



03/07/12

Technical Report for

XTO Energy

FRU 297-32A

1108-12A

Accutest Job Number: D32371

Sampling Date: 02/29/12

Report to:

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

Total number of pages in report: 166



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)

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Test results relate only to samples analyzed.

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Sample Summary

XTO Energy

Job No: D32371

FRU 297-32A

Project No: 1108-12A

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
D32371-1	02/29/12	12:00	CH	03/02/12	SO	Soil	CUT #2 M/B DAY 1 (2/27)
D32371-2	02/29/12	12:10	CH	03/02/12	SO	Soil	CUT #2 M/B DAY 2 (2/28)
D32371-3	02/29/12	12:20	CH	03/02/12	SO	Soil	CUT #2 M/B DAY 3 (2/29)

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D32371

Site: FRU 297-32A

Report Date 3/7/2012 9:54:21 AM

On 03/02/2012, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.2 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D32371 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: V5V1190
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32372-1MS, D32372-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO	Batch ID: OP5467
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32353-1MS, D32353-1MSD were used as the QC samples indicated.
- The matrix spike (MS) and matrix spike duplicate (MSD) recovery(s) of Dibenzo(a,h)anthracene are outside control limits. Probable cause due to matrix interference.
- OP5467-MS/MSD: Outside control limits due to dilution.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB853
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32298-1MS, D32298-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP5468
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32353-1MS, D32353-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN13951
------------------	--------------------------

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

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Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 M/B DAY 1 (2/27)	
Lab Sample ID:	D32371-1	Date Sampled: 02/29/12
Matrix:	SO - Soil	Date Received: 03/02/12
Method:	SW846 8260B	Percent Solids: 86.8
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19810.D	1	03/03/12	KV	n/a	n/a	V5V1190
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.05 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.141	0.065	0.028	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	95%		61-130%
460-00-4	4-Bromofluorobenzene	94%		53-131%
17060-07-0	1,2-Dichloroethane-D4	88%		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

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Report of Analysis

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Client Sample ID:	CUT #2 M/B DAY 1 (2/27)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-1	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.8
Method:	SW846 8270C BY SIM SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G08288.D	1	03/03/12	DC	03/02/12	OP5467	E3G334
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	0.0096	0.0050	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	45%		10-145%		
321-60-8	2-Fluorobiphenyl	46%		10-130%		
1718-51-0	Terphenyl-d14	62%		22-130%		

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Report of Analysis

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Client Sample ID:	CUT #2 M/B DAY 1 (2/27)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-1	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.8
Method:	SW846 8015B		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15210.D	1	03/02/12	SK	n/a	n/a	GGB853
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	7.66	13	6.5	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	93%		60-140%		

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Report of Analysis

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Client Sample ID:	CUT #2 M/B DAY 1 (2/27)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-1	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.8
Method:	SW846-8015B SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001912.D	1	03/04/12	TR	03/02/12	OP5468	GFH97
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	111	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	60%		43-136%		

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Report of Analysis

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Client Sample ID:	CUT #2 M/B DAY 2 (2/28)	
Lab Sample ID:	D32371-2	Date Sampled: 02/29/12
Matrix:	SO - Soil	Date Received: 03/02/12
Method:	SW846 8260B	Percent Solids: 86.9
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19811.D	1	03/03/12	KV	n/a	n/a	V5V1190
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.130	0.064	0.028	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		61-130%
460-00-4	4-Bromofluorobenzene	99%		53-131%
17060-07-0	1,2-Dichloroethane-D4	95%		62-130%

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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

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Client Sample ID:	CUT #2 M/B DAY 2 (2/28)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-2	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.9
Method:	SW846 8270C BY SIM SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G08289.D	1	03/03/12	DC	03/02/12	OP5467	E3G334
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	0.0096	0.0050	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	44%		10-145%		
321-60-8	2-Fluorobiphenyl	45%		10-130%		
1718-51-0	Terphenyl-d14	60%		22-130%		

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Report of Analysis

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Client Sample ID:	CUT #2 M/B DAY 2 (2/28)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-2	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.9
Method:	SW846 8015B		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15211.D	1	03/02/12	SK	n/a	n/a	GGB853
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	10.3	13	6.4	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	97%		60-140%		

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Accutest Laboratories

Report of Analysis

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Client Sample ID:	CUT #2 M/B DAY 2 (2/28)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-2	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.9
Method:	SW846-8015B SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001914.D	1	03/04/12	TR	03/02/12	OP5468	GFH97
Run #2							

Run #	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)	145	15	9.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	73%		43-136%		

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 M/B DAY 3 (2/29)	
Lab Sample ID:	D32371-3	Date Sampled: 02/29/12
Matrix:	SO - Soil	Date Received: 03/02/12
Method:	SW846 8260B	Percent Solids: 86.0
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19812.D	1	03/04/12	KV	n/a	n/a	V5V1190
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.02 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0986	0.066	0.029	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	109%		61-130%
460-00-4	4-Bromofluorobenzene	109%		53-131%
17060-07-0	1,2-Dichloroethane-D4	104%		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

Page 1 of 1

Client Sample ID:	CUT #2 M/B DAY 3 (2/29)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-3	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.0
Method:	SW846 8270C BY SIM SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G08290.D	1	03/03/12	DC	03/02/12	OP5467	E3G334
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	0.0097	0.0050	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	41%		10-145%		
321-60-8	2-Fluorobiphenyl	39%		10-130%		
1718-51-0	Terphenyl-d14	51%		22-130%		

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 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 M/B DAY 3 (2/29)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-3	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.0
Method:	SW846 8015B		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15212.D	1	03/02/12	SK	n/a	n/a	GGB853
Run #2							

Run #	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)	9.39	13	6.6	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	91%		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

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Client Sample ID:	CUT #2 M/B DAY 3 (2/29)	Date Sampled:	02/29/12
Lab Sample ID:	D32371-3	Date Received:	03/02/12
Matrix:	SO - Soil	Percent Solids:	86.0
Method:	SW846-8015B SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001916.D	1	03/04/12	TR	03/02/12	OP5468	GFH97
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	160	16	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		43-136%		

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

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 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D32371

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 3/2/2012 10:15:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO FRU 297-32A

Airbill #'s: Fedex

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

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

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

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

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

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

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1190-MB	5V19805.D	1	03/03/12	KV	n/a	n/a	V5V1190

The QC reported here applies to the following samples:

Method: SW846 8260B

D32371-1, D32371-2, D32371-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	113% 61-130%
460-00-4	4-Bromofluorobenzene	101% 53-131%
17060-07-0	1,2-Dichloroethane-D4	108% 62-130%

Blank Spike Summary

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Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1190-BS	5V19806.D	1	03/03/12	KV	n/a	n/a	V5V1190

The QC reported here applies to the following samples:

Method: SW846 8260B

D32371-1, D32371-2, D32371-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	46.7	93	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	106%	61-130%
460-00-4	4-Bromofluorobenzene	110%	53-131%
17060-07-0	1,2-Dichloroethane-D4	96%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32372-1MS	5V19808.D	1	03/03/12	KV	n/a	n/a	V5V1190
D32372-1MSD	5V19809.D	1	03/03/12	KV	n/a	n/a	V5V1190
D32372-1	5V19807.D	1	03/03/12	KV	n/a	n/a	V5V1190

The QC reported here applies to the following samples:

Method: SW846 8260B

D32371-1, D32371-2, D32371-3

CAS No.	Compound	D32372-1 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	2700	2570	95	2730	101	6	70-134/30

CAS No.	Surrogate Recoveries	MS	MSD	D32372-1	Limits
2037-26-5	Toluene-D8	108%	110%	109%	61-130%
460-00-4	4-Bromofluorobenzene	122%	125%	111%	53-131%
17060-07-0	1,2-Dichloroethane-D4	100%	102%	104%	62-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
 Data File : 5V19810.D
 Acq On : 3 Mar 2012 11:07 pm
 Operator : KOROUSHV
 Sample : D32371-1
 Misc : MS3499,V5V1190,5.052,,100,5,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 06 13:43:42 2012
 Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
 Quant Title : 8260
 QLast Update : Fri Mar 02 14:22:16 2012
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	240323	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	425996	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	588177	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	404282	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	46209	44.08	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.16%
61) Toluene-d8	13.851	98	905425	47.61	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.22%
69) 4-Bromofluorobenzene	16.043	95	371082	47.24	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.48%

Target Compounds

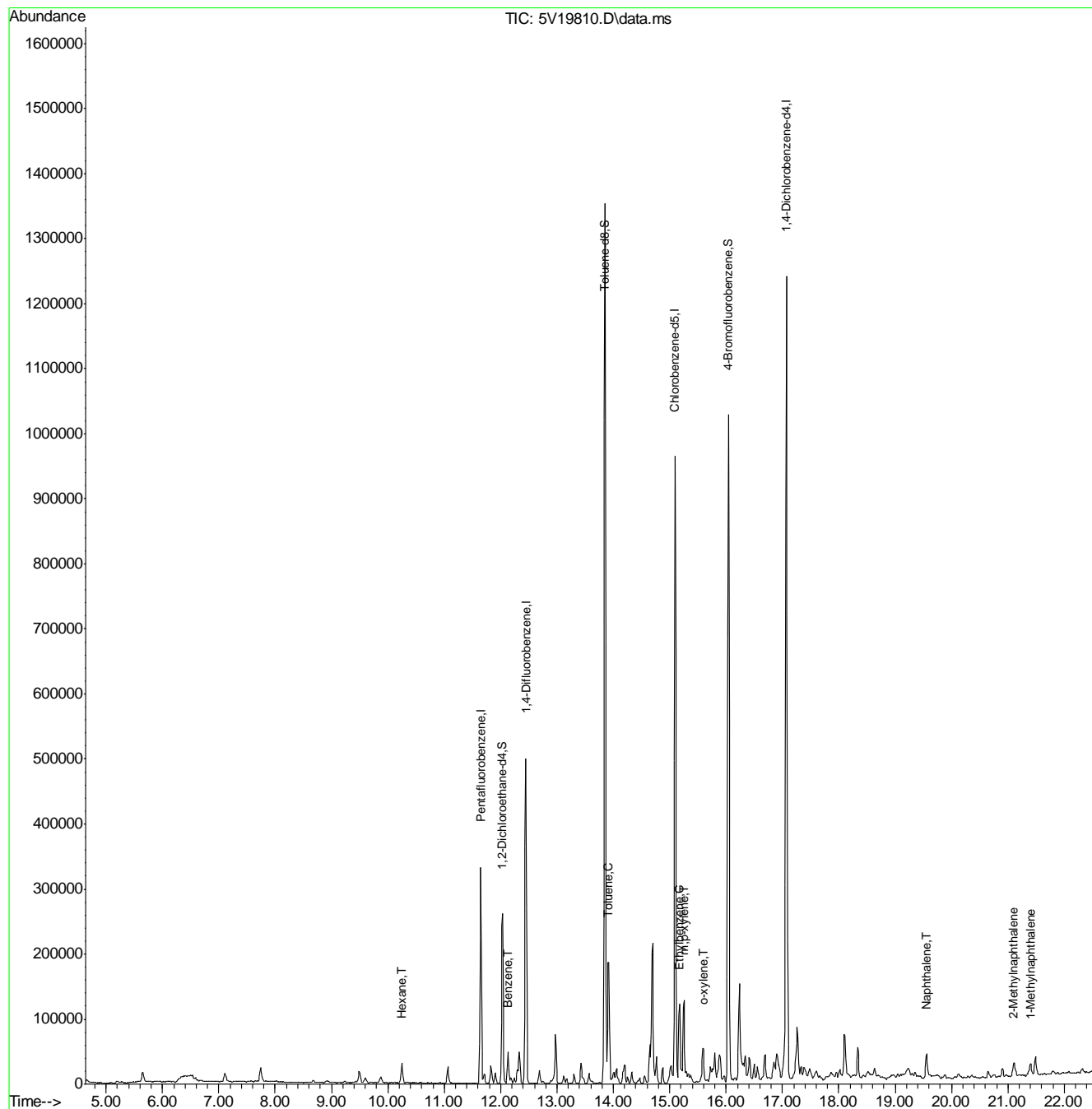
						Qvalue
41) Hexane	10.243	57	16781	3.47	ug/l	100
50) Benzene	12.127	78	45661	2.18	ug/l	100
62) Toluene	13.908	92	66239	4.57	ug/l	99
66) Ethylbenzene	15.163	91	32116	1.19	ug/l	100
72) m,p-xylene	15.255	106	42800	3.88	ug/l	97
73) o-xylene	15.597	106	8421	1.16	ug/l	99
91) Naphthalene	19.559	128	24517	2.57	ug/l	100
94) 2-Methylnaphthalene	21.100	142	16216	5.66	ug/l	95
95) 1-Methylnaphthalene	21.409	142	13181	4.26	ug/l	95

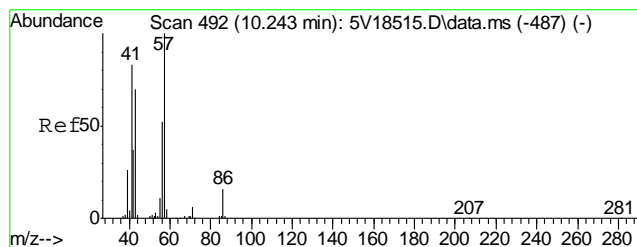
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
Data File : 5V19810.D
Acq On : 3 Mar 2012 11:07 pm
Operator : KOROUSHV
Sample : D32371-1
Misc : MS3499,V5V1190,5.052,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

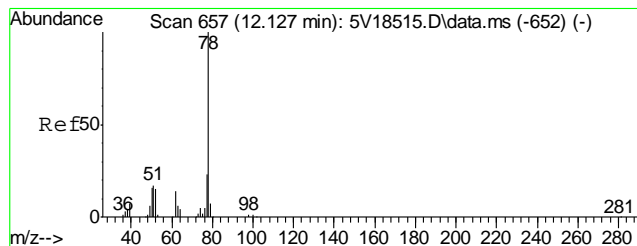
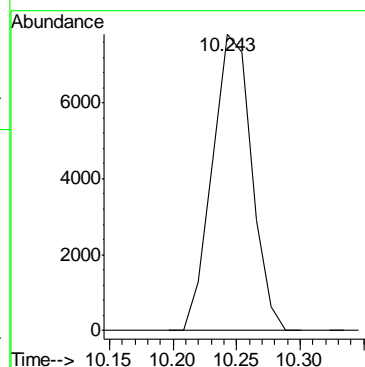
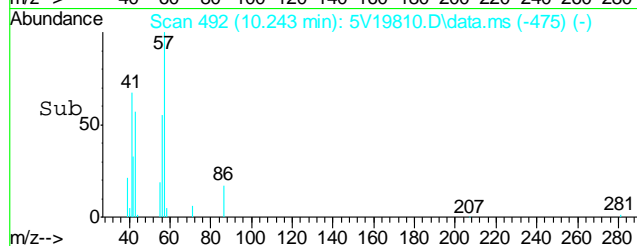
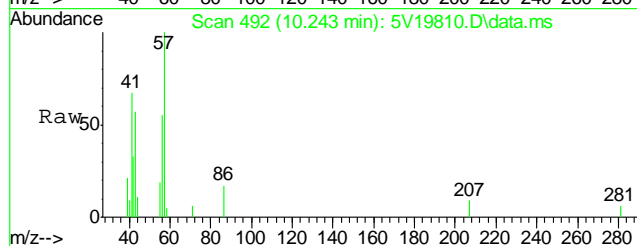
Quant Time: Mar 06 13:43:42 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





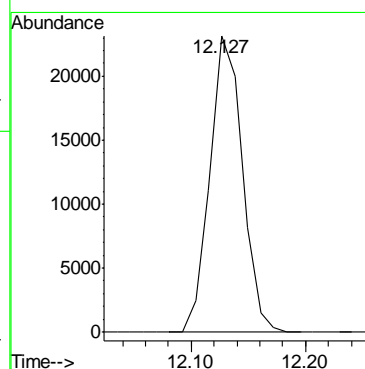
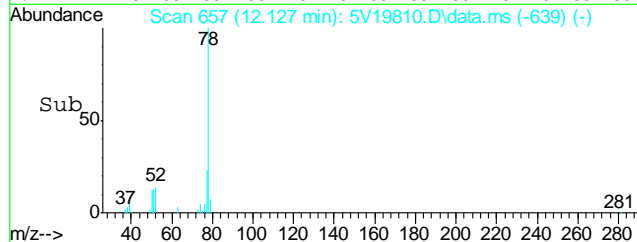
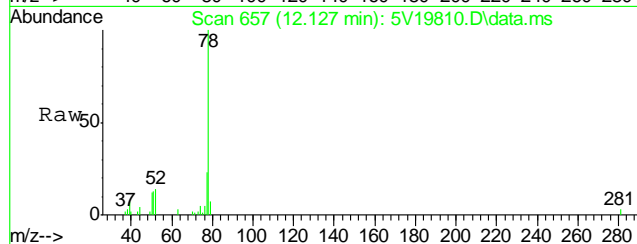
#41
Hexane
Concen: 3.47 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.011 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

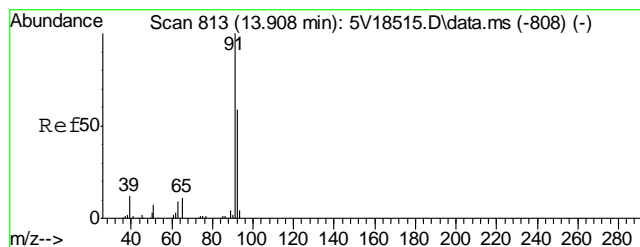
Tgt Ion: 57 Resp: 16781



#50
Benzene
Concen: 2.18 ug/l
RT: 12.127 min Scan# 657
Delta R.T. 0.000 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

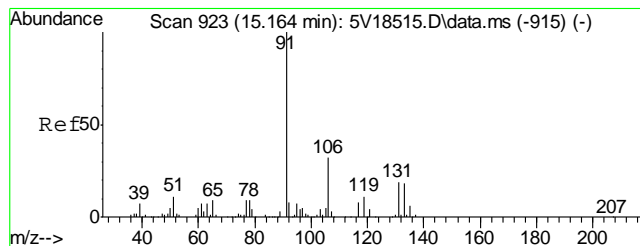
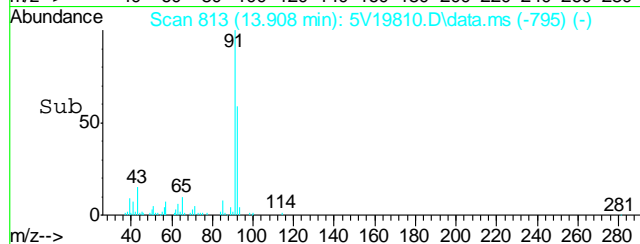
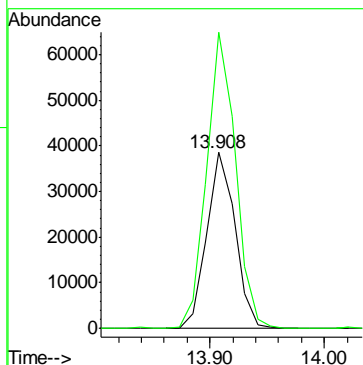
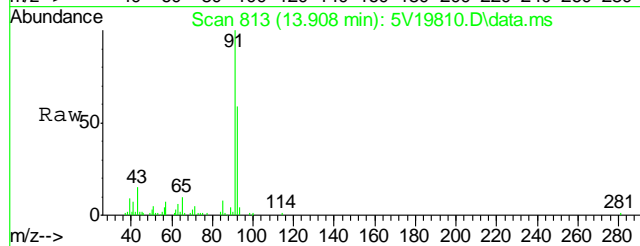
Tgt Ion: 78 Resp: 45661





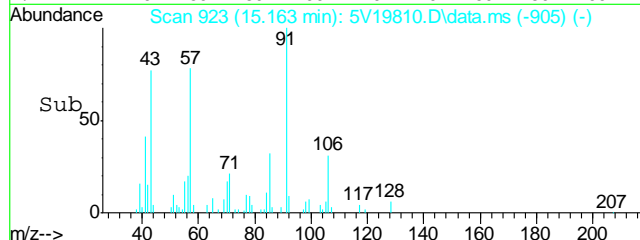
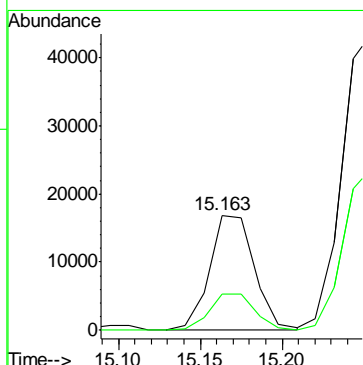
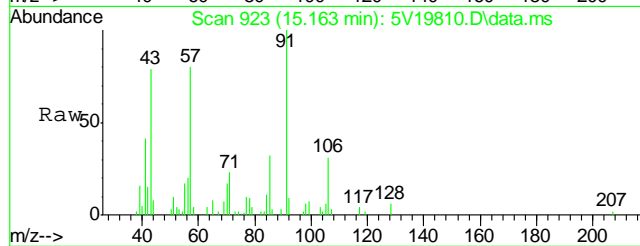
#62
Toluene
Concen: 4.57 ug/l
RT: 13.908 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

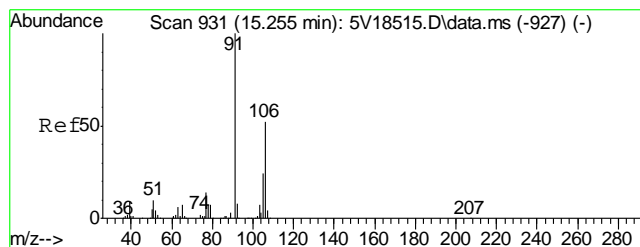
Tgt Ion	Ratio	Lower	Upper
92	100		
91	171.1	149.8	189.8



#66
Ethylbenzene
Concen: 1.19 ug/l
RT: 15.163 min Scan# 923
Delta R.T. 0.000 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

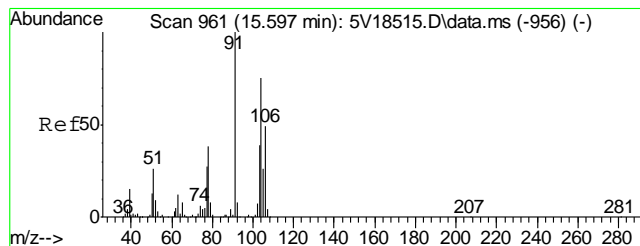
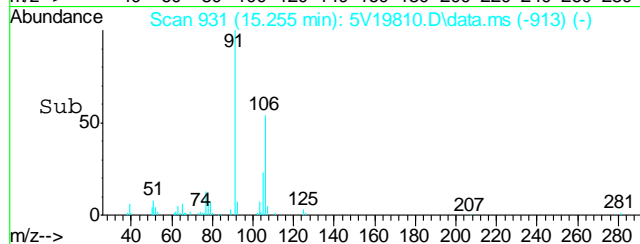
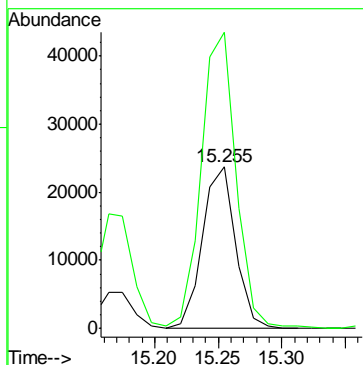
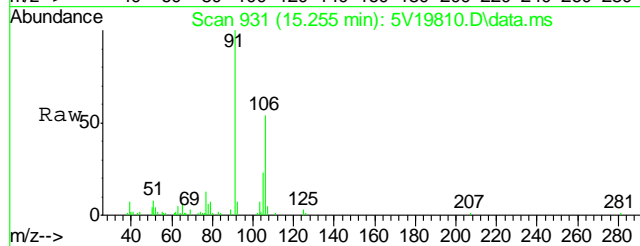
Tgt Ion	Ratio	Lower	Upper
91	100		
106	32.0	11.7	51.7





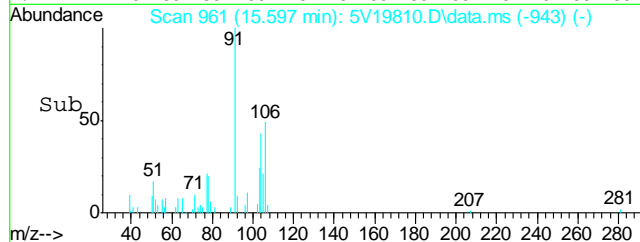
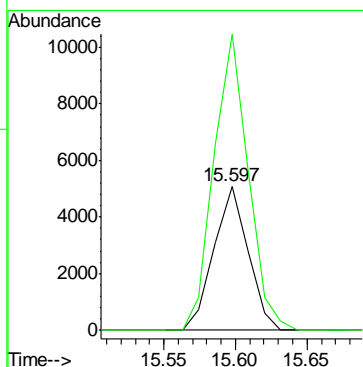
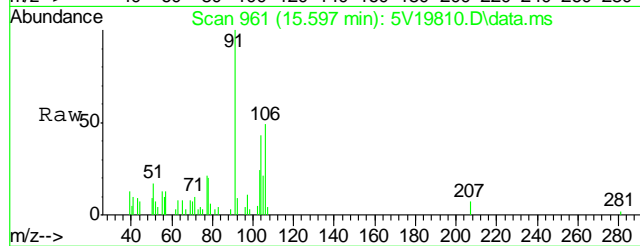
#72
m,p-xylene
Concen: 3.88 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

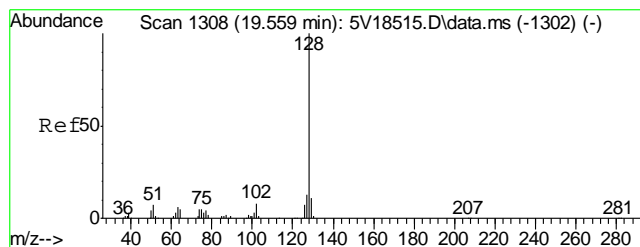
Tgt Ion:106 Resp: 42800
Ion Ratio Lower Upper
106 100
91 192.1 177.1 217.1



#73
o-xylene
Concen: 1.16 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

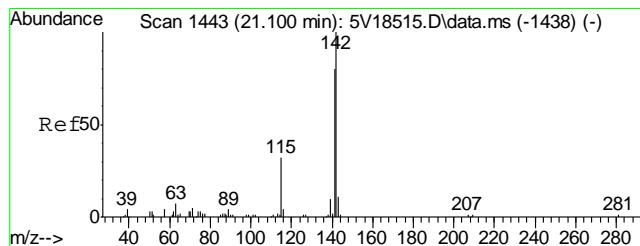
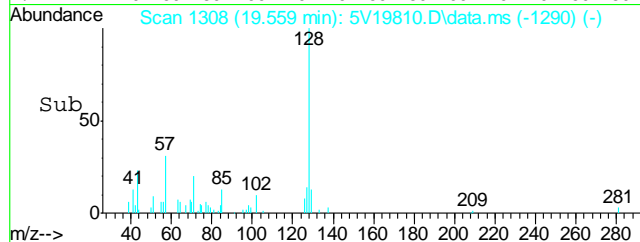
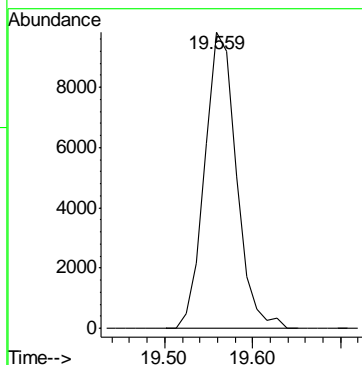
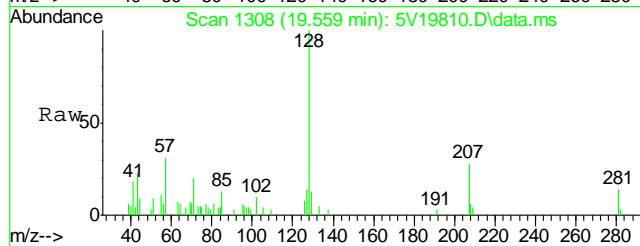
Tgt Ion:106 Resp: 8421
Ion Ratio Lower Upper
106 100
91 206.6 166.6 249.8





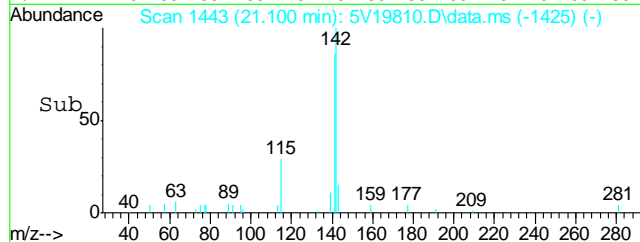
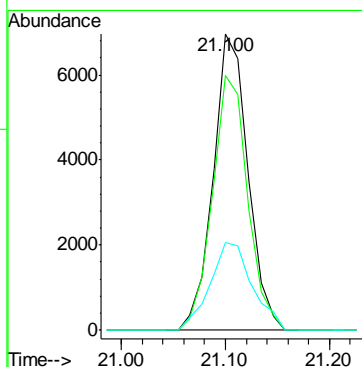
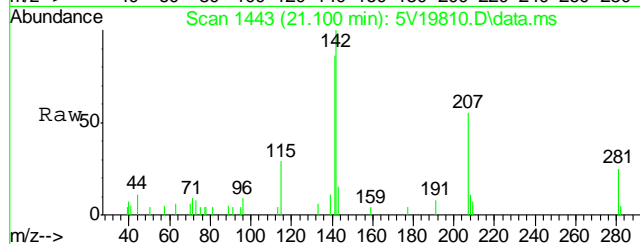
#91
Naphthalene
Concen: 2.57 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.001 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

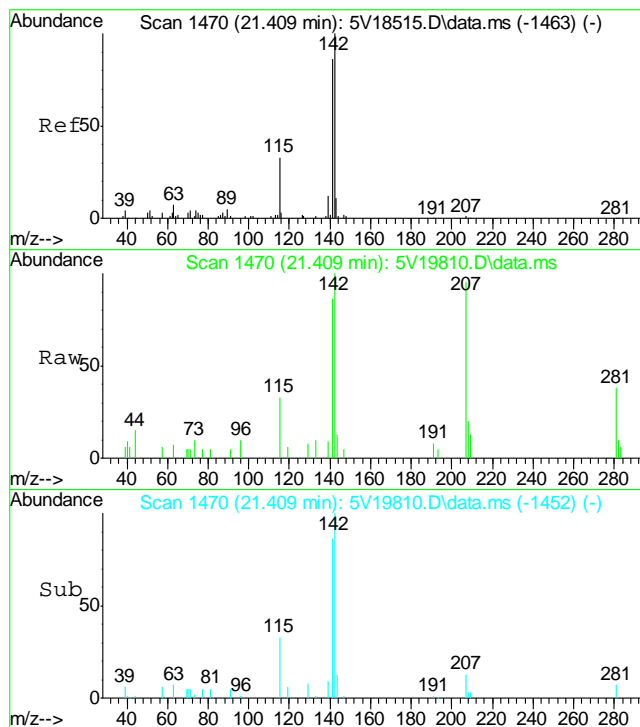
Tgt Ion:128 Resp: 24517



#94
2-Methylnaphthalene
Concen: 5.66 ug/l
RT: 21.100 min Scan# 1443
Delta R.T. 0.000 min
Lab File: 5V19810.D
Acq: 3 Mar 2012 11:07 pm

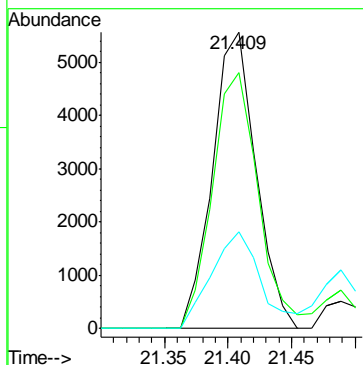
Tgt Ion:142 Resp: 16216
Ion Ratio Lower Upper
142 100
141 87.2 66.2 99.4
115 36.0 25.9 38.9





#95
 1-Methylnaphthalene
 Concen: 4.26 ug/l
 RT: 21.409 min Scan# 1470
 Delta R.T. 0.000 min
 Lab File: 5V19810.D
 Acq: 3 Mar 2012 11:07 pm

Tgt Ion:	142	Resp:	13181
Ion Ratio	Lower	Upper	
142	100		
141	90.6	68.9	103.3
115	37.2	27.3	40.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
 Data File : 5V19811.D
 Acq On : 3 Mar 2012 11:39 pm
 Operator : KOROUSHV
 Sample : D32371-2
 Misc : MS3499,V5V1190,5.056,,100,5,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 14:07:45 2012
 Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
 Quant Title : 8260
 QLast Update : Fri Mar 02 14:22:16 2012
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	224916	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	409155	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	562826	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	392629	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	46180	47.31	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.62%
61) Toluene-d8	13.850	98	889364	48.87	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.74%
69) 4-Bromofluorobenzene	16.042	95	370834	49.34	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.68%

Target Compounds

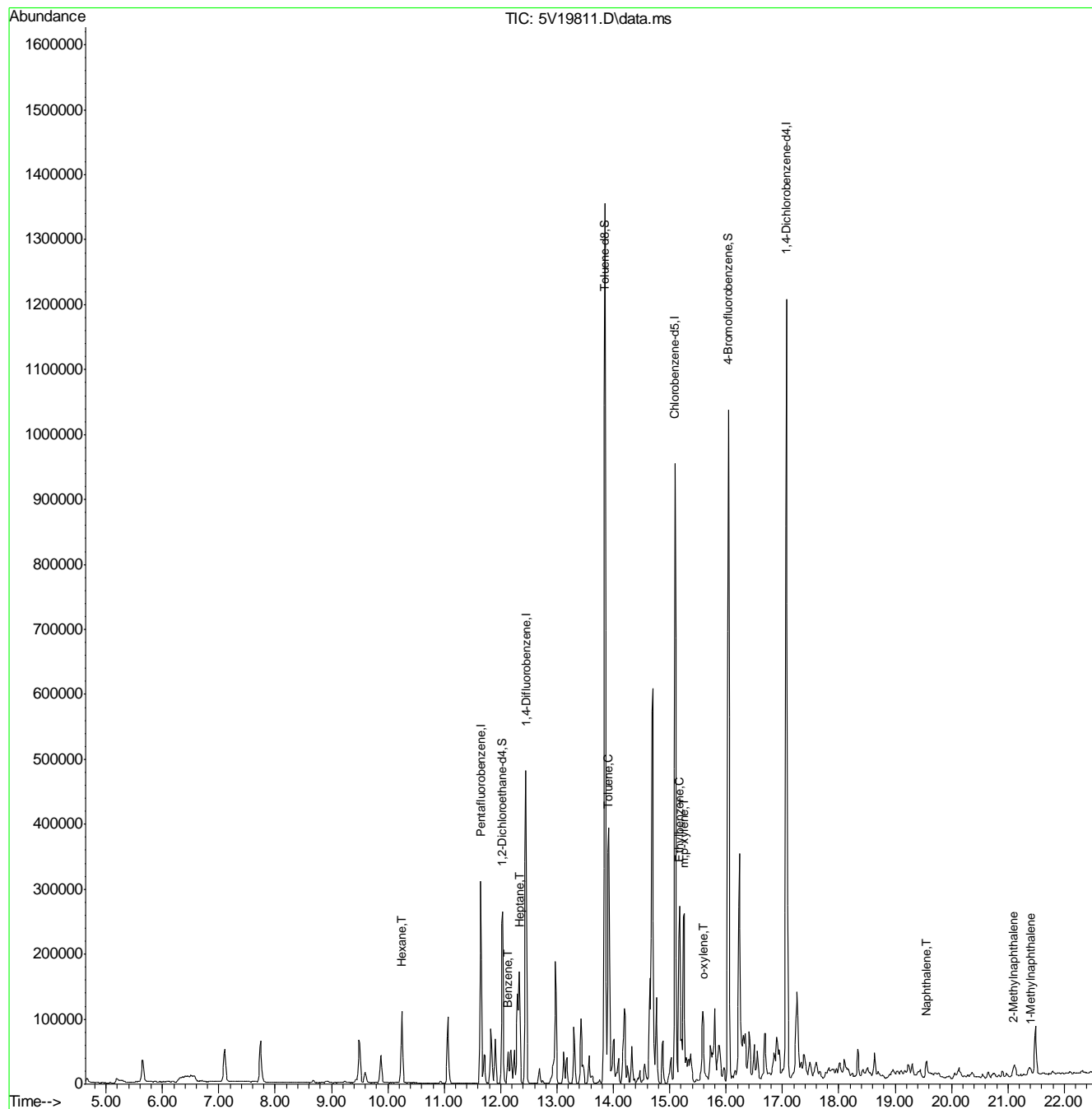
						Qvalue
41) Hexane	10.243	57	57121	10.97	ug/l	100
43) Heptane	12.332	43	63466	10.90	ug/l	82
50) Benzene	12.126	78	40583	2.02	ug/l	100
62) Toluene	13.907	92	115774	8.35	ug/l	99
66) Ethylbenzene	15.175	91	58258	2.25	ug/l	98
72) m,p-xylene	15.255	106	86573	8.21	ug/l	97
73) o-xylene	15.597	106	12059	1.49	ug/l	96
91) Naphthalene	19.559	128	18122	2.24	ug/l	100
94) 2-Methylnaphthalene	21.100	142	11584	4.62	ug/l	91
95) 1-Methylnaphthalene	21.408	142	7706	3.27	ug/l #	94

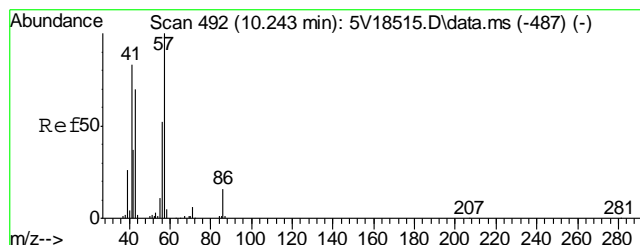
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
Data File : 5V19811.D
Acq On : 3 Mar 2012 11:39 pm
Operator : KOROUSHV
Sample : D32371-2
Misc : MS3499,V5V1190,5.056,,100,5,1
ALS Vial : 10 Sample Multiplier: 1

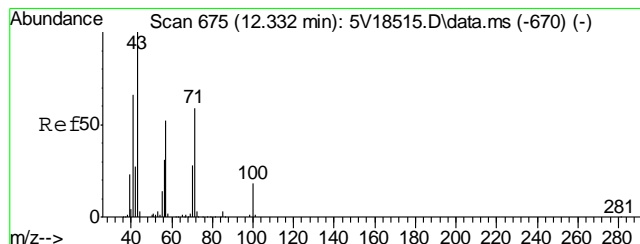
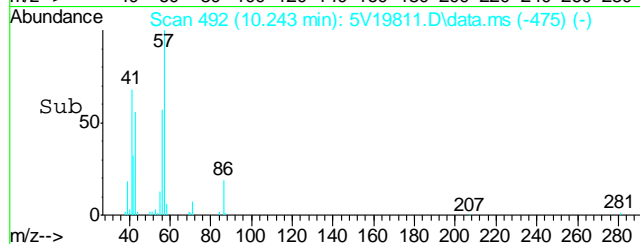
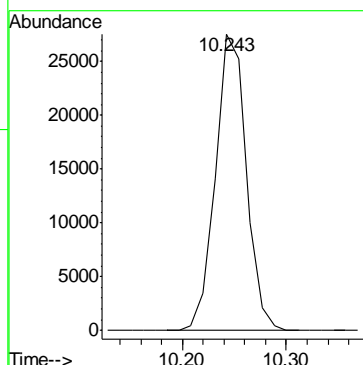
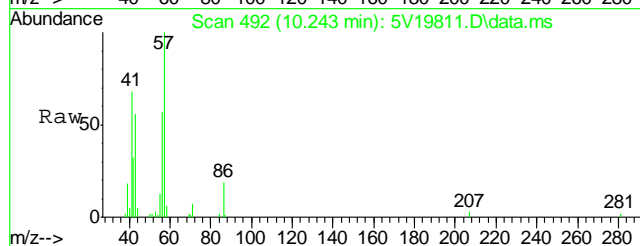
Quant Time: Mar 06 14:07:45 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





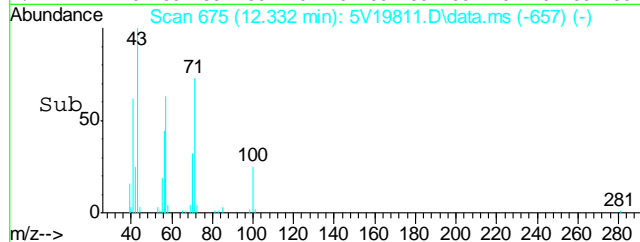
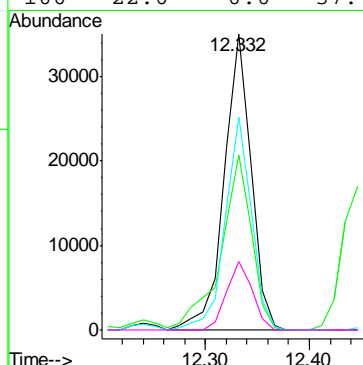
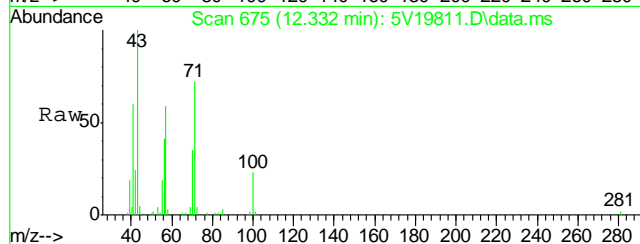
#41
Hexane
Concen: 10.97 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.011 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

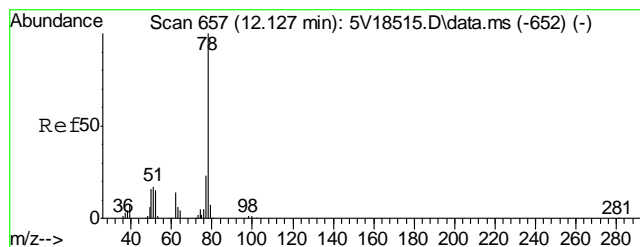
Tgt Ion: 57 Resp: 57121



#43
Heptane
Concen: 10.90 ug/l
RT: 12.332 min Scan# 675
Delta R.T. 0.001 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

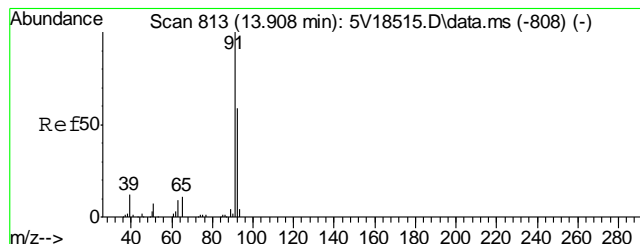
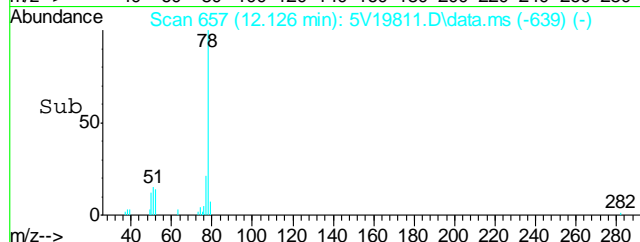
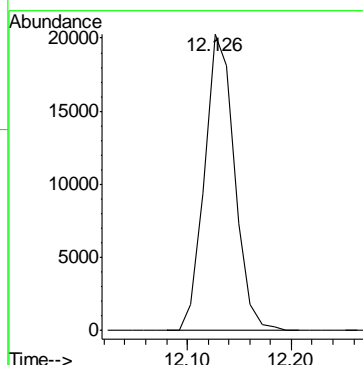
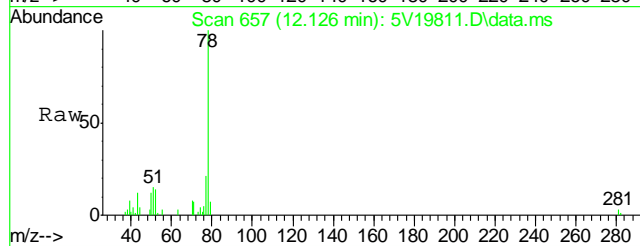
Tgt Ion: 43 Resp: 63466
Ion Ratio Lower Upper
43 100
57 66.8 30.6 70.6
71 70.6 38.9 78.9
100 22.0 0.0 37.4





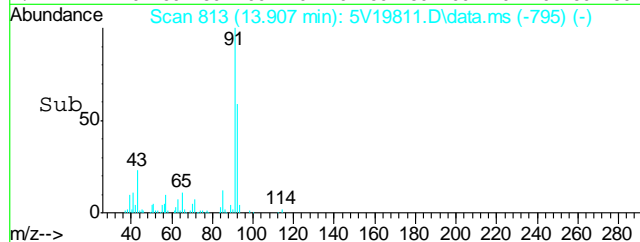
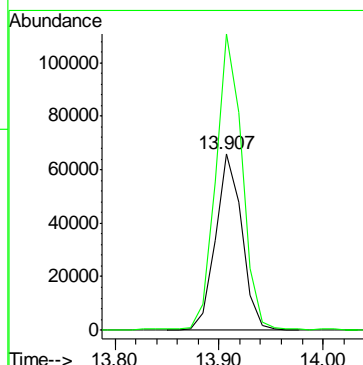
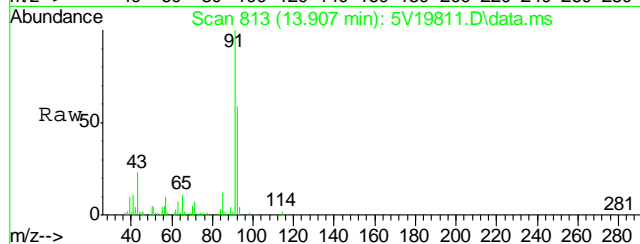
#50
Benzene
Concen: 2.02 ug/l
RT: 12.126 min Scan# 657
Delta R.T. 0.000 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

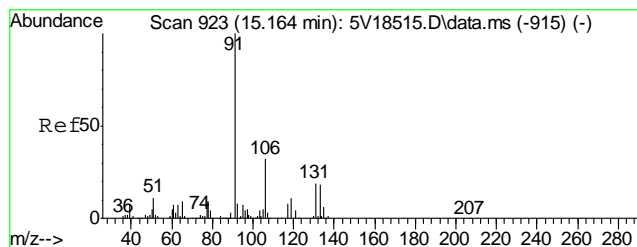
Tgt Ion: 78 Resp: 40583



#62
Toluene
Concen: 8.35 ug/l
RT: 13.907 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

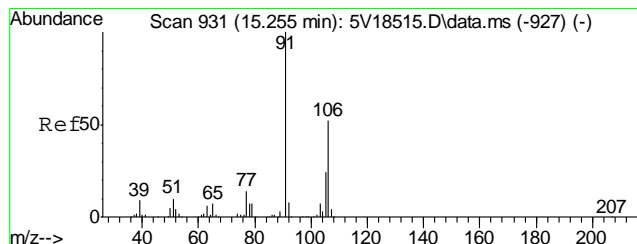
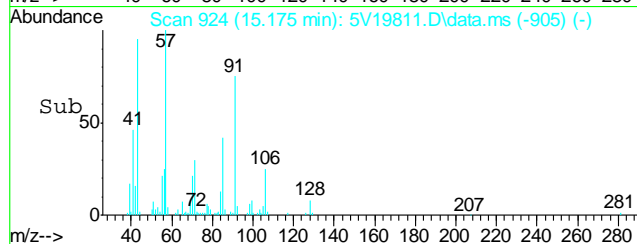
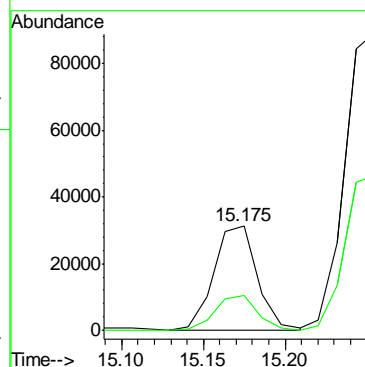
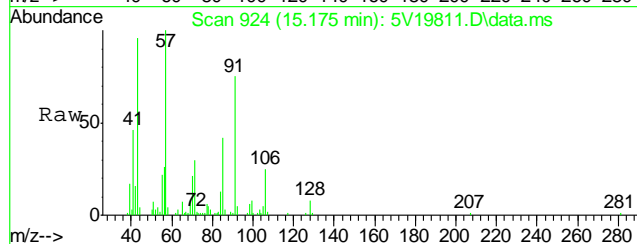
Tgt Ion: 92 Resp: 115774
Ion Ratio Lower Upper
92 100
91 169.1 149.8 189.8





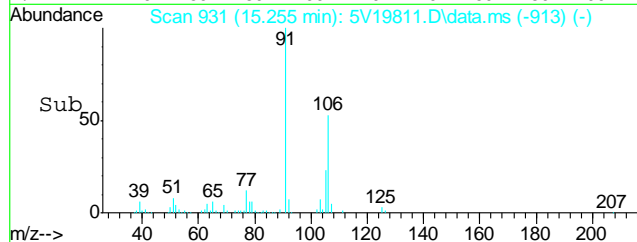
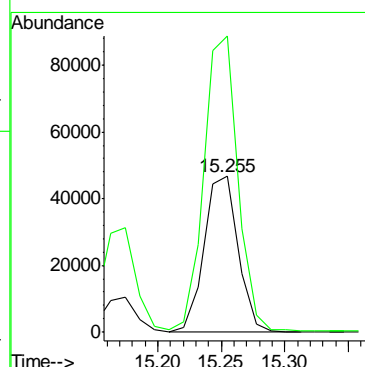
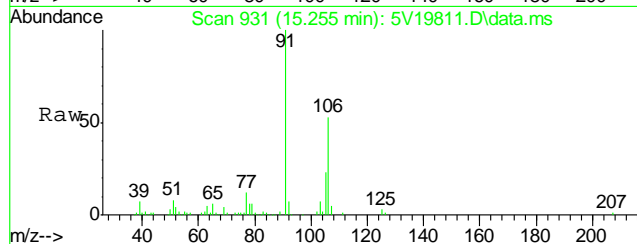
#66
Ethylbenzene
Concen: 2.25 ug/l
RT: 15.175 min Scan# 924
Delta R.T. 0.011 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

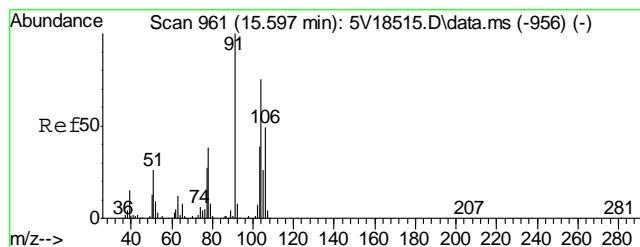
Tgt Ion: 91 Resp: 58258
Ion Ratio Lower Upper
91 100
106 32.6 11.7 51.7



#72
m,p-xylene
Concen: 8.21 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

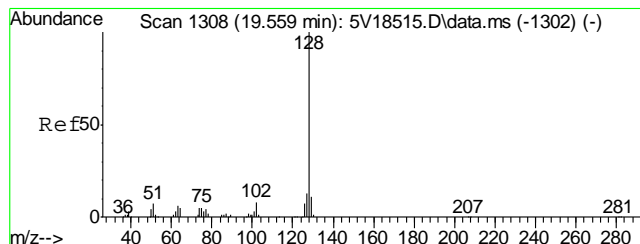
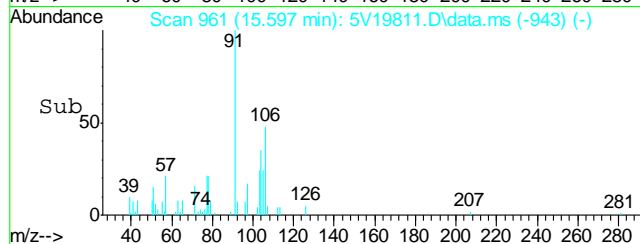
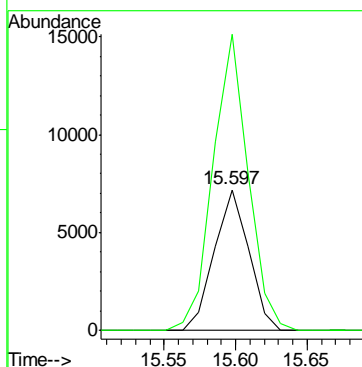
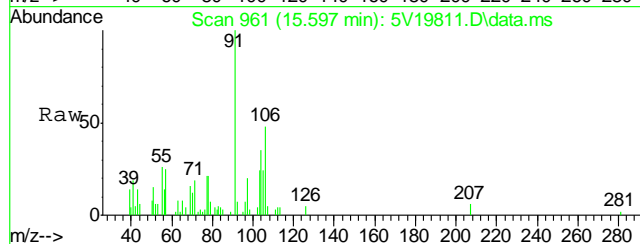
Tgt Ion: 106 Resp: 86573
Ion Ratio Lower Upper
106 100
91 192.3 177.1 217.1





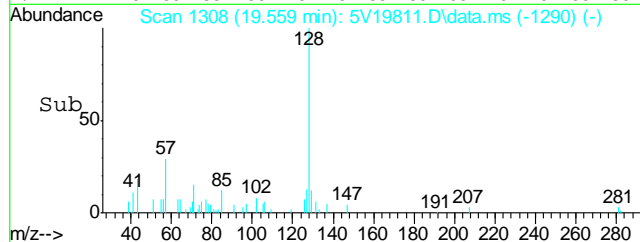
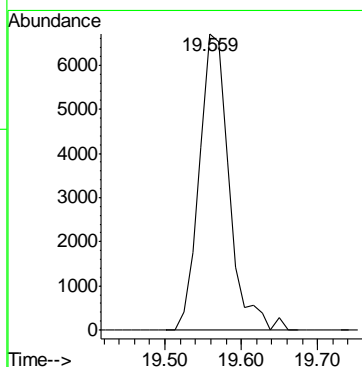
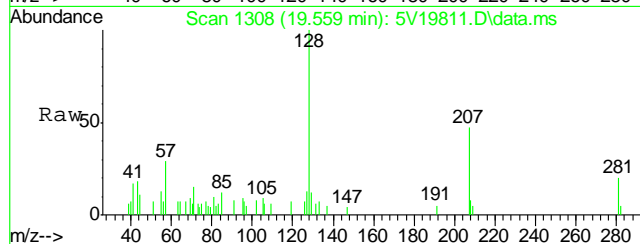
#73
o-xylene
Concen: 1.49 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

