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Lab Number: L2020213

Client: Anchor QEA, LLC

ATTN: Delaney Peterson

Project Name: GASCO PDI

Project Number: 000029-02.59

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Continuing Calibration	1265
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PDI-056SC-B-05-07-200510 (L2020213-02D) Analyzed: 06/06/20 01:36	1313
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Laboratory Method BI (WG1372713-1) Analyzed: 05/25/20 21:10	1423
LCS Raw Data	1445
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LCS Duplicate Raw Data	1465
LCS Duplicate (WG1372713-3) Analyzed: 05/26/20 00:06	1466
MS/MSD Raw Data	1485
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Sample Delivery Group Information



Sample Delivery Group Summary

Alpha Job Number : L2020213

Received : 15-MAY-2020
Reviewer : Bethany Bedard

Account Name : Anchor QEA, LLC

Project Number : 000029-02.59

Project Name : GASCO PDI

Delivery Information

Samples Delivered By : Express Ship
FedEx (770468767539)

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.1	

Condition Information

- | | |
|--|------------|
| 1) All samples on COC received? | YES |
| 2) Extra samples received? | NO |
| 3) Are there any sample container discrepancies? | NO |
| 4) Are there any discrepancies between sample labels & COC? | NO |
| 5) Are samples in appropriate containers for requested analysis? | YES |
| 6) Are samples properly preserved for requested analysis? | YES |
| 7) Are samples within holding time for requested analysis? | YES |
| 8) All sampling equipment returned? | NA |

Volatile Organics/VPH

- | | |
|--|-----------|
| 1) Reagent Water Vials Frozen by Client? | NA |
|--|-----------|

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jun 09 2020, 10:18 am

Login Number: L2020213

Account: ANCHOR Anchor QEA, LLCProject: 000029-02.59

Received: 15MAY20 Due Date: 08JUN20

Sample #	Client ID	Mat PR Collected
L2020213-01	PDI-051SC-B-06-08-200506	3 S0 06MAY20 08:45
SHC: Report All individual SHCs, TPH C9-C44, TPH C9-C40, DRO C10-C28 and Total SHCs Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed ALKPAH: Report List made DPKG-FULL Package Due Date: 06/08/20		
A2-ALKPAH,A2-SHC,A2-TS,COD-5220,DPKG-FULL		
L2020213-02	PDI-056SC-B-05-07-200510	3 S0 10MAY20 08:30
SHC: Report All individual SHCs, TPH C9-C44, TPH C9-C40, DRO C10-C28 and Total SHCs Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed ALKPAH: Report List made Package Due Date: 06/08/20		
A2-ALKPAH,A2-SHC,A2-TS,COD-5220		
L2020213-03	PDI-063SC-B-05-07-200429	3 S0 29APR20 08:50
L2020213-03 DUP SHC: Report All individual SHCs, TPH C9-C44, TPH C9-C40, DRO C10-C28 and Total SHCs ALKPAH: Report List made L2020213-03 MS L2020213-03 MSD Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Package Due Date: 06/08/20		
A2-ALKPAH,A2-SHC,A2-TS,COD-5220		
L2020213-04	PDI-1056SC-B-05-07-200510	3 S0 10MAY20 08:30
SHC: Report All individual SHCs, TPH C9-C44, TPH C9-C40, DRO C10-C28 and Total SHCs Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed ALKPAH: Report List made Package Due Date: 06/08/20		
A2-ALKPAH,A2-SHC,A2-TS,COD-5220		

Container Tracking

**ALPHA ANALYTICAL LABORATORIES
Container Tracking Report**

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2020213-01A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Lauren Batalon	A2-CUSTODY-FRZ1-V2	A2-CUSTODY-FRZ1-V2	Lauren Batalon
L2020213-01A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Lauren Batalon	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Lauren Batalon
L2020213-01A	Glass-A.25	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L2020213-01A	Glass-A.25	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-01X	SGlass-A.120	INTACT	20-MAY-20		RETURN WALK-IN	CUSTODY Phillip Renaud	W4-S3-C CUSTODY	W4-S3-C CUSTODY	Phillip Renaud
L2020213-01X	SGlass-A.120	INTACT	19-MAY-20	CUSTODY	W5-S3-A CUSTODY	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L2020213-01X	SGlass-A.120	INTACT	16-MAY-20		CUSTODY	Brittney Kelley	W5-S3-A CUSTODY	W5-S3-A CUSTODY	Brittney Kelley
L2020213-01X	SGlass-A.120	INTACT	16-MAY-20	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Hector Natal
L2020213-01X	SGlass-A.120	INTACT	16-MAY-20	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Hector Natal
L2020213-01X	SGlass-A.120	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard
L2020213-01X	SGlass-A.120	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-02A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Lauren Batalon	A2-CUSTODY-FRZ1-V2	A2-CUSTODY-FRZ1-V2	Lauren Batalon
L2020213-02A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Lauren Batalon	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Lauren Batalon
L2020213-02A	Glass-A.25	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L2020213-02A	Glass-A.25	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-02X	SGlass-A.120	INTACT	20-MAY-20		RETURN WALK-IN	CUSTODY Phillip Renaud	W4-S3-C CUSTODY	W4-S3-C CUSTODY	Phillip Renaud
L2020213-02X	SGlass-A.120	INTACT	19-MAY-20	CUSTODY	W5-S3-A CUSTODY	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L2020213-02X	SGlass-A.120	INTACT	16-MAY-20		CUSTODY	Brittney Kelley	W5-S3-A CUSTODY	W5-S3-A CUSTODY	Brittney Kelley
L2020213-02X	SGlass-A.120	INTACT	16-MAY-20	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Hector Natal
L2020213-02X	SGlass-A.120	INTACT	16-MAY-20	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Hector Natal
L2020213-02X	SGlass-A.120	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard
L2020213-02X	SGlass-A.120	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-03A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Lauren Batalon	A2-CUSTODY-FRZ1-V2	A2-CUSTODY-FRZ1-V2	Lauren Batalon
L2020213-03A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Lauren Batalon	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Lauren Batalon
L2020213-03A	Glass-A.25	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2020213-03A	Glass-A.25	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-03B	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Lauren Batalon	A2-CUSTODY-FRZ1-V2	A2-CUSTODY-FRZ1-V2	Lauren Batalon
L2020213-03B	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Lauren Batalon	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Lauren Batalon
L2020213-03B	Glass-A.25	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L2020213-03B	Glass-A.25	INTACT	15-MAY-20	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L2020213-03X	SGlass-A.120	INTACT	20-MAY-20		RETURN WALK-IN	CUSTODY Phillip Renaud	W4-S3-C CUSTODY	W4-S3-C CUSTODY	Phillip Renaud
L2020213-03X	SGlass-A.120	INTACT	19-MAY-20	CUSTODY	W5-S3-A CUSTODY	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L2020213-03X	SGlass-A.120	INTACT	16-MAY-20		CUSTODY	Brittney Kelley	W5-S3-A CUSTODY	W5-S3-A CUSTODY	Brittney Kelley
L2020213-03X	SGlass-A.120	INTACT	16-MAY-20	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Hector Natal
L2020213-03X	SGlass-A.120	INTACT	16-MAY-20	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	He
L2020213-03X	SGlass-A.120	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bed
L2020213-03X	SGlass-A.120	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-04A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Lauren Batalon	A2-CUSTODY-FRZ1-V2	A2-CUSTODY-FRZ1-V2	Lauren Batalon
L2020213-04A	Glass-A.25	INTACT	20-MAY-20	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Lauren Batalon	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Lauren Batalon
L2020213-04A	Glass-A.25	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L2020213-04A	Glass-A.25	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta
L2020213-04X	SGlass-A.120	INTACT	20-MAY-20		RETURN WALK-IN	CUSTODY Phillip Renaud	W4-S3-C CUSTODY	W4-S3-C CUSTODY	Phillip Renaud
L2020213-04X	SGlass-A.120	INTACT	19-MAY-20	CUSTODY	W5-S3-A CUSTODY	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L2020213-04X	SGlass-A.120	INTACT	16-MAY-20		CUSTODY	Brittney Kelley	W5-S3-A CUSTODY	W5-S3-A CUSTODY	Brittney Kelley
L2020213-04X	SGlass-A.120	INTACT	16-MAY-20	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Hector Natal
L2020213-04X	SGlass-A.120	INTACT	16-MAY-20	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	He
L2020213-04X	SGlass-A.120	INTACT	15-MAY-20	A2-CUSTODY-REFRIDGE	CUSTODY	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bed
L2020213-04X	SGlass-A.120	INTACT	15-MAY-20	LOGIN	LOGIN	Elizabeth Porta	CUSTODY	CUSTODY	Elizabeth Porta

Chain of Custody



MANSFIELD CHAIN OF CUSTODY

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Date Rec'd in Lab: 5/15/20

ALPHA Job #: 2020213

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: Gasco PDI

Client Information

Client: Anchor QEA
 Address: 6720 S. Macadam Ave., suite 125
 Portland, OR 97219
 Phone: 360-715-2707

Project Location:

Project #: 000029-02.5

Project Manager: Delaney Peterson

ALPHA Quote #:

Turn-Around Time

Fax: Standard Rush (ONLY IF PRE-APPROVED)

Email: dpeterson@anchorqea.com

These samples have been Previously analyzed by Alpha

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

MS/MSD (at unit cost) will be omitted unless you check here

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

ANALYSIS

PAHs	TPH(DRO Range + sat hydrocarbons)	COD													
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
202B-01	PDI-051SC-B-06-08-200506	5/6/20	0845	sediment	SN
-02	PDI-056SC-B-05-07-200510	5/10/20	0830	sediment	SN
-03	PDI-063SC-B-05-07-200429	4/29/20	0850	sediment	SN
-04	PDI-1056SC-B-05-07-200510	5/10/20	0830	sediment	SN

Container Type	Glass	-	-	-	-	-	-	-	-
Preservative	None	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
Sasha Narwood Fedex	5/14/20 1330	Fedex Kurt... MA	5/15/20 10:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Organics

**GC/MS Extractable Analysis
Method 8270
Selective Ion Monitoring**

Initial Calibration

Response Factor Report PAH 9

Method Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Method File : PAH9041920.M
 Title : Decalins & Alkylated PAH's
 Last Update : Tue Apr 21 10:13:56 2020
 Response Via : Initial Calibration

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
-----ISTD-----									
1) i Acenaphthene-d10									
2) A1 trans-Decalin	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
3) t cis-Decalin	0.324	0.318	0.310	0.299	0.301	0.303	0.304	0.309	3.02
4) A2 C1-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
5) A2 C2-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
6) A2 C3-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
7) A2 C4-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
8) s Naphthalene-d8	1.849	1.815	1.814	1.824	1.871	1.823	1.796	1.827	1.36
9) A1 Naphthalene	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
10) A2 C1-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
11) A2 C2-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
12) A2 C3-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
13) A2 C4-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
14) t 2-Methylnaphth...	1.410	1.358	1.371	1.382	1.469	1.445	1.437	1.410	2.97
15) t 1-Methylnaphth...	1.327	1.307	1.321	1.326	1.391	1.360	1.351	1.340	2.13
16) A1 Benzothiophene	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
17) A2 C1-Benzo(b)thi...	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
18) A2 C2-Benzo(b)thi...	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
19) A2 C3-Benzo(b)thi...	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
20) A2 C4-Benzo(b)thi...	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
21) t Biphenyl	1.707	1.699	1.702	1.708	1.782	1.751	1.747	1.728	1.86
22) t 2,6-Dimethylna...	1.202	1.168	1.188	1.216	1.306	1.289	1.294	1.238	4.62
23) t Dibenzofuran	1.942	1.956	1.975	1.977	2.073	2.053	2.074	2.007	2.86
24) t Acenaphthylene	1.893	1.980	2.004	2.070	2.270	2.230	2.298	2.106	7.56
25) t Acenaphthene	1.250	1.257	1.266	1.291	1.369	1.346	1.358	1.305	3.92
26) t 2,3,5-Trimethy...	1.050	1.087	1.094	1.116	1.231	1.230	1.253	1.152	7.25
27) A1 Fluorene	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
28) A2 C1-Fluorenes	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
29) A2 C2-Fluorenes	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
30) A2 C3-Fluorenes	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
31) A1 Dibenzothiophene	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14

Response Factor Report PAH 9

Method Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Method File : PAH9041920.M
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 Last Update : Tue Apr 21 10:13:56 2020
 Response Via : Initial Calibration

Calibration Files

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 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
32) A2 4-Methyldibenz...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
33) A2 2/3-Methyldibe...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
34) A2 1-Methyldibenz...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
35) A2 OTP	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
36) A2 C1-Dibenzothio...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
37) A2 C2-Dibenzothio...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
38) A2 C3-Dibenzothio...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
39) A2 C4-Dibenzothio...	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
40) s Phenanthrene-d10	1.588	1.604	1.624	1.668	1.824	1.818	1.852	1.711	6.75
41) A1 Phenanthrene	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
42) A2 3-Methylphenan...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
43) A2 2-Methylphenan...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
44) A2 2-Methylanthra...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
45) A2 9/4-Methylphen...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
46) A2 1-Methylphenan...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
47) A2 C1-Phenanthren...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
48) A2 C2-Phenanthren...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
49) A2 5AA IS BKGD	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
50) A2 C3-Phenanthren...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
51) A2 C4-Phenanthren...	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
52) t Retene	0.599	0.688	0.703	0.724	0.860	0.864	0.885	0.760	14.39
53) t Anthracene	1.768	1.913	1.988	2.053	2.052	1.892	2.400	2.009	9.92
54) t Carbazole	1.992	1.925	1.932	2.000	2.253	2.291	2.321	2.102	8.45
55) t 1-Methylphenan...	1.424	1.551	1.579	1.609	1.830	1.853	1.885	1.676	10.67
56) A1 Fluoranthene	3.125	2.715	2.375	2.386	2.684	2.691	2.722	2.671	9.42
57) A1 Benzo(b)fluorene	1.293	1.469	1.431	1.513	1.758	1.778	1.834	1.582	13.07
58) A2 7H-Benzo(c)flu...	1.293	1.469	1.431	1.513	1.758	1.778	1.834	1.582	13.07
59) A1 Pyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
60) A2 2-Methylpyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
61) A2 4-Methylpyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
62) A2 1-Methylpyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
63) A2 C1-Fluoranthen...	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88

Response Factor Report PAH 9

Method Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Method File : PAH9041920.M
 Title : Decalins & Alkylated PAH's
 Last Update : Tue Apr 21 10:13:56 2020
 Response Via : Initial Calibration

Calibration Files

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 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
64) A2 C2-Fluoranthen...	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
65) A2 C3-Fluoranthen...	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
66) A2 C4-Fluoranthen...	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
67) A1 Naphthobenzoth...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
68) A2 Naphthobenzoth...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
69) A2 Naphthobenzoth...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
70) A2 C1-Naphthobenz...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
71) A2 C2-Naphthobenz...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
72) A2 C3-Naphthobenz...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
73) A2 C4-Naphthobenz...	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.246	1.248	1.187	1.185	1.314	1.298	1.323	1.257	4.54
76) A1 Chrysene	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
77) A2 Chrysene/Triph...	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
78) A2 C1-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
79) A2 C2-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
80) A2 BBF-d12 Surr BKGD	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
81) A2 C3-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
82) A2 C4-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
83) S Benzo[b]fluora...	1.241	1.209	1.156	1.170	1.310	1.299	1.299	1.241	5.18
84) t Benzo[b]fluora...	2.022	1.625	1.380	1.348	1.471	1.451	1.462	1.537	15.05
85) A1 Benzo[j]+[k]fl...	1.769	1.630	1.402	1.380	1.461	1.481	1.495	1.517	9.06
86) A2 Benzo[k]fluora...	1.769	1.630	1.402	1.380	1.461	1.481	1.495	1.517	9.06
87) A2 Benzo[a]fluora...	1.769	1.630	1.402	1.380	1.461	1.481	1.495	1.517	9.06
88) t Benzo[e]pyrene	2.026	1.668	1.339	1.299	1.418	1.432	1.437	1.517	16.68
89) s Benzo[a]pyrene...	0.777	0.818	0.782	0.774	0.876	0.890	0.893	0.830	6.60
90) t Benzo[a]pyrene	1.805	1.506	1.298	1.275	1.398	1.419	1.428	1.447	12.20
91) t Perylene	1.345	1.351	1.235	1.221	1.394	1.420	1.445	1.344	6.48
92) t Indeno[1,2,3-c...	2.087	1.785	1.442	1.487	1.681	1.665	1.669	1.688	12.59
93) A1 Dibenz[ah]+[ac...	1.417	1.433	1.352	1.392	1.526	1.527	1.521	1.453	4.94
94) A2 Dibenz[a,h]ant...	1.417	1.433	1.352	1.392	1.526	1.527	1.521	1.453	4.94

Response Factor Report PAH 9

Method Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Method File : PAH9041920.M
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Last Update : Tue Apr 21 10:13:56 2020
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1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
95) t Benzo[g,h,i]pe...	2.369	1.996	1.533	1.461	1.588	1.601	1.592	1.734	18.93
96) A1 Hopane (T19)	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
97) A2 C23 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
98) A2 C24 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
99) A2 C25 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
100) A2 C24 Tetracycli...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
101) A2 C26 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
102) A2 C26 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
103) A2 C28 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
104) A2 C28 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
105) A2 C29 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
106) A2 C29 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
107) A2 18a-22,29,30-T...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
108) A2 C30 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
109) A2 C30 Tricyclic ...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
110) A2 17a(H)-22,29,3...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
111) A2 17a/b,21b/a 28...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
112) A2 17a(H),21b(H)-...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
113) A2 30-Norhopane (...)	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
114) A2 18a(H)-30-Norn...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
115) A2 17a(H)-Diahopa...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
116) A2 30-Normoretane...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
117) A2 18a(H)&18b(H)-...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
118) A2 Moretane (T20)	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
119) A2 30-Homohopane-...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
120) A2 30-Homohopane-...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
121) A2 Gammacerane/C3...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
122) A2 30,31-Bishomoh...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
123) A2 30,31-Bishomoh...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
124) A2 30,31-Trishomo...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
125) A2 30,31-Trishomo...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
126) A2 Tetrakishomoho...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66

Response Factor Report PAH 9

Method Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Method File : PAH9041920.M
 Title : Decalins & Alkylated PAH's
 Last Update : Tue Apr 21 10:13:56 2020
 Response Via : Initial Calibration

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
127) A2 Tetrakishomoho...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
128) A2 Pentakishomoho...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
129) A2 Pentakishomoho...	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
130) SA1 5B(H)Cholane -...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
131) A2 13b(H),17a(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
132) A2 13b(H),17a(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
133) A2 13b,17a-20S-Me...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
134) A2 14a,17a-20S-Ch...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
135) A2 14a,17a-20R-Ch...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
136) A2 Unknown Steran...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
137) A2 13a,17b-20S-Et...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
138) A2 14a,17a-20S-Me...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
139) A2 14a,17a-20R-Me...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
140) A2 14a(H),17a(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
141) A2 14a(H),17a(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
142) A2 14b(H),17b(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
143) A2 14b(H),17b(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
144) A2 14b,17b-20R-Me...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
145) A2 14b,17b-20S-Me...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
146) A2 14b(H),17b(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
147) A2 14b(H),17b(H)-...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
148) A2 C20 Pregnane	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
149) A2 C21 20-Methylp...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
150) A2 C22 20-Ethylpr...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
151) A2 C22 20-Ethylpr...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
152) A2 C26,20S TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
153) A2 C26,20R+C27,20...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
154) A2 C28,20S TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
155) A2 C27,20R TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
156) A2 C28,20R TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
157) A2 C29,20S TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
158) A2 C29,20R TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92

Response Factor Report PAH 9

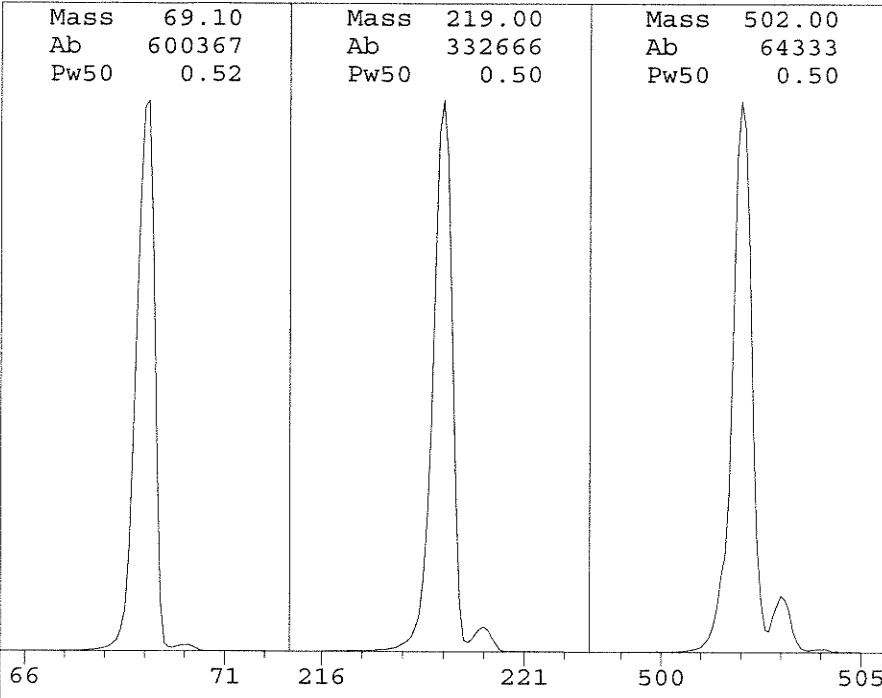
Method Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Method File : PAH9041920.M
 Title : Decalins & Alkylated PAH's
 Last Update : Tue Apr 21 10:13:56 2020
 Response Via : Initial Calibration

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
159) A2 5b(H)-C27 (20S...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
160) A2 5b(H)-C27 (20R...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
161) A2 5a(H)-C27 (20S...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
162) A2 5b(H)-C28 (20S...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
163) A2 5a(H)-C27 (20R...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
164) A2 5a(H)-C28 (20S...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
165) A2 5b(H)-C28 (20R...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
166) A2 5b(H)-C29 (20S...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
167) A2 5a(H)-C29 (20S...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
168) A2 5a(H)-C28 (20R...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
169) A2 5b(H)-C29 (20R...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
170) A2 5a(H)-C29 (20R...	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92

(#) = Out of Range

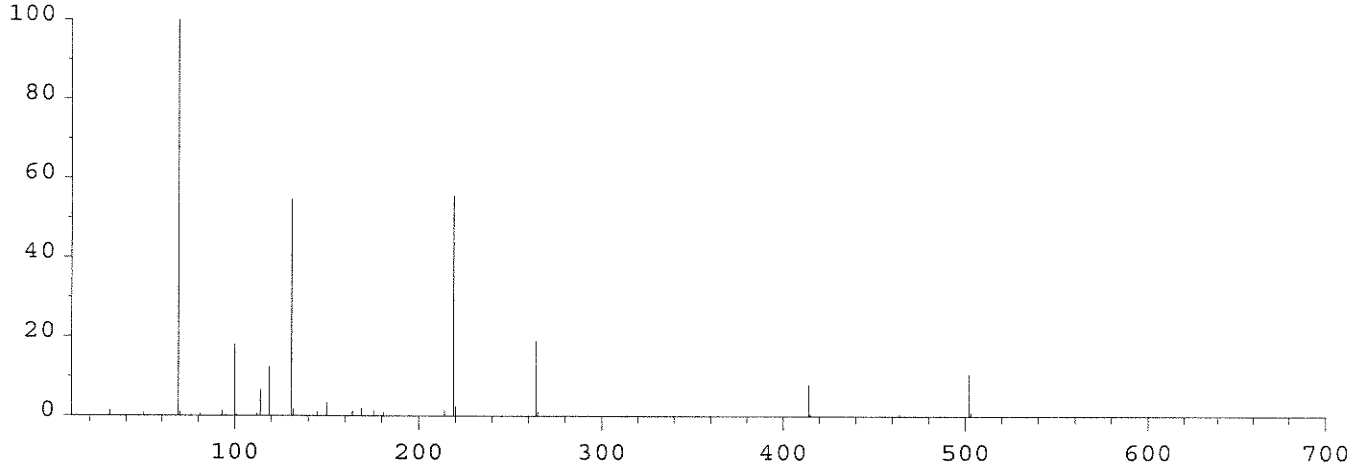


Ion Pol Pos MassGain -511
 MassOffs -42
 Emission 34.6 AmuGain 2237
 EIEnrgy 69.9 AmuOffs 128.69
 Filament 2 Wid219 0.001
 DC Pol Pos
 Repeller 42.18
 IonFcus 90.2 HEDenab On
 EntLens 0.0 EMVolts 1671
 EntOffs Var

Samples 8
 PFTBA Open Averages 3
 Stepsize 0.10

Temperatures and Pressures:
 MS Source 230 TurboSpd 100
 MS Quad 150 HiVac 1.00e10

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
 103 peaks Base: 69.00 Abundance: 551040



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	551040	100.00	70.00	6023	1.09
219.00	306880	55.69	220.00	13908	4.53
502.10	58752	10.66	503.00	5681	9.67

Air/Water Check: H2O~0.04% N2~0.29% O2~0.09% CO2~0.07% N2/H2O~682.33%

Ramp Criteria:
 Ion Focus Maximum 90 volts using ion 502; EM Gain 111581
 Repeller Maximum 35 volts using ion 219; Gain Factor 1.12

MassGain Values(Samples): -507(3) -506(2) -499(1) -480(0) -401(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	128.7	128.7	128.7	128.7	128.7	128.7	128.7
Entrance Lens Offset:	12.3	14.3	14.8	15.6	21.8	25.6	25.6
Target Abund(%):	1.0	100.0	50.0	50.0	7.0	9.0	
Actual Tune Abund(%):	1.0	100.0	54.7	55.7	8.2	10.7	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192013.D
 Acq On : 20 Apr 2020 7:32 am
 Operator : PAH9:ML
 Sample : I904192001a
 Misc : WG1363075,FRBC38
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 21 10:10:51 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 09:13:49 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.803	164	25282	500.000	ng/mL	0.00	
74) Chrysene-d12	43.232	240	46259	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.841	136	935	10.124	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	1.01%#		
40) Phenanthrene-d10	32.661	188	803	9.289	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	0.93%#		
83) Benzo[b]fluoranthene-d12	47.125	264	1148	9.937	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	0.99%#		
89) Benzo[a]pyrene-d12	48.305	264	719	9.317	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	0.93%#		
130) 5B(H)Cholane - Surr	43.862	217	167	8.124	ng/ml	0.00	
Spiked Amount	1000.000		Recovery	=	0.81%#		
Target Compounds							
2) trans-Decalin	16.510	138	125	6.310	ng/mL	100	Qvalue
3) cis-Decalin	17.714	138	82M4	5.209	ng/mL		
9) Naphthalene	19.923	128	1108	10.255	ng/mL	100	
14) 2-Methylnaphthalene	22.615	142	713	10.056	ng/mL	100	
15) 1-Methylnaphthalene	23.035	142	671	9.810	ng/mL	100	
16) Benzothiophene	20.142	134	1010	10.153	ng/mL	100	
21) Biphenyl	24.485	154	863	9.843	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.097	156	608	9.763	ng/mL	100	
23) Dibenzofuran	27.570	168	982	9.647	ng/mL	97	
24) Acenaphthylene	26.192	152	957	8.922	ng/mL	100	
25) Acenaphthene	26.931	153	632	9.526	ng/mL	94	
26) 2,3,5-Trimethylnaphthalen	28.482	170	531	9.123	ng/mL	96	
27) Fluorene	28.938	166	703	9.004	ng/mL	99	
31) Dibenzothiophene	32.259	184	1086	9.404	ng/mL	99	
41) Phenanthrene	32.752	178	1150	10.026	ng/mL	97	
52) Retene	39.736	234	303	7.859	ng/mL	99	
53) Anthracene	32.925	178	894	8.798	ng/mL	99	
54) Carbazole	33.592	167	1007	9.399	ng/mL	93	
55) 1-Methylphenanthrene	35.253	192	720	8.450	ng/mL	98	
56) Fluoranthene	37.517	202	1580	11.423	ng/mL	98	
57) Benzo(b)fluorene	40.028	216	654	8.175	ng/mL	95	
59) Pyrene	38.403	202	1798	12.236	ng/mL	99	
67) Naphthobenzothiophene-2,1	42.246	234	1059	9.206	ng/mL	98	
75) Benz[a]anthracene	43.169	228	1153	9.850	ng/mL	96	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192013.D
 Acq On : 20 Apr 2020 7:32 am
 Operator : PAH9:ML
 Sample : I904192001a
 Misc : WG1363075,FRBC38
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 21 10:10:51 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 09:13:49 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.333	228	1489	12.033	ng/mL	94
77) Chrysene/Triphenylene	43.333	228	1489	12.033	ng/mL	94
84) Benzo[b]fluoranthene	47.208	252	1871	13.019	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.290	252	1637	11.289	ng/mL	90
88) Benzo[e]pyrene	48.214	252	1874	12.999	ng/mL	95
90) Benzo[a]pyrene	48.397	252	1670	12.204	ng/mL	100
91) Perylene	48.708	252	1244M4	9.869	ng/mL	
92) Indeno[1,2,3-cd]pyrene	53.189	276	1931M3	11.836	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.253	278	1311	9.756	ng/mL	95
95) Benzo[g,h,i]perylene	54.487	276	2192M4	13.046	ng/mL	
96) Hopane (T19)	52.348	191	515	13.909	ng/mL#	51

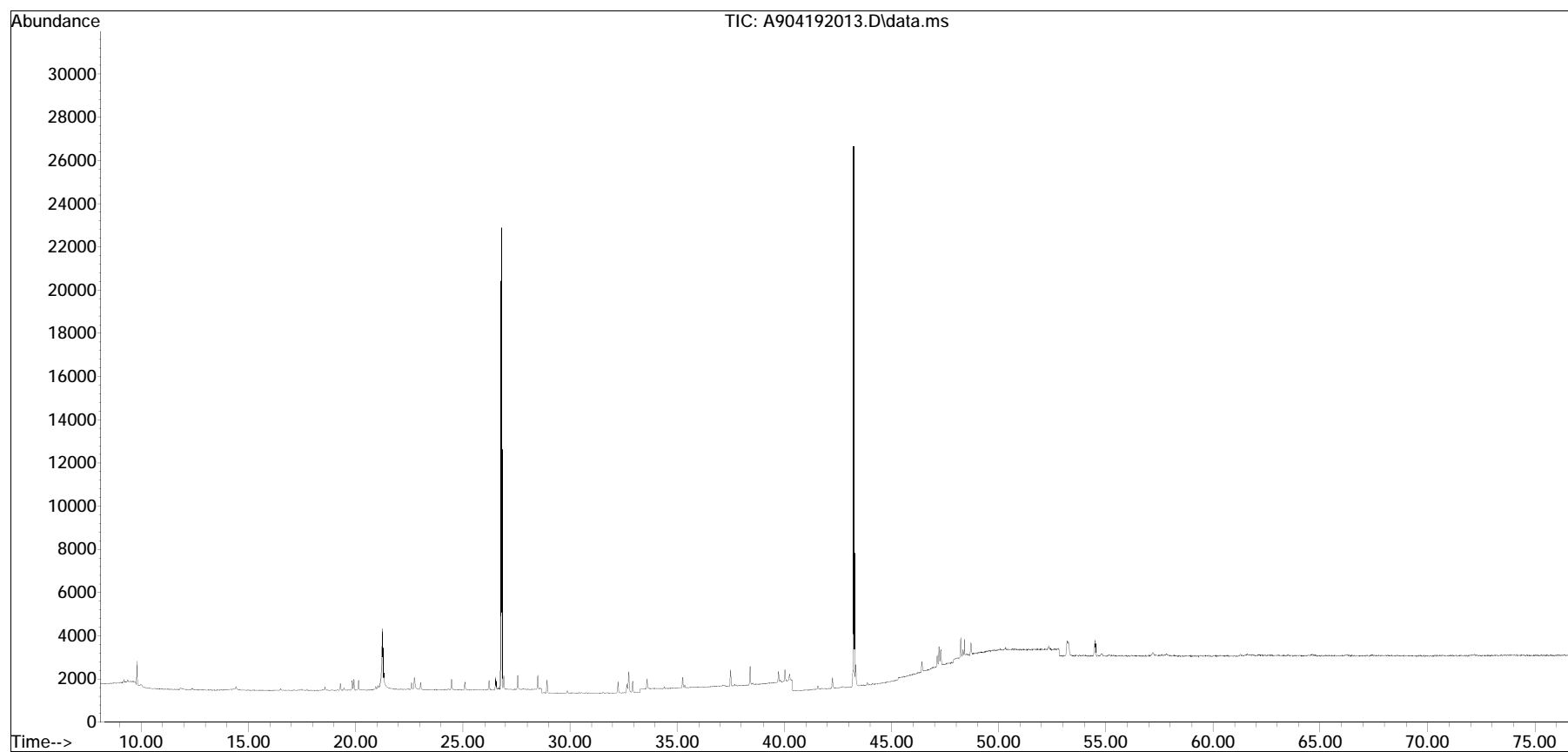
(#) = qualifier out of range (m) = manual integration (+) = signals summed

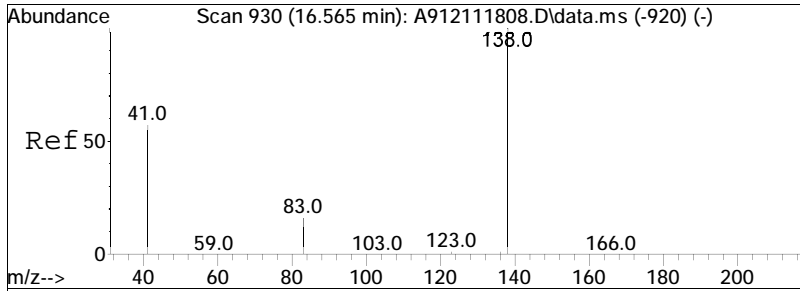
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192013.D
Acq On : 20 Apr 2020 7:32 am
Operator : PAH9:ML
Sample : I904192001a
Misc : WG1363075,FRBC38
ALS Vial : 13 Sample Multiplier: 1

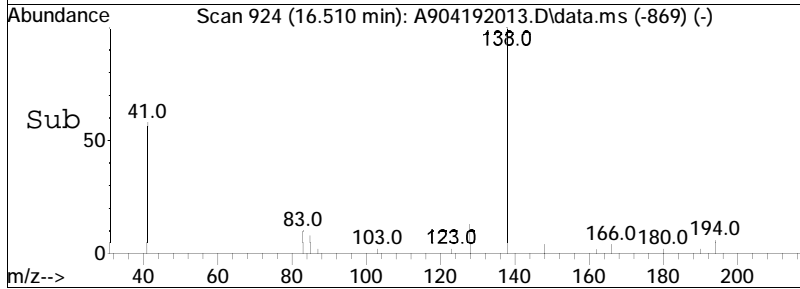
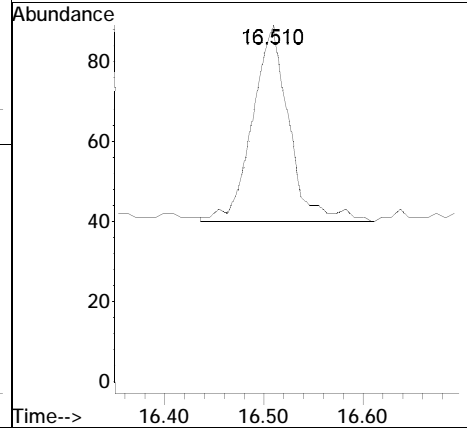
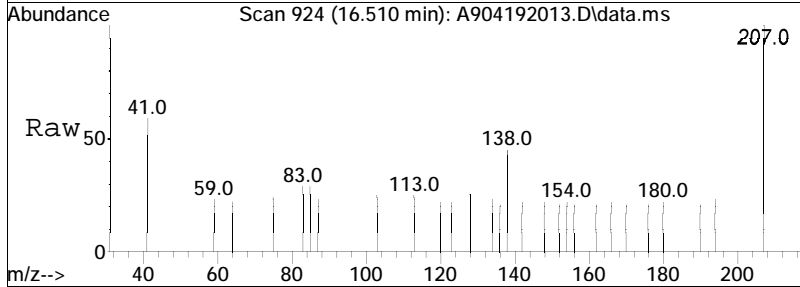
Quant Time: Apr 21 10:10:51 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 09:13:49 2020
Response via : Initial Calibration

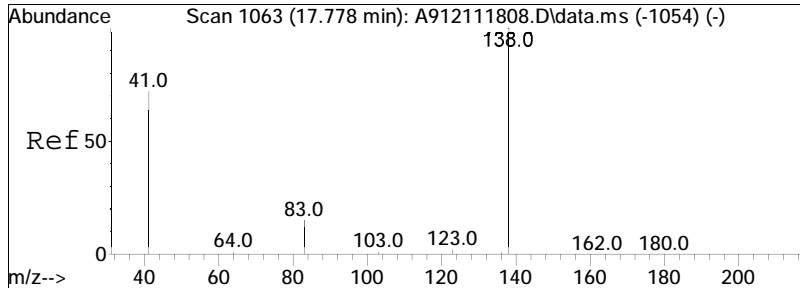
Sub List : ALKPAH_CCV - CC with five surrogates



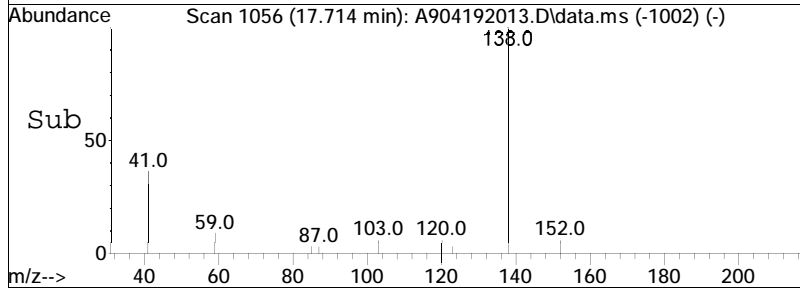
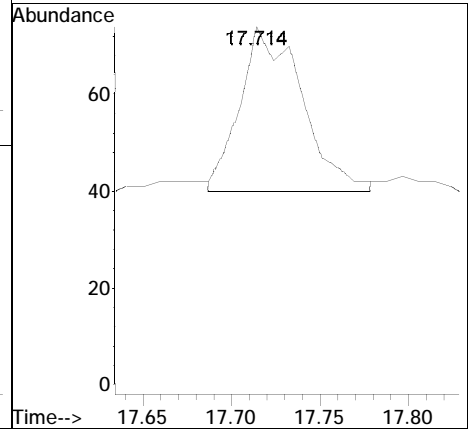
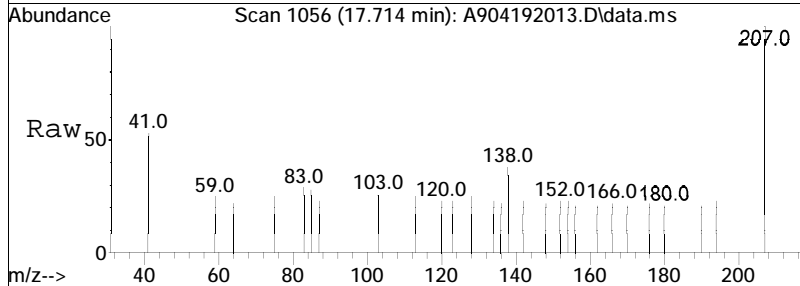


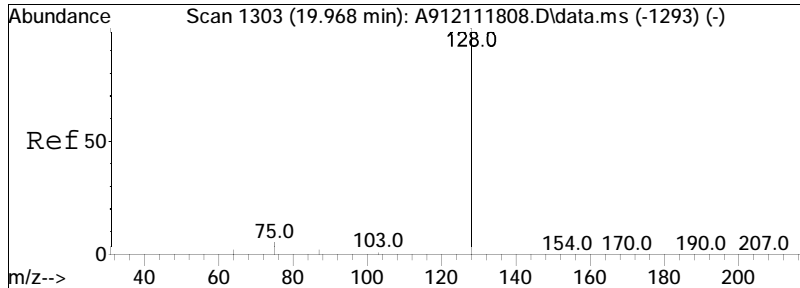
#2
 trans-Decalin
 Concen: 6.31 ng/mL
 RT: 16.510 min Scan# 924
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:138 Resp: 125



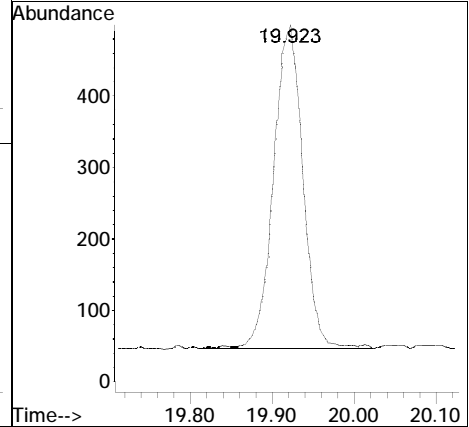
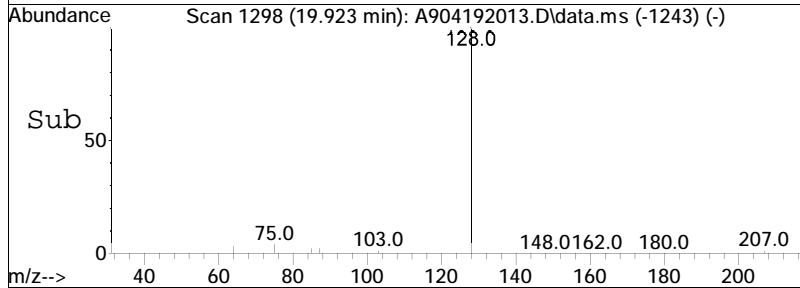
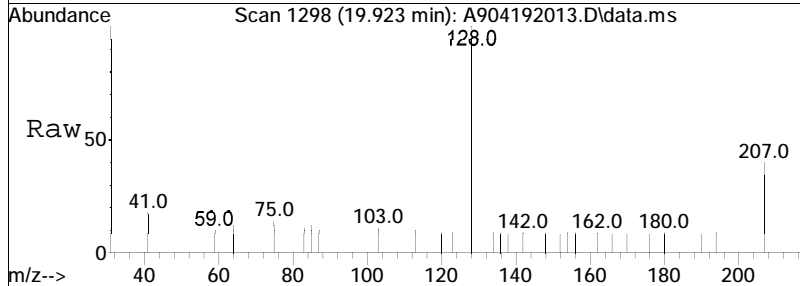


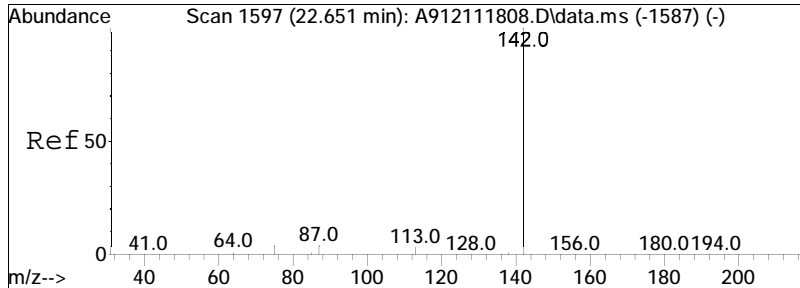
#3
 cis-Decalin
 Concen: 5.21 ng/mL M4
 RT: 17.714 min Scan# 1056
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:138 Resp: 82



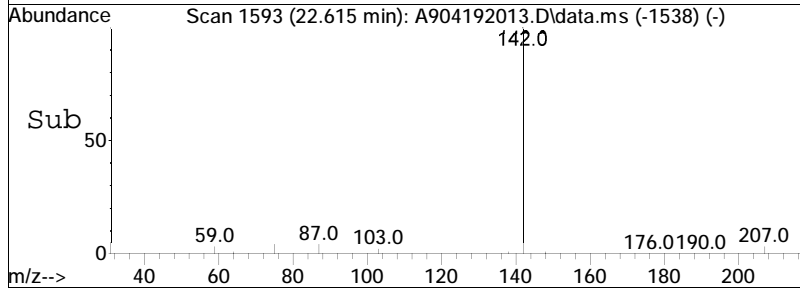
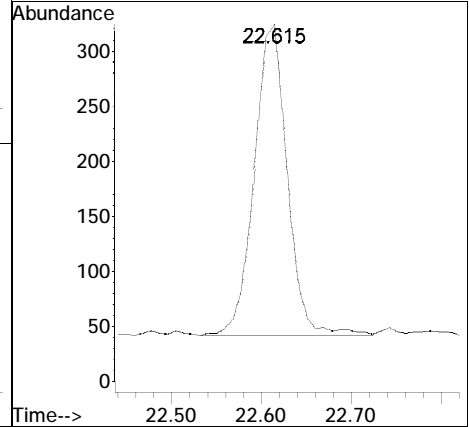
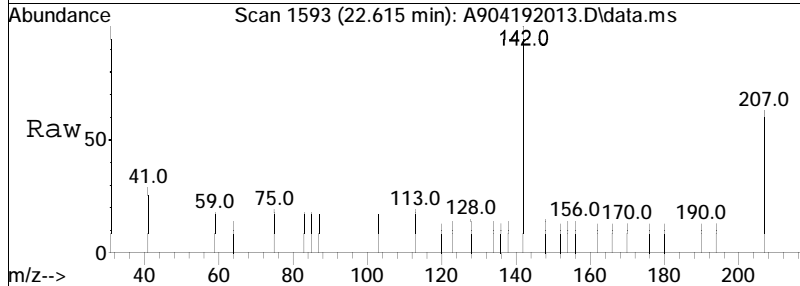


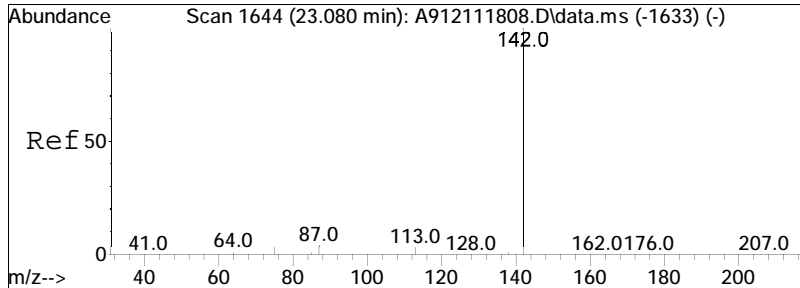
#9
 Naphthalene
 Concen: 10.26 ng/mL
 RT: 19.923 min Scan# 1298
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:128 Resp: 1108





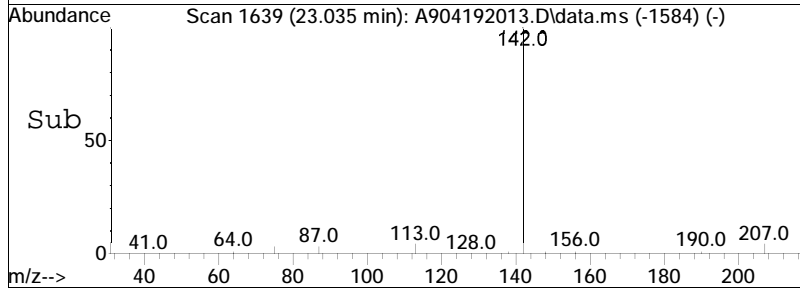
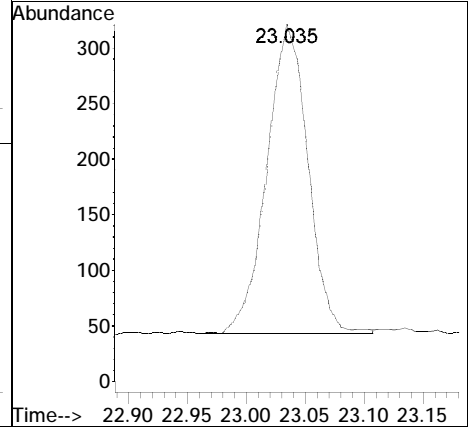
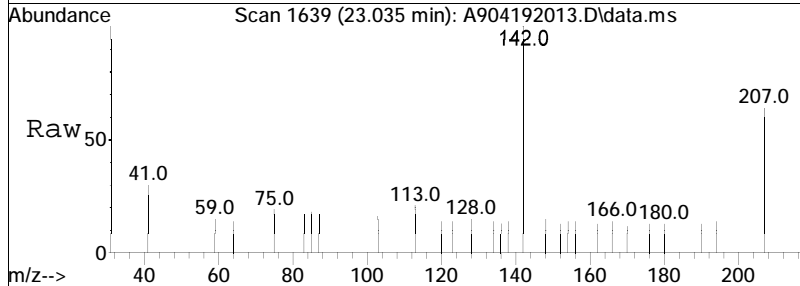
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 2-Methylnaphthalene
 Concen: 10.06 ng/mL
 RT: 22.615 min Scan# 1593
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:142 Resp: 713

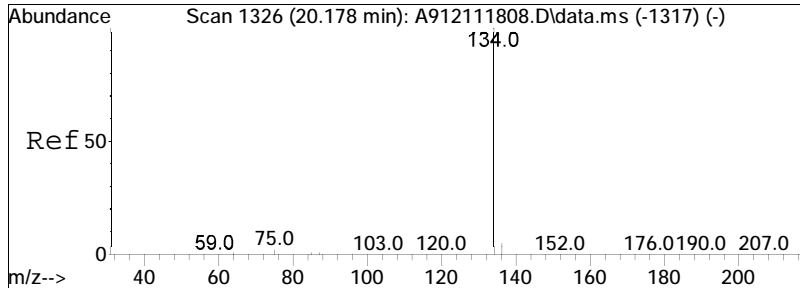




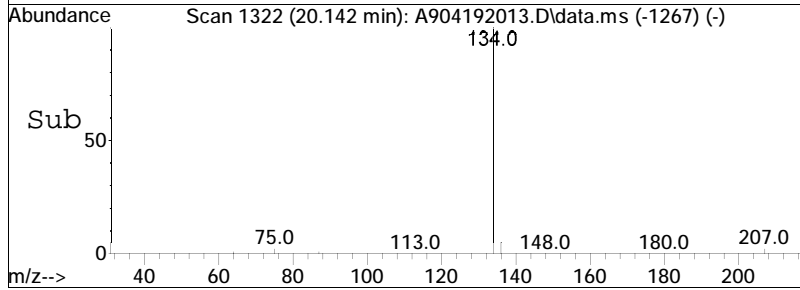
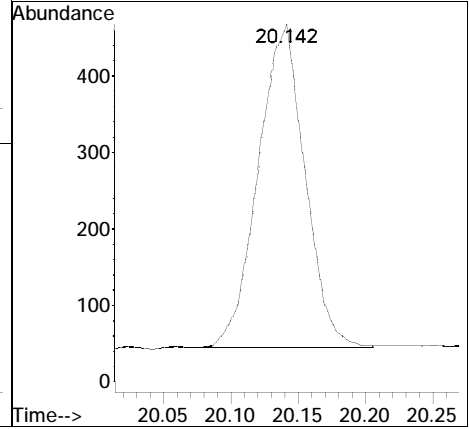
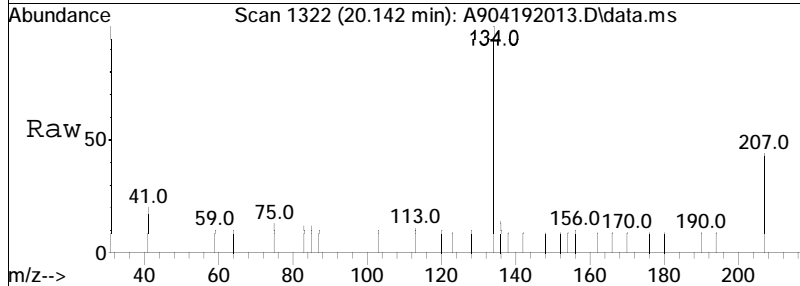
#15
 1-Methylnaphthalene
 Concen: 9.81 ng/mL
 RT: 23.035 min Scan# 1639
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

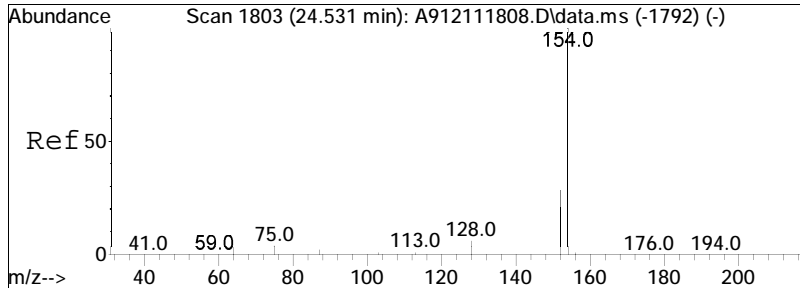
Tgt Ion:142 Resp: 671



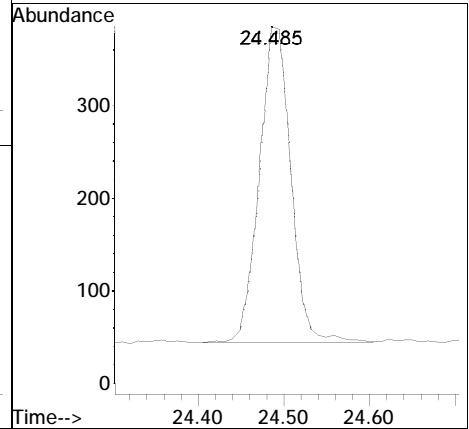
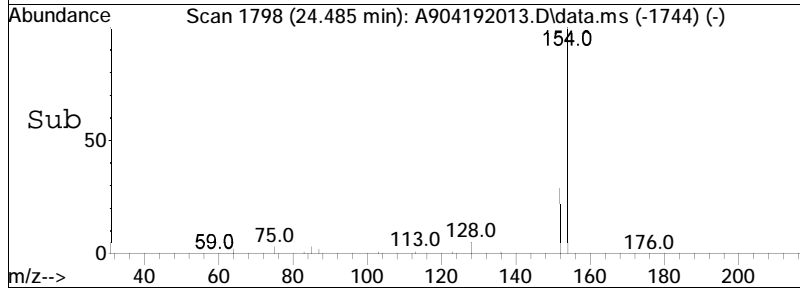
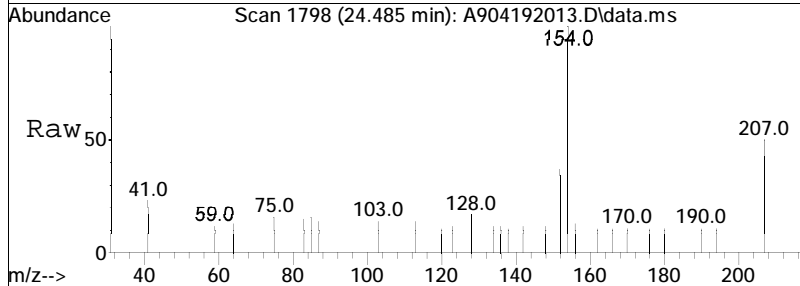


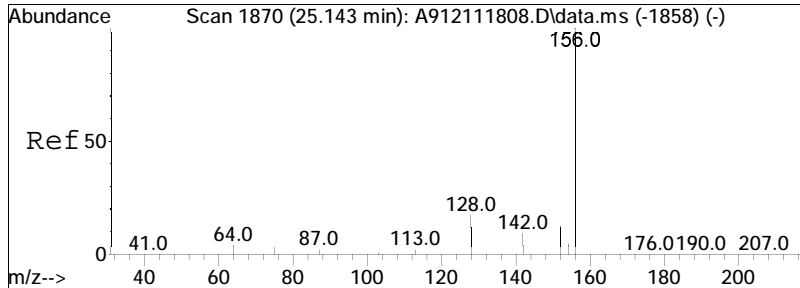
#16
 Benzothiophene
 Concen: 10.15 ng/mL
 RT: 20.142 min Scan# 1322
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:134 Resp: 1010



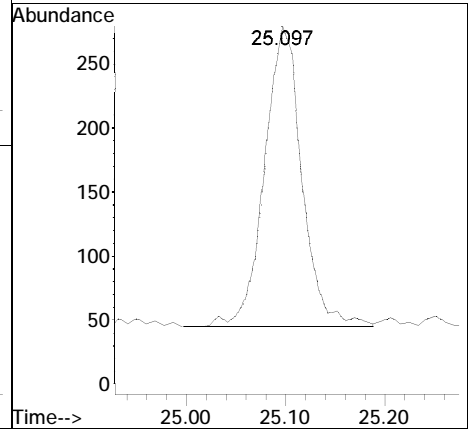
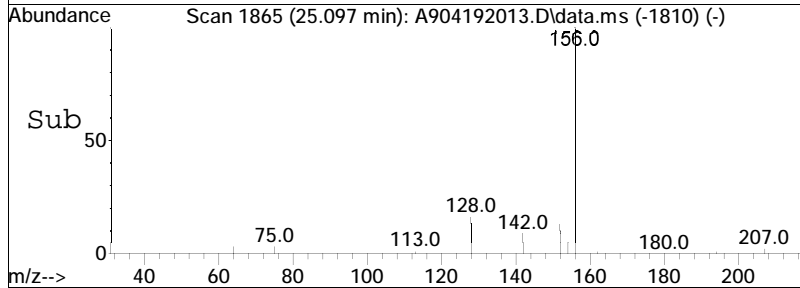
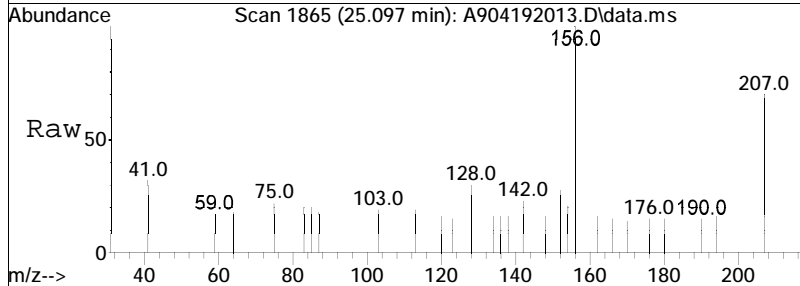


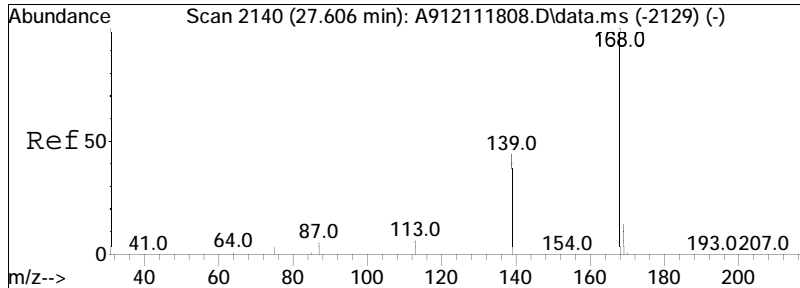
#21
 Biphenyl
 Concen: 9.84 ng/mL
 RT: 24.485 min Scan# 1798
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:154 Resp: 863





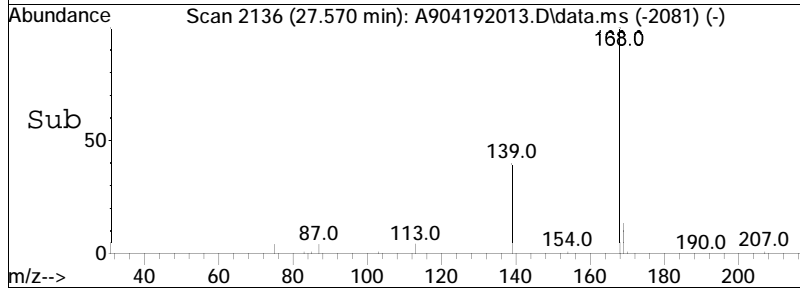
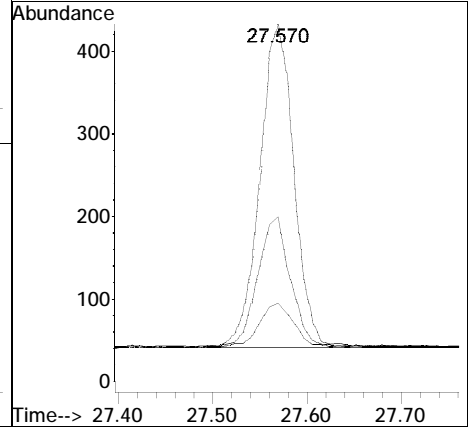
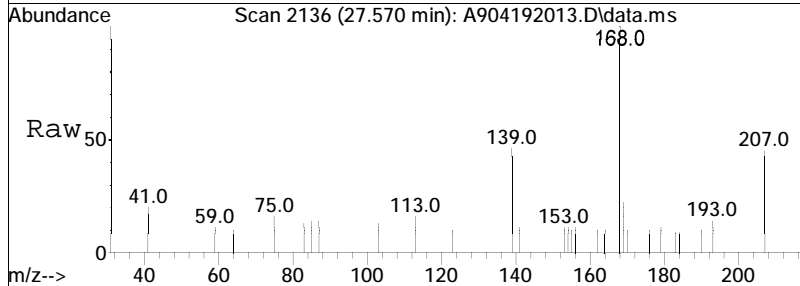
#22
 2,6-Dimethylnaphthalene
 Concen: 9.76 ng/mL
 RT: 25.097 min Scan# 1865
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:156 Resp: 608

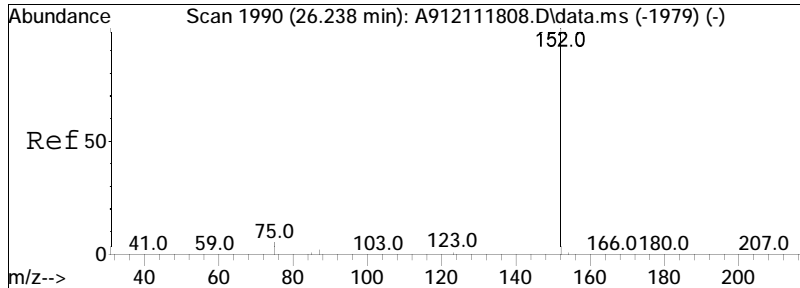




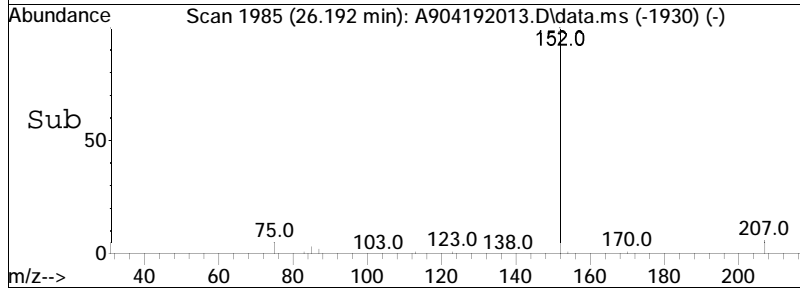
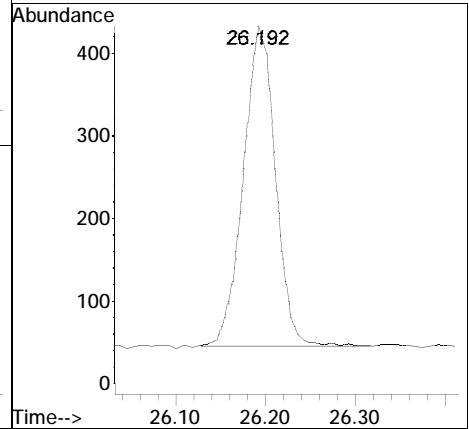
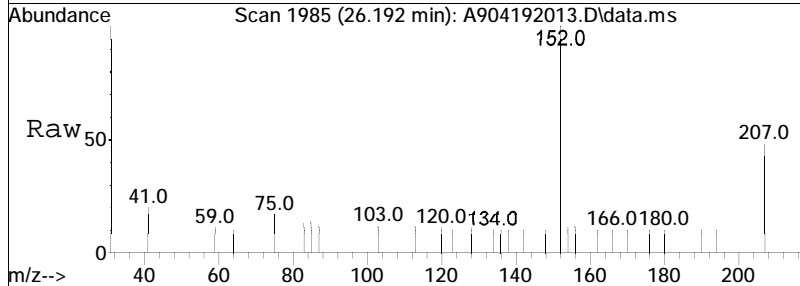
#23
 Dibenzofuran
 Concen: 9.65 ng/mL
 RT: 27.570 min Scan# 2136
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

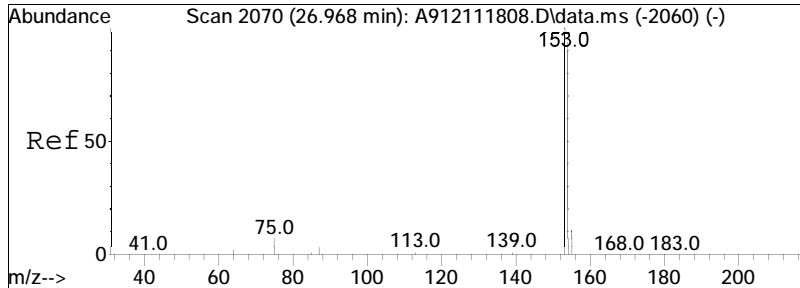
Tgt Ion	Ratio	Lower	Upper
168	100		
139	38.6	28.2	52.4
169	14.9	9.6	17.8





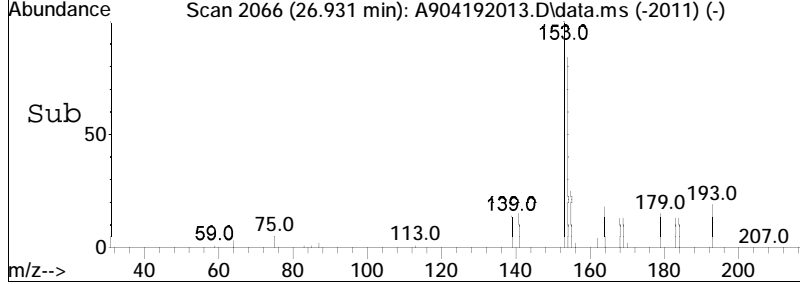
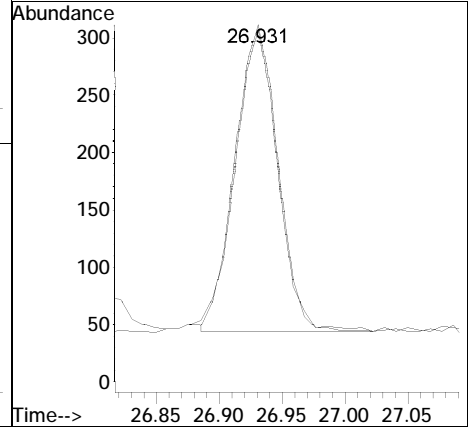
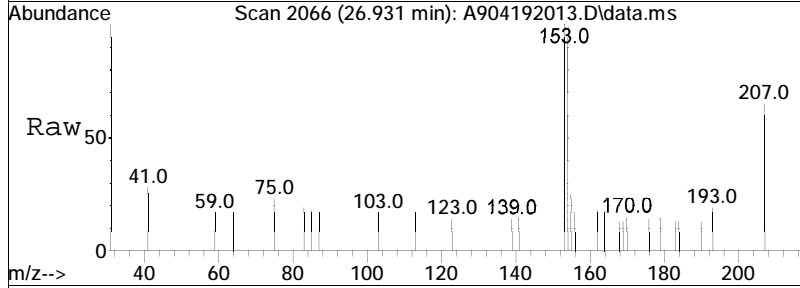
#24
 Acenaphthylene
 Concen: 8.92 ng/mL
 RT: 26.192 min Scan# 1985
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am
 Tgt Ion:152 Resp: 957

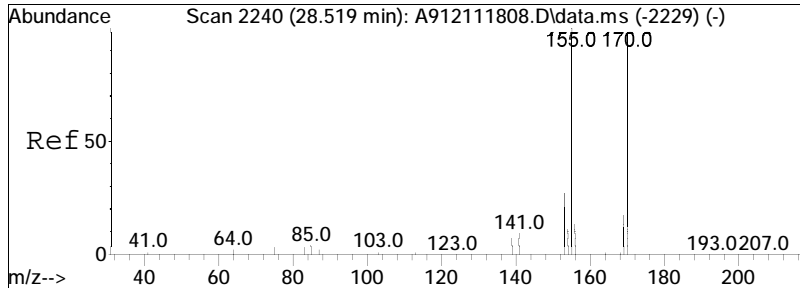




#25
 Acenaphthene
 Concen: 9.53 ng/mL
 RT: 26.931 min Scan# 2066
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

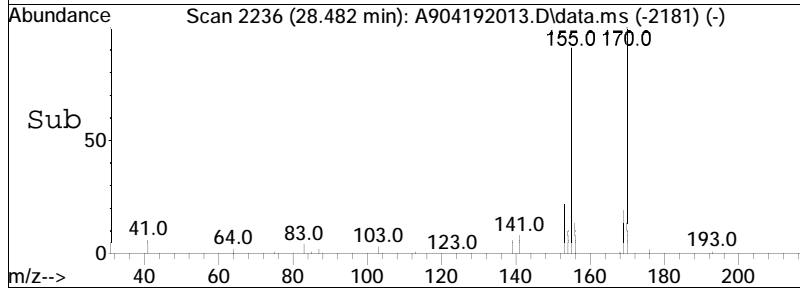
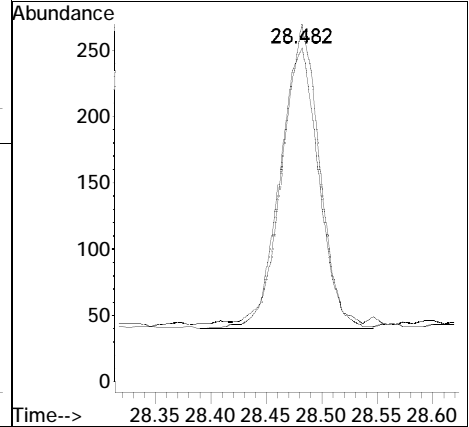
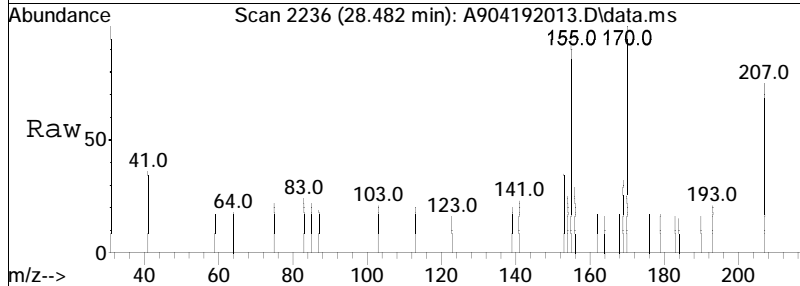
Tgt Ion: 153 Resp: 632
 Ion Ratio Lower Upper
 153 100
 154 98.3 65.0 120.8

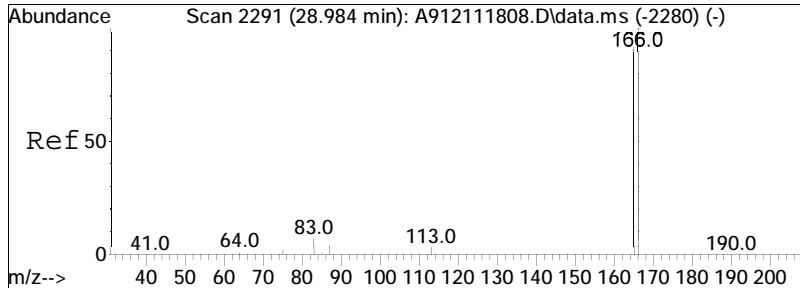




#26
 2,3,5-Trimethylnaphthalene
 Concen: 9.12 ng/mL
 RT: 28.482 min Scan# 2236
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

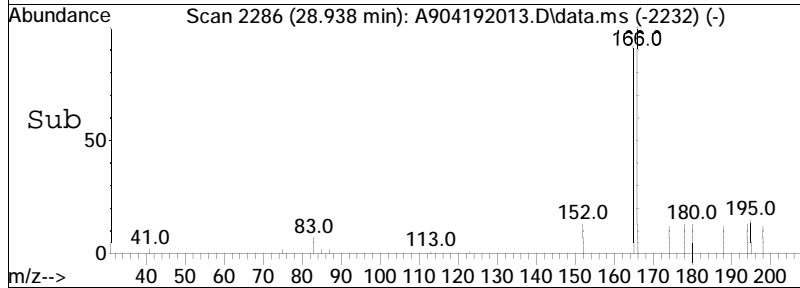
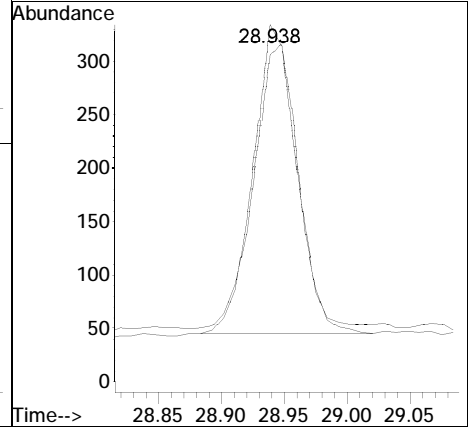
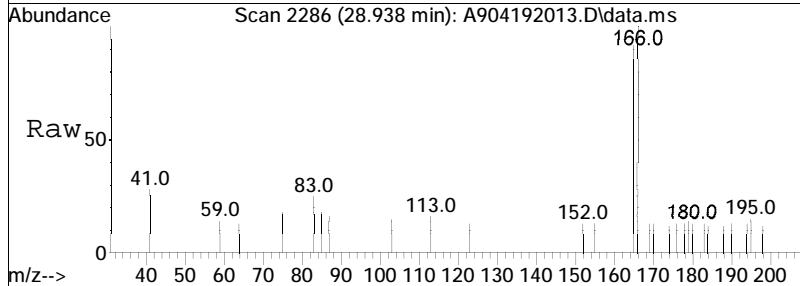
Tgt Ion	Resp	Lower	Upper
170	100		
155	95.1	69.6	129.2

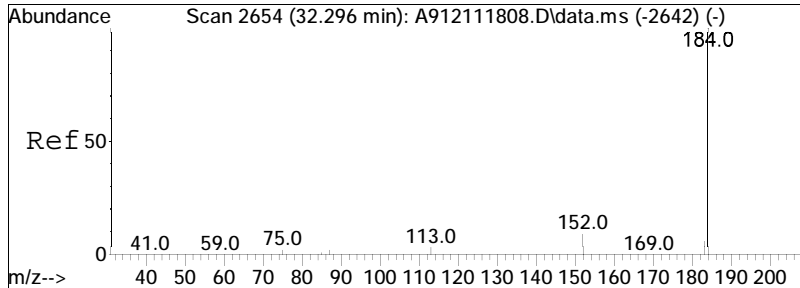




#27
 Fluorene
 Concen: 9.00 ng/mL
 RT: 28.938 min Scan# 2286
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

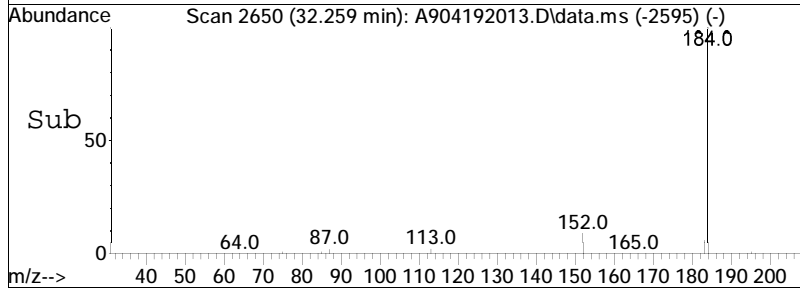
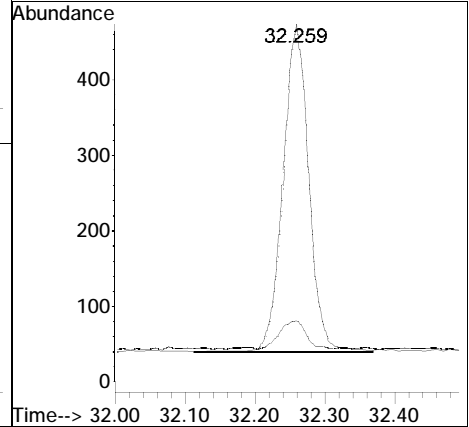
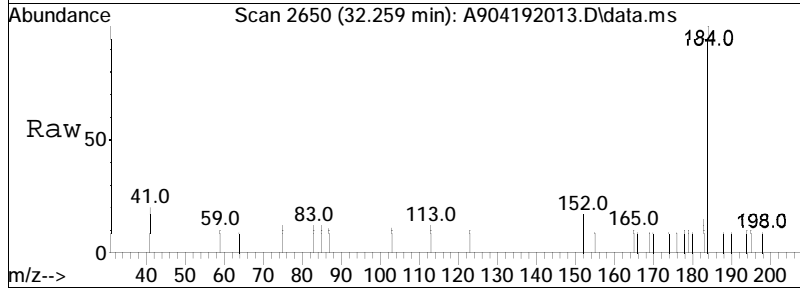
Tgt Ion	Ratio	Lower	Upper
166	100		
165	92.2	65.4	121.4

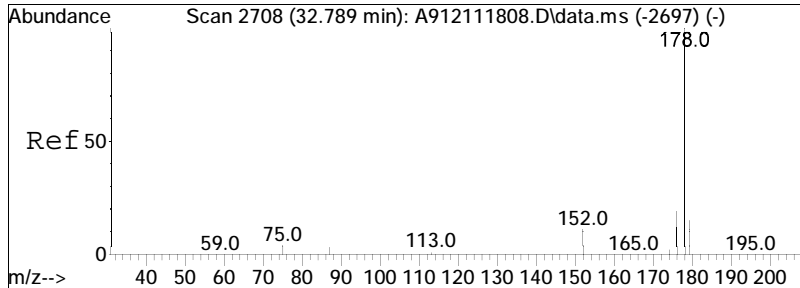




#31
 Dibenzothiophene
 Concen: 9.40 ng/mL
 RT: 32.259 min Scan# 2650
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

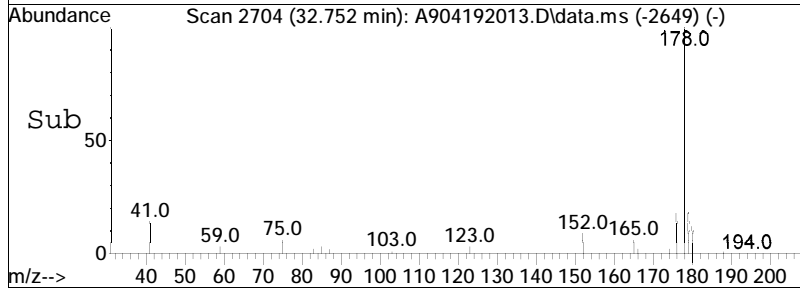
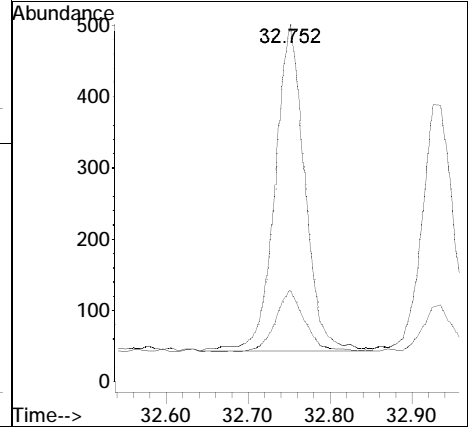
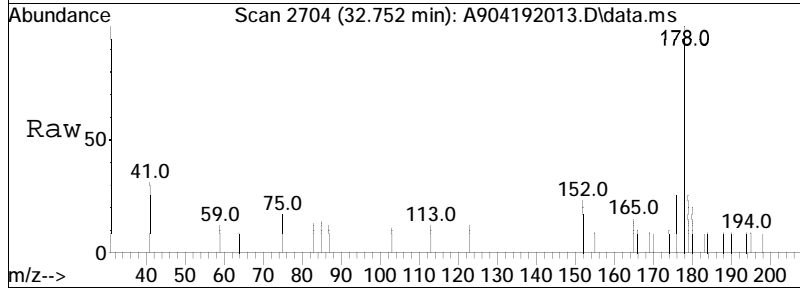
Tgt Ion	Resp	Lower	Upper
184	1086		
152	9.3	6.4	11.8

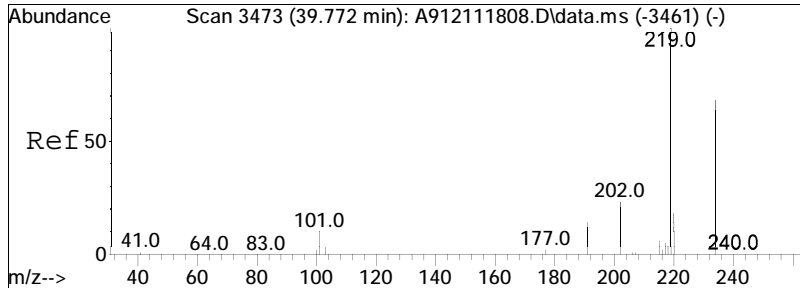




#41
 Phenanthrene
 Concen: 10.03 ng/mL
 RT: 32.752 min Scan# 2704
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

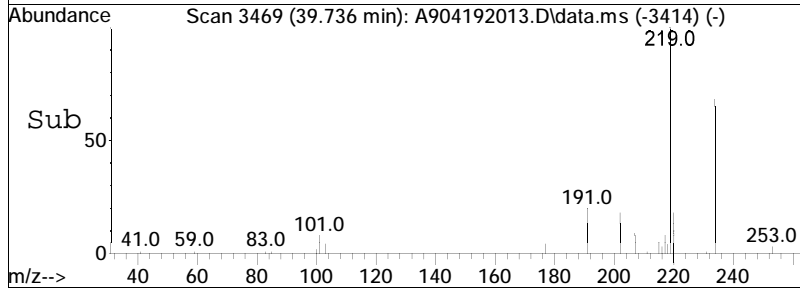
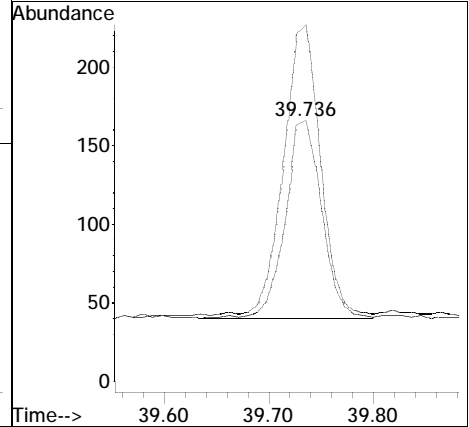
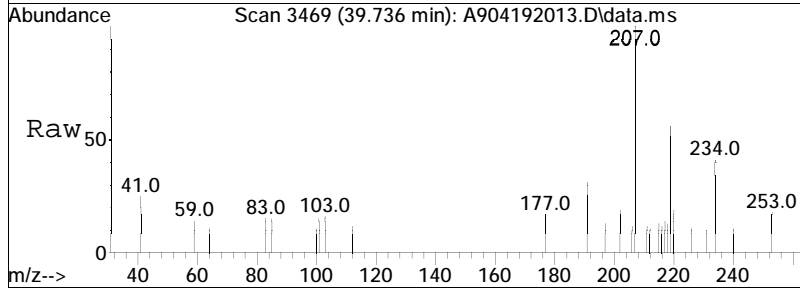
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.3	13.6	25.4

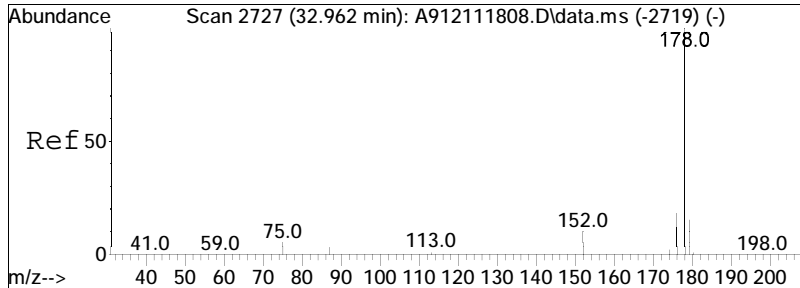




#52
 Retene
 Concen: 7.86 ng/mL
 RT: 39.736 min Scan# 3469
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

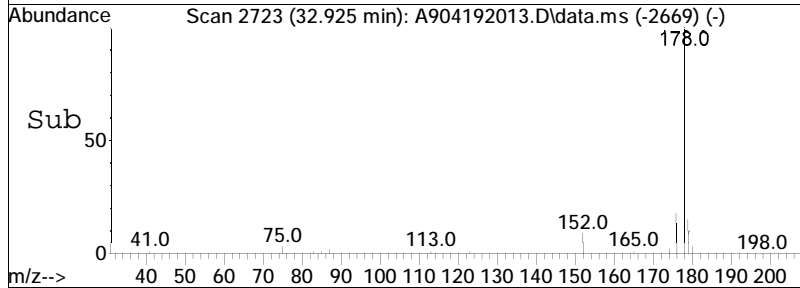
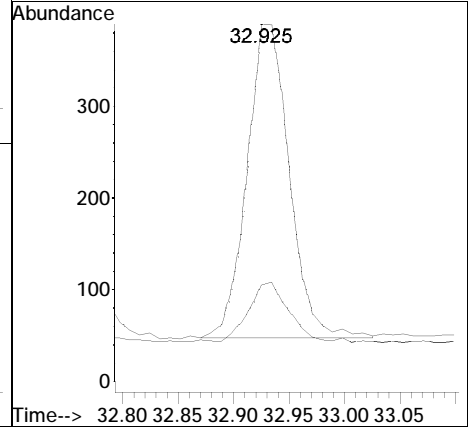
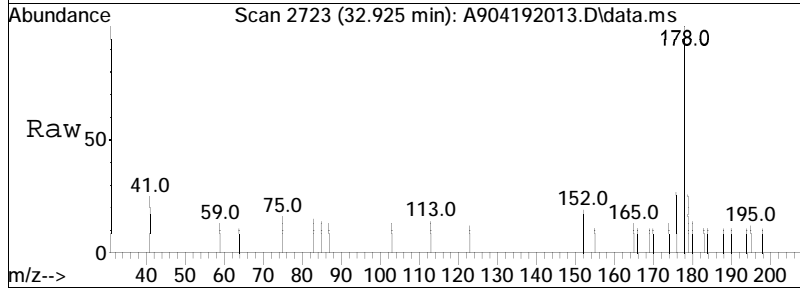
Tgt Ion: 234 Resp: 303
 Ion Ratio Lower Upper
 234 100
 219 147.5 104.0 193.2

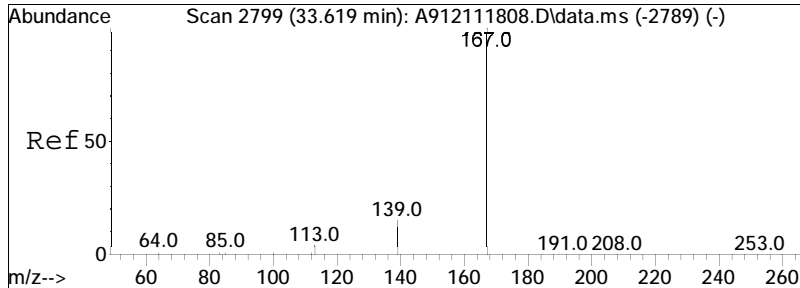




#53
 Anthracene
 Concen: 8.80 ng/mL
 RT: 32.925 min Scan# 2723
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

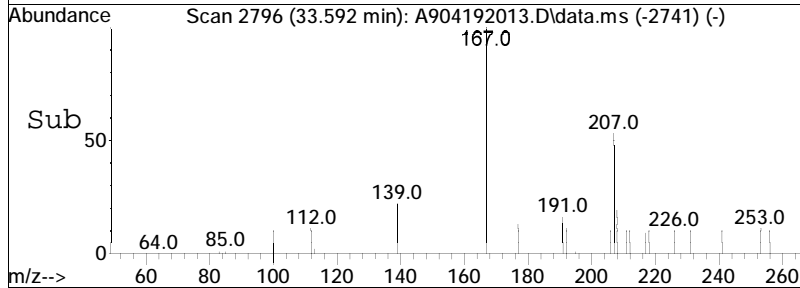
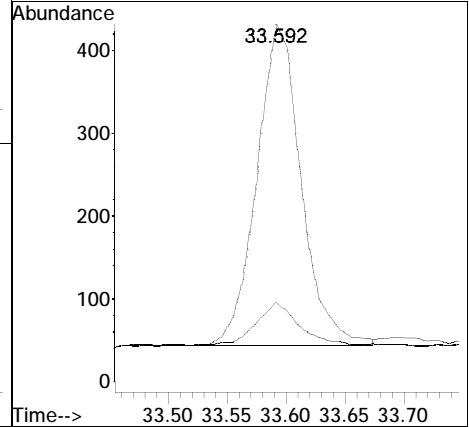
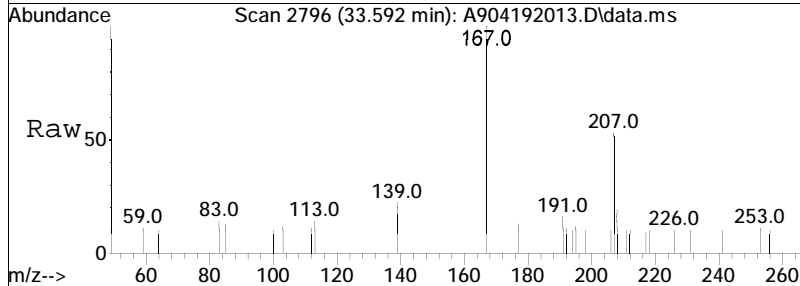
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.7	13.3	24.7

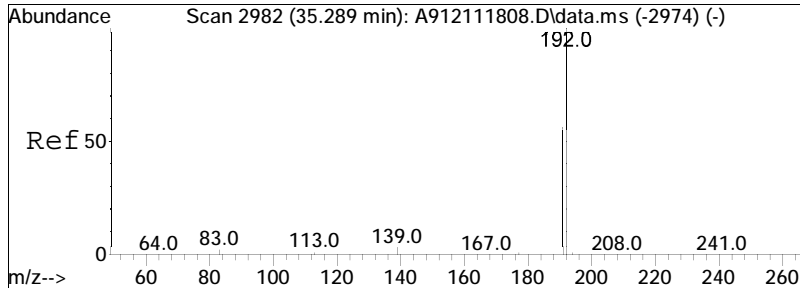




#54
 Carbazole
 Concen: 9.40 ng/mL
 RT: 33.592 min Scan# 2796
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

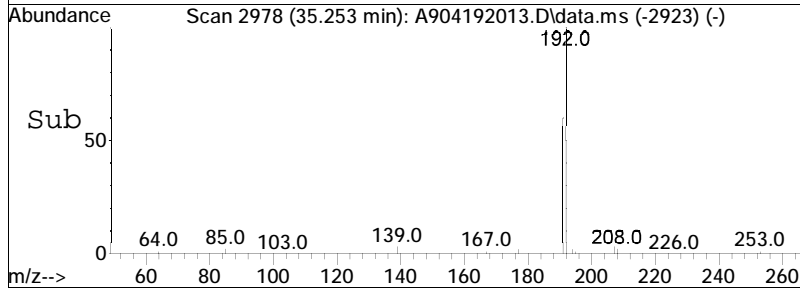
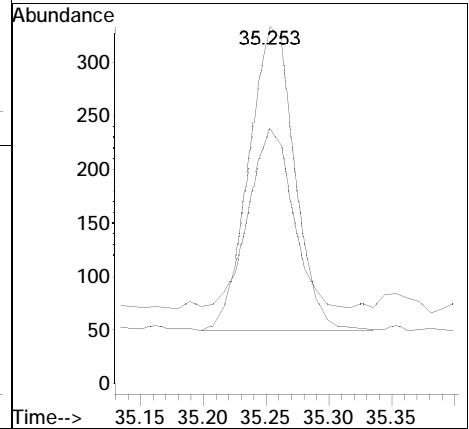
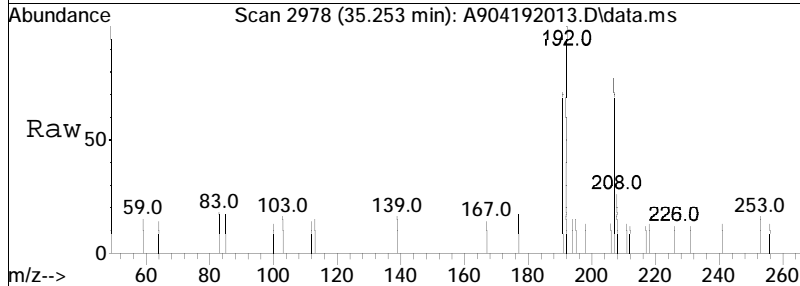
Tgt Ion	Resp	Lower	Upper
167	1007		
139	11.8	10.4	19.4

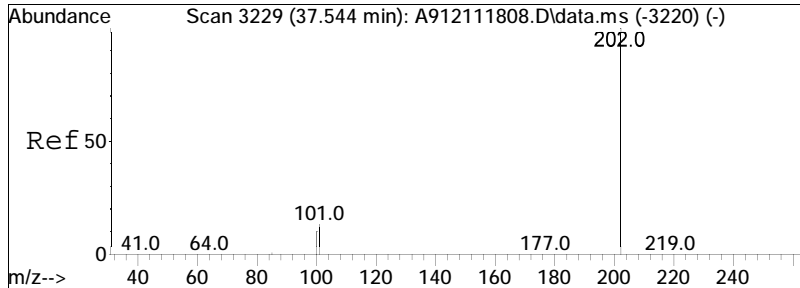




#55
 1-Methylphenanthrene
 Concen: 8.45 ng/mL
 RT: 35.253 min Scan# 2978
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

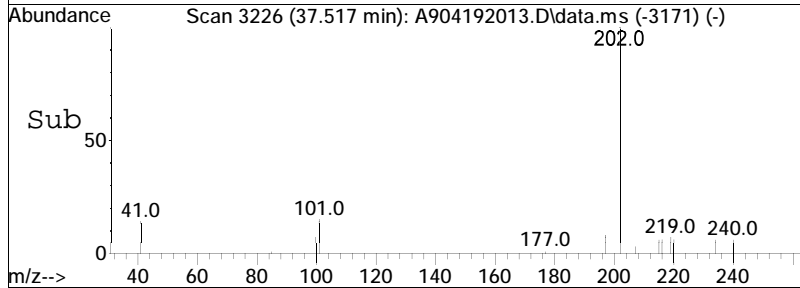
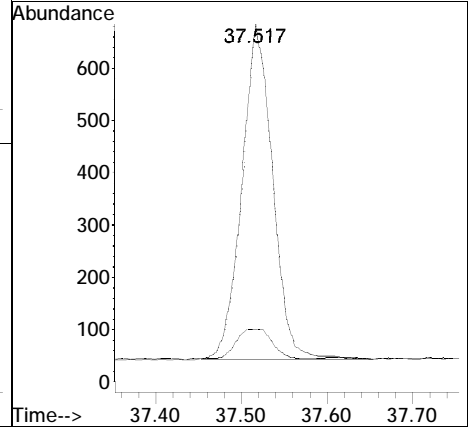
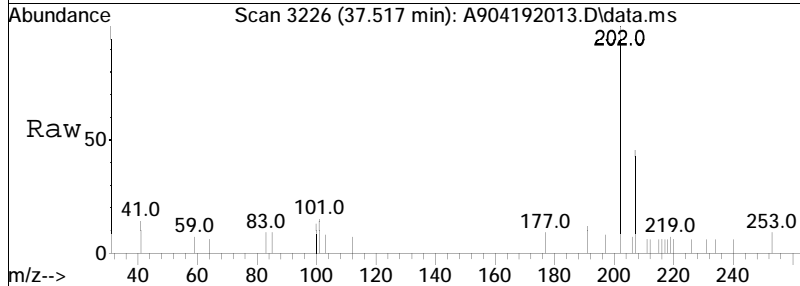
Tgt Ion: 192 Resp: 720
 Ion Ratio Lower Upper
 192 100
 191 57.1 39.0 72.4

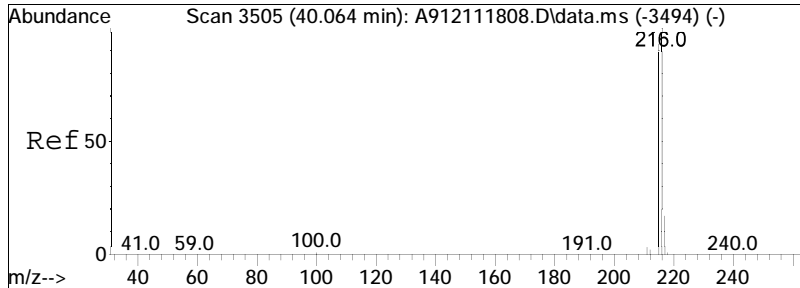




#56
 Fluoranthene
 Concen: 11.42 ng/mL
 RT: 37.517 min Scan# 3226
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

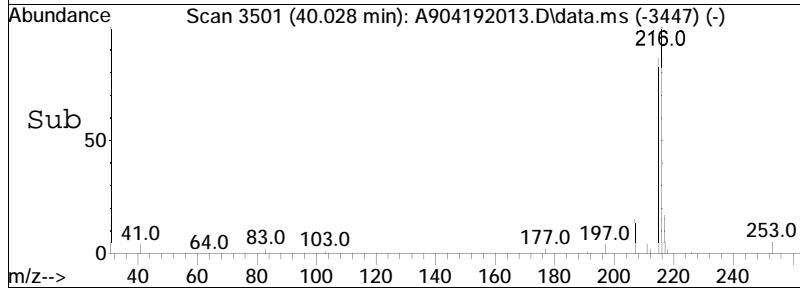
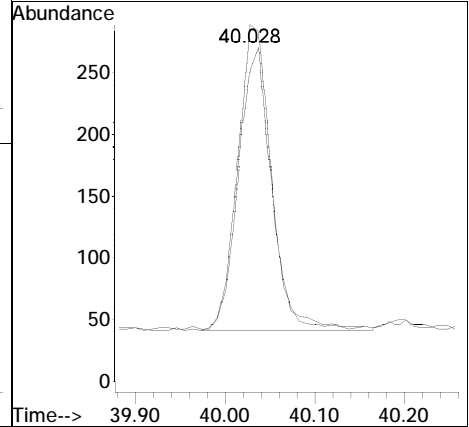
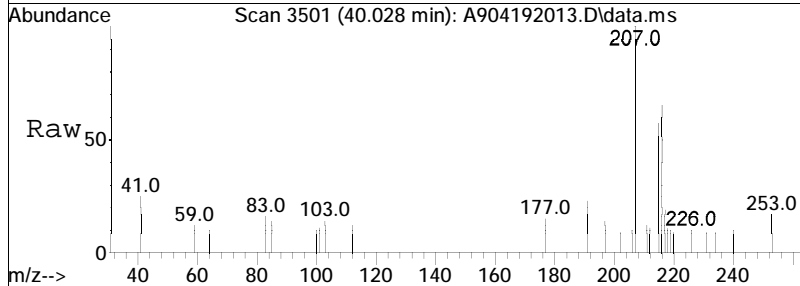
Tgt Ion	202	Resp	1580
Ion Ratio	100	Lower	Upper
101	10.3	6.8	12.6

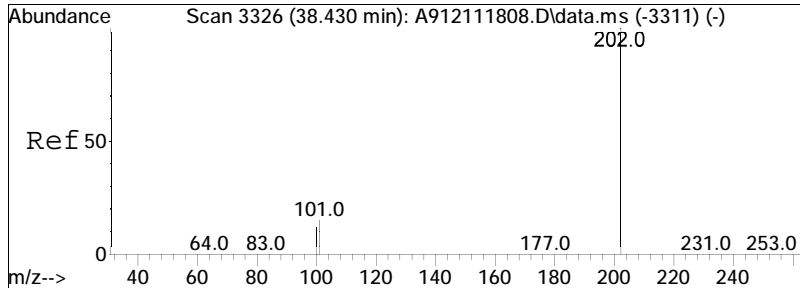




#57
 Benzo(b)fluorene
 Concen: 8.17 ng/mL
 RT: 40.028 min Scan# 3501
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

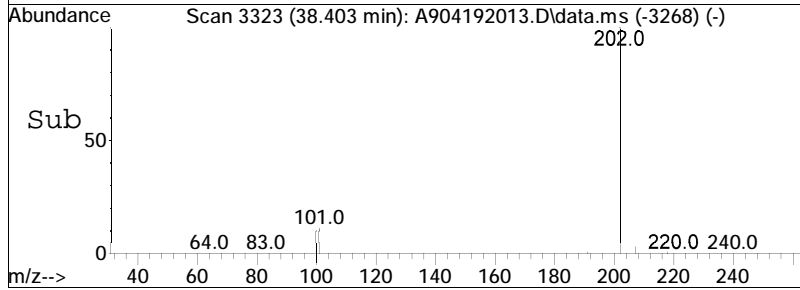
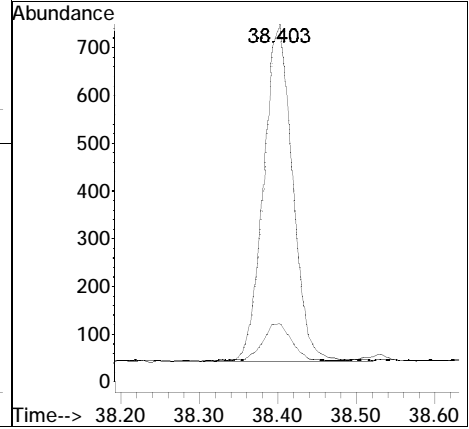
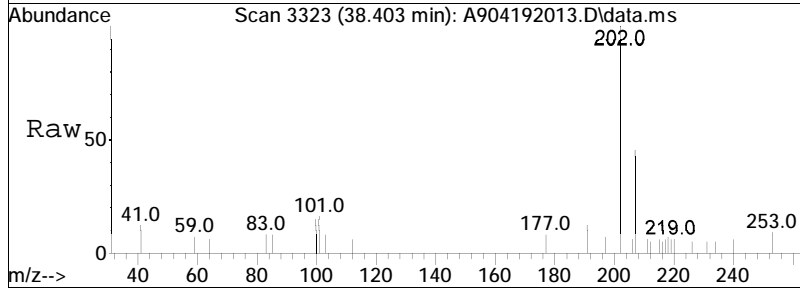
Tgt Ion	Ratio	Lower	Upper
216	100		
215	88.2	64.8	120.4

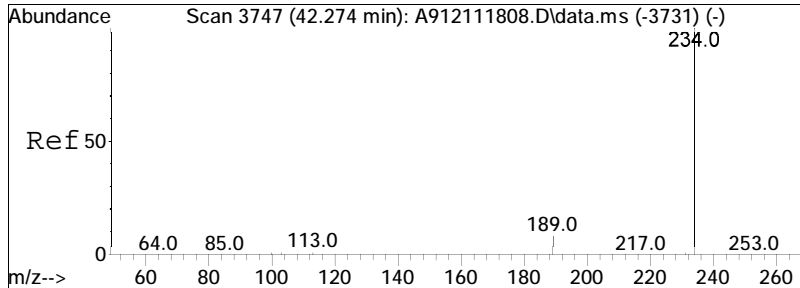




#59
 Pyrene
 Concen: 12.24 ng/mL
 RT: 38.403 min Scan# 3323
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

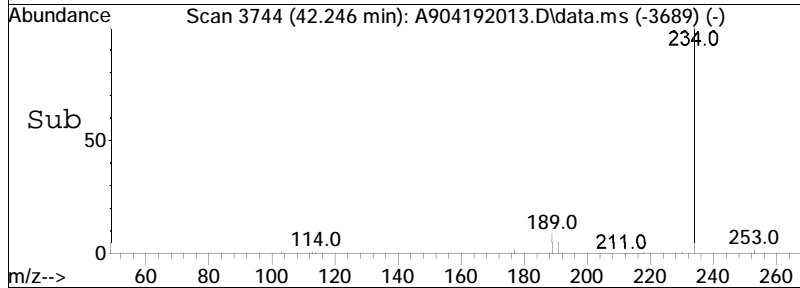
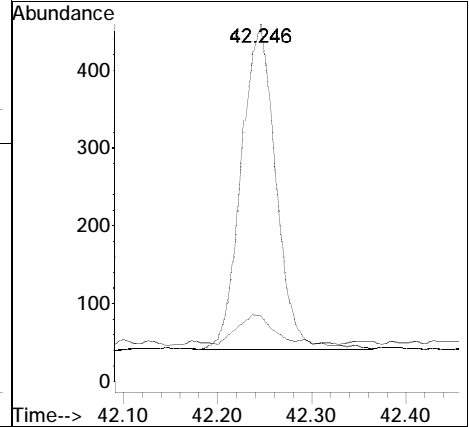
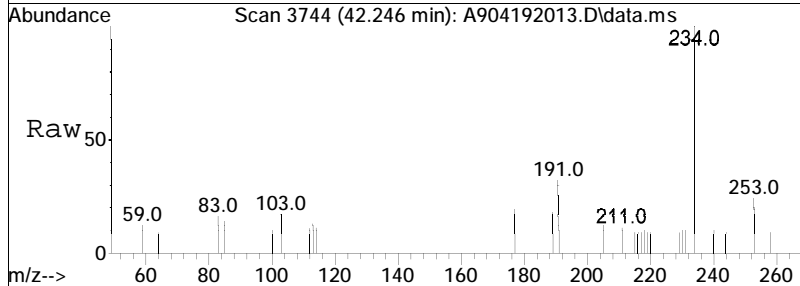
Tgt Ion: 202 Resp: 1798
 Ion Ratio Lower Upper
 202 100
 101 11.3 7.6 14.0

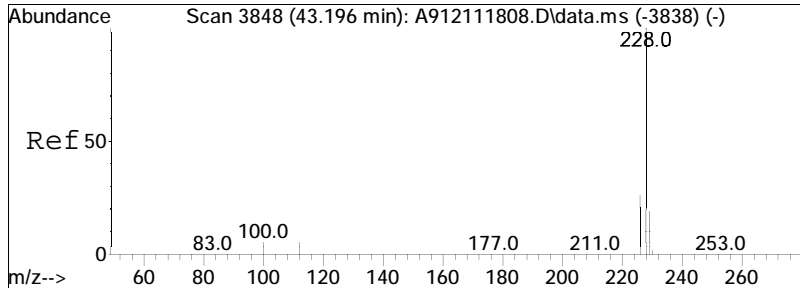




#67
 Naphthobenzothiophene-2,1-D
 Concen: 9.21 ng/mL
 RT: 42.246 min Scan# 3744
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

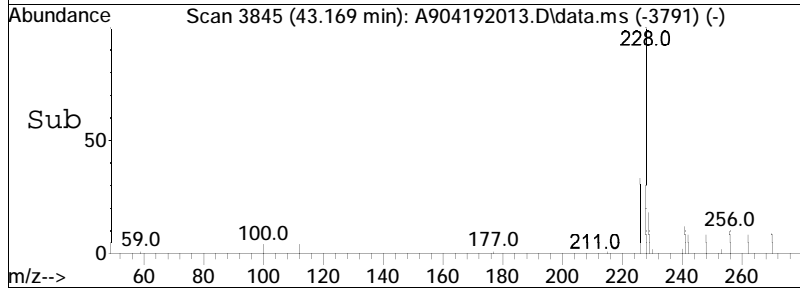
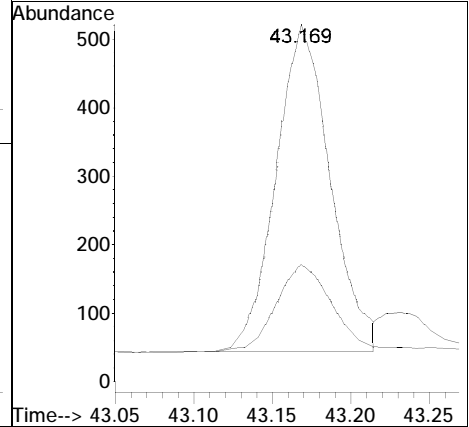
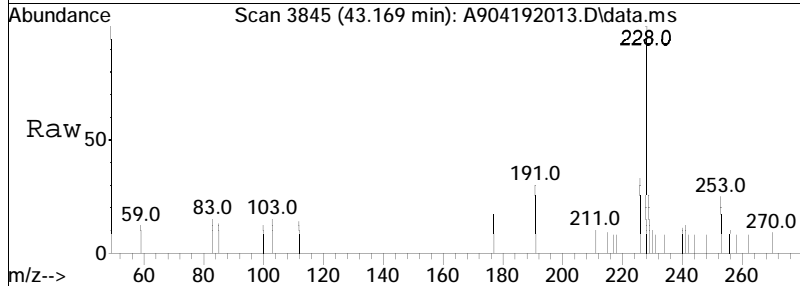
Tgt Ion	Resp	Lower	Upper
234	1059		
189	9.5	6.1	11.3

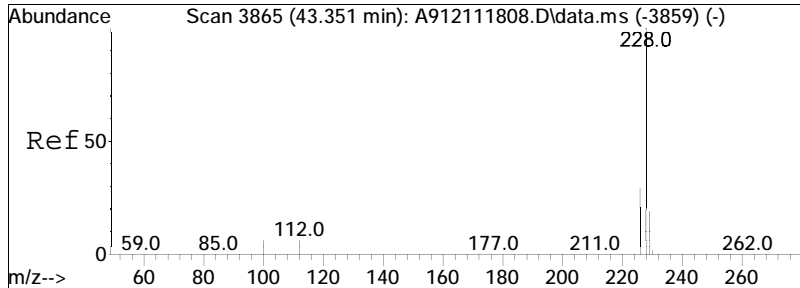




#75
 Benz[a]anthracene
 Concen: 9.85 ng/mL
 RT: 43.169 min Scan# 3845
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

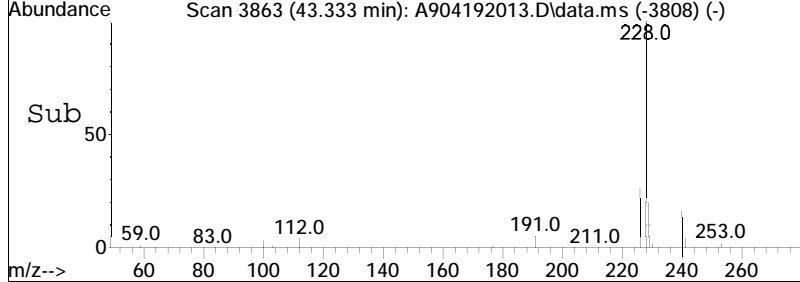
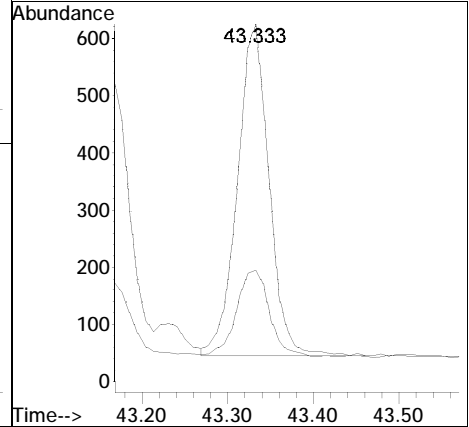
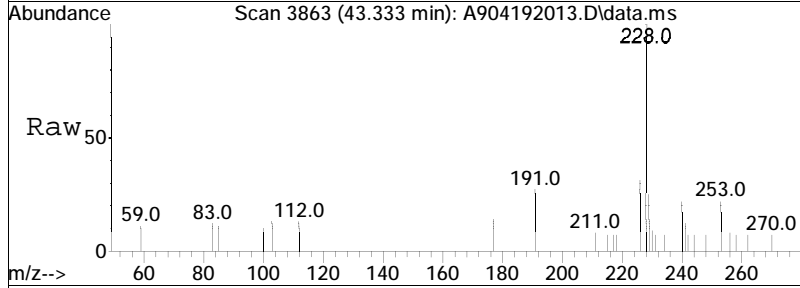
Tgt Ion: 228 Resp: 1153
 Ion Ratio Lower Upper
 228 100
 226 29.1 19.0 35.2

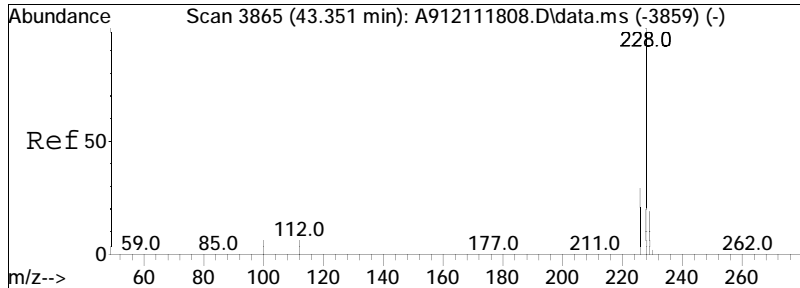




#76
 Chrysene
 Concen: 12.03 ng/mL
 RT: 43.333 min Scan# 3863
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

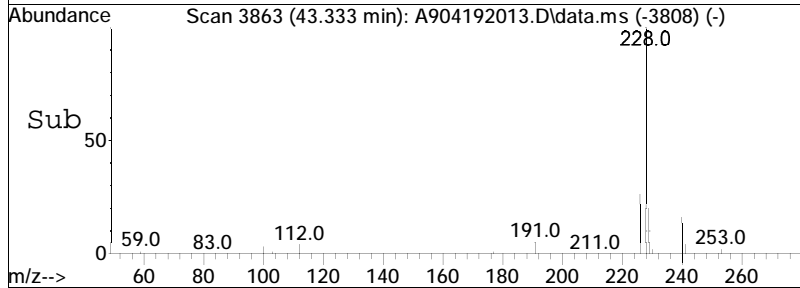
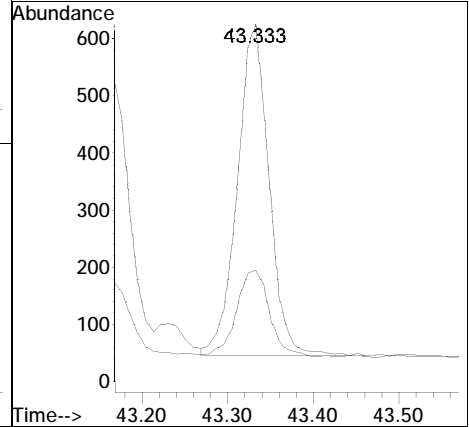
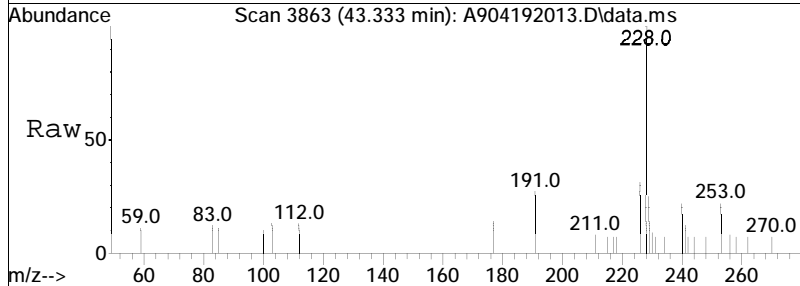
Tgt Ion	Resp	Lower	Upper
228	100		
226	26.9	21.0	39.0

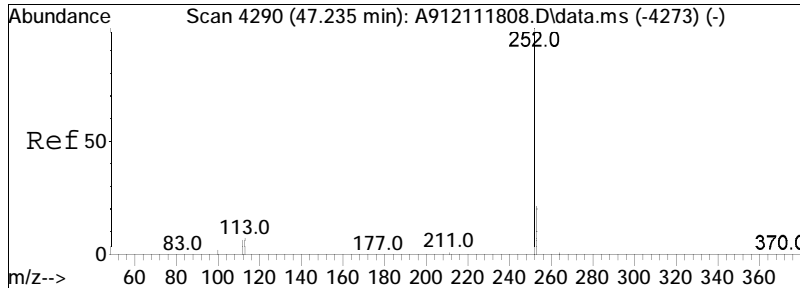




#77
 Chrysene/Triphenylene
 Concen: 12.03 ng/mL
 RT: 43.333 min Scan# 3863
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

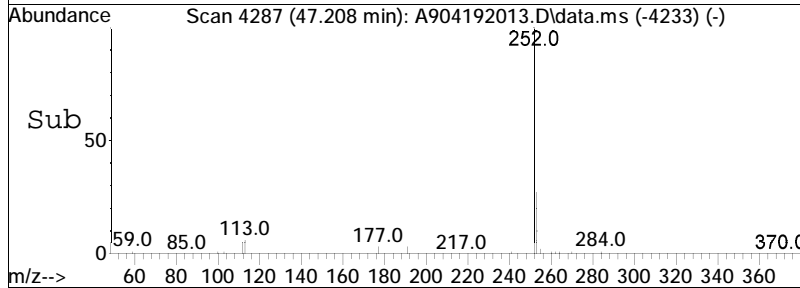
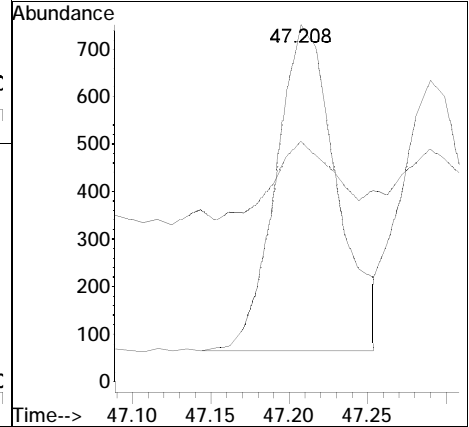
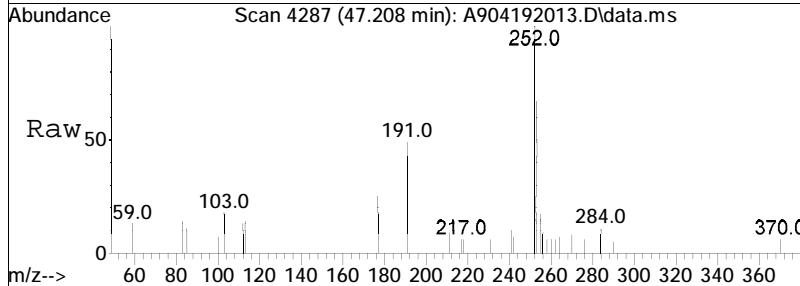
Tgt Ion: 228 Resp: 1489
 Ion Ratio Lower Upper
 228 100
 226 26.9 21.0 39.0

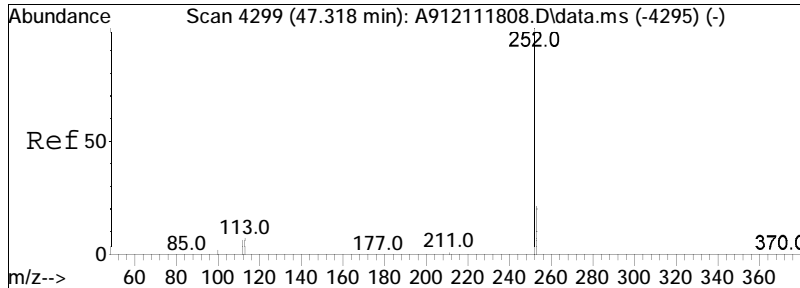




#84
 Benzo[b]fluoranthene
 Concen: 13.02 ng/mL
 RT: 47.208 min Scan# 4287
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

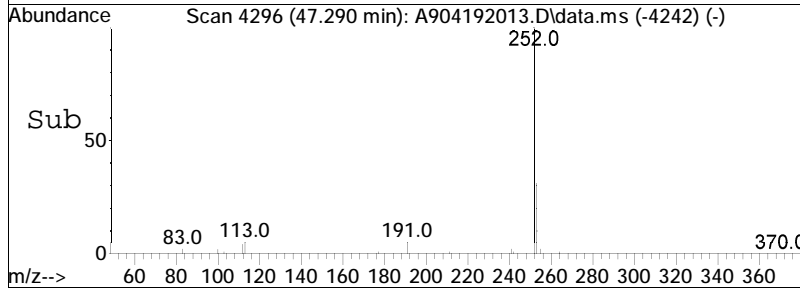
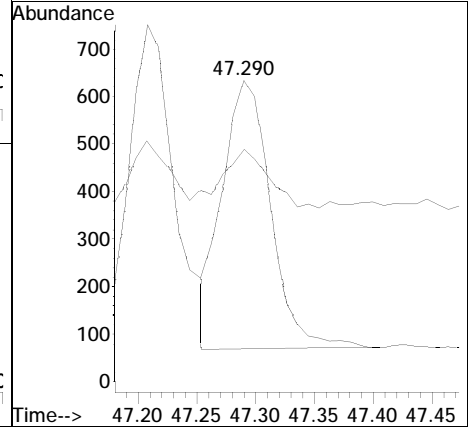
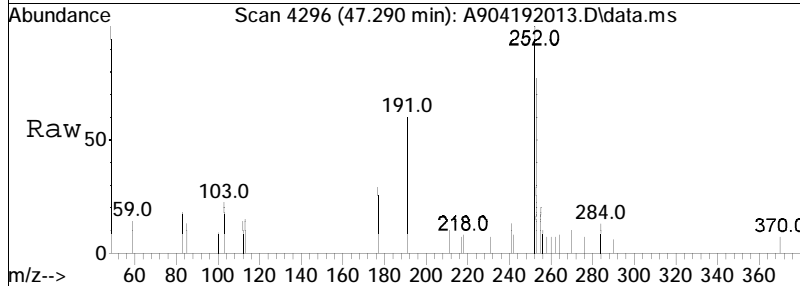
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.7	17.3	32.1

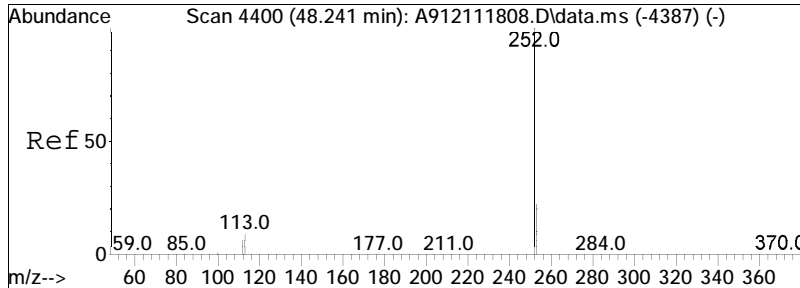




#85
 Benzo[j]+[k]fluoranthene
 Concen: 11.29 ng/mL
 RT: 47.290 min Scan# 4296
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

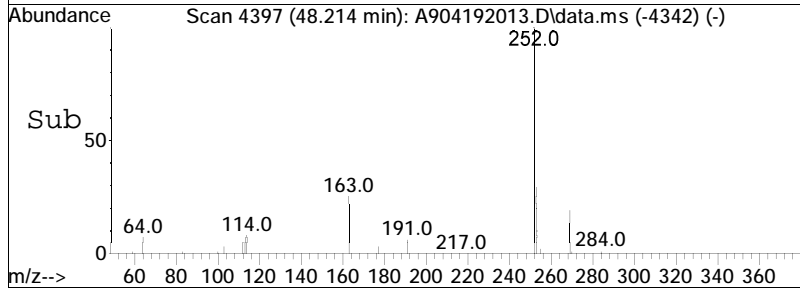
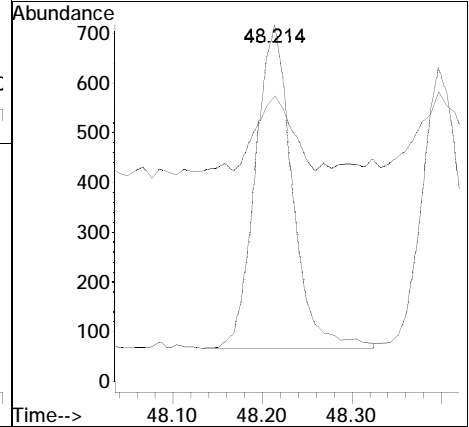
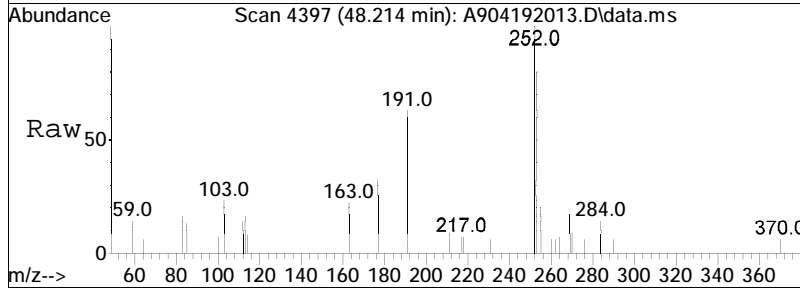
Tgt Ion	Resp	Lower	Upper
252	100		
253	20.2	17.6	32.8

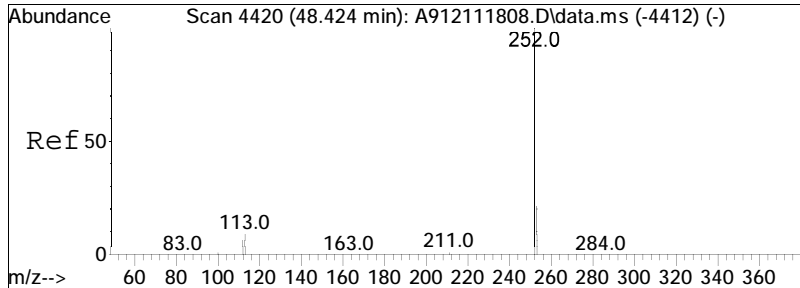




#88
 Benzo[e]pyrene
 Concen: 13.00 ng/mL
 RT: 48.214 min Scan# 4397
 Delta R.T. -0.000 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

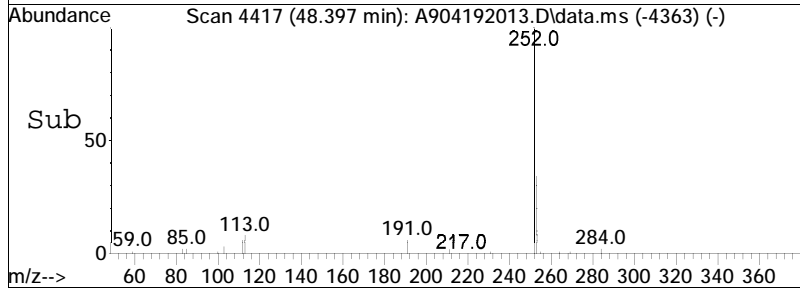
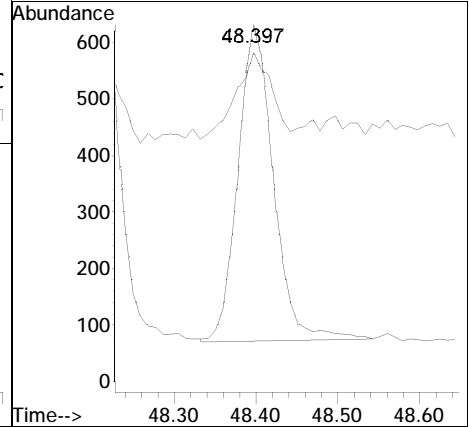
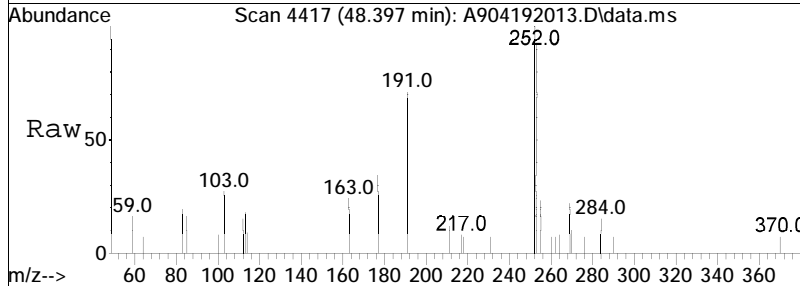
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.4	18.3	33.9

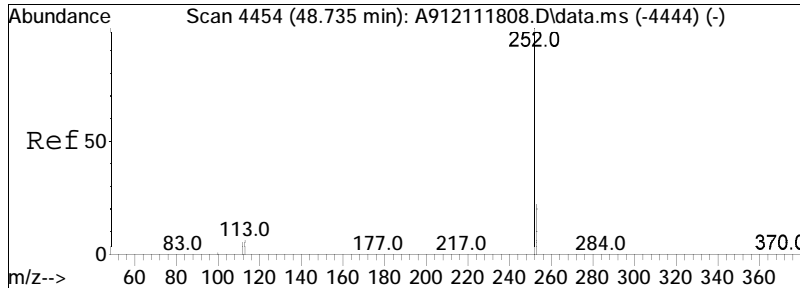




#90
 Benzo[a]pyrene
 Concen: 12.20 ng/mL
 RT: 48.397 min Scan# 4417
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

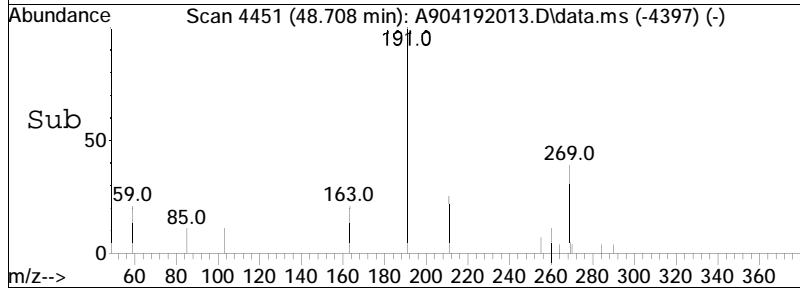
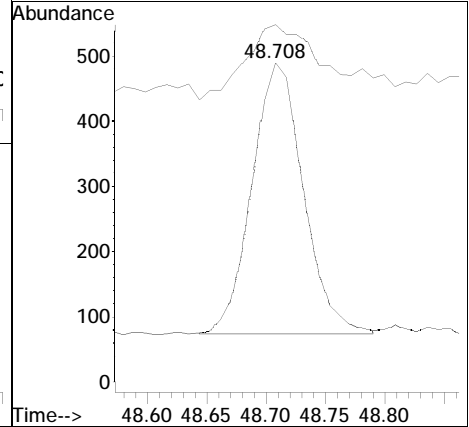
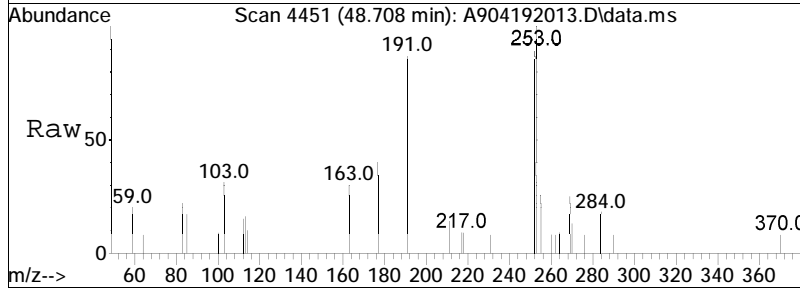
Tgt Ion	Resp	Lower	Upper
252	100		
253	27.3	19.2	35.6

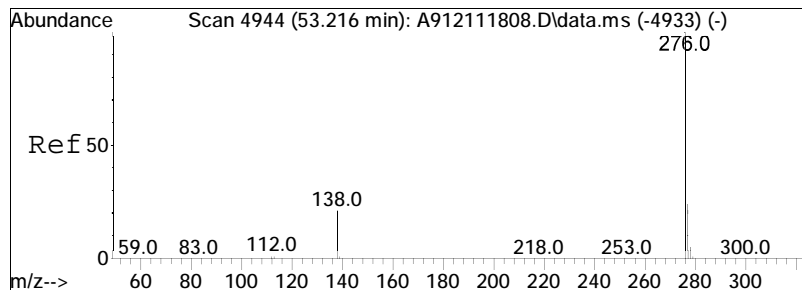




#91
 Perylene
 Concen: 9.87 ng/mL M4
 RT: 48.708 min Scan# 4451
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

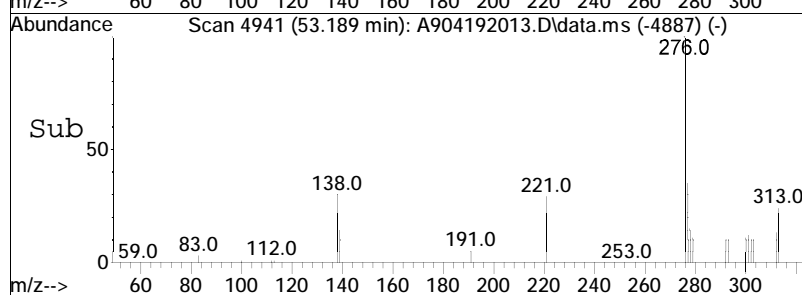
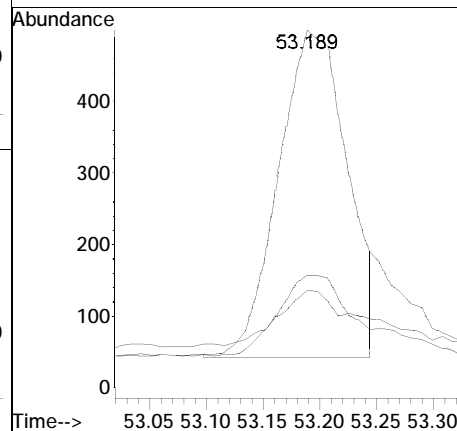
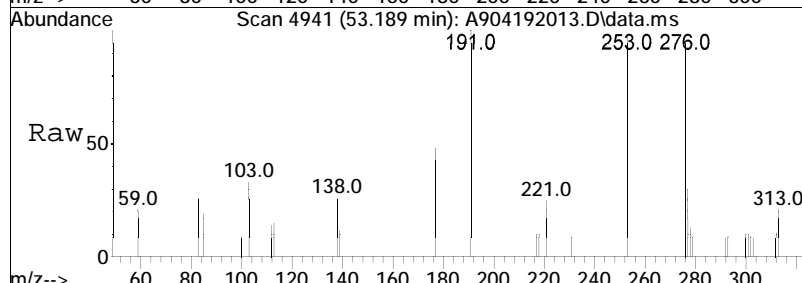
Tgt Ion	Resp	Lower	Upper
252	100		
253	36.7	19.9	36.9

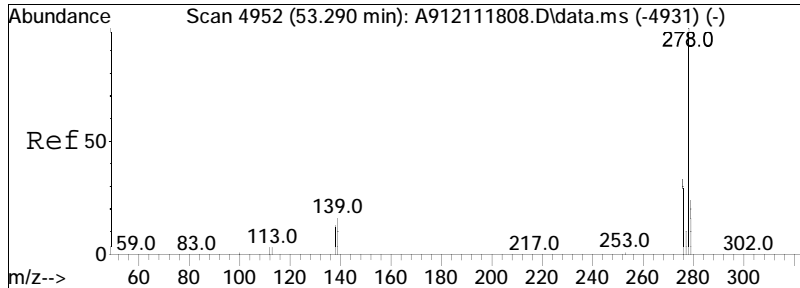




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 11.84 ng/mL M3
 RT: 53.189 min Scan# 4941
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

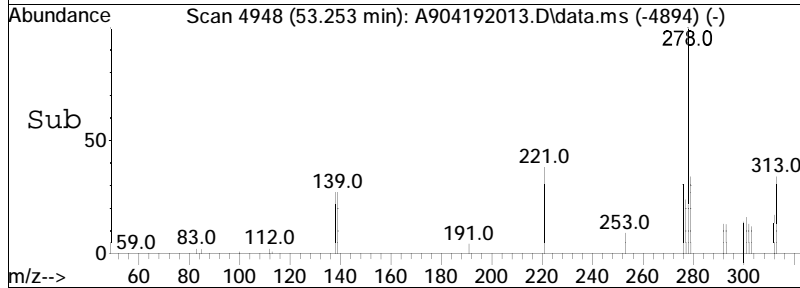
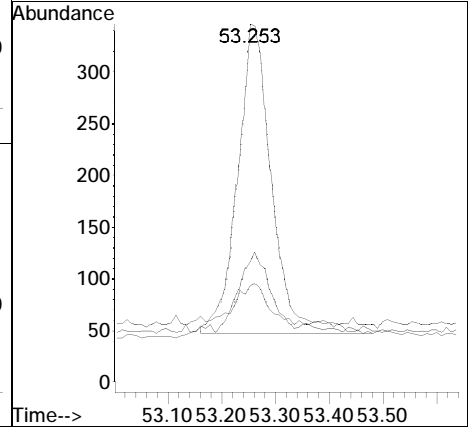
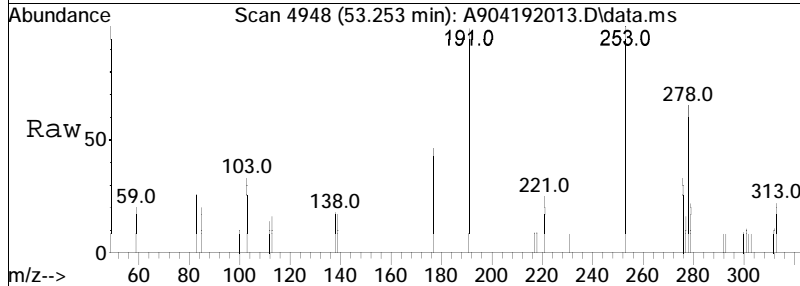
Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.4	12.2	22.6
277	29.3	18.6	34.6

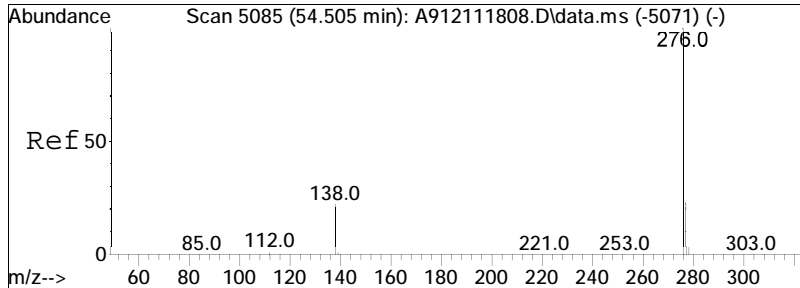




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 9.76 ng/mL
 RT: 53.253 min Scan# 4948
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

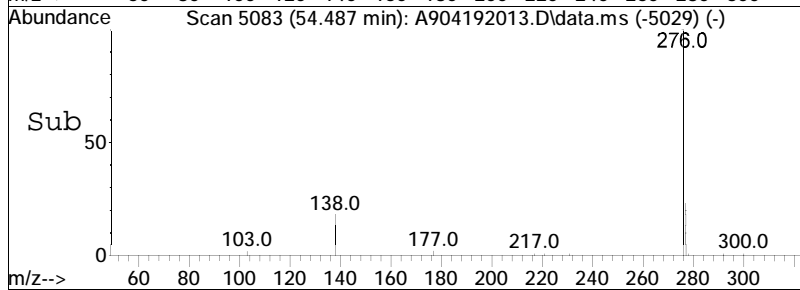
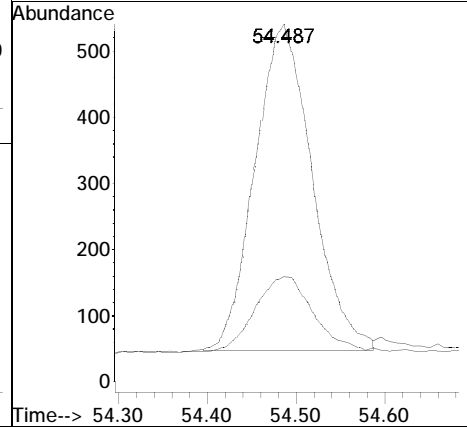
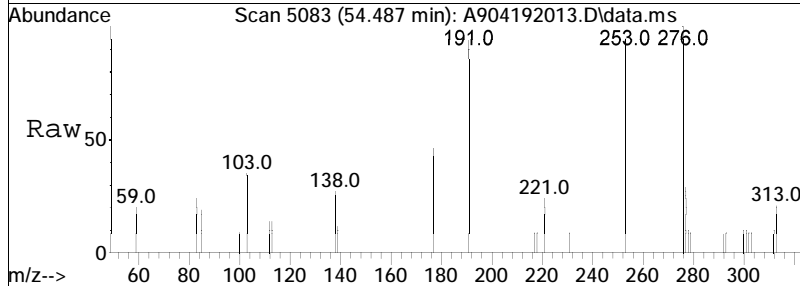
Tgt Ion	Resp	Lower	Upper
278	100		
139	11.1	8.3	15.5
279	21.1	16.8	31.2

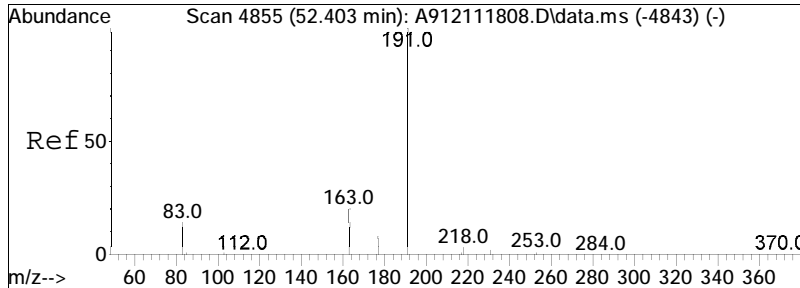




#95
 Benzo[g,h,i]perylene
 Concen: 13.05 ng/mL M4
 RT: 54.487 min Scan# 5083
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

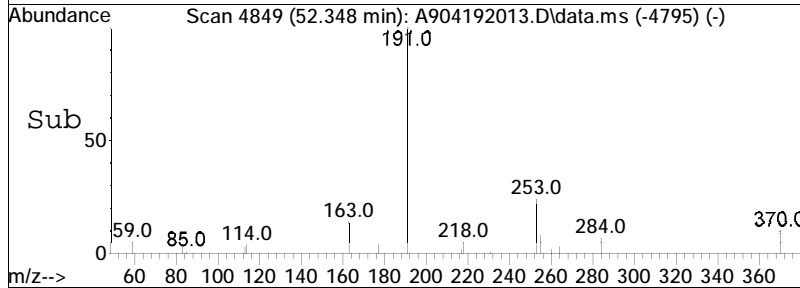
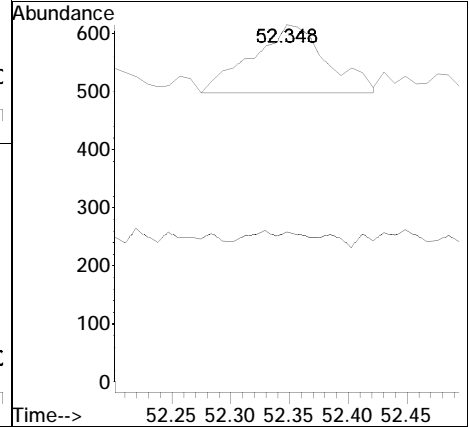
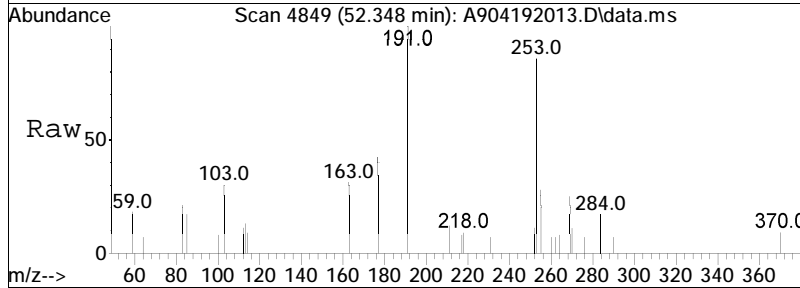
Tgt Ion	Resp	Lower	Upper
276	100		
277	24.7	17.4	32.2





#96
 Hopane (T19)
 Concen: 13.91 ng/mL
 RT: 52.348 min Scan# 4849
 Delta R.T. -0.009 min
 Lab File: A904192013.D
 Acq: 20 Apr 2020 7:32 am

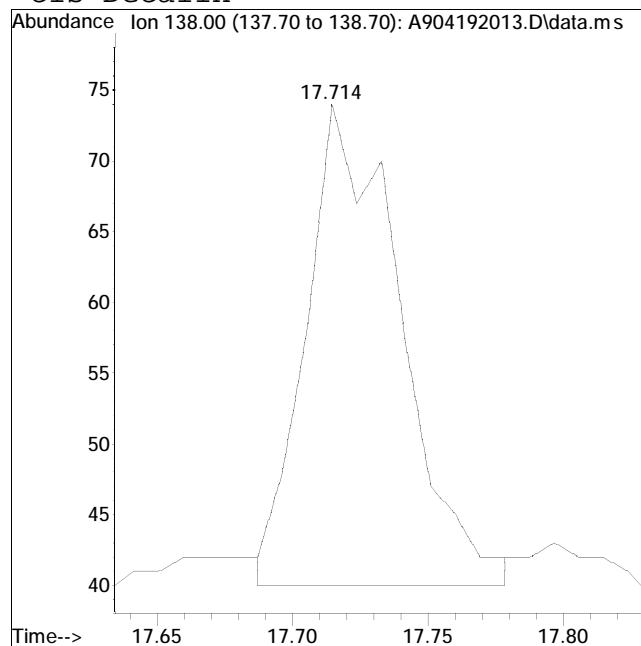
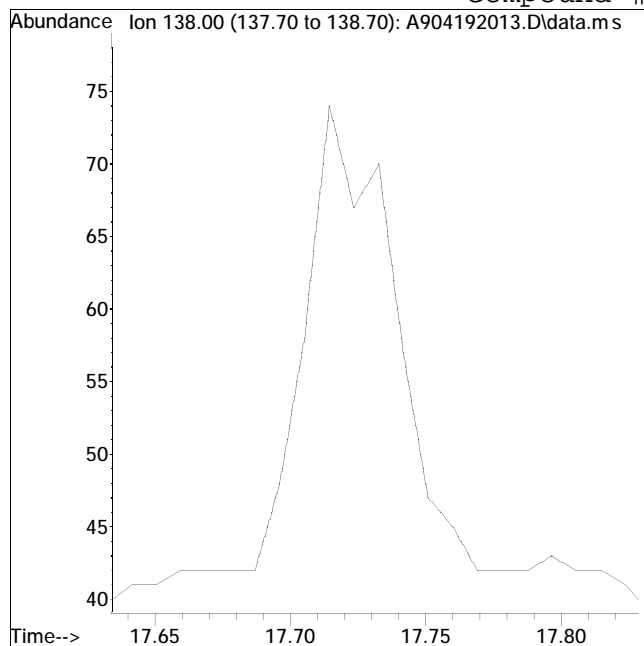
Tgt Ion	Resp	Lower	Upper
191	100		
177	0.0	17.2	32.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192013.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 7:32 am Instrument : PAH 9
Sample : I904192001a Quant Date : 4/21/2020 9:15 am

Compound #3: cis-Decalin



Original Peak Response = 0

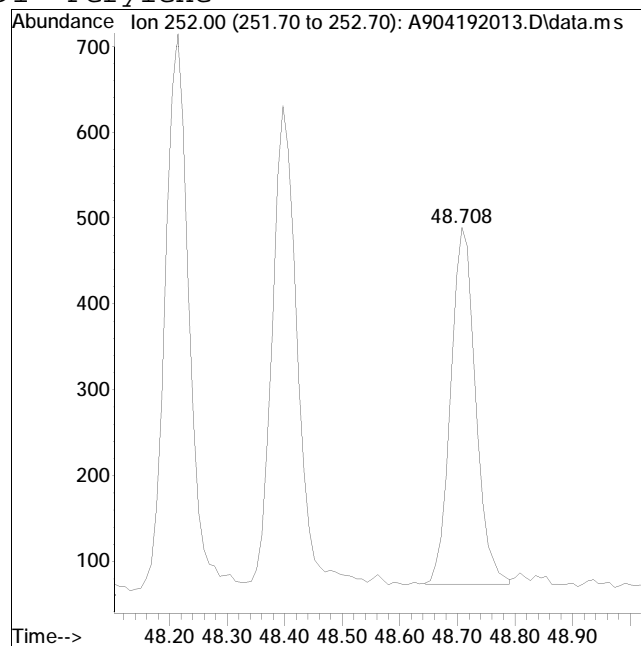
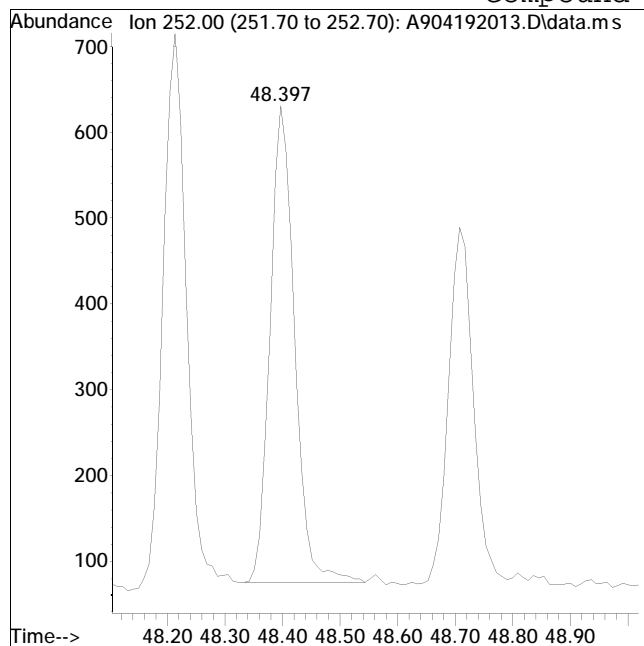
Manual Peak Response = 82 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192013.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 7:32 am Instrument : PAH 9
Sample : I904192001a Quant Date : 4/21/2020 9:15 am

Compound #91: Perylene



Original Peak Response = 1638

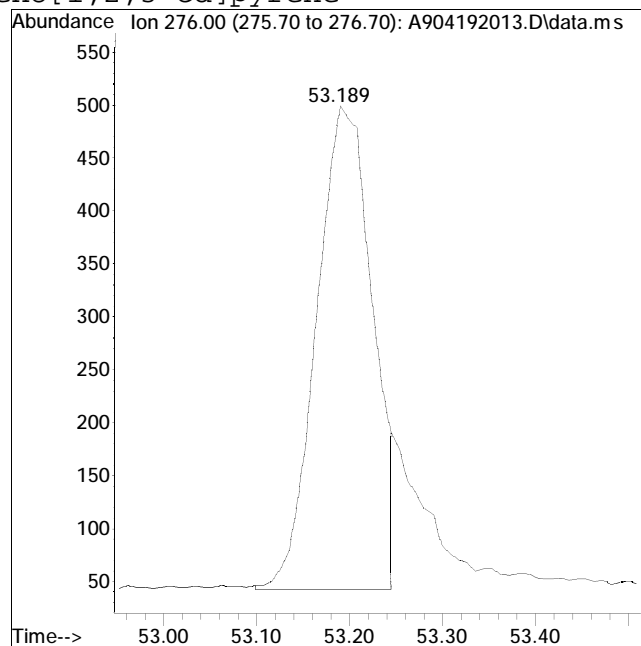
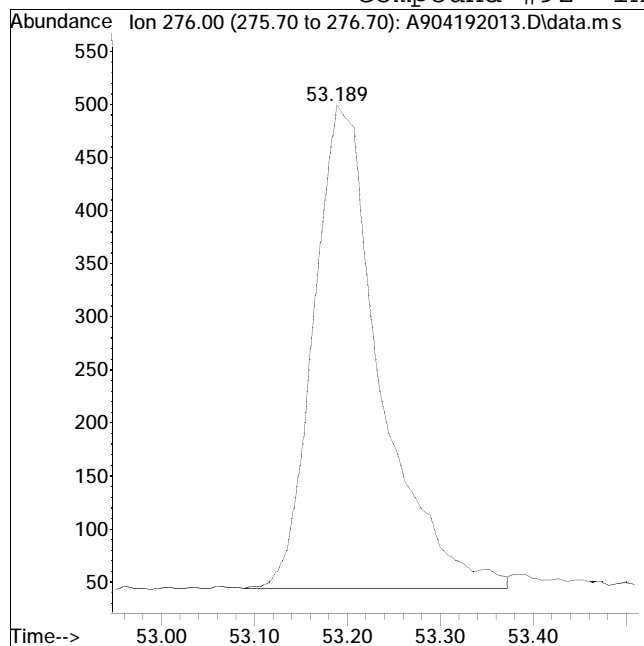
Manual Peak Response = 1244 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192013.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 7:32 am Instrument : PAH 9
Sample : I904192001a Quant Date : 4/21/2020 9:15 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 2276

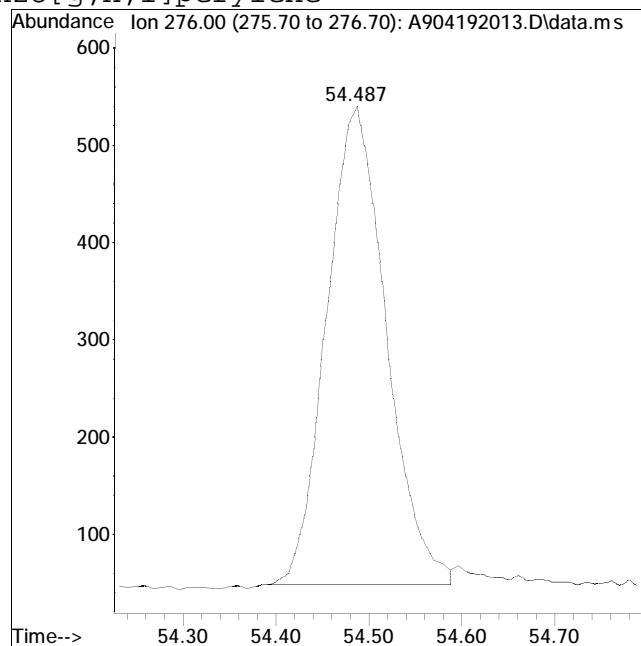
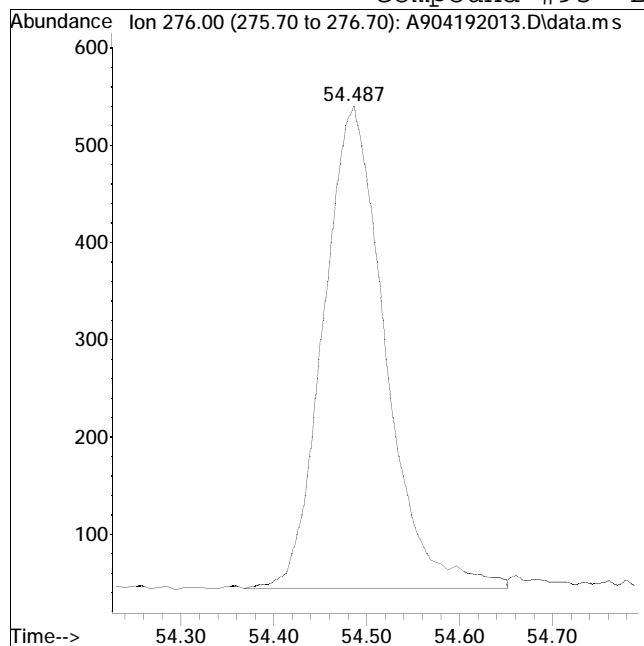
Manual Peak Response = 1931 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192013.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 7:32 am Instrument : PAH 9
Sample : I904192001a Quant Date : 4/21/2020 9:15 am

Compound #95: Benzo[g,h,i]perylene



Original Peak Response = 2299

Manual Peak Response = 2192 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192005.D
 Acq On : 19 Apr 2020 8:08 pm
 Operator : PAH9:ML
 Sample : I904192002
 Misc : WG1363075,FRBC39
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 10:11:54 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards						
1) Acenaphthene-d10	26.812	164	28399	500.000	ng/mL	0.00
74) Chrysene-d12	43.232	240	52784	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.850	136	2577	22.930	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.29%#
40) Phenanthrene-d10	32.670	188	2278	22.919	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.29%#
83) Benzo[b]fluoranthene-d12	47.135	264	3191	29.525	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.95%#
89) Benzo[a]pyrene-d12	48.314	264	2158	25.541	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.55%#
130) 5B(H)Cholane - Surr	43.872	217	591	37.431	ng/ml	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	3.74%#
Target Compounds						
2) trans-Decalin	16.510	138	285	12.678	ng/mL	100
3) cis-Decalin	17.723	138	226	13.221	ng/mL	100
9) Naphthalene	19.923	128	3053	22.441	ng/mL	100
14) 2-Methylnaphthalene	22.615	142	1928	21.862	ng/mL	100
15) 1-Methylnaphthalene	23.034	142	1856	21.949	ng/mL	100
16) Benzothiophene	20.142	134	2791	22.311	ng/mL	100
21) Biphenyl	24.495	154	2412	21.340	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.097	156	1658	21.101	ng/mL	100
23) Dibenzofuran	27.570	168	2777	21.772	ng/mL	97
24) Acenaphthylene	26.192	152	2812	21.425	ng/mL	100
25) Acenaphthene	26.931	153	1785	20.604	ng/mL	97
26) 2,3,5-Trimethylnaphthalen	28.482	170	1543	22.314	ng/mL	93
27) Fluorene	28.948	166	2069	21.439	ng/mL	98
31) Dibenzothiophene	32.259	184	3045	19.827	ng/mL	98
41) Phenanthrene	32.752	178	3129	20.941	ng/mL	99
52) Retene	39.736	234	977	21.368	ng/mL	98
53) Anthracene	32.934	178	2716	20.359	ng/mL	99
54) Carbazole	33.592	167	2733	21.944	ng/mL	97
55) 1-Methylphenanthrene	35.253	192	2202	21.294	ng/mL	99
56) Fluoranthene	37.526	202	3855	23.442	ng/mL	99
57) Benzo(b)fluorene	40.037	216	2086	21.053	ng/mL	97
59) Pyrene	38.402	202	4144	24.343	ng/mL	97
67) Naphthobenzothiophene-2,1	42.246	234	3059	18.583	ng/mL	98
75) Benz[a]anthracene	43.178	228	3294M3	24.814	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192005.D
 Acq On : 19 Apr 2020 8:08 pm
 Operator : PAH9:ML
 Sample : I904192002
 Misc : WG1363075,FRBC39
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 10:11:54 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.333	228	3602	26.344	ng/mL	93
77) Chrysene/Triphenylene	43.333	228	3602	26.344	ng/mL	93
84) Benzo[b]fluoranthene	47.217	252	4290	25.616	ng/mL	99
85) Benzo[j]+[k]fluoranthene	47.299	252	4301	24.997	ng/mL	95
88) Benzo[e]pyrene	48.214	252	4403	26.883	ng/mL	98
90) Benzo[a]pyrene	48.406	252	3974	25.817	ng/mL	97
91) Perylene	48.717	252	3566	23.916	ng/mL	98
92) Indeno[1,2,3-cd]pyrene	53.198	276	4710M3	24.691	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.271	278	3783	22.401	ng/mL	99
95) Benzo[g,h,i]perylene	54.496	276	5269M4	28.328	ng/mL	
96) Hopane (T19)	52.357	191	1168	44.758	ng/mL#	51

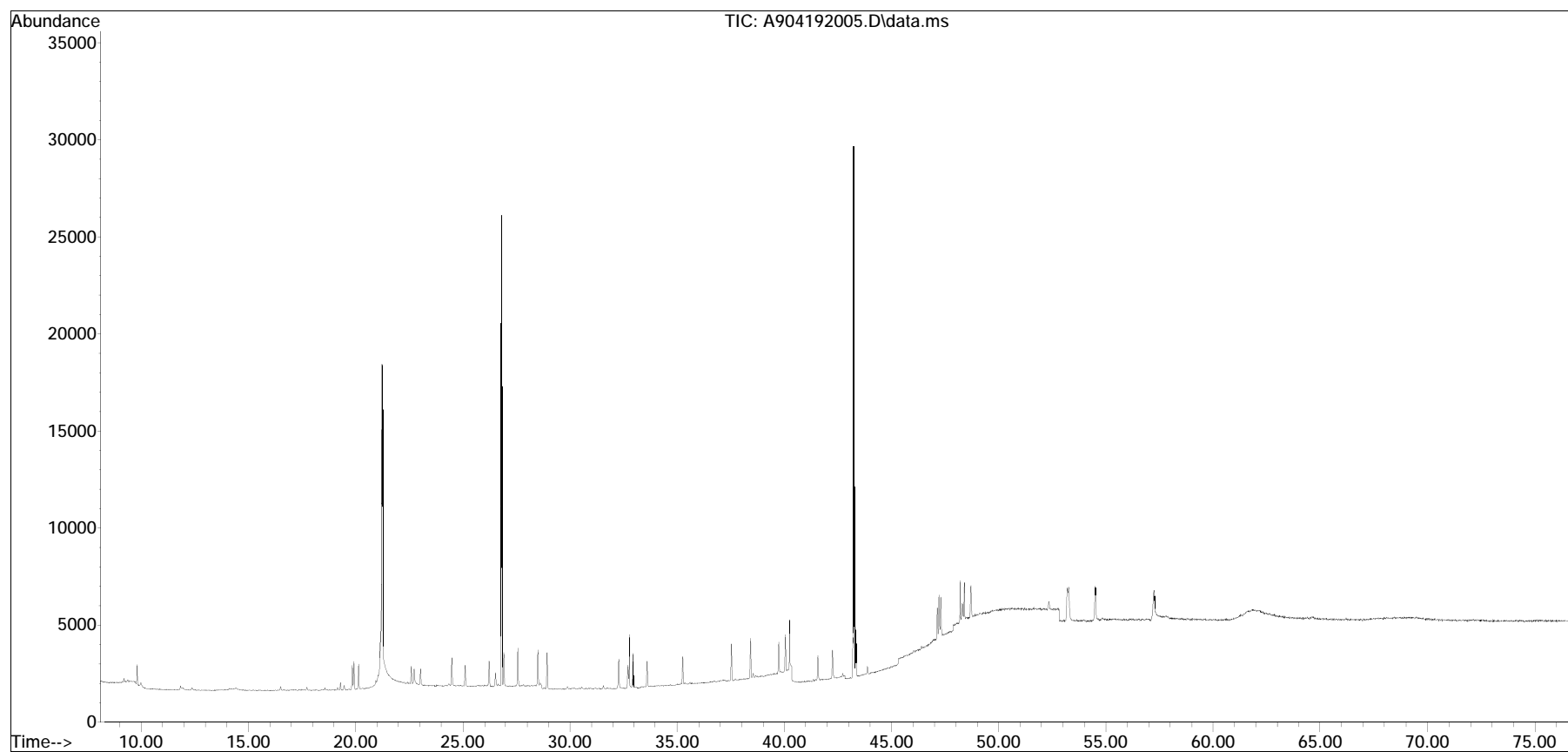
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192005.D
Acq On : 19 Apr 2020 8:08 pm
Operator : PAH9:ML
Sample : I904192002
Misc : WG1363075,FRBC39
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 10:11:54 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 08:59:57 2020
Response via : Initial Calibration

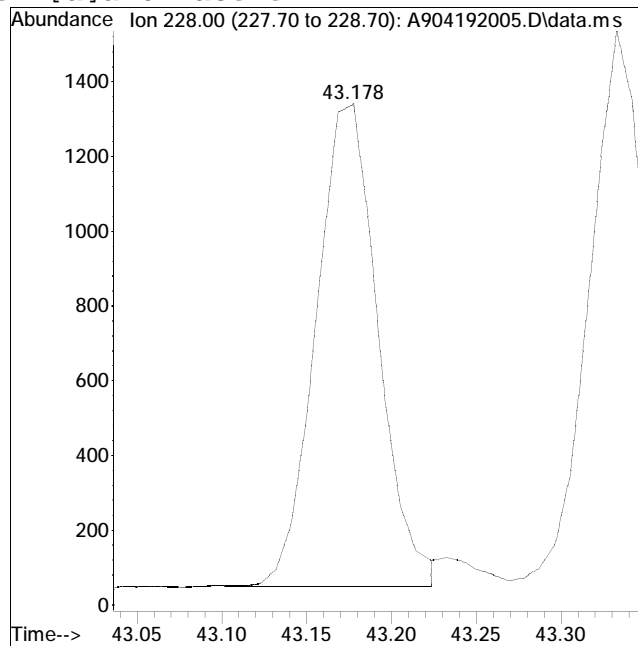
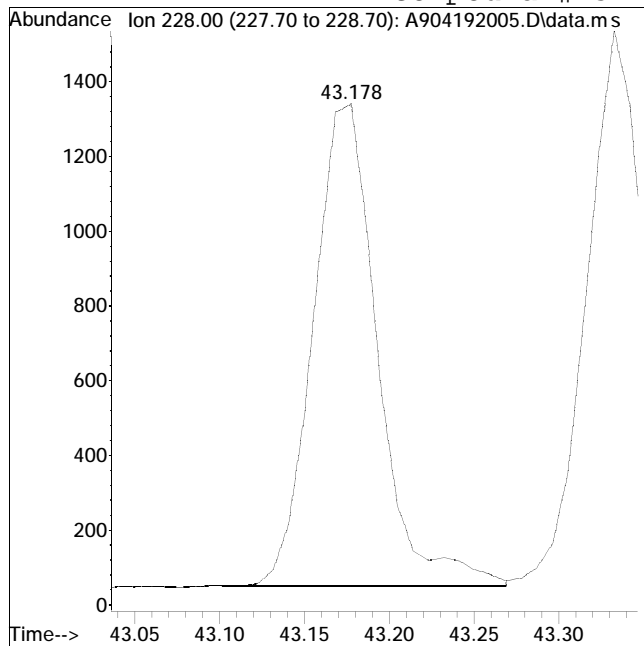
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192005.D Operator : PAH9:ML
Date Inj'd : 4/19/2020 8:08 pm Instrument : PAH 9
Sample : I904192002 Quant Date : 4/21/2020 9:00 am

Compound #75: Benz[a]anthracene



Original Peak Response = 3405

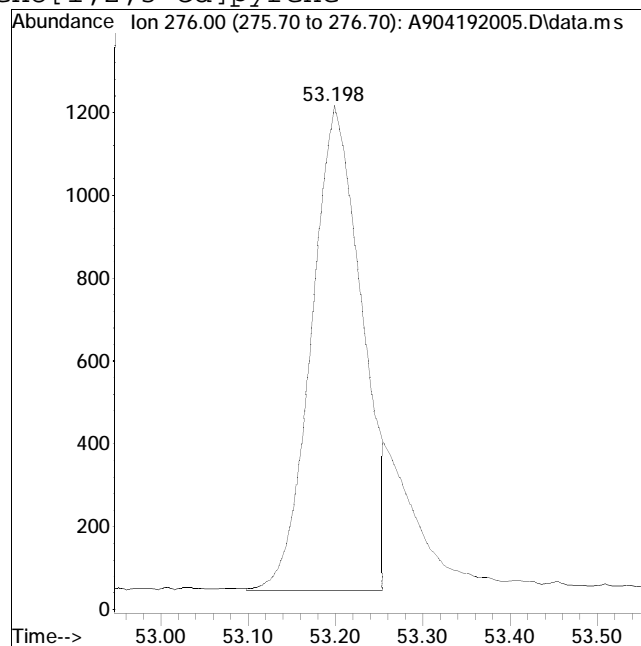
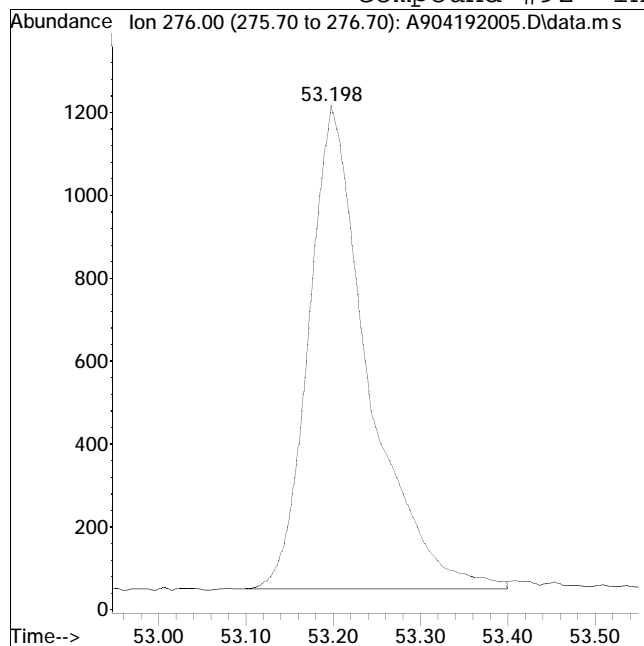
Manual Peak Response = 3294 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192005.D Operator : PAH9:ML
Date Inj'd : 4/19/2020 8:08 pm Instrument : PAH 9
Sample : I904192002 Quant Date : 4/21/2020 9:00 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 5564

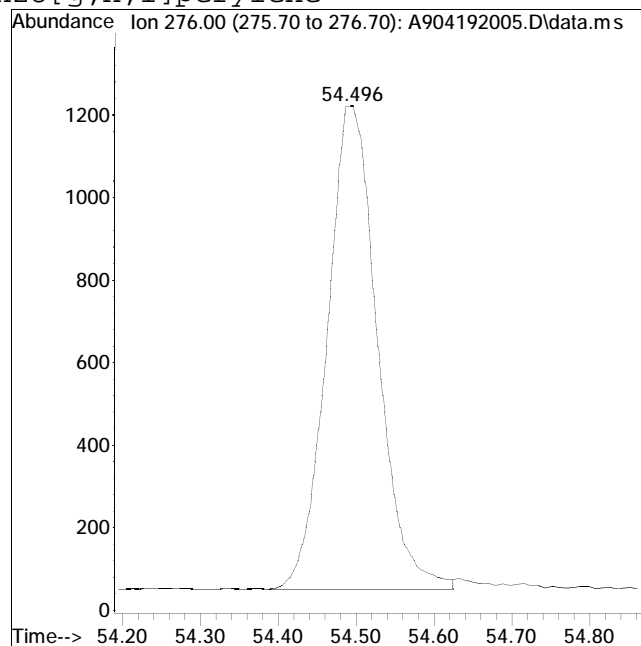
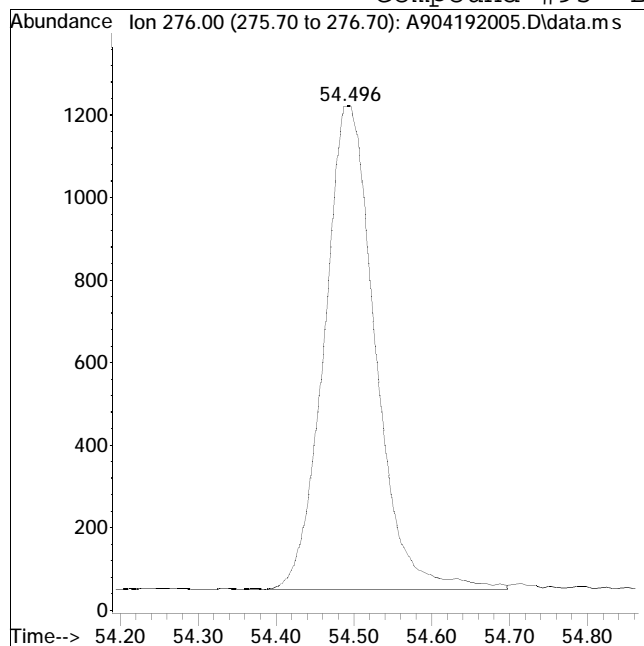
Manual Peak Response = 4710 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192005.D Operator : PAH9:ML
Date Inj'd : 4/19/2020 8:08 pm Instrument : PAH 9
Sample : I904192002 Quant Date : 4/21/2020 9:00 am

Compound #95: Benzo[g,h,i]perylene



Original Peak Response = 5324

Manual Peak Response = 5269 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192006.D
 Acq On : 19 Apr 2020 9:34 pm
 Operator : PAH9:ML
 Sample : I904192003
 Misc : WG1363075,FRBC40
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 09:06:52 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.812	164	28255	500.000	ng/mL	0.00	
74) Chrysene-d12	43.232	240	52635	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.850	136	10251	91.679	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	9.17%#		
40) Phenanthrene-d10	32.670	188	9180	92.832	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	9.28%#		
83) Benzo[b]fluoranthene-d12	47.125	264	12172	112.941	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	11.29%#		
89) Benzo[a]pyrene-d12	48.315	264	8227	97.648	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	9.76%#		
130) 5B(H)Cholane - Surr	43.872	217	2169	137.762	ng/ml	0.00	
Spiked Amount	1000.000		Recovery	=	13.78%#		
Target Compounds							
2) trans-Decalin	16.510	138	1099	49.139	ng/mL	100	Qvalue
3) cis-Decalin	17.723	138	875	51.450	ng/mL	100	
9) Naphthalene	19.923	128	12016	88.774	ng/mL	100	
14) 2-Methylnaphthalene	22.615	142	7747	88.292	ng/mL	100	
15) 1-Methylnaphthalene	23.035	142	7464	88.720	ng/mL	100	
16) Benzothiophene	20.142	134	11057	88.838	ng/mL	100	
21) Biphenyl	24.495	154	9616	85.509	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.097	156	6711	85.846	ng/mL	100	
23) Dibenzofuran	27.570	168	11158	87.926	ng/mL	96	
24) Acenaphthylene	26.201	152	11325	86.726	ng/mL	100	
25) Acenaphthene	26.931	153	7152	82.975	ng/mL	97	
26) 2,3,5-Trimethylnaphthalen	28.482	170	6183	89.871	ng/mL	92	
27) Fluorene	28.948	166	8307	86.517	ng/mL	99	
31) Dibenzothiophene	32.259	184	12346	80.801	ng/mL	99	
41) Phenanthrene	32.752	178	12474	83.908	ng/mL	98	
52) Retene	39.736	234	3971	87.291	ng/mL	99	
53) Anthracene	32.935	178	11233	84.631	ng/mL	97	
54) Carbazole	33.592	167	10916	88.094	ng/mL	96	
55) 1-Methylphenanthrene	35.253	192	8922	86.717	ng/mL	98	
56) Fluoranthene	37.517	202	13421	82.027	ng/mL	99	
57) Benzo(b)fluorene	40.037	216	8088	82.046	ng/mL	98	
59) Pyrene	38.403	202	13982	82.553	ng/mL	98	
67) Naphthobenzothiophene-2,1	42.246	234	11651	71.138	ng/mL	100	
75) Benz[a]anthracene	43.169	228	12494	94.384	ng/mL	96	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192006.D
 Acq On : 19 Apr 2020 9:34 pm
 Operator : PAH9:ML
 Sample : I904192003
 Misc : WG1363075,FRBC40
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 09:06:52 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.333	228	12692	93.087	ng/mL	95
77) Chrysene/Triphenylene	43.333	228	12692	93.087	ng/mL	95
84) Benzo[b]fluoranthene	47.217	252	14527	86.987	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.299	252	14759	86.021	ng/mL	91
88) Benzo[e]pyrene	48.214	252	14094	86.297	ng/mL	96
90) Benzo[a]pyrene	48.406	252	13669	89.051	ng/mL	93
91) Perylene	48.717	252	12997	87.414	ng/mL	89
92) Indeno[1,2,3-cd]pyrene	53.198	276	15175M3	79.776	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.271	278	14237	84.541	ng/mL	98
95) Benzo[g,h,i]perylene	54.496	276	16135	86.993	ng/mL	98
96) Hopane (T19)	52.357	191	4133	158.827	ng/mL#	70

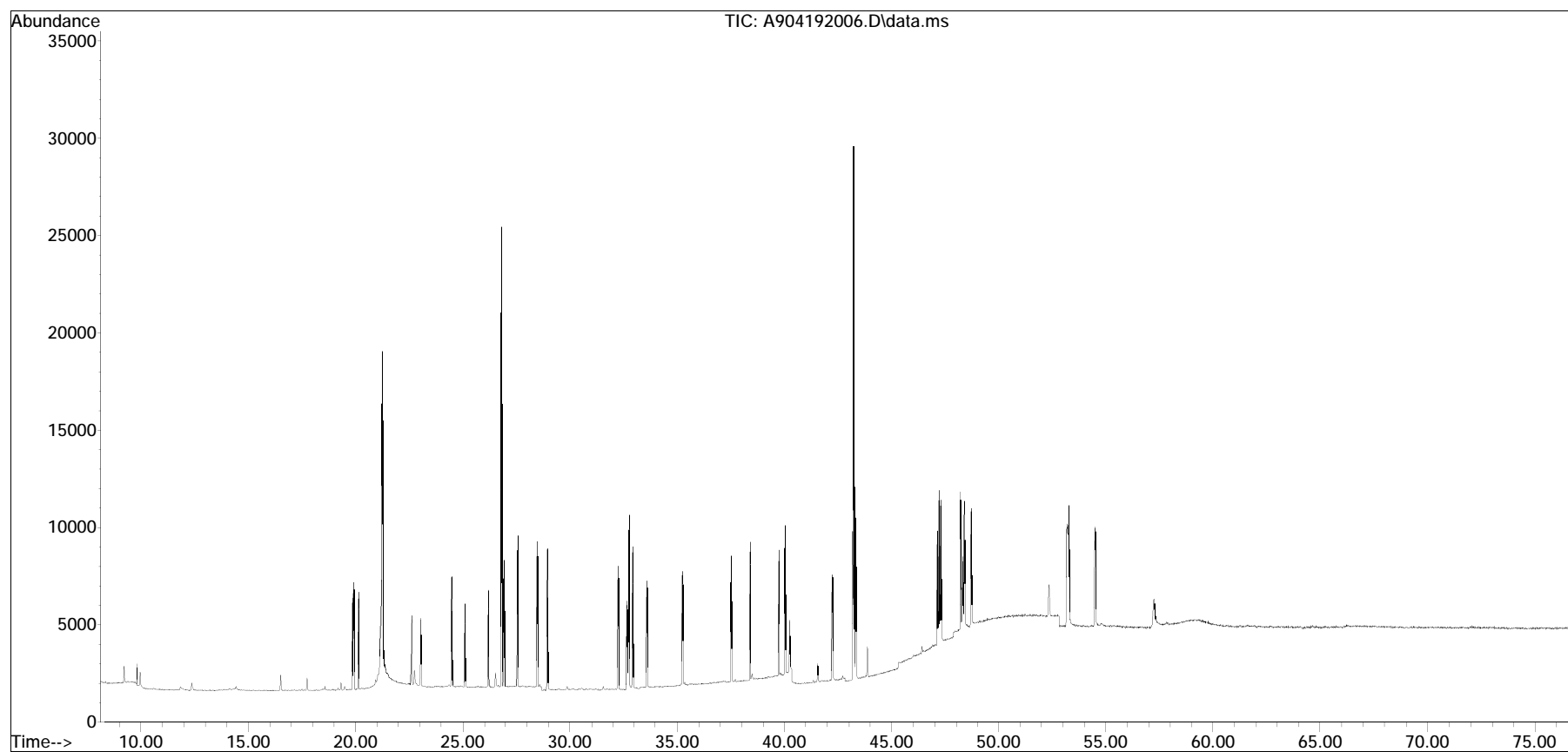
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192006.D
Acq On : 19 Apr 2020 9:34 pm
Operator : PAH9:ML
Sample : I904192003
Misc : WG1363075,FRBC40
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 21 09:06:52 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 08:59:57 2020
Response via : Initial Calibration

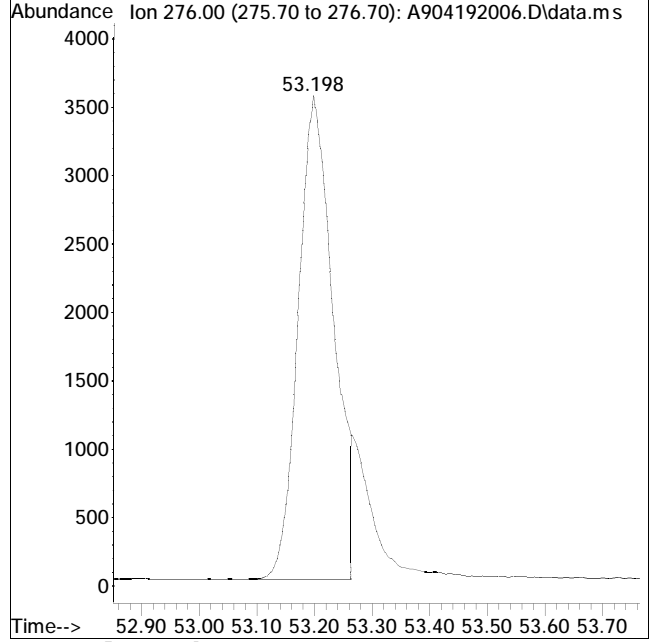
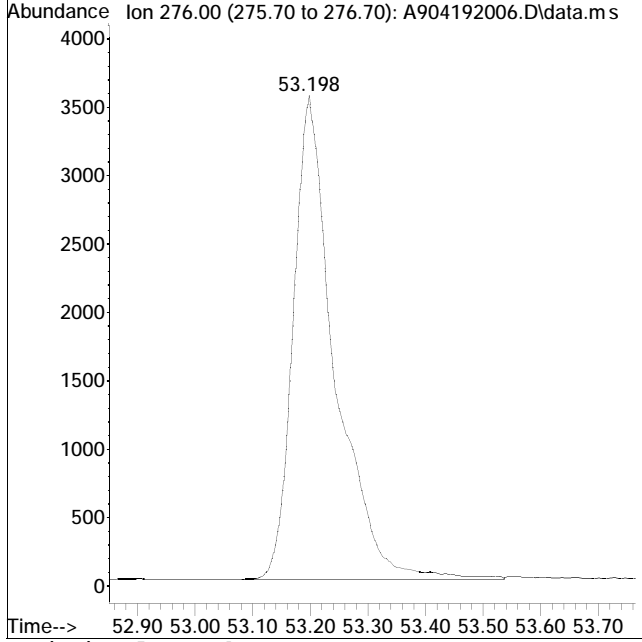
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192006.D Operator : PAH9:ML
Date Inj'd : 4/19/2020 9:34 pm Instrument : PAH 9
Sample : I904192003 Quant Date : 4/21/2020 9:00 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 17818

Manual Peak Response = 15175 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192007.D
 Acq On : 19 Apr 2020 10:59 pm
 Operator : PAH9:ML
 Sample : I904192004
 Misc : WG1363075,FRBC41
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 09:07:55 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.813	164	28357	500.000	ng/mL	0.00	
74) Chrysene-d12	43.233	240	53320	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.841	136	51730	460.981	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	46.10%#		
40) Phenanthrene-d10	32.670	188	47288	476.475	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	47.65%#		
83) Benzo[b]fluoranthene-d12	47.135	264	62383	571.399	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	57.14%		
89) Benzo[a]pyrene-d12	48.315	264	41295	483.841	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	48.38%#		
130) 5B(H)Cholane - Surr	43.872	217	11126	697.579	ng/ml	0.00	
Spiked Amount	1000.000		Recovery	=	69.76%		
Target Compounds							
2) trans-Decalin	16.510	138	5434	242.093	ng/mL	100	Qvalue
3) cis-Decalin	17.724	138	4246	248.767	ng/mL	100	
9) Naphthalene	19.923	128	60672	446.632	ng/mL	100	
14) 2-Methylnaphthalene	22.615	142	39197	445.120	ng/mL	100	
15) 1-Methylnaphthalene	23.035	142	37601	445.332	ng/mL	100	
16) Benzothiophene	20.142	134	56054	448.746	ng/mL	100	
21) Biphenyl	24.495	154	48436	429.161	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.097	156	34496	439.682	ng/mL	100	
23) Dibenzofuran	27.570	168	56063	440.190	ng/mL	97	
24) Acenaphthylene	26.192	152	58706	447.949	ng/mL	100	
25) Acenaphthene	26.931	153	36614	423.257	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	28.482	170	31649	458.369	ng/mL	93	
27) Fluorene	28.948	166	42905	445.244	ng/mL	98	
31) Dibenzothiophene	32.260	184	63065	411.255	ng/mL	100	
41) Phenanthrene	32.752	178	63074	422.749	ng/mL	98	
52) Retene	39.736	234	20542	449.930	ng/mL	99	
53) Anthracene	32.935	178	58225	437.098	ng/mL	98	
54) Carbazole	33.592	167	56703	455.956	ng/mL	96	
55) 1-Methylphenanthrene	35.253	192	45629	441.892	ng/mL	100	
56) Fluoranthene	37.517	202	67665	412.071	ng/mL	100	
57) Benzo(b)fluorene	40.037	216	42899	433.610	ng/mL	98	
59) Pyrene	38.403	202	70439	414.393	ng/mL	99	
67) Naphthobenzothiophene-2,1	42.247	234	59886	364.333	ng/mL	100	
75) Benz[a]anthracene	43.178	228	63192	471.243	ng/mL	96	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192007.D
 Acq On : 19 Apr 2020 10:59 pm
 Operator : PAH9:ML
 Sample : I904192004
 Misc : WG1363075,FRBC41
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 21 09:07:55 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.333	228	64488	466.897	ng/mL	94
77) Chrysene/Triphenylene	43.333	228	64488	466.897	ng/mL	94
84) Benzo[b]fluoranthene	47.217	252	71891	424.951	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.299	252	73595	423.429	ng/mL	93
88) Benzo[e]pyrene	48.214	252	69287	418.793	ng/mL	92
90) Benzo[a]pyrene	48.406	252	67972	437.134	ng/mL	89
91) Perylene	48.717	252	65101	432.223	ng/mL	89
92) Indeno[1,2,3-cd]pyrene	53.198	276	79289M3	411.472	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.262	278	74228	435.114	ng/mL	99
95) Benzo[g,h,i]perylene	54.496	276	77903	414.623	ng/mL	98
96) Hopane (T19)	52.357	191	20055	760.794	ng/mL#	66

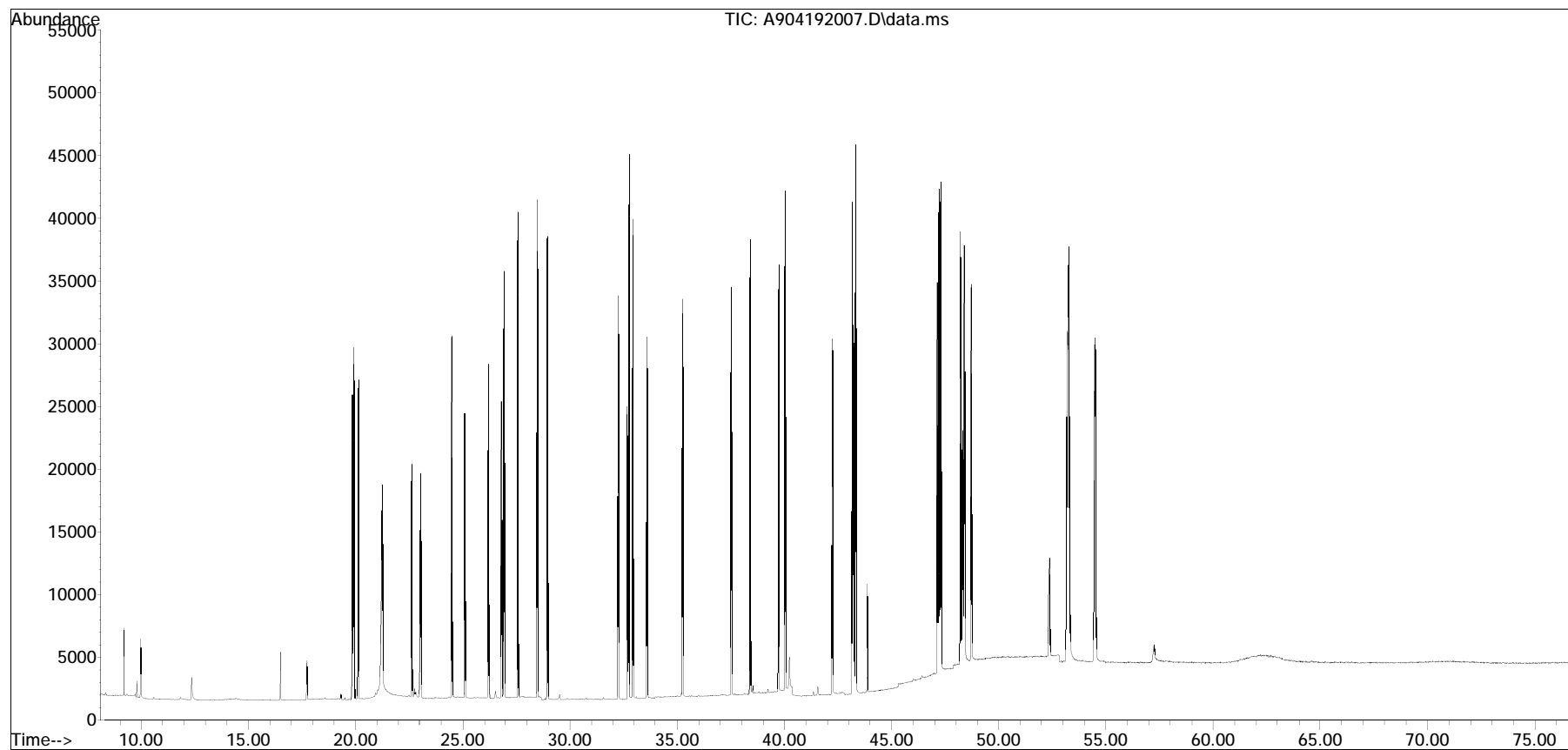
(#) = qualifier out of range (m) = manual integration (+) = signals summed

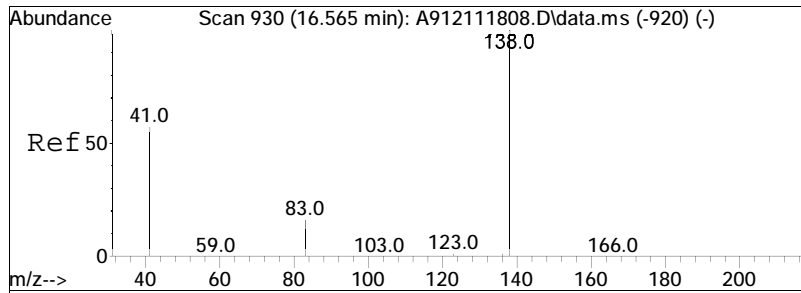
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192007.D
Acq On : 19 Apr 2020 10:59 pm
Operator : PAH9:ML
Sample : I904192004
Misc : WG1363075,FRBC41
ALS Vial : 7 Sample Multiplier: 1

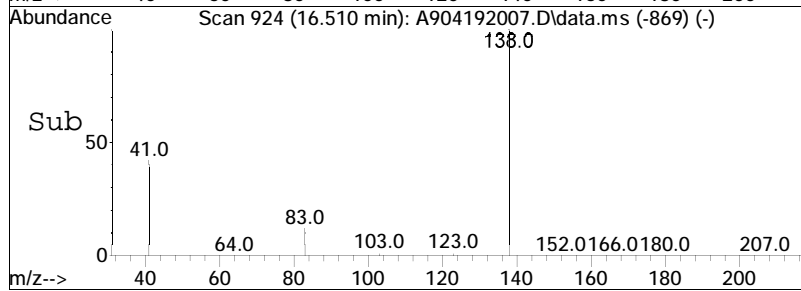
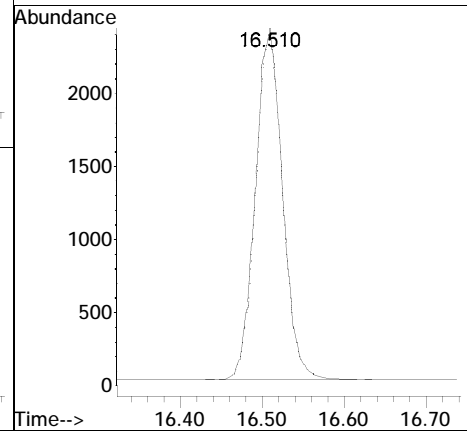
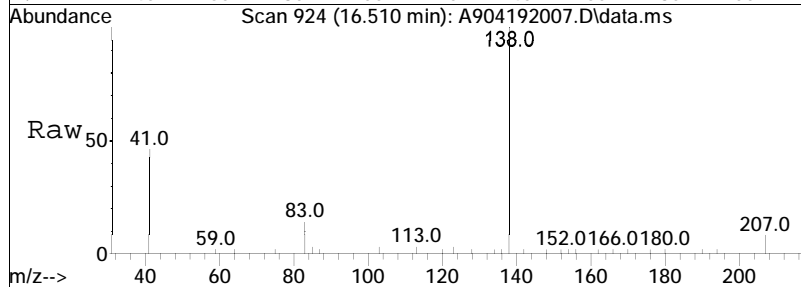
Quant Time: Apr 21 09:07:55 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 08:59:57 2020
Response via : Initial Calibration

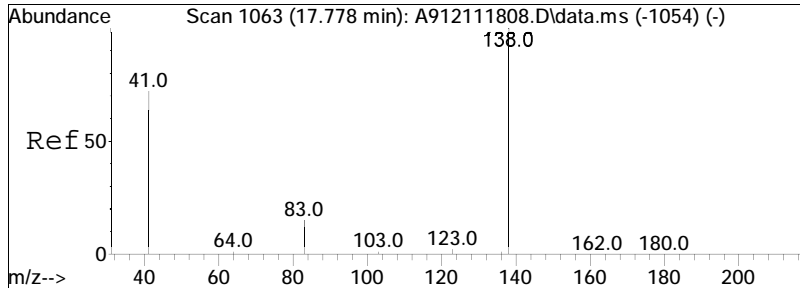
Sub List : ALKPAH_CCV - CC with five surrogates



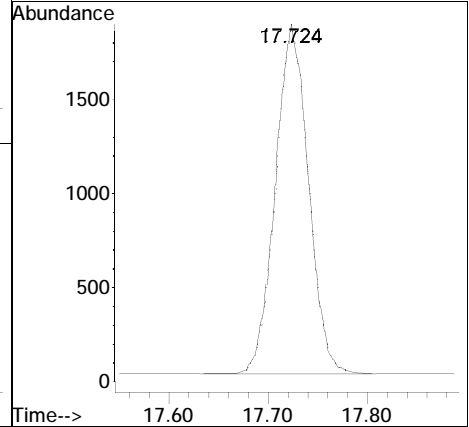
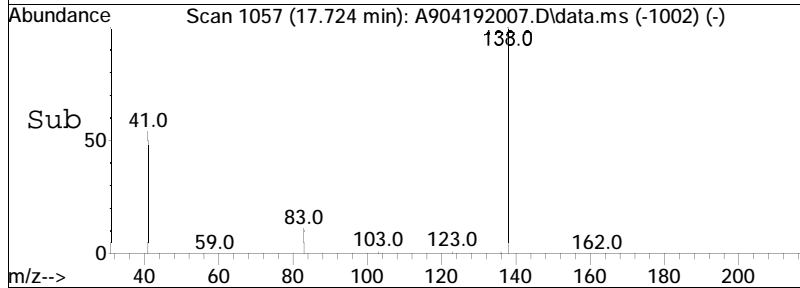
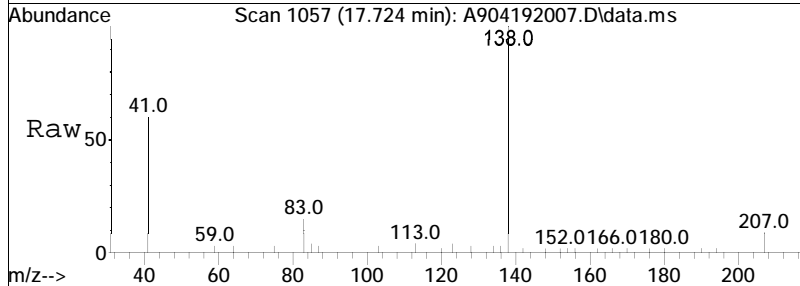


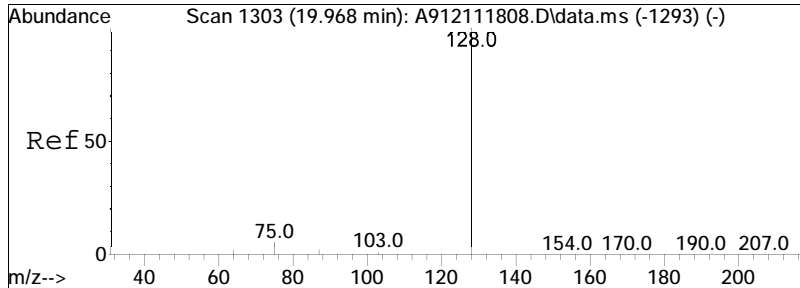
#2
 trans-Decalin
 Concen: 242.09 ng/mL
 RT: 16.510 min Scan# 924
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:138 Resp: 5434



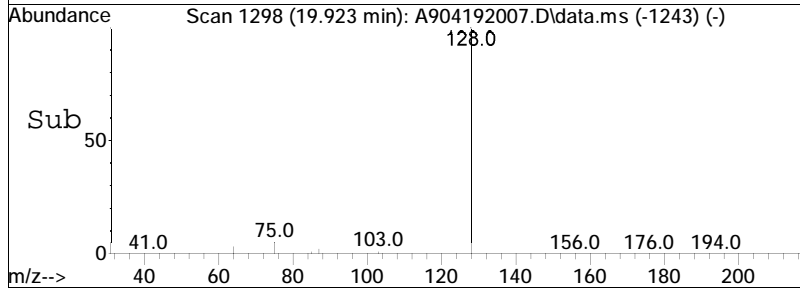
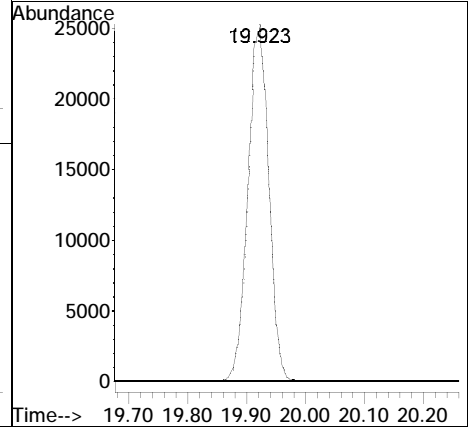
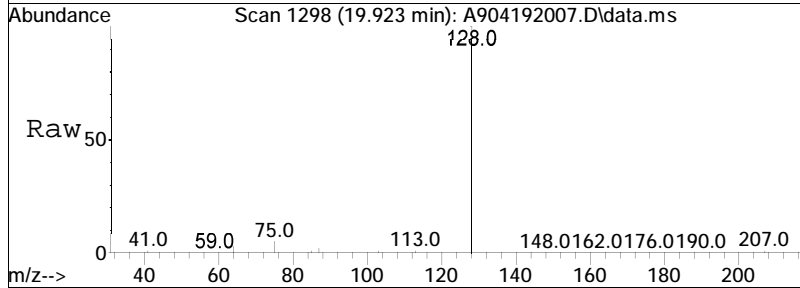


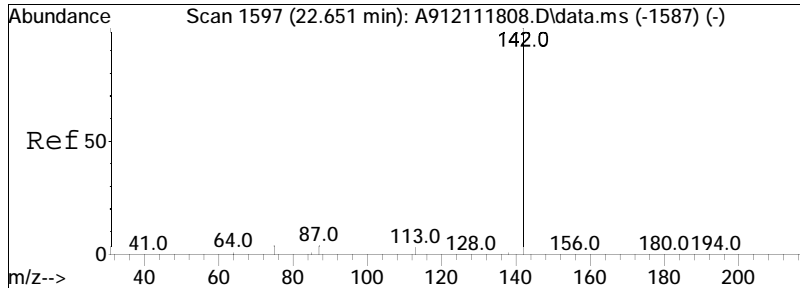
#3
 cis-Decalin
 Concen: 248.77 ng/mL
 RT: 17.724 min Scan# 1057
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:138 Resp: 4246



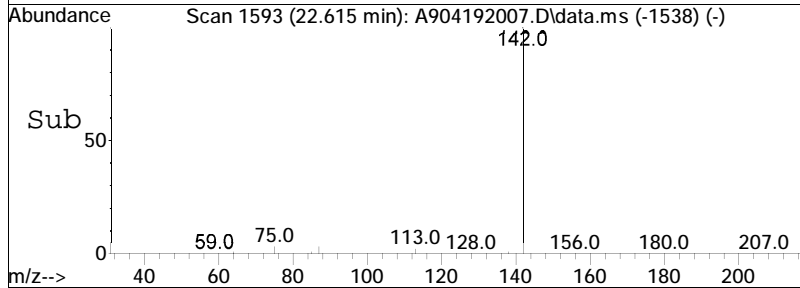
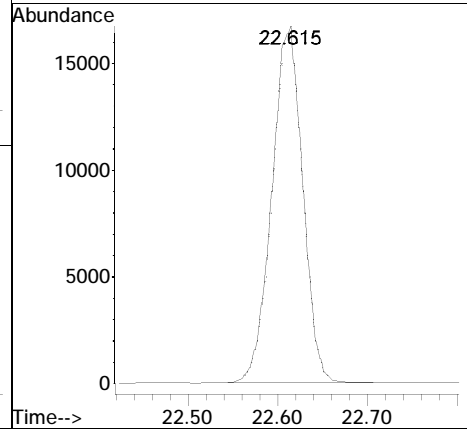
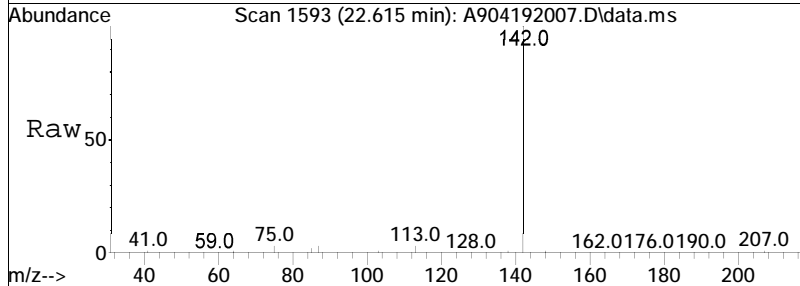


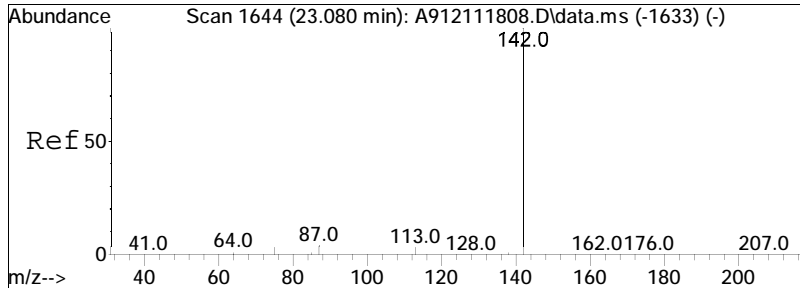
#9
 Naphthalene
 Concen: 446.63 ng/mL
 RT: 19.923 min Scan# 1298
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:128 Resp: 60672



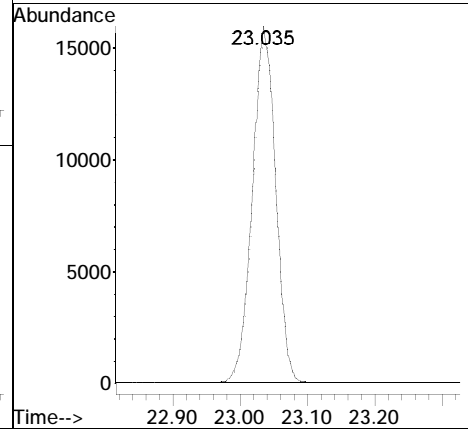
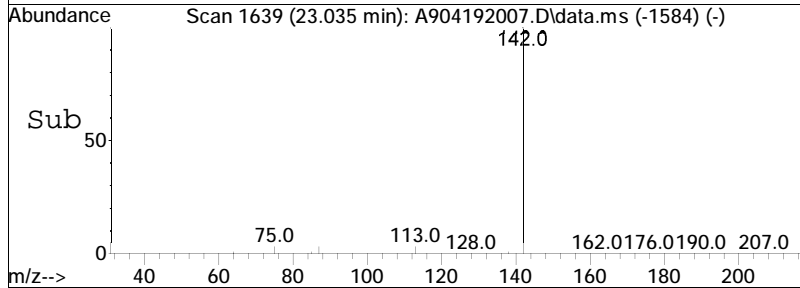
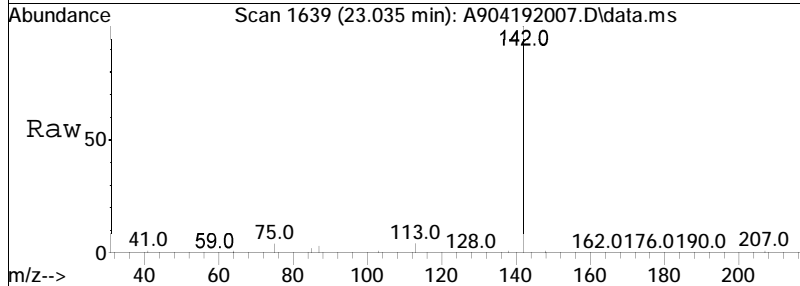


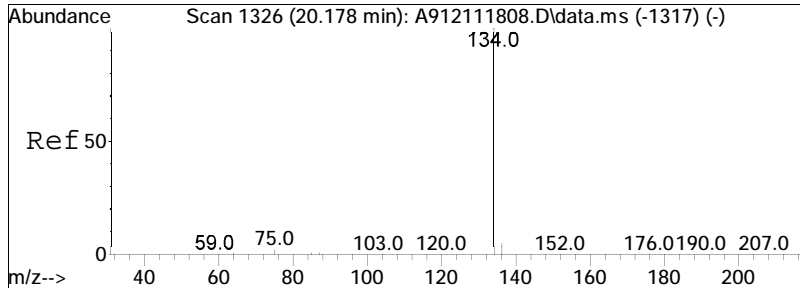
#14
 2-Methylnaphthalene
 Concen: 445.12 ng/mL
 RT: 22.615 min Scan# 1593
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:142 Resp: 39197



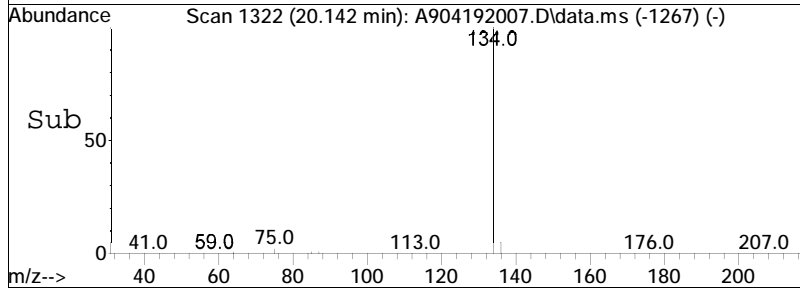
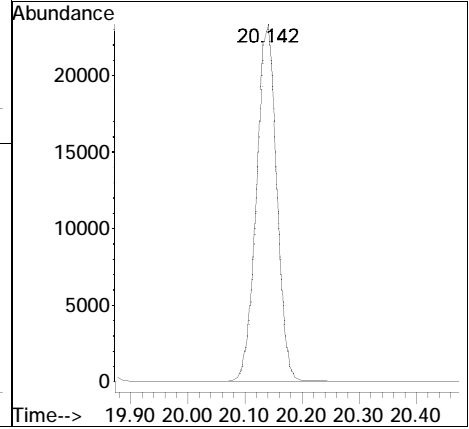
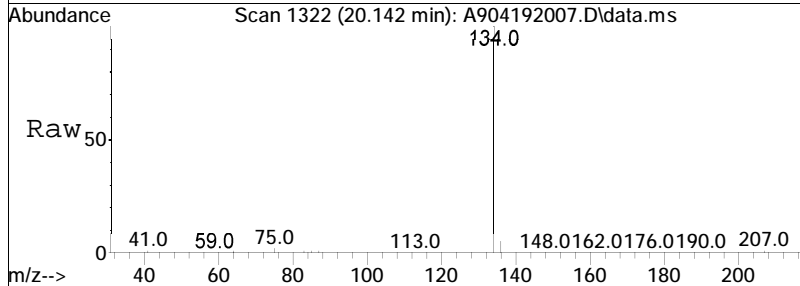


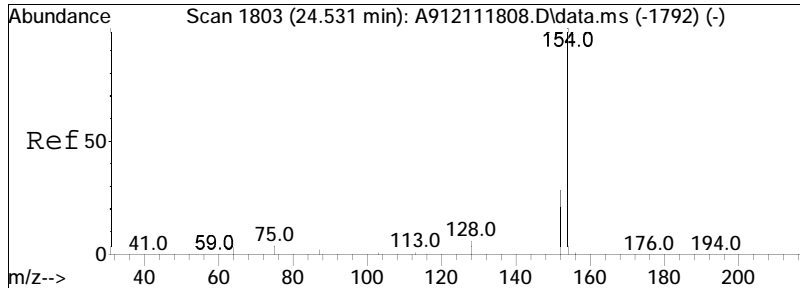
#15
 1-Methylnaphthalene
 Concen: 445.33 ng/mL
 RT: 23.035 min Scan# 1639
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:142 Resp: 37601



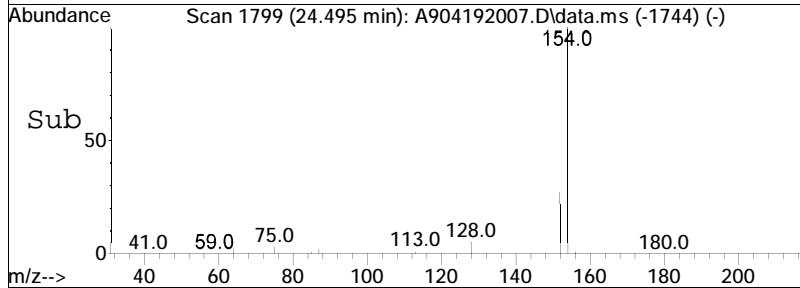
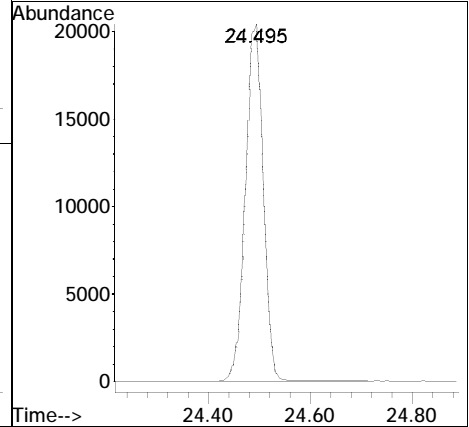
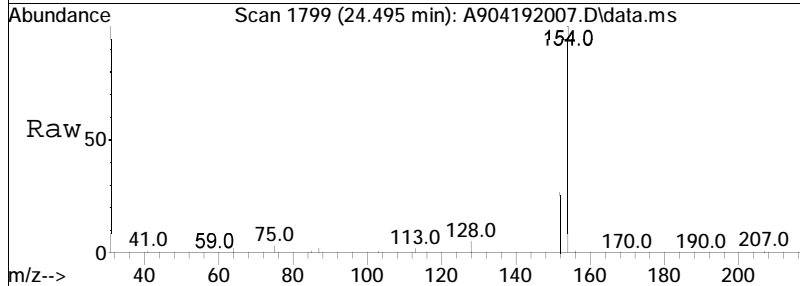


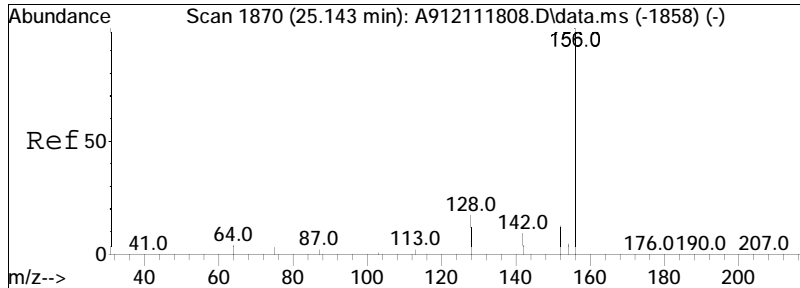
#16
 Benzothiophene
 Concen: 448.75 ng/mL
 RT: 20.142 min Scan# 1322
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:134 Resp: 56054



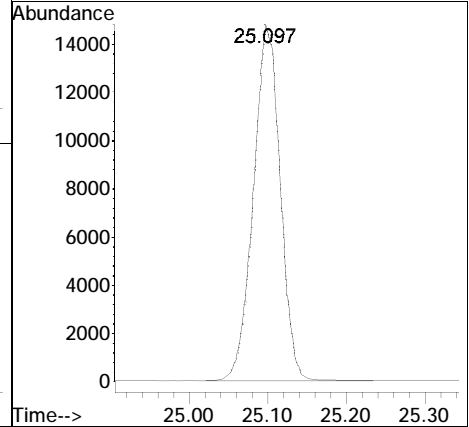
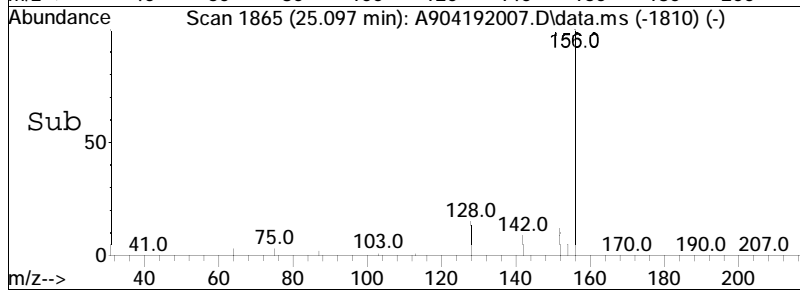
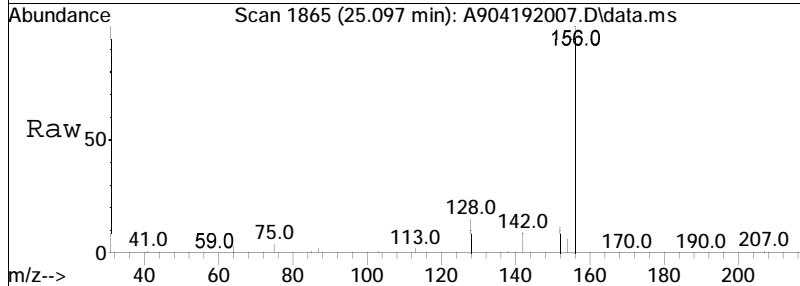


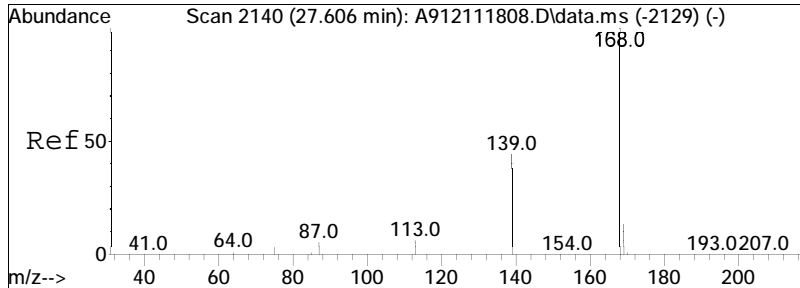
#21
 Biphenyl
 Concen: 429.16 ng/mL
 RT: 24.495 min Scan# 1799
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:154 Resp: 48436





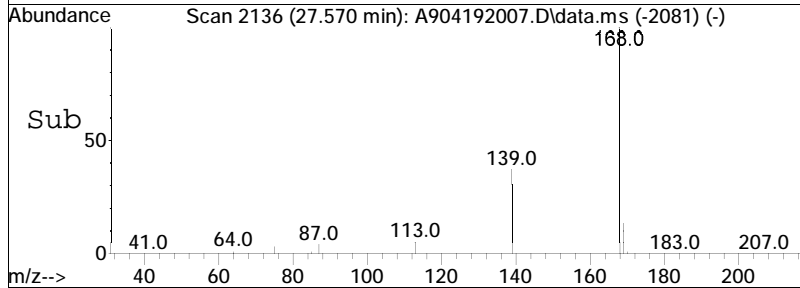
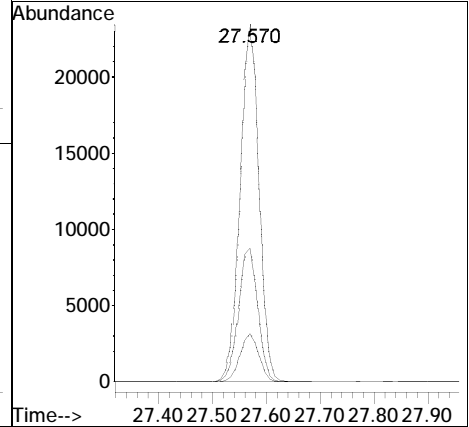
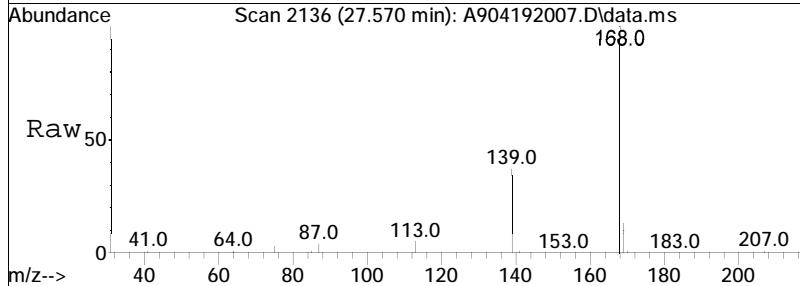
#22
 2,6-Dimethylnaphthalene
 Concen: 439.68 ng/mL
 RT: 25.097 min Scan# 1865
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:156 Resp: 34496

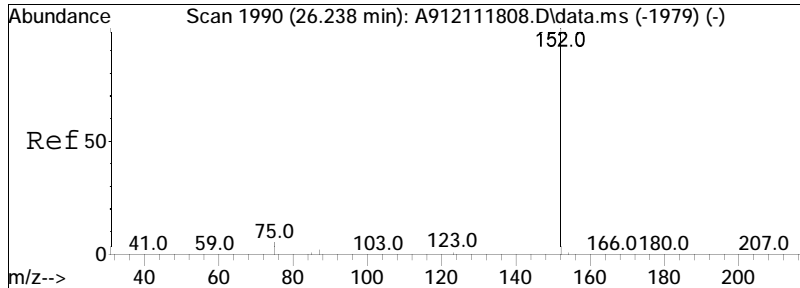




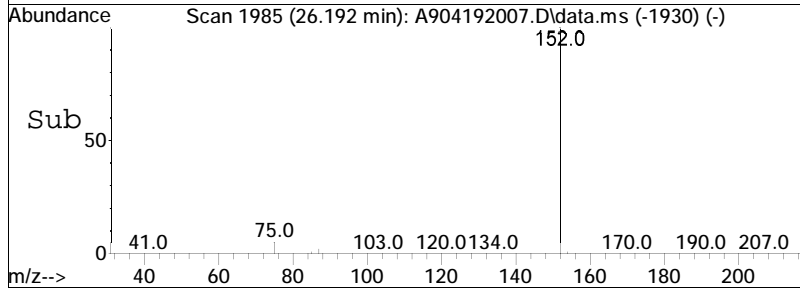
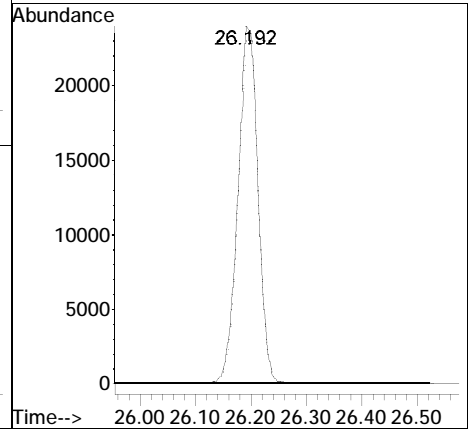
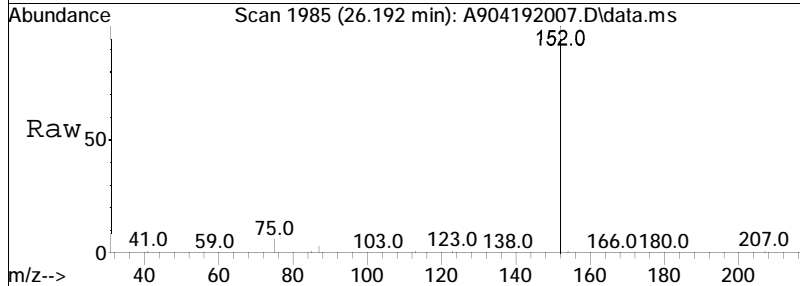
#23
 Dibenzofuran
 Concen: 440.19 ng/mL
 RT: 27.570 min Scan# 2136
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

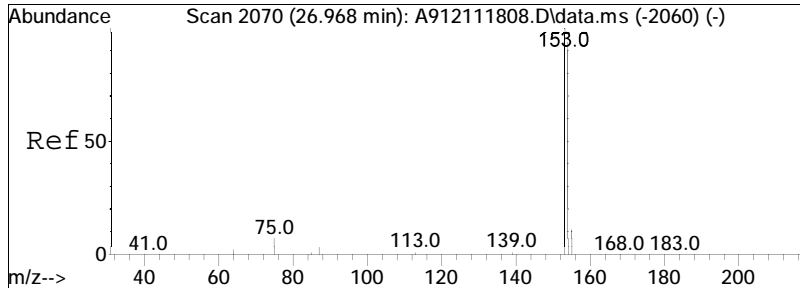
Tgt Ion	Resp	Lower	Upper
168	56063		
168	100		
139	38.1	28.2	52.4
169	13.3	9.6	17.8





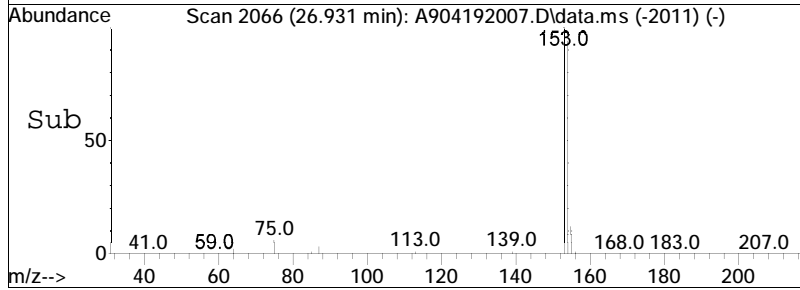
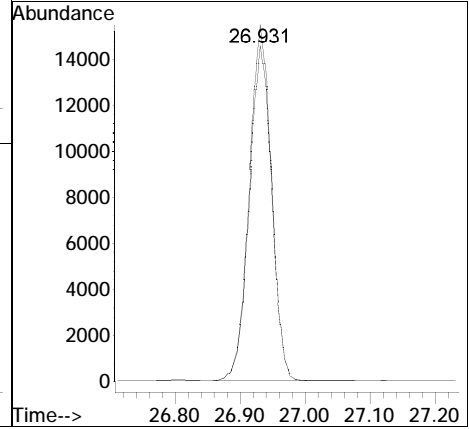
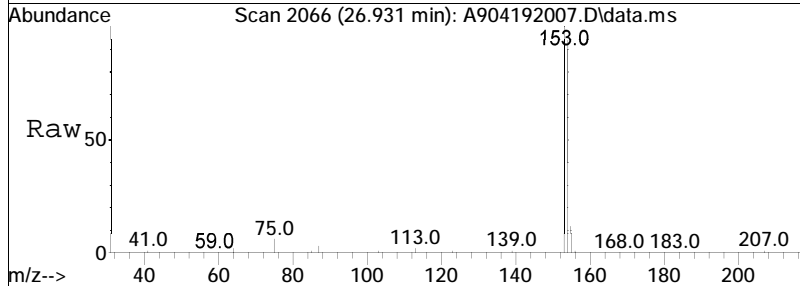
#24
 Acenaphthylene
 Concen: 447.95 ng/mL
 RT: 26.192 min Scan# 1985
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm
 Tgt Ion:152 Resp: 58706

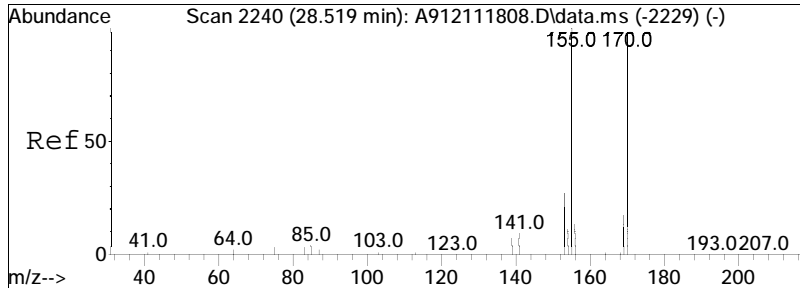




#25
 Acenaphthene
 Concen: 423.26 ng/mL
 RT: 26.931 min Scan# 2066
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

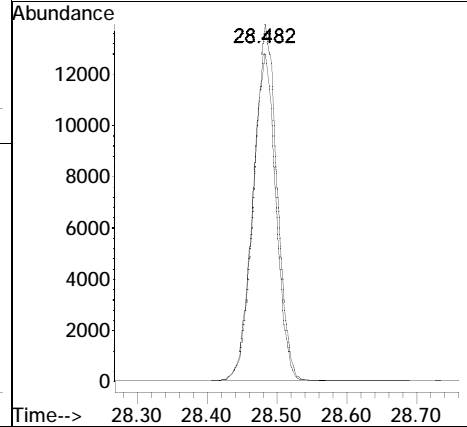
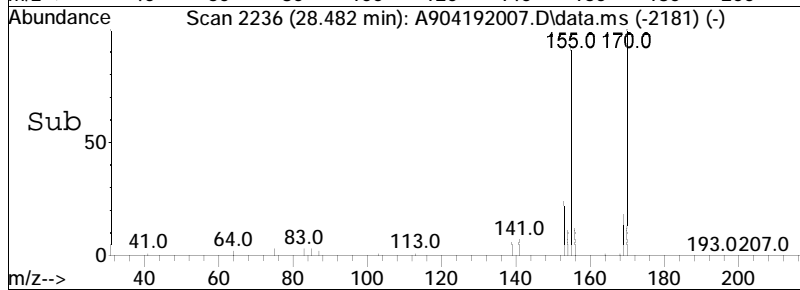
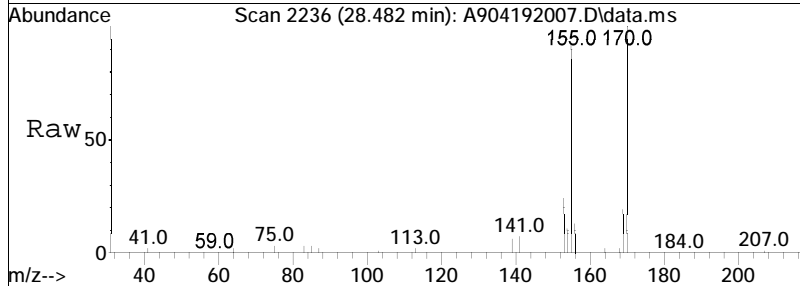
Tgt Ion	Resp	Lower	Upper
153	100		
154	94.5	65.0	120.8

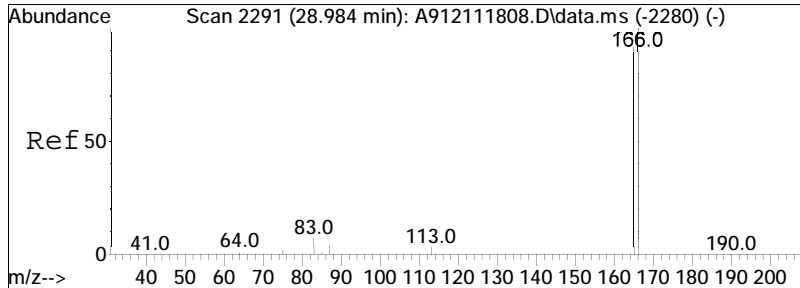




#26
 2,3,5-Trimethylnaphthalene
 Concen: 458.37 ng/mL
 RT: 28.482 min Scan# 2236
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

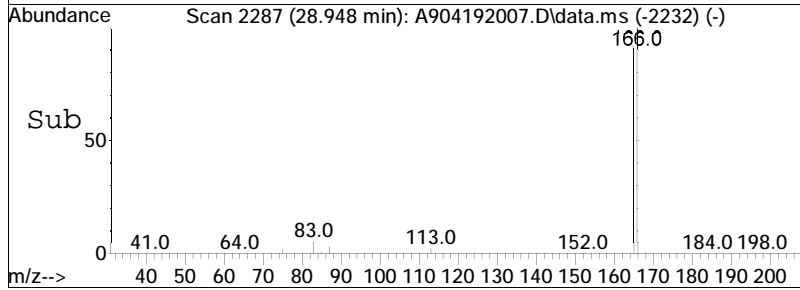
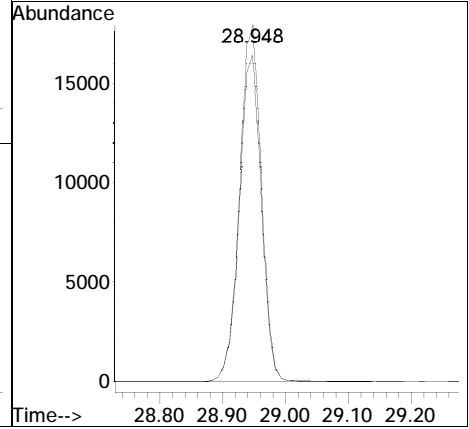
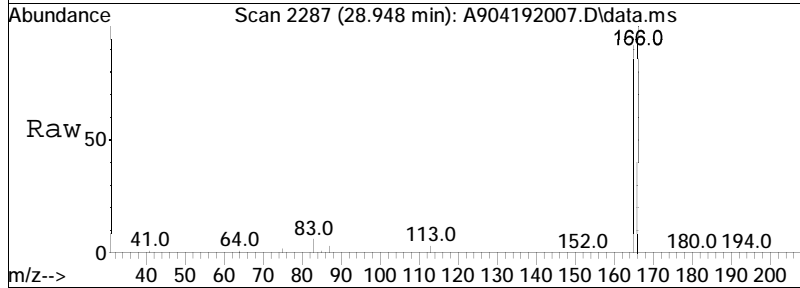
Tgt Ion	Resp	Lower	Upper
170	31649		
155	92.3	69.6	129.2

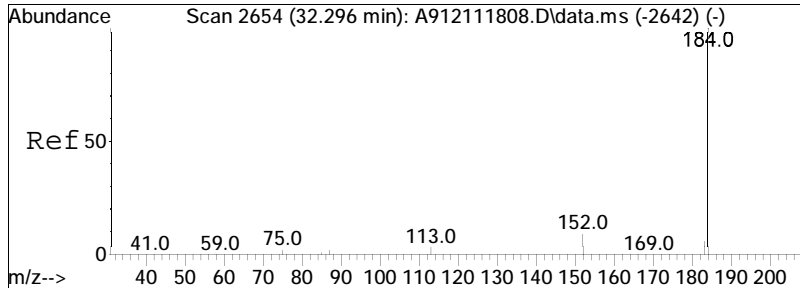




#27
 Fluorene
 Concen: 445.24 ng/mL
 RT: 28.948 min Scan# 2287
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

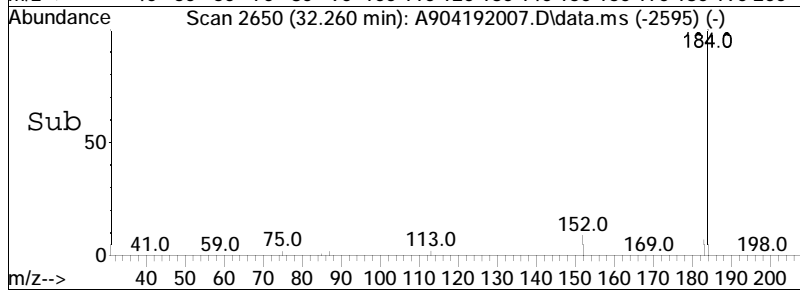
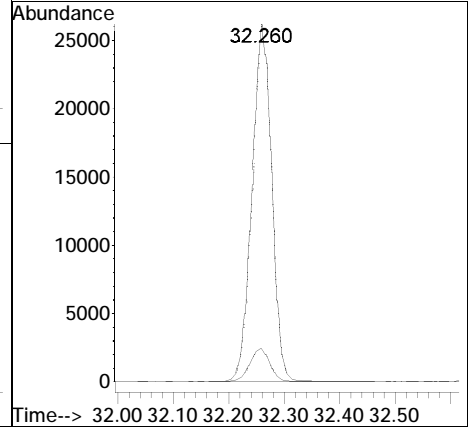
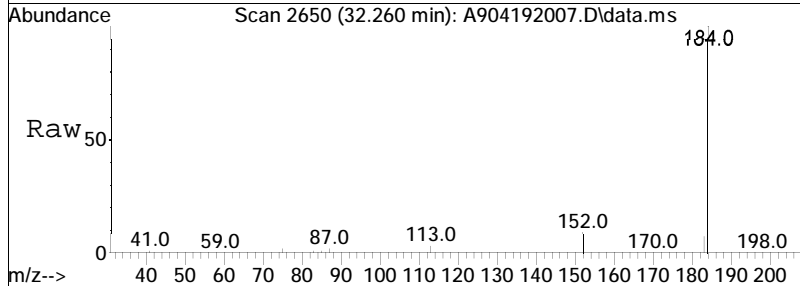
Tgt Ion	Resp	Lower	Upper
166	100		
165	91.8	65.4	121.4

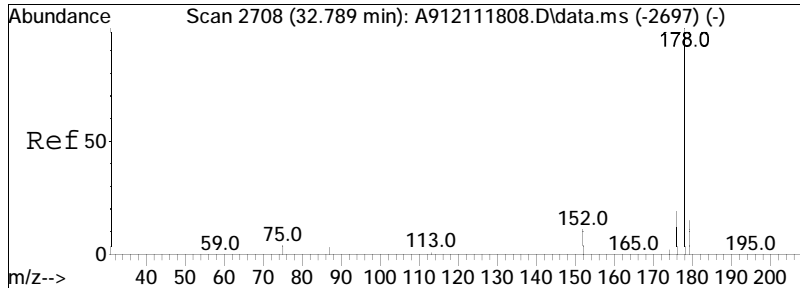




#31
 Dibenzothiophene
 Concen: 411.26 ng/mL
 RT: 32.260 min Scan# 2650
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

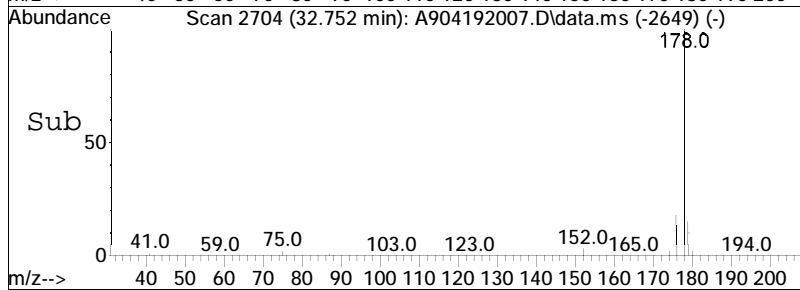
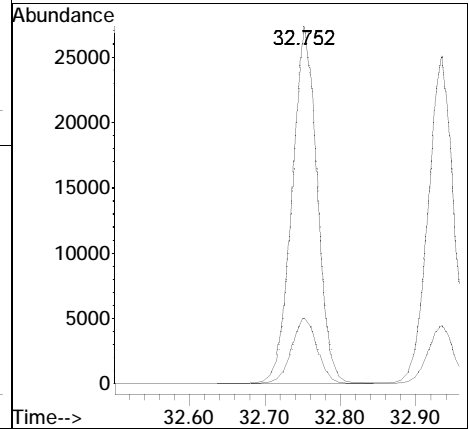
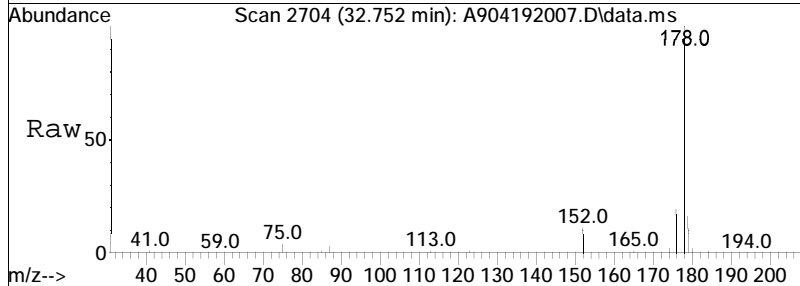
Tgt Ion	Ratio	Lower	Upper
184	100		
152	9.3	6.4	11.8

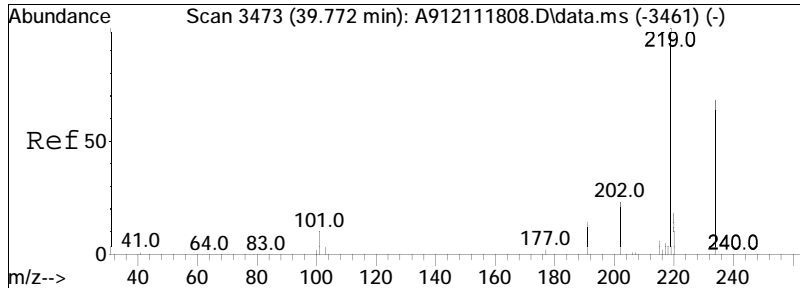




#41
 Phenanthrene
 Concen: 422.75 ng/mL
 RT: 32.752 min Scan# 2704
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

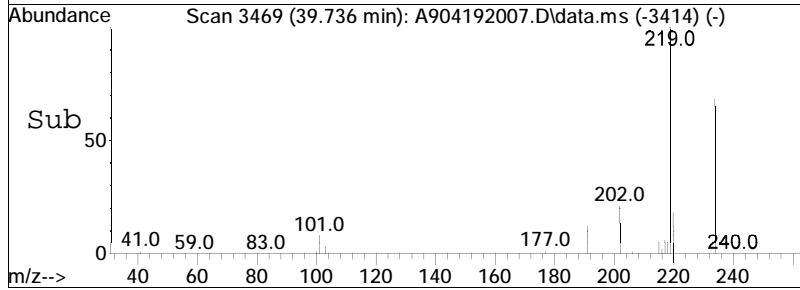
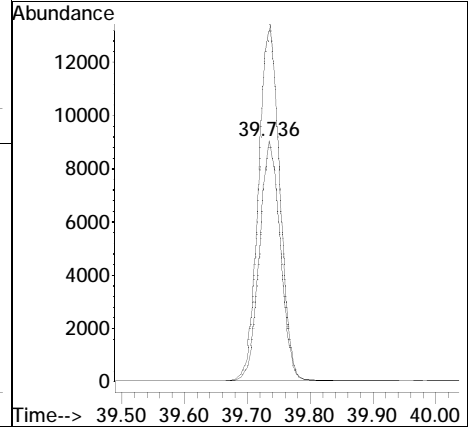
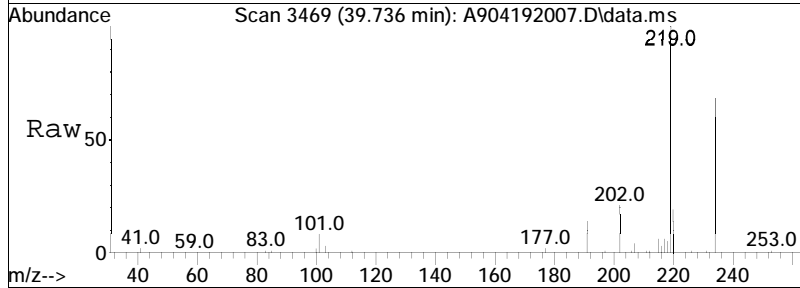
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.5	13.6	25.4

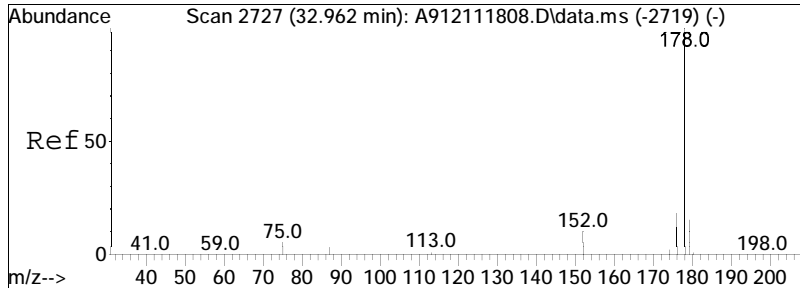




#52
 Retene
 Concen: 449.93 ng/mL
 RT: 39.736 min Scan# 3469
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

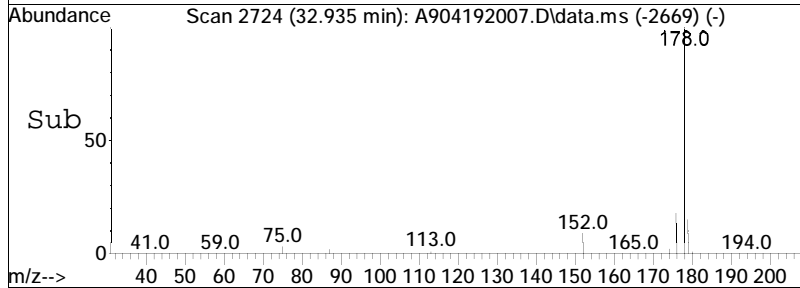
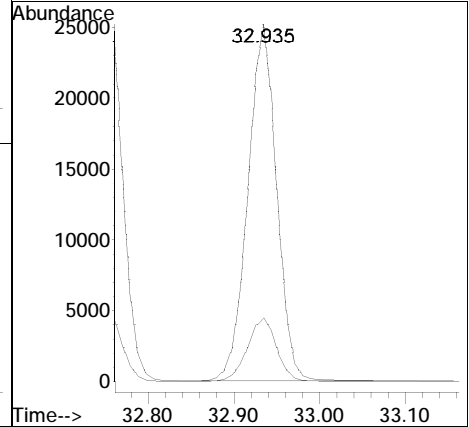
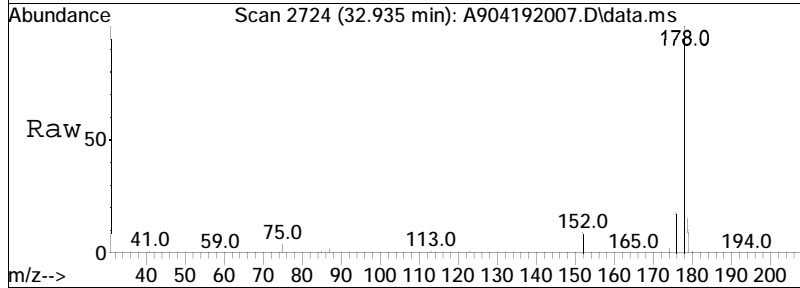
Tgt Ion	Resp	Lower	Upper
234	100		
219	150.2	104.0	193.2

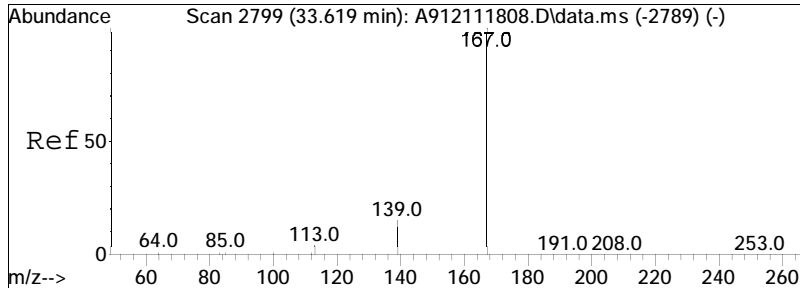




#53
 Anthracene
 Concen: 437.10 ng/mL
 RT: 32.935 min Scan# 2724
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

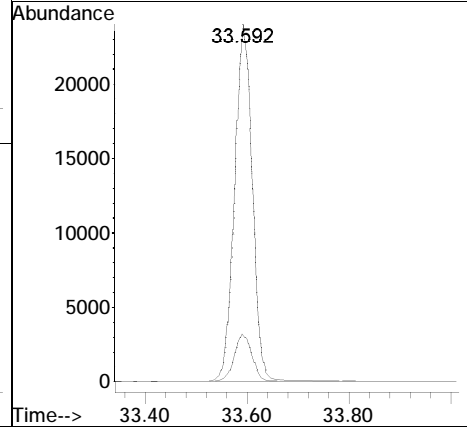
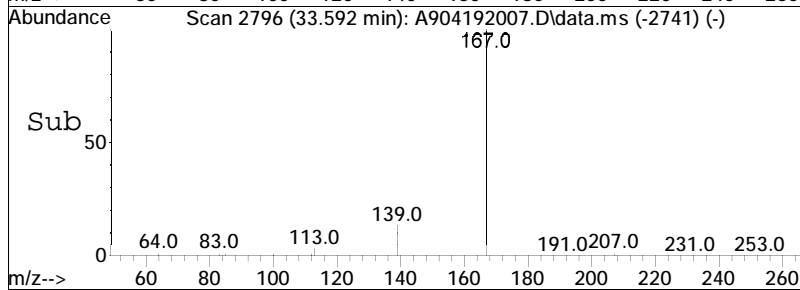
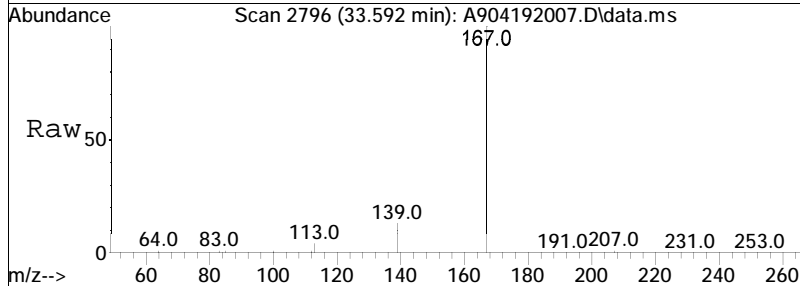
Tgt Ion	Resp	Lower	Upper
178	100		
176	17.9	13.3	24.7

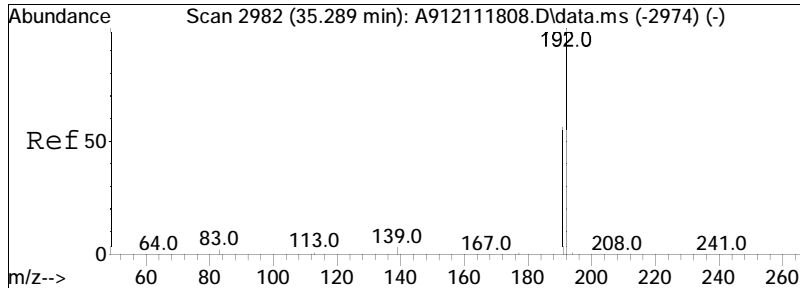




#54
 Carbazole
 Concen: 455.96 ng/mL
 RT: 33.592 min Scan# 2796
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

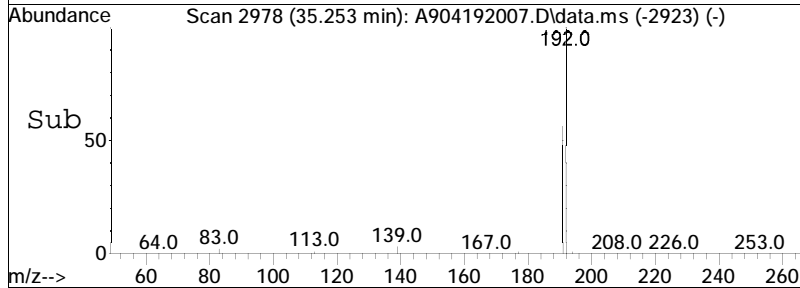
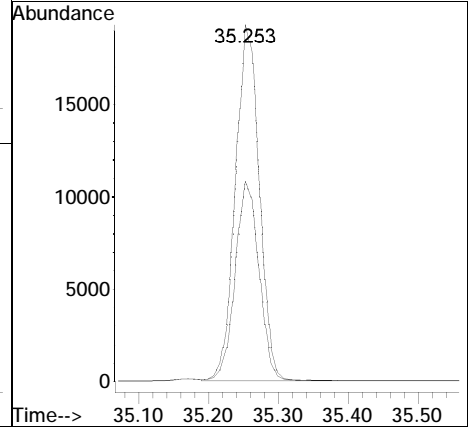
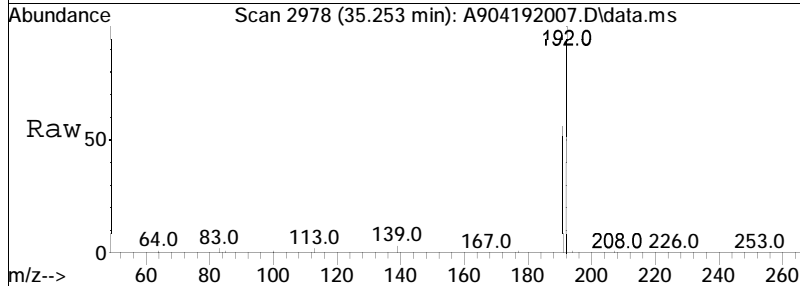
Tgt Ion	Resp	Lower	Upper
167	100		
139	13.3	10.4	19.4

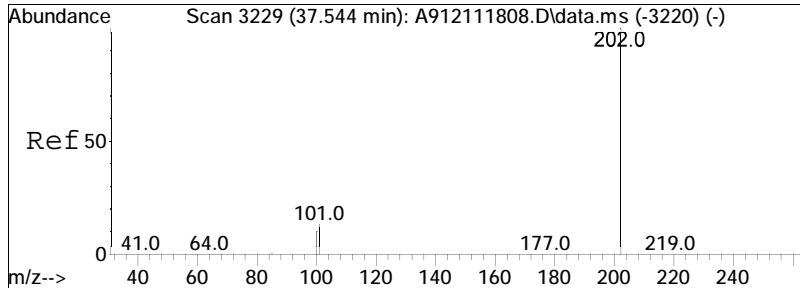




#55
 1-Methylphenanthrene
 Concen: 441.89 ng/mL
 RT: 35.253 min Scan# 2978
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

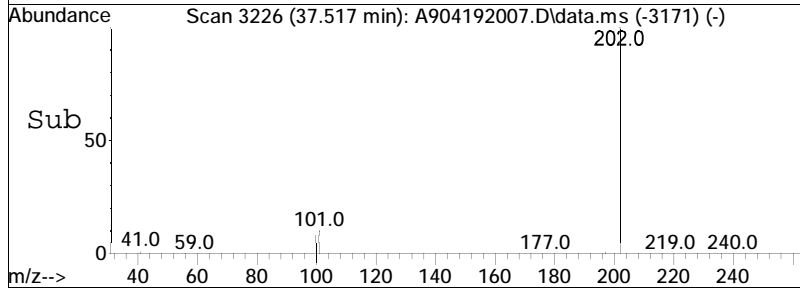
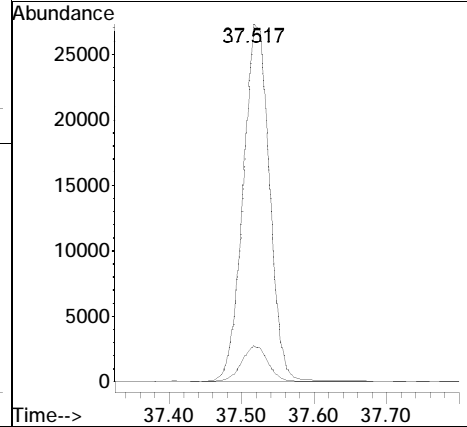
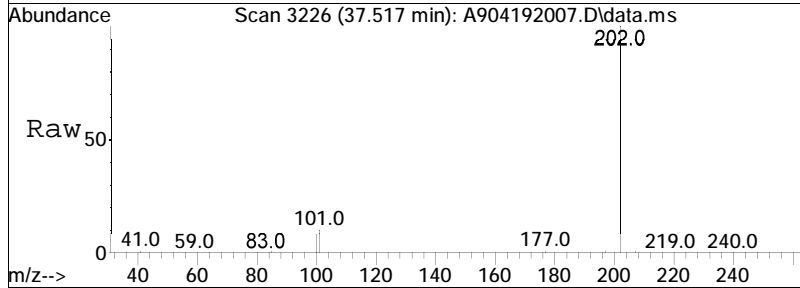
Tgt Ion	Resp	Lower	Upper
192	100		
191	55.7	39.0	72.4

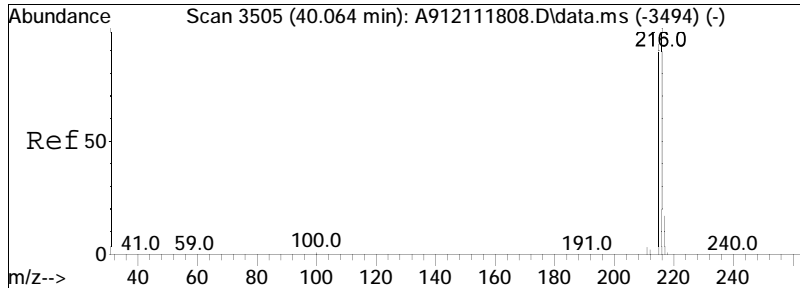




#56
 Fluoranthene
 Concen: 412.07 ng/mL
 RT: 37.517 min Scan# 3226
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

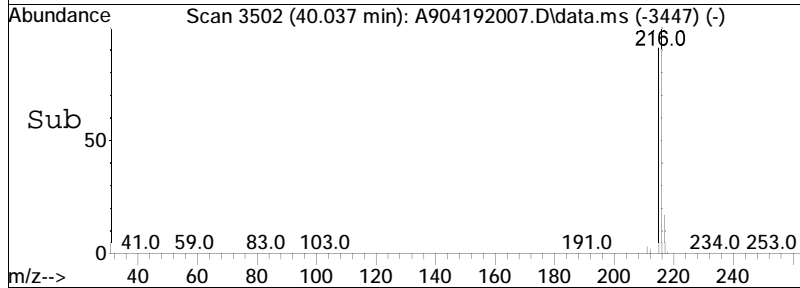
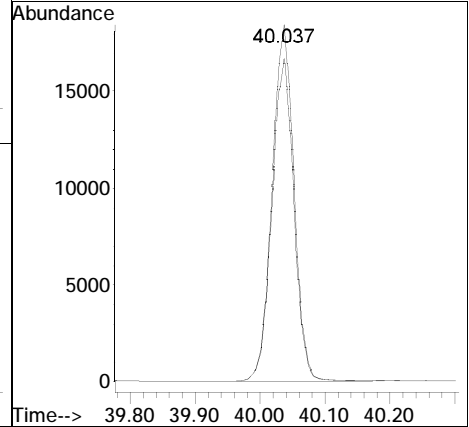
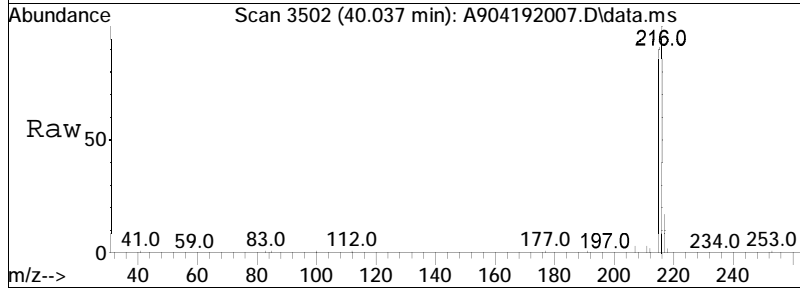
Tgt Ion	202	101	Ratio	Lower	Upper
Resp:	67665				
Ion Ratio	100	9.8		6.8	12.6

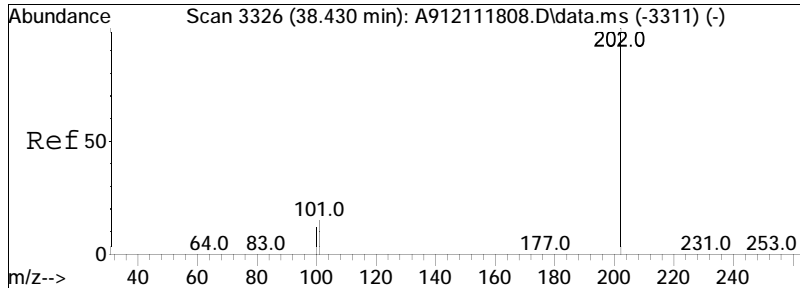




#57
 Benzo(b)fluorene
 Concen: 433.61 ng/mL
 RT: 40.037 min Scan# 3502
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

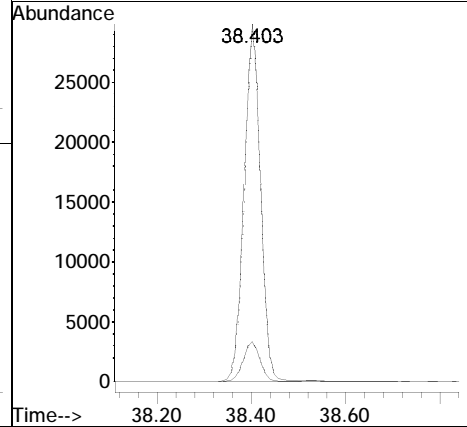
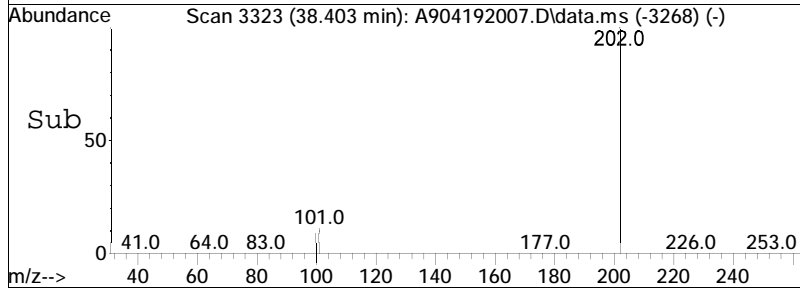
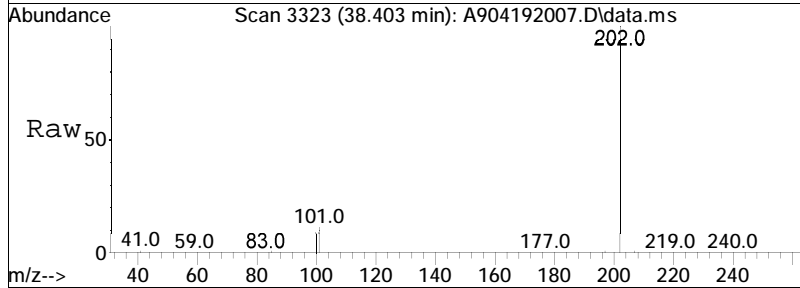
Tgt Ion	Resp	Lower	Upper
216	100		
215	90.6	64.8	120.4

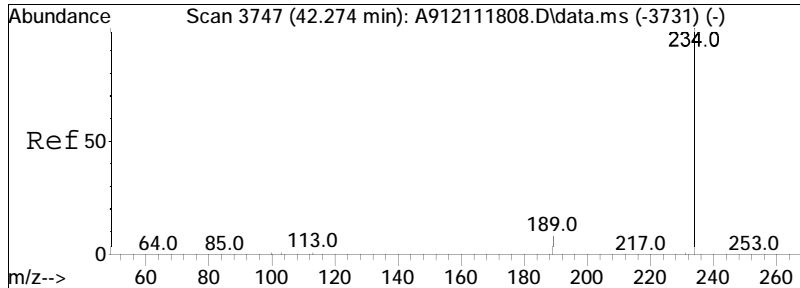




#59
 Pyrene
 Concen: 414.39 ng/mL
 RT: 38.403 min Scan# 3323
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

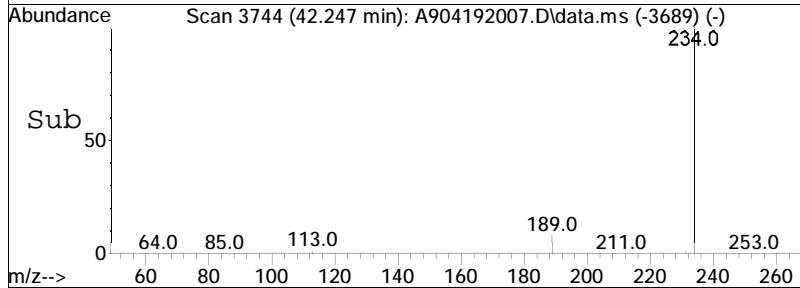
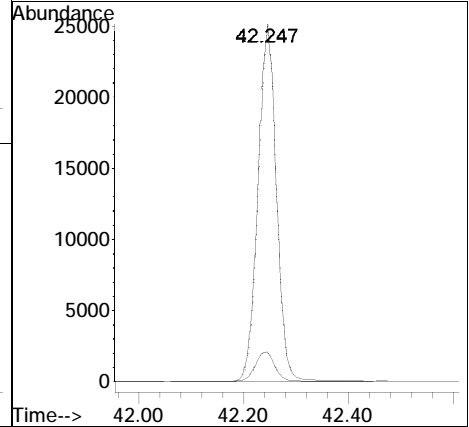
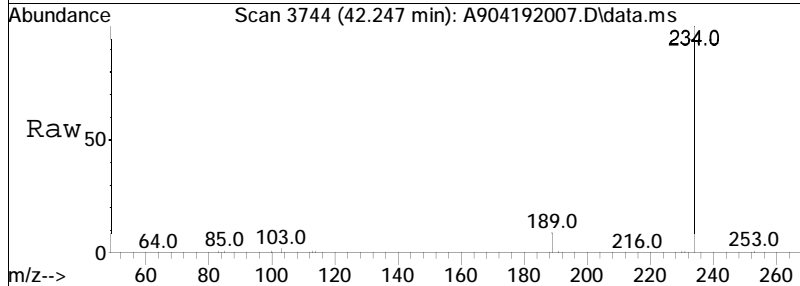
Tgt Ion: 202 Resp: 70439
 Ion Ratio Lower Upper
 202 100
 101 11.3 7.6 14.0

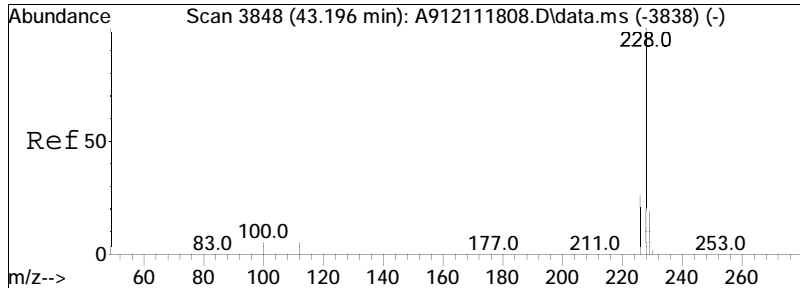




#67
 Naphthobenzothiophene-2,1-D
 Concen: 364.33 ng/mL
 RT: 42.247 min Scan# 3744
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

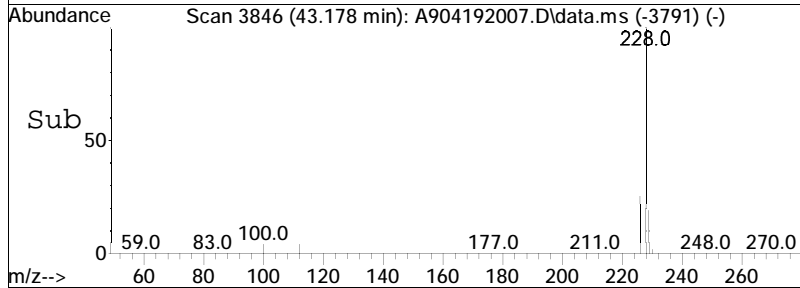
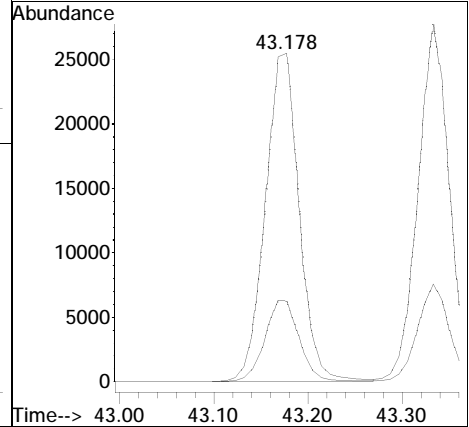
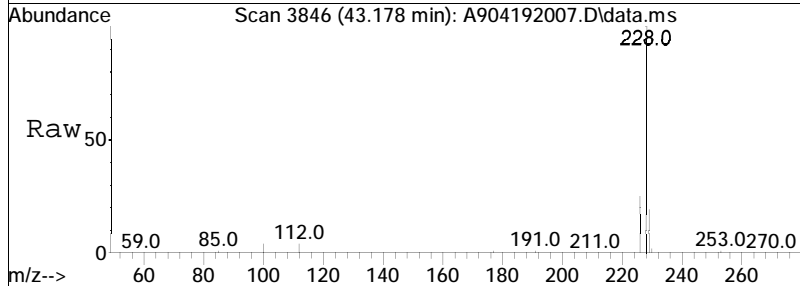
Tgt Ion	Resp	Lower	Upper
234	100		
189	8.6	6.1	11.3

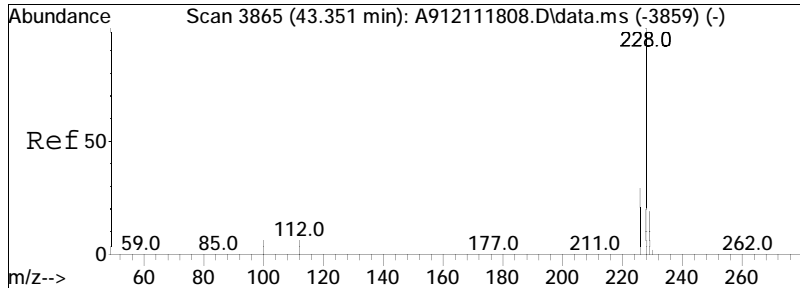




#75
 Benz[a]anthracene
 Concen: 471.24 ng/mL
 RT: 43.178 min Scan# 3846
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

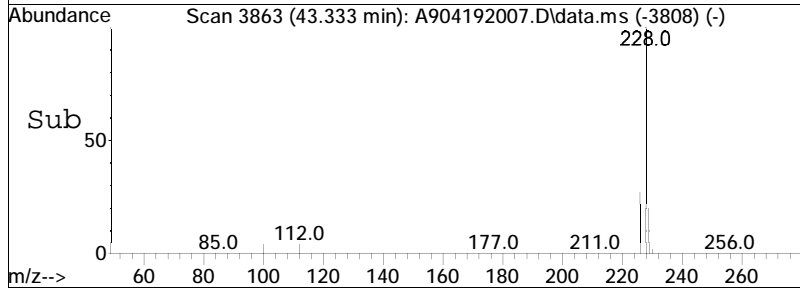
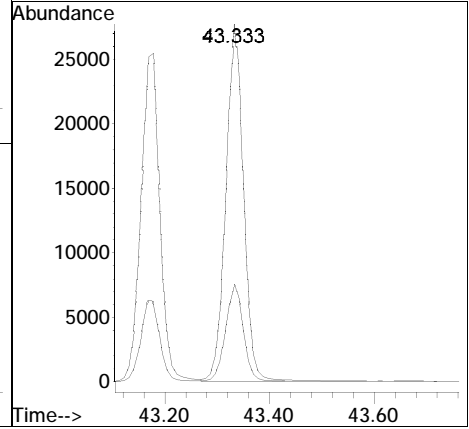
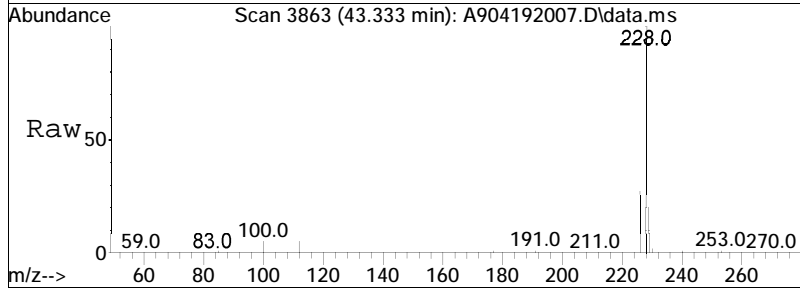
Tgt Ion	Resp	Lower	Upper
228	100		
226	24.8	19.0	35.2

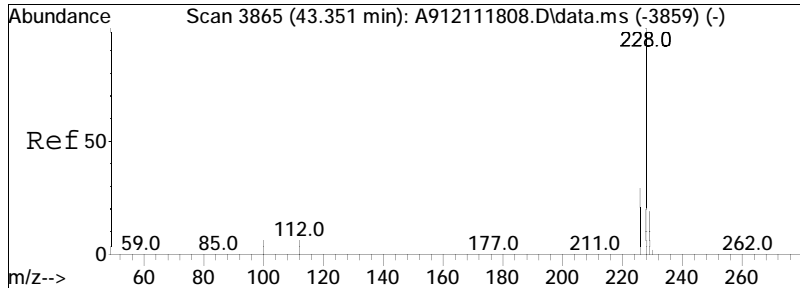




#76
 Chrysene
 Concen: 466.90 ng/mL
 RT: 43.333 min Scan# 3863
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

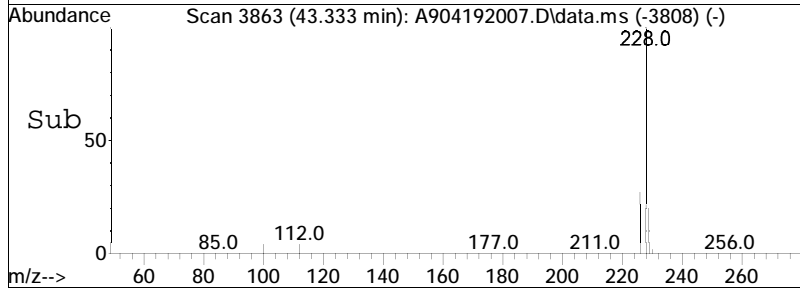
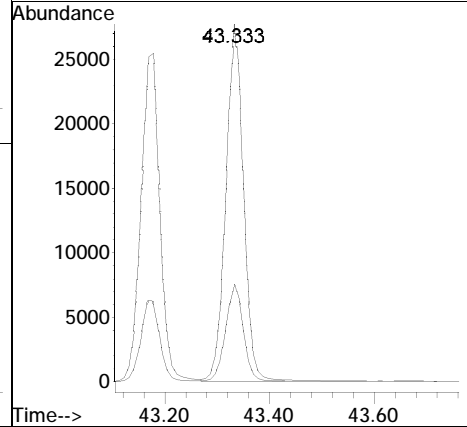
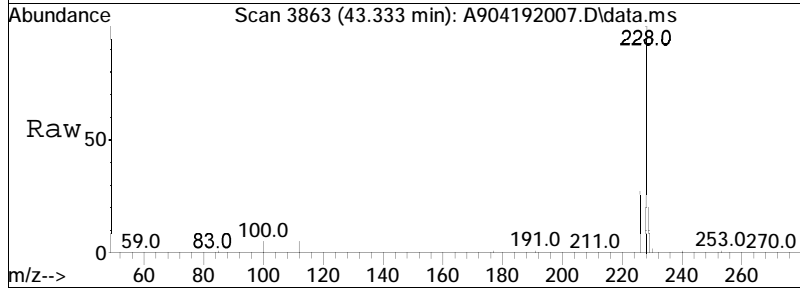
Tgt Ion	Resp	Lower	Upper
228	100		
226	27.0	21.0	39.0

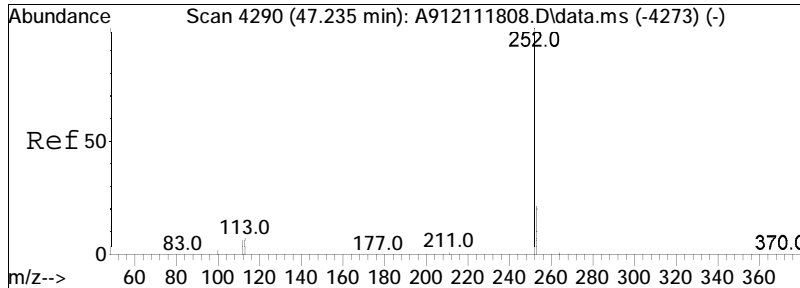




#77
 Chrysene/Triphenylene
 Concen: 466.90 ng/mL
 RT: 43.333 min Scan# 3863
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

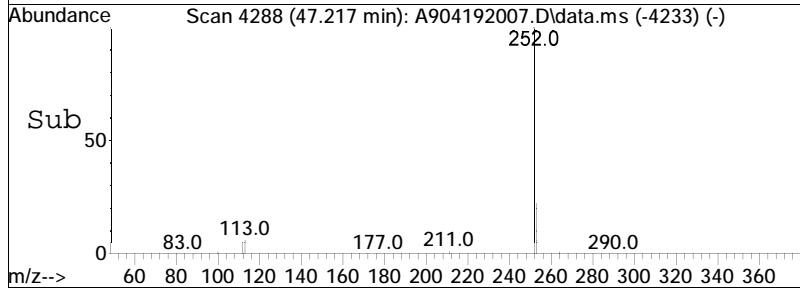
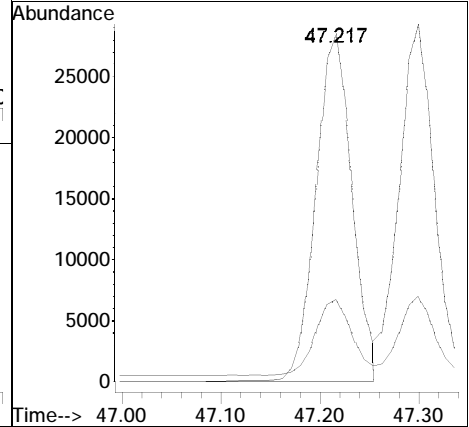
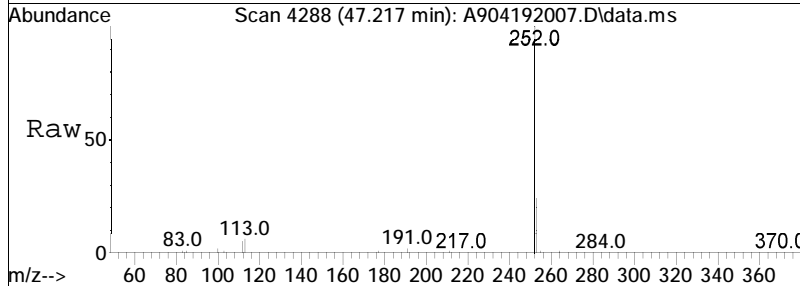
Tgt Ion	Resp	Lower	Upper
228	100		
226	27.0	21.0	39.0

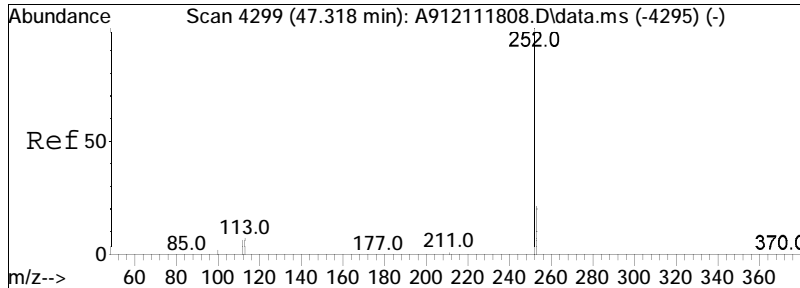




#84
 Benzo[b]fluoranthene
 Concen: 424.95 ng/mL
 RT: 47.217 min Scan# 4288
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

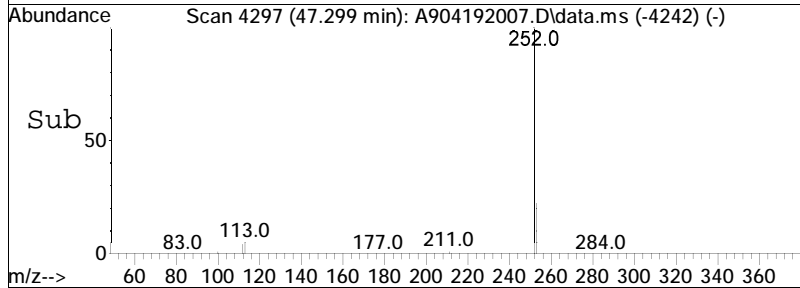
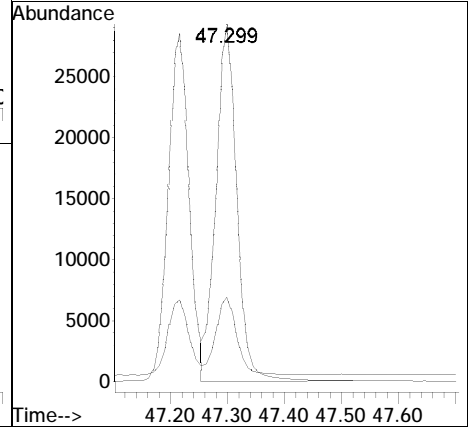
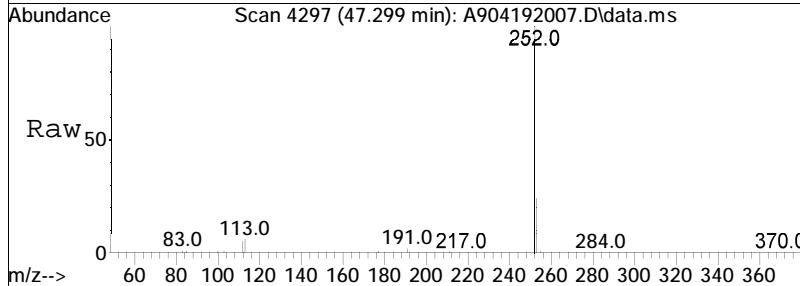
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.3	17.3	32.1

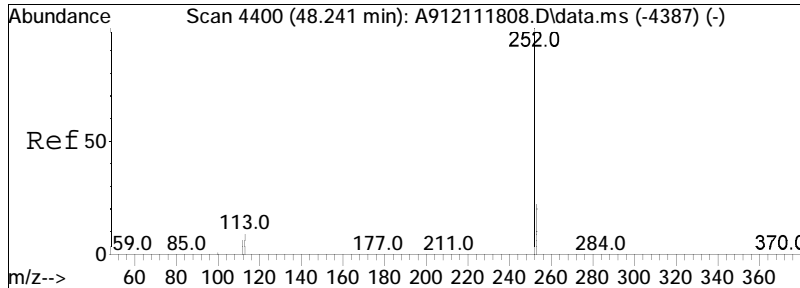




#85
 Benzo[j]+[k]fluoranthene
 Concen: 423.43 ng/mL
 RT: 47.299 min Scan# 4297
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

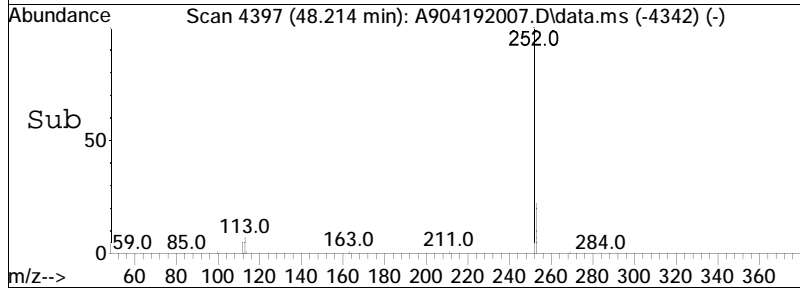
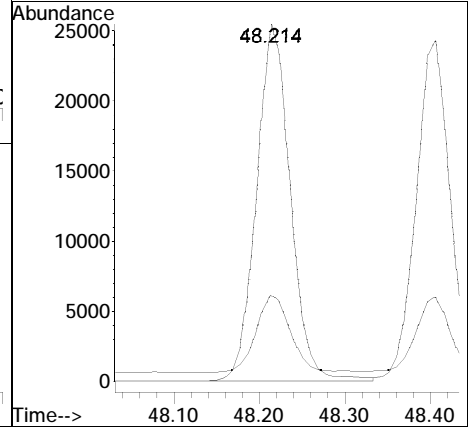
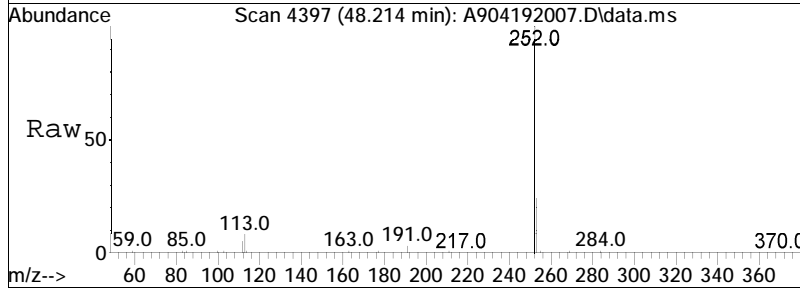
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.5	17.6	32.8

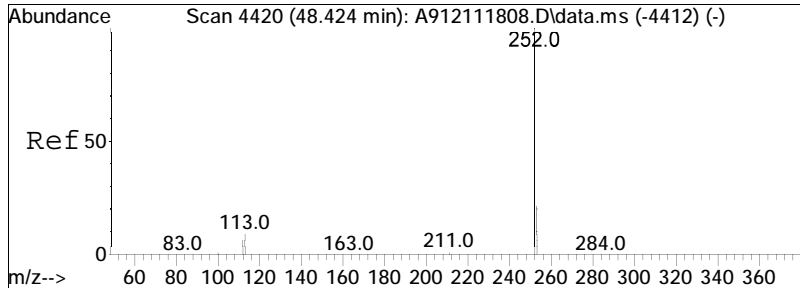




#88
 Benzo[e]pyrene
 Concen: 418.79 ng/mL
 RT: 48.214 min Scan# 4397
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

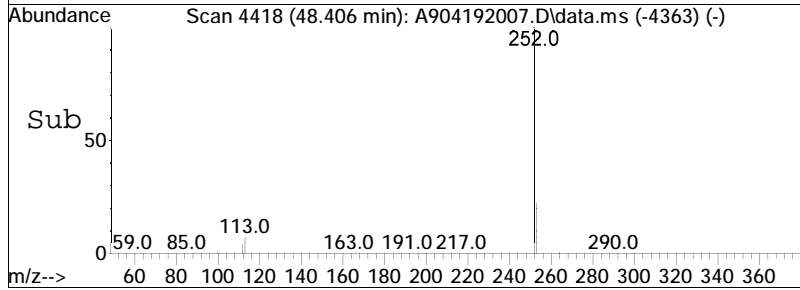
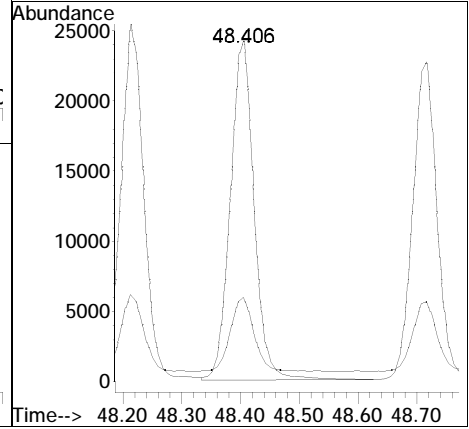
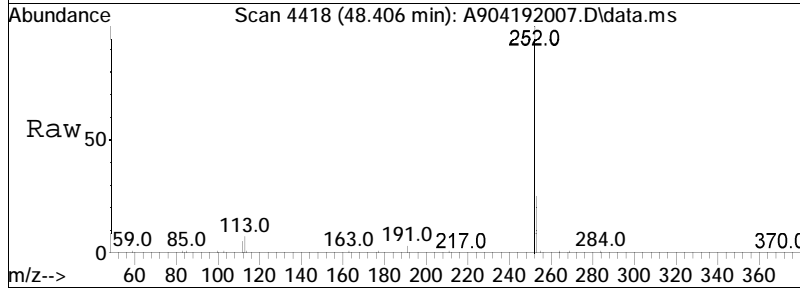
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	18.3	33.9

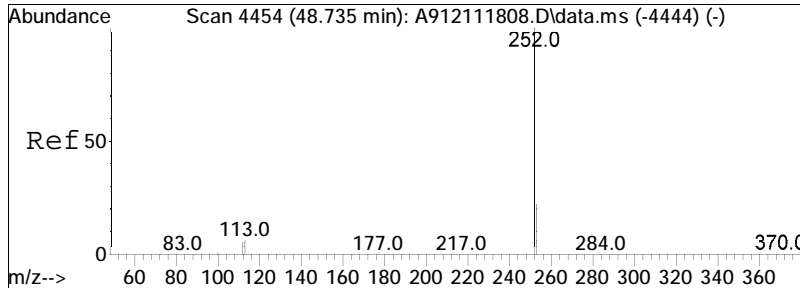




#90
 Benzo[a]pyrene
 Concen: 437.13 ng/mL
 RT: 48.406 min Scan# 4418
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

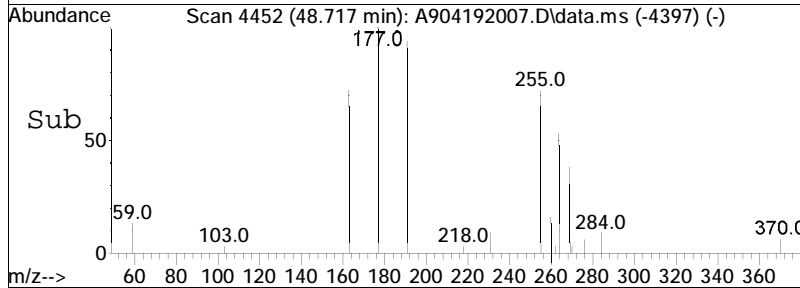
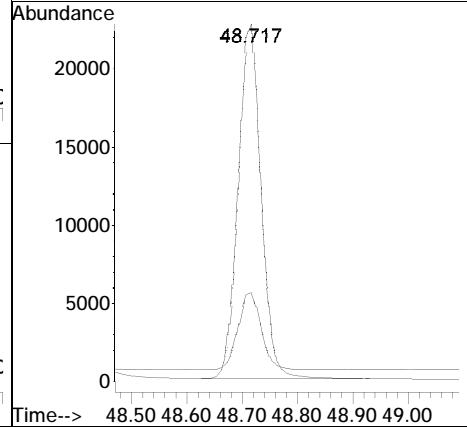
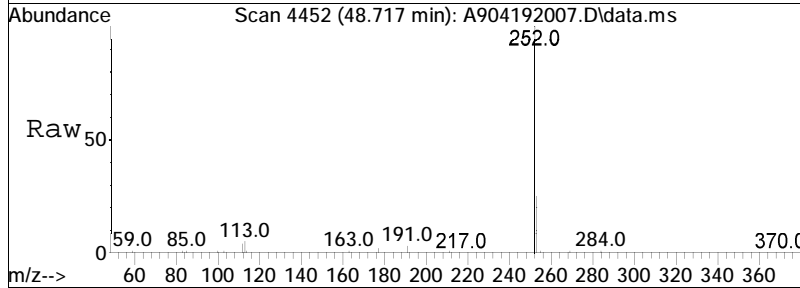
Tgt Ion: 252 Resp: 67972
 Ion Ratio Lower Upper
 252 100
 253 21.7 19.2 35.6

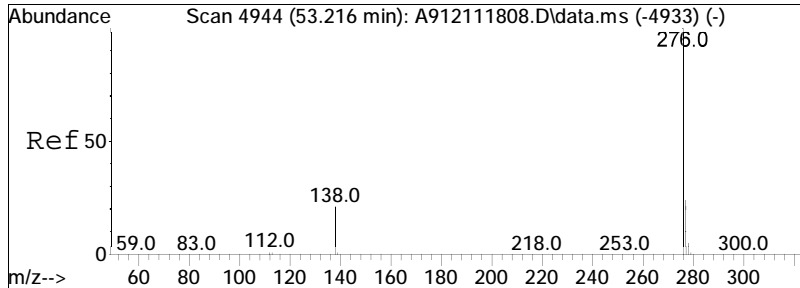




#91
 Perylene
 Concen: 432.22 ng/mL
 RT: 48.717 min Scan# 4452
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

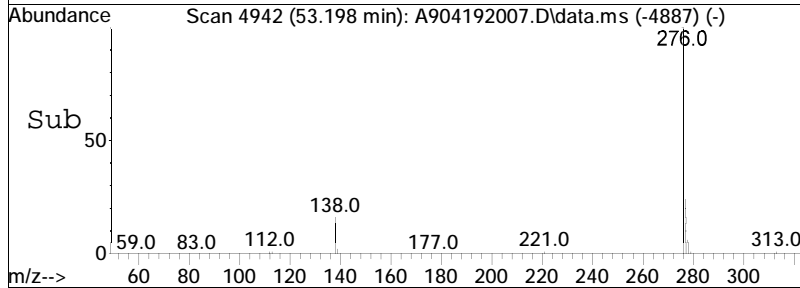
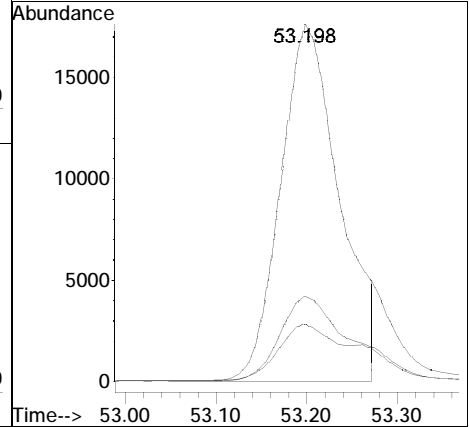
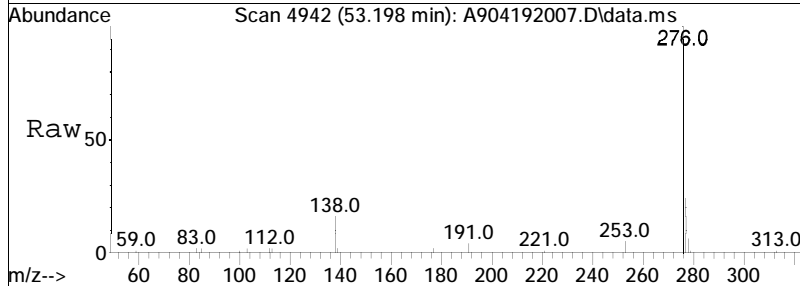
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.4	19.9	36.9

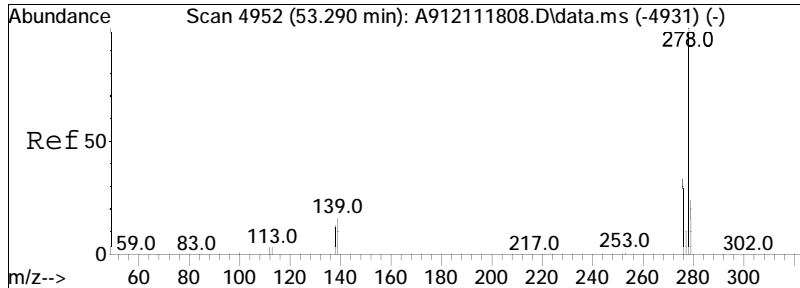




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 411.47 ng/mL M3
 RT: 53.198 min Scan# 4942
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

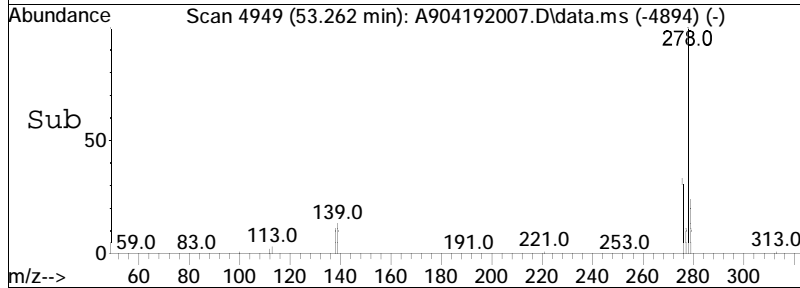
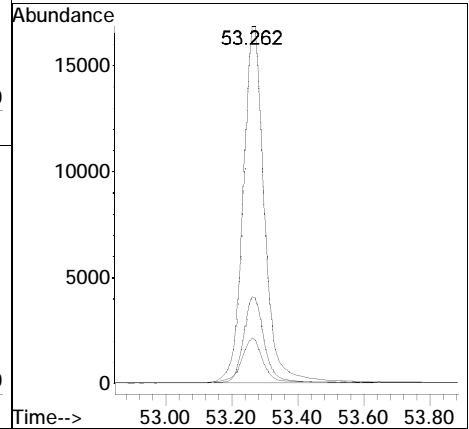
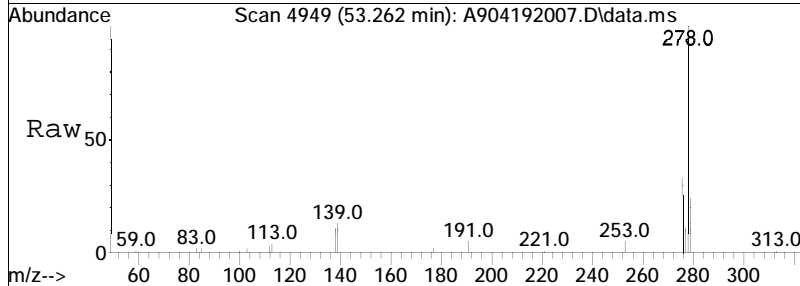
Tgt Ion	Ratio	Lower	Upper
276	100		
138	21.5	12.2	22.6
277	29.7	18.6	34.6

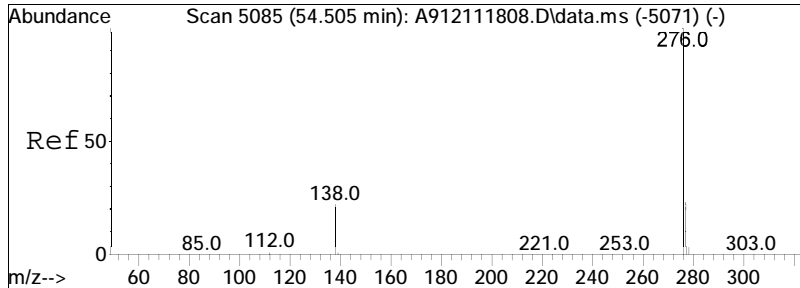




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 435.11 ng/mL
 RT: 53.262 min Scan# 4949
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

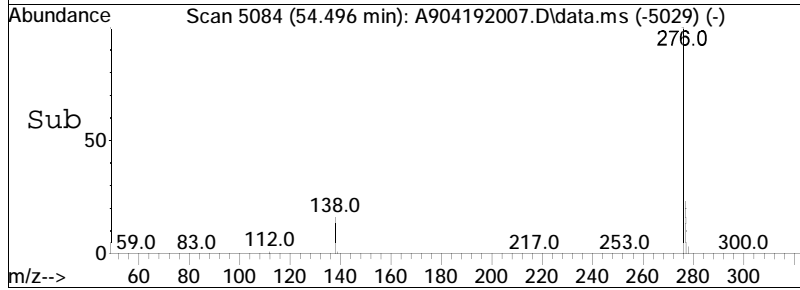
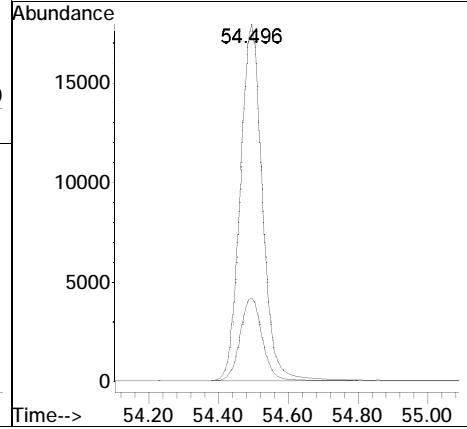
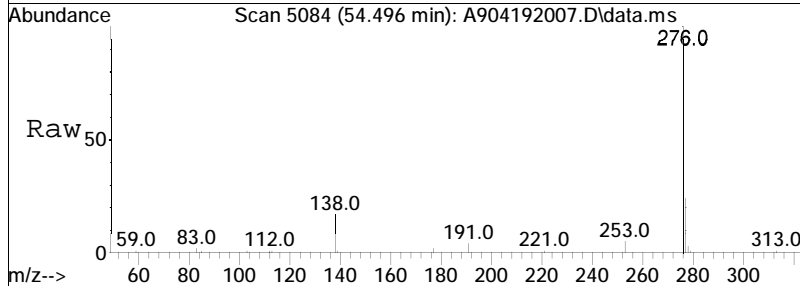
Tgt Ion	Resp	Lower	Upper
278	100		
139	12.4	8.3	15.5
279	23.6	16.8	31.2

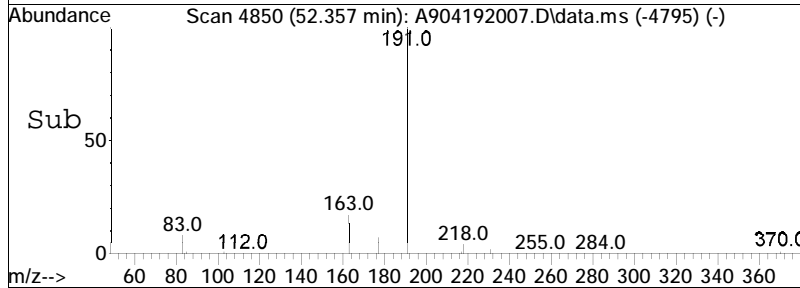
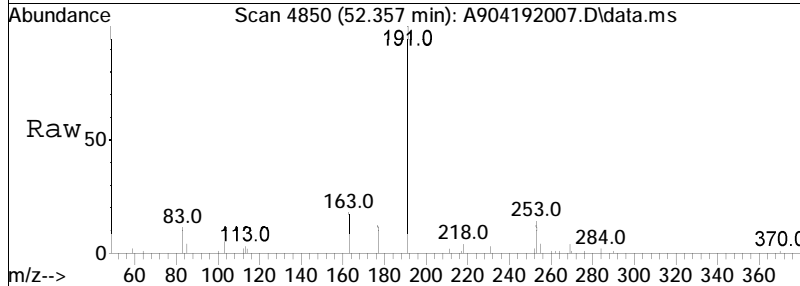
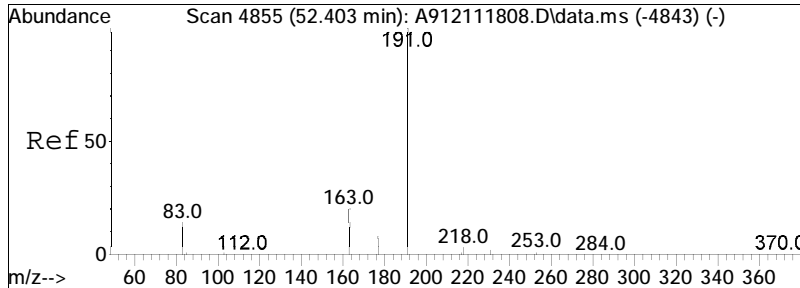




#95
 Benzo[g,h,i]perylene
 Concen: 414.62 ng/mL
 RT: 54.496 min Scan# 5084
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

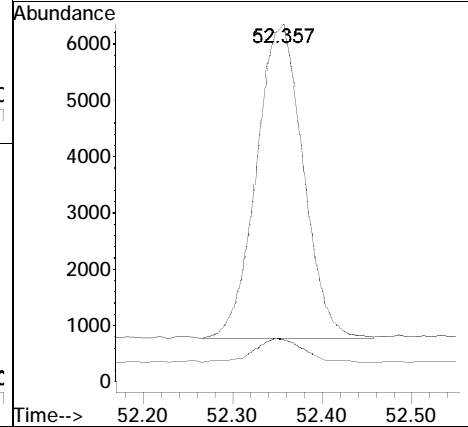
Tgt Ion	Resp	Lower	Upper
276	100		
277	23.6	17.4	32.2





#96
 Hopane (T19)
 Concen: 760.79 ng/mL
 RT: 52.357 min Scan# 4850
 Delta R.T. 0.000 min
 Lab File: A904192007.D
 Acq: 19 Apr 2020 10:59 pm

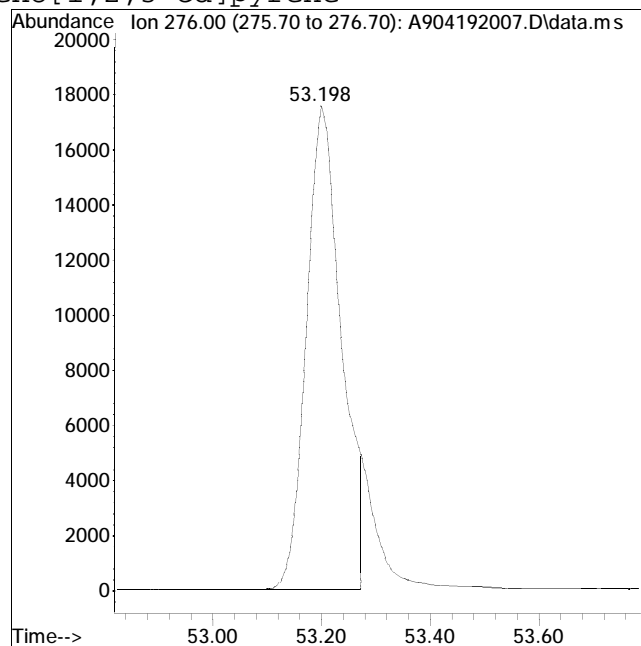
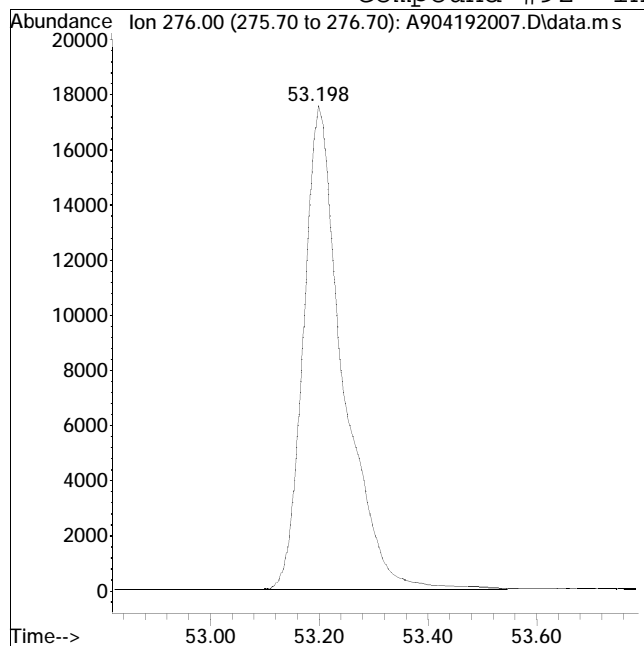
Tgt Ion	Resp	Lower	Upper
191	100		
177	7.5	17.2	32.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192007.D Operator : PAH9:ML
Date Inj'd : 4/19/2020 10:59 pm Instrument : PAH 9
Sample : I904192004 Quant Date : 4/21/2020 9:00 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 88853

Manual Peak Response = 79289 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192008.D
 Acq On : 20 Apr 2020 12:25 am
 Operator : PAH9:ML
 Sample : I904192005
 Misc : WG1363075,FRBC42
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 09:09:01 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.812	164	39154	500.000	ng/mL	0.00	
74) Chrysene-d12	43.241	240	75816	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.850	136	732449	4727.183	ng/mL	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	= 472.72%#	
40) Phenanthrene-d10	32.670	188	714098	5211.119	ng/mL	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	= 521.11%#	
83) Benzo[b]fluoranthene-d12	47.153	264	993277	6398.417	ng/mL	0.02	
Spiked Amount	1000.000		Range	50 - 130	Recovery	= 639.84%#	
89) Benzo[a]pyrene-d12	48.333	264	664288	5473.825	ng/mL	0.02	
Spiked Amount	1000.000		Range	50 - 130	Recovery	= 547.38%#	
130) 5B(H)Cholane - Surr	43.881	217	180789	7971.789	ng/ml	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	= 797.18%#	
Target Compounds							
							Qvalue
2) trans-Decalin	16.510	138	74106	2391.112	ng/mL	100	
3) cis-Decalin	17.723	138	59004	2503.673	ng/mL	100	
9) Naphthalene	19.923	128	848028	4521.227	ng/mL	100	
14) 2-Methylnaphthalene	22.615	142	575247	4731.103	ng/mL	100	
15) 1-Methylnaphthalene	23.044	142	544488	4670.427	ng/mL	100	
16) Benzothiophene	20.142	134	783330	4541.750	ng/mL	100	
21) Biphenyl	24.495	154	697668	4476.982	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.106	156	511470	4721.439	ng/mL	100	
23) Dibenzofuran	27.570	168	811841	4616.568	ng/mL	97	
24) Acenaphthylene	26.201	152	888604	4910.640	ng/mL	100	
25) Acenaphthene	26.940	153	536102	4488.368	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	28.491	170	481979	5055.544	ng/mL	92	
27) Fluorene	28.948	166	648232	4871.971	ng/mL	98	
31) Dibenzothiophene	32.268	184	950999	4491.459	ng/mL	100	
41) Phenanthrene	32.761	178	916379	4448.269	ng/mL	98	
52) Retene	39.745	234	336797	5342.624	ng/mL	100	
53) Anthracene	32.944	178	803322	4367.607	ng/mL	97	
54) Carbazole	33.601	167	882110	5137.170	ng/mL	96	
55) 1-Methylphenanthrene	35.262	192	716344	5024.359	ng/mL	100	
56) Fluoranthene	37.526	202	1050725	4634.271	ng/mL	100	
57) Benzo(b)fluorene	40.046	216	688375	5039.200	ng/mL	97	
59) Pyrene	38.412	202	1078572	4595.498	ng/mL	98	
67) Naphthobenzothiophene-2,1	42.255	234	944576	4161.928	ng/mL	100	
75) Benz[a]anthracene	43.187	228	995958	5223.393	ng/mL	95	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192008.D
 Acq On : 20 Apr 2020 12:25 am
 Operator : PAH9:ML
 Sample : I904192005
 Misc : WG1363075,FRBC42
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 09:09:01 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.342	228	973130	4954.983	ng/mL	95
77) Chrysene/Triphenylene	43.342	228	973130	4954.983	ng/mL	95
84) Benzo[b]fluoranthene	47.235	252	1115043	4635.381	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.317	252	1107723	4482.211	ng/mL	94
88) Benzo[e]pyrene	48.241	252	1075084	4570.034	ng/mL	92
90) Benzo[a]pyrene	48.424	252	1059624	4792.541	ng/mL	90
91) Perylene	48.735	252	1056696	4934.003	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	53.235	276	1274521M3	4651.611	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.299	278	1157302	4771.017	ng/mL	99
95) Benzo[g,h,i]perylene	54.541	276	1203963	4506.520	ng/mL	98
96) Hopane (T19)	52.366	191	326393	8707.925	ng/mL#	65

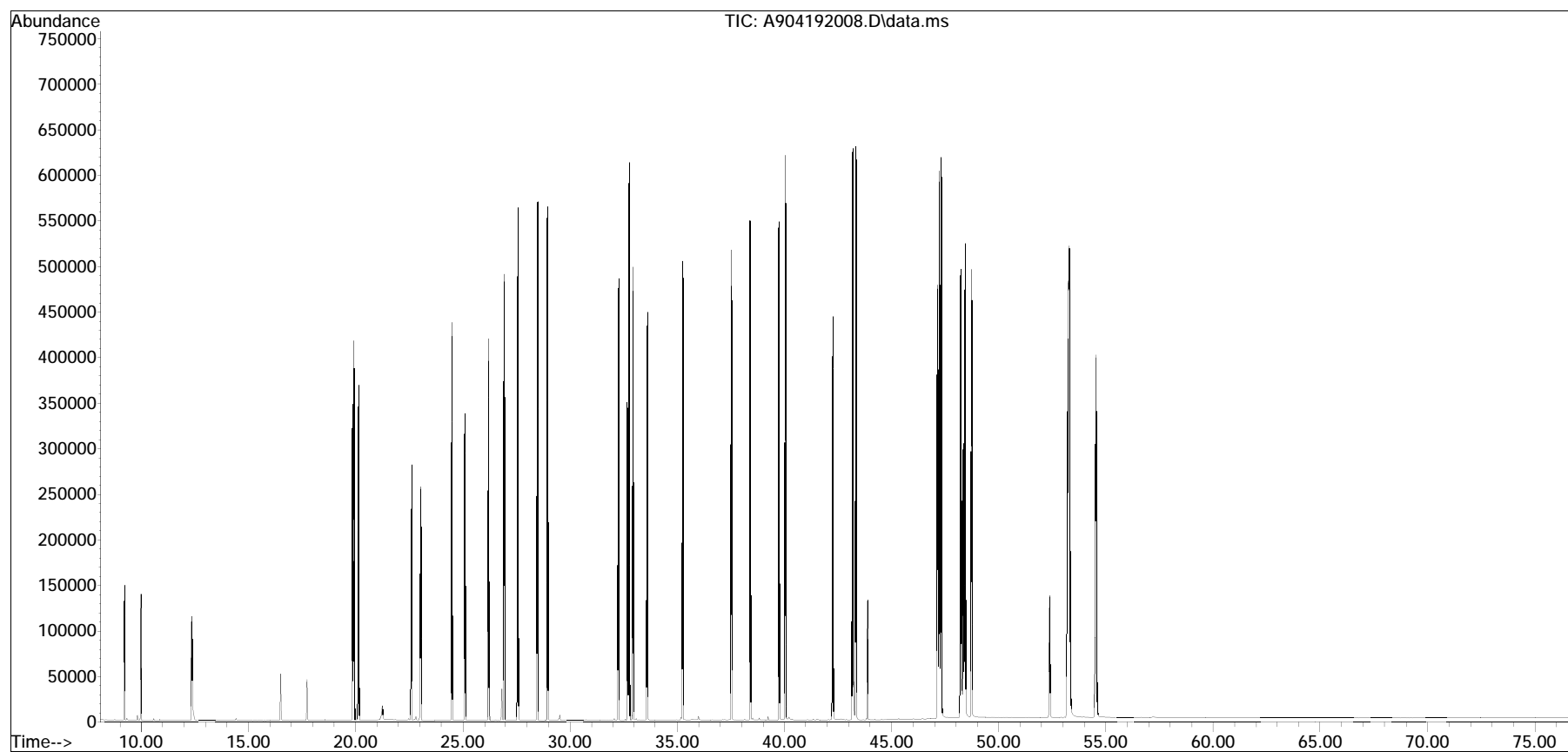
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192008.D
Acq On : 20 Apr 2020 12:25 am
Operator : PAH9:ML
Sample : I904192005
Misc : WG1363075,FRBC42
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 09:09:01 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 08:59:57 2020
Response via : Initial Calibration

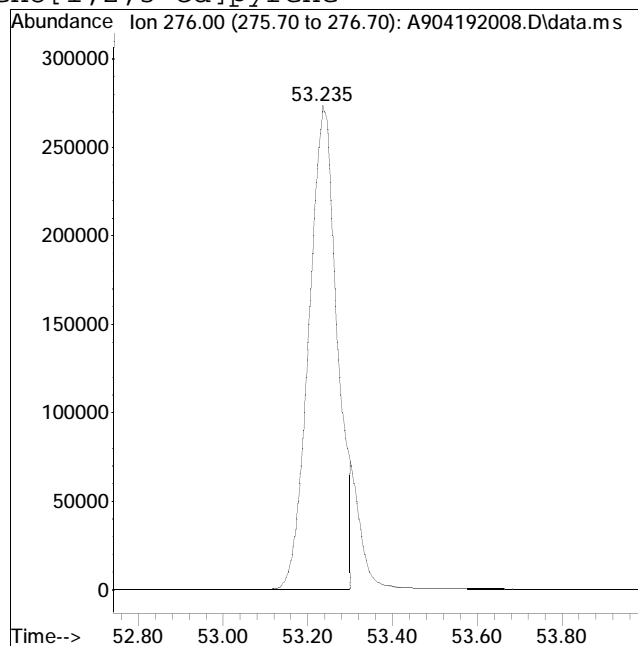
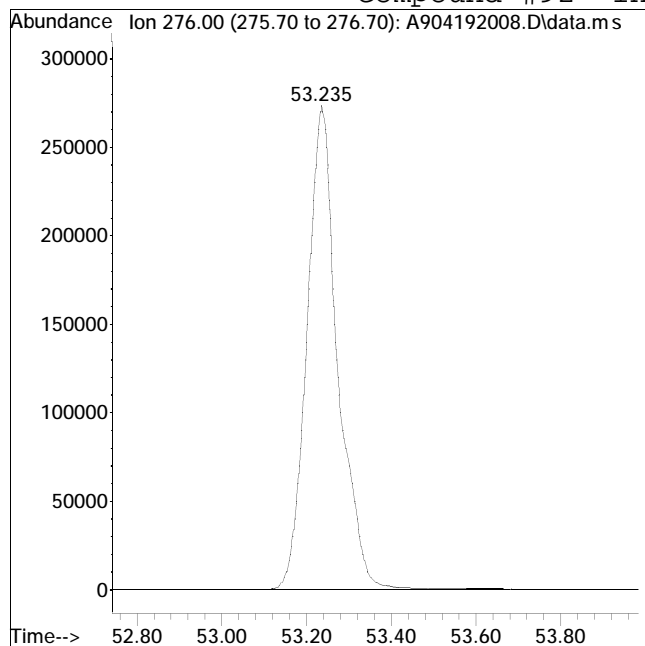
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192008.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 12:25 am Instrument : PAH 9
Sample : I904192005 Quant Date : 4/21/2020 9:00 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 1386877

Manual Peak Response = 1274521 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192009.D
 Acq On : 20 Apr 2020 1:50 am
 Operator : PAH9:ML
 Sample : I904192006
 Misc : WG1363075,FRBC43
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 09:09:59 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.812	164	35839	500.000	ng/mL	0.00	
74) Chrysene-d12	43.251	240	70283	500.000	ng/mL	0.02	
System Monitoring Compounds							
8) Naphthalene-d8	19.850	136	1306888	9214.752	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	921.48%#		
40) Phenanthrene-d10	32.679	188	1303299	10390.526	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1039.05%#		
83) Benzo[b]fluoranthene-d12	47.162	264	1826134	12689.525	ng/mL	0.03	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1268.95%#		
89) Benzo[a]pyrene-d12	48.351	264	1250578	11116.188	ng/mL	0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1111.62%#		
130) 5B(H)Cholane - Surr	43.881	217	340987	16219.303	ng/ml	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1621.93%#		
Target Compounds							
							Qvalue
2) trans-Decalin	16.510	138	138934	4897.510	ng/mL	100	
3) cis-Decalin	17.723	138	108740	5040.872	ng/mL	100	
9) Naphthalene	19.923	128	1493564	8699.419	ng/mL	100	
14) 2-Methylnaphthalene	22.615	142	1035649	9305.526	ng/mL	100	
15) 1-Methylnaphthalene	23.044	142	974547	9132.535	ng/mL	100	
16) Benzothiophene	20.142	134	1382742	8758.704	ng/mL	100	
21) Biphenyl	24.495	154	1255041	8798.622	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.106	156	924101	9319.528	ng/mL	100	
23) Dibenzofuran	27.579	168	1471484	9141.640	ng/mL	97	
24) Acenaphthylene	26.201	152	1598754	9652.320	ng/mL	100	
25) Acenaphthene	26.940	153	964952	8826.062	ng/mL	97	
26) 2,3,5-Trimethylnaphthalen	28.491	170	881295	10099.068	ng/mL	92	
27) Fluorene	28.957	166	1187104	9747.276	ng/mL	98	
31) Dibenzothiophene	32.269	184	1737201	8963.502	ng/mL	100	
41) Phenanthrene	32.770	178	1666833	8839.512	ng/mL	97	
52) Retene	39.754	234	619028	10727.954	ng/mL	100	
53) Anthracene	32.944	178	1355996	8054.389	ng/mL	97	
54) Carbazole	33.610	167	1642069	10447.511	ng/mL	96	
55) 1-Methylphenanthrene	35.271	192	1328396	10179.040	ng/mL	99	
56) Fluoranthene	37.535	202	1929037	9295.081	ng/mL	100	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192009.D
 Acq On : 20 Apr 2020 1:50 am
 Operator : PAH9:ML
 Sample : I904192006
 Misc : WG1363075,FRBC43
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 09:09:59 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Benzo(b)fluorene	40.055	216	1274683	10194.337	ng/mL	97
59) Pyrene	38.421	202	1977241	9203.717	ng/mL	98
67) Naphthobenzothiophene-2,1	42.265	234	1751075	8429.128	ng/mL	100
75) Benz[a]anthracene	43.187	228	1824660	10322.960	ng/mL	95
76) Chrysene	43.351	228	1803450	9905.719	ng/mL	95
77) Chrysene/Triphenylene	43.351	228	1803450	9905.719	ng/mL	95
84) Benzo[b]fluoranthene	47.244	252	2039181	9144.505	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.336	252	2081724	9086.463	ng/mL	93
88) Benzo[e]pyrene	48.250	252	2013219	9231.634	ng/mL	92
90) Benzo[a]pyrene	48.443	252	1995093	9733.921	ng/mL	90
91) Perylene	48.753	252	1995636	10051.741	ng/mL	88
92) Indeno[1,2,3-cd]pyrene	53.262	276	2339932M3	9212.344	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.317	278	2146448	9545.424	ng/mL	99
95) Benzo[g,h,i]perylene	54.569	276	2249776	9084.018	ng/mL	98
96) Hopane (T19)	52.366	191	587577	16910.219	ng/mL#	65

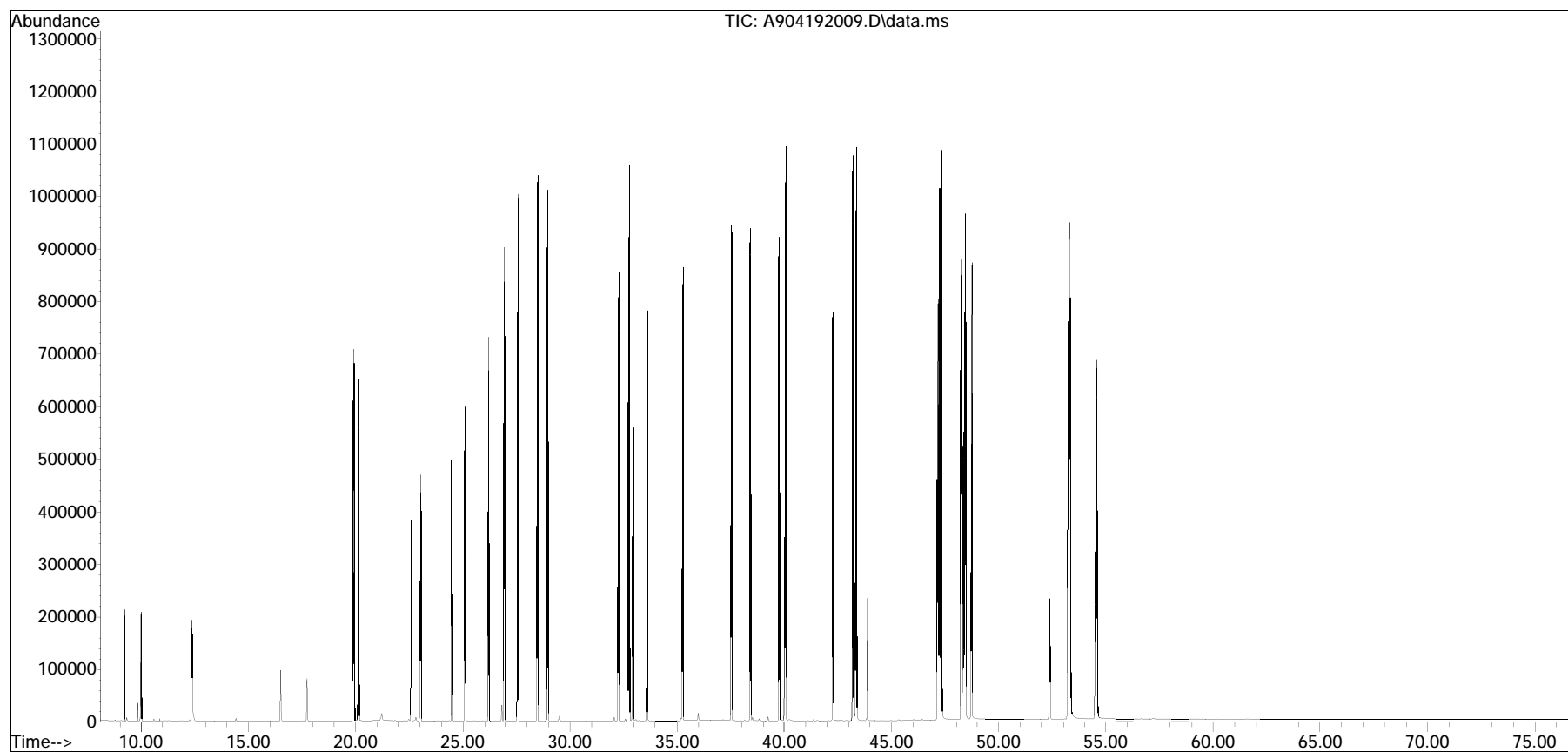
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192009.D
Acq On : 20 Apr 2020 1:50 am
Operator : PAH9:ML
Sample : I904192006
Misc : WG1363075,FRBC43
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 09:09:59 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 08:59:57 2020
Response via : Initial Calibration

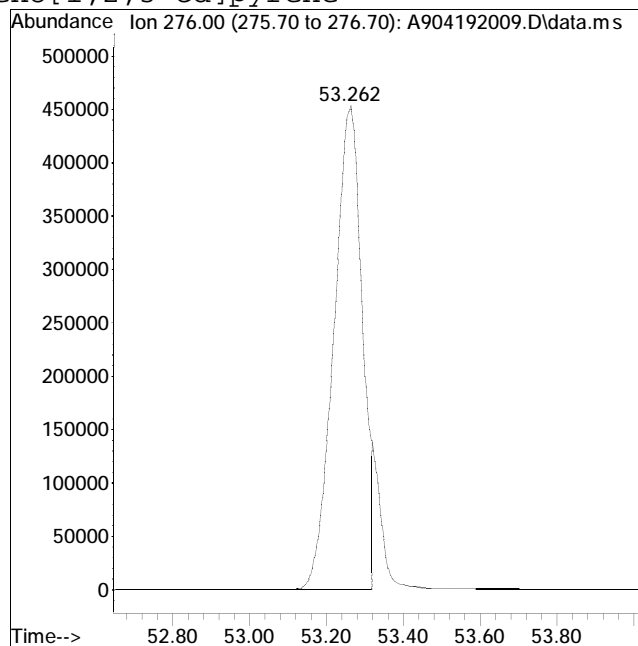
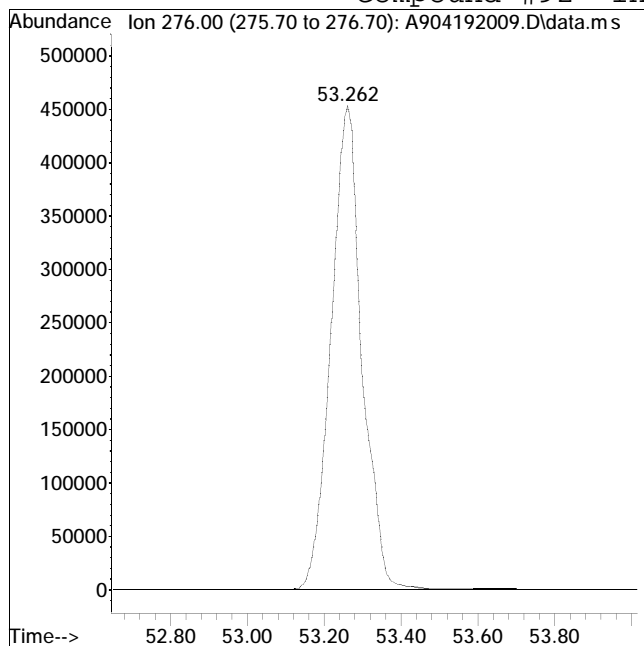
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192009.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 1:50 am Instrument : PAH 9
Sample : I904192006 Quant Date : 4/21/2020 9:00 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 2545135

Manual Peak Response = 2339932 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192010.D
 Acq On : 20 Apr 2020 3:16 am
 Operator : PAH9:ML
 Sample : I904192007
 Misc : WG1363075,FRBC44
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 21 09:11:40 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards						
1) Acenaphthene-d10	26.812	164	26849	500.000	ng/mL	0.00
74) Chrysene-d12	43.251	240	53582	500.000	ng/mL	0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.859	136	1928819	18153.673	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 1815.37%#	
40) Phenanthrene-d10	32.688	188	1989438	21171.500	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2117.15%#	
83) Benzo[b]fluoranthene-d12	47.171	264	2784412	25379.180	ng/mL	0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2537.92%#	
89) Benzo[a]pyrene-d12	48.360	264	1912880	22303.048	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2230.30%#	
130) 5B(H)Cholane - Surr	43.890	217	530551	33101.896	ng/ml	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 3310.19%#	
Target Compounds						
						Qvalue
2) trans-Decalin	16.510	138	209694	9866.896	ng/mL	100
3) cis-Decalin	17.723	138	163500	10117.235	ng/mL	100
9) Naphthalene	19.932	128	2184049	16980.737	ng/mL	100
14) 2-Methylnaphthalene	22.624	142	1543794	18515.926	ng/mL	100
15) 1-Methylnaphthalene	23.044	142	1450575	18144.981	ng/mL	100
16) Benzothiophene	20.151	134	2045396	17294.335	ng/mL	100
21) Biphenyl	24.504	154	1876355	17558.991	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.115	156	1389279	18702.157	ng/mL	100
23) Dibenzofuran	27.579	168	2227538	18472.320	ng/mL	97
24) Acenaphthylene	26.210	152	2468164	19890.782	ng/mL	100
25) Acenaphthene	26.949	153	1458581	17808.183	ng/mL	97
26) 2,3,5-Trimethylnaphthalen	28.501	170	1346002	20588.916	ng/mL	91
27) Fluorene	28.966	166	1807677	19812.673	ng/mL	97
31) Dibenzothiophene	32.278	184	2626835	18092.068	ng/mL	100
41) Phenanthrene	32.779	178	2550079	18051.680	ng/mL	97
52) Retene	39.754	234	950092	21978.601	ng/mL	99
53) Anthracene	32.953	178	2577832	20438.855	ng/mL	97
54) Carbazole	33.619	167	2492435	21167.670	ng/mL	96
55) 1-Methylphenanthrene	35.271	192	2024532	20707.690	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192010.D
 Acq On : 20 Apr 2020 3:16 am
 Operator : PAH9:ML
 Sample : I904192007
 Misc : WG1363075,FRBC44
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 21 09:11:40 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 08:59:57 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Fluoranthene	37.544	202	2922930	18800.041	ng/mL	99
57) Benzo(b)fluorene	40.064	216	1969808	21028.508	ng/mL	97
59) Pyrene	38.421	202	3004367	18667.425	ng/mL	98
67) Naphthobenzothiophene-2,1	42.274	234	2682685	17237.542	ng/mL	100
75) Benz[a]anthracene	43.196	228	2835208M4	21039.653	ng/mL	
76) Chrysene	43.369	228	2738060	19726.781	ng/mL	95
77) Chrysene/Triphenylene	43.369	228	2738060	19726.781	ng/mL	95
84) Benzo[b]fluoranthene	47.263	252	3134471	18437.415	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.345	252	3203336	18340.264	ng/mL	94
88) Benzo[e]pyrene	48.260	252	3079813	18524.363	ng/mL	92
90) Benzo[a]pyrene	48.461	252	3060058	19583.292	ng/mL	90
91) Perylene	48.763	252	3097325	20463.414	ng/mL	88
92) Indeno[1,2,3-cd]pyrene	53.280	276	3577568M3	18475.074	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.335	278	3259191	19011.485	ng/mL	99
95) Benzo[g,h,i]perylene	54.596	276	3411035	18065.761	ng/mL	98

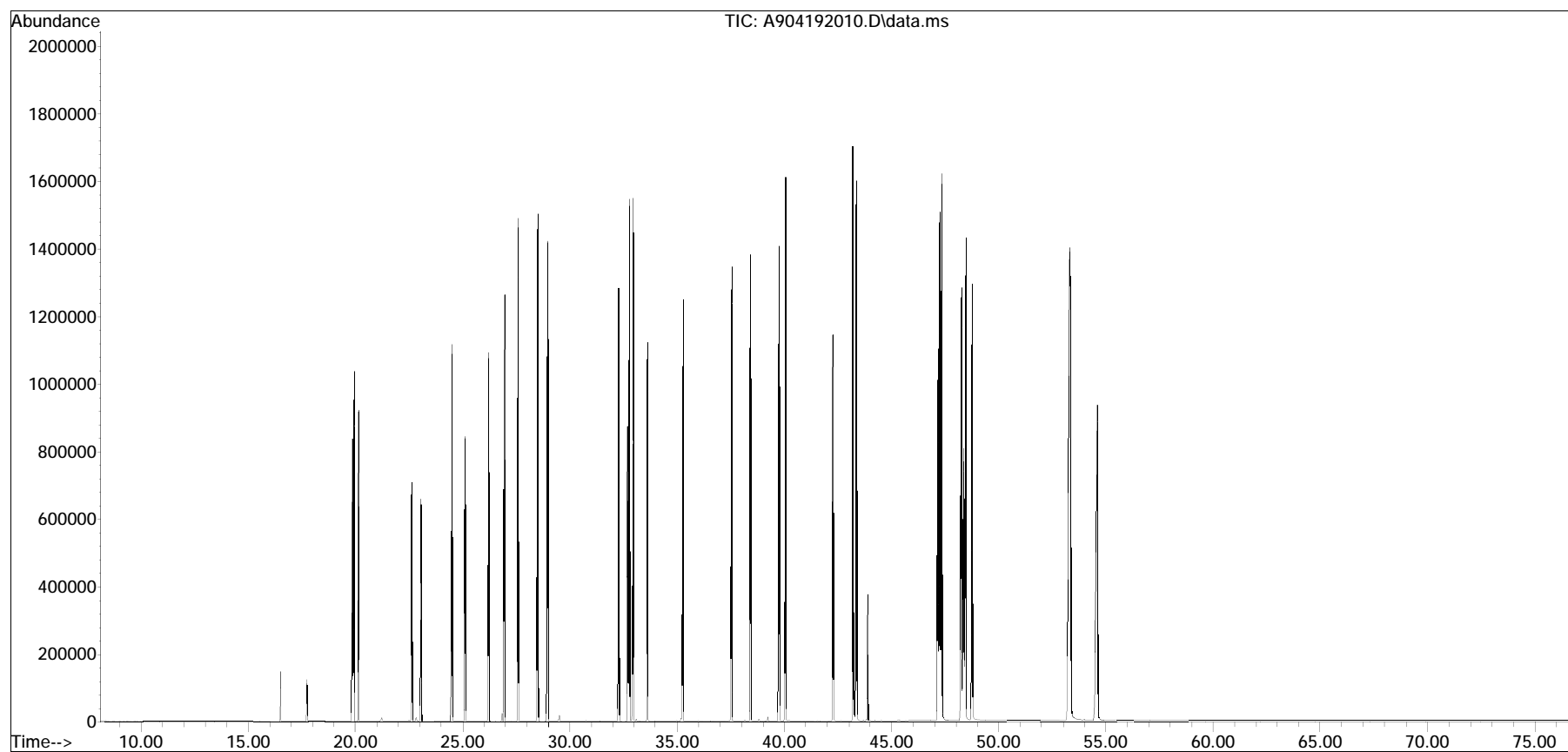
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192010.D
Acq On : 20 Apr 2020 3:16 am
Operator : PAH9:ML
Sample : I904192007
Misc : WG1363075,FRBC44
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 21 09:11:40 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 08:59:57 2020
Response via : Initial Calibration

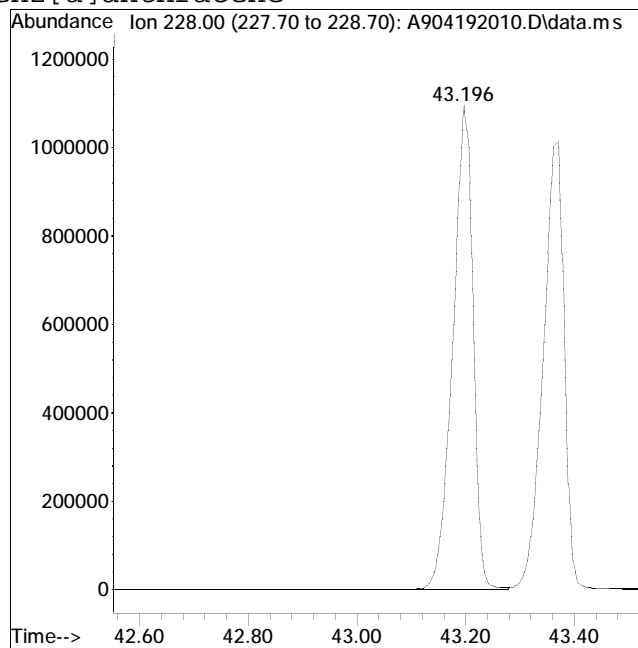
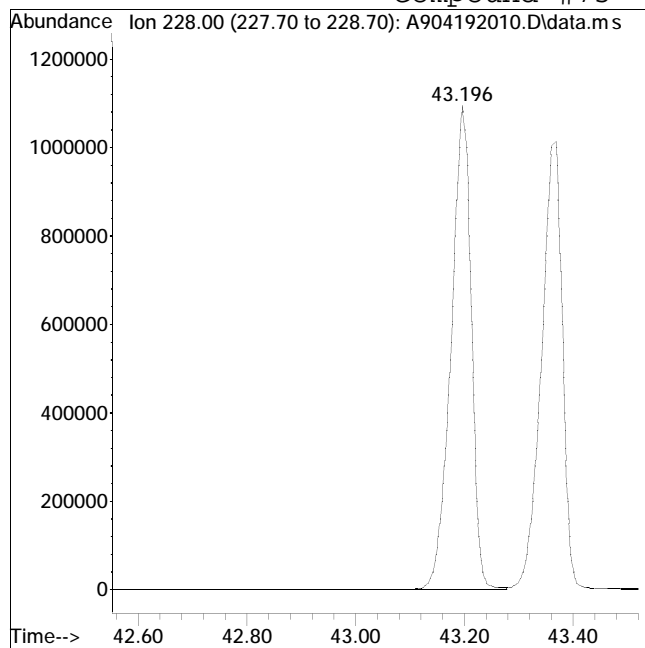
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192010.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 3:16 am Instrument : PAH 9
Sample : I904192007 Quant Date : 4/21/2020 9:00 am

Compound #75: Benz[a]anthracene



Original Peak Response = 2838041

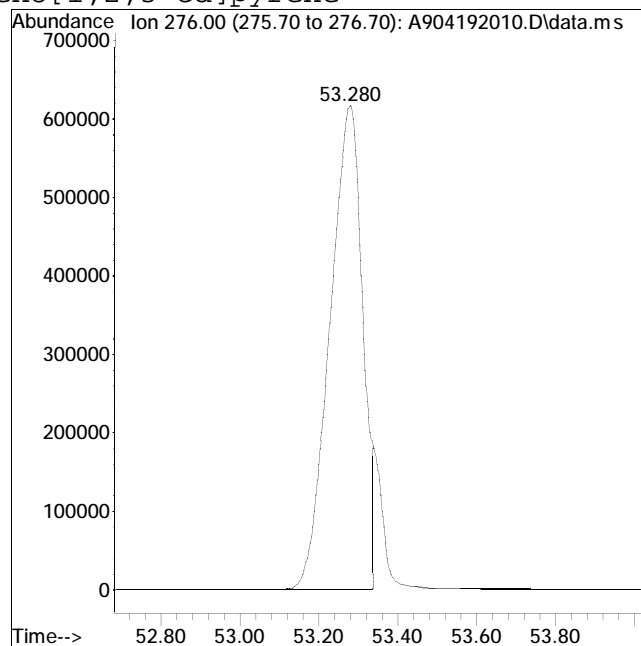
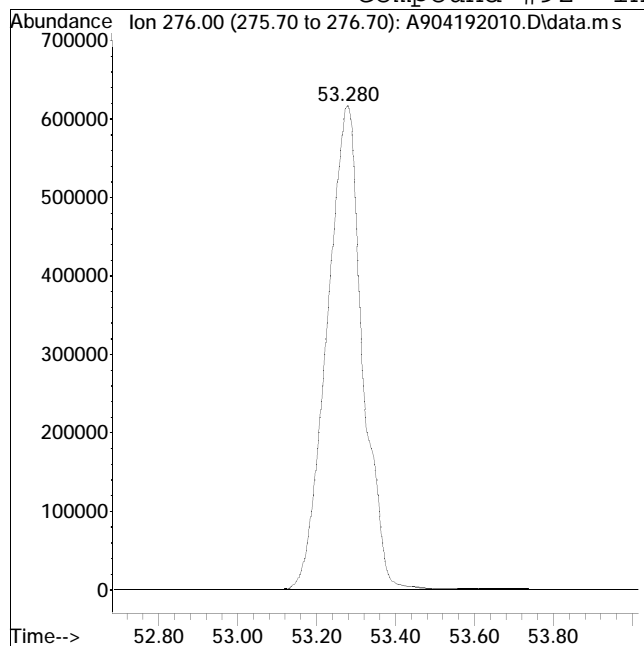
Manual Peak Response = 2835208 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192010.D Operator : PAH9:ML
Date Inj'd : 4/20/2020 3:16 am Instrument : PAH 9
Sample : I904192007 Quant Date : 4/21/2020 9:00 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 3867924

Manual Peak Response = 3577568 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192020.D
 Acq On : 21 Apr 2020 2:30 am
 Operator : PAH9:ML
 Sample : CQ904192001
 Misc : WG1363075,FRBC56
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 21 12:52:28 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 10:13:56 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	89	0.00
2 A1	trans-Decalin	0.404	0.404	0.0	94	0.00
3 t	cis-Decalin	0.309	0.317	-2.6	95	0.00
8 s	Naphthalene-d8	1.827	0.000#	100.0#	0#	-19.84#
9 A1	Naphthalene	2.127	2.180	-2.5	91	0.00
14 t	2-Methylnaphthalene	1.410	1.450	-2.8	94	0.00
15 t	1-Methylnaphthalene	1.340	1.404	-4.8	95	0.00
16 A1	Benzothiophene	1.962	2.021	-3.0	91	0.00
21 t	Biphenyl	1.728	1.762	-2.0	92	0.00
22 t	2,6-Dimethylnaphthalene	1.238	1.213	2.0	89	0.00
23 t	Dibenzofuran	2.007	2.046	-1.9	93	0.00
24 t	Acenaphthylene	2.106	2.096	0.5	91	0.00
25 t	Acenaphthene	1.305	1.335	-2.3	93	0.00
26 t	2,3,5-Trimethylnaphthalene	1.152	1.118	3.0	90	0.00
27 A1	Fluorene	1.546	1.540	0.4	91	0.00
31 A1	Dibenzothiophene	2.286	2.261	1.1	91	0.00
40 s	Phenanthrene-d10	1.711	0.000#	100.0#	0#	-32.67#
41 A1	Phenanthrene	2.279	2.218	2.7	89	0.00
52 t	Retene	0.760	0.717	5.7	89	0.00
53 t	Anthracene	2.009	2.090	-4.0	91	0.00
54 t	Carbazole	2.102	1.971	6.2	88	0.00
55 t	1-Methylphenanthrene	1.676	1.573	6.1	87	0.00
56 A1	Fluoranthene	2.671	2.370	11.3	89	0.00
57 A1	Benzo(b)fluorene	1.582	1.457	7.9	86	0.00
59 A1	Pyrene	2.820	2.530	10.3	91	0.00
67 A1	Napthhobenzothiophene-2,1-D	2.254	2.238	0.7	95	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	88	0.00
75 t	Benz[a]anthracene	1.257	1.188	5.5	89	0.00
76 A1	Chrysene	1.319	1.243	5.8	91	0.00
77 A2	Chrysene/Triphenylene	1.319	1.243	5.8	91	0.00
83 S	Benzo[b]fluoranthene-d12	1.241	0.000#	100.0#	0#	-47.13#
84 t	Benzo[b]fluoranthene	1.537	1.327	13.7	87	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.410	7.1	90	0.00
88 t	Benzo[e]pyrene	1.517	1.316	13.2	90	0.00
89 s	Benzo[a]pyrene-d12	0.830	0.000#	100.0#	0#	-48.31#
90 t	Benzo[a]pyrene	1.447	1.303	10.0	90	0.00
91 t	Perylene	1.344	1.283	4.5	93	0.00
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.547	8.4	92	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192020.D
 Acq On : 21 Apr 2020 2:30 am
 Operator : PAH9:ML
 Sample : CQ904192001
 Misc : WG1363075,FRBC56
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 21 12:52:28 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 10:13:56 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.433	1.4	91	0.00
95 t Benzo[g,h,i]perylene	1.734	1.493	13.9	90	0.00
96 A1 Hopane (T19)	0.436	0.000#	100.0#	0#	-52.36#
130 SA1 5B(H)Cholane - Surr	0.221	0.000#	100.0#	0#	-43.87#

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.88	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.25	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192020.D
 Acq On : 21 Apr 2020 2:30 am
 Operator : PAH9:ML
 Sample : CQ904192001
 Misc : WG1363075,FRBC56
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 21 12:52:28 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 10:13:56 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards						
1) Acenaphthene-d10	26.803	164	25378	500.000	ng/mL	0.00
74) Chrysene-d12	43.232	240	47146	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	0.000	136	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
40) Phenanthrene-d10	0.000	188	0	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
83) Benzo[b]fluoranthene-d12	0.000	264	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
89) Benzo[a]pyrene-d12	0.000	264	0	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
130) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
Target Compounds						
2) trans-Decalin	16.510	138	5131	250.513	ng/mL	100
3) cis-Decalin	17.723	138	4020	256.544	ng/mL	100
9) Naphthalene	19.923	128	55328	512.443	ng/mL	100
14) 2-Methylnaphthalene	22.615	142	36801	514.090	ng/mL	100
15) 1-Methylnaphthalene	23.034	142	35630	523.766	ng/mL	100
16) Benzothiophene	20.142	134	51278	515.050	ng/mL	100
21) Biphenyl	24.485	154	44709	509.797	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.097	156	30790	490.159	ng/mL	100
23) Dibenzofuran	27.570	168	51914	509.593	ng/mL	96
24) Acenaphthylene	26.192	152	53190	497.487	ng/mL	100
25) Acenaphthene	26.931	153	33880	511.368	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.482	170	28370	485.388	ng/mL	92
27) Fluorene	28.938	166	39079	497.864	ng/mL	99
31) Dibenzothiophene	32.259	184	57371	494.539	ng/mL	100
41) Phenanthrene	32.752	178	56299	486.801	ng/mL	98
52) Retene	39.736	234	18198	471.507	ng/mL	98
53) Anthracene	32.935	178	53038	520.041	ng/mL	97
54) Carbazole	33.592	167	50027	468.963	ng/mL	96
55) 1-Methylphenanthrene	35.253	192	39909	469.205	ng/mL	100
56) Fluoranthene	37.517	202	60144	443.634	ng/mL	100
57) Benzo(b)fluorene	40.037	216	36964	460.215	ng/mL	98
59) Pyrene	38.403	202	64213	448.555	ng/mL	98
67) Naphthobenzothiophene-2,1	42.246	234	56800	496.559	ng/mL	99
75) Benz[a]anthracene	43.168	228	56011	472.464	ng/mL	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192020.D
 Acq On : 21 Apr 2020 2:30 am
 Operator : PAH9:ML
 Sample : CQ904192001
 Misc : WG1363075,FRBC56
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 21 12:52:28 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Apr 21 10:13:56 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.333	228	58596	471.119	ng/mL	95
77) Chrysene/Triphenylene	43.333	228	58596	471.119	ng/mL	95
84) Benzo[b]fluoranthene	47.217	252	62570	431.697	ng/mL	94
85) Benzo[j]+[k]fluoranthene	47.299	252	66459	464.662	ng/mL	93
88) Benzo[e]pyrene	48.214	252	62061	433.854	ng/mL	92
90) Benzo[a]pyrene	48.406	252	61449	450.382	ng/mL	90
91) Perylene	48.708	252	60483	477.165	ng/mL	88
92) Indeno[1,2,3-cd]pyrene	53.198	276	72918M3	458.156	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.262	278	67582	493.370	ng/mL	99
95) Benzo[g,h,i]perylene	54.487	276	70370	430.338	ng/mL	97

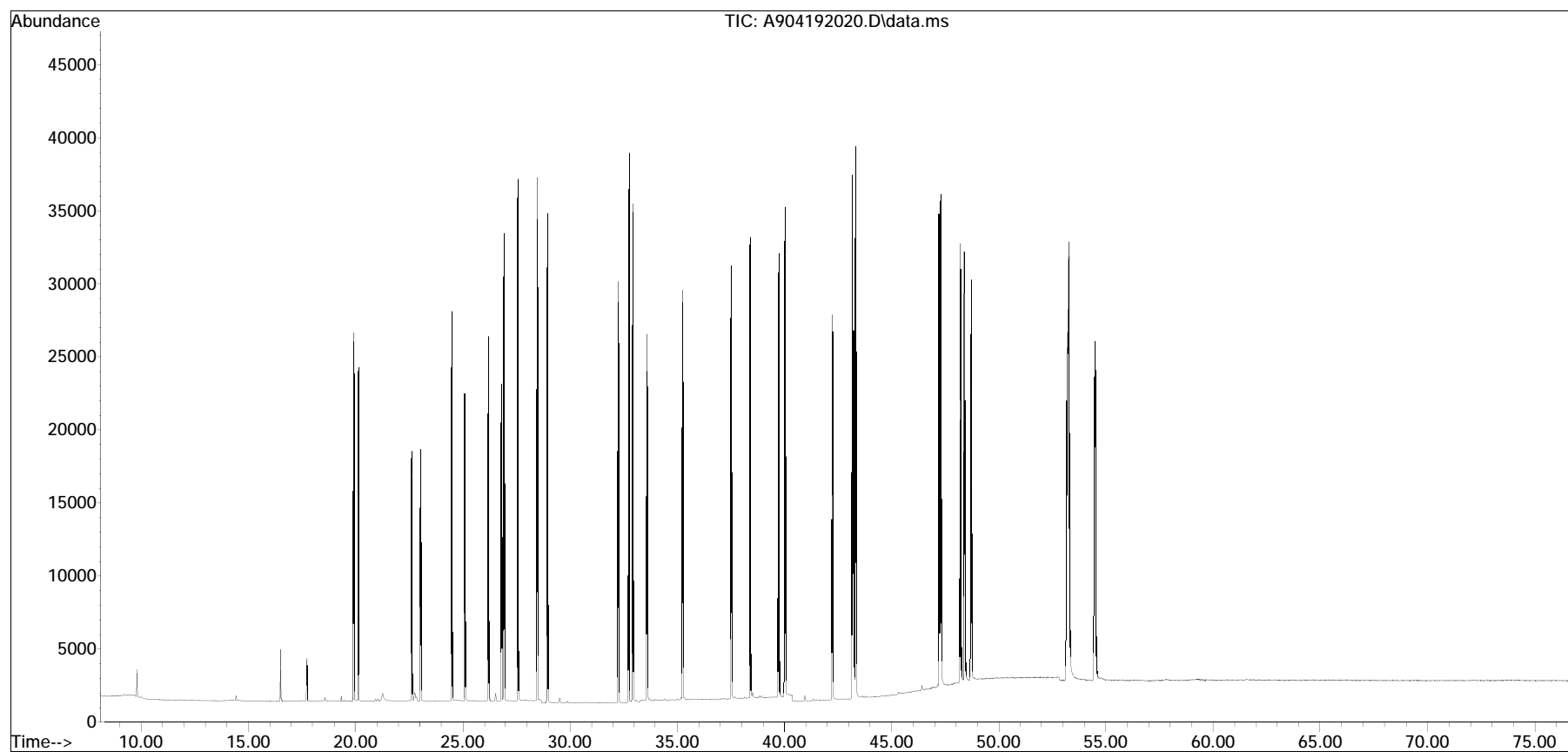
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192020.D
Acq On : 21 Apr 2020 2:30 am
Operator : PAH9:ML
Sample : CQ904192001
Misc : WG1363075,FRBC56
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 21 12:52:28 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Apr 21 10:13:56 2020
Response via : Initial Calibration

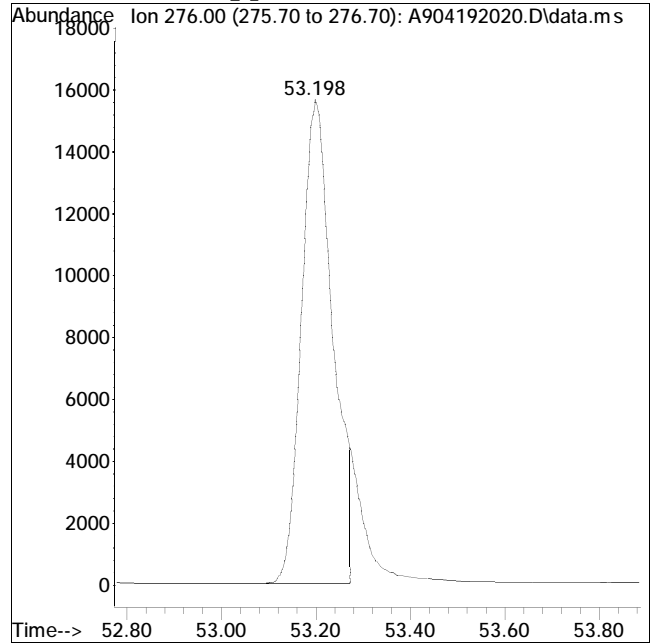
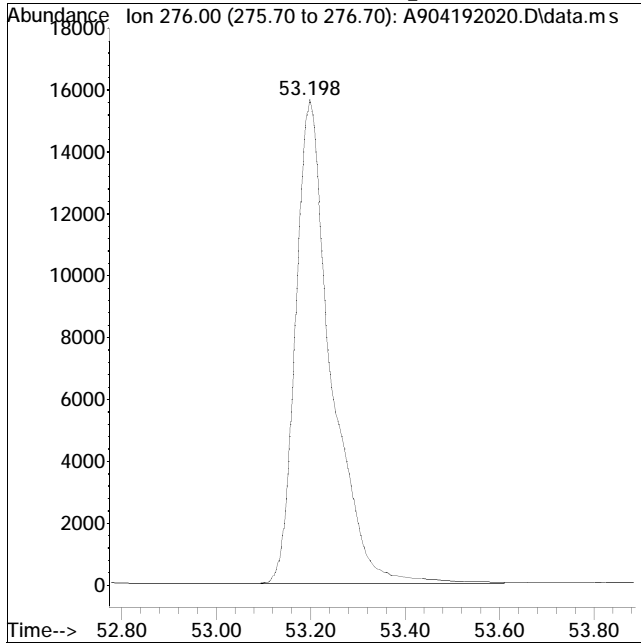
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH9\2020QMethod : PAH9041920.M
Data File : A904192020.D Operator : PAH9:ML
Date Inj'd : 4/21/2020 2:30 am Instrument : PAH 9
Sample : CQ904192001 Quant Date : 4/21/2020 12:51 pm

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 82148

Manual Peak Response = 72918 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192018.D
 Acq On : 20 Apr 2020 2:39 pm
 Operator : PAH9:ML
 Sample : WG1363075-1,.05044
 Misc : WG1363075,FRBC46 5.044
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 15:42:41 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 22 15:34:13 2020
 Response via : Initial Calibration

Sub List : Default - All compounds listed

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

Internal Standards							
1) Acenaphthene-d10	26.813	164	29158M4	500.000	ng/mL	0.00	
74) Chrysene-d12	43.242	240	54500	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.850	136	91132	855.137	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery =	85.51%			
40) Phenanthrene-d10	32.670	188	94592	947.862	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery =	94.79%			
83) Benzo[b]fluoranthene-d12	47.144	264	130062	961.779	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery =	96.18%			
89) Benzo[a]pyrene-d12	48.324	264	90512	1000.608	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery =	100.06%			
130) 5B(H)Cholane - Surr	43.881	217	26805	1112.228	ng/ml	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery =	111.22%			
Target Compounds							
2) trans-Decalin	16.510	138	51607	2192.991	ng/mL	100	Qvalue
3) cis-Decalin	17.724	138	2522	140.082	ng/mL	100	
4) C1-Decalins	18.445	152	90372M5	3840.273	ng/mL		
5) C2-Decalins	19.768	166	86712M5	3684.745	ng/mL		
6) C3-Decalins	22.241	180	50396M5	2141.531	ng/mL		
7) C4-Decalins	25.626	194	55507M5	2358.718	ng/mL		
9) Naphthalene	19.923	128	346007	2789.237	ng/mL	100	
10) C1-Naphthalenes	22.615	142	748501M5	6033.828	ng/mL		
11) C2-Naphthalenes	25.453	156	932641M5	7518.220	ng/mL		
12) C3-Naphthalenes	27.789	170	743361M5	5992.393	ng/mL		
13) C4-Naphthalenes	30.553	184	433364M5	3493.441	ng/mL		
14) 2-Methylnaphthalene	22.615	142	438630	5333.069	ng/mL	100	
15) 1-Methylnaphthalene	23.044	142	307875	3939.088	ng/mL	100	
16) Benzothiophene	20.142	134	2913M4	25.466	ng/mL		
17) C1-Benzo(b)thiophenes	22.186	148	16393M5	143.310	ng/mL		
18) C2-Benzo(b)thiophenes	25.654	162	29671M5	259.388	ng/mL		
19) C3-Benzo(b)thiophenes	27.625	176	62510M5	546.472	ng/mL		
20) C4-Benzo(b)thiophenes	29.358	190	58457M5	511.040	ng/mL		
21) Biphenyl	24.495	154	72969M4	724.170	ng/mL		
22) 2,6-Dimethylnaphthalene	25.115	156	230543	3194.325	ng/mL	100	
23) Dibenzofuran	27.570	168	30992	264.782	ng/mL	87	
24) Acenaphthylene	26.192	152	3918	31.894	ng/mL	100	
25) Acenaphthene	26.949	153	7998M4	105.068	ng/mL		
26) 2,3,5-Trimethylnaphthalen	28.482	170	54739M3	815.128	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192018.D
 Acq On : 20 Apr 2020 2:39 pm
 Operator : PAH9:ML
 Sample : WG1363075-1,.05044
 Misc : WG1363075,FRBC46 5.044
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 15:42:41 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 22 15:34:13 2020
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.948	166	34768	385.520	ng/mL	84
28) C1-Fluorenes	31.311	180	81510M5	903.811	ng/mL	
29) C2-Fluorenes	33.500	194	134684M5	1493.422	ng/mL	
30) C3-Fluorenes	35.335	208	129776M5	1439.001	ng/mL	
31) Dibenzothiophene	32.269	184	96898	726.981	ng/mL#	73
32) 4-Methyldibenzothiophene(	34.039	198	101360	760.457	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.386	198	71653	537.579	ng/mL	100
34) 1-Methyldibenzothiophene(	34.806	198	33232	249.324	ng/mL	100
35) OTP	34.450	198	12843M3	96.355	ng/mL	
36) C1-Dibenzothiophenes	34.039	198	222733M5	1671.062	ng/mL	
36) C1-Dibenzothiophenes BS	34.039	198	209890M5	1574.707	ng/mL	
37) C2-Dibenzothiophenes	35.719	212	287824M5	2159.410	ng/mL	
38) C3-Dibenzothiophenes	37.526	226	263628M5	1977.878	ng/mL	
39) C4-Dibenzothiophenes	40.987	240	147246M5	1104.718	ng/mL	
41) Phenanthrene	32.761	178	139652	1050.987	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.724	192	66977	504.053	ng/mL	98
43) 2-Methylphenanthrene(2MP)	34.833	192	72792	547.815	ng/mL	97
44) 2-Methylanthracene(2MA)	34.988	192	2795M4	21.034	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.171	192	102057	768.056	ng/mL	99
46) 1-Methylphenanthrene(1MP)	35.262	192	73071M4	549.915	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.171	192	318123M5	2394.116	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.987	206	351541M5	2645.612	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.987	206	351541M5	2645.612	ng/mL	
49) 5AA IS BKGD	0.000		0	N.D.	d	
50) C3-Phenanthrenes/Anthrace	38.823	220	253688M5	1909.194	ng/mL	
51) C4-Phenanthrenes/Anthrace	40.996	234	105423M5	793.388	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	0.000		0	N.D.	d	
54) Carbazole	33.601	167	4152M4	33.876	ng/mL	
55) 1-Methylphenanthrene	35.262	192	73395	751.031	ng/mL	100
56) Fluoranthene	37.526	202	4376M4	28.094	ng/mL	
57) Benzo(b)fluorene	40.046	216	2747	29.767	ng/mL	82
58) 7H-Benzo(c)fluorene	40.083	216	1741	18.866	ng/mL	74
59) Pyrene	38.412	202	12248M4	74.466	ng/mL	
60) 2-Methylpyrene	40.202	216	3329M4	20.240	ng/mL	
61) 4-Methylpyrene	40.567	216	8550	51.983	ng/mL	76
62) 1-Methylpyrene	40.685	216	5924	36.017	ng/mL	91
63) C1-Fluoranthenes/Pyrenes	39.800	216	49188M5	299.055	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.598	230	83203M5	505.861	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.616	244	96959M5	589.495	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.968	258	88646M5	538.954	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192018.D
 Acq On : 20 Apr 2020 2:39 pm
 Operator : PAH9:ML
 Sample : WG1363075-1,.05044
 Misc : WG1363075,FRBC46 5.044
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 15:42:41 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 22 15:34:13 2020
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) Naphthobenzothiophene-2,1	42.256	234	23410	178.125	ng/mL#	72
68) Naphthobenzothiophene-1,2	42.593	234	5784	44.010	ng/mL#	12
69) Naphthobenzothiophene-2,3	42.895	234	2437M3	18.543	ng/mL	
70) C1-Naphthobenzothiophenes	43.653	248	84661M5	644.178	ng/ml	
71) C2-Naphthobenzothiophenes	45.653	262	118357M5	900.568	ng/ml	
72) C3-Naphthobenzothiophenes	47.245	276	93907M5	714.530	ng/ml	
73) C4-Naphthobenzothiophenes	48.333	290	69767M5	530.851	ng/mL	
75) Benz[a]anthracene	43.178	228	2098M4	15.309	ng/mL	
76) Chrysene	43.315	228	27518	191.394	ng/mL	100
77) Chrysene/Triphenylene	43.315	228	27518	191.394	ng/mL	100
78) C1-Chrysenes	44.812	242	46493M5	323.369	ng/mL	
79) C2-Chrysenes	46.888	256	67953M5	472.628	ng/mL	
79) C2-Chrysenes BS	46.888	256	63358M5	440.669	ng/mL	
80) BBF-d12 Surr BKGD	47.135	256	4595	31.959	ng/mL	100
81) C3-Chrysenes	49.595	270	75311M5	523.804	ng/mL	
82) C4-Chrysenes	49.193	284	48705M5	338.754	ng/mL	
84) Benzo[b]fluoranthene	47.217	252	6077	36.270	ng/mL	87
85) Benzo[j]+[k]fluoranthene	47.299	252	1782M4	10.778	ng/mL	
86) Benzo[k]fluoranthene	47.299	252	1757M4	10.627	ng/mL	
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	48.223	252	9165	55.425	ng/mL	98
90) Benzo[a]pyrene	48.415	252	2916M4	18.489	ng/mL	
91) Perylene	48.726	252	2804M4	19.136	ng/mL	
92) Indeno[1,2,3-cd]pyrene	53.207	276	3175M3	17.257	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.281	278	1171	7.395	ng/mL#	57
94) Dibenz[a,h]anthracene	53.281	278	1171	7.395	ng/mL#	57
95) Benzo[g,h,i]perylene	54.505	276	5656	29.921	ng/mL	94
96) Hopane (T19)	52.366	191	35504	746.945	ng/mL#	65
97) C23 Tricyclic Terpane (T4	40.904	191	15094	317.553	ng/ml	100
98) C24 Tricyclic Terpane (T5	41.626	191	8886	186.947	ng/ml	100
99) C25 Tricyclic Terpane (T6	43.114	191	8852M4	186.231	ng/ml	
100) C24 Tetracyclic Terpane (	44.438	191	3031	63.767	ng/ml	100
101) C26 Tricyclic Terpane-22S	44.173	191	3670	77.211	ng/ml	100
102) C26 Tricyclic Terpane-22R	44.264	191	3152	66.313	ng/ml	100
103) C28 Tricyclic Terpane-22S	46.549	191	3683M4	77.484	ng/ml	
104) C28 Tricyclic Terpane-22R	46.714	191	3661	77.021	ng/ml	100
105) C29 Tricyclic Terpane-22S	47.235	191	4181	87.961	ng/ml	100
106) C29 Tricyclic Terpane-22R	47.427	191	4556M4	95.851	ng/ml	
107) 18a-22,29,30-Trisnorneo	48.571	191	6826	143.608	ng/ml	100
108) C30 Tricyclic Terpane-22S	48.653	191	3996M4	84.069	ng/mL	
109) C30 Tricyclic Terpane-22R	48.900	191	3517	73.992	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192018.D
 Acq On : 20 Apr 2020 2:39 pm
 Operator : PAH9:ML
 Sample : WG1363075-1,.05044
 Misc : WG1363075,FRBC46 5.044
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 15:42:41 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 22 15:34:13 2020
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 17a(H)-22,29,30-Trisnorho	49.120	191	7629	160.501	ng/ml	100
111) 17a/b,21b/a 28,30-Bisnorh	50.299	191	1274	26.803	ng/ml	100
112) 17a(H),21b(H)-25-Norhopan	50.107	191	1731	36.417	ng/ml	100
113) 30-Norhopane (T15)	50.985	191	20640	434.231	ng/ml	100
114) 18a(H)-30-Norneohopane-C2	51.086	191	5388M4	113.355	ng/ml	
115) 17a(H)-Diahopane (X)	51.214	191	2691	56.614	ng/ml	100
116) 30-Normoretane (T17)	51.772	191	2373	49.924	ng/ml	100
117) 18a(H)&18b(H)-Oleananes (	0.000		0	N.D.	d	
118) Moretane (T20)	53.052	191	3645	76.685	ng/ml	100
119) 30-Homohopane-22S (T21)	54.158	191	14546	306.024	ng/ml	100
120) 30-Homohopane-22R (T22)	54.395	191	12816	269.627	ng/ml	100
121) Gammacerane/C32-diahopane	54.944	191	2858	60.128	ng/mL	100
122) 30,31-Bishomohopane-22S (	55.729	191	10706	225.236	ng/ml	100
123) 30,31-Bishomohopane-22R (	56.113	191	7459	156.925	ng/ml	100
124) 30,31-Trishomohopane-22S	57.859	191	8172	171.925	ng/ml	100
125) 30,31-Trishomohopane-22R	58.489	191	5689	119.687	ng/ml	100
126) Tetrakishomohopane-22S (T	60.499	191	5972	125.641	ng/ml	100
127) Tetrakishomohopane-22R (T	61.404	191	4069	85.605	ng/ml	100
128) Pentakishomohopane-22S (T	63.643	191	5913	124.400	ng/ml	100
129) Pentakishomohopane-22R (T	64.940	191	4356	91.643	ng/ml	100
131) 13b(H),17a(H)-20S-Diachol	45.388	217	6356	263.731	ng/ml	100
132) 13b(H),17a(H)-20R-Diachol	45.808	217	3480	144.397	ng/ml	100
133) 13b,17a-20S-Methyl diachol	46.504	217	2711M3	112.488	ng/ml	
134) 14a,17a-20S-Chol/13b,17a-	47.373	217	7511	311.656	ng/ml	100
135) 14a,17a-20R-Chol/13b,17a-	47.894	217	9542	395.929	ng/ml	100
136) Unknown Sterane (S18)	48.177	217	2374	98.505	ng/ml	100
137) 13a,17b-20S-Ethyl diachole	48.443	217	551M6	22.863	ng/ml	
138) 14a,17a-20S-Methylcholest	48.598	217	4346	180.330	ng/ml	100
139) 14a,17a-20R-Methylcholest	49.312	217	3987	165.434	ng/ml	100
140) 14a(H),17a(H)-20S-Ethylch	49.668	217	5856M4	242.985	ng/ml	
141) 14a(H),17a(H)-20R-Ethylch	50.583	217	4330	179.666	ng/ml	100
142) 14b(H),17b(H)-20R-Cholest	47.464	218	5208M4	216.097	ng/ml	
143) 14b(H),17b(H)-20S-Cholest	47.546	218	5367M4	222.695	ng/ml	
144) 14b,17b-20R-Methylcholest	48.772	218	5325	220.952	ng/ml	100
145) 14b,17b-20S-Methylcholest	48.854	218	6823M4	283.109	ng/ml	
146) 14b(H),17b(H)-20R-Ethylch	49.924	218	7323	303.856	ng/ml	100
147) 14b(H),17b(H)-20S-Ethylch	49.961	218	4863M3	201.782	ng/ml	
148) C20 Pregnane	42.813	231	11069	459.289	ng/mL	100
149) C21 20-Methylpregnane	44.064	231	11427	474.144	ng/mL	100
150) C22 20-Ethylpregnane (a)	45.205	231	3758	155.932	ng/mL	100
151) C22 20-Ethylpregnane (b)	45.388	231	3496	145.061	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
 Data File : A904192018.D
 Acq On : 20 Apr 2020 2:39 pm
 Operator : PAH9:ML
 Sample : WG1363075-1,.05044
 Misc : WG1363075,FRBC46 5.044
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 22 15:42:41 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 22 15:34:13 2020
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
152) C26,20S TAS	48.626	231	9297	385.763	ng/mL	100
153) C26,20R+C27,20S TAS	49.613	231	29645	1230.069	ng/mL	100
154) C28,20S TAS	50.482	231	18608	772.108	ng/mL	100
155) C27,20R TAS	50.940	231	18419	764.265	ng/mL	100
156) C28,20R TAS	52.138	231	14711	610.408	ng/mL	100
157) C29,20S TAS	51.177	231	7244M4	300.578	ng/mL	
158) C29,20R TAS	53.198	231	4854M4	201.409	ng/mL	
159) 5b(H)-C27 (20S) MAS+	44.821	253	7972	330.785	ng/mL	100
160) 5b(H)-C27 (20R) MAS+	45.561	253	1037M3	43.029	ng/mL	
161) 5a(H)-C27 (20S) MAS	45.699	253	1312	54.439	ng/mL	100
162) 5b(H)-C28 (20S) MAS+	45.845	253	9117	378.295	ng/mL	100
163) 5a(H)-C27 (20R) MAS	46.522	253	1496M4	62.074	ng/mL	
164) 5a(H)-C28 (20S) MAS	46.632	253	7750	321.573	ng/mL	100
165) 5b(H)-C28 (20R) MAS+	46.705	253	5930M4	246.055	ng/mL	
166) 5b(H)-C29 (20S) MAS+	46.760	253	2895M3	120.123	ng/mL	
167) 5a(H)-C29 (20S) MAS	47.427	253	2635	109.335	ng/mL	100
168) 5a(H)-C28 (20R) MAS	47.510	253	974M3	40.414	ng/mL	
169) 5b(H)-C29 (20R) MAS+	47.629	253	4023M3	166.928	ng/mL	
170) 5a(H)-C29 (20R) MAS	48.406	253	2327	96.555	ng/mL	100

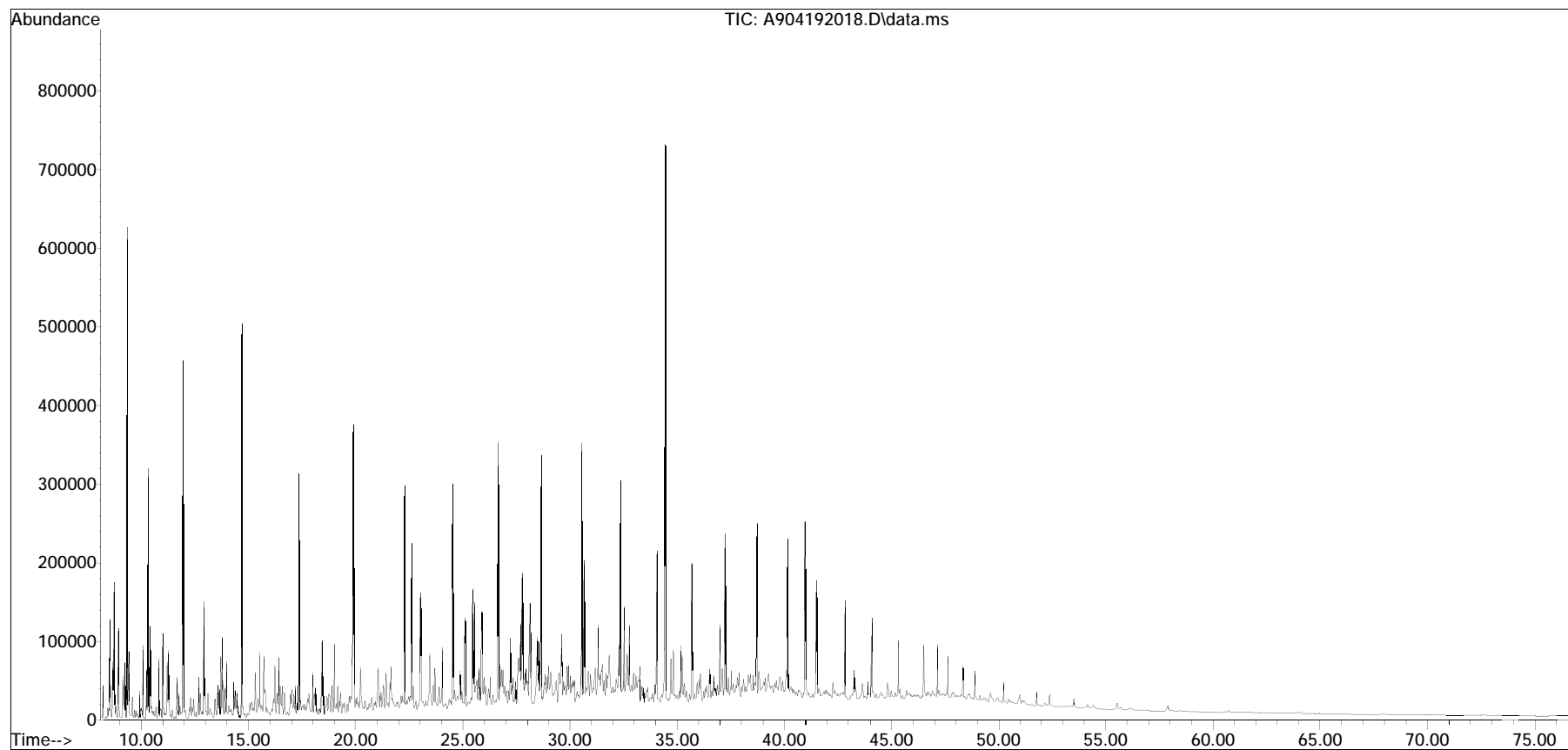
(#) = qualifier out of range (m) = manual integration (+) = signals summed

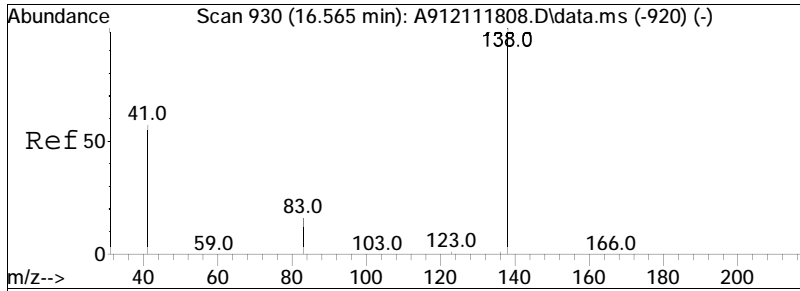
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\
Data File : A904192018.D
Acq On : 20 Apr 2020 2:39 pm
Operator : PAH9:ML
Sample : WG1363075-1,.05044
Misc : WG1363075,FRBC46 5.044
ALS Vial : 18 Sample Multiplier: 1

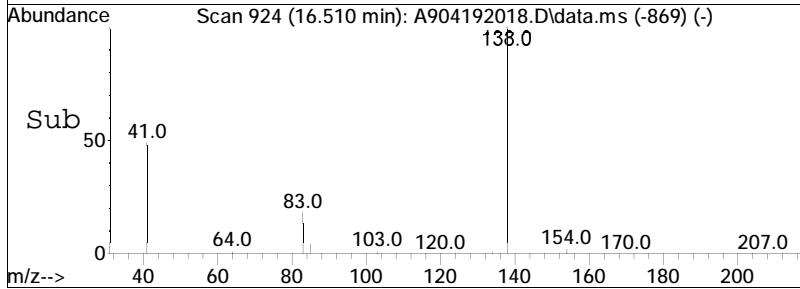
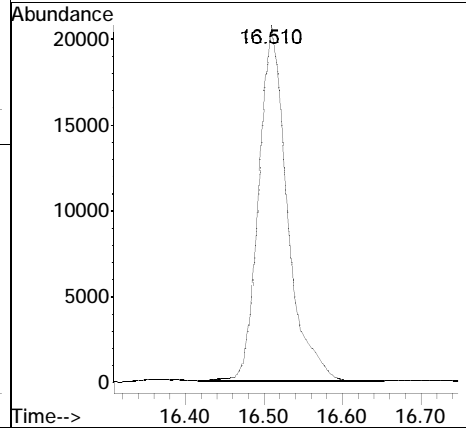
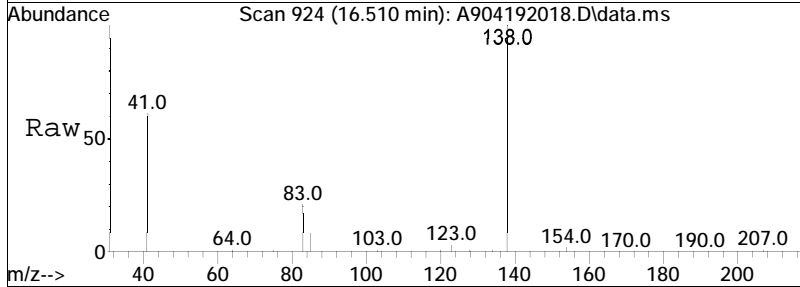
Quant Time: Apr 22 15:42:41 2020
Quant Method : O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Apr 22 15:34:13 2020
Response via : Initial Calibration

