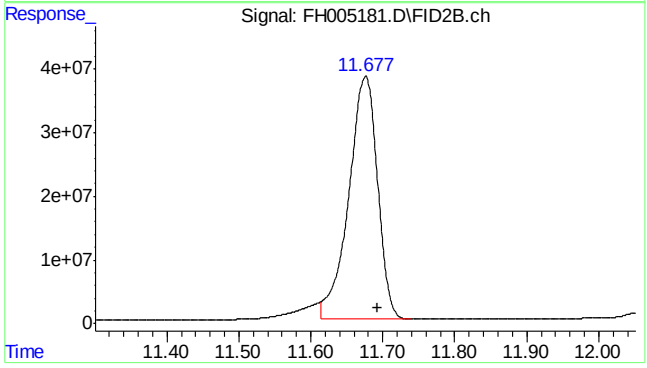
Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.333 min
Delta R.T.: 0.000 min
Response: 3050798795
Conc: 2494.02 ug/ml m



#2 o-Terphenyl

R.T.: 11.677 min
Delta R.T.: -0.015 min
Response: 1064628526
Conc: 900.37 ug/ml m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson
06/08/12 13:34

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005143.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 9:10 am
Operator : ashleyv
Sample : OP6010-MB
Misc : OP6010,GFH285,30.00,,,2,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:20:31 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) s o-Terphenyl	11.679	1312233100	1109.768	ug/mlm
Target Compounds				
1) H TPH-DRO (C10-C28)	9.333	73143573	59.795	ug/ml