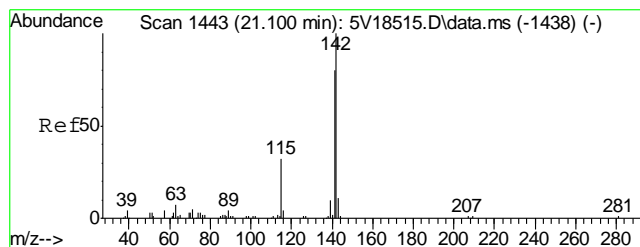
Tgt Ion:106 Resp: 12059
Ion Ratio Lower Upper
106 100
91 213.6 166.6 249.8



#91
Naphthalene
Concen: 2.24 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.001 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

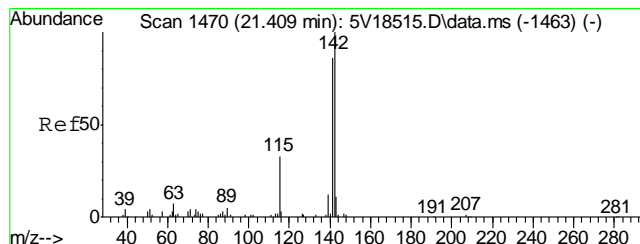
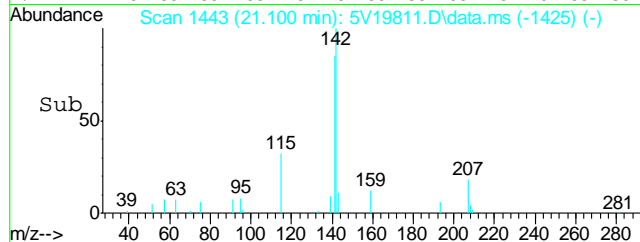
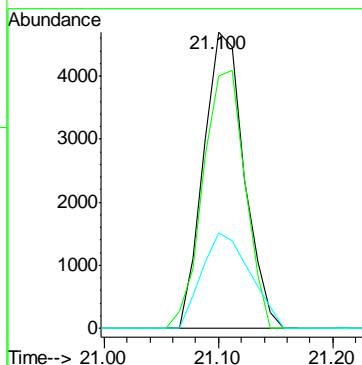
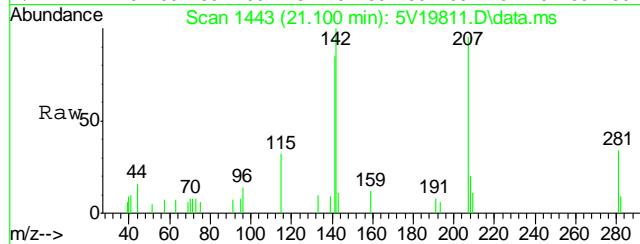
Tgt Ion:128 Resp: 18122





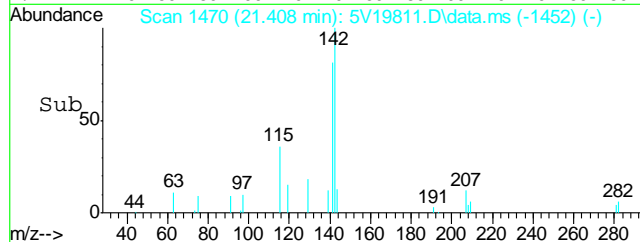
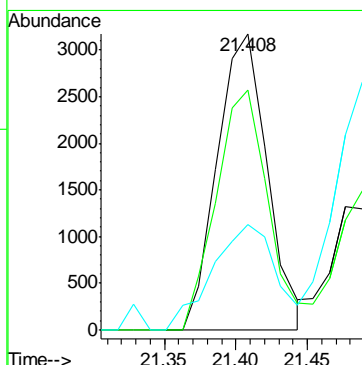
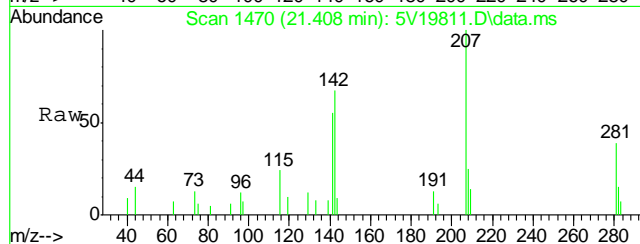
#94
2-Methylnaphthalene
Concen: 4.62 ug/l
RT: 21.100 min Scan# 1443
Delta R.T. 0.000 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	90.0	66.2	99.4
115	38.5	25.9	38.9



#95
1-Methylnaphthalene
Concen: 3.27 ug/l
RT: 21.408 min Scan# 1470
Delta R.T. 0.000 min
Lab File: 5V19811.D
Acq: 3 Mar 2012 11:39 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	85.9	68.9	103.3
115	45.6	27.3	40.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
 Data File : 5V19812.D
 Acq On : 4 Mar 2012 12:13 am
 Operator : KOROUSHV
 Sample : D32371-3
 Misc : MS3499,V5V1190,5.017,,100,5,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 14:08:50 2012
 Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
 Quant Title : 8260
 QLast Update : Fri Mar 02 14:22:16 2012
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	200056	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	359036	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	497229	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	350571	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	44845	51.98	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.96%
61) Toluene-d8	13.851	98	873172	54.31	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.62%
69) 4-Bromofluorobenzene	16.043	95	361221	54.40	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.80%

Target Compounds

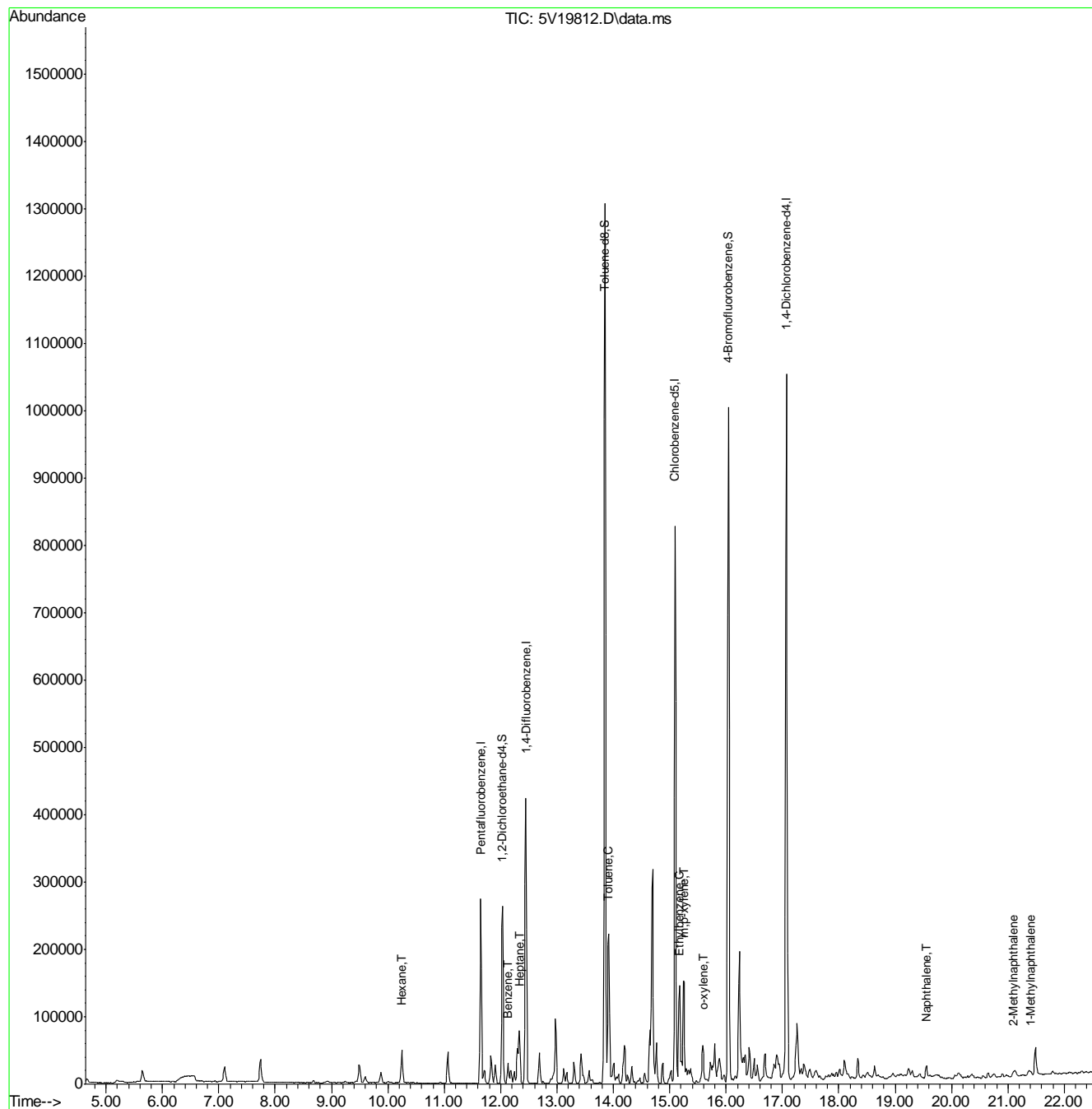
						Qvalue
41) Hexane	10.243	57	25065	5.75	ug/l	100
43) Heptane	12.332	43	27224	5.56	ug/l	79
50) Benzene	12.127	78	26342	1.49	ug/l	100
62) Toluene	13.908	92	70423	5.75	ug/l	99
66) Ethylbenzene	15.163	91	30911	1.35	ug/l	99
72) m,p-xylene	15.255	106	50495	5.42	ug/l	98
73) o-xylene	15.597	106	7071	1.16	ug/l	88
91) Naphthalene	19.559	128	11061	1.92	ug/l	100
94) 2-Methylnaphthalene	21.100	142	5941	3.38	ug/l #	91
95) 1-Methylnaphthalene	21.397	142	4196	2.68	ug/l #	92

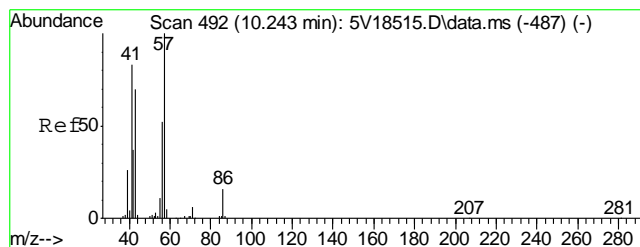
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
Data File : 5V19812.D
Acq On : 4 Mar 2012 12:13 am
Operator : KOROUSHV
Sample : D32371-3
Misc : MS3499,V5V1190,5.017,,100,5,1
ALS Vial : 11 Sample Multiplier: 1

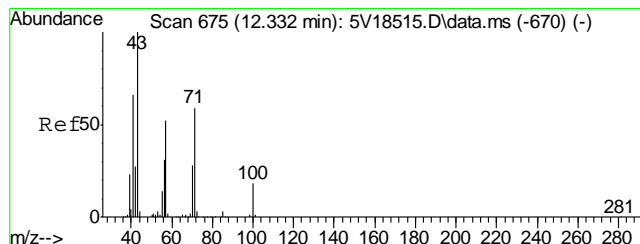
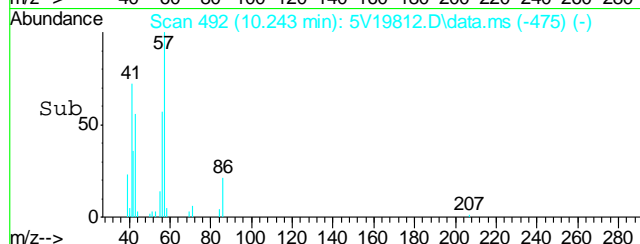
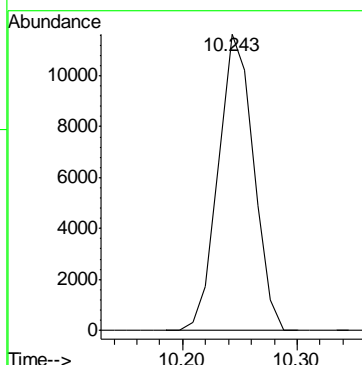
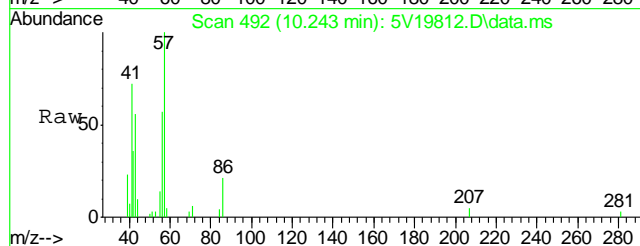
Quant Time: Mar 06 14:08:50 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





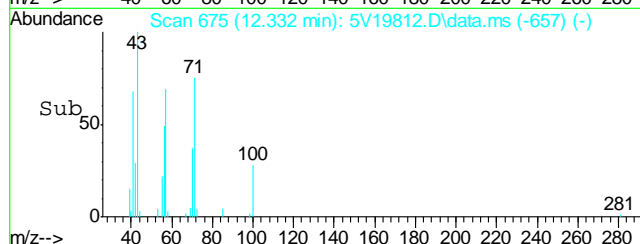
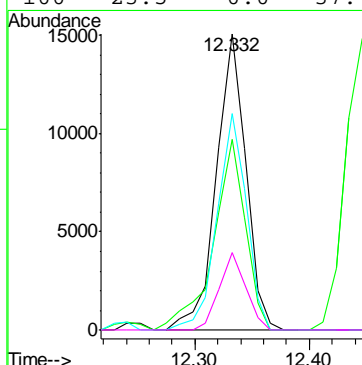
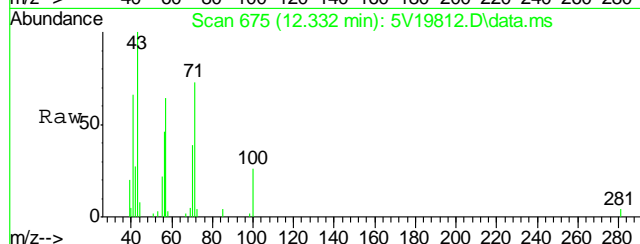
#41
Hexane
Concen: 5.75 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.011 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

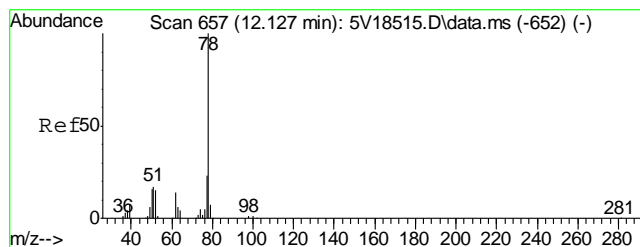
Tgt Ion: 57 Resp: 25065



#43
Heptane
Concen: 5.56 ug/l
RT: 12.332 min Scan# 675
Delta R.T. 0.001 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

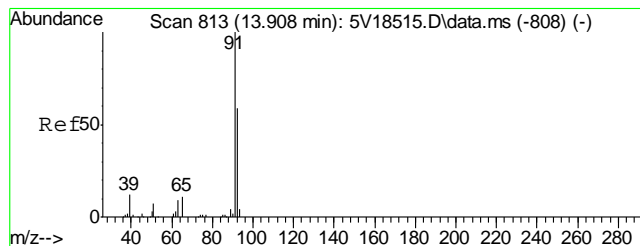
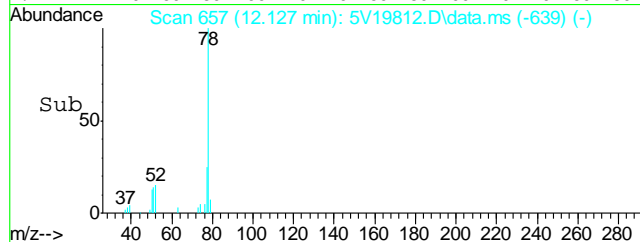
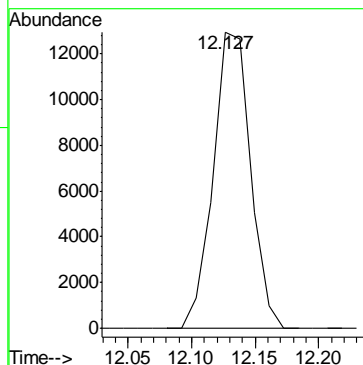
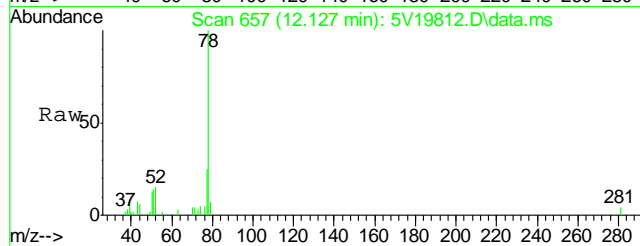
Tgt Ion: 43 Resp: 27224
Ion Ratio Lower Upper
43 100
57 69.4 30.6 70.6
71 72.3 38.9 78.9
100 23.5 0.0 37.4





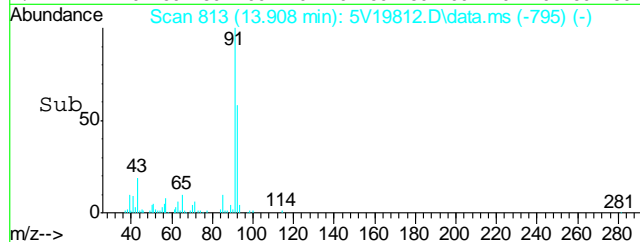
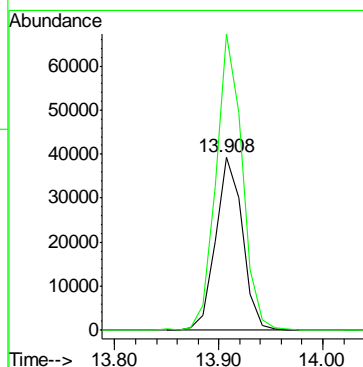
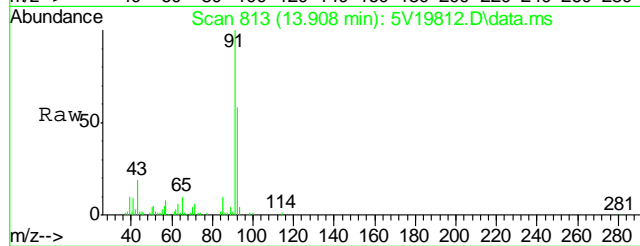
#50
Benzene
Concen: 1.49 ug/l
RT: 12.127 min Scan# 657
Delta R.T. 0.000 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

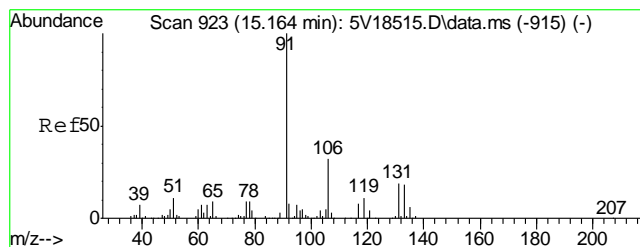
Tgt Ion: 78 Resp: 26342



#62
Toluene
Concen: 5.75 ug/l
RT: 13.908 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

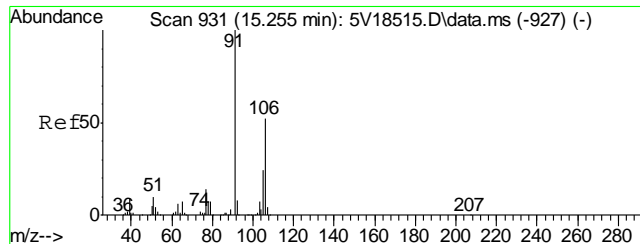
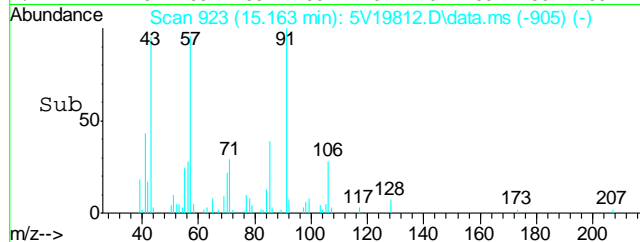
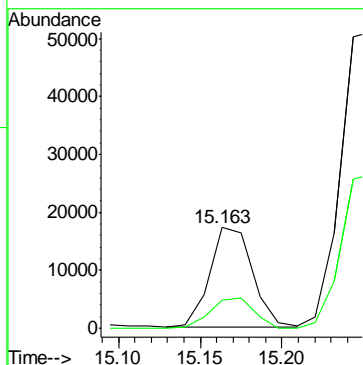
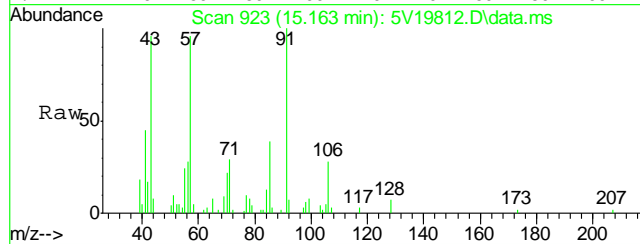
Tgt Ion: 92 Resp: 70423
Ion Ratio Lower Upper
92 100
91 168.0 149.8 189.8





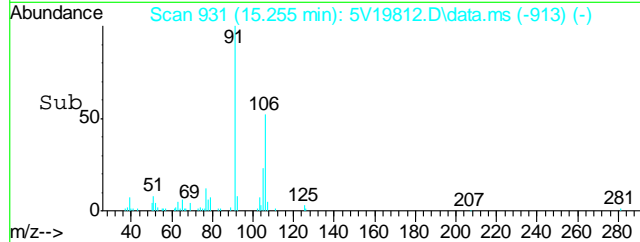
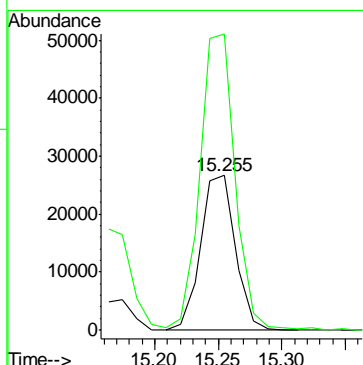
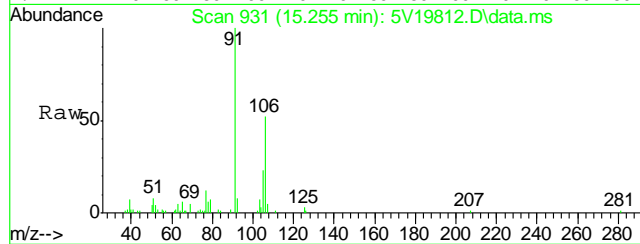
#66
Ethylbenzene
Concen: 1.35 ug/l
RT: 15.163 min Scan# 923
Delta R.T. 0.000 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

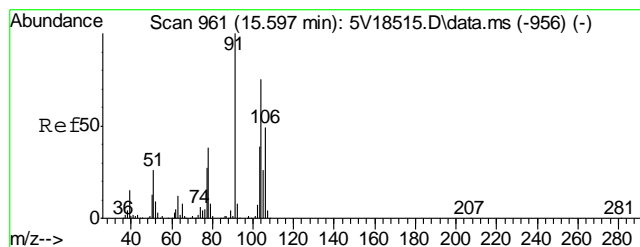
Tgt Ion: 91 Resp: 30911
Ion Ratio Lower Upper
91 100
106 32.0 11.7 51.7



#72
m,p-xylene
Concen: 5.42 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

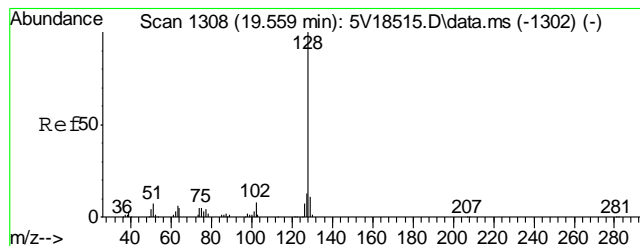
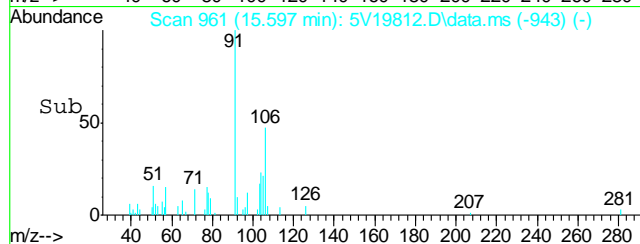
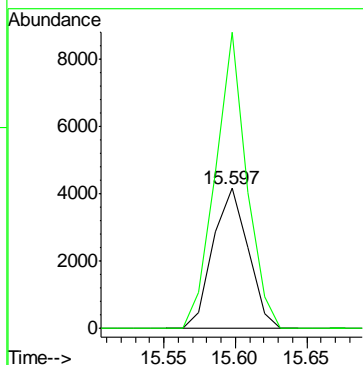
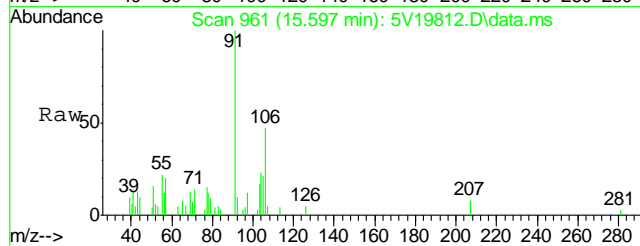
Tgt Ion: 106 Resp: 50495
Ion Ratio Lower Upper
106 100
91 193.4 177.1 217.1





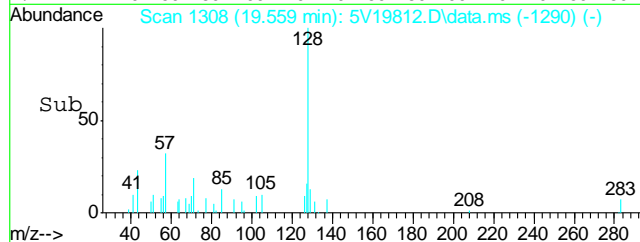
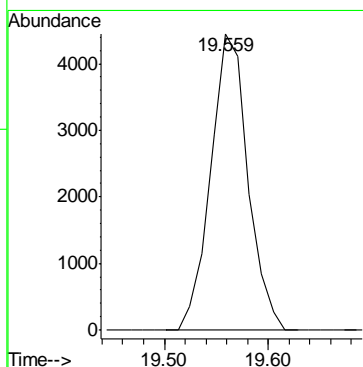
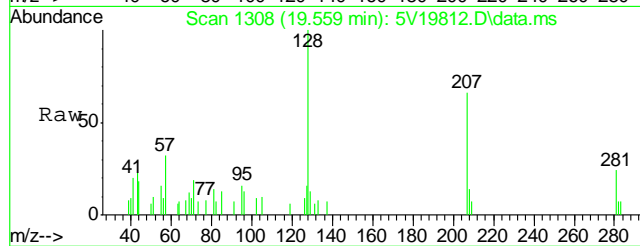
#73
o-xylene
Concen: 1.16 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

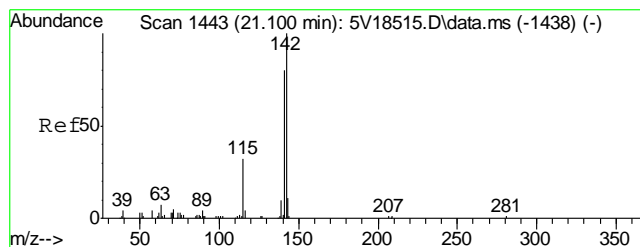
Tgt Ion:106 Resp: 7071
Ion Ratio Lower Upper
106 100
91 189.0 166.6 249.8



#91
Naphthalene
Concen: 1.92 ug/l
RT: 19.559 min Scan# 1308
Delta R.T. 0.001 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

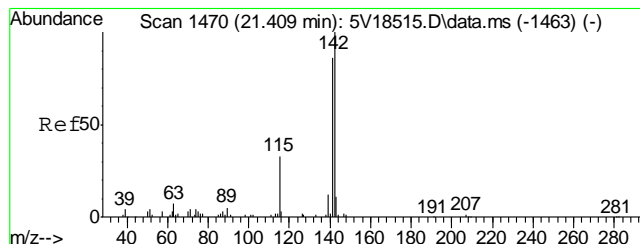
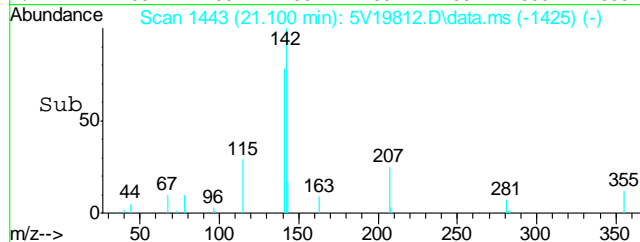
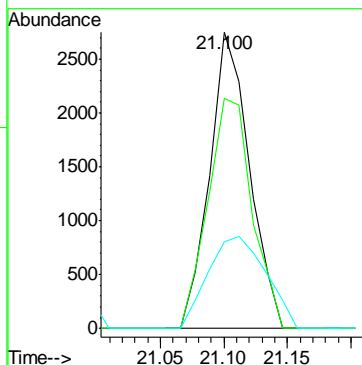
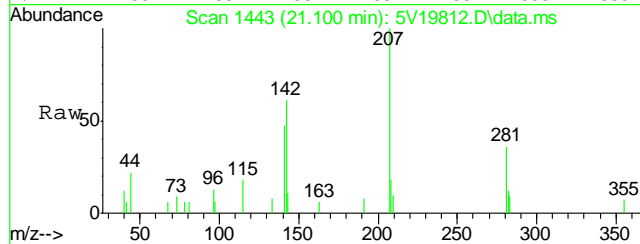
Tgt Ion:128 Resp: 11061





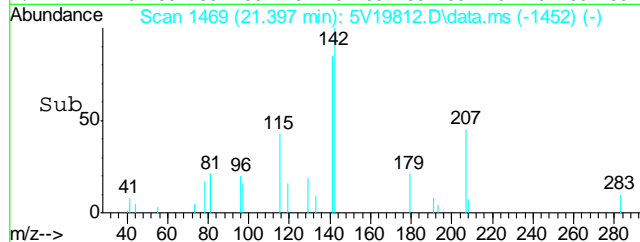
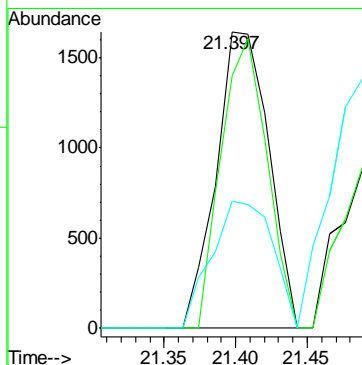
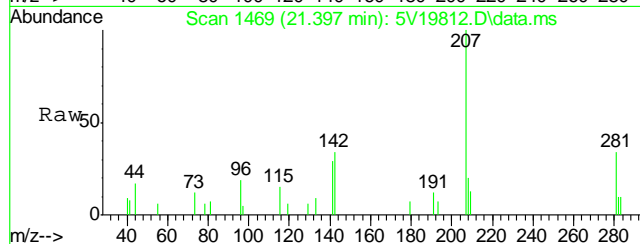
#94
2-Methylnaphthalene
Concen: 3.38 ug/l
RT: 21.100 min Scan# 1443
Delta R.T. 0.000 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

Tgt Ion:	142	Resp:	5941
Ion Ratio	Lower	Upper	
142	100		
141	86.4	66.2	99.4
115	45.3	25.9	38.9#



#95
1-Methylnaphthalene
Concen: 2.68 ug/l
RT: 21.397 min Scan# 1469
Delta R.T. -0.011 min
Lab File: 5V19812.D
Acq: 4 Mar 2012 12:13 am

Tgt Ion:	142	Resp:	4196
Ion Ratio	Lower	Upper	
142	100		
141	85.4	68.9	103.3
115	49.7	27.3	40.9#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
Data File : 5V19805.D
Acq On : 3 Mar 2012 8:23 pm
Operator : KOROUSHV
Sample : MB
Misc : MS3499,V5V1190,5.00,,100,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 06 13:39:13 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	228881	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	404610	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	546790	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	345970	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	53201	54.03	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.06%
61) Toluene-d8	13.850	98	998438	56.48	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	112.96%
69) 4-Bromofluorobenzene	16.042	95	369737	50.63	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.26%

Target Compounds

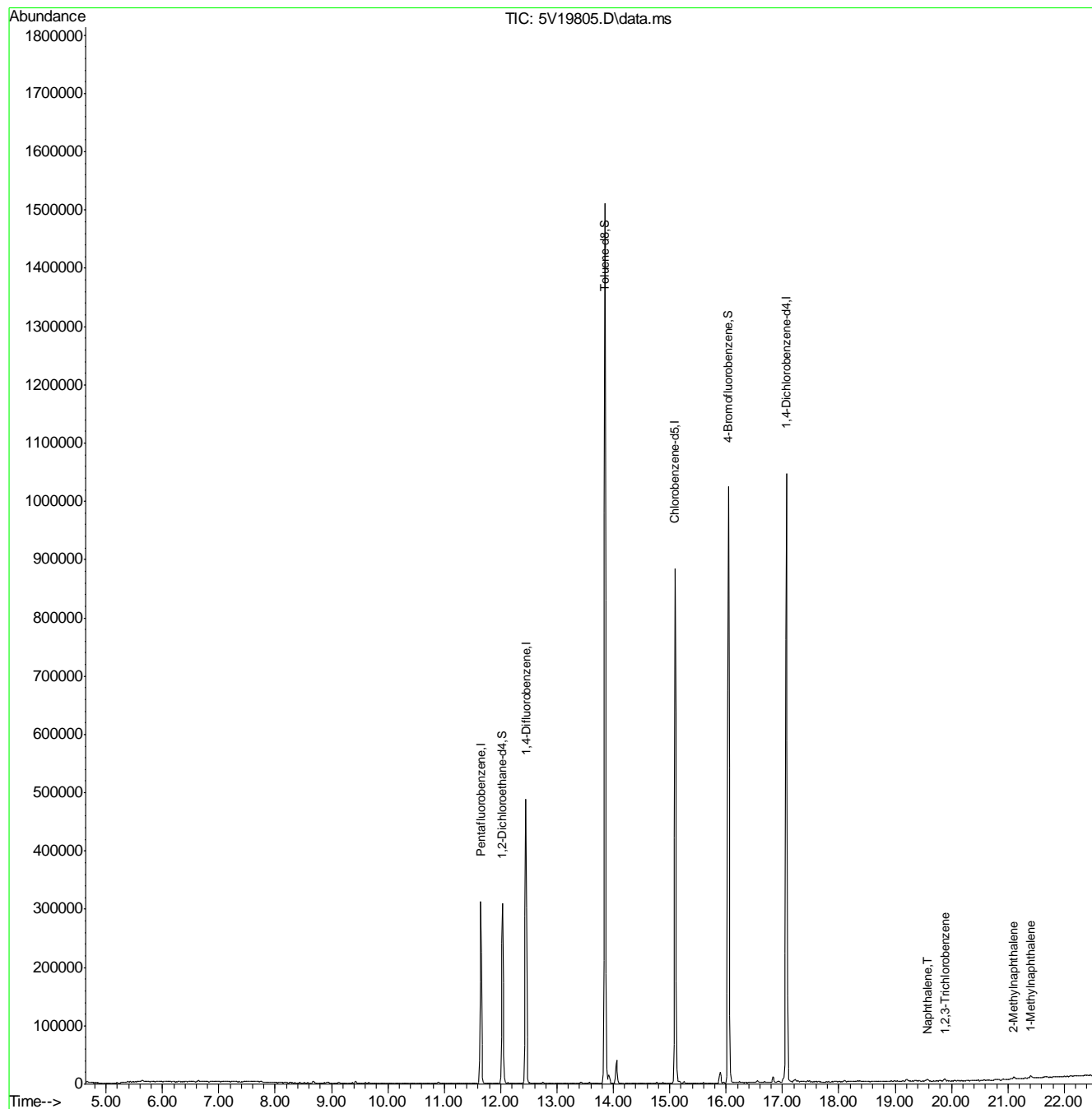
					Qvalue
91) Naphthalene	19.570	128	5659	1.58 ug/l	100
93) 1,2,3-Trichlorobenzene	19.879	180	2735	0.89 ug/l #	96
94) 2-Methylnaphthalene	21.100	142	2906	2.53 ug/l #	94
95) 1-Methylnaphthalene	21.408	142	3189	2.47 ug/l	96

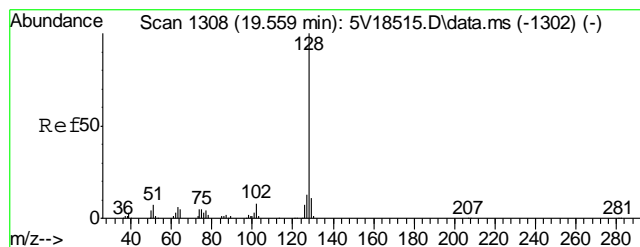
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030312.S\
Data File : 5V19805.D
Acq On : 3 Mar 2012 8:23 pm
Operator : KOROUSHV
Sample : MB
Misc : MS3499,V5V1190,5.00,,100,5,1
ALS Vial : 4 Sample Multiplier: 1

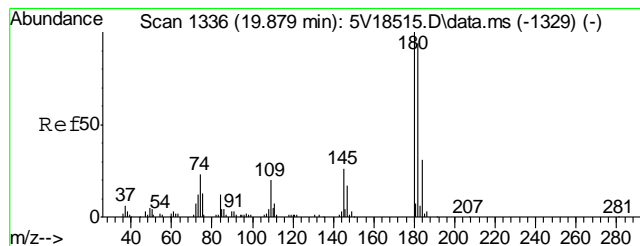
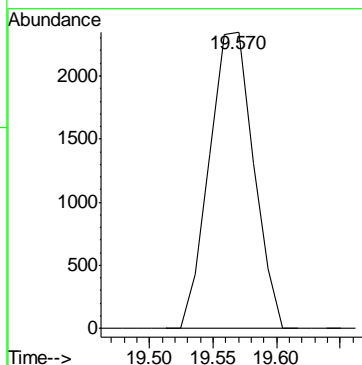
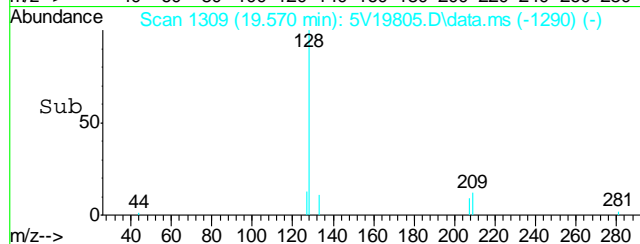
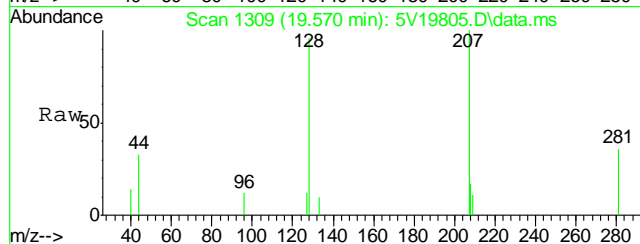
Quant Time: Mar 06 13:39:13 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





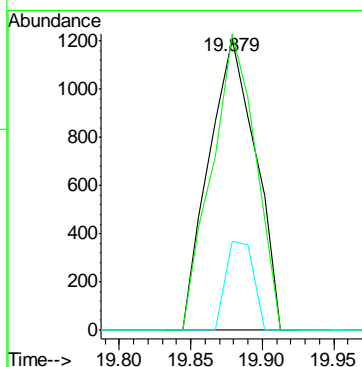
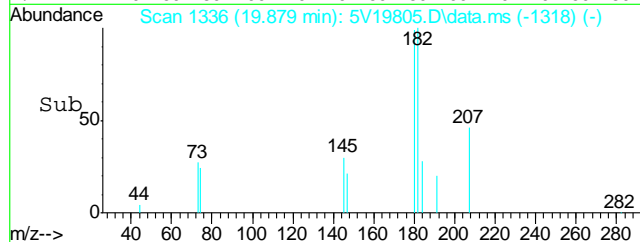
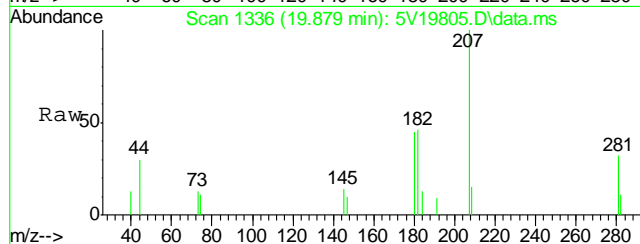
#91
Naphthalene
Concen: 1.58 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V19805.D
Acq: 3 Mar 2012 8:23 pm

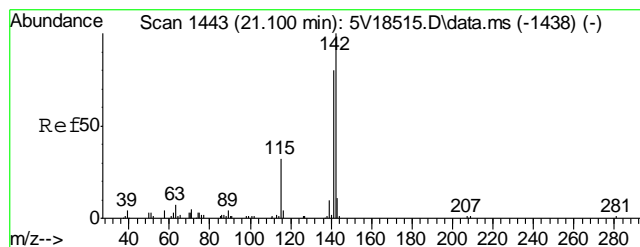
Tgt Ion:128 Resp: 5659



#93
1,2,3-Trichlorobenzene
Concen: 0.89 ug/l
RT: 19.879 min Scan# 1336
Delta R.T. 0.001 min
Lab File: 5V19805.D
Acq: 3 Mar 2012 8:23 pm

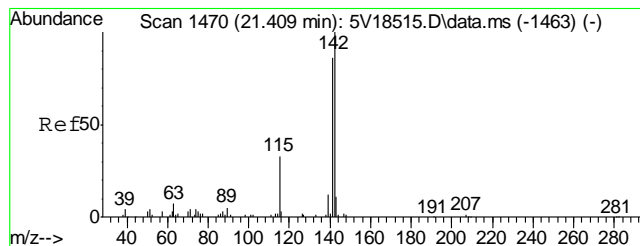
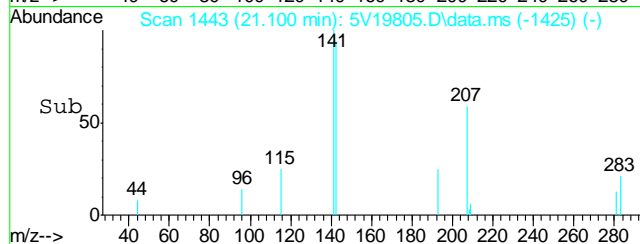
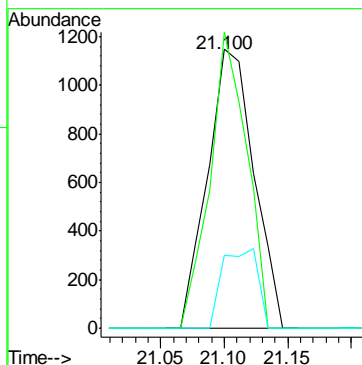
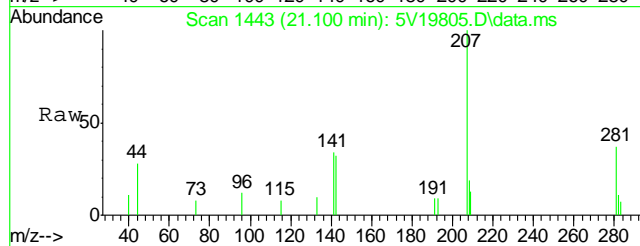
Tgt Ion:180 Resp: 2735
Ion Ratio Lower Upper
180 100
182 95.3 76.0 114.0
145 18.0 21.4 32.0#





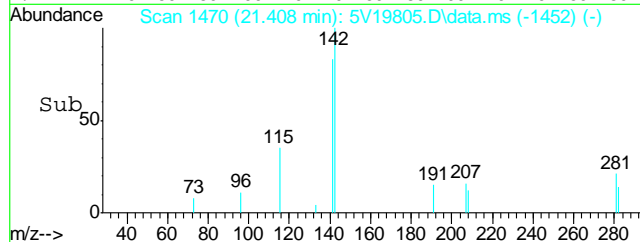
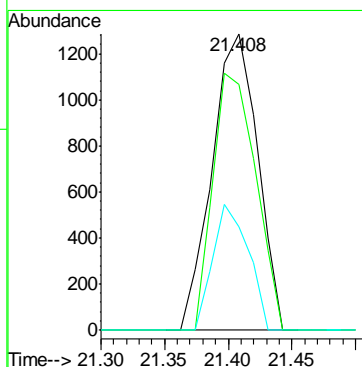
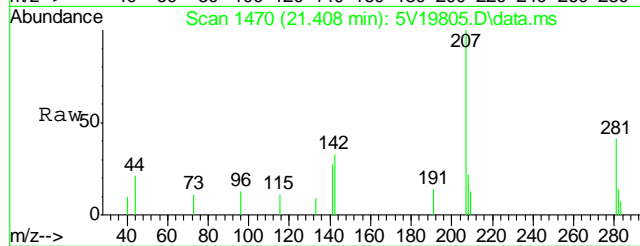
#94
2-Methylnaphthalene
Concen: 2.53 ug/l
RT: 21.100 min Scan# 1443
Delta R.T. 0.000 min
Lab File: 5V19805.D
Acq: 3 Mar 2012 8:23 pm

Tgt Ion:142	Resp:	2906
Ion Ratio	Lower	Upper
142	100	
141	84.0	66.2 99.4
115	21.9	25.9 38.9#



#95
1-Methylnaphthalene
Concen: 2.47 ug/l
RT: 21.408 min Scan# 1470
Delta R.T. 0.000 min
Lab File: 5V19805.D
Acq: 3 Mar 2012 8:23 pm

Tgt Ion:142	Resp:	3189
Ion Ratio	Lower	Upper
142	100	
141	81.7	68.9 103.3
115	33.1	27.3 40.9



GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5467-MB	3G08269.D	1	03/02/12	DC	03/02/12	OP5467	E3G333

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D32371-1, D32371-2, D32371-3

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	8.3	4.3	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	73% 10-145%
321-60-8	2-Fluorobiphenyl	69% 10-130%
1718-51-0	Terphenyl-d14	75% 22-130%

Blank Spike Summary

Page 1 of 1

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5467-BS	3G08270.D	1	03/02/12	DC	03/02/12	OP5467	E3G333

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D32371-1, D32371-2, D32371-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	83.3	62.3	75	32-130

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	73%	10-145%
321-60-8	2-Fluorobiphenyl	70%	10-130%
1718-51-0	Terphenyl-d14	75%	22-130%

7.2.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5467-MS ^a	3G08324.D	100	03/05/12	DC	03/02/12	OP5467	E3G336
OP5467-MSD ^a	3G08325.D	100	03/05/12	DC	03/02/12	OP5467	E3G336
D32353-1	3G08278.D	1	03/02/12	DC	03/02/12	OP5467	E3G333
D32353-1	3G08323.D	100	03/05/12	DC	03/02/12	OP5467	E3G336

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D32371-1, D32371-2, D32371-3

CAS No.	Compound	D32353-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		106	ND	0*	ND	0*	nc	10-144/30

CAS No.	Surrogate Recoveries	MS	MSD	D32353-1	D32353-1	Limits
4165-60-0	Nitrobenzene-d5	42%	17%	77%	124%	10-145%
321-60-8	2-Fluorobiphenyl	82%	88%	9%* ^b	88%	10-130%
1718-51-0	Terphenyl-d14	93%	92%	54%	86%	22-130%

(a) Outside control limits due to dilution.

(b) Outside control limits due to matrix interference. Associated compounds reported from dilution.