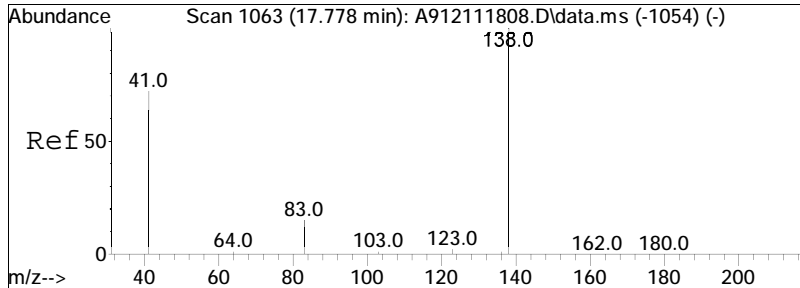
Sub List : Default - All compounds listed



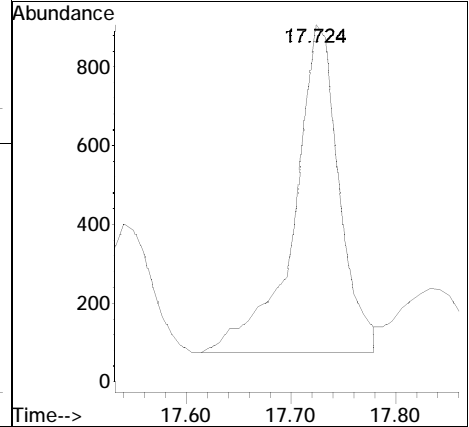
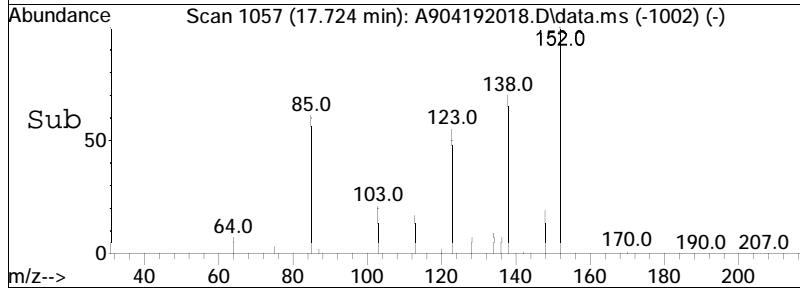
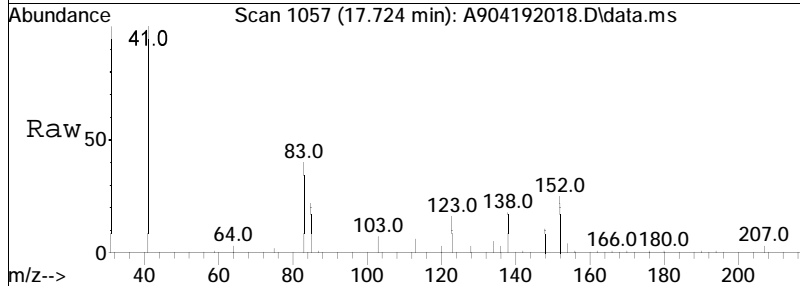


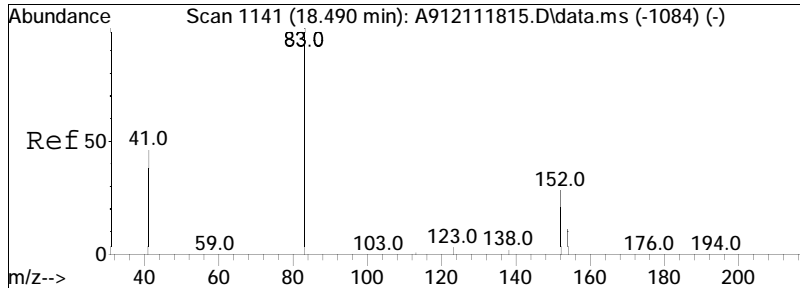
#2
 trans-Decalin
 Concen: 2192.99 ng/mL
 RT: 16.510 min Scan# 924
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:138 Resp: 51607



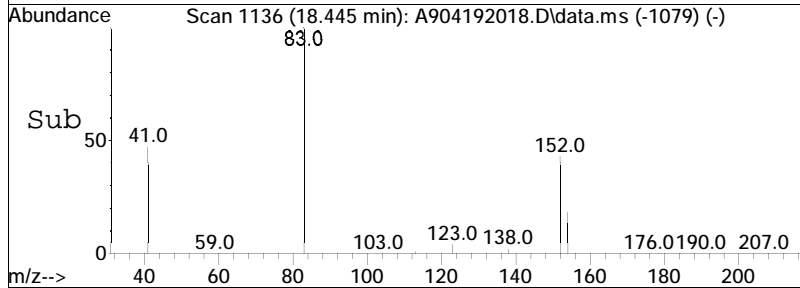
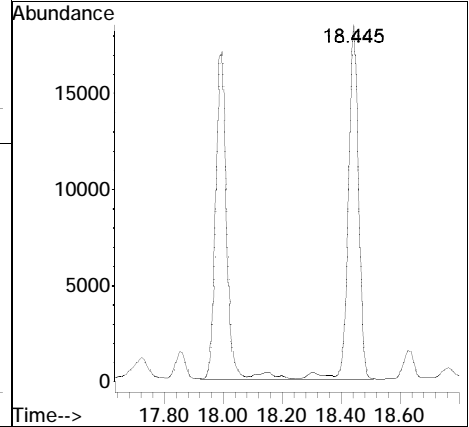
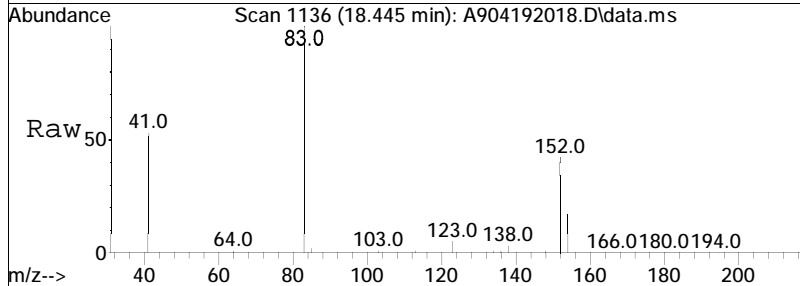


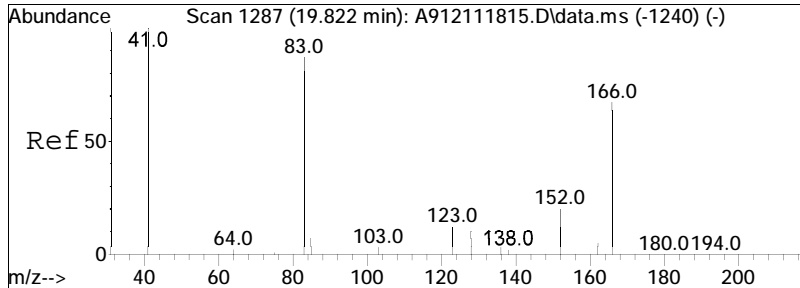
#3
 cis-Decalin
 Concen: 140.08 ng/mL
 RT: 17.724 min Scan# 1057
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:138 Resp: 2522



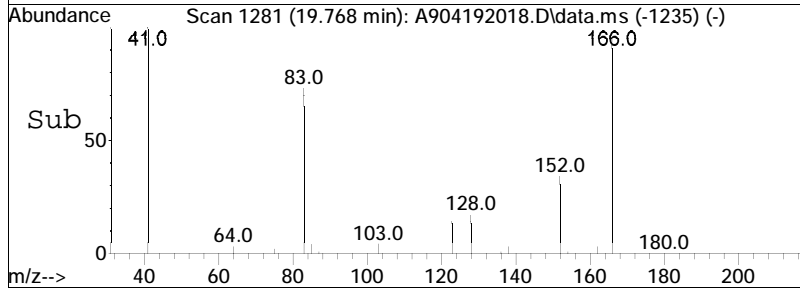
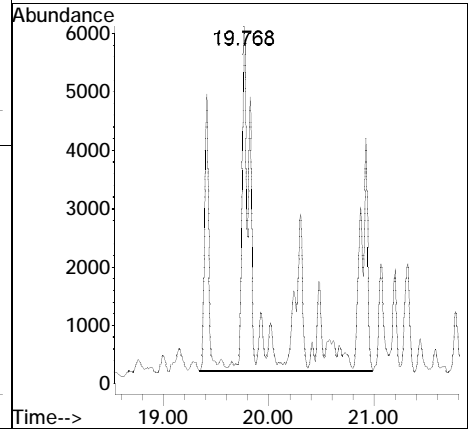
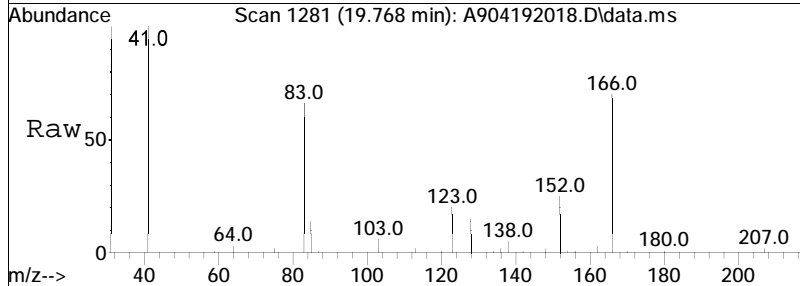


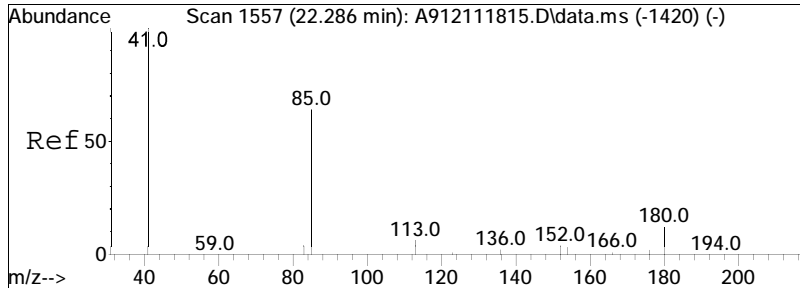
#4
 Cl-Decalins
 Concen: 3840.27 ng/mL M5
 RT: 18.445 min Scan# 1136
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:152 Resp: 90372



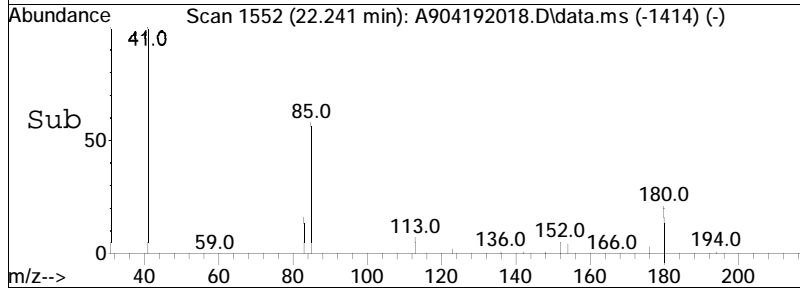
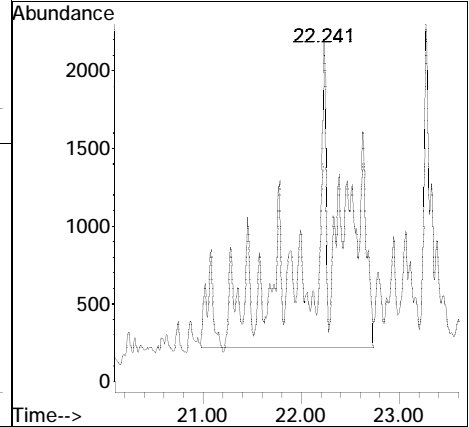
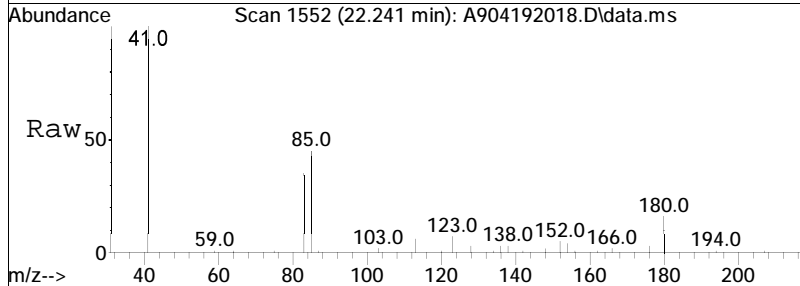


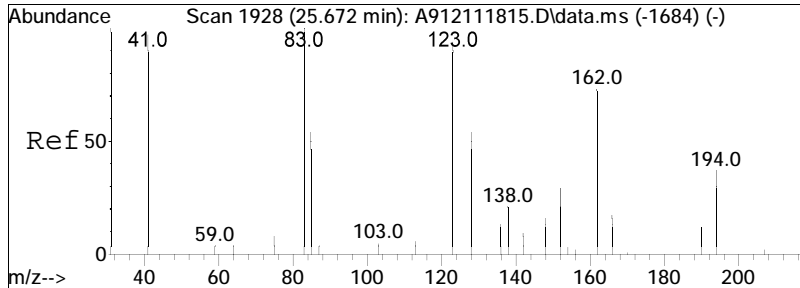
#5
 C2-Decalins
 Concen: 3684.75 ng/mL M5
 RT: 19.768 min Scan# 1281
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:166 Resp: 86712



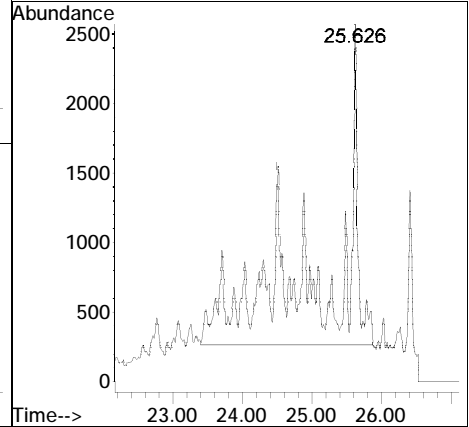
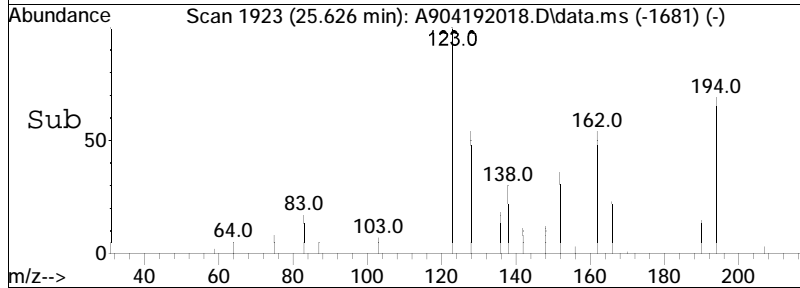
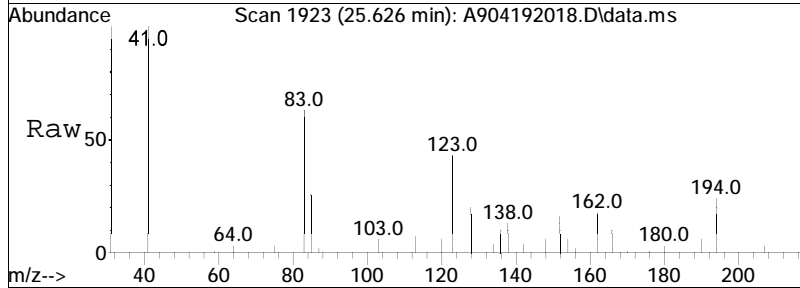


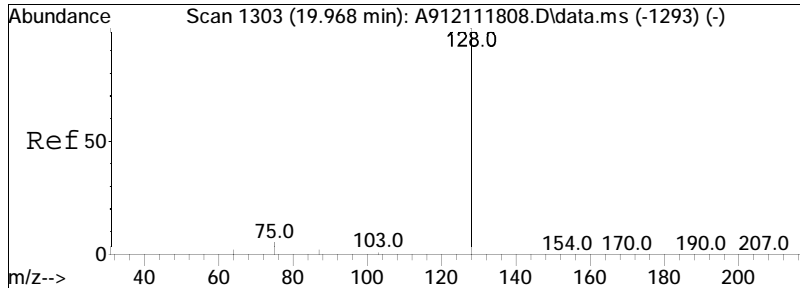
#6
 C3-Decalins
 Concen: 2141.53 ng/mL M5
 RT: 22.241 min Scan# 1552
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:180 Resp: 50396



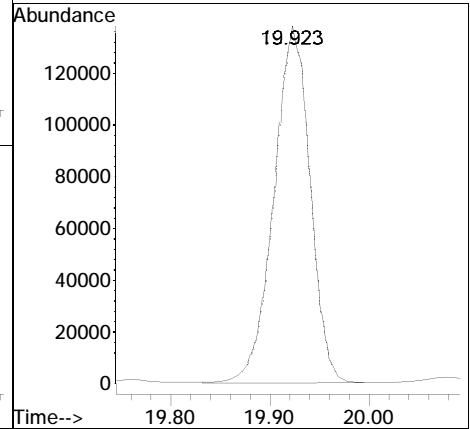
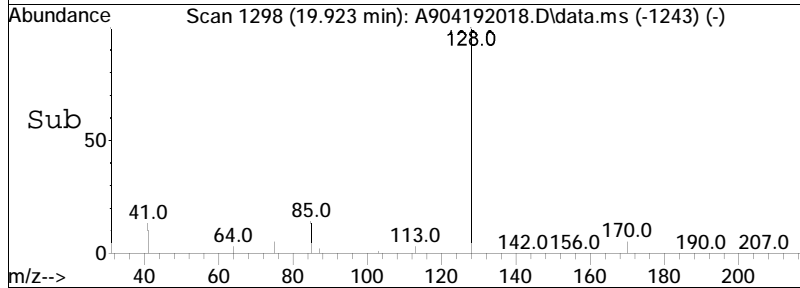
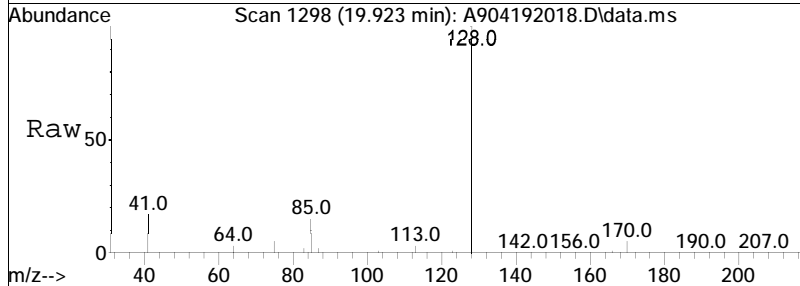


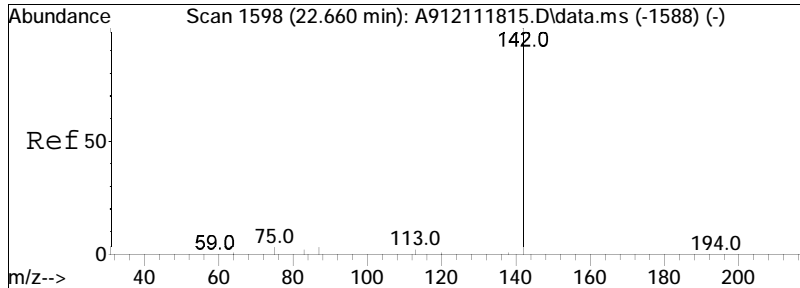
#7
 C4-Decalins
 Concen: 2358.72 ng/mL M5
 RT: 25.626 min Scan# 1923
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:194 Resp: 55507



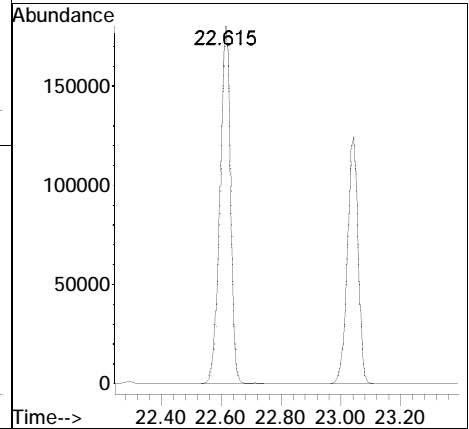
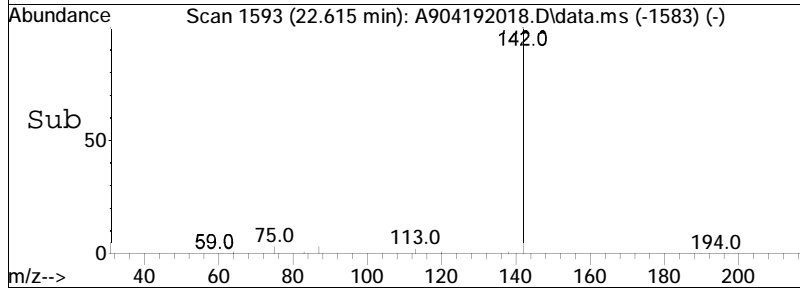
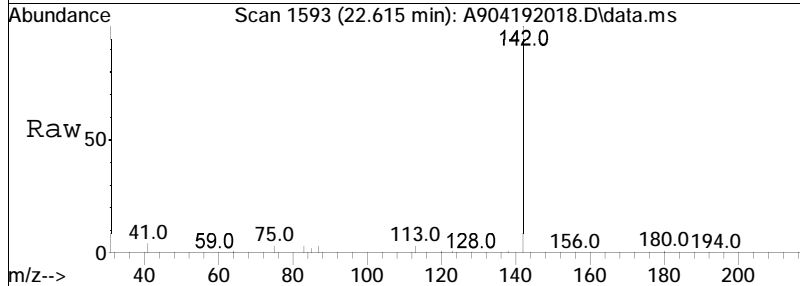


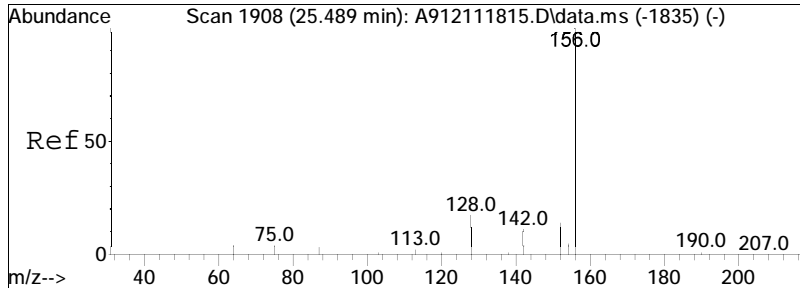
#9
 Naphthalene
 Concen: 2789.24 ng/mL
 RT: 19.923 min Scan# 1298
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:128 Resp: 346007



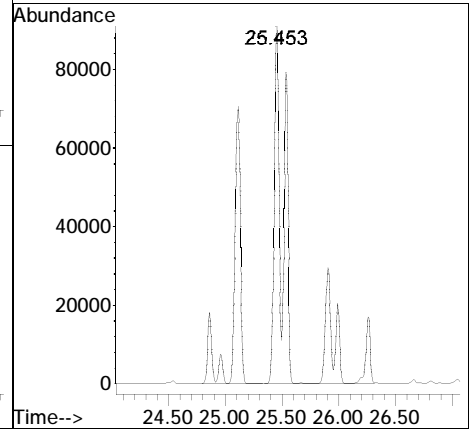
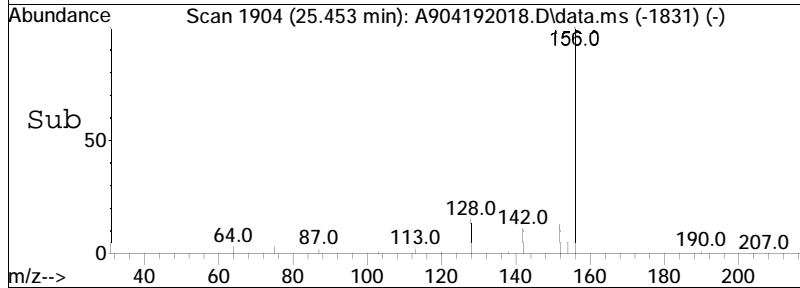
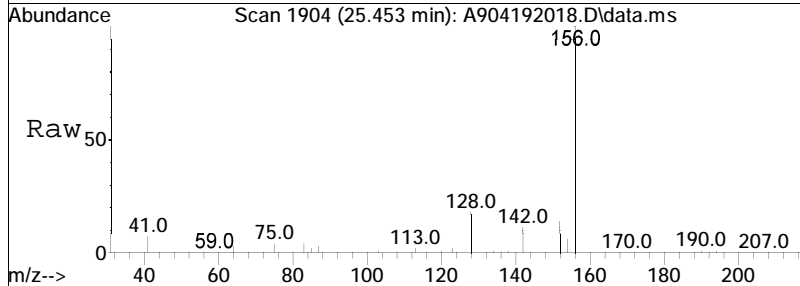


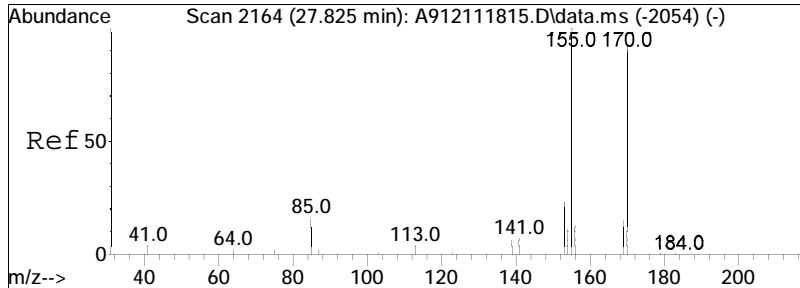
#10
 Cl-Naphthalenes
 Concen: 6033.83 ng/mL M5
 RT: 22.615 min Scan# 1593
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:142 Resp: 748501





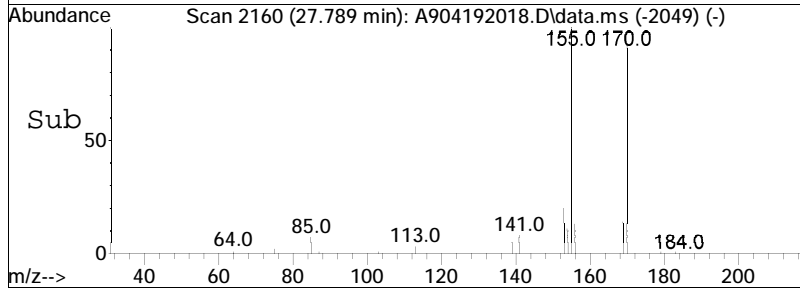
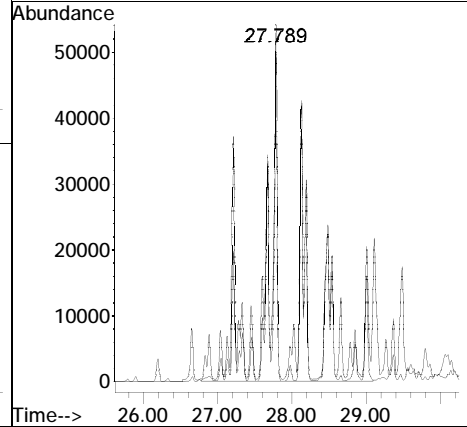
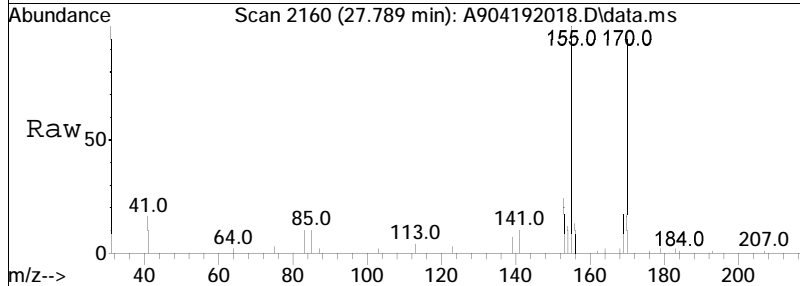
#11
 C2-Naphthalenes
 Concen: 7518.22 ng/mL M5
 RT: 25.453 min Scan# 1904
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:156 Resp: 932641

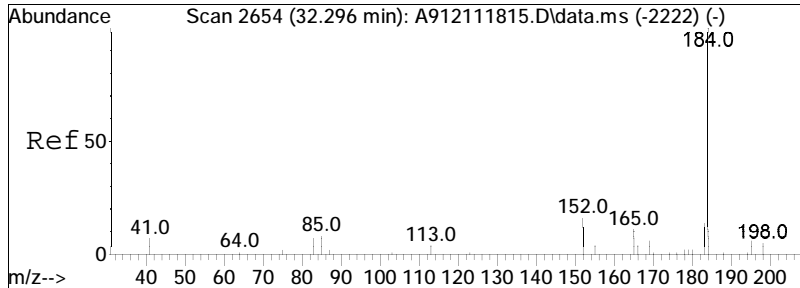




#12
 C3-Naphthalenes
 Concen: 5992.39 ng/mL M5
 RT: 27.789 min Scan# 2160
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

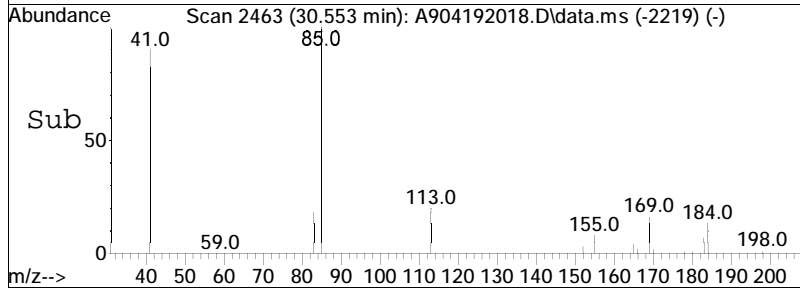
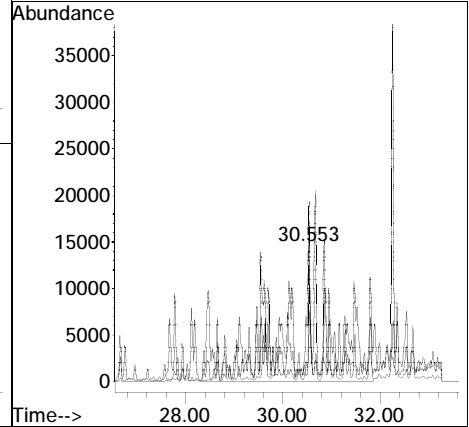
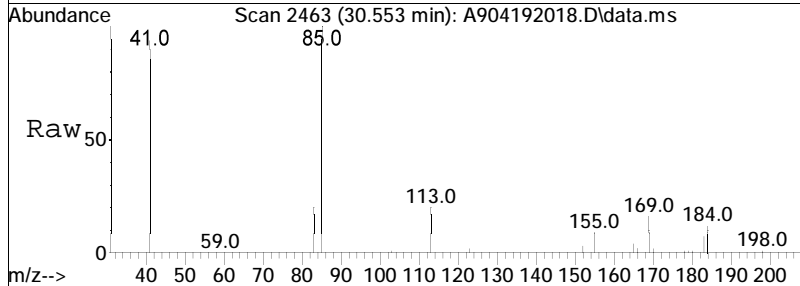
Tgt Ion	Ratio	Lower	Upper
170	100		
155	19.5	71.4	132.6#

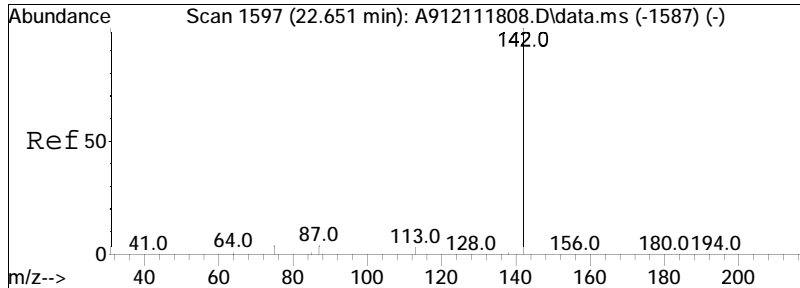




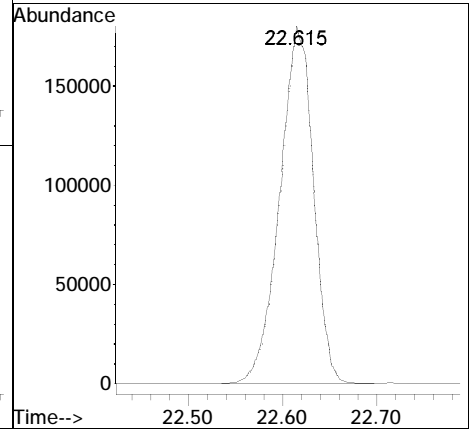
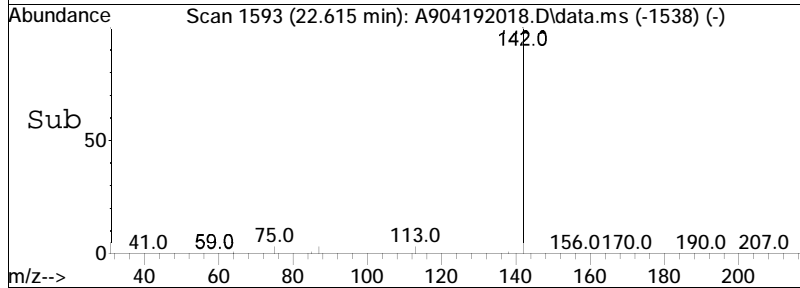
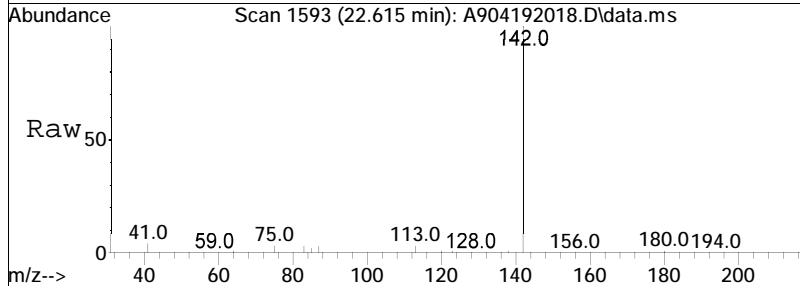
#13
 C4-Naphthalenes
 Concen: 3493.44 ng/mL M5
 RT: 30.553 min Scan# 2463
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

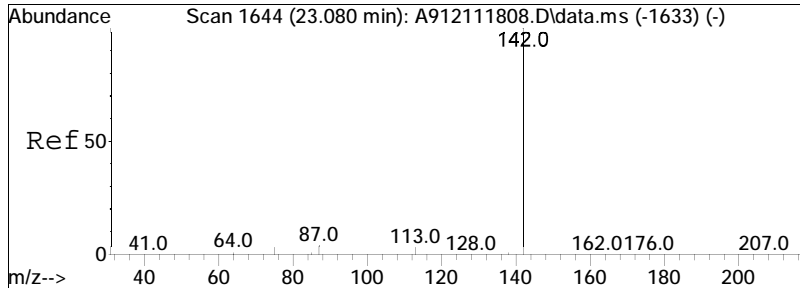
Tgt Ion	Ratio	Lower	Upper
184	100		
169	13.3	92.8	172.4#
183	4.1	37.0	68.8#



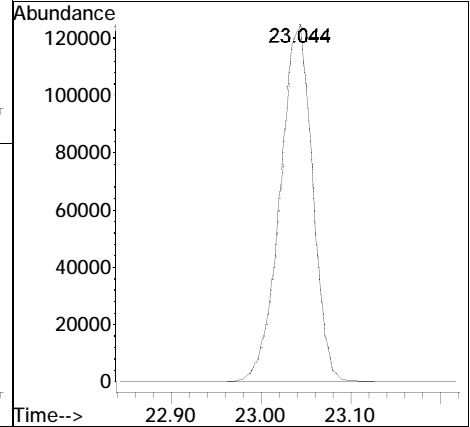
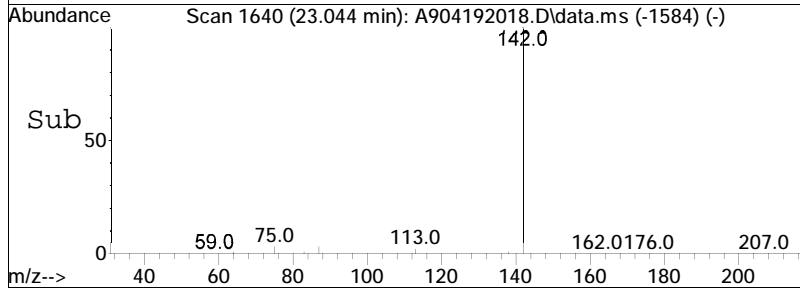
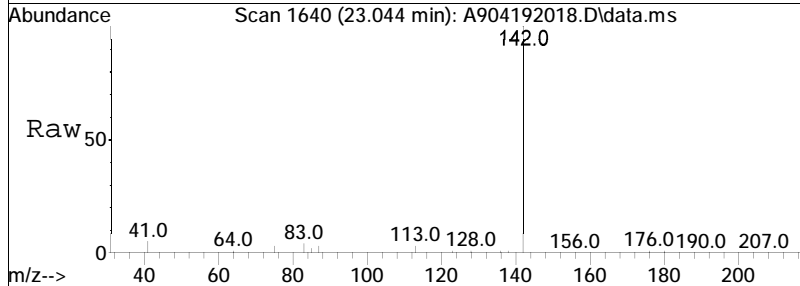


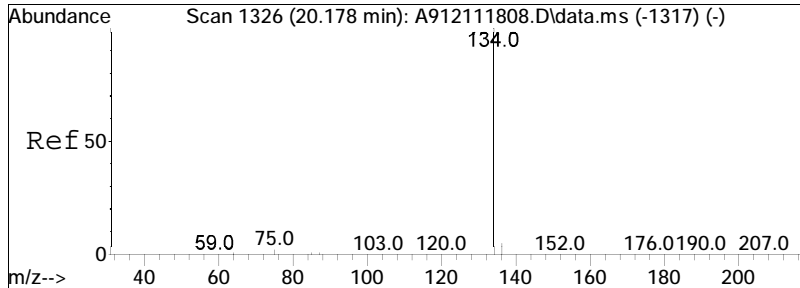
#14
 2-Methylnaphthalene
 Concen: 5333.07 ng/mL
 RT: 22.615 min Scan# 1593
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:142 Resp: 438630



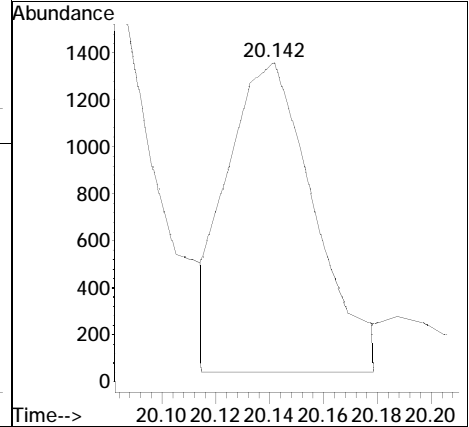
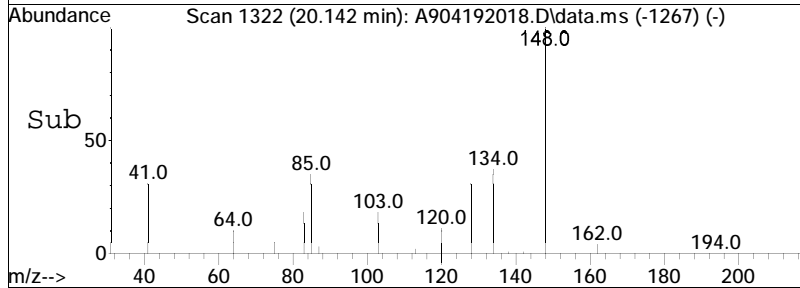
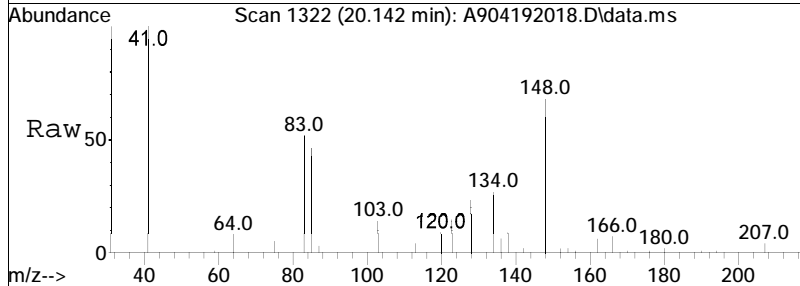


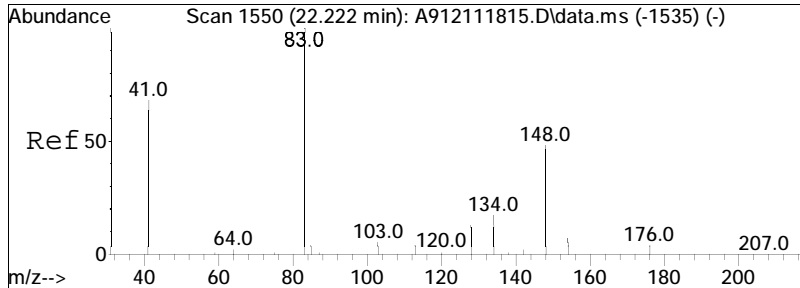
#15
 1-Methylnaphthalene
 Concen: 3939.09 ng/mL
 RT: 23.044 min Scan# 1640
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:142 Resp: 307875



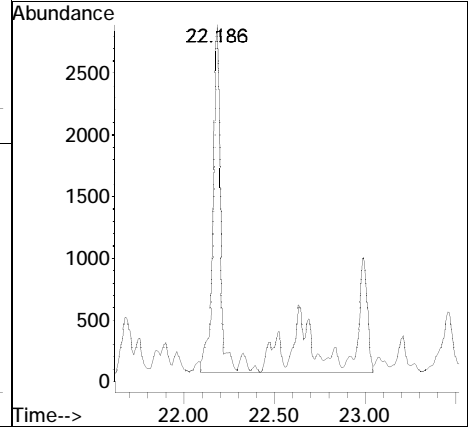
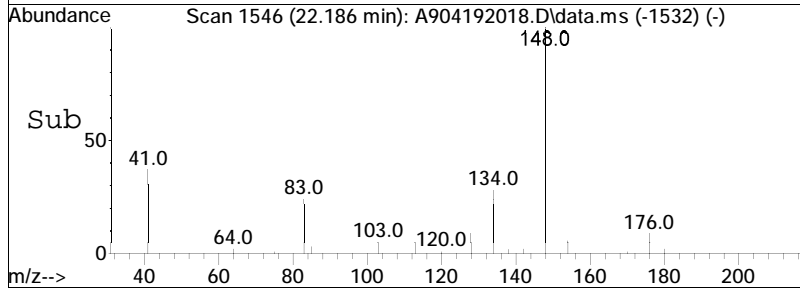
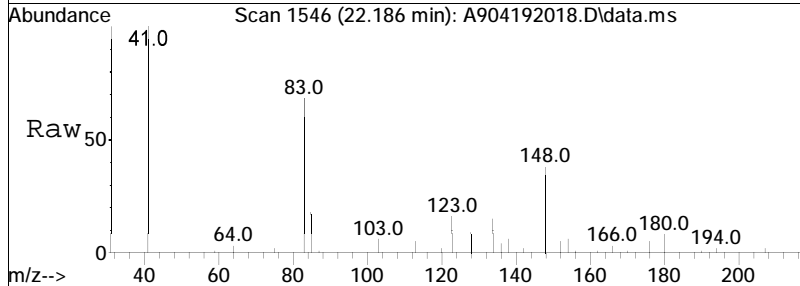


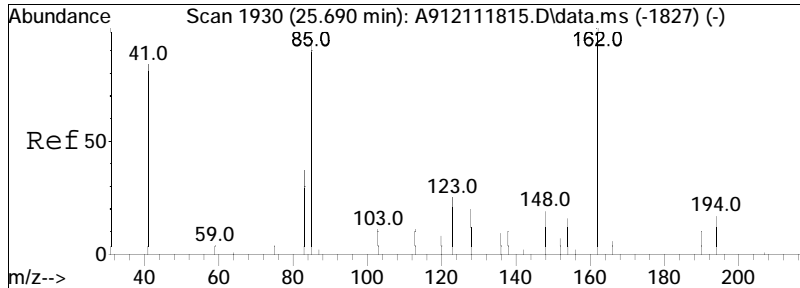
#16
 Benzothiophene
 Concen: 25.47 ng/mL M4
 RT: 20.142 min Scan# 1322
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:134 Resp: 2913



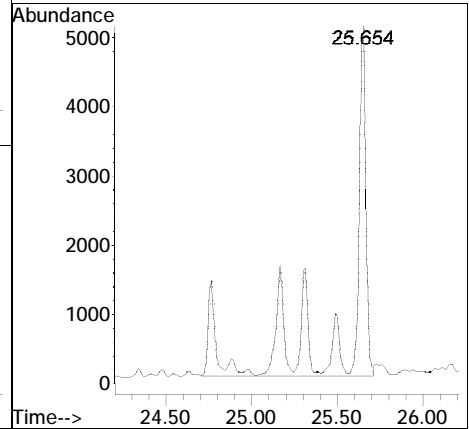
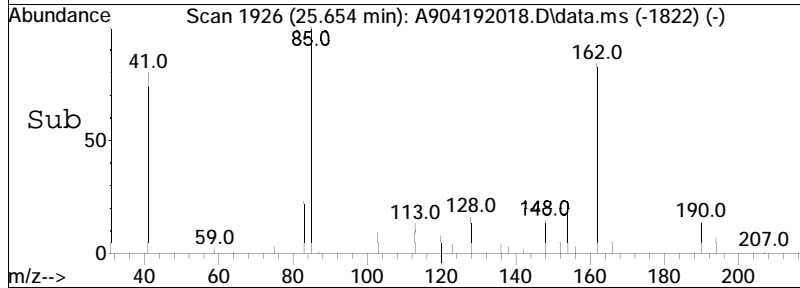
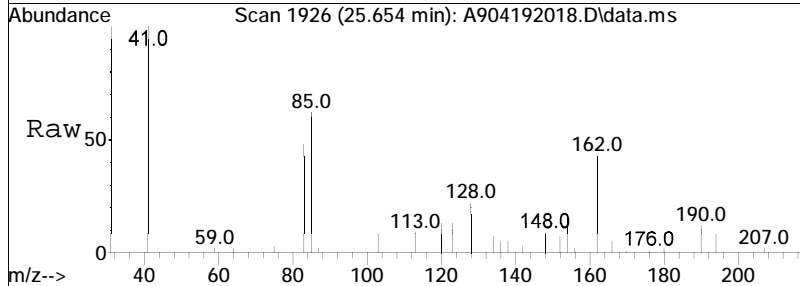


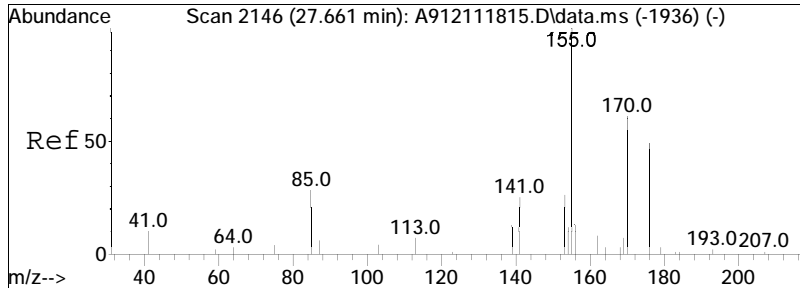
#17
 Cl-Benzo(b)thiophenes
 Concen: 143.31 ng/mL M5
 RT: 22.186 min Scan# 1546
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:148 Resp: 16393



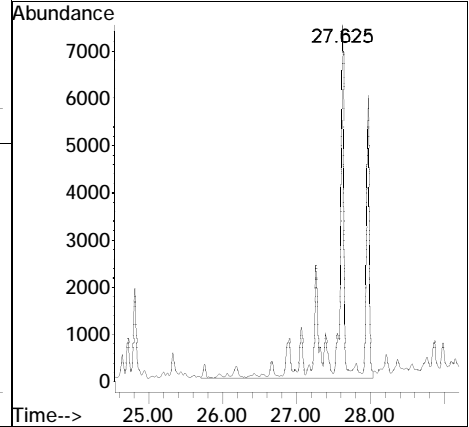
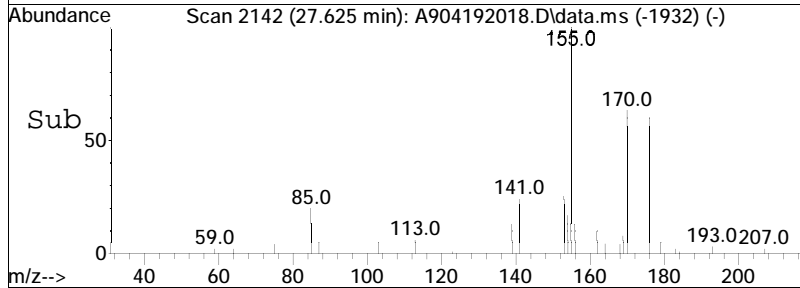
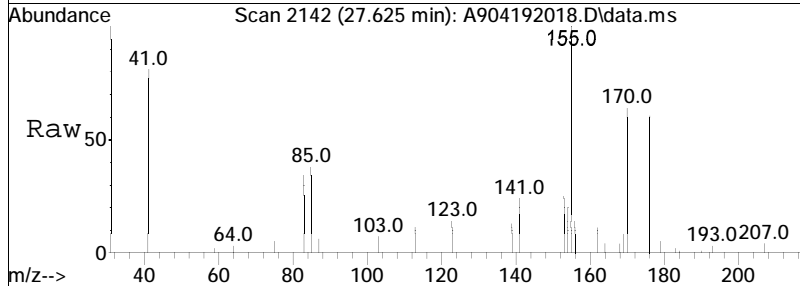


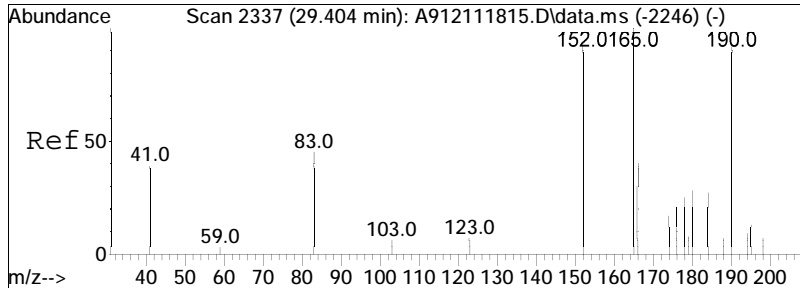
#18
 C2-Benzo(b)thiophenes
 Concen: 259.39 ng/mL M5
 RT: 25.654 min Scan# 1926
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:162 Resp: 29671



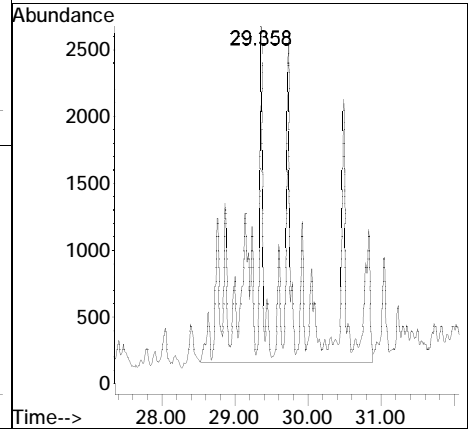
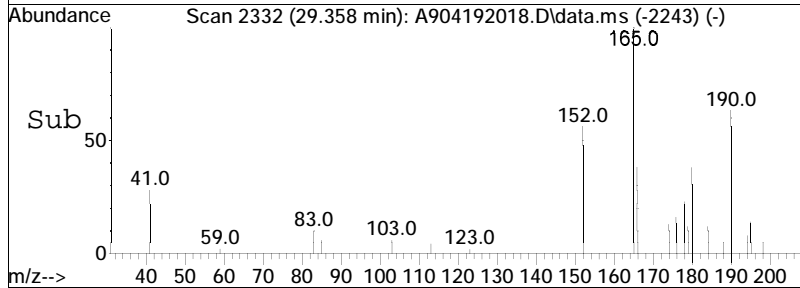
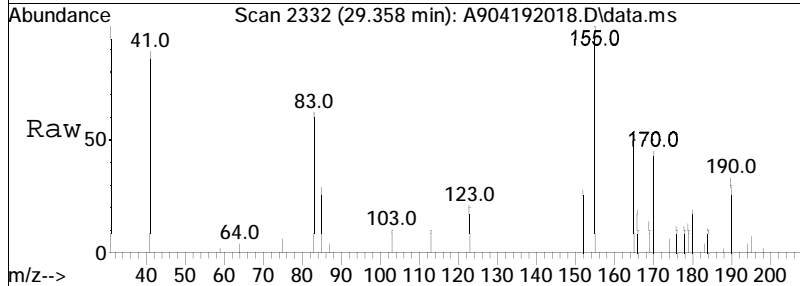


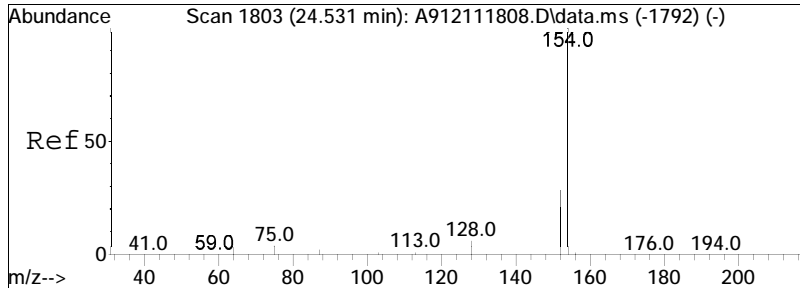
#19
 C3-Benzo(b)thiophenes
 Concen: 546.47 ng/mL M5
 RT: 27.625 min Scan# 2142
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:176 Resp: 62510



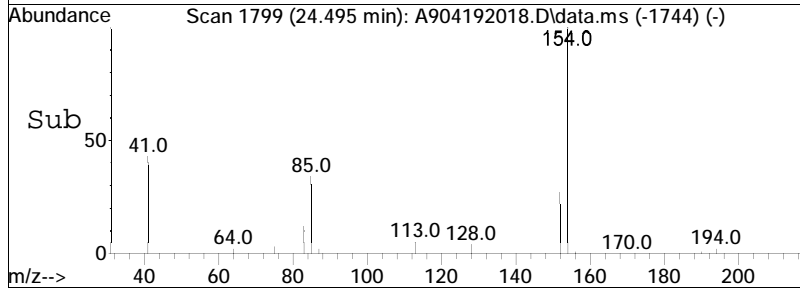
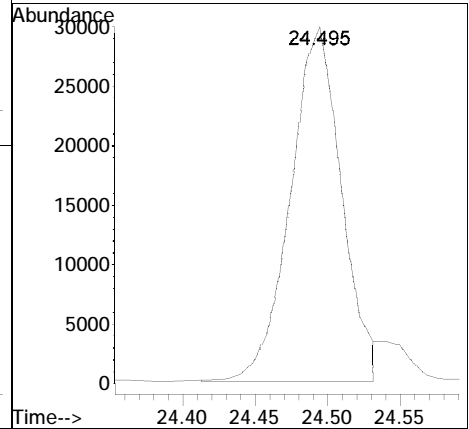
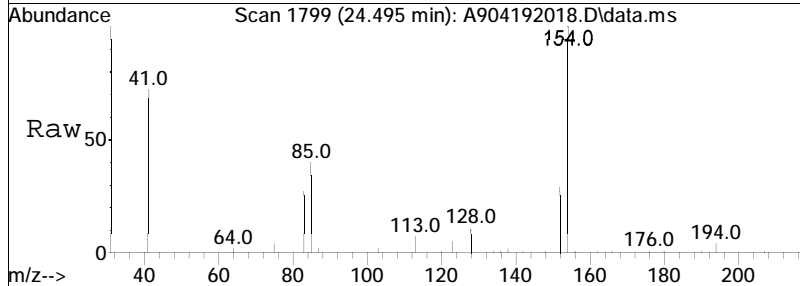


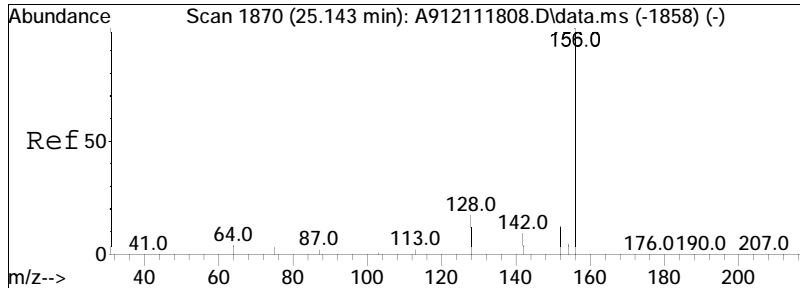
#20
 C4-Benzo(b)thiophenes
 Concen: 511.04 ng/mL M5
 RT: 29.358 min Scan# 2332
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:190 Resp: 58457



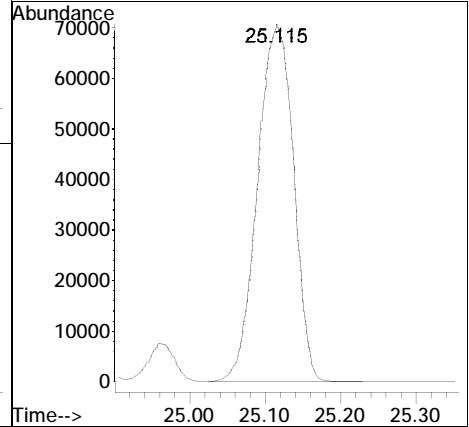
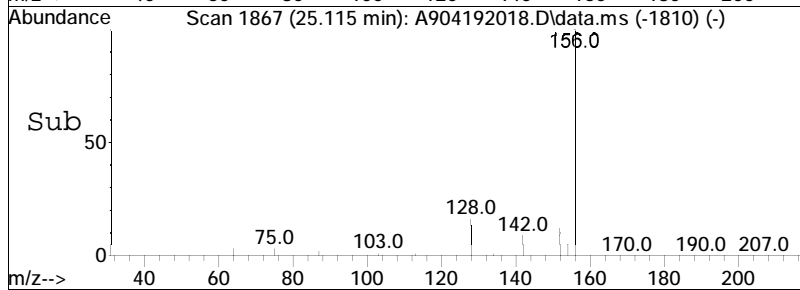
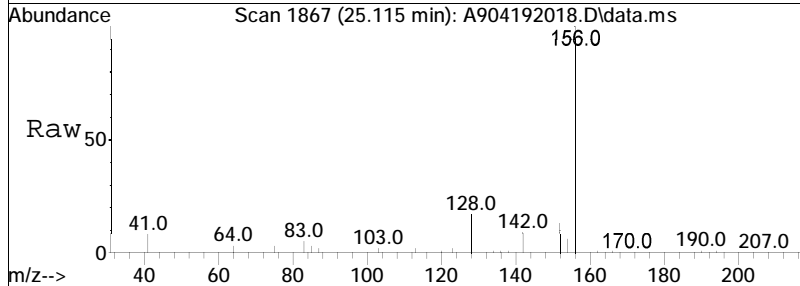


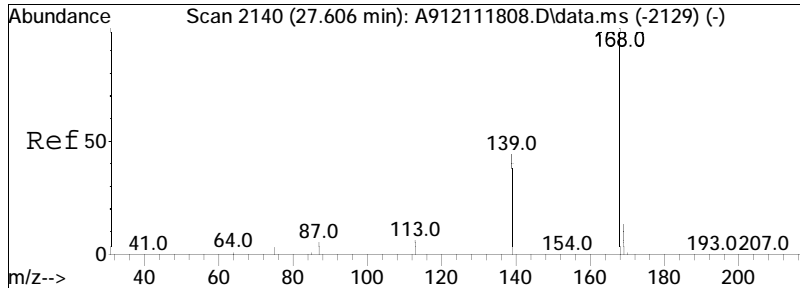
#21
 Biphenyl
 Concen: 724.17 ng/mL M4
 RT: 24.495 min Scan# 1799
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:154 Resp: 72969





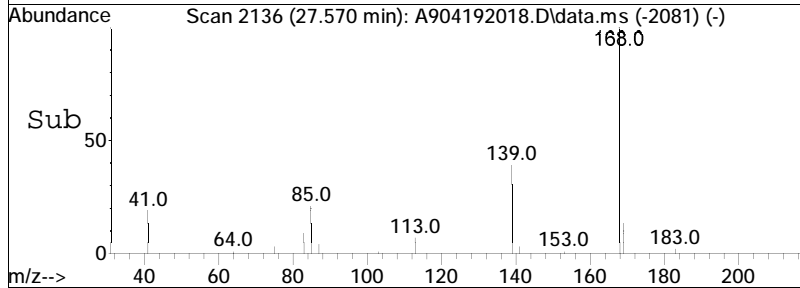
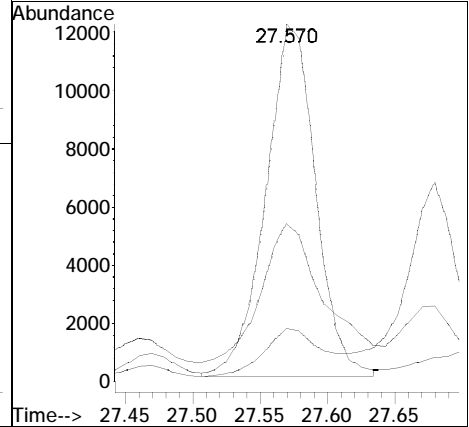
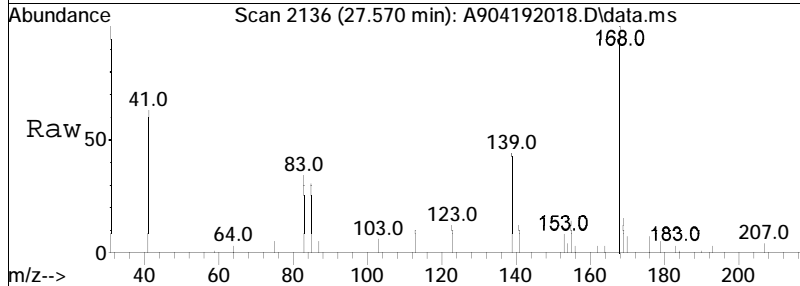
#22
 2,6-Dimethylnaphthalene
 Concen: 3194.32 ng/mL
 RT: 25.115 min Scan# 1867
 Delta R.T. 0.018 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:156 Resp: 230543

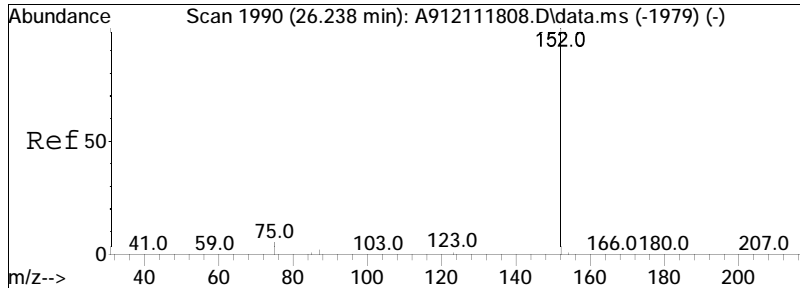




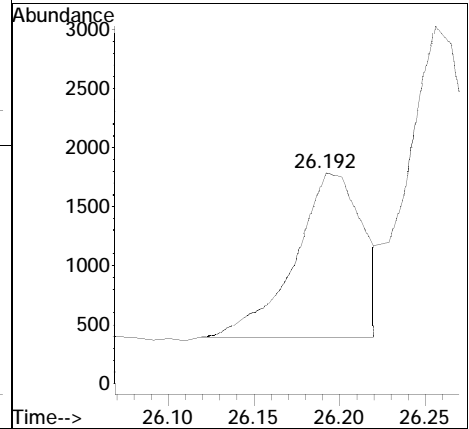
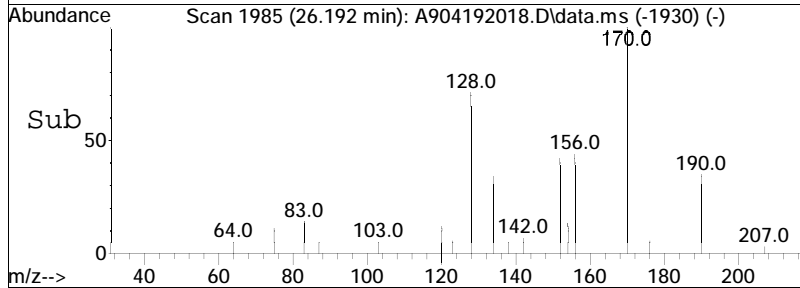
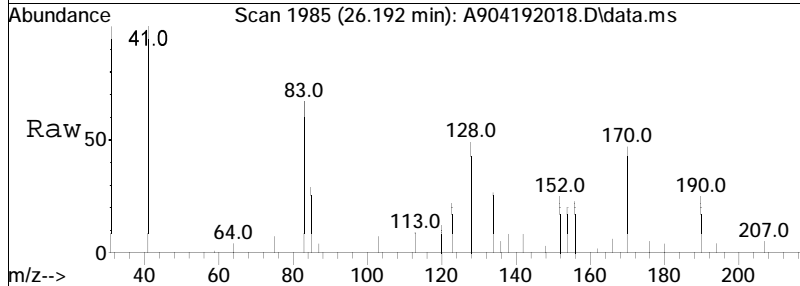
#23
 Dibenzofuran
 Concen: 264.78 ng/mL
 RT: 27.570 min Scan# 2136
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

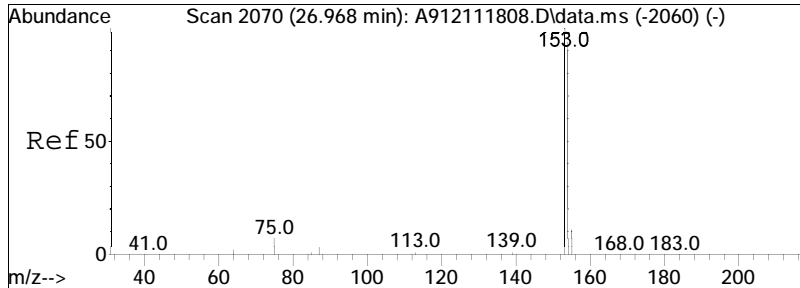
Tgt Ion:	168	Resp:	30992
Ion Ratio	Lower	Upper	
168	100		
139	49.4	28.2	52.4
169	17.0	9.6	17.8





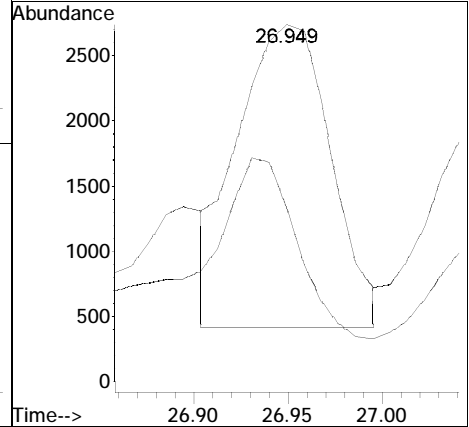
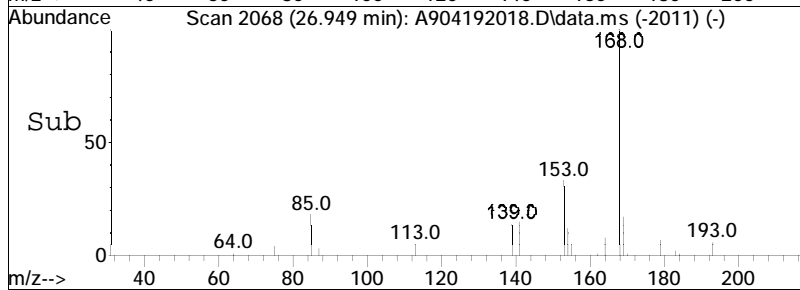
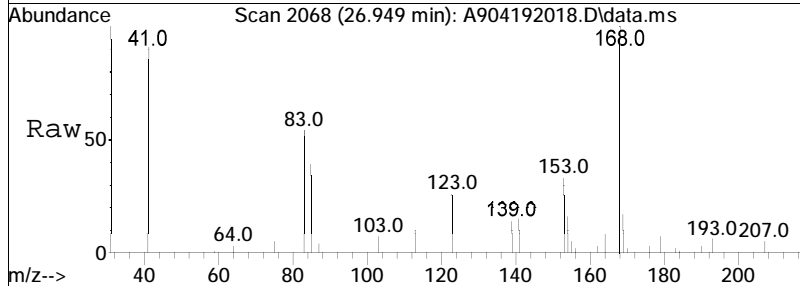
#24
 Acenaphthylene
 Concen: 31.89 ng/mL
 RT: 26.192 min Scan# 1985
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:152 Resp: 3918

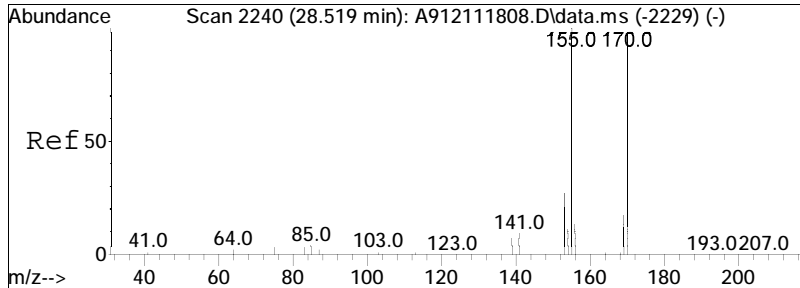




#25
 Acenaphthene
 Concen: 105.07 ng/mL M4
 RT: 26.949 min Scan# 2068
 Delta R.T. 0.018 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

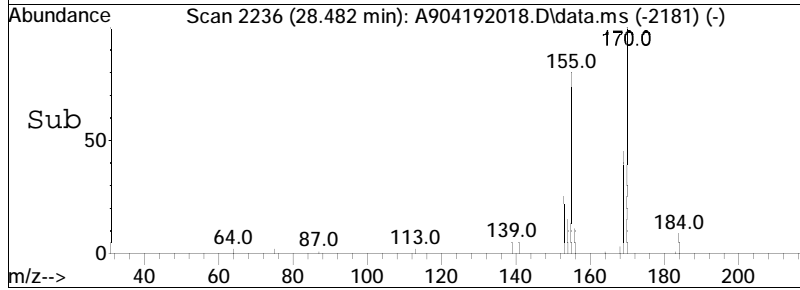
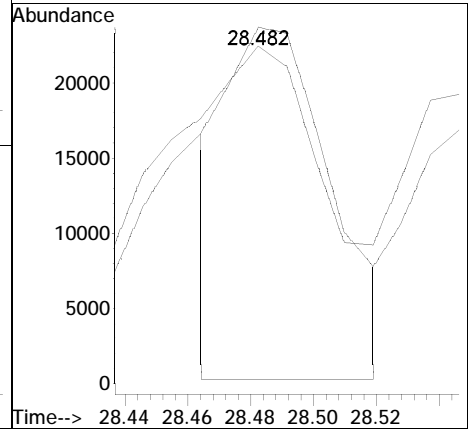
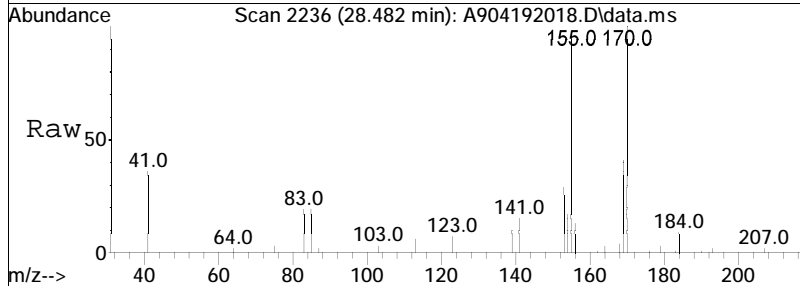
Tgt Ion:153 Resp: 7998
 Ion Ratio Lower Upper
 153 100
 154 74.0 65.0 120.8

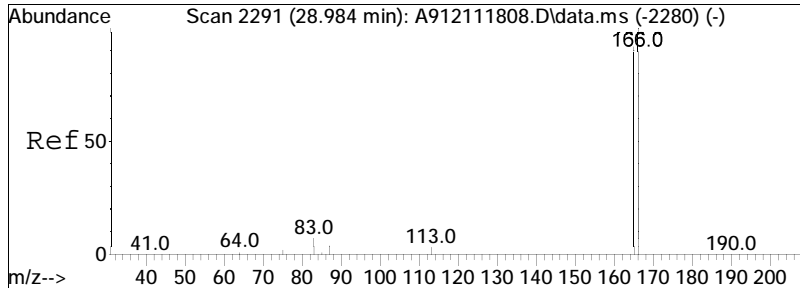




#26
 2,3,5-Trimethylnaphthalene
 Concen: 815.13 ng/mL M3
 RT: 28.482 min Scan# 2236
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

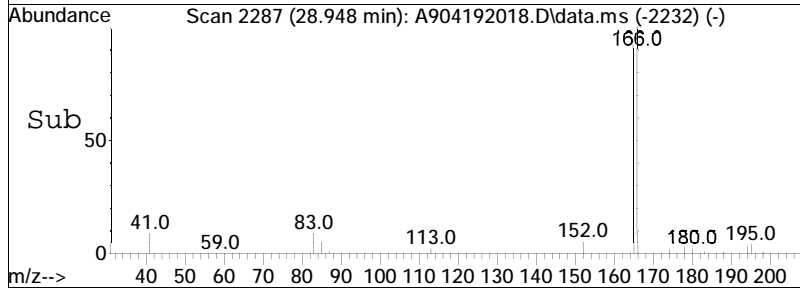
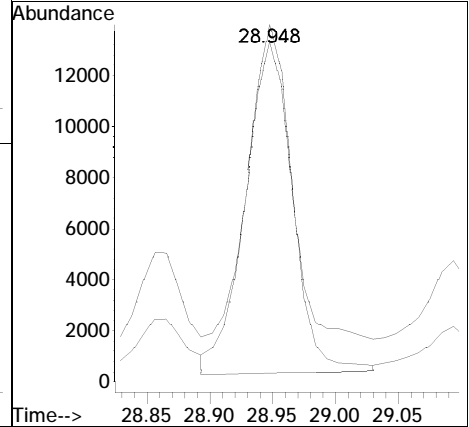
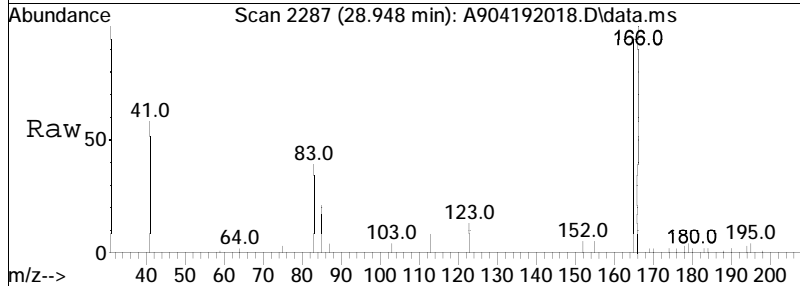
Tgt Ion:170 Resp: 54739
 Ion Ratio Lower Upper
 170 100
 155 160.8 69.6 129.2#

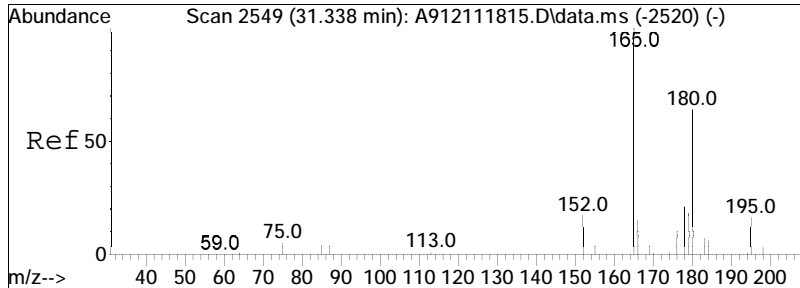




#27
 Fluorene
 Concen: 385.52 ng/mL
 RT: 28.948 min Scan# 2287
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

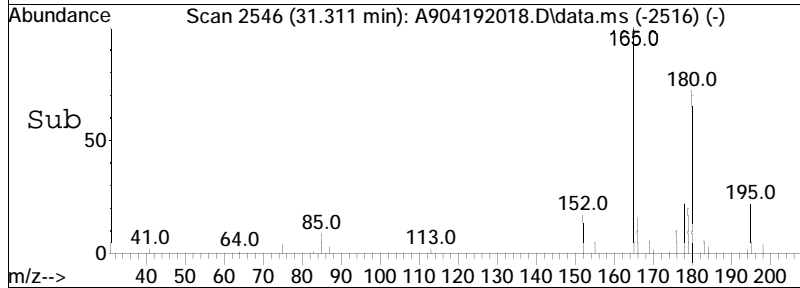
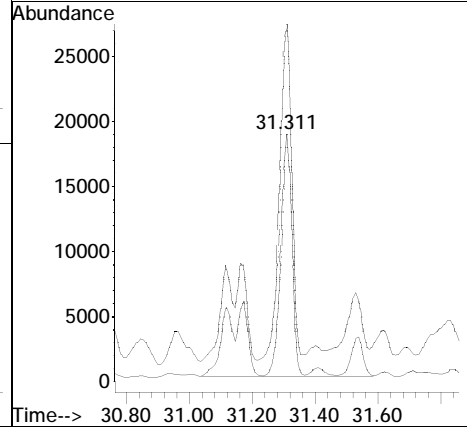
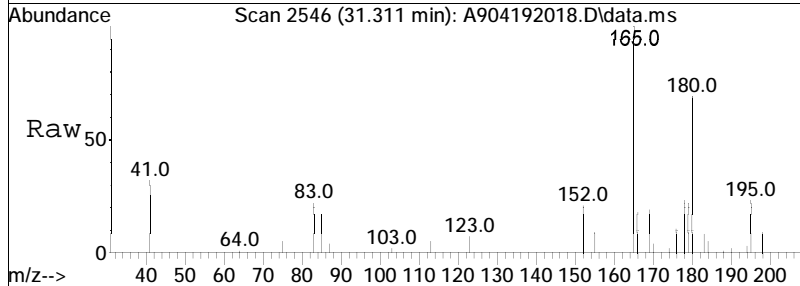
Tgt Ion	Resp	Lower	Upper
166	100		
165	108.7	65.4	121.4

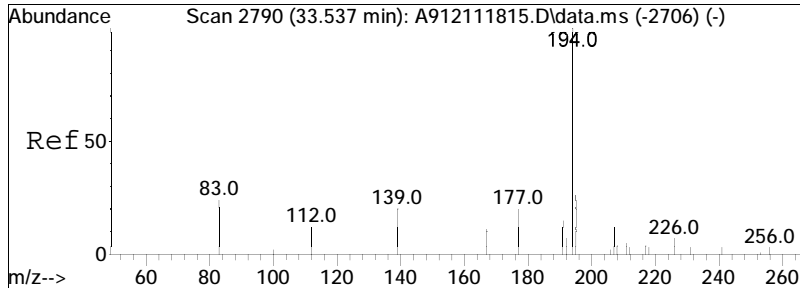




#28
 Cl-Fluorenes
 Concen: 903.81 ng/mL M5
 RT: 31.311 min Scan# 2546
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

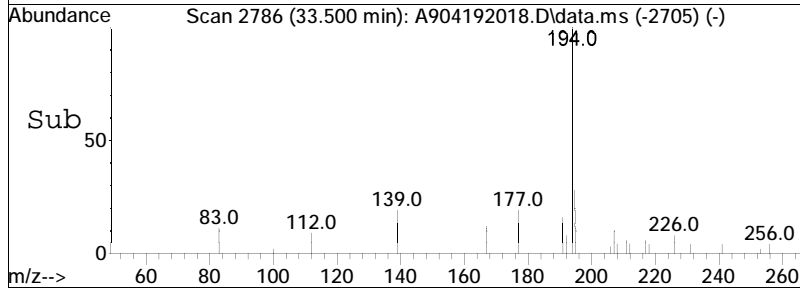
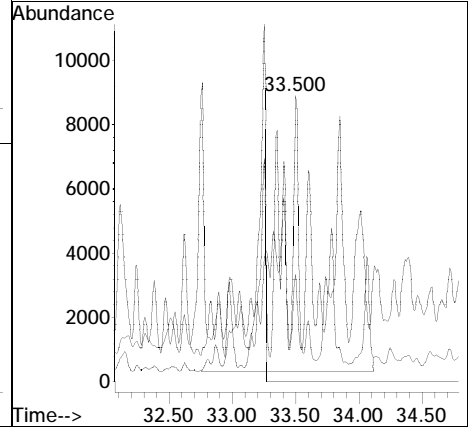
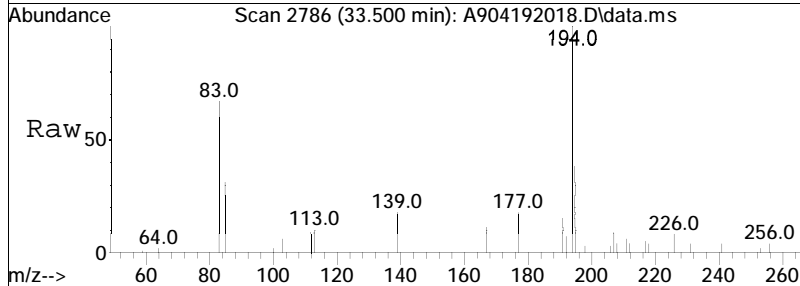
Tgt Ion	Resp	Lower	Upper
180	100		
165	82.7	100.9	187.3#

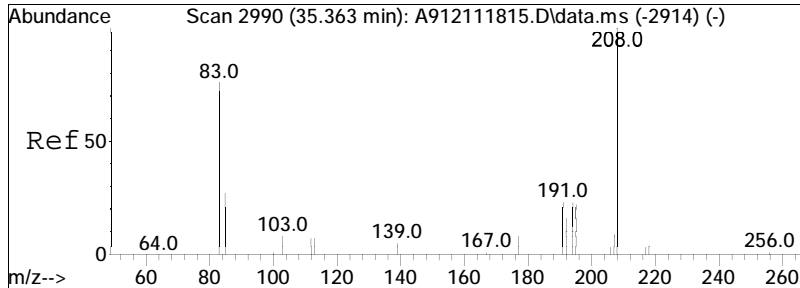




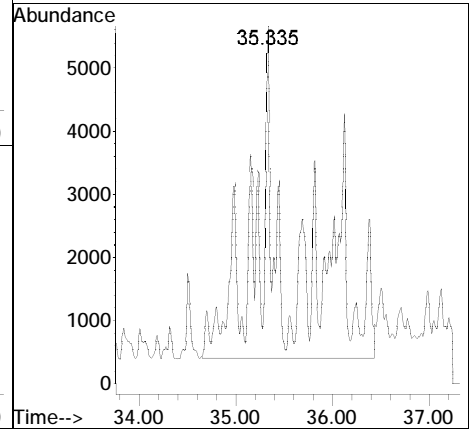
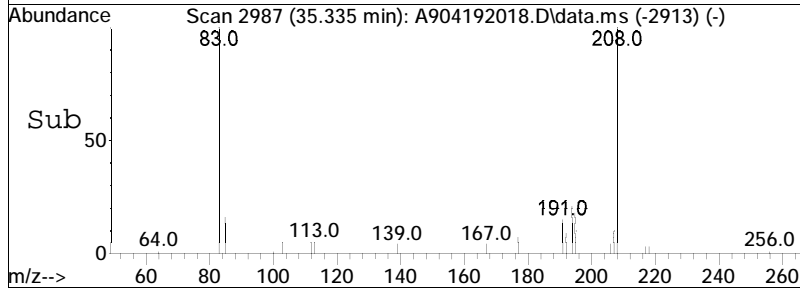
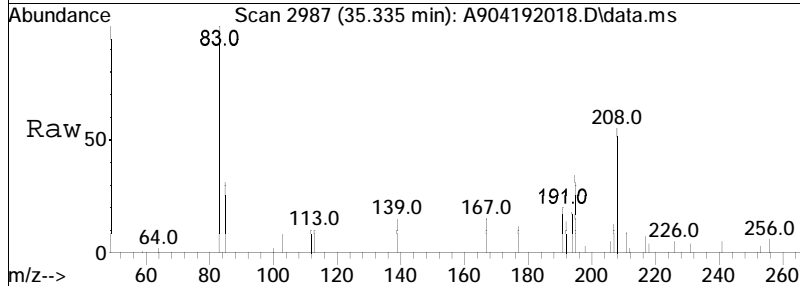
#29
 C2-Fluorenes
 Concen: 1493.42 ng/mL M5
 RT: 33.500 min Scan# 2786
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

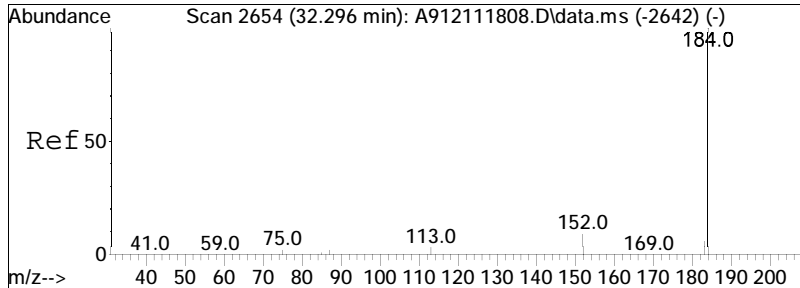
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	4.2	26.4	49.0#





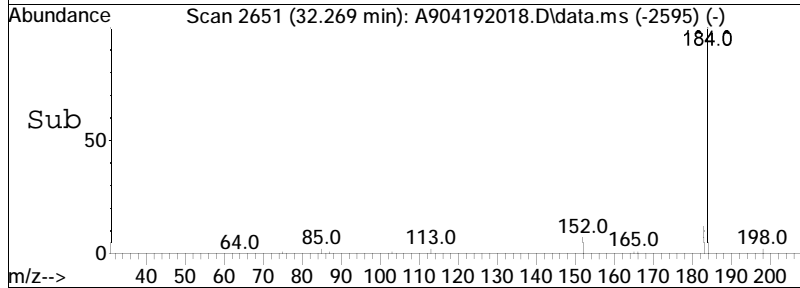
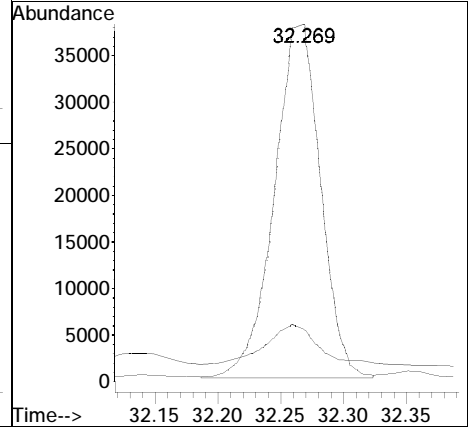
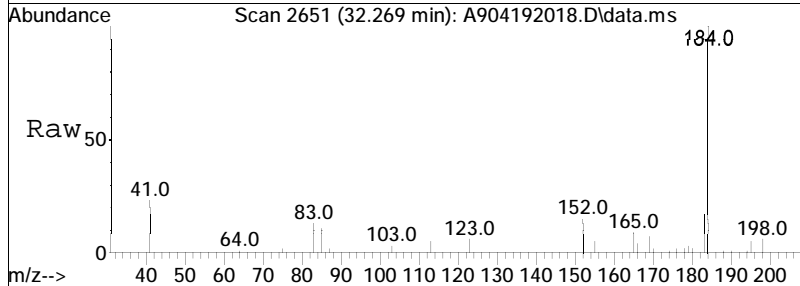
#30
 C3-Fluorenes
 Concen: 1439.00 ng/mL M5
 RT: 35.335 min Scan# 2987
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 208 Resp: 129776

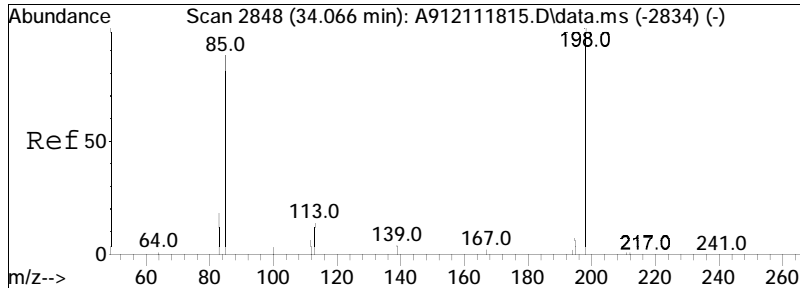




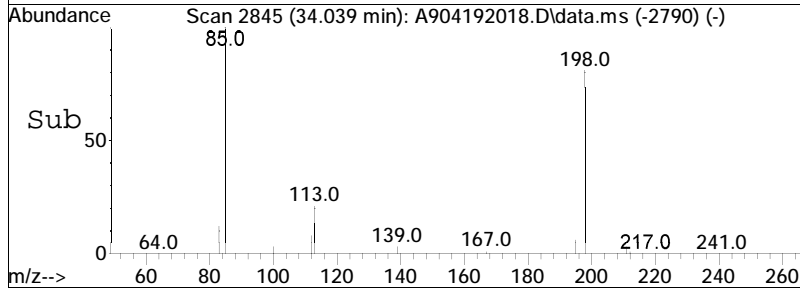
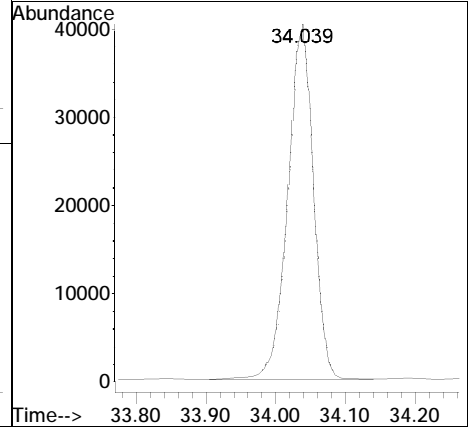
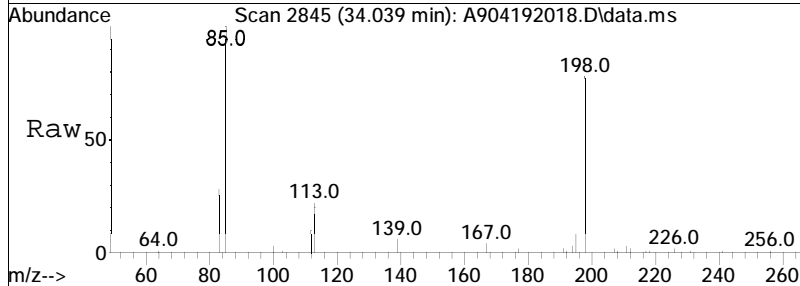
#31
 Dibenzothiophene
 Concen: 726.98 ng/mL
 RT: 32.269 min Scan# 2651
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

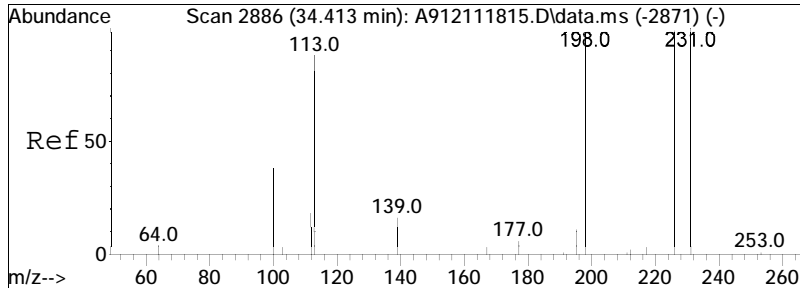
Tgt Ion	Ratio	Lower	Upper
184	100		
152	18.9	6.4	11.8#



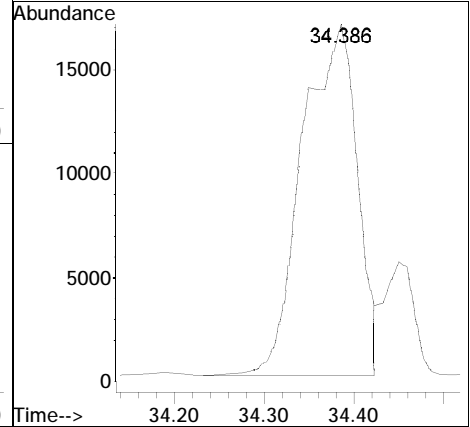
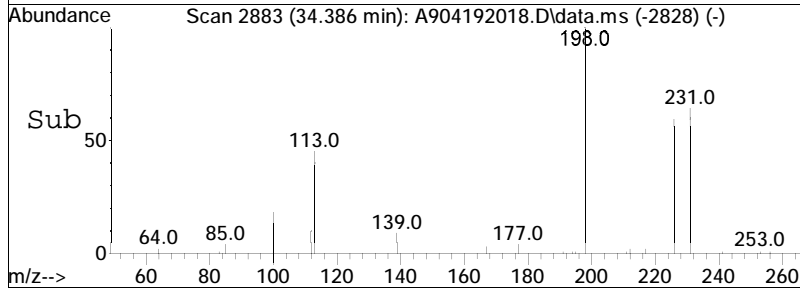
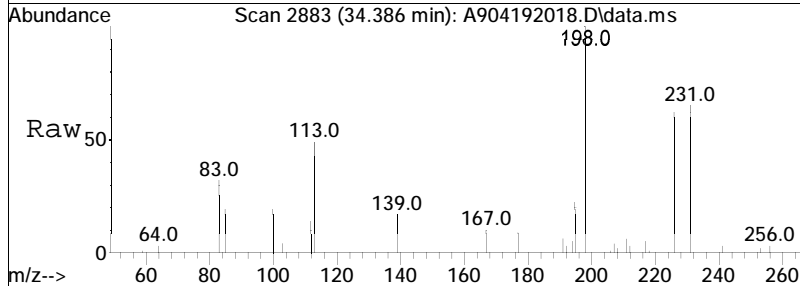


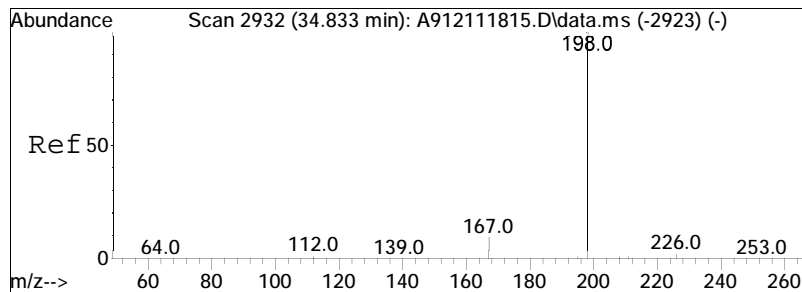
#32
 4-Methyldibenzothiophene(4MDT)
 Concen: 760.46 ng/mL
 RT: 34.039 min Scan# 2845
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:198 Resp: 101360



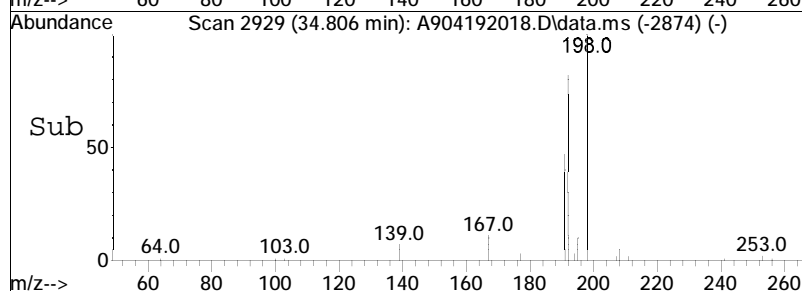
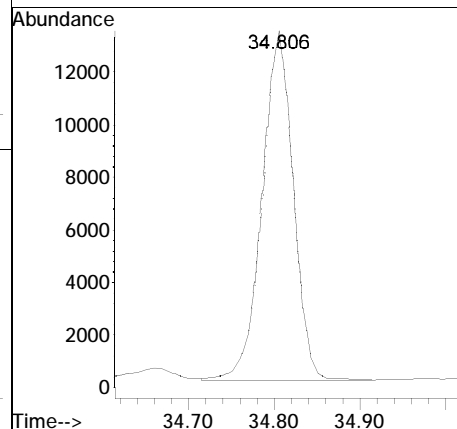
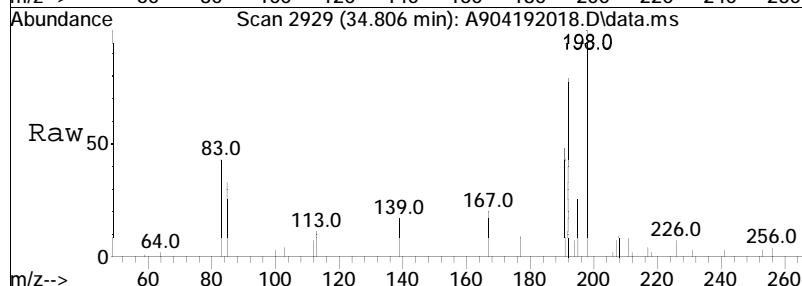


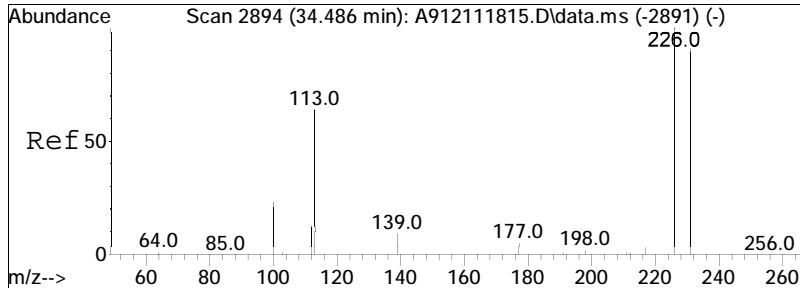
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 537.58 ng/mL
 RT: 34.386 min Scan# 2883
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:198 Resp: 71653



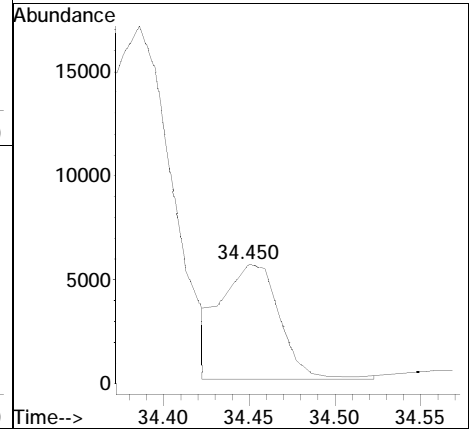
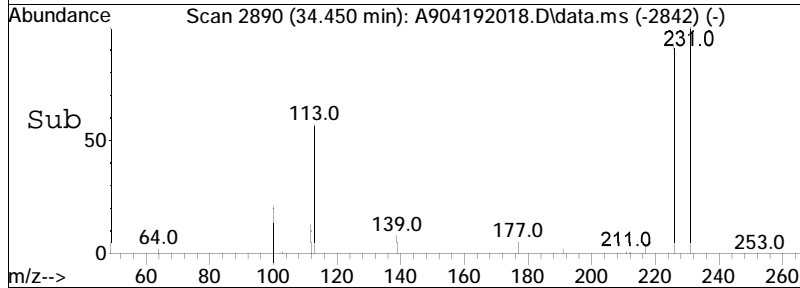
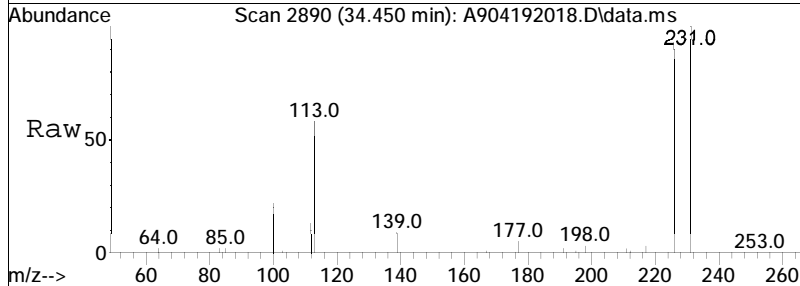


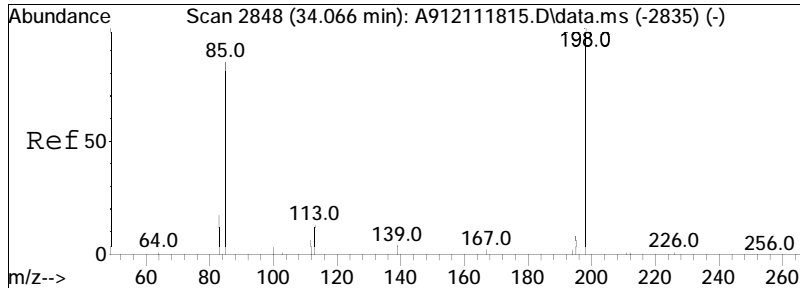
#34
1-Methyldibenzothiophene(1MDT)
Concen: 249.32 ng/mL
RT: 34.806 min Scan# 2929
Delta R.T. 0.000 min
Lab File: A904192018.D
Acq: 20 Apr 2020 2:39 pm
Tgt Ion:198 Resp: 33232



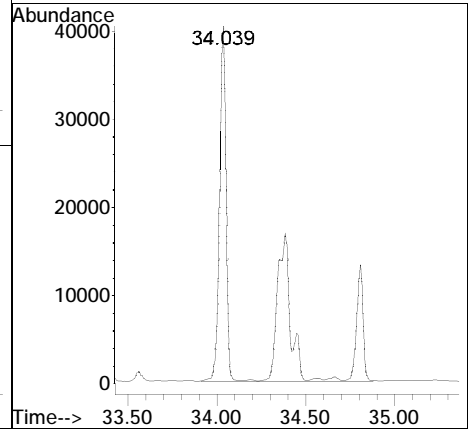
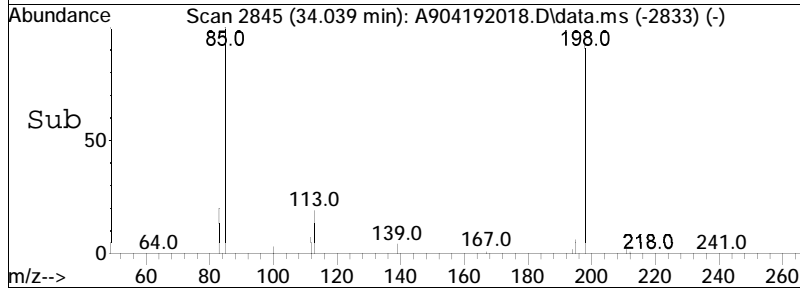
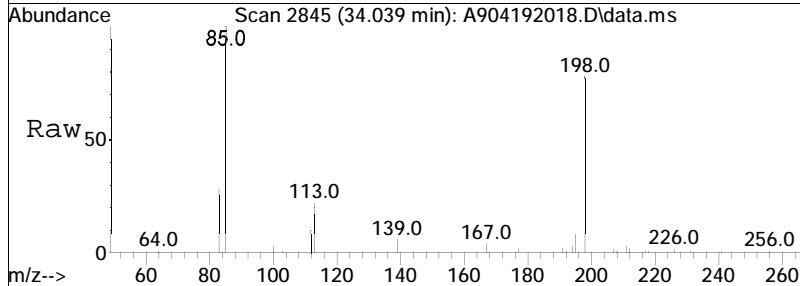


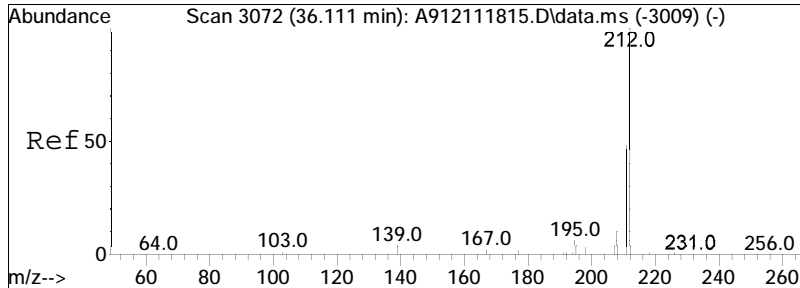
#35
 OTP
 Concen: 96.36 ng/mL M3
 RT: 34.450 min Scan# 2890
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:198 Resp: 12843



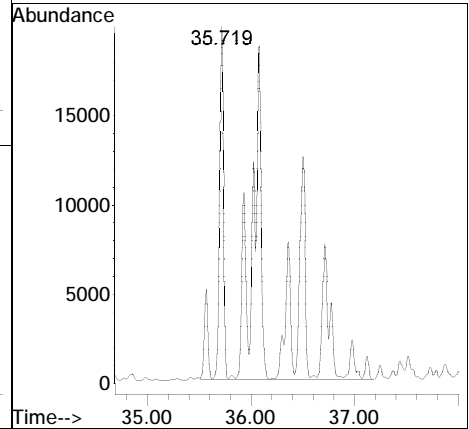
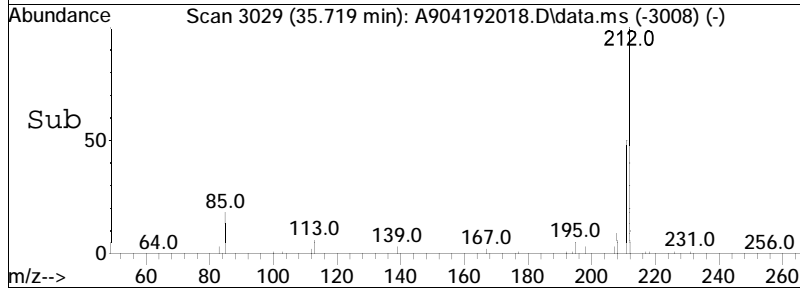
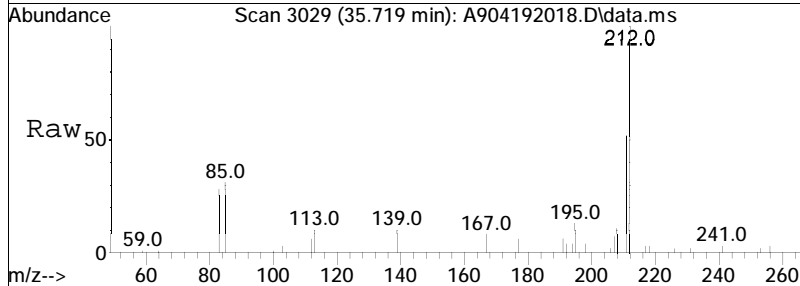


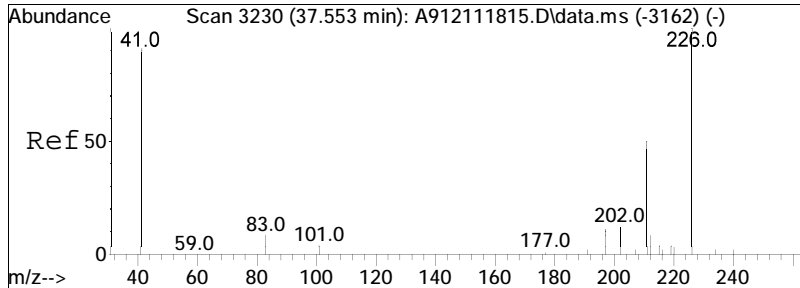
#36
 Cl-Dibenzothiophenes
 Concen: 1671.06 ng/mL M5
 RT: 34.039 min Scan# 2845
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:198 Resp: 222733





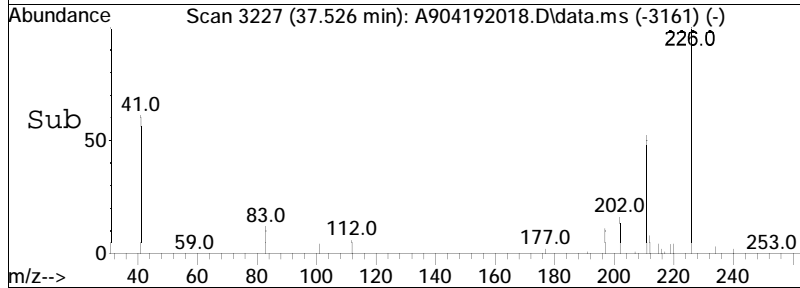
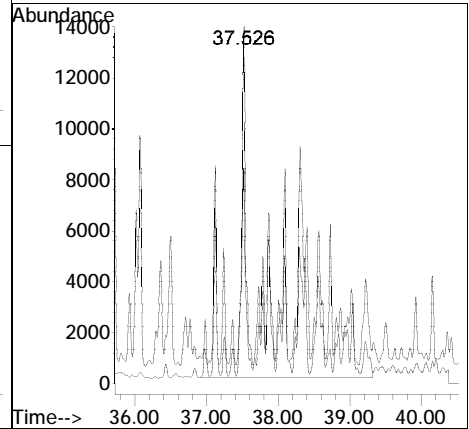
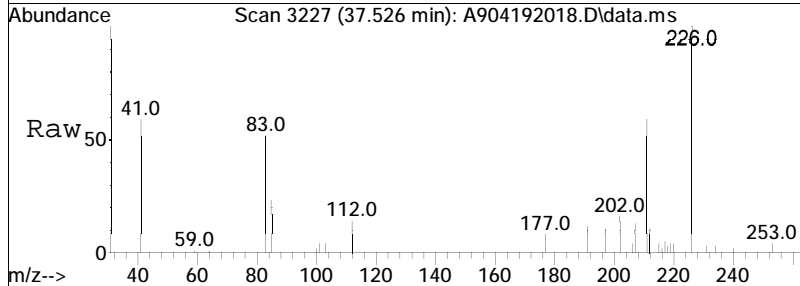
#37
 C2-Dibenzothiophenes
 Concen: 2159.41 ng/mL M5
 RT: 35.719 min Scan# 3029
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 212 Resp: 287824

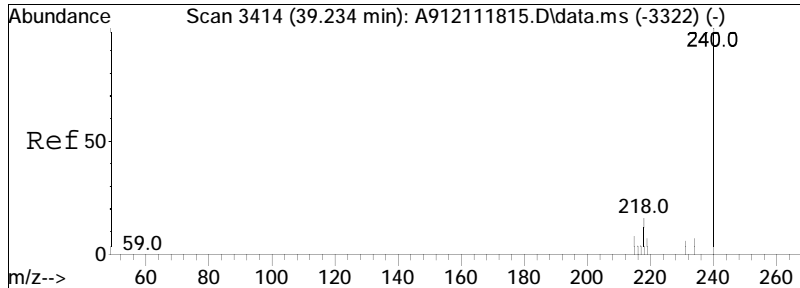




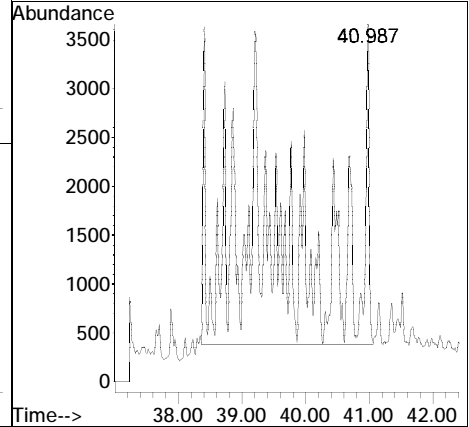
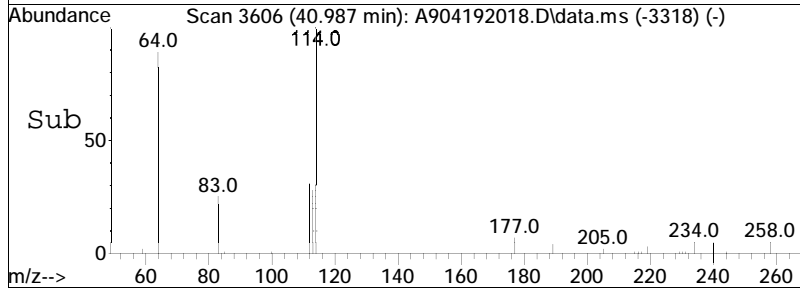
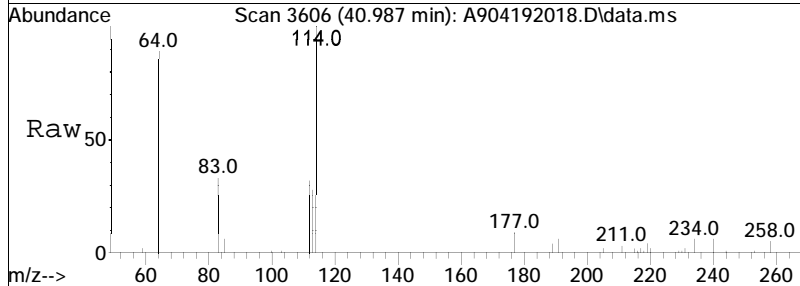
#38
 C3-Dibenzothiophenes
 Concen: 1977.88 ng/mL M5
 RT: 37.526 min Scan# 3227
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

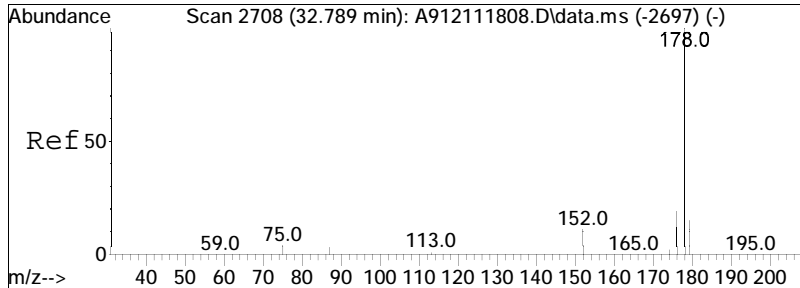
Tgt Ion	Ratio	Lower	Upper
226	100		
211	12.8	41.0	76.2#





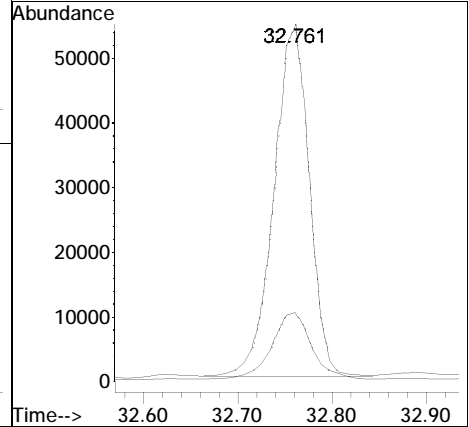
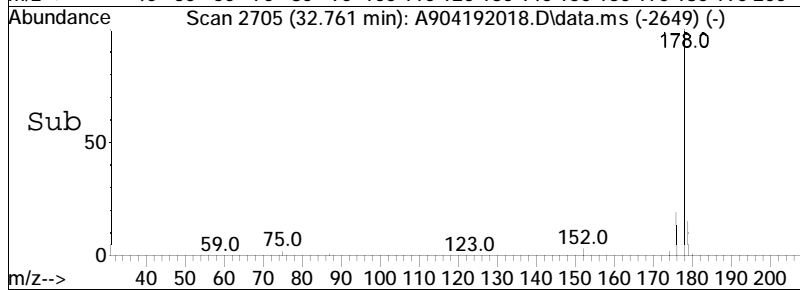
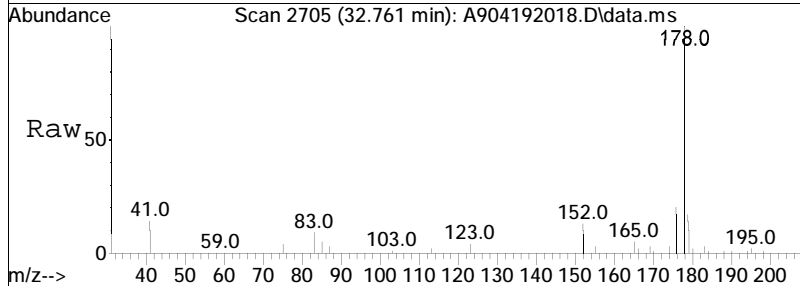
#39
 C4-Dibenzothiophenes
 Concen: 1104.72 ng/mL M5
 RT: 40.987 min Scan# 3606
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 240 Resp: 147246

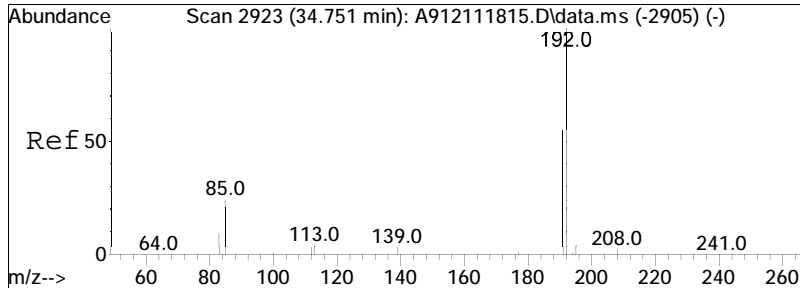




#41
 Phenanthrene
 Concen: 1050.99 ng/mL
 RT: 32.761 min Scan# 2705
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

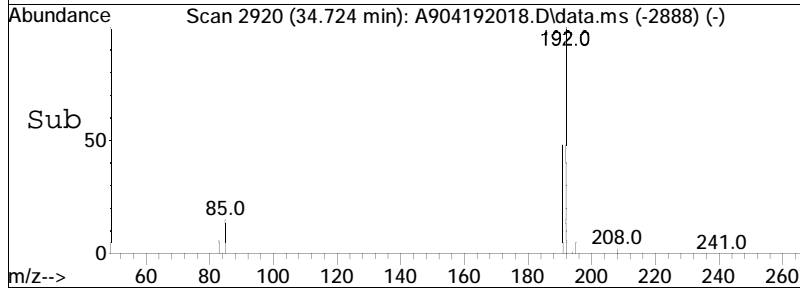
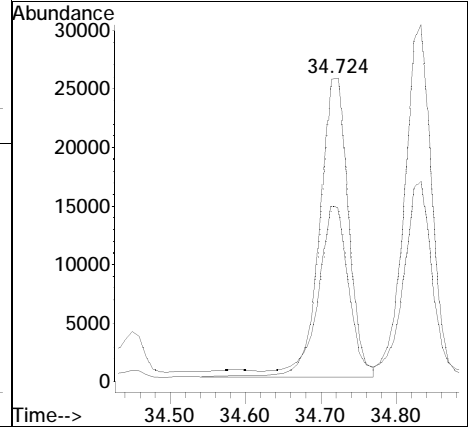
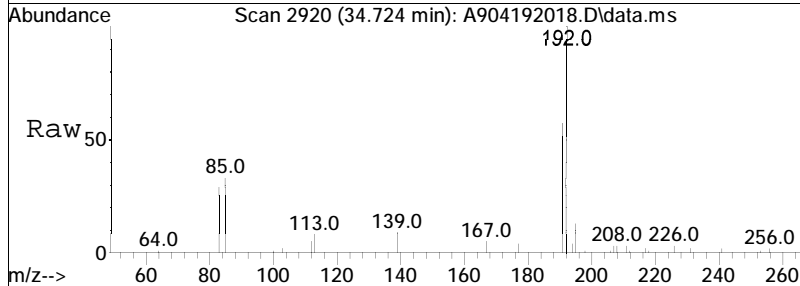
Tgt Ion	Resp	Lower	Upper
178	100		
176	21.4	13.6	25.4

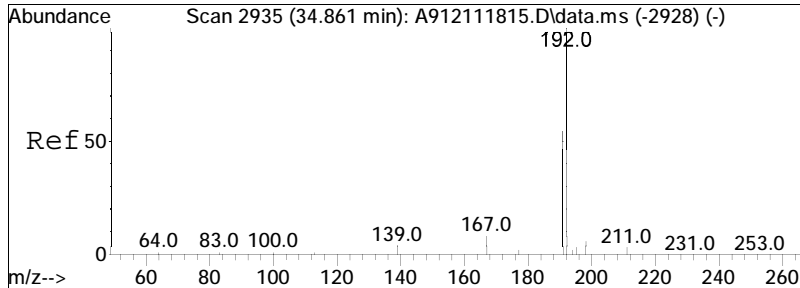




#42
 3-Methylphenanthrene (3MP)
 Concen: 504.05 ng/mL
 RT: 34.724 min Scan# 2920
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

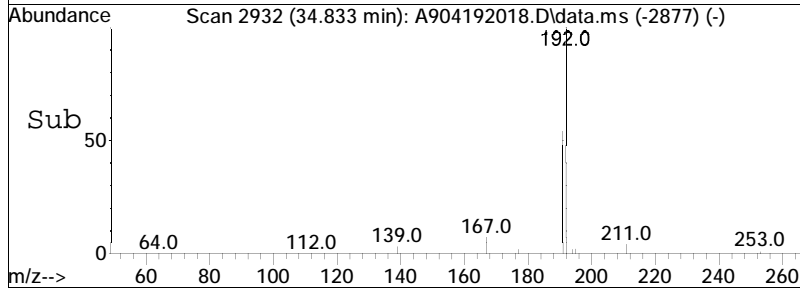
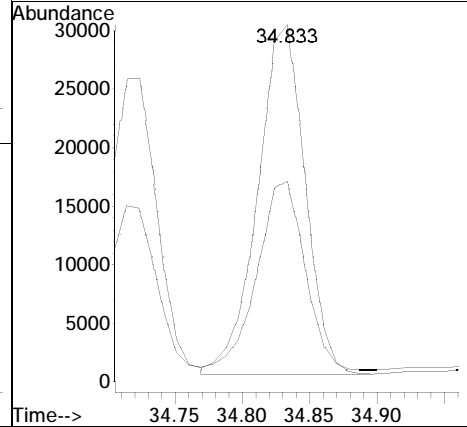
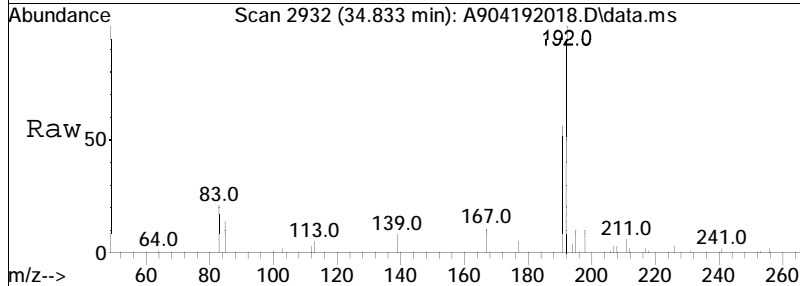
Tgt Ion: 192 Resp: 66977
 Ion Ratio Lower Upper
 192 100
 191 56.2 40.1 74.5

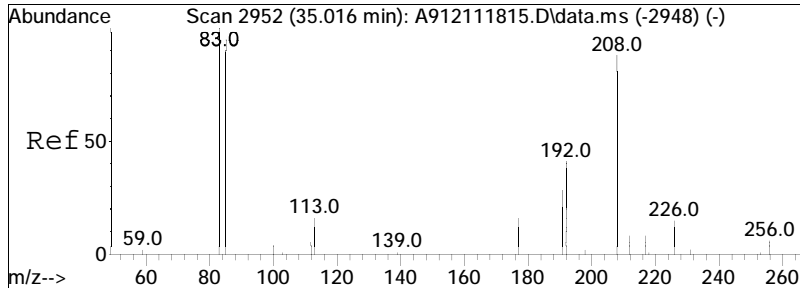




#43
 2-Methylphenanthrene (2MP)
 Concen: 547.81 ng/mL
 RT: 34.833 min Scan# 2932
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

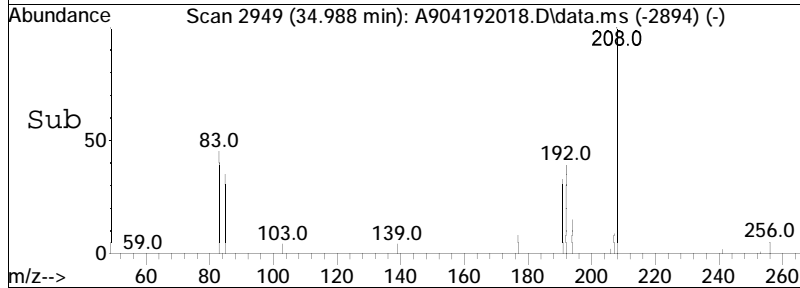
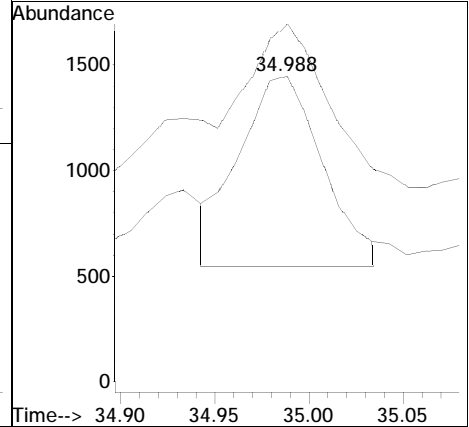
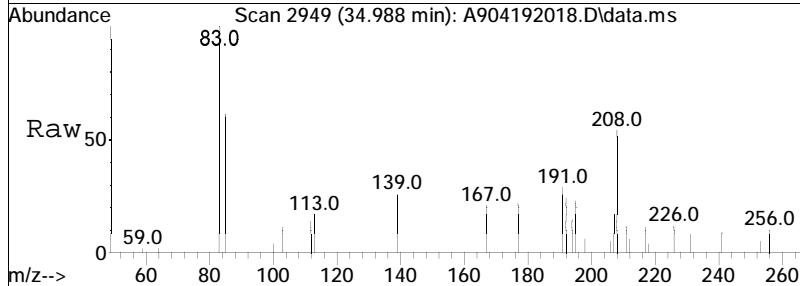
Tgt Ion	Resp	Lower	Upper
192	100		
191	54.2	39.3	73.1

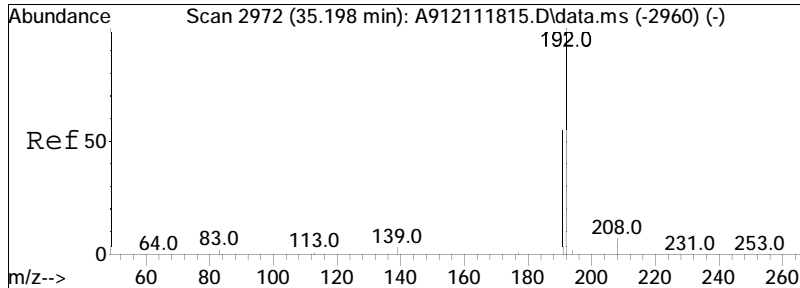




#44
 2-Methylantracene(2MA)
 Concen: 21.03 ng/mL M4
 RT: 34.988 min Scan# 2949
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

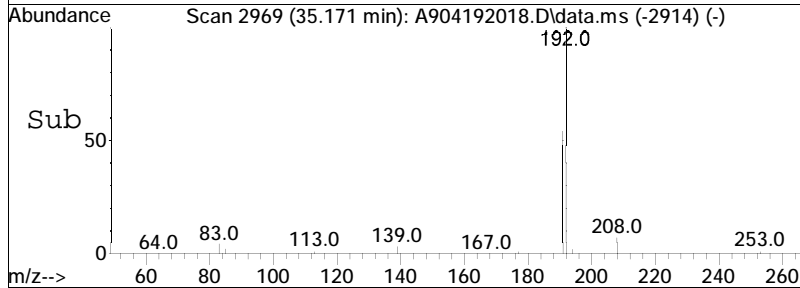
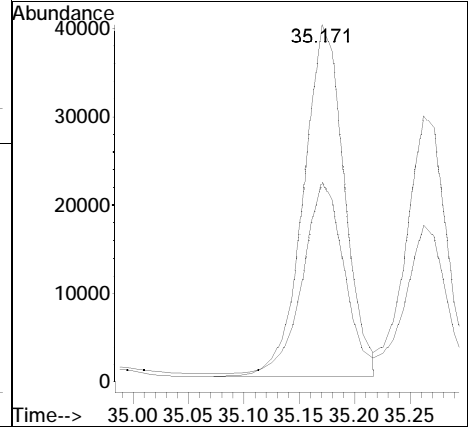
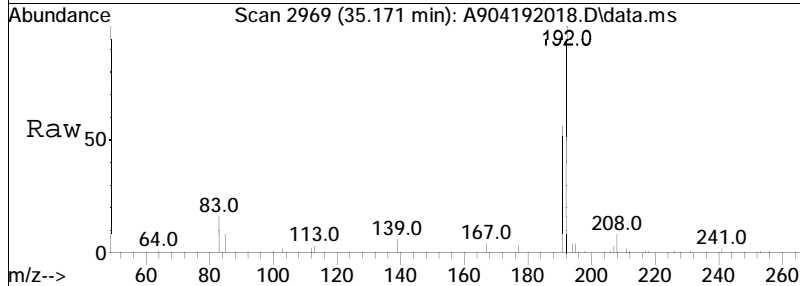
Tgt Ion:192 Resp: 2795
 Ion Ratio Lower Upper
 192 100
 191 114.8 81.6 151.6

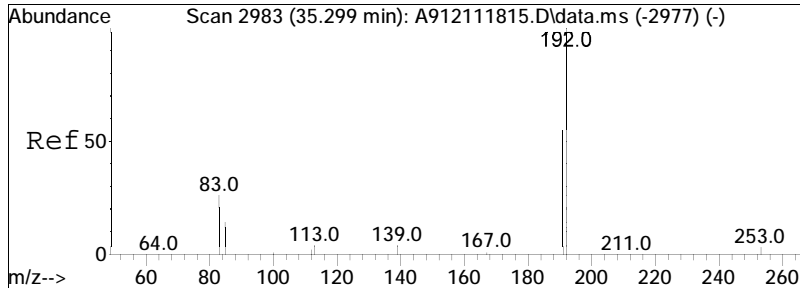




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 768.06 ng/mL
 RT: 35.171 min Scan# 2969
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

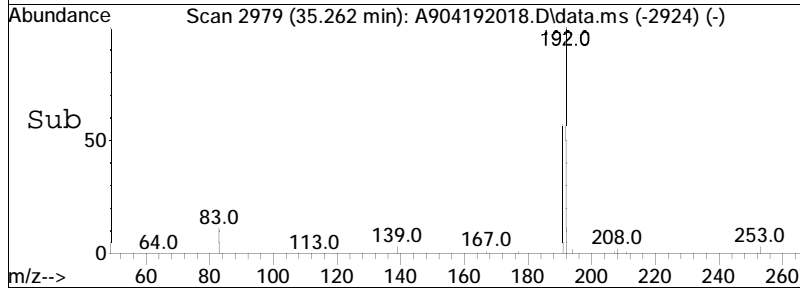
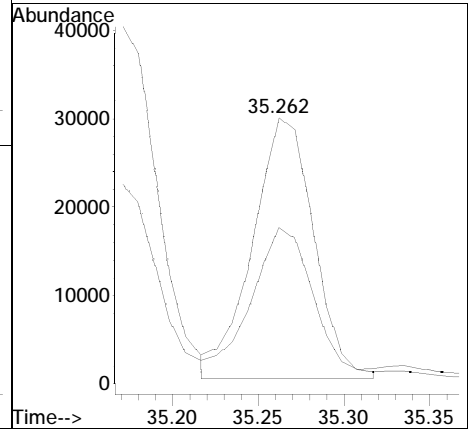
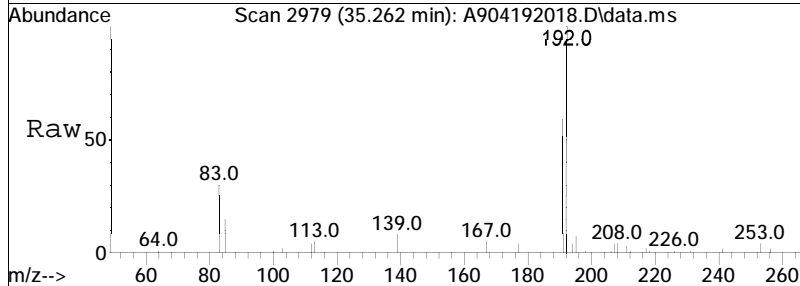
Tgt Ion	Resp	Lower	Upper
192	102057		
191	54.9	39.1	72.7

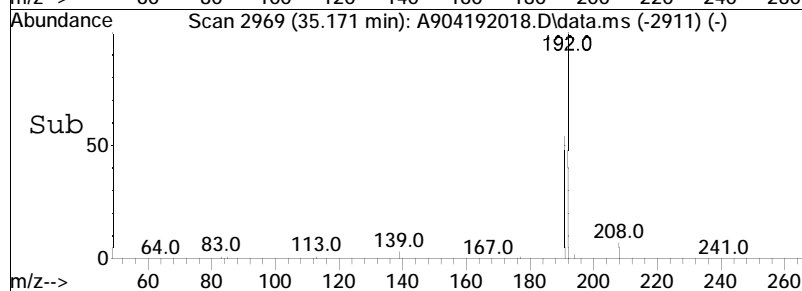
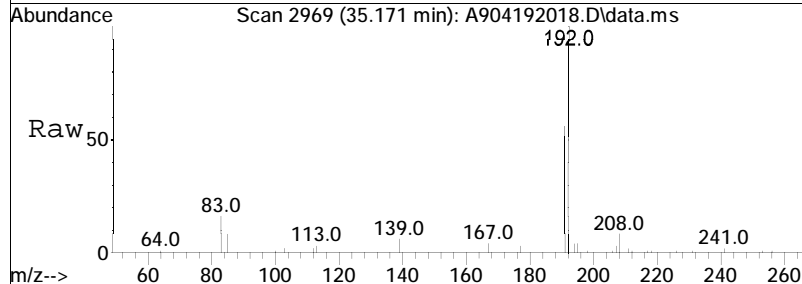
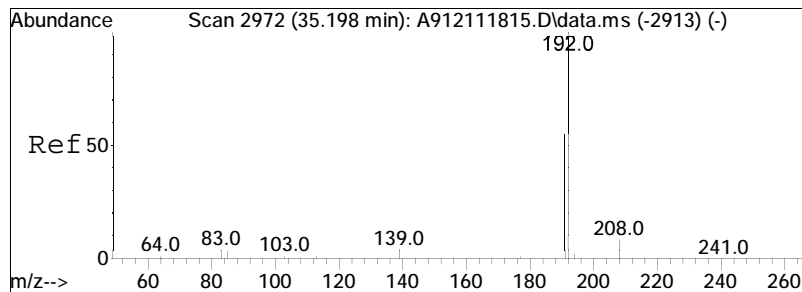




#46
 1-Methylphenanthrene (1MP)
 Concen: 549.91 ng/mL M4
 RT: 35.262 min Scan# 2979
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

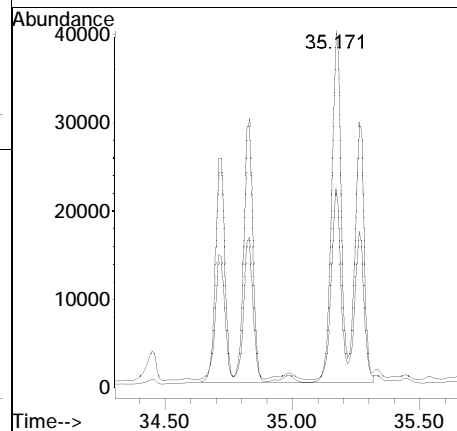
Tgt Ion: 192 Resp: 73071
 Ion Ratio Lower Upper
 192 100
 191 56.0 41.1 76.3

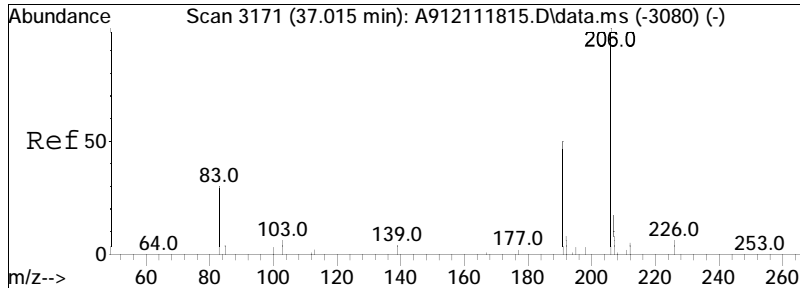




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 2394.12 ng/mL M5
 RT: 35.171 min Scan# 2969
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

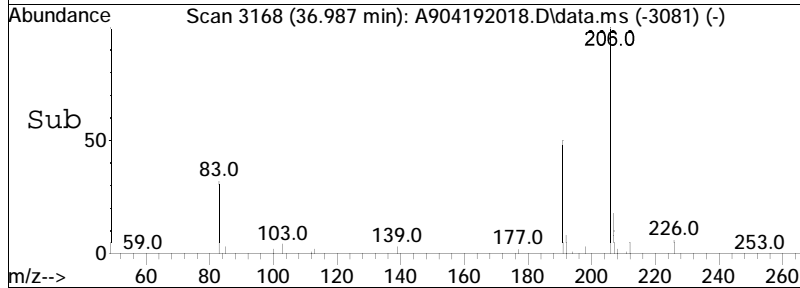
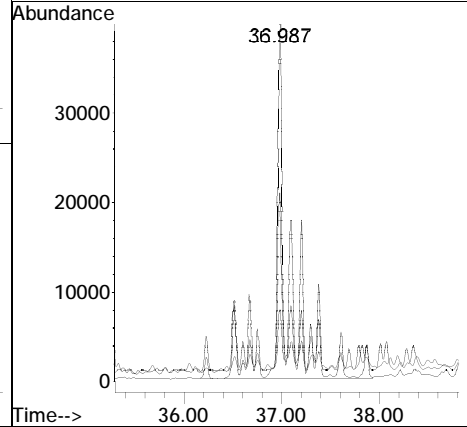
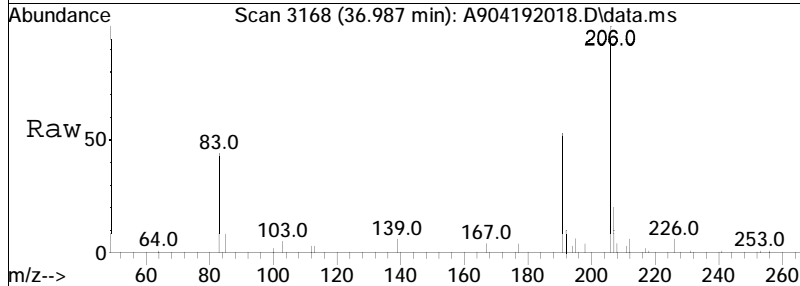
Tgt Ion	Resp	Lower	Upper
192	100		
191	17.6	39.1	72.7#

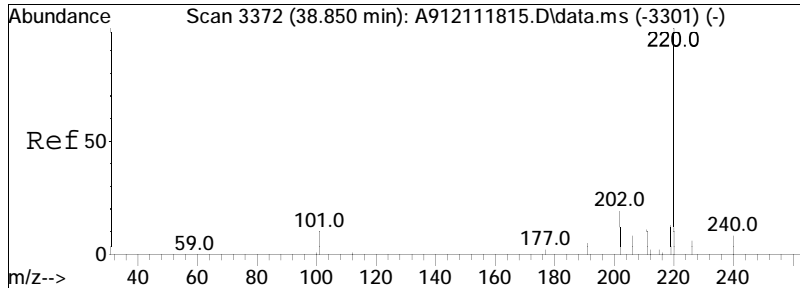




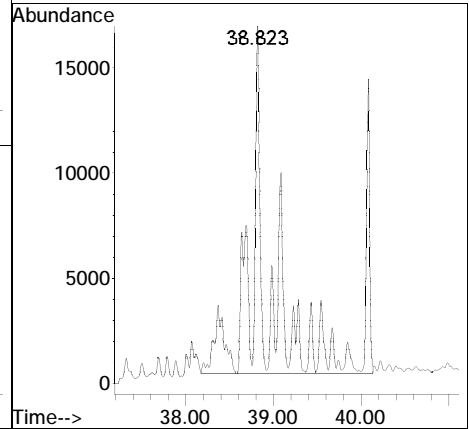
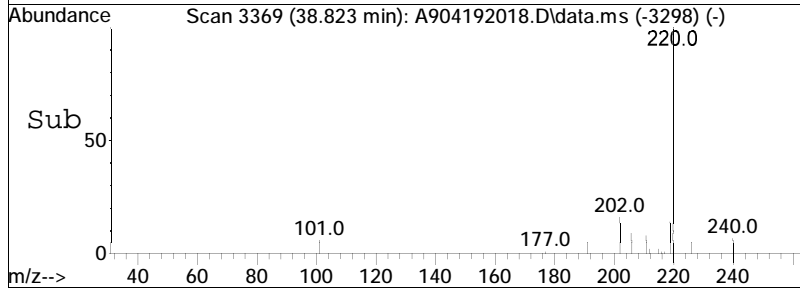
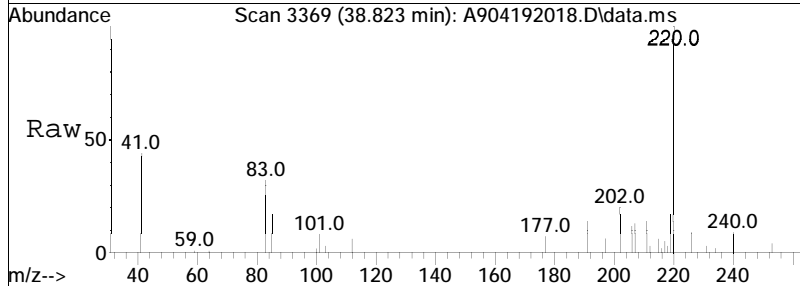
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 2645.61 ng/mL M5
 RT: 36.987 min Scan# 3168
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

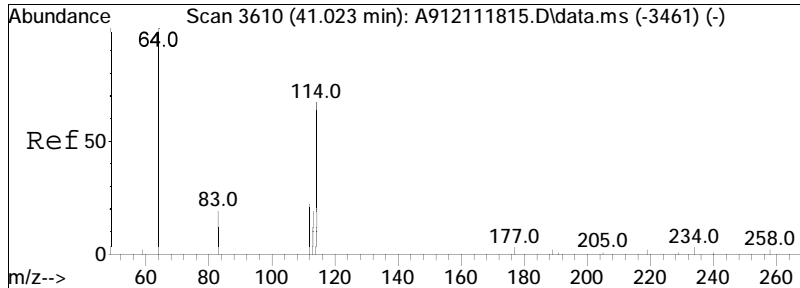
Tgt Ion	Ratio	Lower	Upper
206	100		
191	16.5	37.0	68.8#
207	5.3	14.3	26.5#





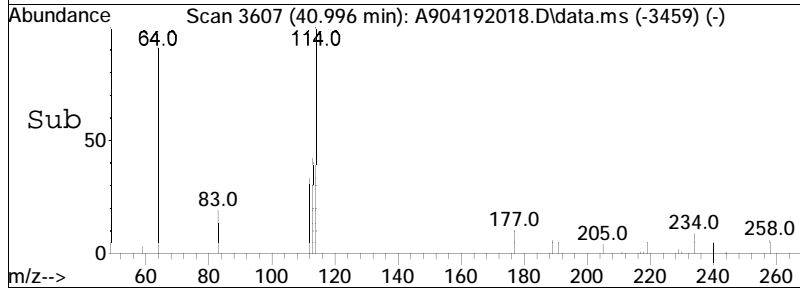
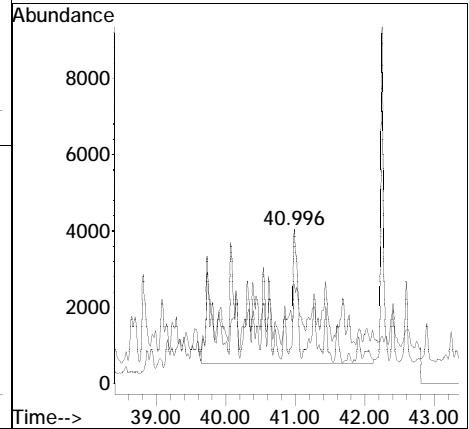
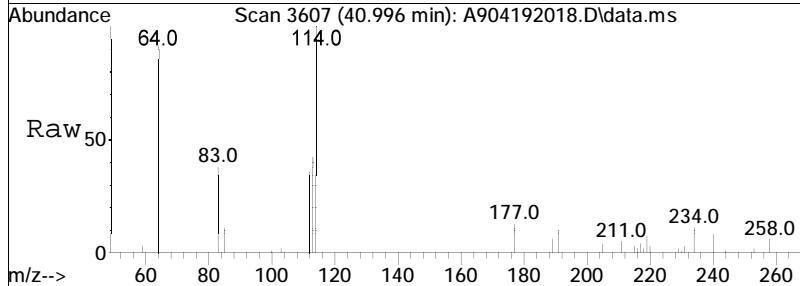
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1909.19 ng/mL M5
 RT: 38.823 min Scan# 3369
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 220 Resp: 253688

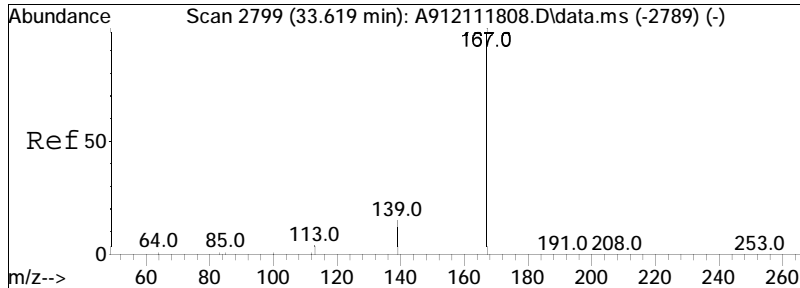




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 793.39 ng/mL M5
 RT: 40.996 min Scan# 3607
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

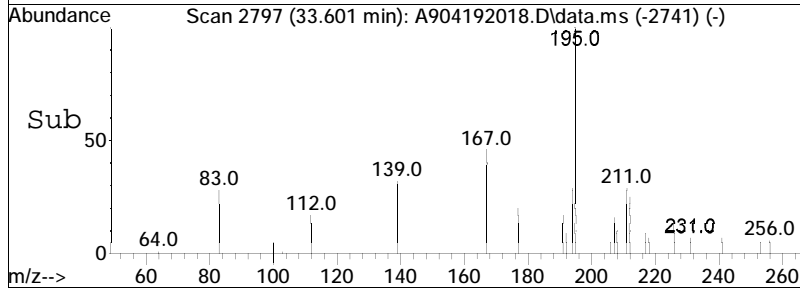
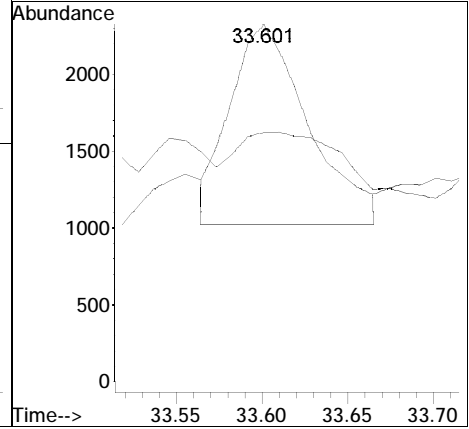
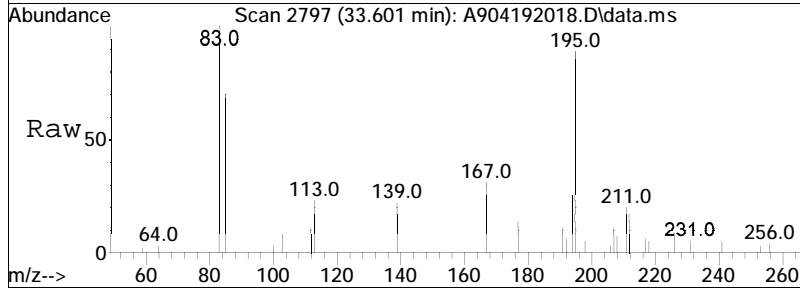
Tgt Ion	Ratio	Lower	Upper
234	100		
219	2.2	44.9	83.3#

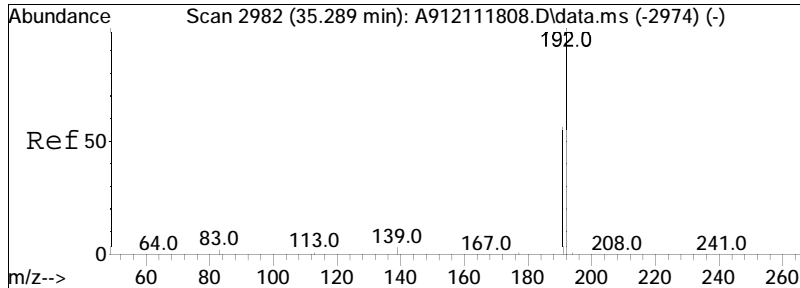




#54
 Carbazole
 Concen: 33.88 ng/mL M4
 RT: 33.601 min Scan# 2797
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

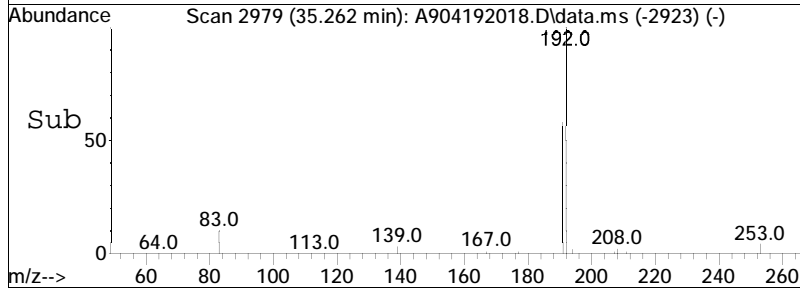
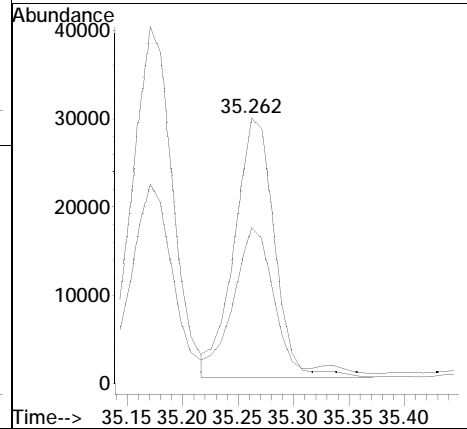
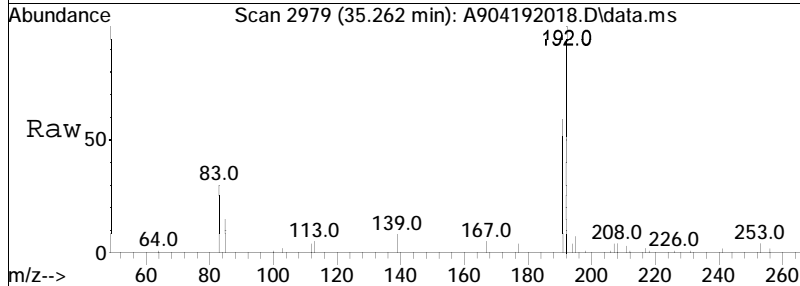
Tgt Ion	Resp	Lower	Upper
167	100		
139	0.0	10.4	19.4#

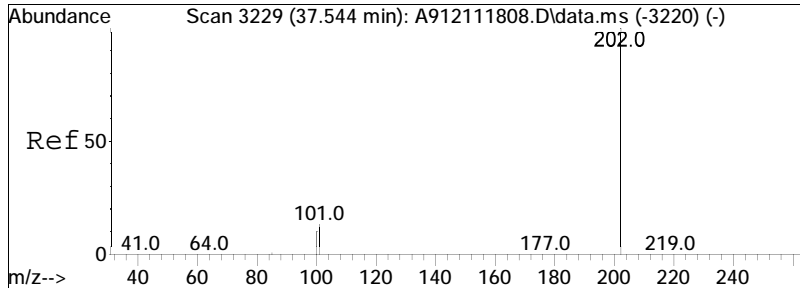




#55
 1-Methylphenanthrene
 Concen: 751.03 ng/mL
 RT: 35.262 min Scan# 2979
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

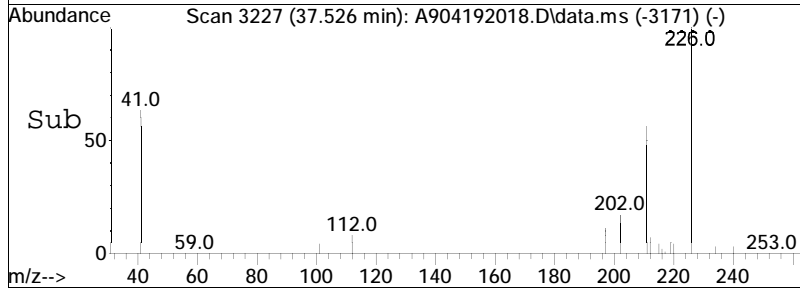
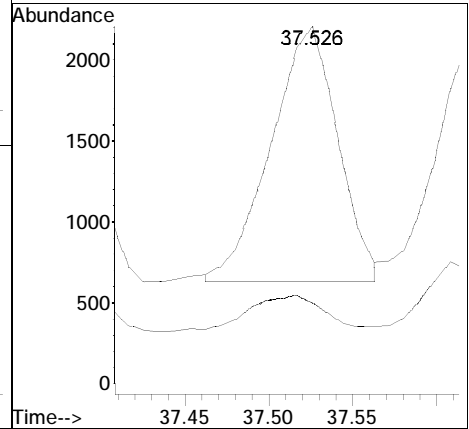
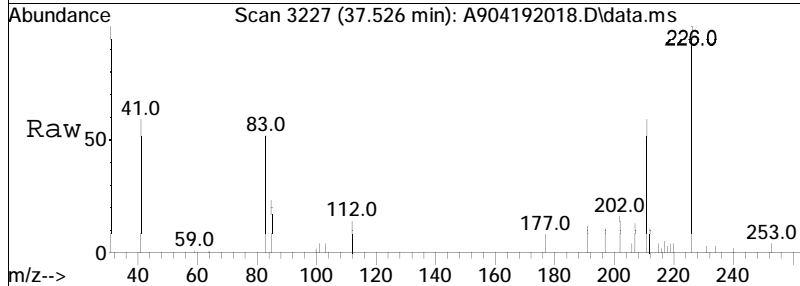
Tgt Ion	Resp	Lower	Upper
192	100		
191	55.6	39.0	72.4

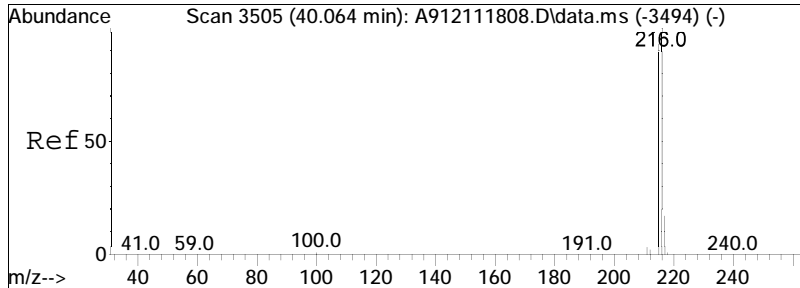




#56
 Fluoranthene
 Concen: 28.09 ng/mL M4
 RT: 37.526 min Scan# 3227
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

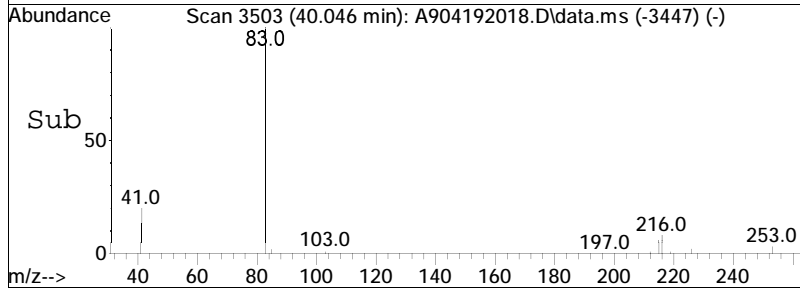
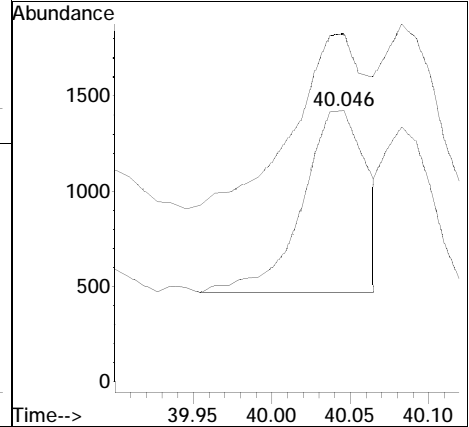
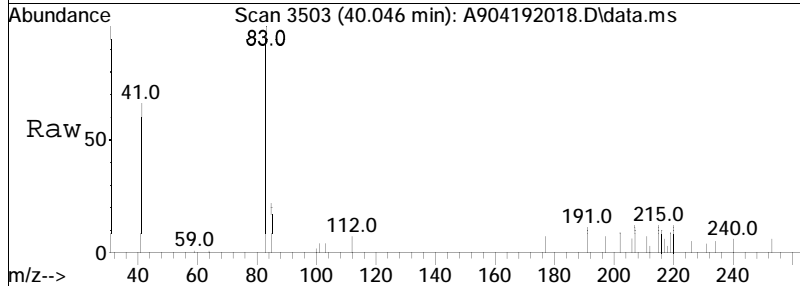
Tgt Ion: 202 Resp: 4376
 Ion Ratio Lower Upper
 202 100
 101 4.9 6.8 12.6#

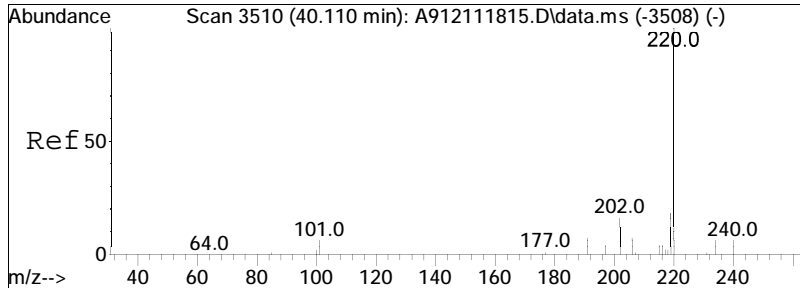




#57
 Benzo(b)fluorene
 Concen: 29.77 ng/mL
 RT: 40.046 min Scan# 3503
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

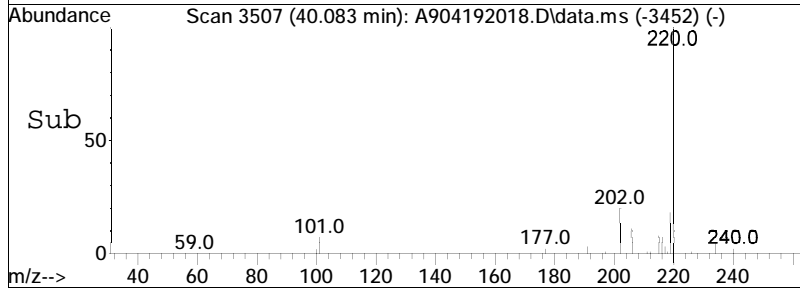
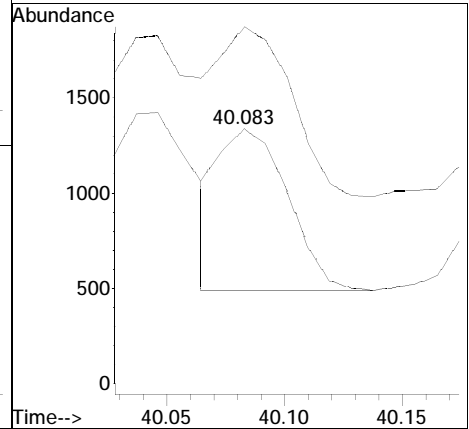
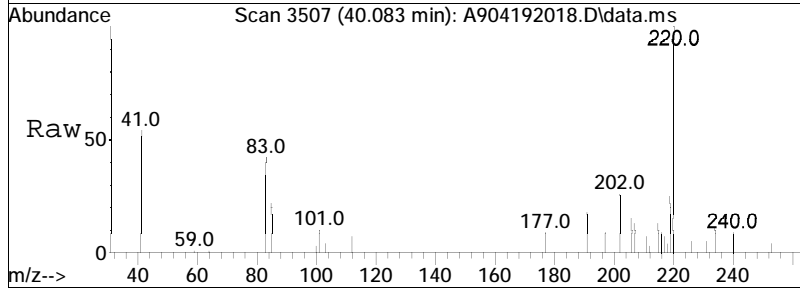
Tgt Ion	Resp	Lower	Upper
216	100		
215	109.4	64.8	120.4

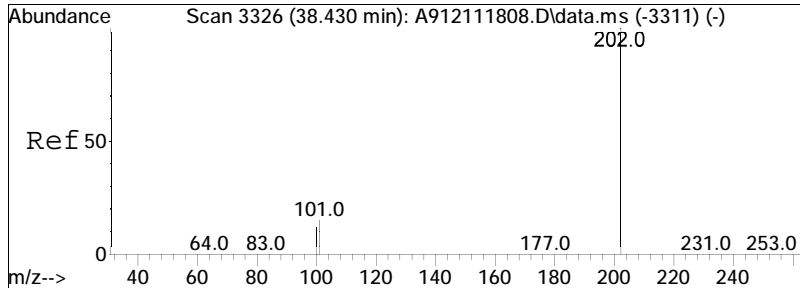




#58
 7H-Benzo(c)fluorene
 Concen: 18.87 ng/mL
 RT: 40.083 min Scan# 3507
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

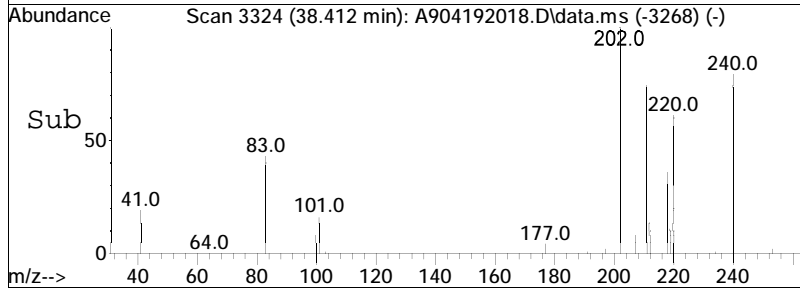
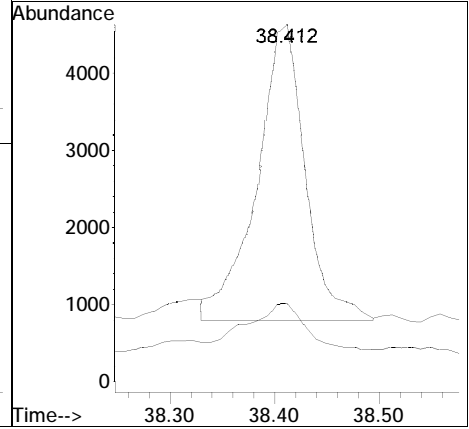
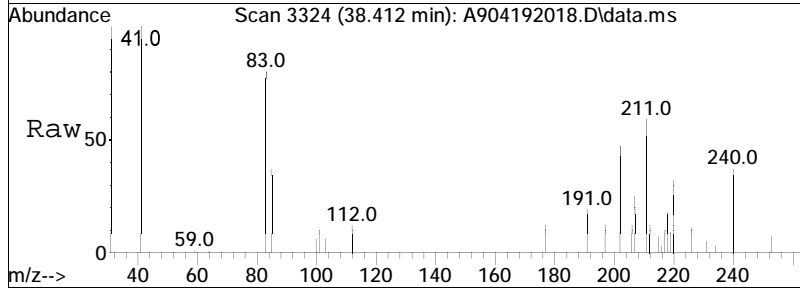
Tgt Ion	Resp	Lower	Upper
216	100		
215	108.8	98.1	182.3

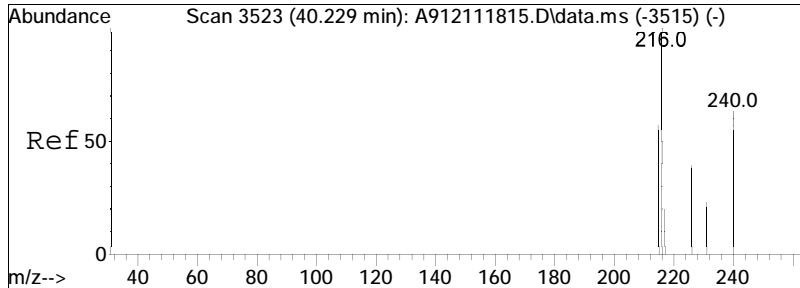




#59
 Pyrene
 Concen: 74.47 ng/mL M4
 RT: 38.412 min Scan# 3324
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

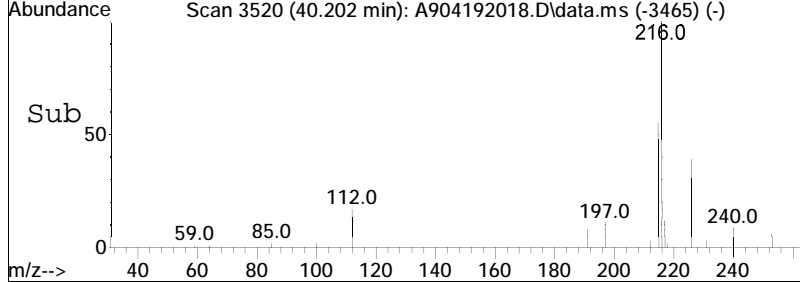
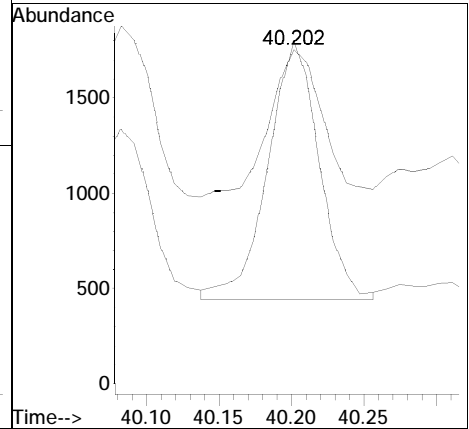
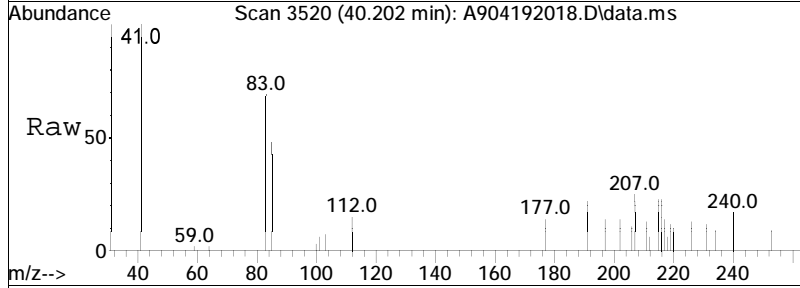
Tgt Ion: 202 Resp: 12248
 Ion Ratio Lower Upper
 202 100
 101 19.9 7.6 14.0#

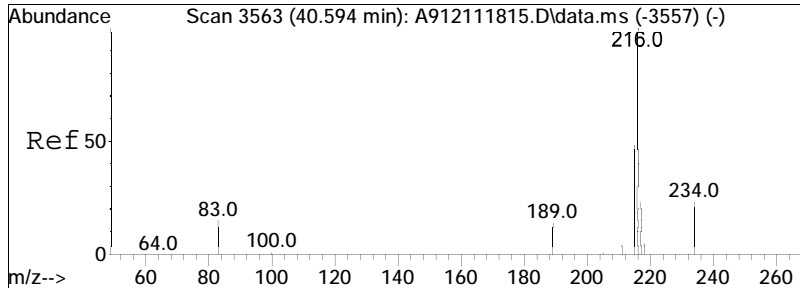




#60
 2-Methylpyrene
 Concen: 20.24 ng/mL M4
 RT: 40.202 min Scan# 3520
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

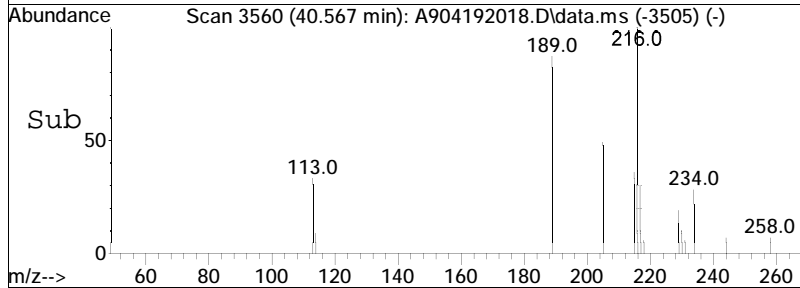
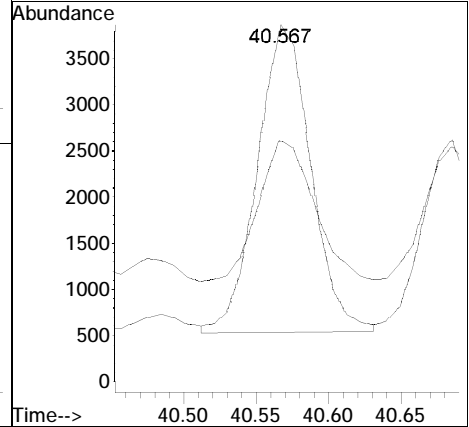
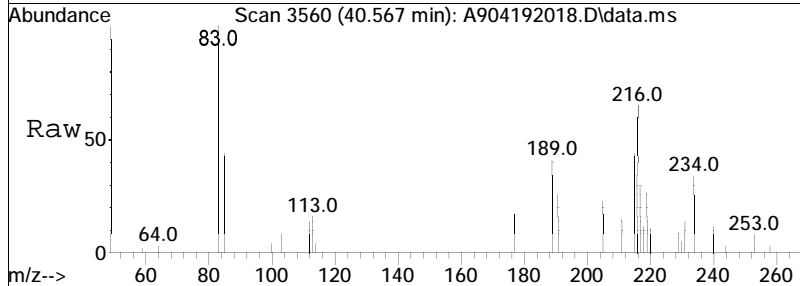
Tgt Ion: 216 Resp: 3329
 Ion Ratio Lower Upper
 216 100
 215 57.9 68.5 127.1#

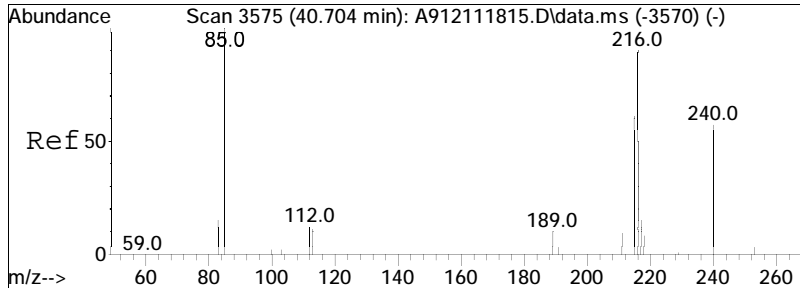




#61
 4-Methylpyrene
 Concen: 51.98 ng/mL
 RT: 40.567 min Scan# 3560
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

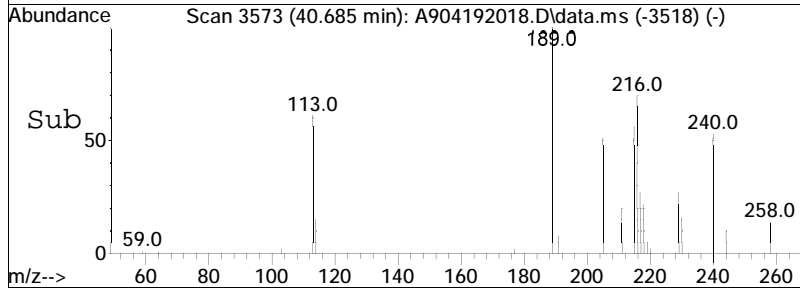
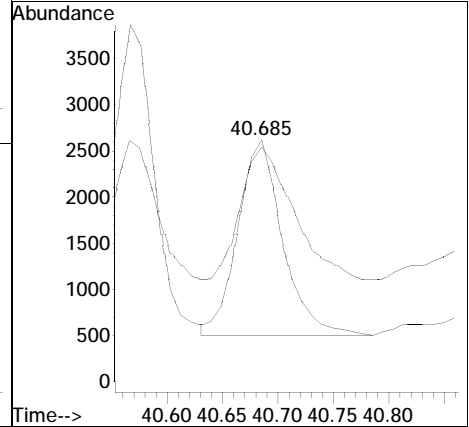
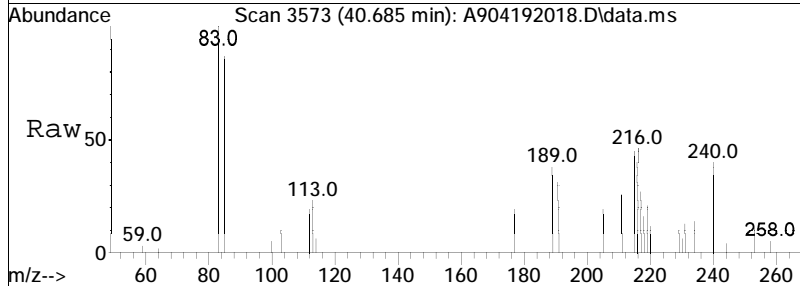
Tgt Ion: 216 Resp: 8550
 Ion Ratio Lower Upper
 216 100
 215 48.6 47.3 87.9

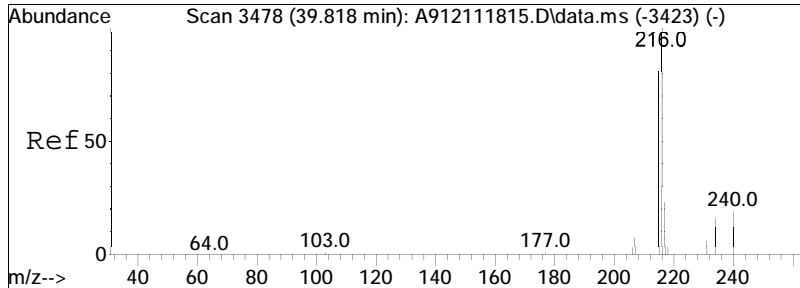




#62
 1-Methylpyrene
 Concen: 36.02 ng/mL
 RT: 40.685 min Scan# 3573
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

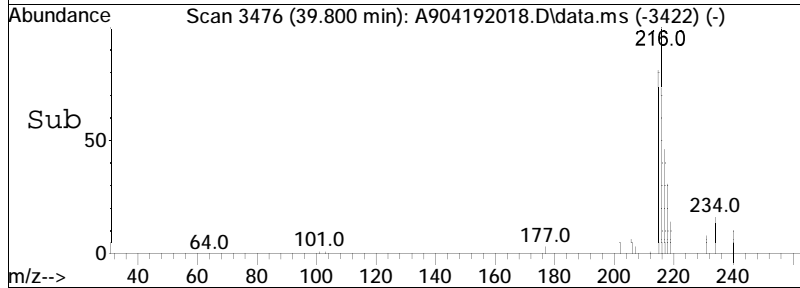
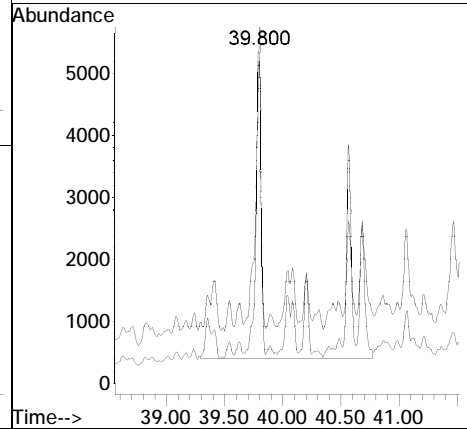
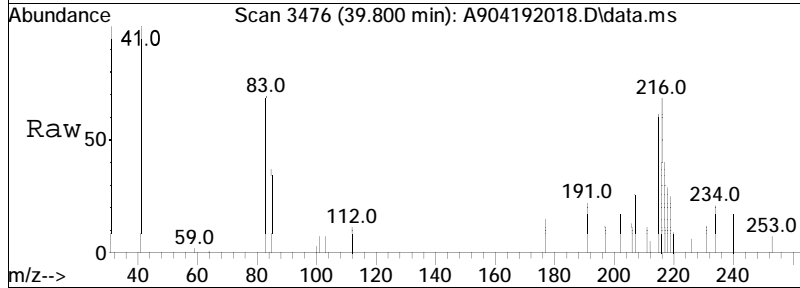
Tgt Ion: 216 Resp: 5924
 Ion Ratio Lower Upper
 216 100
 215 88.5 68.0 126.2

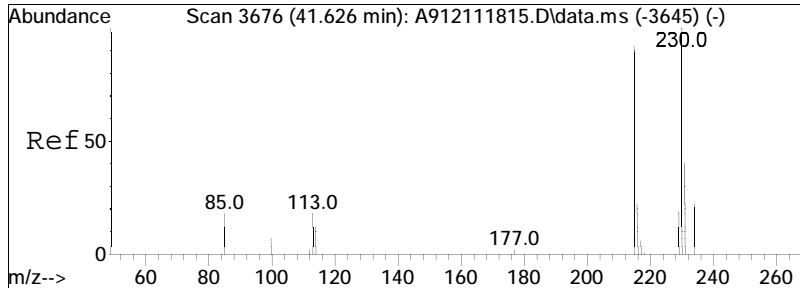




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 299.06 ng/mL M5
 RT: 39.800 min Scan# 3476
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

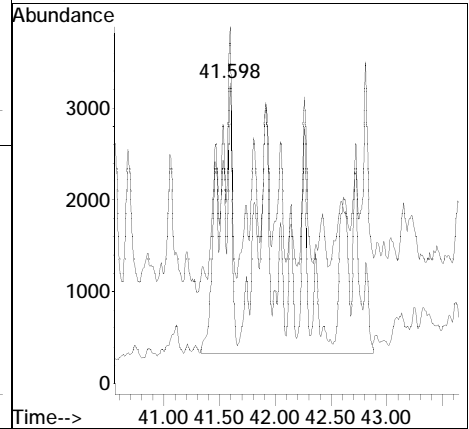
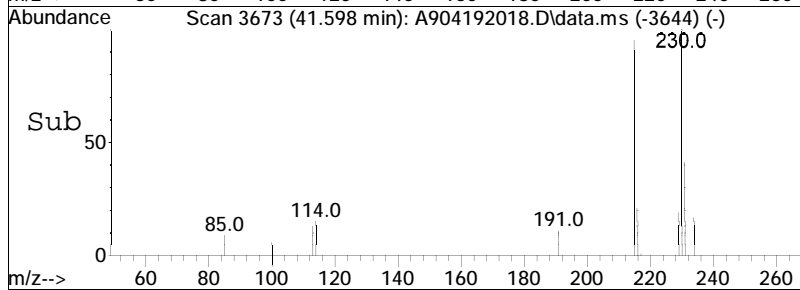
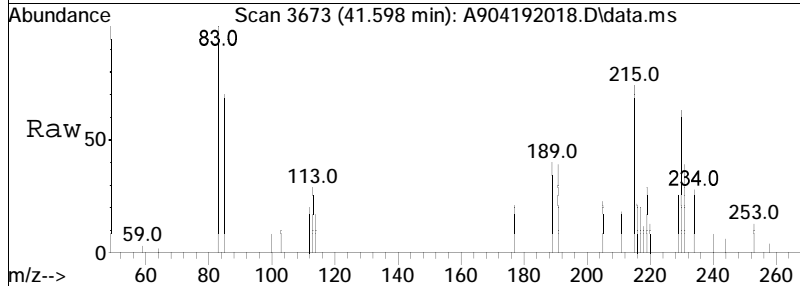
Tgt Ion: 216 Resp: 49188
 Ion Ratio Lower Upper
 216 100
 215 29.7 63.3 117.5#

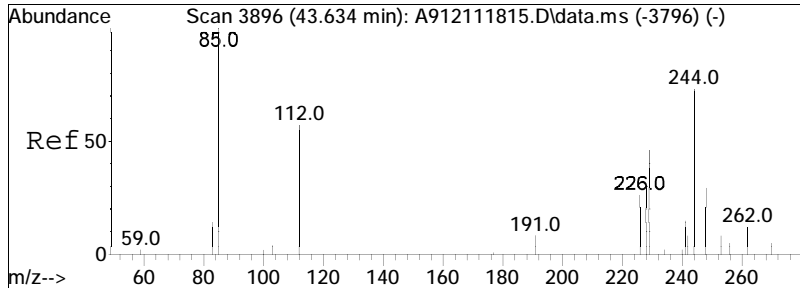




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 505.86 ng/mL M5
 RT: 41.598 min Scan# 3673
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

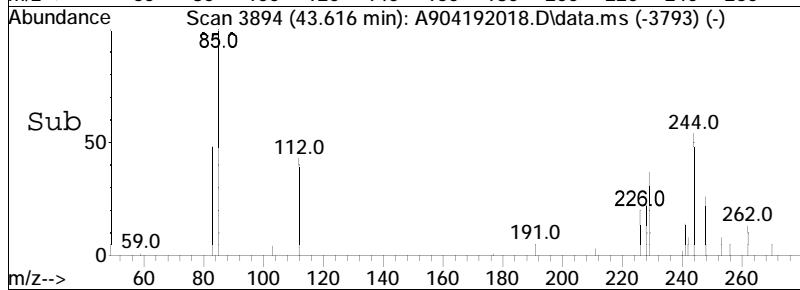
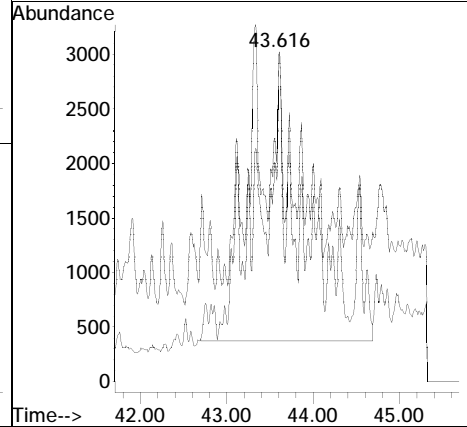
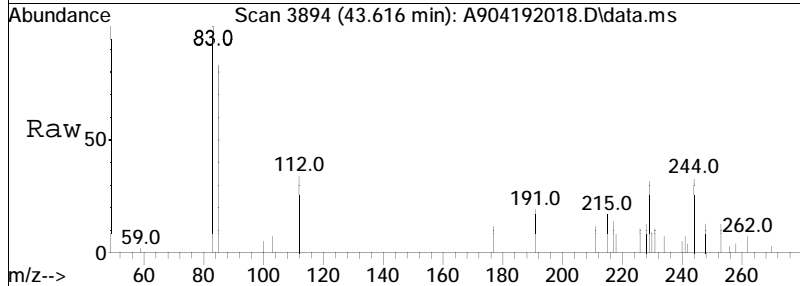
Tgt Ion	Ratio	Lower	Upper
230	100		
215	8.1	83.0	154.1#

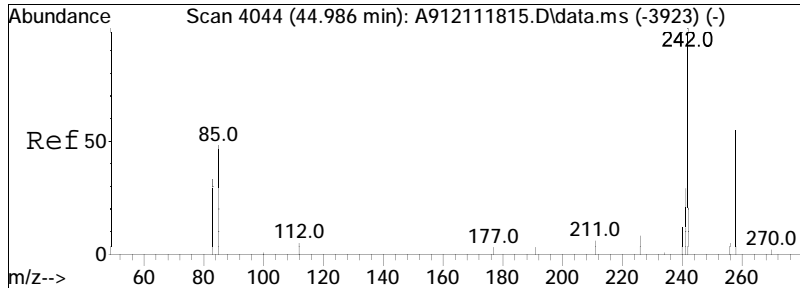




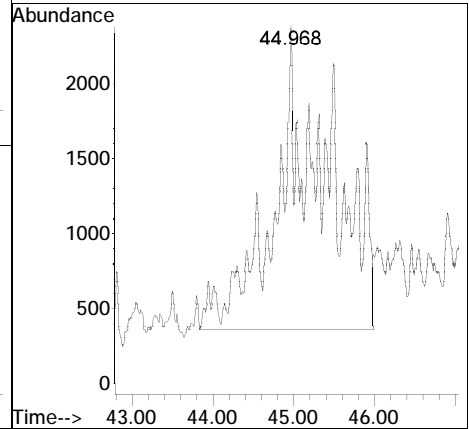
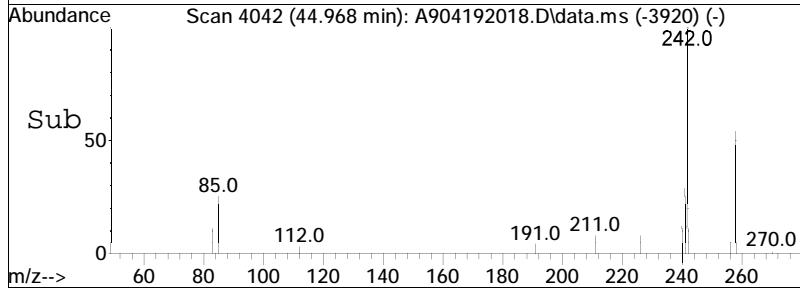
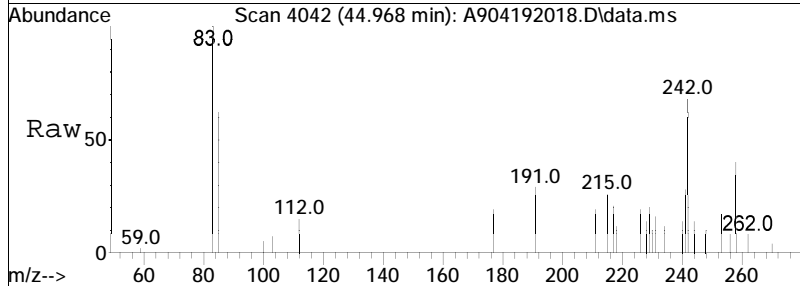
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 589.50 ng/mL M5
 RT: 43.616 min Scan# 3894
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

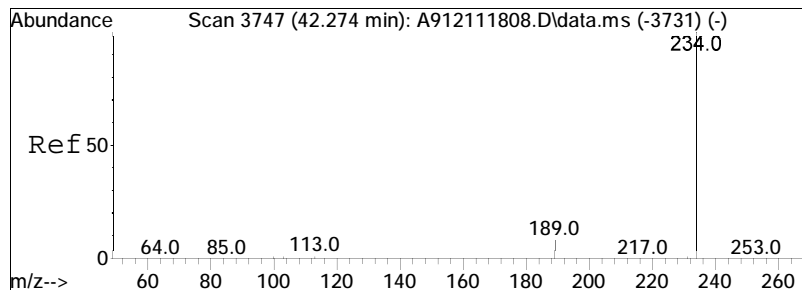
Tgt Ion: 244 Resp: 96959
 Ion Ratio Lower Upper
 244 100
 229 4.7 68.0 126.4#



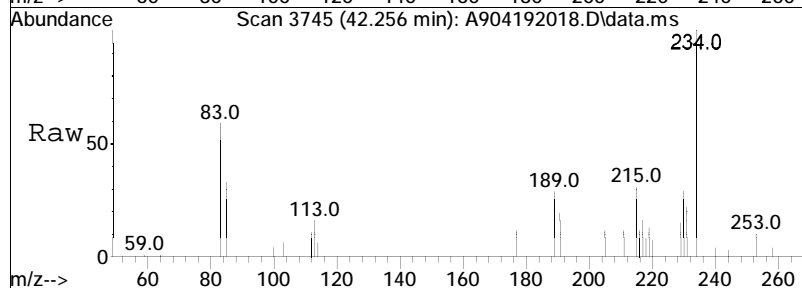


#66
 C4-Fluoranthenes/Pyrenes
 Concen: 538.95 ng/mL M5
 RT: 44.968 min Scan# 4042
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 258 Resp: 88646

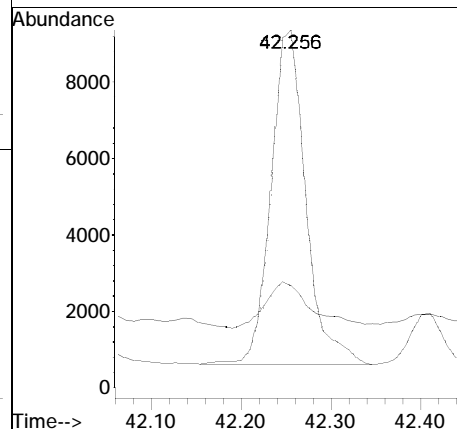
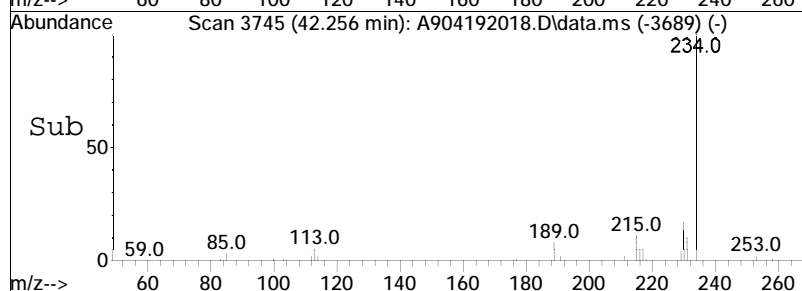


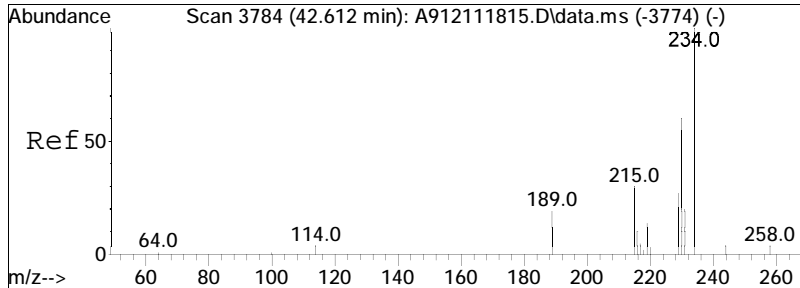


#67
 Naphthobenzothiophene-2,1-D
 Concen: 178.12 ng/mL
 RT: 42.256 min Scan# 3745
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm



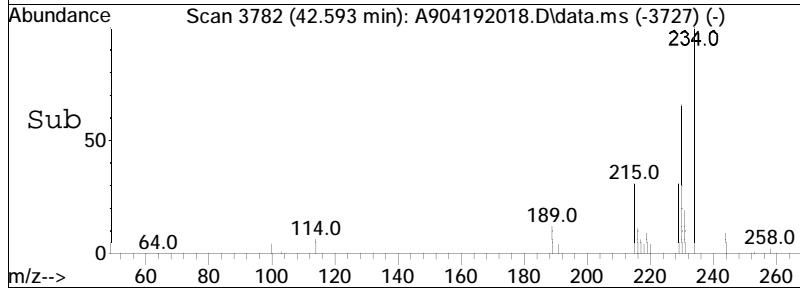
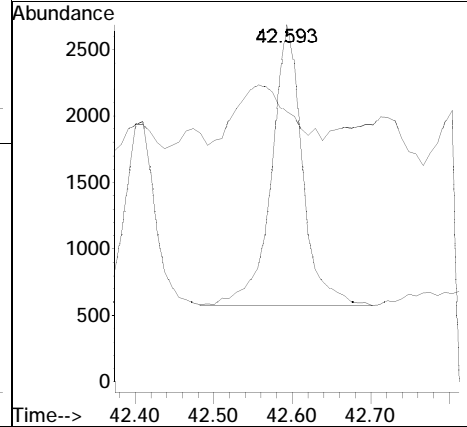
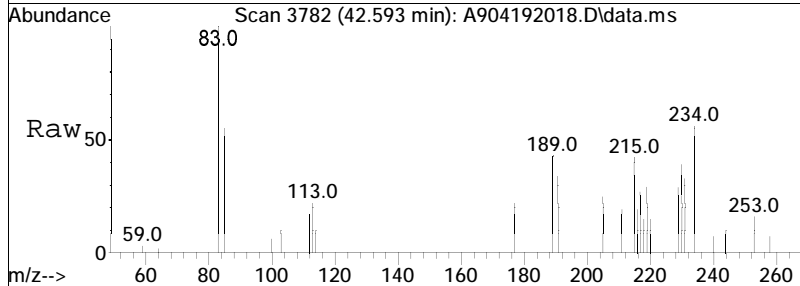
Tgt Ion	Ratio	Lower	Upper
234	100		
189	18.9	6.1	11.3#

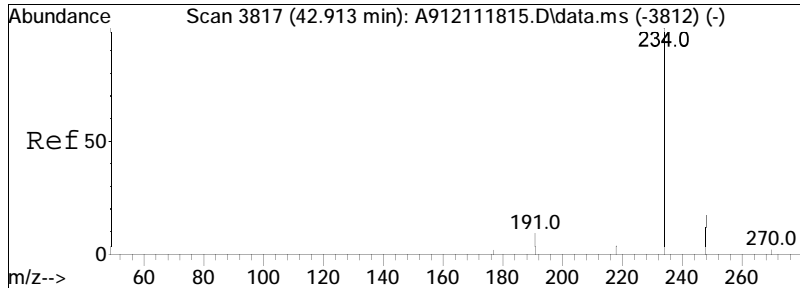




#68
 Naphthobenzothiophene-1,2-D
 Concen: 44.01 ng/mL
 RT: 42.593 min Scan# 3782
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

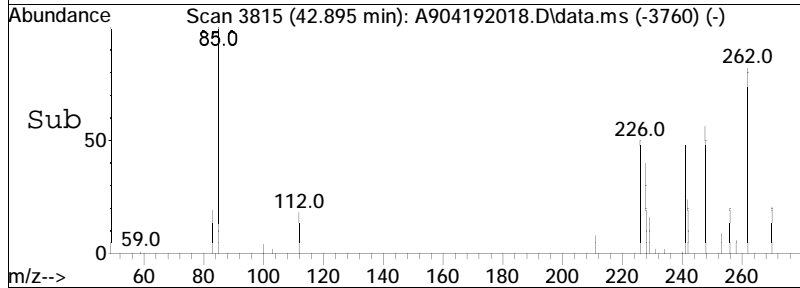
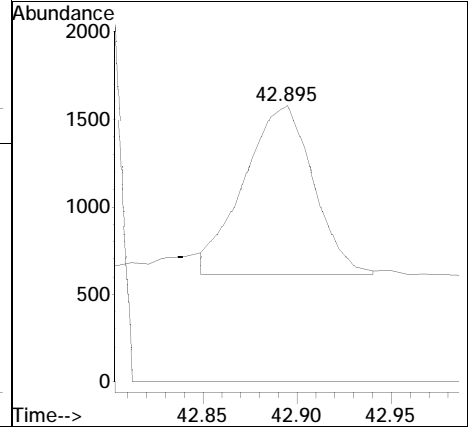
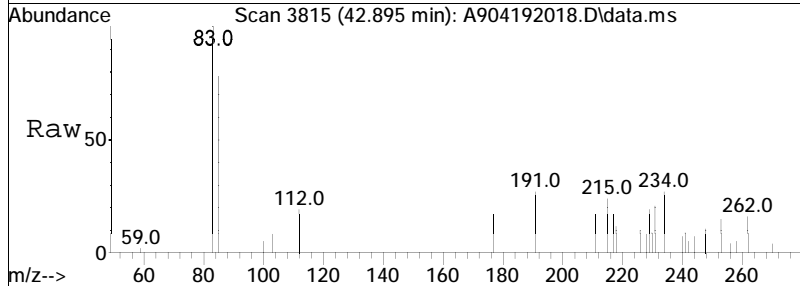
Tgt Ion: 234 Resp: 5784
 Ion Ratio Lower Upper
 234 100
 189 0.0 52.8 98.2#

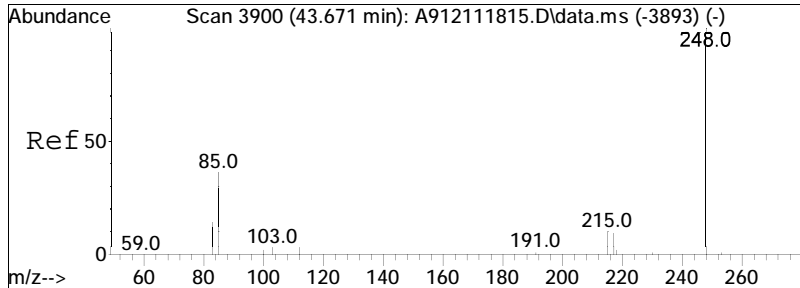




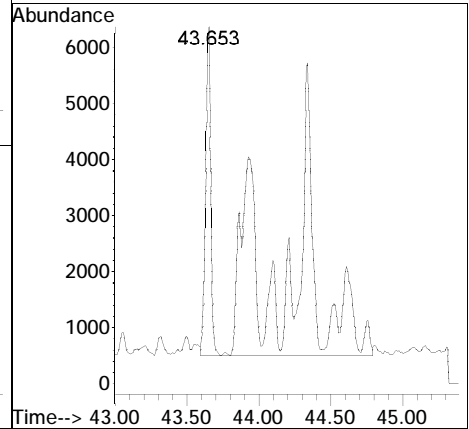
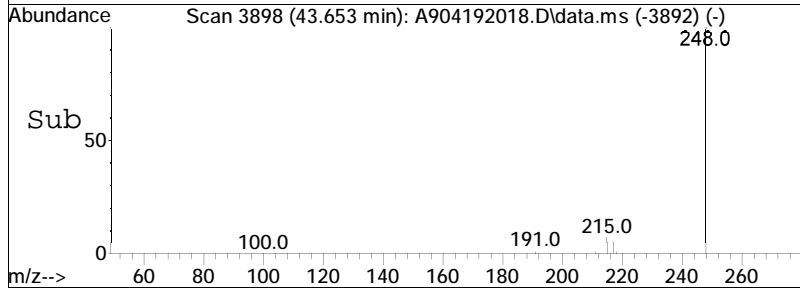
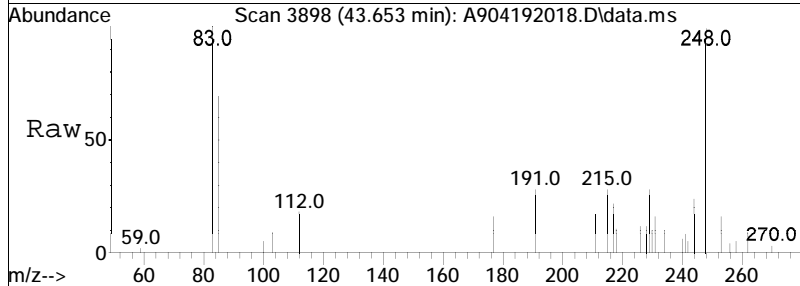
#69
 Naphthobenzothiophene-2,3-D
 Concen: 18.54 ng/mL M3
 RT: 42.895 min Scan# 3815
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

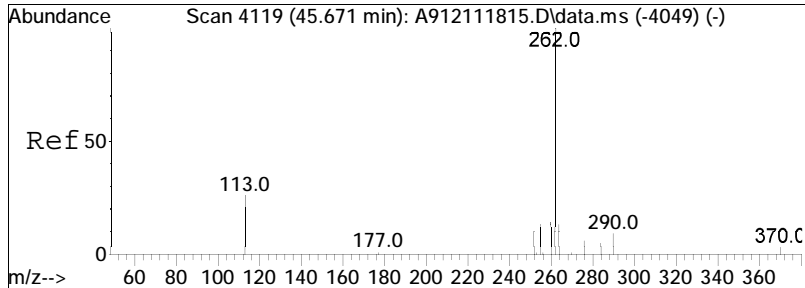
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	0.0	0.0



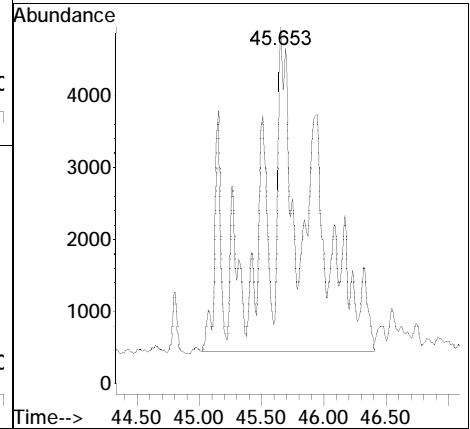
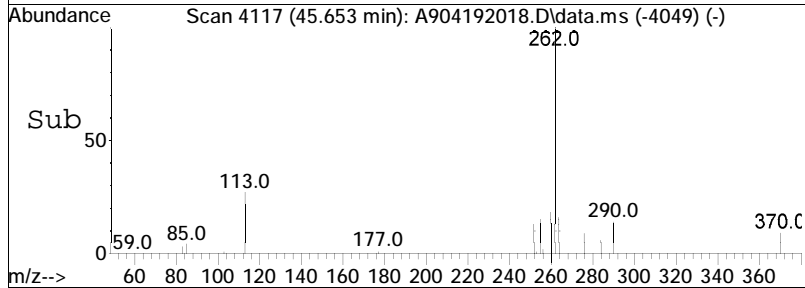
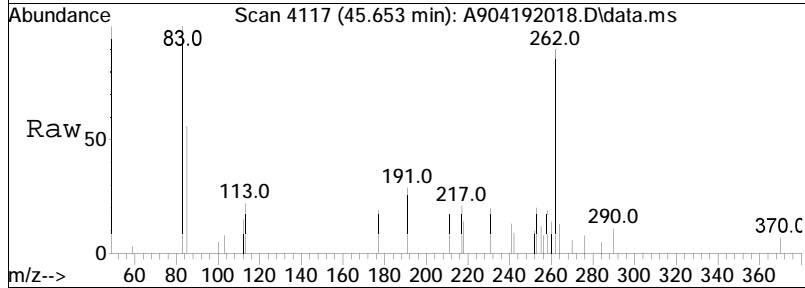


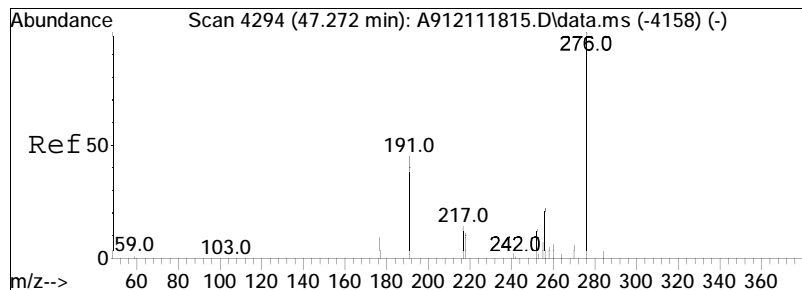
#70
 Cl-Naphthobenzothiophenes
 Concen: 644.18 ng/ml M5
 RT: 43.653 min Scan# 3898
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 248 Resp: 84661



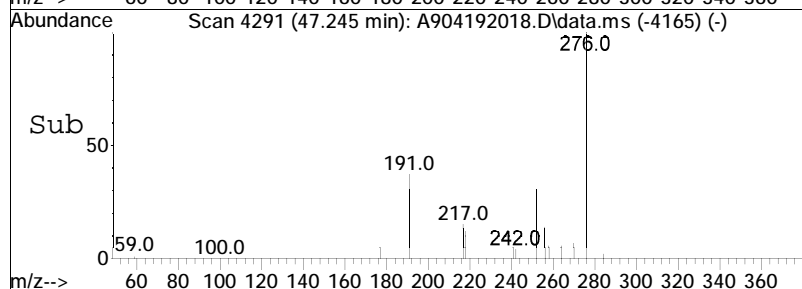
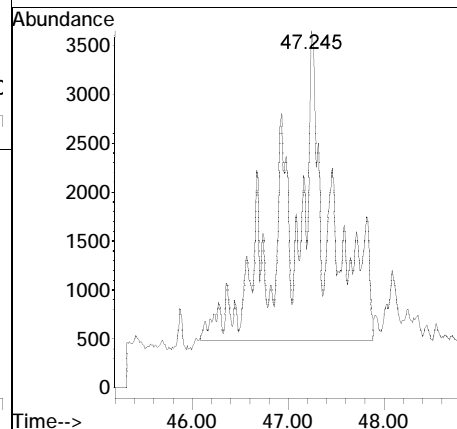
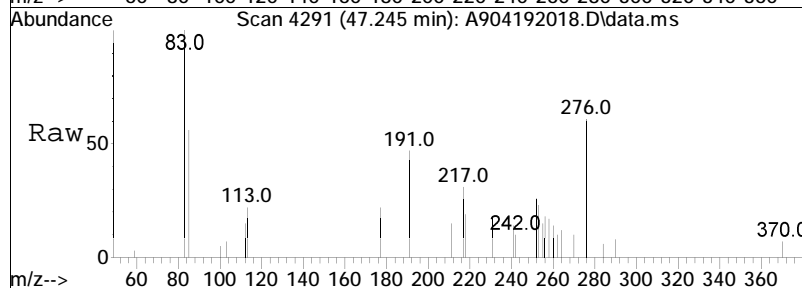


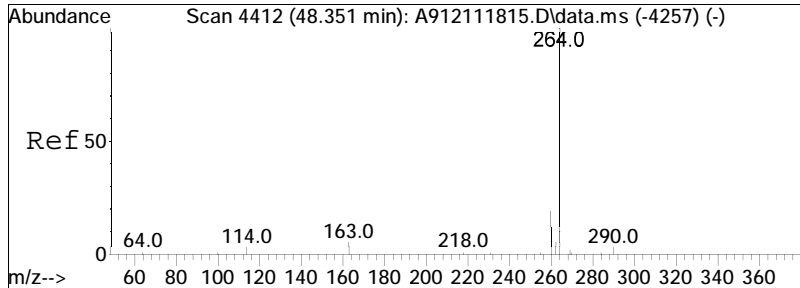
#71
 C2-Naphthobenzothiophenes
 Concen: 900.57 ng/ml M5
 RT: 45.653 min Scan# 4117
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 262 Resp: 118357



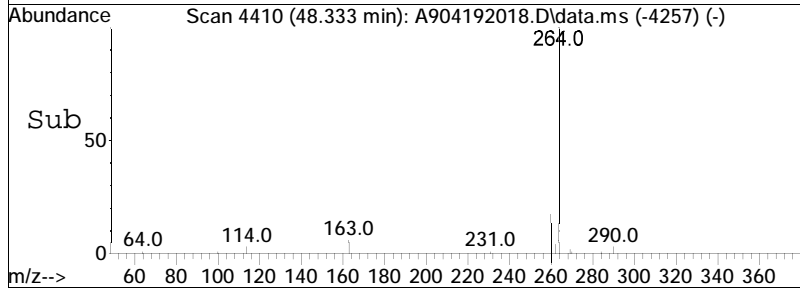
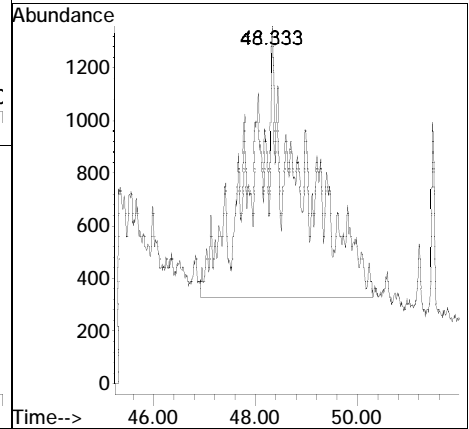
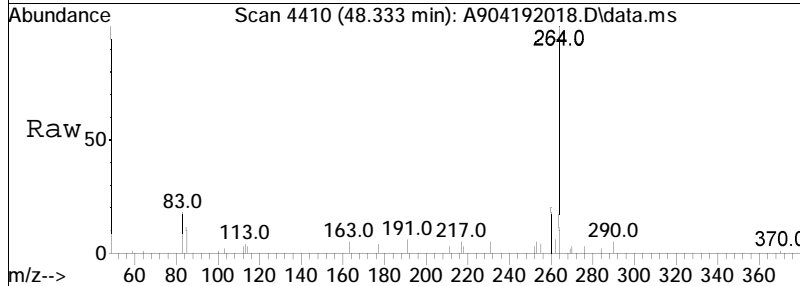


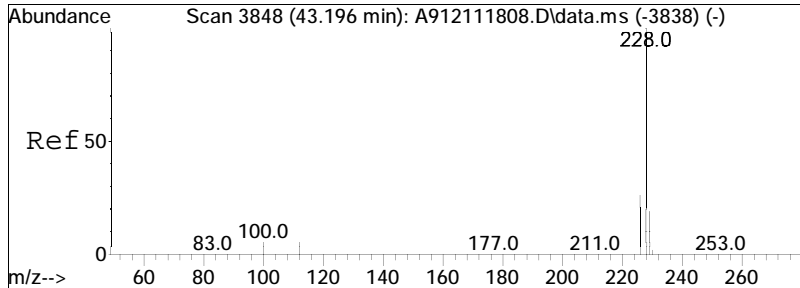
#72
 C3-Naphthobenzothiophenes
 Concen: 714.53 ng/ml M5
 RT: 47.245 min Scan# 4291
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 276 Resp: 93907





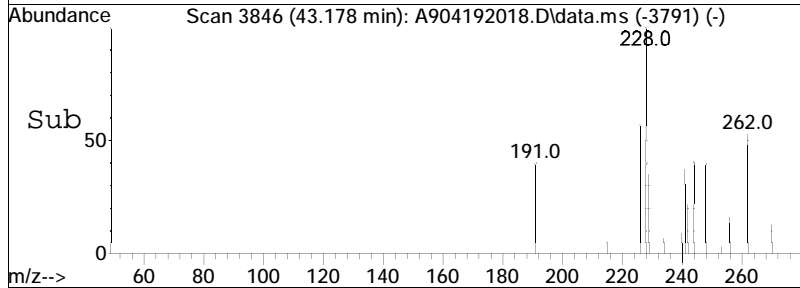
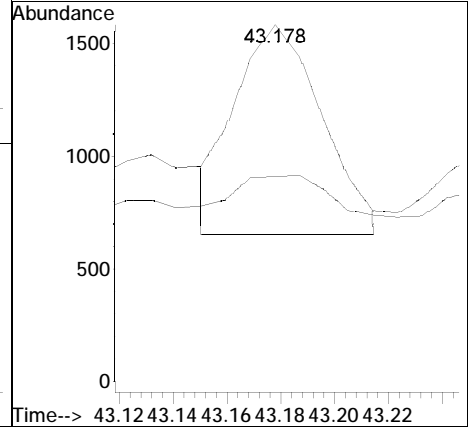
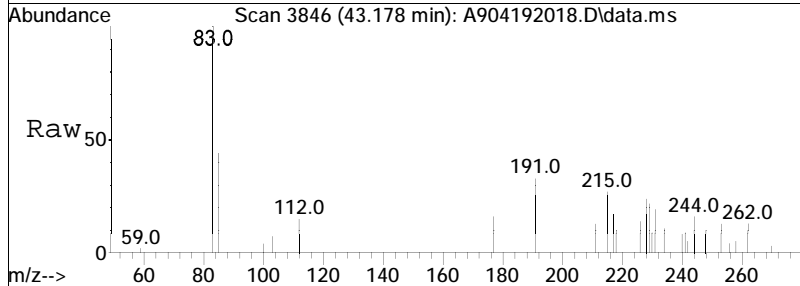
#73
 C4-Naphthobenzothiophenes
 Concen: 530.85 ng/mL M5
 RT: 48.333 min Scan# 4410
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 290 Resp: 69767

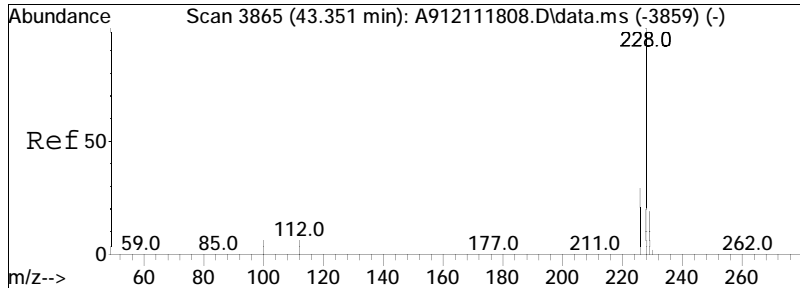




#75
 Benz[a]anthracene
 Concen: 15.31 ng/mL M4
 RT: 43.178 min Scan# 3846
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

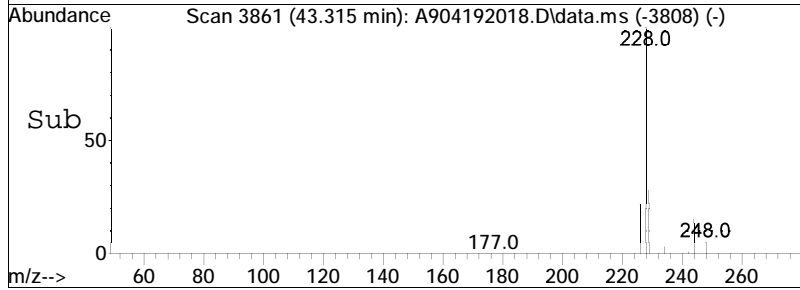
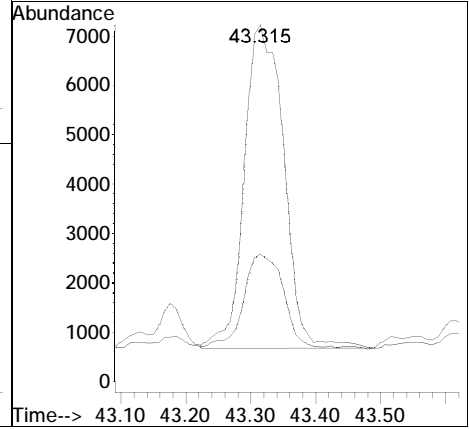
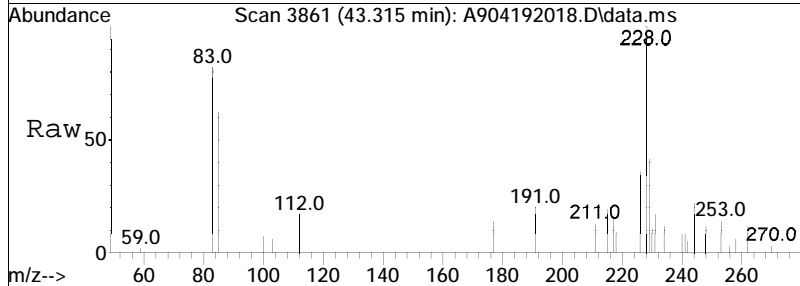
Tgt Ion: 228 Resp: 2098
 Ion Ratio Lower Upper
 228 100
 226 366.3 19.0 35.2#

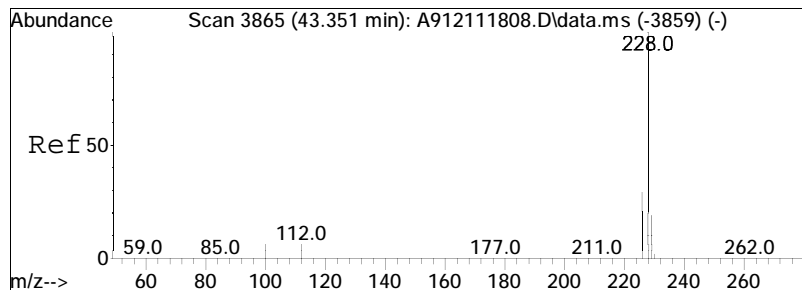




#76
 Chrysene
 Concen: 191.39 ng/mL
 RT: 43.315 min Scan# 3861
 Delta R.T. -0.018 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

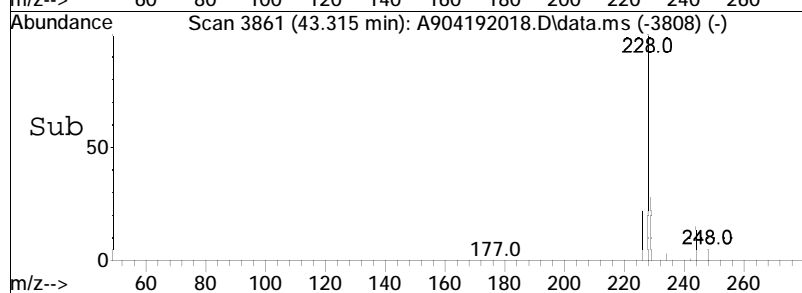
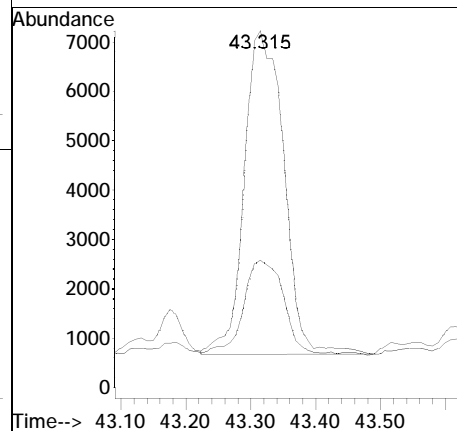
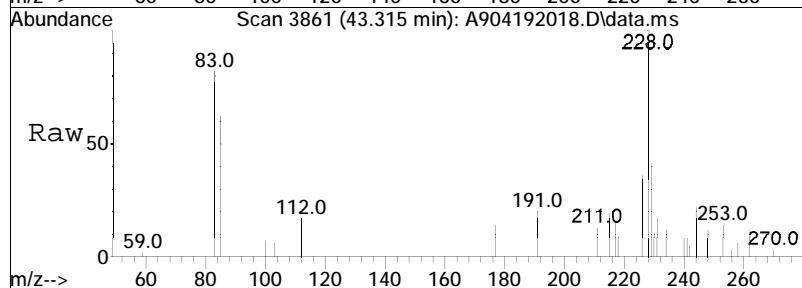
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.2	21.0	39.0

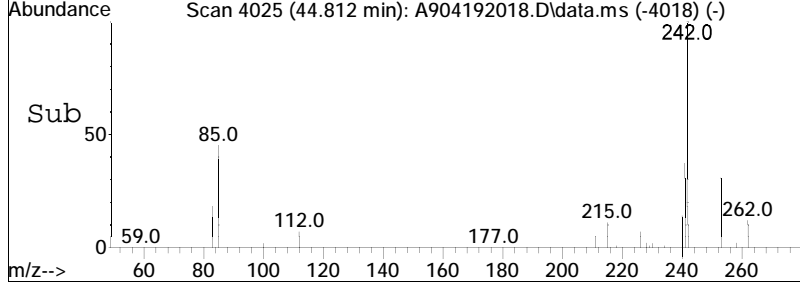
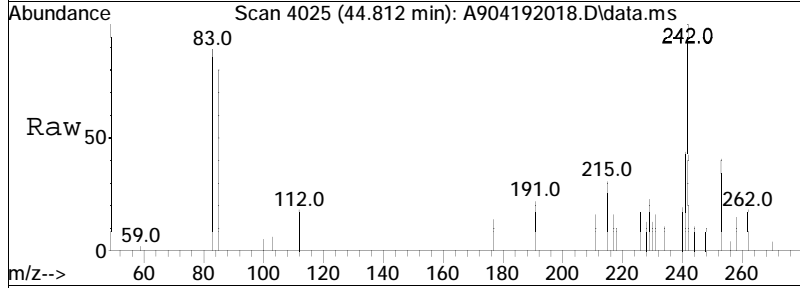
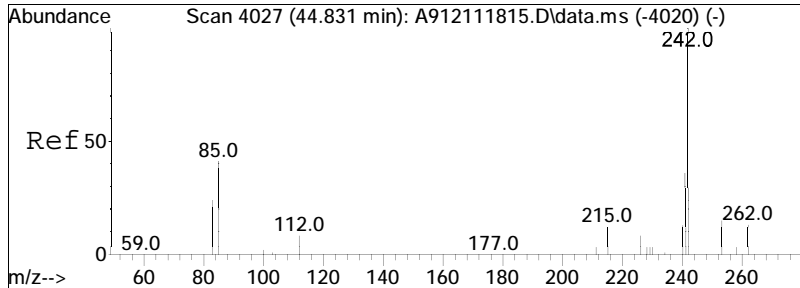




#77
 Chrysene/Triphenylene
 Concen: 191.39 ng/mL
 RT: 43.315 min Scan# 3861
 Delta R.T. -0.018 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

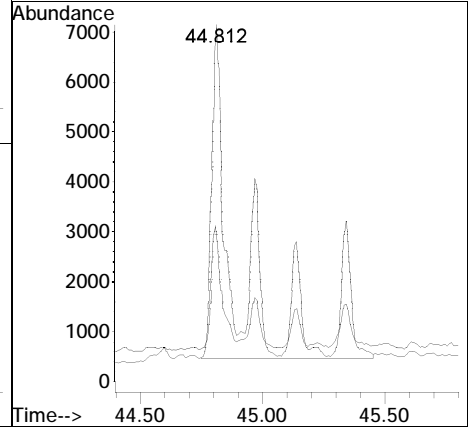
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.2	21.0	39.0

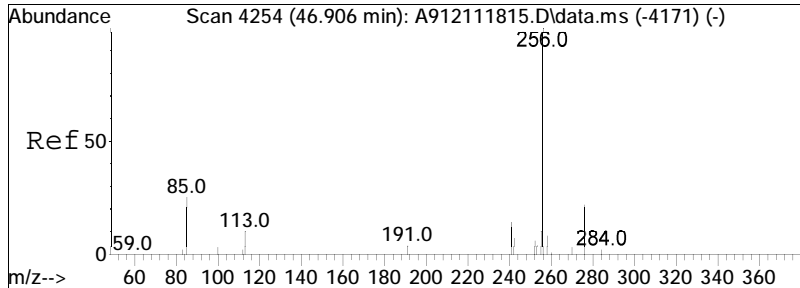




#78
 C1-Chrysenes
 Concen: 323.37 ng/mL M5
 RT: 44.812 min Scan# 4025
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

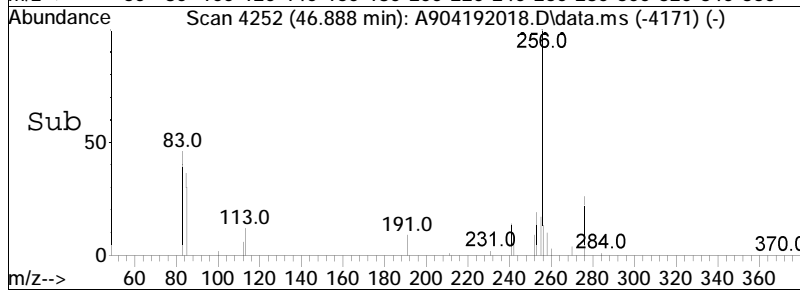
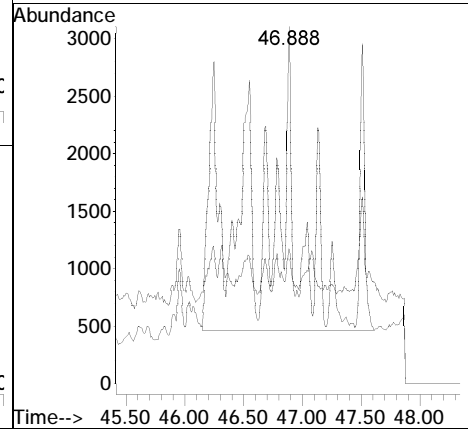
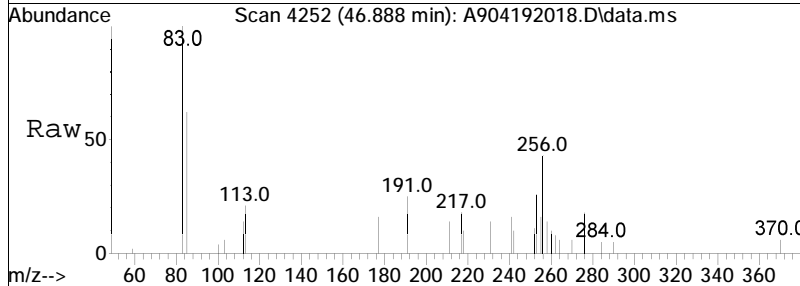
Tgt Ion	Resp	Lower	Upper
242	100		
241	13.3	30.5	56.7#

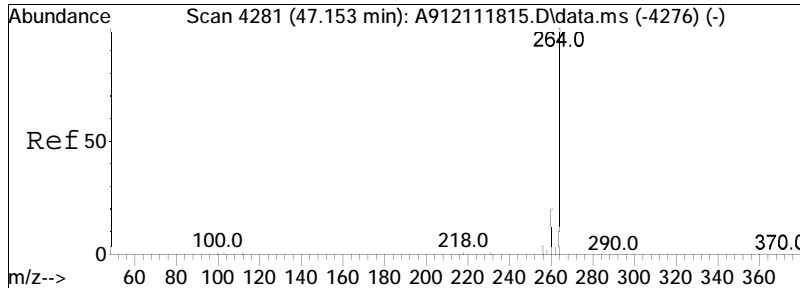




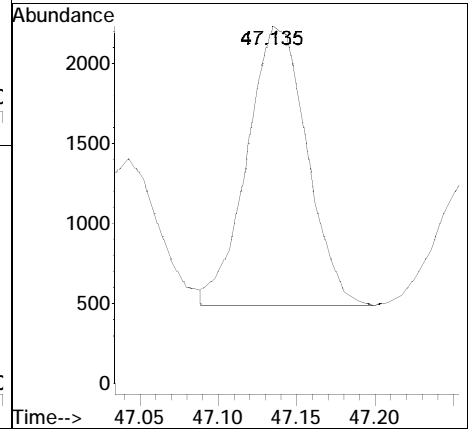
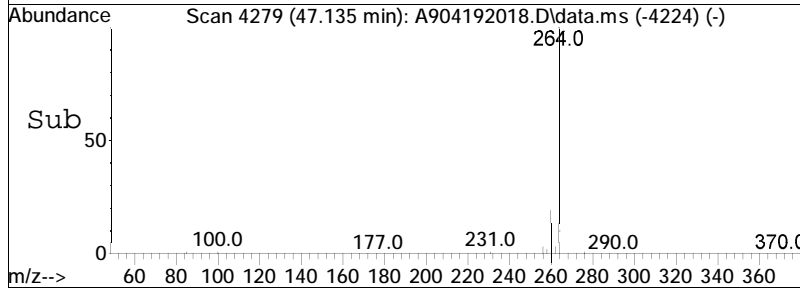
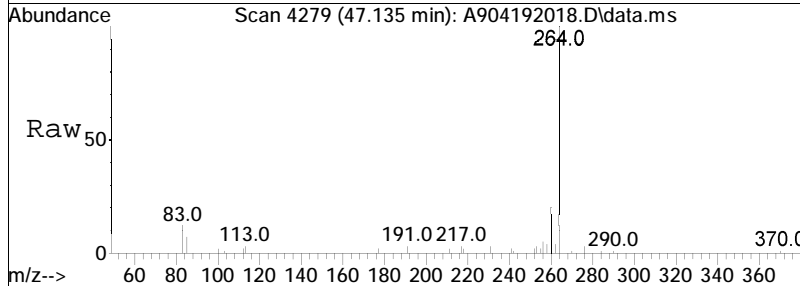
#79
 C2-Chrysenes
 Concen: 472.63 ng/mL M5
 RT: 46.888 min Scan# 4252
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

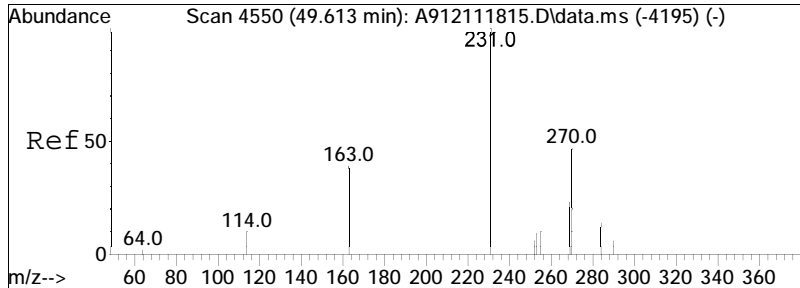
Tgt Ion: 256 Resp: 67953
 Ion Ratio Lower Upper
 256 100
 241 3.7 26.4 49.0#





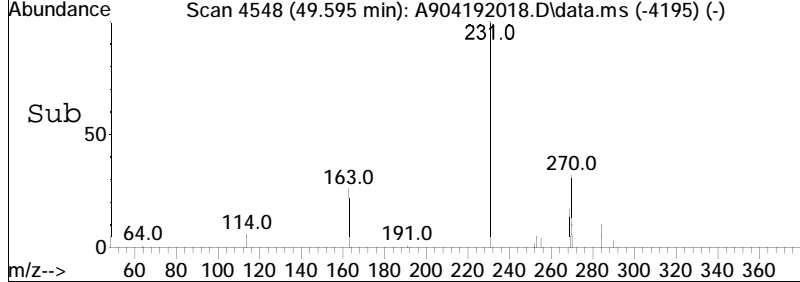
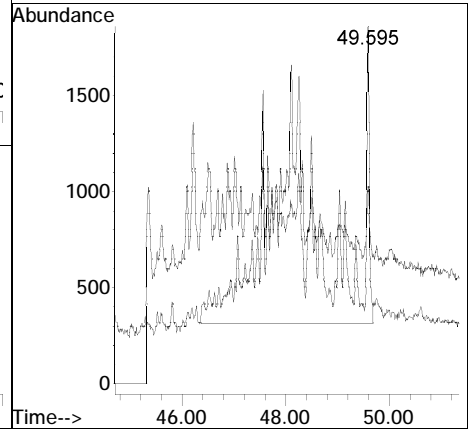
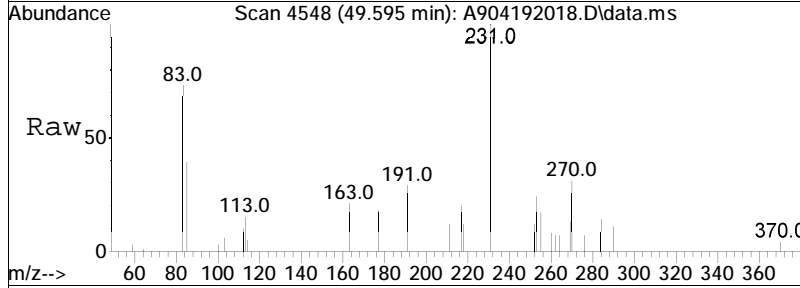
#80
 BBF-d12 Surr BKGD
 Concen: 31.96 ng/mL
 RT: 47.135 min Scan# 4279
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 256 Resp: 4595

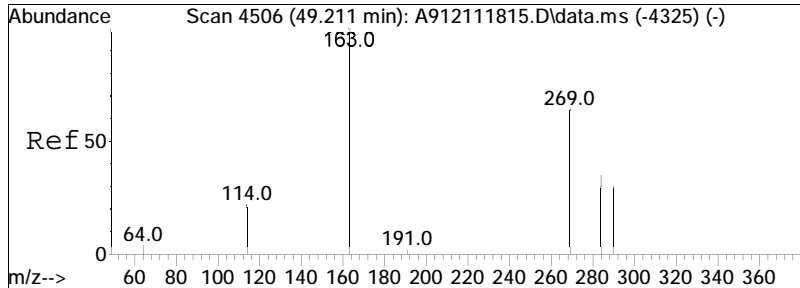




#81
 C3-Chrysenes
 Concen: 523.80 ng/mL M5
 RT: 49.595 min Scan# 4548
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

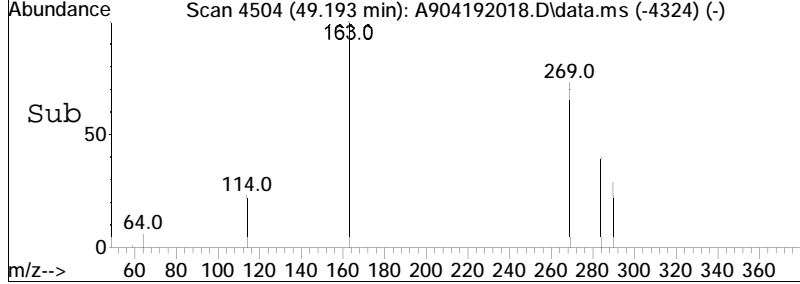
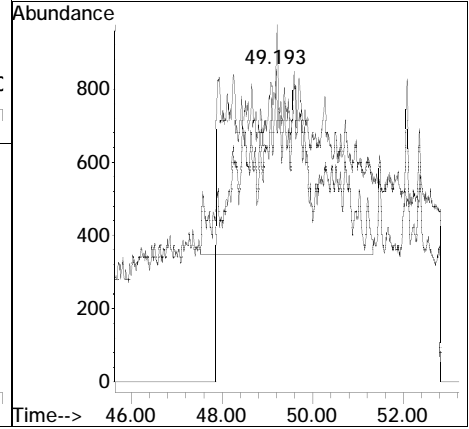
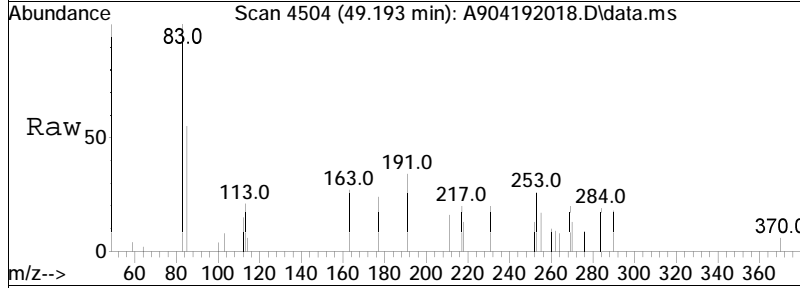
Tgt Ion: 270 Resp: 75311
 Ion Ratio Lower Upper
 270 100
 255 0.9 38.6 71.8#

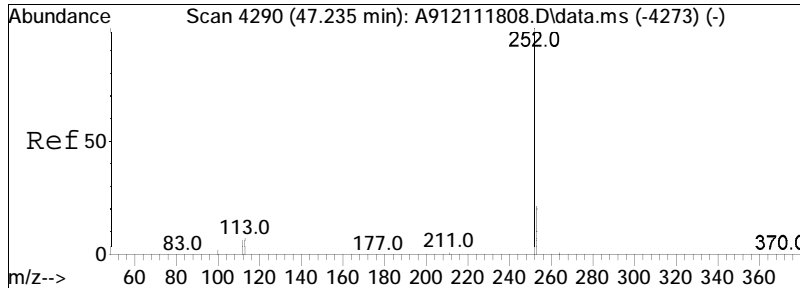




#82
 C4-Chrysenes
 Concen: 338.75 ng/mL M5
 RT: 49.193 min Scan# 4504
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

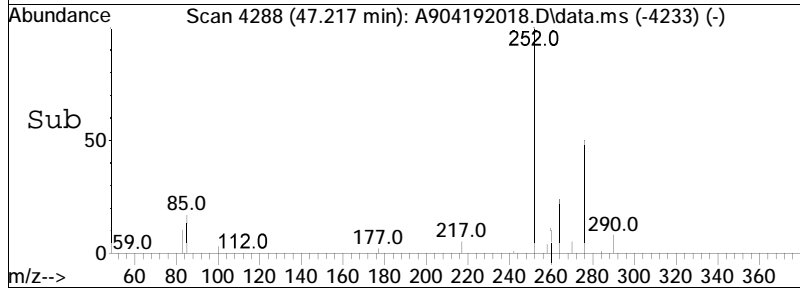
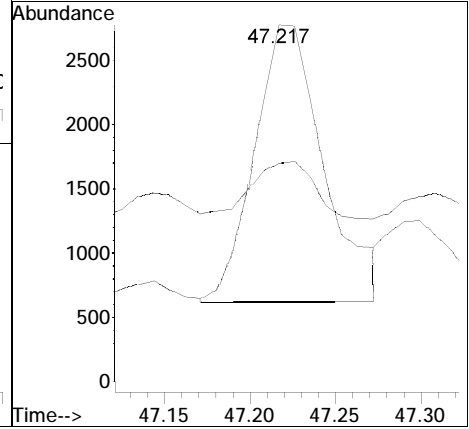
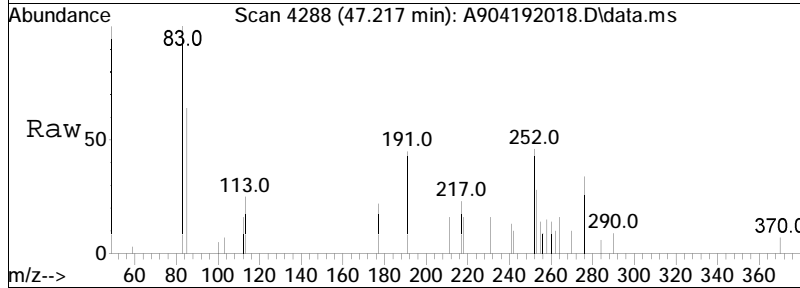
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	73.8	137.2#

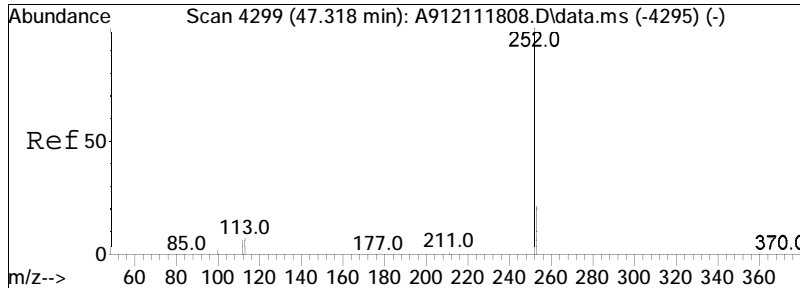




#84
 Benzo[b]fluoranthene
 Concen: 36.27 ng/mL
 RT: 47.217 min Scan# 4288
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

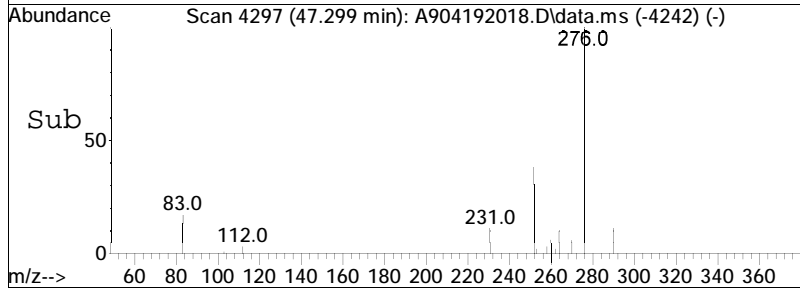
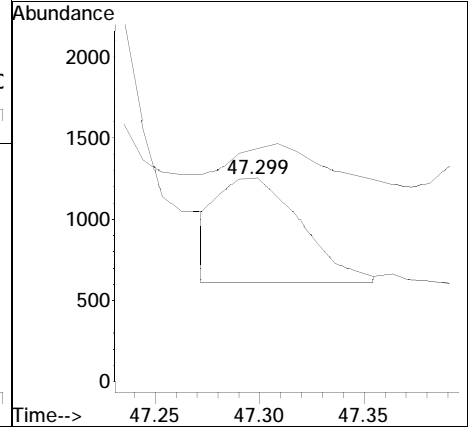
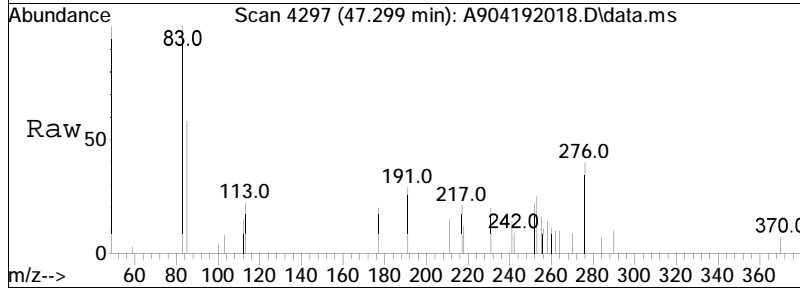
Tgt Ion	Resp	Lower	Upper
252	100		
253	18.2	17.3	32.1

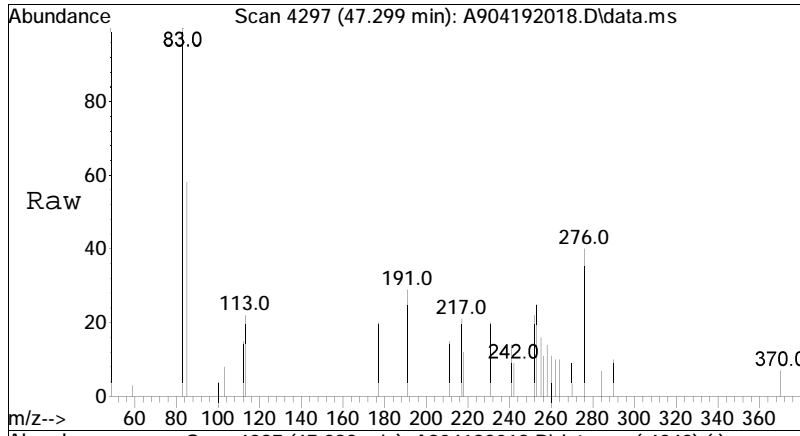




#85
 Benzo[j]+[k]fluoranthene
 Concen: 10.78 ng/mL M4
 RT: 47.299 min Scan# 4297
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

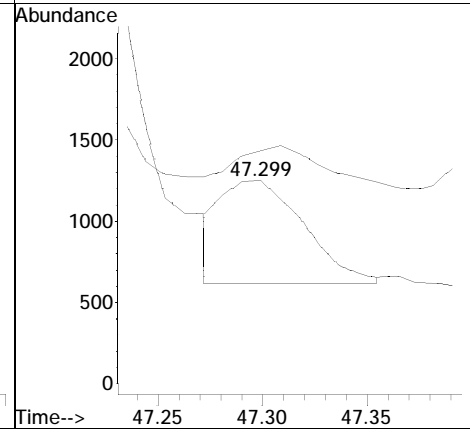
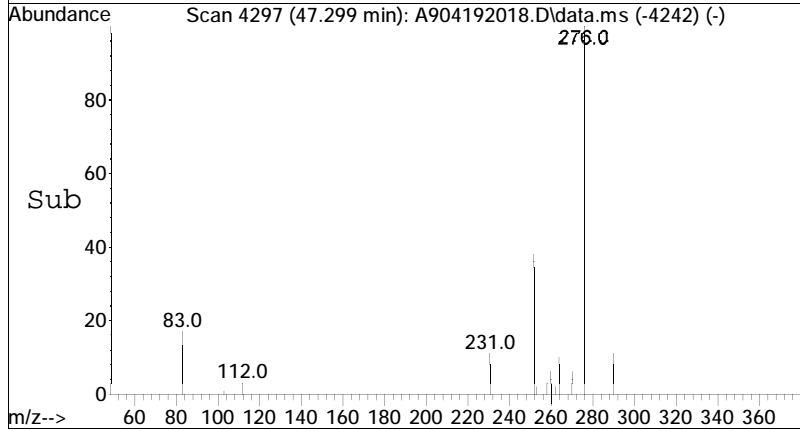
Tgt Ion	Resp	Lower	Upper
252	100		
253	62.1	17.6	32.8#

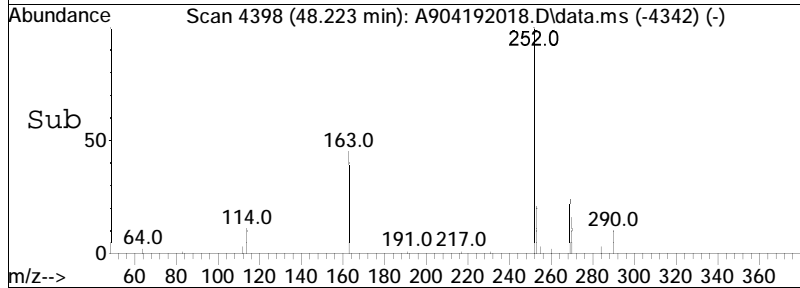
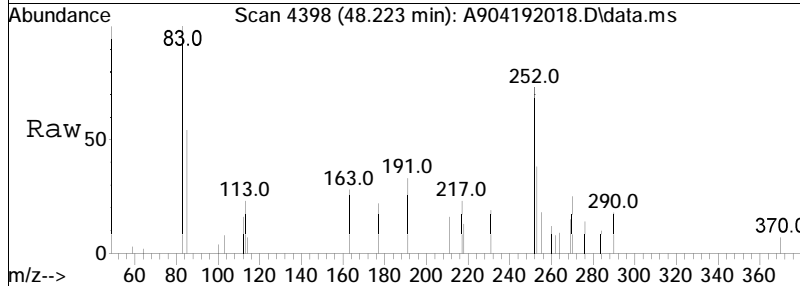
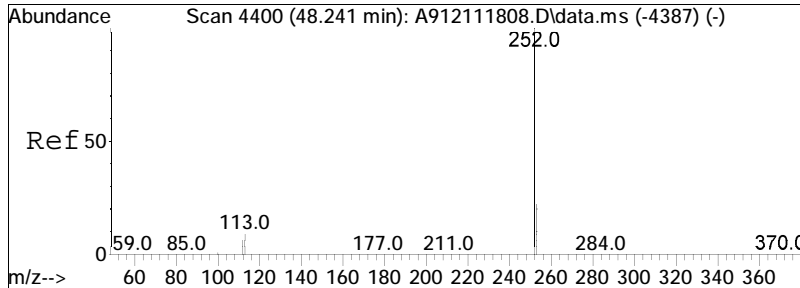




#86
 Benzo[k]fluoranthene
 Concen: 10.63 ng/mL M4
 RT: 47.299 min Scan# 4297
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

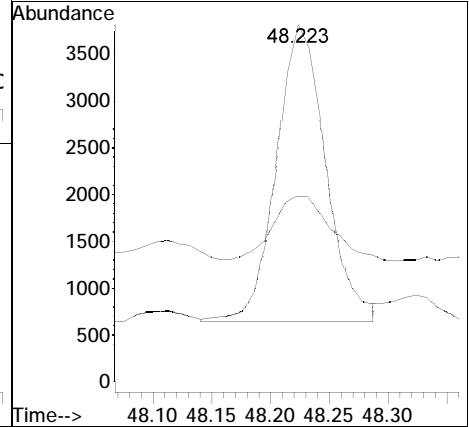
Tgt Ion	Ratio	Lower	Upper
252	100		
253	62.9	17.6	32.8#

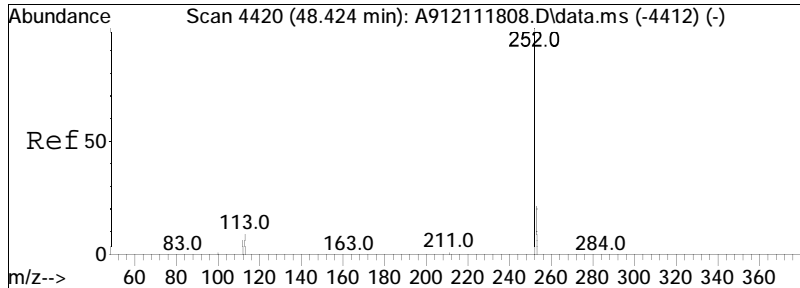




#88
 Benzo[e]pyrene
 Concen: 55.42 ng/mL
 RT: 48.223 min Scan# 4398
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

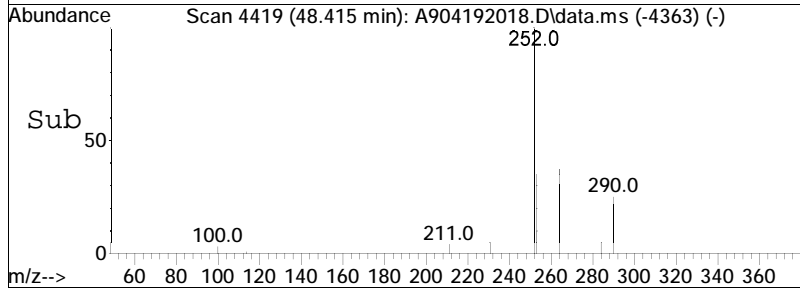
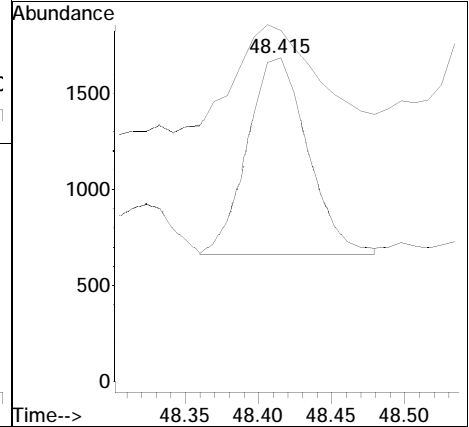
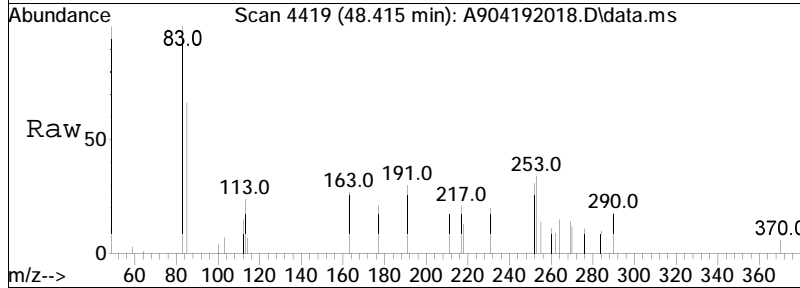
Tgt Ion	Resp	Lower	Upper
252	100		
253	27.2	18.3	33.9

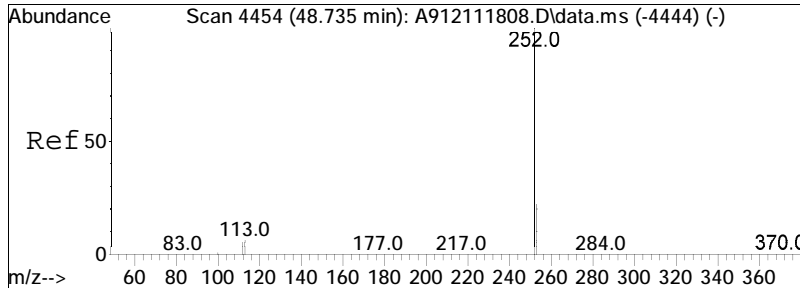




#90
 Benzo[a]pyrene
 Concen: 18.49 ng/mL M4
 RT: 48.415 min Scan# 4419
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

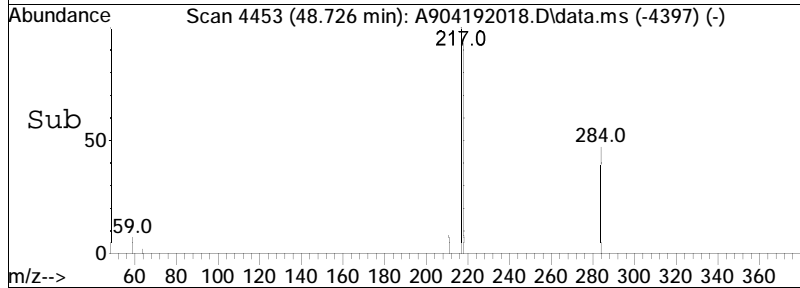
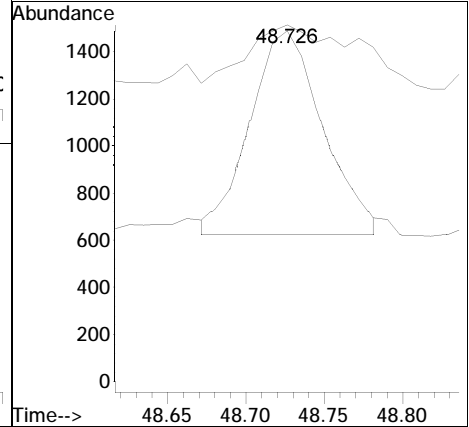
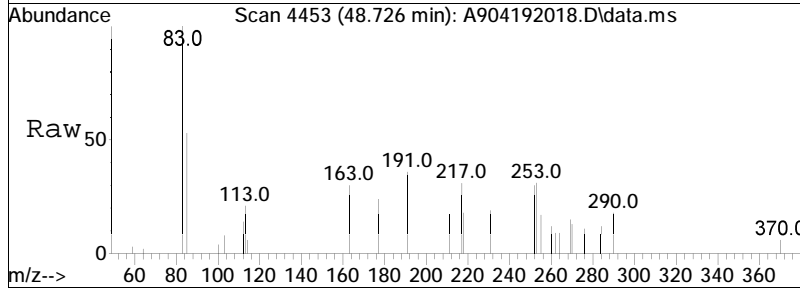
Tgt Ion	Ratio	Lower	Upper
252	100		
253	81.6	19.2	35.6#

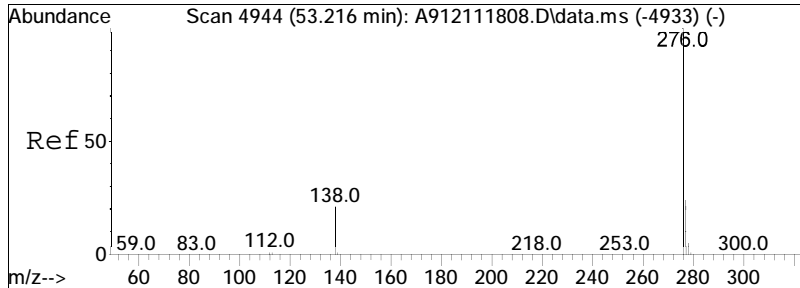




#91
 Perylene
 Concen: 19.14 ng/mL M4
 RT: 48.726 min Scan# 4453
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

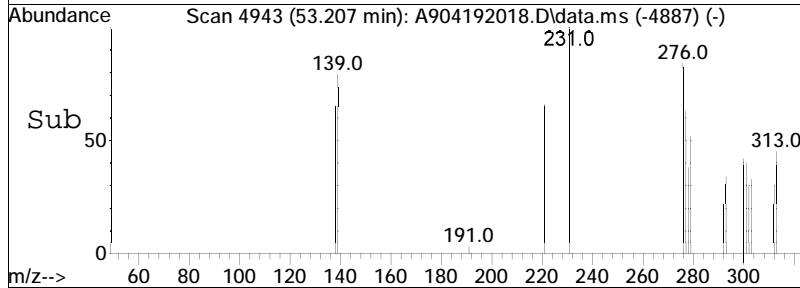
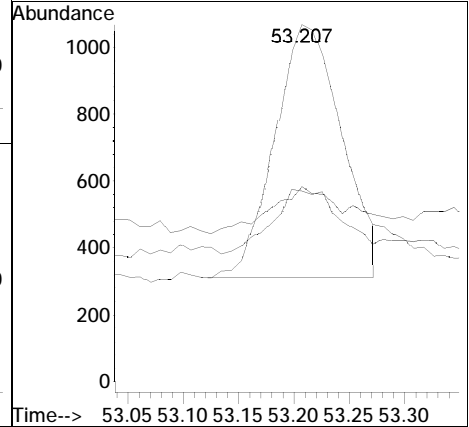
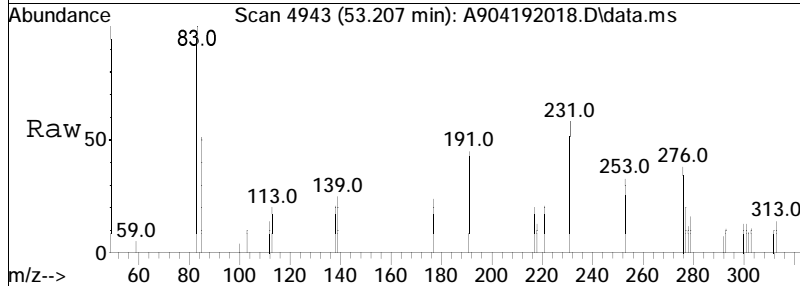
Tgt Ion	252	253	Resp	Lower	Upper
Ion Ratio	100	46.9	2804	19.9	36.9#

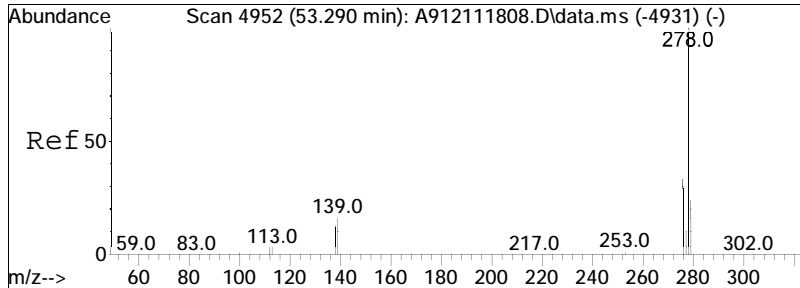




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 17.26 ng/mL M3
 RT: 53.207 min Scan# 4943
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

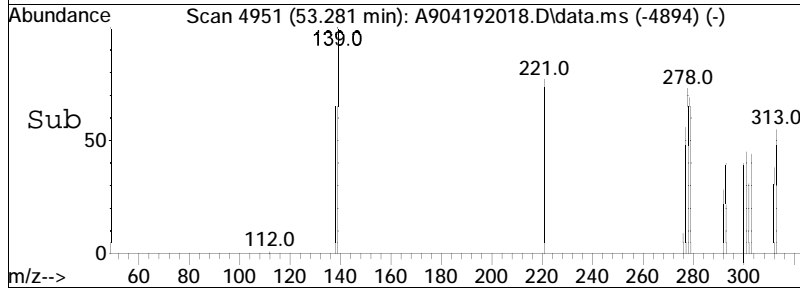
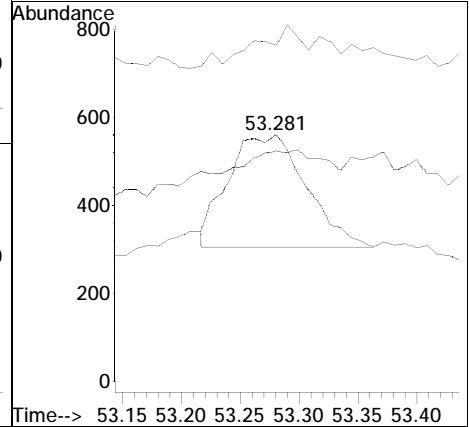
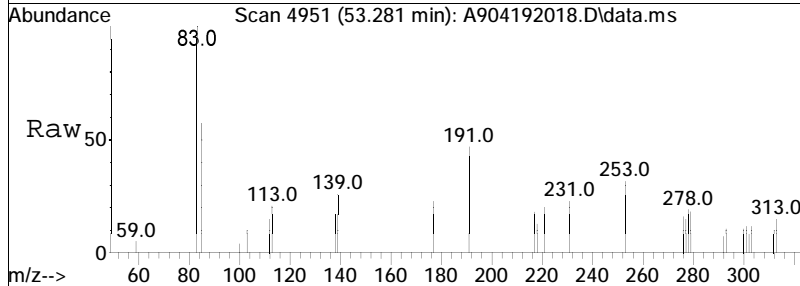
Tgt Ion	Ratio	Lower	Upper
276	100		
138	0.0	12.2	22.6#
277	0.0	18.6	34.6#

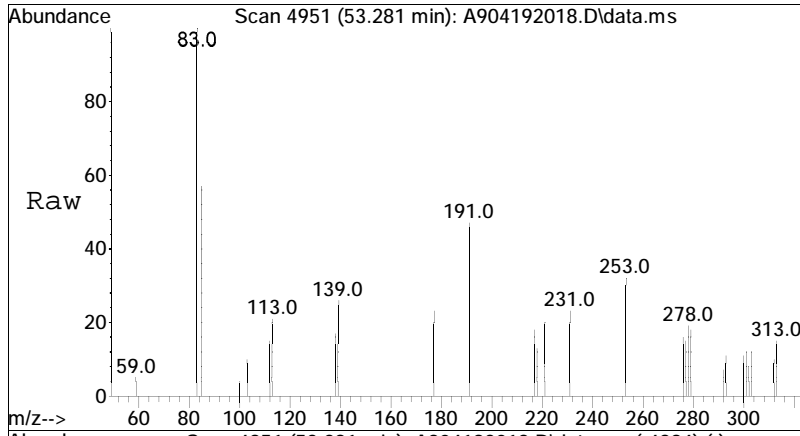




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 7.40 ng/mL
 RT: 53.281 min Scan# 4951
 Delta R.T. 0.018 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

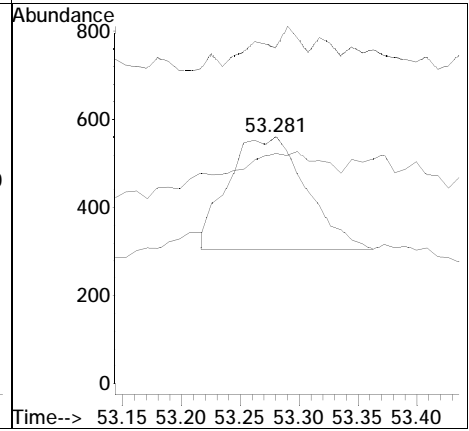
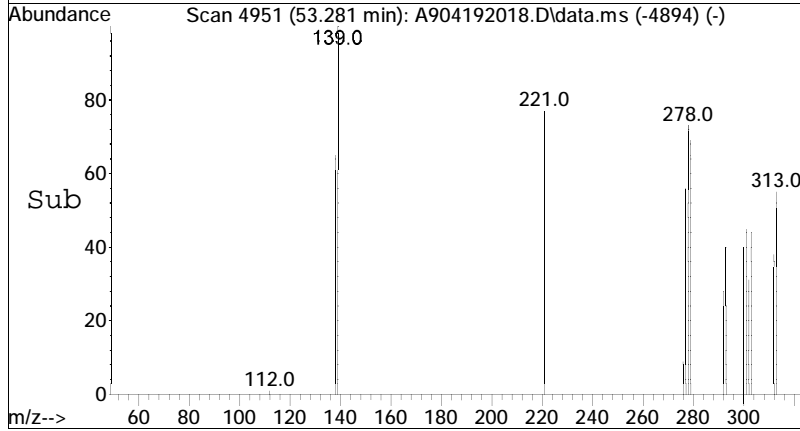
Tgt Ion	Resp	Lower	Upper
278	100		
139	0.0	8.3	15.5#
279	0.0	16.8	31.2#

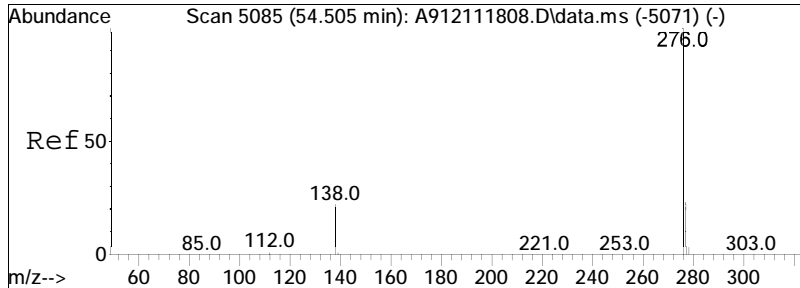




#94
 Dibenz[a,h]anthracene
 Concen: 7.40 ng/mL
 RT: 53.281 min Scan# 4951
 Delta R.T. 0.018 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

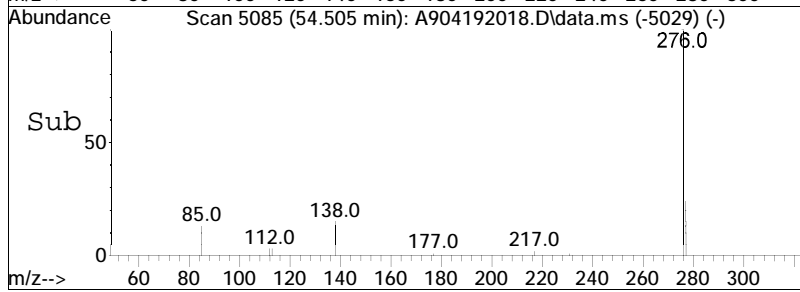
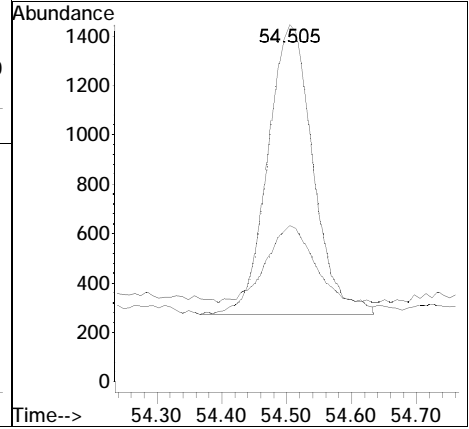
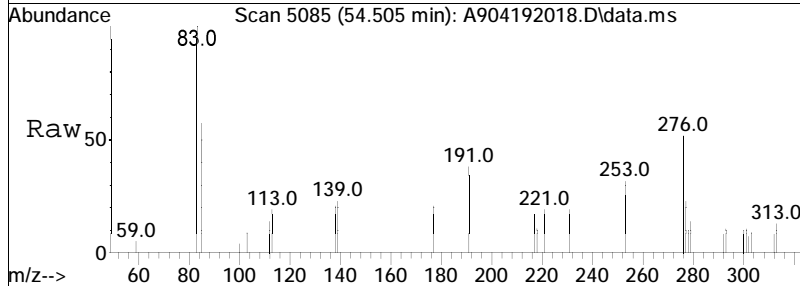
Tgt Ion	Resp	Lower	Upper
278	100		
139	0.0	8.3	15.5#
279	0.0	16.8	31.2#

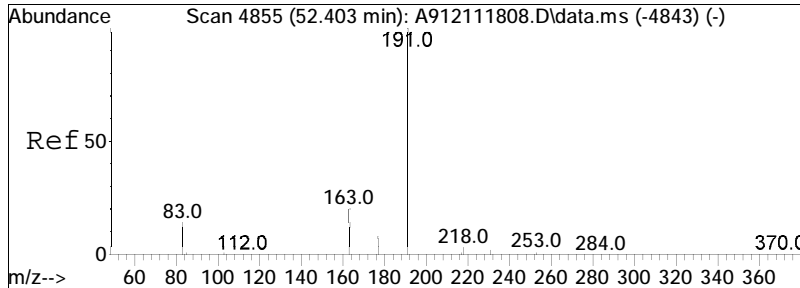




#95
 Benzo[g,h,i]perylene
 Concen: 29.92 ng/mL
 RT: 54.505 min Scan# 5085
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

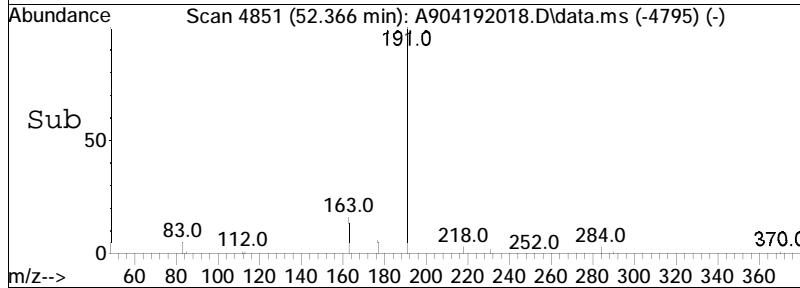
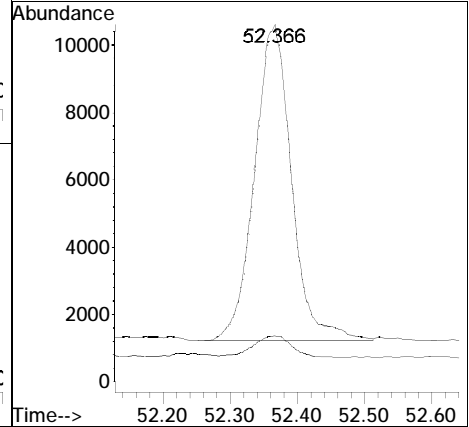
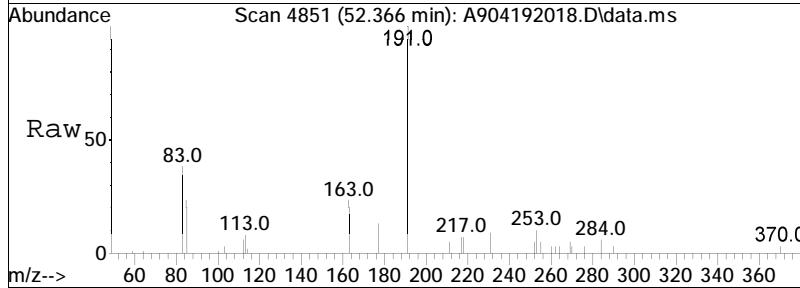
Tgt Ion	Resp	Lower	Upper
276	100		
277	27.7	17.4	32.2

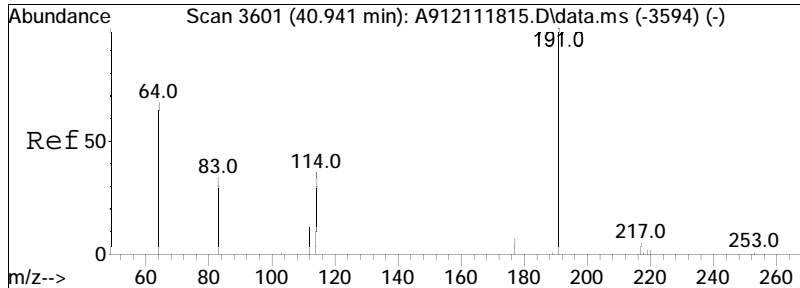




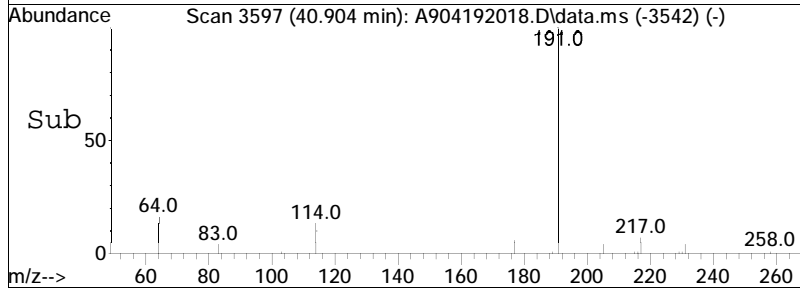
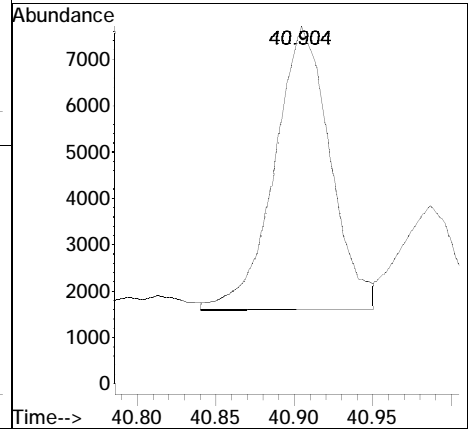
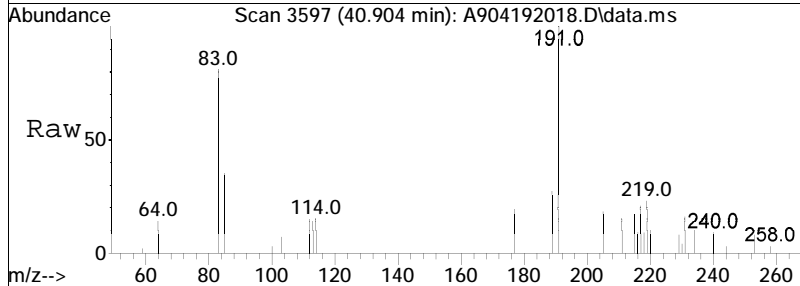
#96
 Hopane (T19)
 Concen: 746.94 ng/mL
 RT: 52.366 min Scan# 4851
 Delta R.T. 0.009 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

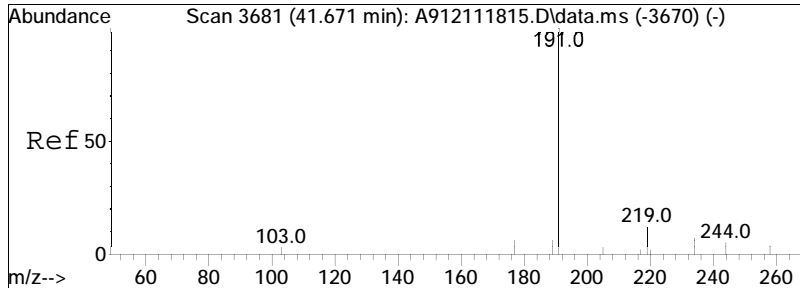
Tgt Ion	Resp	Lower	Upper
191	100		
177	7.1	17.2	32.0#



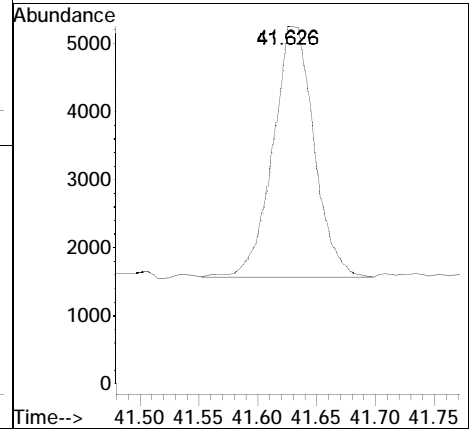
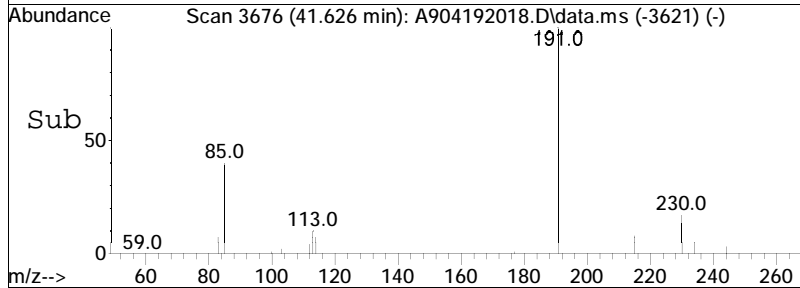
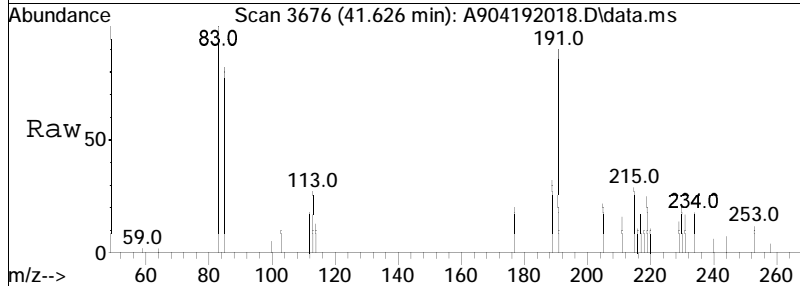


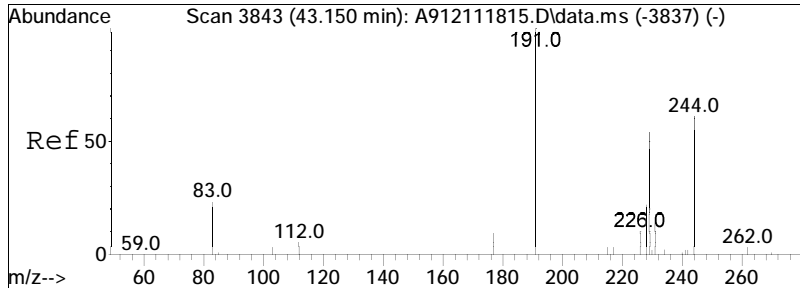
#97
 C23 Tricyclic Terpane (T4)
 Concen: 317.55 ng/ml
 RT: 40.904 min Scan# 3597
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 15094



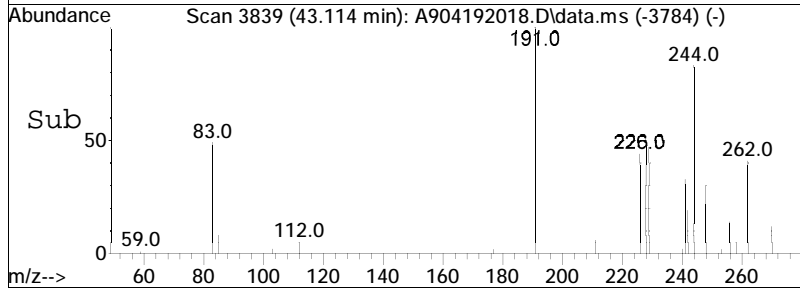
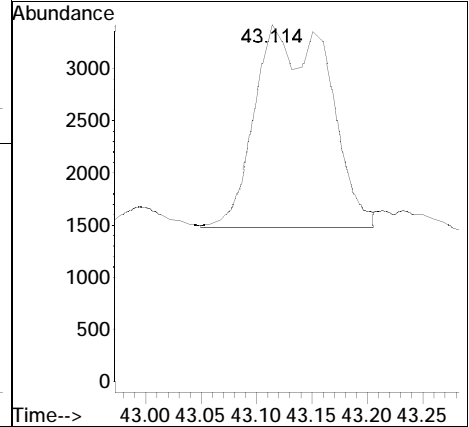
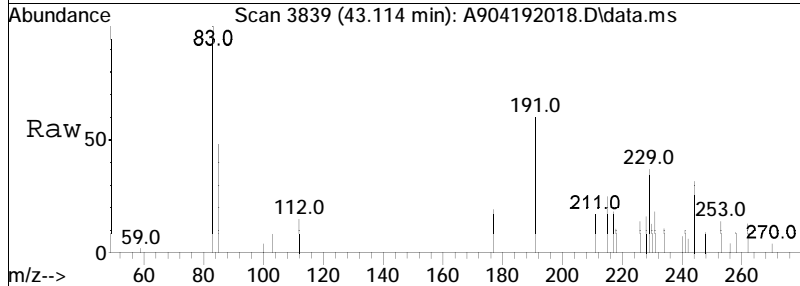


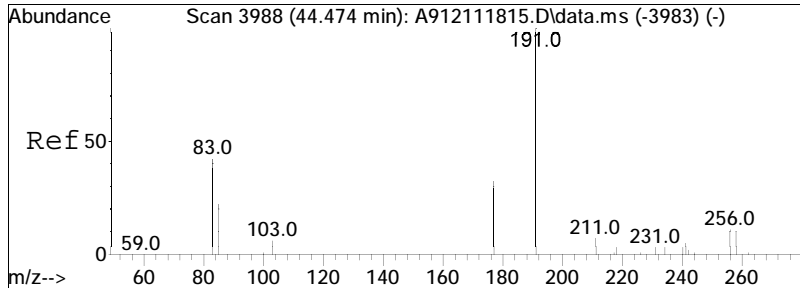
#98
 C24 Tricyclic Terpane (T5)
 Concen: 186.95 ng/ml
 RT: 41.626 min Scan# 3676
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 8886



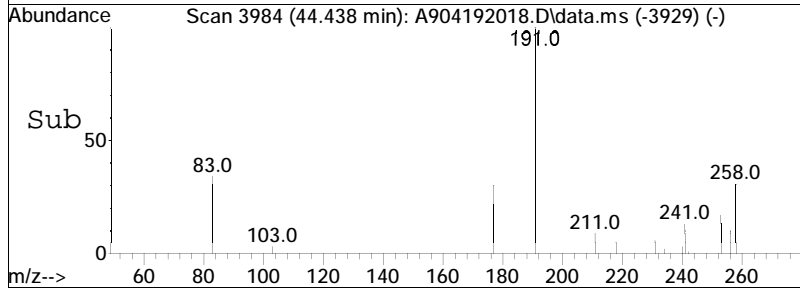
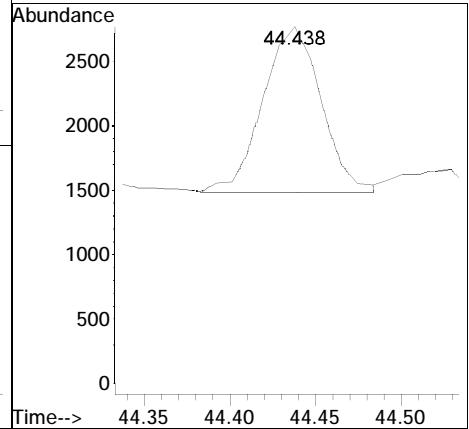
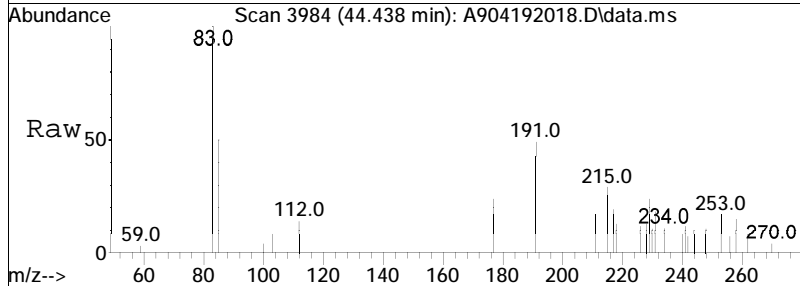


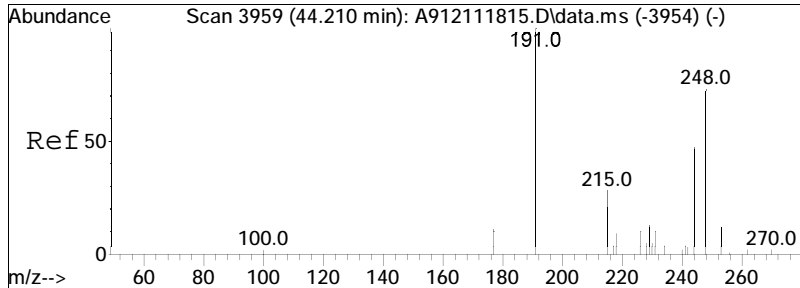
#99
 C25 Tricyclic Terpene (T6)
 Concen: 186.23 ng/ml M4
 RT: 43.114 min Scan# 3839
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 8852



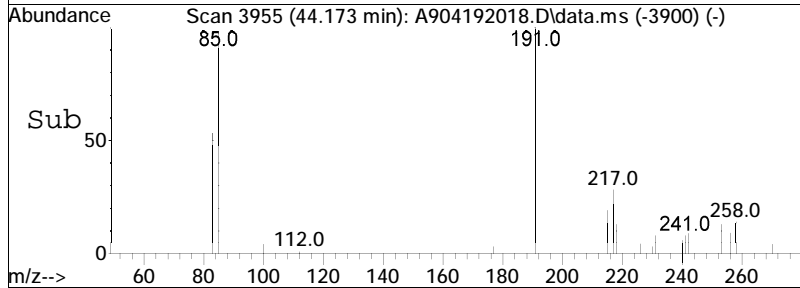
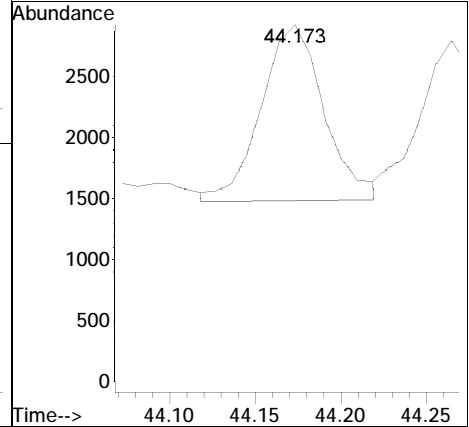
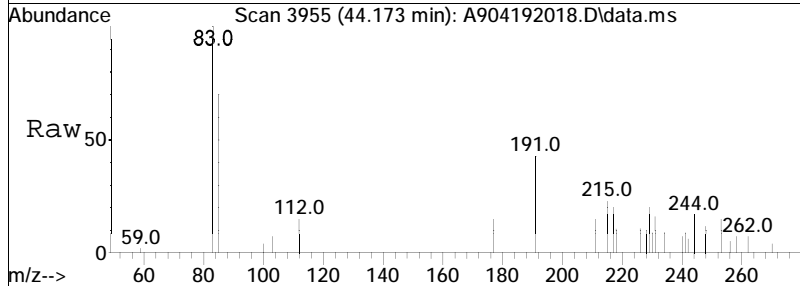


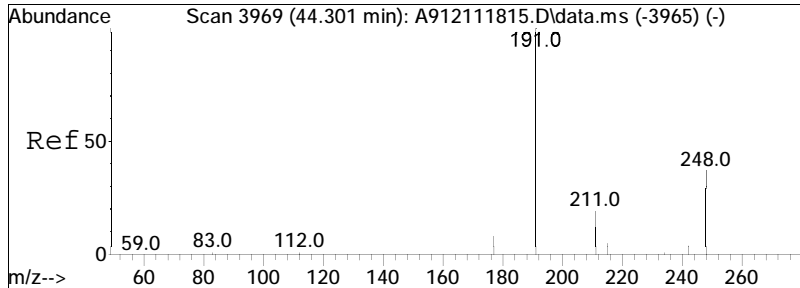
#100
 C24 Tetracyclic Terpene (T6a)
 Concen: 63.77 ng/ml
 RT: 44.438 min Scan# 3984
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3031



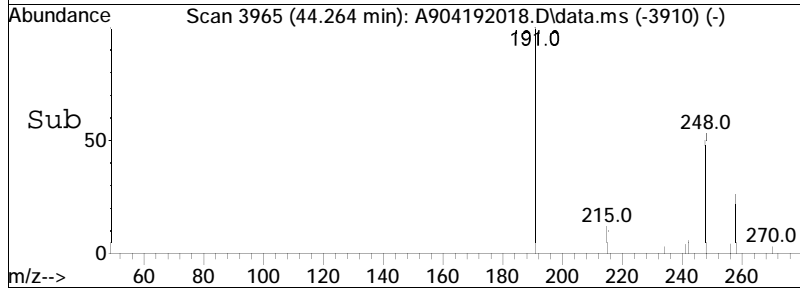
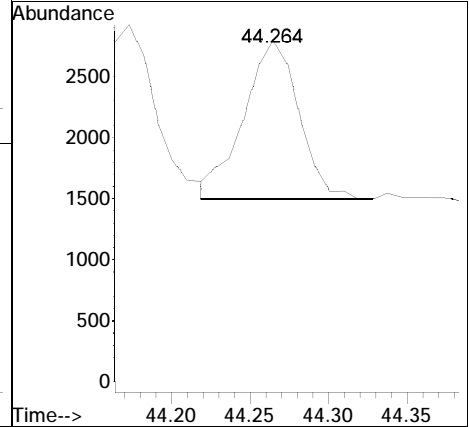
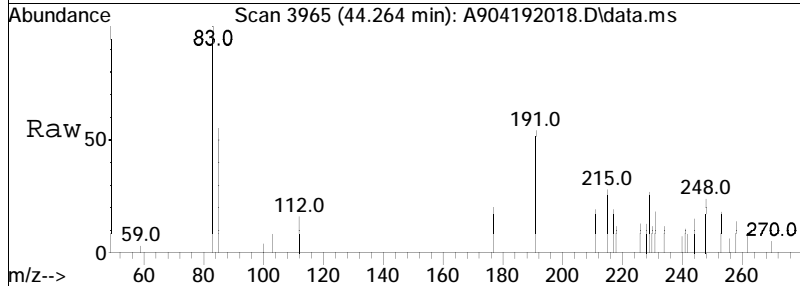


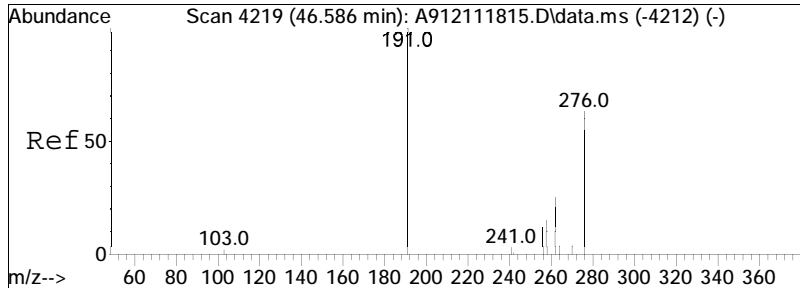
#101
 C26 Tricyclic Terpene-22S (T6b)
 Concen: 77.21 ng/ml
 RT: 44.173 min Scan# 3955
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3670



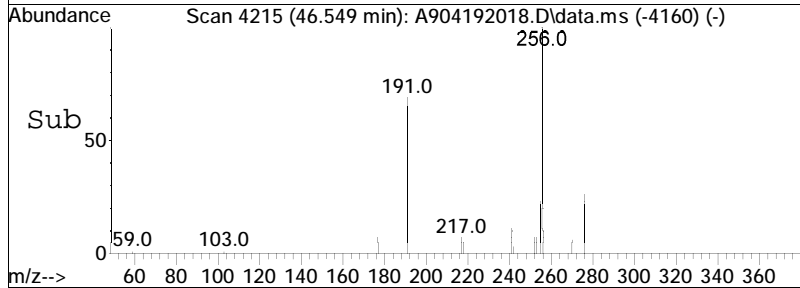
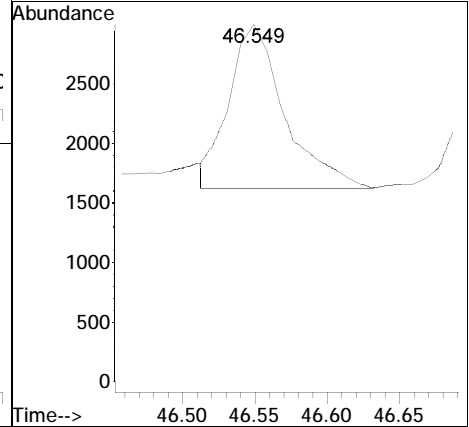
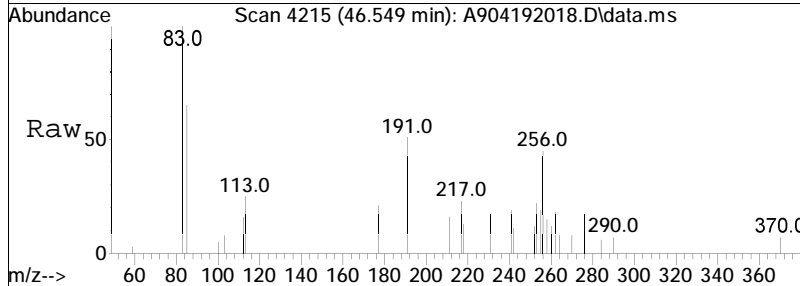


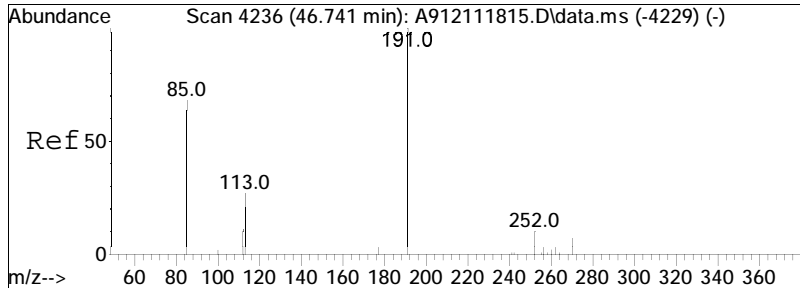
#102
 C26 Tricyclic Terpene-22R (T6c
 Concen: 66.31 ng/ml
 RT: 44.264 min Scan# 3965
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3152



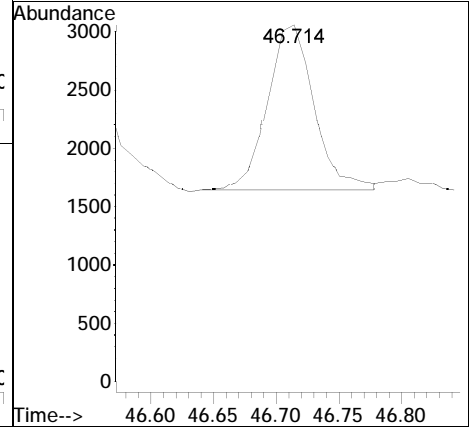
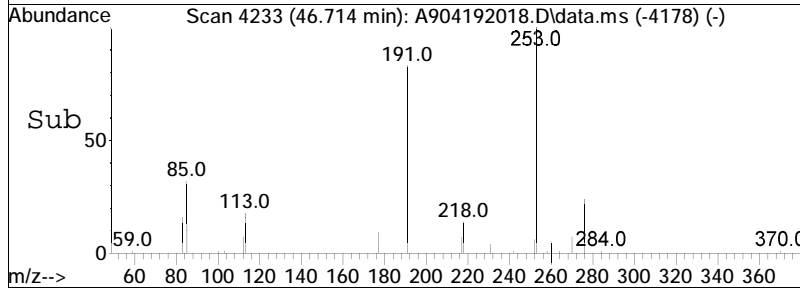
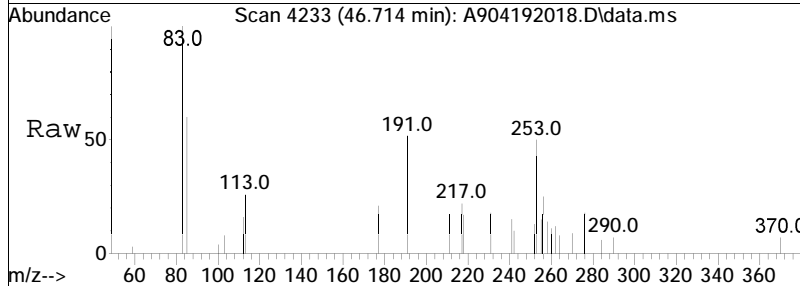


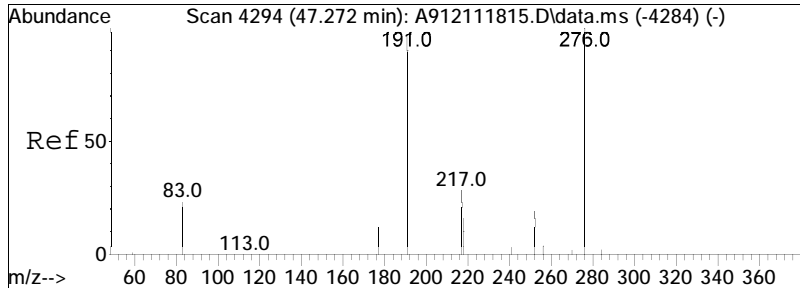
#103
 C28 Tricyclic Terpane-22S (T7)
 Concen: 77.48 ng/ml M4
 RT: 46.549 min Scan# 4215
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3683



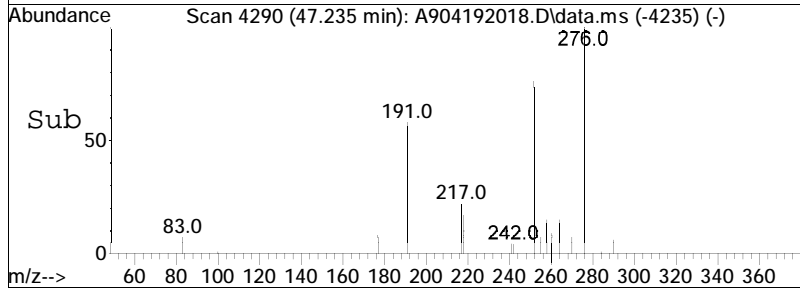
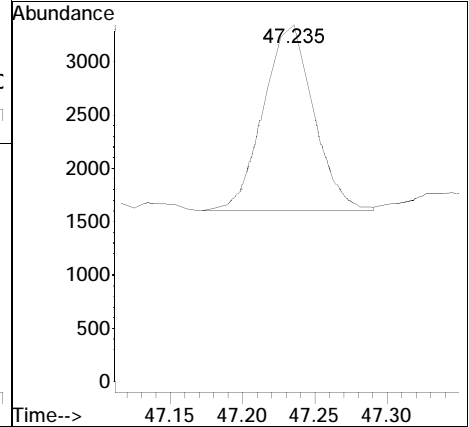
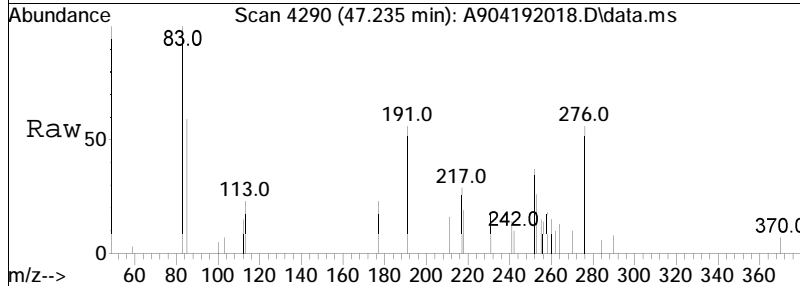


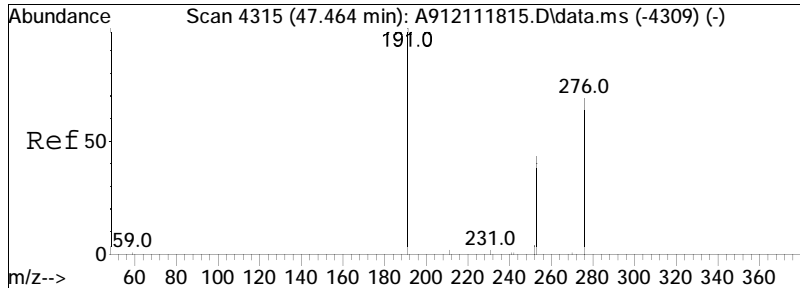
#104
 C28 Tricyclic Terpene-22R (T8)
 Concen: 77.02 ng/ml
 RT: 46.714 min Scan# 4233
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3661



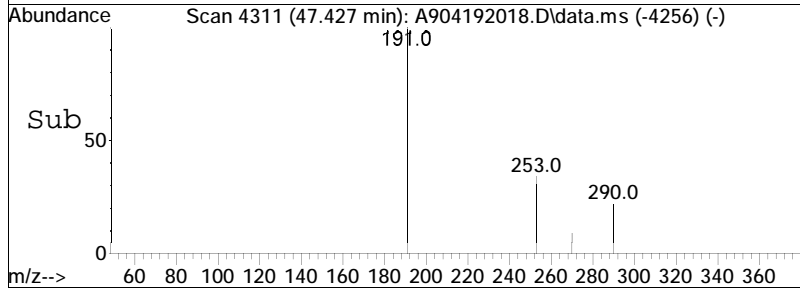
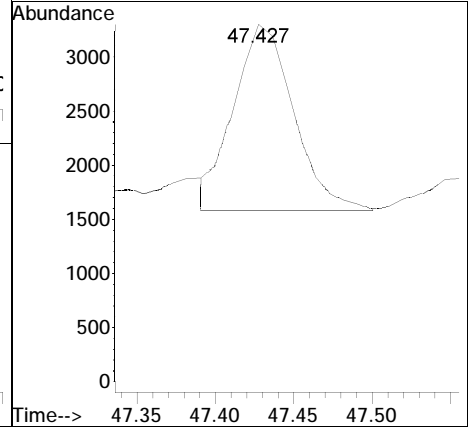
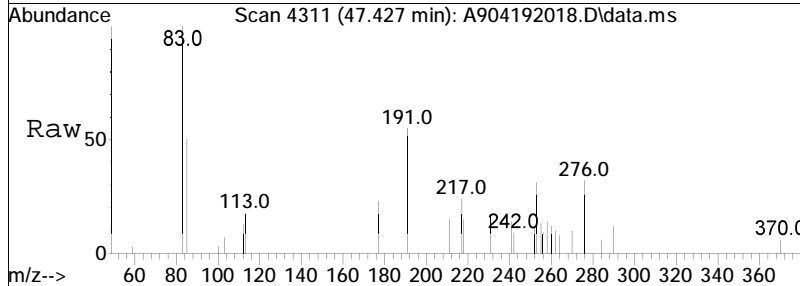


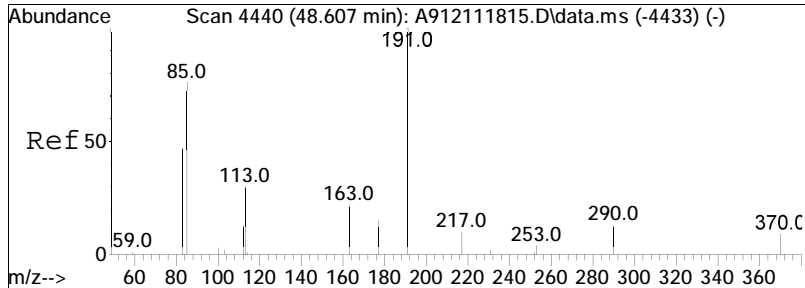
#105
 C29 Tricyclic Terpene-22S (T9)
 Concen: 87.96 ng/ml
 RT: 47.235 min Scan# 4290
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 4181



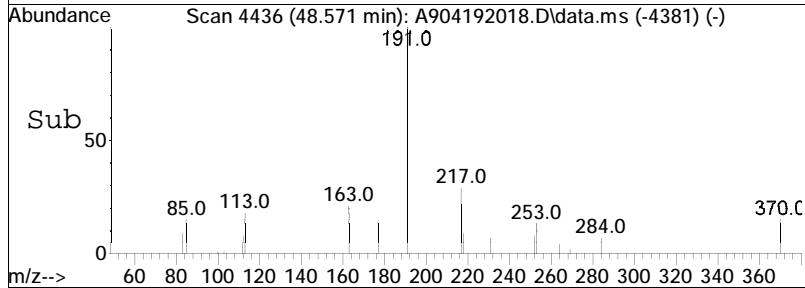
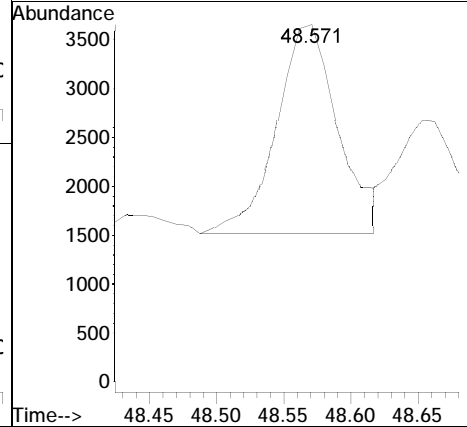
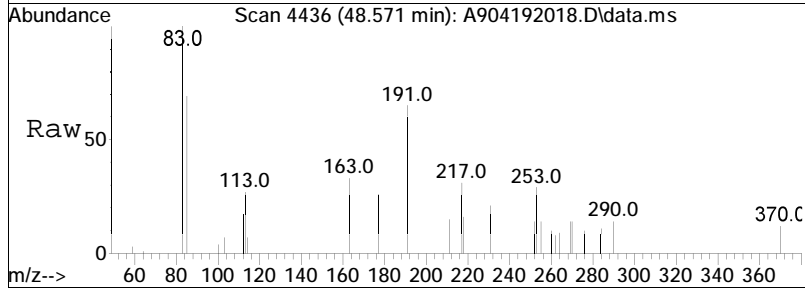


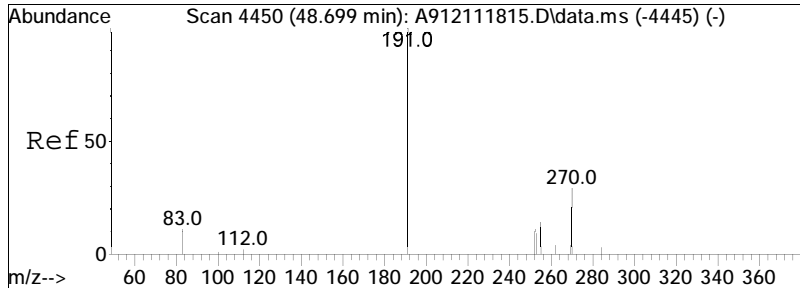
#106
 C29 Tricyclic Terpene-22R (T10)
 Concen: 95.85 ng/ml M4
 RT: 47.427 min Scan# 4311
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 4556



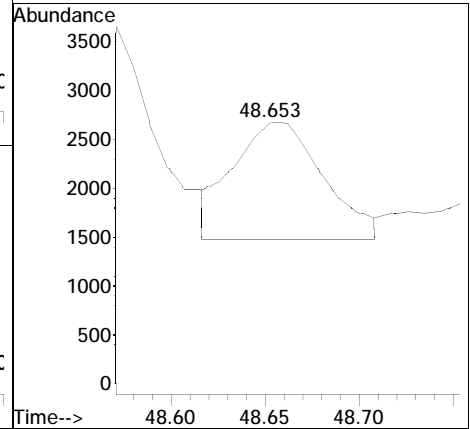
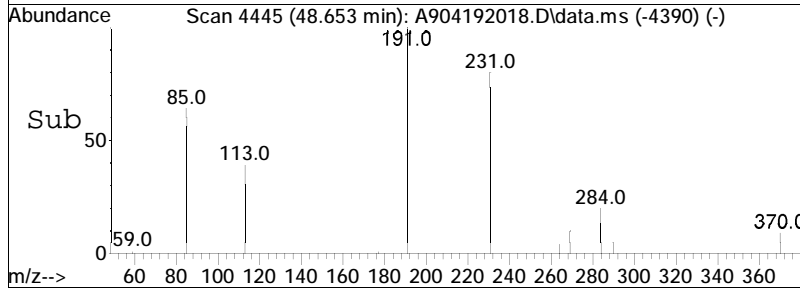
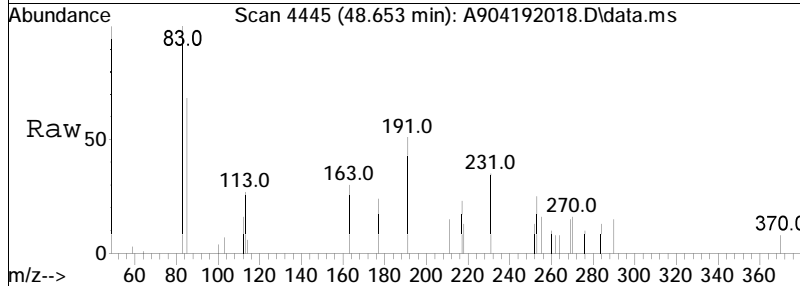


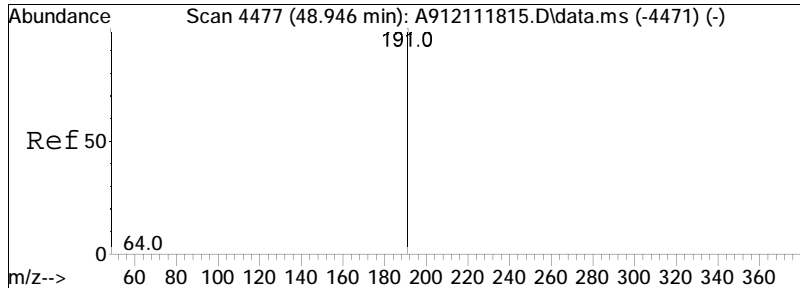
#107
 18a-22,29,30-Trisnorneohopane-
 Concen: 143.61 ng/ml
 RT: 48.571 min Scan# 4436
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 6826





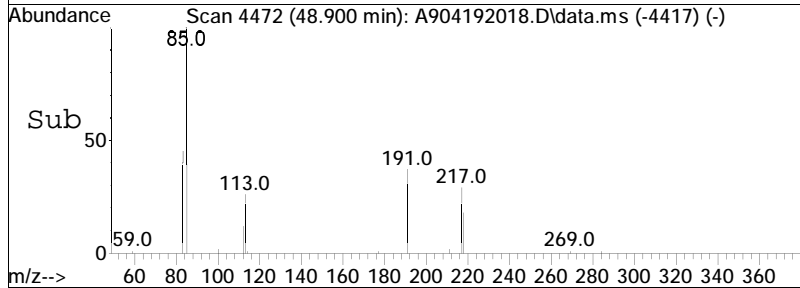
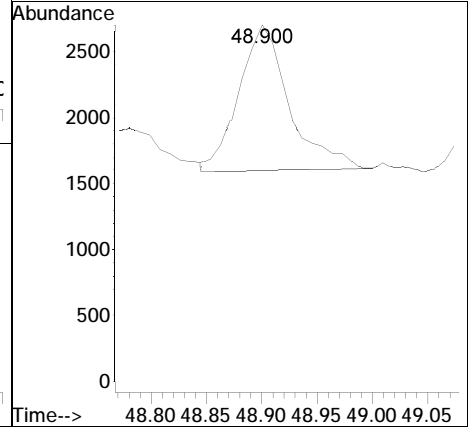
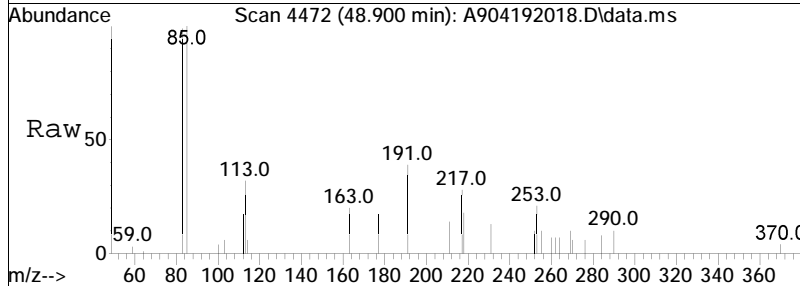
#108
 C30 Tricyclic Terpene-22S
 Concen: 84.07 ng/mL M4
 RT: 48.653 min Scan# 4445
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3996

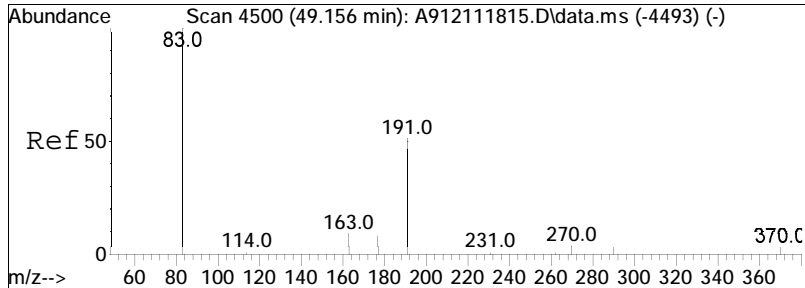




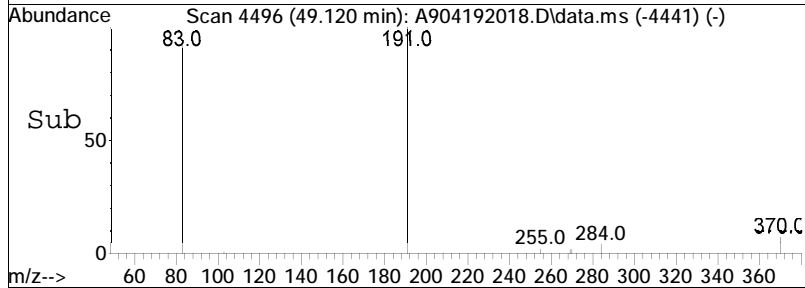
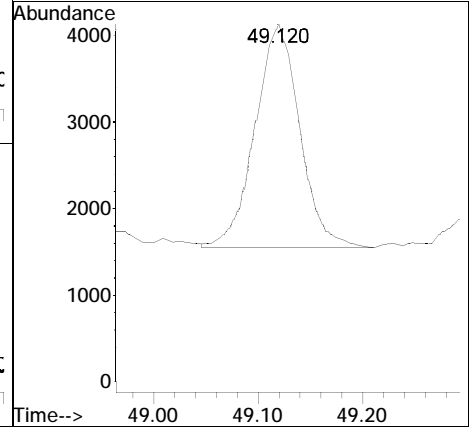
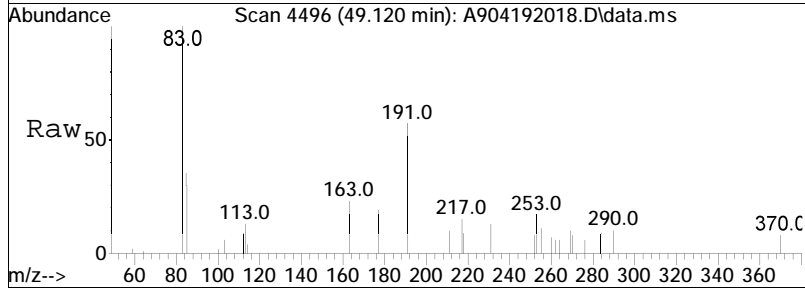
#109
 C30 Tricyclic Terpene-22R
 Concen: 73.99 ng/mL
 RT: 48.900 min Scan# 4472
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

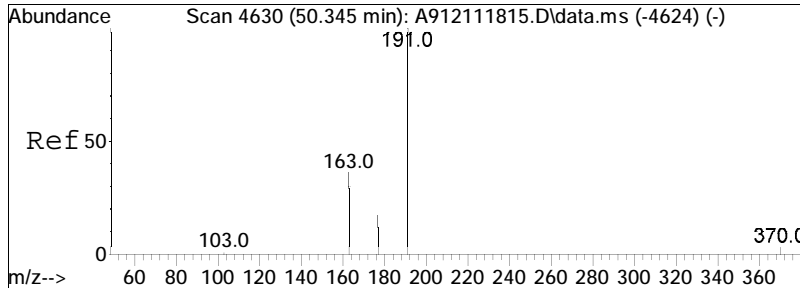
Tgt Ion:191 Resp: 3517



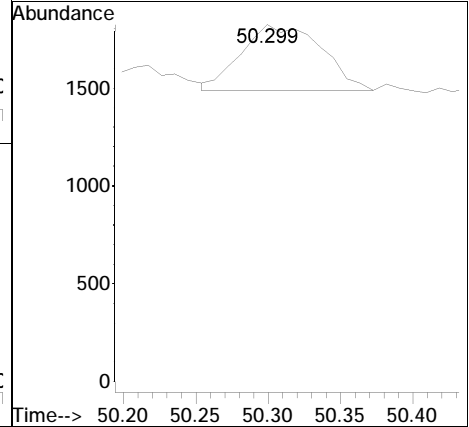
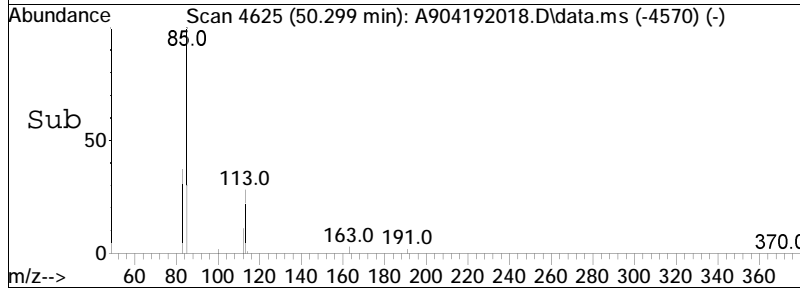
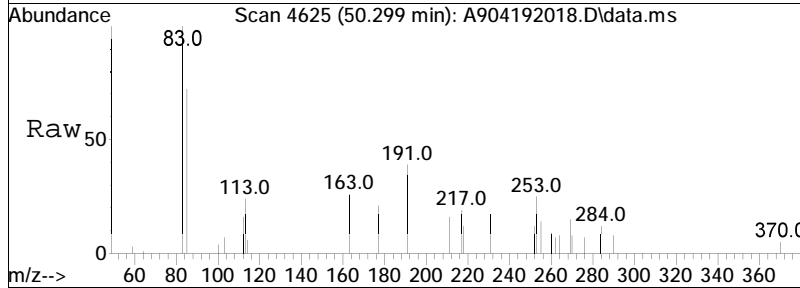


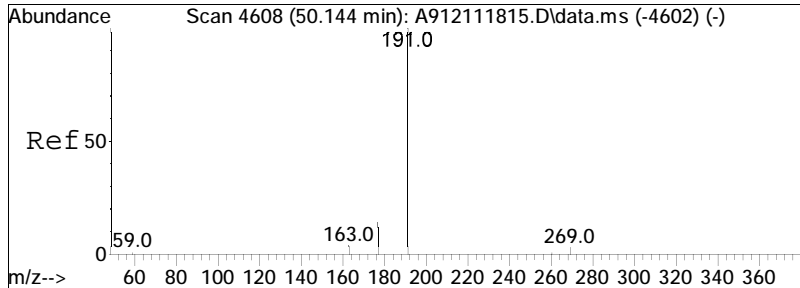
#110
 17a(H)-22,29,30-Trisnorhopane-
 Concen: 160.50 ng/ml
 RT: 49.120 min Scan# 4496
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 7629



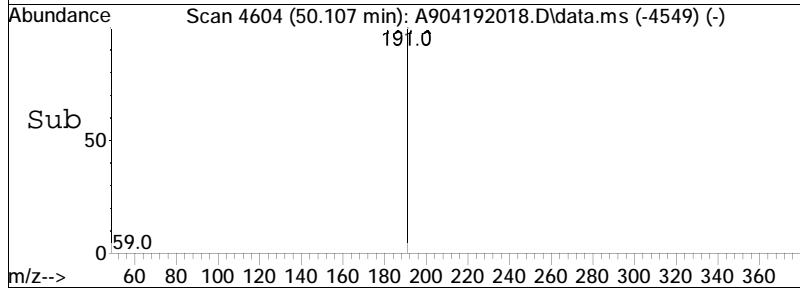
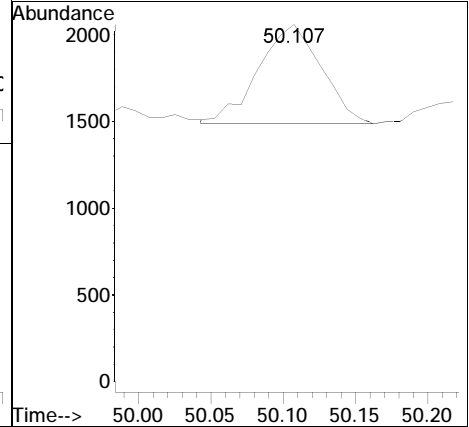
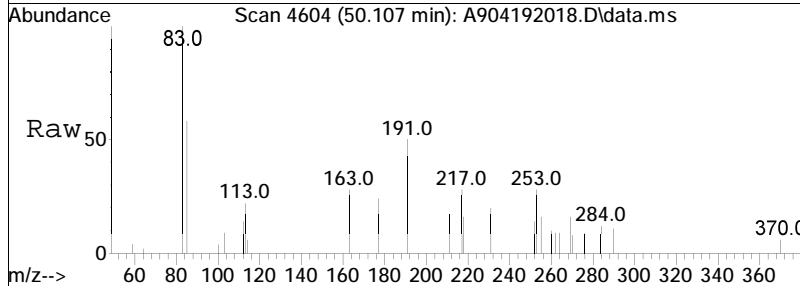


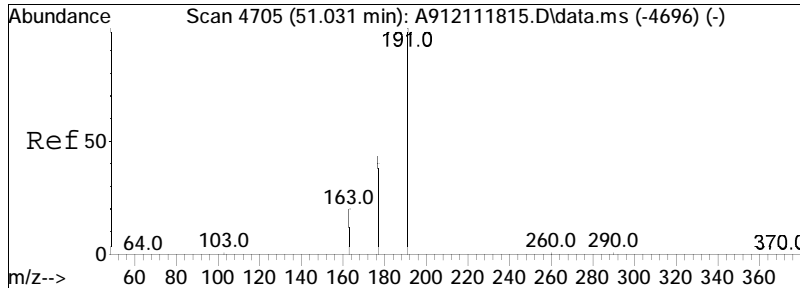
#111
 17a/b,21b/a 28,30-Bisnorhopane
 Concen: 26.80 ng/ml
 RT: 50.299 min Scan# 4625
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 1274



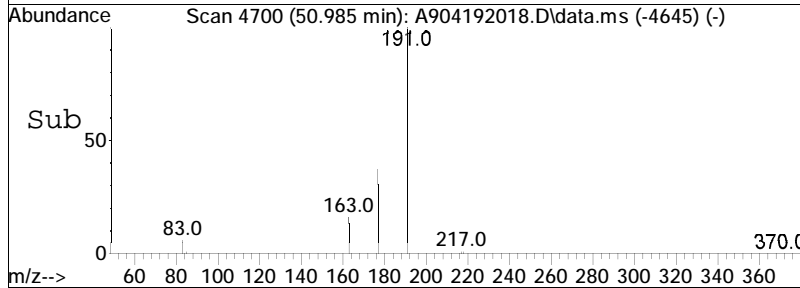
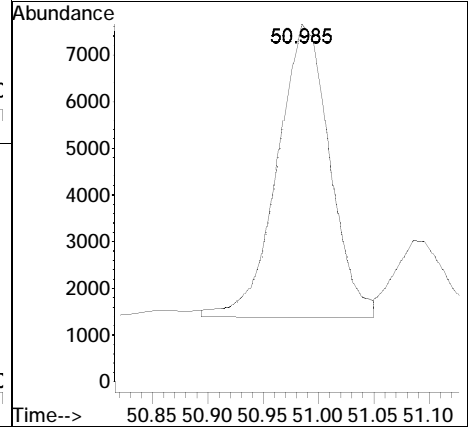
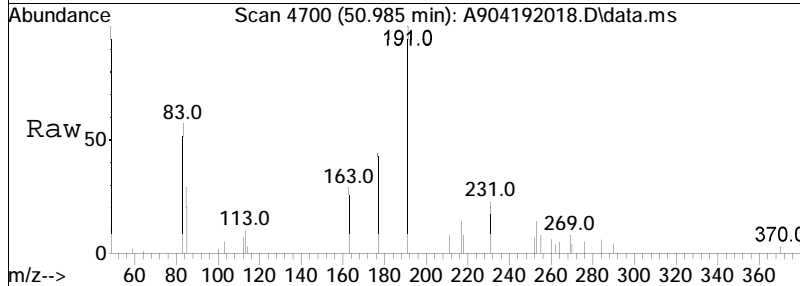


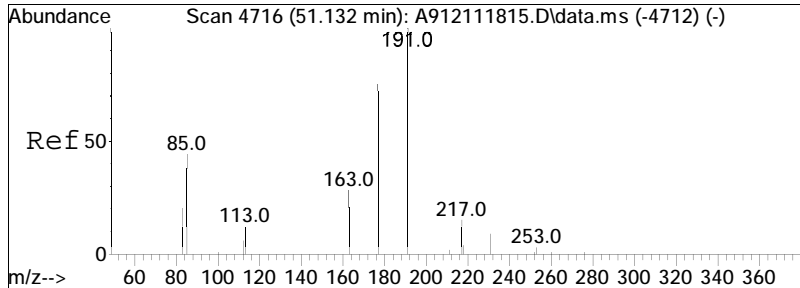
#112
 17a(H),21b(H)-25-Norhopane (T1
 Concen: 36.42 ng/ml
 RT: 50.107 min Scan# 4604
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 1731



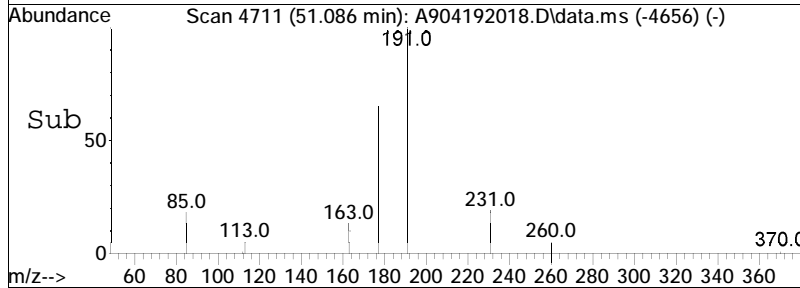
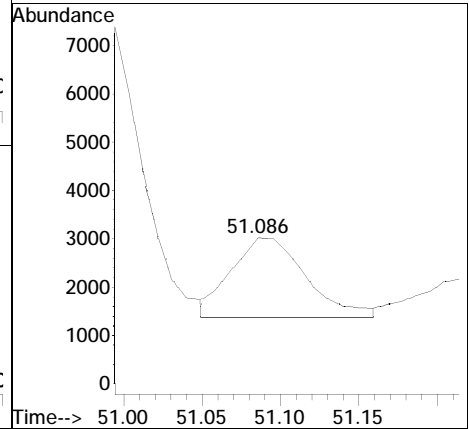
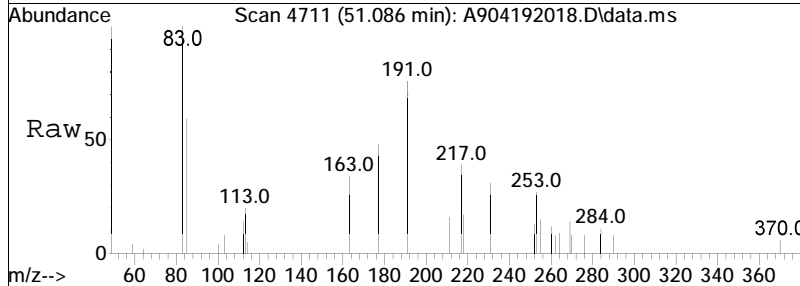


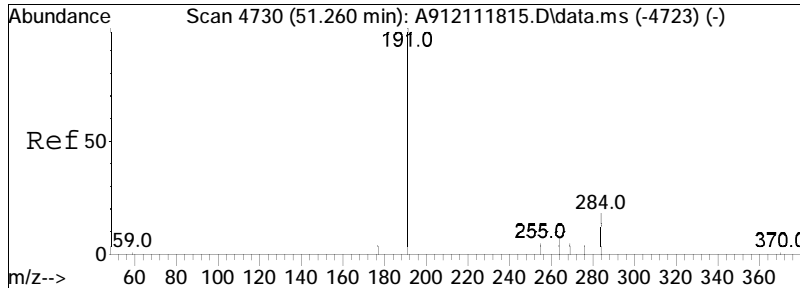
#113
 30-Norhopane (T15)
 Concen: 434.23 ng/ml
 RT: 50.985 min Scan# 4700
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 20640



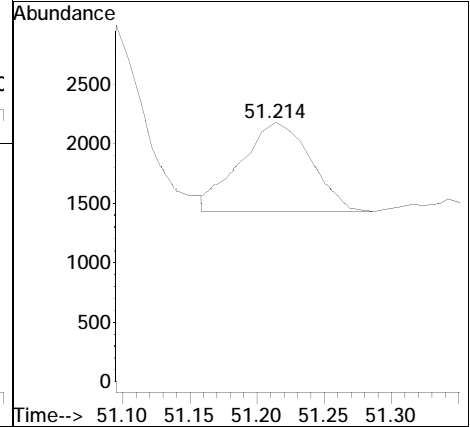
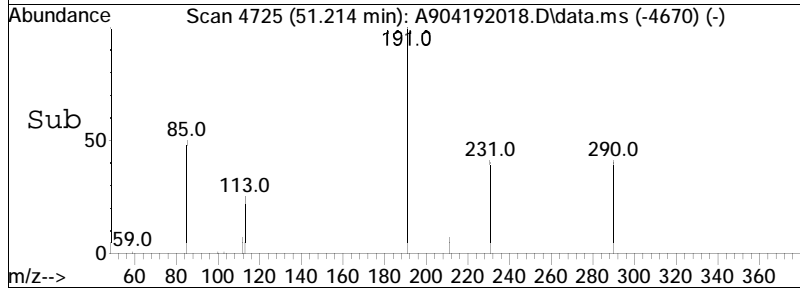
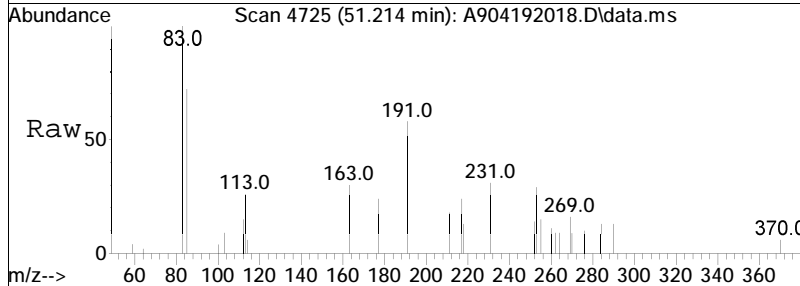


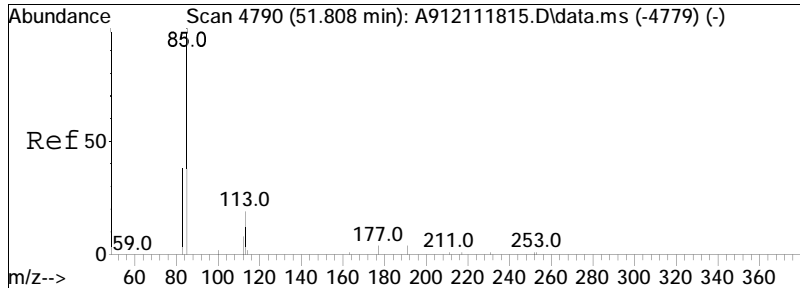
#114
 18a(H)-30-Norneohopane-C29Ts (
 Concen: 113.35 ng/ml M4
 RT: 51.086 min Scan# 4711
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 5388



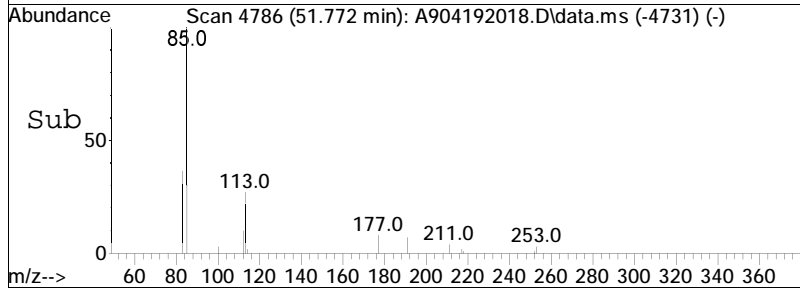
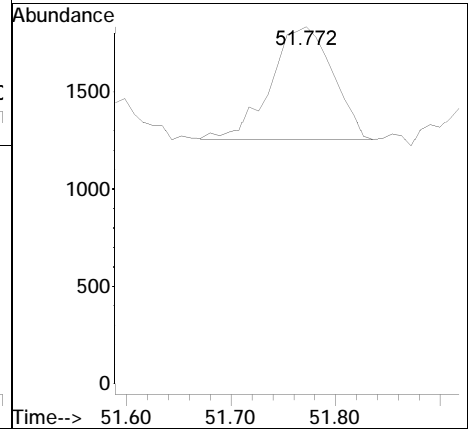
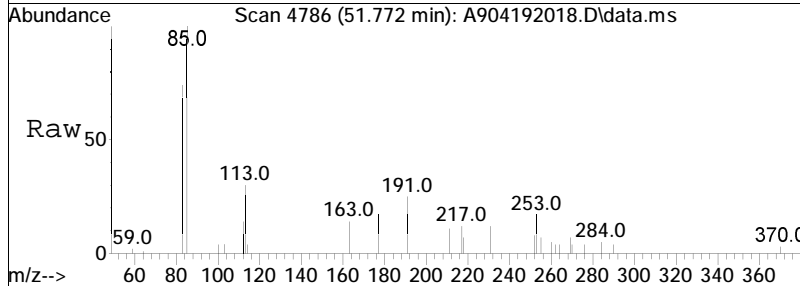


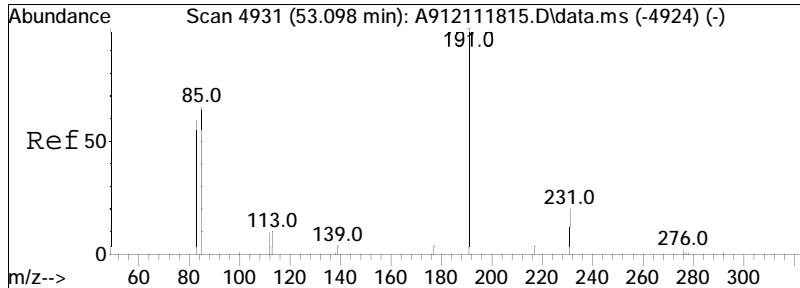
#115
 17a(H)-Diahopane (X)
 Concen: 56.61 ng/ml
 RT: 51.214 min Scan# 4725
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 2691



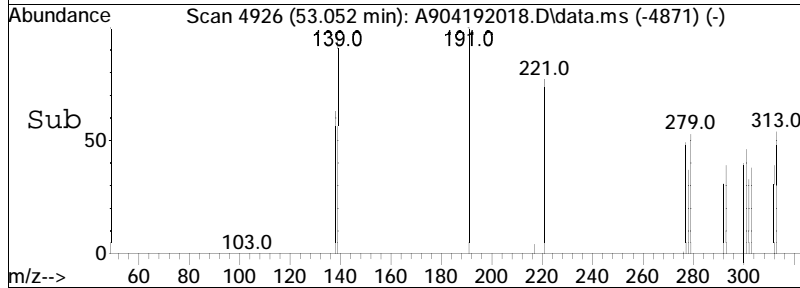
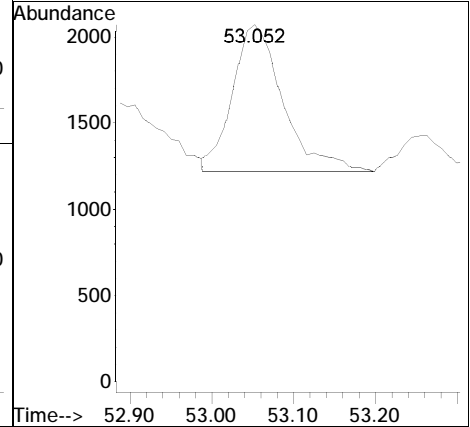
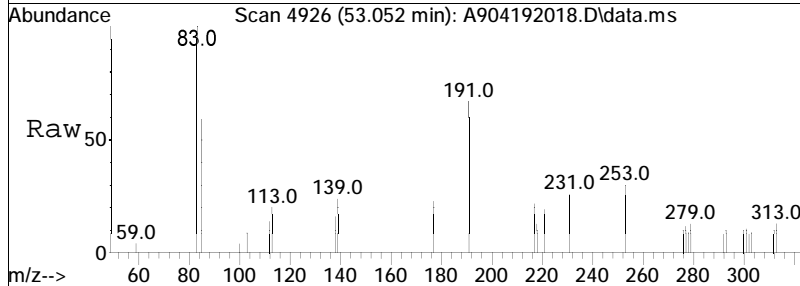


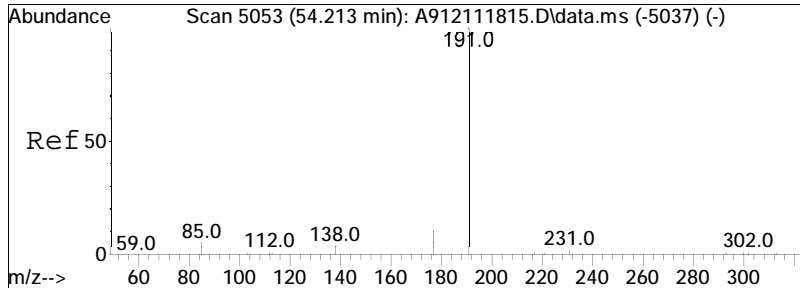
#116
 30-Normoretane (T17)
 Concen: 49.92 ng/ml
 RT: 51.772 min Scan# 4786
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 2373



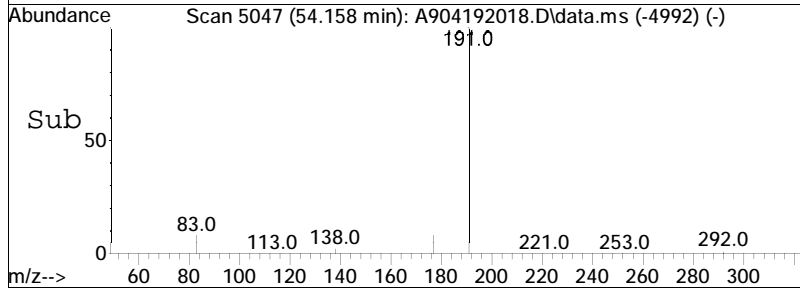
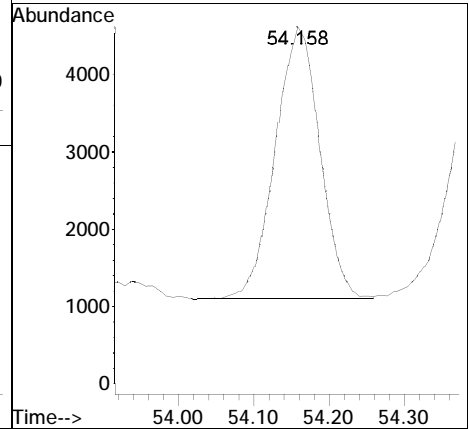
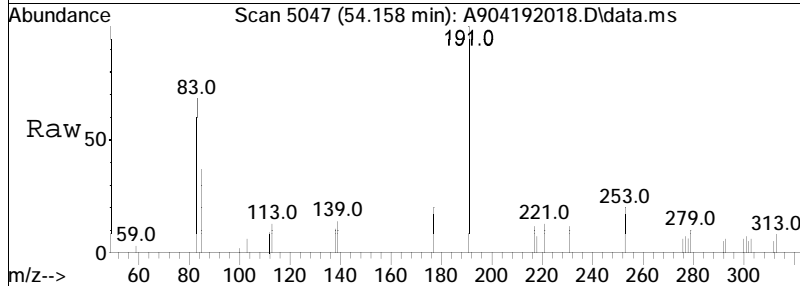


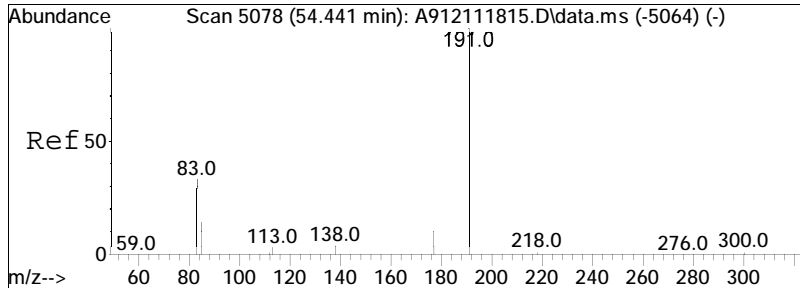
#118
 Moretane (T20)
 Concen: 76.68 ng/ml
 RT: 53.052 min Scan# 4926
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 3645



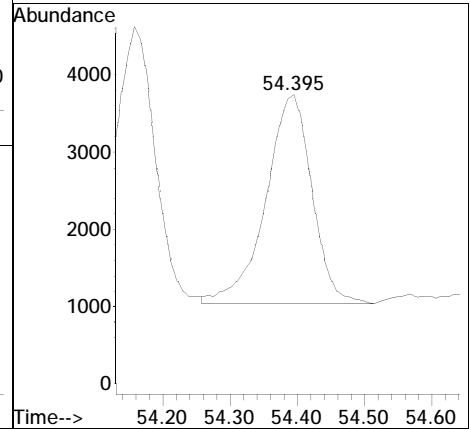
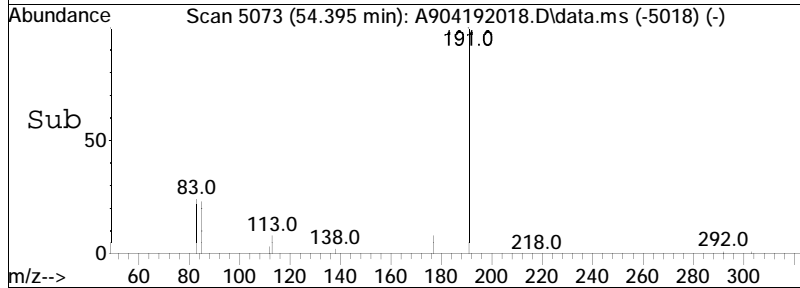
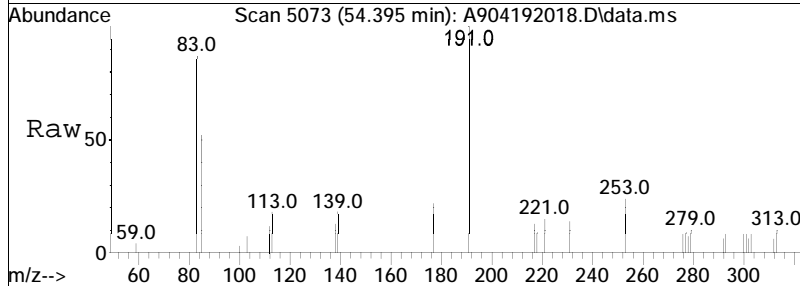


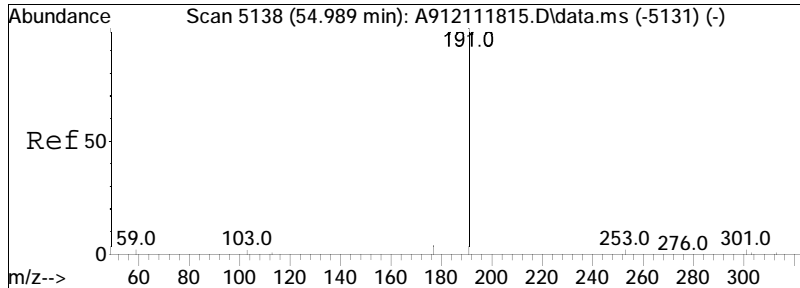
#119
 30-Homohopane-22S (T21)
 Concen: 306.02 ng/ml
 RT: 54.158 min Scan# 5047
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 14546



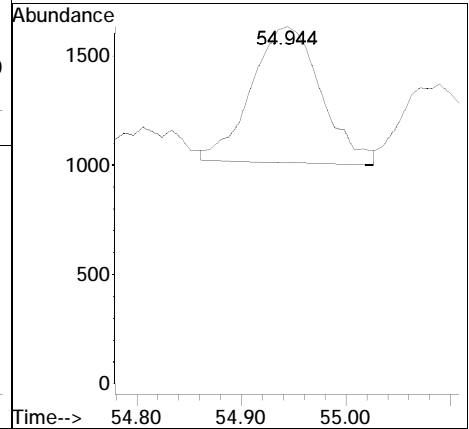
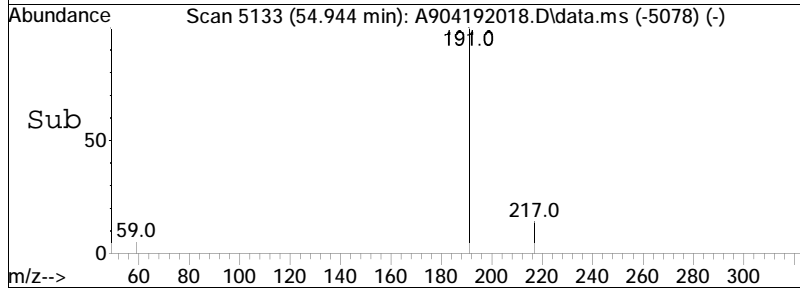
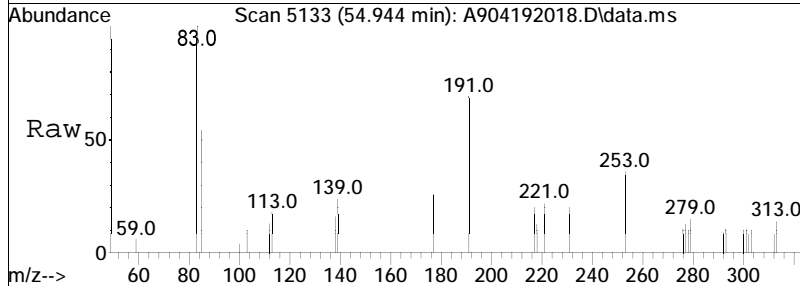


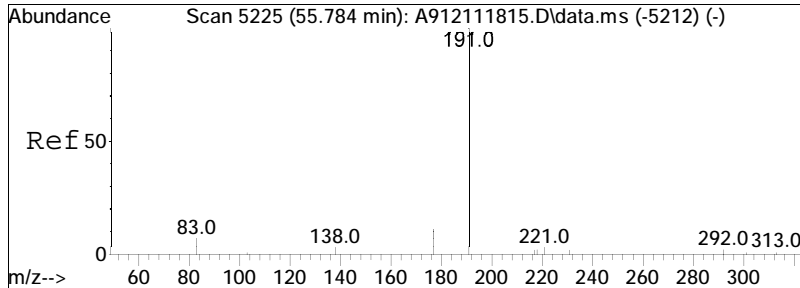
#120
 30-Homohopane-22R (T22)
 Concen: 269.63 ng/ml
 RT: 54.395 min Scan# 5073
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 12816



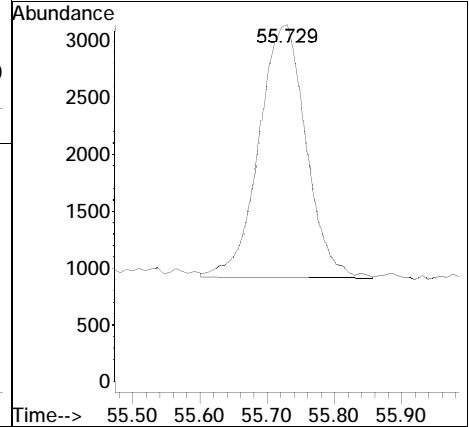
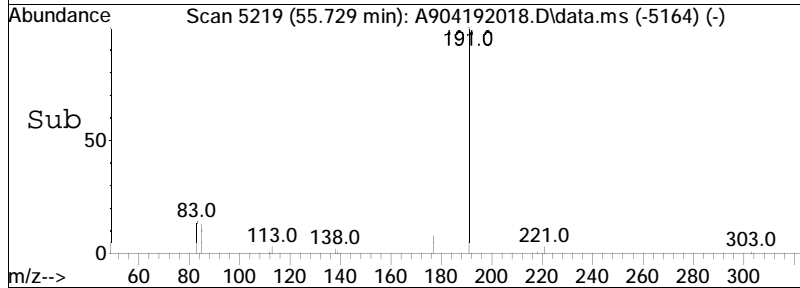
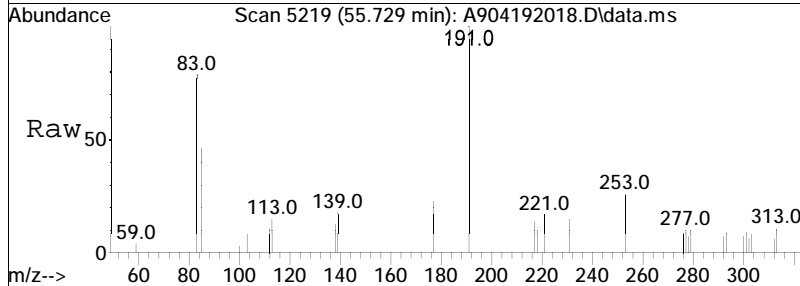


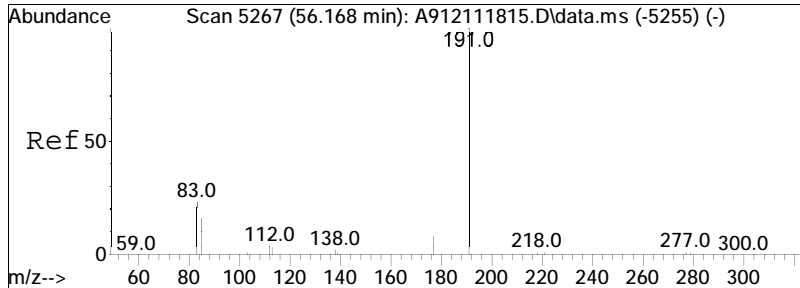
#121
 Gammacerane/C32-diahopane
 Concen: 60.13 ng/mL
 RT: 54.944 min Scan# 5133
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 2858



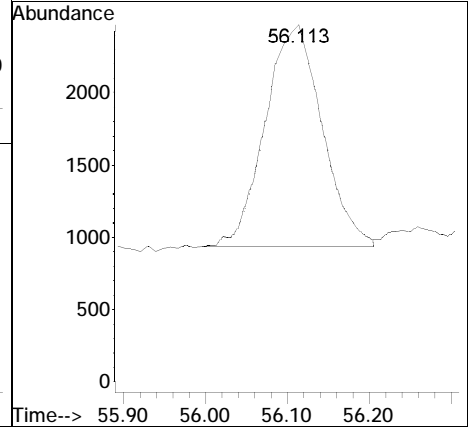
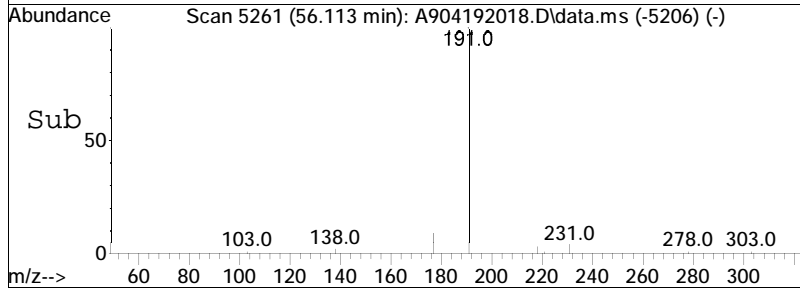
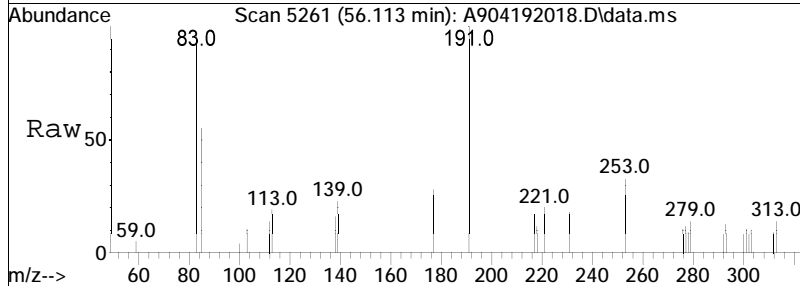


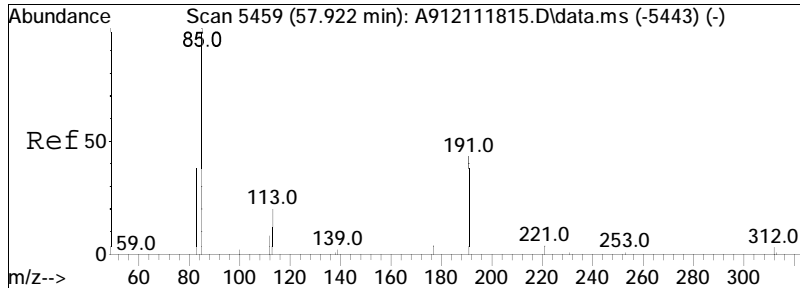
#122
 30,31-Bishomohopane-22S (T26)
 Concen: 225.24 ng/ml
 RT: 55.729 min Scan# 5219
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 10706



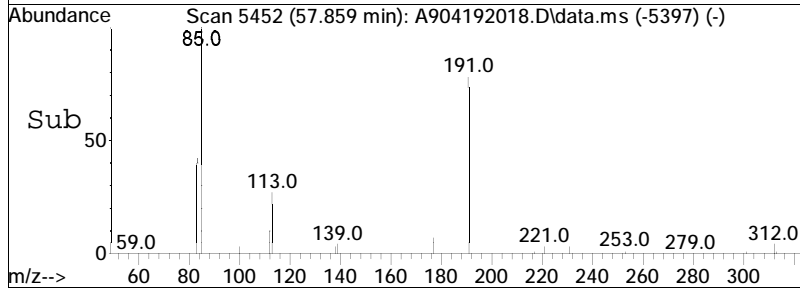
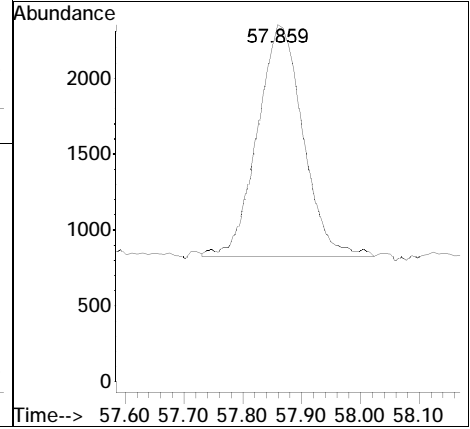
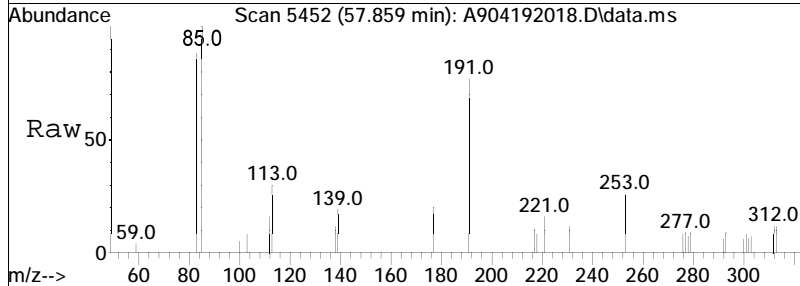


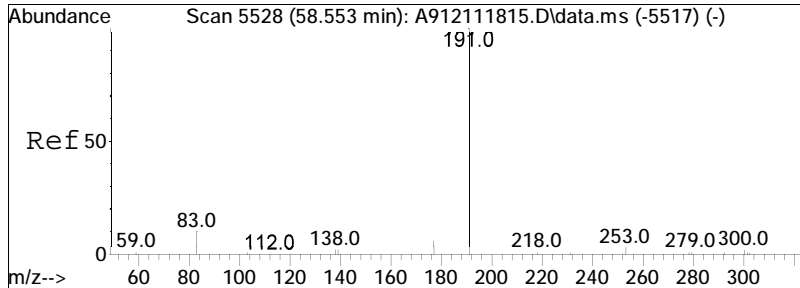
#123
 30,31-Bishomohopane-22R (T27)
 Concen: 156.92 ng/ml
 RT: 56.113 min Scan# 5261
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 7459



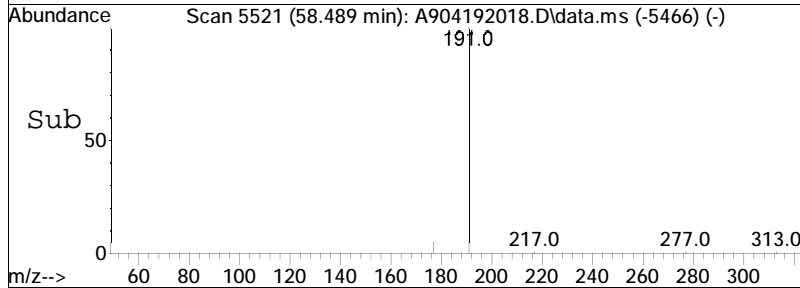
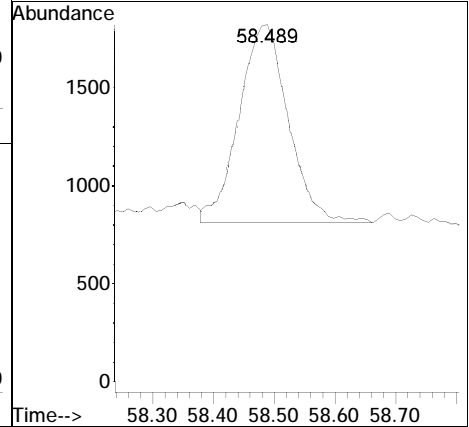
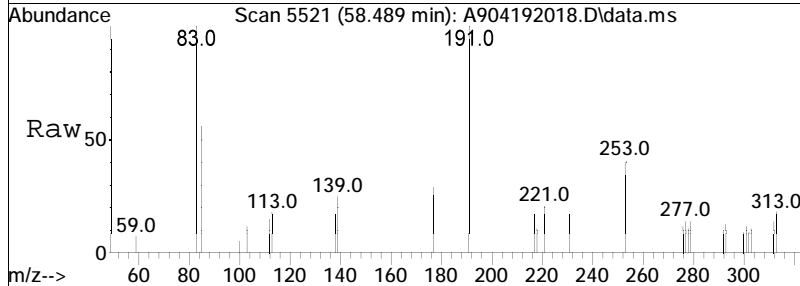


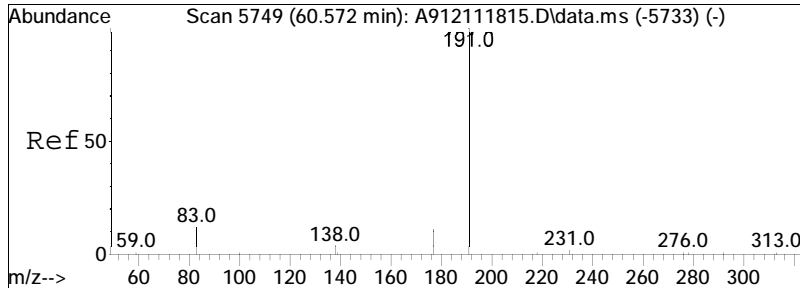
#124
 30,31-Trishomohopane-22S (T30)
 Concen: 171.93 ng/ml
 RT: 57.859 min Scan# 5452
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 8172



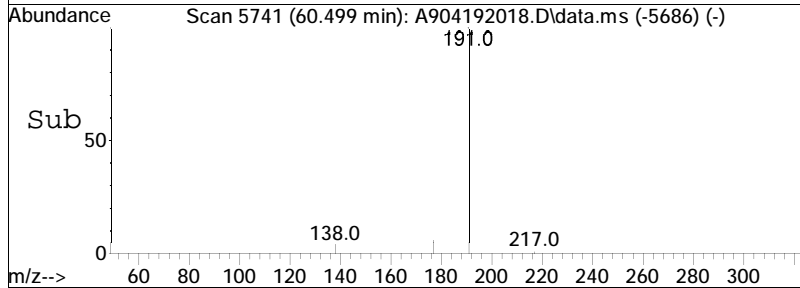
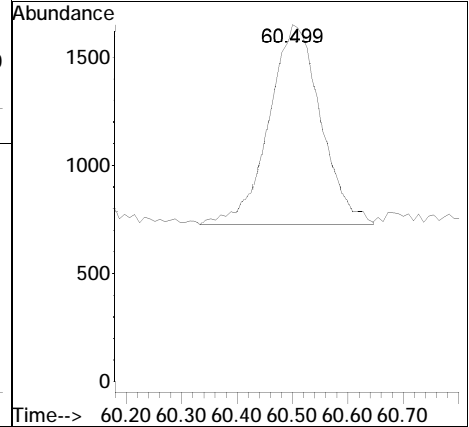
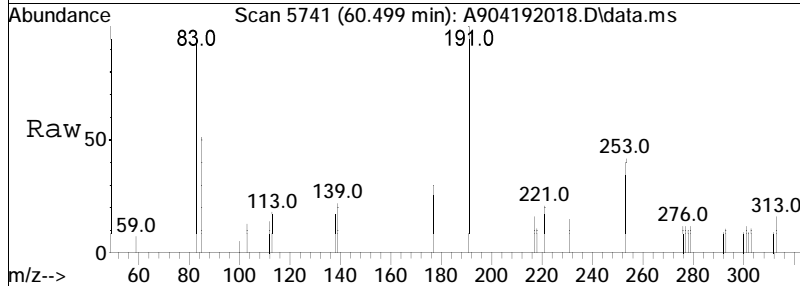


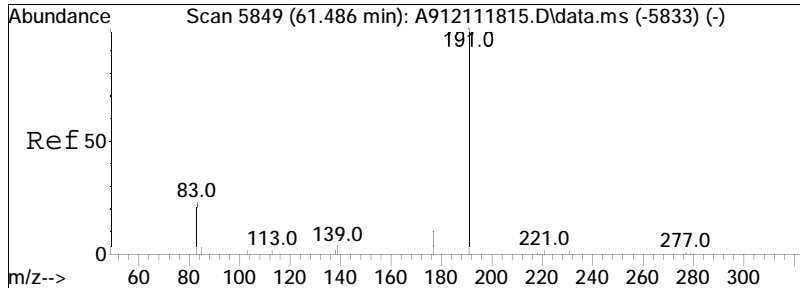
#125
 30,31-Trishomohopane-22R (T31)
 Concen: 119.69 ng/ml
 RT: 58.489 min Scan# 5521
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 5689



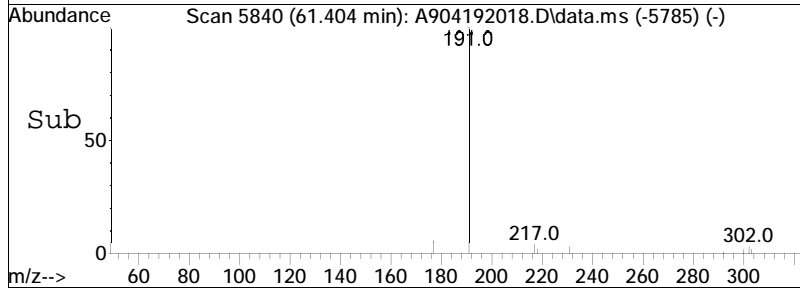
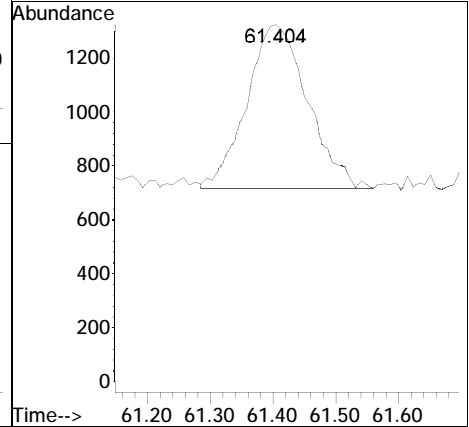
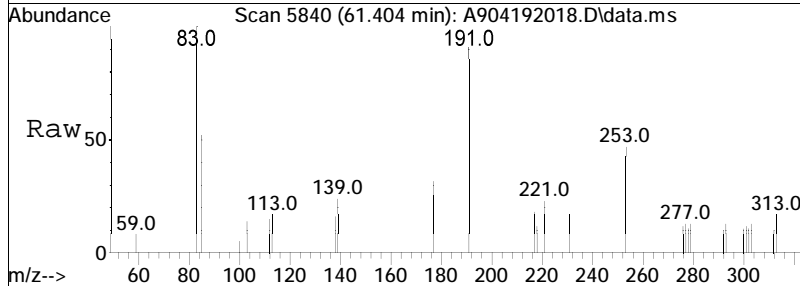


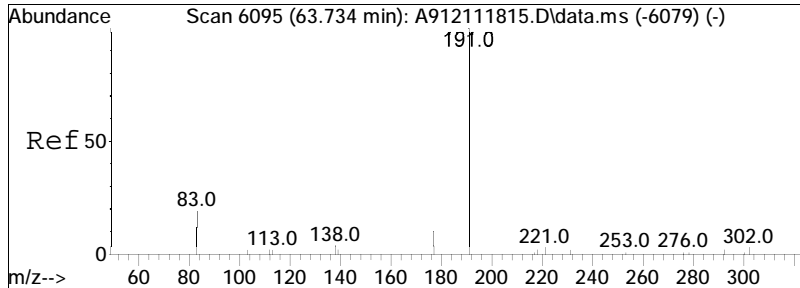
#126
 Tetrakishomohopane-22S (T32)
 Concen: 125.64 ng/ml
 RT: 60.499 min Scan# 5741
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 5972



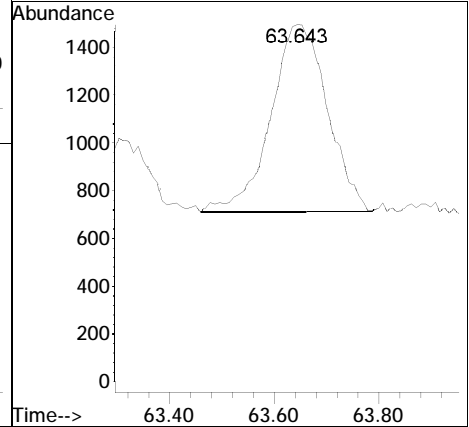
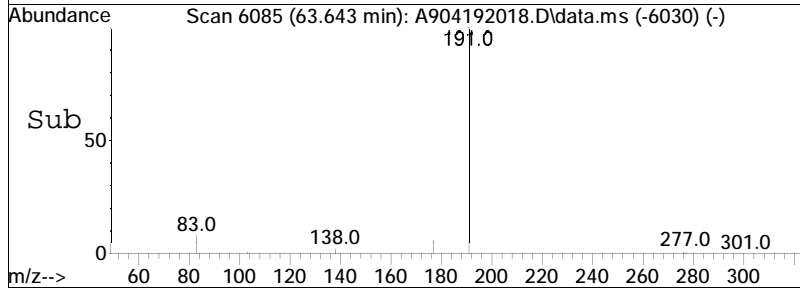
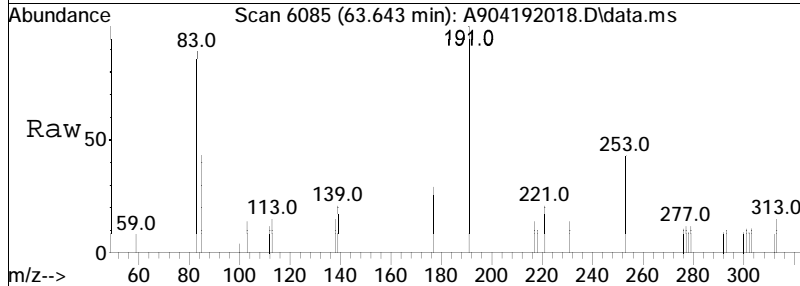


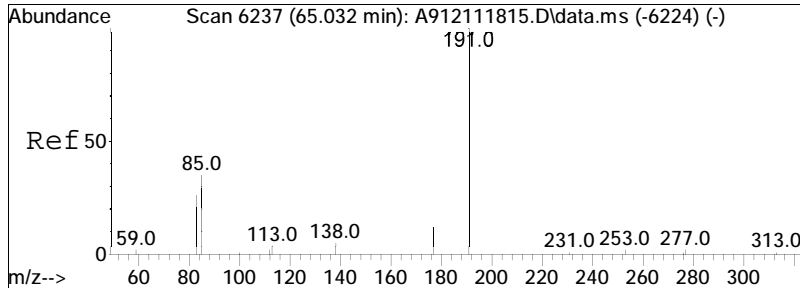
#127
 Tetrakishomohopane-22R (T33)
 Concen: 85.60 ng/ml
 RT: 61.404 min Scan# 5840
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 4069



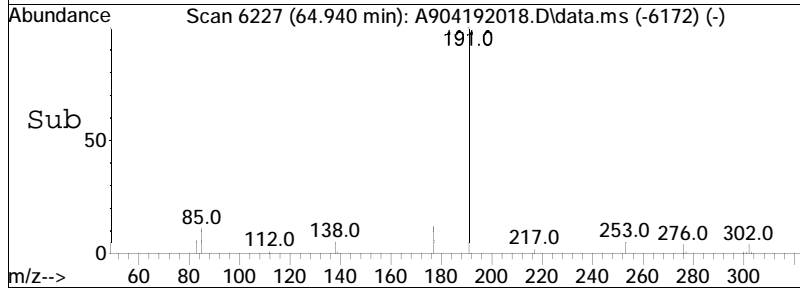
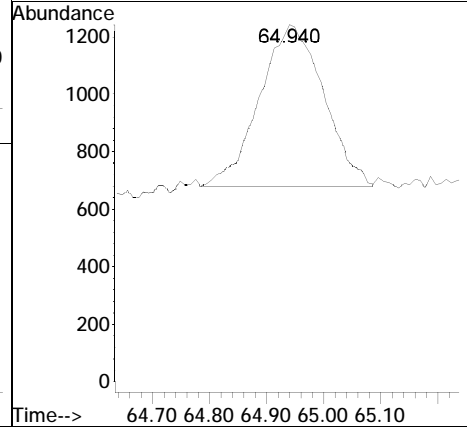
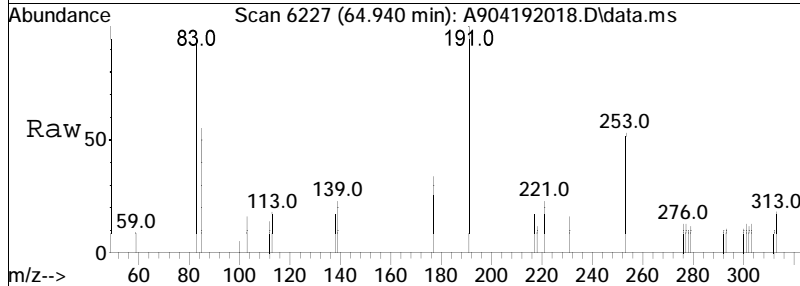


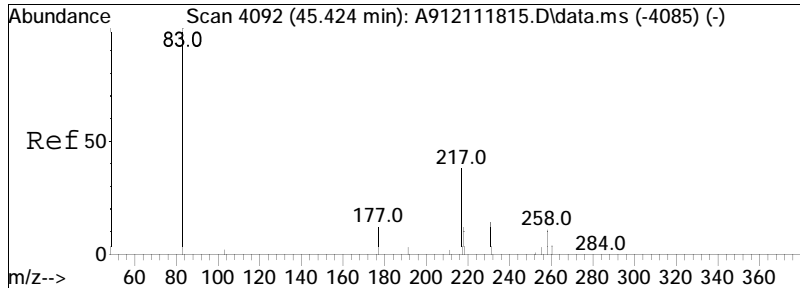
#128
 Pentakishomohopane-22S (T34)
 Concen: 124.40 ng/ml
 RT: 63.643 min Scan# 6085
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 5913



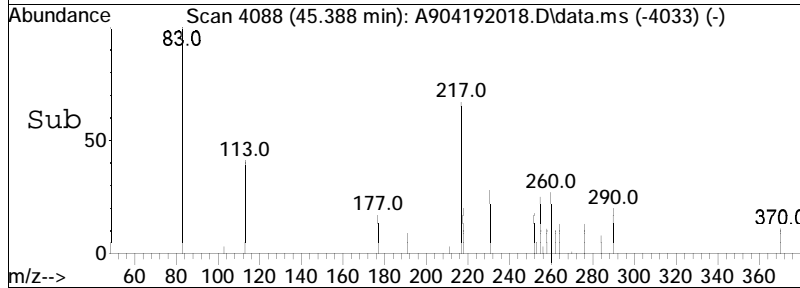
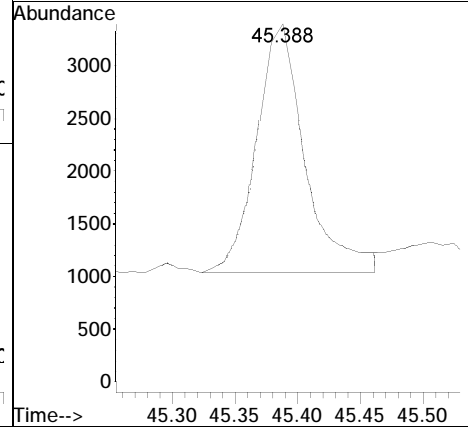
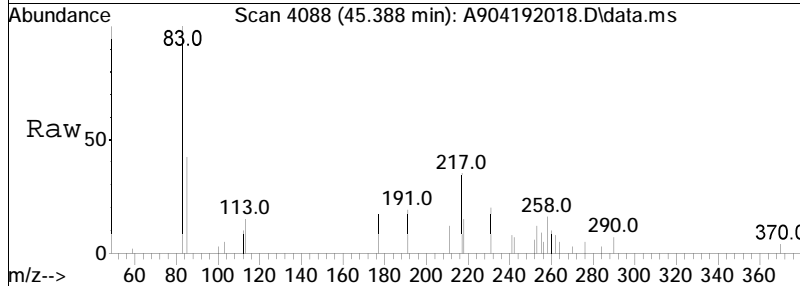


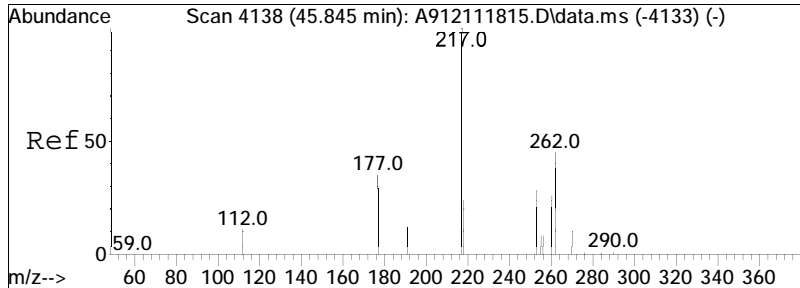
#129
 Pentakishomohopane-22R (T35)
 Concen: 91.64 ng/ml
 RT: 64.940 min Scan# 6227
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:191 Resp: 4356



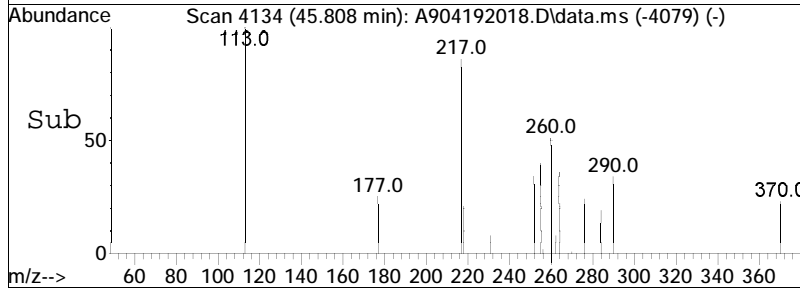
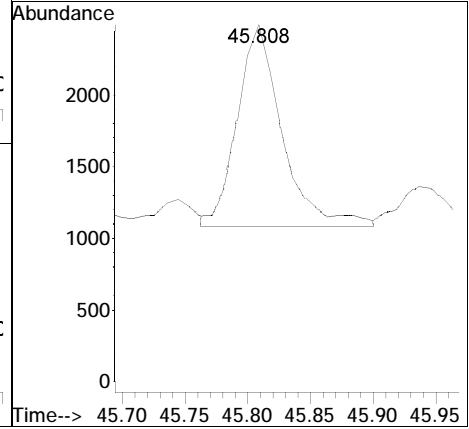
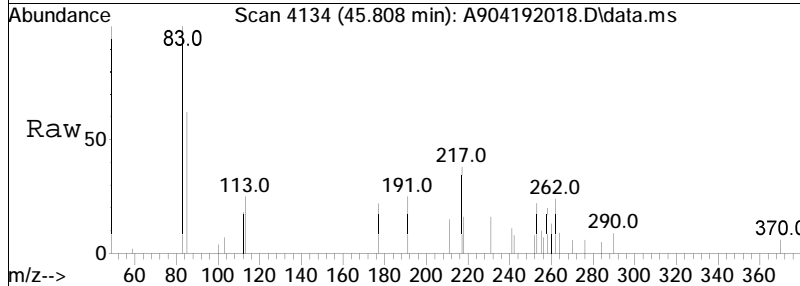