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

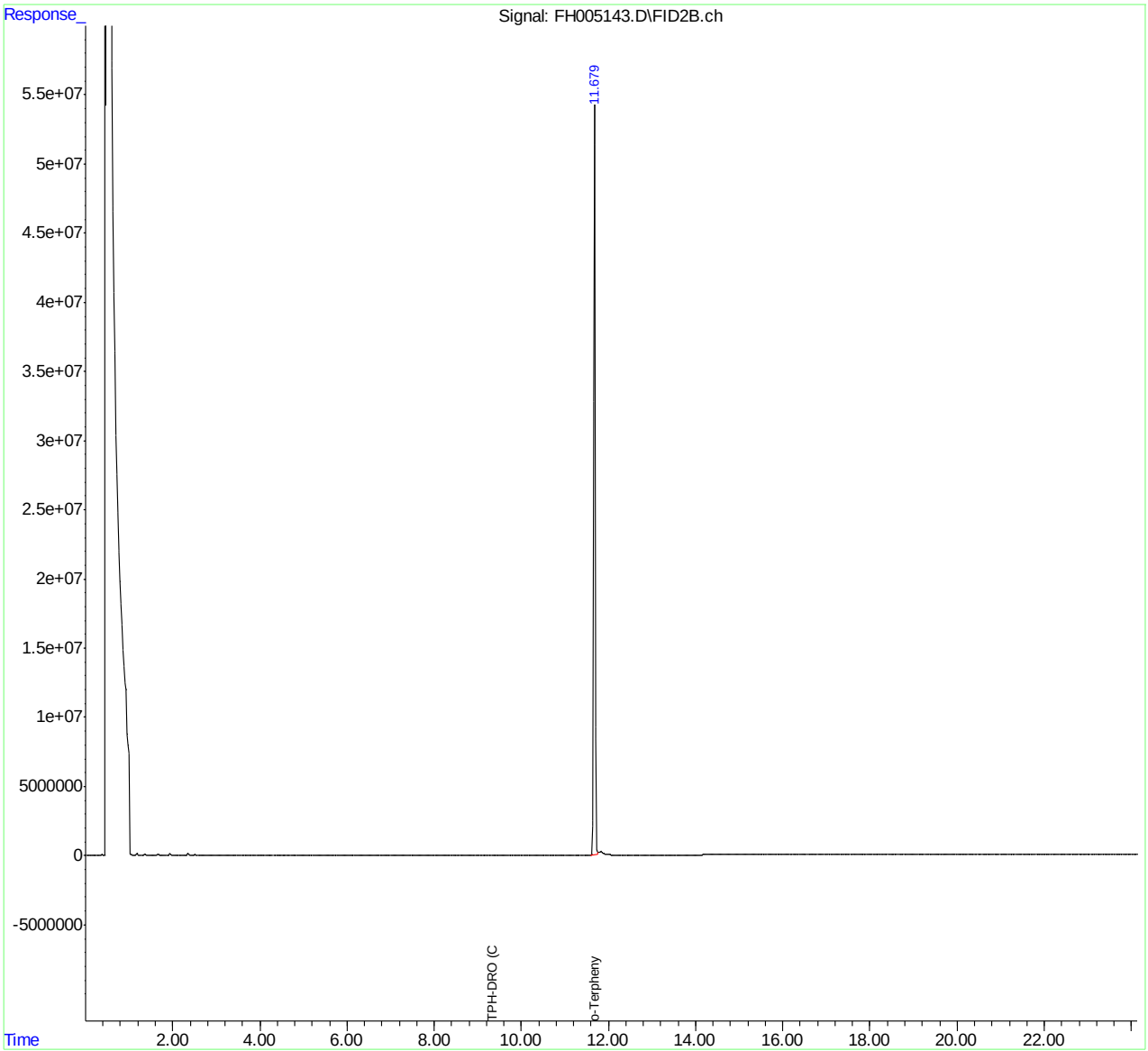
10.2.1 10

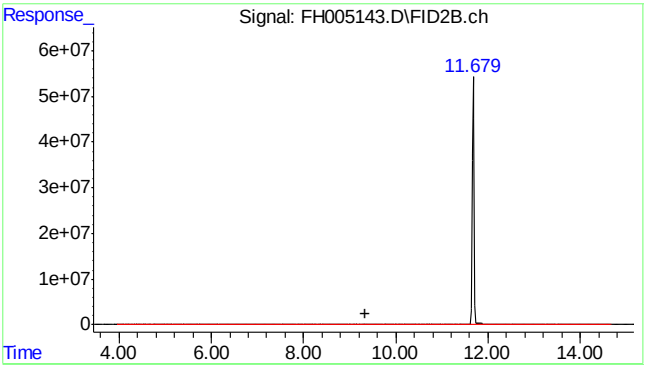
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH060812.SEC\
Data File : FH005143.D
Signal(s) : FID2B.ch
Acq On : 8 Jun 2012 9:10 am
Operator : ashleyv
Sample : OP6010-MB
Misc : OP6010,GFH285,30.00,,,2,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:20:31 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH281R.M
Quant Title : DRO-ORO REAR
QLast Update : Tue Jun 05 12:21:36 2012
Response via : Initial Calibration
Integrator: ChemStation

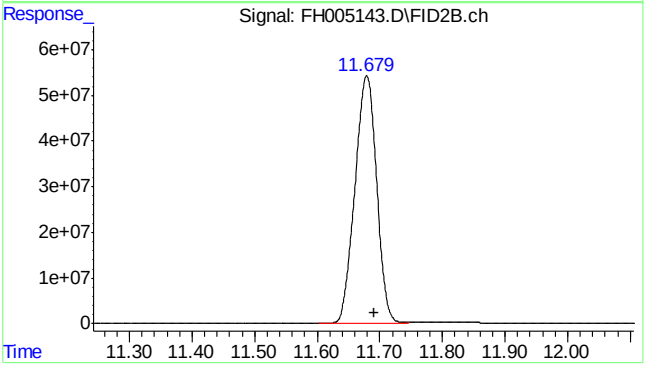
Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.333 min
Delta R.T.: 0.000 min
Response: 73143573
Conc: 59.79 ug/ml m



#2 o-Terphenyl

R.T.: 11.679 min
Delta R.T.: -0.013 min
Response: 1312233100
Conc: 1109.77 ug/ml m