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030312\
 Data File : 3g08288.D
 Acq On : 3 Mar 2012 12:27 pm
 Operator : DONC
 Sample : D32371-1
 Misc : OP5467,E3G334,30.00,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 04 09:41:08 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

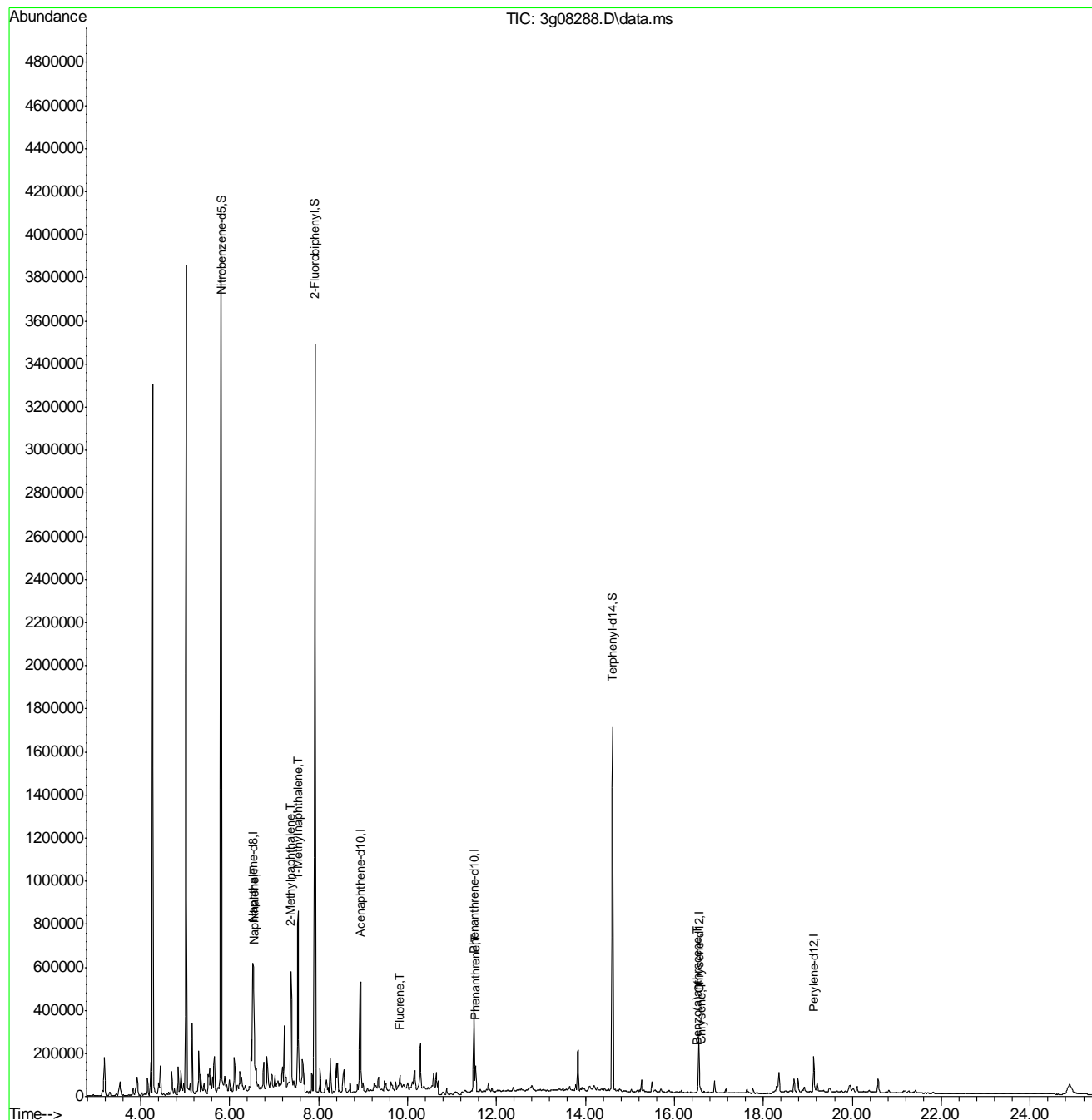
Internal Standards						
1) Naphthalene-d8	6.532	136	613841	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.945	164	336023	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.493	188	444313	4.00	ug/mL	0.00
18) Chrysene-d12	16.553	240	257403	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	196436	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	2259480	22.67	ug/mL	-0.01
Spiked Amount 50.000	Range 25 - 135		Recovery =	45.34%		
7) 2-Fluorobiphenyl	7.917	172	3296326	23.11	ug/mL	-0.01
Spiked Amount 50.000	Range 25 - 135		Recovery =	46.22%		
20) Terphenyl-d14	14.611	244	1937379	30.95	ug/mL	0.00
Spiked Amount 50.000	Range 25 - 135		Recovery =	61.90%		
Target Compounds						
					Qvalue	
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	6.545	128	367848	1.66	ug/mL	98
8) 2-Methylnaphthalene	7.380	142	345525	2.60	ug/mL	96
9) 1-Methylnaphthalene	7.530	142	193073	1.53	ug/mL	96
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	9.831	166	46376	0.35	ug/mL#	72
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	11.532	178	132297	0.79	ug/mL	96
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	16.520	228	4331m	0.05	ug/mL	
22) Chrysene	16.593	228	15400	0.16	ug/mL	89
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

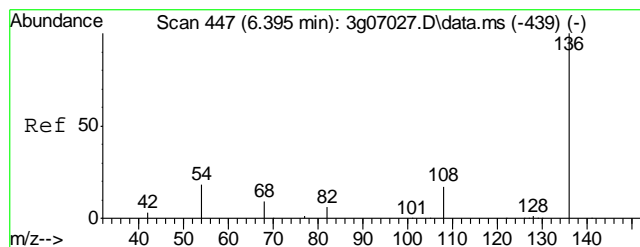
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030312\
Data File : 3g08288.D
Acq On : 3 Mar 2012 12:27 pm
Operator : DONC
Sample : D32371-1
Misc : OP5467,E3G334,30.00,,,1,1
ALS Vial : 10 Sample Multiplier: 1

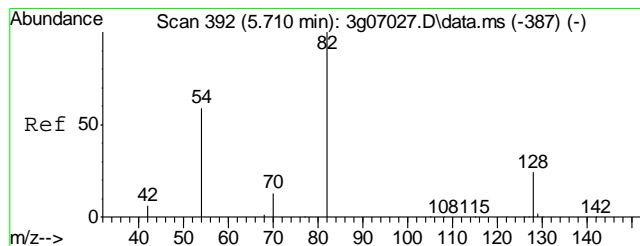
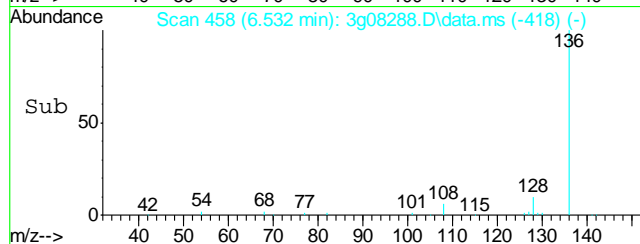
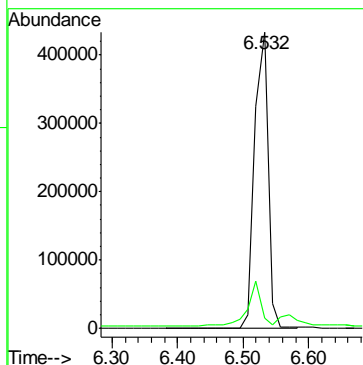
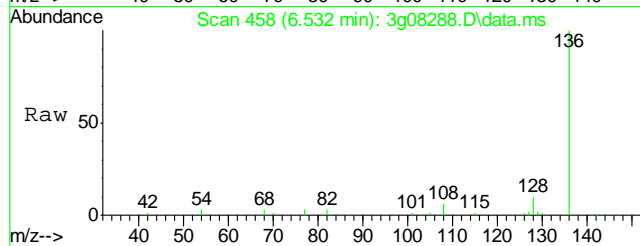
Quant Time: Mar 04 09:41:08 2012
Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
Quant Title : PAHSIM BASE
QLast Update : Sat Mar 03 06:34:25 2012
Response via : Initial Calibration





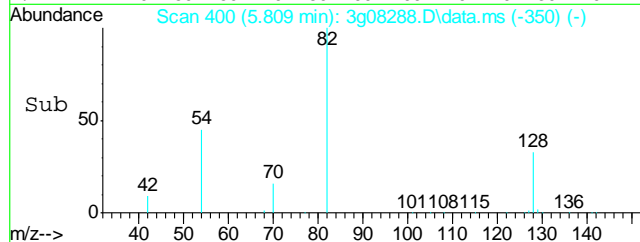
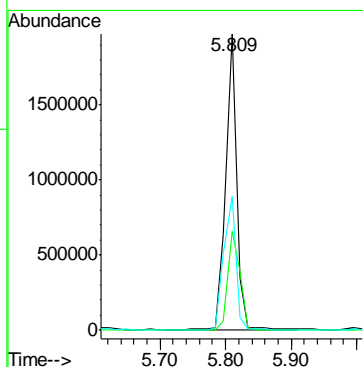
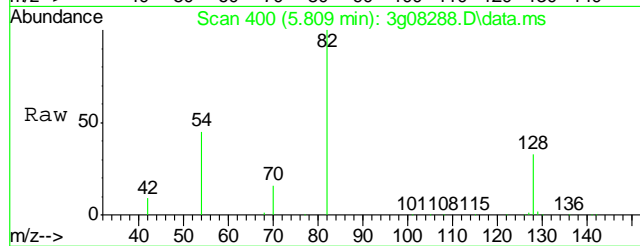
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. -0.000 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

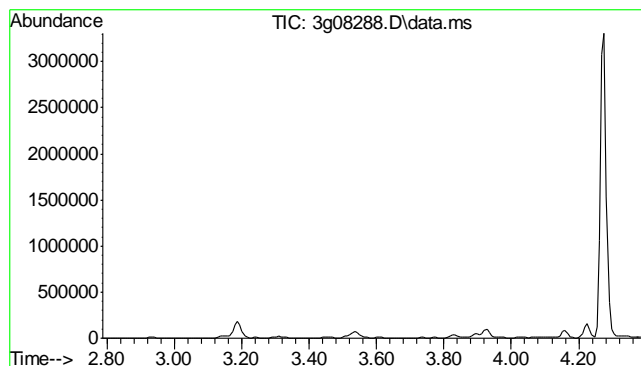
Tgt Ion: 136 Resp: 613841
Ion Ratio Lower Upper
136 100
68 15.3 0.0 32.3



#2
Nitrobenzene-d5
Concen: 22.67 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.013 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion: 82 Resp: 2259480
Ion Ratio Lower Upper
82 100
128 37.5 16.9 56.9
54 50.5 27.5 67.5

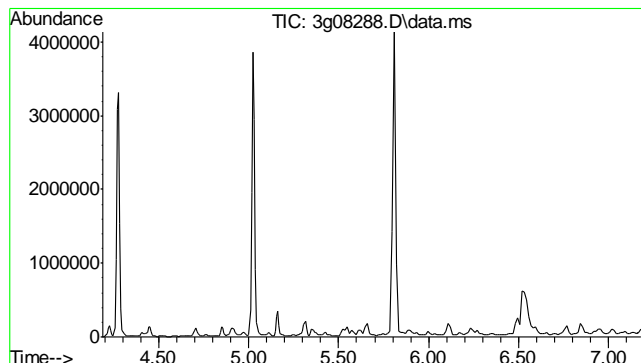
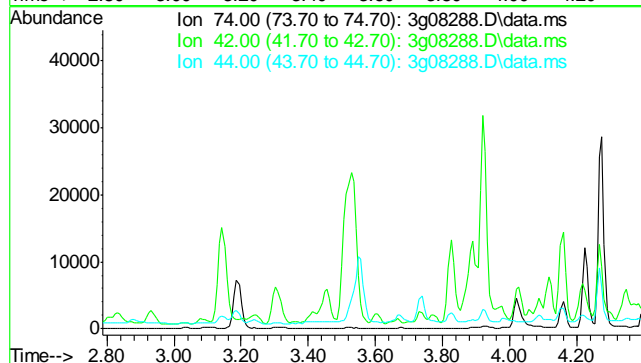




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

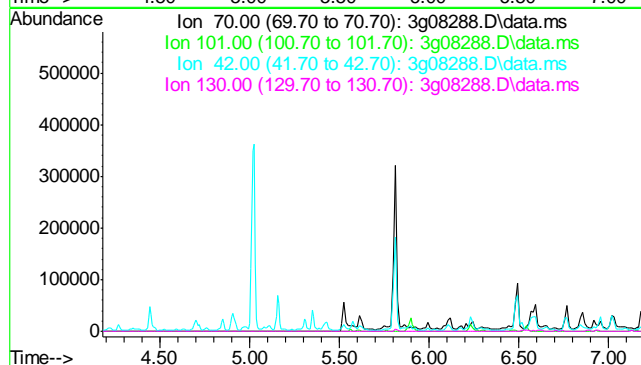
Tgt Ion:	74
Sig	Exp Ratio
74	100
42	58.9
44	4.0

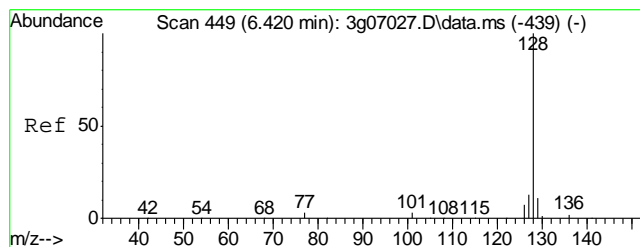


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

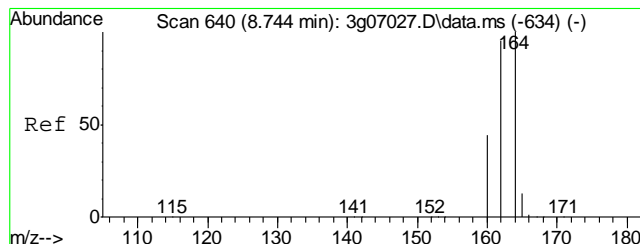
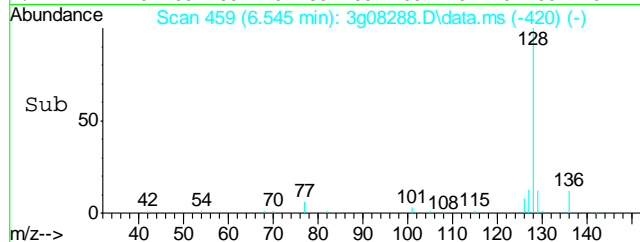
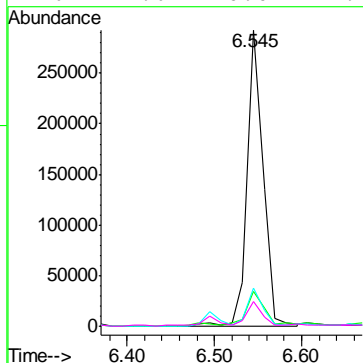
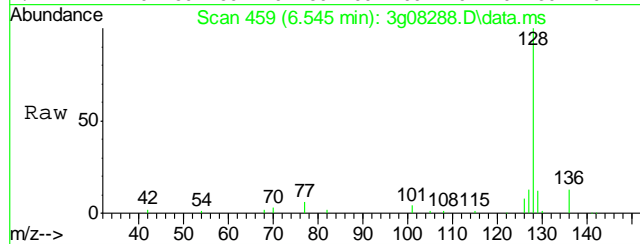
Tgt Ion:	70
Sig	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5





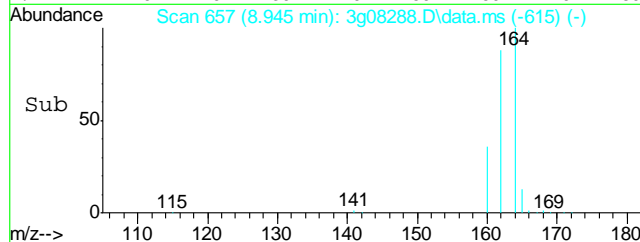
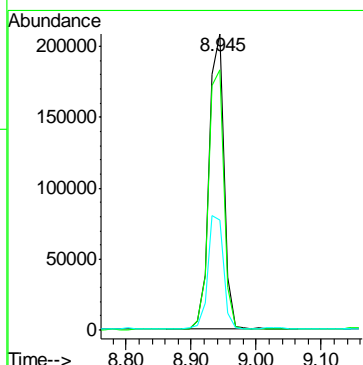
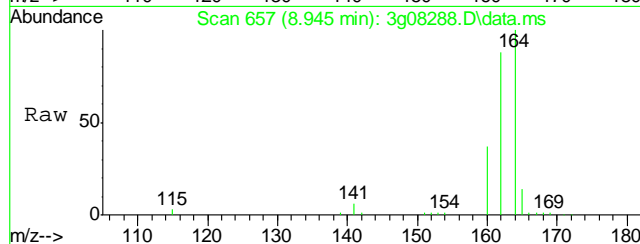
#5
Naphthalene
Concen: 1.66 ug/mL
RT: 6.545 min Scan# 459
Delta R.T. -0.013 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

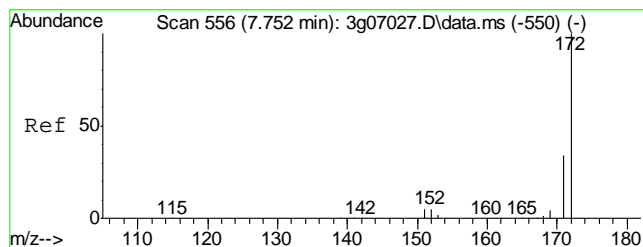
Tgt Ion:128	Resp:	367848
Ion Ratio	Lower	Upper
128	100	
129	13.0	0.0 30.8
127	12.5	0.0 32.5
126	7.6	0.0 27.7



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.945 min Scan# 657
Delta R.T. -0.000 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

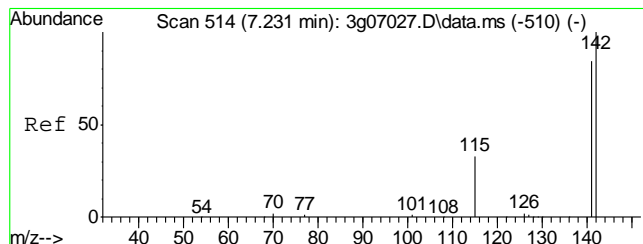
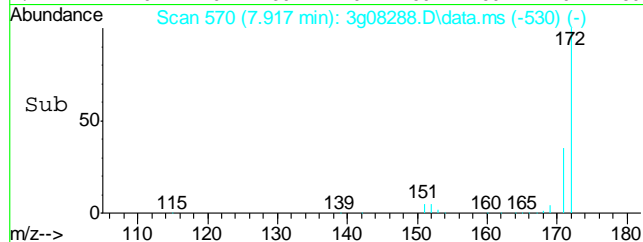
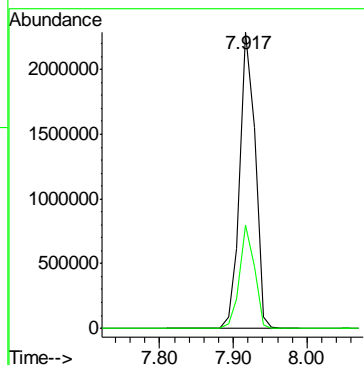
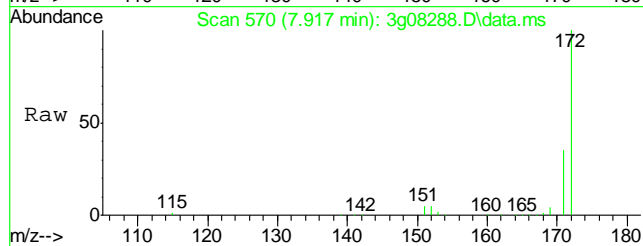
Tgt Ion:164	Resp:	336023
Ion Ratio	Lower	Upper
164	100	
162	91.0	72.6 112.6
160	40.9	21.8 61.8





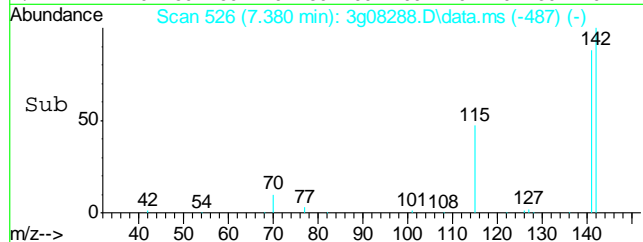
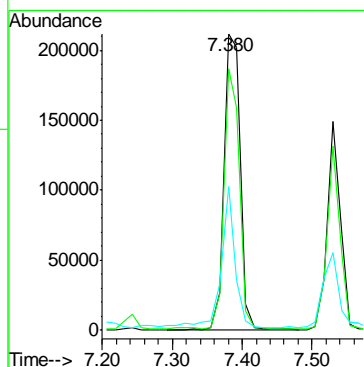
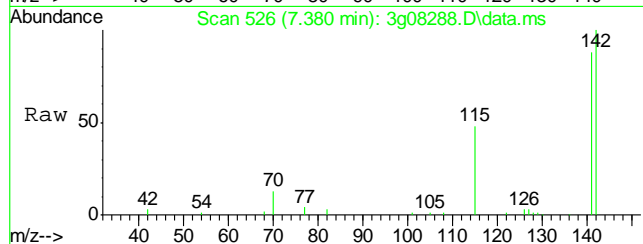
#7
2-Fluorobiphenyl
Concen: 23.11 ug/mL
RT: 7.917 min Scan# 570
Delta R.T. -0.012 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

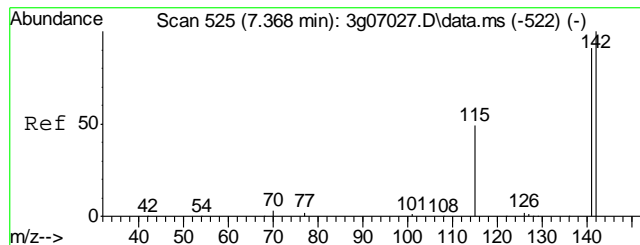
Tgt Ion	Ratio	Lower	Upper
172	100		
171	33.6	13.3	53.3



#8
2-Methylnaphthalene
Concen: 2.60 ug/mL
RT: 7.380 min Scan# 526
Delta R.T. -0.013 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

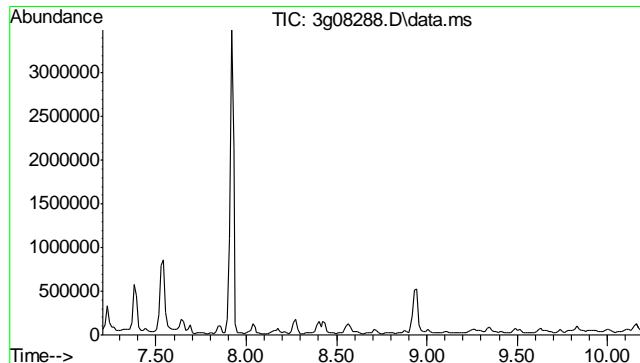
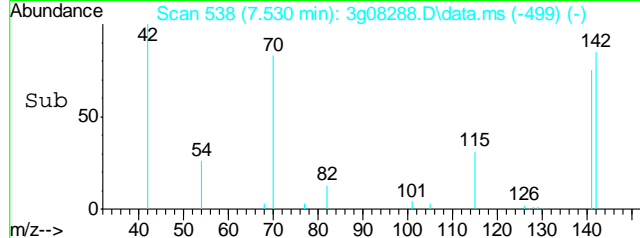
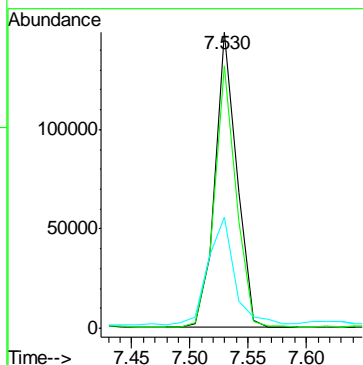
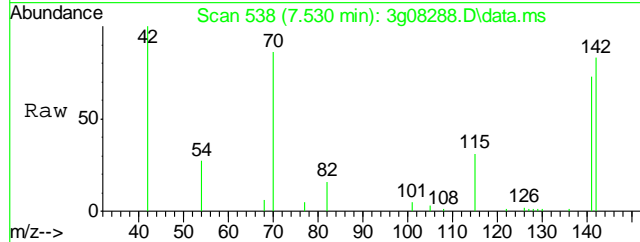
Tgt Ion	Ratio	Lower	Upper
142	100		
141	84.3	63.2	103.2
115	41.2	16.1	56.1





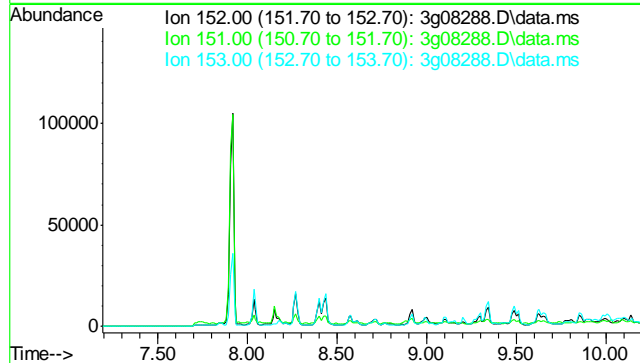
#9
1-Methylnaphthalene
Concen: 1.53 ug/mL
RT: 7.530 min Scan# 538
Delta R.T. -0.013 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

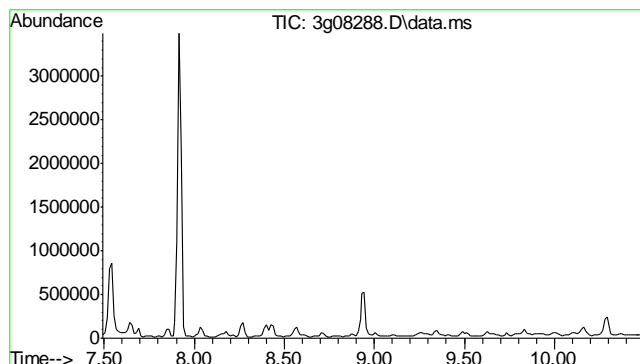
Tgt Ion:	142	Resp:	193073
Ion Ratio	Lower	Upper	
142	100		
141	87.7	67.4	107.4
115	45.4	18.8	58.8



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion:	152
Sig	Exp Ratio
152	100
151	18.9
153	12.9

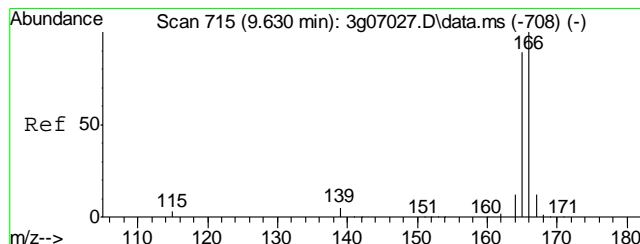
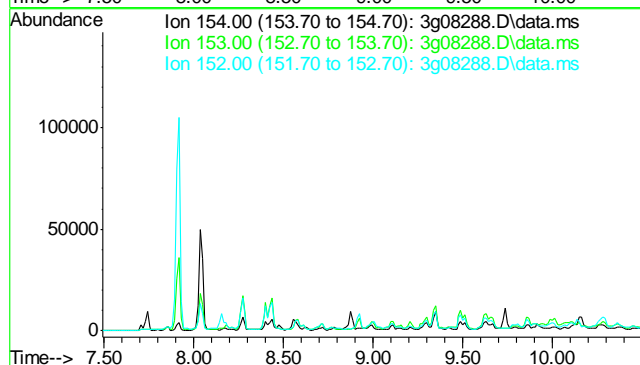




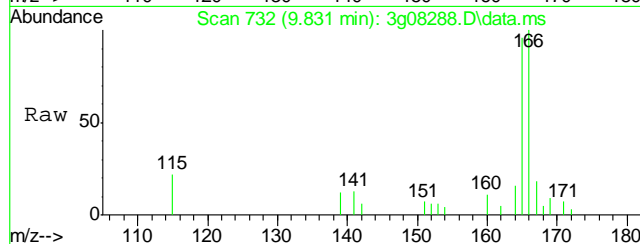
#11
 Acenaphthene
 Concen: N.D. ug/mL
 Expected RT: 8.99 min

 Lab File: 3g08288.D
 Acq: 3 Mar 12 12:27 pm

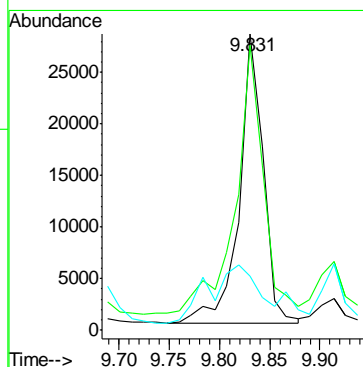
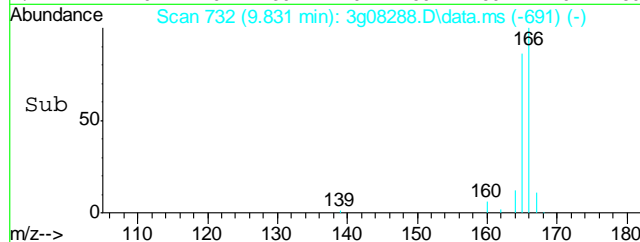
Tgt Ion: 154
 Sig Exp Ratio
 154 100
 153 104.3
 152 49.4

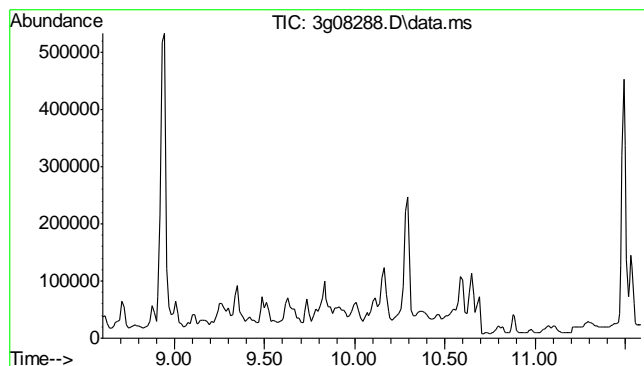


#12
 Fluorene
 Concen: 0.35 ug/mL
 RT: 9.831 min Scan# 732
 Delta R.T. -0.012 min
 Lab File: 3g08288.D
 Acq: 3 Mar 12 12:27 pm



Tgt Ion: 166 Resp: 46376
 Ion Ratio Lower Upper
 166 100
 165 109.2 71.1 111.1
 167 50.4 0.0 33.2#

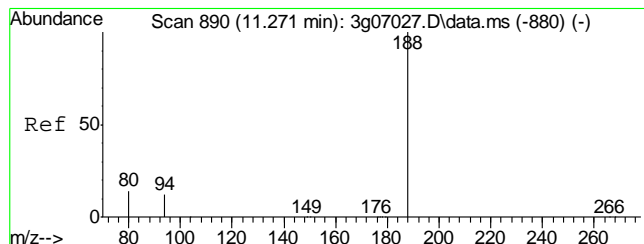
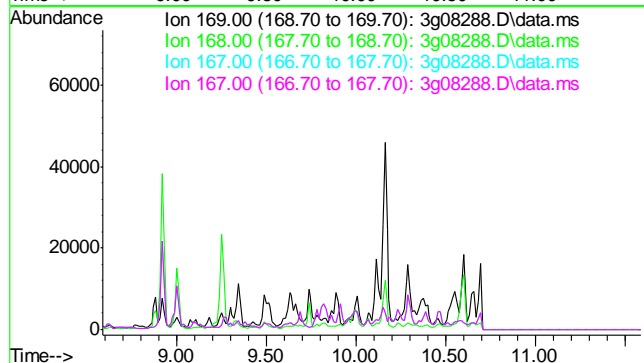




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

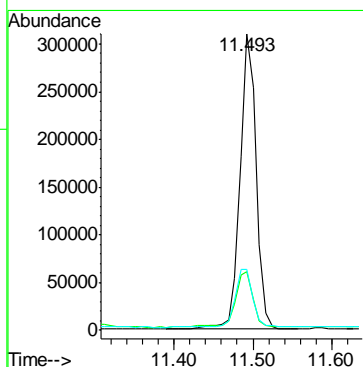
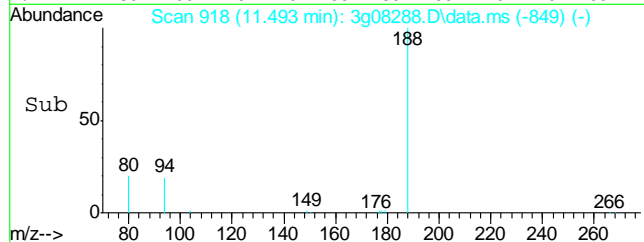
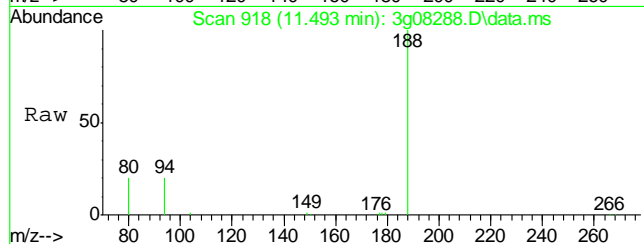
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

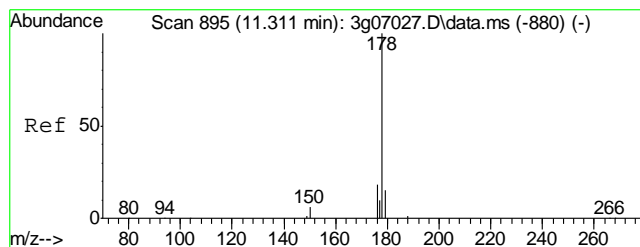
Tgt Ion: 169
Sig Exp Ratio
169 100
168 61.0
167 33.0
167 33.0



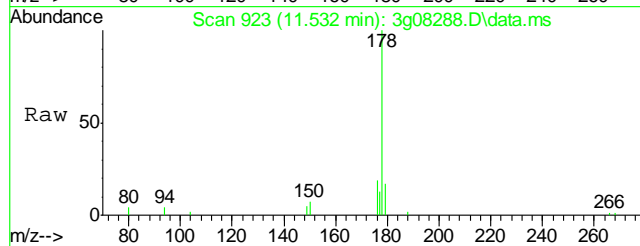
#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.493 min Scan# 918
Delta R.T. -0.000 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion: 188 Resp: 444313
Ion Ratio Lower Upper
188 100
94 19.6 1.6 41.6
80 20.9 2.2 42.2

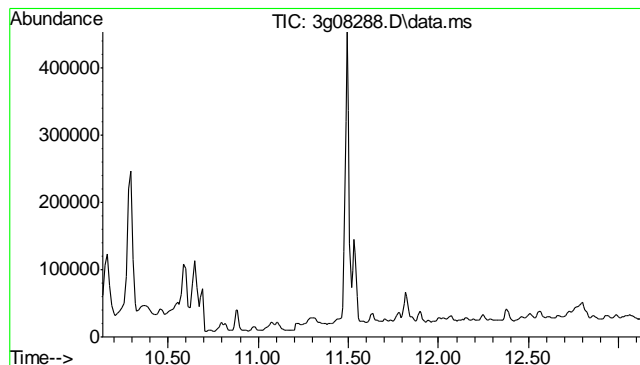
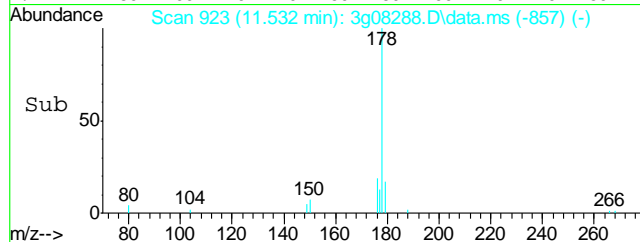
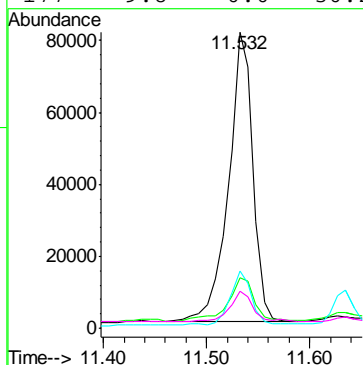




#15
Phenanthrene
Concen: 0.79 ug/mL
RT: 11.532 min Scan# 923
Delta R.T. -0.008 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

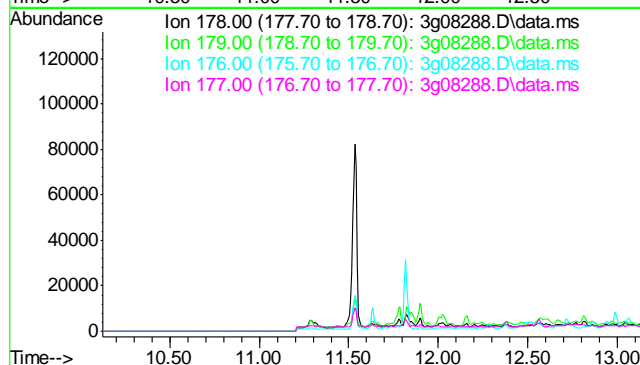


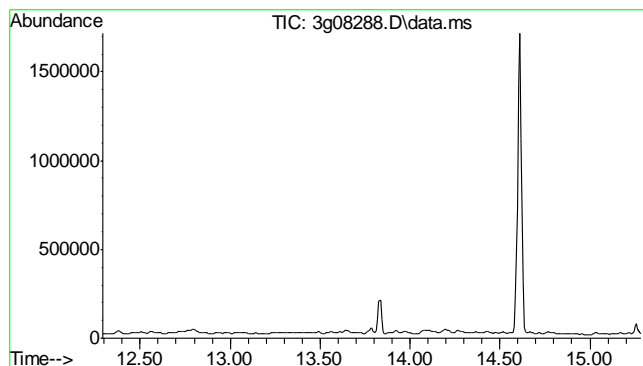
Tgt Ion:	178	Resp:	132297
Ion Ratio	Lower	Upper	
178	100		
179	17.4	0.0	35.1
176	17.1	0.0	38.5
177	9.8	0.0	30.2



#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.0
176	17.9
177	8.8

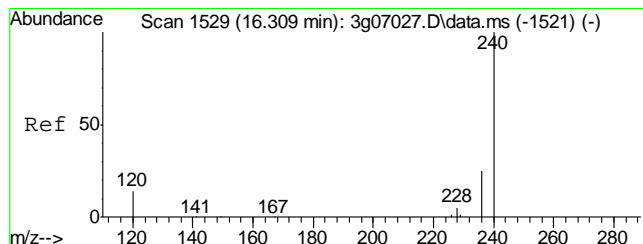
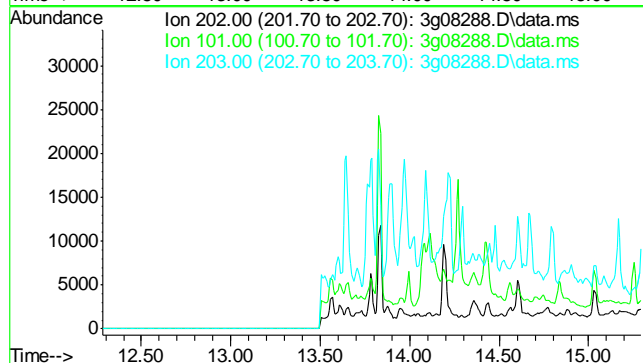




#17
Fluoranthene
Concen: N.D. ug/mL
Expected RT: 13.79 min

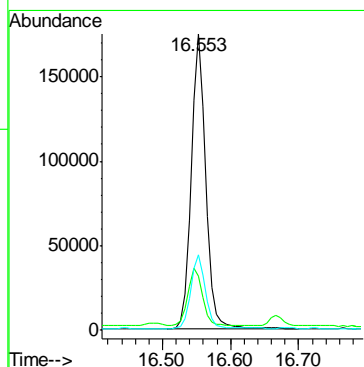
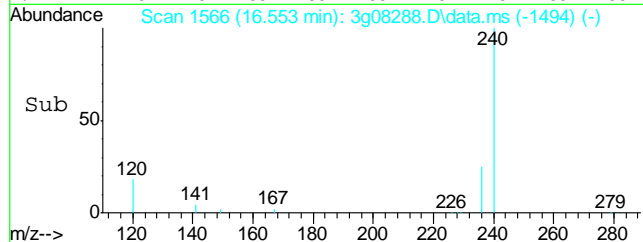
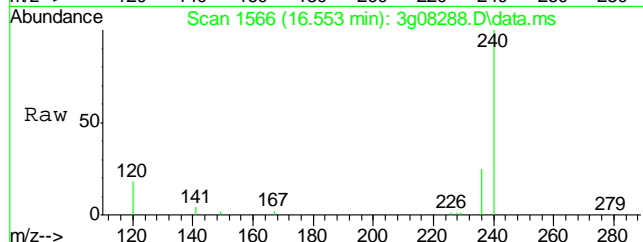
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

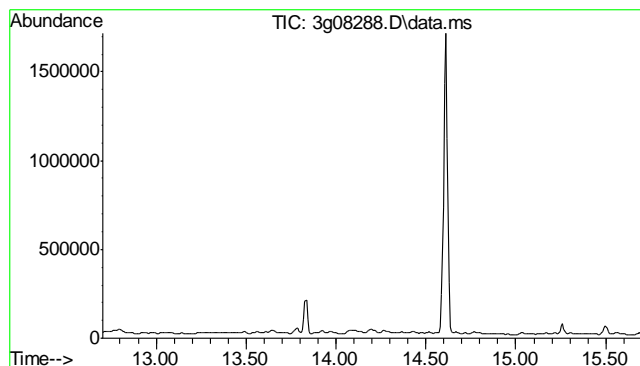
Tgt Ion	Exp Ratio
202	100
101	23.5
203	17.2



#18
Chrysene-d12
Concen: 4.00 ug/mL
RT: 16.553 min Scan# 1566
Delta R.T. -0.000 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion	Ratio	Lower	Upper
240	100		
120	19.7	2.9	42.9
236	24.9	5.0	45.0

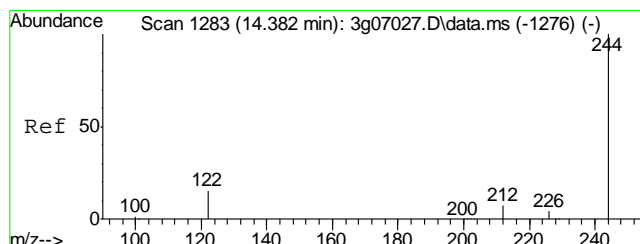
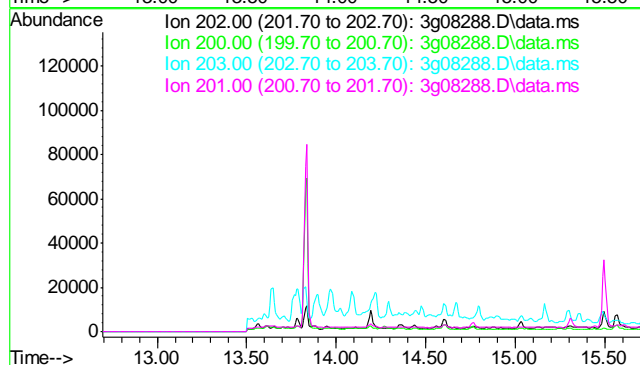




#19
Pyrene
Concen: N.D. ug/mL
Expected RT: 14.20 min

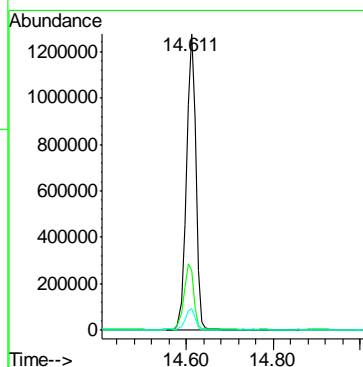
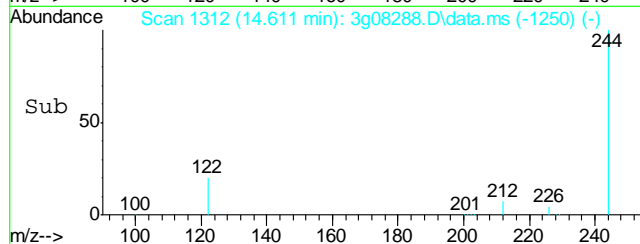
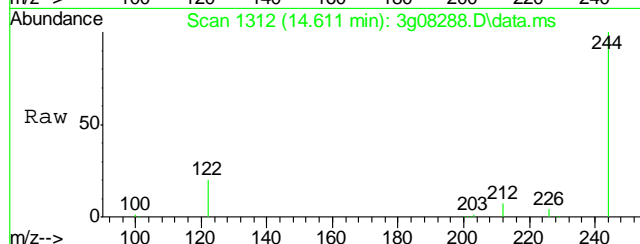
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

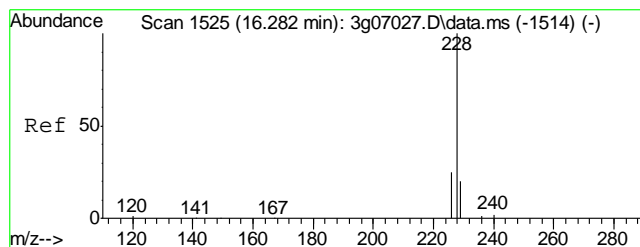
Tgt Ion: 202
Sig Exp Ratio
202 100
200 20.0
203 17.8
201 16.5



#20
Terphenyl-d14
Concen: 30.95 ug/mL
RT: 14.611 min Scan# 1312
Delta R.T. -0.008 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

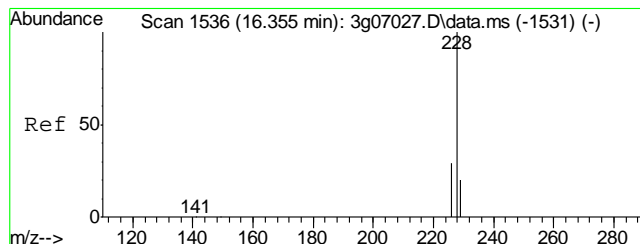
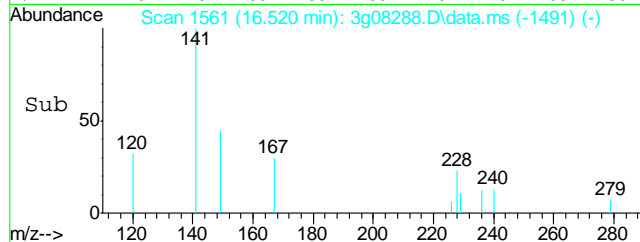
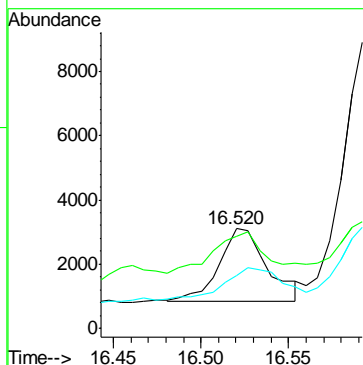
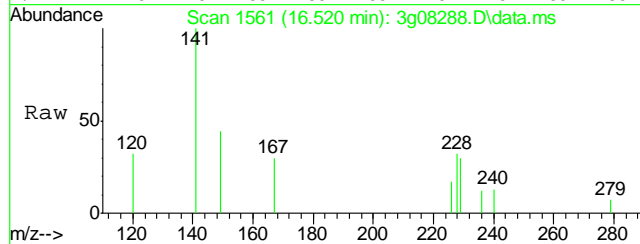
Tgt Ion: 244 Resp: 1937379
Ion Ratio Lower Upper
244 100
122 22.7 3.7 43.7
212 7.4 0.0 27.2





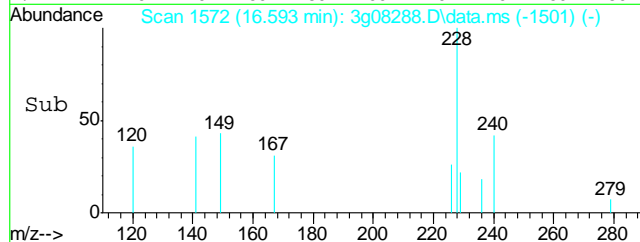
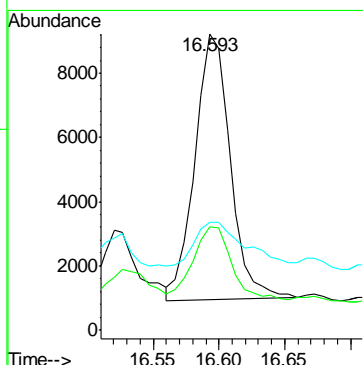
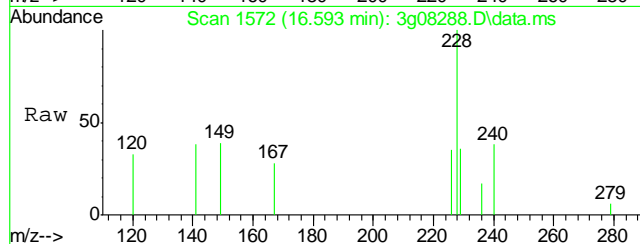
#21
Benzo(a)anthracene
Concen: 0.05 ug/mL m
RT: 16.520 min Scan# 1561
Delta R.T. -0.007 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

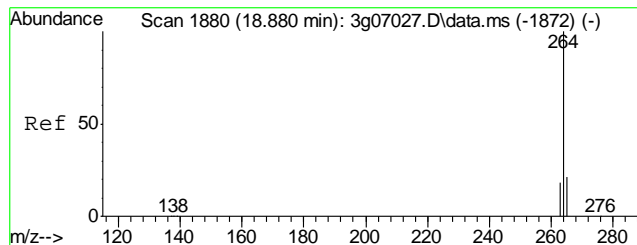
Tgt Ion	Ratio	Lower	Upper
228	100		
229	83.7	0.0	39.5#
226	116.6	6.0	46.0#



#22
Chrysene
Concen: 0.16 ug/mL
RT: 16.593 min Scan# 1572
Delta R.T. -0.013 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

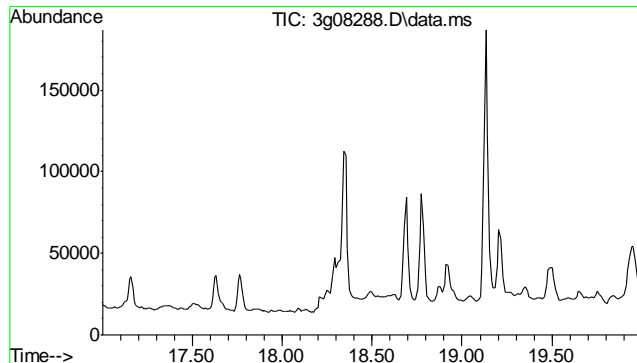
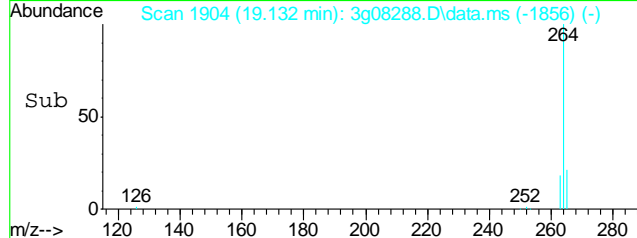
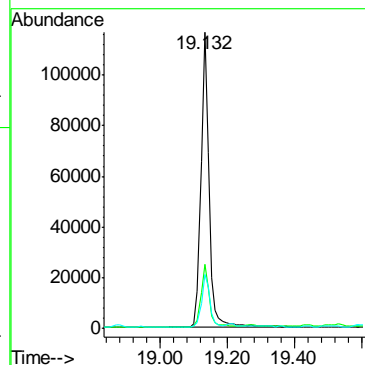
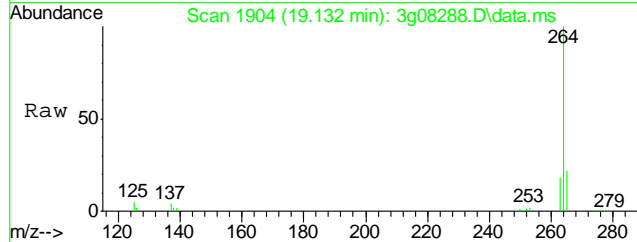
Tgt Ion	Ratio	Lower	Upper
228	100		
226	33.8	8.3	48.3
229	24.3	0.0	39.3





#23
Perylene-d12
Concen: 4.00 ug/mL
RT: 19.132 min Scan# 1904
Delta R.T. -0.000 min
Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

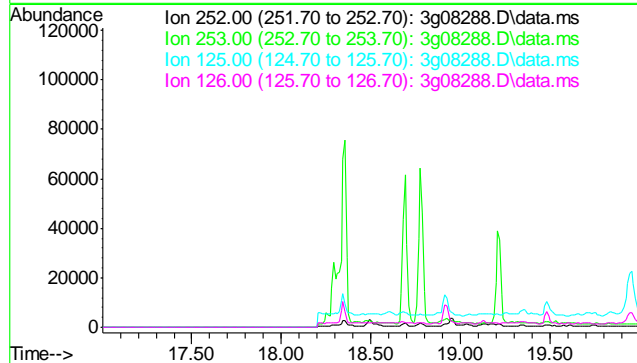
Tgt Ion:	264	Resp:	196436
Ion Ratio	Lower	Upper	
264	100		
265	21.1	1.1	41.1
263	18.3	0.0	38.7

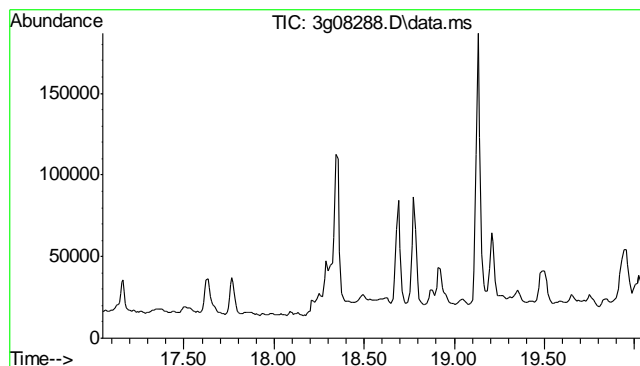


#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.50 min

Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

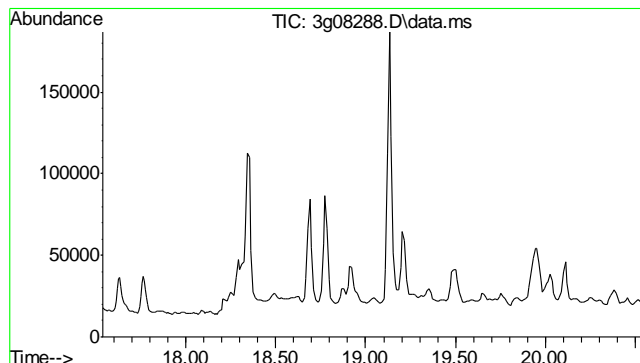
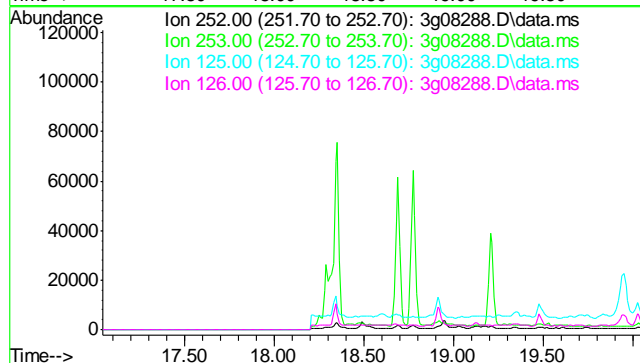




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

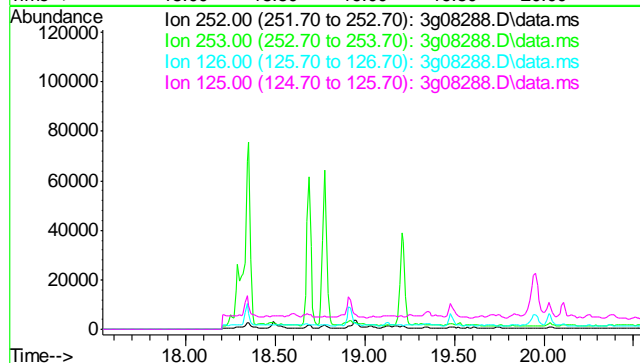
Tgt Ion	Sig	Exp Ratio
252	100	
253	21.7	
125	17.5	
126	27.7	

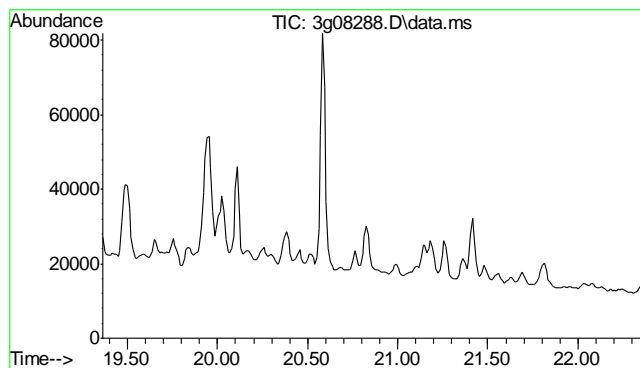


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08288.D
Acq: 3 Mar 12 12:27 pm

Tgt Ion	Sig	Exp Ratio
252	100	
253	21.6	
126	24.1	
125	18.2	

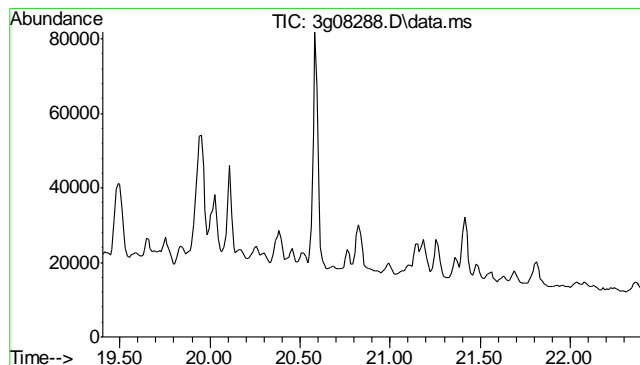
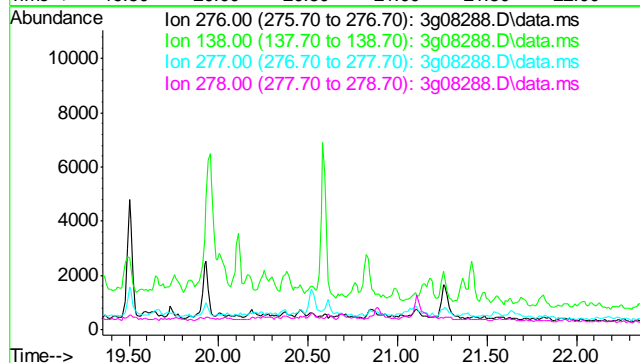




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 20.86 min

 Lab File: 3g08288.D
 Acq: 3 Mar 12 12:27 pm

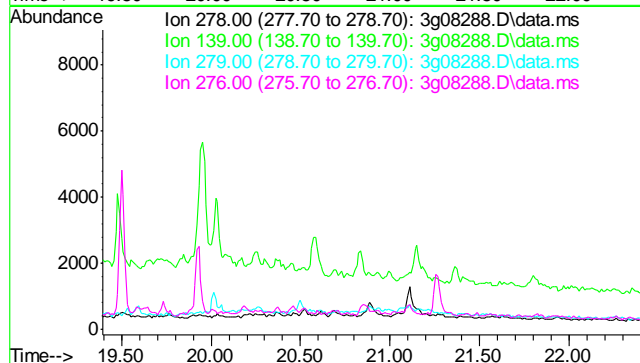
Tgt Ion	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

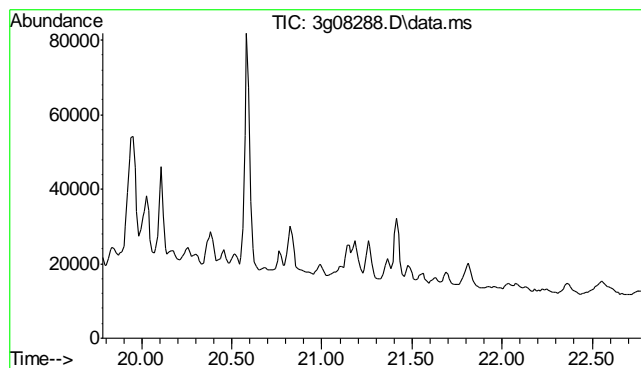


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 20.90 min

 Lab File: 3g08288.D
 Acq: 3 Mar 12 12:27 pm

Tgt Ion	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4

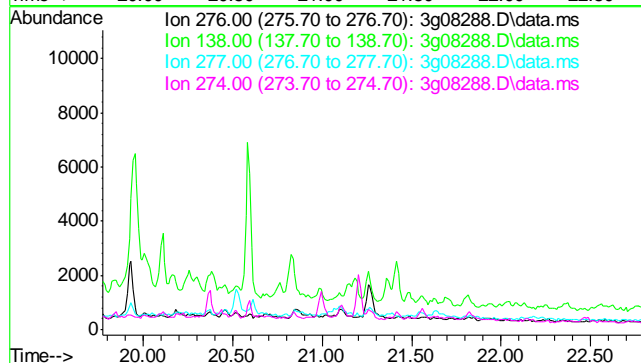




#29
 Benzo(g,h,i)perylene
 Concen: N.D. ug/mL
 Expected RT: 21.28 min

 Lab File: 3g08288.D
 Acq: 3 Mar 12 12:27 pm

Tgt Ion	Exp Ratio
276	100
138	31.8
277	23.4
274	21.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030312\
 Data File : 3g08289.D
 Acq On : 3 Mar 2012 1:03 pm
 Operator : DONC
 Sample : D32371-2
 Misc : OP5467,E3G334,30.09,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 09:44:57 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