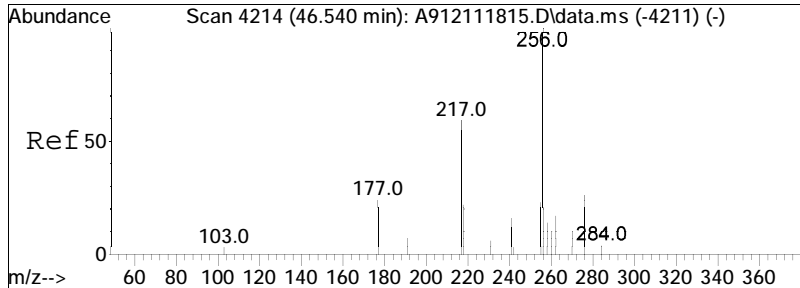
#131
 13b(H),17a(H)-20S-Diacholestan
 Concen: 263.73 ng/ml
 RT: 45.388 min Scan# 4088
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 6356



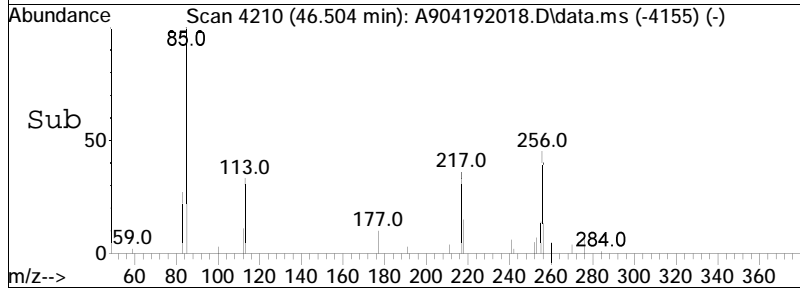
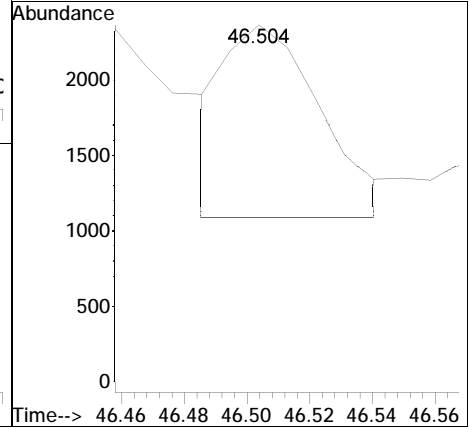
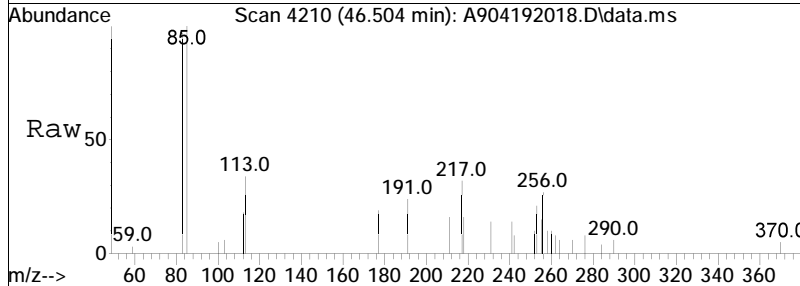


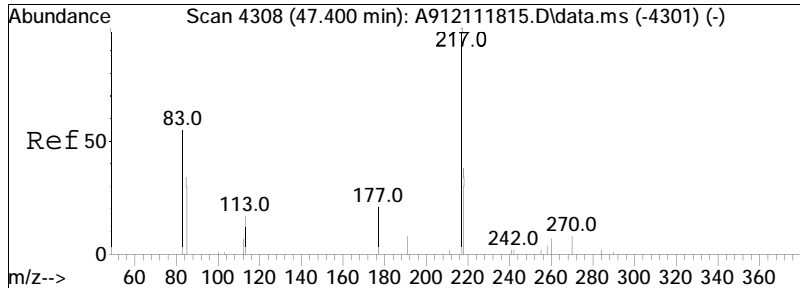
#132
 13b(H),17a(H)-20R-Diacholestan
 Concen: 144.40 ng/ml
 RT: 45.808 min Scan# 4134
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 3480



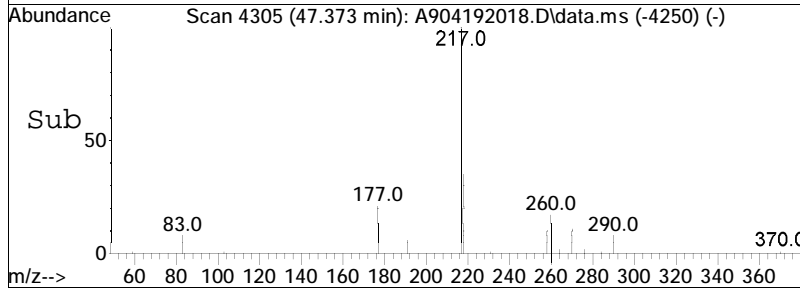
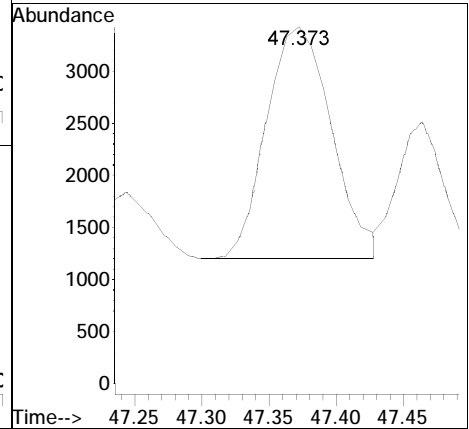
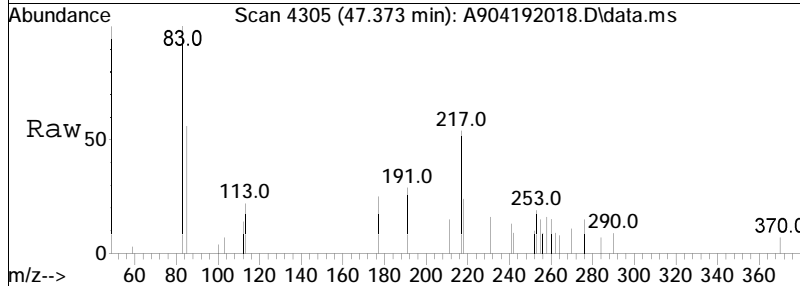


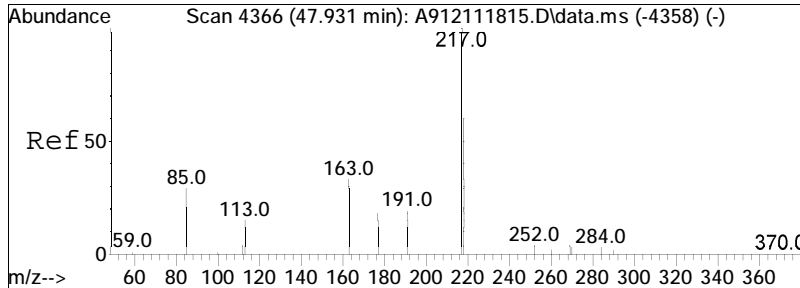
#133
 13b,17a-20S-Methyldiacholestan
 Concen: 112.49 ng/ml M3
 RT: 46.504 min Scan# 4210
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 217 Resp: 2711



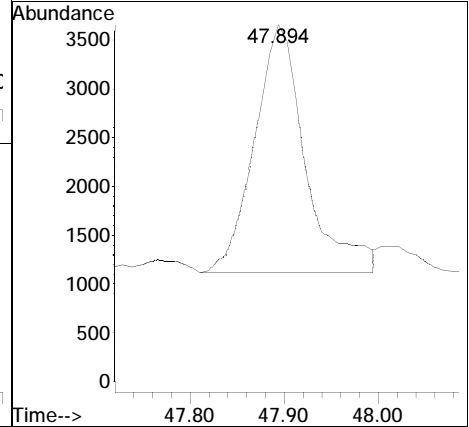
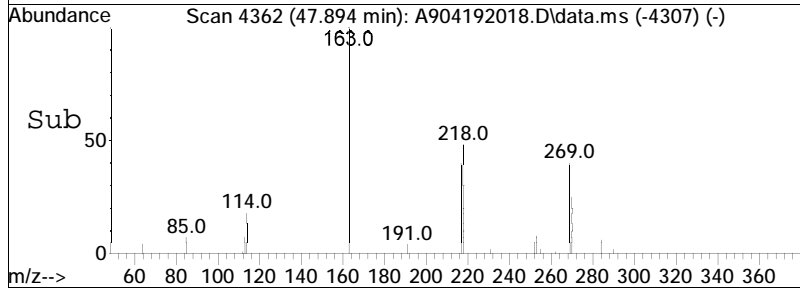
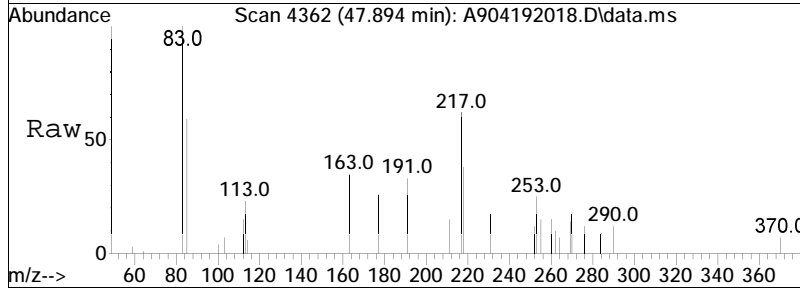


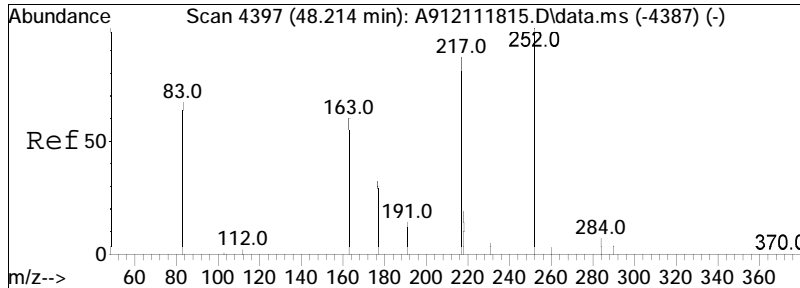
#134
 14a,17a-20S-Chol/13b,17a-20S-E
 Concen: 311.66 ng/ml
 RT: 47.373 min Scan# 4305
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 7511



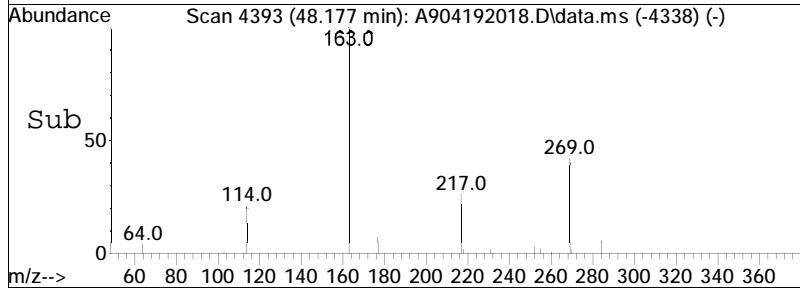
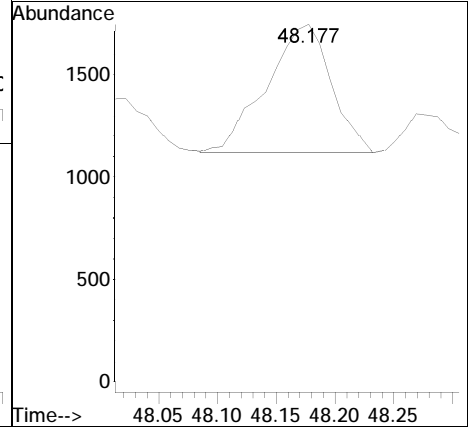
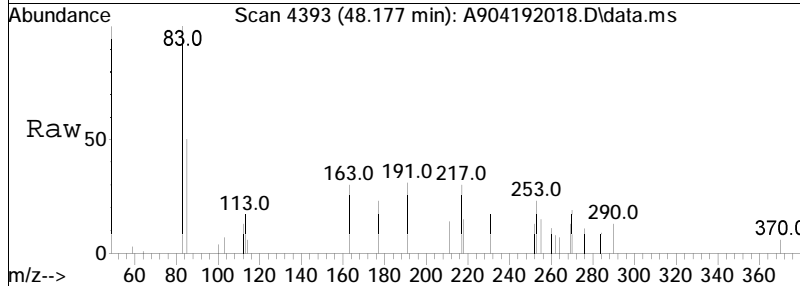


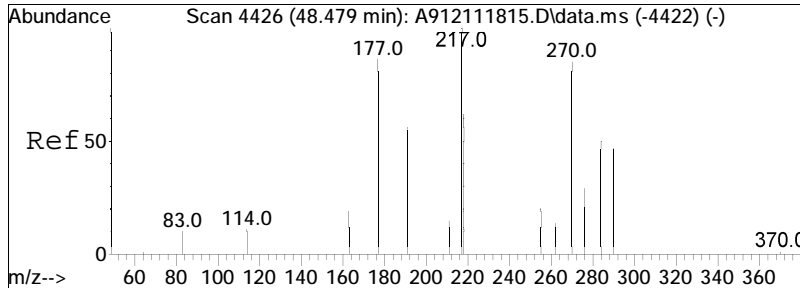
#135
 14a,17a-20R-Chol/13b,17a-20R-E
 Concen: 395.93 ng/ml
 RT: 47.894 min Scan# 4362
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 9542



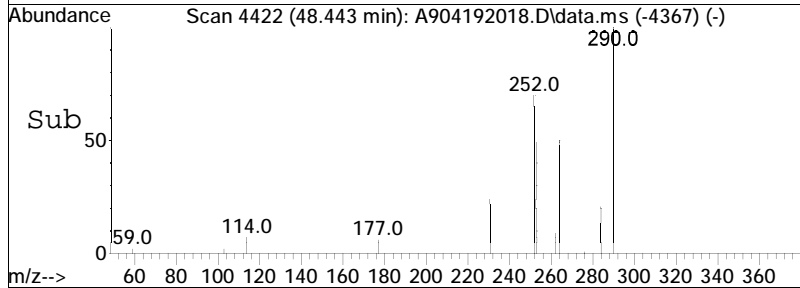
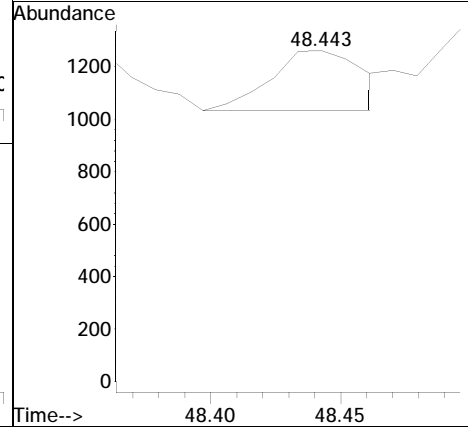
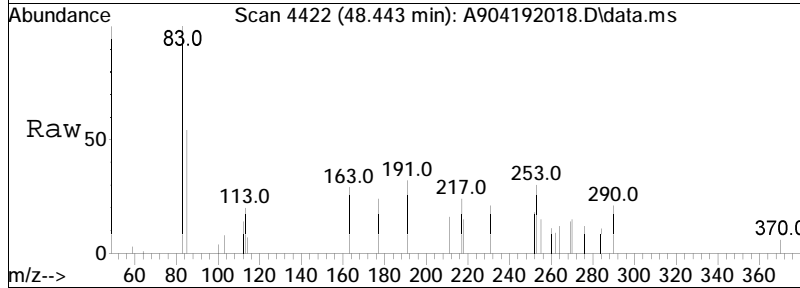


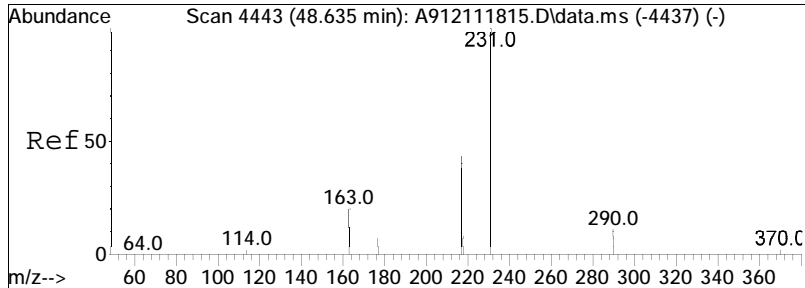
#136
 Unknown Sterane (S18)
 Concen: 98.51 ng/ml
 RT: 48.177 min Scan# 4393
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 217 Resp: 2374



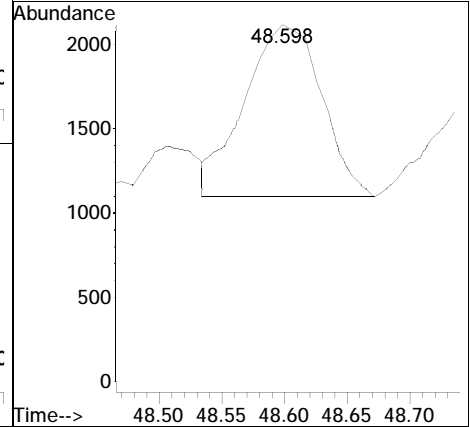
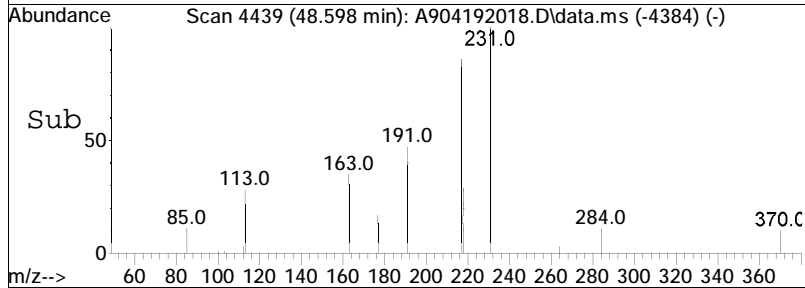
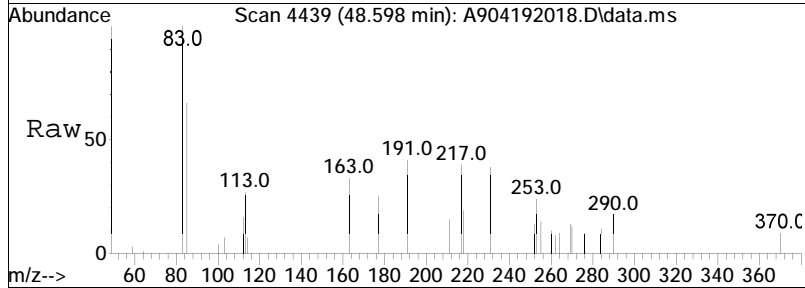


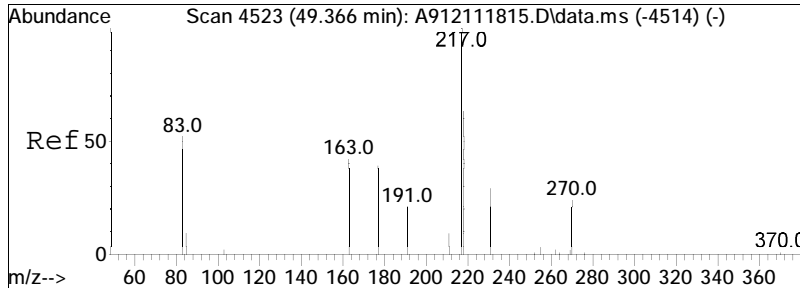
#137
 13a,17b-20S-Ethyldiacholestane
 Concen: 22.86 ng/ml M6
 RT: 48.443 min Scan# 4422
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 551



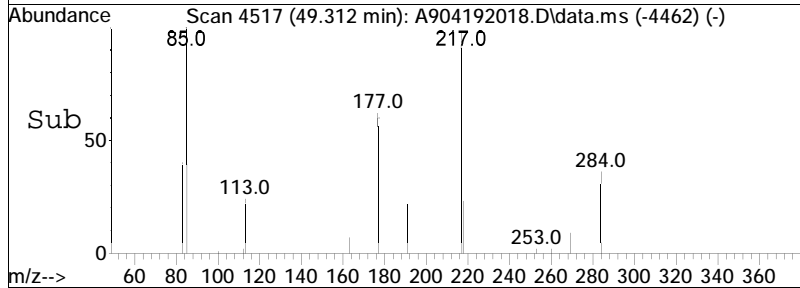
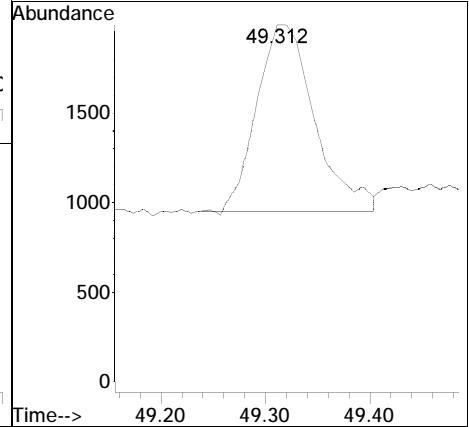
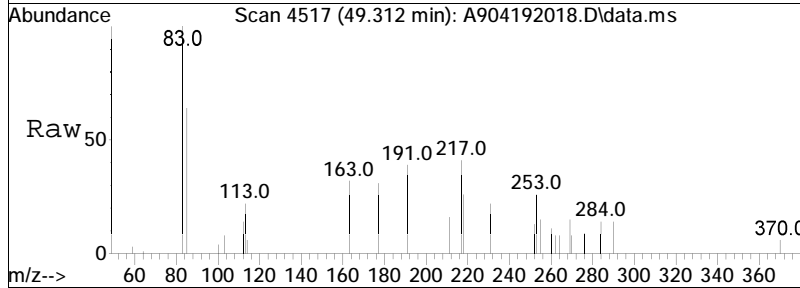


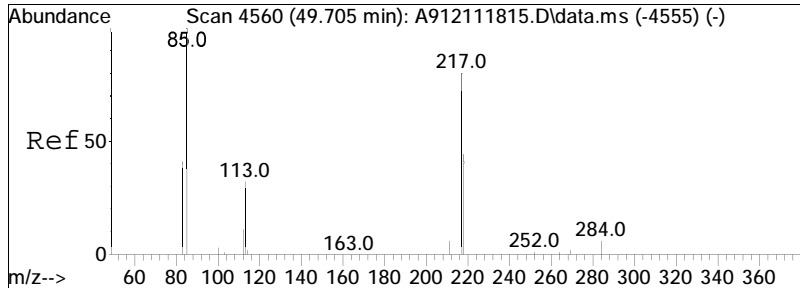
#138
 14a,17a-20S-Methylcholestane (
 Concen: 180.33 ng/ml
 RT: 48.598 min Scan# 4439
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 217 Resp: 4346



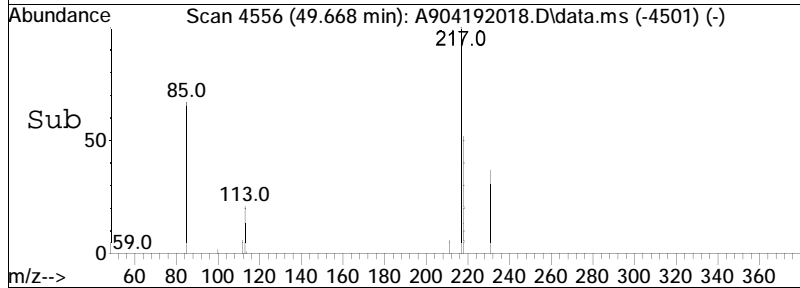
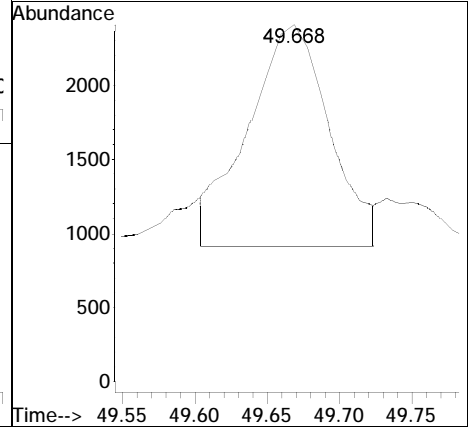
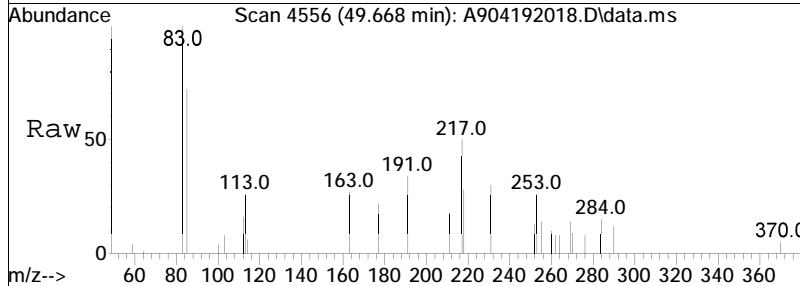


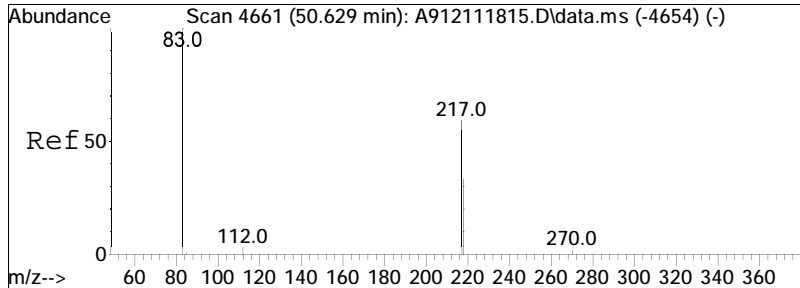
#139
 14a,17a-20R-Methylcholestane (
 Concen: 165.43 ng/ml
 RT: 49.312 min Scan# 4517
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 3987



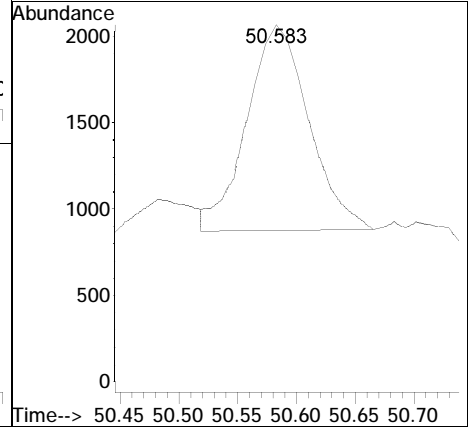
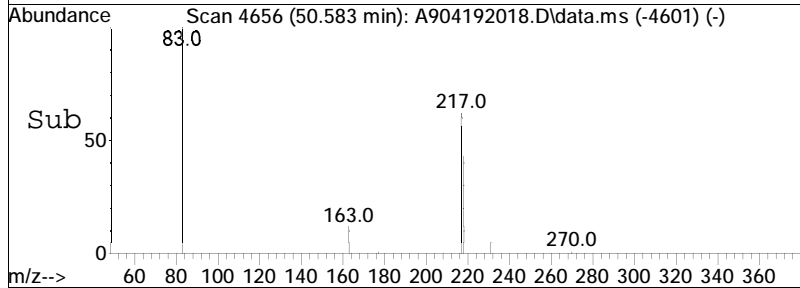
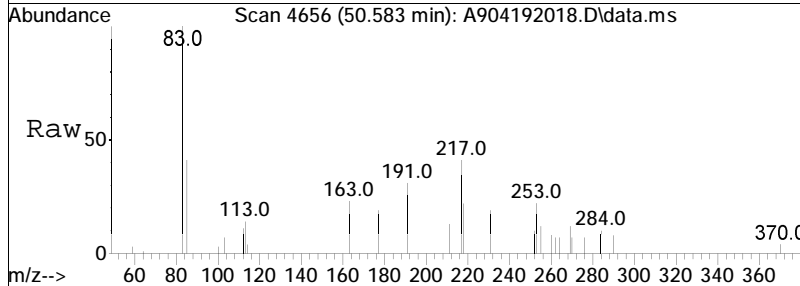


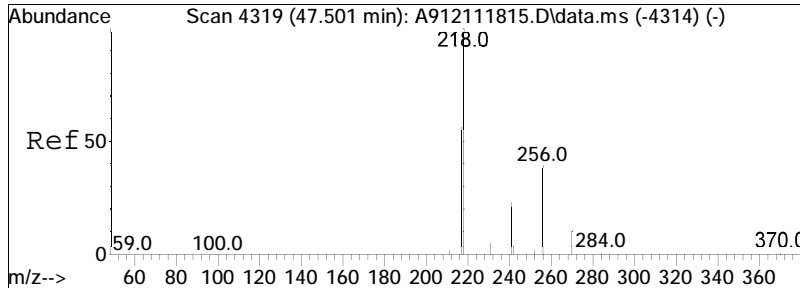
#140
 14a(H),17a(H)-20S-Ethylcholest
 Concen: 242.98 ng/ml M4
 RT: 49.668 min Scan# 4556
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 5856





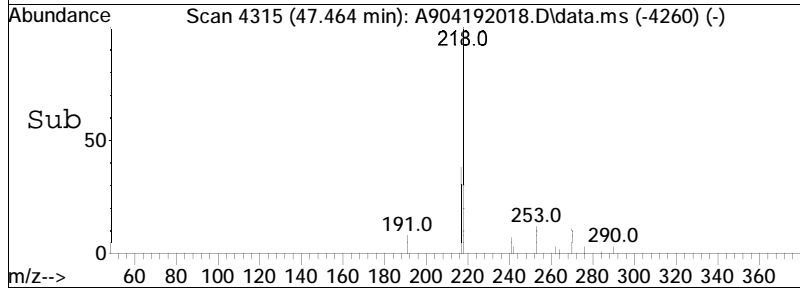
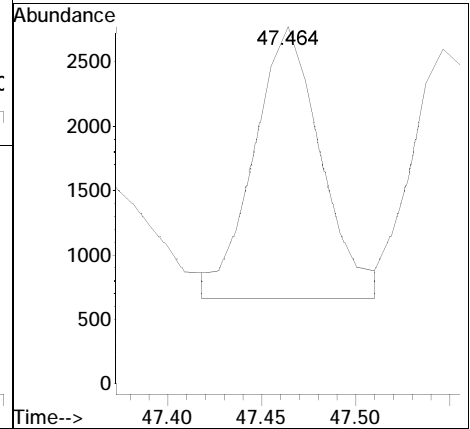
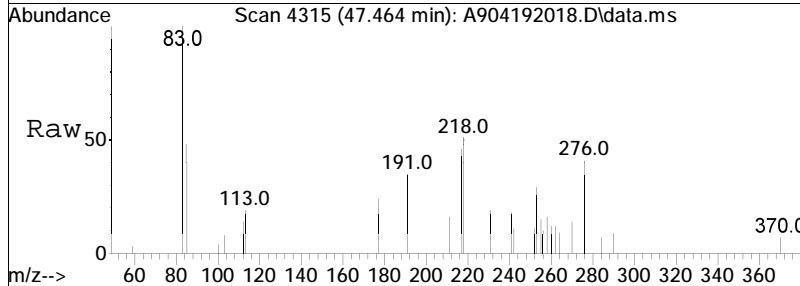
#141
 14a(H),17a(H)-20R-Ethylcholest
 Concen: 179.67 ng/ml
 RT: 50.583 min Scan# 4656
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:217 Resp: 4330

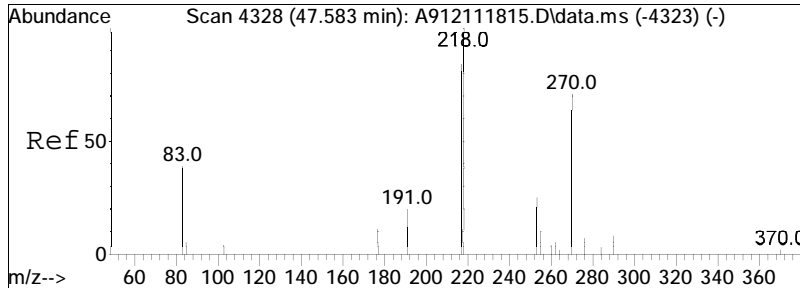




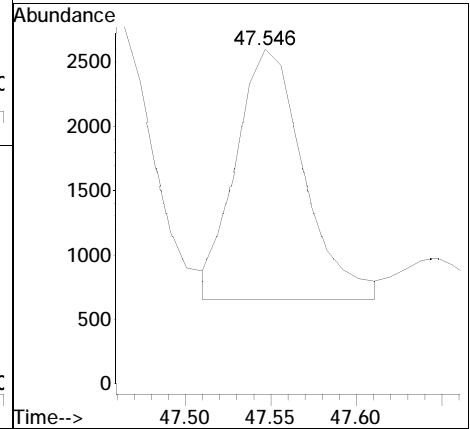
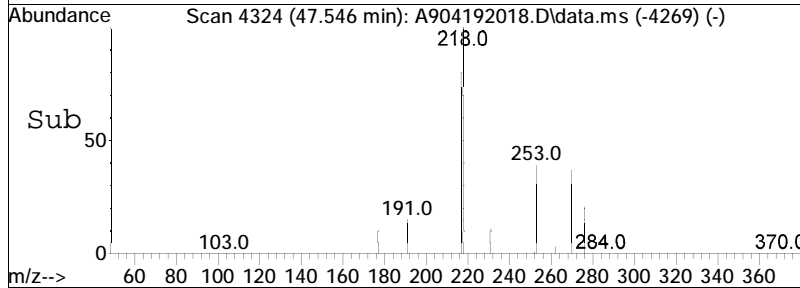
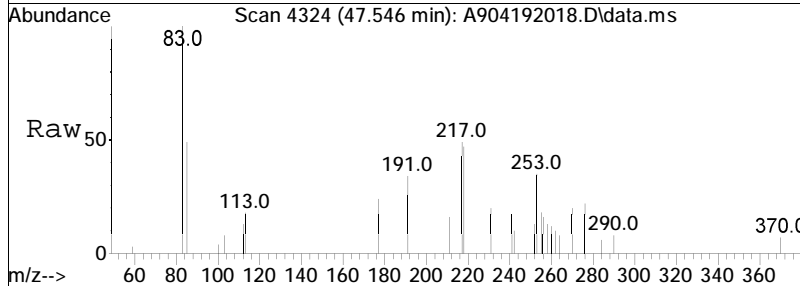
#142
 14b(H),17b(H)-20R-Cholestane (
 Concen: 216.10 ng/ml M4
 RT: 47.464 min Scan# 4315
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

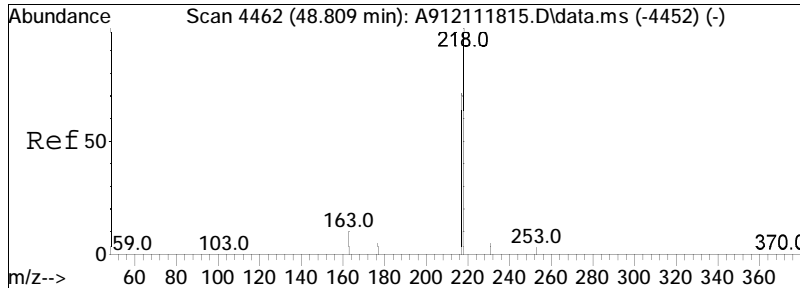
Tgt Ion:218 Resp: 5208





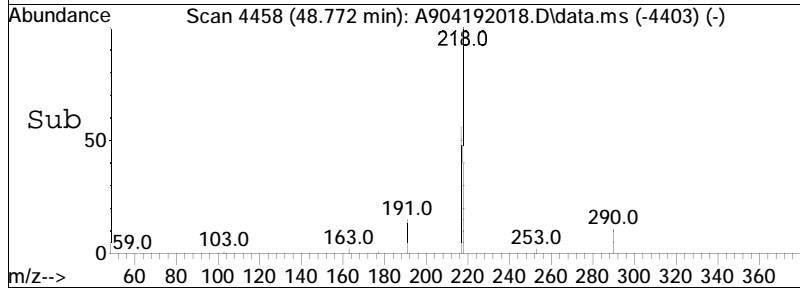
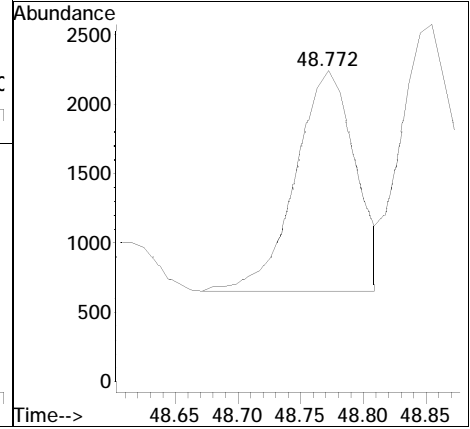
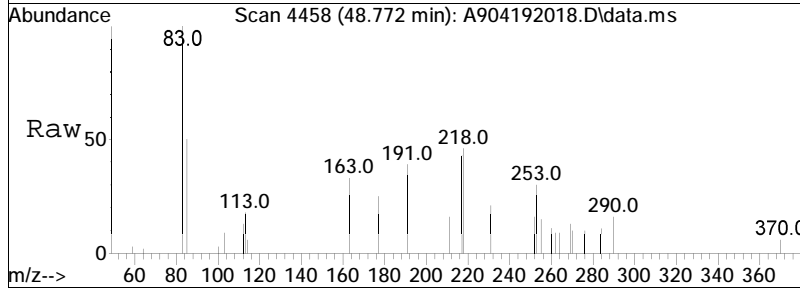
#143
 14b(H),17b(H)-20S-Cholestane (
 Concen: 222.69 ng/ml M4
 RT: 47.546 min Scan# 4324
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:218 Resp: 5367

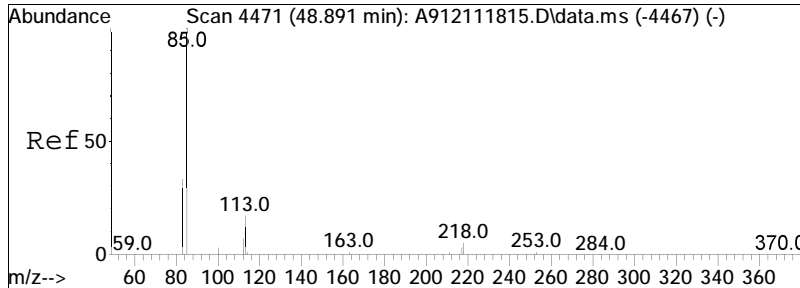




#144
 14b,17b-20R-Methylcholestane (
 Concen: 220.95 ng/ml
 RT: 48.772 min Scan# 4458
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

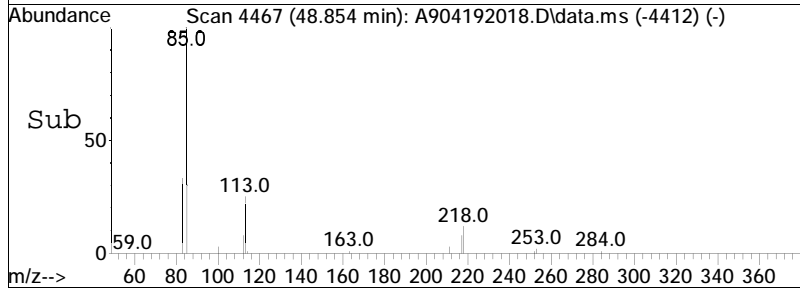
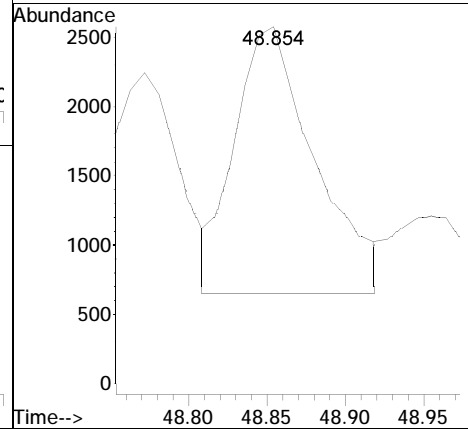
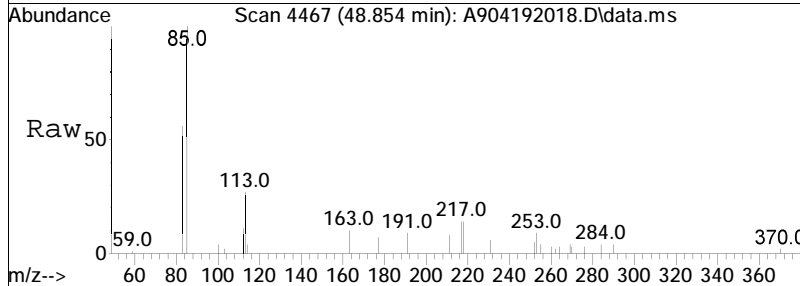
Tgt Ion: 218 Resp: 5325

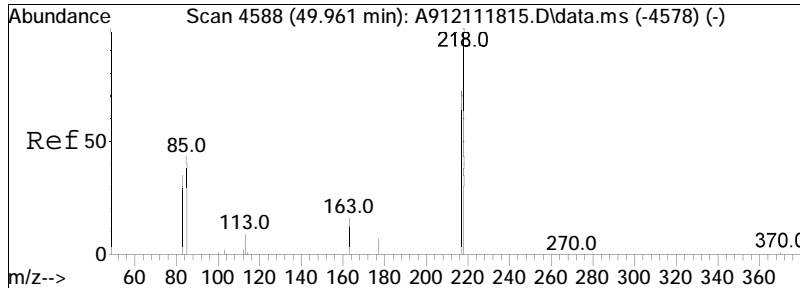




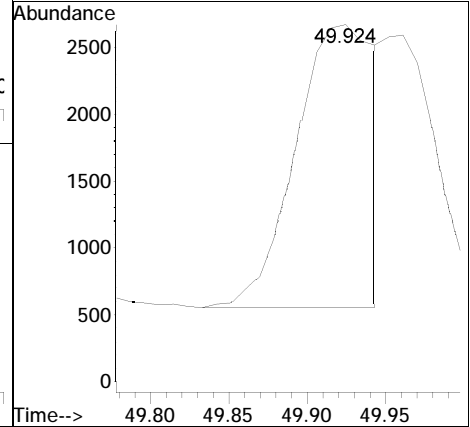
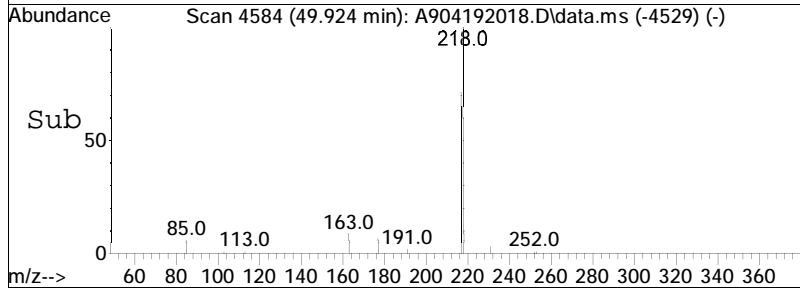
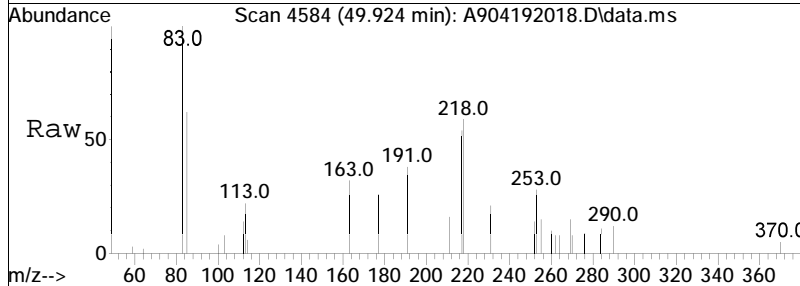
#145
 14b,17b-20S-Methylcholestane (
 Concen: 283.11 ng/ml M4
 RT: 48.854 min Scan# 4467
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm

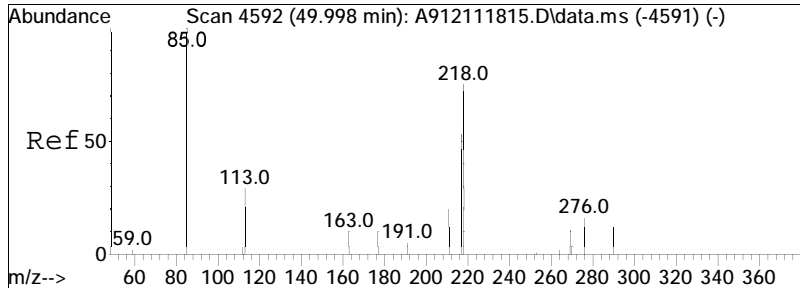
Tgt Ion: 218 Resp: 6823



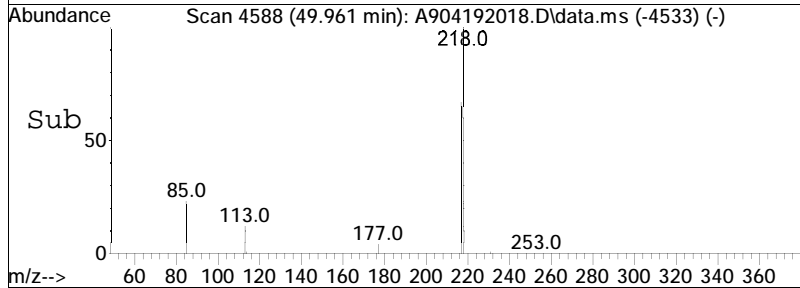
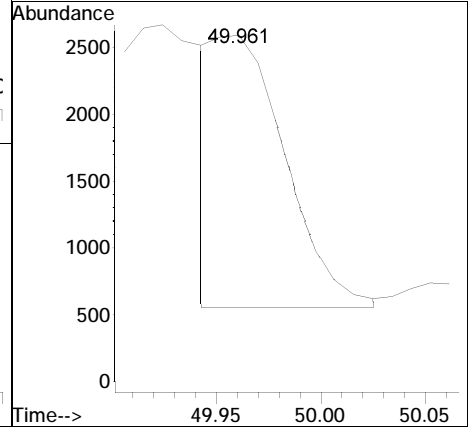
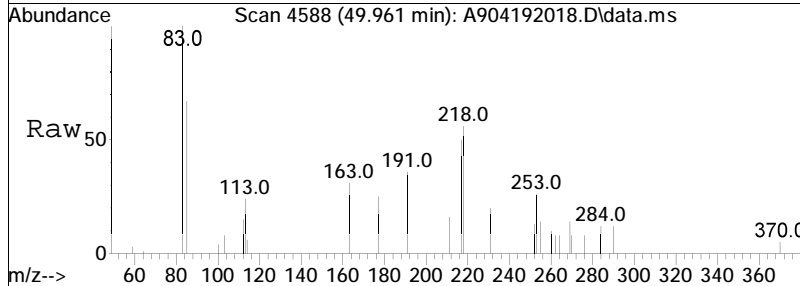


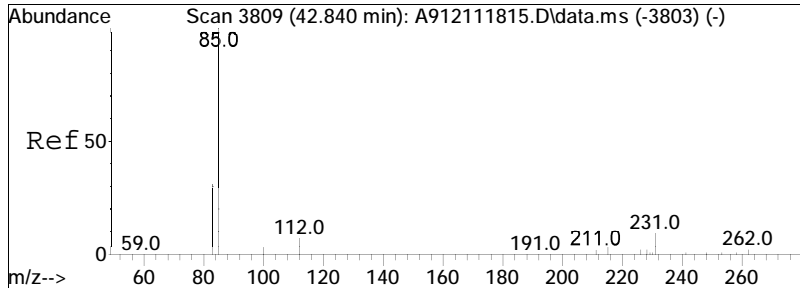
#146
 14b(H),17b(H)-20R-Ethylcholest
 Concen: 303.86 ng/ml
 RT: 49.924 min Scan# 4584
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:218 Resp: 7323



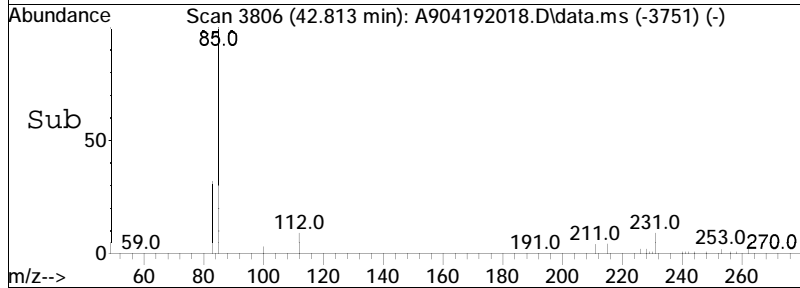
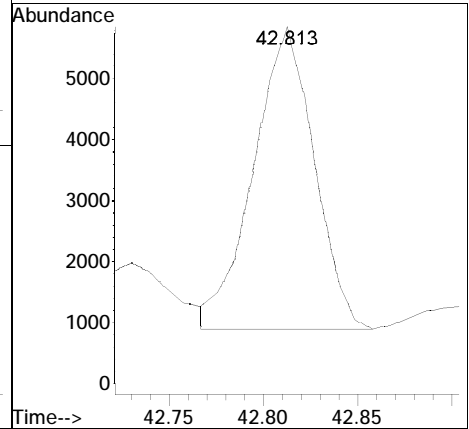
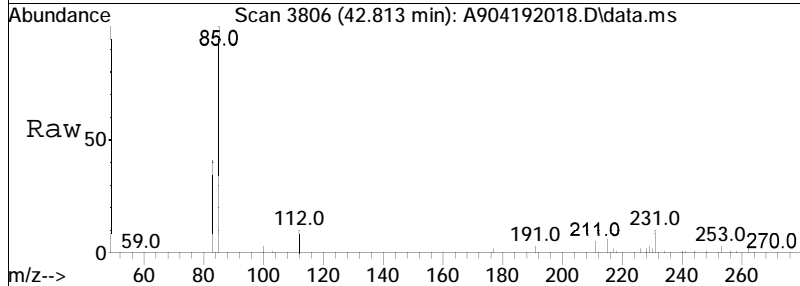


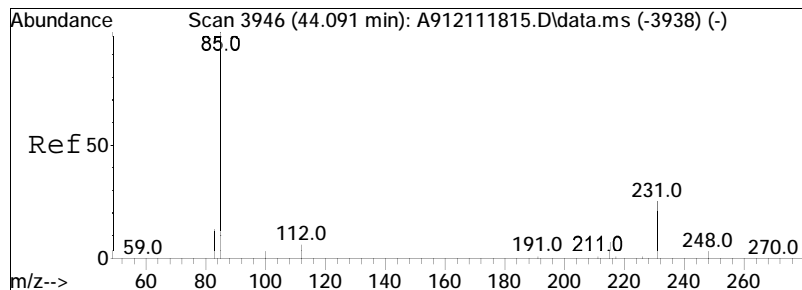
#147
 14b(H),17b(H)-20S-Ethylcholest
 Concen: 201.78 ng/ml M3
 RT: 49.961 min Scan# 4588
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:218 Resp: 4863



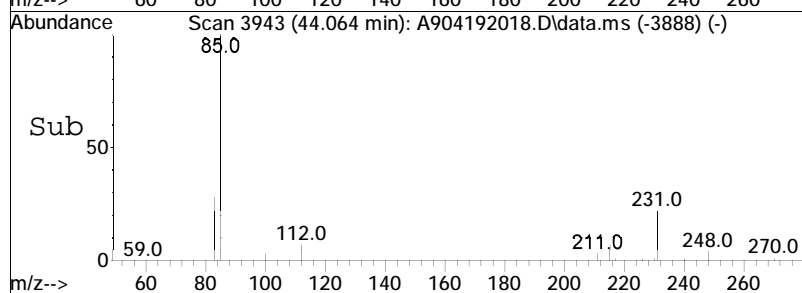
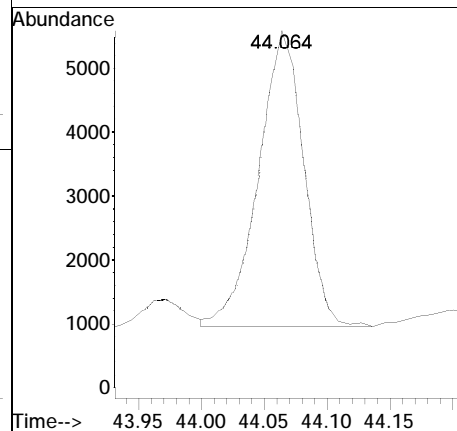
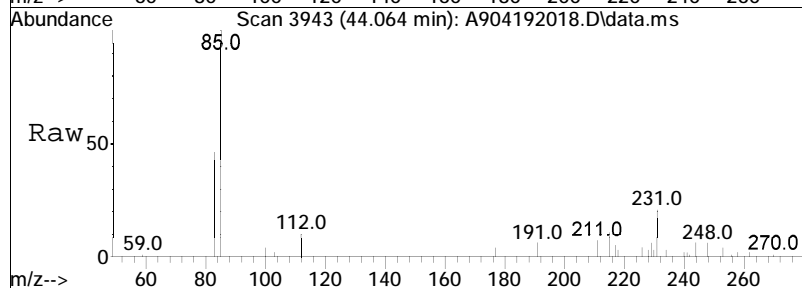


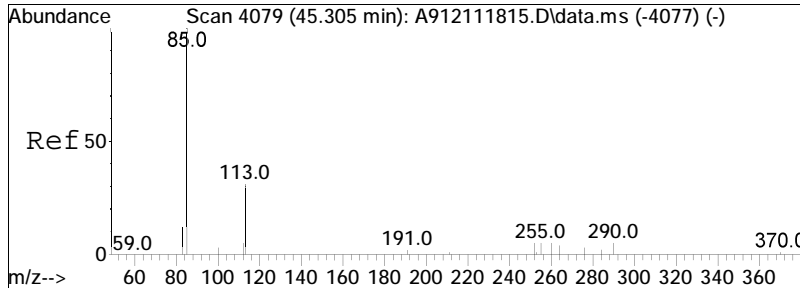
#148
 C20 Pregnane
 Concen: 459.29 ng/mL
 RT: 42.813 min Scan# 3806
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 11069



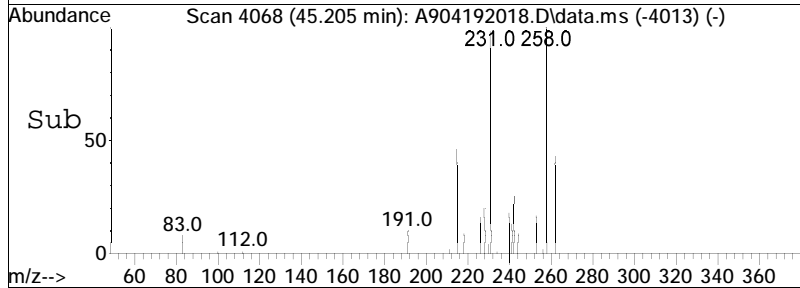
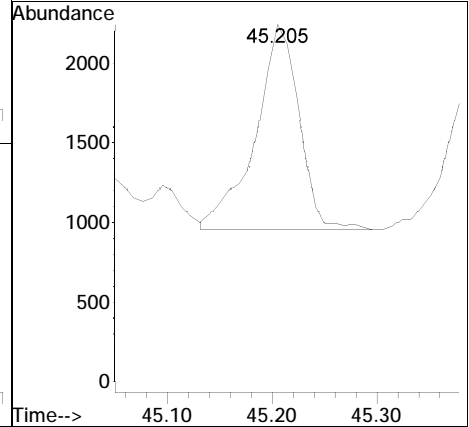
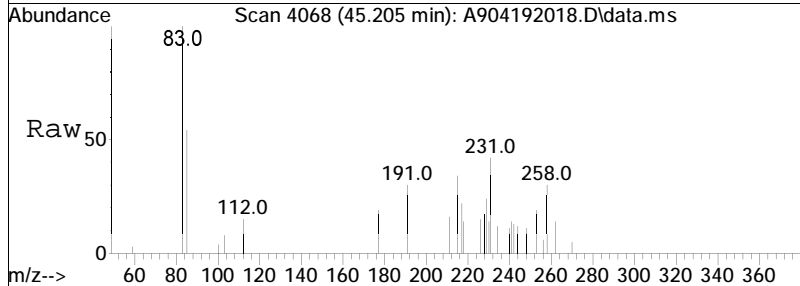


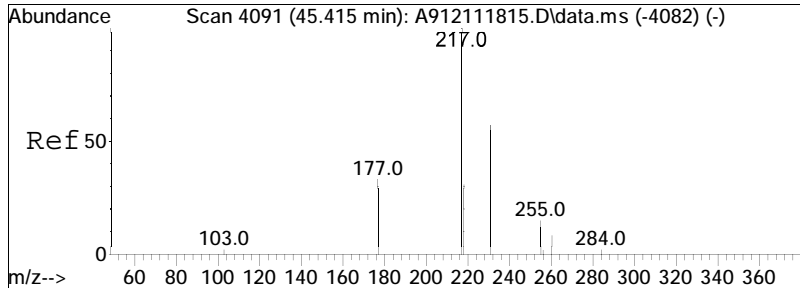
#149
 C21 20-Methylpregnane
 Concen: 474.14 ng/mL
 RT: 44.064 min Scan# 3943
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 11427



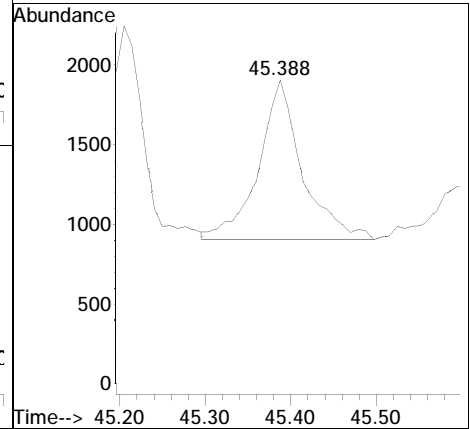
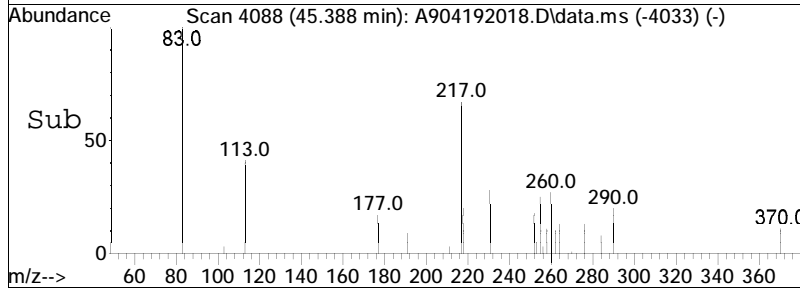
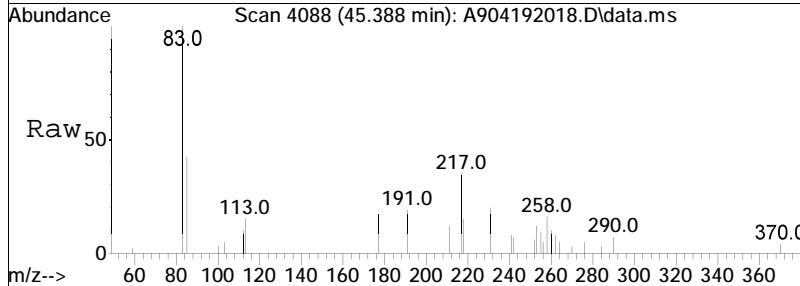


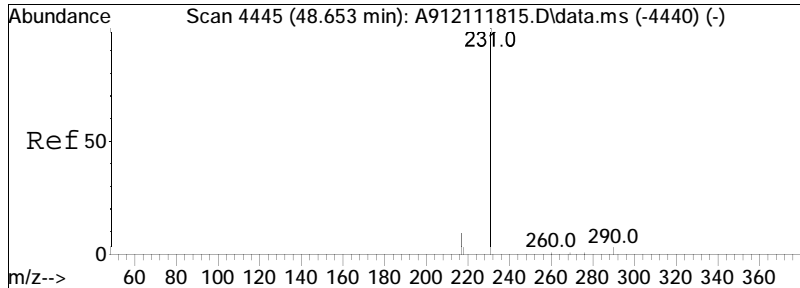
#150
 C22 20-Ethylpregnane (a)
 Concen: 155.93 ng/mL
 RT: 45.205 min Scan# 4068
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 3758



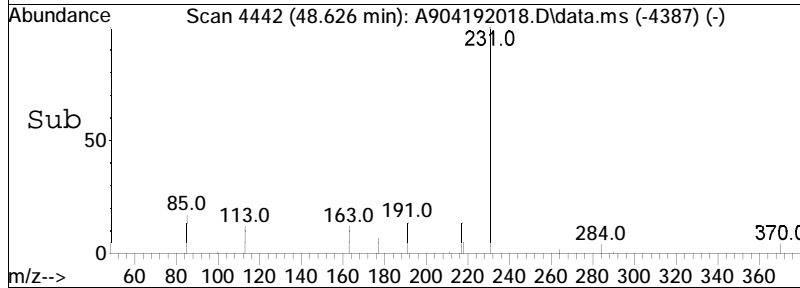
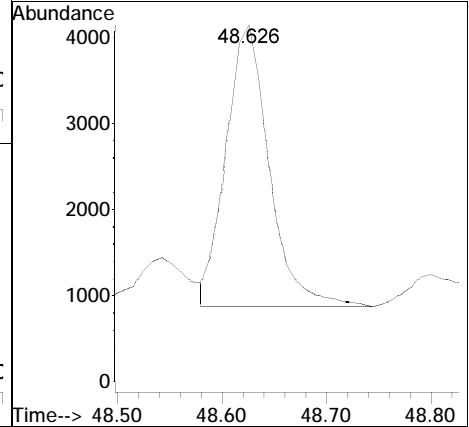
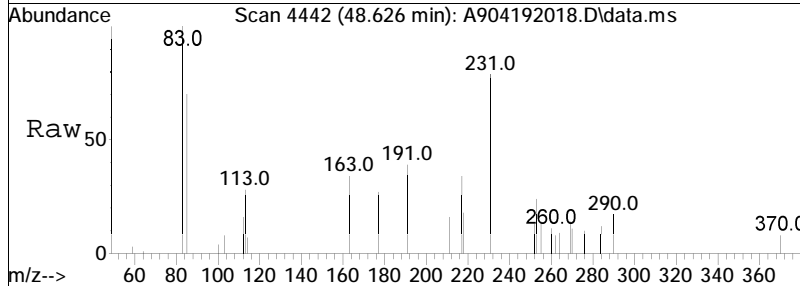


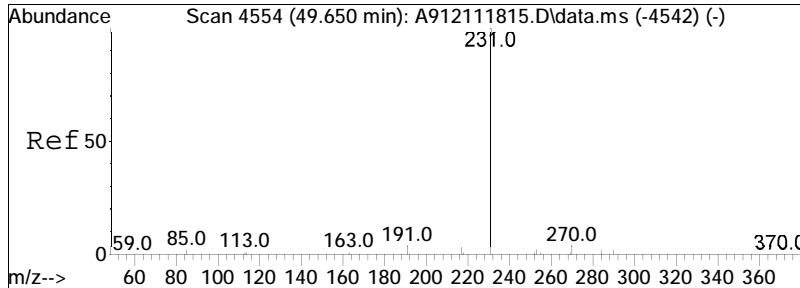
#151
 C22 20-Ethylpregnane (b)
 Concen: 145.06 ng/mL
 RT: 45.388 min Scan# 4088
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 3496



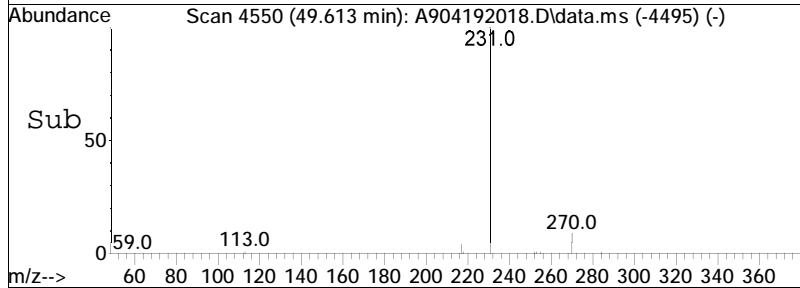
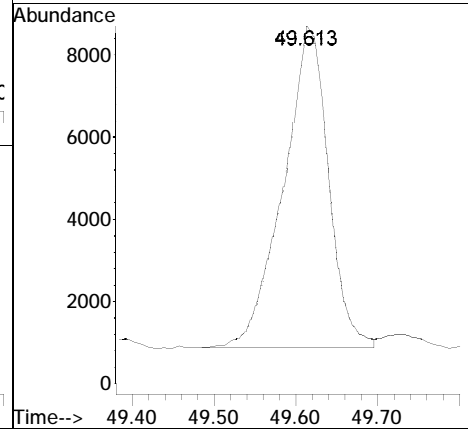
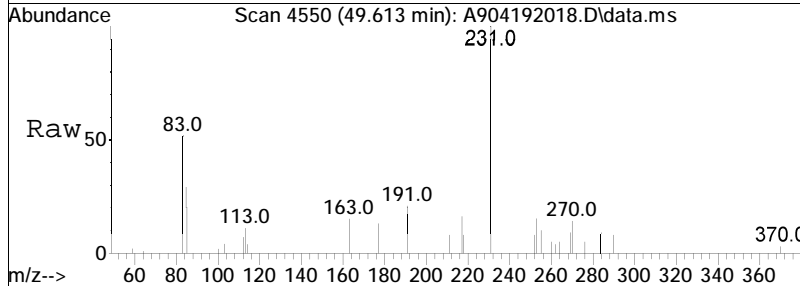


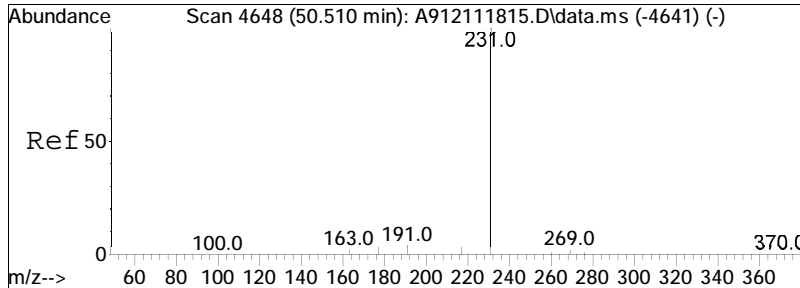
#152
 C26,20S TAS
 Concen: 385.76 ng/mL
 RT: 48.626 min Scan# 4442
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:231 Resp: 9297



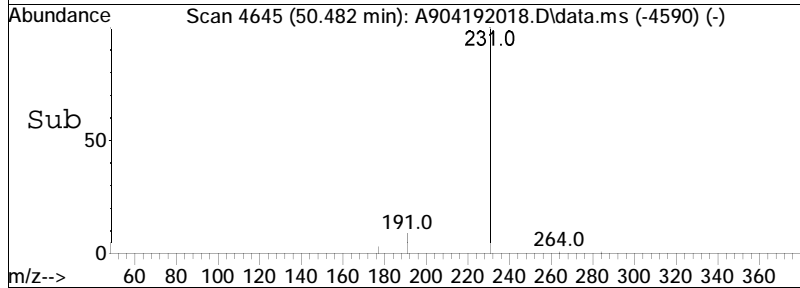
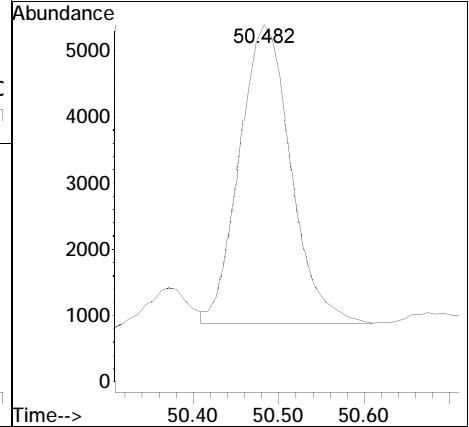
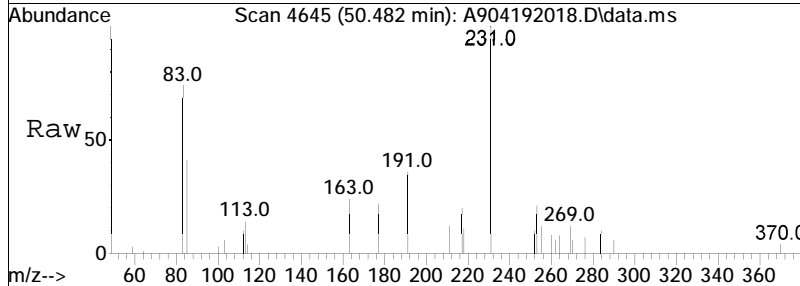


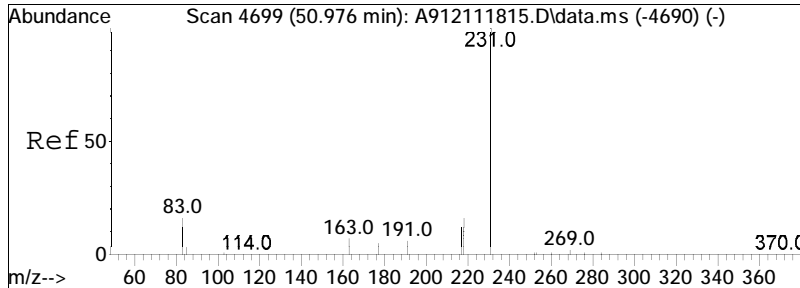
#153
 C26,20R+C27,20S TAS
 Concen: 1230.07 ng/mL
 RT: 49.613 min Scan# 4550
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 29645



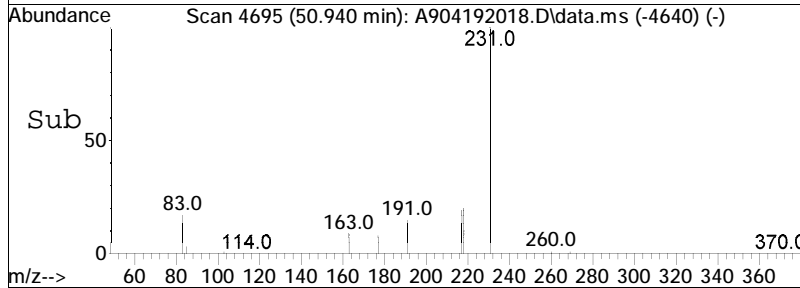
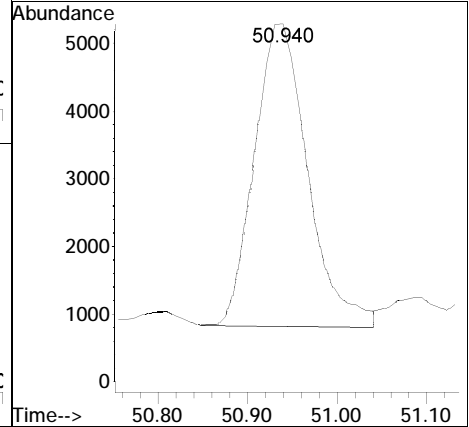
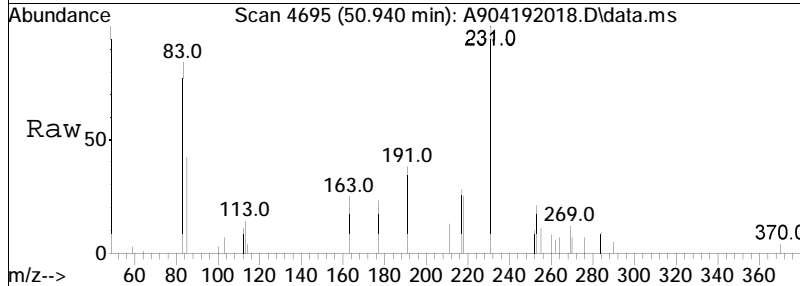


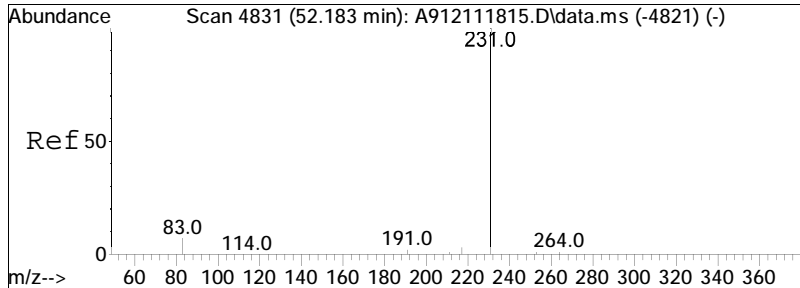
#154
 C28,20S TAS
 Concen: 772.11 ng/mL
 RT: 50.482 min Scan# 4645
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:231 Resp: 18608



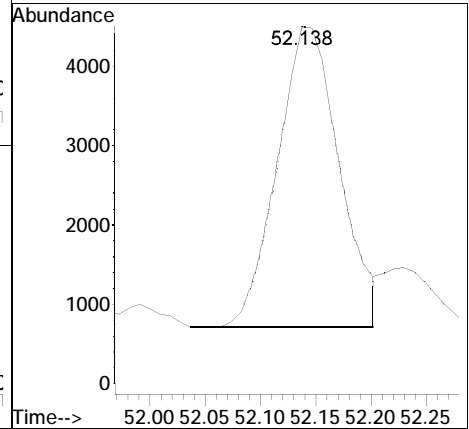
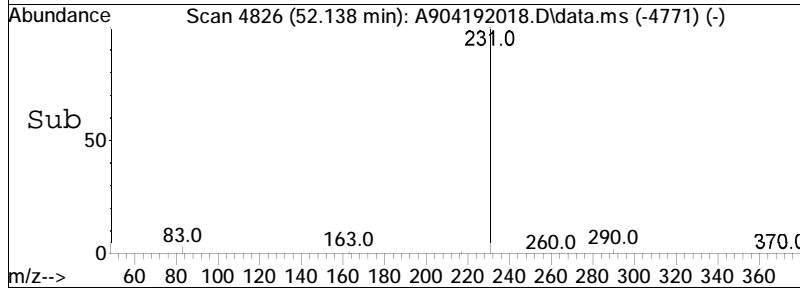
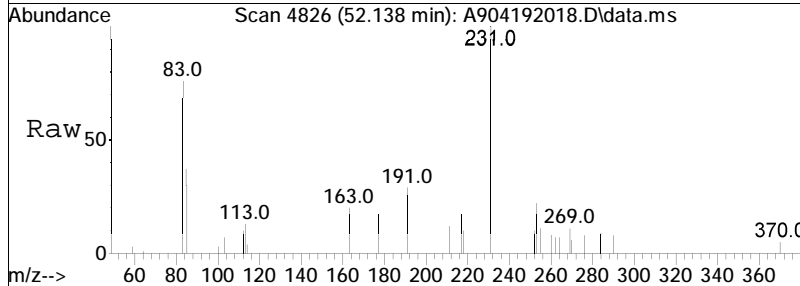


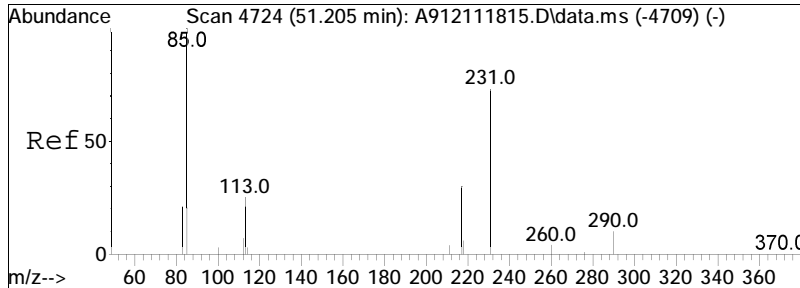
#155
 C27,20R TAS
 Concen: 764.27 ng/mL
 RT: 50.940 min Scan# 4695
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:231 Resp: 18419



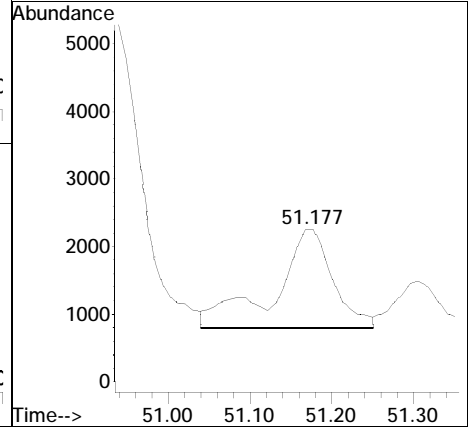
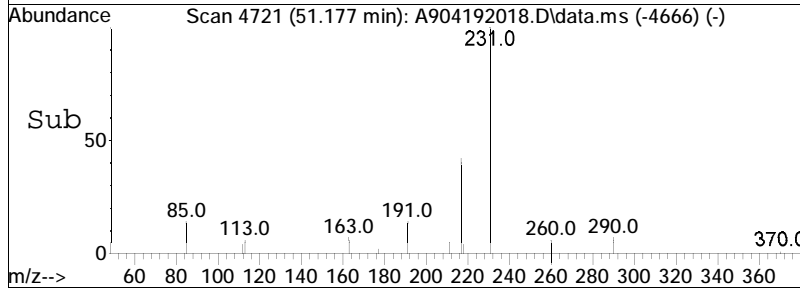
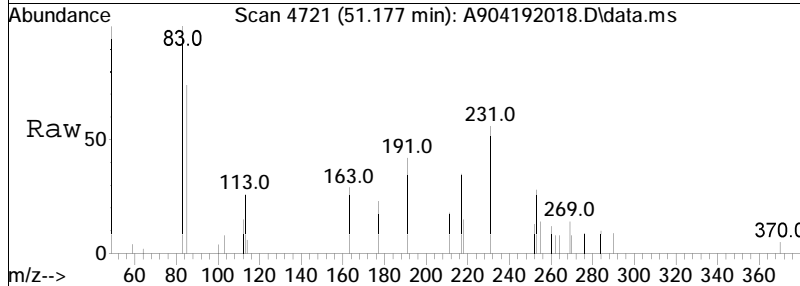


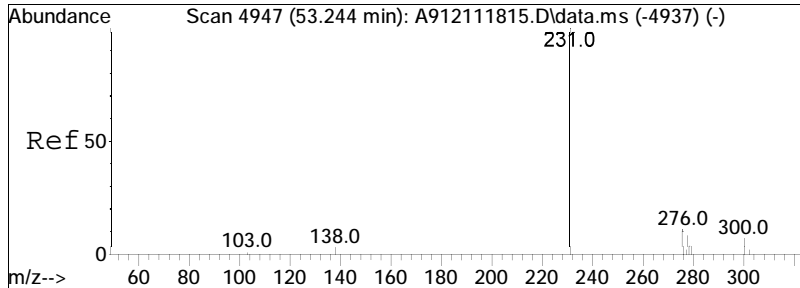
#156
 C28,20R TAS
 Concen: 610.41 ng/mL
 RT: 52.138 min Scan# 4826
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 14711



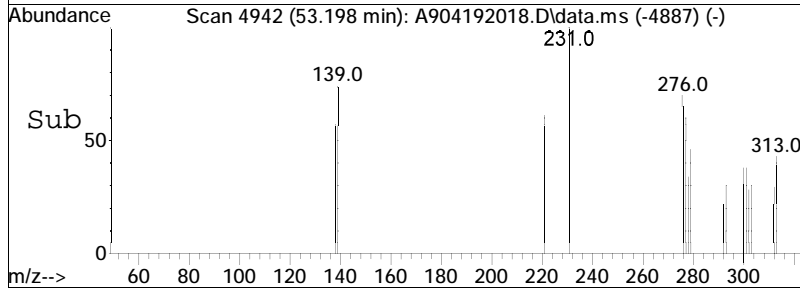
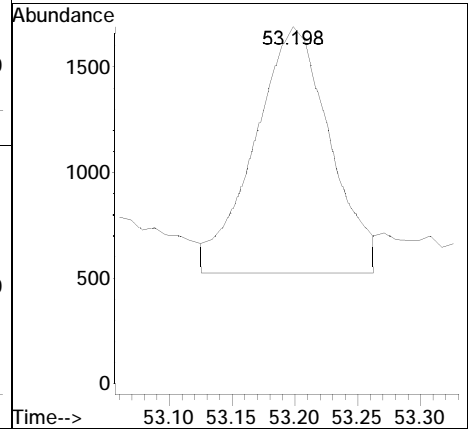
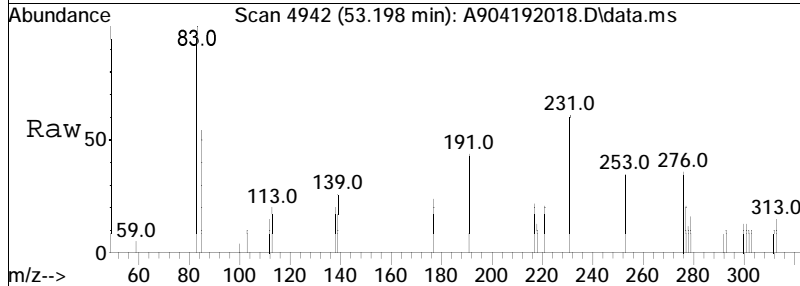


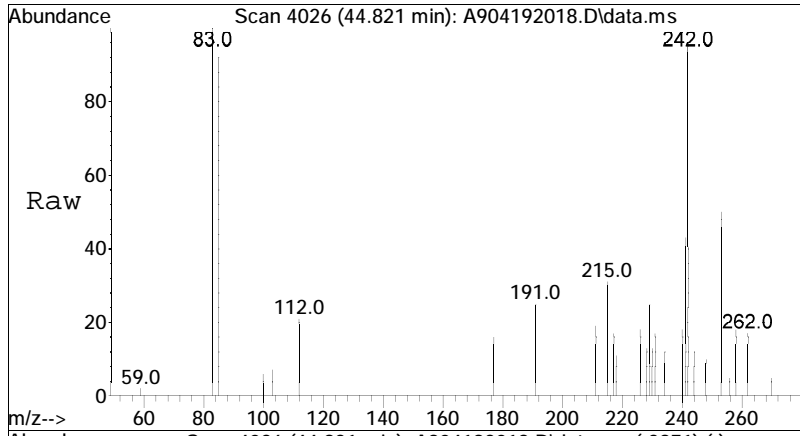
#157
 C29,20S TAS
 Concen: 300.58 ng/mL M4
 RT: 51.177 min Scan# 4721
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 231 Resp: 7244



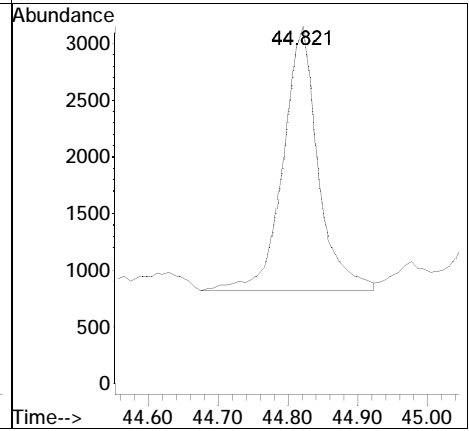
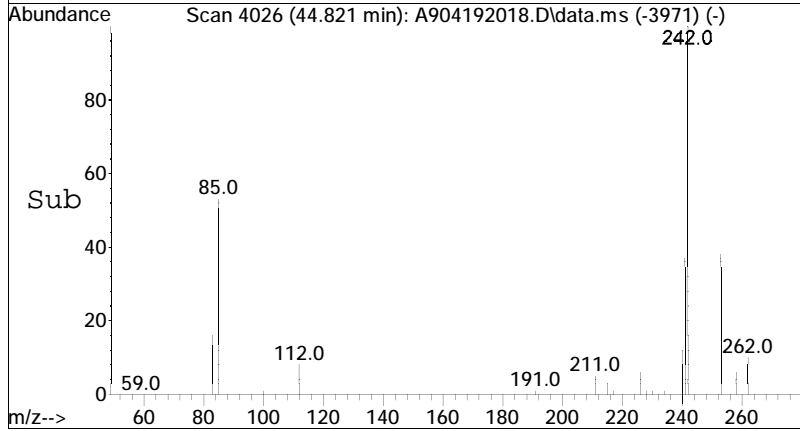


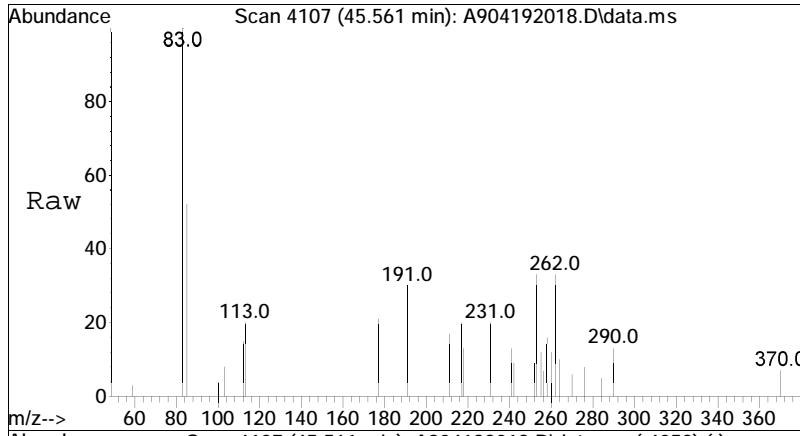
#158
 C29,20R TAS
 Concen: 201.41 ng/mL M4
 RT: 53.198 min Scan# 4942
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:231 Resp: 4854



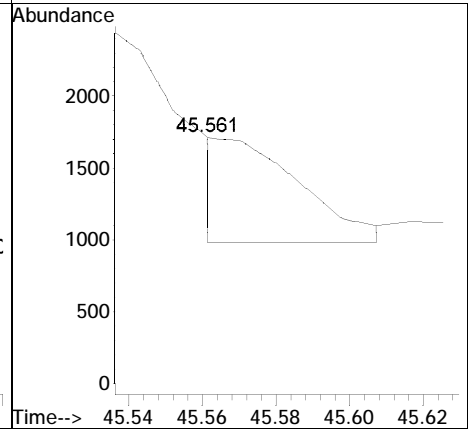
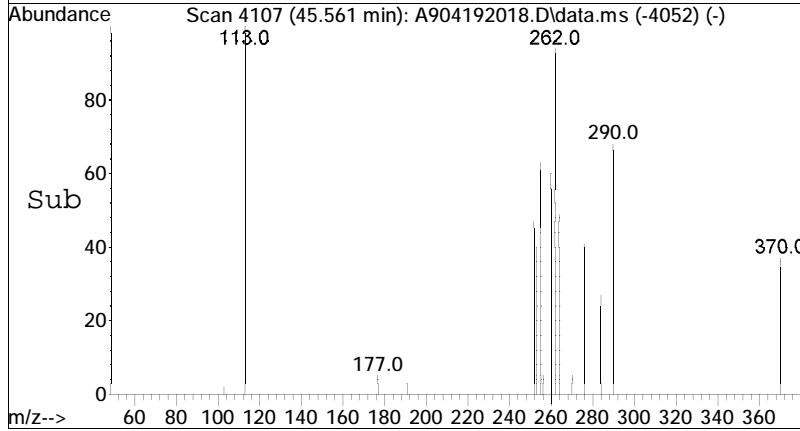


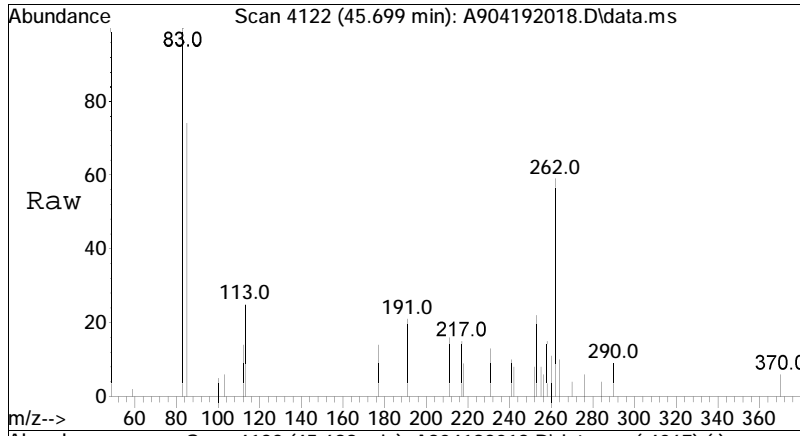
#159
 5b(H)-C27 (20S) MAS+
 Concen: 330.78 ng/mL
 RT: 44.821 min Scan# 4026
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 7972



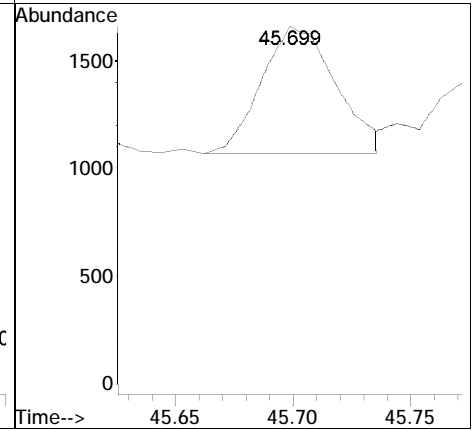
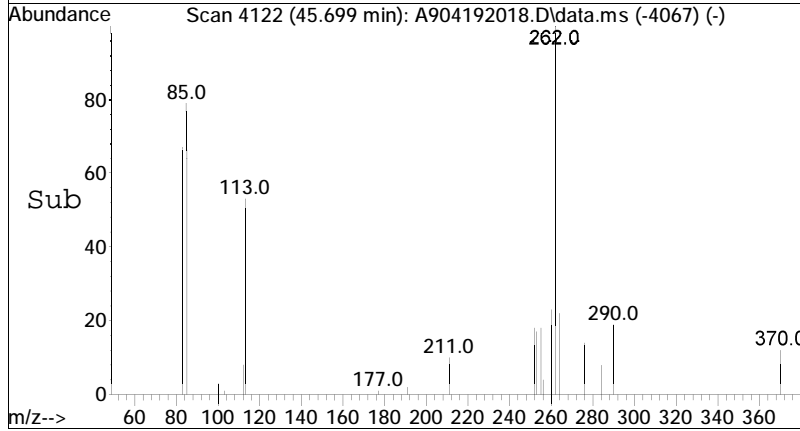


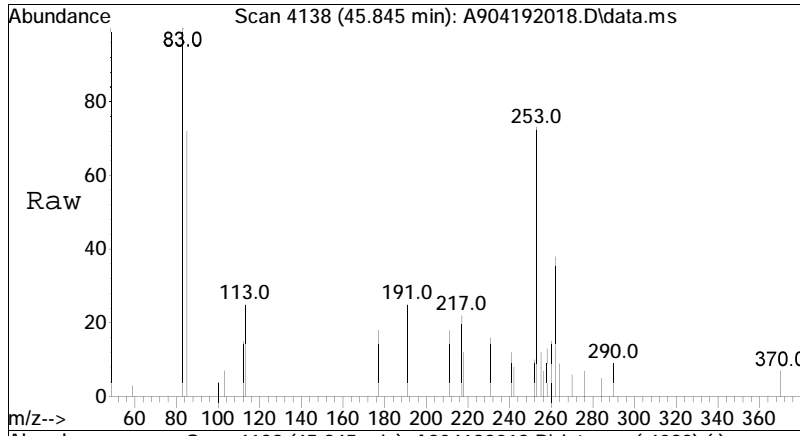
#160
 5b(H)-C27 (20R) MAS+
 Concen: 43.03 ng/mL M3
 RT: 45.561 min Scan# 4107
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion:253 Resp: 1037



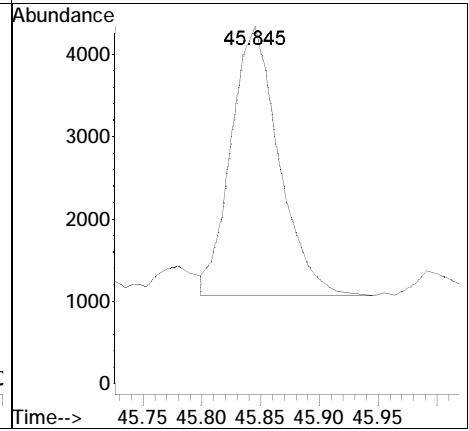
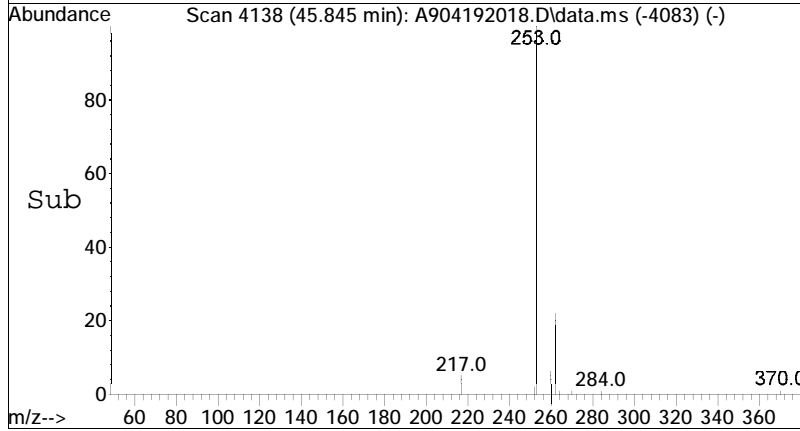


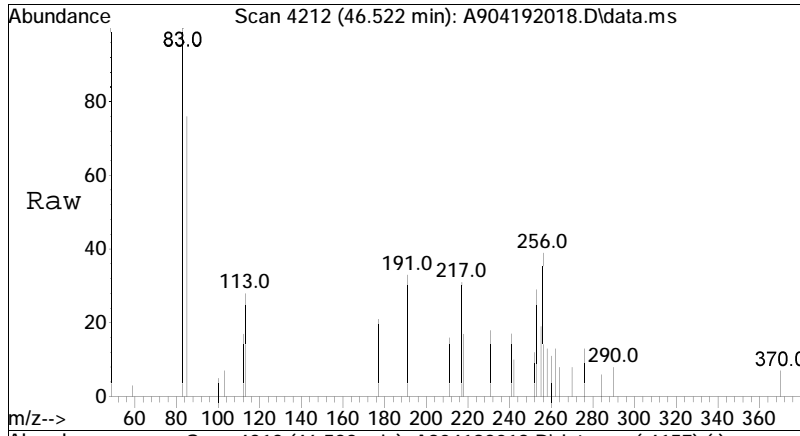
#161
 5a(H)-C27 (20S) MAS
 Concen: 54.44 ng/mL
 RT: 45.699 min Scan# 4122
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 1312



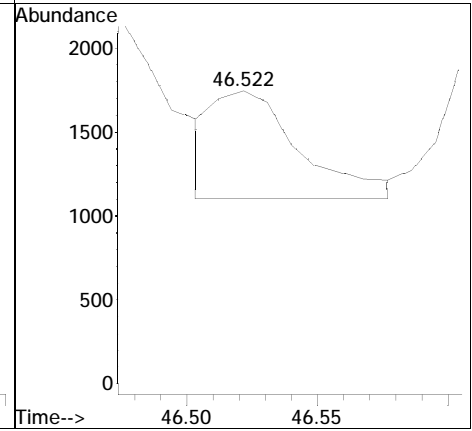
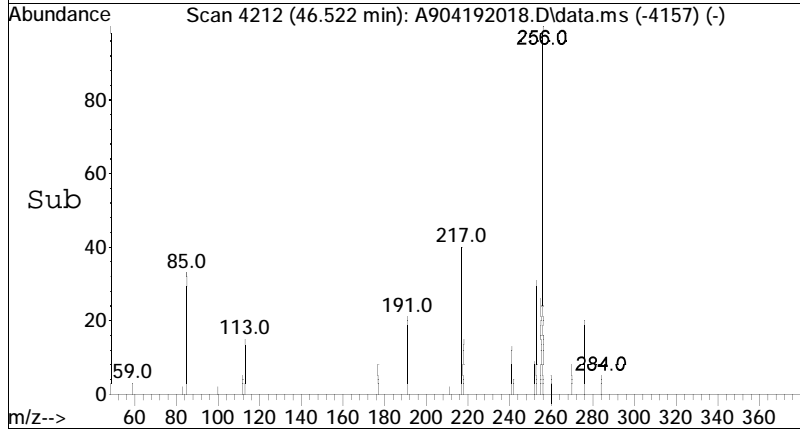


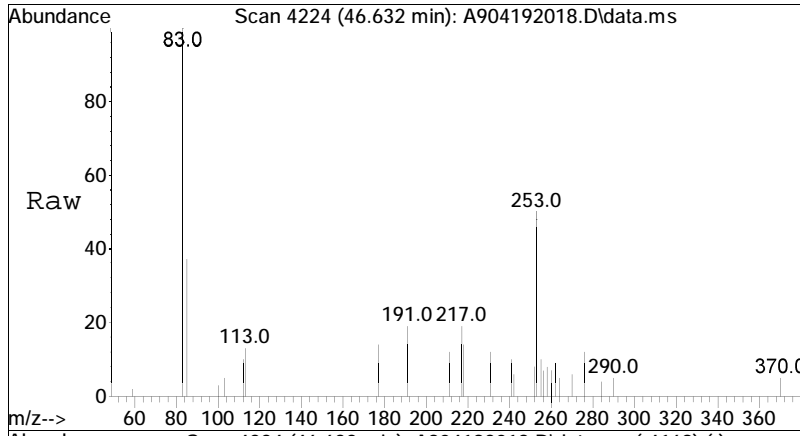
#162
 5b(H)-C28 (20S) MAS+
 Concen: 378.29 ng/mL
 RT: 45.845 min Scan# 4138
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 9117



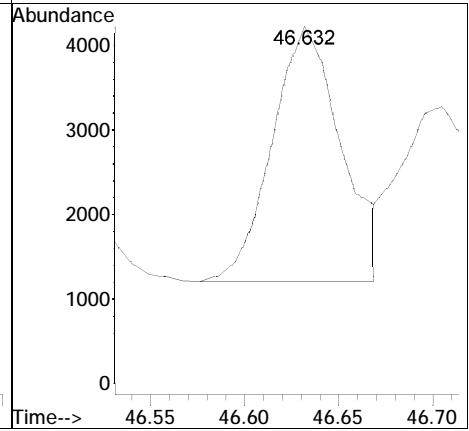
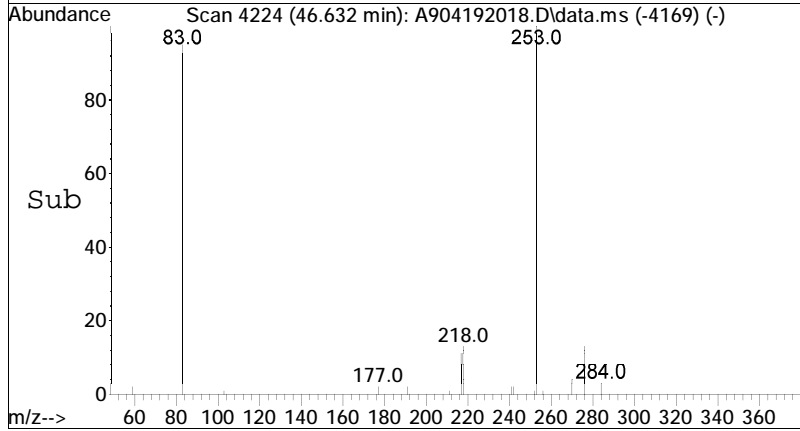


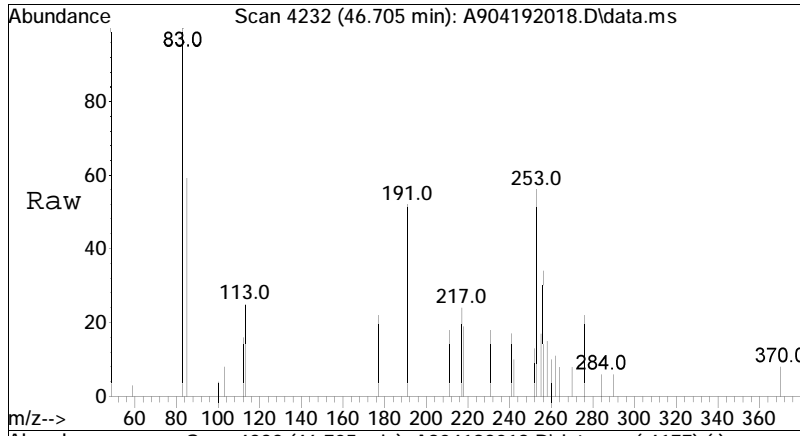
#163
 5a(H)-C27 (20R) MAS
 Concen: 62.07 ng/mL M4
 RT: 46.522 min Scan# 4212
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 1496



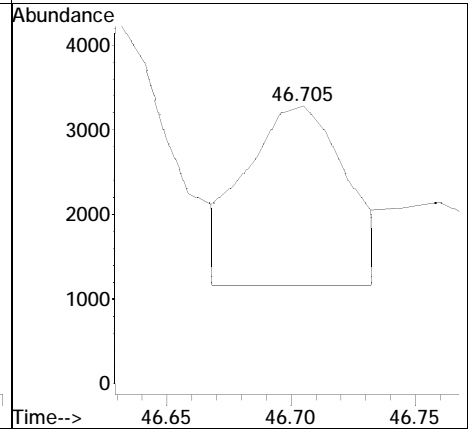
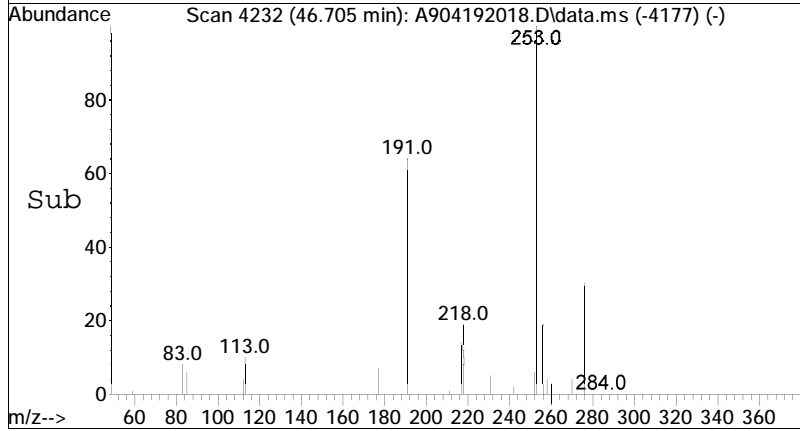


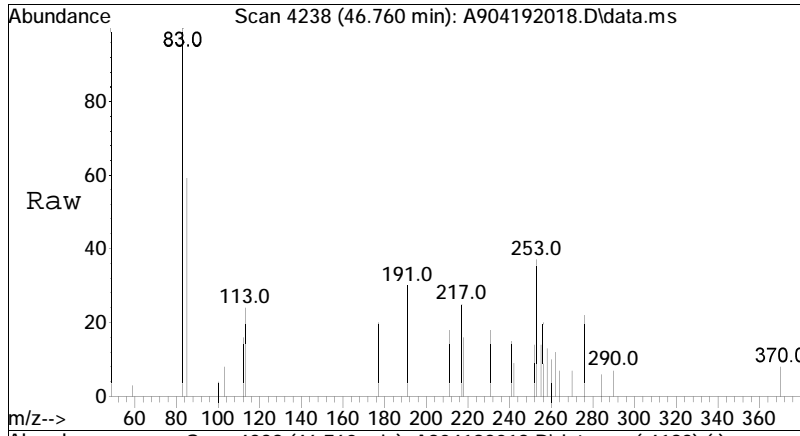
#164
 5a(H)-C28 (20S) MAS
 Concen: 321.57 ng/mL
 RT: 46.632 min Scan# 4224
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 7750



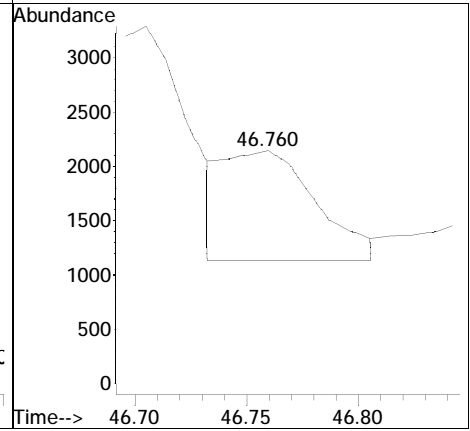
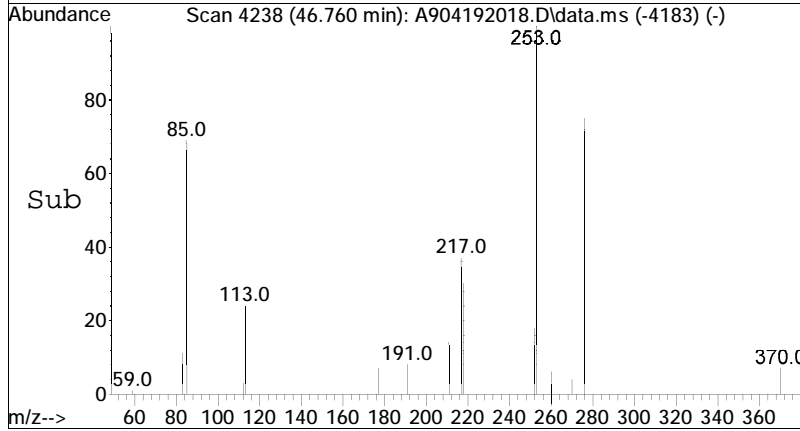


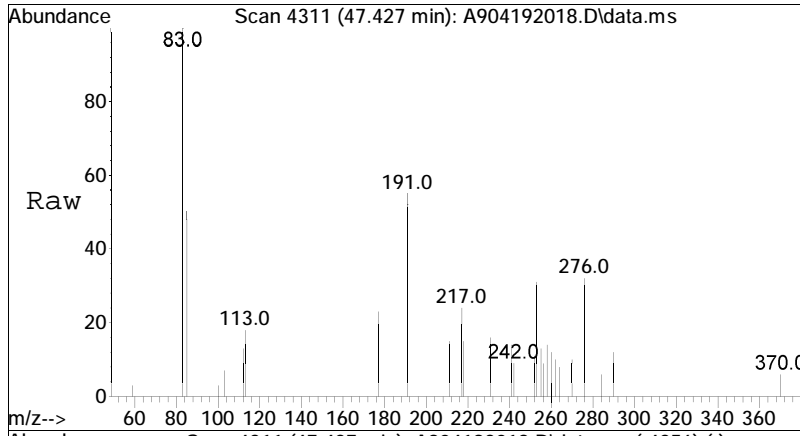
#165
 5b(H)-C28 (20R) MAS+
 Concen: 246.06 ng/mL M4
 RT: 46.705 min Scan# 4232
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 5930



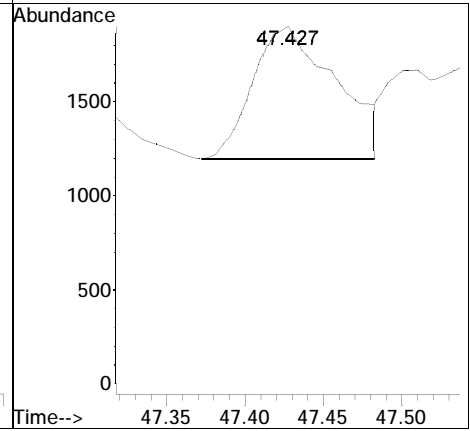
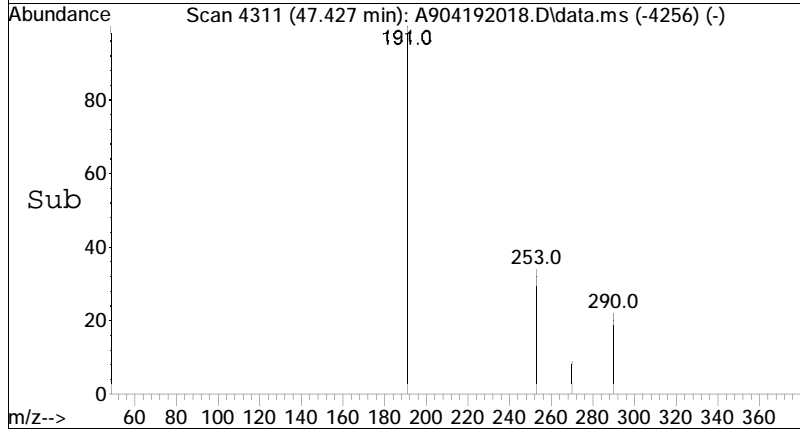


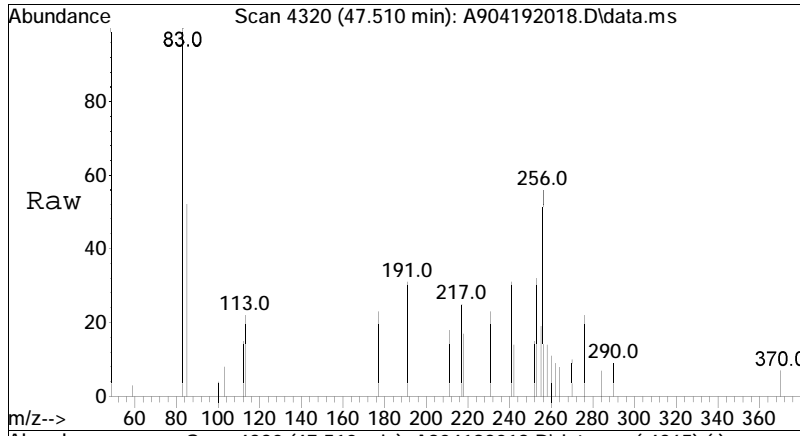
#166
 5b(H)-C29 (20S) MAS+
 Concen: 120.12 ng/mL M3
 RT: 46.760 min Scan# 4238
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 2895



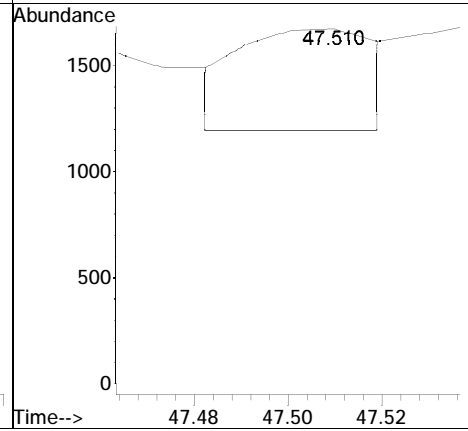
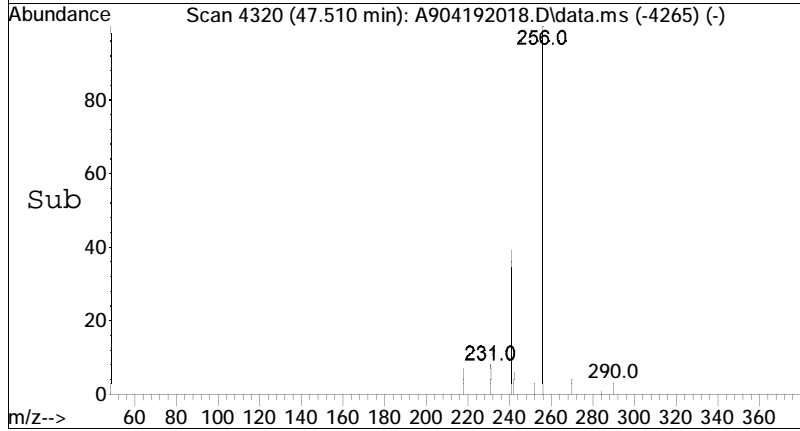


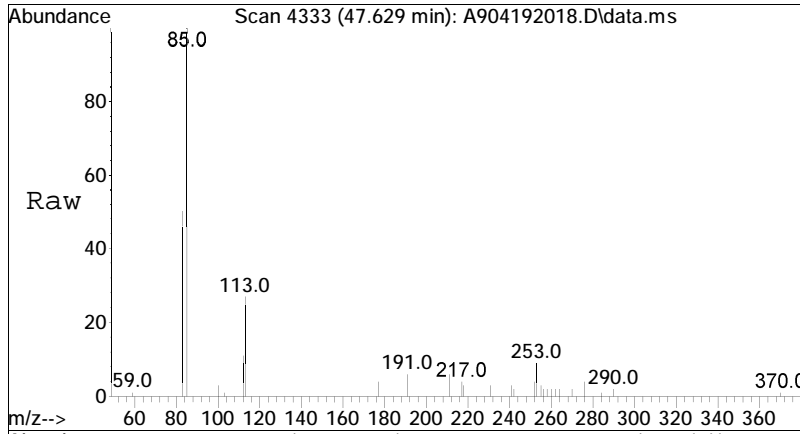
#167
 5a(H)-C29 (20S) MAS
 Concen: 109.33 ng/mL
 RT: 47.427 min Scan# 4311
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 2635



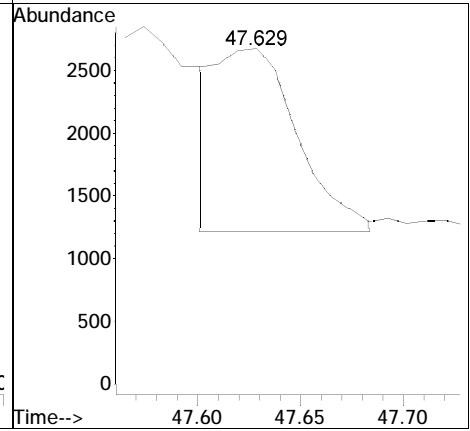
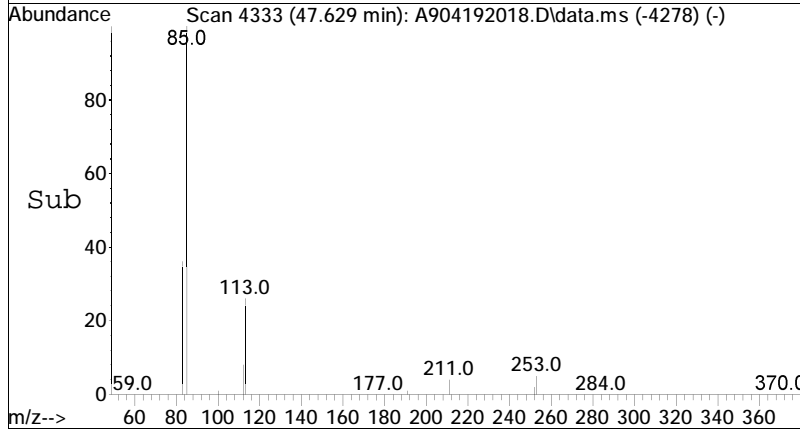


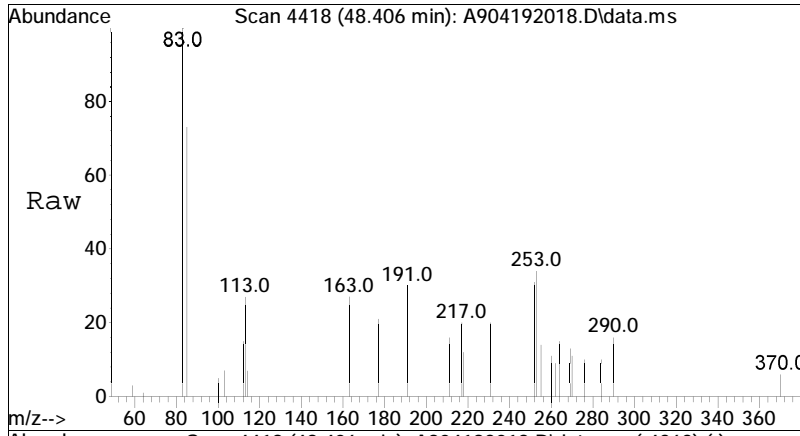
#168
 5a(H)-C28 (20R) MAS
 Concen: 40.41 ng/mL M3
 RT: 47.510 min Scan# 4320
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 974



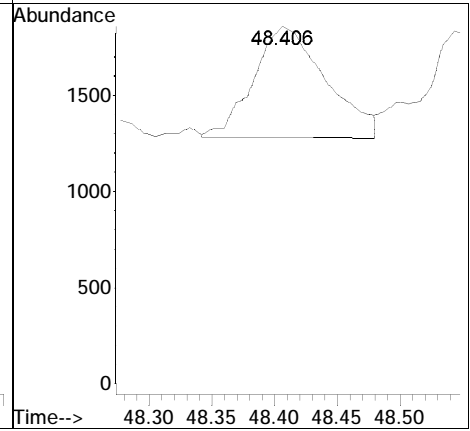
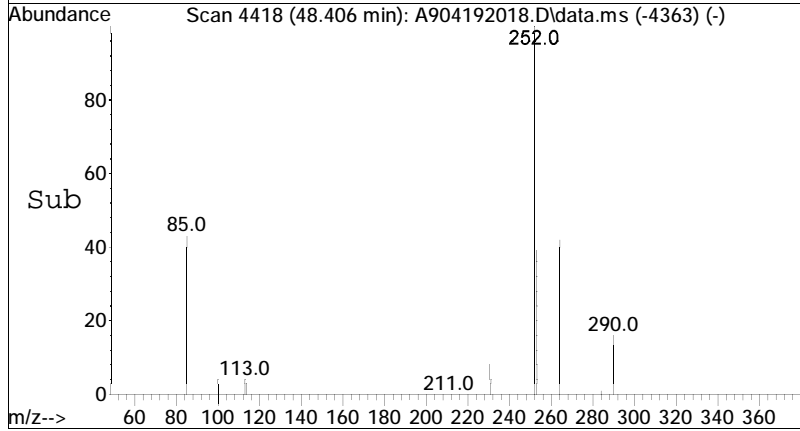


#169
 5b(H)-C29 (20R) MAS+
 Concen: 166.93 ng/mL M3
 RT: 47.629 min Scan# 4333
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 4023





#170
 5a(H)-C29 (20R) MAS
 Concen: 96.55 ng/mL
 RT: 48.406 min Scan# 4418
 Delta R.T. 0.000 min
 Lab File: A904192018.D
 Acq: 20 Apr 2020 2:39 pm
 Tgt Ion: 253 Resp: 2327



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jun 08 2020, 02:47 pm

Work Group: WG1372713 for Department: 2 Organic Preparation

Created: 20-MAY-20 Due: Operator: LB

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2020213-01	PDI-051SC-B-06-08-200506	S A2-SHC	SOIL	DONE	U	0520	0608	S0	Glass-A.120
L2020213-01	PDI-051SC-B-06-08-200506	S A2-ALKPAH	SOIL	DONE	U	0520	0608	S0	Glass-A.120
L2020213-02	PDI-056SC-B-05-07-200510	S A2-ALKPAH	SOIL	DONE	U	0524	0608	S0	Glass-A.120
L2020213-02	PDI-056SC-B-05-07-200510	S A2-SHC	SOIL	DONE	U	0524	0608	S0	Glass-A.120
L2020213-03	PDI-063SC-B-05-07-200429	S A2-ALKPAH	SOIL	DONE	U	0513	0608	S0	Glass-A.120
L2020213-03	PDI-063SC-B-05-07-200429	S A2-SHC	SOIL	DONE	U	0513	0608	S0	Glass-A.120
L2020213-04	PDI-1056SC-B-05-07-200510	S A2-ALKPAH	SOIL	DONE	U	0524	0608	S0	Glass-A.120
L2020213-04	PDI-1056SC-B-05-07-200510	S A2-SHC	SOIL	DONE	U	0524	0608	S0	Glass-A.120
WG1372713-1	Laboratory Method Bl	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-1	Laboratory Method Bl	S A2-SHC	SOIL	DONE	U				
WG1372713-2	Laboratory Control S	S A2-SHC	SOIL	DONE	U				
WG1372713-2	Laboratory Control S	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-3	LCS Duplicate	S A2-SHC	SOIL	DONE	U				
WG1372713-3	LCS Duplicate	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-4	Matrix Spike	S A2-SHC	SOIL	DONE	U				
WG1372713-4	Matrix Spike	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-5	Matrix Spike Duplica	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-5	Matrix Spike Duplica	S A2-SHC	SOIL	DONE	U				
Comments:									
WG1372713-3	WG1372713-2								
WG1372713-4	L2020213-03								
WG1372713-5	L2020213-03								

Sequence Logs

Analysis log File

Total Files Reported in Log : 24

Log Generated From Directory: O:\Forensics\Data\PAH9\2020\APRIL20\APRIL19\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	A904192001.D	FRNC9ALT.M	l1	dcm	4/19/2020	1:58 pm
2	A904192002.D	FRNC9ALT.M	DCM		4/19/2020	3:51 pm
3	A904192003.D	FRNC9ALT.M	DCM		4/19/2020	5:17 pm
4	A904192004.D	FRNC9ALT.M	I904192001	FRBC38 rerun	4/19/2020	6:43 pm
5	A904192005.D	FRNC9ALT.M	I904192002	WG1363075,FRBC39	4/19/2020	8:08 pm
6	A904192006.D	FRNC9ALT.M	I904192003	WG1363075,FRBC40	4/19/2020	9:34 pm
7	A904192007.D	FRNC9ALT.M	I904192004	WG1363075,FRBC41	4/19/2020	10:59 pm
8	A904192008.D	FRNC9ALT.M	I904192005	WG1363075,FRBC42	4/20/2020	12:25 am
9	A904192009.D	FRNC9ALT.M	I904192006	WG1363075,FRBC43	4/20/2020	1:50 am
10	A904192010.D	FRNC9ALT.M	I904192007	WG1363075,FRBC44	4/20/2020	3:16 am
11	A904192011.D	FRNC9ALT.M	DCM	DCM	4/20/2020	4:41 am
12	A904192012.D	FRNC9ALT.M	L1 1/3		4/20/2020	6:07 am
13	A904192013.D	FRNC9ALT.M	I904192001a	WG1363075,FRBC38	4/20/2020	7:32 am
14	A904192014.D	FRNC9ALT.M	L1 3/3		4/20/2020	8:57 am
15	A904192015.D	FRNC9ALT.M	DCM		4/20/2020	10:22 am
16	A904192016.D	FRNC9ALT.M	QC904192009	DCM	4/20/2020	11:48 am
17	A904192017.D	FRNC9ALT.M	dcm	DCM	4/20/2020	1:13 pm
18	A904192018.D	FRNC9ALT.M	WG1363075-1,.05044	WG1363075,FRBC46 5.044	4/20/2020	2:39 pm
19	A904192019.D	FRNC9ALT.M	CCV	DCM	4/20/2020	11:50 pm
20	A904192020.D	FRNC9ALT.M	CQ904192001	WG1363075,FRBC56	4/21/2020	2:30 am
21	A904192021.D	FRNC9ALT.M	C904192001	CC FRBC41 500NG/ML	4/21/2020	4:58 am
22	A904192022.D	FRNC9ALT.M	DCM	DCM	4/21/2020	6:23 am
23	A904192023.D	FRNC9ALT.M	DCM	DCM	4/21/2020	7:48 am
24	A904192024.D	FRNC9ALT.M	WG1358275-1	WG	4/21/2020	9:13 am

Analysis log File

Total Files Reported in Log : 37

Log Generated From Directory: O:\Forensics\Data\PAH9\2020\MAY20\MAY23\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	A905232001.D	FRNC9ALT.M	PRIME	dcm	5/23/2020	12:57 pm
2	A905232002.D	FRNC9ALT.M	WG1374011-1	WG1374011,CC FRBC41 500..	5/23/2020	2:22 pm
3	A905232003.D	FRNC9ALT.M	ANS905232001		5/23/2020	3:47 pm
4	A905232004.D	FRNC9ALT.M	DCM		5/23/2020	5:11 pm
5	A905232005.D	FRNC9ALT.M	DCM		5/23/2020	6:36 pm
6	A905232006.D	FRNC9ALT.M	WG1372713-1	WG1374011,WG1372713,ICA..	5/23/2020	8:01 pm
7	A905232007.D	FRNC9ALT.M	WG1372713-2	WG1374011,WG1372713,ICA..	5/23/2020	9:26 pm
8	A905232008.D	FRNC9ALT.M	WG1372713-3	WG1374011,WG1372713,ICA..	5/23/2020	10:51 pm
9	A905232009.D	FRNC9ALT.M	L2020213-01	WG1374011,WG1372713,ICA..	5/24/2020	12:16 am
10	A905232010.D	FRNC9ALT.M	L2020213-02	WG1374011,WG1372713,ICA..	5/24/2020	1:40 am
11	A905232011.D	FRNC9ALT.M	L2020213-03	WG	5/24/2020	3:05 am
12	A905232012.D	FRNC9ALT.M	WG1372213-4	WG	5/24/2020	4:30 am
13	A905232013.D	FRNC9ALT.M	WG1372213-5	WG	5/24/2020	5:54 am
14	A905232014.D	FRNC9ALT.M	L2020213-04	WG1374011,WG1372713,ICA..	5/24/2020	7:19 am
15	A905232015.D	FRNC9ALT.M	WG1374011-2	WG1374011,CC FRBC41 500..	5/24/2020	8:44 am
16	A905232016.D	FRNC9ALT.M			5/24/2020	10:09 am
17	A905232017.D	FRNC9ALT.M	WG1374011-3	WG1374011,CC FRBC41 500..	5/27/2020	2:13 am
18	A905232018.D	FRNC9ALT.M	L2020213-01D, 32, 20	WG1374011,WG1372713,ICA..	5/27/2020	3:38 am
19	A905232019.D	FRNC9ALT.M	L2020213-02D, 32, 20	WG1374011,WG1372713,ICA..	5/27/2020	5:03 am
20	A905232020.D	FRNC9ALT.M	L2020213-03D, 32, 20	WG	5/27/2020	6:28 am
21	A905232021.D	FRNC9ALT.M	WG1372713-4, 32, 20	WG	5/27/2020	7:54 am
22	A905232022.D	FRNC9ALT.M	WG1372713-5, 32, 20	WG	5/27/2020	9:19 am
23	A905232023.D	FRNC9ALT.M	L2020213-04D, 32, 20	WG1374011,WG1372713,ICA..	5/27/2020	10:45 am
24	A905232024.D	FRNC9ALT.M	L2020213-03D, 32, 4	WG1374011,WG1372713,ICA..	5/27/2020	12:12 pm
25	A905232025.D	FRNC9ALT.M	WG1372713-4D, 32, 4	WG1374011,WG1372713,ICA..	5/27/2020	1:38 pm
26	A905232026.D	FRNC9ALT.M	WG1372713-5D, 32, 4	WG1374011,WG1372713,ICA..	5/27/2020	3:04 pm
27	A905232027.D	FRNC9ALT.M	WG1374011-4	WG1374011,CC FRBC41 500..	5/27/2020	4:30 pm
28	A905232028.D	FRNC9ALT.M	C905232005	WG1374011,CC FRBC41 500..	5/27/2020	11:38 pm
29	A905232029.D	FRNC9ALT.M	L2020213-03D, 32, 40	WG	5/28/2020	1:03 am
30	A905232030.D	FRNC9ALT.M	WG1372713-4, 32, 40	WG	5/28/2020	2:29 am
31	A905232031.D	FRNC9ALT.M	WG1372713-5, 32, 40	WG	5/28/2020	3:54 am
32	A905232032.D	FRNC9ALT.M	C905232006	WG1374011,CC FRBC41 500..	5/28/2020	5:19 am
33	A905232033.D	FRNC9ALT.M	WG1374011-5	WG1374011,CC FRBC41 500..	5/28/2020	6:45 am
34	A905232034.D	FRNC9ALT.M	L2020213-03D2, 32, 40	WG1374011,WG1372713,ICA..	5/28/2020	8:10 am
35	A905232035.D	FRNC9ALT.M	WG1372713-4D2, 32, 40	WG1374011,WG1372713,ICA..	5/28/2020	9:35 am
36	A905232036.D	FRNC9ALT.M	WG1372713-5D2, 32, 40	WG1374011,WG1372713,ICA..	5/28/2020	11:00 am
37	A905232037.D	FRNC9ALT.M	WG1374011-6	WG1374011,CC FRBC41 500..	5/28/2020	12:26 pm

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232002.D
 Acq On : 23 May 2020 2:22 pm
 Operator : PAH9:ML
 Sample : WG1374011-1
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 15:07:04 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:05:38 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	88	0.00
2 A1	trans-Decalin	0.404	0.389	3.7	89	0.00
3 t	cis-Decalin	0.309	0.297	3.9	87	0.00
8 s	Naphthalene-d8	1.827	1.759	3.7	84	0.00
9 A1	Naphthalene	2.127	2.021	5.0	83	0.00
14 t	2-Methylnaphthalene	1.410	1.333	5.5	85	0.00
15 t	1-Methylnaphthalene	1.340	1.278	4.6	85	0.00
16 A1	Benzothiophene	1.962	1.861	5.1	82	0.00
21 t	Biphenyl	1.728	1.690	2.2	87	0.00
22 t	2,6-Dimethylnaphthalene	1.238	1.202	2.9	87	0.00
23 t	Dibenzofuran	2.007	1.973	1.7	87	0.00
24 t	Acenaphthylene	2.106	2.043	3.0	87	0.00
25 t	Acenaphthene	1.305	1.273	2.5	86	0.00
26 t	2,3,5-Trimethylnaphthalene	1.152	1.125	2.3	88	0.00
27 A1	Fluorene	1.546	1.498	3.1	87	0.00
31 A1	Dibenzothiophene	2.286	2.200	3.8	87	0.00
40 s	Phenanthrene-d10	1.711	1.718	-0.4	90	0.00
41 A1	Phenanthrene	2.279	2.201	3.4	87	0.00
52 t	Retene	0.760	0.752	1.1	91	0.00
53 t	Anthracene	2.009	2.032	-1.1	87	0.00
54 t	Carbazole	2.102	1.805	14.1	79	0.00
55 t	1-Methylphenanthrene	1.676	1.584	5.5	86	0.00
56 A1	Fluoranthene	2.671	2.343	12.3	86	0.00
57 A1	Benzo(b)fluorene	1.582	1.510	4.6	87	0.00
59 A1	Pyrene	2.820	2.422	14.1	85	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.254	2.115	6.2	88	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	97	0.00
75 t	Benz[a]anthracene	1.257	1.083	13.8	89	0.00
76 A1	Chrysene	1.319	1.159	12.1	93	0.00
77 A2	Chrysene/Triphenylene	1.319	1.159	12.1	93	0.00
83 S	Benzo[b]fluoranthene-d12	1.241	1.187	4.4	98	0.00
84 t	Benzo[b]fluoranthene	1.537	1.313	14.6	94	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.397	7.9	98	0.00
88 t	Benzo[e]pyrene	1.517	1.286	15.2	96	0.00
89 s	Benzo[a]pyrene-d12	0.830	0.780	6.0	98	0.00
90 t	Benzo[a]pyrene	1.447	1.254	13.3	95	0.00
91 t	Perylene	1.344	1.215	9.6	96	0.00
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.693	-0.3	110	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232002.D
 Acq On : 23 May 2020 2:22 pm
 Operator : PAH9:ML
 Sample : WG1374011-1
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 15:07:04 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:05:38 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.442	0.8	100	0.00
95 t Benzo[g,h,i]perylene	1.734	1.481	14.6	98	0.00
96 A1 Hopane (T19)	0.436	0.336	22.9	87	0.00
130 SA1 5B(H)Cholane - Surr	0.221	0.188	14.9	87	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.88	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.40	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232002.D
 Acq On : 23 May 2020 2:22 pm
 Operator : PAH9:ML
 Sample : WG1374011-1
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 15:07:04 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:05:38 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards						
1) Acenaphthene-d10	26.530	164	24854	500.000	ng/mL	0.00
74) Chrysene-d12	42.959	240	51652	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.585	136	43709	481.169	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.12%#
40) Phenanthrene-d10	32.387	188	42707	502.055	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.21%
83) Benzo[b]fluoranthene-d12	46.851	264	61307	478.348	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.83%#
89) Benzo[a]pyrene-d12	48.004	264	40277	469.812	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.98%#
130) 5B(H)Cholane - Surr	43.589	217	9697	424.546	ng/ml	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	42.45%#
Target Compounds						
2) trans-Decalin	16.254	138	4837	241.138	ng/mL	100
3) cis-Decalin	17.459	138	3687	240.254	ng/mL	100
9) Naphthalene	19.658	128	50224	474.978	ng/mL	100
14) 2-Methylnaphthalene	22.350	142	33138	472.679	ng/mL	100
15) 1-Methylnaphthalene	22.770	142	31774	476.930	ng/mL	100
16) Benzothiophene	19.877	134	46242	474.260	ng/mL	100
21) Biphenyl	24.221	154	42006	489.075	ng/mL	100
22) 2,6-Dimethylnaphthalene	24.832	156	29867	485.490	ng/mL	100
23) Dibenzofuran	27.296	168	49037	491.500	ng/mL	99
24) Acenaphthylene	25.918	152	50784	484.998	ng/mL	100
25) Acenaphthene	26.657	153	31645	487.704	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.208	170	27967	488.581	ng/mL	93
27) Fluorene	28.674	166	37242	484.464	ng/mL	100
31) Dibenzothiophene	31.976	184	54673	481.219	ng/mL	99
41) Phenanthrene	32.478	178	54695	482.902	ng/mL	98
52) Retene	39.462	234	18687	494.384	ng/mL	99
53) Anthracene	32.652	178	50505	505.645	ng/mL	98
54) Carbazole	33.318	167	44856	429.354	ng/mL	97
55) 1-Methylphenanthrene	34.979	192	39377	472.710	ng/mL	99
56) Fluoranthene	37.243	202	58240	438.647	ng/mL	93
57) Benzo(b)fluorene	39.754	216	37533	477.151	ng/mL	99
59) Pyrene	38.120	202	60204	429.417	ng/mL	93
67) Naphthobenzothiophene-2,1	41.963	234	52575	469.314	ng/mL	99
75) Benz[a]anthracene	42.895	228	55958	430.839	ng/mL	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232002.D
 Acq On : 23 May 2020 2:22 pm
 Operator : PAH9:ML
 Sample : WG1374011-1
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 15:07:04 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:05:38 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.050	228	59856	439.266	ng/mL	95
77) Chrysene/Triphenylene	43.050	228	59856	439.266	ng/mL	95
84) Benzo[b]fluoranthene	46.934	252	67815	427.067	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.007	252	72153	460.464	ng/mL	92
88) Benzo[e]pyrene	47.912	252	66406	423.731	ng/mL	93
90) Benzo[a]pyrene	48.095	252	64770	433.309	ng/mL	89
91) Perylene	48.397	252	62781	452.086	ng/mL	89
92) Indeno[1,2,3-cd]pyrene	52.769	276	87429	501.409	ng/mL	96
93) Dibenz[ah]+[ac]anthracene	52.833	278	74466	496.201	ng/mL	96
95) Benzo[g,h,i]perylene	54.030	276	76500	427.013	ng/mL	97
96) Hopane (T19)	51.928	191	17375	385.696	ng/mL#	66

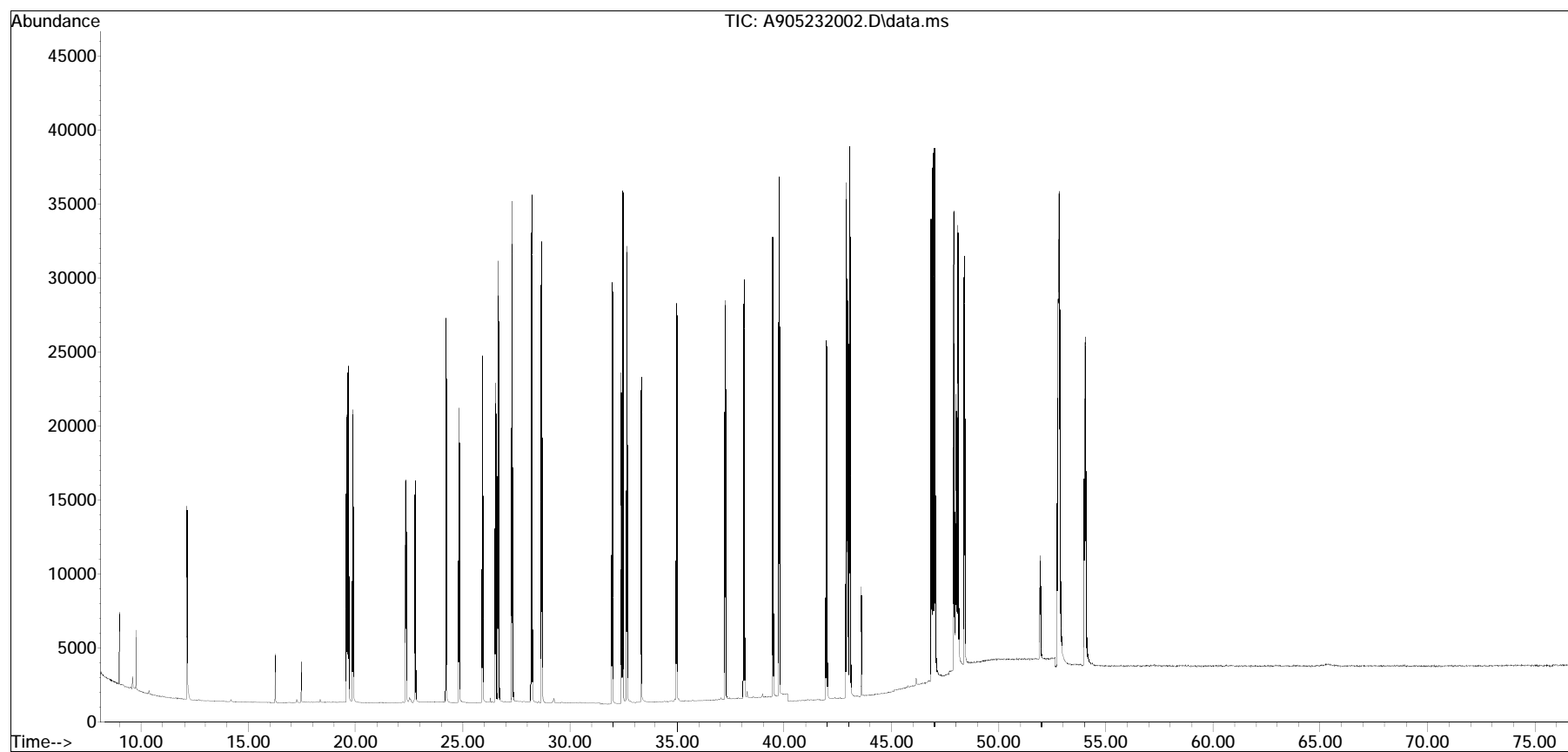
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232002.D
Acq On : 23 May 2020 2:22 pm
Operator : PAH9:ML
Sample : WG1374011-1
Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 03 15:07:04 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 15:05:38 2020
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232015.D
 Acq On : 24 May 2020 8:44 am
 Operator : PAH9:ML
 Sample : WG1374011-2
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 26 15:21:38 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	103	0.02
2 A1	trans-Decalin	0.404	0.381	5.7	102	0.00
3 t	cis-Decalin	0.309	0.292	5.5	100	0.00
8 s	Naphthalene-d8	1.827	1.687	7.7	95	0.00
9 A1	Naphthalene	2.127	2.021	5.0	97	0.00
14 t	2-Methylnaphthalene	1.410	1.317	6.6	98	0.00
15 t	1-Methylnaphthalene	1.340	1.283	4.3	100	0.00
16 A1	Benzothiophene	1.962	1.874	4.5	98	0.00
21 t	Biphenyl	1.728	1.674	3.1	101	0.02
22 t	2,6-Dimethylnaphthalene	1.238	1.198	3.2	101	0.02
23 t	Dibenzofuran	2.007	1.990	0.8	104	0.02
24 t	Acenaphthylene	2.106	2.212	-5.0	110	0.02
25 t	Acenaphthene	1.305	1.339	-2.6	107	0.00
26 t	2,3,5-Trimethylnaphthalene	1.152	1.129	2.0	104	0.02
27 A1	Fluorene	1.546	1.559	-0.8	106	0.02
31 A1	Dibenzothiophene	2.286	2.265	0.9	105	0.02
40 s	Phenanthrene-d10	1.711	1.693	1.1	104	0.02
41 A1	Phenanthrene	2.279	2.247	1.4	104	0.02
52 t	Retene	0.760	0.794	-4.5	113	0.02
53 t	Anthracene	2.009	2.182	-8.6	109	0.03
54 t	Carbazole	2.102	1.979	5.9	102	0.03
55 t	1-Methylphenanthrene	1.676	1.609	4.0	103	0.03
56 A1	Fluoranthene	2.671	2.512	6.0	108	0.02
57 A1	Benzo(b)fluorene	1.582	1.620	-2.4	110	0.03
59 A1	Pyrene	2.820	2.620	7.1	109	0.03
67 A1	Napthobenzothiophene-2,1-D	2.254	2.241	0.6	109	0.03
74 i	Chrysene-d12	1.000	1.000	0.0	108	0.03
75 t	Benz[a]anthracene	1.257	1.225	2.5	112	0.03
76 A1	Chrysene	1.319	1.215	7.9	109	0.03
77 A2	Chrysene/Triphenylene	1.319	1.215	7.9	109	0.03
83 S	Benzo[b]fluoranthene-d12	1.241	1.243	-0.2	115	0.04
84 t	Benzo[b]fluoranthene	1.537	1.441	6.2	115	0.03
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.486	2.0	116	0.04
88 t	Benzo[e]pyrene	1.517	1.385	8.7	115	0.04
89 s	Benzo[a]pyrene-d12	0.830	0.850	-2.4	119	0.05
90 t	Benzo[a]pyrene	1.447	1.403	3.0	119	0.04
91 t	Perylene	1.344	1.362	-1.3	121	0.05
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.888	-11.8	137	0.08

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232015.D
 Acq On : 24 May 2020 8:44 am
 Operator : PAH9:ML
 Sample : WG1374011-2
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 26 15:21:38 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.683	-15.8	131	0.06
95 t Benzo[g,h,i]perylene	1.734	1.717	1.0	127	0.08
96 A1 Hopane (T19)	0.436	0.394	9.6	113	0.02
130 SA1 5B(H)Cholane - Surr	0.221	0.211	4.5	109	0.02

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.00	0.70 - 1.30
Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.51	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232015.D
 Acq On : 24 May 2020 8:44 am
 Operator : PAH9:ML
 Sample : WG1374011-2
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 26 15:21:38 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.548	164	29170	500.000	ng/mL	0.00	
74) Chrysene-d12	42.986	240	57615	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.594	136	49200	461.478	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	46.15%#		
40) Phenanthrene-d10	32.405	188	49381	494.620	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	49.46%#		
83) Benzo[b]fluoranthene-d12	46.888	264	71635	501.085	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	50.11%		
89) Benzo[a]pyrene-d12	48.050	264	48979	512.187	ng/mL	0.02	
Spiked Amount	1000.000		Recovery	=	51.22%		
130) 5B(H)Cholane - Surr	43.607	217	12157	477.162	ng/ml	0.00	
Spiked Amount	1000.000		Recovery	=	47.72%#		
Target Compounds							
2) trans-Decalin	16.254	138	5558	236.085	ng/mL	100	Qvalue
3) cis-Decalin	17.468	138	4258	236.408	ng/mL	100	
9) Naphthalene	19.667	128	58960	475.094	ng/mL	100	
14) 2-Methylnaphthalene	22.359	142	38425	466.997	ng/mL	100	
15) 1-Methylnaphthalene	22.779	142	37438	478.801	ng/mL	100	
16) Benzothiophene	19.886	134	54655	477.606	ng/mL	100	
21) Biphenyl	24.239	154	48820	484.308	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.851	156	34952	484.084	ng/mL	100	
23) Dibenzofuran	27.314	168	58053	495.775	ng/mL	98	
24) Acenaphthylene	25.936	152	64516	524.977	ng/mL	100	
25) Acenaphthene	26.666	153	39071	513.057	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.227	170	32942	490.344	ng/mL	94	
27) Fluorene	28.692	166	45470M4	503.980	ng/mL		
31) Dibenzothiophene	31.995	184	66065	495.451	ng/mL	100	
41) Phenanthrene	32.497	178	65552	493.125	ng/mL	99	
52) Retene	39.480	234	23150	521.838	ng/mL	99	
53) Anthracene	32.679	178	63660M4	543.048	ng/mL		
54) Carbazole	33.345	167	57729	470.814	ng/mL	97	
55) 1-Methylphenanthrene	35.007	192	46947	480.198	ng/mL	99	
56) Fluoranthene	37.261	202	73278	470.248	ng/mL	96	
57) Benzo(b)fluorene	39.782	216	47248	511.784	ng/mL	100	
59) Pyrene	38.147	202	76433	464.509	ng/mL	96	
67) Naphthobenzothiophene-2,1	41.991	234	65367	497.167	ng/mL	100	
75) Benz[a]anthracene	42.922	228	70603M4	487.335	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232015.D
 Acq On : 24 May 2020 8:44 am
 Operator : PAH9:ML
 Sample : WG1374011-2
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 26 15:21:38 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.077	228	69996	460.516	ng/mL	100
77) Chrysene/Triphenylene	43.077	228	69996	460.516	ng/mL	100
84) Benzo[b]fluoranthene	46.961	252	83024	468.733	ng/mL	94
85) Benzo[j]+[k]fluoranthene	47.044	252	85612	489.809	ng/mL	92
88) Benzo[e]pyrene	47.949	252	79796	456.473	ng/mL	92
90) Benzo[a]pyrene	48.132	252	80852	484.916	ng/mL	89
91) Perylene	48.443	252	78479	506.638	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	52.851	276	108770M3	559.239	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.897	278	96950M4	579.160	ng/mL	
95) Benzo[g,h,i]perylene	54.112	276	98902	494.922	ng/mL	98
96) Hopane (T19)	51.946	191	22722	452.188	ng/mL#	68

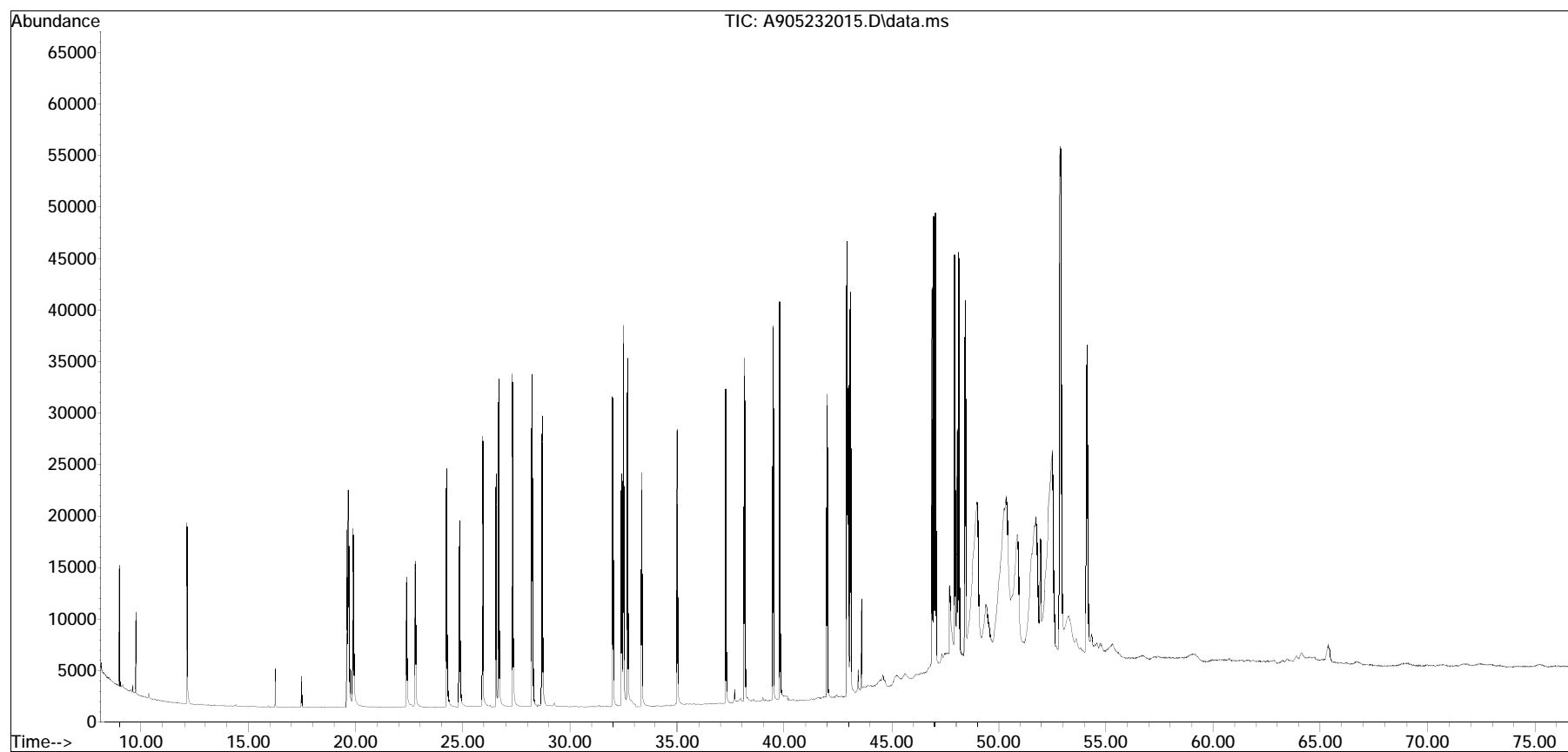
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232015.D
Acq On : 24 May 2020 8:44 am
Operator : PAH9:ML
Sample : WG1374011-2
Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 26 15:21:38 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 21 09:23:33 2020
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232009.D
 Acq On : 24 May 2020 12:16 am
 Operator : PAH9:ML
 Sample : L2020213-01
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 04 12:20:45 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	24813M3	500.000	ng/mL	0.00
74) Chrysene-d12	43.013	240	56628	500.000	ng/mL	0.05
System Monitoring Compounds						
8) Naphthalene-d8	19.585	136	37071	408.769	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	40.88%#
40) Phenanthrene-d10	32.424	188	49250	579.930	ng/mL	0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	57.99%
83) Benzo[b]fluoranthene-d12	46.897	264	70272	500.118	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.01%
89) Benzo[a]pyrene-d12	48.086	264	49261	524.115	ng/mL	0.08
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	52.41%
Target Compounds						
2) trans-Decalin	16.254	138	3590	179.267	ng/mL	100
3) cis-Decalin	17.459	138	405M4	26.434	ng/mL	
4) C1-Decalins	18.180	152	14631M5	730.602	ng/mL	
5) C2-Decalins	19.503	166	28455M5	1420.906	ng/mL	
6) C3-Decalins	21.976	180	23599M5	1178.421	ng/mL	
7) C4-Decalins	24.239	194	29968M5	1496.458	ng/mL	
9) Naphthalene	19.658	128	996004	9434.960	ng/mL	100
10) C1-Naphthalenes	22.770	142	483346M5	4578.646	ng/mL	
11) C2-Naphthalenes	25.188	156	867116M5	8214.028	ng/mL	
12) C3-Naphthalenes	27.515	170	644906M5	6109.074	ng/mL	
13) C4-Naphthalenes	30.280	184	361218M5	3421.751	ng/mL	
14) 2-Methylnaphthalene	22.341	142	175226	2503.548	ng/mL	100
15) 1-Methylnaphthalene	22.770	142	306882	4613.931	ng/mL	100
16) Benzothiophene	19.877	134	69090	709.761	ng/mL	100
17) C1-Benzo(b)thiophenes	22.204	148	47202M5	484.906	ng/mL	
18) C2-Benzo(b)thiophenes	24.896	162	98516M5	1012.054	ng/mL	
19) C3-Benzo(b)thiophenes	27.004	176	105197M5	1080.688	ng/mL	
20) C4-Benzo(b)thiophenes	29.458	190	64223M5	659.762	ng/mL	
21) Biphenyl	24.221	154	107606	1254.923	ng/mL	100
22) 2,6-Dimethylnaphthalene	24.841	156	208388	3392.956	ng/mL	100
23) Dibenzofuran	27.296	168	172942	1736.270	ng/mL	97
24) Acenaphthylene	25.927	152	325639M3	3115.058	ng/mL	
25) Acenaphthene	26.685	153	2494524	38508.406	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.218	170	52303M3	915.238	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232009.D
 Acq On : 24 May 2020 12:16 am
 Operator : PAH9:ML
 Sample : L2020213-01
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 04 12:20:45 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.692	166	1723362	22455.442	ng/mL	99
28) C1-Fluorenes	30.900	180	494884M5	6448.349	ng/mL	
29) C2-Fluorenes	33.245	194	369183M5	4810.462	ng/mL	
30) C3-Fluorenes	35.755	208	233689M5	3044.972	ng/mL	
31) Dibenzothiophene	32.004	184	2969381	26178.963	ng/mL	98
32) 4-Methyldibenzothiophene(	33.765	198	328653	2897.505	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.085	198	397780M4	3506.949	ng/mL	
34) 1-Methyldibenzothiophene(	34.541	198	107836	950.715	ng/mL	100
36) C1-Dibenzothiophenes	33.765	198	1021961M5	9009.918	ng/mL	
36) C1-Dibenzothiophenes BS	33.765	198	1015865M5	8956.174	ng/mL	
37) C2-Dibenzothiophenes	35.819	212	589529M5	5197.466	ng/mL	
38) C3-Dibenzothiophenes	37.316	226	345291M5	3044.190	ng/mL	
39) C4-Dibenzothiophenes	40.722	240	114140M5	1006.293	ng/mL	
41) Phenanthrene	32.579	178	26464387	234040.178	ng/mL	97
42) 3-Methylphenanthrene(3MP)	34.459	192	1155240	10216.468	ng/mL	97
43) 2-Methylphenanthrene(2MP)	34.577	192	1364211	12064.522	ng/mL	97
44) 2-Methylanthracene(2MA)	34.724	192	628910M4	5561.822	ng/mL	
45) 9/4-Methylphenanthrene(9M	34.924	192	1109580M4	9812.670	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.577	192	5005352M5	44265.279	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.732	206	1764444M5	15604.019	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.732	206	1764444M5	15604.019	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.567	220	715362M5	6326.368	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.480	234	248531M5	2197.906	ng/mL	
52) Retene	39.480	234	38976M4	1032.855	ng/mL	
53) Anthracene	32.725	178	6633646	66524.366	ng/mL	98
54) Carbazole	33.327	167	378597	3629.855	ng/mL	99
55) 1-Methylphenanthrene	35.006	192	739804	8895.826	ng/mL	97
56) Fluoranthene	37.371	202	31196131M4	235348.556	ng/mL	
57) Benzo(b)fluorene	39.791	216	1060498M3	13504.232	ng/mL	
58) 7H-Benzo(c)fluorene	39.836	216	439782M3	5600.122	ng/mL	
59) Pyrene	38.275	202	42160732	301216.543	ng/mL	98
60) 2-Methylpyrene	39.955	216	813938M4	5815.164	ng/mL	
61) 4-Methylpyrene	40.311	216	726459	5190.172	ng/mL	81
62) 1-Methylpyrene	40.430	216	955218	6824.537	ng/mL	79
63) C1-Fluoranthenes/Pyrenes	39.553	216	7521420M5	53736.641	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.270	230	1401577M5	10013.540	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.114	244	475391M5	3396.422	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.703	258	249087M5	1779.597	ng/mL	
67) Naphthobenzothiophene-2,1	42.000	234	1661925	14859.780	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232009.D
 Acq On : 24 May 2020 12:16 am
 Operator : PAH9:ML
 Sample : L2020213-01
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 04 12:20:45 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.329	234	369996	3308.247	ng/mL#	22
69) Naphthobenzothiophene-2,3	42.630	234	706605M3	6317.971	ng/mL	
70) C1-Naphthobenzothiophenes	43.397	248	719982M5	6437.579	ng/ml	
71) C2-Naphthobenzothiophenes	44.894	262	311899M5	2788.784	ng/ml	
72) C3-Naphthobenzothiophenes	46.787	276	233758M5	2090.102	ng/ml	
73) C4-Naphthobenzothiophenes	48.095	290	64956M5	580.791	ng/mL	
75) Benz[a]anthracene	42.977	228	8635839M4	60647.576	ng/mL	
77) Chrysene/Triphenylene	43.150	228	10154157	67970.420	ng/mL	95
78) C1-Chrysenes	44.566	242	2041063M5	13662.573	ng/mL	
79) C2-Chrysenes	46.266	256	692627M5	4636.342	ng/mL	
79) C2-Chrysenes BS	46.266	256	692627M5	4636.342	ng/mL	
81) C3-Chrysenes	48.251	270	363193M5	2431.160	ng/mL	
82) C4-Chrysenes	48.827	284	237871M5	1592.273	ng/mL	
84) Benzo[b]fluoranthene	47.034	252	9920356	56984.115	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.108	252	6367020M4	37062.361	ng/mL	
87) Benzo[a]fluoranthene	47.373	252	2553630M4	14864.655	ng/mL	
88) Benzo[e]pyrene	48.022	252	8236811	47939.939	ng/mL	94
90) Benzo[a]pyrene	48.242	252	14450781	88180.209	ng/mL	92
91) Perylene	48.489	252	3814757	25056.226	ng/mL	88
92) Indeno[1,2,3-cd]pyrene	52.979	276	11766009	61549.094	ng/mL	96
93) Dibenz[ah]+[ac]anthracene	52.979	278	1623104M4	9865.099	ng/mL	
95) Benzo[g,h,i]perylene	54.322	276	15748228	80180.308	ng/mL	99

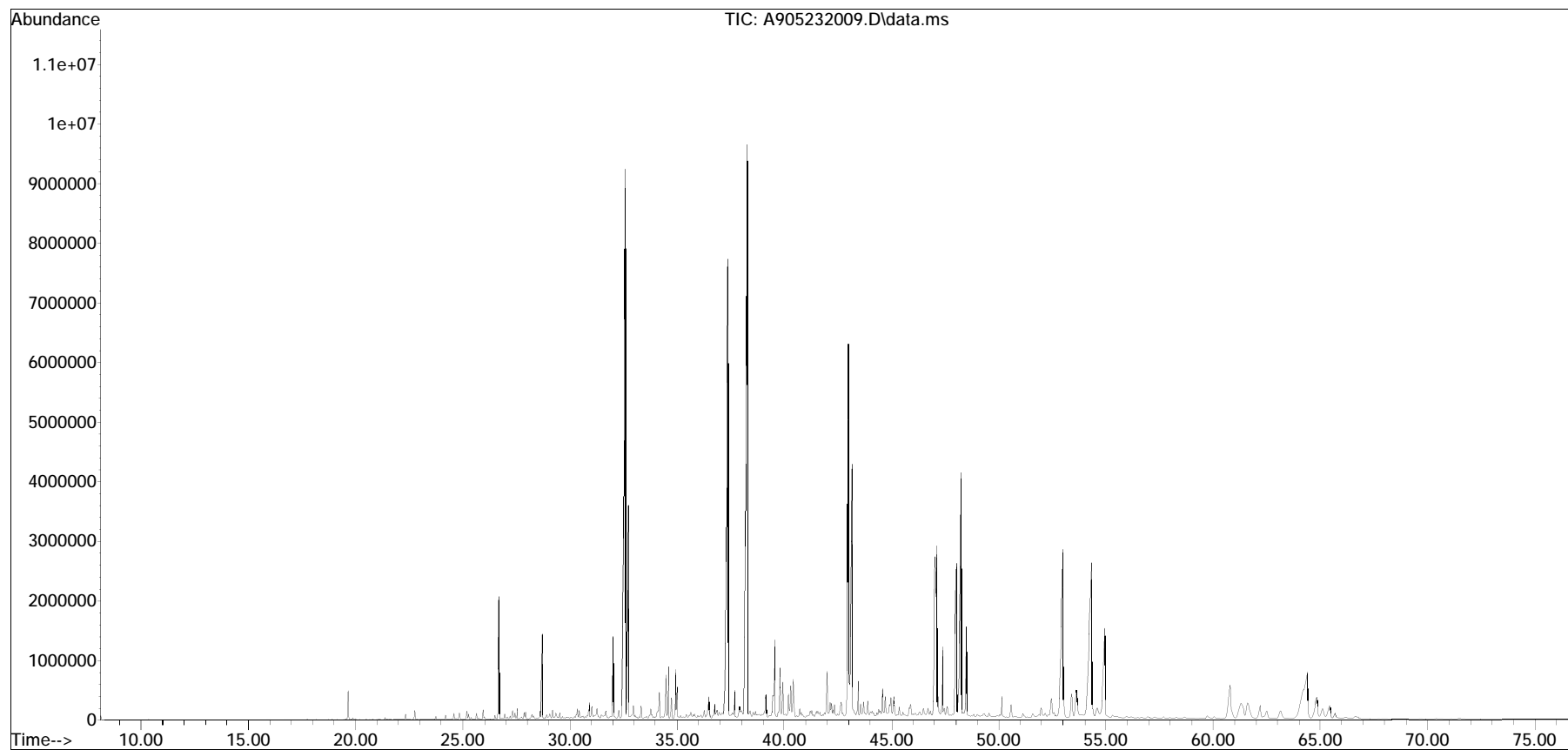
(#) = qualifier out of range (m) = manual integration (+) = signals summed

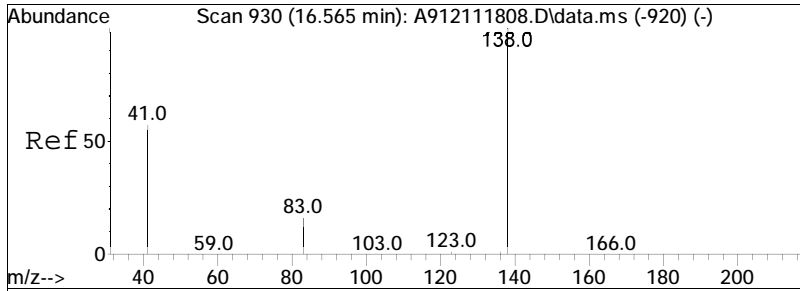
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232009.D
Acq On : 24 May 2020 12:16 am
Operator : PAH9:ML
Sample : L2020213-01
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 04 12:20:45 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

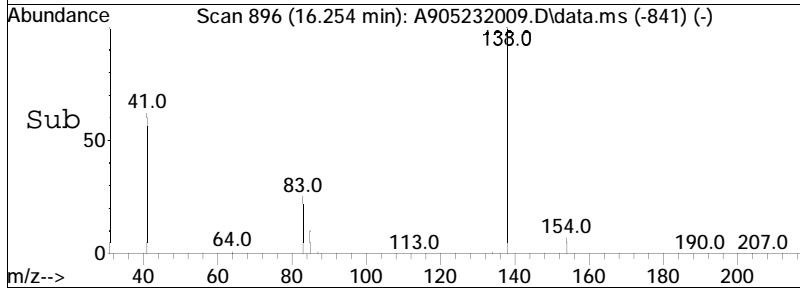
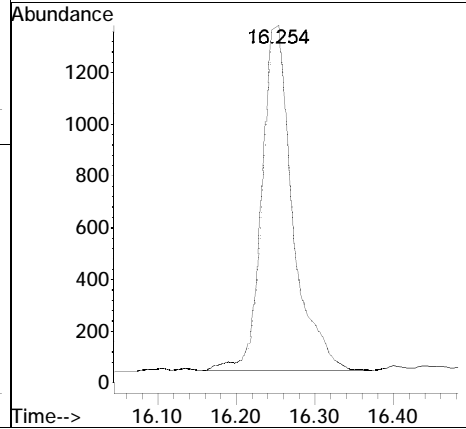
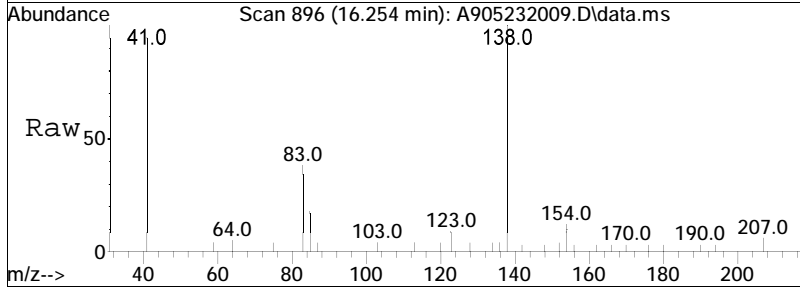
Sub List : ALKPAH - POI+MP+BcF

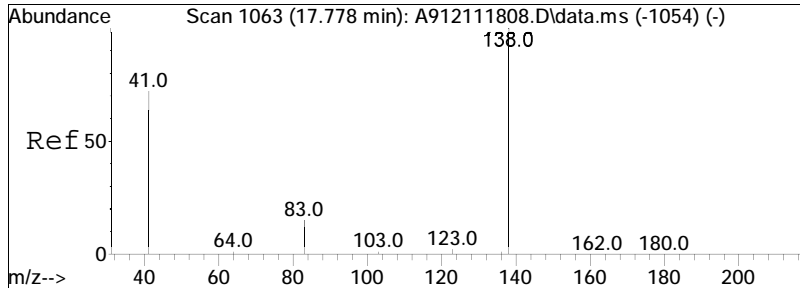




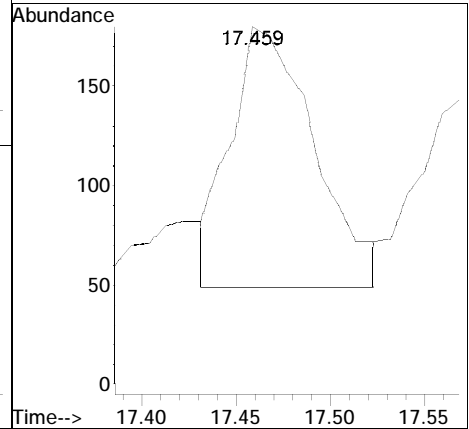
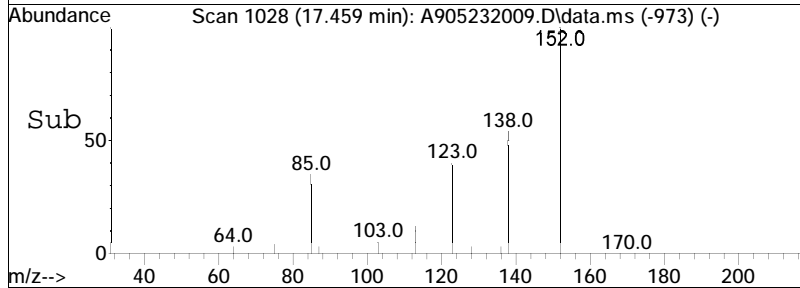
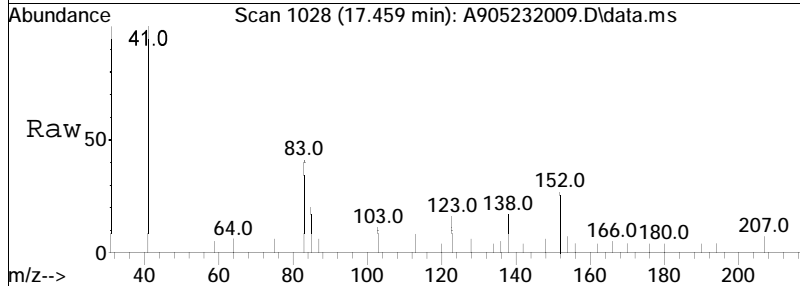
#2
 trans-Decalin
 Concen: 179.27 ng/mL
 RT: 16.254 min Scan# 896
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

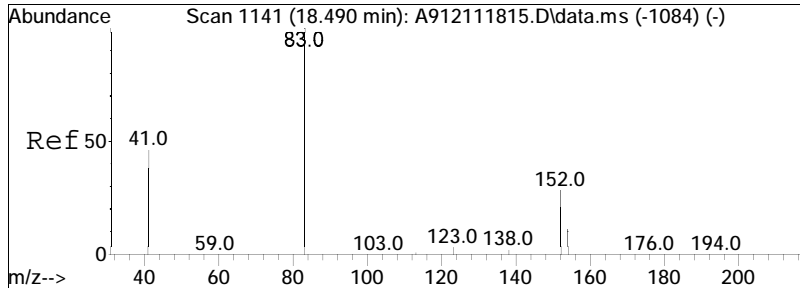
Tgt Ion:138 Resp: 3590



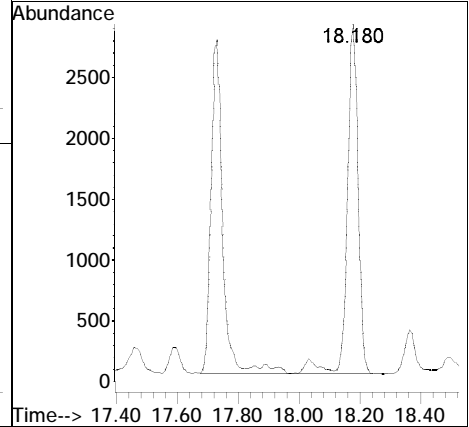
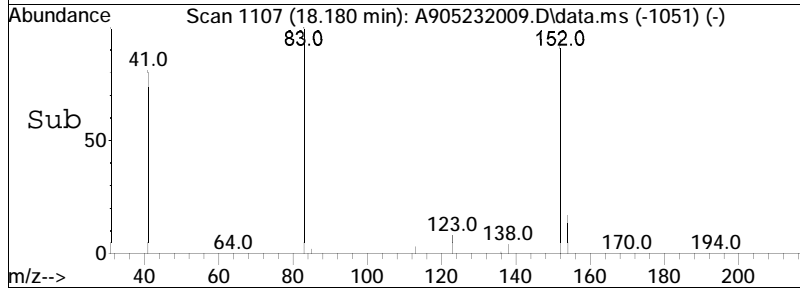
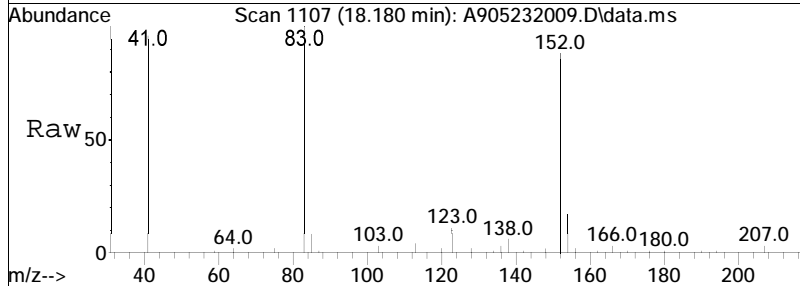


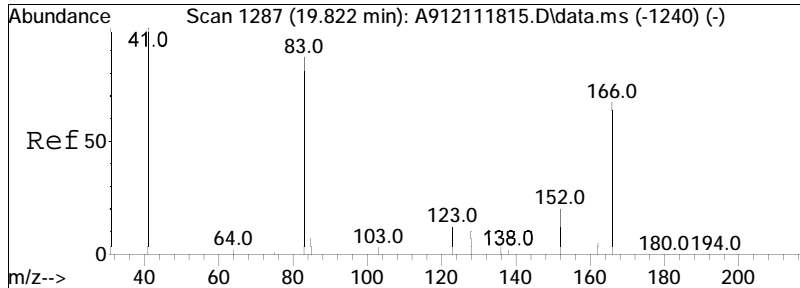
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 cis-Decalin
 Concen: 26.43 ng/mL M4
 RT: 17.459 min Scan# 1028
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:138 Resp: 405



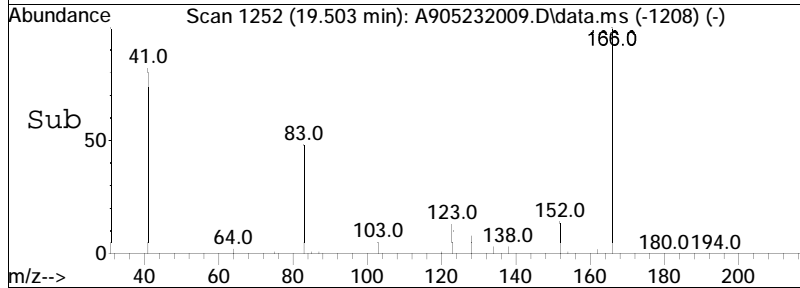
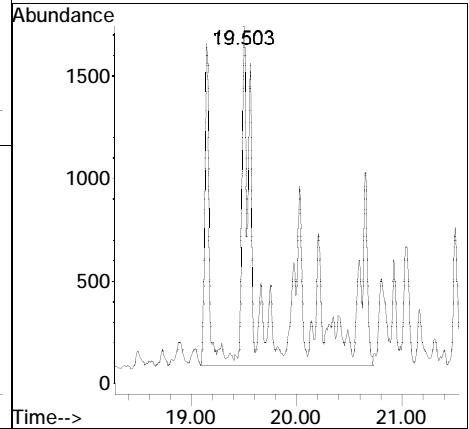
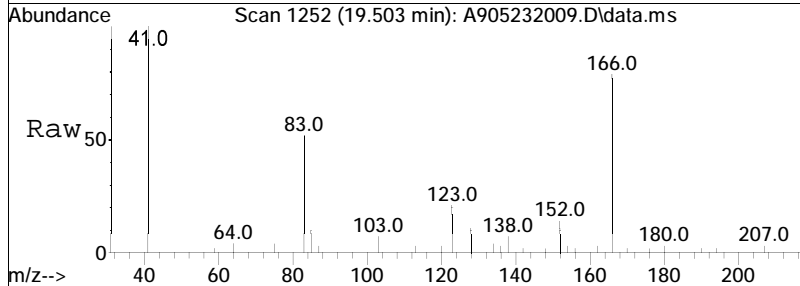


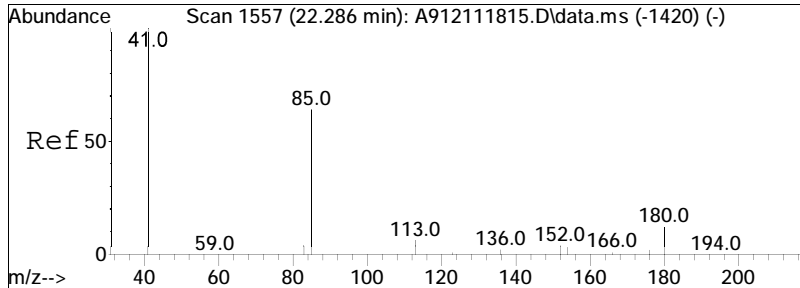
#4
 C1-Decalins
 Concen: 730.60 ng/mL M5
 RT: 18.180 min Scan# 1107
 Delta R.T. -0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:152 Resp: 14631



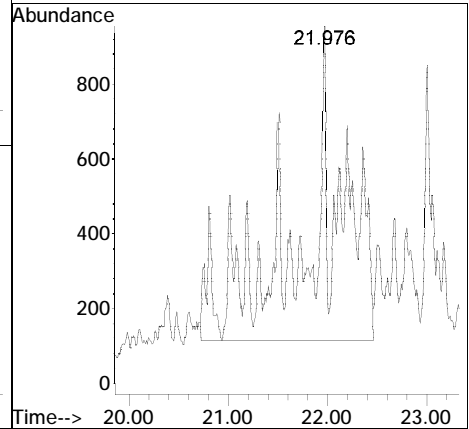
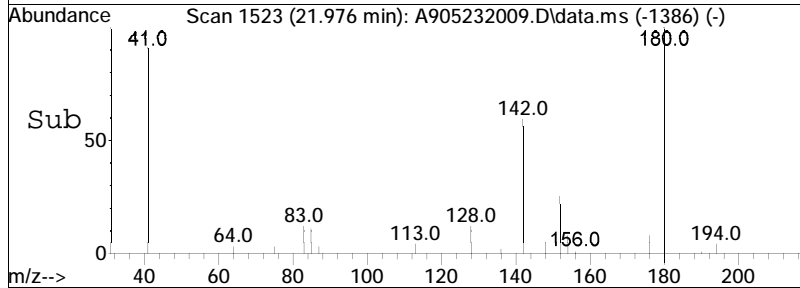
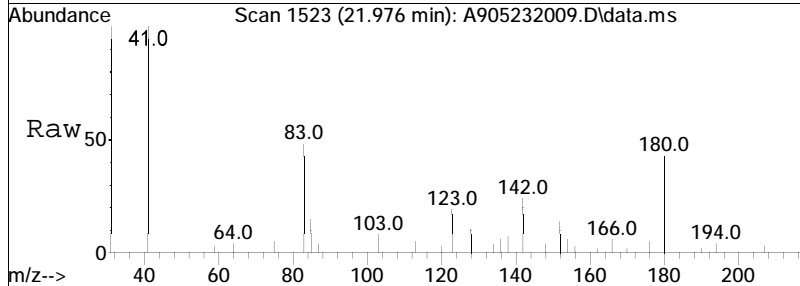


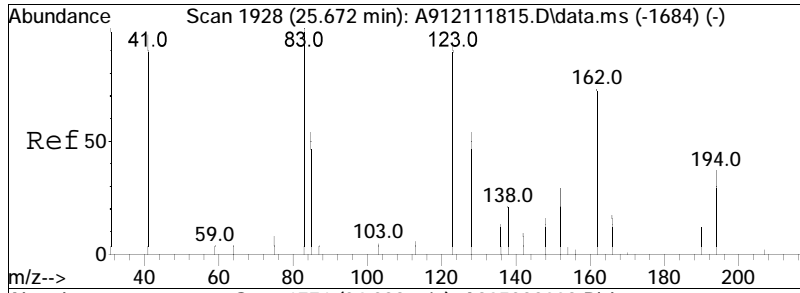
#5
 C2-Decalins
 Concen: 1420.91 ng/mL M5
 RT: 19.503 min Scan# 1252
 Delta R.T. -0.007 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:166 Resp: 28455



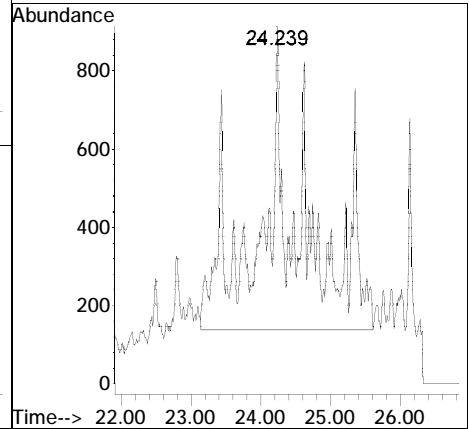
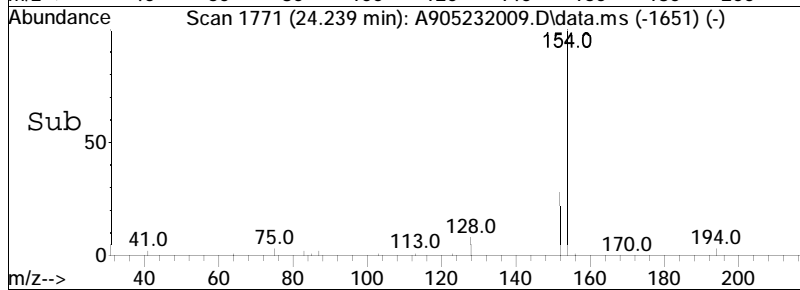
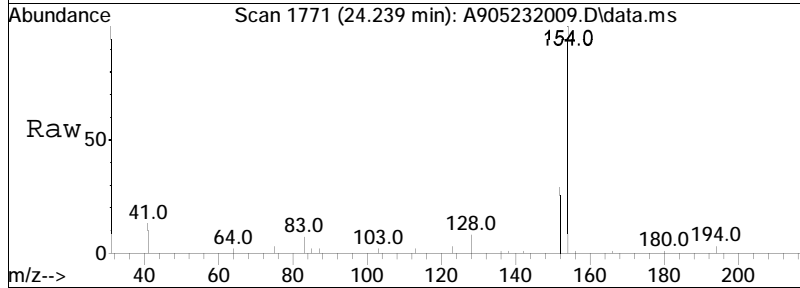


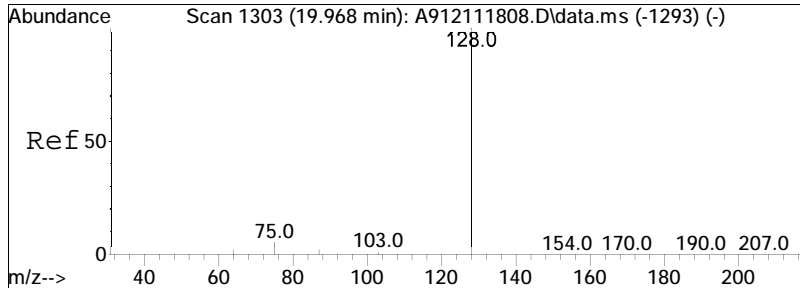
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 C3-Decalins
 Concen: 1178.42 ng/mL M5
 RT: 21.976 min Scan# 1523
 Delta R.T. -0.005 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:180 Resp: 23599



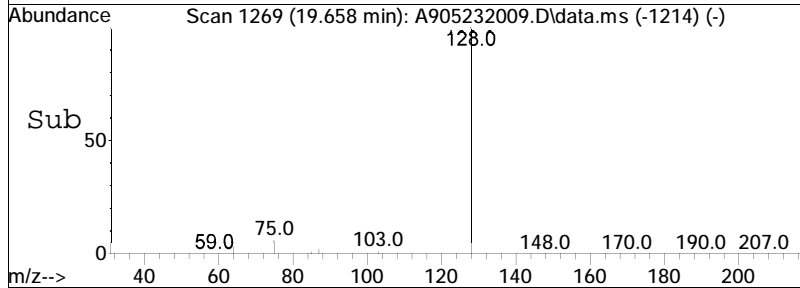
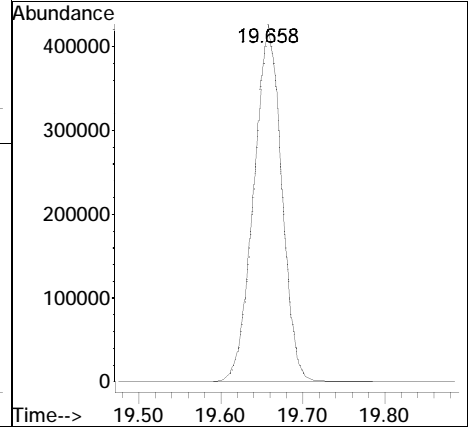
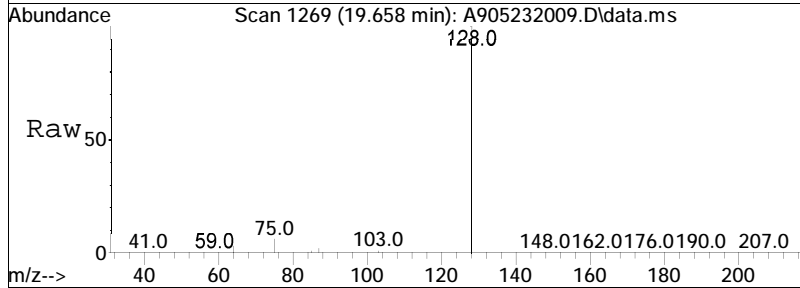


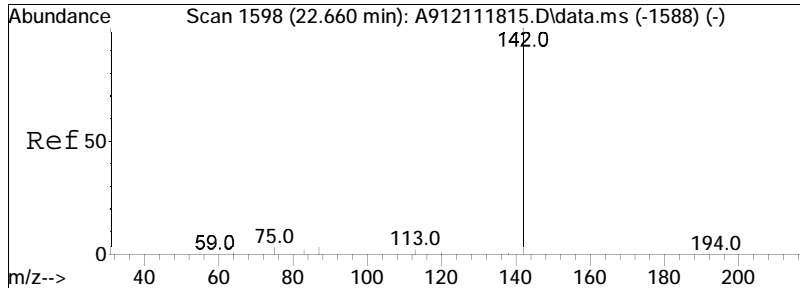
#7
 C4-Decalins
 Concen: 1496.46 ng/mL M5
 RT: 24.239 min Scan# 1771
 Delta R.T. -1.117 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:194 Resp: 29968



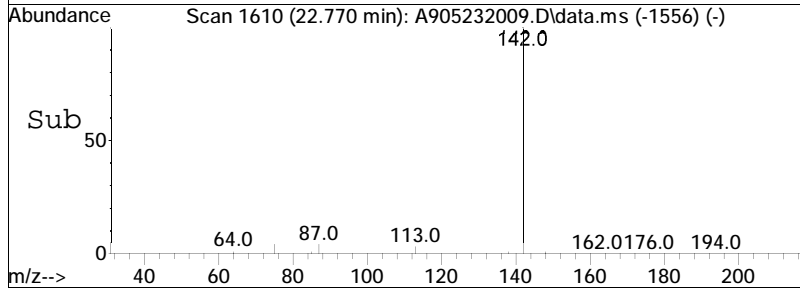
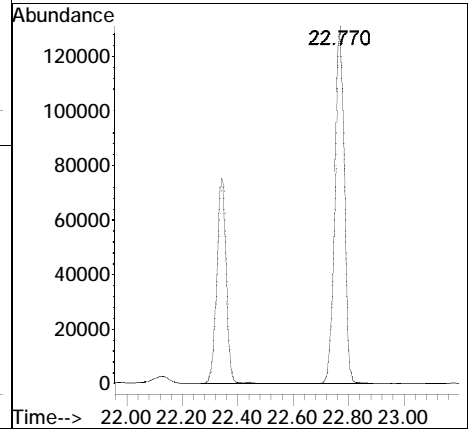
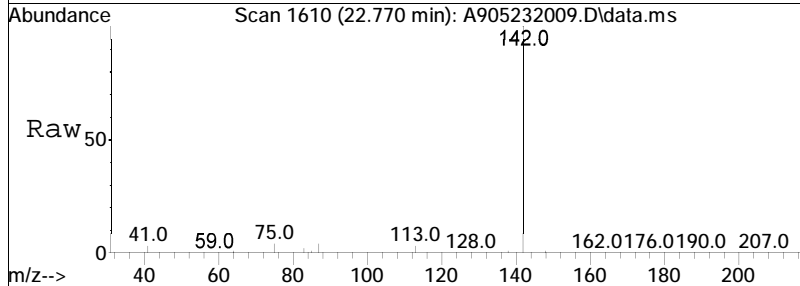


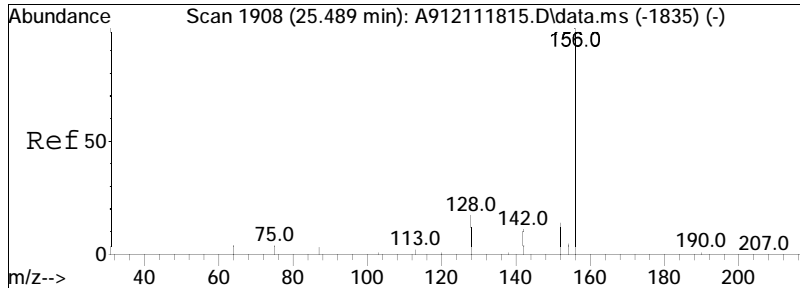
#9
 Naphthalene
 Concen: 9434.96 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:128 Resp: 996004



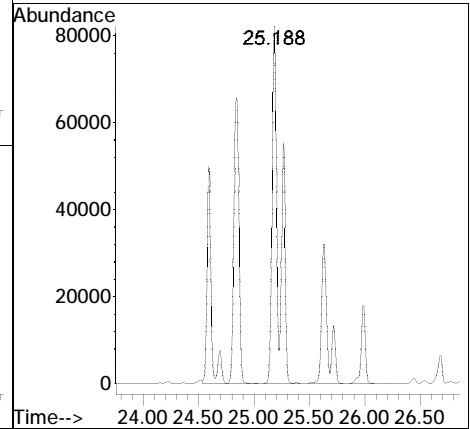
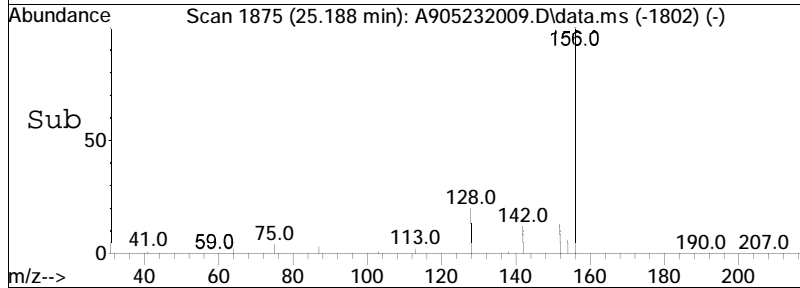
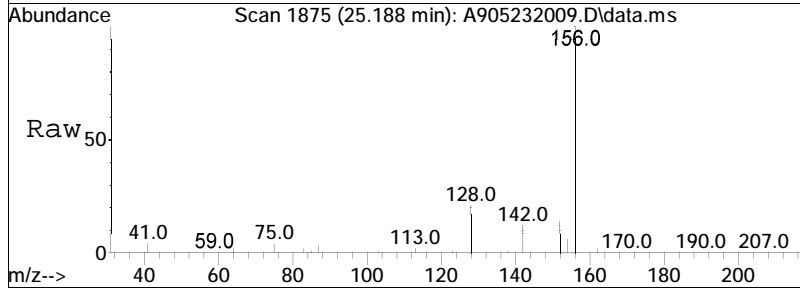


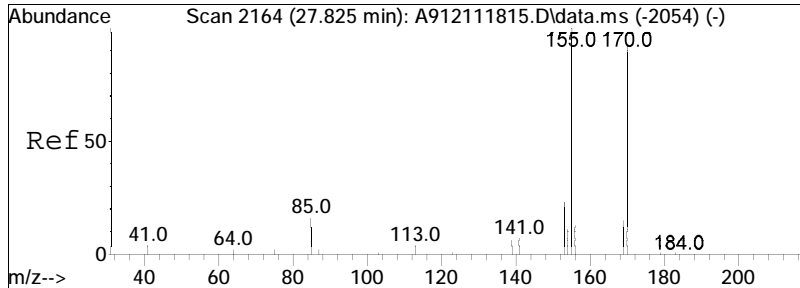
#10
 Cl-Naphthalenes
 Concen: 4578.65 ng/mL M5
 RT: 22.770 min Scan# 1610
 Delta R.T. 0.394 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:142 Resp: 483346





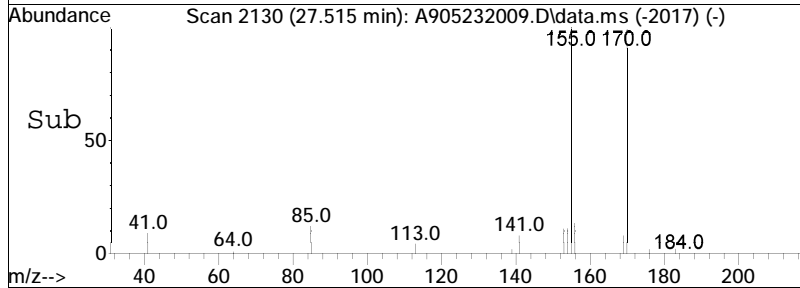
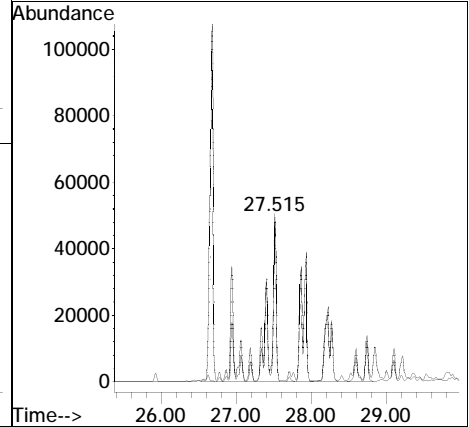
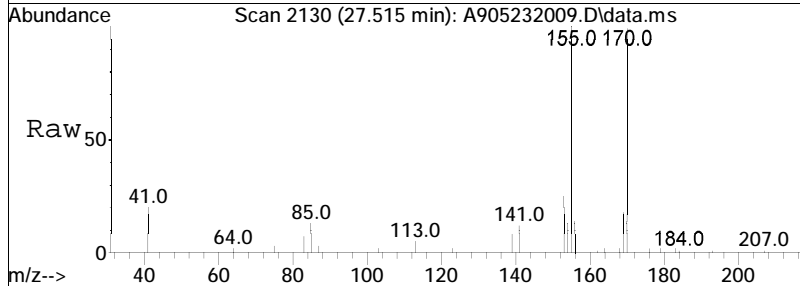
#11
 C2-Naphthalenes
 Concen: 8214.03 ng/mL M5
 RT: 25.188 min Scan# 1875
 Delta R.T. 0.004 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:156 Resp: 867116

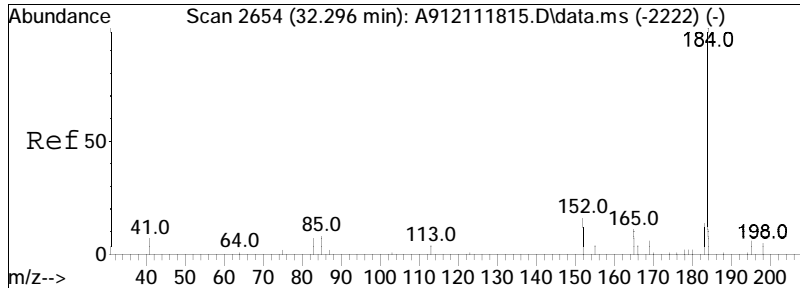




#12
 C3-Naphthalenes
 Concen: 6109.07 ng/mL M5
 RT: 27.515 min Scan# 2130
 Delta R.T. 0.020 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

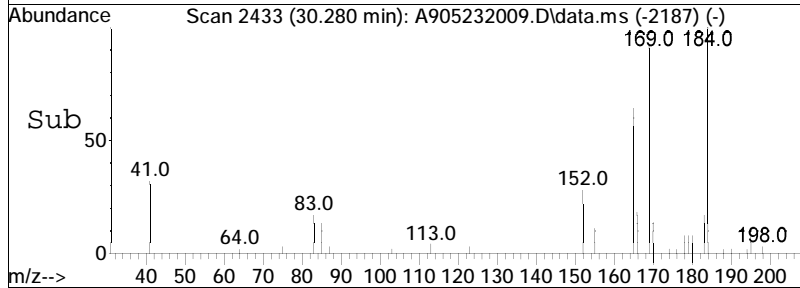
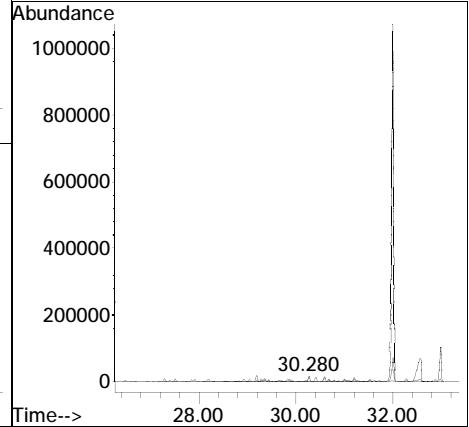
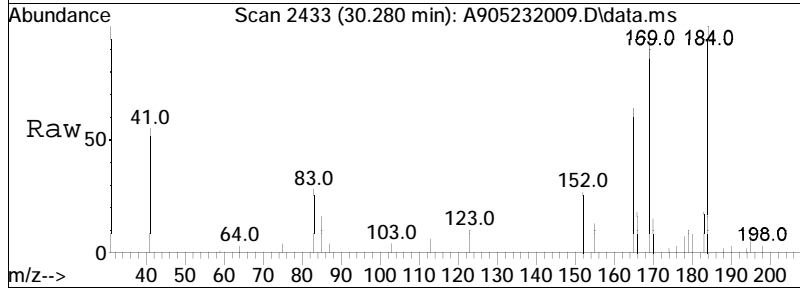
Tgt Ion	Resp	Lower	Upper
170	100		
155	18.7	71.4	132.6#

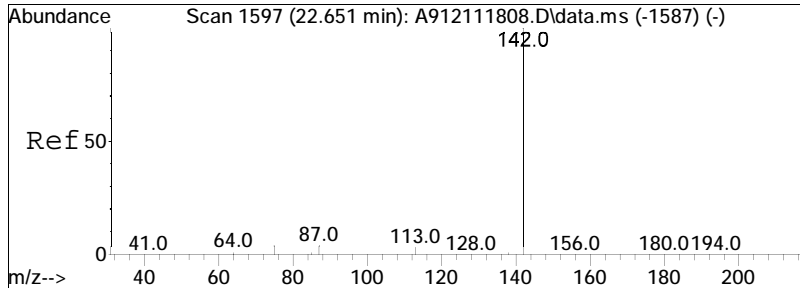




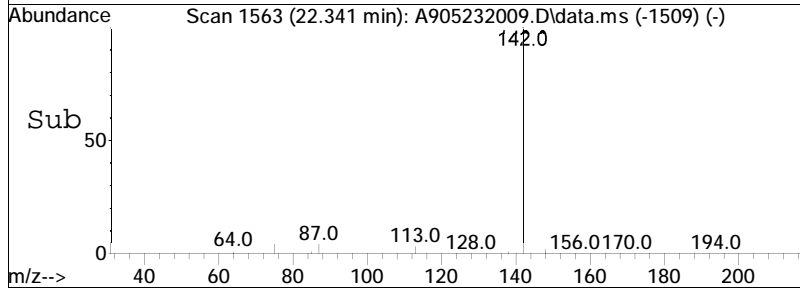
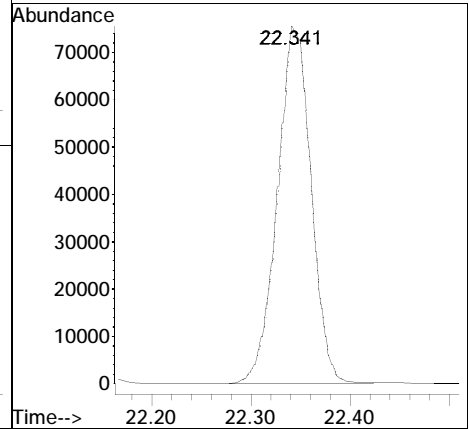
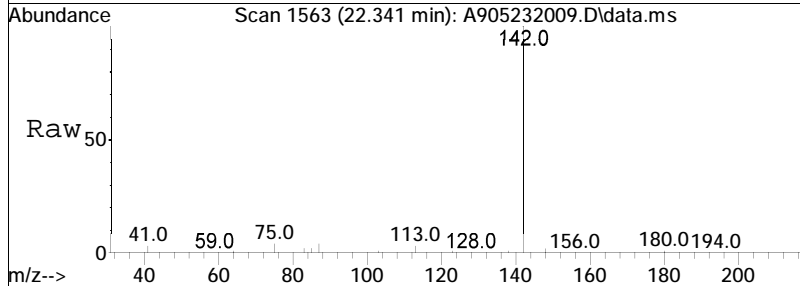
#13
 C4-Naphthalenes
 Concen: 3421.75 ng/mL M5
 RT: 30.280 min Scan# 2433
 Delta R.T. 0.004 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

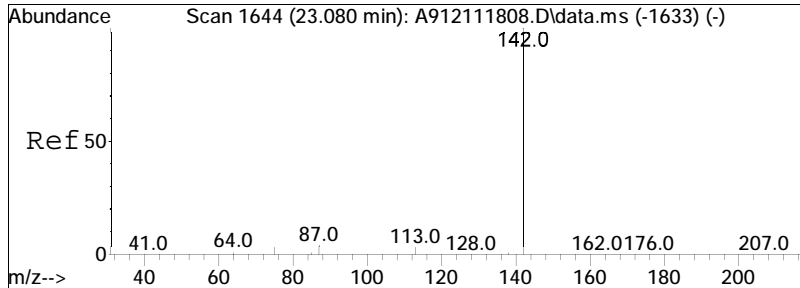
Tgt Ion	Ratio	Lower	Upper
184	100		
169	5.3	81.3	151.1#
183	1.1	25.7	47.7#



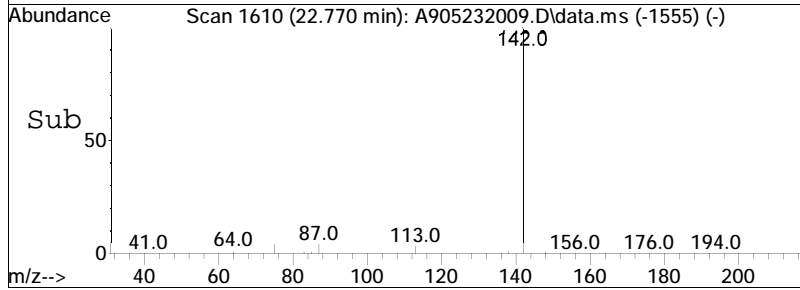
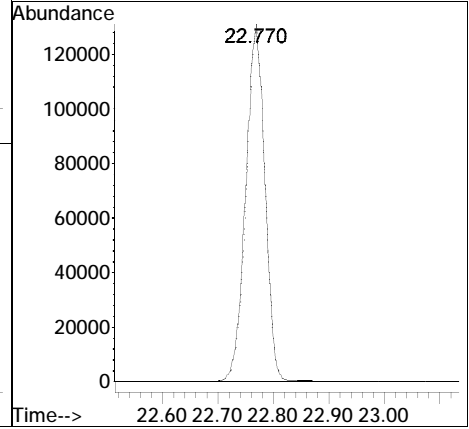
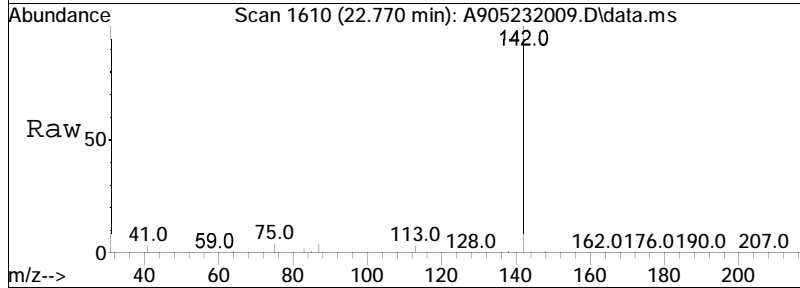


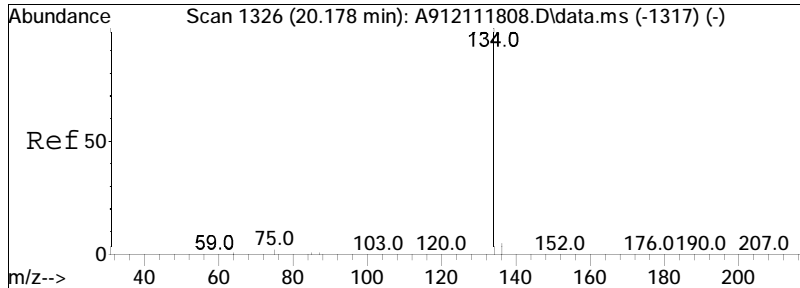
#14
 2-Methylnaphthalene
 Concen: 2503.55 ng/mL
 RT: 22.341 min Scan# 1563
 Delta R.T. -0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:142 Resp: 175226



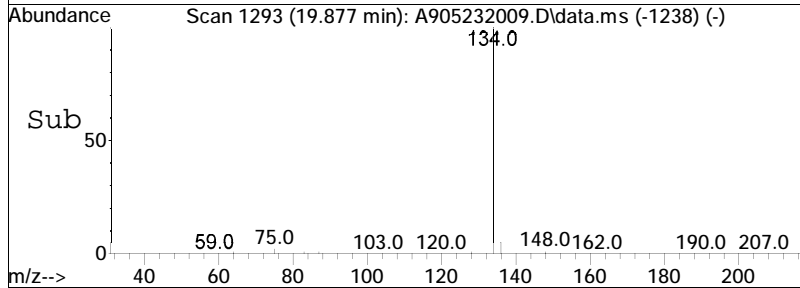
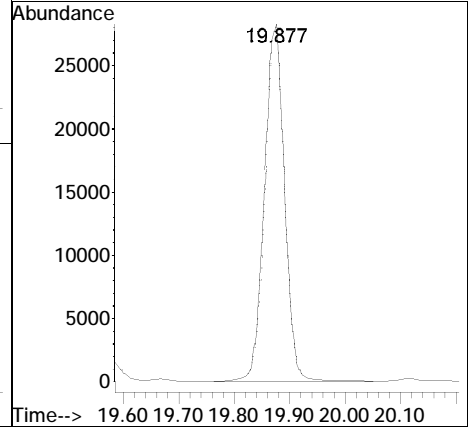
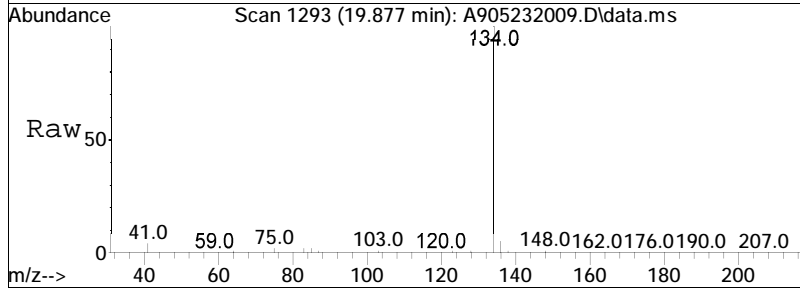


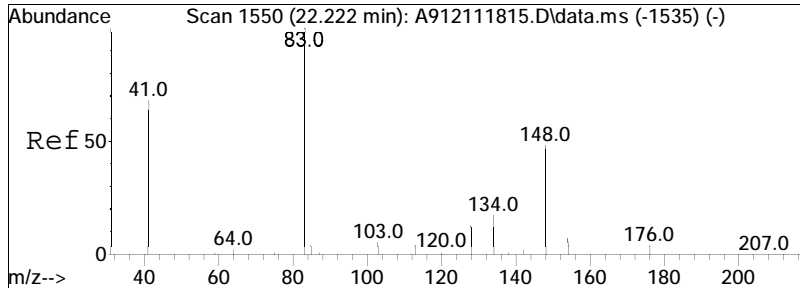
#15
 1-Methylnaphthalene
 Concen: 4613.93 ng/mL
 RT: 22.770 min Scan# 1610
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:142 Resp: 306882



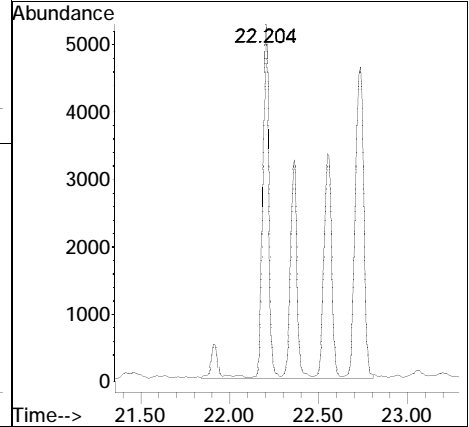
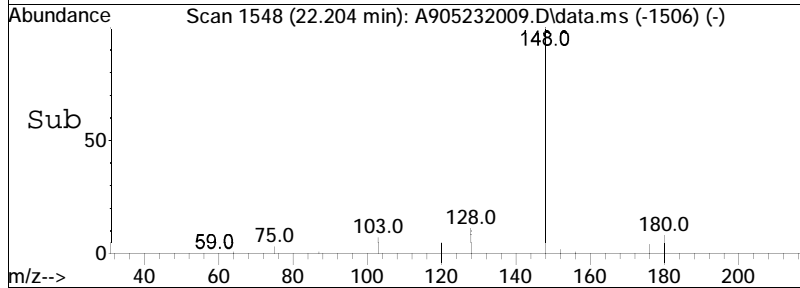
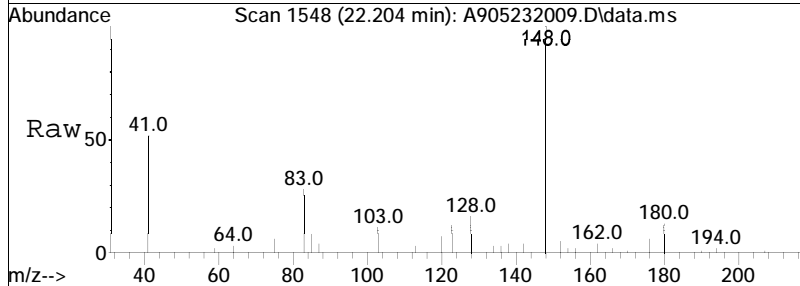


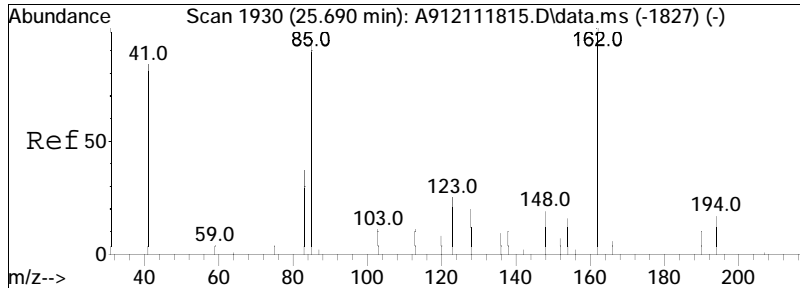
#16
 Benzothiophene
 Concen: 709.76 ng/mL
 RT: 19.877 min Scan# 1293
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:134 Resp: 69090



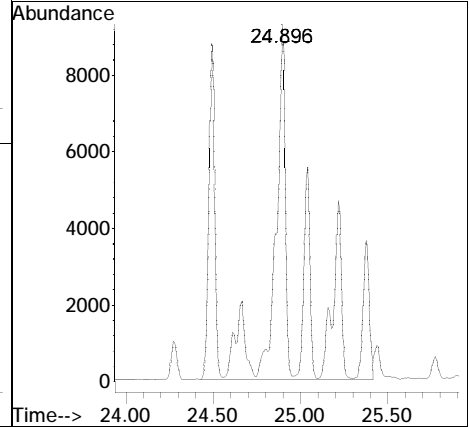
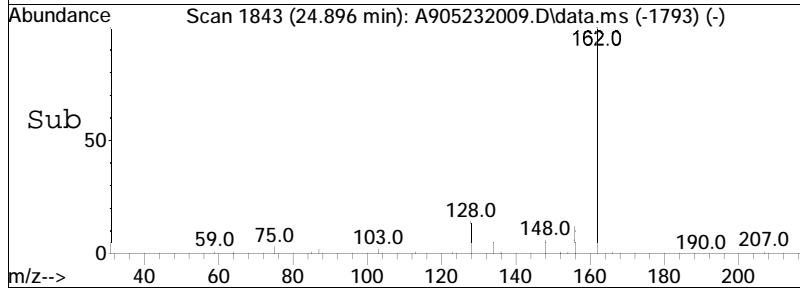
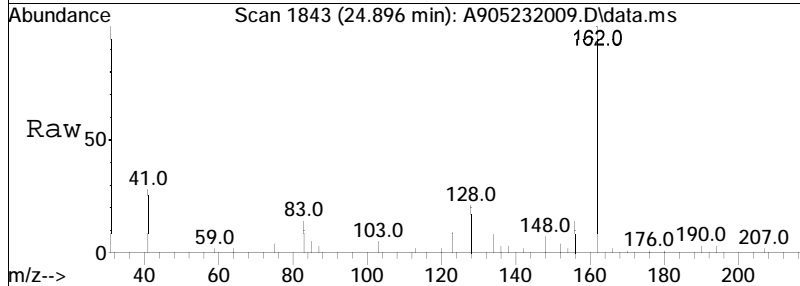


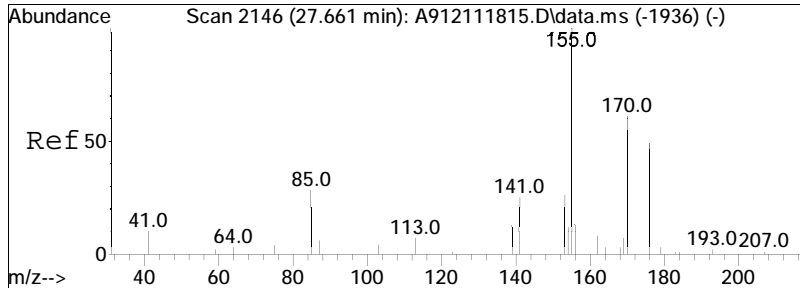
#17
 Cl-Benzo(b)thiophenes
 Concen: 484.91 ng/mL M5
 RT: 22.204 min Scan# 1548
 Delta R.T. 0.278 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:148 Resp: 47202



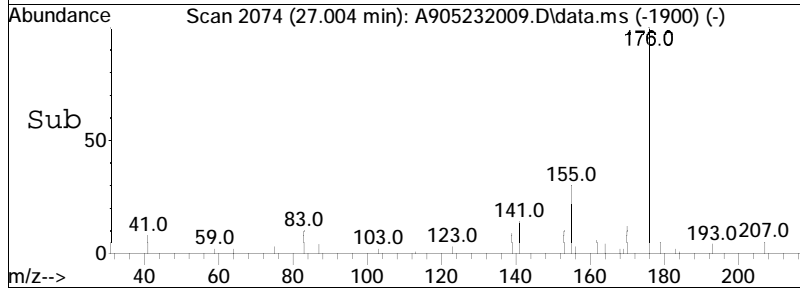
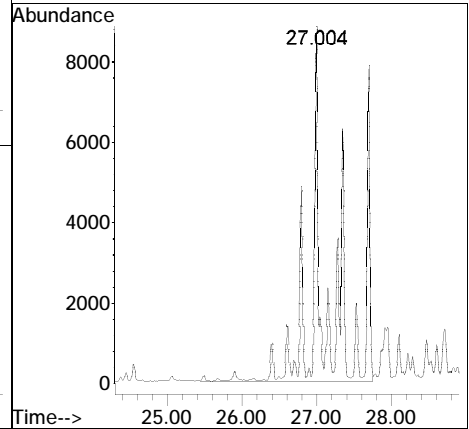
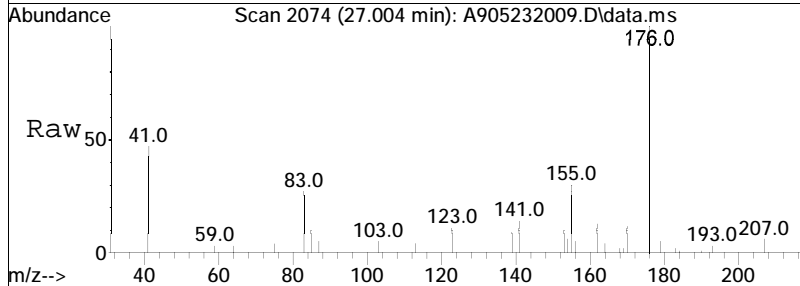


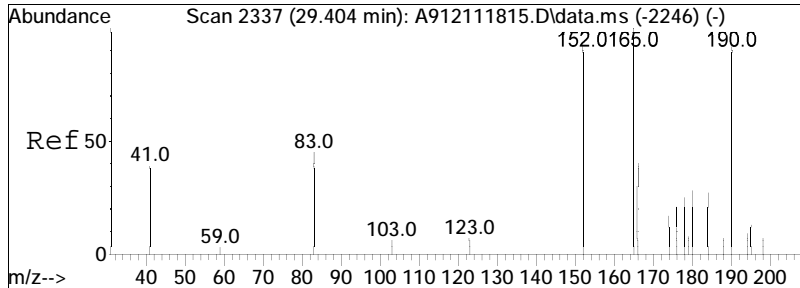
#18
 C2-Benzo(b)thiophenes
 Concen: 1012.05 ng/mL M5
 RT: 24.896 min Scan# 1843
 Delta R.T. -0.487 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:162 Resp: 98516



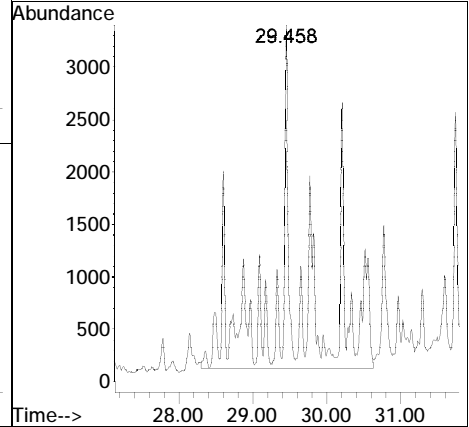
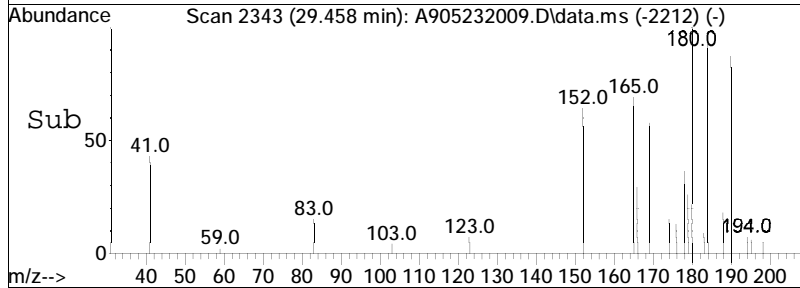
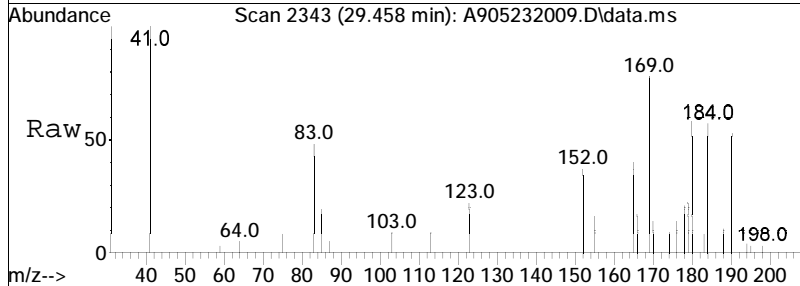


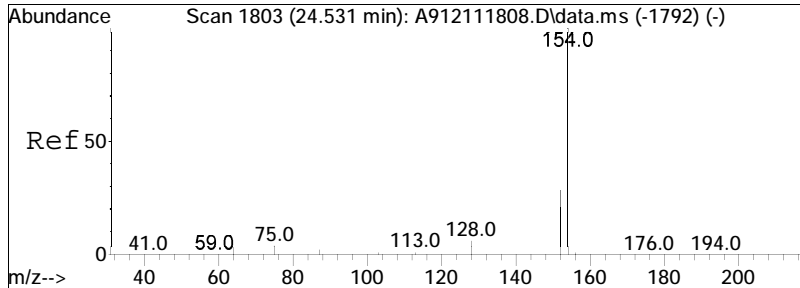
#19
 C3-Benzo(b)thiophenes
 Concen: 1080.69 ng/mL M5
 RT: 27.004 min Scan# 2074
 Delta R.T. -0.329 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:176 Resp: 105197



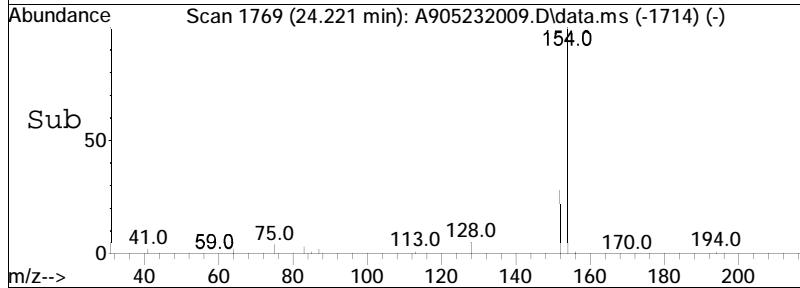
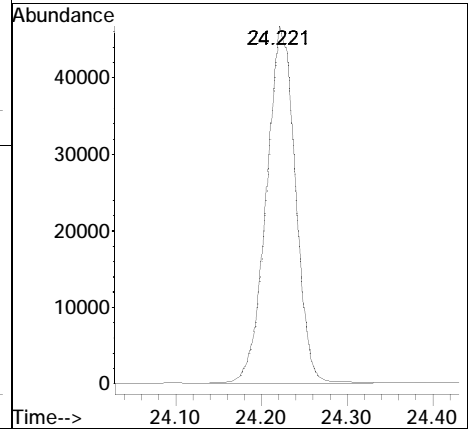
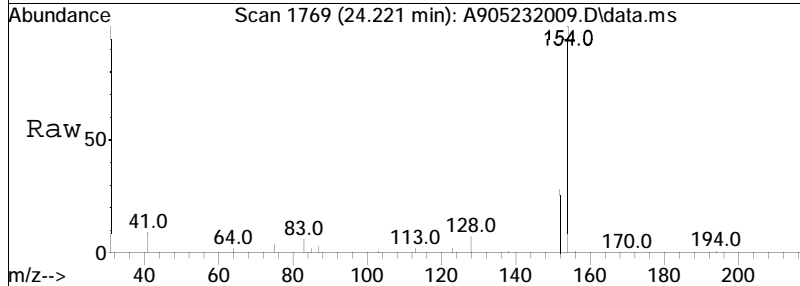


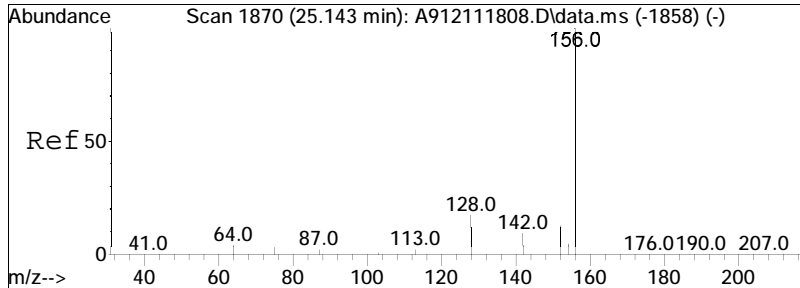
#20
 C4-Benzo(b)thiophenes
 Concen: 659.76 ng/mL M5
 RT: 29.458 min Scan# 2343
 Delta R.T. 0.367 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:190 Resp: 64223



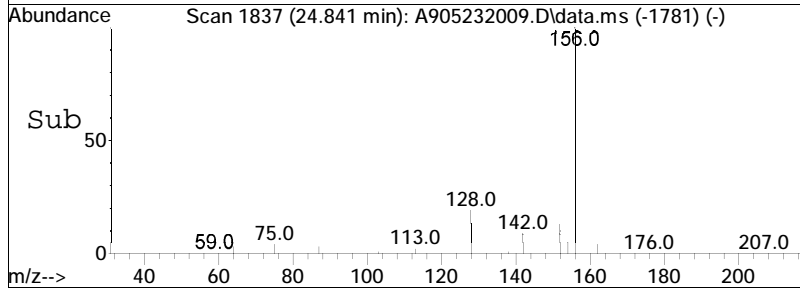
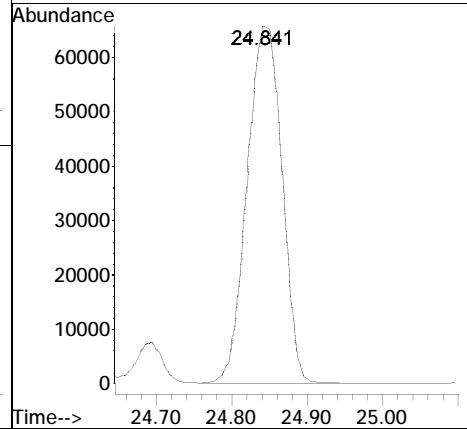
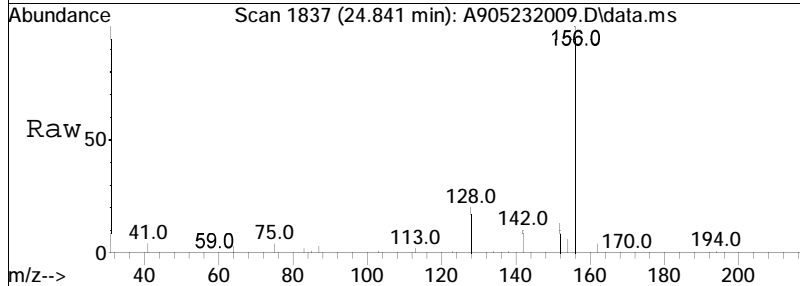


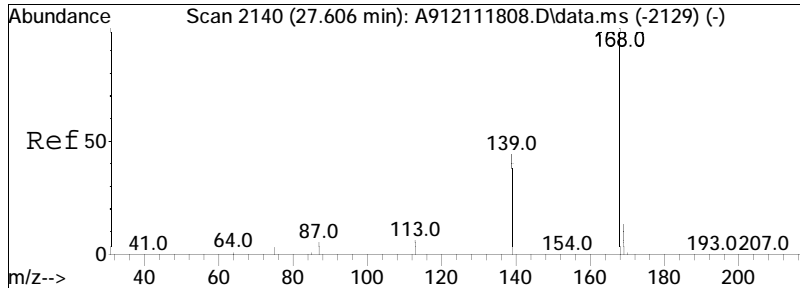
#21
 Biphenyl
 Concen: 1254.92 ng/mL
 RT: 24.221 min Scan# 1769
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:154 Resp: 107606





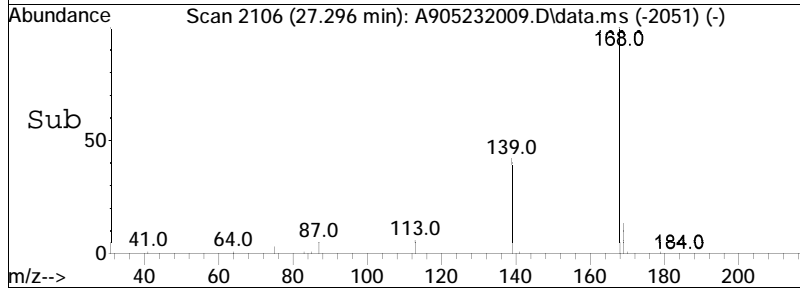
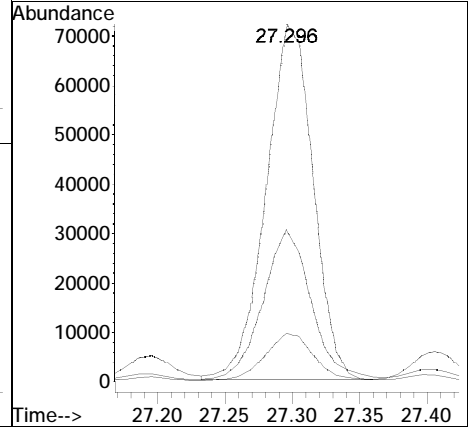
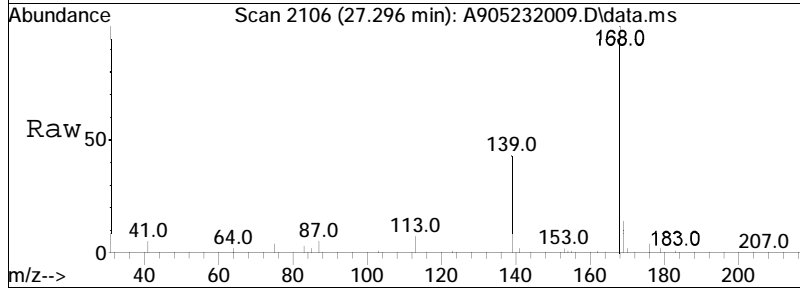
#22
 2,6-Dimethylnaphthalene
 Concen: 3392.96 ng/mL
 RT: 24.841 min Scan# 1837
 Delta R.T. 0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:156 Resp: 208388

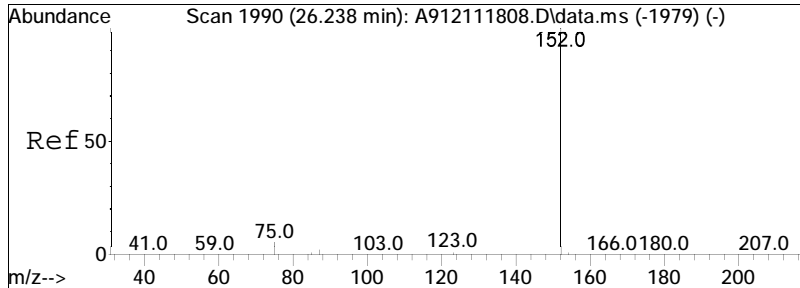




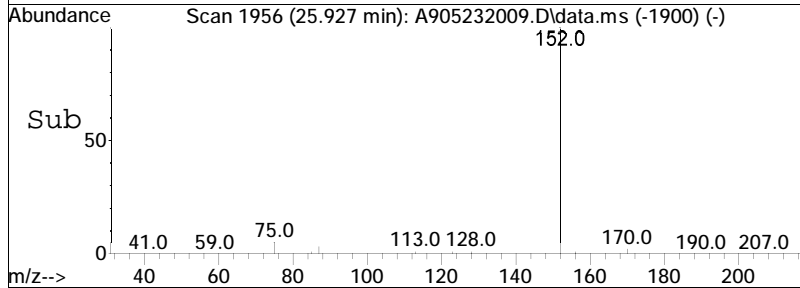
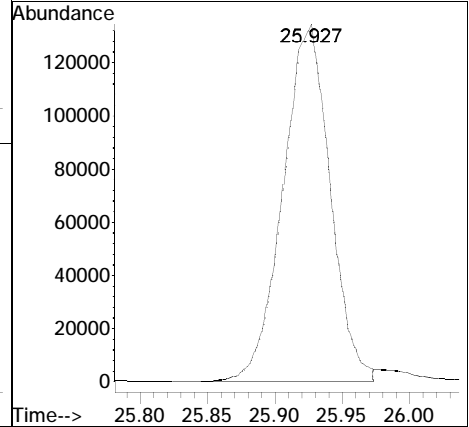
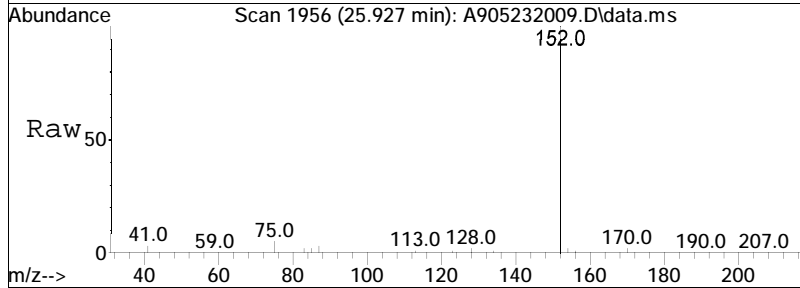
#23
 Dibenzofuran
 Concen: 1736.27 ng/mL
 RT: 27.296 min Scan# 2106
 Delta R.T. 0.000 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

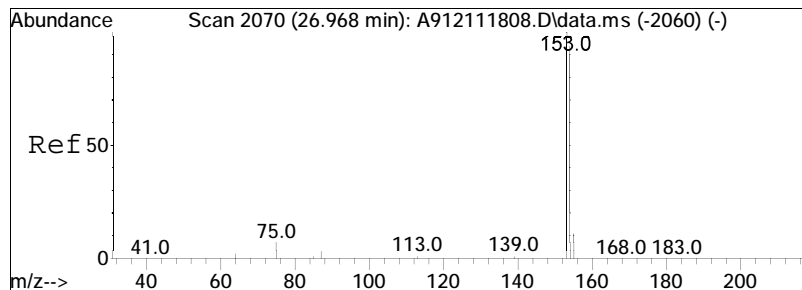
Tgt Ion	Ratio	Lower	Upper
168	100		
139	42.5	28.2	52.4
169	13.8	9.6	17.8





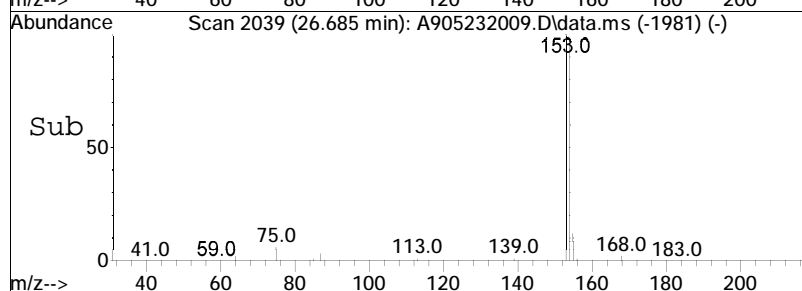
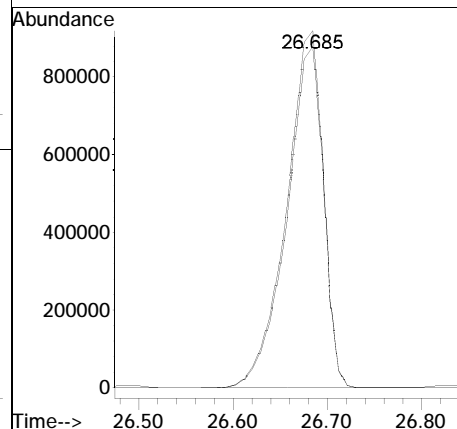
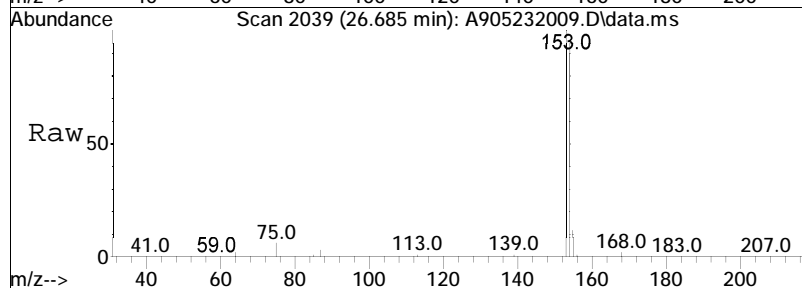
#24
 Acenaphthylene
 Concen: 3115.06 ng/mL M3
 RT: 25.927 min Scan# 1956
 Delta R.T. 0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:152 Resp: 325639

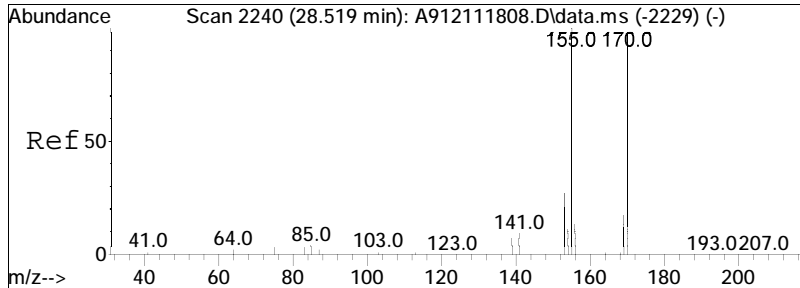




#25
 Acenaphthene
 Concen: 38508.41 ng/mL
 RT: 26.685 min Scan# 2039
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

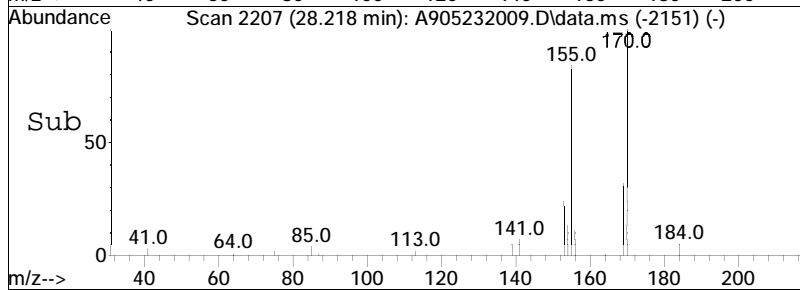
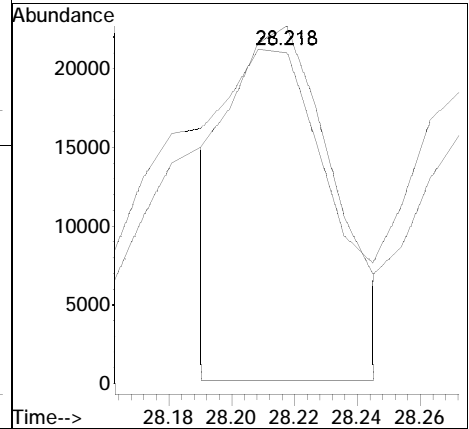
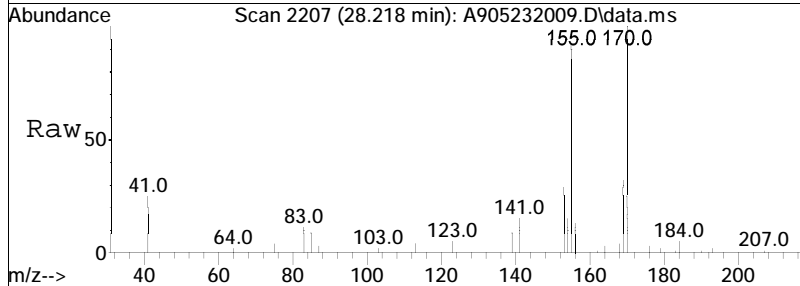
Tgt Ion: 153 Resp: 2494524
 Ion Ratio Lower Upper
 153 100
 154 94.5 65.0 120.8

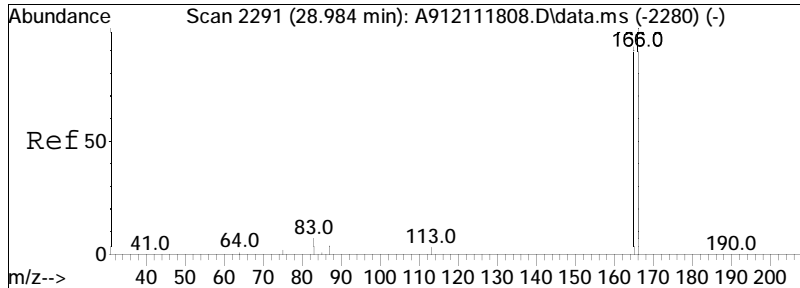




#26
 2,3,5-Trimethylnaphthalene
 Concen: 915.24 ng/mL M3
 RT: 28.218 min Scan# 2207
 Delta R.T. 0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

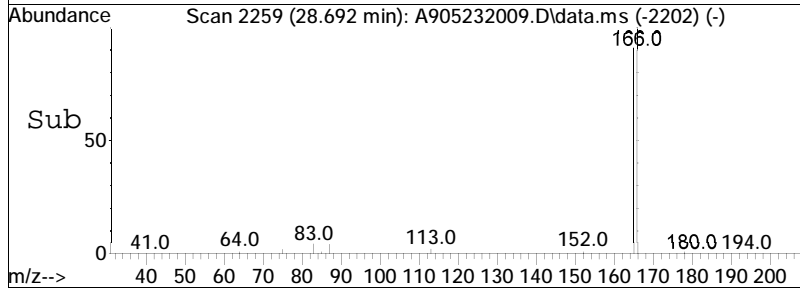
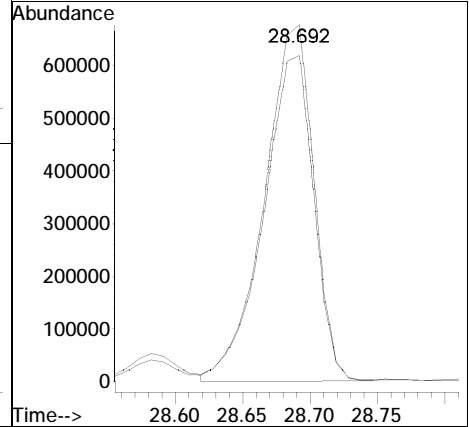
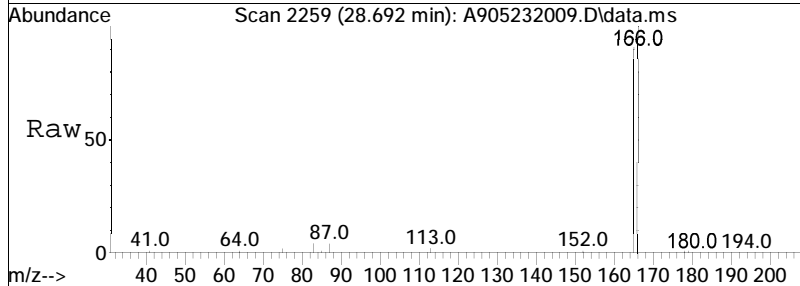
Tgt Ion	Resp	Lower	Upper
170	52303		
155	157.1	69.6	129.2#

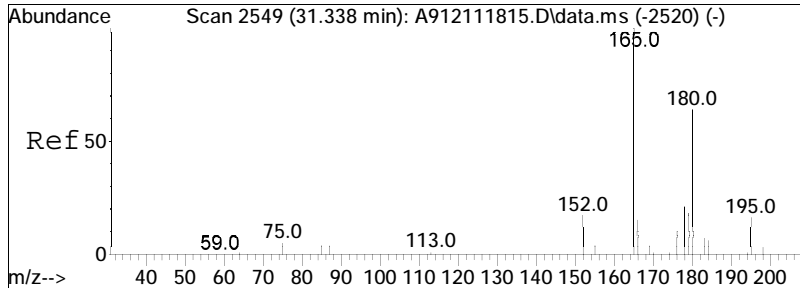




#27
 Fluorene
 Concen: 22455.44 ng/mL
 RT: 28.692 min Scan# 2259
 Delta R.T. 0.018 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

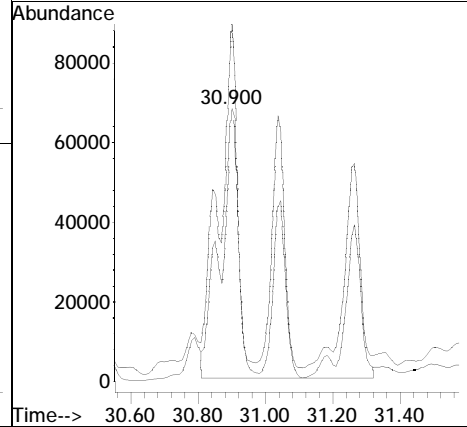
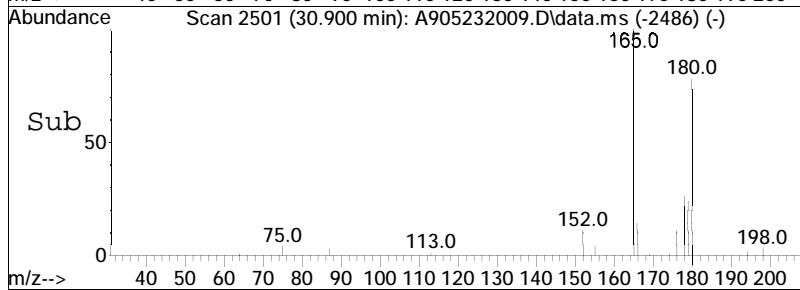
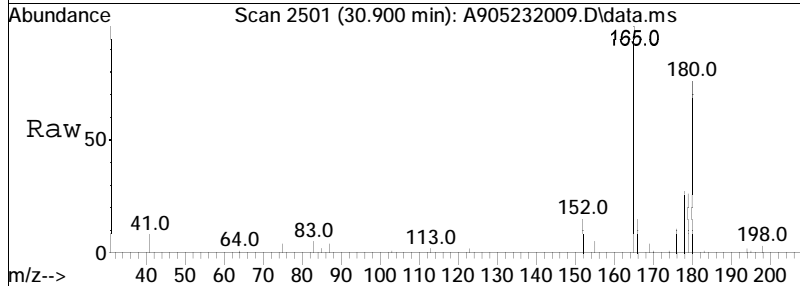
Tgt Ion:166 Resp: 1723362
 Ion Ratio Lower Upper
 166 100
 165 92.6 65.4 121.4

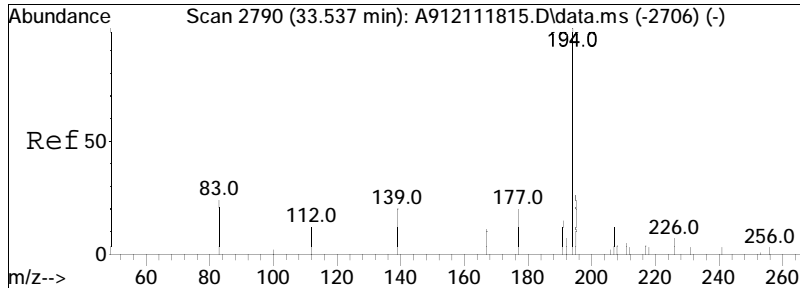




#28
 Cl-Fluorenes
 Concen: 6448.35 ng/mL M5
 RT: 30.900 min Scan# 2501
 Delta R.T. -0.132 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

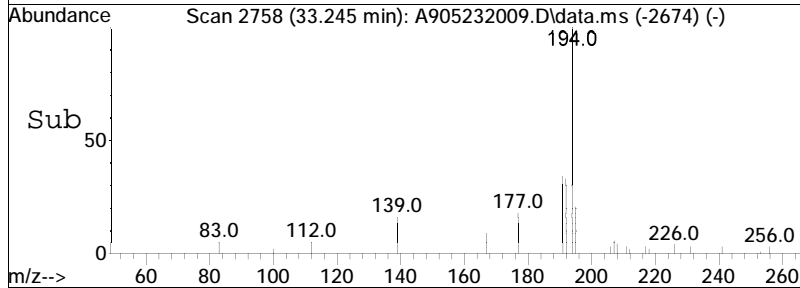
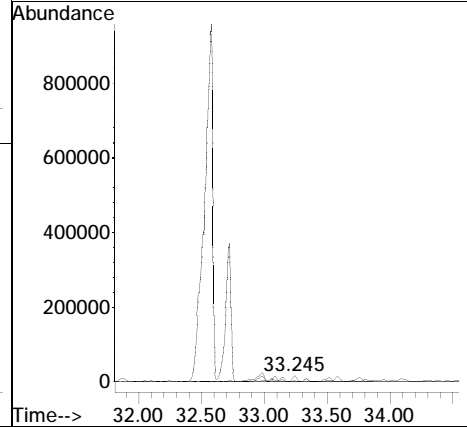
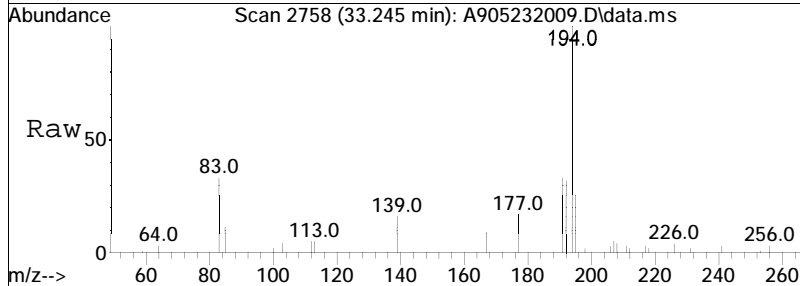
Tgt Ion	Resp	Lower	Upper
180	100		
165	32.6	101.1	187.7#

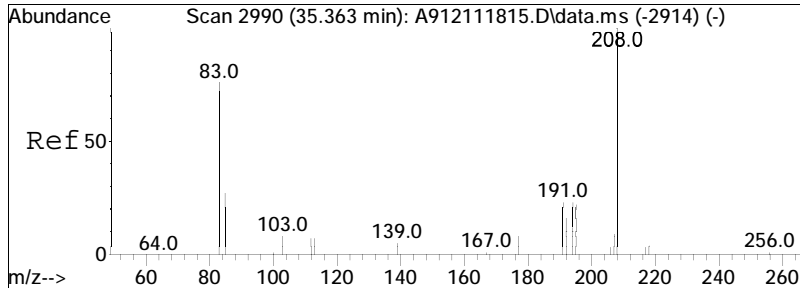




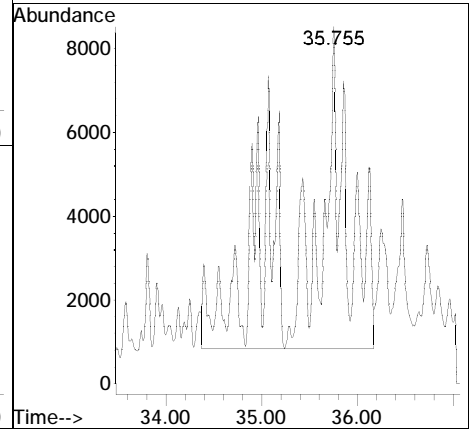
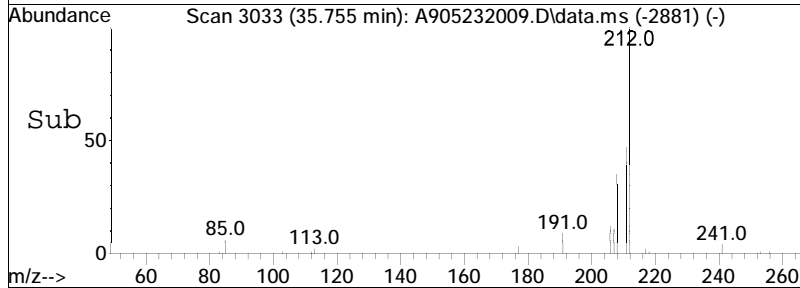
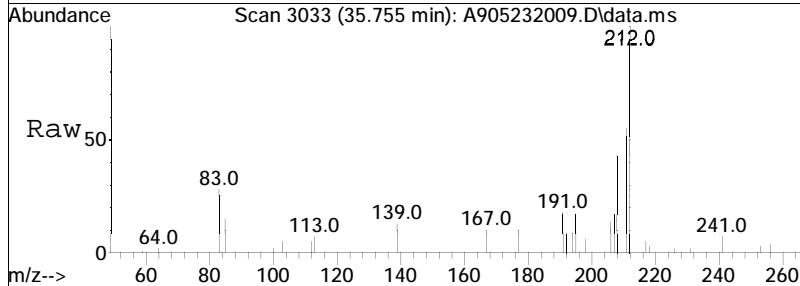
#29
 C2-Fluorenes
 Concen: 4810.46 ng/mL M5
 RT: 33.245 min Scan# 2758
 Delta R.T. 0.016 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

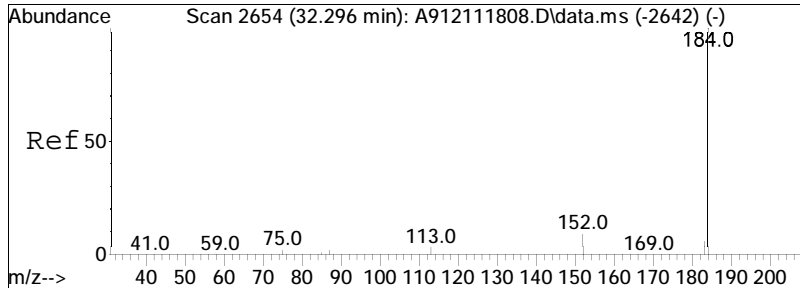
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.0	24.1	44.8#





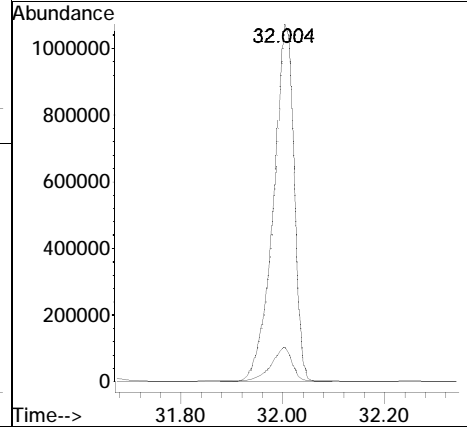
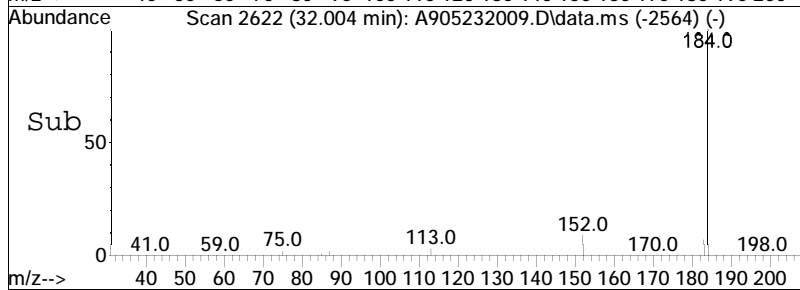
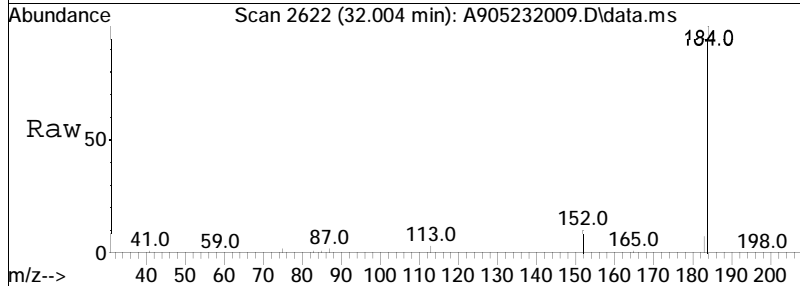
#30
 C3-Fluorenes
 Concen: 3044.97 ng/mL M5
 RT: 35.755 min Scan# 3033
 Delta R.T. 0.702 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion: 208 Resp: 233689

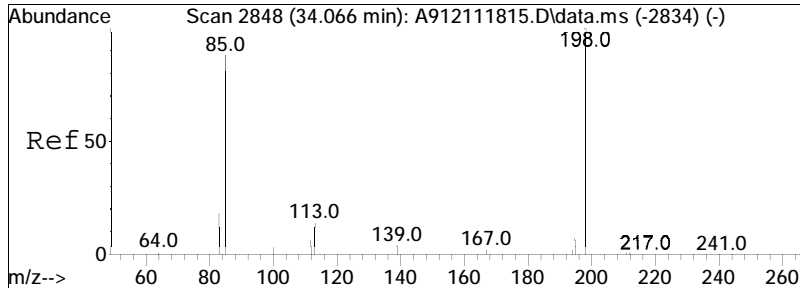




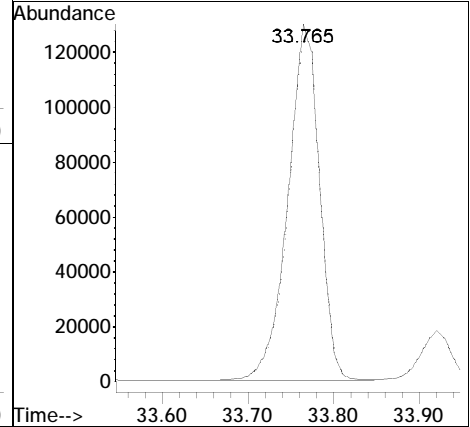
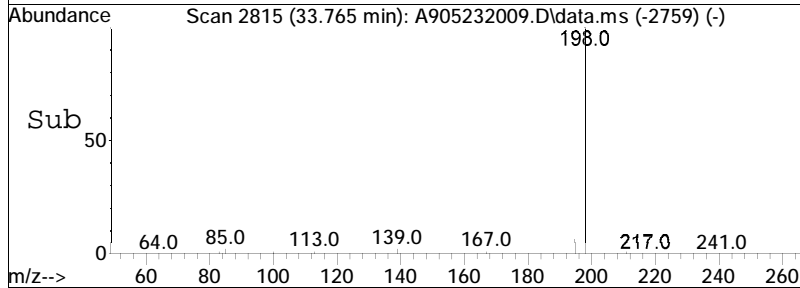
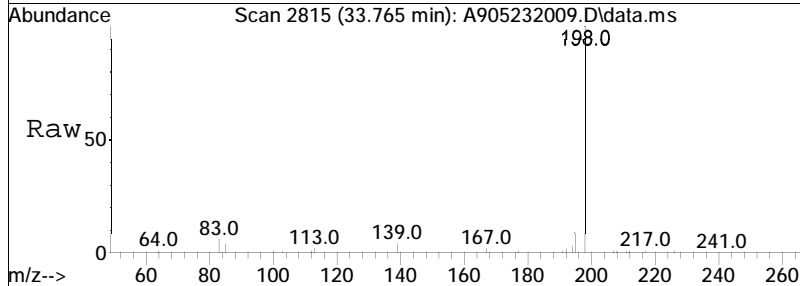
#31
 Dibenzothiophene
 Concen: 26178.96 ng/mL
 RT: 32.004 min Scan# 2622
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

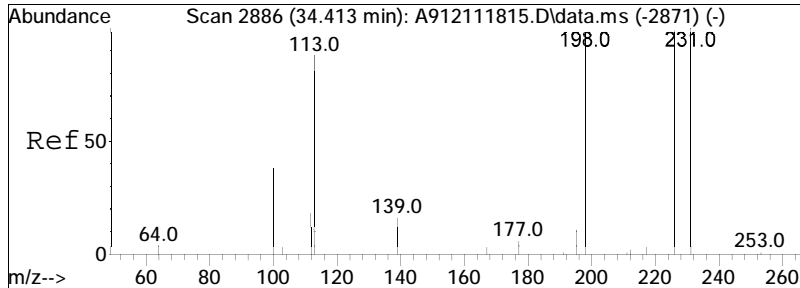
Tgt Ion: 184 Resp: 2969381
 Ion Ratio Lower Upper
 184 100
 152 9.9 6.4 11.8



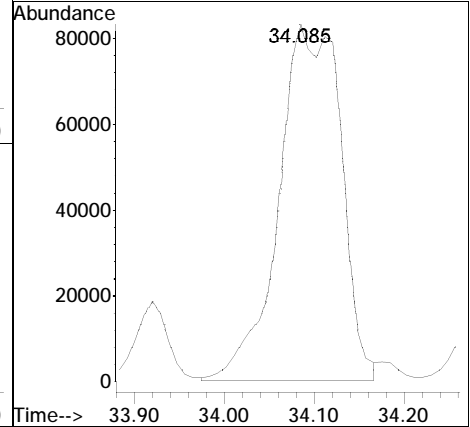
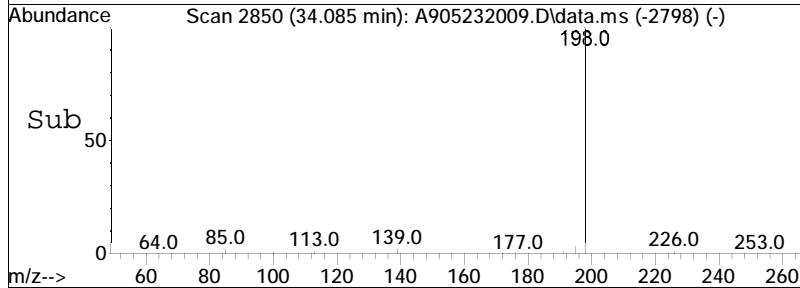
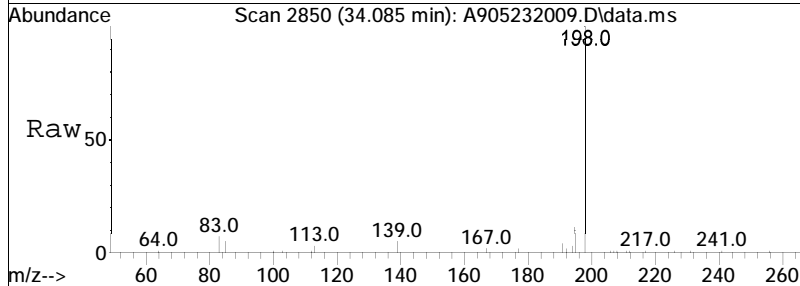


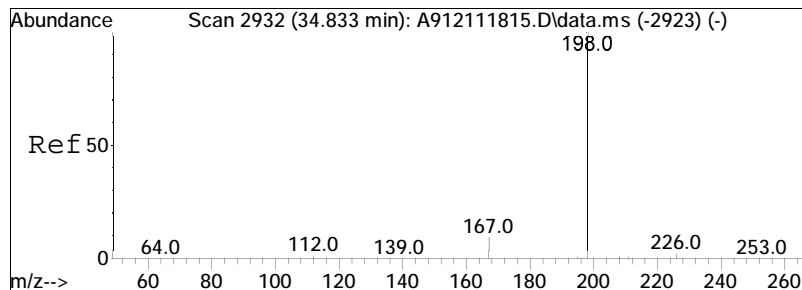
#32
 4-Methyldibenzothiophene(4MDT)
 Concen: 2897.50 ng/mL
 RT: 33.765 min Scan# 2815
 Delta R.T. 0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:198 Resp: 328653



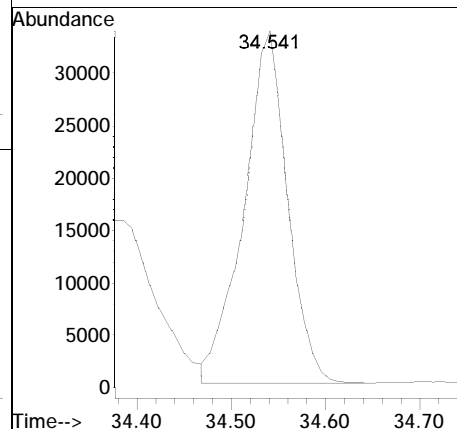
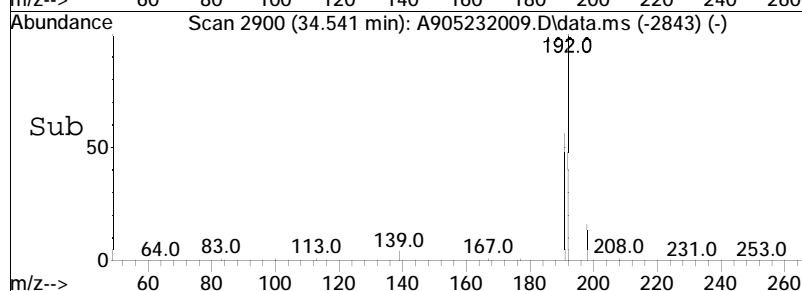
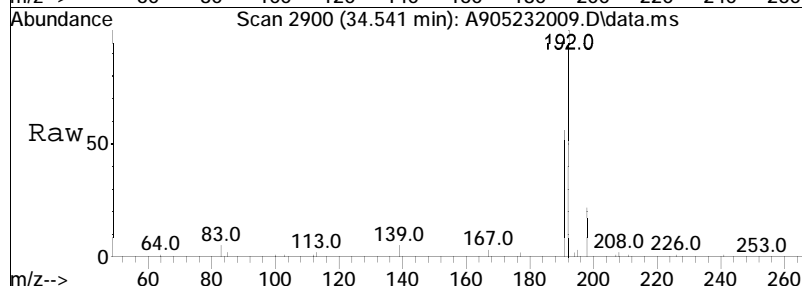


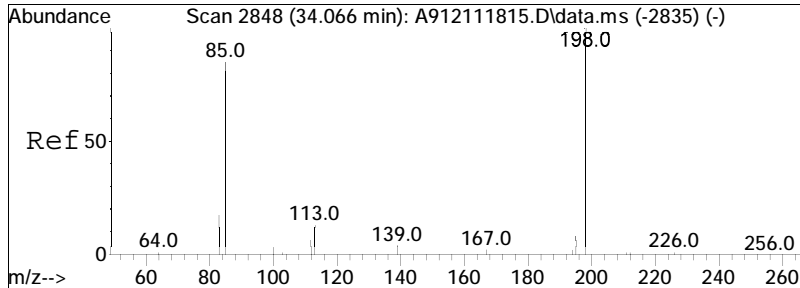
#33
 2/3-Methyldibenzothiophene(2MD
 Concen: 3506.95 ng/mL M4
 RT: 34.085 min Scan# 2850
 Delta R.T. -0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:198 Resp: 397780



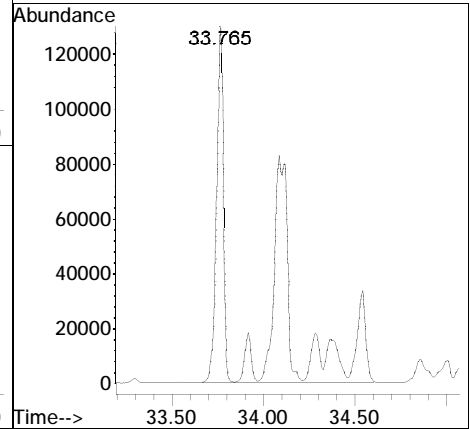
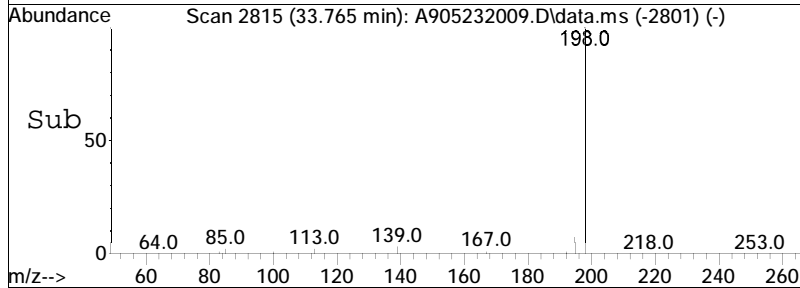
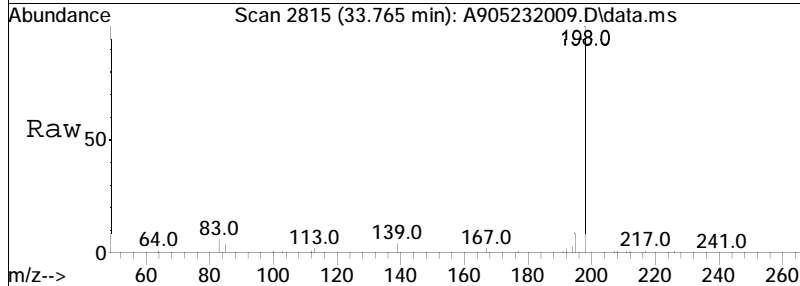


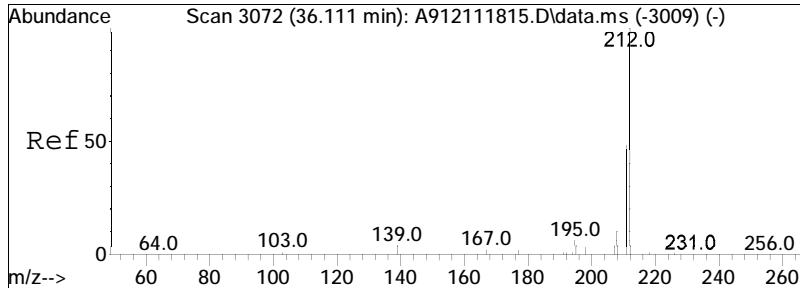
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 950.71 ng/mL
 RT: 34.541 min Scan# 2900
 Delta R.T. 0.018 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:198 Resp: 107836



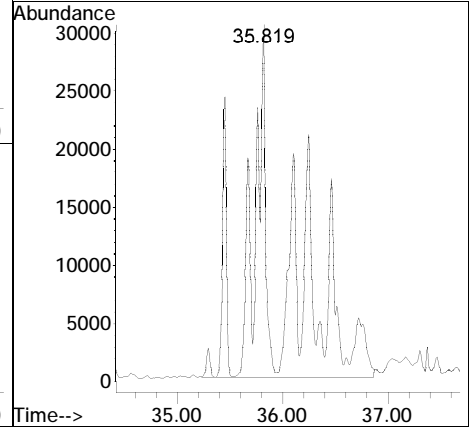
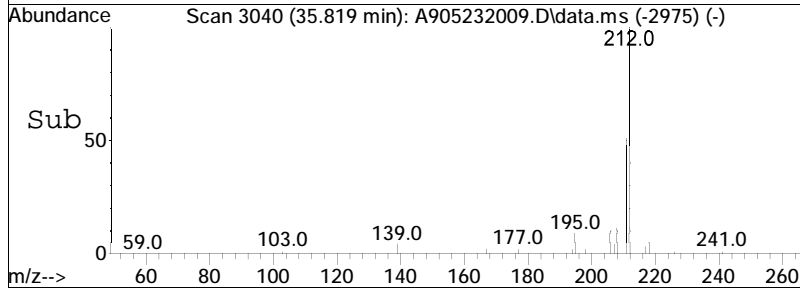
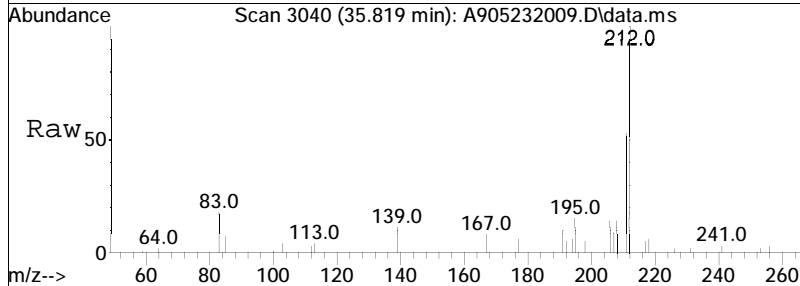


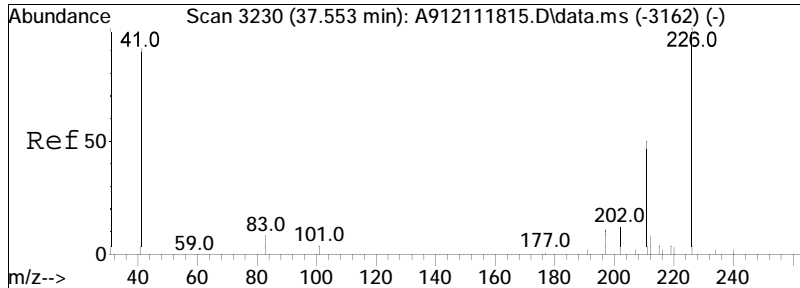
#36
 Cl-Dibenzothiophenes
 Concen: 9009.92 ng/mL M5
 RT: 33.765 min Scan# 2815
 Delta R.T. 0.016 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:198 Resp: 1021961





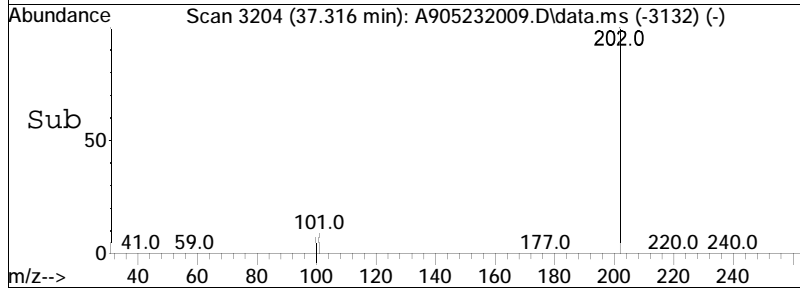
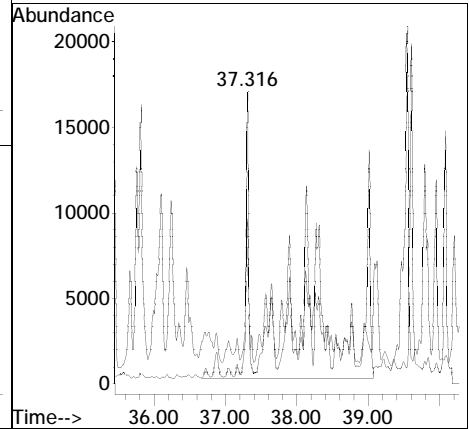
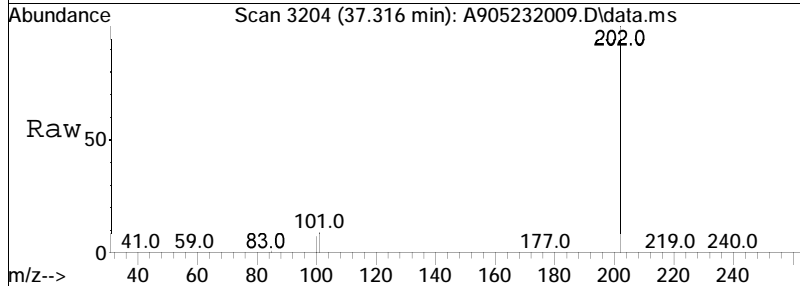
#37
 C2-Dibenzothiophenes
 Concen: 5197.47 ng/mL M5
 RT: 35.819 min Scan# 3040
 Delta R.T. 0.383 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:212 Resp: 589529

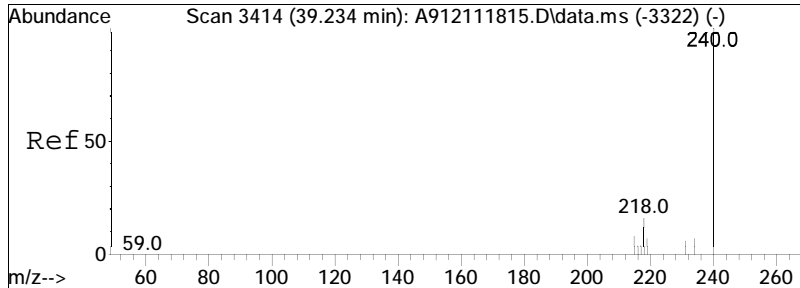




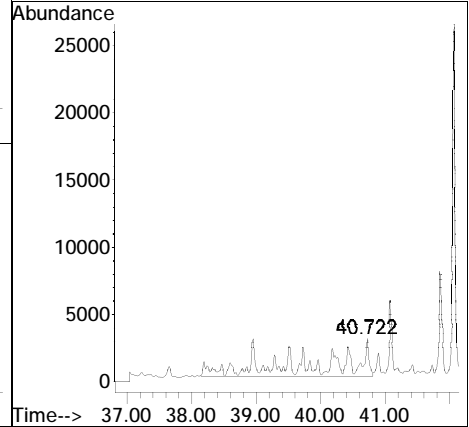
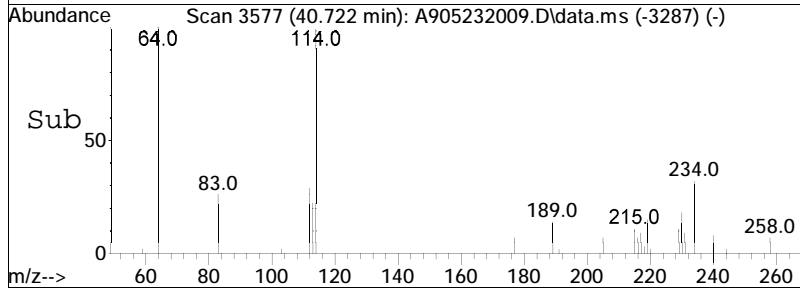
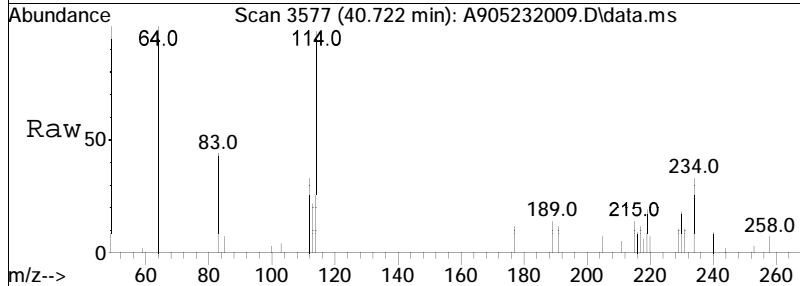
#38
 C3-Dibenzothiophenes
 Concen: 3044.19 ng/mL M5
 RT: 37.316 min Scan# 3204
 Delta R.T. 0.075 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

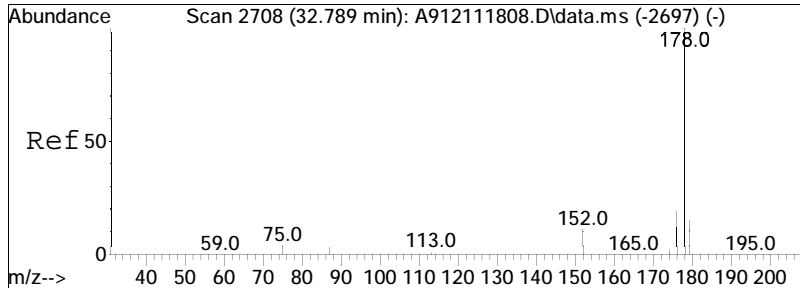
Tgt Ion	Ratio	Lower	Upper
226	100		
211	6.6	40.8	75.8#





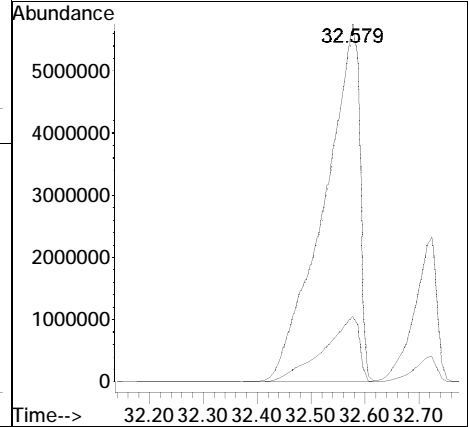
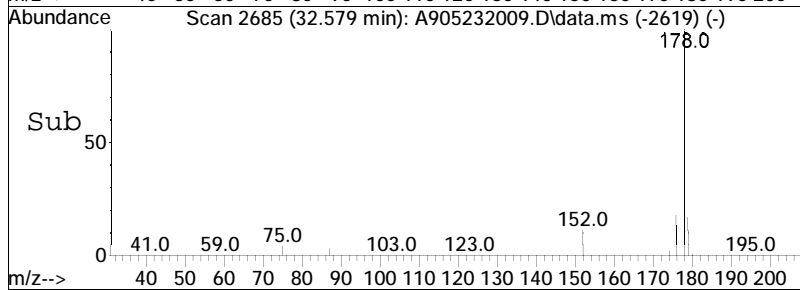
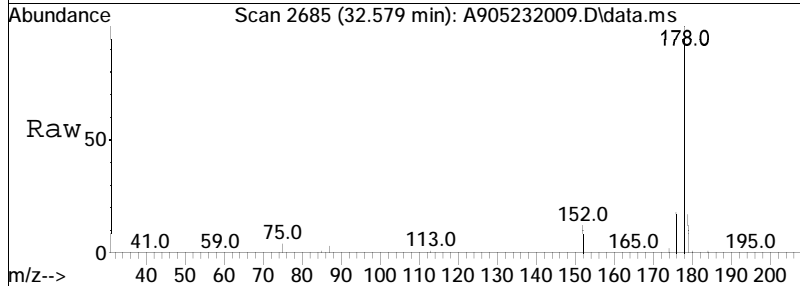
#39
 C4-Dibenzothiophenes
 Concen: 1006.29 ng/mL M5
 RT: 40.722 min Scan# 3577
 Delta R.T. 1.793 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:240 Resp: 114140

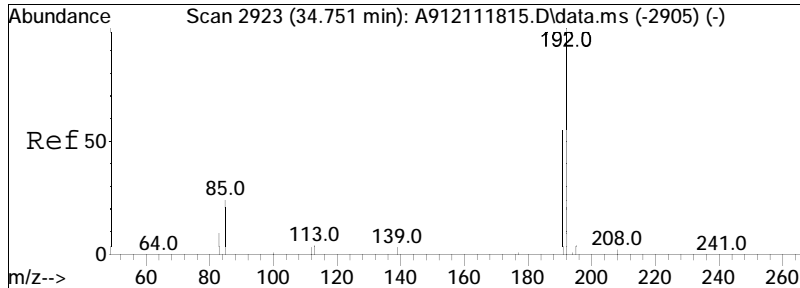




#41
 Phenanthrene
 Concen: 234040.18 ng/mL
 RT: 32.579 min Scan# 2685
 Delta R.T. 0.100 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

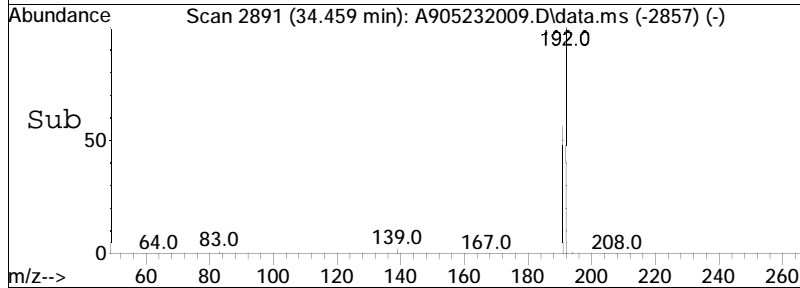
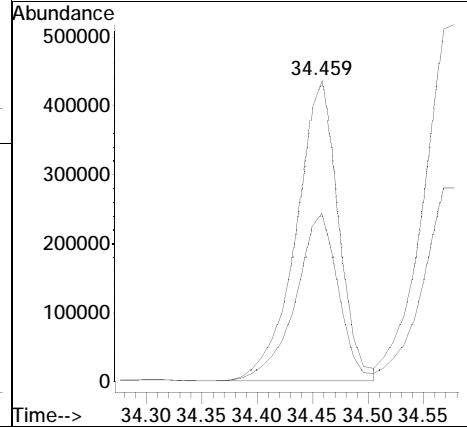
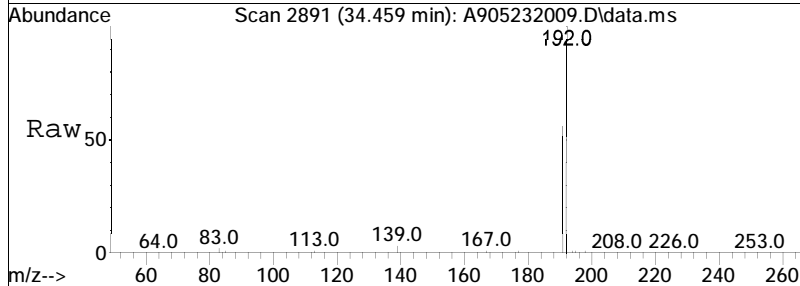
Tgt Ion: 178 Resp: 26464387
 Ion Ratio Lower Upper
 178 100
 176 18.3 13.6 25.4

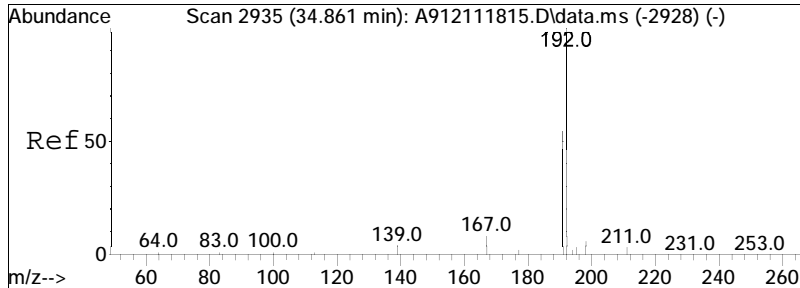




#42
 3-Methylphenanthrene (3MP)
 Concen: 10216.47 ng/mL
 RT: 34.459 min Scan# 2891
 Delta R.T. 0.018 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

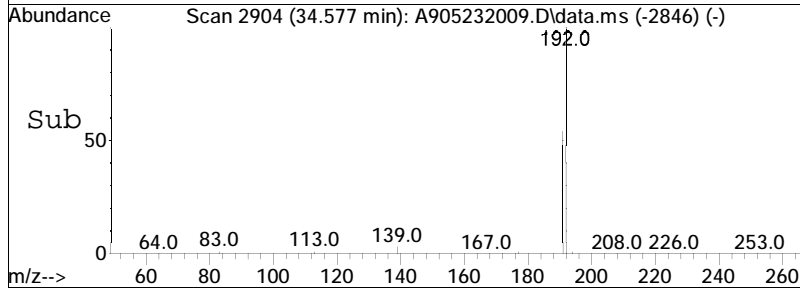
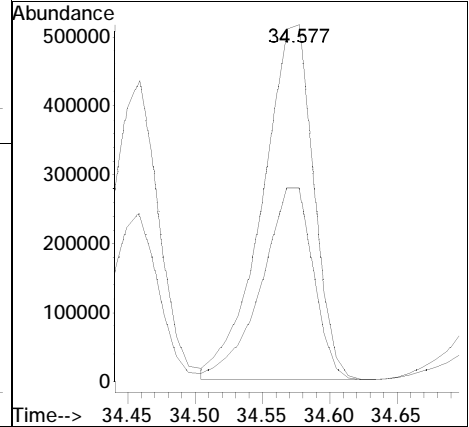
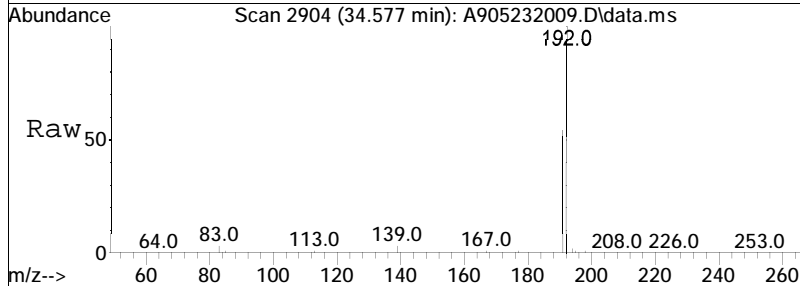
Tgt Ion: 192 Resp: 1155240
 Ion Ratio Lower Upper
 192 100
 191 56.2 40.7 75.7

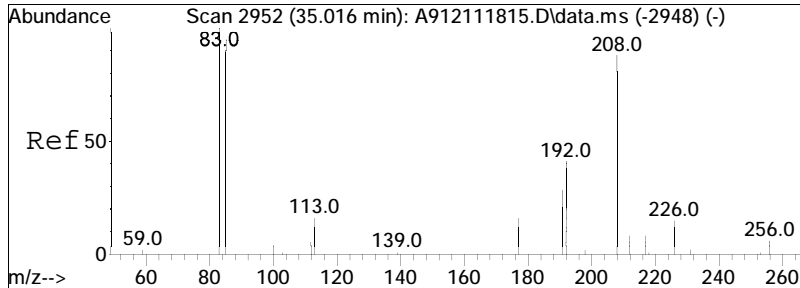




#43
 2-Methylphenanthrene (2MP)
 Concen: 12064.52 ng/mL
 RT: 34.577 min Scan# 2904
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

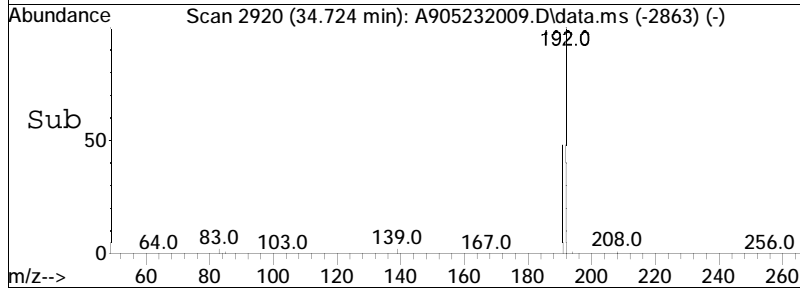
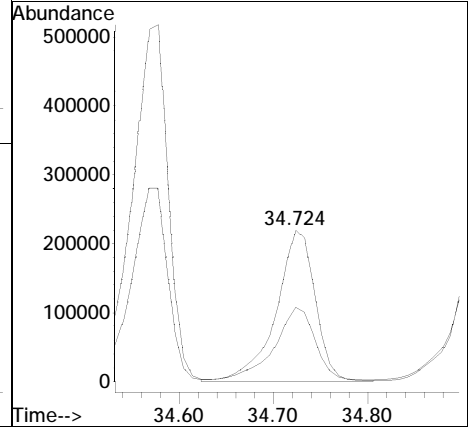
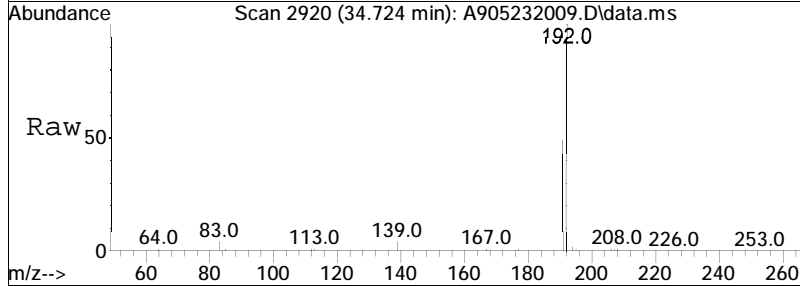
Tgt Ion: 192 Resp: 1364211
 Ion Ratio Lower Upper
 192 100
 191 54.4 39.7 73.7

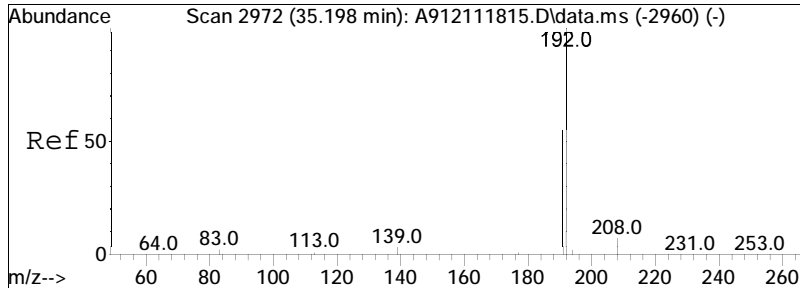




#44
 2-Methylantracene(2MA)
 Concen: 5561.82 ng/mL M4
 RT: 34.724 min Scan# 2920
 Delta R.T. 0.018 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

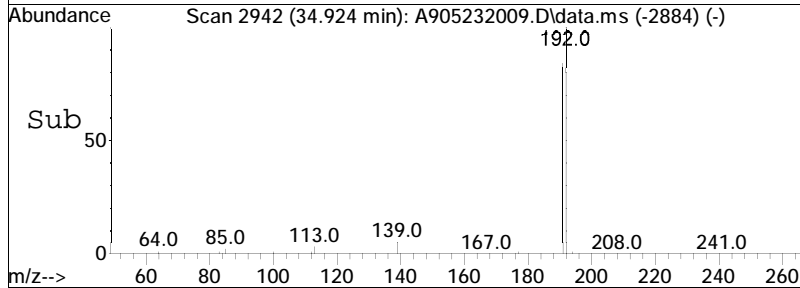
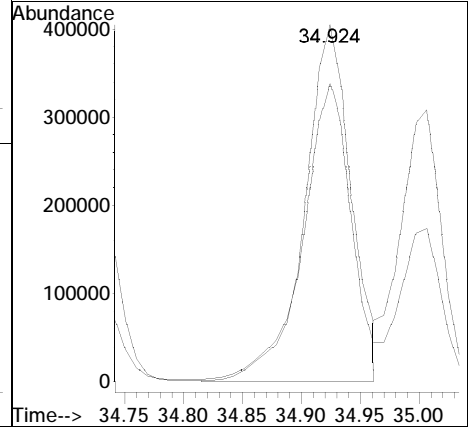
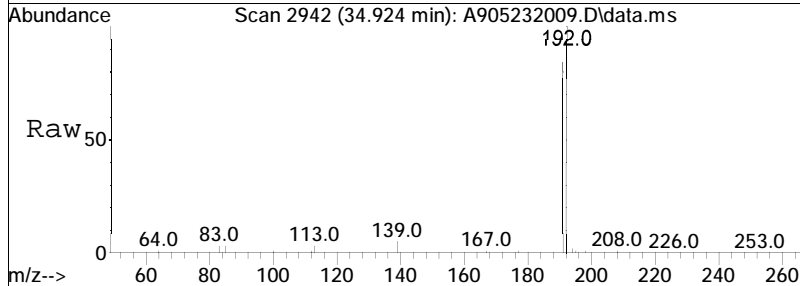
Tgt Ion	Resp	Lower	Upper
192	100		
191	155.7	80.0	148.6#

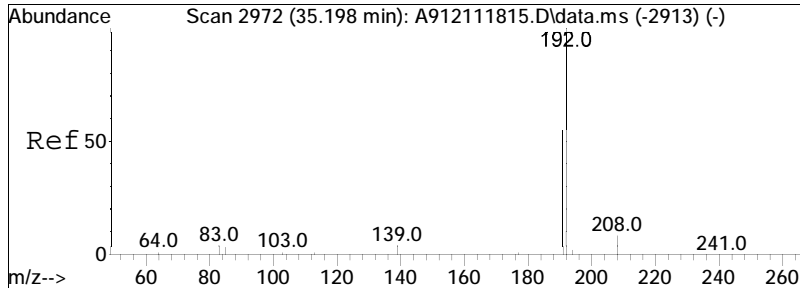




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 9812.67 ng/mL M4
 RT: 34.924 min Scan# 2942
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

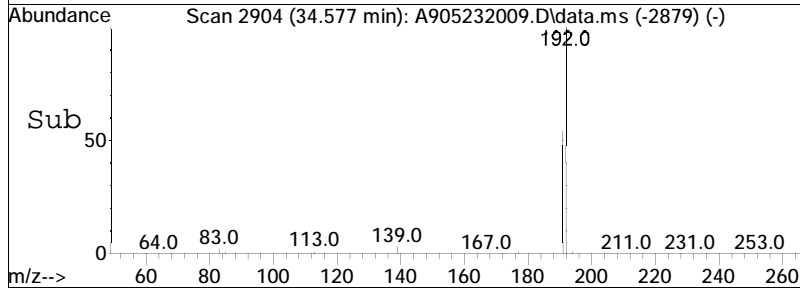
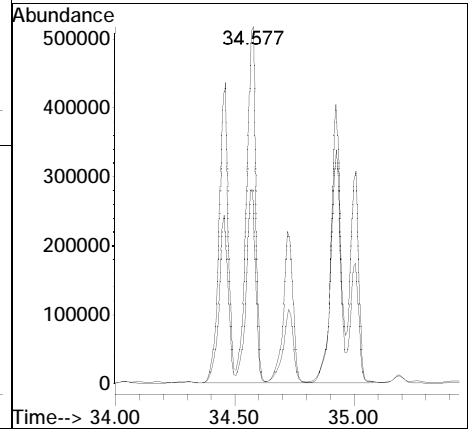
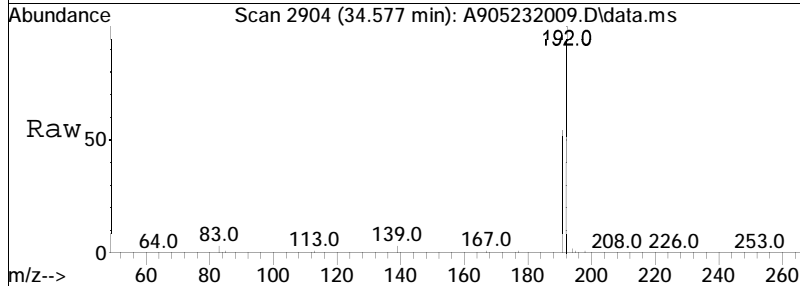
Tgt Ion:192 Resp: 1109580
 Ion Ratio Lower Upper
 192 100
 191 35.9 39.7 73.7#

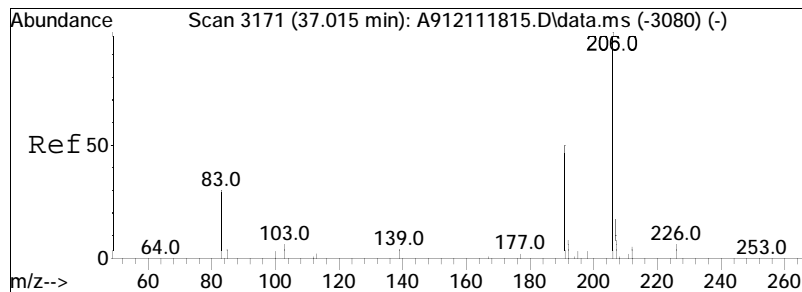




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 44265.28 ng/mL M5
 RT: 34.577 min Scan# 2904
 Delta R.T. -0.311 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

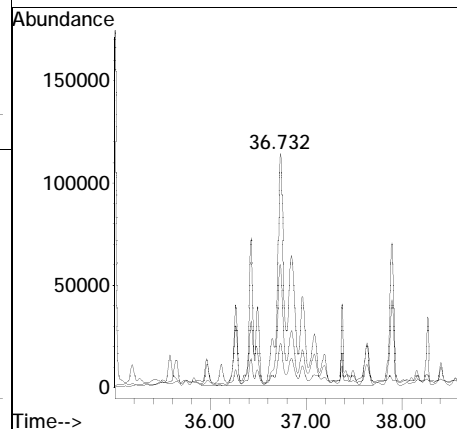
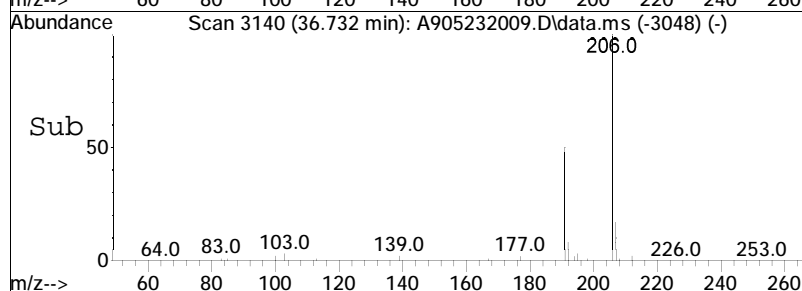
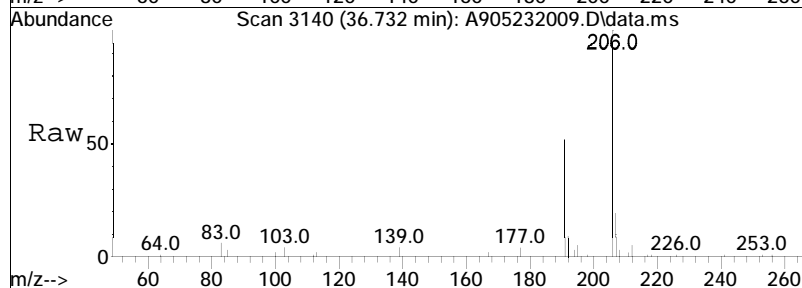
Tgt Ion:192 Resp: 5005352
 Ion Ratio Lower Upper
 192 100
 191 6.2 39.3 72.9#

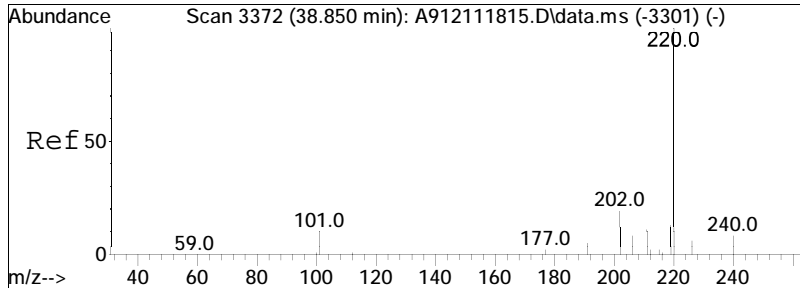




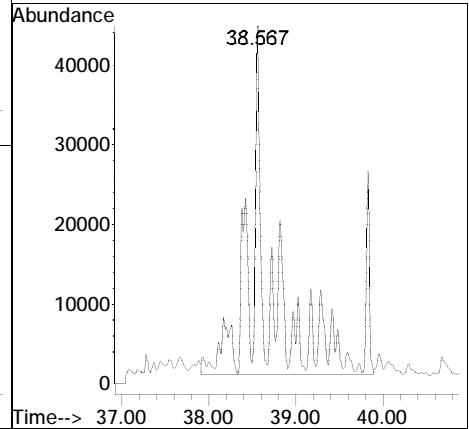
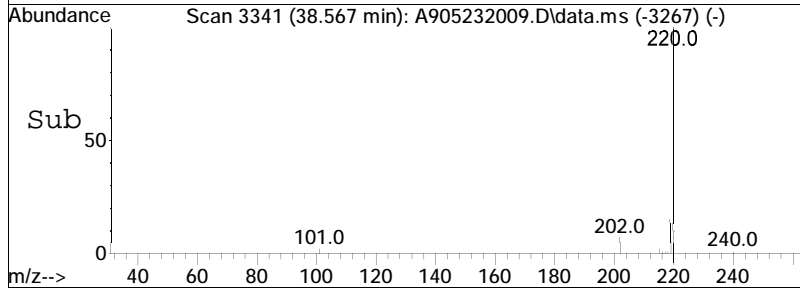
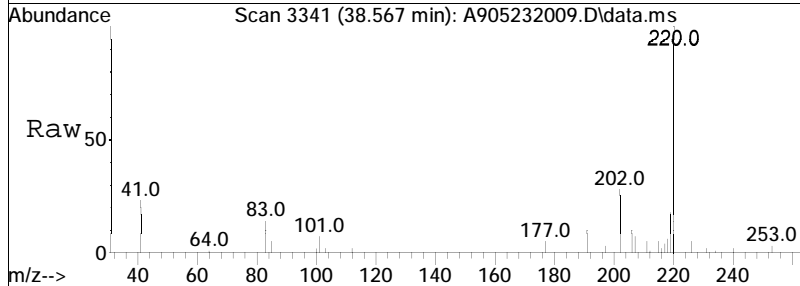
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 15604.02 ng/mL M5
 RT: 36.732 min Scan# 3140
 Delta R.T. 0.029 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

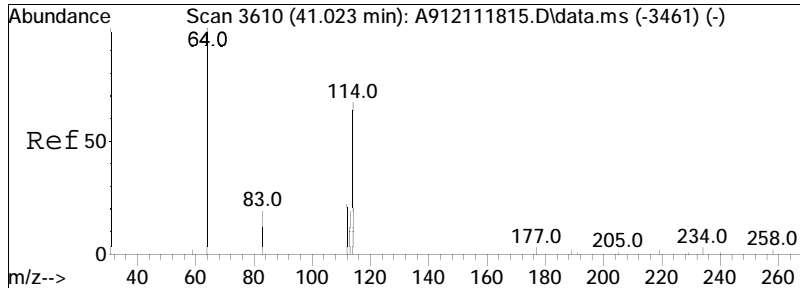
Tgt Ion	Ratio	Lower	Upper
206	100		
191	14.1	36.4	67.6#
207	3.8	14.4	26.7#





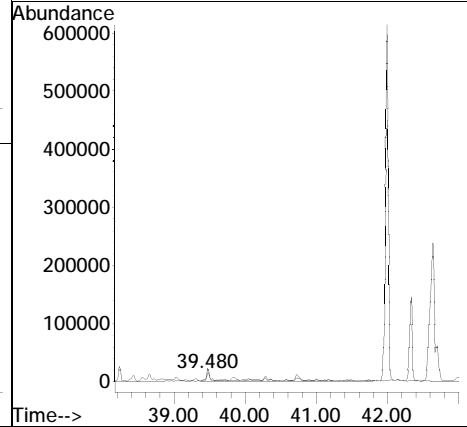
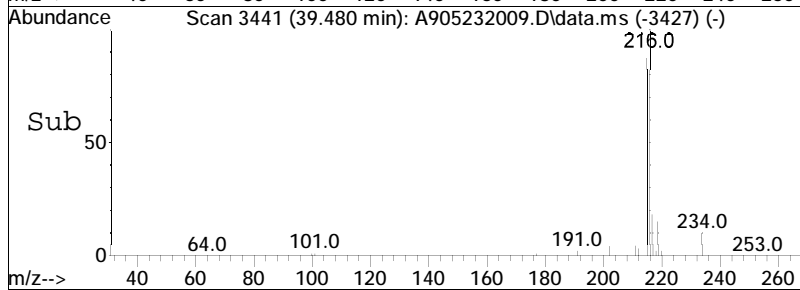
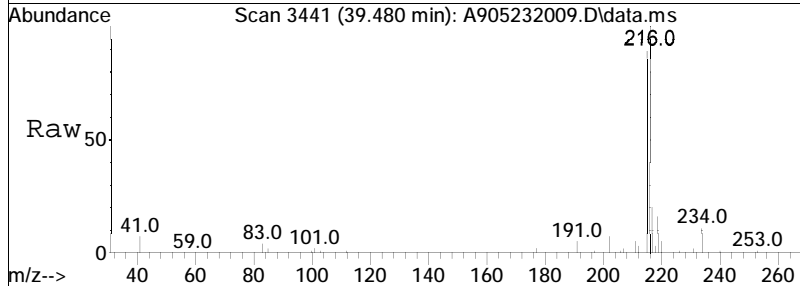
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 6326.37 ng/mL M5
 RT: 38.567 min Scan# 3341
 Delta R.T. 0.031 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:220 Resp: 715362

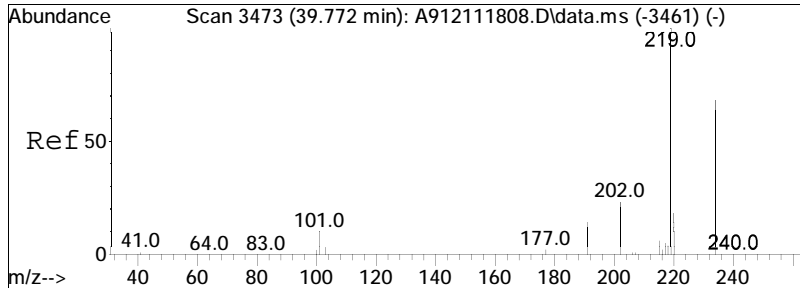




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 2197.91 ng/mL M5
 RT: 39.480 min Scan# 3441
 Delta R.T. -1.227 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

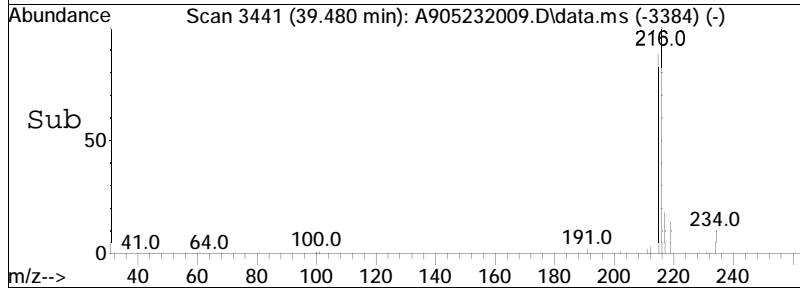
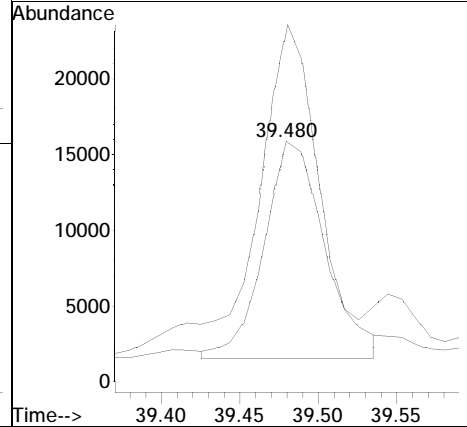
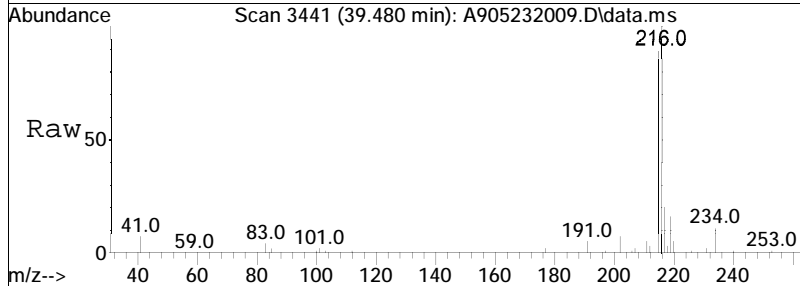
Tgt Ion	Ratio	Lower	Upper
234	100		
219	7.3	43.7	81.1#

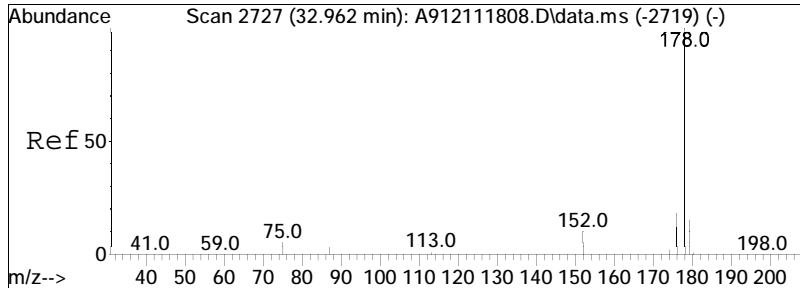




#52
 Retene
 Concen: 1032.86 ng/mL M4
 RT: 39.480 min Scan# 3441
 Delta R.T. 0.018 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

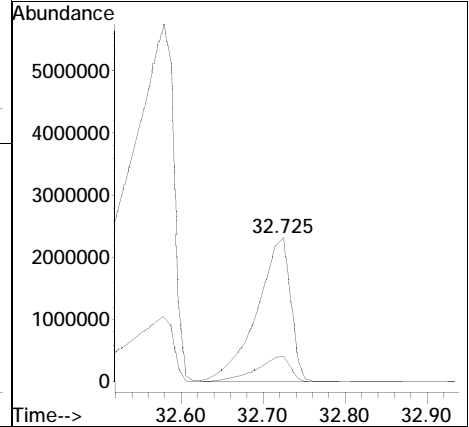
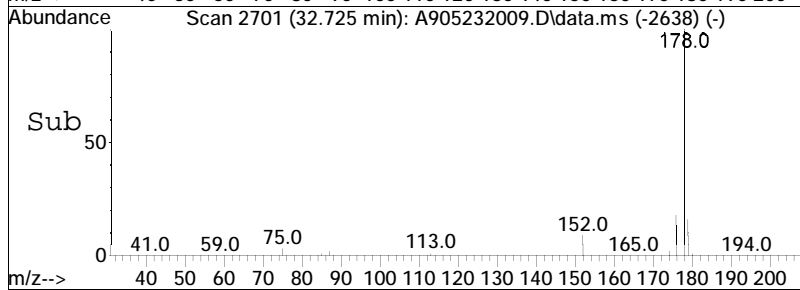
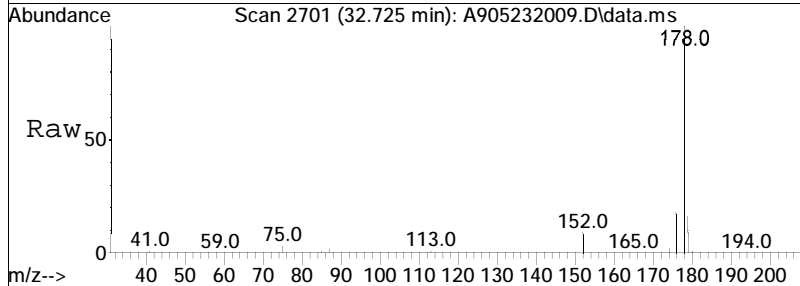
Tgt Ion	Resp	Lower	Upper
234	38976		
219	153.5	104.0	193.2

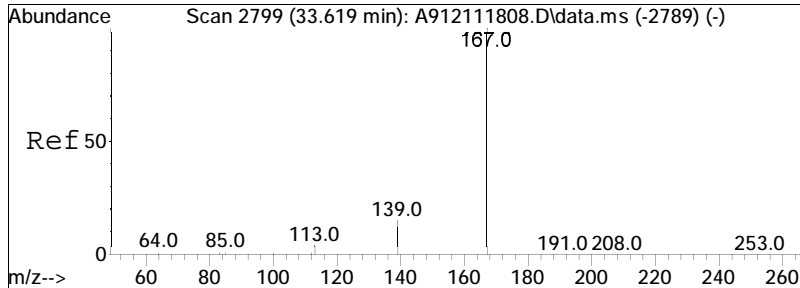




#53
 Anthracene
 Concen: 66524.37 ng/mL
 RT: 32.725 min Scan# 2701
 Delta R.T. 0.073 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

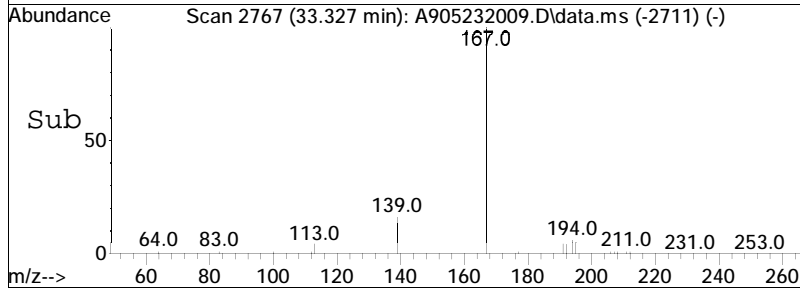
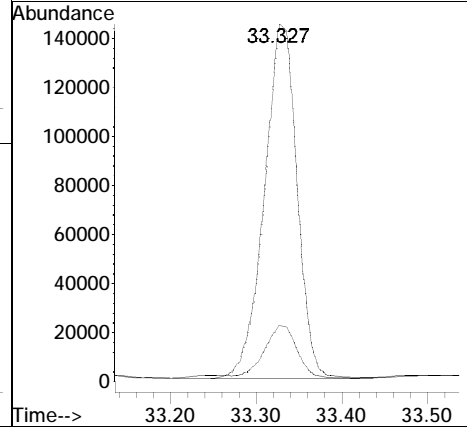
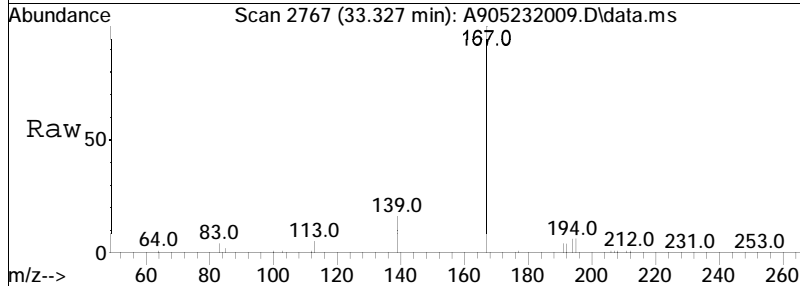
Tgt Ion: 178 Resp: 6633646
 Ion Ratio Lower Upper
 178 100
 176 18.1 13.3 24.7

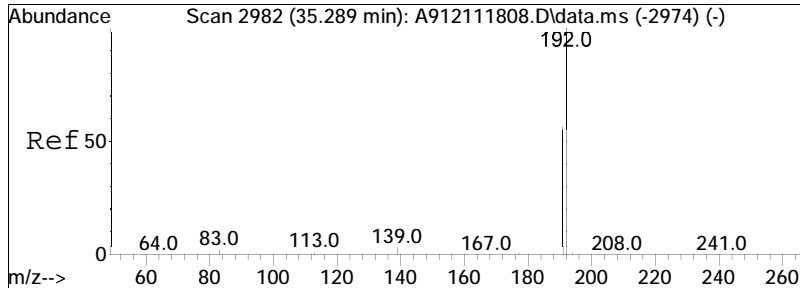




#54
 Carbazole
 Concen: 3629.86 ng/mL
 RT: 33.327 min Scan# 2767
 Delta R.T. 0.009 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

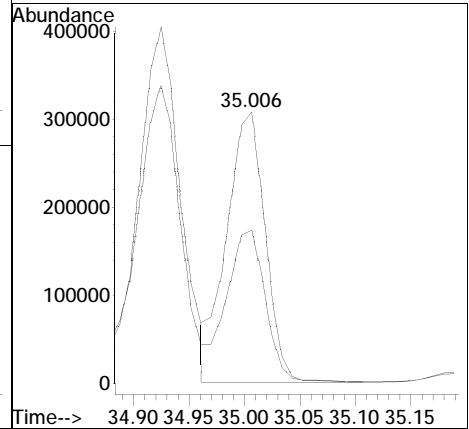
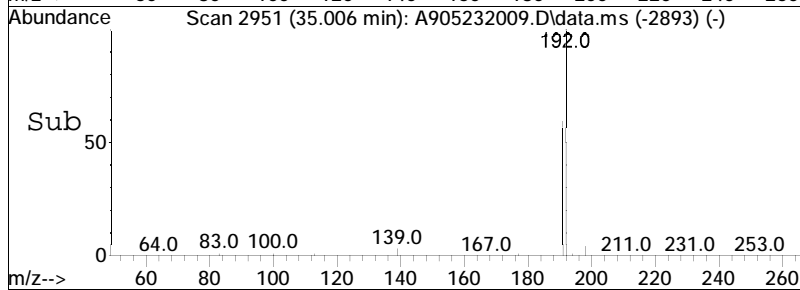
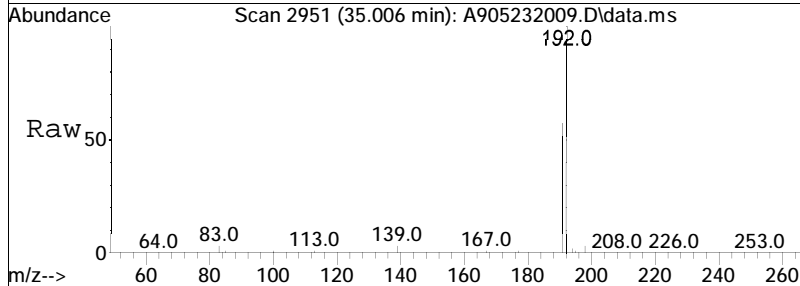
Tgt Ion	Resp	Lower	Upper
167	100		
139	14.6	10.4	19.4

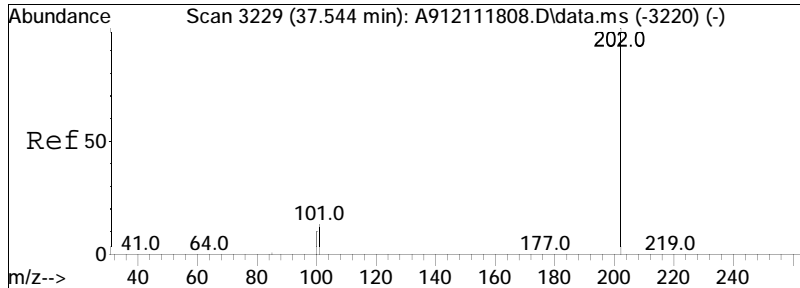




#55
 1-Methylphenanthrene
 Concen: 8895.83 ng/mL
 RT: 35.006 min Scan# 2951
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

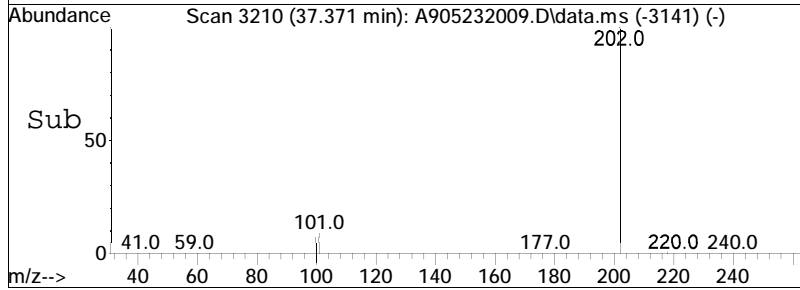
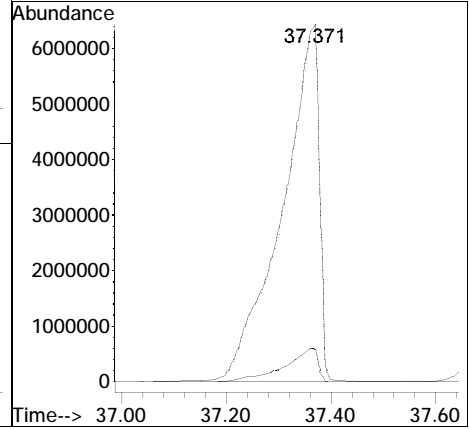
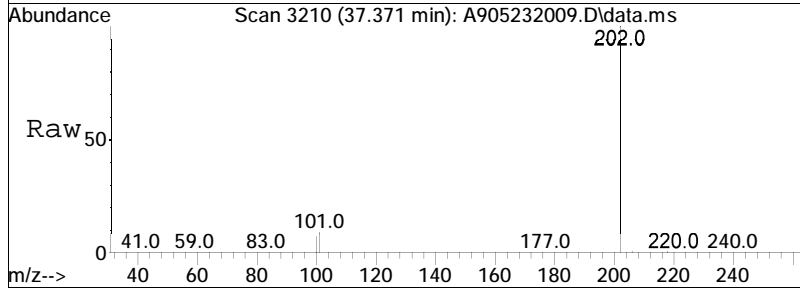
Tgt Ion	Resp	Lower	Upper
192	100		
191	53.9	39.0	72.4

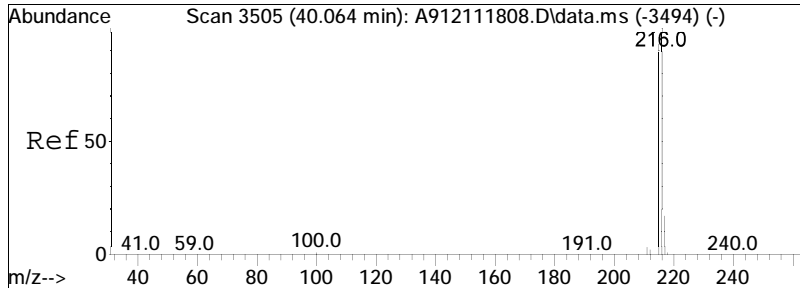




#56
 Fluoranthene
 Concen: 235348.56 ng/mL M4
 RT: 37.371 min Scan# 3210
 Delta R.T. 0.128 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

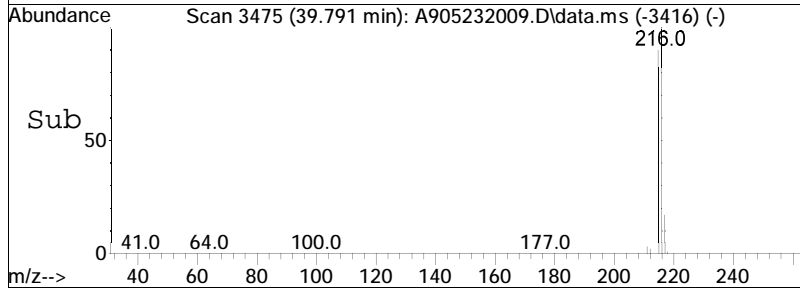
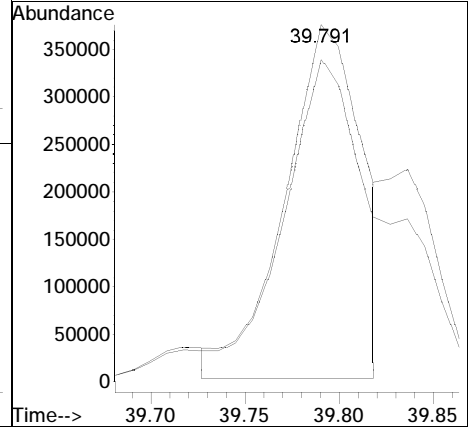
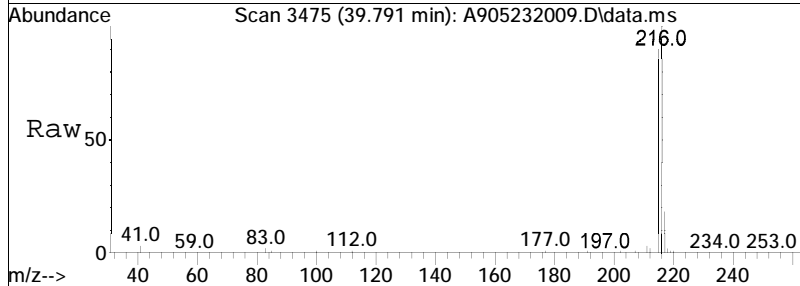
Tgt Ion: 202 Resp: 31196131
 Ion Ratio Lower Upper
 202 100
 101 8.6 6.8 12.6

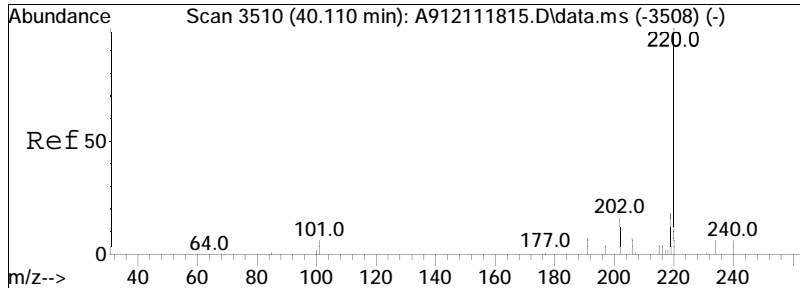




#57
 Benzo(b)fluorene
 Concen: 13504.23 ng/mL M3
 RT: 39.791 min Scan# 3475
 Delta R.T. 0.037 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

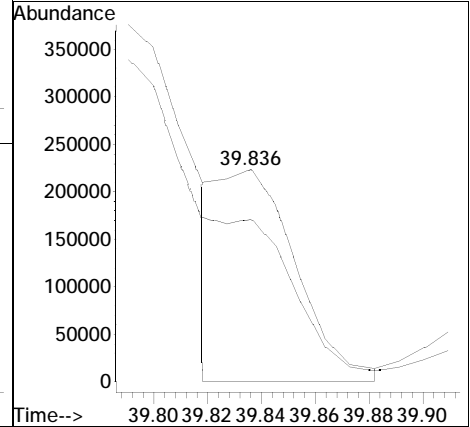
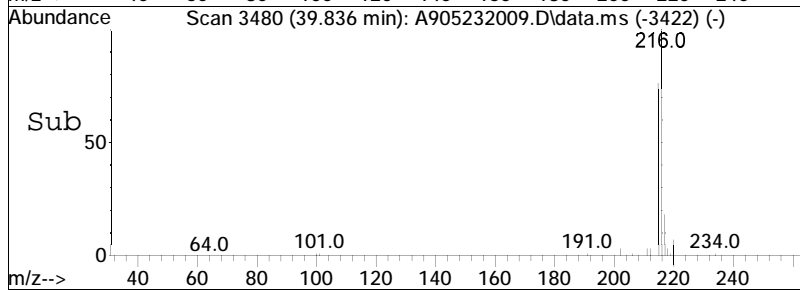
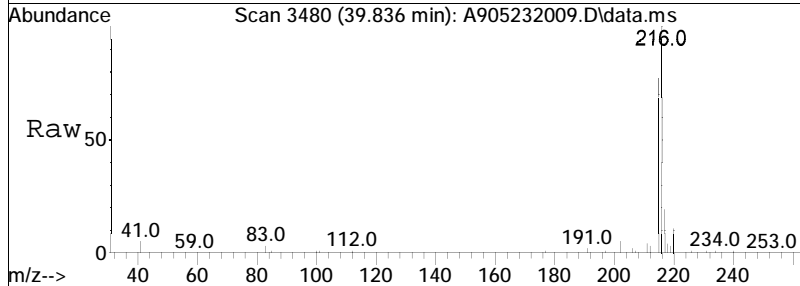
Tgt Ion: 216 Resp: 1060498
 Ion Ratio Lower Upper
 216 100
 215 126.5 64.8 120.4#

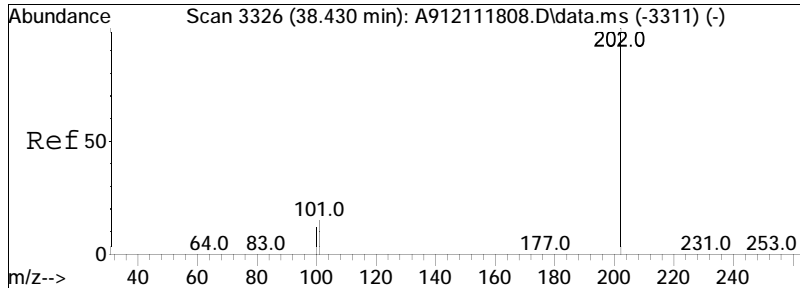




#58
 7H-Benzo(c)fluorene
 Concen: 5600.12 ng/mL M3
 RT: 39.836 min Scan# 3480
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

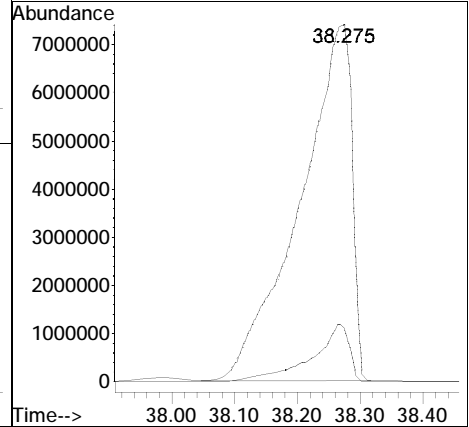
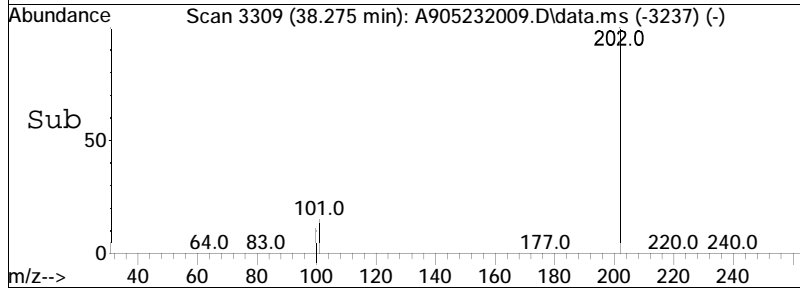
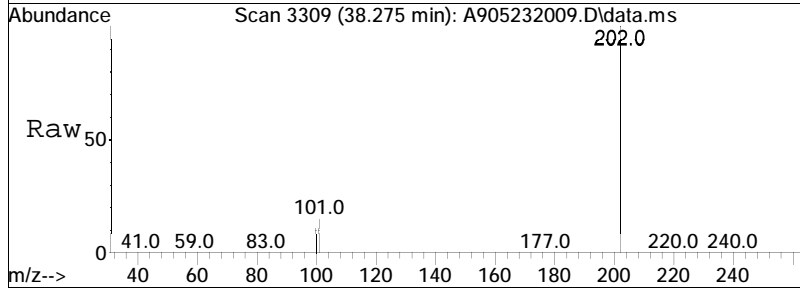
Tgt Ion	Resp	Lower	Upper
216	100		
215	410.4	98.9	183.7#

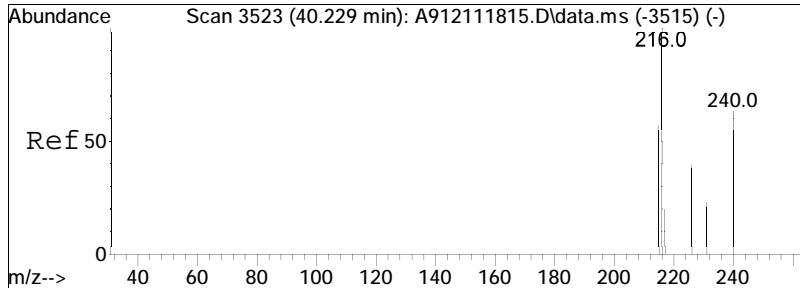




#59
 Pyrene
 Concen: 301216.54 ng/mL
 RT: 38.275 min Scan# 3309
 Delta R.T. 0.155 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

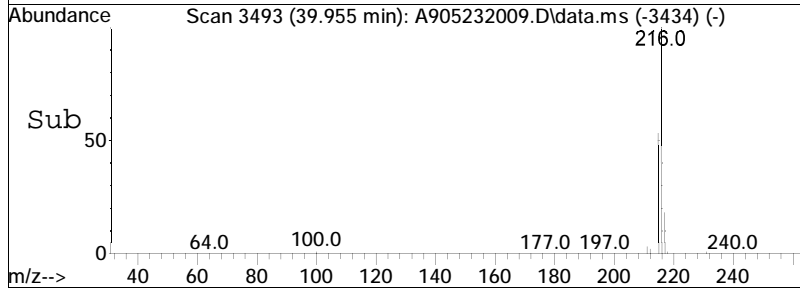
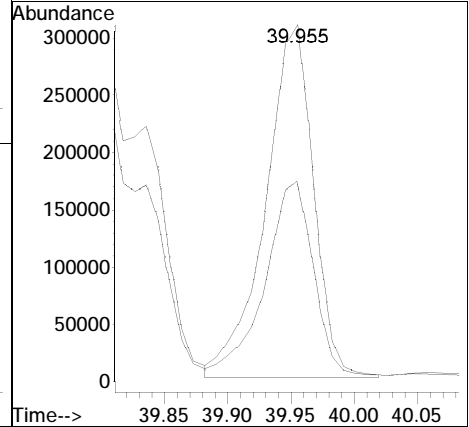
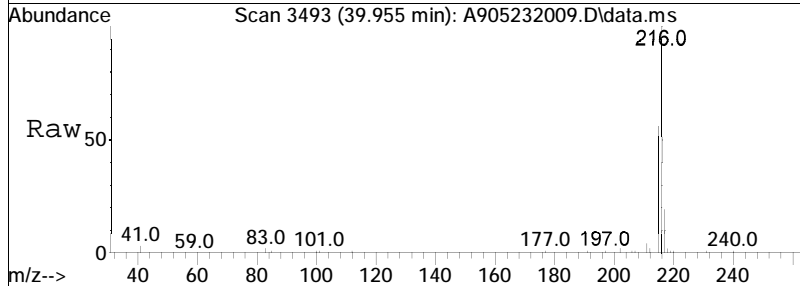
Tgt Ion: 202 Resp: 42160732
 Ion Ratio Lower Upper
 202 100
 101 11.7 7.6 14.0

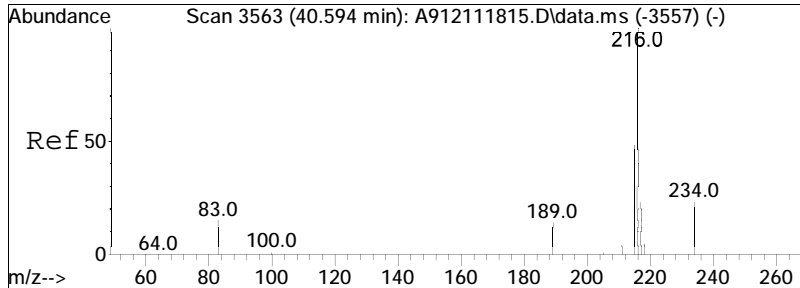




#60
 2-Methylpyrene
 Concen: 5815.16 ng/mL M4
 RT: 39.955 min Scan# 3493
 Delta R.T. 0.037 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

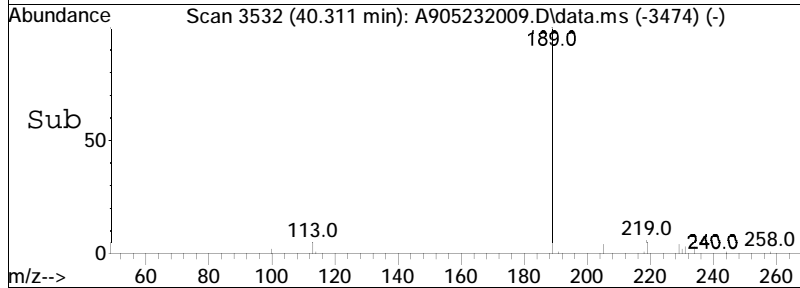
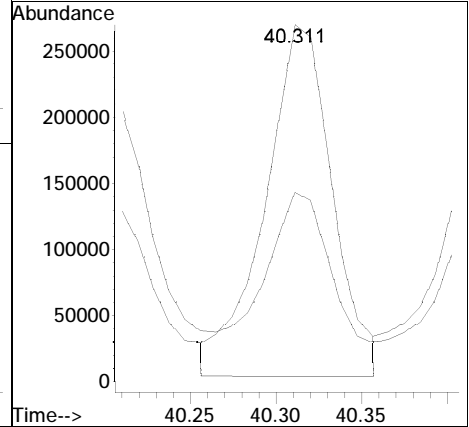
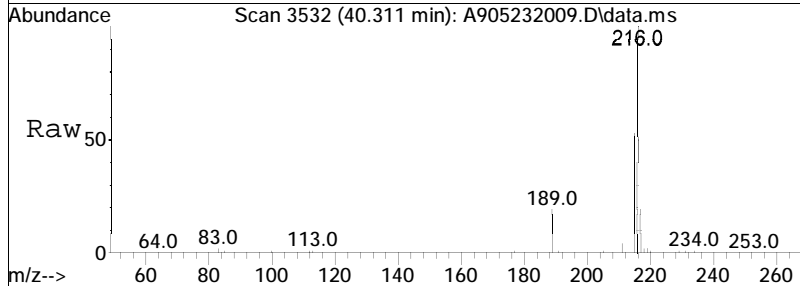
Tgt Ion	Resp	Lower	Upper
216	100		
215	164.8	72.7	134.9#

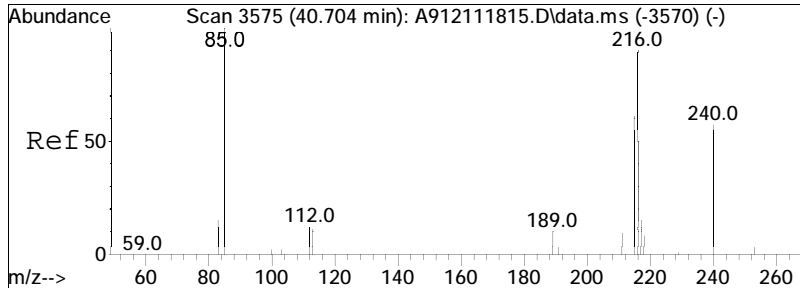




#61
 4-Methylpyrene
 Concen: 5190.17 ng/mL
 RT: 40.311 min Scan# 3532
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

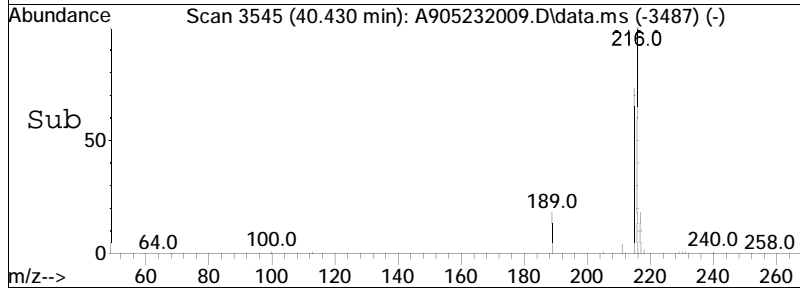
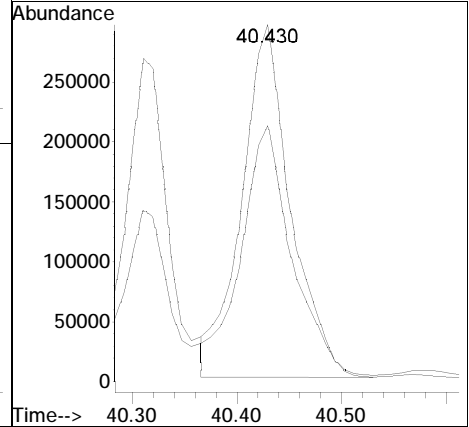
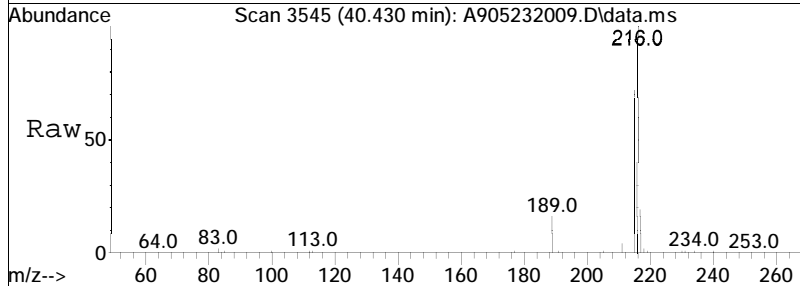
Tgt Ion: 216 Resp: 726459
 Ion Ratio Lower Upper
 216 100
 215 54.7 49.3 91.5

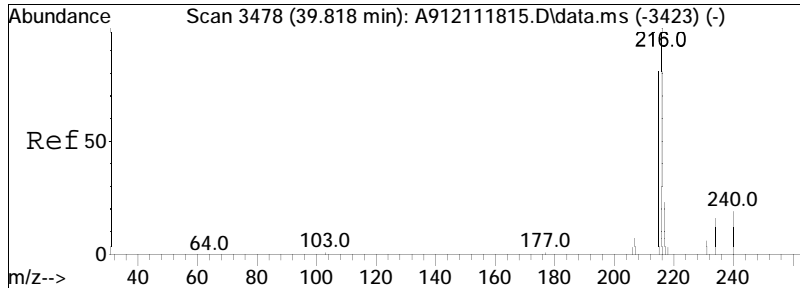




#62
 1-Methylpyrene
 Concen: 6824.54 ng/mL
 RT: 40.430 min Scan# 3545
 Delta R.T. 0.027 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

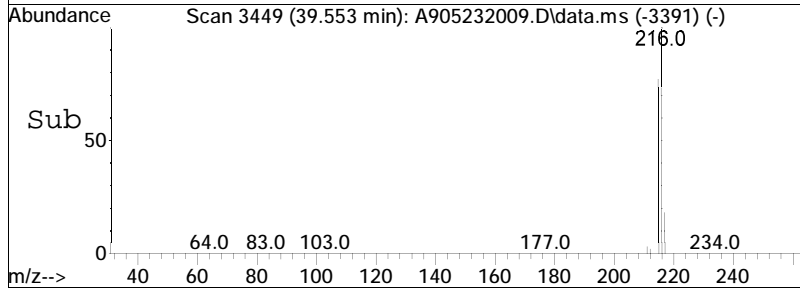
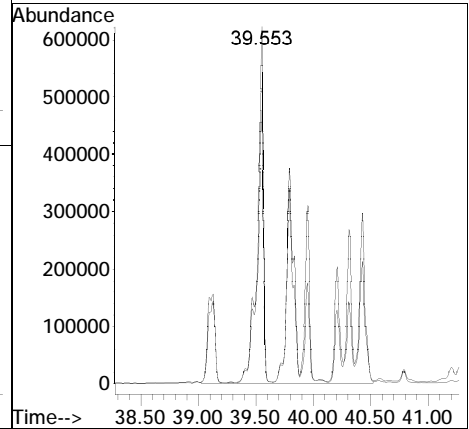
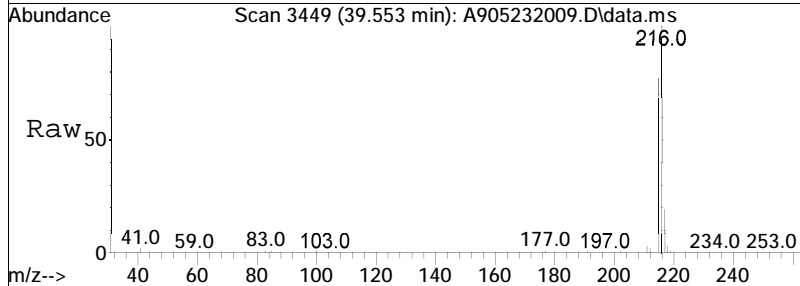
Tgt Ion:	216	Resp:	955218
Ion Ratio	Lower	Upper	
216	100		
215	74.4	66.6	123.8

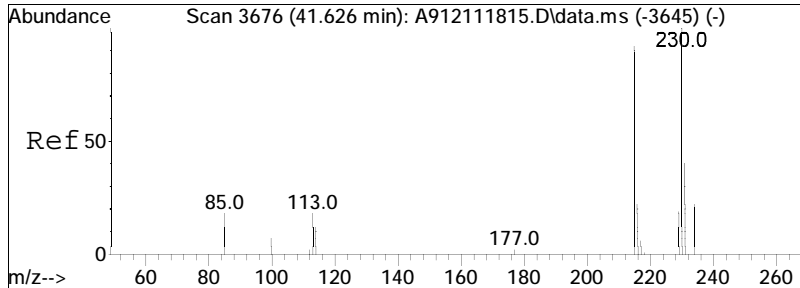




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 53736.64 ng/mL M5
 RT: 39.553 min Scan# 3449
 Delta R.T. 0.050 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

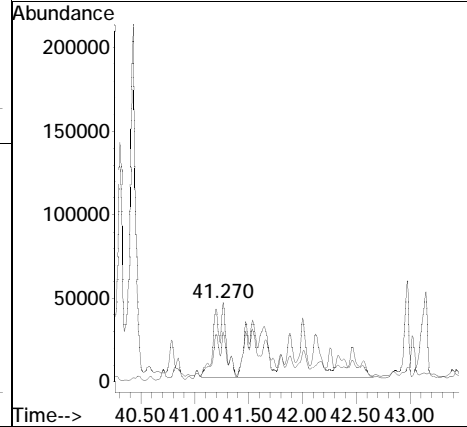
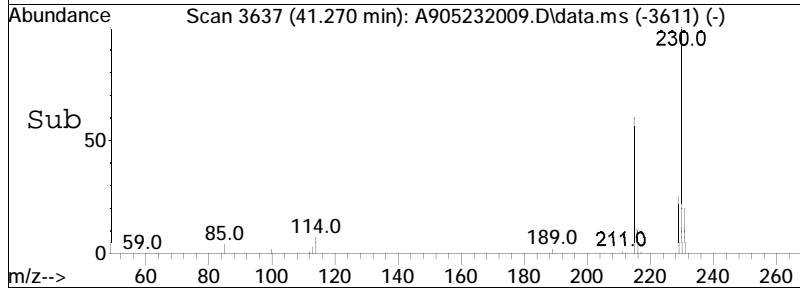
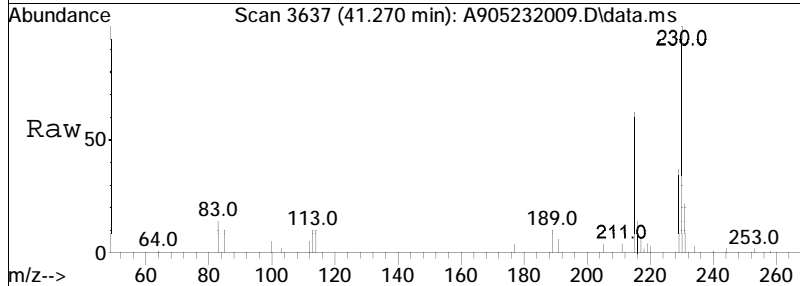
Tgt Ion: 216 Resp: 7521420
 Ion Ratio Lower Upper
 216 100
 215 24.3 63.1 117.1#

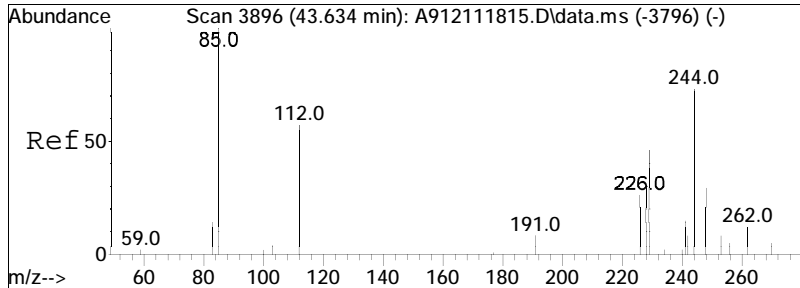




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 10013.54 ng/mL M5
 RT: 41.270 min Scan# 3637
 Delta R.T. -0.040 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

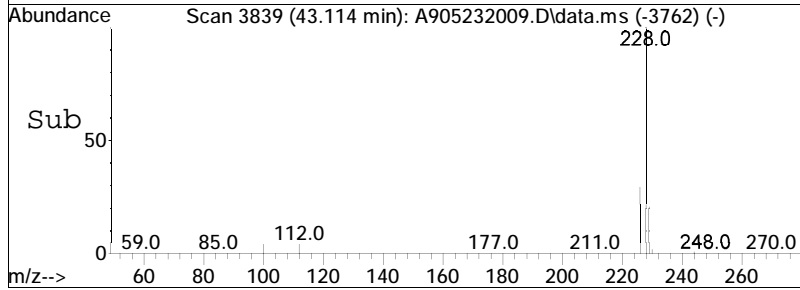
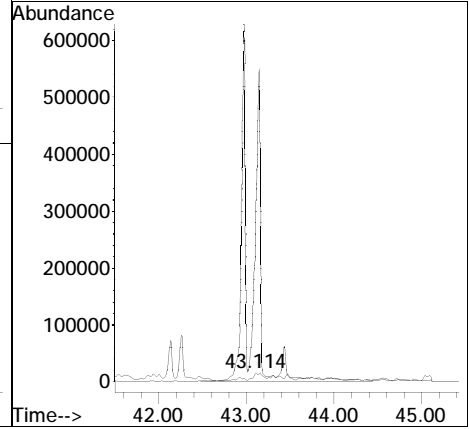
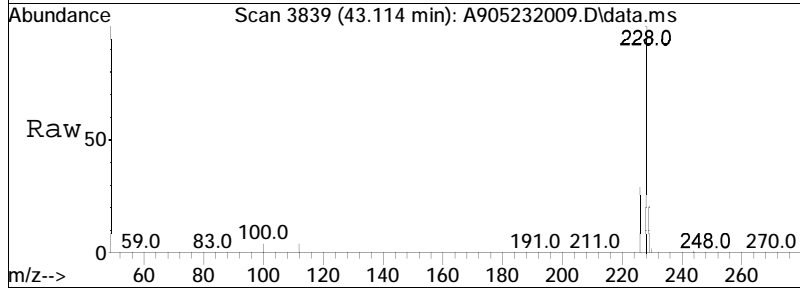
Tgt Ion: 230 Resp: 1401577
 Ion Ratio Lower Upper
 230 100
 215 2.0 79.7 148.1#

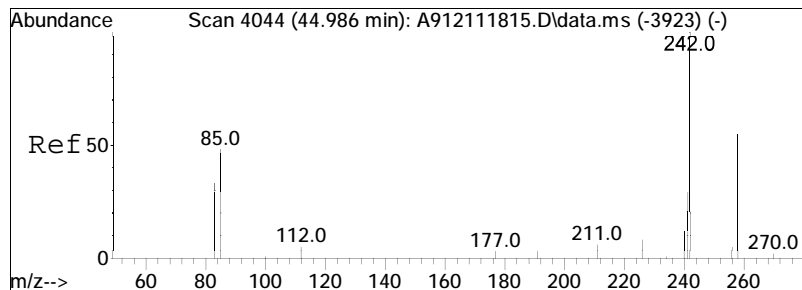




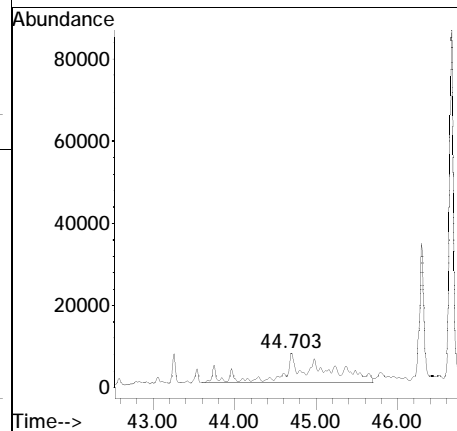
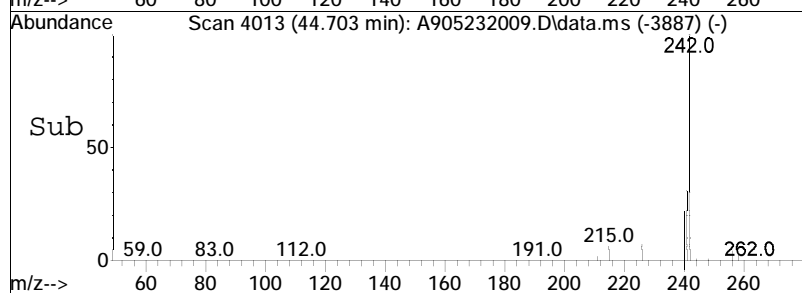
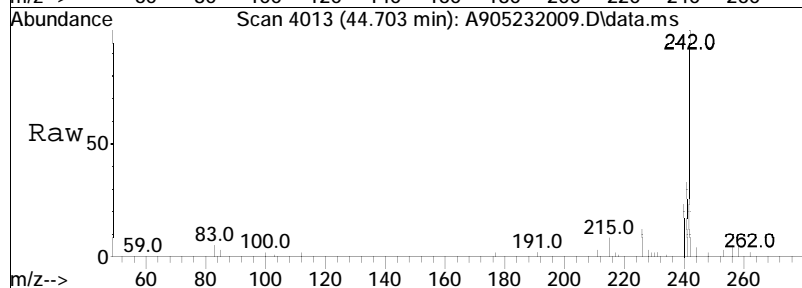
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 3396.42 ng/mL M5
 RT: 43.114 min Scan# 3839
 Delta R.T. -0.211 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

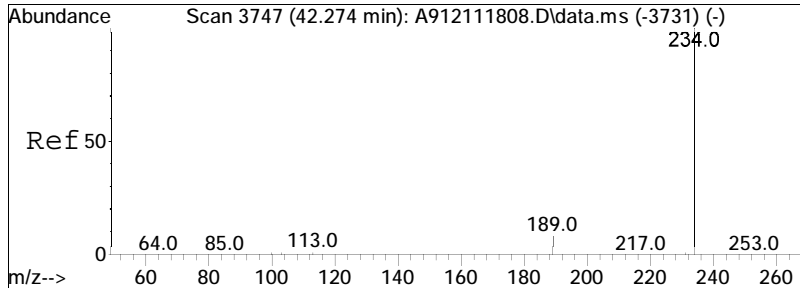
Tgt Ion	Resp	Lower	Upper
244	100		
229	2.4	67.7	125.7#





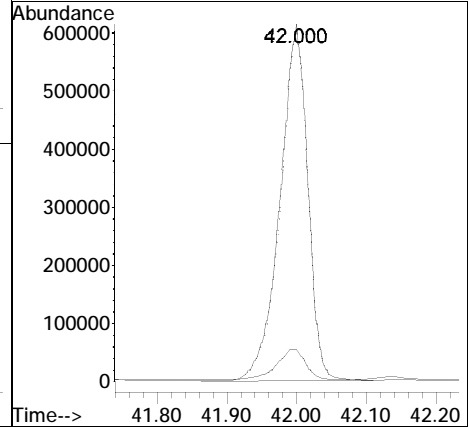
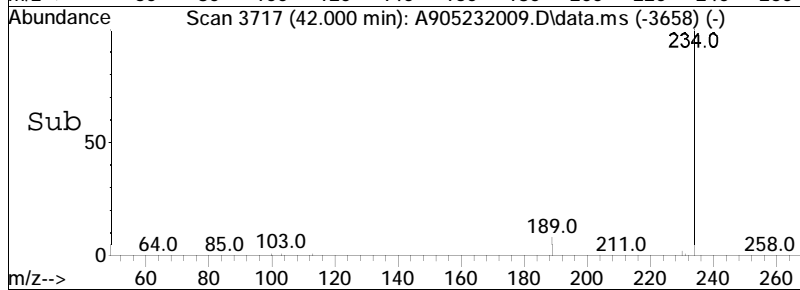
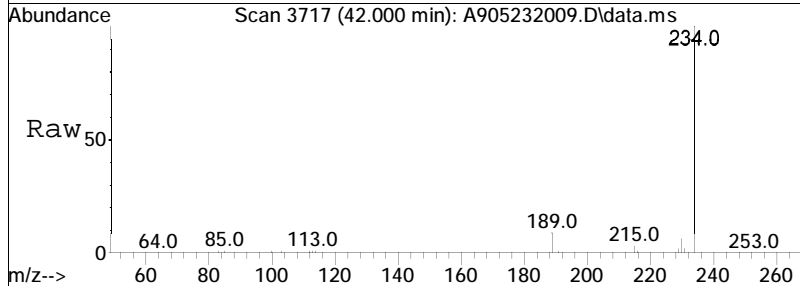
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 1779.60 ng/mL M5
 RT: 44.703 min Scan# 4013
 Delta R.T. 0.028 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion: 258 Resp: 249087

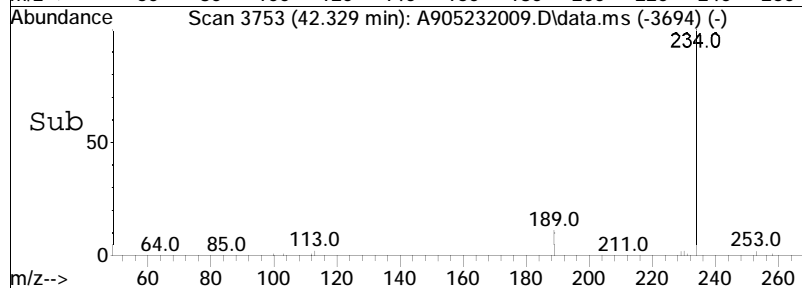
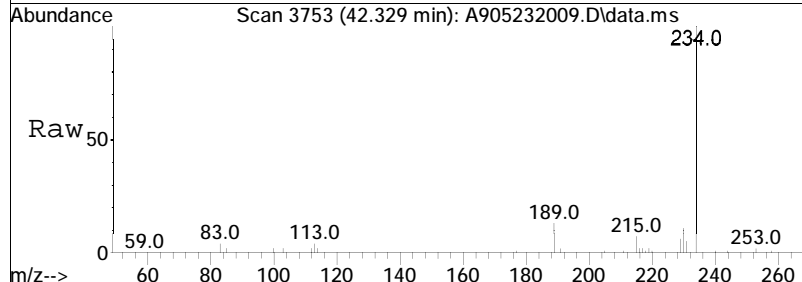
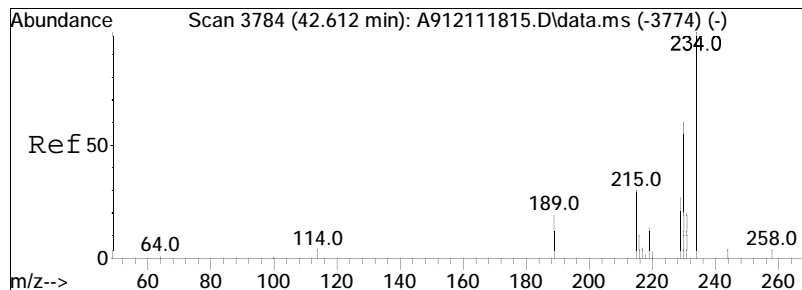




#67
 Naphthobenzothiophene-2,1-D
 Concen: 14859.78 ng/mL
 RT: 42.000 min Scan# 3717
 Delta R.T. 0.037 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

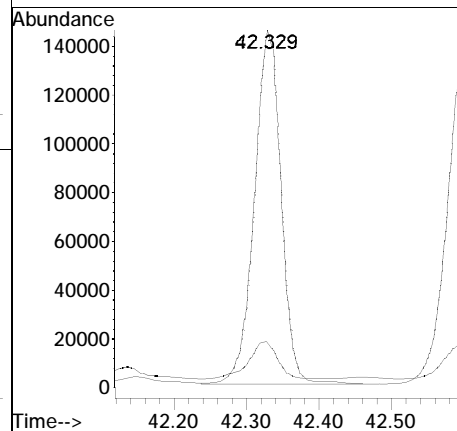
Tgt Ion: 234 Resp: 1661925
 Ion Ratio Lower Upper
 234 100
 189 8.9 6.1 11.3

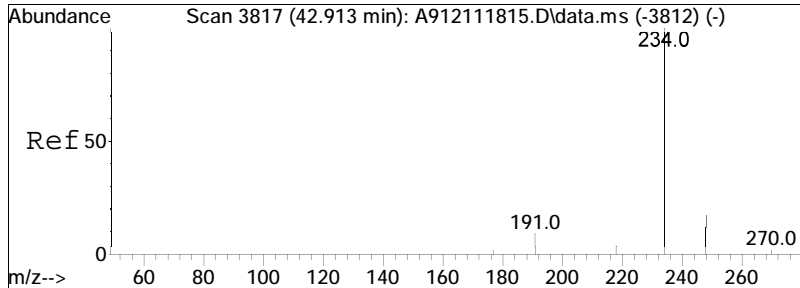




#68
 Naphthobenzothiophene-1,2-D
 Concen: 3308.25 ng/mL
 RT: 42.329 min Scan# 3753
 Delta R.T. 0.034 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

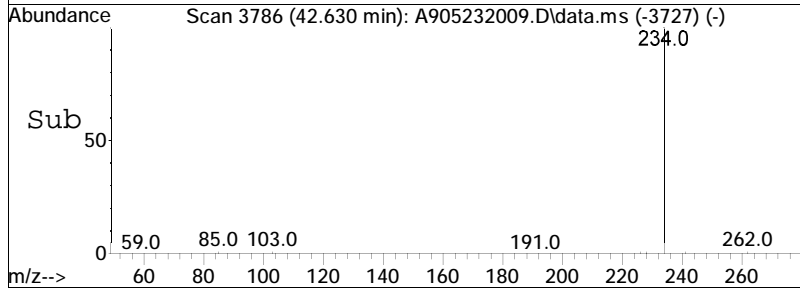
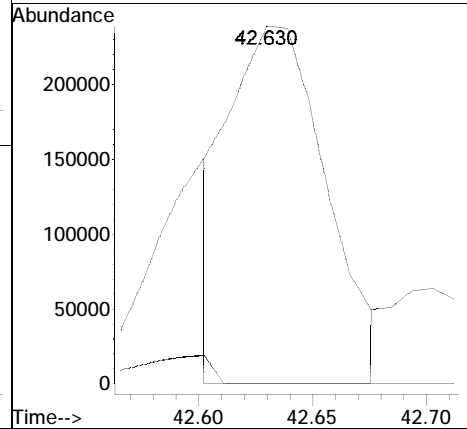
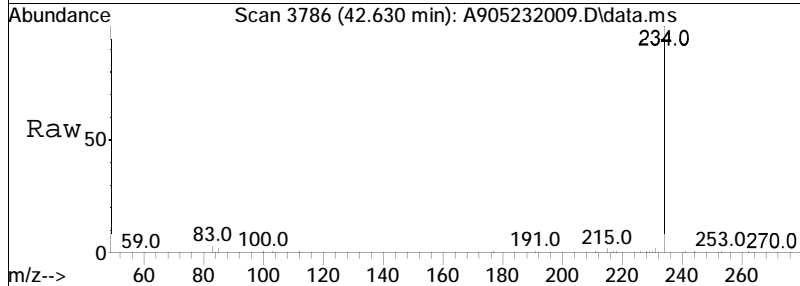
Tgt Ion	Resp	Lower	Upper
234	369996	100	
189	11.4	56.5	104.9#

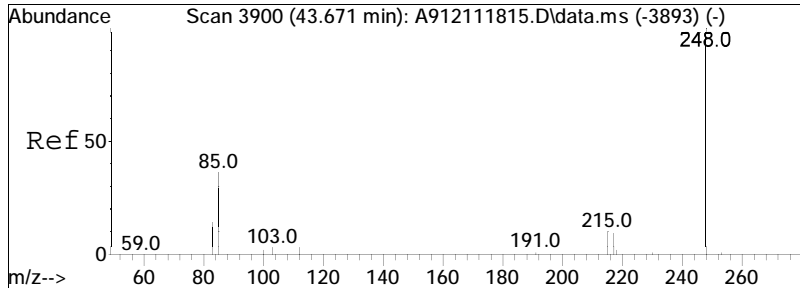




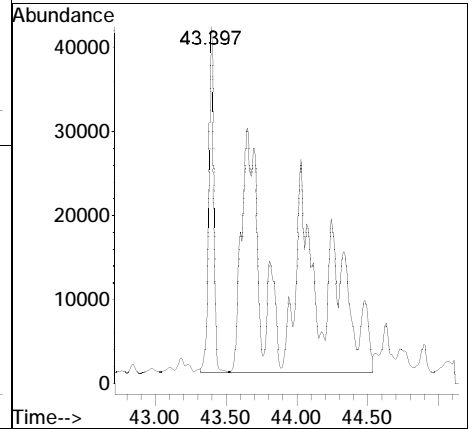
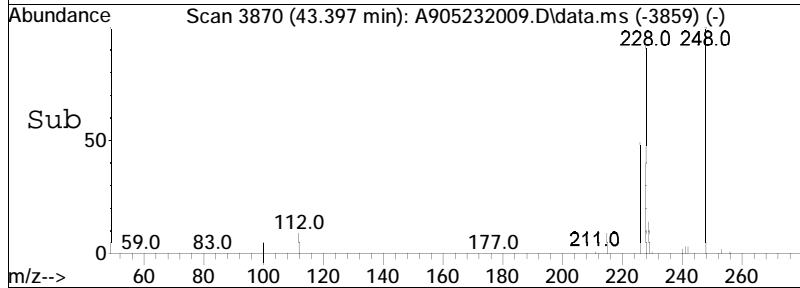
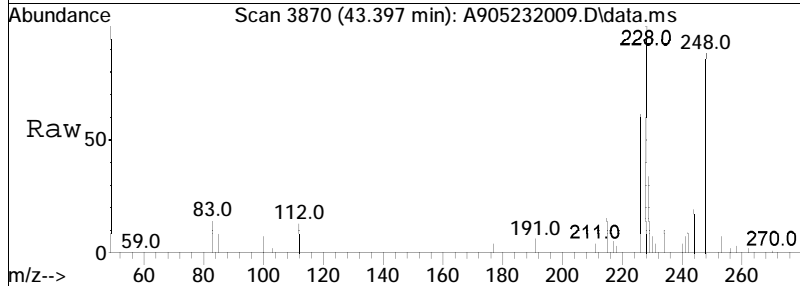
#69
 Naphthobenzothiophene-2,3-D
 Concen: 6317.97 ng/mL M3
 RT: 42.630 min Scan# 3786
 Delta R.T. 0.035 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

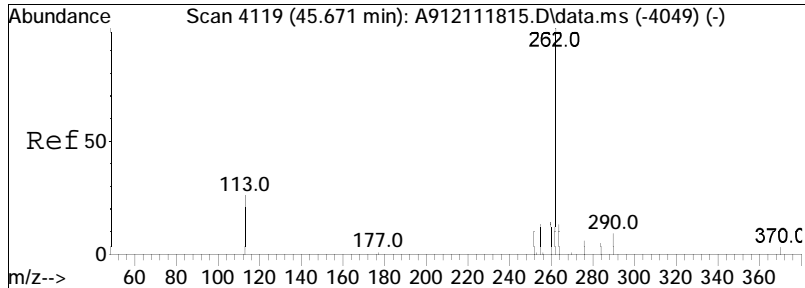
Tgt Ion: 234 Resp: 706605
 Ion Ratio Lower Upper
 234 100
 189 0.0 75.1 139.5#



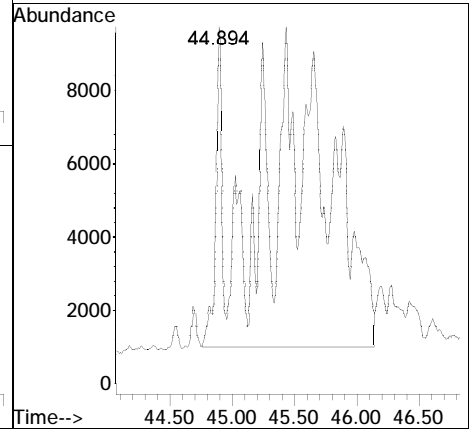
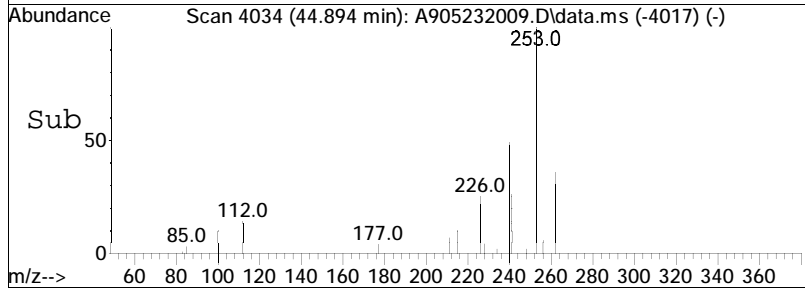
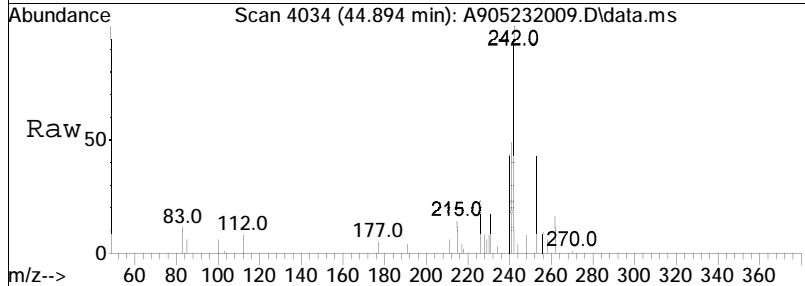


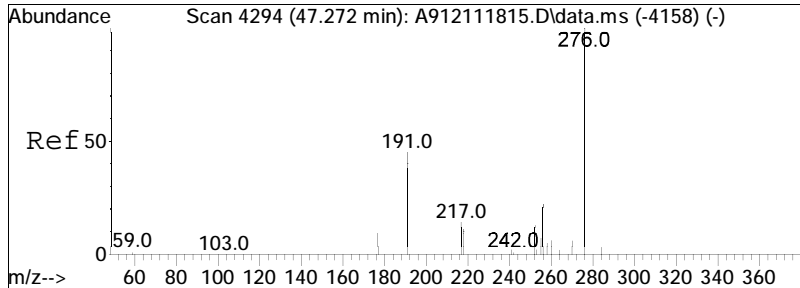
#70
 C1-Naphthobenzothiophenes
 Concen: 6437.58 ng/ml M5
 RT: 43.397 min Scan# 3870
 Delta R.T. 0.045 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion:248 Resp: 719982



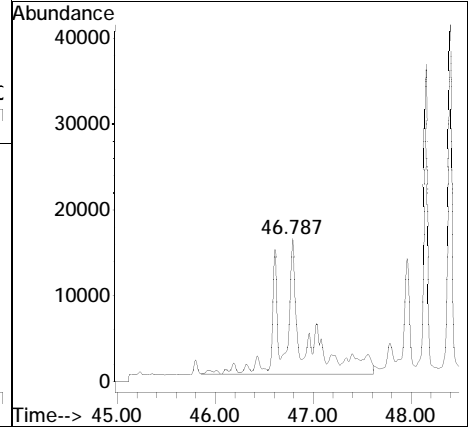
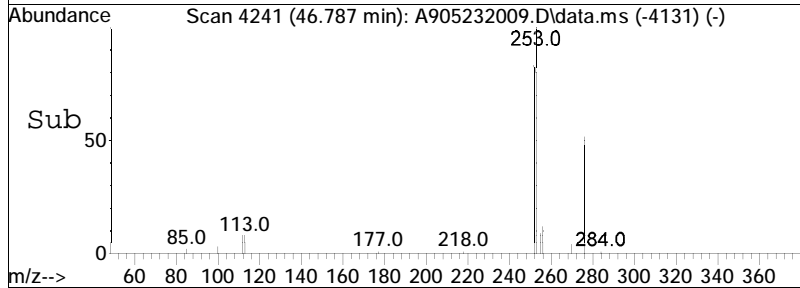
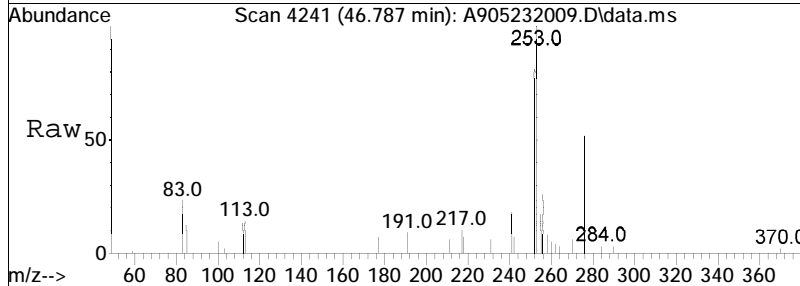


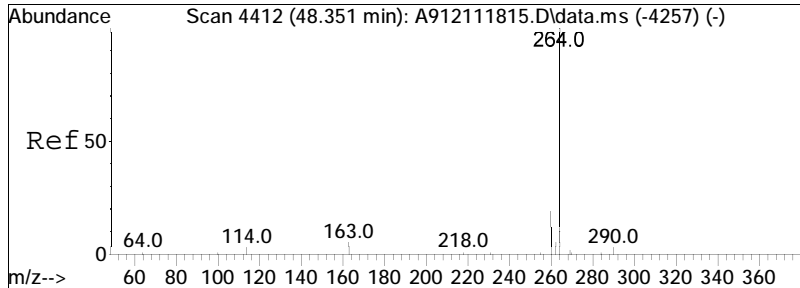
#71
 C2-Naphthobenzothiophenes
 Concen: 2788.78 ng/ml M5
 RT: 44.894 min Scan# 4034
 Delta R.T. -0.456 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion: 262 Resp: 311899



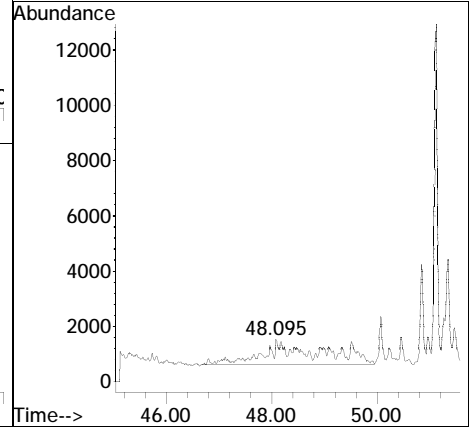
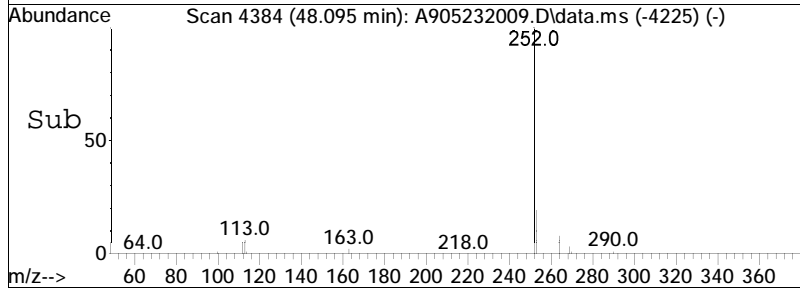
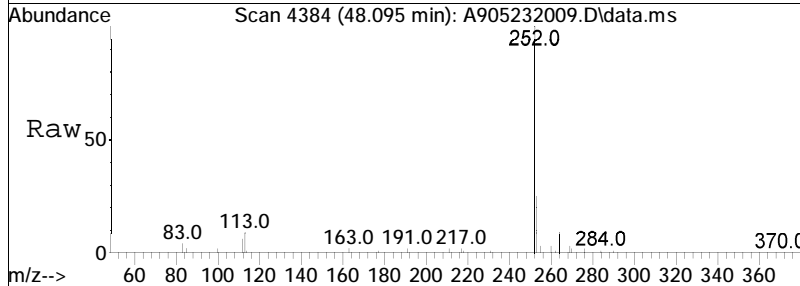


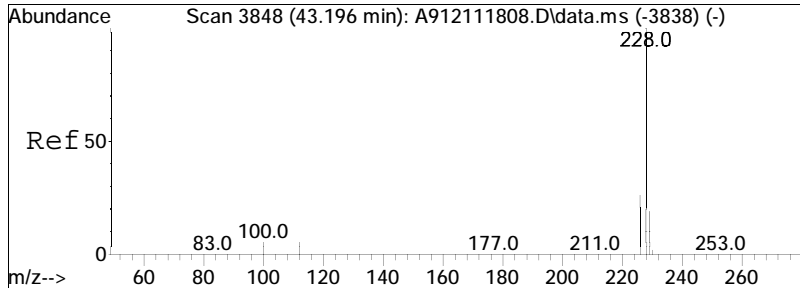
#72
 C3-Naphthobenzothiophenes
 Concen: 2090.10 ng/ml M5
 RT: 46.787 min Scan# 4241
 Delta R.T. -0.162 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion: 276 Resp: 233758





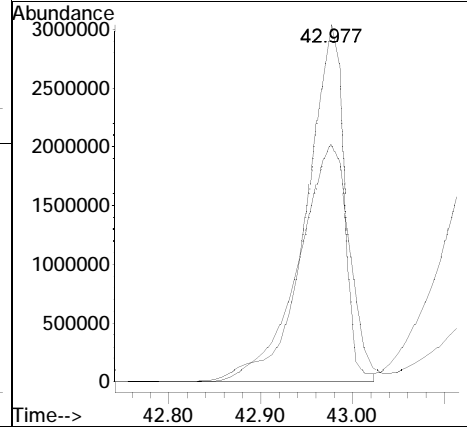
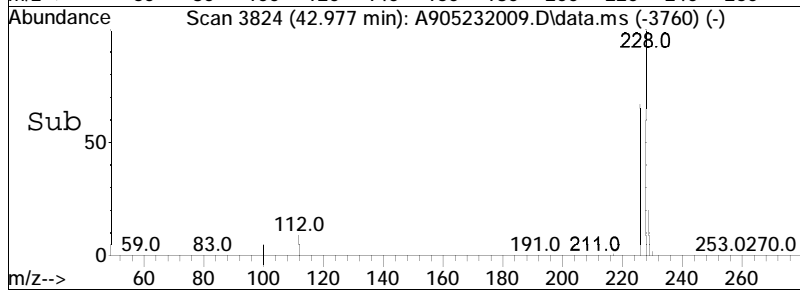
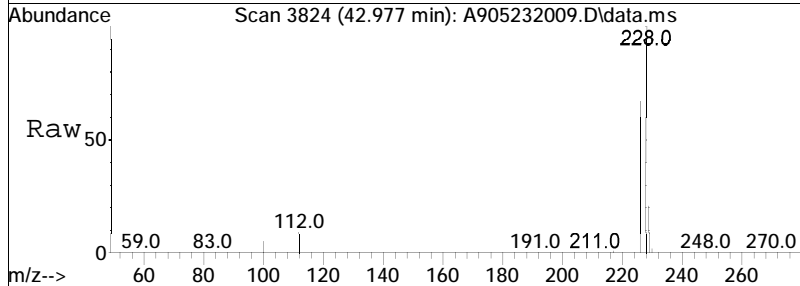
#73
 C4-Naphthobenzothiophenes
 Concen: 580.79 ng/mL M5
 RT: 48.095 min Scan# 4384
 Delta R.T. 0.086 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am
 Tgt Ion: 290 Resp: 64956

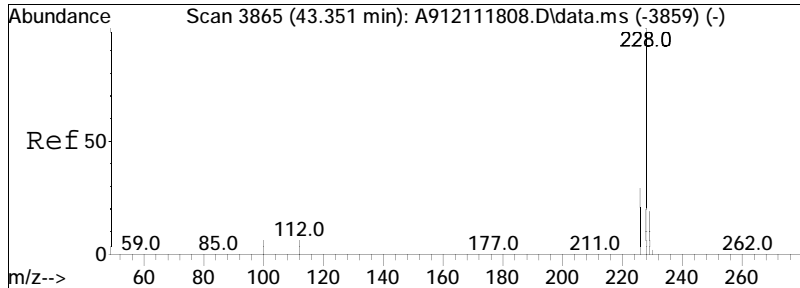




#75
 Benz[a]anthracene
 Concen: 60647.58 ng/mL M4
 RT: 42.977 min Scan# 3824
 Delta R.T. 0.082 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

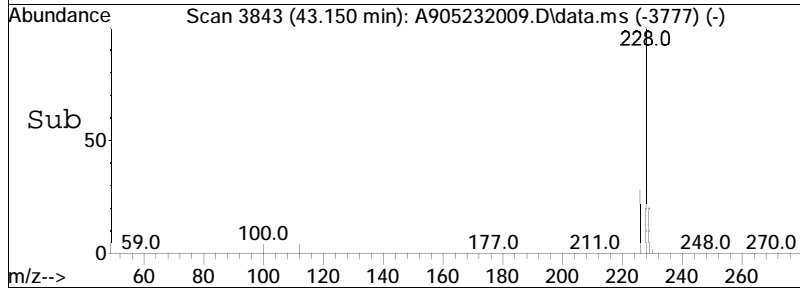
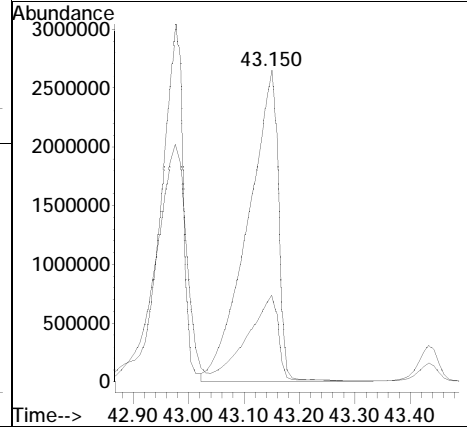
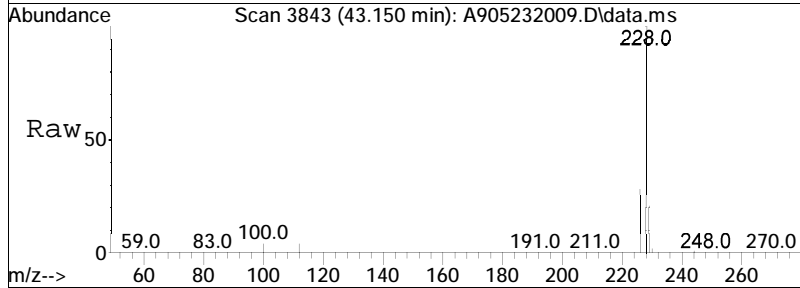
Tgt Ion: 228 Resp: 8635839
 Ion Ratio Lower Upper
 228 100
 226 31.9 19.0 35.2

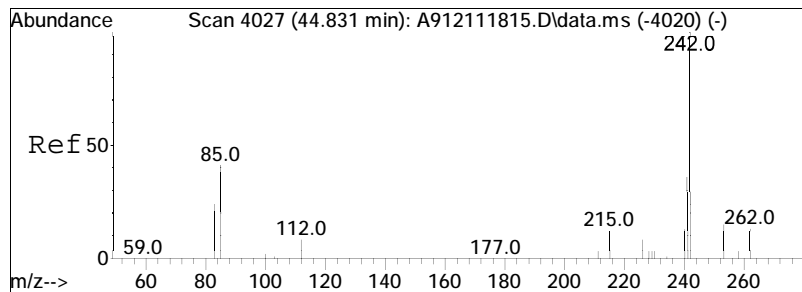




#77
 Chrysene/Triphenylene
 Concen: 67970.42 ng/mL
 RT: 43.150 min Scan# 3843
 Delta R.T. 0.100 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

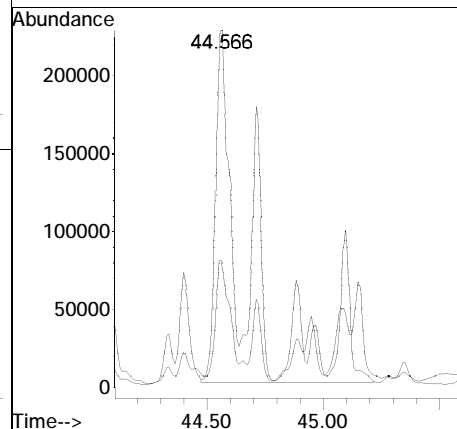
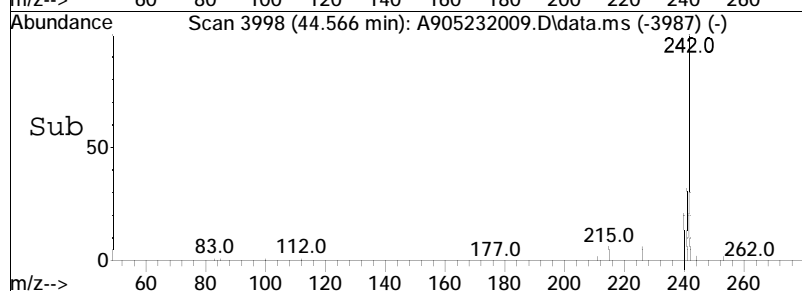
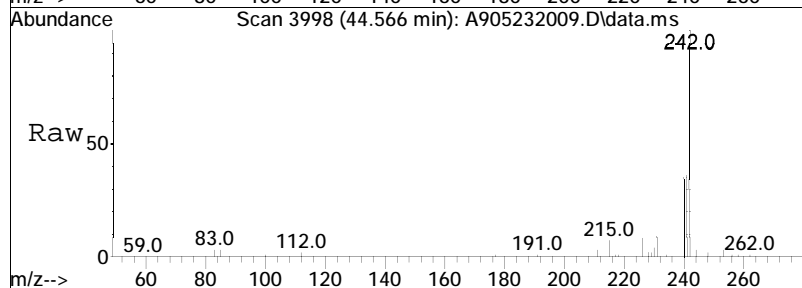
Tgt Ion: 228 Resp: 10154157
 Ion Ratio Lower Upper
 228 100
 226 27.2 21.0 39.0

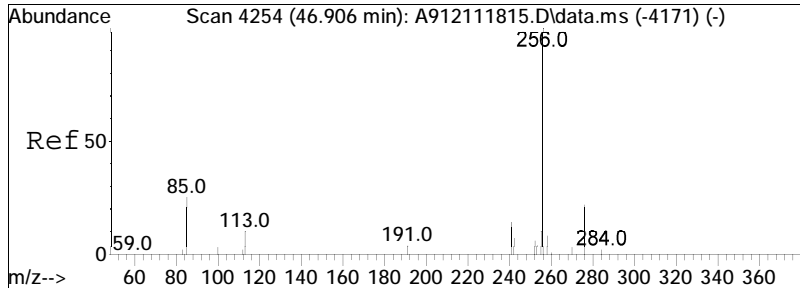




#78
 C1-Chrysenes
 Concen: 13662.57 ng/mL M5
 RT: 44.566 min Scan# 3998
 Delta R.T. 0.037 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

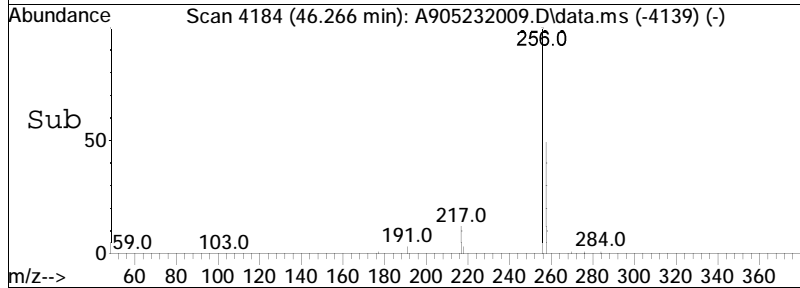
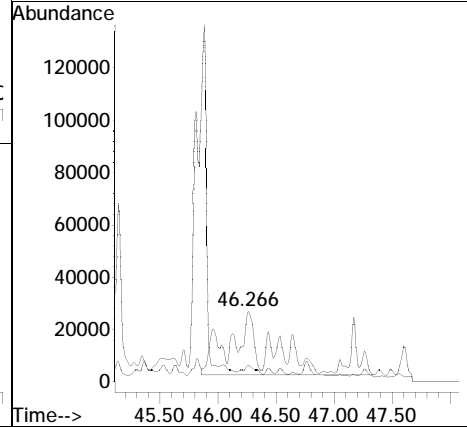
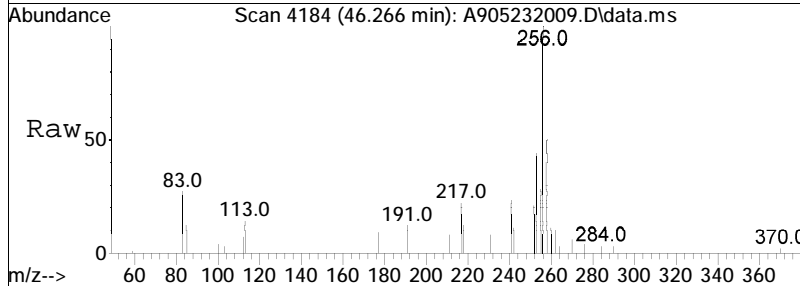
Tgt Ion: 242 Resp: 2041063
 Ion Ratio Lower Upper
 242 100
 241 10.6 30.5 56.7#

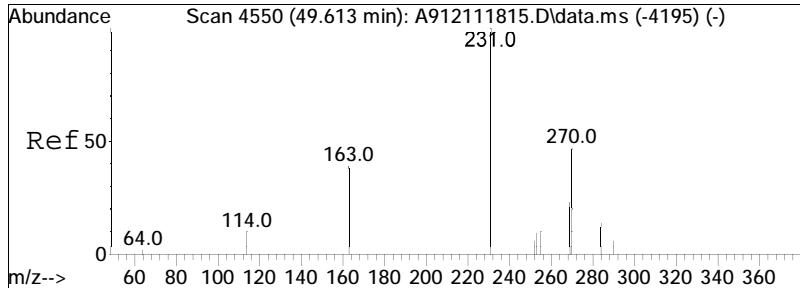




#79
 C2-Chrysenes
 Concen: 4636.34 ng/mL M5
 RT: 46.266 min Scan# 4184
 Delta R.T. -0.325 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

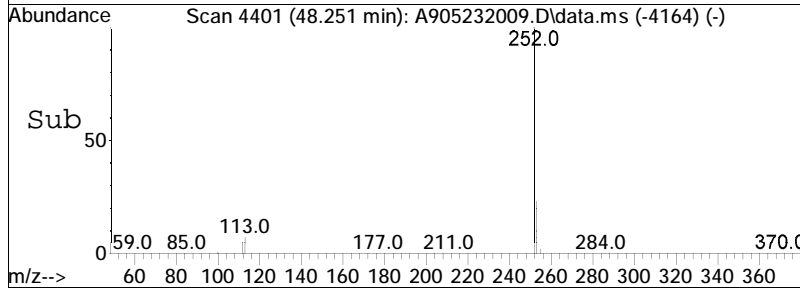
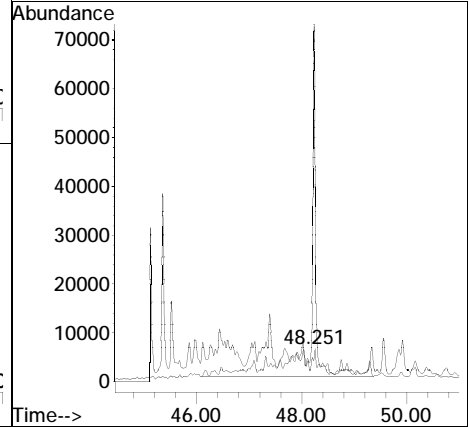
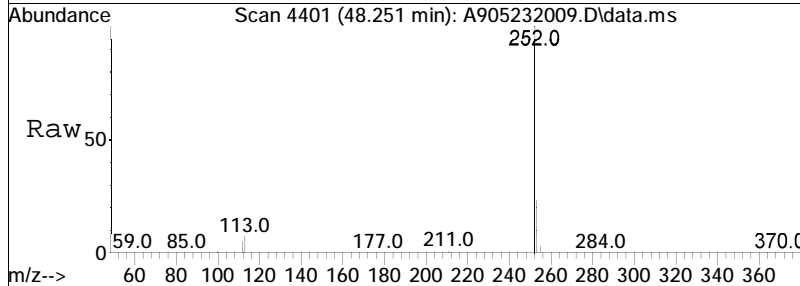
Tgt Ion	Ratio	Lower	Upper
256	100		
241	0.1	26.4	49.0#

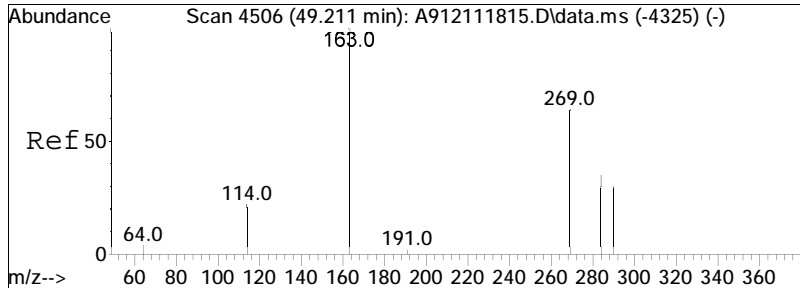




#81
 C3-Chrysenes
 Concen: 2431.16 ng/mL M5
 RT: 48.251 min Scan# 4401
 Delta R.T. -1.011 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

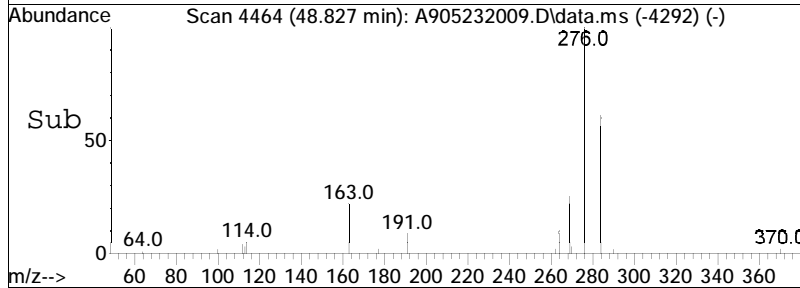
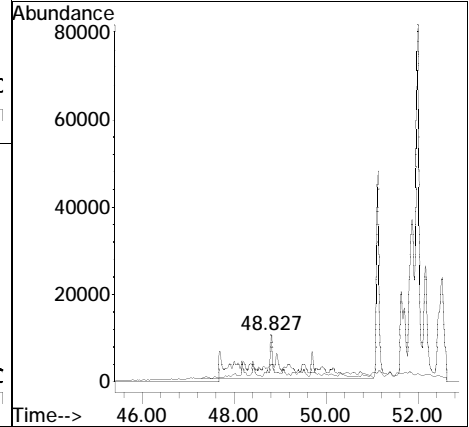
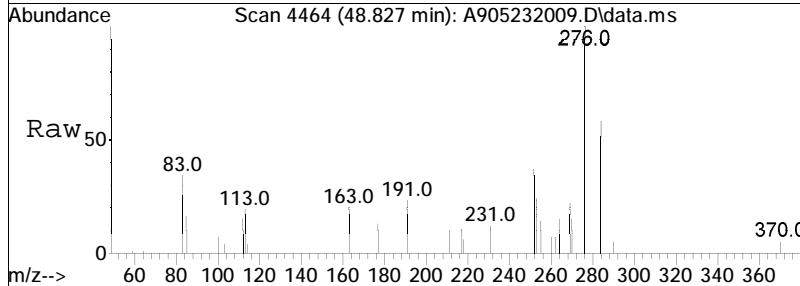
Tgt Ion	Resp	Lower	Upper
270	100		
255	1.0	37.7	69.9#

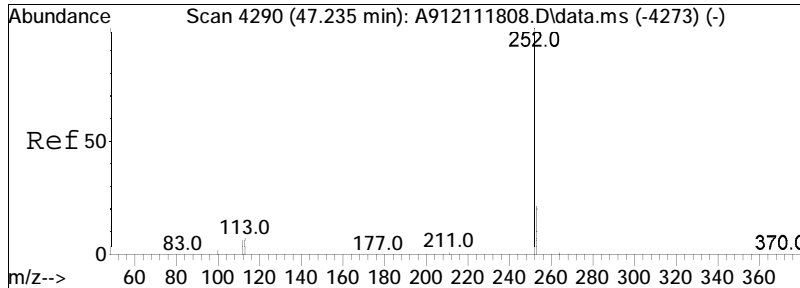




#82
 C4-Chrysenes
 Concen: 1592.27 ng/mL M5
 RT: 48.827 min Scan# 4464
 Delta R.T. -0.054 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

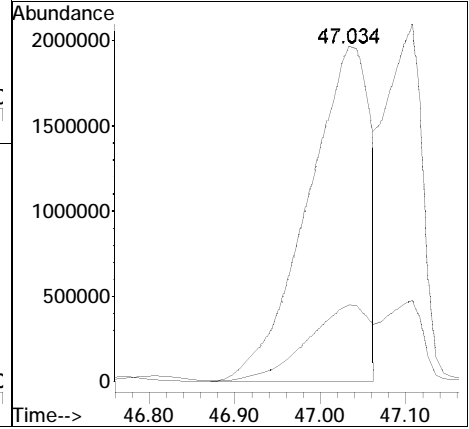
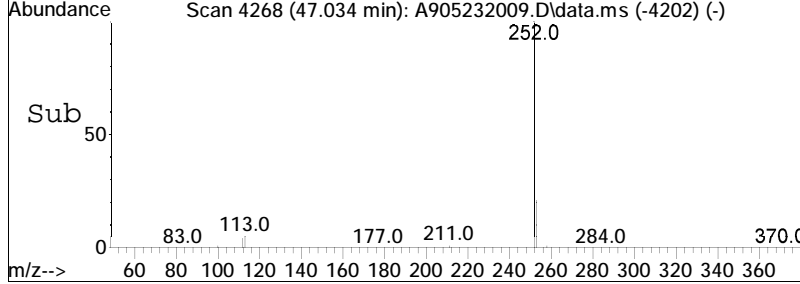
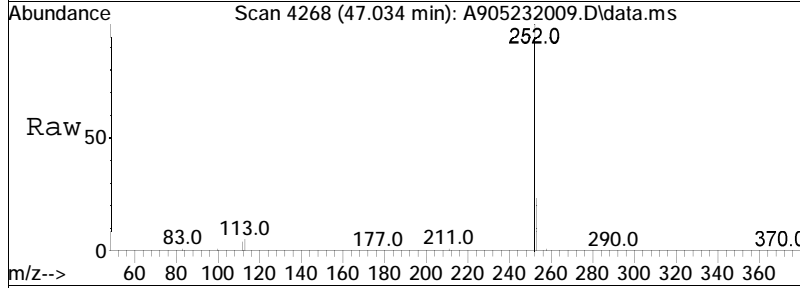
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	73.8	137.2#

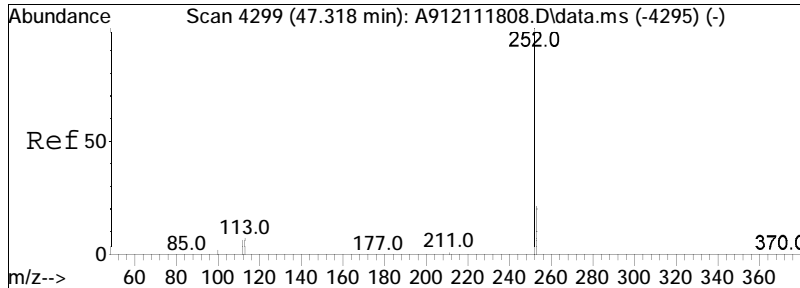




#84
 Benzo[b]fluoranthene
 Concen: 56984.12 ng/mL
 RT: 47.034 min Scan# 4268
 Delta R.T. 0.101 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

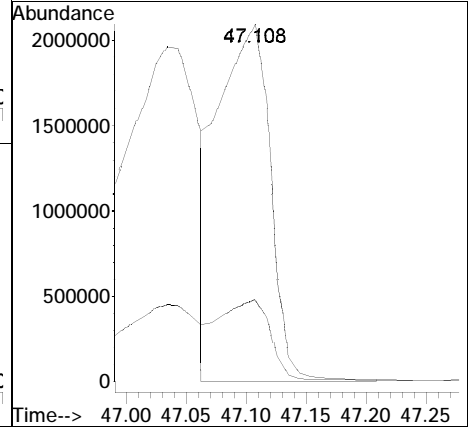
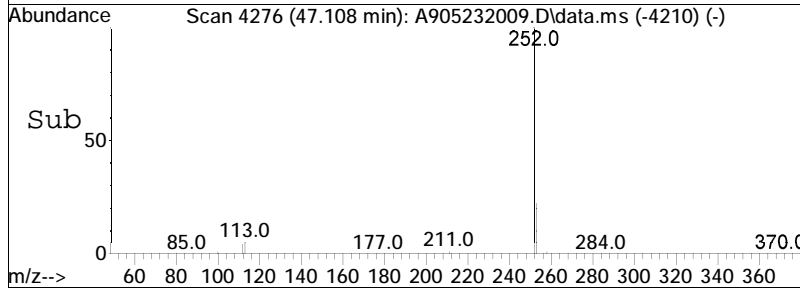
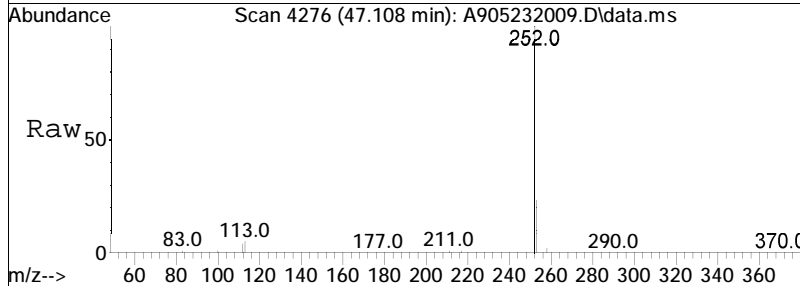
Tgt Ion: 252 Resp: 9920356
 Ion Ratio Lower Upper
 252 100
 253 22.4 17.3 32.1

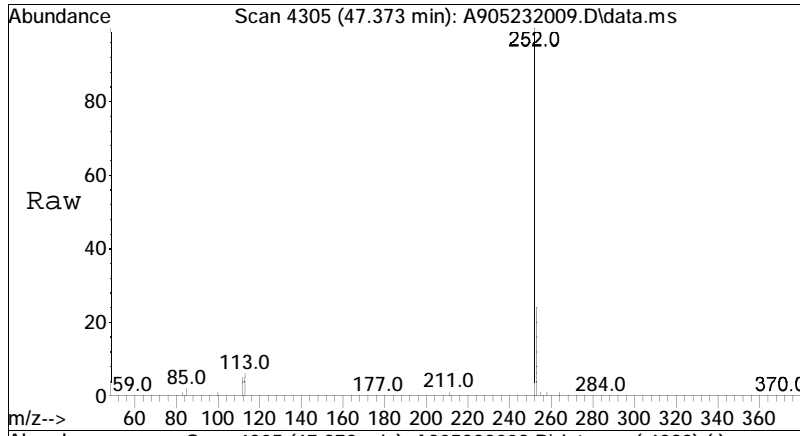




#85
 Benzo[j]+[k]fluoranthene
 Concen: 37062.36 ng/mL M4
 RT: 47.108 min Scan# 4276
 Delta R.T. 0.101 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

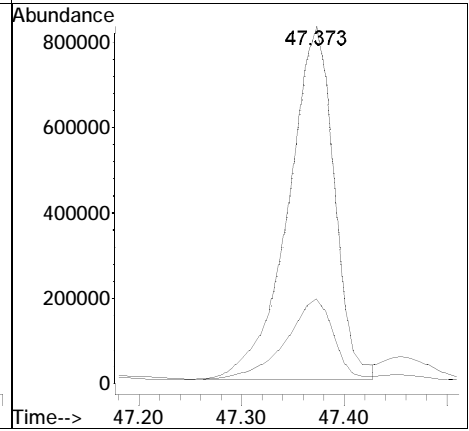
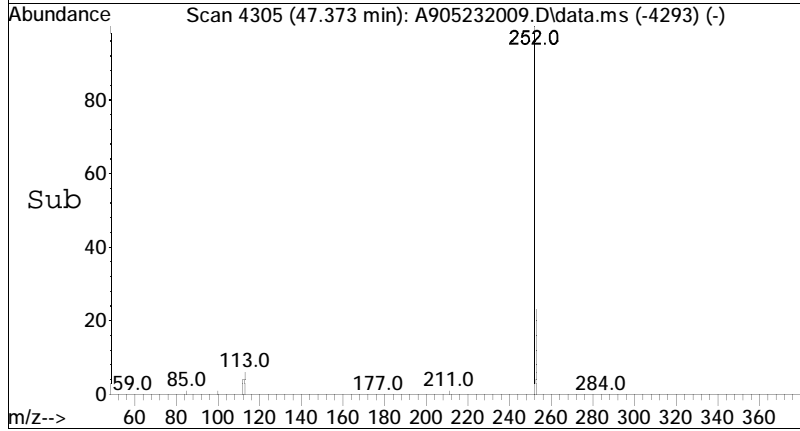
Tgt Ion: 252 Resp: 6367020
 Ion Ratio Lower Upper
 252 100
 253 35.0 17.6 32.8#

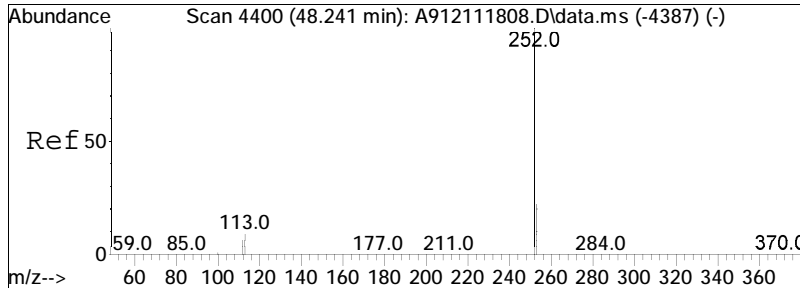




#87
 Benzo[a]fluoranthene
 Concen: 14864.66 ng/mL M4
 RT: 47.373 min Scan# 4305
 Delta R.T. 0.101 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

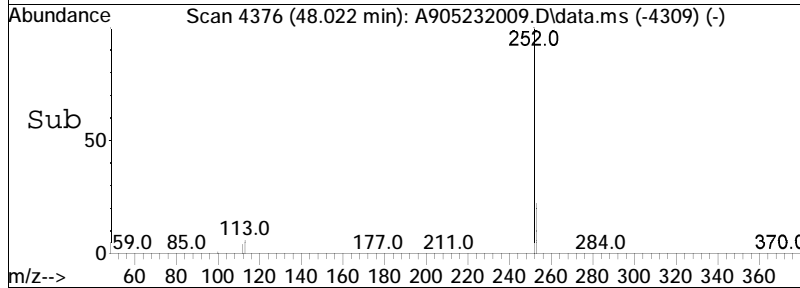
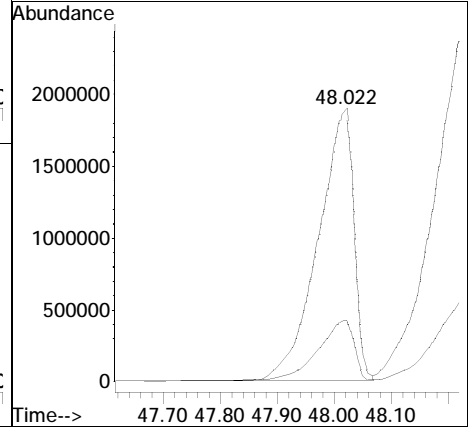
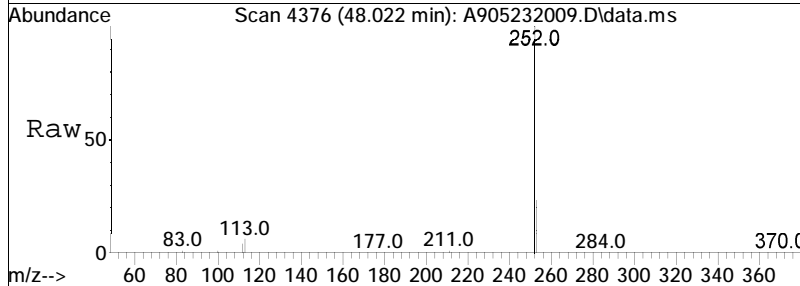
Tgt Ion	Resp	Lower	Upper
252	100		
253	0.4	243.9	452.9#

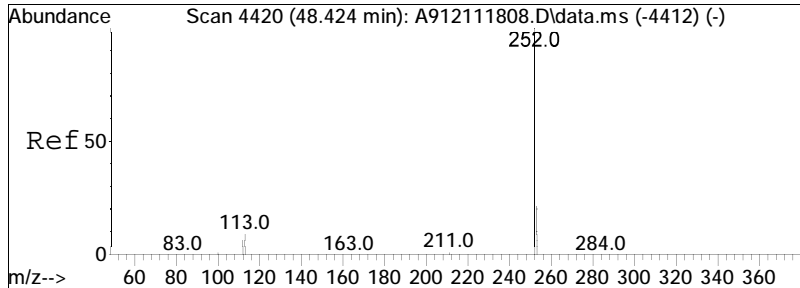




#88
 Benzo[e]pyrene
 Concen: 47939.94 ng/mL
 RT: 48.022 min Scan# 4376
 Delta R.T. 0.110 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

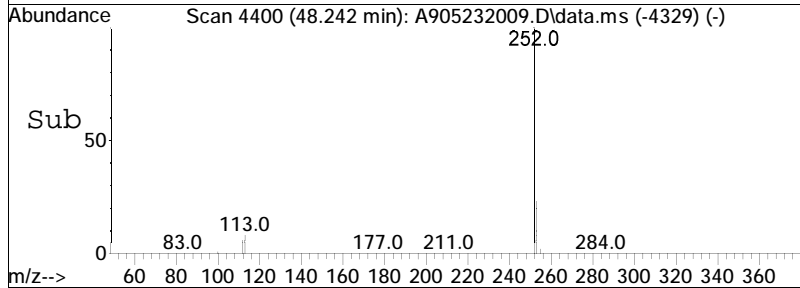
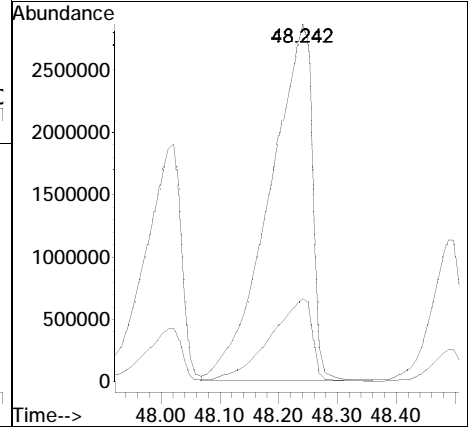
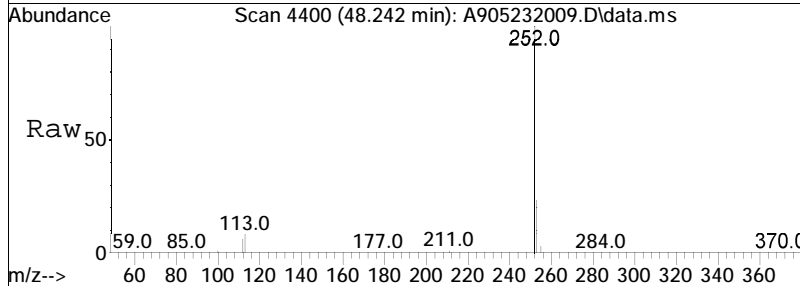
Tgt Ion: 252 Resp: 8236811
 Ion Ratio Lower Upper
 252 100
 253 23.1 18.3 33.9

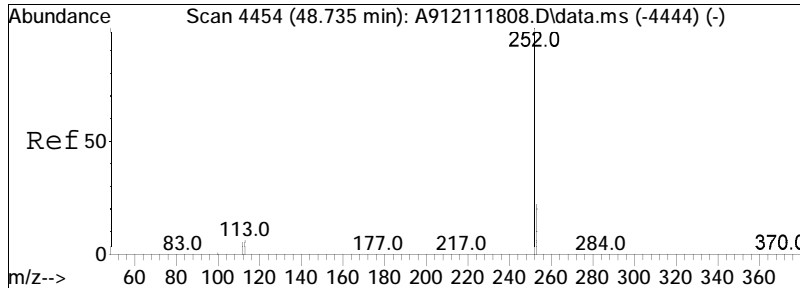




#90
 Benzo[a]pyrene
 Concen: 88180.21 ng/mL
 RT: 48.242 min Scan# 4400
 Delta R.T. 0.146 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

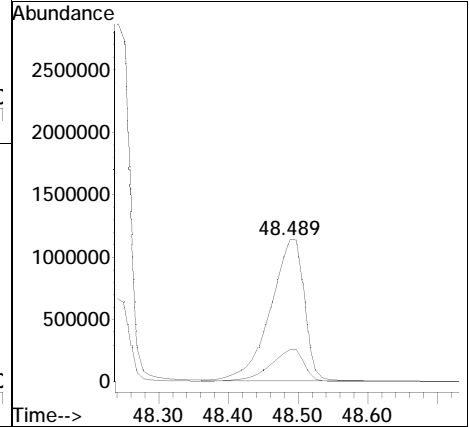
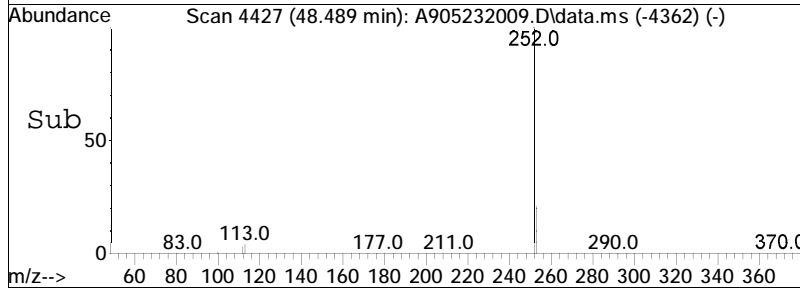
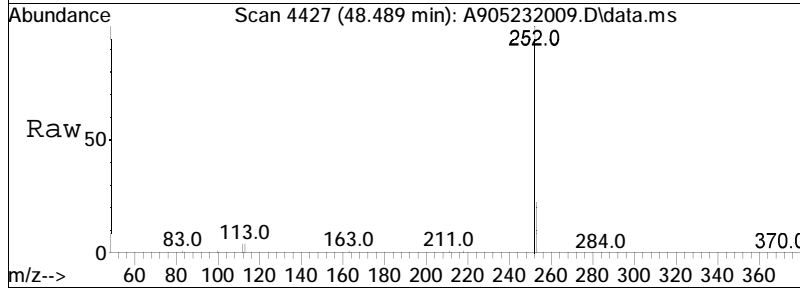
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.0	19.2	35.6

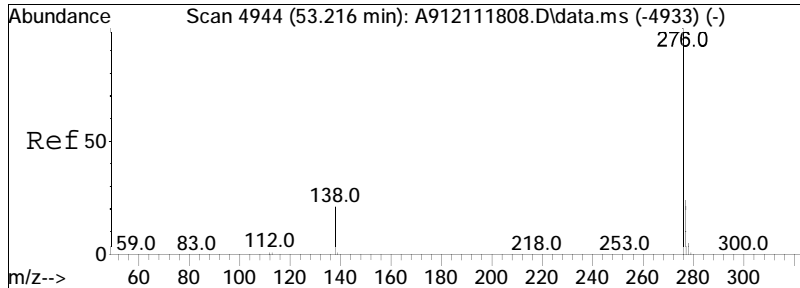




#91
 Perylene
 Concen: 25056.23 ng/mL
 RT: 48.489 min Scan# 4427
 Delta R.T. 0.091 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

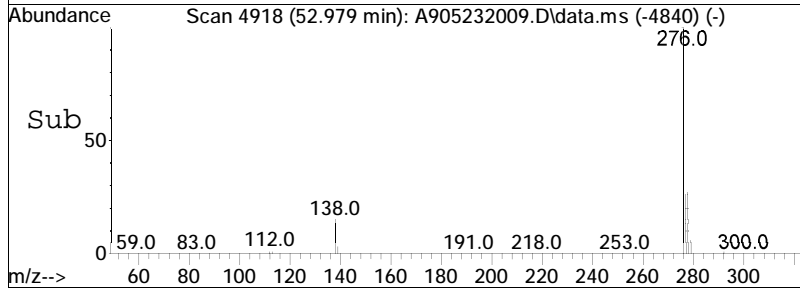
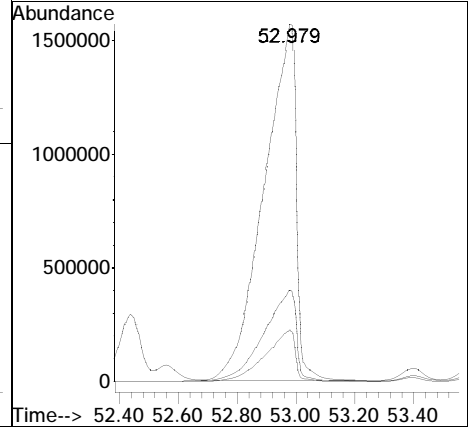
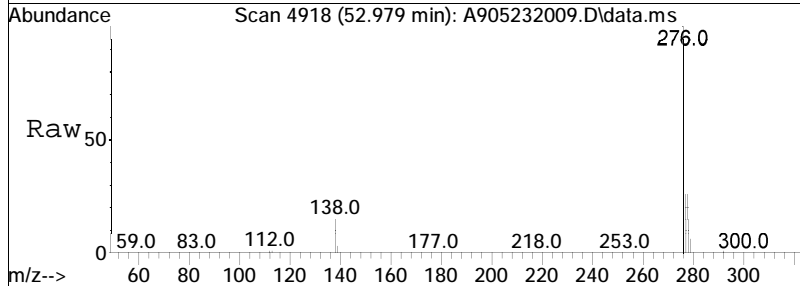
Tgt Ion: 252 Resp: 3814757
 Ion Ratio Lower Upper
 252 100
 253 22.2 19.9 36.9

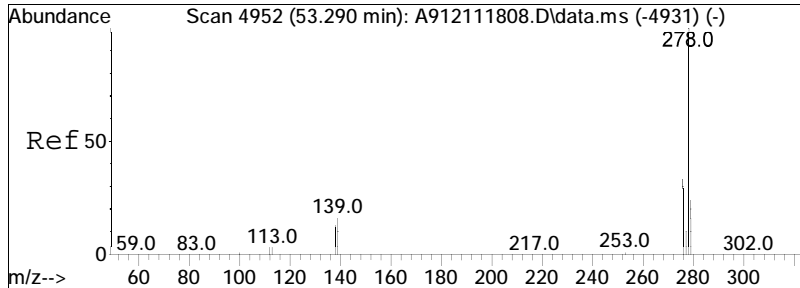




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 61549.09 ng/mL
 RT: 52.979 min Scan# 4918
 Delta R.T. 0.210 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

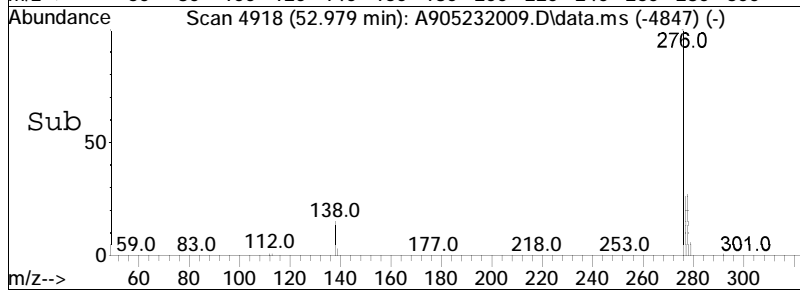
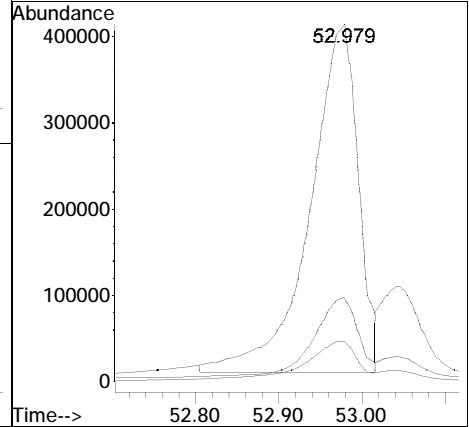
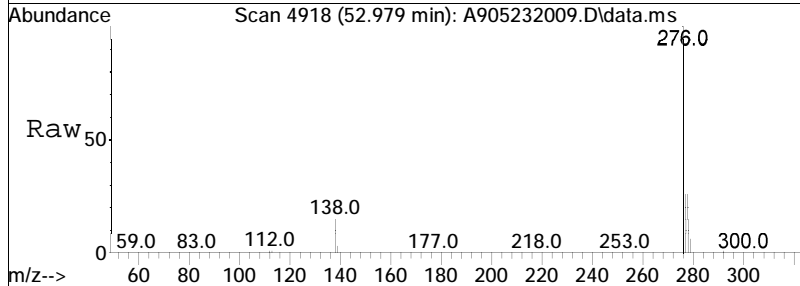
Tgt Ion	Resp	Lower	Upper
276	100		
138	13.8	12.2	22.6
277	26.2	18.6	34.6

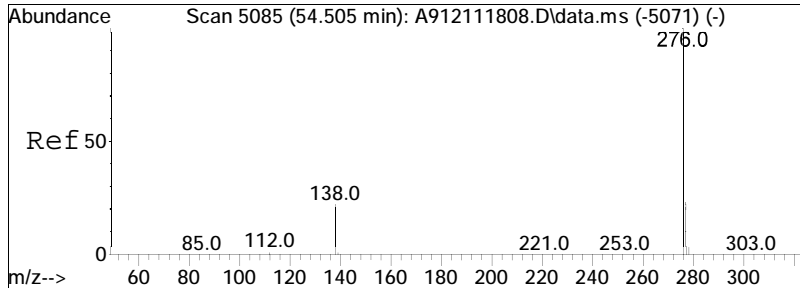




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 9865.10 ng/mL M4
 RT: 52.979 min Scan# 4918
 Delta R.T. 0.146 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

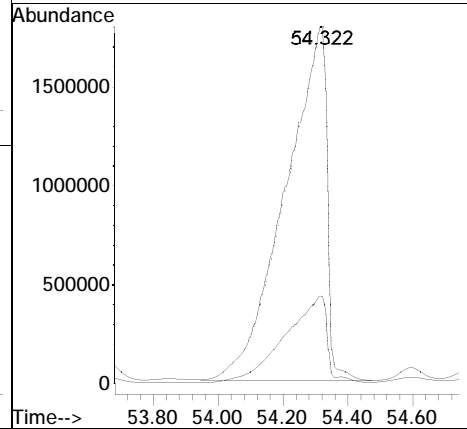
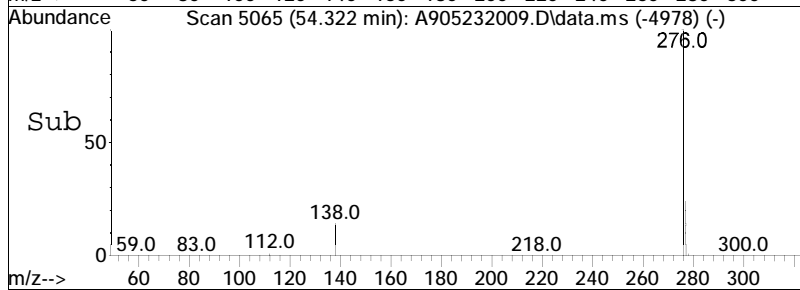
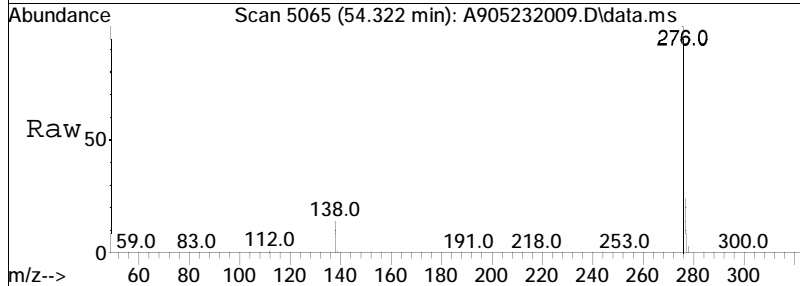
Tgt Ion	Resp	Lower	Upper
278	100		
139	11.7	8.3	15.5
279	19.2	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 80180.31 ng/mL
 RT: 54.322 min Scan# 5065
 Delta R.T. 0.292 min
 Lab File: A905232009.D
 Acq: 24 May 2020 12:16 am

Tgt Ion: 276 Resp: 15748228
 Ion Ratio Lower Upper
 276 100
 277 24.3 17.4 32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232010.D
 Acq On : 24 May 2020 1:40 am
 Operator : PAH9:ML
 Sample : L2020213-02
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 04 12:21:32 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:07:41 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	25100M3	500.000	ng/mL	0.00
74) Chrysene-d12	43.014	240	58665	500.000	ng/mL	0.06
System Monitoring Compounds						
8) Naphthalene-d8	19.585	136	19668	214.392	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	21.44%#	
40) Phenanthrene-d10	32.415	188	24123	280.806	ng/mL	0.03
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	28.08%#	
83) Benzo[b]fluoranthene-d12	46.897	264	33963M4	233.318	ng/mL	0.05
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	23.33%#	
89) Benzo[a]pyrene-d12	48.077	264	25278	259.608	ng/mL	0.07
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	25.96%#	
Target Compounds						
2) trans-Decalin	16.254	138	624	30.803	ng/mL	100
3) cis-Decalin	17.486	138	222	14.324	ng/mL	100
4) C1-Decalins	18.180	152	2583M5	127.508	ng/mL	
5) C2-Decalins	19.503	166	5770M5	284.832	ng/mL	
6) C3-Decalins	21.976	180	5727M5	282.709	ng/mL	
7) C4-Decalins	24.613	194	6812M5	336.269	ng/mL	
9) Naphthalene	19.667	128	3499182	32768.085	ng/mL	100
10) C1-Naphthalenes	22.350	142	1179995M5	11050.062	ng/mL	
11) C2-Naphthalenes	25.188	156	1050979M5	9841.891	ng/mL	
12) C3-Naphthalenes	27.524	170	500617M5	4688.027	ng/mL	
13) C4-Naphthalenes	30.280	184	191557M5	1793.835	ng/mL	
14) 2-Methylnaphthalene	22.350	142	678728	9586.469	ng/mL	100
15) 1-Methylnaphthalene	22.770	142	501085	7447.605	ng/mL	100
16) Benzothiophene	19.877	134	125640	1275.940	ng/mL	100
17) C1-Benzo(b)thiophenes	22.204	148	85204M5	865.291	ng/mL	
18) C2-Benzo(b)thiophenes	24.495	162	132220M5	1342.763	ng/mL	
19) C3-Benzo(b)thiophenes	27.004	176	97363M5	988.772	ng/mL	
20) C4-Benzo(b)thiophenes	29.459	190	43799M5	444.802	ng/mL	
21) Biphenyl	24.221	154	87975	1014.251	ng/mL	100
22) 2,6-Dimethylnaphthalene	24.851	156	227821	3666.949	ng/mL	100
23) Dibenzofuran	27.305	168	237893	2361.044	ng/mL	98
24) Acenaphthylene	25.928	152	598035M3	5655.380	ng/mL	
25) Acenaphthene	26.694	153	4306636	65722.122	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232010.D
 Acq On : 24 May 2020 1:40 am
 Operator : PAH9:ML
 Sample : L2020213-02
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 04 12:21:32 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:07:41 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,3,5-Trimethylnaphthalen	28.218	170	34215M3	591.875	ng/mL	
27) Fluorene	28.692	166	2118806	27292.408	ng/mL	99
28) C1-Fluorenes	30.900	180	452347M5	5826.696	ng/mL	
29) C2-Fluorenes	32.980	194	255893M5	3296.166	ng/mL	
30) C3-Fluorenes	35.755	208	136768M5	1761.713	ng/mL	
31) Dibenzothiophene	32.013	184	3439509	29977.025	ng/mL	100
32) 4-Methyldibenzothiophene(	33.765	198	280164	2441.768	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.085	198	351069	3059.740	ng/mL	100
34) 1-Methyldibenzothiophene(	34.541	198	94489	823.518	ng/mL	100
36) C1-Dibenzothiophenes	33.765	198	899489M5	7839.492	ng/mL	
36) C1-Dibenzothiophenes BS	33.765	198	899489M5	7839.492	ng/mL	
37) C2-Dibenzothiophenes	35.819	212	437034M5	3808.968	ng/mL	
38) C3-Dibenzothiophenes	39.015	226	227067M5	1979.001	ng/mL	
39) C4-Dibenzothiophenes	38.951	240	63140M5	550.296	ng/mL	
41) Phenanthrene	32.588	178	30127214	263386.255	ng/mL	97
42) 3-Methylphenanthrene(3MP)	34.459	192	1014502	8869.253	ng/mL	97
43) 2-Methylphenanthrene(2MP)	34.569	192	1194781	10445.337	ng/mL	97
44) 2-Methylanthracene(2MA)	34.724	192	504580M4	4411.275	ng/mL	
45) 9/4-Methylphenanthrene(9M	34.925	192	910104M4	7956.557	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.569	192	4275483M5	37378.281	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.732	206	1228556M5	10740.614	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.732	206	1228556M5	10740.614	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.558	220	410497M5	3588.758	ng/mL	
51) C4-Phenanthrenes/Anthrace	40.731	234	122607M5	1071.888	ng/mL	
52) Retene	39.480	234	11294M4	295.866	ng/mL	
53) Anthracene	32.725	178	6672153	66145.454	ng/mL	97
54) Carbazole	33.336	167	488751	4632.392	ng/mL	99
55) 1-Methylphenanthrene	34.998	192	635577	7555.155	ng/mL	98
56) Fluoranthene	37.362	202	29101930M4	217039.185	ng/mL	
57) Benzo(b)fluorene	39.791	216	902409M3	11359.756	ng/mL	
58) 7H-Benzo(c)fluorene	39.827	216	345224M3	4345.768	ng/mL	
59) Pyrene	38.266	202	38974718	275270.209	ng/mL	97
60) 2-Methylpyrene	39.946	216	725837M4	5126.434	ng/mL	
61) 4-Methylpyrene	40.311	216	626513	4424.929	ng/mL	79
62) 1-Methylpyrene	40.430	216	842939	5953.500	ng/mL	76
63) C1-Fluoranthenes/Pyrenes	39.553	216	6634211M5	46856.032	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.270	230	1185295M5	8371.488	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.114	244	369182M5	2607.455	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.694	258	167873M5	1185.652	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232010.D
 Acq On : 24 May 2020 1:40 am
 Operator : PAH9:ML
 Sample : L2020213-02
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 04 12:21:32 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:07:41 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) Naphthobenzothiophene-2,1	42.000	234	1502203	13278.075	ng/mL	99
68) Naphthobenzothiophene-1,2	42.329	234	332471	2938.734	ng/mL#	23
69) Naphthobenzothiophene-2,3	42.639	234	637924M3	5638.654	ng/mL	
70) C1-Naphthobenzothiophenes	43.397	248	621262M5	5491.377	ng/ml	
71) C2-Naphthobenzothiophenes	44.895	262	241128M5	2131.347	ng/ml	
72) C3-Naphthobenzothiophenes	46.779	276	186790M5	1651.050	ng/ml	
73) C4-Naphthobenzothiophenes	49.522	290	51056M5	451.287	ng/mL	
75) Benz[a]anthracene	42.977	228	7525551M4	51015.173	ng/mL	
77) Chrysene/Triphenylene	43.141	228	8696527	56191.947	ng/mL	96
78) C1-Chrysenes	44.557	242	1743920M5	11268.206	ng/mL	
79) C2-Chrysenes	47.172	256	554405M5	3582.246	ng/mL	
79) C2-Chrysenes BS	47.172	256	554405M5	3582.246	ng/mL	
81) C3-Chrysenes	48.242	270	283373M5	1830.993	ng/mL	
82) C4-Chrysenes	48.818	284	199067M5	1286.256	ng/mL	
84) Benzo[b]fluoranthene	47.035	252	8855527	49101.314	ng/mL	96
85) Benzo[j]+[k]fluoranthene	47.108	252	5654334M3	31770.970	ng/mL	
87) Benzo[a]fluoranthene	47.373	252	2255088M4	12671.047	ng/mL	
88) Benzo[e]pyrene	48.013	252	7309925	41067.989	ng/mL	95
90) Benzo[a]pyrene	48.242	252	12774003	75241.763	ng/mL	92
91) Perylene	48.489	252	3466085	21975.570	ng/mL	89
92) Indeno[1,2,3-cd]pyrene	52.979	276	10594591	53496.926	ng/mL	95
93) Dibenz[ah]+[ac]anthracene	52.970	278	1435164M4	8419.936	ng/mL	
95) Benzo[g,h,i]perylene	54.304	276	13971738	68665.503	ng/mL	99

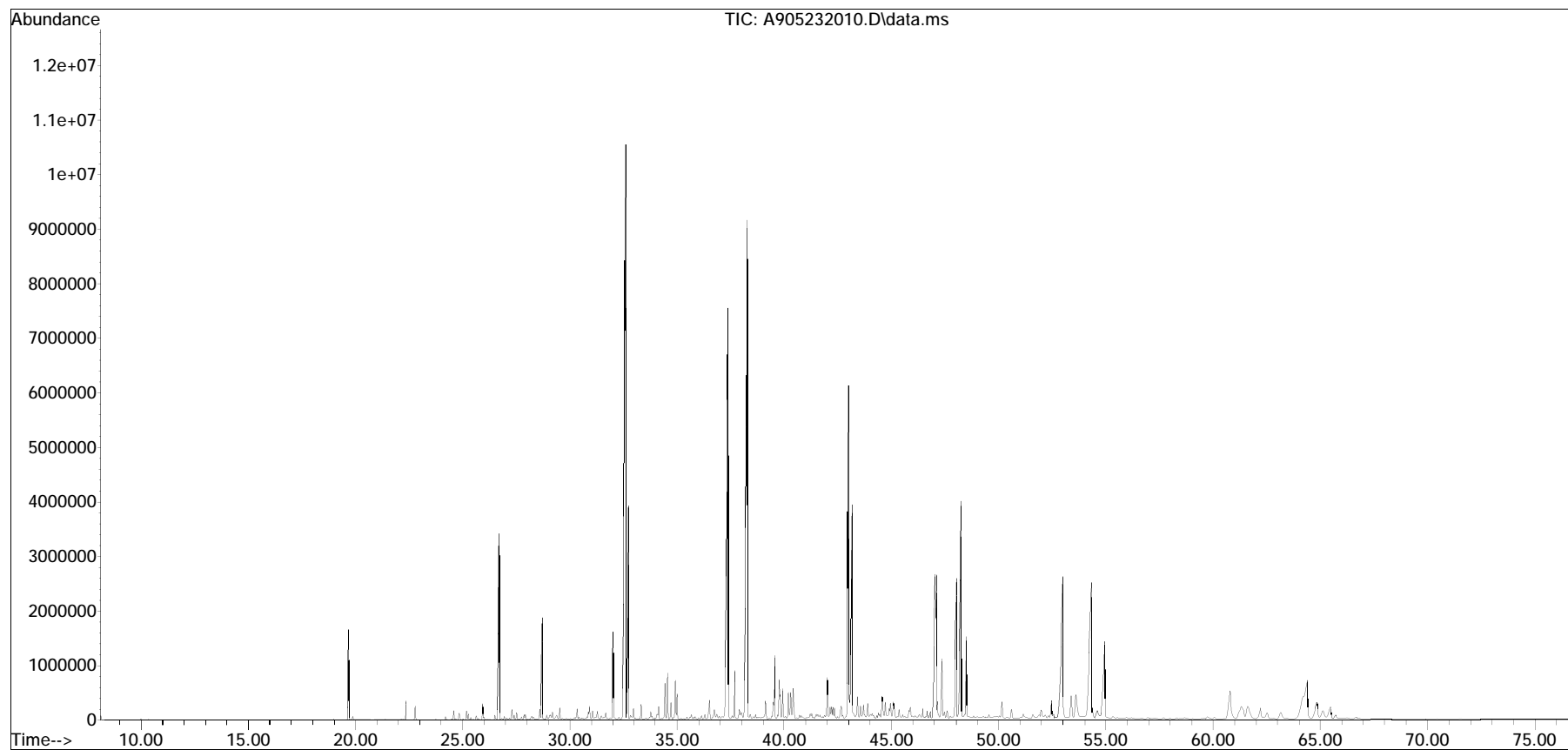
(#) = qualifier out of range (m) = manual integration (+) = signals summed

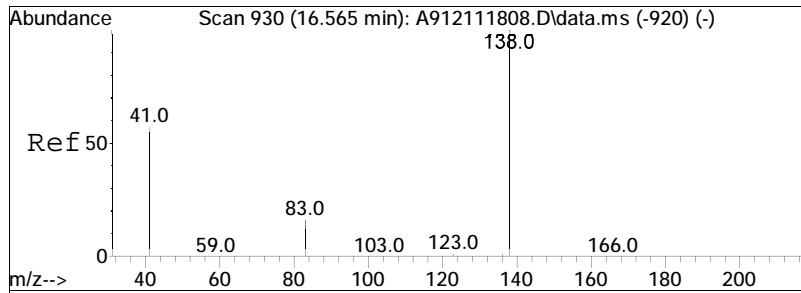
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232010.D
Acq On : 24 May 2020 1:40 am
Operator : PAH9:ML
Sample : L2020213-02
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 10 Sample Multiplier: 1

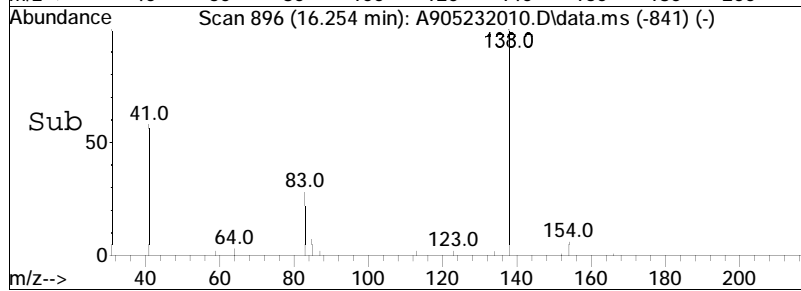
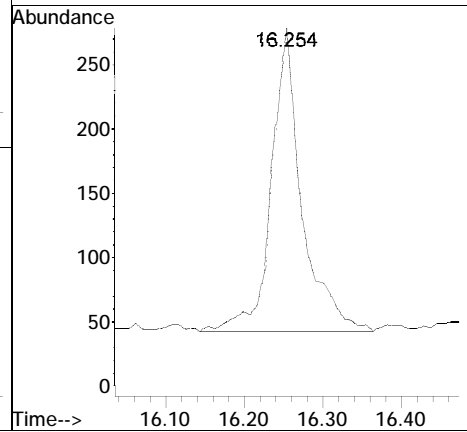
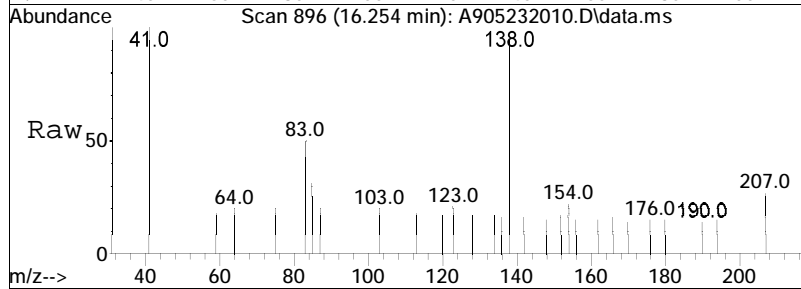
Quant Time: Jun 04 12:21:32 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 15:07:41 2020
Response via : Initial Calibration

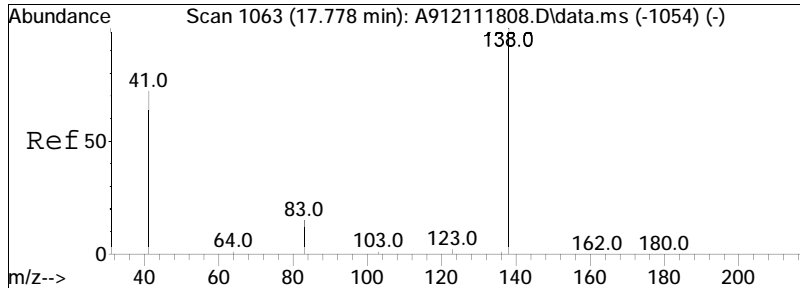
Sub List : ALKPAH - POI+MP+BcF



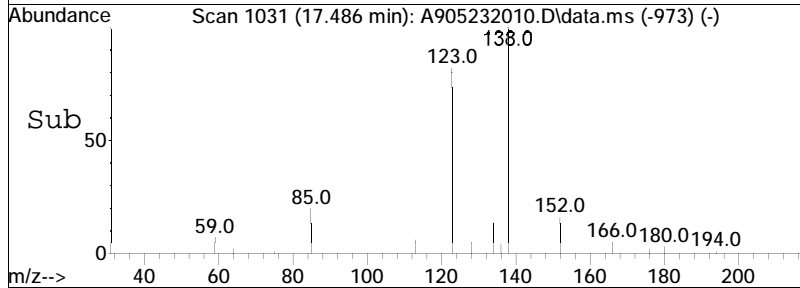
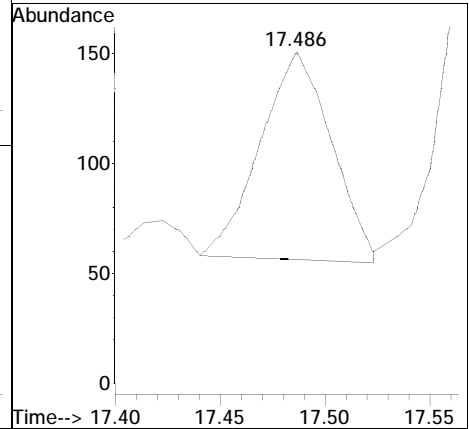
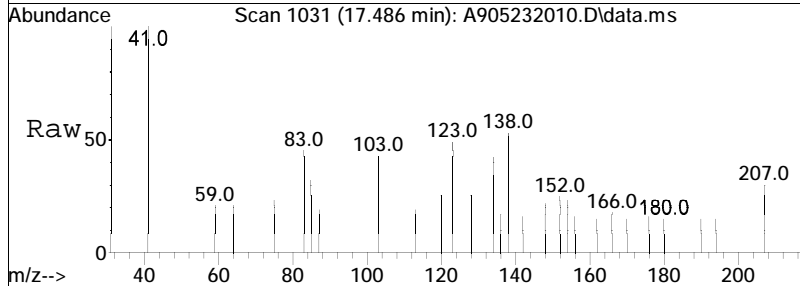


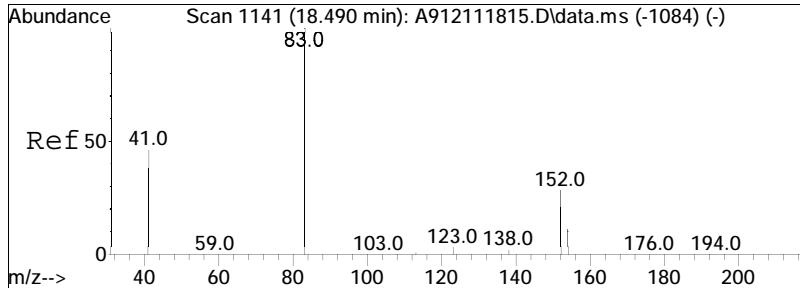
#2
 trans-Decalin
 Concen: 30.80 ng/mL
 RT: 16.254 min Scan# 896
 Delta R.T. 0.000 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:138 Resp: 624



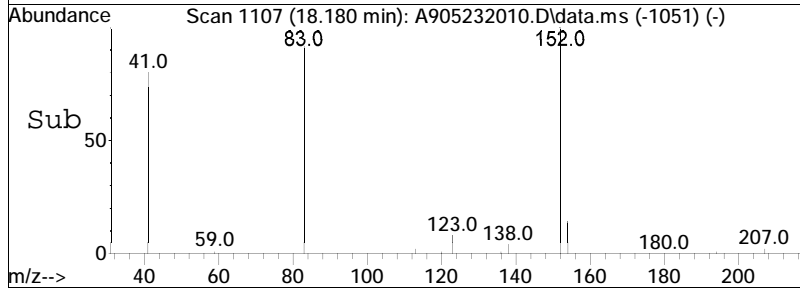
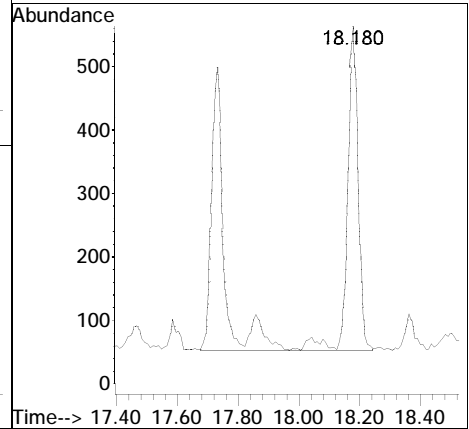
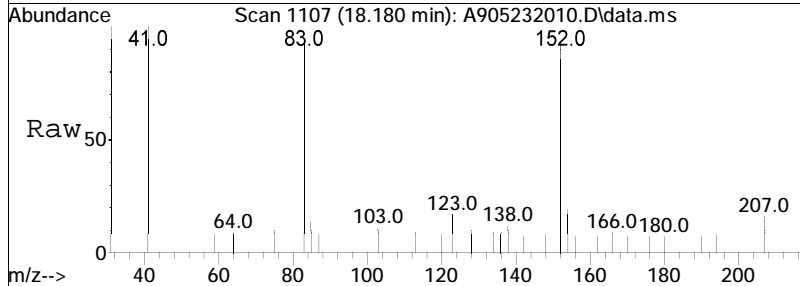


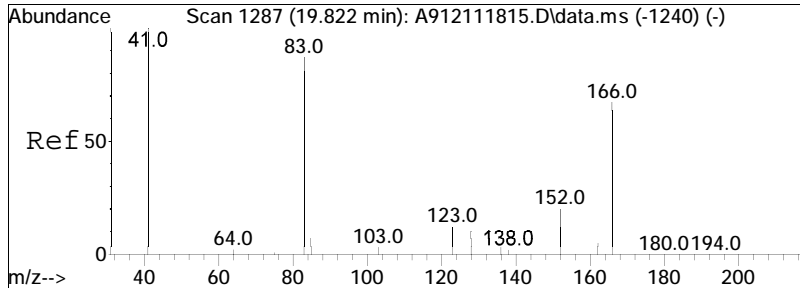
#3
 cis-Decalin
 Concen: 14.32 ng/mL
 RT: 17.486 min Scan# 1031
 Delta R.T. 0.028 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:138 Resp: 222



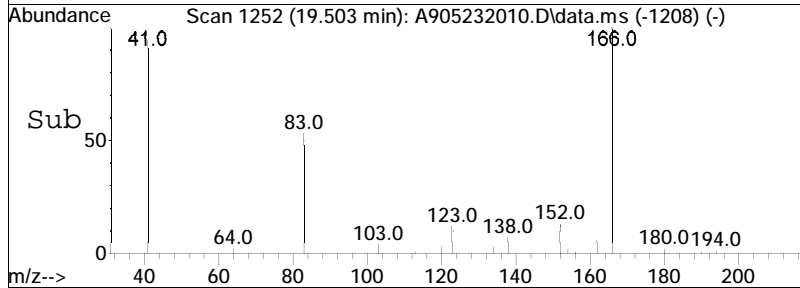
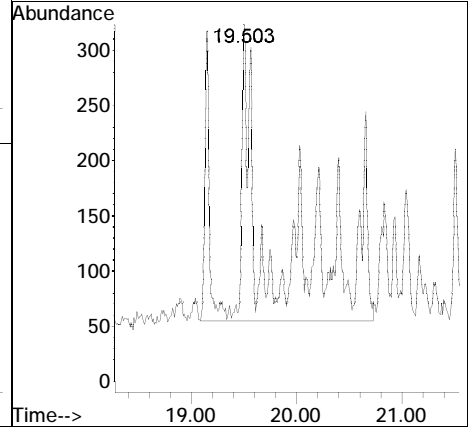
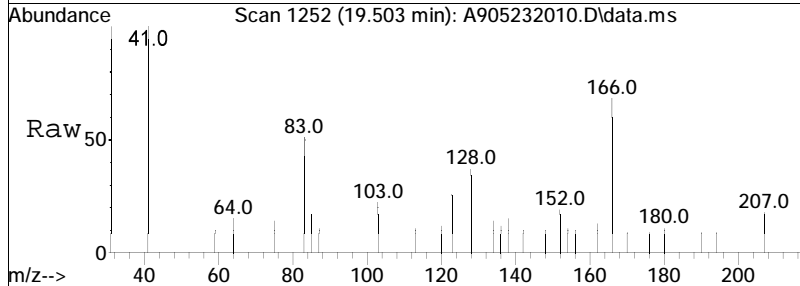


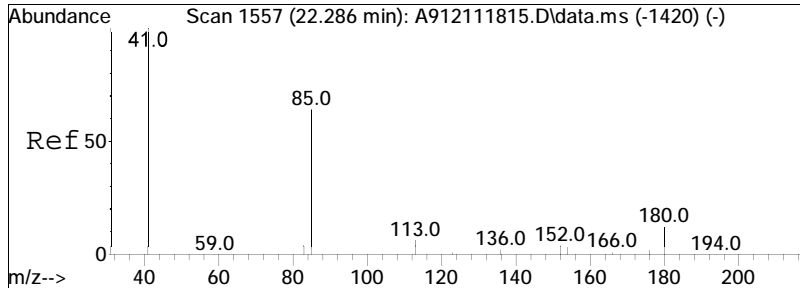
#4
 C1-Decalins
 Concen: 127.51 ng/mL M5
 RT: 18.180 min Scan# 1107
 Delta R.T. -0.009 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:152 Resp: 2583



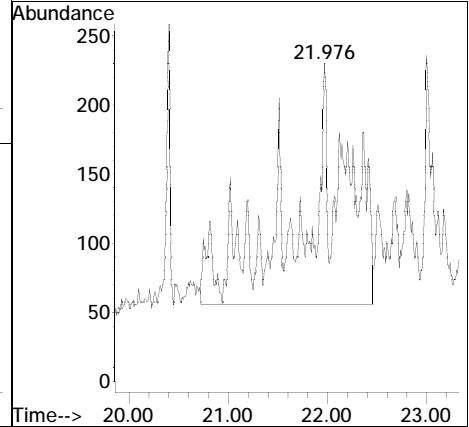
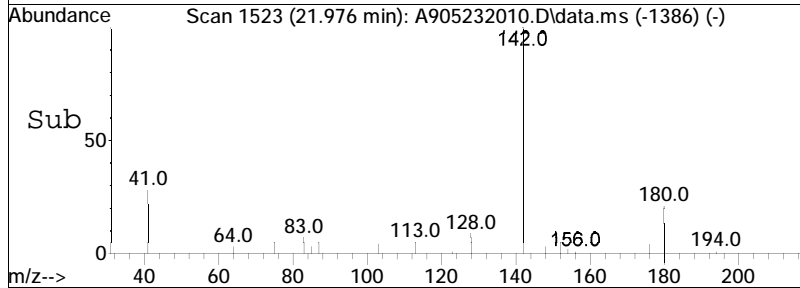
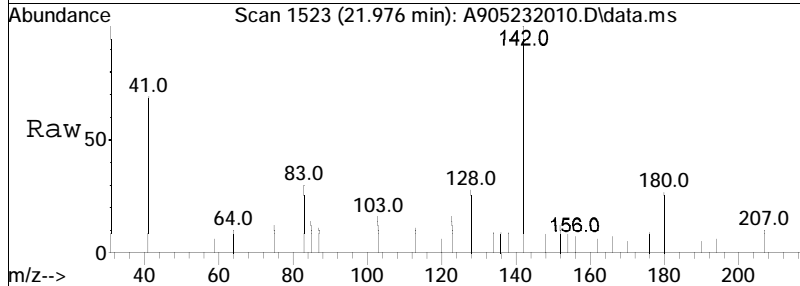


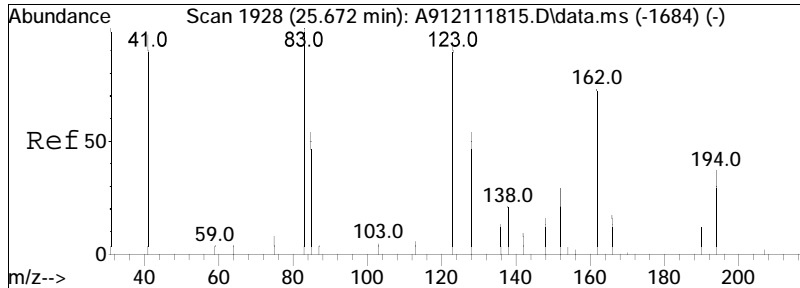
#5
 C2-Decalins
 Concen: 284.83 ng/mL M5
 RT: 19.503 min Scan# 1252
 Delta R.T. -0.007 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:166 Resp: 5770



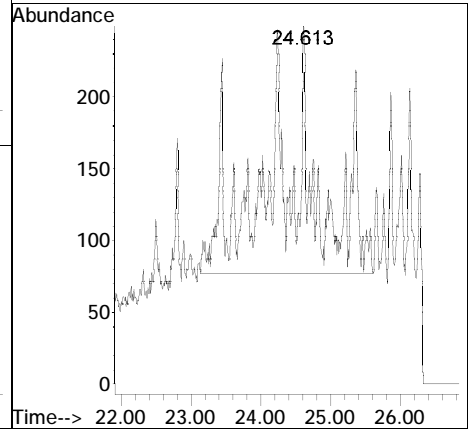
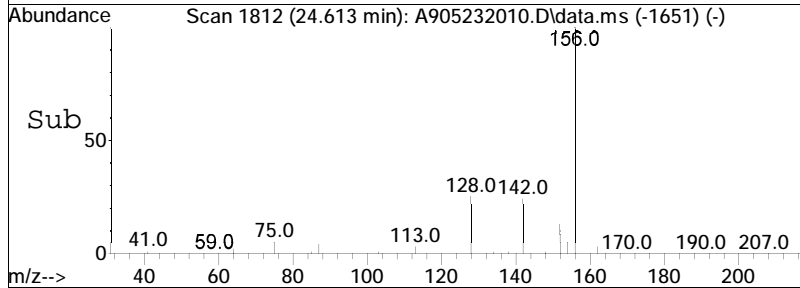
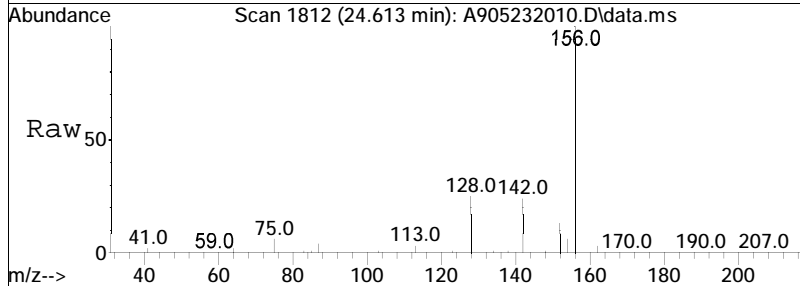


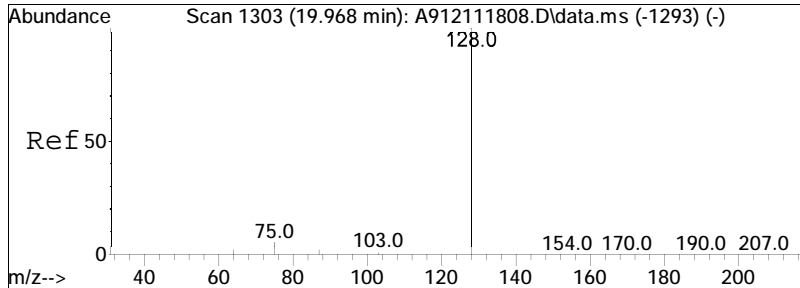
#6
 C3-Decalins
 Concen: 282.71 ng/mL M5
 RT: 21.976 min Scan# 1523
 Delta R.T. -0.005 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:180 Resp: 5727



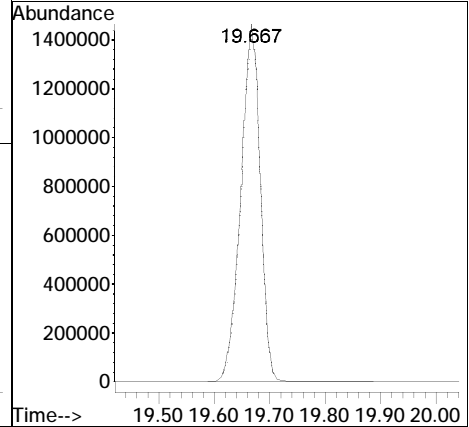
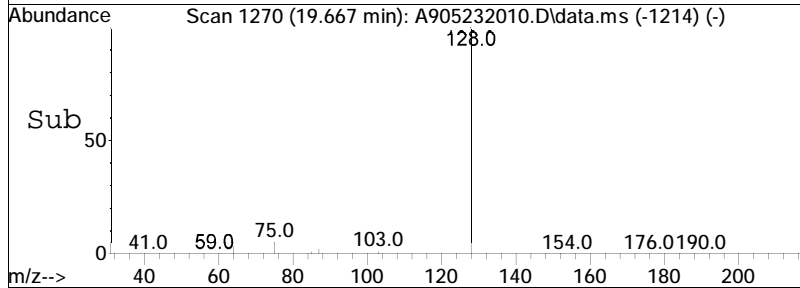
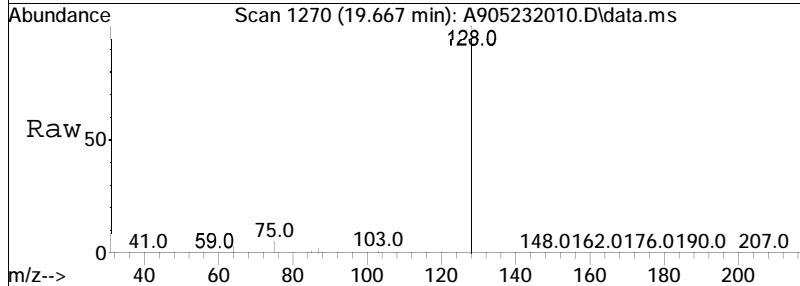


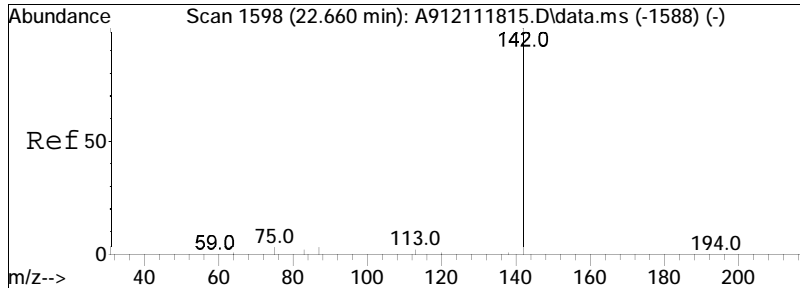
#7
 C4-Decalins
 Concen: 336.27 ng/mL M5
 RT: 24.613 min Scan# 1812
 Delta R.T. -0.742 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:194 Resp: 6812



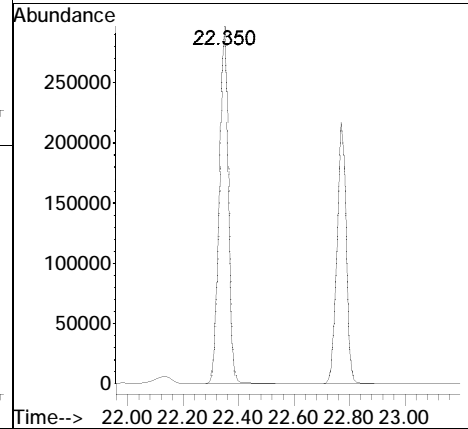
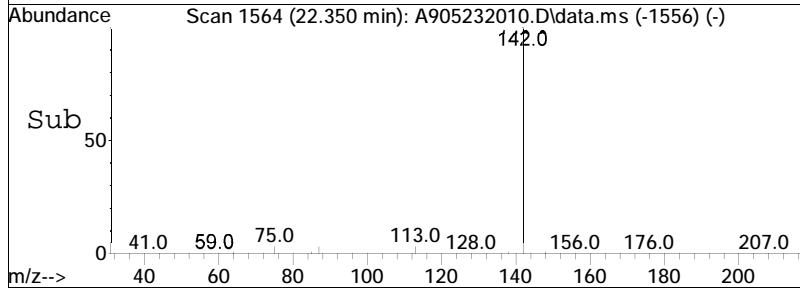
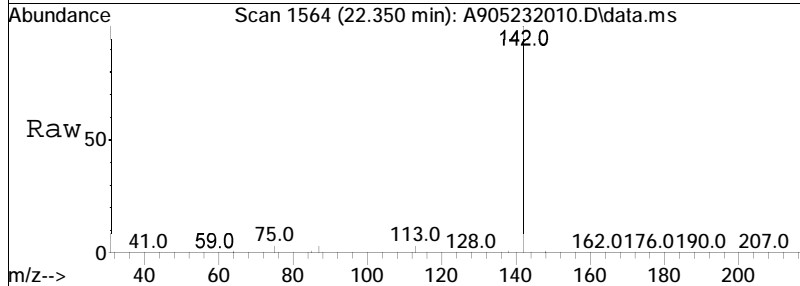


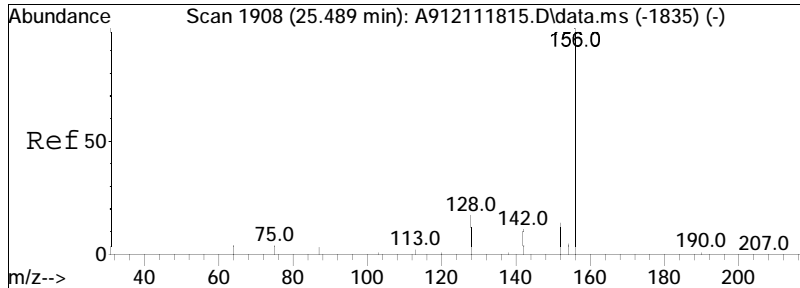
#9
 Naphthalene
 Concen: 32768.09 ng/mL
 RT: 19.667 min Scan# 1270
 Delta R.T. 0.009 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:128 Resp: 3499182



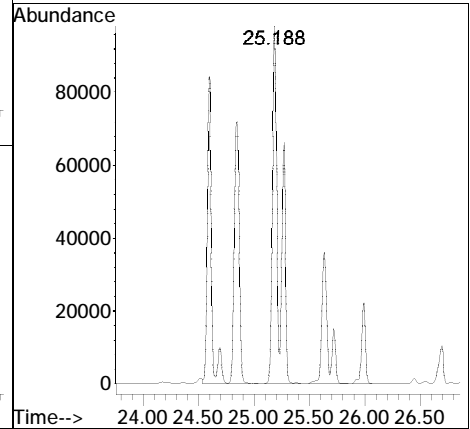
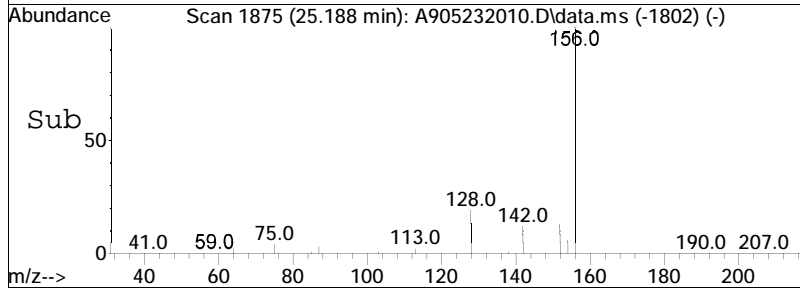
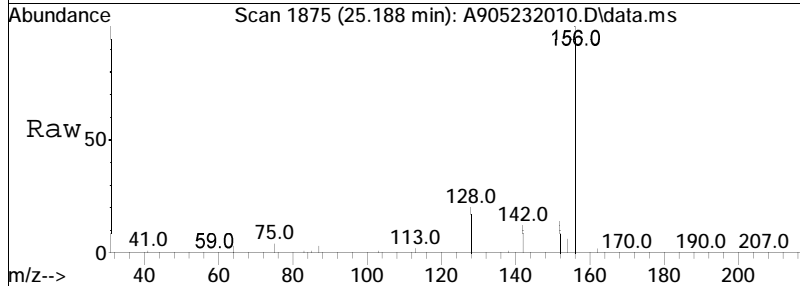


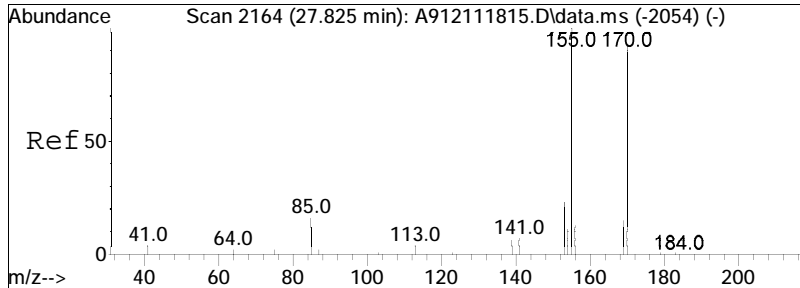
#10
 Cl-Naphthalenes
 Concen: 11050.06 ng/mL M5
 RT: 22.350 min Scan# 1564
 Delta R.T. -0.026 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:142 Resp: 1179995





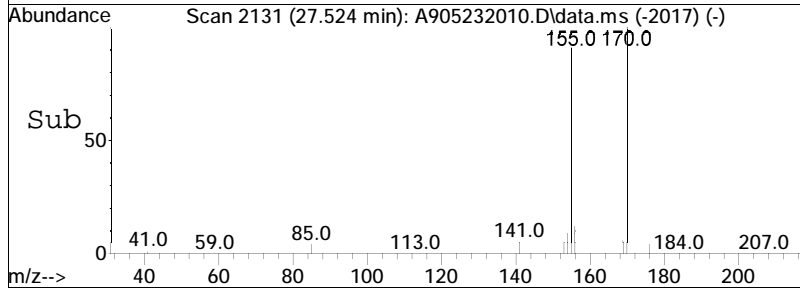
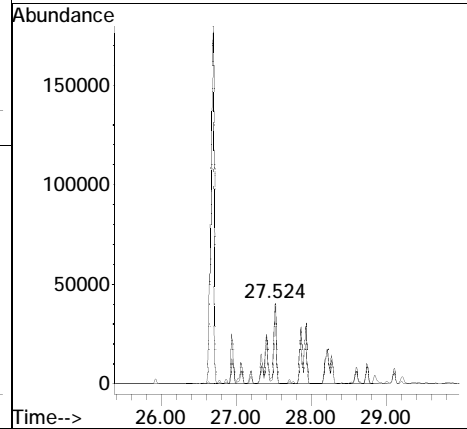
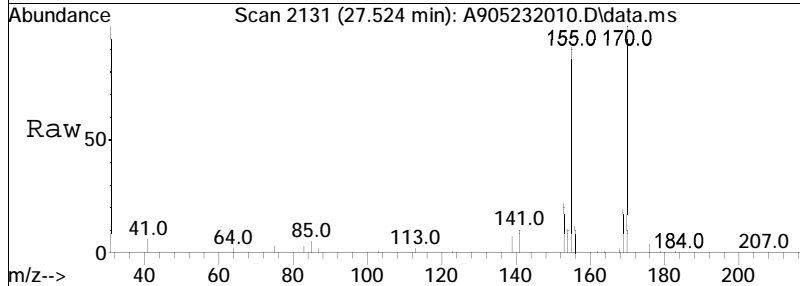
#11
 C2-Naphthalenes
 Concen: 9841.89 ng/mL M5
 RT: 25.188 min Scan# 1875
 Delta R.T. 0.004 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:156 Resp: 1050979

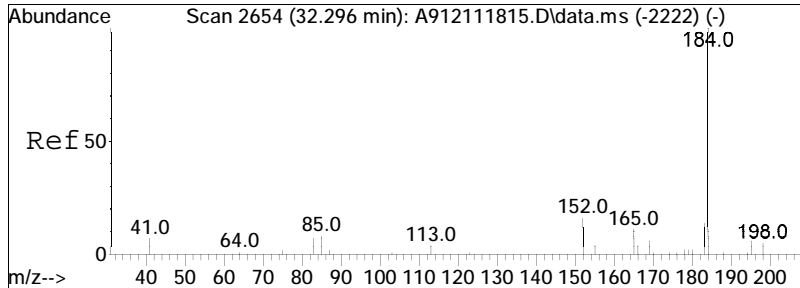




#12
 C3-Naphthalenes
 Concen: 4688.03 ng/mL M5
 RT: 27.524 min Scan# 2131
 Delta R.T. 0.029 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

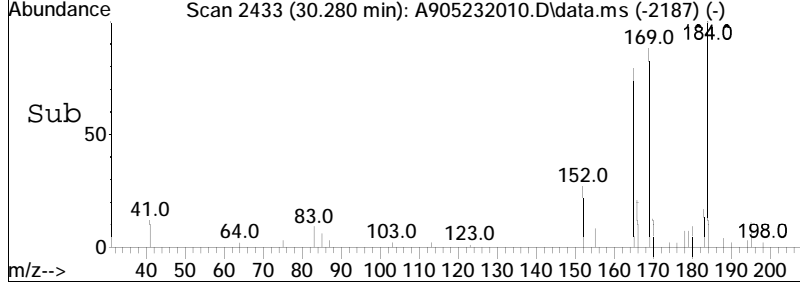
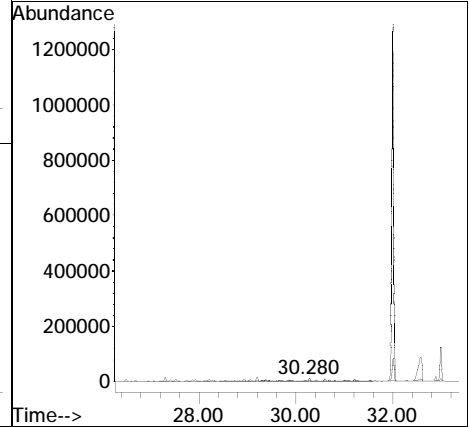
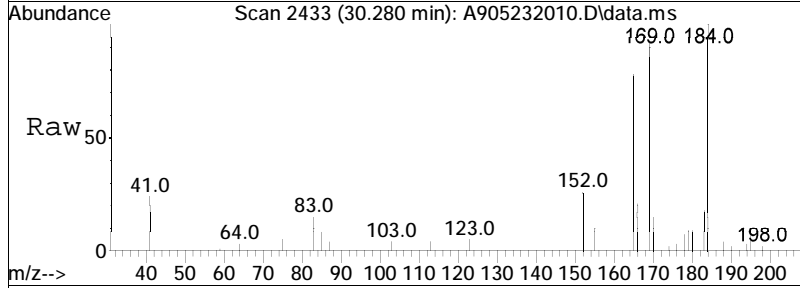
Tgt Ion	Resp	Lower	Upper
170	100		
155	18.6	71.4	132.6#

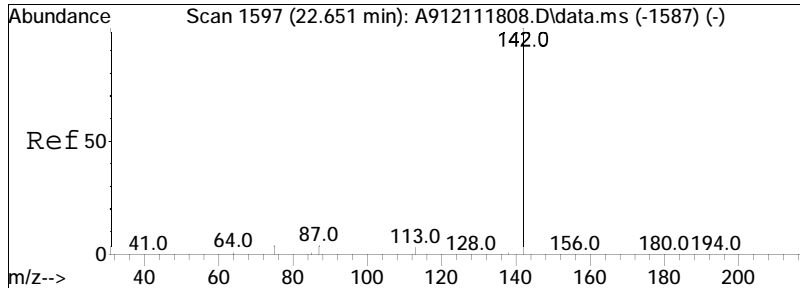




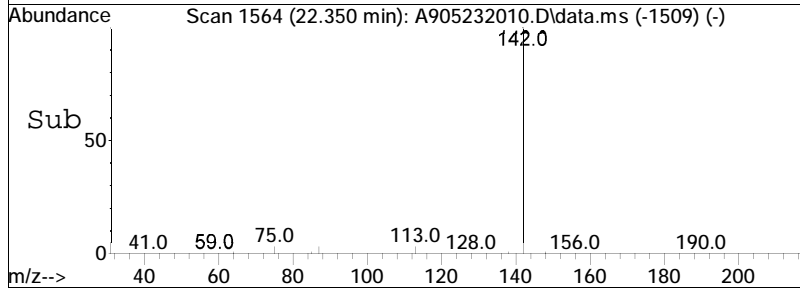
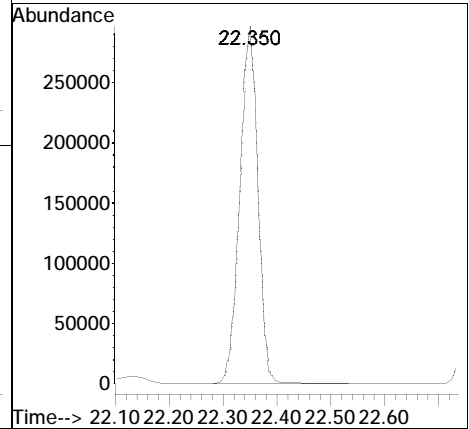
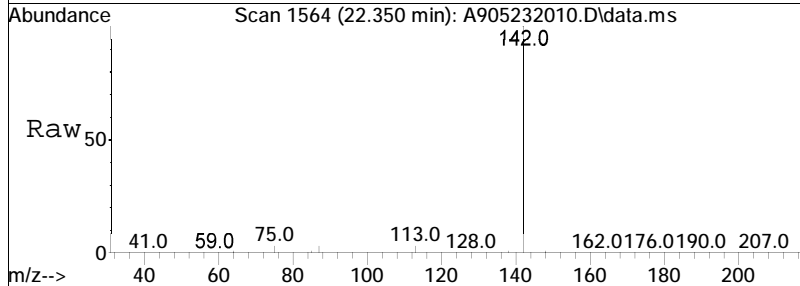
#13
 C4-Naphthalenes
 Concen: 1793.84 ng/mL M5
 RT: 30.280 min Scan# 2433
 Delta R.T. 0.004 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

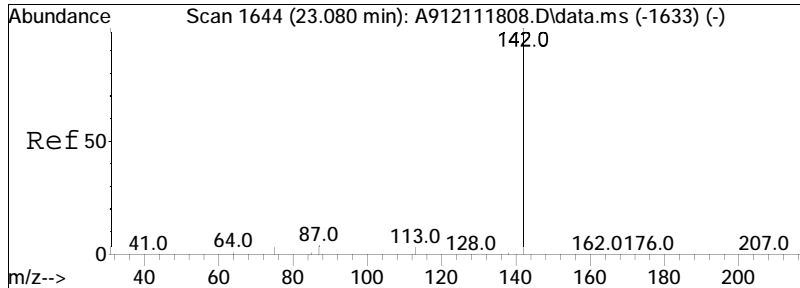
Tgt Ion	Ratio	Lower	Upper
184	100		
169	5.5	81.3	151.1#
183	1.2	25.7	47.7#



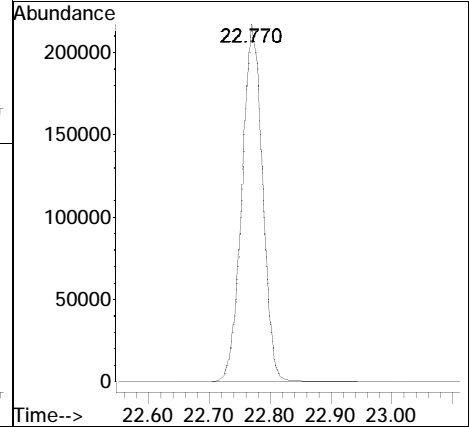
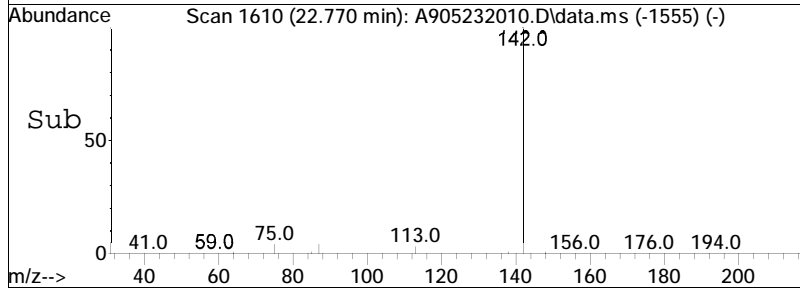
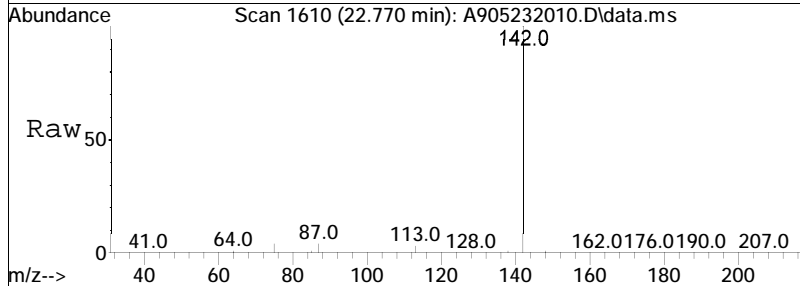


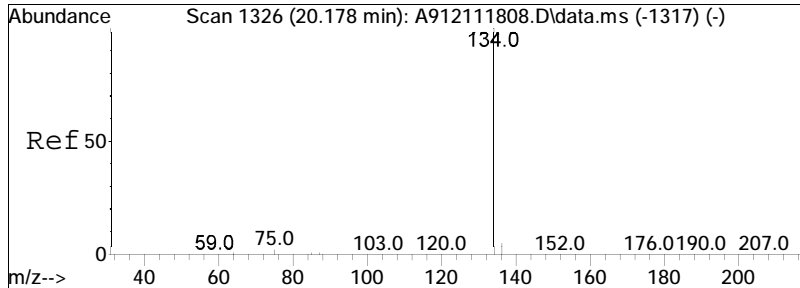
#14
 2-Methylnaphthalene
 Concen: 9586.47 ng/mL
 RT: 22.350 min Scan# 1564
 Delta R.T. 0.000 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:142 Resp: 678728



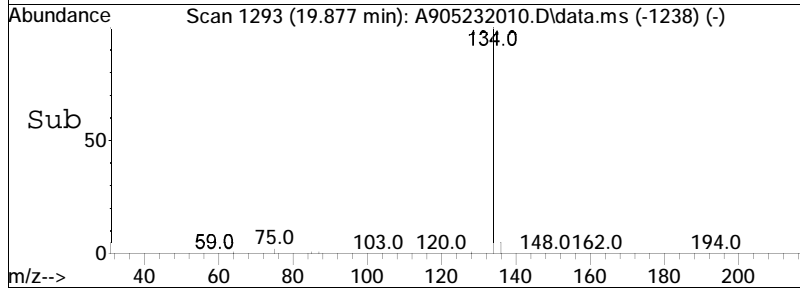
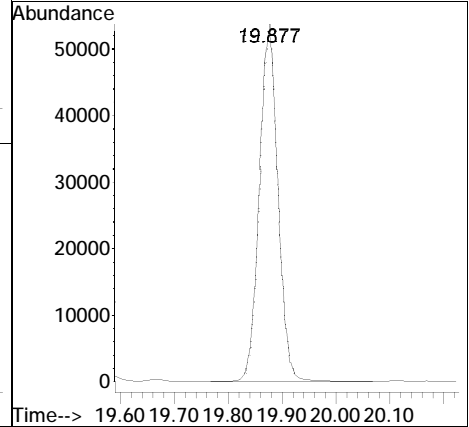
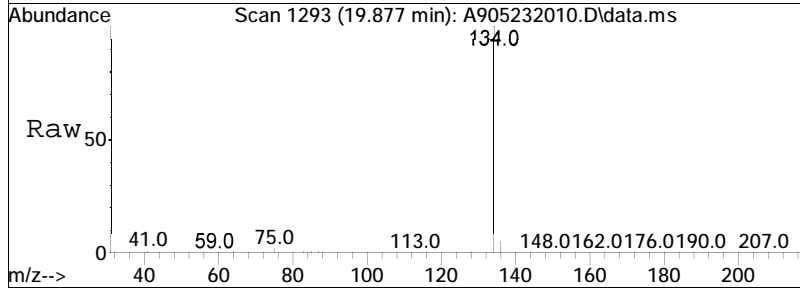


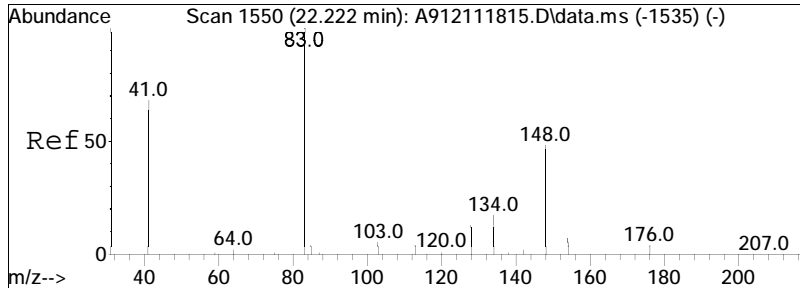
#15
 1-Methylnaphthalene
 Concen: 7447.61 ng/mL
 RT: 22.770 min Scan# 1610
 Delta R.T. 0.000 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:142 Resp: 501085



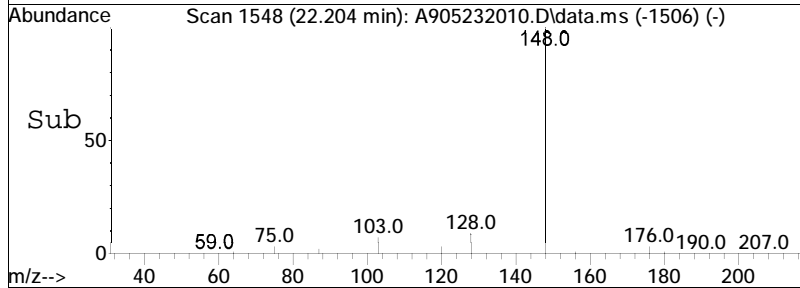
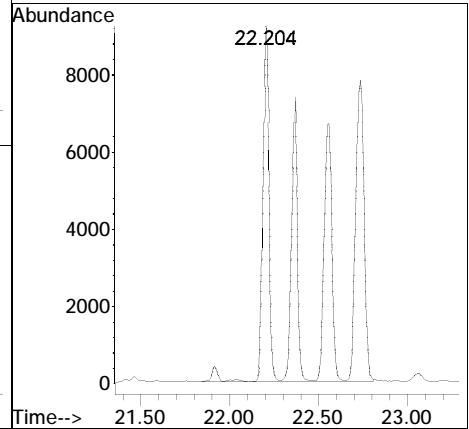
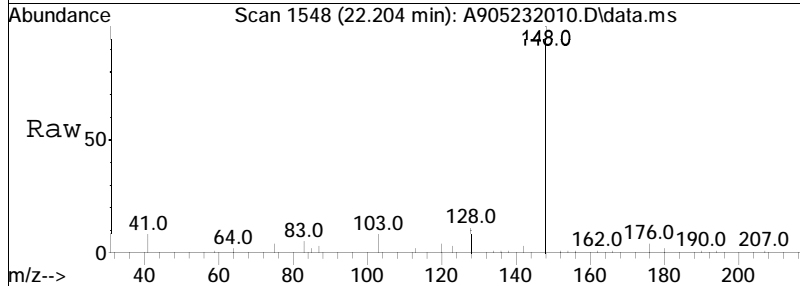


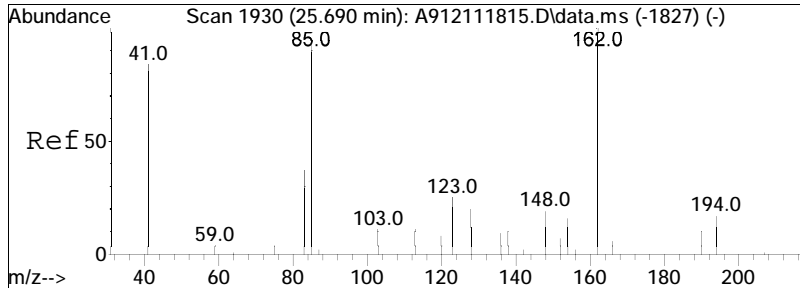
#16
 Benzothiophene
 Concen: 1275.94 ng/mL
 RT: 19.877 min Scan# 1293
 Delta R.T. 0.000 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:134 Resp: 125640



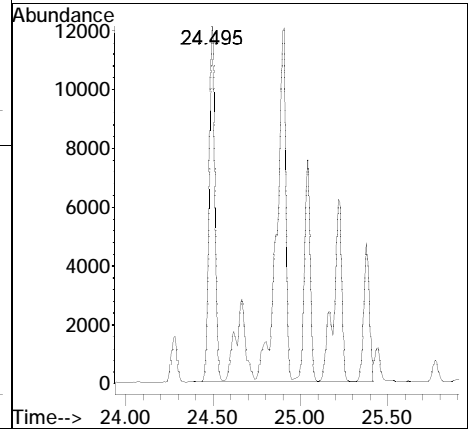
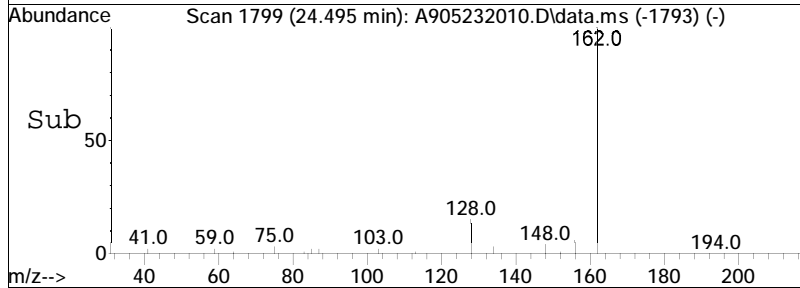
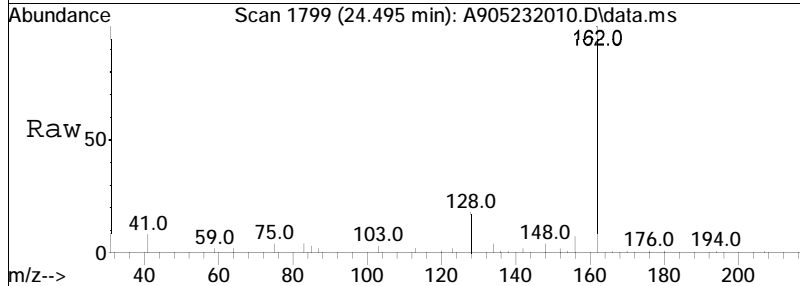


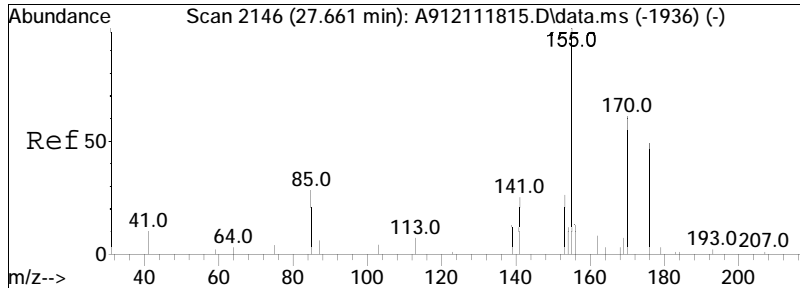
#17
 Cl-Benzo(b)thiophenes
 Concen: 865.29 ng/mL M5
 RT: 22.204 min Scan# 1548
 Delta R.T. 0.278 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:148 Resp: 85204



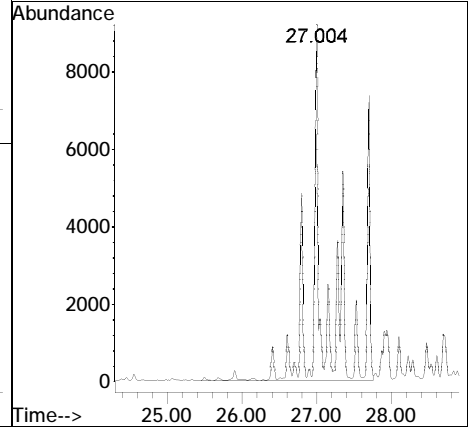
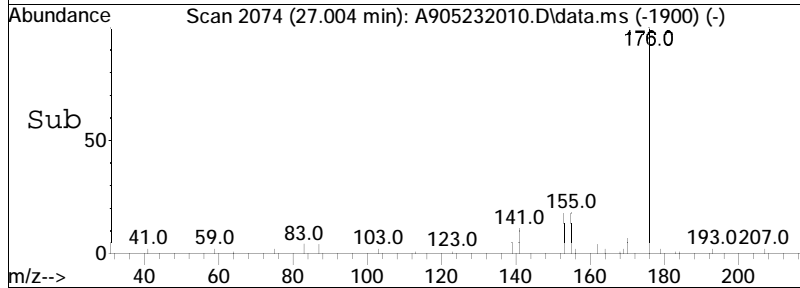
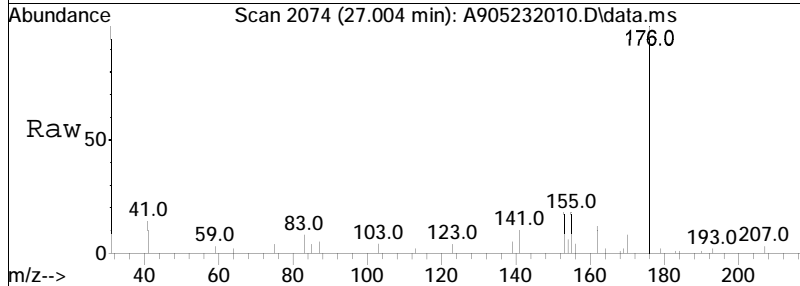


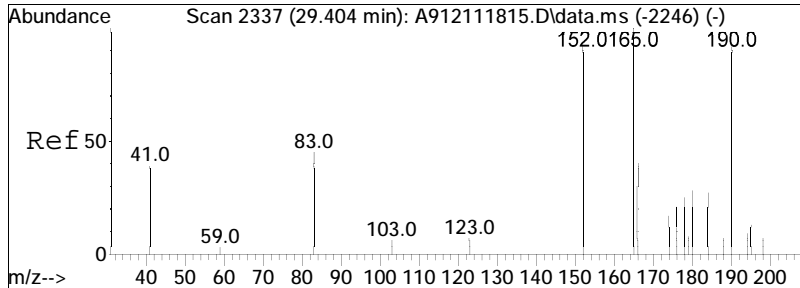
#18
 C2-Benzo(b)thiophenes
 Concen: 1342.76 ng/mL M5
 RT: 24.495 min Scan# 1799
 Delta R.T. -0.888 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:162 Resp: 132220



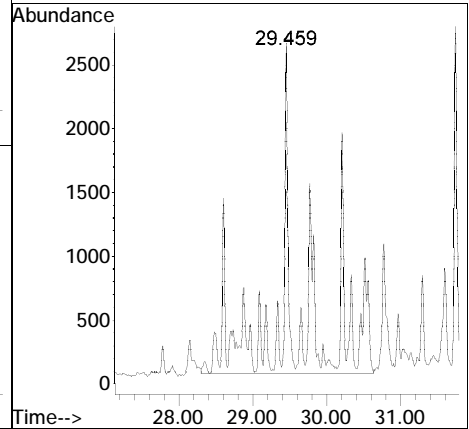
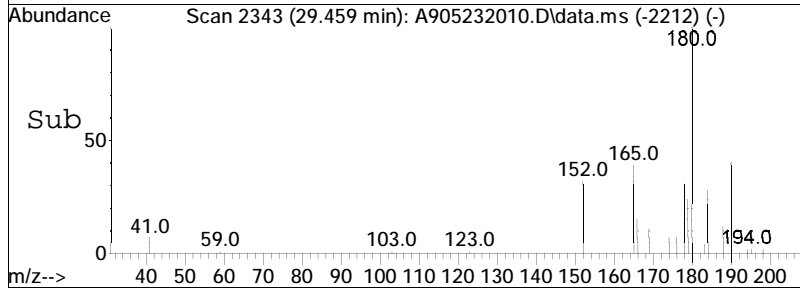
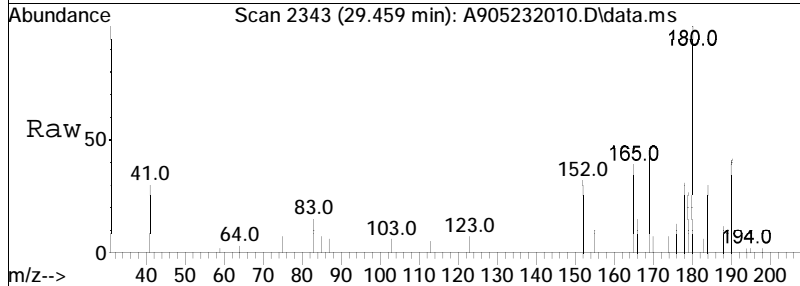


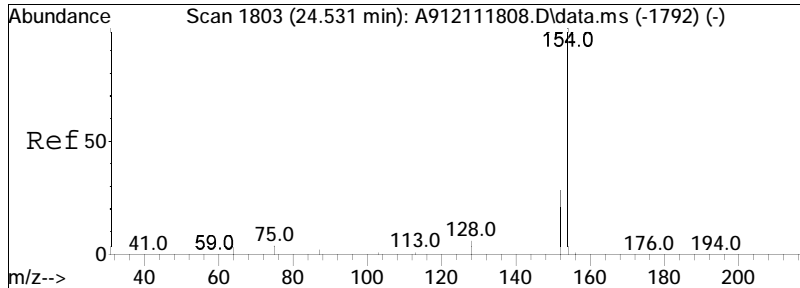
#19
 C3-Benzo(b)thiophenes
 Concen: 988.77 ng/mL M5
 RT: 27.004 min Scan# 2074
 Delta R.T. -0.329 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:176 Resp: 97363



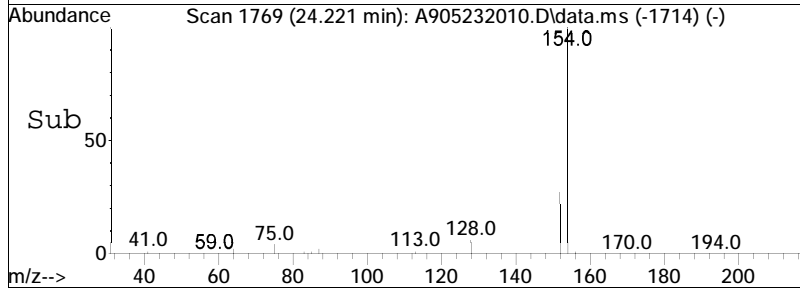
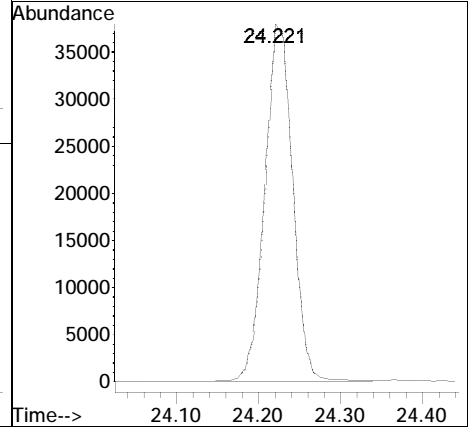
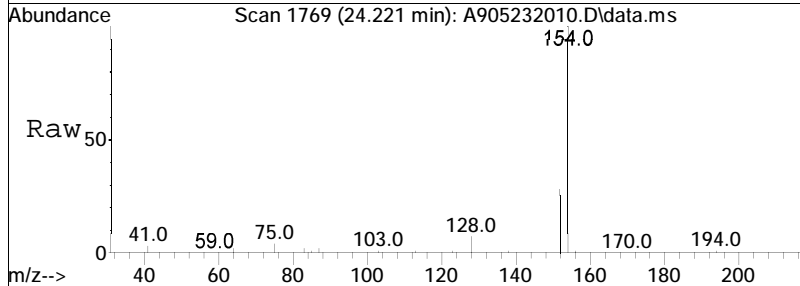


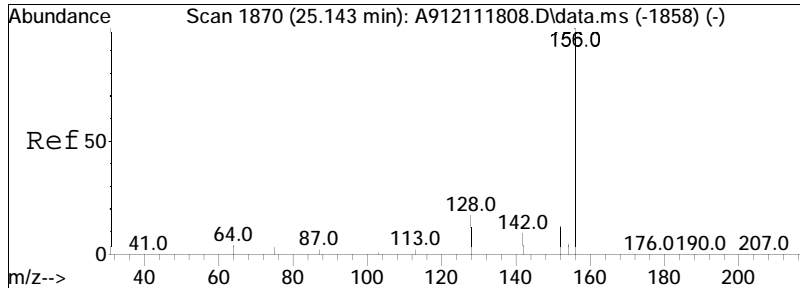
#20
 C4-Benzo(b)thiophenes
 Concen: 444.80 ng/mL M5
 RT: 29.459 min Scan# 2343
 Delta R.T. 0.368 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:190 Resp: 43799



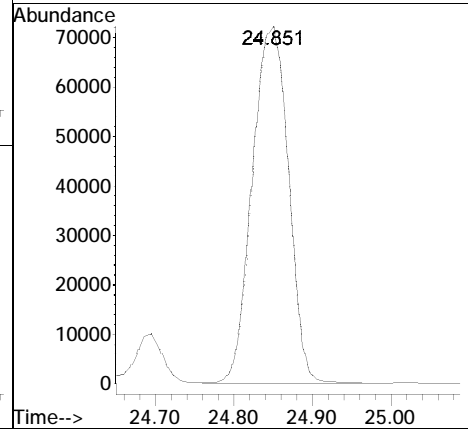
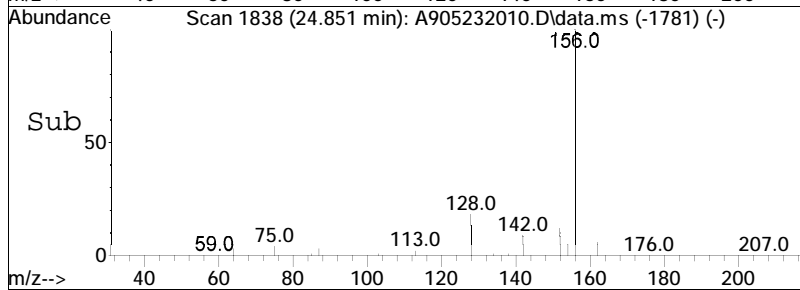
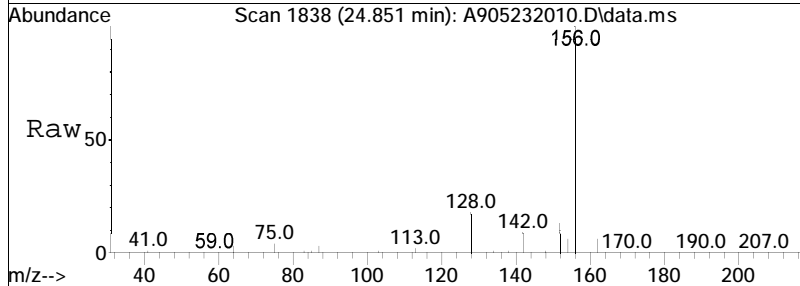


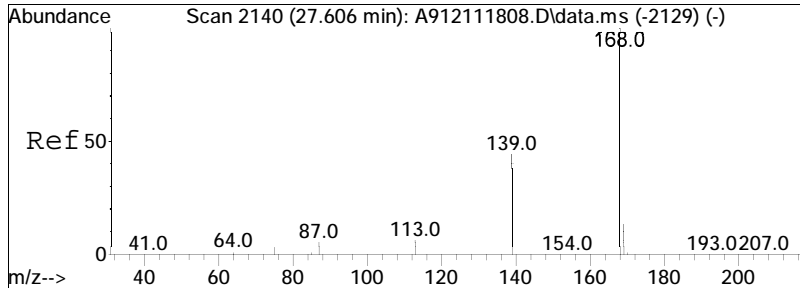
#21
 Biphenyl
 Concen: 1014.25 ng/mL
 RT: 24.221 min Scan# 1769
 Delta R.T. 0.000 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:154 Resp: 87975





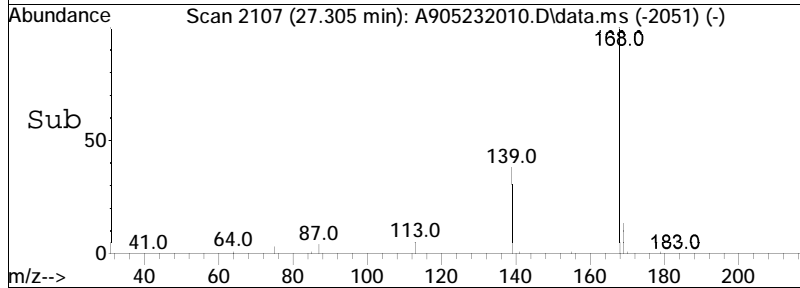
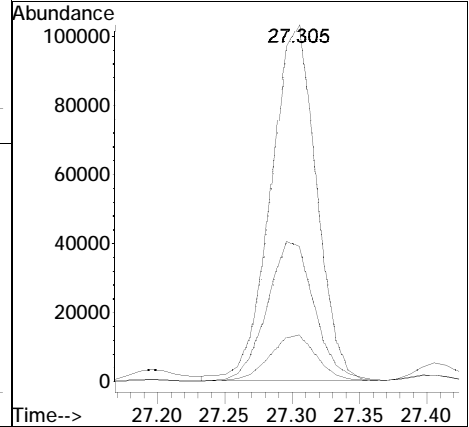
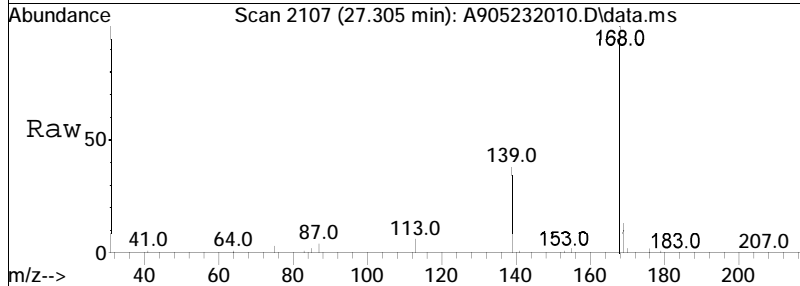
#22
 2,6-Dimethylnaphthalene
 Concen: 3666.95 ng/mL
 RT: 24.851 min Scan# 1838
 Delta R.T. 0.018 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:156 Resp: 227821

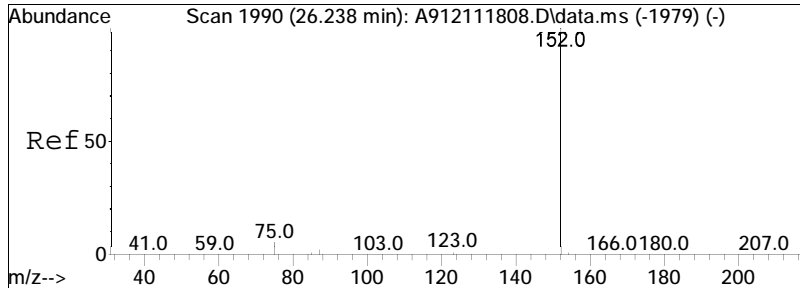




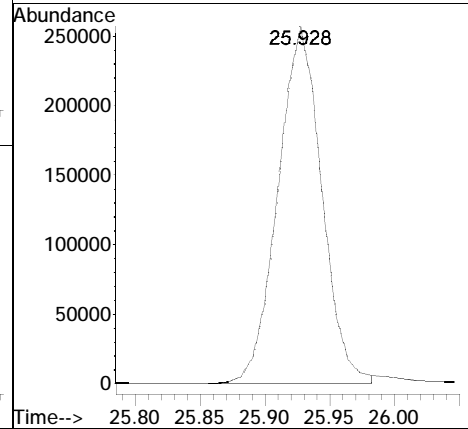
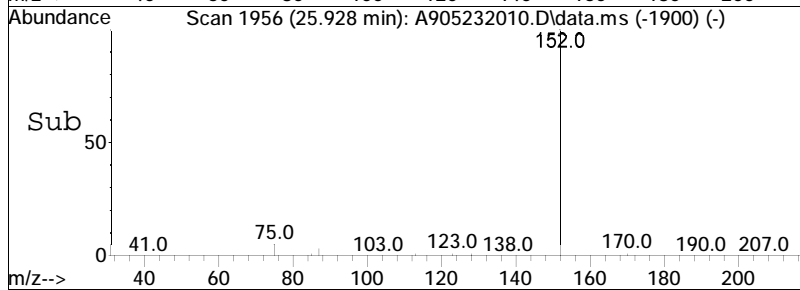
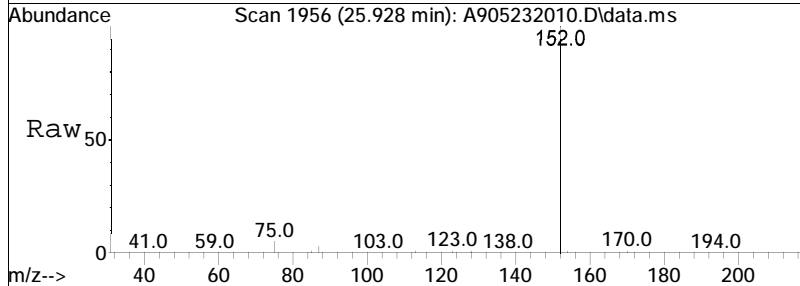
#23
 Dibenzofuran
 Concen: 2361.04 ng/mL
 RT: 27.305 min Scan# 2107
 Delta R.T. 0.009 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

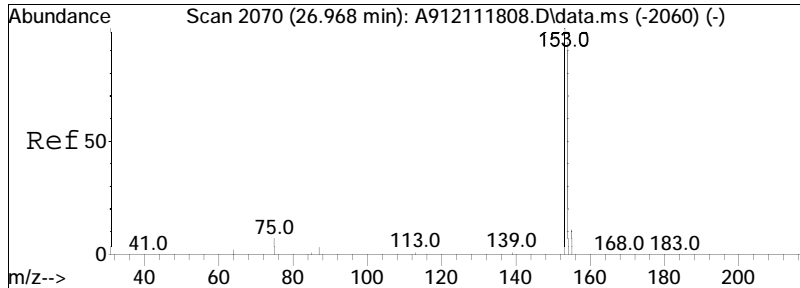
Tgt Ion	Ratio	Lower	Upper
168	100		
139	41.5	28.2	52.4
169	13.4	9.6	17.8





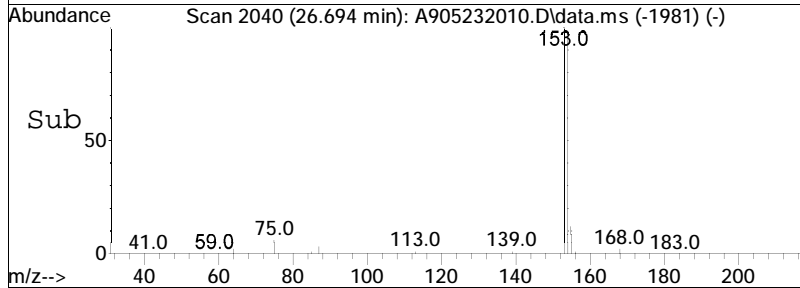
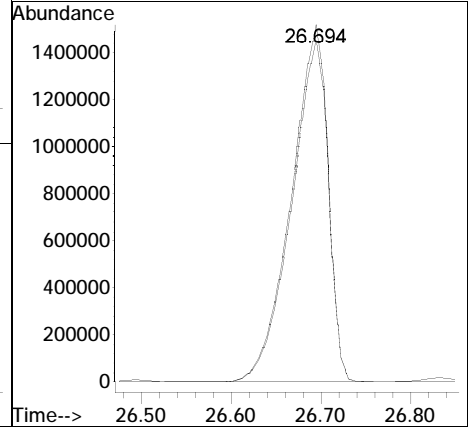
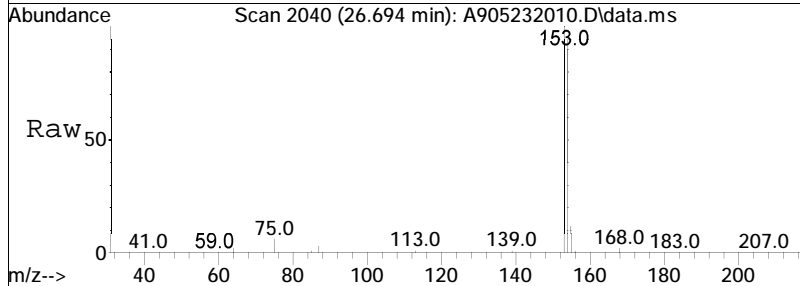
#24
 Acenaphthylene
 Concen: 5655.38 ng/mL M3
 RT: 25.928 min Scan# 1956
 Delta R.T. 0.009 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:152 Resp: 598035

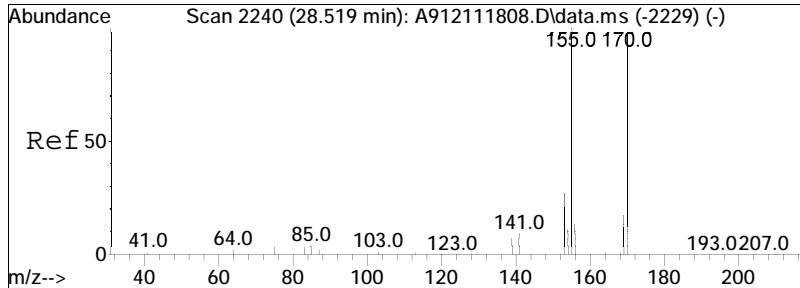




#25
 Acenaphthene
 Concen: 65722.12 ng/mL
 RT: 26.694 min Scan# 2040
 Delta R.T. 0.037 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

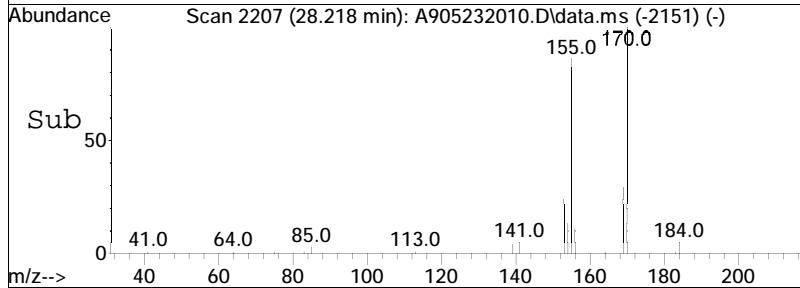
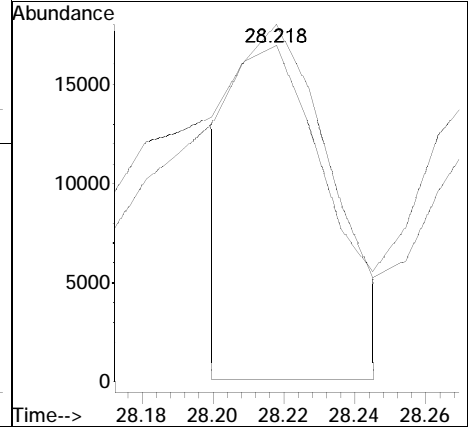
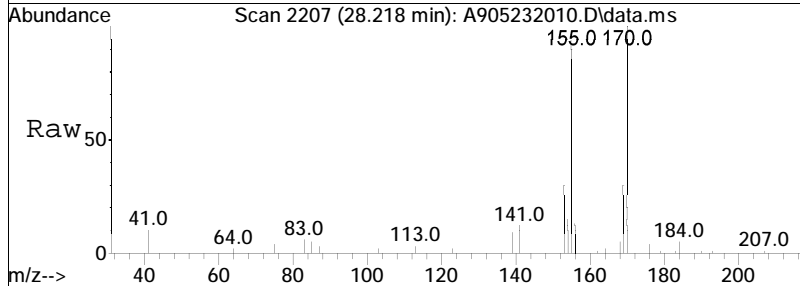
Tgt Ion: 153 Resp: 4306636
 Ion Ratio Lower Upper
 153 100
 154 95.3 65.0 120.8

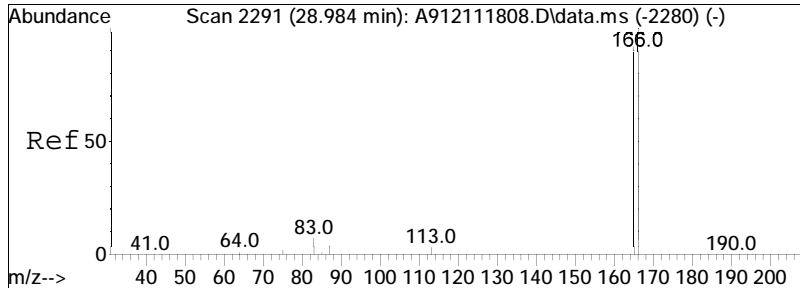




#26
 2,3,5-Trimethylnaphthalene
 Concen: 591.87 ng/mL M3
 RT: 28.218 min Scan# 2207
 Delta R.T. 0.009 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

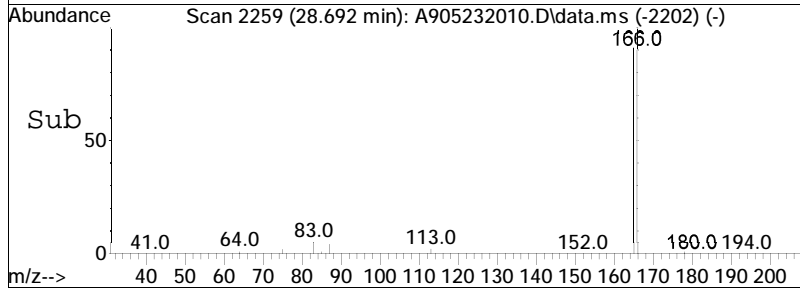
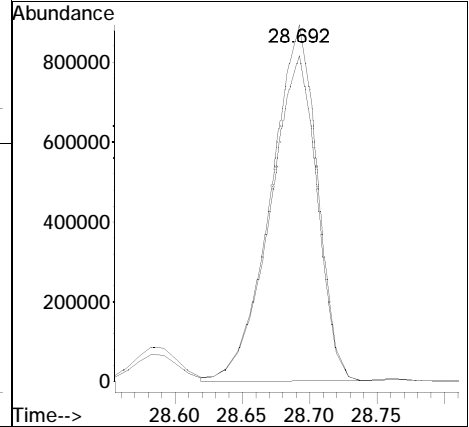
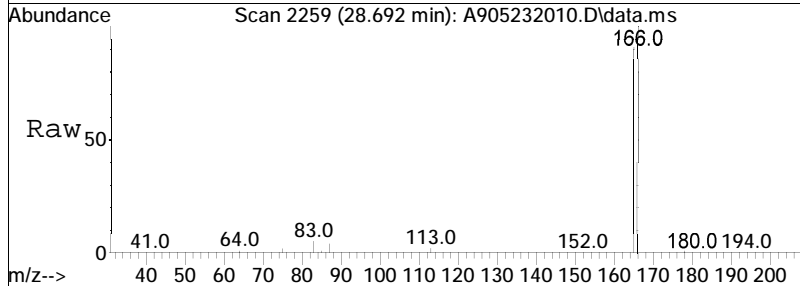
Tgt Ion	Resp	Lower	Upper
170	100		
155	181.6	69.6	129.2#

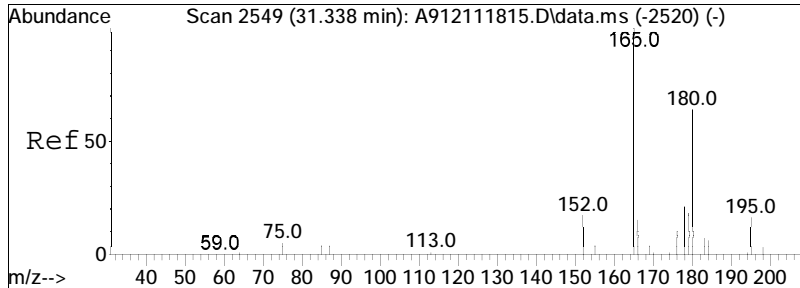




#27
 Fluorene
 Concen: 27292.41 ng/mL
 RT: 28.692 min Scan# 2259
 Delta R.T. 0.018 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

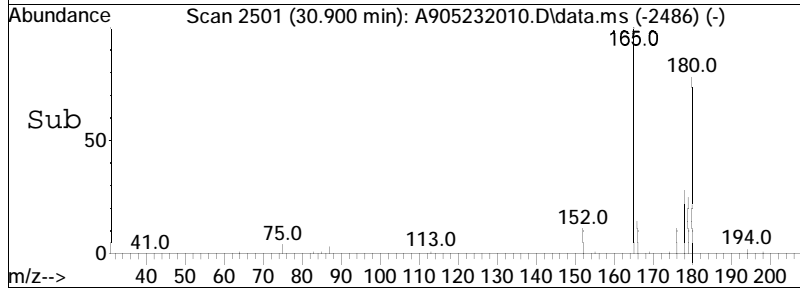
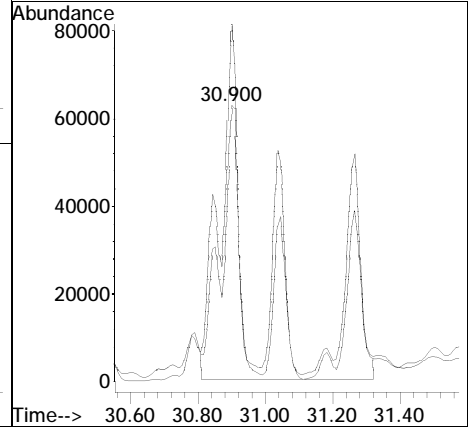
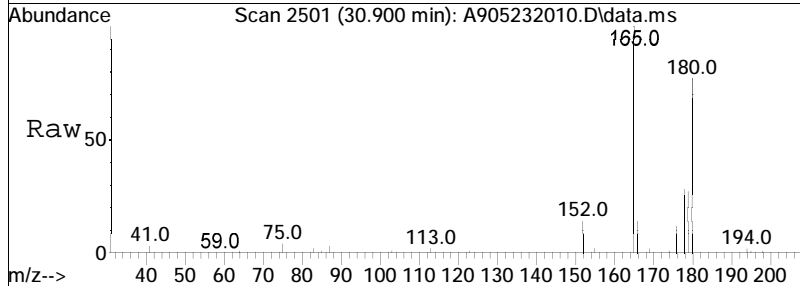
Tgt Ion: 166 Resp: 2118806
 Ion Ratio Lower Upper
 166 100
 165 92.1 65.4 121.4

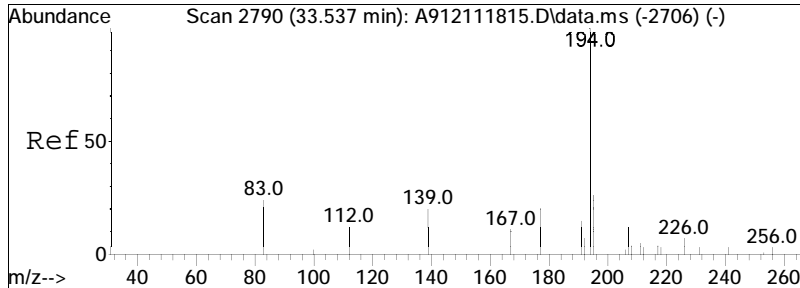




#28
 Cl-Fluorenes
 Concen: 5826.70 ng/mL M5
 RT: 30.900 min Scan# 2501
 Delta R.T. -0.132 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

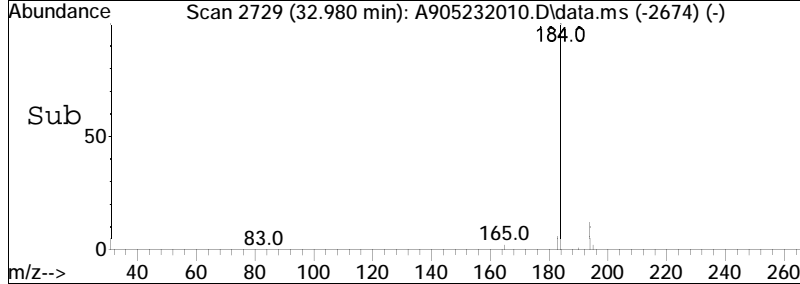
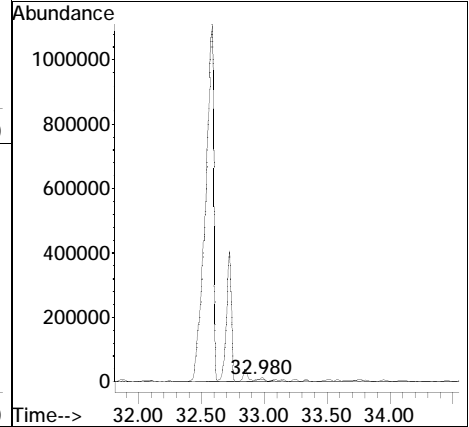
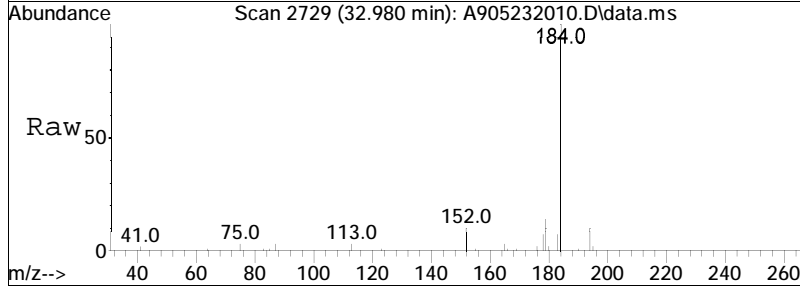
Tgt Ion:180 Resp: 452347
 Ion Ratio Lower Upper
 180 100
 165 28.3 101.1 187.7#

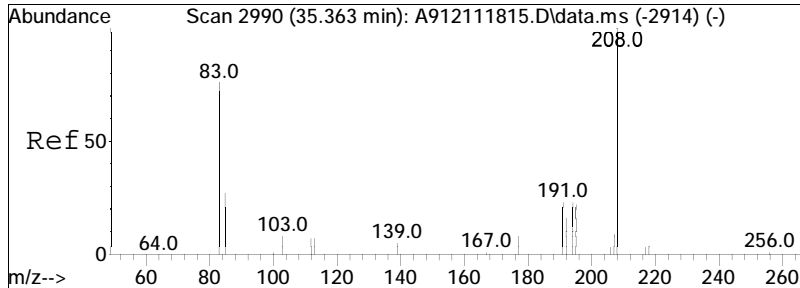




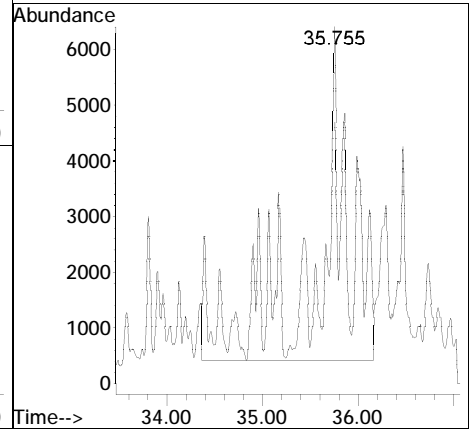
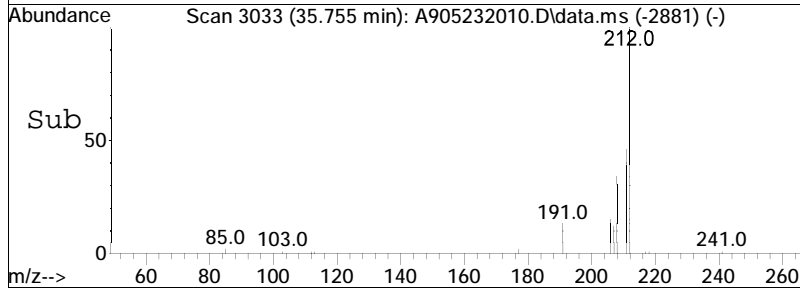
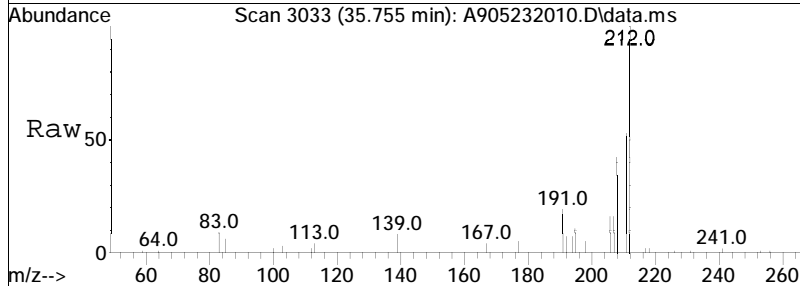
#29
 C2-Fluorenes
 Concen: 3296.17 ng/mL M5
 RT: 32.980 min Scan# 2729
 Delta R.T. -0.248 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

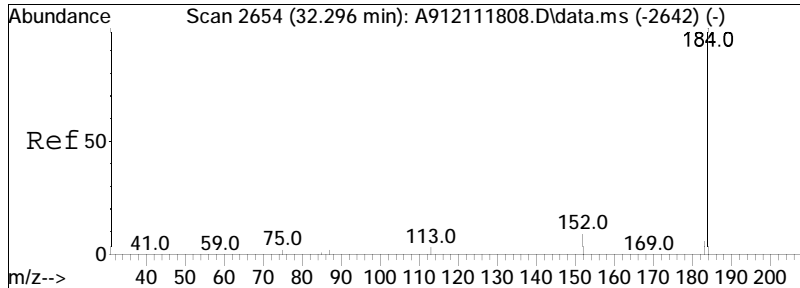
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	1.7	24.1	44.8#





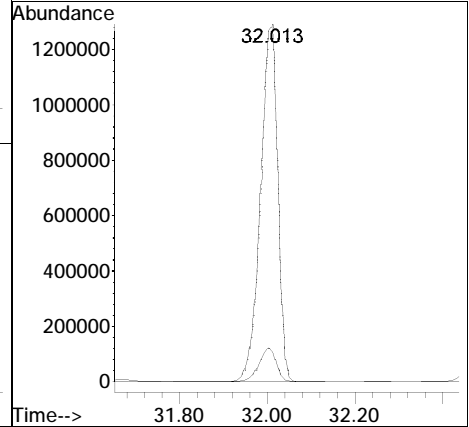
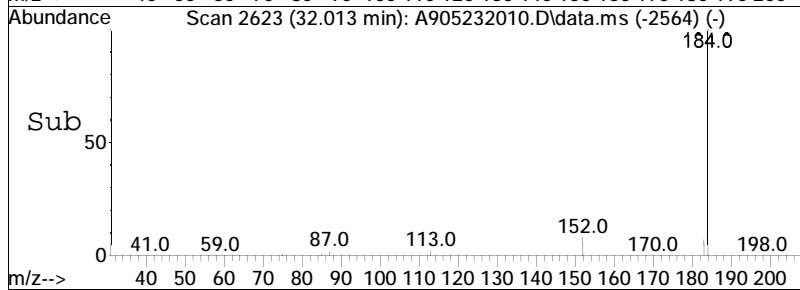
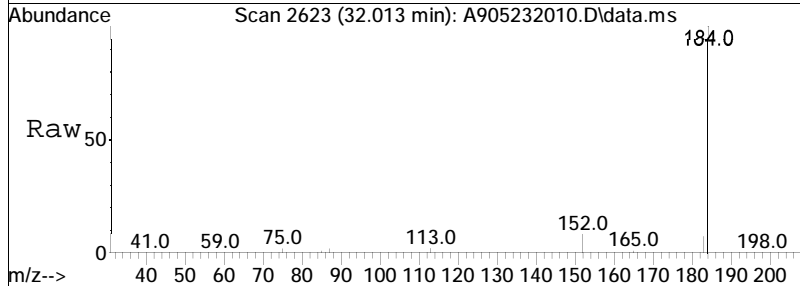
#30
 C3-Fluorenes
 Concen: 1761.71 ng/mL M5
 RT: 35.755 min Scan# 3033
 Delta R.T. 0.703 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 208 Resp: 136768

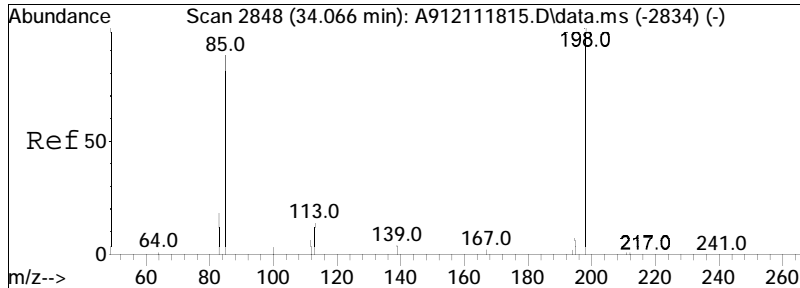




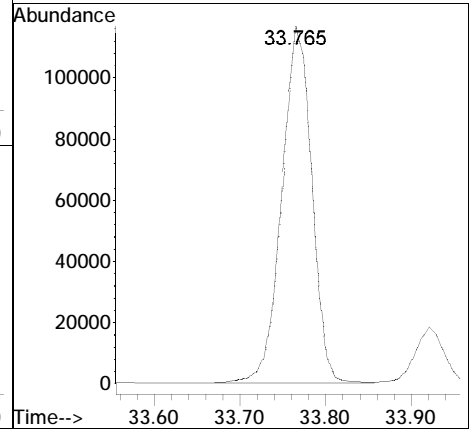
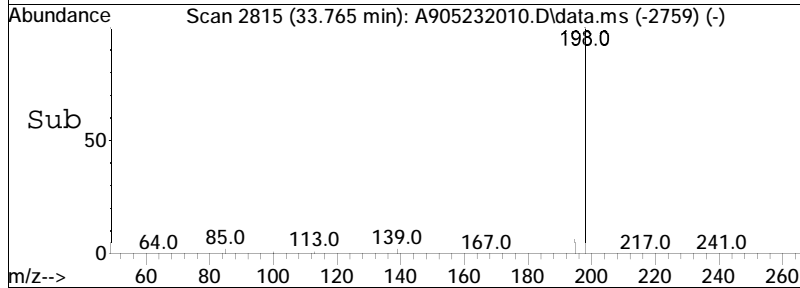
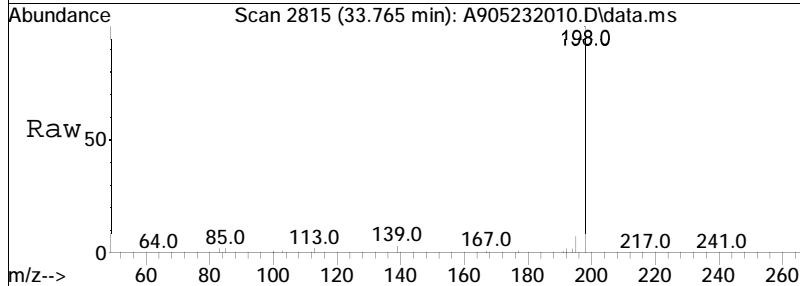
#31
 Dibenzothiophene
 Concen: 29977.02 ng/mL
 RT: 32.013 min Scan# 2623
 Delta R.T. 0.037 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

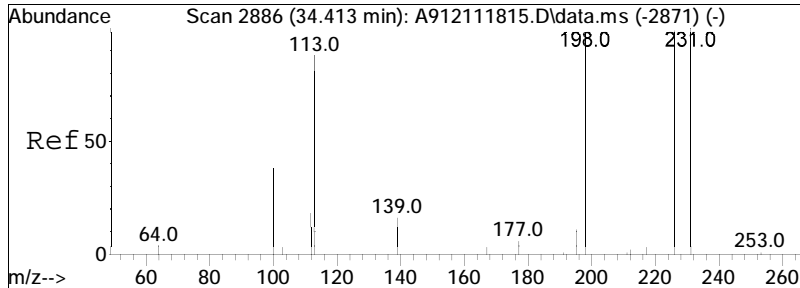
Tgt Ion: 184 Resp: 3439509
 Ion Ratio Lower Upper
 184 100
 152 9.2 6.4 11.8



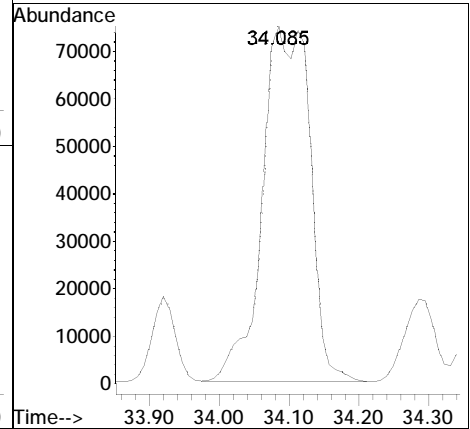
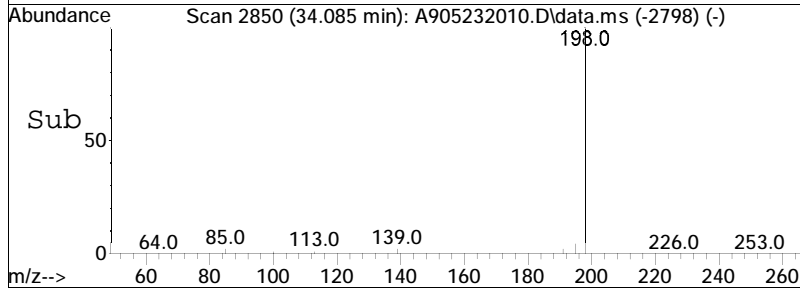
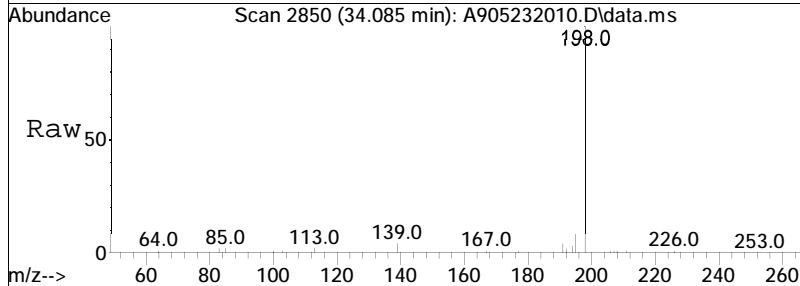


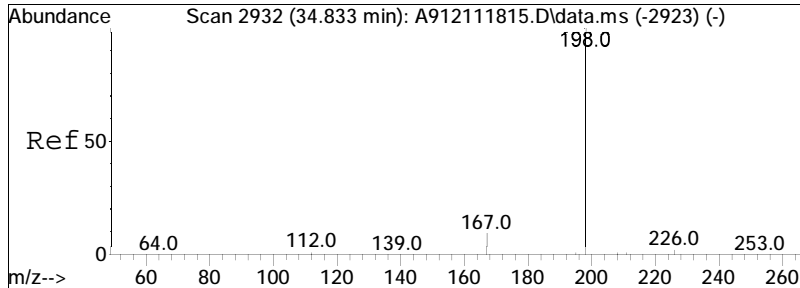
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 2441.77 ng/mL
 RT: 33.765 min Scan# 2815
 Delta R.T. 0.009 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 198 Resp: 280164



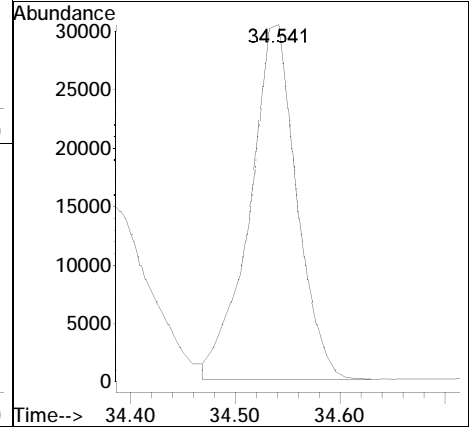
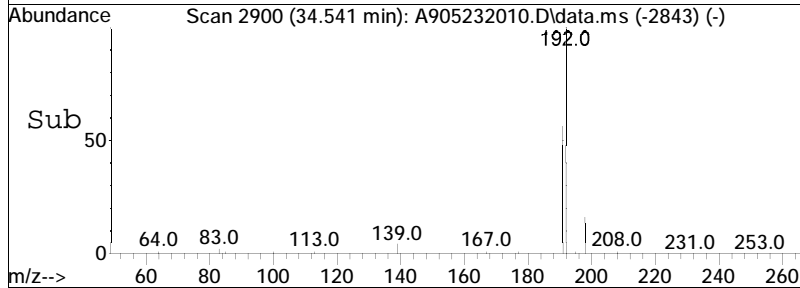
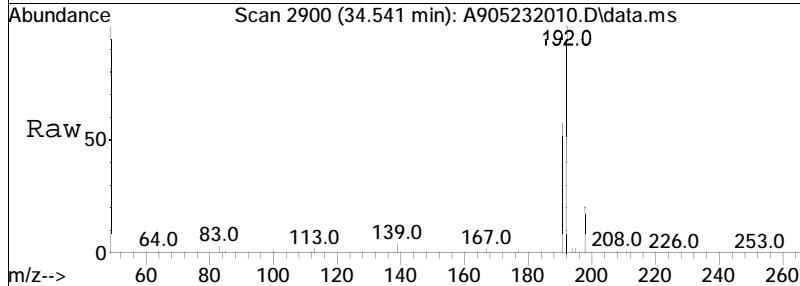


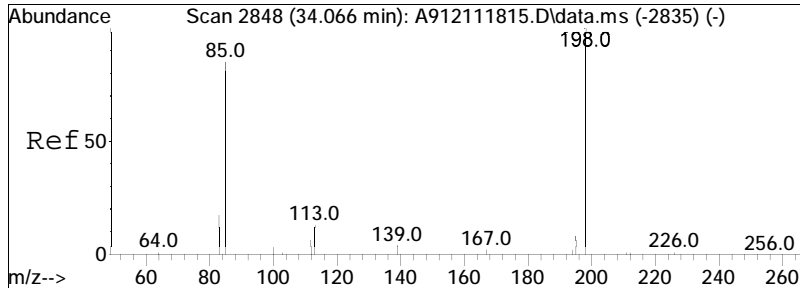
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 3059.74 ng/mL
 RT: 34.085 min Scan# 2850
 Delta R.T. -0.027 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:198 Resp: 351069



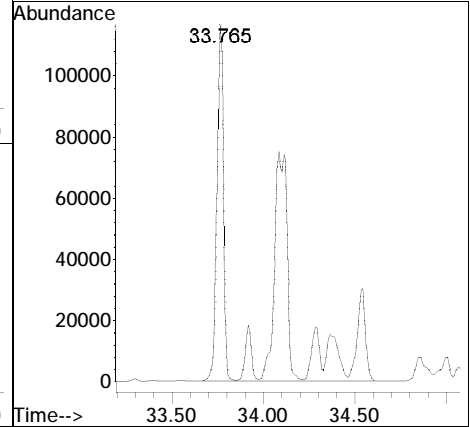
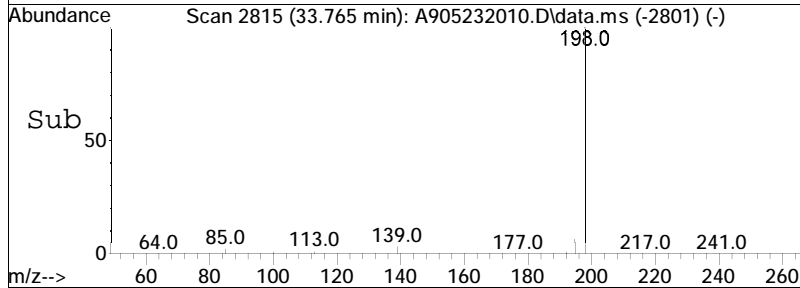
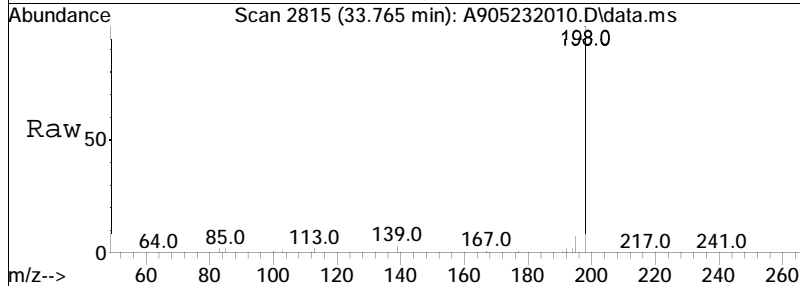


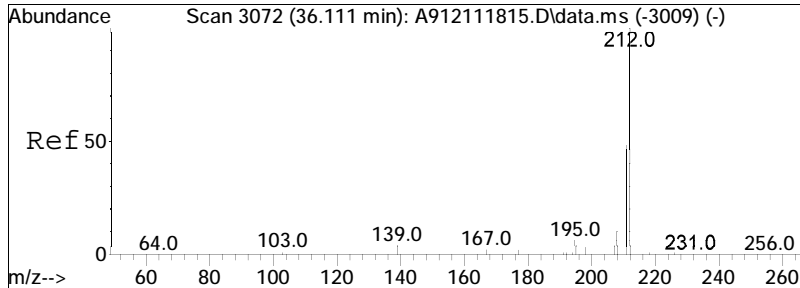
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 823.52 ng/mL
 RT: 34.541 min Scan# 2900
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:198 Resp: 94489



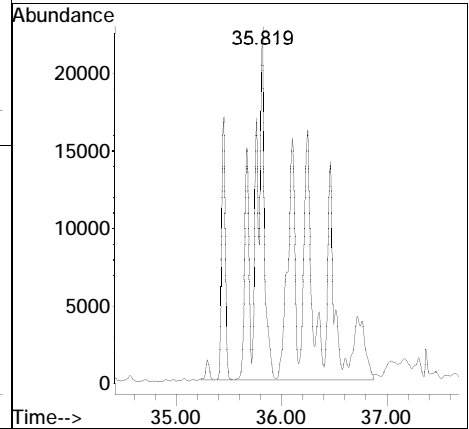
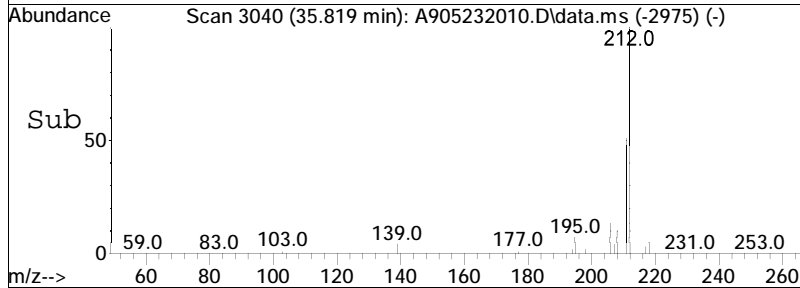
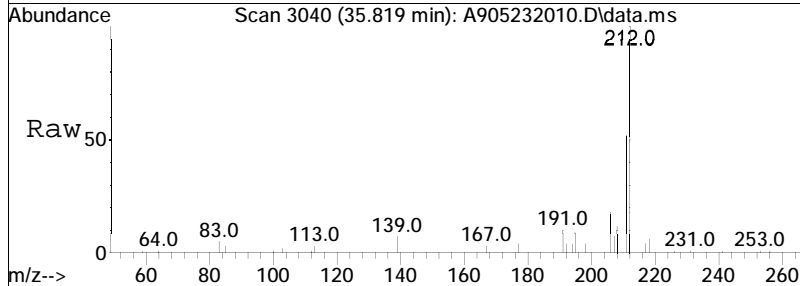


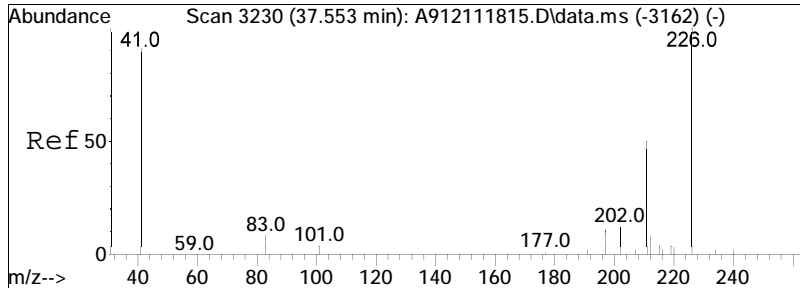
#36
 Cl-Dibenzothiophenes
 Concen: 7839.49 ng/mL M5
 RT: 33.765 min Scan# 2815
 Delta R.T. 0.017 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:198 Resp: 899489





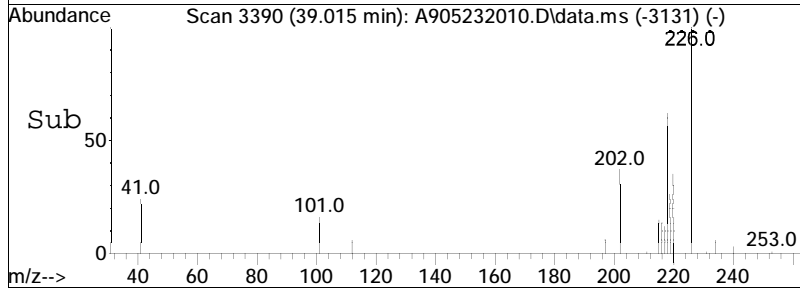
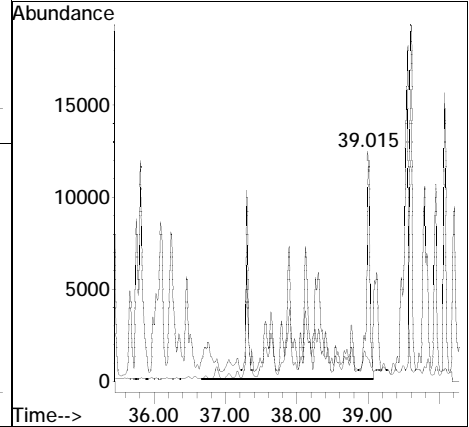
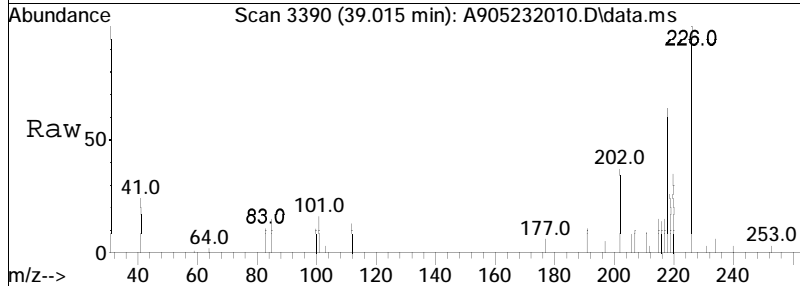
#37
 C2-Dibenzothiophenes
 Concen: 3808.97 ng/mL M5
 RT: 35.819 min Scan# 3040
 Delta R.T. 0.384 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 212 Resp: 437034

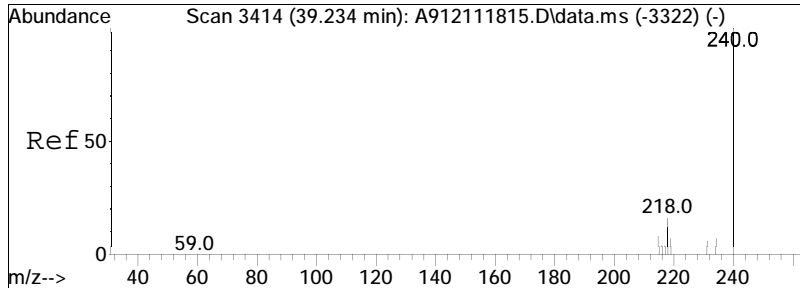




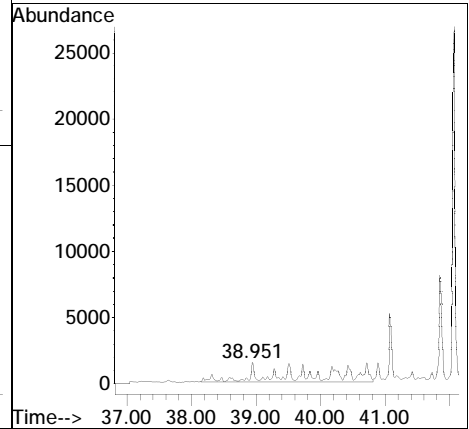
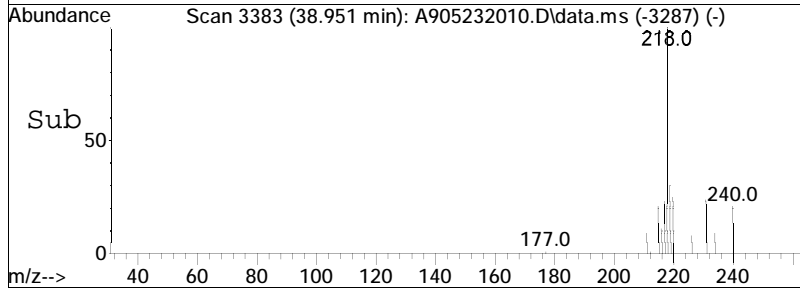
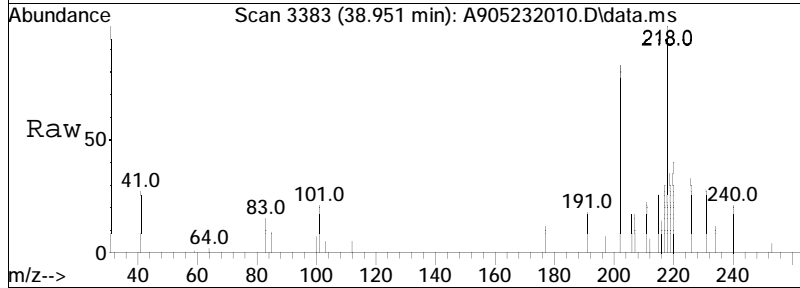
#38
 C3-Dibenzothiophenes
 Concen: 1979.00 ng/mL M5
 RT: 39.015 min Scan# 3390
 Delta R.T. 1.774 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

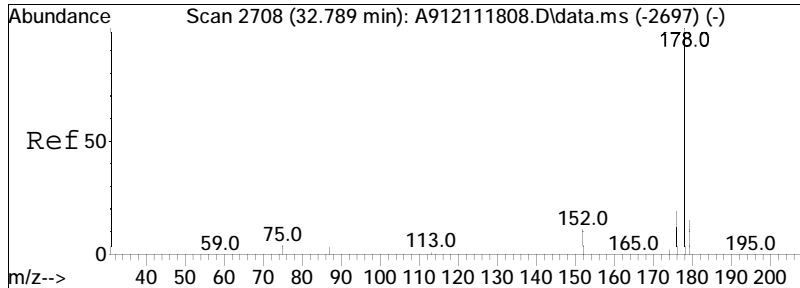
Tgt Ion	Ratio	Lower	Upper
226	100		
211	5.3	40.8	75.8#





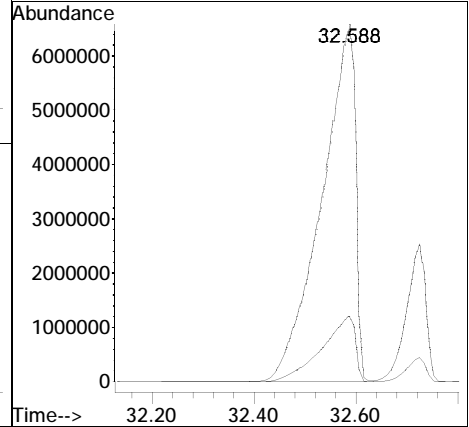
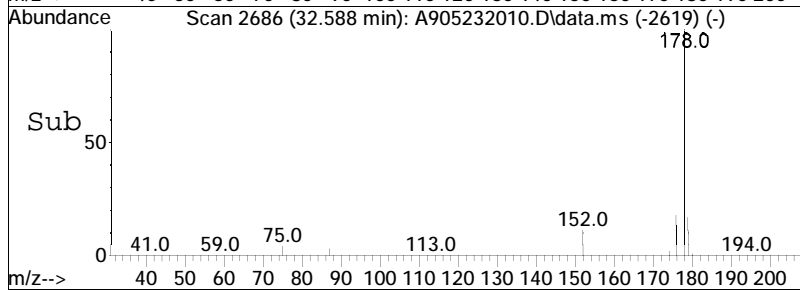
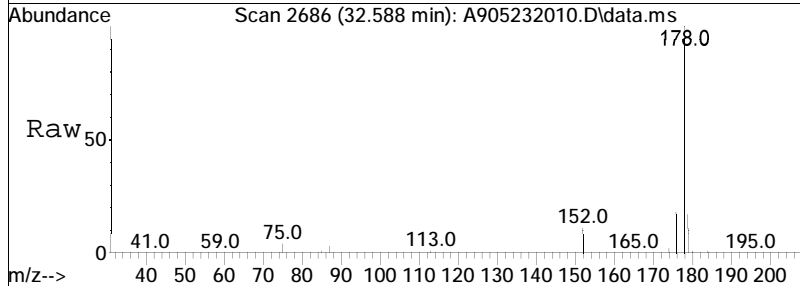
#39
 C4-Dibenzothiophenes
 Concen: 550.30 ng/mL M5
 RT: 38.951 min Scan# 3383
 Delta R.T. 0.022 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 240 Resp: 63140

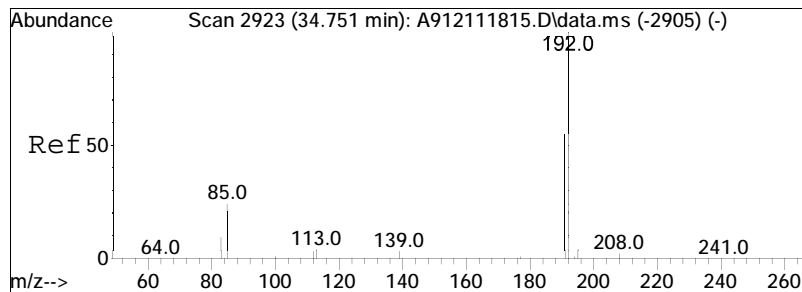




#41
 Phenanthrene
 Concen: 263386.26 ng/mL
 RT: 32.588 min Scan# 2686
 Delta R.T. 0.110 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

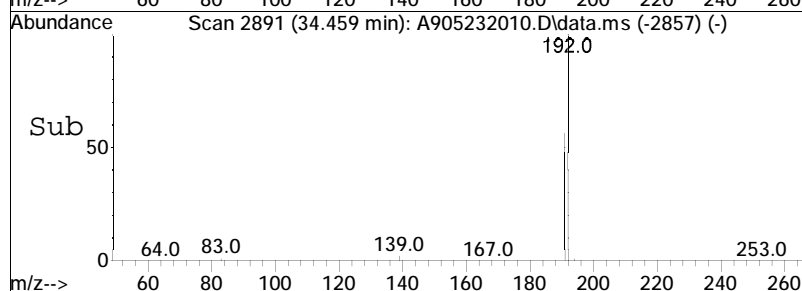
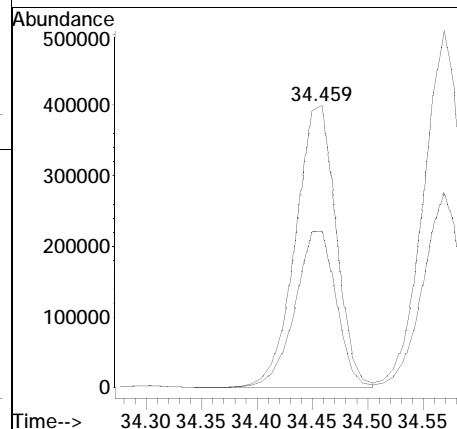
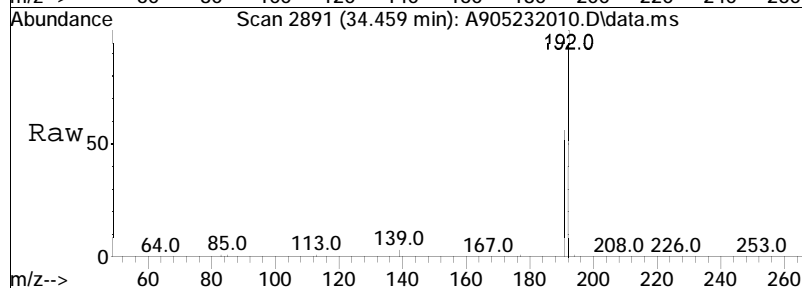
Tgt Ion: 178 Resp: 30127214
 Ion Ratio Lower Upper
 178 100
 176 18.3 13.6 25.4

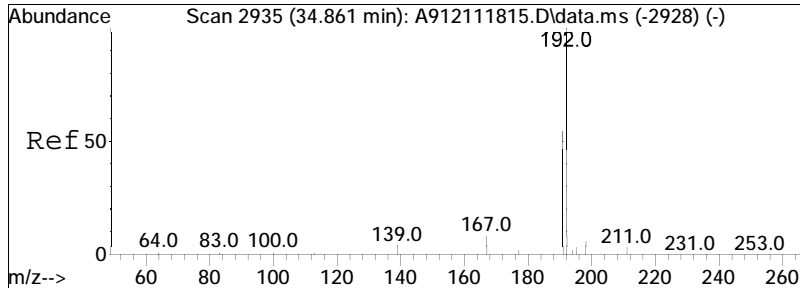




#42
 3-Methylphenanthrene (3MP)
 Concen: 8869.25 ng/mL
 RT: 34.459 min Scan# 2891
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

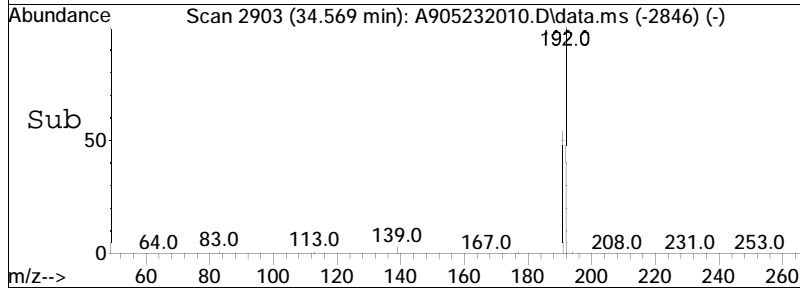
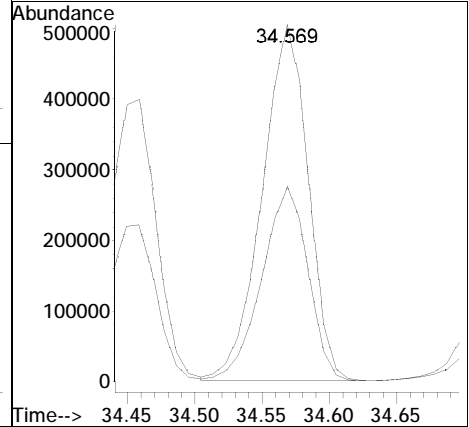
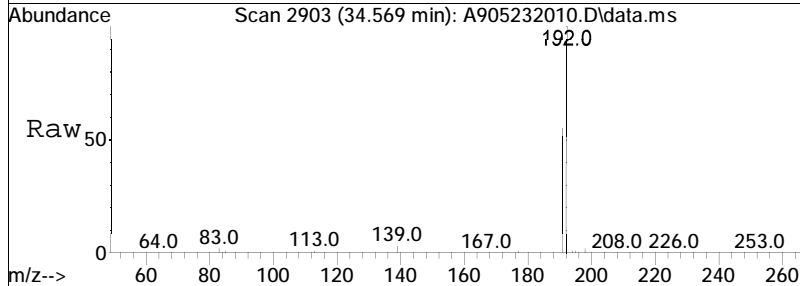
Tgt Ion: 192 Resp: 1014502
 Ion Ratio Lower Upper
 192 100
 191 56.0 40.7 75.7

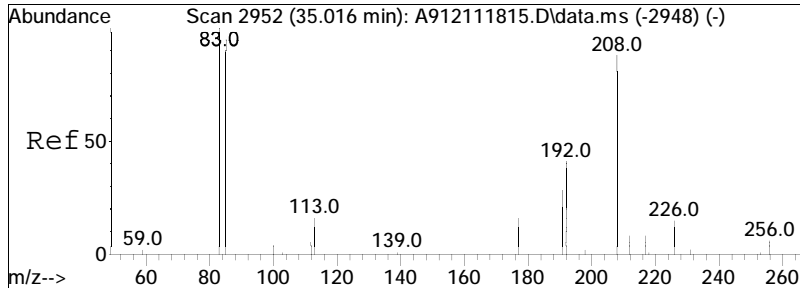




#43
 2-Methylphenanthrene (2MP)
 Concen: 10445.34 ng/mL
 RT: 34.569 min Scan# 2903
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

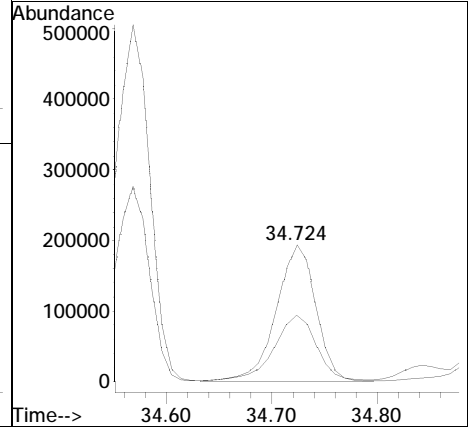
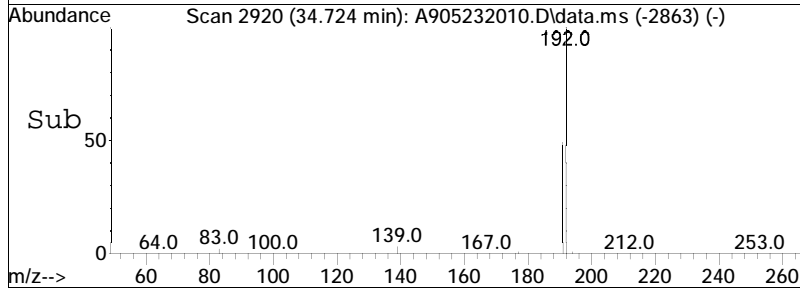
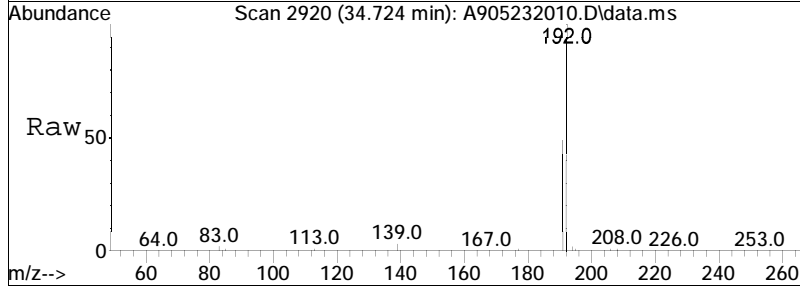
Tgt Ion: 192 Resp: 1194781
 Ion Ratio Lower Upper
 192 100
 191 54.6 39.7 73.7

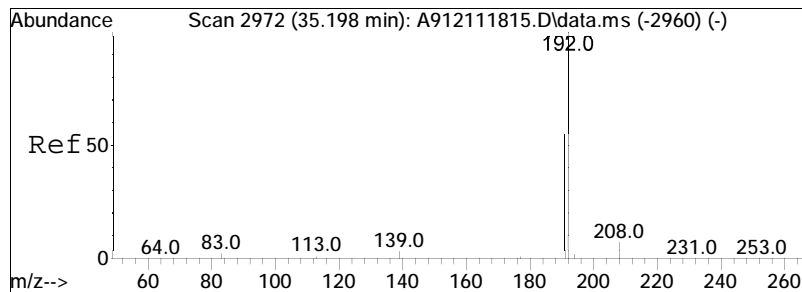




#44
 2-Methylantracene(2MA)
 Concen: 4411.28 ng/mL M4
 RT: 34.724 min Scan# 2920
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

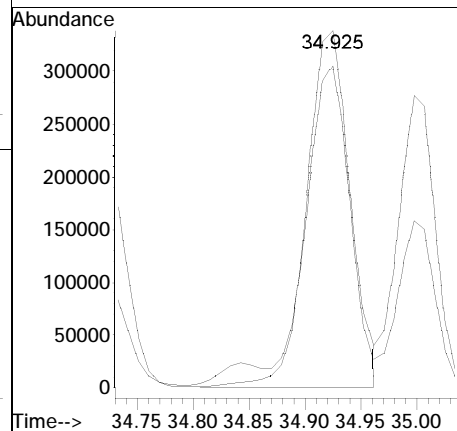
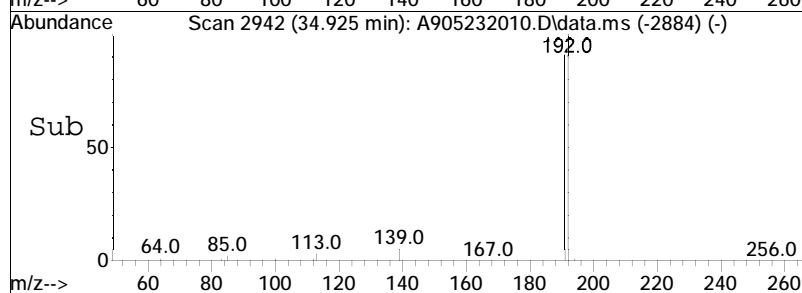
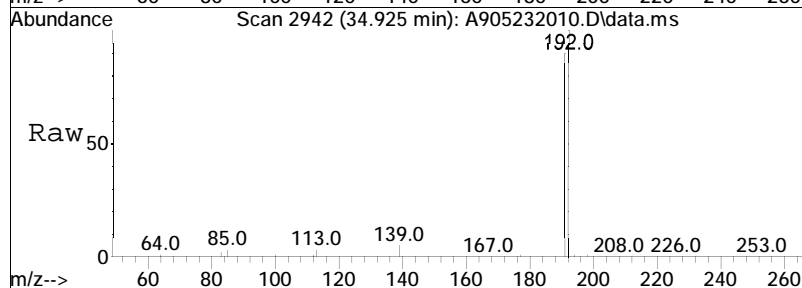
Tgt Ion	Resp	Lower	Upper
192	100		
191	161.2	80.0	148.6#

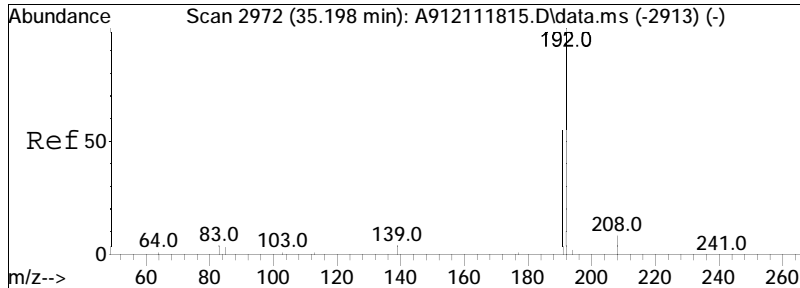




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 7956.56 ng/mL M4
 RT: 34.925 min Scan# 2942
 Delta R.T. 0.028 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

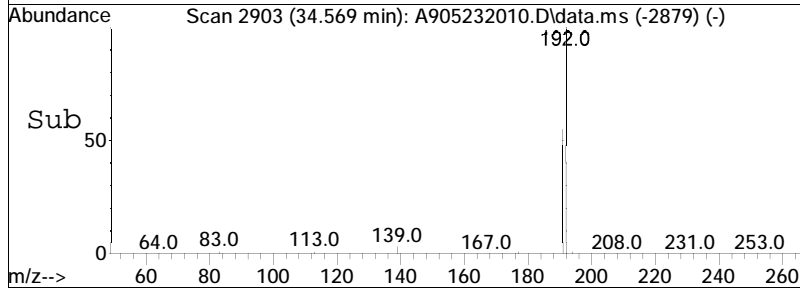
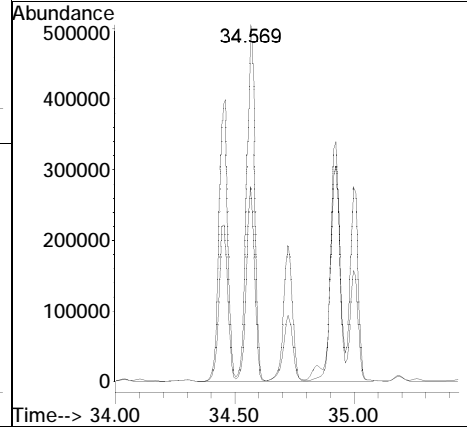
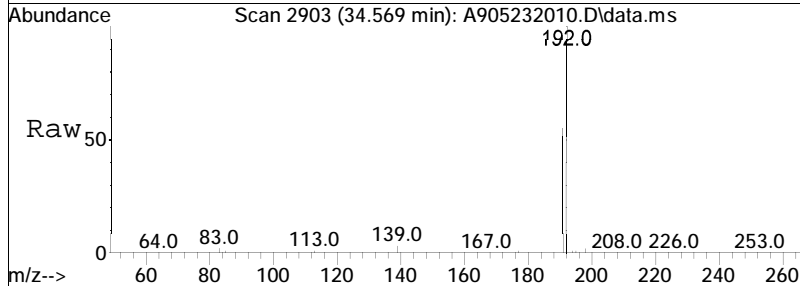
Tgt Ion	Resp	Lower	Upper
192	100		
191	39.8	39.7	73.7

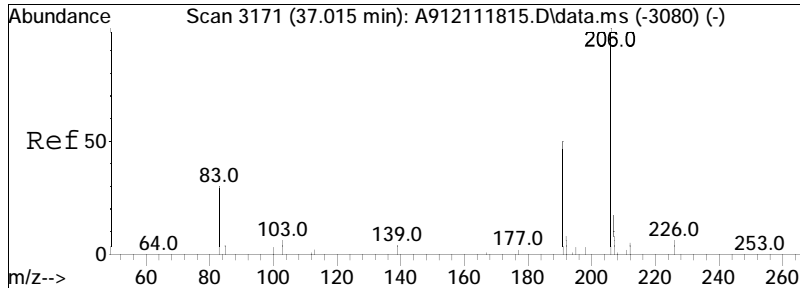




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 37378.28 ng/mL M5
 RT: 34.569 min Scan# 2903
 Delta R.T. -0.320 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

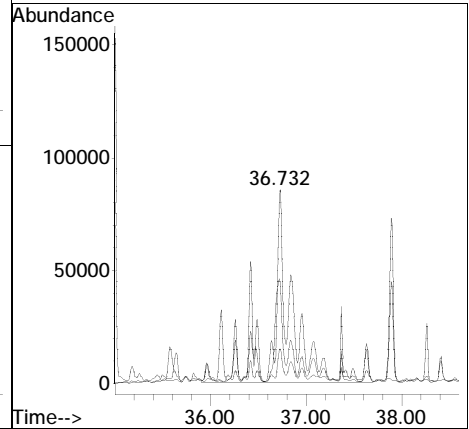
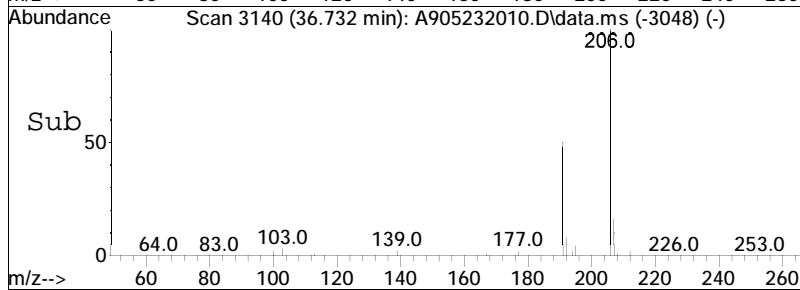
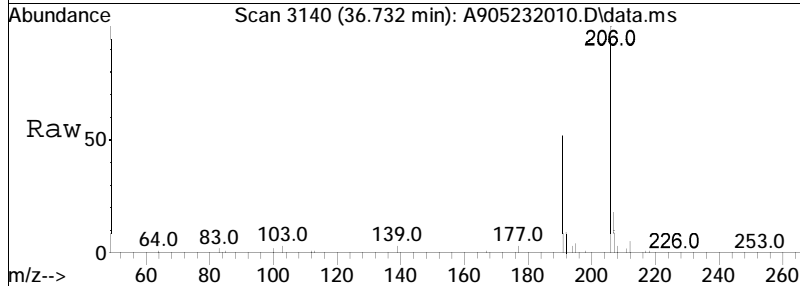
Tgt Ion:192 Resp: 4275483
 Ion Ratio Lower Upper
 192 100
 191 5.0 39.3 72.9#

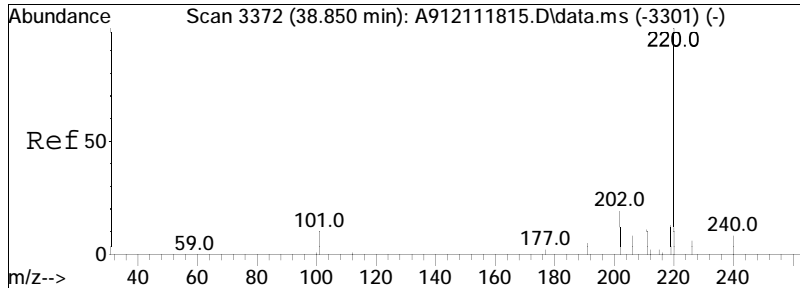




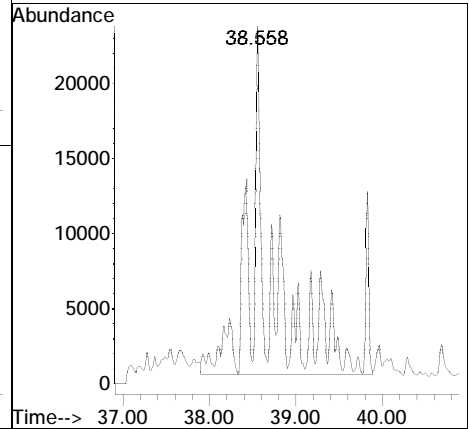
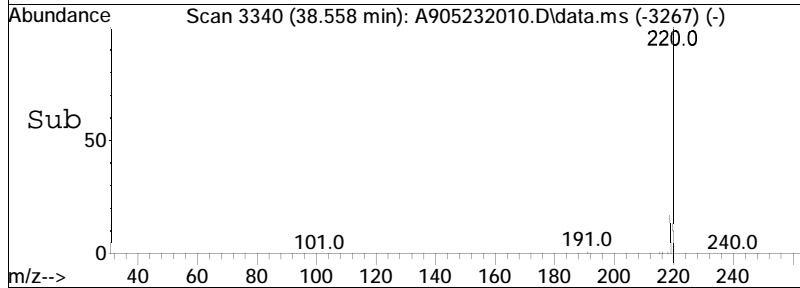
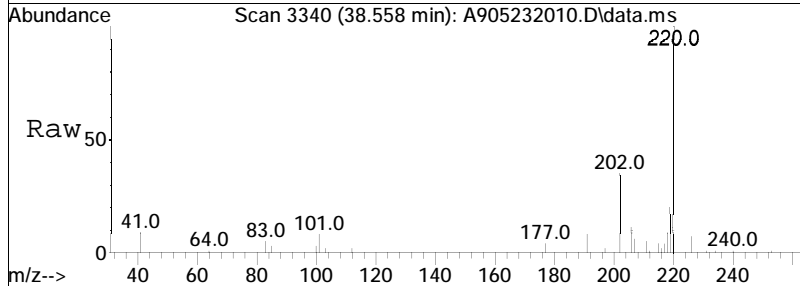
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 10740.61 ng/mL M5
 RT: 36.732 min Scan# 3140
 Delta R.T. 0.029 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

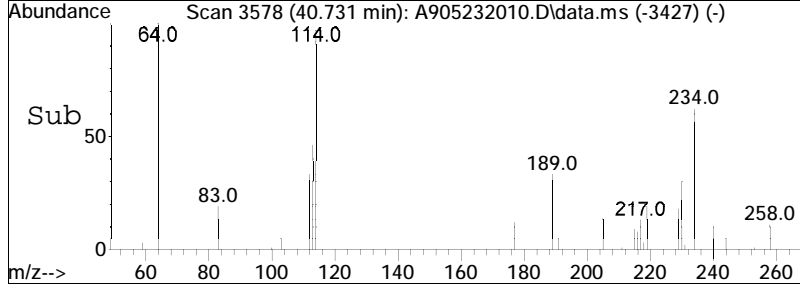
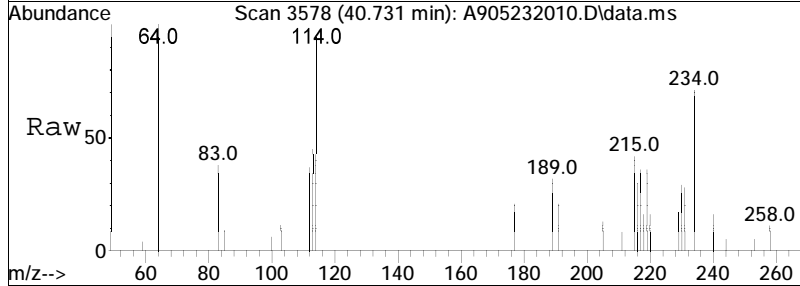
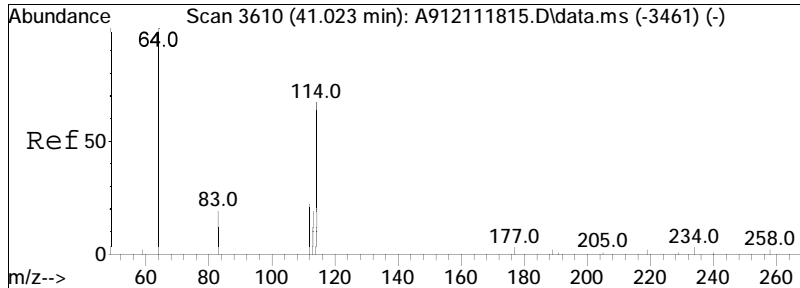
Tgt Ion	Ratio	Lower	Upper
206	100		
191	3.1	36.4	67.6#
207	1.0	14.4	26.7#





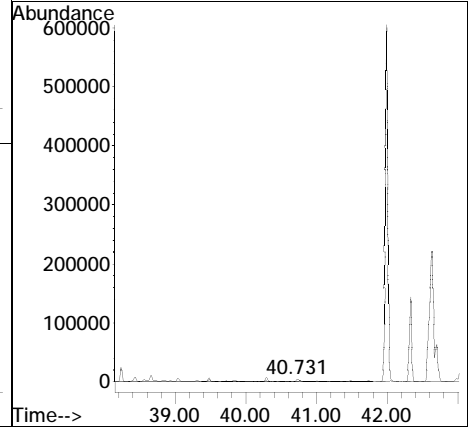
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 3588.76 ng/mL M5
 RT: 38.558 min Scan# 3340
 Delta R.T. 0.022 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 220 Resp: 410497

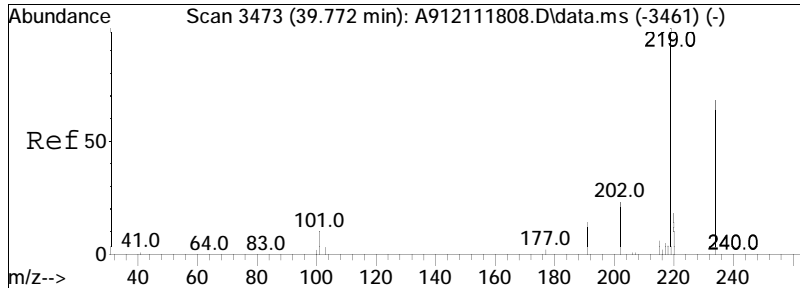




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 1071.89 ng/mL M5
 RT: 40.731 min Scan# 3578
 Delta R.T. 0.024 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

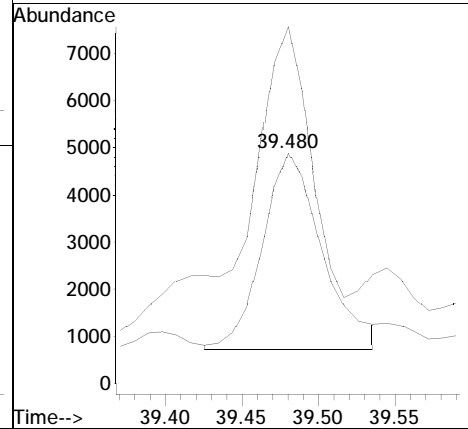
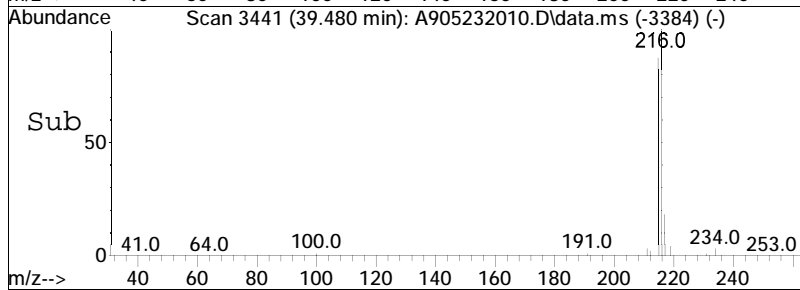
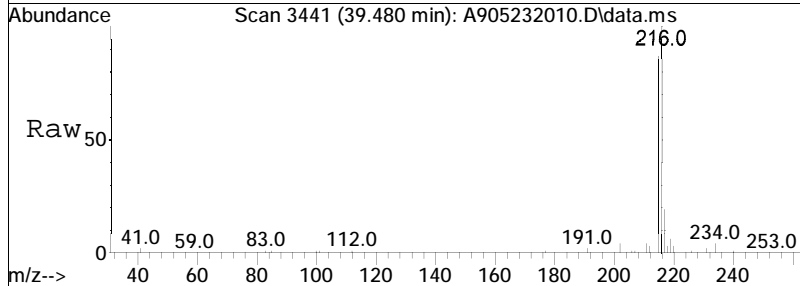
Tgt Ion	Ratio	Lower	Upper
234	100		
219	0.9	43.7	81.1#

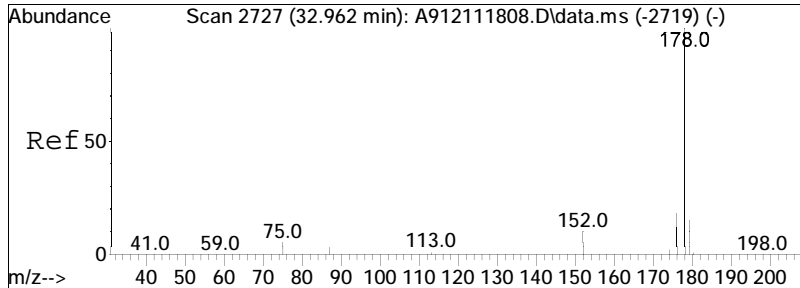




#52
 Retene
 Concen: 295.87 ng/mL M4
 RT: 39.480 min Scan# 3441
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

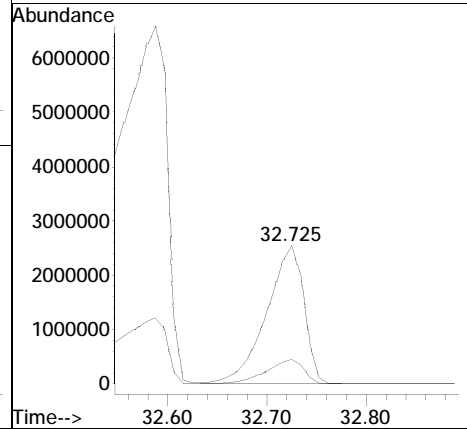
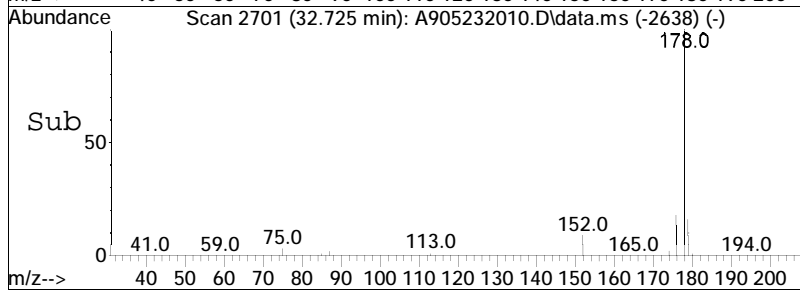
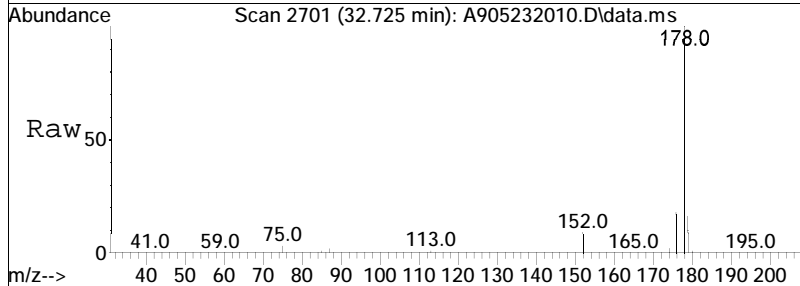
Tgt Ion	Resp	Lower	Upper
234	11294		
219	176.3	104.0	193.2

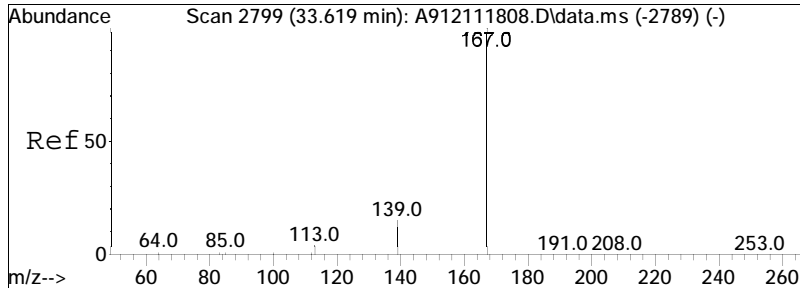




#53
 Anthracene
 Concen: 66145.45 ng/mL
 RT: 32.725 min Scan# 2701
 Delta R.T. 0.073 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

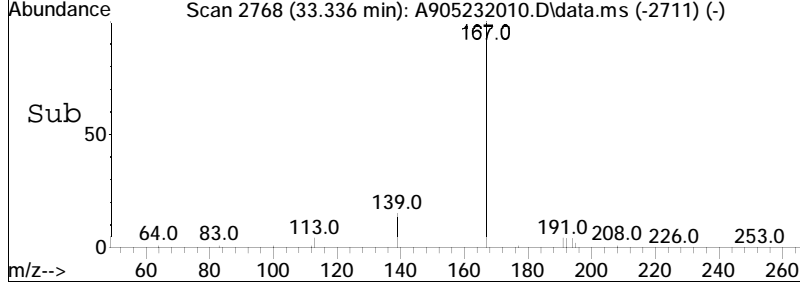
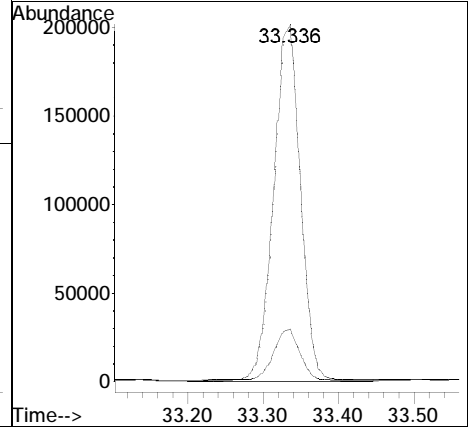
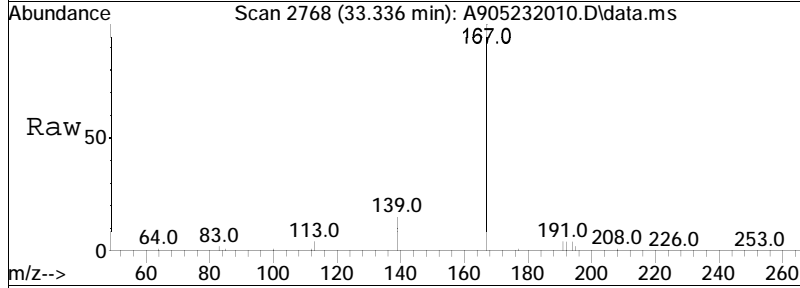
Tgt Ion: 178 Resp: 6672153
 Ion Ratio Lower Upper
 178 100
 176 17.8 13.3 24.7

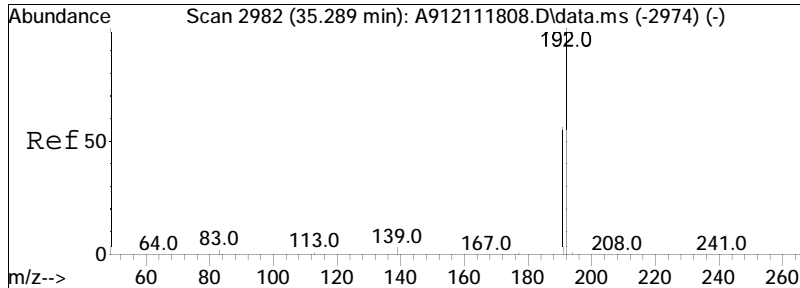




#54
 Carbazole
 Concen: 4632.39 ng/mL
 RT: 33.336 min Scan# 2768
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

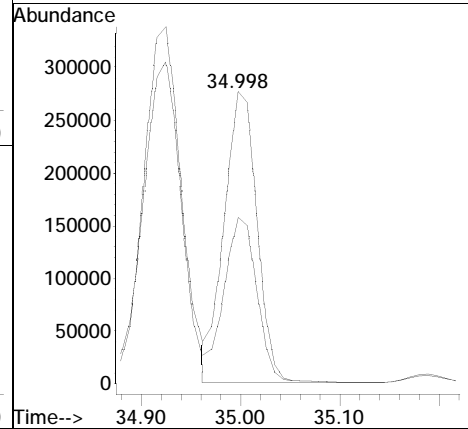
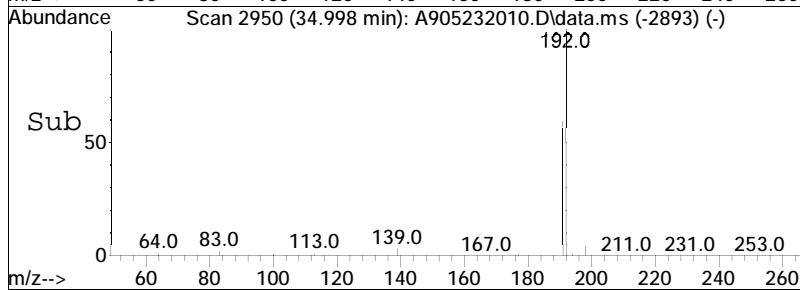
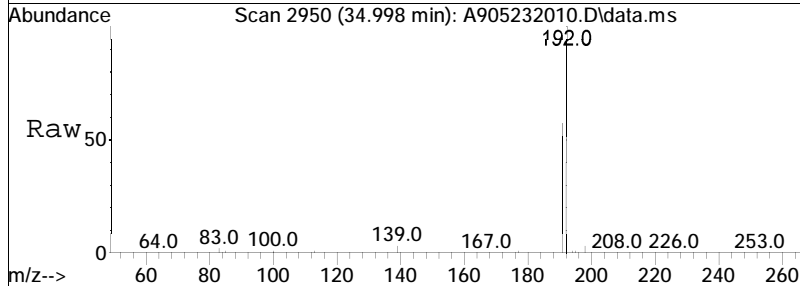
Tgt Ion	Resp	Lower	Upper
167	100		
139	14.6	10.4	19.4

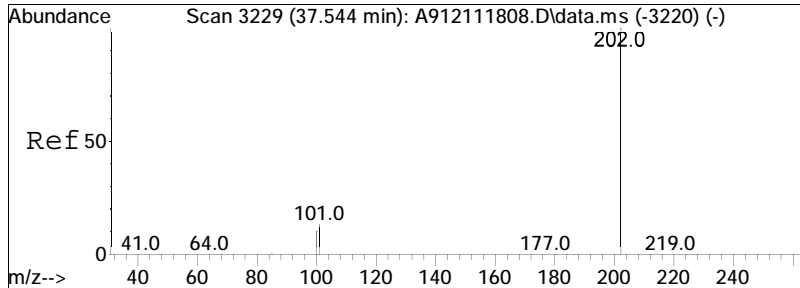




#55
 1-Methylphenanthrene
 Concen: 7555.15 ng/mL
 RT: 34.998 min Scan# 2950
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

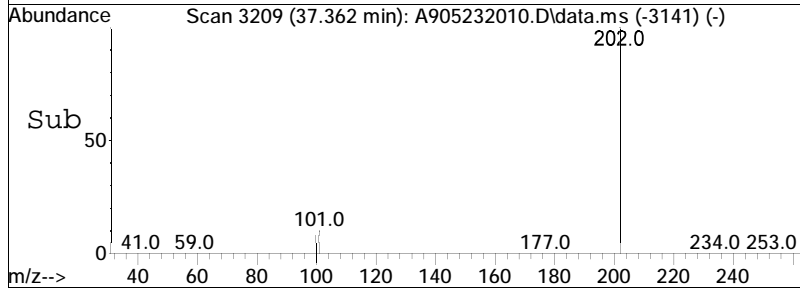
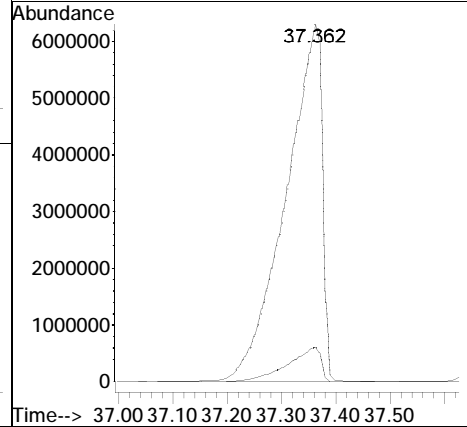
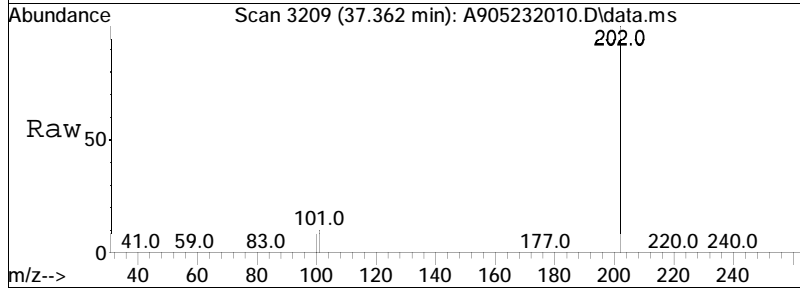
Tgt Ion: 192 Resp: 635577
 Ion Ratio Lower Upper
 192 100
 191 57.0 39.0 72.4

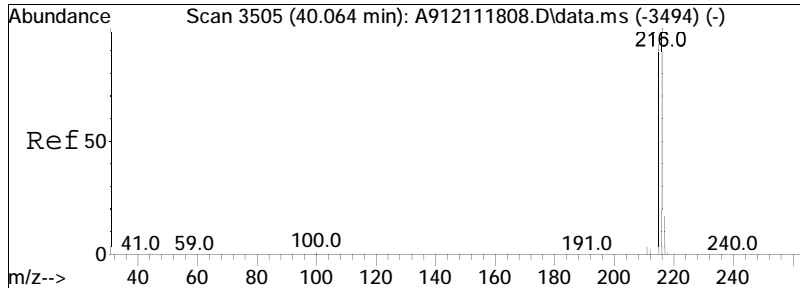




#56
 Fluoranthene
 Concen: 217039.18 ng/mL M4
 RT: 37.362 min Scan# 3209
 Delta R.T. 0.119 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

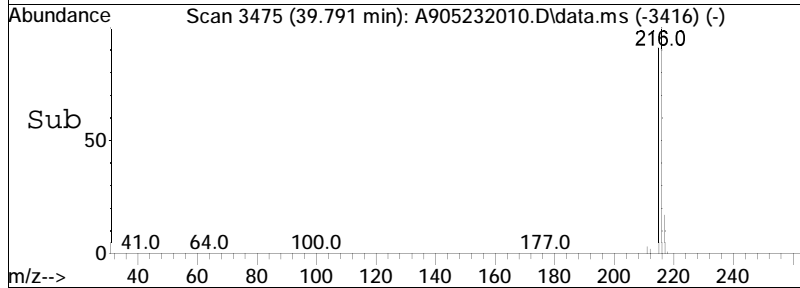
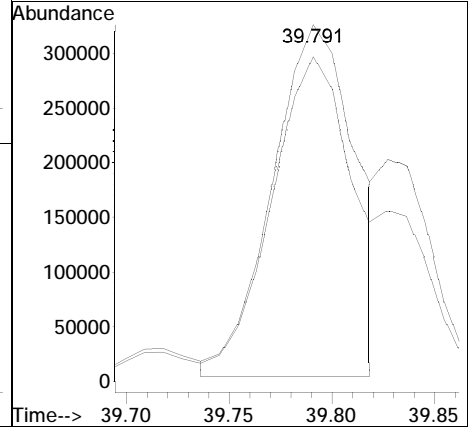
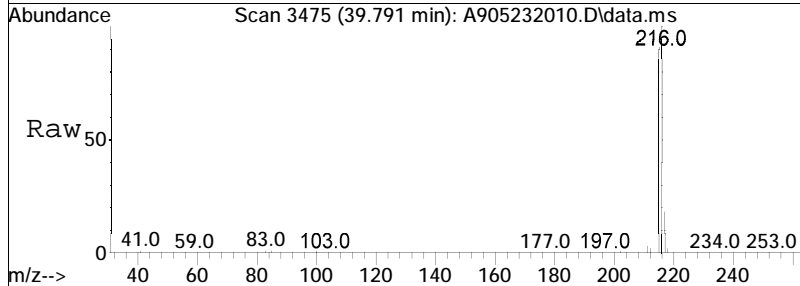
Tgt Ion: 202 Resp: 29101930
 Ion Ratio Lower Upper
 202 100
 101 9.0 6.8 12.6

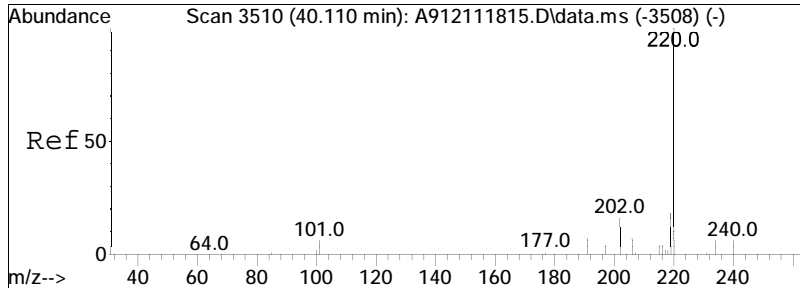




#57
 Benzo(b)fluorene
 Concen: 11359.76 ng/mL M3
 RT: 39.791 min Scan# 3475
 Delta R.T. 0.037 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

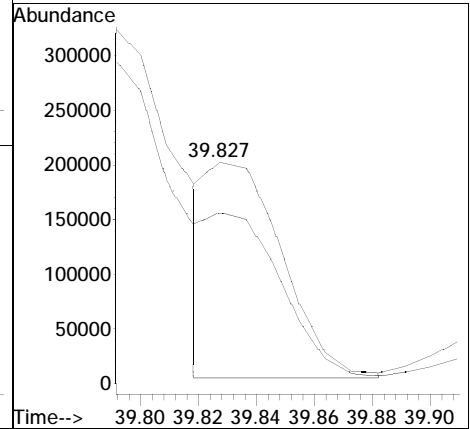
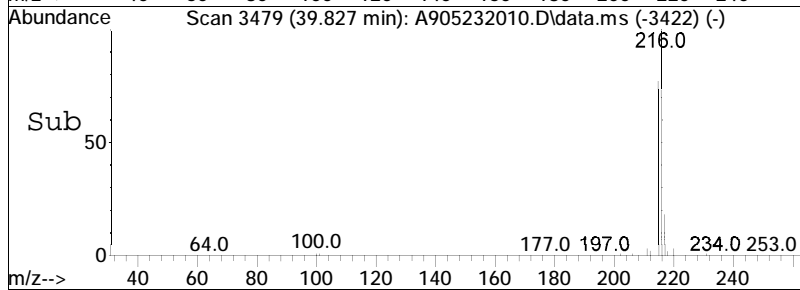
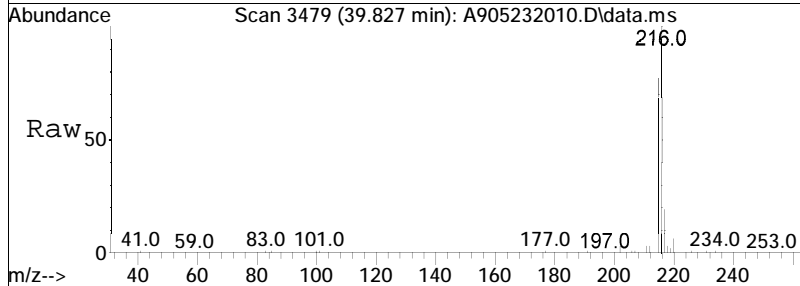
Tgt Ion	Resp	Lower	Upper
216	100		
215	115.7	64.8	120.4

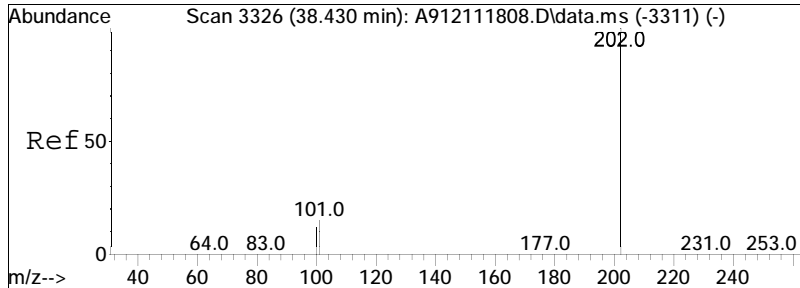




#58
 7H-Benzo(c)fluorene
 Concen: 4345.77 ng/mL M3
 RT: 39.827 min Scan# 3479
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

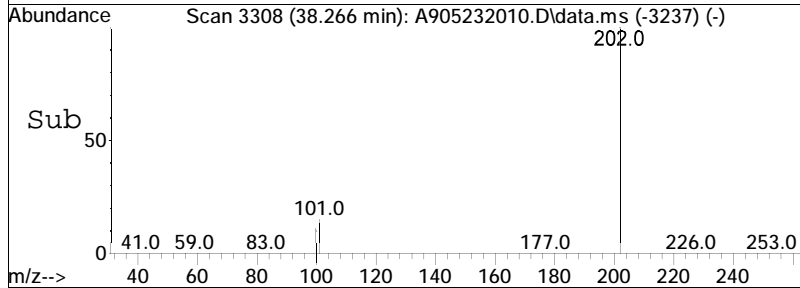
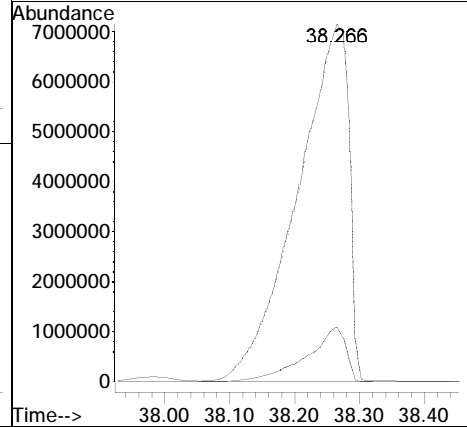
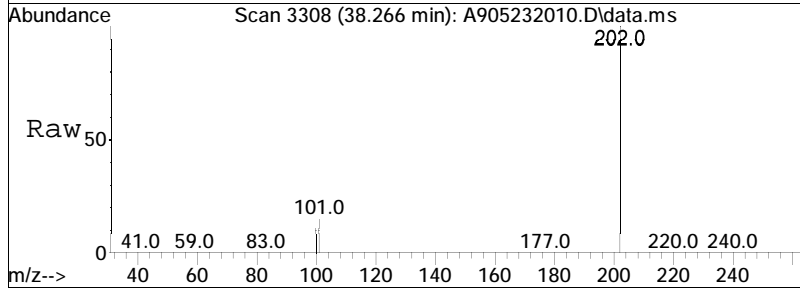
Tgt Ion: 216 Resp: 345224
 Ion Ratio Lower Upper
 216 100
 215 204.2 98.9 183.7#

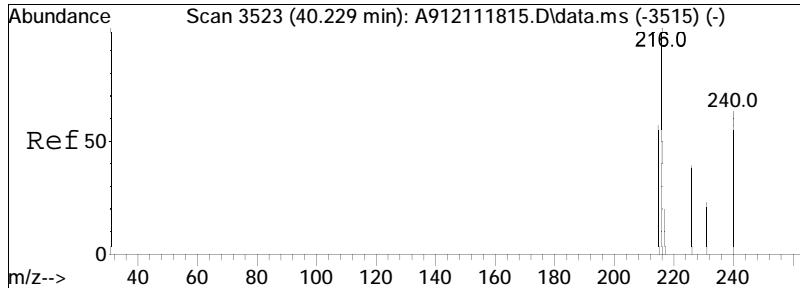




#59
 Pyrene
 Concen: 275270.21 ng/mL
 RT: 38.266 min Scan# 3308
 Delta R.T. 0.146 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

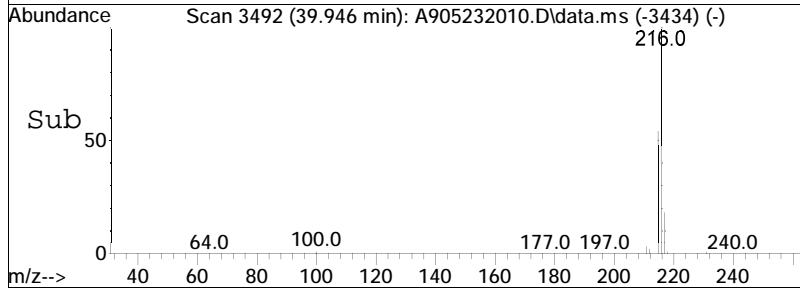
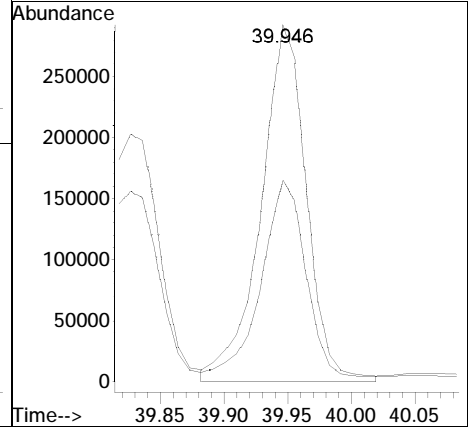
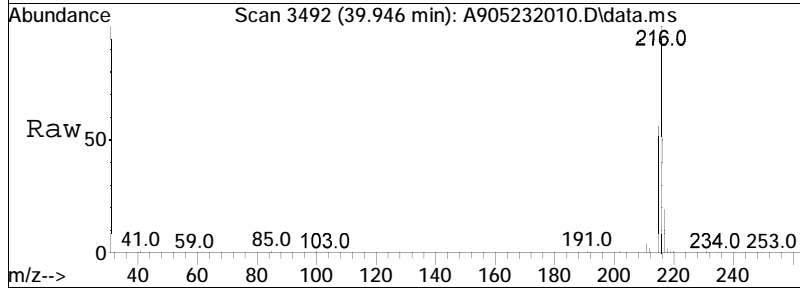
Tgt Ion: 202 Resp: 38974718
 Ion Ratio Lower Upper
 202 100
 101 11.8 7.6 14.0

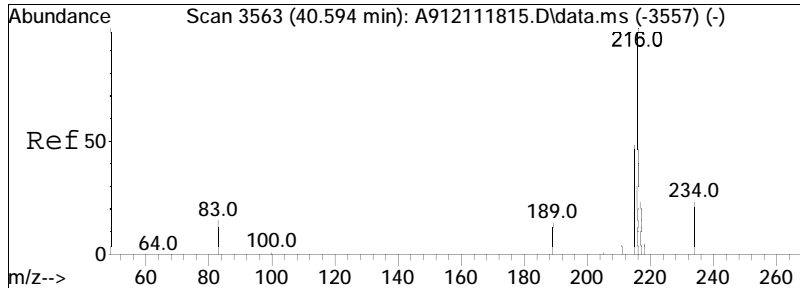




#60
 2-Methylpyrene
 Concen: 5126.43 ng/mL M4
 RT: 39.946 min Scan# 3492
 Delta R.T. 0.028 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

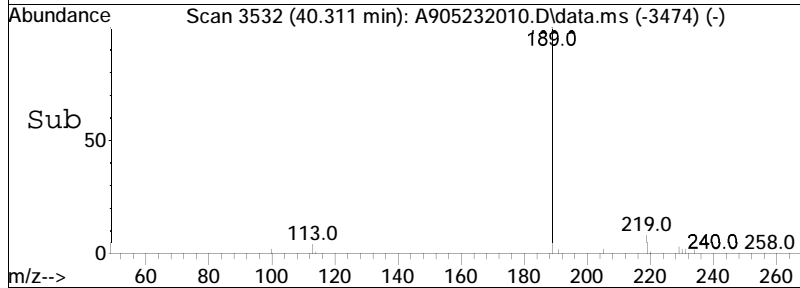
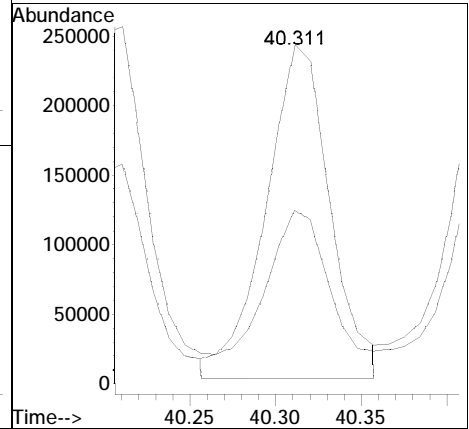
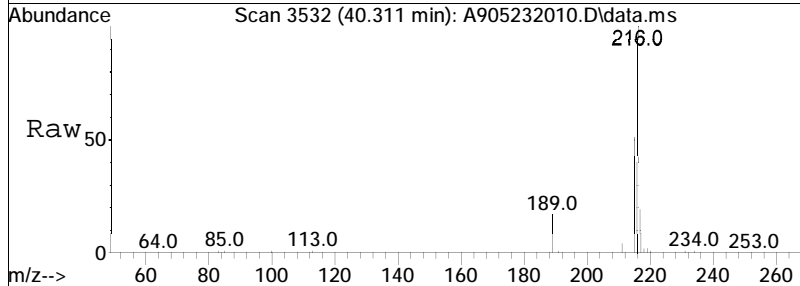
Tgt Ion	Resp	Lower	Upper
216	100		
215	143.8	72.7	134.9#

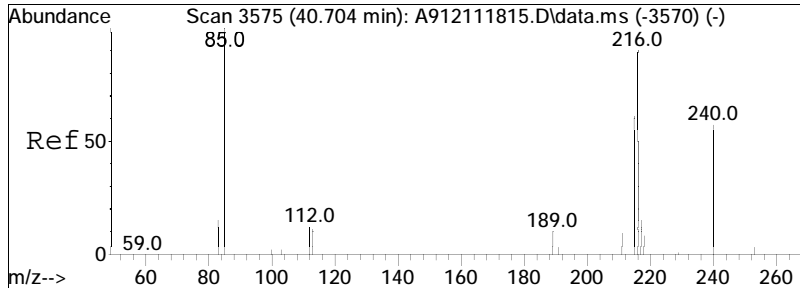




#61
 4-Methylpyrene
 Concen: 4424.93 ng/mL
 RT: 40.311 min Scan# 3532
 Delta R.T. 0.028 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

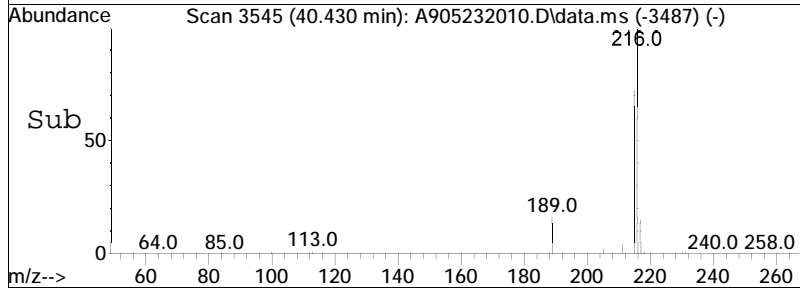
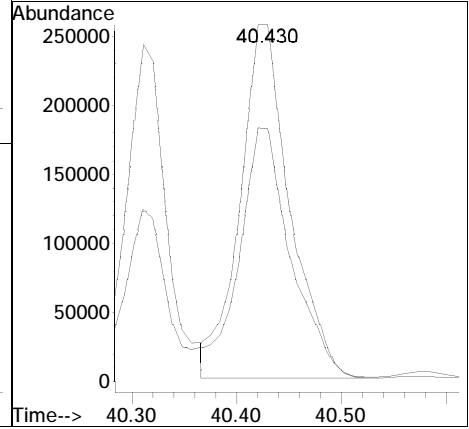
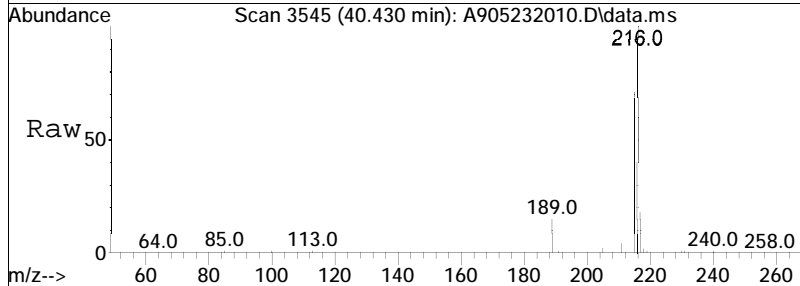
Tgt Ion: 216 Resp: 626513
 Ion Ratio Lower Upper
 216 100
 215 52.7 49.3 91.5

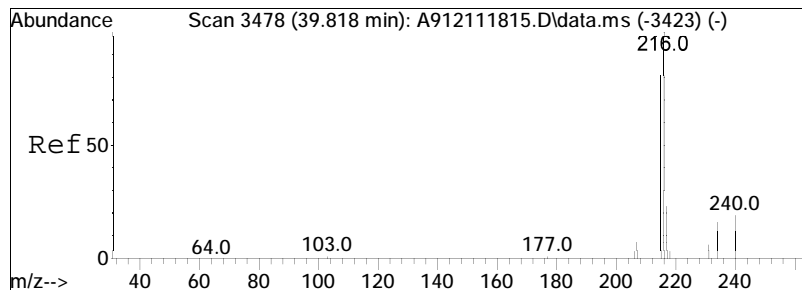




#62
 1-Methylpyrene
 Concen: 5953.50 ng/mL
 RT: 40.430 min Scan# 3545
 Delta R.T. 0.028 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

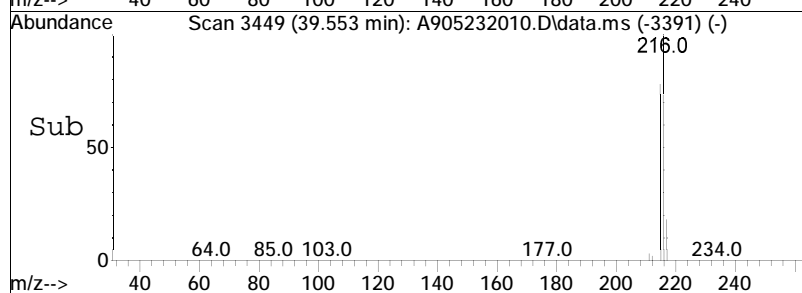
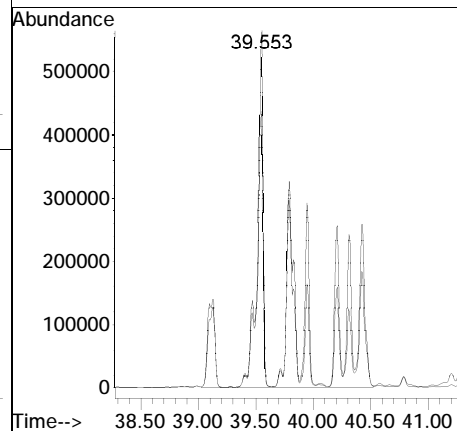
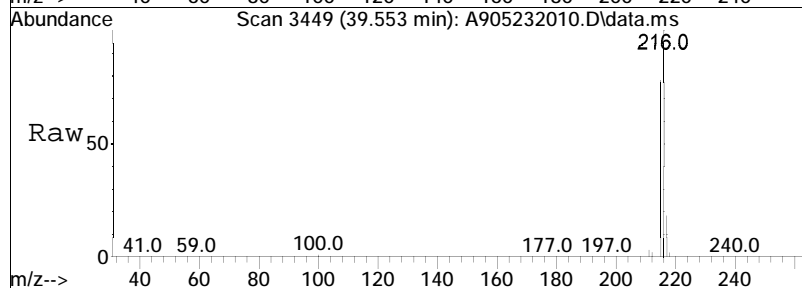
Tgt Ion	Ratio	Lower	Upper
216	100		
215	72.2	66.6	123.8

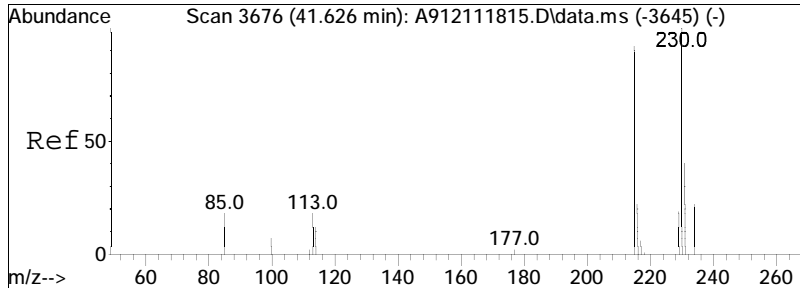




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 46856.03 ng/mL M5
 RT: 39.553 min Scan# 3449
 Delta R.T. 0.050 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

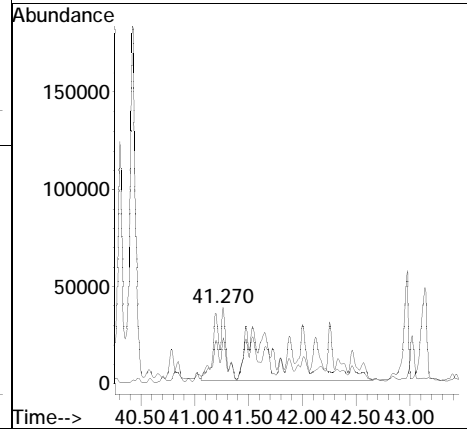
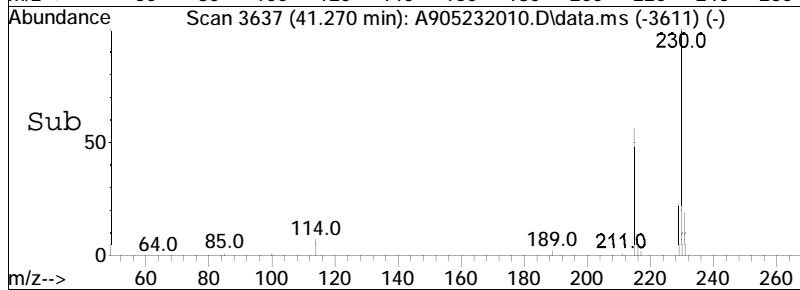
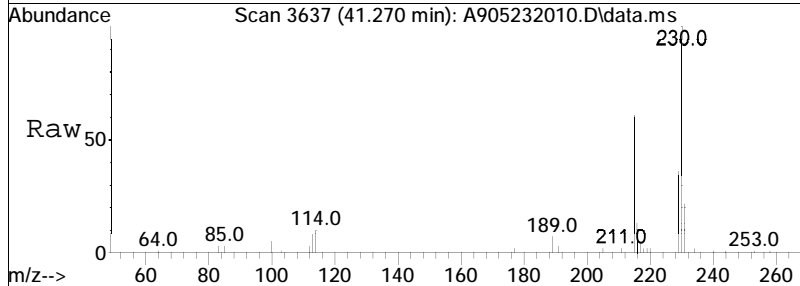
Tgt Ion: 216 Resp: 6634211
 Ion Ratio Lower Upper
 216 100
 215 18.8 63.1 117.1#

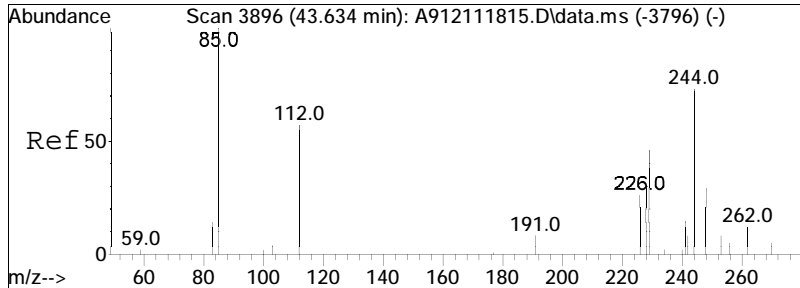




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 8371.49 ng/mL M5
 RT: 41.270 min Scan# 3637
 Delta R.T. -0.039 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

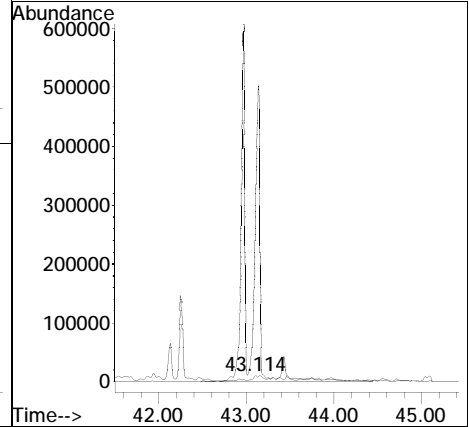
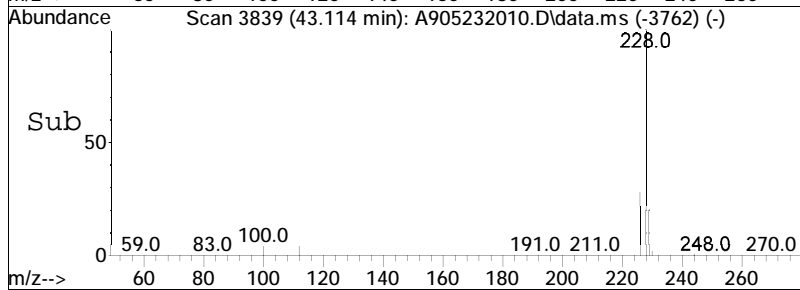
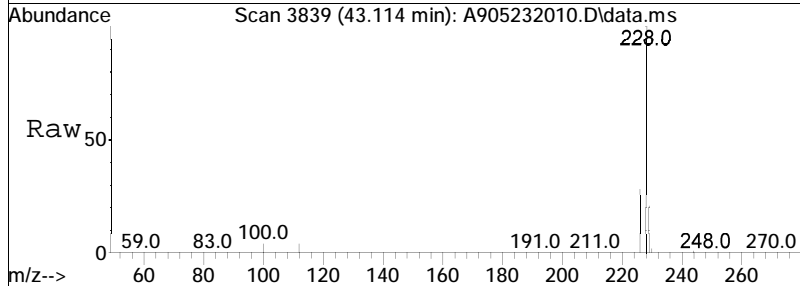
Tgt Ion: 230 Resp: 1185295
 Ion Ratio Lower Upper
 230 100
 215 1.7 79.7 148.1#

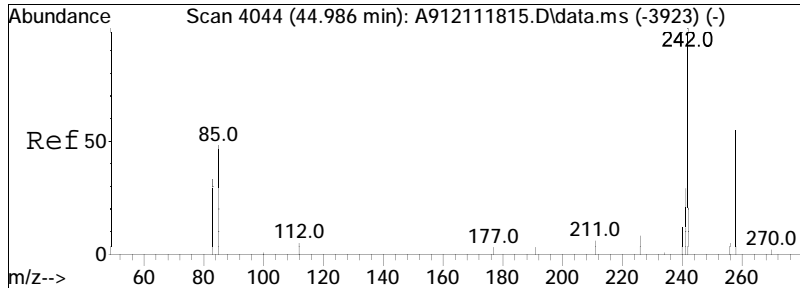




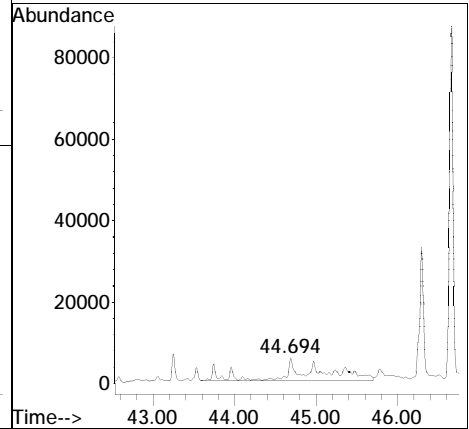
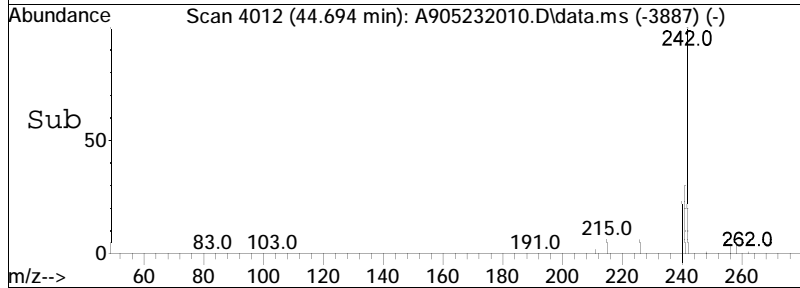
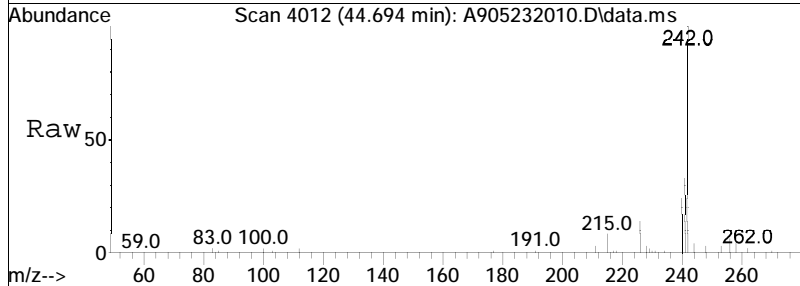
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 2607.45 ng/mL M5
 RT: 43.114 min Scan# 3839
 Delta R.T. -0.211 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

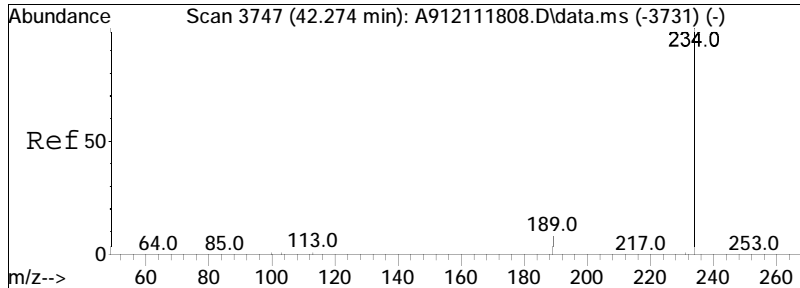
Tgt Ion: 244 Resp: 369182
 Ion Ratio Lower Upper
 244 100
 229 1.9 67.7 125.7#





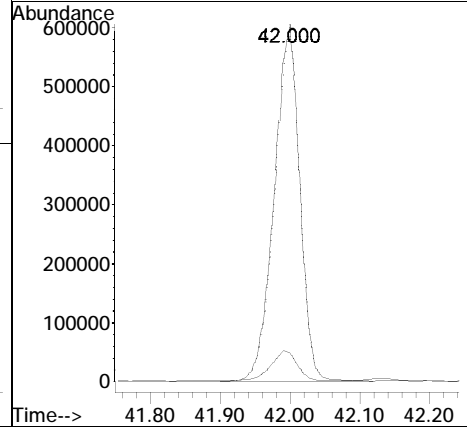
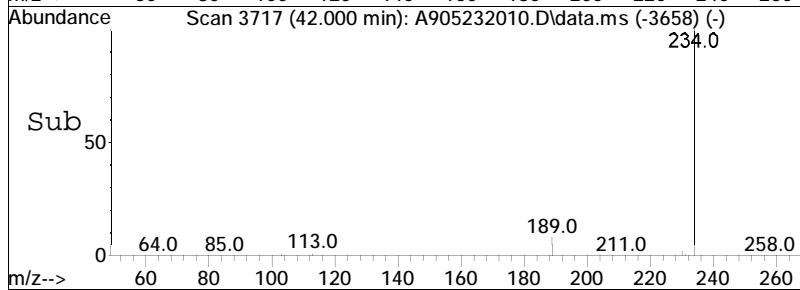
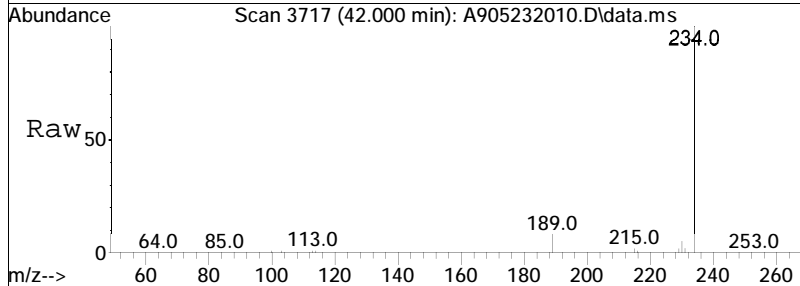
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 1185.65 ng/mL M5
 RT: 44.694 min Scan# 4012
 Delta R.T. 0.019 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:258 Resp: 167873

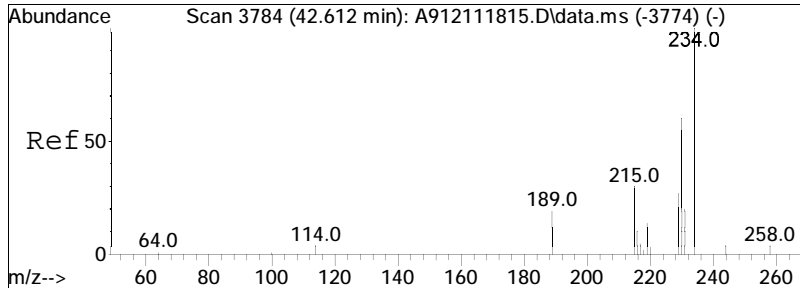




#67
 Naphthobenzothiophene-2,1-D
 Concen: 13278.08 ng/mL
 RT: 42.000 min Scan# 3717
 Delta R.T. 0.037 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

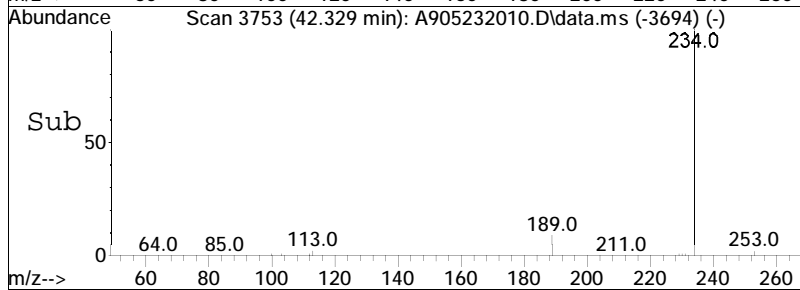
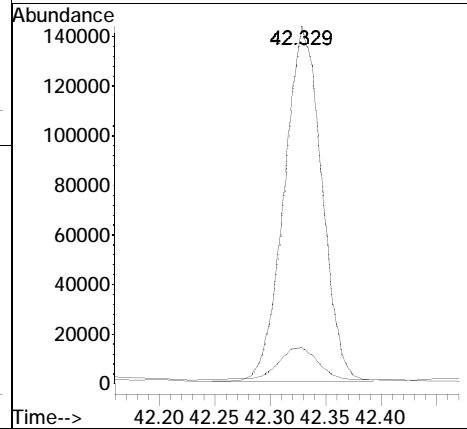
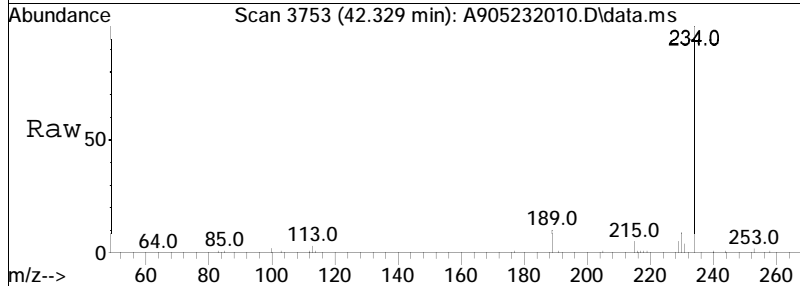
Tgt Ion: 234 Resp: 1502203
 Ion Ratio Lower Upper
 234 100
 189 8.9 6.1 11.3

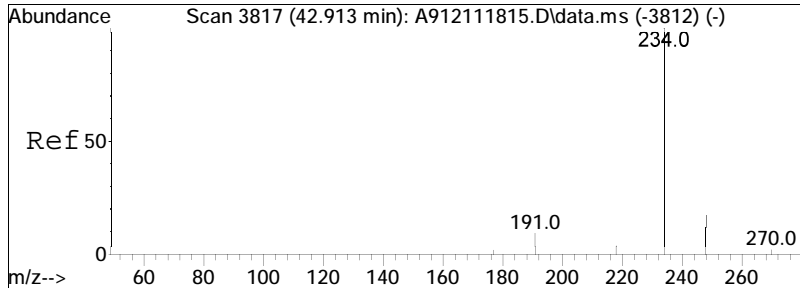




#68
 Naphthobenzothiophene-1,2-D
 Concen: 2938.73 ng/mL
 RT: 42.329 min Scan# 3753
 Delta R.T. 0.035 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

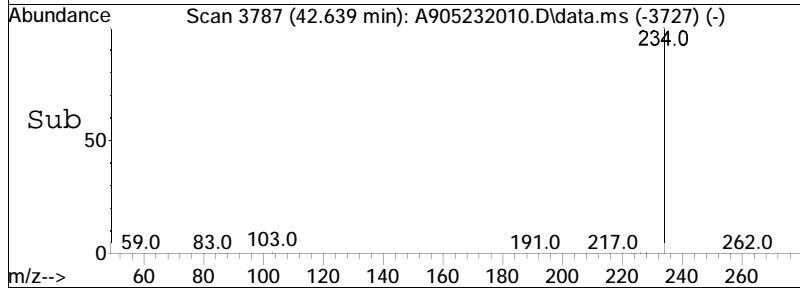
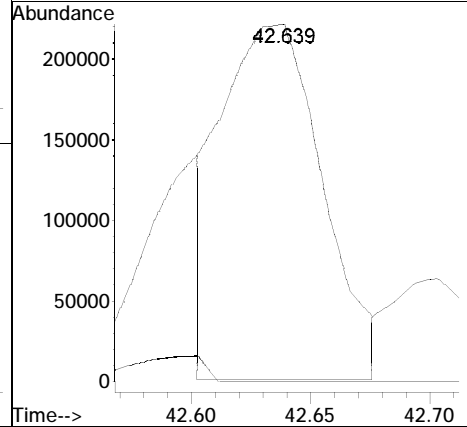
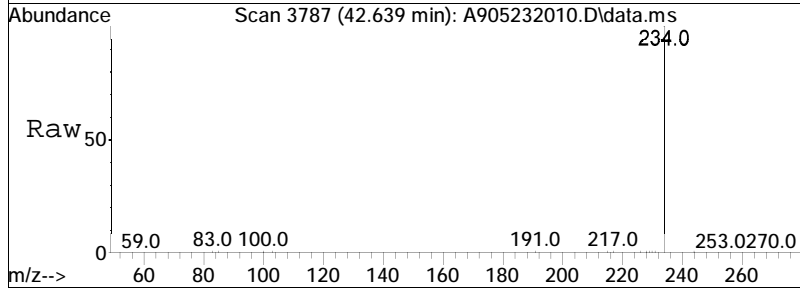
Tgt Ion	Resp	Lower	Upper
234	100		
189	12.5	56.5	104.9#

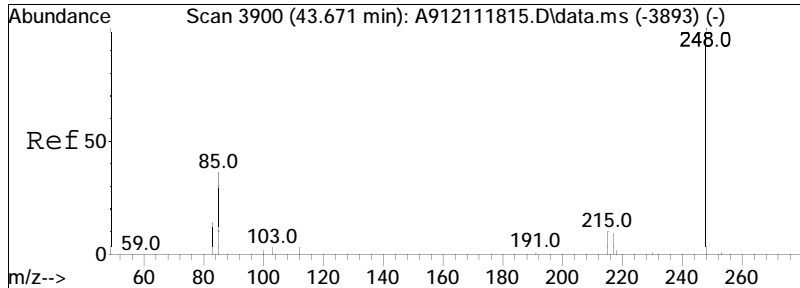




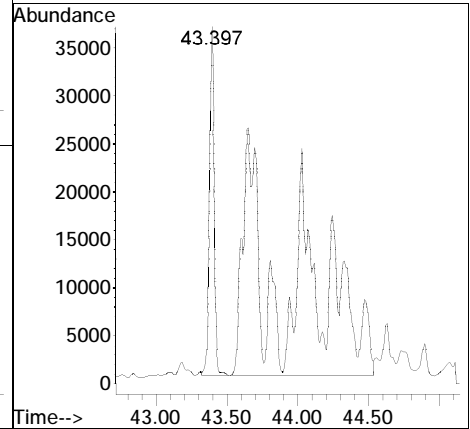
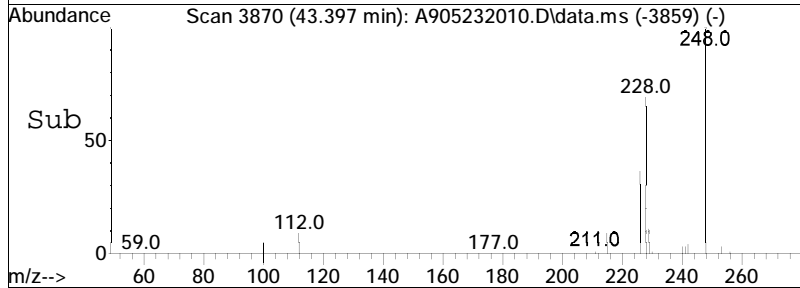
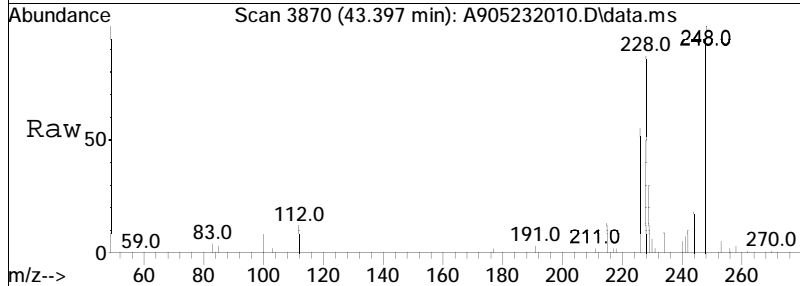
#69
 Naphthobenzothiophene-2,3-D
 Concen: 5638.65 ng/mL M3
 RT: 42.639 min Scan# 3787
 Delta R.T. 0.044 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

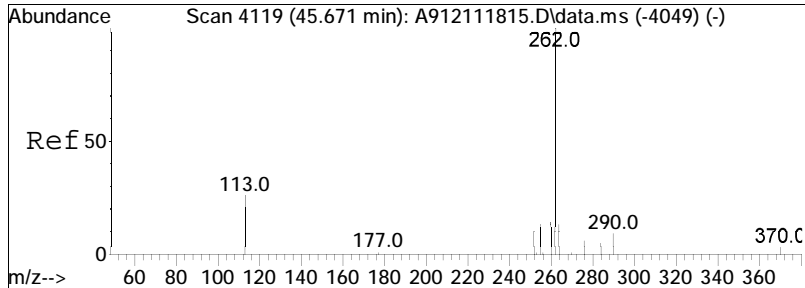
Tgt Ion: 234 Resp: 637924
 Ion Ratio Lower Upper
 234 100
 189 0.0 75.1 139.5#



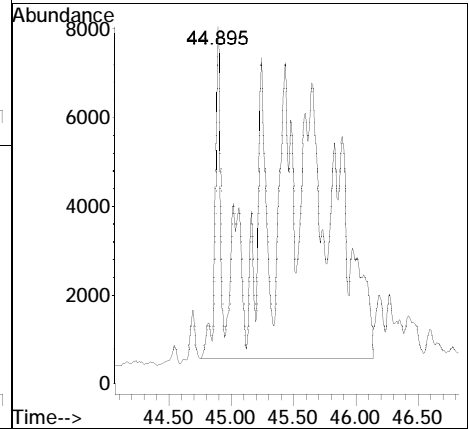
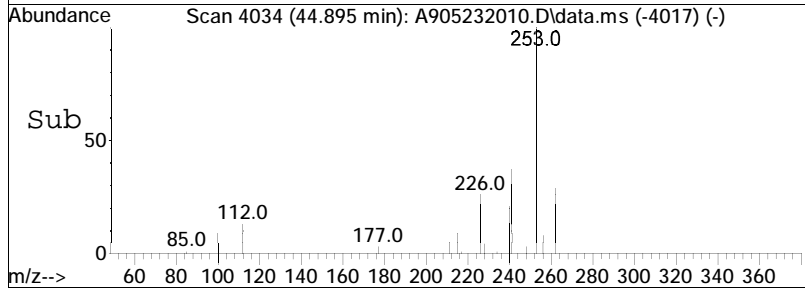
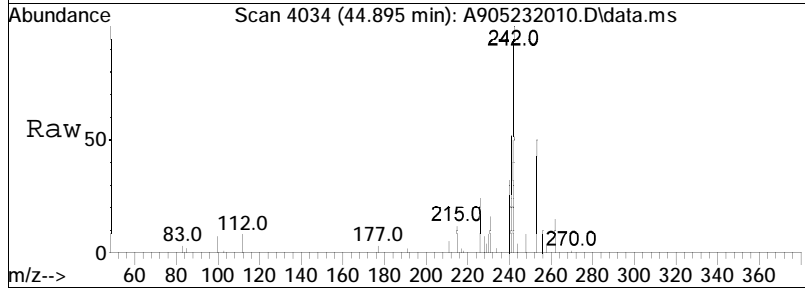


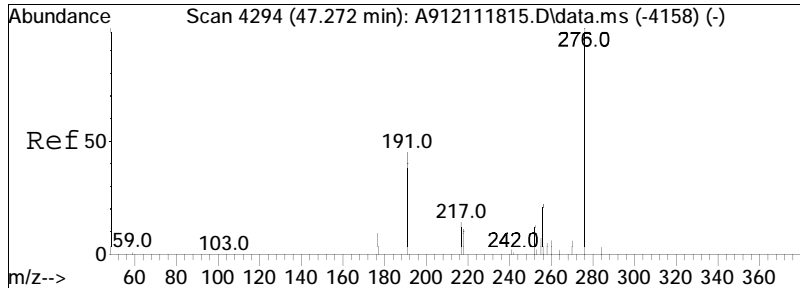
#70
 Cl-Naphthobenzothiophenes
 Concen: 5491.38 ng/ml M5
 RT: 43.397 min Scan# 3870
 Delta R.T. 0.045 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion:248 Resp: 621262



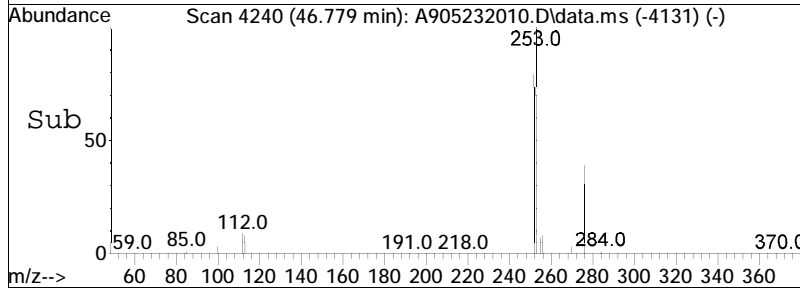
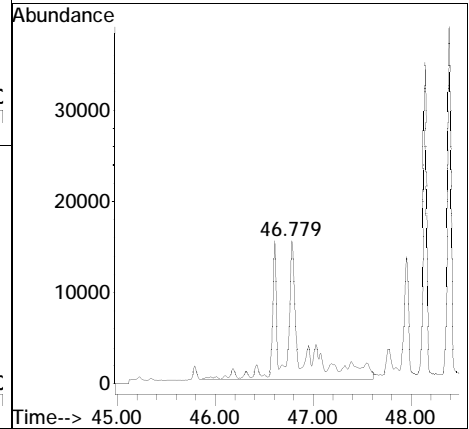
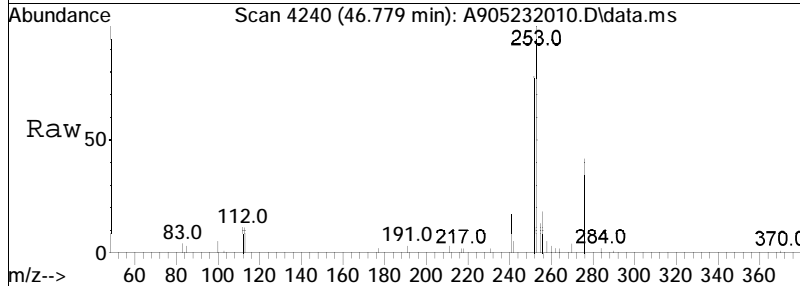


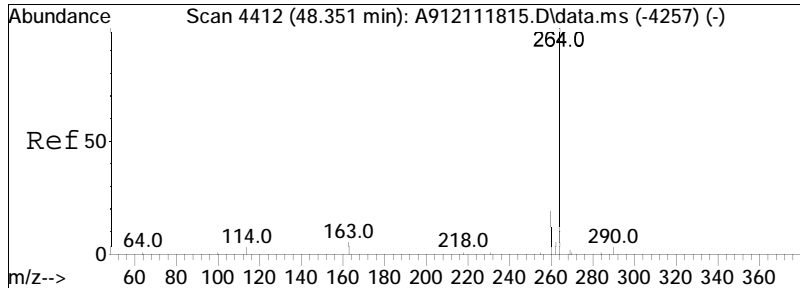
#71
 C2-Naphthobenzothiophenes
 Concen: 2131.35 ng/ml M5
 RT: 44.895 min Scan# 4034
 Delta R.T. -0.455 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 262 Resp: 241128



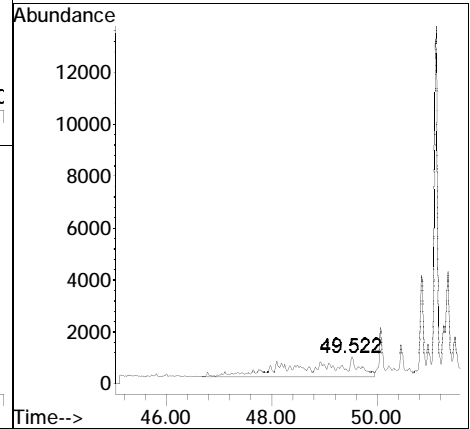
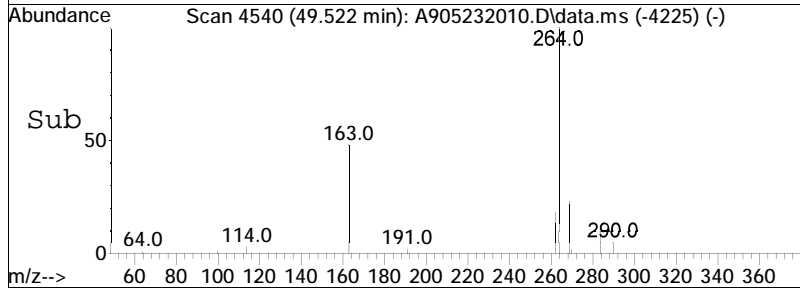
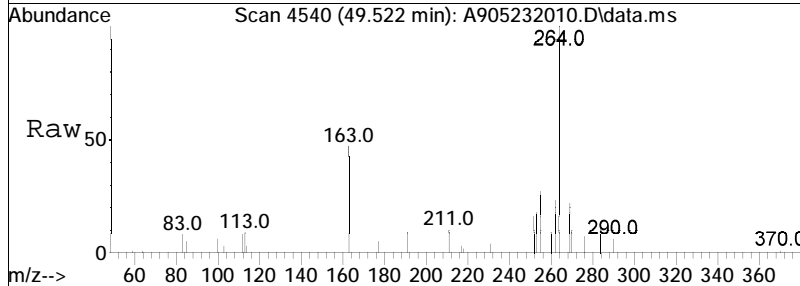


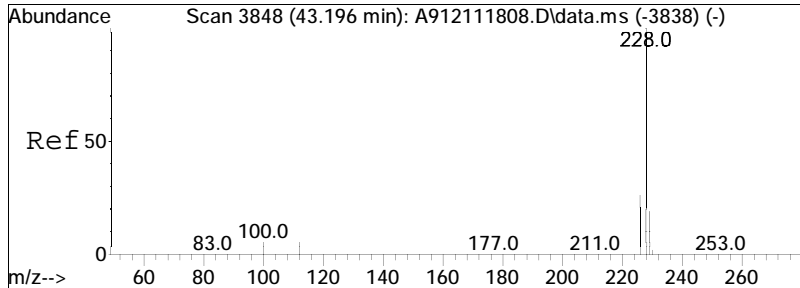
#72
 C3-Naphthobenzothiophenes
 Concen: 1651.05 ng/ml M5
 RT: 46.779 min Scan# 4240
 Delta R.T. -0.171 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 276 Resp: 186790





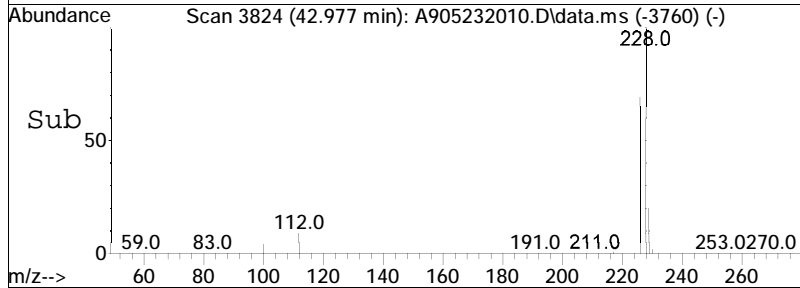
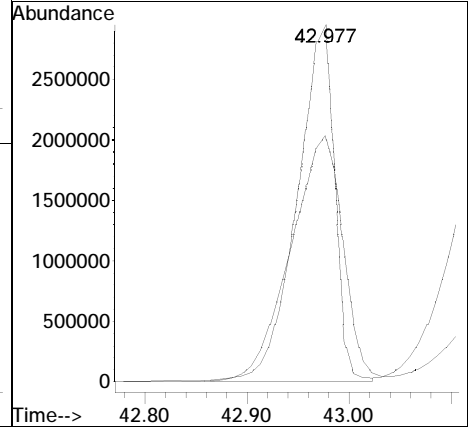
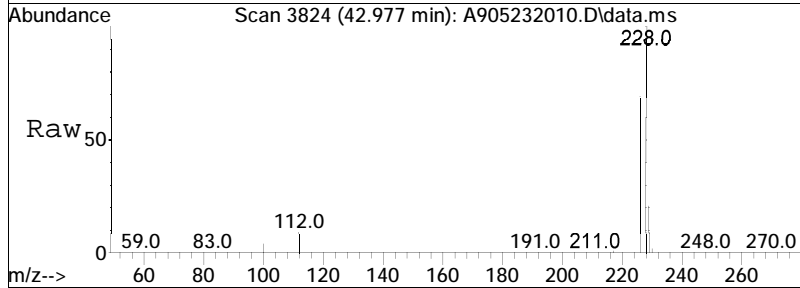
#73
 C4-Naphthobenzothiophenes
 Concen: 451.29 ng/mL M5
 RT: 49.522 min Scan# 4540
 Delta R.T. 1.513 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am
 Tgt Ion: 290 Resp: 51056

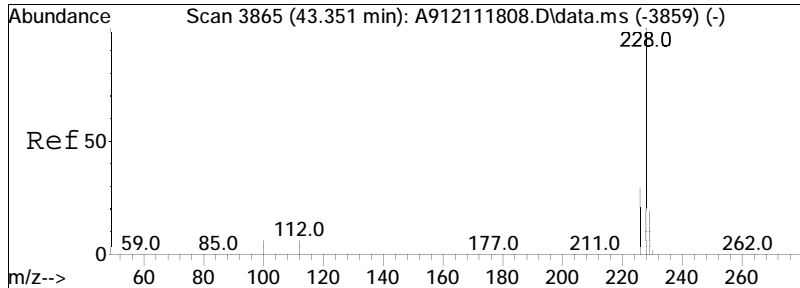




#75
 Benz[a]anthracene
 Concen: 51015.17 ng/mL M4
 RT: 42.977 min Scan# 3824
 Delta R.T. 0.082 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

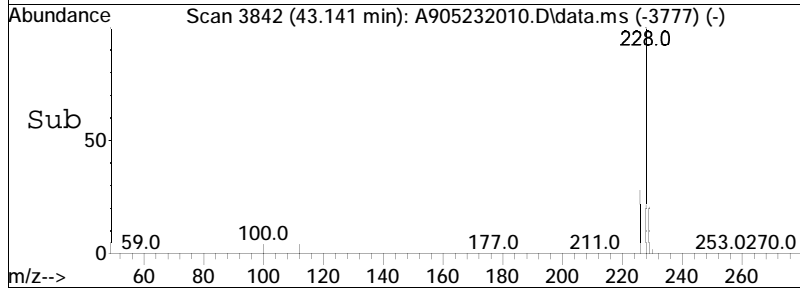
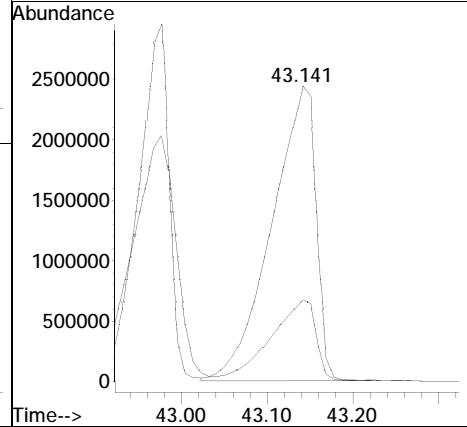
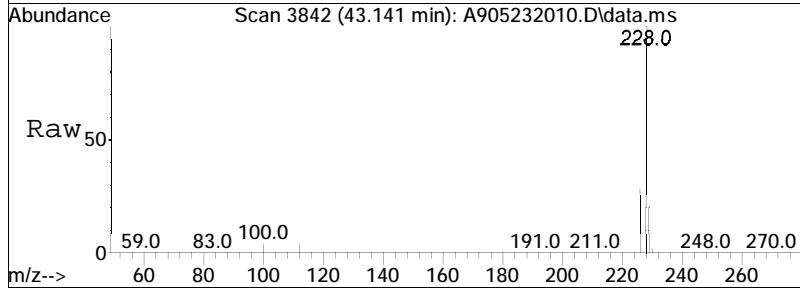
Tgt Ion: 228 Resp: 7525551
 Ion Ratio Lower Upper
 228 100
 226 32.1 19.0 35.2

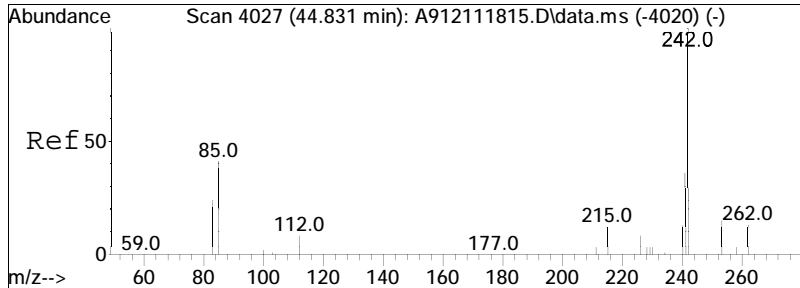




#77
 Chrysene/Triphenylene
 Concen: 56191.95 ng/mL
 RT: 43.141 min Scan# 3842
 Delta R.T. 0.092 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

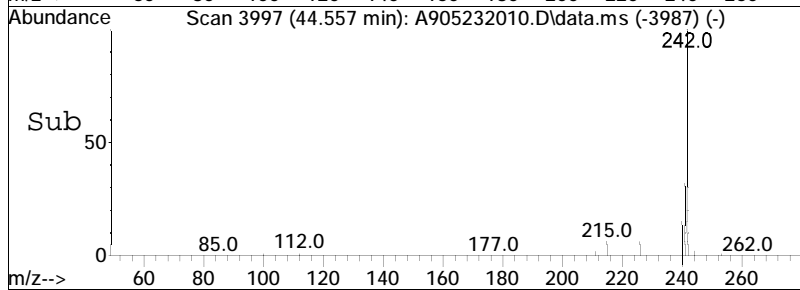
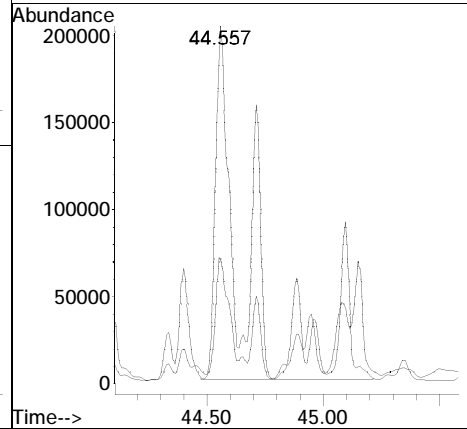
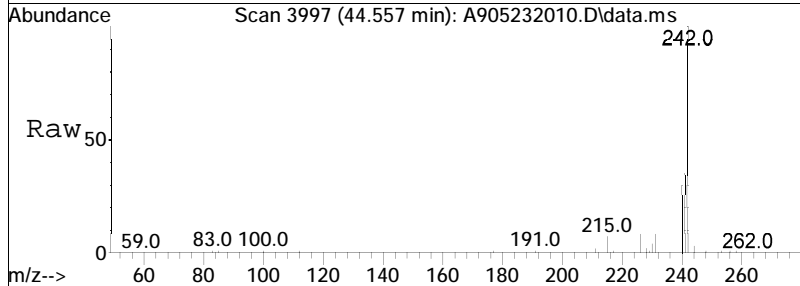
Tgt Ion: 228 Resp: 8696527
 Ion Ratio Lower Upper
 228 100
 226 27.8 21.0 39.0

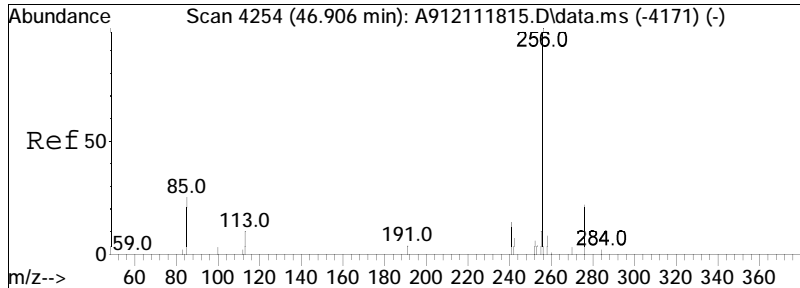




#78
 C1-Chrysenes
 Concen: 11268.21 ng/mL M5
 RT: 44.557 min Scan# 3997
 Delta R.T. 0.029 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

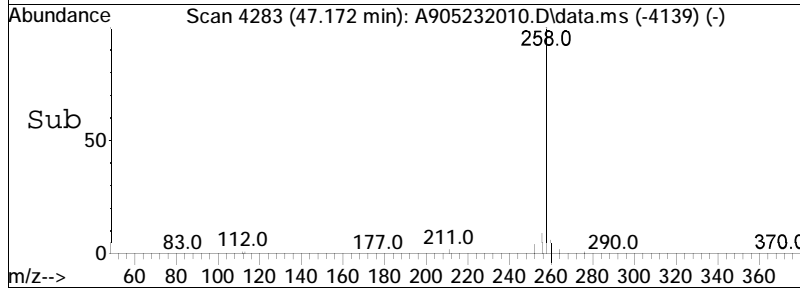
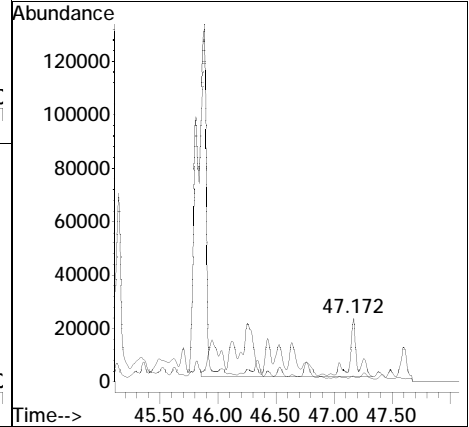
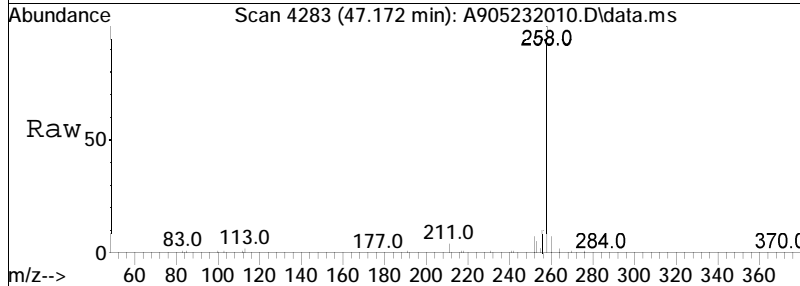
Tgt Ion: 242 Resp: 1743920
 Ion Ratio Lower Upper
 242 100
 241 10.5 30.5 56.7#

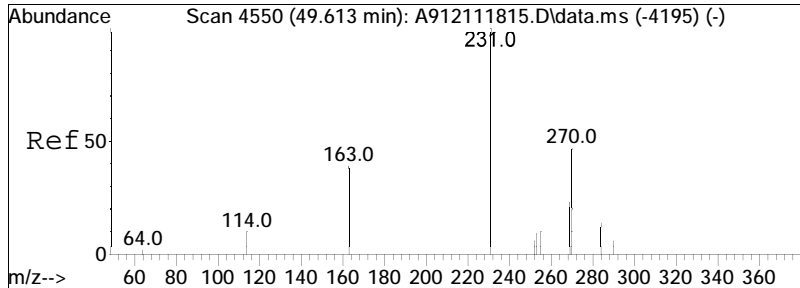




#79
 C2-Chrysenes
 Concen: 3582.25 ng/mL M5
 RT: 47.172 min Scan# 4283
 Delta R.T. 0.581 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

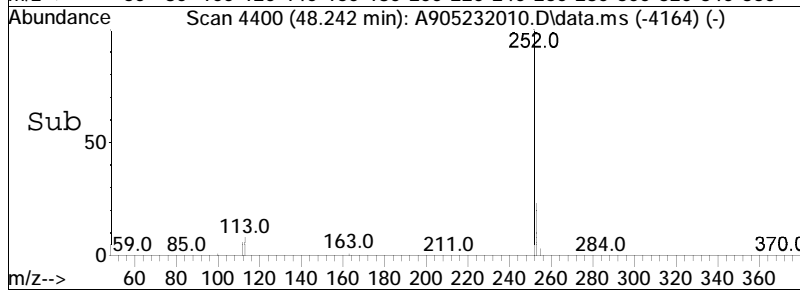
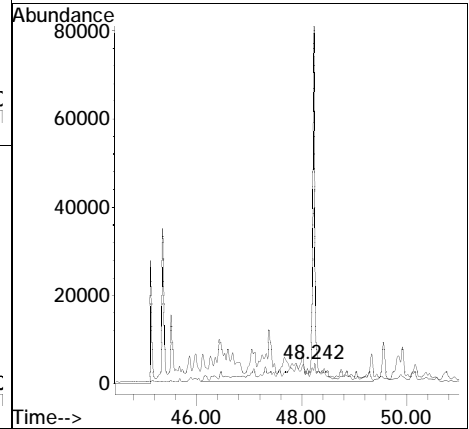
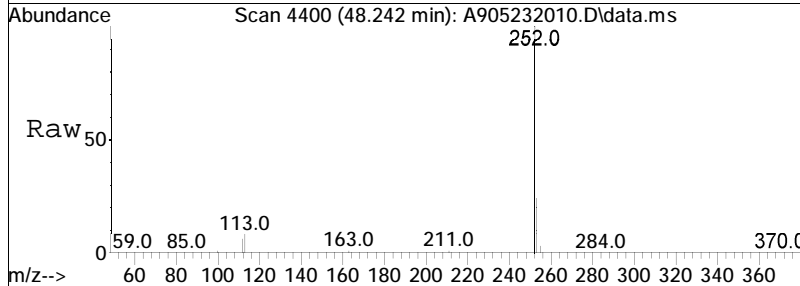
Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.9	26.4	49.0#

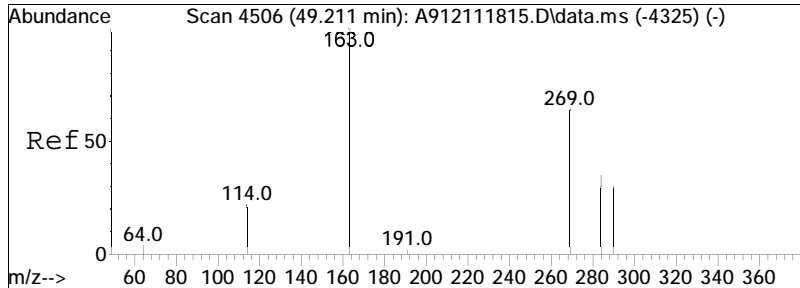




#81
 C3-Chrysenes
 Concen: 1830.99 ng/mL M5
 RT: 48.242 min Scan# 4400
 Delta R.T. -1.020 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

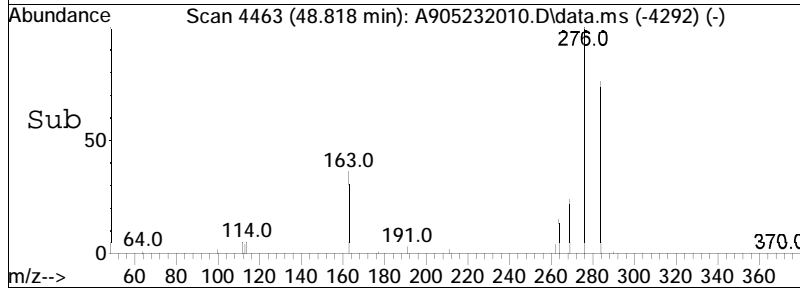
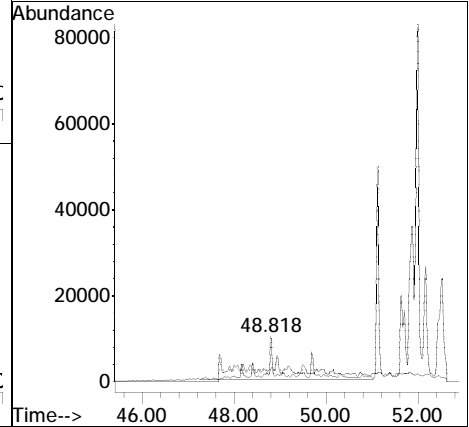
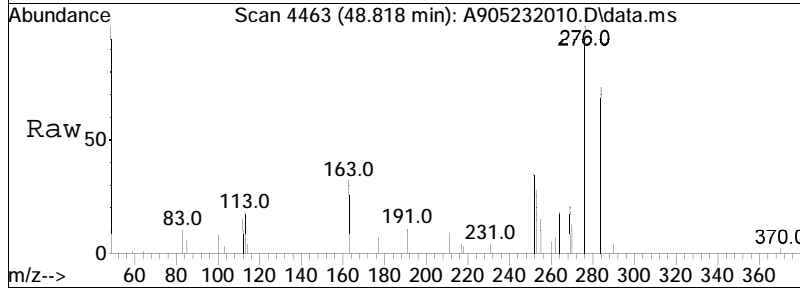
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.0	37.7	69.9#

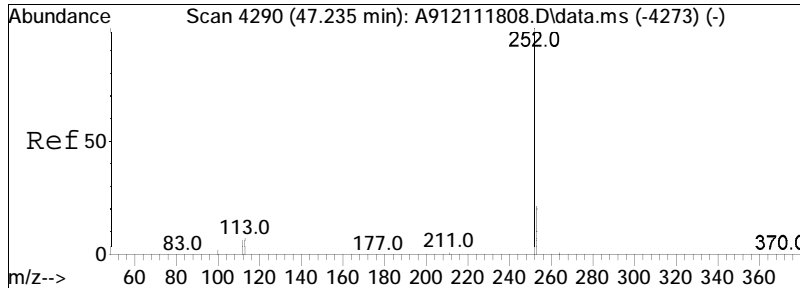




#82
 C4-Chrysenes
 Concen: 1286.26 ng/mL M5
 RT: 48.818 min Scan# 4463
 Delta R.T. -0.063 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

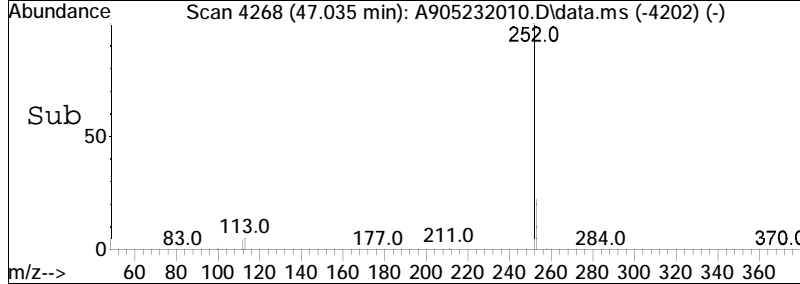
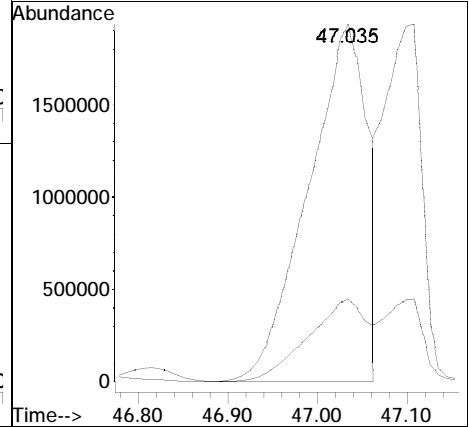
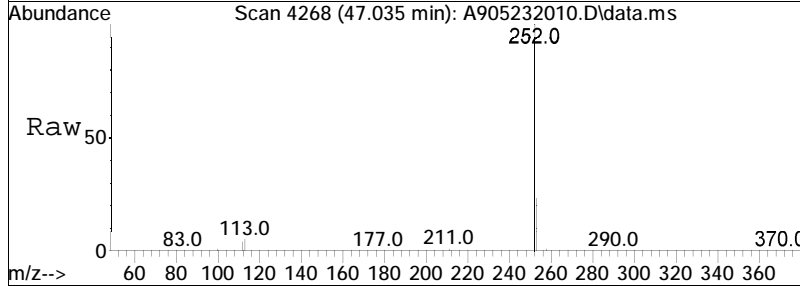
Tgt Ion	Ratio	Lower	Upper
284	100		
269	8.0	73.8	137.2#

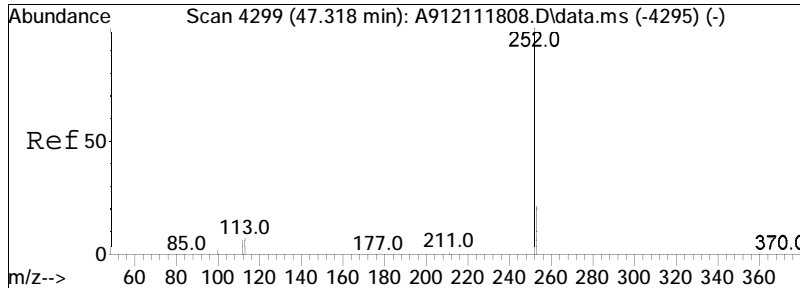




#84
 Benzo[b]fluoranthene
 Concen: 49101.31 ng/mL
 RT: 47.035 min Scan# 4268
 Delta R.T. 0.101 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

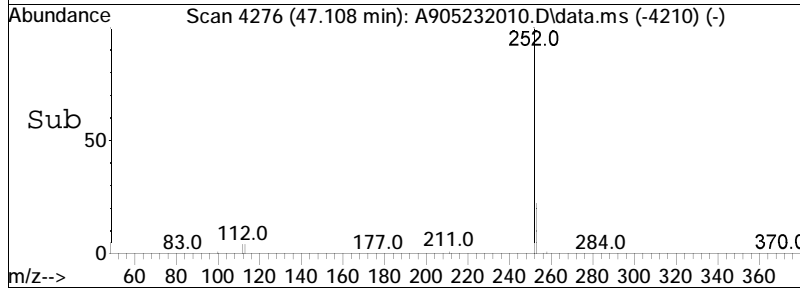
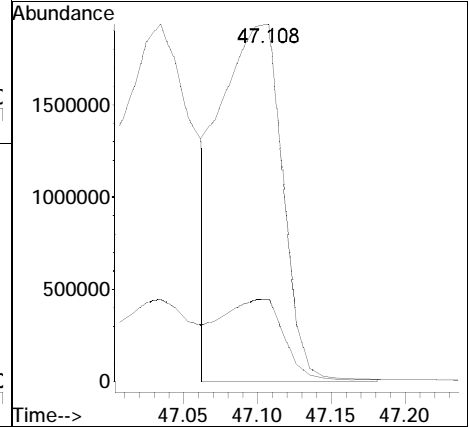
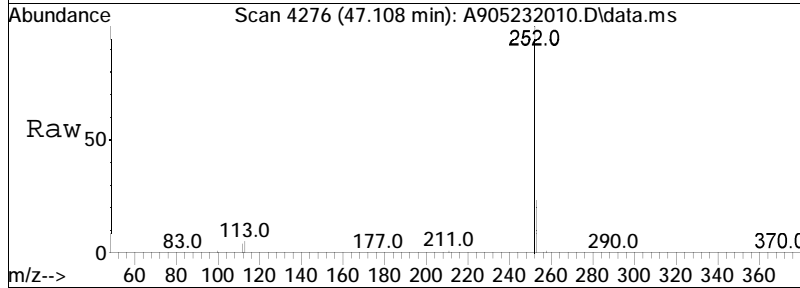
Tgt Ion: 252 Resp: 8855527
 Ion Ratio Lower Upper
 252 100
 253 22.7 17.3 32.1

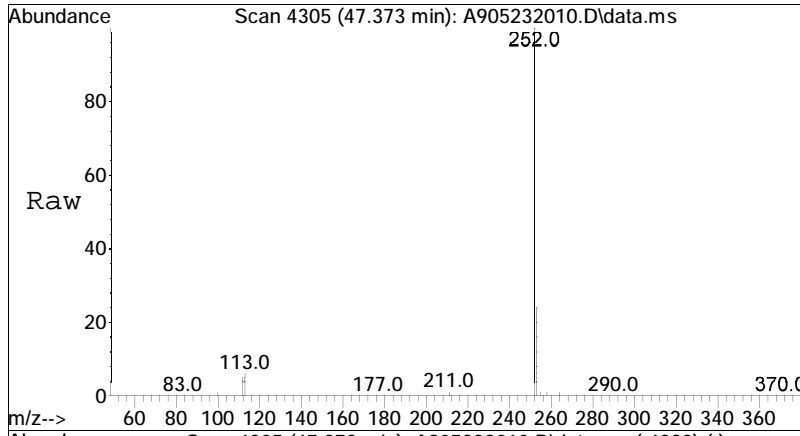




#85
 Benzo[j]+[k]fluoranthene
 Concen: 31770.97 ng/mL M3
 RT: 47.108 min Scan# 4276
 Delta R.T. 0.101 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

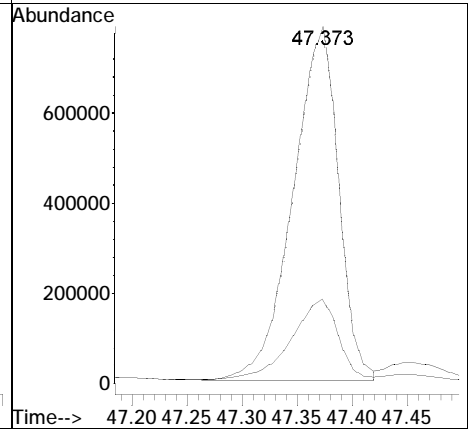
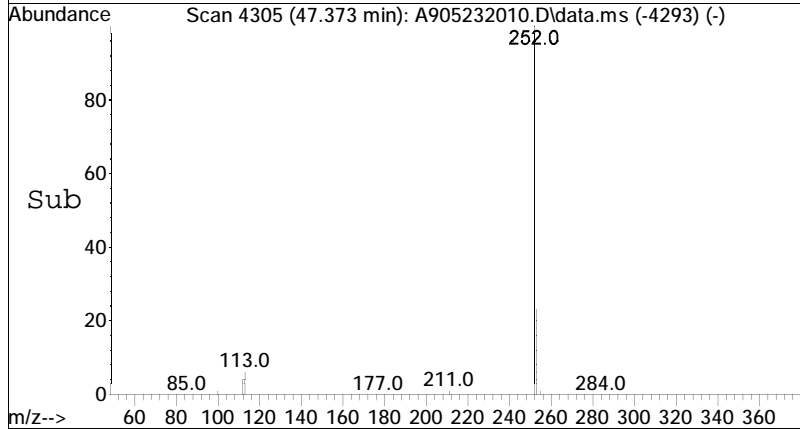
Tgt Ion	Resp	Lower	Upper
252	100		
253	35.6	17.6	32.8#

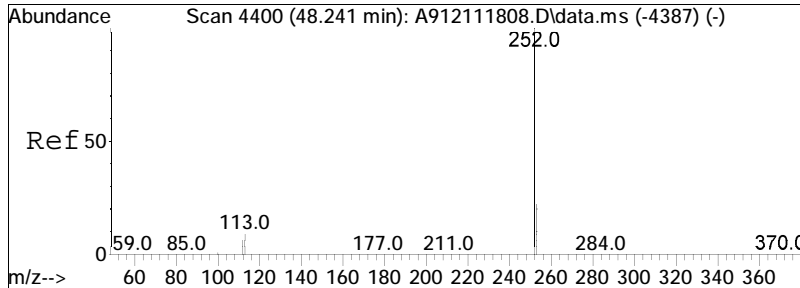




#87
 Benzo[a]fluoranthene
 Concen: 12671.05 ng/mL M4
 RT: 47.373 min Scan# 4305
 Delta R.T. 0.101 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

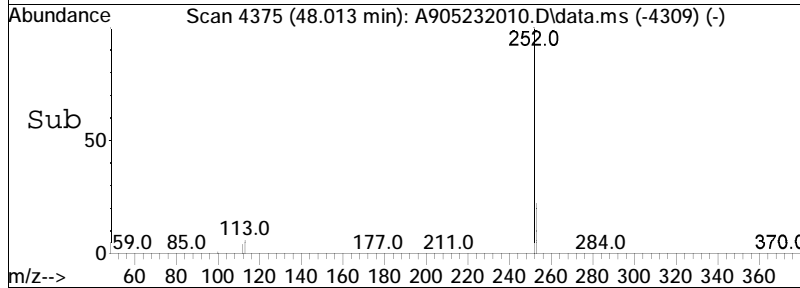
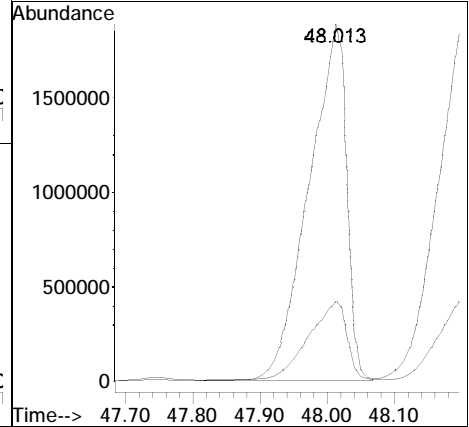
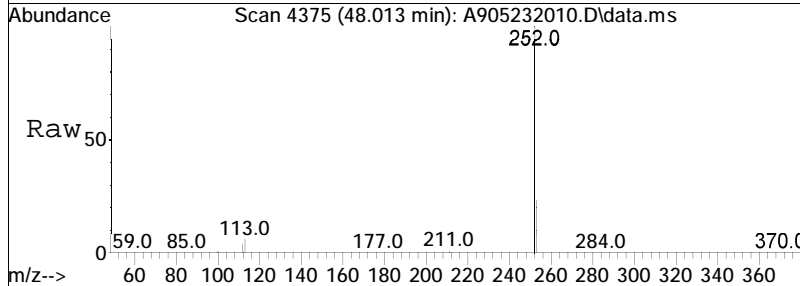
Tgt Ion	Resp	Lower	Upper
252	100		
253	3.3	243.9	452.9#

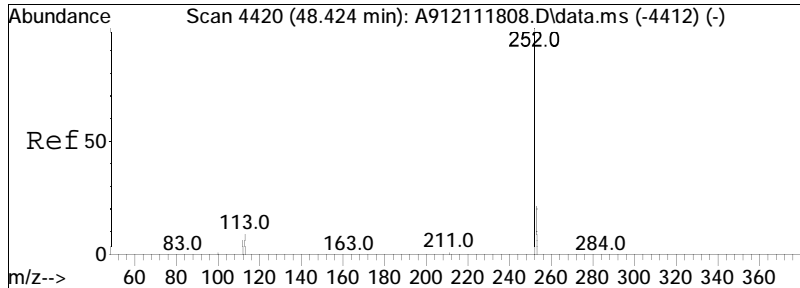




#88
 Benzo[e]pyrene
 Concen: 41067.99 ng/mL
 RT: 48.013 min Scan# 4375
 Delta R.T. 0.101 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

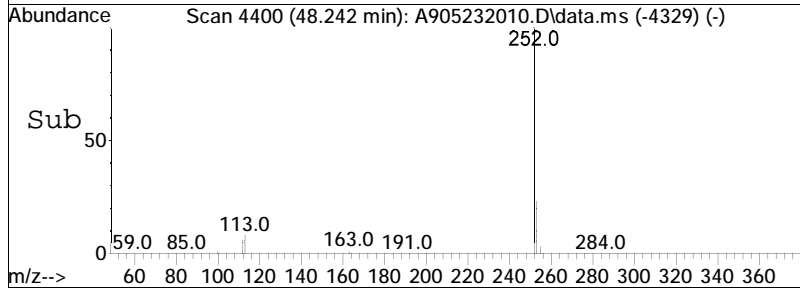
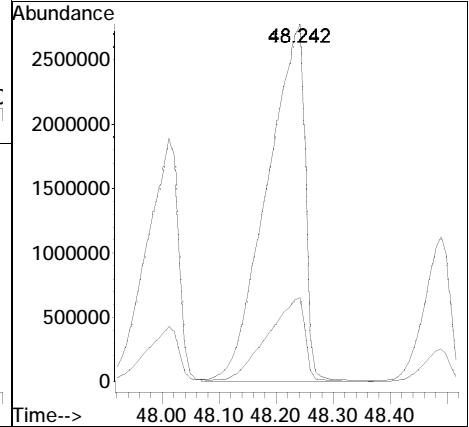
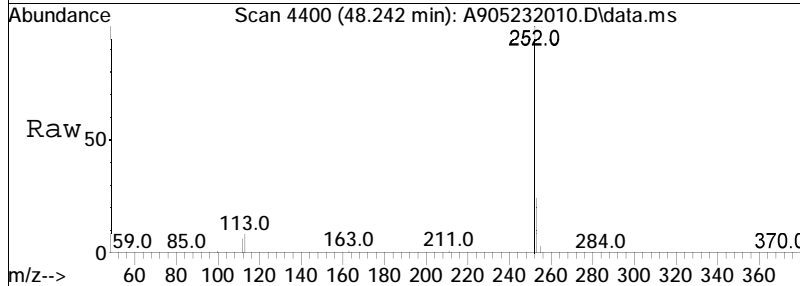
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.7	18.3	33.9

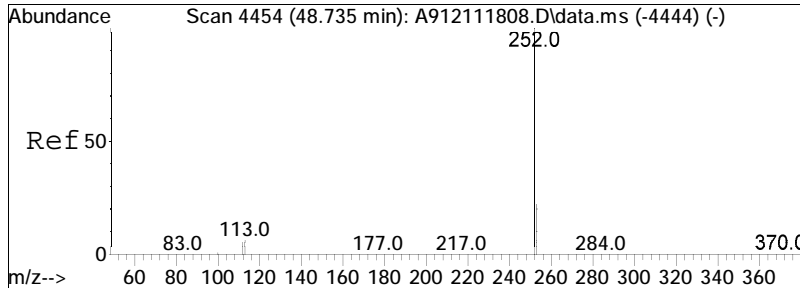




#90
 Benzo[a]pyrene
 Concen: 75241.76 ng/mL
 RT: 48.242 min Scan# 4400
 Delta R.T. 0.147 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

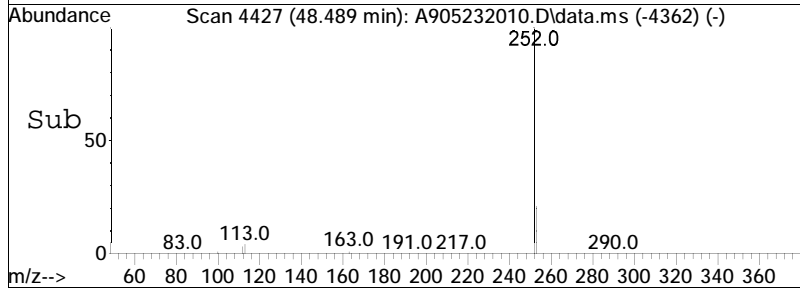
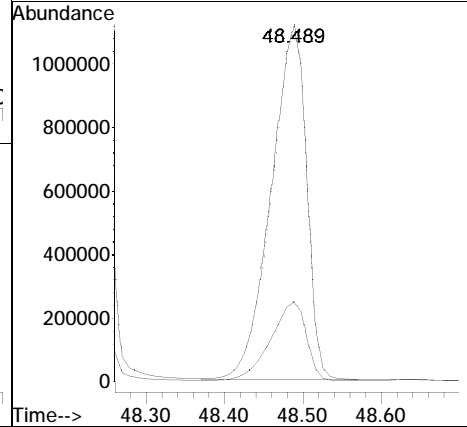
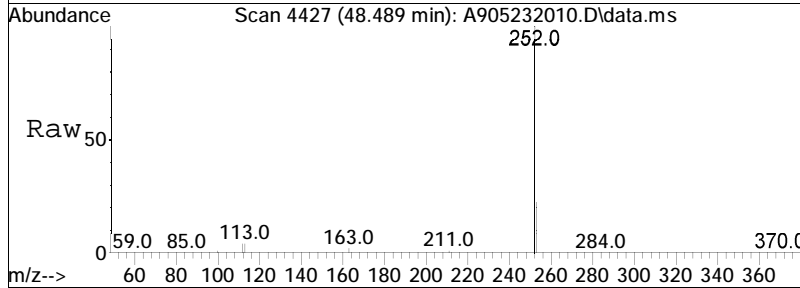
Tgt Ion: 252 Resp: 12774003
 Ion Ratio Lower Upper
 252 100
 253 23.2 19.2 35.6

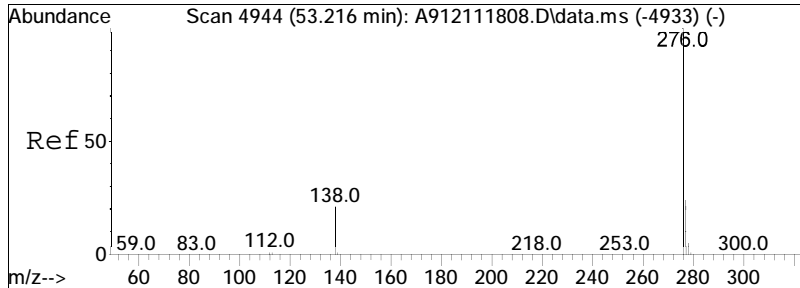




#91
 Perylene
 Concen: 21975.57 ng/mL
 RT: 48.489 min Scan# 4427
 Delta R.T. 0.092 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

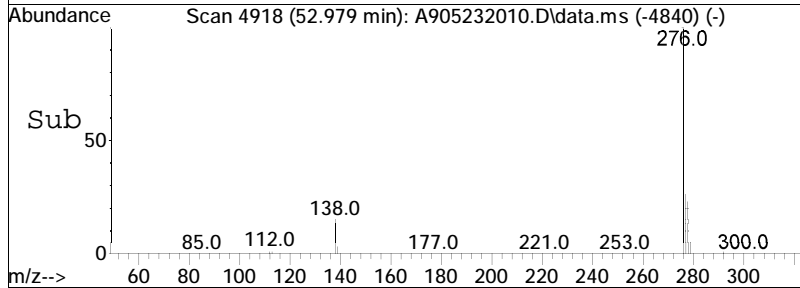
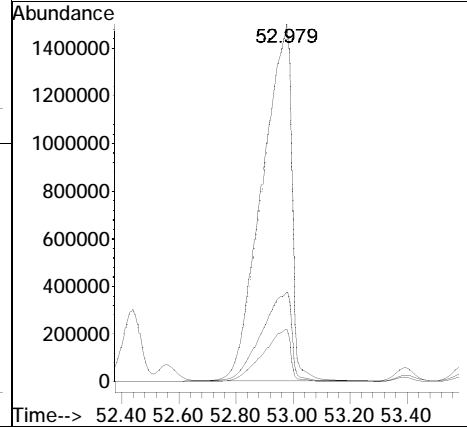
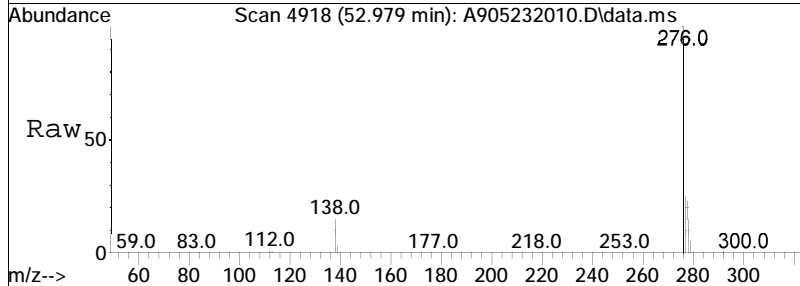
Tgt Ion: 252 Resp: 3466085
 Ion Ratio Lower Upper
 252 100
 253 22.5 19.9 36.9

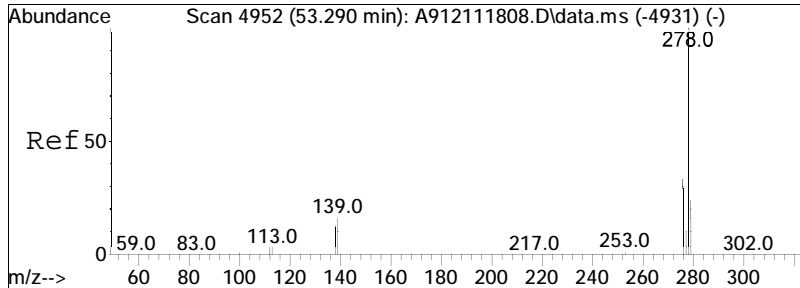




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 53496.93 ng/mL
 RT: 52.979 min Scan# 4918
 Delta R.T. 0.210 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

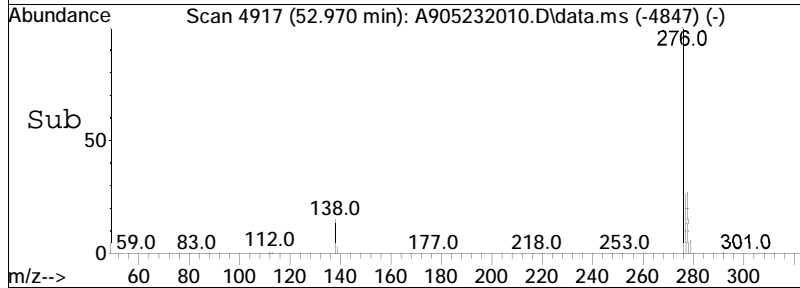
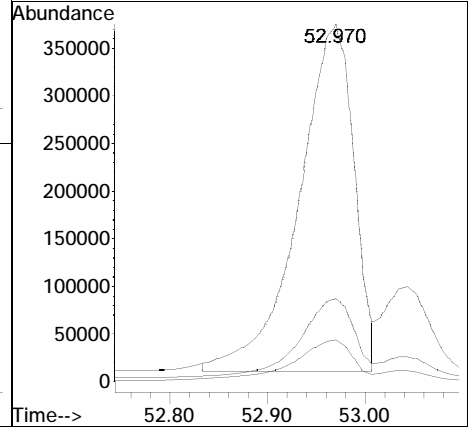
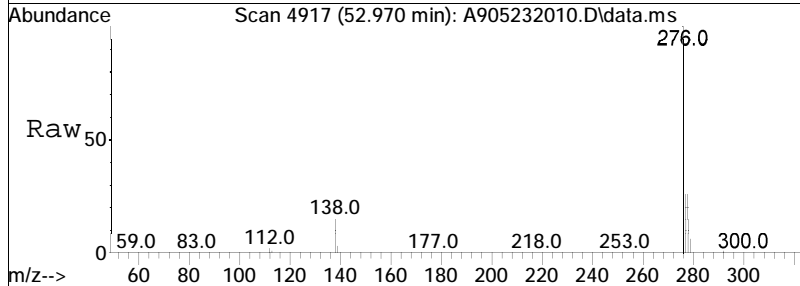
Tgt Ion	Resp	Lower	Upper
276	10594591		
138	14.1	12.2	22.6
277	25.1	18.6	34.6

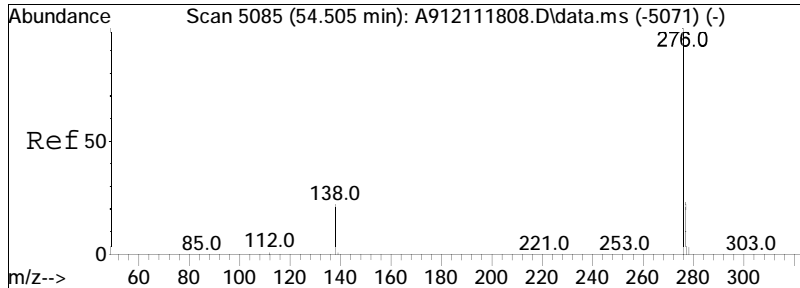




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 8419.94 ng/mL M4
 RT: 52.970 min Scan# 4917
 Delta R.T. 0.137 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

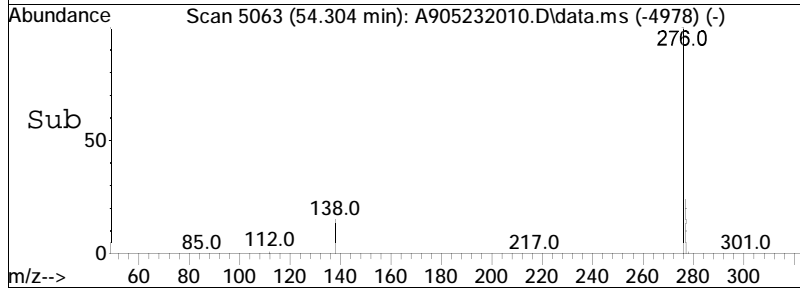
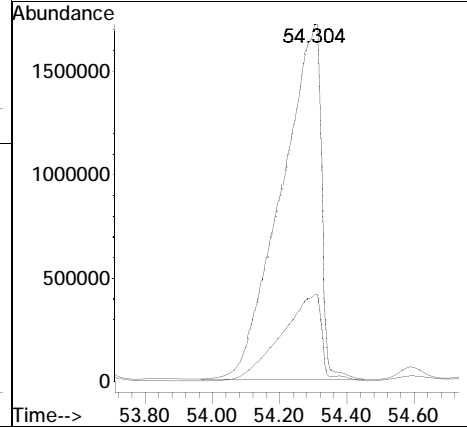
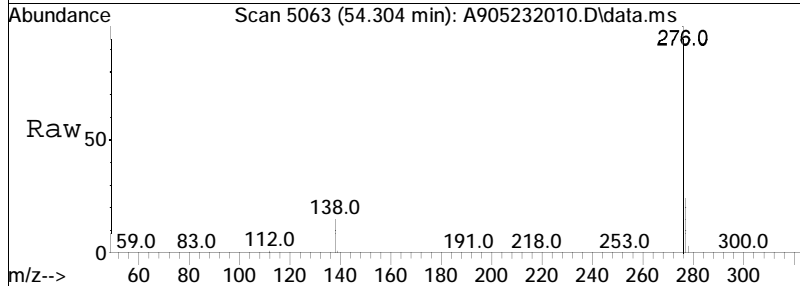
Tgt Ion	Resp	Lower	Upper
278	100		
139	12.6	8.3	15.5
279	22.5	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 68665.50 ng/mL
 RT: 54.304 min Scan# 5063
 Delta R.T. 0.274 min
 Lab File: A905232010.D
 Acq: 24 May 2020 1:40 am

Tgt Ion: 276 Resp: 13971738
 Ion Ratio Lower Upper
 276 100
 277 24.4 17.4 32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232014.D
 Acq On : 24 May 2020 7:19 am
 Operator : PAH9:ML
 Sample : L2020213-04
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 04 12:23:05 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.548	164	30517M3	500.000	ng/mL	0.02	
74) Chrysene-d12	43.032	240	63623	500.000	ng/mL	0.07	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	49489	443.700	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.37%#	
40) Phenanthrene-d10	32.442	188	57657	552.025	ng/mL	0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	55.20%	
83) Benzo[b]fluoranthene-d12	46.925	264	77052	488.080	ng/mL	0.07	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.81%#	
89) Benzo[a]pyrene-d12	48.114	264	55351	524.162	ng/mL	0.11	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	52.42%	
Target Compounds							
2) trans-Decalin	16.254	138	986	40.033	ng/mL	100	Qvalue
3) cis-Decalin	17.477	138	229M4	12.153	ng/mL		
4) C1-Decalins	18.180	152	4564M5	185.306	ng/mL		
5) C2-Decalins	19.503	166	9781M5	397.125	ng/mL		
6) C3-Decalins	21.976	180	8143M5	330.620	ng/mL		
7) C4-Decalins	24.622	194	10756M5	436.712	ng/mL		
9) Naphthalene	19.676	128	4280167	32966.826	ng/mL	100	
10) C1-Naphthalenes	22.350	142	1494424M5	11510.396	ng/mL		
11) C2-Naphthalenes	25.197	156	1224081M5	9428.152	ng/mL		
12) C3-Naphthalenes	27.524	170	589346M5	4539.278	ng/mL		
13) C4-Naphthalenes	30.289	184	235673M5	1815.207	ng/mL		
14) 2-Methylnaphthalene	22.350	142	866227	10062.977	ng/mL	100	
15) 1-Methylnaphthalene	22.779	142	627677	7673.144	ng/mL	100	
16) Benzothiophene	19.877	134	184952	1544.875	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.213	148	112540M5	940.029	ng/mL		
18) C2-Benzo(b)thiophenes	24.905	162	154934M5	1294.139	ng/mL		
19) C3-Benzo(b)thiophenes	27.004	176	115781M5	967.100	ng/mL		
20) C4-Benzo(b)thiophenes	29.468	190	52809M5	441.105	ng/mL		
21) Biphenyl	24.230	154	174641	1656.015	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.860	156	272071	3601.847	ng/mL	100	
23) Dibenzofuran	27.305	168	309744	2528.467	ng/mL	100	
24) Acenaphthylene	25.936	152	378670M4	2945.290	ng/mL		
25) Acenaphthene	26.703	153	5030756	63144.939	ng/mL	97	
26) 2,3,5-Trimethylnaphthalen	28.227	170	47037M3	669.244	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232014.D
 Acq On : 24 May 2020 7:19 am
 Operator : PAH9:ML
 Sample : L2020213-04
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 04 12:23:05 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.701	166	2570191	27230.019	ng/mL	97
28) C1-Fluorenes	30.918	180	520064M5	5509.844	ng/mL	
29) C2-Fluorenes	33.254	194	283519M5	3003.756	ng/mL	
30) C3-Fluorenes	35.773	208	157415M5	1667.741	ng/mL	
31) Dibenzothiophene	32.022	184	4298782	30815.511	ng/mL	99
32) 4-Methyldibenzothiophene(	33.783	198	325285	2331.782	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.094	198	405524M4	2906.970	ng/mL	
34) 1-Methyldibenzothiophene(	34.550	198	107810	772.828	ng/mL	100
36) C1-Dibenzothiophenes	33.783	198	1040232M5	7456.829	ng/mL	
36) C1-Dibenzothiophenes BS	33.783	198	1034088M5	7412.786	ng/mL	
37) C2-Dibenzothiophenes	35.828	212	472145M5	3384.538	ng/mL	
38) C3-Dibenzothiophenes	39.024	226	247175M5	1771.856	ng/mL	
39) C4-Dibenzothiophenes	40.731	240	73488M5	526.793	ng/mL	
41) Phenanthrene	32.615	178	36453720	262124.655	ng/mL	98
42) 3-Methylphenanthrene(3MP)	34.468	192	1140307	8199.508	ng/mL	97
43) 2-Methylphenanthrene(2MP)	34.587	192	1325076	9528.111	ng/mL	97
44) 2-Methylanthracene(2MA)	34.742	192	563127M4	4049.229	ng/mL	
45) 9/4-Methylphenanthrene(9M	34.934	192	1025385M4	7373.148	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.587	192	4754799M5	34189.928	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.741	206	1258224M5	9047.404	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.741	206	1258224M5	9047.404	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.576	220	417660M5	3003.232	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.489	234	140188M5	1008.038	ng/mL	
52) Retene	39.489	234	19071	410.916	ng/mL	82
53) Anthracene	32.743	178	8129972M4	66291.056	ng/mL	
54) Carbazole	33.345	167	602711	4698.494	ng/mL	98
55) 1-Methylphenanthrene	35.016	192	682676	6674.545	ng/mL	98
56) Fluoranthene	37.389	202	35048006	214986.681	ng/mL	100
57) Benzo(b)fluorene	39.809	216	973771M3	10082.177	ng/mL	
58) 7H-Benzo(c)fluorene	39.845	216	367187M3	3801.761	ng/mL	
59) Pyrene	38.302	202	48242811M4	280246.838	ng/mL	
60) 2-Methylpyrene	39.964	216	782411M4	4545.096	ng/mL	
61) 4-Methylpyrene	40.329	216	692213	4021.128	ng/mL	78
62) 1-Methylpyrene	40.448	216	922312	5357.794	ng/mL	78
63) C1-Fluoranthenes/Pyrenes	39.572	216	7083004M5	41145.809	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.288	230	1128722M5	6556.848	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.178	244	333056M5	1934.752	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.703	258	175197M5	1017.735	ng/mL	
67) Naphthobenzothiophene-2,1	42.018	234	1716118	12476.292	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232014.D
 Acq On : 24 May 2020 7:19 am
 Operator : PAH9:ML
 Sample : L2020213-04
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 04 12:23:05 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.347	234	374841	2725.119	ng/mL#	24
69) Naphthobenzothiophene-2,3	42.657	234	725847M3	5276.956	ng/mL	
70) C1-Naphthobenzothiophenes	43.415	248	620500M5	4511.076	ng/ml	
71) C2-Naphthobenzothiophenes	44.913	262	225460M5	1639.109	ng/ml	
72) C3-Naphthobenzothiophenes	46.797	276	201195M5	1462.701	ng/ml	
73) C4-Naphthobenzothiophenes	49.541	290	49166M5	357.440	ng/mL	
75) Benz[a]anthracene	43.004	228	8277831M4	51741.921	ng/mL	
77) Chrysene/Triphenylene	43.169	228	9734131	57994.973	ng/mL	98
78) C1-Chrysenes	44.575	242	1675681M5	9983.539	ng/mL	
79) C2-Chrysenes	47.199	256	506023M5	3014.834	ng/mL	
79) C2-Chrysenes BS	47.199	256	506023M5	3014.834	ng/mL	
81) C3-Chrysenes	48.288	270	260092M5	1549.602	ng/mL	
82) C4-Chrysenes	48.836	284	194373M5	1158.055	ng/mL	
84) Benzo[b]fluoranthene	47.071	252	10005788	51155.806	ng/mL	96
85) Benzo[j]+[k]fluoranthene	47.135	252	6379244M3	33050.890	ng/mL	
87) Benzo[a]fluoranthene	47.400	252	2433420M4	12607.559	ng/mL	
88) Benzo[e]pyrene	48.050	252	8508994	44079.197	ng/mL	95
90) Benzo[a]pyrene	48.278	252	14809067	80431.206	ng/mL	92
91) Perylene	48.525	252	3988625	23317.881	ng/mL	89
92) Indeno[1,2,3-cd]pyrene	53.052	276	12151199	56575.539	ng/mL	97
93) Dibenz[ah]+[ac]anthracene	53.034	278	1594419M4	8625.308	ng/mL	
95) Benzo[g,h,i]perylene	54.386	276	16548925	74993.374	ng/mL	99

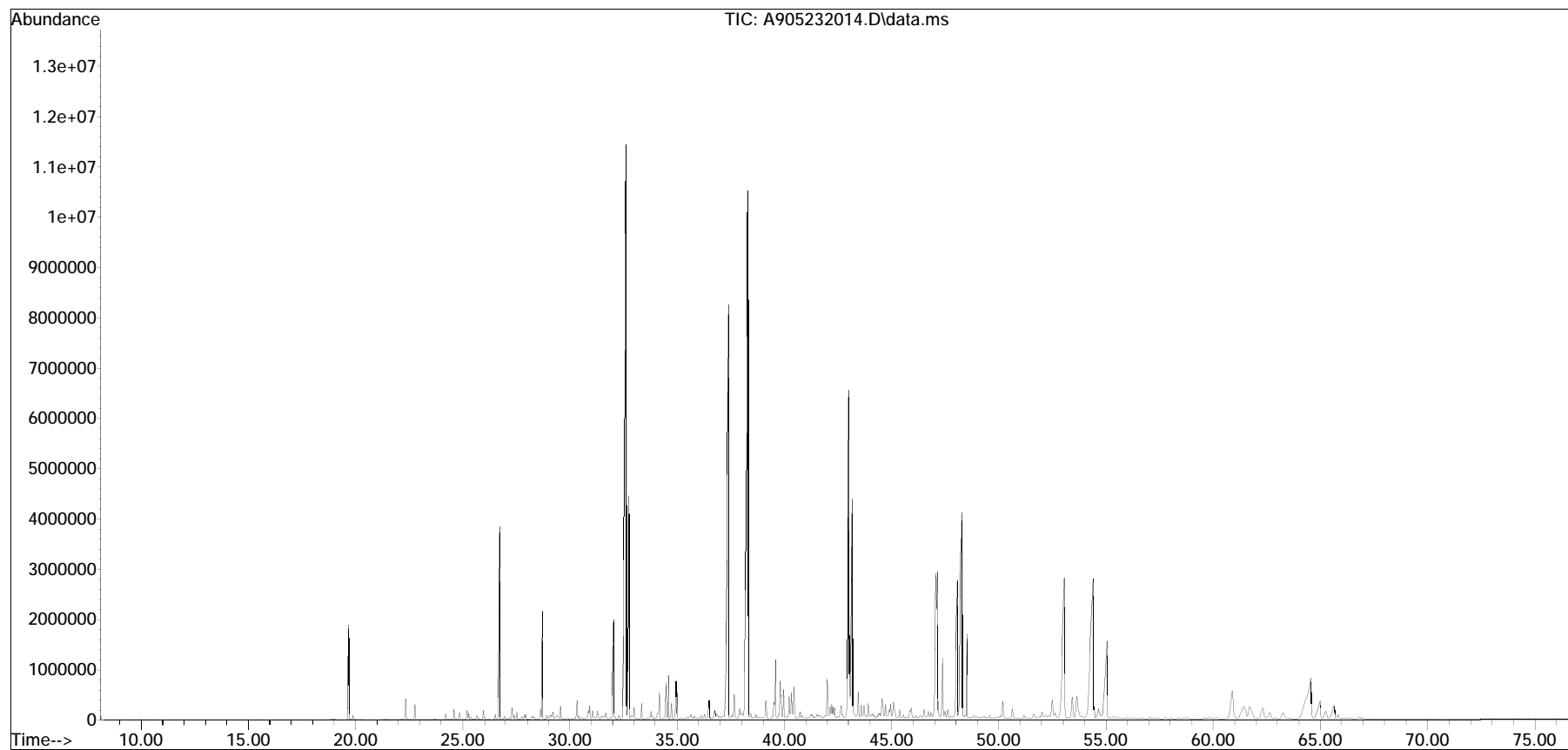
(#) = qualifier out of range (m) = manual integration (+) = signals summed

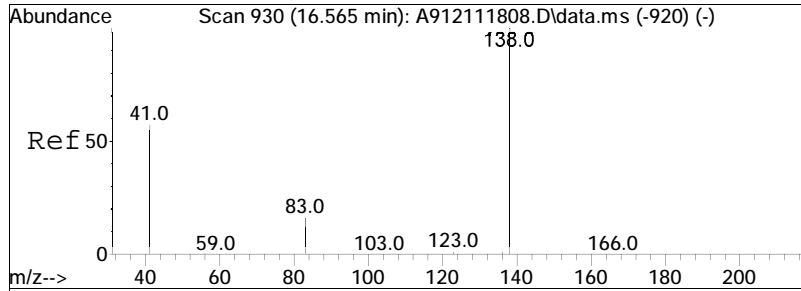
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232014.D
Acq On : 24 May 2020 7:19 am
Operator : PAH9:ML
Sample : L2020213-04
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 04 12:23:05 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

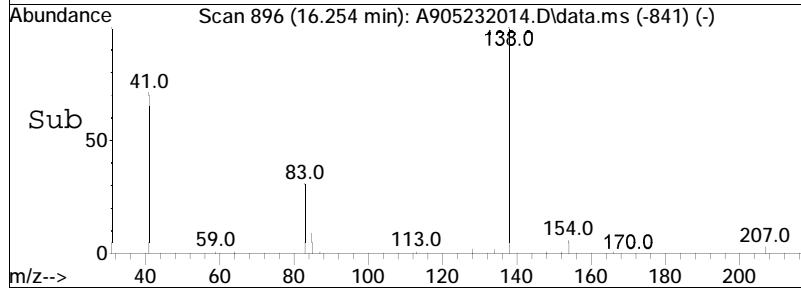
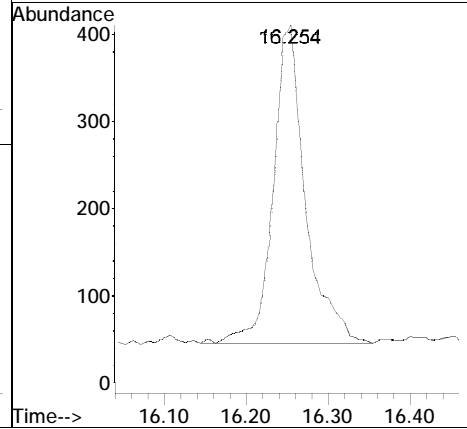
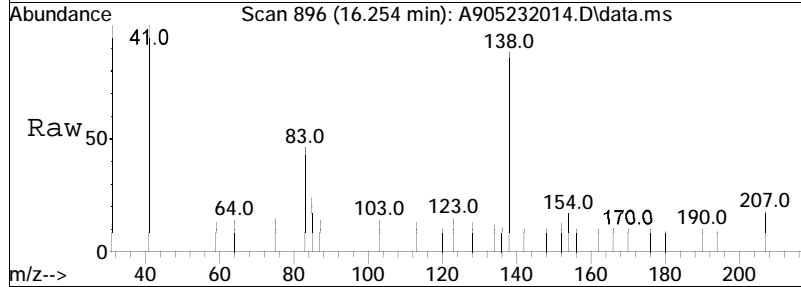
Sub List : ALKPAH - POI+MP+BcF

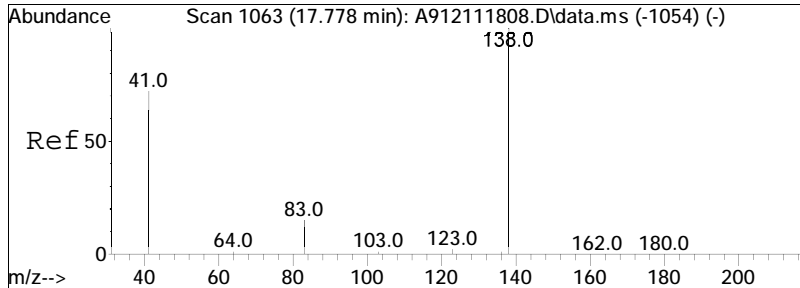




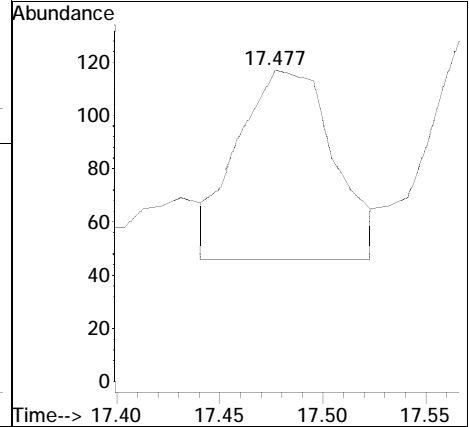
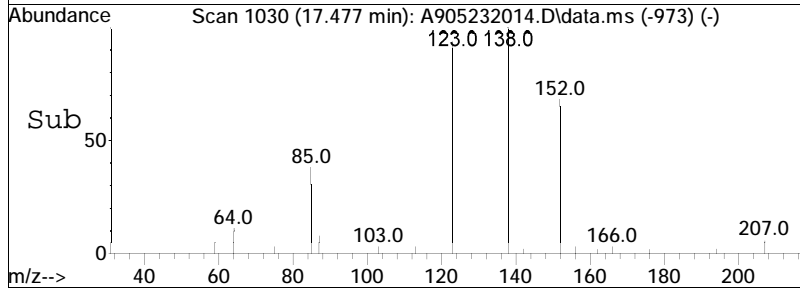
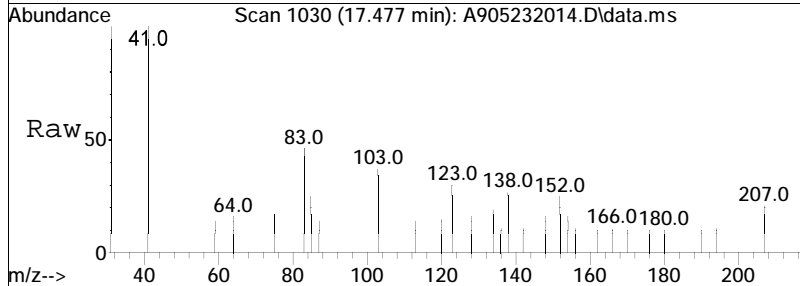
#2
 trans-Decalin
 Concen: 40.03 ng/mL
 RT: 16.254 min Scan# 896
 Delta R.T. 0.000 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

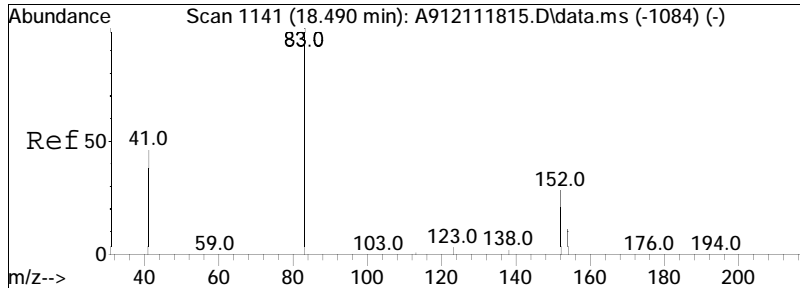
Tgt Ion:138 Resp: 986



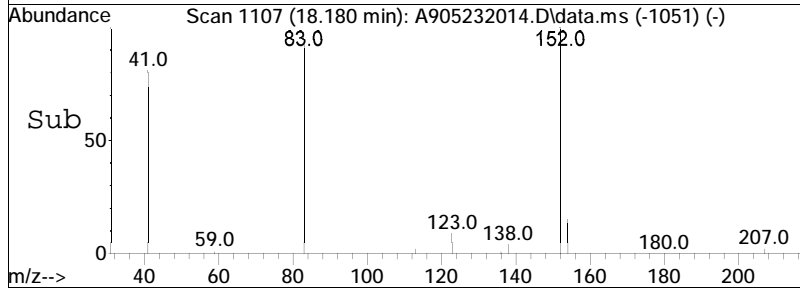
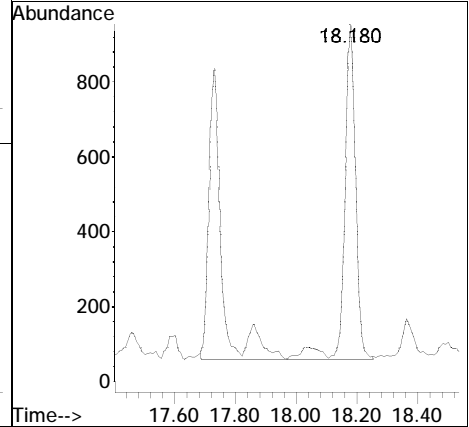
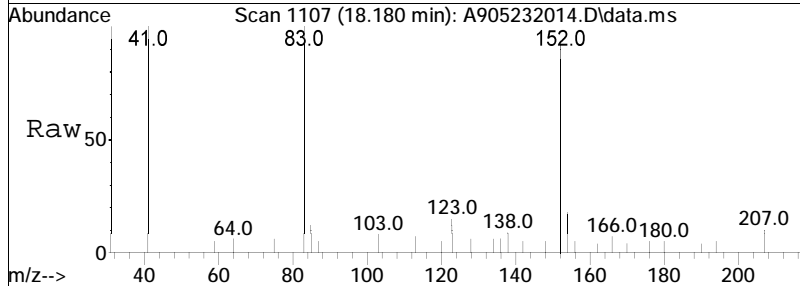


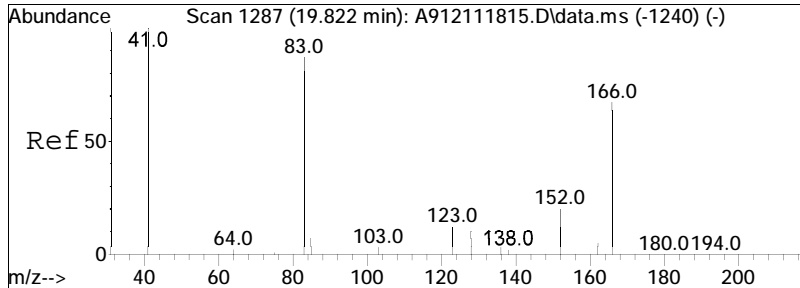
#3
 cis-Decalin
 Concen: 12.15 ng/mL M4
 RT: 17.477 min Scan# 1030
 Delta R.T. 0.018 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:138 Resp: 229



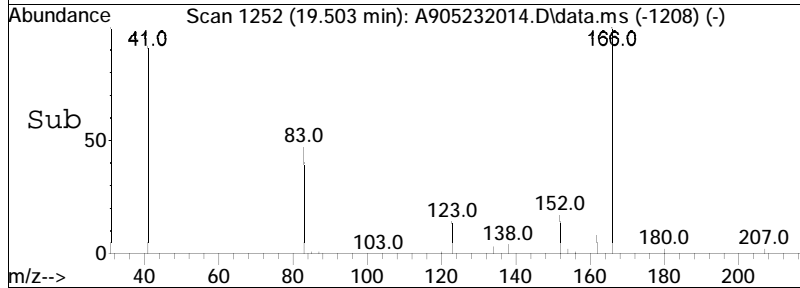
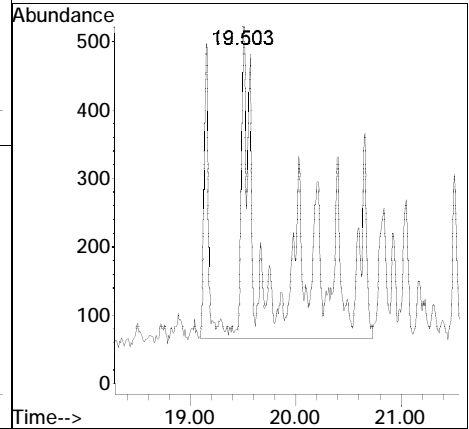
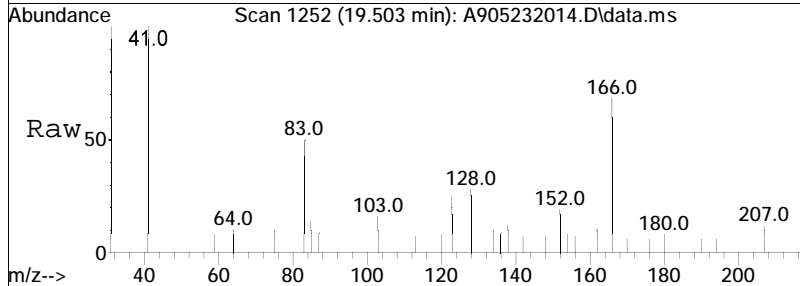


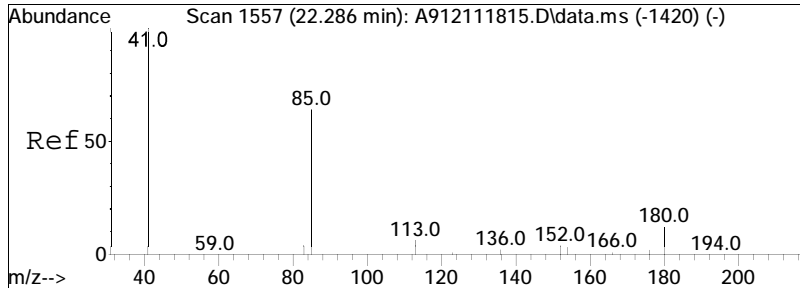
#4
 Cl-Decalins
 Concen: 185.31 ng/mL M5
 RT: 18.180 min Scan# 1107
 Delta R.T. -0.009 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:152 Resp: 4564



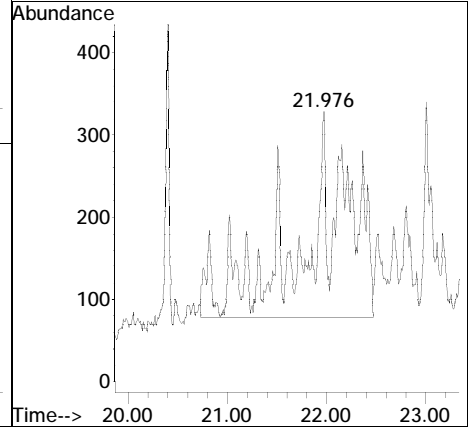
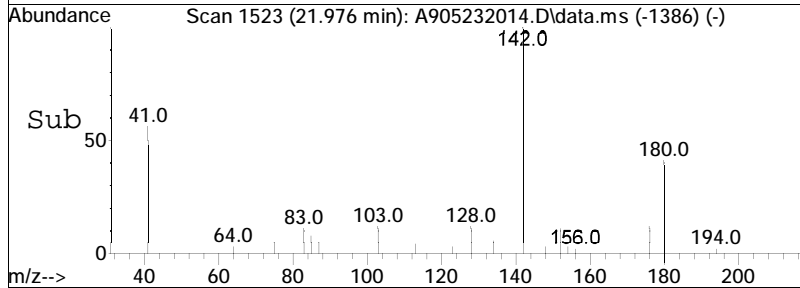
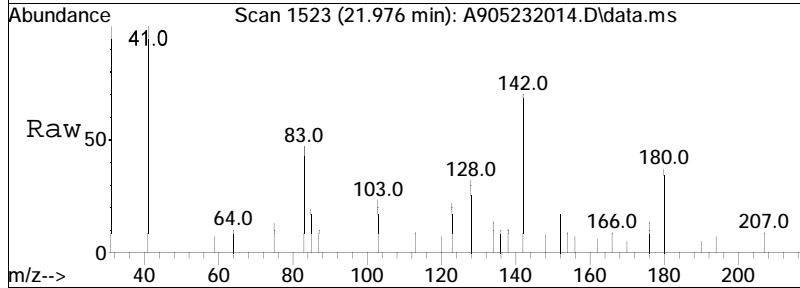


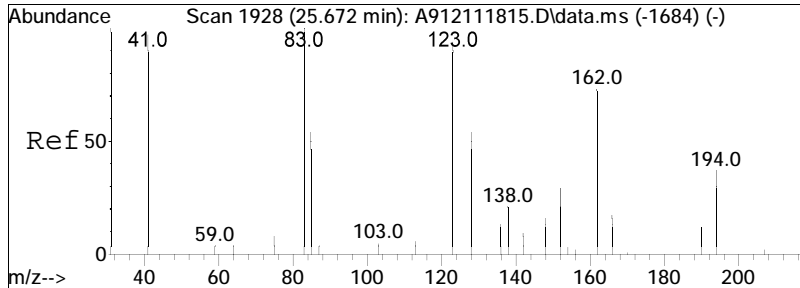
#5
 C2-Decalins
 Concen: 397.13 ng/mL M5
 RT: 19.503 min Scan# 1252
 Delta R.T. -0.007 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:166 Resp: 9781



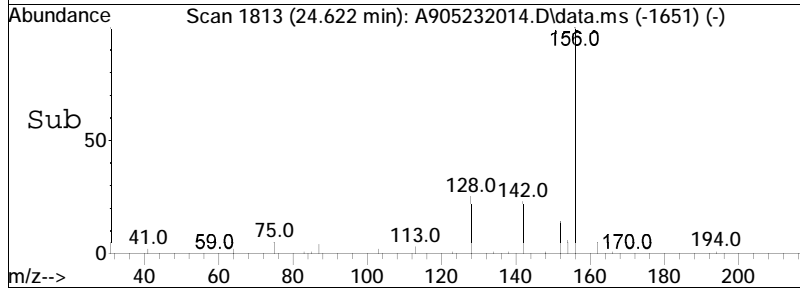
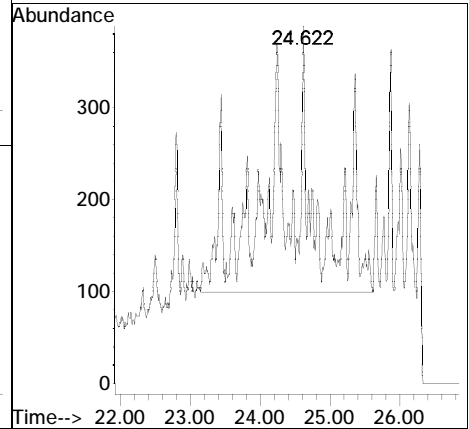
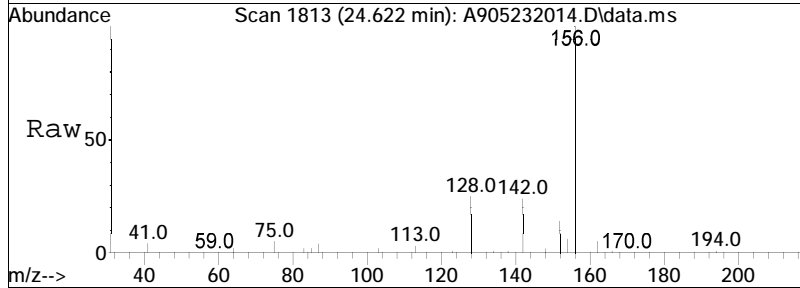


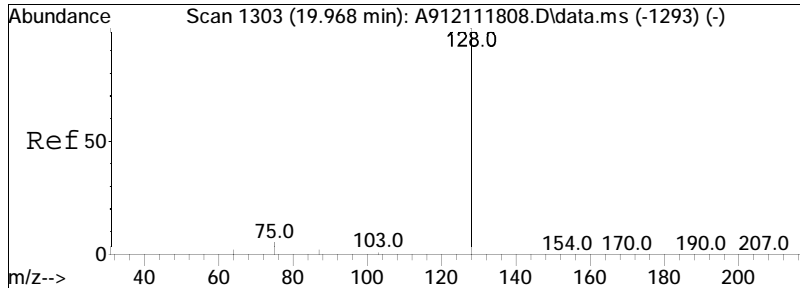
#6
 C3-Decalins
 Concen: 330.62 ng/mL M5
 RT: 21.976 min Scan# 1523
 Delta R.T. -0.005 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:180 Resp: 8143



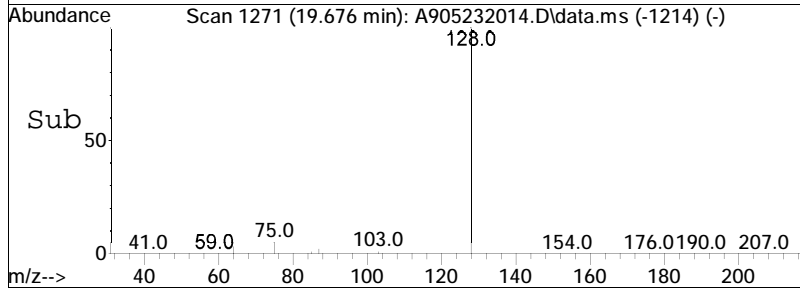
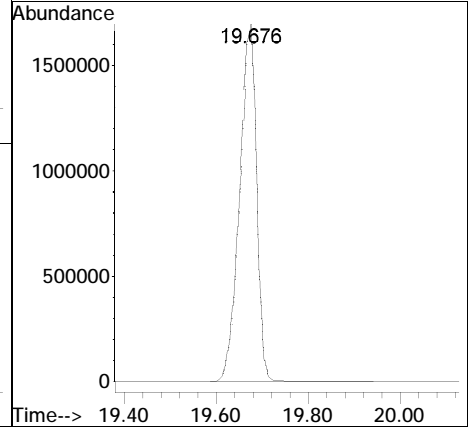
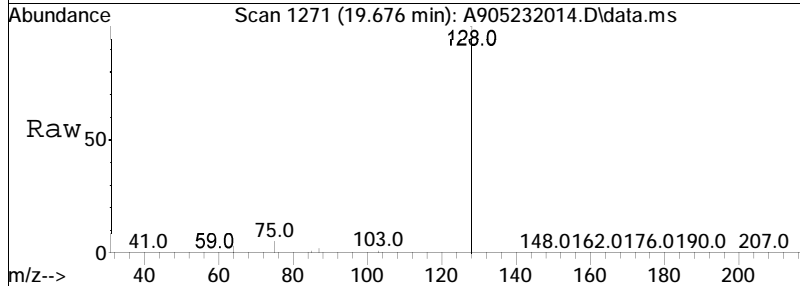


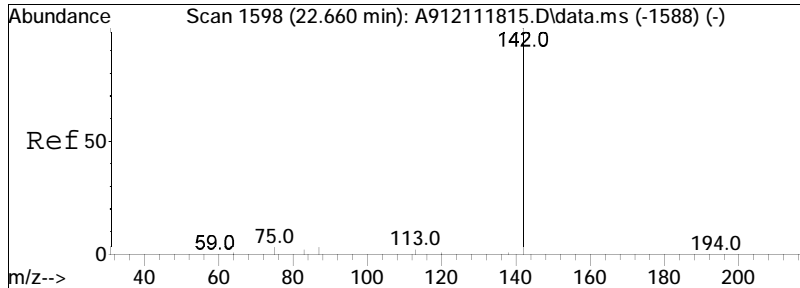
#7
 C4-Decalins
 Concen: 436.71 ng/mL M5
 RT: 24.622 min Scan# 1813
 Delta R.T. -0.733 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:194 Resp: 10756



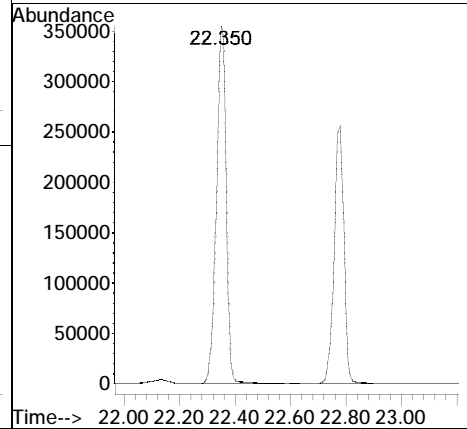
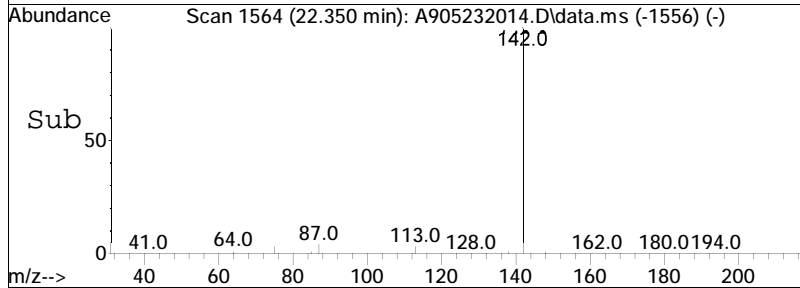
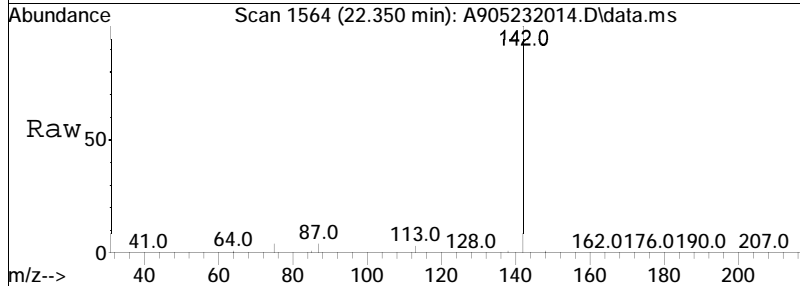


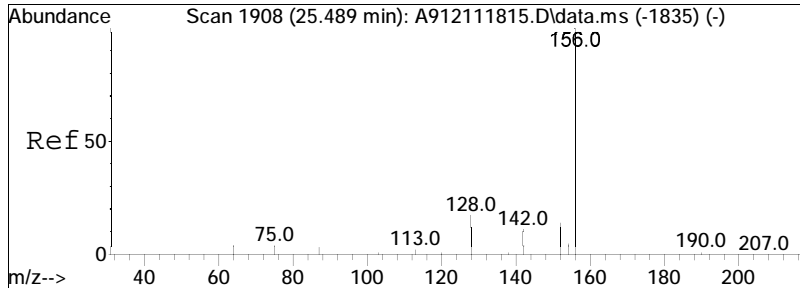
#9
 Naphthalene
 Concen: 32966.83 ng/mL
 RT: 19.676 min Scan# 1271
 Delta R.T. 0.018 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:128 Resp: 4280167



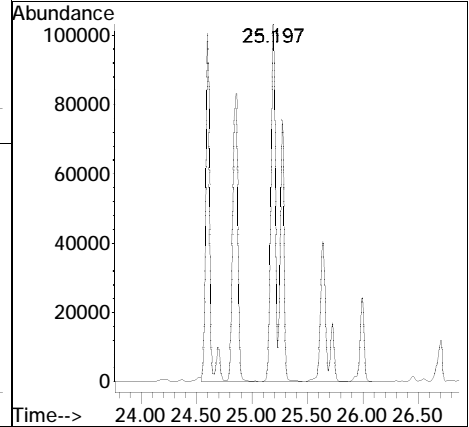
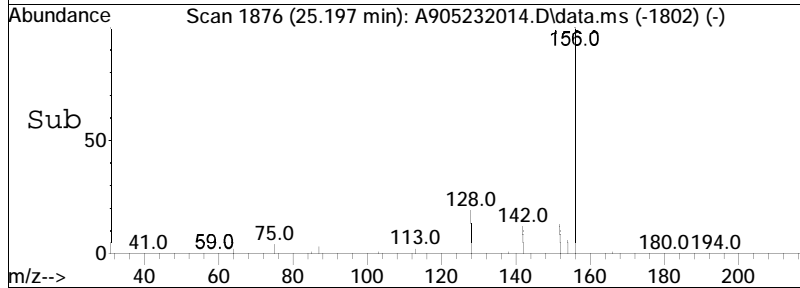
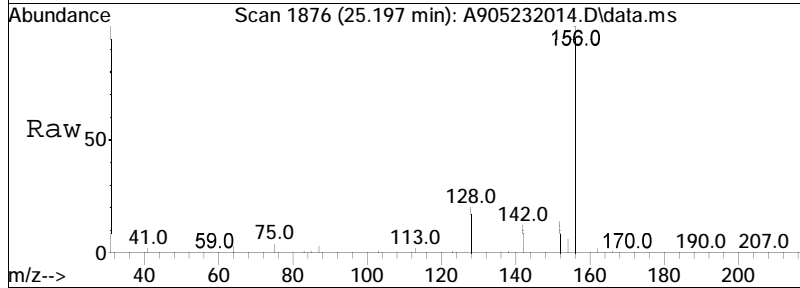


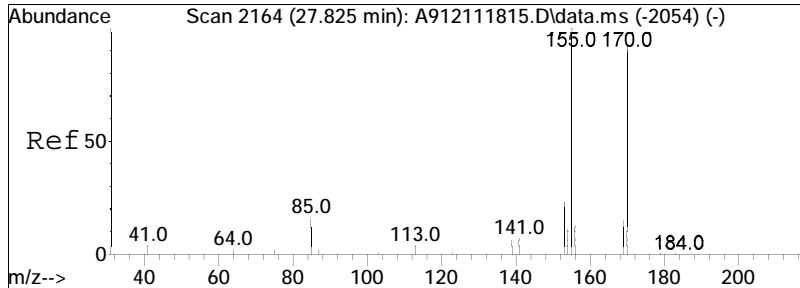
#10
 Cl-Naphthalenes
 Concen: 11510.40 ng/mL M5
 RT: 22.350 min Scan# 1564
 Delta R.T. -0.026 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:142 Resp: 1494424





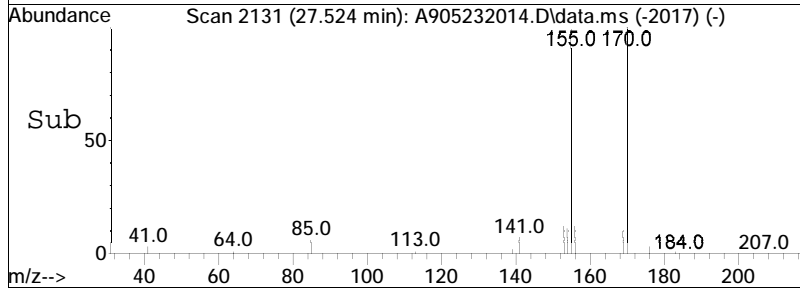
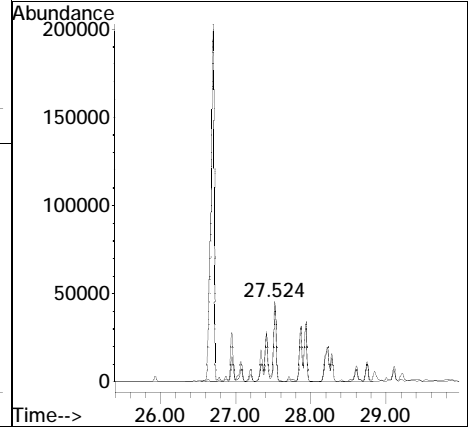
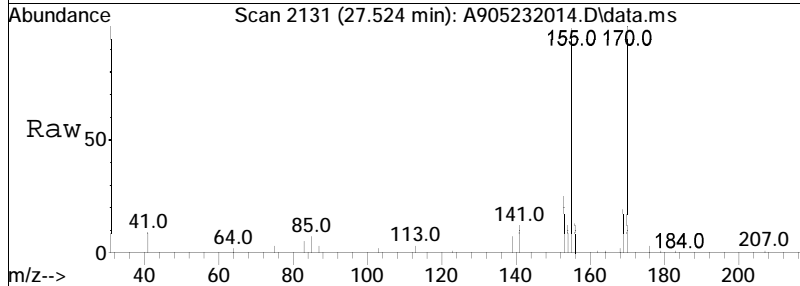
#11
 C2-Naphthalenes
 Concen: 9428.15 ng/mL M5
 RT: 25.197 min Scan# 1876
 Delta R.T. 0.013 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:156 Resp: 1224081

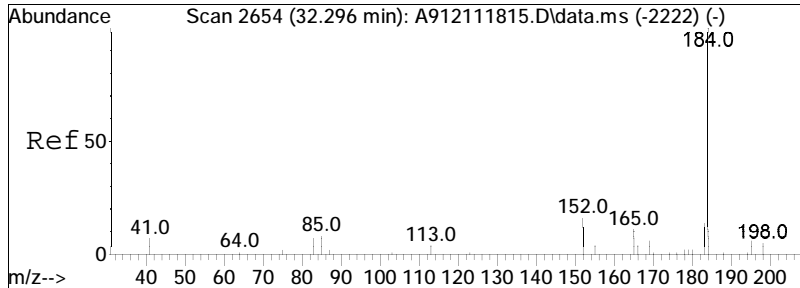




#12
 C3-Naphthalenes
 Concen: 4539.28 ng/mL M5
 RT: 27.524 min Scan# 2131
 Delta R.T. 0.029 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

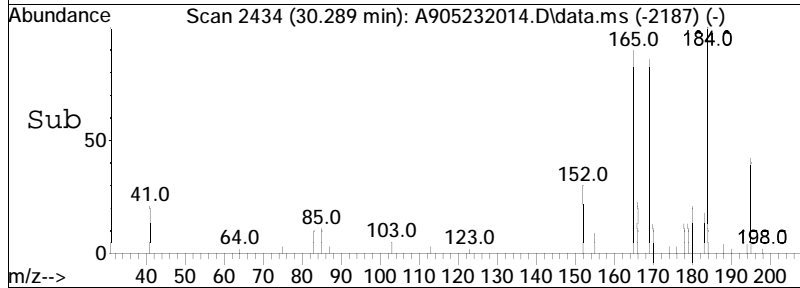
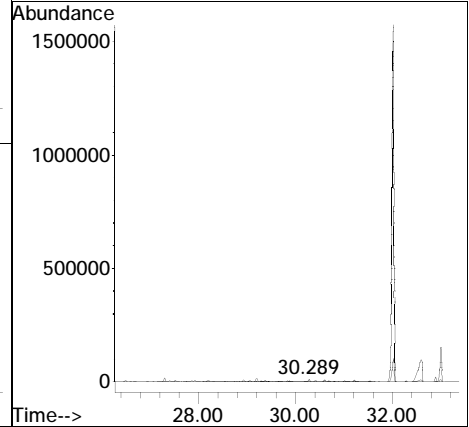
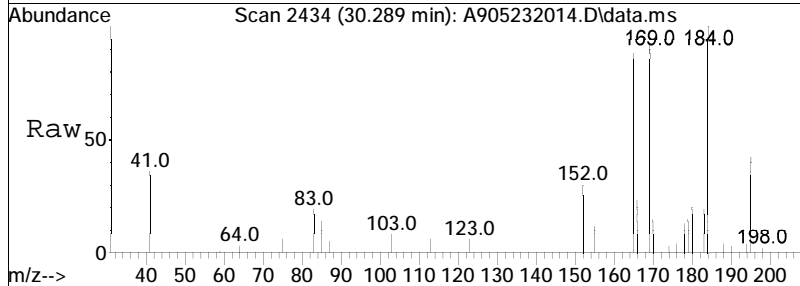
Tgt Ion	Resp	Lower	Upper
170	100		
155	18.5	71.4	132.6#

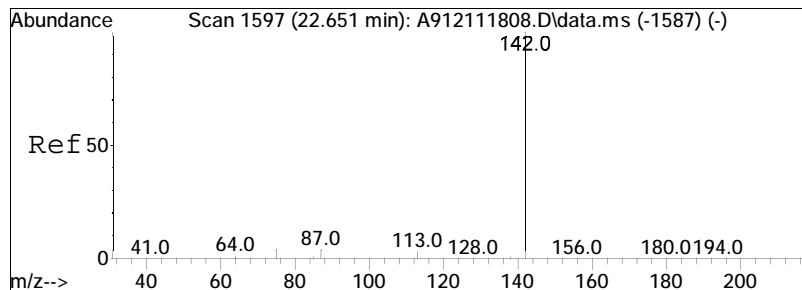




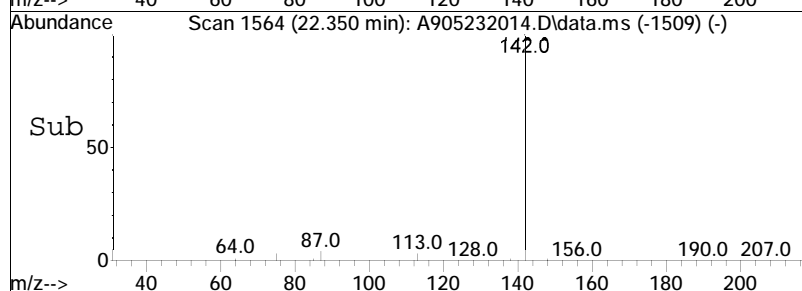
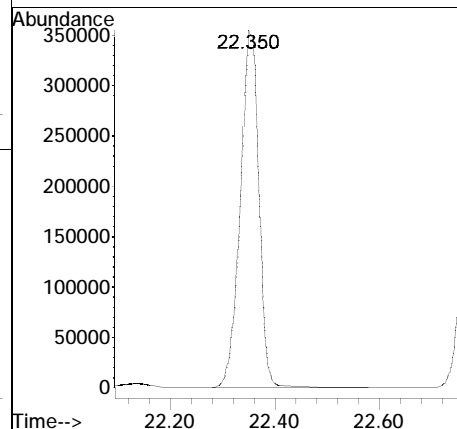
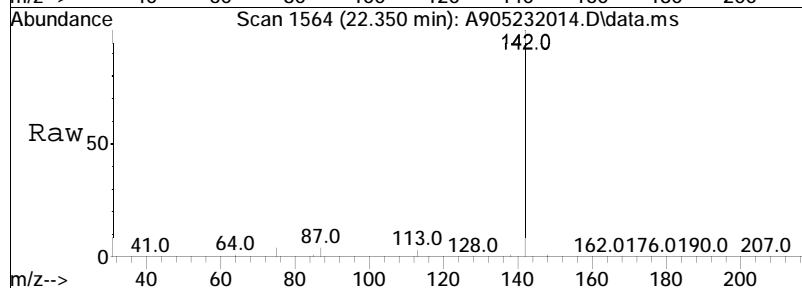
#13
 C4-Naphthalenes
 Concen: 1815.21 ng/mL M5
 RT: 30.289 min Scan# 2434
 Delta R.T. 0.013 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

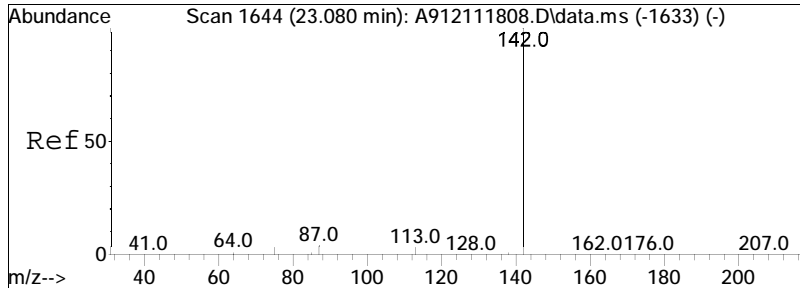
Tgt Ion	Ratio	Lower	Upper
184	100		
169	4.6	81.3	151.1#
183	1.2	25.7	47.7#



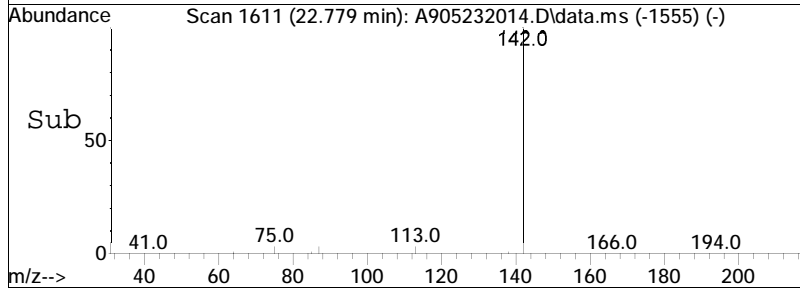
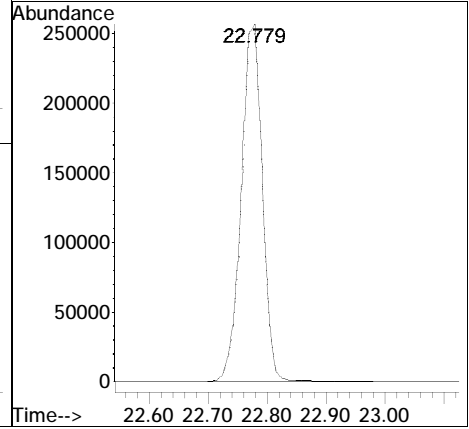
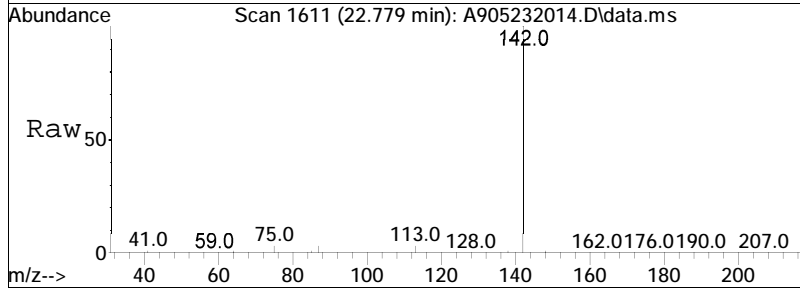