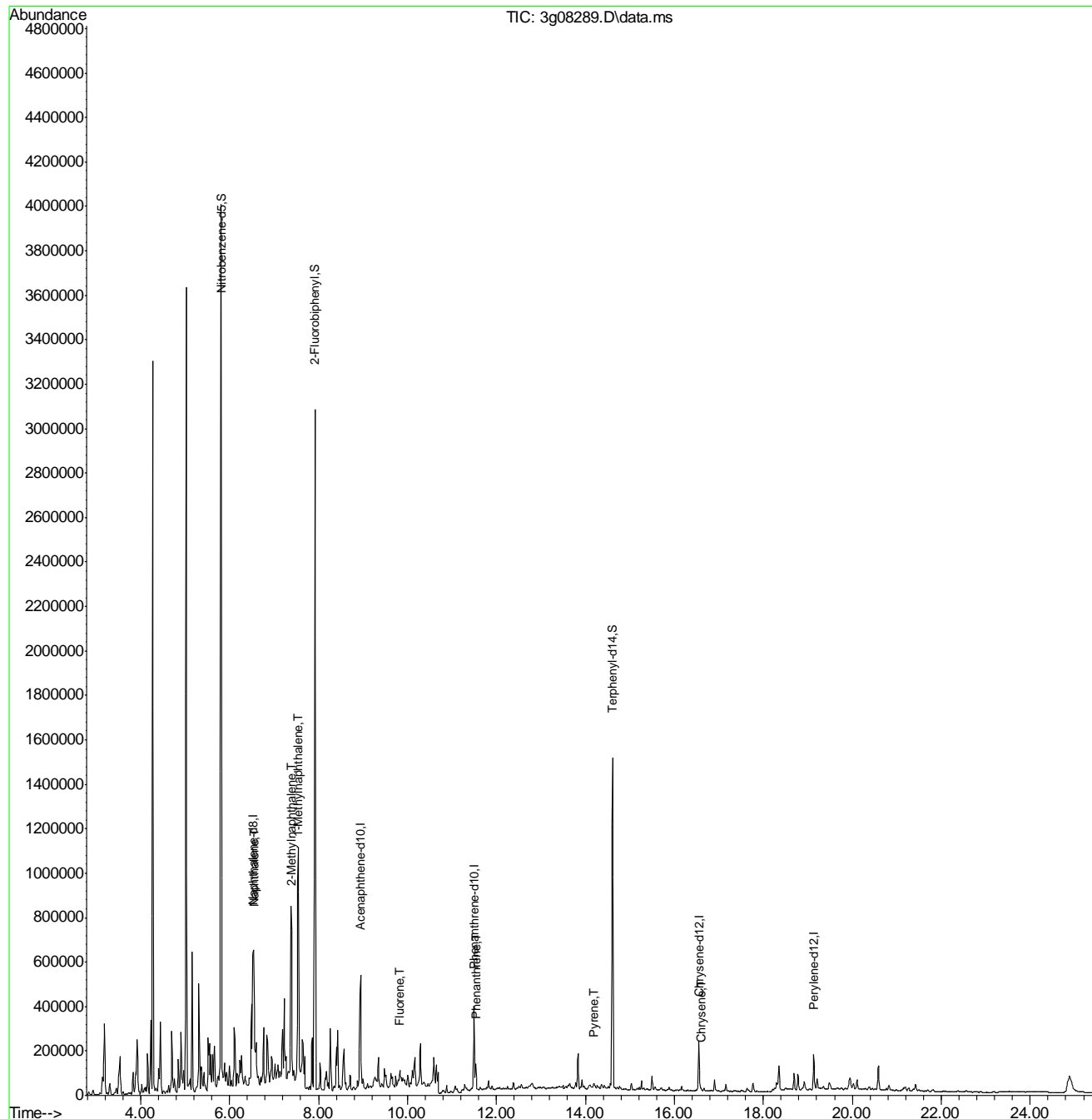
Internal Standards						
1) Naphthalene-d8	6.532	136	604545	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.945	164	314338	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.501	188	415587	4.00	ug/mL	0.00
18) Chrysene-d12	16.554	240	226048	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	194301	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	2149771	21.90	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	43.80%
7) 2-Fluorobiphenyl	7.917	172	2995182	22.45	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	44.90%
20) Terphenyl-d14	14.611	244	1658145	30.16	ug/mL	0.00
Spiked Amount	50.000	Range	25 - 135	Recovery	=	60.32%
Target Compounds						
					Qvalue	
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	6.545	128	488618	2.23	ug/mL	96
8) 2-Methylnaphthalene	7.393	142	527716	4.24	ug/mL	95
9) 1-Methylnaphthalene	7.530	142	264232	2.23	ug/mL	96
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	9.831	166	48715	0.39	ug/mL#	71
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	11.540	178	135321	0.87	ug/mL	95
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	14.192	202	14713	0.13	ug/mL#	1
21) Benzo(a)anthracene	0.000		0	N.D.	d	
22) Chrysene	16.593	228	15269	0.18	ug/mL	79
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

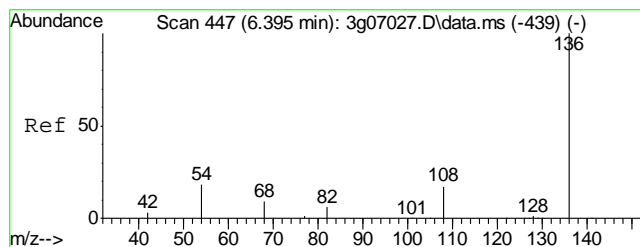
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030312\
 Data File : 3g08289.D
 Acq On : 3 Mar 2012 1:03 pm
 Operator : DONC
 Sample : D32371-2
 Misc : OP5467,E3G334,30.09,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

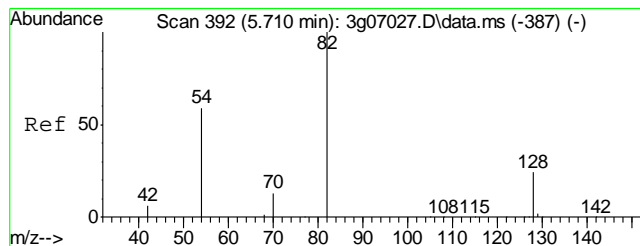
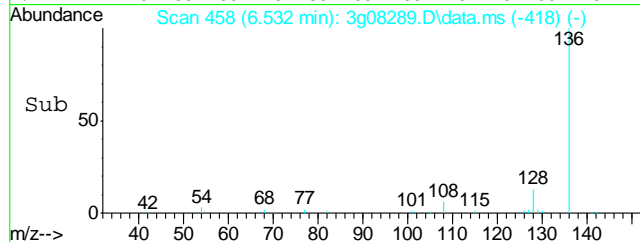
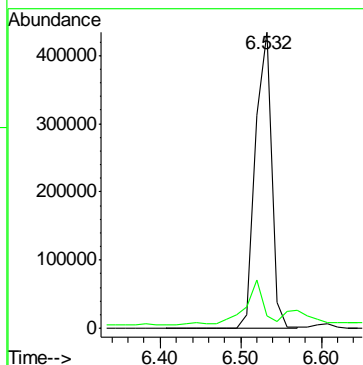
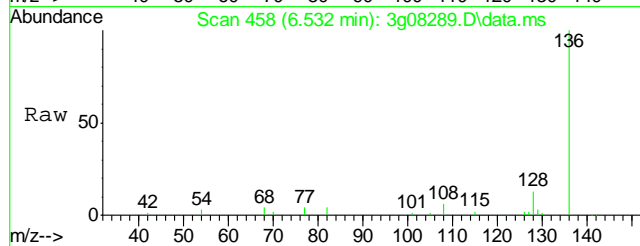
Quant Time: Mar 04 09:44:57 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration





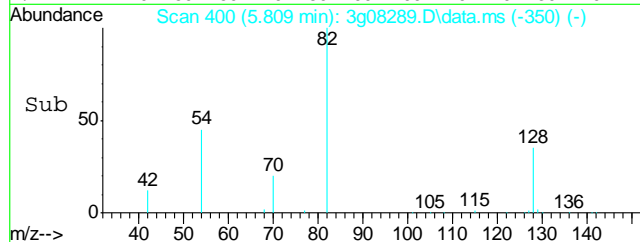
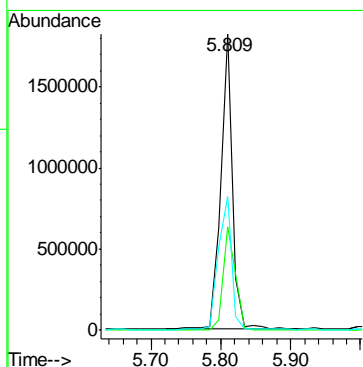
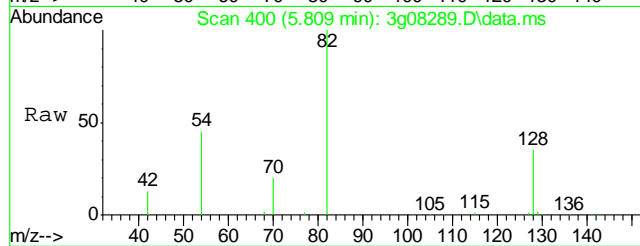
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. 0.000 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

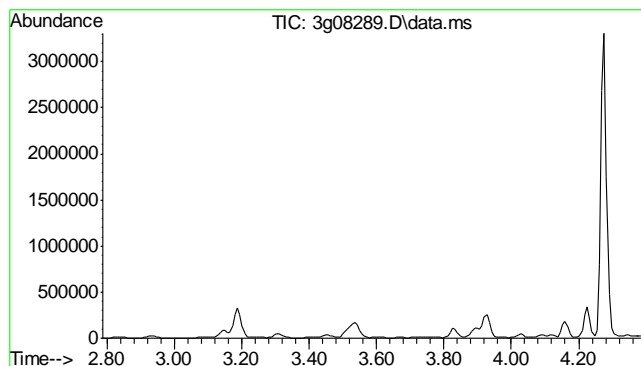
Tgt Ion: 136 Resp: 604545
Ion Ratio Lower Upper
136 100
68 17.1 0.0 32.3



#2
Nitrobenzene-d5
Concen: 21.90 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.012 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

Tgt Ion: 82 Resp: 2149771
Ion Ratio Lower Upper
82 100
128 37.4 16.9 56.9
54 50.8 27.5 67.5

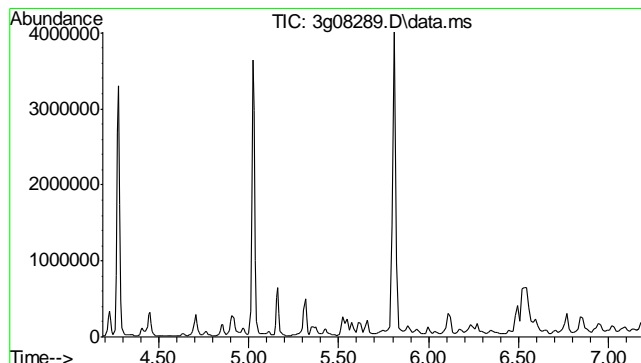
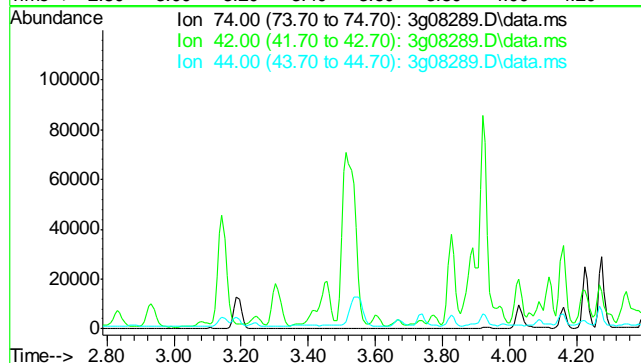




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

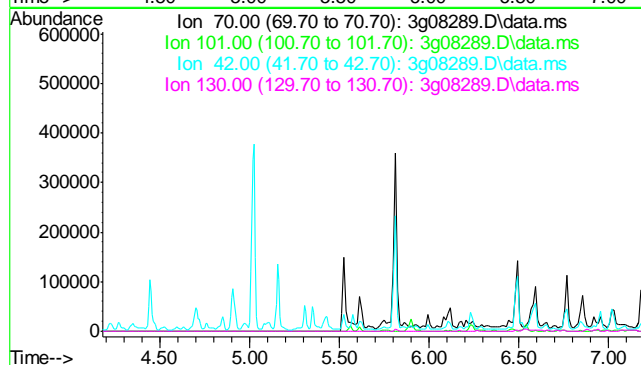
Tgt Ion	Exp Ratio
74	100
42	58.9
44	4.0

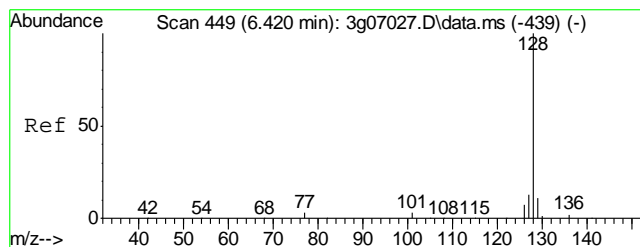


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

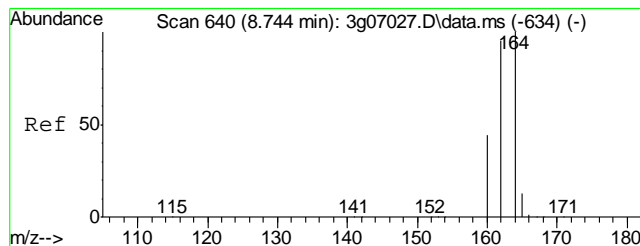
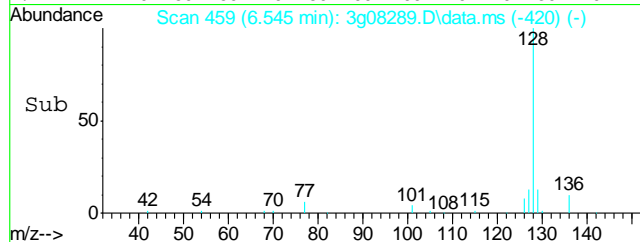
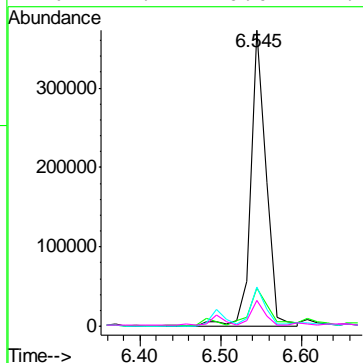
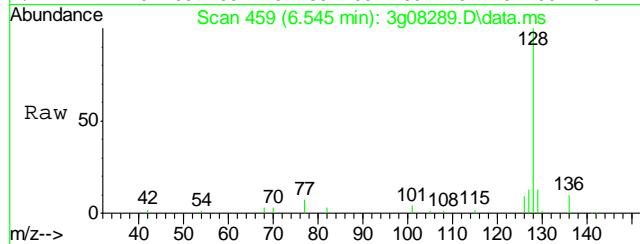
Tgt Ion	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5





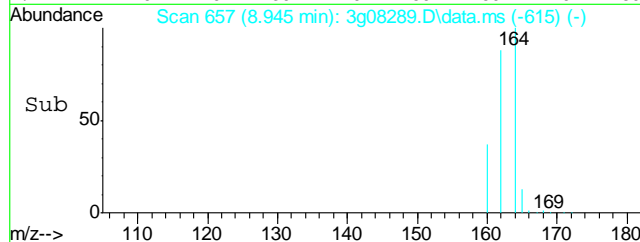
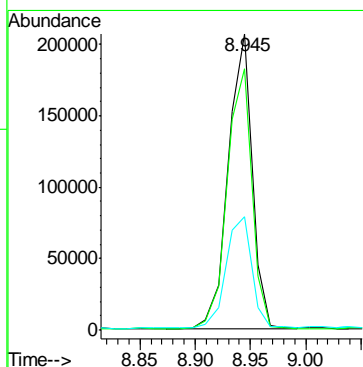
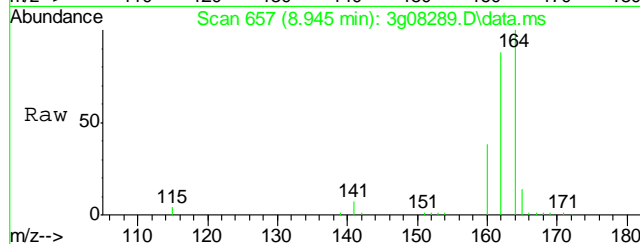
#5
Naphthalene
Concen: 2.23 ug/mL
RT: 6.545 min Scan# 459
Delta R.T. -0.012 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

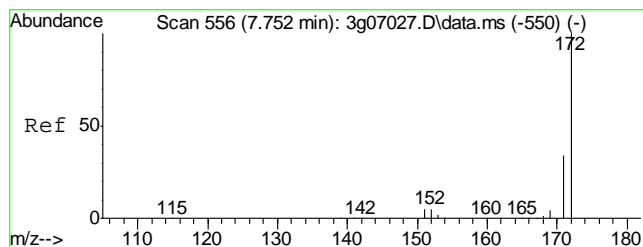
Tgt Ion	128	129	127	126
Resp	488618	14.8	12.7	7.7
Ratio	100			
Lower		0.0	0.0	0.0
Upper		30.8	32.5	27.7



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.945 min Scan# 657
Delta R.T. 0.000 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

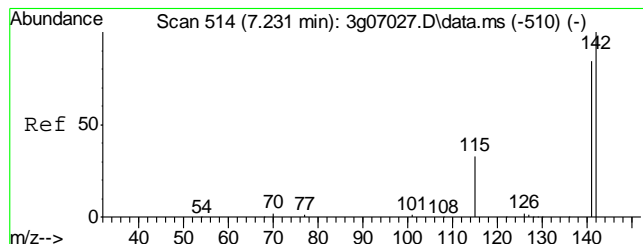
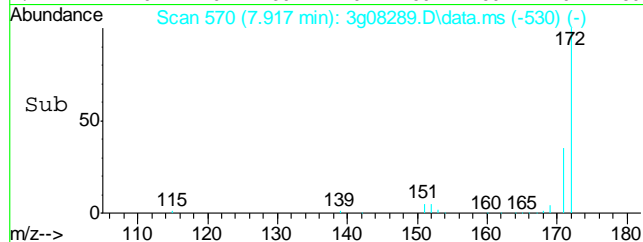
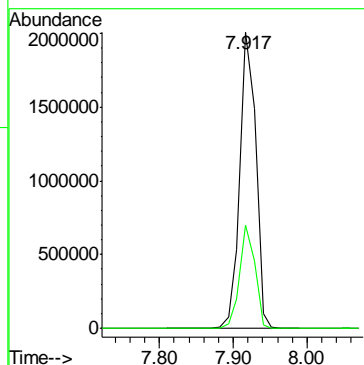
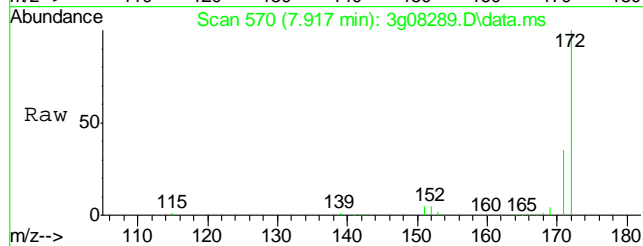
Tgt Ion	164	162	160
Resp	314338	91.4	42.1
Ratio	100		
Lower		72.6	21.8
Upper		112.6	61.8





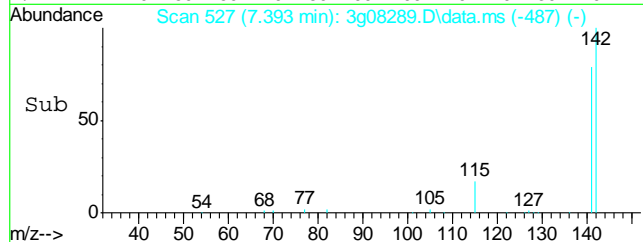
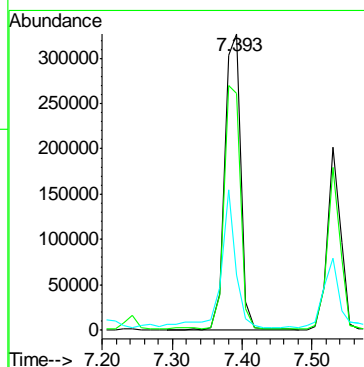
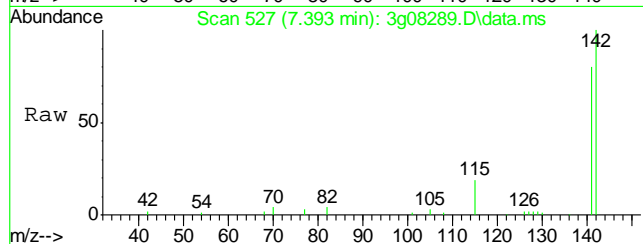
#7
2-Fluorobiphenyl
Concen: 22.45 ug/mL
RT: 7.917 min Scan# 570
Delta R.T. -0.012 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

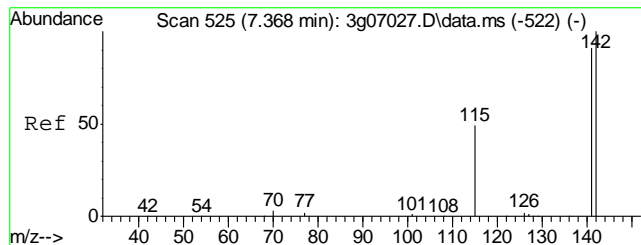
Tgt Ion: 172 Resp: 2995182
Ion Ratio Lower Upper
172 100
171 33.4 13.3 53.3



#8
2-Methylnaphthalene
Concen: 4.24 ug/mL
RT: 7.393 min Scan# 527
Delta R.T. 0.000 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

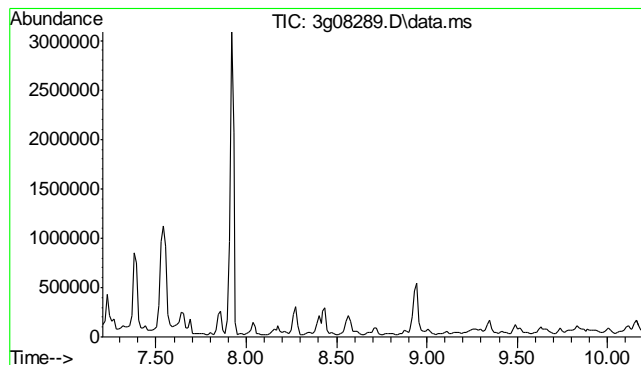
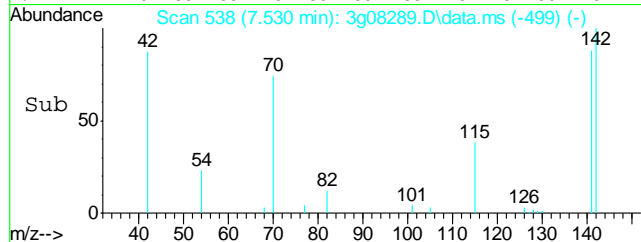
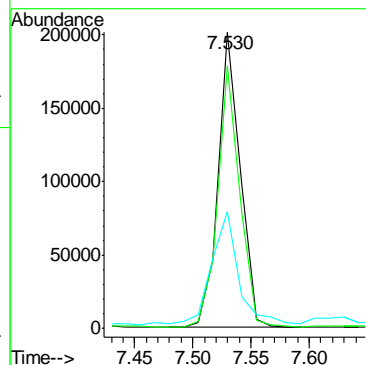
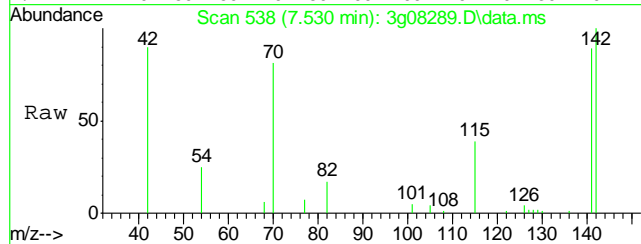
Tgt Ion: 142 Resp: 527716
Ion Ratio Lower Upper
142 100
141 84.6 63.2 103.2
115 42.7 16.1 56.1





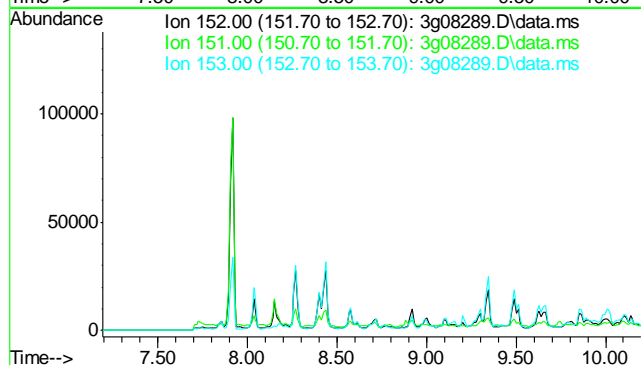
#9
1-Methylnaphthalene
Concen: 2.23 ug/mL
RT: 7.530 min Scan# 538
Delta R.T. -0.012 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

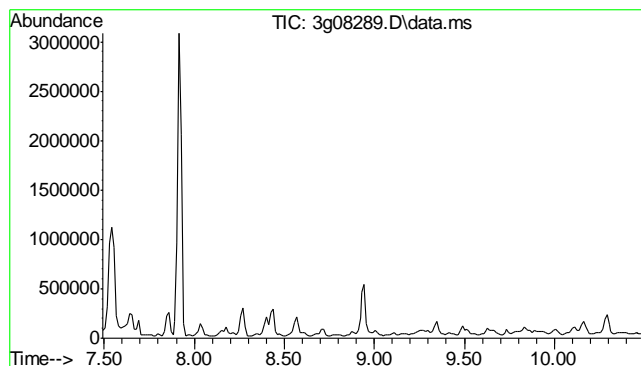
Tgt Ion	Ratio	Lower	Upper
142	100		
141	87.6	67.4	107.4
115	46.7	18.8	58.8



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

Tgt Ion	Sig	Exp Ratio
152	100	
151	18.9	
153	12.9	

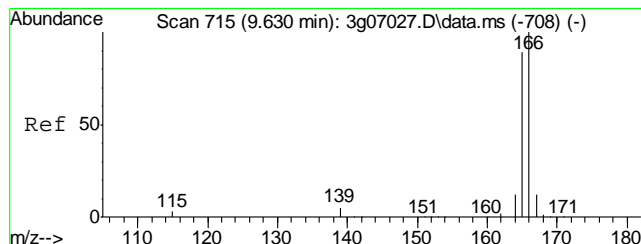
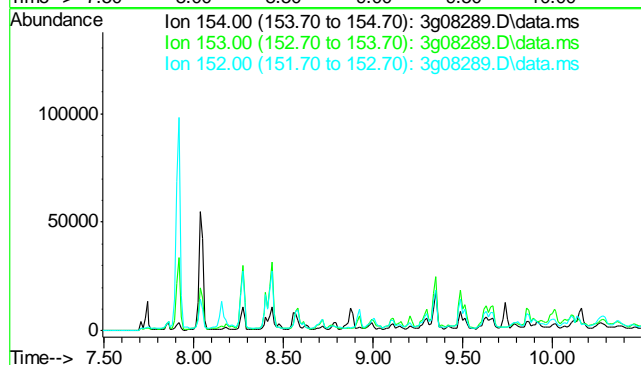




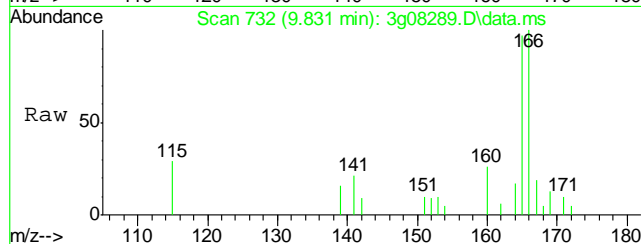
#11
 Acenaphthene
 Concen: N.D. ug/mL
 Expected RT: 8.99 min

 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

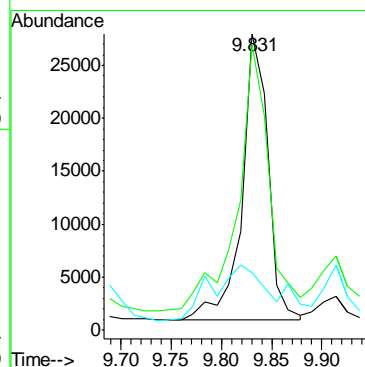
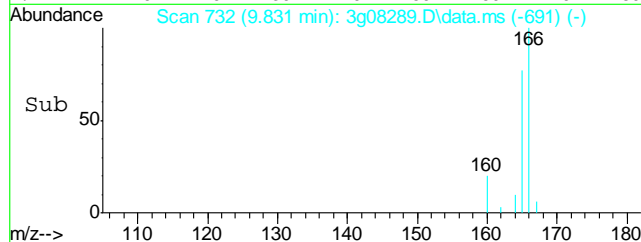
Tgt Ion: 154
 Sig Exp Ratio
 154 100
 153 104.3
 152 49.4

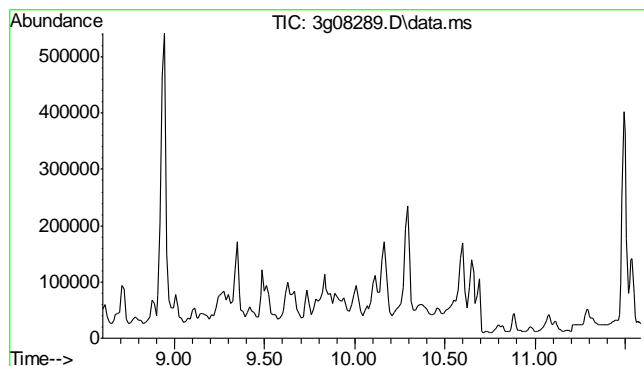


#12
 Fluorene
 Concen: 0.39 ug/mL
 RT: 9.831 min Scan# 732
 Delta R.T. -0.012 min
 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm



Tgt Ion: 166 Resp: 48715
 Ion Ratio Lower Upper
 166 100
 165 109.7 71.1 111.1
 167 49.3 0.0 33.2#

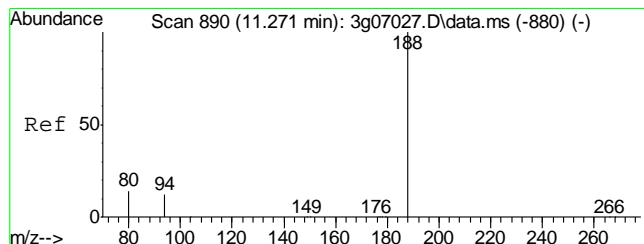
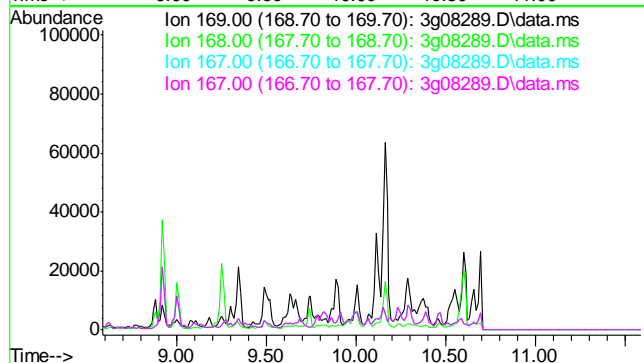




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

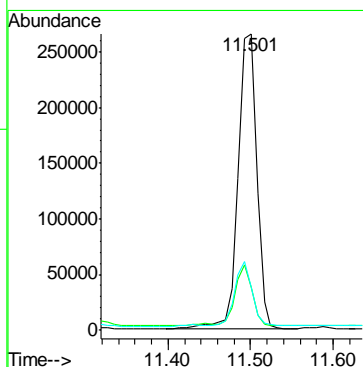
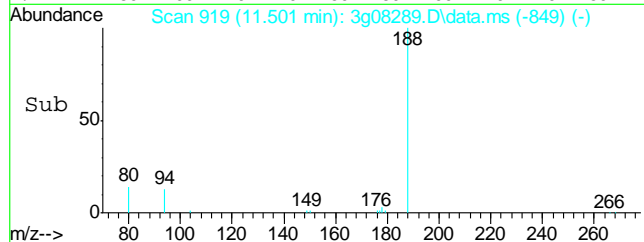
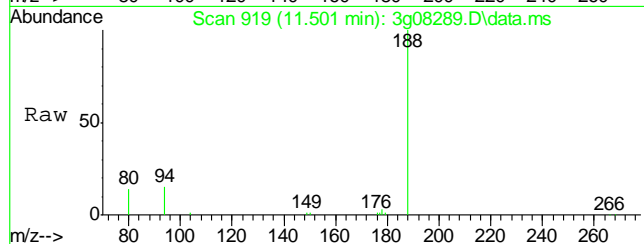
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

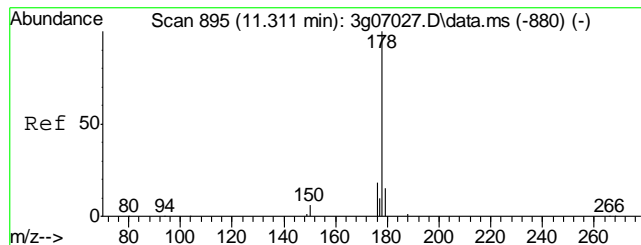
Tgt Ion: 169
Sig Exp Ratio
169 100
168 61.0
167 33.0
167 33.0



#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.501 min Scan# 919
Delta R.T. 0.008 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

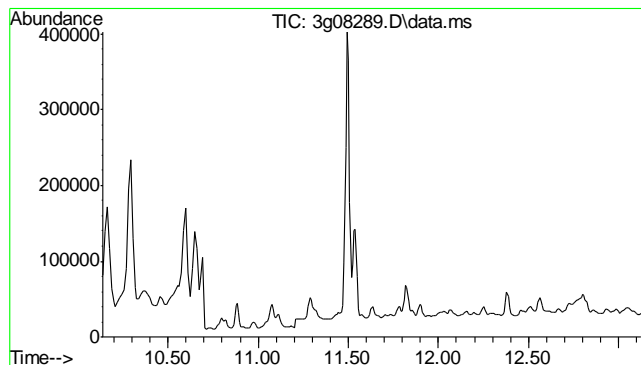
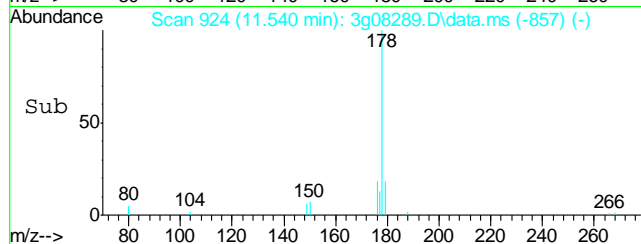
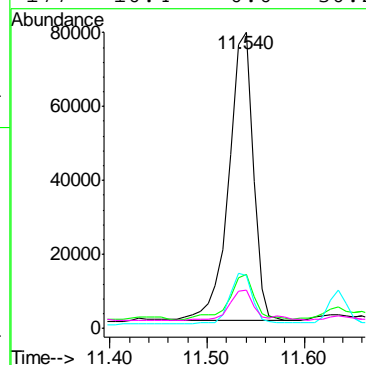
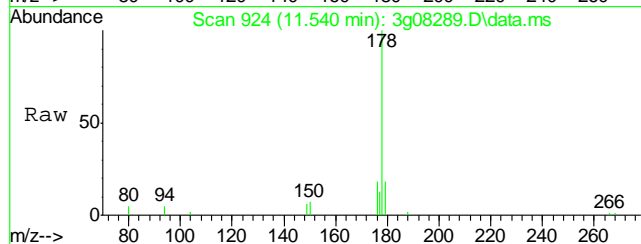
Tgt Ion: 188 Resp: 415587
Ion Ratio Lower Upper
188 100
94 20.0 1.6 41.6
80 20.9 2.2 42.2





#15
Phenanthrene
Concen: 0.87 ug/mL
RT: 11.540 min Scan# 924
Delta R.T. 0.000 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

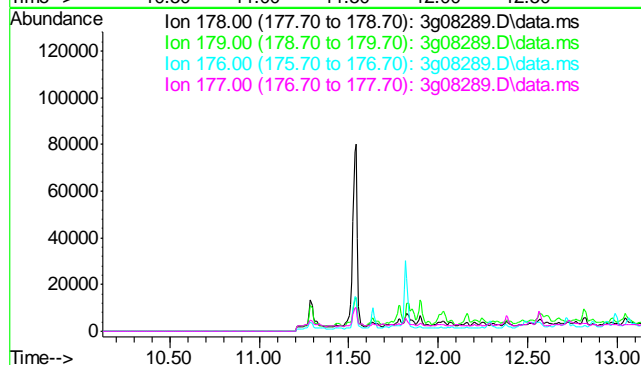
Tgt Ion:	178	Resp:	135321
Ion	Ratio	Lower	Upper
178	100		
179	17.5	0.0	35.1
176	15.6	0.0	38.5
177	10.4	0.0	30.2

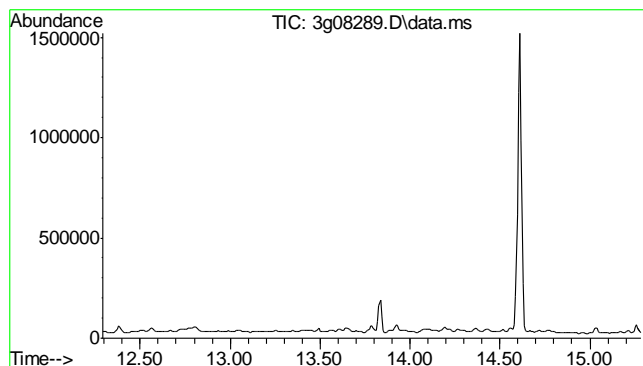


#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min

Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.0
176	17.9
177	8.8

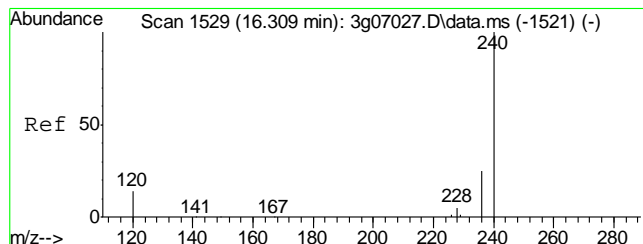
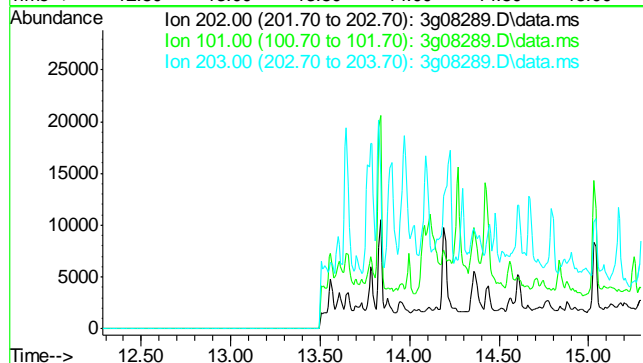




#17
 Fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 13.79 min

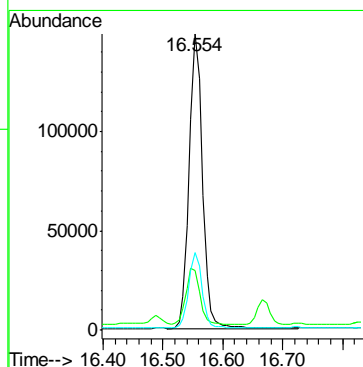
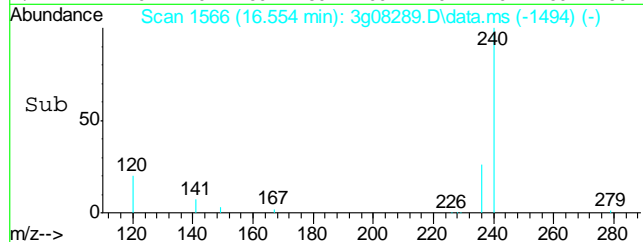
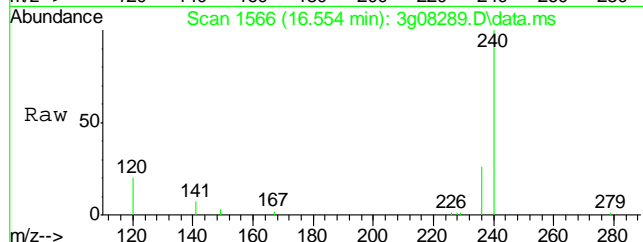
 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

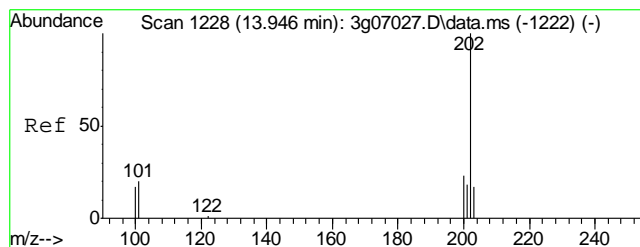
Tgt Ion: 202
 Sig Exp Ratio
 202 100
 101 23.5
 203 17.2



#18
 Chrysene-d12
 Concen: 4.00 ug/mL
 RT: 16.554 min Scan# 1566
 Delta R.T. 0.000 min
 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

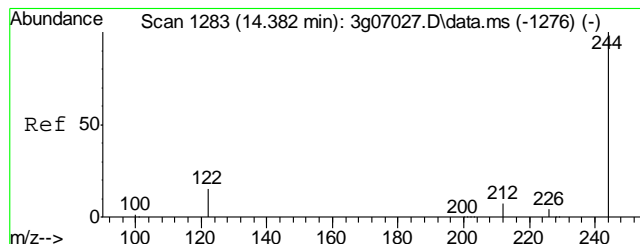
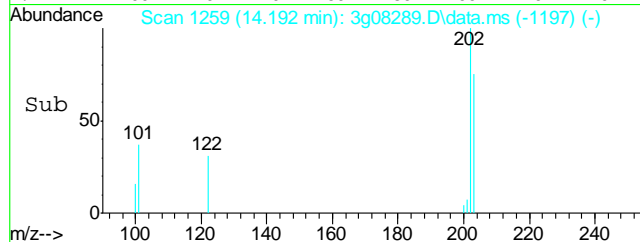
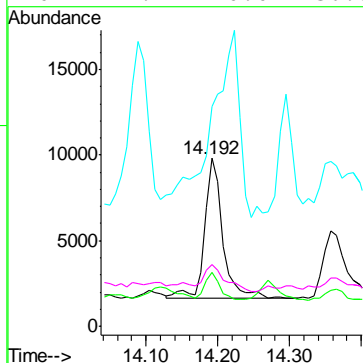
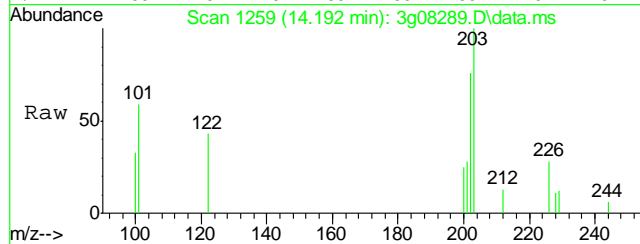
Tgt Ion: 240 Resp: 226048
 Ion Ratio Lower Upper
 240 100
 120 19.4 2.9 42.9
 236 25.2 5.0 45.0





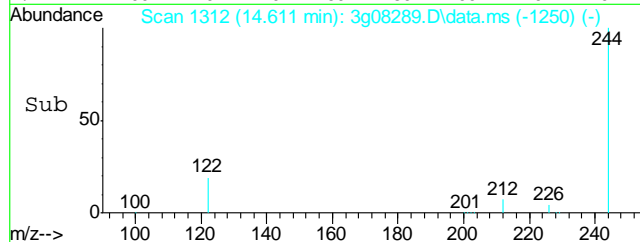
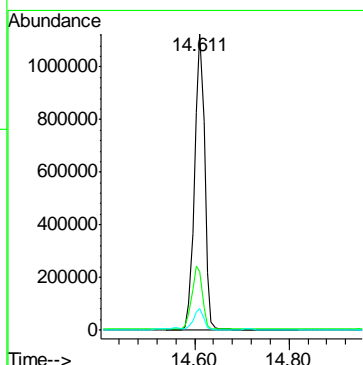
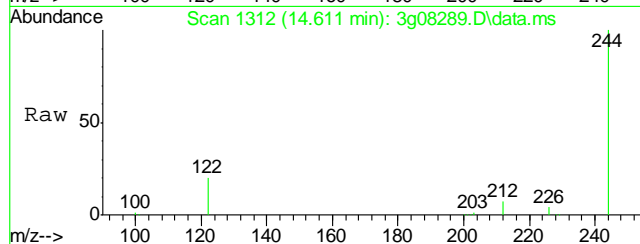
#19
Pyrene
Concen: 0.13 ug/mL
RT: 14.192 min Scan# 1259
Delta R.T. -0.008 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

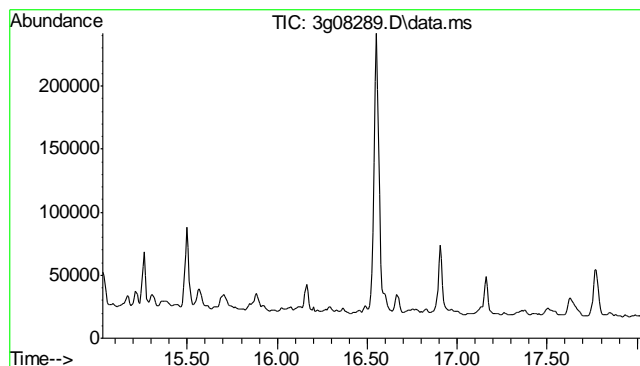
Tgt Ion	Ratio	Lower	Upper
202	100		
200	0.0	0.0	40.0
203	198.6	0.0	37.8#
201	22.7	0.0	36.5



#20
Terphenyl-d14
Concen: 30.16 ug/mL
RT: 14.611 min Scan# 1312
Delta R.T. -0.008 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

Tgt Ion	Ratio	Lower	Upper
244	100		
122	22.8	3.7	43.7
212	7.1	0.0	27.2

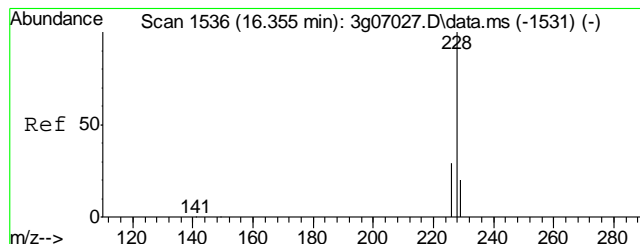
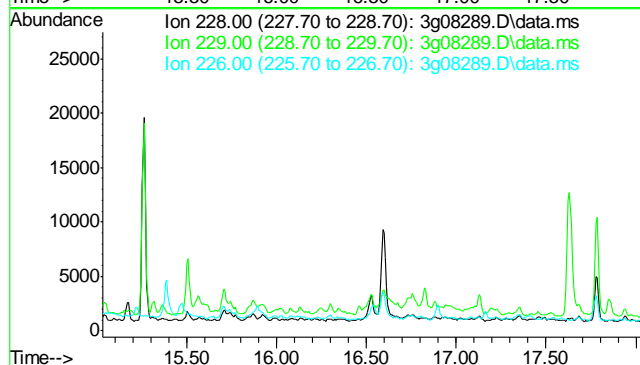




#21
Benzo(a)anthracene
Concen: N.D. ug/mL
Expected RT: 16.53 min

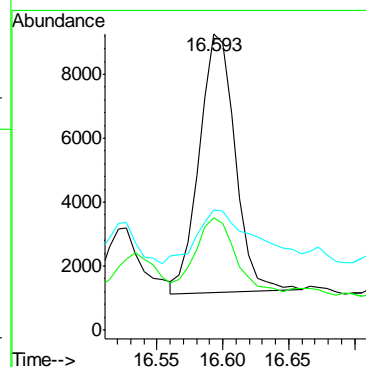
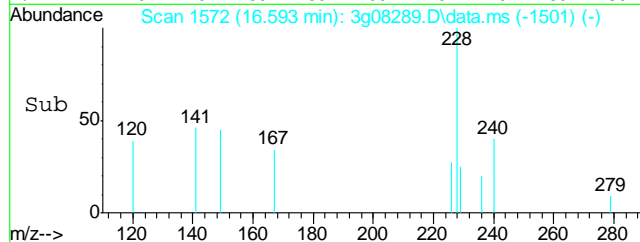
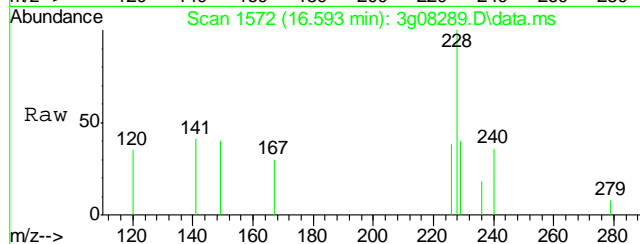
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

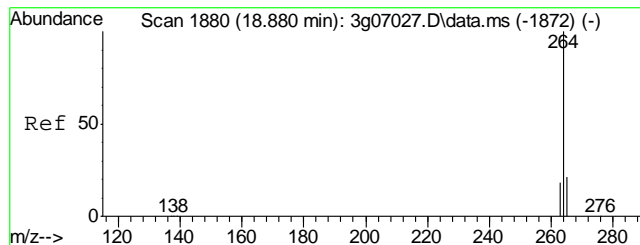
Tgt Ion: 228
Sig Exp Ratio
228 100
229 19.5
226 26.0



#22
Chrysene
Concen: 0.18 ug/mL
RT: 16.593 min Scan# 1572
Delta R.T. -0.013 min
Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

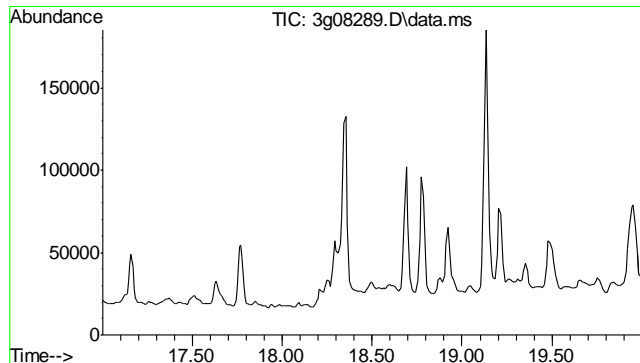
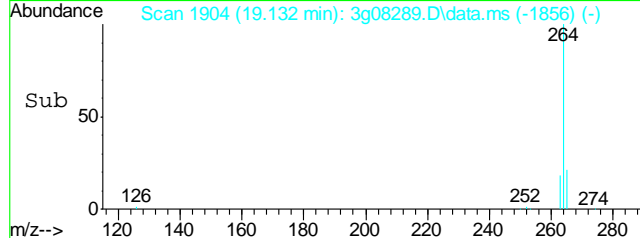
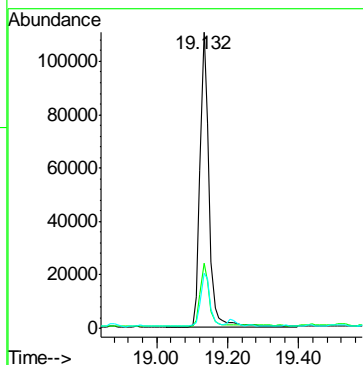
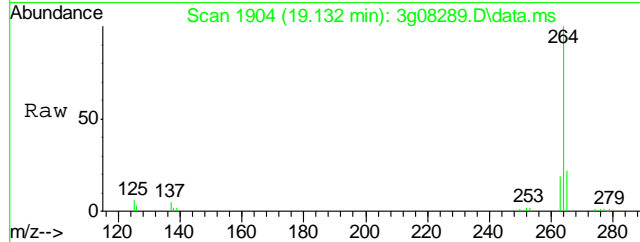
Tgt Ion: 228 Resp: 15269
Ion Ratio Lower Upper
228 100
226 33.3 8.3 48.3
229 36.6 0.0 39.3





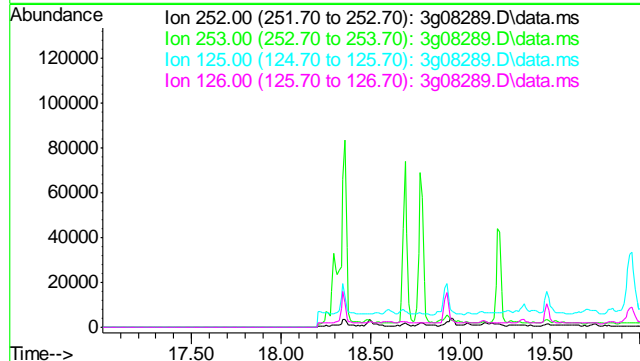
#23
 Perylene-d12
 Concen: 4.00 ug/mL
 RT: 19.132 min Scan# 1904
 Delta R.T. 0.000 min
 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

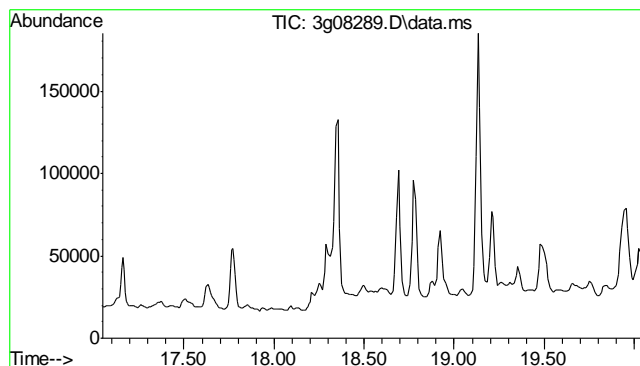
Tgt Ion:	264	Resp:	194301
Ion Ratio	Lower	Upper	
264	100		
265	21.2	1.1	41.1
263	18.8	0.0	38.7



#24
 Benzo(b)fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 18.50 min
 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