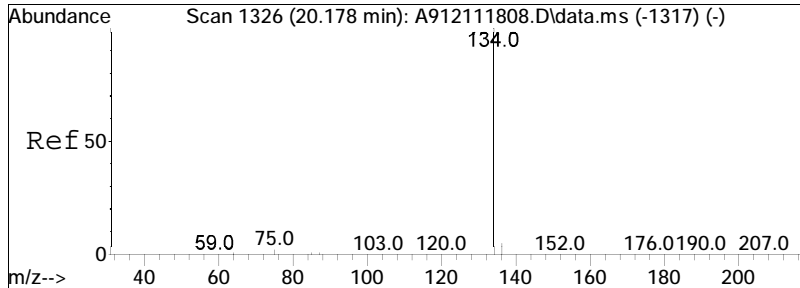
#14
 2-Methylnaphthalene
 Concen: 10062.98 ng/mL
 RT: 22.350 min Scan# 1564
 Delta R.T. 0.000 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:142 Resp: 866227



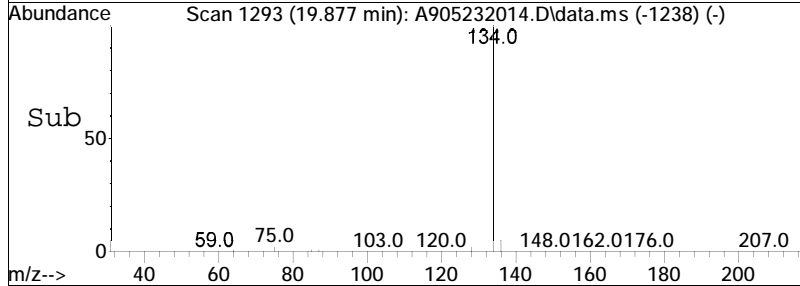
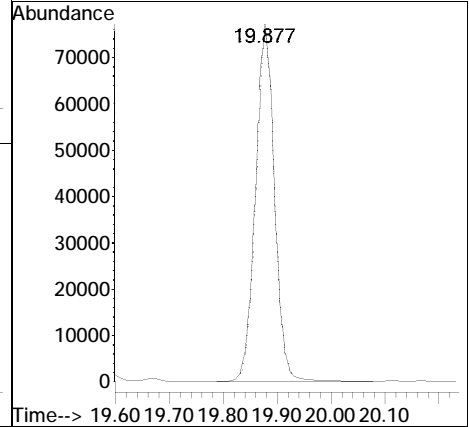
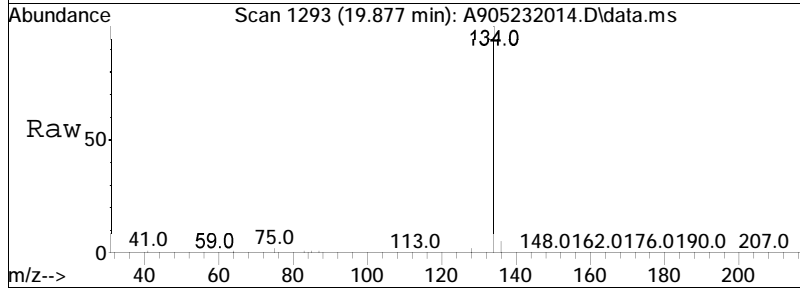


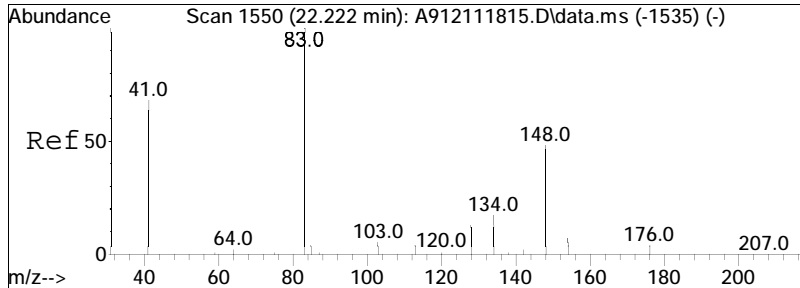
#15
 1-Methylnaphthalene
 Concen: 7673.14 ng/mL
 RT: 22.779 min Scan# 1611
 Delta R.T. 0.009 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:142 Resp: 627677



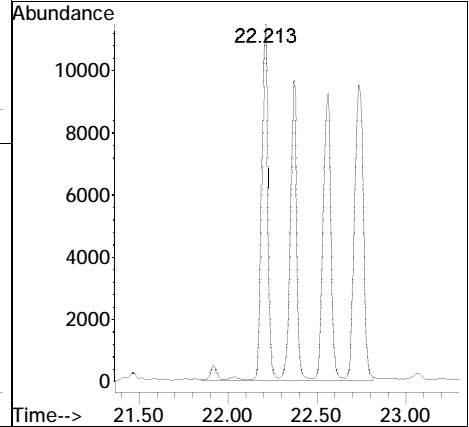
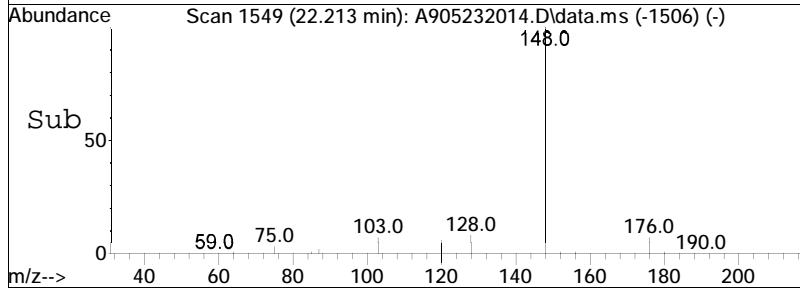
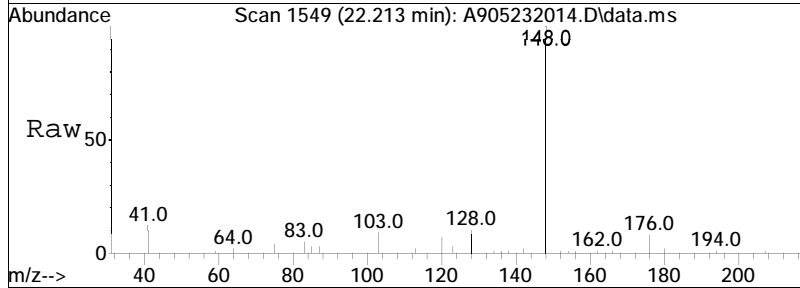


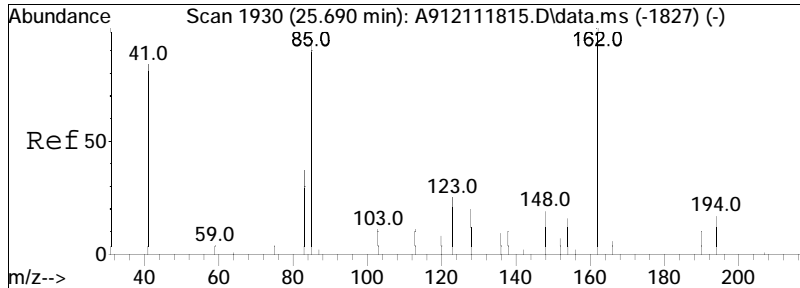
#16
 Benzothiophene
 Concen: 1544.87 ng/mL
 RT: 19.877 min Scan# 1293
 Delta R.T. 0.000 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:134 Resp: 184952



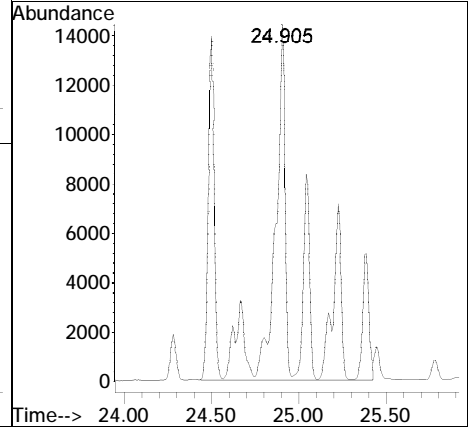
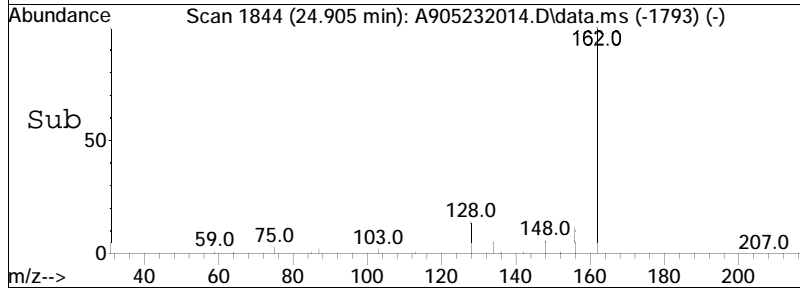
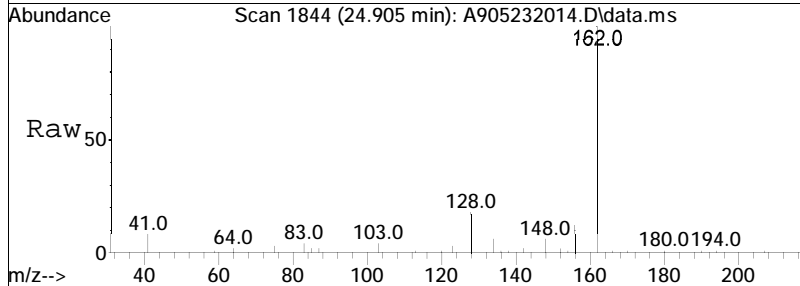


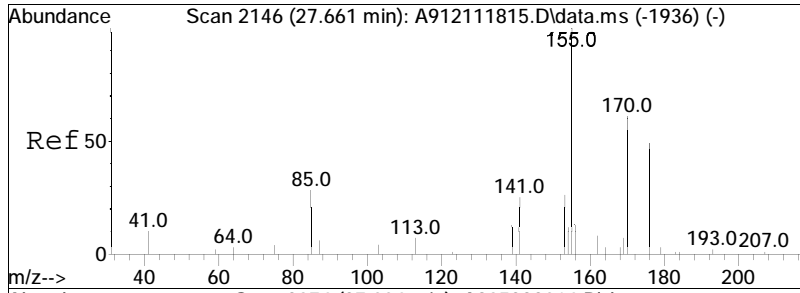
#17
 Cl-Benzo(b)thiophenes
 Concen: 940.03 ng/mL M5
 RT: 22.213 min Scan# 1549
 Delta R.T. 0.287 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:148 Resp: 112540



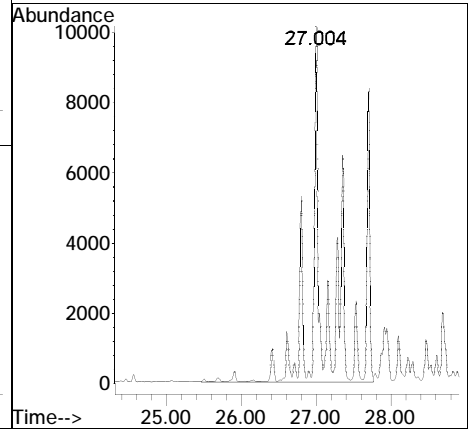
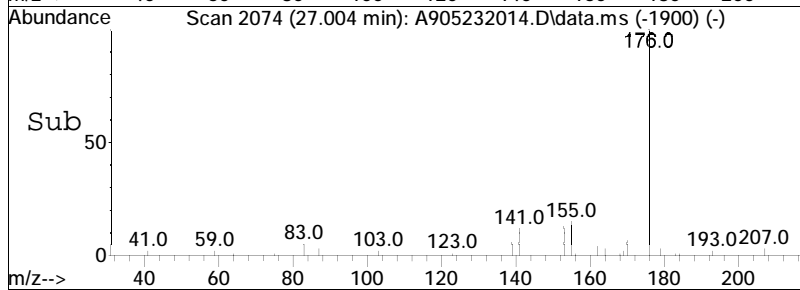
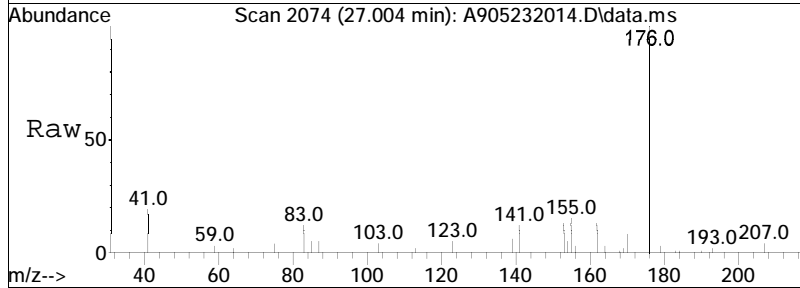


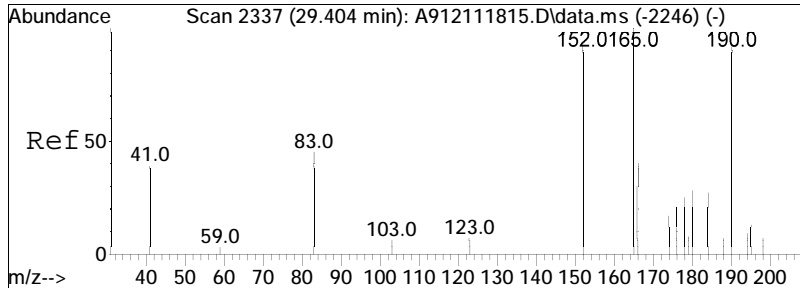
#18
 C2-Benzo(b)thiophenes
 Concen: 1294.14 ng/mL M5
 RT: 24.905 min Scan# 1844
 Delta R.T. -0.477 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:162 Resp: 154934



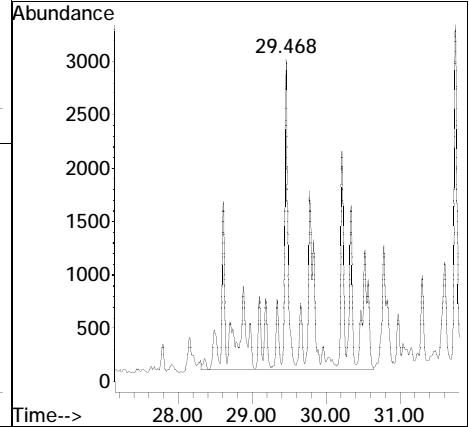
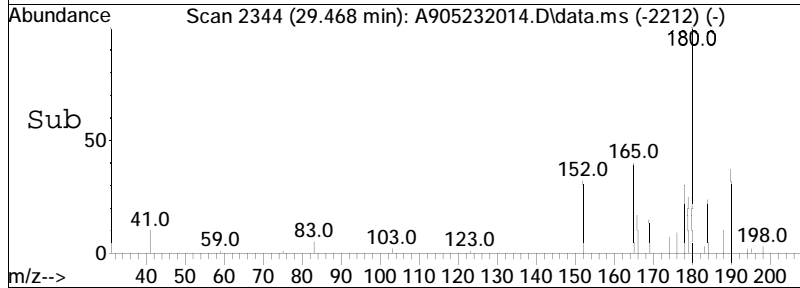
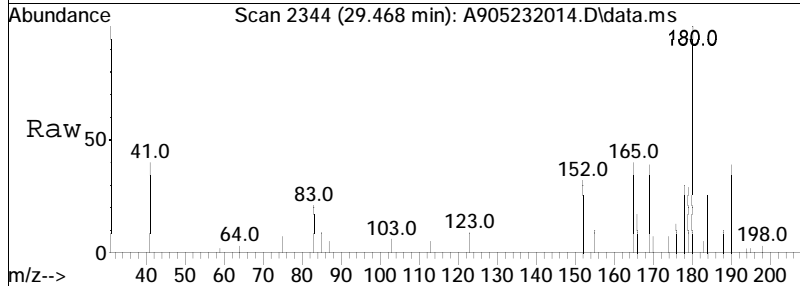


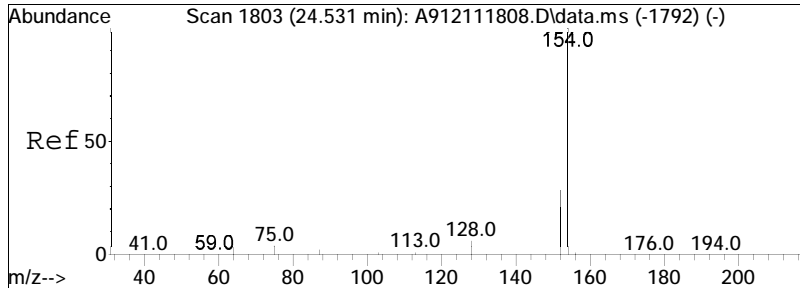
#19
 C3-Benzo(b)thiophenes
 Concen: 967.10 ng/mL M5
 RT: 27.004 min Scan# 2074
 Delta R.T. -0.329 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:176 Resp: 115781



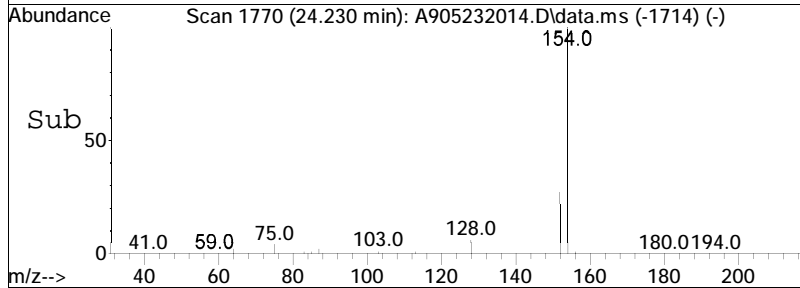
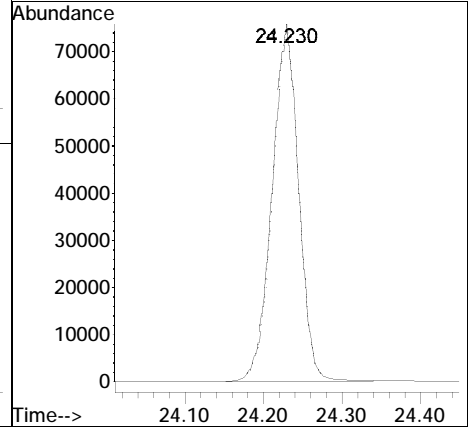
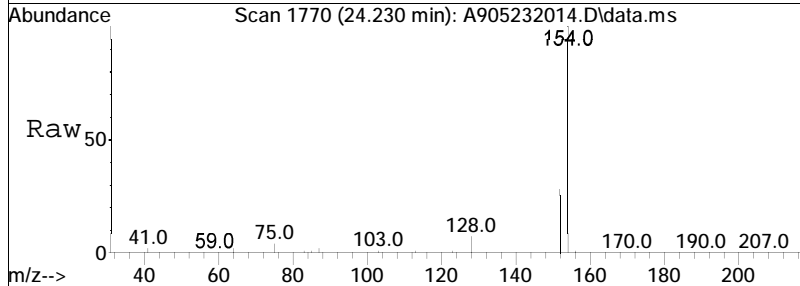


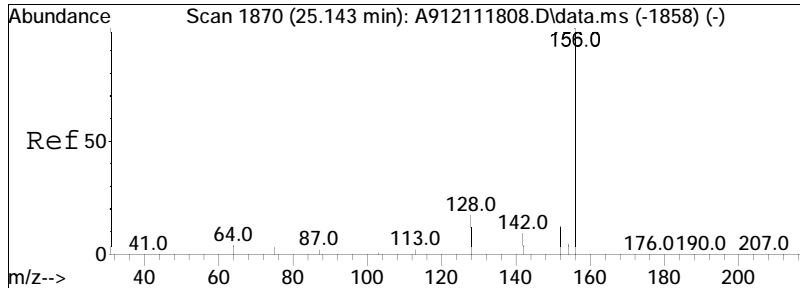
#20
 C4-Benzo(b)thiophenes
 Concen: 441.11 ng/mL M5
 RT: 29.468 min Scan# 2344
 Delta R.T. 0.377 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:190 Resp: 52809



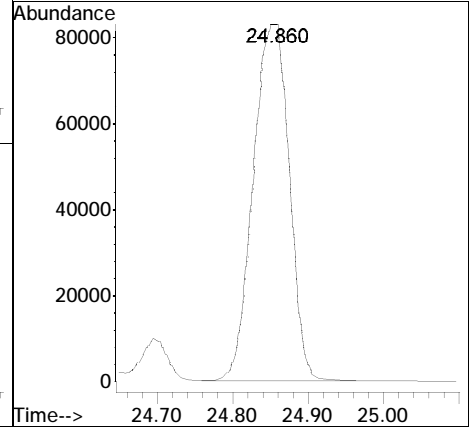
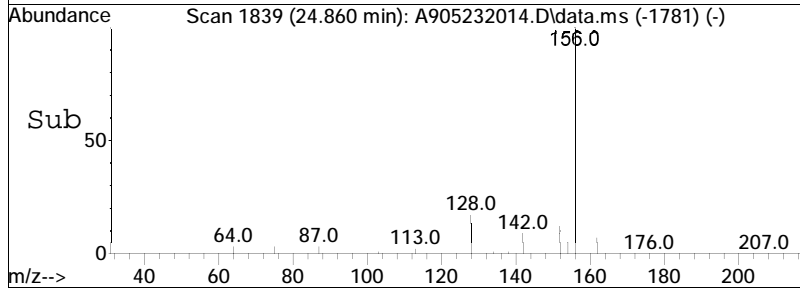
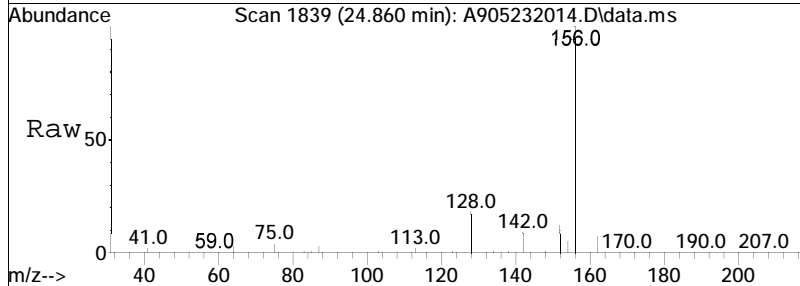


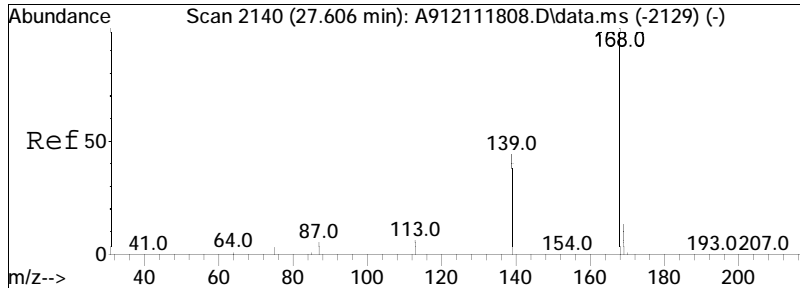
#21
 Biphenyl
 Concen: 1656.02 ng/mL
 RT: 24.230 min Scan# 1770
 Delta R.T. 0.009 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:154 Resp: 174641





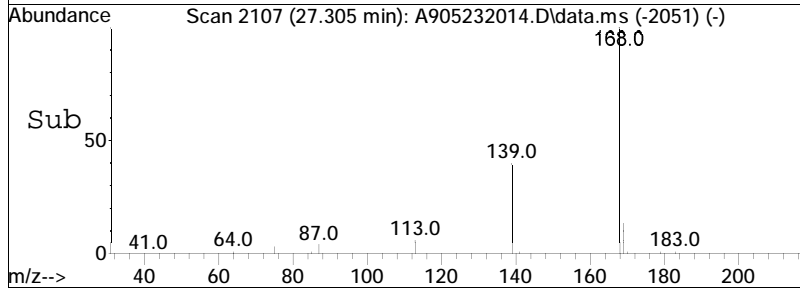
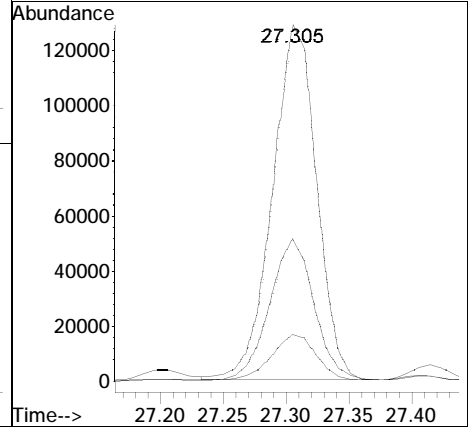
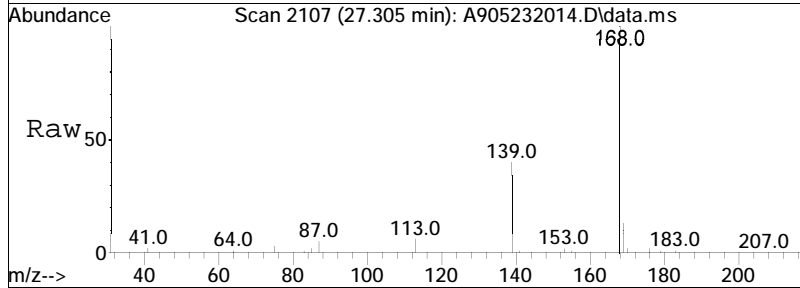
#22
2,6-Dimethylnaphthalene
Concen: 3601.85 ng/mL
RT: 24.860 min Scan# 1839
Delta R.T. 0.027 min
Lab File: A905232014.D
Acq: 24 May 2020 7:19 am
Tgt Ion:156 Resp: 272071

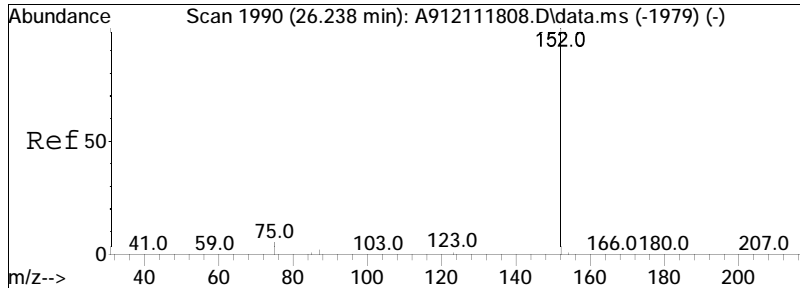




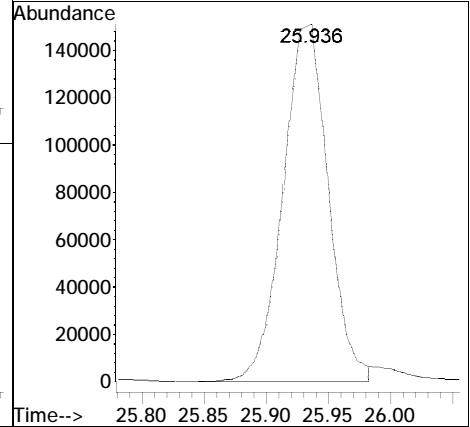
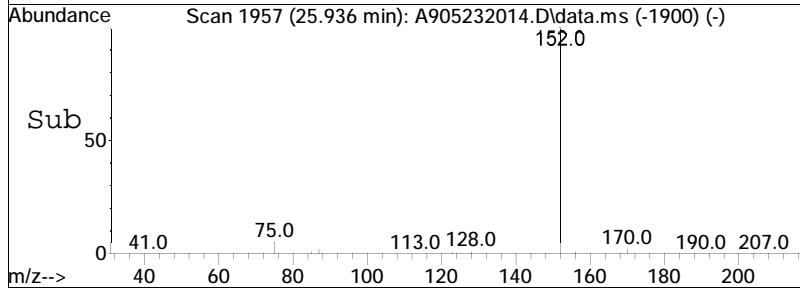
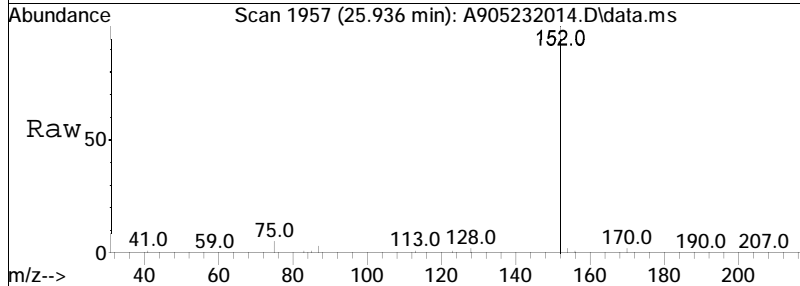
#23
 Dibenzofuran
 Concen: 2528.47 ng/mL
 RT: 27.305 min Scan# 2107
 Delta R.T. 0.009 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

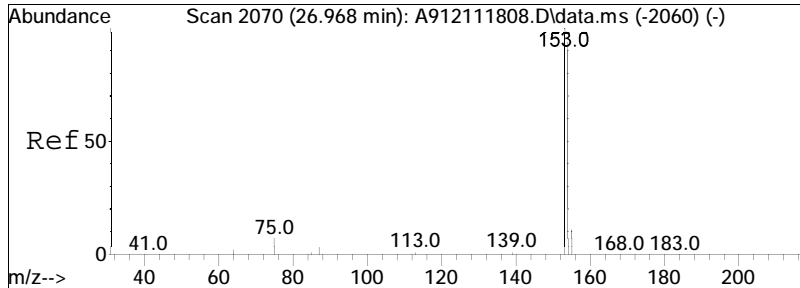
Tgt Ion	Ratio	Lower	Upper
168	100		
139	40.3	28.2	52.4
169	13.8	9.6	17.8





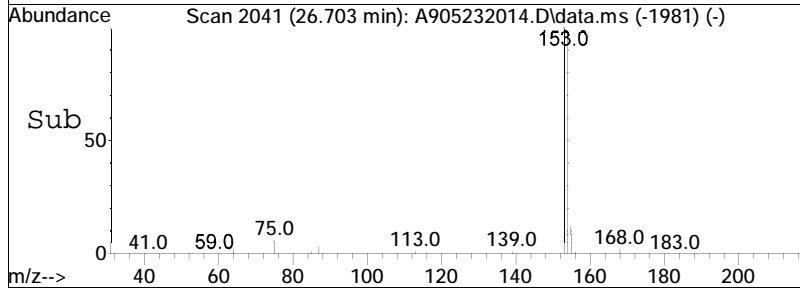
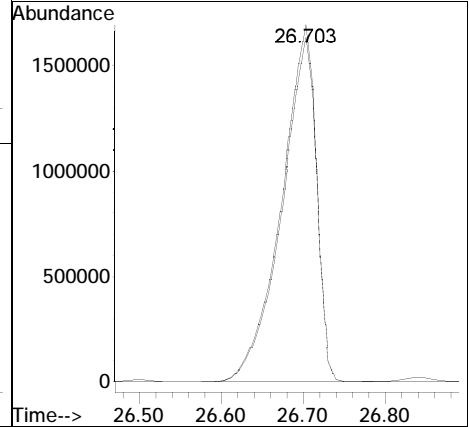
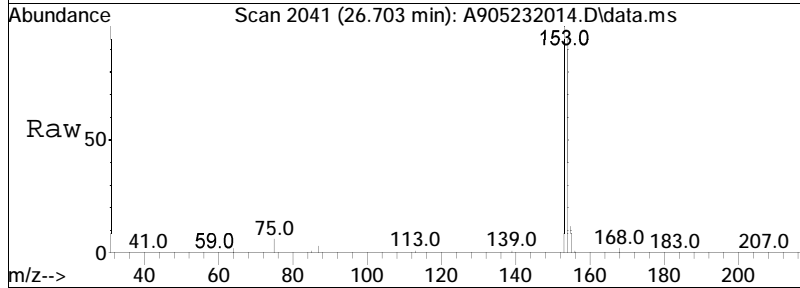
#24
 Acenaphthylene
 Concen: 2945.29 ng/mL M4
 RT: 25.936 min Scan# 1957
 Delta R.T. 0.018 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:152 Resp: 378670

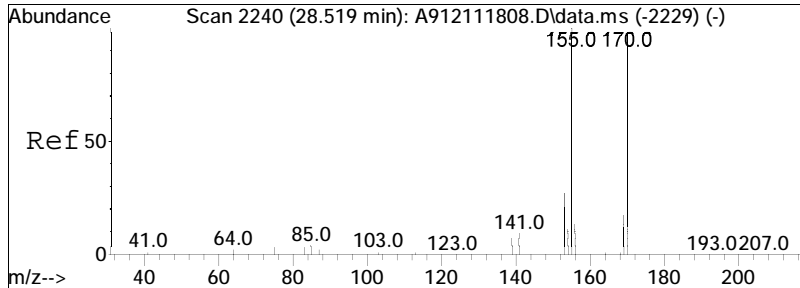




#25
 Acenaphthene
 Concen: 63144.94 ng/mL
 RT: 26.703 min Scan# 2041
 Delta R.T. 0.046 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

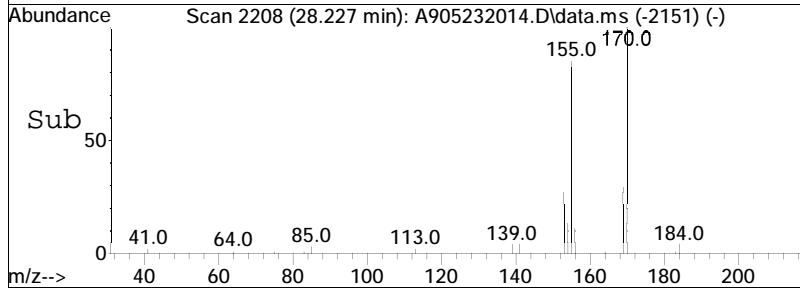
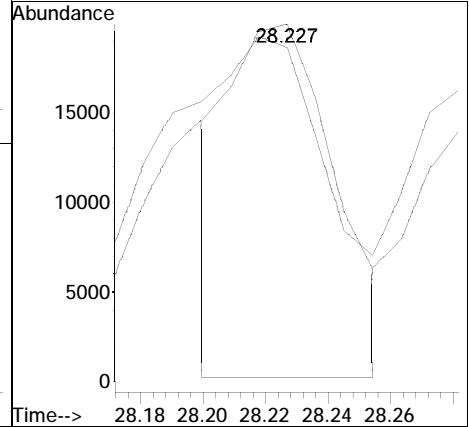
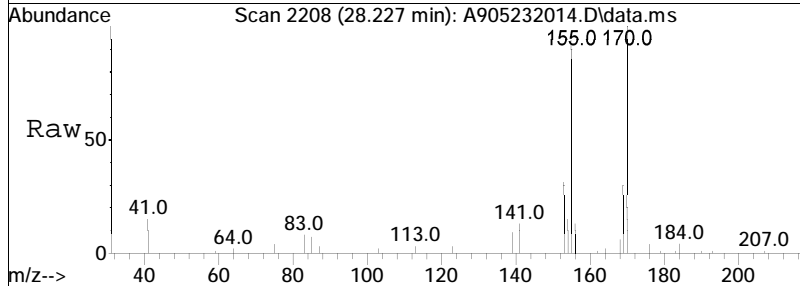
Tgt Ion: 153 Resp: 5030756
 Ion Ratio Lower Upper
 153 100
 154 95.5 65.0 120.8

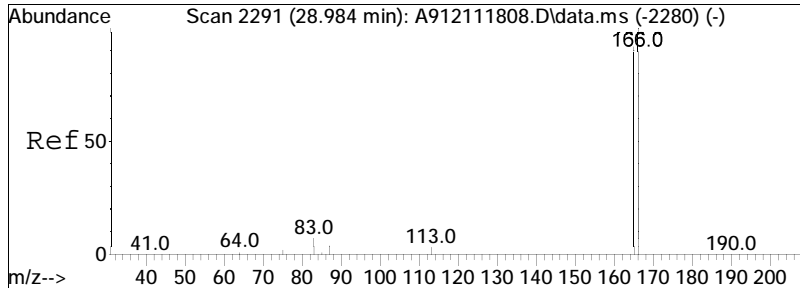




#26
 2,3,5-Trimethylnaphthalene
 Concen: 669.24 ng/mL M3
 RT: 28.227 min Scan# 2208
 Delta R.T. 0.018 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

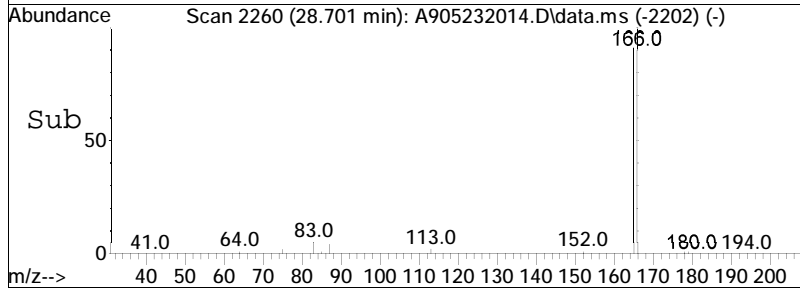
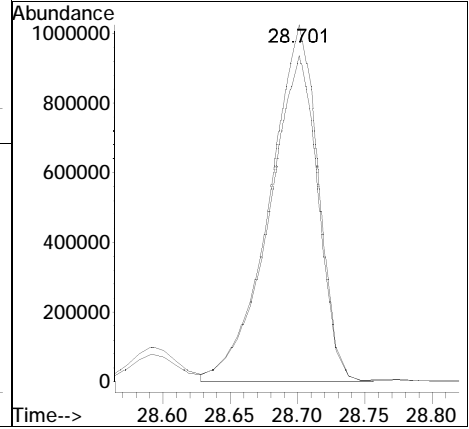
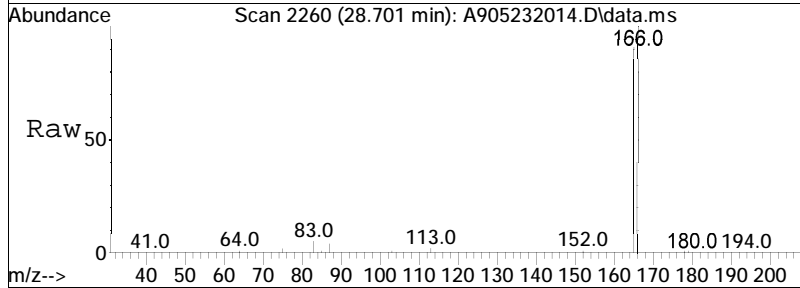
Tgt Ion	Resp	Lower	Upper
170	100		
155	159.7	69.6	129.2#

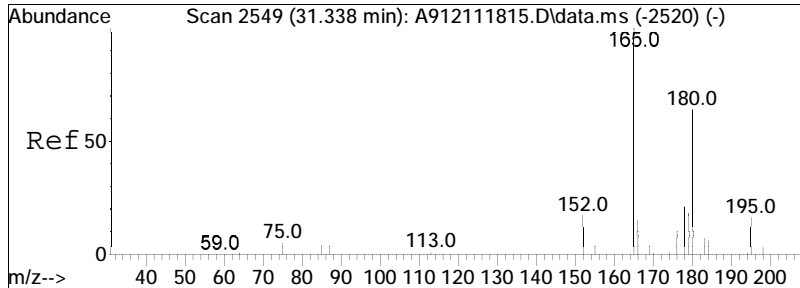




#27
 Fluorene
 Concen: 27230.02 ng/mL
 RT: 28.701 min Scan# 2260
 Delta R.T. 0.027 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

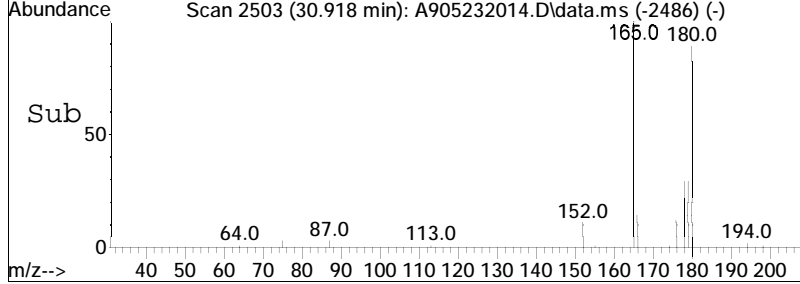
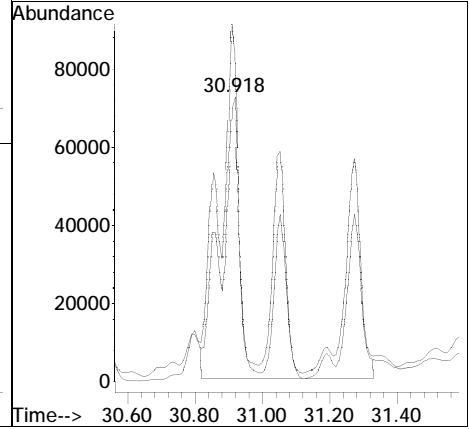
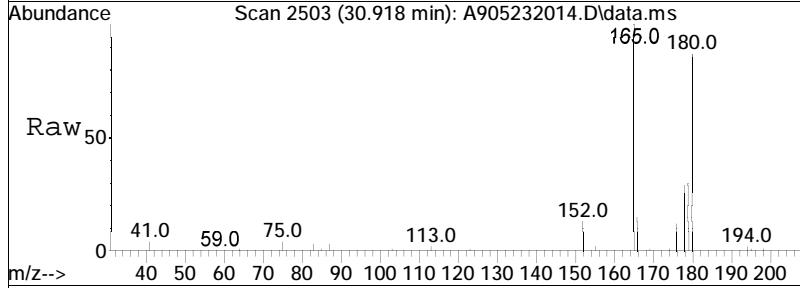
Tgt Ion	Resp	Lower	Upper
166	100		
165	90.9	65.4	121.4

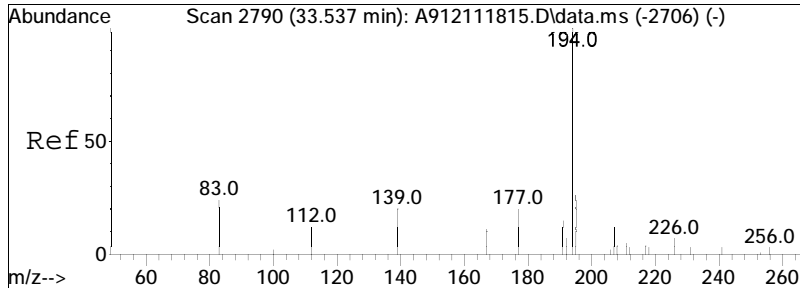




#28
 Cl-Fluorenes
 Concen: 5509.84 ng/mL M5
 RT: 30.918 min Scan# 2503
 Delta R.T. -0.114 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

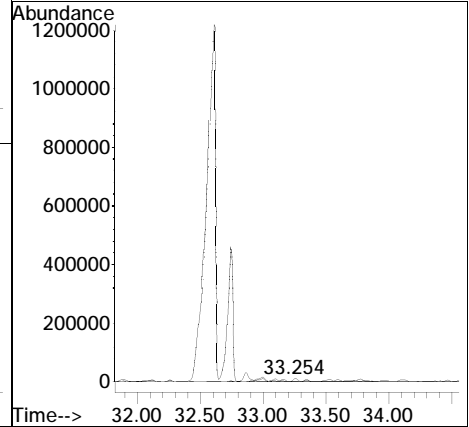
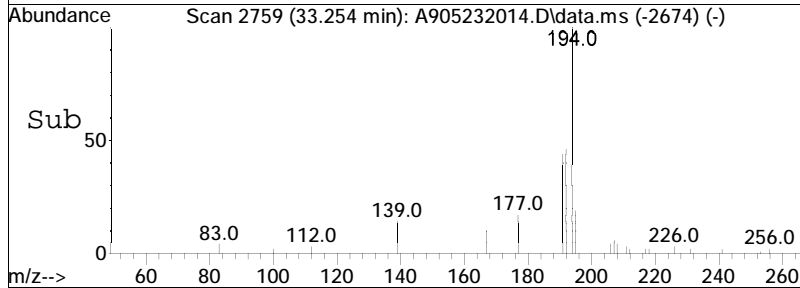
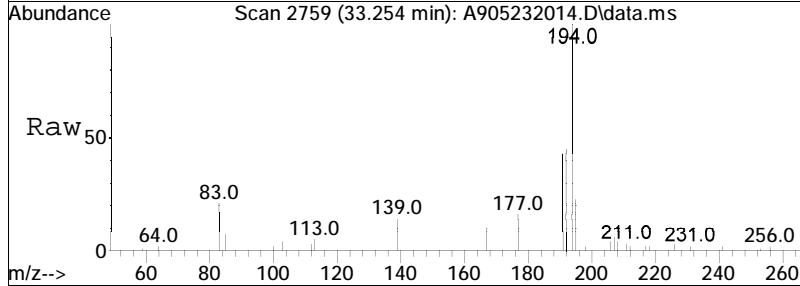
Tgt Ion: 180 Resp: 520064
 Ion Ratio Lower Upper
 180 100
 165 28.4 101.1 187.7#

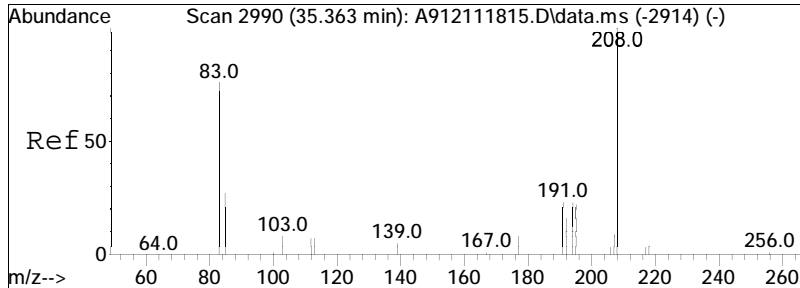




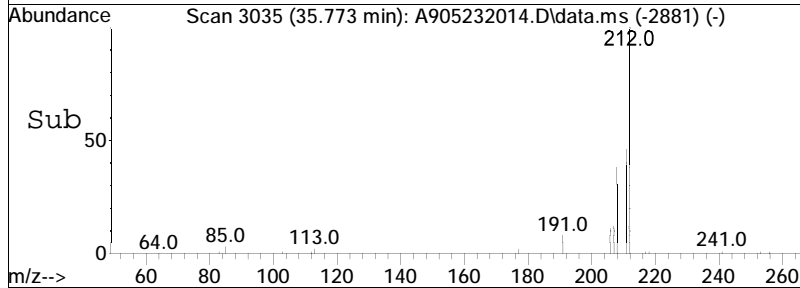
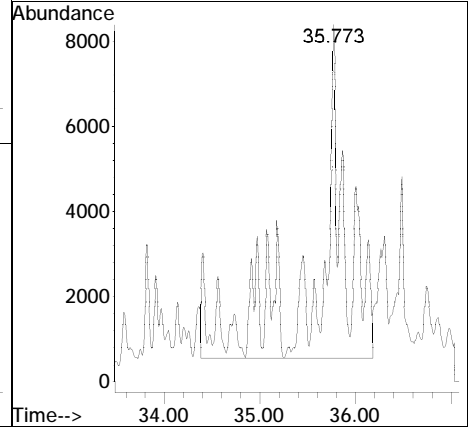
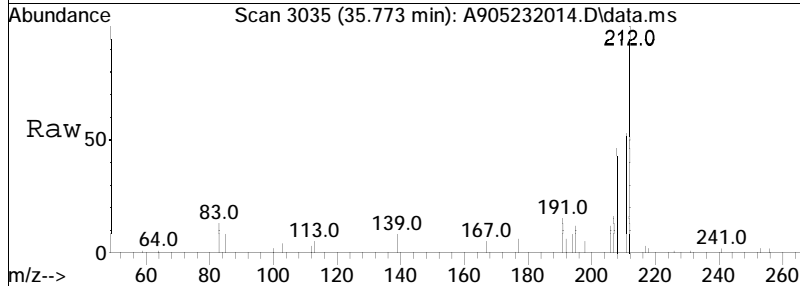
#29
 C2-Fluorenes
 Concen: 3003.76 ng/mL M5
 RT: 33.254 min Scan# 2759
 Delta R.T. 0.025 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

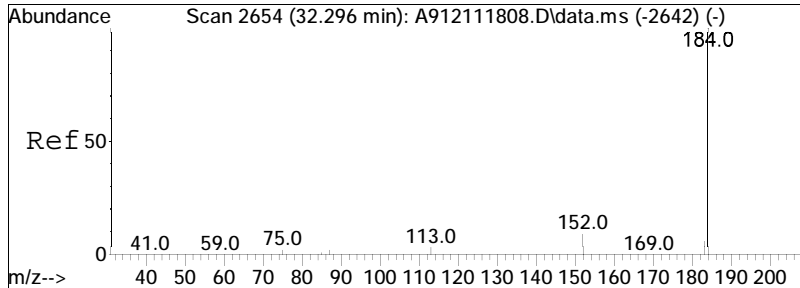
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	1.7	24.1	44.8#





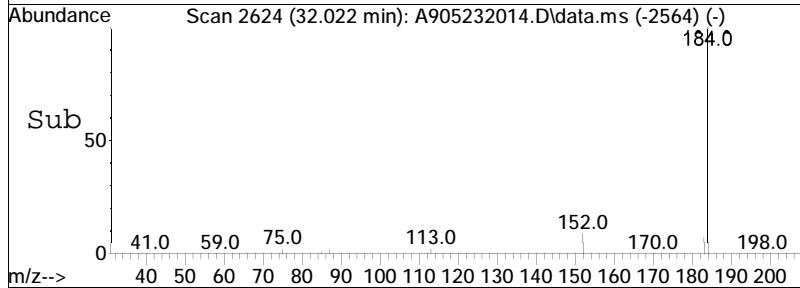
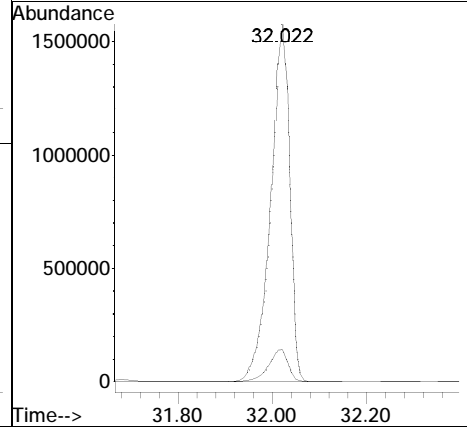
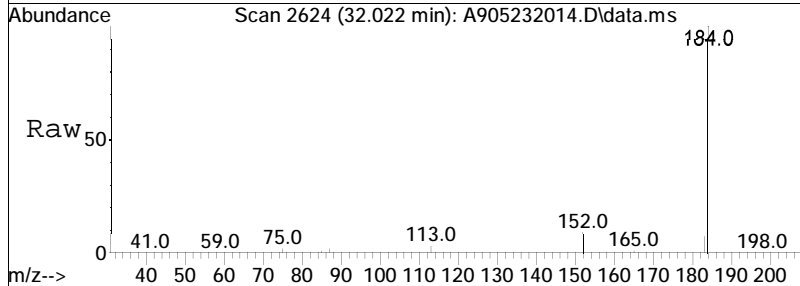
#30
 C3-Fluorenes
 Concen: 1667.74 ng/mL M5
 RT: 35.773 min Scan# 3035
 Delta R.T. 0.721 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion: 208 Resp: 157415

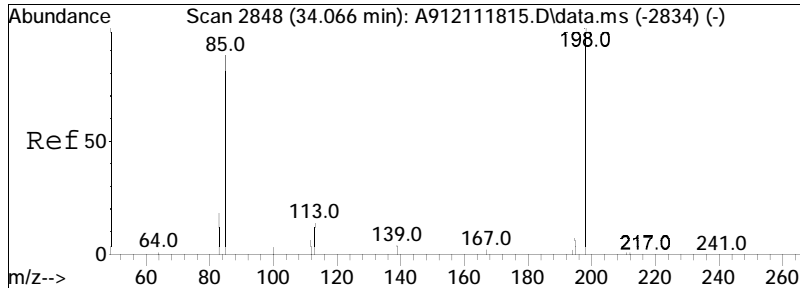




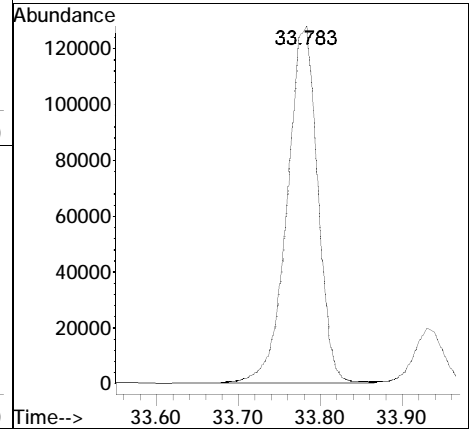
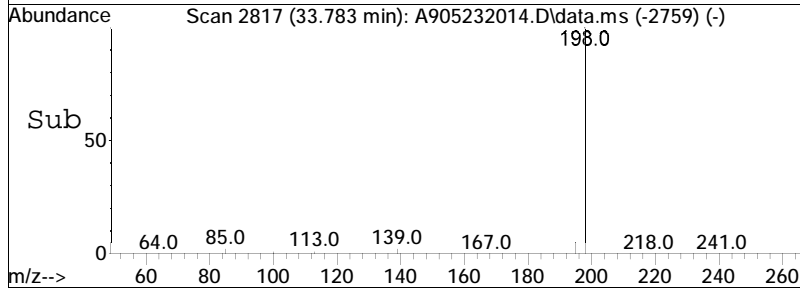
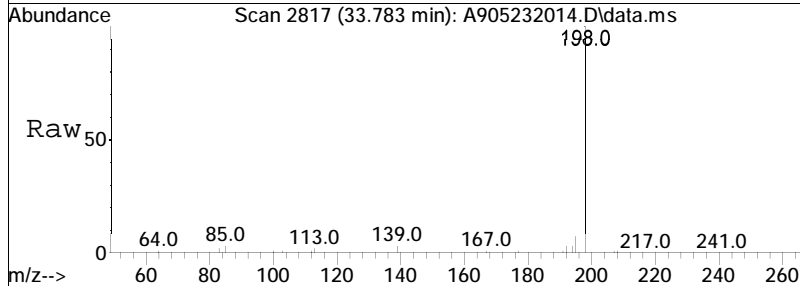
#31
 Dibenzothiophene
 Concen: 30815.51 ng/mL
 RT: 32.022 min Scan# 2624
 Delta R.T. 0.046 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

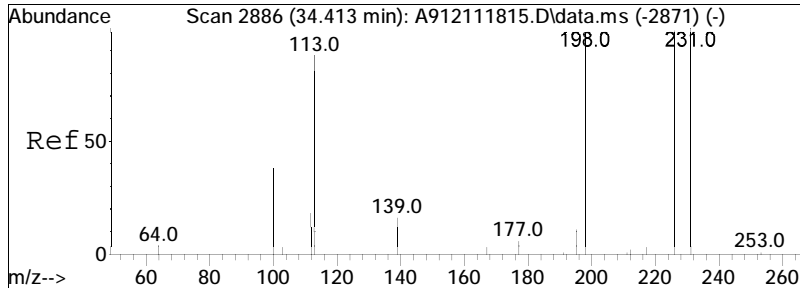
Tgt Ion: 184 Resp: 4298782
 Ion Ratio Lower Upper
 184 100
 152 9.3 6.4 11.8



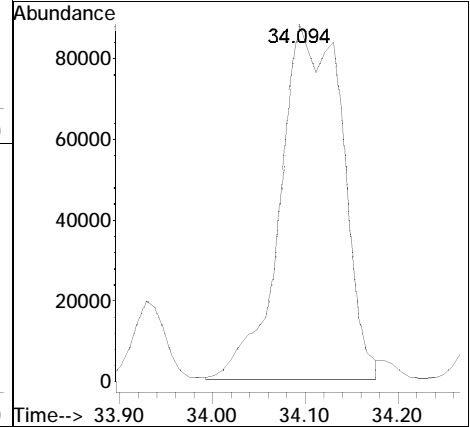
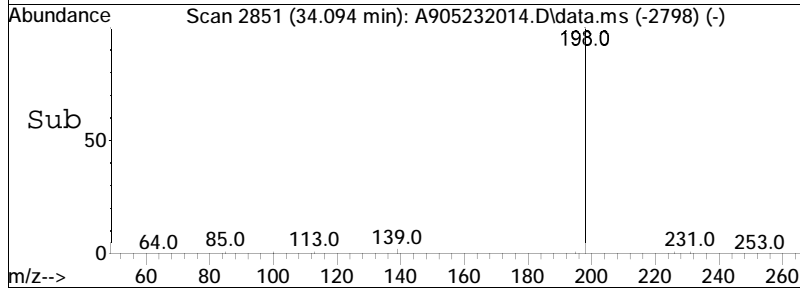
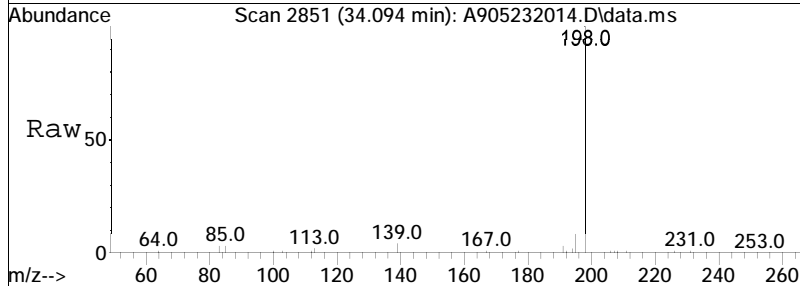


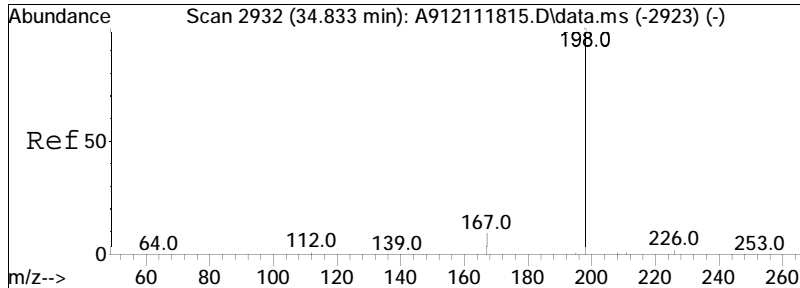
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 2331.78 ng/mL
 RT: 33.783 min Scan# 2817
 Delta R.T. 0.028 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion: 198 Resp: 325285



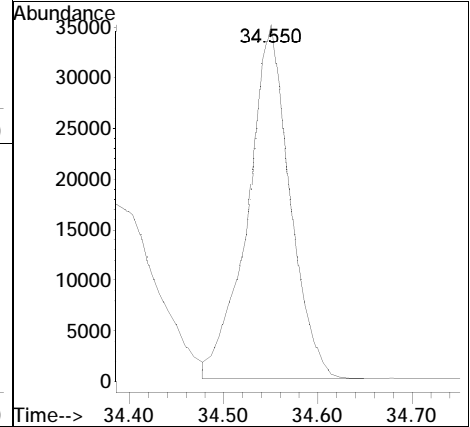
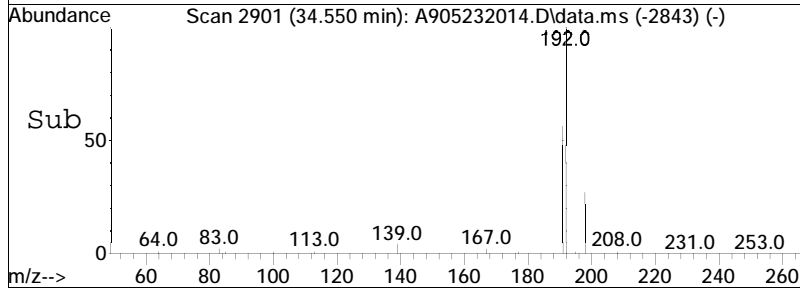
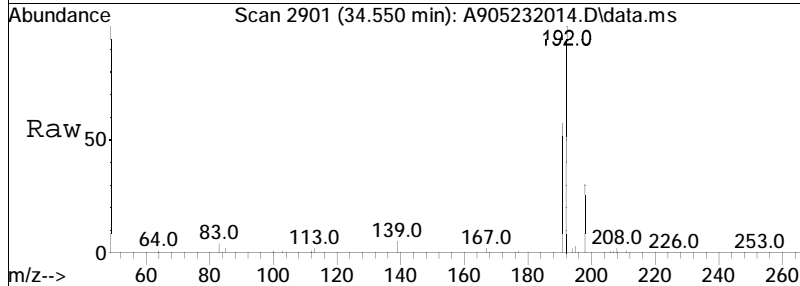


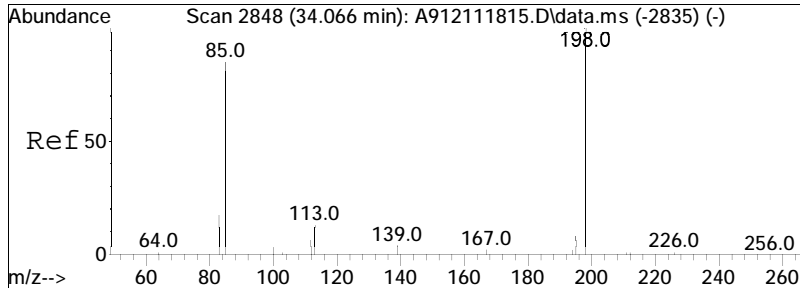
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 2906.97 ng/mL M4
 RT: 34.094 min Scan# 2851
 Delta R.T. -0.018 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:198 Resp: 405524



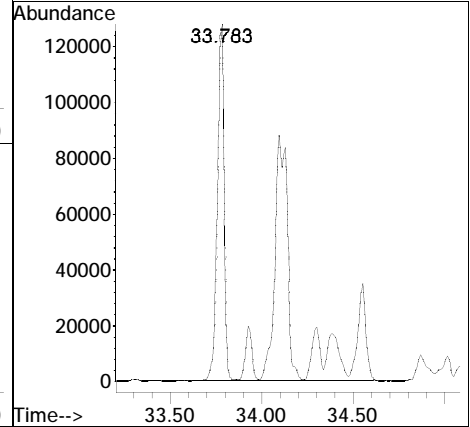
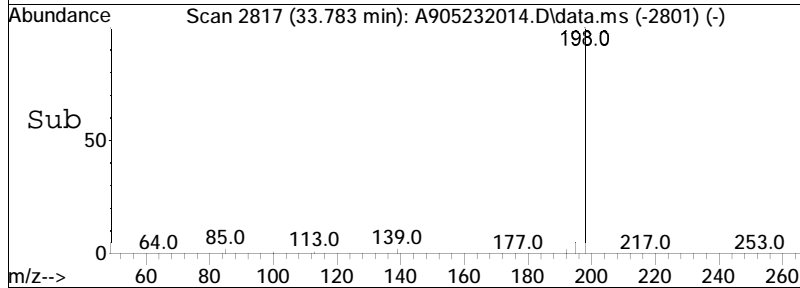
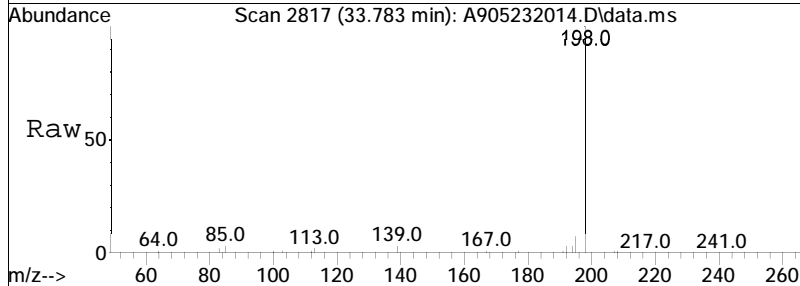


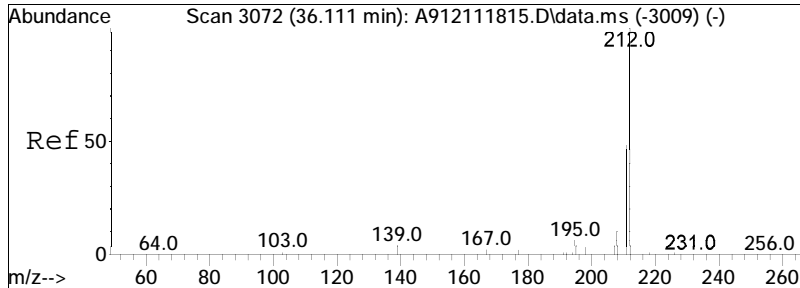
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 772.83 ng/mL
 RT: 34.550 min Scan# 2901
 Delta R.T. 0.028 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:198 Resp: 107810



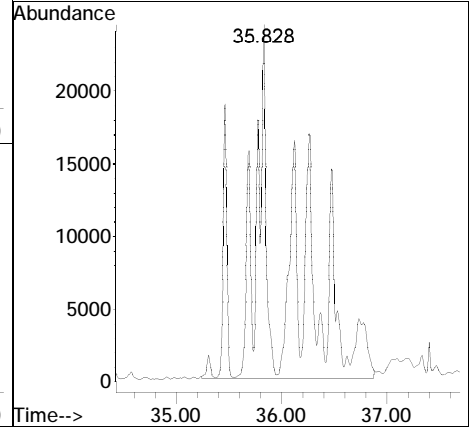
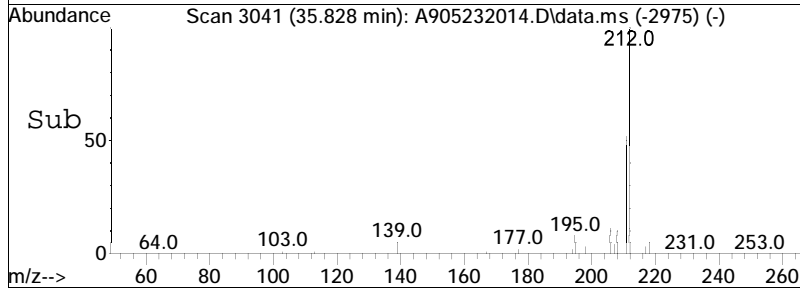
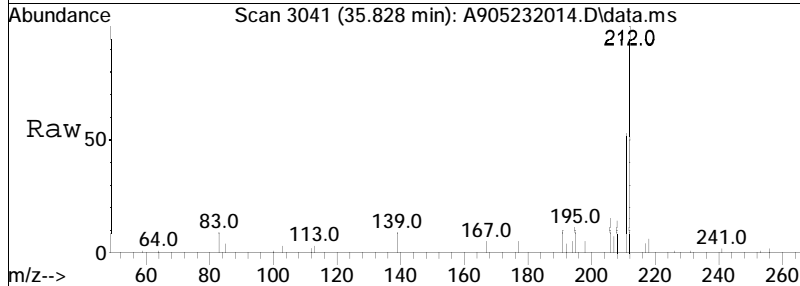


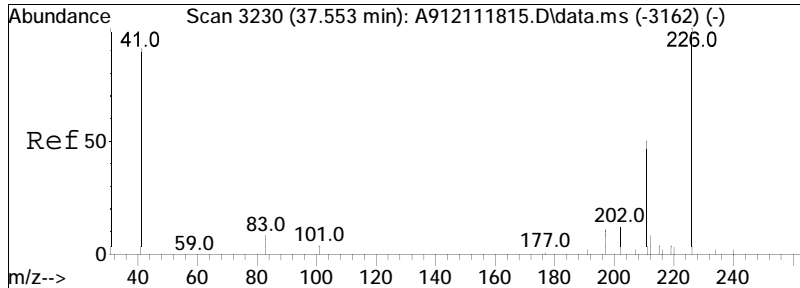
#36
 Cl-Dibenzothiophenes
 Concen: 7456.83 ng/mL M5
 RT: 33.783 min Scan# 2817
 Delta R.T. 0.035 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:198 Resp: 1040232





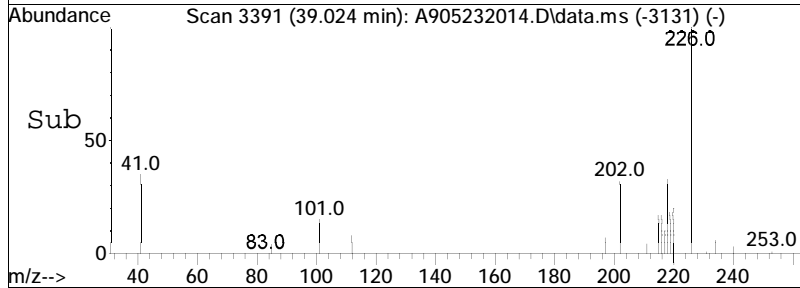
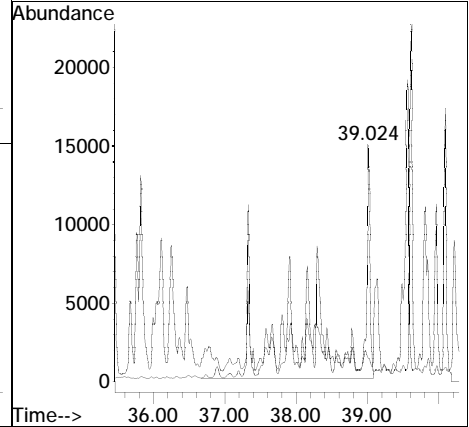
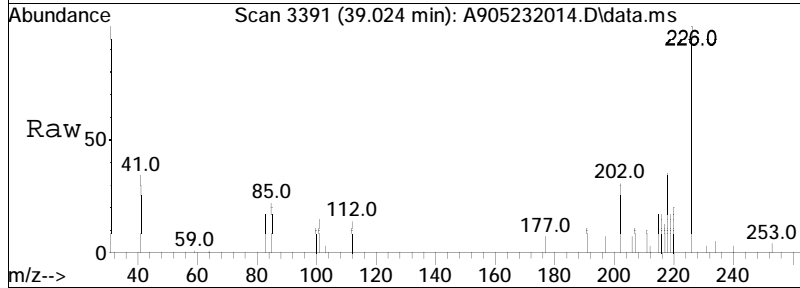
#37
 C2-Dibenzothiophenes
 Concen: 3384.54 ng/mL M5
 RT: 35.828 min Scan# 3041
 Delta R.T. 0.393 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:212 Resp: 472145

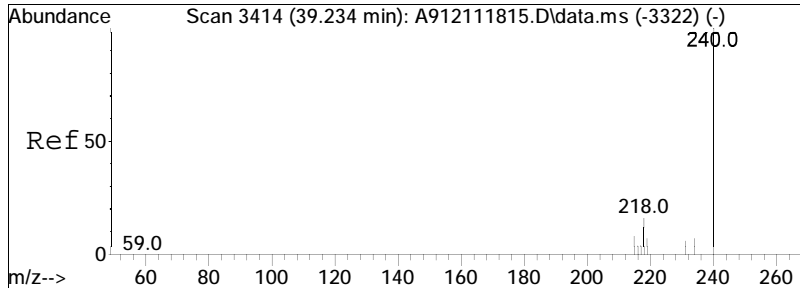




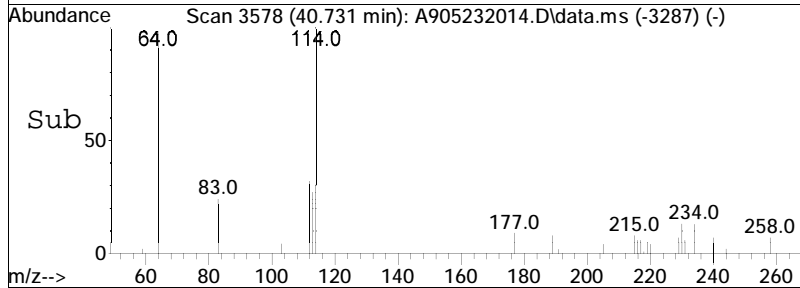
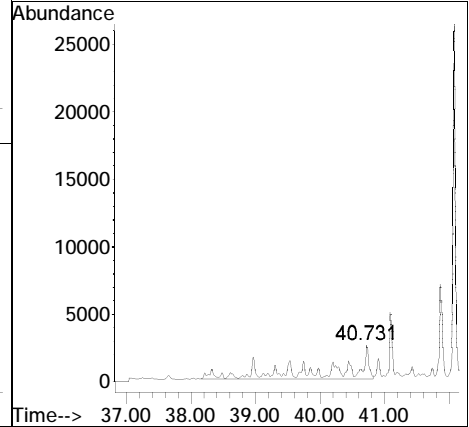
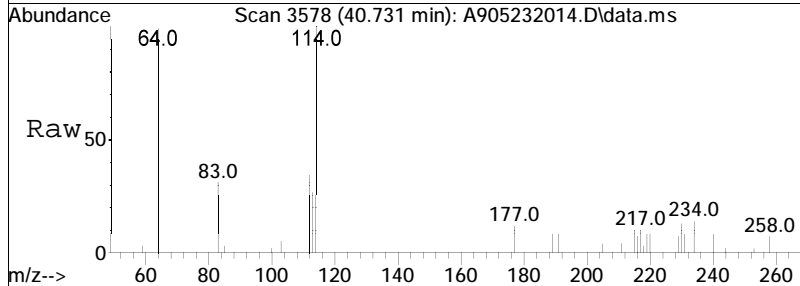
#38
 C3-Dibenzothiophenes
 Concen: 1771.86 ng/mL M5
 RT: 39.024 min Scan# 3391
 Delta R.T. 1.783 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

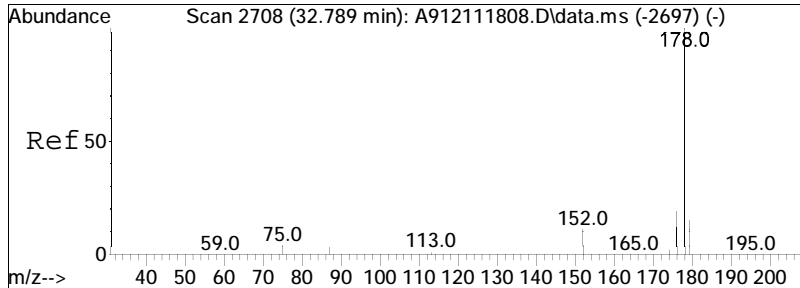
Tgt Ion	Ratio	Lower	Upper
226	100		
211	5.4	40.8	75.8#





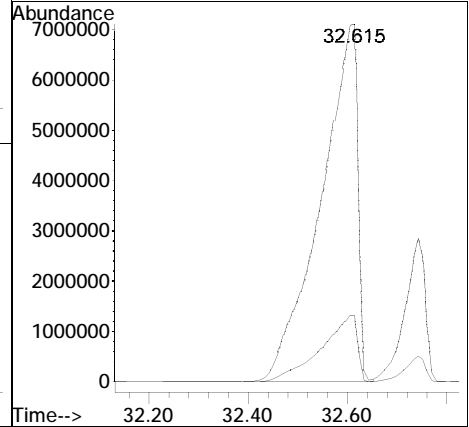
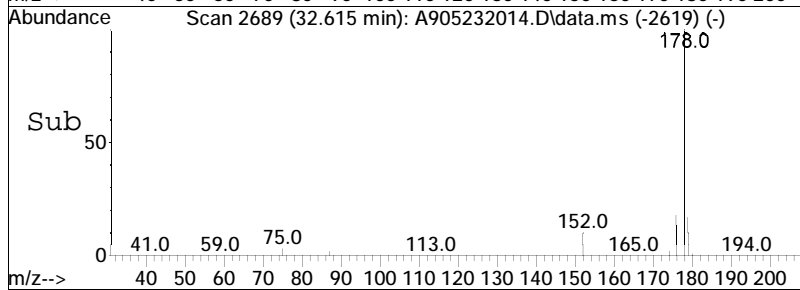
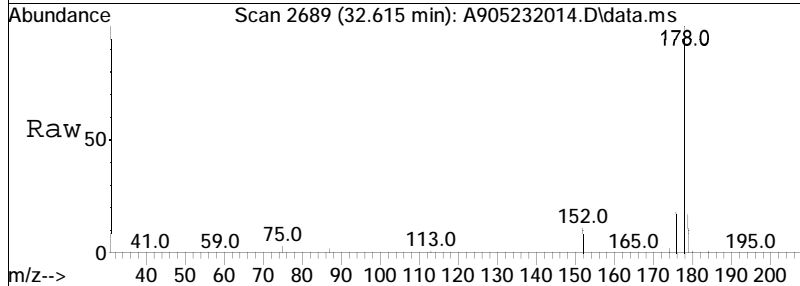
#39
 C4-Dibenzothiophenes
 Concen: 526.79 ng/mL M5
 RT: 40.731 min Scan# 3578
 Delta R.T. 1.802 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:240 Resp: 73488

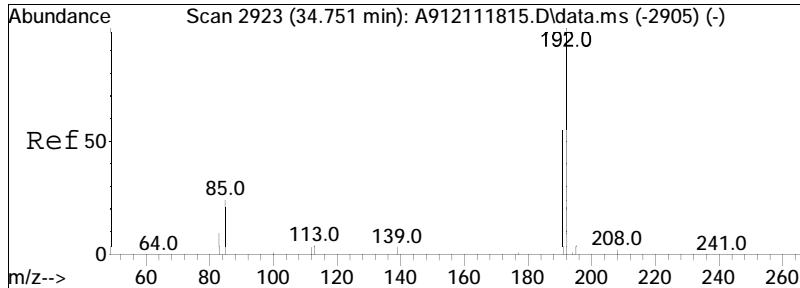




#41
 Phenanthrene
 Concen: 262124.66 ng/mL
 RT: 32.615 min Scan# 2689
 Delta R.T. 0.137 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

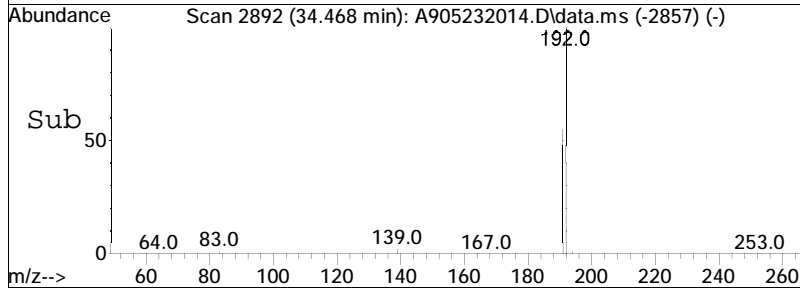
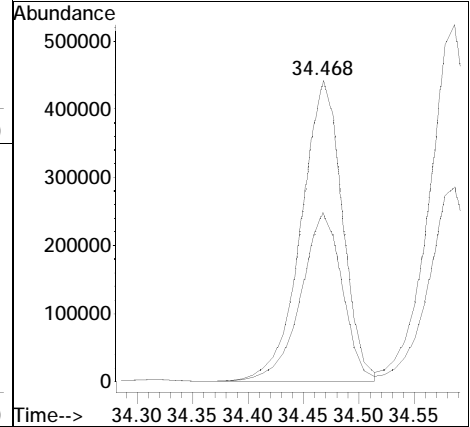
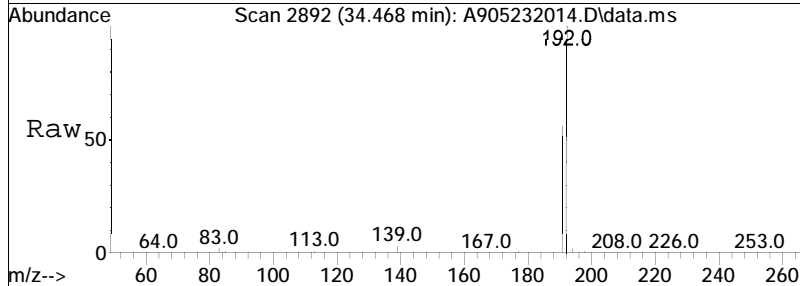
Tgt Ion: 178 Resp: 36453720
 Ion Ratio Lower Upper
 178 100
 176 18.5 13.6 25.4

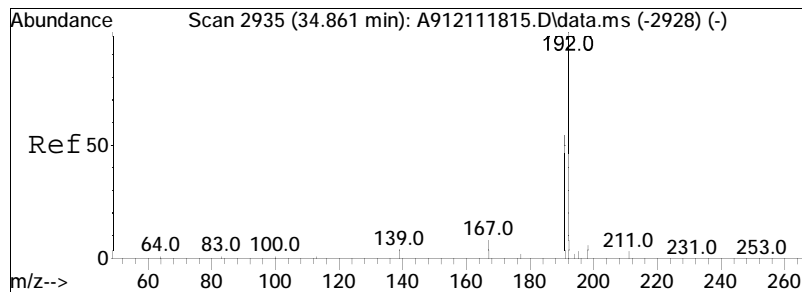




#42
 3-Methylphenanthrene (3MP)
 Concen: 8199.51 ng/mL
 RT: 34.468 min Scan# 2892
 Delta R.T. 0.028 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

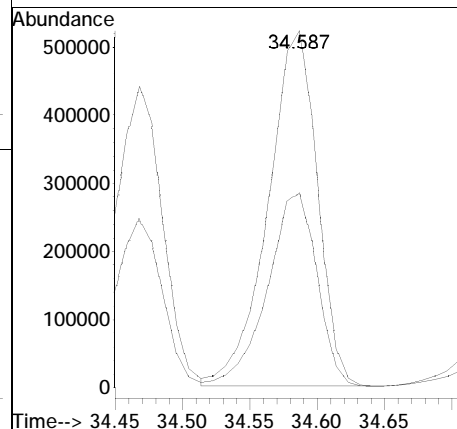
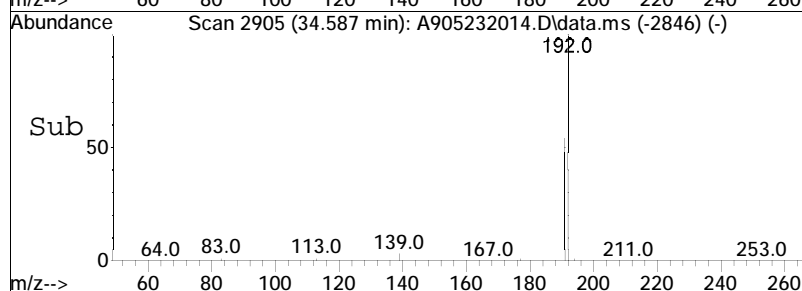
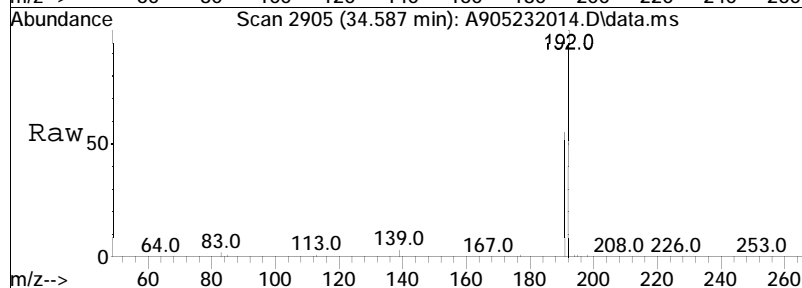
Tgt Ion: 192 Resp: 1140307
 Ion Ratio Lower Upper
 192 100
 191 56.0 40.7 75.7

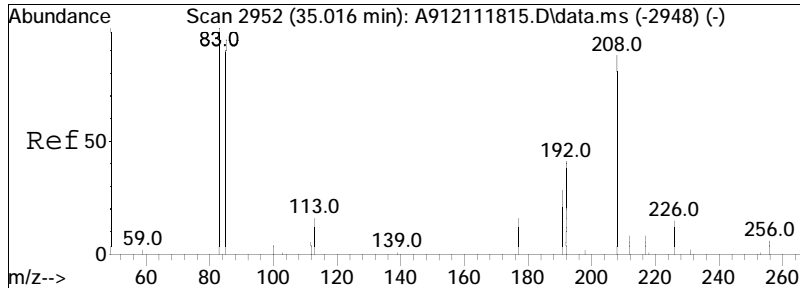




#43
 2-Methylphenanthrene (2MP)
 Concen: 9528.11 ng/mL
 RT: 34.587 min Scan# 2905
 Delta R.T. 0.037 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

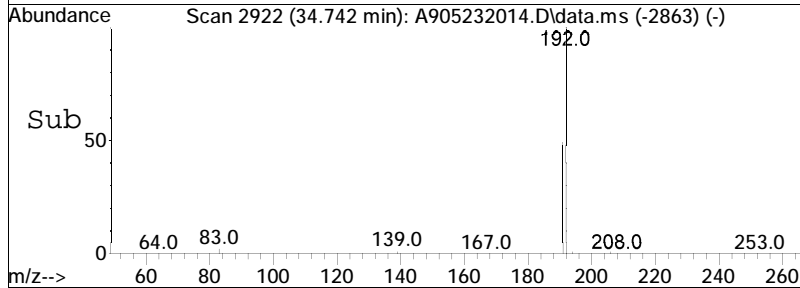
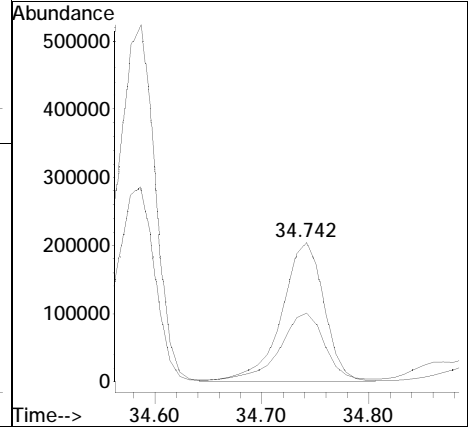
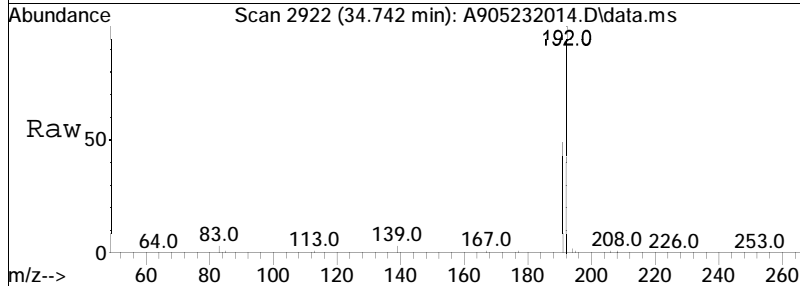
Tgt Ion: 192 Resp: 1325076
 Ion Ratio Lower Upper
 192 100
 191 54.8 39.7 73.7

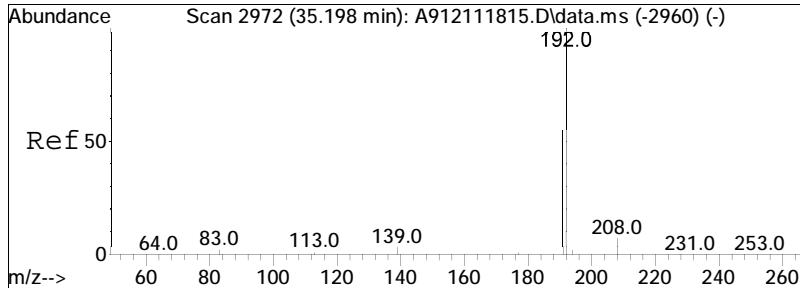




#44
 2-Methylantracene(2MA)
 Concen: 4049.23 ng/mL M4
 RT: 34.742 min Scan# 2922
 Delta R.T. 0.037 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

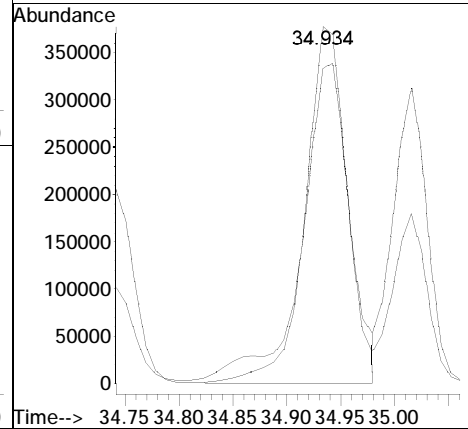
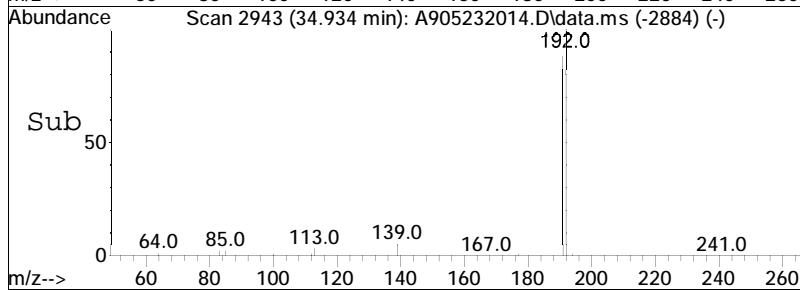
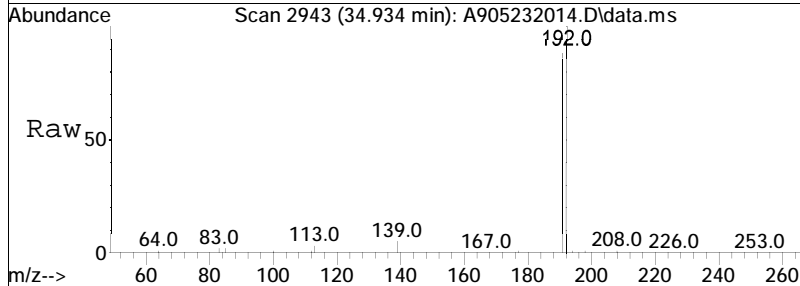
Tgt Ion	Resp	Lower	Upper
192	100		
191	179.9	80.0	148.6#

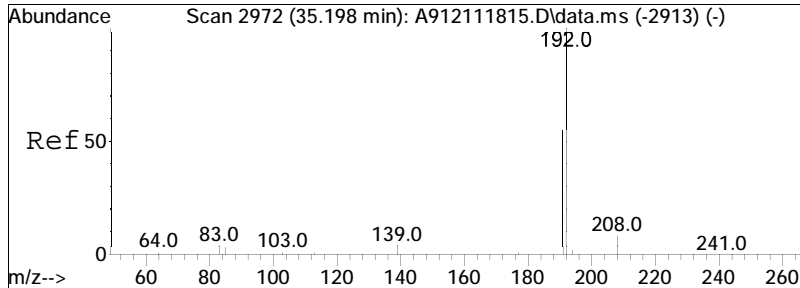




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 7373.15 ng/mL M4
 RT: 34.934 min Scan# 2943
 Delta R.T. 0.037 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

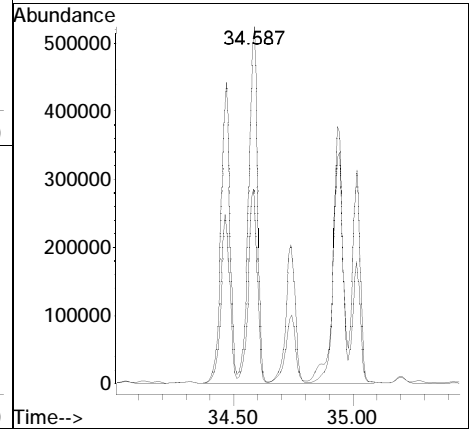
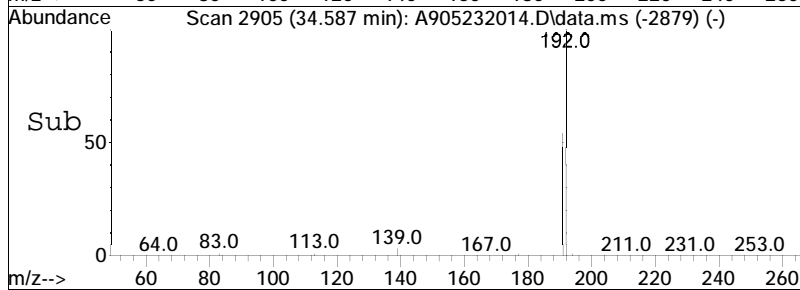
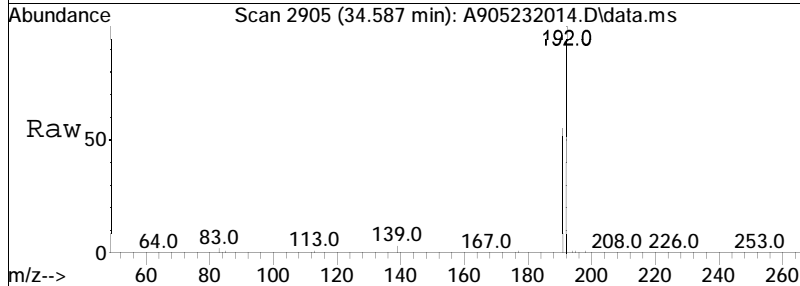
Tgt Ion:192 Resp: 1025385
 Ion Ratio Lower Upper
 192 100
 191 38.1 39.7 73.7#

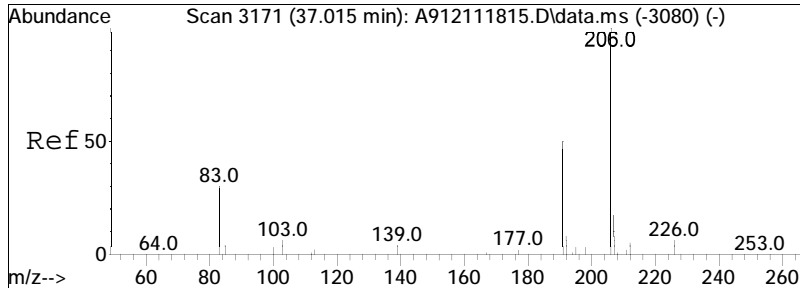




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 34189.93 ng/mL M5
 RT: 34.587 min Scan# 2905
 Delta R.T. -0.302 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

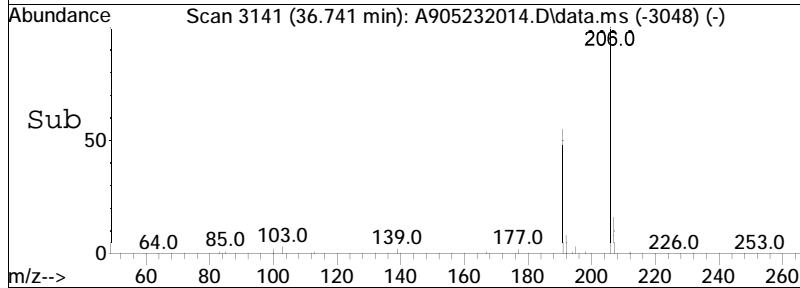
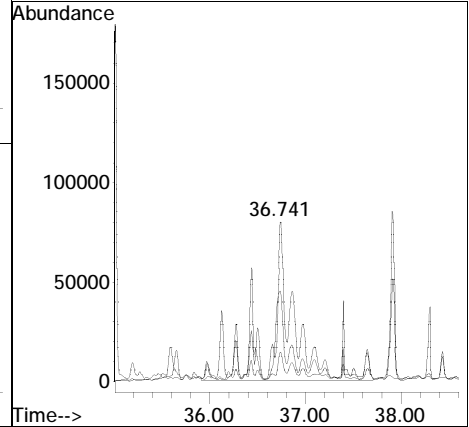
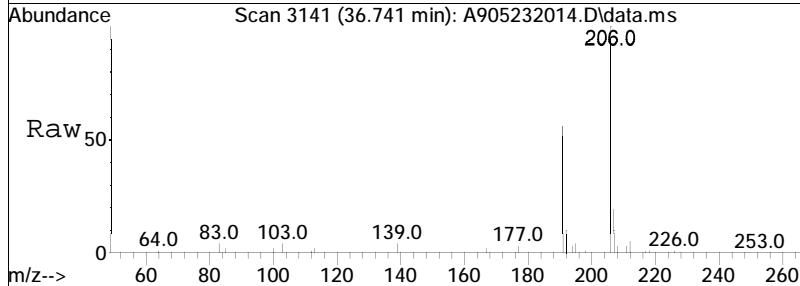
Tgt Ion: 192 Resp: 4754799
 Ion Ratio Lower Upper
 192 100
 191 6.0 39.3 72.9#

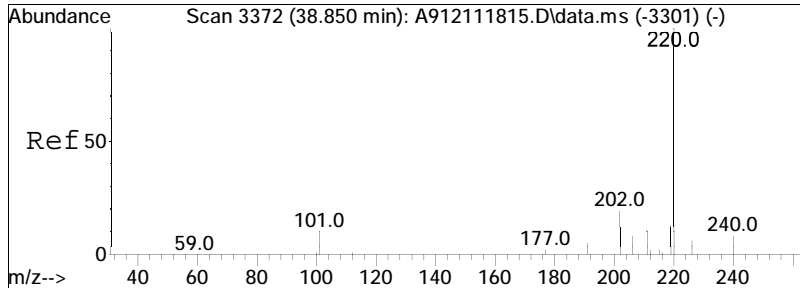




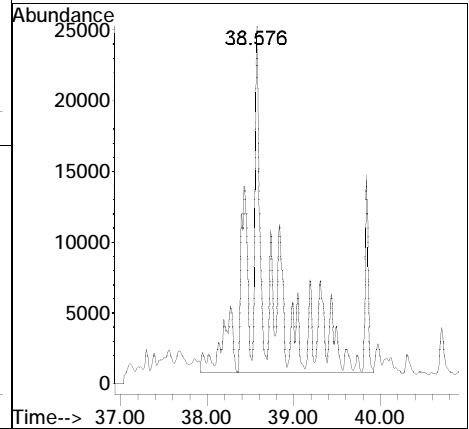
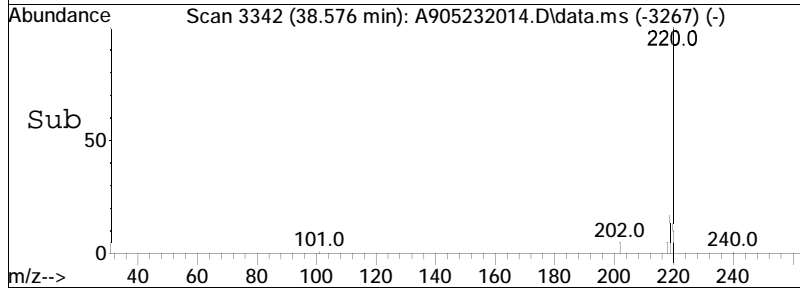
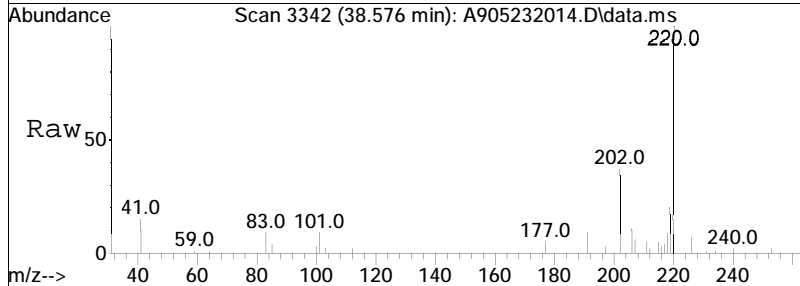
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 9047.40 ng/mL M5
 RT: 36.741 min Scan# 3141
 Delta R.T. 0.038 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

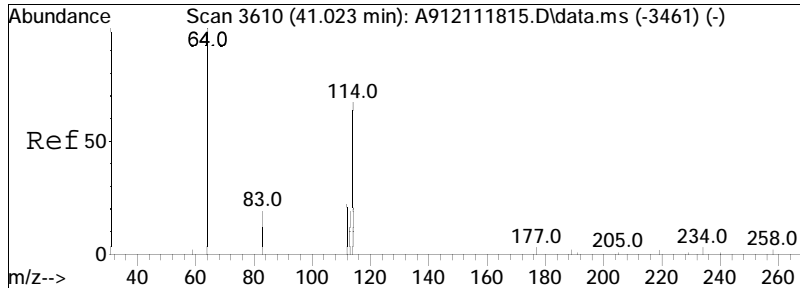
Tgt Ion	Ratio	Lower	Upper
206	100		
191	4.0	36.4	67.6#
207	0.9	14.4	26.7#





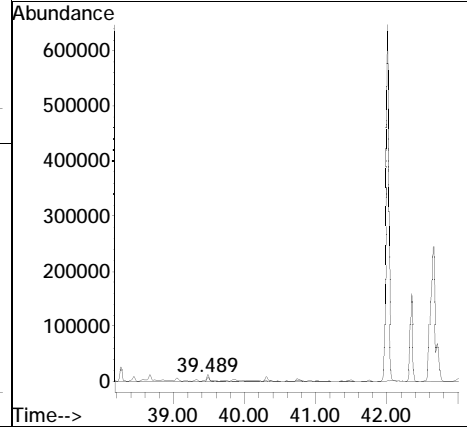
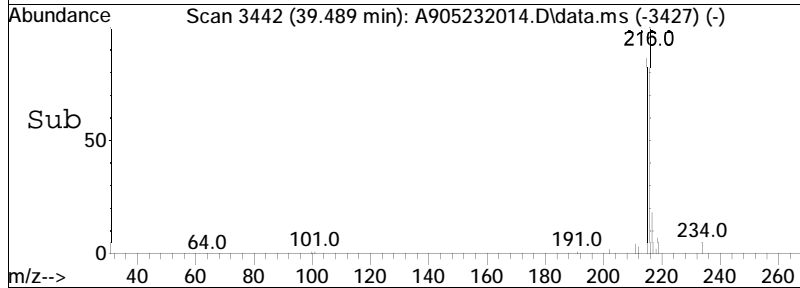
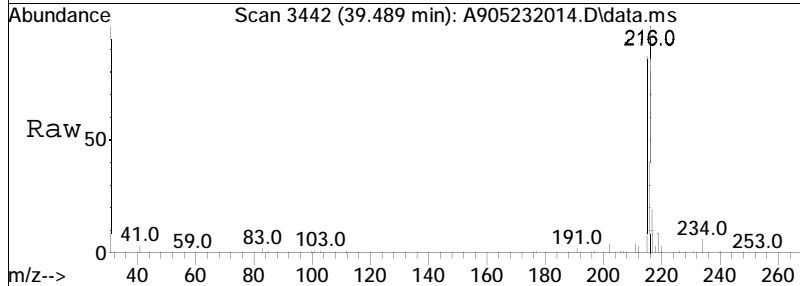
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 3003.23 ng/mL M5
 RT: 38.576 min Scan# 3342
 Delta R.T. 0.040 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:220 Resp: 417660

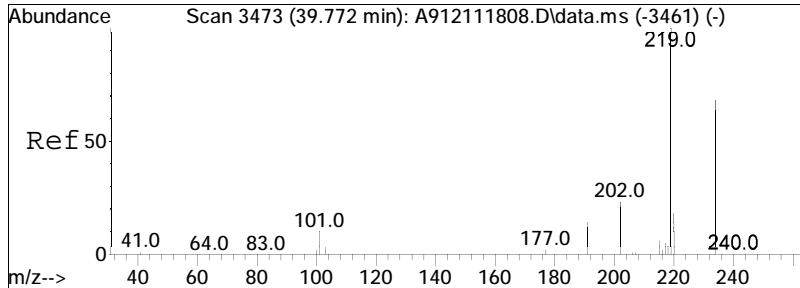




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 1008.04 ng/mL M5
 RT: 39.489 min Scan# 3442
 Delta R.T. -1.218 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

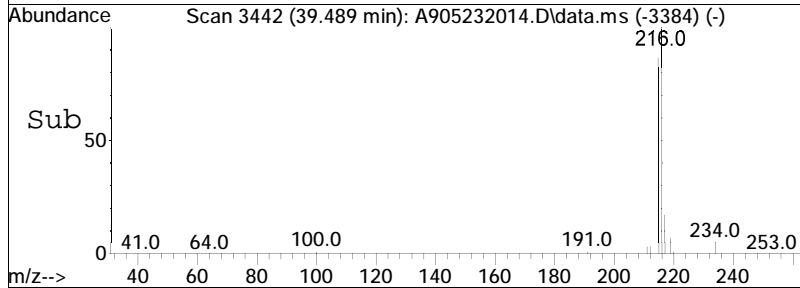
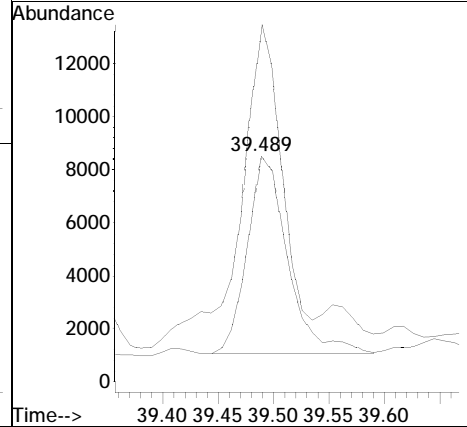
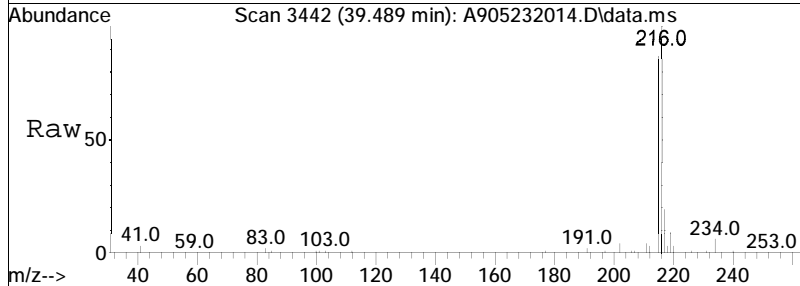
Tgt Ion	Ratio	Lower	Upper
234	100		
219	0.7	43.7	81.1#

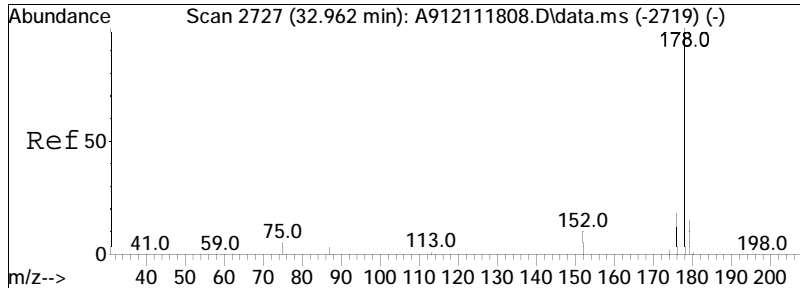




#52
 Retene
 Concen: 410.92 ng/mL
 RT: 39.489 min Scan# 3442
 Delta R.T. 0.028 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

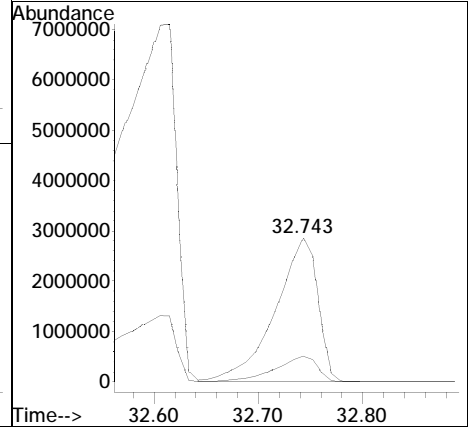
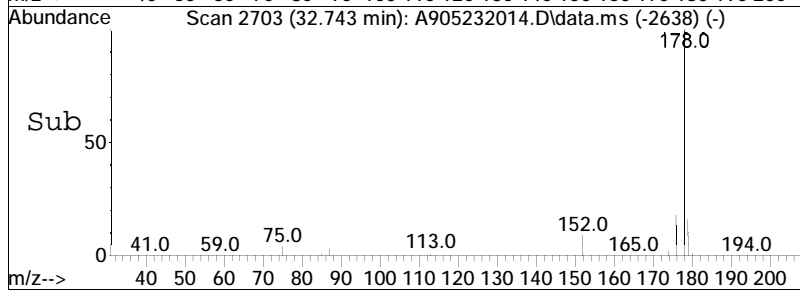
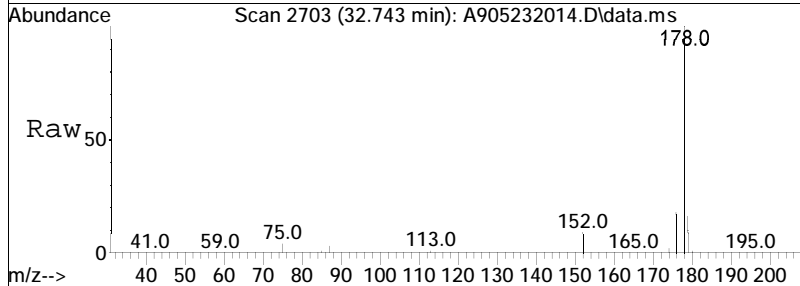
Tgt Ion	Resp	Lower	Upper
234	19071		
234	100		
219	171.6	104.0	193.2

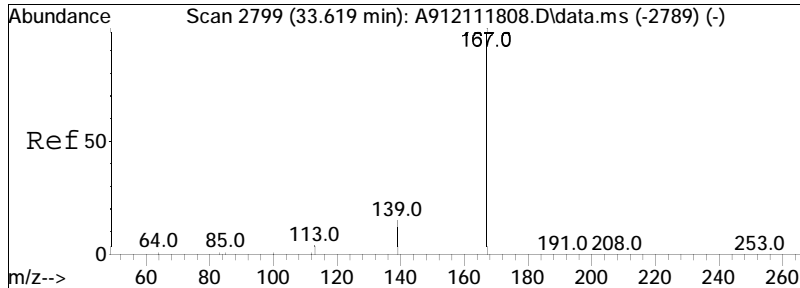




#53
 Anthracene
 Concen: 66291.06 ng/mL M4
 RT: 32.743 min Scan# 2703
 Delta R.T. 0.091 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

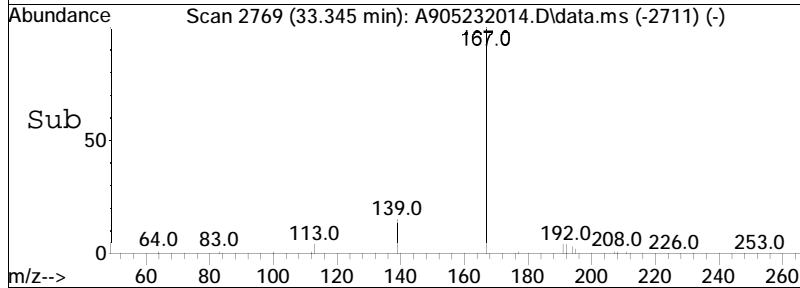
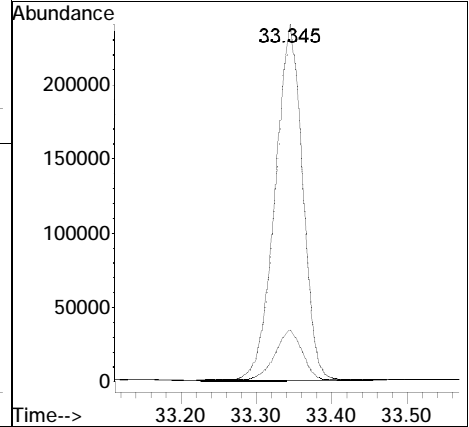
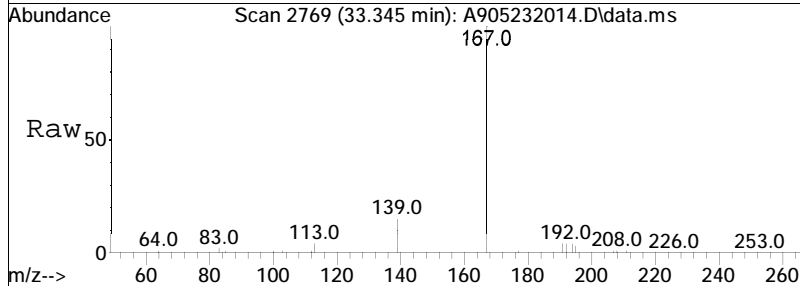
Tgt Ion: 178 Resp: 8129972
 Ion Ratio Lower Upper
 178 100
 176 82.7 13.3 24.7#

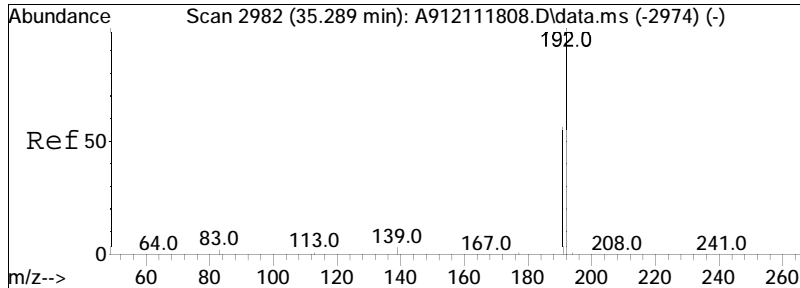




#54
 Carbazole
 Concen: 4698.49 ng/mL
 RT: 33.345 min Scan# 2769
 Delta R.T. 0.028 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

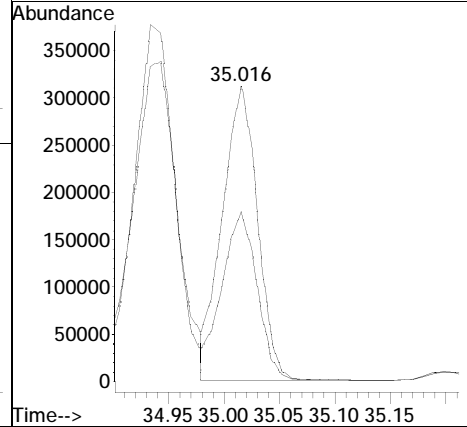
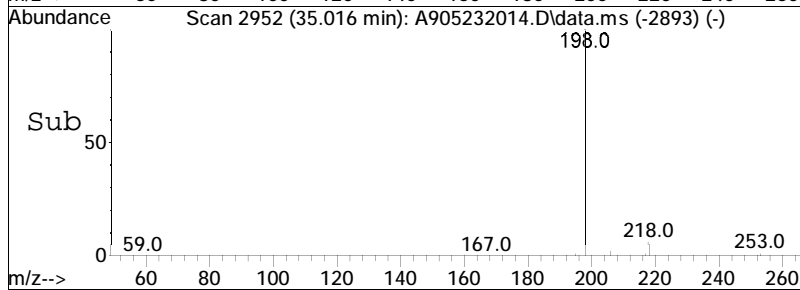
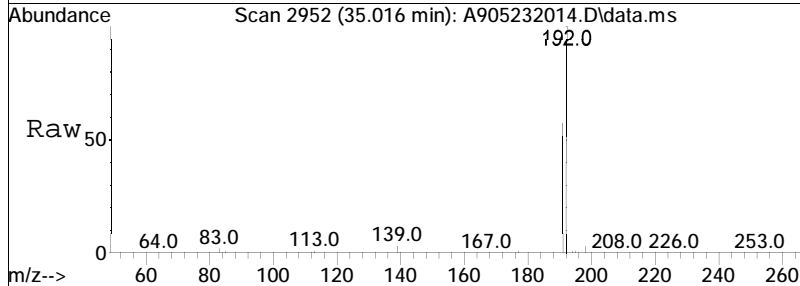
Tgt Ion	Resp	Lower	Upper
167	100		
139	14.2	10.4	19.4

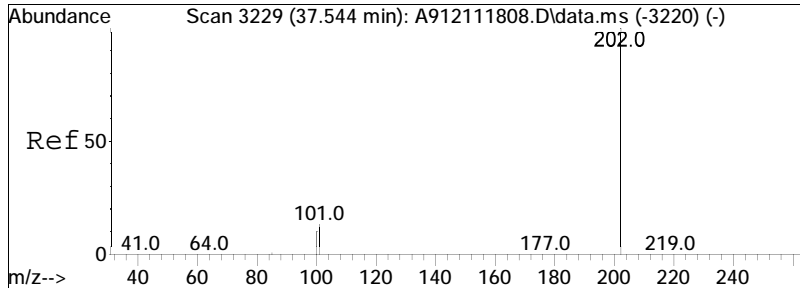




#55
 1-Methylphenanthrene
 Concen: 6674.55 ng/mL
 RT: 35.016 min Scan# 2952
 Delta R.T. 0.037 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

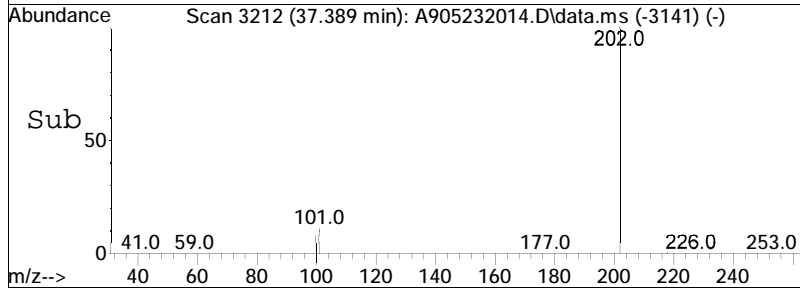
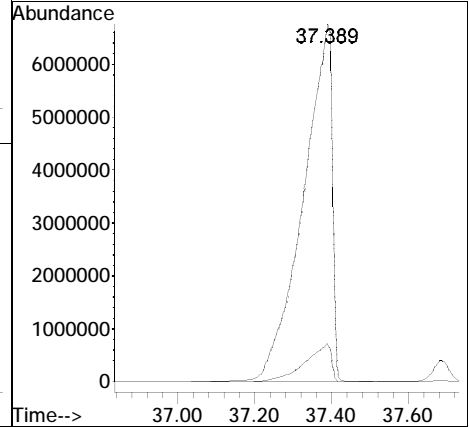
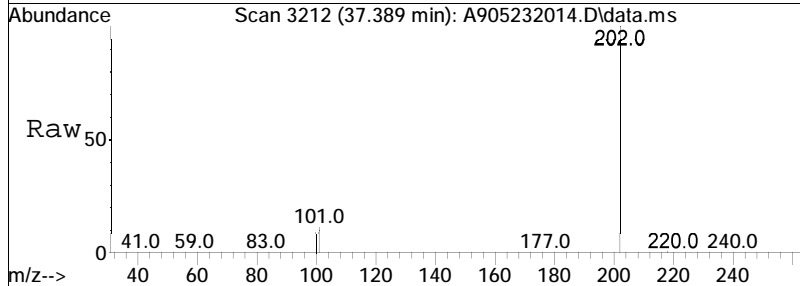
Tgt Ion: 192 Resp: 682676
 Ion Ratio Lower Upper
 192 100
 191 57.3 39.0 72.4

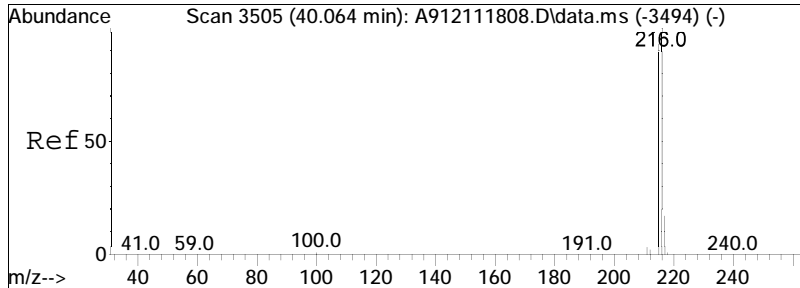




#56
 Fluoranthene
 Concen: 214986.68 ng/mL
 RT: 37.389 min Scan# 3212
 Delta R.T. 0.146 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

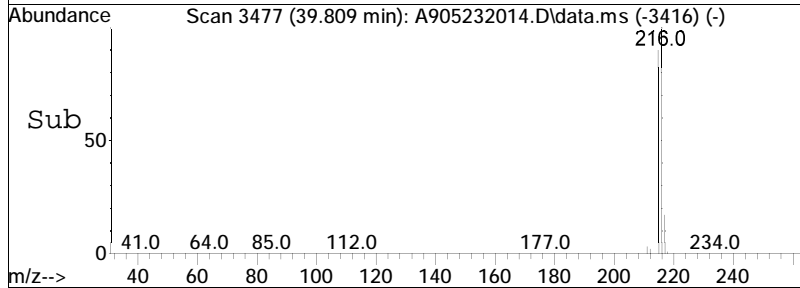
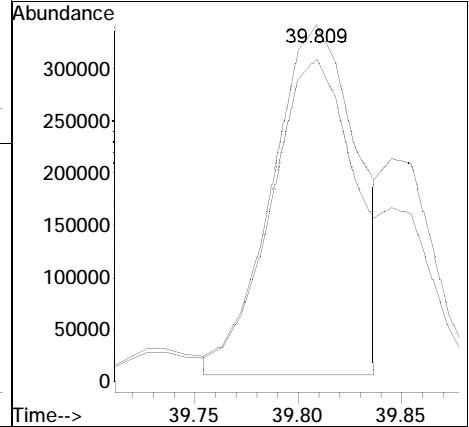
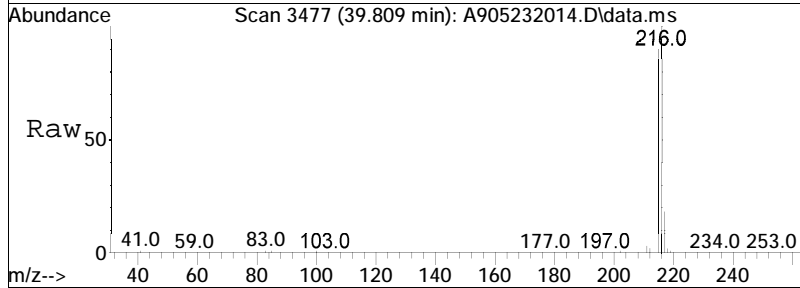
Tgt Ion: 202 Resp: 35048006
 Ion Ratio Lower Upper
 202 100
 101 9.6 6.8 12.6

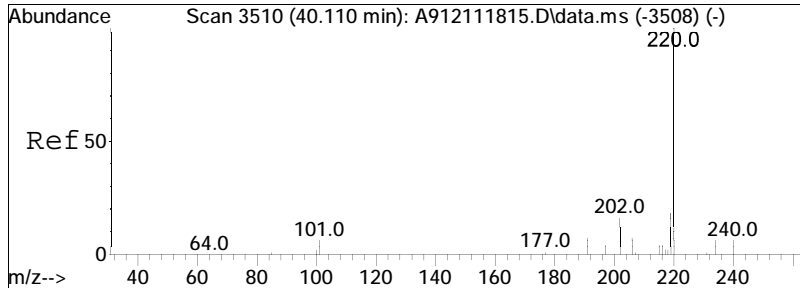




#57
 Benzo(b)fluorene
 Concen: 10082.18 ng/mL M3
 RT: 39.809 min Scan# 3477
 Delta R.T. 0.055 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

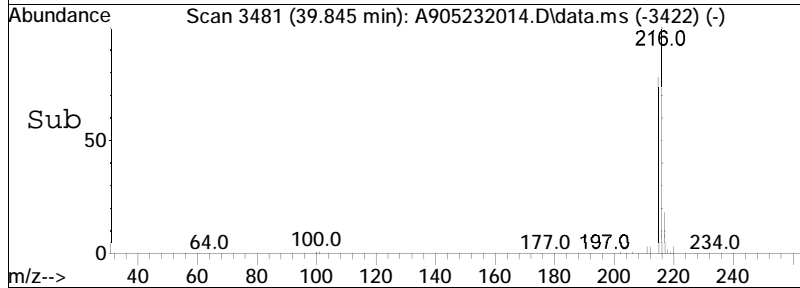
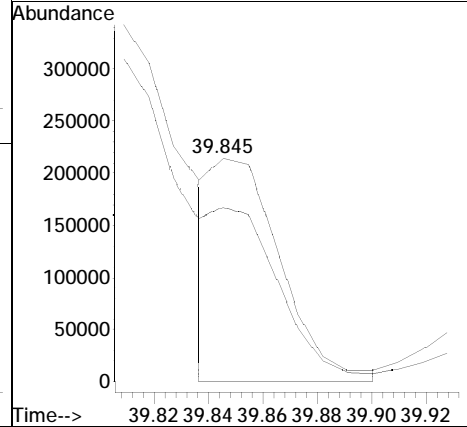
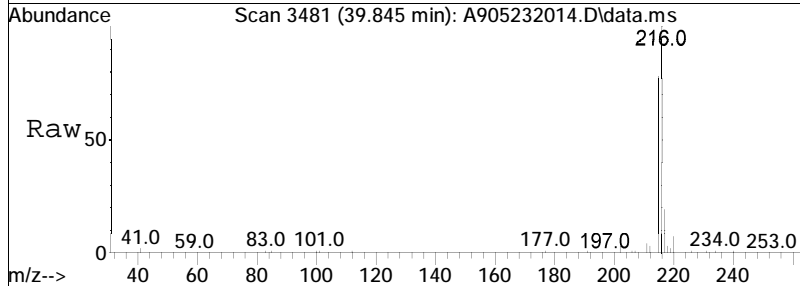
Tgt Ion	Resp	Lower	Upper
216	100		
215	114.4	64.8	120.4

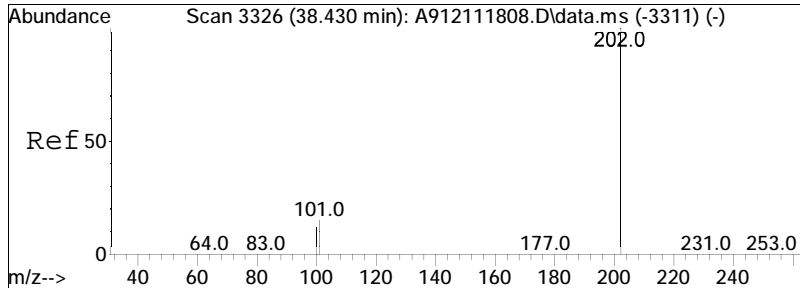




#58
 7H-Benzo(c)fluorene
 Concen: 3801.76 ng/mL M3
 RT: 39.845 min Scan# 3481
 Delta R.T. 0.037 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

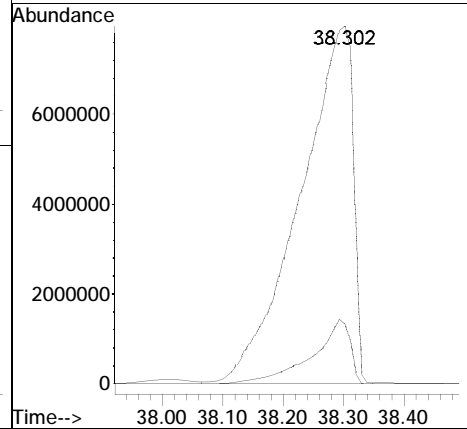
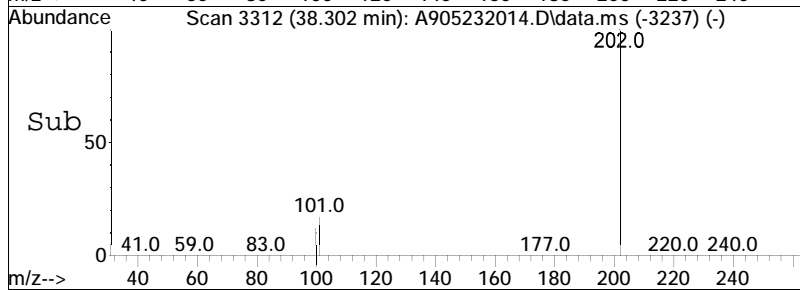
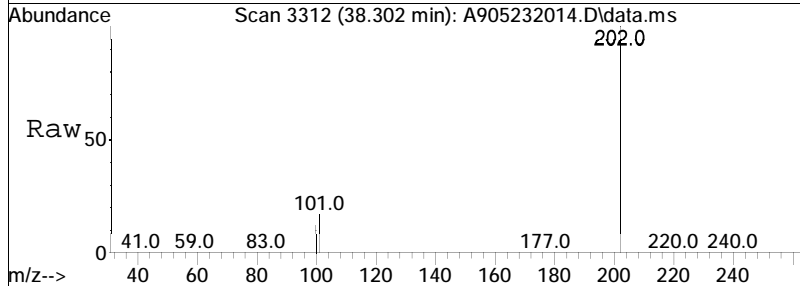
Tgt Ion	Resp	Lower	Upper
216	100		
215	183.2	98.9	183.7

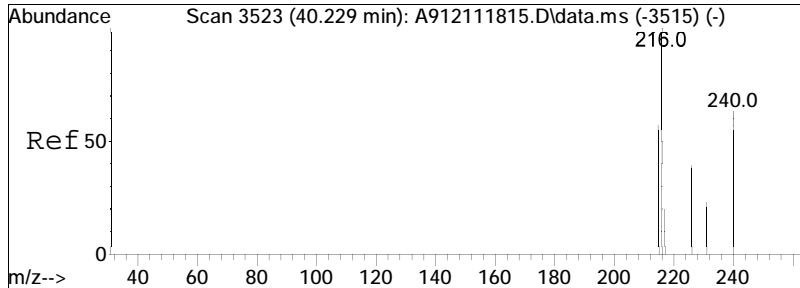




#59
 Pyrene
 Concen: 280246.84 ng/mL M4
 RT: 38.302 min Scan# 3312
 Delta R.T. 0.183 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

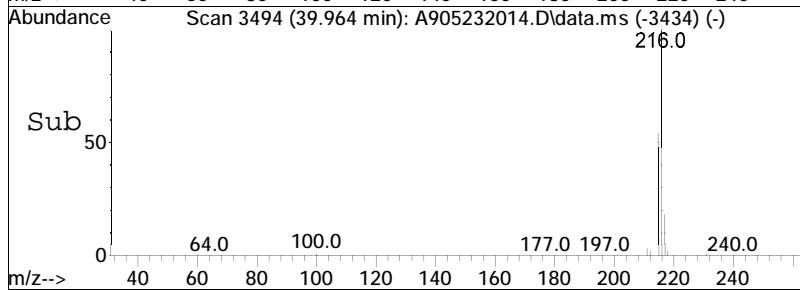
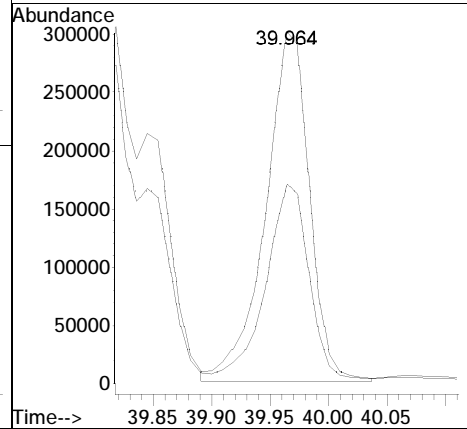
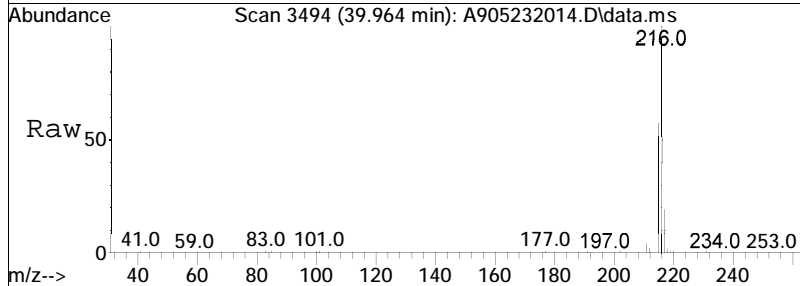
Tgt Ion: 202 Resp: 48242811
 Ion Ratio Lower Upper
 202 100
 101 0.1 7.6 14.0#

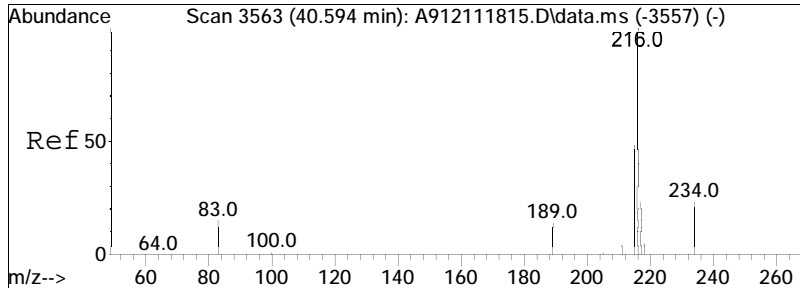




#60
 2-Methylpyrene
 Concen: 4545.10 ng/mL M4
 RT: 39.964 min Scan# 3494
 Delta R.T. 0.046 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

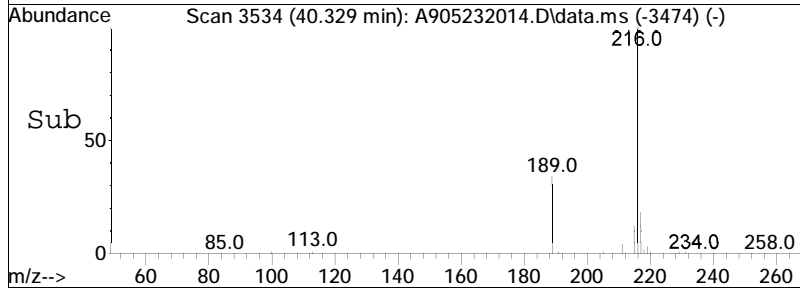
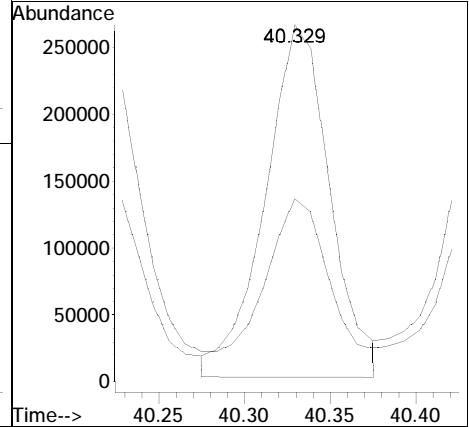
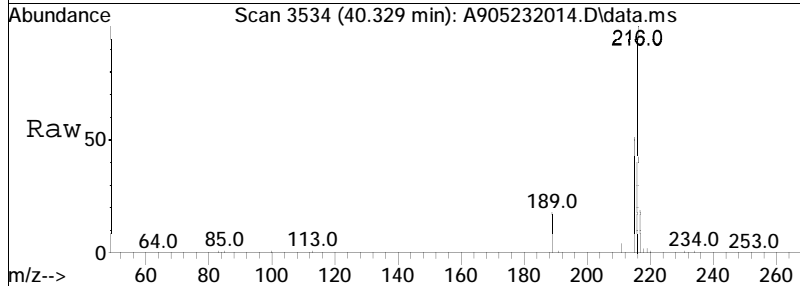
Tgt Ion	Resp	Lower	Upper
216	100		
215	142.4	72.7	134.9#

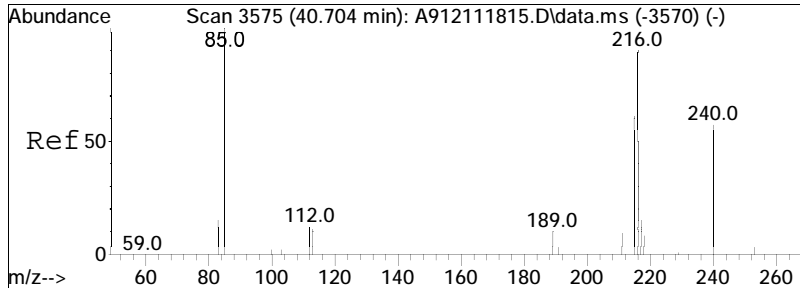




#61
 4-Methylpyrene
 Concen: 4021.13 ng/mL
 RT: 40.329 min Scan# 3534
 Delta R.T. 0.046 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

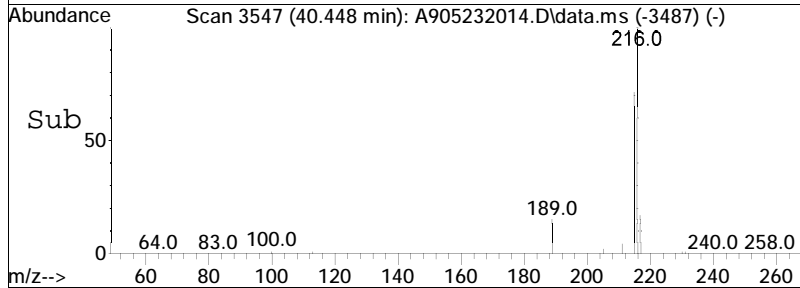
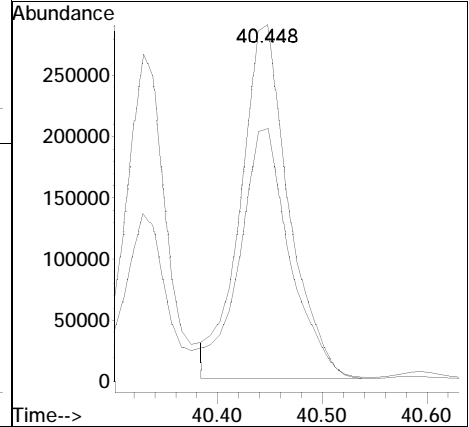
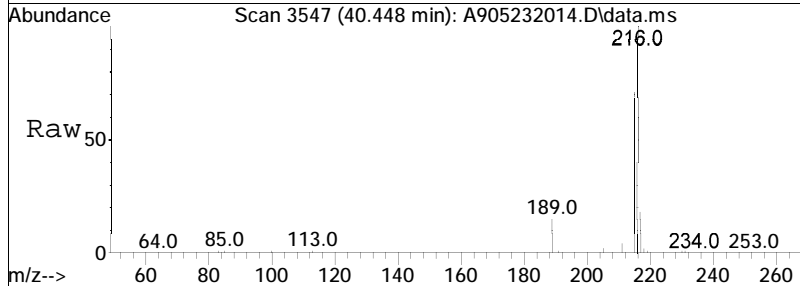
Tgt Ion	Resp	Lower	Upper
216	100		
215	52.1	49.3	91.5

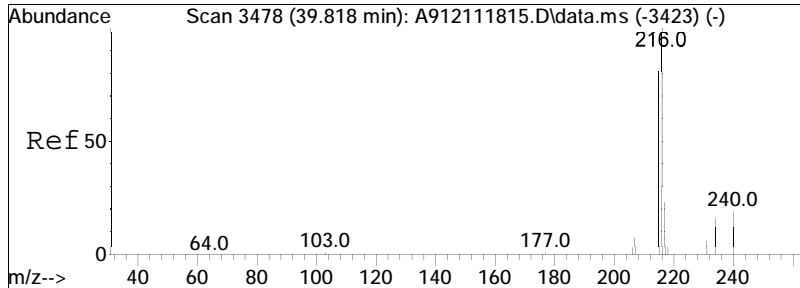




#62
 1-Methylpyrene
 Concen: 5357.79 ng/mL
 RT: 40.448 min Scan# 3547
 Delta R.T. 0.046 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

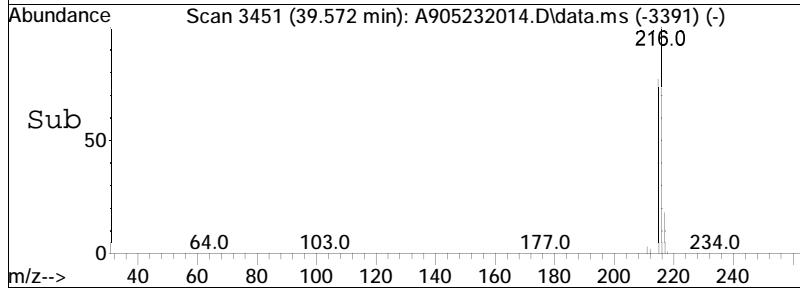
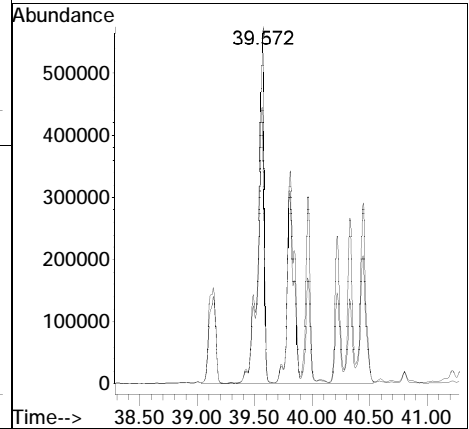
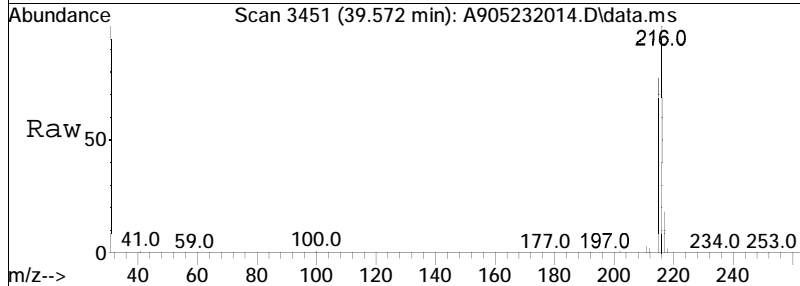
Tgt Ion: 216 Resp: 922312
 Ion Ratio Lower Upper
 216 100
 215 74.0 66.6 123.8

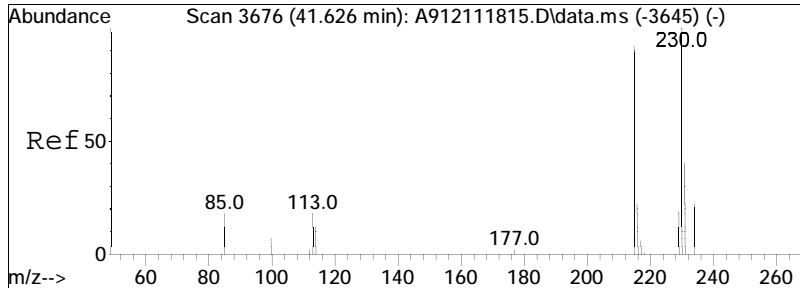




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 41145.81 ng/mL M5
 RT: 39.572 min Scan# 3451
 Delta R.T. 0.068 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

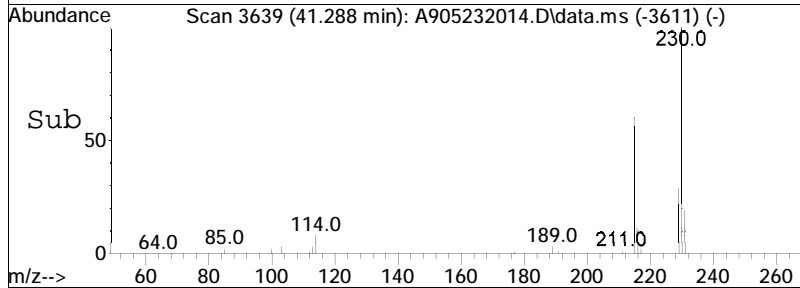
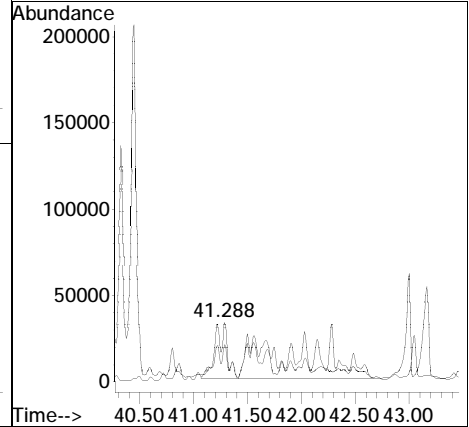
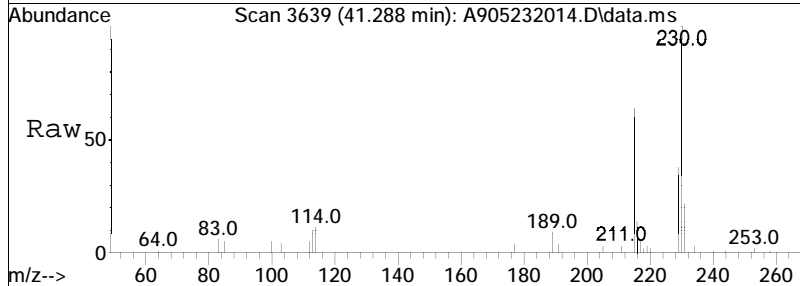
Tgt Ion: 216 Resp: 7083004
 Ion Ratio Lower Upper
 216 100
 215 4.5 63.1 117.1#

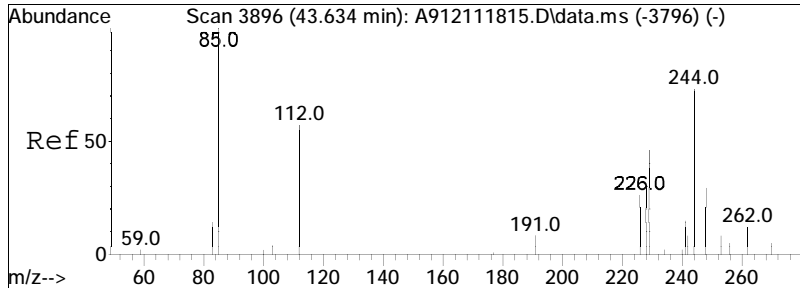




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 6556.85 ng/mL M5
 RT: 41.288 min Scan# 3639
 Delta R.T. -0.021 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

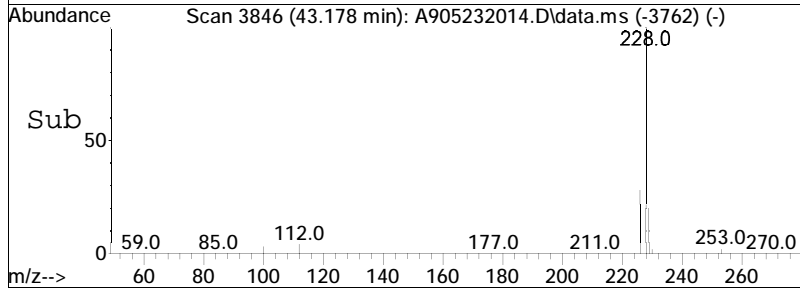
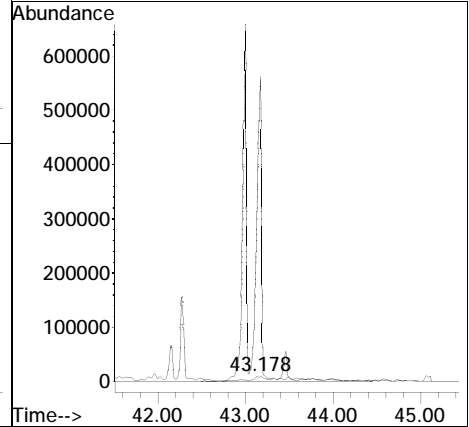
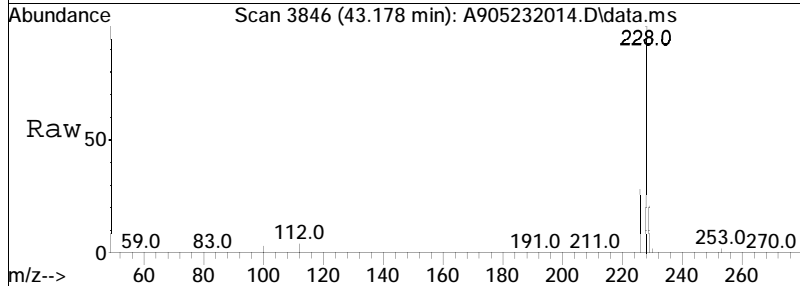
Tgt Ion: 230 Resp: 1128722
 Ion Ratio Lower Upper
 230 100
 215 1.9 79.7 148.1#

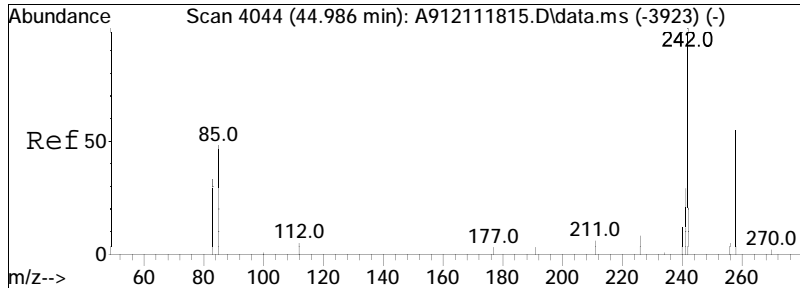




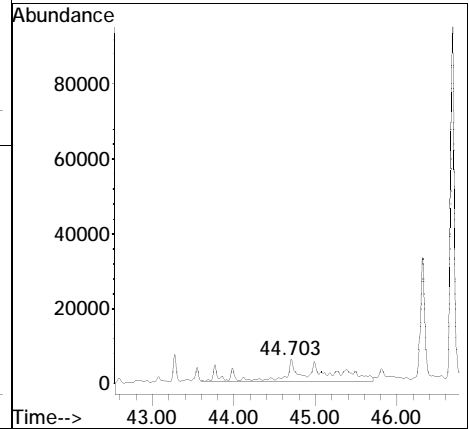
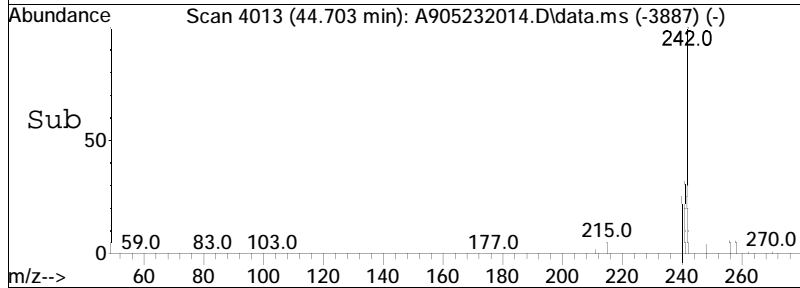
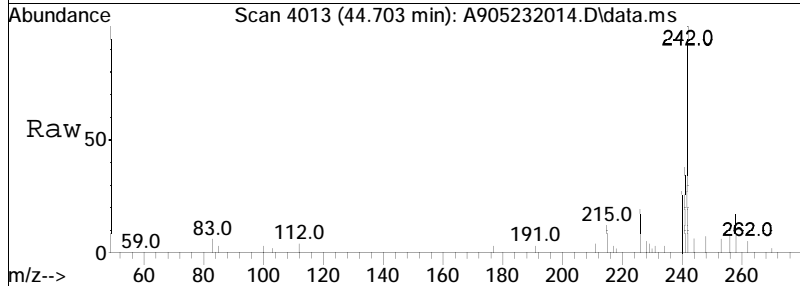
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 1934.75 ng/mL M5
 RT: 43.178 min Scan# 3846
 Delta R.T. -0.147 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

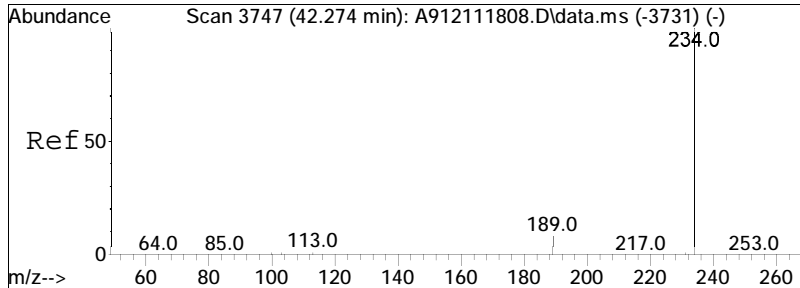
Tgt Ion	Resp	Lower	Upper
244	100		
229	1.6	67.7	125.7#





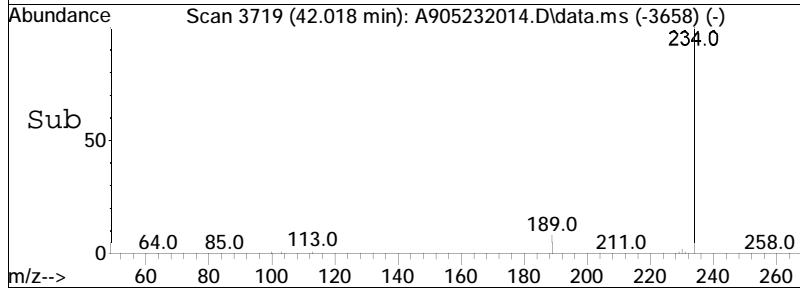
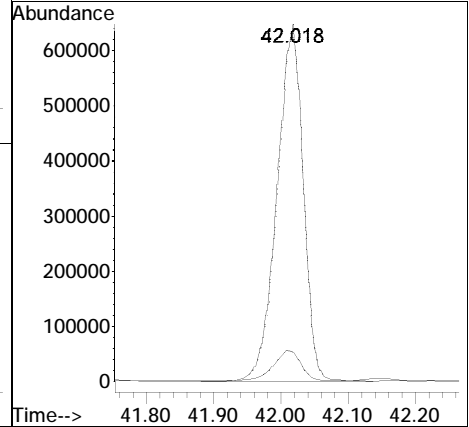
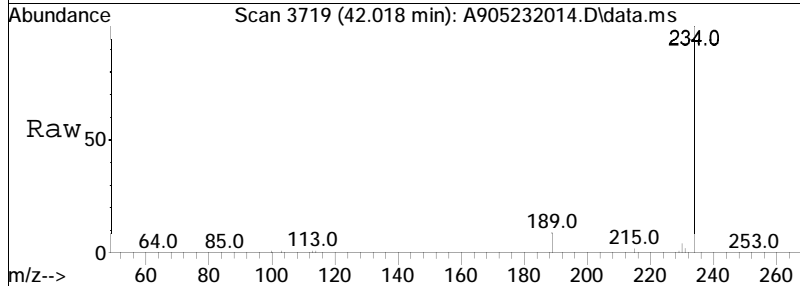
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 1017.74 ng/mL M5
 RT: 44.703 min Scan# 4013
 Delta R.T. 0.028 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:258 Resp: 175197

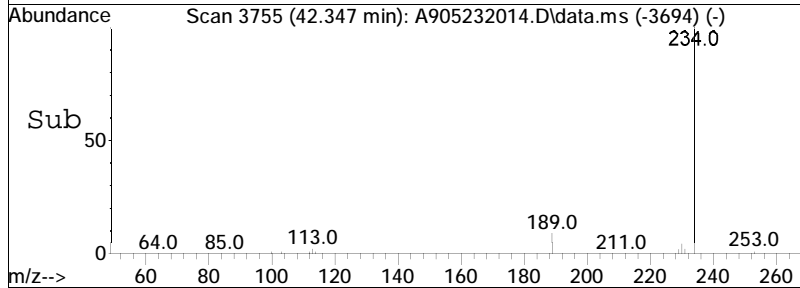
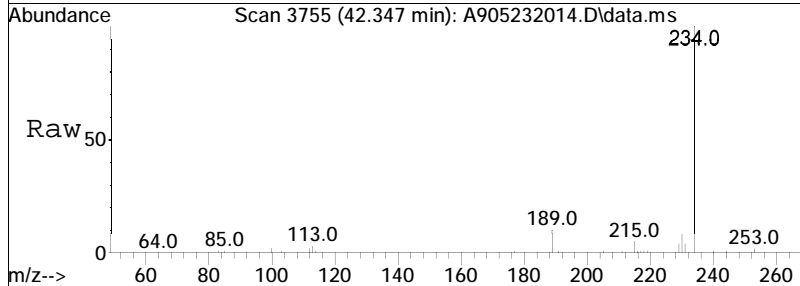
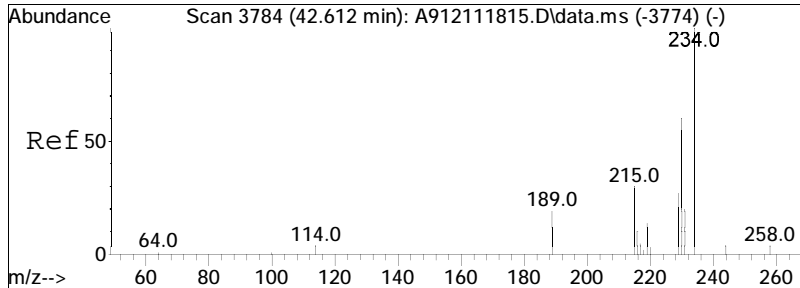




#67
 Naphthobenzothiophene-2,1-D
 Concen: 12476.29 ng/mL
 RT: 42.018 min Scan# 3719
 Delta R.T. 0.055 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

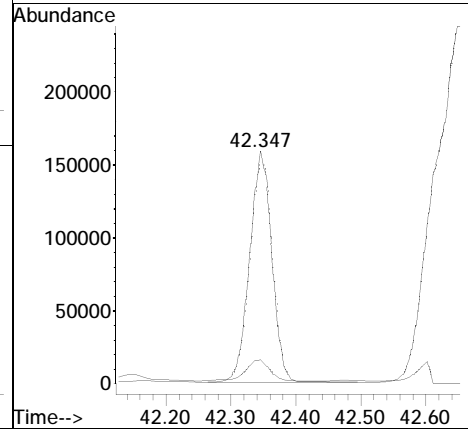
Tgt Ion: 234 Resp: 1716118
 Ion Ratio Lower Upper
 234 100
 189 8.8 6.1 11.3

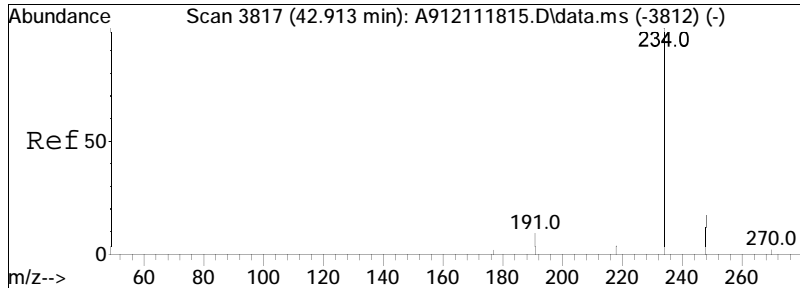




#68
 Naphthobenzothiophene-1,2-D
 Concen: 2725.12 ng/mL
 RT: 42.347 min Scan# 3755
 Delta R.T. 0.053 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

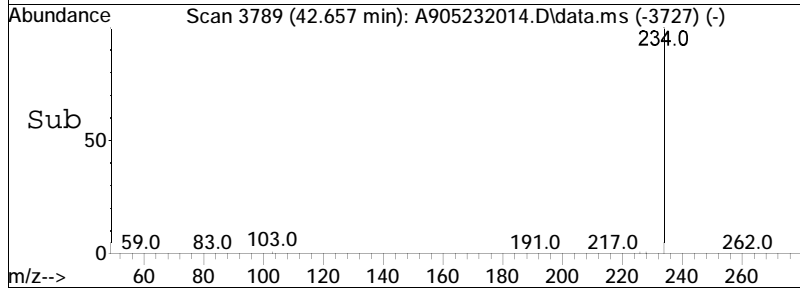
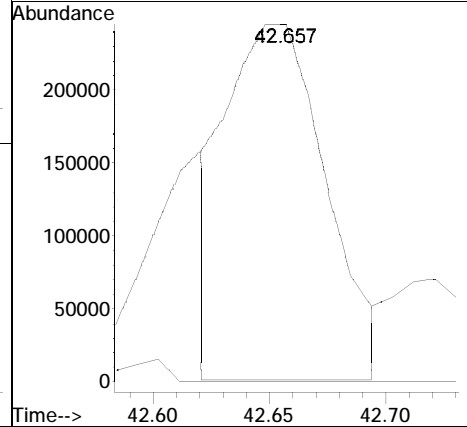
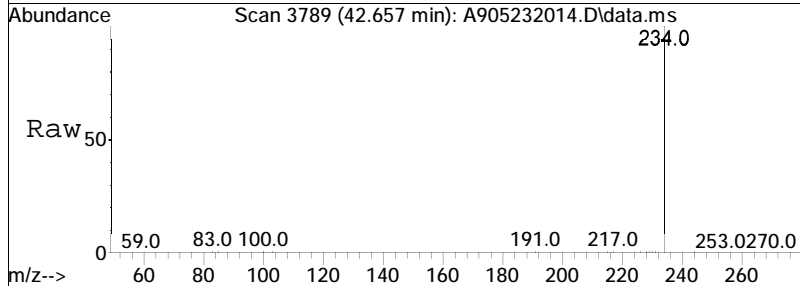
Tgt Ion	Ratio	Lower	Upper
234	100		
189	13.1	56.5	104.9#

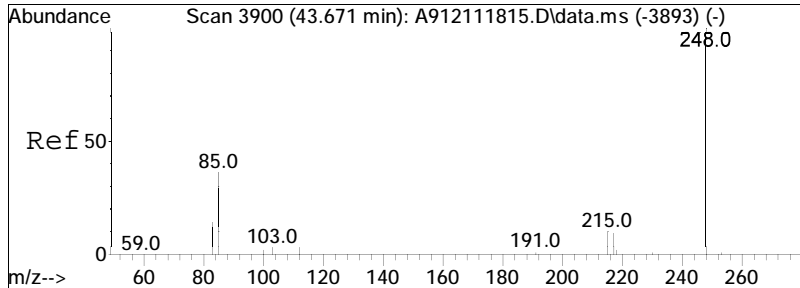




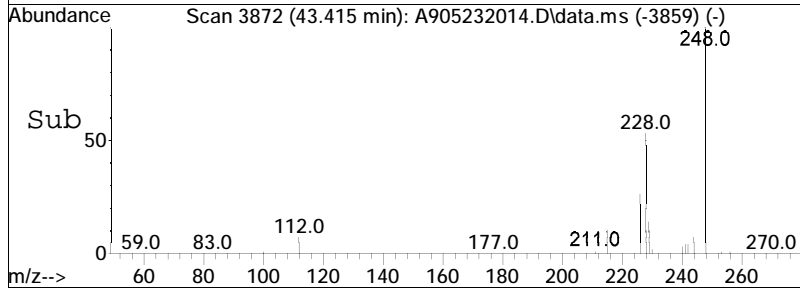
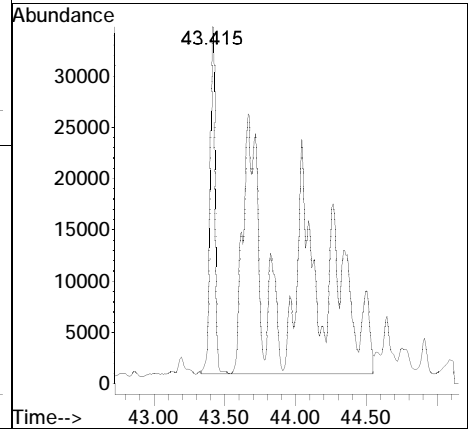
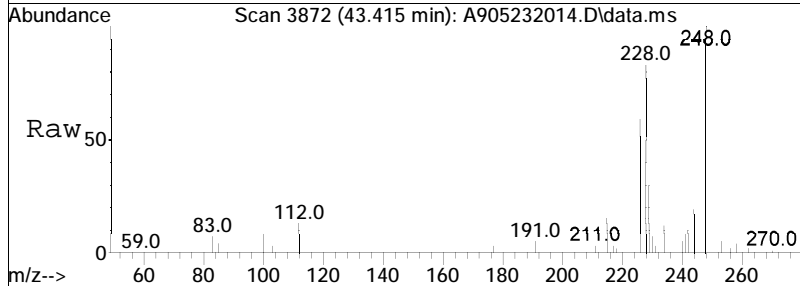
#69
 Naphthobenzothiophene-2,3-D
 Concen: 5276.96 ng/mL M3
 RT: 42.657 min Scan# 3789
 Delta R.T. 0.062 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

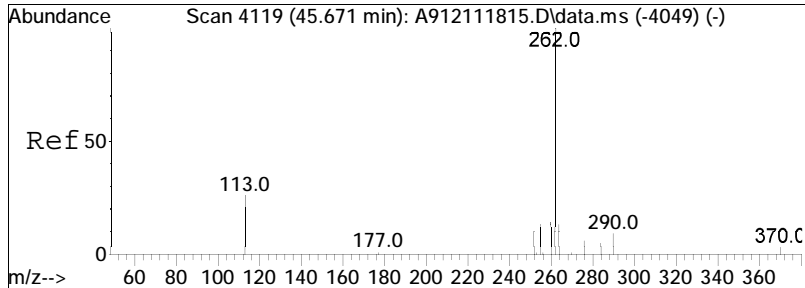
Tgt Ion: 234 Resp: 725847
 Ion Ratio Lower Upper
 234 100
 189 0.0 75.1 139.5#



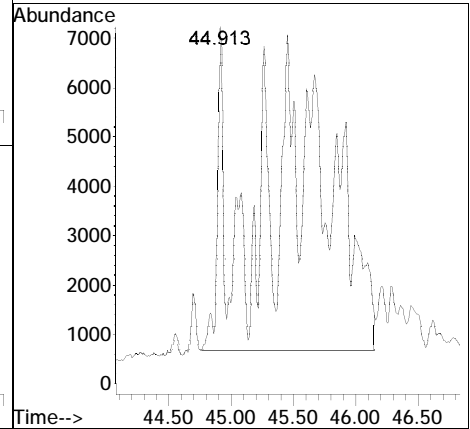
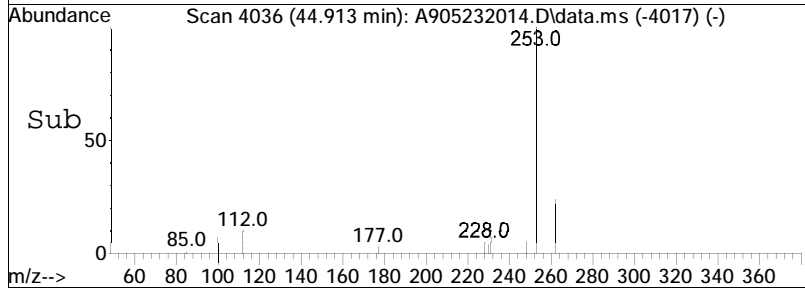
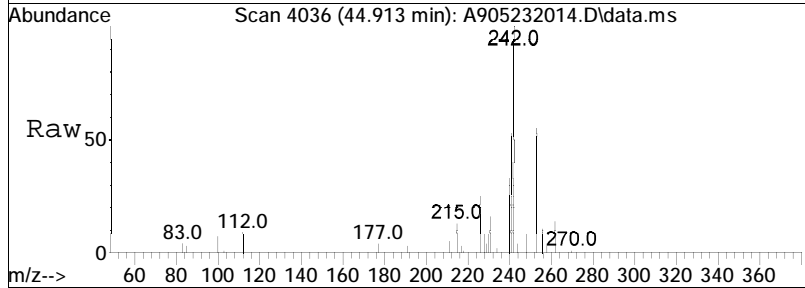


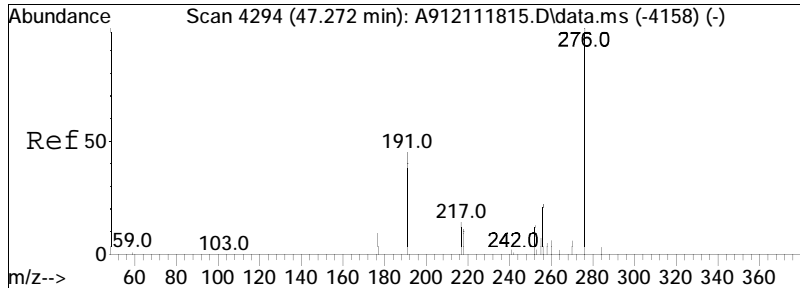
#70
 C1-Naphthobenzothiophenes
 Concen: 4511.08 ng/ml M5
 RT: 43.415 min Scan# 3872
 Delta R.T. 0.063 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion: 248 Resp: 620500



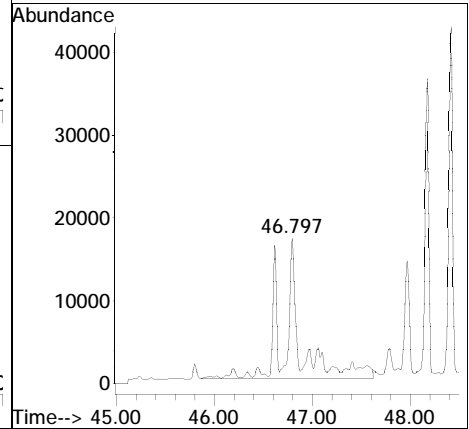
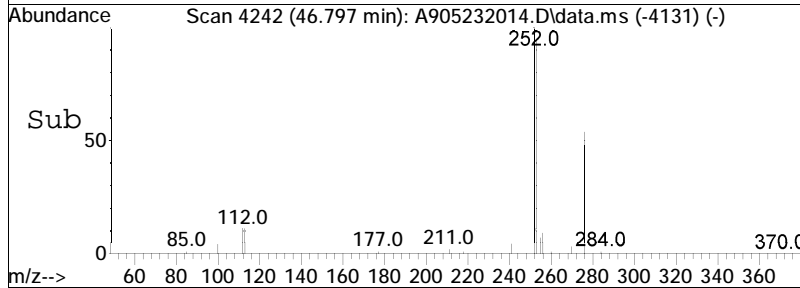
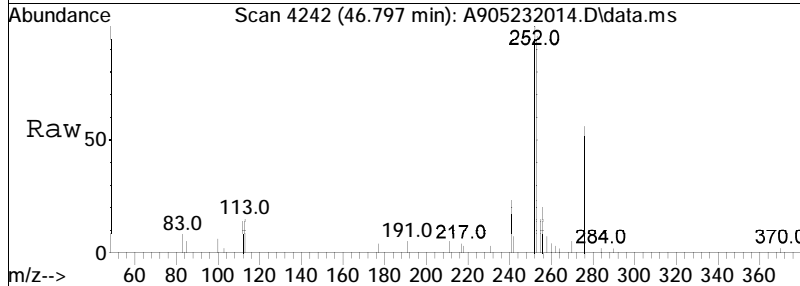


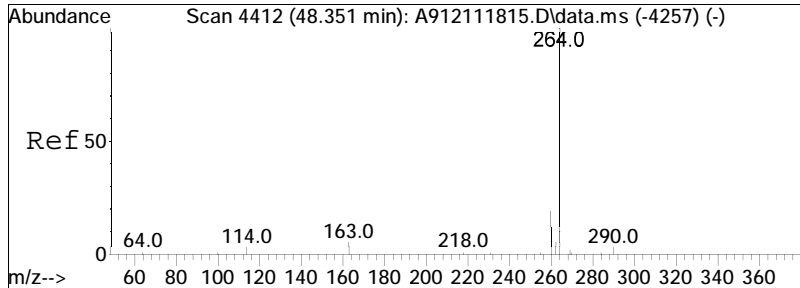
#71
 C2-Naphthobenzothiophenes
 Concen: 1639.11 ng/ml M5
 RT: 44.913 min Scan# 4036
 Delta R.T. -0.437 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion: 262 Resp: 225460



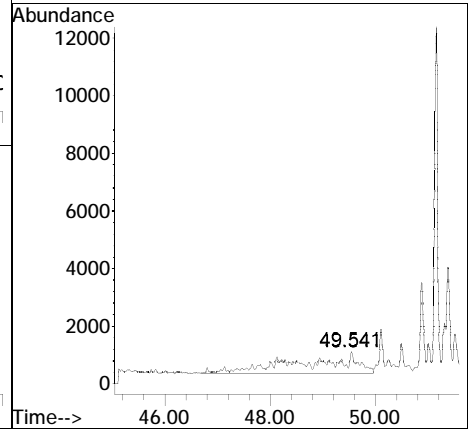
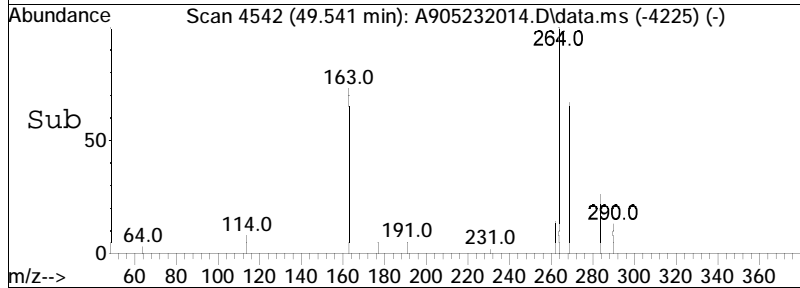
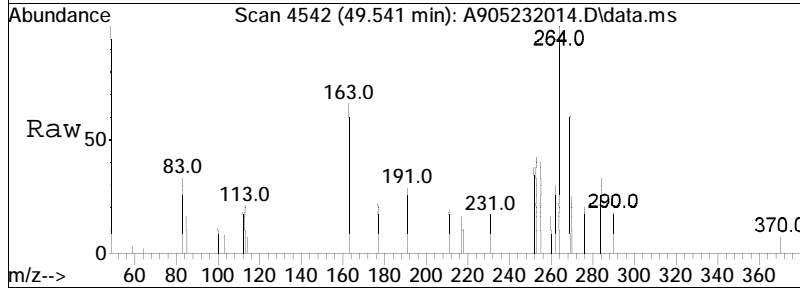


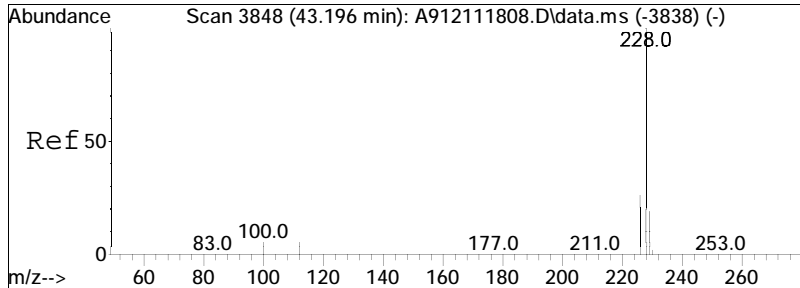
#72
 C3-Naphthobenzothiophenes
 Concen: 1462.70 ng/ml M5
 RT: 46.797 min Scan# 4242
 Delta R.T. -0.152 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion: 276 Resp: 201195





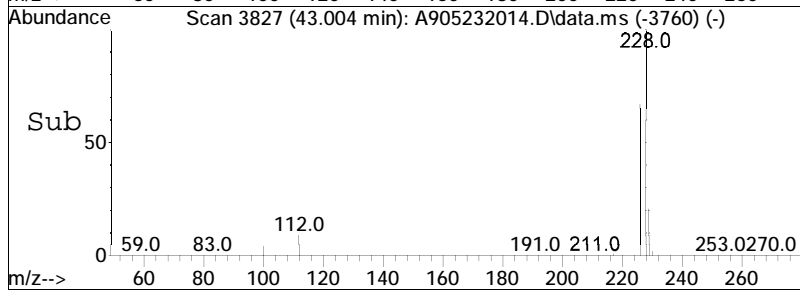
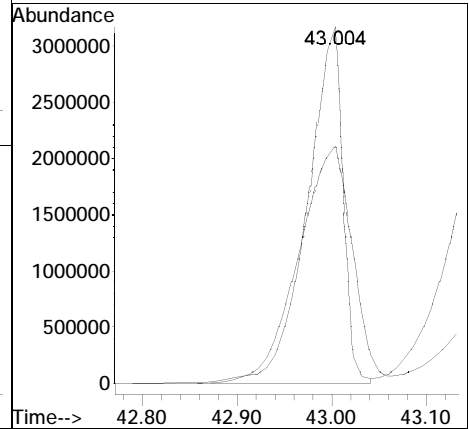
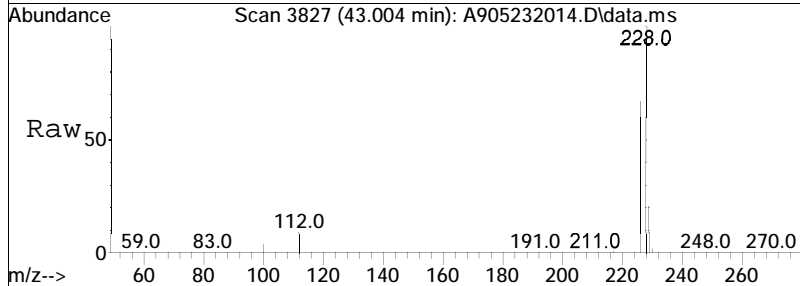
#73
 C4-Naphthobenzothiophenes
 Concen: 357.44 ng/mL M5
 RT: 49.541 min Scan# 4542
 Delta R.T. 1.531 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am
 Tgt Ion:290 Resp: 49166

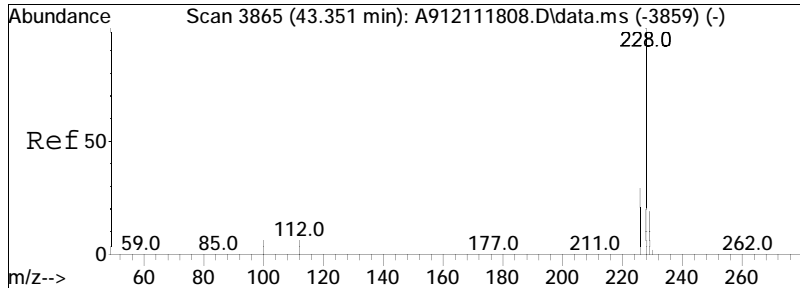




#75
 Benz[a]anthracene
 Concen: 51741.92 ng/mL M4
 RT: 43.004 min Scan# 3827
 Delta R.T. 0.110 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

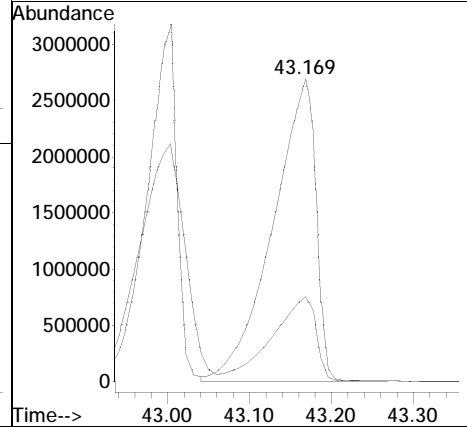
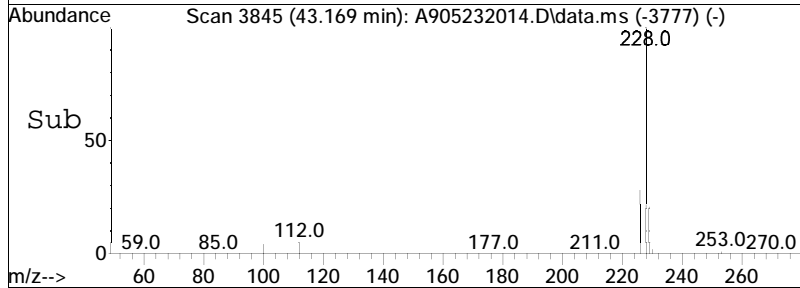
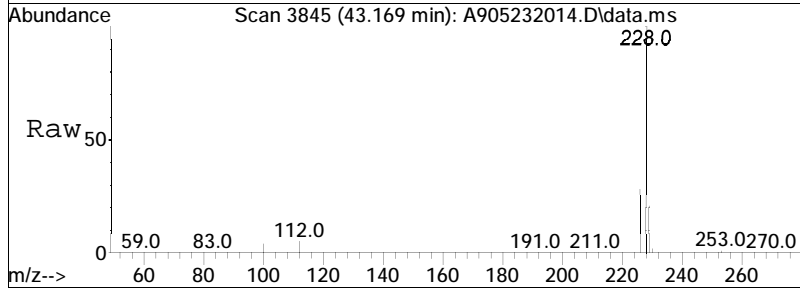
Tgt Ion: 228 Resp: 8277831
 Ion Ratio Lower Upper
 228 100
 226 34.1 19.0 35.2

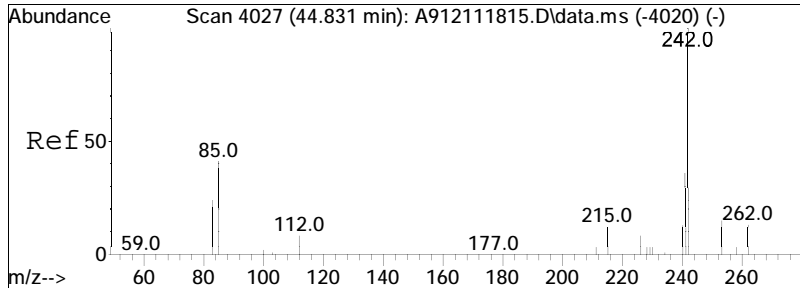




#77
 Chrysene/Triphenylene
 Concen: 57994.97 ng/mL
 RT: 43.169 min Scan# 3845
 Delta R.T. 0.119 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

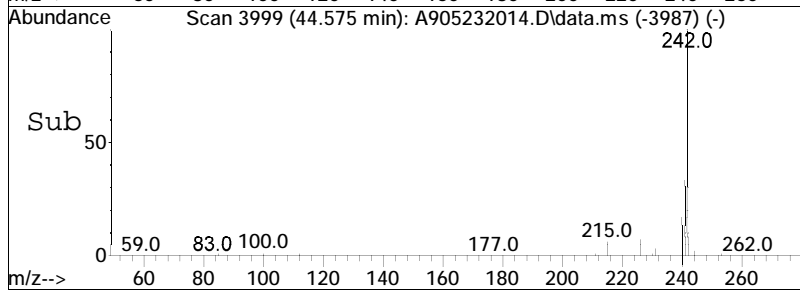
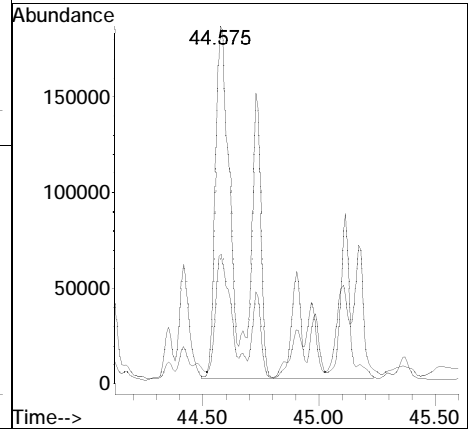
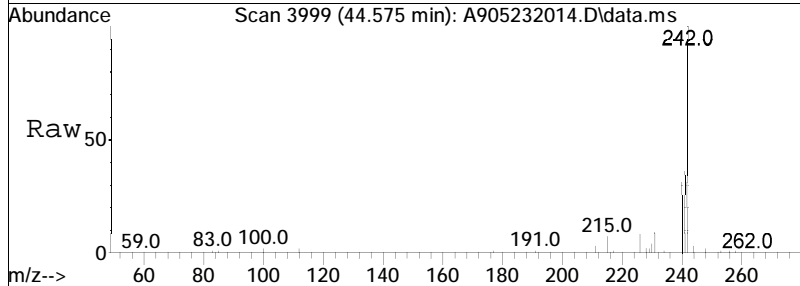
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.0	21.0	39.0

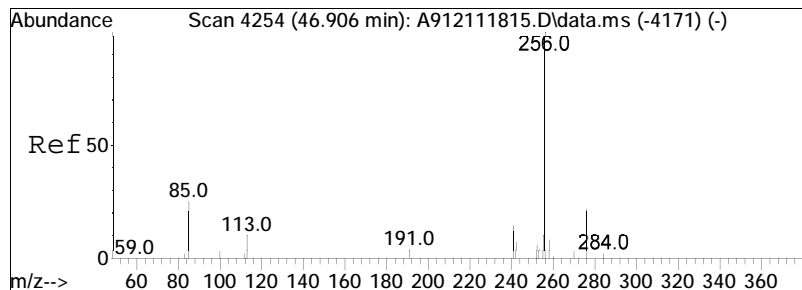




#78
 C1-Chrysenes
 Concen: 9983.54 ng/mL M5
 RT: 44.575 min Scan# 3999
 Delta R.T. 0.047 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

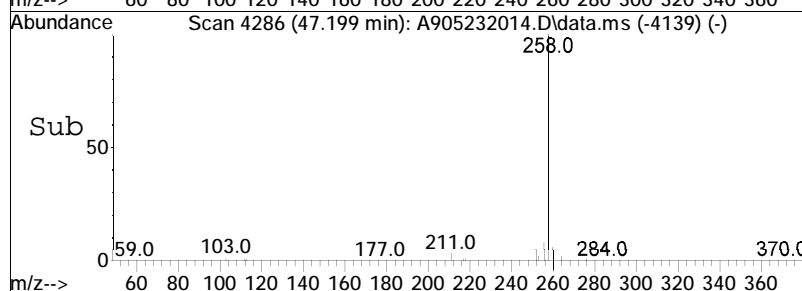
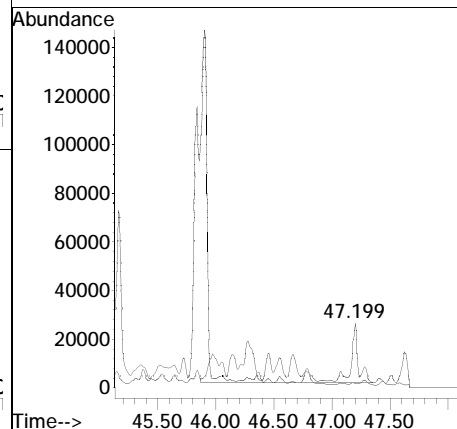
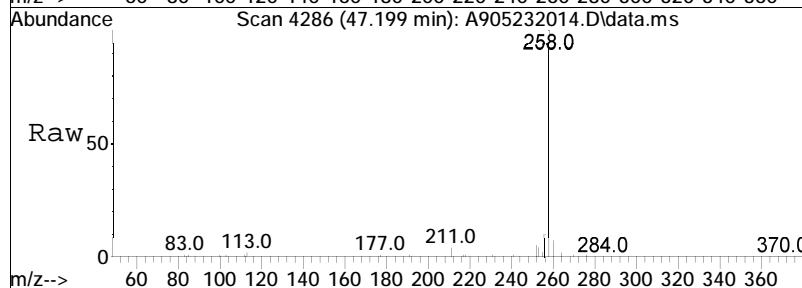
Tgt Ion: 242 Resp: 1675681
 Ion Ratio Lower Upper
 242 100
 241 10.9 30.5 56.7#

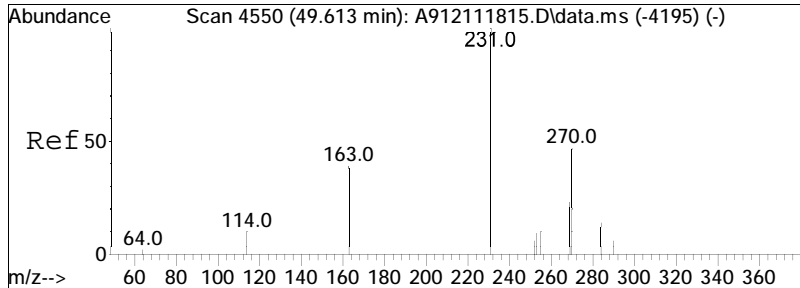




#79
 C2-Chrysenes
 Concen: 3014.83 ng/mL M5
 RT: 47.199 min Scan# 4286
 Delta R.T. 0.609 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

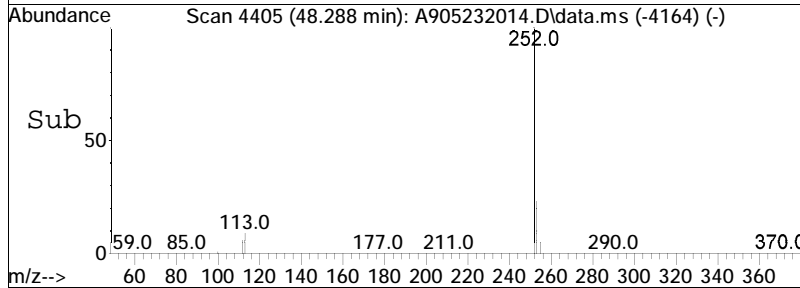
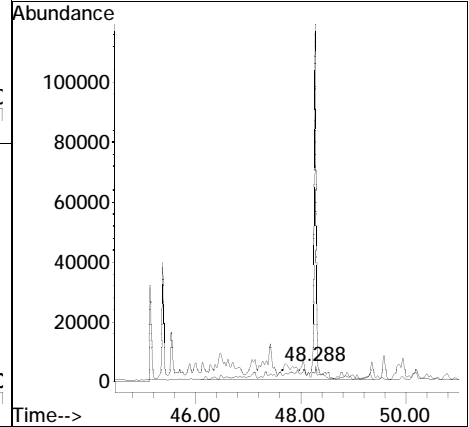
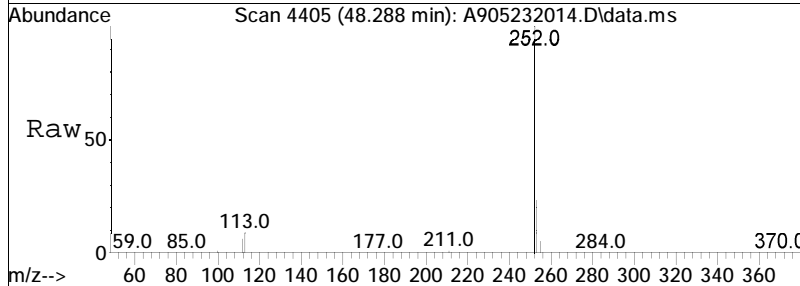
Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.7	26.4	49.0#

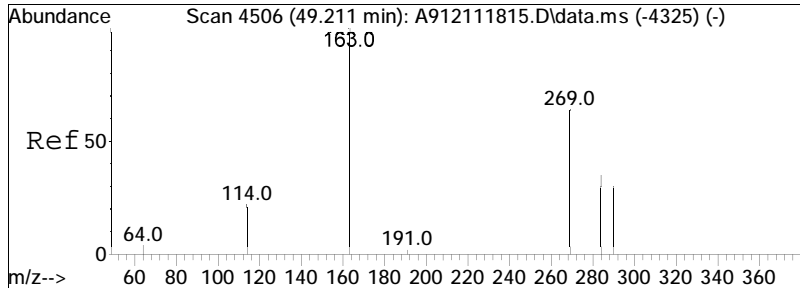




#81
 C3-Chrysenes
 Concen: 1549.60 ng/mL M5
 RT: 48.288 min Scan# 4405
 Delta R.T. -0.974 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

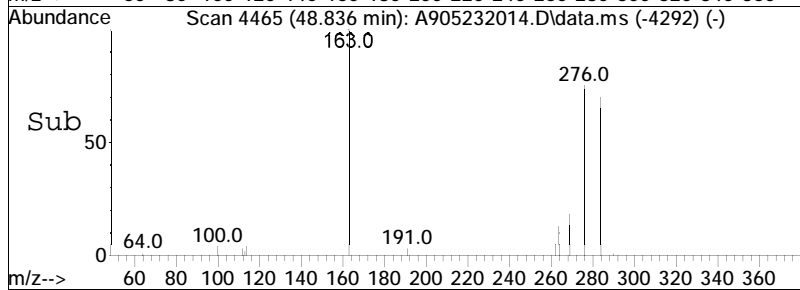
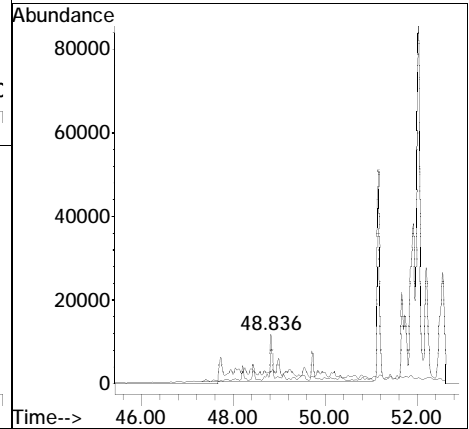
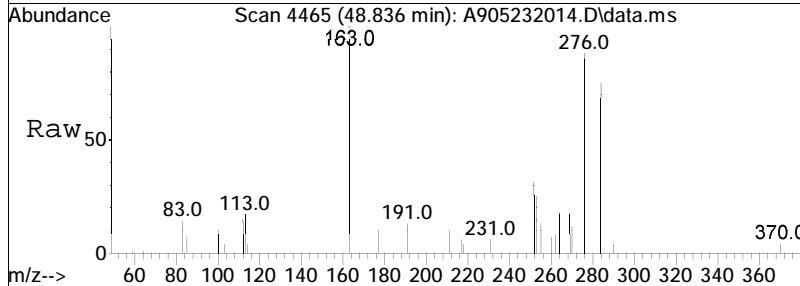
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.7	37.7	69.9#

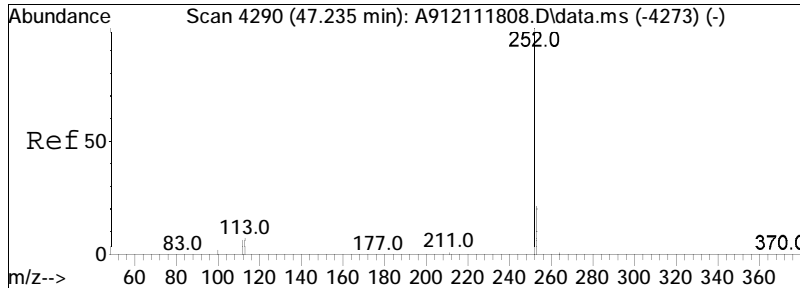




#82
 C4-Chrysenes
 Concen: 1158.05 ng/mL M5
 RT: 48.836 min Scan# 4465
 Delta R.T. -0.045 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

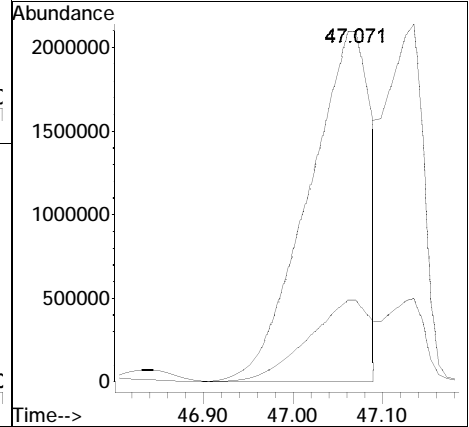
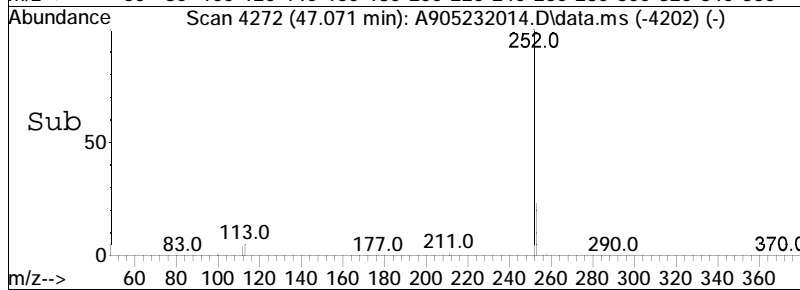
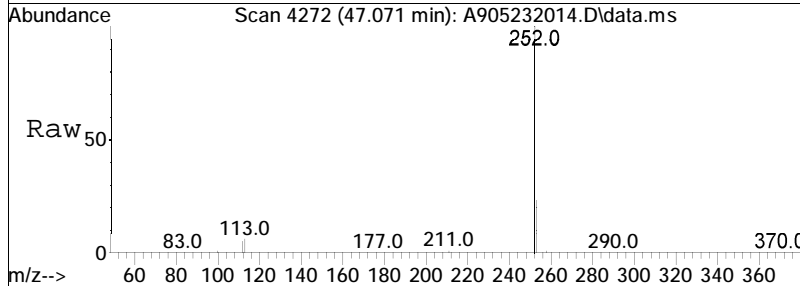
Tgt Ion	Resp	Lower	Upper
284	100		
269	1.0	73.8	137.2#

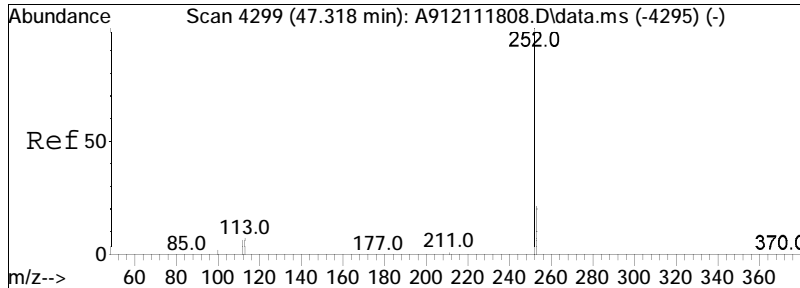




#84
 Benzo[b]fluoranthene
 Concen: 51155.81 ng/mL
 RT: 47.071 min Scan# 4272
 Delta R.T. 0.137 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

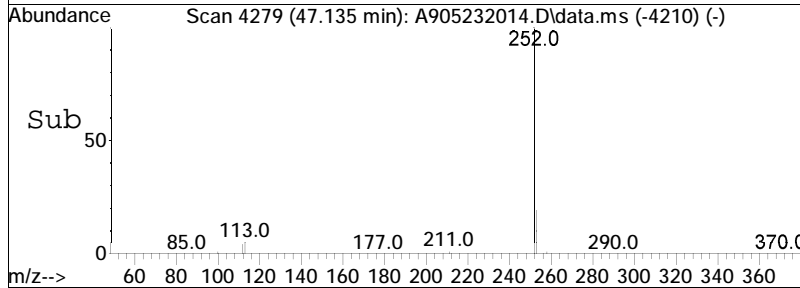
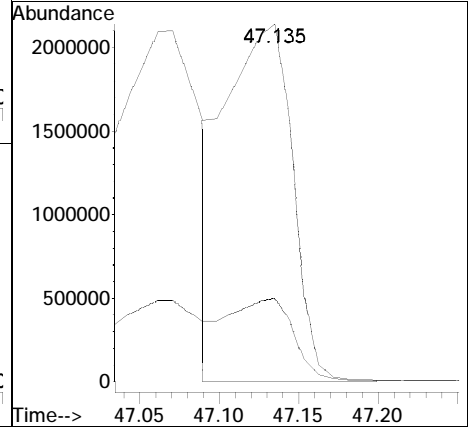
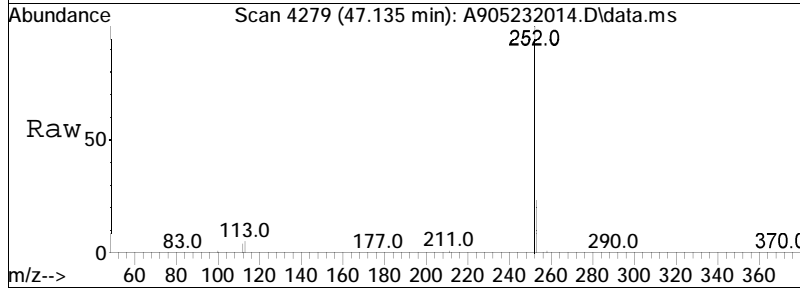
Tgt Ion: 252 Resp: 10005788
 Ion Ratio Lower Upper
 252 100
 253 22.7 17.3 32.1

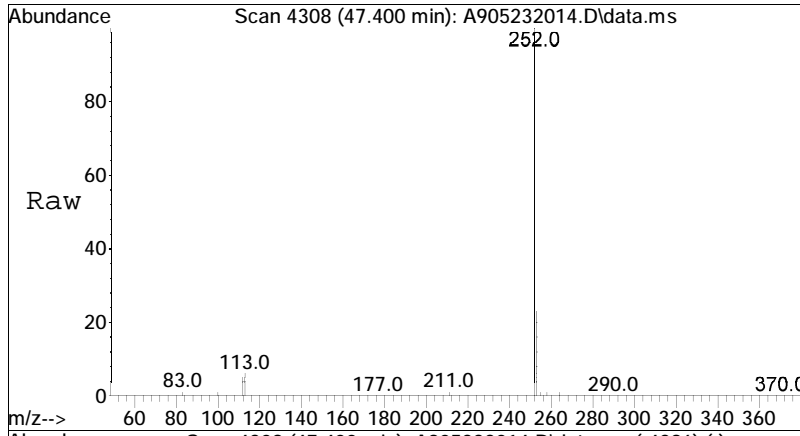




#85
 Benzo[j]+[k]fluoranthene
 Concen: 33050.89 ng/mL M3
 RT: 47.135 min Scan# 4279
 Delta R.T. 0.128 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

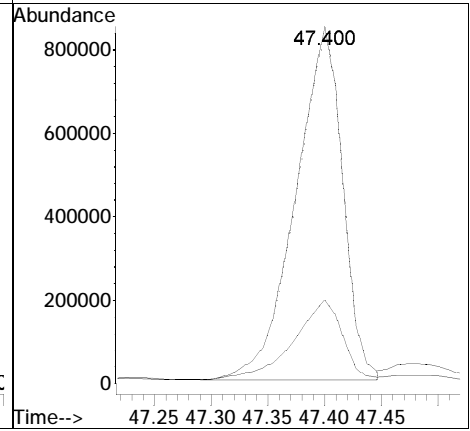
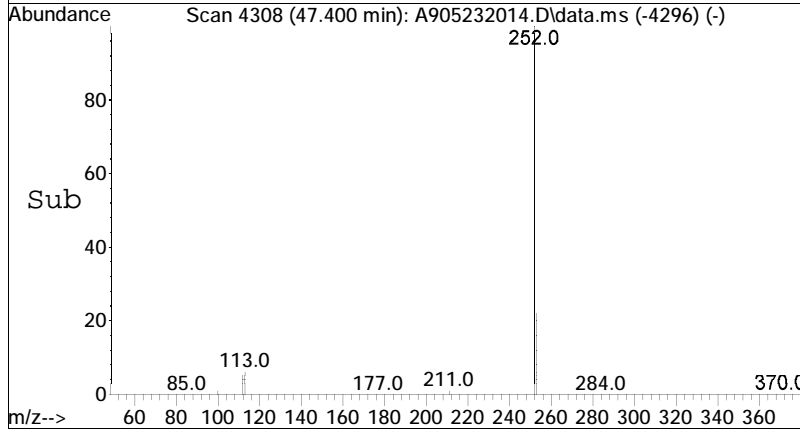
Tgt Ion	Resp	Lower	Upper
252	100		
253	35.8	17.6	32.8#

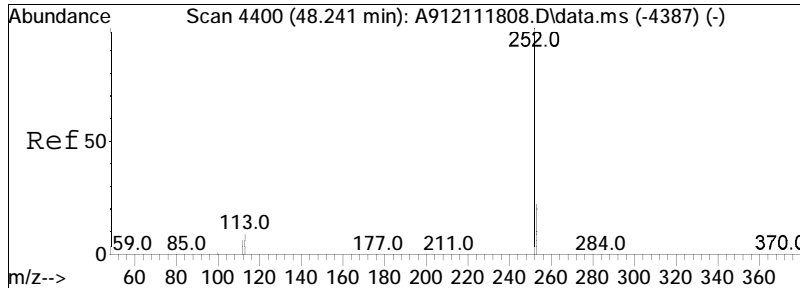




#87
 Benzo[a]fluoranthene
 Concen: 12607.56 ng/mL M4
 RT: 47.400 min Scan# 4308
 Delta R.T. 0.128 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

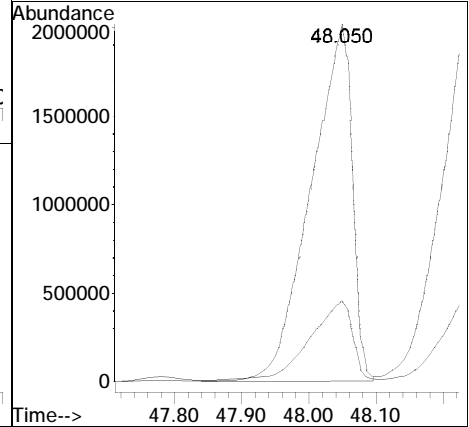
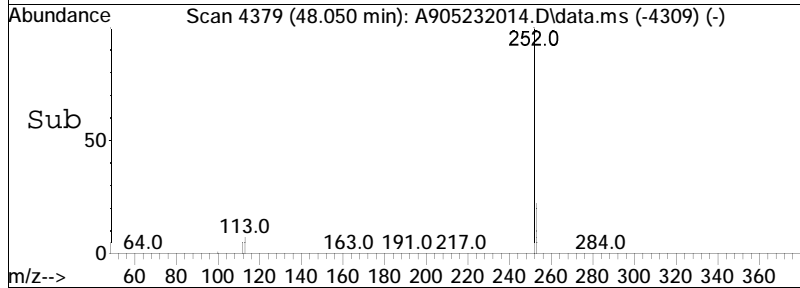
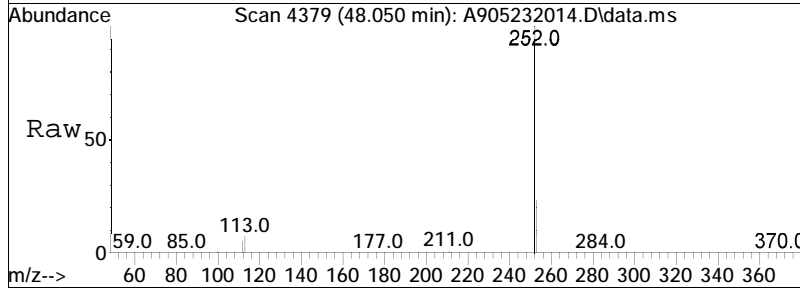
Tgt Ion	Resp	Lower	Upper
252	100		
253	3.0	243.9	452.9#

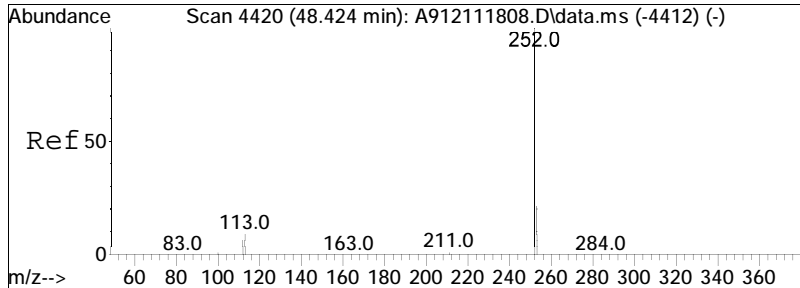




#88
 Benzo[e]pyrene
 Concen: 44079.20 ng/mL
 RT: 48.050 min Scan# 4379
 Delta R.T. 0.137 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

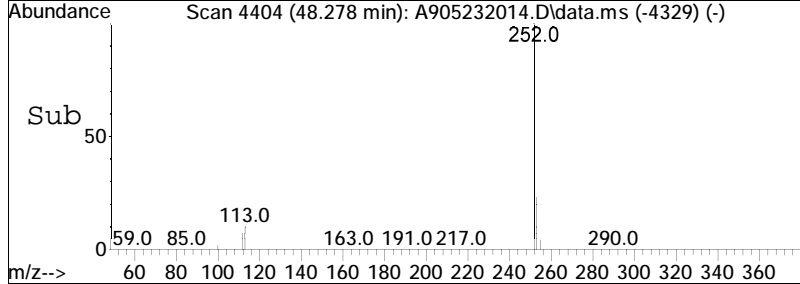
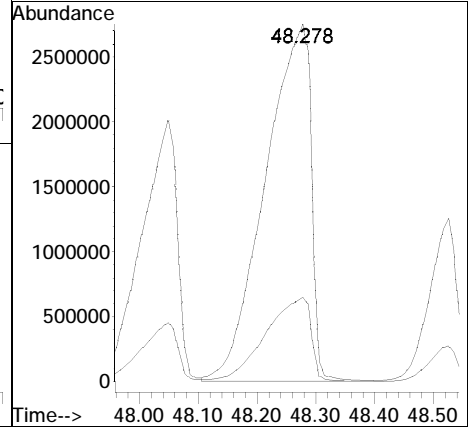
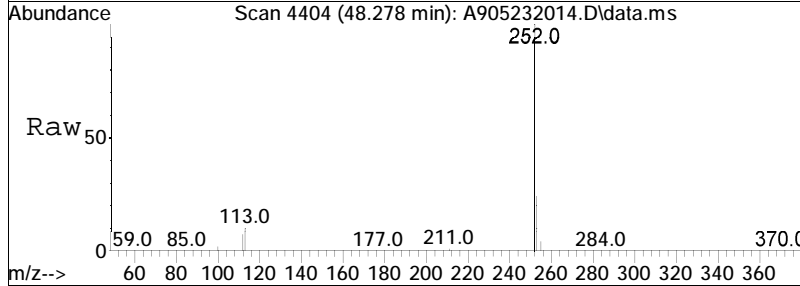
Tgt Ion: 252 Resp: 8508994
 Ion Ratio Lower Upper
 252 100
 253 23.4 18.3 33.9

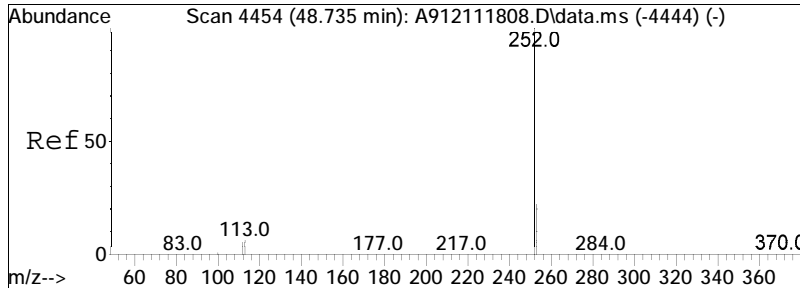




#90
 Benzo[a]pyrene
 Concen: 80431.21 ng/mL
 RT: 48.278 min Scan# 4404
 Delta R.T. 0.183 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

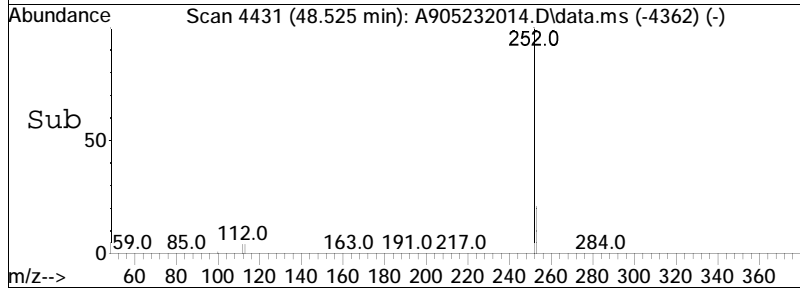
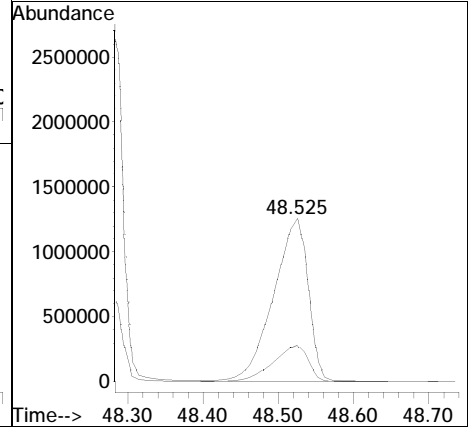
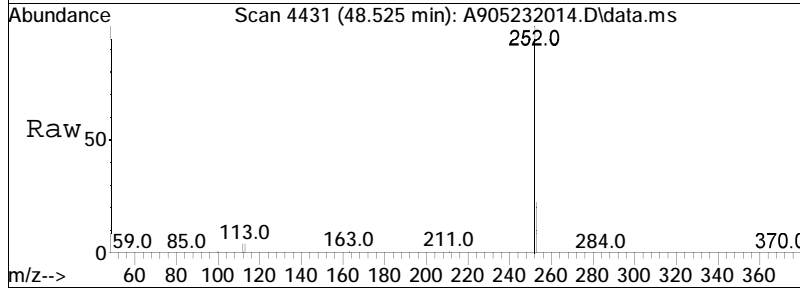
Tgt Ion: 252 Resp: 14809067
 Ion Ratio Lower Upper
 252 100
 253 23.2 19.2 35.6

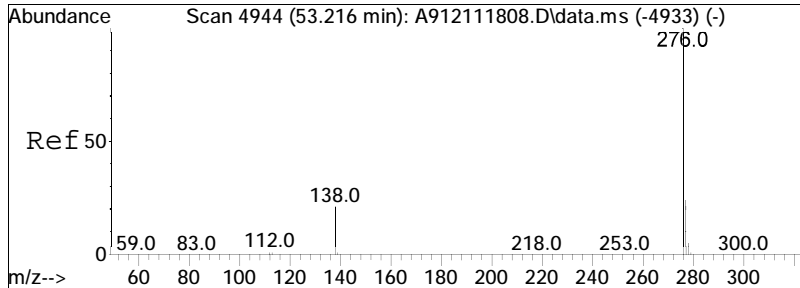




#91
 Perylene
 Concen: 23317.88 ng/mL
 RT: 48.525 min Scan# 4431
 Delta R.T. 0.128 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

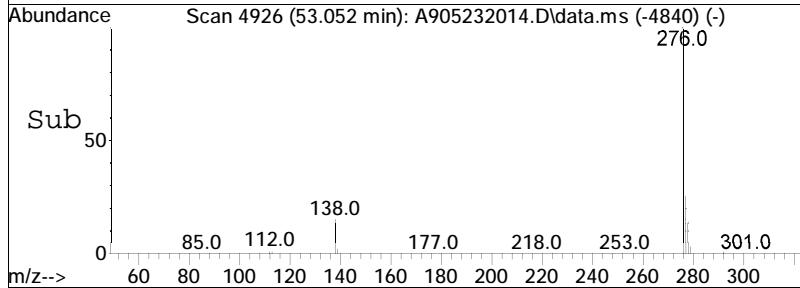
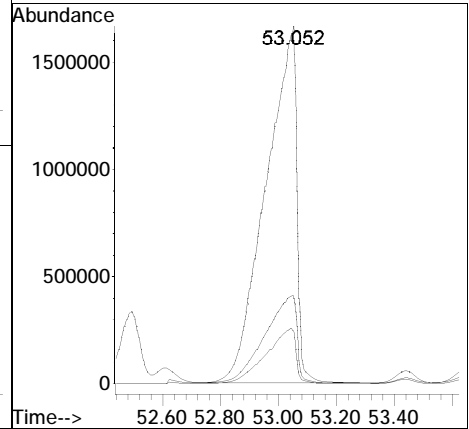
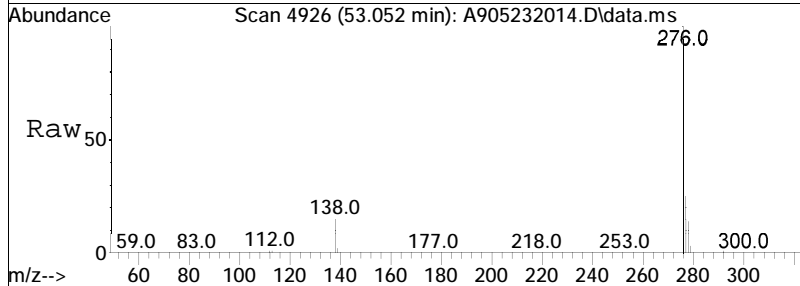
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.4	19.9	36.9

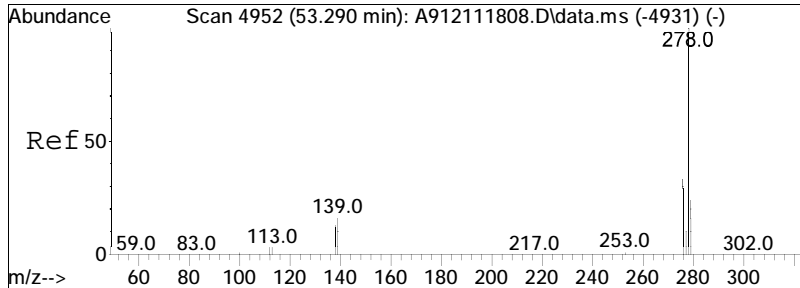




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 56575.54 ng/mL
 RT: 53.052 min Scan# 4926
 Delta R.T. 0.283 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

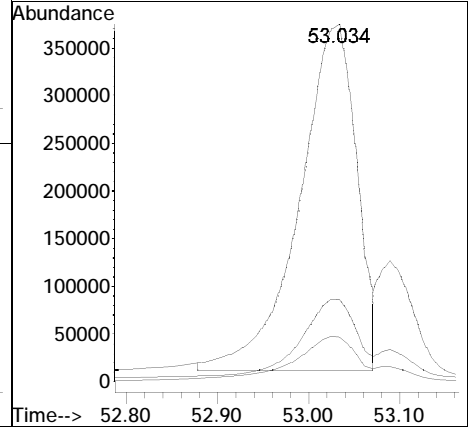
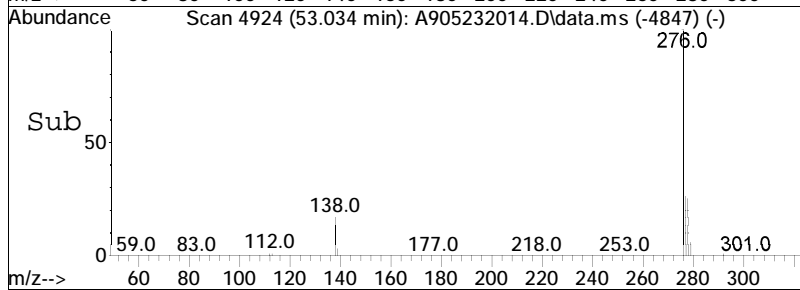
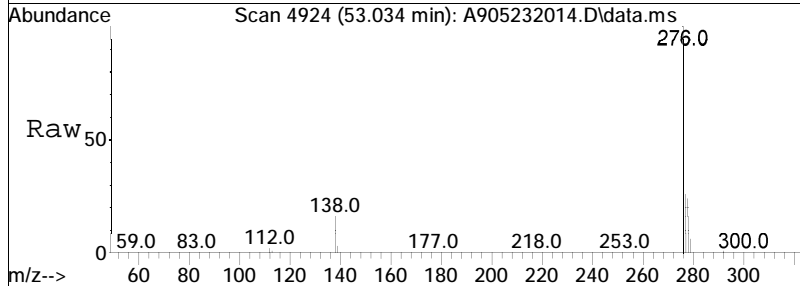
Tgt Ion	Ratio	Lower	Upper
276	100		
138	15.2	12.2	22.6
277	25.4	18.6	34.6

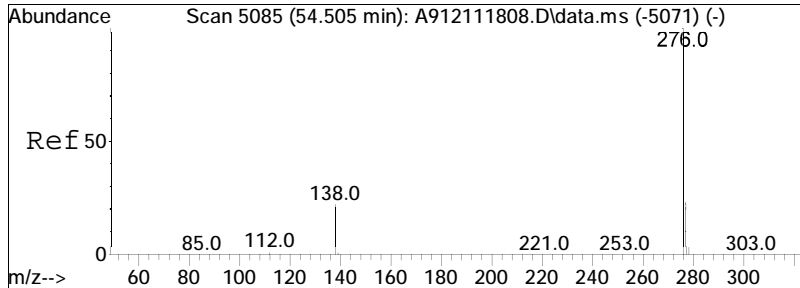




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 8625.31 ng/mL M4
 RT: 53.034 min Scan# 4924
 Delta R.T. 0.201 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

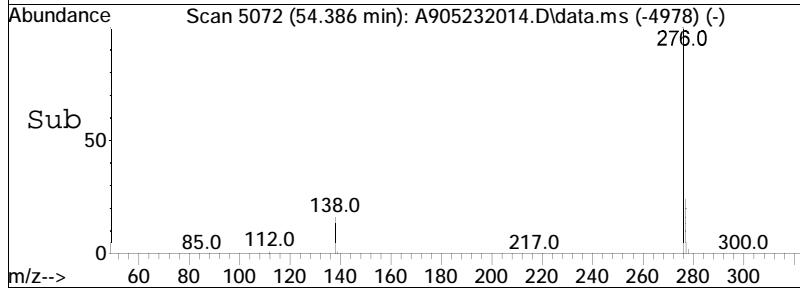
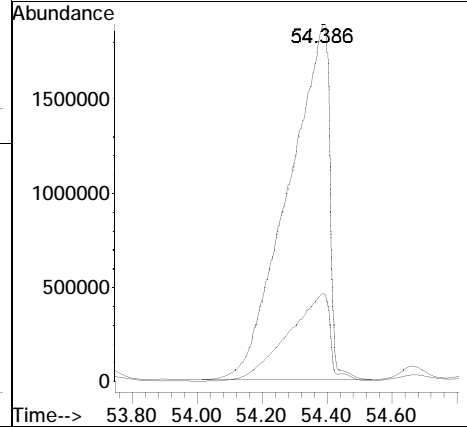
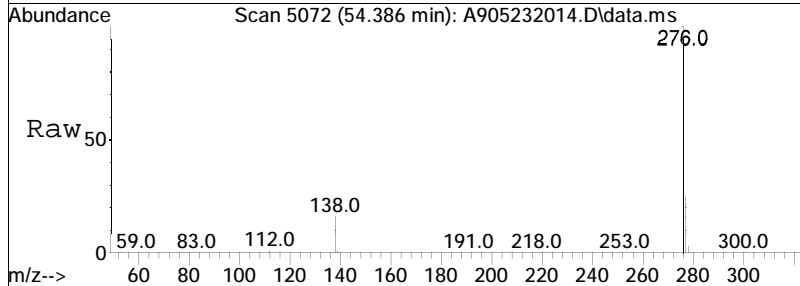
Tgt Ion	Resp	Lower	Upper
278	1594419		
139	13.5	8.3	15.5
279	20.4	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 74993.37 ng/mL
 RT: 54.386 min Scan# 5072
 Delta R.T. 0.357 min
 Lab File: A905232014.D
 Acq: 24 May 2020 7:19 am

Tgt Ion: 276 Resp: 16548925
 Ion Ratio Lower Upper
 276 100
 277 25.2 17.4 32.2



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232017.D
 Acq On : 27 May 2020 2:13 am
 Operator : PAH9:ML
 Sample : WG1374011-3
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 13:44:01 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	87	0.00
2 A1	trans-Decalin	0.404	0.440	-8.9	100	0.00
3 t	cis-Decalin	0.309	0.332	-7.4	97	0.00
8 s	Naphthalene-d8	1.827	1.806	1.1	87	0.00
9 A1	Naphthalene	2.127	2.054	3.4	84	0.00
14 t	2-Methylnaphthalene	1.410	1.310	7.1	83	0.00
15 t	1-Methylnaphthalene	1.340	1.265	5.6	83	0.00
16 A1	Benzothiophene	1.962	1.835	6.5	81	0.00
21 t	Biphenyl	1.728	1.613	6.7	83	0.00
22 t	2,6-Dimethylnaphthalene	1.238	1.168	5.7	84	0.00
23 t	Dibenzofuran	2.007	1.886	6.0	83	0.00
24 t	Acenaphthylene	2.106	2.012	4.5	85	0.00
25 t	Acenaphthene	1.305	1.226	6.1	83	0.00
26 t	2,3,5-Trimethylnaphthalene	1.152	1.115	3.2	87	0.00
27 A1	Fluorene	1.546	1.442	6.7	83	0.00
31 A1	Dibenzothiophene	2.286	2.077	9.1	82	0.00
40 s	Phenanthrene-d10	1.711	1.678	1.9	88	0.00
41 A1	Phenanthrene	2.279	2.086	8.5	82	0.00
52 t	Retene	0.760	0.789	-3.8	95	0.00
53 t	Anthracene	2.009	2.009	0.0	86	0.00
54 t	Carbazole	2.102	1.759	16.3	77	0.00
55 t	1-Methylphenanthrene	1.676	1.572	6.2	85	0.00
56 A1	Fluoranthene	2.671	2.409	9.8	88	0.00
57 A1	Benzo(b)fluorene	1.582	1.573	0.6	91	0.02
59 A1	Pyrene	2.820	2.624	7.0	92	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.254	2.150	4.6	89	0.02
74 i	Chrysene-d12	1.000	1.000	0.0	94	0.02
75 t	Benz[a]anthracene	1.257	1.230	2.1	97	0.02
76 A1	Chrysene	1.319	1.261	4.4	98	0.02
77 A2	Chrysene/Triphenylene	1.319	1.261	4.4	98	0.02
83 S	Benzo[b]fluoranthene-d12	1.241	1.249	-0.6	100	0.03
84 t	Benzo[b]fluoranthene	1.537	1.412	8.1	98	0.03
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.448	4.5	98	0.03
88 t	Benzo[e]pyrene	1.517	1.377	9.2	99	0.03
89 s	Benzo[a]pyrene-d12	0.830	0.847	-2.0	103	0.03
90 t	Benzo[a]pyrene	1.447	1.400	3.2	103	0.03
91 t	Perylene	1.344	1.323	1.6	102	0.03
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.814	-7.5	114	0.06

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232017.D
 Acq On : 27 May 2020 2:13 am
 Operator : PAH9:ML
 Sample : WG1374011-3
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 13:44:01 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.602	-10.3	108	0.05
95 t Benzo[g,h,i]perylene	1.734	1.700	2.0	109	0.06
96 A1 Hopane (T19)	0.436	0.378	13.3	94	0.00
130 SA1 5B(H)Cholane - Surr	0.221	0.211	4.5	95	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.07	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.64	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232017.D
 Acq On : 27 May 2020 2:13 am
 Operator : PAH9:ML
 Sample : WG1374011-3
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 13:44:01 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.539	164	24790	500.000	ng/mL	-0.02	
74) Chrysene-d12	42.977	240	49962	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	44780	494.231	ng/mL	-0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.42%#	
40) Phenanthrene-d10	32.396	188	41610	490.422	ng/mL	-0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.04%#	
83) Benzo[b]fluoranthene-d12	46.879	264	62405	503.386	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.34%	
89) Benzo[a]pyrene-d12	48.032	264	42335	510.521	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.05%	
130) 5B(H)Cholane - Surr	43.598	217	10522	476.248	ng/ml	-0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.62%#	
Target Compounds							
2) trans-Decalin	16.245	138	5458	272.799	ng/mL	100	Qvalue
3) cis-Decalin	17.459	138	4113	268.705	ng/mL	100	
9) Naphthalene	19.658	128	50919	482.794	ng/mL	100	
14) 2-Methylnaphthalene	22.350	142	32485	464.561	ng/mL	100	
15) 1-Methylnaphthalene	22.770	142	31350	471.781	ng/mL	100	
16) Benzothiophene	19.877	134	45483	467.680	ng/mL	100	
21) Biphenyl	24.230	154	39980	466.688	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.832	156	28956	471.897	ng/mL	100	
23) Dibenzofuran	27.305	168	46747	469.757	ng/mL	99	
24) Acenaphthylene	25.927	152	49883	477.623	ng/mL	100	
25) Acenaphthene	26.657	153	30395	469.648	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.218	170	27634	484.010	ng/mL	93	
27) Fluorene	28.674	166	35751	466.268	ng/mL	99	
31) Dibenzothiophene	31.986	184	51490	454.373	ng/mL	100	
41) Phenanthrene	32.488	178	51721	457.824	ng/mL	99	
52) Retene	39.471	234	19551	518.578	ng/mL	99	
53) Anthracene	32.661	178	49811	499.984	ng/mL	97	
54) Carbazole	33.327	167	43598	418.390	ng/mL	98	
55) 1-Methylphenanthrene	34.988	192	38961	468.924	ng/mL	98	
56) Fluoranthene	37.252	202	59728M4	451.016	ng/mL		
57) Benzo(b)fluorene	39.772	216	39002	497.107	ng/mL	99	
59) Pyrene	38.129	202	65058	465.237	ng/mL	99	
67) Naphthobenzothiophene-2,1	41.982	234	53292	476.942	ng/mL	100	
75) Benz[a]anthracene	42.913	228	61477M4	489.343	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232017.D
 Acq On : 27 May 2020 2:13 am
 Operator : PAH9:ML
 Sample : WG1374011-3
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 13:44:01 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.068	228	62978	477.811	ng/mL	97
77) Chrysene/Triphenylene	43.068	228	62978	477.811	ng/mL	97
84) Benzo[b]fluoranthene	46.961	252	70550	459.320	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.035	252	72361	477.411	ng/mL	93
88) Benzo[e]pyrene	47.940	252	68806	453.896	ng/mL	93
90) Benzo[a]pyrene	48.123	252	69943	483.744	ng/mL	89
91) Perylene	48.425	252	66105	492.124	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	52.833	276	90654M3	537.491	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.879	278	80016M4	551.218	ng/mL	
95) Benzo[g,h,i]perylene	54.094	276	84926	490.081	ng/mL	98
96) Hopane (T19)	51.937	191	18863	432.891	ng/mL#	66

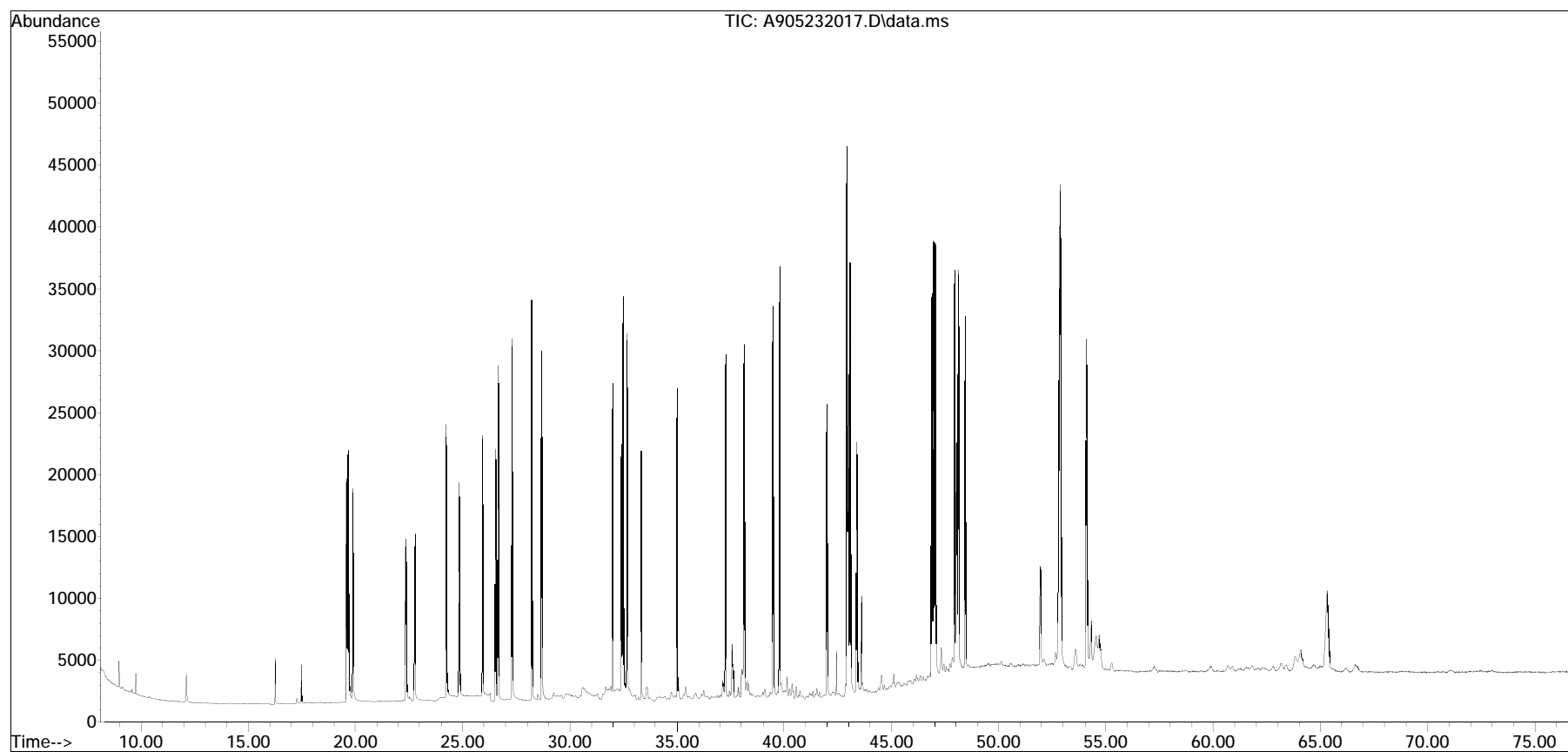
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232017.D
Acq On : 27 May 2020 2:13 am
Operator : PAH9:ML
Sample : WG1374011-3
Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 13:44:01 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 21 09:23:33 2020
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232027.D
 Acq On : 27 May 2020 4:30 pm
 Operator : PAH9:ML
 Sample : WG1374011-4
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 28 09:29:58 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	58	0.02
2 A1	trans-Decalin	0.404	0.408	-1.0	62	0.00
3 t	cis-Decalin	0.309	0.295	4.5	57	0.00
8 s	Naphthalene-d8	1.827	1.745	4.5	55	0.00
9 A1	Naphthalene	2.127	2.001	5.9	54	0.02
14 t	2-Methylnaphthalene	1.410	1.311	7.0	55	0.03
15 t	1-Methylnaphthalene	1.340	1.267	5.4	55	0.02
16 A1	Benzothiophene	1.962	1.797	8.4	53	0.02
21 t	Biphenyl	1.728	1.678	2.9	57	0.03
22 t	2,6-Dimethylnaphthalene	1.238	1.196	3.4	57	0.02
23 t	Dibenzofuran	2.007	1.934	3.6	57	0.03
24 t	Acenaphthylene	2.106	2.104	0.1	59	0.02
25 t	Acenaphthene	1.305	1.329	-1.8	60	0.00
26 t	2,3,5-Trimethylnaphthalene	1.152	1.134	1.6	59	0.03
27 A1	Fluorene	1.546	1.523	1.5	58	0.04
31 A1	Dibenzothiophene	2.286	2.127	7.0	55	0.03
40 s	Phenanthrene-d10	1.711	1.731	-1.2	60	0.02
41 A1	Phenanthrene	2.279	2.196	3.6	57	0.02
52 t	Retene	0.760	0.780	-2.6	62	0.00
53 t	Anthracene	2.009	2.096	-4.3	59	0.04
54 t	Carbazole	2.102	1.743	17.1	50	0.04
55 t	1-Methylphenanthrene	1.676	1.694	-1.1	61	0.03
56 A1	Fluoranthene	2.671	2.581	3.4	63	0.02
57 A1	Benzo(b)fluorene	1.582	1.629	-3.0	62	0.03
59 A1	Pyrene	2.820	2.648	6.1	62	0.02
67 A1	Napthobenzothiophene-2,1-D	2.254	2.377	-5.5	65	0.03
74 i	Chrysene-d12	1.000	1.000	0.0	64	0.02
75 t	Benz[a]anthracene	1.257	1.176	6.4	64	0.03
76 A1	Chrysene	1.319	1.303	1.2	69	0.03
77 A2	Chrysene/Triphenylene	1.319	1.303	1.2	69	0.03
83 S	Benzo[b]fluoranthene-d12	1.241	1.230	0.9	68	0.03
84 t	Benzo[b]fluoranthene	1.537	1.450	5.7	69	0.02
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.620	-6.8	76	0.03
88 t	Benzo[e]pyrene	1.517	1.458	3.9	72	0.03
89 s	Benzo[a]pyrene-d12	0.830	0.817	1.6	68	0.04
90 t	Benzo[a]pyrene	1.447	1.434	0.9	73	0.04
91 t	Perylene	1.344	1.487	-10.6	79	0.04
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.731	-2.5	75	0.07

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232027.D
 Acq On : 27 May 2020 4:30 pm
 Operator : PAH9:ML
 Sample : WG1374011-4
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 28 09:29:58 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.694	-16.6	78	0.05
95 t Benzo[g,h,i]perylene	1.734	1.809	-4.3	80	0.07
96 A1 Hopane (T19)	0.436	0.382	12.4	65	0.00
130 SA1 5B(H)Cholane - Surr	0.221	0.203	8.1	63	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.08	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.73	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232027.D
 Acq On : 27 May 2020 4:30 pm
 Operator : PAH9:ML
 Sample : WG1374011-4
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 28 09:29:58 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.548	164	16398	500.000	ng/mL	0.00	
74) Chrysene-d12	42.977	240	34387	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.594	136	28618	477.498	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	47.75%#		
40) Phenanthrene-d10	32.405	188	28393	505.905	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	50.59%		
83) Benzo[b]fluoranthene-d12	46.879	264	42293	495.673	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	49.57%#		
89) Benzo[a]pyrene-d12	48.041	264	28092	492.201	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	49.22%#		
130) 5B(H)Cholane - Surr	43.598	217	6982	459.156	ng/ml	-0.02	
Spiked Amount	1000.000		Recovery	=	45.92%#		
Target Compounds							
2) trans-Decalin	16.254	138	3343	252.599	ng/mL	100	Qvalue
3) cis-Decalin	17.468	138	2416	238.616	ng/mL	100	
9) Naphthalene	19.676	128	32816	470.385	ng/mL	100	
14) 2-Methylnaphthalene	22.378	142	21499	464.798	ng/mL	100	
15) 1-Methylnaphthalene	22.788	142	20771	472.548	ng/mL	100	
16) Benzothiophene	19.895	134	29461	457.965	ng/mL	100	
21) Biphenyl	24.248	154	27510	485.467	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.851	156	19606	483.040	ng/mL	100	
23) Dibenzofuran	27.323	168	31715	481.804	ng/mL	96	
24) Acenaphthylene	25.936	152	34507	499.488	ng/mL	100	
25) Acenaphthene	26.666	153	21794	509.088	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	28.236	170	18593	492.318	ng/mL	97	
27) Fluorene	28.710	166	24979	492.503	ng/mL	99	
31) Dibenzothiophene	32.004	184	34872	465.213	ng/mL	97	
41) Phenanthrene	32.497	178	36009	481.868	ng/mL	99	
52) Retene	39.471	234	12789	512.823	ng/mL	93	
53) Anthracene	32.688	178	34371	521.566	ng/mL	97	
54) Carbazole	33.354	167	28587	414.733	ng/mL	98	
55) 1-Methylphenanthrene	35.007	192	27783	505.519	ng/mL	100	
56) Fluoranthene	37.261	202	42324	483.154	ng/mL	92	
57) Benzo(b)fluorene	39.782	216	26718	514.816	ng/mL	99	
59) Pyrene	38.138	202	43425	469.460	ng/mL	93	
67) Naphthobenzothiophene-2,1	41.991	234	38982	527.416	ng/mL	99	
75) Benz[a]anthracene	42.922	228	40452	467.828	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232027.D
 Acq On : 27 May 2020 4:30 pm
 Operator : PAH9:ML
 Sample : WG1374011-4
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 28 09:29:58 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.077	228	44814	494.000	ng/mL	95
77) Chrysene/Triphenylene	43.077	228	44814	494.000	ng/mL	95
84) Benzo[b]fluoranthene	46.952	252	49846	471.513	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.034	252	55695	533.888	ng/mL	93
88) Benzo[e]pyrene	47.940	252	50141	480.583	ng/mL	91
90) Benzo[a]pyrene	48.132	252	49322	495.630	ng/mL	89
91) Perylene	48.434	252	51129	553.036	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	52.842	276	59511M3	512.657	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.888	278	58258M4	583.106	ng/mL	
95) Benzo[g,h,i]perylene	54.103	276	62192	521.444	ng/mL	97
96) Hopane (T19)	51.937	191	13127	437.702	ng/mL#	68

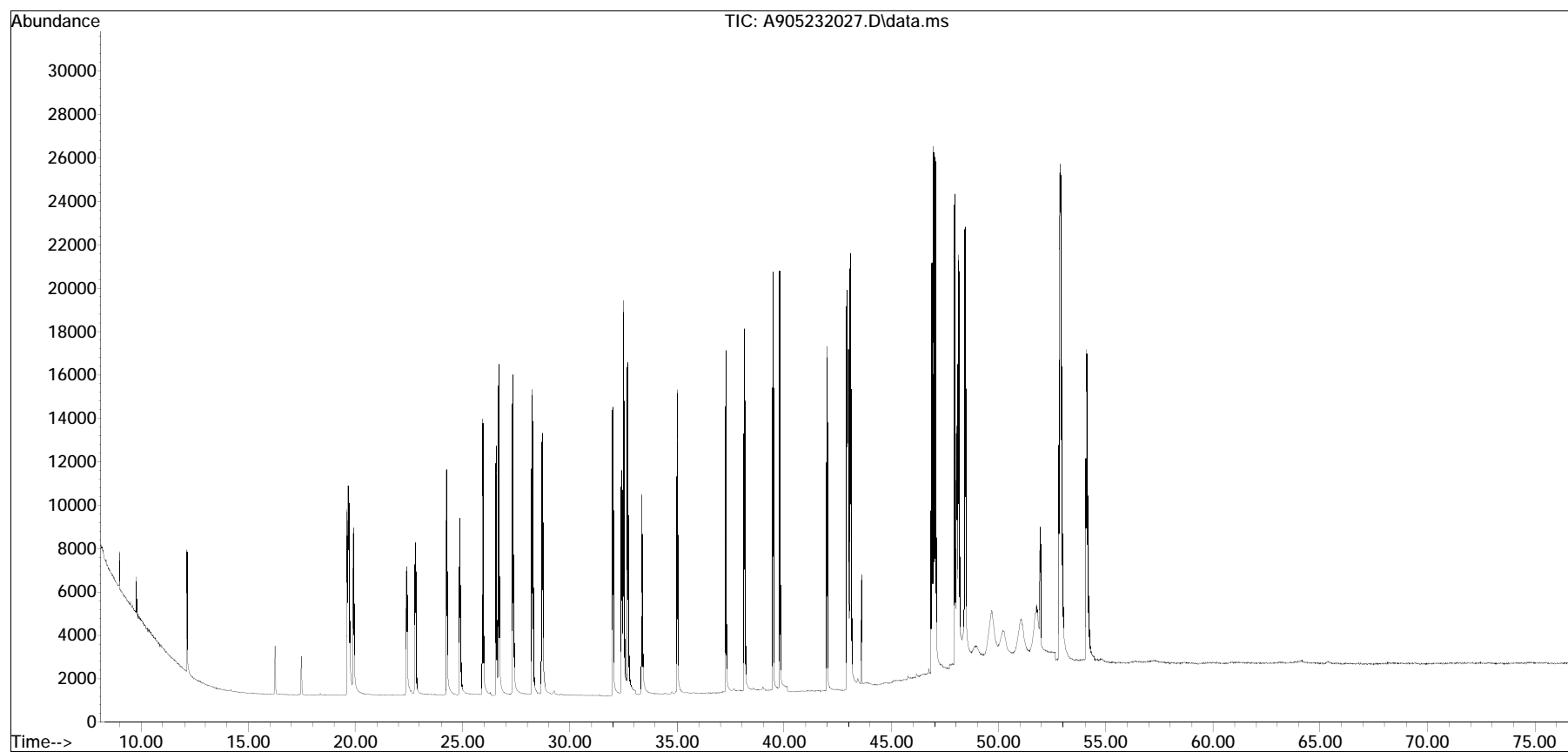
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232027.D
Acq On : 27 May 2020 4:30 pm
Operator : PAH9:ML
Sample : WG1374011-4
Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 28 09:29:58 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 21 09:23:33 2020
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232018.D
 Acq On : 27 May 2020 3:38 am
 Operator : PAH9:ML
 Sample : L2020213-01D,32,20
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 04 12:55:29 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.539	164	23269	500.000	ng/mL	0.00	
74) Chrysene-d12	42.977	240	49766	500.000	ng/mL	0.02	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	1447	17.014	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.70%#	
40) Phenanthrene-d10	32.396	188	1767	22.187	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.22%#	
83) Benzo[b]fluoranthene-d12	46.879	264	2780	22.513	ng/mL	0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.25%#	
89) Benzo[a]pyrene-d12	48.041	264	2023	24.492	ng/mL	0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.45%#	
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml		
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#	
Target Compounds							
25) Acenaphthene	26.667	153	103807	1708.819	ng/mL	100	Qvalue
27) Fluorene	28.683	166	67041	931.509	ng/mL	99	
31) Dibenzothiophene	31.995	184	108899	1023.793	ng/mL	97	
41) Phenanthrene	32.497	178	937573	8841.689	ng/mL	98	
53) Anthracene	32.670	178	228061	2438.827	ng/mL	98	
56) Fluoranthene	37.261	202	1091678	8782.273	ng/mL	93	
59) Pyrene	38.147	202	1449877	11045.958	ng/mL	95	
75) Benz[a]anthracene	42.913	228	300969M4	2405.078	ng/mL		
77) Chrysene/Triphenylene	43.077	228	367628	2800.162	ng/mL	99	
84) Benzo[b]fluoranthene	46.961	252	302009	1973.990	ng/mL	95	
85) Benzo[j]+[k]fluoranthene	47.025	252	313528M6	2076.690	ng/mL		
88) Benzo[e]pyrene	47.940	252	313274	2074.728	ng/mL	92	
90) Benzo[a]pyrene	48.132	252	537107	3729.401	ng/mL	90	
91) Perylene	48.434	252	142931	1068.252	ng/mL	87	
92) Indeno[1,2,3-cd]pyrene	52.842	276	466594M3	2777.347	ng/mL		
95) Benzo[g,h,i]perylene	54.112	276	641868	3718.607	ng/mL	98	

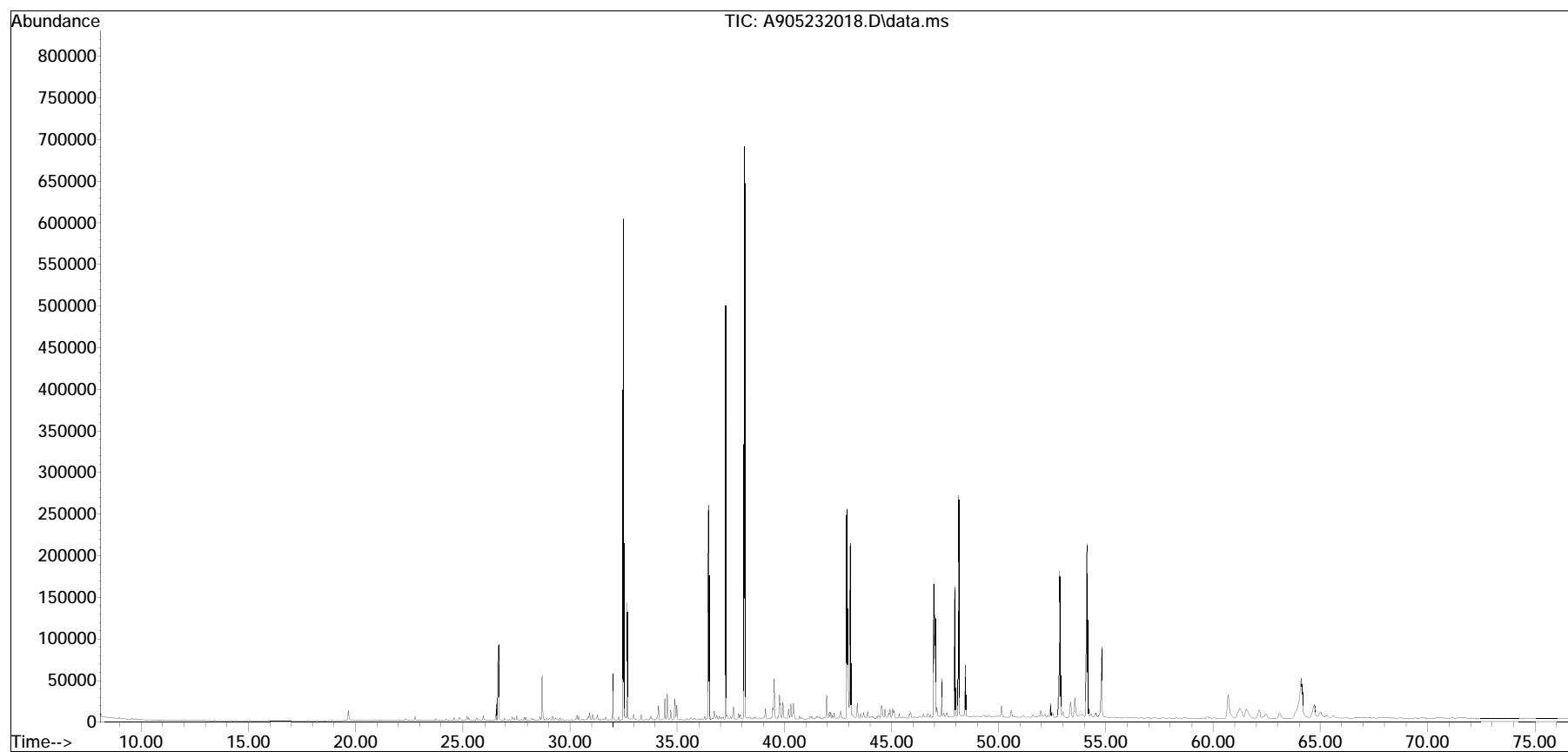
(#) = qualifier out of range (m) = manual integration (+) = signals summed

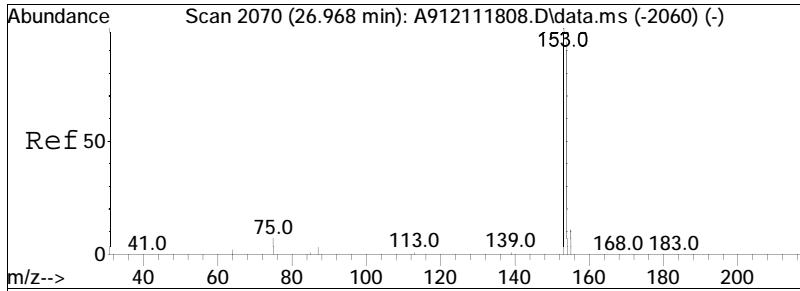
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232018.D
Acq On : 27 May 2020 3:38 am
Operator : PAH9:ML
Sample : L2020213-01D,32,20
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 04 12:55:29 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

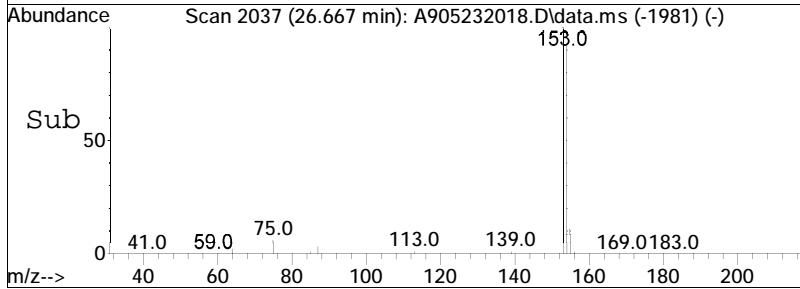
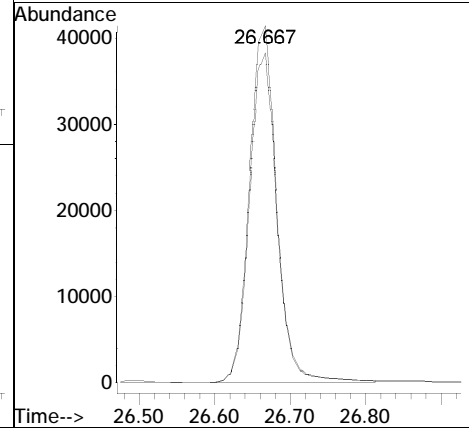
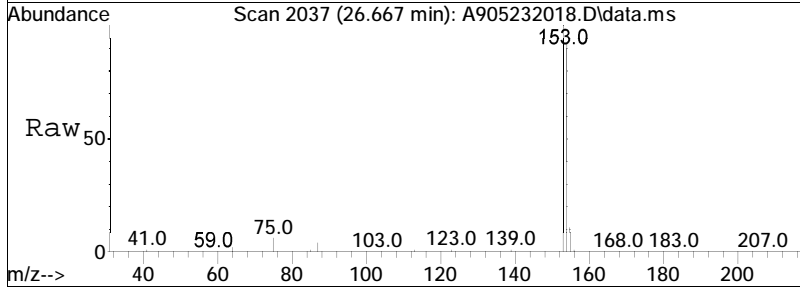
Sub List : ALKPAH_CCV - CC with five surrogates

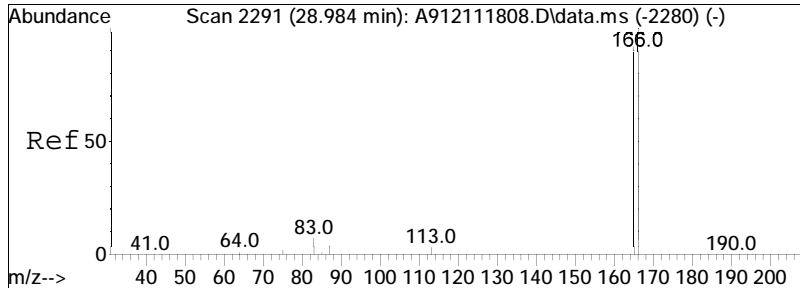




#25
 Acenaphthene
 Concen: 1708.82 ng/mL
 RT: 26.667 min Scan# 2037
 Delta R.T. 0.009 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

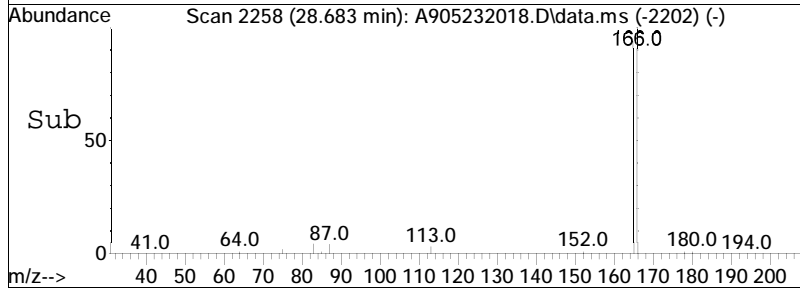
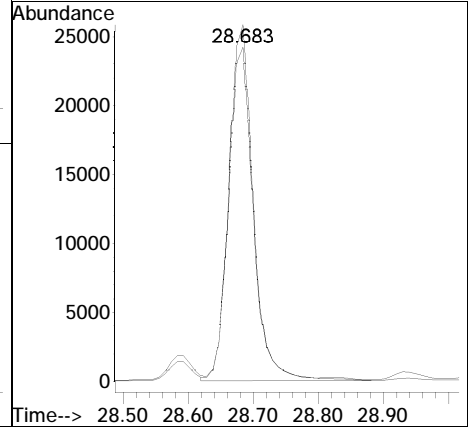
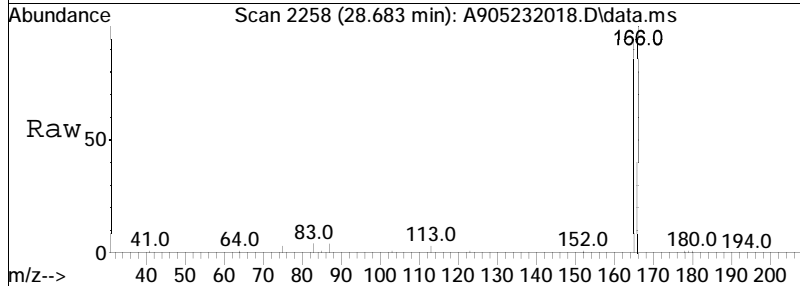
Tgt Ion:153 Resp: 103807
 Ion Ratio Lower Upper
 153 100
 154 92.9 65.0 120.8

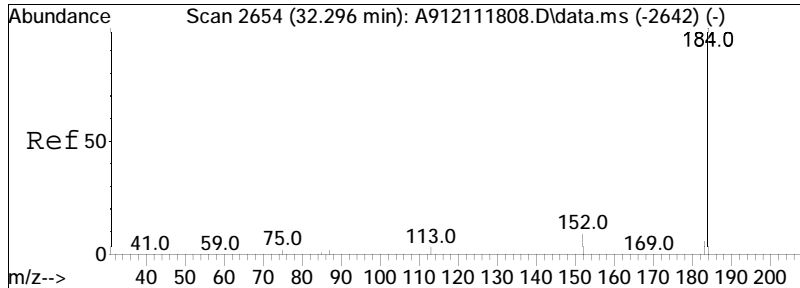




#27
 Fluorene
 Concen: 931.51 ng/mL
 RT: 28.683 min Scan# 2258
 Delta R.T. 0.009 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

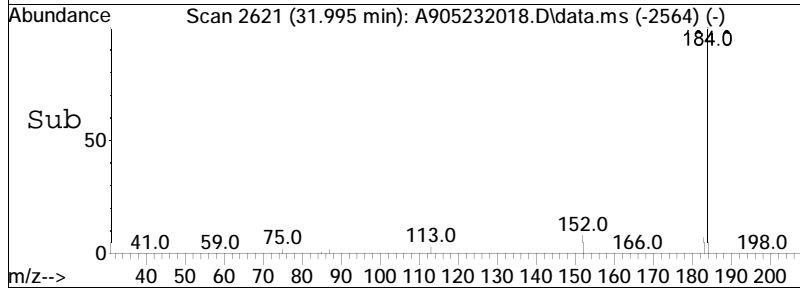
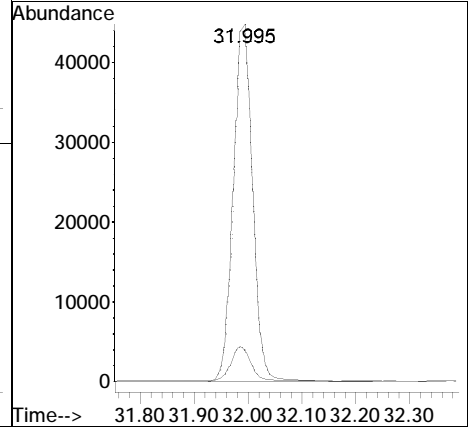
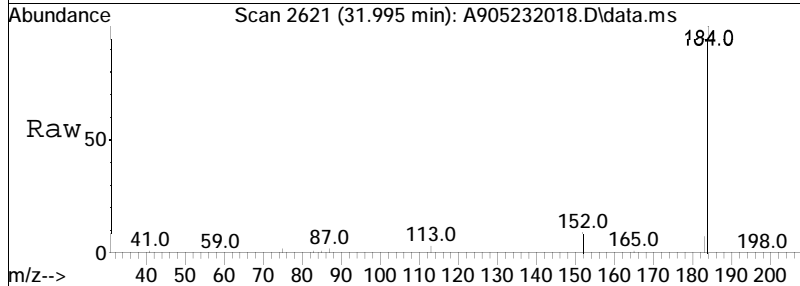
Tgt Ion	Ratio	Lower	Upper
166	100		
165	92.1	65.4	121.4

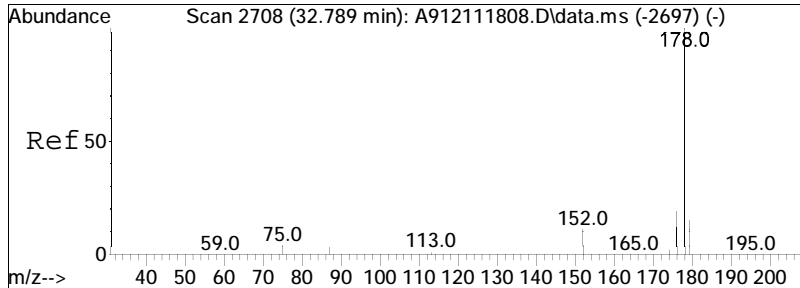




#31
 Dibenzothiophene
 Concen: 1023.79 ng/mL
 RT: 31.995 min Scan# 2621
 Delta R.T. 0.018 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

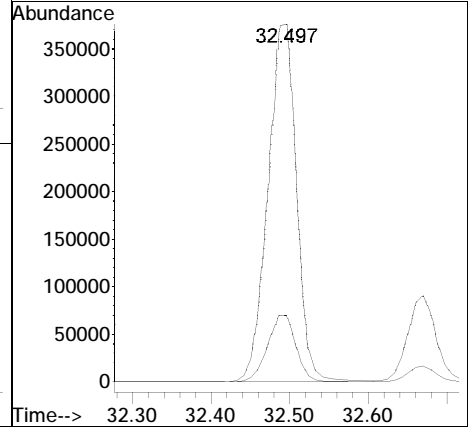
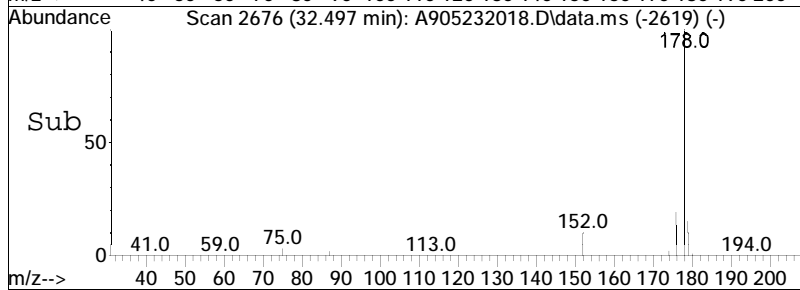
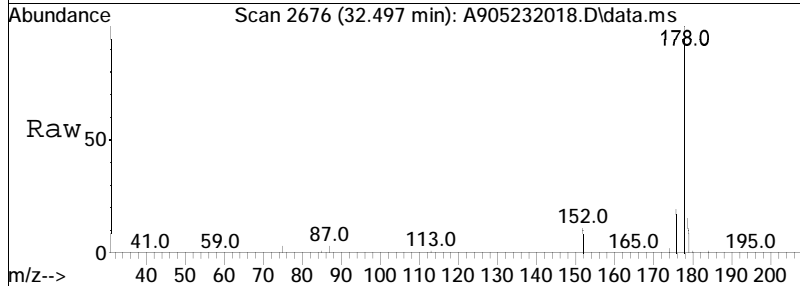
Tgt Ion: 184 Resp: 108899
 Ion Ratio Lower Upper
 184 100
 152 10.1 6.4 11.8

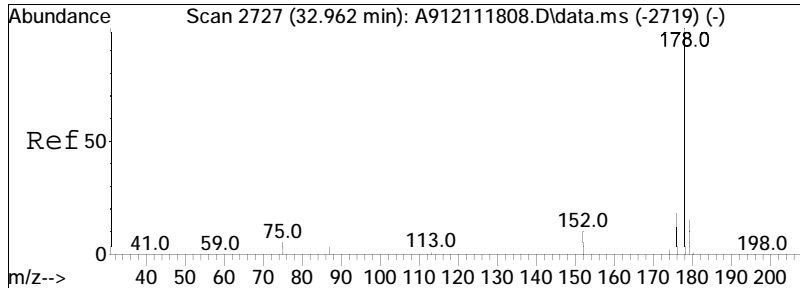




#41
 Phenanthrene
 Concen: 8841.69 ng/mL
 RT: 32.497 min Scan# 2676
 Delta R.T. 0.018 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

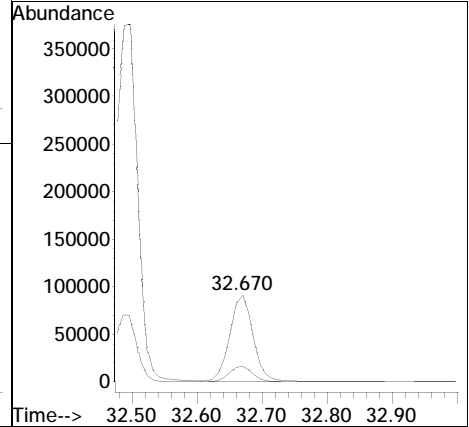
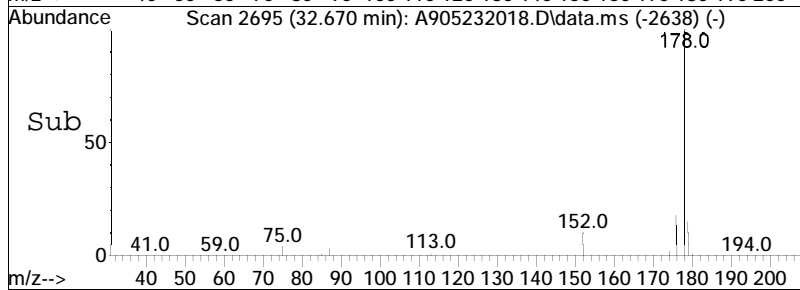
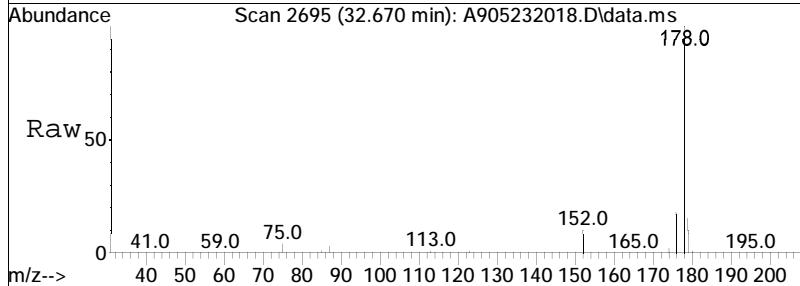
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.7	13.6	25.4

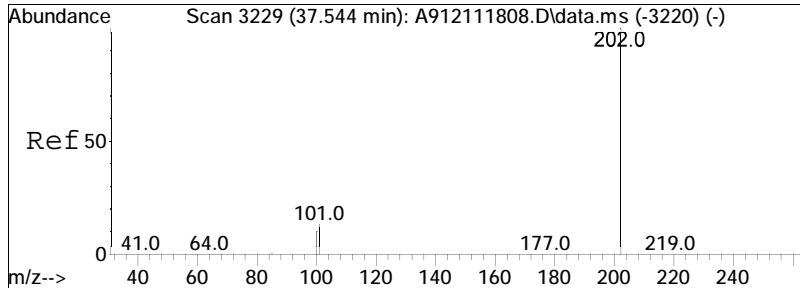




#53
 Anthracene
 Concen: 2438.83 ng/mL
 RT: 32.670 min Scan# 2695
 Delta R.T. 0.018 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

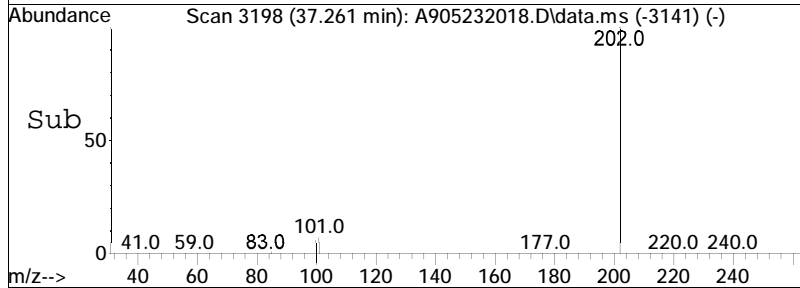
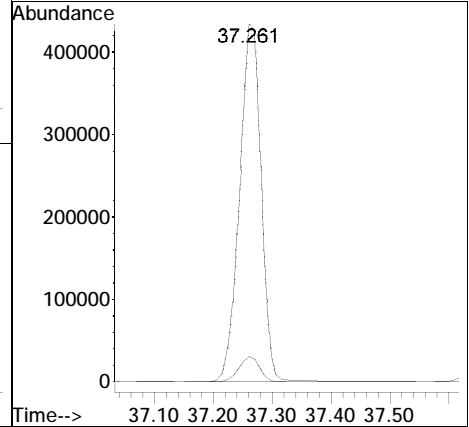
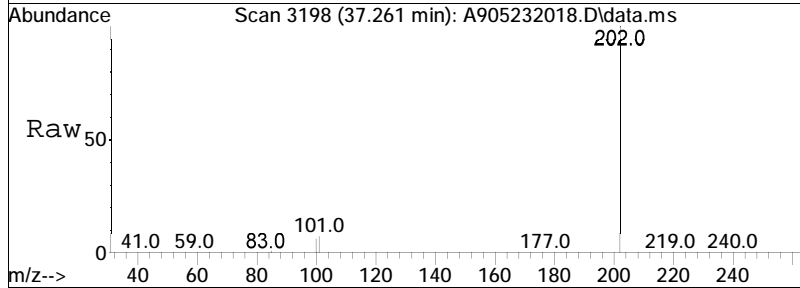
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.2	13.3	24.7

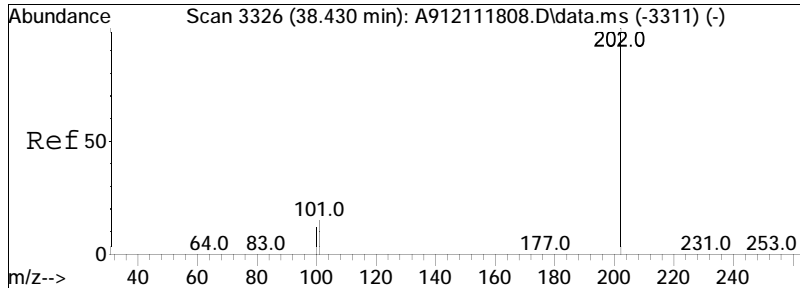




#56
 Fluoranthene
 Concen: 8782.27 ng/mL
 RT: 37.261 min Scan# 3198
 Delta R.T. 0.018 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

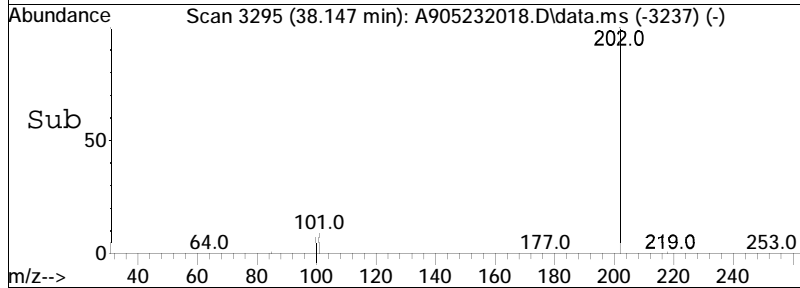
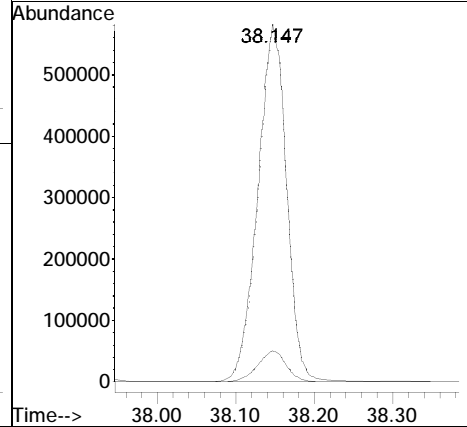
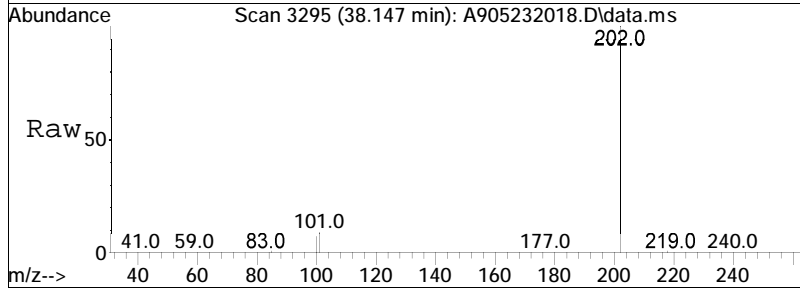
Tgt Ion: 202 Resp: 1091678
 Ion Ratio Lower Upper
 202 100
 101 7.0 6.8 12.6

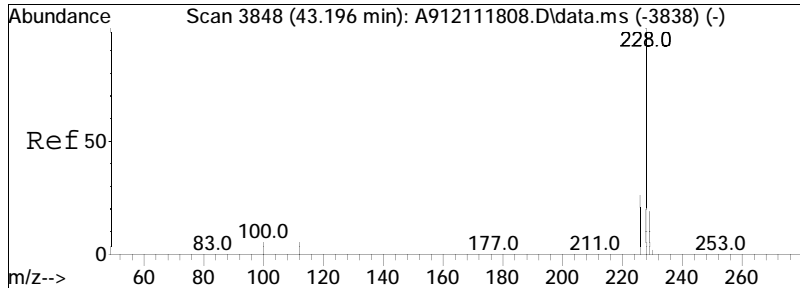




#59
 Pyrene
 Concen: 11045.96 ng/mL
 RT: 38.147 min Scan# 3295
 Delta R.T. 0.028 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

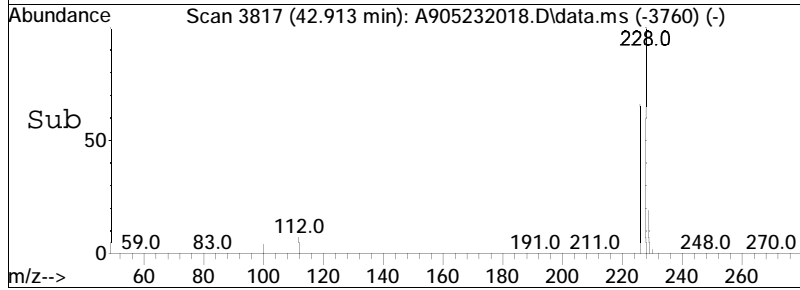
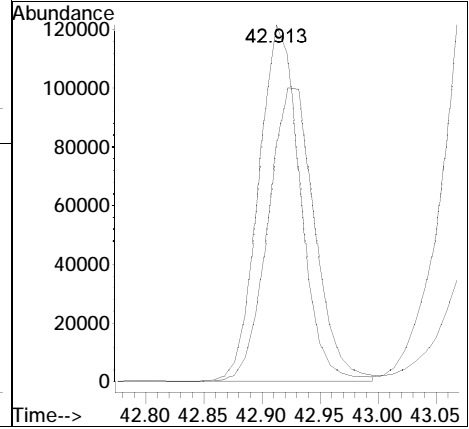
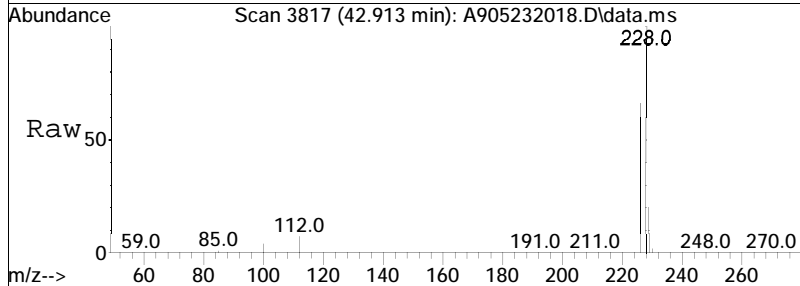
Tgt Ion: 202 Resp: 1449877
 Ion Ratio Lower Upper
 202 100
 101 8.8 7.6 14.0

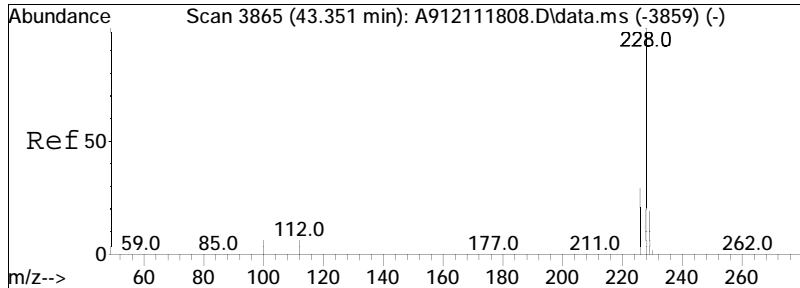




#75
 Benz[a]anthracene
 Concen: 2405.08 ng/mL M4
 RT: 42.913 min Scan# 3817
 Delta R.T. 0.018 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

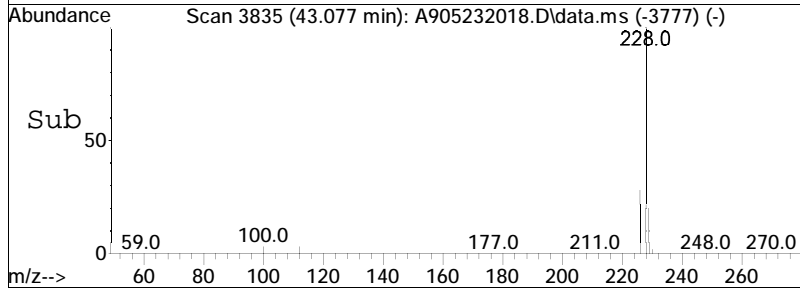
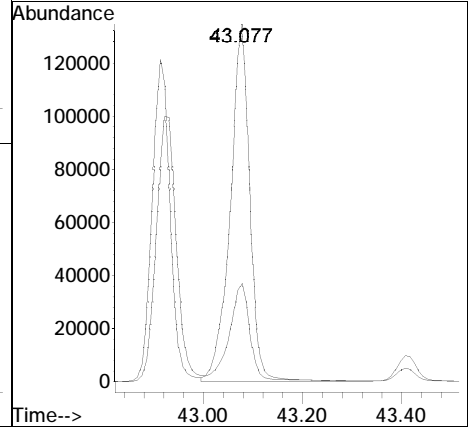
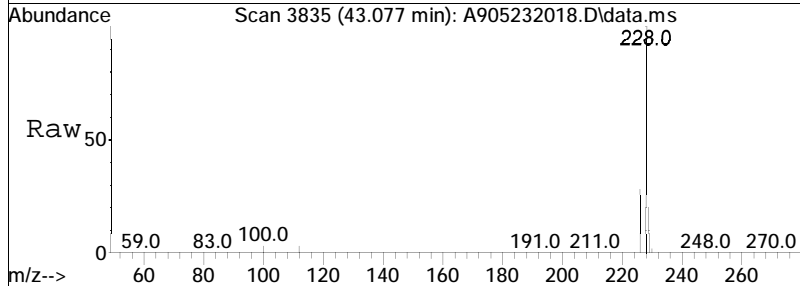
Tgt Ion: 228 Resp: 300969
 Ion Ratio Lower Upper
 228 100
 226 35.6 19.0 35.2#

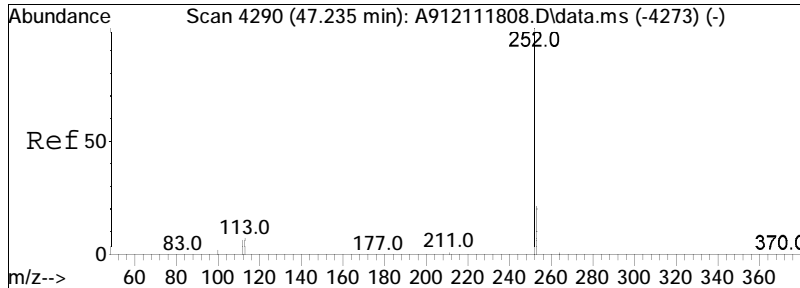




#77
 Chrysene/Triphenylene
 Concen: 2800.16 ng/mL
 RT: 43.077 min Scan# 3835
 Delta R.T. 0.028 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

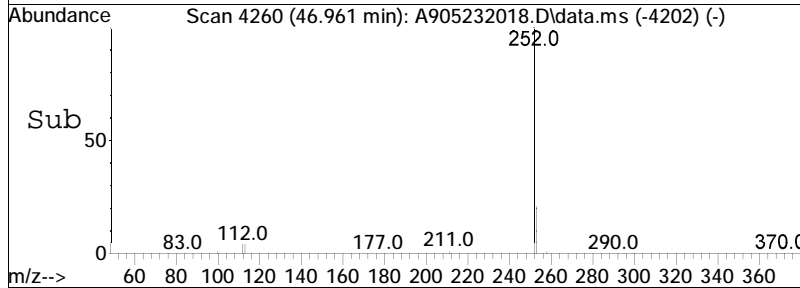
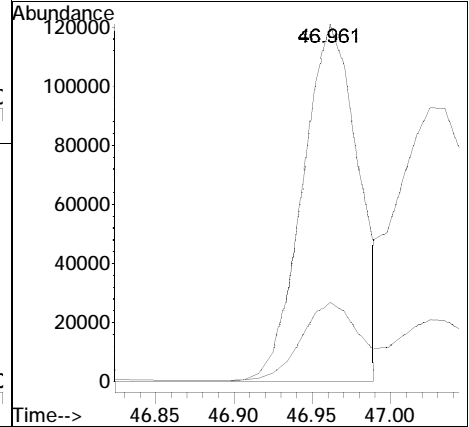
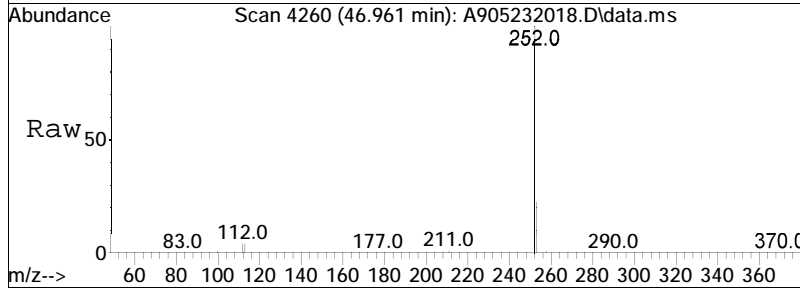
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.6	21.0	39.0

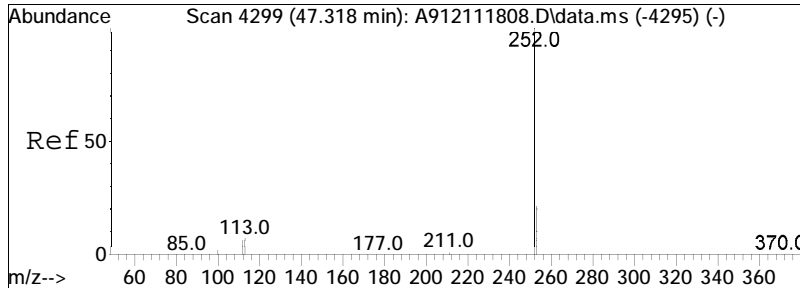




#84
 Benzo[b]fluoranthene
 Concen: 1973.99 ng/mL
 RT: 46.961 min Scan# 4260
 Delta R.T. 0.028 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

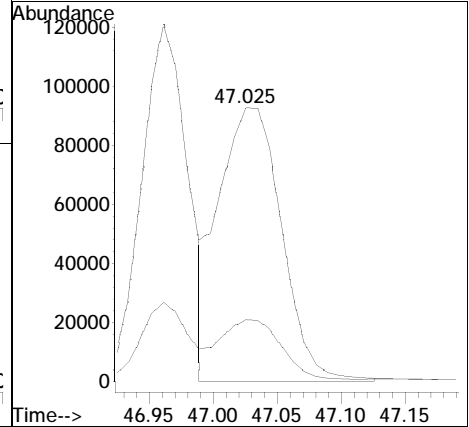
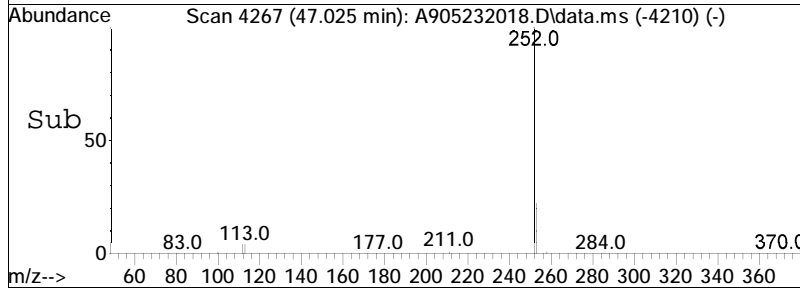
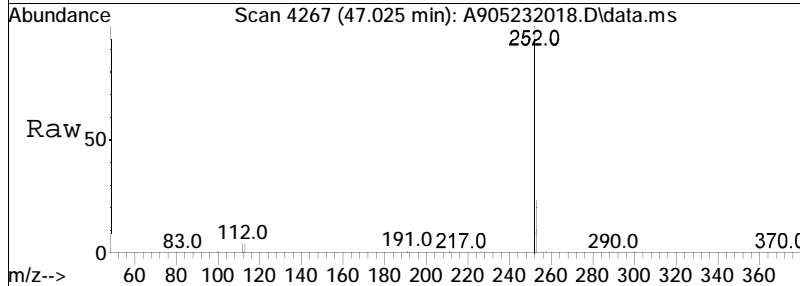
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.1	17.3	32.1

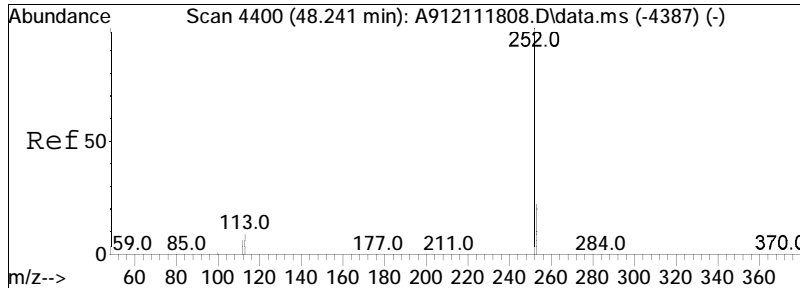




#85
 Benzo[j]+[k]fluoranthene
 Concen: 2076.69 ng/mL M6
 RT: 47.025 min Scan# 4267
 Delta R.T. 0.018 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

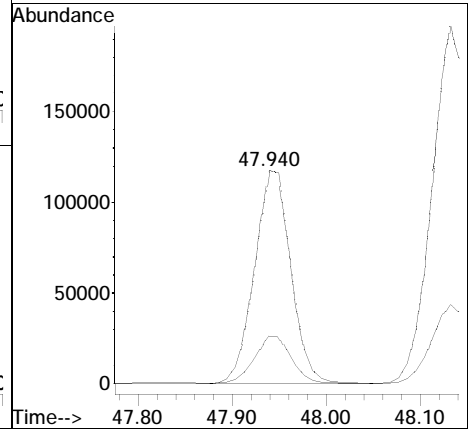
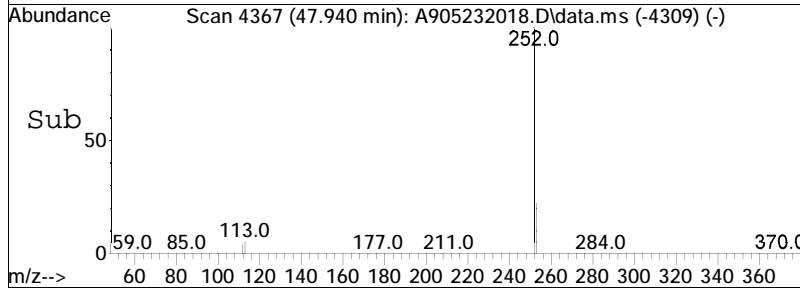
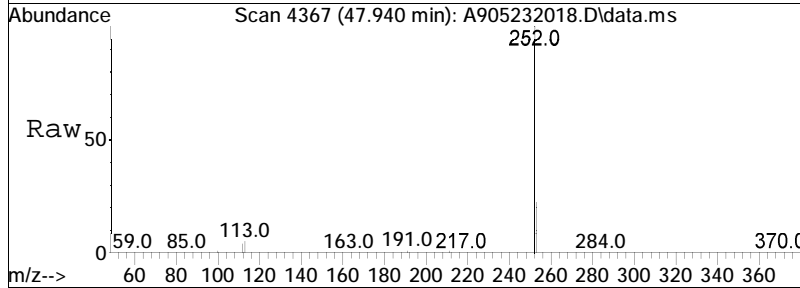
Tgt Ion	Resp	Lower	Upper
252	100		
253	19.7	17.6	32.8

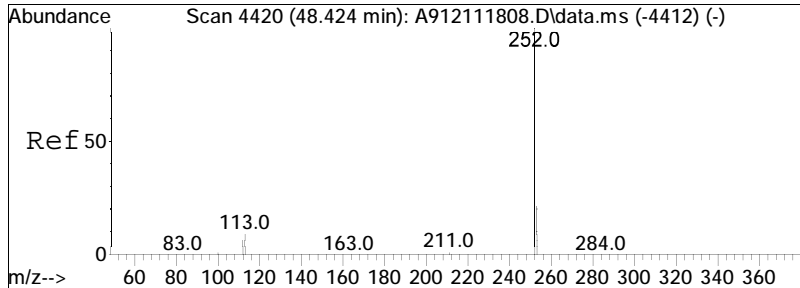




#88
 Benzo[e]pyrene
 Concen: 2074.73 ng/mL
 RT: 47.940 min Scan# 4367
 Delta R.T. 0.028 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

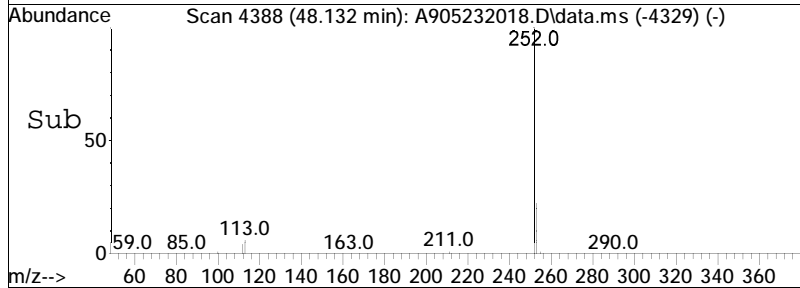
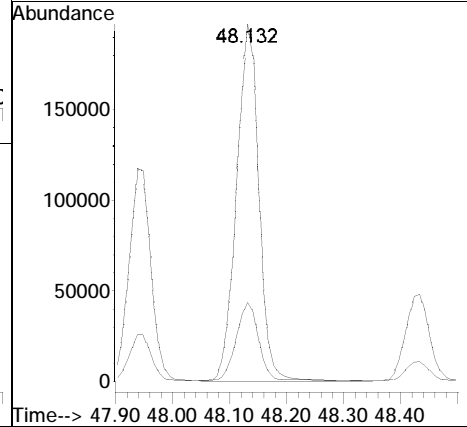
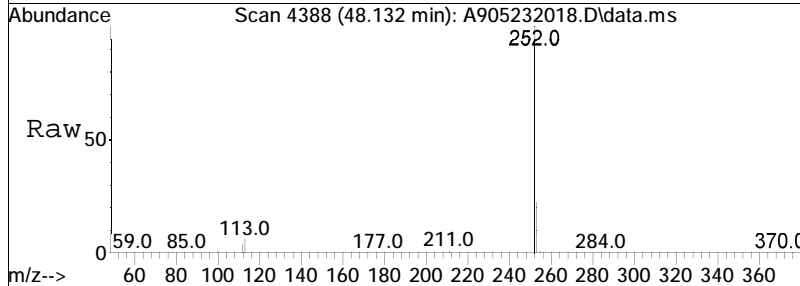
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	18.3	33.9

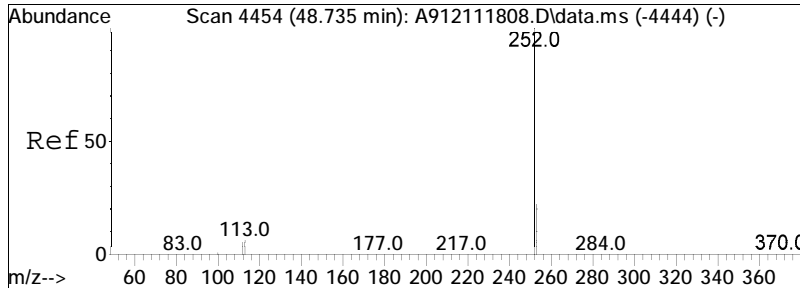




#90
 Benzo[a]pyrene
 Concen: 3729.40 ng/mL
 RT: 48.132 min Scan# 4388
 Delta R.T. 0.037 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

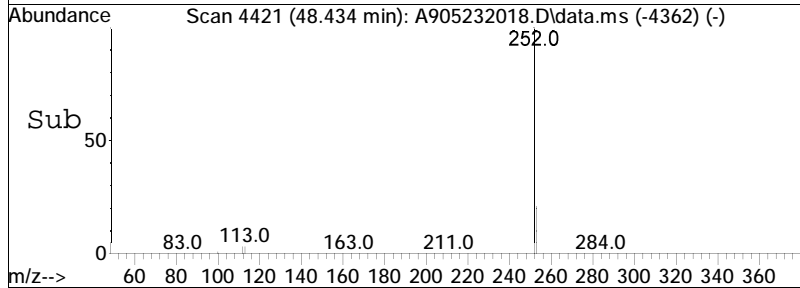
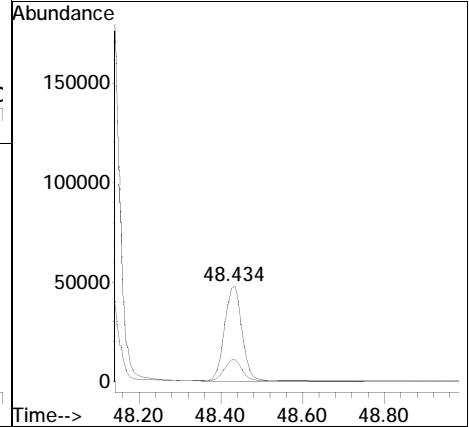
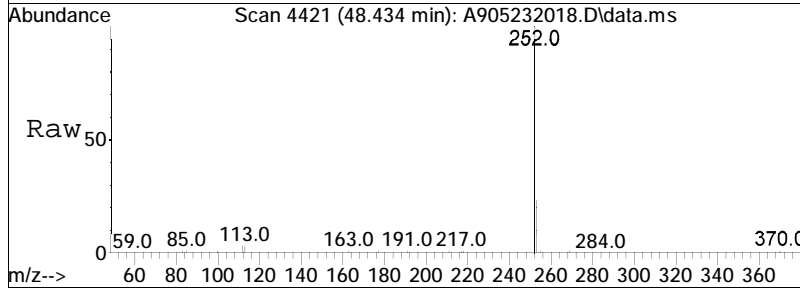
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	19.2	35.6

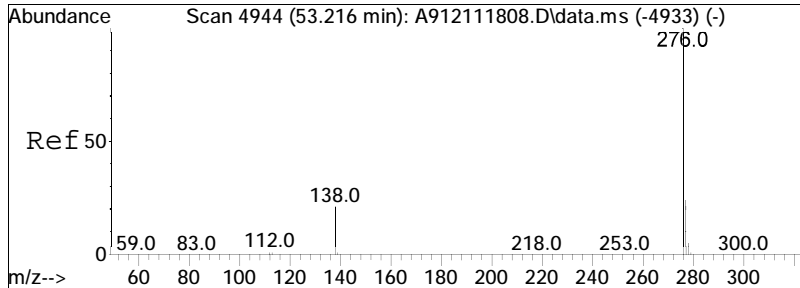




#91
 Perylene
 Concen: 1068.25 ng/mL
 RT: 48.434 min Scan# 4421
 Delta R.T. 0.037 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

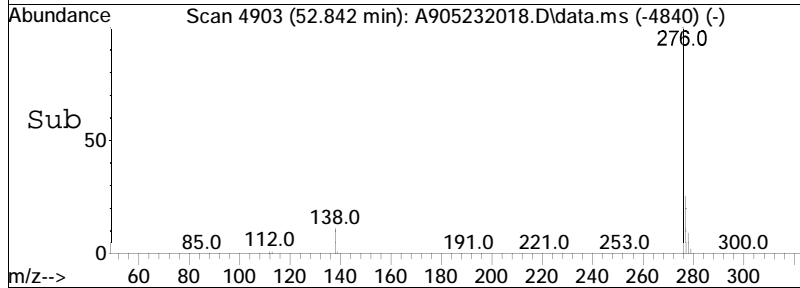
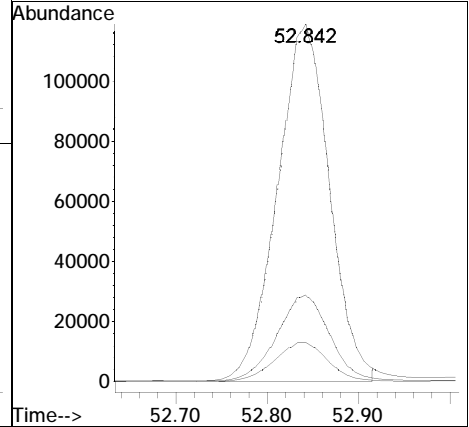
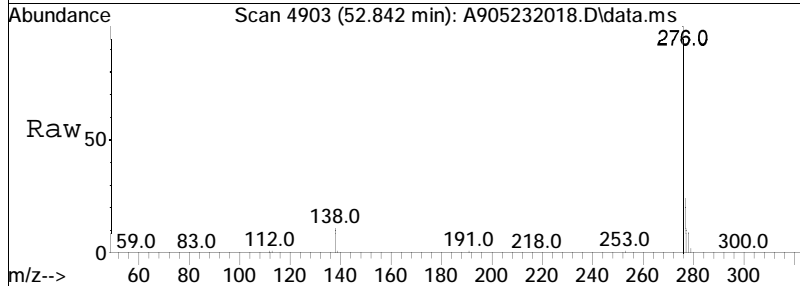
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.5	19.9	36.9

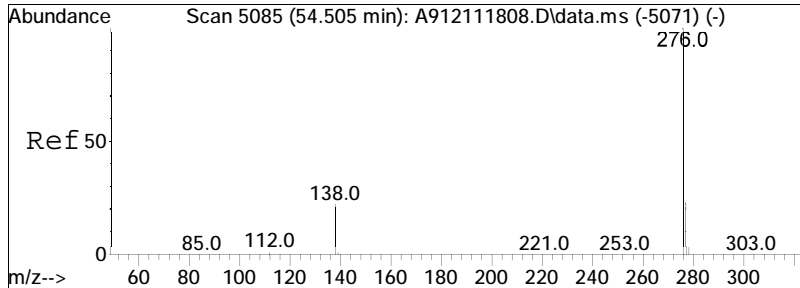




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 2777.35 ng/mL M3
 RT: 52.842 min Scan# 4903
 Delta R.T. 0.073 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

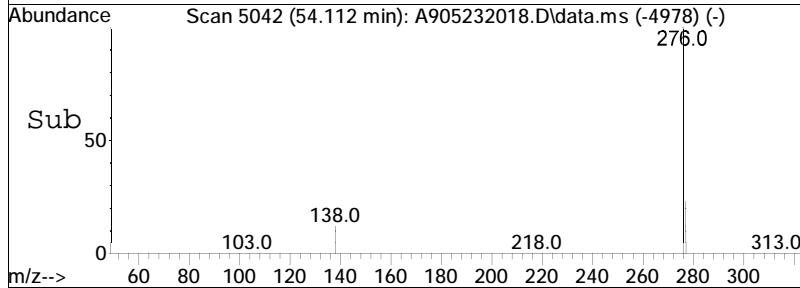
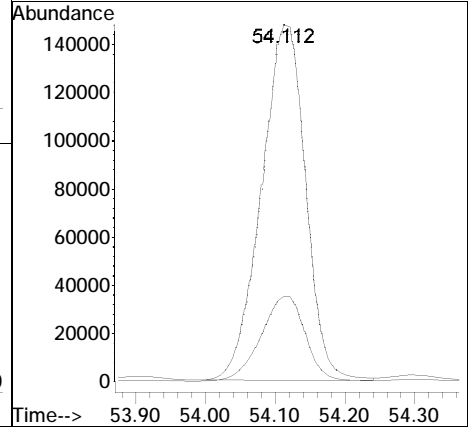
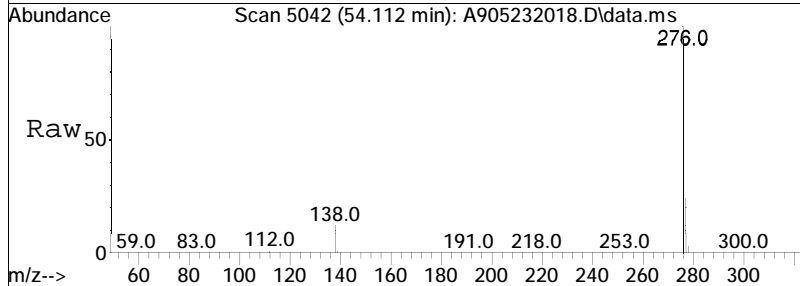
Tgt Ion	Ratio	Lower	Upper
276	100		
138	11.5	12.2	22.6#
277	24.6	18.6	34.6





#95
 Benzo[g,h,i]perylene
 Concen: 3718.61 ng/mL
 RT: 54.112 min Scan# 5042
 Delta R.T. 0.082 min
 Lab File: A905232018.D
 Acq: 27 May 2020 3:38 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	24.0	17.4	32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232019.D
 Acq On : 27 May 2020 5:03 am
 Operator : PAH9:ML
 Sample : L2020213-02D,32,20
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 04 12:57:35 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.539	164	20158	500.000	ng/mL	0.00	
74) Chrysene-d12	42.977	240	42934	500.000	ng/mL	0.02	
System Monitoring Compounds							
8) Naphthalene-d8	19.594	136	610	8.280	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.83%#	
40) Phenanthrene-d10	32.396	188	709	10.277	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.03%#	
83) Benzo[b]fluoranthene-d12	46.870	264	1250	11.734	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.17%#	
89) Benzo[a]pyrene-d12	48.041	264	922	12.938	ng/mL	0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.29%#	
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml		
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#	
Target Compounds							
9) Naphthalene	19.667	128	108260	1262.347	ng/mL	100	Qvalue
25) Acenaphthene	26.667	153	143841	2733.269	ng/mL	100	
27) Fluorene	28.683	166	67114	1076.441	ng/mL	100	
31) Dibenzothiophene	31.986	184	109074	1183.694	ng/mL	98	
41) Phenanthrene	32.488	178	953910	10384.075	ng/mL	99	
53) Anthracene	32.670	178	197675	2440.125	ng/mL	99	
56) Fluoranthene	37.261	202	928035	8618.010	ng/mL	92	
59) Pyrene	38.147	202	1217999	10711.479	ng/mL	94	
75) Benz[a]anthracene	42.913	228	238994M4	2213.736	ng/mL		
77) Chrysene/Triphenylene	43.077	228	287015	2534.023	ng/mL	100	
84) Benzo[b]fluoranthene	46.961	252	240924	1825.309	ng/mL	95	
85) Benzo[j]+[k]fluoranthene	47.025	252	245266	1883.060	ng/mL	94	
88) Benzo[e]pyrene	47.940	252	244067	1873.602	ng/mL	93	
90) Benzo[a]pyrene	48.132	252	418501	3368.264	ng/mL	90	
91) Perylene	48.425	252	109097	945.130	ng/mL	88	
92) Indeno[1,2,3-cd]pyrene	52.842	276	365758M3	2523.575	ng/mL		
95) Benzo[g,h,i]perylene	54.112	276	500657	3362.066	ng/mL	98	

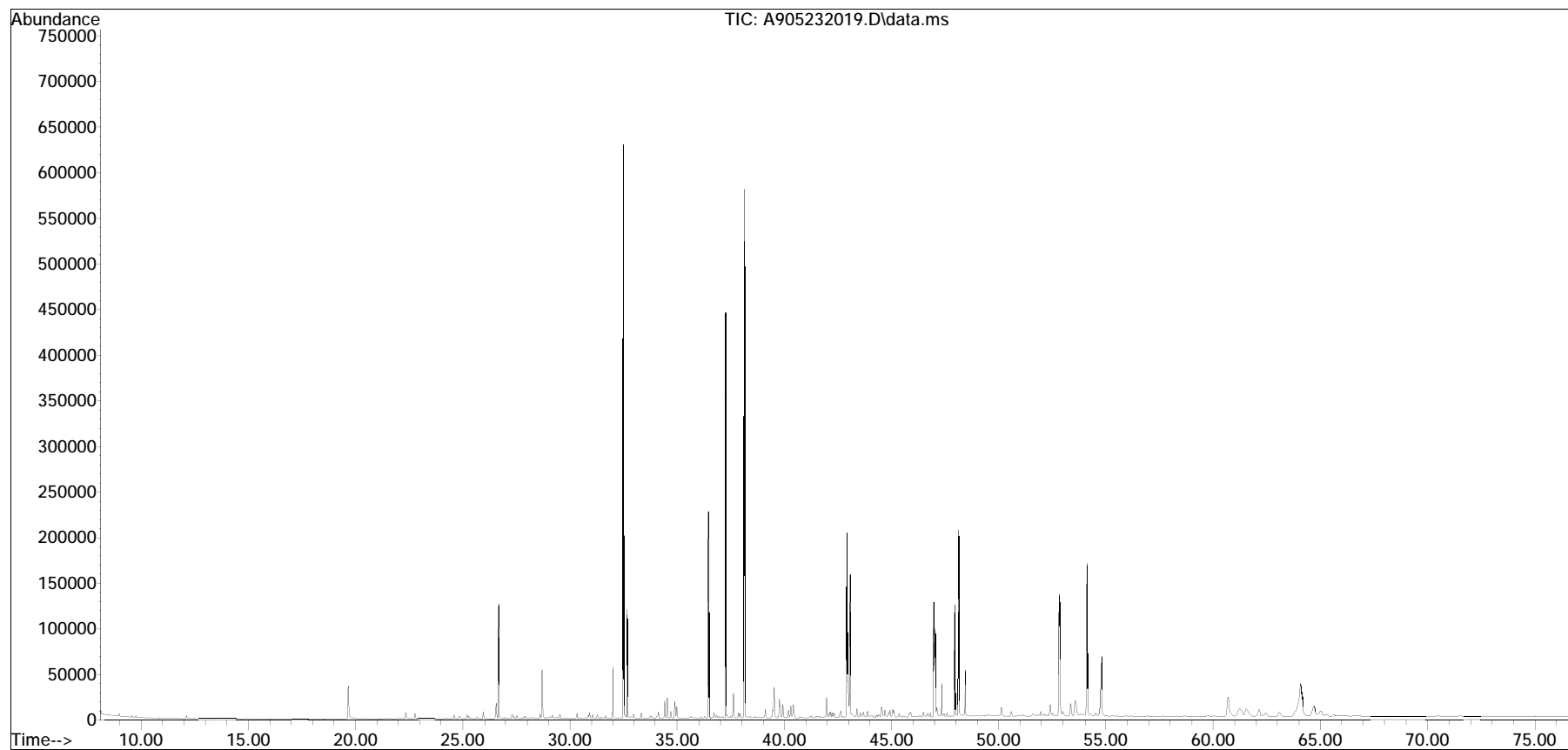
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

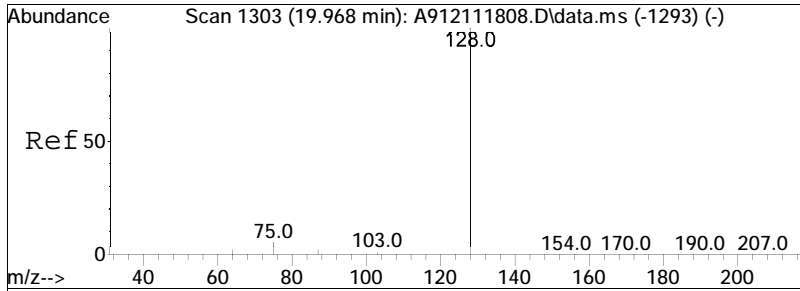
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232019.D
Acq On : 27 May 2020 5:03 am
Operator : PAH9:ML
Sample : L2020213-02D,32,20
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 18 Sample Multiplier: 1

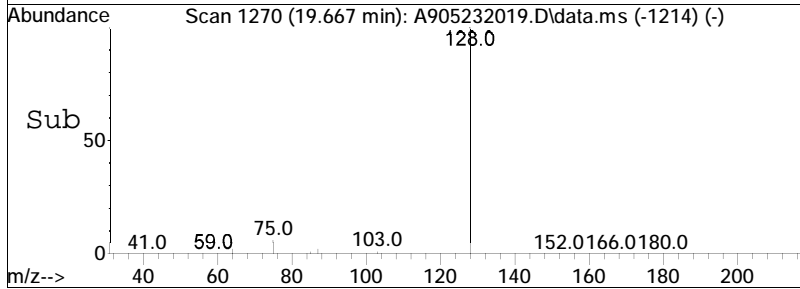
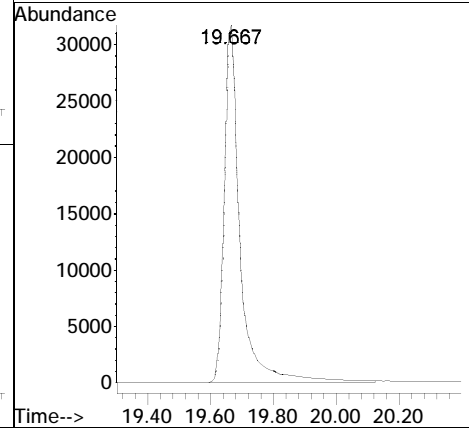
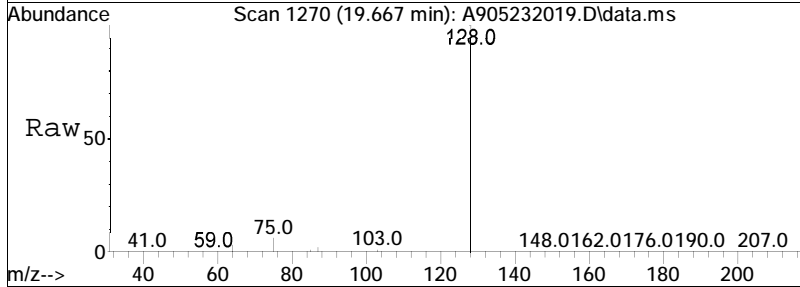
Quant Time: Jun 04 12:57:35 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

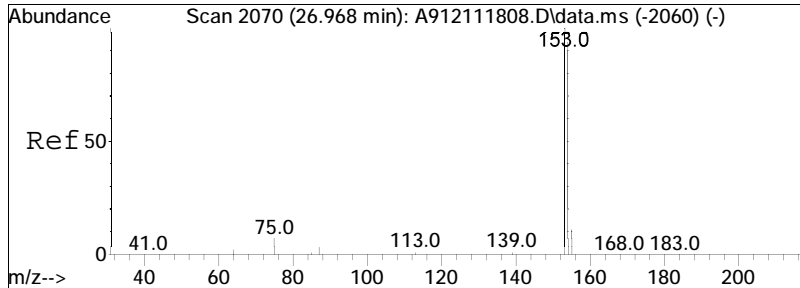
Sub List : ALKPAH_CCV - CC with five surrogates





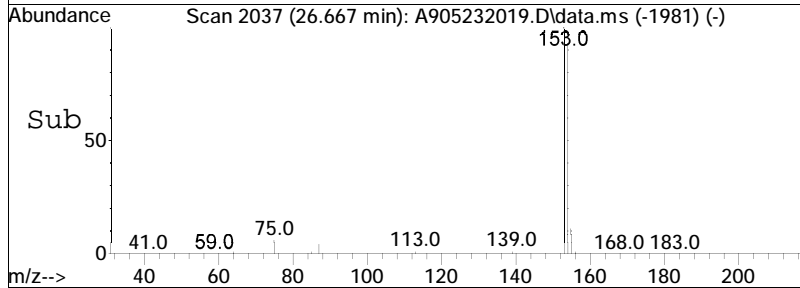
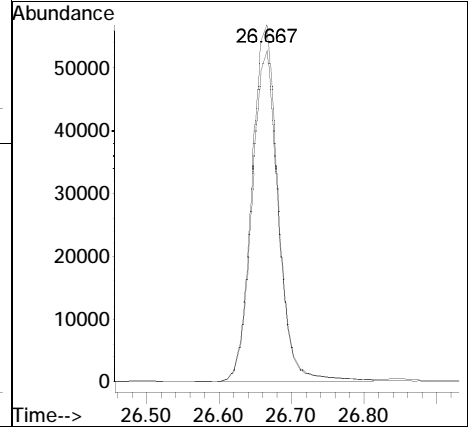
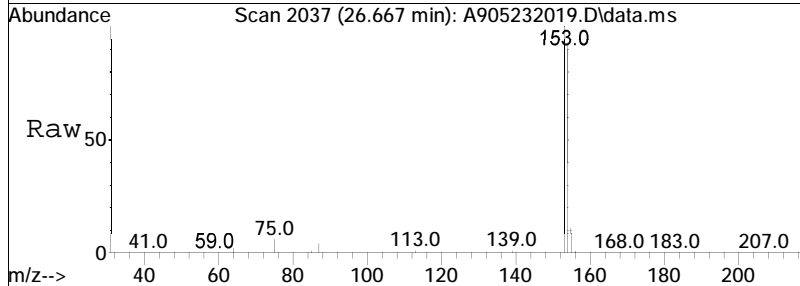
#9
 Naphthalene
 Concen: 1262.35 ng/mL
 RT: 19.667 min Scan# 1270
 Delta R.T. 0.009 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am
 Tgt Ion:128 Resp: 108260

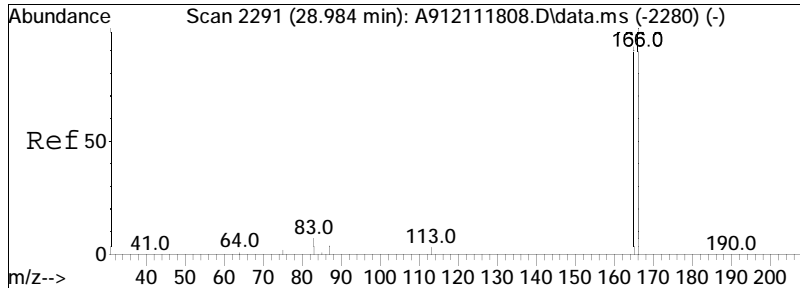




#25
 Acenaphthene
 Concen: 2733.27 ng/mL
 RT: 26.667 min Scan# 2037
 Delta R.T. 0.009 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

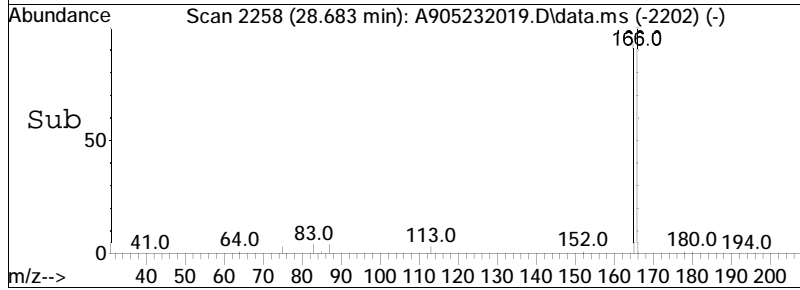
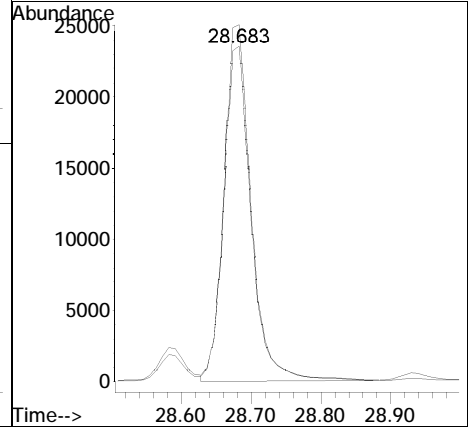
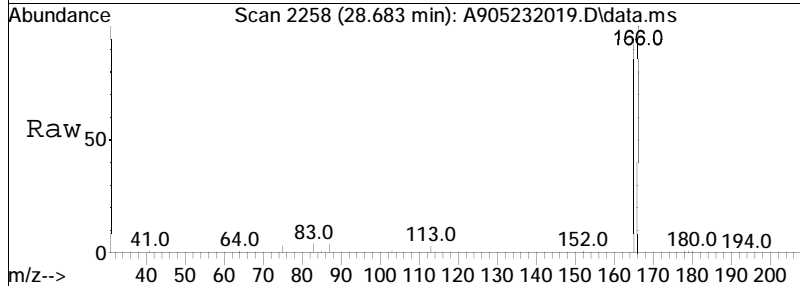
Tgt Ion	Resp	Lower	Upper
153	100		
154	92.6	65.0	120.8

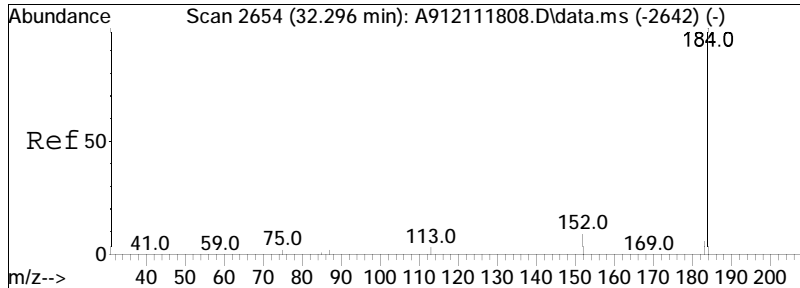




#27
 Fluorene
 Concen: 1076.44 ng/mL
 RT: 28.683 min Scan# 2258
 Delta R.T. 0.009 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

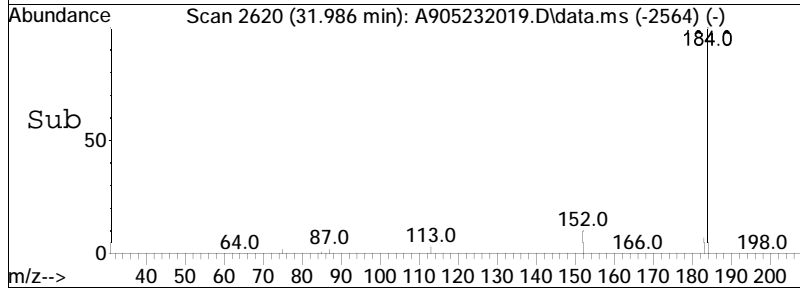
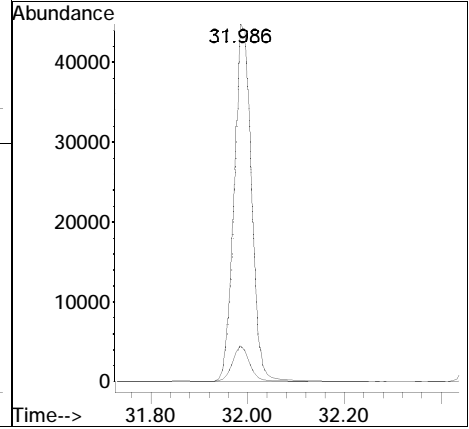
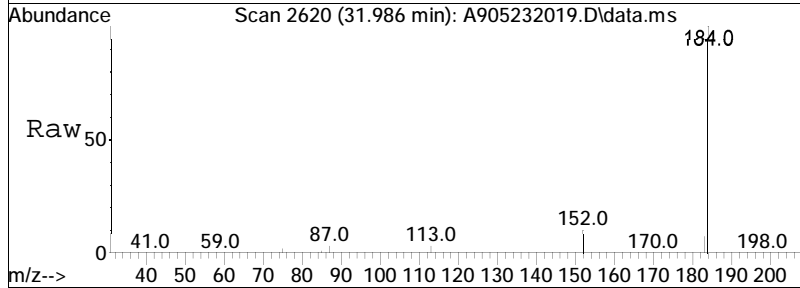
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.8	65.4	121.4

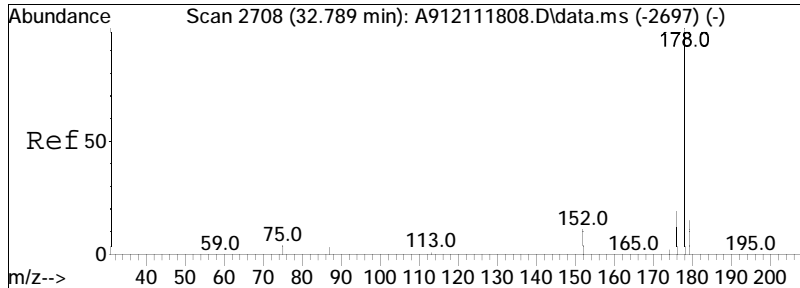




#31
 Dibenzothiophene
 Concen: 1183.69 ng/mL
 RT: 31.986 min Scan# 2620
 Delta R.T. 0.009 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

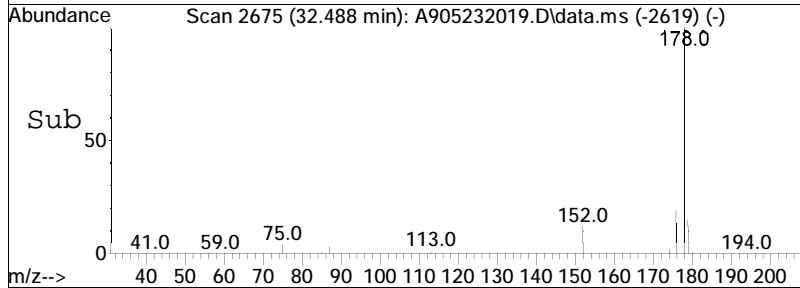
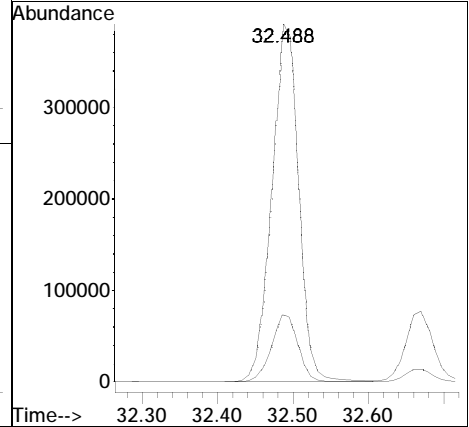
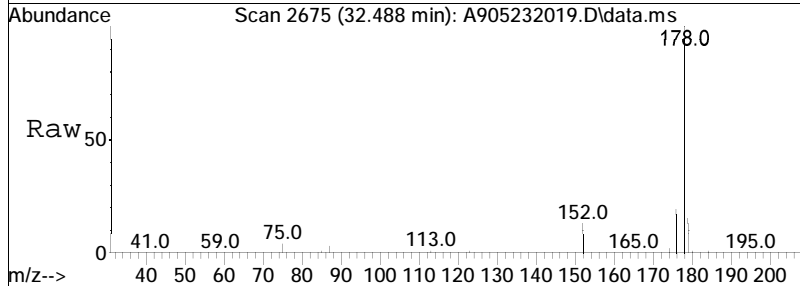
Tgt Ion: 184 Resp: 109074
 Ion Ratio Lower Upper
 184 100
 152 9.9 6.4 11.8

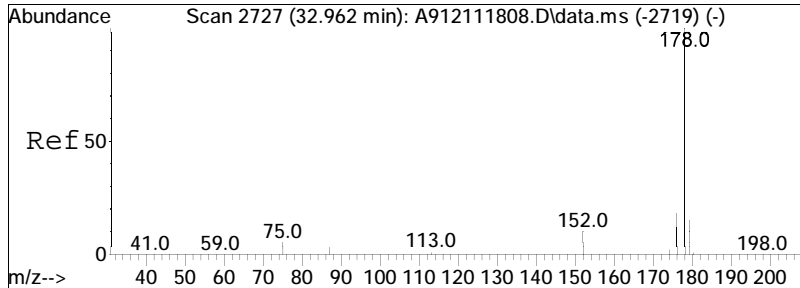




#41
 Phenanthrene
 Concen: 10384.08 ng/mL
 RT: 32.488 min Scan# 2675
 Delta R.T. 0.009 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

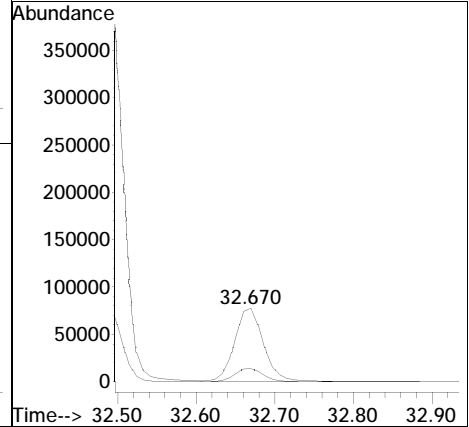
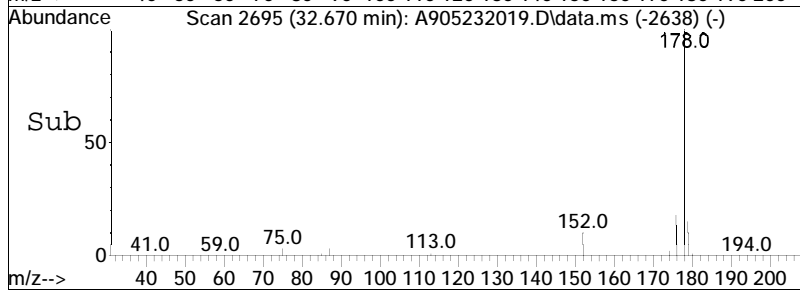
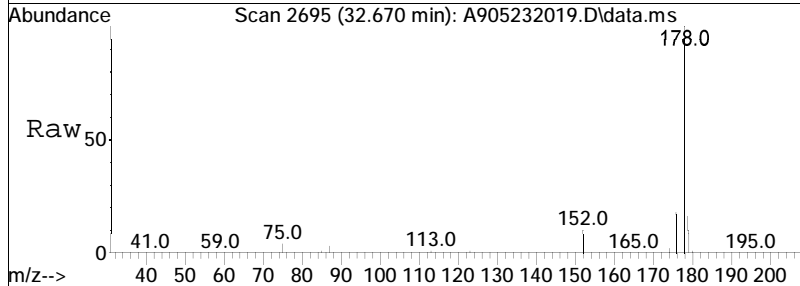
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.9	13.6	25.4

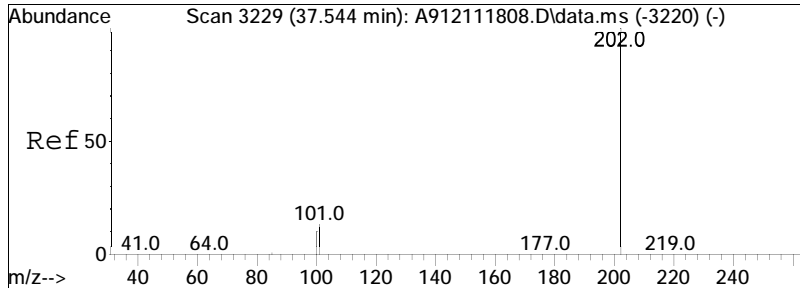




#53
 Anthracene
 Concen: 2440.12 ng/mL
 RT: 32.670 min Scan# 2695
 Delta R.T. 0.018 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

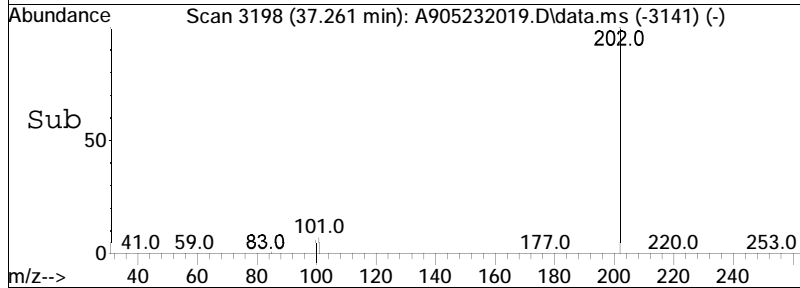
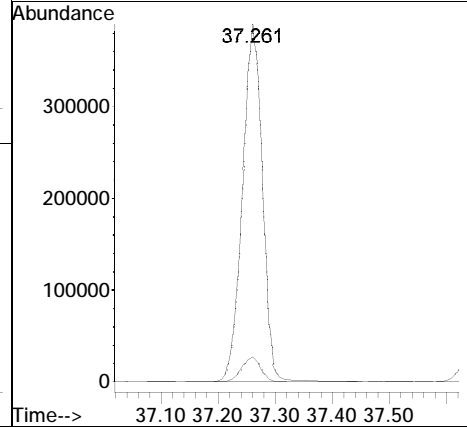
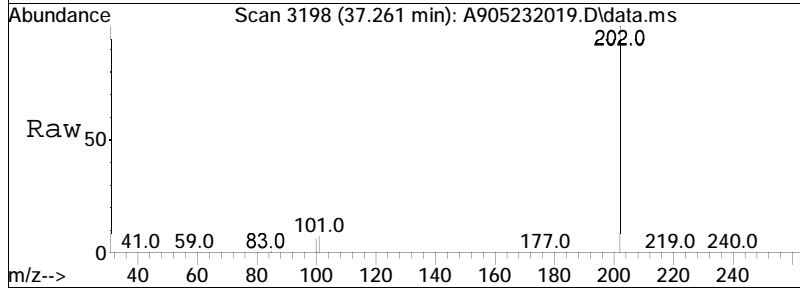
Tgt Ion: 178 Resp: 197675
 Ion Ratio Lower Upper
 178 100
 176 18.4 13.3 24.7

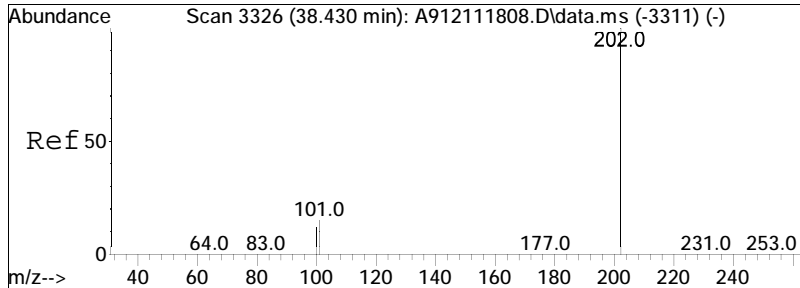




#56
 Fluoranthene
 Concen: 8618.01 ng/mL
 RT: 37.261 min Scan# 3198
 Delta R.T. 0.018 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

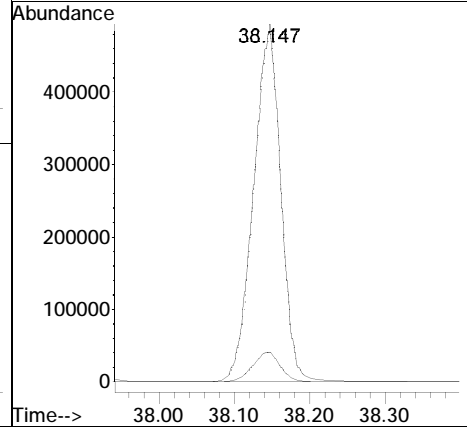
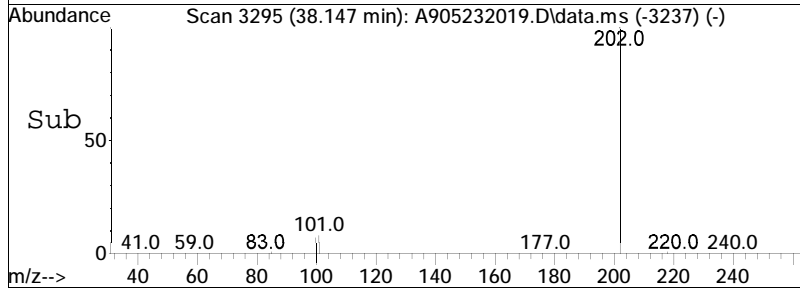
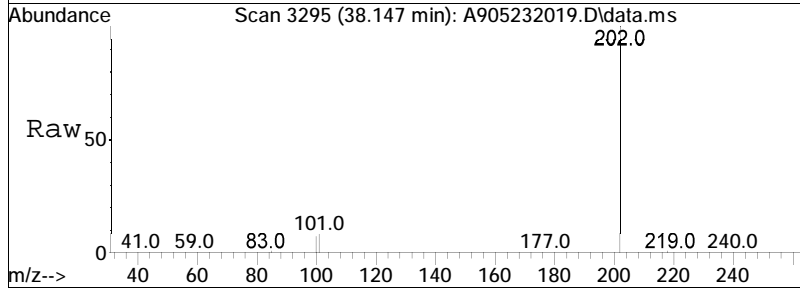
Tgt Ion: 202 Resp: 928035
 Ion Ratio Lower Upper
 202 100
 101 6.9 6.8 12.6

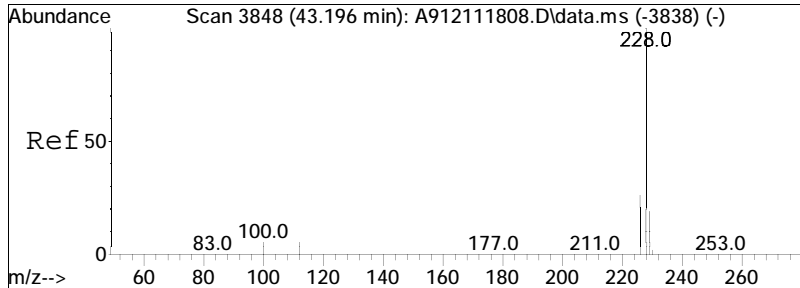




#59
 Pyrene
 Concen: 10711.48 ng/mL
 RT: 38.147 min Scan# 3295
 Delta R.T. 0.028 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

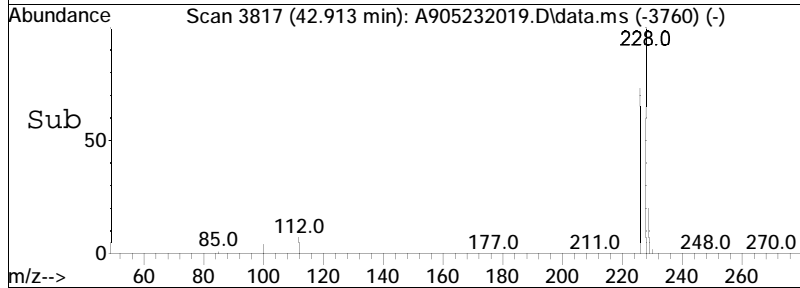
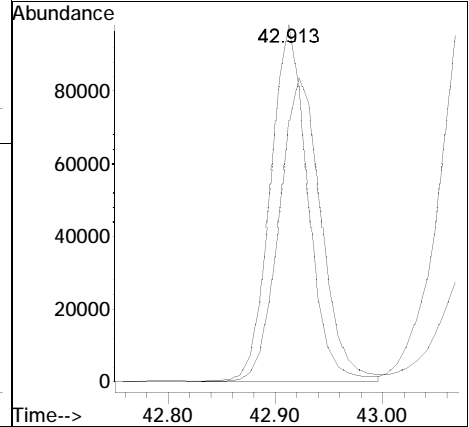
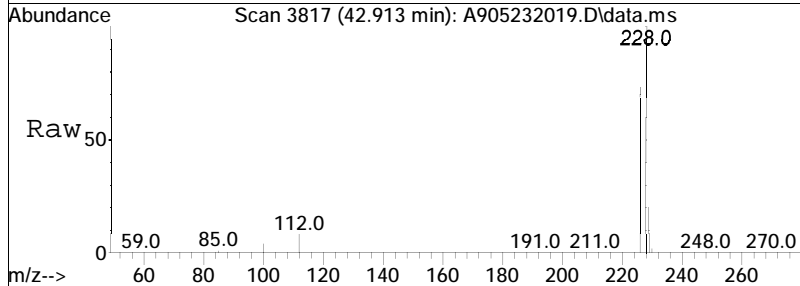
Tgt Ion: 202 Resp: 1217999
 Ion Ratio Lower Upper
 202 100
 101 8.6 7.6 14.0

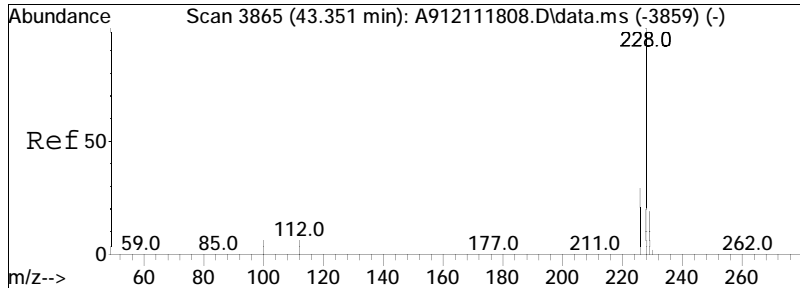




#75
 Benz[a]anthracene
 Concen: 2213.74 ng/mL M4
 RT: 42.913 min Scan# 3817
 Delta R.T. 0.018 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

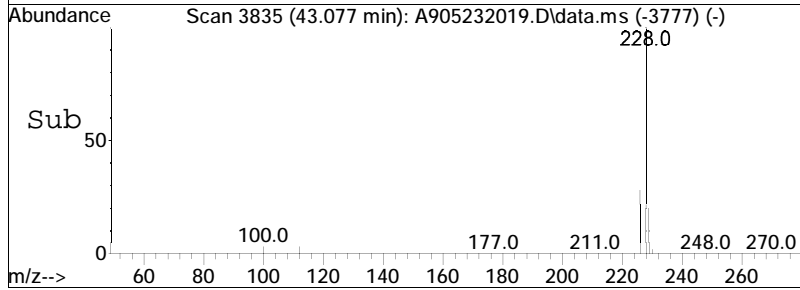
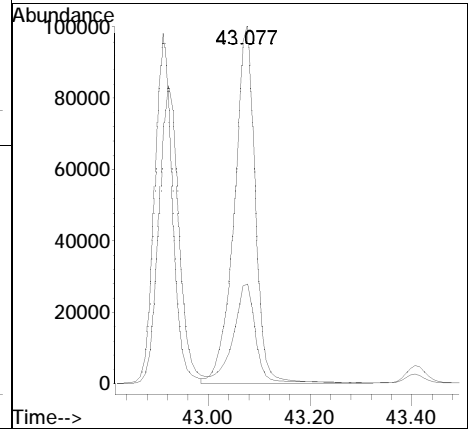
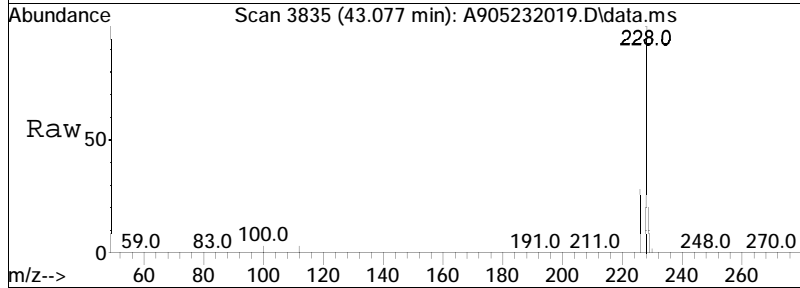
Tgt Ion	Resp	Lower	Upper
228	100		
226	35.1	19.0	35.2

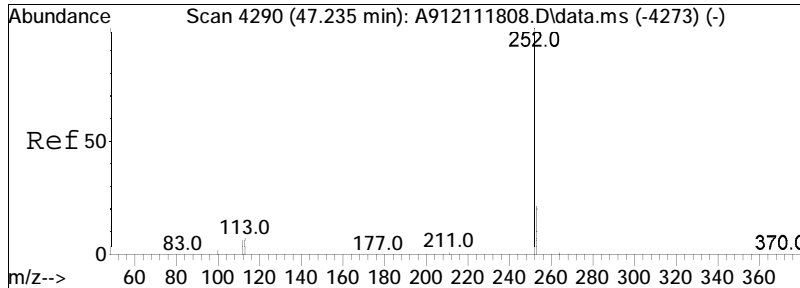




#77
 Chrysene/Triphenylene
 Concen: 2534.02 ng/mL
 RT: 43.077 min Scan# 3835
 Delta R.T. 0.028 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

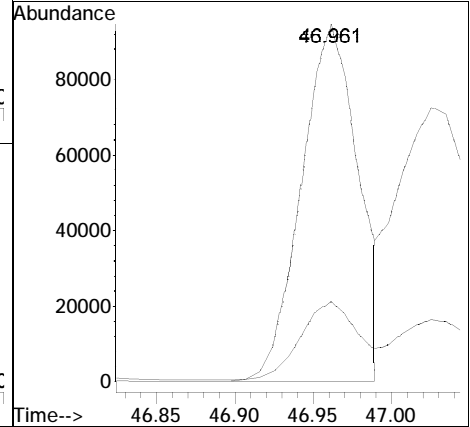
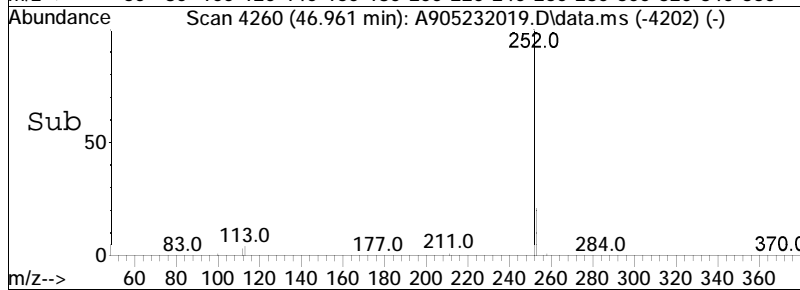
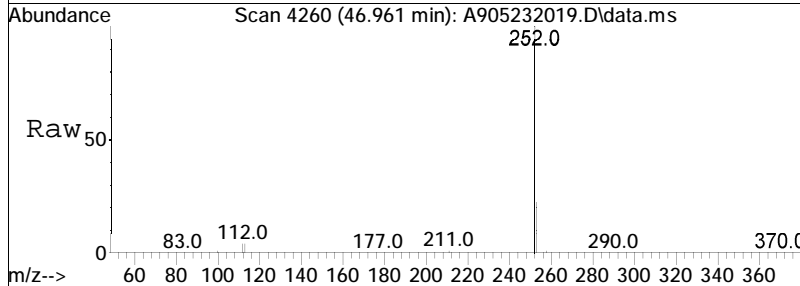
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.7	21.0	39.0

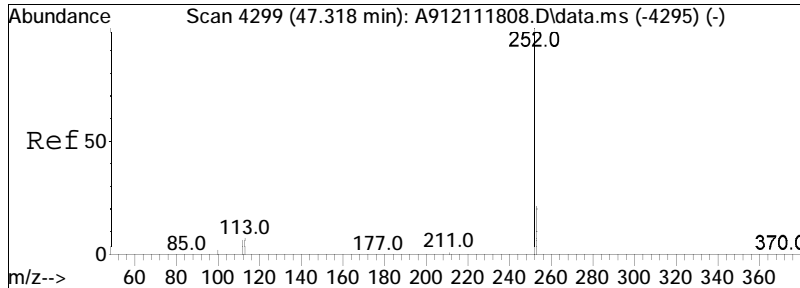




#84
 Benzo[b]fluoranthene
 Concen: 1825.31 ng/mL
 RT: 46.961 min Scan# 4260
 Delta R.T. 0.028 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

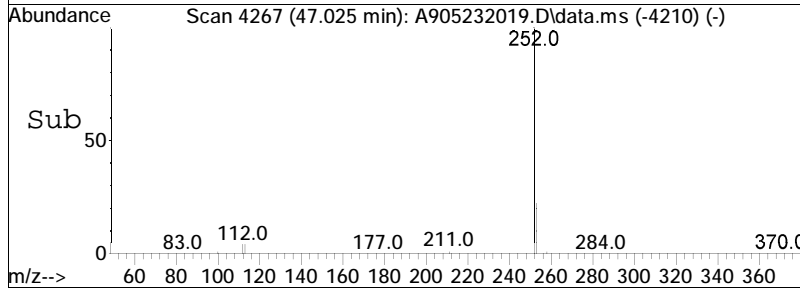
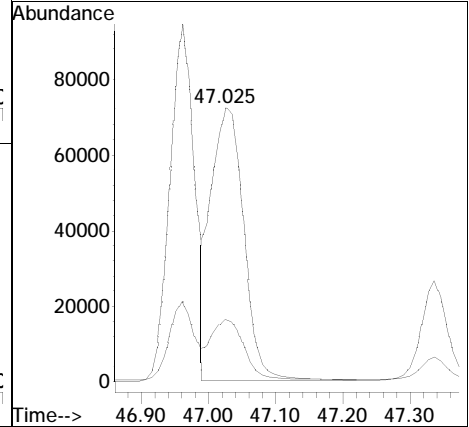
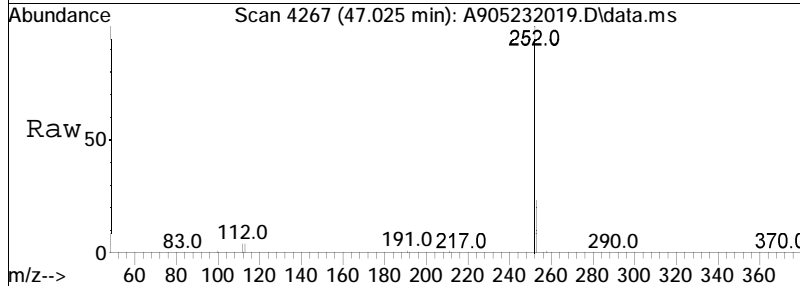
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	17.3	32.1

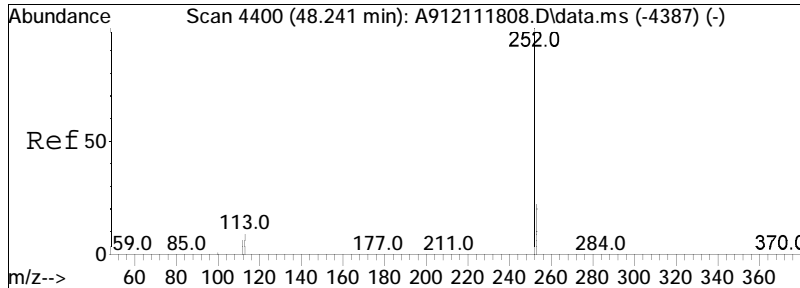




#85
 Benzo[j]+[k]fluoranthene
 Concen: 1883.06 ng/mL
 RT: 47.025 min Scan# 4267
 Delta R.T. 0.018 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

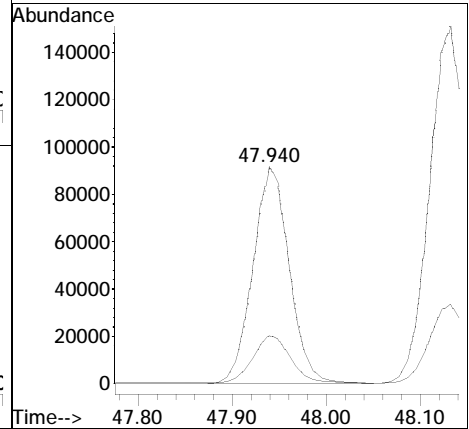
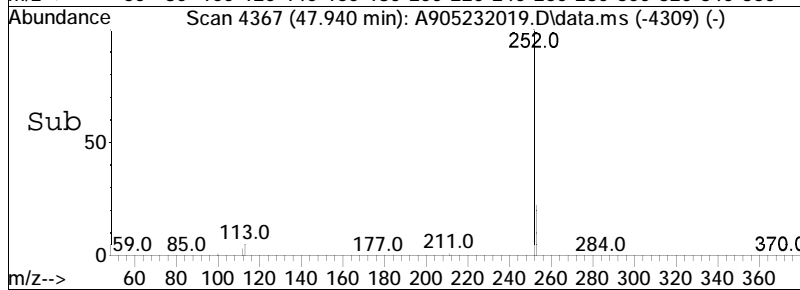
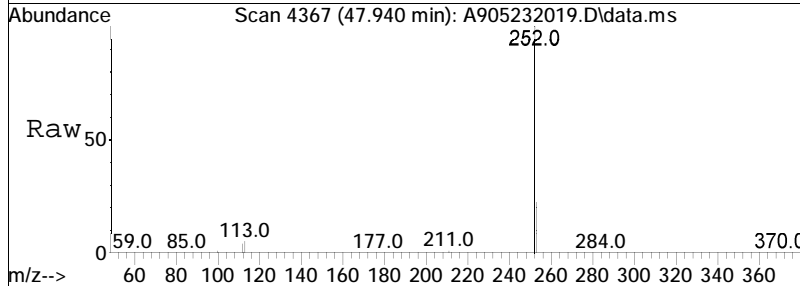
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	17.6	32.8

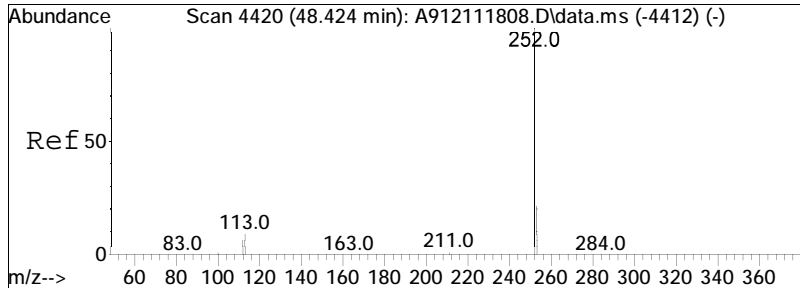




#88
 Benzo[e]pyrene
 Concen: 1873.60 ng/mL
 RT: 47.940 min Scan# 4367
 Delta R.T. 0.028 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

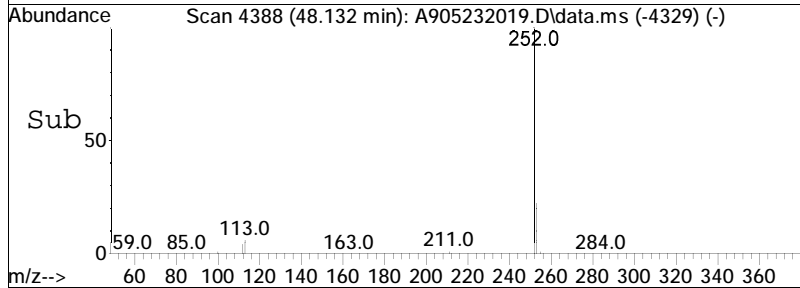
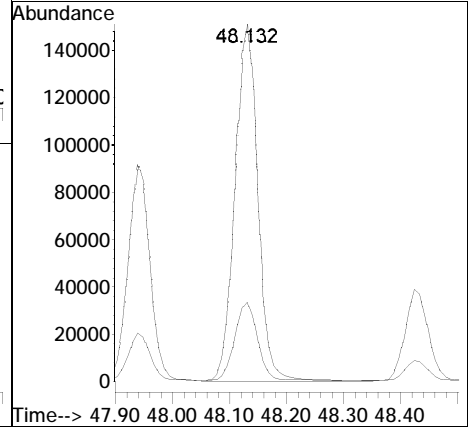
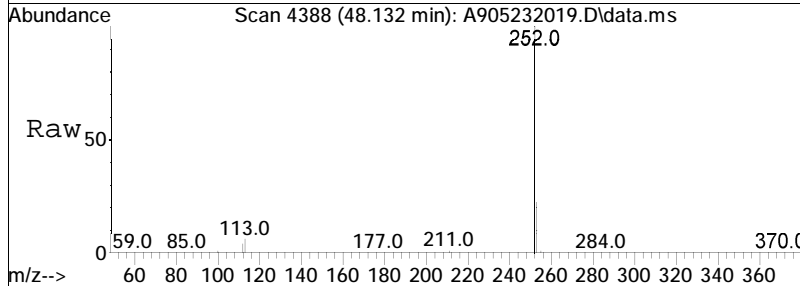
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.3	18.3	33.9

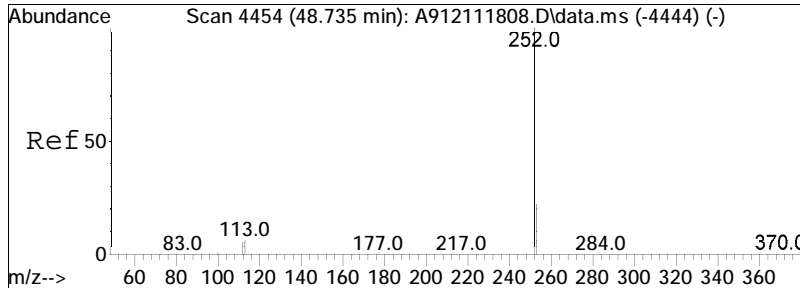




#90
 Benzo[a]pyrene
 Concen: 3368.26 ng/mL
 RT: 48.132 min Scan# 4388
 Delta R.T. 0.037 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

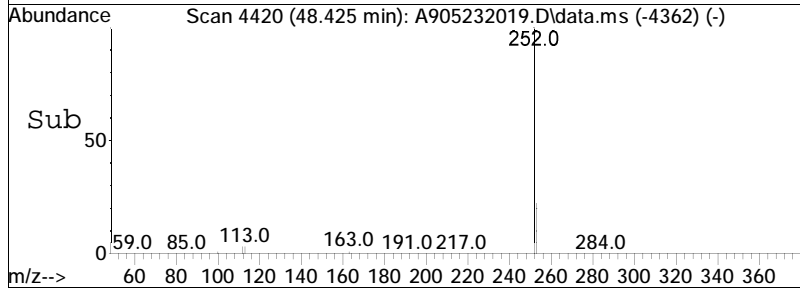
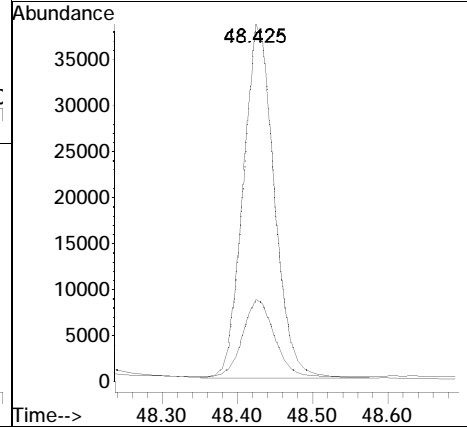
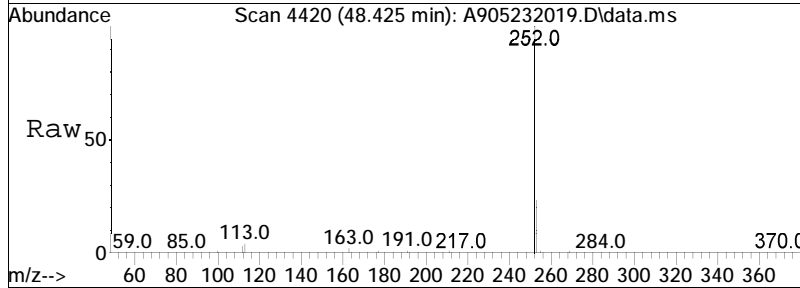
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	19.2	35.6

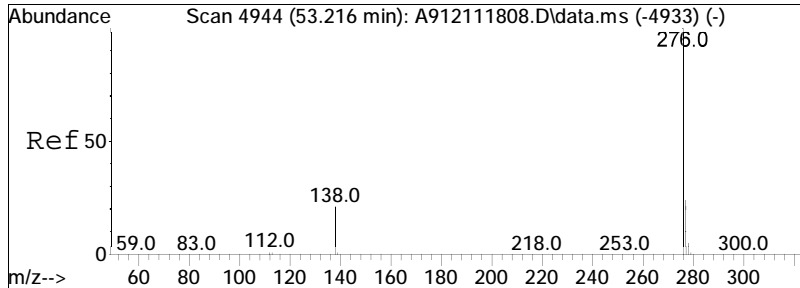




#91
 Perylene
 Concen: 945.13 ng/mL
 RT: 48.425 min Scan# 4420
 Delta R.T. 0.028 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

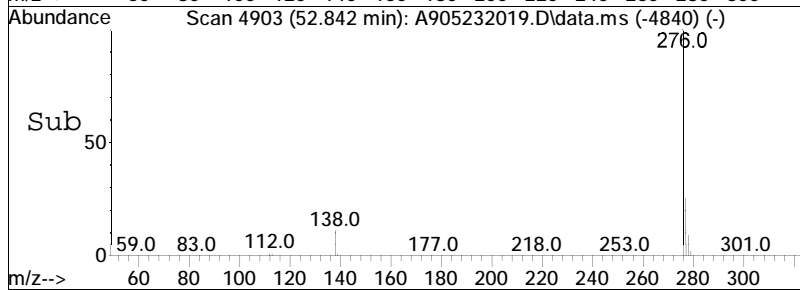
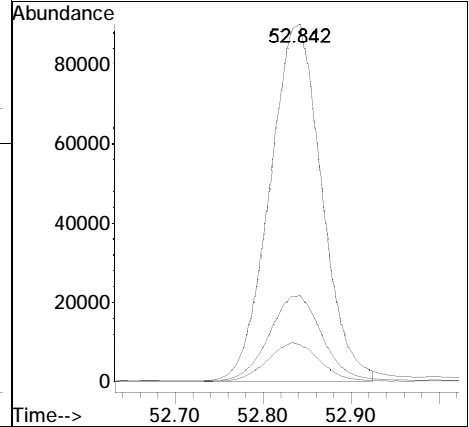
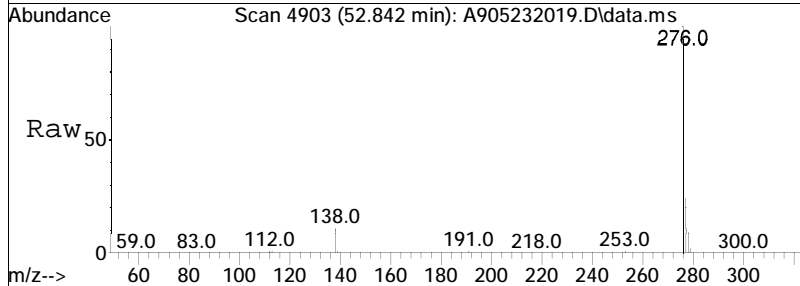
Tgt Ion: 252 Resp: 109097
 Ion Ratio Lower Upper
 252 100
 253 22.1 19.9 36.9

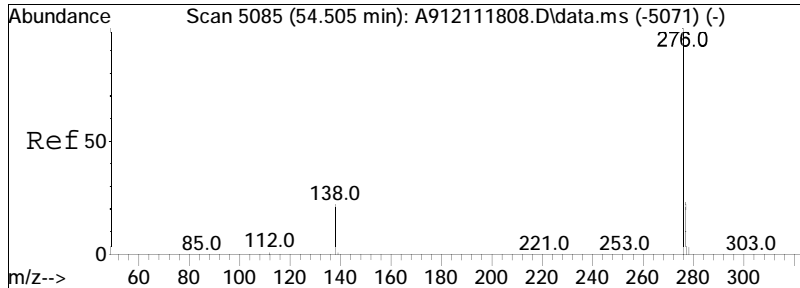




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 2523.57 ng/mL M3
 RT: 52.842 min Scan# 4903
 Delta R.T. 0.073 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

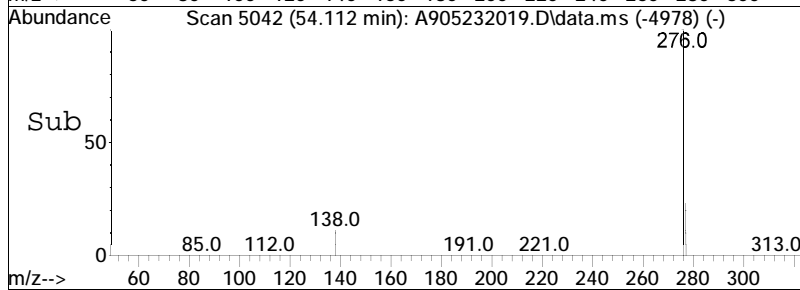
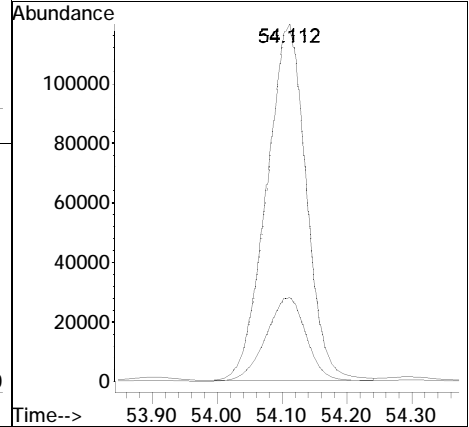
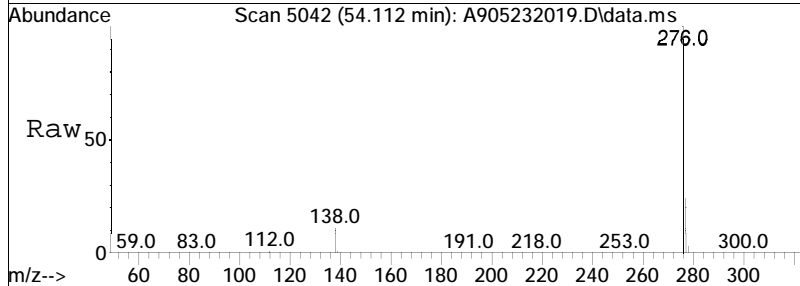
Tgt Ion	Ratio	Lower	Upper
276	100		
138	11.2	12.2	22.6#
277	24.7	18.6	34.6





#95
 Benzo[g,h,i]perylene
 Concen: 3362.07 ng/mL
 RT: 54.112 min Scan# 5042
 Delta R.T. 0.082 min
 Lab File: A905232019.D
 Acq: 27 May 2020 5:03 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	24.0	17.4	32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232023.D
 Acq On : 27 May 2020 10:45 am
 Operator : PAH9:ML
 Sample : L2020213-04D,32,20
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 04 12:59:31 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.539	164	14638	500.000	ng/mL	0.00	
74) Chrysene-d12	42.977	240	33079	500.000	ng/mL	0.02	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	950	17.757	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.78%#	
40) Phenanthrene-d10	32.396	188	1146	22.874	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.29%#	
83) Benzo[b]fluoranthene-d12	46.870	264	1857	22.625	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.26%#	
89) Benzo[a]pyrene-d12	48.031	264	1330	24.224	ng/mL	0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.42%#	
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml		
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#	
Target Compounds							
9) Naphthalene	19.667	128	85224	1368.480	ng/mL	100	Qvalue
25) Acenaphthene	26.666	153	111370	2914.296	ng/mL	100	
27) Fluorene	28.683	166	54762	1209.545	ng/mL	100	
31) Dibenzothiophene	31.986	184	92216	1378.130	ng/mL	97	
41) Phenanthrene	32.487	178	802369	12028.189	ng/mL	99	
53) Anthracene	32.670	178	167245	2843.015	ng/mL	98	
56) Fluoranthene	37.261	202	815085	10423.444	ng/mL#	91	
59) Pyrene	38.147	202	1104589	13377.314	ng/mL	93	
75) Benz[a]anthracene	42.913	228	190831M4	2294.229	ng/mL		
77) Chrysene/Triphenylene	43.068	228	239295	2742.133	ng/mL	99	
84) Benzo[b]fluoranthene	46.952	252	206378	2029.405	ng/mL	94	
85) Benzo[j]+[k]fluoranthene	47.025	252	202411	2017.018	ng/mL	94	
88) Benzo[e]pyrene	47.940	252	213424	2126.476	ng/mL	92	
90) Benzo[a]pyrene	48.123	252	364516	3807.810	ng/mL	90	
91) Perylene	48.425	252	97032	1091.045	ng/mL	86	
92) Indeno[1,2,3-cd]pyrene	52.833	276	314981M3	2820.692	ng/mL		
95) Benzo[g,h,i]perylene	54.103	276	456734	3980.872	ng/mL	98	

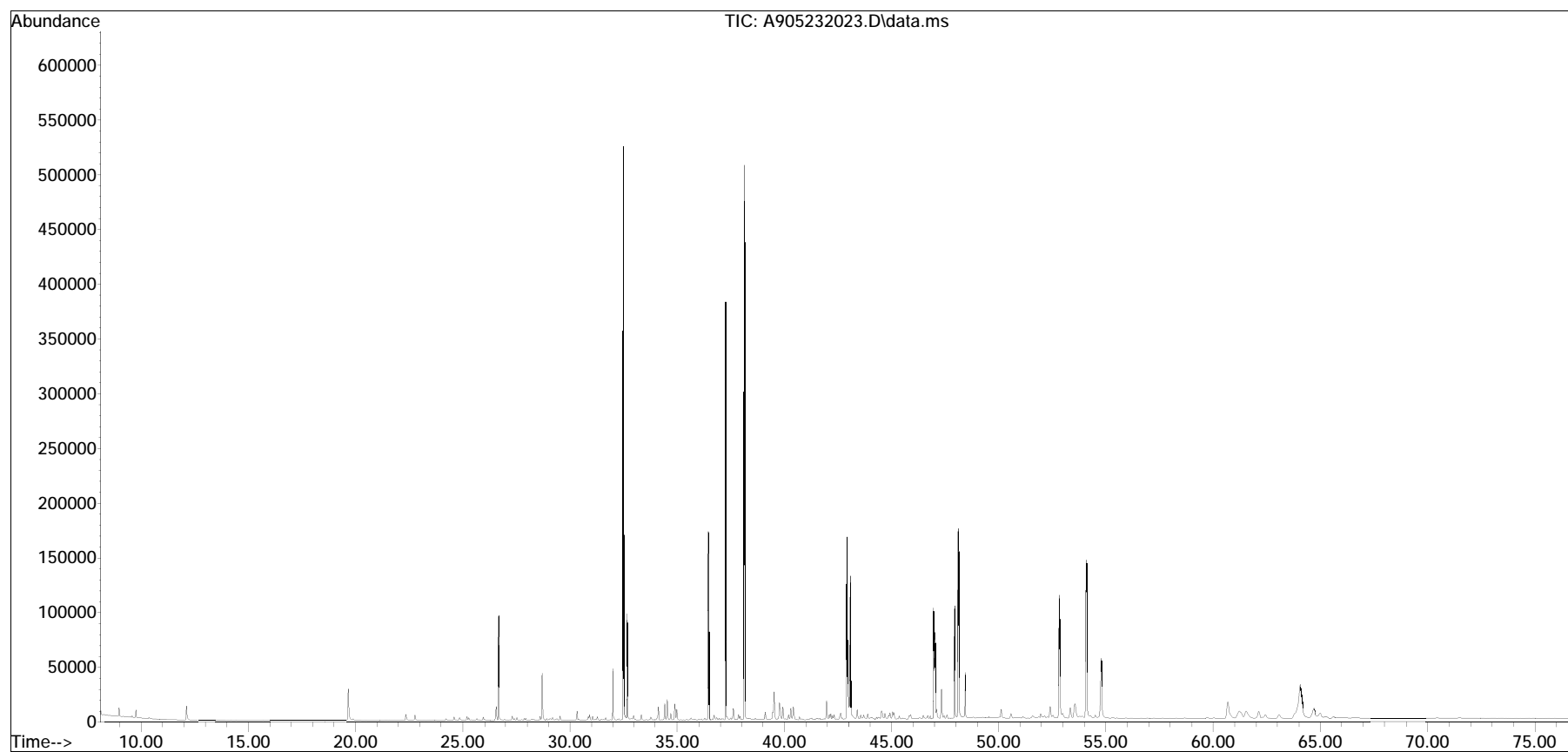
(#) = qualifier out of range (m) = manual integration (+) = signals summed

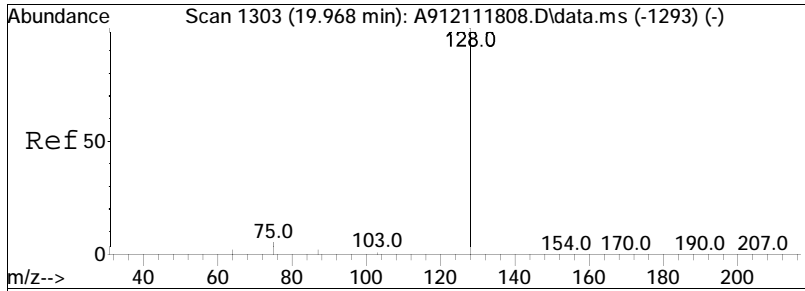
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232023.D
Acq On : 27 May 2020 10:45 am
Operator : PAH9:ML
Sample : L2020213-04D,32,20
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 04 12:59:31 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

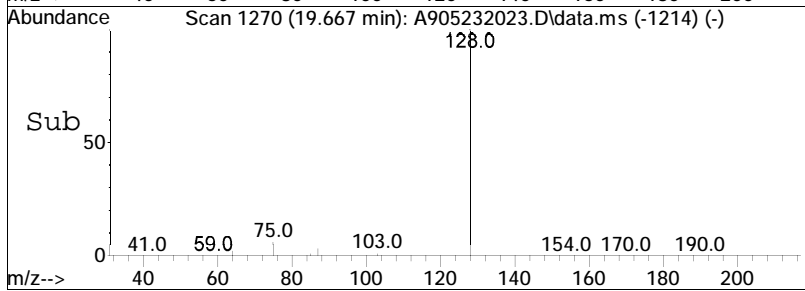
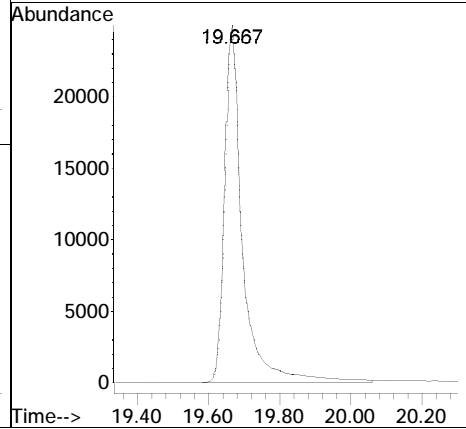
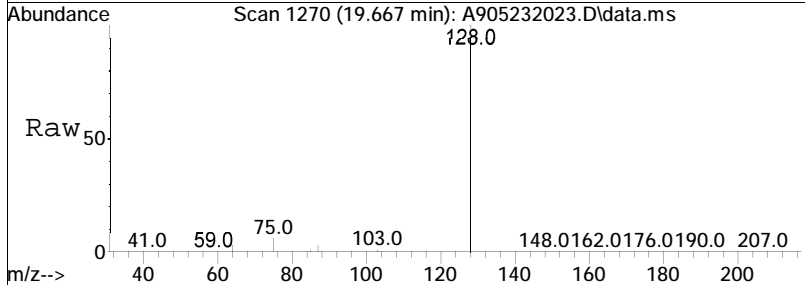
Sub List : ALKPAH_CCV - CC with five surrogates

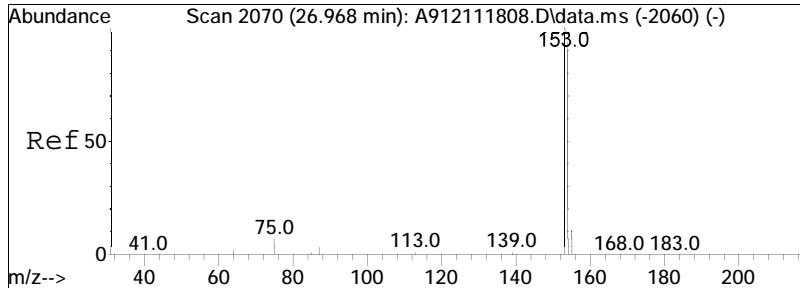




#9
 Naphthalene
 Concen: 1368.48 ng/mL
 RT: 19.667 min Scan# 1270
 Delta R.T. 0.009 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

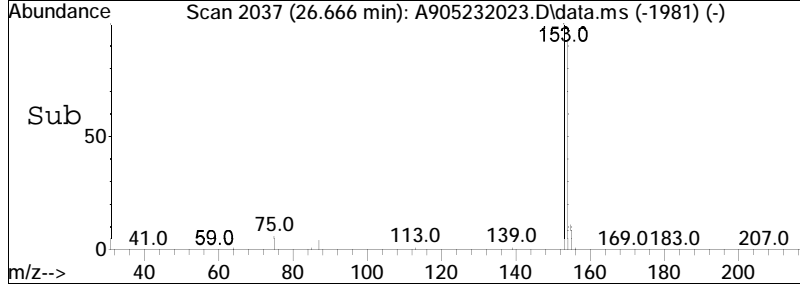
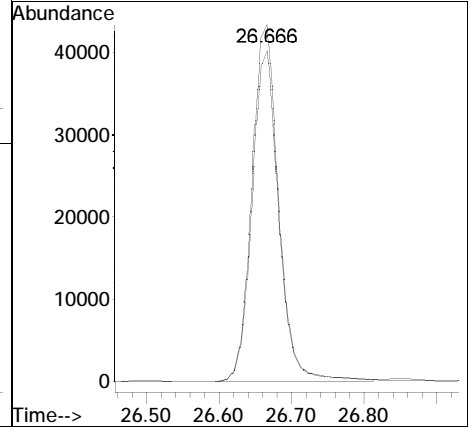
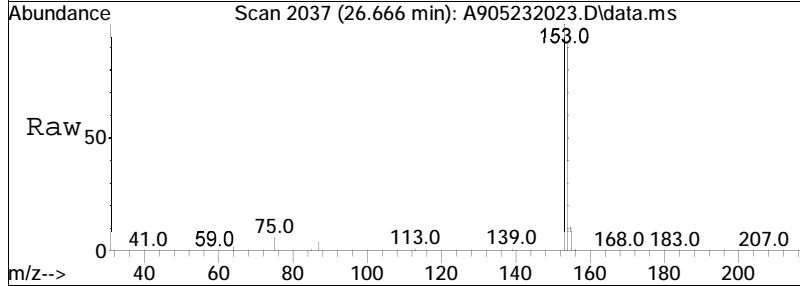
Tgt Ion:128 Resp: 85224

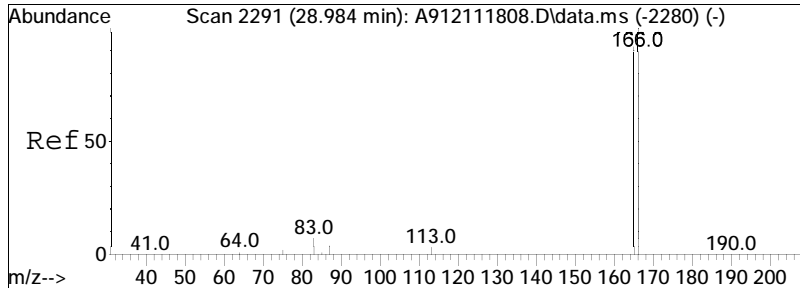




#25
 Acenaphthene
 Concen: 2914.30 ng/mL
 RT: 26.666 min Scan# 2037
 Delta R.T. 0.009 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

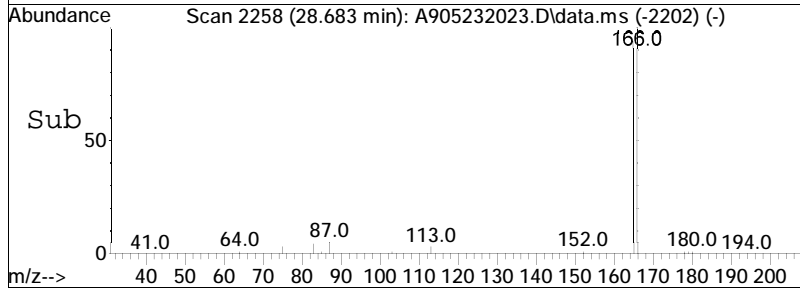
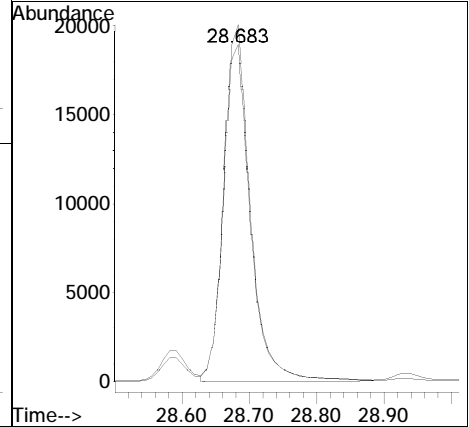
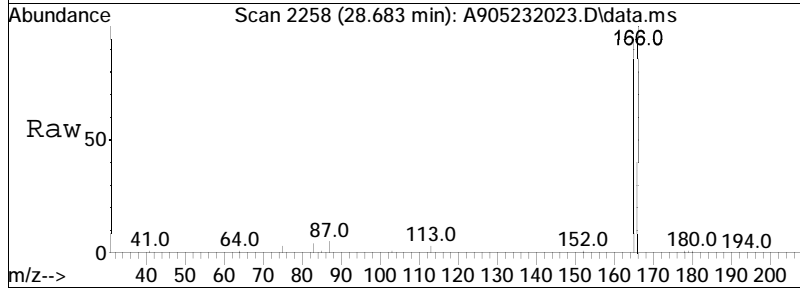
Tgt Ion	153	154	Resp	111370	Lower	Upper
Ion Ratio	100	92.6			65.0	120.8