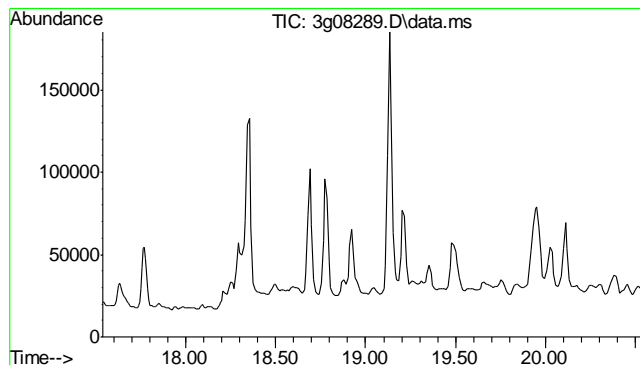
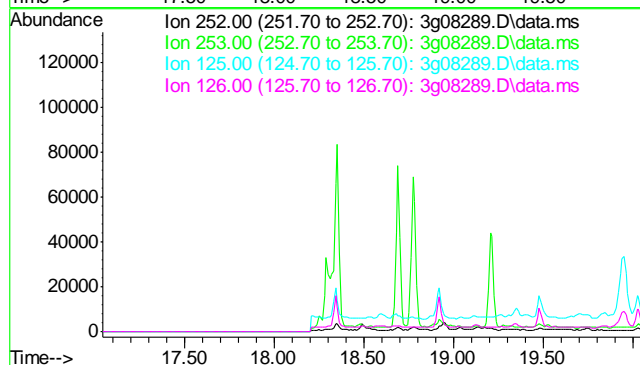




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

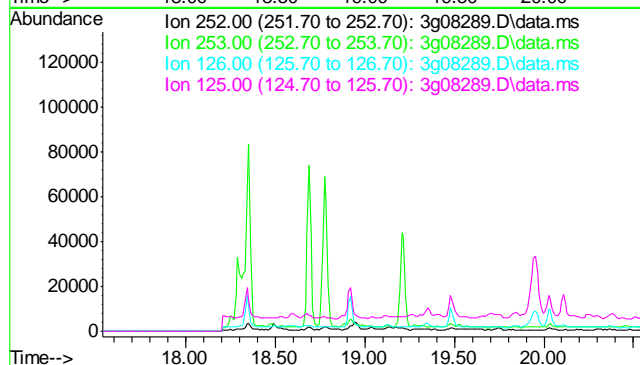
Tgt Ion: 252
Sig Exp Ratio
252 100
253 21.7
125 17.5
126 27.7

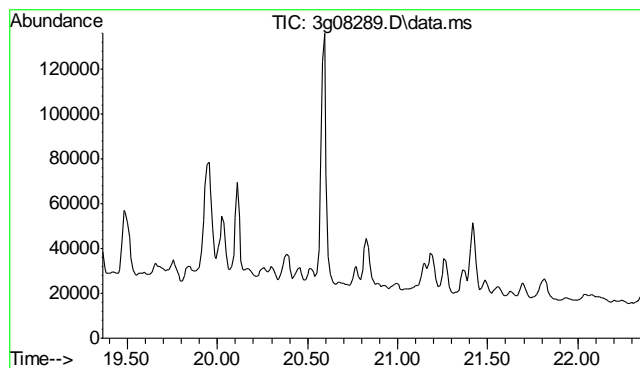


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08289.D
Acq: 3 Mar 12 1:03 pm

Tgt Ion: 252
Sig Exp Ratio
252 100
253 21.6
126 24.1
125 18.2

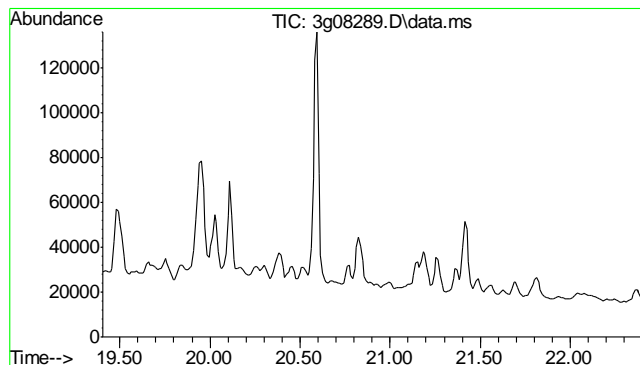
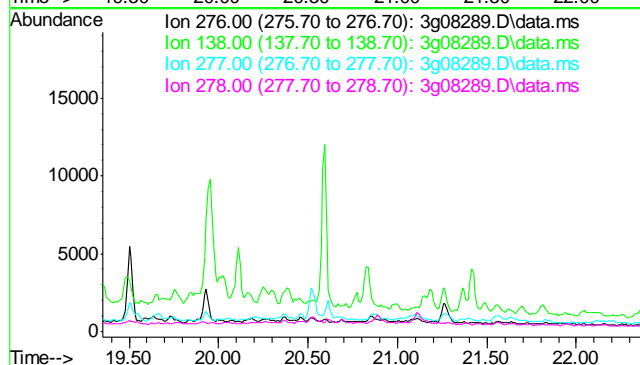




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 20.86 min

 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

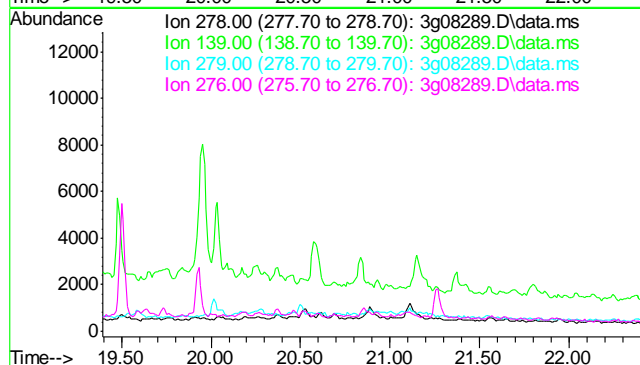
Tgt Ion	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

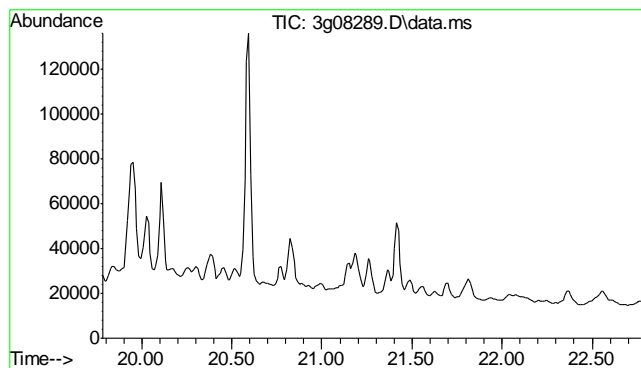


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 20.90 min

 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

Tgt Ion	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4

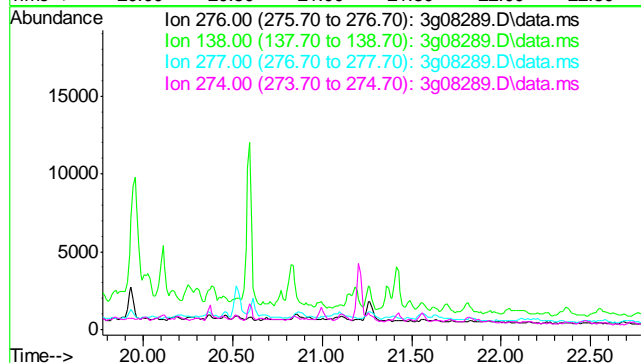




#29
 Benzo(g,h,i)perylene
 Concen: N.D. ug/mL
 Expected RT: 21.28 min

 Lab File: 3g08289.D
 Acq: 3 Mar 12 1:03 pm

Tgt Ion	Exp Ratio
276	100
138	31.8
277	23.4
274	21.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030312\
 Data File : 3g08290.D
 Acq On : 3 Mar 2012 1:38 pm
 Operator : DONC
 Sample : D32371-3
 Misc : OP5467,E3G334,30.03,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 04 09:46:15 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

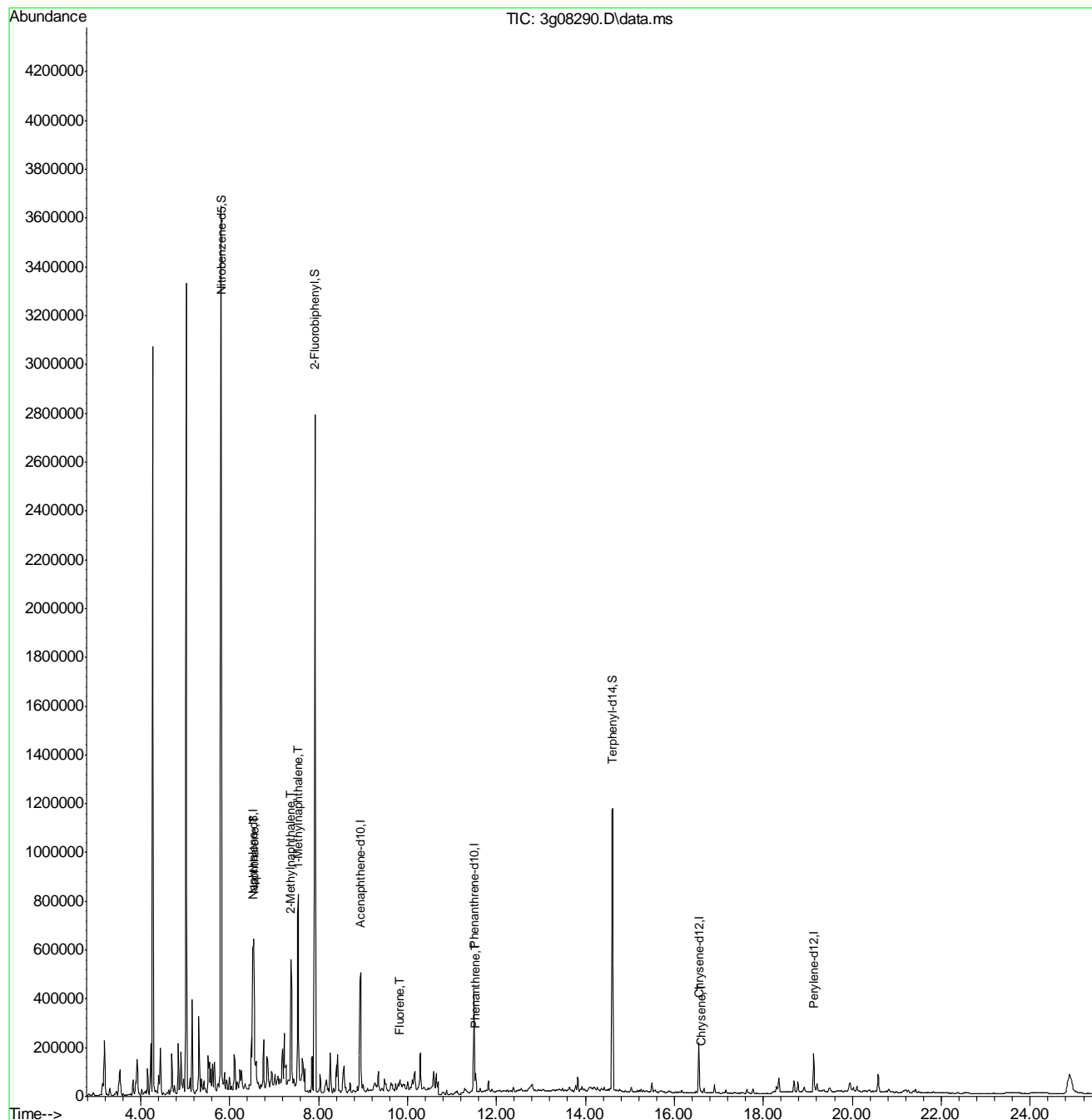
Internal Standards						
1) Naphthalene-d8	6.532	136	598303	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.945	164	319986	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.493	188	425182	4.00	ug/mL	0.00
18) Chrysene-d12	16.554	240	219980	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	192272	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	2011657	20.71	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	41.42%
7) 2-Fluorobiphenyl	7.917	172	2667525	19.64	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	39.28%
20) Terphenyl-d14	14.611	244	1358713	25.40	ug/mL	0.00
Spiked Amount	50.000	Range	25 - 135	Recovery	=	50.80%
Target Compounds						
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	6.545	128	508658	2.35	ug/mL	98
8) 2-Methylnaphthalene	7.380	142	331915	2.62	ug/mL	96
9) 1-Methylnaphthalene	7.530	142	157542	1.31	ug/mL	95
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	9.831	166	29413	0.23	ug/mL#	67
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	11.532	178	90466	0.57	ug/mL	95
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	0.000		0	N.D.	d	
22) Chrysene	16.593	228	8036	0.10	ug/mL	92
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

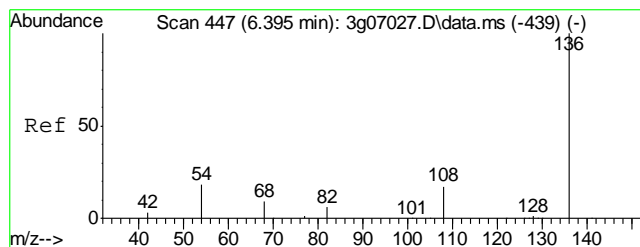
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030312\
Data File : 3g08290.D
Acq On : 3 Mar 2012 1:38 pm
Operator : DONC
Sample : D32371-3
Misc : OP5467,E3G334,30.03,,,1,1
ALS Vial : 12 Sample Multiplier: 1

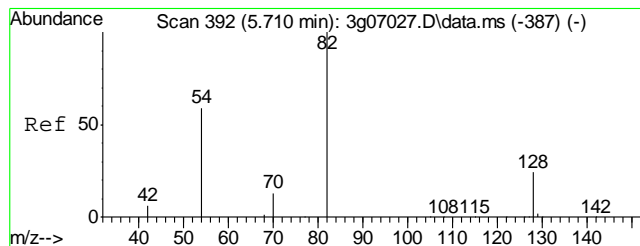
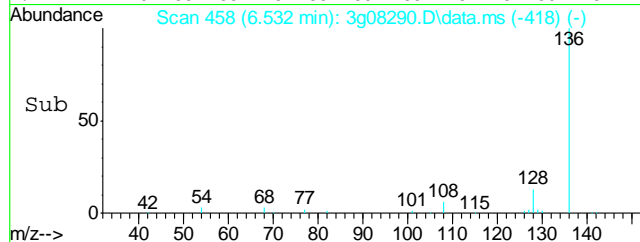
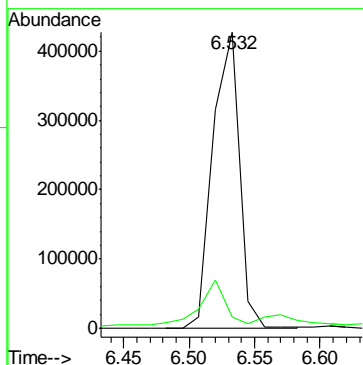
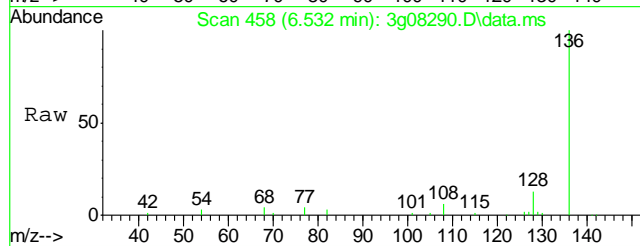
Quant Time: Mar 04 09:46:15 2012
Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
Quant Title : PAHSIM BASE
QLast Update : Sat Mar 03 06:34:25 2012
Response via : Initial Calibration





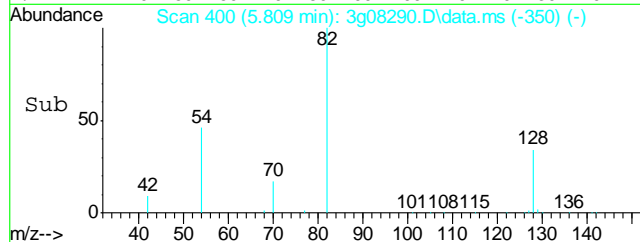
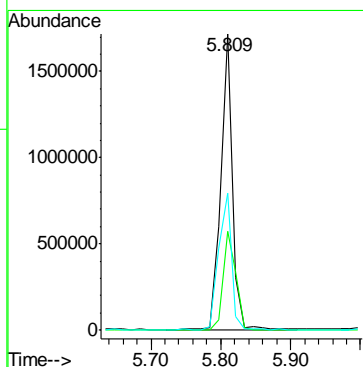
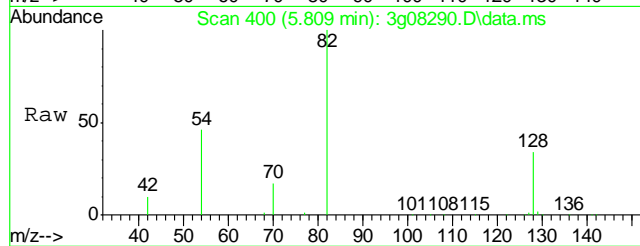
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. 0.000 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

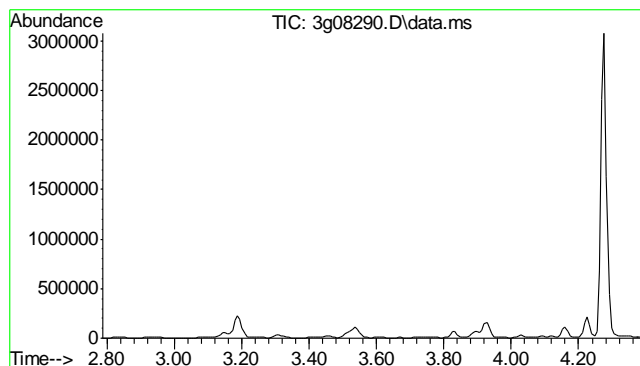
Tgt Ion: 136 Resp: 598303
Ion Ratio Lower Upper
136 100
68 15.4 0.0 32.3



#2
Nitrobenzene-d5
Concen: 20.71 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.012 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

Tgt Ion: 82 Resp: 2011657
Ion Ratio Lower Upper
82 100
128 37.0 16.9 56.9
54 51.2 27.5 67.5

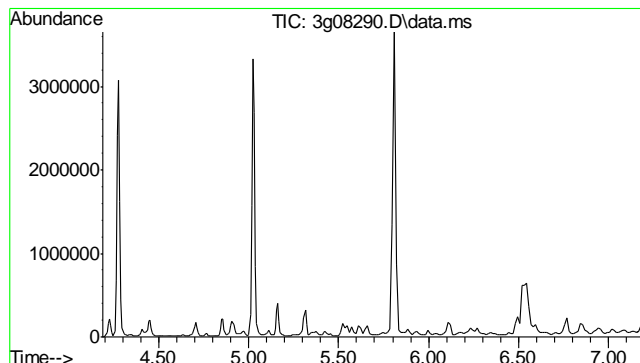
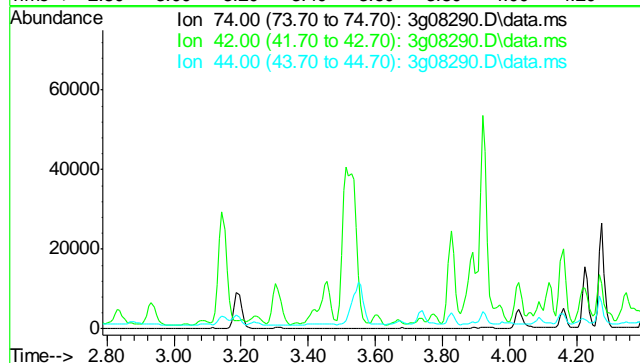




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

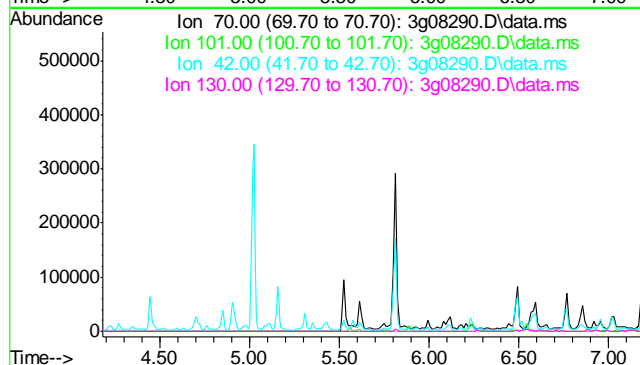
Tgt Ion	Exp Ratio
74	100
42	58.9
44	4.0

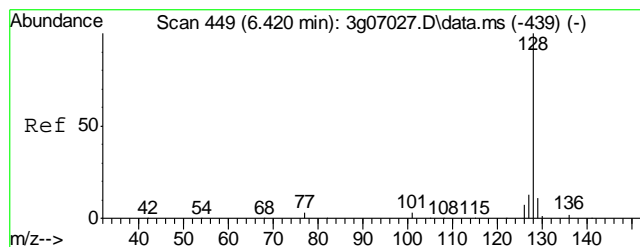


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

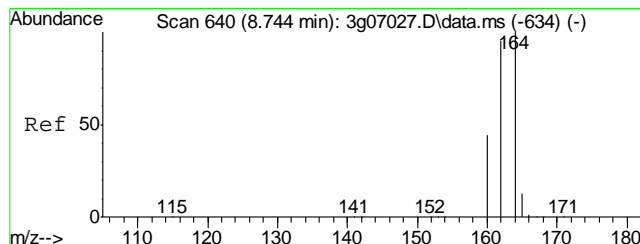
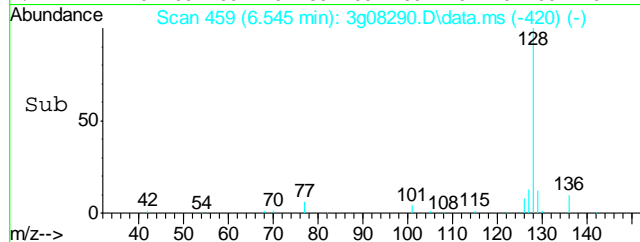
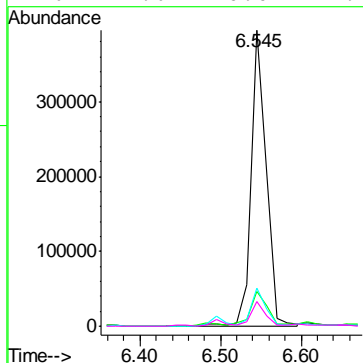
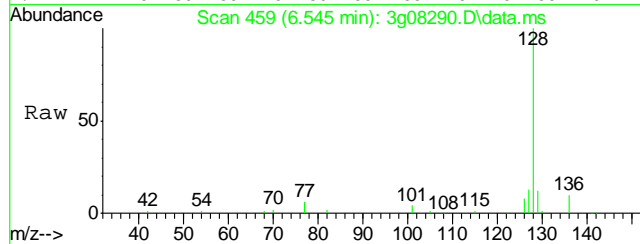
Tgt Ion	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5





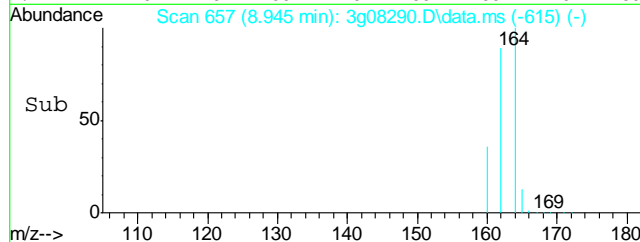
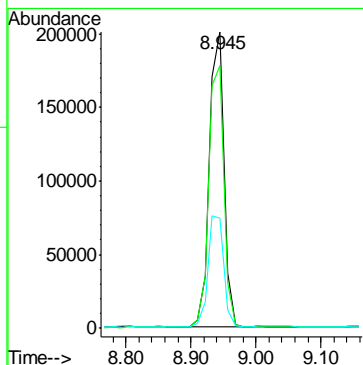
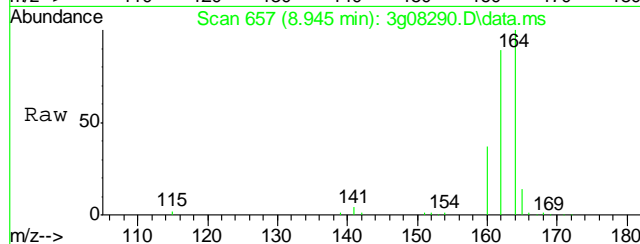
#5
Naphthalene
Concen: 2.35 ug/mL
RT: 6.545 min Scan# 459
Delta R.T. -0.012 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

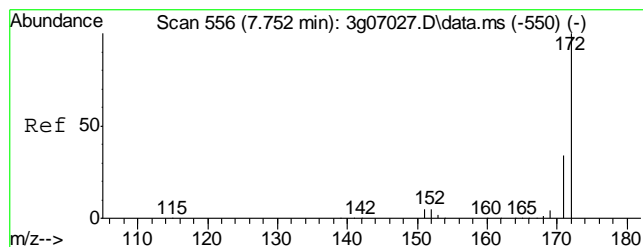
Tgt Ion:	128	Resp:	508658
Ion Ratio	Lower	Upper	
128	100		
129	12.9	0.0	30.8
127	12.3	0.0	32.5
126	7.6	0.0	27.7



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.945 min Scan# 657
Delta R.T. 0.000 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

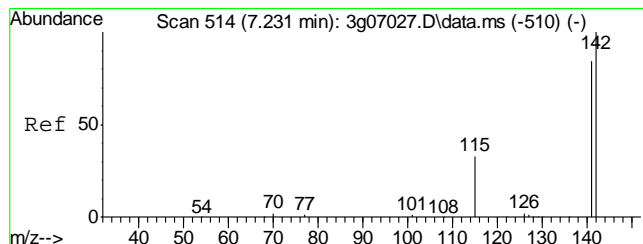
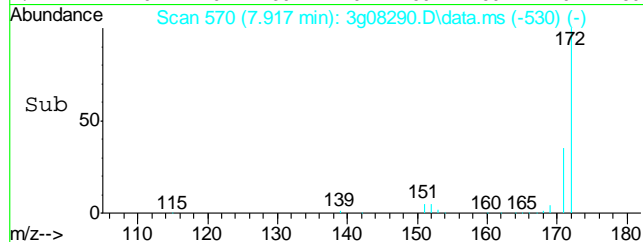
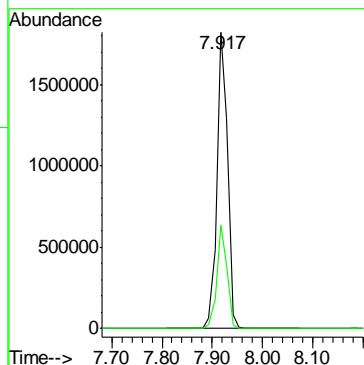
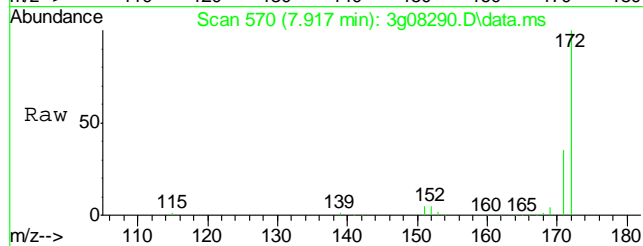
Tgt Ion:	164	Resp:	319986
Ion Ratio	Lower	Upper	
164	100		
162	91.6	72.6	112.6
160	41.0	21.8	61.8





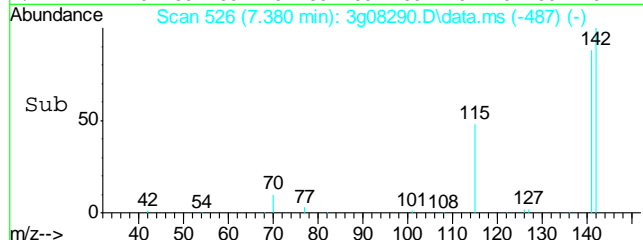
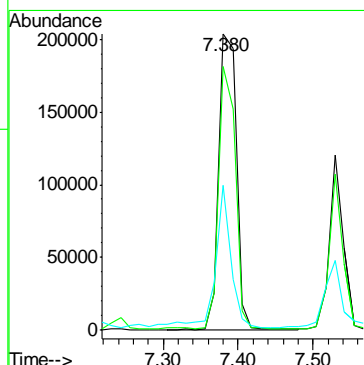
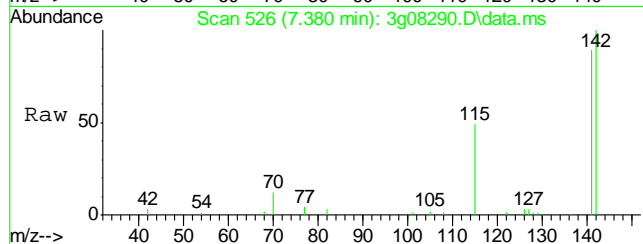
#7
2-Fluorobiphenyl
Concen: 19.64 ug/mL
RT: 7.917 min Scan# 570
Delta R.T. -0.012 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

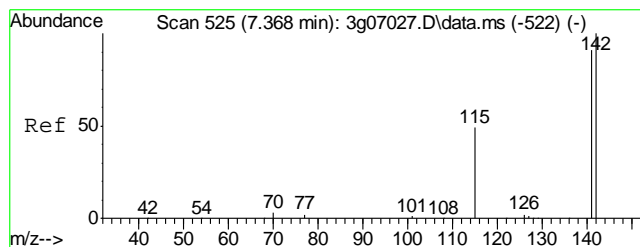
Tgt Ion: 172 Resp: 2667525
Ion Ratio Lower Upper
172 100
171 33.5 13.3 53.3



#8
2-Methylnaphthalene
Concen: 2.62 ug/mL
RT: 7.380 min Scan# 526
Delta R.T. -0.012 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

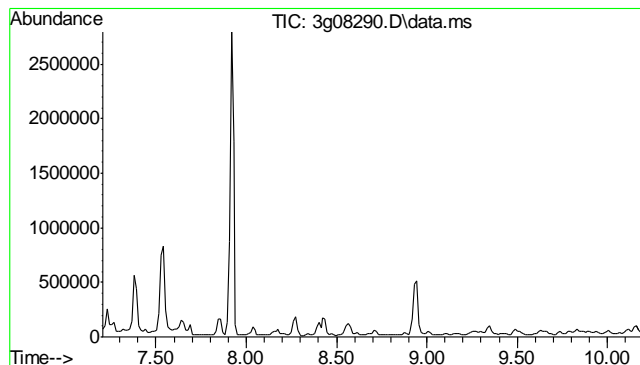
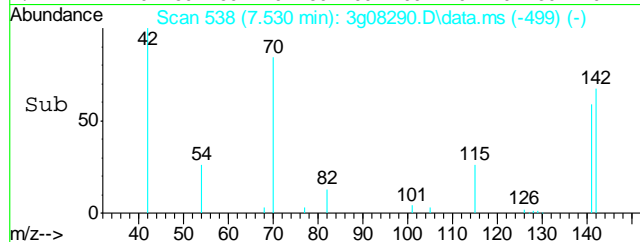
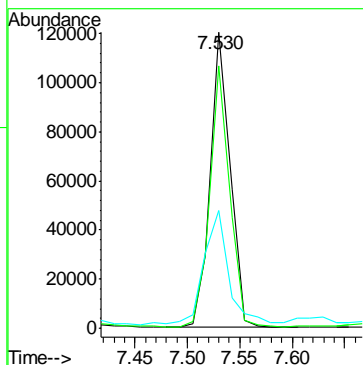
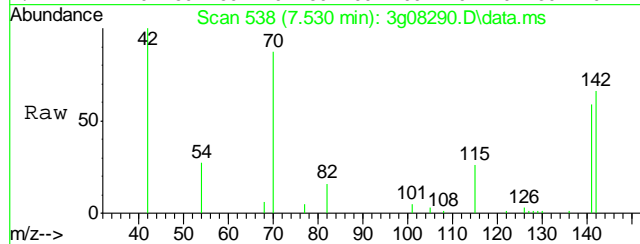
Tgt Ion: 142 Resp: 331915
Ion Ratio Lower Upper
142 100
141 84.4 63.2 103.2
115 43.0 16.1 56.1





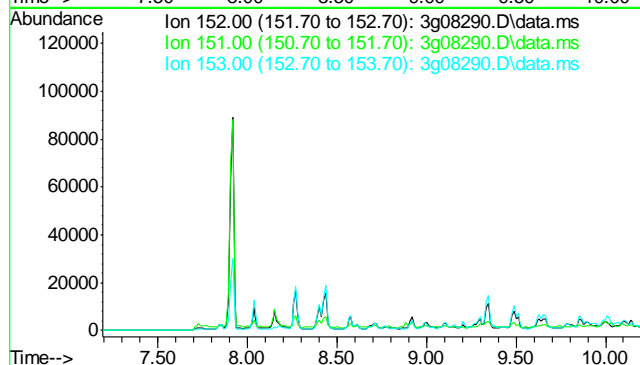
#9
1-Methylnaphthalene
Concen: 1.31 ug/mL
RT: 7.530 min Scan# 538
Delta R.T. -0.012 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

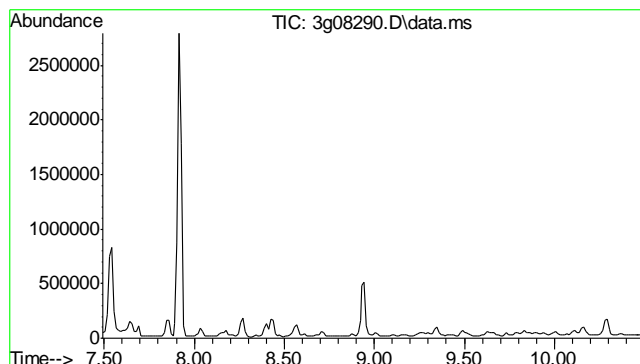
Tgt Ion	Ratio	Lower	Upper
142	100		
141	87.9	67.4	107.4
115	48.1	18.8	58.8



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

Tgt Ion	Sig	Exp Ratio
152	100	
151	18.9	
153	12.9	

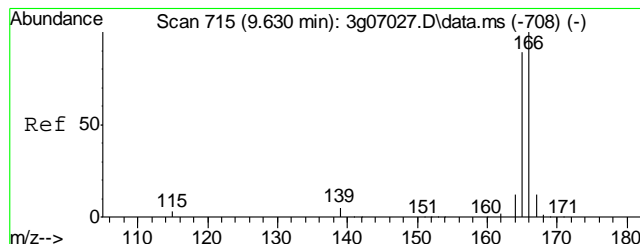
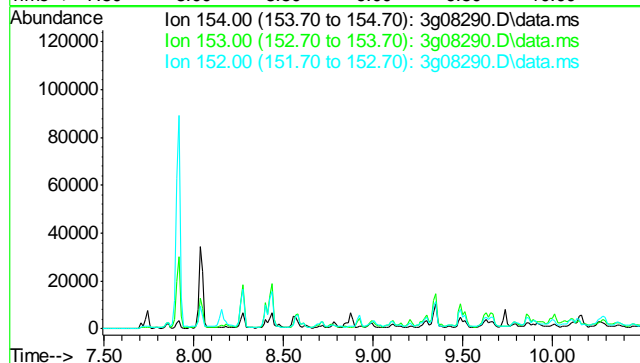




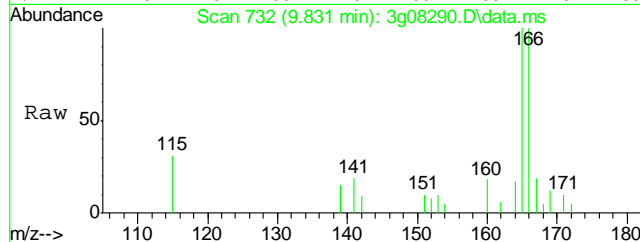
#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 8.99 min

Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

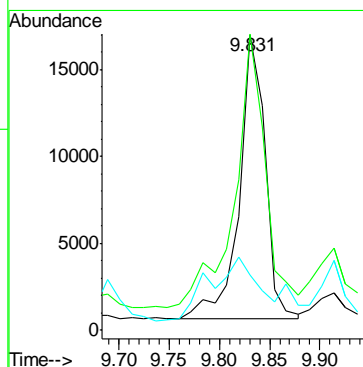
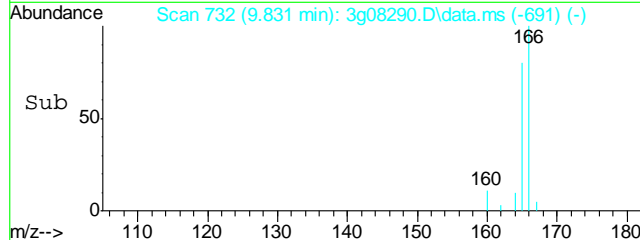
Tgt Ion: 154
Sig Exp Ratio
154 100
153 104.3
152 49.4

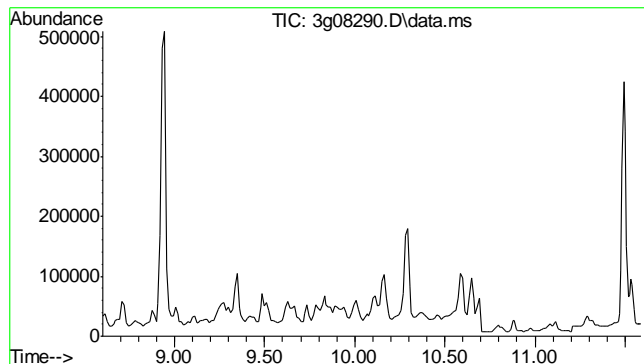


#12
Fluorene
Concen: 0.23 ug/mL
RT: 9.831 min Scan# 732
Delta R.T. -0.012 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm



Tgt Ion: 166 Resp: 29413
Ion Ratio Lower Upper
166 100
165 114.1 71.1 111.1#
167 51.7 0.0 33.2#

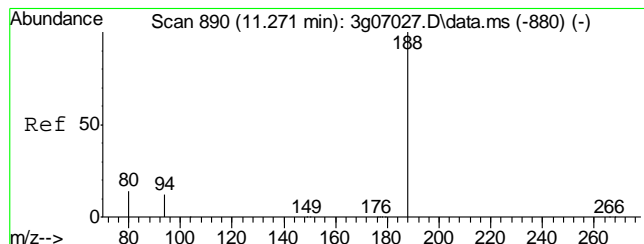
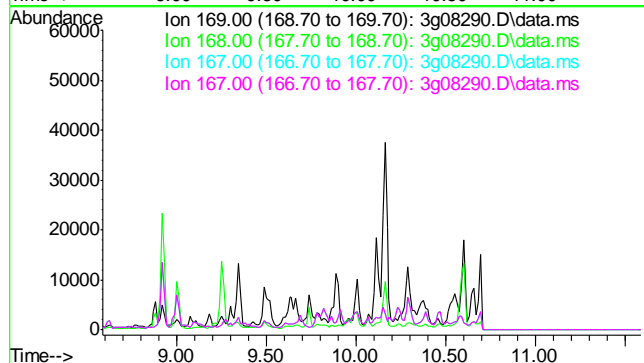




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

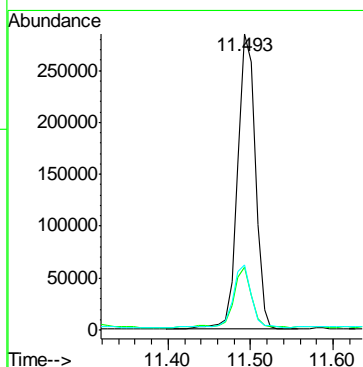
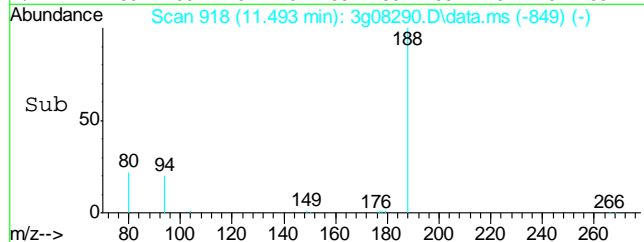
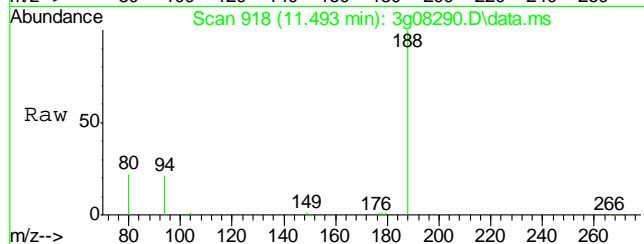
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

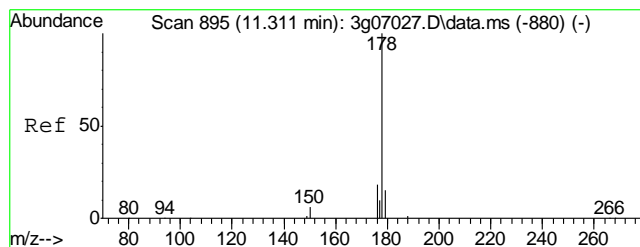
Tgt Ion	Exp Ratio
169	100
168	61.0
167	33.0
167	33.0



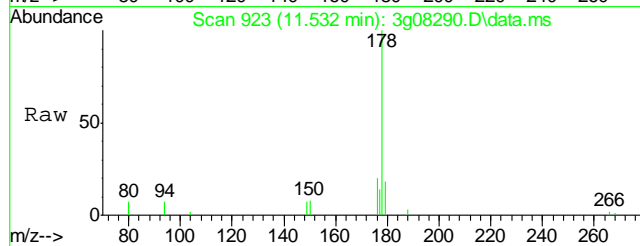
#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.493 min Scan# 918
Delta R.T. 0.000 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

Tgt Ion	Ratio	Lower	Upper
188	100		
94	20.3	1.6	41.6
80	21.1	2.2	42.2

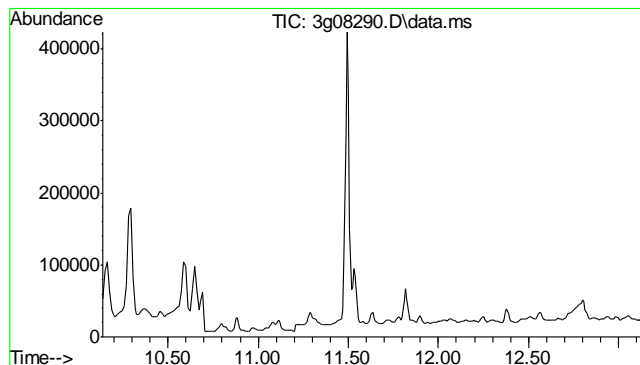
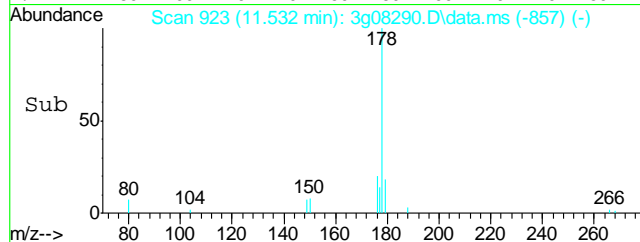
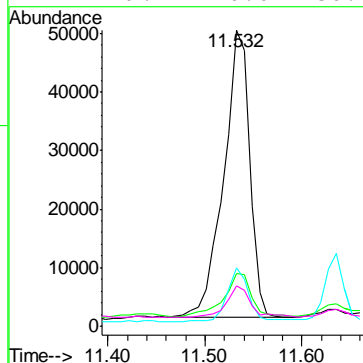




#15
Phenanthrene
Concen: 0.57 ug/mL
RT: 11.532 min Scan# 923
Delta R.T. -0.008 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

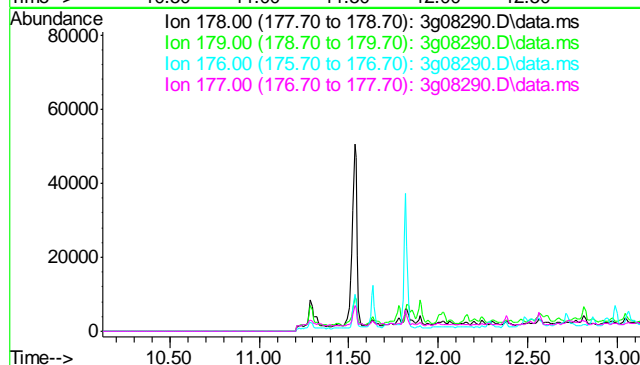


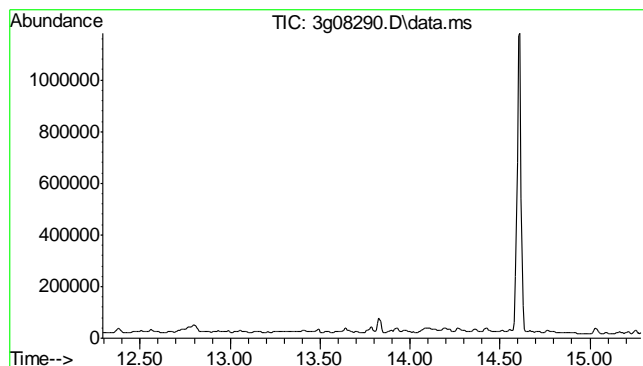
Tgt Ion	Ratio	Lower	Upper
178	100		
179	17.2	0.0	35.1
176	16.0	0.0	38.5
177	9.4	0.0	30.2



#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

Tgt Ion	Sig	Exp Ratio
178	100	
179	15.0	
176	17.9	
177	8.8	



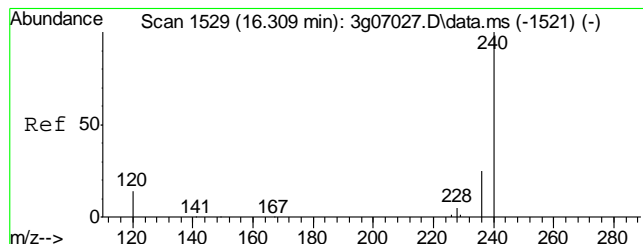
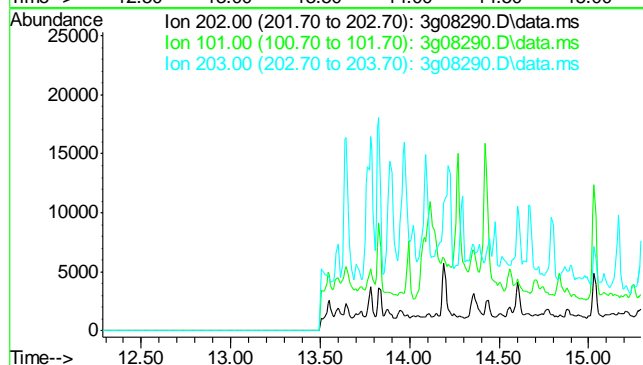


#17
 Fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 13.79 min

 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

 Tgt Ion: 202

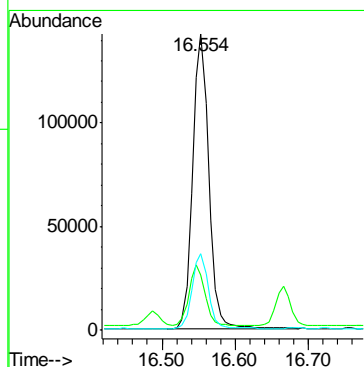
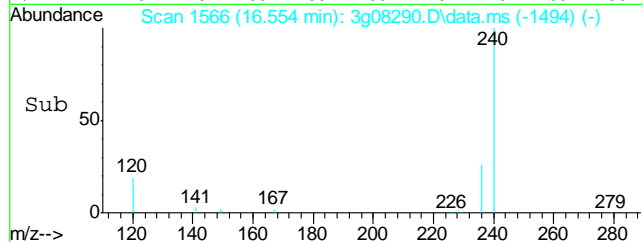
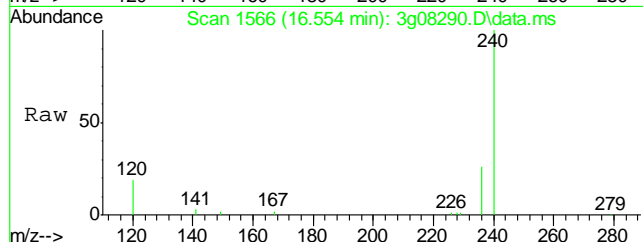
Sig	Exp Ratio
202	100
101	23.5
203	17.2

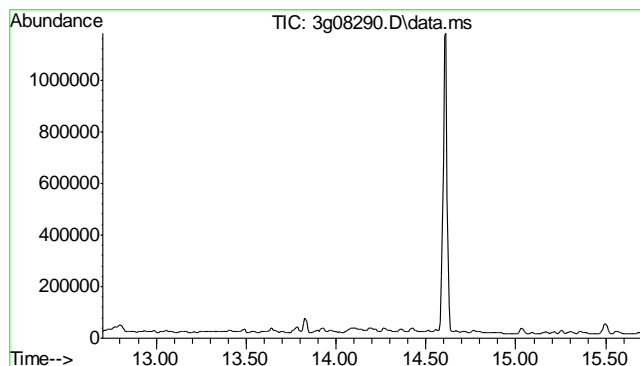


#18
 Chrysene-d12
 Concen: 4.00 ug/mL
 RT: 16.554 min Scan# 1566
 Delta R.T. 0.000 min
 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

Tgt Ion: 240 Resp: 219980

Ion	Ratio	Lower	Upper
240	100		
120	20.4	2.9	42.9
236	25.3	5.0	45.0



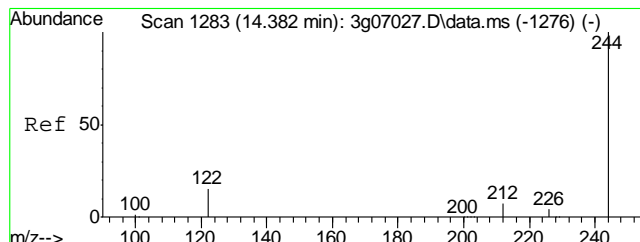
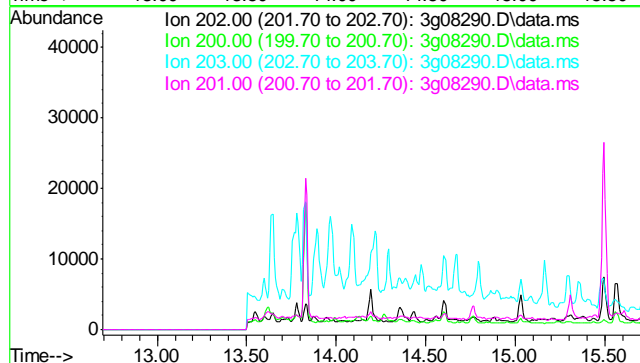


#19
 Pyrene
 Concen: N.D. ug/mL
 Expected RT: 14.20 min

 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

 Tgt Ion: 202

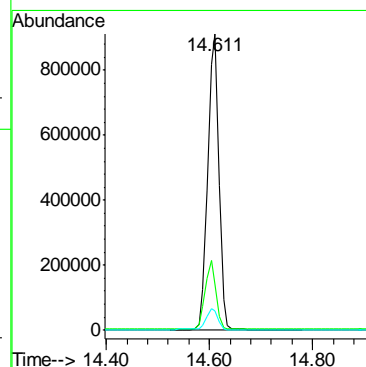
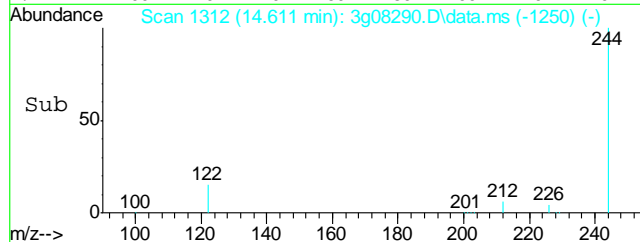
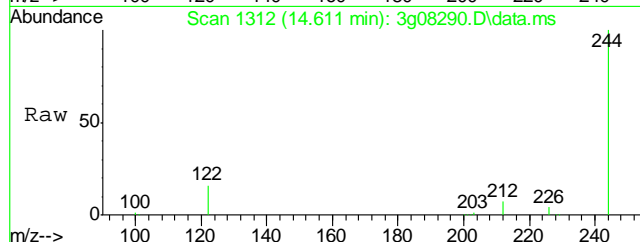
Sig	Exp Ratio
202	100
200	20.0
203	17.8
201	16.5

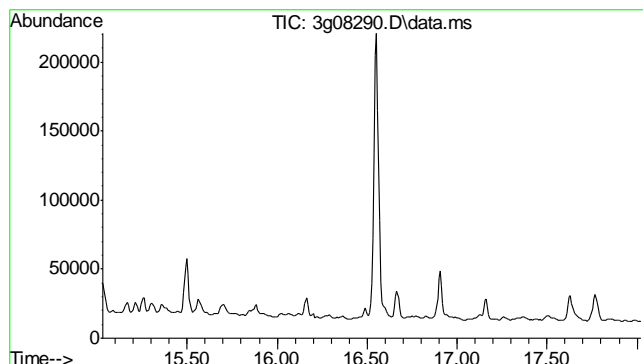


#20
 Terphenyl-d14
 Concen: 25.40 ug/mL
 RT: 14.611 min Scan# 1312
 Delta R.T. -0.008 min
 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

Tgt Ion: 244 Resp: 1358713

Ion	Ratio	Lower	Upper
244	100		
122	22.6	3.7	43.7
212	7.2	0.0	27.2

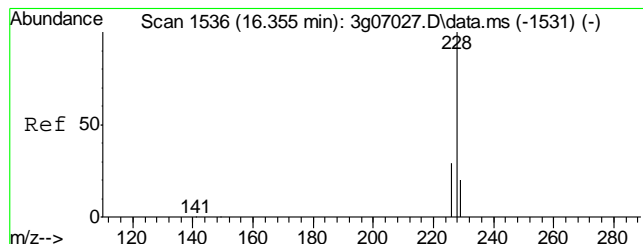
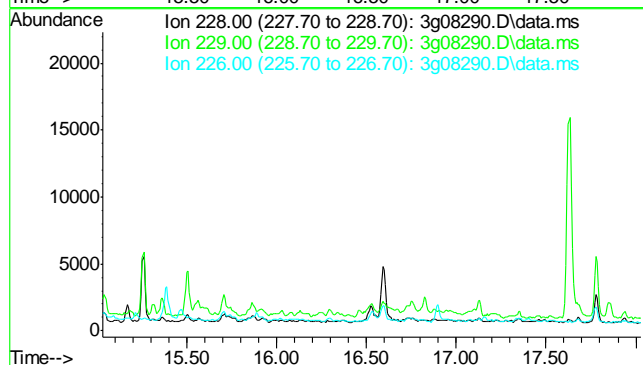




#21
Benzo(a)anthracene
Concen: N.D. ug/mL
Expected RT: 16.53 min

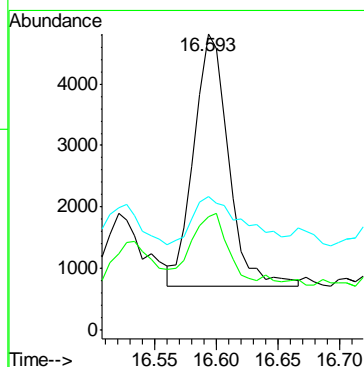
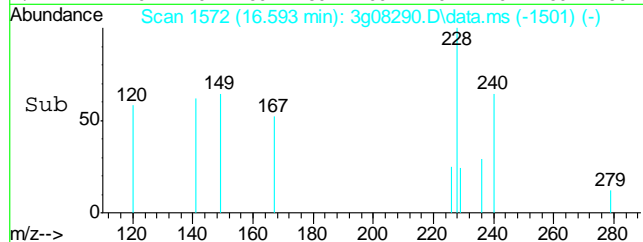
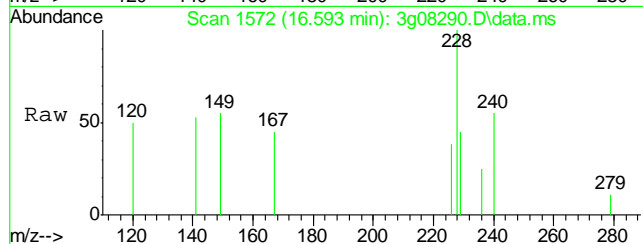
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

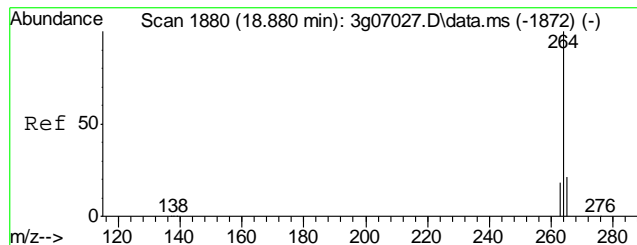
Tgt Ion: 228
Sig Exp Ratio
228 100
229 19.5
226 26.0



#22
Chrysene
Concen: 0.10 ug/mL
RT: 16.593 min Scan# 1572
Delta R.T. -0.013 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

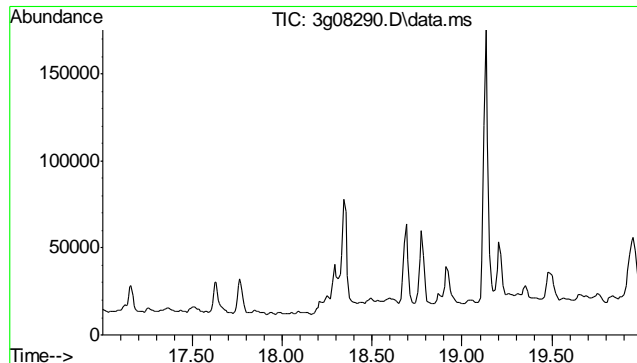
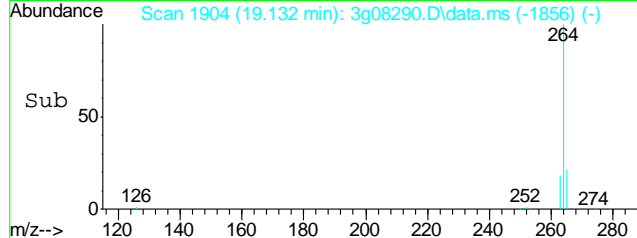
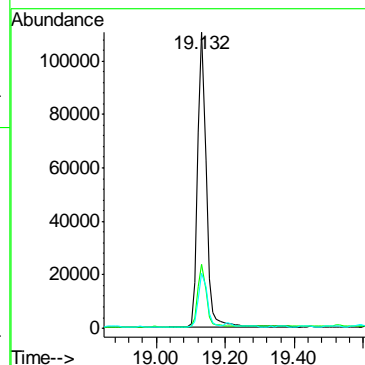
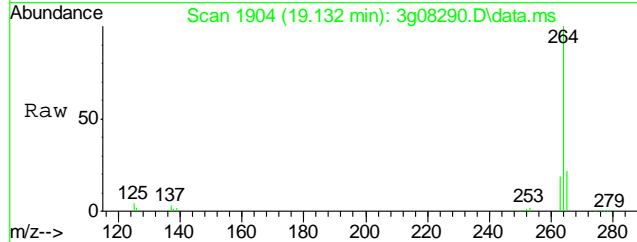
Tgt Ion: 228 Resp: 8036
Ion Ratio Lower Upper
228 100
226 27.6 8.3 48.3
229 27.0 0.0 39.3





#23
Perylene-d12
Concen: 4.00 ug/mL
RT: 19.132 min Scan# 1904
Delta R.T. 0.000 min
Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

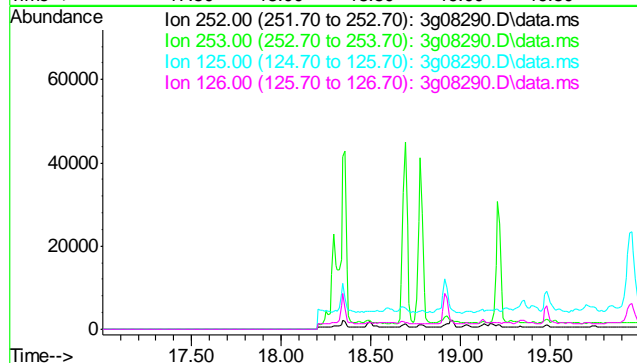
Tgt Ion:	264	Resp:	192272
Ion Ratio	Lower	Upper	
264	100		
265	20.7	1.1	41.1
263	18.4	0.0	38.7

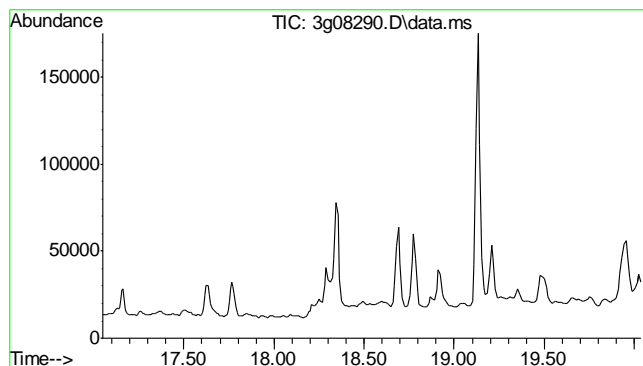


#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.50 min

Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

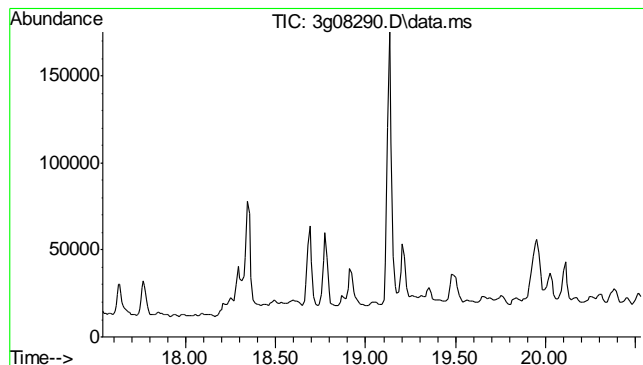
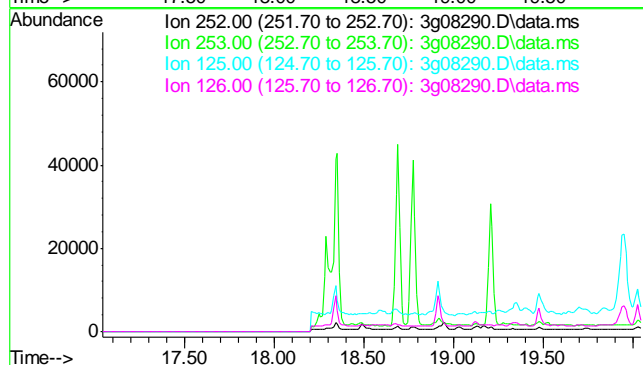




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

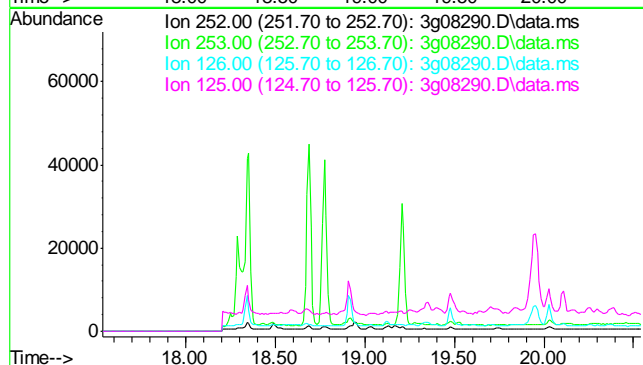
Tgt Ion	Sig	Exp Ratio
252	100	
253	21.7	
125	17.5	
126	27.7	

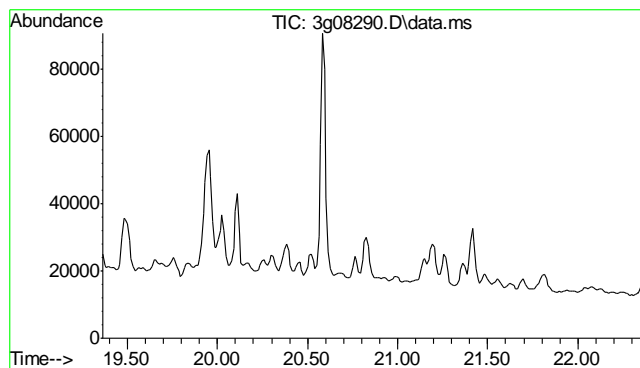


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08290.D
Acq: 3 Mar 12 1:38 pm

Tgt Ion	Sig	Exp Ratio
252	100	
253	21.6	
126	24.1	
125	18.2	

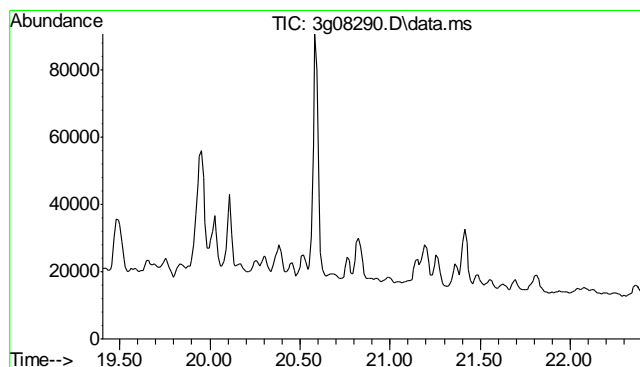
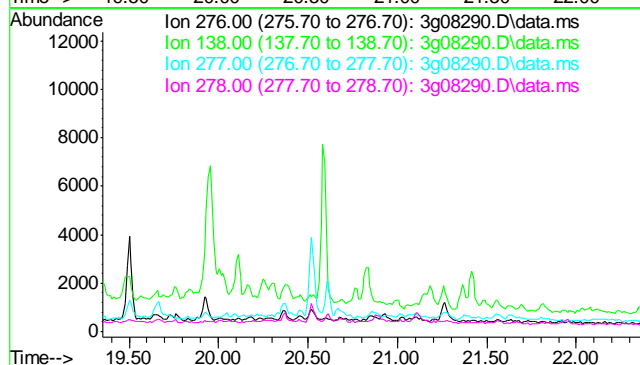




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 20.86 min

 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

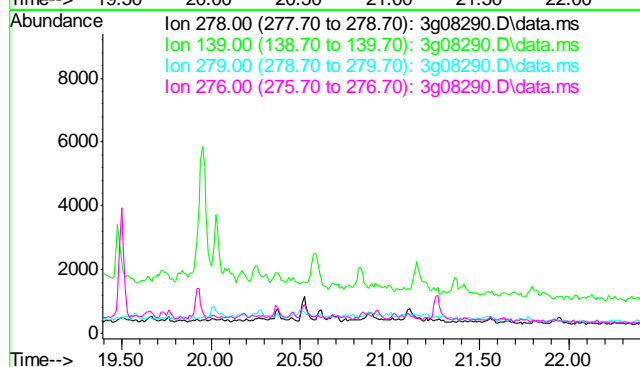
Tgt Ion	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

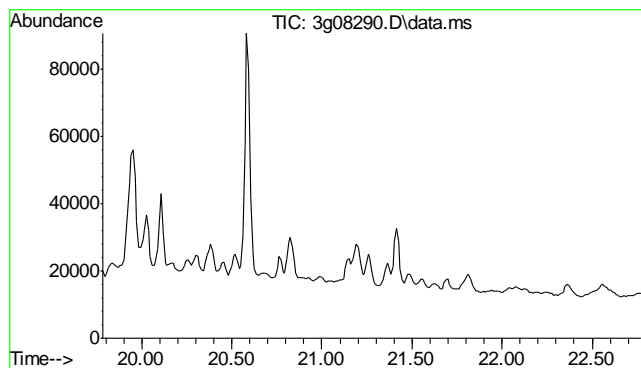


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 20.90 min

 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

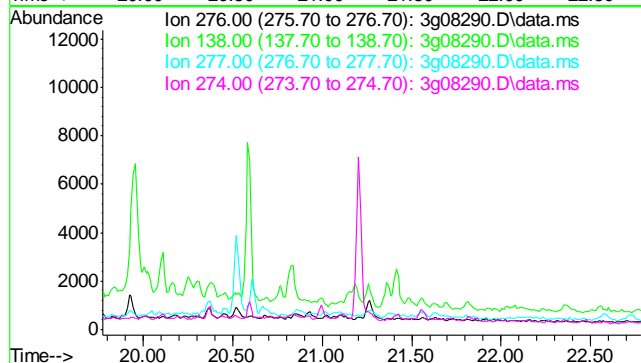
Tgt Ion	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4





#29
 Benzo(g,h,i)perylene
 Concen: N.D. ug/mL
 Expected RT: 21.28 min
 Lab File: 3g08290.D
 Acq: 3 Mar 12 1:38 pm

Tgt Ion	Exp Ratio
276	100
138	31.8
277	23.4
274	21.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030212\
 Data File : 3g08269.D
 Acq On : 2 Mar 2012 5:47 pm
 Operator : DONC
 Sample : OP5467-MB
 Misc : OP5467,E3G333,30.00,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 08:06:29 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

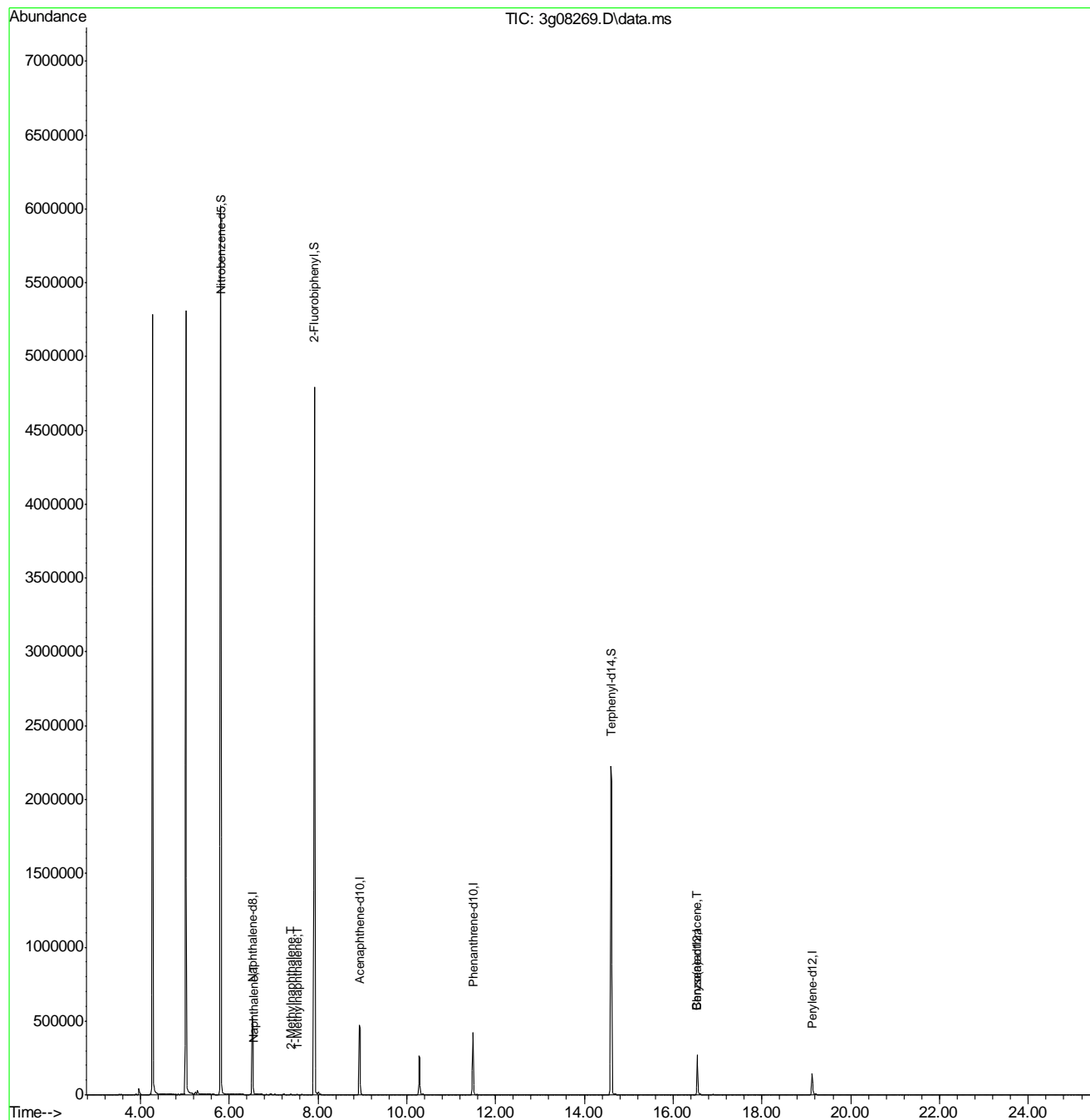
Internal Standards						
1) Naphthalene-d8	6.532	136	579186	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.945	164	313528	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.493	188	444086	4.00	ug/mL	0.00
18) Chrysene-d12	16.547	240	307278	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	204525	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	3419294	36.36	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	72.72%
7) 2-Fluorobiphenyl	7.917	172	4587901	34.47	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	68.94%
20) Terphenyl-d14	14.611	244	2783562	37.25	ug/mL	0.00
Spiked Amount	50.000	Range	25 - 135	Recovery	=	74.50%
Target Compounds						
					Qvalue	
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	6.545	128	1677	0.01	ug/mL	84
8) 2-Methylnaphthalene	7.393	142	1191	0.01	ug/mL	90
9) 1-Methylnaphthalene	7.530	142	619	0.01	ug/mL#	79
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	0.000		0	N.D.	d	
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	0.000		0	N.D.	d	
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	16.547	228	1081	0.01	ug/mL	72
22) Chrysene	0.000		0	N.D.	d	
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

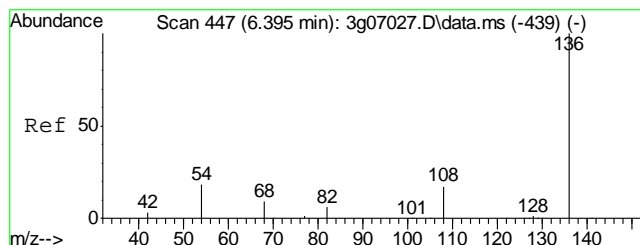
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030212\
Data File : 3g08269.D
Acq On : 2 Mar 2012 5:47 pm
Operator : DONC
Sample : OP5467-MB
Misc : OP5467,E3G333,30.00,,,1,1
ALS Vial : 11 Sample Multiplier: 1

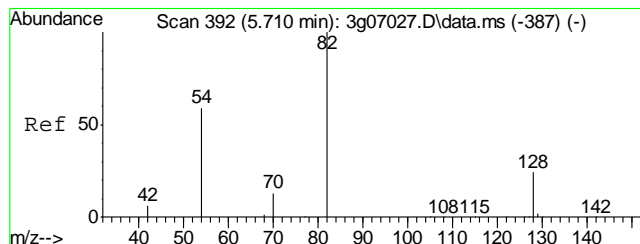
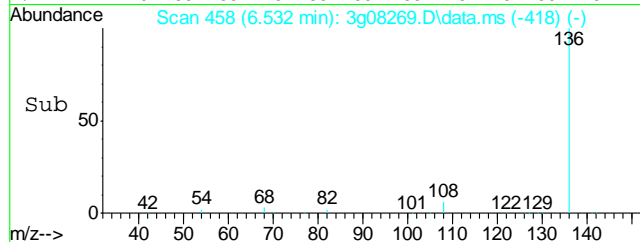
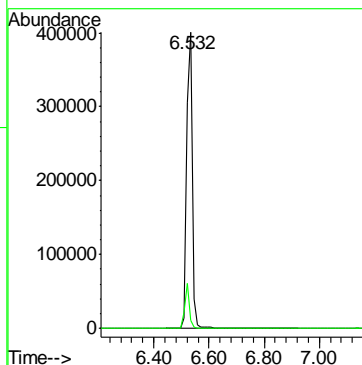
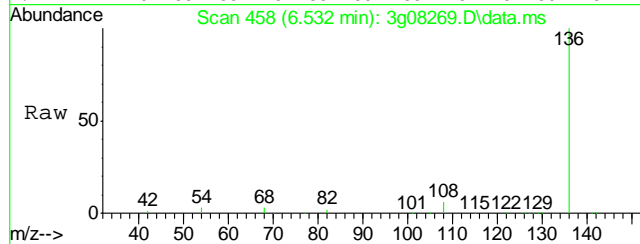
Quant Time: Mar 04 08:06:29 2012
Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
Quant Title : PAHSIM BASE
QLast Update : Sat Mar 03 06:34:25 2012
Response via : Initial Calibration





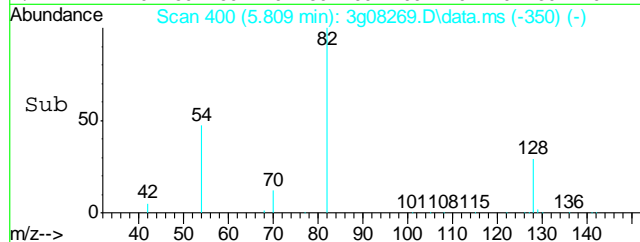
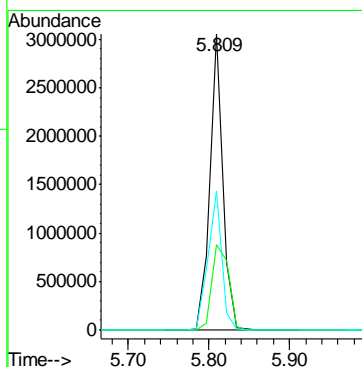
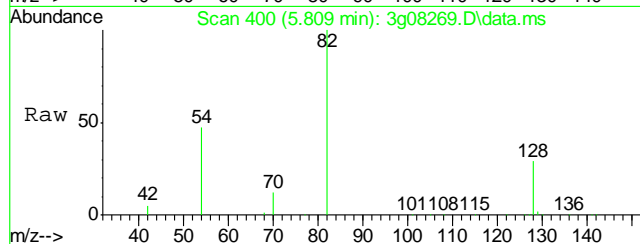
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. 0.000 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

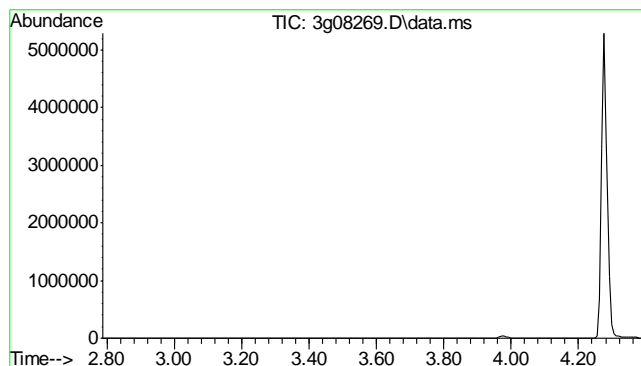
Tgt Ion: 136 Resp: 579186
Ion Ratio Lower Upper
136 100
68 12.4 0.0 32.3



#2
Nitrobenzene-d5
Concen: 36.36 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.012 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion: 82 Resp: 3419294
Ion Ratio Lower Upper
82 100
128 37.5 16.9 56.9
54 49.6 27.5 67.5

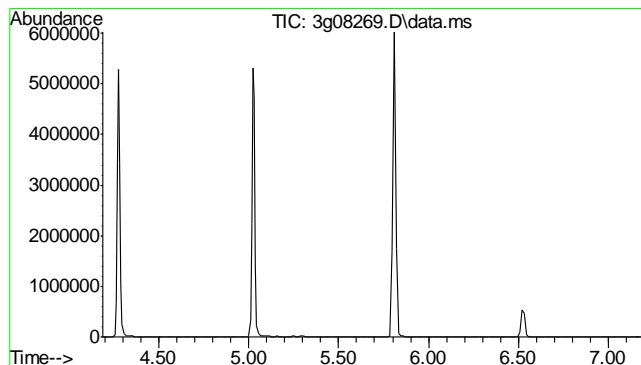
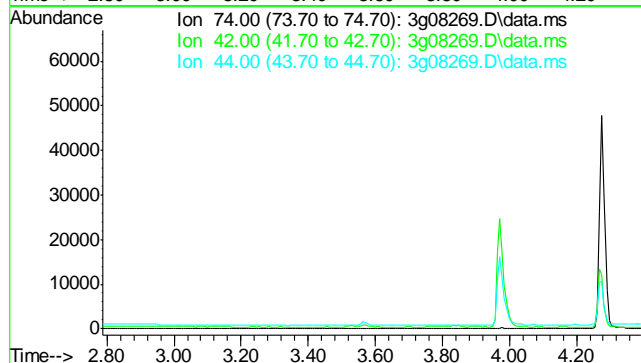




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

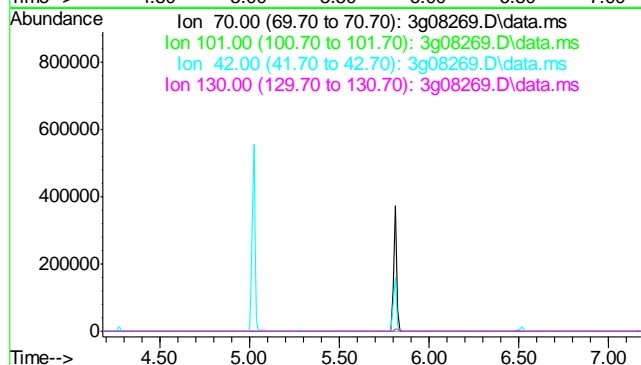
Tgt Ion:	74
Sig	Exp Ratio
74	100
42	58.9
44	4.0

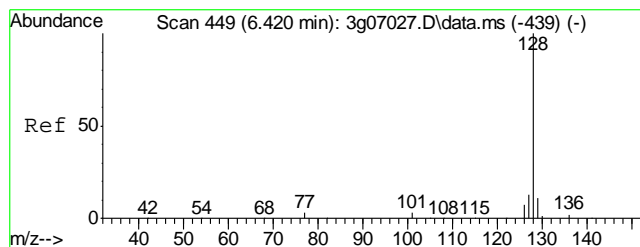


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

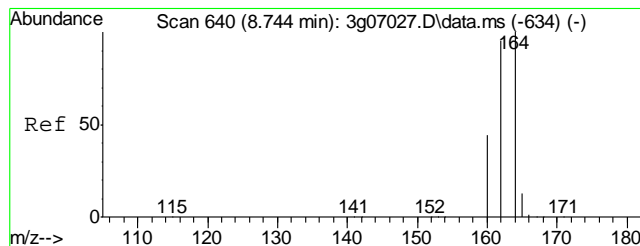
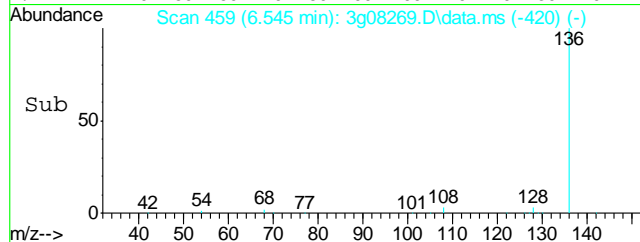
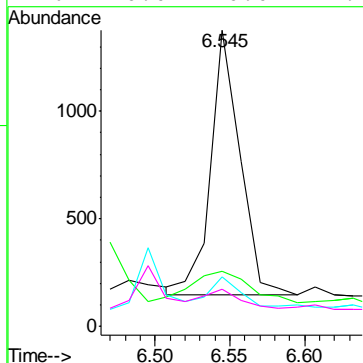
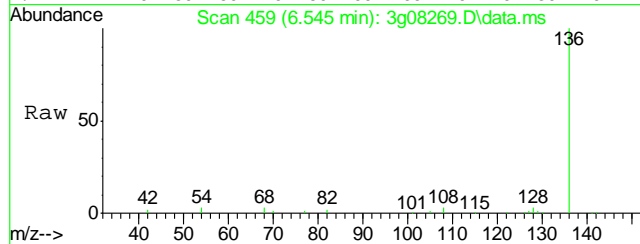
Tgt Ion:	70
Sig	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5





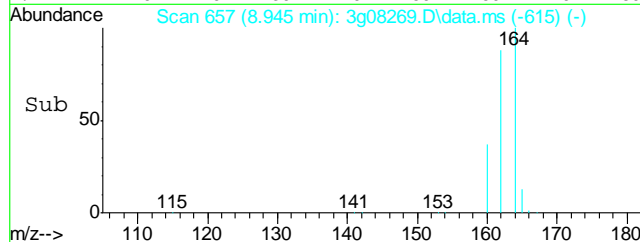
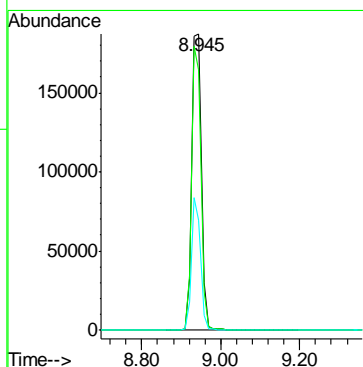
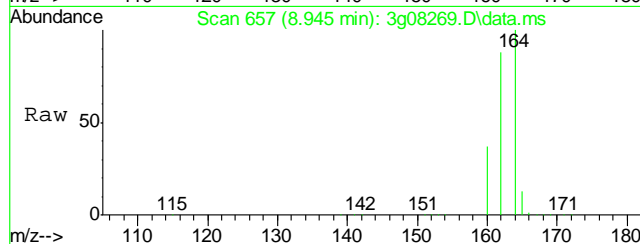
#5
Naphthalene
Concen: 0.01 ug/mL
RT: 6.545 min Scan# 459
Delta R.T. -0.012 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

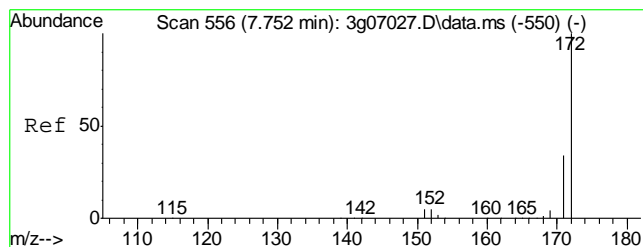
Tgt Ion	128	Ratio	100	Resp	1677
Ion	128	100			
	129	22.4	0.0	30.8	
	127	16.4	0.0	32.5	
	126	10.0	0.0	27.7	



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.945 min Scan# 657
Delta R.T. 0.000 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

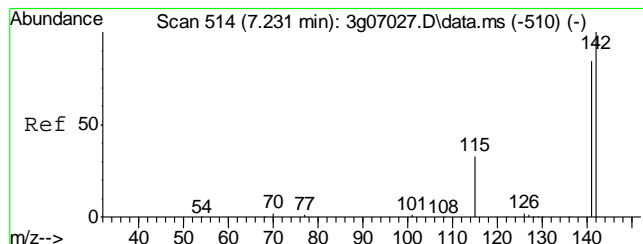
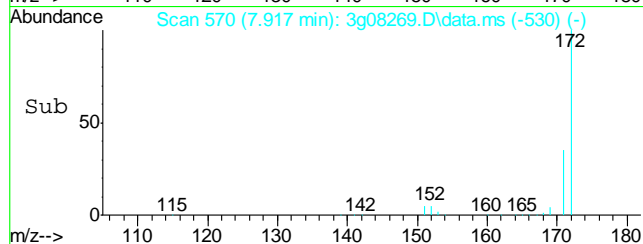
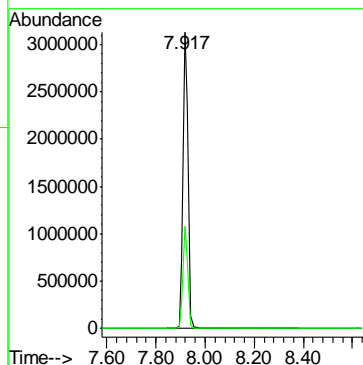
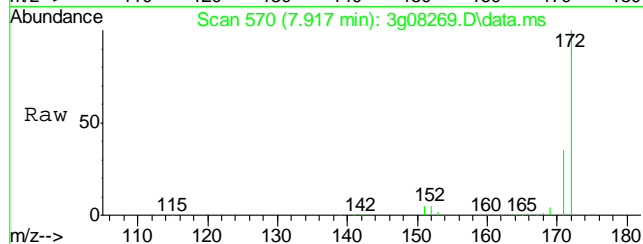
Tgt Ion	164	Ratio	100	Resp	313528
Ion	164	100			
	162	92.4	72.6	112.6	
	160	41.4	21.8	61.8	





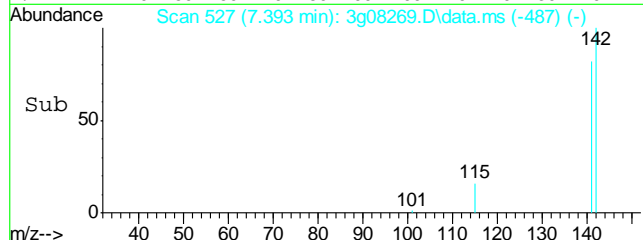
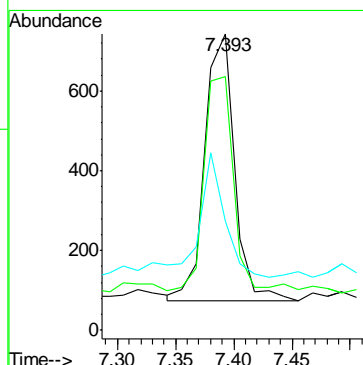
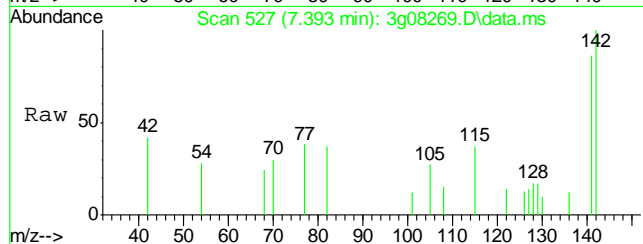
#7
2-Fluorobiphenyl
Concen: 34.47 ug/mL
RT: 7.917 min Scan# 570
Delta R.T. -0.012 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

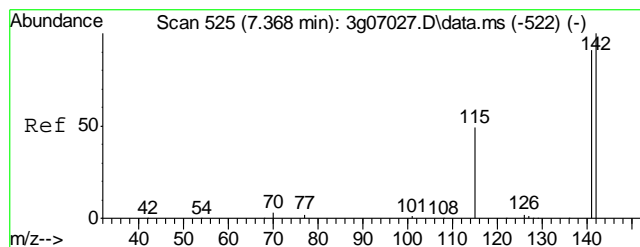
Tgt Ion:172 Resp: 4587901
Ion Ratio Lower Upper
172 100
171 33.3 13.3 53.3



#8
2-Methylnaphthalene
Concen: 0.01 ug/mL
RT: 7.393 min Scan# 527
Delta R.T. 0.000 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

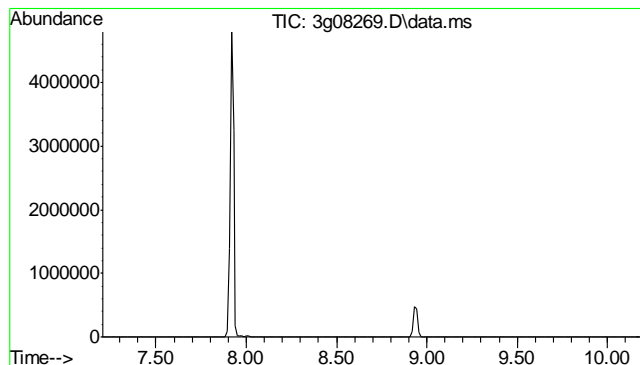
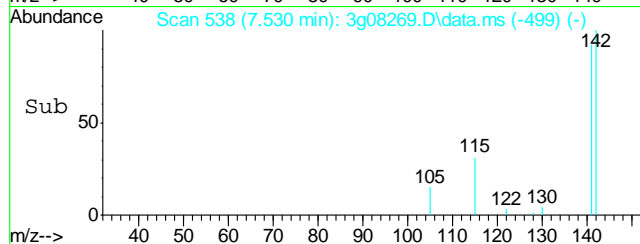
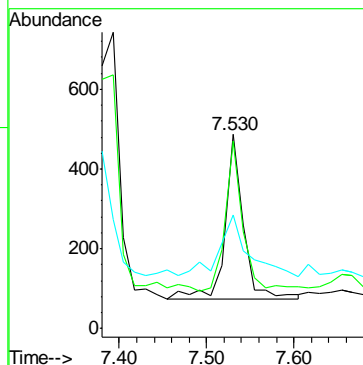
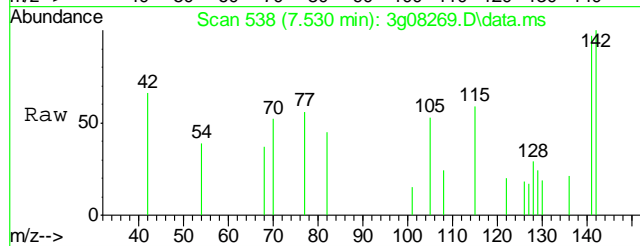
Tgt Ion:142 Resp: 1191
Ion Ratio Lower Upper
142 100
141 77.8 63.2 103.2
115 46.6 16.1 56.1





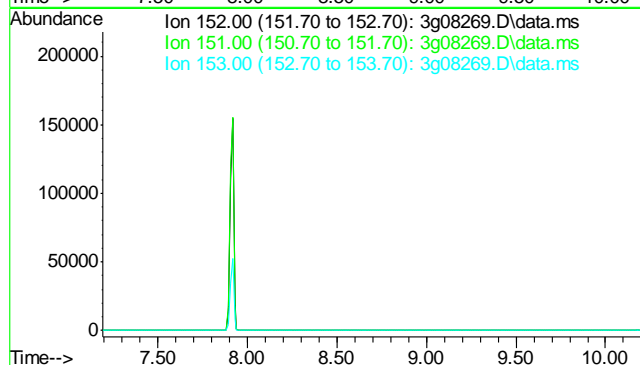
#9
1-Methylnaphthalene
Concen: 0.01 ug/mL
RT: 7.530 min Scan# 538
Delta R.T. -0.012 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

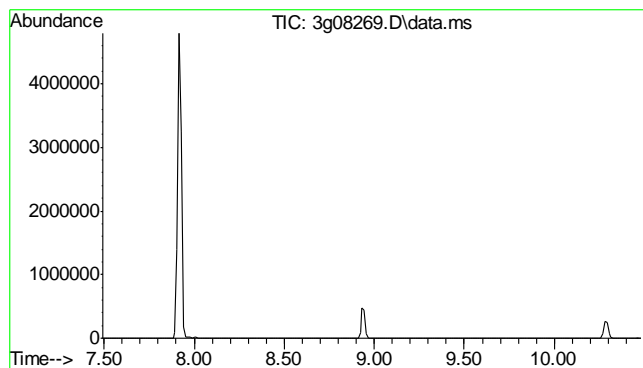
Tgt Ion: 142	Resp: 619
Ion Ratio	Lower Upper
142	100
141	88.7 67.4 107.4
115	0.0 18.8 58.8#



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion: 152	
Sig	Exp Ratio
152	100
151	18.9
153	12.9

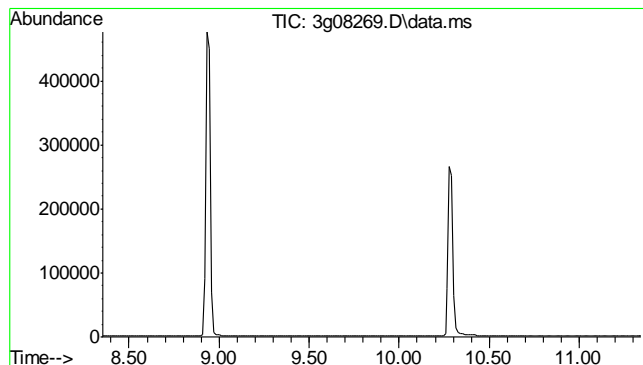
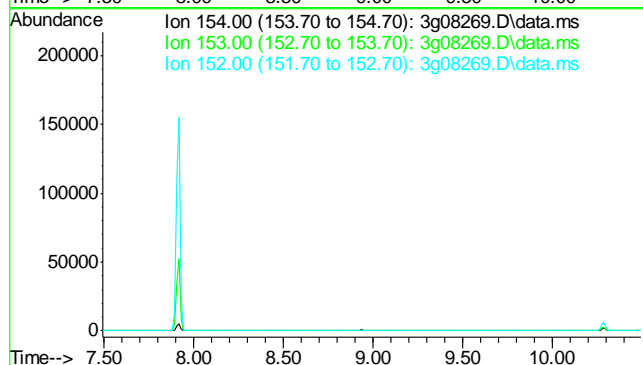




#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 8.99 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

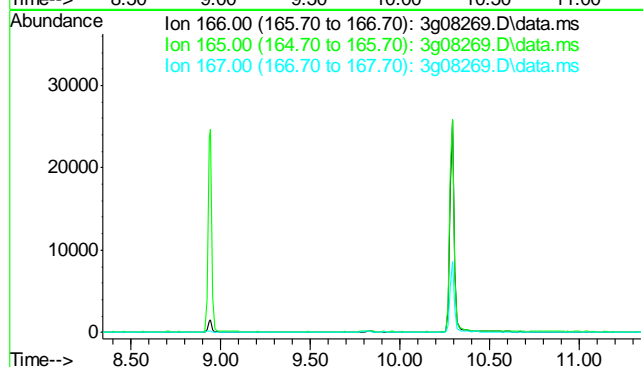
Tgt Ion: 154
Sig Exp Ratio
154 100
153 104.3
152 49.4

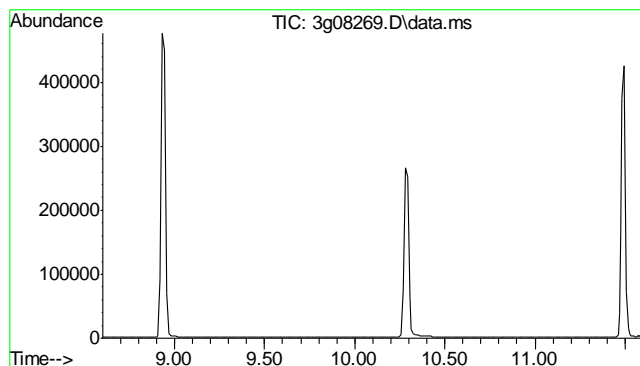


#12
Fluorene
Concen: N.D. ug/mL
Expected RT: 9.84 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion: 166
Sig Exp Ratio
166 100
165 91.1
167 13.2

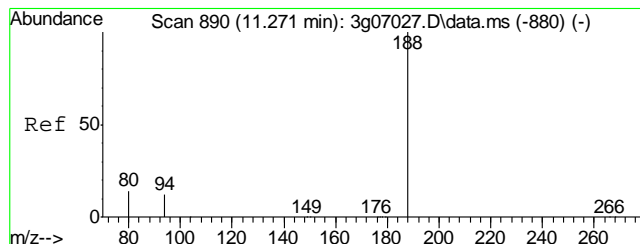
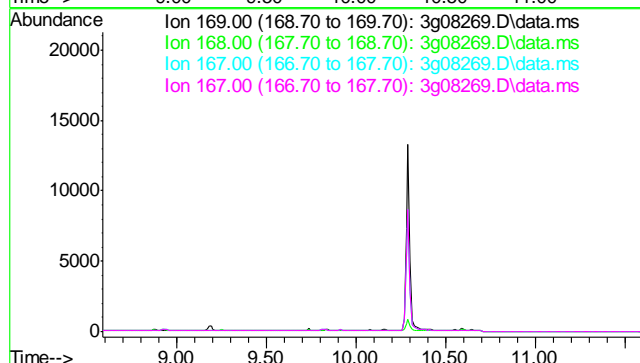




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

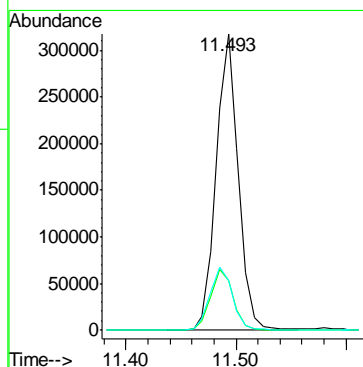
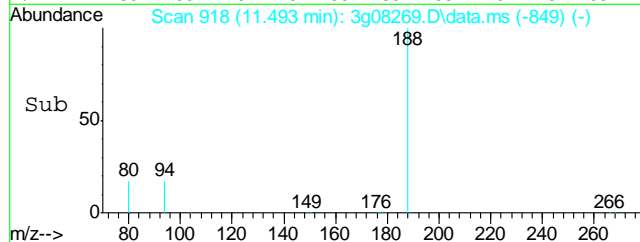
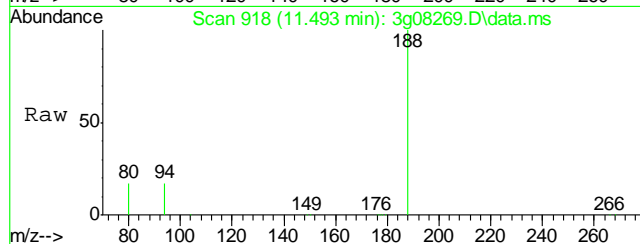
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

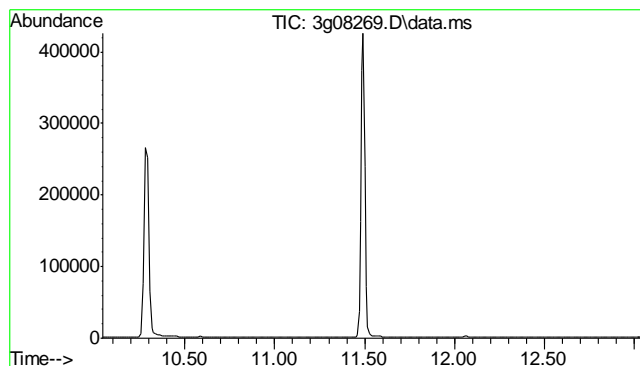
Tgt Ion: 169
Sig Exp Ratio
169 100
168 61.0
167 33.0
167 33.0



#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.493 min Scan# 918
Delta R.T. 0.000 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion: 188 Resp: 444086
Ion Ratio Lower Upper
188 100
94 20.9 1.6 41.6
80 21.6 2.2 42.2

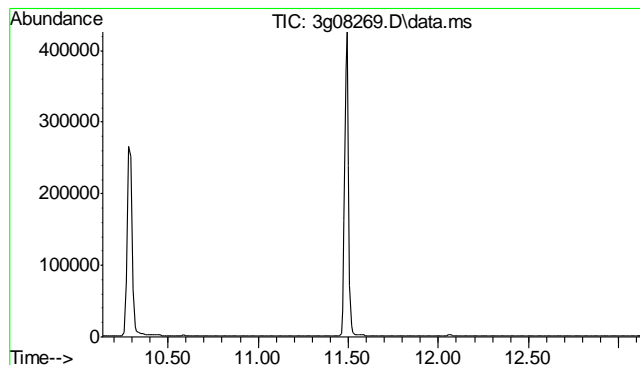
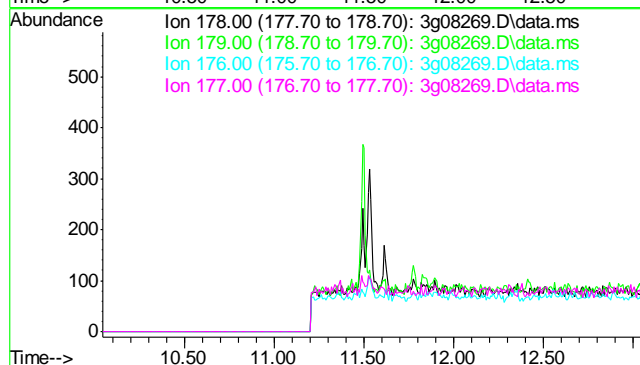




#15
Phenanthrene
Concen: N.D. ug/mL
Expected RT: 11.54 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

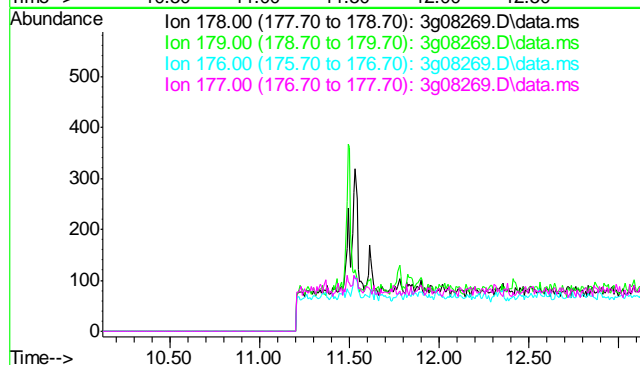
Tgt Ion: 178
Sig Exp Ratio
178 100
179 15.1
176 18.5
177 10.2

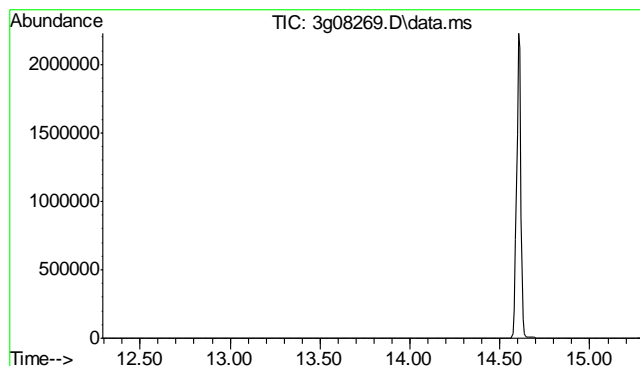


#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion: 178
Sig Exp Ratio
178 100
179 15.0
176 17.9
177 8.8

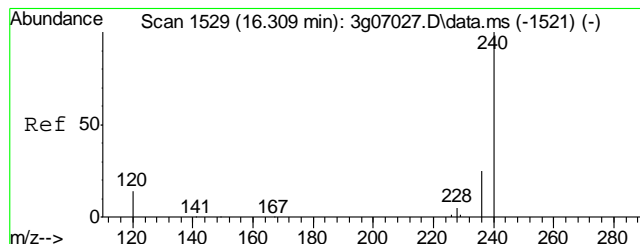
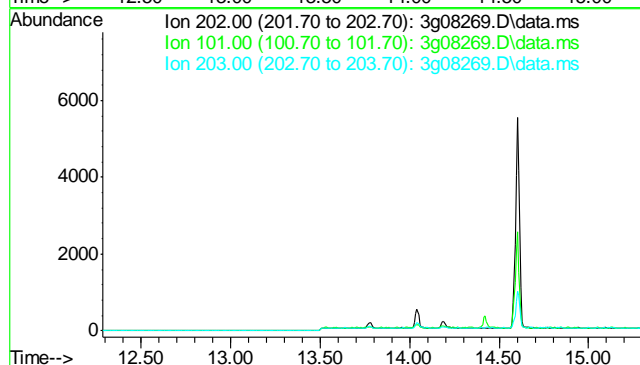




#17
Fluoranthene
Concen: N.D. ug/mL
Expected RT: 13.79 min

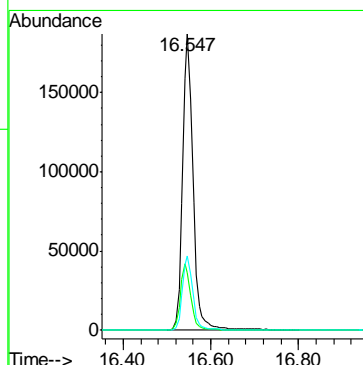
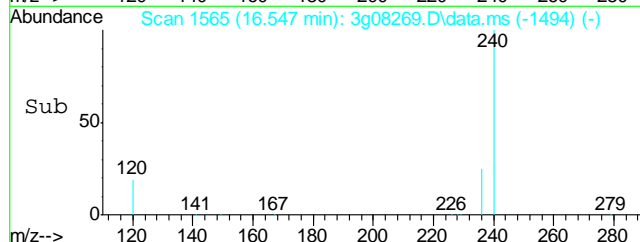
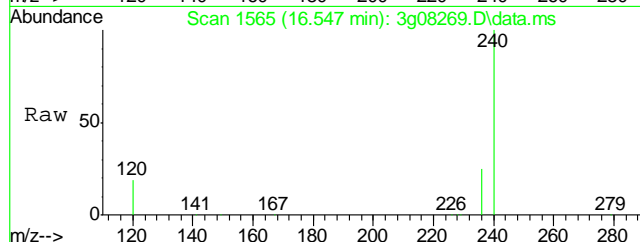
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

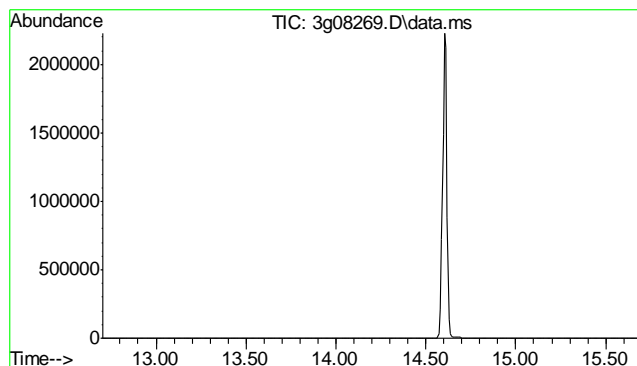
Tgt Ion:	202
Sig	Exp Ratio
202	100
101	23.5
203	17.2



#18
Chrysene-d12
Concen: 4.00 ug/mL
RT: 16.547 min Scan# 1565
Delta R.T. -0.006 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion:	240	Resp:	307278
Ion	Ratio	Lower	Upper
240	100		
120	22.4	2.9	42.9
236	25.0	5.0	45.0