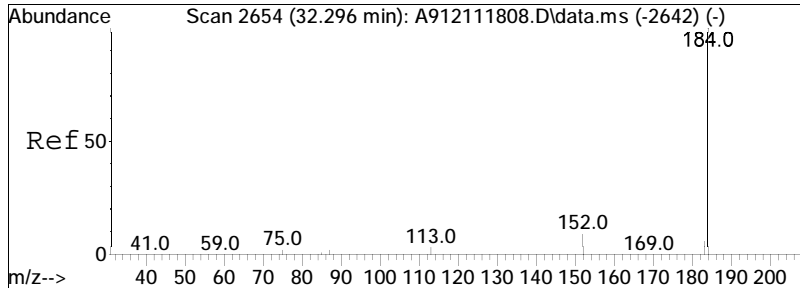




#27
 Fluorene
 Concen: 1209.54 ng/mL
 RT: 28.683 min Scan# 2258
 Delta R.T. 0.009 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

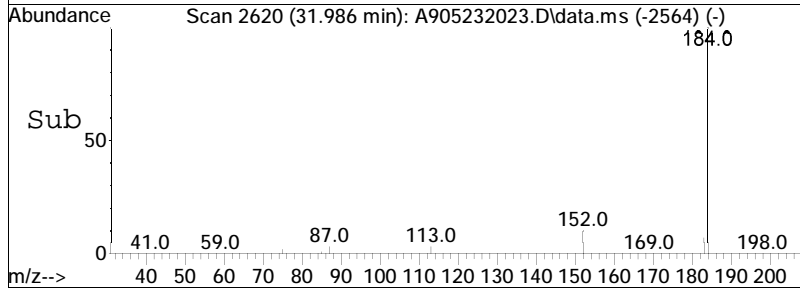
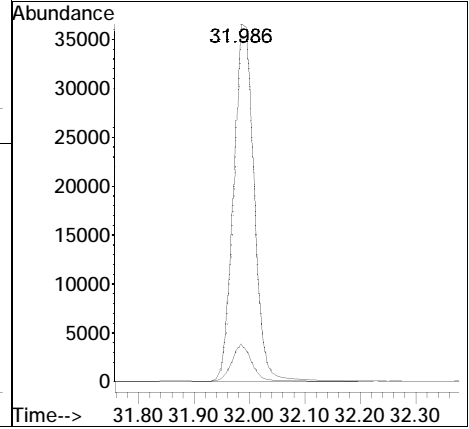
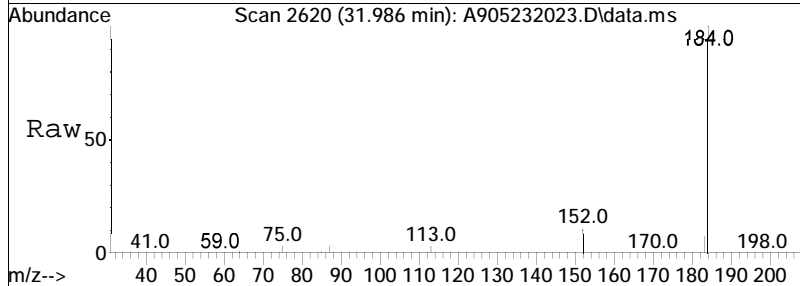
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.4	65.4	121.4

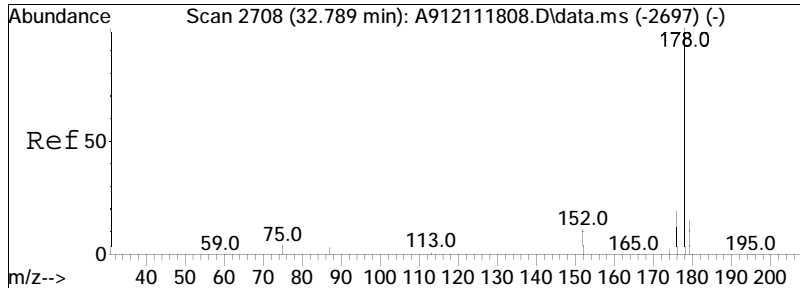




#31
 Dibenzothiophene
 Concen: 1378.13 ng/mL
 RT: 31.986 min Scan# 2620
 Delta R.T. 0.009 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

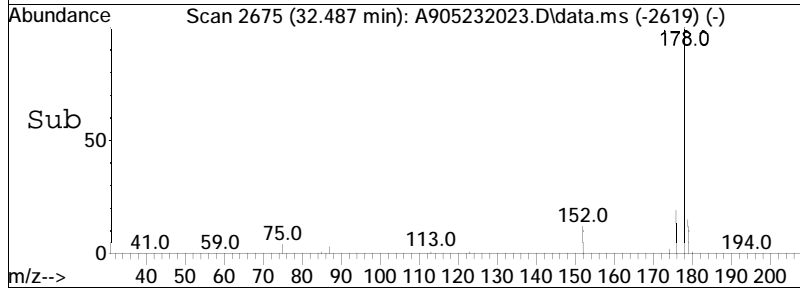
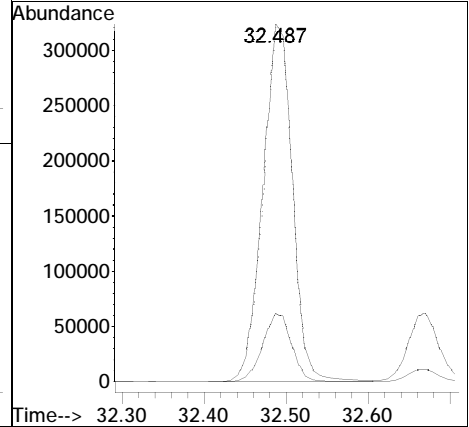
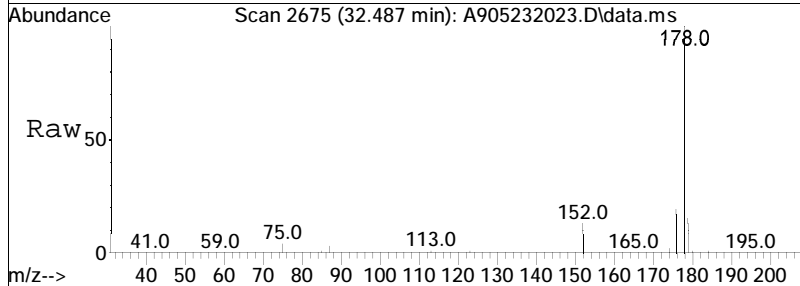
Tgt Ion	Resp	Lower	Upper
184	100		
152	10.2	6.4	11.8

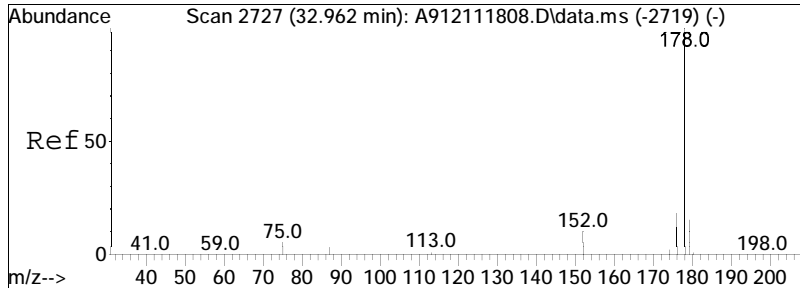




#41
 Phenanthrene
 Concen: 12028.19 ng/mL
 RT: 32.487 min Scan# 2675
 Delta R.T. 0.009 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

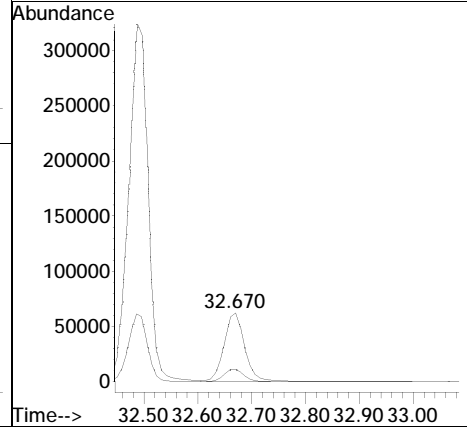
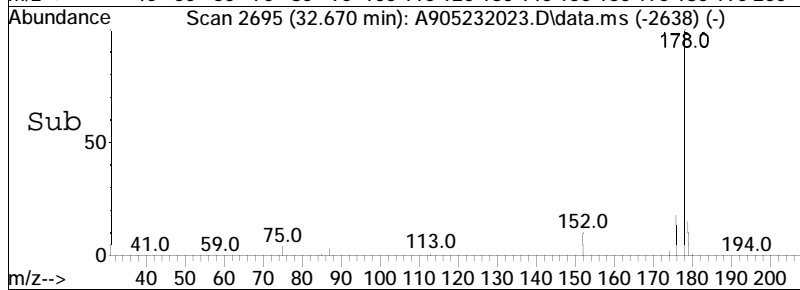
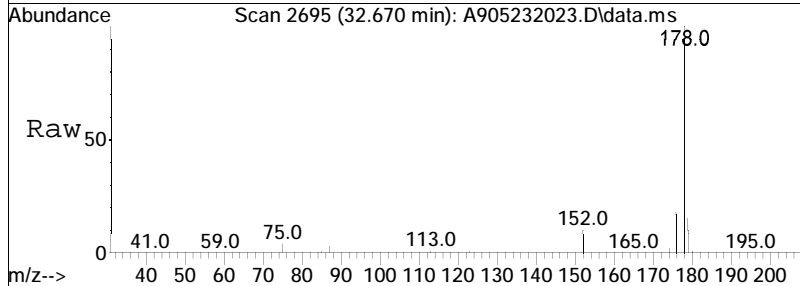
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.0	13.6	25.4

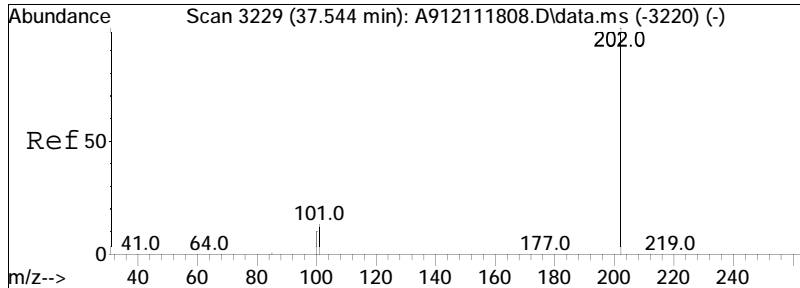




#53
 Anthracene
 Concen: 2843.01 ng/mL
 RT: 32.670 min Scan# 2695
 Delta R.T. 0.018 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

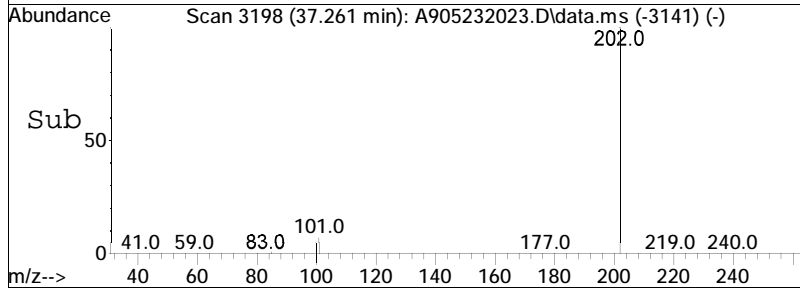
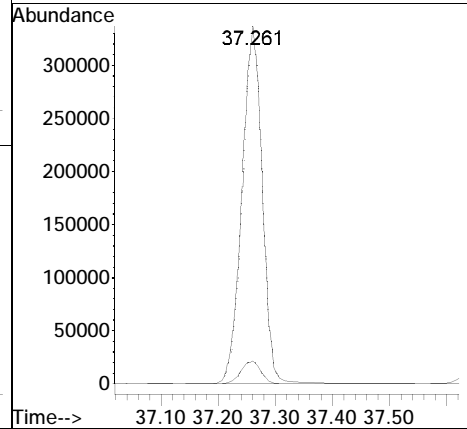
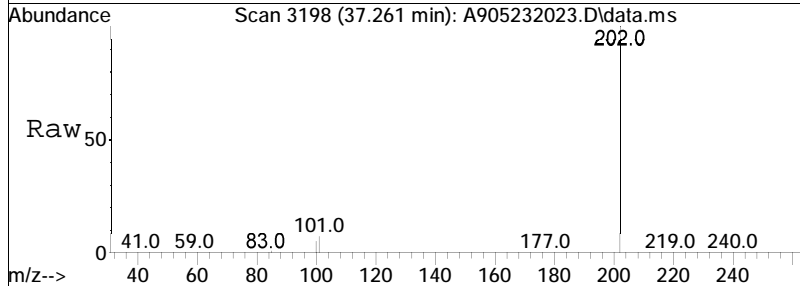
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.1	13.3	24.7

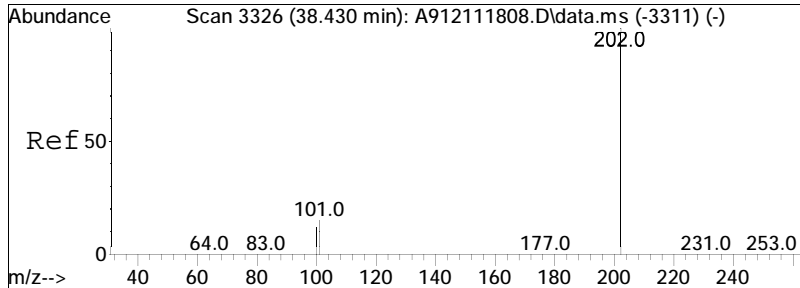




#56
 Fluoranthene
 Concen: 10423.44 ng/mL
 RT: 37.261 min Scan# 3198
 Delta R.T. 0.018 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

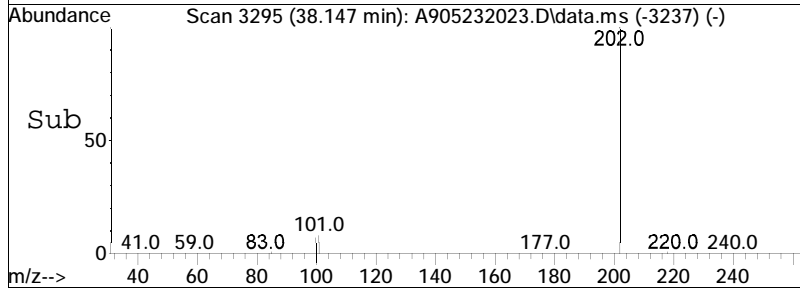
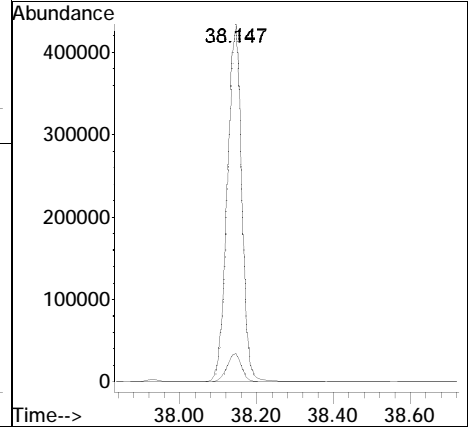
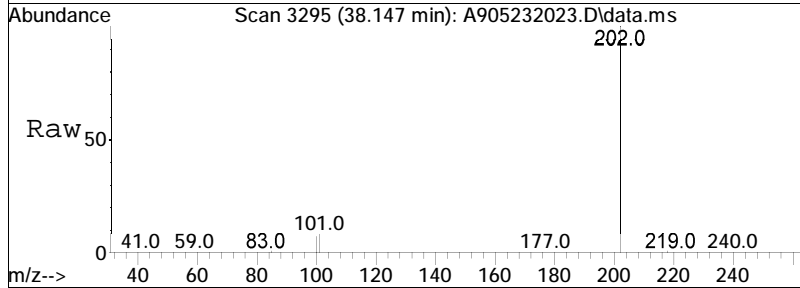
Tgt Ion	Ratio	Lower	Upper
202	100		
101	6.4	6.8	12.6#

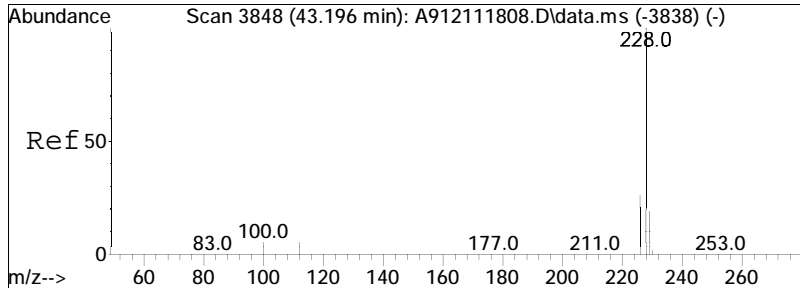




#59
 Pyrene
 Concen: 13377.31 ng/mL
 RT: 38.147 min Scan# 3295
 Delta R.T. 0.027 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

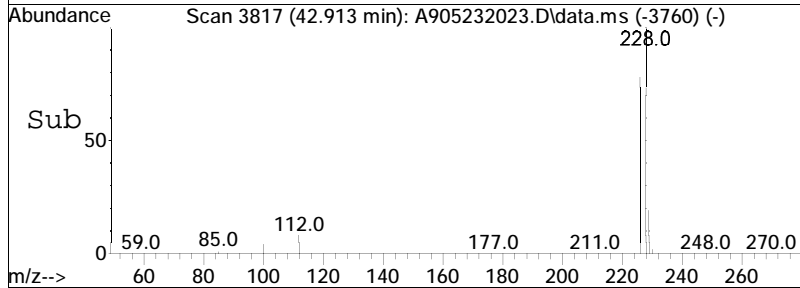
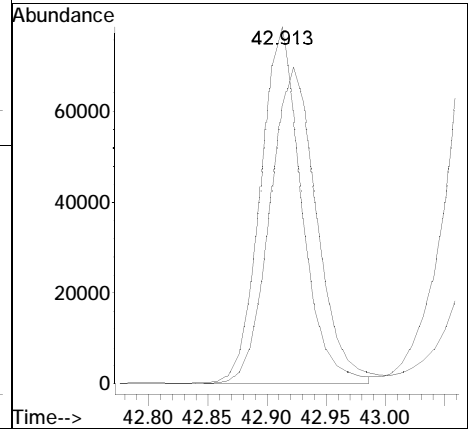
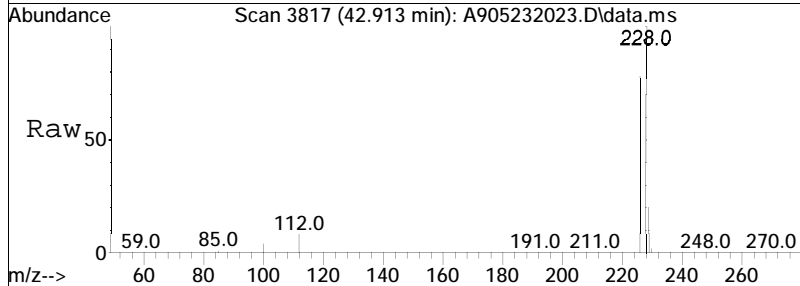
Tgt Ion: 202 Resp: 1104589
 Ion Ratio Lower Upper
 202 100
 101 8.2 7.6 14.0

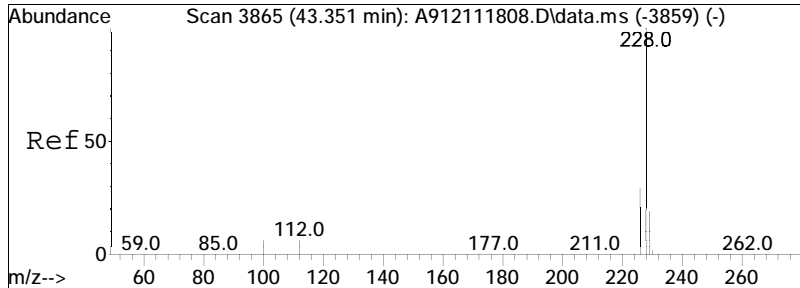




#75
 Benz[a]anthracene
 Concen: 2294.23 ng/mL M4
 RT: 42.913 min Scan# 3817
 Delta R.T. 0.018 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

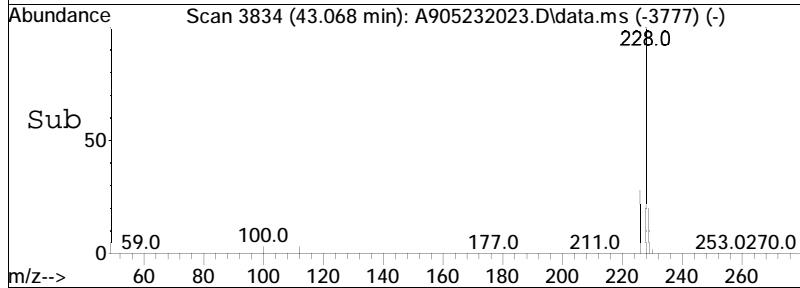
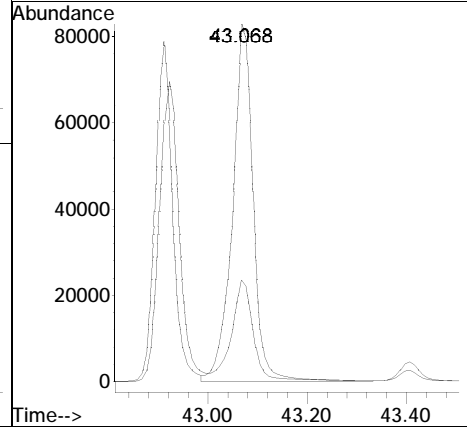
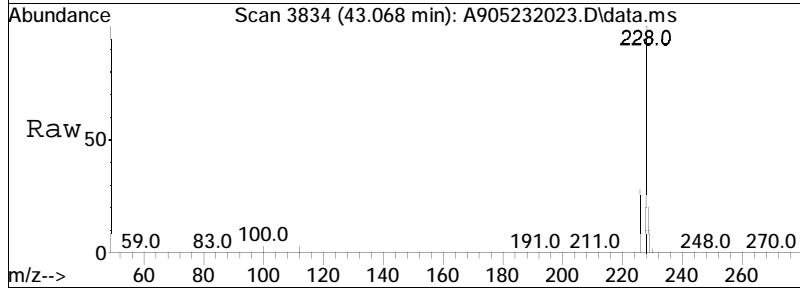
Tgt Ion	Resp	Lower	Upper
228	100		
226	36.9	19.0	35.2#

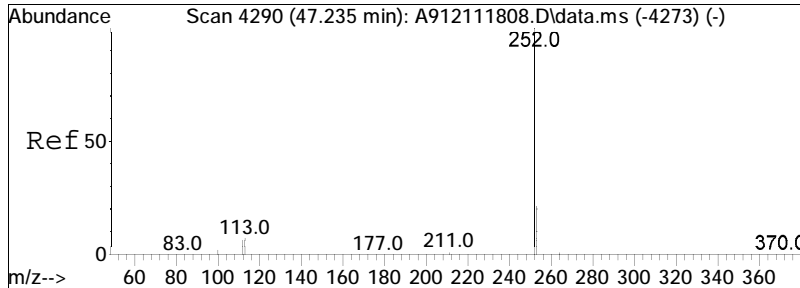




#77
 Chrysene/Triphenylene
 Concen: 2742.13 ng/mL
 RT: 43.068 min Scan# 3834
 Delta R.T. 0.018 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

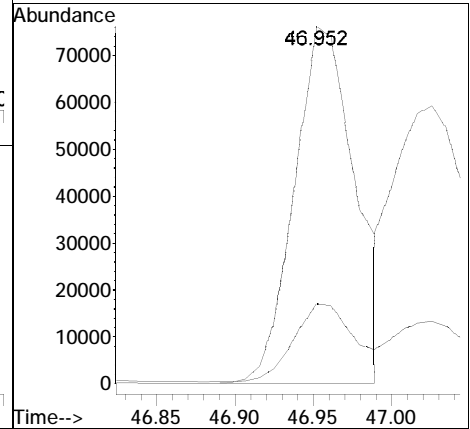
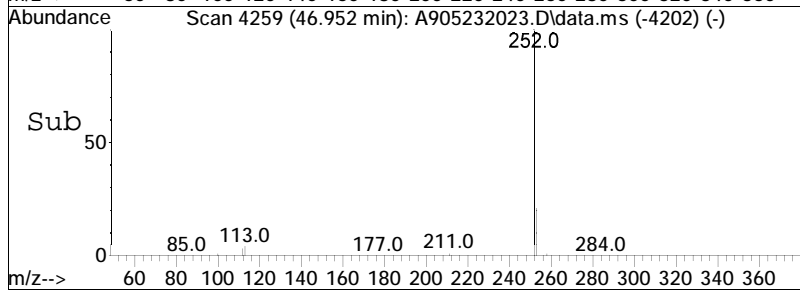
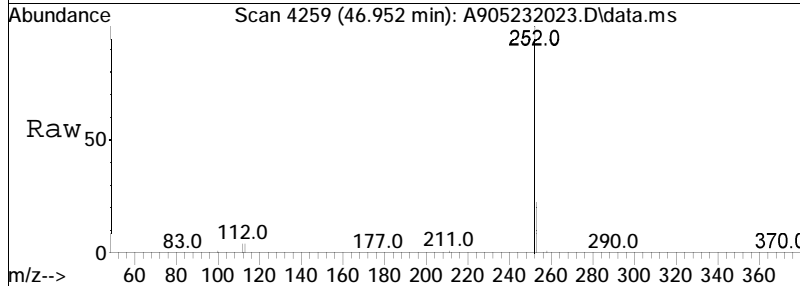
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.4	21.0	39.0

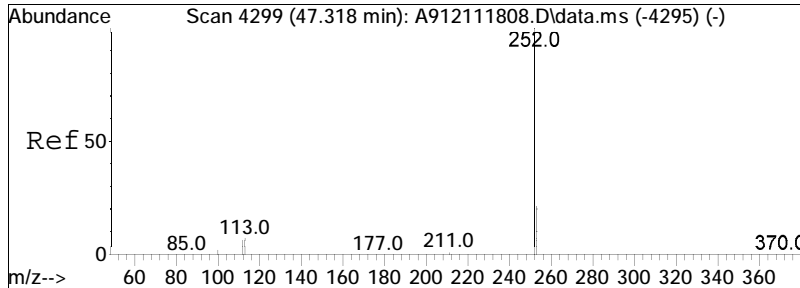




#84
 Benzo[b]fluoranthene
 Concen: 2029.41 ng/mL
 RT: 46.952 min Scan# 4259
 Delta R.T. 0.018 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

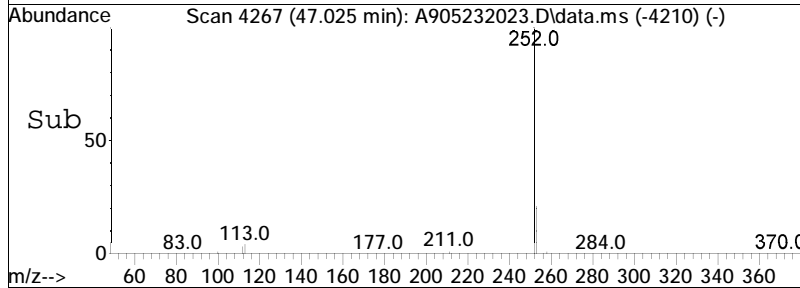
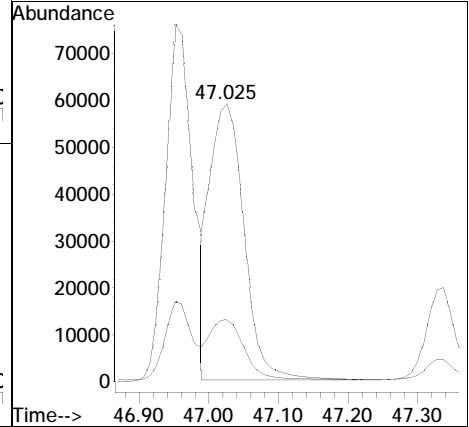
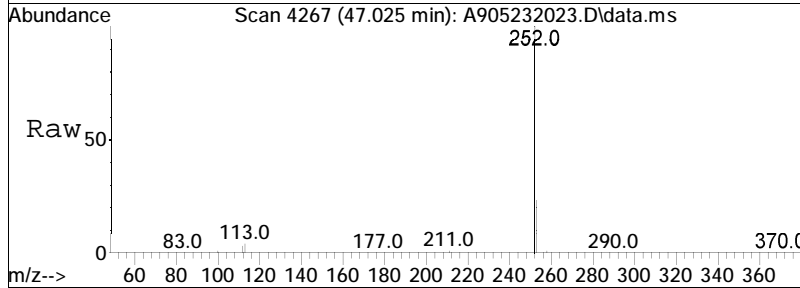
Tgt Ion	Resp	Lower	Upper
252	206378		
253	21.9	17.3	32.1

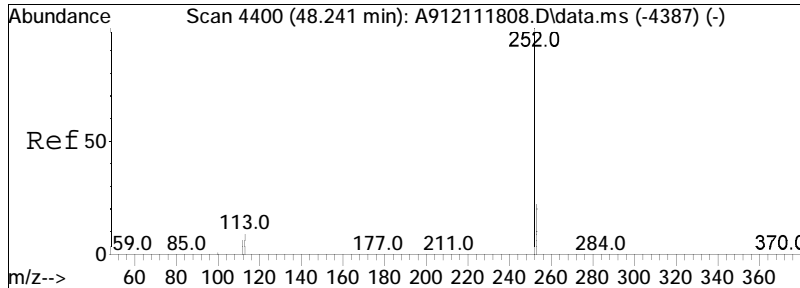




#85
 Benzo[j]+[k]fluoranthene
 Concen: 2017.02 ng/mL
 RT: 47.025 min Scan# 4267
 Delta R.T. 0.018 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

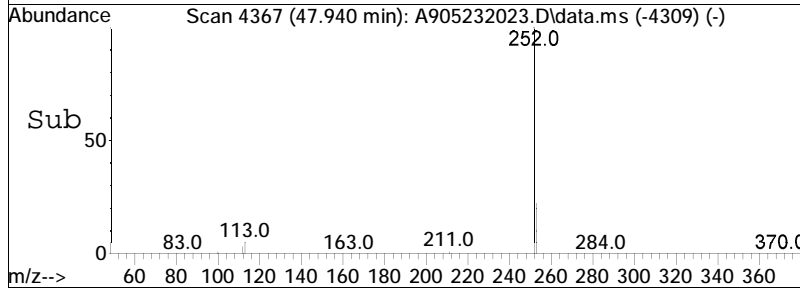
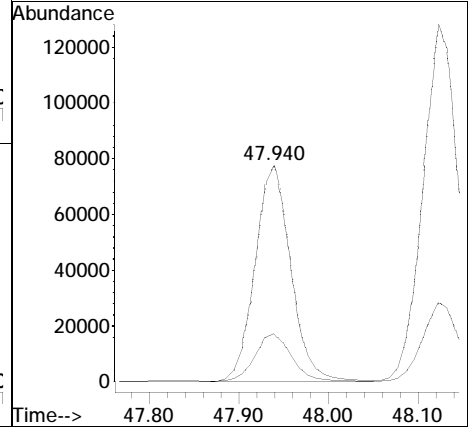
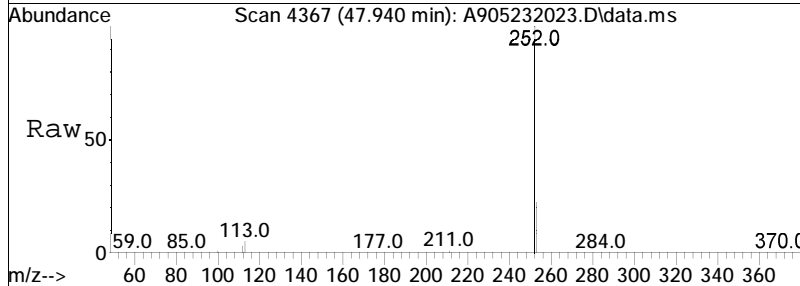
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	17.6	32.8

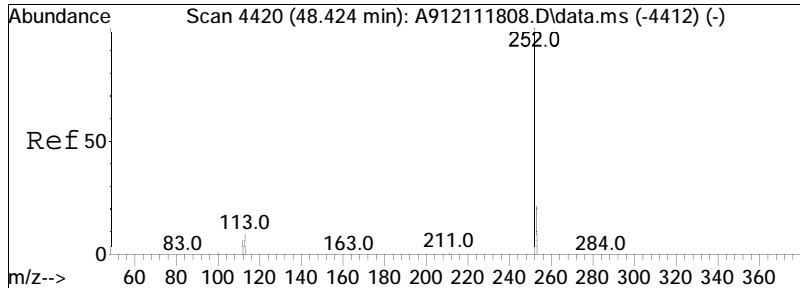




#88
 Benzo[e]pyrene
 Concen: 2126.48 ng/mL
 RT: 47.940 min Scan# 4367
 Delta R.T. 0.028 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

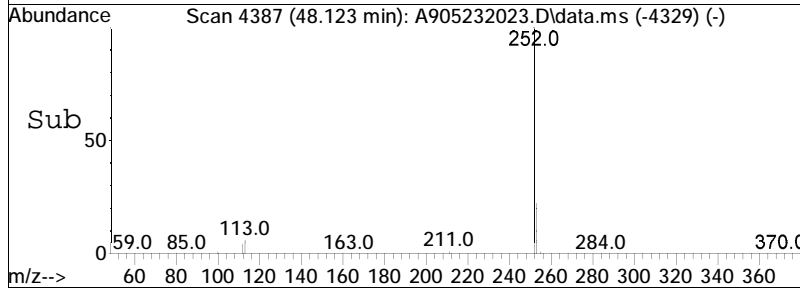
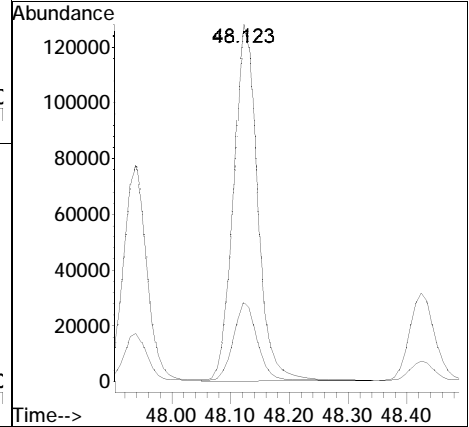
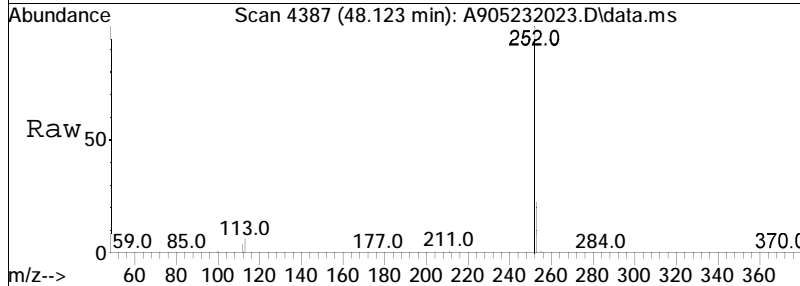
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	18.3	33.9

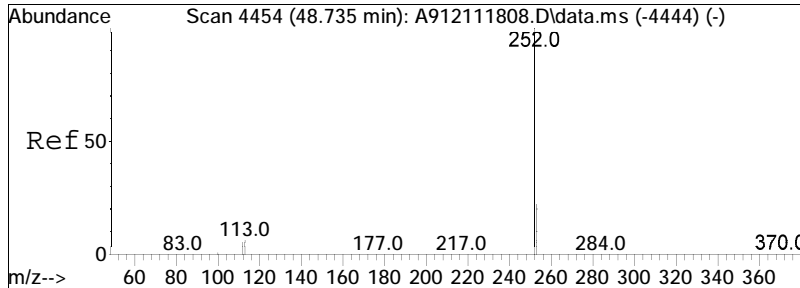




#90
 Benzo[a]pyrene
 Concen: 3807.81 ng/mL
 RT: 48.123 min Scan# 4387
 Delta R.T. 0.028 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

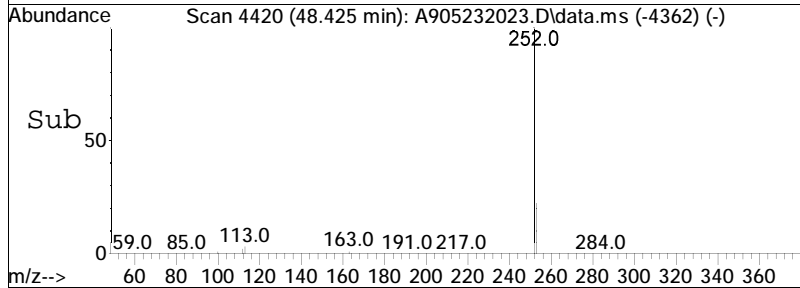
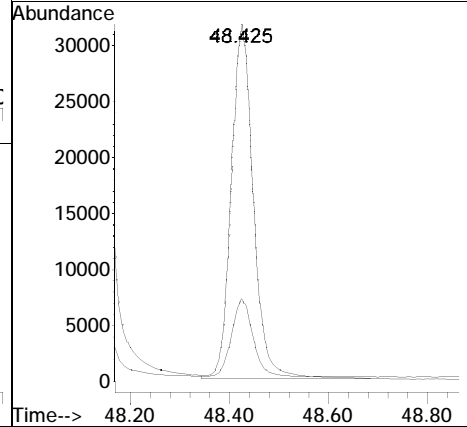
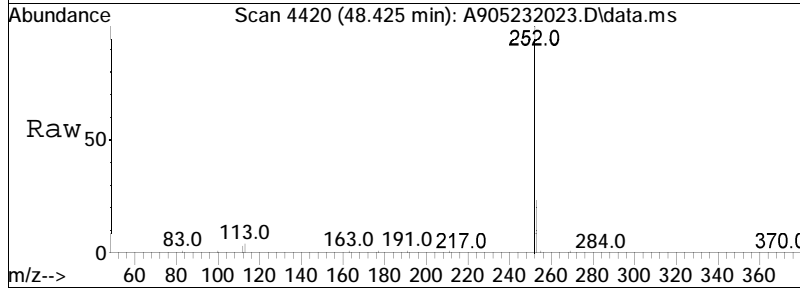
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	19.2	35.6

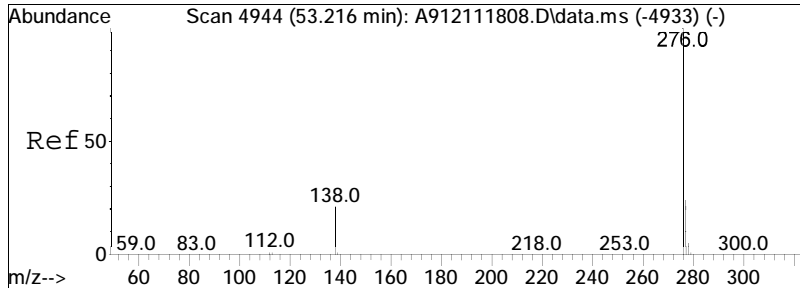




#91
 Perylene
 Concen: 1091.04 ng/mL
 RT: 48.425 min Scan# 4420
 Delta R.T. 0.028 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

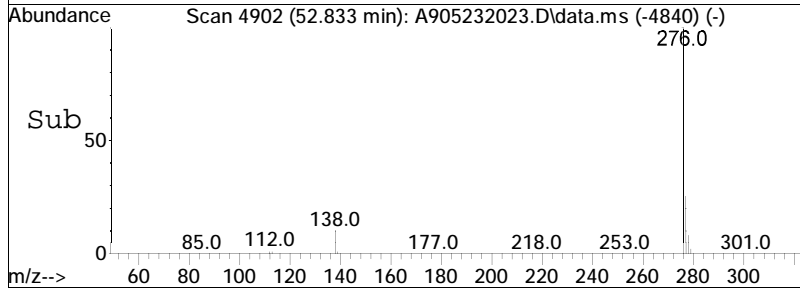
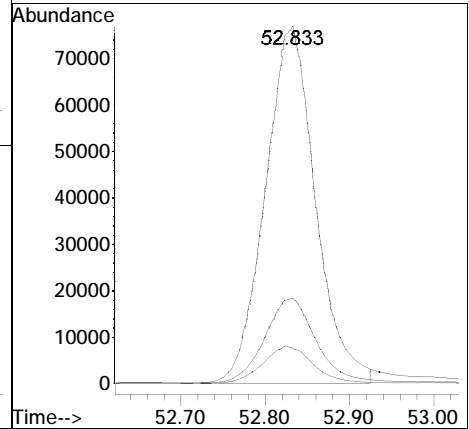
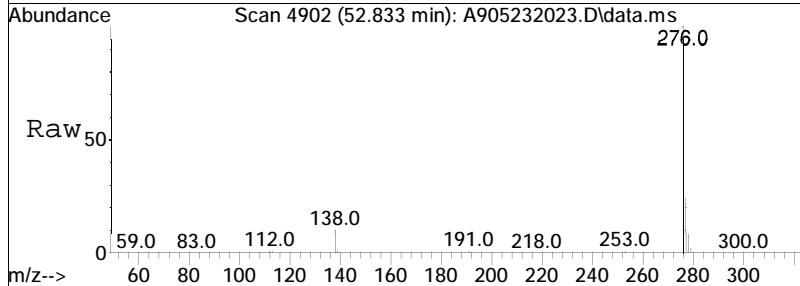
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.2	19.9	36.9

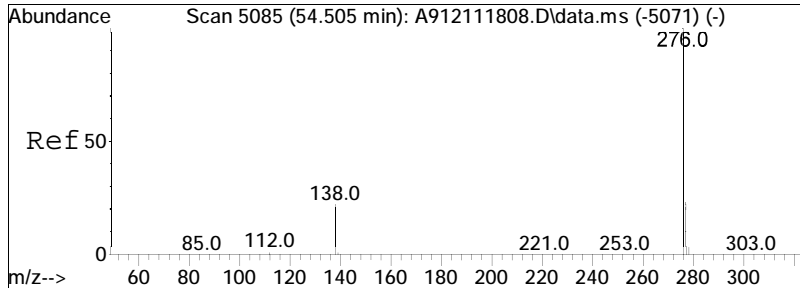




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 2820.69 ng/mL M3
 RT: 52.833 min Scan# 4902
 Delta R.T. 0.064 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

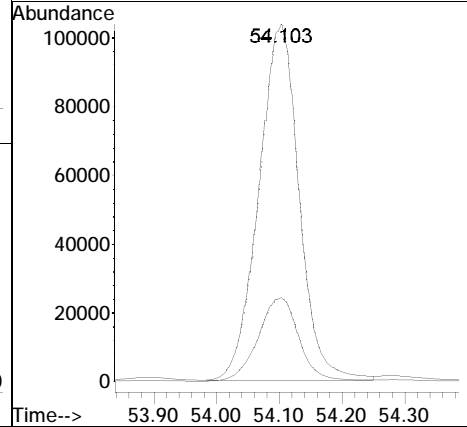
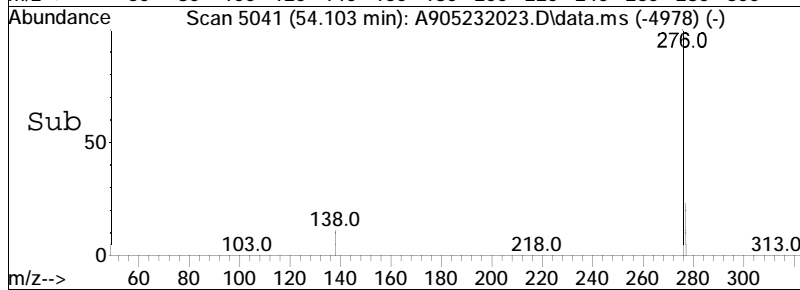
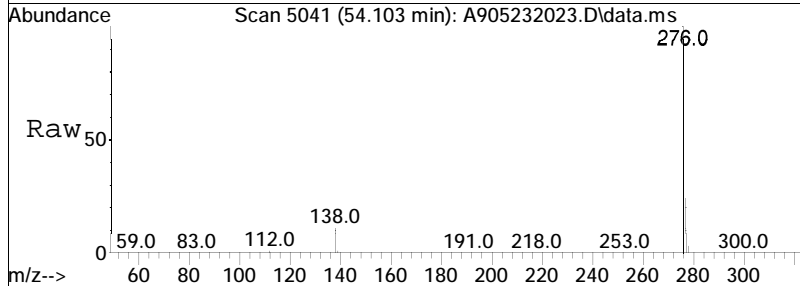
Tgt Ion	Ratio	Lower	Upper
276	100		
138	10.7	12.2	22.6#
277	25.6	18.6	34.6





#95
 Benzo[g,h,i]perylene
 Concen: 3980.87 ng/mL
 RT: 54.103 min Scan# 5041
 Delta R.T. 0.073 min
 Lab File: A905232023.D
 Acq: 27 May 2020 10:45 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	23.7	17.4	32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232024.D
 Acq On : 27 May 2020 12:12 pm
 Operator : PAH9:ML
 Sample : L2020213-03D,32,4
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 04 12:20:00 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	14423M3	500.000	ng/mL	0.00
74) Chrysene-d12	42.986	240	34580	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.594	136	2092	39.685	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	3.97%#
40) Phenanthrene-d10	32.405	188	2796	56.641	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	5.66%#
83) Benzo[b]fluoranthene-d12	46.879	264	4203	48.984	ng/mL	0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	4.90%#
89) Benzo[a]pyrene-d12	48.050	264	3046	53.071	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	5.31%#
Target Compounds						
2) trans-Decalin	16.254	138	237	20.360	ng/mL	100
3) cis-Decalin	17.468	138	52M4	5.839	ng/mL	
4) C1-Decalins	18.180	152	1021M5	87.711	ng/mL	
5) C2-Decalins	19.156	166	2819M5	242.173	ng/mL	
6) C3-Decalins	21.976	180	2949M5	253.341	ng/mL	
7) C4-Decalins	23.436	194	3249M5	279.113	ng/mL	
9) Naphthalene	19.695	128	6602635	107601.900	ng/mL	100
10) C1-Naphthalenes	22.359	142	1777875M5	28973.694	ng/mL	
11) C2-Naphthalenes	25.188	156	888612M5	14481.543	ng/mL	
12) C3-Naphthalenes	27.524	170	419908M5	6843.162	ng/mL	
13) C4-Naphthalenes	30.280	184	157145M5	2560.963	ng/mL	
14) 2-Methylnaphthalene	22.359	142	1182452	29064.613	ng/mL	100
15) 1-Methylnaphthalene	22.779	142	595757	15409.641	ng/mL	100
16) Benzothiophene	19.886	134	331911	5866.001	ng/mL	100
17) C1-Benzo(b)thiophenes	22.213	148	122252M5	2160.610	ng/mL	
18) C2-Benzo(b)thiophenes	24.905	162	113097M5	1998.810	ng/mL	
19) C3-Benzo(b)thiophenes	27.004	176	74196M5	1311.297	ng/mL	
20) C4-Benzo(b)thiophenes	28.610	190	40560M5	716.834	ng/mL	
21) Biphenyl	24.230	154	391852	7861.881	ng/mL	100
22) 2,6-Dimethylnaphthalene	24.851	156	240345	6732.313	ng/mL	100
23) Dibenzofuran	27.305	168	134714	2326.769	ng/mL	94
24) Acenaphthylene	25.927	152	96089M4	1581.346	ng/mL	
25) Acenaphthene	26.685	153	1520701	40386.420	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	28.218	170	30409M3	915.447	ng/mL	

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 Sample : L2020213-03D,32,4
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 04 12:20:00 2020
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 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.692	166	752497	16868.387	ng/mL	99
28) C1-Fluorenes	30.909	180	154350M5	3459.994	ng/mL	
29) C2-Fluorenes	33.090	194	109763M5	2460.508	ng/mL	
30) C3-Fluorenes	35.071	208	67235M5	1507.177	ng/mL	
31) Dibenzothiophene	31.995	184	899741	13646.702	ng/mL	96
32) 4-Methyldibenzothiophene(	33.765	198	79828	1210.781	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.085	198	92425	1401.844	ng/mL	100
34) 1-Methyldibenzothiophene(	34.532	198	25705	389.877	ng/mL	100
36) C1-Dibenzothiophenes	33.765	198	242828M5	3683.061	ng/mL	
36) C1-Dibenzothiophenes BS	33.765	198	242828M5	3683.061	ng/mL	
37) C2-Dibenzothiophenes	35.819	212	135029M5	2048.034	ng/mL	
38) C3-Dibenzothiophenes	37.271	226	75022M5	1137.886	ng/mL	
39) C4-Dibenzothiophenes	38.942	240	26019M5	394.640	ng/mL	
41) Phenanthrene	32.551	178	7719956	117453.802	ng/mL	98
42) 3-Methylphenanthrene(3MP)	34.450	192	323872	4927.489	ng/mL	97
43) 2-Methylphenanthrene(2MP)	34.559	192	396480	6032.170	ng/mL	98
44) 2-Methylanthracene(2MA)	34.715	192	138911M4	2113.435	ng/mL	
45) 9/4-Methylphenanthrene(9M	34.906	192	234311M4	3564.880	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.559	192	1300500M5	19786.210	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.723	206	443862M5	6753.054	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.723	206	443862M5	6753.054	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.558	220	160667M5	2444.437	ng/mL	
51) C4-Phenanthrenes/Anthrace	40.731	234	44110M5	671.103	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	32.688	178	1588672	27408.569	ng/mL	98
54) Carbazole	33.336	167	224654	3705.527	ng/mL	100
55) 1-Methylphenanthrene	34.998	192	191798	3967.687	ng/mL	98
56) Fluoranthene	37.307	202	5455066	70800.200	ng/mL	93
57) Benzo(b)fluorene	39.782	216	184819M3	4048.837	ng/mL	
58) 7H-Benzo(c)fluorene	39.818	216	69466M3	1521.794	ng/mL	
59) Pyrene	38.193	202	7043469	86572.699	ng/mL	96
60) 2-Methylpyrene	39.937	216	170090M4	2090.611	ng/mL	
61) 4-Methylpyrene	40.302	216	141457	1738.677	ng/mL	78
62) 1-Methylpyrene	40.421	216	174279	2142.098	ng/mL	77
63) C1-Fluoranthenes/Pyrenes	39.535	216	1369852M5	16837.127	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.270	230	277464M5	3410.366	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.470	244	101932M5	1252.867	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.703	258	50493M5	620.620	ng/mL	
67) Naphthobenzothiophene-2,1	41.991	234	298933	4598.312	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232024.D
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 Operator : PAH9:ML
 Sample : L2020213-03D,32,4
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 04 12:20:00 2020
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 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.329	234	65014	1000.073	ng/mL#	24
69) Naphthobenzothiophene-2,3	42.630	234	122937M3	1891.068	ng/mL	
70) C1-Naphthobenzothiophenes	43.388	248	119270M5	1834.661	ng/ml	
71) C2-Naphthobenzothiophenes	44.895	262	51122M5	786.380	ng/ml	
72) C3-Naphthobenzothiophenes	46.778	276	40988M5	630.495	ng/ml	
73) C4-Naphthobenzothiophenes	49.522	290	13865M5	213.277	ng/mL	
75) Benz[a]anthracene	42.931	228	1514953M4	17422.654	ng/mL	
77) Chrysene/Triphenylene	43.096	228	1795054	19677.043	ng/mL	95
78) C1-Chrysenes	44.557	242	396244M5	4343.552	ng/mL	
79) C2-Chrysenes	46.257	256	142499M5	1562.047	ng/mL	
79) C2-Chrysenes BS	46.257	256	142499M5	1562.047	ng/mL	
81) C3-Chrysenes	47.858	270	70681M5	774.792	ng/mL	
82) C4-Chrysenes	48.809	284	44955M5	492.788	ng/mL	
84) Benzo[b]fluoranthene	46.980	252	1464976	13780.447	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.053	252	1298320	12376.130	ng/mL	94
87) Benzo[a]fluoranthene	47.346	252	406125M4	3871.353	ng/mL	
88) Benzo[e]pyrene	47.968	252	1370584	13063.221	ng/mL	93
90) Benzo[a]pyrene	48.169	252	2378856	23771.369	ng/mL	90
91) Perylene	48.443	252	611778	6580.348	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	52.888	276	1835595M3	15724.454	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.888	278	292779M4	2914.079	ng/mL	
95) Benzo[g,h,i]perylene	54.167	276	2347202	19570.086	ng/mL	98

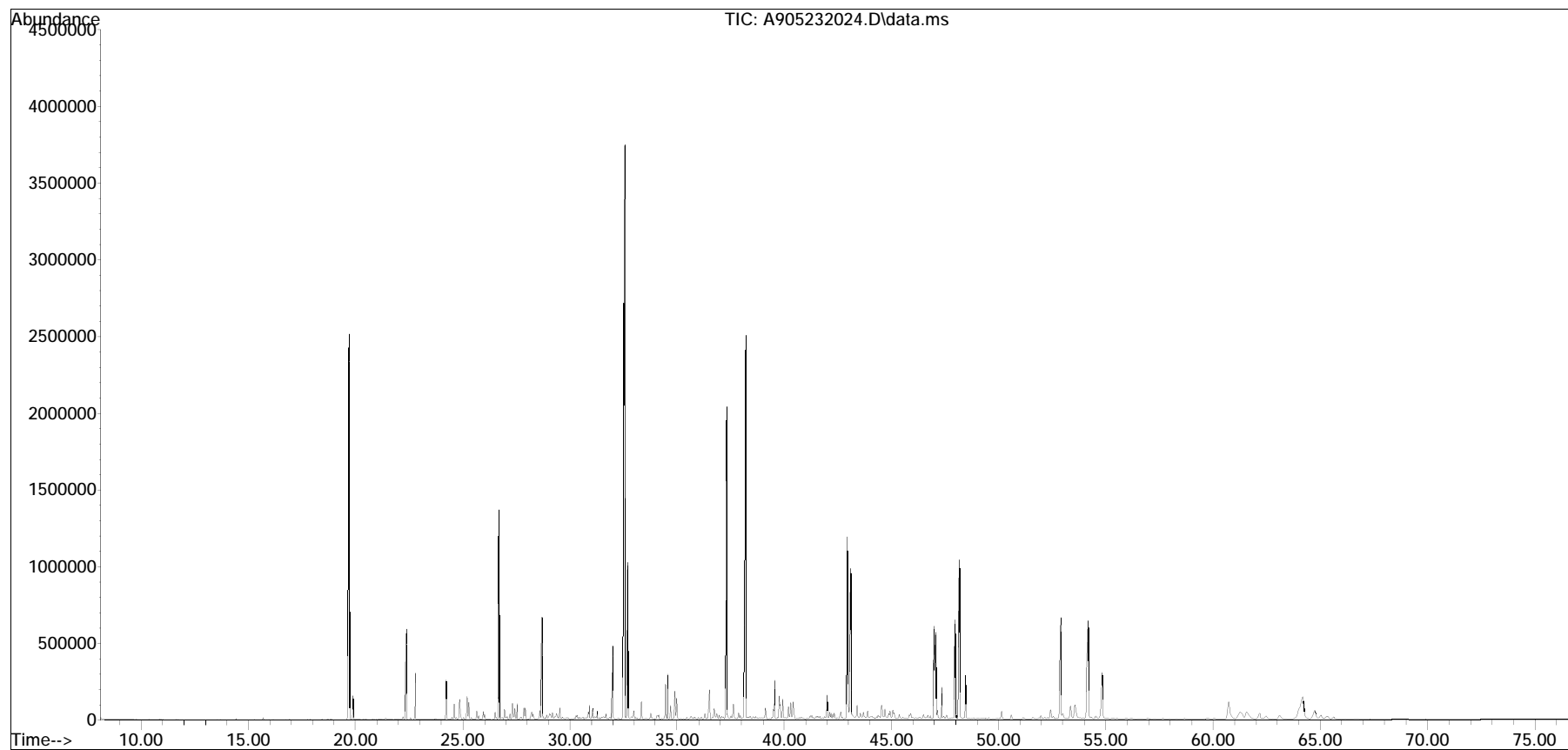
(#) = qualifier out of range (m) = manual integration (+) = signals summed

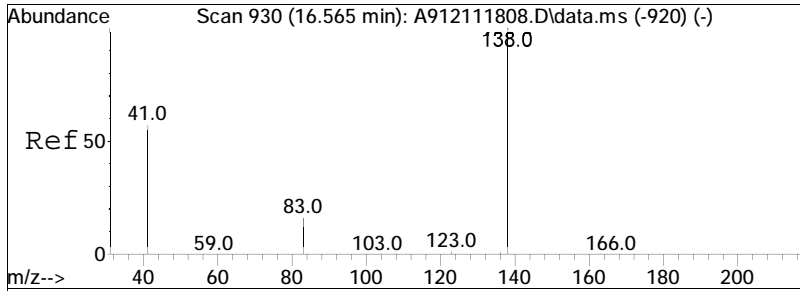
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232024.D
Acq On : 27 May 2020 12:12 pm
Operator : PAH9:ML
Sample : L2020213-03D,32,4
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 04 12:20:00 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

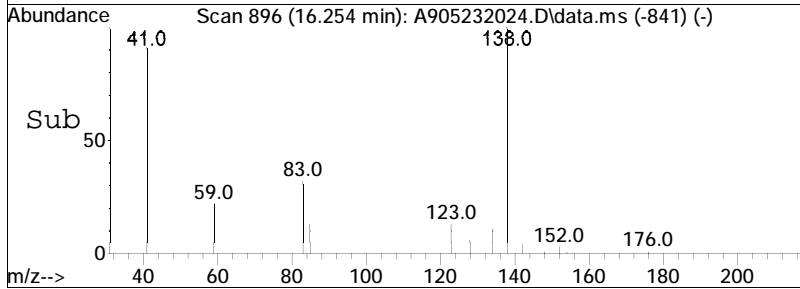
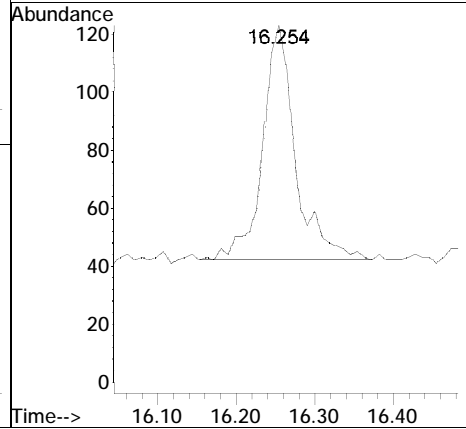
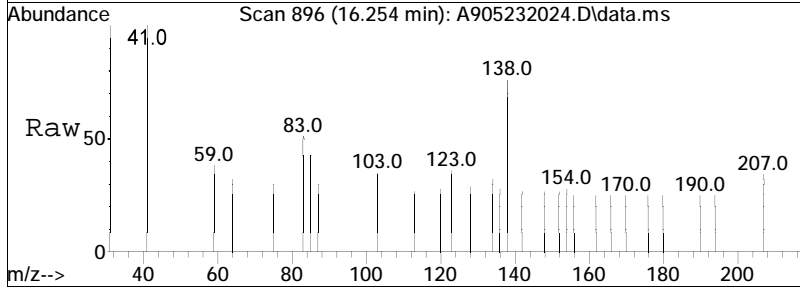
Sub List : ALKPAH - POI+MP+BcF

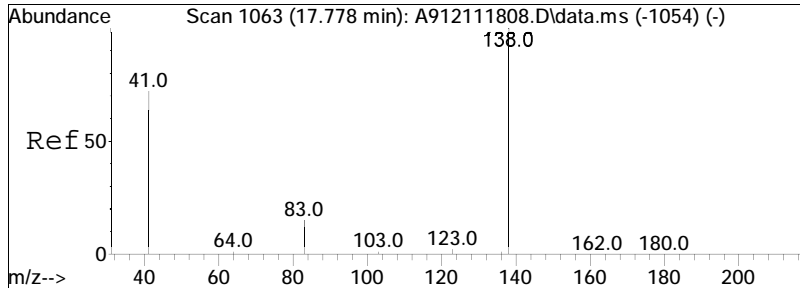




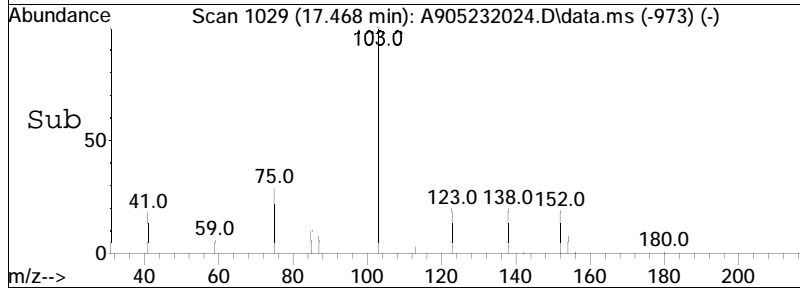
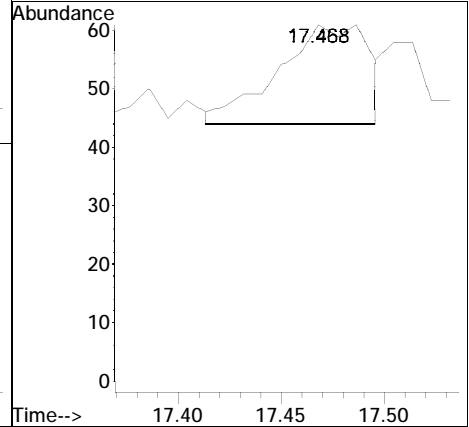
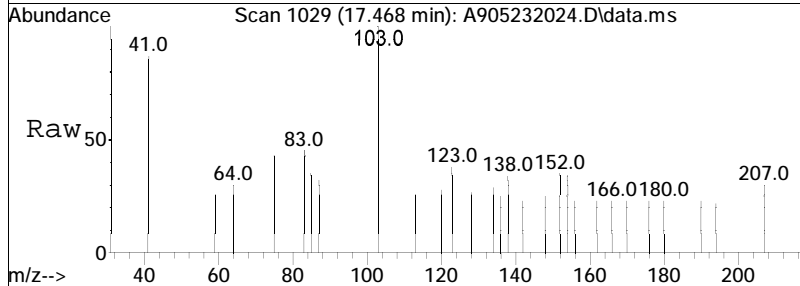
#2
 trans-Decalin
 Concen: 20.36 ng/mL
 RT: 16.254 min Scan# 896
 Delta R.T. 0.000 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

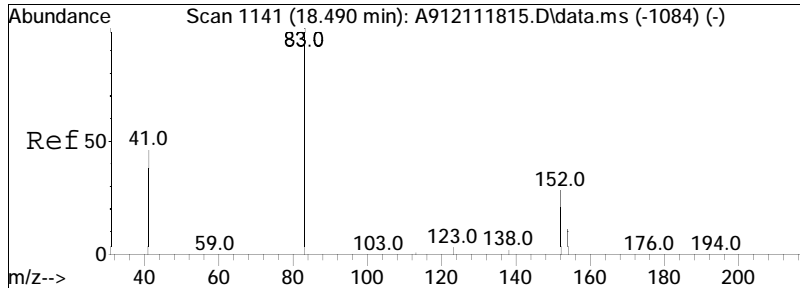
Tgt Ion:138 Resp: 237



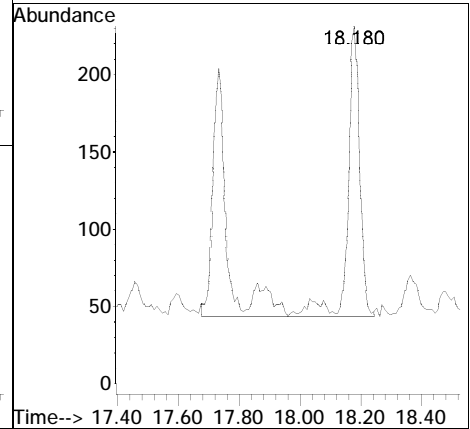
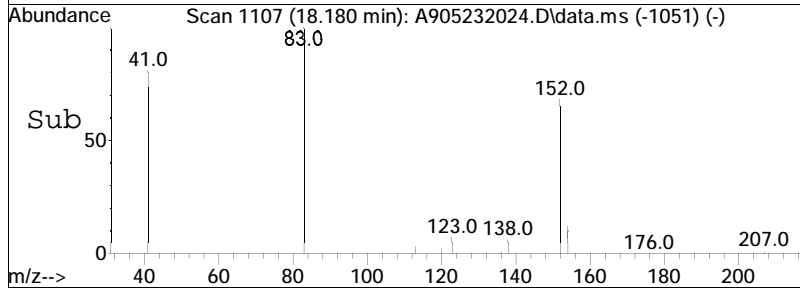
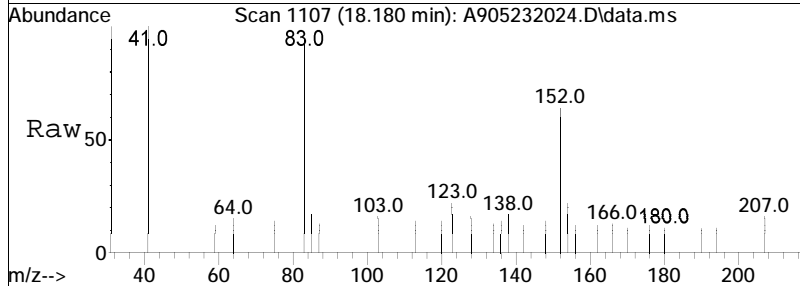


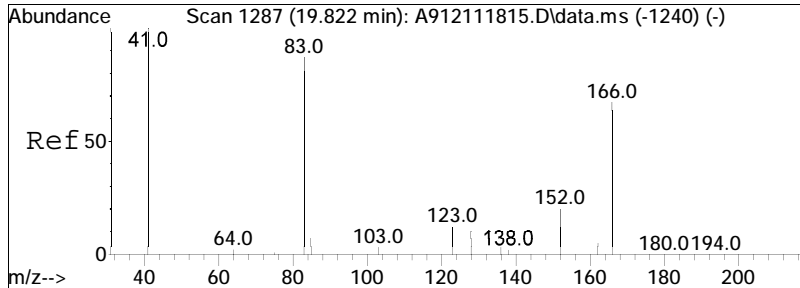
#3
 cis-Decalin
 Concen: 5.84 ng/mL M4
 RT: 17.468 min Scan# 1029
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:138 Resp: 52



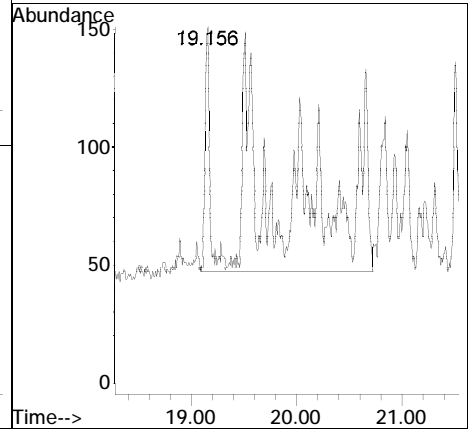
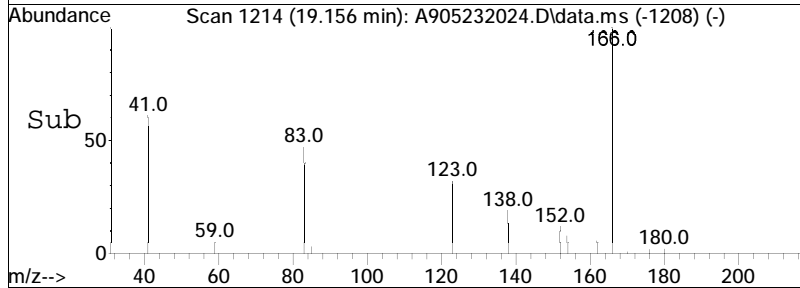
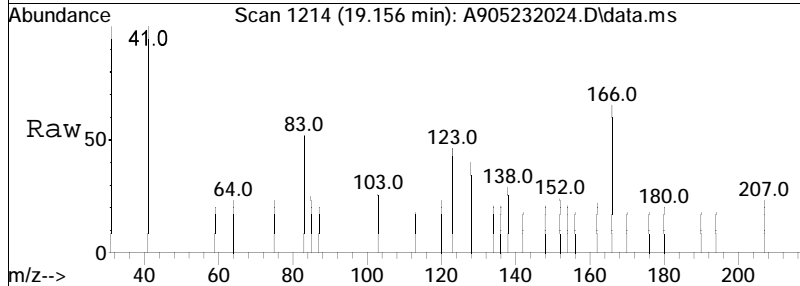


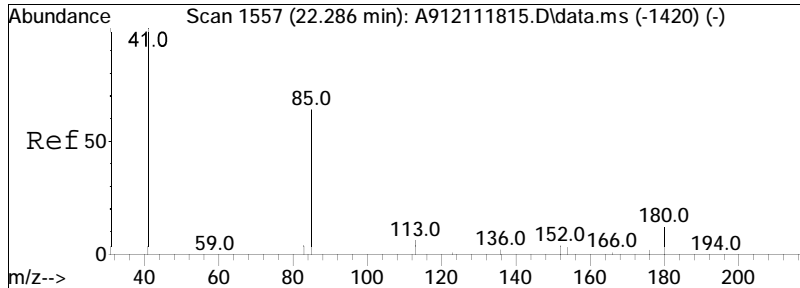
#4
 C1-Decalins
 Concen: 87.71 ng/mL M5
 RT: 18.180 min Scan# 1107
 Delta R.T. -0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:152 Resp: 1021



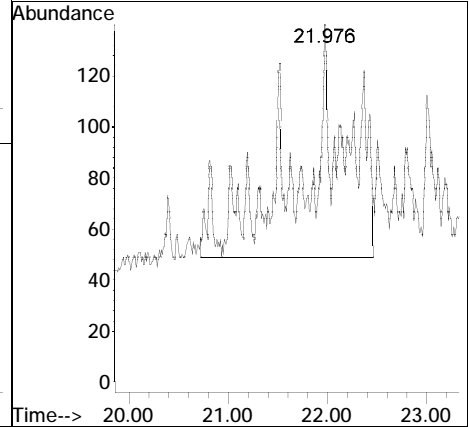
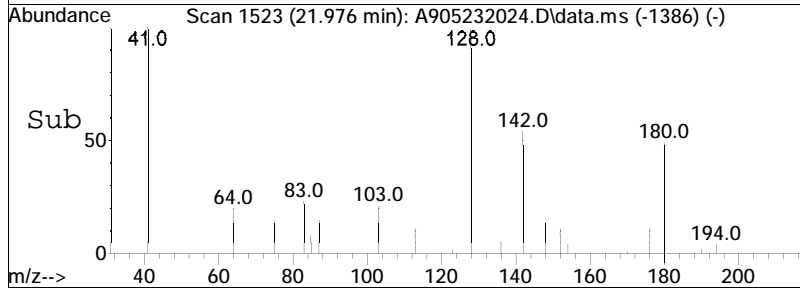
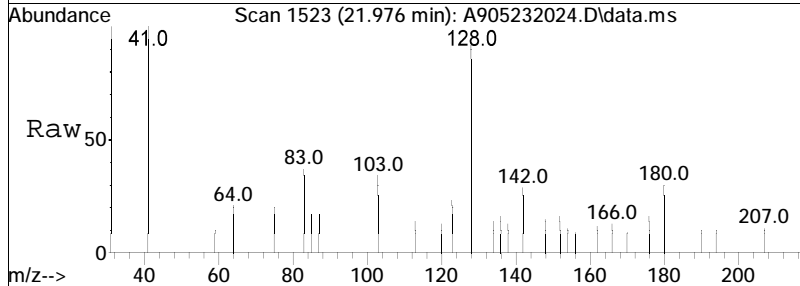


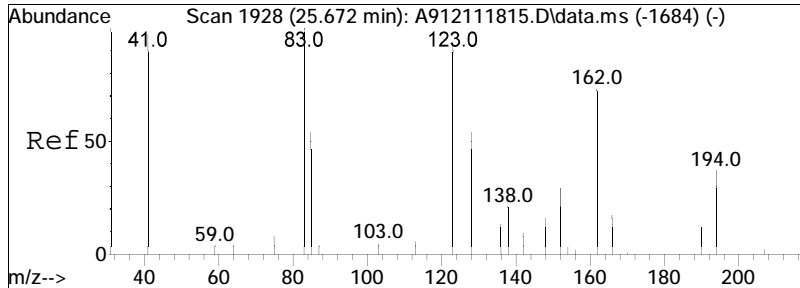
#5
 C2-Decalins
 Concen: 242.17 ng/mL M5
 RT: 19.156 min Scan# 1214
 Delta R.T. -0.354 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:166 Resp: 2819



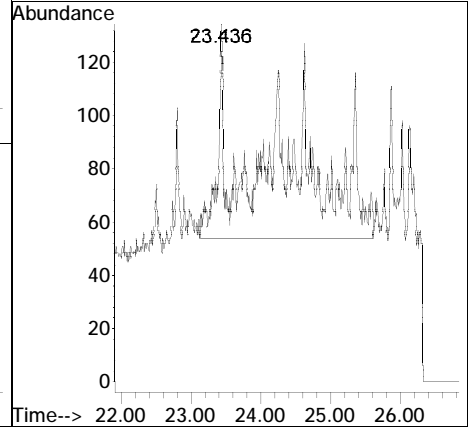
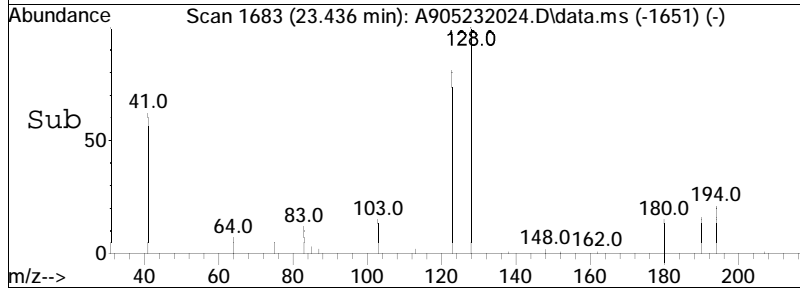
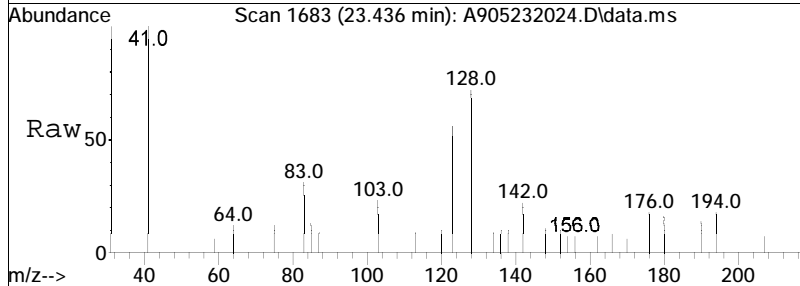


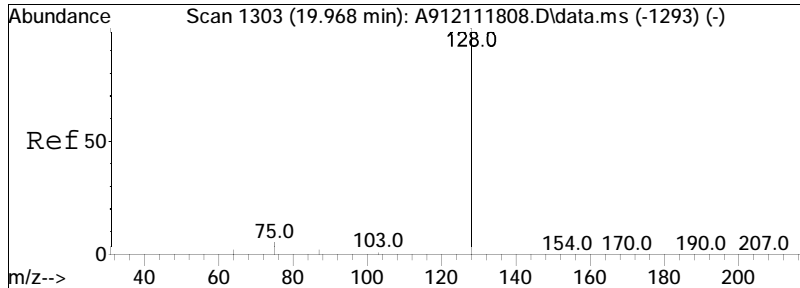
#6
 C3-Decalins
 Concen: 253.34 ng/mL M5
 RT: 21.976 min Scan# 1523
 Delta R.T. -0.005 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:180 Resp: 2949



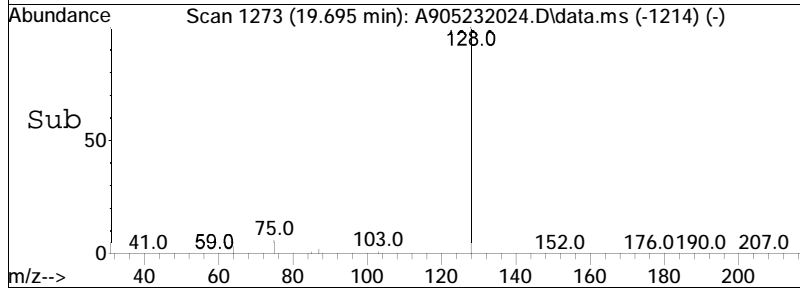
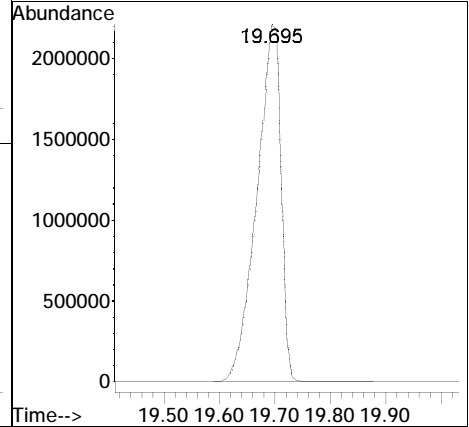
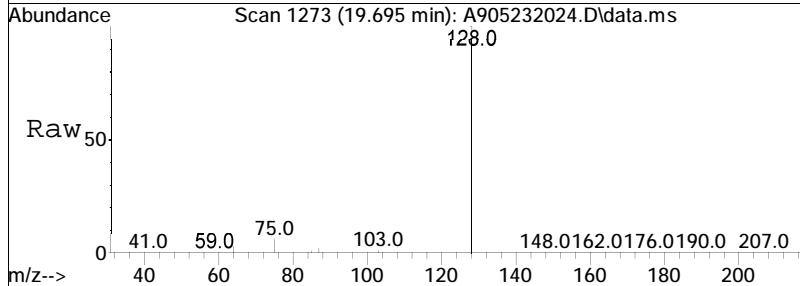


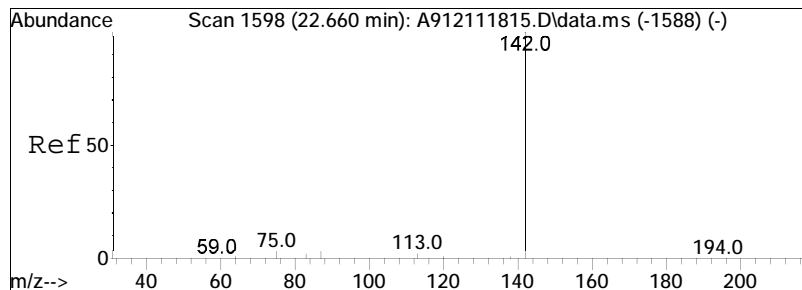
#7
 C4-Decalins
 Concen: 279.11 ng/mL M5
 RT: 23.436 min Scan# 1683
 Delta R.T. -1.920 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:194 Resp: 3249



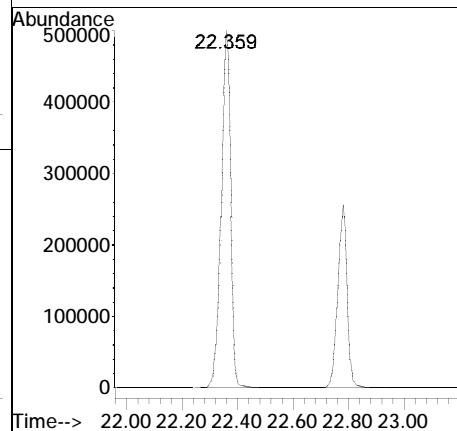
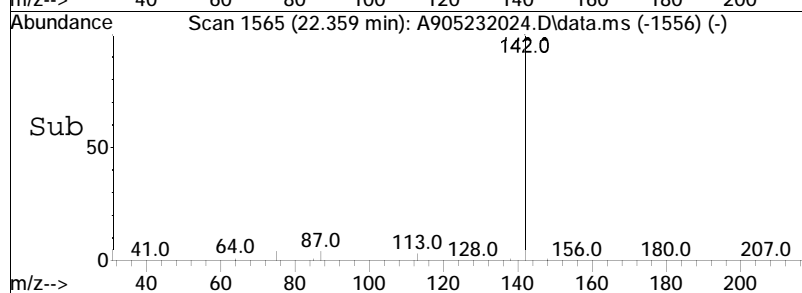
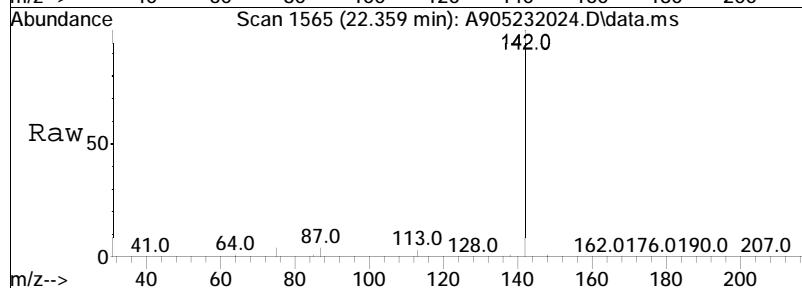


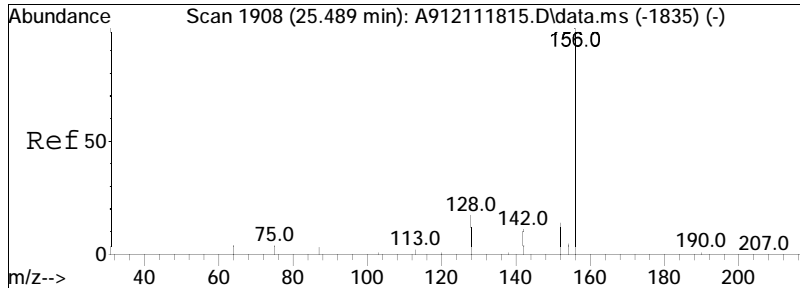
#9
 Naphthalene
 Concen: 107601.90 ng/mL
 RT: 19.695 min Scan# 1273
 Delta R.T. 0.037 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:128 Resp: 6602635



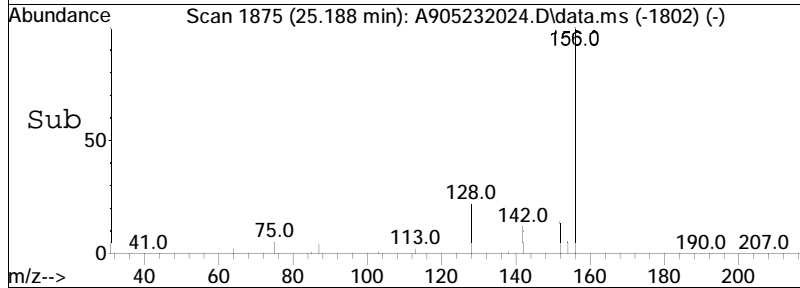
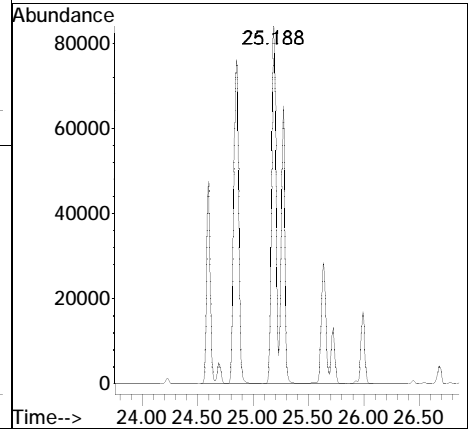
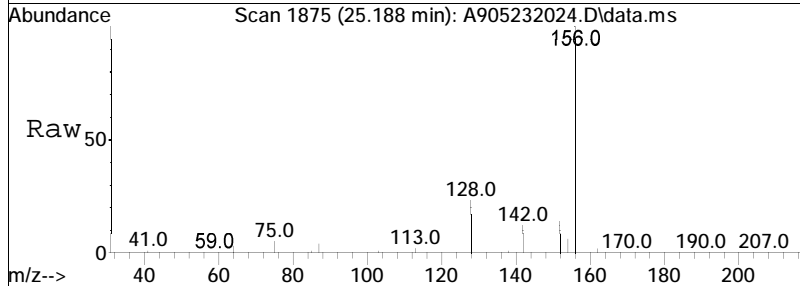


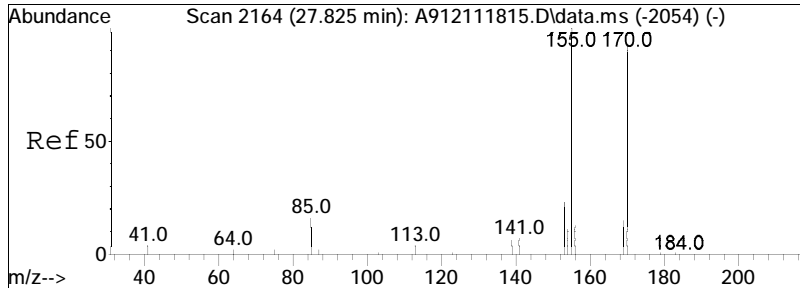
#10
 Cl-Naphthalenes
 Concen: 28973.69 ng/mL M5
 RT: 22.359 min Scan# 1565
 Delta R.T. -0.017 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:142 Resp: 1777875





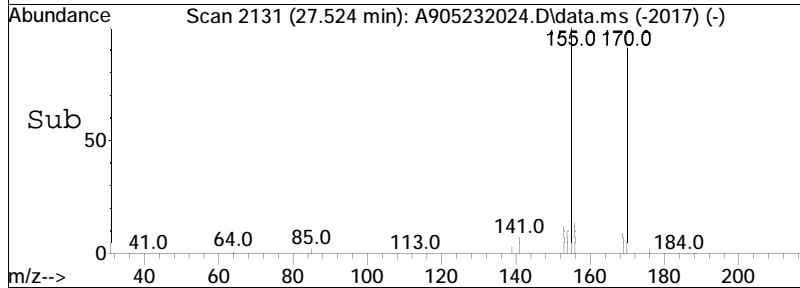
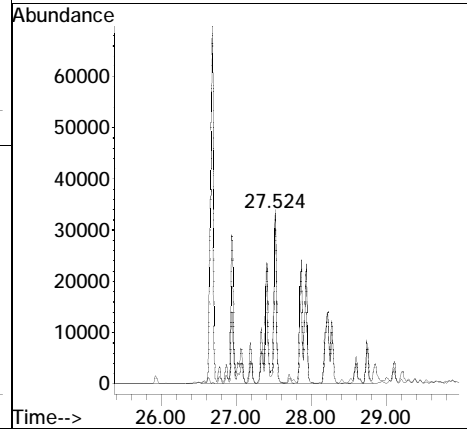
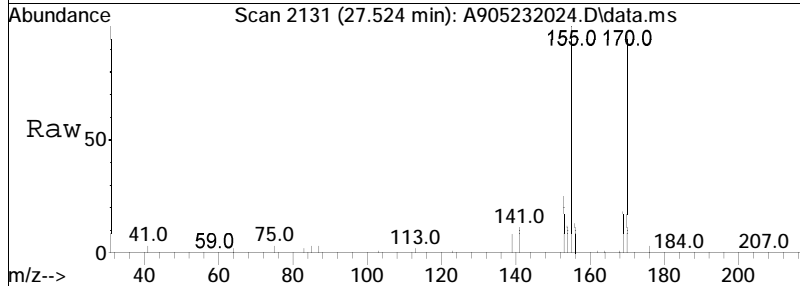
#11
 C2-Naphthalenes
 Concen: 14481.54 ng/mL M5
 RT: 25.188 min Scan# 1875
 Delta R.T. 0.004 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:156 Resp: 888612

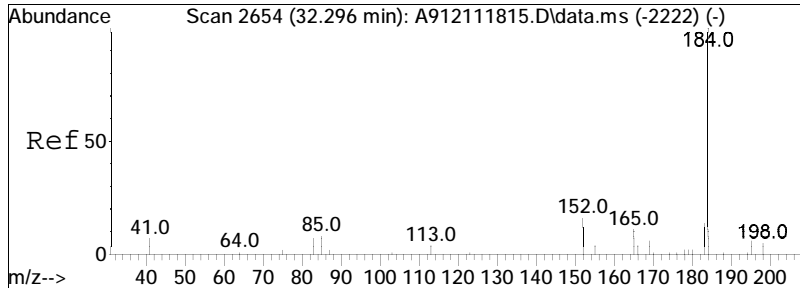




#12
 C3-Naphthalenes
 Concen: 6843.16 ng/mL M5
 RT: 27.524 min Scan# 2131
 Delta R.T. 0.029 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

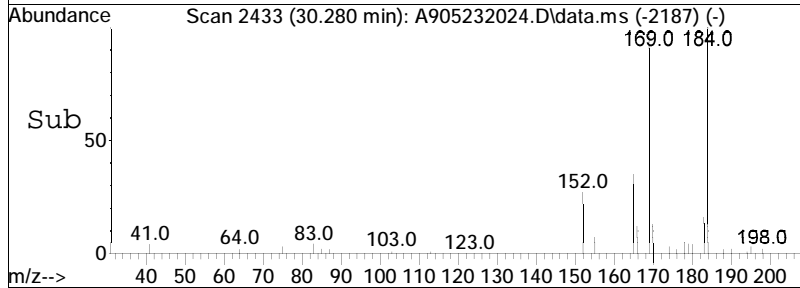
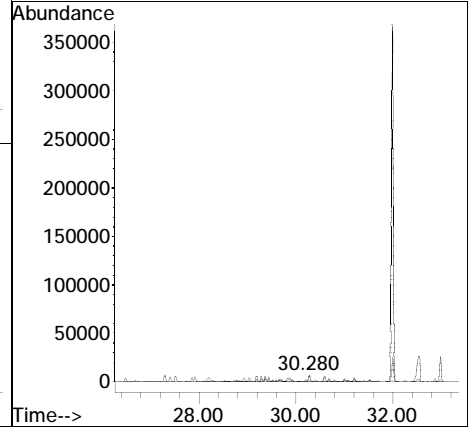
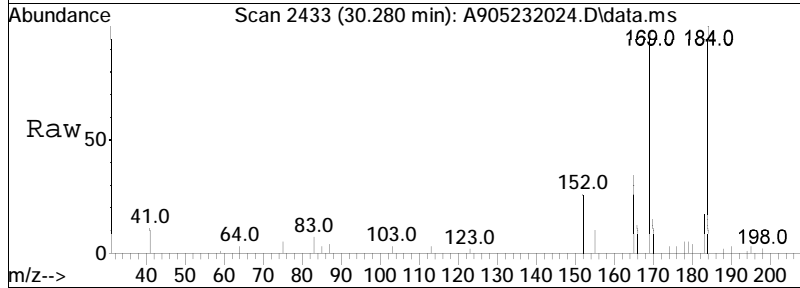
Tgt Ion	Resp	Lower	Upper
170	100		
155	18.1	71.4	132.6#

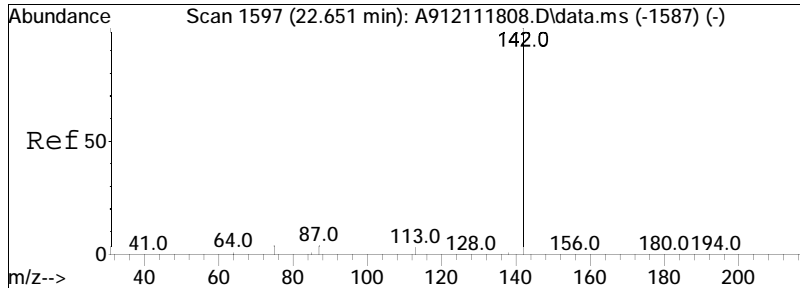




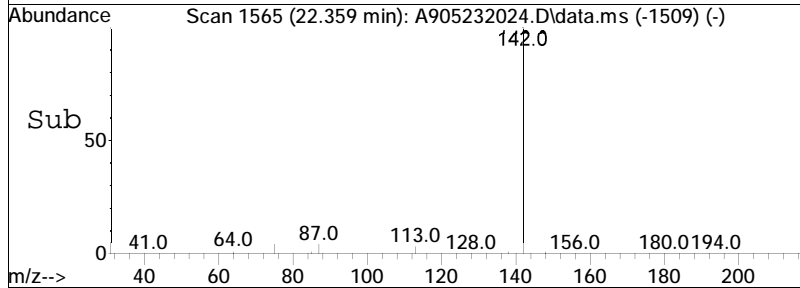
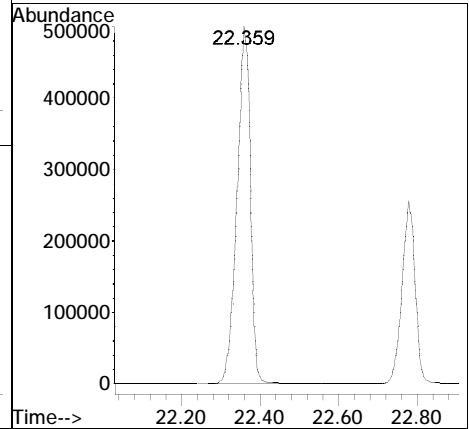
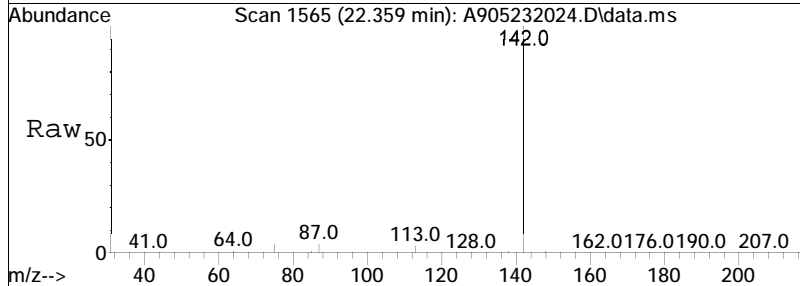
#13
 C4-Naphthalenes
 Concen: 2560.96 ng/mL M5
 RT: 30.280 min Scan# 2433
 Delta R.T. 0.004 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

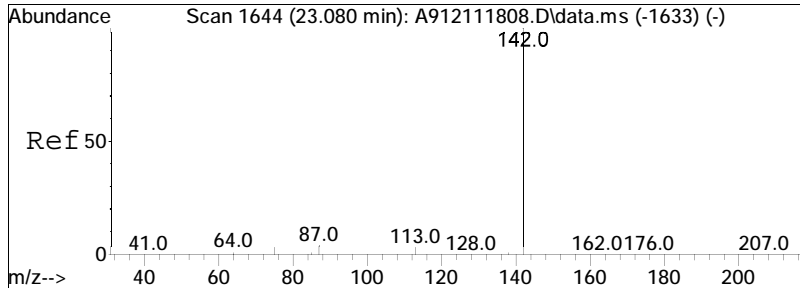
Tgt Ion	Resp	Lower	Upper
184	157145		
184	100		
169	5.2	81.3	151.1#
183	1.2	25.7	47.7#



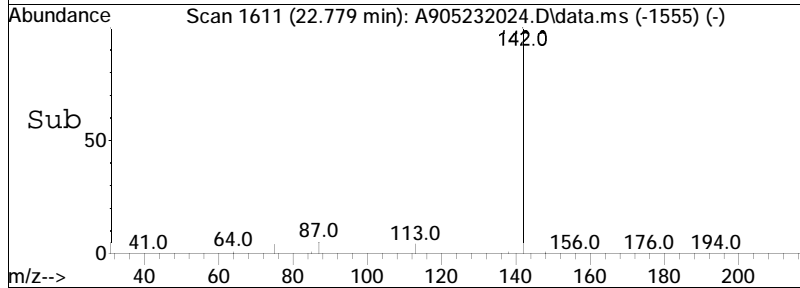
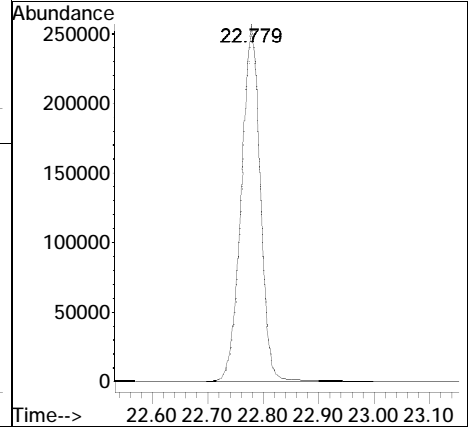
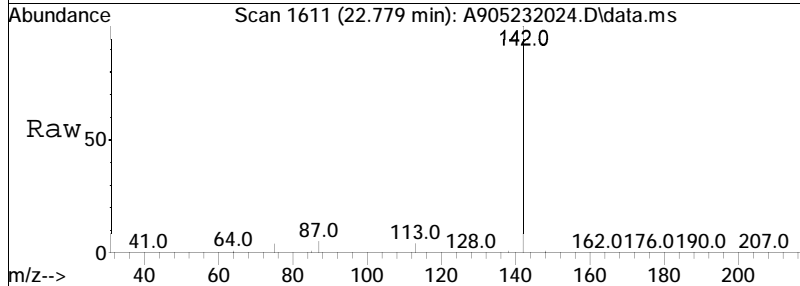


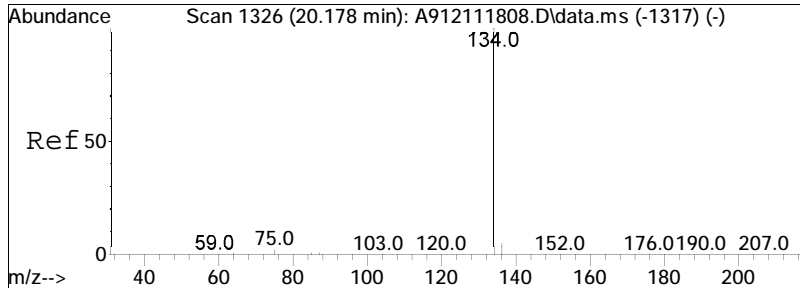
#14
 2-Methylnaphthalene
 Concen: 29064.61 ng/mL
 RT: 22.359 min Scan# 1565
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:142 Resp: 1182452



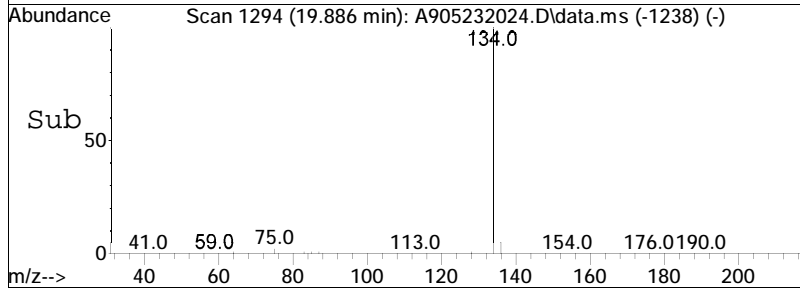
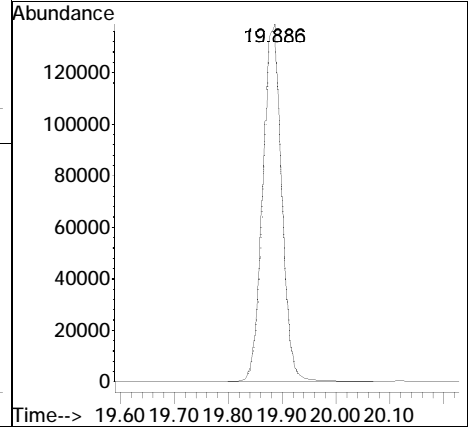
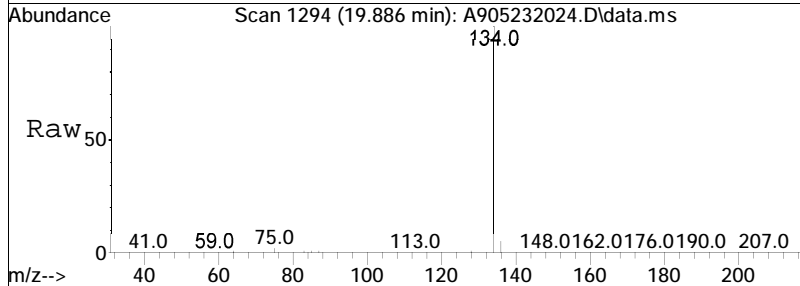


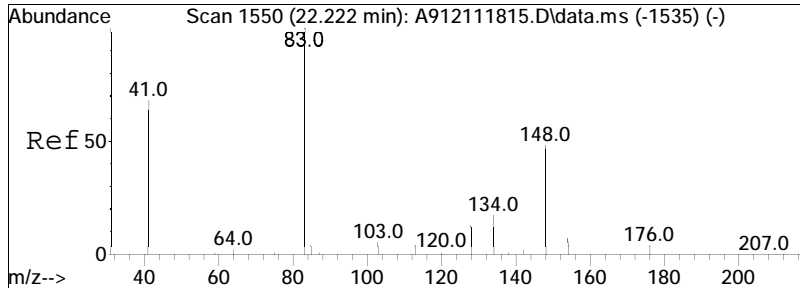
#15
 1-Methylnaphthalene
 Concen: 15409.64 ng/mL
 RT: 22.779 min Scan# 1611
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:142 Resp: 595757



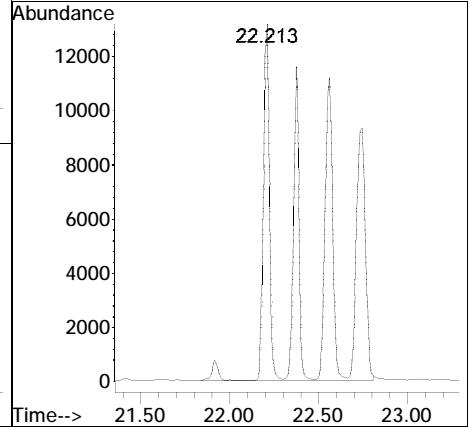
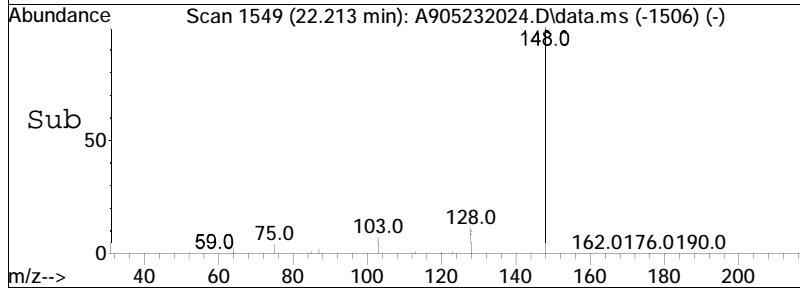
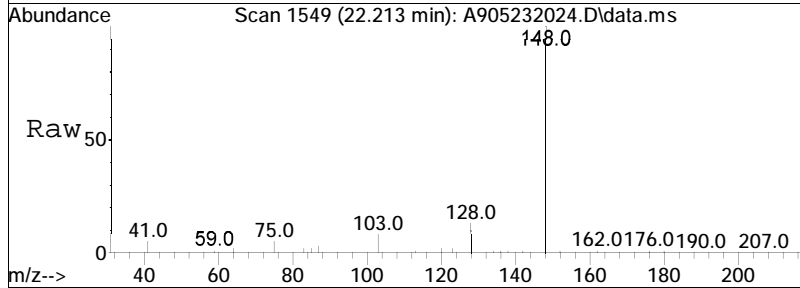


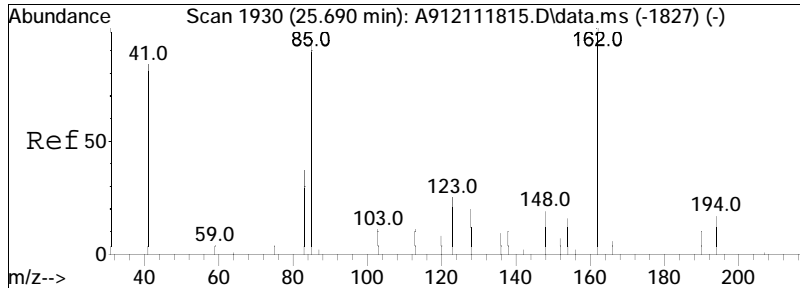
#16
 Benzothiophene
 Concen: 5866.00 ng/mL
 RT: 19.886 min Scan# 1294
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:134 Resp: 331911



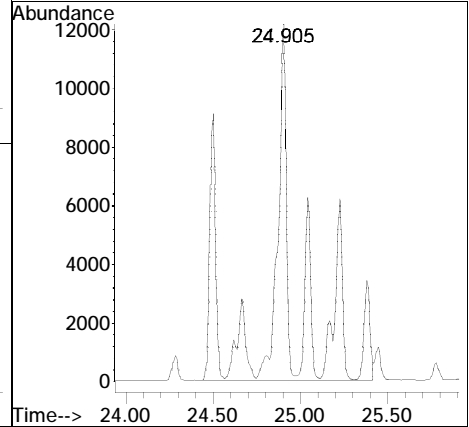
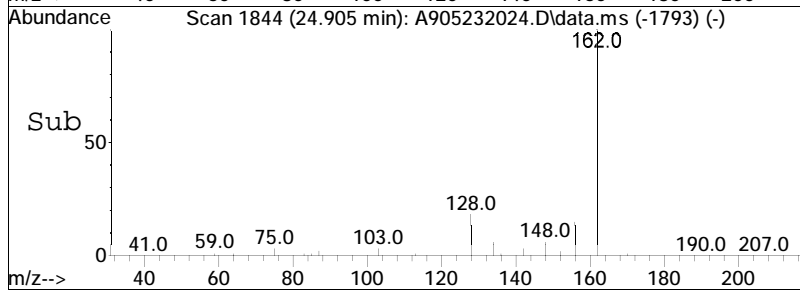
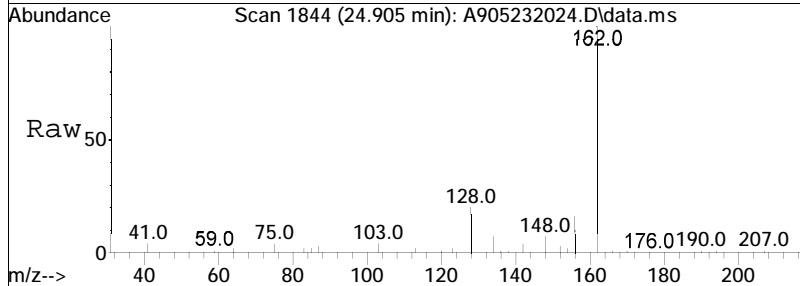


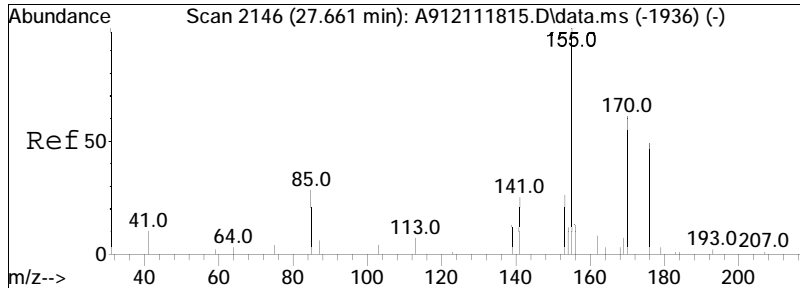
#17
 Cl-Benzo(b)thiophenes
 Concen: 2160.61 ng/mL M5
 RT: 22.213 min Scan# 1549
 Delta R.T. 0.287 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:148 Resp: 122252



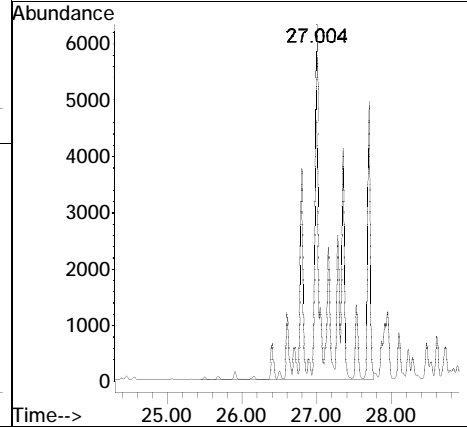
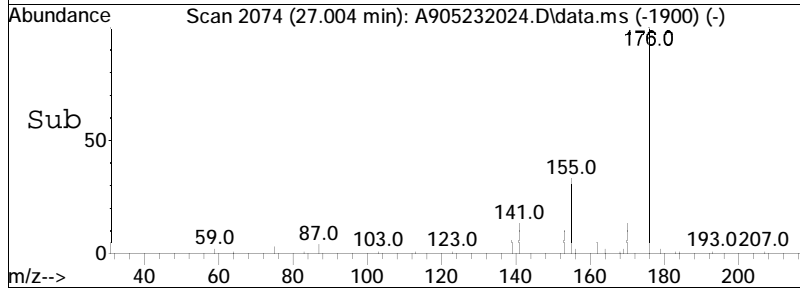
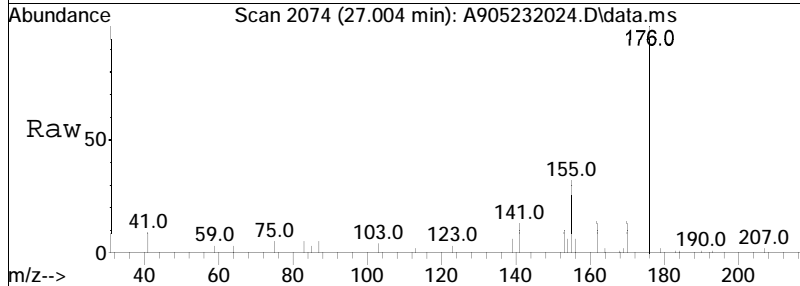


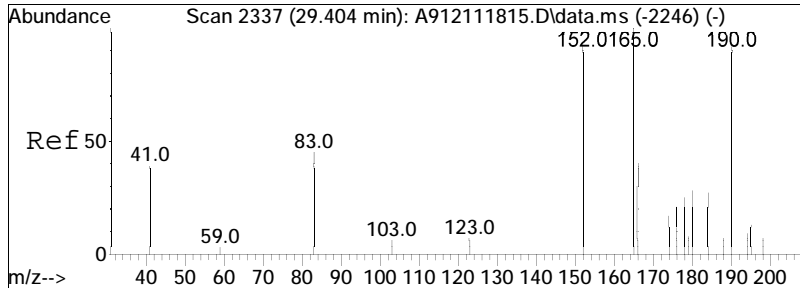
#18
 C2-Benzo(b)thiophenes
 Concen: 1998.81 ng/mL M5
 RT: 24.905 min Scan# 1844
 Delta R.T. -0.477 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:162 Resp: 113097



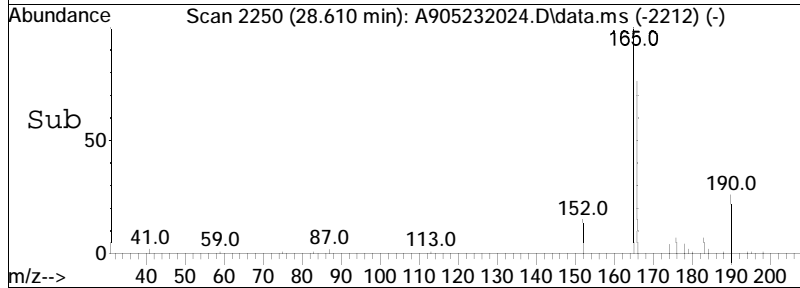
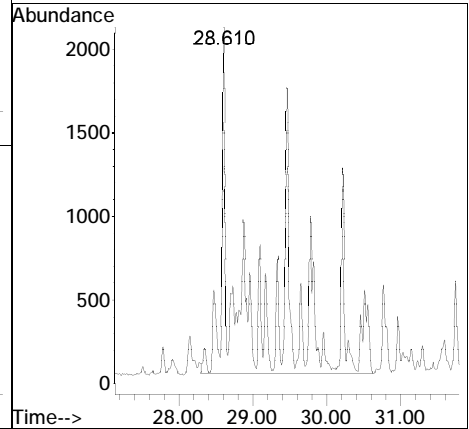
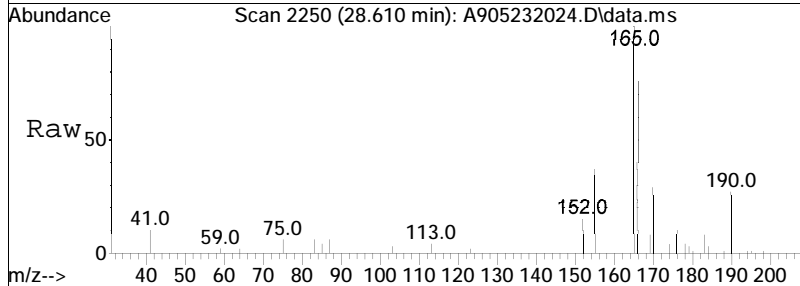


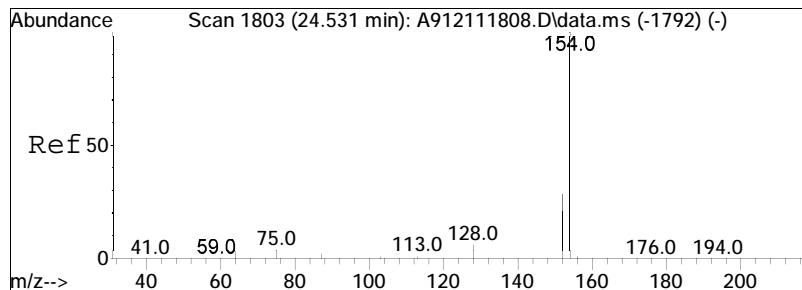
#19
 C3-Benzo(b)thiophenes
 Concen: 1311.30 ng/mL M5
 RT: 27.004 min Scan# 2074
 Delta R.T. -0.329 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:176 Resp: 74196



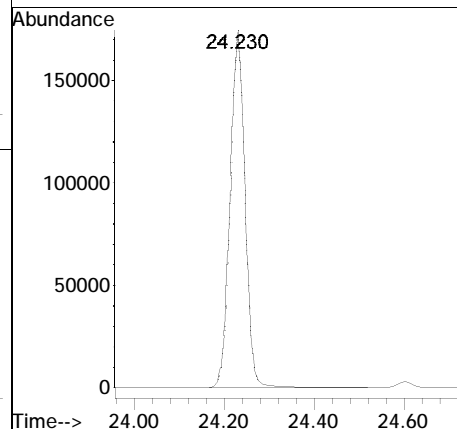
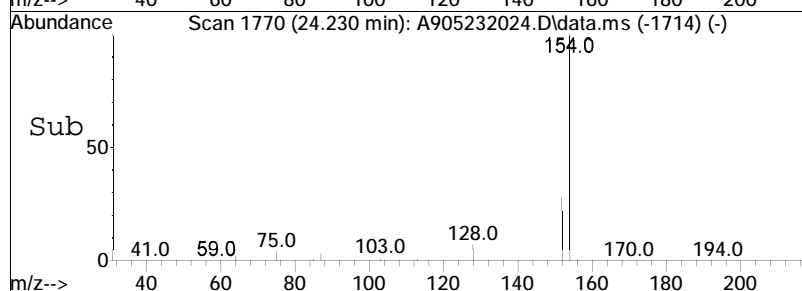
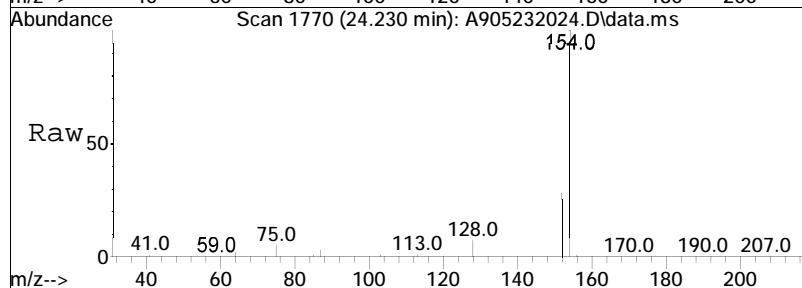


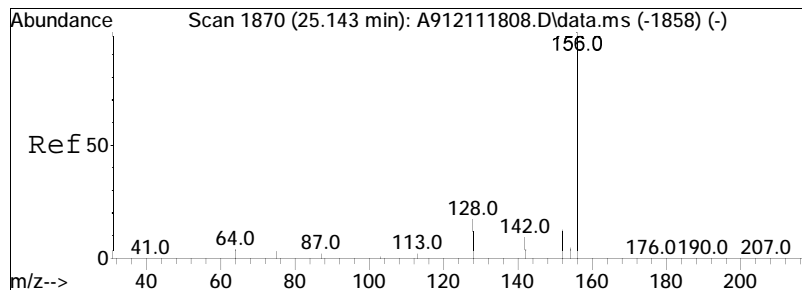
#20
 C4-Benzo(b)thiophenes
 Concen: 716.83 ng/mL M5
 RT: 28.610 min Scan# 2250
 Delta R.T. -0.481 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:190 Resp: 40560



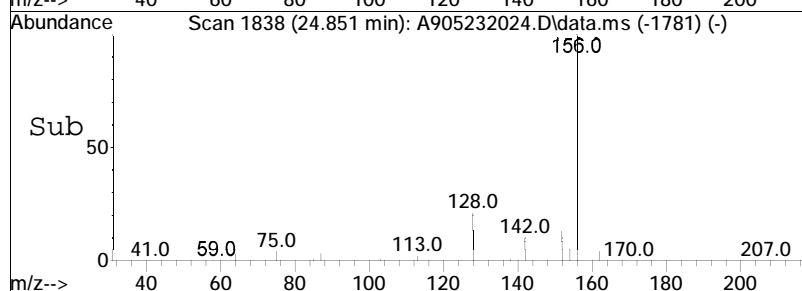
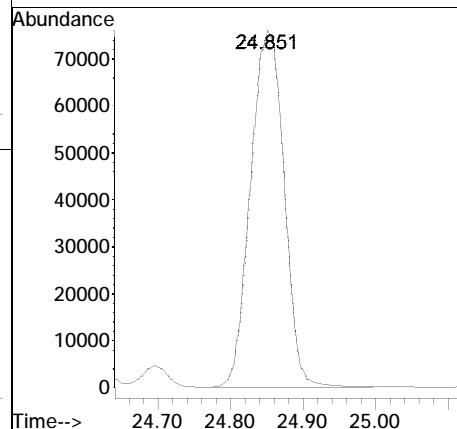
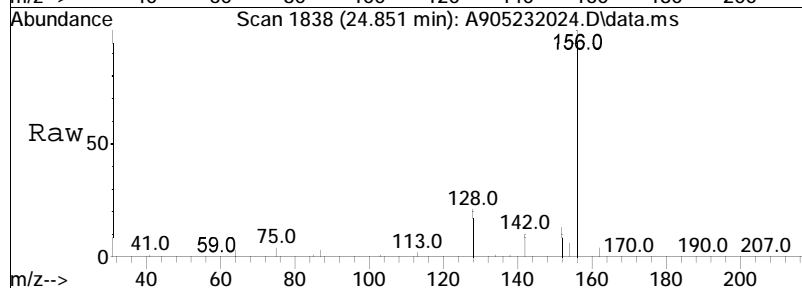


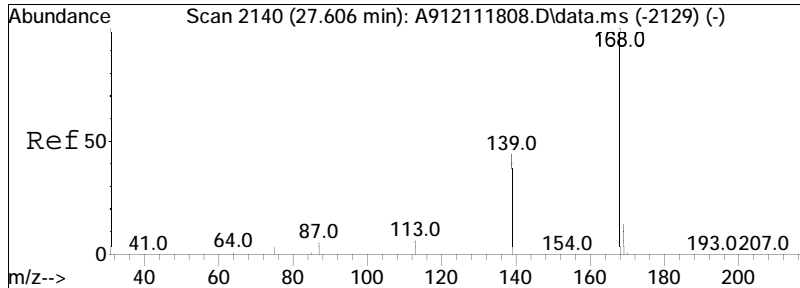
#21
 Biphenyl
 Concen: 7861.88 ng/mL
 RT: 24.230 min Scan# 1770
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:154 Resp: 391852





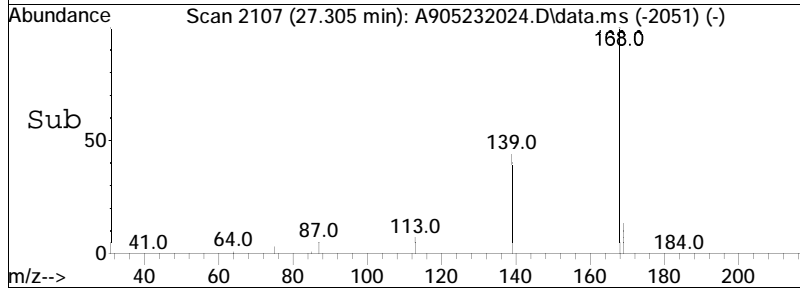
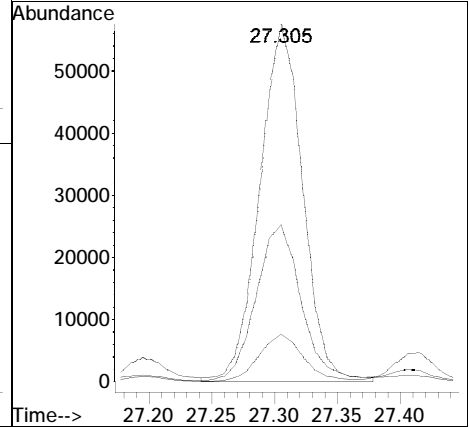
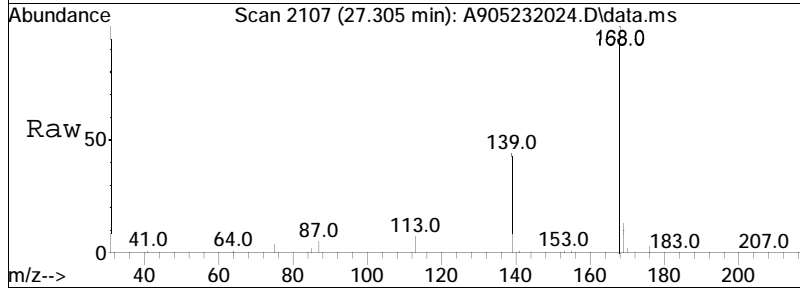
#22
 2,6-Dimethylnaphthalene
 Concen: 6732.31 ng/mL
 RT: 24.851 min Scan# 1838
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:156 Resp: 240345

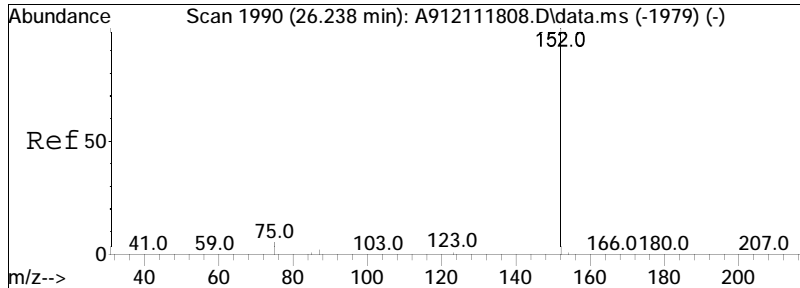




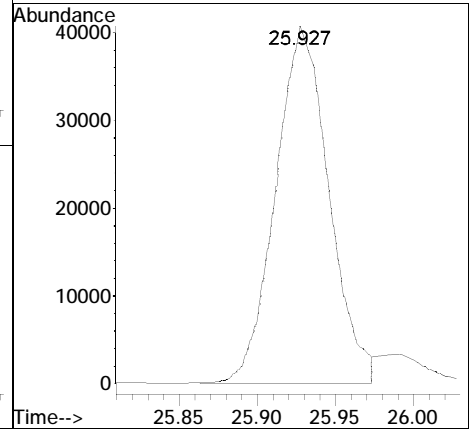
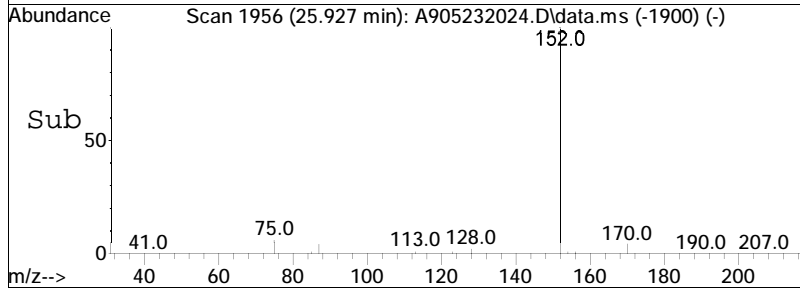
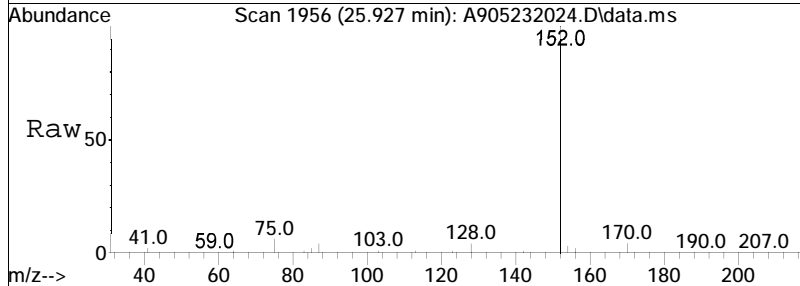
#23
 Dibenzofuran
 Concen: 2326.77 ng/mL
 RT: 27.305 min Scan# 2107
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

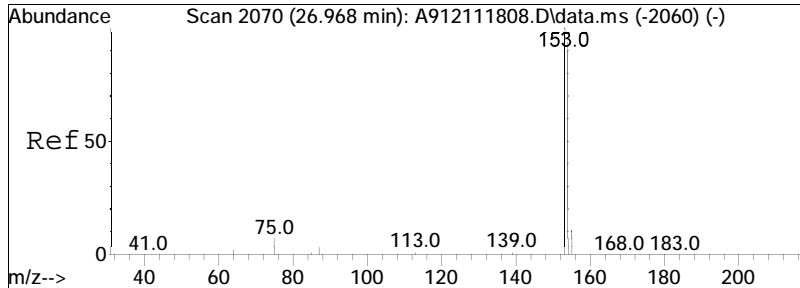
Tgt Ion	Ratio	Lower	Upper
168	100		
139	45.2	28.2	52.4
169	13.7	9.6	17.8





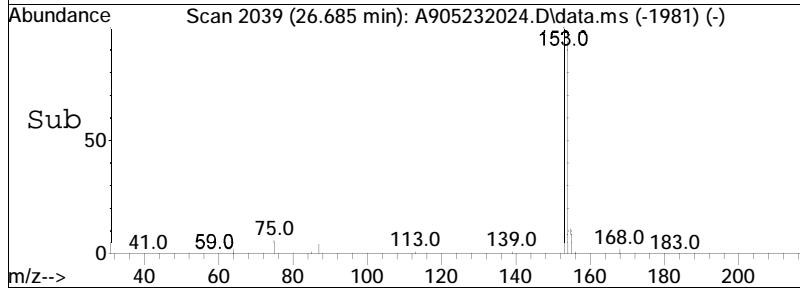
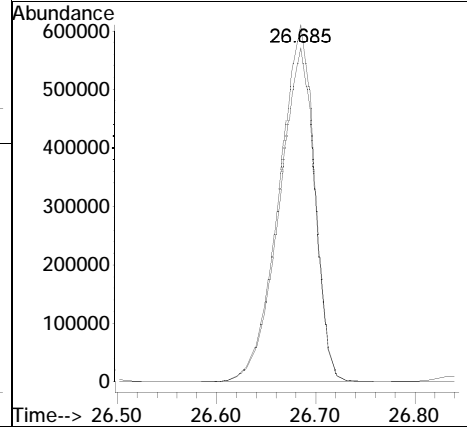
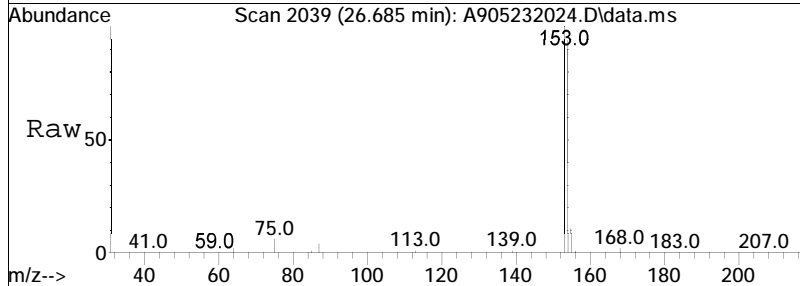
#24
 Acenaphthylene
 Concen: 1581.35 ng/mL M4
 RT: 25.927 min Scan# 1956
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:152 Resp: 96089

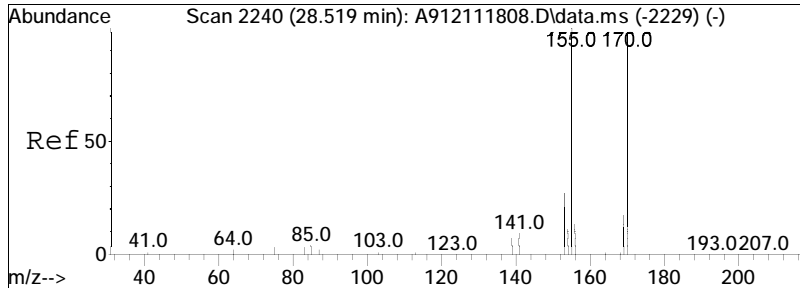




#25
 Acenaphthene
 Concen: 40386.42 ng/mL
 RT: 26.685 min Scan# 2039
 Delta R.T. 0.028 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

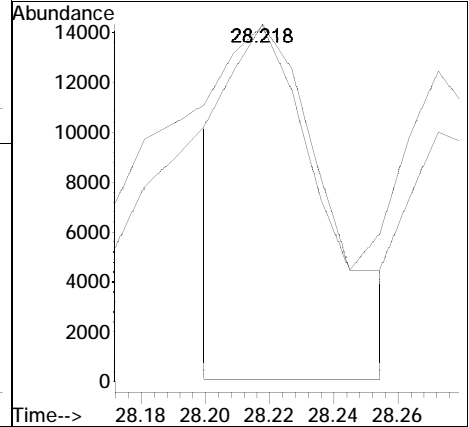
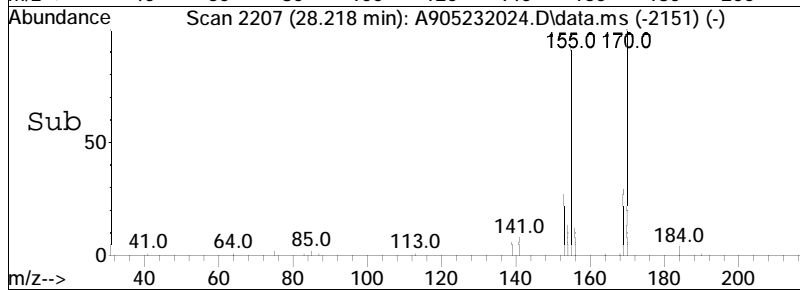
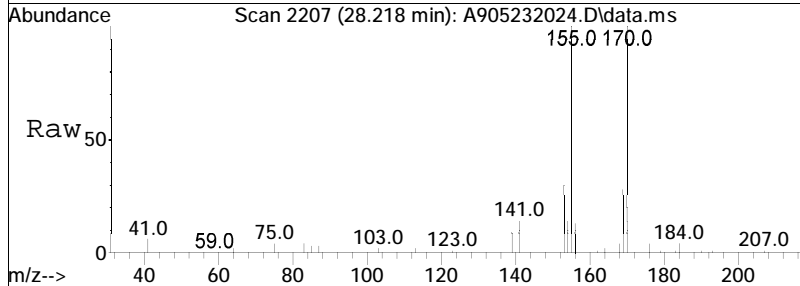
Tgt Ion: 153 Resp: 1520701
 Ion Ratio Lower Upper
 153 100
 154 93.1 65.0 120.8

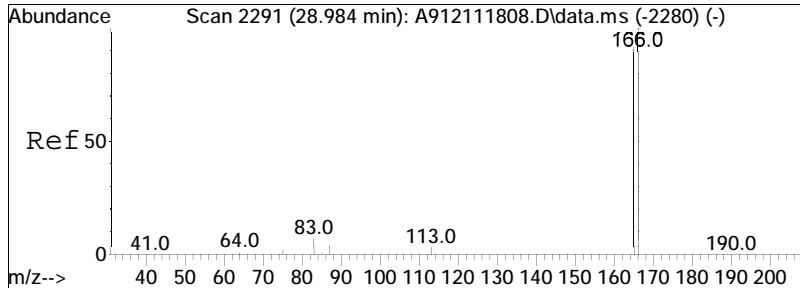




#26
 2,3,5-Trimethylnaphthalene
 Concen: 915.45 ng/mL M3
 RT: 28.218 min Scan# 2207
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

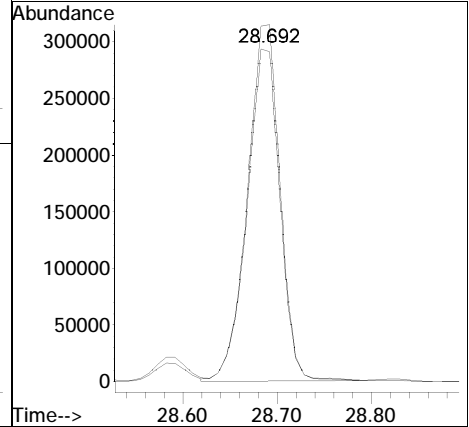
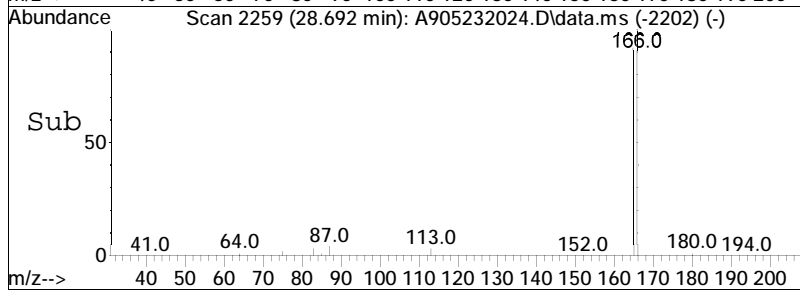
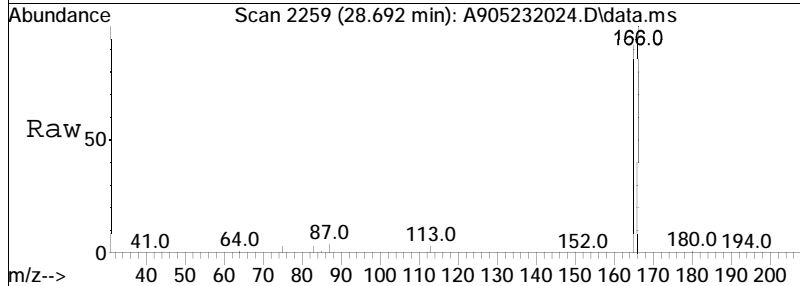
Tgt Ion:170 Resp: 30409
 Ion Ratio Lower Upper
 170 100
 155 167.6 69.6 129.2#

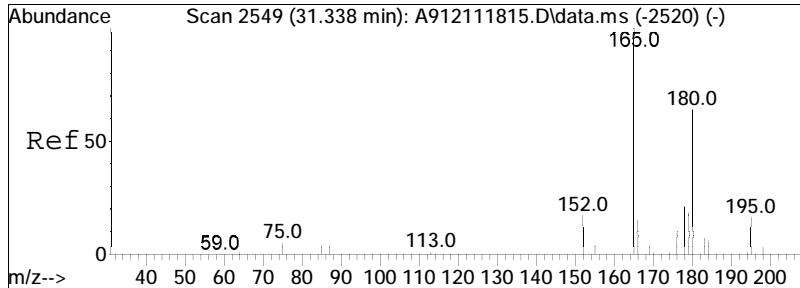




#27
 Fluorene
 Concen: 16868.39 ng/mL
 RT: 28.692 min Scan# 2259
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

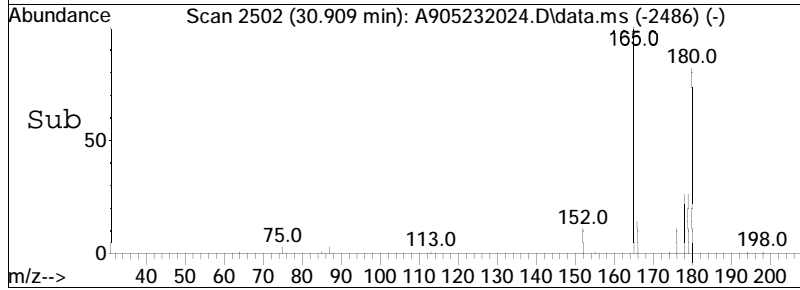
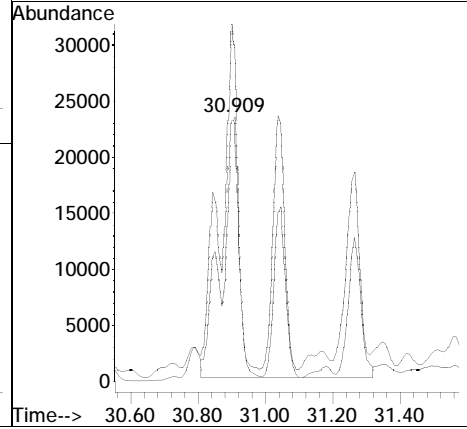
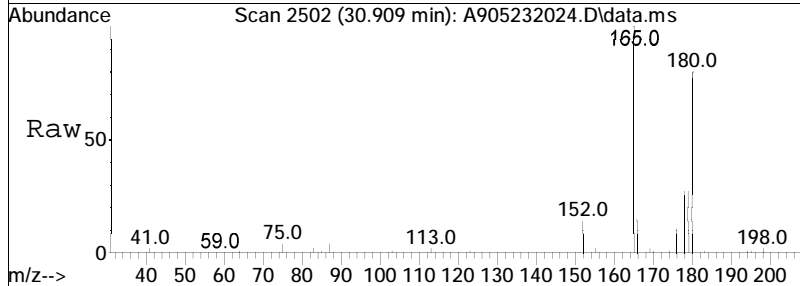
Tgt Ion	Resp	Lower	Upper
166	100		
165	92.7	65.4	121.4

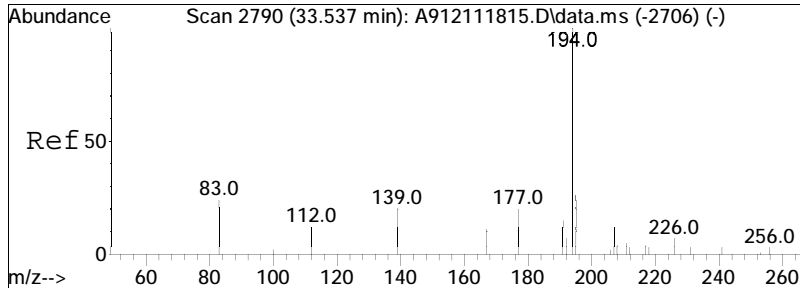




#28
 Cl-Fluorenes
 Concen: 3459.99 ng/mL M5
 RT: 30.909 min Scan# 2502
 Delta R.T. -0.123 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

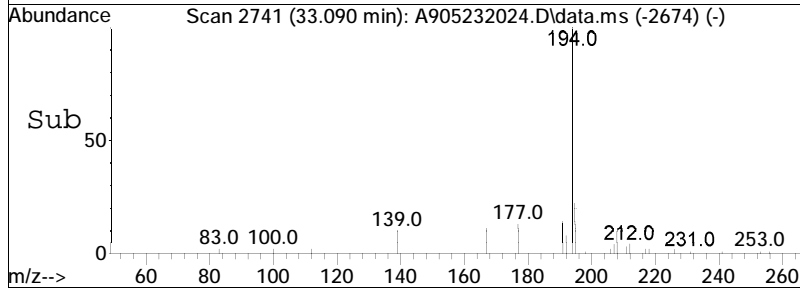
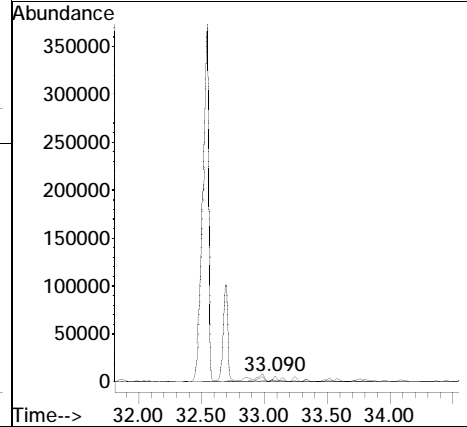
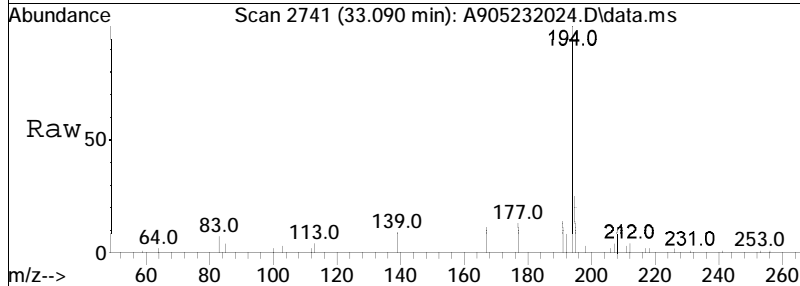
Tgt Ion	Resp	Lower	Upper
180	154350		
180	100		
165	34.7	101.1	187.7#

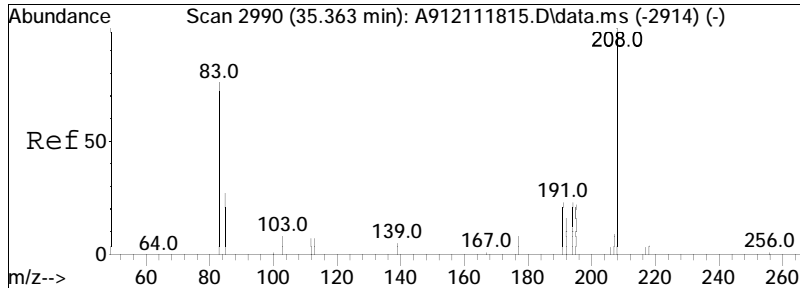




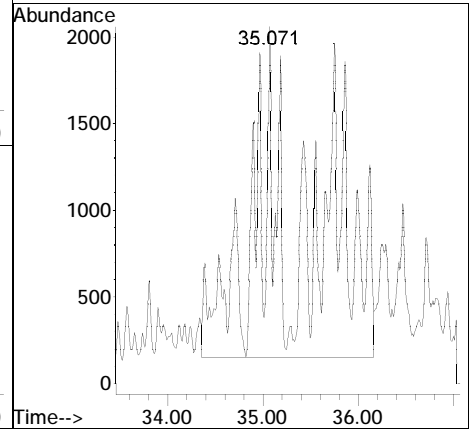
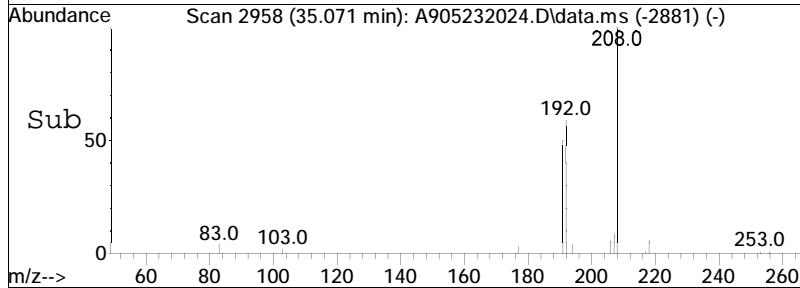
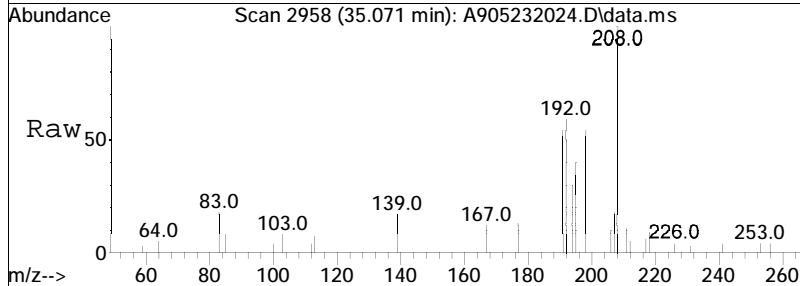
#29
 C2-Fluorenes
 Concen: 2460.51 ng/mL M5
 RT: 33.090 min Scan# 2741
 Delta R.T. -0.139 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

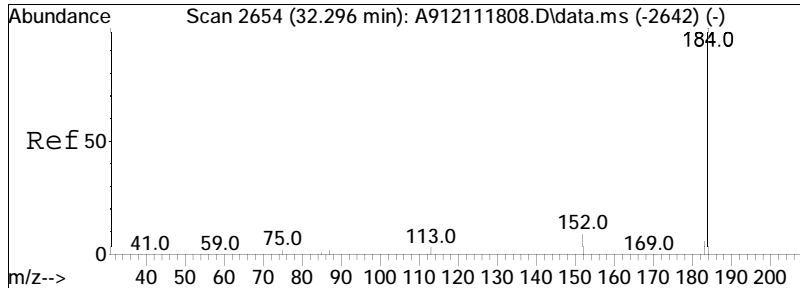
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.3	24.1	44.8#





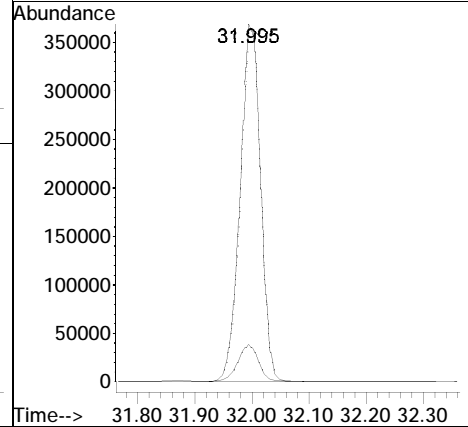
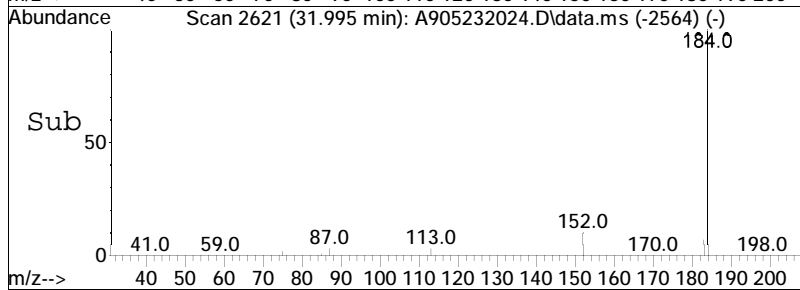
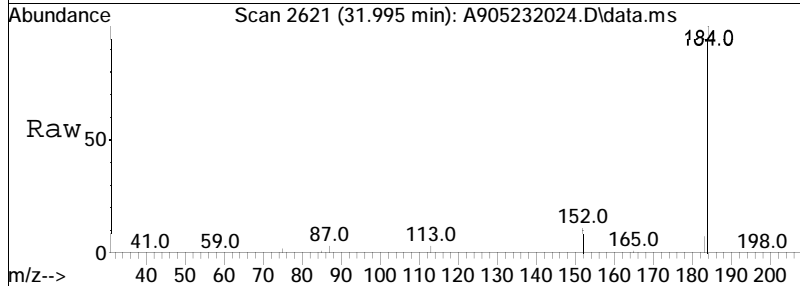
#30
 C3-Fluorenes
 Concen: 1507.18 ng/mL M5
 RT: 35.071 min Scan# 2958
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion: 208 Resp: 67235

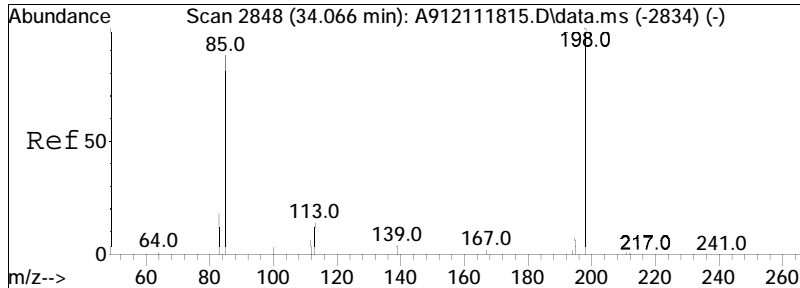




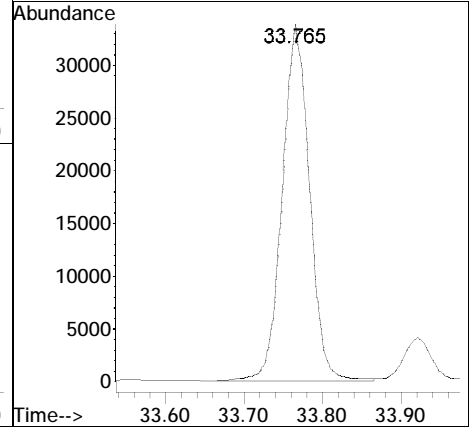
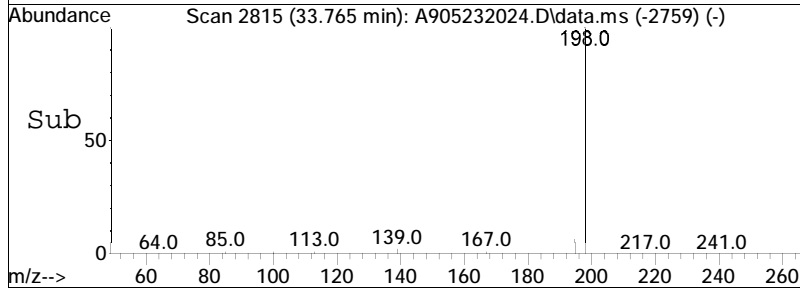
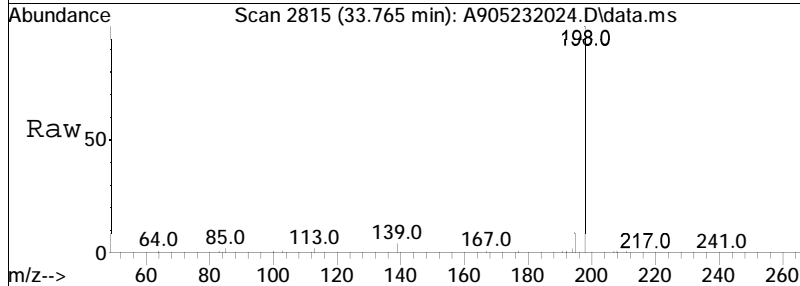
#31
 Dibenzothiophene
 Concen: 13646.70 ng/mL
 RT: 31.995 min Scan# 2621
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

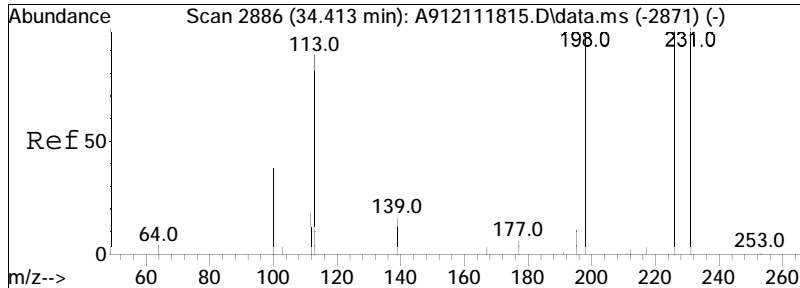
Tgt Ion	Resp	Lower	Upper
184	100		
152	10.6	6.4	11.8



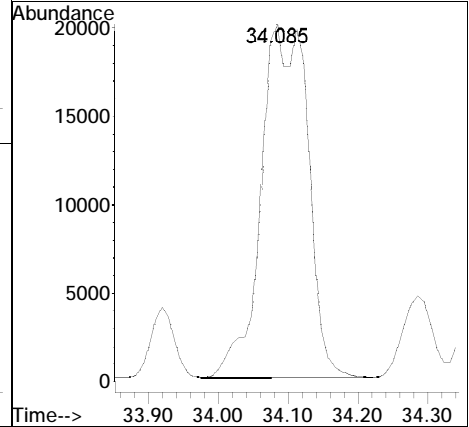
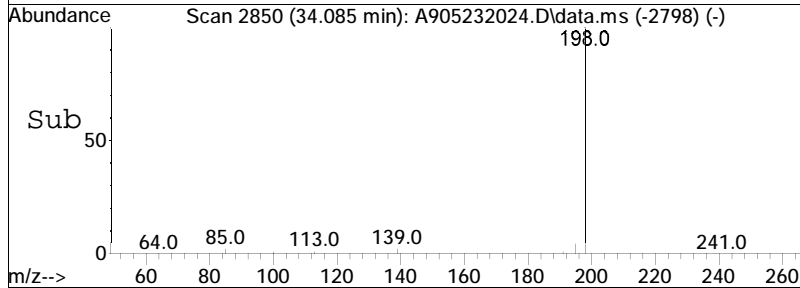
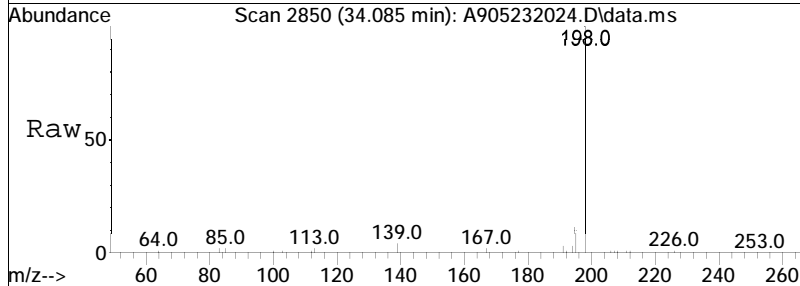


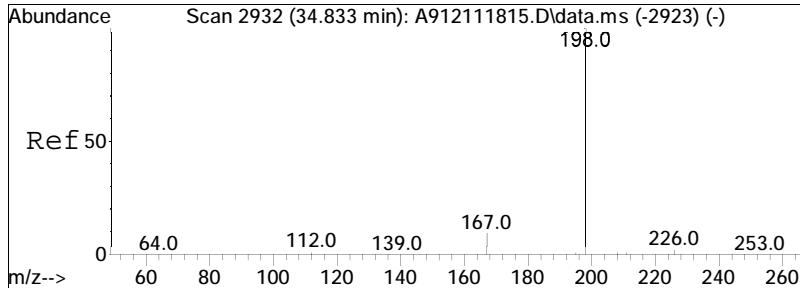
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 1210.78 ng/mL
 RT: 33.765 min Scan# 2815
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:198 Resp: 79828



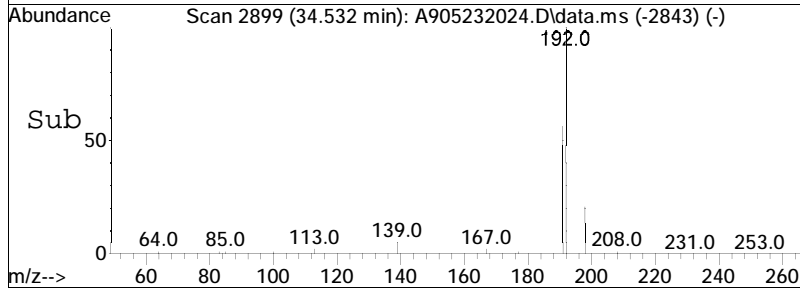
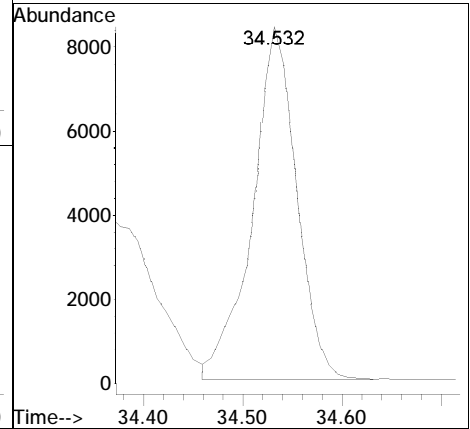
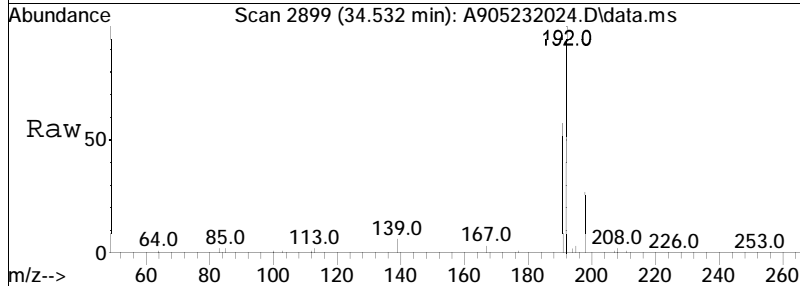


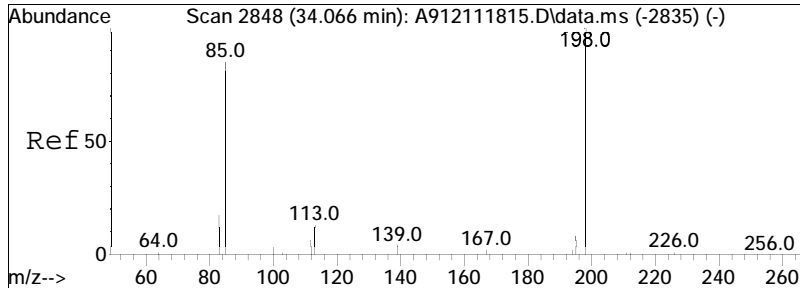
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 1401.84 ng/mL
 RT: 34.085 min Scan# 2850
 Delta R.T. -0.027 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:198 Resp: 92425



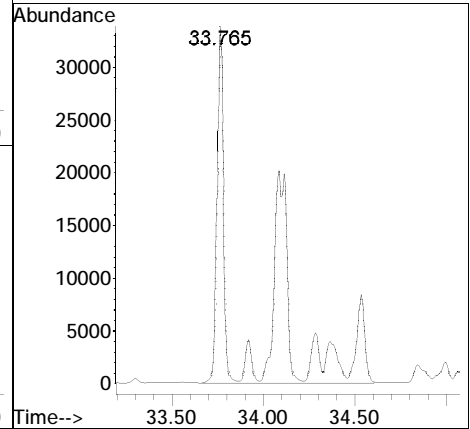
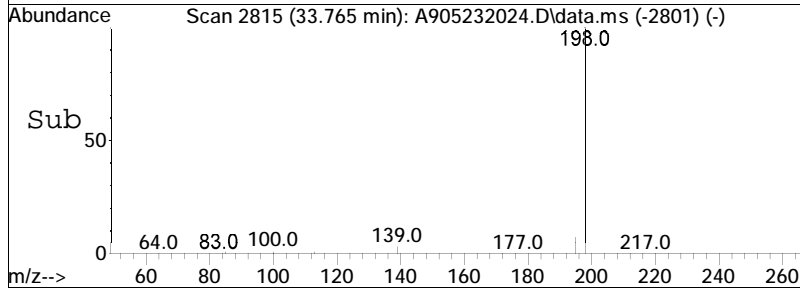
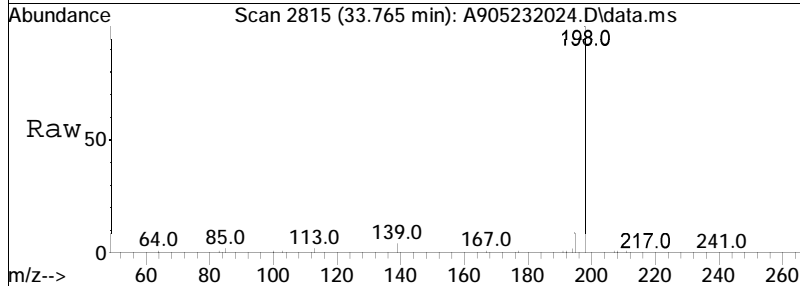


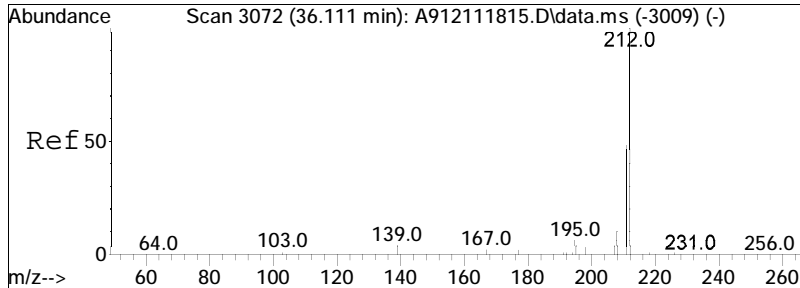
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 389.88 ng/mL
 RT: 34.532 min Scan# 2899
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:198 Resp: 25705



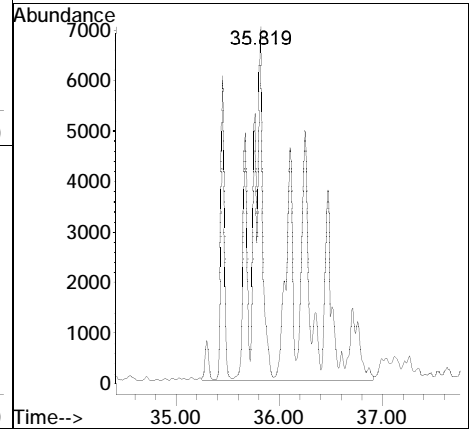
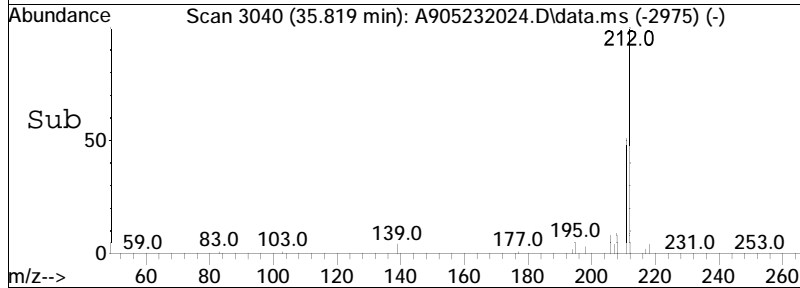
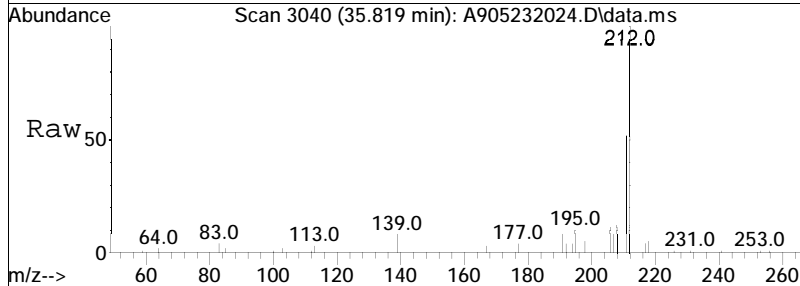


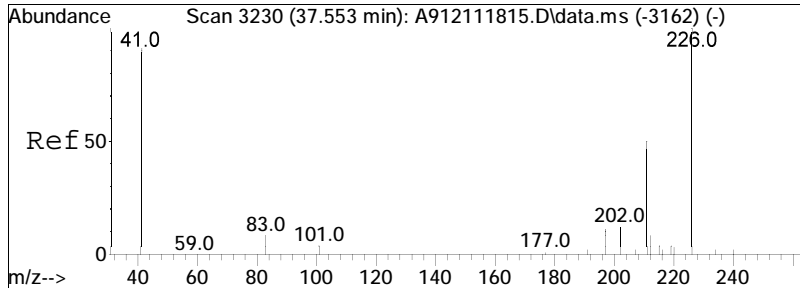
#36
 Cl-Dibenzothiophenes
 Concen: 3683.06 ng/mL M5
 RT: 33.765 min Scan# 2815
 Delta R.T. 0.017 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:198 Resp: 242828





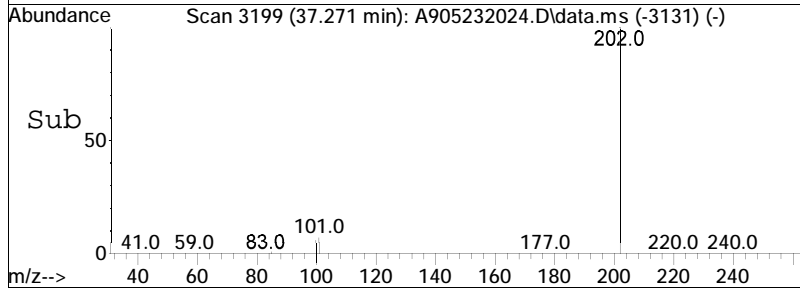
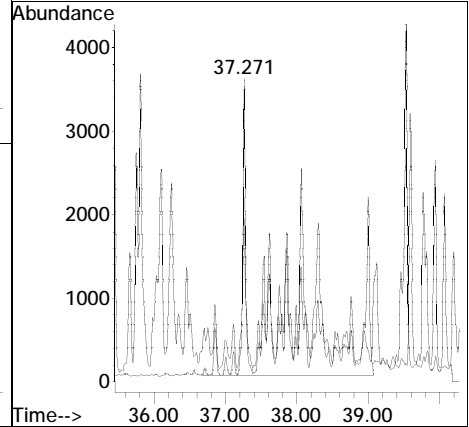
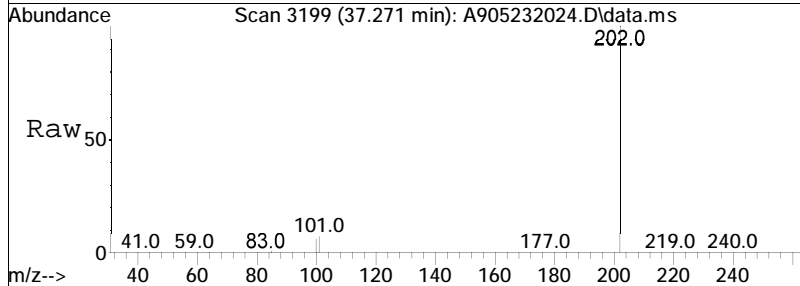
#37
 C2-Dibenzothiophenes
 Concen: 2048.03 ng/mL M5
 RT: 35.819 min Scan# 3040
 Delta R.T. 0.384 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:212 Resp: 135029

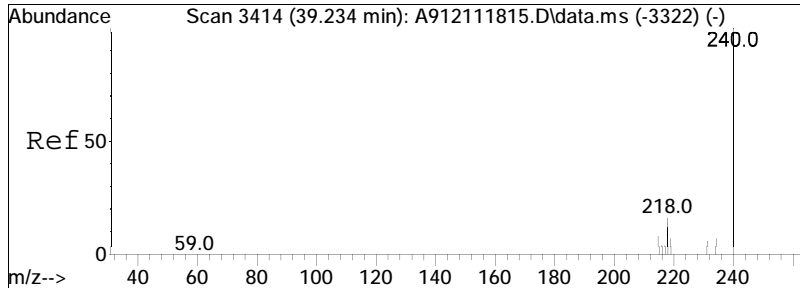




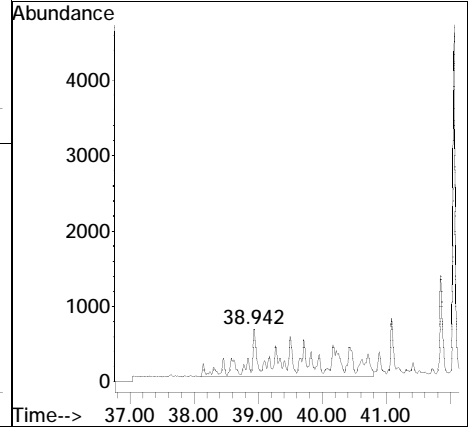
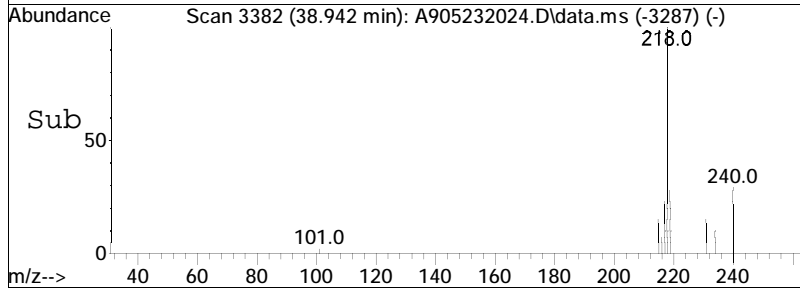
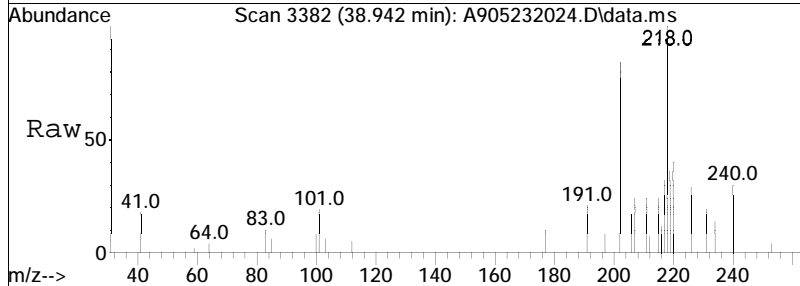
#38
 C3-Dibenzothiophenes
 Concen: 1137.89 ng/mL M5
 RT: 37.271 min Scan# 3199
 Delta R.T. 0.029 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

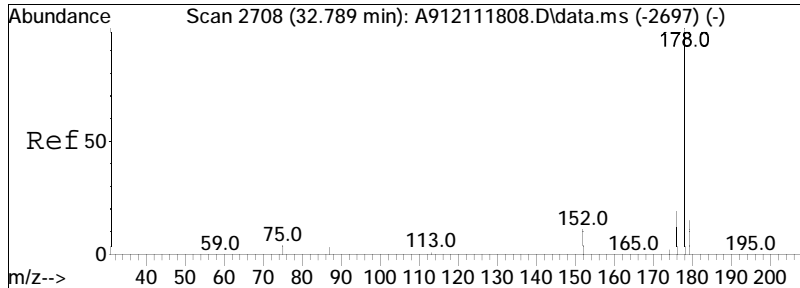
Tgt Ion	Ratio	Lower	Upper
226	100		
211	9.0	40.8	75.8#





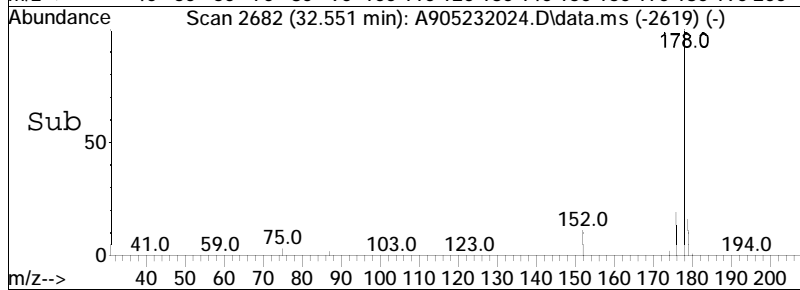
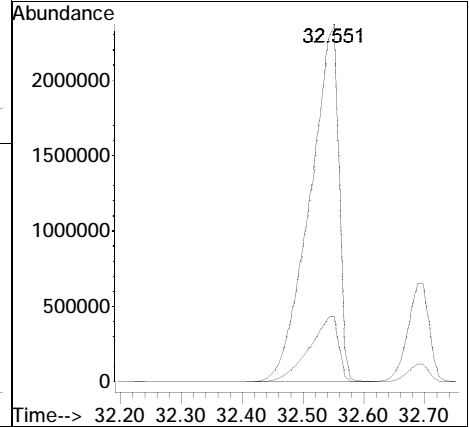
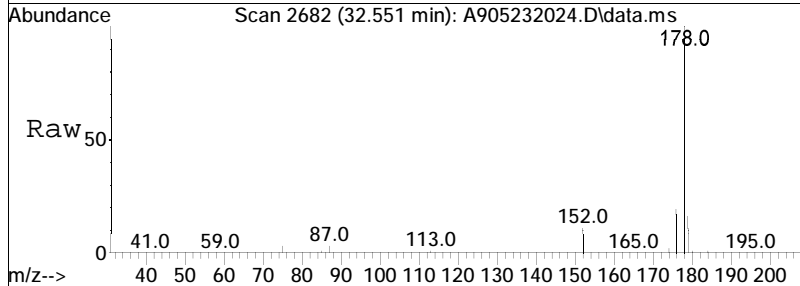
#39
 C4-Dibenzothiophenes
 Concen: 394.64 ng/mL M5
 RT: 38.942 min Scan# 3382
 Delta R.T. 0.013 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion: 240 Resp: 26019

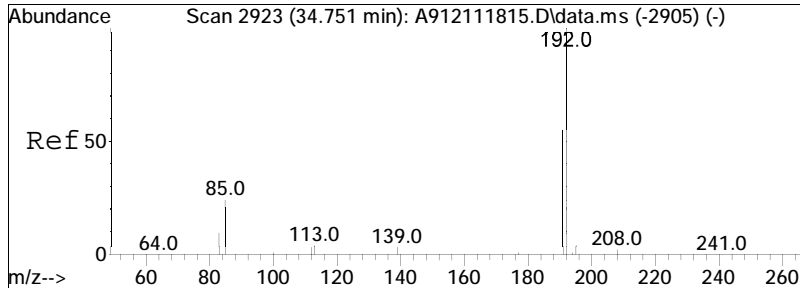




#41
 Phenanthrene
 Concen: 117453.80 ng/mL
 RT: 32.551 min Scan# 2682
 Delta R.T. 0.073 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

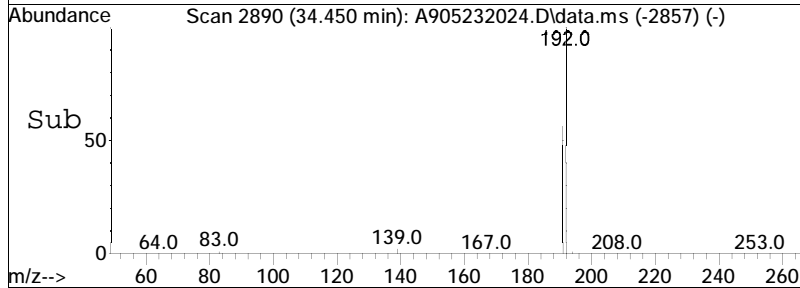
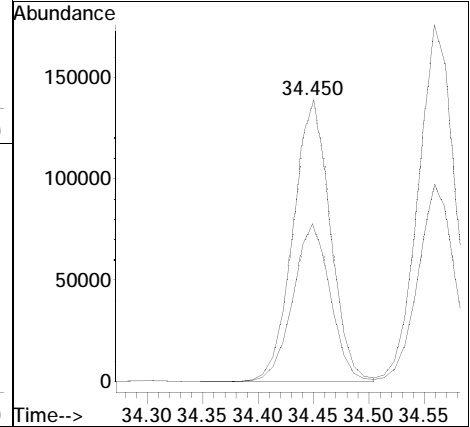
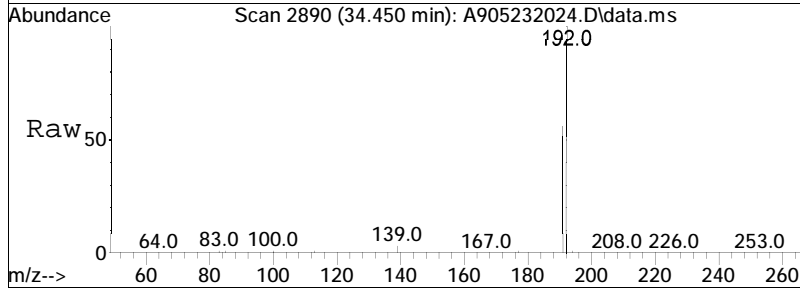
Tgt Ion: 178 Resp: 7719956
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.6 25.4

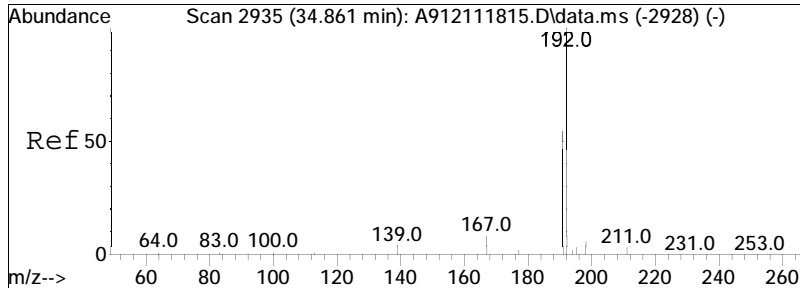




#42
 3-Methylphenanthrene (3MP)
 Concen: 4927.49 ng/mL
 RT: 34.450 min Scan# 2890
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

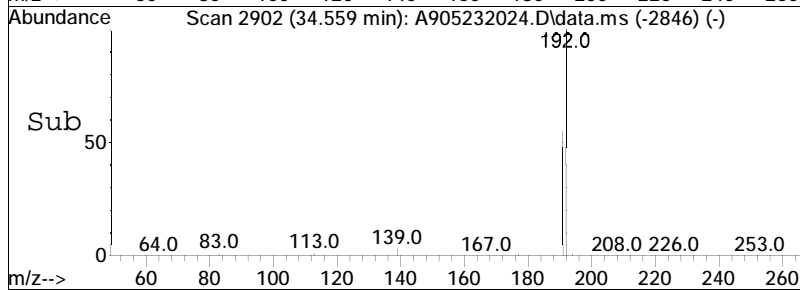
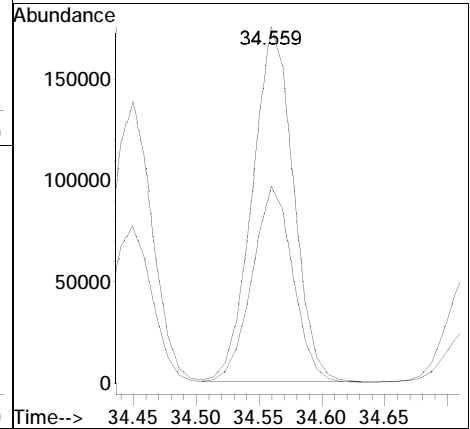
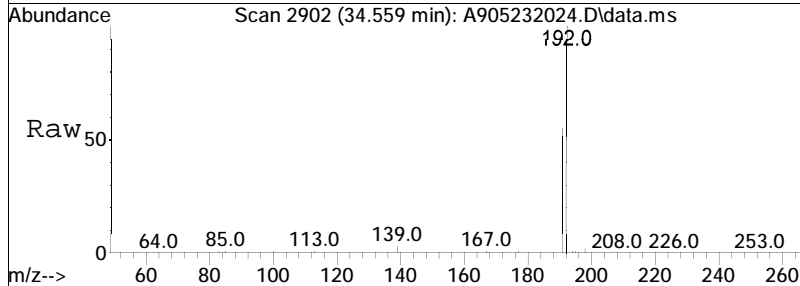
Tgt Ion: 192 Resp: 323872
 Ion Ratio Lower Upper
 192 100
 191 56.1 40.7 75.7

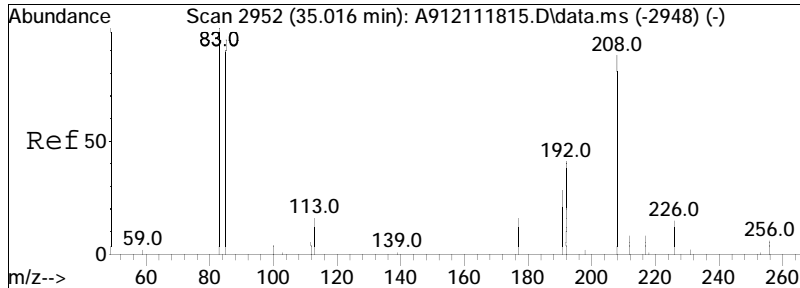




#43
 2-Methylphenanthrene (2MP)
 Concen: 6032.17 ng/mL
 RT: 34.559 min Scan# 2902
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

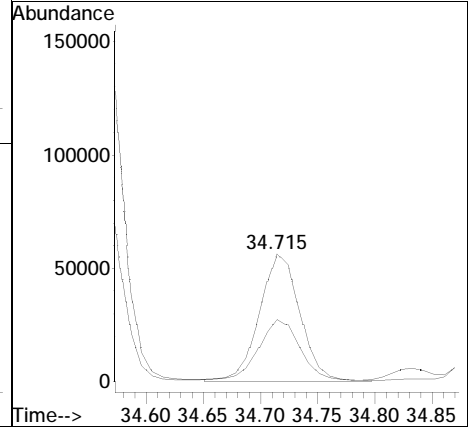
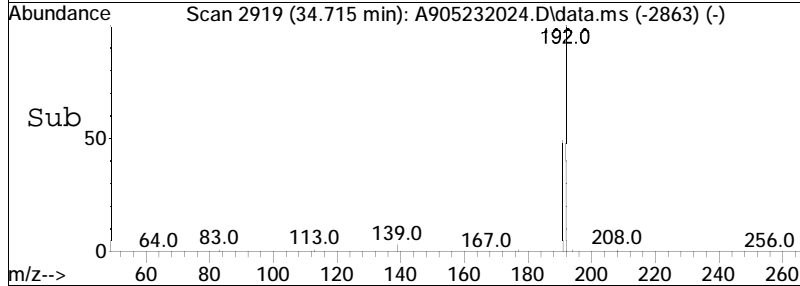
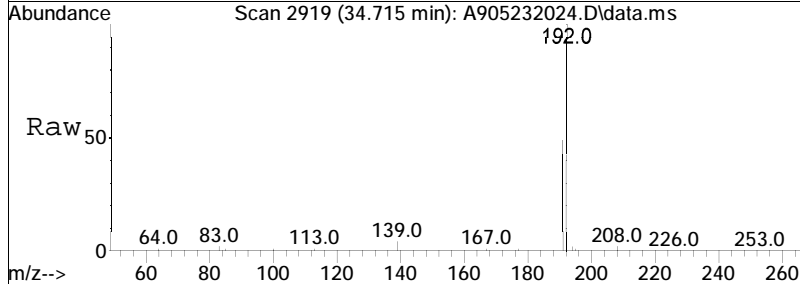
Tgt Ion	Resp	Lower	Upper
192	100		
191	54.9	39.7	73.7

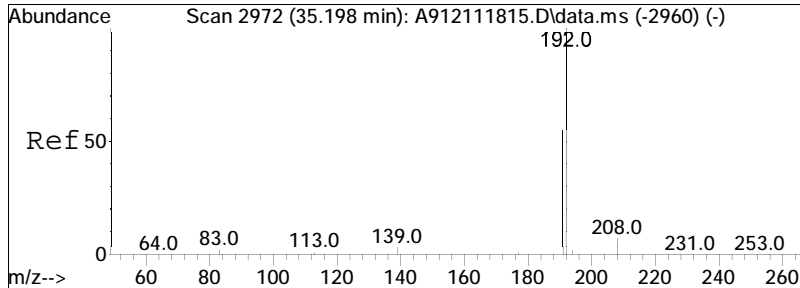




#44
 2-Methylantracene(2MA)
 Concen: 2113.43 ng/mL M4
 RT: 34.715 min Scan# 2919
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

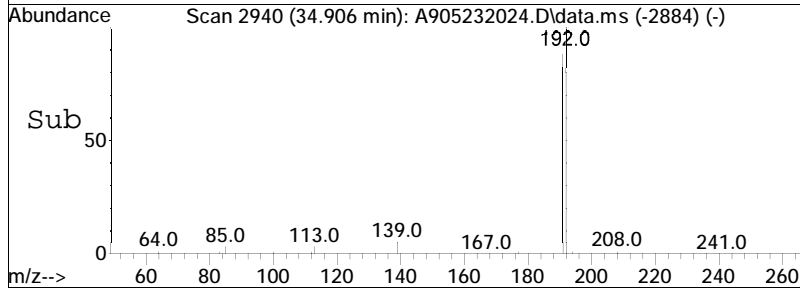
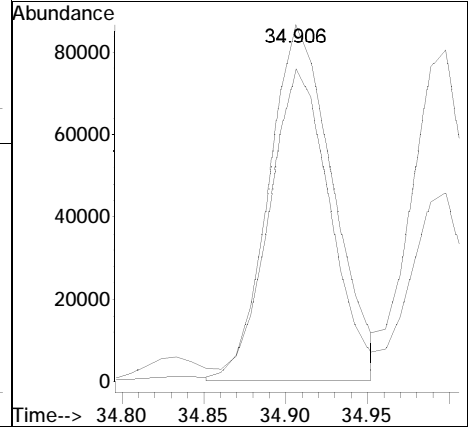
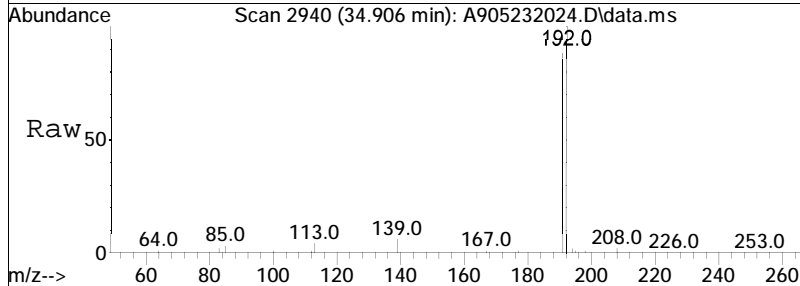
Tgt Ion	Resp	Lower	Upper
192	100		
191	140.1	80.0	148.6

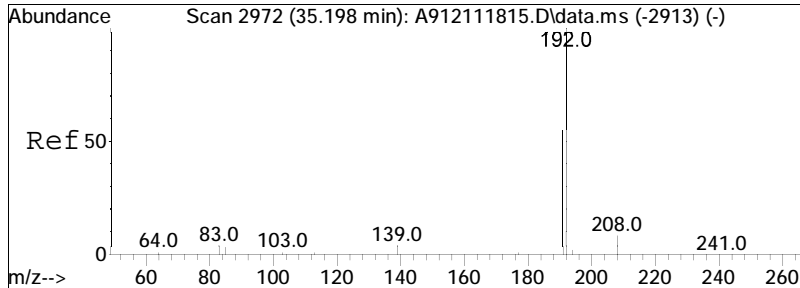




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 3564.88 ng/mL M4
 RT: 34.906 min Scan# 2940
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

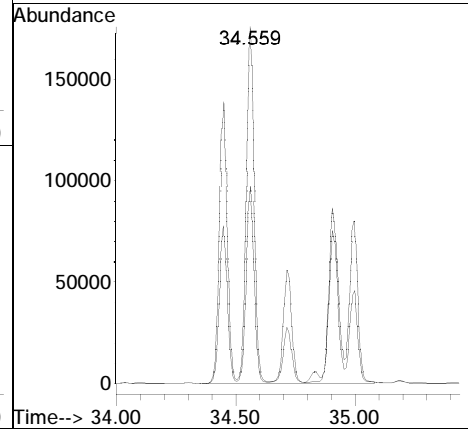
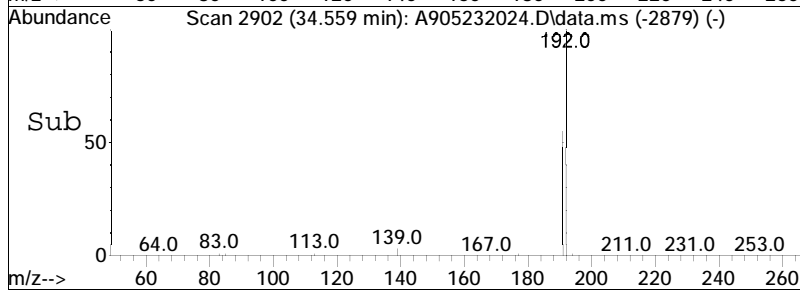
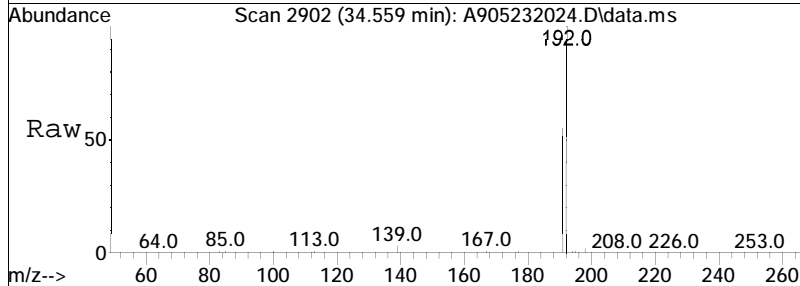
Tgt Ion	Resp	Lower	Upper
192	100		
191	46.7	39.7	73.7

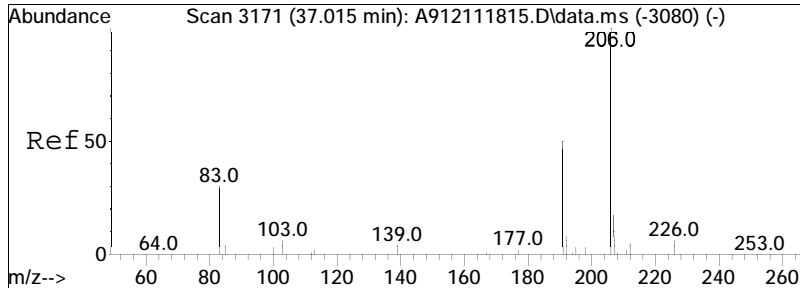




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 19786.21 ng/mL M5
 RT: 34.559 min Scan# 2902
 Delta R.T. -0.329 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

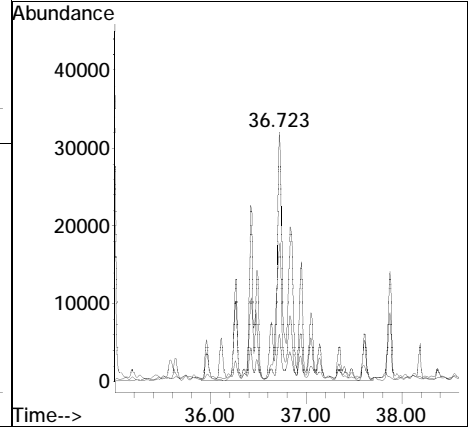
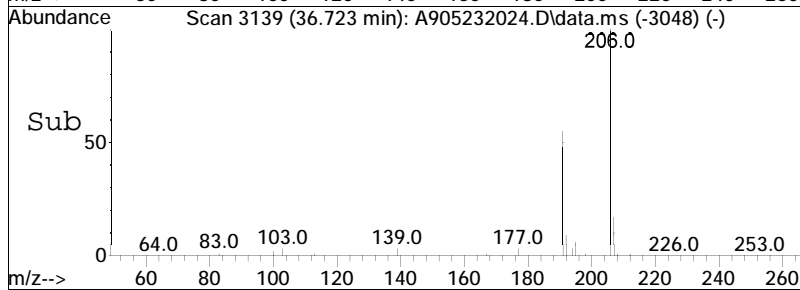
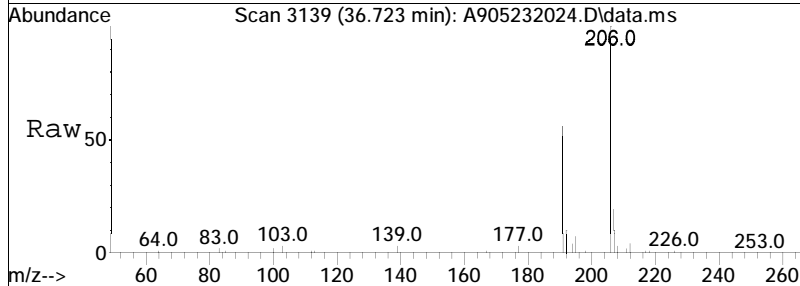
Tgt Ion:192 Resp: 1300500
 Ion Ratio Lower Upper
 192 100
 191 5.6 39.3 72.9#

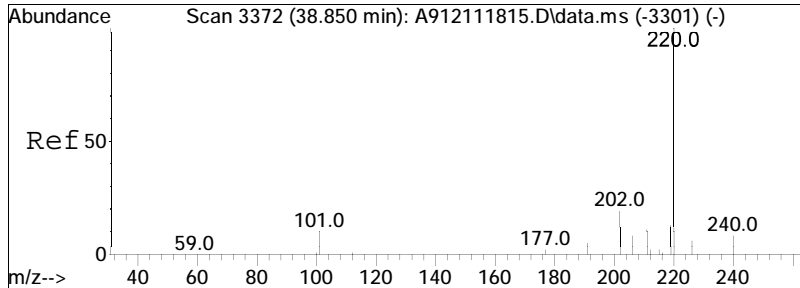




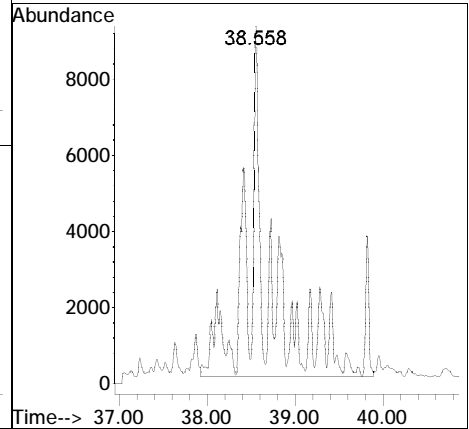
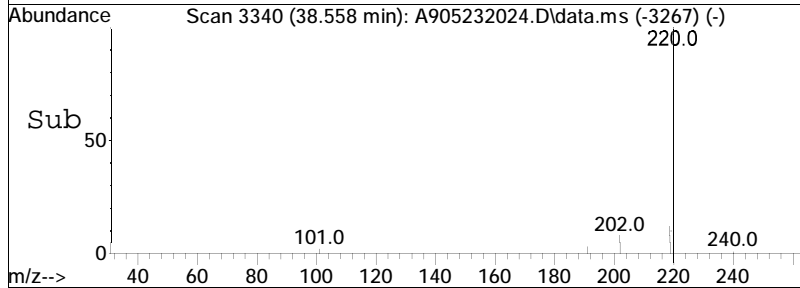
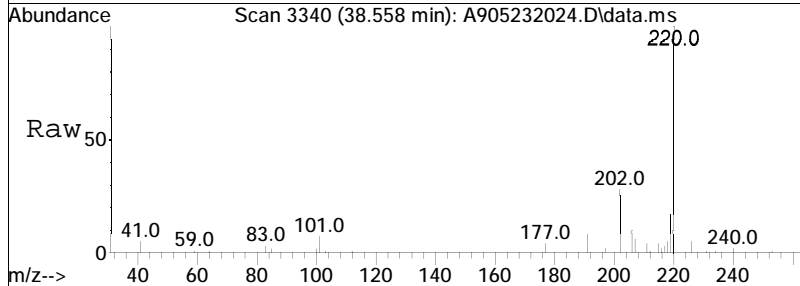
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 6753.05 ng/mL M5
 RT: 36.723 min Scan# 3139
 Delta R.T. 0.020 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

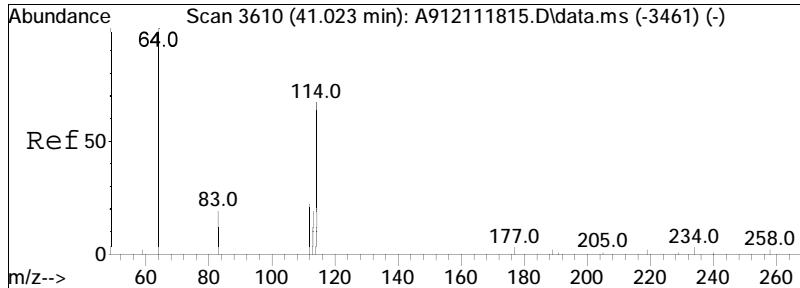
Tgt Ion	Ratio	Lower	Upper
206	100		
191	5.5	36.4	67.6#
207	2.8	14.4	26.7#





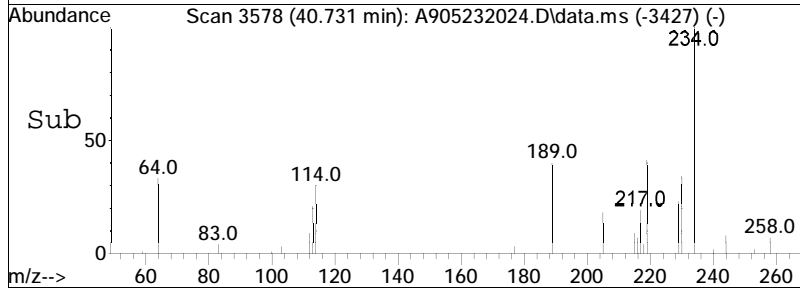
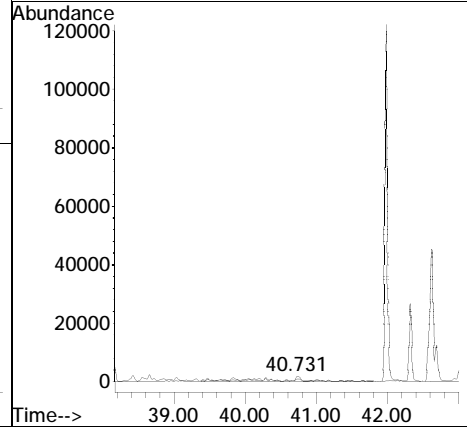
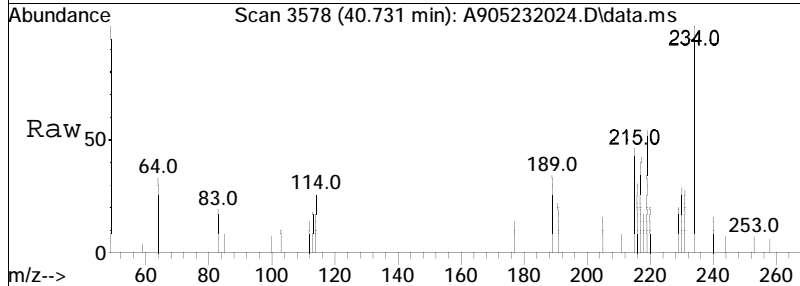
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 2444.44 ng/mL M5
 RT: 38.558 min Scan# 3340
 Delta R.T. 0.022 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:220 Resp: 160667

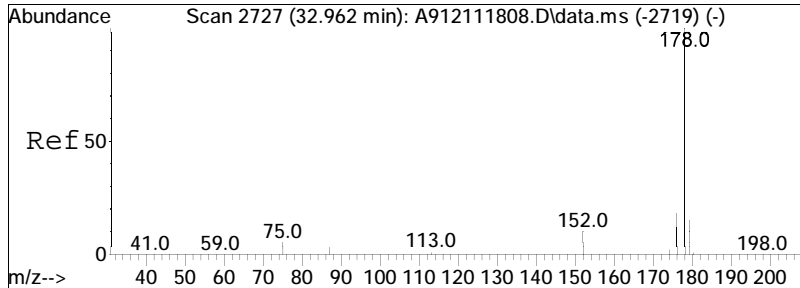




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 671.10 ng/mL M5
 RT: 40.731 min Scan# 3578
 Delta R.T. 0.024 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

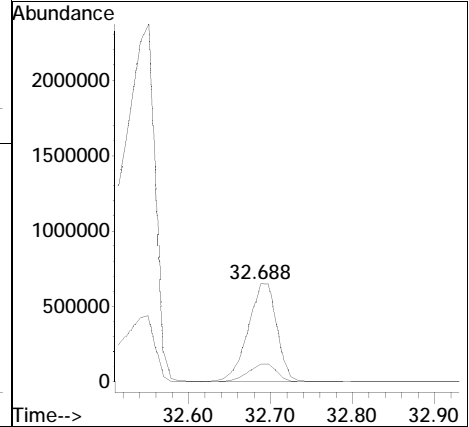
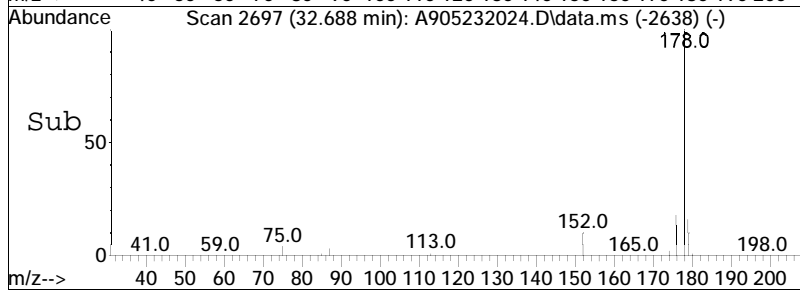
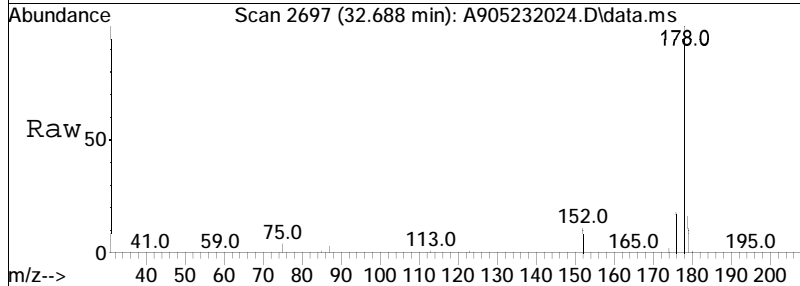
Tgt Ion: 234 Resp: 44110
 Ion Ratio Lower Upper
 234 100
 219 7.6 43.7 81.1#

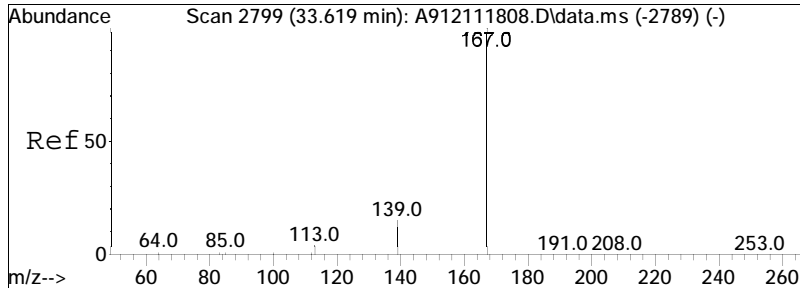




#53
 Anthracene
 Concen: 27408.57 ng/mL
 RT: 32.688 min Scan# 2697
 Delta R.T. 0.037 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

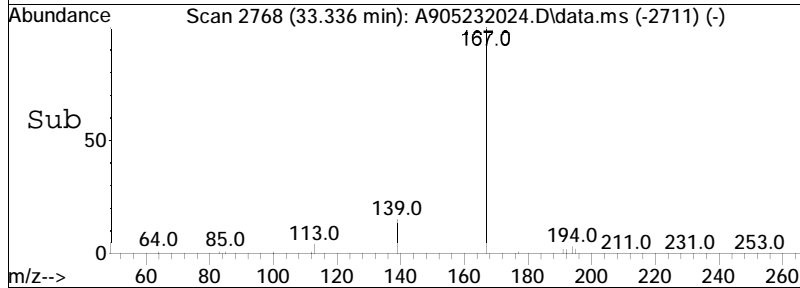
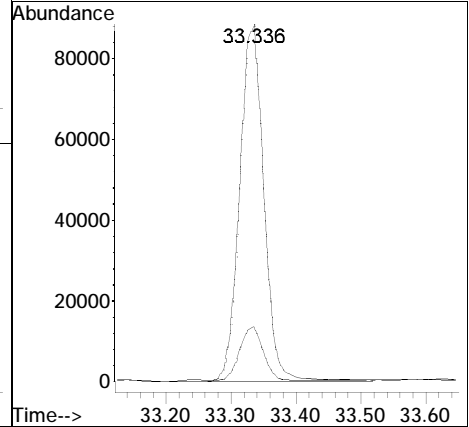
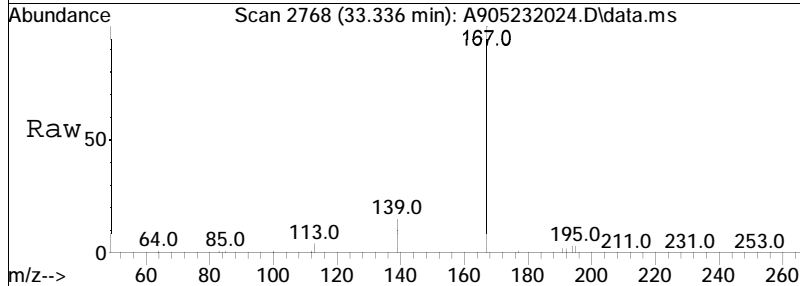
Tgt Ion:178 Resp: 1588672
 Ion Ratio Lower Upper
 178 100
 176 18.3 13.3 24.7

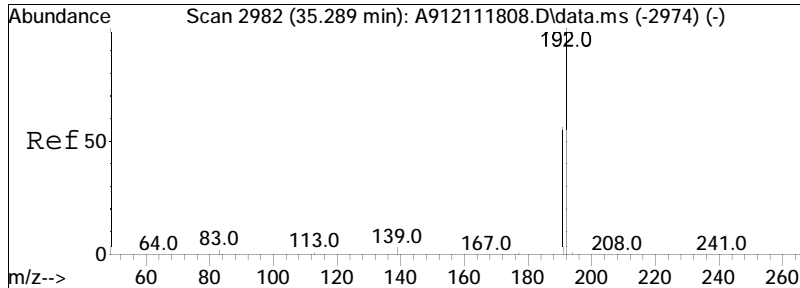




#54
 Carbazole
 Concen: 3705.53 ng/mL
 RT: 33.336 min Scan# 2768
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

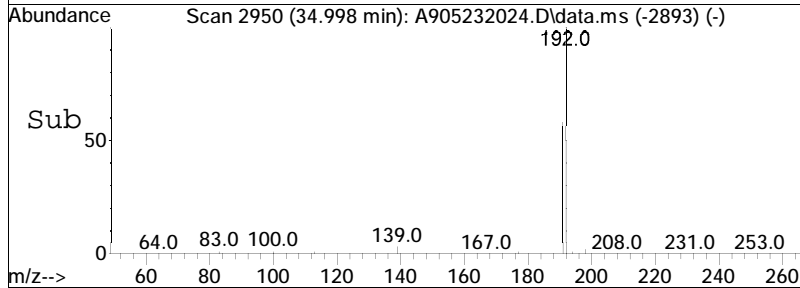
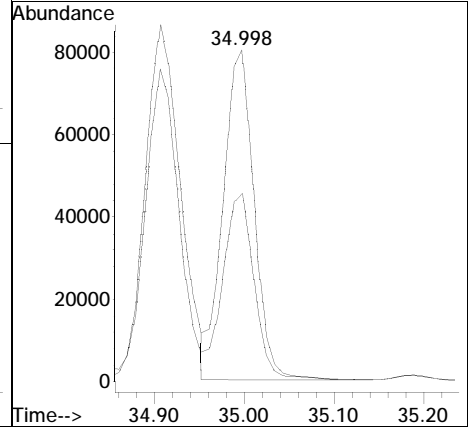
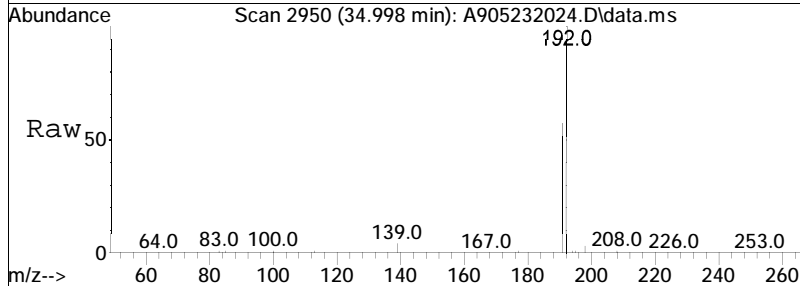
Tgt Ion	Resp	Lower	Upper
167	100		
139	14.9	10.4	19.4

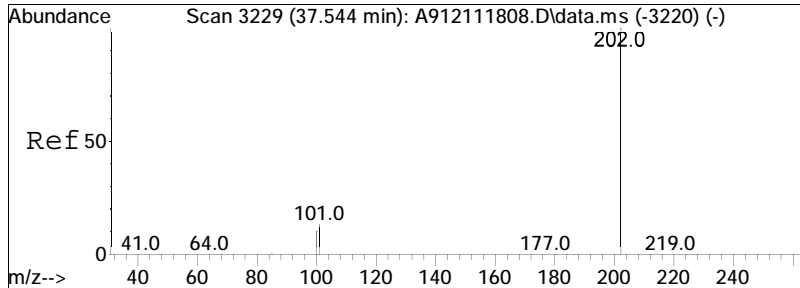




#55
 1-Methylphenanthrene
 Concen: 3967.69 ng/mL
 RT: 34.998 min Scan# 2950
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

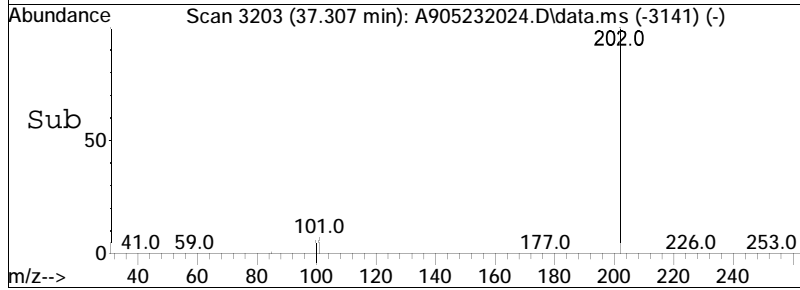
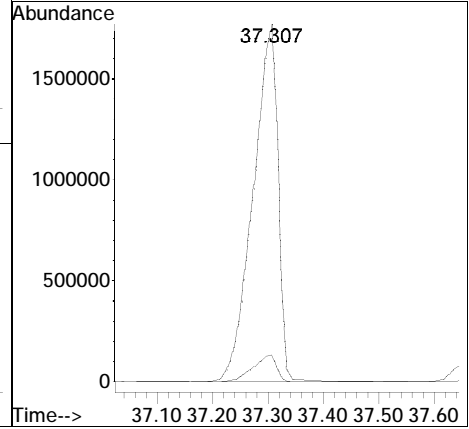
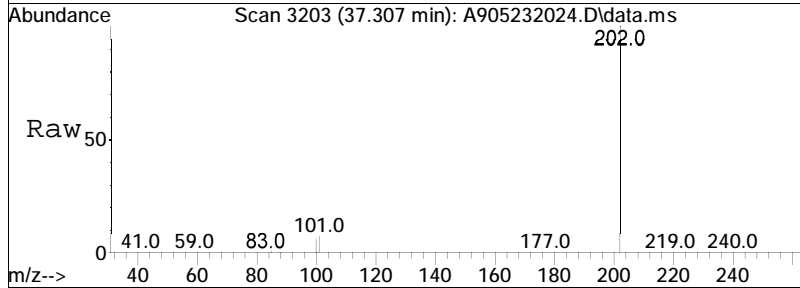
Tgt Ion: 192 Resp: 191798
 Ion Ratio Lower Upper
 192 100
 191 57.1 39.0 72.4

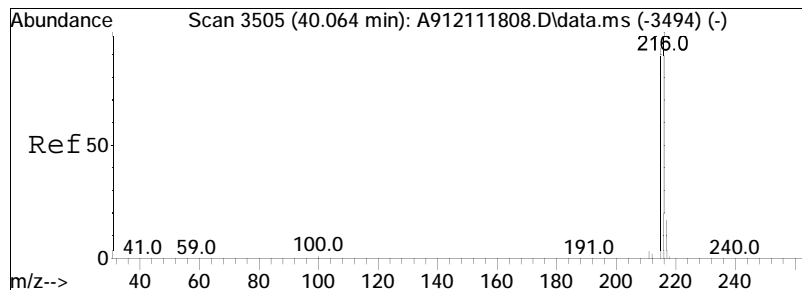




#56
 Fluoranthene
 Concen: 70800.20 ng/mL
 RT: 37.307 min Scan# 3203
 Delta R.T. 0.064 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

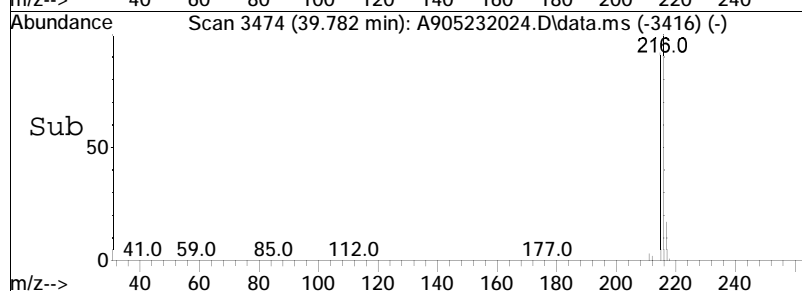
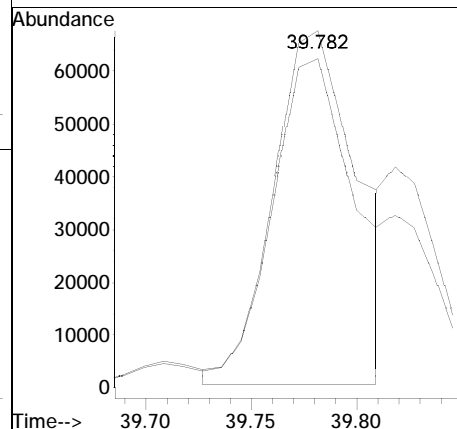
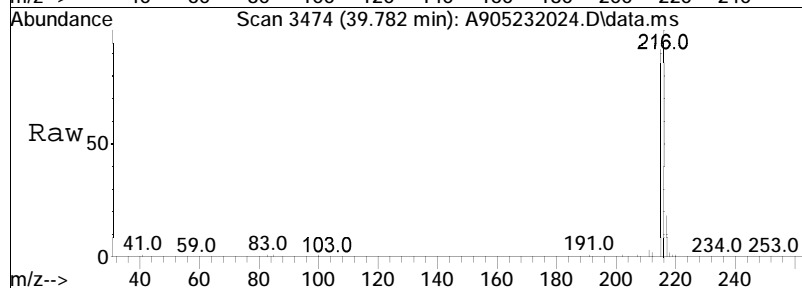
Tgt Ion: 202 Resp: 5455066
 Ion Ratio Lower Upper
 202 100
 101 7.2 6.8 12.6

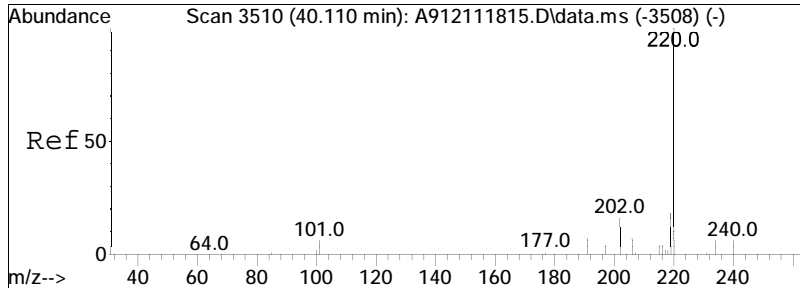




#57
 Benzo(b)fluorene
 Concen: 4048.84 ng/mL M3
 RT: 39.782 min Scan# 3474
 Delta R.T. 0.028 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

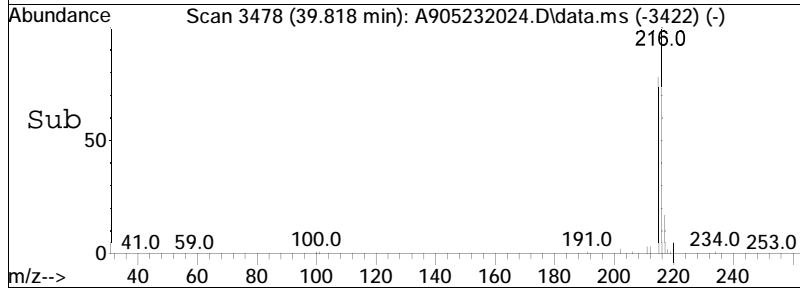
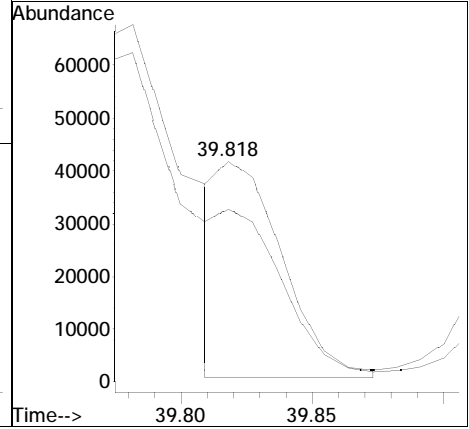
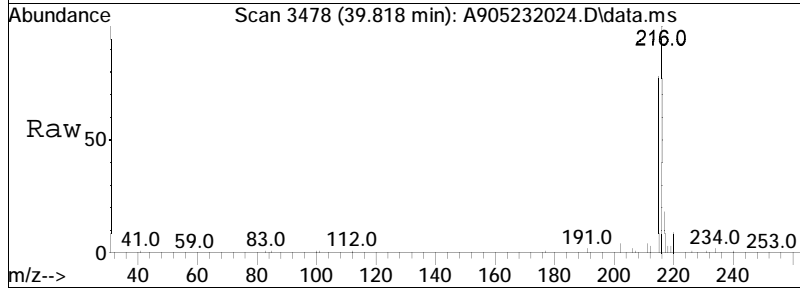
Tgt Ion	Resp	Lower	Upper
216	100		
215	119.2	64.8	120.4

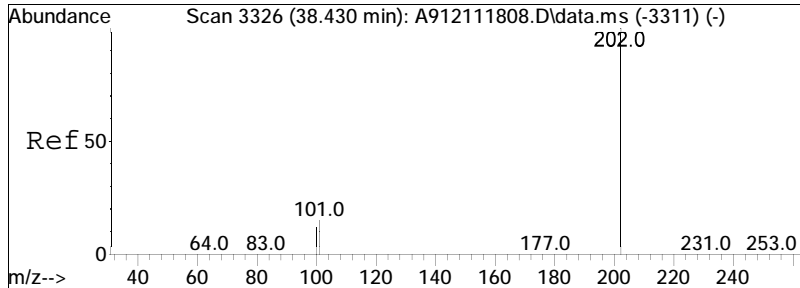




#58
 7H-Benzo(c)fluorene
 Concen: 1521.79 ng/mL M3
 RT: 39.818 min Scan# 3478
 Delta R.T. 0.009 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

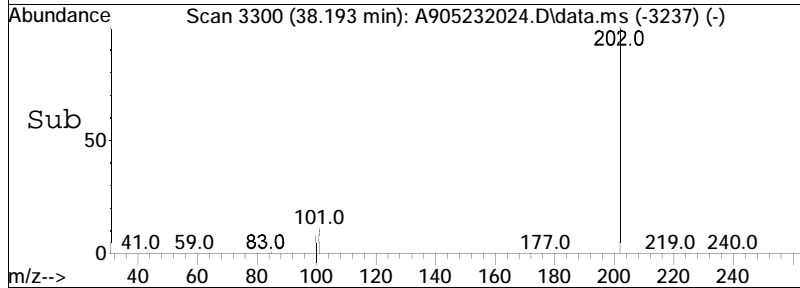
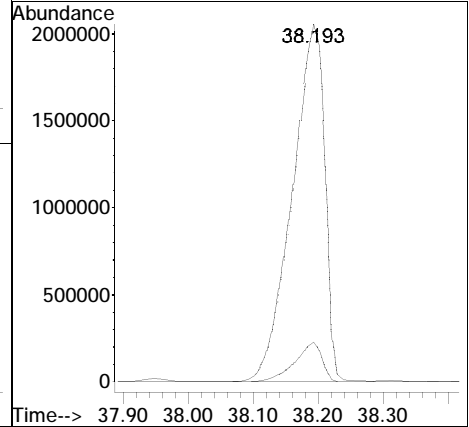
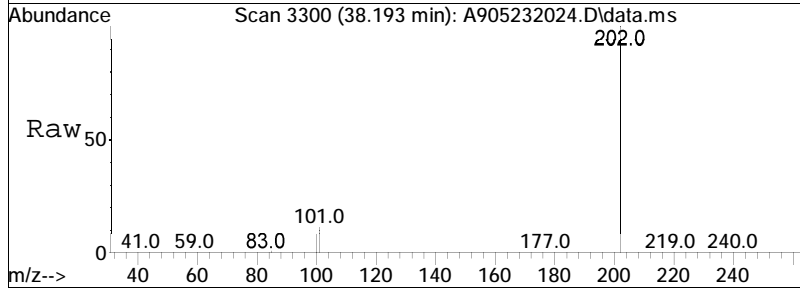
Tgt Ion	Resp	Lower	Upper
216	100		
215	156.6	98.9	183.7

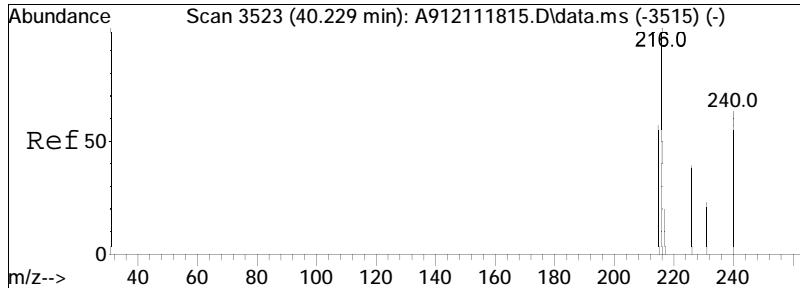




#59
 Pyrene
 Concen: 86572.70 ng/mL
 RT: 38.193 min Scan# 3300
 Delta R.T. 0.073 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

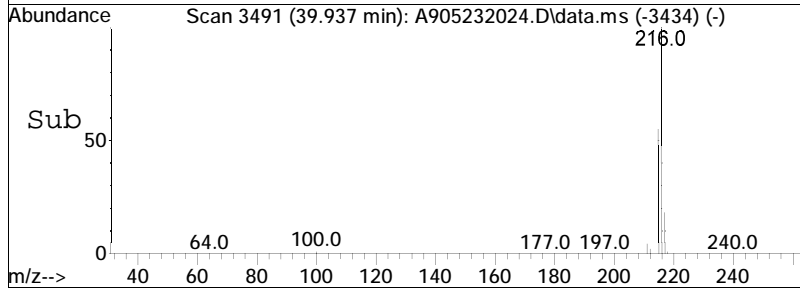
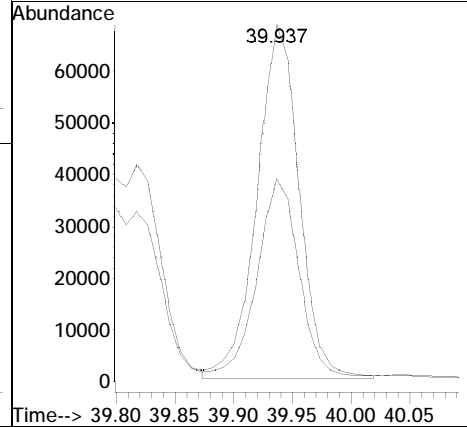
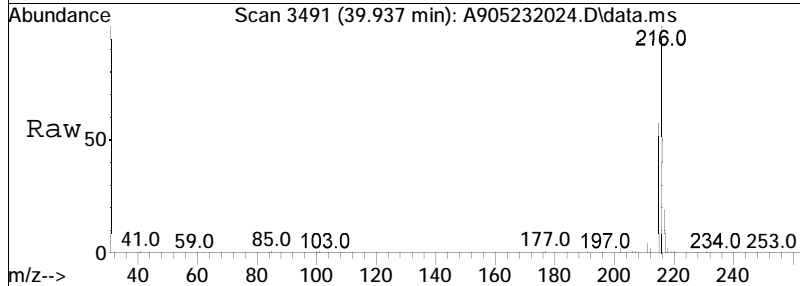
Tgt Ion: 202 Resp: 7043469
 Ion Ratio Lower Upper
 202 100
 101 9.4 7.6 14.0

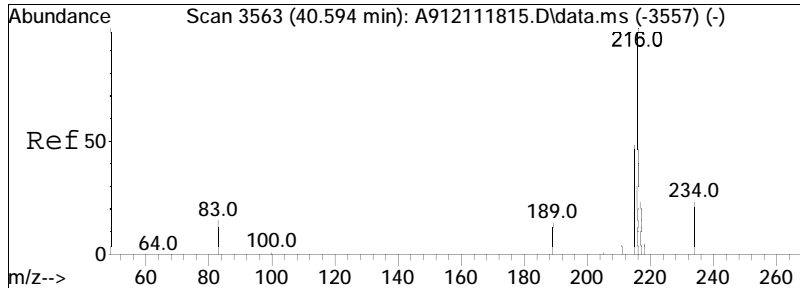




#60
 2-Methylpyrene
 Concen: 2090.61 ng/mL M4
 RT: 39.937 min Scan# 3491
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

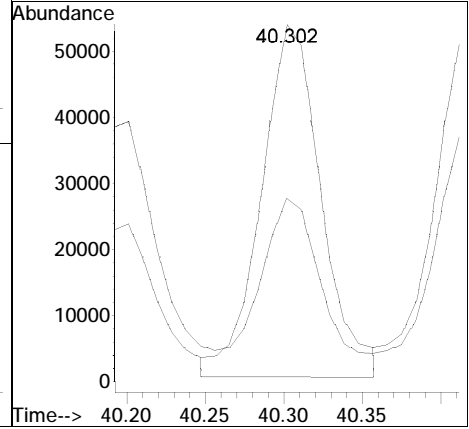
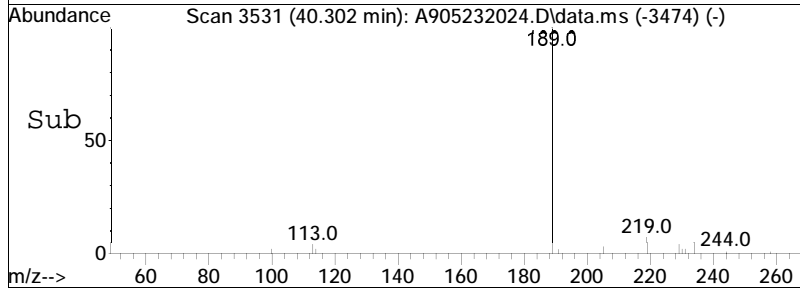
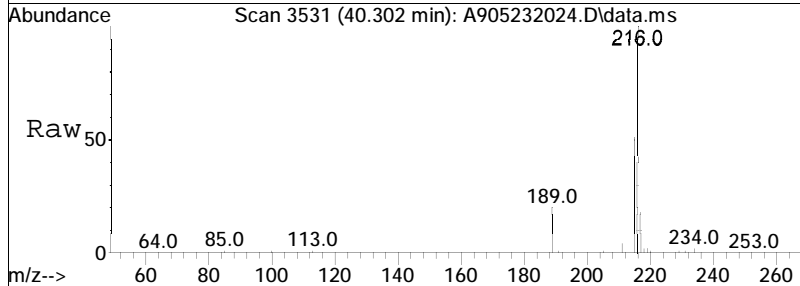
Tgt Ion: 216 Resp: 170090
 Ion Ratio Lower Upper
 216 100
 215 124.7 72.7 134.9

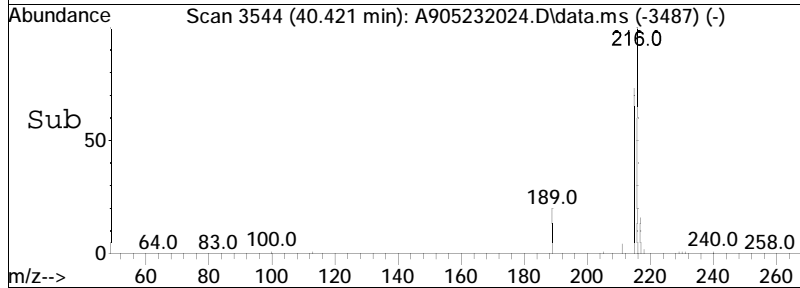
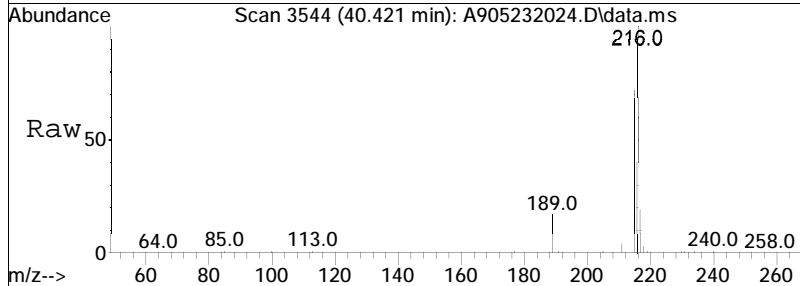
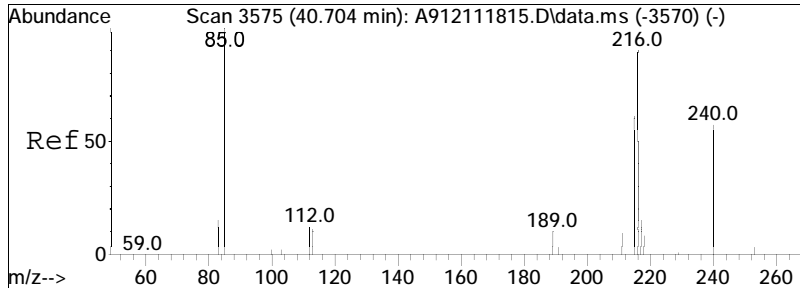




#61
 4-Methylpyrene
 Concen: 1738.68 ng/mL
 RT: 40.302 min Scan# 3531
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

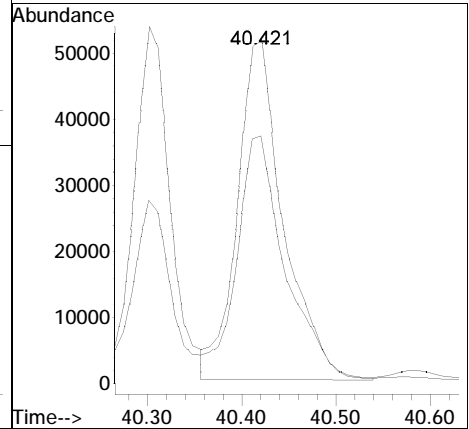
Tgt Ion	Resp	Lower	Upper
216	100		
215	52.3	49.3	91.5

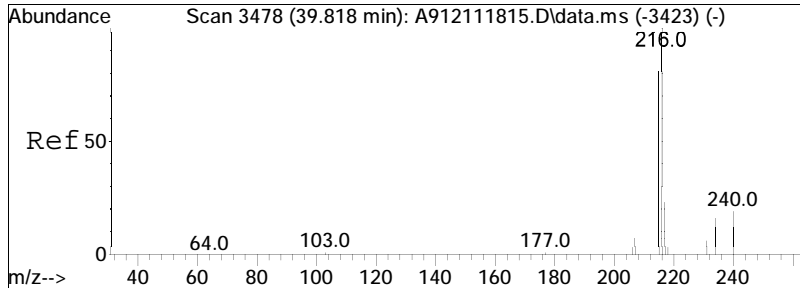




#62
 1-Methylpyrene
 Concen: 2142.10 ng/mL
 RT: 40.421 min Scan# 3544
 Delta R.T. 0.018 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

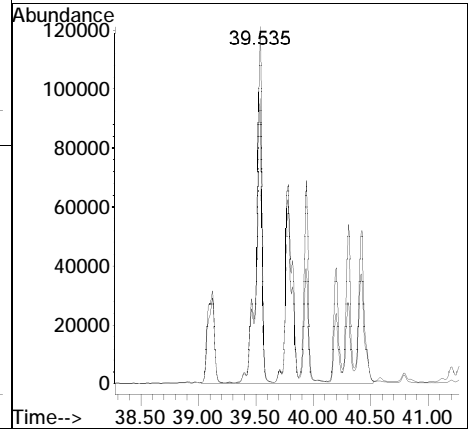
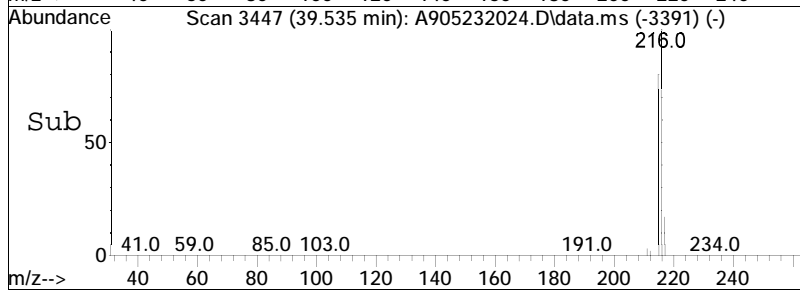
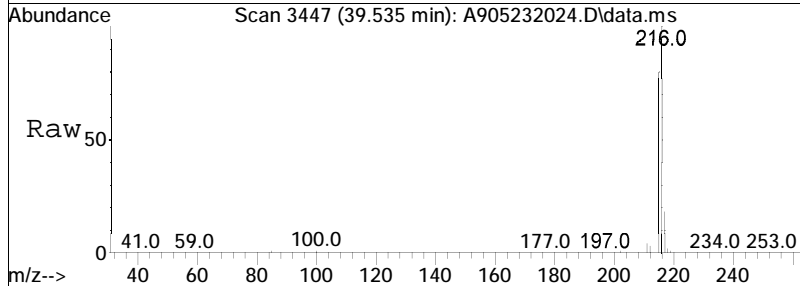
Tgt Ion	Resp	Lower	Upper
216	100		
215	73.2	66.6	123.8

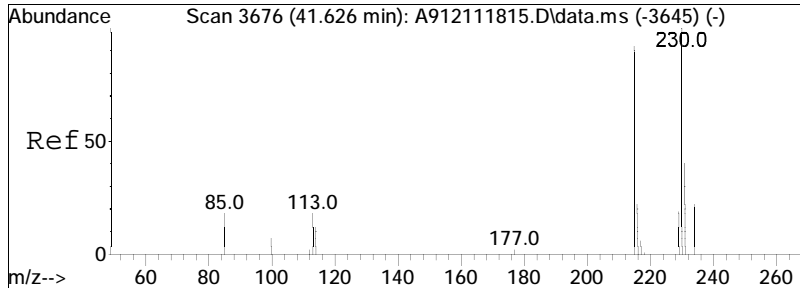




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 16837.13 ng/mL M5
 RT: 39.535 min Scan# 3447
 Delta R.T. 0.032 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

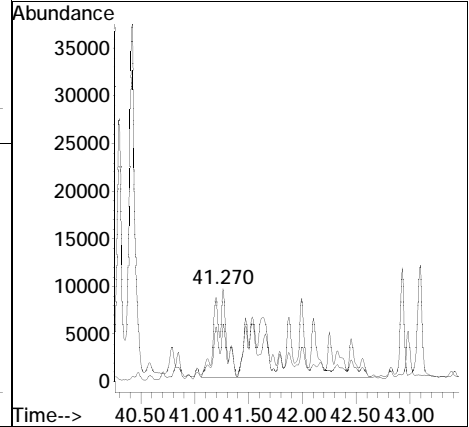
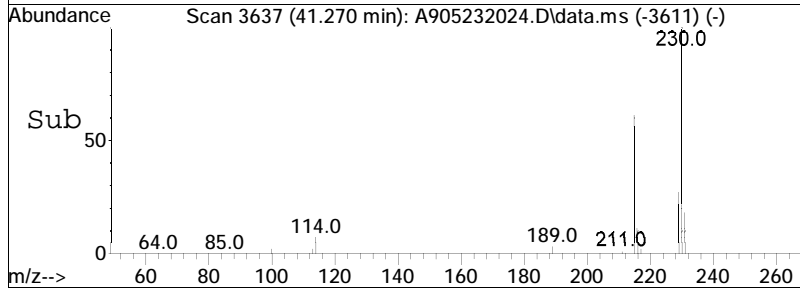
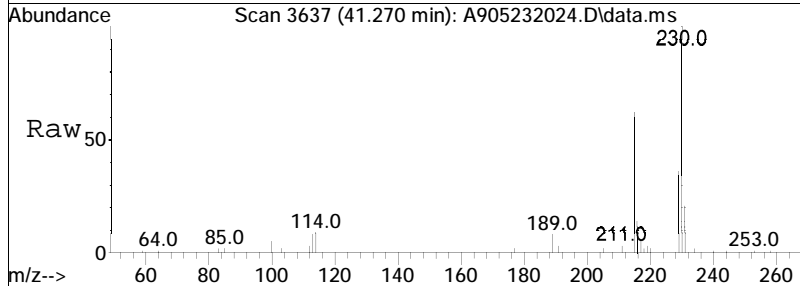
Tgt Ion: 216 Resp: 1369852
 Ion Ratio Lower Upper
 216 100
 215 19.2 63.1 117.1#

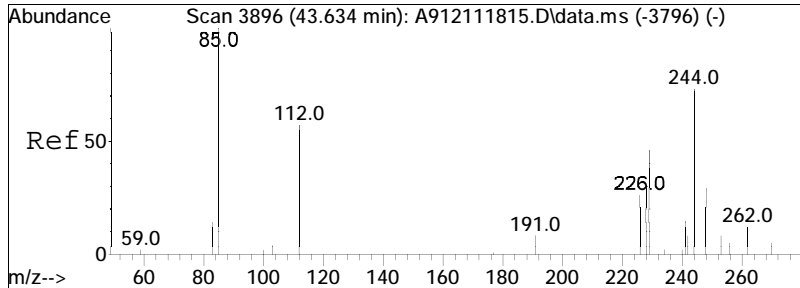




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 3410.37 ng/mL M5
 RT: 41.270 min Scan# 3637
 Delta R.T. -0.039 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

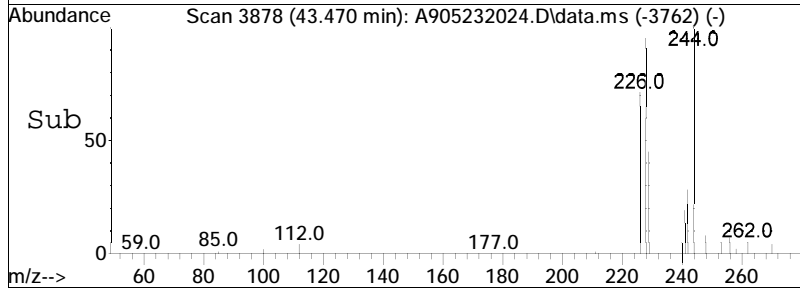
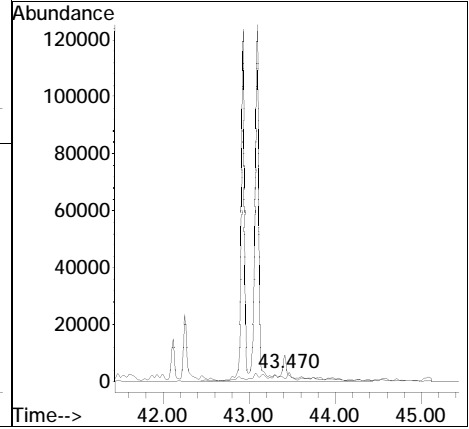
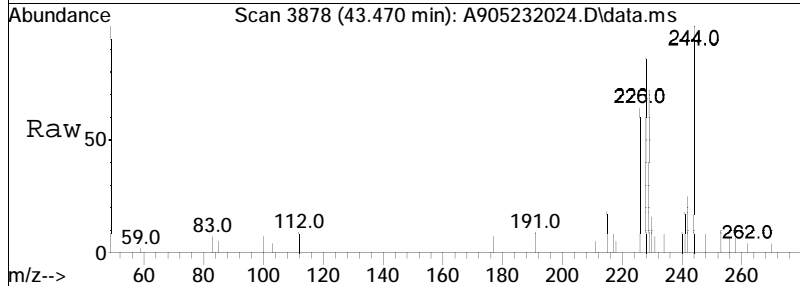
Tgt Ion	Resp	Lower	Upper
230	100		
215	2.9	79.7	148.1#

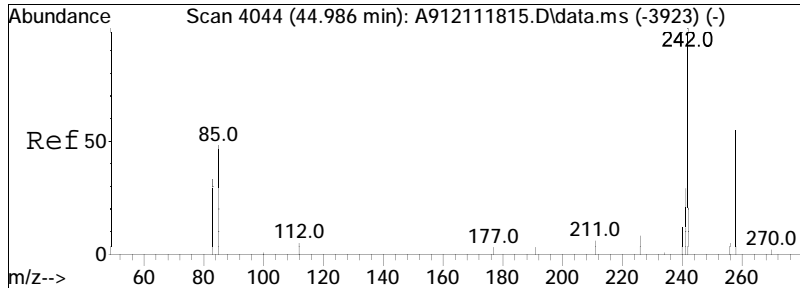




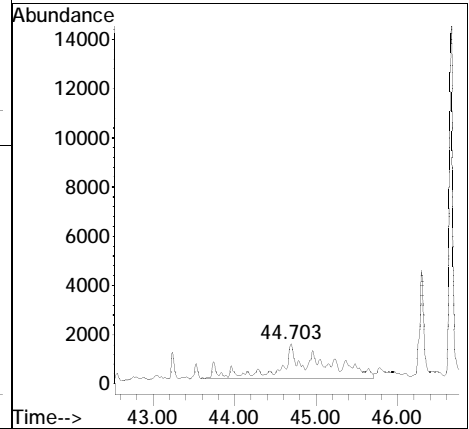
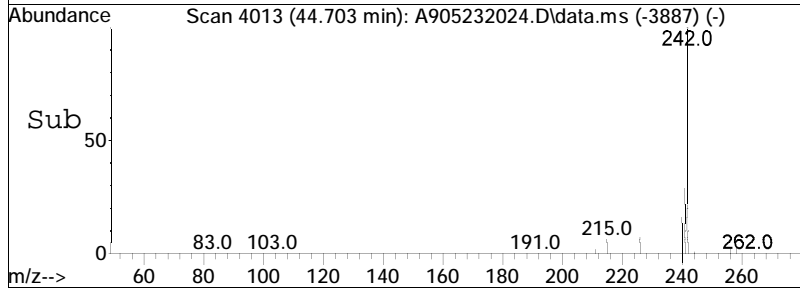
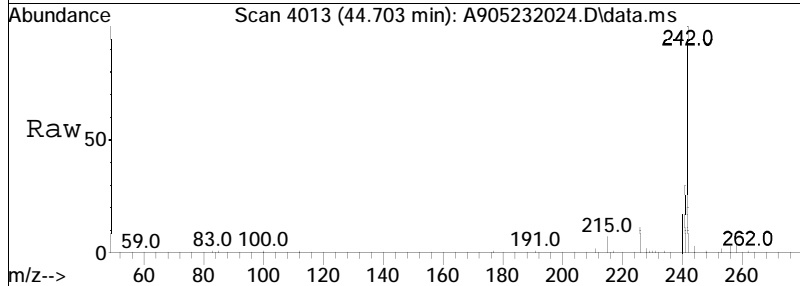
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 1252.87 ng/mL M5
 RT: 43.470 min Scan# 3878
 Delta R.T. 0.145 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

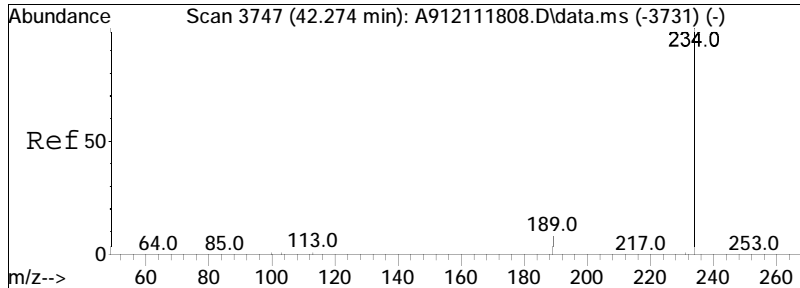
Tgt Ion	Resp	Lower	Upper
244	101932		
229	3.7	67.7	125.7#





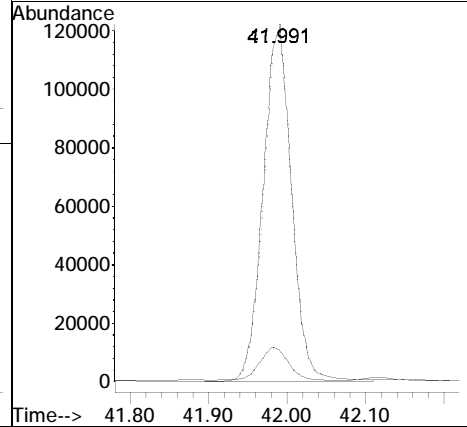
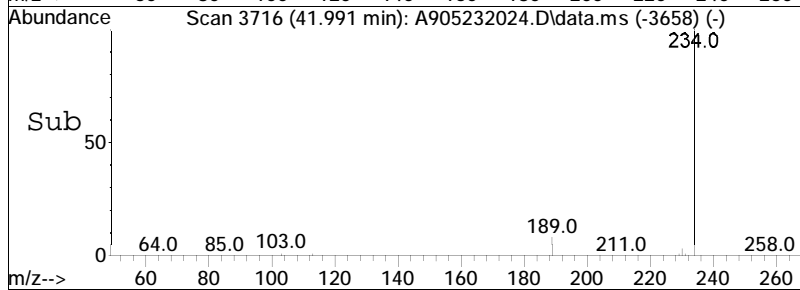
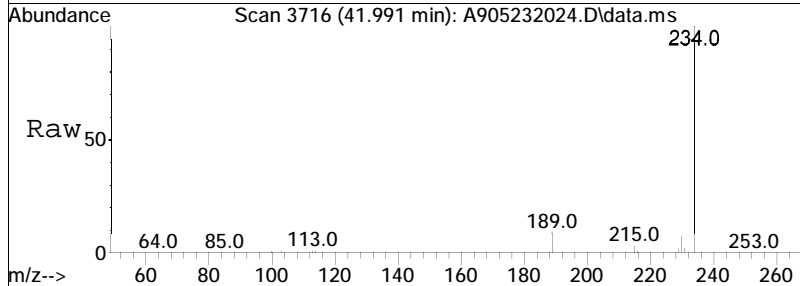
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 620.62 ng/mL M5
 RT: 44.703 min Scan# 4013
 Delta R.T. 0.028 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion: 258 Resp: 50493

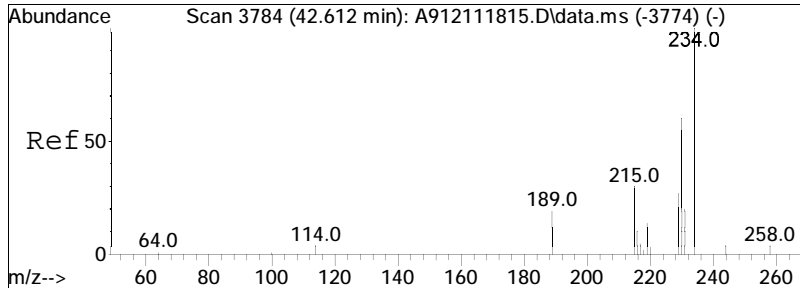




#67
 Naphthobenzothiophene-2,1-D
 Concen: 4598.31 ng/mL
 RT: 41.991 min Scan# 3716
 Delta R.T. 0.028 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

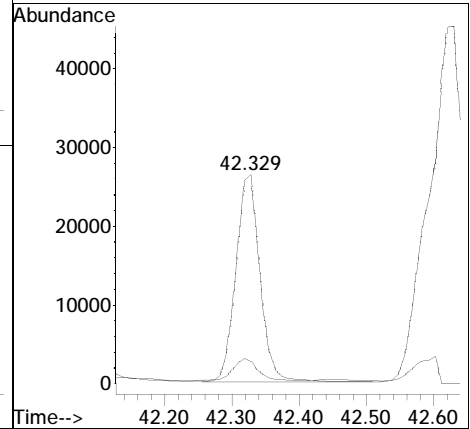
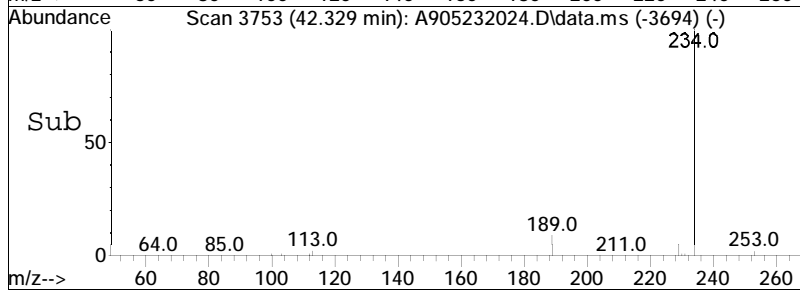
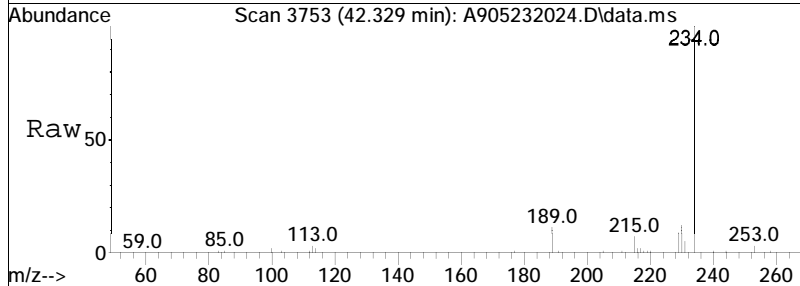
Tgt Ion	Resp	Lower	Upper
234	100		
189	9.6	6.1	11.3

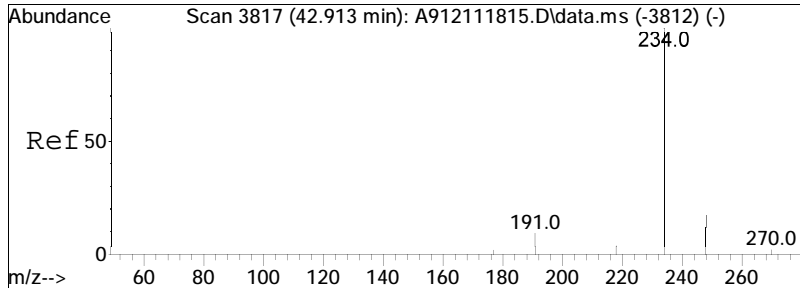




#68
 Naphthobenzothiophene-1,2-D
 Concen: 1000.07 ng/mL
 RT: 42.329 min Scan# 3753
 Delta R.T. 0.035 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

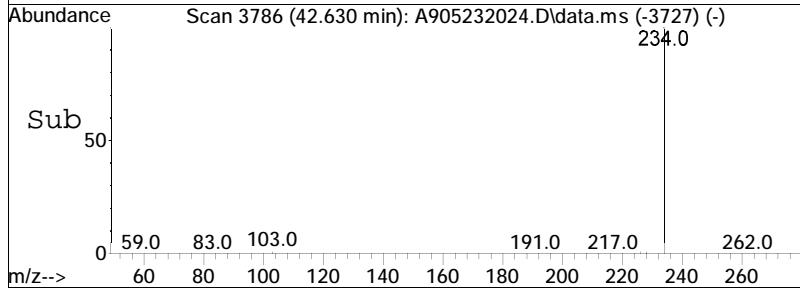
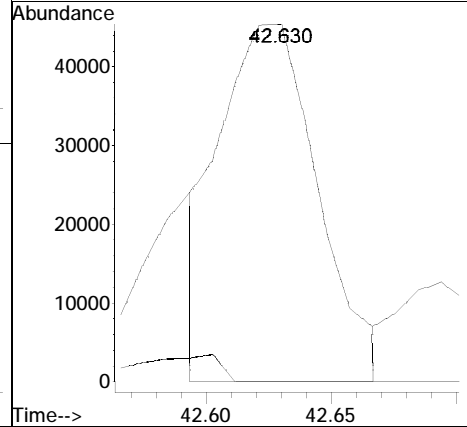
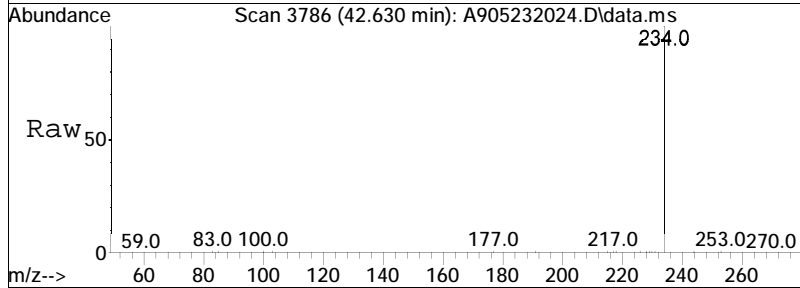
Tgt Ion	Resp	Lower	Upper
234	100		
189	13.7	56.5	104.9#

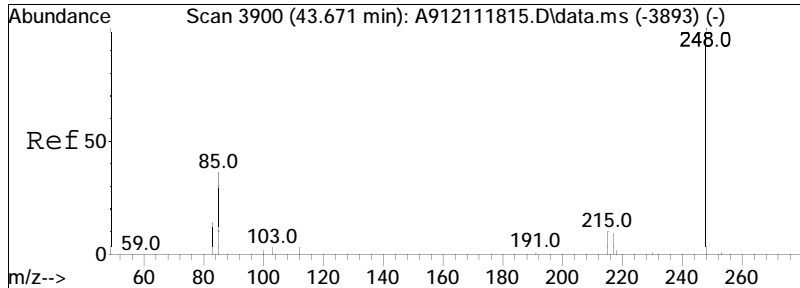




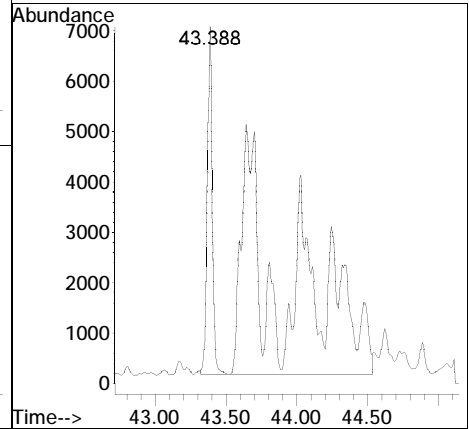
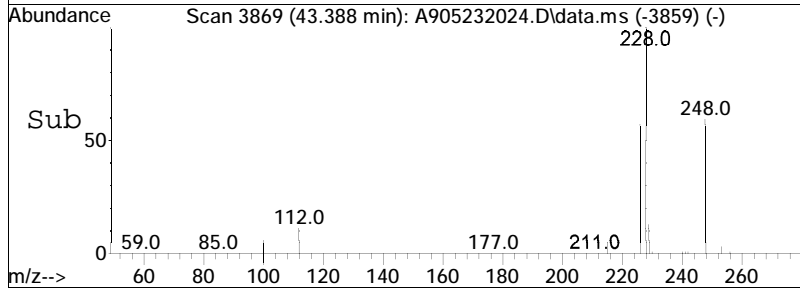
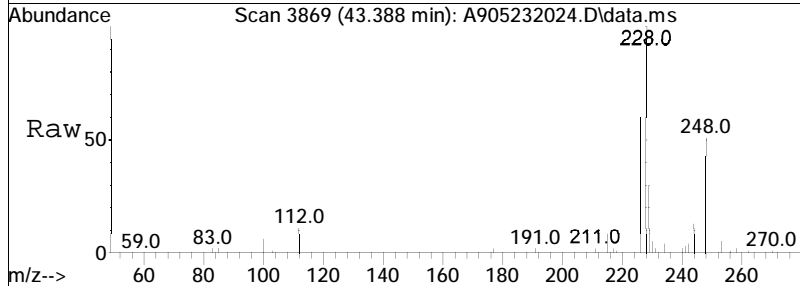
#69
 Naphthobenzothiophene-2,3-D
 Concen: 1891.07 ng/mL M3
 RT: 42.630 min Scan# 3786
 Delta R.T. 0.035 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

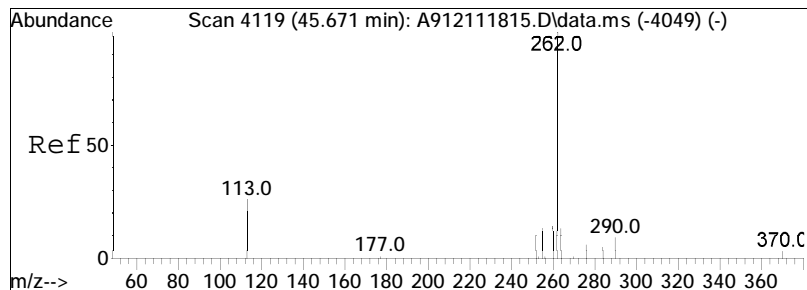
Tgt Ion: 234 Resp: 122937
 Ion Ratio Lower Upper
 234 100
 189 0.0 75.1 139.5#



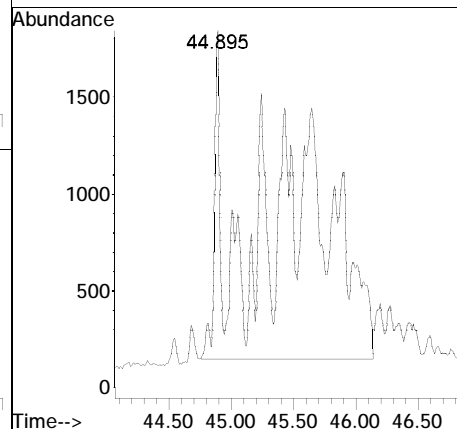
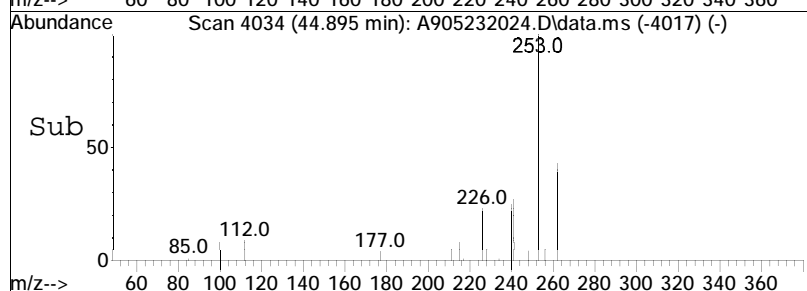
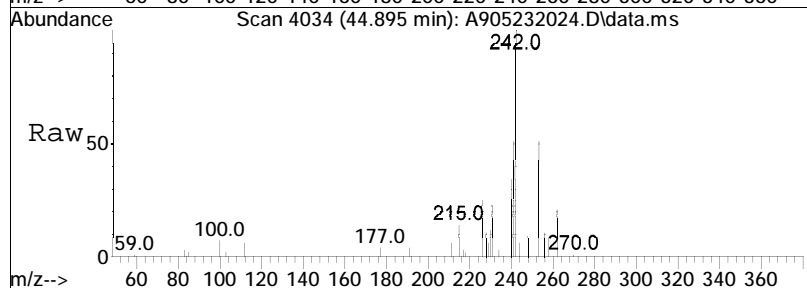


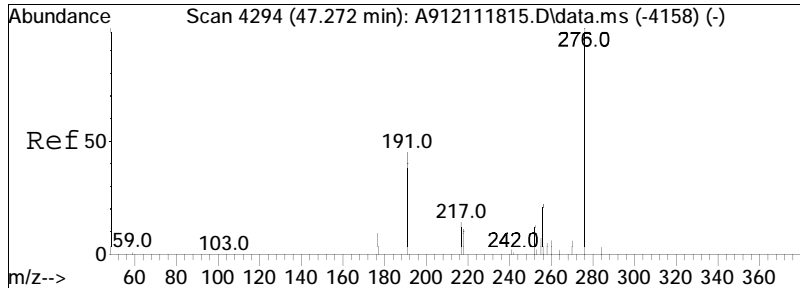
#70
 C1-Naphthobenzothiophenes
 Concen: 1834.66 ng/ml M5
 RT: 43.388 min Scan# 3869
 Delta R.T. 0.036 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:248 Resp: 119270



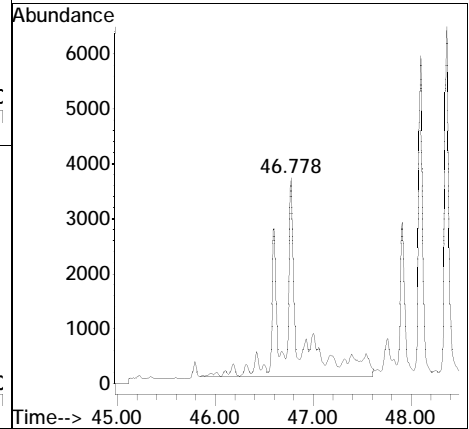
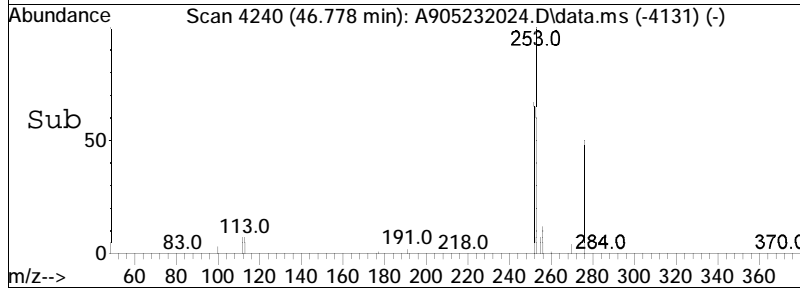
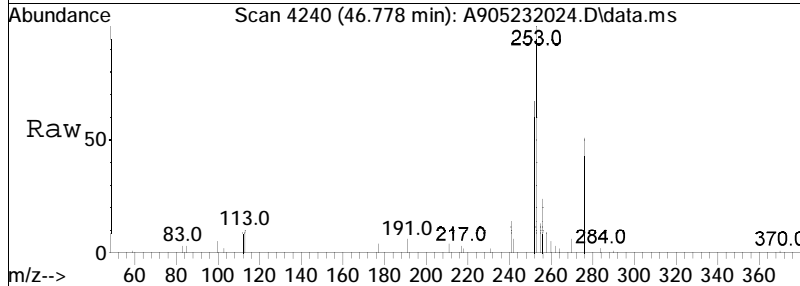


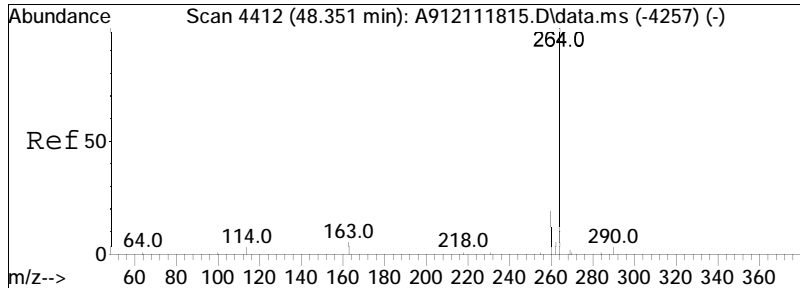
#71
 C2-Naphthobenzothiophenes
 Concen: 786.38 ng/ml M5
 RT: 44.895 min Scan# 4034
 Delta R.T. -0.456 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion:262 Resp: 51122



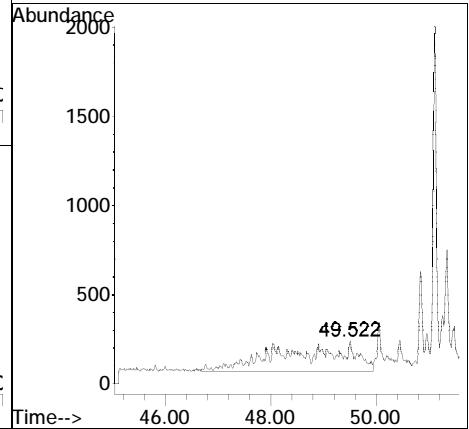
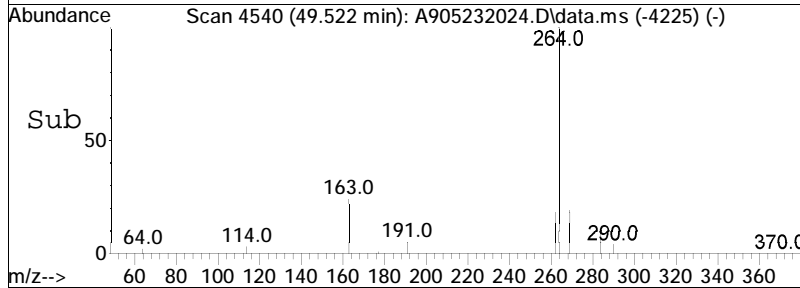
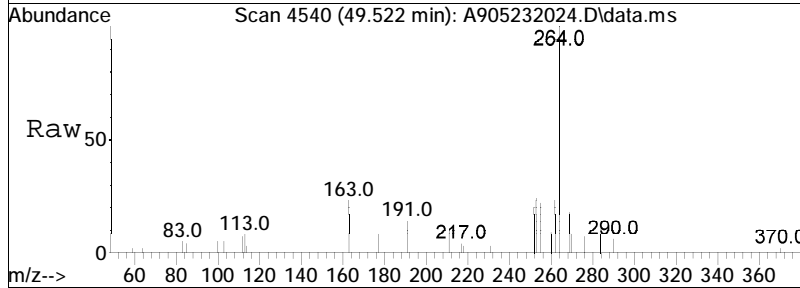


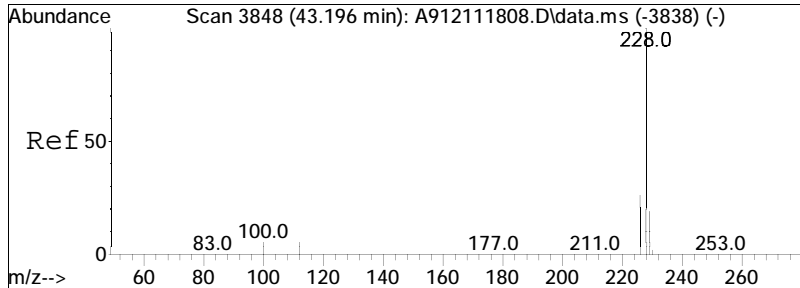
#72
 C3-Naphthobenzothiophenes
 Concen: 630.49 ng/ml M5
 RT: 46.778 min Scan# 4240
 Delta R.T. -0.171 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion: 276 Resp: 40988





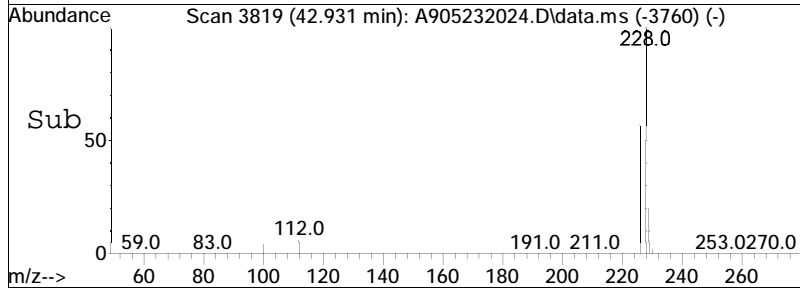
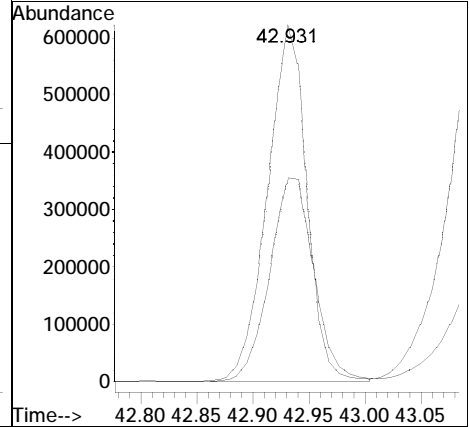
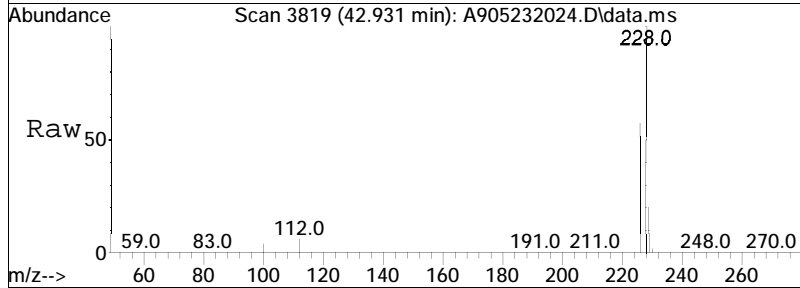
#73
 C4-Naphthobenzothiophenes
 Concen: 213.28 ng/mL M5
 RT: 49.522 min Scan# 4540
 Delta R.T. 1.513 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm
 Tgt Ion: 290 Resp: 13865

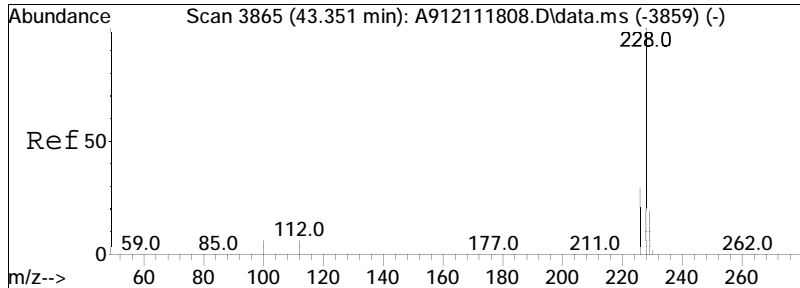




#75
 Benz[a]anthracene
 Concen: 17422.65 ng/mL M4
 RT: 42.931 min Scan# 3819
 Delta R.T. 0.037 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

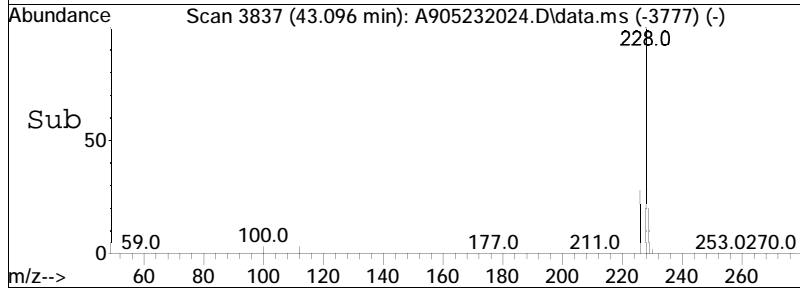
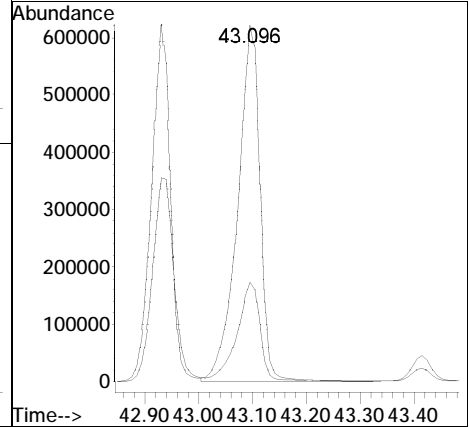
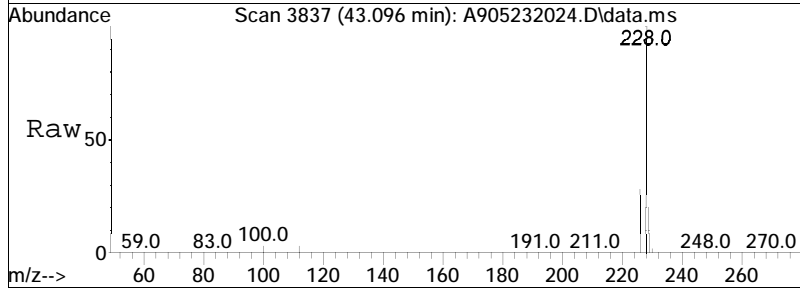
Tgt Ion: 228 Resp: 1514953
 Ion Ratio Lower Upper
 228 100
 226 32.6 19.0 35.2

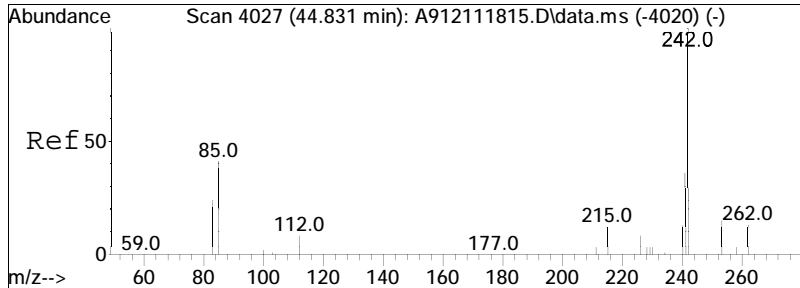




#77
 Chrysene/Triphenylene
 Concen: 19677.04 ng/mL
 RT: 43.096 min Scan# 3837
 Delta R.T. 0.046 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

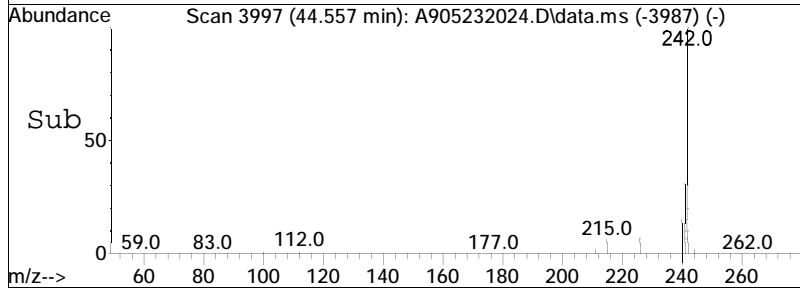
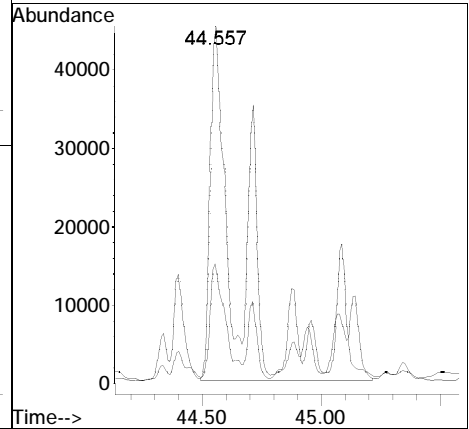
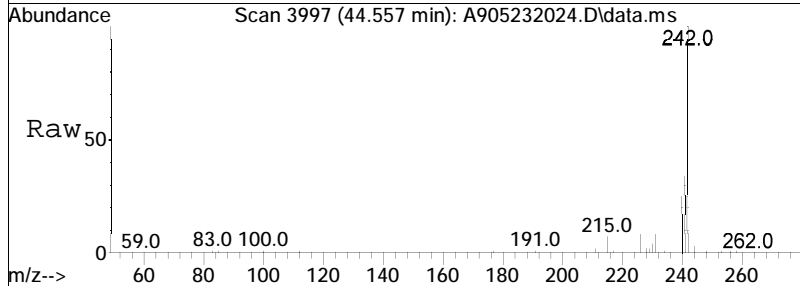
Tgt Ion: 228 Resp: 1795054
 Ion Ratio Lower Upper
 228 100
 226 27.5 21.0 39.0

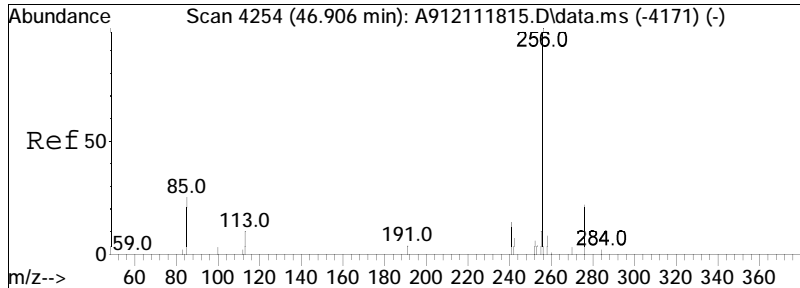




#78
 C1-Chrysenes
 Concen: 4343.55 ng/mL M5
 RT: 44.557 min Scan# 3997
 Delta R.T. 0.028 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

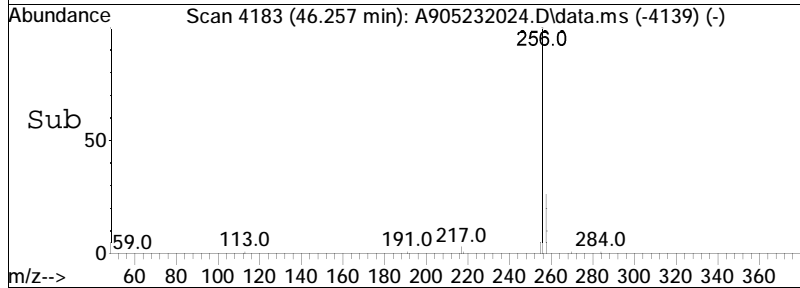
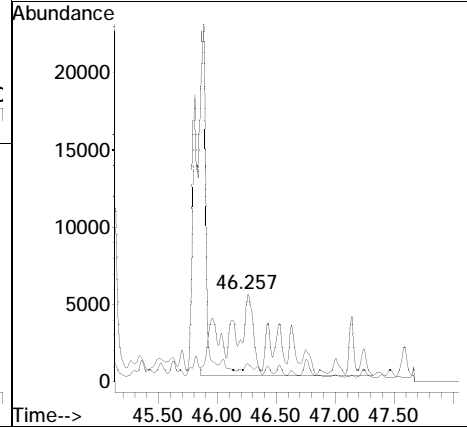
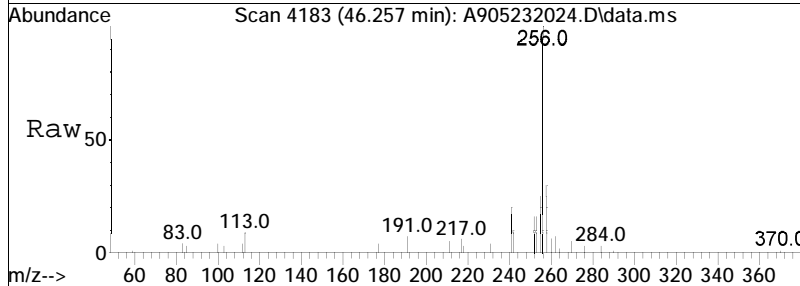
Tgt Ion: 242 Resp: 396244
 Ion Ratio Lower Upper
 242 100
 241 14.0 30.5 56.7#

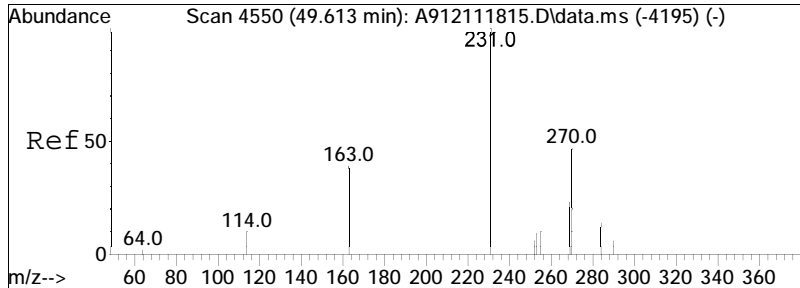




#79
 C2-Chrysenes
 Concen: 1562.05 ng/mL M5
 RT: 46.257 min Scan# 4183
 Delta R.T. -0.334 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

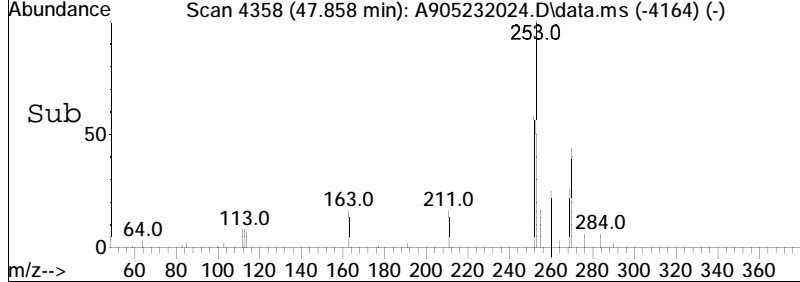
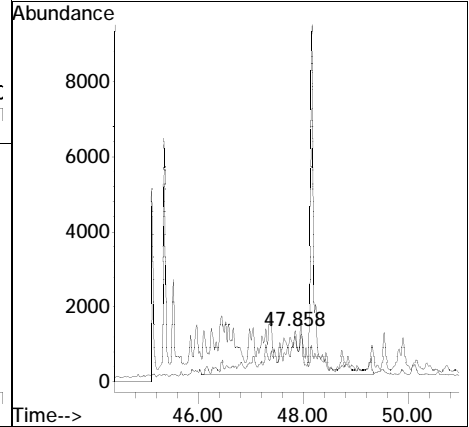
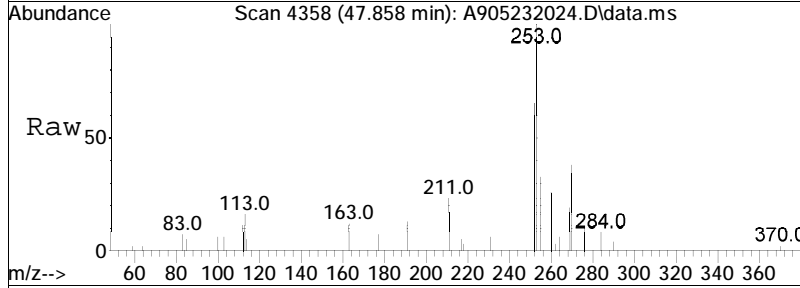
Tgt Ion	Ratio	Lower	Upper
256	100		
241	2.4	26.4	49.0#

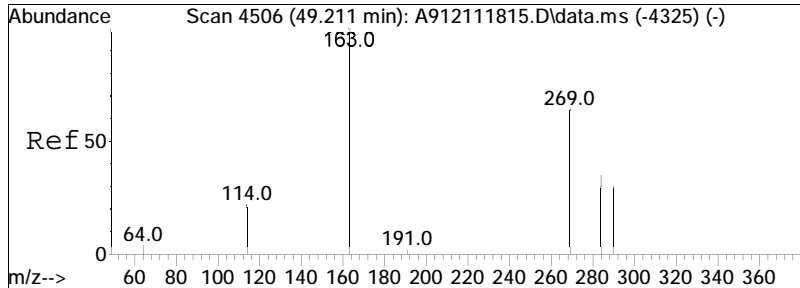




#81
 C3-Chrysenes
 Concen: 774.79 ng/mL M5
 RT: 47.858 min Scan# 4358
 Delta R.T. -1.404 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

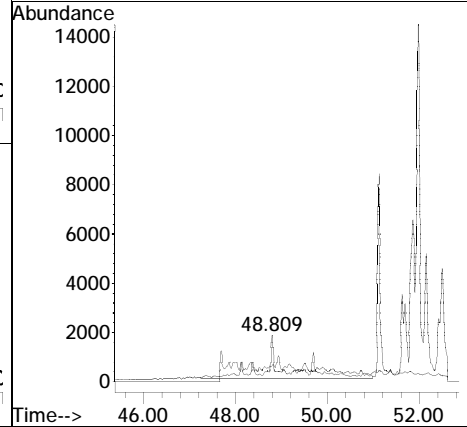
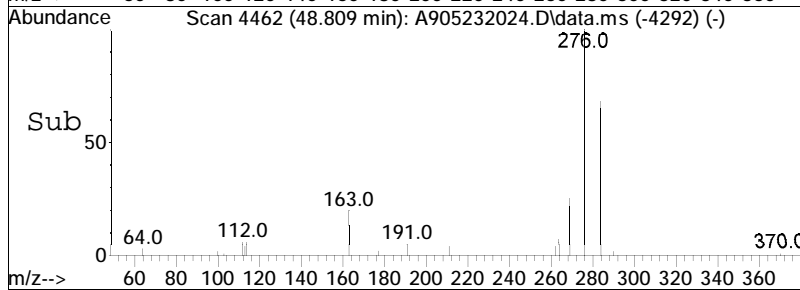
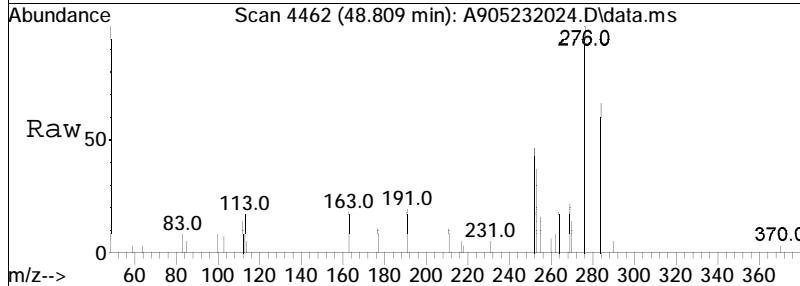
Tgt Ion	Ratio	Lower	Upper
270	100		
255	0.0	37.7	69.9#

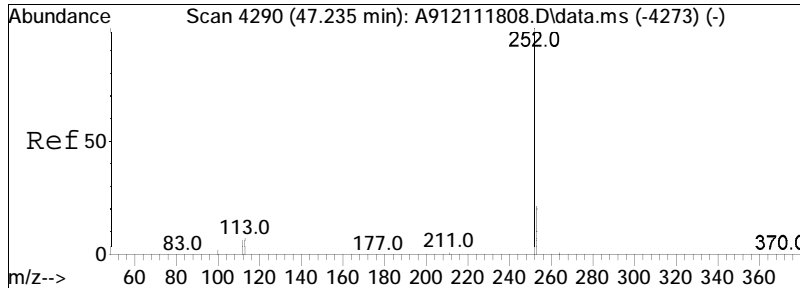




#82
 C4-Chrysenes
 Concen: 492.79 ng/mL M5
 RT: 48.809 min Scan# 4462
 Delta R.T. -0.072 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

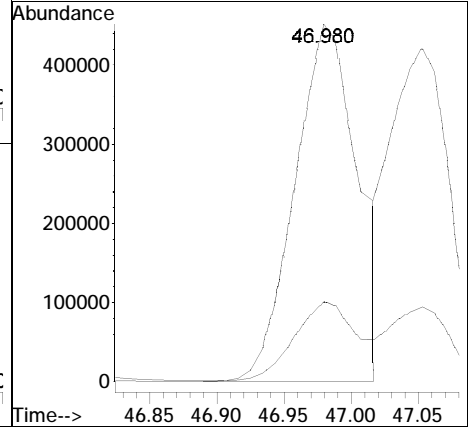
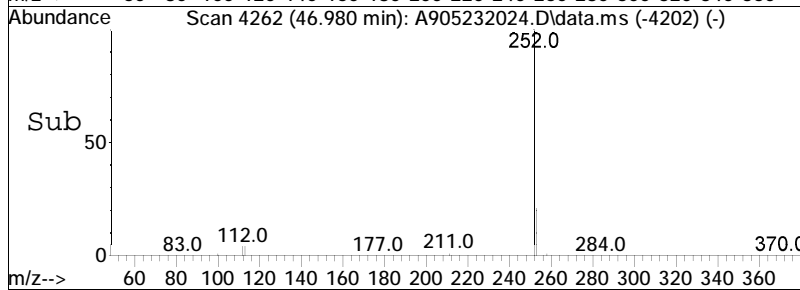
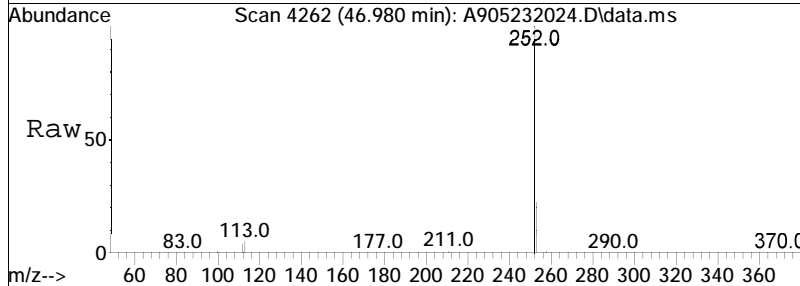
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	73.8	137.2#

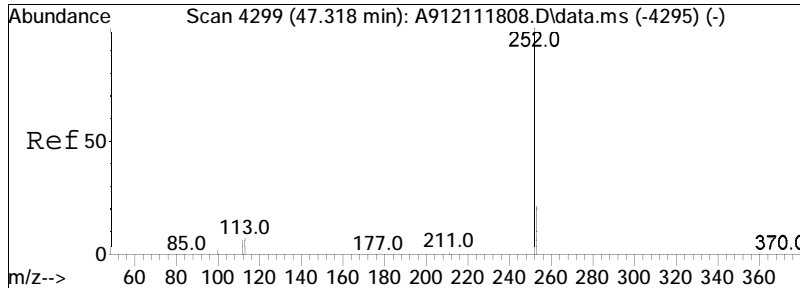




#84
 Benzo[b]fluoranthene
 Concen: 13780.45 ng/mL
 RT: 46.980 min Scan# 4262
 Delta R.T. 0.046 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

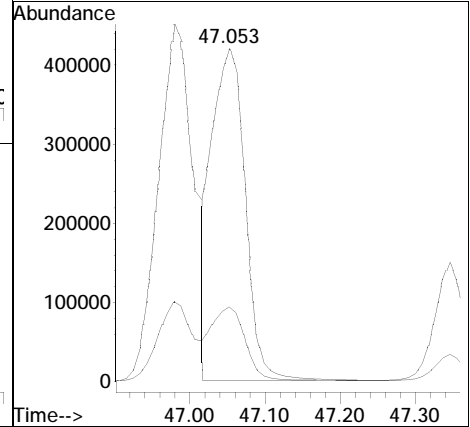
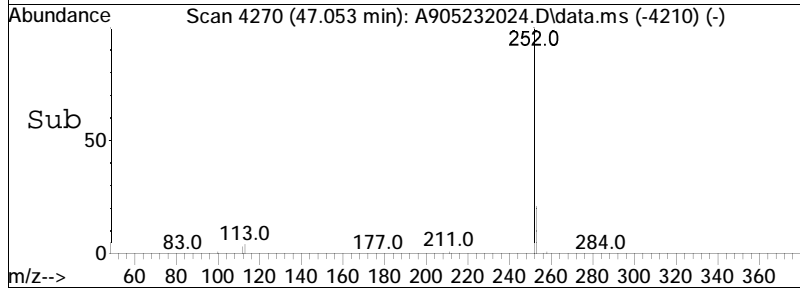
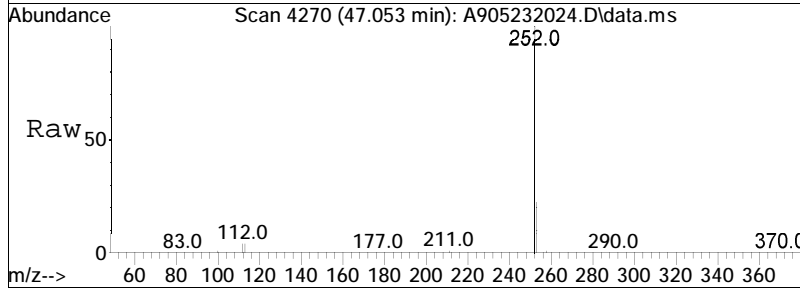
Tgt Ion	Resp	Lower	Upper
252	1464976		
253	22.1	17.3	32.1

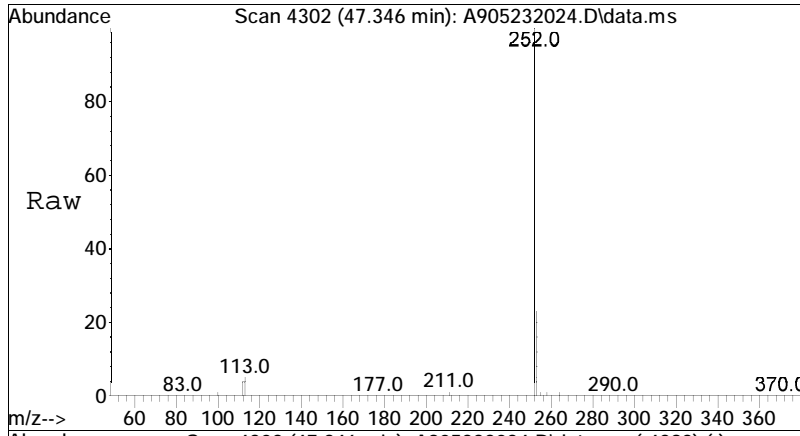




#85
 Benzo[j]+[k]fluoranthene
 Concen: 12376.13 ng/mL
 RT: 47.053 min Scan# 4270
 Delta R.T. 0.046 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

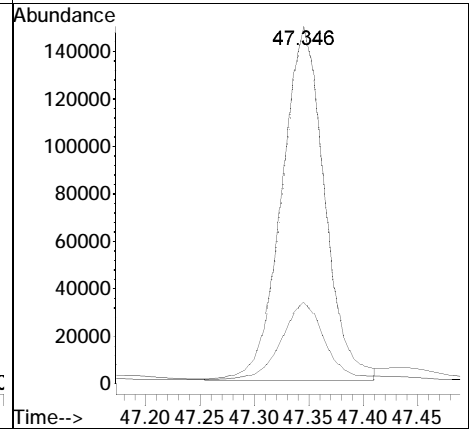
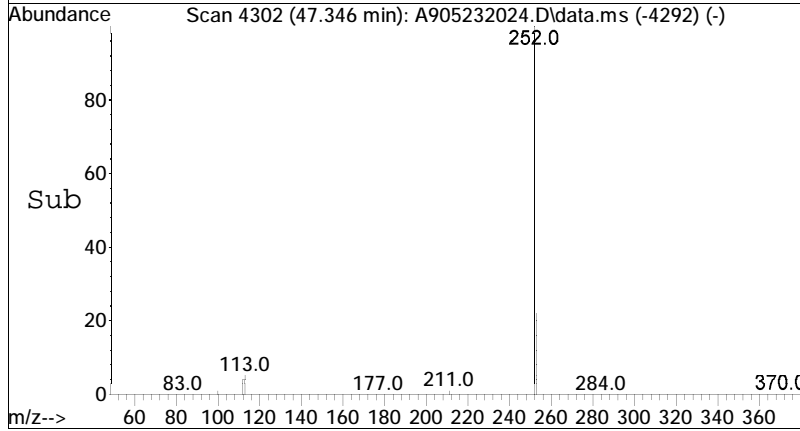
Tgt Ion: 252 Resp: 1298320
 Ion Ratio Lower Upper
 252 100
 253 22.1 17.6 32.8

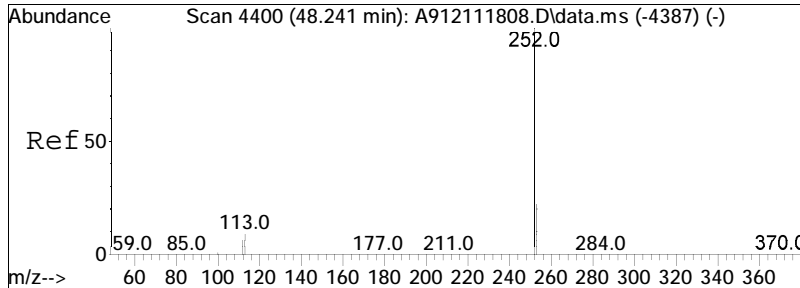




#87
 Benzo[a]fluoranthene
 Concen: 3871.35 ng/mL M4
 RT: 47.346 min Scan# 4302
 Delta R.T. 0.073 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

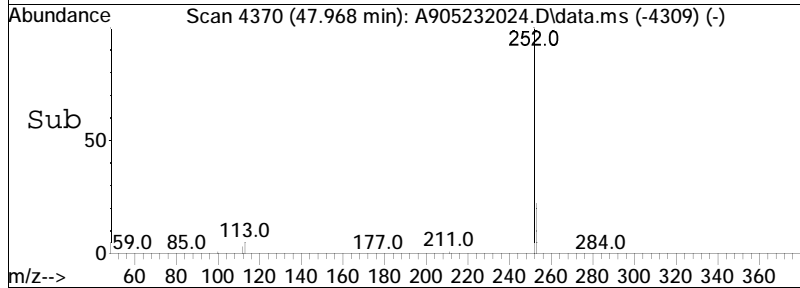
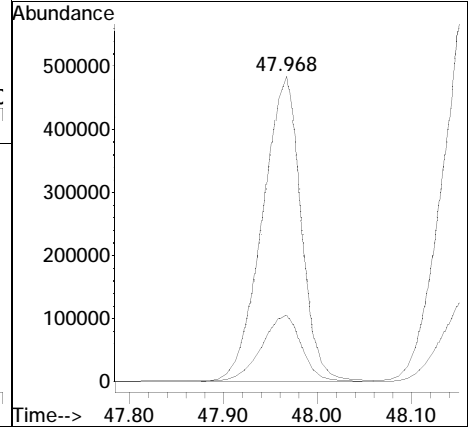
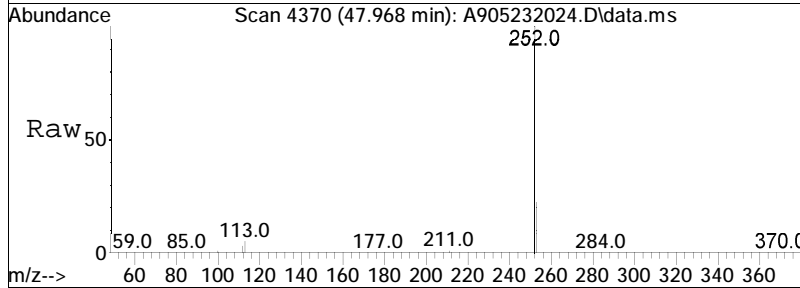
Tgt Ion	Resp	Lower	Upper
252	100		
253	1.5	243.9	452.9#

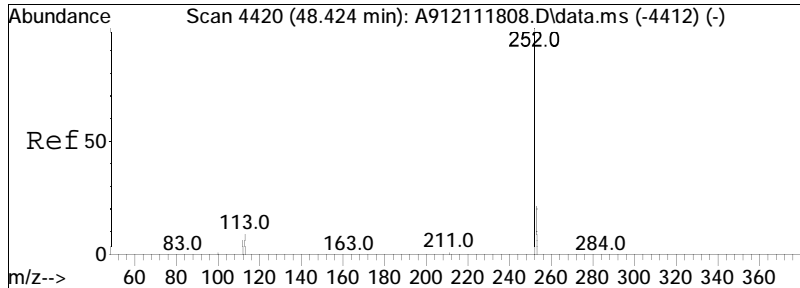




#88
 Benzo[e]pyrene
 Concen: 13063.22 ng/mL
 RT: 47.968 min Scan# 4370
 Delta R.T. 0.055 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

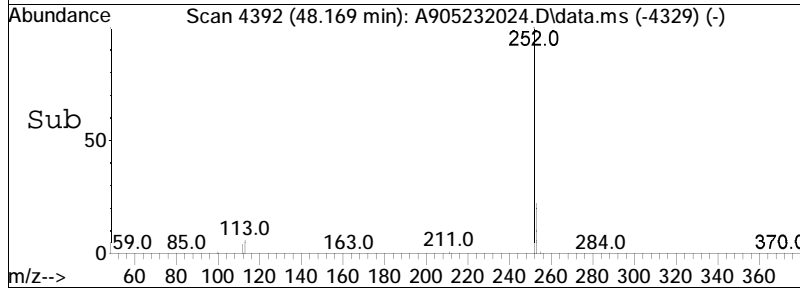
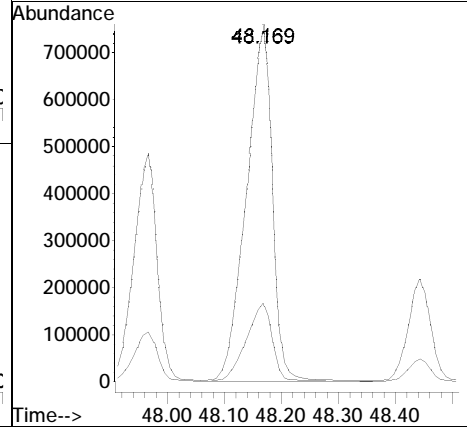
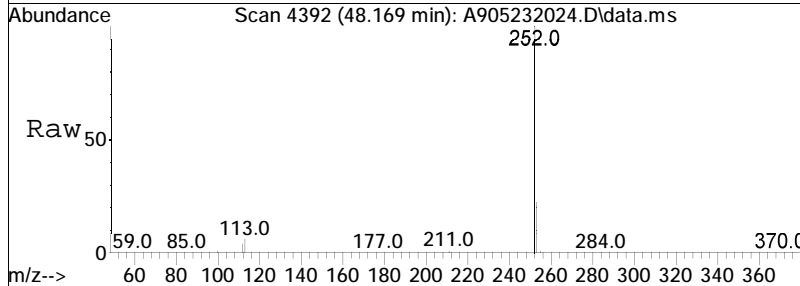
Tgt Ion: 252 Resp: 1370584
 Ion Ratio Lower Upper
 252 100
 253 22.3 18.3 33.9

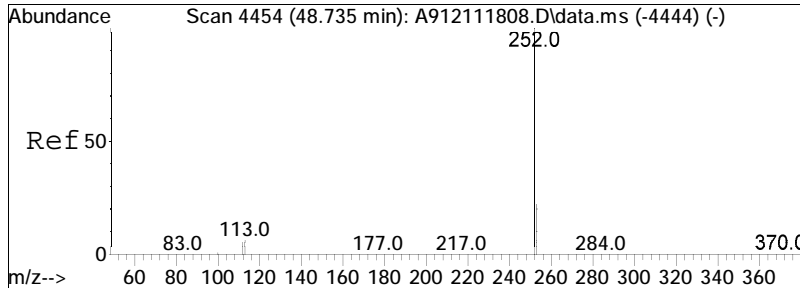




#90
 Benzo[a]pyrene
 Concen: 23771.37 ng/mL
 RT: 48.169 min Scan# 4392
 Delta R.T. 0.073 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

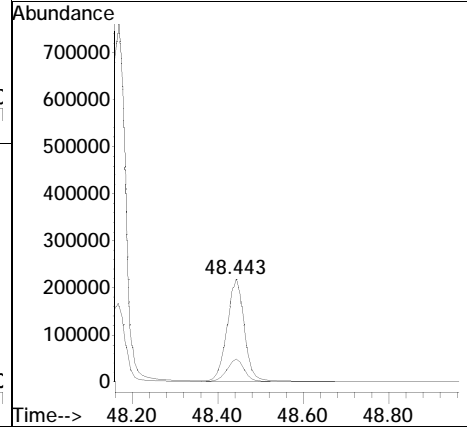
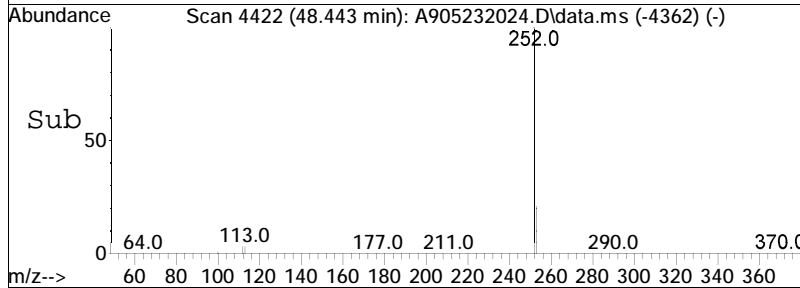
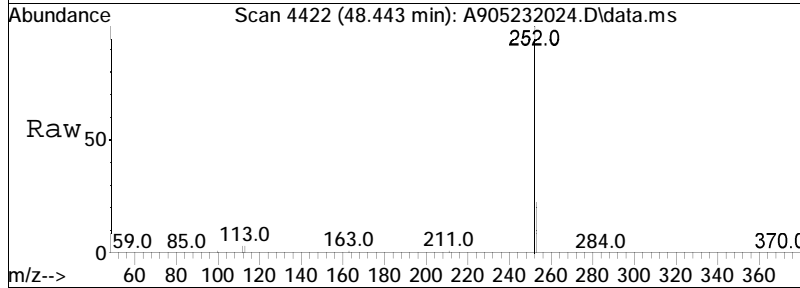
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	19.2	35.6

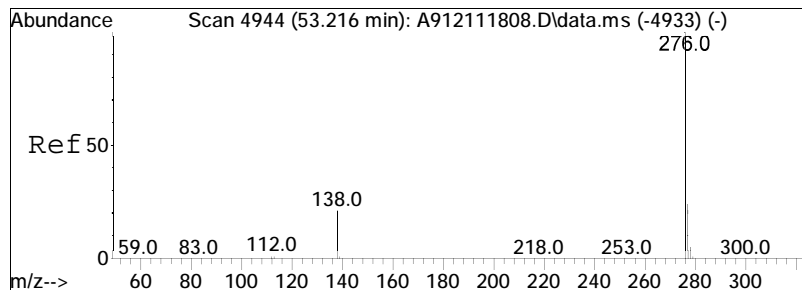




#91
 Perylene
 Concen: 6580.35 ng/mL
 RT: 48.443 min Scan# 4422
 Delta R.T. 0.046 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

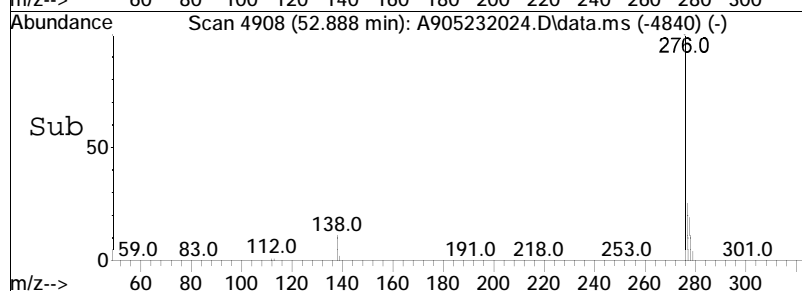
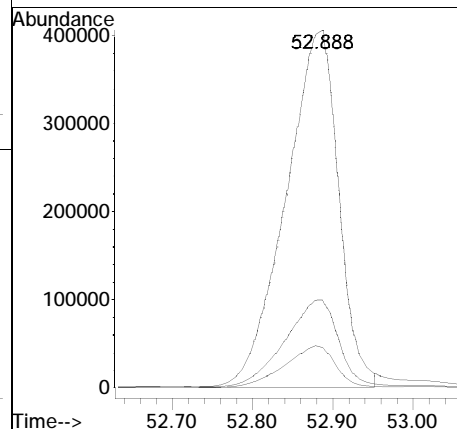
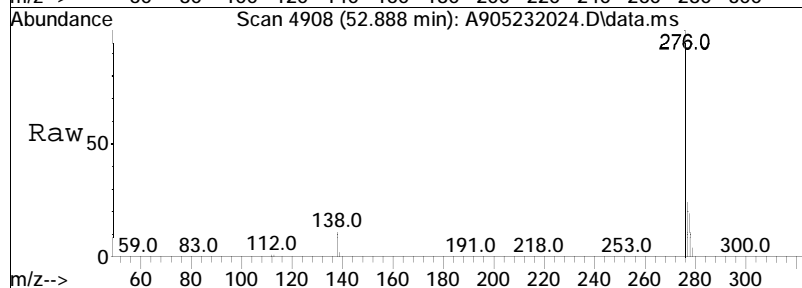
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.3	19.9	36.9

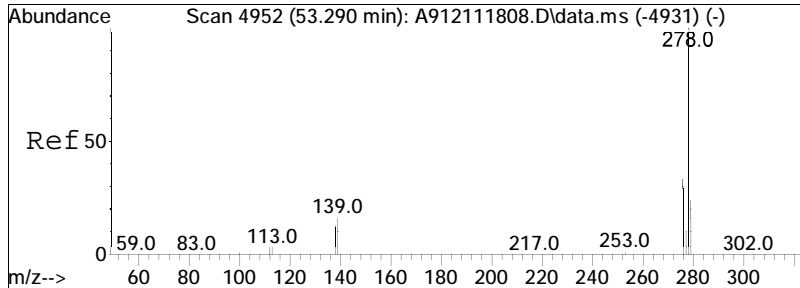




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 15724.45 ng/mL M3
 RT: 52.888 min Scan# 4908
 Delta R.T. 0.119 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

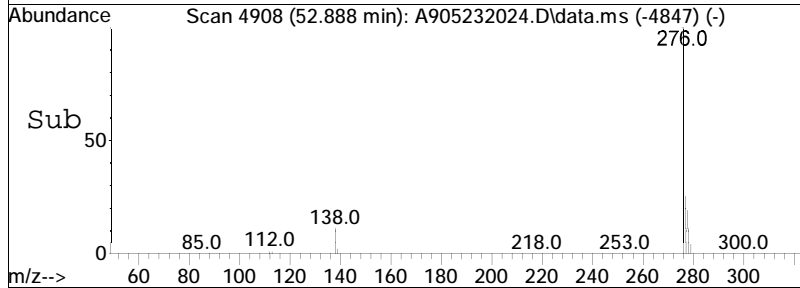
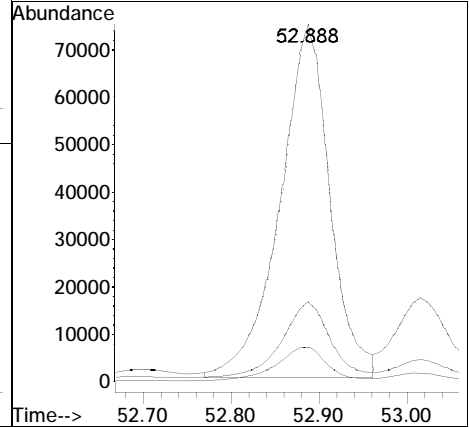
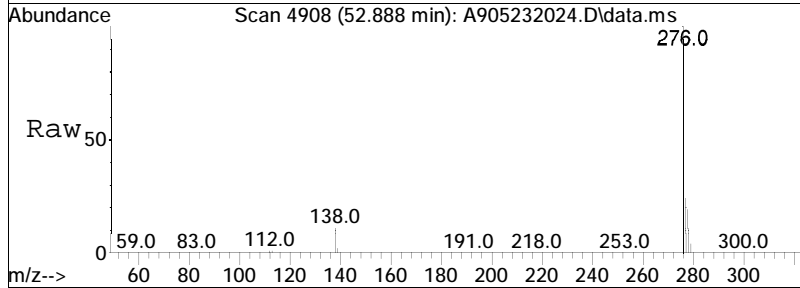
Tgt Ion	Resp	Lower	Upper
276	100		
138	11.4	12.2	22.6#
277	26.3	18.6	34.6

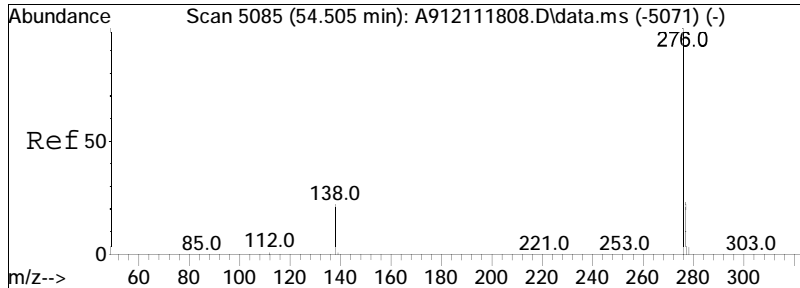




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 2914.08 ng/mL M4
 RT: 52.888 min Scan# 4908
 Delta R.T. 0.055 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

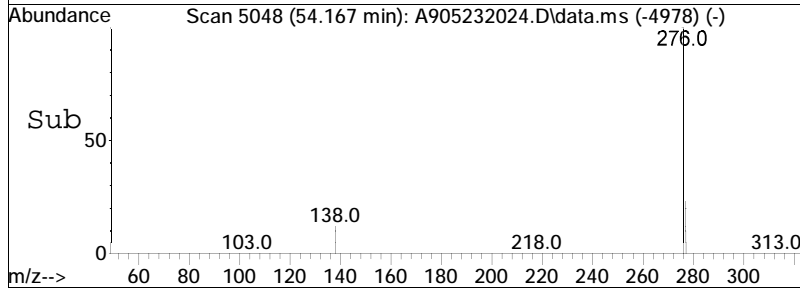
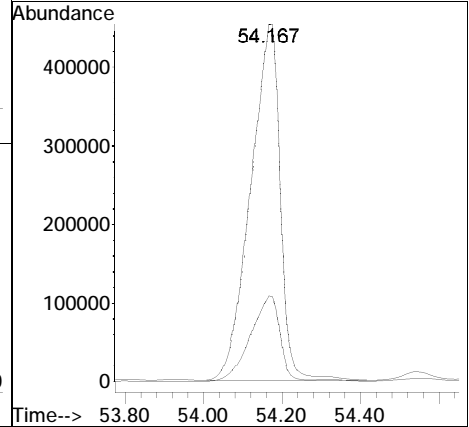
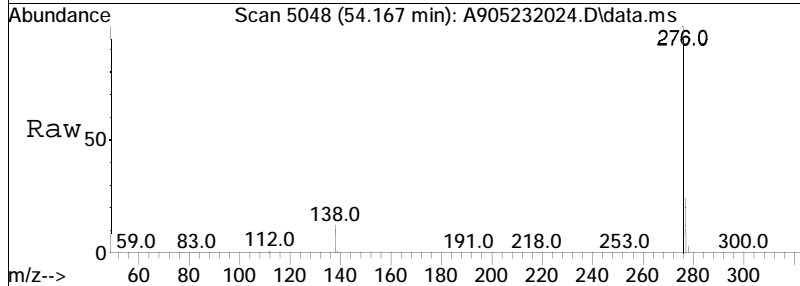
Tgt Ion	Ratio	Lower	Upper
278	100		
139	10.2	8.3	15.5
279	20.3	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 19570.09 ng/mL
 RT: 54.167 min Scan# 5048
 Delta R.T. 0.137 min
 Lab File: A905232024.D
 Acq: 27 May 2020 12:12 pm

Tgt Ion: 276 Resp: 2347202
 Ion Ratio Lower Upper
 276 100
 277 23.7 17.4 32.2



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232033.D
 Acq On : 28 May 2020 6:45 am
 Operator : PAH9:ML
 Sample : WG1374011-5
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 04 12:47:52 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	74	0.02
2 A1	trans-Decalin	0.404	0.393	2.7	76	0.00
3 t	cis-Decalin	0.309	0.297	3.9	73	0.00
8 s	Naphthalene-d8	1.827	1.796	1.7	73	0.00
9 A1	Naphthalene	2.127	2.129	-0.1	74	0.00
14 t	2-Methylnaphthalene	1.410	1.286	8.8	69	0.03
15 t	1-Methylnaphthalene	1.340	1.318	1.6	74	0.02
16 A1	Benzothiophene	1.962	1.841	6.2	69	0.02
21 t	Biphenyl	1.728	1.632	5.6	71	0.03
22 t	2,6-Dimethylnaphthalene	1.238	1.145	7.5	70	0.03
23 t	Dibenzofuran	2.007	1.838	8.4	69	0.04
24 t	Acenaphthylene	2.106	1.985	5.7	71	0.02
25 t	Acenaphthene	1.305	1.327	-1.7	76	0.02
26 t	2,3,5-Trimethylnaphthalene	1.152	1.076	6.6	71	0.03
27 A1	Fluorene	1.546	1.450	6.2	71	0.05
31 A1	Dibenzothiophene	2.286	2.037	10.9	68	0.03
40 s	Phenanthrene-d10	1.711	1.714	-0.2	76	0.03
41 A1	Phenanthrene	2.279	2.162	5.1	72	0.02
52 t	Retene	0.760	0.737	3.0	75	0.00
53 t	Anthracene	2.009	2.090	-4.0	75	0.04
54 t	Carbazole	2.102	1.645	21.7	61	0.04
55 t	1-Methylphenanthrene	1.676	1.617	3.5	75	0.03
56 A1	Fluoranthene	2.671	2.465	7.7	77	0.02
57 A1	Benzo(b)fluorene	1.582	1.524	3.7	75	0.03
59 A1	Pyrene	2.820	2.610	7.4	78	0.02
67 A1	Napthobenzothiophene-2,1-D	2.254	2.199	2.4	77	0.03
74 i	Chrysene-d12	1.000	1.000	0.0	81	0.02
75 t	Benz[a]anthracene	1.257	1.075	14.5	74	0.03
76 A1	Chrysene	1.319	1.332	-1.0	89	0.03
77 A2	Chrysene/Triphenylene	1.319	1.332	-1.0	89	0.03
83 S	Benzo[b]fluoranthene-d12	1.241	1.175	5.3	81	0.02
84 t	Benzo[b]fluoranthene	1.537	1.247	18.9	75	0.02
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.741	-14.8	102	0.03
88 t	Benzo[e]pyrene	1.517	1.387	8.6	87	0.02
89 s	Benzo[a]pyrene-d12	0.830	0.734	11.6	77	0.03
90 t	Benzo[a]pyrene	1.447	1.288	11.0	82	0.03
91 t	Perylene	1.344	1.283	4.5	85	0.03
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.411	16.4	77	0.06

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232033.D
 Acq On : 28 May 2020 6:45 am
 Operator : PAH9:ML
 Sample : WG1374011-5
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 04 12:47:52 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.433	1.4	83	0.05
95 t Benzo[g,h,i]perylene	1.734	1.554	10.4	86	0.05
96 A1 Hopane (T19)	0.436	0.349	20.0	75	0.00
130 SA1 5B(H)Cholane - Surr	0.221	0.202	8.6	79	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.94	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.48	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232033.D
 Acq On : 28 May 2020 6:45 am
 Operator : PAH9:ML
 Sample : WG1374011-5
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 04 12:47:52 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.548	164	21018	500.000	ng/mL	0.00	
74) Chrysene-d12	42.977	240	43229	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.594	136	37753	491.454	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.15%#	
40) Phenanthrene-d10	32.414	188	36018	500.699	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.07%	
83) Benzo[b]fluoranthene-d12	46.870	264	50793	473.533	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.35%#	
89) Benzo[a]pyrene-d12	48.031	264	31712	441.980	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.20%#	
130) 5B(H)Cholane - Surr	43.589	217	8749	457.676	ng/ml	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.77%#	
Target Compounds							
2) trans-Decalin	16.245	138	4129	243.411	ng/mL	100	Qvalue
3) cis-Decalin	17.459	138	3118	240.258	ng/mL	100	
9) Naphthalene	19.667	128	44749	500.438	ng/mL	100	
14) 2-Methylnaphthalene	22.377	142	27032	455.957	ng/mL	100	
15) 1-Methylnaphthalene	22.788	142	27707	491.787	ng/mL	100	
16) Benzothiophene	19.895	134	38693	469.264	ng/mL	100	
21) Biphenyl	24.248	154	34310	472.378	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.860	156	24056	462.399	ng/mL	100	
23) Dibenzofuran	27.333	168	38638	457.951	ng/mL	94	
24) Acenaphthylene	25.936	152	41713	471.074	ng/mL	100	
25) Acenaphthene	26.676	153	27886	508.209	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	28.236	170	22615	467.188	ng/mL	98	
27) Fluorene	28.719	166	30469	468.696	ng/mL	99	
31) Dibenzothiophene	32.004	184	42821	445.688	ng/mL	97	
41) Phenanthrene	32.497	178	45445	474.463	ng/mL	99	
52) Retene	39.471	234	15484	484.410	ng/mL	94	
53) Anthracene	32.688	178	43925M4	520.030	ng/mL		
54) Carbazole	33.354	167	34584	391.449	ng/mL	98	
55) 1-Methylphenanthrene	35.006	192	33996	482.598	ng/mL	100	
56) Fluoranthene	37.261	202	51811	461.446	ng/mL#	91	
57) Benzo(b)fluorene	39.781	216	32036	481.600	ng/mL	100	
59) Pyrene	38.138	202	54850	462.631	ng/mL#	91	
67) Naphthobenzothiophene-2,1	41.991	234	46219	487.876	ng/mL	99	
75) Benz[a]anthracene	42.922	228	46450	427.317	ng/mL	96	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232033.D
 Acq On : 28 May 2020 6:45 am
 Operator : PAH9:ML
 Sample : WG1374011-5
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 04 12:47:52 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.077	228	57580	504.898	ng/mL	94
77) Chrysene/Triphenylene	43.077	228	57580	504.898	ng/mL	94
84) Benzo[b]fluoranthene	46.952	252	53912	405.665	ng/mL	94
85) Benzo[j]+[k]fluoranthene	47.034	252	75245	573.760	ng/mL	89
88) Benzo[e]pyrene	47.931	252	59964	457.178	ng/mL	92
90) Benzo[a]pyrene	48.123	252	55697	445.213	ng/mL	90
91) Perylene	48.425	252	55442	477.028	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	52.833	276	60990M3	417.933	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.879	278	61961	493.321	ng/mL#	96
95) Benzo[g,h,i]perylene	54.085	276	67189	448.116	ng/mL	99
96) Hopane (T19)	51.928	191	15093	400.321	ng/mL#	67

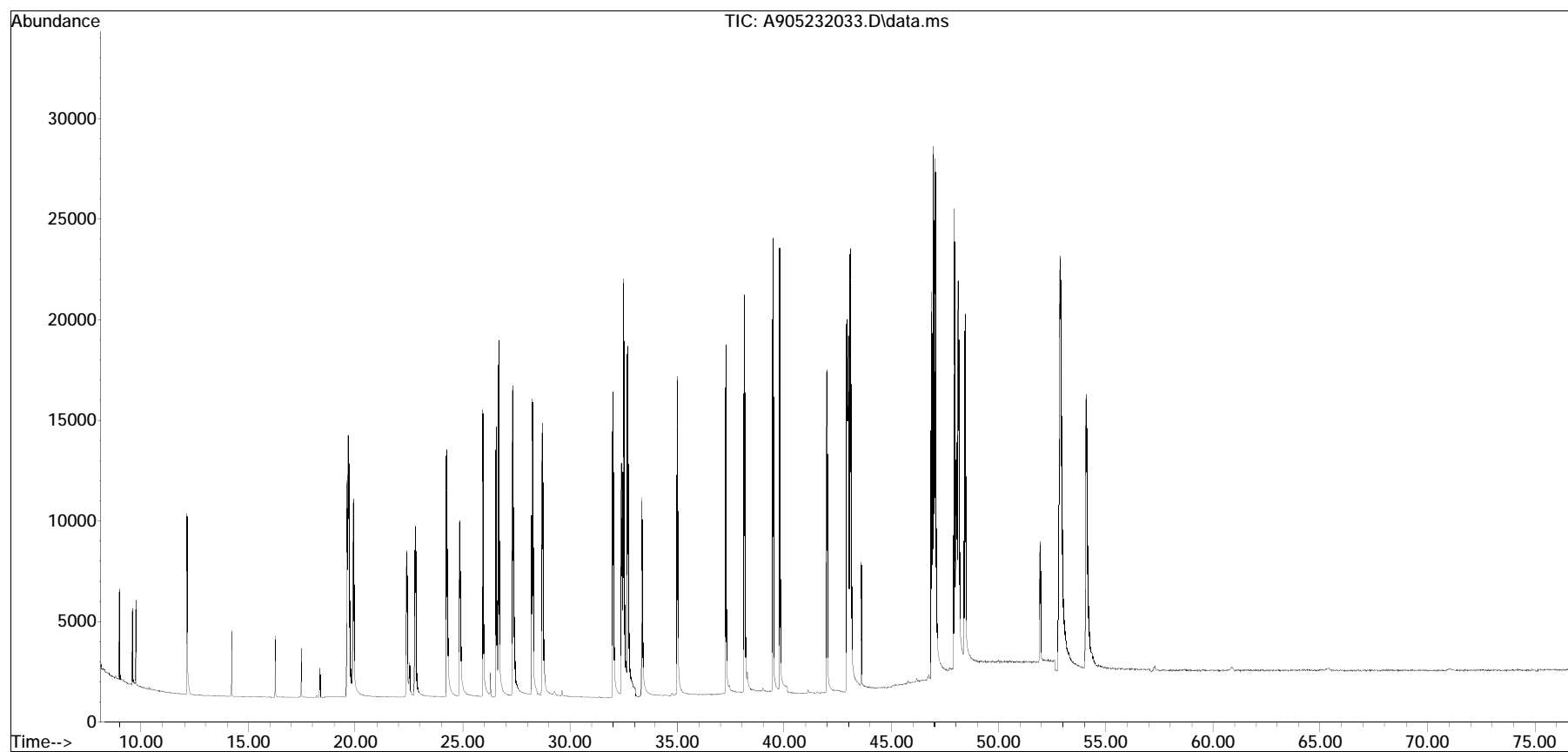
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232033.D
Acq On : 28 May 2020 6:45 am
Operator : PAH9:ML
Sample : WG1374011-5
Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 04 12:47:52 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 21 09:23:33 2020
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232037.D
 Acq On : 28 May 2020 12:26 pm
 Operator : PAH9:ML
 Sample : WG1374011-6
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jun 04 12:45:20 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	81	0.02
2 A1	trans-Decalin	0.404	0.410	-1.5	87	0.00
3 t	cis-Decalin	0.309	0.297	3.9	81	0.00
8 s	Naphthalene-d8	1.827	1.706	6.6	76	0.02
9 A1	Naphthalene	2.127	1.964	7.7	75	0.02
14 t	2-Methylnaphthalene	1.410	1.234	12.5	73	0.04
15 t	1-Methylnaphthalene	1.340	1.221	8.9	75	0.03
16 A1	Benzothiophene	1.962	1.788	8.9	74	0.02
21 t	Biphenyl	1.728	1.566	9.4	75	0.03
22 t	2,6-Dimethylnaphthalene	1.238	1.111	10.3	74	0.03
23 t	Dibenzofuran	2.007	1.765	12.1	73	0.05
24 t	Acenaphthylene	2.106	1.949	7.5	77	0.02
25 t	Acenaphthene	1.305	1.256	3.8	79	0.02
26 t	2,3,5-Trimethylnaphthalene	1.152	1.043	9.5	76	0.05
27 A1	Fluorene	1.546	1.368	11.5	74	0.05
31 A1	Dibenzothiophene	2.286	1.899	16.9	69	0.03
40 s	Phenanthrene-d10	1.711	1.625	5.0	79	0.03
41 A1	Phenanthrene	2.279	1.971	13.5	72	0.03
52 t	Retene	0.760	0.735	3.3	83	0.00
53 t	Anthracene	2.009	2.018	-0.4	80	0.05
54 t	Carbazole	2.102	1.708	18.7	69	0.05
55 t	1-Methylphenanthrene	1.676	1.513	9.7	77	0.04
56 A1	Fluoranthene	2.671	2.292	14.2	78	0.02
57 A1	Benzo(b)fluorene	1.582	1.494	5.6	80	0.04
59 A1	Pyrene	2.820	2.431	13.8	80	0.02
67 A1	Napthhobenzothiophene-2,1-D	2.254	2.100	6.8	81	0.03
74 i	Chrysene-d12	1.000	1.000	0.0	88	0.02
75 t	Benz[a]anthracene	1.257	1.035	17.7	77	0.03
76 A1	Chrysene	1.319	1.244	5.7	91	0.03
77 A2	Chrysene/Triphenylene	1.319	1.244	5.7	91	0.03
83 S	Benzo[b]fluoranthene-d12	1.241	1.250	-0.7	94	0.02
84 t	Benzo[b]fluoranthene	1.537	1.189	22.6	78	0.02
85 A1	Benzo[j]+[k]fluoranthene	1.517	1.662	-9.6	106	0.03
88 t	Benzo[e]pyrene	1.517	1.322	12.9	90	0.02
89 s	Benzo[a]pyrene-d12	0.830	0.813	2.0	92	0.03
90 t	Benzo[a]pyrene	1.447	1.262	12.8	87	0.03
91 t	Perylene	1.344	1.336	0.6	96	0.03
92 t	Indeno[1,2,3-cd]pyrene	1.688	1.437	14.9	85	0.06

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232037.D
 Acq On : 28 May 2020 12:26 pm
 Operator : PAH9:ML
 Sample : WG1374011-6
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jun 04 12:45:20 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 A1 Dibenz[ah]+[ac]anthracene	1.453	1.431	1.5	91	0.05
95 t Benzo[g,h,i]perylene	1.734	1.508	13.0	91	0.06
96 A1 Hopane (T19)	0.436	0.345	20.9	81	0.00
130 SA1 5B(H)Cholane - Surr	0.221	0.199	10.0	84	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.00	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.56	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232037.D
 Acq On : 28 May 2020 12:26 pm
 Operator : PAH9:ML
 Sample : WG1374011-6
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jun 04 12:45:20 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

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

Internal Standards							
1) Acenaphthene-d10	26.548	164	23070	500.000	ng/mL	0.00	
74) Chrysene-d12	42.977	240	46935M4	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.603	136	39361	466.811	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.68%#	
40) Phenanthrene-d10	32.415	188	37481	474.692	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.47%#	
83) Benzo[b]fluoranthene-d12	46.870	264	58651	503.617	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.36%	
89) Benzo[a]pyrene-d12	48.032	264	38136	489.545	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.95%#	
130) 5B(H)Cholane - Surr	43.589	217	9341	450.061	ng/ml	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.01%#	
Target Compounds							
2) trans-Decalin	16.254	138	4731	254.092	ng/mL	100	Qvalue
3) cis-Decalin	17.459	138	3430	240.791	ng/mL	100	
9) Naphthalene	19.676	128	45318	461.723	ng/mL	100	
14) 2-Methylnaphthalene	22.387	142	28464	437.406	ng/mL	100	
15) 1-Methylnaphthalene	22.797	142	28162	455.402	ng/mL	100	
16) Benzothiophene	19.895	134	41254	455.821	ng/mL	100	
21) Biphenyl	24.248	154	36123	453.102	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.860	156	25632	448.869	ng/mL	100	
23) Dibenzofuran	27.342	168	40715	439.646	ng/mL	97	
24) Acenaphthylene	25.937	152	44954	462.519	ng/mL	100	
25) Acenaphthene	26.676	153	28978	481.136	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.254	170	24069	452.999	ng/mL	96	
27) Fluorene	28.720	166	31571	442.451	ng/mL	99	
31) Dibenzothiophene	32.004	184	43820	415.519	ng/mL	98	
41) Phenanthrene	32.506	178	45480	432.594	ng/mL	98	
52) Retene	39.471	234	16954	483.221	ng/mL	100	
53) Anthracene	32.697	178	46565M4	502.250	ng/mL		
54) Carbazole	33.364	167	39403	406.325	ng/mL	96	
55) 1-Methylphenanthrene	35.016	192	34916	451.571	ng/mL	97	
56) Fluoranthene	37.261	202	52870	428.995	ng/mL#	92	
57) Benzo(b)fluorene	39.791	216	34457	471.921	ng/mL	98	
59) Pyrene	38.138	202	56075	430.895	ng/mL#	91	
67) Naphthobenzothiophene-2,1	41.991	234	48446	465.898	ng/mL	100	
75) Benz[a]anthracene	42.922	228	48557	411.429	ng/mL	97	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232037.D
 Acq On : 28 May 2020 12:26 pm
 Operator : PAH9:ML
 Sample : WG1374011-6
 Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jun 04 12:45:20 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 21 09:23:33 2020
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.077	228	58396	471.621	ng/mL	94
77) Chrysene/Triphenylene	43.077	228	58396	471.621	ng/mL	94
84) Benzo[b]fluoranthene	46.952	252	55783	386.601	ng/mL	94
85) Benzo[j]+[k]fluoranthene	47.035	252	77989	547.728	ng/mL	91
88) Benzo[e]pyrene	47.931	252	62062	435.811	ng/mL	92
90) Benzo[a]pyrene	48.123	252	59212	435.937	ng/mL	90
91) Perylene	48.425	252	62688	496.784	ng/mL	85
92) Indeno[1,2,3-cd]pyrene	52.833	276	67435M3	425.610	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.888	278	67187	492.691	ng/mL#	96
95) Benzo[g,h,i]perylene	54.094	276	70759	434.662	ng/mL	97
96) Hopane (T19)	51.928	191	16170	395.022	ng/mL#	67

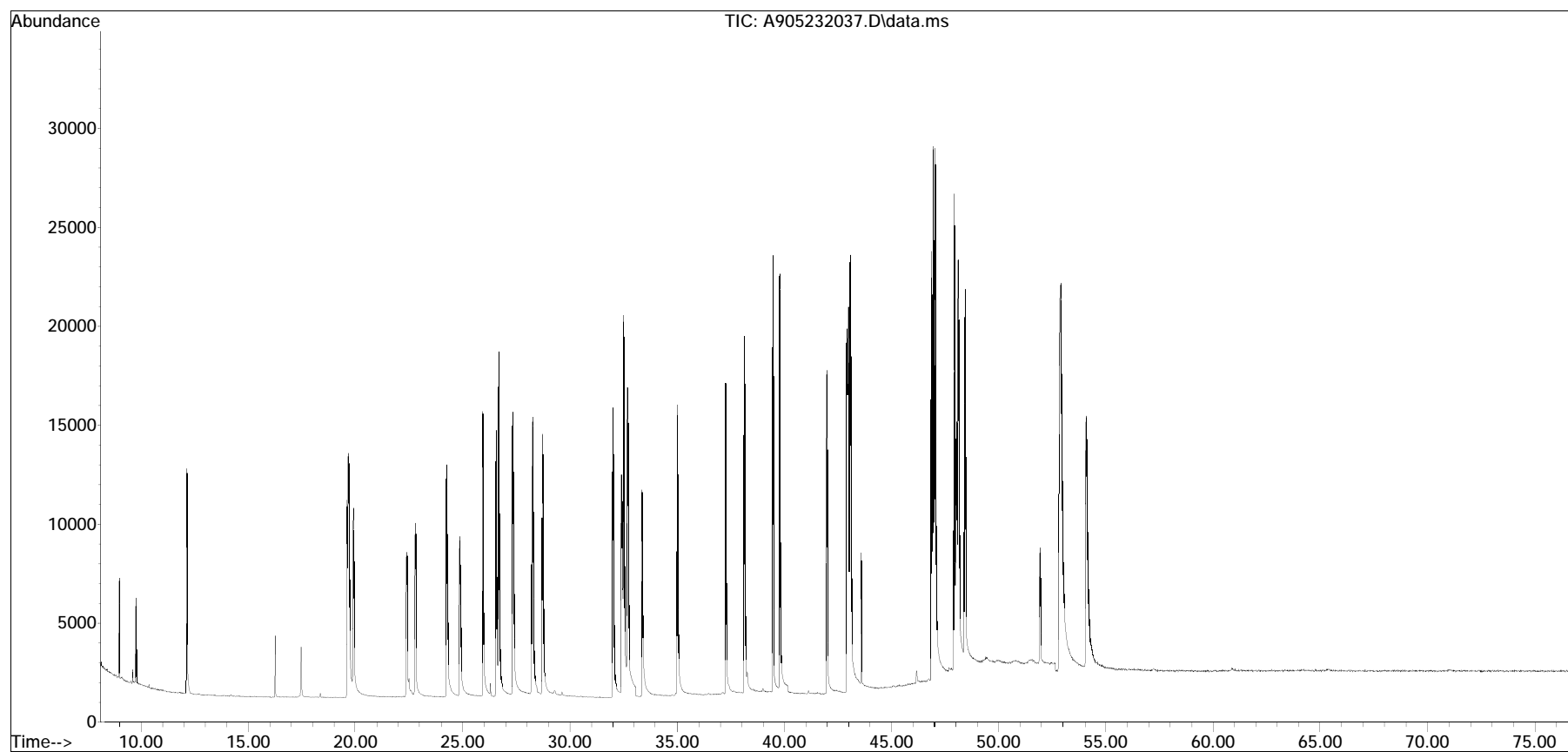
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232037.D
Acq On : 28 May 2020 12:26 pm
Operator : PAH9:ML
Sample : WG1374011-6
Misc : WG1374011,CC FRBC41 500NG/ML,ICAL16710
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jun 04 12:45:20 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 21 09:23:33 2020
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232034.D
 Acq On : 28 May 2020 8:10 am
 Operator : PAH9:ML
 Sample : L2020213-03D2,32,40
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jun 04 13:22:35 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.539	164	20737	500.000	ng/mL	0.00	
74) Chrysene-d12	42.968	240	46713	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.576	136	312	4.117	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.41%#	
40) Phenanthrene-d10	32.387	188	335	4.720	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.47%#	
83) Benzo[b]fluoranthene-d12	46.861	264	449	3.874	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.39%#	
89) Benzo[a]pyrene-d12	48.022	264	294	3.792	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.38%#	
Target Compounds							
9) Naphthalene	19.658	128	948858	10755.078	ng/mL	100	Qvalue
10) C1-Naphthalenes	22.350	142	239385M5	2713.372	ng/mL		
14) 2-Methylnaphthalene	22.350	142	157155	2686.698	ng/mL	100	
25) Acenaphthene	26.666	153	200908	3711.064	ng/mL	100	
41) Phenanthrene	32.487	178	961445	10173.874	ng/mL	99	
53) Anthracene	32.661	178	191099	2293.085	ng/mL	98	
56) Fluoranthene	37.252	202	677980	6120.135	ng/mL#	91	
59) Pyrene	38.129	202	865878	7402.199	ng/mL	93	
90) Benzo[a]pyrene	48.114	252	247093	1827.821	ng/mL	89	

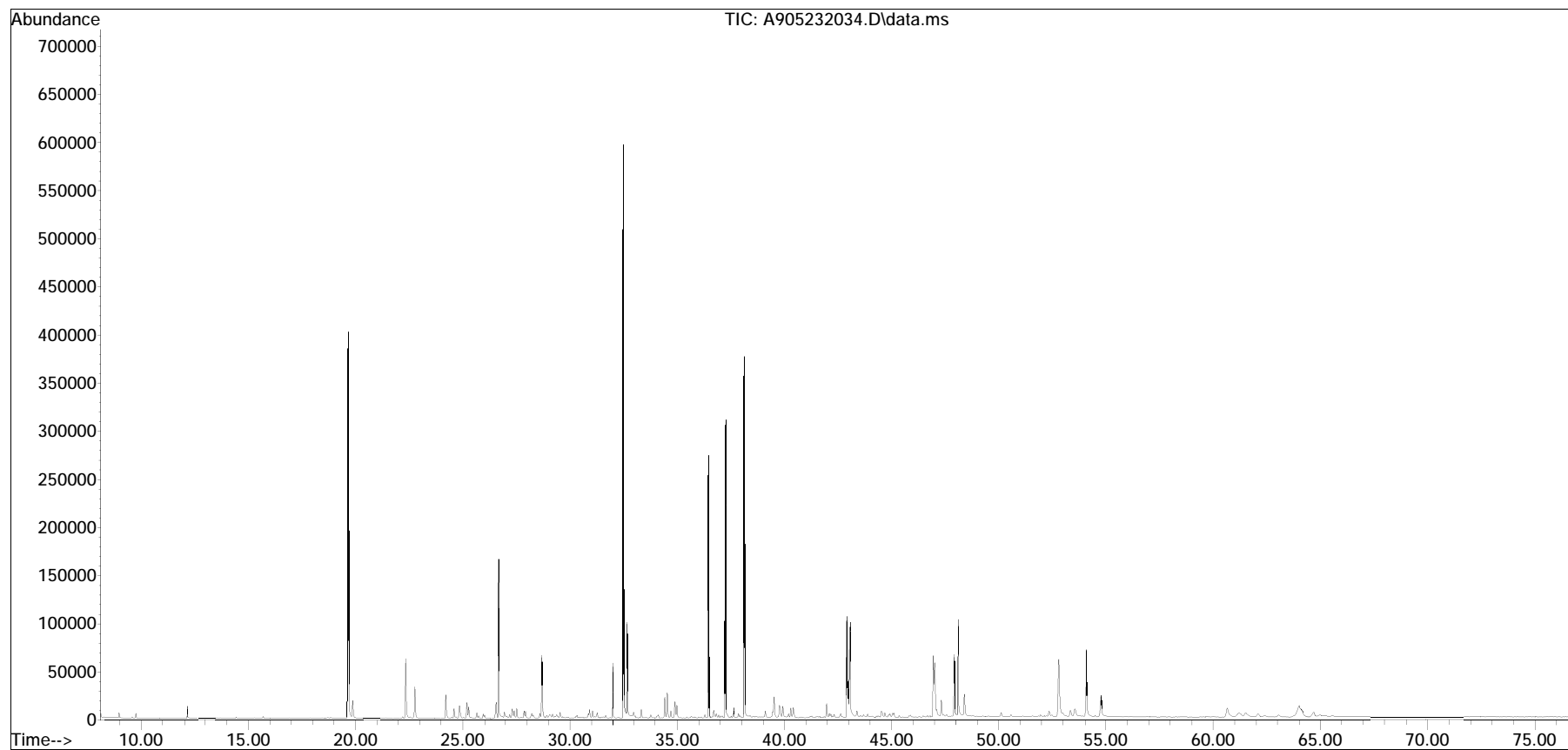
(#) = qualifier out of range (m) = manual integration (+) = signals summed

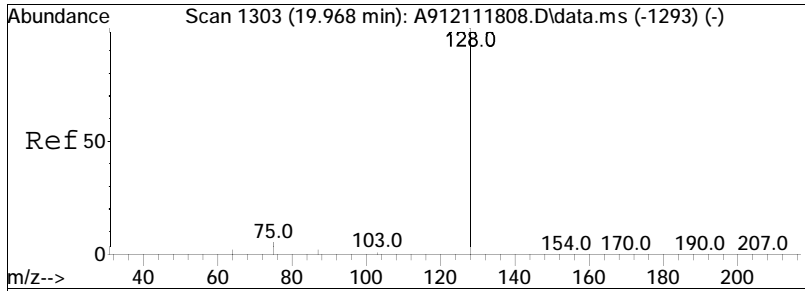
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232034.D
Acq On : 28 May 2020 8:10 am
Operator : PAH9:ML
Sample : L2020213-03D2,32,40
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 33 Sample Multiplier: 1

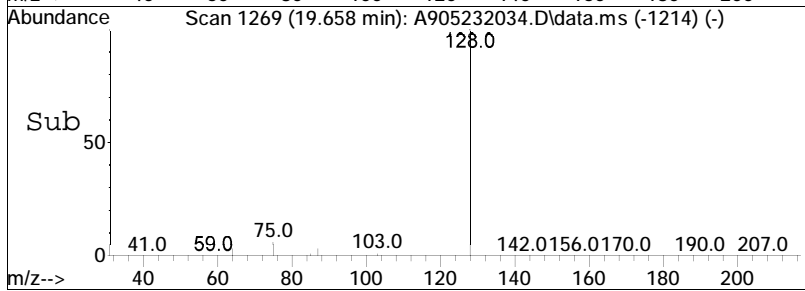
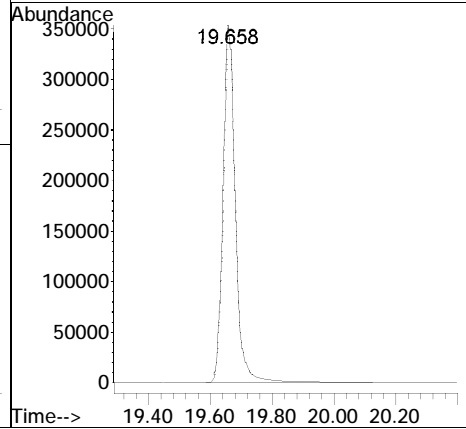
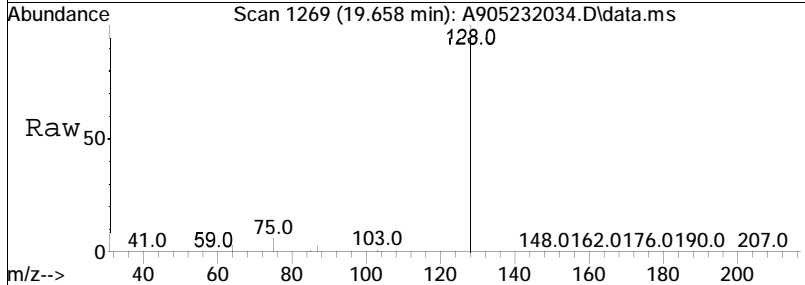
Quant Time: Jun 04 13:22:35 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

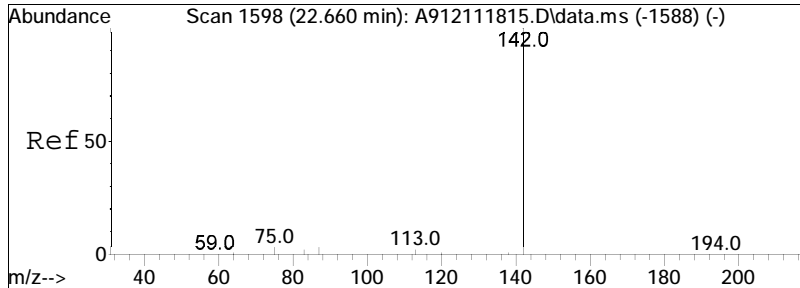
Sub List : ALKPAH - POI+MP+BcF



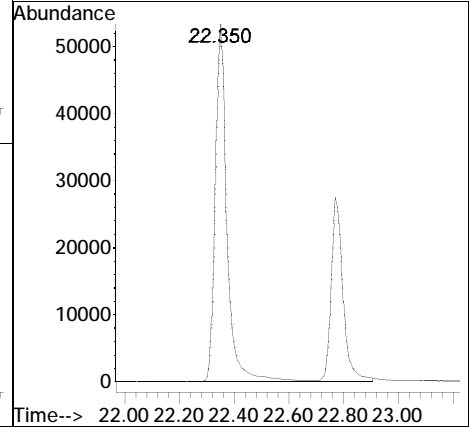
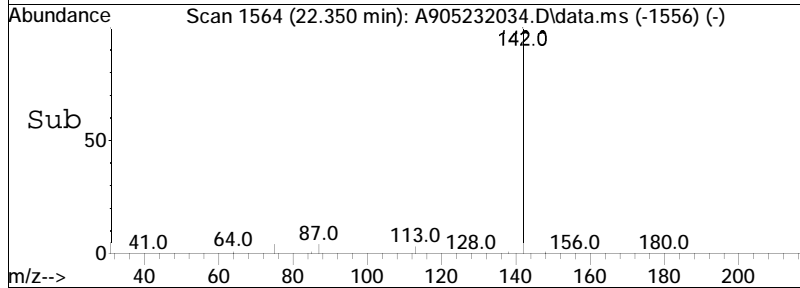
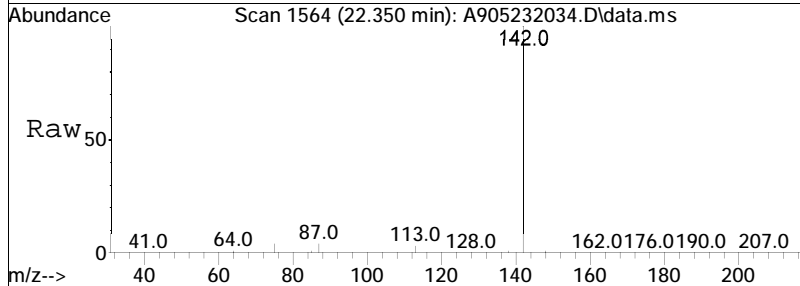


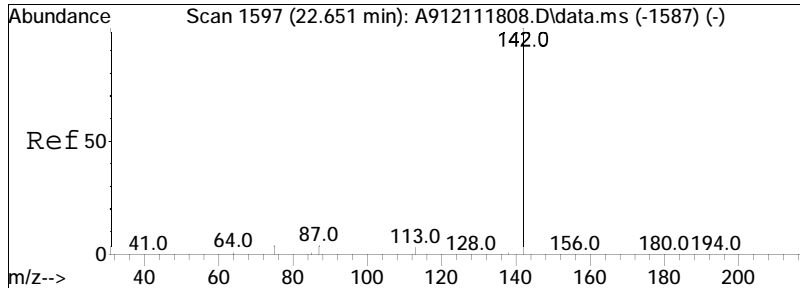
#9
 Naphthalene
 Concen: 10755.08 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am
 Tgt Ion:128 Resp: 948858



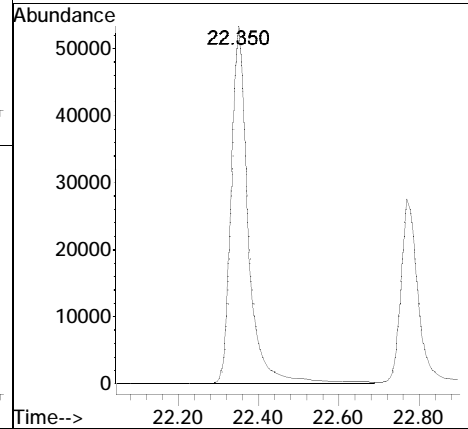
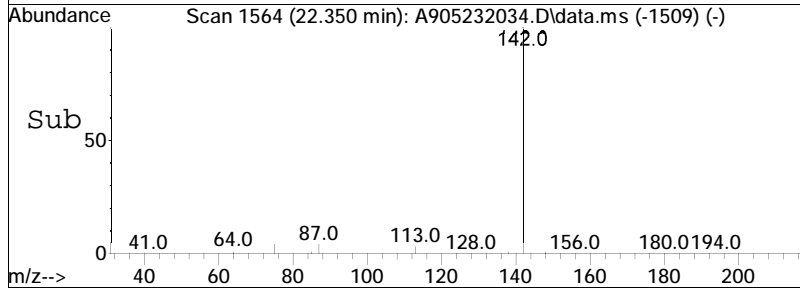
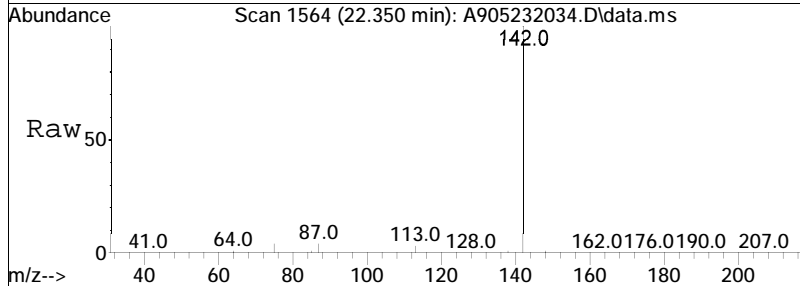


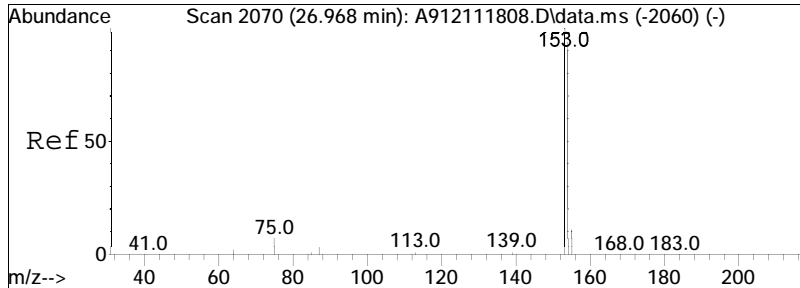
#10
 Cl-Naphthalenes
 Concen: 2713.37 ng/mL M5
 RT: 22.350 min Scan# 1564
 Delta R.T. -0.026 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am
 Tgt Ion:142 Resp: 239385





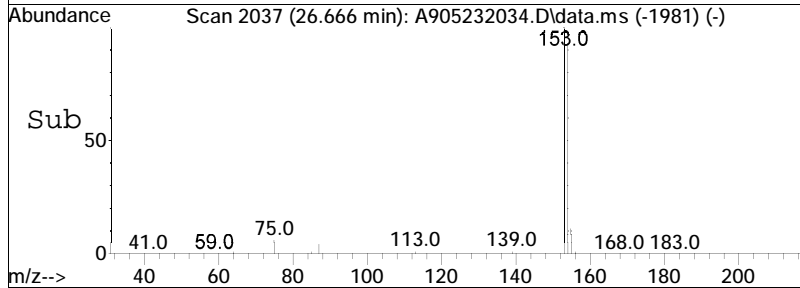
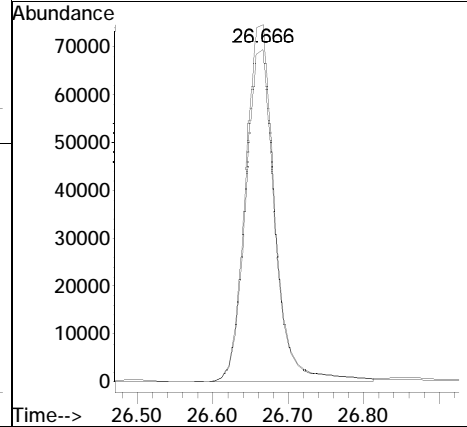
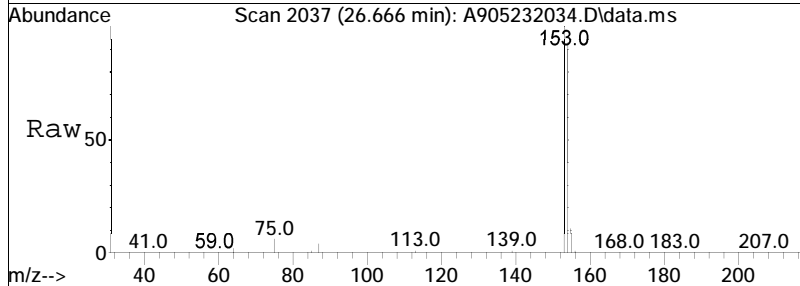
#14
 2-Methylnaphthalene
 Concen: 2686.70 ng/mL
 RT: 22.350 min Scan# 1564
 Delta R.T. 0.000 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am
 Tgt Ion:142 Resp: 157155

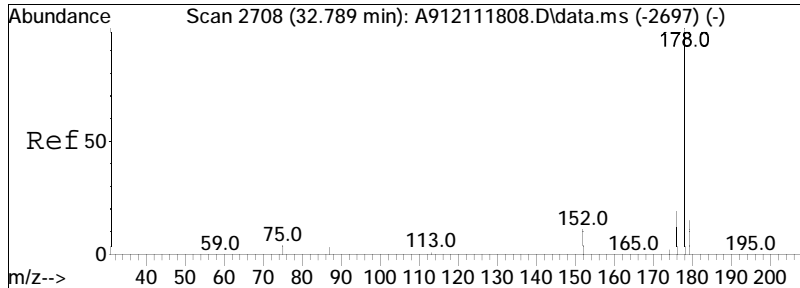




#25
 Acenaphthene
 Concen: 3711.06 ng/mL
 RT: 26.666 min Scan# 2037
 Delta R.T. 0.009 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am

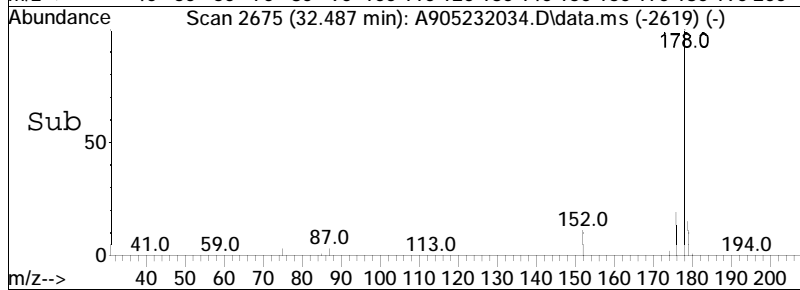
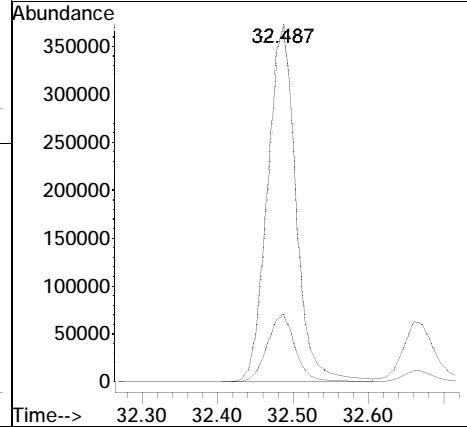
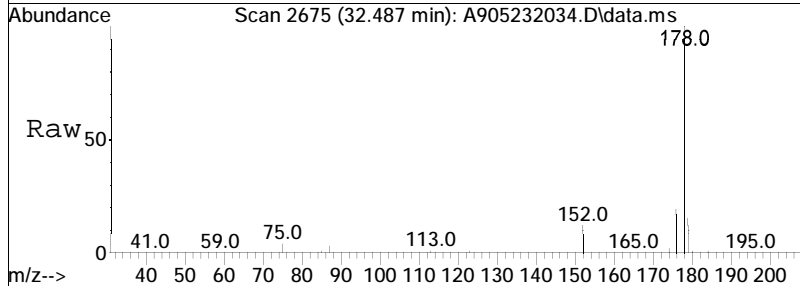
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.0	65.0	120.8

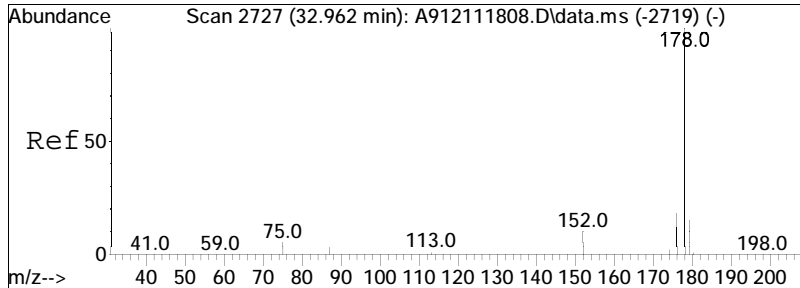




#41
 Phenanthrene
 Concen: 10173.87 ng/mL
 RT: 32.487 min Scan# 2675
 Delta R.T. 0.009 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am

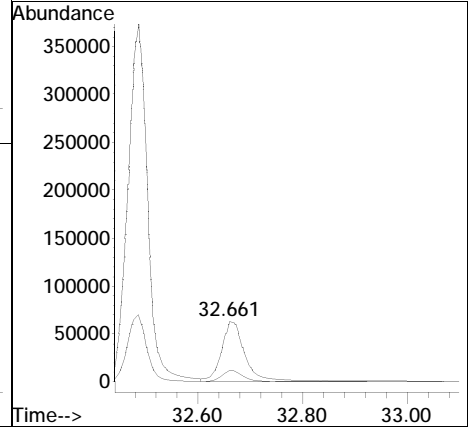
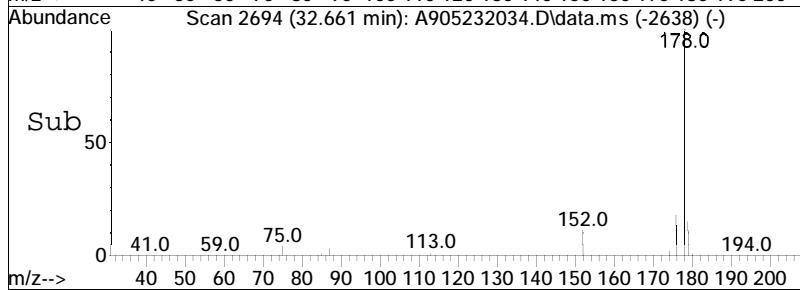
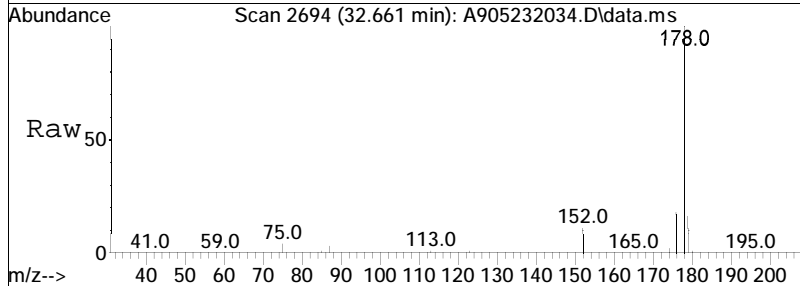
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.9	13.6	25.4

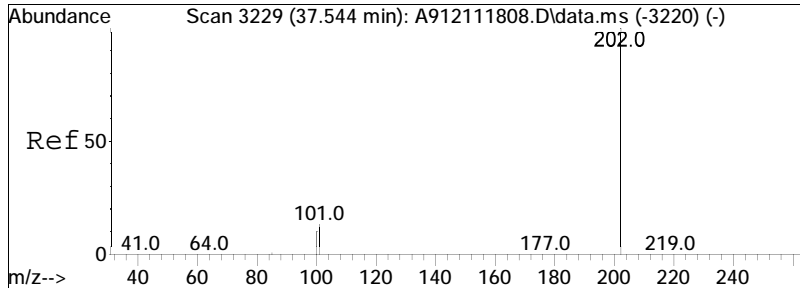




#53
 Anthracene
 Concen: 2293.09 ng/mL
 RT: 32.661 min Scan# 2694
 Delta R.T. 0.009 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am

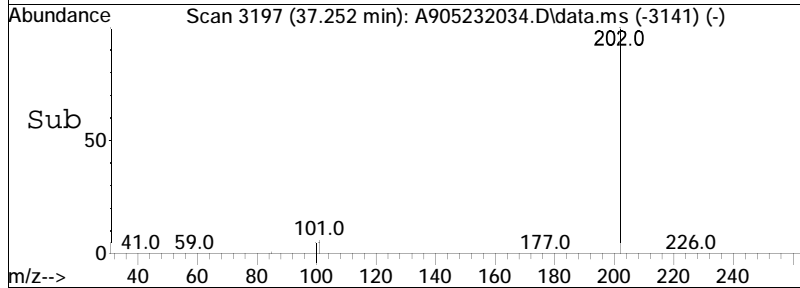
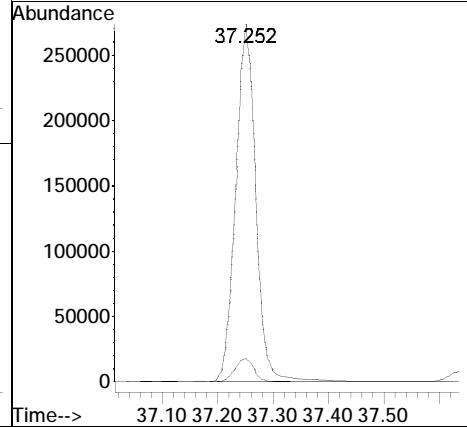
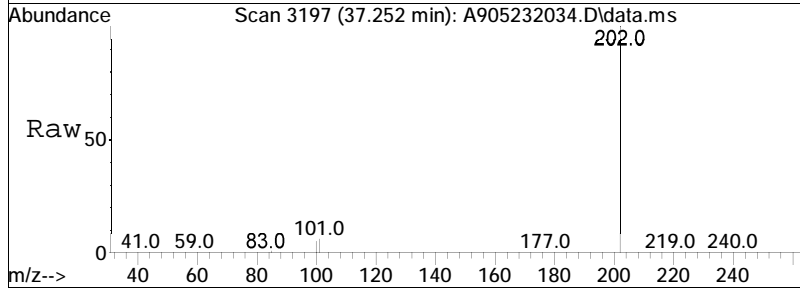
Tgt Ion: 178 Resp: 191099
 Ion Ratio Lower Upper
 178 100
 176 17.9 13.3 24.7

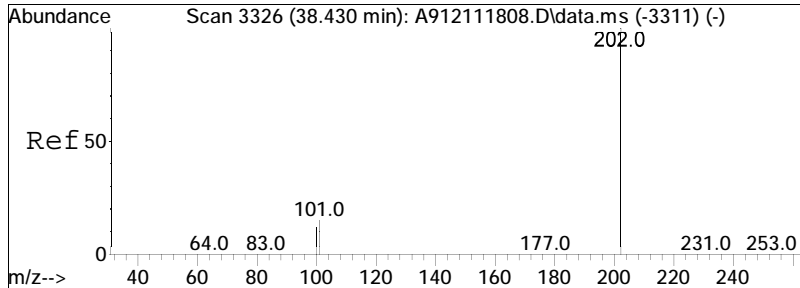




#56
 Fluoranthene
 Concen: 6120.14 ng/mL
 RT: 37.252 min Scan# 3197
 Delta R.T. 0.009 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am

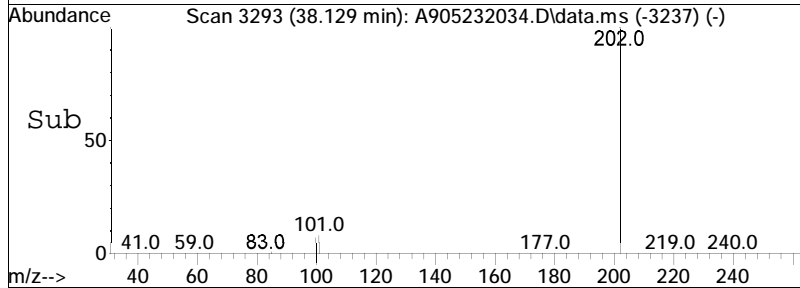
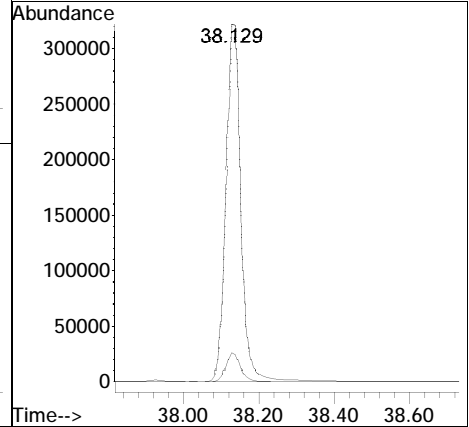
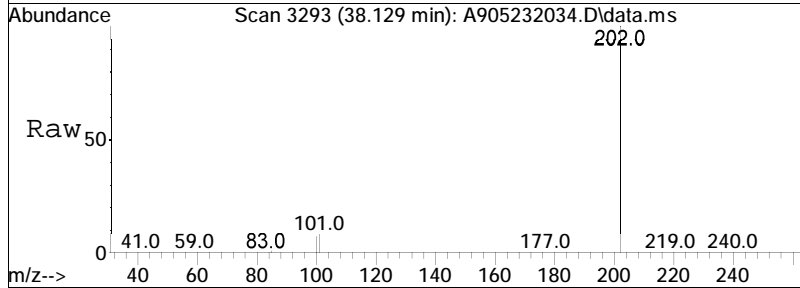
Tgt Ion	Ratio	Lower	Upper
202	100		
101	6.5	6.8	12.6#

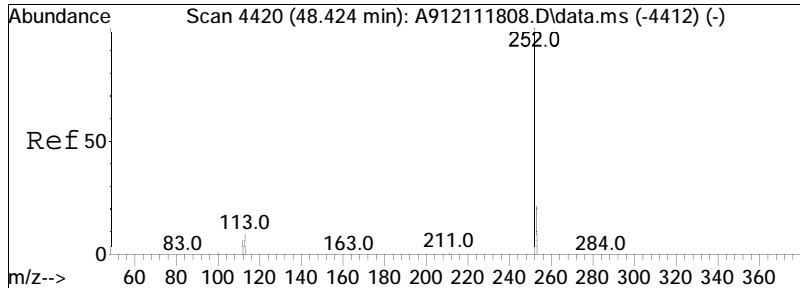




#59
 Pyrene
 Concen: 7402.20 ng/mL
 RT: 38.129 min Scan# 3293
 Delta R.T. 0.009 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am

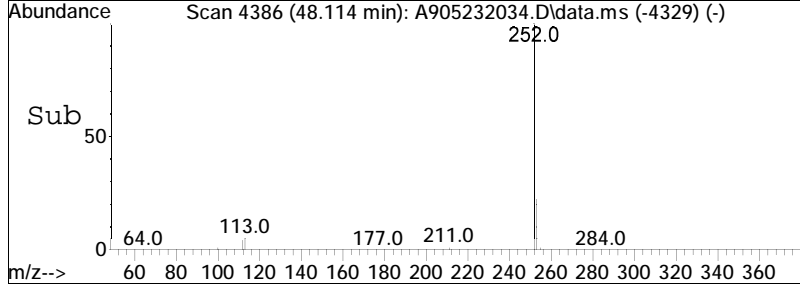
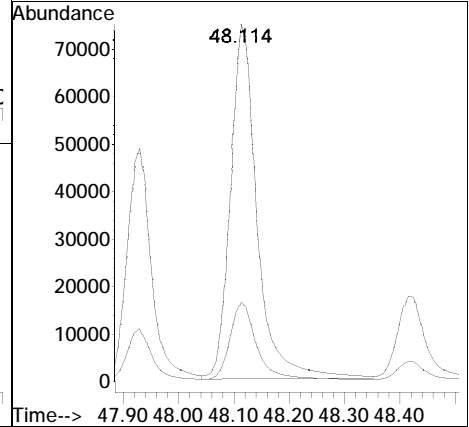
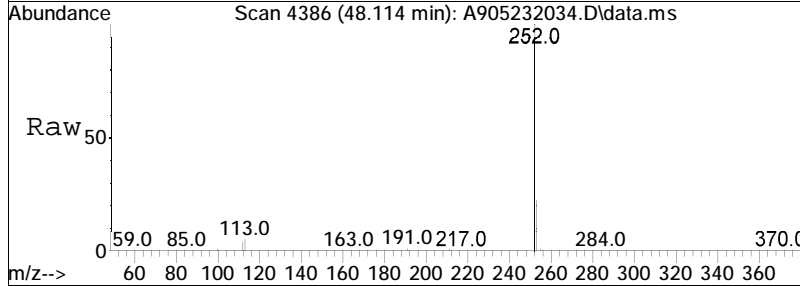
Tgt Ion: 202 Resp: 865878
 Ion Ratio Lower Upper
 202 100
 101 8.1 7.6 14.0





#90
 Benzo[a]pyrene
 Concen: 1827.82 ng/mL
 RT: 48.114 min Scan# 4386
 Delta R.T. 0.018 min
 Lab File: A905232034.D
 Acq: 28 May 2020 8:10 am

Tgt Ion: 252 Resp: 247093
 Ion Ratio Lower Upper
 252 100
 253 21.7 19.2 35.6



Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232006.D
 Acq On : 23 May 2020 8:01 pm
 Operator : PAH9:ML
 Sample : WG1372713-1
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 03 15:08:34 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:08:28 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.539	164	25675	500.000	ng/mL	0.00	
74) Chrysene-d12	42.959	240	51812	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	34033	362.671	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	36.27%#		
40) Phenanthrene-d10	32.387	188	41797	475.645	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	47.56%#		
83) Benzo[b]fluoranthene-d12	46.852	264	65994	513.329	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	51.33%		
89) Benzo[a]pyrene-d12	48.004	264	42362	492.607	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	49.26%#		
Target Compounds							
							Qvalue
2) trans-Decalin	0.000		0		N.D.		
3) cis-Decalin	0.000		0		N.D.		
4) C1-Decalins	0.000		0		N.D.		
5) C2-Decalins	0.000		0		N.D.		
6) C3-Decalins	0.000		0		N.D.		
7) C4-Decalins	0.000		0		N.D.		
9) Naphthalene	19.658	128	1536	14.062	ng/mL	100	
10) C1-Naphthalenes	22.359	142	562M5	5.145	ng/mL		
11) C2-Naphthalenes	24.860	156	699M5	6.399	ng/mL		
12) C3-Naphthalenes	27.515	170	471M5	4.312	ng/mL		
13) C4-Naphthalenes	0.000		0		N.D.		
14) 2-Methylnaphthalene	22.359	142	346	4.778	ng/mL	100	
15) 1-Methylnaphthalene	22.779	142	177	2.572	ng/mL	100	
16) Benzothiophene	19.877	134	110	1.092	ng/mL	100	
17) C1-Benzo(b)thiophenes	0.000		0		N.D.		
18) C2-Benzo(b)thiophenes	0.000		0		N.D.		
19) C3-Benzo(b)thiophenes	0.000		0		N.D.		
20) C4-Benzo(b)thiophenes	0.000		0		N.D.		
21) Biphenyl	24.230	154	256	2.885	ng/mL	100	
22) 2,6-Dimethylnaphthalene	24.860	156	112	1.762	ng/mL	100	
23) Dibenzofuran	27.305	168	75M4	0.728	ng/mL		
24) Acenaphthylene	25.937	152	41M4	0.379	ng/mL		
25) Acenaphthene	26.657	153	396	5.908	ng/mL	97	
26) 2,3,5-Trimethylnaphthalen	0.000		0		N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232006.D
 Acq On : 23 May 2020 8:01 pm
 Operator : PAH9:ML
 Sample : WG1372713-1
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 03 15:08:34 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:08:28 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.674	166	238	2.997	ng/mL	96
28) C1-Fluorenes	0.000		0	N.D.		
29) C2-Fluorenes	0.000		0	N.D.		
30) C3-Fluorenes	0.000		0	N.D.		
31) Dibenzothiophene	31.986	184	191	1.627	ng/mL#	75
32) 4-Methyldibenzothiophene(	0.000		0	N.D.	d	
33) 2/3-Methyldibenzothiophen	0.000		0	N.D.	d	
34) 1-Methyldibenzothiophene(	0.000		0	N.D.	d	
36) C1-Dibenzothiophenes	0.000		0	N.D.	d	
36) C1-Dibenzothiophenes BS	0.000		0d	0.000	ng/mL	
37) C2-Dibenzothiophenes	0.000		0	N.D.		
38) C3-Dibenzothiophenes	0.000		0	N.D.		
39) C4-Dibenzothiophenes	0.000		0	N.D.		
41) Phenanthrene	32.478	178	1433	12.247	ng/mL	100
42) 3-Methylphenanthrene(3MP)	34.432	192	74M4	0.632	ng/mL	
43) 2-Methylphenanthrene(2MP)	34.550	192	78M4	0.667	ng/mL	
44) 2-Methylanthracene(2MA)	34.696	192	30M4	0.256	ng/mL	
45) 9/4-Methylphenanthrene(9M	34.888	192	68M4	0.581	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.550	192	360M5	3.077	ng/mL	
48) C2-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
48) C2-Phenanthrenes/Anthr BS	0.000		0d	0.000	ng/mL	
50) C3-Phenanthrenes/Anthrace	0.000		0	N.D.		
51) C4-Phenanthrenes/Anthrace	0.000		0	N.D.		
52) Retene	0.000		0	N.D.		
53) Anthracene	32.661	178	243M4	2.355	ng/mL	
54) Carbazole	33.318	167	47M4	0.435	ng/mL	
55) 1-Methylphenanthrene	34.988	192	58M4	0.674	ng/mL	
56) Fluoranthene	37.243	202	556	4.054	ng/mL#	74
57) Benzo(b)fluorene	0.000		0	N.D.		
58) 7H-Benzo(c)fluorene	0.000		0	N.D.		
59) Pyrene	38.129	202	634	4.378	ng/mL#	71
60) 2-Methylpyrene	0.000		0	N.D.		
61) 4-Methylpyrene	0.000		0	N.D.		
62) 1-Methylpyrene	0.000		0	N.D.		
63) C1-Fluoranthenes/Pyrenes	0.000		0	N.D.		
64) C2-Fluoranthenes/Pyrenes	0.000		0	N.D.		
65) C3-Fluoranthenes/Pyrenes	0.000		0	N.D.		
66) C4-Fluoranthenes/Pyrenes	0.000		0	N.D.		
67) Naphthobenzothiophene-2,1	41.973	234	78M4	0.674	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232006.D
 Acq On : 23 May 2020 8:01 pm
 Operator : PAH9:ML
 Sample : WG1372713-1
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 03 15:08:34 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:08:28 2020
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	0.000		0		N.D.	
69) Naphthobenzothiophene-2,3	0.000		0		N.D. d	
70) C1-Naphthobenzothiophenes	0.000		0		N.D.	
71) C2-Naphthobenzothiophenes	0.000		0		N.D. d	
72) C3-Naphthobenzothiophenes	0.000		0		N.D.	
73) C4-Naphthobenzothiophenes	0.000		0		N.D.	
75) Benz[a]anthracene	42.895	228	154	1.182	ng/mL#	27
77) Chrysene/Triphenylene	43.050	228	285	2.085	ng/mL#	45
78) C1-Chrysenes	0.000		0		N.D.	
79) C2-Chrysenes	0.000		0		N.D. d	
79) C2-Chrysenes BS	0.000		0d	0.000	ng/mL	
81) C3-Chrysenes	0.000		0		N.D.	
82) C4-Chrysenes	0.000		0		N.D.	
84) Benzo[b]fluoranthene	46.934	252	291	1.827	ng/mL#	2
85) Benzo[j]+[k]fluoranthene	47.007	252	313M4	1.991	ng/mL	
87) Benzo[a]fluoranthene	0.000		0		N.D. d	
88) Benzo[e]pyrene	47.913	252	313	1.991	ng/mL#	1
90) Benzo[a]pyrene	48.105	252	246	1.641	ng/mL#	47
91) Perylene	0.000		0		N.D. d	
92) Indeno[1,2,3-cd]pyrene	52.778	276	262M3	1.498	ng/mL	
93) Dibenz[ah]+[ac]anthracene	0.000		0		N.D. d	
95) Benzo[g,h,i]perylene	54.030	276	210	1.169	ng/mL#	50