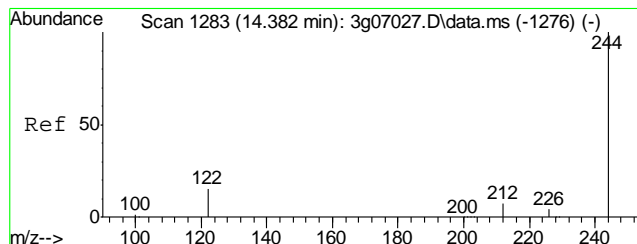
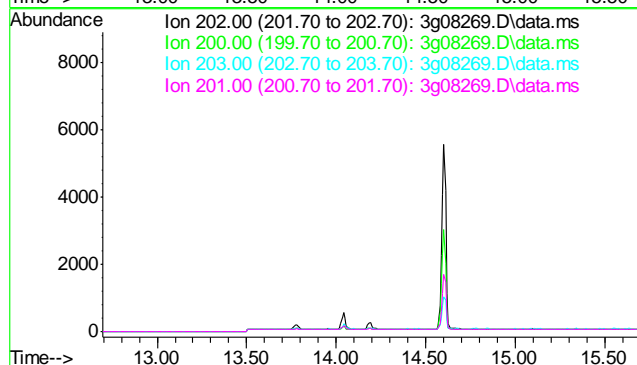




#19
Pyrene
Concen: N.D. ug/mL
Expected RT: 14.20 min

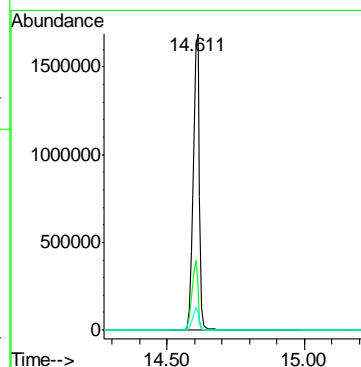
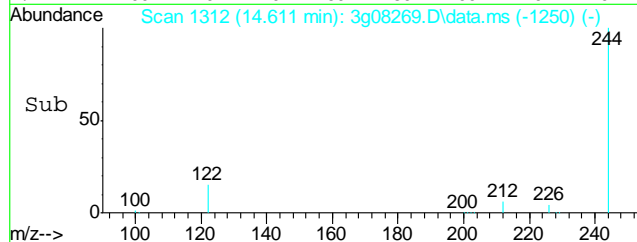
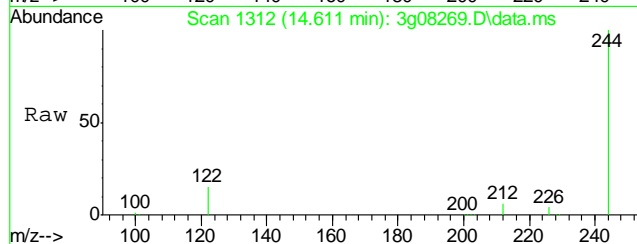
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

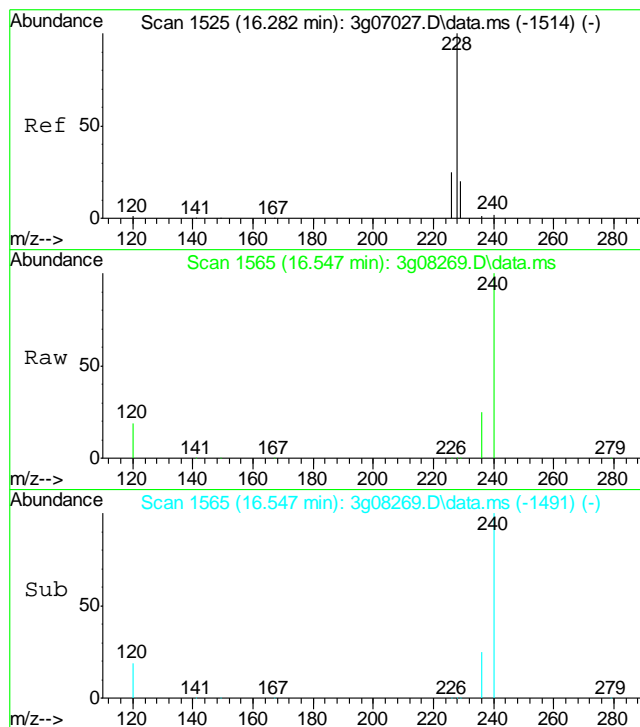
Tgt Ion:	202
Sig	Exp Ratio
202	100
200	20.0
203	17.8
201	16.5



#20
Terphenyl-d14
Concen: 37.25 ug/mL
RT: 14.611 min Scan# 1312
Delta R.T. -0.008 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

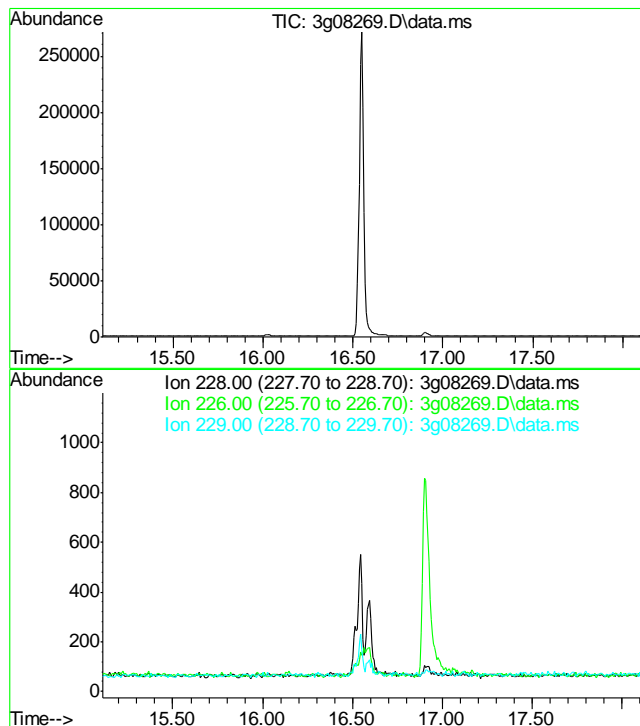
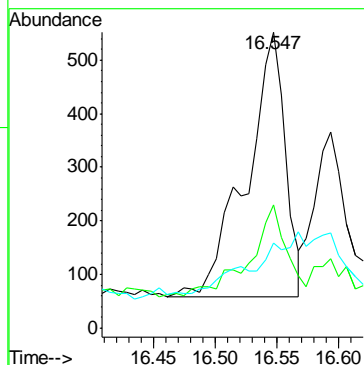
Tgt Ion:	244	Resp:	2783562
Ion	Ratio	Lower	Upper
244	100		
122	22.5	3.7	43.7
212	7.2	0.0	27.2





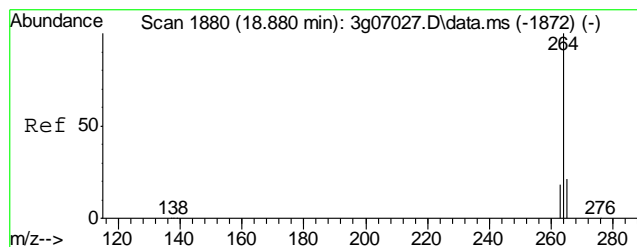
#21
Benzo(a)anthracene
Concen: 0.01 ug/mL
RT: 16.547 min Scan# 1565
Delta R.T. 0.020 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion:	228	Resp:	1081
Ion Ratio	Lower	Upper	
228	100		
229	30.6	0.0	39.5
226	10.2	6.0	46.0



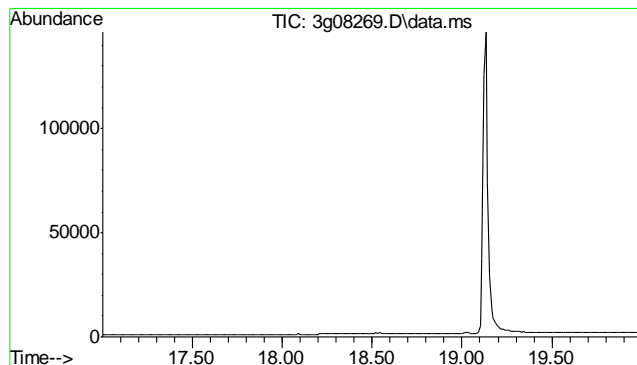
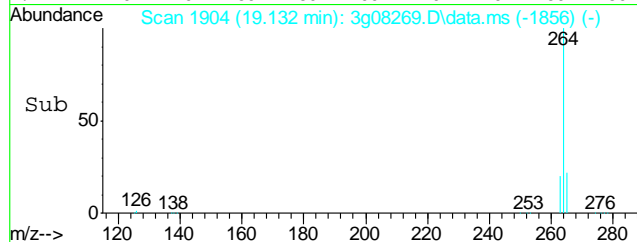
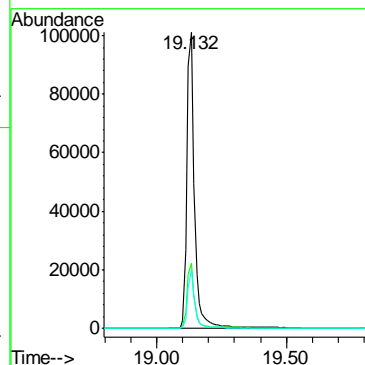
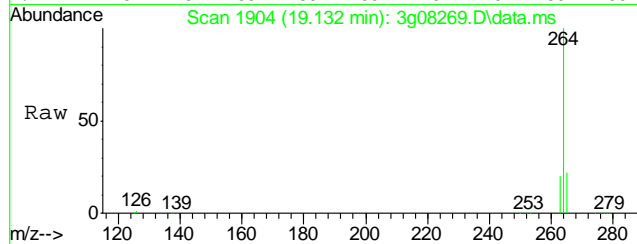
#22
Chrysene
Concen: N.D. ug/mL
Expected RT: 16.61 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion:	228
Sig	Exp Ratio
228	100
226	28.3
229	19.3



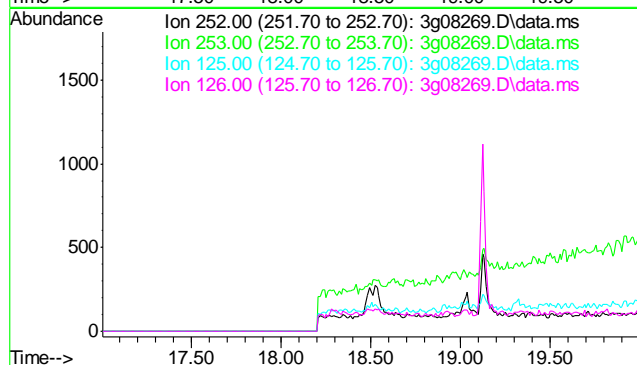
#23
Perylene-d12
Concen: 4.00 ug/mL
RT: 19.132 min Scan# 1904
Delta R.T. 0.000 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

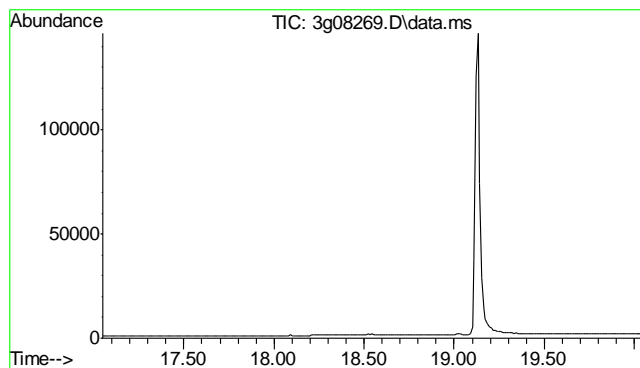
Tgt Ion:	264	Resp:	204525
Ion Ratio	Lower	Upper	
264	100		
265	20.7	1.1	41.1
263	18.6	0.0	38.7



#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.50 min
Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

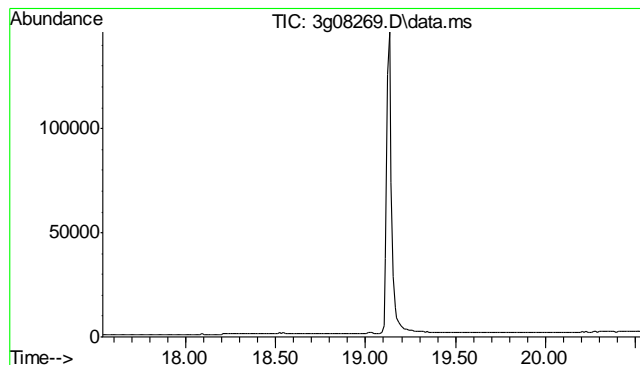
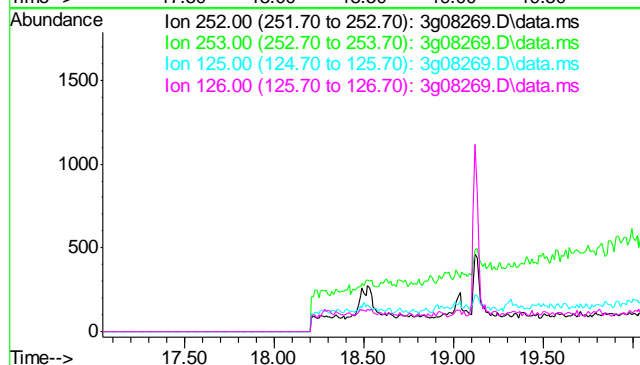




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

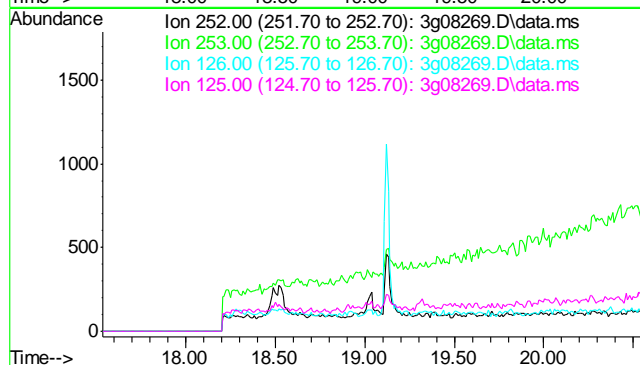
Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.7
125	17.5
126	27.7

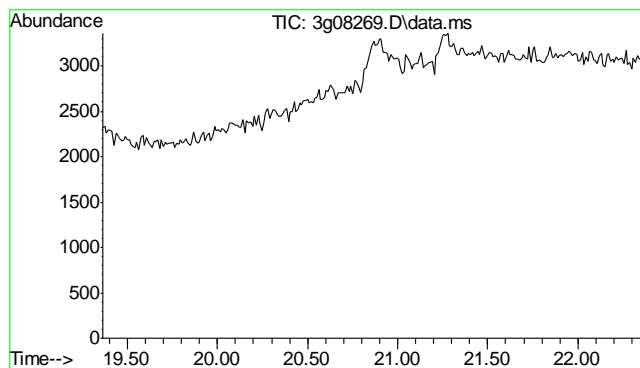


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
126	24.1
125	18.2

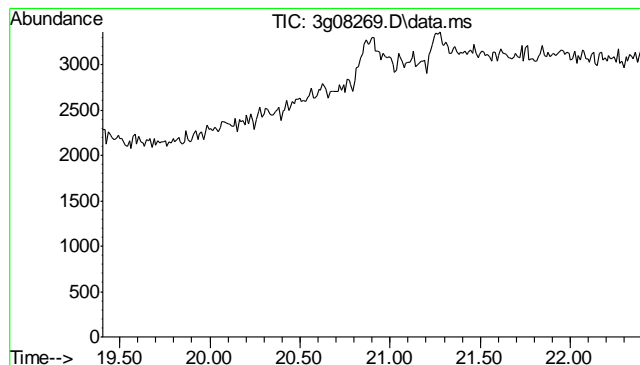
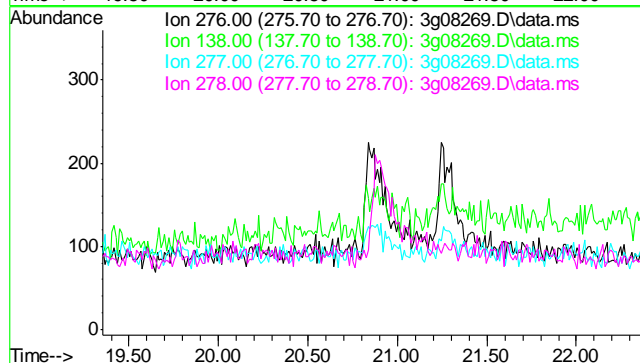




#27
Indeno(1,2,3-cd)pyrene
Concen: N.D. ug/mL
Expected RT: 20.86 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

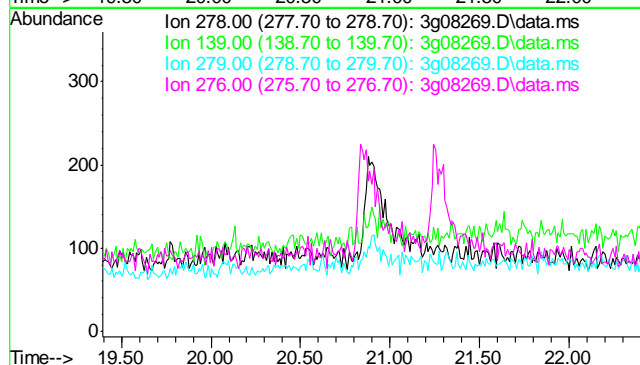
Tgt Ion:	276
Sig	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

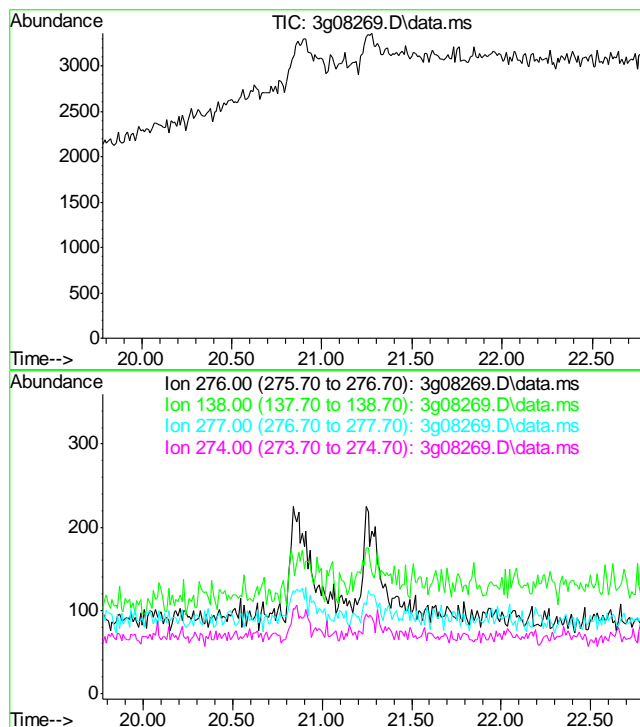


#28
Dibenz(a,h)anthracene
Concen: N.D. ug/mL
Expected RT: 20.90 min

Lab File: 3g08269.D
Acq: 2 Mar 12 5:47 pm

Tgt Ion:	278
Sig	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4





#29

Benzo(g,h,i)perylene

Concen: N.D. ug/mL

Expected RT: 21.28 min

Lab File: 3g08269.D

Acq: 2 Mar 12 5:47 pm

Tgt Ion: 276

Sig Exp Ratio

276 100

138 31.8

277 23.4

274 21.2

8.2.1

8

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB853-MB	GB15200.D	1	03/02/12	SK	n/a	n/a	GGB853

The QC reported here applies to the following samples:

Method: SW846 8015B

D32371-1, D32371-2, D32371-3

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	94% 60-140%

9.1.1

9

Blank Spike Summary

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB853-BS	GB15201.D	1	03/02/12	SK	n/a	n/a	GGB853

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

D32371-1, D32371-2, D32371-3

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

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

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32298-1MS	GB15203.D	1	03/02/12	SK	n/a	n/a	GGB853
D32298-1MSD	GB15204.D	1	03/02/12	SK	n/a	n/a	GGB853
D32298-1	GB15202.D	1	03/02/12	SK	n/a	n/a	GGB853

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

D32371-1, D32371-2, D32371-3

CAS No.	Compound	D32298-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	15.2		155	168	99	166	97	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D32298-1	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	100%	95%	60-140%
120-82-1	1,2,4-Trichlorobenzene	116%	111%		60-140%

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15210.D\FID1A.CH Vial: 13
Signal #2 : Y:\1\DATA\030212\GB15210.D\FID2B.CH
Acq On : 2 Mar 2012 8:43 pm Operator: StephK
Sample : D32371-1, 50X Inst : GC/MS Ins
Misc : GC2653,GGB853,5.052,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 05 08:39:19 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 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	

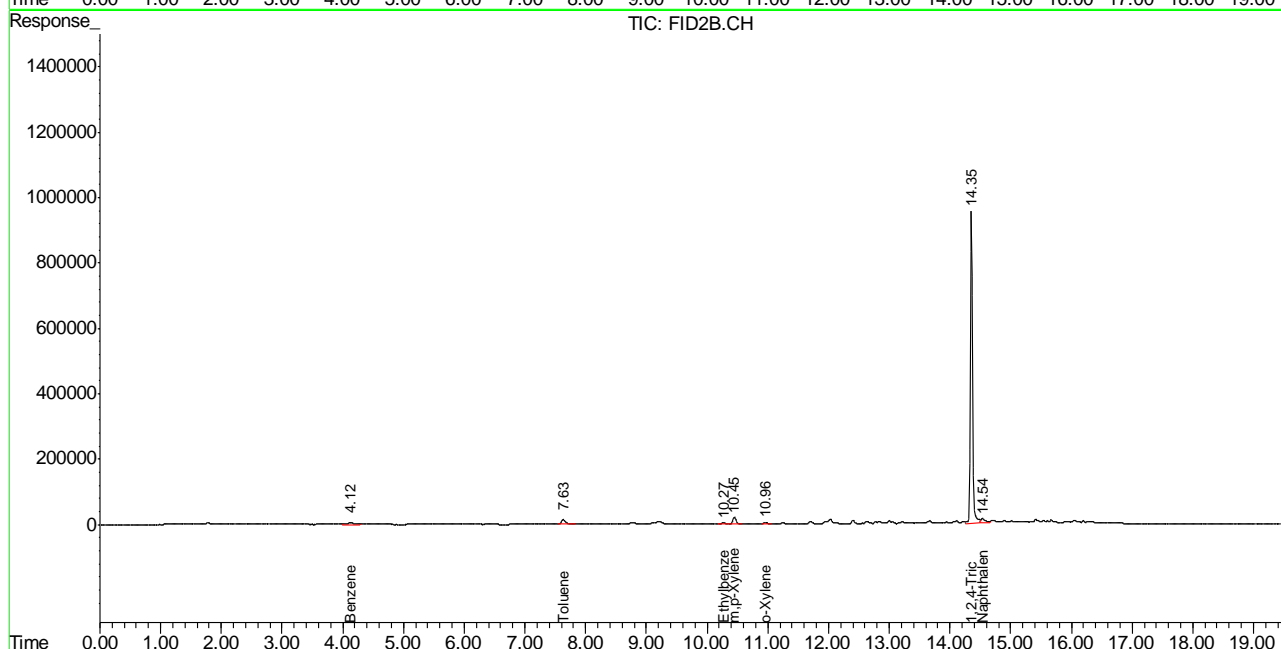
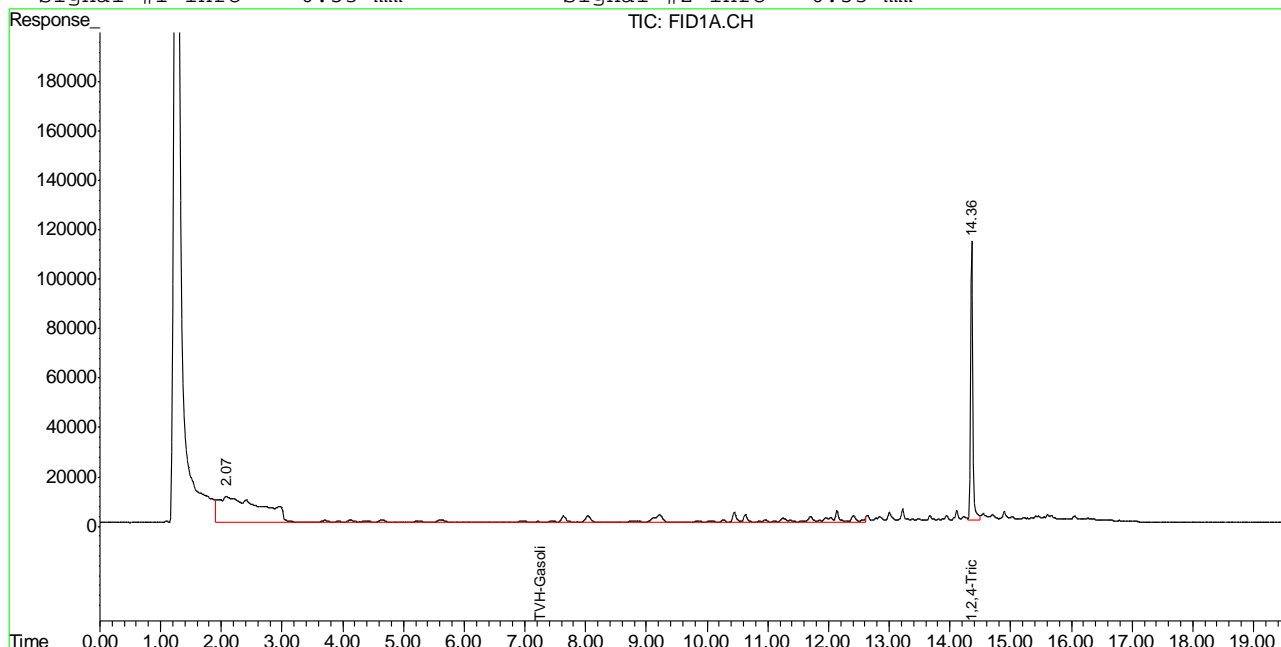
System Monitoring Compounds						
2) S	1,2,4-Trichlorobenzene	14.36	2799097	92.786 %	m	
10) S	1,2,4-Trichlorobenzene (P)	14.36	23170597	99.564 %		
Target Compounds						
1) H	TVH-Gasoline	7.26	8557915	0.118 mg/L		
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d	
5) T	Benzene	4.12	331352	0.599 ug/L		
6) T	Toluene	7.63	820304	1.499 ug/L		
7) T	Ethylbenzene	10.27	210074	0.459 ug/L		
8) T	m,p-Xylene	10.45	888922	1.587 ug/L		
9) T	o-Xylene	10.96	239196	0.522 ug/L		
11) T	Naphthalene	14.54	820034	3.138 ug/L		

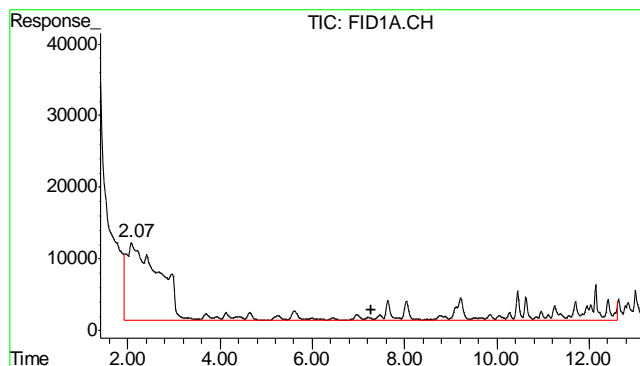
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15210.D\FID1A.CH Vial: 13
 Signal #2 : Y:\1\DATA\030212\GB15210.D\FID2B.CH
 Acq On : 2 Mar 2012 8:43 pm Operator: StephK
 Sample : D32371-1, 50X Inst : GC/MS Ins
 Misc : GC2653,GGB853,5.052,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Mar 5 7:47 2012 Quant Results File: TB851GB851SOIL.RES

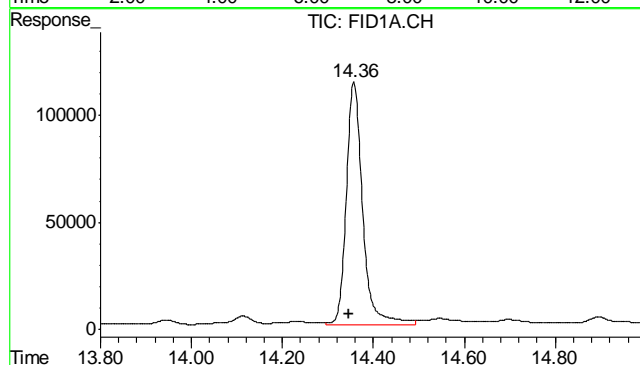
Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Mar 01 10:54:53 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

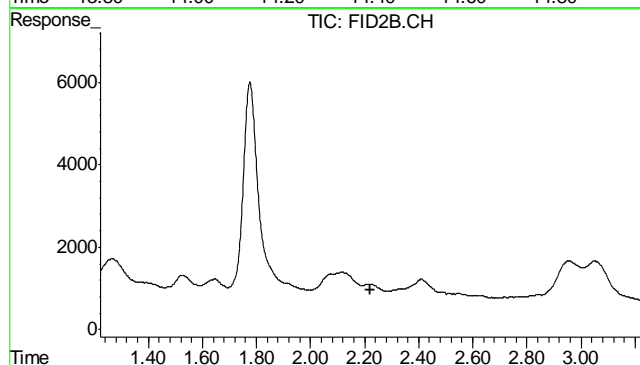




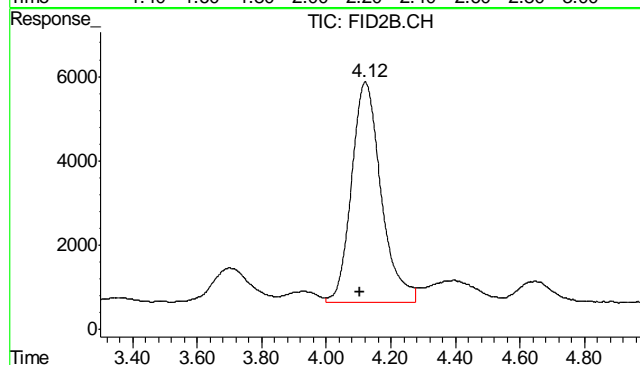
#1 TVH-Gasoline
 R.T.: 7.265 min
 Delta R.T.: 0.000 min
 Response: 8557915
 Conc: 0.12 mg/L m



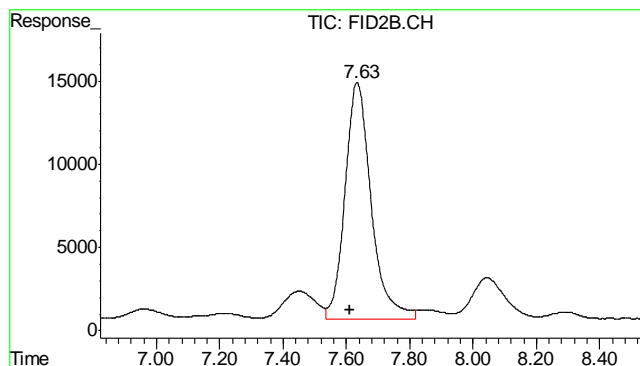
#2 1,2,4-Trichlorobenzene
 R.T.: 14.357 min
 Delta R.T.: 0.011 min
 Response: 2799097
 Conc: 92.79 % m



#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.223 min
 Response: 0
 Conc: N.D.

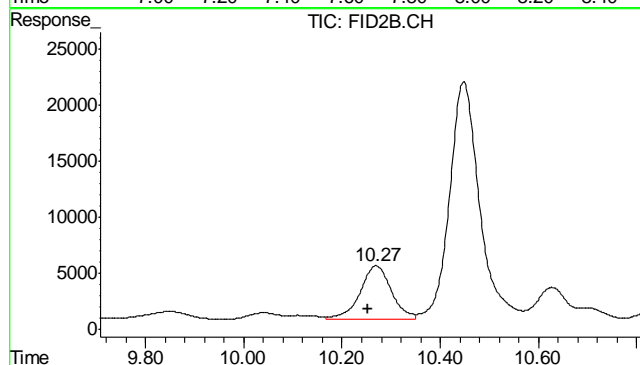


#5 Benzene
 R.T.: 4.121 min
 Delta R.T.: 0.016 min
 Response: 331352
 Conc: 0.60 ug/L



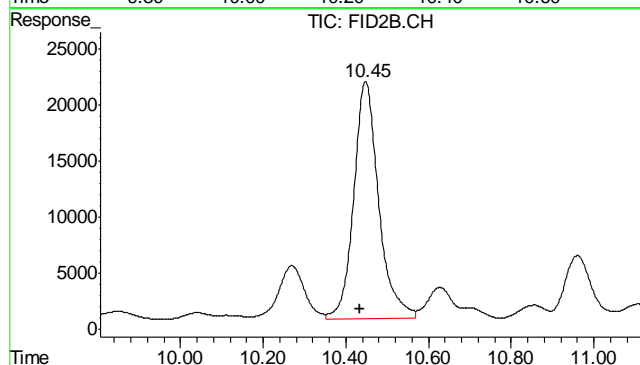
#6 Toluene

R.T.: 7.634 min
Delta R.T.: 0.022 min
Response: 820304
Conc: 1.50 ug/L



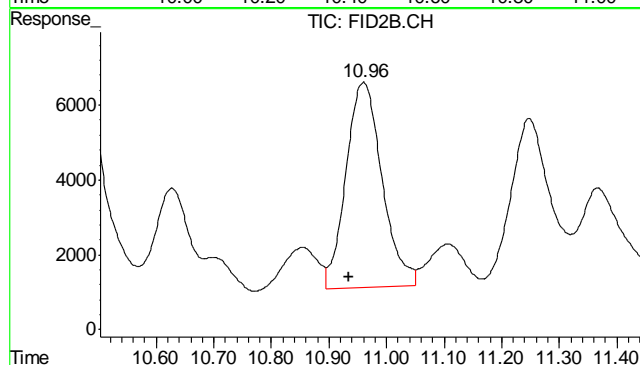
#7 Ethylbenzene

R.T.: 10.269 min
Delta R.T.: 0.017 min
Response: 210074
Conc: 0.46 ug/L



#8 m,p-Xylene

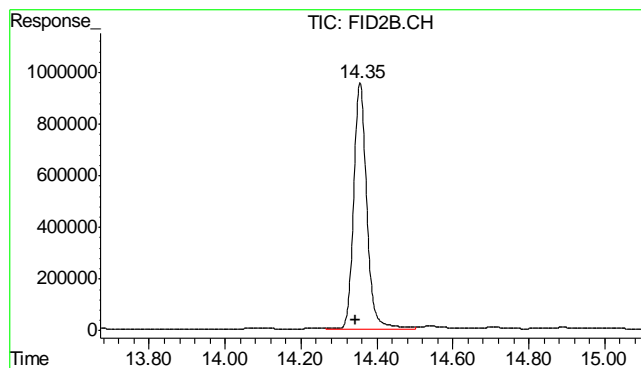
R.T.: 10.448 min
Delta R.T.: 0.014 min
Response: 888922
Conc: 1.59 ug/L



#9 o-Xylene

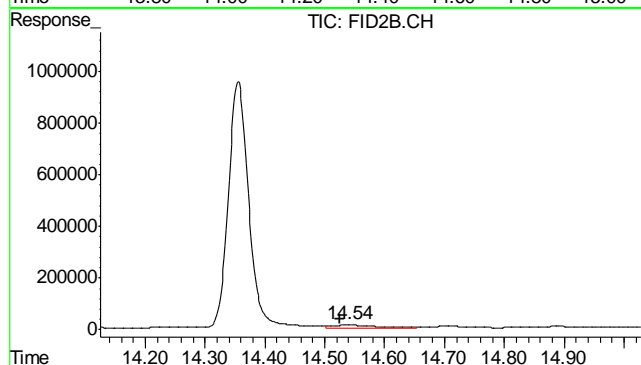
R.T.: 10.960 min
Delta R.T.: 0.026 min
Response: 239196
Conc: 0.52 ug/L

10.1.1
10



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

R.T.: 14.355 min
Delta R.T.: 0.011 min
Response: 23170597
Conc: 99.56 %



#11 Naphthalene

R.T.: 14.540 min
Delta R.T.: 0.014 min
Response: 820034
Conc: 3.14 ug/L

10.1.1
10

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15211.D\FID1A.CH Vial: 14
Signal #2 : Y:\1\DATA\030212\GB15211.D\FID2B.CH
Acq On : 2 Mar 2012 9:19 pm Operator: StephK
Sample : D32371-2, 50X Inst : GC/MS Ins
Misc : GC2653,GGB853,5.056,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 05 08:39:23 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 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	

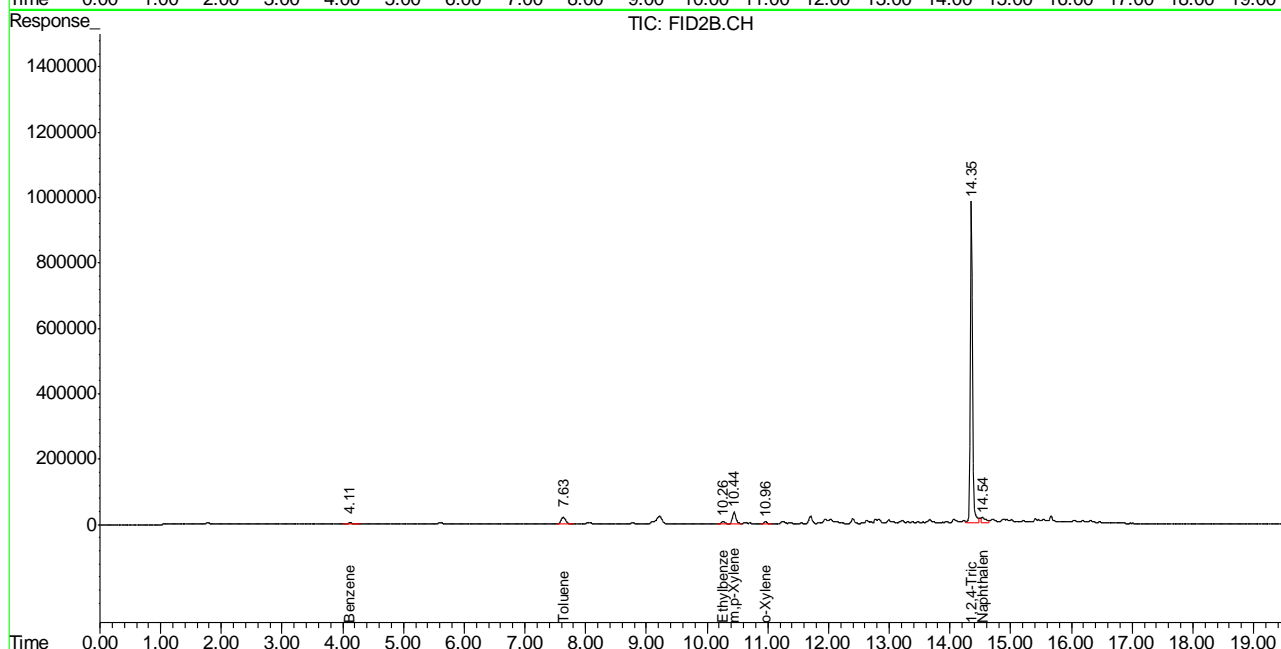
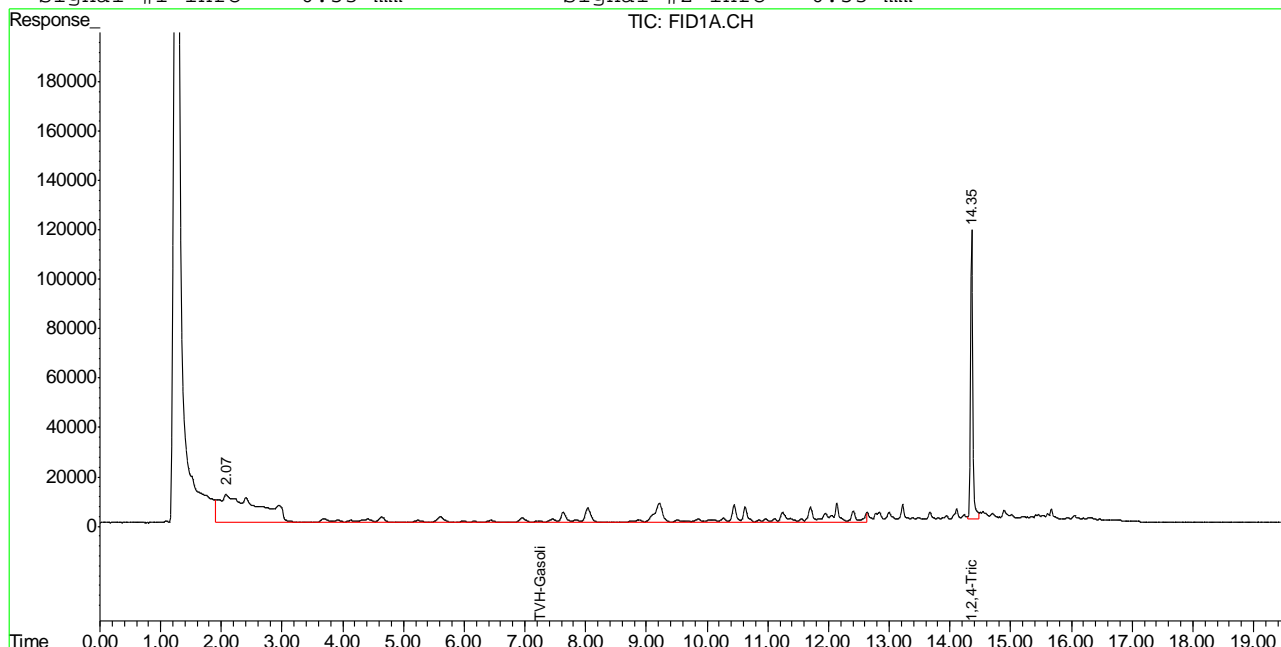
System Monitoring Compounds						
2) S	1,2,4-Trichlorobenzene	14.35	2922297	96.870 %	m	
10) S	1,2,4-Trichlorobenzene (P)	14.35	24101976	103.566 %		
Target Compounds						
1) H	TVH-Gasoline	7.26	11559600	0.160 mg/L		
4) T	Methyl-t-butyl-ether	0.00	0	N.D. ug/L	d	
5) T	Benzene	4.12	288394	0.521 ug/L		
6) T	Toluene	7.63	1280362	2.339 ug/L		
7) T	Ethylbenzene	10.26	368975	0.807 ug/L		
8) T	m,p-Xylene	10.44	1569960	2.804 ug/L		
9) T	o-Xylene	10.96	308933	0.674 ug/L		
11) T	Naphthalene	14.54	938188	3.591 ug/L		

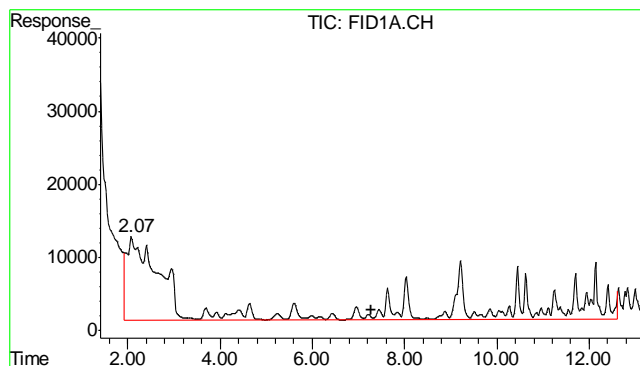
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15211.D\FID1A.CH Vial: 14
 Signal #2 : Y:\1\DATA\030212\GB15211.D\FID2B.CH
 Acq On : 2 Mar 2012 9:19 pm Operator: StephK
 Sample : D32371-2, 50X Inst : GC/MS Ins
 Misc : GC2653,GGB853,5.056,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Mar 5 7:47 2012 Quant Results File: TB851GB851SOIL.RES

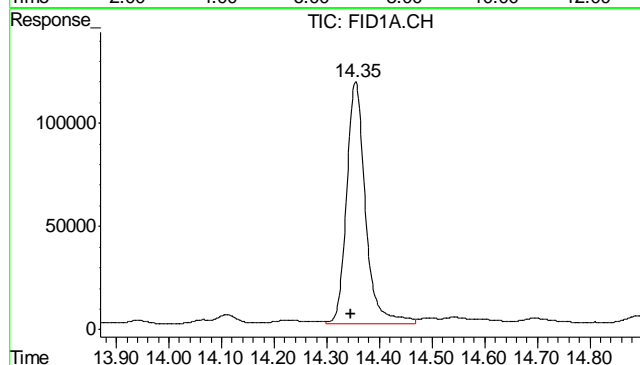
Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Mar 01 10:54:53 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

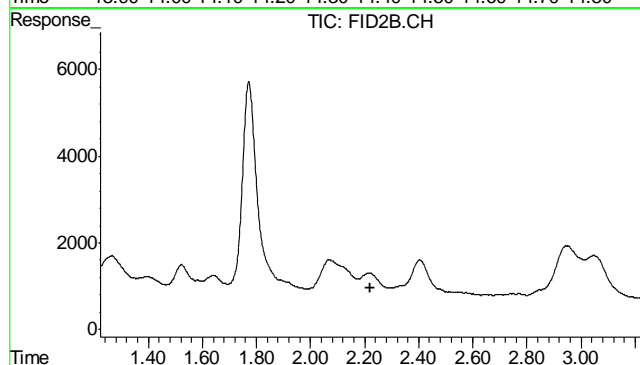




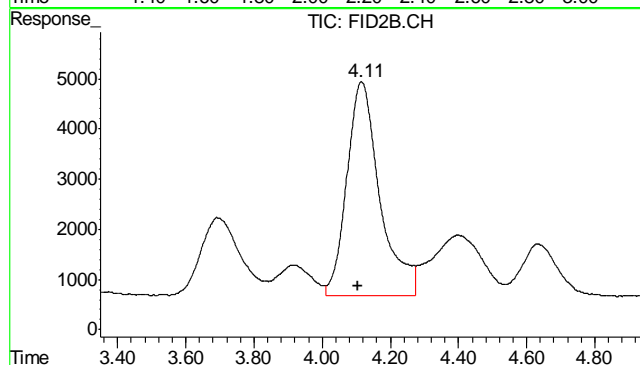
#1 TVH-Gasoline
 R.T.: 7.265 min
 Delta R.T.: 0.000 min
 Response: 11559600
 Conc: 0.16 mg/L m



#2 1,2,4-Trichlorobenzene
 R.T.: 14.354 min
 Delta R.T.: 0.008 min
 Response: 2922297
 Conc: 96.87 % m

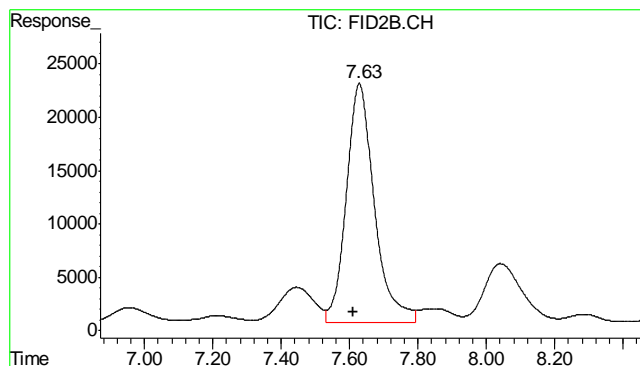


#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.223 min
 Response: 0
 Conc: N.D.



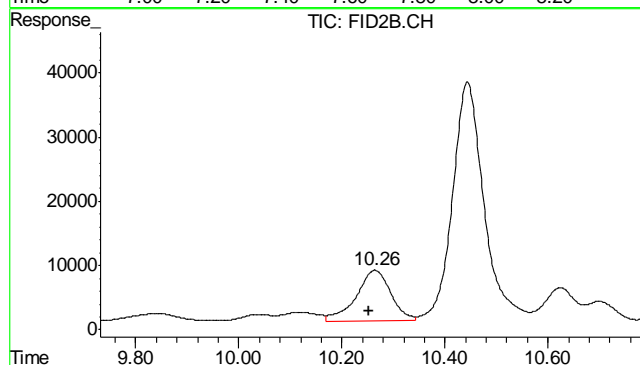
#5 Benzene
 R.T.: 4.115 min
 Delta R.T.: 0.011 min
 Response: 288394
 Conc: 0.52 ug/L

10.12 10



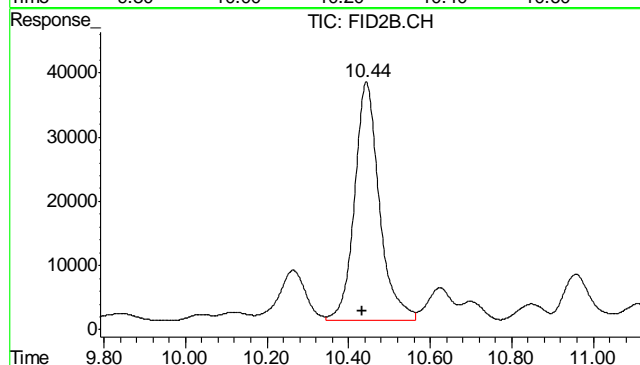
#6 Toluene

R.T.: 7.629 min
Delta R.T.: 0.017 min
Response: 1280362
Conc: 2.34 ug/L



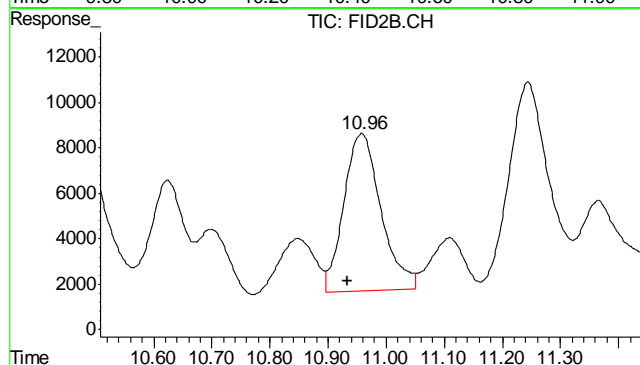
#7 Ethylbenzene

R.T.: 10.264 min
Delta R.T.: 0.012 min
Response: 368975
Conc: 0.81 ug/L



#8 m,p-Xylene

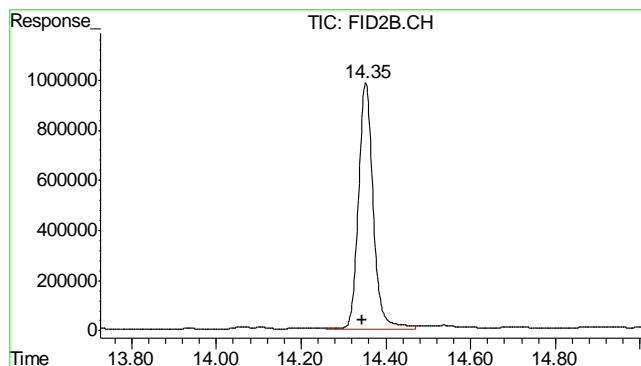
R.T.: 10.444 min
Delta R.T.: 0.010 min
Response: 1569960
Conc: 2.80 ug/L



#9 o-Xylene

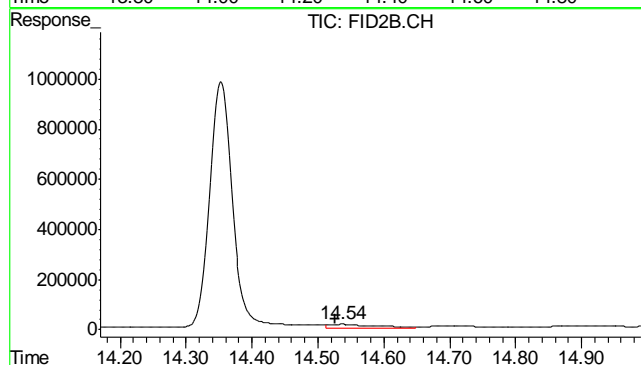
R.T.: 10.958 min
Delta R.T.: 0.024 min
Response: 308933
Conc: 0.67 ug/L

10.12 10



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

R.T.: 14.353 min
Delta R.T.: 0.009 min
Response: 24101976
Conc: 103.57 %



#11 Naphthalene

R.T.: 14.537 min
Delta R.T.: 0.011 min
Response: 938188
Conc: 3.59 ug/L

10.1.2
10

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15212.D\FID1A.CH Vial: 15
Signal #2 : Y:\1\DATA\030212\GB15212.D\FID2B.CH
Acq On : 2 Mar 2012 9:55 pm Operator: StephK
Sample : D32371-3, 50X Inst : GC/MS Ins
Misc : GC2653,GGB853,5.017,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 05 08:39:27 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 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	2744628	90.981 %	m	
10) S	1,2,4-Trichlorobenzene (P)	14.34	22350198	96.039 %		
Target Compounds						
1) H	TVH-Gasoline	7.26	10263204	0.142 mg/L		
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d	
5) T	Benzene	4.11	256677	0.464 ug/L		
6) T	Toluene	7.62	1052921	1.923 ug/L		
7) T	Ethylbenzene	10.26	287426	0.629 ug/L		
8) T	m,p-Xylene	10.43	1262714	2.255 ug/L		
9) T	o-Xylene	10.94	210959	0.460 ug/L		
11) T	Naphthalene	14.53	848231	3.246 ug/L		

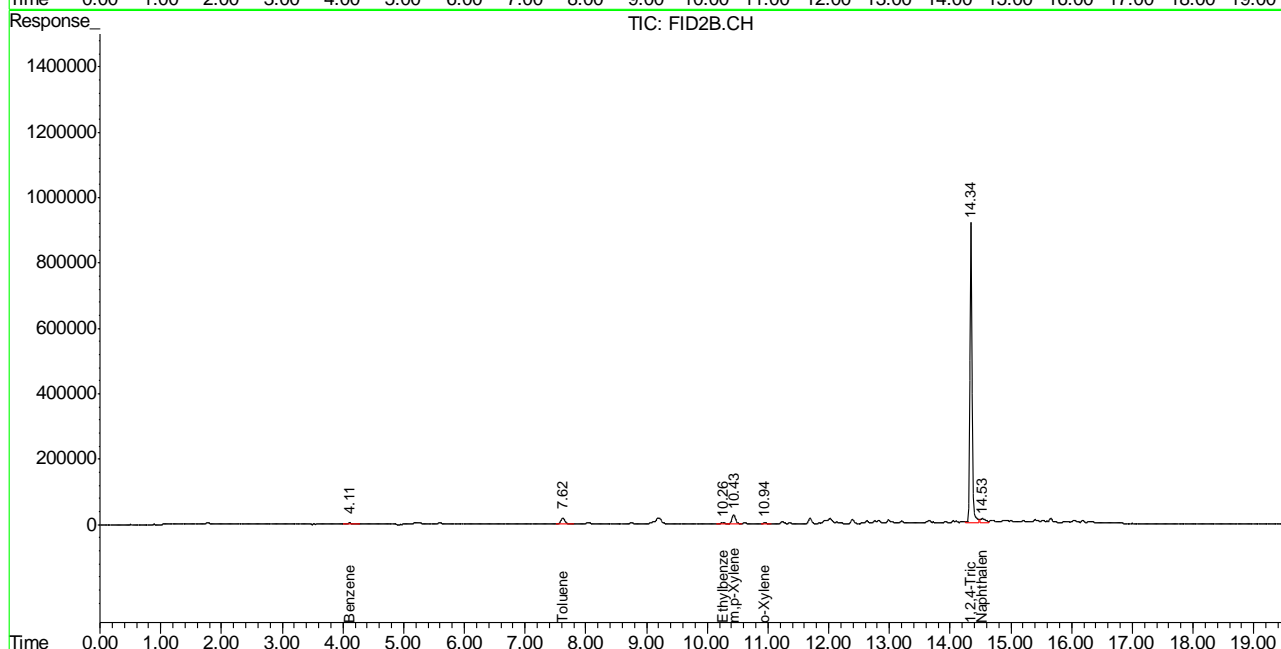
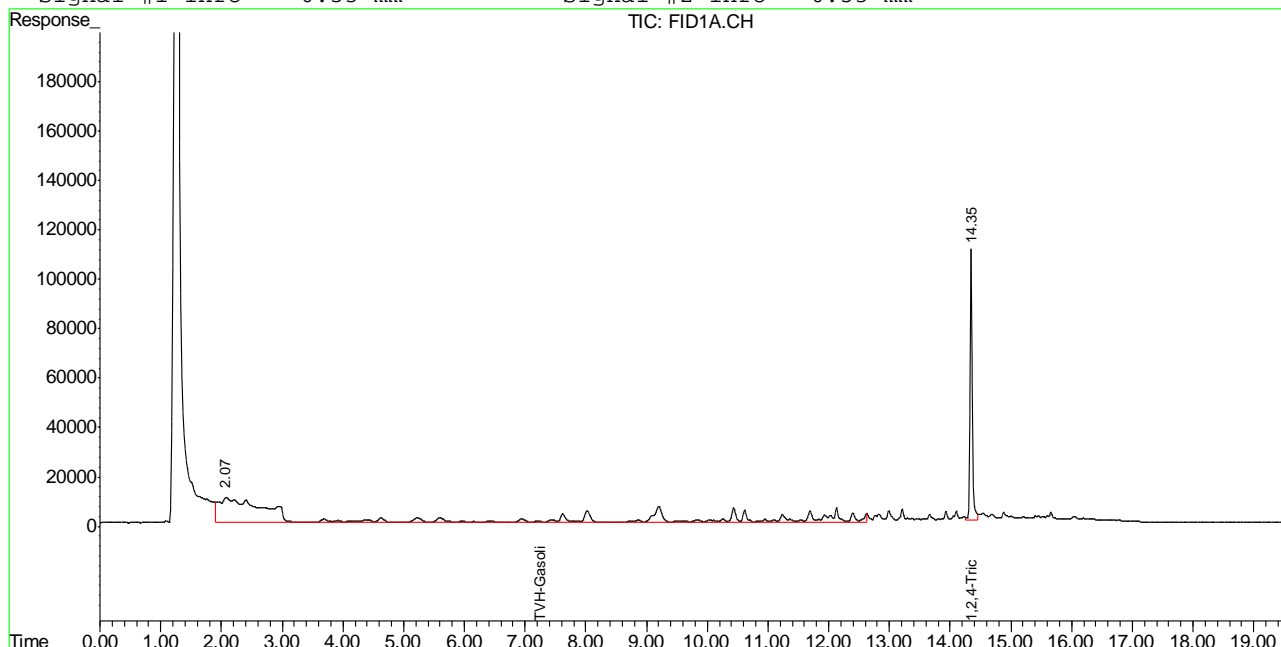
10.1.3
10

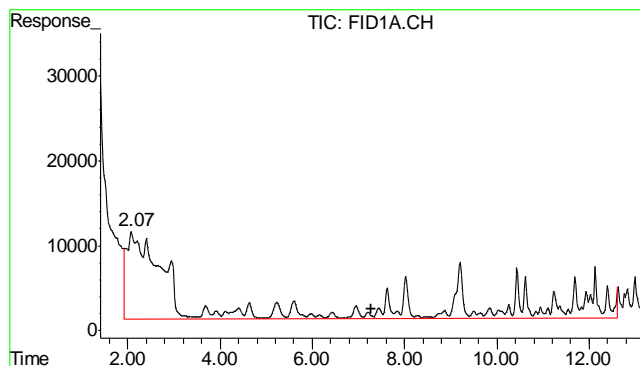
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15212.D\FID1A.CH Vial: 15
 Signal #2 : Y:\1\DATA\030212\GB15212.D\FID2B.CH
 Acq On : 2 Mar 2012 9:55 pm Operator: StephK
 Sample : D32371-3, 50X Inst : GC/MS Ins
 Misc : GC2653,GGB853,5.017,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Mar 5 7:47 2012 Quant Results File: TB851GB851SOIL.RES

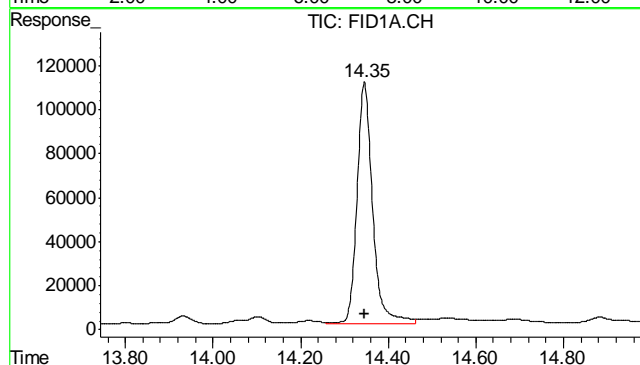
Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Mar 01 10:54:53 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

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

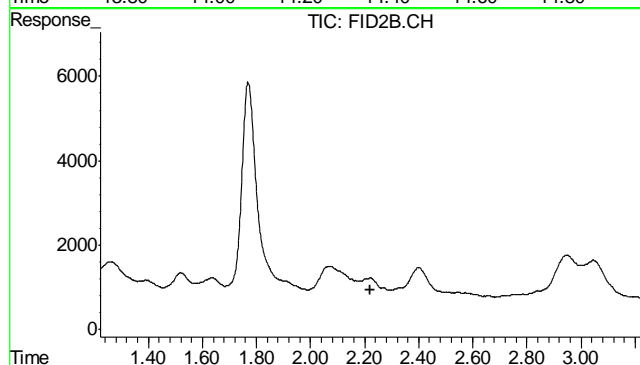




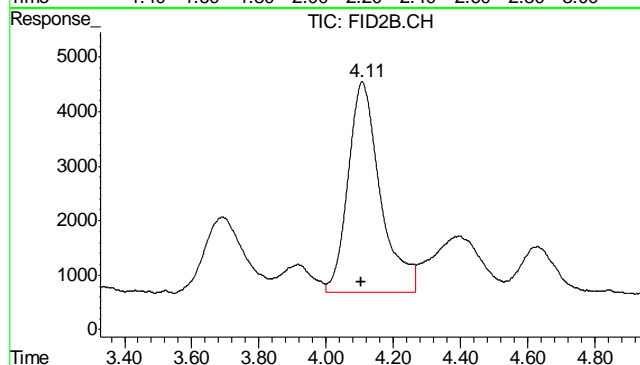
#1 TVH-Gasoline
 R.T.: 7.265 min
 Delta R.T.: 0.000 min
 Response: 10263204
 Conc: 0.14 mg/L m



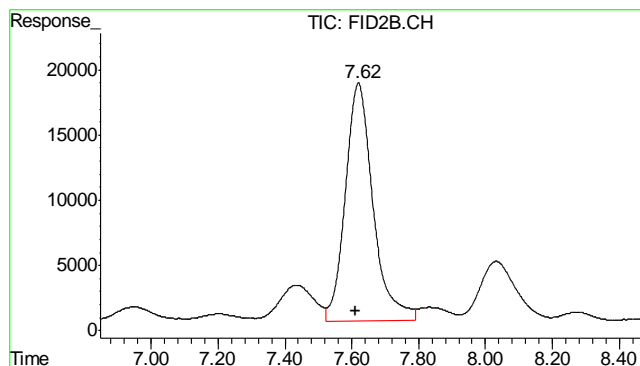
#2 1,2,4-Trichlorobenzene
 R.T.: 14.345 min
 Delta R.T.: 0.000 min
 Response: 2744628
 Conc: 90.98 % m



#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.223 min
 Response: 0
 Conc: N.D.

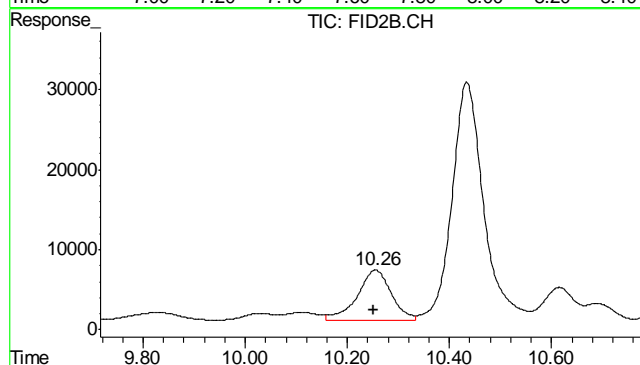


#5 Benzene
 R.T.: 4.108 min
 Delta R.T.: 0.003 min
 Response: 256677
 Conc: 0.46 ug/L



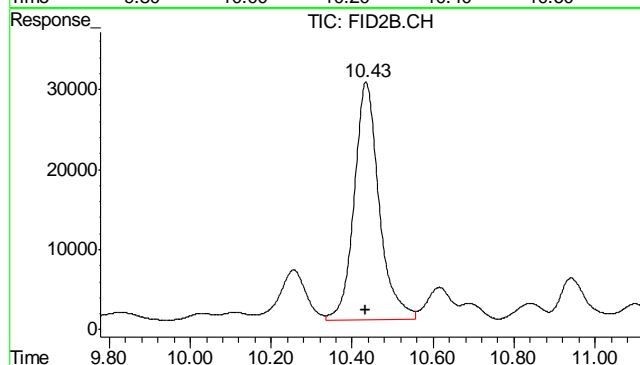
#6 Toluene

R.T.: 7.620 min
Delta R.T.: 0.008 min
Response: 1052921
Conc: 1.92 ug/L



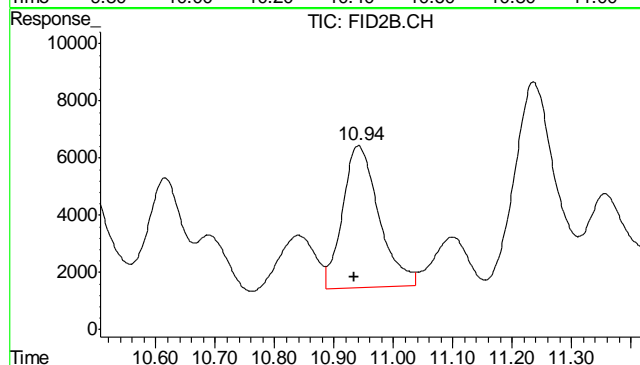
#7 Ethylbenzene

R.T.: 10.255 min
Delta R.T.: 0.003 min
Response: 287426
Conc: 0.63 ug/L



#8 m,p-Xylene

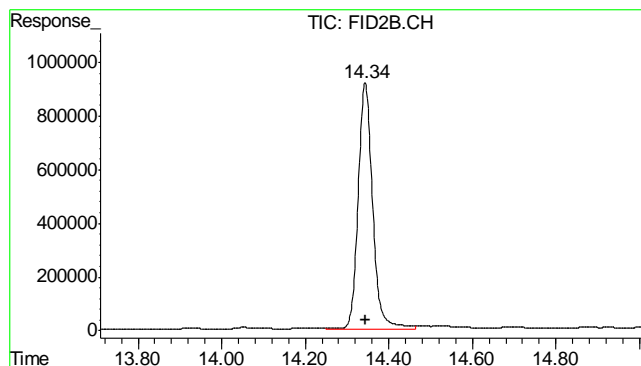
R.T.: 10.434 min
Delta R.T.: 0.000 min
Response: 1262714
Conc: 2.25 ug/L



#9 o-Xylene

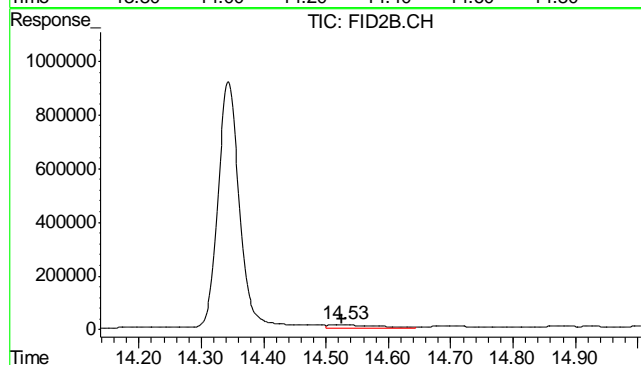
R.T.: 10.941 min
Delta R.T.: 0.007 min
Response: 210959
Conc: 0.46 ug/L

10.1.3
10



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

R.T.: 14.344 min
Delta R.T.: 0.000 min
Response: 22350198
Conc: 96.04 %



#11 Naphthalene

R.T.: 14.528 min
Delta R.T.: 0.002 min
Response: 848231
Conc: 3.25 ug/L

10.1.3
10

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15200.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\030212\GB15200.D\FID2B.CH
Acq On : 2 Mar 2012 2:46 pm Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2653,GGB853,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 02 16:48:28 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 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	14.37	2839582	94.128	%
10) S	1,2,4-Trichlorobenzene (P)	14.36	23426587	100.664	%
Target Compounds					
1) H	TVH-Gasoline	7.26	5976696	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	4.13	126175	0.228	ug/L
6) T	Toluene	7.65	187915	0.343	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.46	177569	0.317	ug/L
9) T	o-Xylene	0.00	0	N.D.	ug/L d
11) T	Naphthalene	14.55	335898	1.286	ug/L

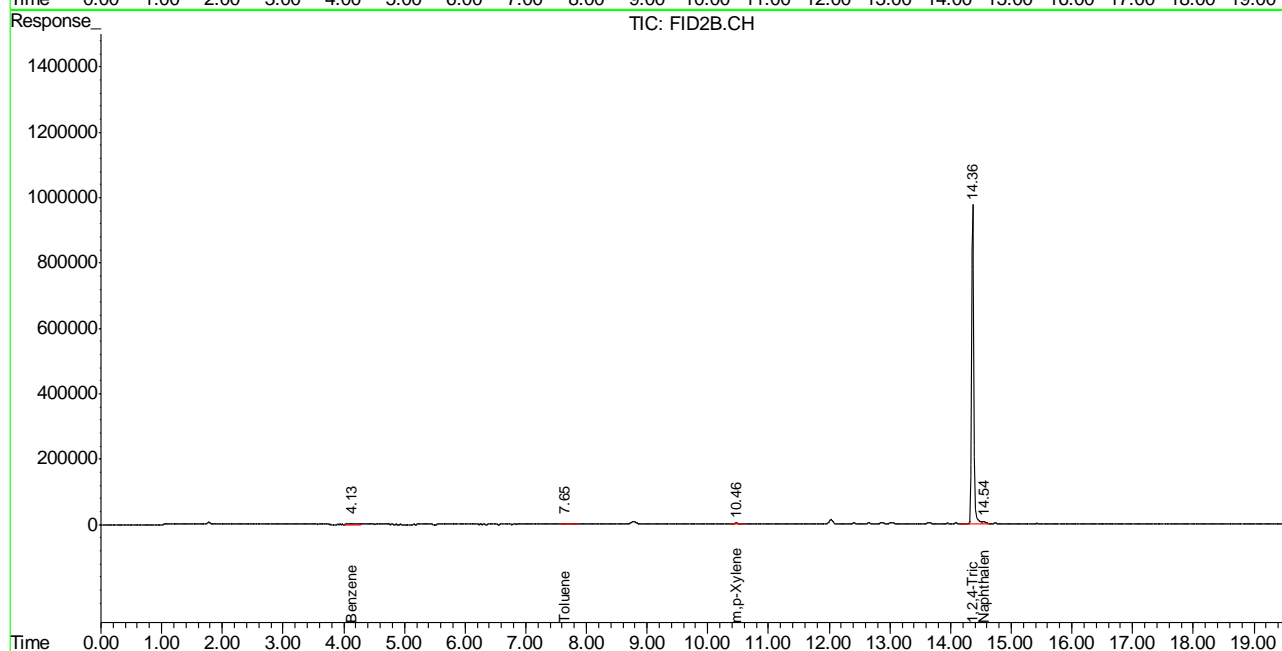
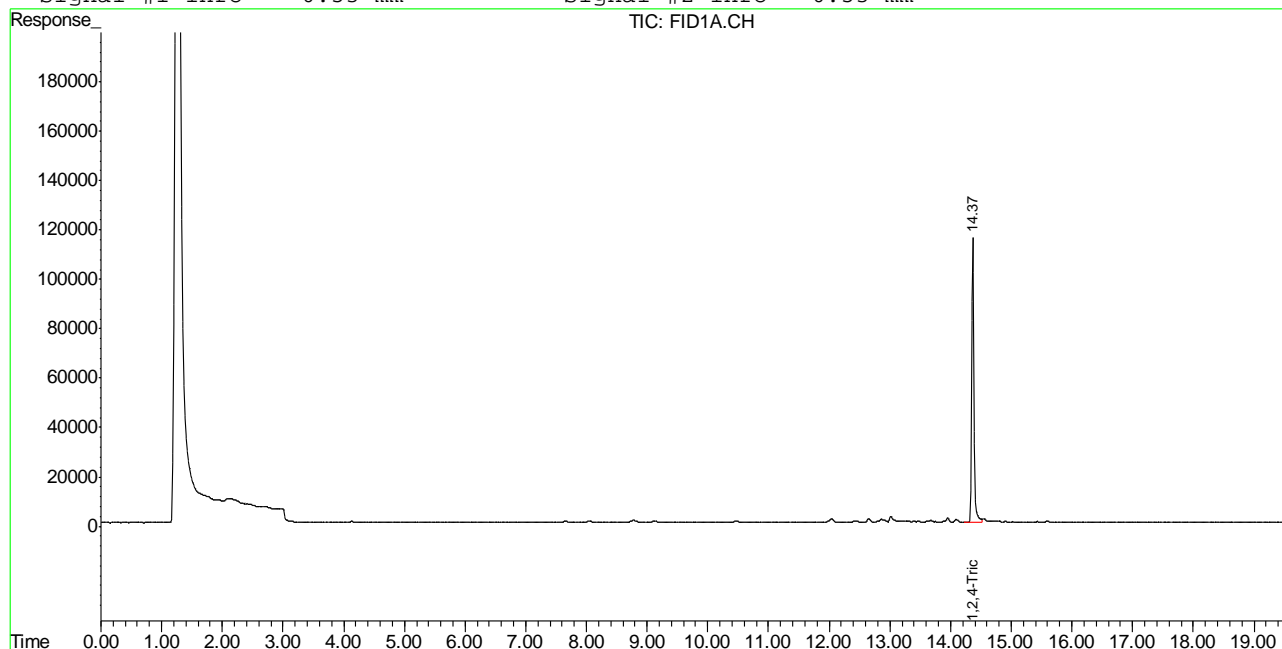
(f)=RT Delta > 1/2 Window (m)=manual int.
GB15200.D TB851GB851SOIL.M Mon Mar 05 08:46:53 2012 GC

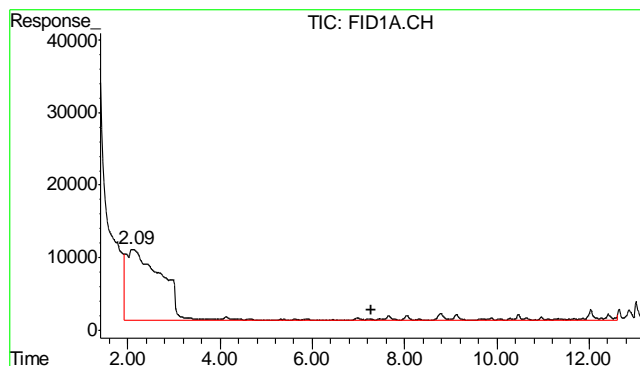
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030212\GB15200.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\030212\GB15200.D\FID2B.CH
Acq On : 2 Mar 2012 2:46 pm Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2653,GGB853,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 2 15:51 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

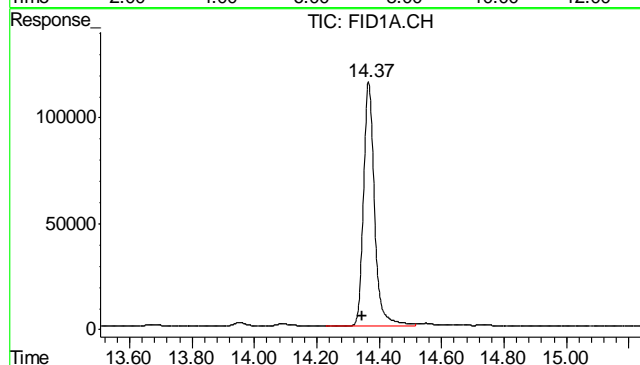
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





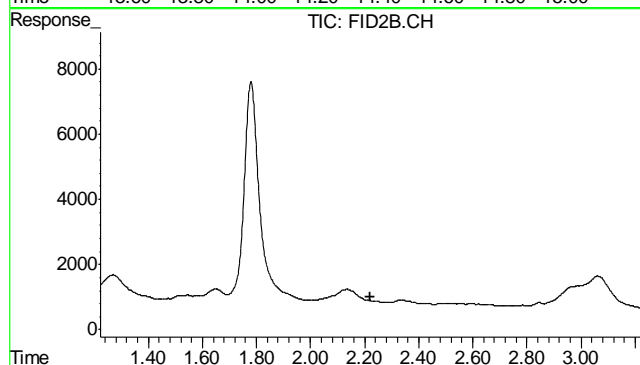
#1 TVH-Gasoline

R.T.: 7.265 min
Delta R.T.: 0.000 min
Response: 5976696
Conc: N.D.



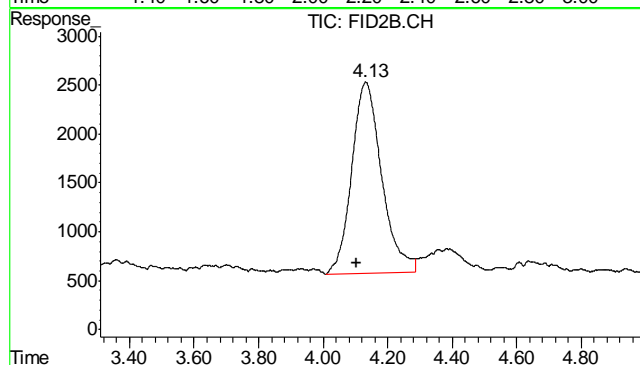
#2 1,2,4-Trichlorobenzene

R.T.: 14.366 min
Delta R.T.: 0.020 min
Response: 2839582
Conc: 94.13 %



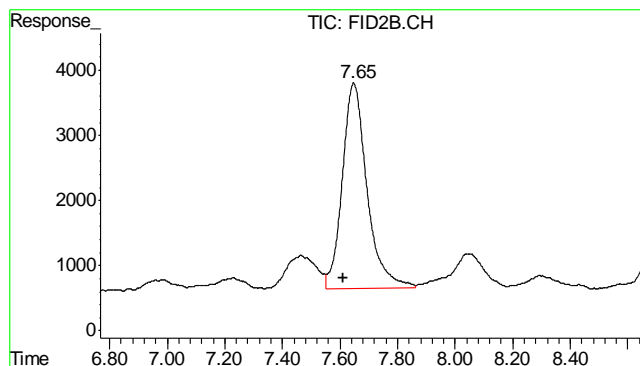
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.223 min
Response: 0
Conc: N.D.



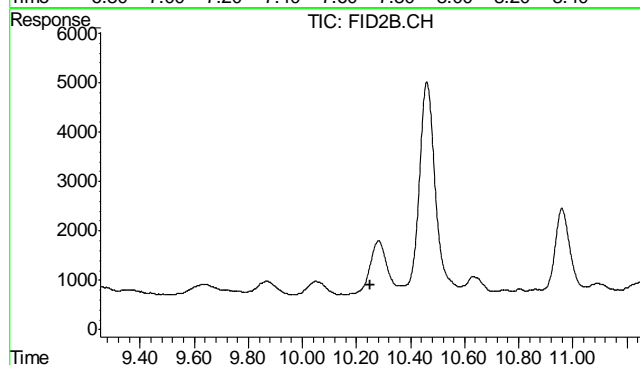
#5 Benzene

R.T.: 4.133 min
Delta R.T.: 0.029 min
Response: 126175
Conc: 0.23 ug/L



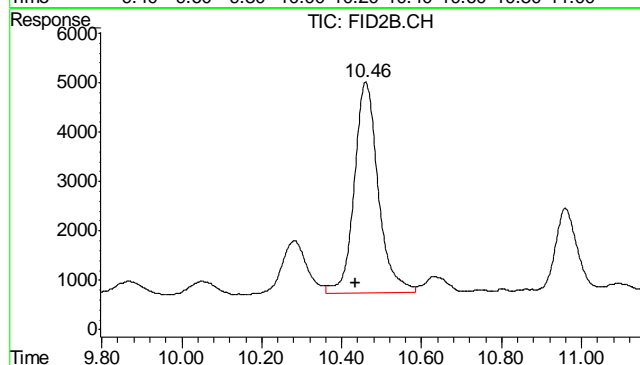
#6 Toluene

R.T.: 7.648 min
Delta R.T.: 0.036 min
Response: 187915
Conc: 0.34 ug/L



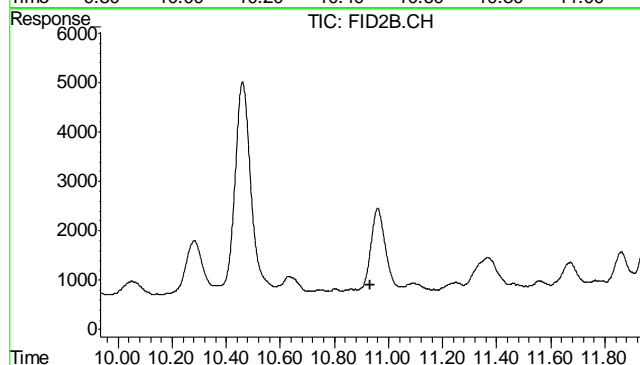
#7 Ethylbenzene

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



#8 m,p-Xylene

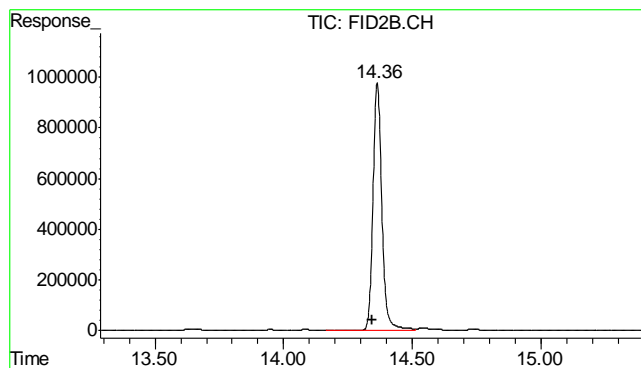
R.T.: 10.460 min
Delta R.T.: 0.026 min
Response: 177569
Conc: 0.32 ug/L



#9 o-Xylene

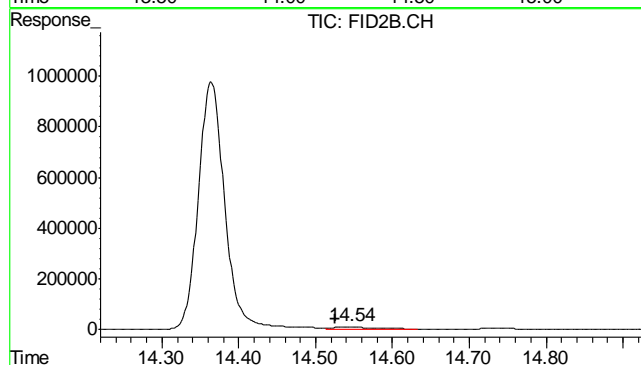
R.T.: 0.000 min
Exp R.T.: 10.934 min
Response: 0
Conc: N.D.

10.2.1 10



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

R.T.: 14.364 min
Delta R.T.: 0.020 min
Response: 23426587
Conc: 100.66 %



#11 Naphthalene

R.T.: 14.545 min
Delta R.T.: 0.020 min
Response: 335898
Conc: 1.29 ug/L

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: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5468-MB	FH001892.D	1	03/03/12	TR	03/02/12	OP5468	GFH97

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

D32371-1, D32371-2, D32371-3

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	83% 43-136%

11.1.1
11

Blank Spike Summary

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5468-BS	FH001894.D	1	03/03/12	TR	03/02/12	OP5468	GFH97

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

D32371-1, D32371-2, D32371-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	533	80	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	85%	43-136%

11.2.1
11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32371
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5468-MS	FH001934.D	10	03/04/12	TR	03/02/12	OP5468	GFH99
OP5468-MSD	FH001936.D	10	03/04/12	TR	03/02/12	OP5468	GFH99
D32353-1	FH001938.D	10	03/04/12	TR	03/02/12	OP5468	GFH99

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

D32371-1, D32371-2, D32371-3

CAS No.	Compound	D32353-1 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	10200	851	10900	82	10800	71	1	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D32353-1	Limits
84-15-1	o-Terphenyl	76%	83%	89%	43-136%

11.3.1
11

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
 Data File : FH001912.D
 Signal(s) : FID2B.ch
 Acq On : 4 Mar 2012 12:07 am
 Operator : tedr
 Sample : D32371-1
 Misc : OP5468,GFH97,30.00,,,2,1
 ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Mar 04 19:50:13 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Sun Mar 04 19:15:40 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.351	1034746679	604.281 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	2223043705	1440.509 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

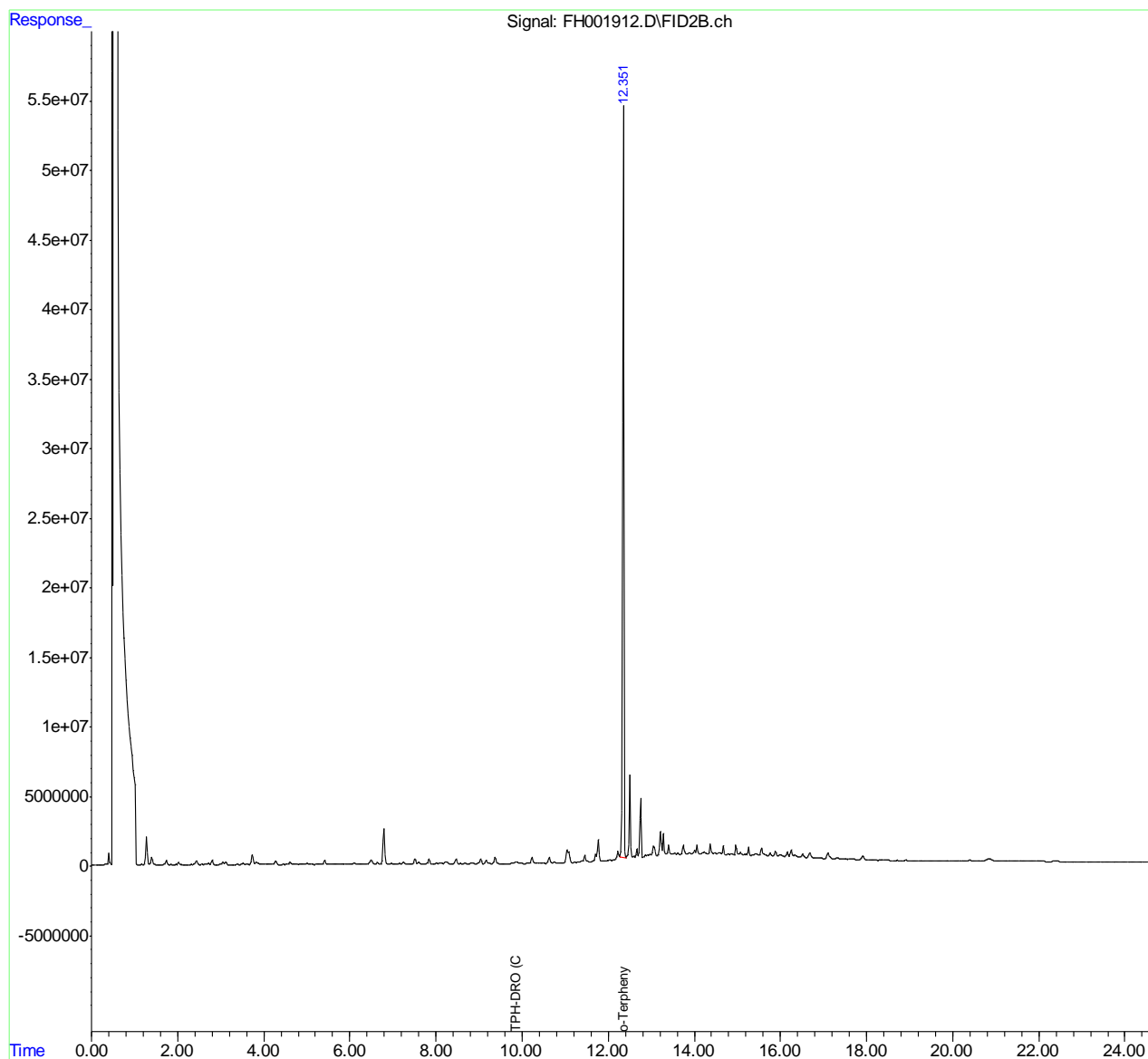
12.1.1
12

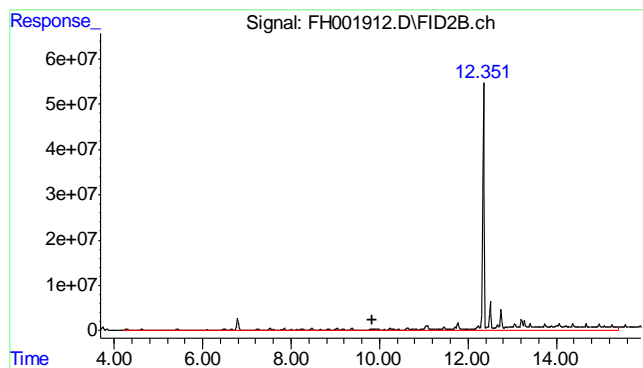
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
Data File : FH001912.D
Signal(s) : FID2B.ch
Acq On : 4 Mar 2012 12:07 am
Operator : tedr
Sample : D32371-1
Misc : OP5468,GFH97,30.00,,,2,1
ALS Vial : 24 Sample Multiplier: 1

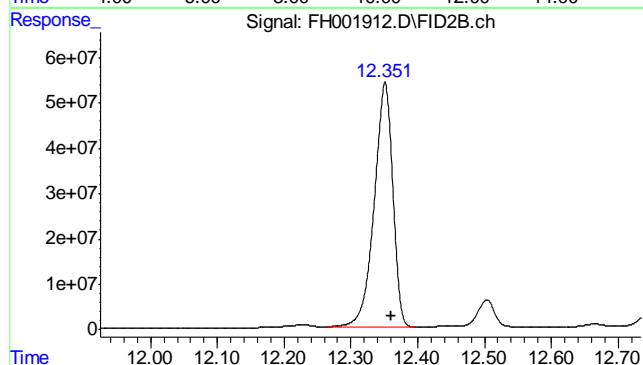
Integration File: events.e
Quant Time: Mar 04 19:50:13 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)
 R.T.: 9.832 min
 Delta R.T.: 0.000 min
 Response: 2223043705
 Conc: 1440.51 ug/ml m



#2 o-Terphenyl
 R.T.: 12.351 min
 Delta R.T.: -0.009 min
 Response: 1034746679
 Conc: 604.28 ug/ml

12.1.1
 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
 Data File : FH001914.D
 Signal(s) : FID2B.ch
 Acq On : 4 Mar 2012 12:43 am
 Operator : tedr
 Sample : D32371-2
 Misc : OP5468,GFH97,30.08,,,2,1
 ALS Vial : 25 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Mar 04 19:50:56 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Sun Mar 04 19:15:40 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.351	1257172917	734.175 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	2918824586	1891.368 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

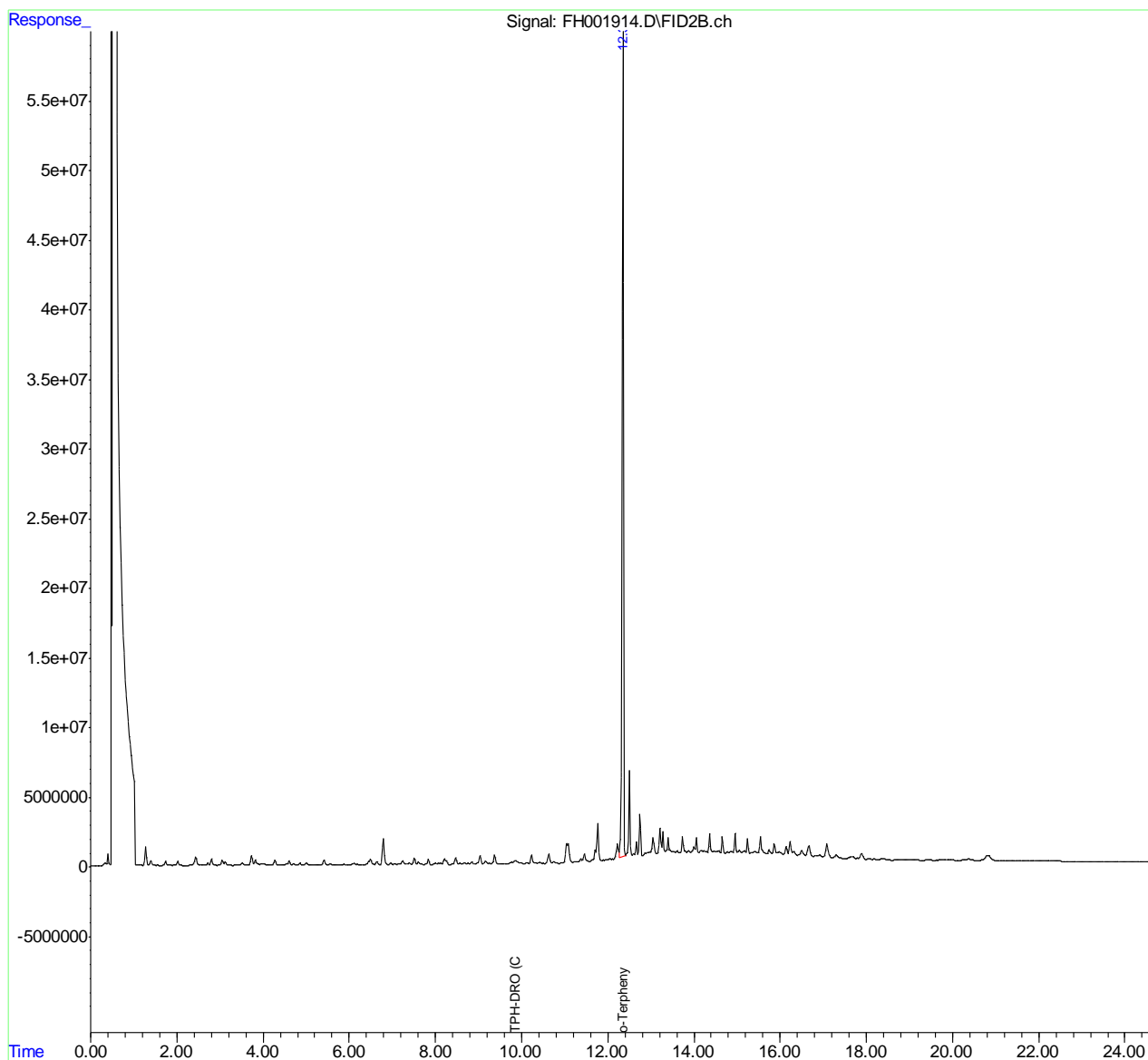
12.1.2
12

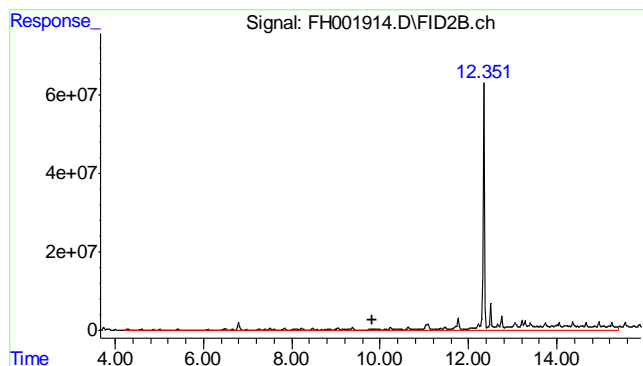
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
Data File : FH001914.D
Signal(s) : FID2B.ch
Acq On : 4 Mar 2012 12:43 am
Operator : tedr
Sample : D32371-2
Misc : OP5468,GFH97,30.08,,,2,1
ALS Vial : 25 Sample Multiplier: 1

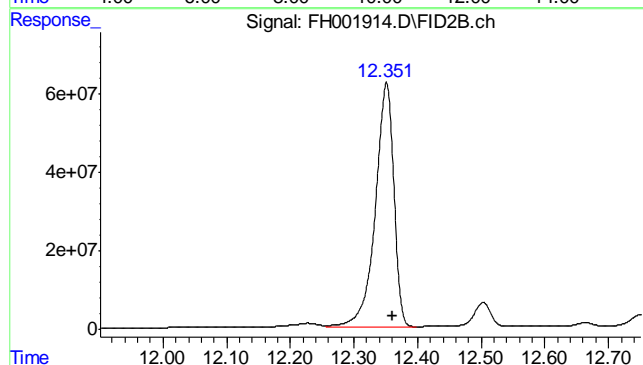
Integration File: events.e
Quant Time: Mar 04 19:50:56 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)
 R.T.: 9.832 min
 Delta R.T.: 0.000 min
 Response: 2918824586
 Conc: 1891.37 ug/ml m



#2 o-Terphenyl
 R.T.: 12.351 min
 Delta R.T.: -0.009 min
 Response: 1257172917
 Conc: 734.18 ug/ml

12.1.2
 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
 Data File : FH001916.D
 Signal(s) : FID2B.ch
 Acq On : 4 Mar 2012 1:18 am
 Operator : tedr
 Sample : D32371-3
 Misc : OP5468,GFH97,30.00,,,2,1
 ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Mar 04 19:51:16 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Sun Mar 04 19:15:40 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.351	1269284444	741.248 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	3177049043	2058.695 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

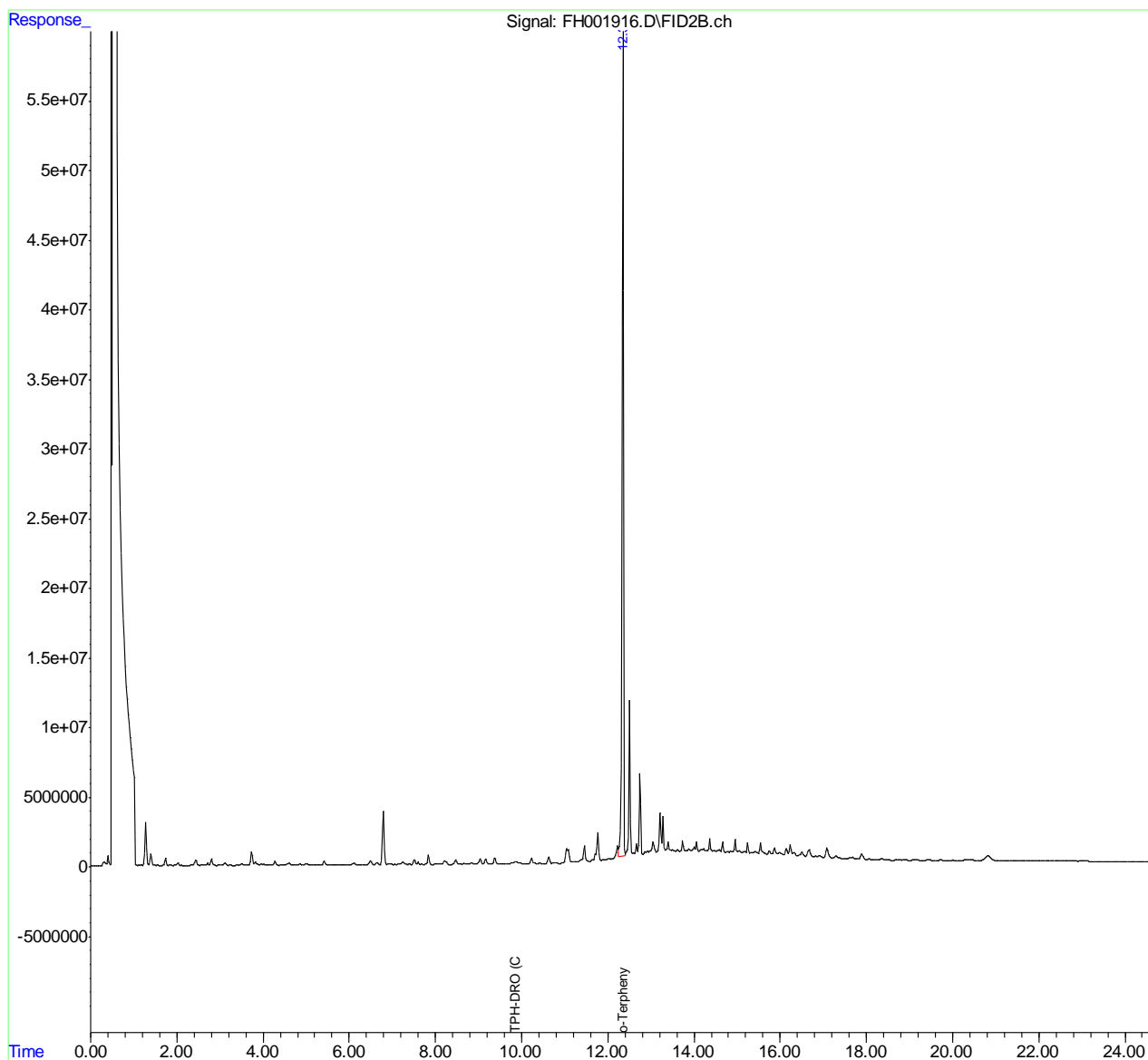
12.1.3
12

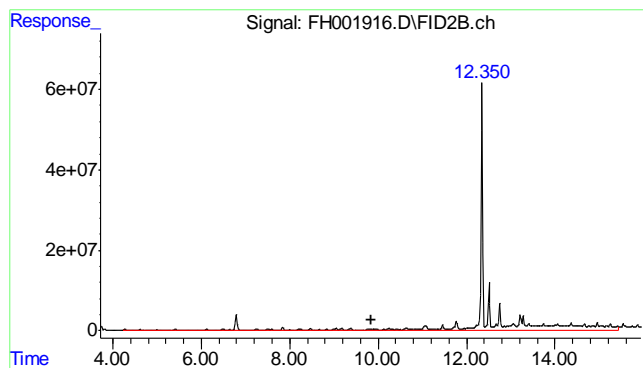
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
Data File : FH001916.D
Signal(s) : FID2B.ch
Acq On : 4 Mar 2012 1:18 am
Operator : tedr
Sample : D32371-3
Misc : OP5468,GFH97,30.00,,,2,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 04 19:51:16 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





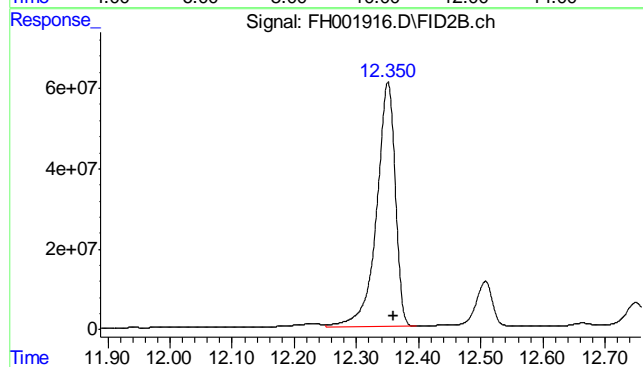
#1 TPH-DRO (C10-C28)

R.T.: 9.832 min

Delta R.T.: 0.000 min

Response: 3177049043

Conc: 2058.69 ug/ml m



#2 o-Terphenyl

R.T.: 12.351 min

Delta R.T.: -0.009 min

Response: 1269284444

Conc: 741.25 ug/ml

12.1.3
12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
Data File : FH001892.D
Signal(s) : FID2B.ch
Acq On : 3 Mar 2012 6:11 pm
Operator : tedr
Sample : OP5468-MB
Misc : OP5468,GFH97,30.00,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 04 19:44:16 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.356	1413602025	825.528 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	49383545	32.000 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

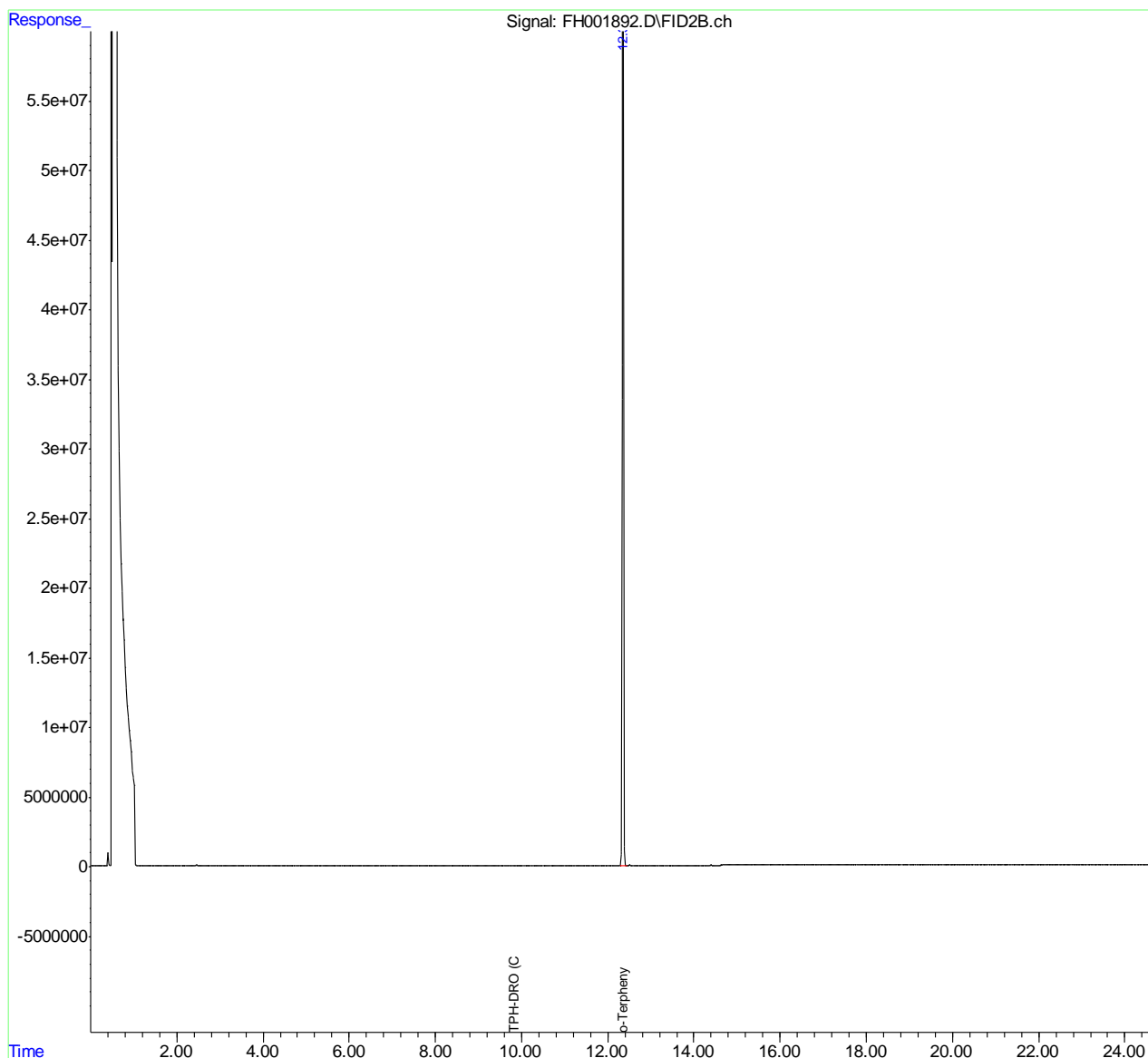
12.2.1
12

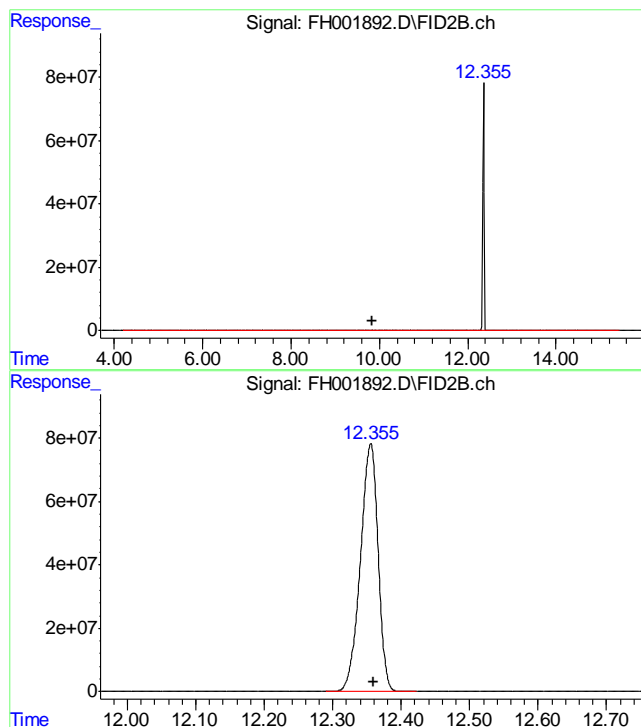
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030312.SEC\
Data File : FH001892.D
Signal(s) : FID2B.ch
Acq On : 3 Mar 2012 6:11 pm
Operator : tedr
Sample : OP5468-MB
Misc : OP5468,GFH97,30.00,,,2,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 04 19:44:16 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.832 min
Delta R.T.: 0.000 min
Response: 49383545
Conc: 32.00 ug/ml m

#2 o-Terphenyl

R.T.: 12.356 min
Delta R.T.: -0.004 min
Response: 1413602025
Conc: 825.53 ug/ml

12.2.1
12