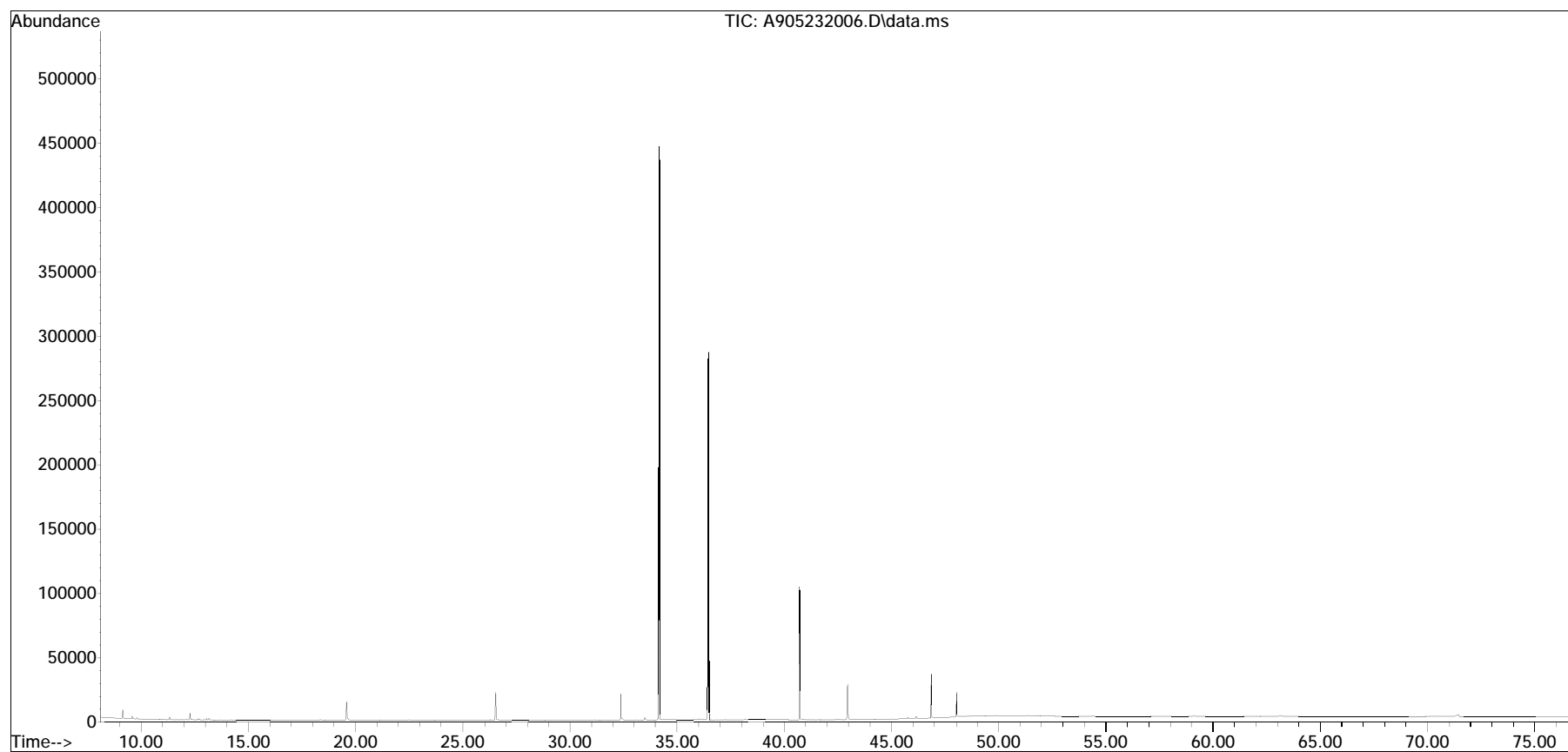
(#) = qualifier out of range (m) = manual integration (+) = signals summed

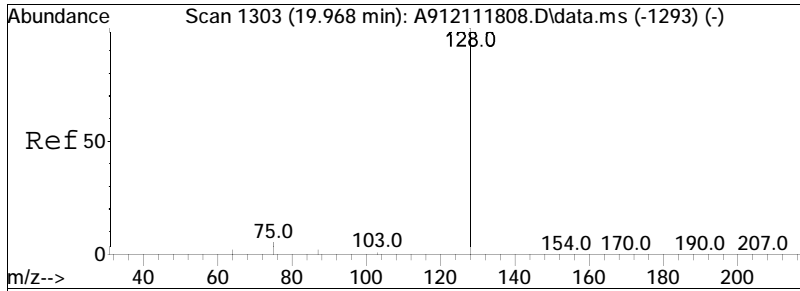
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232006.D
Acq On : 23 May 2020 8:01 pm
Operator : PAH9:ML
Sample : WG1372713-1
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 03 15:08:34 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 15:08:28 2020
Response via : Initial Calibration

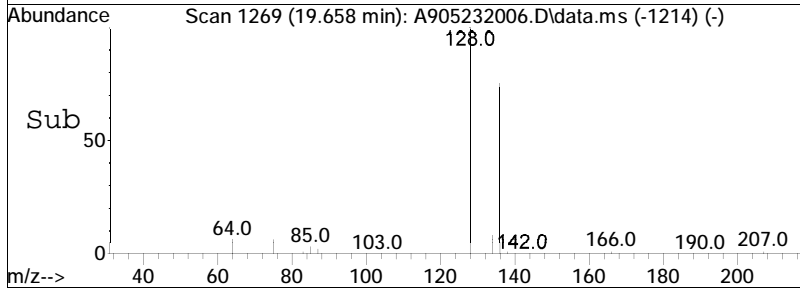
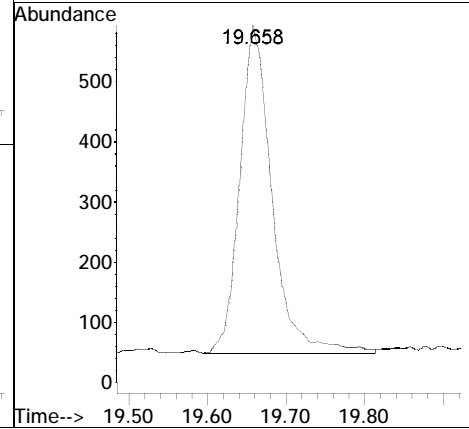
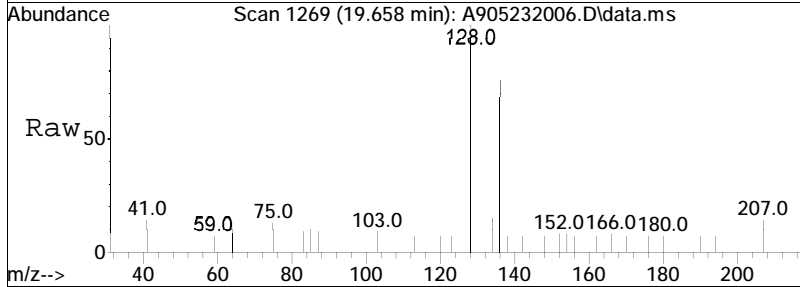
Sub List : ALKPAH - POI+MP+BcF

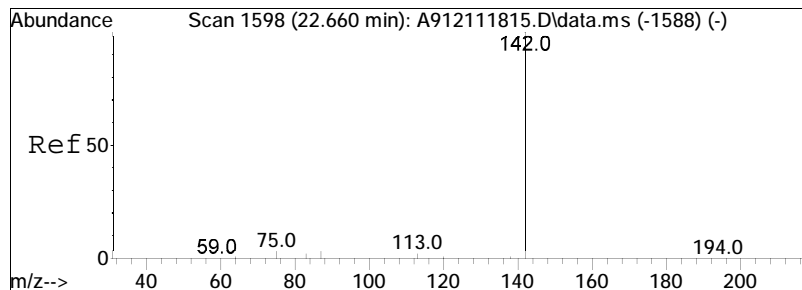




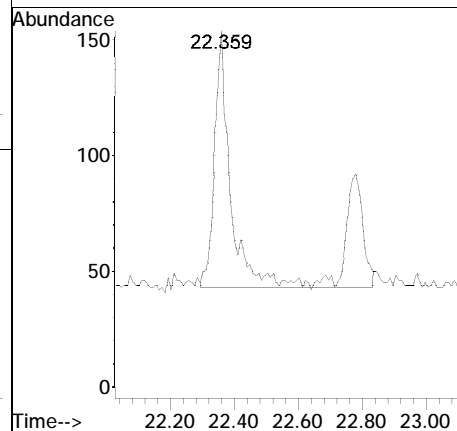
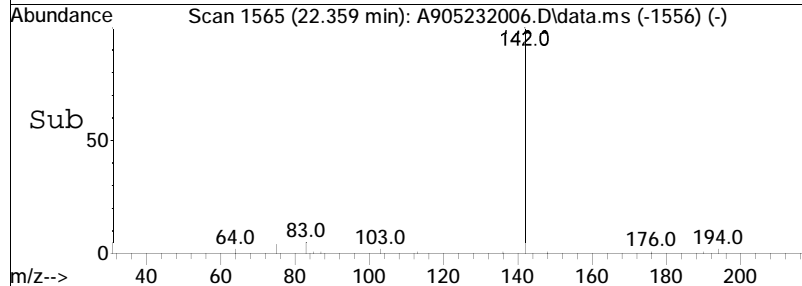
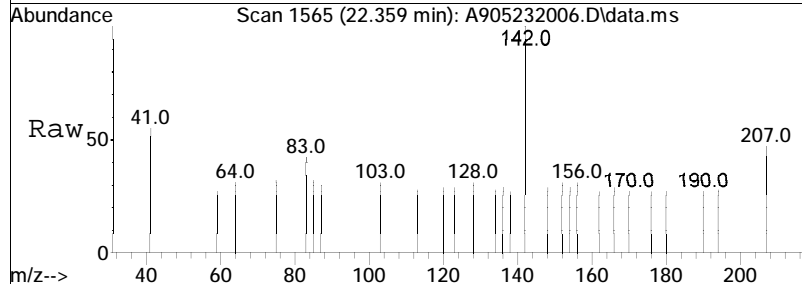
#9
 Naphthalene
 Concen: 14.06 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

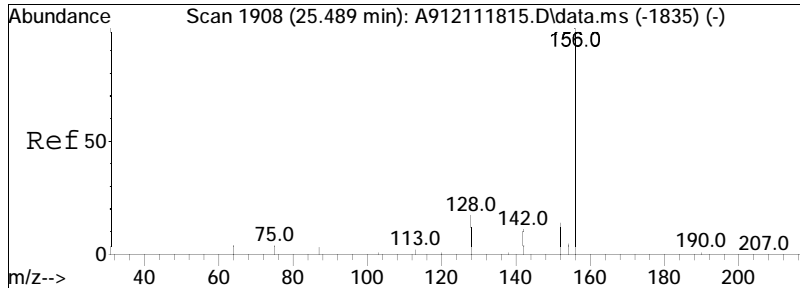
Tgt Ion:128 Resp: 1536



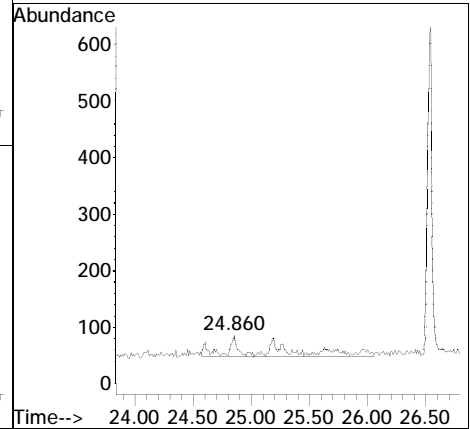
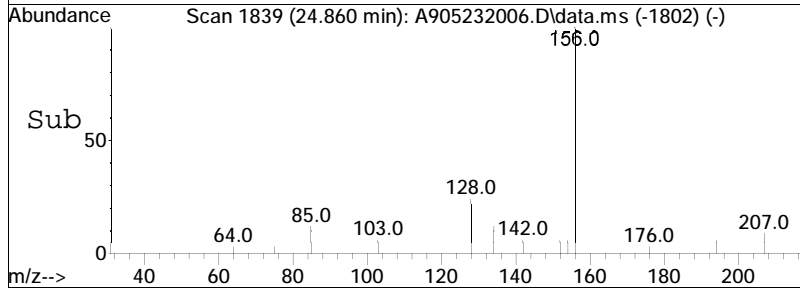
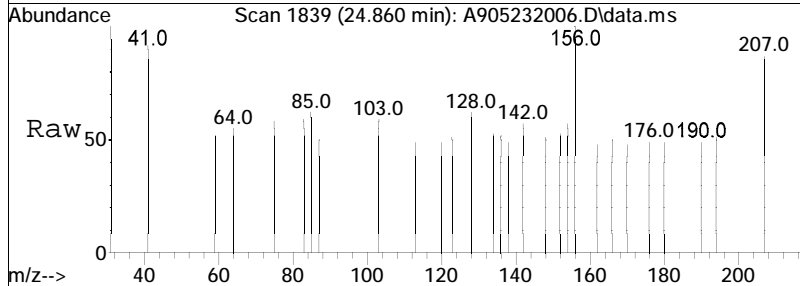


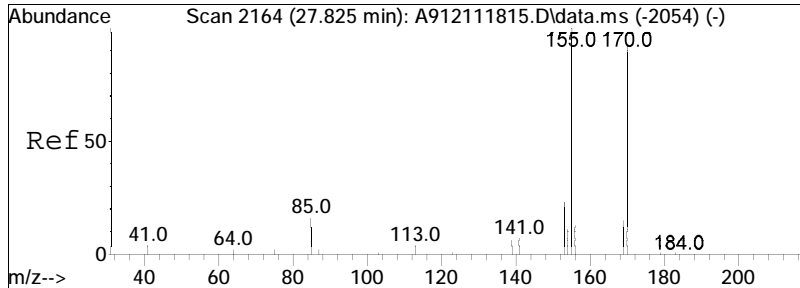
#10
 Cl-Naphthalenes
 Concen: 5.14 ng/mL M5
 RT: 22.359 min Scan# 1565
 Delta R.T. -0.017 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion:142 Resp: 562





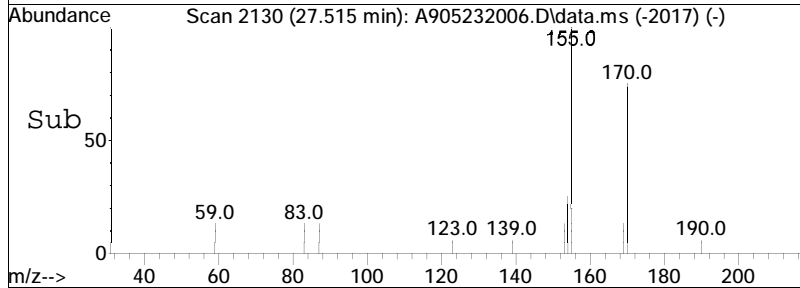
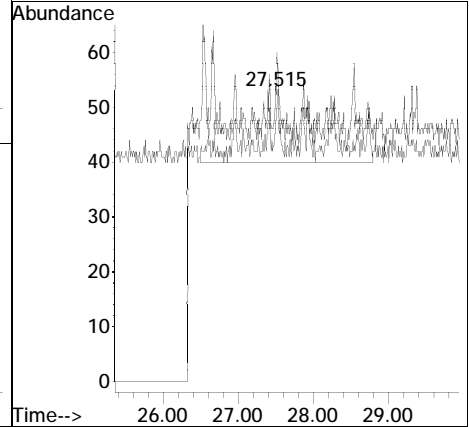
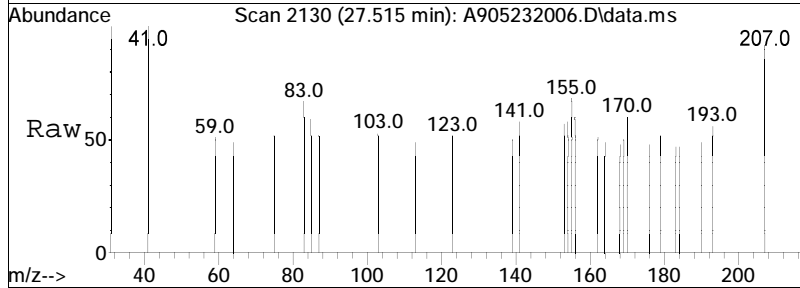
#11
 C2-Naphthalenes
 Concen: 6.40 ng/mL M5
 RT: 24.860 min Scan# 1839
 Delta R.T. -0.324 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion:156 Resp: 699

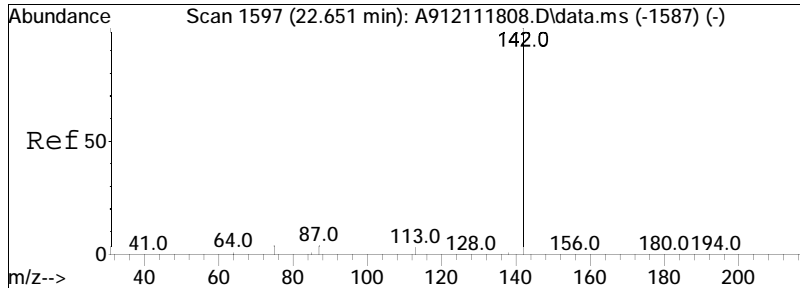




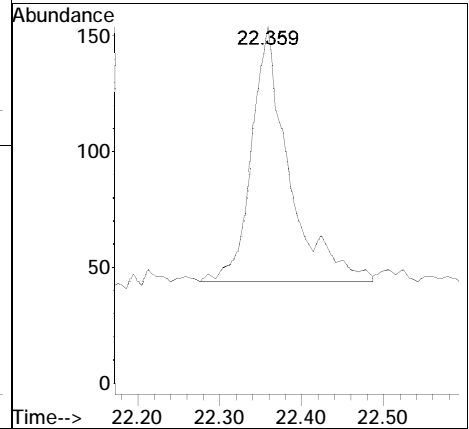
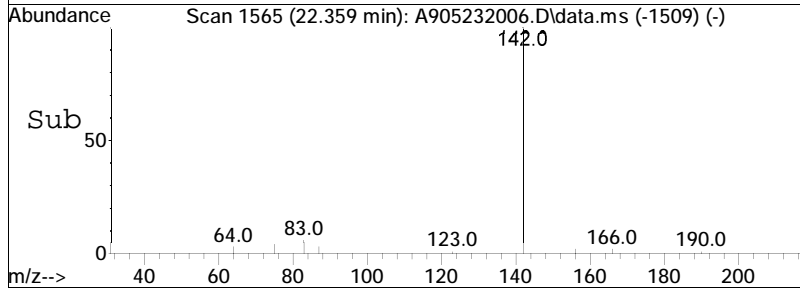
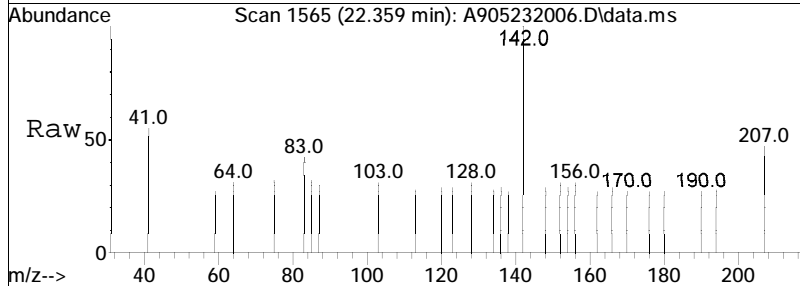
#12
 C3-Naphthalenes
 Concen: 4.31 ng/mL M5
 RT: 27.515 min Scan# 2130
 Delta R.T. 0.020 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

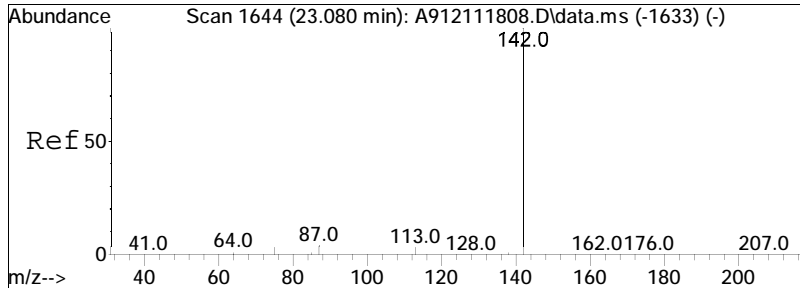
Tgt Ion: 170 Resp: 471
 Ion Ratio Lower Upper
 170 100
 155 0.0 71.4 132.6#





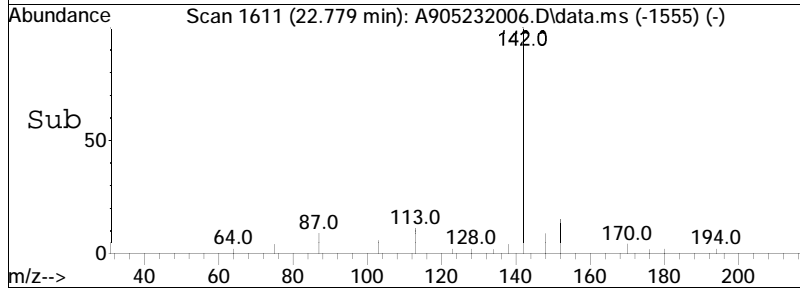
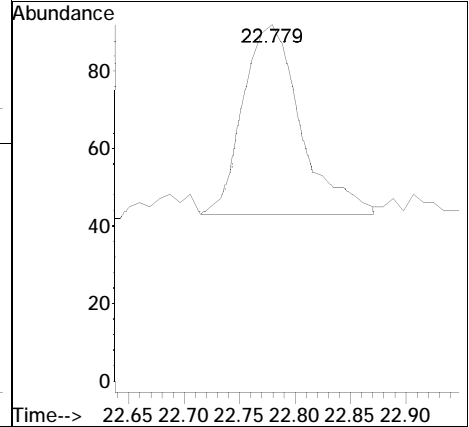
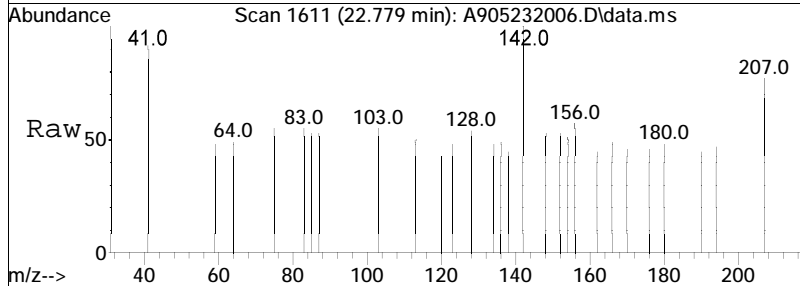
#14
 2-Methylnaphthalene
 Concen: 4.78 ng/mL
 RT: 22.359 min Scan# 1565
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion:142 Resp: 346

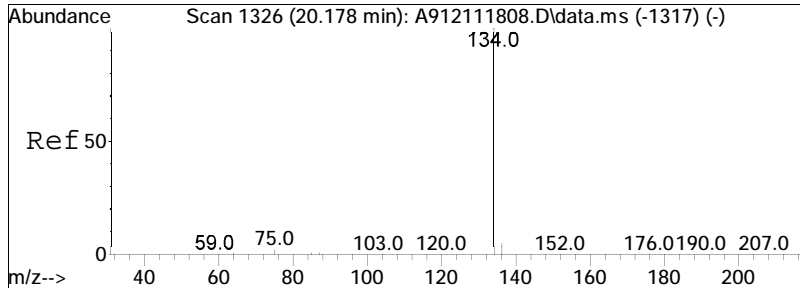




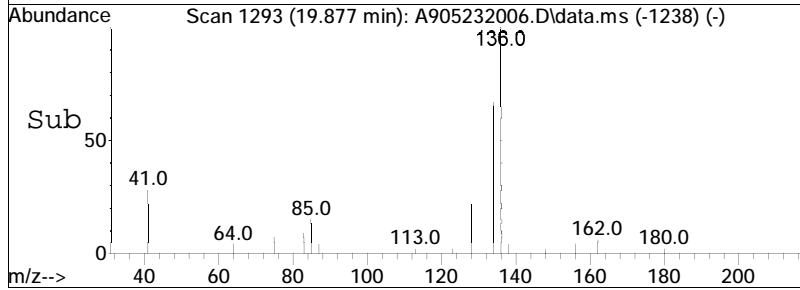
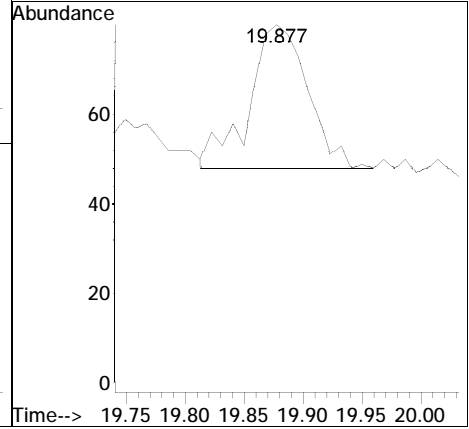
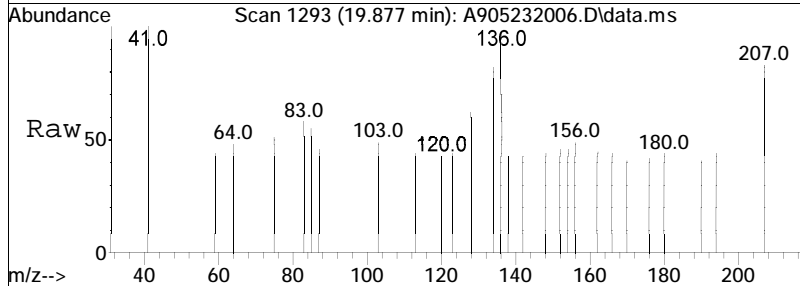
#15
 1-Methylnaphthalene
 Concen: 2.57 ng/mL
 RT: 22.779 min Scan# 1611
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

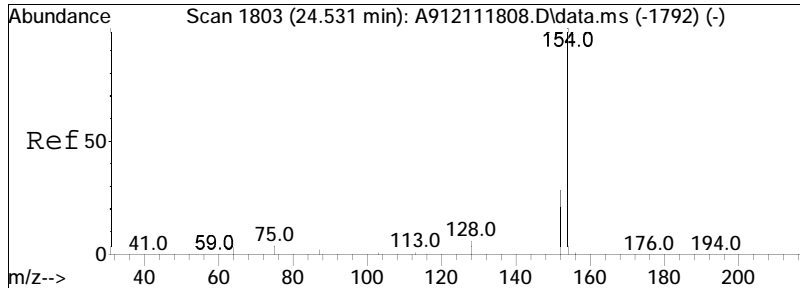
Tgt Ion:142 Resp: 177



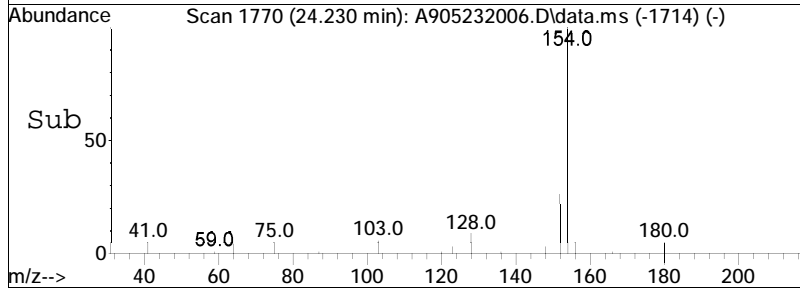
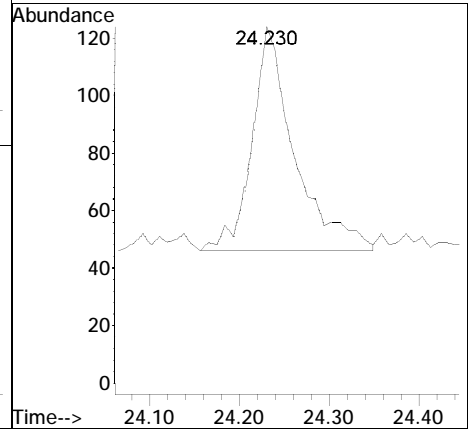
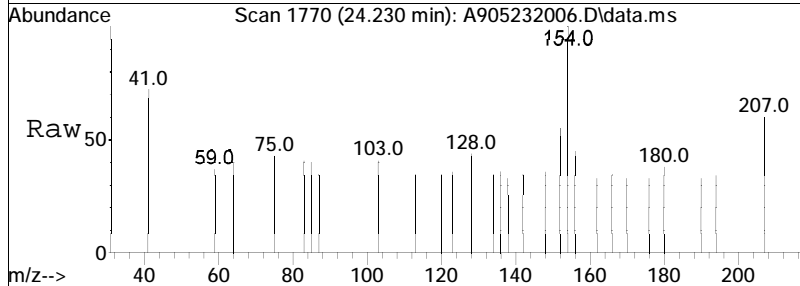


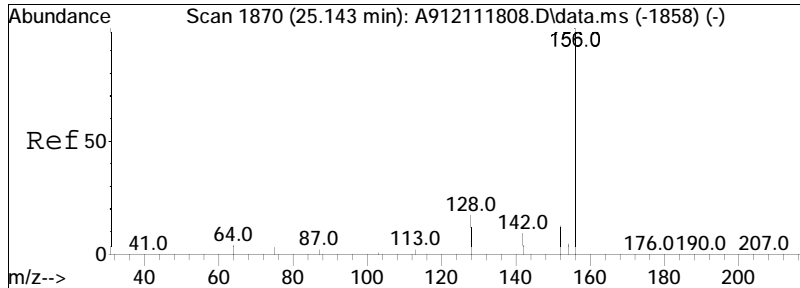
#16
 Benzothiophene
 Concen: 1.09 ng/mL
 RT: 19.877 min Scan# 1293
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion:134 Resp: 110



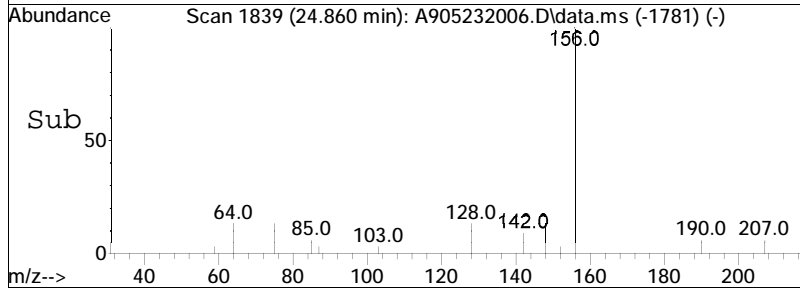
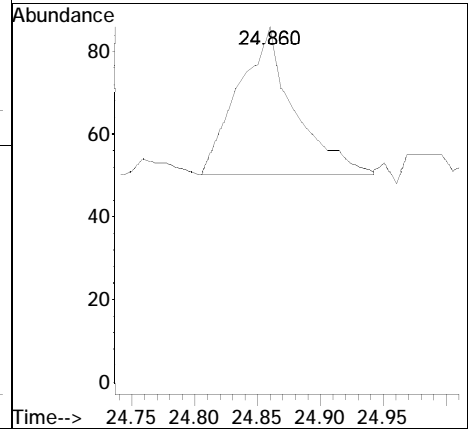
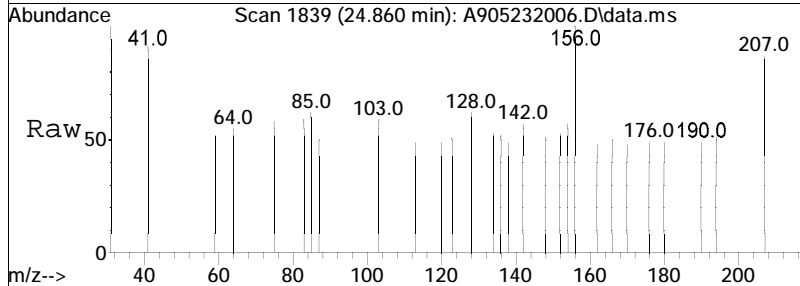


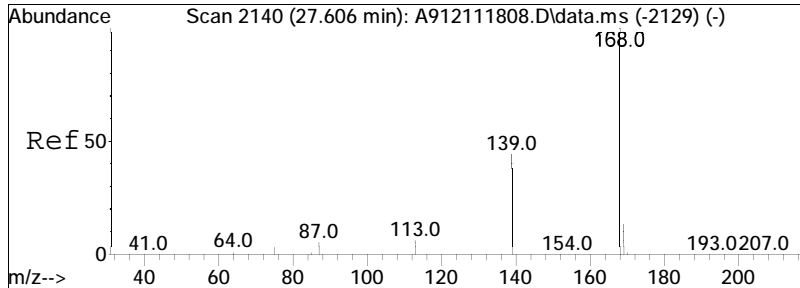
#21
 Biphenyl
 Concen: 2.89 ng/mL
 RT: 24.230 min Scan# 1770
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion:154 Resp: 256





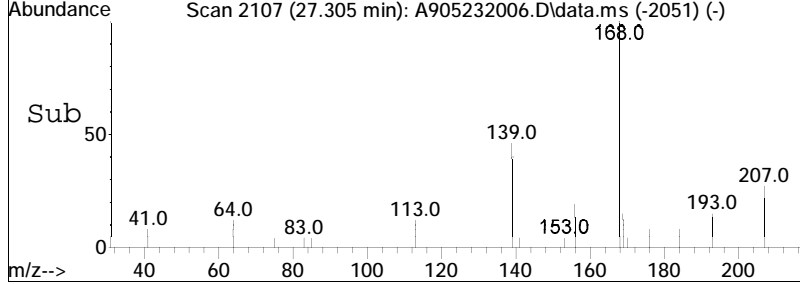
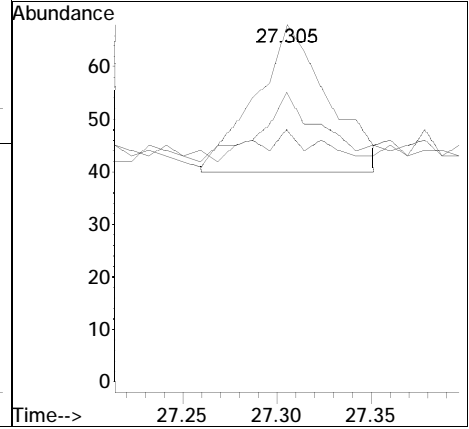
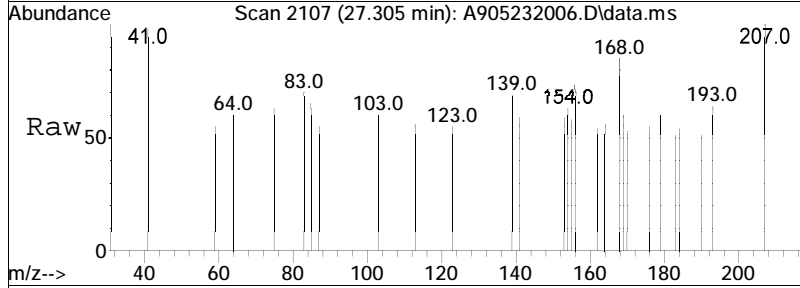
#22
 2,6-Dimethylnaphthalene
 Concen: 1.76 ng/mL
 RT: 24.860 min Scan# 1839
 Delta R.T. 0.028 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion:156 Resp: 112

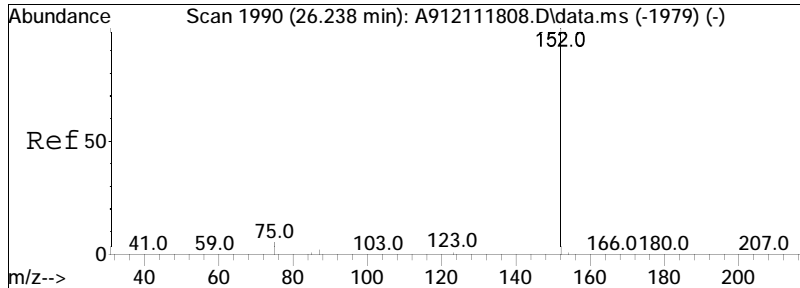




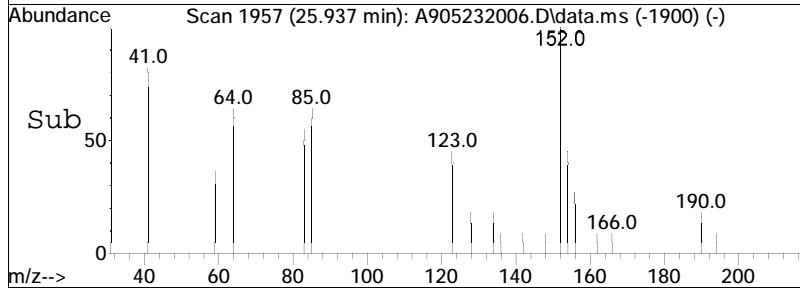
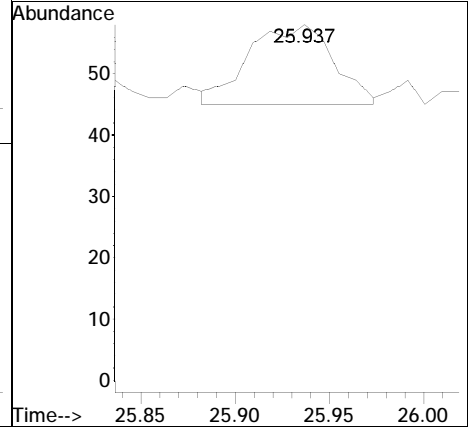
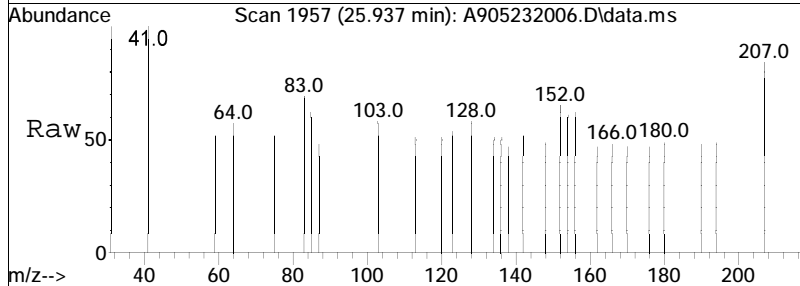
#23
 Dibenzofuran
 Concen: 0.73 ng/mL M4
 RT: 27.305 min Scan# 2107
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

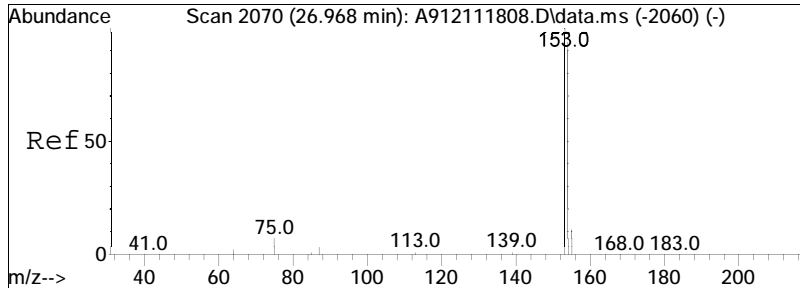
Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	28.2	52.4#
169	0.0	9.6	17.8#





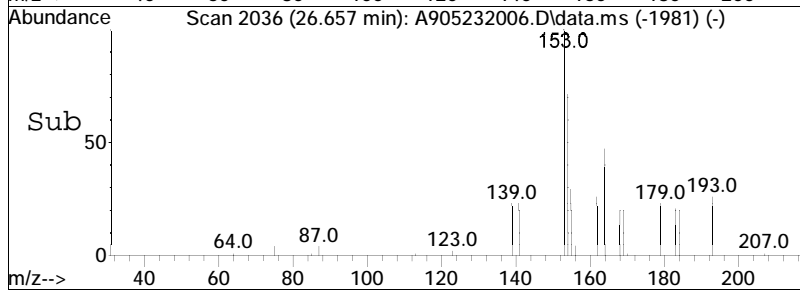
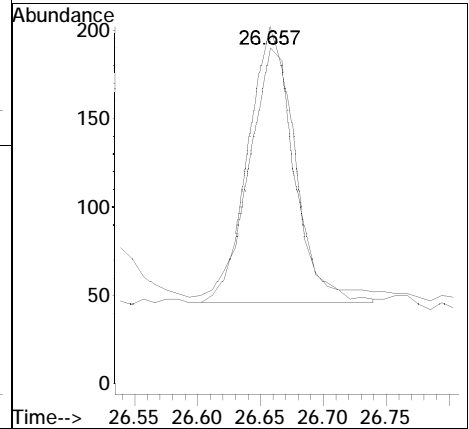
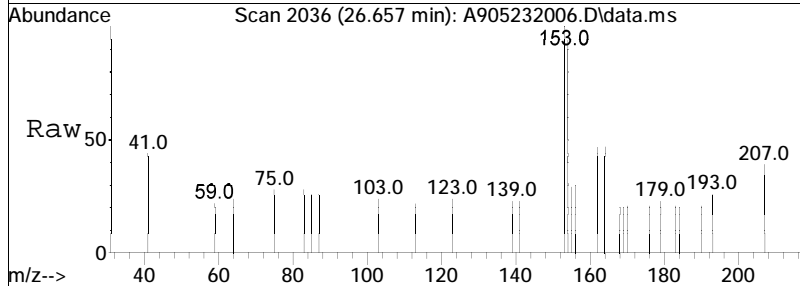
#24
 Acenaphthylene
 Concen: 0.38 ng/mL M4
 RT: 25.937 min Scan# 1957
 Delta R.T. 0.018 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm
 Tgt Ion: 152 Resp: 41

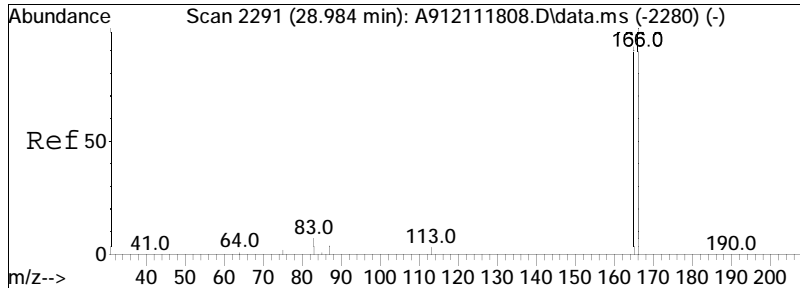




#25
 Acenaphthene
 Concen: 5.91 ng/mL
 RT: 26.657 min Scan# 2036
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

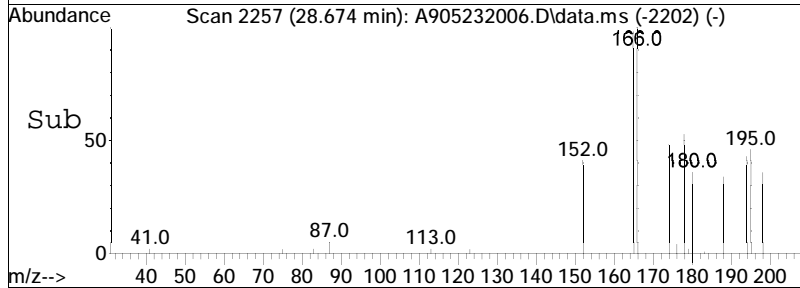
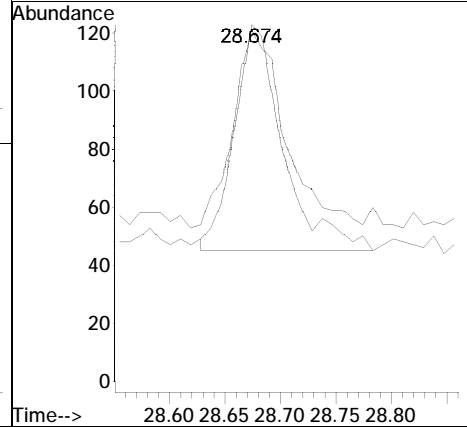
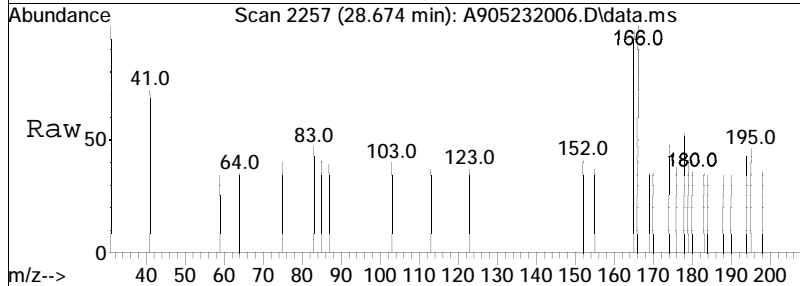
Tgt Ion	Resp	Lower	Upper
153	100		
154	95.5	65.0	120.8

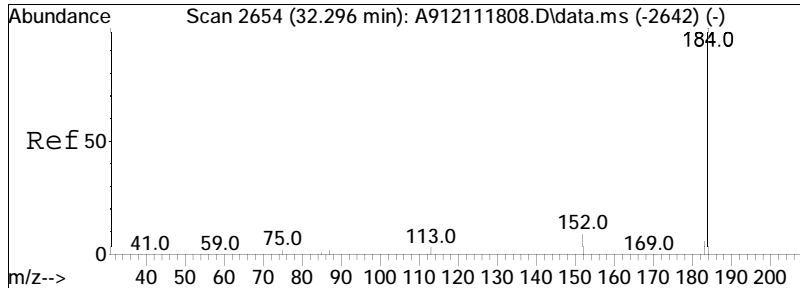




#27
 Fluorene
 Concen: 3.00 ng/mL
 RT: 28.674 min Scan# 2257
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

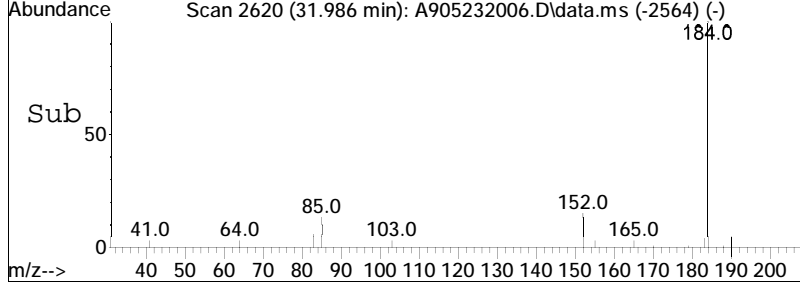
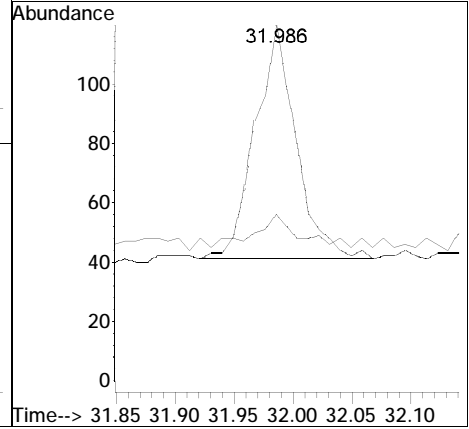
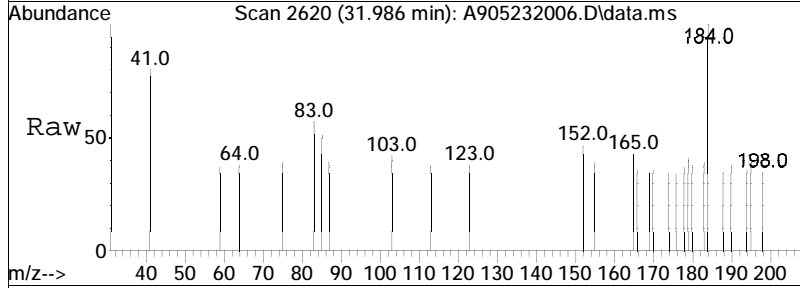
Tgt Ion: 166 Resp: 238
 Ion Ratio Lower Upper
 166 100
 165 89.1 65.4 121.4

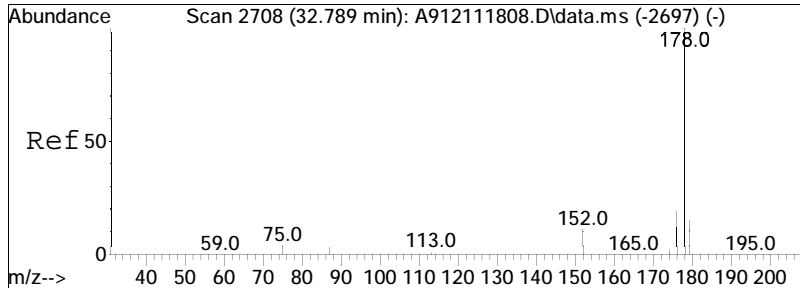




#31
 Dibenzothiophene
 Concen: 1.63 ng/mL
 RT: 31.986 min Scan# 2620
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

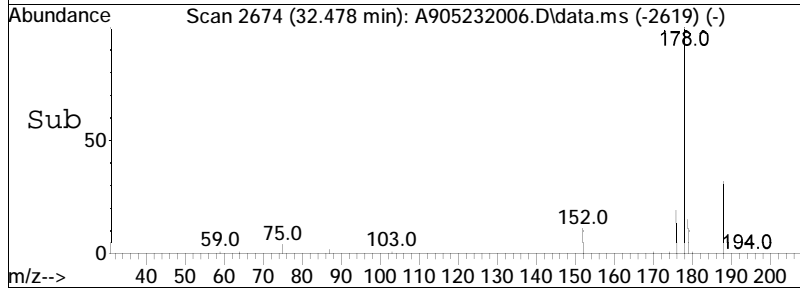
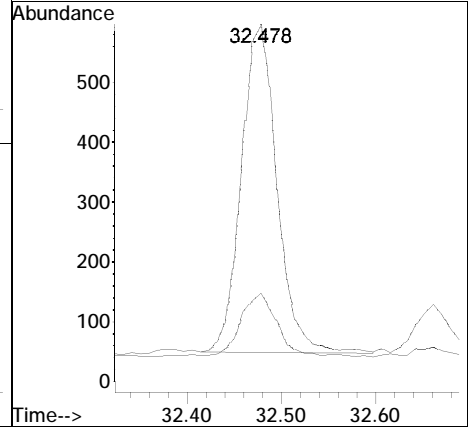
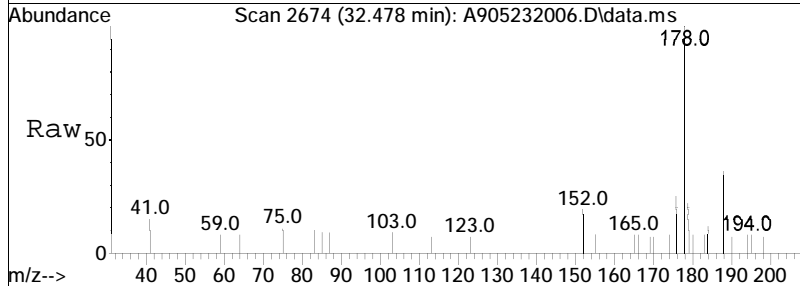
Tgt Ion: 184 Resp: 191
 Ion Ratio Lower Upper
 184 100
 152 0.0 6.4 11.8#

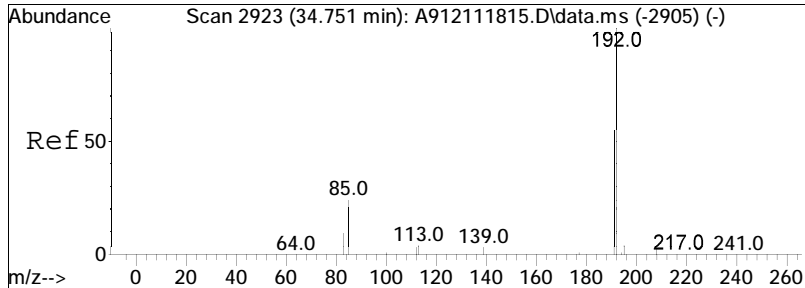




#41
 Phenanthrene
 Concen: 12.25 ng/mL
 RT: 32.478 min Scan# 2674
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

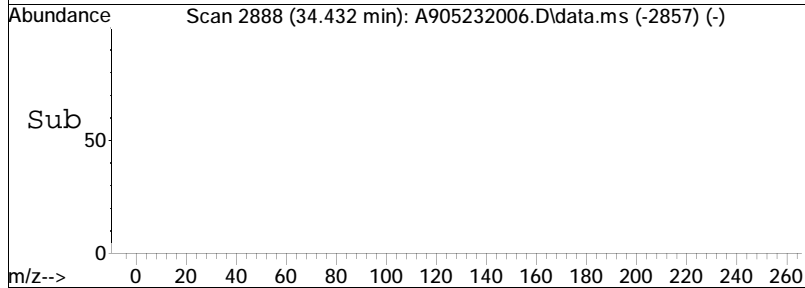
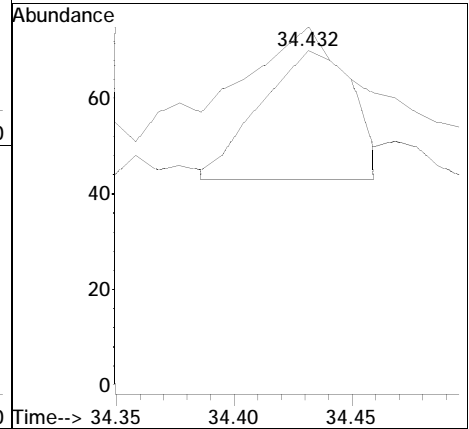
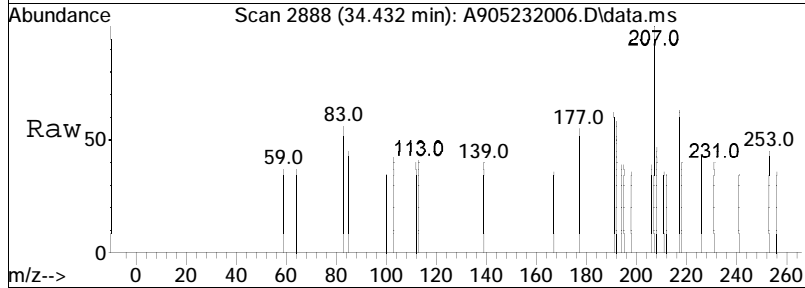
Tgt Ion: 178 Resp: 1433
 Ion Ratio Lower Upper
 178 100
 176 19.6 13.6 25.4

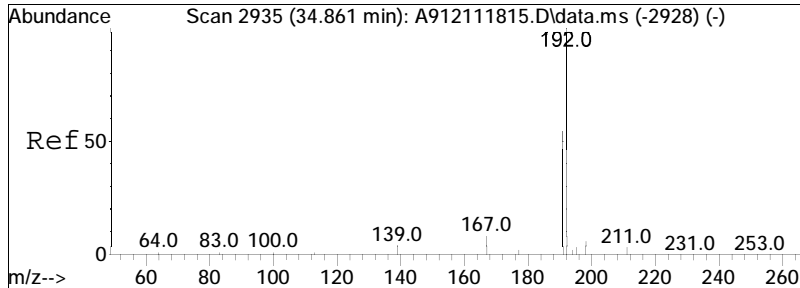




#42
 3-Methylphenanthrene (3MP)
 Concen: 0.63 ng/mL M4
 RT: 34.432 min Scan# 2888
 Delta R.T. -0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

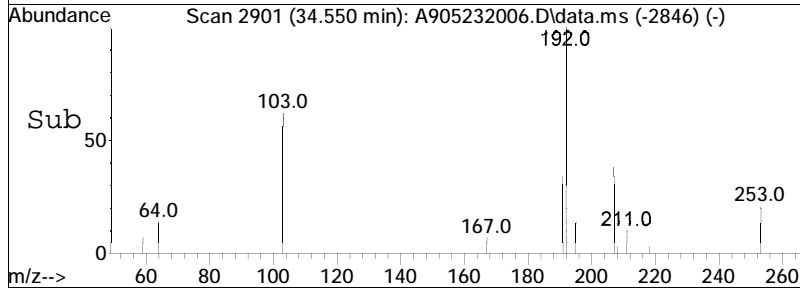
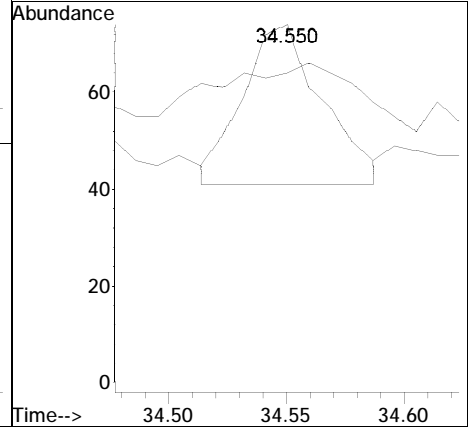
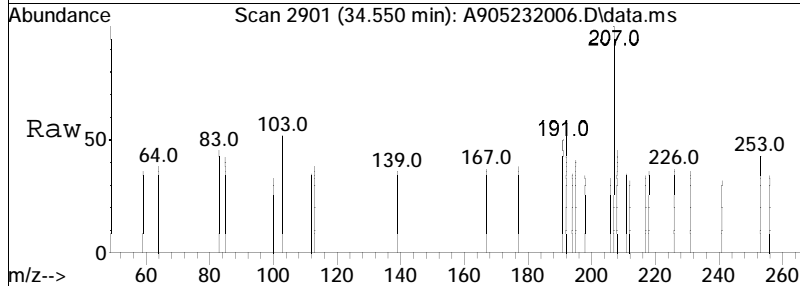
Tgt Ion: 192 Resp: 74
 Ion Ratio Lower Upper
 192 100
 191 0.0 40.7 75.7#

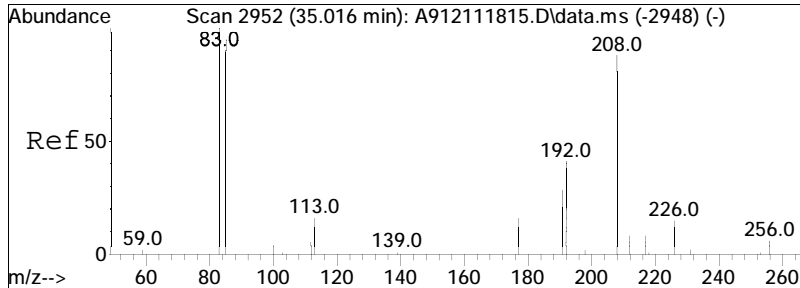




#43
 2-Methylphenanthrene (2MP)
 Concen: 0.67 ng/mL M4
 RT: 34.550 min Scan# 2901
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

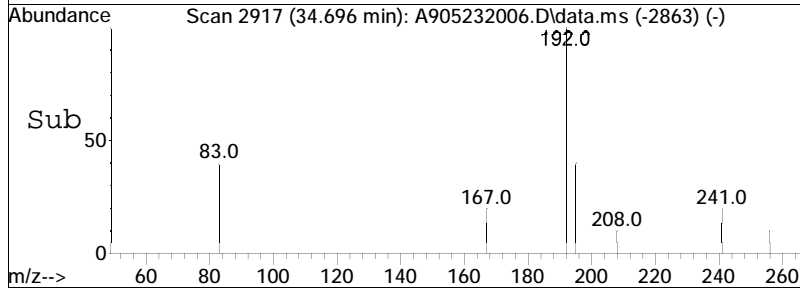
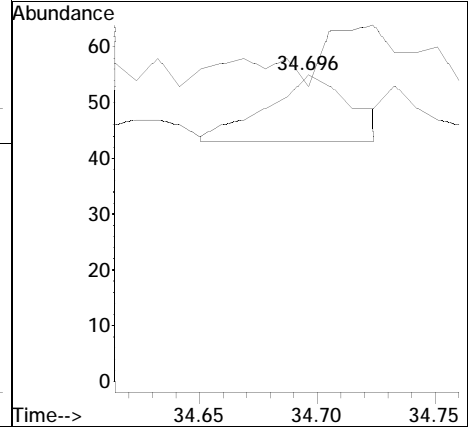
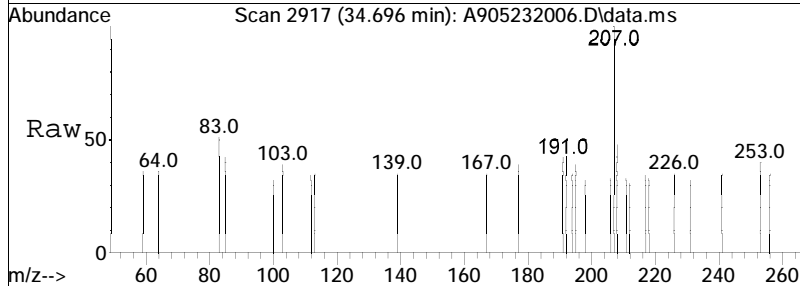
Tgt Ion: 192 Resp: 78
 Ion Ratio Lower Upper
 192 100
 191 6397.4 39.7 73.7#

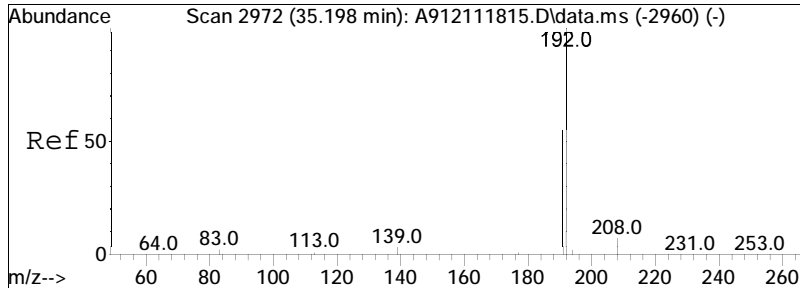




#44
 2-Methylantracene(2MA)
 Concen: 0.26 ng/mL M4
 RT: 34.696 min Scan# 2917
 Delta R.T. -0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

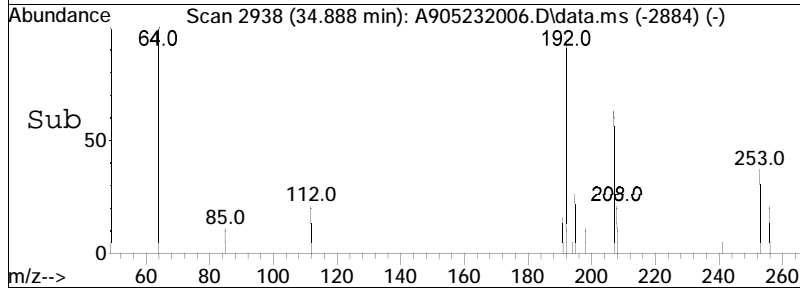
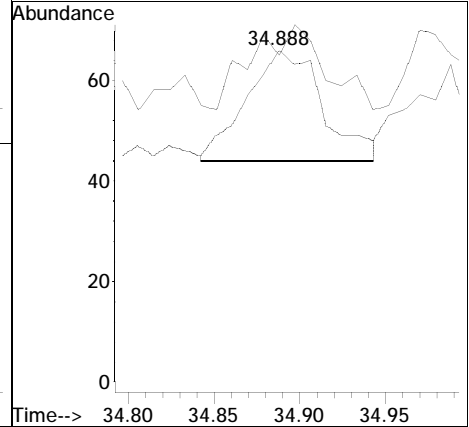
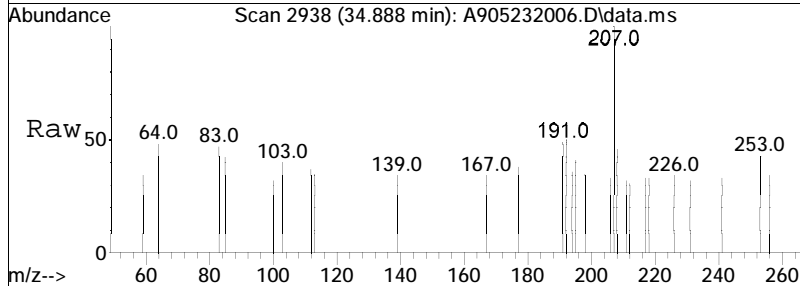
Tgt Ion: 192 Resp: 30
 Ion Ratio Lower Upper
 192 100
 191 0.0 80.0 148.6#

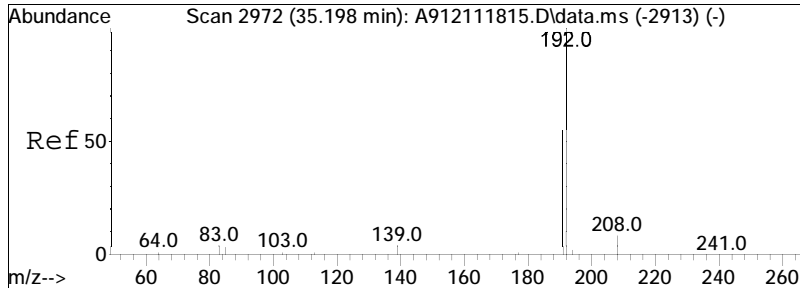




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 0.58 ng/mL M4
 RT: 34.888 min Scan# 2938
 Delta R.T. -0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

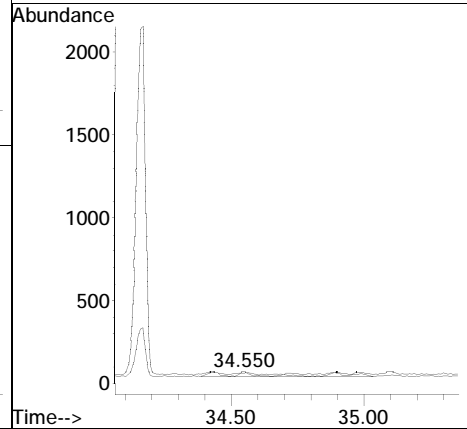
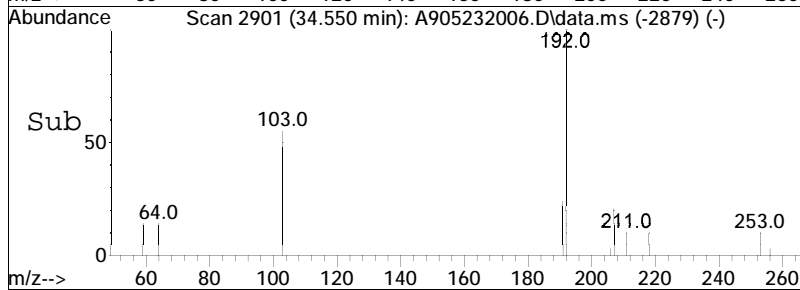
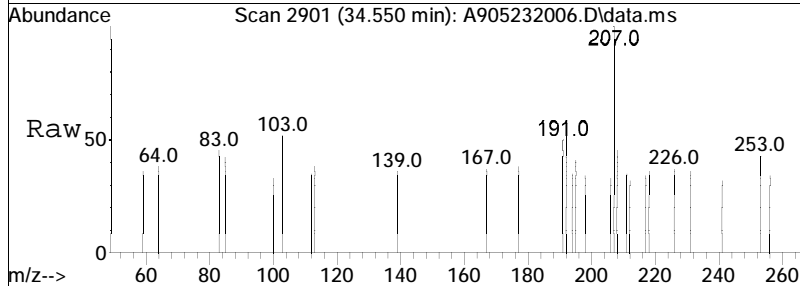
Tgt Ion: 192 Resp: 68
 Ion Ratio Lower Upper
 192 100
 191 0.0 39.7 73.7#

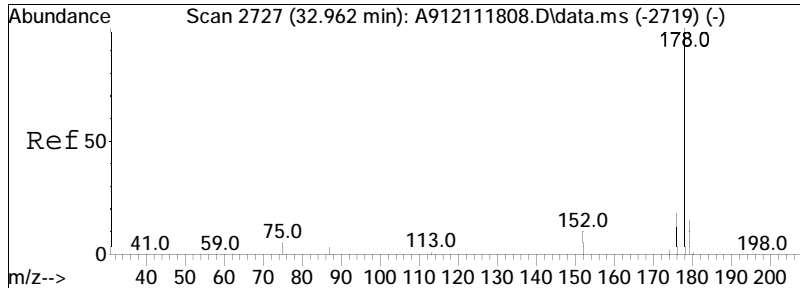




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 3.08 ng/mL M5
 RT: 34.550 min Scan# 2901
 Delta R.T. -0.338 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

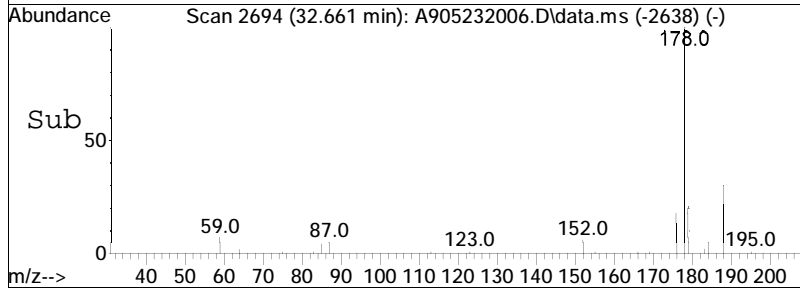
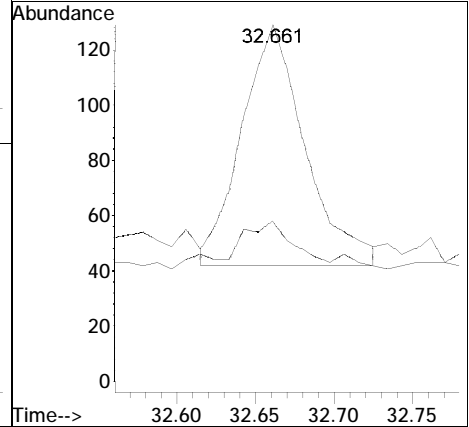
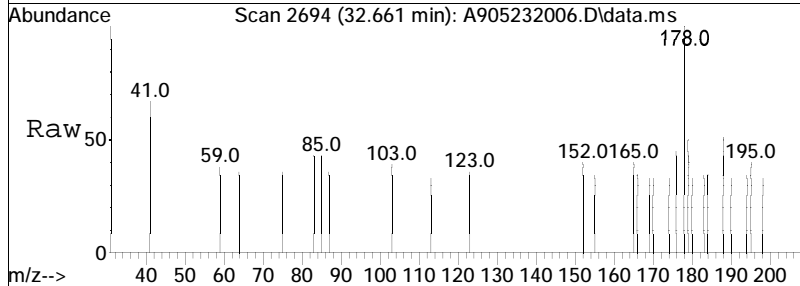
Tgt Ion	Resp	Lower	Upper
192	100		
191	0.0	39.3	72.9#

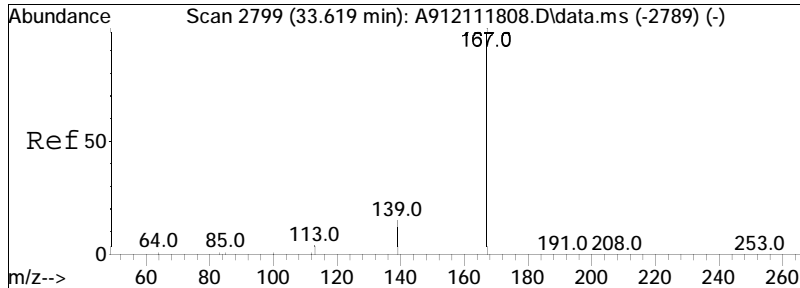




#53
 Anthracene
 Concen: 2.36 ng/mL M4
 RT: 32.661 min Scan# 2694
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

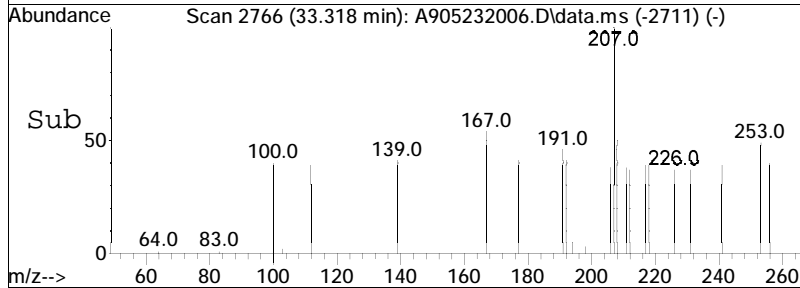
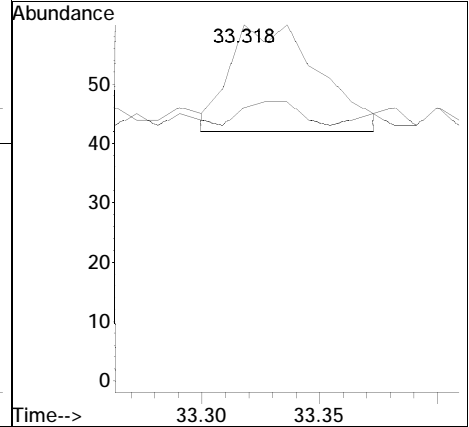
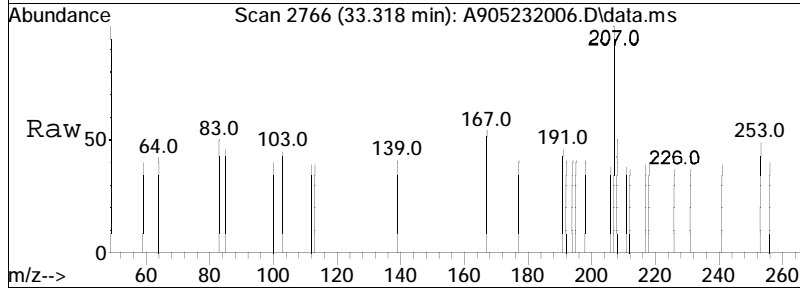
Tgt Ion: 178 Resp: 243
 Ion Ratio Lower Upper
 178 100
 176 115.2 13.3 24.7#

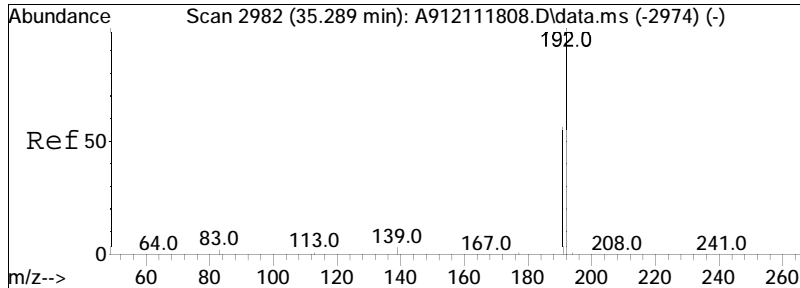




#54
 Carbazole
 Concen: 0.44 ng/mL M4
 RT: 33.318 min Scan# 2766
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

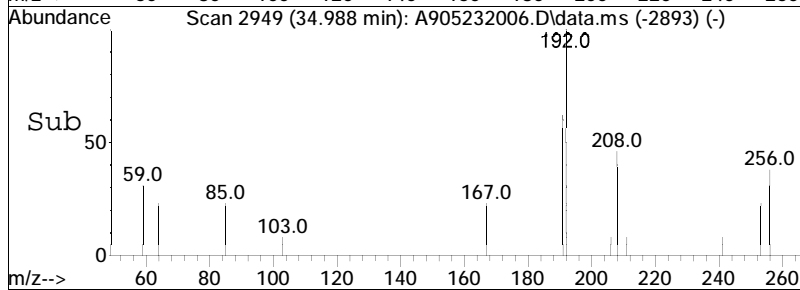
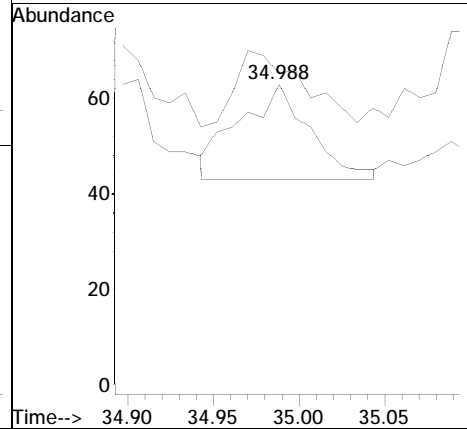
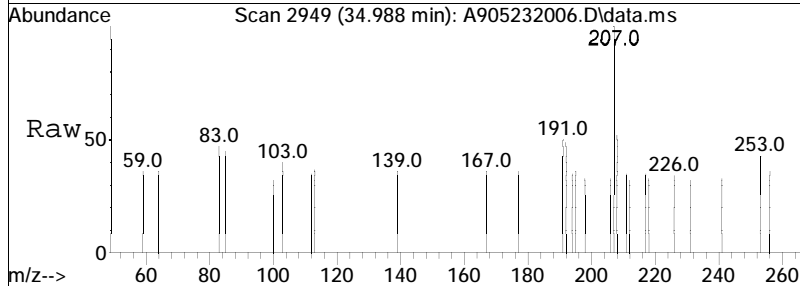
Tgt Ion: 167 Resp: 47
 Ion Ratio Lower Upper
 167 100
 139 602.1 10.4 19.4#

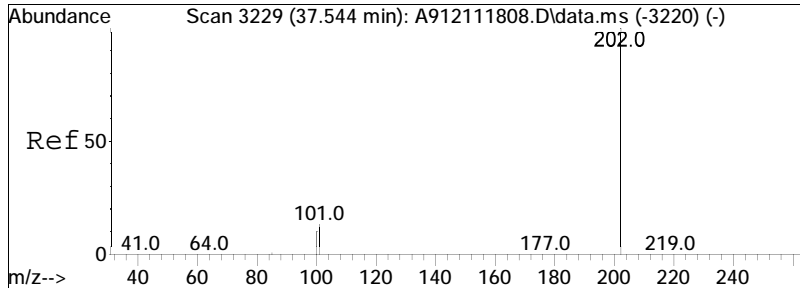




#55
 1-Methylphenanthrene
 Concen: 0.67 ng/mL M4
 RT: 34.988 min Scan# 2949
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

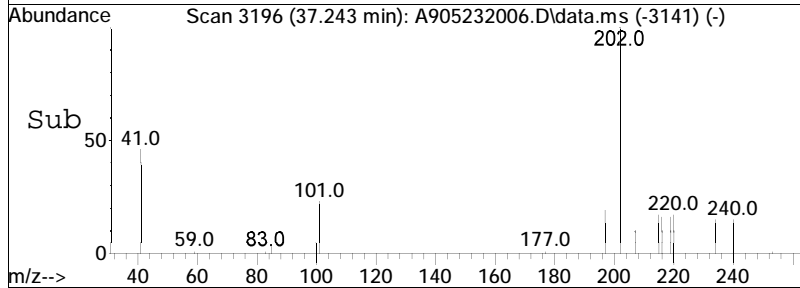
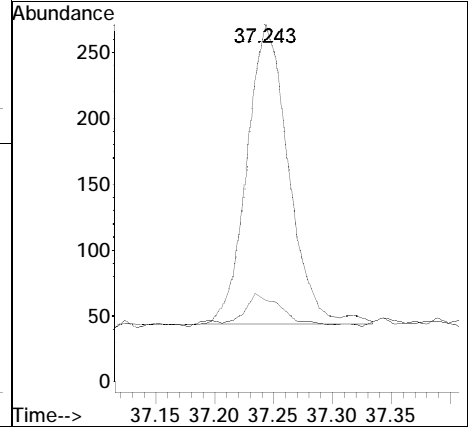
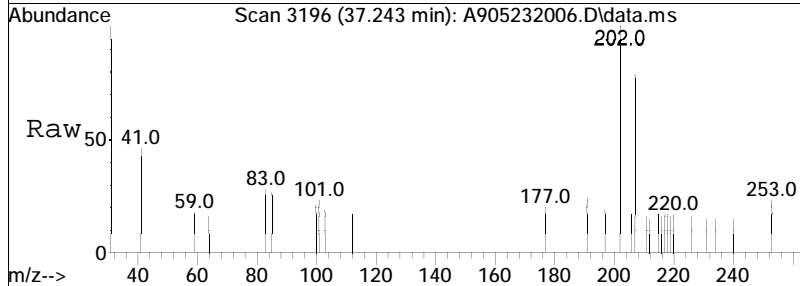
Tgt Ion: 192 Resp: 58
 Ion Ratio Lower Upper
 192 100
 191 0.0 39.0 72.4#

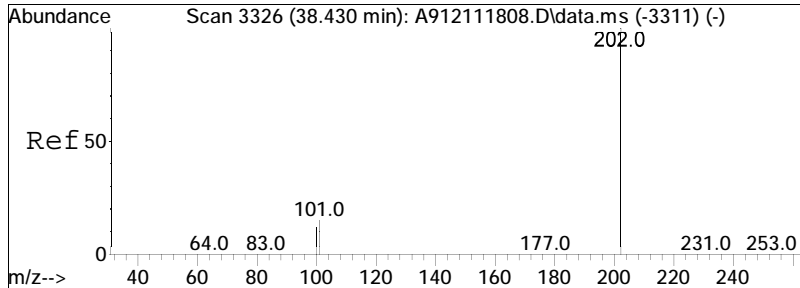




#56
 Fluoranthene
 Concen: 4.05 ng/mL
 RT: 37.243 min Scan# 3196
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

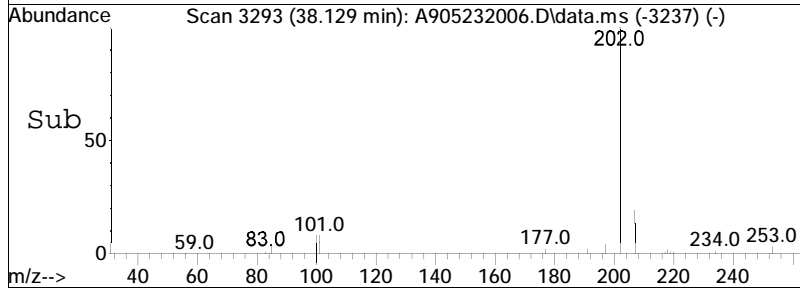
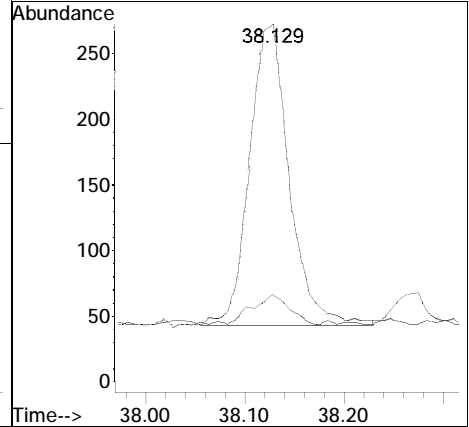
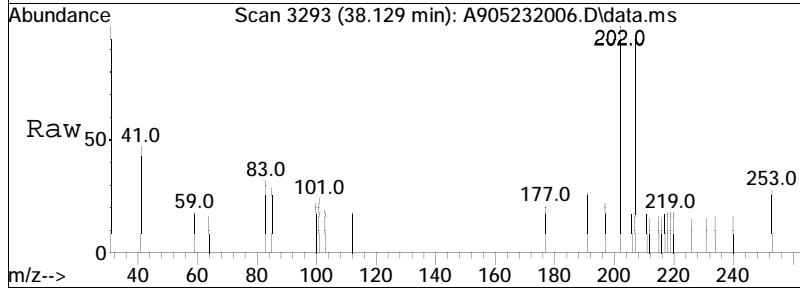
Tgt Ion	202	Resp	556
Ion Ratio	100	Lower	Upper
101	0.0	6.8	12.6#

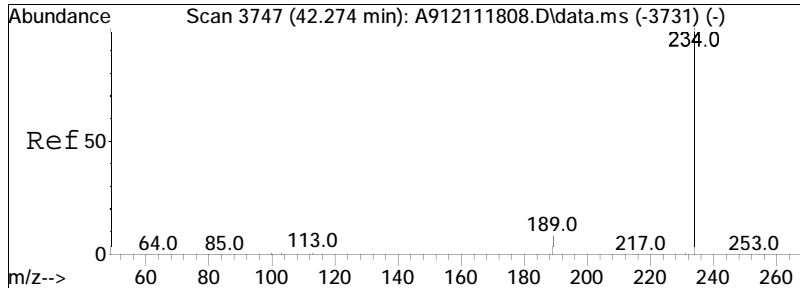




#59
 Pyrene
 Concen: 4.38 ng/mL
 RT: 38.129 min Scan# 3293
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

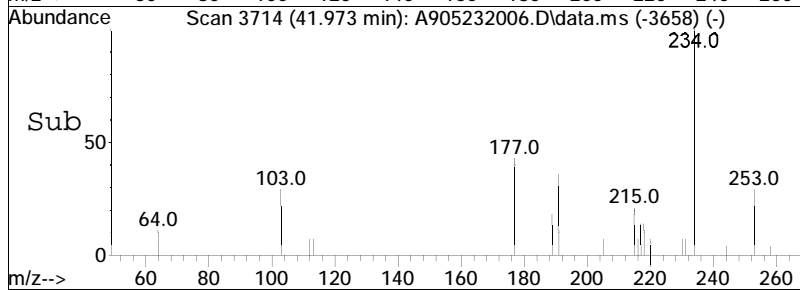
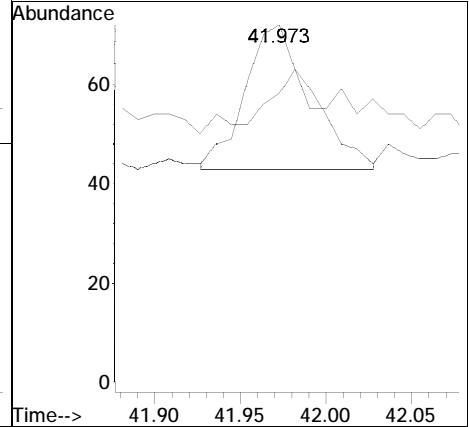
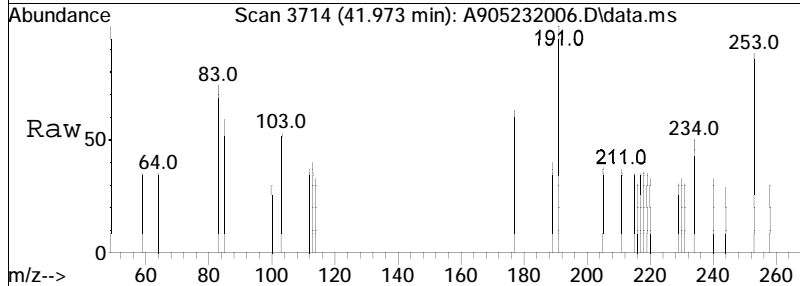
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	7.6	14.0#

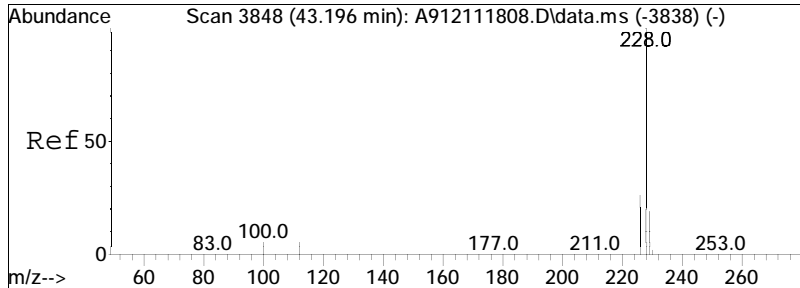




#67
 Naphthobenzothiophene-2,1-D
 Concen: 0.67 ng/mL M4
 RT: 41.973 min Scan# 3714
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

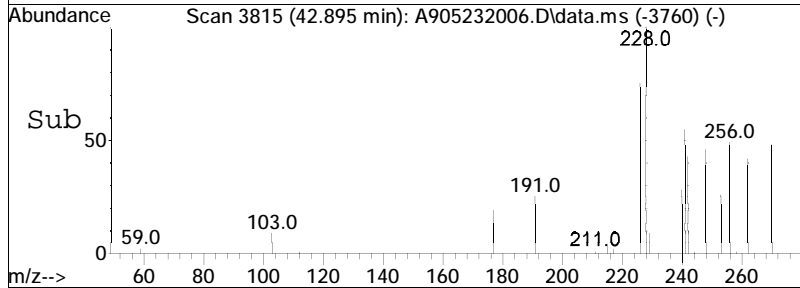
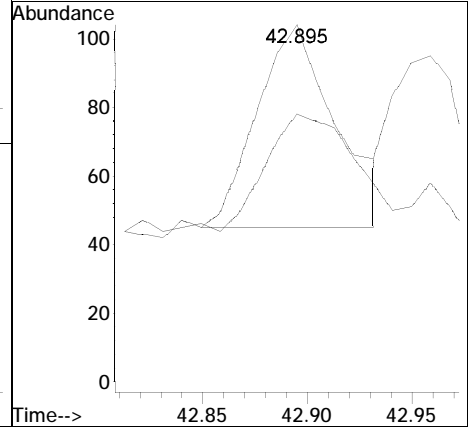
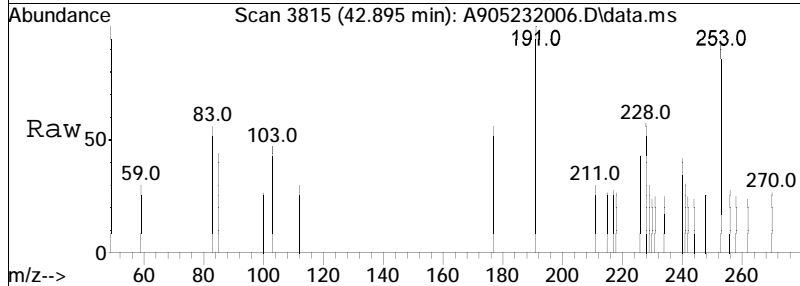
Tgt Ion	Resp	Lower	Upper
234	100		
189	0.0	6.1	11.3#

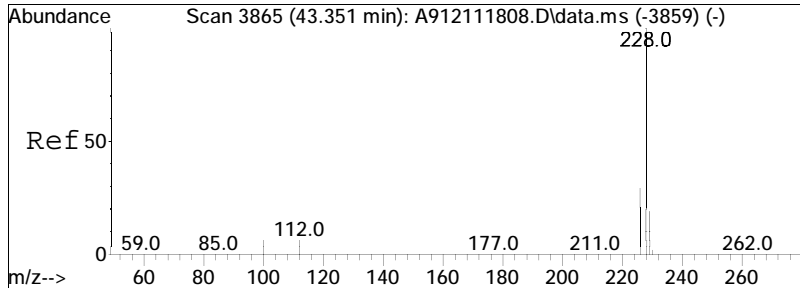




#75
 Benz[a]anthracene
 Concen: 1.18 ng/mL
 RT: 42.895 min Scan# 3815
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

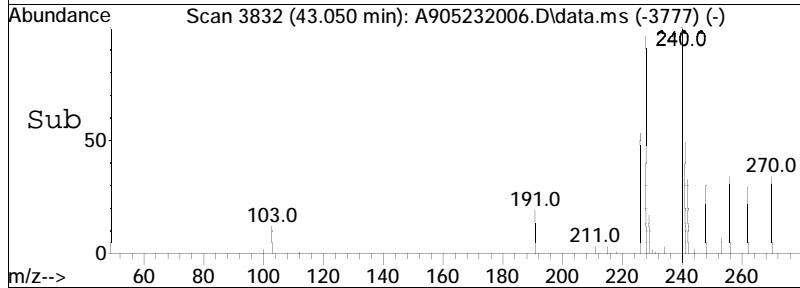
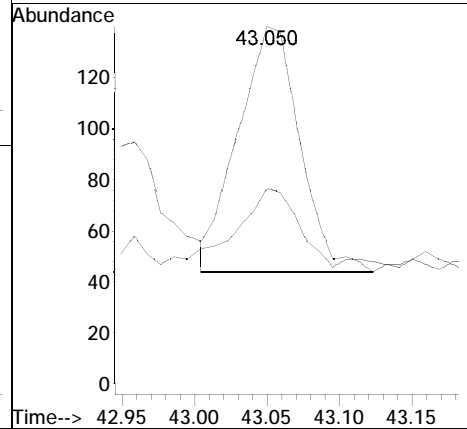
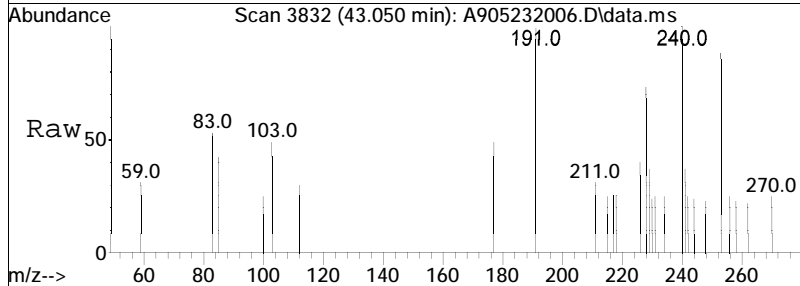
Tgt Ion	Resp	Lower	Upper
228	100		
226	64.9	19.0	35.2#

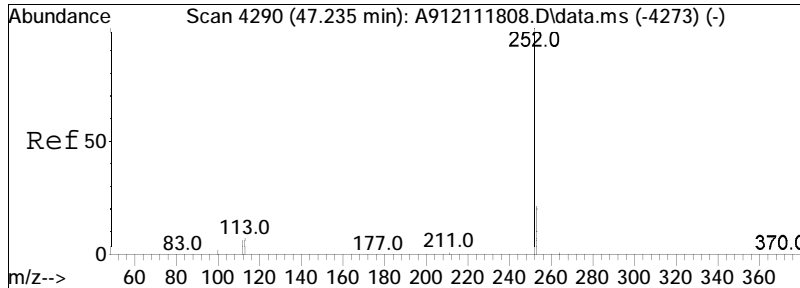




#77
 Chrysene/Triphenylene
 Concen: 2.09 ng/mL
 RT: 43.050 min Scan# 3832
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

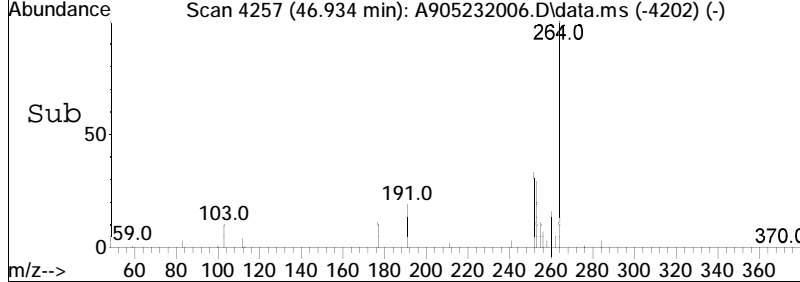
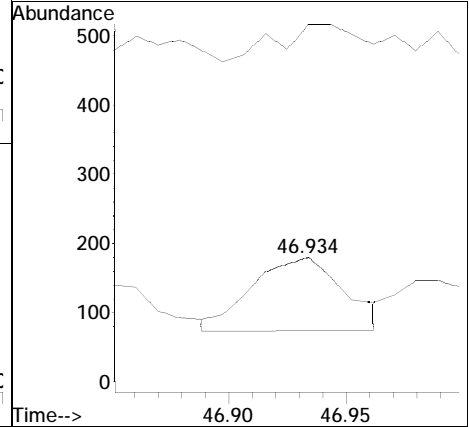
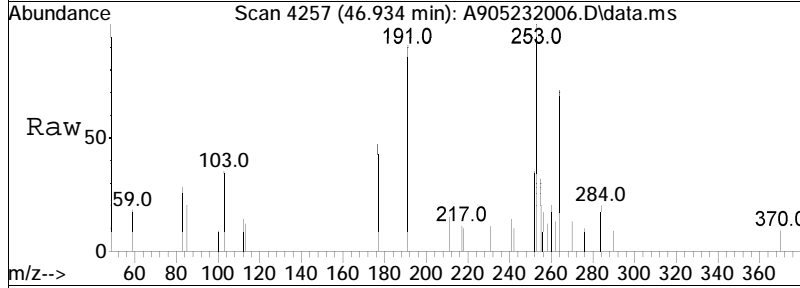
Tgt Ion: 228 Resp: 285
 Ion Ratio Lower Upper
 228 100
 226 0.0 21.0 39.0#

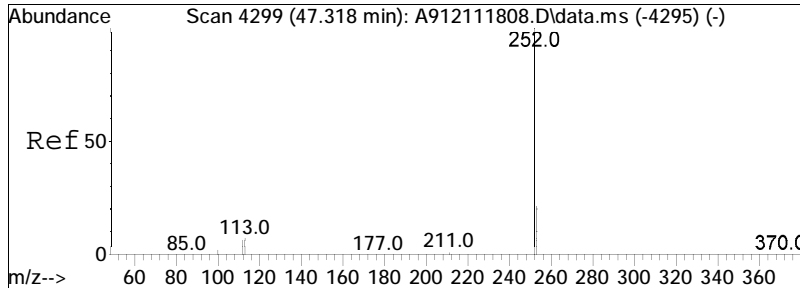




#84
 Benzo[b]fluoranthene
 Concen: 1.83 ng/mL
 RT: 46.934 min Scan# 4257
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

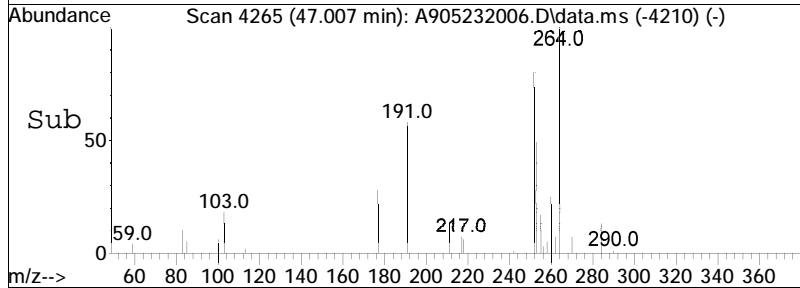
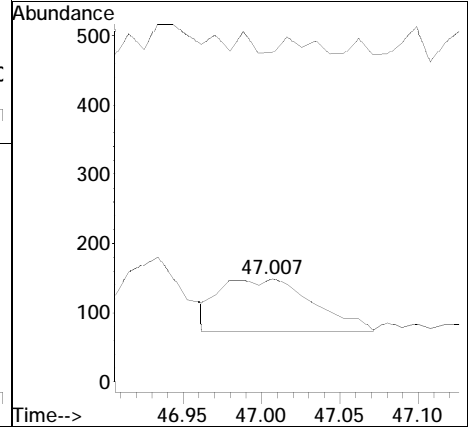
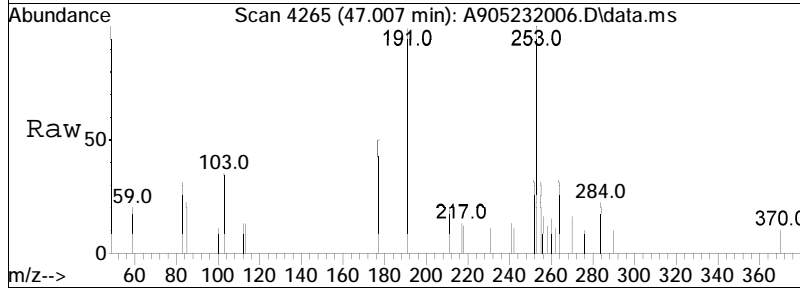
Tgt Ion	Resp	Lower	Upper
252	100		
253	73.5	17.3	32.1#

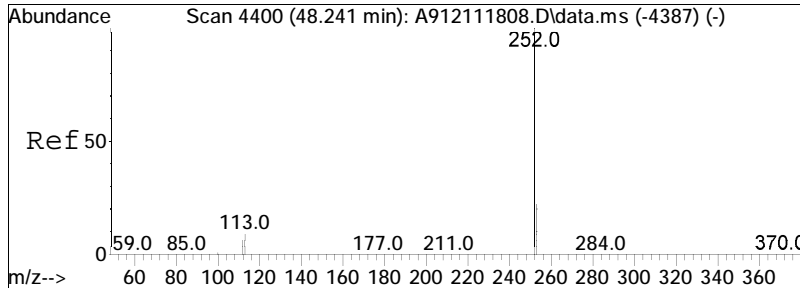




#85
 Benzo[j]+[k]fluoranthene
 Concen: 1.99 ng/mL M4
 RT: 47.007 min Scan# 4265
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

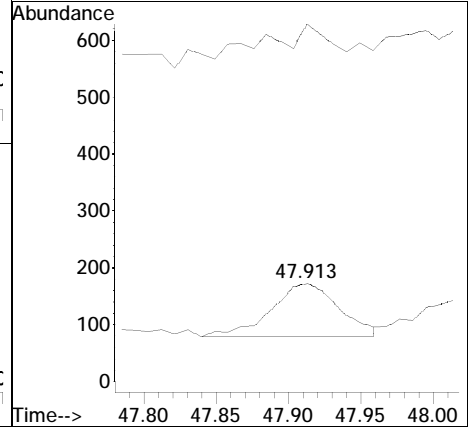
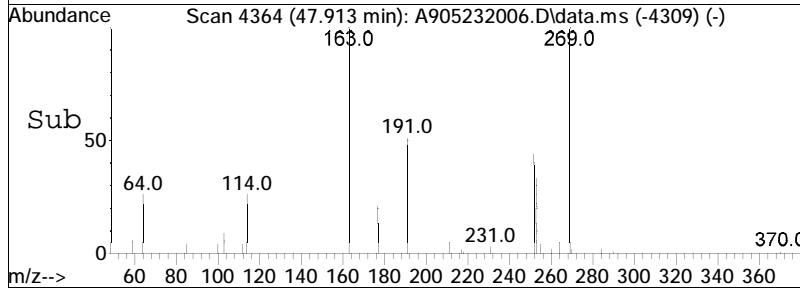
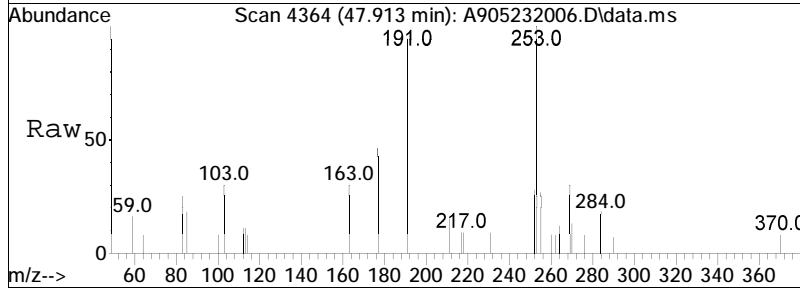
Tgt Ion	Resp	Lower	Upper
252	100		
253	0.0	17.6	32.8#

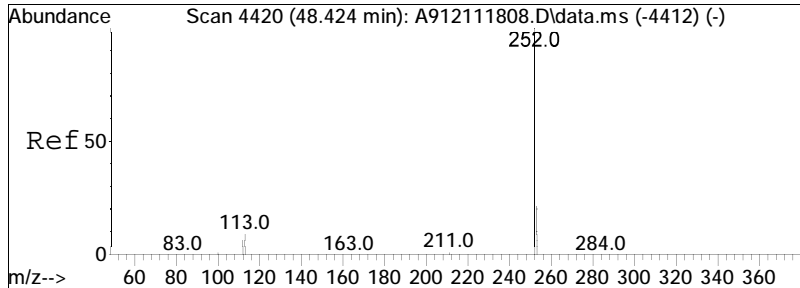




#88
 Benzo[e]pyrene
 Concen: 1.99 ng/mL
 RT: 47.913 min Scan# 4364
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

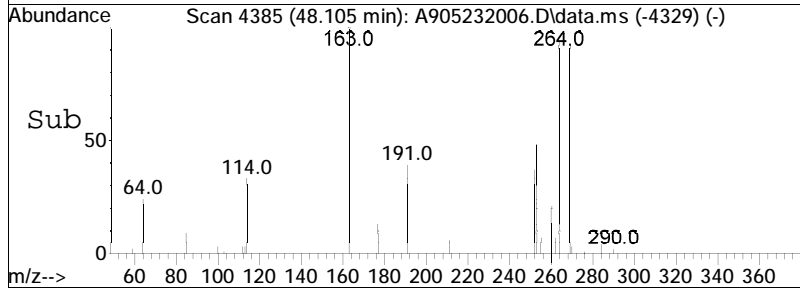
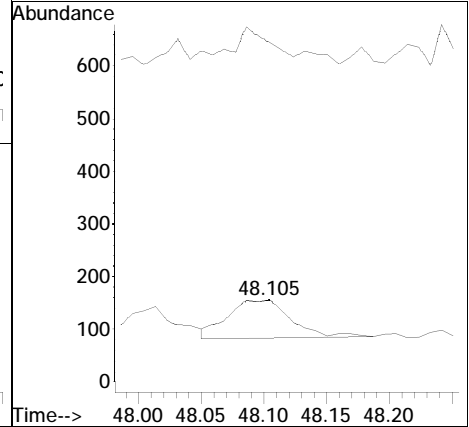
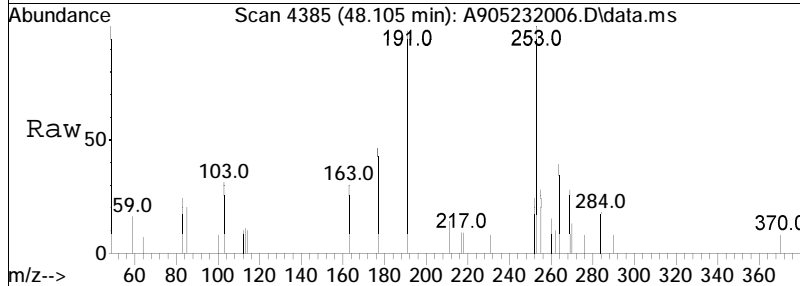
Tgt Ion	Resp	Lower	Upper
252	100		
253	97.8	18.3	33.9#

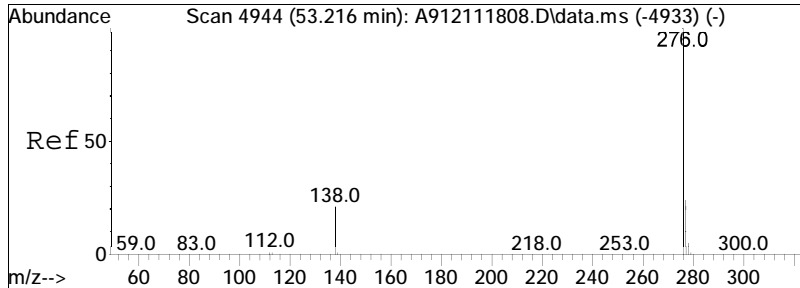




#90
 Benzo[a]pyrene
 Concen: 1.64 ng/mL
 RT: 48.105 min Scan# 4385
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

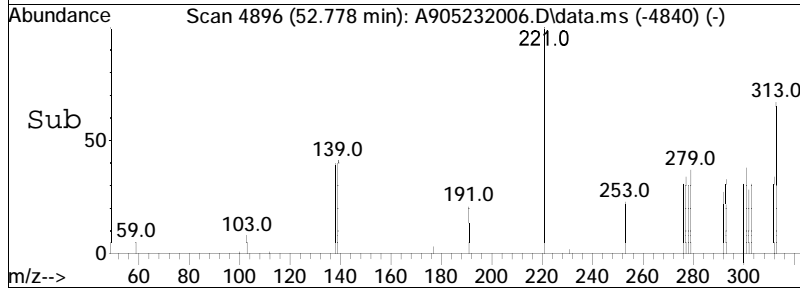
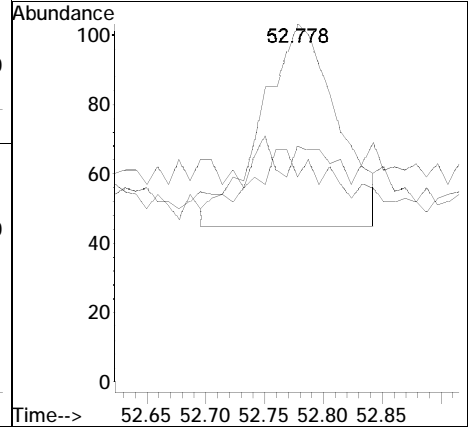
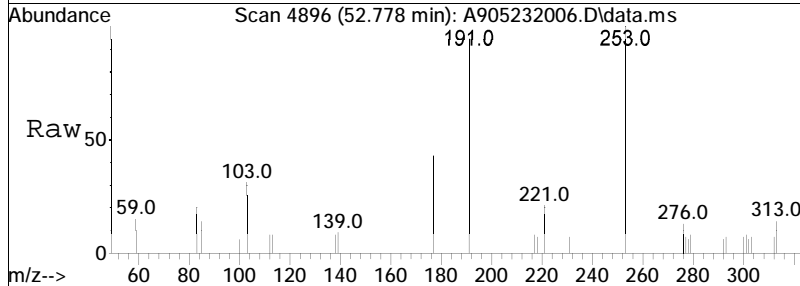
Tgt Ion	Ratio	Lower	Upper
252	100		
253	0.0	19.2	35.6#

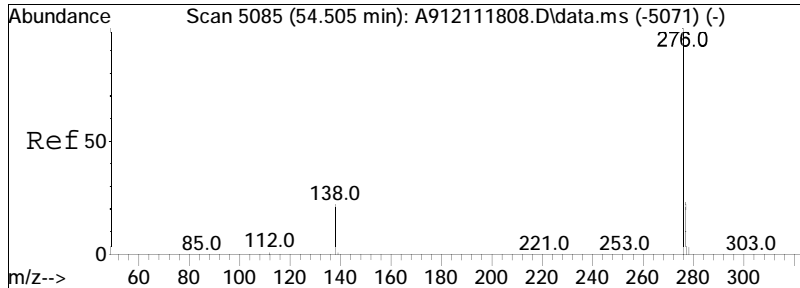




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 1.50 ng/mL M3
 RT: 52.778 min Scan# 4896
 Delta R.T. 0.009 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

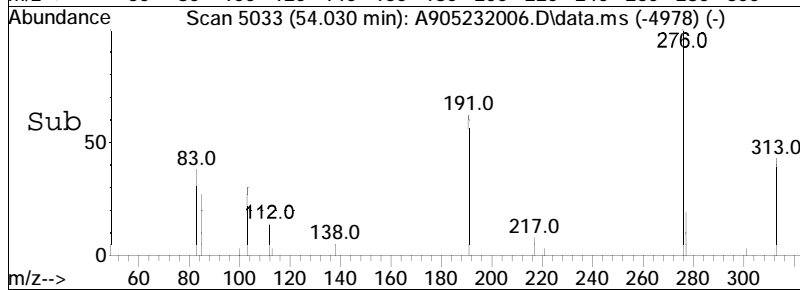
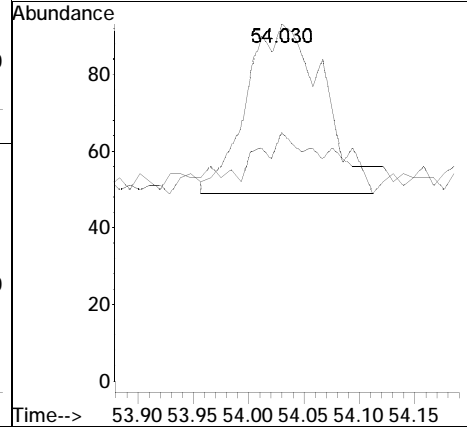
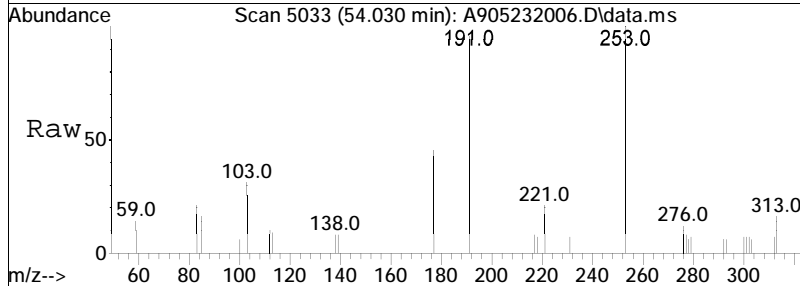
Tgt Ion	Ratio	Lower	Upper
276	100		
138	0.0	12.2	22.6#
277	0.0	18.6	34.6#





#95
 Benzo[g,h,i]perylene
 Concen: 1.17 ng/mL
 RT: 54.030 min Scan# 5033
 Delta R.T. 0.000 min
 Lab File: A905232006.D
 Acq: 23 May 2020 8:01 pm

Tgt Ion	Resp	Lower	Upper
276	100		
277	0.0	17.4	32.2#



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232007.D
 Acq On : 23 May 2020 9:26 pm
 Operator : PAH9:ML
 Sample : WG1372713-2
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 03 15:08:45 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:08:28 2020
 Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds

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

Internal Standards							
1) Acenaphthene-d10	26.530	164	24490	500.000	ng/mL	0.00	
74) Chrysene-d12	42.959	240	51473	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	37122	414.730	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	41.47%#		
40) Phenanthrene-d10	32.387	188	42489	506.916	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	50.69%		
83) Benzo[b]fluoranthene-d12	46.852	264	66545	521.024	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	52.10%		
89) Benzo[a]pyrene-d12	48.004	264	42631	499.000	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	49.90%#		
130) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml		
Spiked Amount	1000.000		Recovery	=	0.00%#		
Target Compounds							
9) Naphthalene	19.658	128	43299	415.573	ng/mL	100	Qvalue
14) 2-Methylnaphthalene	22.341	142	28430	411.552	ng/mL	100	
24) Acenaphthylene	25.918	152	41814	405.268	ng/mL	100	
25) Acenaphthene	26.657	153	27354	427.838	ng/mL	99	
27) Fluorene	28.674	166	33103	437.022	ng/mL	99	
41) Phenanthrene	32.478	178	52289	468.521	ng/mL	98	
53) Anthracene	32.652	178	49300	500.917	ng/mL	98	
56) Fluoranthene	37.243	202	60051M4	459.009	ng/mL		
59) Pyrene	38.120	202	60831	440.338	ng/mL	94	
75) Benz[a]anthracene	42.895	228	57822	446.739	ng/mL	96	
77) Chrysene/Triphenylene	43.050	228	60583	446.148	ng/mL	95	
84) Benzo[b]fluoranthene	46.934	252	72281	456.775	ng/mL	95	
85) Benzo[j]+[k]fluoranthene	47.007	252	73042	467.758	ng/mL	93	
90) Benzo[a]pyrene	48.095	252	60838	408.420	ng/mL	90	
92) Indeno[1,2,3-cd]pyrene	52.769	276	80314M3	462.206	ng/mL		
93) Dibenz[ah]+[ac]anthracene	52.824	278	77576M4	518.721	ng/mL		
95) Benzo[g,h,i]perylene	54.021	276	78616	440.351	ng/mL	98	

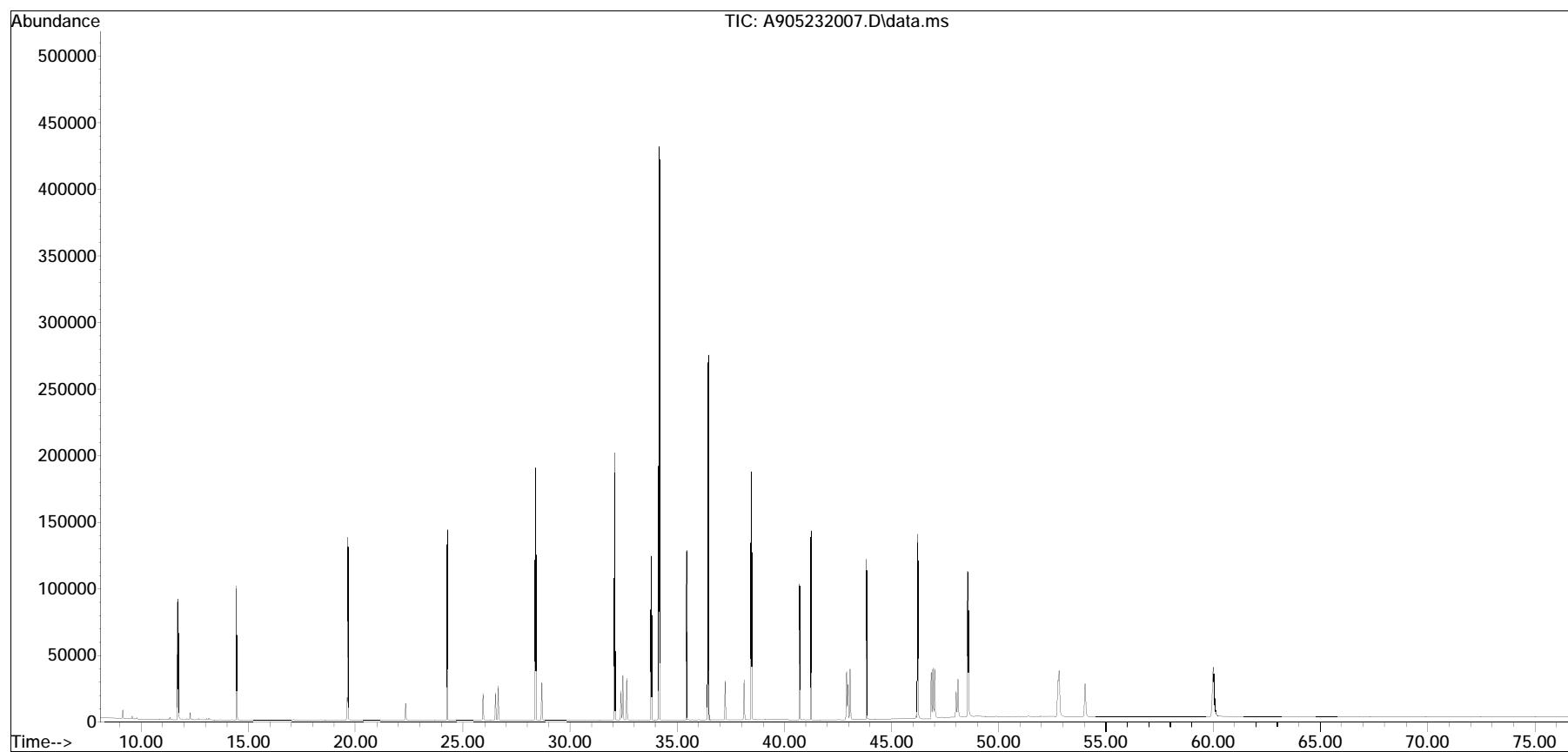
(#) = qualifier out of range (m) = manual integration (+) = signals summed

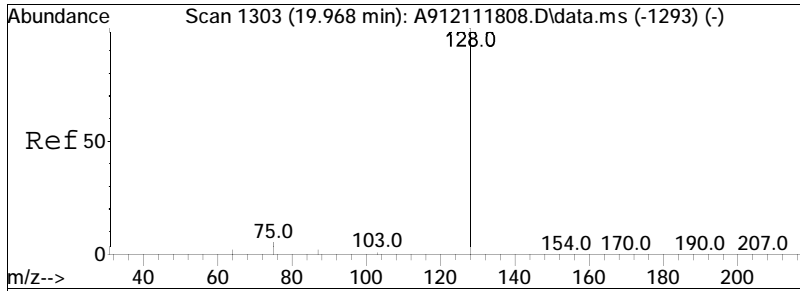
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232007.D
Acq On : 23 May 2020 9:26 pm
Operator : PAH9:ML
Sample : WG1372713-2
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 03 15:08:45 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 15:08:28 2020
Response via : Initial Calibration

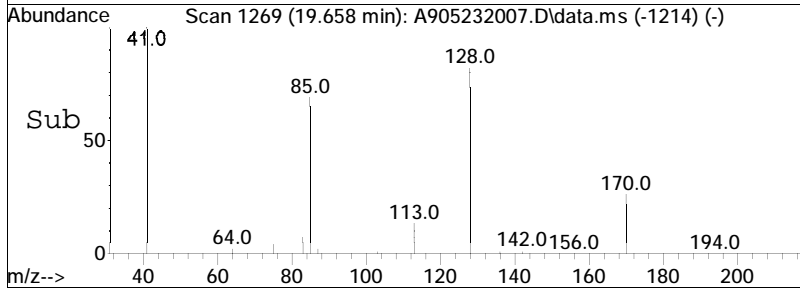
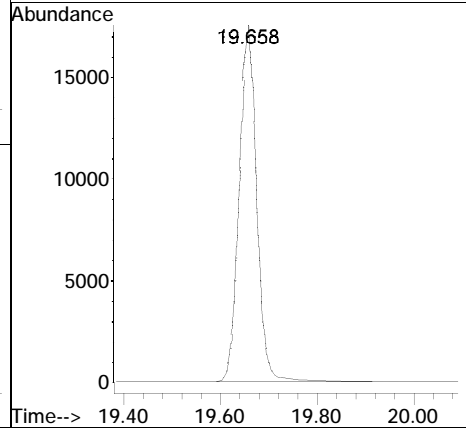
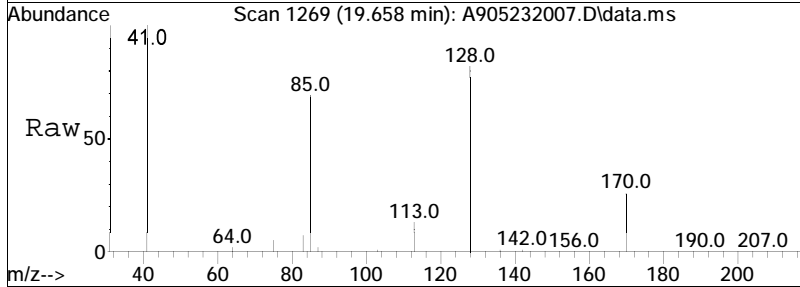
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

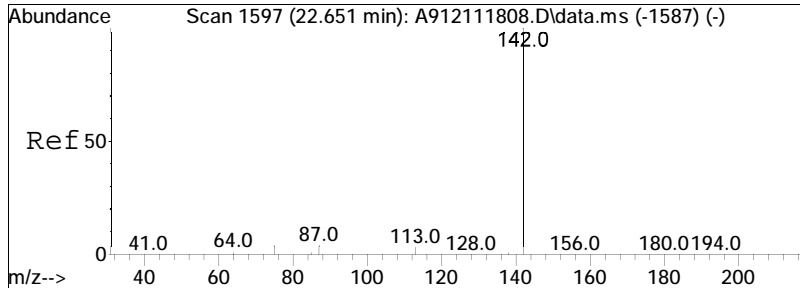




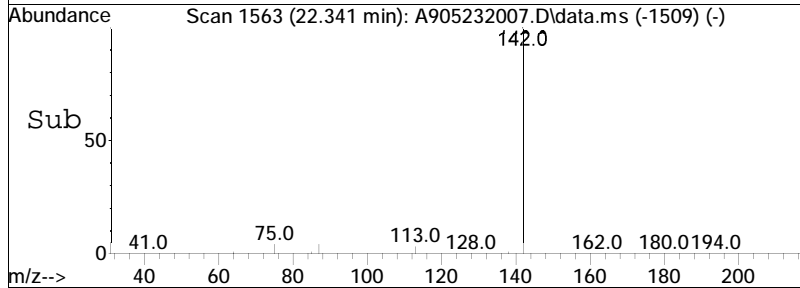
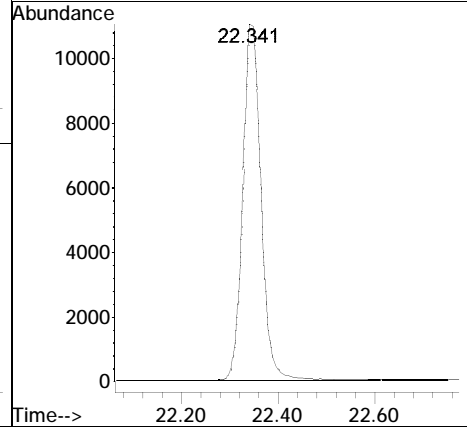
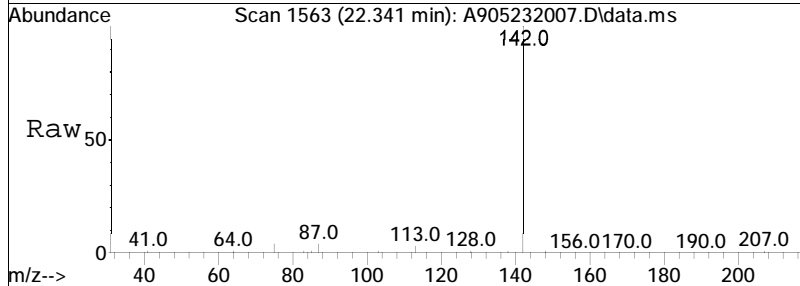
#9
 Naphthalene
 Concen: 415.57 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

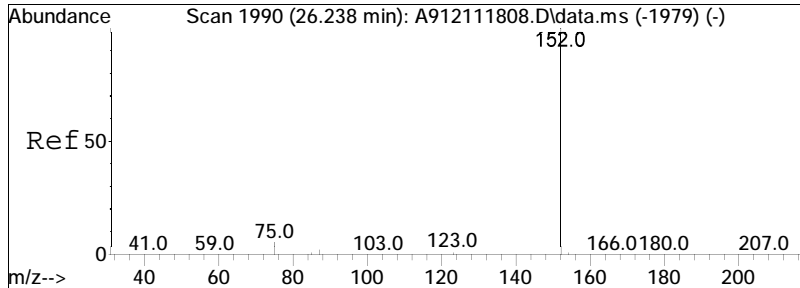
Tgt Ion:128 Resp: 43299



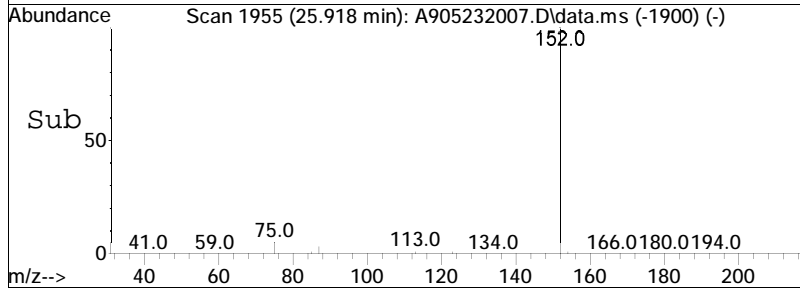
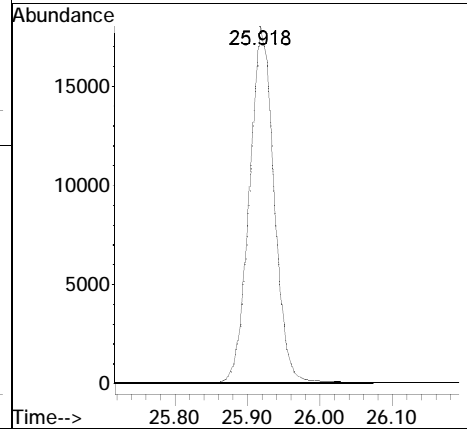
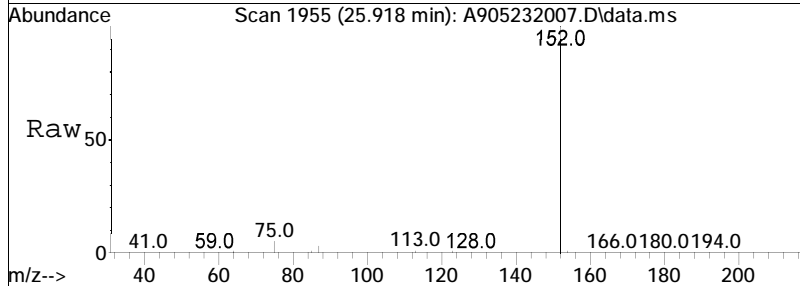


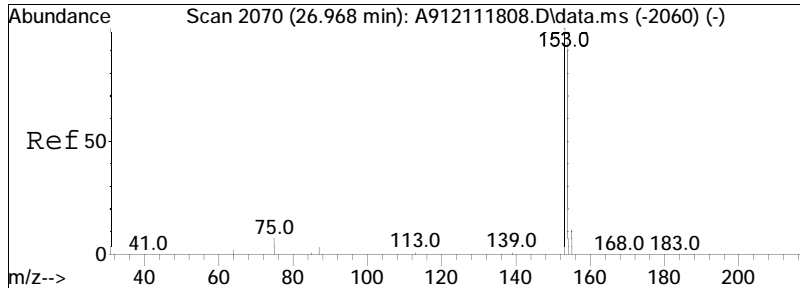
#14
 2-Methylnaphthalene
 Concen: 411.55 ng/mL
 RT: 22.341 min Scan# 1563
 Delta R.T. -0.009 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm
 Tgt Ion:142 Resp: 28430





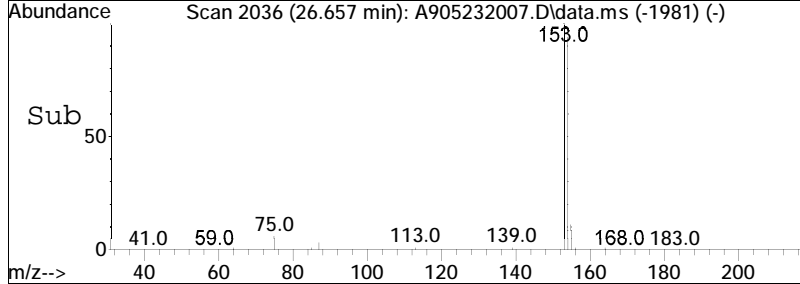
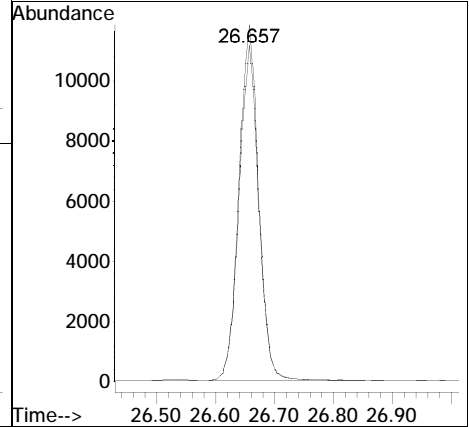
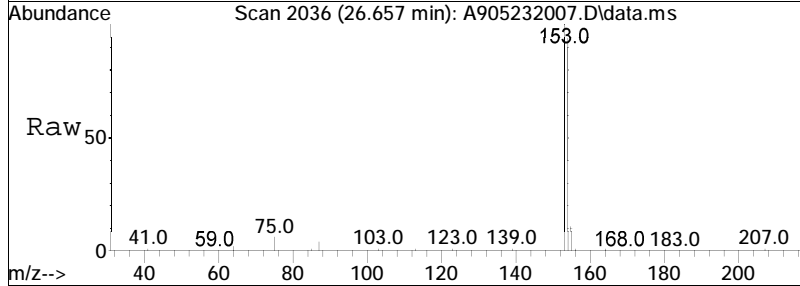
#24
 Acenaphthylene
 Concen: 405.27 ng/mL
 RT: 25.918 min Scan# 1955
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm
 Tgt Ion:152 Resp: 41814

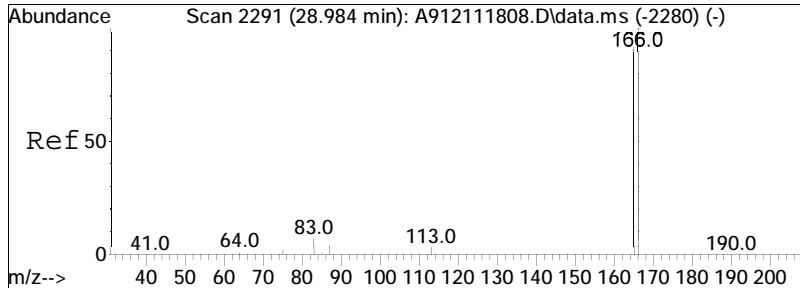




#25
 Acenaphthene
 Concen: 427.84 ng/mL
 RT: 26.657 min Scan# 2036
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

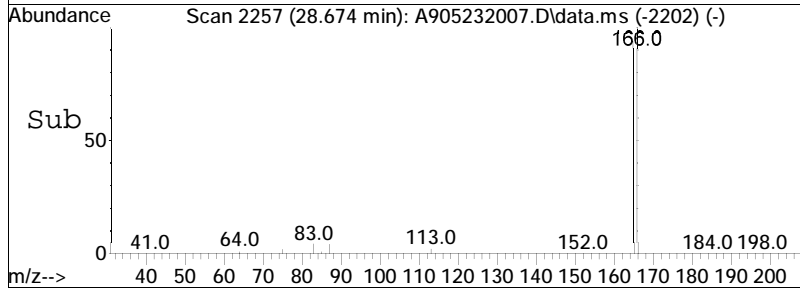
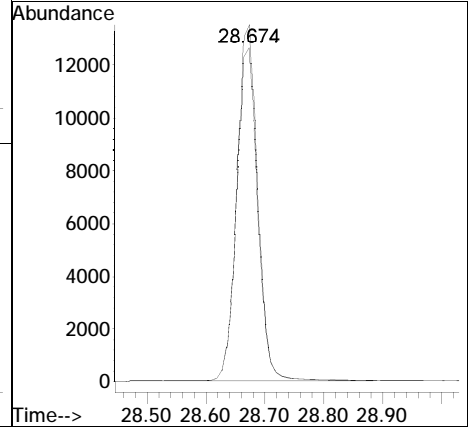
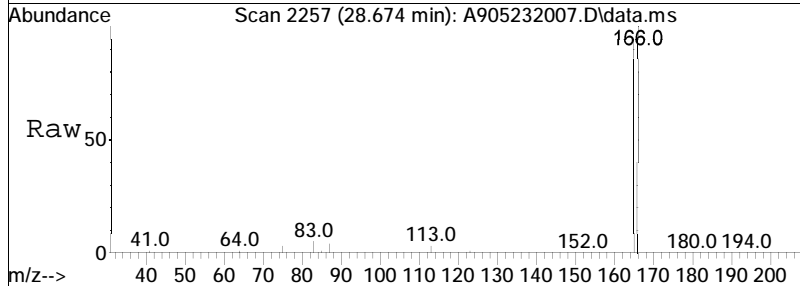
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.8	65.0	120.8

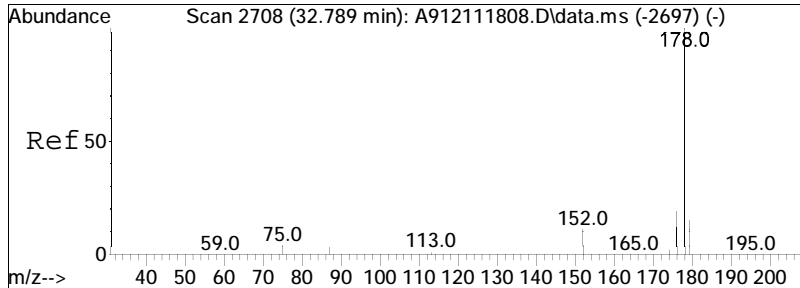




#27
 Fluorene
 Concen: 437.02 ng/mL
 RT: 28.674 min Scan# 2257
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

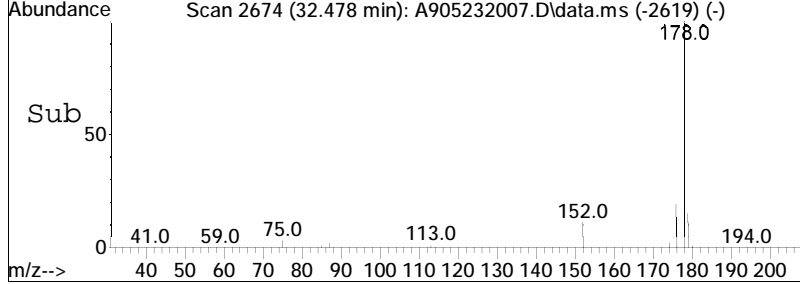
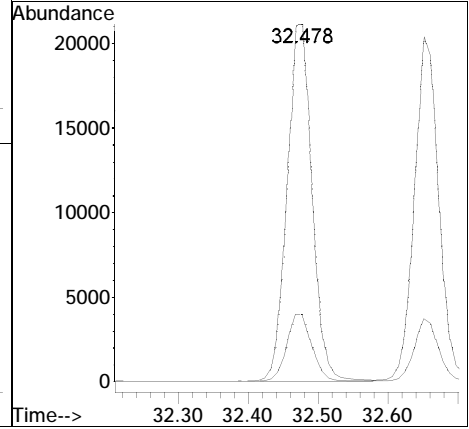
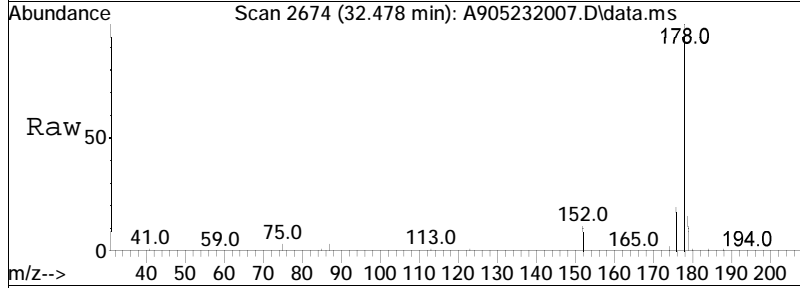
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.9	65.4	121.4

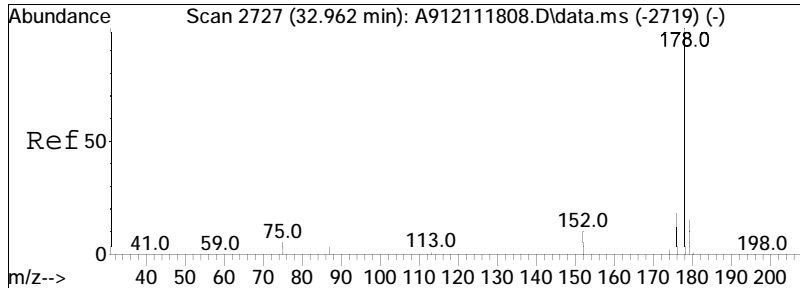




#41
 Phenanthrene
 Concen: 468.52 ng/mL
 RT: 32.478 min Scan# 2674
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

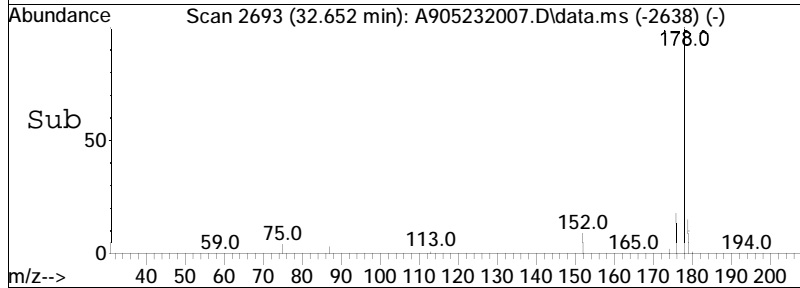
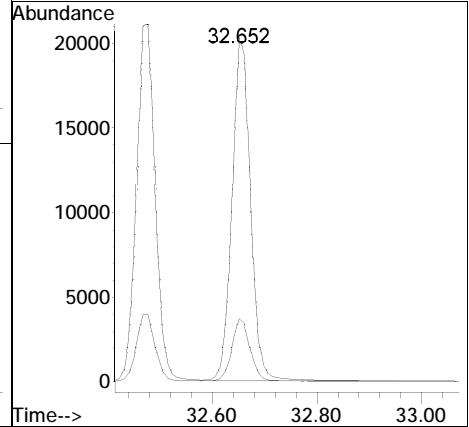
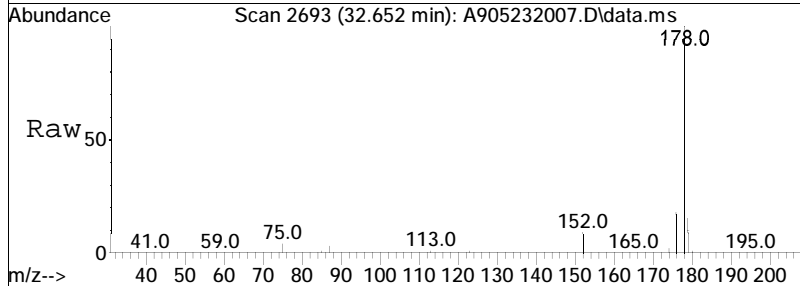
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.8	13.6	25.4

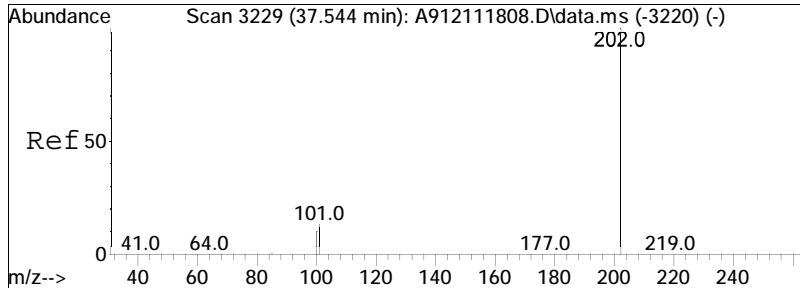




#53
 Anthracene
 Concen: 500.92 ng/mL
 RT: 32.652 min Scan# 2693
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

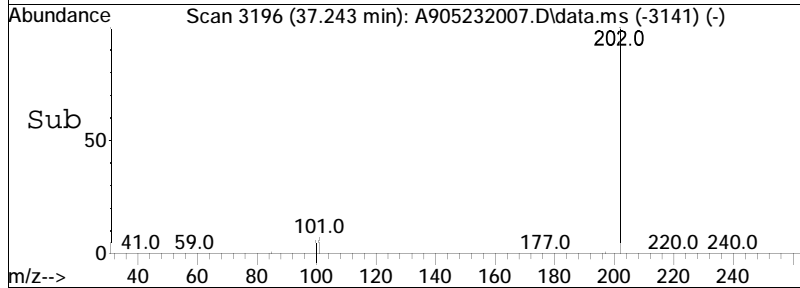
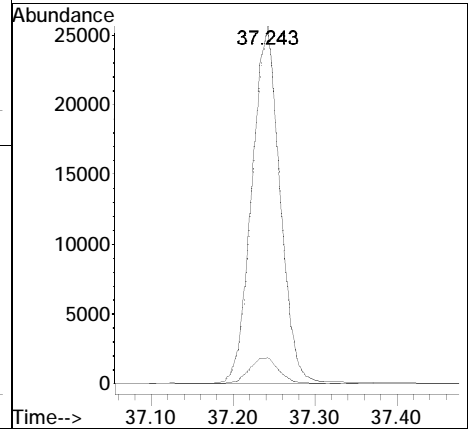
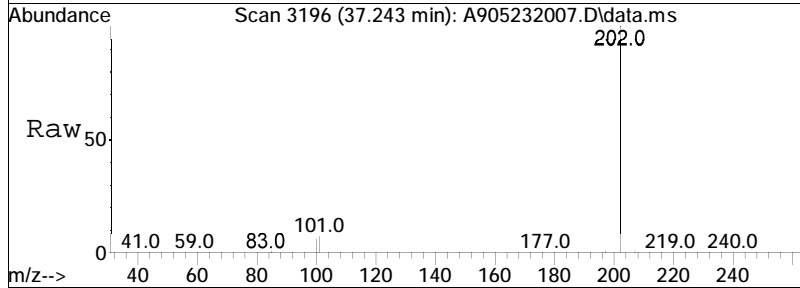
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.0	13.3	24.7

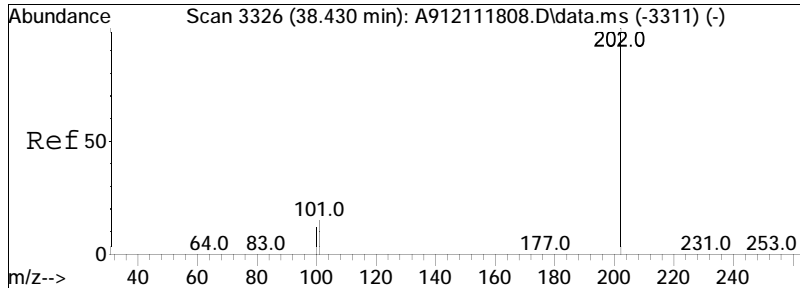




#56
 Fluoranthene
 Concen: 459.01 ng/mL M4
 RT: 37.243 min Scan# 3196
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

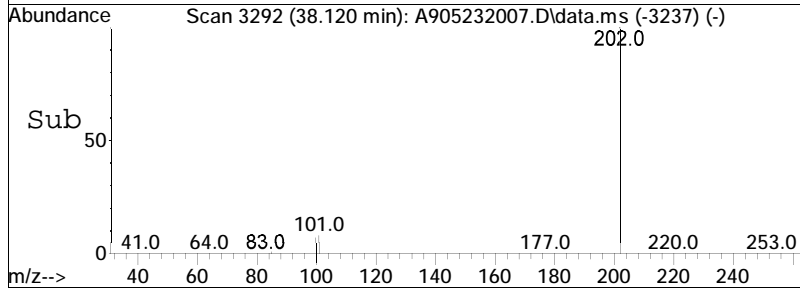
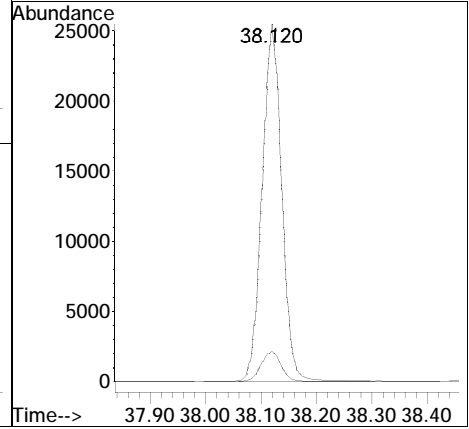
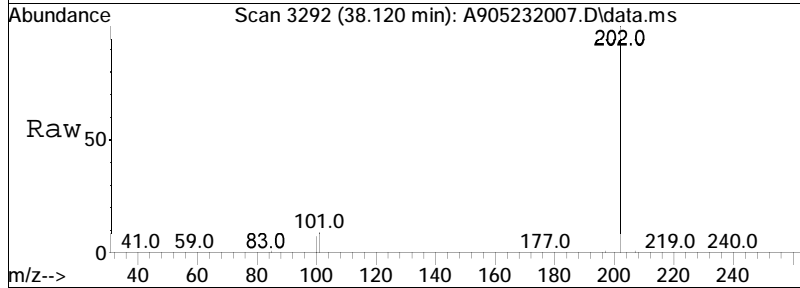
Tgt Ion: 202 Resp: 60051
 Ion Ratio Lower Upper
 202 100
 101 7.3 6.8 12.6

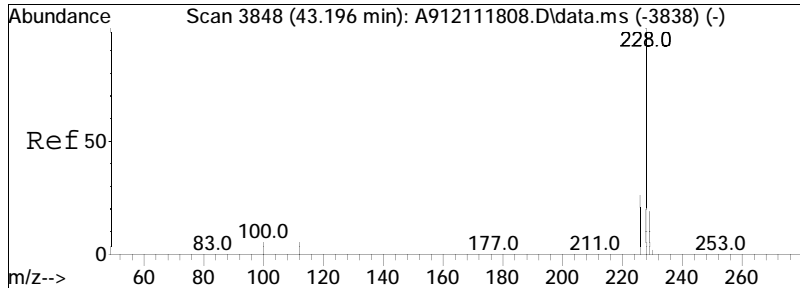




#59
 Pyrene
 Concen: 440.34 ng/mL
 RT: 38.120 min Scan# 3292
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

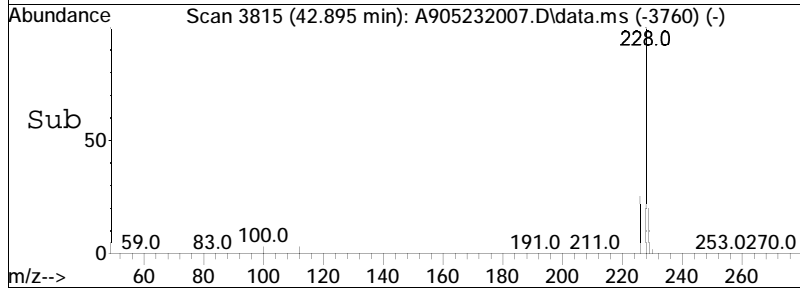
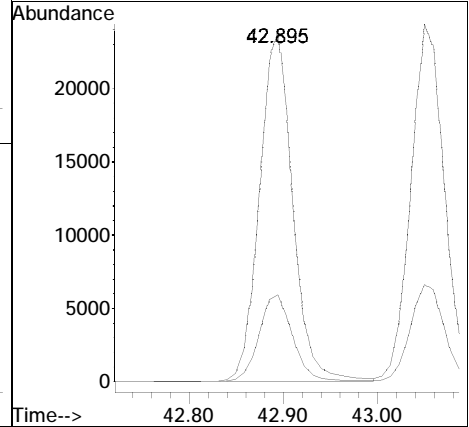
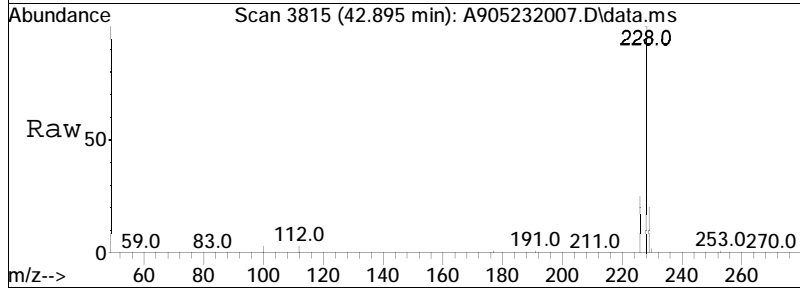
Tgt Ion: 202 Resp: 60831
 Ion Ratio Lower Upper
 202 100
 101 8.6 7.6 14.0

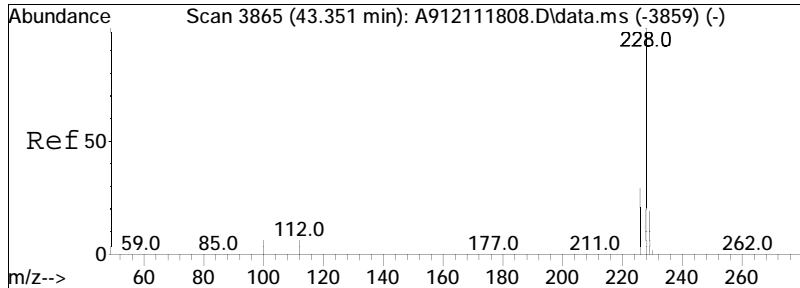




#75
 Benz[a]anthracene
 Concen: 446.74 ng/mL
 RT: 42.895 min Scan# 3815
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

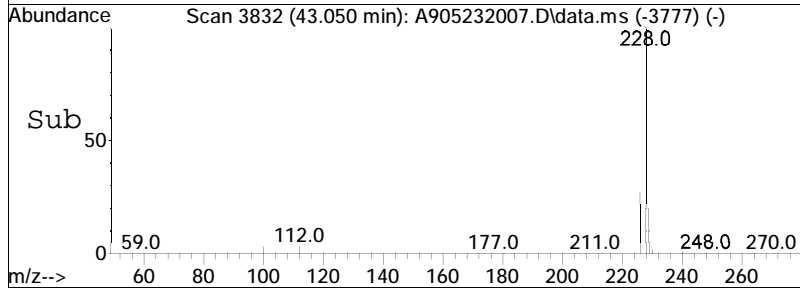
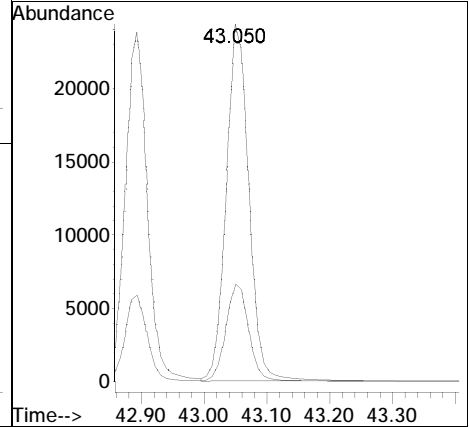
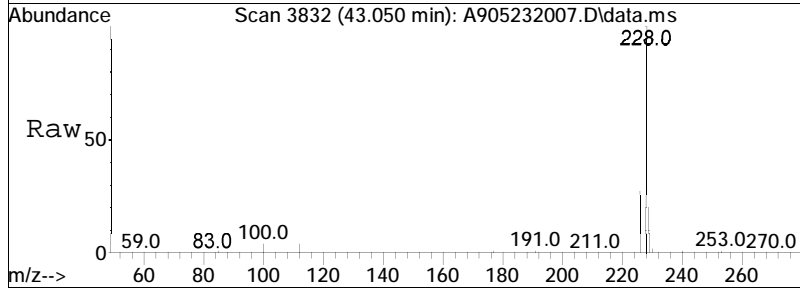
Tgt Ion	Resp	Lower	Upper
228	100		
226	24.9	19.0	35.2

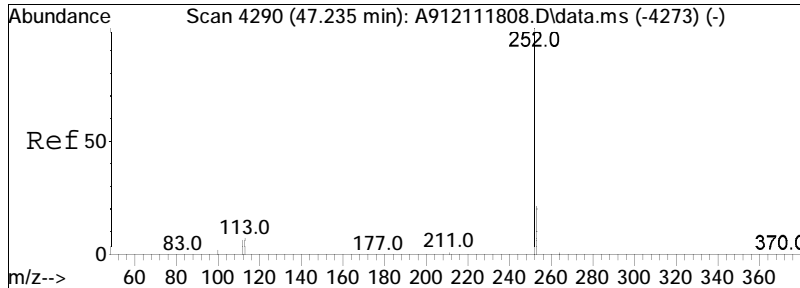




#77
 Chrysene/Triphenylene
 Concen: 446.15 ng/mL
 RT: 43.050 min Scan# 3832
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

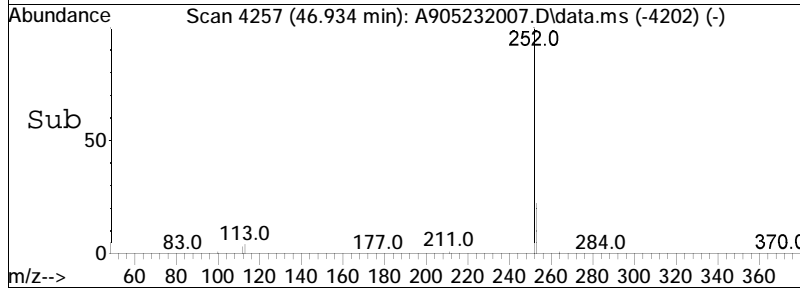
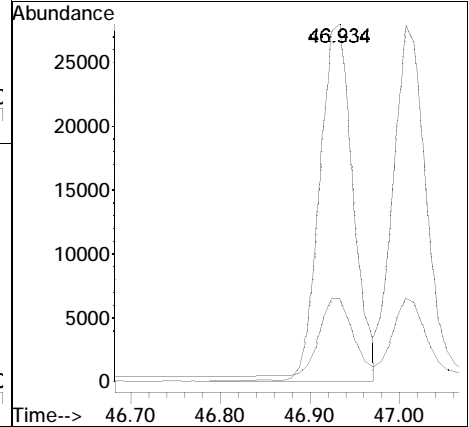
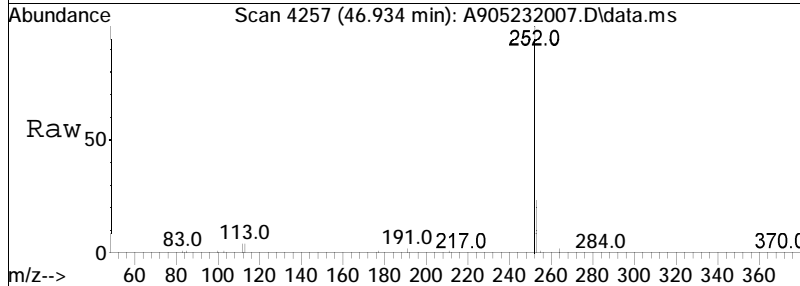
Tgt Ion	Resp	Lower	Upper
228	100		
226	27.4	21.0	39.0

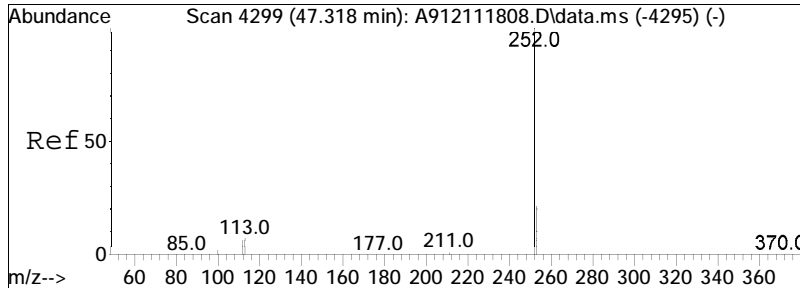




#84
 Benzo[b]fluoranthene
 Concen: 456.78 ng/mL
 RT: 46.934 min Scan# 4257
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

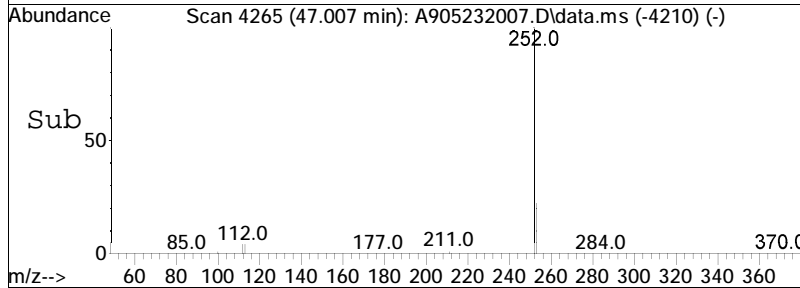
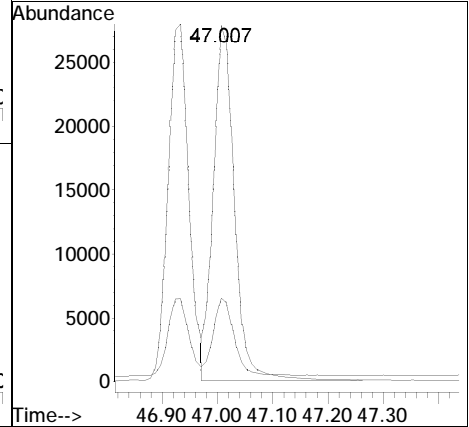
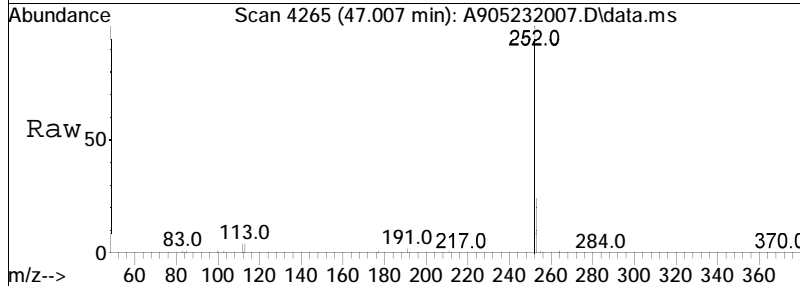
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.1	17.3	32.1

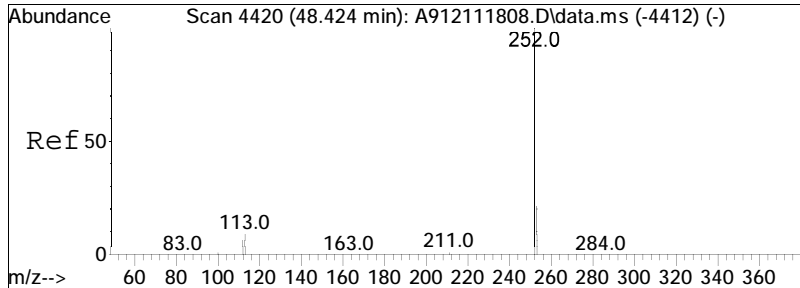




#85
 Benzo[j]+[k]fluoranthene
 Concen: 467.76 ng/mL
 RT: 47.007 min Scan# 4265
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

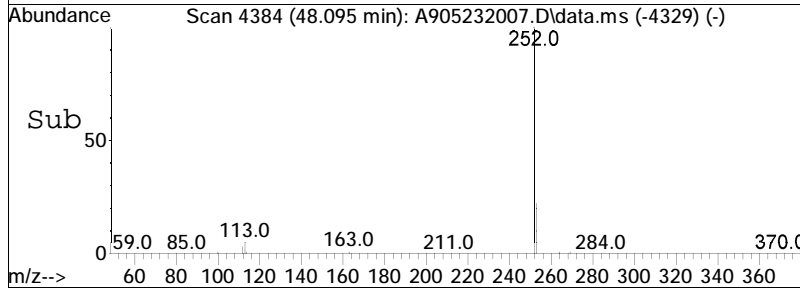
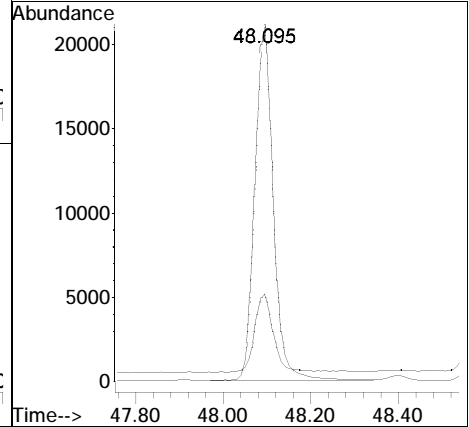
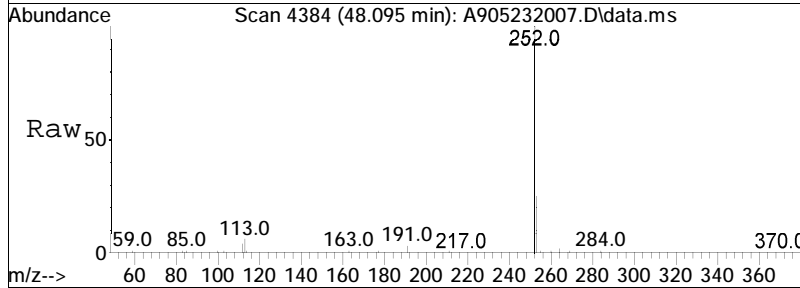
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.6	17.6	32.8

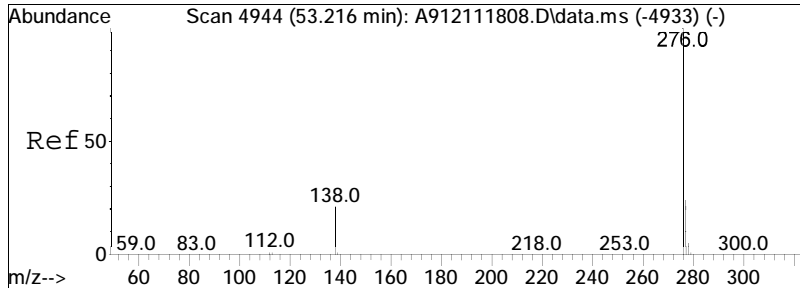




#90
 Benzo[a]pyrene
 Concen: 408.42 ng/mL
 RT: 48.095 min Scan# 4384
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

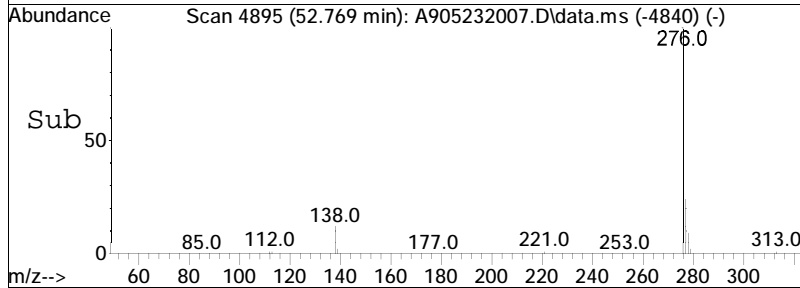
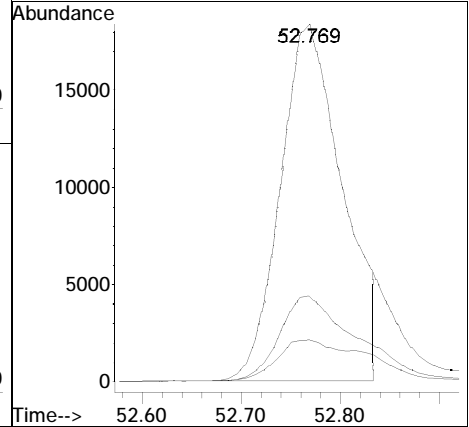
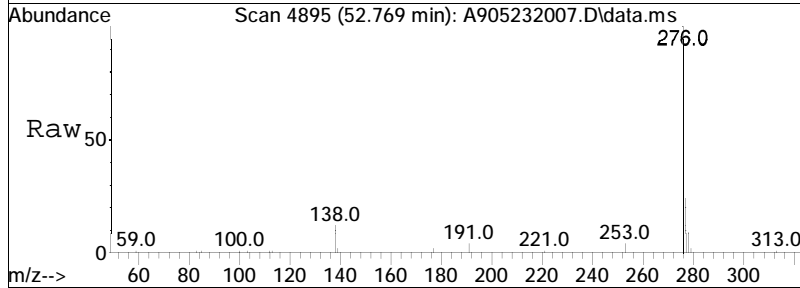
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.4	19.2	35.6

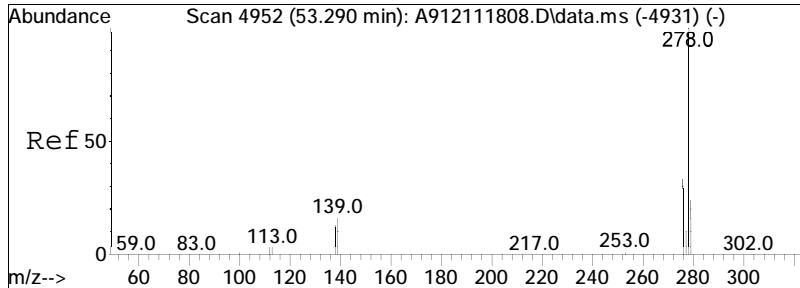




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 462.21 ng/mL M3
 RT: 52.769 min Scan# 4895
 Delta R.T. 0.000 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

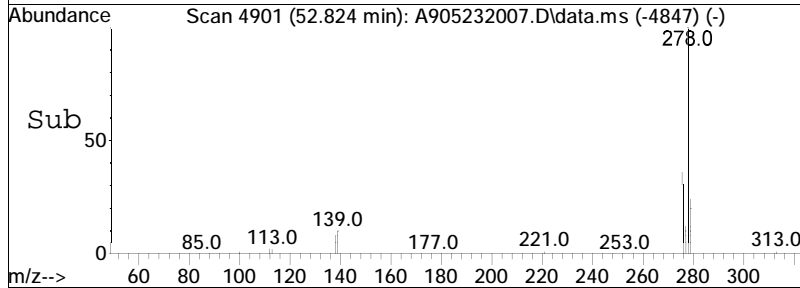
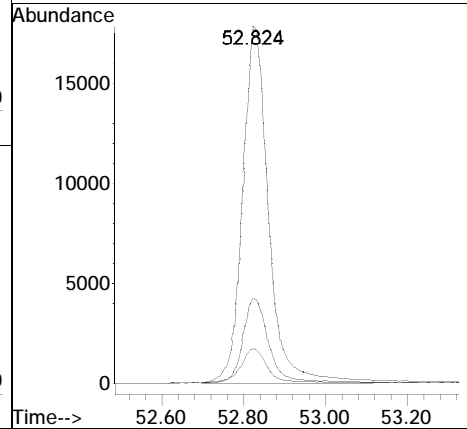
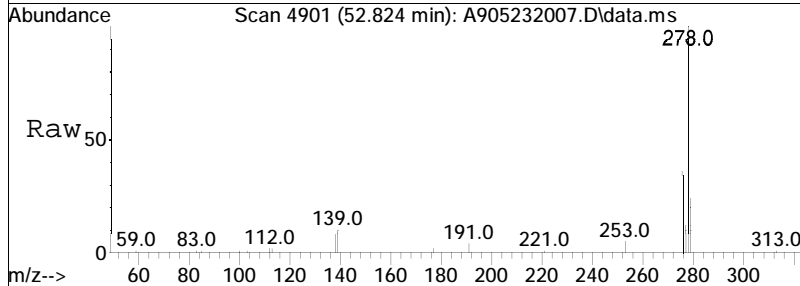
Tgt Ion	Ratio	Lower	Upper
276	100		
138	17.2	12.2	22.6
277	30.6	18.6	34.6

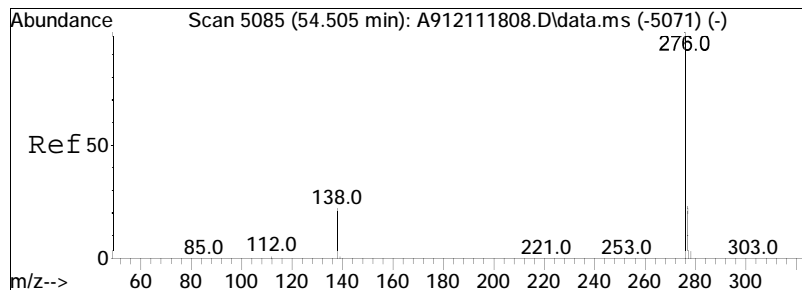




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 518.72 ng/mL M4
 RT: 52.824 min Scan# 4901
 Delta R.T. -0.009 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

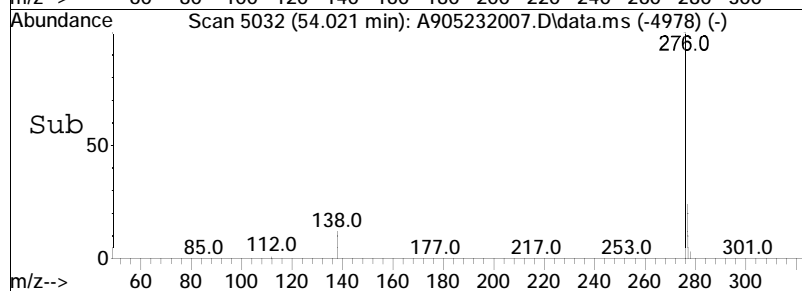
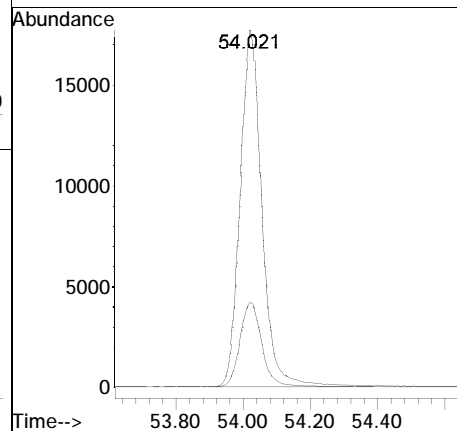
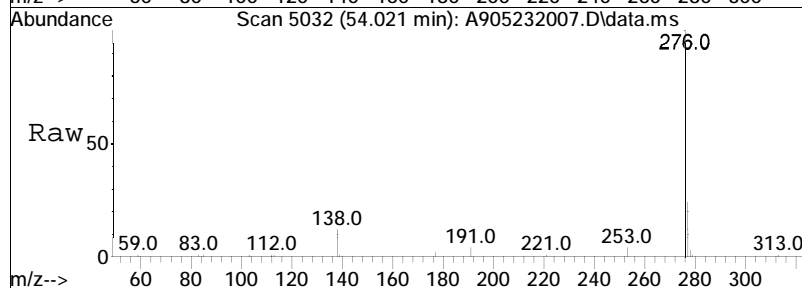
Tgt Ion	Resp	Lower	Upper
278	100		
139	10.3	8.3	15.5
279	23.3	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 440.35 ng/mL
 RT: 54.021 min Scan# 5032
 Delta R.T. -0.009 min
 Lab File: A905232007.D
 Acq: 23 May 2020 9:26 pm

Tgt Ion	Resp	Lower	Upper
276	100		
277	23.9	17.4	32.2



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232008.D
 Acq On : 23 May 2020 10:51 pm
 Operator : PAH9:ML
 Sample : WG1372713-3
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 03 15:08:56 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 15:08:28 2020
 Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds

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

Internal Standards							
1) Acenaphthene-d10	26.530	164	24568	500.000	ng/mL	0.00	
74) Chrysene-d12	42.959	240	51822	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.585	136	35047	390.305	ng/mL	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	39.03%#
40) Phenanthrene-d10	32.387	188	42298	503.035	ng/mL	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	50.30%
83) Benzo[b]fluoranthene-d12	46.852	264	66927	520.485	ng/mL	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	52.05%
89) Benzo[a]pyrene-d12	48.004	264	41599	483.641	ng/mL	0.00	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	48.36%#
130) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml		
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	0.00%#
Target Compounds							
9) Naphthalene	19.658	128	41467	396.726	ng/mL	100	Qvalue
14) 2-Methylnaphthalene	22.350	142	27459	396.234	ng/mL	100	
24) Acenaphthylene	25.918	152	40908	395.228	ng/mL	100	
25) Acenaphthene	26.657	153	27328	426.074	ng/mL	100	
27) Fluorene	28.674	166	33291	438.108	ng/mL	100	
41) Phenanthrene	32.478	178	56133	501.368	ng/mL	98	
53) Anthracene	32.652	178	49770	504.087	ng/mL	98	
56) Fluoranthene	37.243	202	61960	472.097	ng/mL	93	
59) Pyrene	38.120	202	62060	447.808	ng/mL	94	
75) Benz[a]anthracene	42.895	228	58292	447.337	ng/mL	96	
77) Chrysene/Triphenylene	43.050	228	61439	449.404	ng/mL	94	
84) Benzo[b]fluoranthene	46.934	252	73076	458.689	ng/mL	94	
85) Benzo[j]+[k]fluoranthene	47.007	252	74181	471.853	ng/mL	93	
90) Benzo[a]pyrene	48.095	252	59733	398.301	ng/mL	90	
92) Indeno[1,2,3-cd]pyrene	52.769	276	80429M3	459.750	ng/mL		
93) Dibenz[ah]+[ac]anthracene	52.833	278	77458	514.444	ng/mL	97	
95) Benzo[g,h,i]perylene	54.021	276	79296	441.168	ng/mL	98	

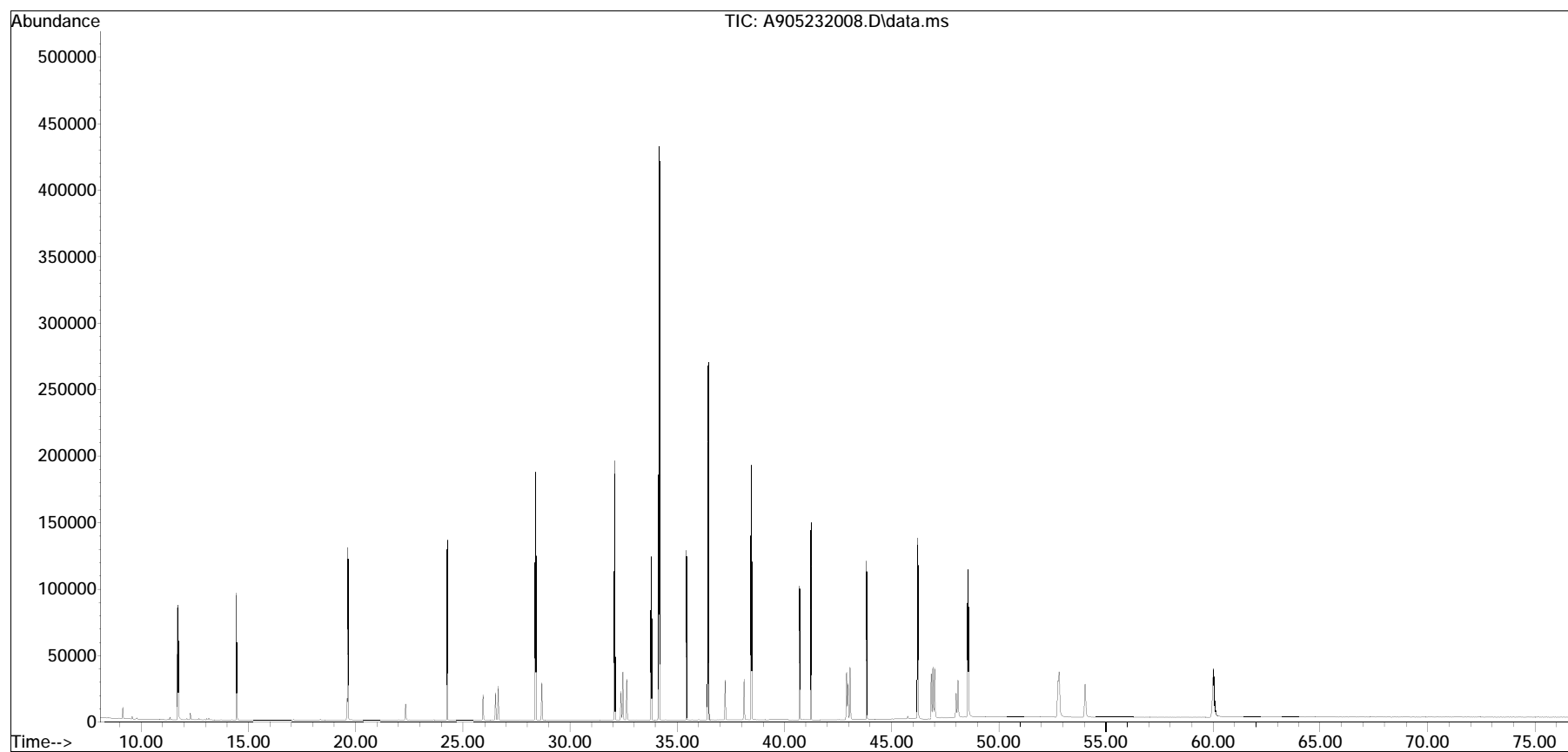
(#) = qualifier out of range (m) = manual integration (+) = signals summed

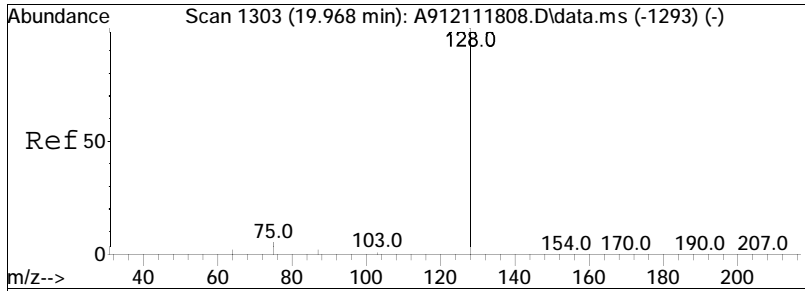
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232008.D
Acq On : 23 May 2020 10:51 pm
Operator : PAH9:ML
Sample : WG1372713-3
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 03 15:08:56 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 15:08:28 2020
Response via : Initial Calibration

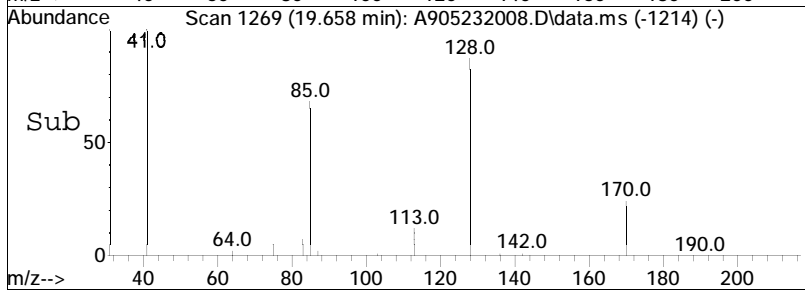
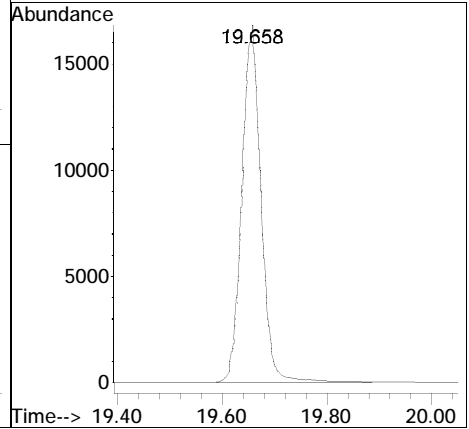
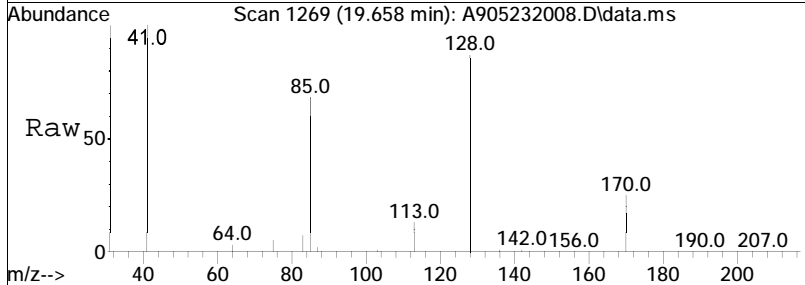
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

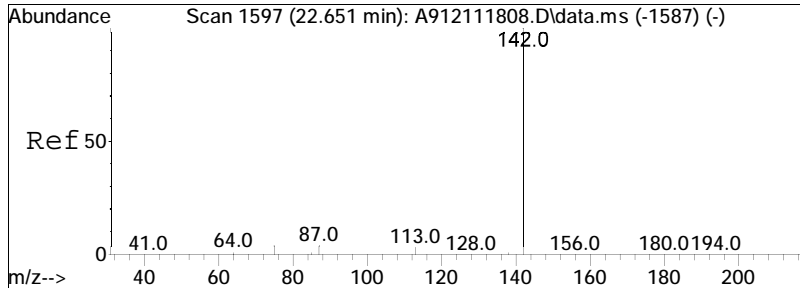




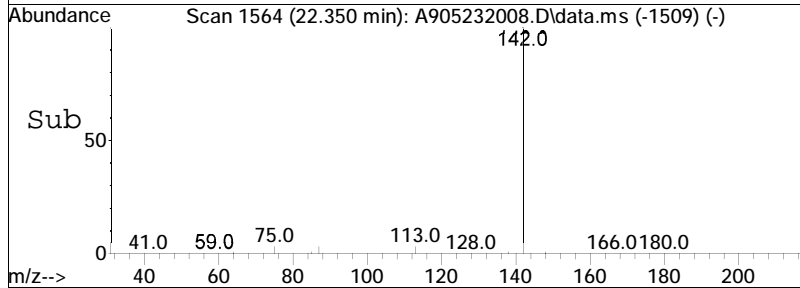
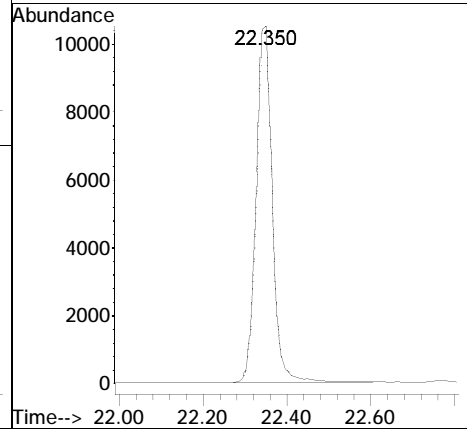
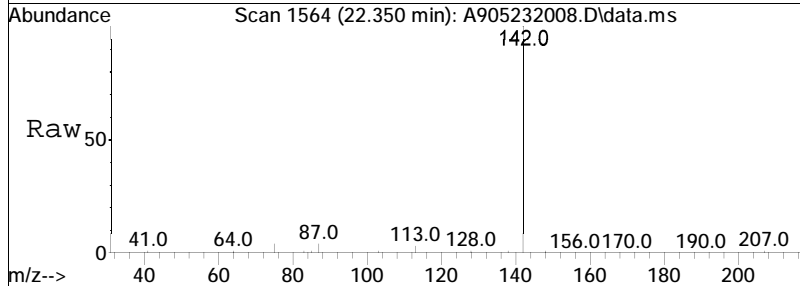
#9
 Naphthalene
 Concen: 396.73 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

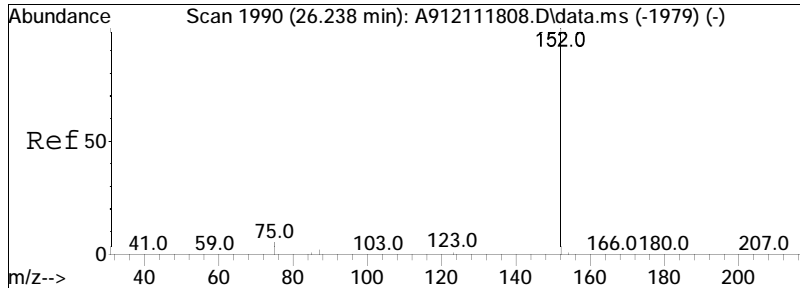
Tgt Ion:128 Resp: 41467



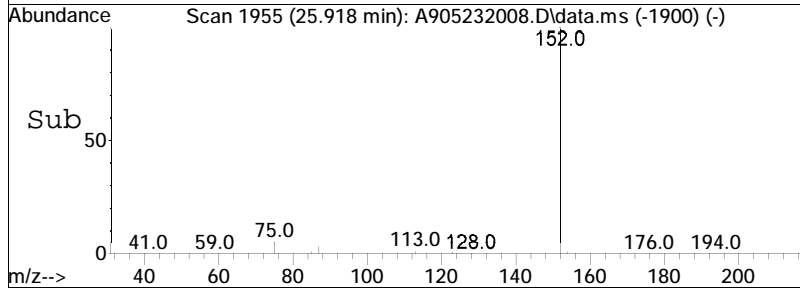
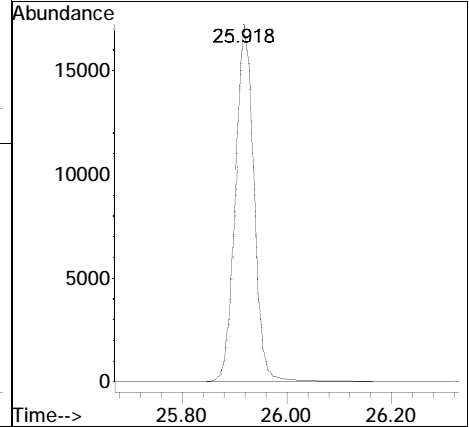
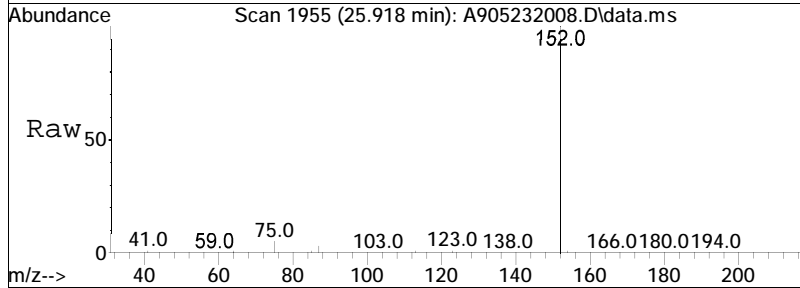


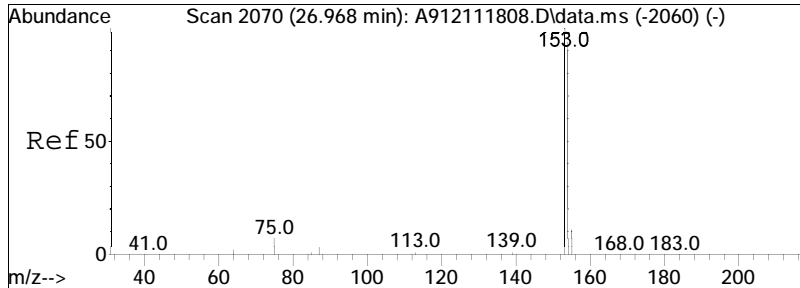
#14
 2-Methylnaphthalene
 Concen: 396.23 ng/mL
 RT: 22.350 min Scan# 1564
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm
 Tgt Ion:142 Resp: 27459





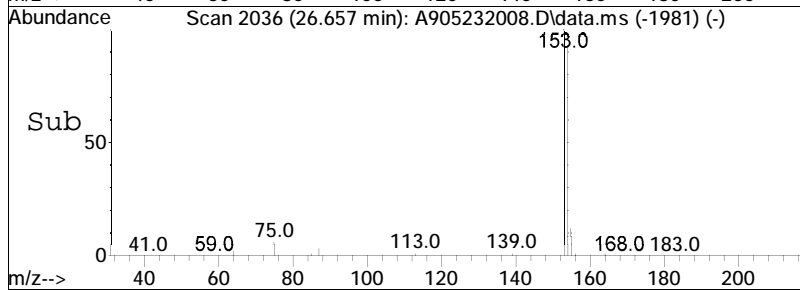
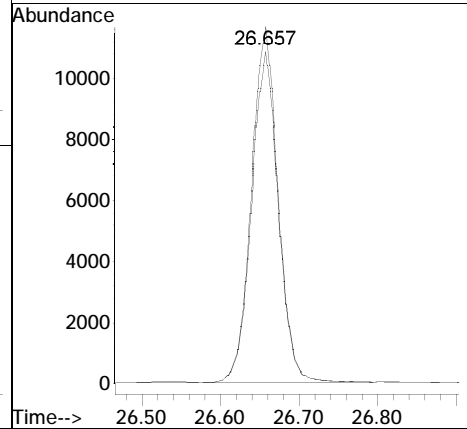
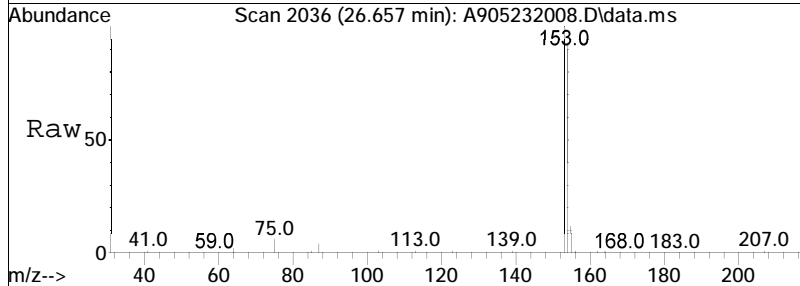
#24
 Acenaphthylene
 Concen: 395.23 ng/mL
 RT: 25.918 min Scan# 1955
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm
 Tgt Ion:152 Resp: 40908

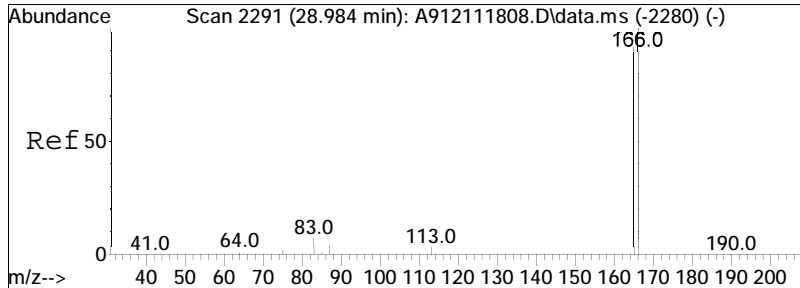




#25
 Acenaphthene
 Concen: 426.07 ng/mL
 RT: 26.657 min Scan# 2036
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

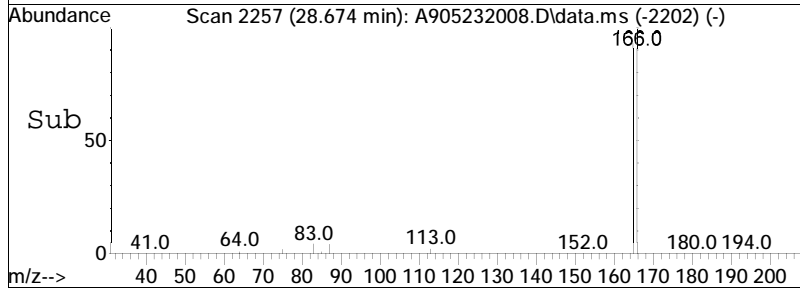
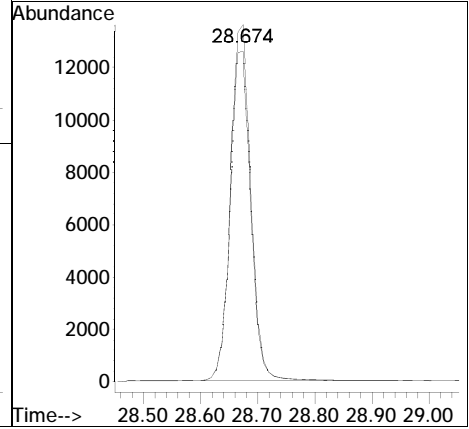
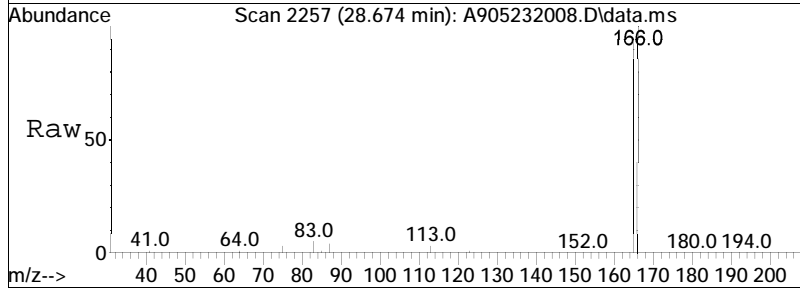
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.0	65.0	120.8

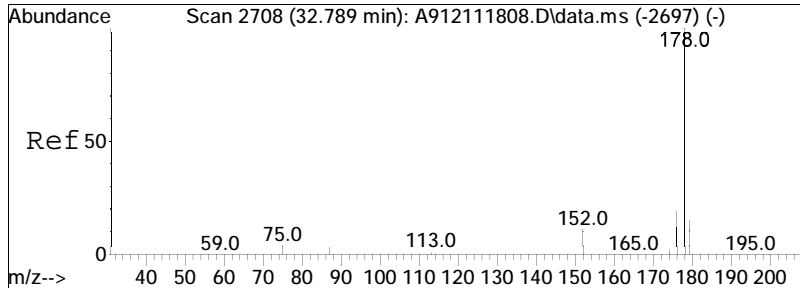




#27
 Fluorene
 Concen: 438.11 ng/mL
 RT: 28.674 min Scan# 2257
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

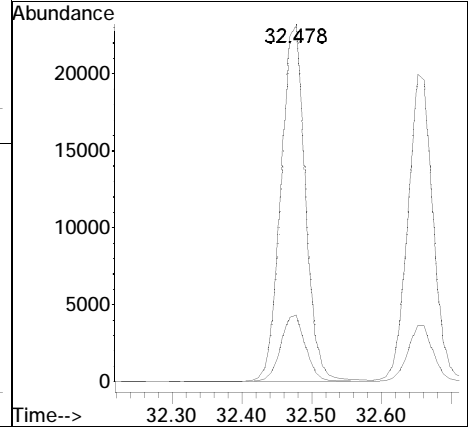
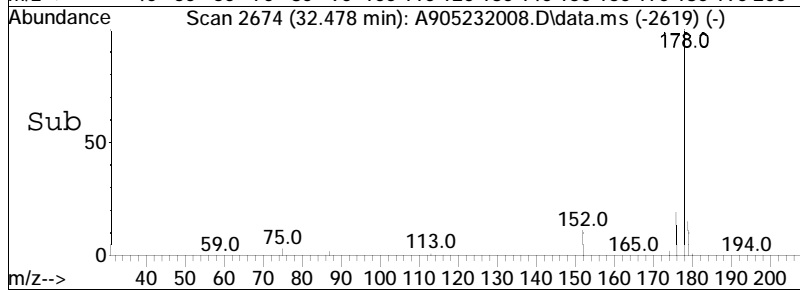
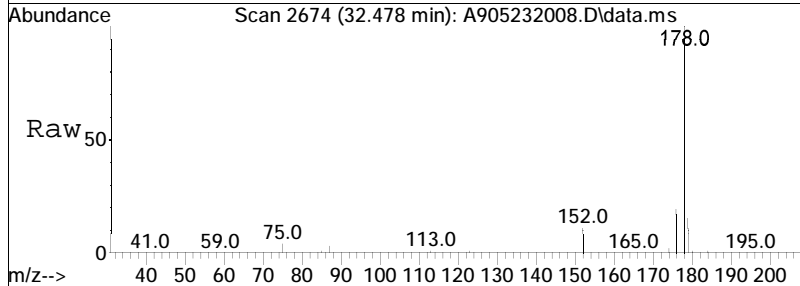
Tgt Ion: 166 Resp: 33291
 Ion Ratio Lower Upper
 166 100
 165 93.1 65.4 121.4

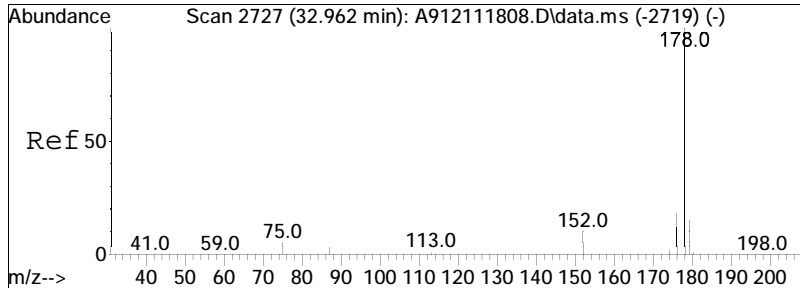




#41
 Phenanthrene
 Concen: 501.37 ng/mL
 RT: 32.478 min Scan# 2674
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

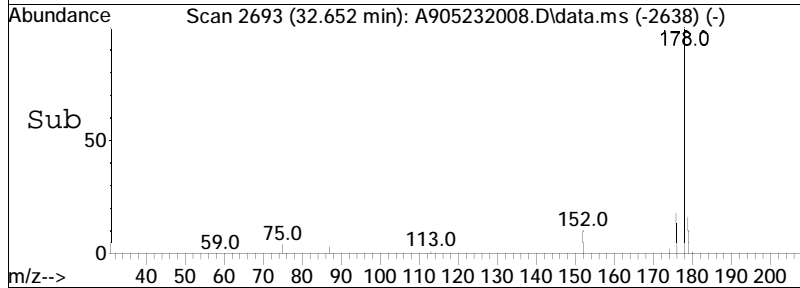
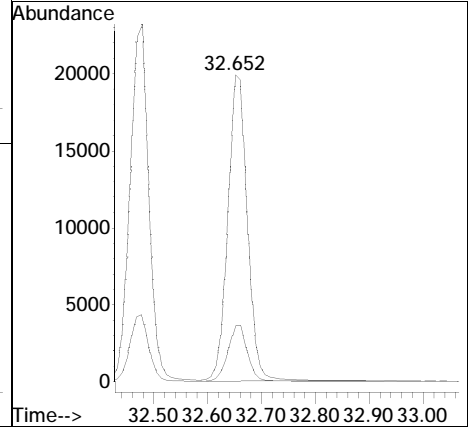
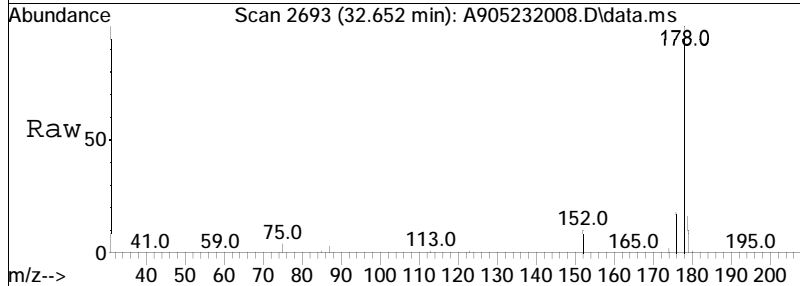
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.6	13.6	25.4

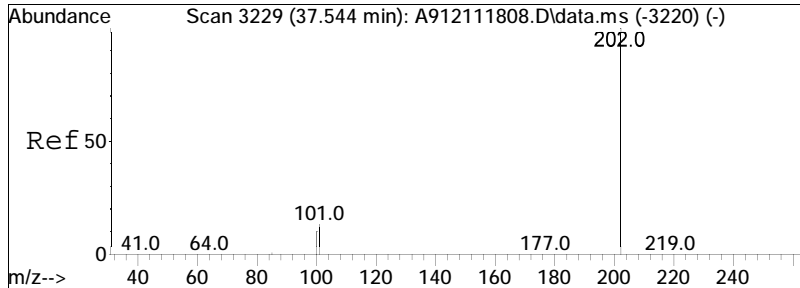




#53
 Anthracene
 Concen: 504.09 ng/mL
 RT: 32.652 min Scan# 2693
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

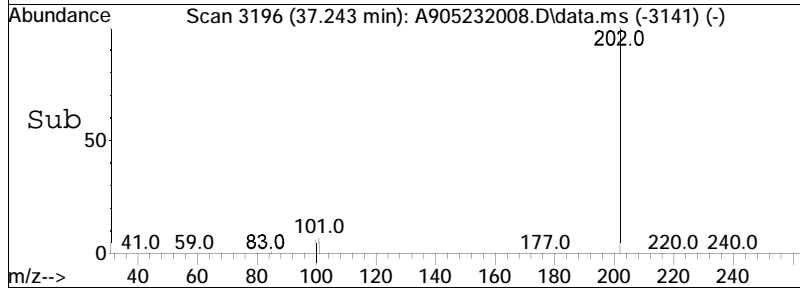
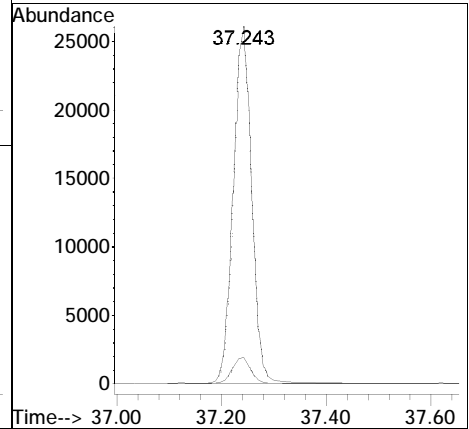
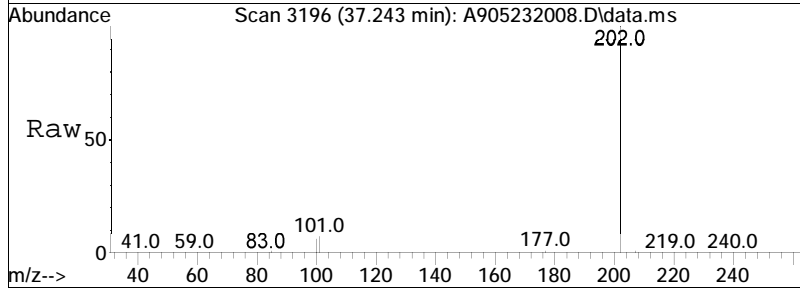
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.0	13.3	24.7

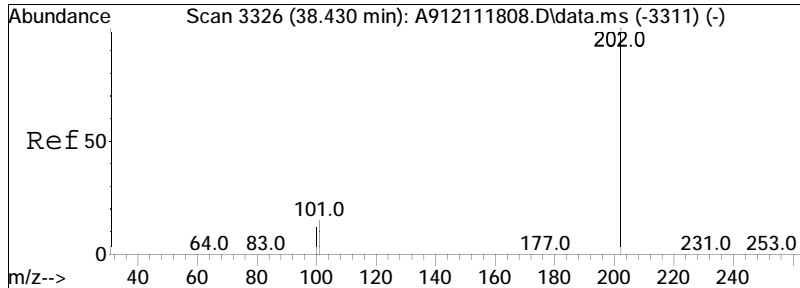




#56
 Fluoranthene
 Concen: 472.10 ng/mL
 RT: 37.243 min Scan# 3196
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

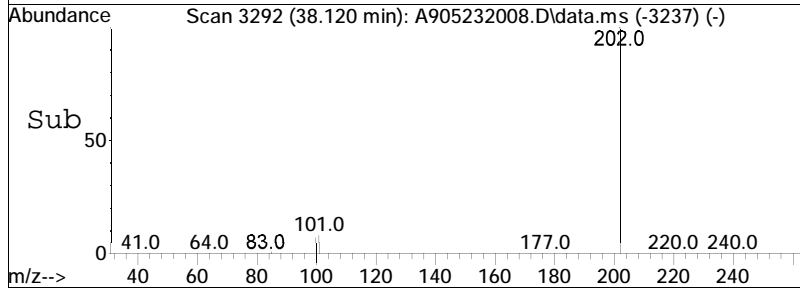
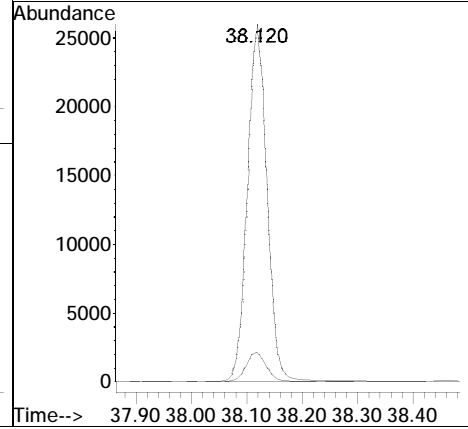
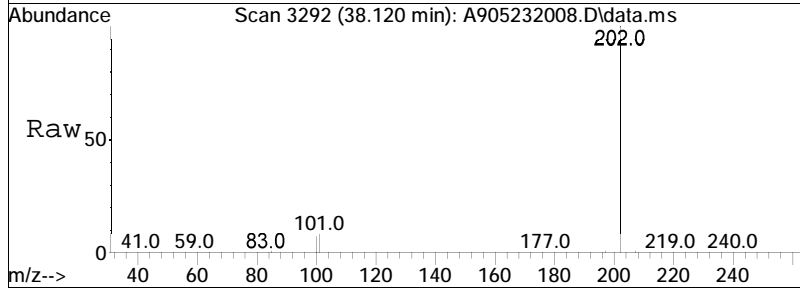
Tgt Ion: 202 Resp: 61960
 Ion Ratio Lower Upper
 202 100
 101 7.2 6.8 12.6

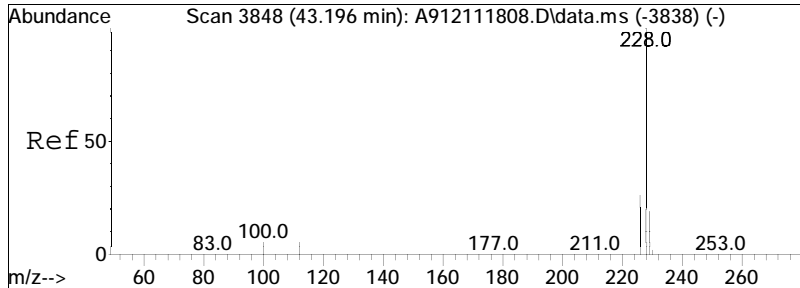




#59
 Pyrene
 Concen: 447.81 ng/mL
 RT: 38.120 min Scan# 3292
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

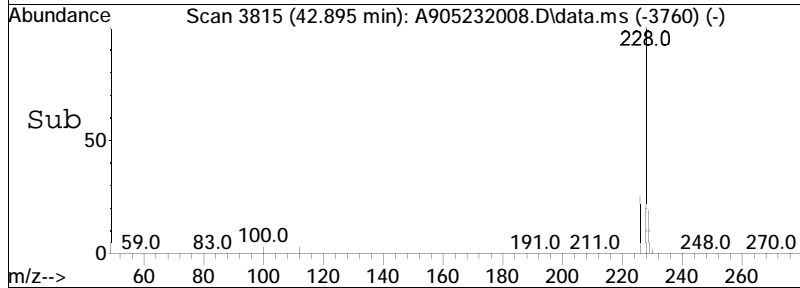
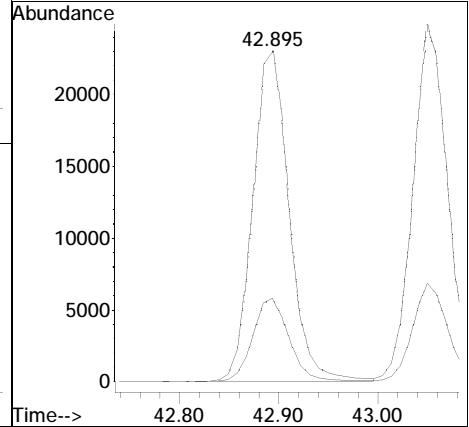
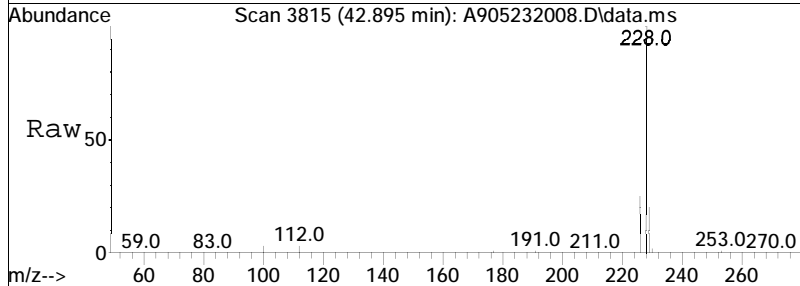
Tgt Ion: 202 Resp: 62060
 Ion Ratio Lower Upper
 202 100
 101 8.5 7.6 14.0

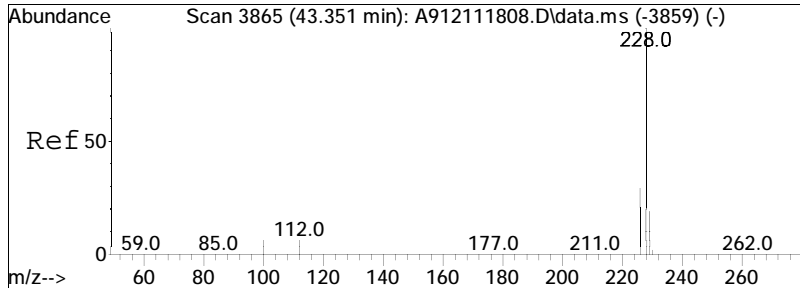




#75
 Benz[a]anthracene
 Concen: 447.34 ng/mL
 RT: 42.895 min Scan# 3815
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

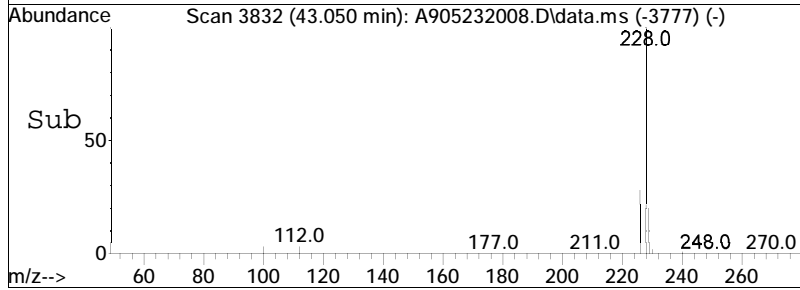
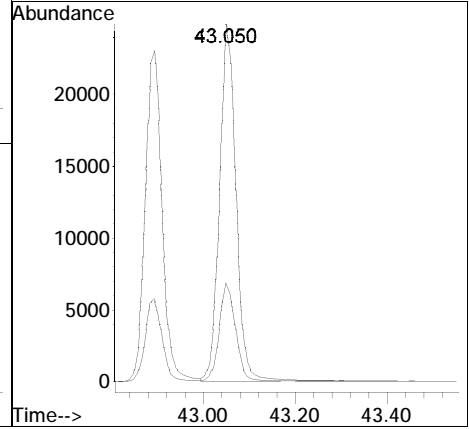
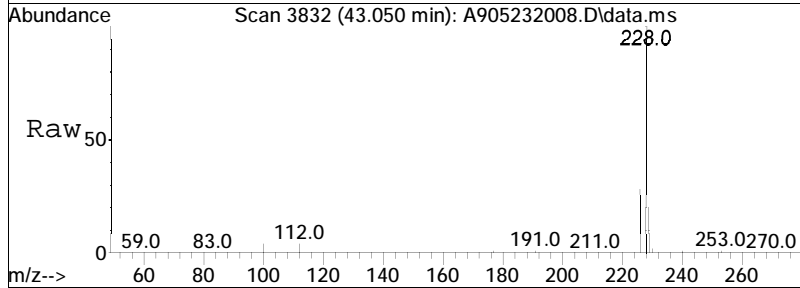
Tgt Ion	Resp	Lower	Upper
228	100		
226	24.9	19.0	35.2

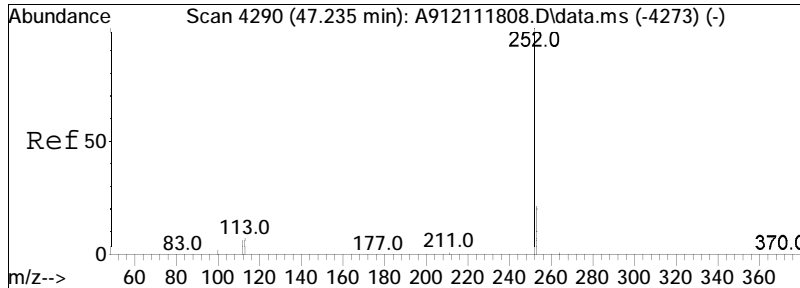




#77
 Chrysene/Triphenylene
 Concen: 449.40 ng/mL
 RT: 43.050 min Scan# 3832
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

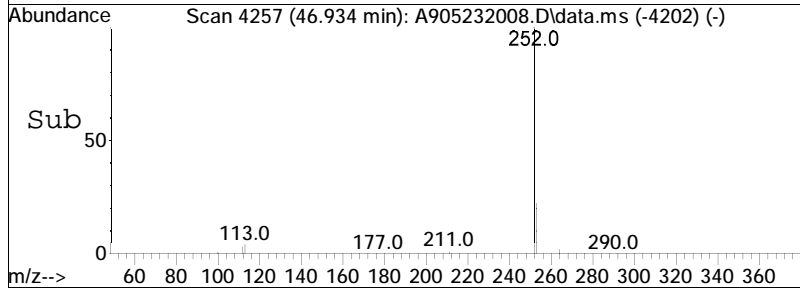
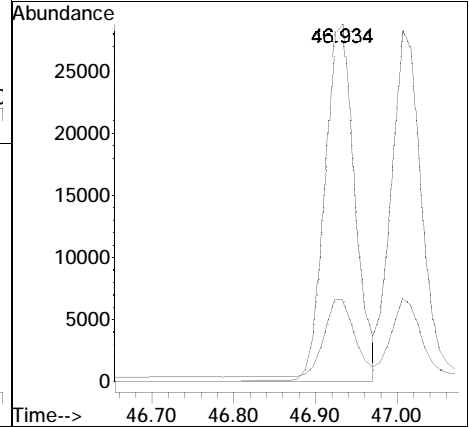
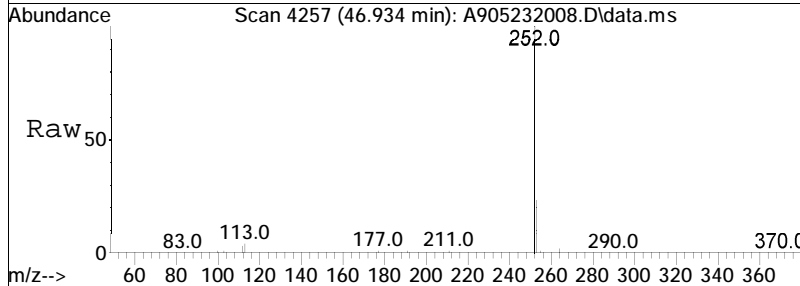
Tgt Ion	Resp	Lower	Upper
228	100		
226	27.0	21.0	39.0

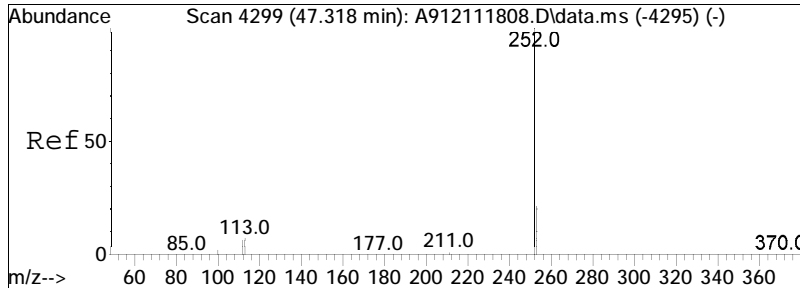




#84
 Benzo[b]fluoranthene
 Concen: 458.69 ng/mL
 RT: 46.934 min Scan# 4257
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

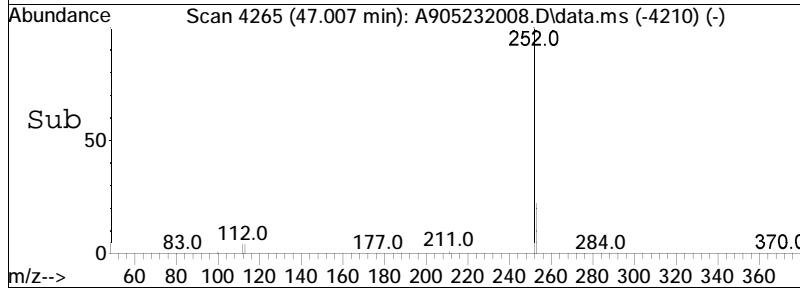
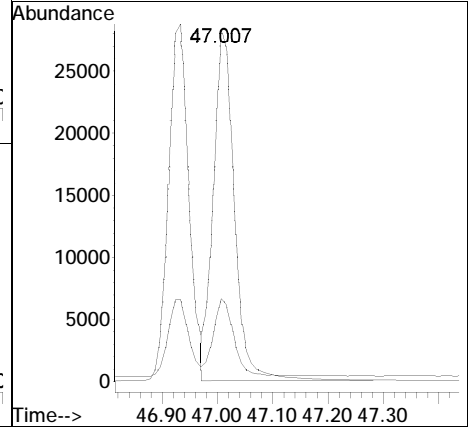
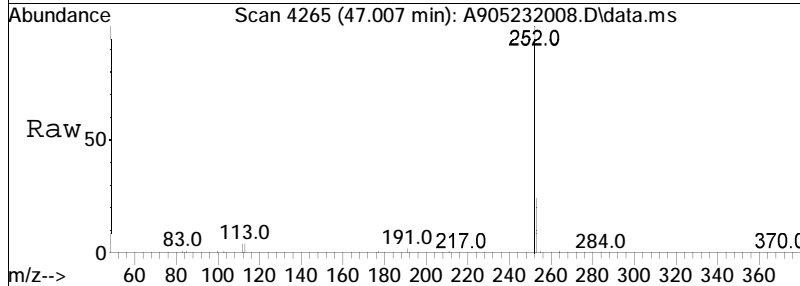
Tgt Ion	Resp	Lower	Upper
252	73076		
253	21.9	17.3	32.1

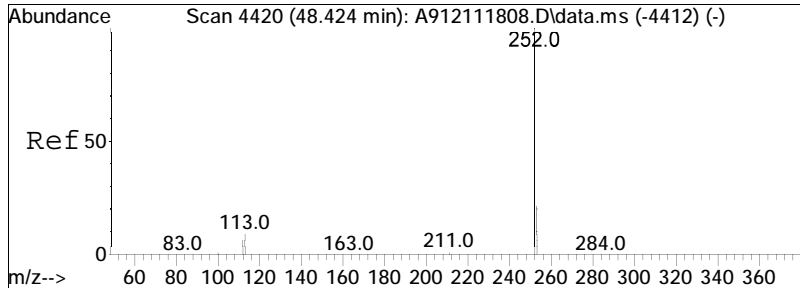




#85
 Benzo[j]+[k]fluoranthene
 Concen: 471.85 ng/mL
 RT: 47.007 min Scan# 4265
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

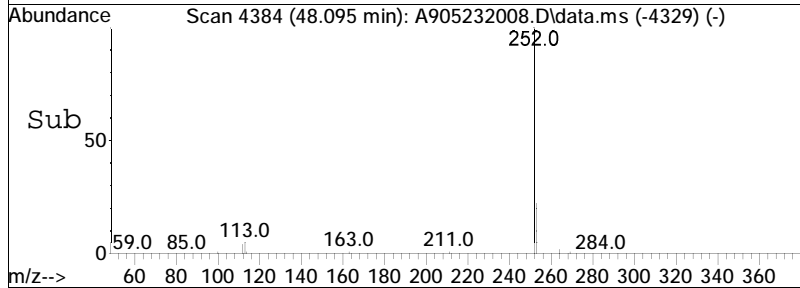
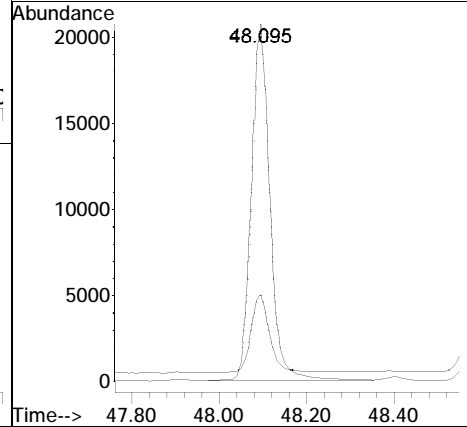
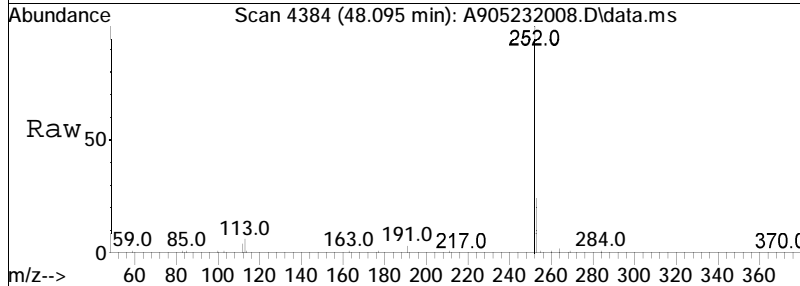
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.5	17.6	32.8

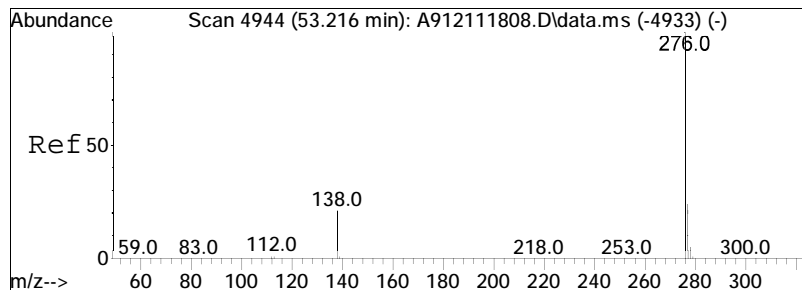




#90
 Benzo[a]pyrene
 Concen: 398.30 ng/mL
 RT: 48.095 min Scan# 4384
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

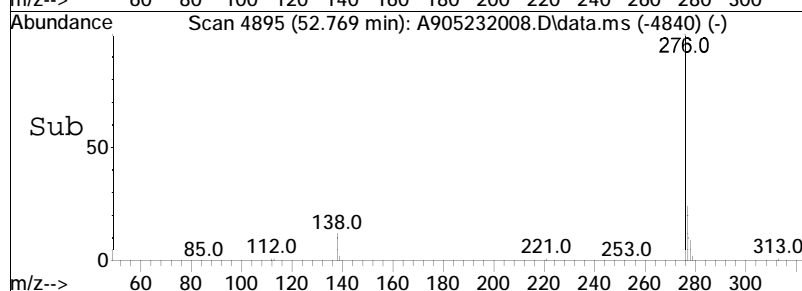
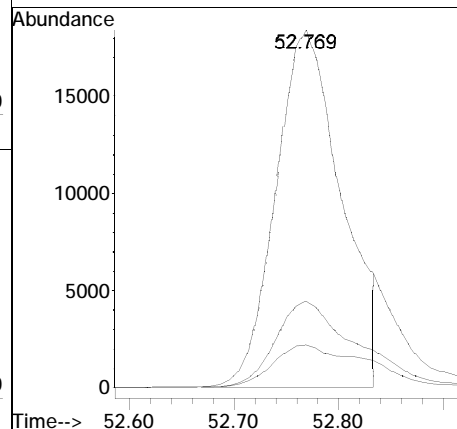
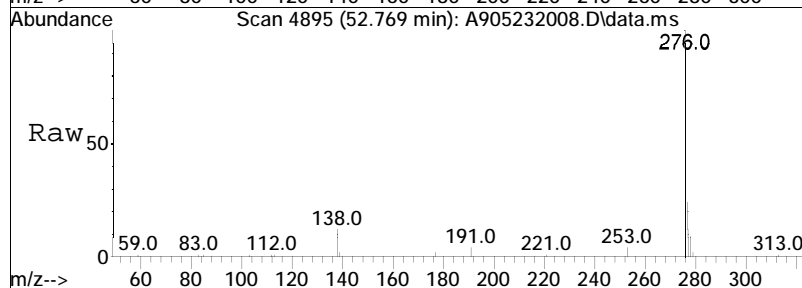
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.4	19.2	35.6

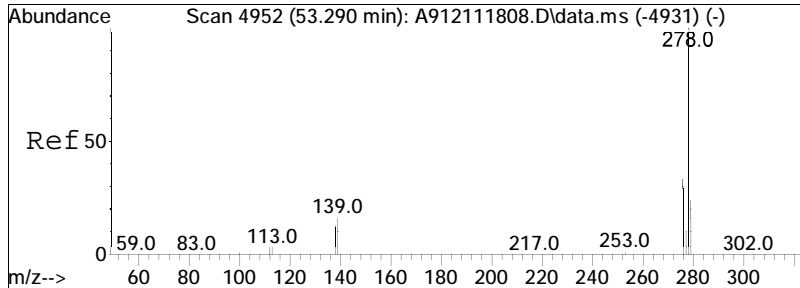




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 459.75 ng/mL M3
 RT: 52.769 min Scan# 4895
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

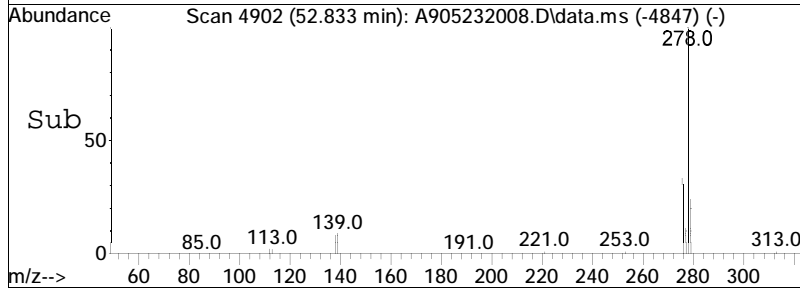
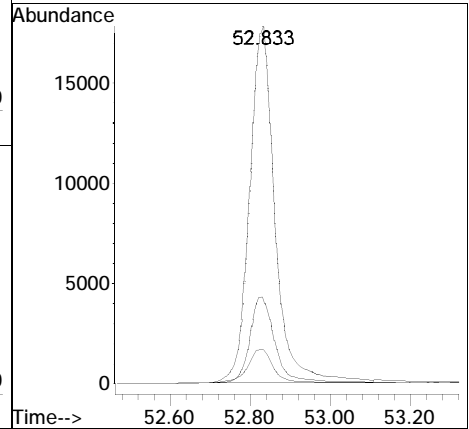
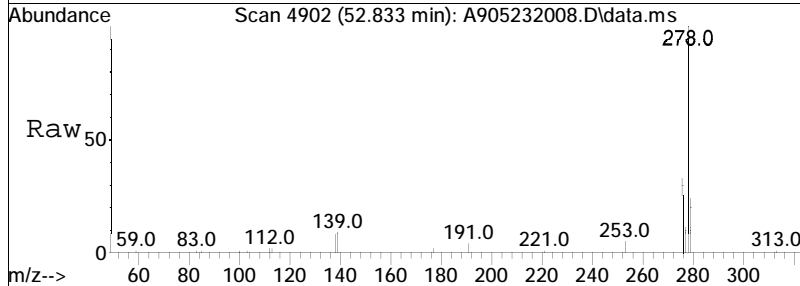
Tgt Ion	Ratio	Lower	Upper
276	100		
138	18.8	12.2	22.6
277	30.9	18.6	34.6

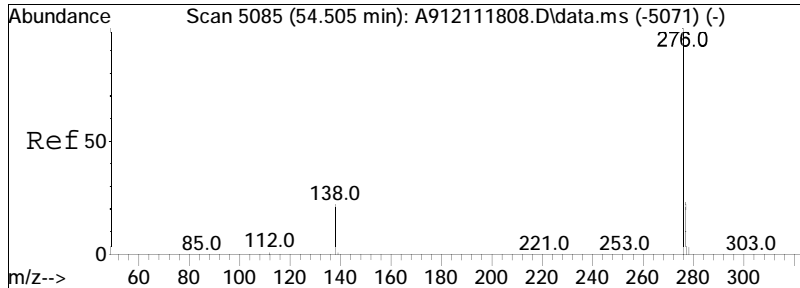




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 514.44 ng/mL
 RT: 52.833 min Scan# 4902
 Delta R.T. 0.000 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

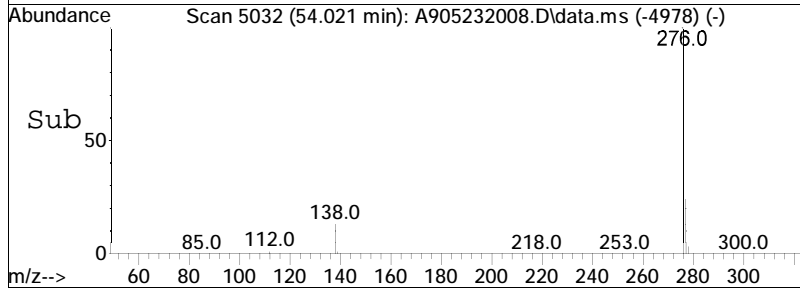
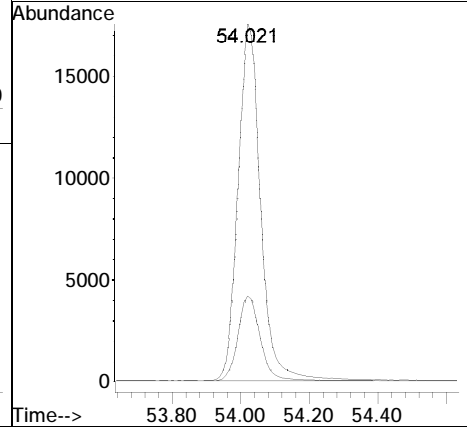
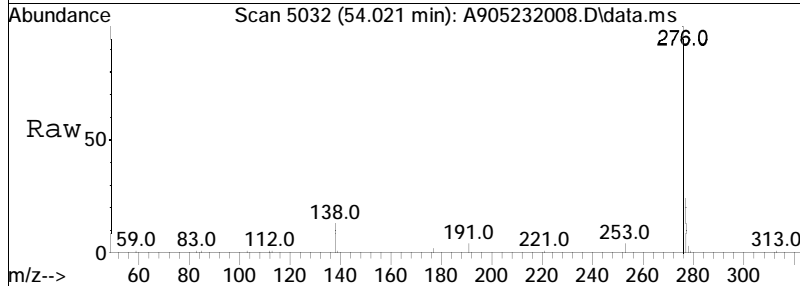
Tgt Ion	Resp	Lower	Upper
278	100		
139	9.3	8.3	15.5
279	23.7	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 441.17 ng/mL
 RT: 54.021 min Scan# 5032
 Delta R.T. -0.009 min
 Lab File: A905232008.D
 Acq: 23 May 2020 10:51 pm

Tgt Ion	Resp	Lower	Upper
276	100		
277	23.8	17.4	32.2



**Matrix Spike / Matrix Spike Duplicate
Raw Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232025.D
 Acq On : 27 May 2020 1:38 pm
 Operator : PAH9:ML
 Sample : WG1372713-4D,32,4
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 04 13:07:14 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	16316M3	500.000	ng/mL	0.00
74) Chrysene-d12	42.986	240	38165	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.594	136	2224	37.294	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	3.73%#
40) Phenanthrene-d10	32.406	188	2897	51.878	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	5.19%#
83) Benzo[b]fluoranthene-d12	46.879	264	4409	46.558	ng/mL	0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	4.66%#
89) Benzo[a]pyrene-d12	48.050	264	3274	51.685	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	5.17%#
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
Target Compounds						
9) Naphthalene	19.695	128	6240420	89899.728	ng/mL	100
14) 2-Methylnaphthalene	22.359	142	1141603	24804.931	ng/mL	100
24) Acenaphthylene	25.927	152	95286M4	1386.195	ng/mL	
25) Acenaphthene	26.685	153	1481733	34785.912	ng/mL	100
27) Fluorene	28.683	166	731289	14491.046	ng/mL	99
41) Phenanthrene	32.542	178	7460572	100338.195	ng/mL	98
53) Anthracene	32.688	178	1567676	23908.391	ng/mL	98
56) Fluoranthene	37.307	202	5311766	60941.806	ng/mL	94
59) Pyrene	38.193	202	6861202	74548.080	ng/mL	97
75) Benz[a]anthracene	42.931	228	1484624M4	15470.037	ng/mL	
77) Chrysene/Triphenylene	43.096	228	1780322	17682.375	ng/mL	95
84) Benzo[b]fluoranthene	46.980	252	1345179	11464.961	ng/mL	95
85) Benzo[j]+[k]fluoranthene	47.053	252	1391348M6	12017.070	ng/mL	
90) Benzo[a]pyrene	48.169	252	2328029	21078.230	ng/mL	90
92) Indeno[1,2,3-cd]pyrene	52.879	276	1797129M3	13948.827	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.888	278	294861	2659.123	ng/mL	96
95) Benzo[g,h,i]perylene	54.167	276	2280785	17230.042	ng/mL	98

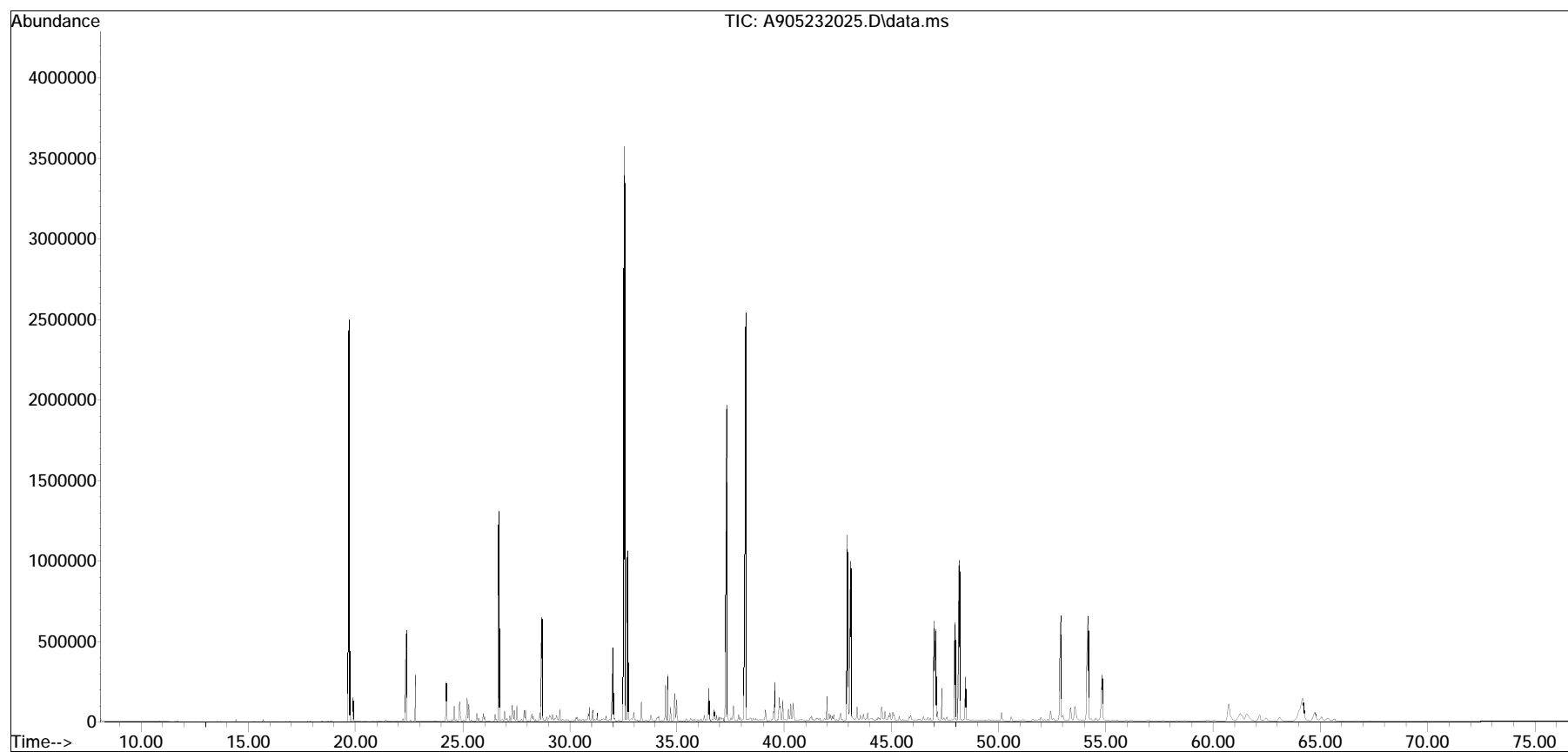
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

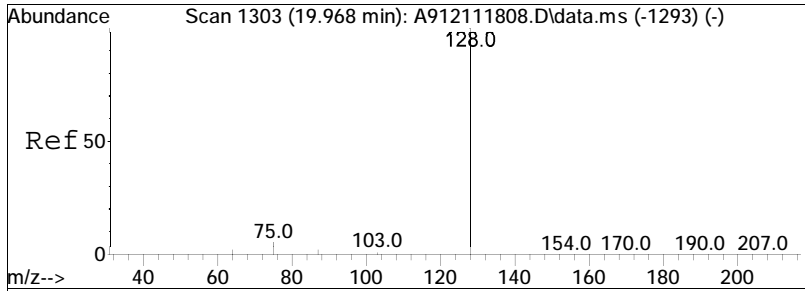
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232025.D
Acq On : 27 May 2020 1:38 pm
Operator : PAH9:ML
Sample : WG1372713-4D,32,4
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 04 13:07:14 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

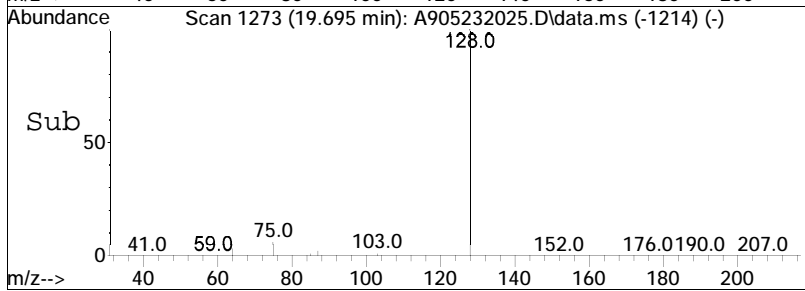
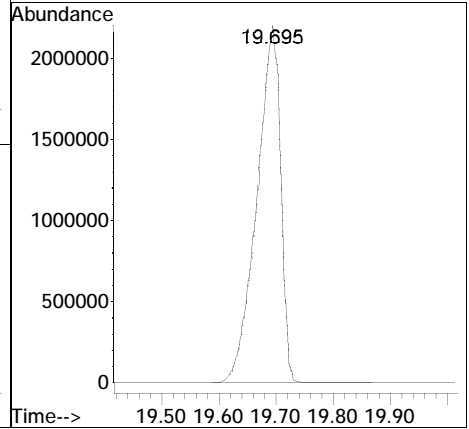
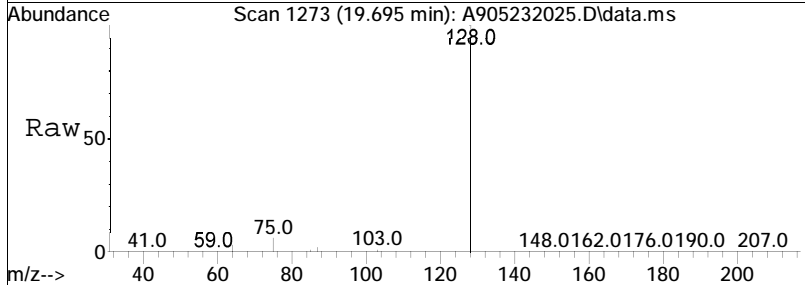
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

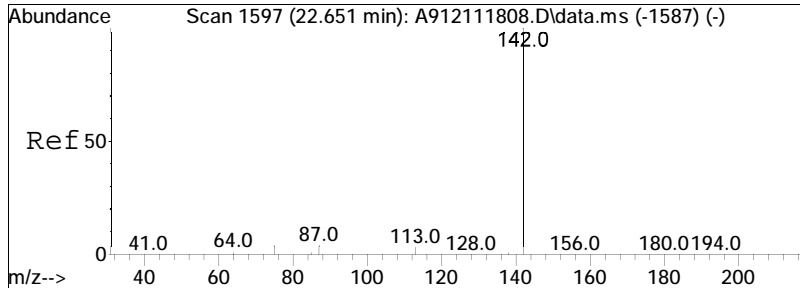




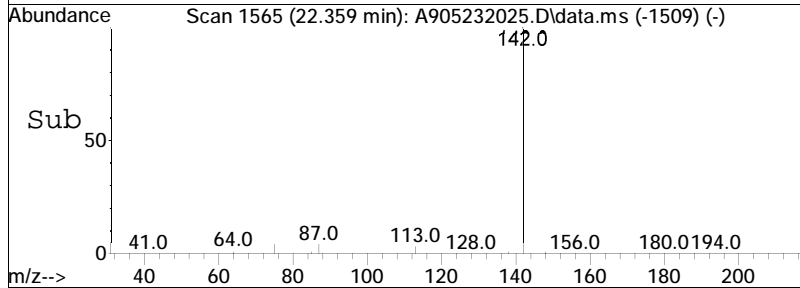
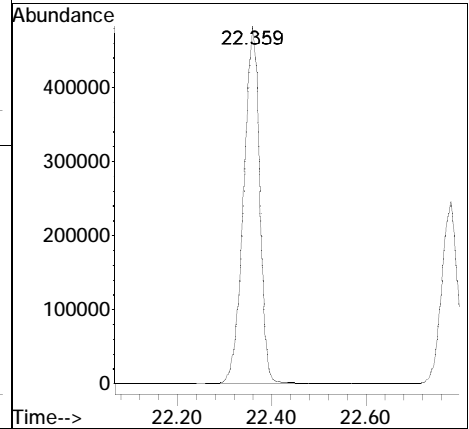
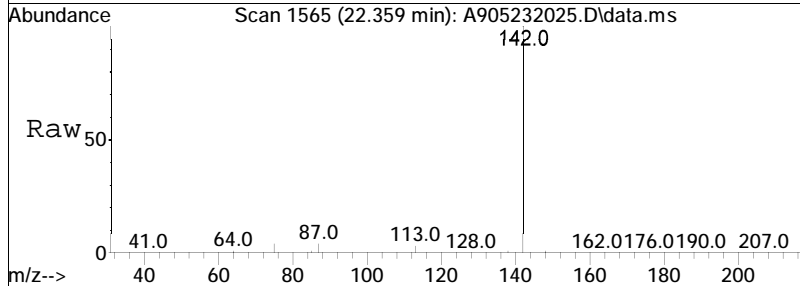
#9
 Naphthalene
 Concen: 89899.73 ng/mL
 RT: 19.695 min Scan# 1273
 Delta R.T. 0.037 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

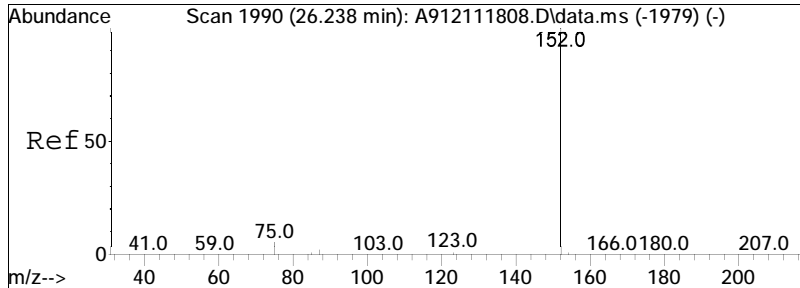
Tgt Ion:128 Resp: 6240420



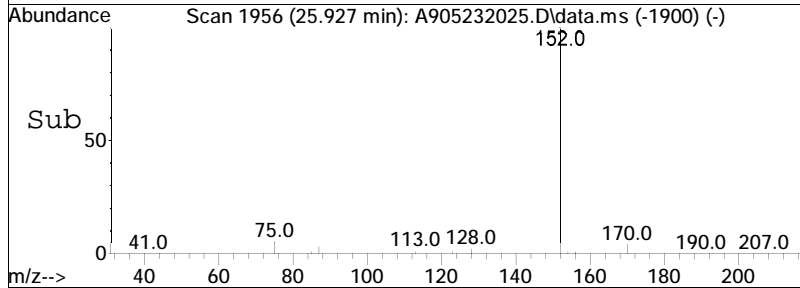
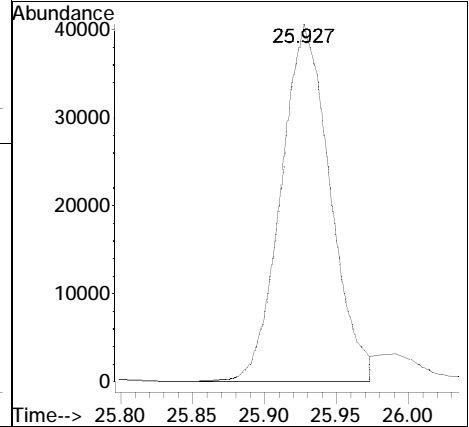
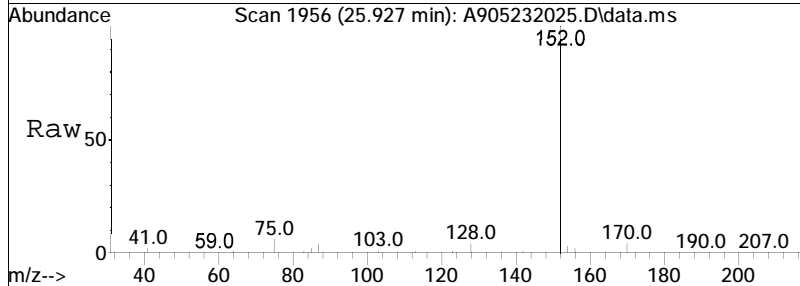


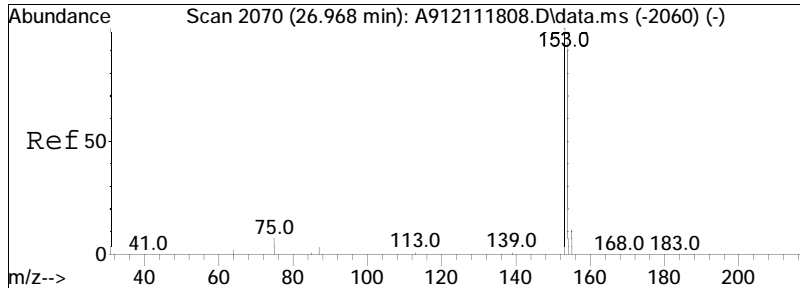
#14
 2-Methylnaphthalene
 Concen: 24804.93 ng/mL
 RT: 22.359 min Scan# 1565
 Delta R.T. 0.009 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm
 Tgt Ion:142 Resp: 1141603





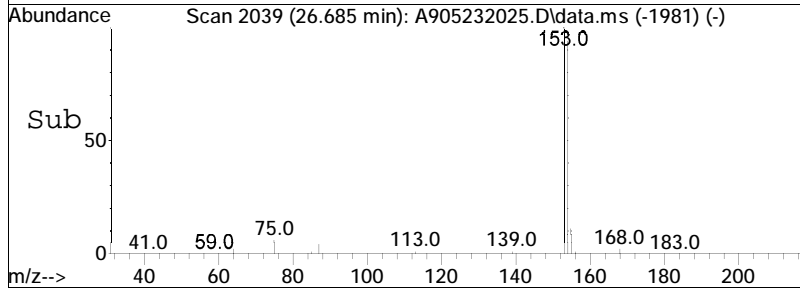
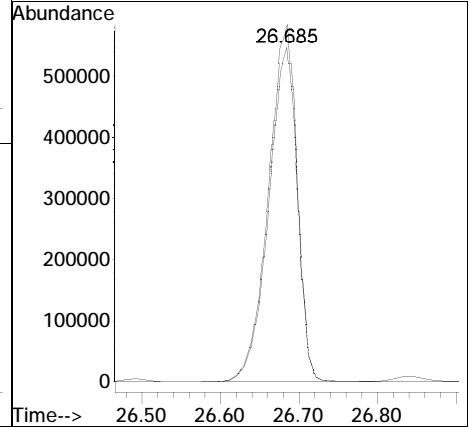
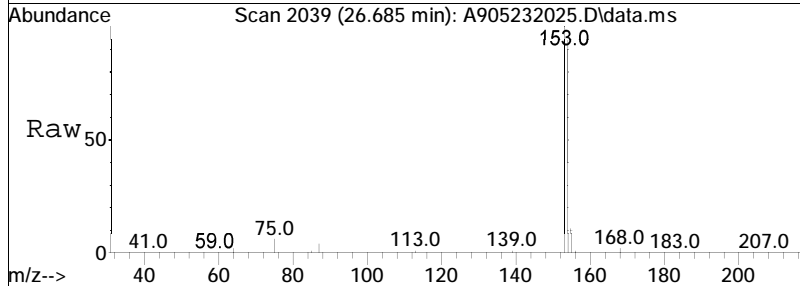
#24
 Acenaphthylene
 Concen: 1386.20 ng/mL M4
 RT: 25.927 min Scan# 1956
 Delta R.T. 0.009 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm
 Tgt Ion:152 Resp: 95286

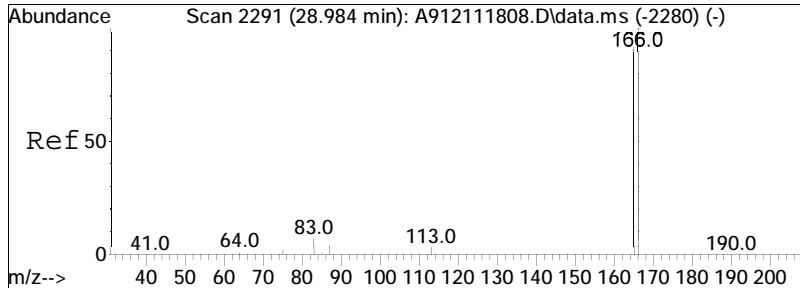




#25
 Acenaphthene
 Concen: 34785.91 ng/mL
 RT: 26.685 min Scan# 2039
 Delta R.T. 0.028 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

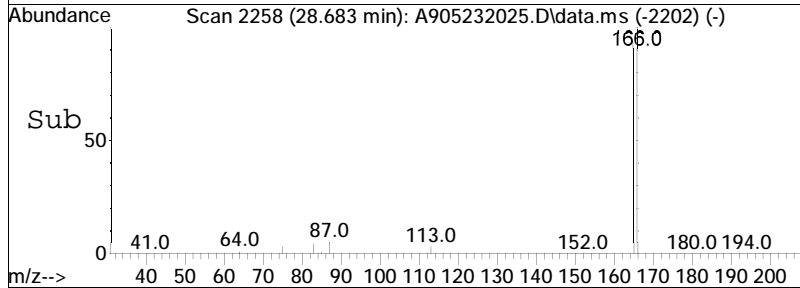
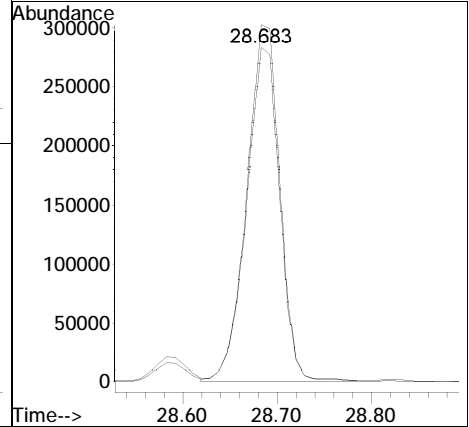
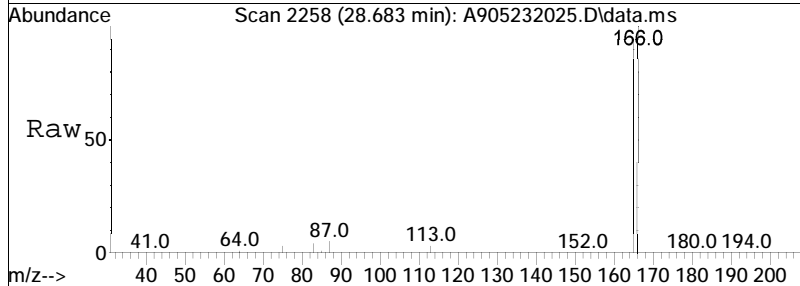
Tgt Ion:153 Resp: 1481733
 Ion Ratio Lower Upper
 153 100
 154 93.0 65.0 120.8

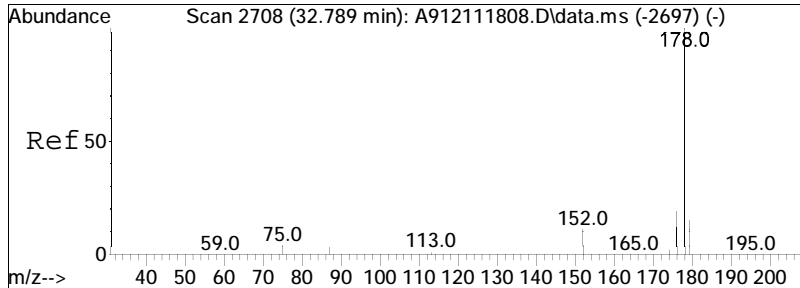




#27
 Fluorene
 Concen: 14491.05 ng/mL
 RT: 28.683 min Scan# 2258
 Delta R.T. 0.009 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

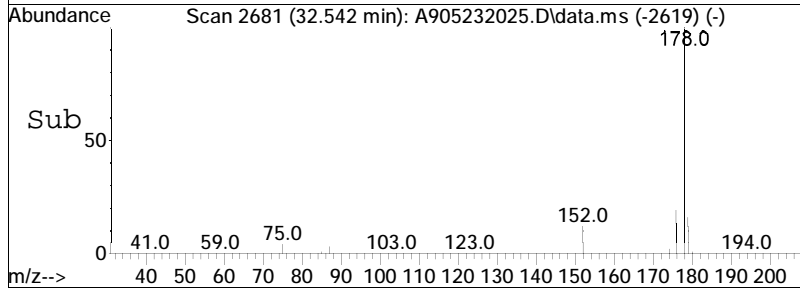
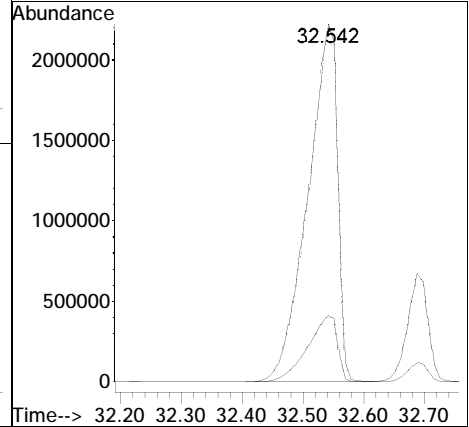
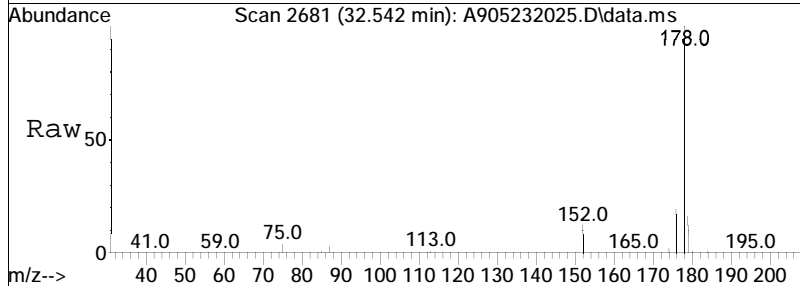
Tgt Ion	Resp	Lower	Upper
166	100		
165	92.9	65.4	121.4

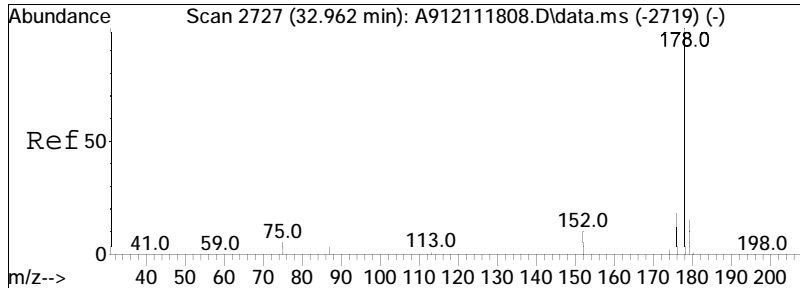




#41
 Phenanthrene
 Concen: 100338.20 ng/mL
 RT: 32.542 min Scan# 2681
 Delta R.T. 0.064 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

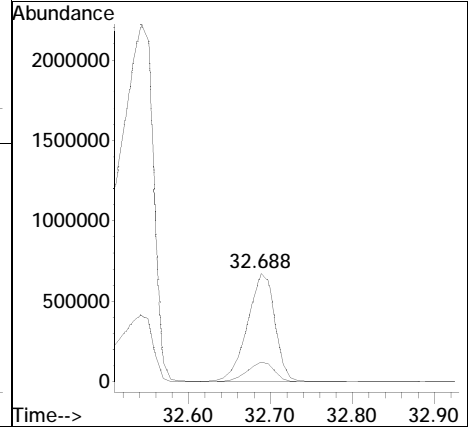
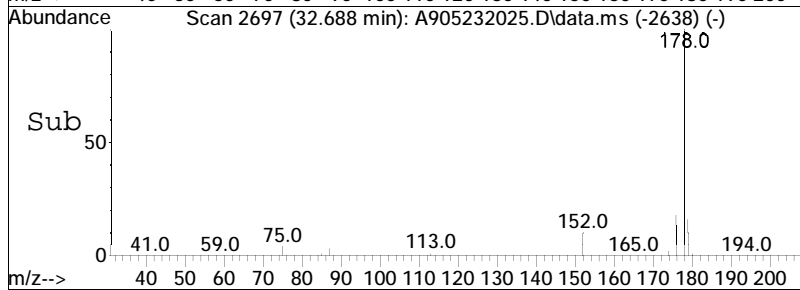
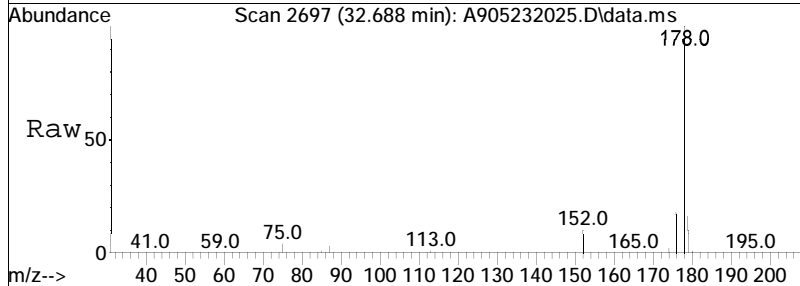
Tgt Ion: 178 Resp: 7460572
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.6 25.4

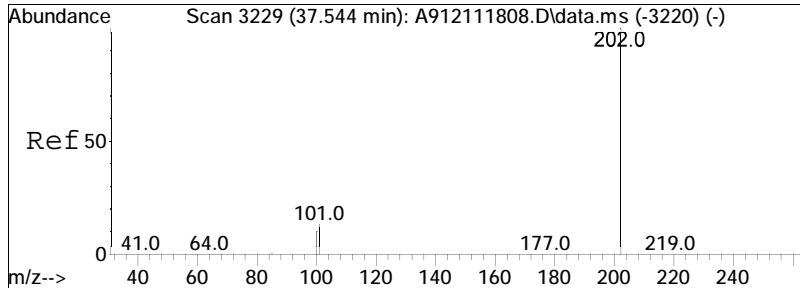




#53
 Anthracene
 Concen: 23908.39 ng/mL
 RT: 32.688 min Scan# 2697
 Delta R.T. 0.037 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

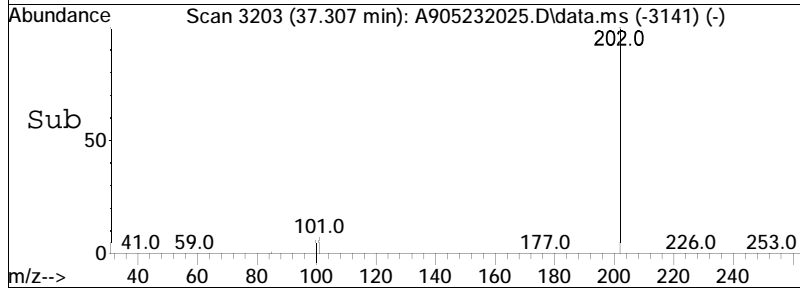
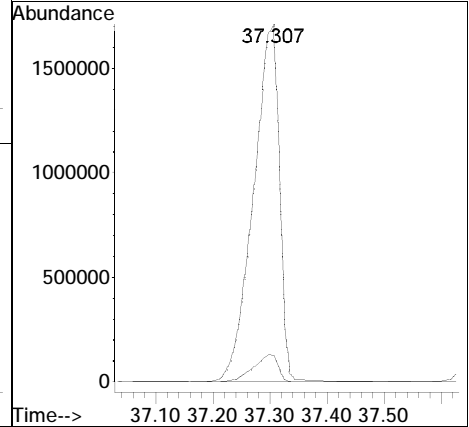
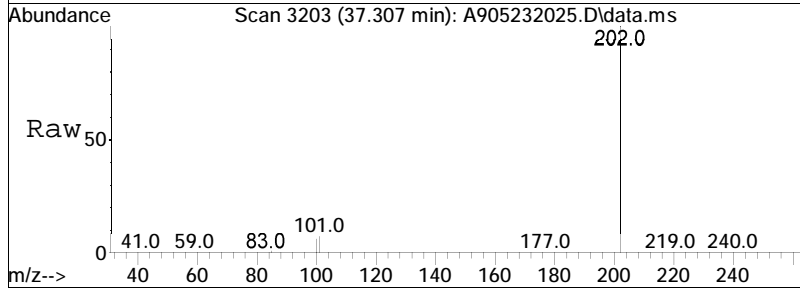
Tgt Ion:178 Resp: 1567676
 Ion Ratio Lower Upper
 178 100
 176 18.3 13.3 24.7

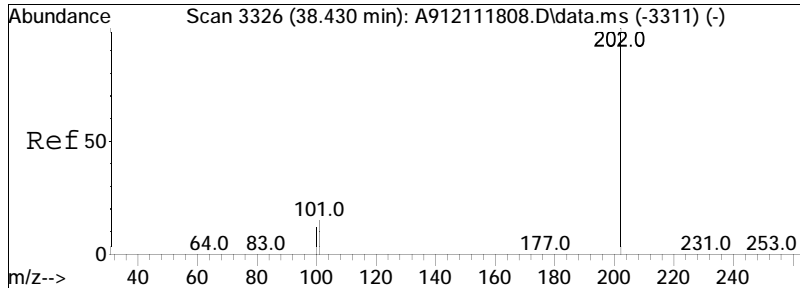




#56
 Fluoranthene
 Concen: 60941.81 ng/mL
 RT: 37.307 min Scan# 3203
 Delta R.T. 0.064 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

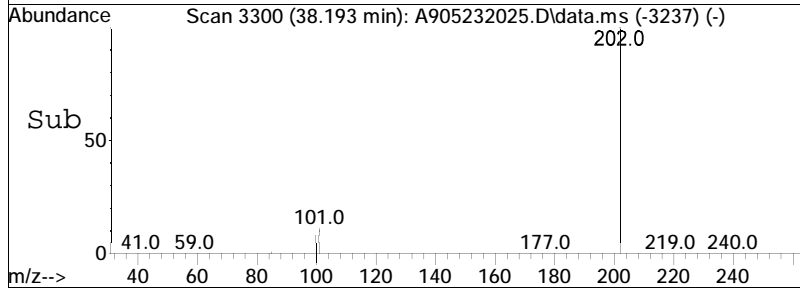
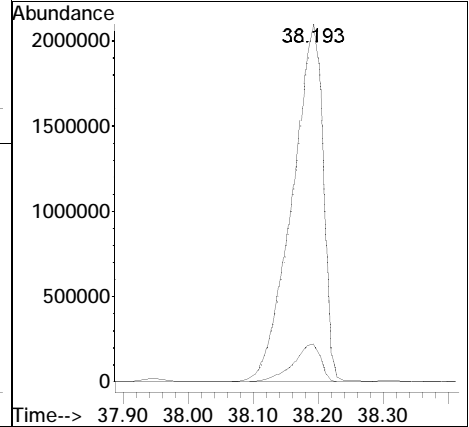
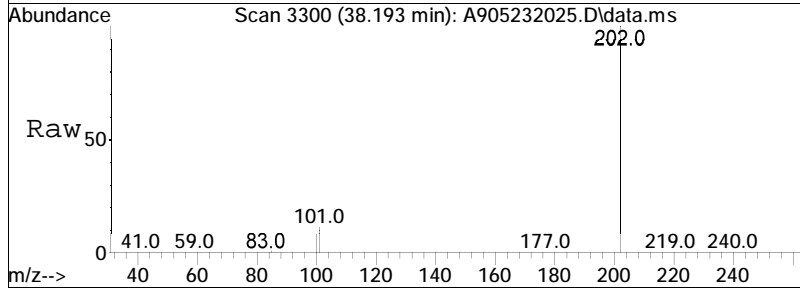
Tgt Ion: 202 Resp: 5311766
 Ion Ratio Lower Upper
 202 100
 101 7.3 6.8 12.6

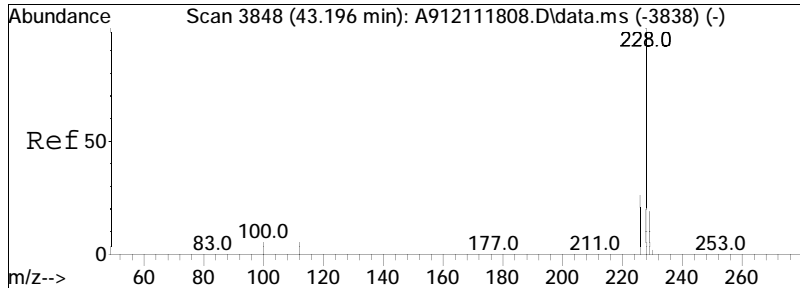




#59
 Pyrene
 Concen: 74548.08 ng/mL
 RT: 38.193 min Scan# 3300
 Delta R.T. 0.073 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

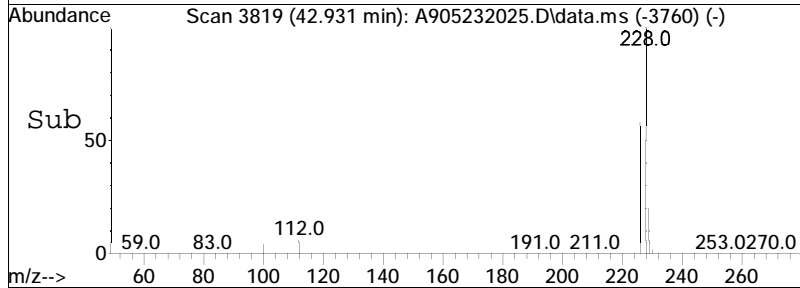
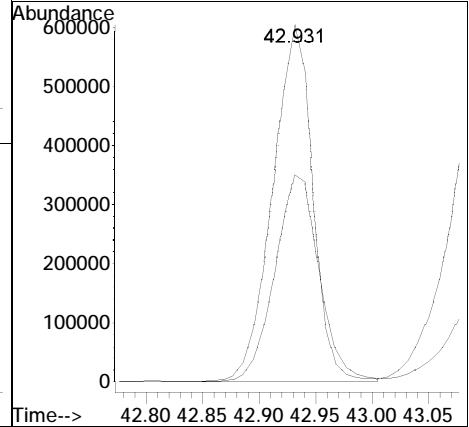
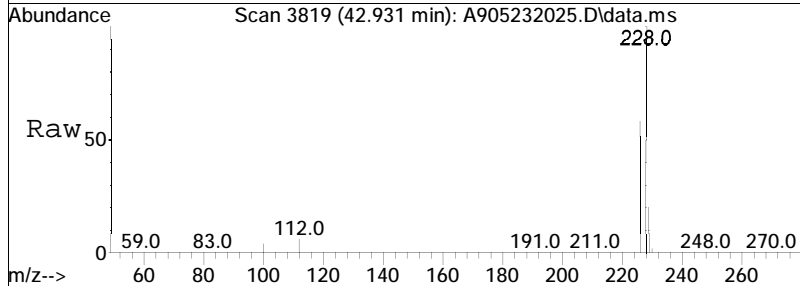
Tgt Ion: 202 Resp: 6861202
 Ion Ratio Lower Upper
 202 100
 101 9.6 7.6 14.0

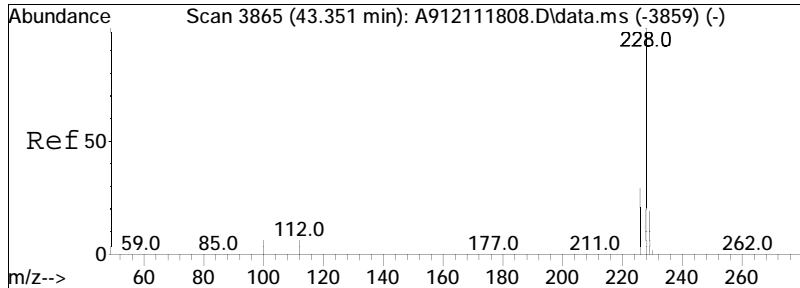




#75
 Benz[a]anthracene
 Concen: 15470.04 ng/mL M4
 RT: 42.931 min Scan# 3819
 Delta R.T. 0.037 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

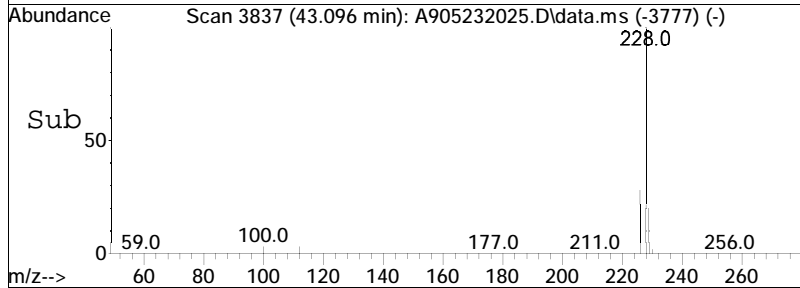
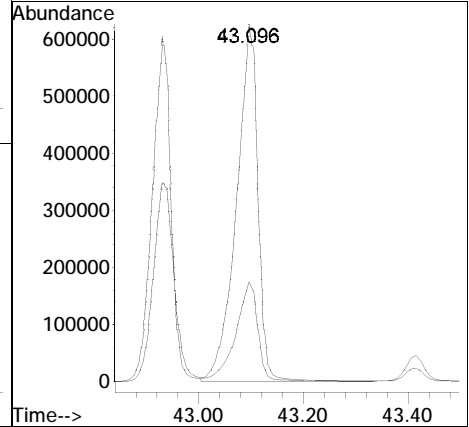
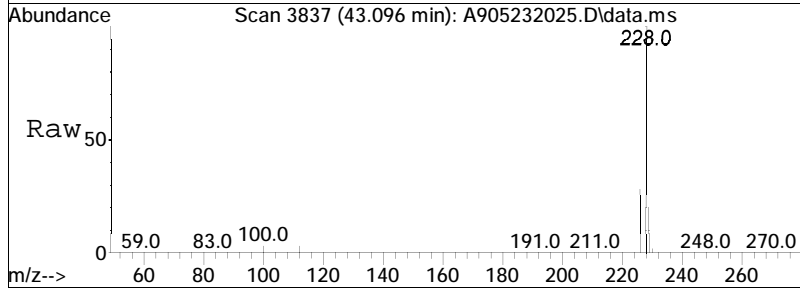
Tgt Ion	Resp	Lower	Upper
228	100		
226	32.9	19.0	35.2

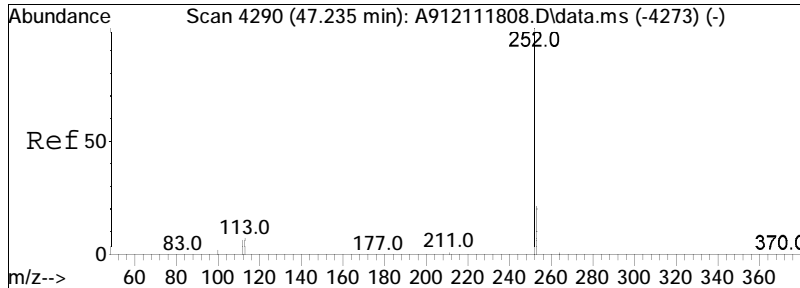




#77
 Chrysene/Triphenylene
 Concen: 17682.37 ng/mL
 RT: 43.096 min Scan# 3837
 Delta R.T. 0.046 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

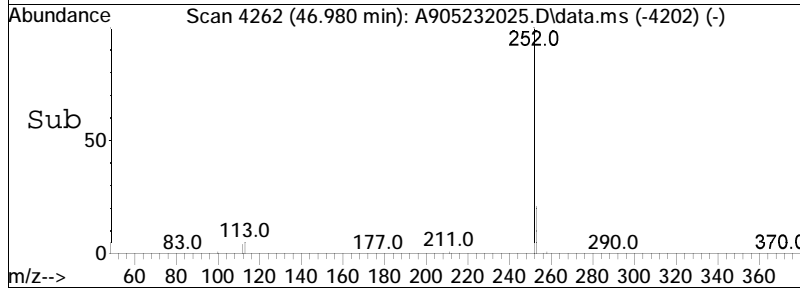
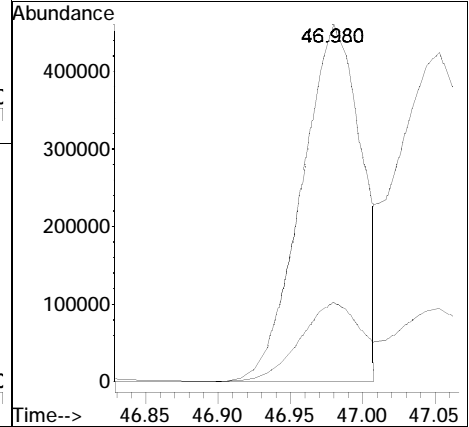
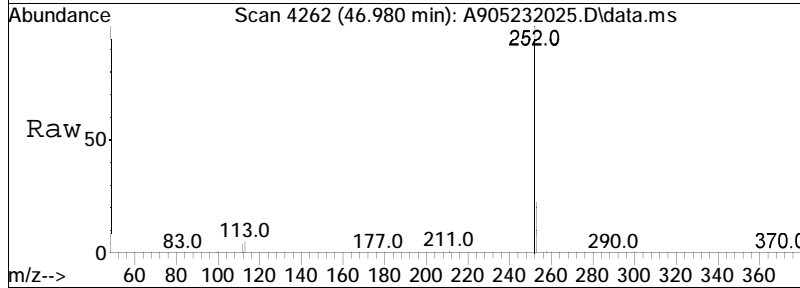
Tgt Ion: 228 Resp: 1780322
 Ion Ratio Lower Upper
 228 100
 226 27.5 21.0 39.0

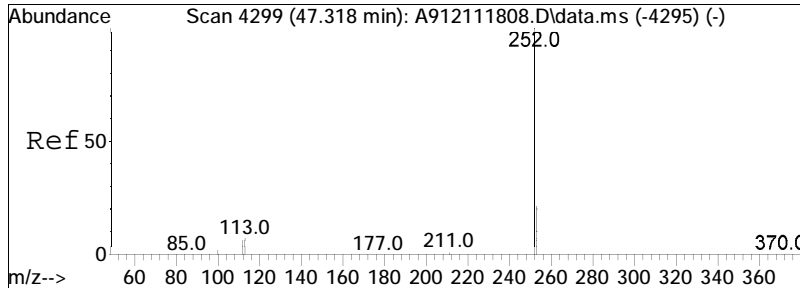




#84
 Benzo[b]fluoranthene
 Concen: 11464.96 ng/mL
 RT: 46.980 min Scan# 4262
 Delta R.T. 0.046 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

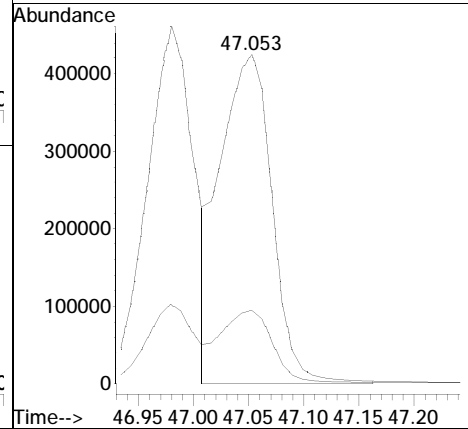
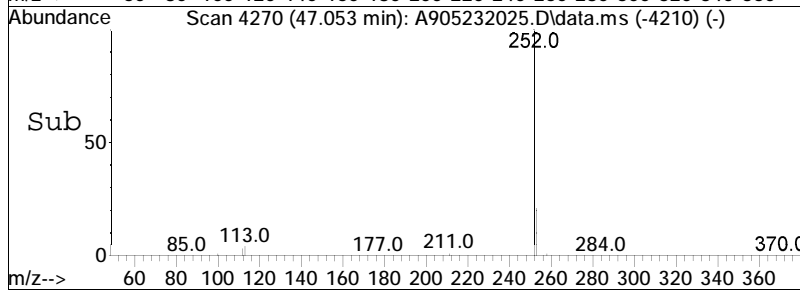
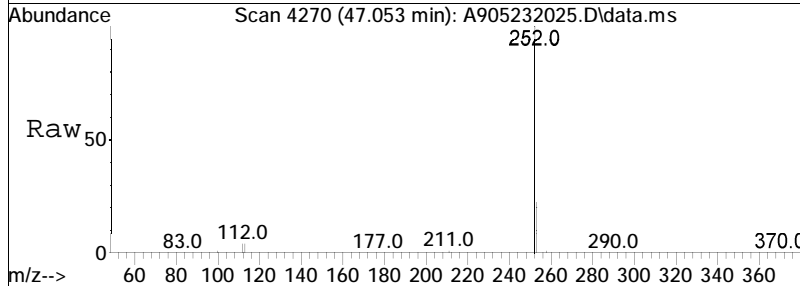
Tgt Ion: 252 Resp: 1345179
 Ion Ratio Lower Upper
 252 100
 253 22.0 17.3 32.1

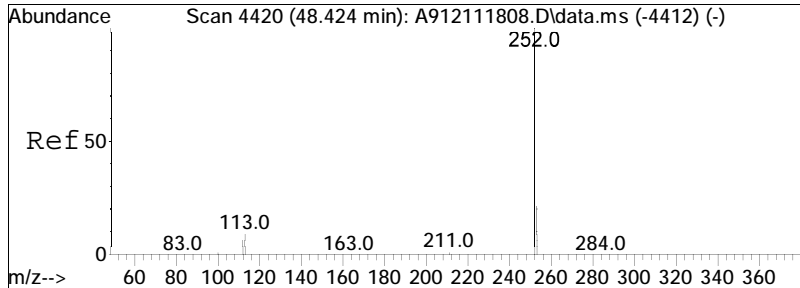




#85
 Benzo[j]+[k]fluoranthene
 Concen: 12017.07 ng/mL M6
 RT: 47.053 min Scan# 4270
 Delta R.T. 0.046 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

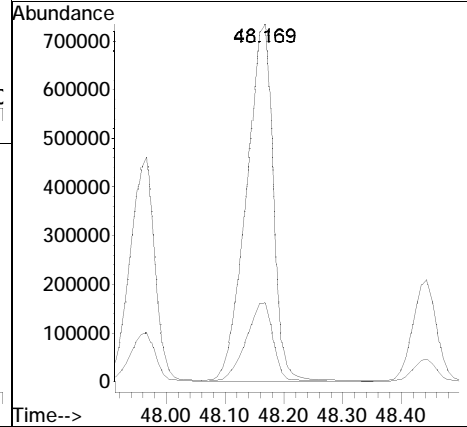
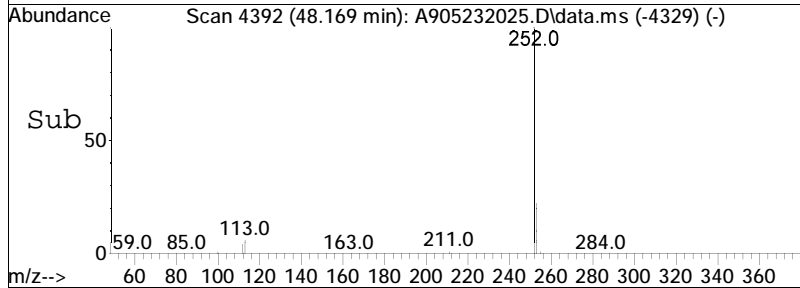
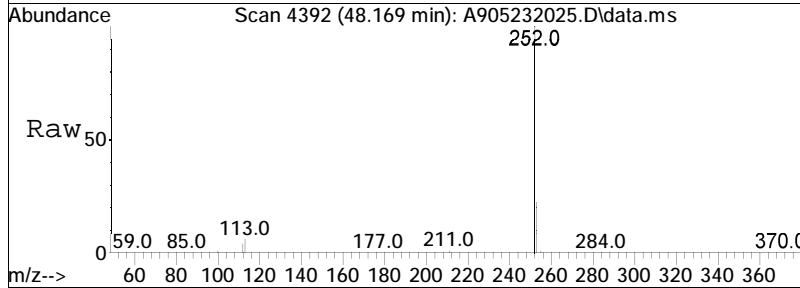
Tgt Ion: 252 Resp: 1391348
 Ion Ratio Lower Upper
 252 100
 253 19.8 17.6 32.8

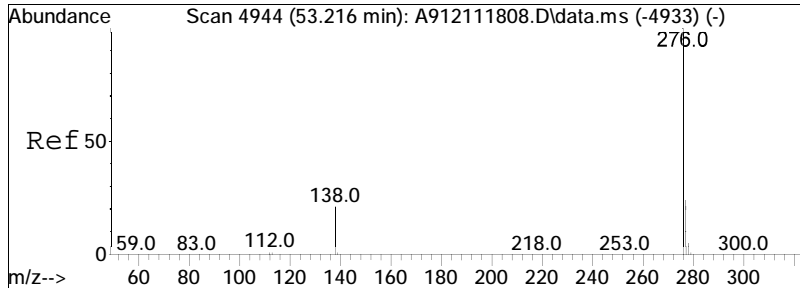




#90
 Benzo[a]pyrene
 Concen: 21078.23 ng/mL
 RT: 48.169 min Scan# 4392
 Delta R.T. 0.073 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

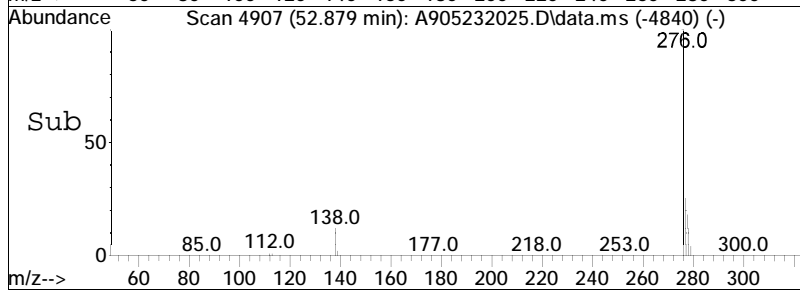
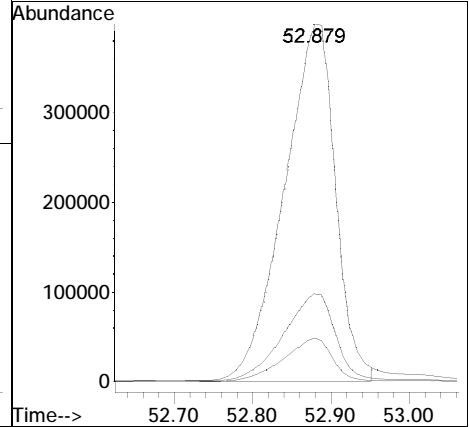
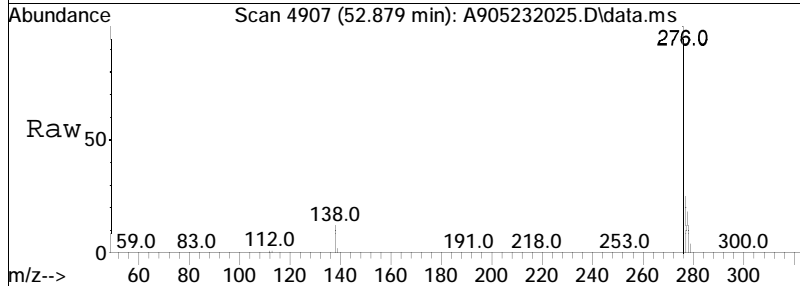
Tgt Ion: 252 Resp: 2328029
 Ion Ratio Lower Upper
 252 100
 253 22.2 19.2 35.6

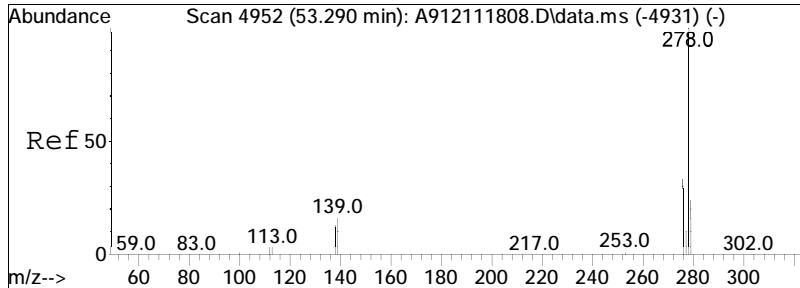




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 13948.83 ng/mL M3
 RT: 52.879 min Scan# 4907
 Delta R.T. 0.110 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

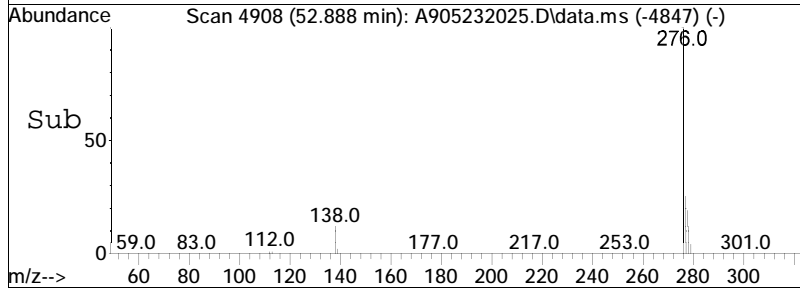
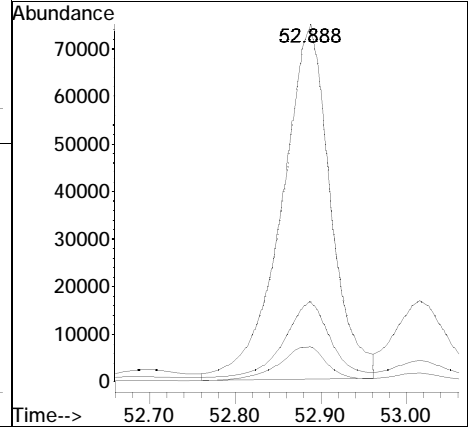
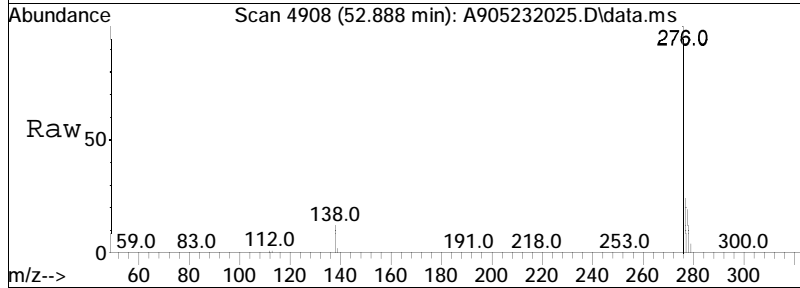
Tgt Ion	Resp	Lower	Upper
276	100		
138	11.7	12.2	22.6#
277	26.2	18.6	34.6

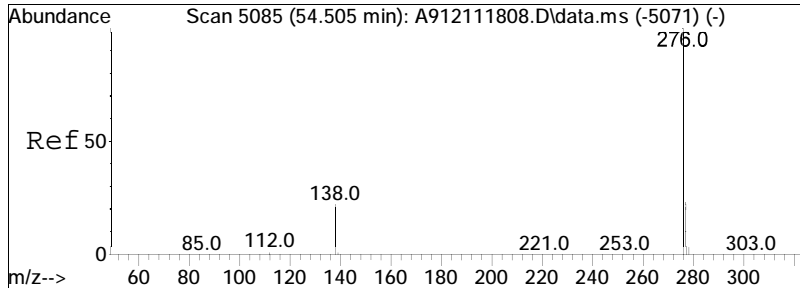




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 2659.12 ng/mL
 RT: 52.888 min Scan# 4908
 Delta R.T. 0.055 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

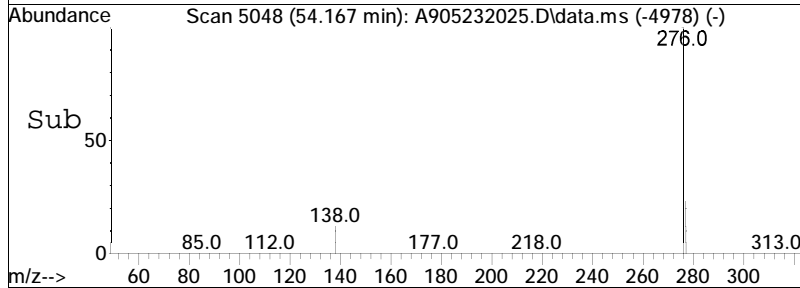
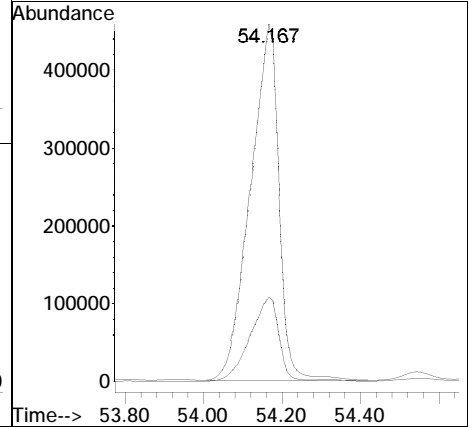
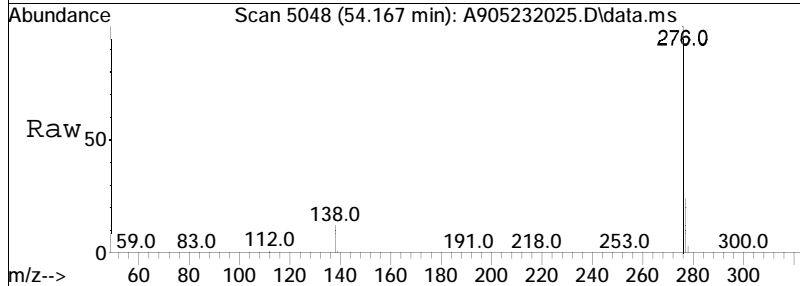
Tgt Ion	Ratio	Lower	Upper
278	100		
139	10.2	8.3	15.5
279	22.0	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 17230.04 ng/mL
 RT: 54.167 min Scan# 5048
 Delta R.T. 0.137 min
 Lab File: A905232025.D
 Acq: 27 May 2020 1:38 pm

Tgt Ion: 276 Resp: 2280785
 Ion Ratio Lower Upper
 276 100
 277 23.7 17.4 32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232035.D
 Acq On : 28 May 2020 9:35 am
 Operator : PAH9:ML
 Sample : WG1372713-4D2,32,40
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jun 04 13:24:30 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	21856	500.000	ng/mL	0.00
74) Chrysene-d12	42.968	240	49610	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.585	136	324	4.056	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.41%#
40) Phenanthrene-d10	32.387	188	373	4.986	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.50%#
83) Benzo[b]fluoranthene-d12	46.861	264	533	4.330	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.43%#
89) Benzo[a]pyrene-d12	48.022	264	345	4.190	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.42%#
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
Target Compounds						
9) Naphthalene	19.658	128	908727	9772.845	ng/mL	100
14) 2-Methylnaphthalene	22.350	142	154114	2499.816	ng/mL	100
25) Acenaphthene	26.658	153	198184	3473.322	ng/mL	100
41) Phenanthrene	32.488	178	950337	9541.460	ng/mL	99
53) Anthracene	32.661	178	192015	2186.111	ng/mL	98
56) Fluoranthene	37.252	202	669848	5737.143	ng/mL#	92
59) Pyrene	38.129	202	857551	6955.674	ng/mL	93
90) Benzo[a]pyrene	48.114	252	247564	1724.365	ng/mL	89

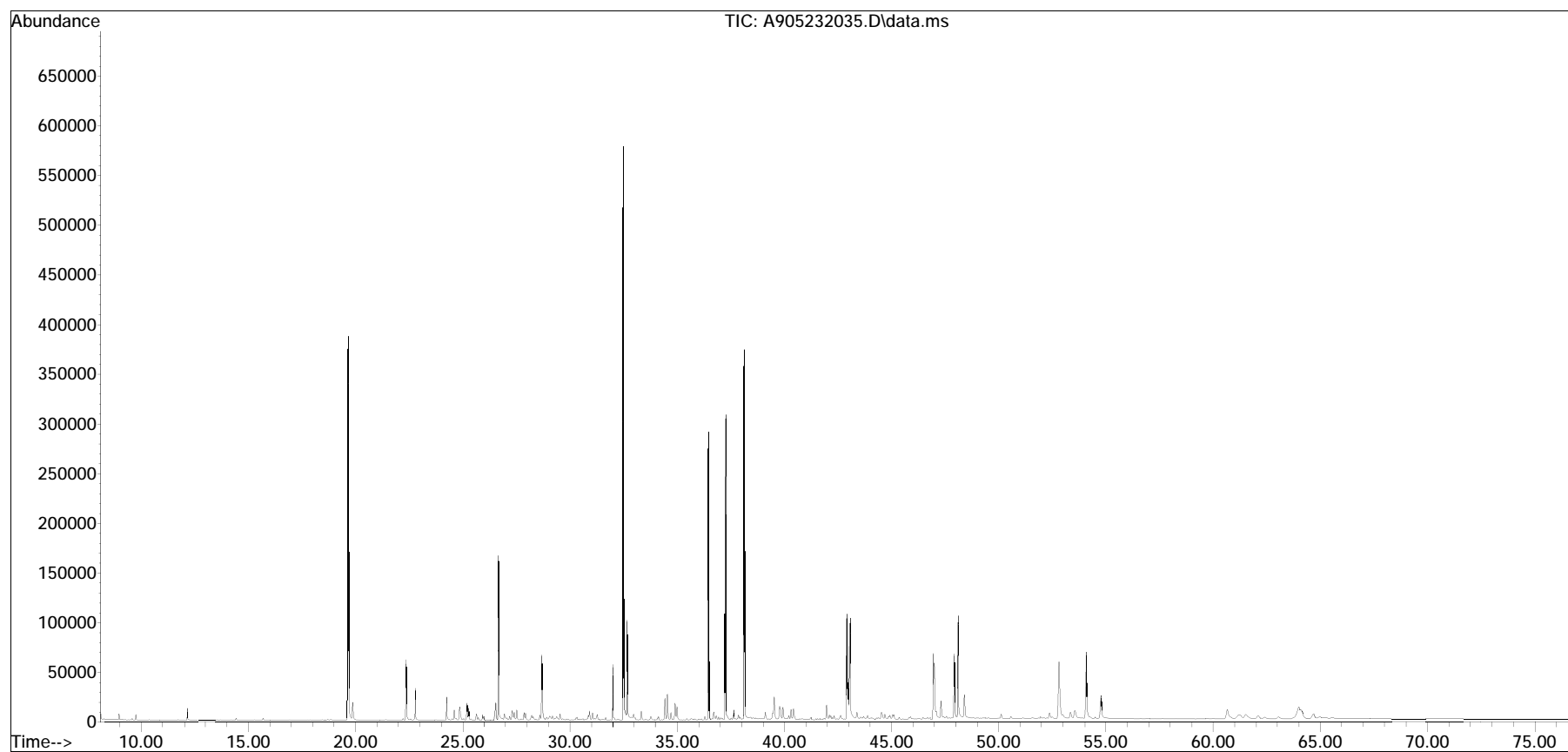
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

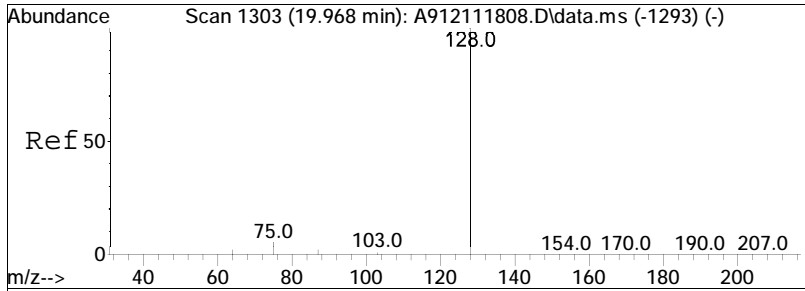
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232035.D
Acq On : 28 May 2020 9:35 am
Operator : PAH9:ML
Sample : WG1372713-4D2,32,40
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 34 Sample Multiplier: 1

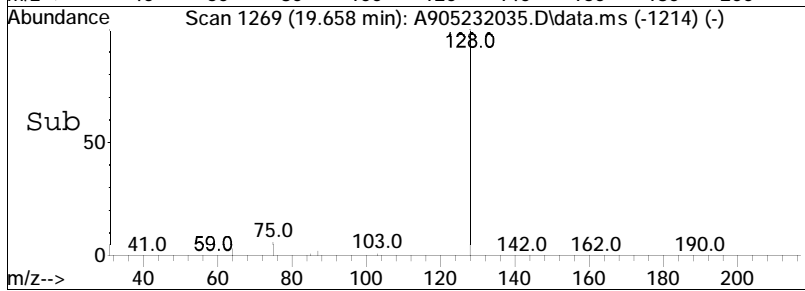
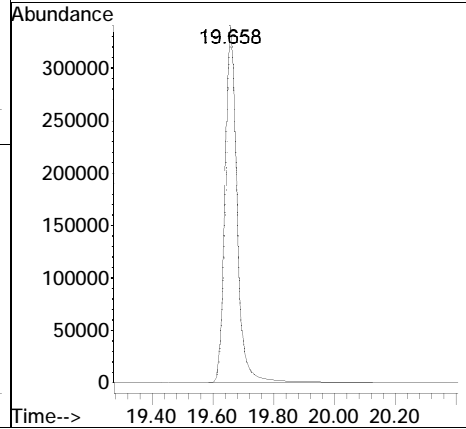
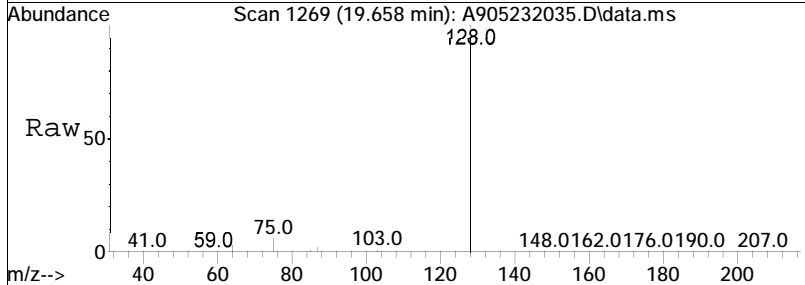
Quant Time: Jun 04 13:24:30 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

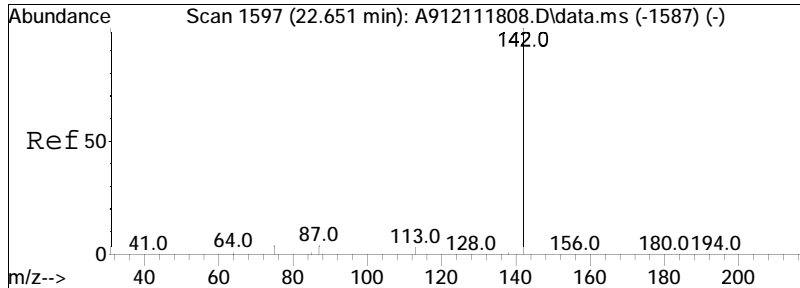
Sub List : ALKPAH_LCS_QC - LCS_spike compounds



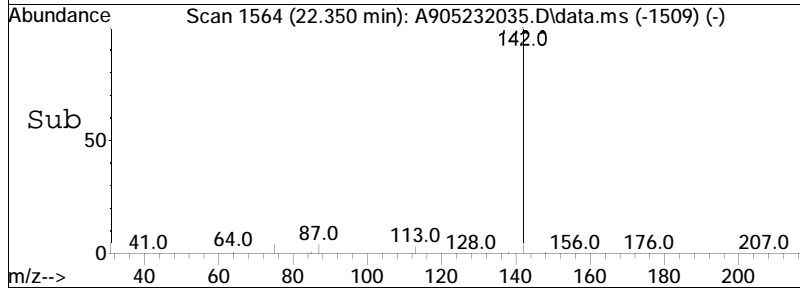
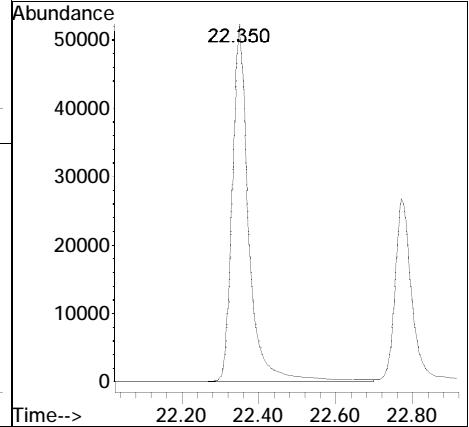
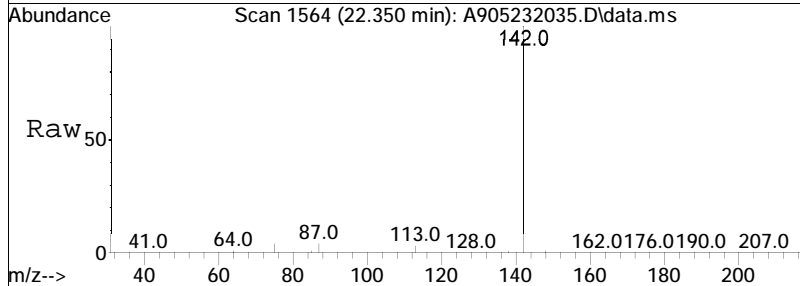


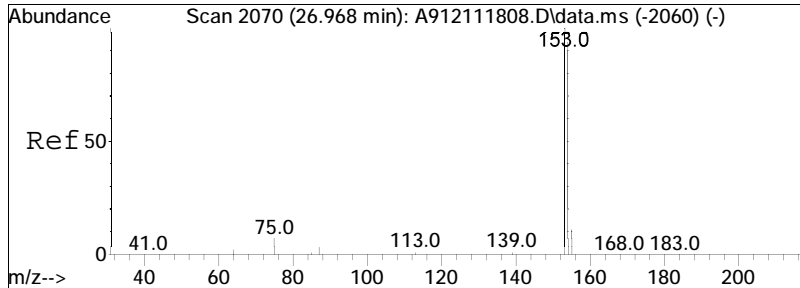
#9
 Naphthalene
 Concen: 9772.84 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am
 Tgt Ion:128 Resp: 908727





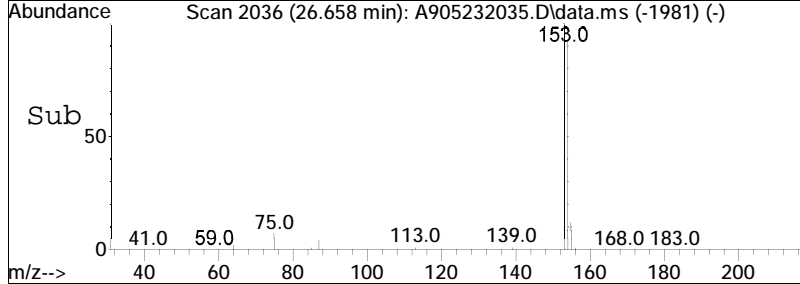
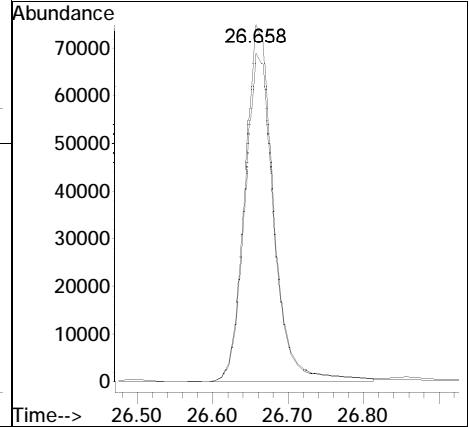
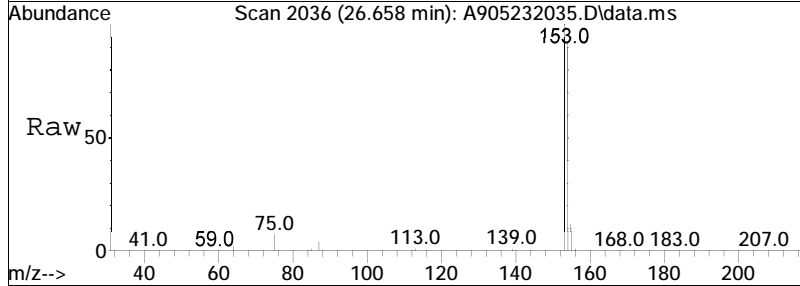
#14
 2-Methylnaphthalene
 Concen: 2499.82 ng/mL
 RT: 22.350 min Scan# 1564
 Delta R.T. 0.000 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am
 Tgt Ion:142 Resp: 154114

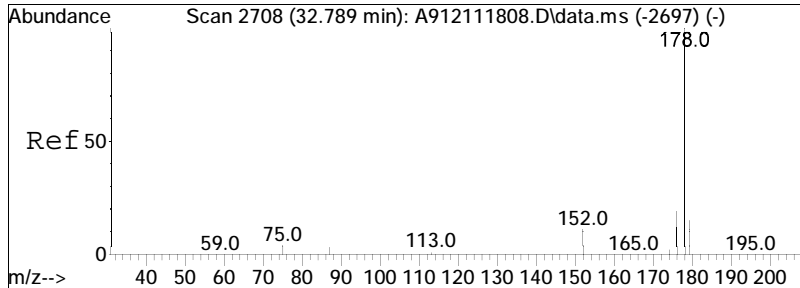




#25
 Acenaphthene
 Concen: 3473.32 ng/mL
 RT: 26.658 min Scan# 2036
 Delta R.T. 0.000 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am

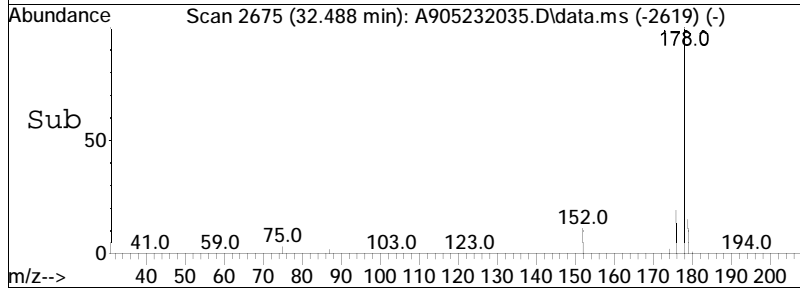
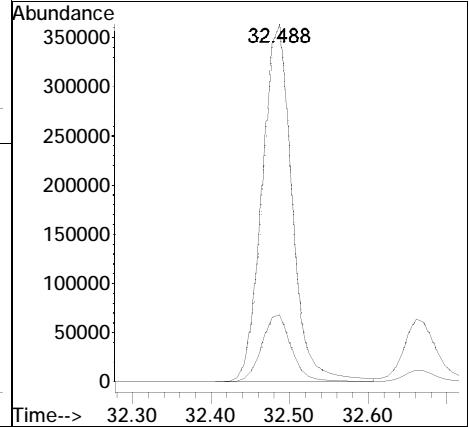
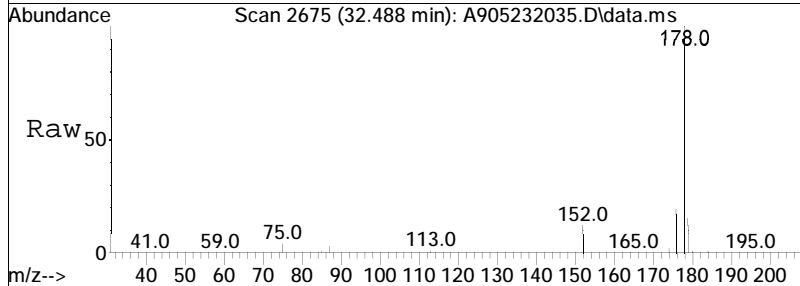
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.3	65.0	120.8

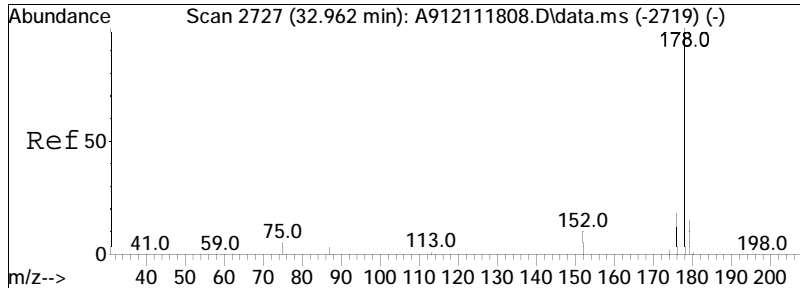




#41
 Phenanthrene
 Concen: 9541.46 ng/mL
 RT: 32.488 min Scan# 2675
 Delta R.T. 0.009 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am

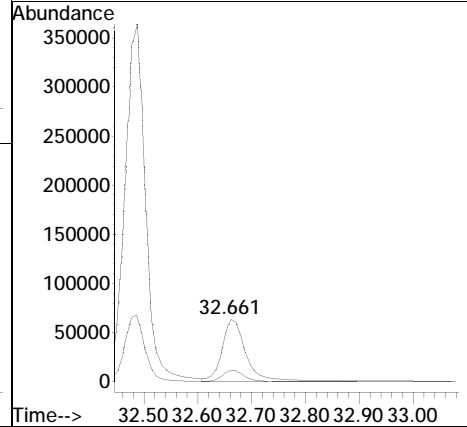
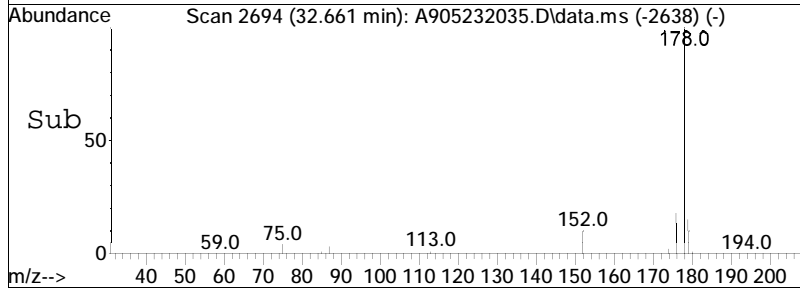
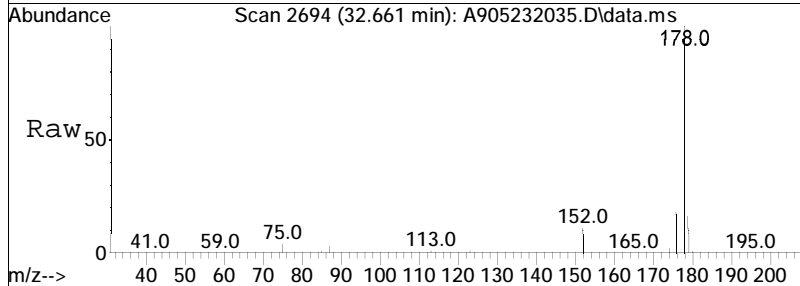
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.9	13.6	25.4

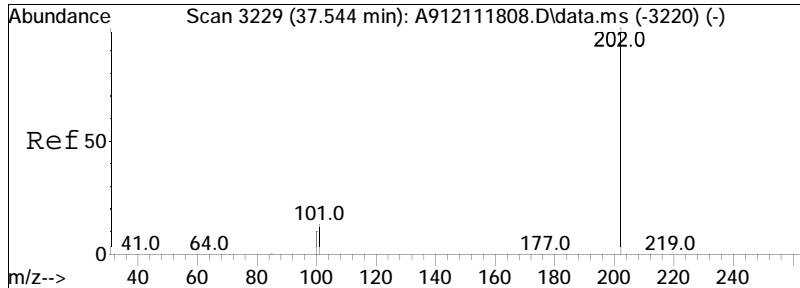




#53
 Anthracene
 Concen: 2186.11 ng/mL
 RT: 32.661 min Scan# 2694
 Delta R.T. 0.009 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am

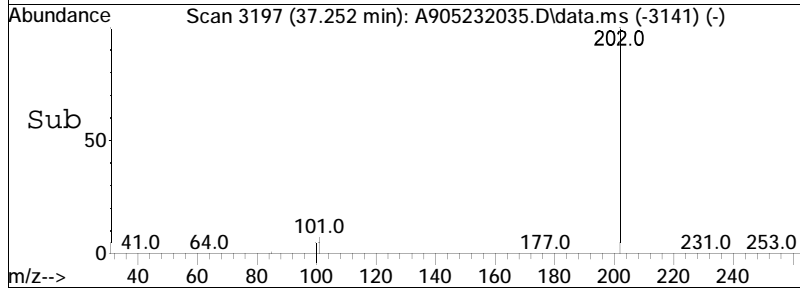
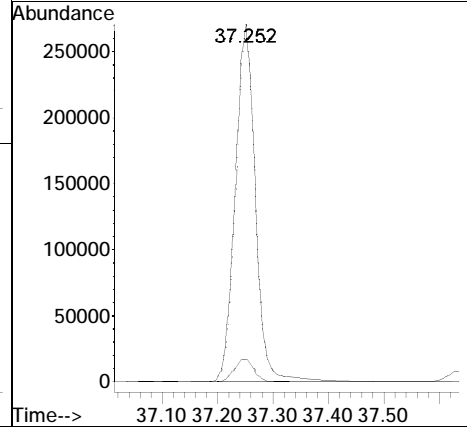
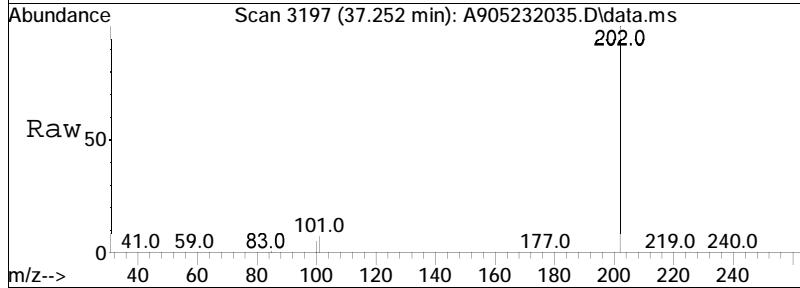
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.2	13.3	24.7

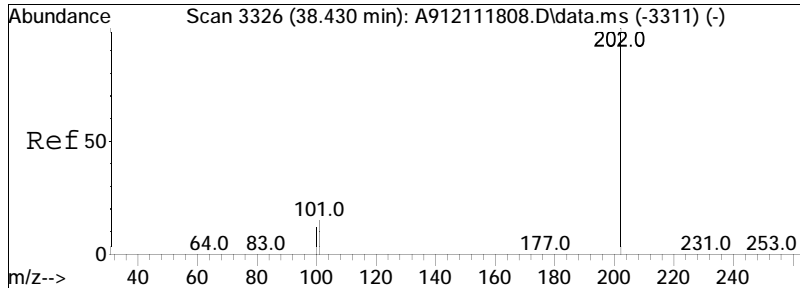




#56
 Fluoranthene
 Concen: 5737.14 ng/mL
 RT: 37.252 min Scan# 3197
 Delta R.T. 0.009 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am

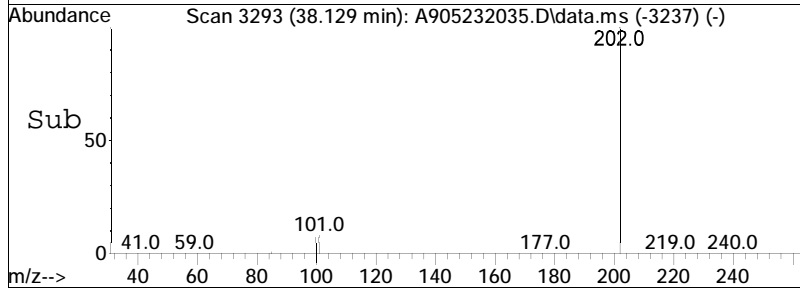
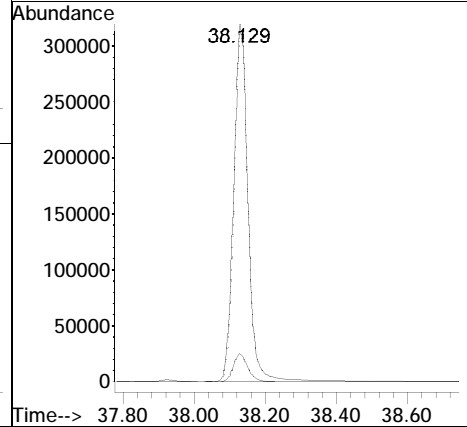
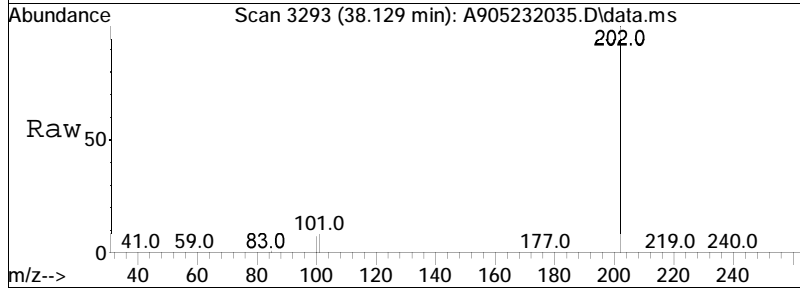
Tgt Ion	Ratio	Lower	Upper
202	100		
101	6.7	6.8	12.6#

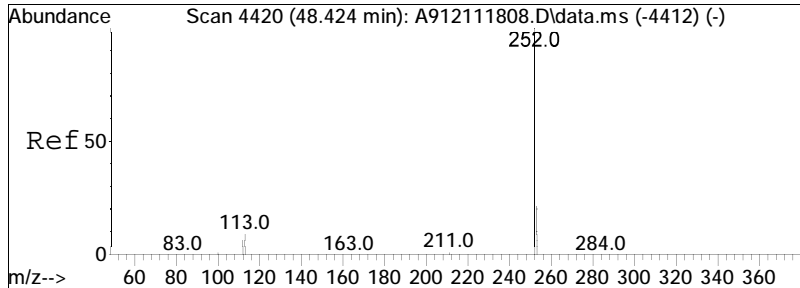




#59
 Pyrene
 Concen: 6955.67 ng/mL
 RT: 38.129 min Scan# 3293
 Delta R.T. 0.009 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am

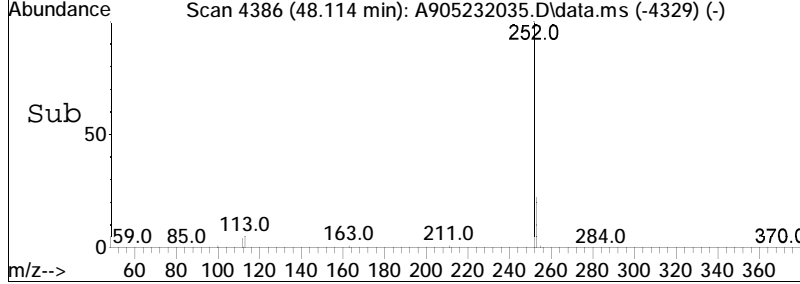
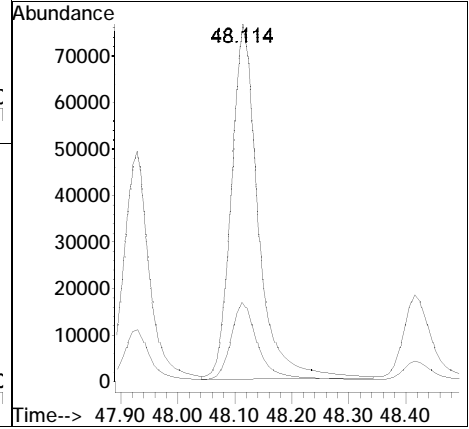
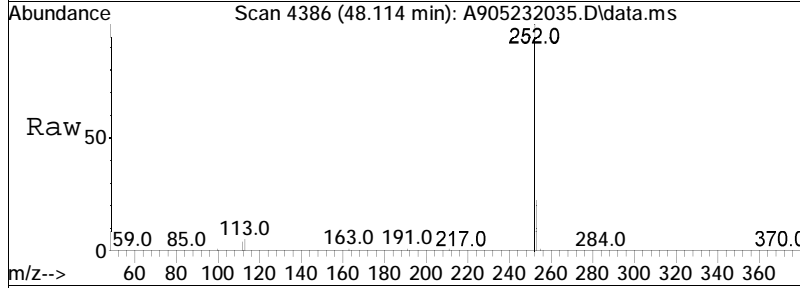
Tgt Ion: 202 Resp: 857551
 Ion Ratio Lower Upper
 202 100
 101 8.2 7.6 14.0





#90
 Benzo[a]pyrene
 Concen: 1724.37 ng/mL
 RT: 48.114 min Scan# 4386
 Delta R.T. 0.019 min
 Lab File: A905232035.D
 Acq: 28 May 2020 9:35 am

Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	19.2	35.6



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232026.D
 Acq On : 27 May 2020 3:04 pm
 Operator : PAH9:ML
 Sample : WG1372713-5D,32,4
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 04 13:08:44 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	17057M3	500.000	ng/mL	0.00
74) Chrysene-d12	42.986	240	40887	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.594	136	2362	37.888	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	3.79%#
40) Phenanthrene-d10	32.406	188	3129	53.598	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	5.36%#
83) Benzo[b]fluoranthene-d12	46.879	264	4778	47.096	ng/mL	0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	4.71%#
89) Benzo[a]pyrene-d12	48.050	264	3355	49.438	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	4.94%#
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
Target Compounds						
9) Naphthalene	19.695	128	6522438	89880.518	ng/mL	100
14) 2-Methylnaphthalene	22.359	142	1232100	25608.252	ng/mL	100
24) Acenaphthylene	25.928	152	101105M3	1406.951	ng/mL	
25) Acenaphthene	26.685	153	1594398	35804.798	ng/mL	100
27) Fluorene	28.683	166	793243	15035.850	ng/mL	99
41) Phenanthrene	32.542	178	8005346	102987.689	ng/mL	98
53) Anthracene	32.697	178	1678995	24493.705	ng/mL	98
56) Fluoranthene	37.307	202	5718673	62759.965	ng/mL	94
59) Pyrene	38.193	202	7362007	76514.462	ng/mL	97
75) Benz[a]anthracene	42.931	228	1597729M4	15540.250	ng/mL	
77) Chrysene/Triphenylene	43.096	228	1907980	17688.698	ng/mL	95
84) Benzo[b]fluoranthene	46.980	252	1568650	12479.540	ng/mL	91
85) Benzo[j]+[k]fluoranthene	47.053	252	1360787	10970.666	ng/mL	94
90) Benzo[a]pyrene	48.169	252	2509694	21210.287	ng/mL	90
92) Indeno[1,2,3-cd]pyrene	52.888	276	1930613M3	13987.294	ng/mL	
93) Dibenz[ah]+[ac]anthracene	52.888	278	317318	2671.135	ng/mL	96
95) Benzo[g,h,i]perylene	54.176	276	2439287	17200.652	ng/mL	98

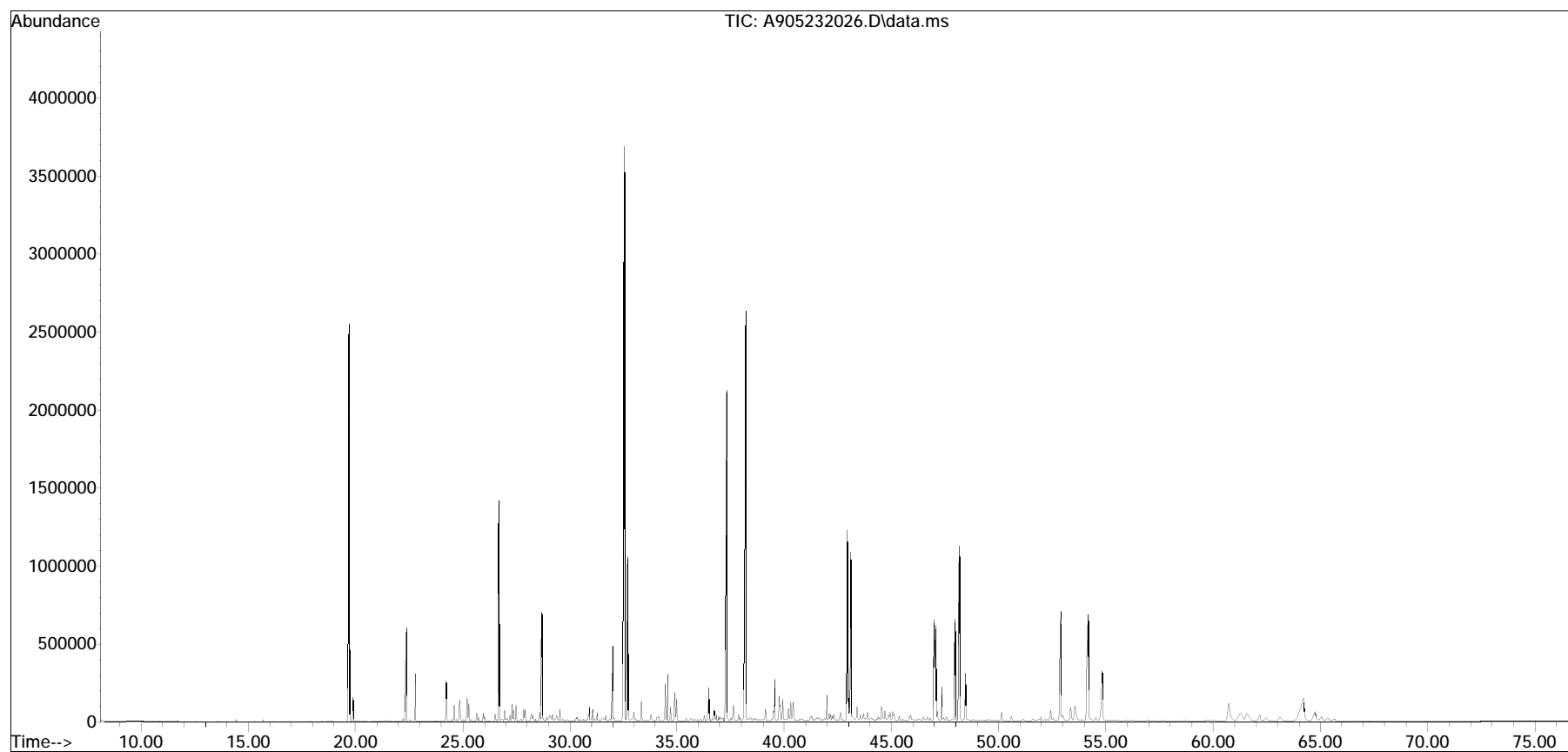
(#) = qualifier out of range (m) = manual integration (+) = signals summed

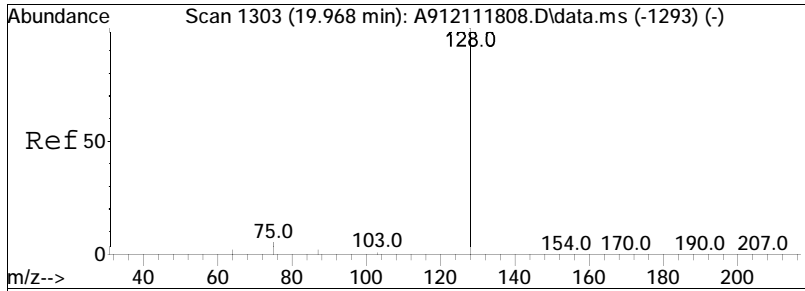
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232026.D
Acq On : 27 May 2020 3:04 pm
Operator : PAH9:ML
Sample : WG1372713-5D,32,4
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 25 Sample Multiplier: 1

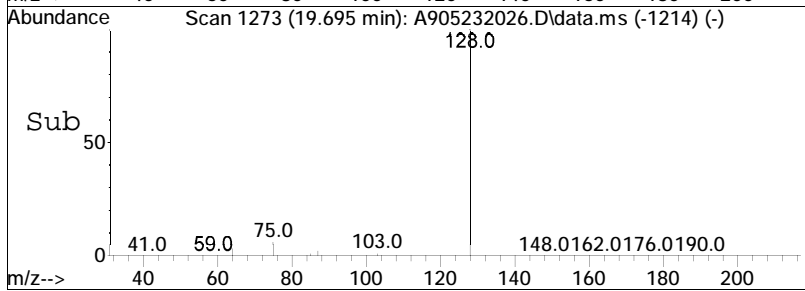
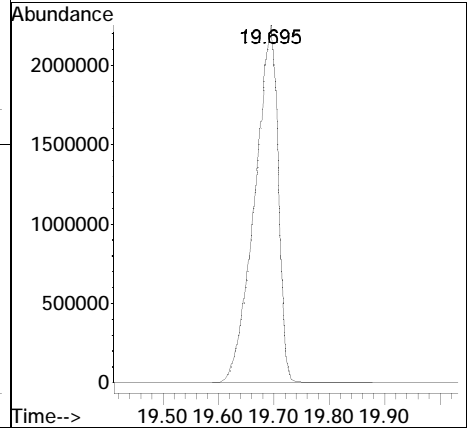
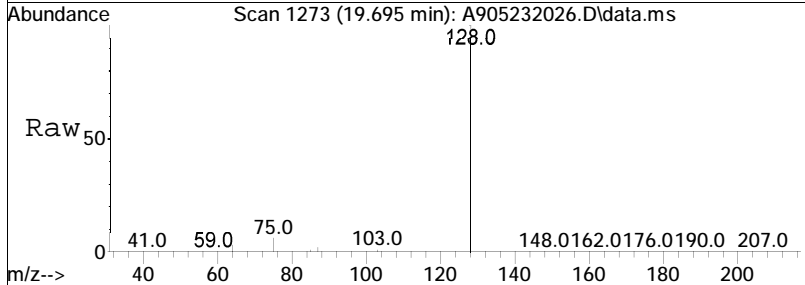
Quant Time: Jun 04 13:08:44 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

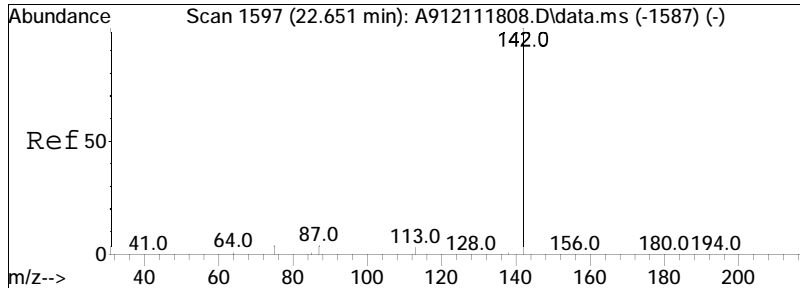
Sub List : ALKPAH_LCS_QC - LCS_spike compounds



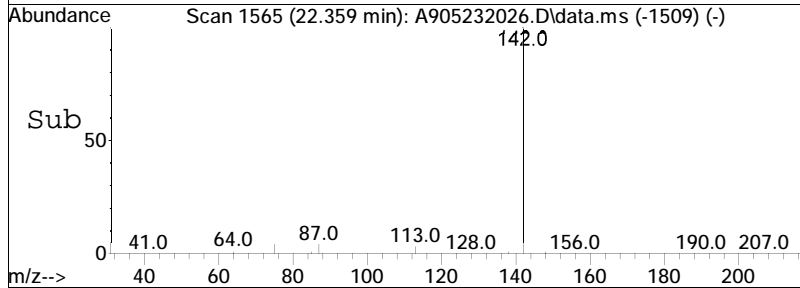
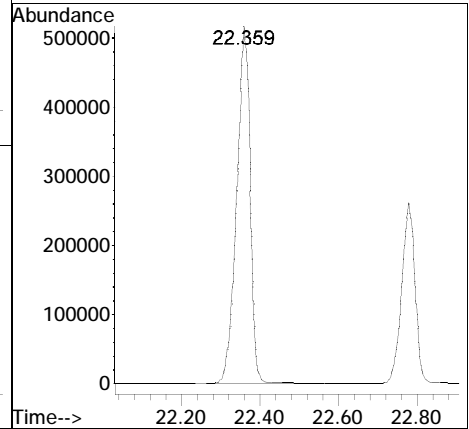
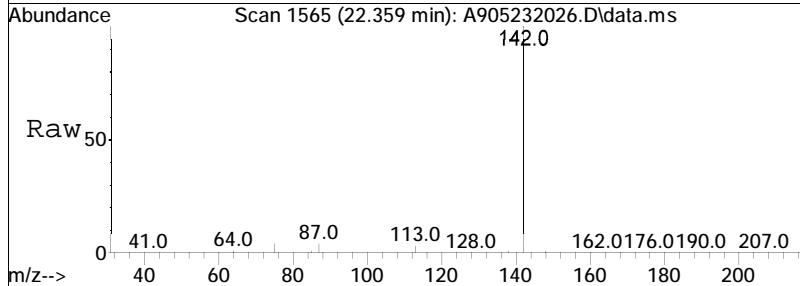


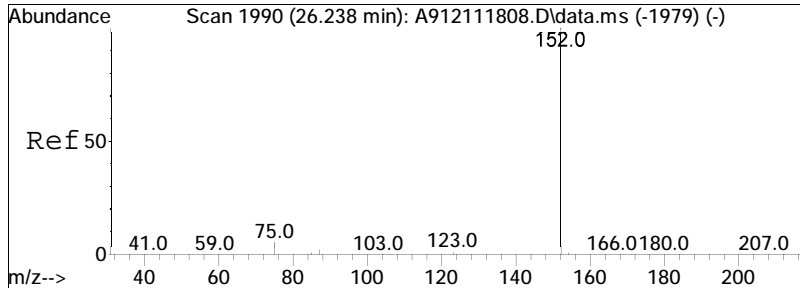
#9
 Naphthalene
 Concen: 89880.52 ng/mL
 RT: 19.695 min Scan# 1273
 Delta R.T. 0.037 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm
 Tgt Ion:128 Resp: 6522438



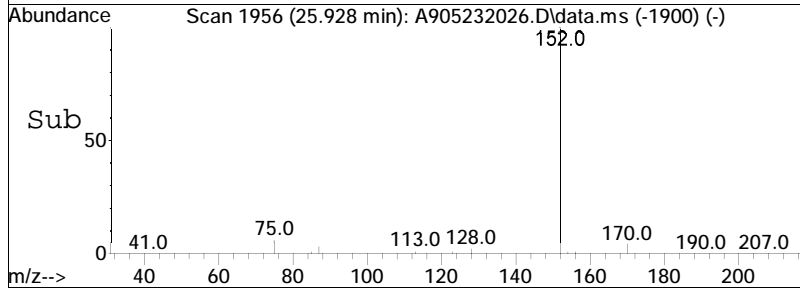
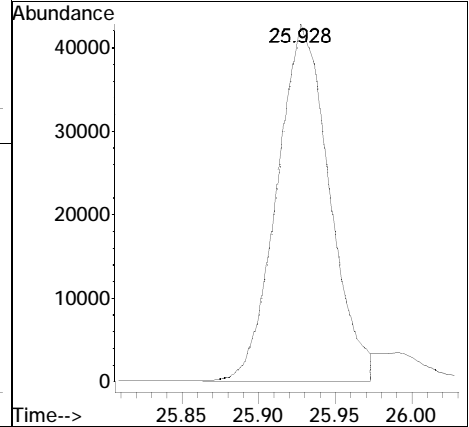
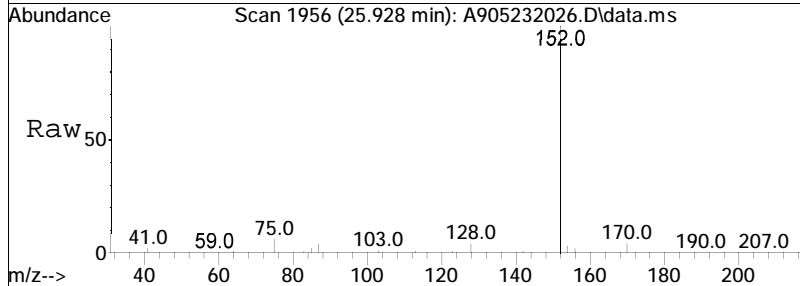


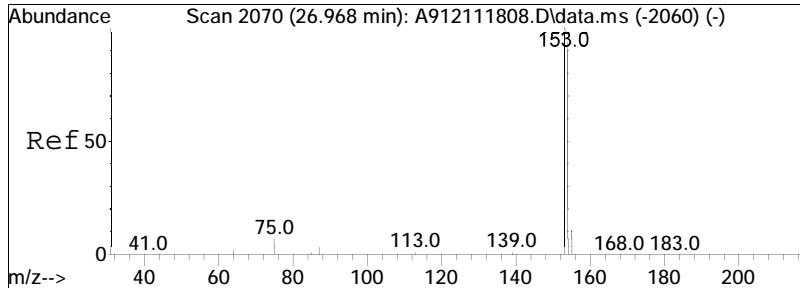
#14
 2-Methylnaphthalene
 Concen: 25608.25 ng/mL
 RT: 22.359 min Scan# 1565
 Delta R.T. 0.009 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm
 Tgt Ion:142 Resp: 1232100





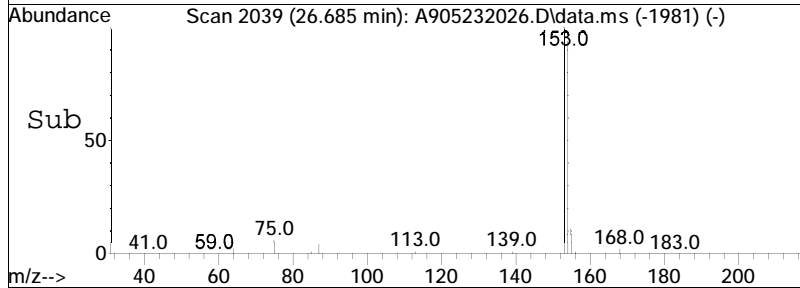
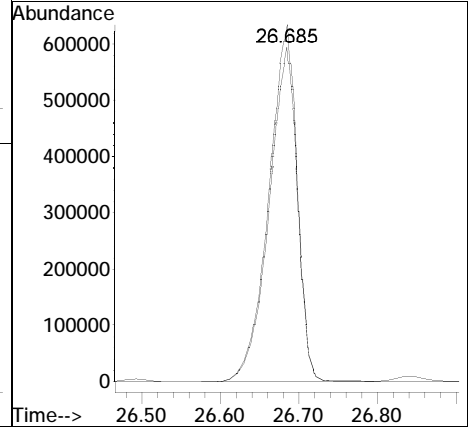
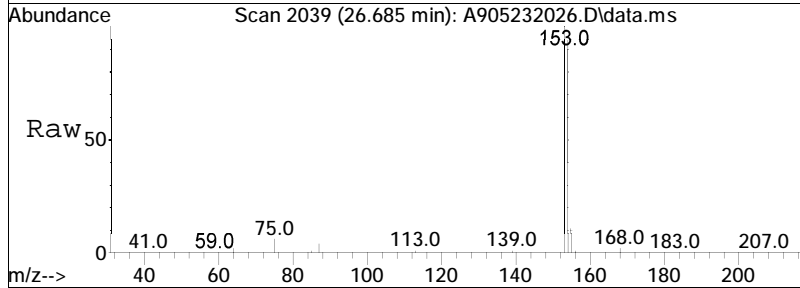
#24
 Acenaphthylene
 Concen: 1406.95 ng/mL M3
 RT: 25.928 min Scan# 1956
 Delta R.T. 0.009 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm
 Tgt Ion:152 Resp: 101105

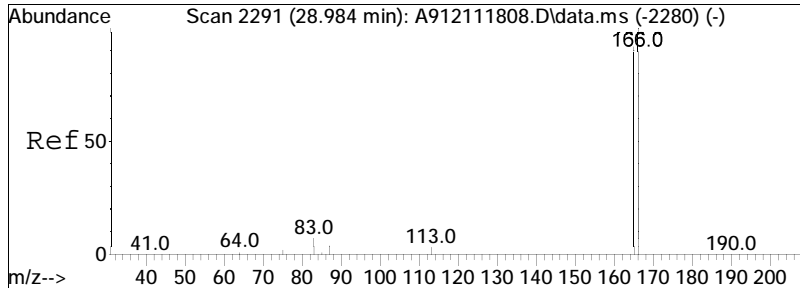




#25
 Acenaphthene
 Concen: 35804.80 ng/mL
 RT: 26.685 min Scan# 2039
 Delta R.T. 0.028 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

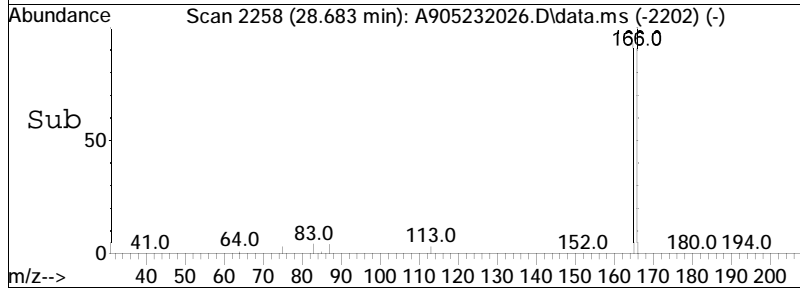
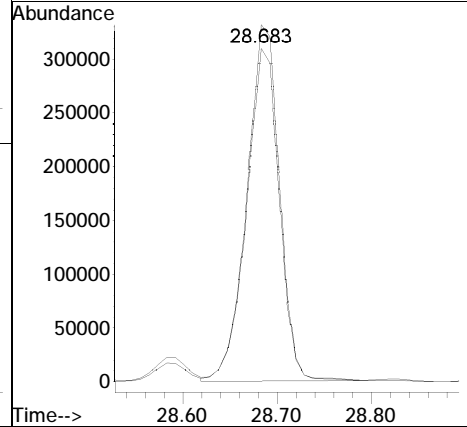
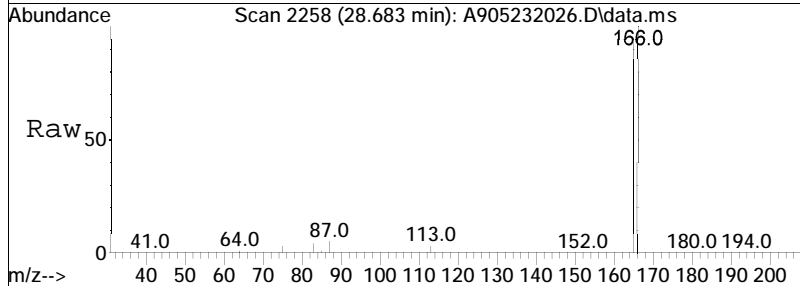
Tgt Ion: 153 Resp: 1594398
 Ion Ratio Lower Upper
 153 100
 154 93.0 65.0 120.8

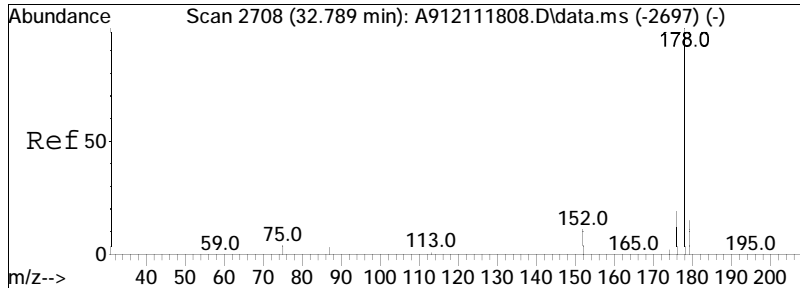




#27
 Fluorene
 Concen: 15035.85 ng/mL
 RT: 28.683 min Scan# 2258
 Delta R.T. 0.009 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

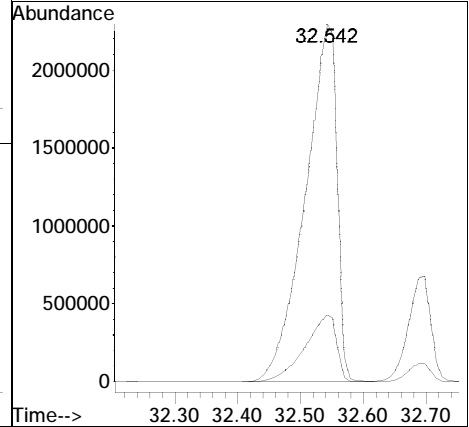
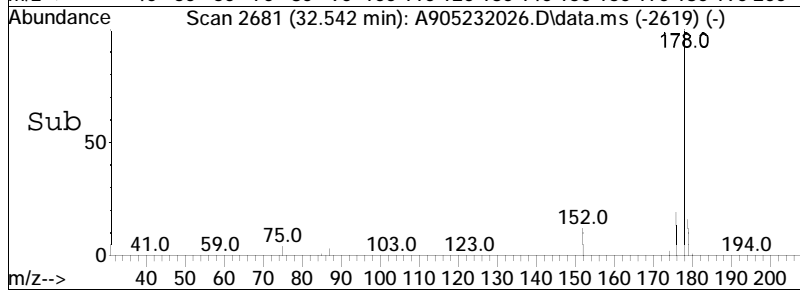
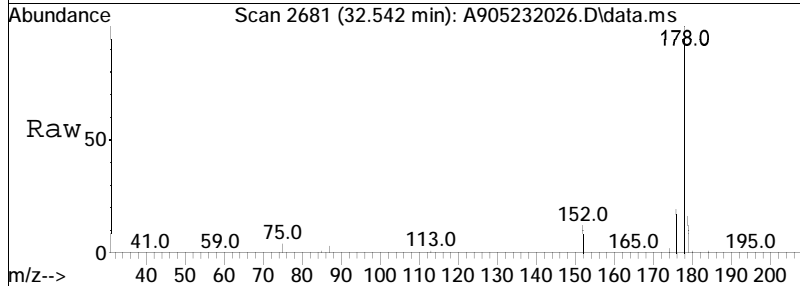
Tgt Ion	Resp	Lower	Upper
166	100		
165	92.8	65.4	121.4

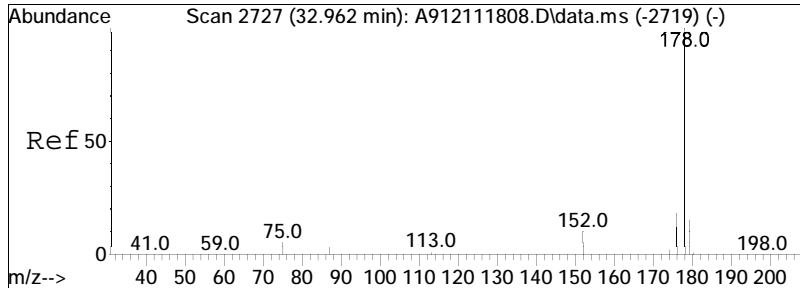




#41
 Phenanthrene
 Concen: 102987.69 ng/mL
 RT: 32.542 min Scan# 2681
 Delta R.T. 0.064 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

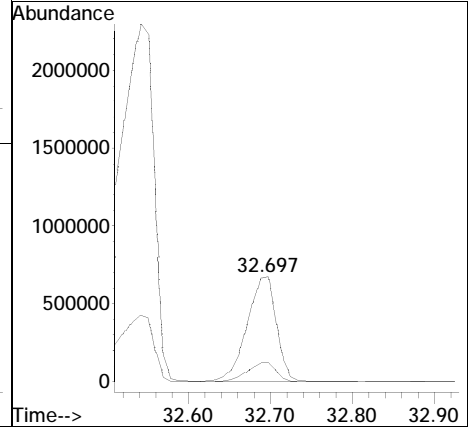
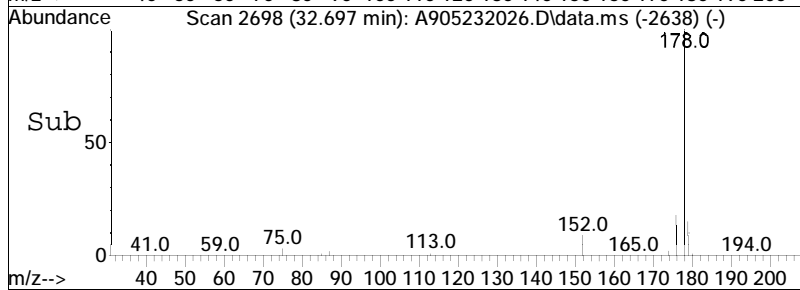
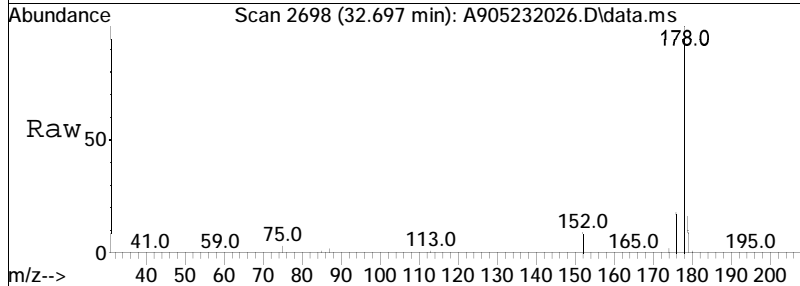
Tgt Ion: 178 Resp: 8005346
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.6 25.4

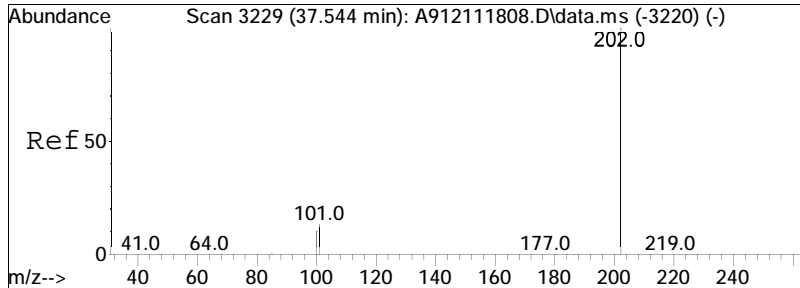




#53
 Anthracene
 Concen: 24493.70 ng/mL
 RT: 32.697 min Scan# 2698
 Delta R.T. 0.046 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

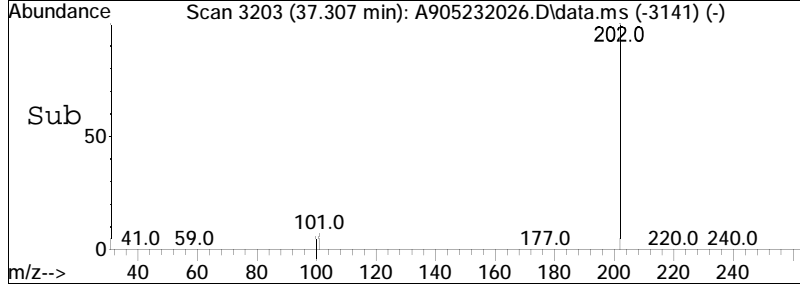
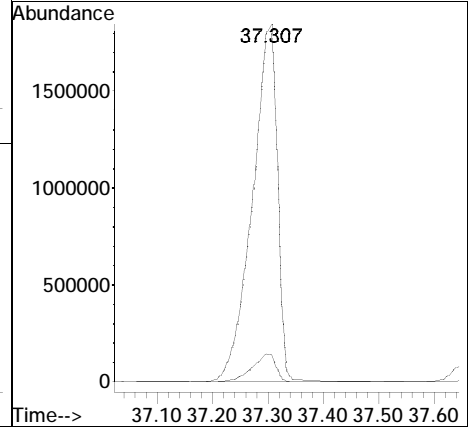
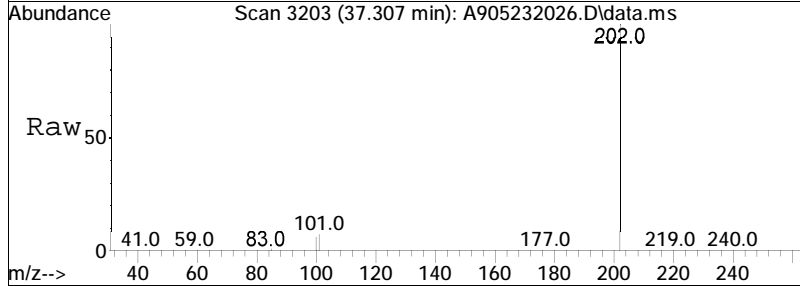
Tgt Ion:178 Resp: 1678995
 Ion Ratio Lower Upper
 178 100
 176 18.3 13.3 24.7

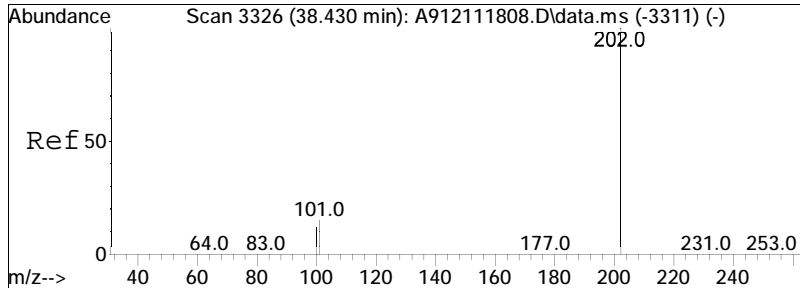




#56
 Fluoranthene
 Concen: 62759.97 ng/mL
 RT: 37.307 min Scan# 3203
 Delta R.T. 0.064 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

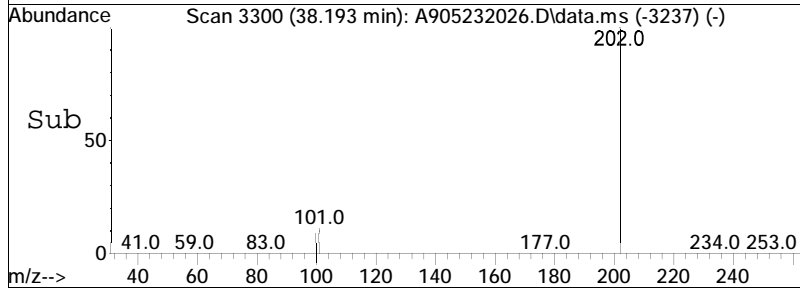
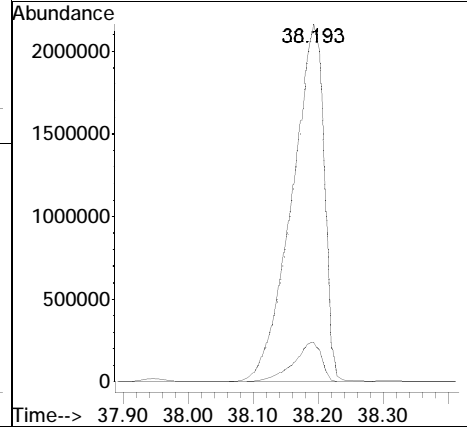
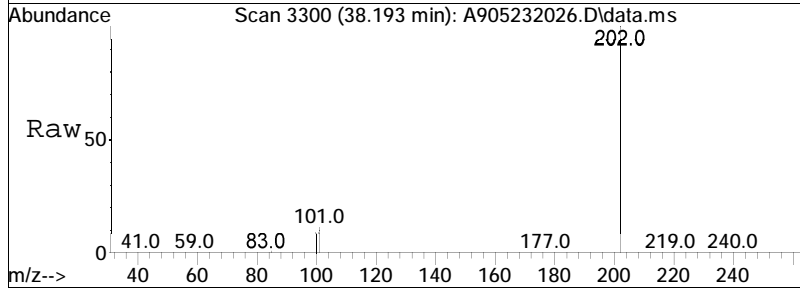
Tgt Ion: 202 Resp: 5718673
 Ion Ratio Lower Upper
 202 100
 101 7.5 6.8 12.6

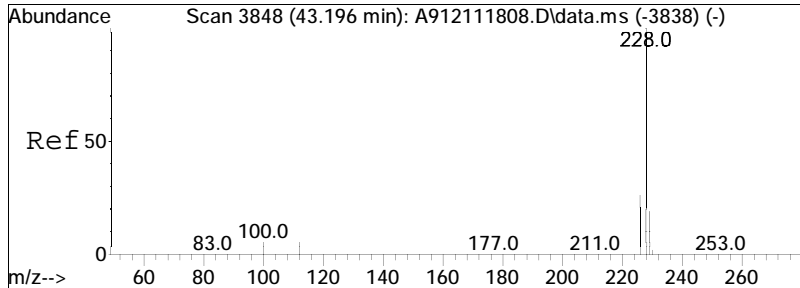




#59
 Pyrene
 Concen: 76514.46 ng/mL
 RT: 38.193 min Scan# 3300
 Delta R.T. 0.073 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

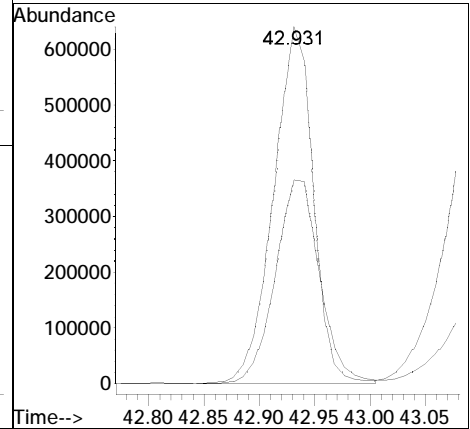
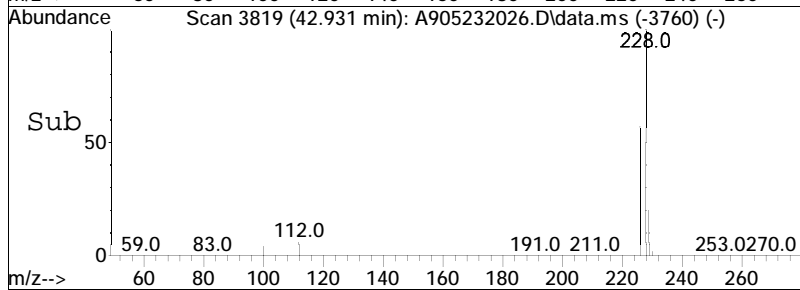
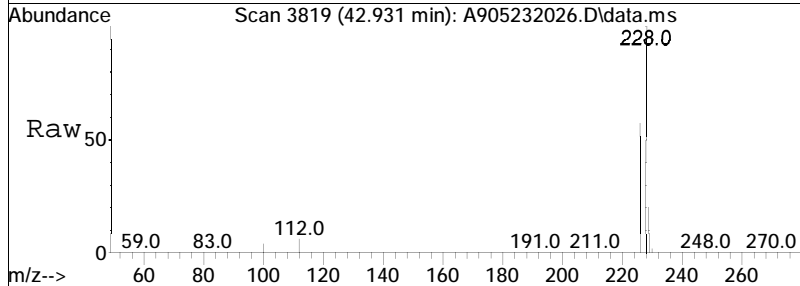
Tgt Ion: 202 Resp: 7362007
 Ion Ratio Lower Upper
 202 100
 101 9.8 7.6 14.0

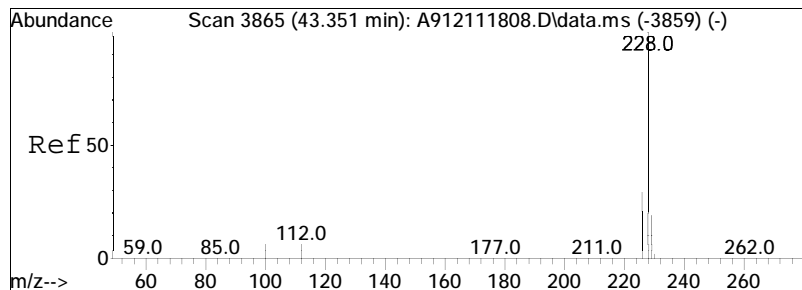




#75
 Benz[a]anthracene
 Concen: 15540.25 ng/mL M4
 RT: 42.931 min Scan# 3819
 Delta R.T. 0.037 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

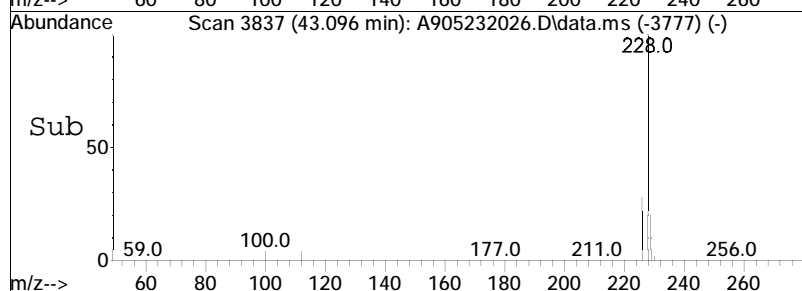
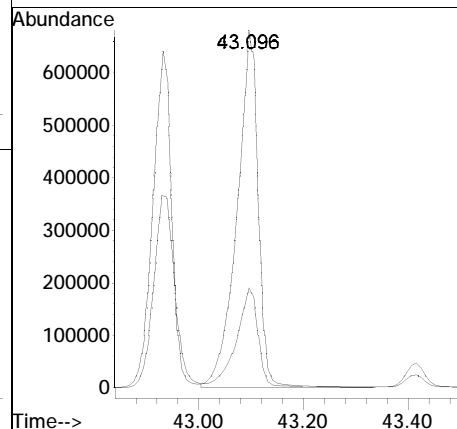
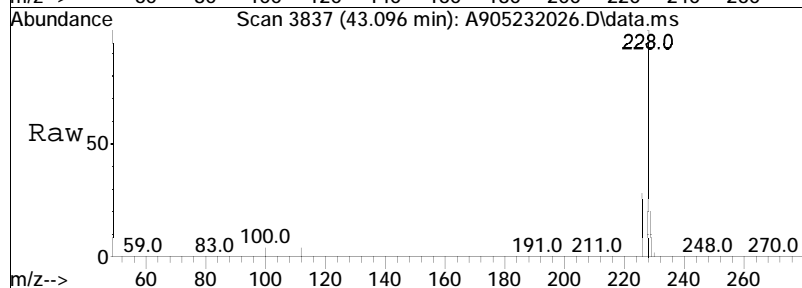
Tgt Ion: 228 Resp: 1597729
 Ion Ratio Lower Upper
 228 100
 226 32.8 19.0 35.2

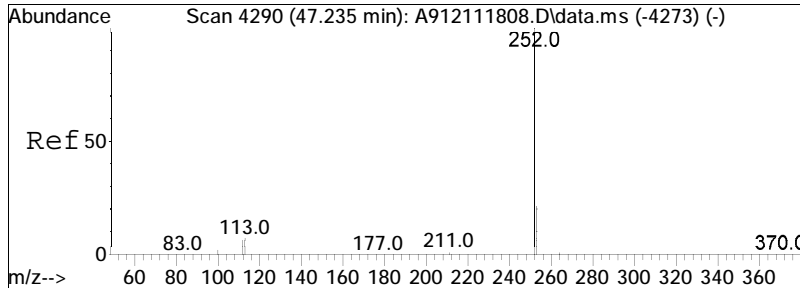




#77
 Chrysene/Triphenylene
 Concen: 17688.70 ng/mL
 RT: 43.096 min Scan# 3837
 Delta R.T. 0.046 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

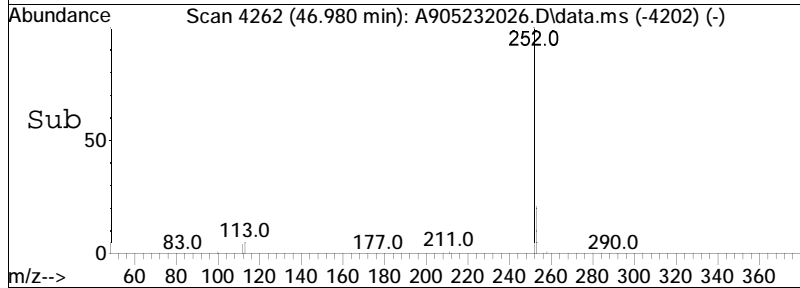
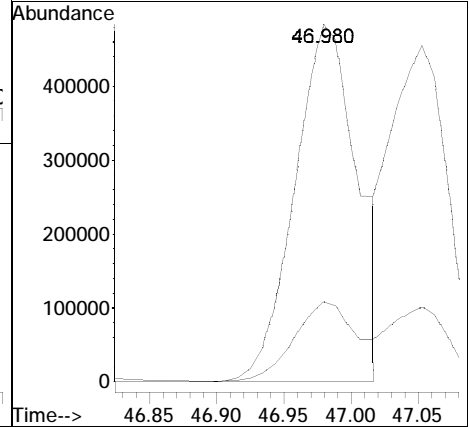
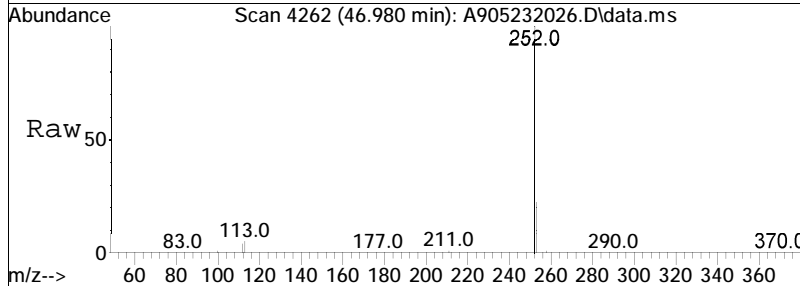
Tgt Ion: 228 Resp: 1907980
 Ion Ratio Lower Upper
 228 100
 226 27.5 21.0 39.0

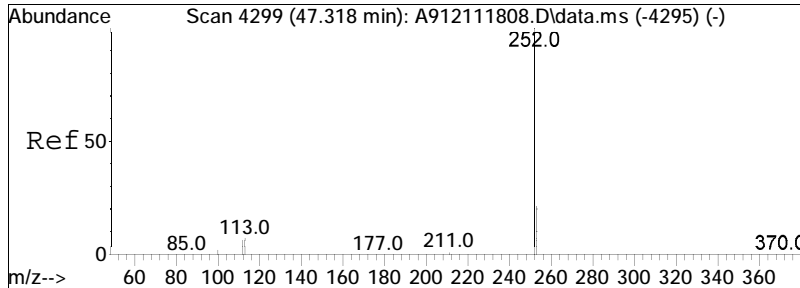




#84
 Benzo[b]fluoranthene
 Concen: 12479.54 ng/mL
 RT: 46.980 min Scan# 4262
 Delta R.T. 0.046 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

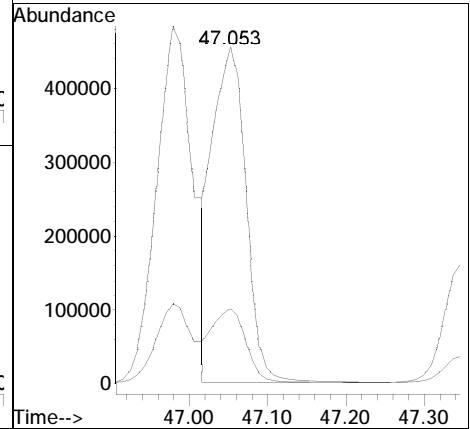
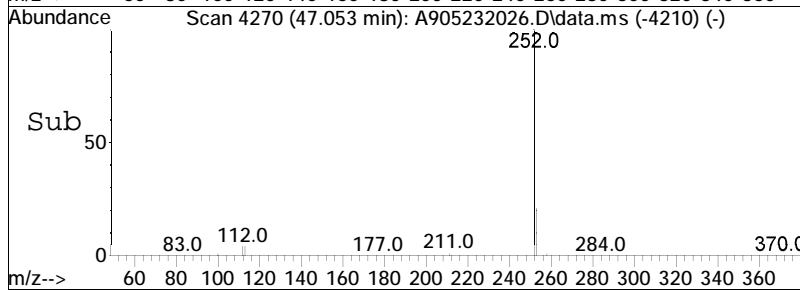
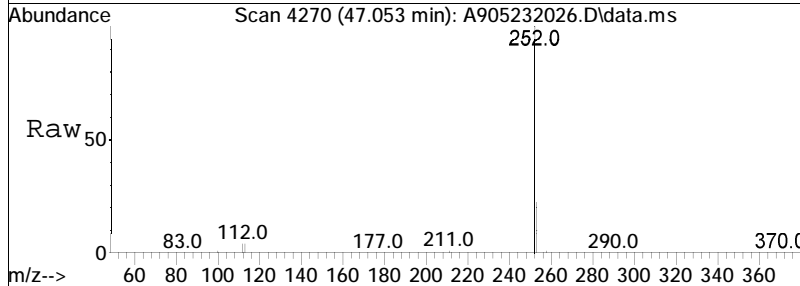
Tgt Ion: 252 Resp: 1568650
 Ion Ratio Lower Upper
 252 100
 253 20.0 17.3 32.1

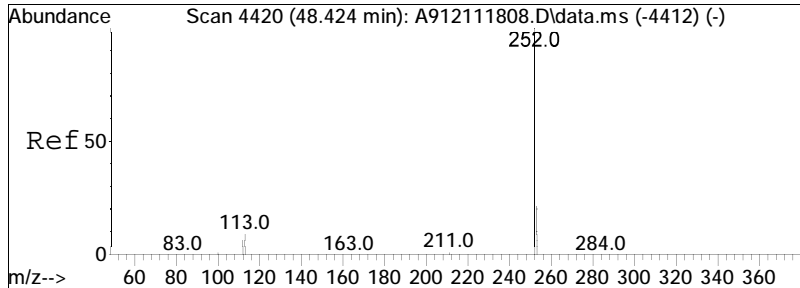




#85
 Benzo[j]+[k]fluoranthene
 Concen: 10970.67 ng/mL
 RT: 47.053 min Scan# 4270
 Delta R.T. 0.046 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

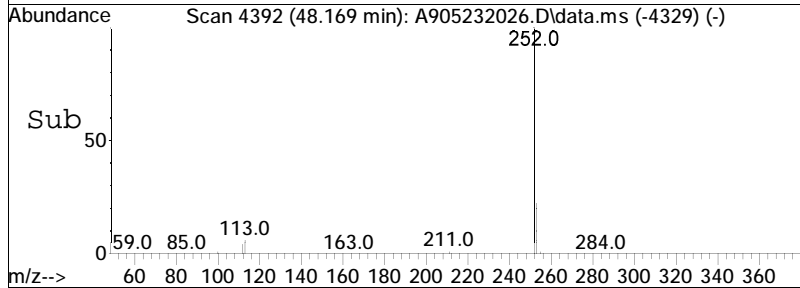
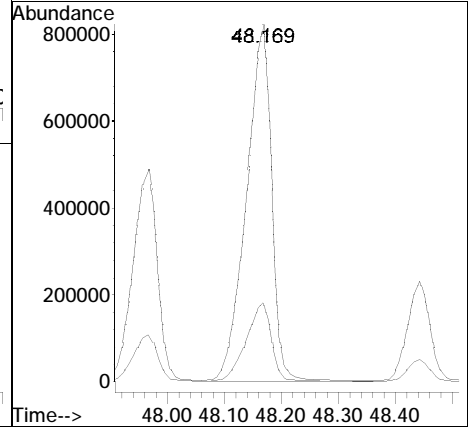
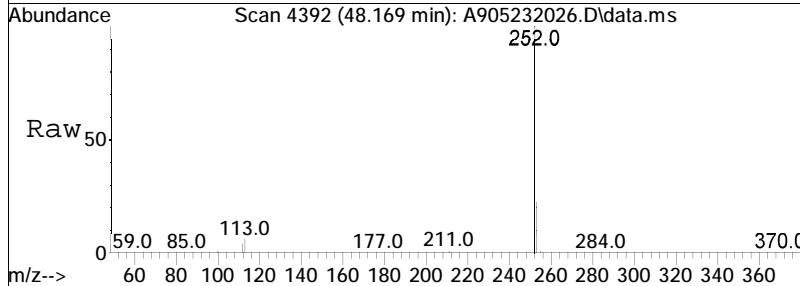
Tgt Ion: 252 Resp: 1360787
 Ion Ratio Lower Upper
 252 100
 253 22.4 17.6 32.8

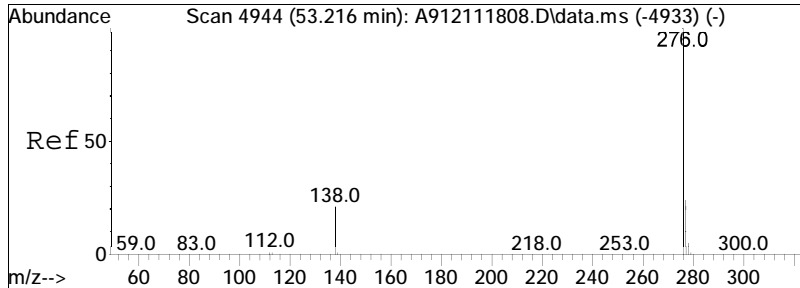




#90
 Benzo[a]pyrene
 Concen: 21210.29 ng/mL
 RT: 48.169 min Scan# 4392
 Delta R.T. 0.073 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

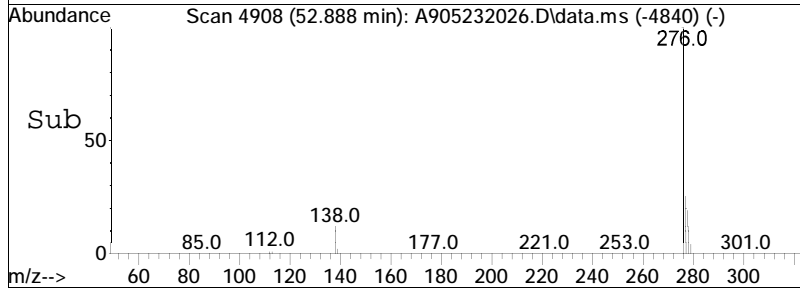
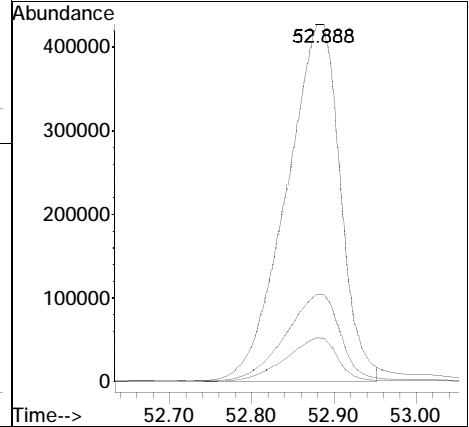
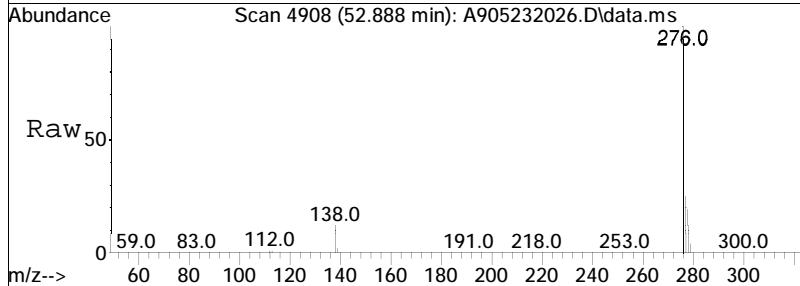
Tgt Ion: 252 Resp: 2509694
 Ion Ratio Lower Upper
 252 100
 253 22.2 19.2 35.6

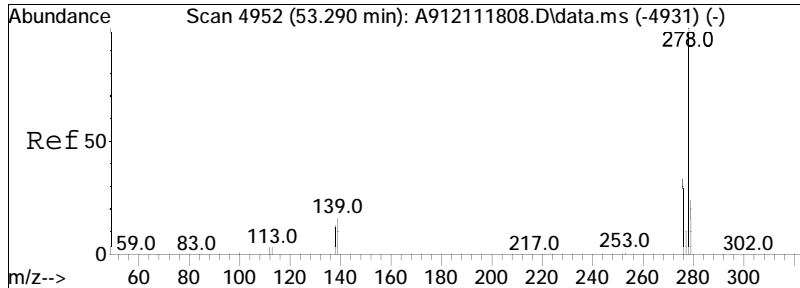




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 13987.29 ng/mL M3
 RT: 52.888 min Scan# 4908
 Delta R.T. 0.119 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

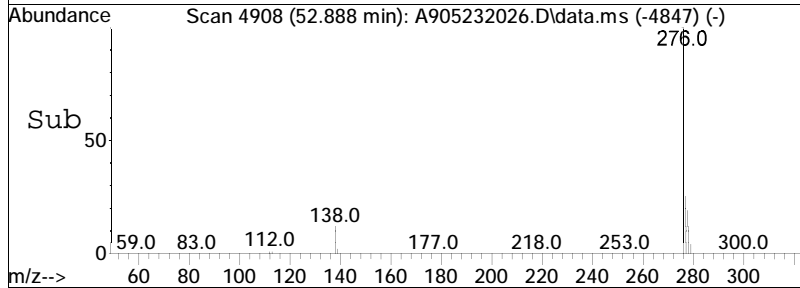
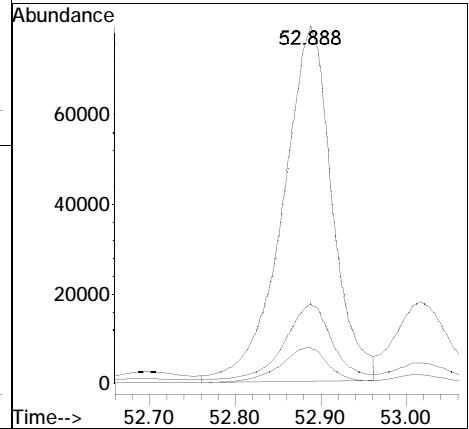
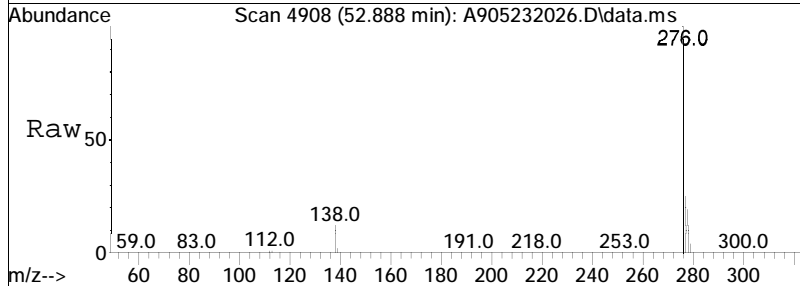
Tgt Ion	Resp	Lower	Upper
276	100		
138	12.0	12.2	22.6#
277	26.2	18.6	34.6

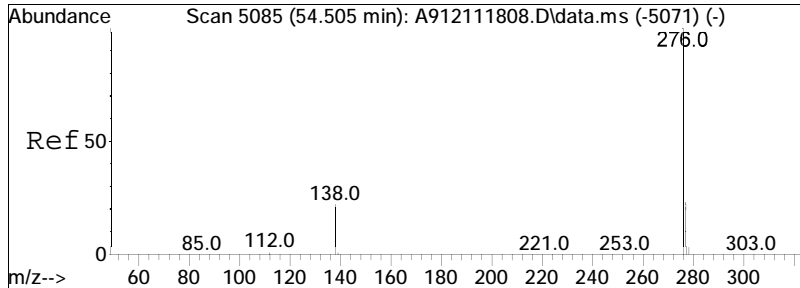




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 2671.13 ng/mL
 RT: 52.888 min Scan# 4908
 Delta R.T. 0.055 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

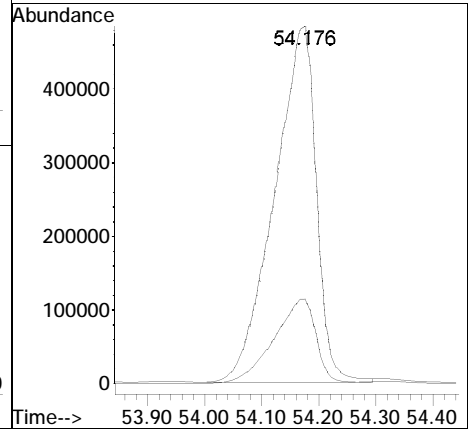
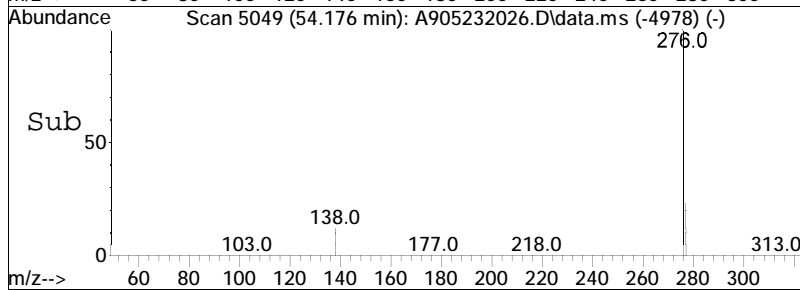
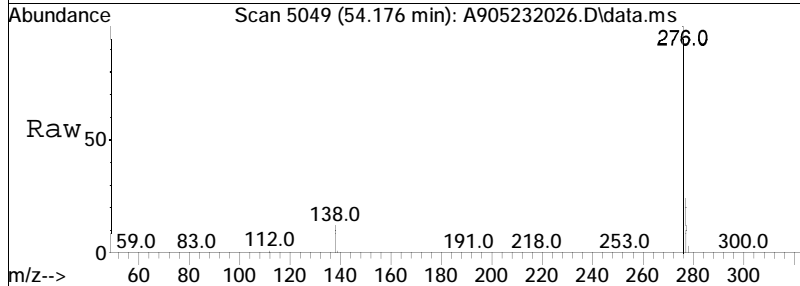
Tgt Ion	Ratio	Lower	Upper
278	100		
139	10.3	8.3	15.5
279	22.1	16.8	31.2





#95
 Benzo[g,h,i]perylene
 Concen: 17200.65 ng/mL
 RT: 54.176 min Scan# 5049
 Delta R.T. 0.146 min
 Lab File: A905232026.D
 Acq: 27 May 2020 3:04 pm

Tgt Ion: 276 Resp: 2439287
 Ion Ratio Lower Upper
 276 100
 277 23.8 17.4 32.2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
 Data File : A905232036.D
 Acq On : 28 May 2020 11:00 am
 Operator : PAH9:ML
 Sample : WG1372713-5D2,32,40
 Misc : WG1374011,WG1372713,ICAL16710
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jun 04 13:30:02 2020
 Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Jun 03 16:26:35 2020
 Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds

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

Internal Standards						
1) Acenaphthene-d10	26.539	164	22915	500.000	ng/mL	0.00
74) Chrysene-d12	42.968	240	51762	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.585	136	345	4.119	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.41%#
40) Phenanthrene-d10	32.387	188	413	5.266	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.53%#
83) Benzo[b]fluoranthene-d12	46.861	264	564	4.391	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.44%#
89) Benzo[a]pyrene-d12	48.022	264	375	4.365	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.44%#
130) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
Target Compounds						
9) Naphthalene	19.658	128	914479	9380.201	ng/mL	100
14) 2-Methylnaphthalene	22.350	142	158377	2450.241	ng/mL	100
25) Acenaphthene	26.657	153	205123	3428.796	ng/mL	99
41) Phenanthrene	32.488	178	978228	9367.595	ng/mL	99
53) Anthracene	32.661	178	195985	2128.191	ng/mL	98
56) Fluoranthene	37.252	202	686337	5606.704	ng/mL#	92
59) Pyrene	38.129	202	873684	6759.032	ng/mL	93
90) Benzo[a]pyrene	48.114	252	255159	1703.377	ng/mL	90

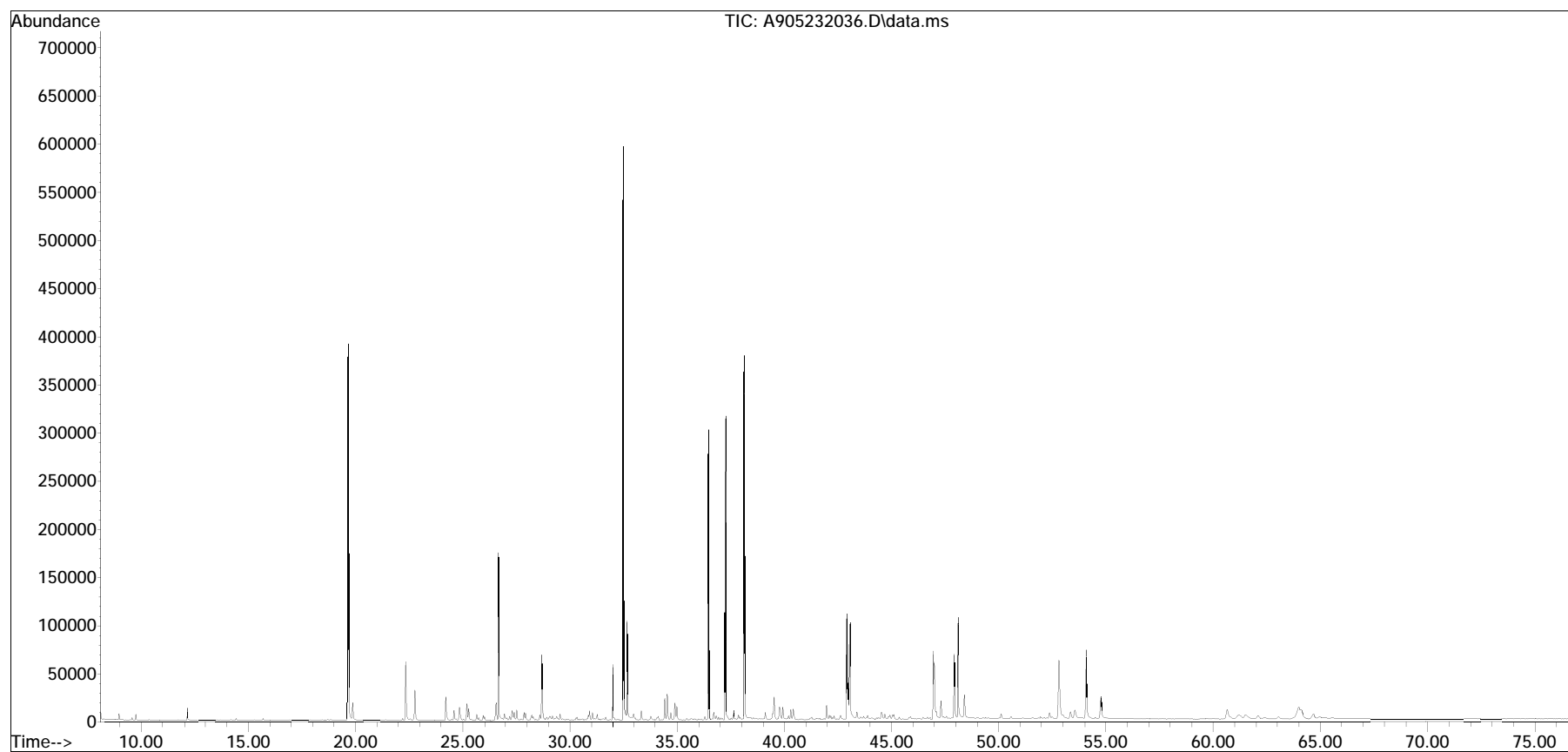
(#) = qualifier out of range (m) = manual integration (+) = signals summed

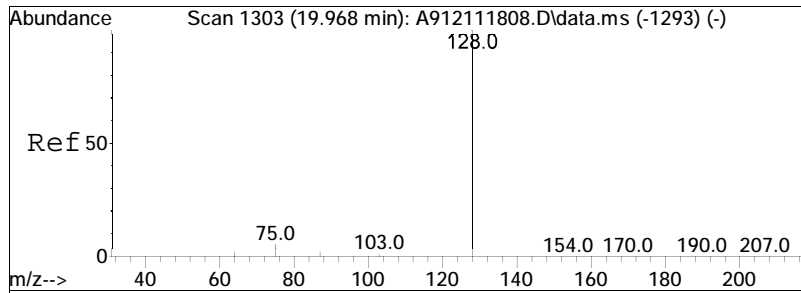
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\
Data File : A905232036.D
Acq On : 28 May 2020 11:00 am
Operator : PAH9:ML
Sample : WG1372713-5D2,32,40
Misc : WG1374011,WG1372713,ICAL16710
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jun 04 13:30:02 2020
Quant Method : O:\Forensics\Data\PAH9\2020\MAY20\MAY23\PAH9041920.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Jun 03 16:26:35 2020
Response via : Initial Calibration

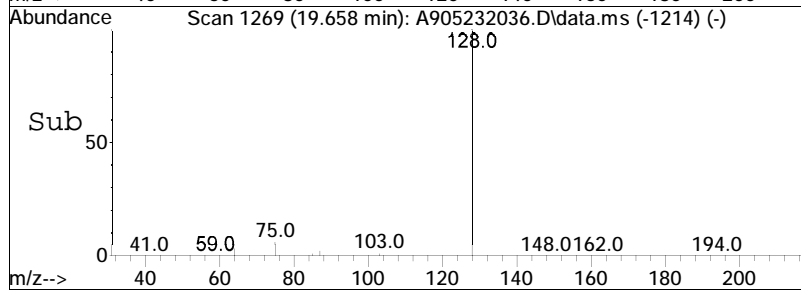
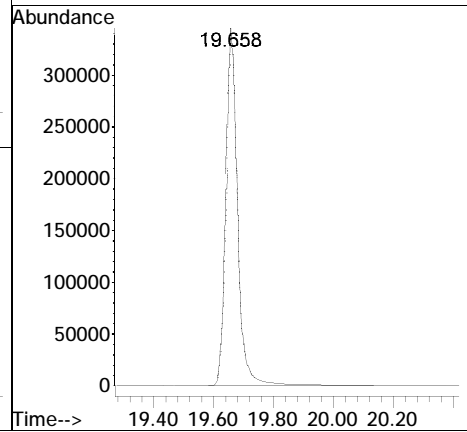
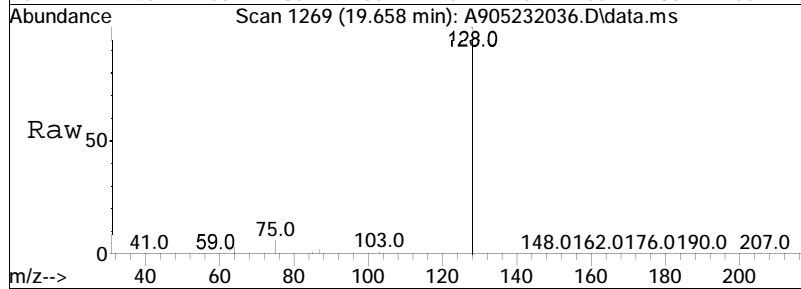
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

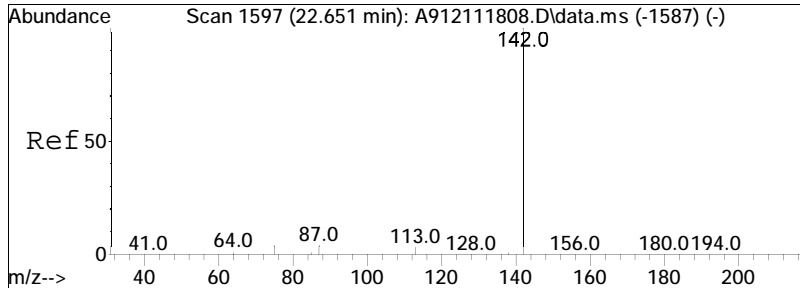




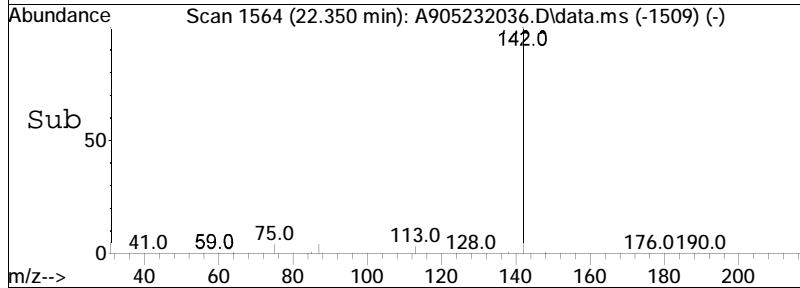
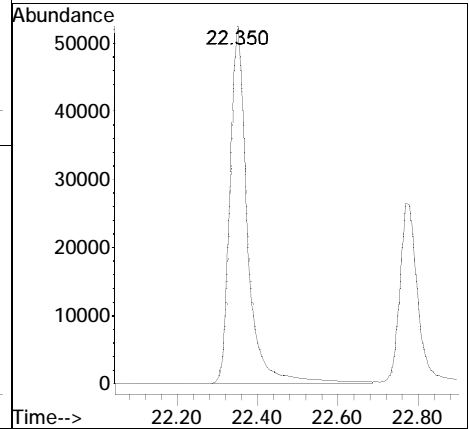
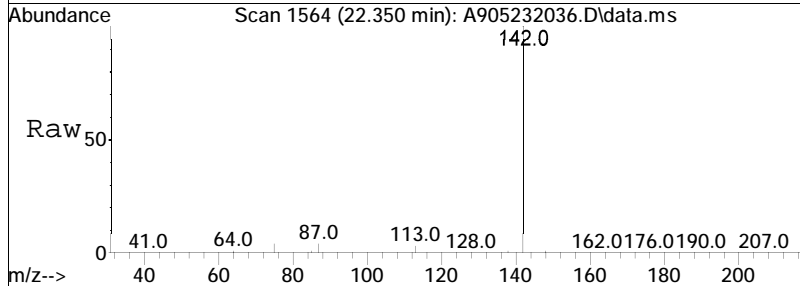
#9
 Naphthalene
 Concen: 9380.20 ng/mL
 RT: 19.658 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

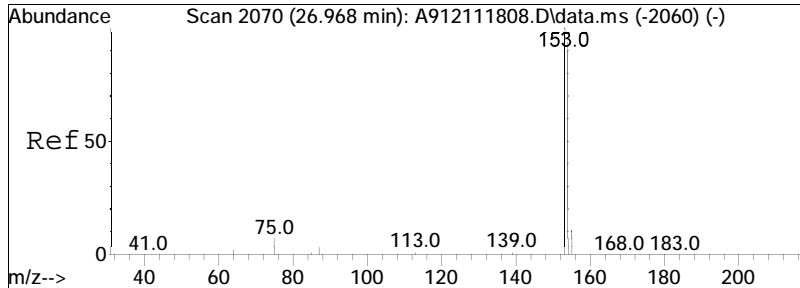
Tgt Ion:128 Resp: 914479





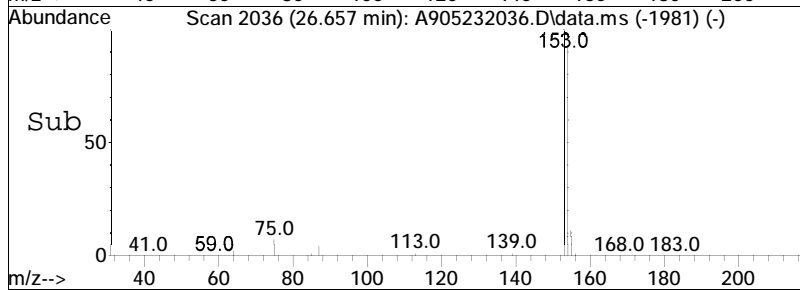
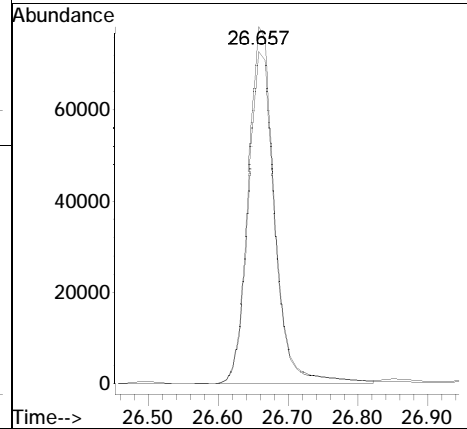
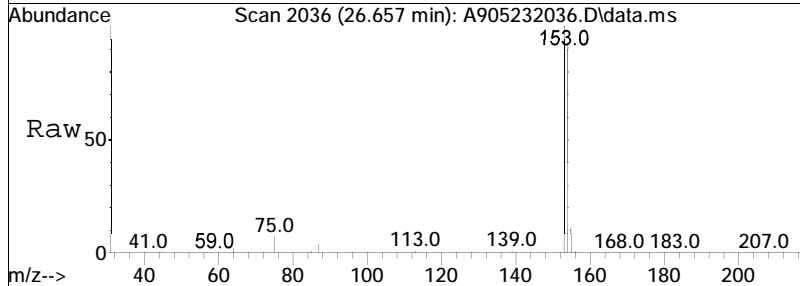
#14
 2-Methylnaphthalene
 Concen: 2450.24 ng/mL
 RT: 22.350 min Scan# 1564
 Delta R.T. 0.000 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am
 Tgt Ion:142 Resp: 158377

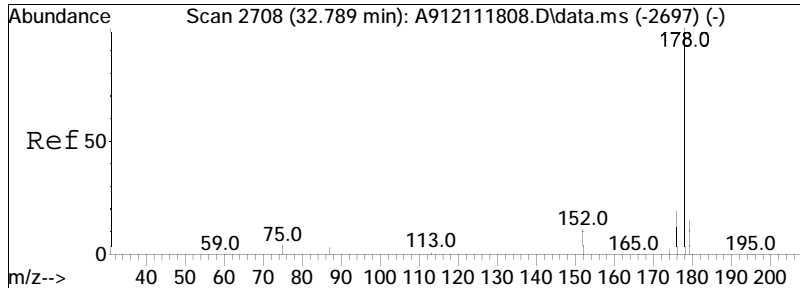




#25
 Acenaphthene
 Concen: 3428.80 ng/mL
 RT: 26.657 min Scan# 2036
 Delta R.T. 0.000 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

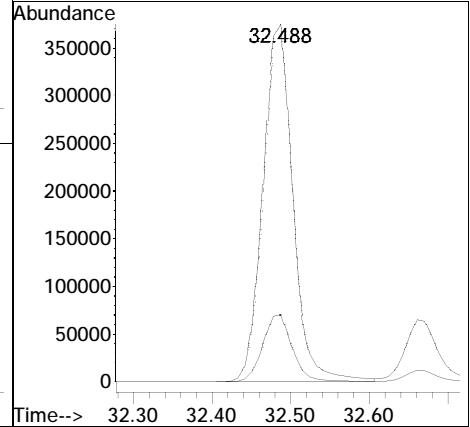
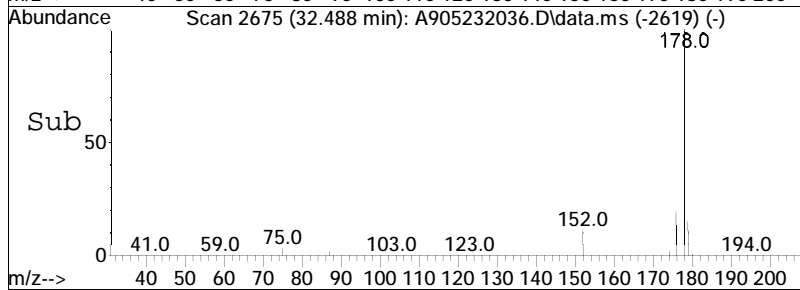
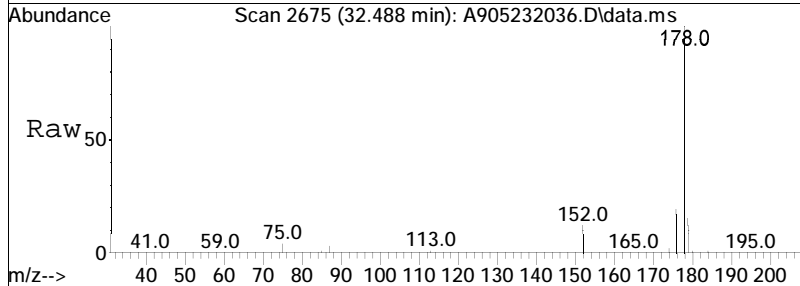
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.6	65.0	120.8

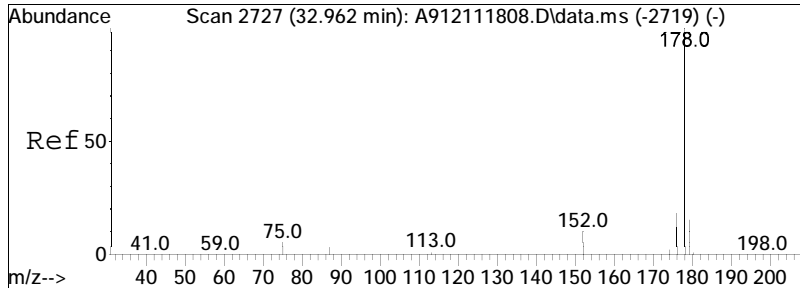




#41
 Phenanthrene
 Concen: 9367.59 ng/mL
 RT: 32.488 min Scan# 2675
 Delta R.T. 0.009 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

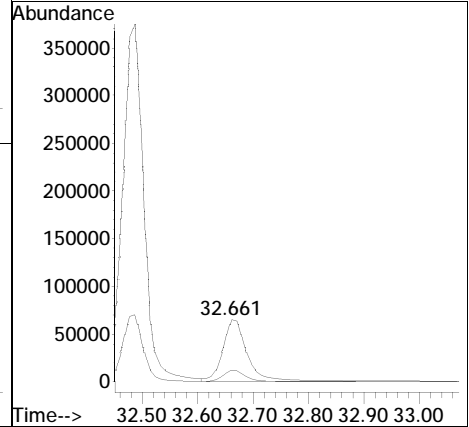
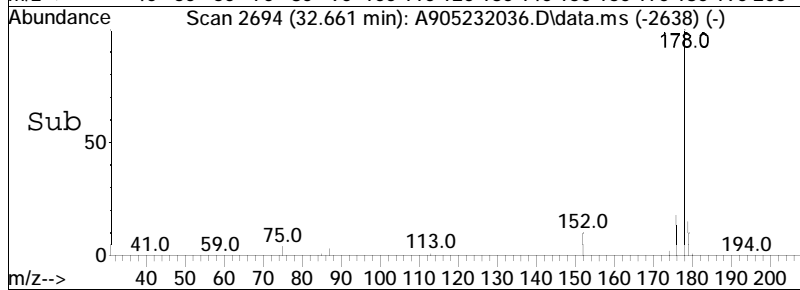
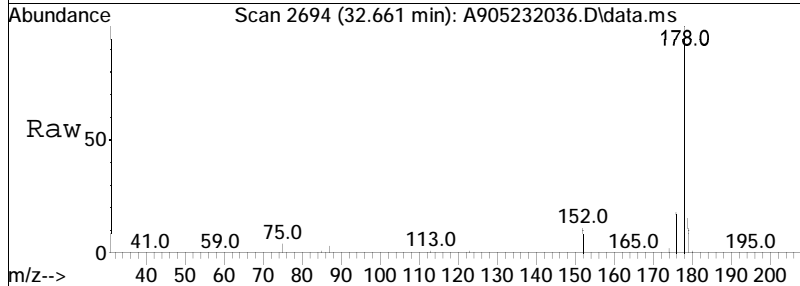
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.8	13.6	25.4

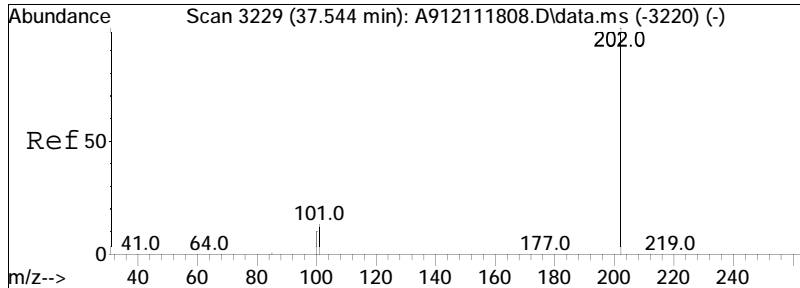




#53
 Anthracene
 Concen: 2128.19 ng/mL
 RT: 32.661 min Scan# 2694
 Delta R.T. 0.009 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

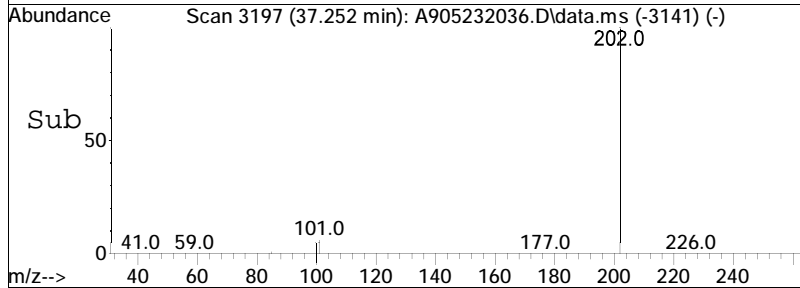
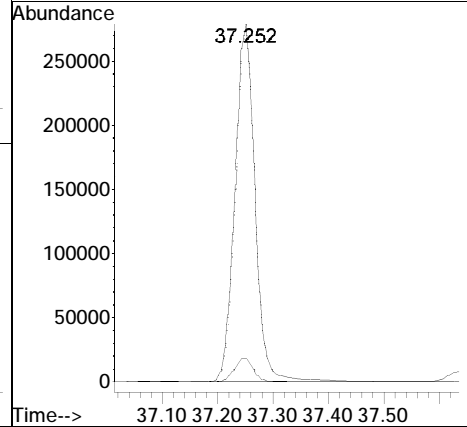
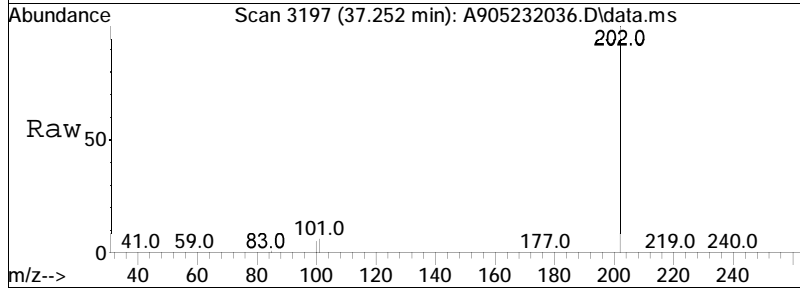
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.2	13.3	24.7

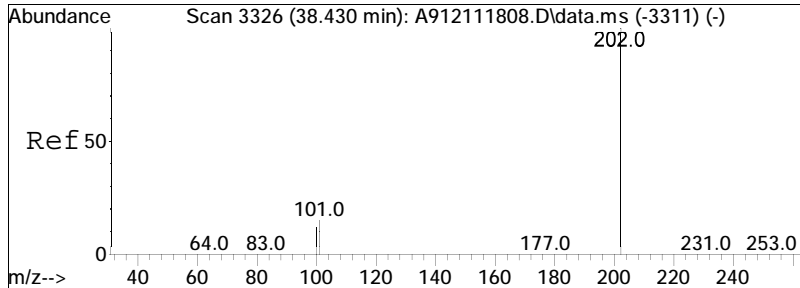




#56
 Fluoranthene
 Concen: 5606.70 ng/mL
 RT: 37.252 min Scan# 3197
 Delta R.T. 0.009 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

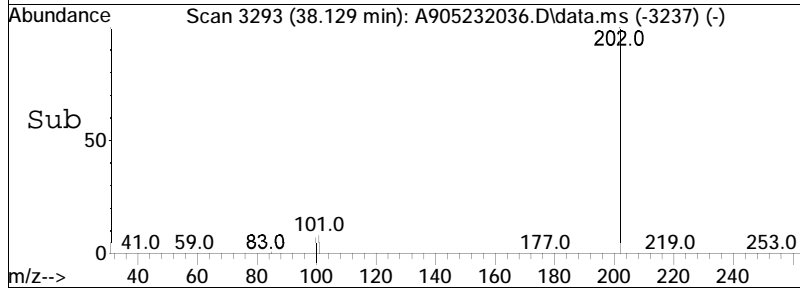
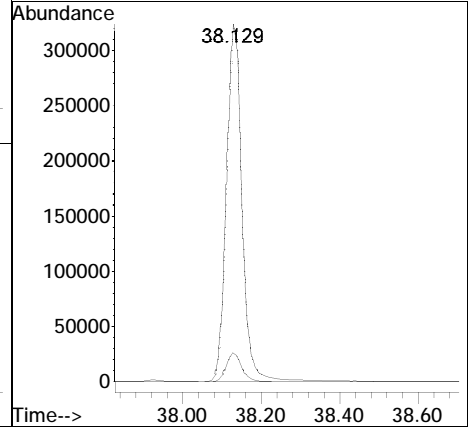
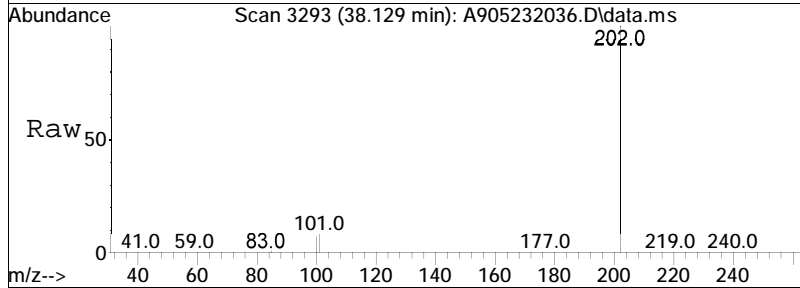
Tgt Ion	202	Resp	686337
Ion Ratio	100	Lower	Upper
101	6.6	6.8	12.6#

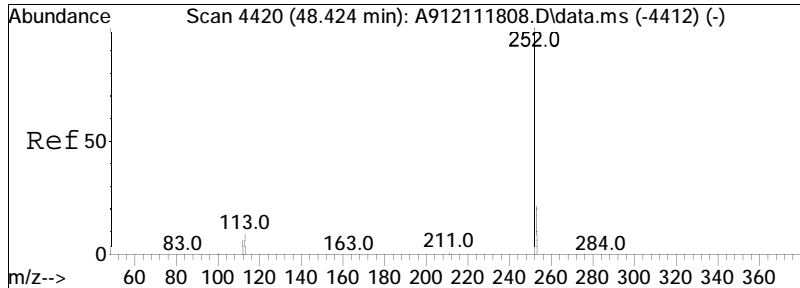




#59
 Pyrene
 Concen: 6759.03 ng/mL
 RT: 38.129 min Scan# 3293
 Delta R.T. 0.009 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

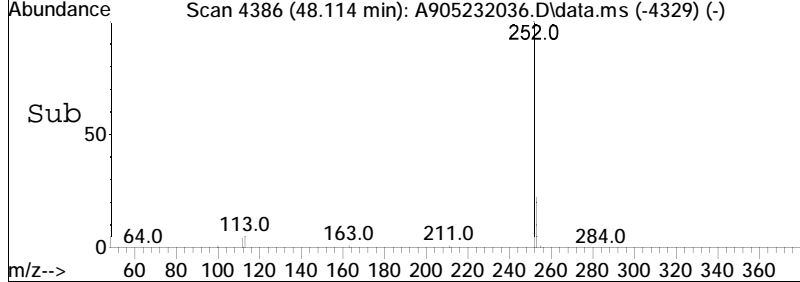
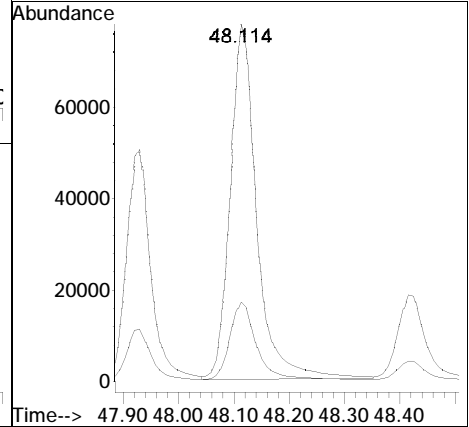
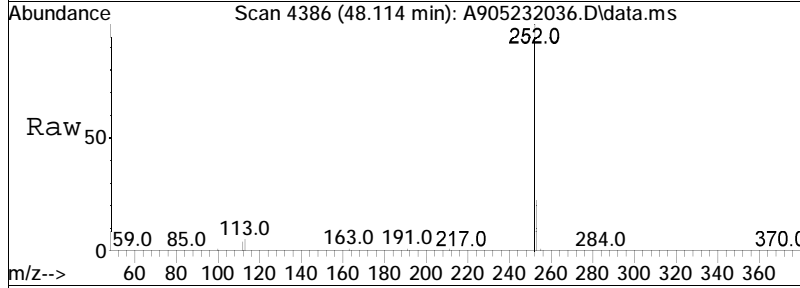
Tgt Ion: 202 Resp: 873684
 Ion Ratio Lower Upper
 202 100
 101 8.2 7.6 14.0





#90
 Benzo[a]pyrene
 Concen: 1703.38 ng/mL
 RT: 48.114 min Scan# 4386
 Delta R.T. 0.018 min
 Lab File: A905232036.D
 Acq: 28 May 2020 11:00 am

Tgt Ion	Resp	Lower	Upper
252	100		
253	22.1	19.2	35.6



Sample Preparation

Workgroup: WG1372713

<p>Prep Method: ALPHA OP-013 Solvent Type: DCM Lot #: DY141-US Surrogate Type: A2-PAH/SHC Lot #: FRBC54 Spike Type: A2-PAH/SHC Lot #: FRBC52 Spike Verify by: NA Lims Spikelot: A2-PAH/SHC Additional Reagents/Std</p> <table border="1"> <tr> <td>Na2SO4</td> <td>0000244889</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Na2SO4	0000244889					<p>Conc.Method: S-EVAP Solvent Type: DCM Lot #: DY141-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Glass Wool</td> <td>19218999</td> </tr> <tr> <td>Na2SO4</td> <td>0000244889</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR052220A</td> </tr> </table>	Glass Wool	19218999	Na2SO4	0000244889	Granulated Copper	OWR052220A	<p>Cleanup 1 Cleanup Method 1: EPA 3611B Cleanup Method 2: Solvent Type: DCM Lot #: DY141-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Glass Wool</td> <td>19218999</td> </tr> <tr> <td>Alumina</td> <td>95</td> </tr> <tr> <td>Na2SO4</td> <td>0000244889</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR052220A</td> </tr> </table>	Glass Wool	19218999	Alumina	95	Na2SO4	0000244889	Granulated Copper	OWR052220A
Na2SO4	0000244889																					
Glass Wool	19218999																					
Na2SO4	0000244889																					
Granulated Copper	OWR052220A																					
Glass Wool	19218999																					
Alumina	95																					
Na2SO4	0000244889																					
Granulated Copper	OWR052220A																					

Extraction

Concentration

Sample/Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L2020213-01 SAMP	05/20/20 10:34	Lauren Batalon	15.184	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
L2020213-02 SAMP	05/20/20 10:34	Lauren Batalon	5.035	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
L2020213-03 SAMP	05/20/20 10:34	Lauren Batalon	10.492	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
L2020213-04 SAMP	05/20/20 10:34	Lauren Batalon	5.063	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
WG1372713-1 BLANK	05/20/20 10:34	Lauren Batalon	30	BAL-18	0.1		05/22/20 05:00	Brian Anderson	4	SEVAP 3
WG1372713-2 LCS	05/20/20 10:34	Lauren Batalon	30	BAL-18	0.1	0.1	05/22/20 05:00	Brian Anderson	4	SEVAP 3

Workgroup: WG1372713

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
WG1372713- 3 LCSD	05/20/20 10:34	Lauren Batalon	30	BAL-18	0.1	0.1	05/22/20 05:00	Brian Anderson	4	SEVAP 3
WG1372713- 4 MS	05/20/20 10:34	Lauren Batalon	10.442	BAL-18	0.5	0.5	05/22/20 05:00	Brian Anderson	10	SEVAP 3
WG1372713- 5 MSD	05/20/20 10:34	Lauren Batalon	10.349	BAL-18	0.5	0.5	05/22/20 05:00	Brian Anderson	10	SEVAP 3

Workgroup: WG1372713

Sample/ Type	Cleanup 1						Cleanup 2					
	Cleanup Date	Cleanup Vol ml	Conc Date	Analyst	Conc Method	Final Cleanup Vol	Cleanup Date	Frac Cleanup Vol	Conc Date	Analyst	Conc Method	Final Frac Cleanup Vol
L2020213-01 SAMP	05/22/20 09:00	1	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
L2020213-02 SAMP	05/22/20 09:00	.5	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
L2020213-03 SAMP	05/22/20 09:00	.4	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
L2020213-04 SAMP	05/22/20 09:00	1	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-1 BLANK	05/22/20 09:00	2	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
All samples spiked with 100ul LCS. BA 5/22/20												
WG1372713-2 LCS	05/22/20 09:00	2	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-3 LCSD	05/22/20 09:00	2	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-4 MS	05/22/20 09:00	.4	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-5 MSD	05/22/20 09:00	.4	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						

Supporting Documentation

ETR L2020213

Alpha Analytical

- Pre-Alumina
- Post-Alumina
- Pre-Silica
- Oily Material Prep.
- Other

Analyst BA
Date 05/21/2020

ETR	Lab ID	QC	Extract Volume (µL)	Aliquot Removed (µL)	Aliquot Weight (mg)	Total Extract Weight (mg)	Volume Removed for Column (µl)	Extract Weight to Column (mg)	Split Factor	QC (%R)
		Gravimetric Standard	10000	50	0.265	53.00	N/A	N/A	N/A	100%
L2020213	1		10000	50	0.412	82.40	1000	8.24	10.00	
	2		10000	50	0.579	115.80	500	5.79	20.00	
	3		10000	50	1.129	225.80	400	9.03	25.00	
	3ms		10000	50	0.975	195.00	400	7.80	25.00	
	3msd		10000	50	0.884	176.80	400	7.07	25.00	
	4		10000	50	0.315	63.00	1000	6.30	10.00	

Note:
 Total Extract Weight (mg) = (Extract Volume ÷ Aliquot Removed) (Aliquot Weight)
 Gravimetric Standard = 5 mg/mL
 LCS Acceptance Criteria: 95% - 105%

Verified by: _____
Date: _____

Saturated Hydrocarbon Analysis

Initial Calibration

Response Factor Report FID 9

Method Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Method File : HC9010920F_DRO.M
 Title : FID Forensics
 Last Update : Wed Jun 03 16:05:02 2020
 Response Via : Initial Calibration

Calibration Files

1 =F901092016.D 10 =F901092018.D 50 =F901092020.D 100 =F901092022.D 200 =F901092024.D
 500 =F901092026.D

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.900	0.819	0.824	0.719	0.805		0.813	7.92
3) t n-Nonane (C9)	0.941	0.857	0.874	0.768	0.850		0.858	7.20
4) t n-Decane (C10)	0.969	0.881	0.905	0.801	0.883		0.888	6.77
5) t n-Undecane (C11)	0.972	0.893	0.925	0.818	0.901		0.902	6.24
6) t n-Dodecane (C12)	0.994	0.906	0.937	0.830	0.914		0.916	6.47
7) t n-Tridecane (...)	0.985	0.913	0.943	0.835	0.922		0.920	5.97
8) t 1380	1.006	0.928	0.959	0.848	0.937		0.936	6.14
9) t n-Tetradecane...	1.006	0.928	0.959	0.848	0.937		0.936	6.14
10) t 1470	1.012	0.929	0.960	0.849	0.939		0.938	6.28
11) t n-Pentadecane...	1.012	0.929	0.960	0.849	0.939		0.938	6.28
12) t n-Hexadecane ...	1.010	0.940	0.969	0.858	0.949		0.945	5.88
13) t 1650	1.013	0.935	0.966	0.858	0.957		0.946	6.01
14) t n-Heptadecane...	1.013	0.935	0.966	0.858	0.957		0.946	6.01
15) t Pristane	1.038	0.957	0.985	0.869	0.951		0.960	6.42
16) t n-Octadecane ...	1.013	0.946	0.977	0.865	0.963		0.953	5.76
17) t Phytane	0.935	0.861	0.883	0.783	0.878		0.868	6.36
18) t n-Nonadecane ...	1.015	0.947	0.975	0.859	0.955		0.950	6.04
19) s ortho-terphenyl	1.130	1.023	1.078	0.937	1.054	1.027	1.042	6.20
20) t n-Eicosane (C20)	1.027	0.950	0.977	0.861	0.958		0.955	6.32
21) t n-Heneicosane...	1.044	0.965	0.992	0.876	0.970		0.969	6.30
22) t n-Docosane (C22)	1.033	0.965	0.993	0.876	0.969		0.967	5.98
23) t n-Tricosane (...)	1.034	0.972	0.995	0.880	0.973		0.971	5.87
24) s d50-Tetracosane	0.905	0.822	0.863	0.748	0.838	0.824	0.833	6.27
25) t n-Tetracosane...	1.066	0.978	1.006	0.883	0.974		0.981	6.74
26) t n-Pentacosane...	1.038	0.962	0.989	0.871	0.962		0.964	6.28
27) t n-Hexacosane ...	1.036	0.970	0.996	0.876	0.967		0.969	6.05
28) t n-Heptacosane...	1.019	0.946	0.969	0.850	0.938		0.944	6.49
29) t n-Octacosane ...	1.042	0.978	1.002	0.880	0.968		0.974	6.13
30) t n-Nonacosane ...	1.047	0.972	0.995	0.871	0.962		0.969	6.61
31) t n-Triacontane...	1.027	0.959	0.982	0.857	0.950		0.955	6.52

Response Factor Report FID 9

Method Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Method File : HC9010920F_DRO.M
 Title : FID Forensics
 Last Update : Wed Jun 03 16:05:02 2020
 Response Via : Initial Calibration

Calibration Files

1 =F901092016.D 10 =F901092018.D 50 =F901092020.D 100 =F901092022.D 200 =F901092024.D
 500 =F901092026.D

Compound	1	10	50	100	200	500	Avg	%RSD
32) t n-Hentriacont...	1.037	0.965	0.984	0.858	0.958		0.961	6.78
33) t n-Dotriaconta...	1.013	0.950	0.968	0.847	0.949		0.945	6.42
34) t n-Tritriaconta...	0.997	0.938	0.959	0.838	0.943		0.935	6.31
35) t n-tettratriaco...	1.037	0.971	0.993	0.869	0.984		0.971	6.39
36) t n-Pentatriaco...	1.011	0.941	0.960	0.842	0.955		0.942	6.55
37) t n-Hexatriacon...	1.041	1.001	1.019	0.897	1.017		0.995	5.70
38) t n-Heptatriaco...	0.998	0.939	0.960	0.846	0.959		0.941	6.05
39) t n-Octatriacon...	1.071	1.019	1.041	0.921	1.038		1.018	5.64
40) t n-Nonatriacon...	1.055	0.968	0.990	0.872	0.978		0.972	6.75
41) t n-Tetracontan...	1.055	0.968	0.990	0.872	0.978		0.972	6.75
42) h C9-C44 Total ...	1.017	0.945	0.971	0.855	0.951		0.948	6.24
43) h C9-C40 Total ...	1.017	0.945	0.971	0.855	0.951		0.948	6.24
44) h C10-C28 DRO	1.017	0.942	0.970	0.857	0.947		0.947	6.18
45) h >C12-C44 Tota...	1.017	0.945	0.971	0.855	0.951		0.948	6.24
46) h >C12-C40 Tota...	1.017	0.945	0.971	0.855	0.951		0.948	6.24
47) h C28-C40 ORO	1.031	0.967	0.988	0.867	0.972		0.965	6.27
48) h Total Resolve...	1.017	0.945	0.971	0.855	0.951		0.948	6.24

 (#) = Out of Range

rfupdate

RSF Update Summary Report

Method Path.....: O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Method File.....: HC9010920F_DRO.M
Method Title.....: FID Forensics
Last Update.....: Tue Jun 02 14:19:32 2020

Generating Average Response Factor For: C9-C44 Total Petroleum Hydrocarbons

No	Compound	Level	Conc	Response
1	n-Nonane (C9)	1	1.00000	1035826.959
2	n-Decane (C10)	1	1.00000	1066859.414
3	n-Undecane (C11)	1	1.00000	1070621.386
4	n-Dodecane (C12)	1	1.00000	1094761.745
5	n-Tridecane (C13)	1	1.00000	1085068.600
6	n-Tetradecane (C14)	1	1.00000	1107690.057
7	n-Pentadecane (C15)	1	1.00000	1113910.178
8	n-Hexadecane (C16)	1	1.00000	1112460.949
9	n-Heptadecane (C17)	1	1.00000	1115306.208
10	Pristane	1	1.00000	1143381.978
11	n-Octadecane (C18)	1	1.00000	1115887.857
12	Phytane	1	1.00000	1029673.366
13	n-Nonadecane (C19)	1	1.00000	1117353.124
14	n-Eicosane (C20)	1	1.00000	1130883.706
15	n-Heneicosane (C21)	1	1.00000	1149551.232
16	n-Docosane (C22)	1	1.00000	1137495.912
17	n-Tricosane (C23)	1	1.00000	1139025.616
18	n-Tetracosane (C24)	1	1.00000	1173400.736
19	n-Pentacosane (C25)	1	1.00000	1142413.030
20	n-Hexacosane (C26)	1	1.00000	1140176.459
21	n-Heptacosane (C27)	1	1.00000	1121720.055
22	n-Octacosane (C28)	1	1.00000	1147171.670
23	n-Nonacosane (C29)	1	1.00000	1152771.952
24	n-Triacontane (C30)	1	1.00000	1130873.608
25	n-Hentriacontane (C31)	1	1.00000	1142338.672
26	n-Dotriacontane (C32)	1	1.00000	1114879.725
27	n-Tritriacontane (C33)	1	1.00000	1097667.607
28	n-tetratriacontane (C34)	1	1.00000	1141799.847
29	n-Pentatriacontane (C35)	1	1.00000	1113229.029
30	n-Hexatriacontane (C36)	1	1.00000	1145811.295
31	n-Heptatriacontane (C37)	1	1.00000	1098693.464
32	n-Octatriacontane (C38)	1	1.00000	1179696.514
33	n-Tetracontane (C40)	1	1.00000	1161608.152
Avg RSF For: C9-C44 Total Petroleum			1.00000	1120303.336
1	n-Nonane (C9)	2	10.00000	9867636.467
2	n-Decane (C10)	2	10.00000	10142730.532
3	n-Undecane (C11)	2	10.00000	10282545.016
4	n-Dodecane (C12)	2	10.00000	10439232.700
5	n-Tridecane (C13)	2	10.00000	10515523.305
6	n-Tetradecane (C14)	2	10.00000	10684890.749
7	n-Pentadecane (C15)	2	10.00000	10697691.084
8	n-Hexadecane (C16)	2	10.00000	10826336.661
9	n-Heptadecane (C17)	2	10.00000	10764547.097

		rfupdate		
10	Pristane	2	10.00000	11016777.652
11	n-Octadecane (C18)	2	10.00000	10899491.394
12	Phytane	2	10.00000	9911928.774
13	n-Nonadecane (C19)	2	10.00000	10905867.116
14	n-Eicosane (C20)	2	10.00000	10942079.868
15	n-Heneicosane (C21)	2	10.00000	11109547.910
16	n-Docosane (C22)	2	10.00000	11111949.992
17	n-Tricosane (C23)	2	10.00000	11192114.388
18	n-Tetracosane (C24)	2	10.00000	11263939.212
19	n-Pentacosane (C25)	2	10.00000	11081586.948
20	n-Hexacosane (C26)	2	10.00000	11176108.171
21	n-Heptacosane (C27)	2	10.00000	10891906.921
22	n-Octacosane (C28)	2	10.00000	11262465.452
23	n-Nonacosane (C29)	2	10.00000	11198796.343
24	n-Triacontane (C30)	2	10.00000	11050248.054
25	n-Hentriacontane (C31)	2	10.00000	11118844.544
26	n-Dotriacontane (C32)	2	10.00000	10942577.159
27	n-Tritriacontane (C33)	2	10.00000	10809041.355
28	n-tetratriacontane (C34)	2	10.00000	11186001.377
29	n-Pentatriacontane (C35)	2	10.00000	10838019.960
30	n-Hexatriacontane (C36)	2	10.00000	11525887.792
31	n-Heptatriacontane (C37)	2	10.00000	10812388.111
32	n-Octatriacontane (C38)	2	10.00000	11738529.355
33	n-Tetracontane (C40)	2	10.00000	11148311.555

Avg RSF For: C9-C44 Total Petroleum			10.00000	10889561.910

1	n-Nonane (C9)	3	50.00000	48815651.432
2	n-Decane (C10)	3	50.00000	50554141.044
3	n-Undecane (C11)	3	50.00000	51652909.200
4	n-Dodecane (C12)	3	50.00000	52336805.370
5	n-Tridecane (C13)	3	50.00000	52662399.389
6	n-Tetradecane (C14)	3	50.00000	53538624.686
7	n-Pentadecane (C15)	3	50.00000	53629833.302
8	n-Hexadecane (C16)	3	50.00000	54114860.116
9	n-Heptadecane (C17)	3	50.00000	53935128.337
10	Pristane	3	50.00000	55022450.105
11	n-Octadecane (C18)	3	50.00000	54572502.846
12	Phytane	3	50.00000	49344658.446
13	n-Nonadecane (C19)	3	50.00000	54446530.072
14	n-Eicosane (C20)	3	50.00000	54582134.371
15	n-Heneicosane (C21)	3	50.00000	55428280.872
16	n-Docosane (C22)	3	50.00000	55446600.460
17	n-Tricosane (C23)	3	50.00000	55577853.743
18	n-Tetracosane (C24)	3	50.00000	56211438.448
19	n-Pentacosane (C25)	3	50.00000	55256727.740
20	n-Hexacosane (C26)	3	50.00000	55615240.081
21	n-Heptacosane (C27)	3	50.00000	54105652.176
22	n-Octacosane (C28)	3	50.00000	55954661.490
23	n-Nonacosane (C29)	3	50.00000	55561662.773
24	n-Triacontane (C30)	3	50.00000	54827375.159
25	n-Hentriacontane (C31)	3	50.00000	54979238.860
26	n-Dotriacontane (C32)	3	50.00000	54085854.184
27	n-Tritriacontane (C33)	3	50.00000	53550165.036
28	n-tetratriacontane (C34)	3	50.00000	55441401.336
29	n-Pentatriacontane (C35)	3	50.00000	53595139.478
30	n-Hexatriacontane (C36)	3	50.00000	56937669.125
31	n-Heptatriacontane (C37)	3	50.00000	53648111.791
32	n-Octatriacontane (C38)	3	50.00000	58154826.953
33	n-Tetracontane (C40)	3	50.00000	55280161.652

Avg RSF For: C9-C44 Total Petroleum			50.00000	54208081.517

rfupdate

1	n-Nonane (C9)	4	100.00000	97929787.874
2	n-Decane (C10)	4	100.00000	102151087.981
3	n-Undecane (C11)	4	100.00000	104258640.088
4	n-Dodecane (C12)	4	100.00000	105826171.390
5	n-Tridecane (C13)	4	100.00000	106473233.529
6	n-Tetradecane (C14)	4	100.00000	108145532.698
7	n-Pentadecane (C15)	4	100.00000	108270395.689
8	n-Hexadecane (C16)	4	100.00000	109448210.764
9	n-Heptadecane (C17)	4	100.00000	109341119.088
10	Pristane	4	100.00000	110774457.118
11	n-Octadecane (C18)	4	100.00000	110345980.187
12	Phytane	4	100.00000	99771955.172
13	n-Nonadecane (C19)	4	100.00000	109481029.836
14	n-Eicosane (C20)	4	100.00000	109759843.160
15	n-Heneicosane (C21)	4	100.00000	111631794.270
16	n-Docosane (C22)	4	100.00000	111661044.382
17	n-Tricosane (C23)	4	100.00000	112145331.658
18	n-Tetracosane (C24)	4	100.00000	112581091.455
19	n-Pentacosane (C25)	4	100.00000	111062063.606
20	n-Hexacosane (C26)	4	100.00000	111728502.708
21	n-Heptacosane (C27)	4	100.00000	108419631.646
22	n-Octacosane (C28)	4	100.00000	112194317.618
23	n-Nonacosane (C29)	4	100.00000	111049955.249
24	n-Triacontane (C30)	4	100.00000	109300058.000
25	n-Hentriacontane (C31)	4	100.00000	109438160.866
26	n-Dotriacontane (C32)	4	100.00000	108014769.546
27	n-Tritriacontane (C33)	4	100.00000	106822304.304
28	n-tetratriacontane (C34)	4	100.00000	110793545.130
29	n-Pentatriacontane (C35)	4	100.00000	107377068.097
30	n-Hexatriacontane (C36)	4	100.00000	114311364.049
31	n-Heptatriacontane (C37)	4	100.00000	107875390.759
32	n-Octatriacontane (C38)	4	100.00000	117429882.009
33	n-Tetracontane (C40)	4	100.00000	111196434.464

Avg RSF For: C9-C44 Total Petroleum			100.00000	109000307.709
1	n-Nonane (C9)	5	200.00000	187842743.026
2	n-Decane (C10)	5	200.00000	195101539.888
3	n-Undecane (C11)	5	200.00000	199187760.778
4	n-Dodecane (C12)	5	200.00000	202102796.560
5	n-Tridecane (C13)	5	200.00000	203708893.390
6	n-Tetradecane (C14)	5	200.00000	207168884.255
7	n-Pentadecane (C15)	5	200.00000	207597187.760
8	n-Hexadecane (C16)	5	200.00000	209731196.594
9	n-Heptadecane (C17)	5	200.00000	211537347.668
10	Pristane	5	200.00000	210267741.004
11	n-Octadecane (C18)	5	200.00000	212790132.422
12	Phytane	5	200.00000	194039081.779
13	n-Nonadecane (C19)	5	200.00000	211178866.012
14	n-Eicosane (C20)	5	200.00000	211705683.504
15	n-Heneicosane (C21)	5	200.00000	214459318.823
16	n-Docosane (C22)	5	200.00000	214153680.537
17	n-Tricosane (C23)	5	200.00000	215077596.060
18	n-Tetracosane (C24)	5	200.00000	215172811.770
19	n-Pentacosane (C25)	5	200.00000	212512749.630
20	n-Hexacosane (C26)	5	200.00000	213615648.194
21	n-Heptacosane (C27)	5	200.00000	207227058.490
22	n-Octacosane (C28)	5	200.00000	213995715.597
23	n-Nonacosane (C29)	5	200.00000	212665668.724
24	n-Triacontane (C30)	5	200.00000	209930585.196

				rfupdate		
25	n-Hentriacontane (C31)	5	200.00000	211623819.023		
26	n-Dotriacontane (C32)	5	200.00000	209771718.433		
27	n-Tritriacontane (C33)	5	200.00000	208493047.930		
28	n-tetratriacontane (C34)	5	200.00000	217403349.650		
29	n-Pentatriacontane (C35)	5	200.00000	211165141.187		
30	n-Hexatriacontane (C36)	5	200.00000	224792811.592		
31	n-Heptatriacontane (C37)	5	200.00000	212026528.068		
32	n-Octatriacontane (C38)	5	200.00000	229335185.746		
33	n-Tetracontane (C40)	5	200.00000	216075799.402		

Avg RSF For: C9-C44 Total Petroleum			200.00000	210104790.566		

Generating Average Response Factor For: C10-C28 DRO

No	Compound	Level	Conc	Response
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1	n-Decane (C10)	1	1.00000	1066859.414		
2	n-Undecane (C11)	1	1.00000	1070621.386		
3	n-Dodecane (C12)	1	1.00000	1094761.745		
4	n-Tridecane (C13)	1	1.00000	1085068.600		
5	n-Tetradecane (C14)	1	1.00000	1107690.057		
6	n-Pentadecane (C15)	1	1.00000	1113910.178		
7	n-Hexadecane (C16)	1	1.00000	1112460.949		
8	n-Heptadecane (C17)	1	1.00000	1115306.208		
9	n-Octadecane (C18)	1	1.00000	1115887.857		
10	n-Nonadecane (C19)	1	1.00000	1117353.124		
11	n-Eicosane (C20)	1	1.00000	1130883.706		
12	n-Heneicosane (C21)	1	1.00000	1149551.232		
13	n-Docosane (C22)	1	1.00000	1137495.912		
14	n-Tricosane (C23)	1	1.00000	1139025.616		
15	n-Tetracosane (C24)	1	1.00000	1173400.736		
16	n-Pentacosane (C25)	1	1.00000	1142413.030		
17	n-Hexacosane (C26)	1	1.00000	1140176.459		
18	n-Heptacosane (C27)	1	1.00000	1121720.055		
19	n-Octacosane (C28)	1	1.00000	1147171.670		

Avg RSF For: C10-C28 DRO			1.00000	1120092.523		

1	n-Decane (C10)	2	10.00000	10142730.532		
2	n-Undecane (C11)	2	10.00000	10282545.016		
3	n-Dodecane (C12)	2	10.00000	10439232.700		
4	n-Tridecane (C13)	2	10.00000	10515523.305		
5	n-Tetradecane (C14)	2	10.00000	10684890.749		
6	n-Pentadecane (C15)	2	10.00000	10697691.084		
7	n-Hexadecane (C16)	2	10.00000	10826336.661		
8	n-Heptadecane (C17)	2	10.00000	10764547.097		
9	n-Octadecane (C18)	2	10.00000	10899491.394		
10	n-Nonadecane (C19)	2	10.00000	10905867.116		
11	n-Eicosane (C20)	2	10.00000	10942079.868		
12	n-Heneicosane (C21)	2	10.00000	11109547.910		
13	n-Docosane (C22)	2	10.00000	11111949.992		
14	n-Tricosane (C23)	2	10.00000	11192114.388		
15	n-Tetracosane (C24)	2	10.00000	11263939.212		
16	n-Pentacosane (C25)	2	10.00000	11081586.948		
17	n-Hexacosane (C26)	2	10.00000	11176108.171		
18	n-Heptacosane (C27)	2	10.00000	10891906.921		
19	n-Octacosane (C28)	2	10.00000	11262465.452		

Avg RSF For: C10-C28 DRO			10.00000	10852134.448		

rfupdate

1	n-Decane (C10)	3	50.00000	50554141.044
2	n-Undecane (C11)	3	50.00000	51652909.200
3	n-Dodecane (C12)	3	50.00000	52336805.370
4	n-Tridecane (C13)	3	50.00000	52662399.389
5	n-Tetradecane (C14)	3	50.00000	53538624.686
6	n-Pentadecane (C15)	3	50.00000	53629833.302
7	n-Hexadecane (C16)	3	50.00000	54114860.116
8	n-Heptadecane (C17)	3	50.00000	53935128.337
9	n-Octadecane (C18)	3	50.00000	54572502.846
10	n-Nonadecane (C19)	3	50.00000	54446530.072
11	n-Eicosane (C20)	3	50.00000	54582134.371
12	n-Heneicosane (C21)	3	50.00000	55428280.872
13	n-Docosane (C22)	3	50.00000	55446600.460
14	n-Tricosane (C23)	3	50.00000	55577853.743
15	n-Tetracosane (C24)	3	50.00000	56211438.448
16	n-Pentacosane (C25)	3	50.00000	55256727.740
17	n-Hexacosane (C26)	3	50.00000	55615240.081
18	n-Heptacosane (C27)	3	50.00000	54105652.176
19	n-Octacosane (C28)	3	50.00000	55954661.490

Avg RSF For: C10-C28 DRO			50.00000	54190648.618

1	n-Decane (C10)	4	100.00000	102151087.981
2	n-Undecane (C11)	4	100.00000	104258640.088
3	n-Dodecane (C12)	4	100.00000	105826171.390
4	n-Tridecane (C13)	4	100.00000	106473233.529
5	n-Tetradecane (C14)	4	100.00000	108145532.698
6	n-Pentadecane (C15)	4	100.00000	108270395.689
7	n-Hexadecane (C16)	4	100.00000	109448210.764
8	n-Heptadecane (C17)	4	100.00000	109341119.088
9	n-Octadecane (C18)	4	100.00000	110345980.187
10	n-Nonadecane (C19)	4	100.00000	109481029.836
11	n-Eicosane (C20)	4	100.00000	109759843.160
12	n-Heneicosane (C21)	4	100.00000	111631794.270
13	n-Docosane (C22)	4	100.00000	111661044.382
14	n-Tricosane (C23)	4	100.00000	112145331.658
15	n-Tetracosane (C24)	4	100.00000	112581091.455
16	n-Pentacosane (C25)	4	100.00000	111062063.606
17	n-Hexacosane (C26)	4	100.00000	111728502.708
18	n-Heptacosane (C27)	4	100.00000	108419631.646
19	n-Octacosane (C28)	4	100.00000	112194317.618

Avg RSF For: C10-C28 DRO			100.00000	109206580.092

1	n-Decane (C10)	5	200.00000	195101539.888
2	n-Undecane (C11)	5	200.00000	199187760.778
3	n-Dodecane (C12)	5	200.00000	202102796.560
4	n-Tridecane (C13)	5	200.00000	203708893.390
5	n-Tetradecane (C14)	5	200.00000	207168884.255
6	n-Pentadecane (C15)	5	200.00000	207597187.760
7	n-Hexadecane (C16)	5	200.00000	209731196.594
8	n-Heptadecane (C17)	5	200.00000	211537347.668
9	n-Octadecane (C18)	5	200.00000	212790132.422
10	n-Nonadecane (C19)	5	200.00000	211178866.012
11	n-Eicosane (C20)	5	200.00000	211705683.504
12	n-Heneicosane (C21)	5	200.00000	214459318.823
13	n-Docosane (C22)	5	200.00000	214153680.537
14	n-Tricosane (C23)	5	200.00000	215077596.060
15	n-Tetracosane (C24)	5	200.00000	215172811.770

		r fupdate	
16	n-Pentacosane (C25)	5	200.00000 212512749.630
17	n-Hexacosane (C26)	5	200.00000 213615648.194
18	n-Heptacosane (C27)	5	200.00000 207227058.490
19	n-Octacosane (C28)	5	200.00000 213995715.597

 Avg RSF For: C10-C28 DRO 200.00000 209369729.891

Generating Average Response Factor For: C28-C40 ORO

No	Compound	Level	Conc	Response
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1	n-Octacosane (C28)	1	1.00000	1147171.670
2	n-Nonacosane (C29)	1	1.00000	1152771.952
3	n-Triacontane (C30)	1	1.00000	1130873.608
4	n-Hentriacontane (C31)	1	1.00000	1142338.672
5	n-Dotriacontane (C32)	1	1.00000	1114879.725
6	n-Tritriacontane (C33)	1	1.00000	1097667.607
7	n-tetratriacontane (C34)	1	1.00000	1141799.847
8	n-Pentatriacontane (C35)	1	1.00000	1113229.029
9	n-Hexatriacontane (C36)	1	1.00000	1145811.295
10	n-Heptatriacontane (C37)	1	1.00000	1098693.464
11	n-Octatriacontane (C38)	1	1.00000	1179696.514
12	n-Tetracontane (C40)	1	1.00000	1161608.152

 Avg RSF For: C28-C40 ORO 1.00000 1135545.128

1	n-Octacosane (C28)	2	10.00000	11262465.452
2	n-Nonacosane (C29)	2	10.00000	11198796.343
3	n-Triacontane (C30)	2	10.00000	11050248.054
4	n-Hentriacontane (C31)	2	10.00000	11118844.544
5	n-Dotriacontane (C32)	2	10.00000	10942577.159
6	n-Tritriacontane (C33)	2	10.00000	10809041.355
7	n-tetratriacontane (C34)	2	10.00000	11186001.377
8	n-Pentatriacontane (C35)	2	10.00000	10838019.960
9	n-Hexatriacontane (C36)	2	10.00000	11525887.792
10	n-Heptatriacontane (C37)	2	10.00000	10812388.111
11	n-Octatriacontane (C38)	2	10.00000	11738529.355
12	n-Tetracontane (C40)	2	10.00000	11148311.555

 Avg RSF For: C28-C40 ORO 10.00000 11135925.921

1	n-Octacosane (C28)	3	50.00000	55954661.490
2	n-Nonacosane (C29)	3	50.00000	55561662.773
3	n-Triacontane (C30)	3	50.00000	54827375.159
4	n-Hentriacontane (C31)	3	50.00000	54979238.860
5	n-Dotriacontane (C32)	3	50.00000	54085854.184
6	n-Tritriacontane (C33)	3	50.00000	53550165.036
7	n-tetratriacontane (C34)	3	50.00000	55441401.336
8	n-Pentatriacontane (C35)	3	50.00000	53595139.478
9	n-Hexatriacontane (C36)	3	50.00000	56937669.125
10	n-Heptatriacontane (C37)	3	50.00000	53648111.791
11	n-Octatriacontane (C38)	3	50.00000	58154826.953
12	n-Tetracontane (C40)	3	50.00000	55280161.652

 Avg RSF For: C28-C40 ORO 50.00000 55168022.320

1	n-Octacosane (C28)	4	100.00000	112194317.618
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		rfupdate		
2	n-Nonacosane (C29)	4	100.00000	111049955.249
3	n-Triacontane (C30)	4	100.00000	109300058.000
4	n-Hentriacontane (C31)	4	100.00000	109438160.866
5	n-Dotriacontane (C32)	4	100.00000	108014769.546
6	n-Tritriacontane (C33)	4	100.00000	106822304.304
7	n-tetratriacontane (C34)	4	100.00000	110793545.130
8	n-Pentatriacontane (C35)	4	100.00000	107377068.097
9	n-Hexatriacontane (C36)	4	100.00000	114311364.049
10	n-Heptatriacontane (C37)	4	100.00000	107875390.759
11	n-Octatriacontane (C38)	4	100.00000	117429882.009
12	n-Tetracontane (C40)	4	100.00000	111196434.464

Avg RSF For: C28-C40 ORO			100.00000	110483604.174
1	n-Octacosane (C28)	5	200.00000	213995715.597
2	n-Nonacosane (C29)	5	200.00000	212665668.724
3	n-Triacontane (C30)	5	200.00000	209930585.196
4	n-Hentriacontane (C31)	5	200.00000	211623819.023
5	n-Dotriacontane (C32)	5	200.00000	209771718.433
6	n-Tritriacontane (C33)	5	200.00000	208493047.930
7	n-tetratriacontane (C34)	5	200.00000	217403349.650
8	n-Pentatriacontane (C35)	5	200.00000	211165141.187
9	n-Hexatriacontane (C36)	5	200.00000	224792811.592
10	n-Heptatriacontane (C37)	5	200.00000	212026528.068
11	n-Octatriacontane (C38)	5	200.00000	229335185.746
12	n-Tetracontane (C40)	5	200.00000	216075799.402

Avg RSF For: C28-C40 ORO			200.00000	214773280.879

Generating Reference Response Factors

No	Compound	No	Reference Compound
8	1380	9	n-Tetradecane (C14)
10	1470	11	n-Pentadecane (C15)
13	1650	14	n-Heptadecane (C17)
40	n-Nonatriacontane (C39)	41	n-Tetracontane (C40)
43	C9-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydrocarbons
45	>C12-C44 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydrocarbons
46	>C12-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydrocarbons
48	Total Resolved Hydrocarbons	42	C9-C44 Total Petroleum Hydrocarbons

Abacus Response Factor Update Macro Ver. 1.0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092016.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 8:22 pm
 Operator : FID9:WR
 Sample : I901022001F
 Misc : WG1376652,FRBC22
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:24:07 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.415	55052543	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.361	1244629	1.085	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	2.17%#	
24) s d50-Tetracosane	36.010	996815	1.086	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	2.17%#	
Target Compounds				
2) t n-Octane (C8)	5.701	991045	1.107	ug/mL M4
3) t n-Nonane (C9)	7.923	1035827	1.097	ug/mL M4
4) t n-Decane (C10)	10.419	1066859	1.091	ug/mL M4
5) t n-Undecane (C11)	12.933	1070621	1.078	ug/mL M4
6) t n-Dodecane (C12)	15.361	1094762	1.085	ug/mL M4
7) t n-Tridecane (C13)	17.667	1085069	1.072	ug/mL M4
9) t n-Tetradecane (C14)	19.849	1107690	1.075	ug/mL M4
11) t n-Pentadecane (C15)	21.910	1113910	1.079	ug/mL M4
12) t n-Hexadecane (C16)	23.867	1112461	1.069	ug/mL M4
14) t n-Heptadecane (C17)	25.724	1115306	1.071	ug/mL M4
15) t Pristane	25.834	1143382	1.082	ug/mL M4
16) t n-Octadecane (C18)	27.490	1115888	1.063	ug/mL M4
17) t Phytane	27.655	1029673	1.077	ug/mL M4
18) t n-Nonadecane (C19)	29.175	1117353	1.068	ug/mL M4
20) t n-Eicosane (C20)	30.781	1130884	1.076	ug/mL M4
21) t n-Heneicosane (C21)	32.316	1149551	1.077	ug/mL M4
22) t n-Docosane (C22)	33.788	1137496	1.068	ug/mL M4
23) t n-Tricosane (C23)	35.200	1139026	1.066	ug/mL M4
25) t n-Tetracosane (C24)	36.556	1173401	1.086	ug/mL M4
26) t n-Pentacosane (C25)	37.862	1142413	1.076	ug/mL M4
27) t n-Hexacosane (C26)	39.120	1140176	1.069	ug/mL M4
28) t n-Heptacosane (C27)	40.330	1121720	1.079	ug/mL M4
29) t n-Octacosane (C28)	41.500	1147172	1.070	ug/mL M4
30) t n-Nonacosane (C29)	42.631	1152772	1.080	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092016.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 8:22 pm
 Operator : FID9:WR
 Sample : I901022001F
 Misc : WG1376652,FRBC22
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:24:07 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.727	1130874	1.075 ug/mL M4
32) t n-Hentriacontane (C31)	44.790	1142339	1.080 ug/mL M4
33) t n-Dotriacontane (C32)	45.817	1114880	1.071 ug/mL M4
34) t n-Tritriacontane (C33)	46.811	1097668	1.066 ug/mL M4
35) t n-tetratriacontane (C34)	47.845	1141800	1.068 ug/mL M4
36) t n-Pentatriacontane (C35)	49.002	1113229	1.073 ug/mL M4
37) t n-Hexatriacontane (C36)	50.321	1145811	1.046 ug/mL M4
38) t n-Heptatriacontane (C37)	51.851	1098693	1.061 ug/mL M4
39) t n-Octatriacontane (C38)	53.640	1179697	1.052 ug/mL M4
41) t n-Tetracontane (C40)	58.213	1161608	1.085 ug/mL M4

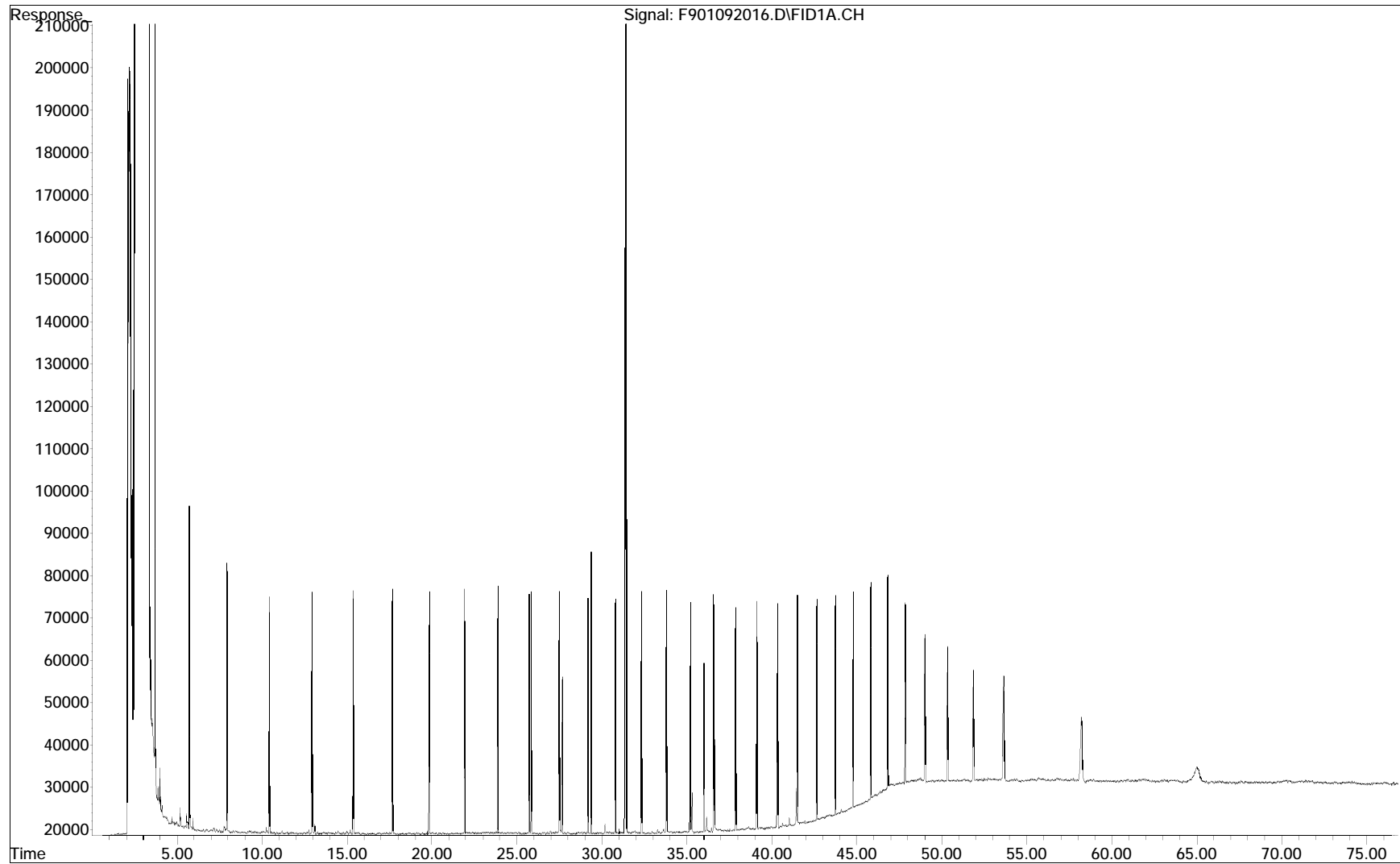
SemiQuant Compounds - Not Calibrated on this Instrument

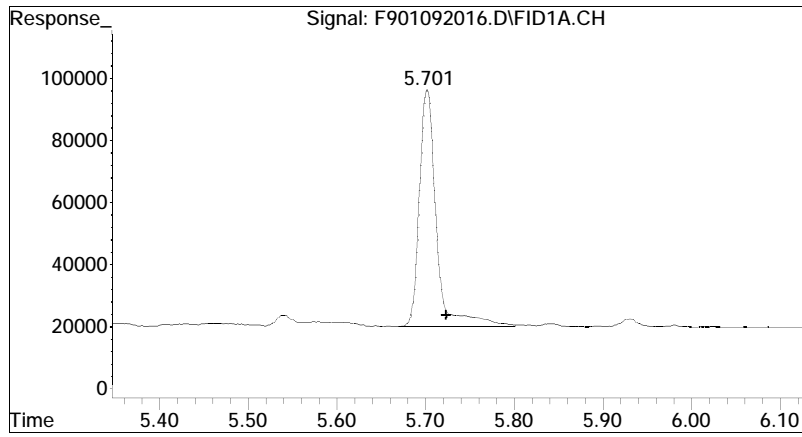
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

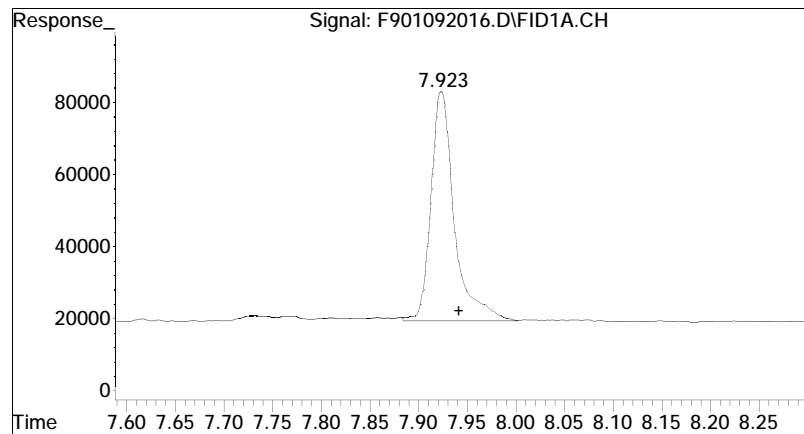
Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092016.D
Operator : FID9:WR
Acquired : 09 Jan 2020 8:22 pm using AcqMethod FID9A.M
Instrument: FID 9
Sample : I901022001F
Misc Info : WG1376652,FRBC22
ALS Vial : 8





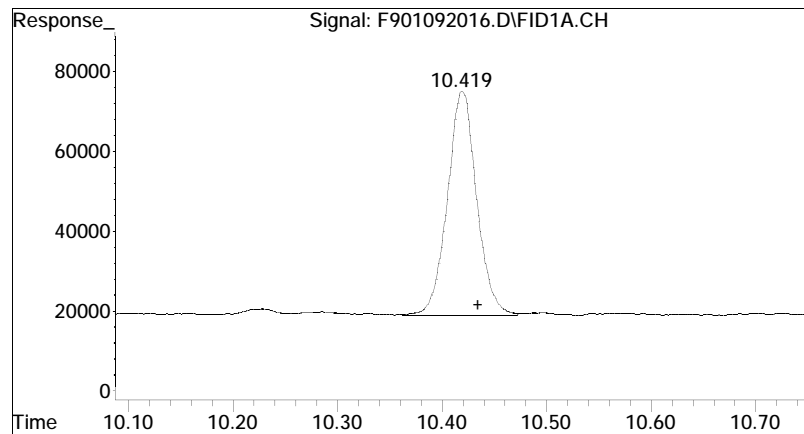
#2 n-Octane (C8)

R.T.: 5.701 min
Delta R.T.: -0.022 min
Response: 991045
Conc: 1.11 ug/mL M4

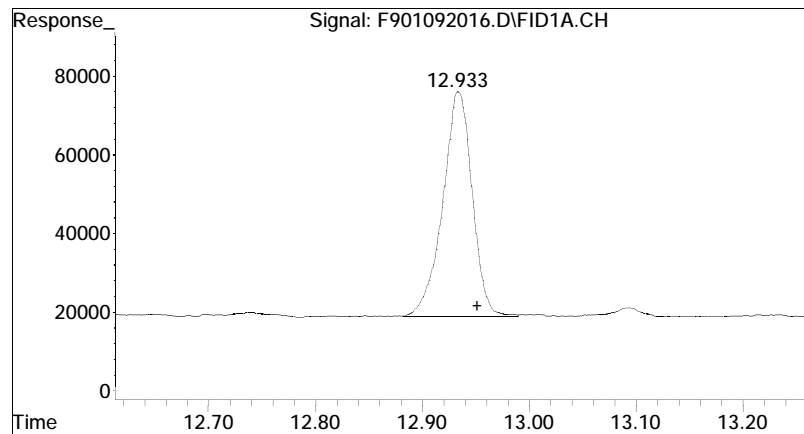


#3 n-Nonane (C9)

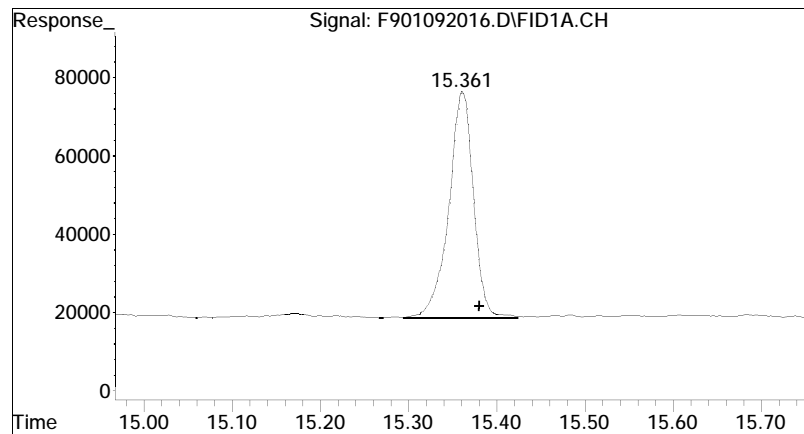
R.T.: 7.923 min
Delta R.T.: -0.018 min
Response: 1035827
Conc: 1.10 ug/mL M4



#4 n-Decane (C10)
R.T.: 10.419 min
Delta R.T.: -0.016 min
Response: 1066859
Conc: 1.09 ug/mL M4

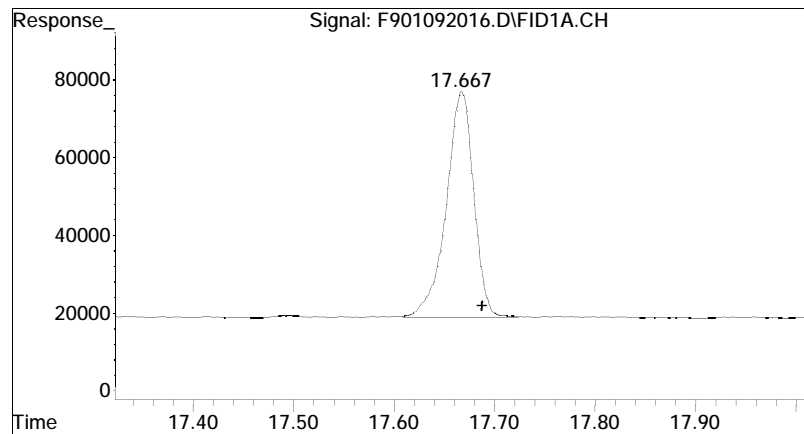


#5 n-Undecane (C11)
R.T.: 12.933 min
Delta R.T.: -0.018 min
Response: 1070621
Conc: 1.08 ug/mL M4



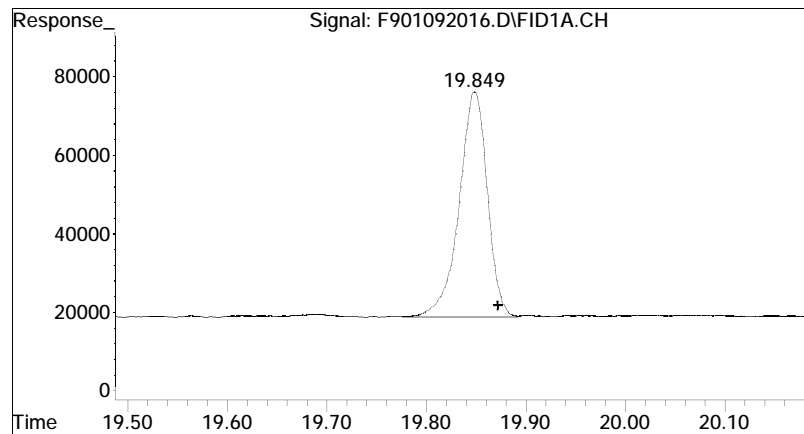
#6 n-Dodecane (C12)

R.T.: 15.361 min
Delta R.T.: -0.019 min
Response: 1094762
Conc: 1.08 ug/mL M4



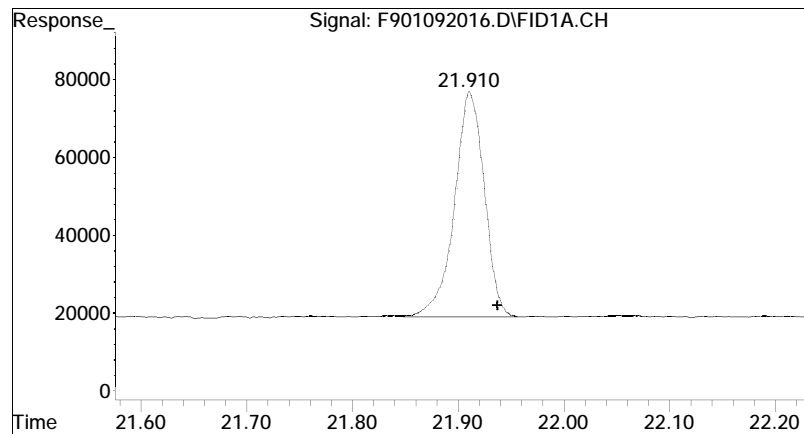
#7 n-Tridecane (C13)

R.T.: 17.667 min
Delta R.T.: -0.020 min
Response: 1085069
Conc: 1.07 ug/mL M4



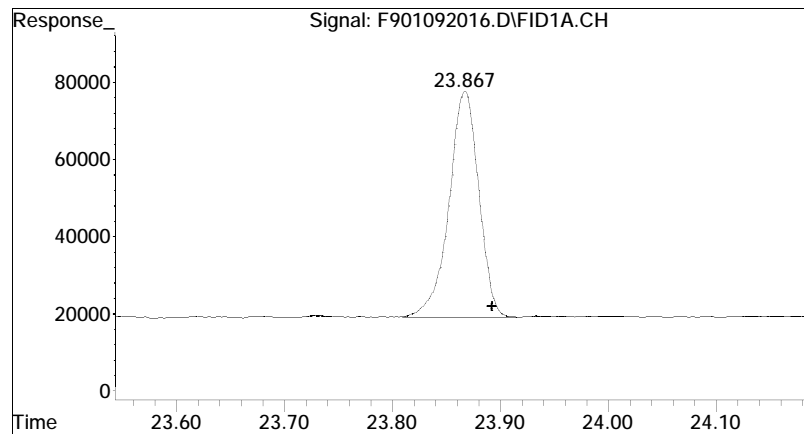
#9 n-Tetradecane (C14)

R.T.: 19.849 min
Delta R.T.: -0.023 min
Response: 1107690
Conc: 1.08 ug/mL M4



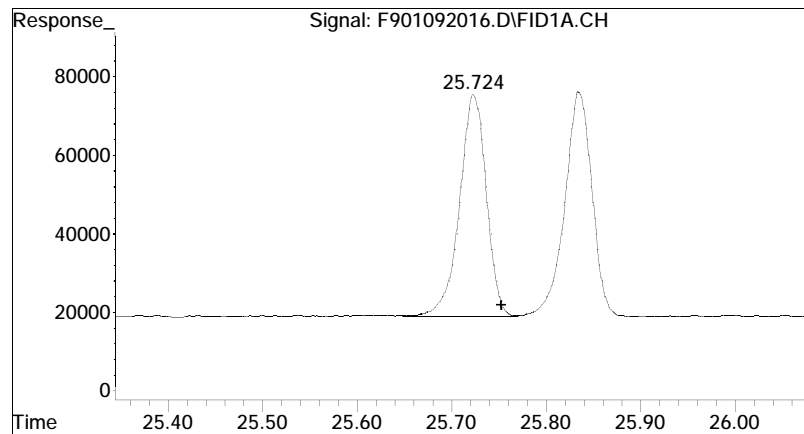
#11 n-Pentadecane (C15)

R.T.: 21.910 min
Delta R.T.: -0.027 min
Response: 1113910
Conc: 1.08 ug/mL M4



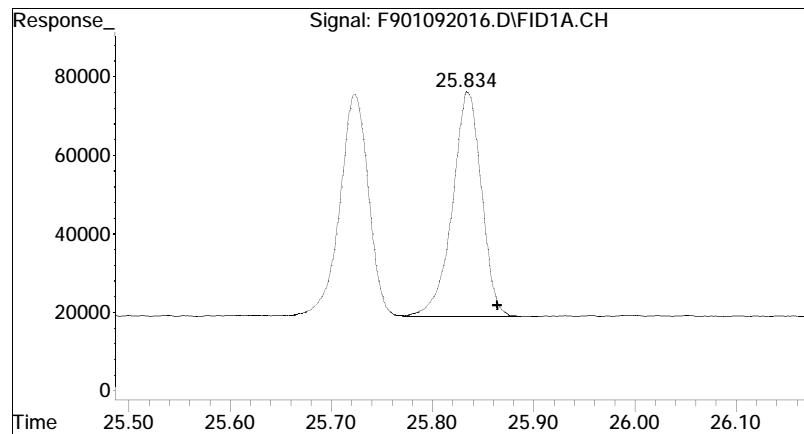
#12 n-Hexadecane (C16)

R.T.: 23.867 min
Delta R.T.: -0.025 min
Response: 1112461
Conc: 1.07 ug/mL M4



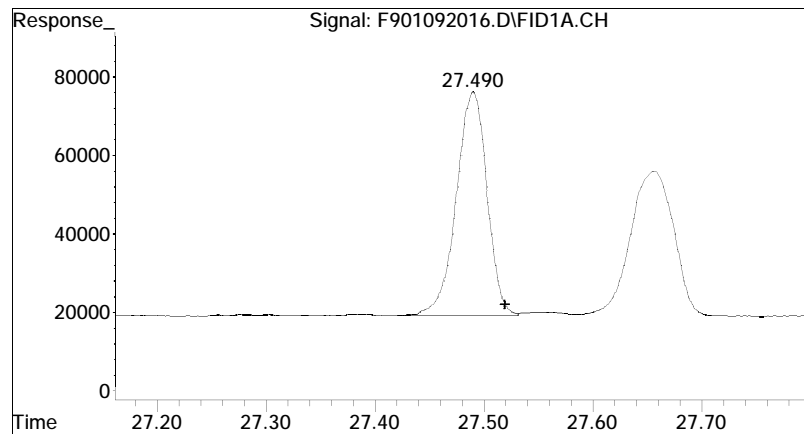
#14 n-Heptadecane (C17)

R.T.: 25.724 min
Delta R.T.: -0.029 min
Response: 1115306
Conc: 1.07 ug/mL M4

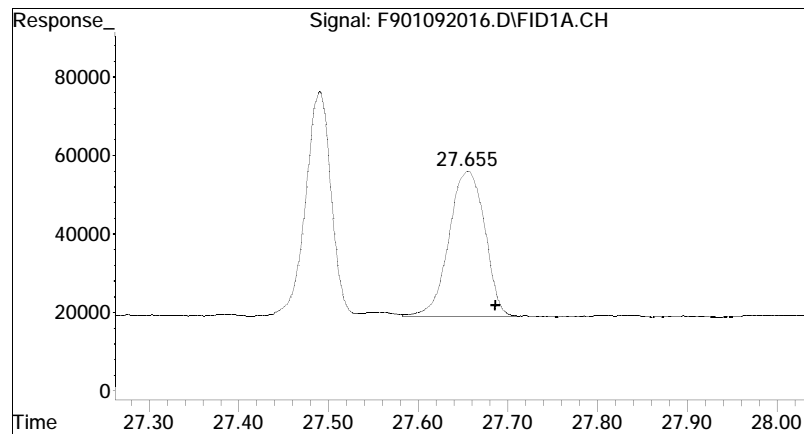


#15 Pristane

R.T.: 25.834 min
Delta R.T.: -0.030 min
Response: 1143382
Conc: 1.08 ug/mL M4

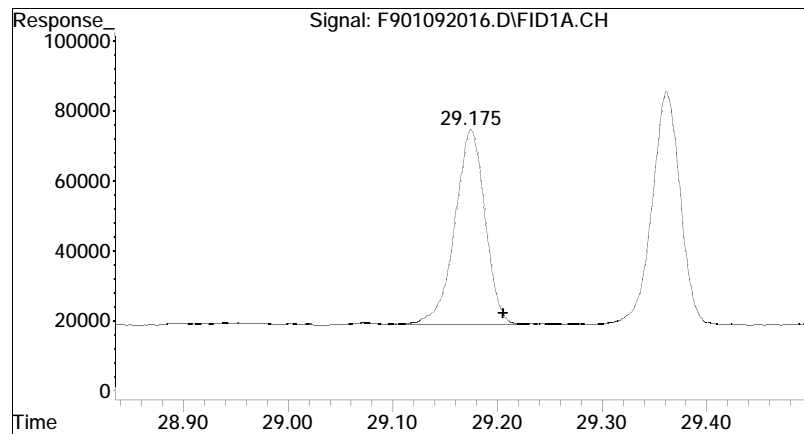


#16 n-Octadecane (C18)
R.T.: 27.490 min
Delta R.T.: -0.030 min
Response: 1115888
Conc: 1.06 ug/mL M4



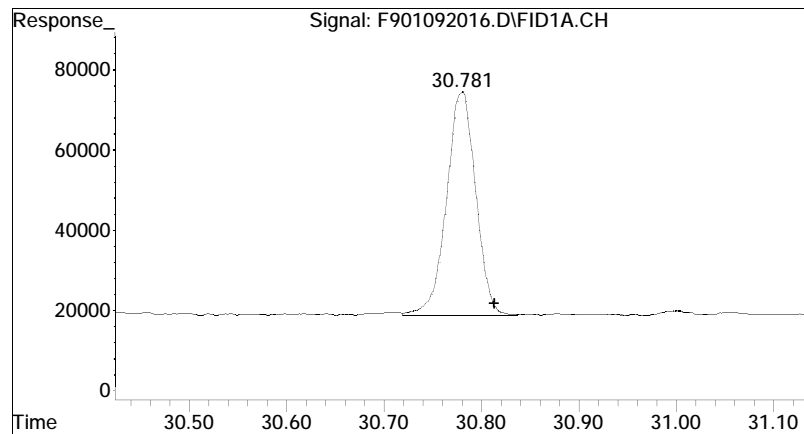
#17 Phytane

R.T.: 27.655 min
Delta R.T.: -0.031 min
Response: 1029673
Conc: 1.08 ug/mL M4



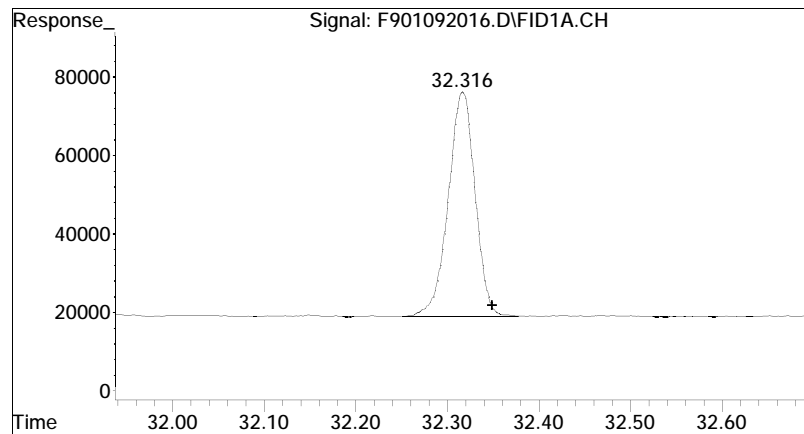
#18 n-Nonadecane (C19)

R.T.: 29.175 min
Delta R.T.: -0.031 min
Response: 1117353
Conc: 1.07 ug/mL M4



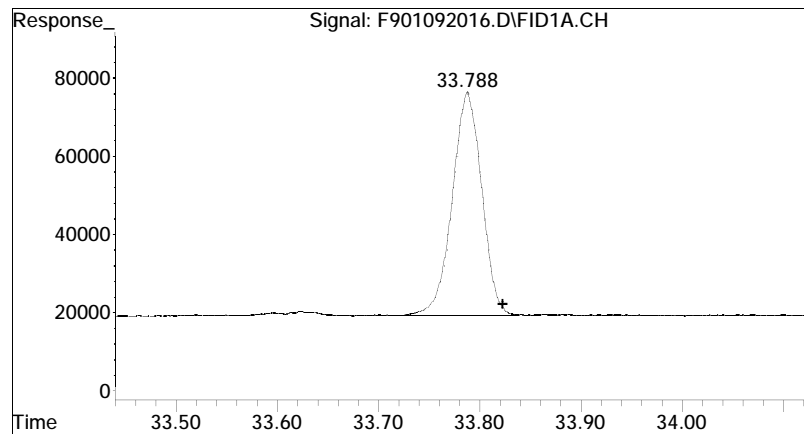
#20 n-Eicosane (C20)

R.T.: 30.781 min
Delta R.T.: -0.032 min
Response: 1130884
Conc: 1.08 ug/mL M4



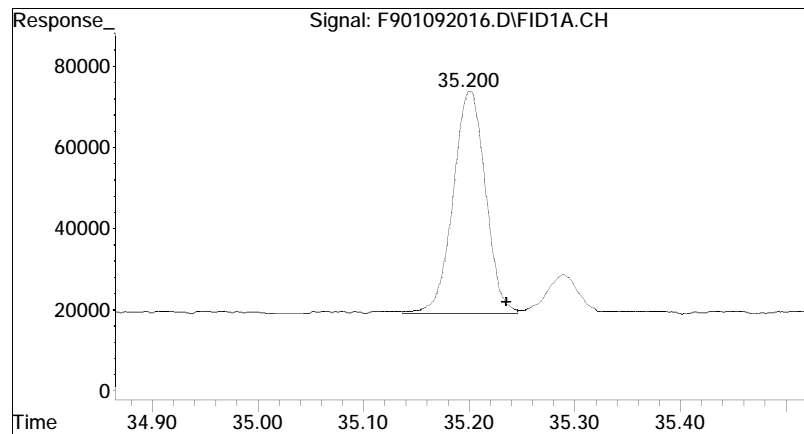
#21 n-Heneicosane (C21)

R.T.: 32.316 min
Delta R.T.: -0.033 min
Response: 1149551
Conc: 1.08 ug/mL M4



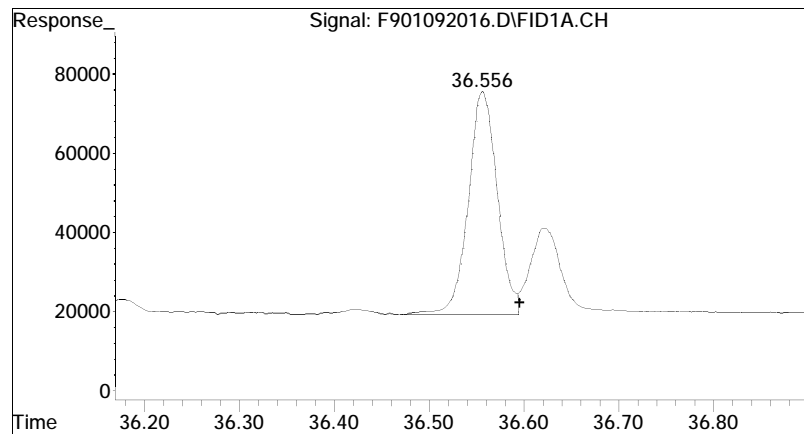
#22 n-Docosane (C22)

R.T.: 33.788 min
Delta R.T.: -0.035 min
Response: 1137496
Conc: 1.07 ug/mL M4



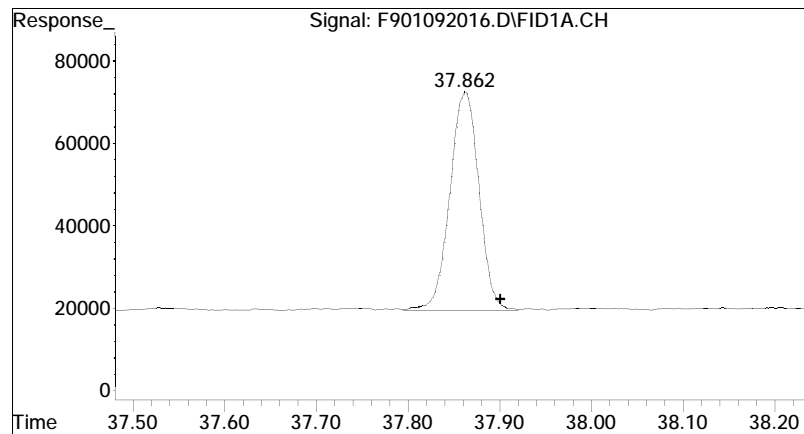
#23 n-Tricosane (C23)

R.T.: 35.200 min
Delta R.T.: -0.036 min
Response: 1139026
Conc: 1.07 ug/mL M4



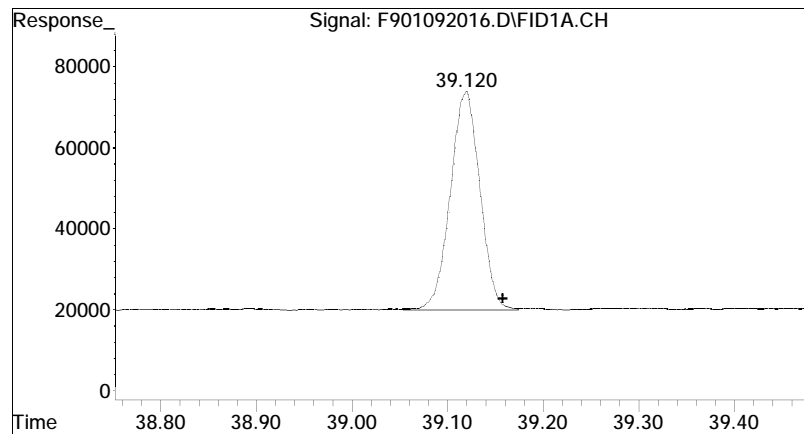
#25 n-Tetracosane (C24)

R.T.: 36.556 min
Delta R.T.: -0.039 min
Response: 1173401
Conc: 1.09 ug/mL M4



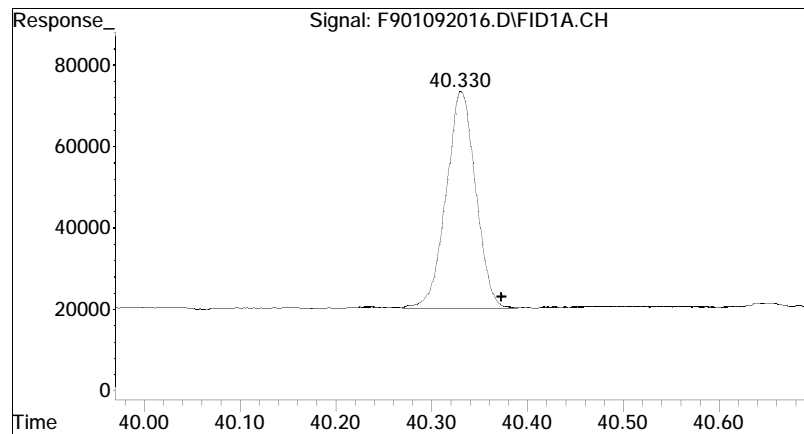
#26 n-Pentacosane (C25)

R.T.: 37.862 min
Delta R.T.: -0.038 min
Response: 1142413
Conc: 1.08 ug/mL M4



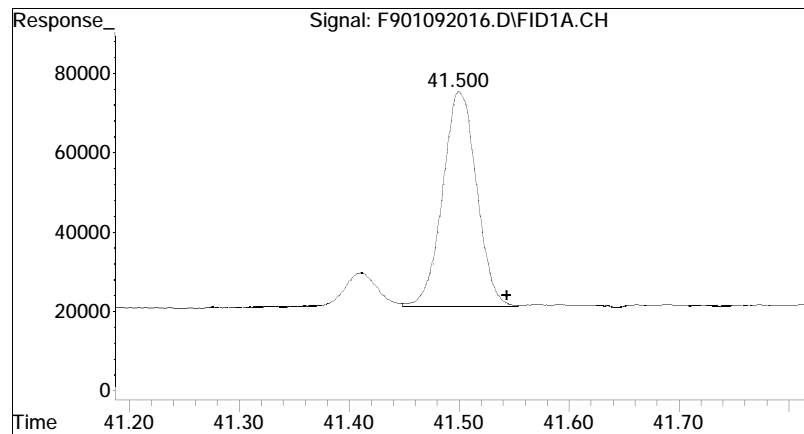
#27 n-Hexacosane (C26)

R.T.: 39.120 min
Delta R.T.: -0.037 min
Response: 1140176
Conc: 1.07 ug/mL M4

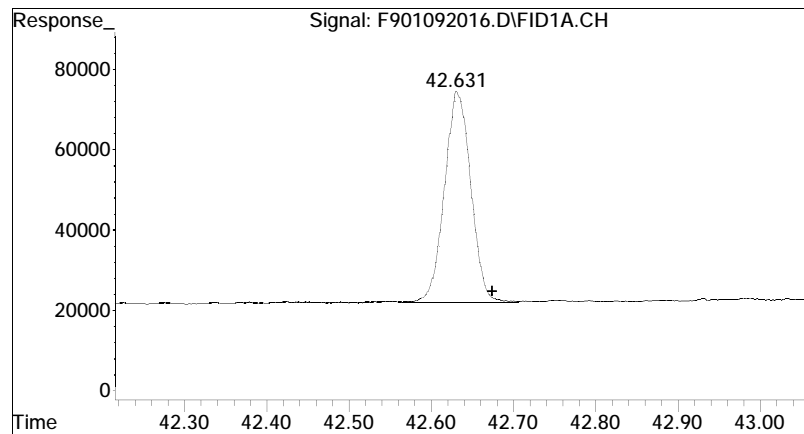


#28 n-Heptacosane (C27)

R.T.: 40.330 min
Delta R.T.: -0.042 min
Response: 1121720
Conc: 1.08 ug/mL M4

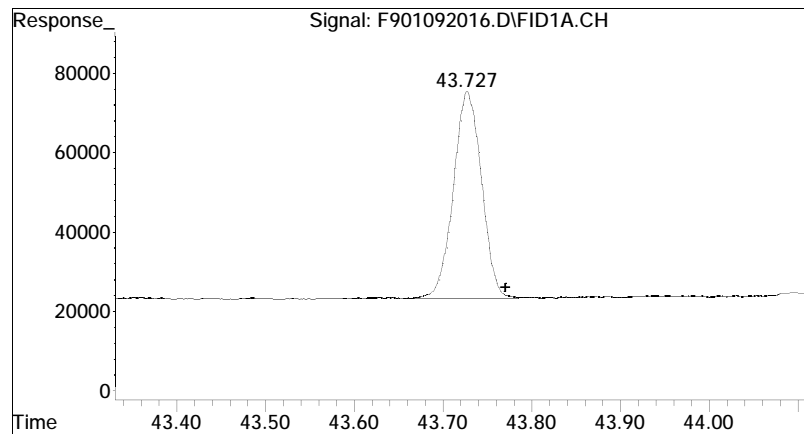


#29 n-Octacosane (C28)
R.T.: 41.500 min
Delta R.T.: -0.044 min
Response: 1147172
Conc: 1.07 ug/mL M4



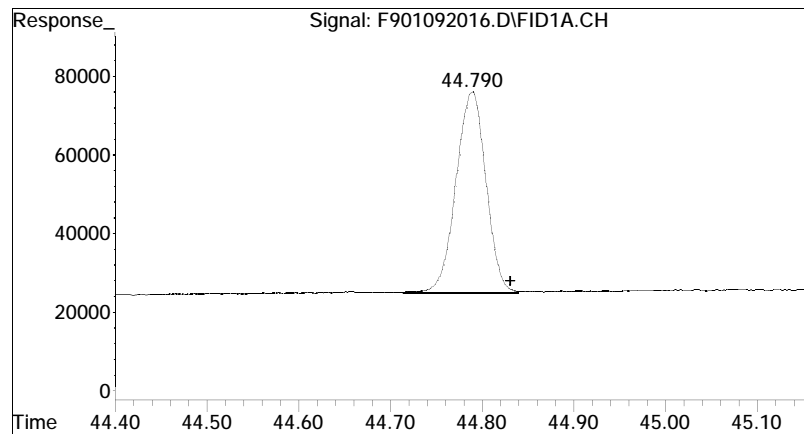
#30 n-Nonacosane (C29)

R.T.: 42.631 min
Delta R.T.: -0.044 min
Response: 1152772
Conc: 1.08 ug/mL M4



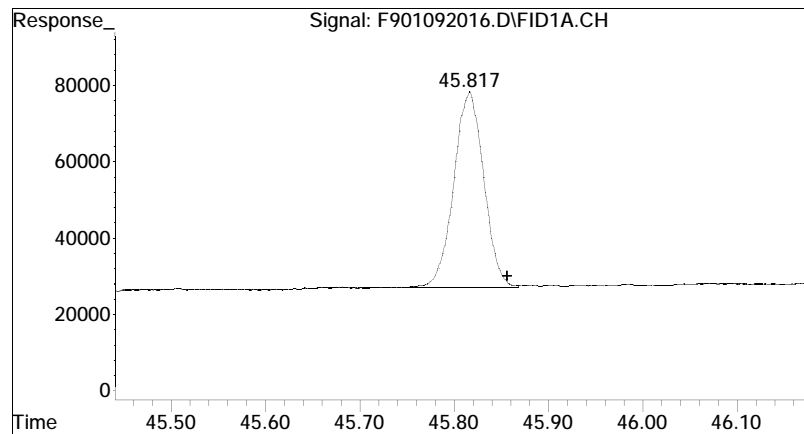
#31 n-Triacontane (C30)

R.T.: 43.727 min
Delta R.T.: -0.044 min
Response: 1130874
Conc: 1.08 ug/mL M4



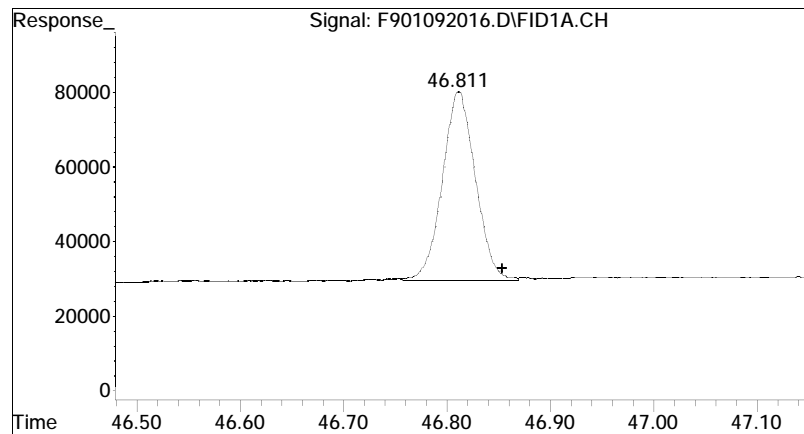
#32 n-Hentriacontane (C31)

R.T.: 44.790 min
Delta R.T.: -0.041 min
Response: 1142339
Conc: 1.08 ug/mL M4



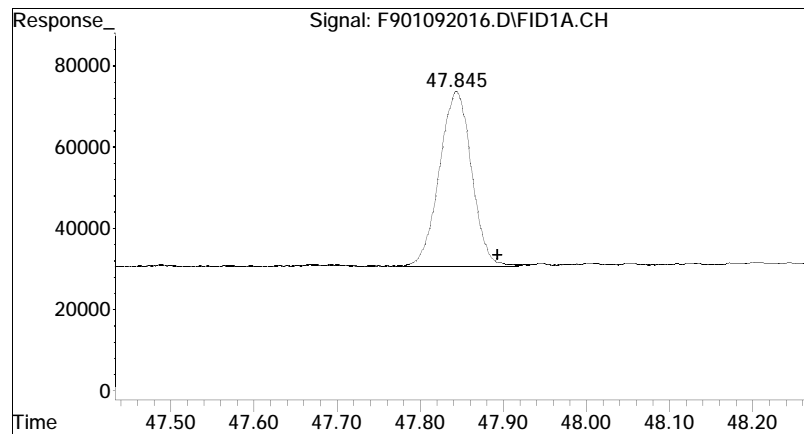
#33 n-Dotriacontane (C32)

R.T.: 45.817 min
Delta R.T.: -0.039 min
Response: 1114880
Conc: 1.07 ug/mL M4



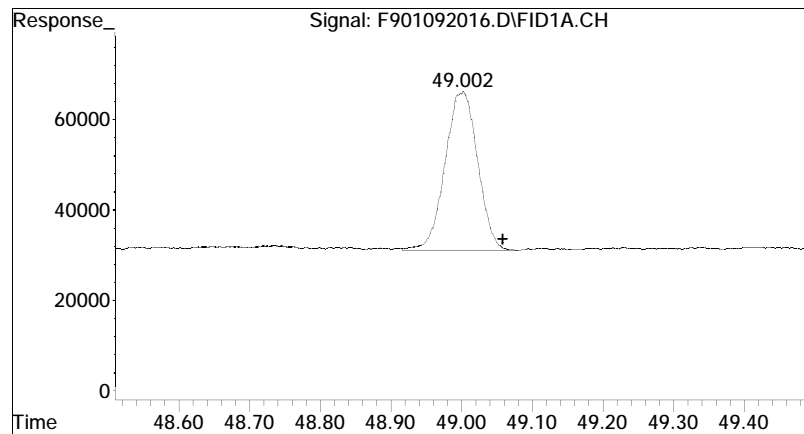
#34 n-Tritriacontane (C33)

R.T.: 46.811 min
Delta R.T.: -0.042 min
Response: 1097668
Conc: 1.07 ug/mL M4



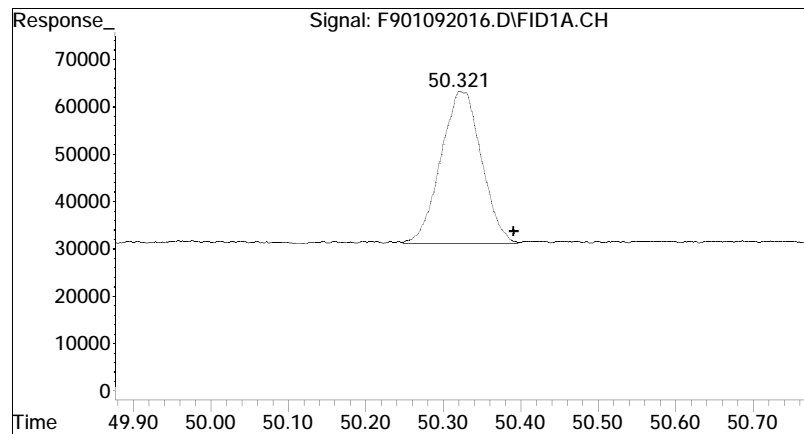
#35 n-tetratriacontane (C34)

R.T.: 47.845 min
Delta R.T.: -0.049 min
Response: 1141800
Conc: 1.07 ug/mL M4



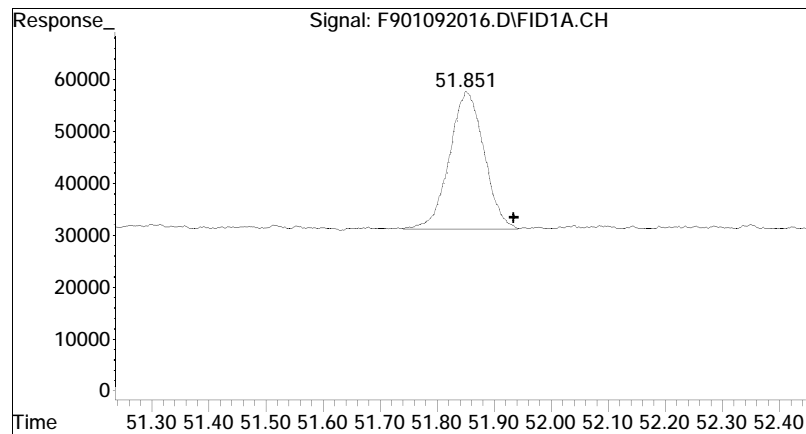
#36 n-Pentatriacontane (C35)

R.T.: 49.002 min
Delta R.T.: -0.056 min
Response: 1113229
Conc: 1.07 ug/mL M4



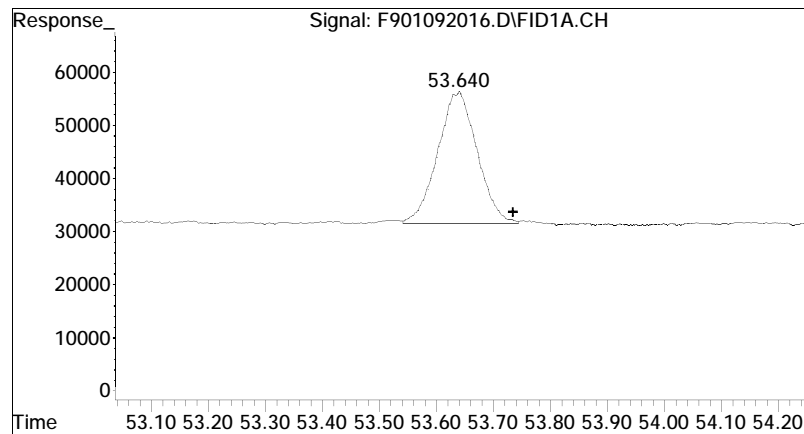
#37 n-Hexatriacontane (C36)

R.T.: 50.321 min
Delta R.T.: -0.070 min
Response: 1145811
Conc: 1.05 ug/mL M4



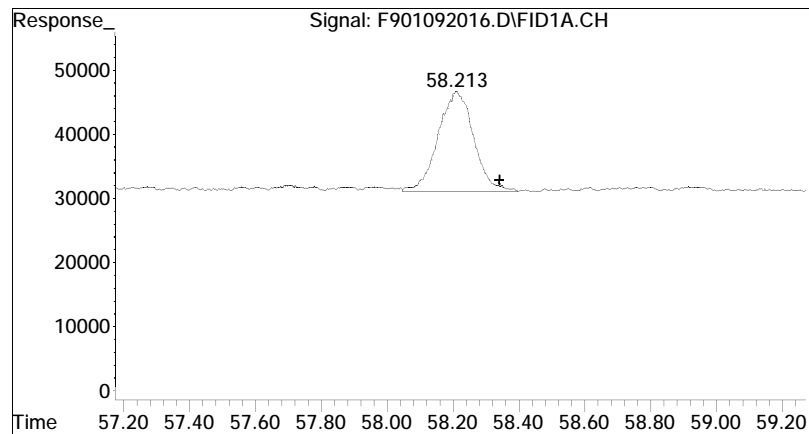
#38 n-Heptatriacontane (C37)

R.T.: 51.851 min
Delta R.T.: -0.083 min
Response: 1098693
Conc: 1.06 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 53.640 min
Delta R.T.: -0.094 min
Response: 1179697
Conc: 1.05 ug/mL M4



#41 n-Tetracontane (C40)

R.T.: 58.213 min

Delta R.T.: -0.128 min

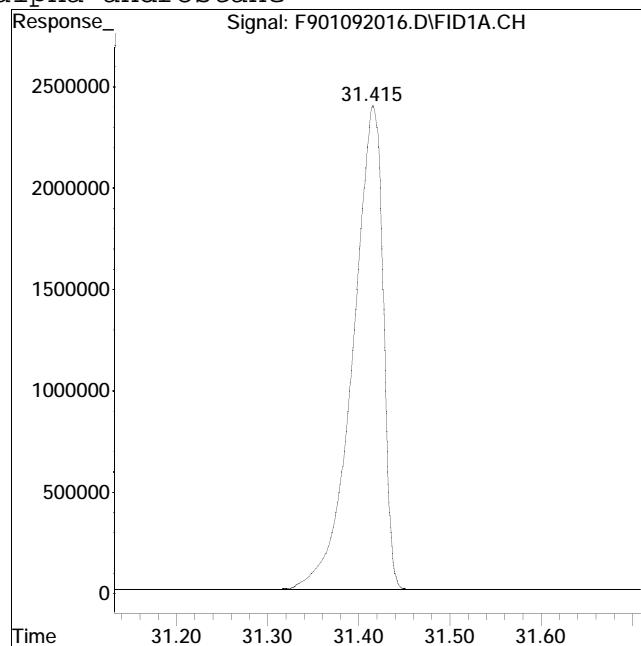
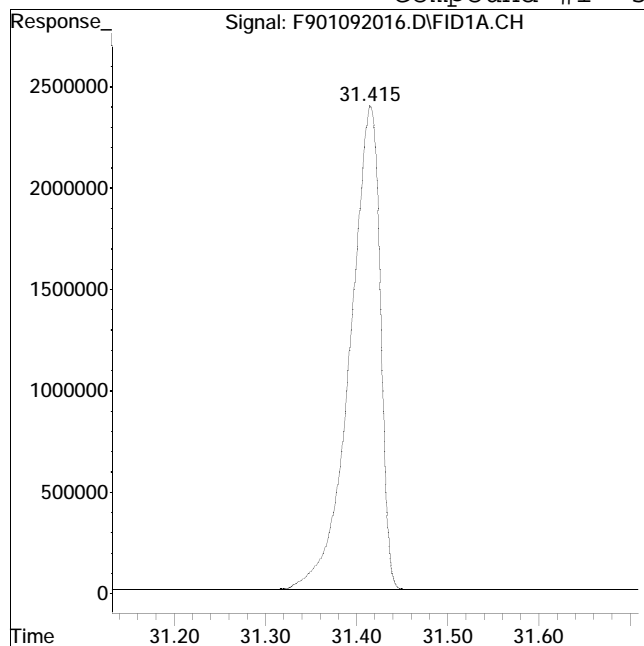
Response: 1161608

Conc: 1.08 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 55065167

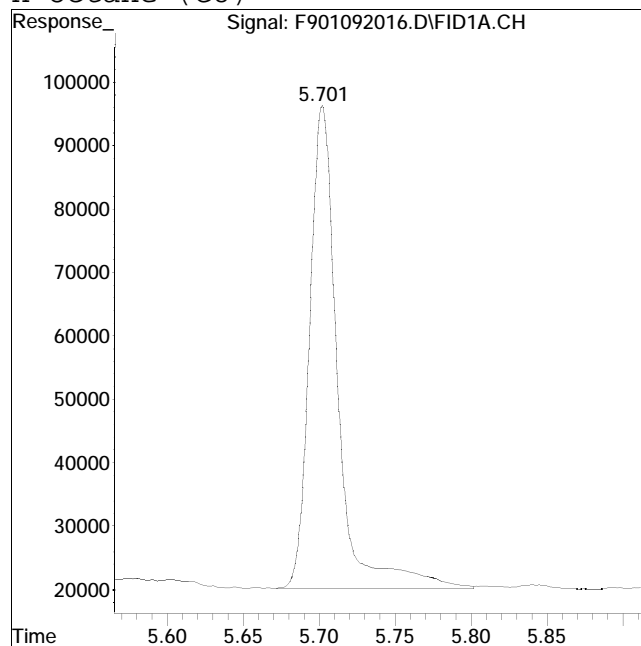
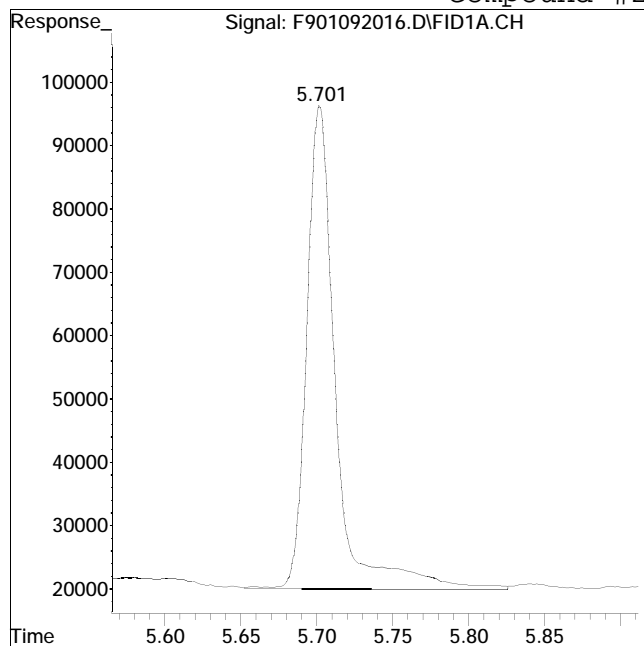
Manual Peak Response = 55052543 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #2: n-Octane (C8)



Original Peak Response = 1019157

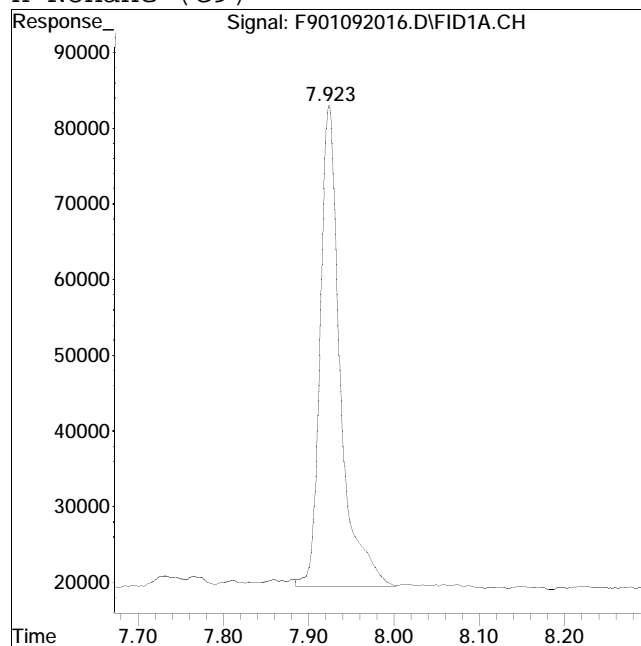
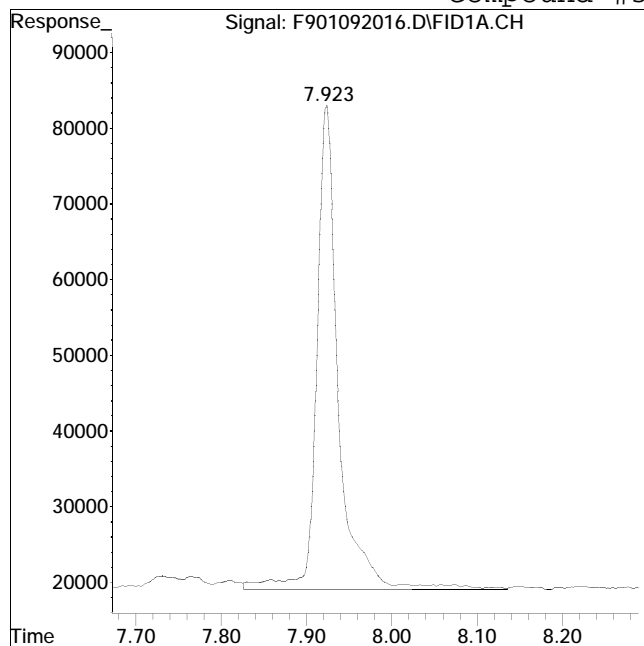
Manual Peak Response = 991045 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 1141859

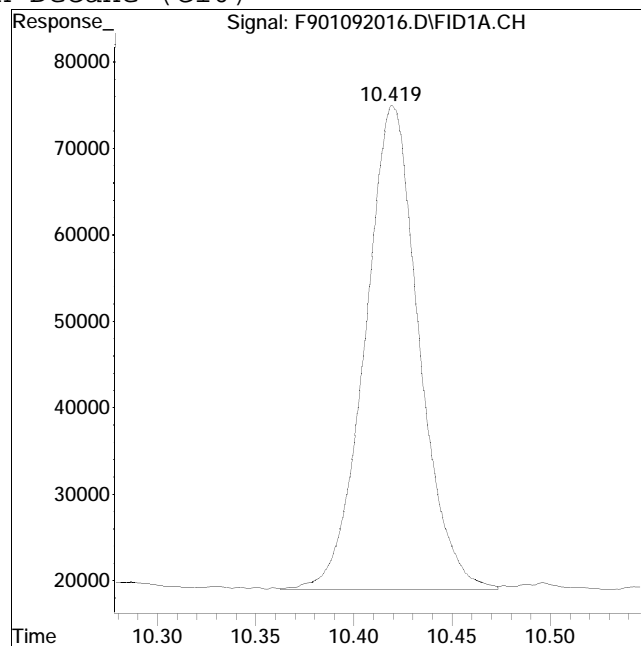
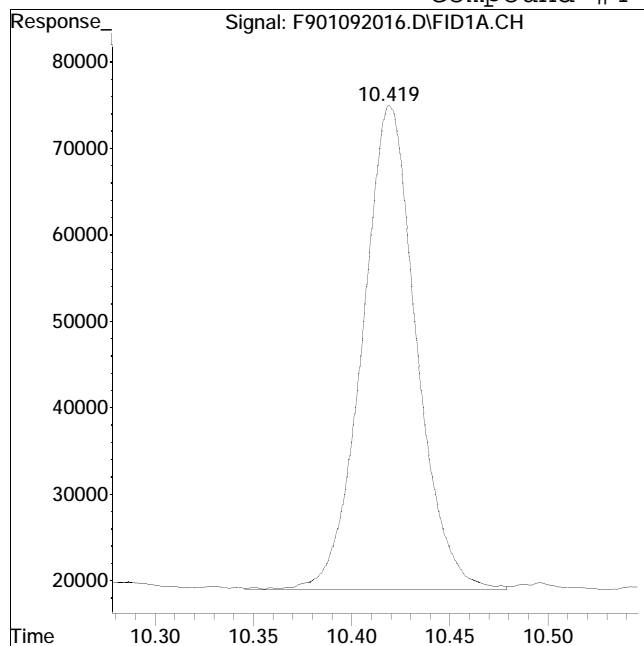
Manual Peak Response = 1035827 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #4: n-Decane (C10)



Original Peak Response = 1072542

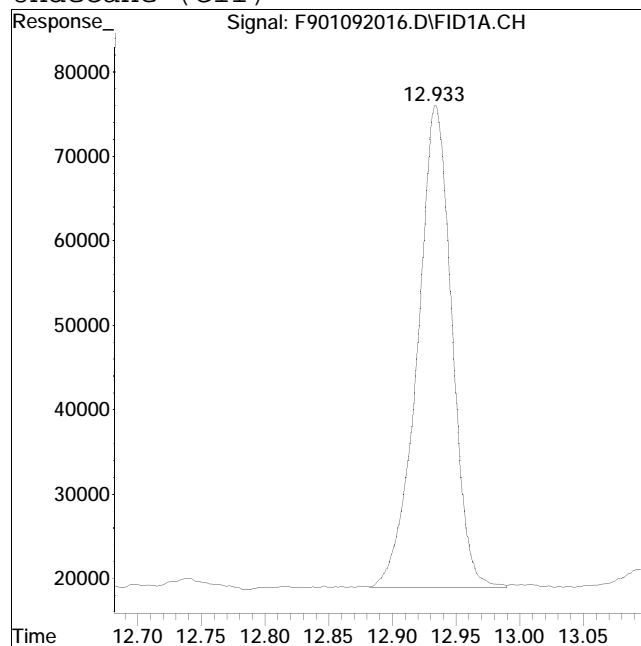
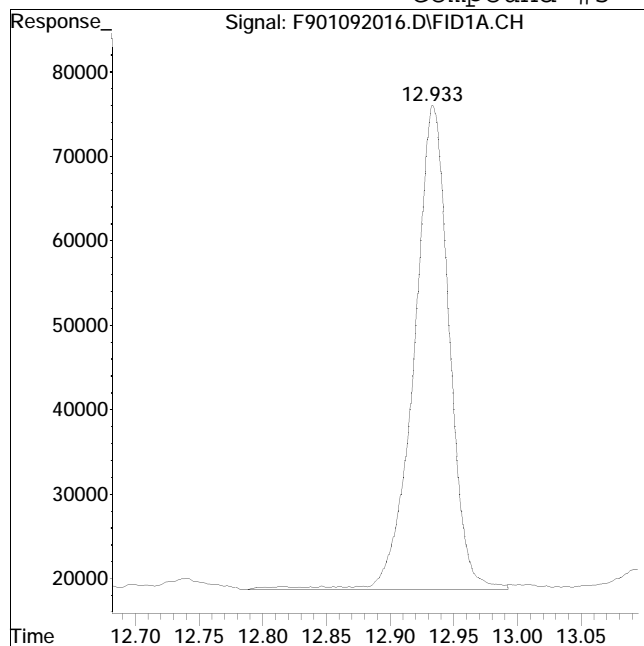
Manual Peak Response = 1066859 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 1105886

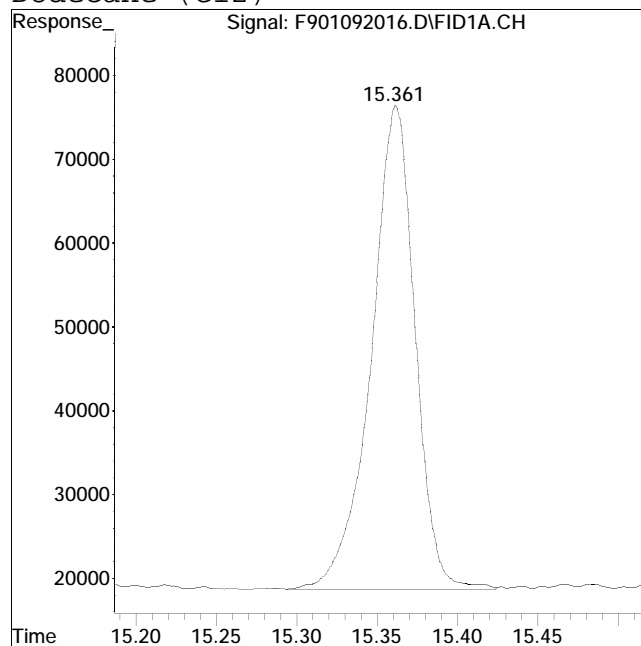
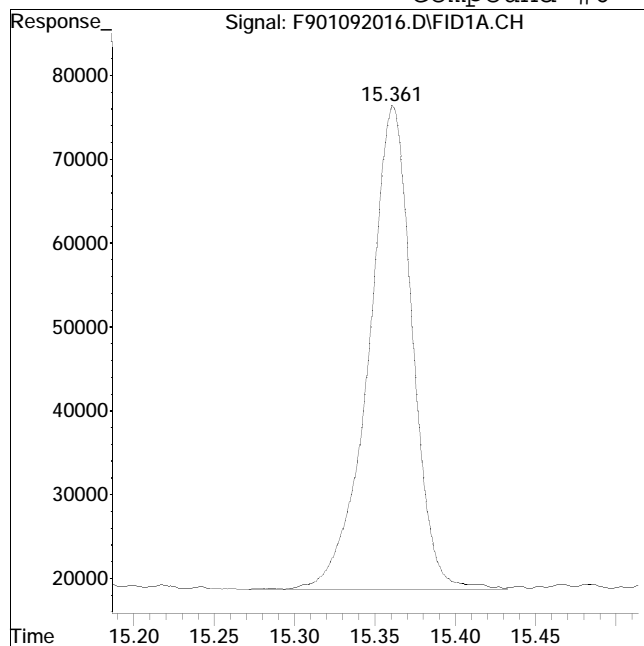
Manual Peak Response = 1070621 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 1099802

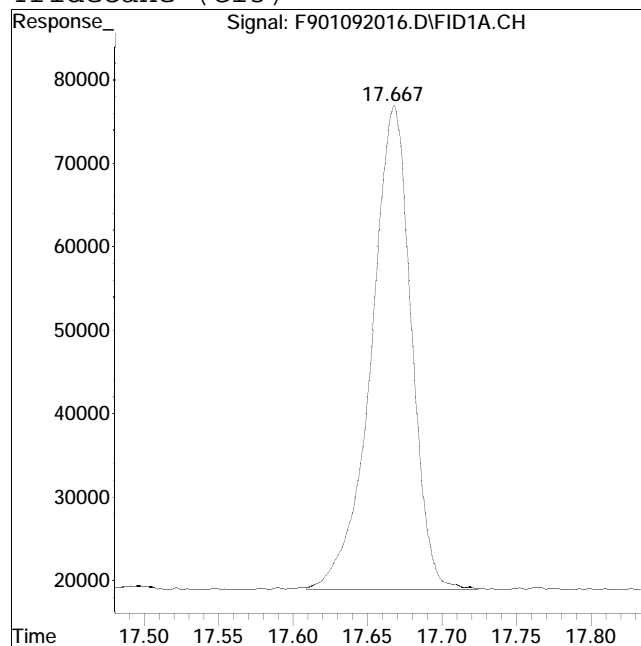
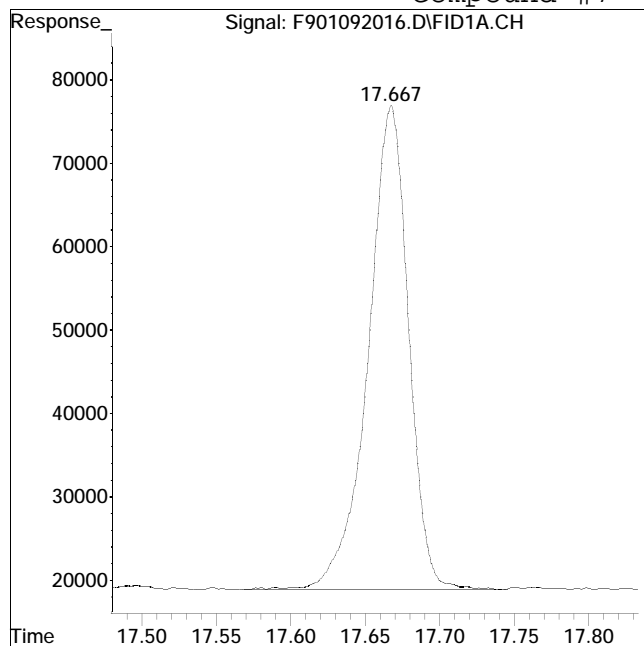
Manual Peak Response = 1094762 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 1093302

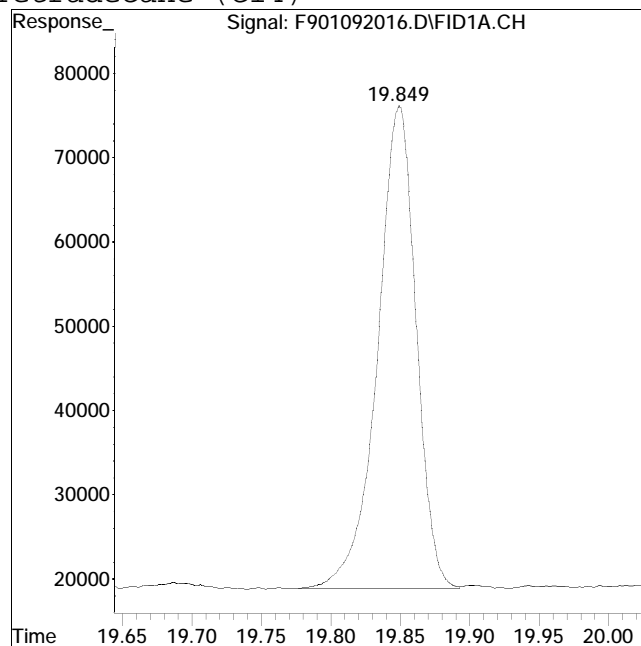
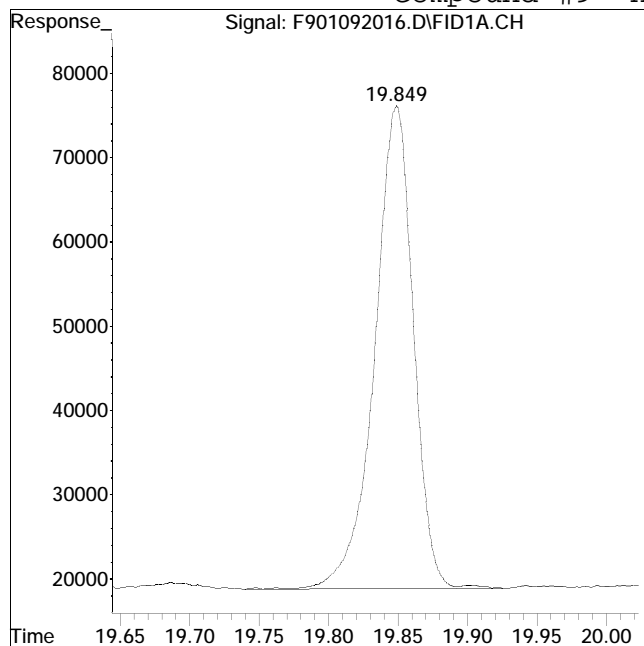
Manual Peak Response = 1085069 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 1113755

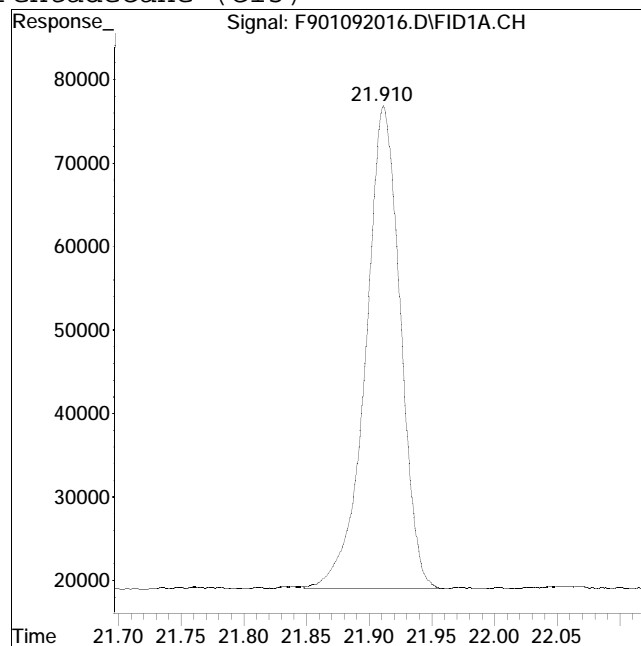
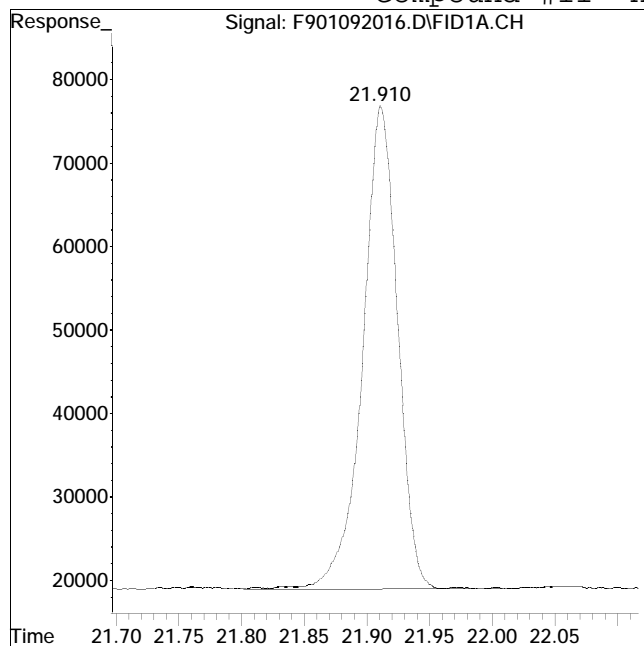
Manual Peak Response = 1107690 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 1126012

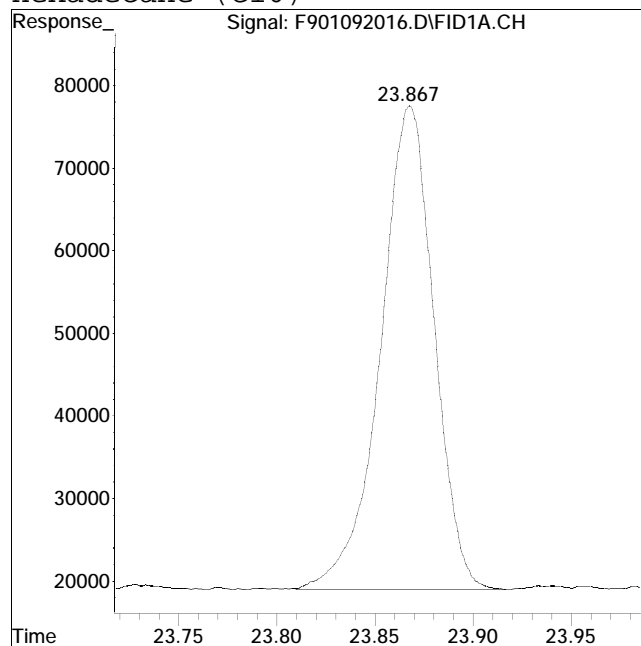
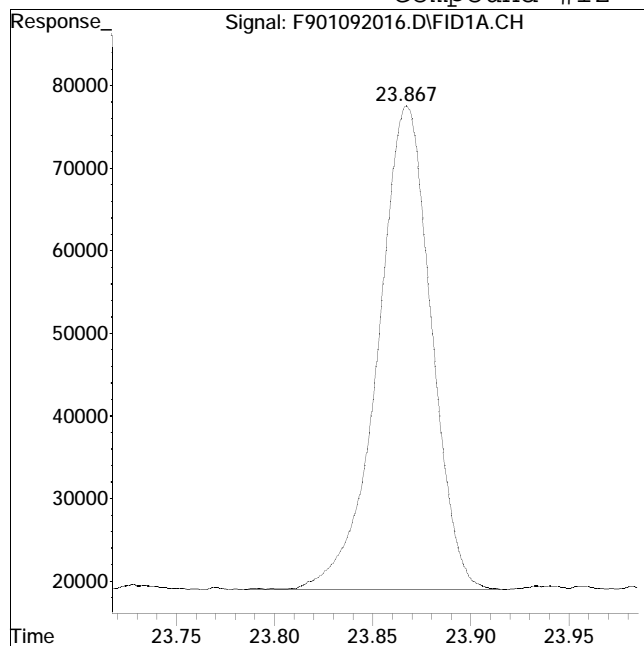
Manual Peak Response = 1113910 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 1112117

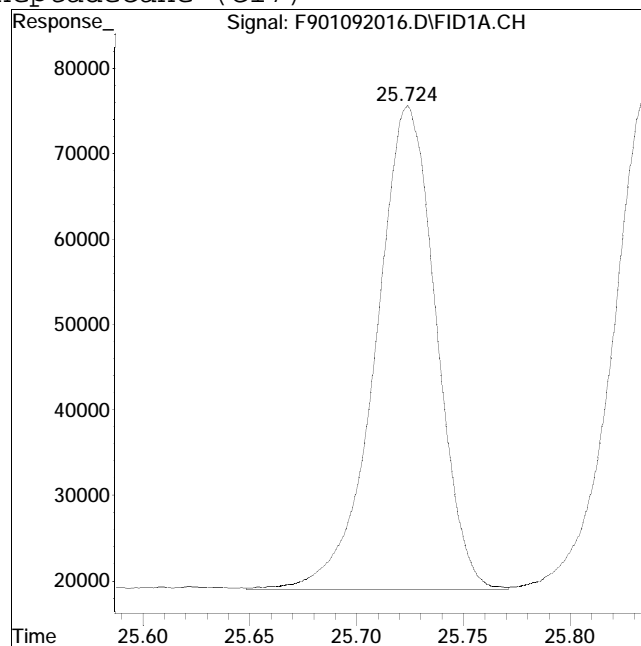
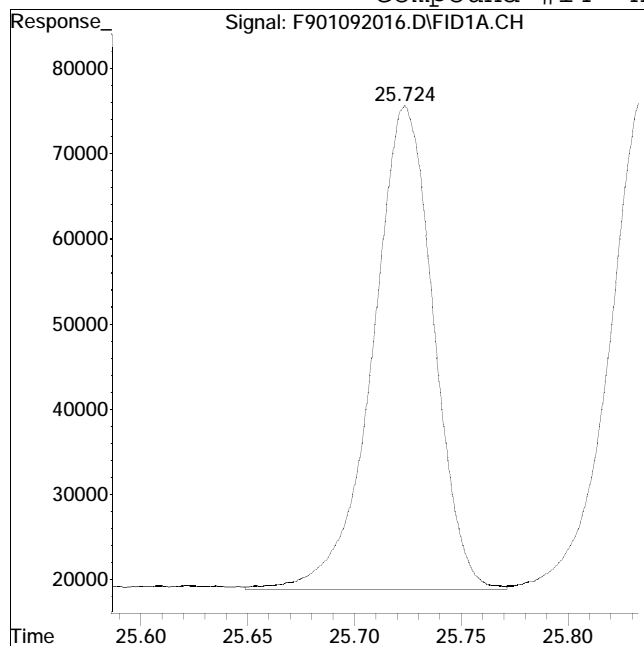
Manual Peak Response = 1112461 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 1124254

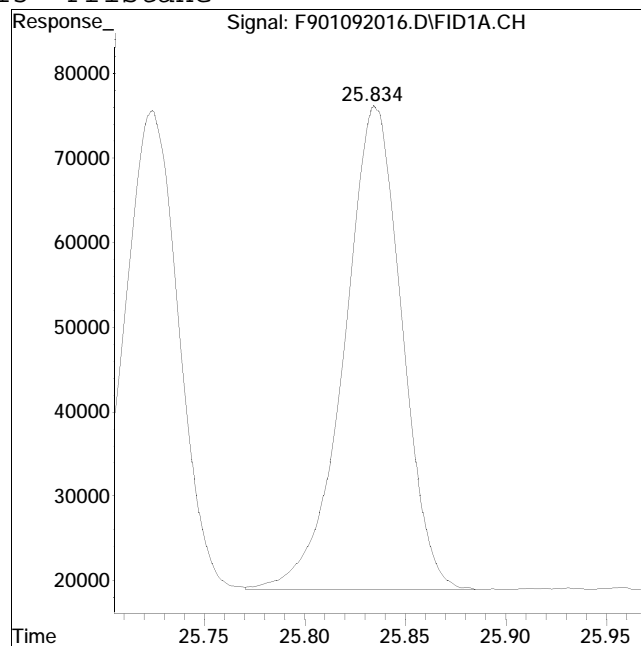
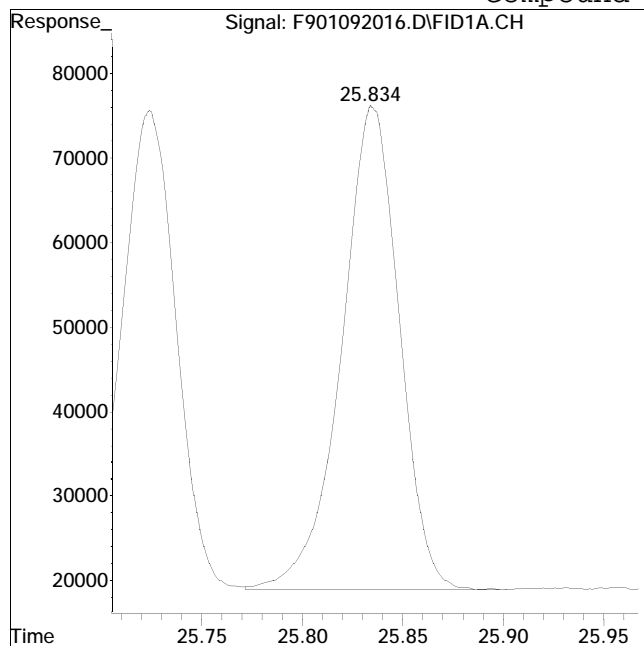
Manual Peak Response = 1115306 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #15: Pristane



Original Peak Response = 1143901

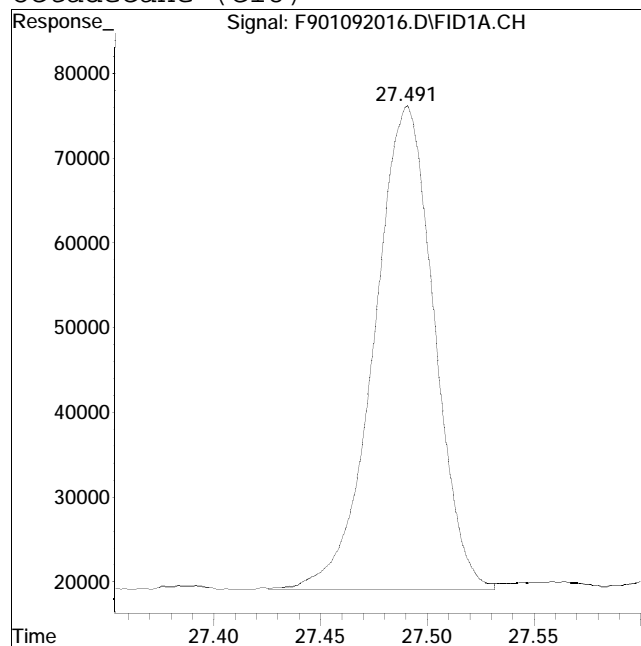
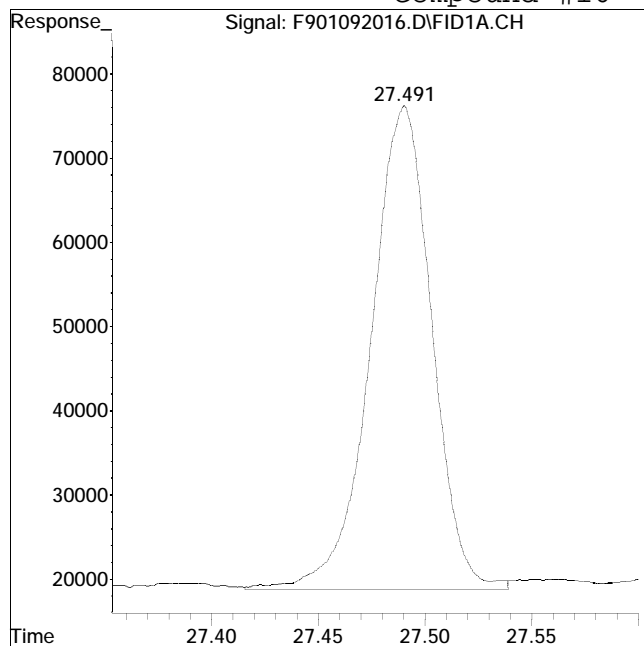
Manual Peak Response = 1143382 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 1144878

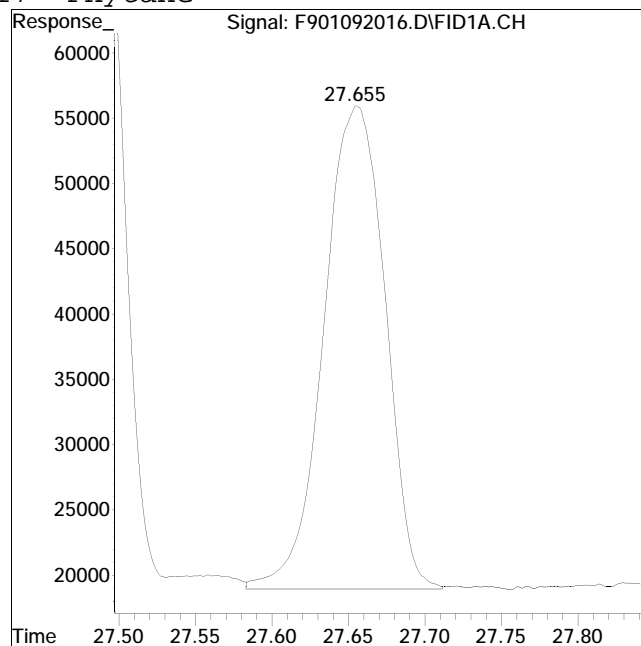
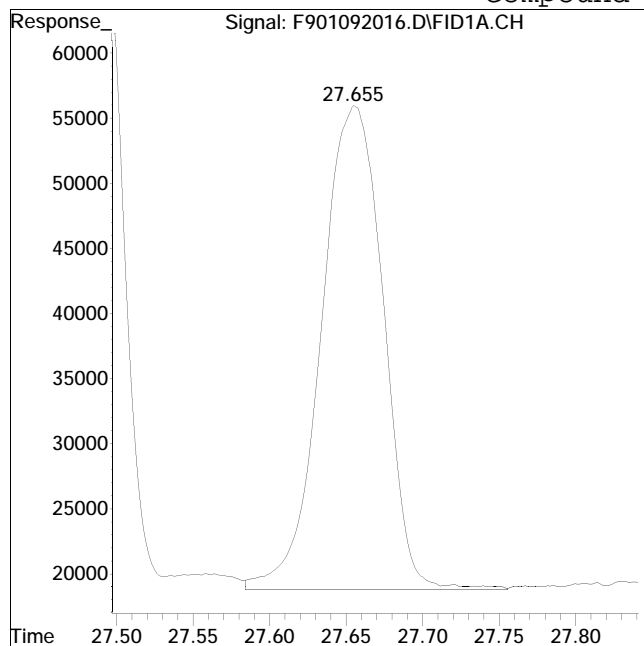
Manual Peak Response = 1115888 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #17: Phytane



Original Peak Response = 1048800

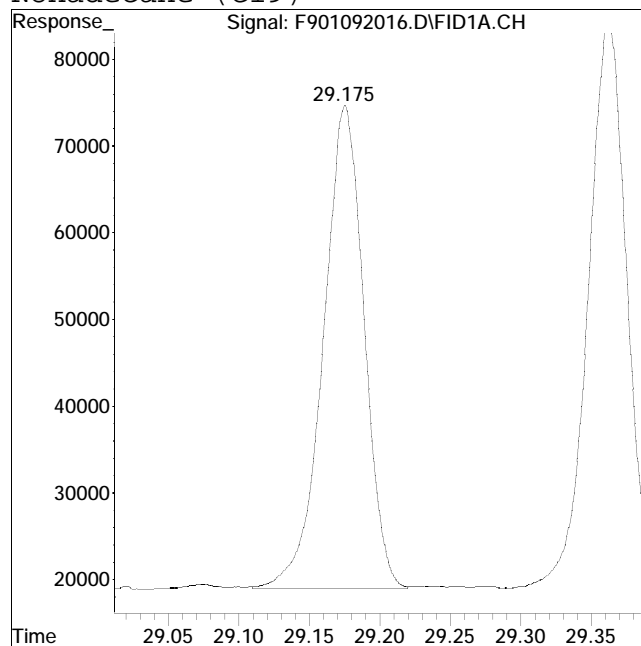
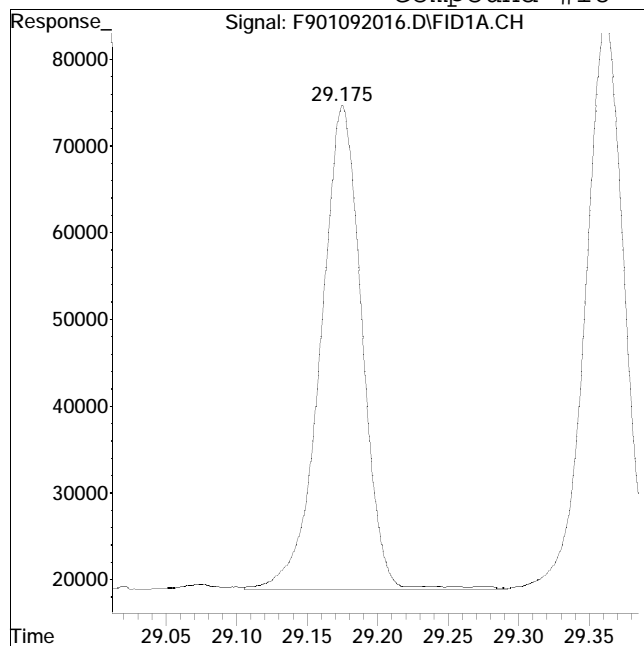
Manual Peak Response = 1029673 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 1138518

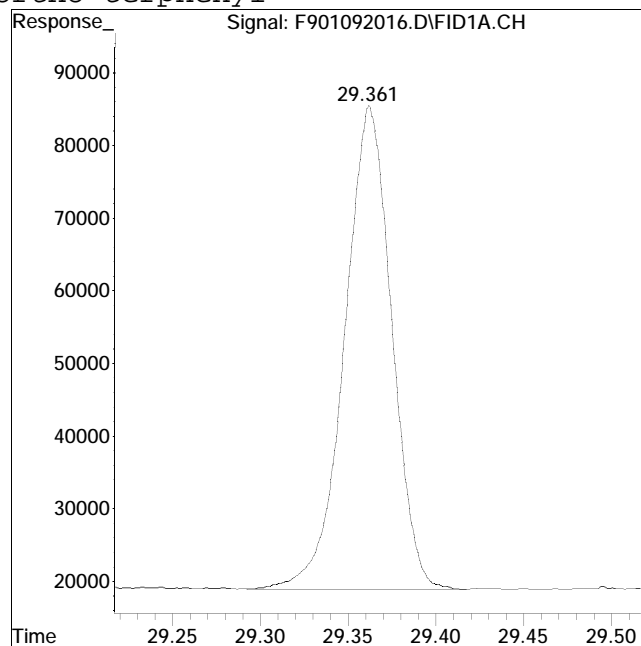
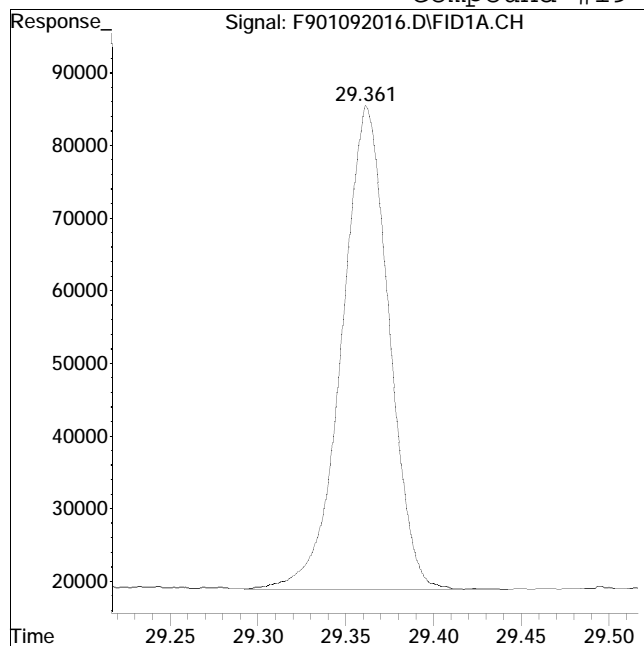
Manual Peak Response = 1117353 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #19: ortho-terphenyl



Original Peak Response = 1250975

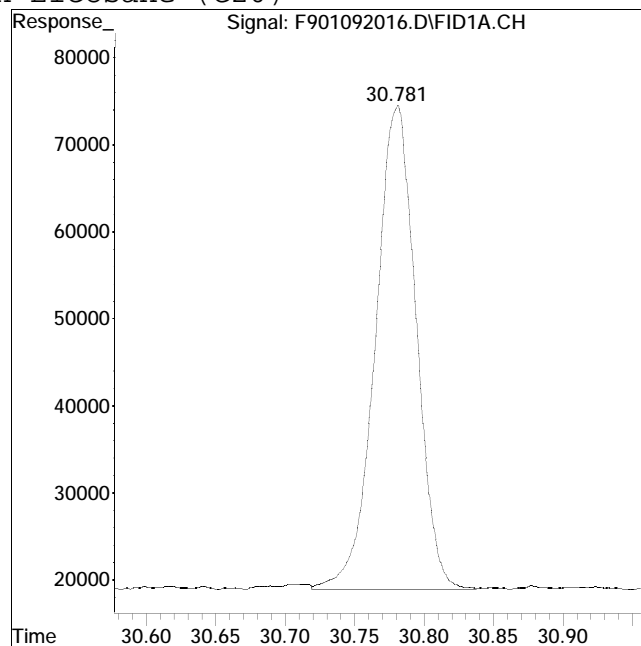
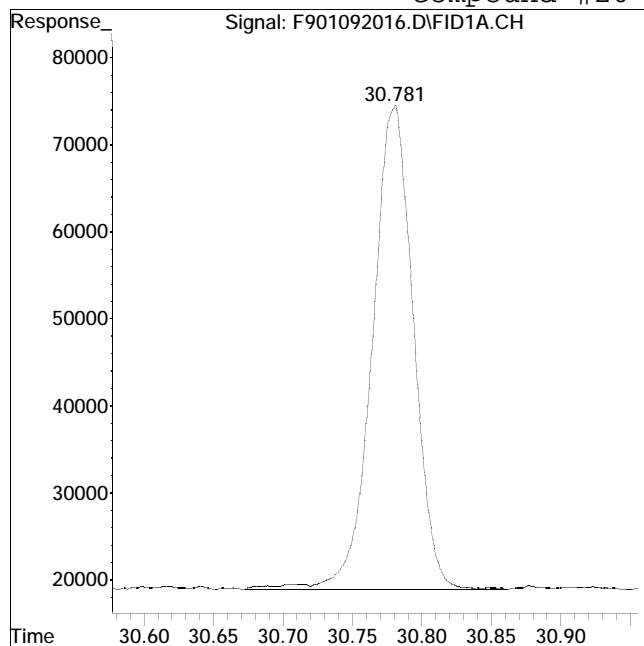
Manual Peak Response = 1244629 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 1147332

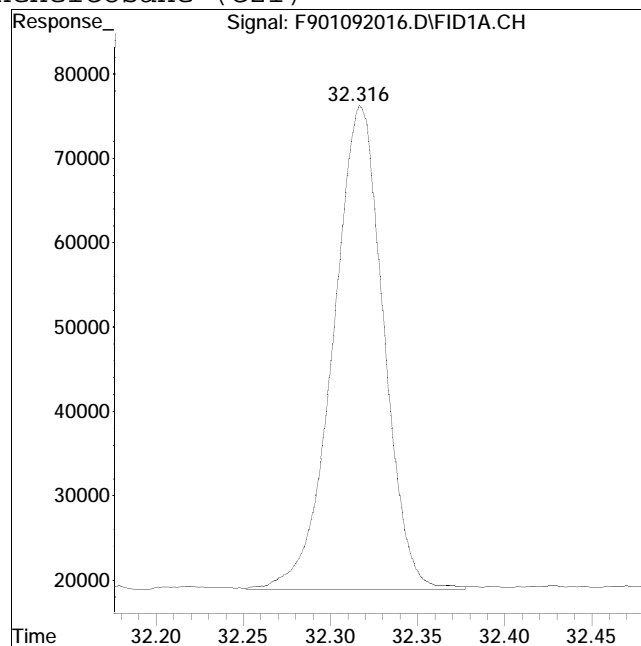
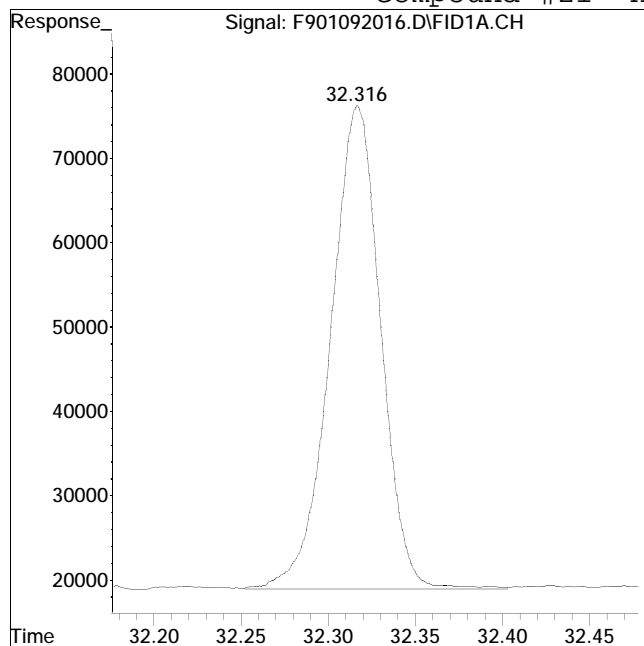
Manual Peak Response = 1130884 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 1150820

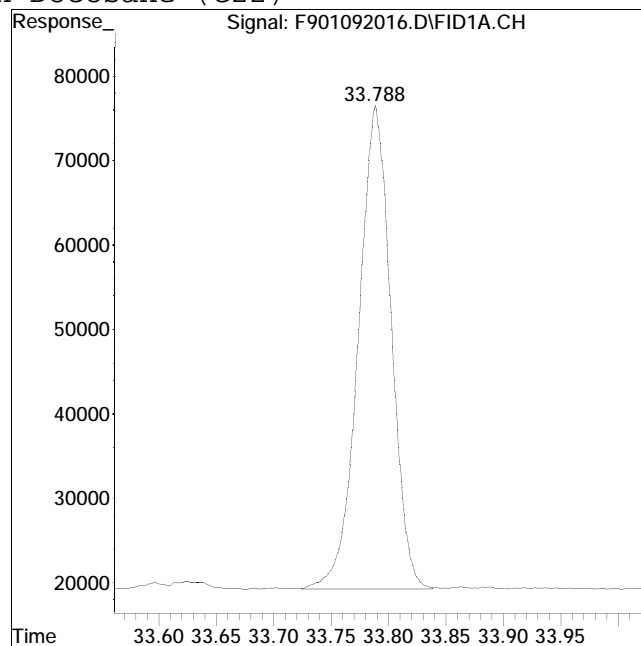
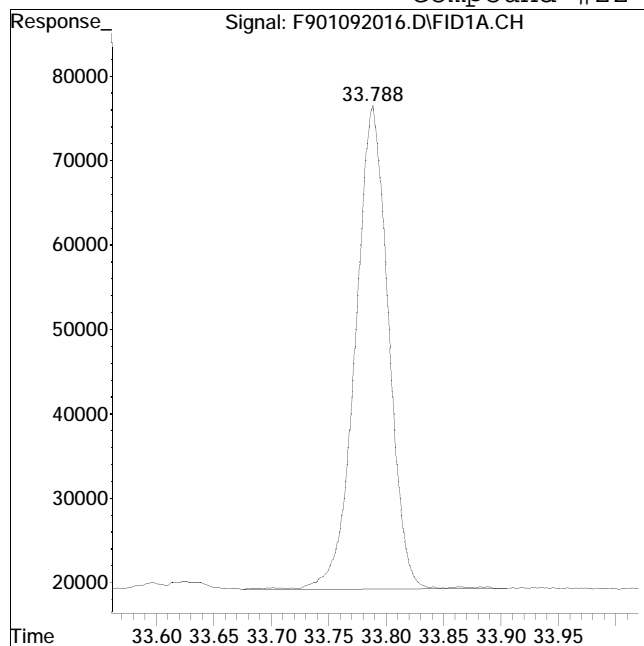
Manual Peak Response = 1149551 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 1152461

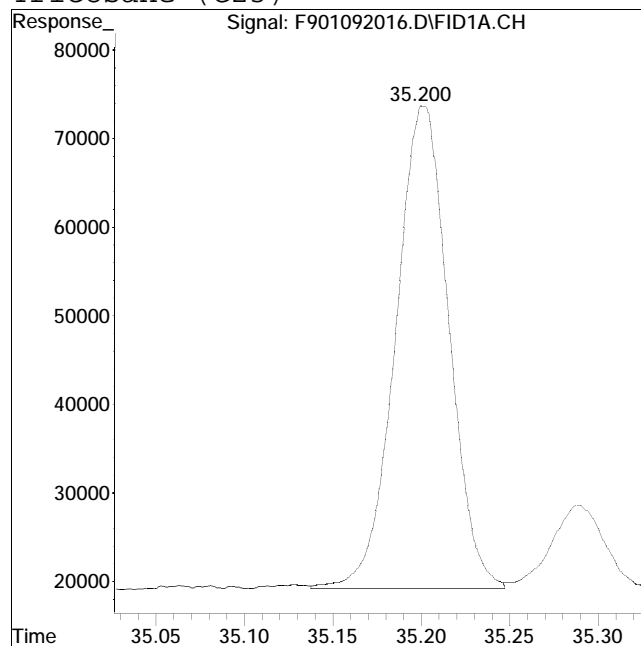
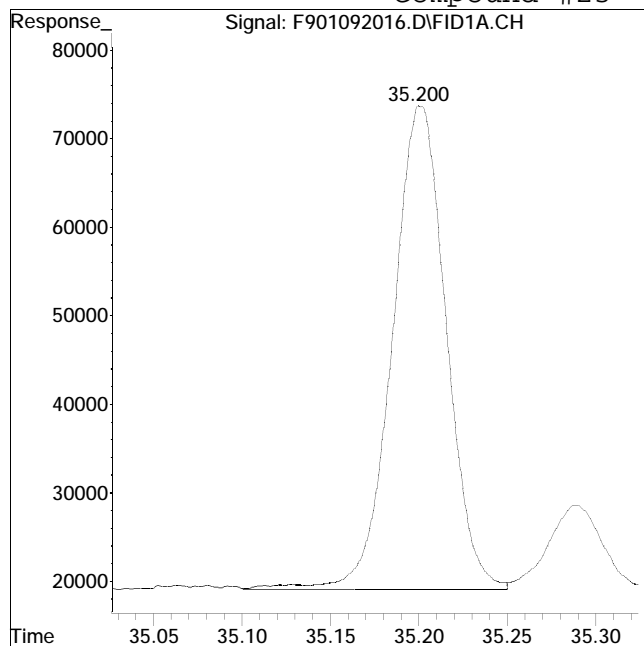
Manual Peak Response = 1137496 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 1157247

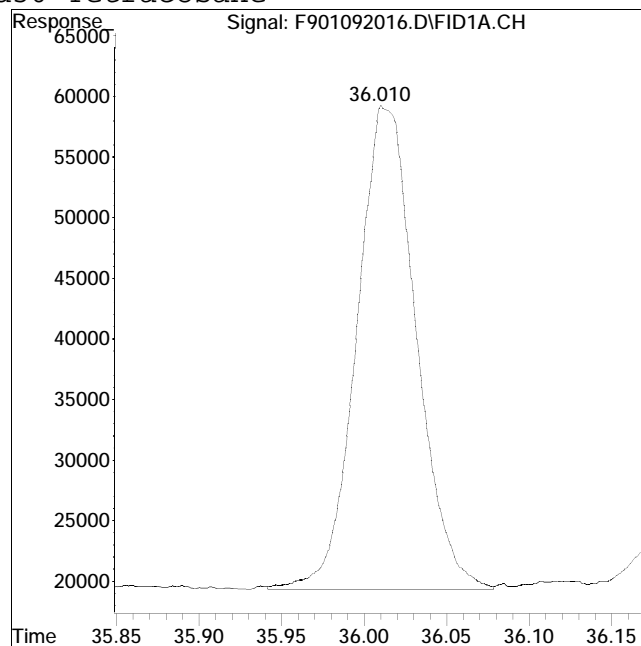
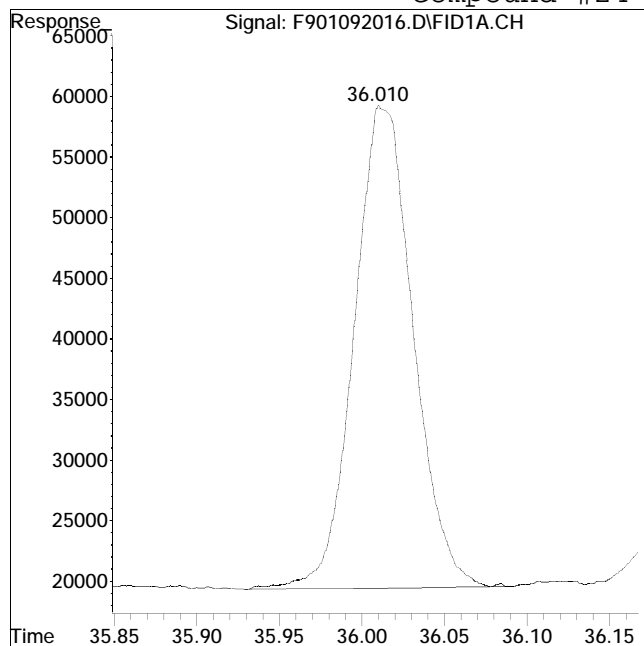
Manual Peak Response = 1139026 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #24: d50-Tetracosane



Original Peak Response = 990248

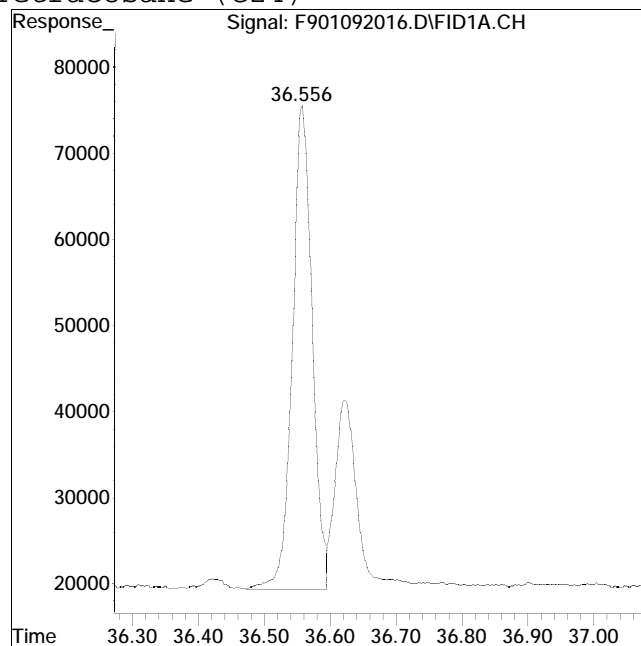
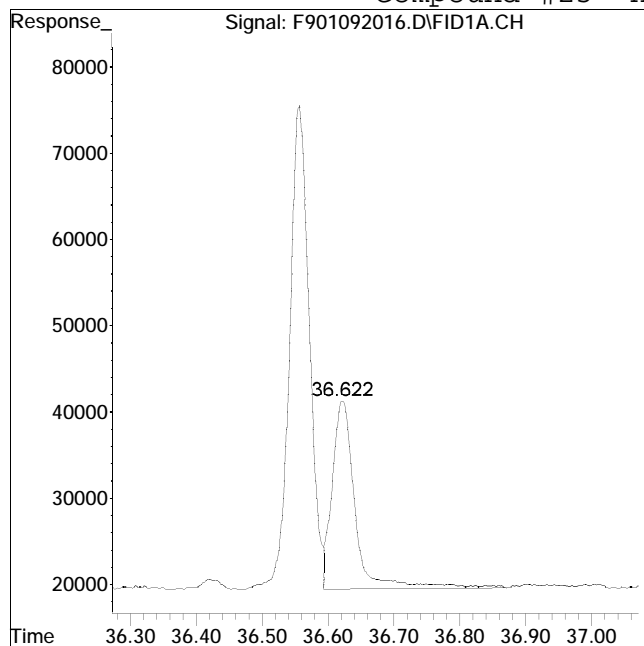
Manual Peak Response = 996815 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 535898

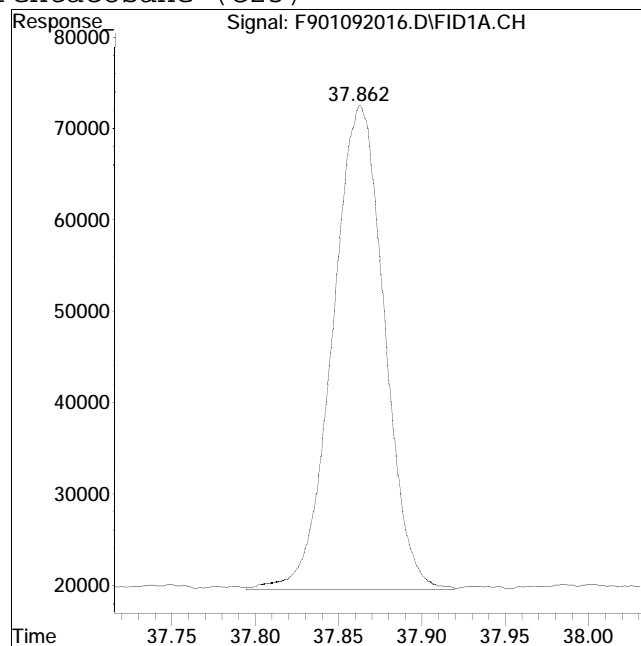
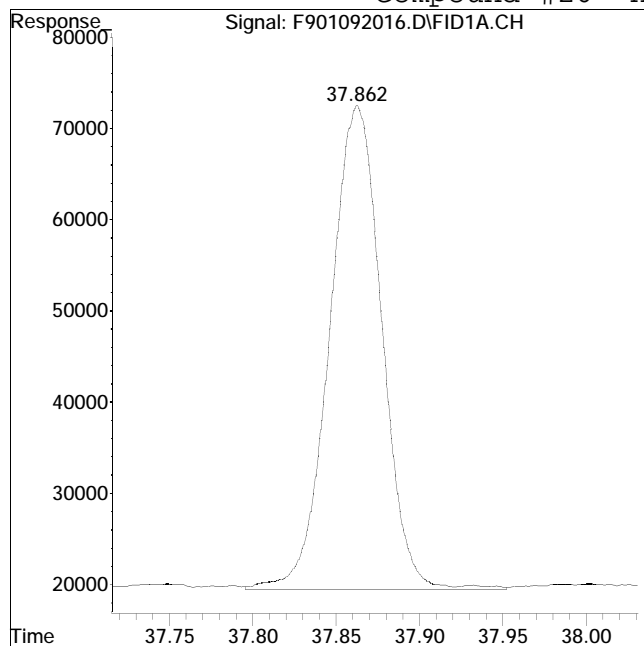
Manual Peak Response = 1173401 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 1155714

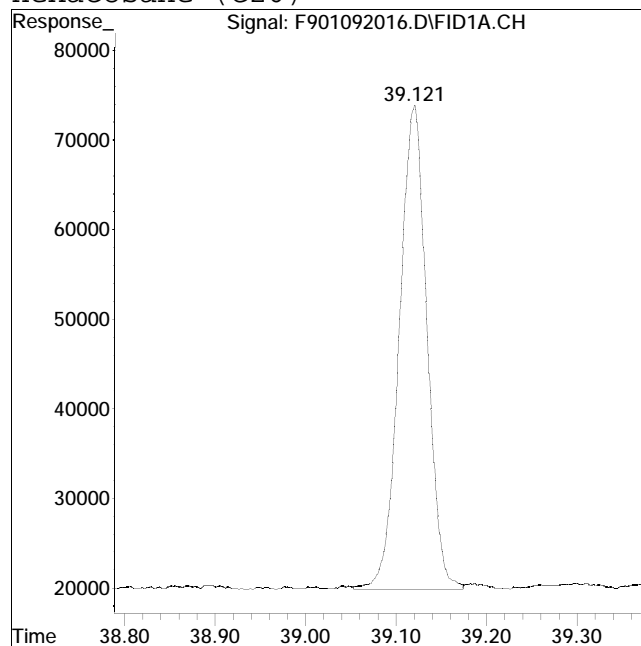
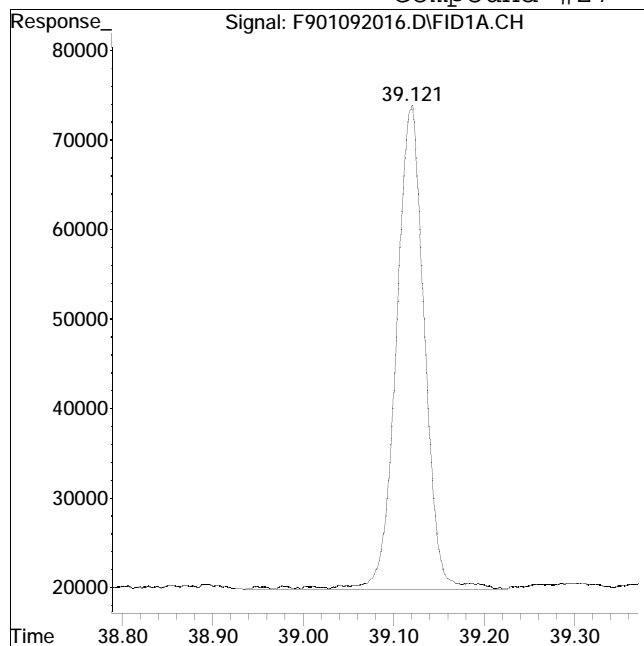
Manual Peak Response = 1142413 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 1183408

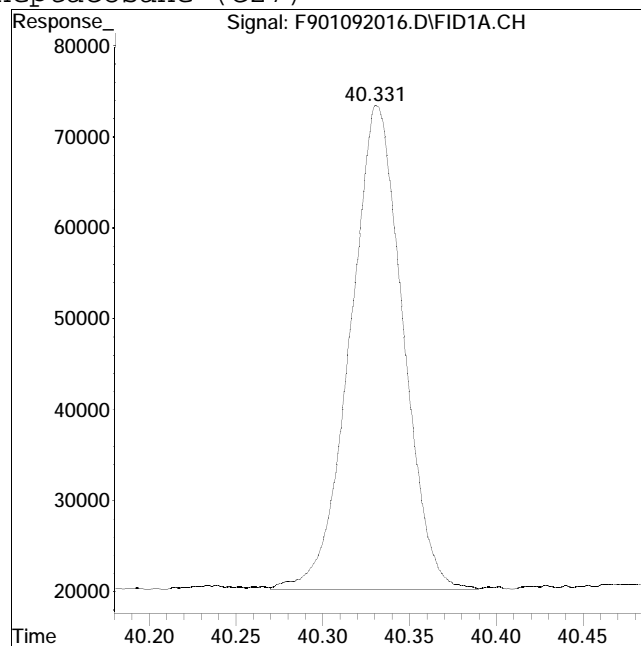
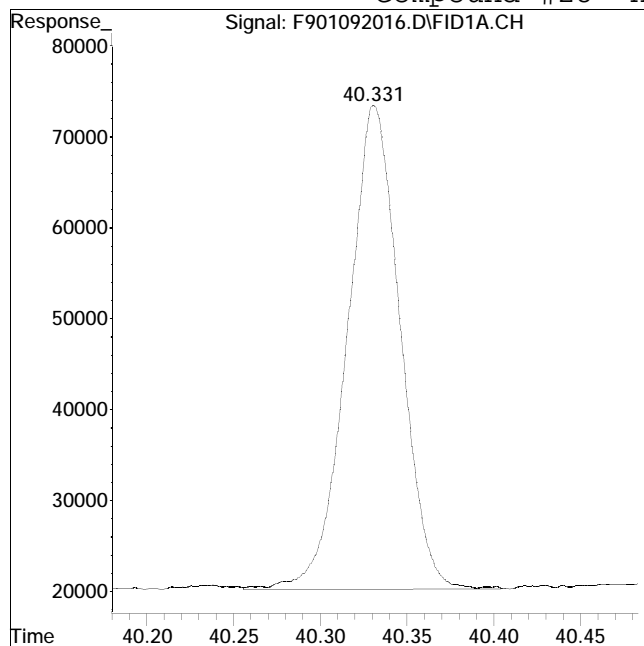
Manual Peak Response = 1140176 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 1127281

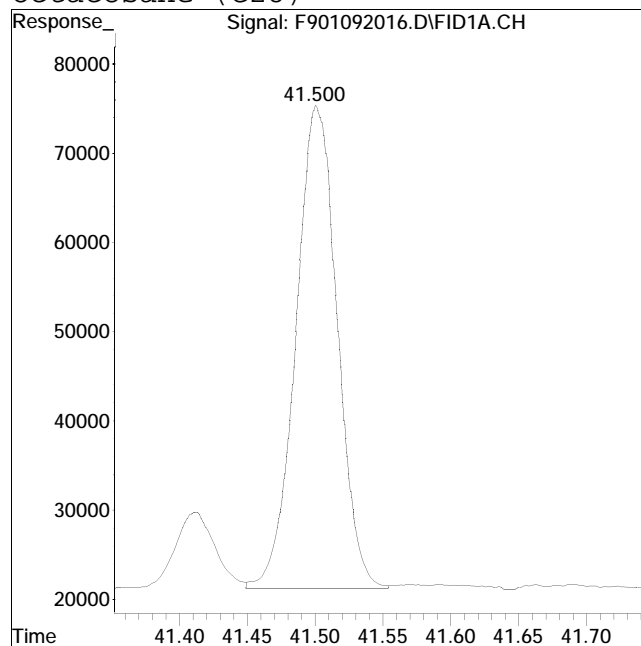
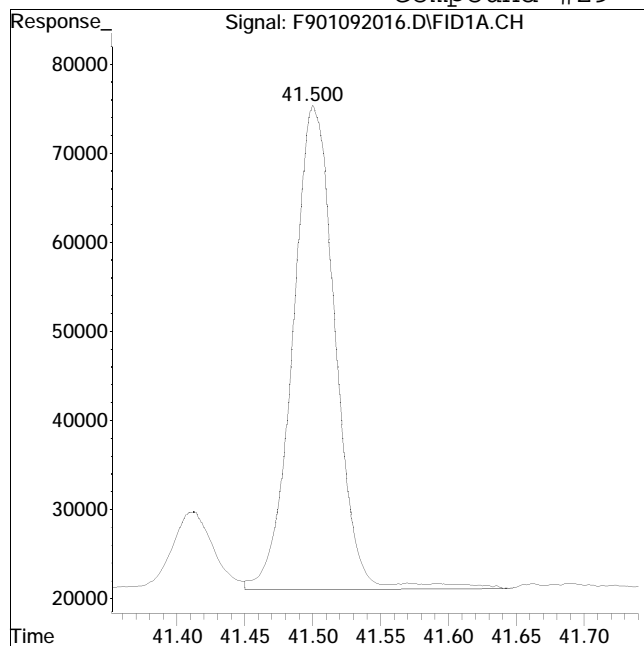
Manual Peak Response = 1121720 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 1187347

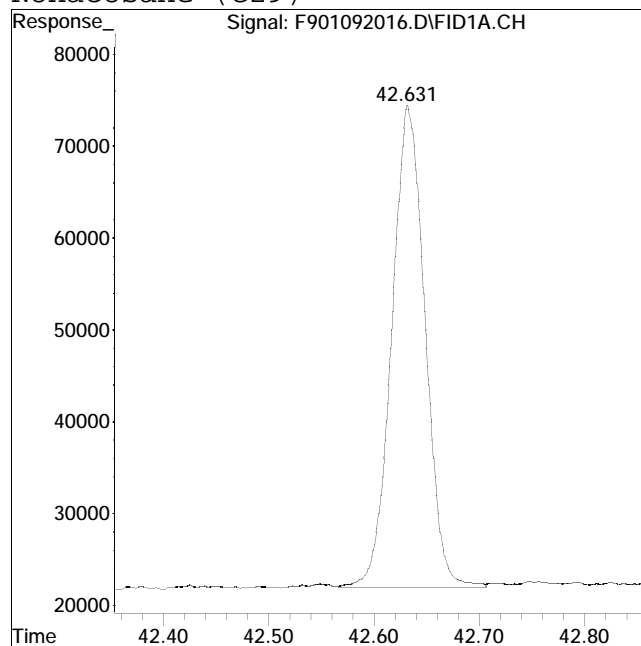
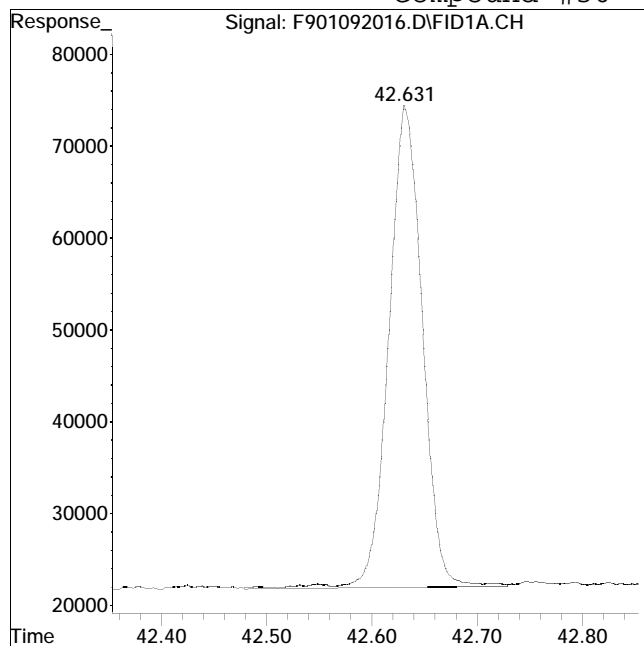
Manual Peak Response = 1147172 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 1165746

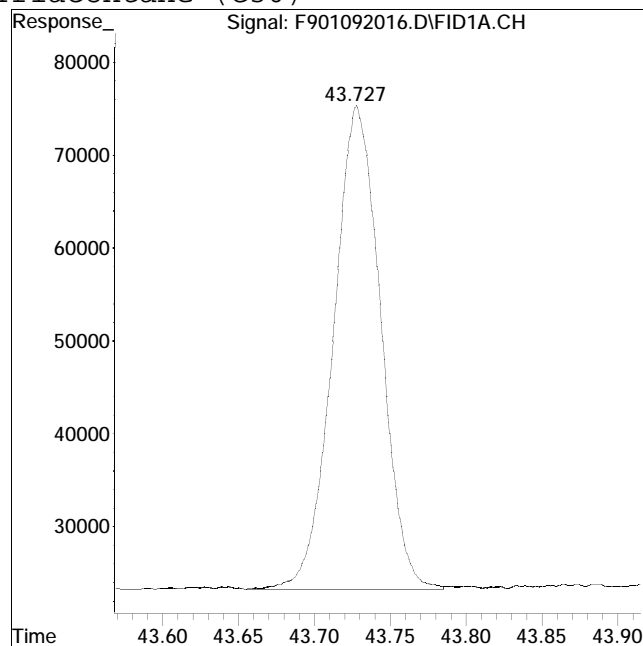
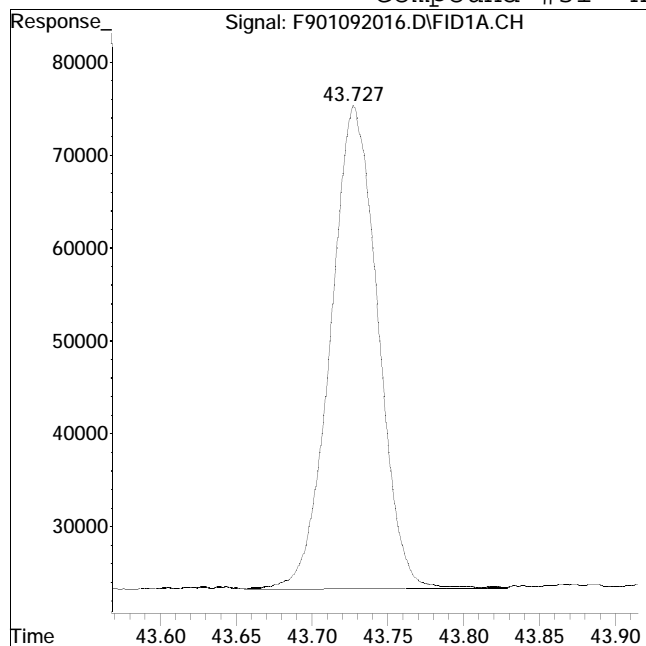
Manual Peak Response = 1152772 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 1129465

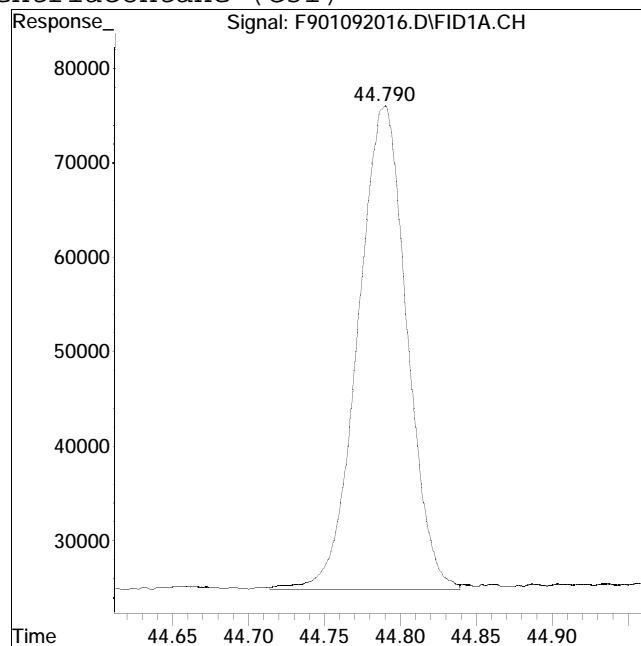
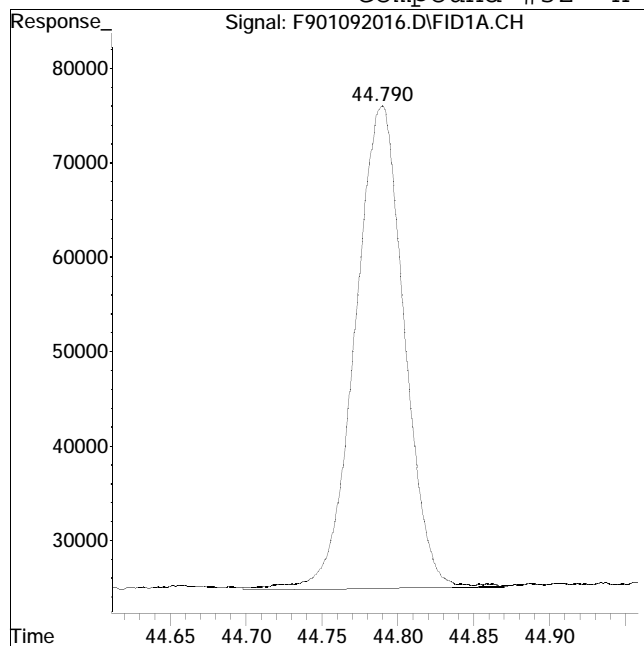
Manual Peak Response = 1130874 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 1149543

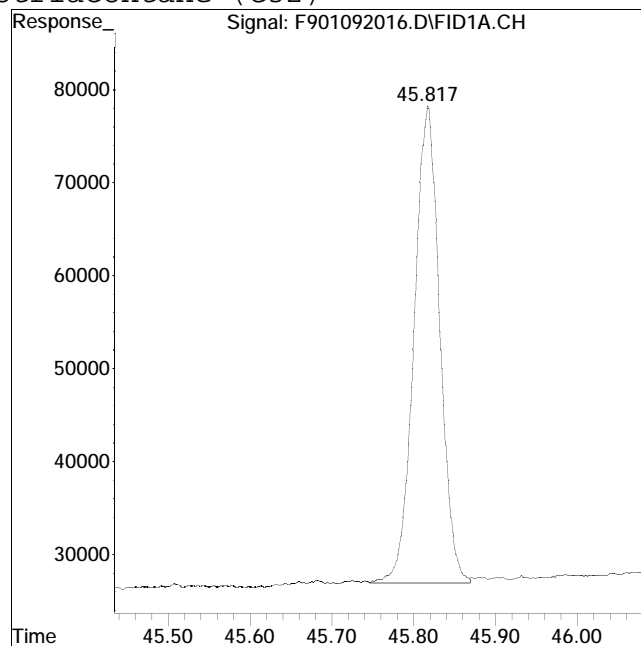
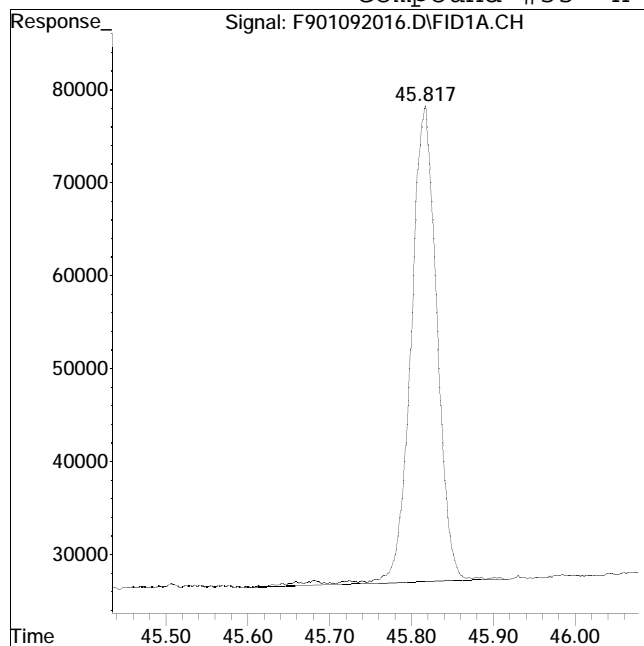
Manual Peak Response = 1142339 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 1133734

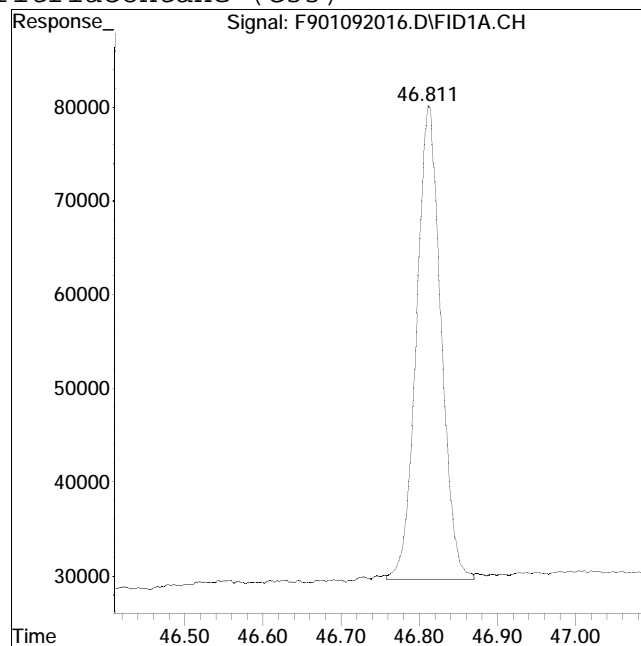
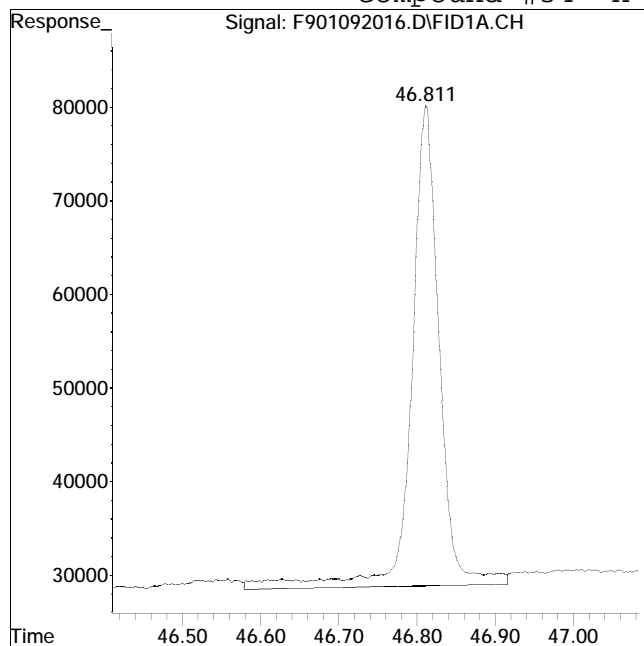
Manual Peak Response = 1114880 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 1284604

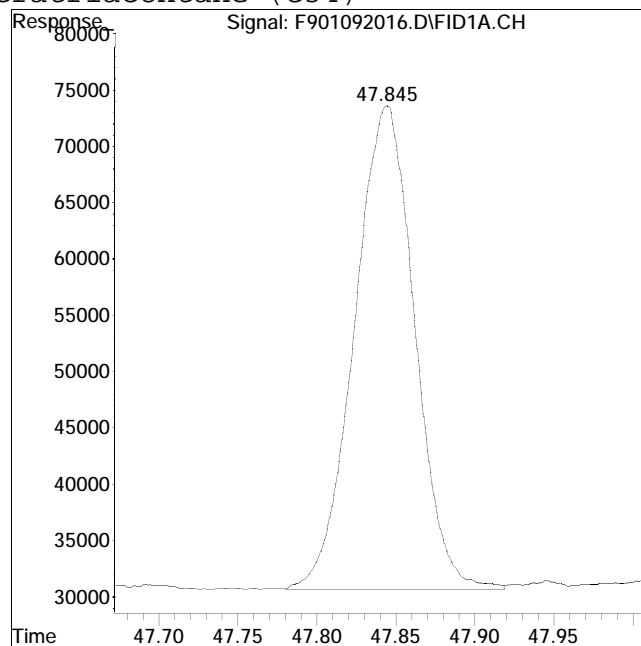
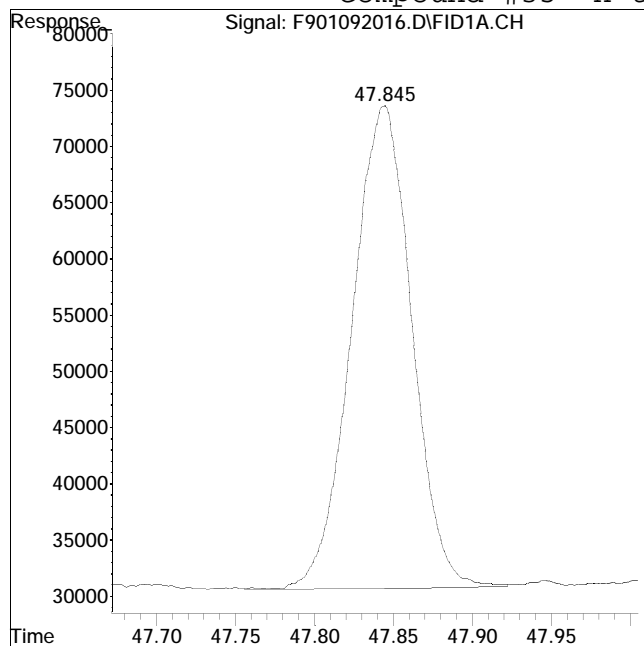
Manual Peak Response = 1097668 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 1133509

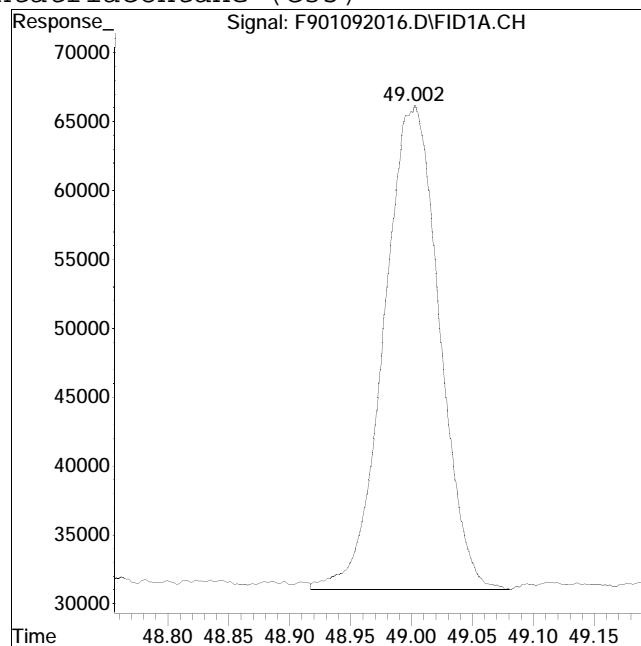
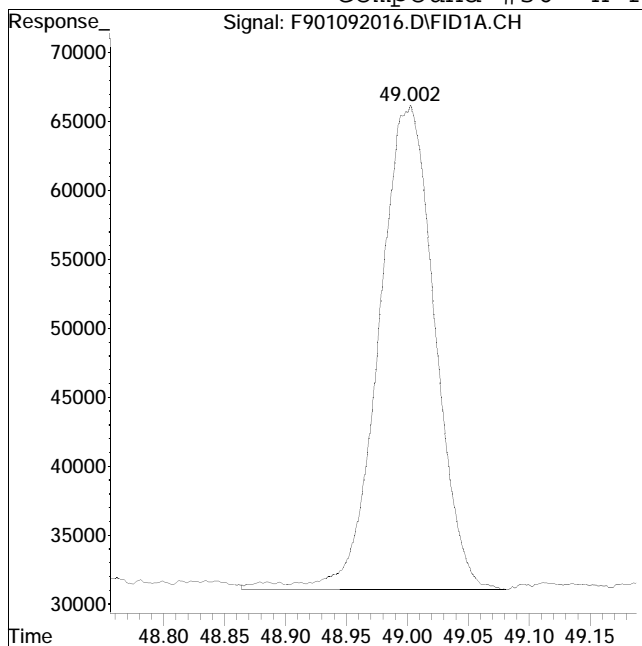
Manual Peak Response = 1141800 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 1118691

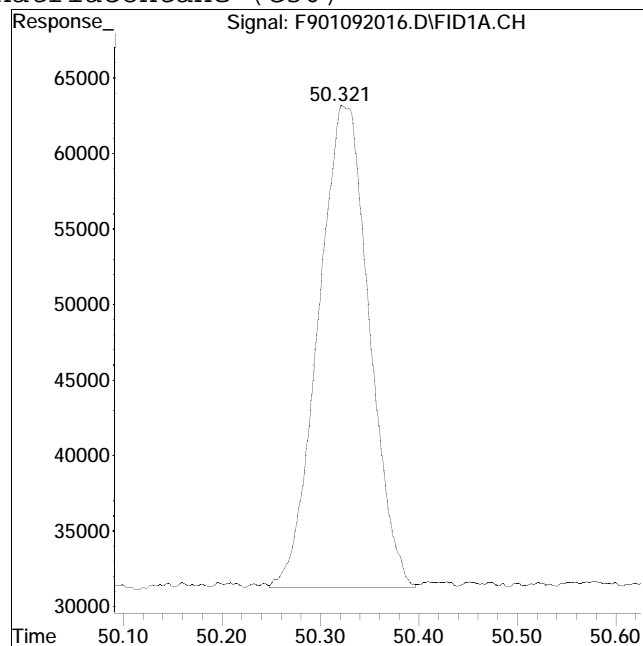
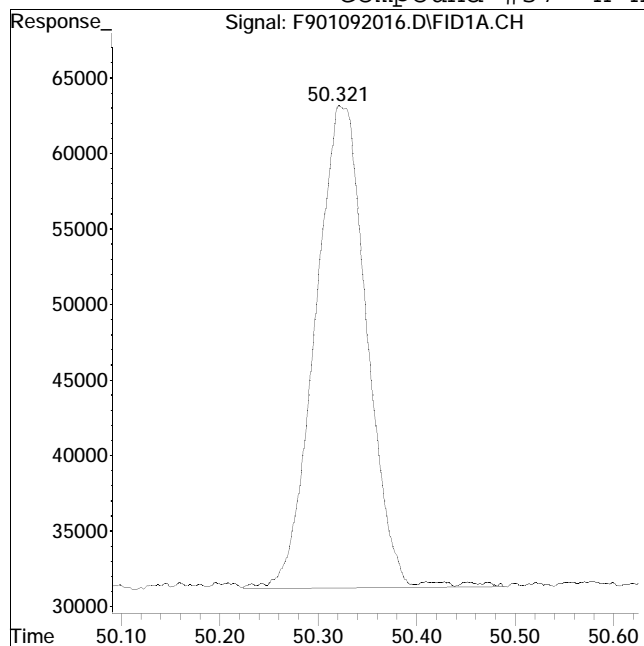
Manual Peak Response = 1113229 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 1164565

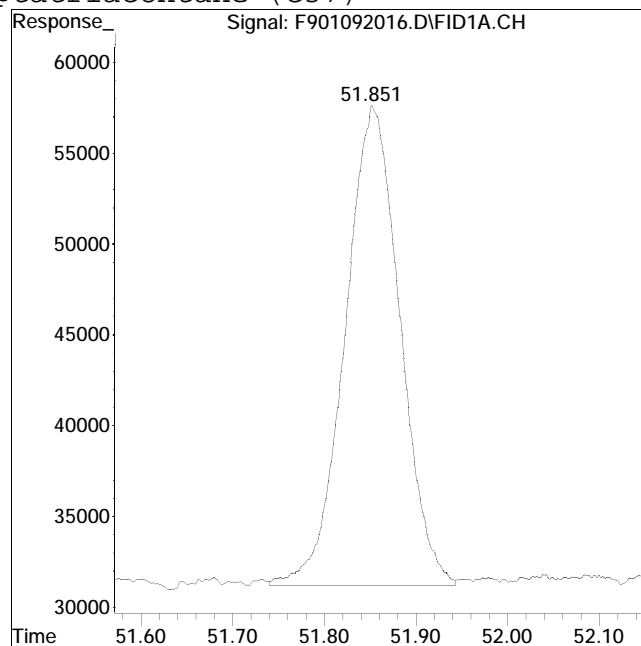
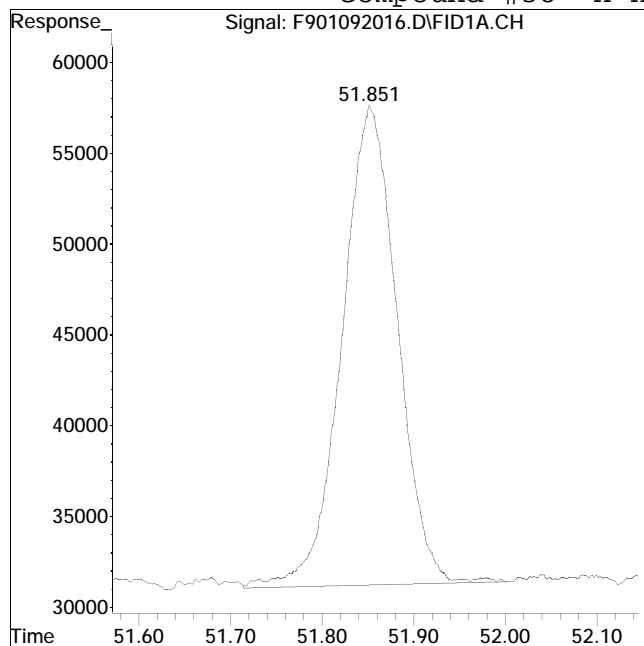
Manual Peak Response = 1145811 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 1105835

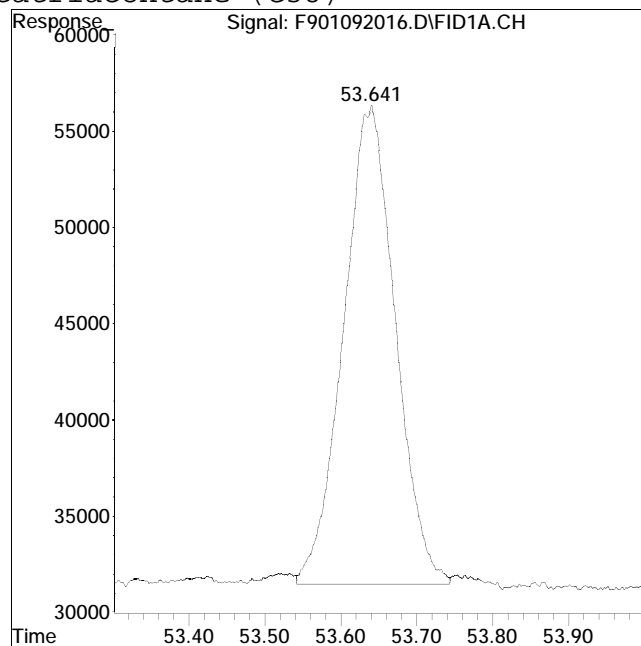
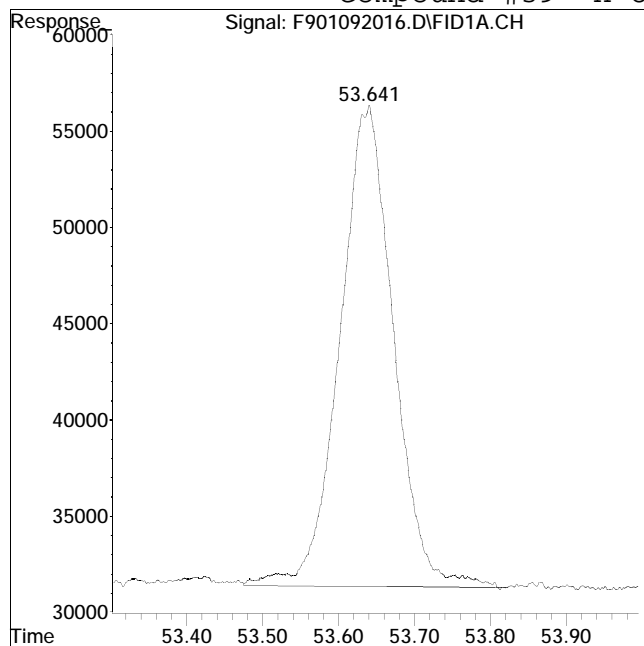
Manual Peak Response = 1098693 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 1228207

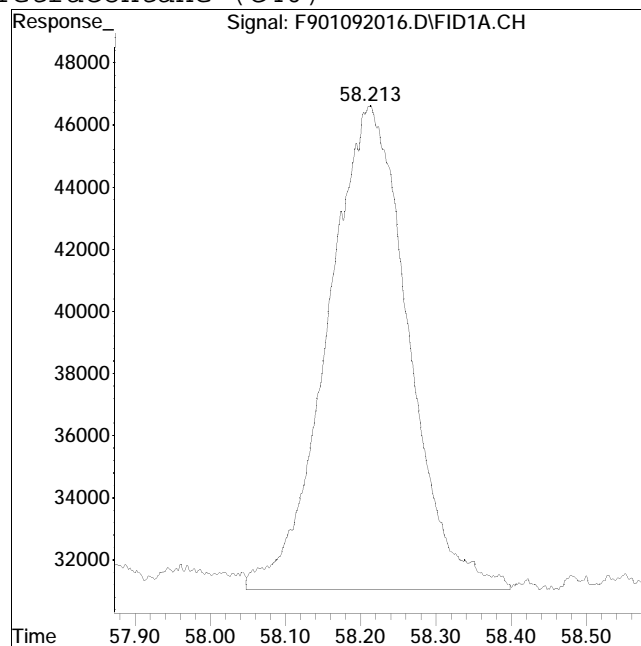
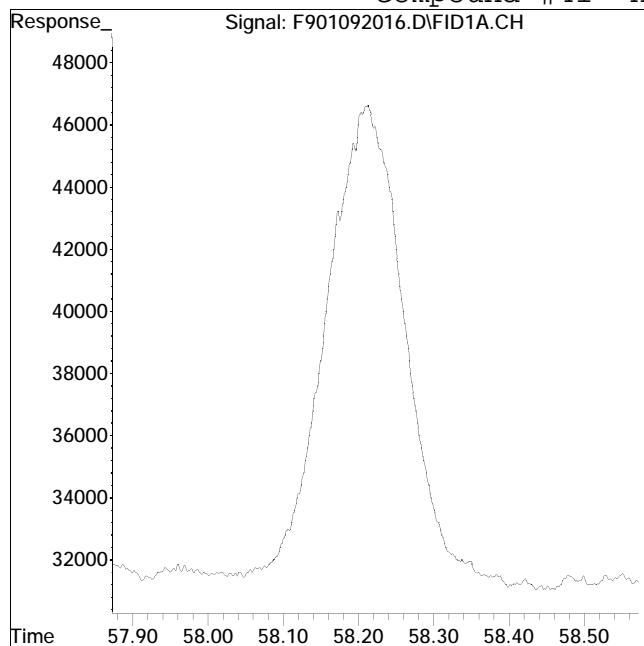
Manual Peak Response = 1179697 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092016.D Operator : FID9:WR
Date Inj'd : 1/9/2020 8:22 pm Instrument : FID 9
Sample : I901022001F Quant Date : 6/1/2020 4:24 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 1161608 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092018.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 9:50 pm
 Operator : FID9:WR
 Sample : I901022002F
 Misc : WG1376652,FRBC23
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:24:21 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.418	57587605	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.367	11784294	9.823	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	19.65%#	
24) s d50-Tetracosane	36.015	9467000	9.864	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	19.73%#	
Target Compounds				
2) t n-Octane (C8)	5.710	9429575	10.067	ug/mL M4
3) t n-Nonane (C9)	7.927	9867636	9.987	ug/mL M4
4) t n-Decane (C10)	10.422	10142731	9.920	ug/mL M4
5) t n-Undecane (C11)	12.936	10282545	9.900	ug/mL M4
6) t n-Dodecane (C12)	15.363	10439233	9.890	ug/mL M4
7) t n-Tridecane (C13)	17.670	10515523	9.928	ug/mL M4
9) t n-Tetradecane (C14)	19.852	10684891	9.916	ug/mL M4
11) t n-Pentadecane (C15)	21.916	10697691	9.904	ug/mL M4
12) t n-Hexadecane (C16)	23.871	10826337	9.944	ug/mL M4
14) t n-Heptadecane (C17)	25.728	10764547	9.884	ug/mL M4
15) t Pristane	25.840	11016778	9.963	ug/mL M4
16) t n-Octadecane (C18)	27.495	10899491	9.930	ug/mL M4
17) t Phytane	27.659	9911929	9.915	ug/mL M4
18) t n-Nonadecane (C19)	29.180	10905867	9.966	ug/mL M4
20) t n-Eicosane (C20)	30.785	10942080	9.952	ug/mL M4
21) t n-Heneicosane (C21)	32.322	11109548	9.950	ug/mL M4
22) t n-Docosane (C22)	33.793	11111950	9.976	ug/mL M4
23) t n-Tricosane (C23)	35.206	11192114	10.010	ug/mL M4
25) t n-Tetracosane (C24)	36.564	11263939	9.966	ug/mL M4
26) t n-Pentacosane (C25)	37.869	11081587	9.977	ug/mL M4
27) t n-Hexacosane (C26)	39.125	11176108	10.015	ug/mL M4
28) t n-Heptacosane (C27)	40.338	10891907	10.015	ug/mL M4
29) t n-Octacosane (C28)	41.508	11262465	10.040	ug/mL M4
30) t n-Nonacosane (C29)	42.639	11198796	10.030	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092018.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 9:50 pm
 Operator : FID9:WR
 Sample : I901022002F
 Misc : WG1376652,FRBC23
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:24:21 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.734	11050248	10.046 ug/mL M4
32) t n-Hentriacontane (C31)	44.794	11118845	10.050 ug/mL M4
33) t n-Dotriacontane (C32)	45.823	10942577	10.049 ug/mL M4
34) t n-Tritriacontane (C33)	46.817	10809041	10.037 ug/mL M4
35) t n-tetratriacontane (C34)	47.851	11186001	10.005 ug/mL M4
36) t n-Pentatriacontane (C35)	49.009	10838020	9.991 ug/mL M4
37) t n-Hexatriacontane (C36)	50.334	11525888	10.059 ug/mL M4
38) t n-Heptatriacontane (C37)	51.860	10812388	9.982 ug/mL M4
39) t n-Octatriacontane (C38)	53.647	11738529	10.011 ug/mL M4
41) t n-Tetracontane (C40)	58.227	11148312	9.953 ug/mL M4

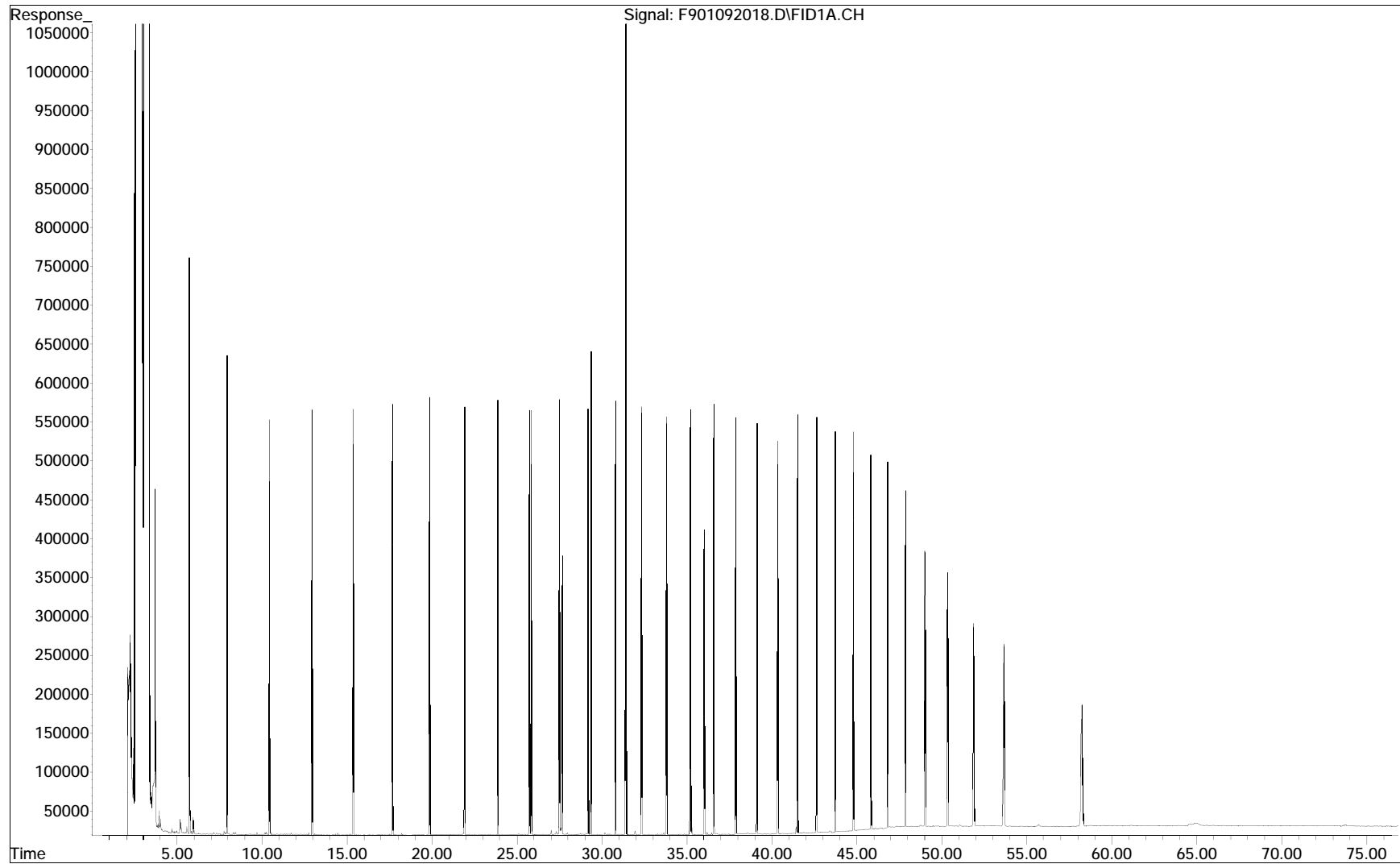
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

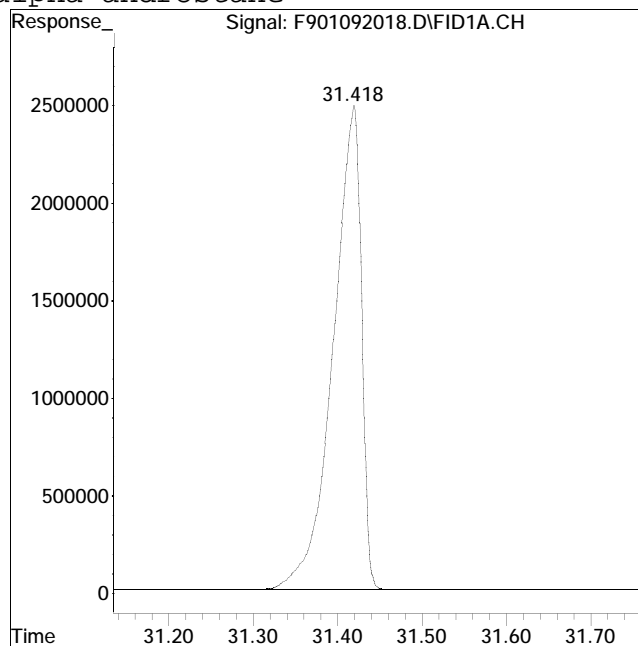
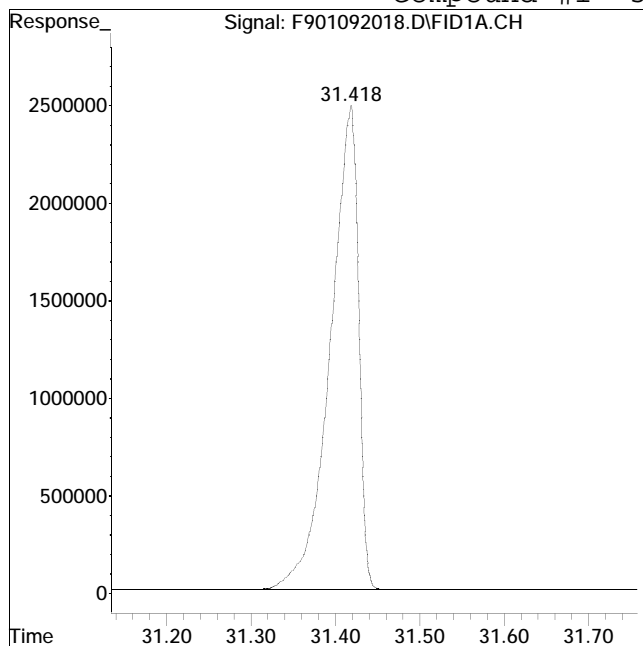
Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092018.D
Operator : FID9:WR
Acquired : 09 Jan 2020 9:50 pm using AcqMethod FID9A.M
Instrument: FID 9
Sample : I901022002F
Misc Info : WG1376652,FRBC23
ALS Vial : 9



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 57594786

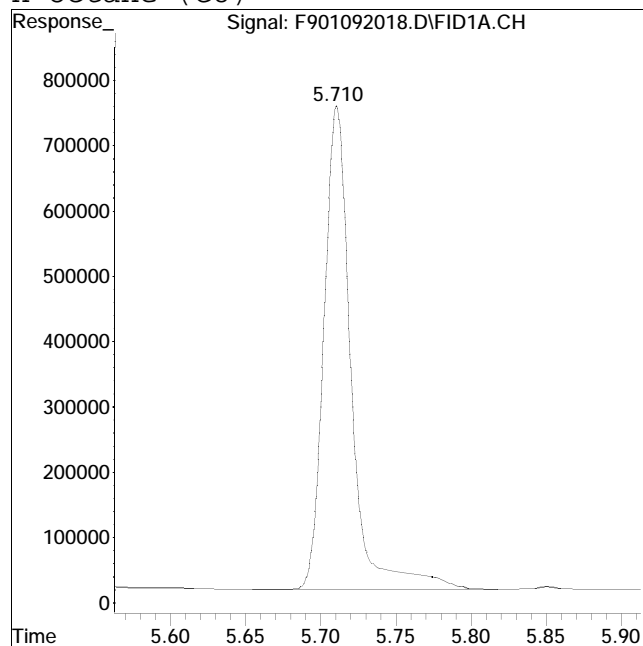
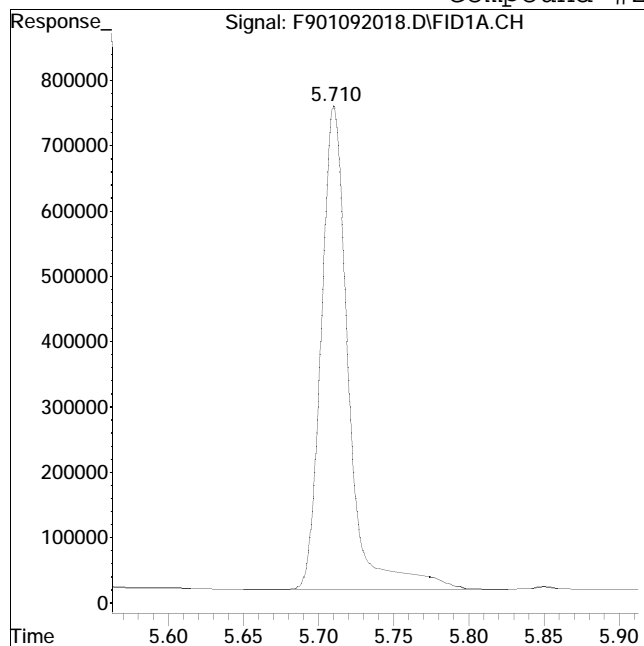
Manual Peak Response = 57587605 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #2: n-Octane (C8)



Original Peak Response = 9429853

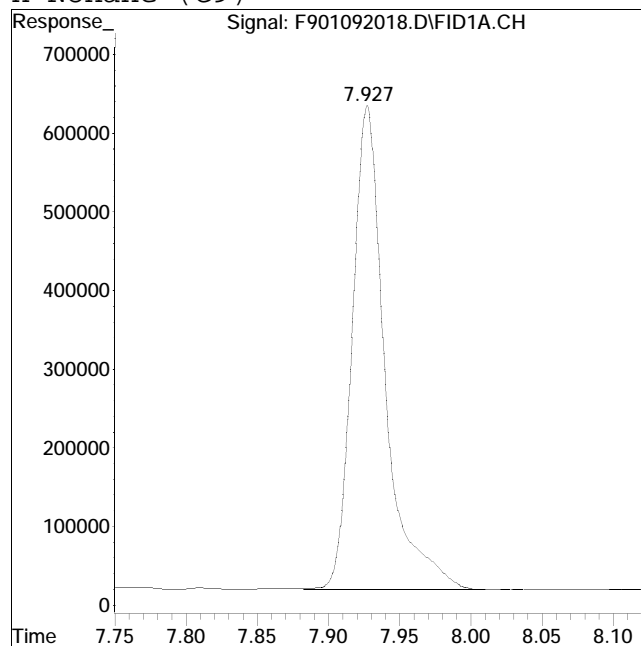
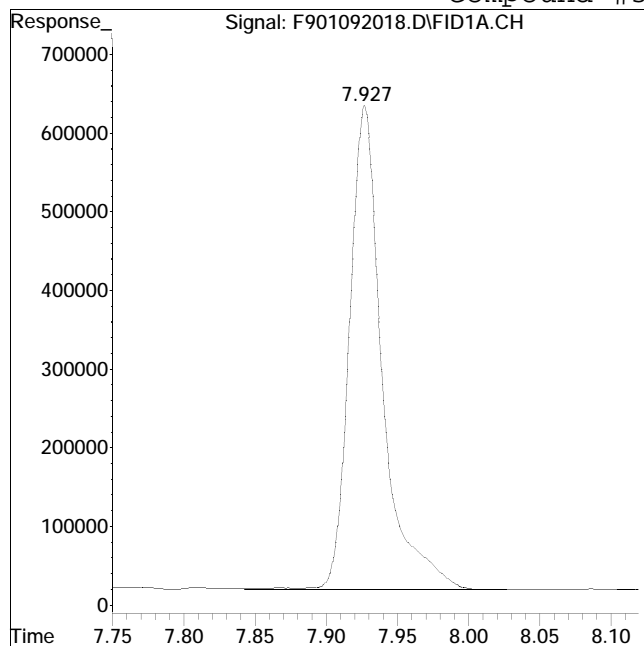
Manual Peak Response = 9429575 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 9977594

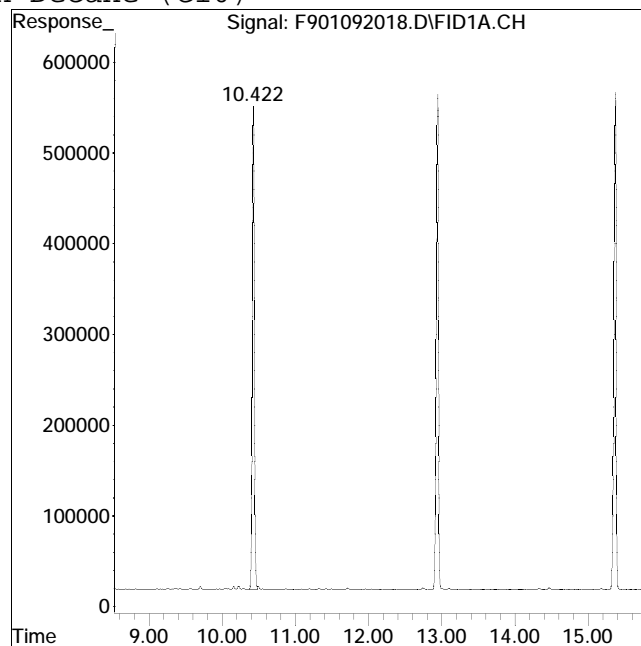
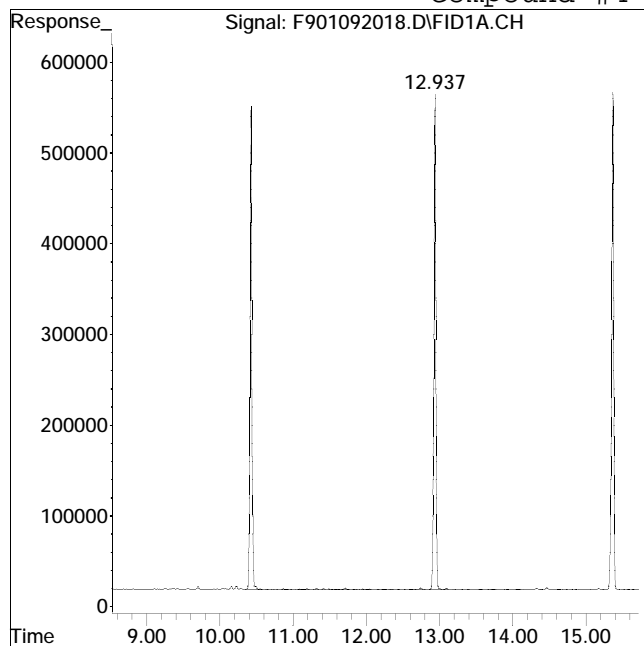
Manual Peak Response = 9867636 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #4: n-Decane (C10)



Original Peak Response = 9957735

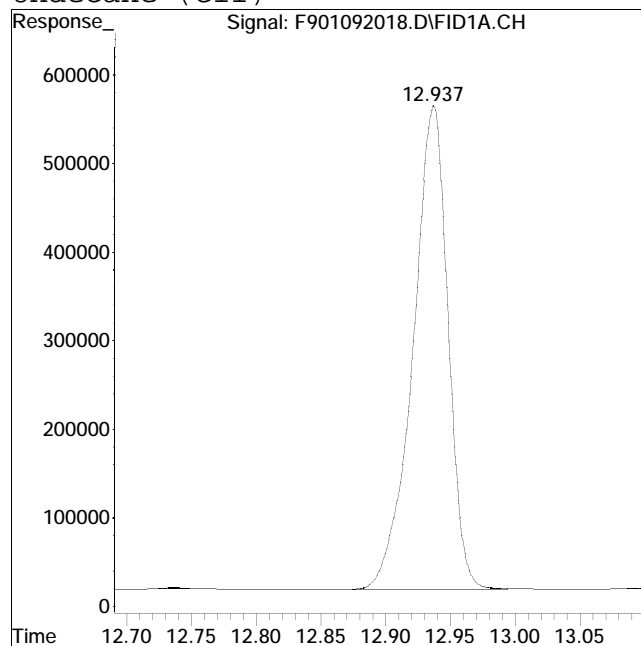
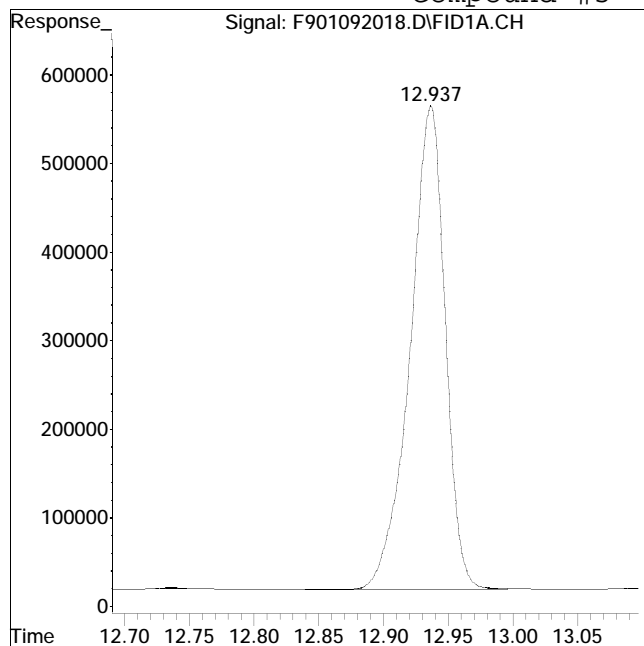
Manual Peak Response = 10142731 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 10293841

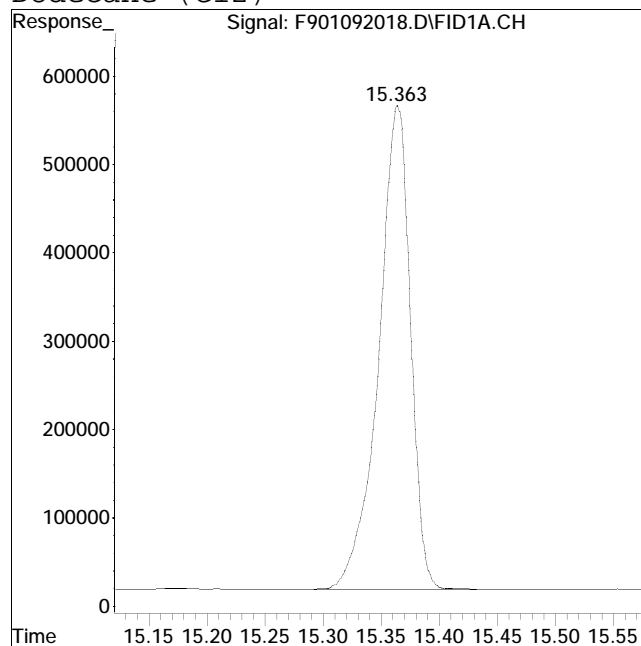
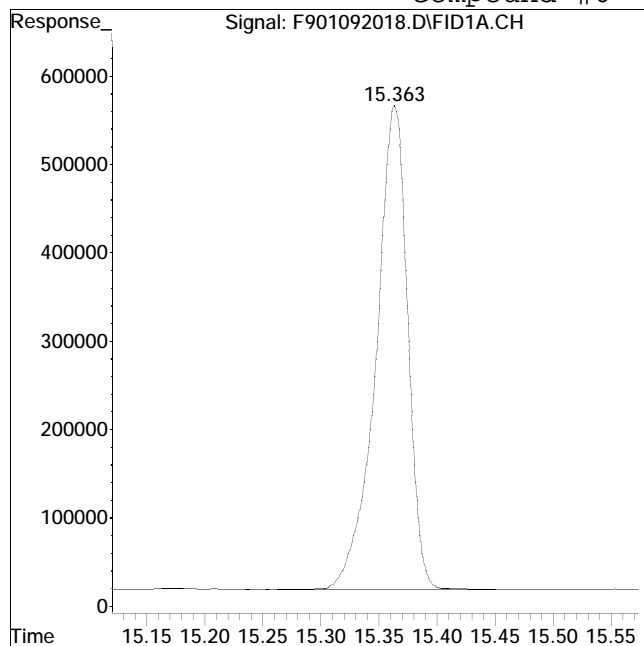
Manual Peak Response = 10282545 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 10457520

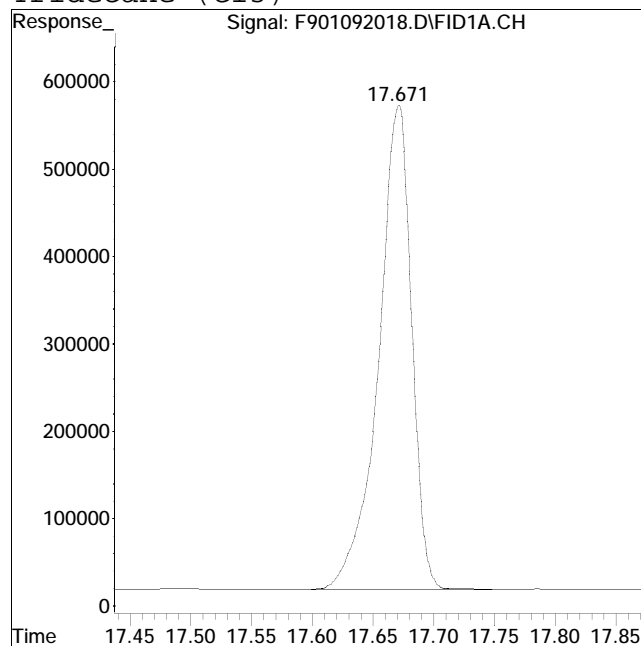
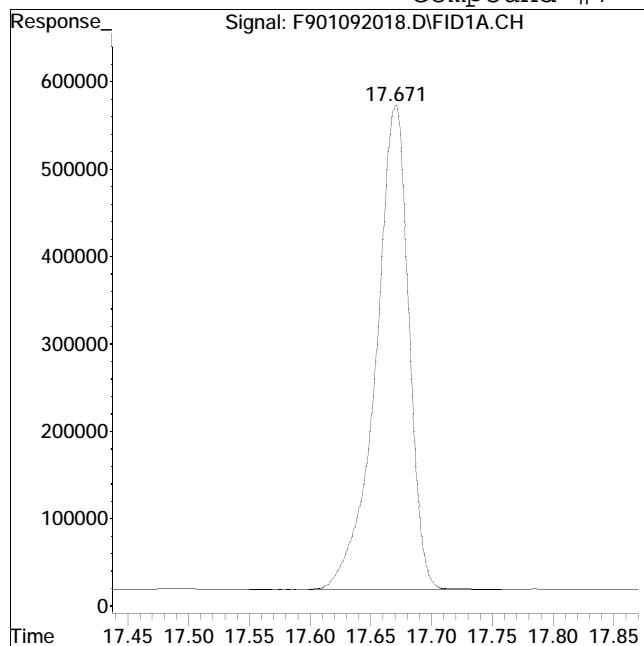
Manual Peak Response = 10439233 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 10526838

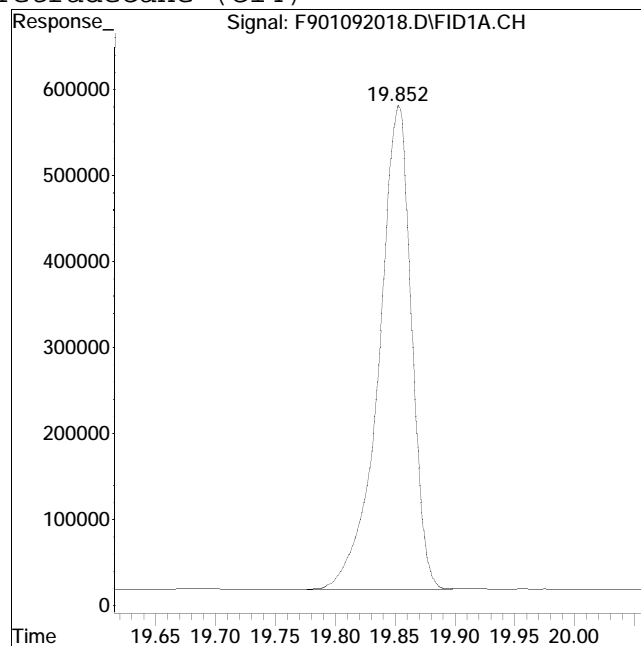
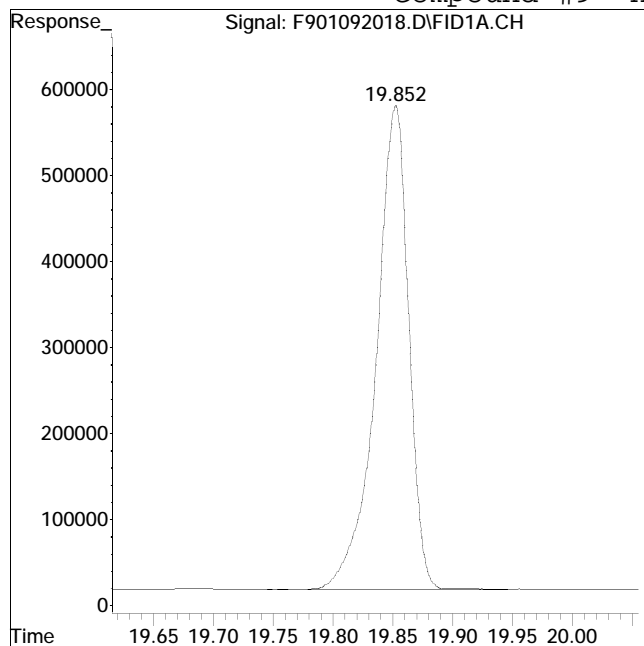
Manual Peak Response = 10515523 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 10706956

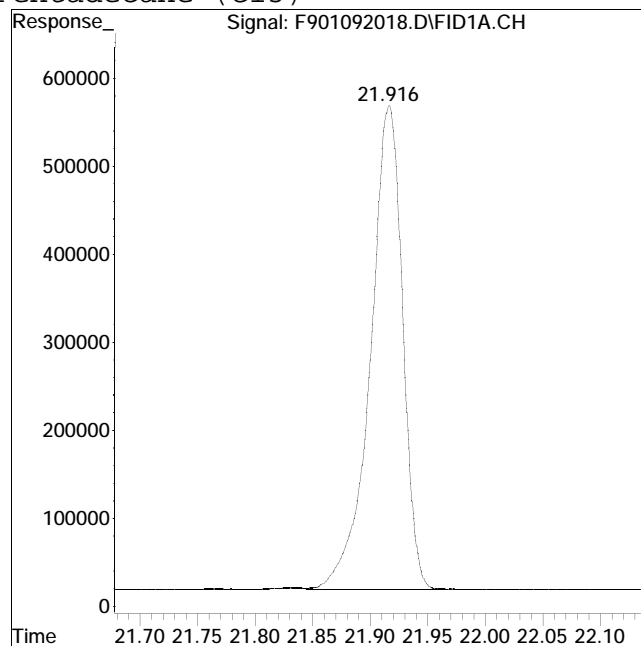
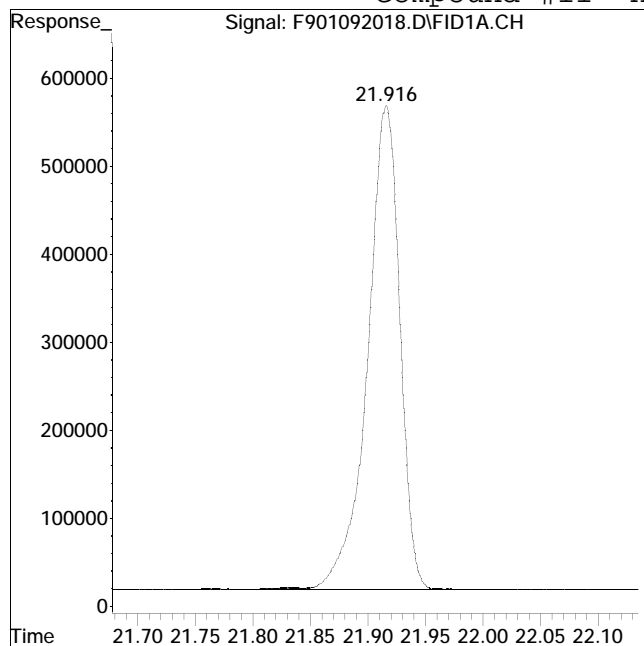
Manual Peak Response = 10684891 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 10761010

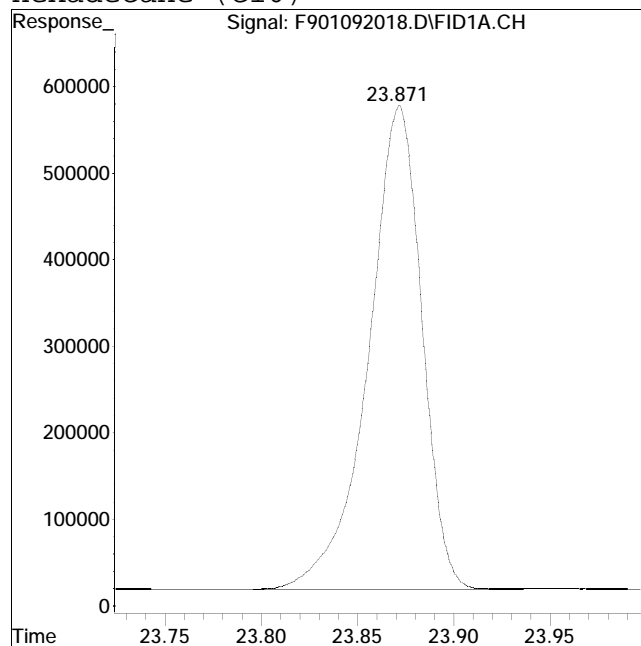
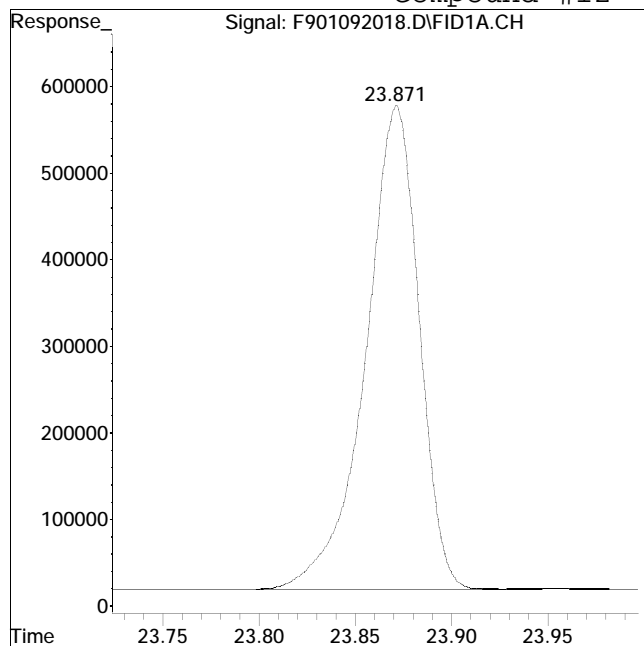
Manual Peak Response = 10697691 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 10799430

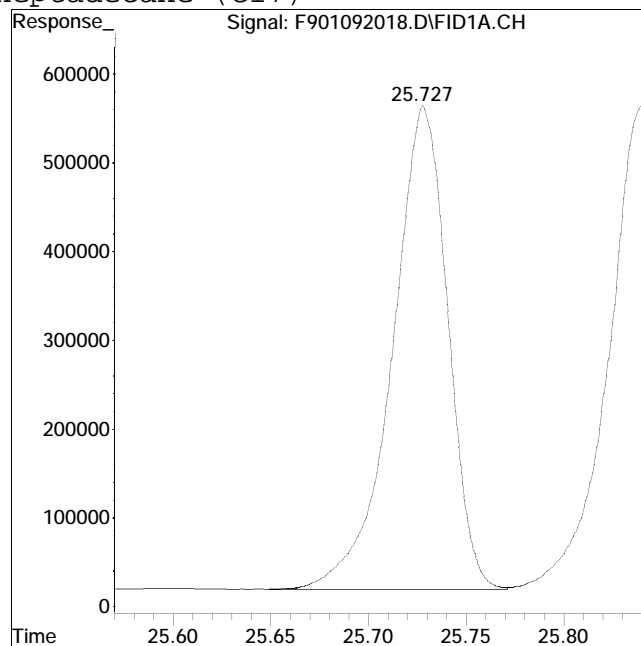
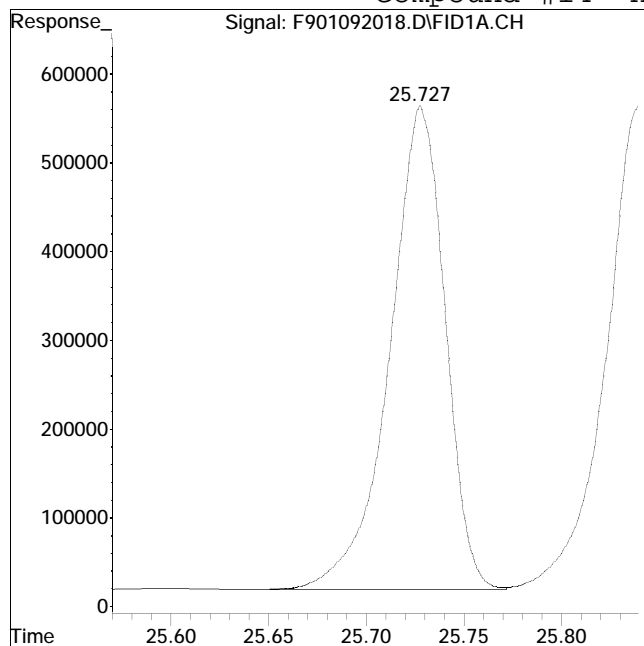
Manual Peak Response = 10826337 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 10762310

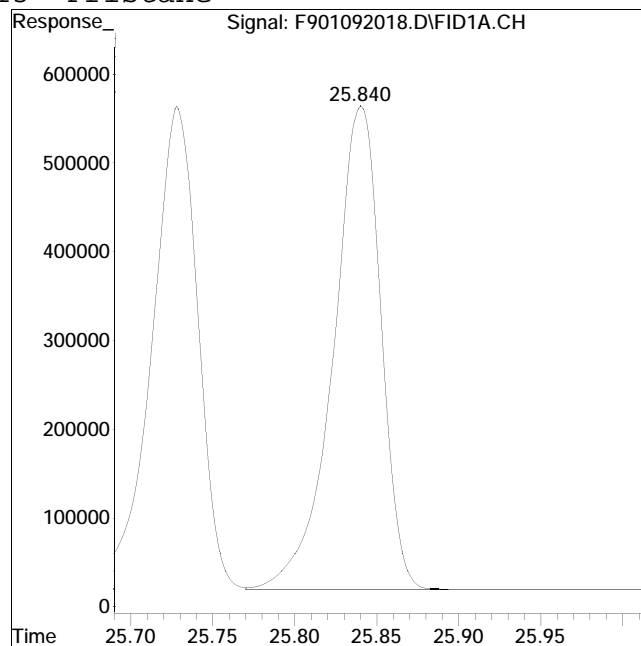
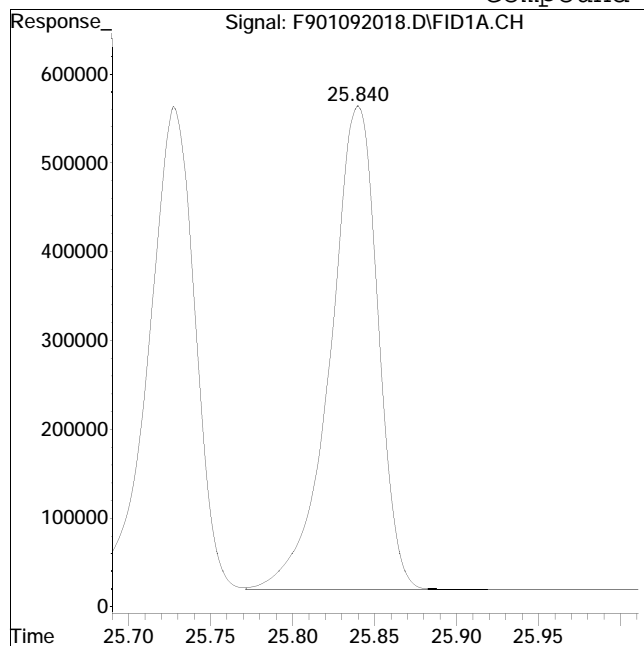
Manual Peak Response = 10764547 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #15: Pristane



Original Peak Response = 11028913

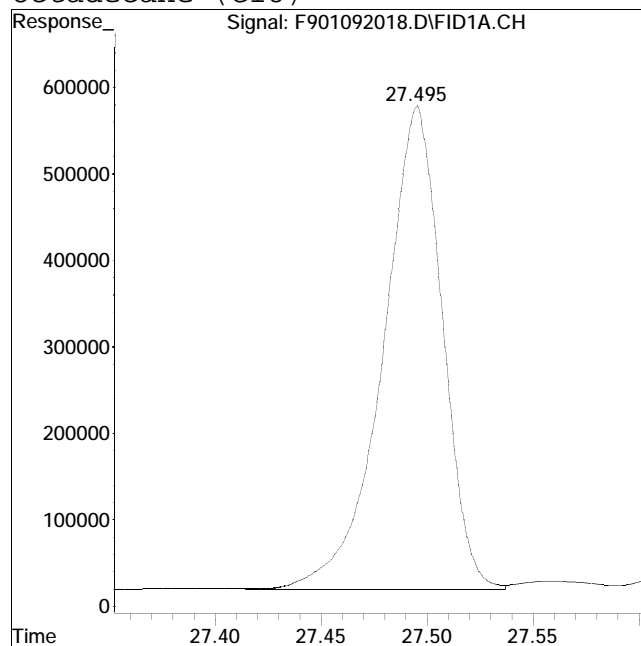
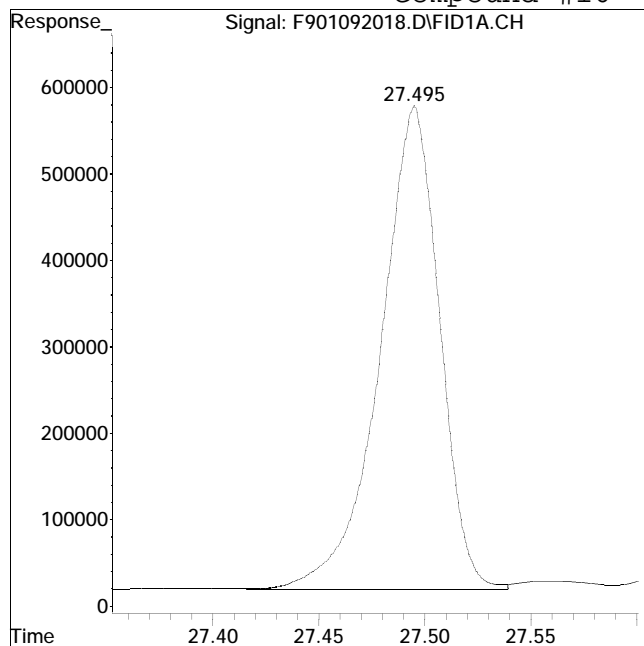
Manual Peak Response = 11016778 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 10925247

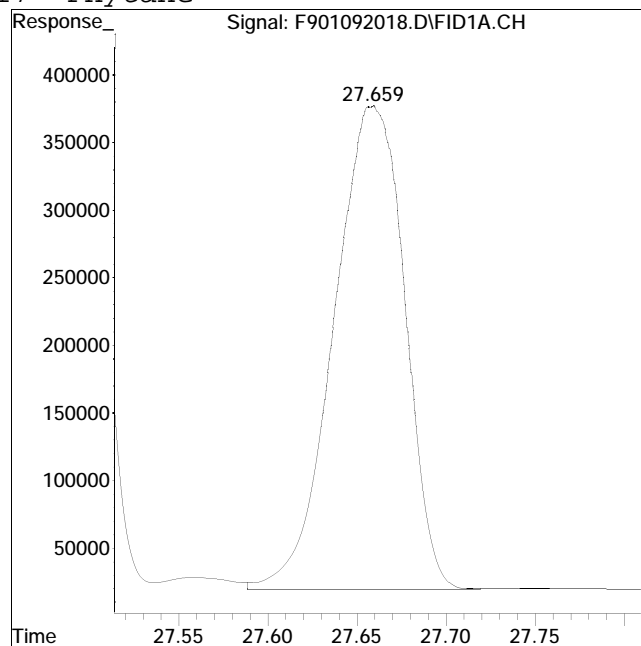
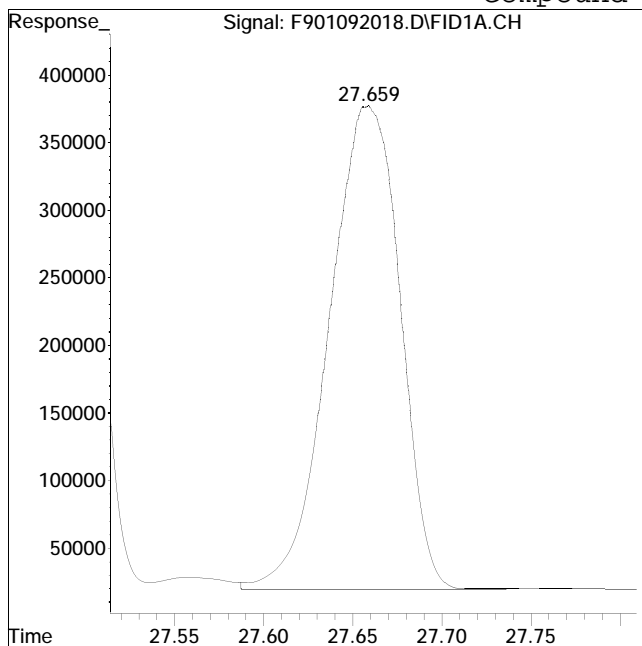
Manual Peak Response = 10899491 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #17: Phytane



Original Peak Response = 9928349

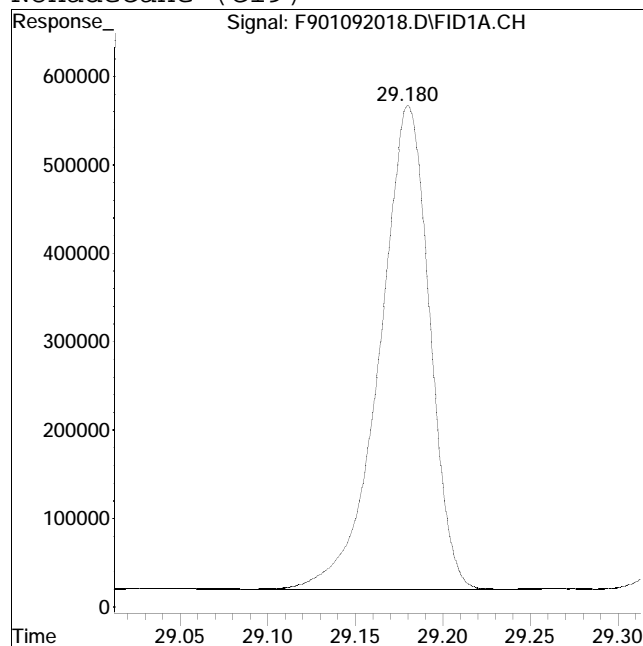
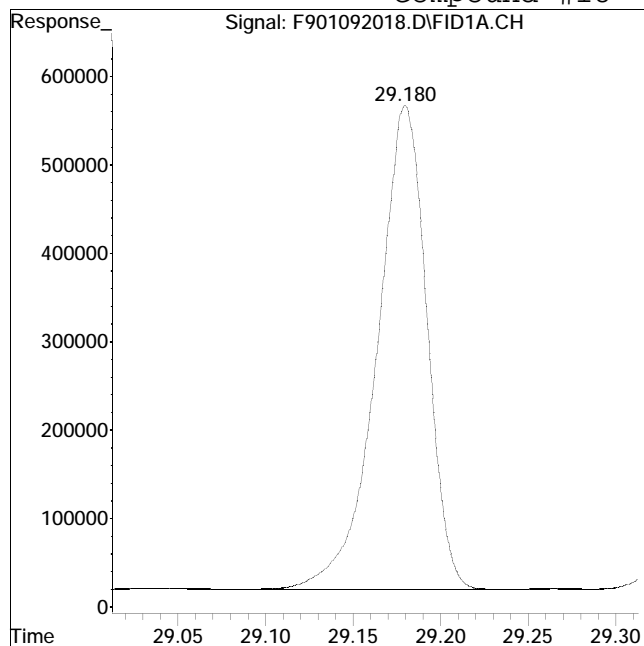
Manual Peak Response = 9911929 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 10875223

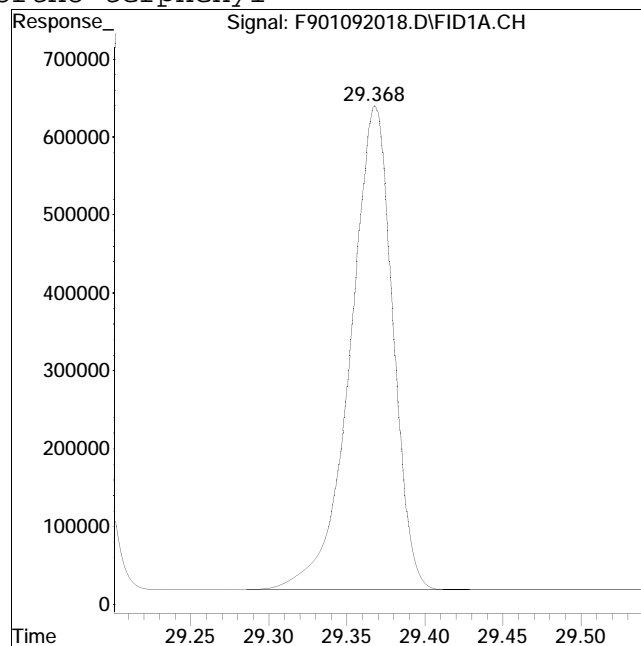
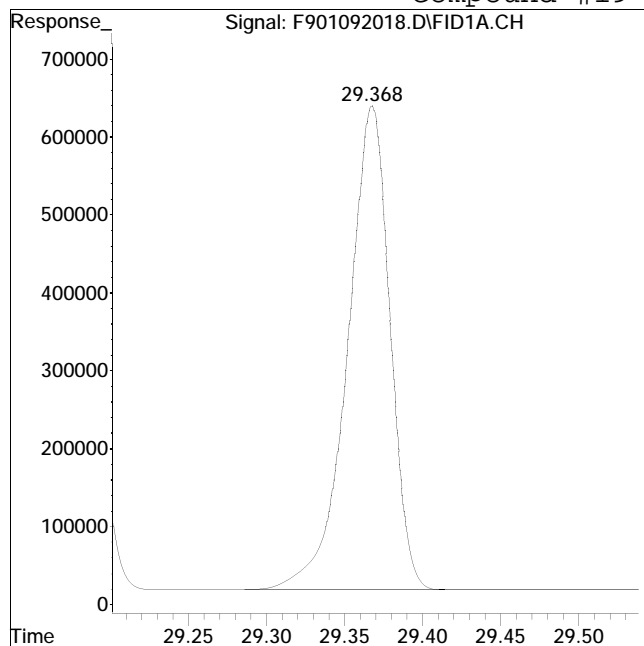
Manual Peak Response = 10905867 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #19: ortho-terphenyl



Original Peak Response = 11751108

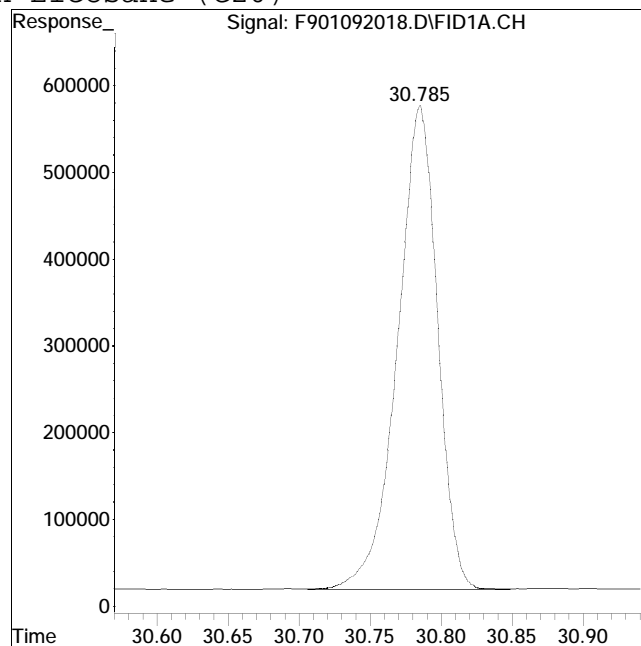
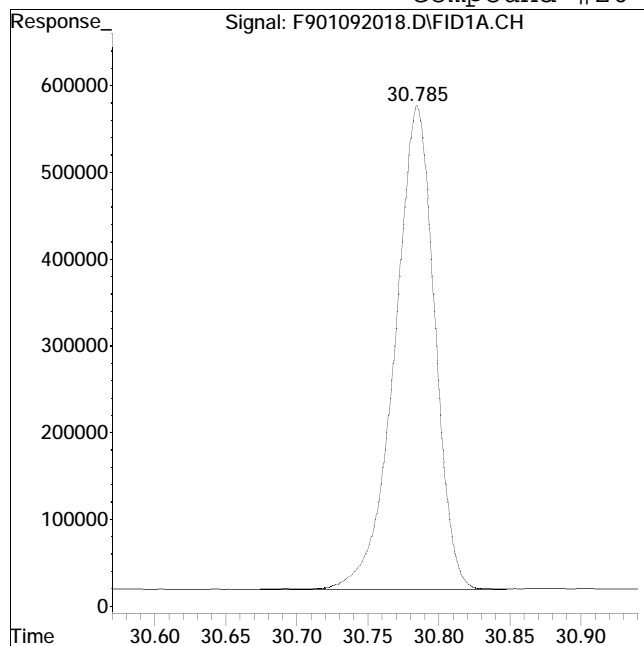
Manual Peak Response = 11784294 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 10953070

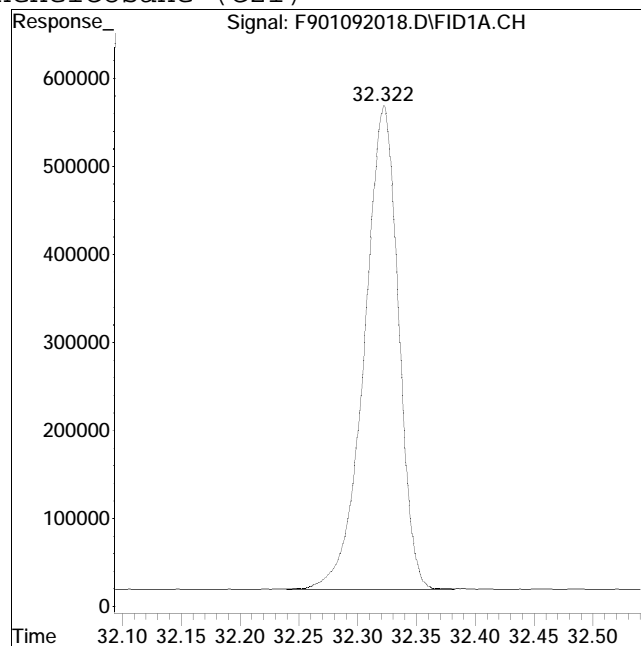
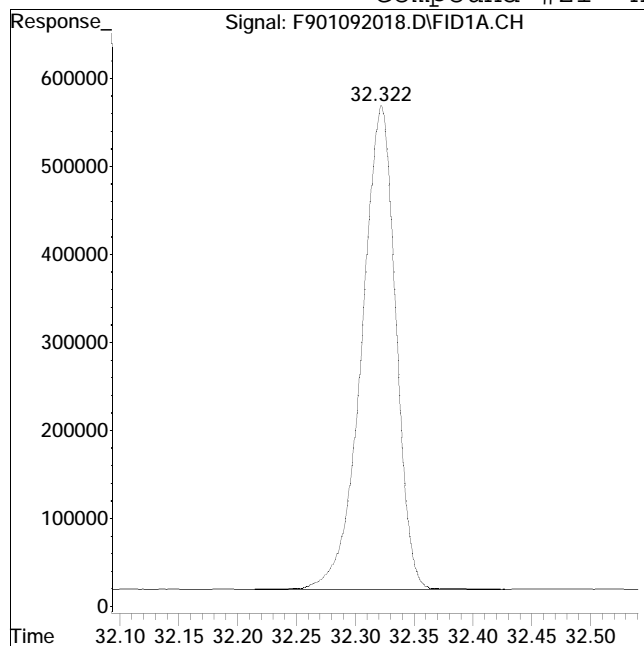
Manual Peak Response = 10942080 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 11143113

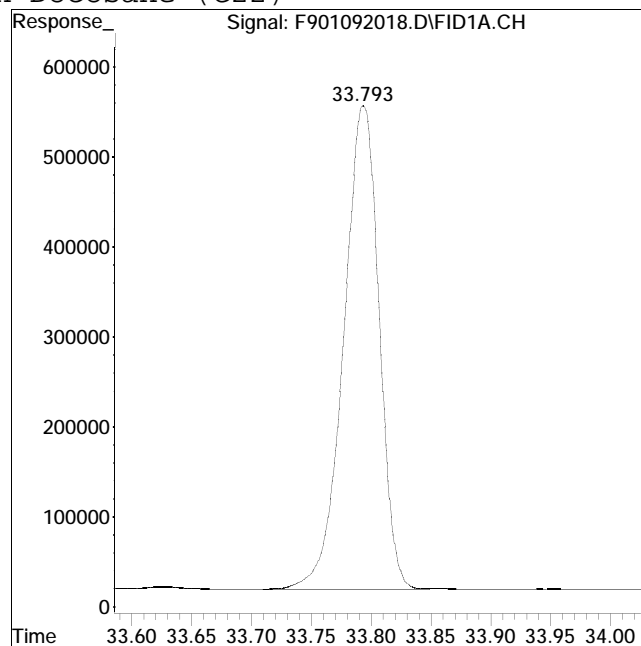
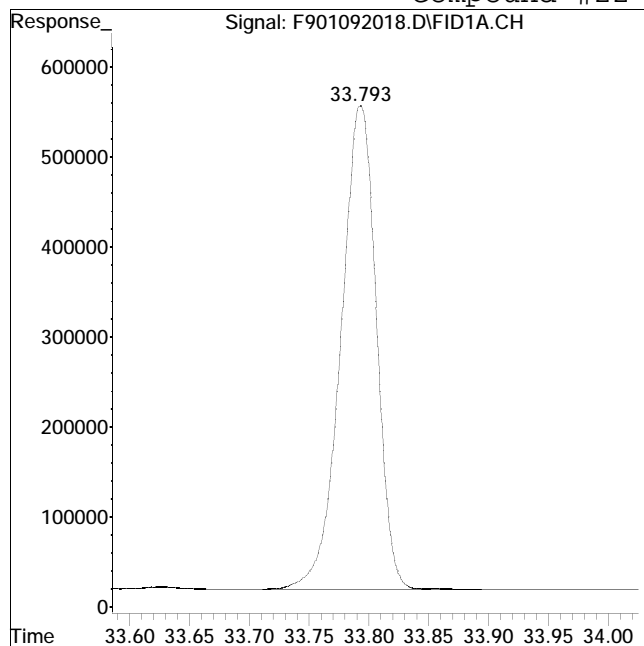
Manual Peak Response = 11109548 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 11115730

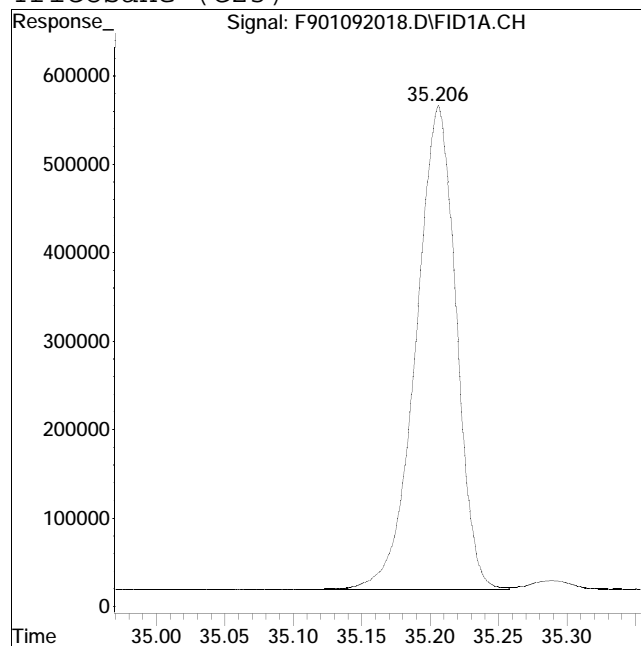
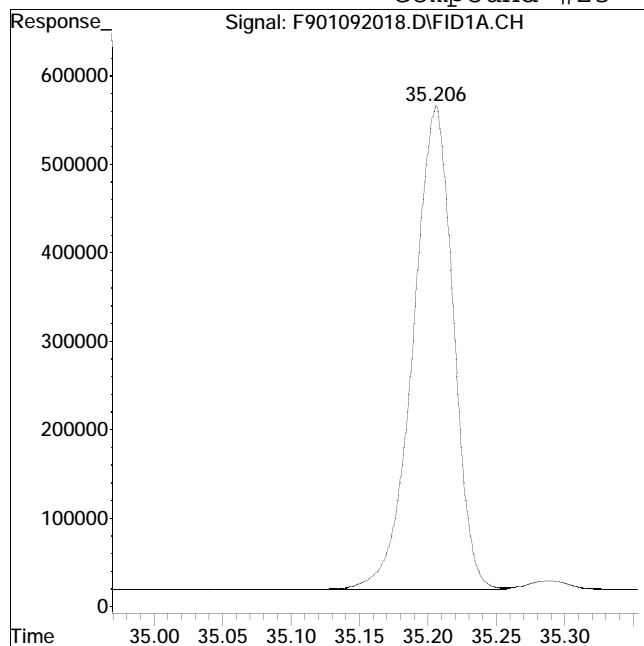
Manual Peak Response = 11111950 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 11168930

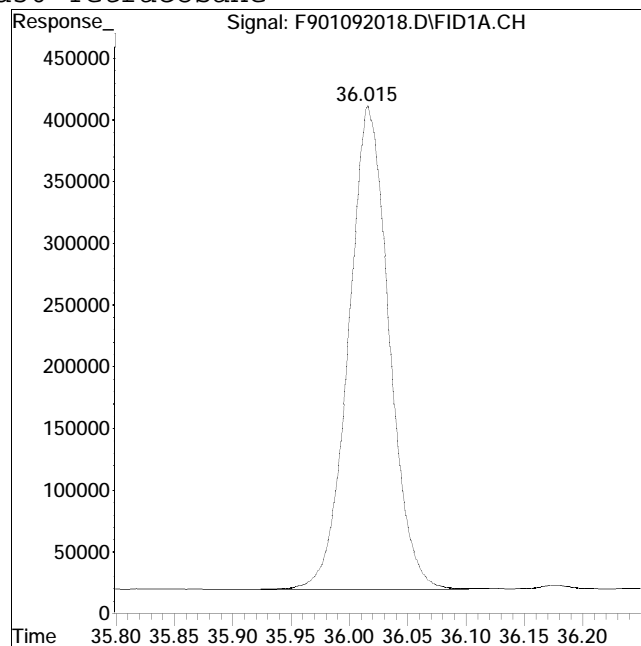
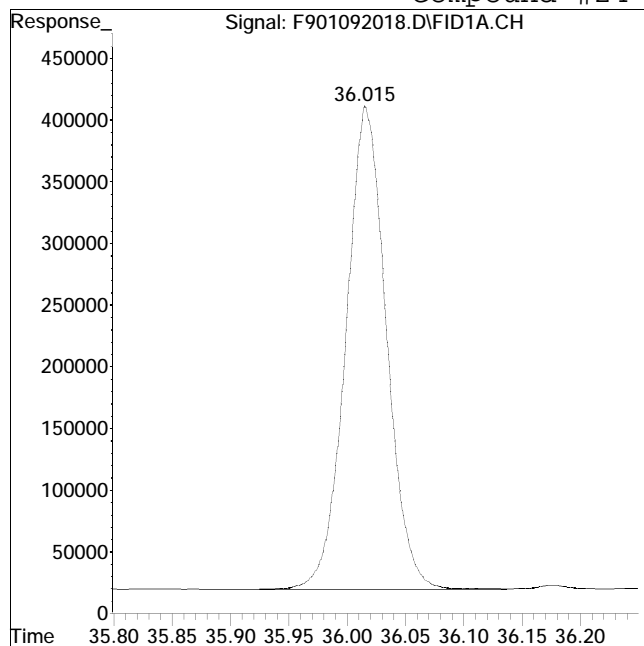
Manual Peak Response = 11192114 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #24: d50-Tetracosane



Original Peak Response = 9466839

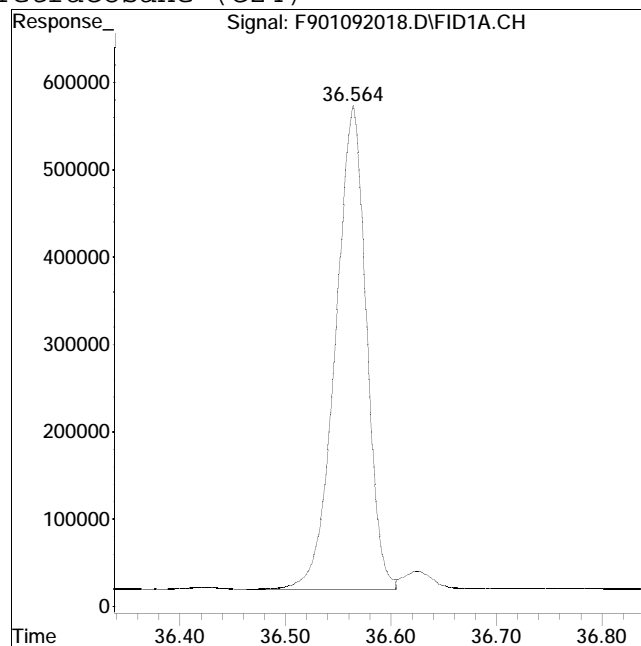
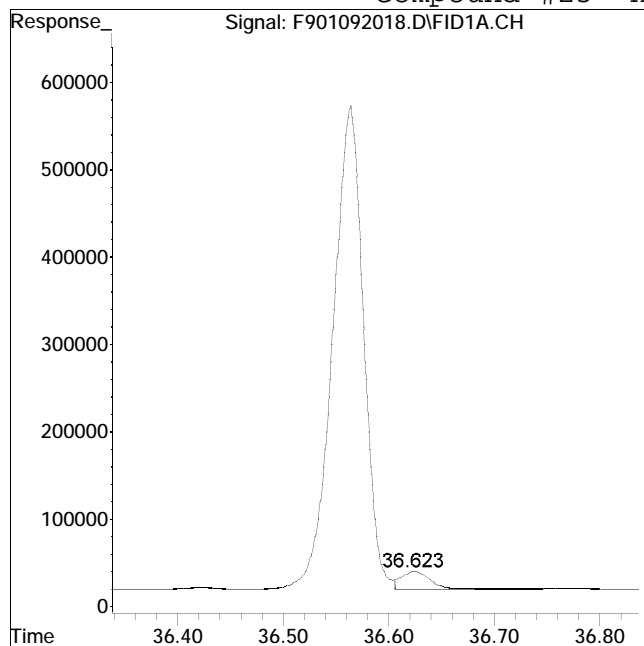
Manual Peak Response = 9467000 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 432681

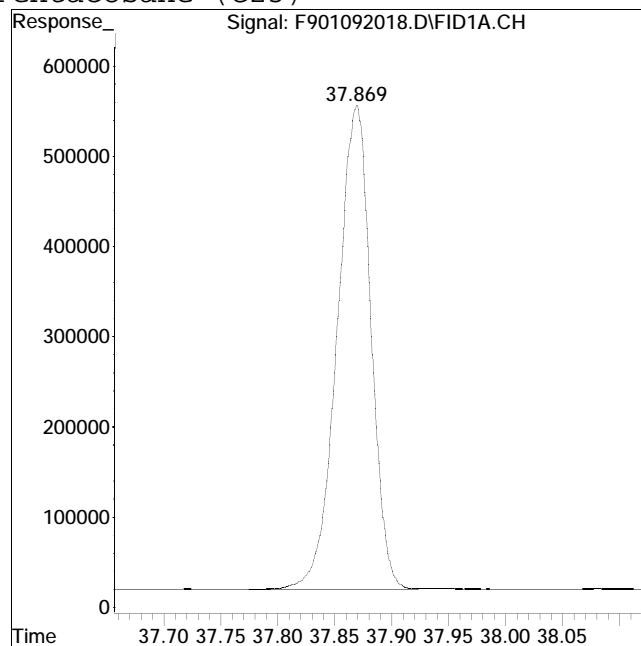
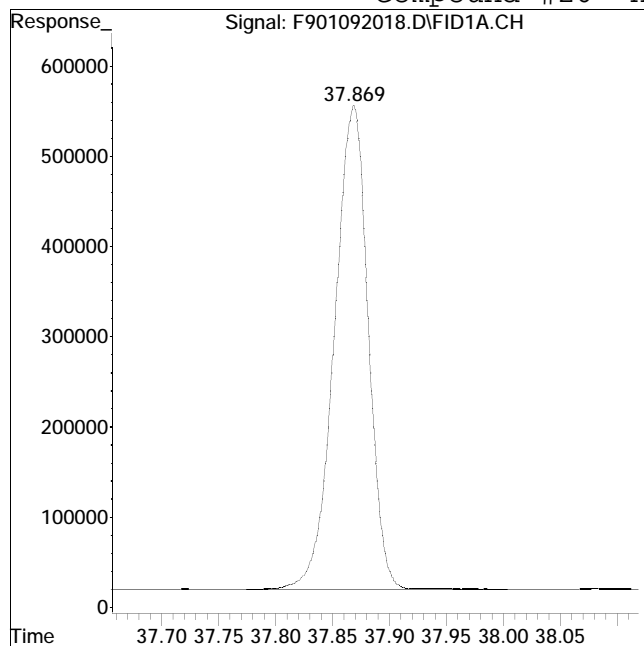
Manual Peak Response = 11263939 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 11120174

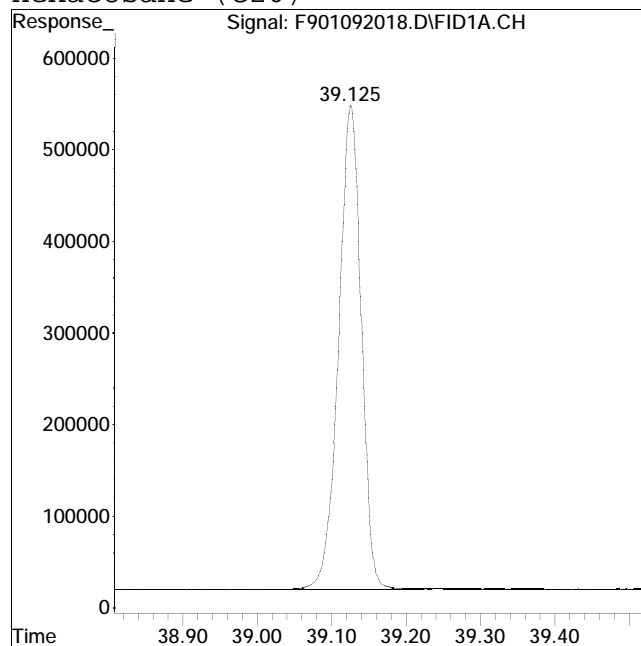
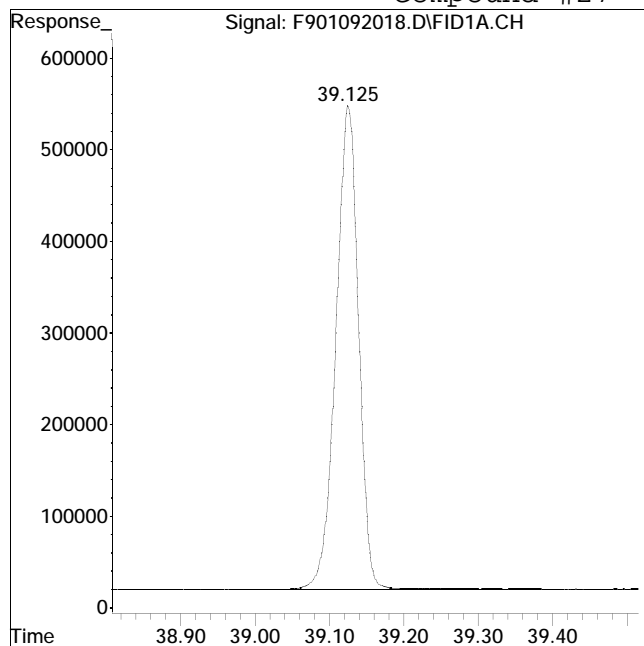
Manual Peak Response = 11081587 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 11253018

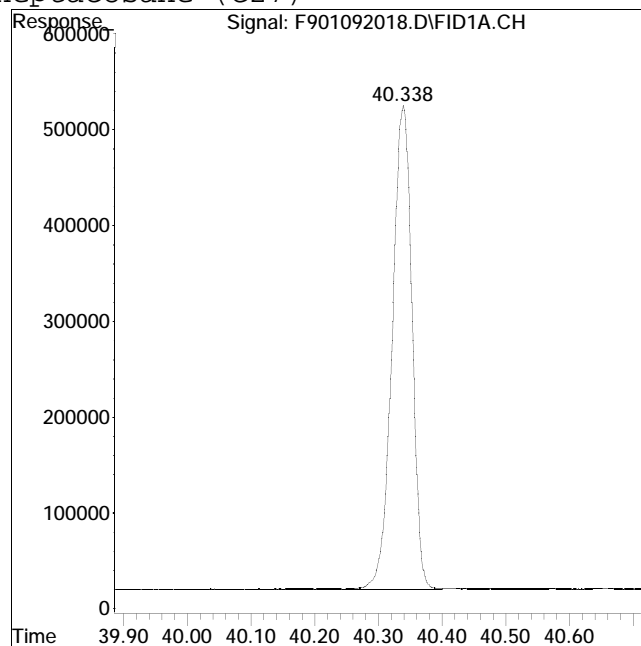
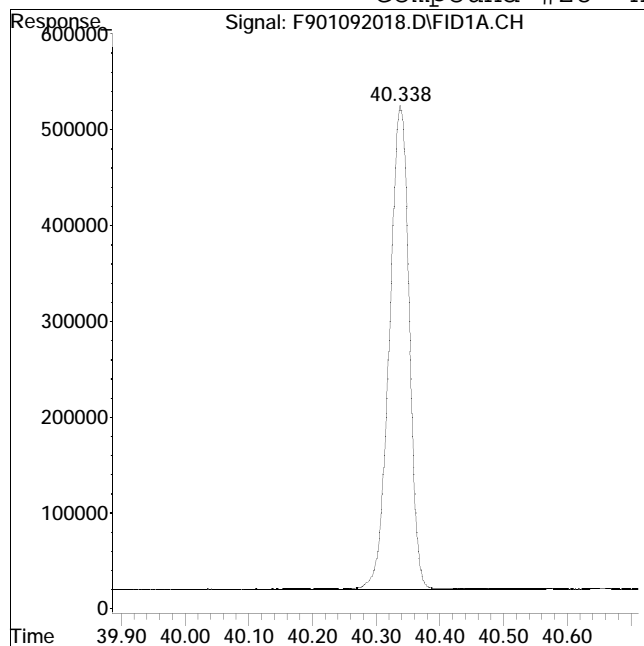
Manual Peak Response = 11176108 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 10966174

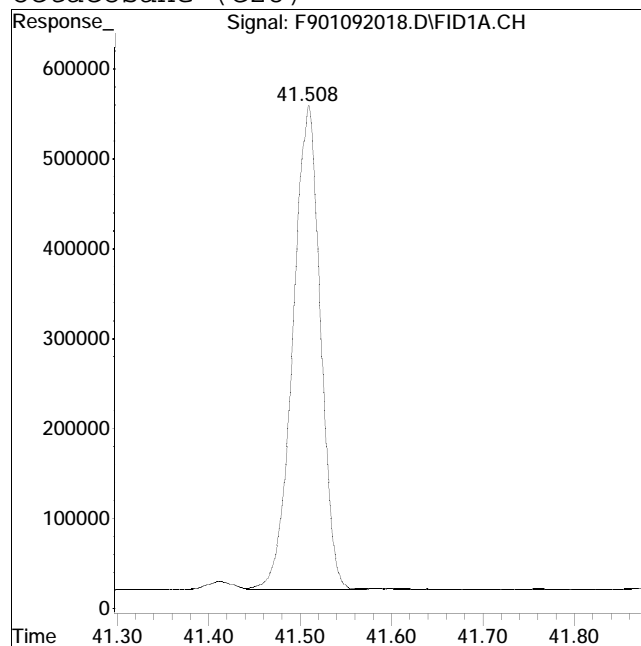
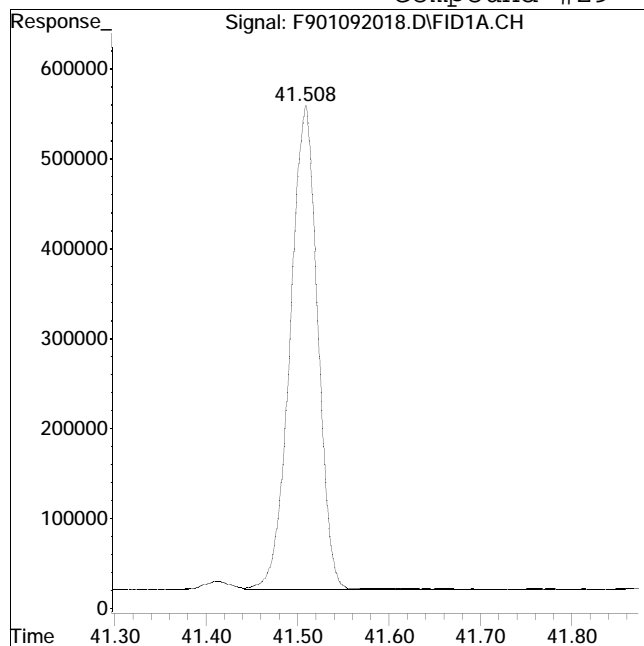
Manual Peak Response = 10891907 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 11327521

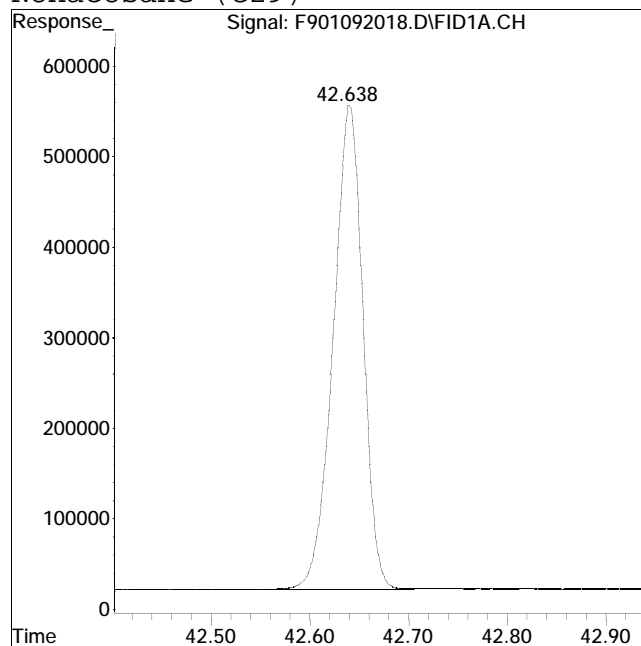
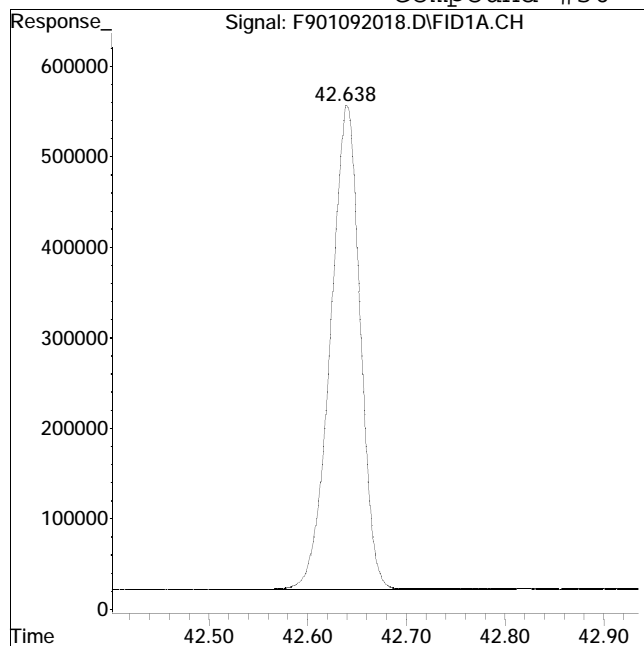
Manual Peak Response = 11262465 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 11238513

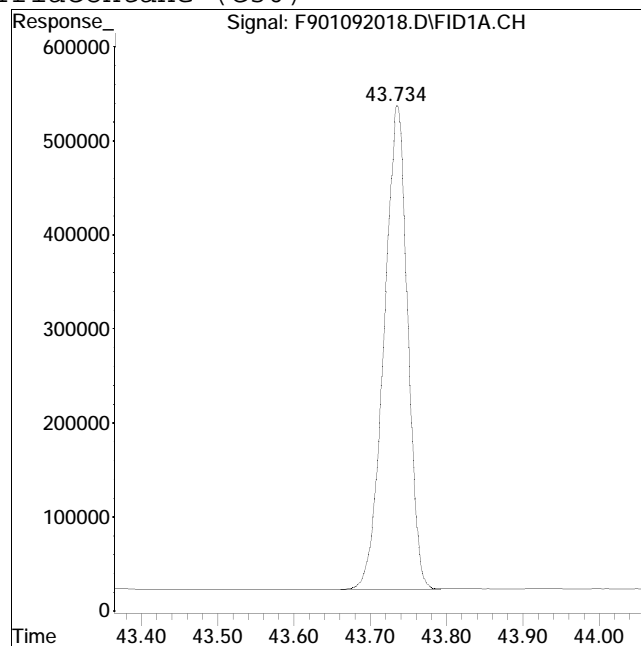
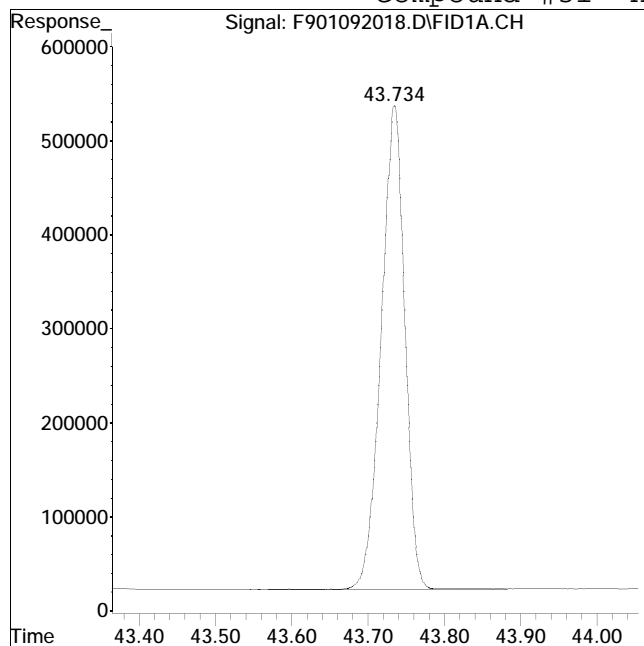
Manual Peak Response = 11198796 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 11126459

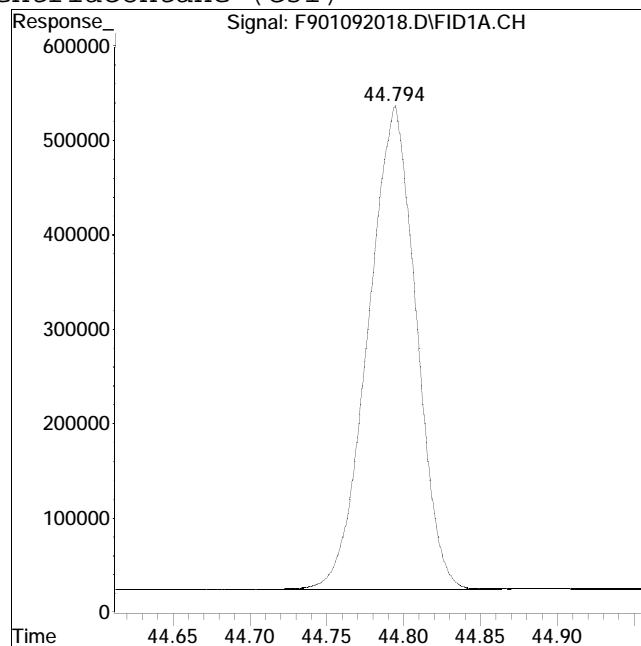
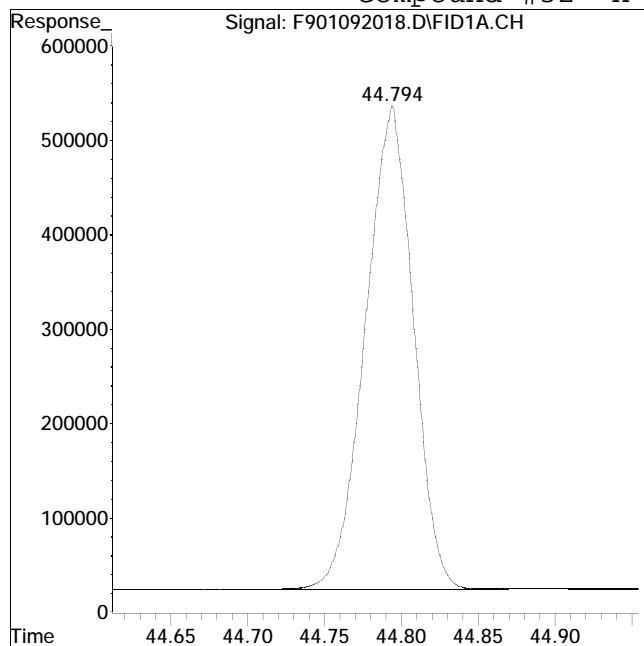
Manual Peak Response = 11050248 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 11117390

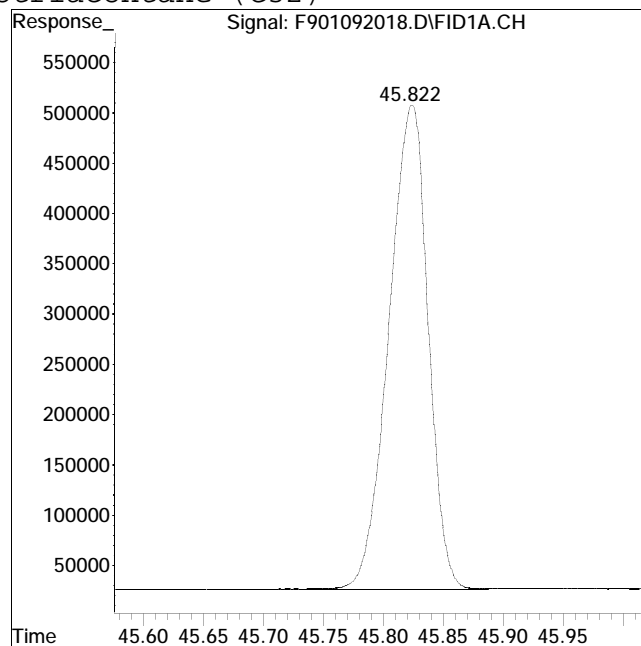
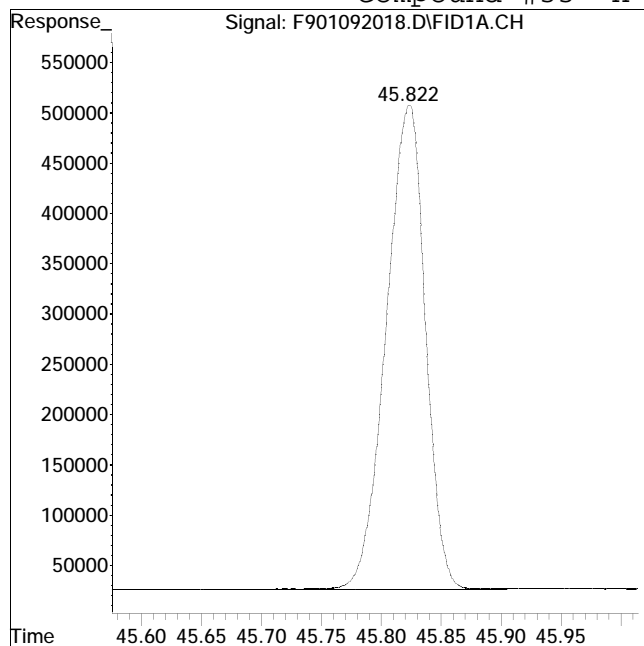
Manual Peak Response = 11118845 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 10953597

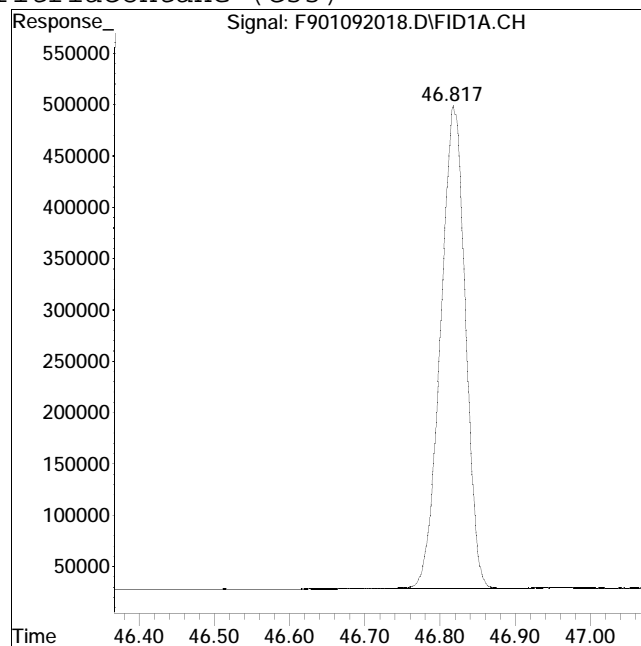
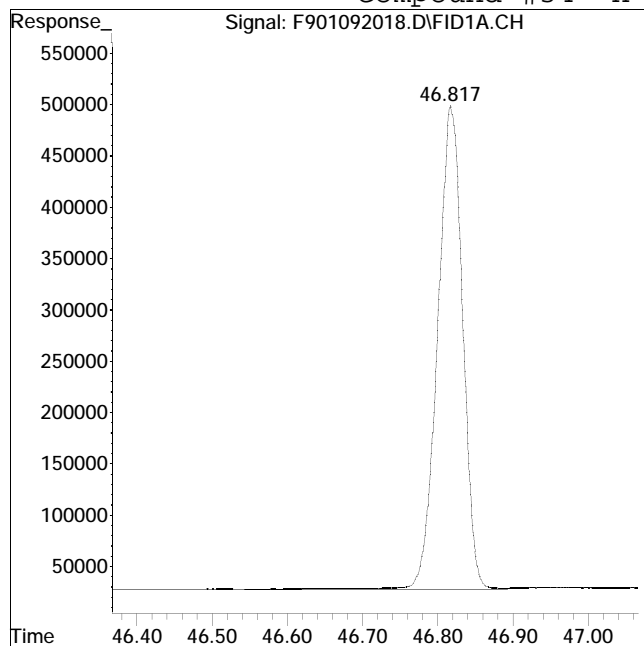
Manual Peak Response = 10942577 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 10974135

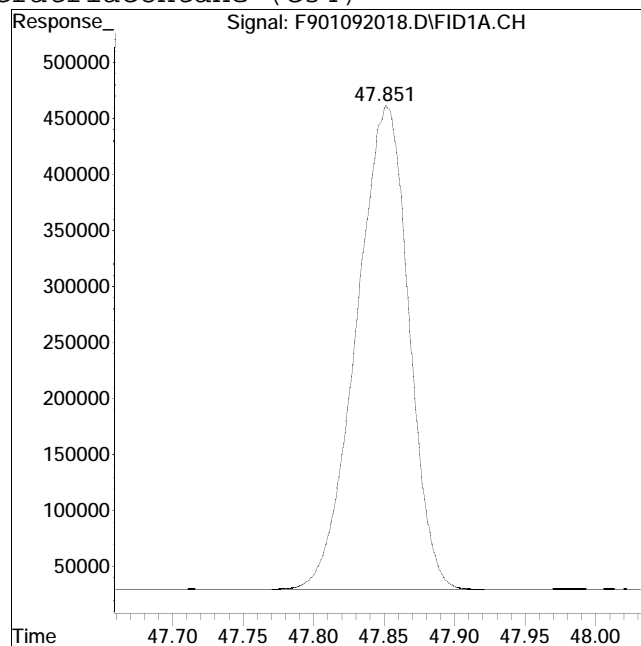
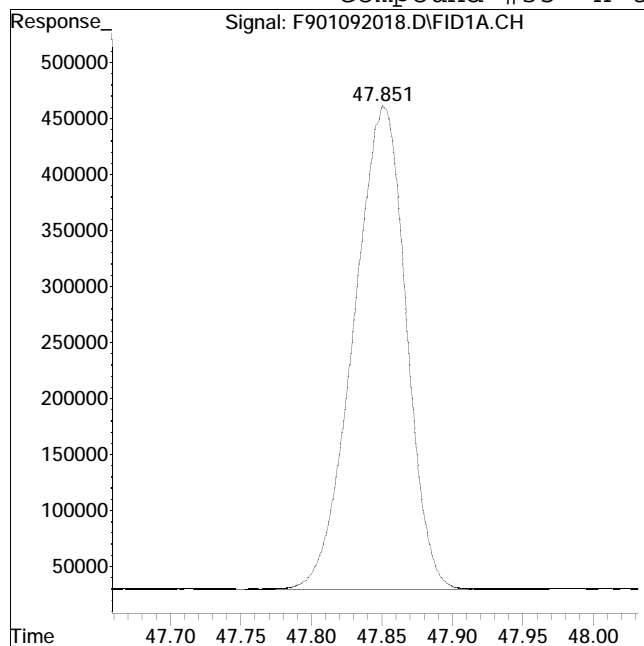
Manual Peak Response = 10809041 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 11209297

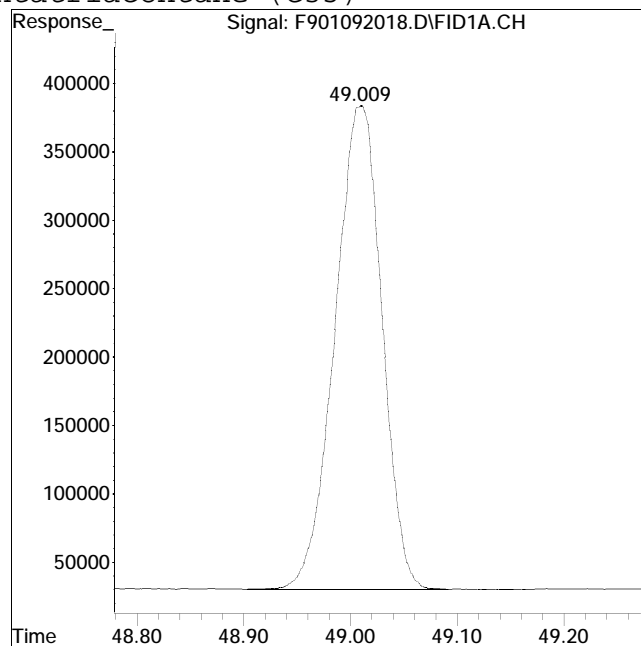
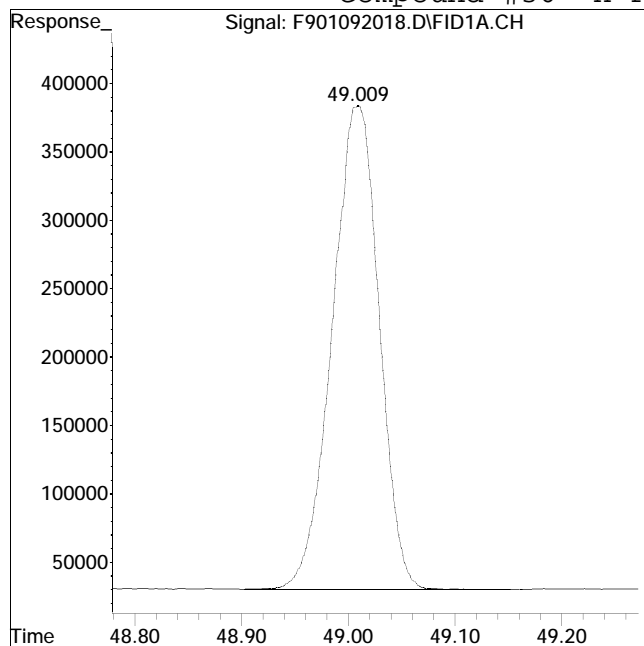
Manual Peak Response = 11186001 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 10848495

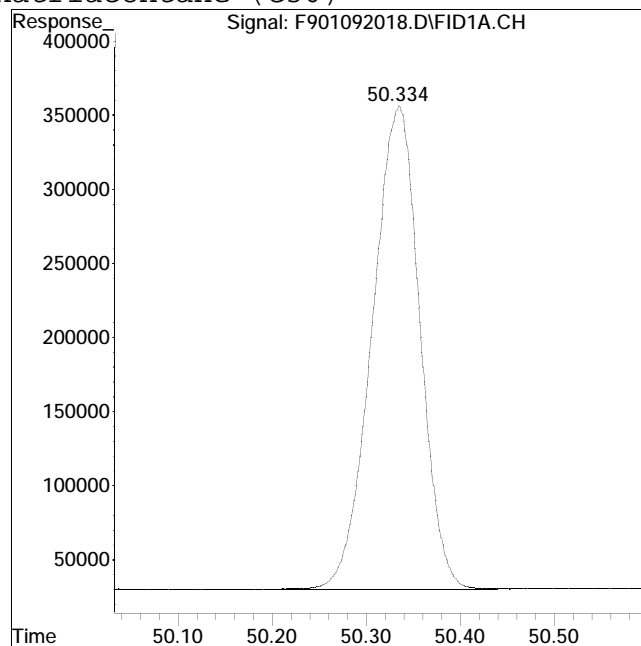
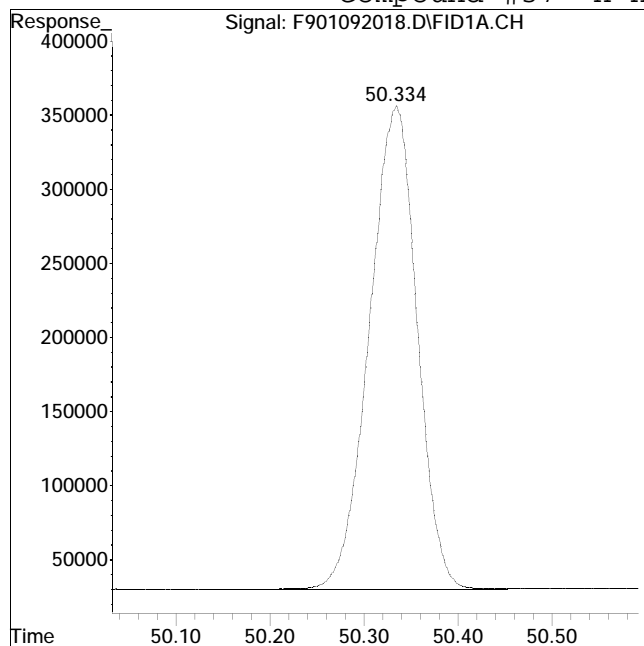
Manual Peak Response = 10838020 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 11524627

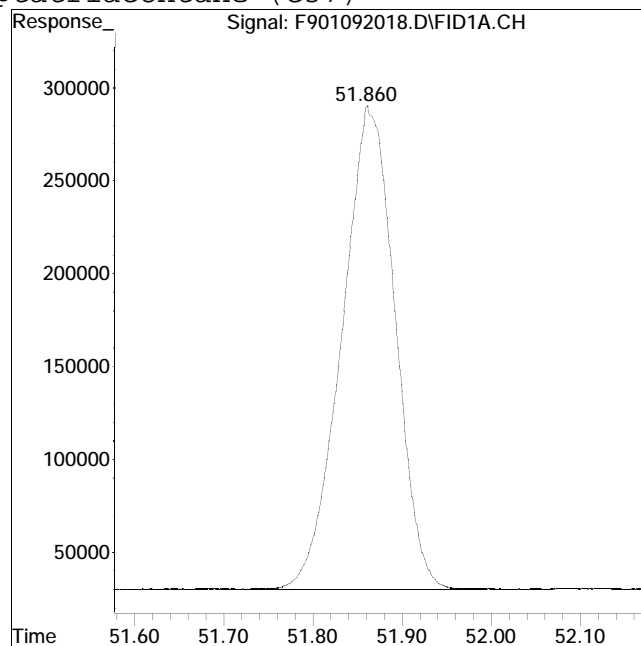
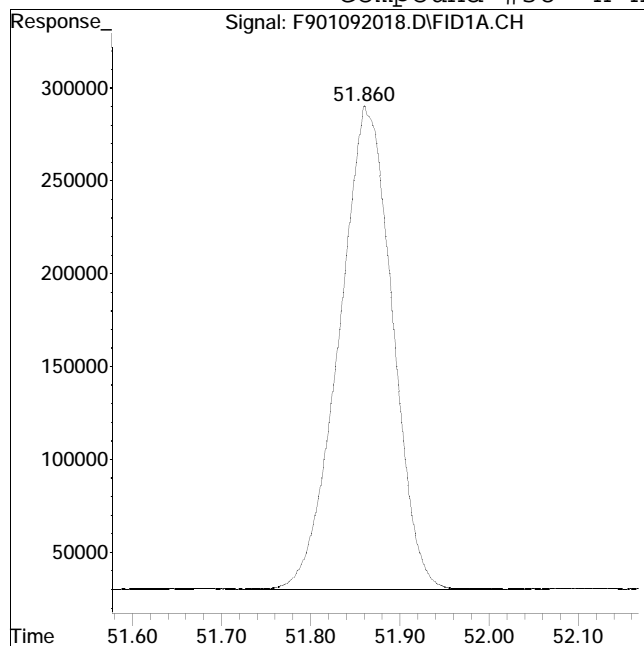
Manual Peak Response = 11525888 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 10831317

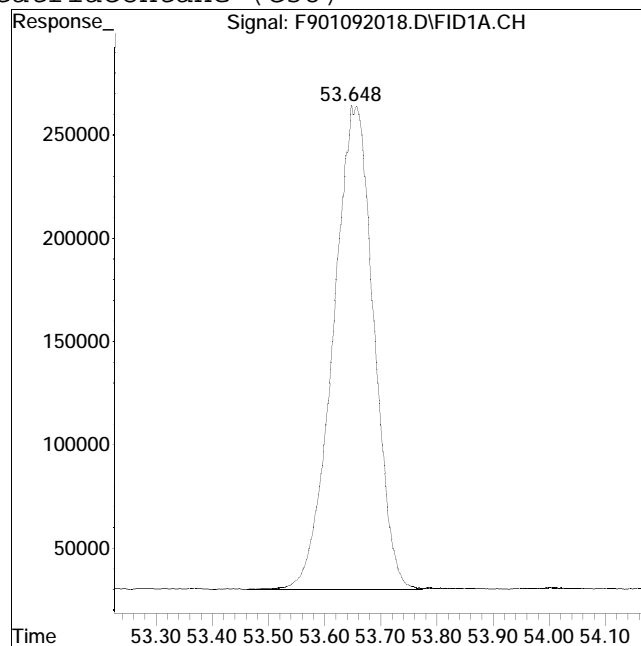
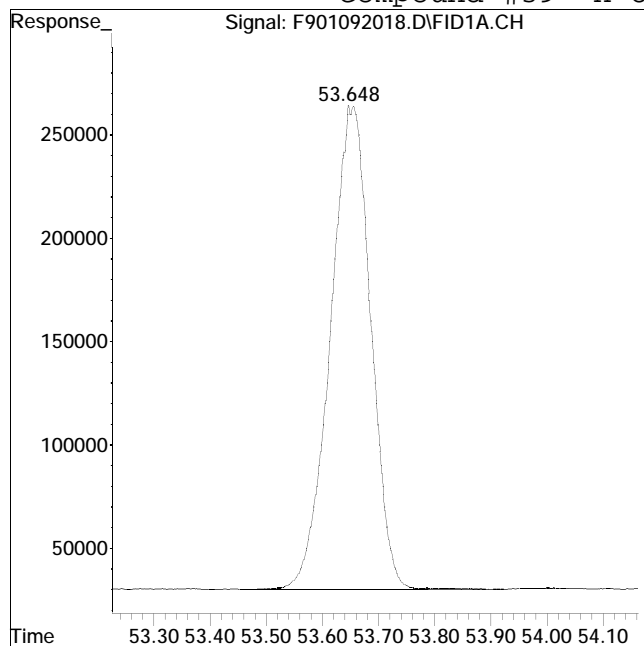
Manual Peak Response = 10812388 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 11734423

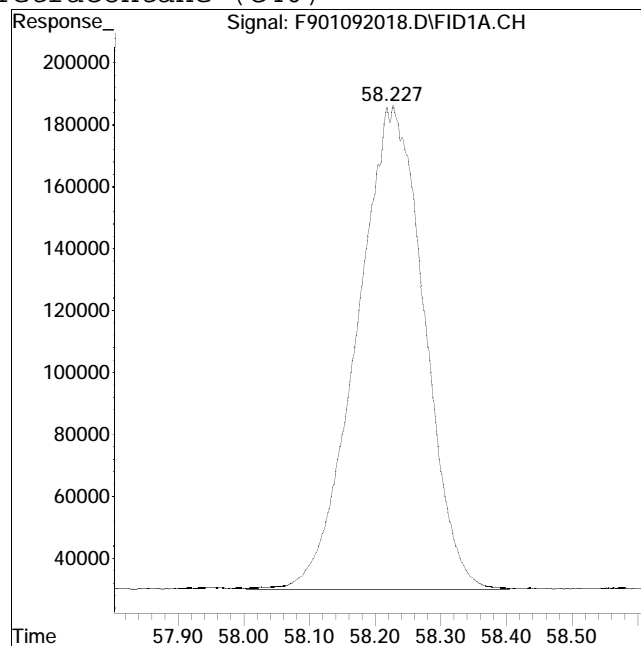
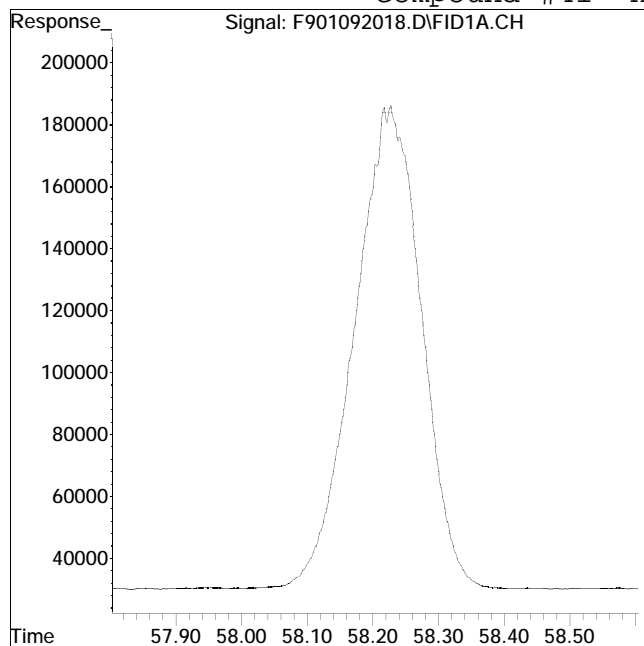
Manual Peak Response = 11738529 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092018.D Operator : FID9:WR
Date Inj'd : 1/9/2020 9:50 pm Instrument : FID 9
Sample : I901022002F Quant Date : 6/1/2020 4:24 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 11148312 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092020.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 11:17 pm
 Operator : FID9:WR
 Sample : I901022003F
 Misc : WG1376652,FRBC21
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:24:33 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.419	55854633	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.393	60238271	51.768	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.54%	
24) s d50-Tetracosane	36.036	48194972	51.773	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.55%	
Target Compounds				
2) t n-Octane (C8)	5.735	46000331	50.633	ug/mL M4
3) t n-Nonane (C9)	7.946	48815651	50.937	ug/mL M4
4) t n-Decane (C10)	10.436	50554141	50.979	ug/mL M4
5) t n-Undecane (C11)	12.950	51652909	51.275	ug/mL M4
6) t n-Dodecane (C12)	15.378	52336805	51.123	ug/mL M4
7) t n-Tridecane (C13)	17.684	52662399	51.262	ug/mL M4
9) t n-Tetradecane (C14)	19.868	53538625	51.227	ug/mL M4
11) t n-Pentadecane (C15)	21.934	53629833	51.191	ug/mL M4
12) t n-Hexadecane (C16)	23.890	54114860	51.245	ug/mL M4
14) t n-Heptadecane (C17)	25.749	53935128	51.060	ug/mL M4
15) t Pristane	25.862	55022450	51.304	ug/mL M4
16) t n-Octadecane (C18)	27.516	54572503	51.260	ug/mL M4
17) t Phytane	27.680	49344658	50.893	ug/mL M4
18) t n-Nonadecane (C19)	29.201	54446530	51.297	ug/mL M4
20) t n-Eicosane (C20)	30.807	54582134	51.183	ug/mL M4
21) t n-Heneicosane (C21)	32.342	55428281	51.186	ug/mL M4
22) t n-Docosane (C22)	33.814	55446600	51.325	ug/mL M4
23) t n-Tricosane (C23)	35.230	55577854	51.249	ug/mL M4
25) t n-Tetracosane (C24)	36.589	56211438	51.277	ug/mL M4
26) t n-Pentacosane (C25)	37.890	55256728	51.295	ug/mL M4
27) t n-Hexacosane (C26)	39.149	55615240	51.384	ug/mL M4
28) t n-Heptacosane (C27)	40.363	54105652	51.295	ug/mL M4
29) t n-Octacosane (C28)	41.534	55954661	51.429	ug/mL M4
30) t n-Nonacosane (C29)	42.666	55561663	51.305	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092020.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 11:17 pm
 Operator : FID9:WR
 Sample : I901022003F
 Misc : WG1376652,FRBC21
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:24:33 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.758	54827375	51.390 ug/mL M4
32) t n-Hentriacontane (C31)	44.820	54979239	51.234 ug/mL M4
33) t n-Dotriacontane (C32)	45.849	54085854	51.210 ug/mL M4
34) t n-Tritriacontane (C33)	46.842	53550165	51.266 ug/mL M4
35) t n-tetratriacontane (C34)	47.882	55441401	51.128 ug/mL M4
36) t n-Pentatriacontane (C35)	49.045	53595139	50.940 ug/mL M4
37) t n-Hexatriacontane (C36)	50.378	56937669	51.231 ug/mL M4
38) t n-Heptatriacontane (C37)	51.919	53648112	51.062 ug/mL M4
39) t n-Octatriacontane (C38)	53.718	58154827	51.134 ug/mL M4
41) t n-Tetracontane (C40)	58.312	55280162	50.885 ug/mL M4

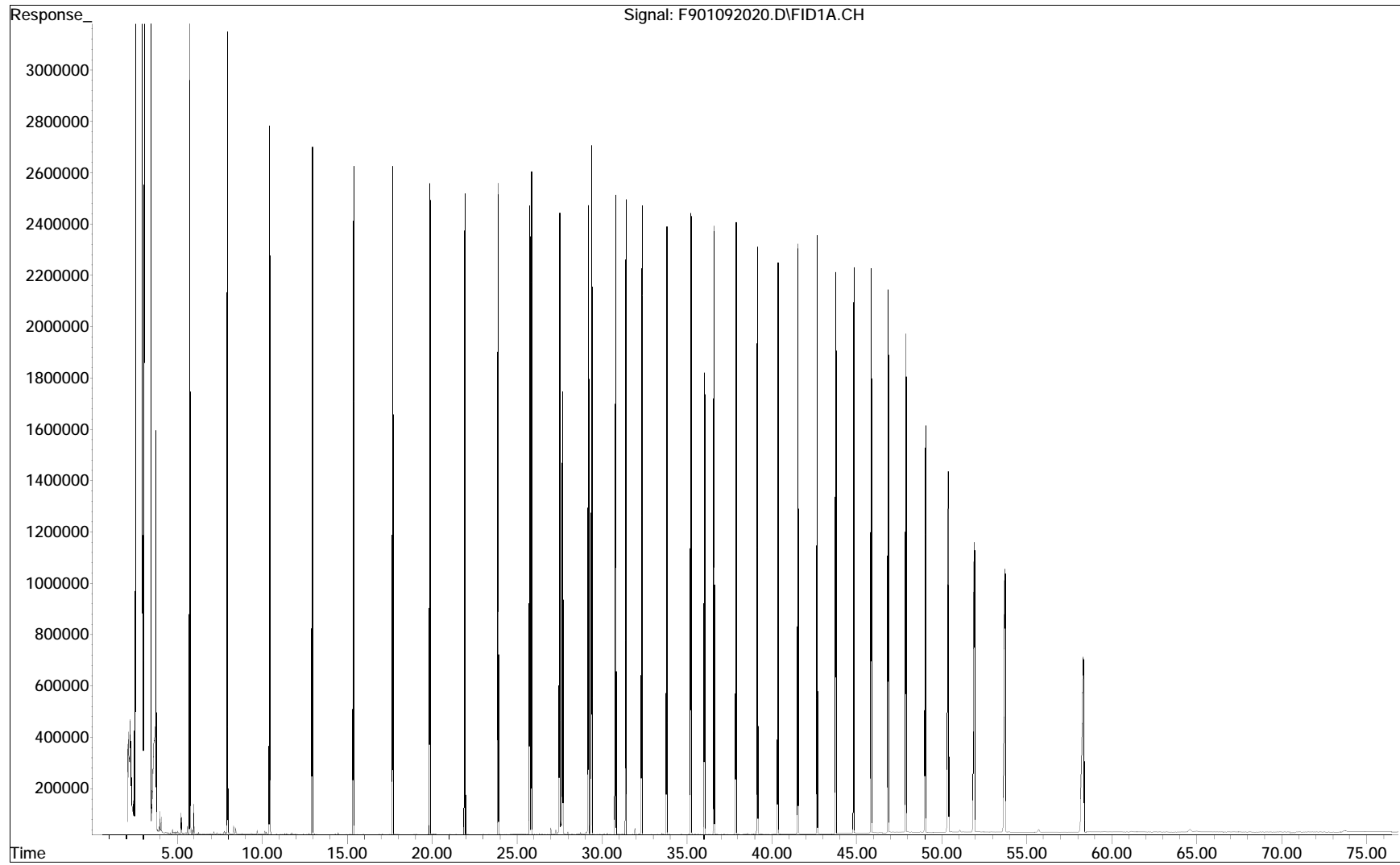
SemiQuant Compounds - Not Calibrated on this Instrument

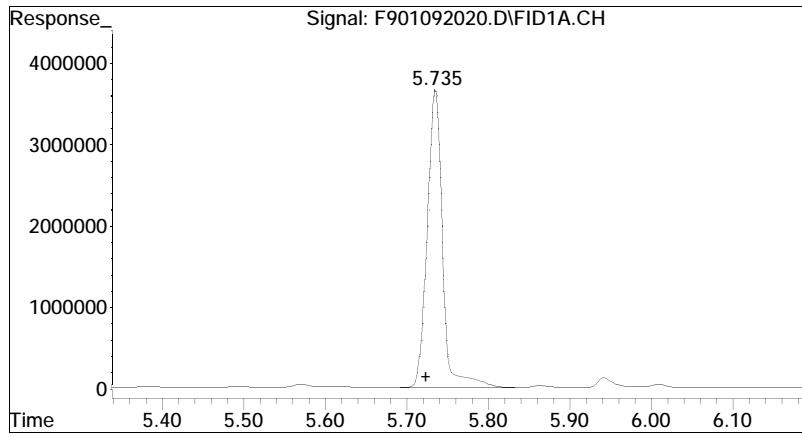
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092020.D
Operator : FID9:WR
Acquired : 09 Jan 2020 11:17 pm using AcqMethod FID9A.M
Instrument: FID 9
Sample : I901022003F
Misc Info : WG1376652,FRBC21
ALS Vial : 10





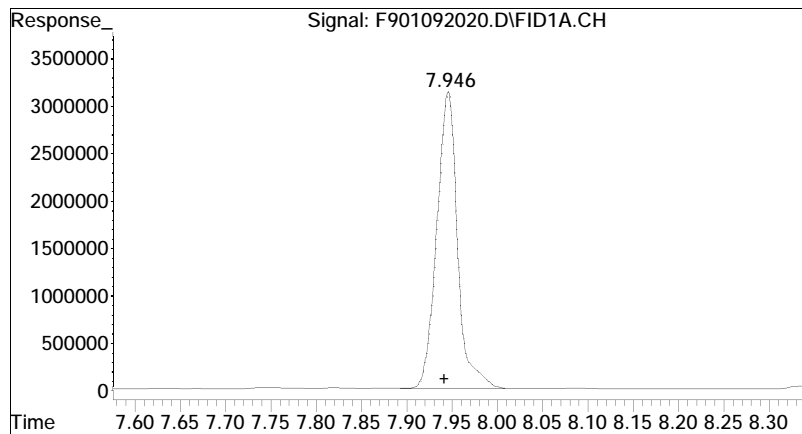
#2 n-Octane (C8)

R.T.: 5.735 min

Delta R.T.: 0.011 min

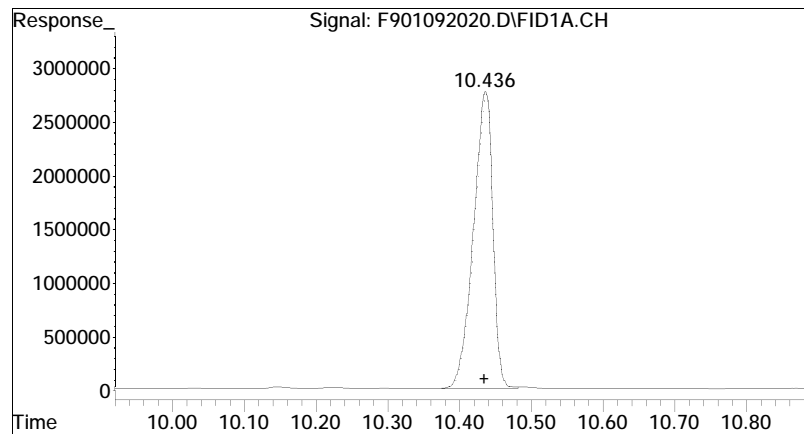
Response: 46000331

Conc: 50.63 ug/mL M4



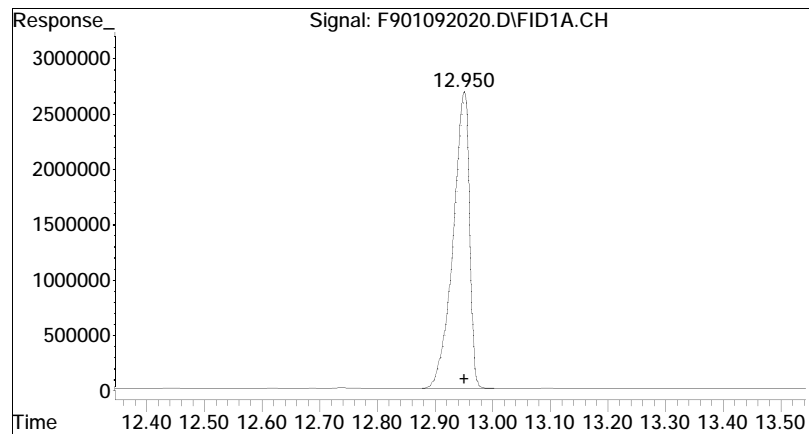
#3 n-Nonane (C9)

R.T.: 7.946 min
Delta R.T.: 0.004 min
Response: 48815651
Conc: 50.94 ug/mL M4



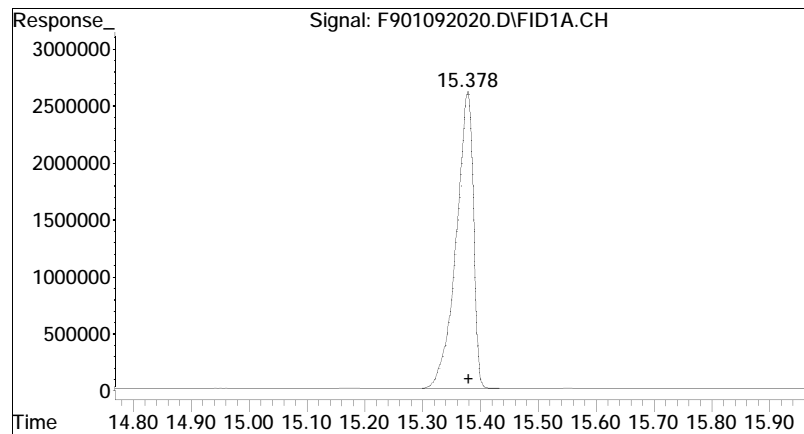
#4 n-Decane (C10)

R.T.: 10.436 min
Delta R.T.: 0.000 min
Response: 50554141
Conc: 50.98 ug/mL M4



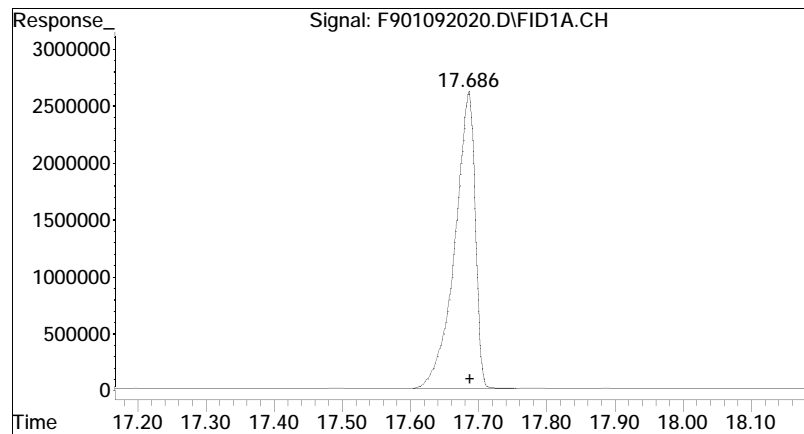
#5 n-Undecane (C11)

R.T.: 12.950 min
Delta R.T.: -0.001 min
Response: 51652909
Conc: 51.28 ug/mL M4



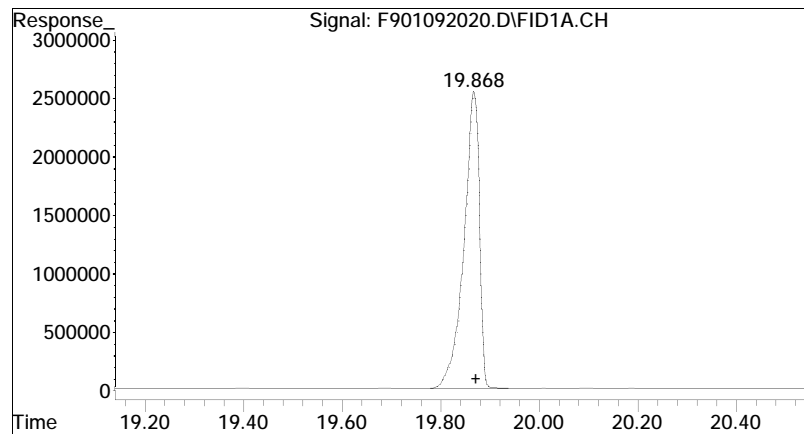
#6 n-Dodecane (C12)

R.T.: 15.378 min
Delta R.T.: -0.002 min
Response: 52336805
Conc: 51.12 ug/mL M4



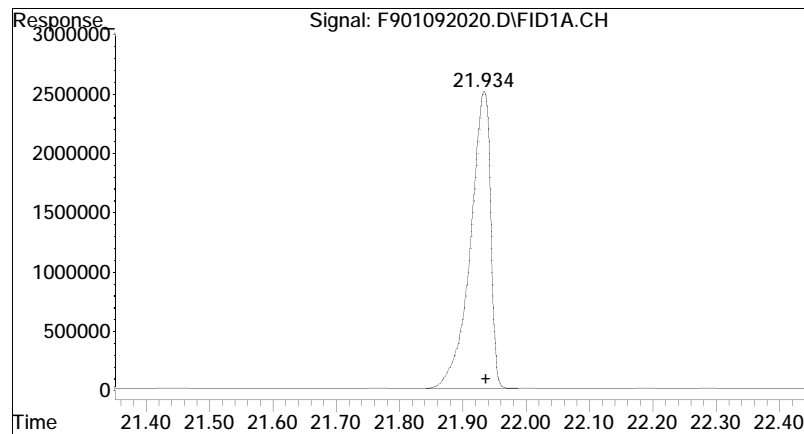
#7 n-Tridecane (C13)

R.T.: 17.684 min
Delta R.T.: -0.003 min
Response: 52662399
Conc: 51.26 ug/mL



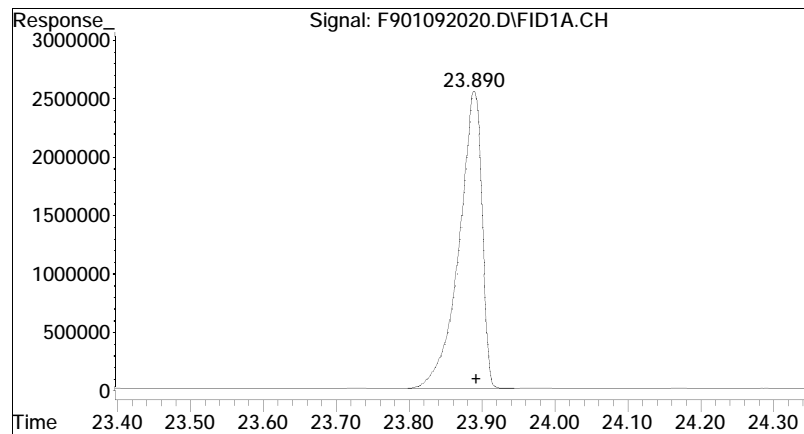
#9 n-Tetradecane (C14)

R.T.: 19.868 min
Delta R.T.: -0.004 min
Response: 53538625
Conc: 51.23 ug/mL M4



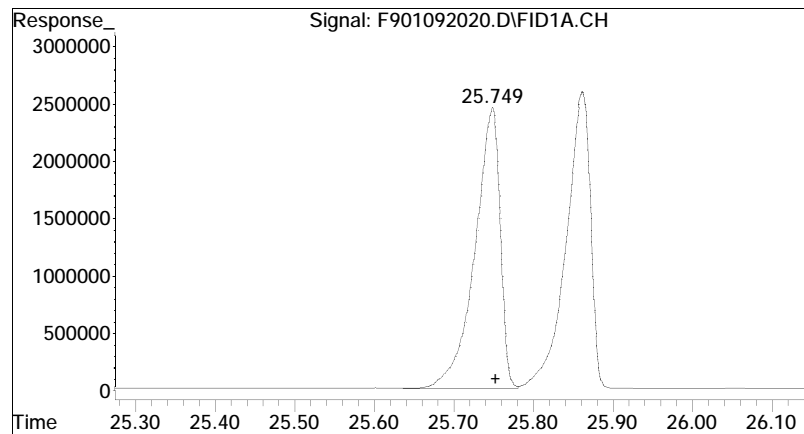
#11 n-Pentadecane (C15)

R.T.: 21.934 min
Delta R.T.: -0.003 min
Response: 53629833
Conc: 51.19 ug/mL M4



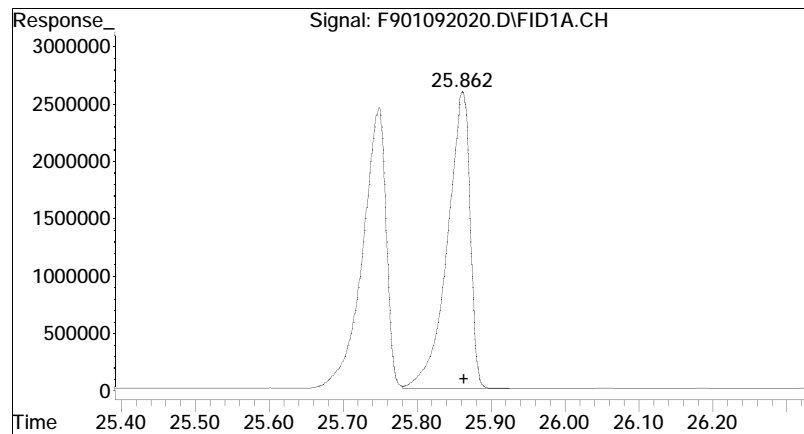
#12 n-Hexadecane (C16)

R.T.: 23.890 min
Delta R.T.: -0.003 min
Response: 54114860
Conc: 51.24 ug/mL M4



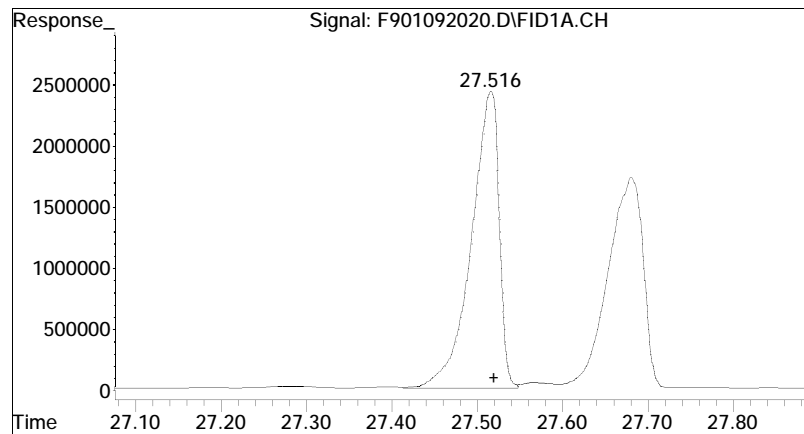
#14 n-Heptadecane (C17)

R.T.: 25.749 min
Delta R.T.: -0.004 min
Response: 53935128
Conc: 51.06 ug/mL M4



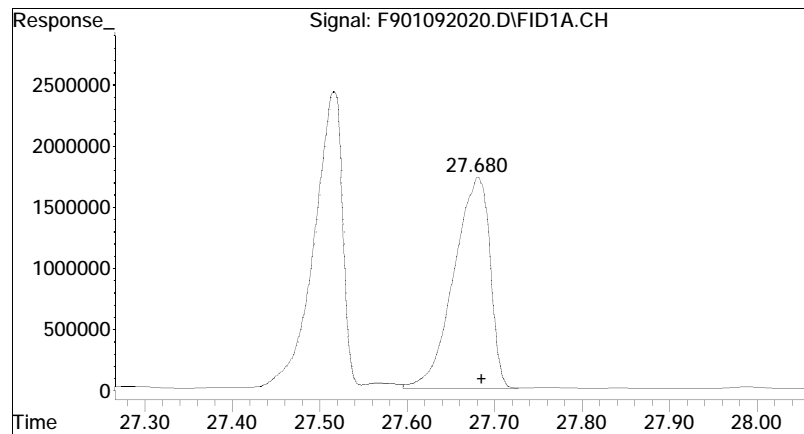
#15 Pristane

R.T.: 25.862 min
Delta R.T.: -0.002 min
Response: 55022450
Conc: 51.30 ug/mL M4



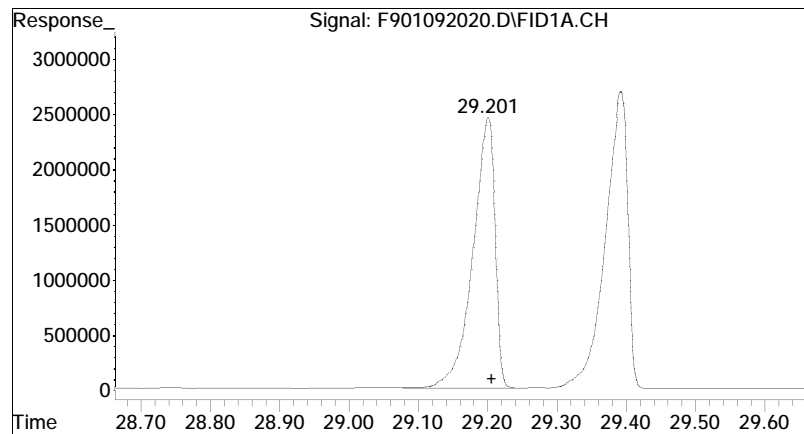
#16 n-Octadecane (C18)

R.T.: 27.516 min
Delta R.T.: -0.004 min
Response: 54572503
Conc: 51.26 ug/mL M4



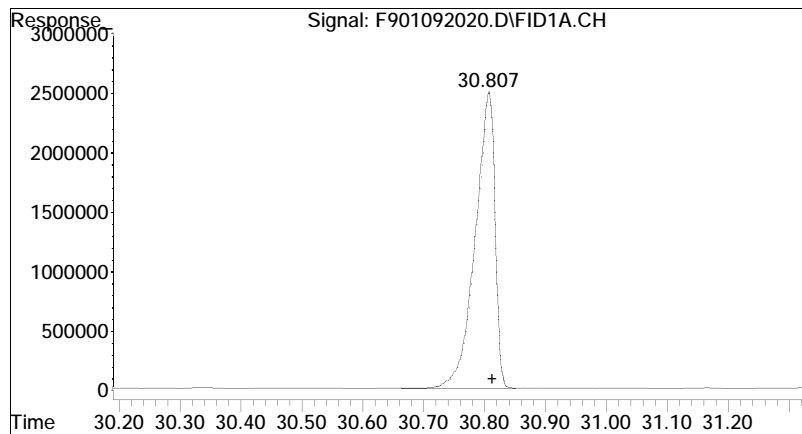
#17 Phytane

R.T.: 27.680 min
Delta R.T.: -0.006 min
Response: 49344658
Conc: 50.89 ug/mL M4



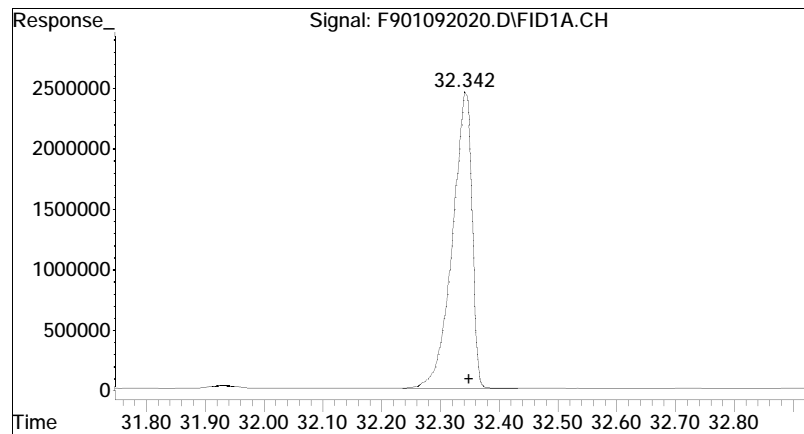
#18 n-Nonadecane (C19)

R.T.: 29.201 min
Delta R.T.: -0.004 min
Response: 54446530
Conc: 51.30 ug/mL M4



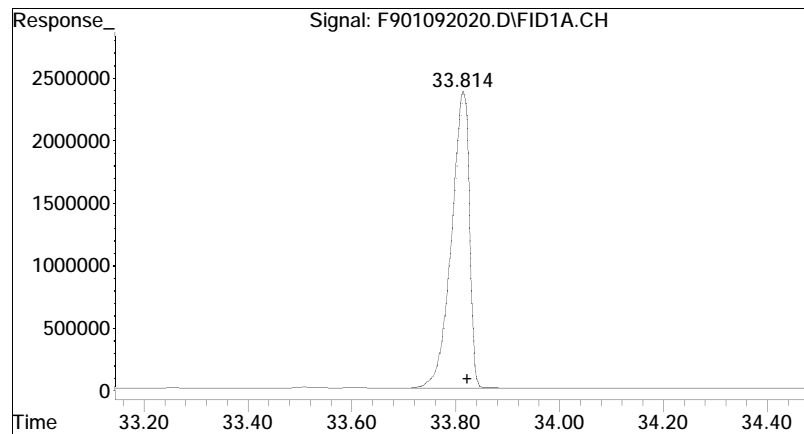
#20 n-Eicosane (C20)

R.T.: 30.807 min
Delta R.T.: -0.006 min
Response: 54582134
Conc: 51.18 ug/mL M4



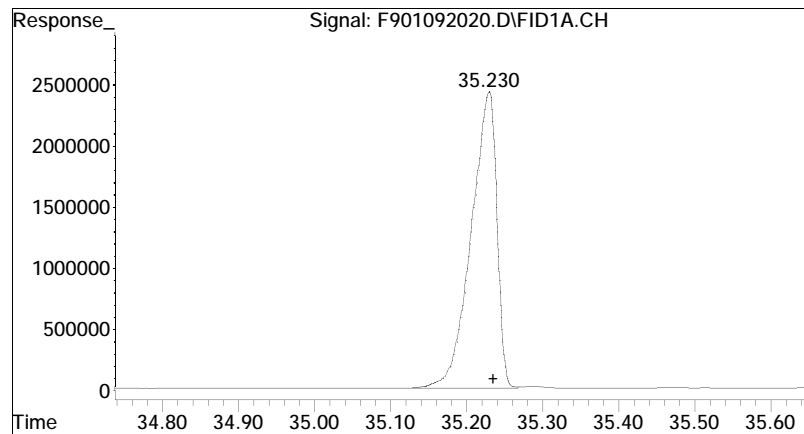
#21 n-Heneicosane (C21)

R.T.: 32.342 min
Delta R.T.: -0.007 min
Response: 55428281
Conc: 51.19 ug/mL M4



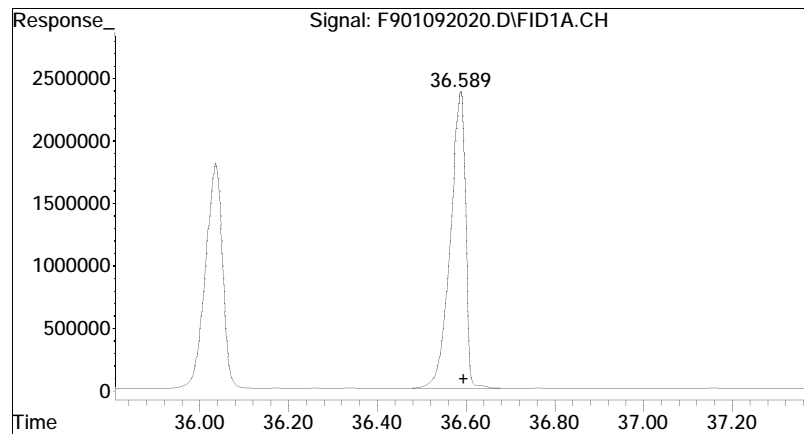
#22 n-Docosane (C22)

R.T.: 33.814 min
Delta R.T.: -0.008 min
Response: 55446600
Conc: 51.33 ug/mL M4



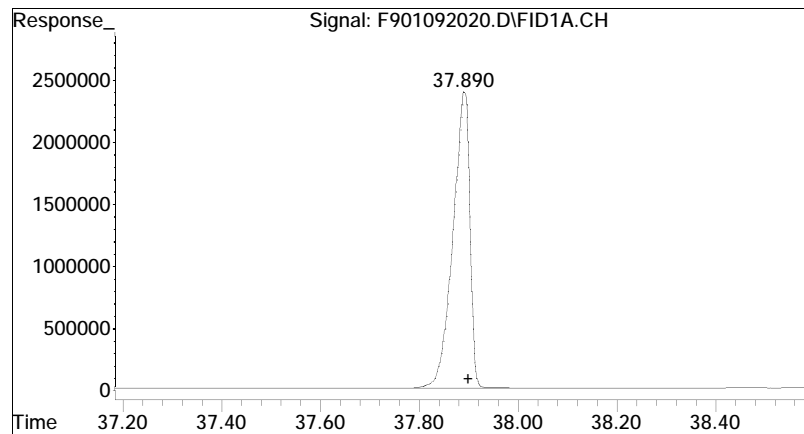
#23 n-Tricosane (C23)

R.T.: 35.230 min
Delta R.T.: -0.006 min
Response: 55577854
Conc: 51.25 ug/mL M4



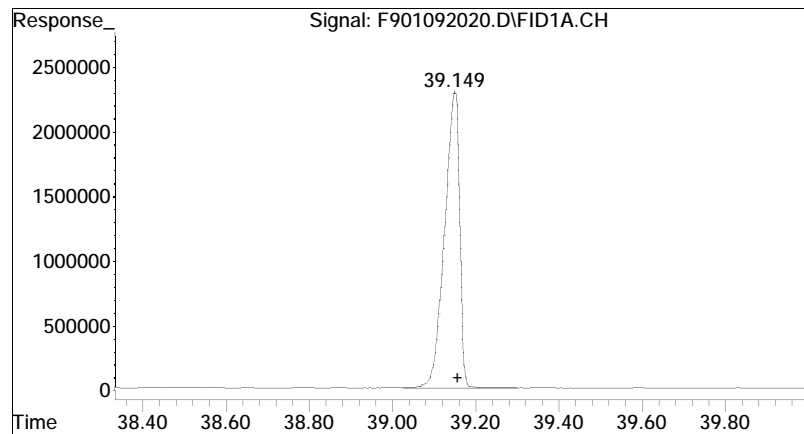
#25 n-Tetracosane (C24)

R.T.: 36.589 min
Delta R.T.: -0.006 min
Response: 56211438
Conc: 51.28 ug/mL M4



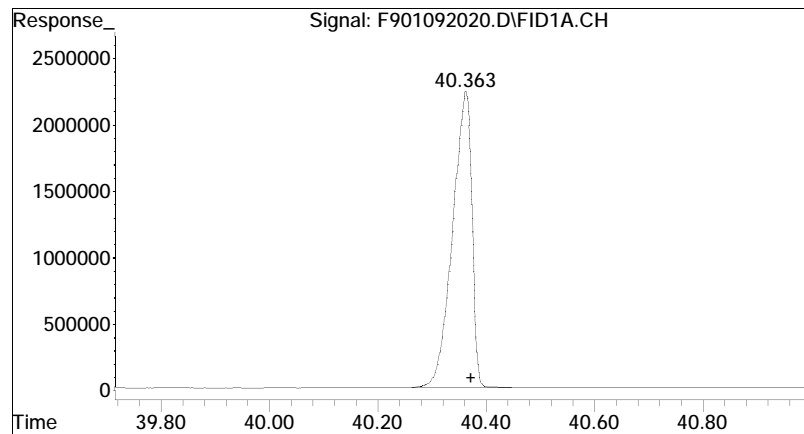
#26 n-Pentacosane (C25)

R.T.: 37.890 min
Delta R.T.: -0.010 min
Response: 55256728
Conc: 51.29 ug/mL M4



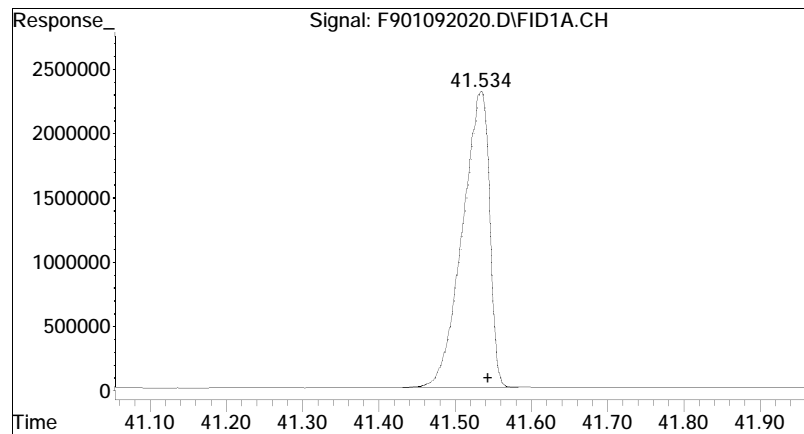
#27 n-Hexacosane (C26)

R.T.: 39.149 min
Delta R.T.: -0.008 min
Response: 55615240
Conc: 51.38 ug/mL M4



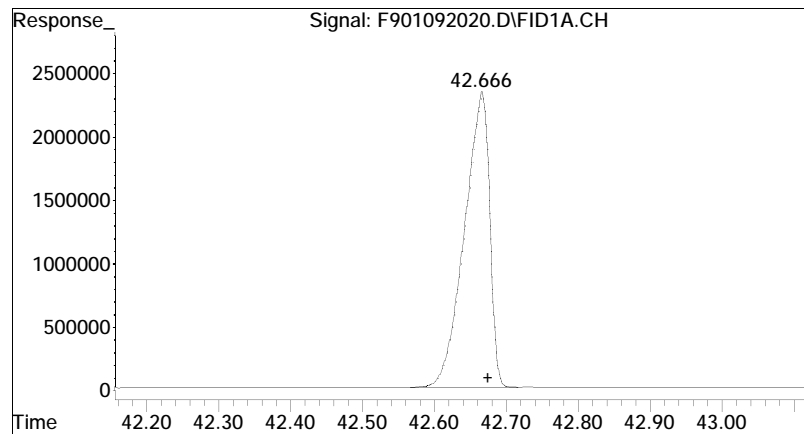
#28 n-Heptacosane (C27)

R.T.: 40.363 min
Delta R.T.: -0.010 min
Response: 54105652
Conc: 51.30 ug/mL M4



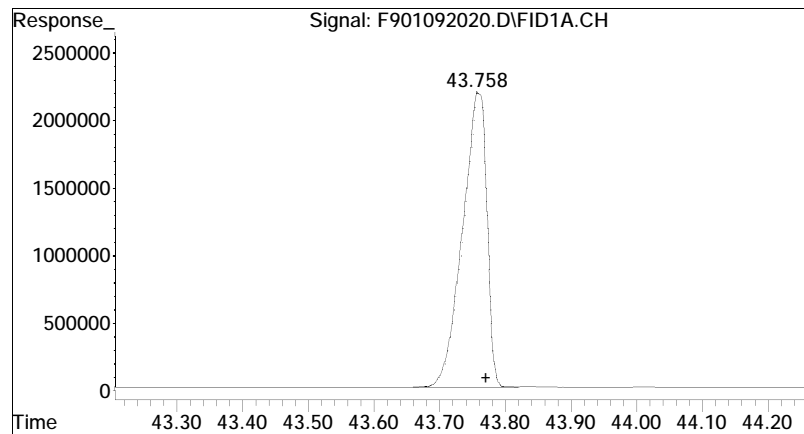
#29 n-Octacosane (C28)

R.T.: 41.534 min
Delta R.T.: -0.009 min
Response: 55954661
Conc: 51.43 ug/mL M4



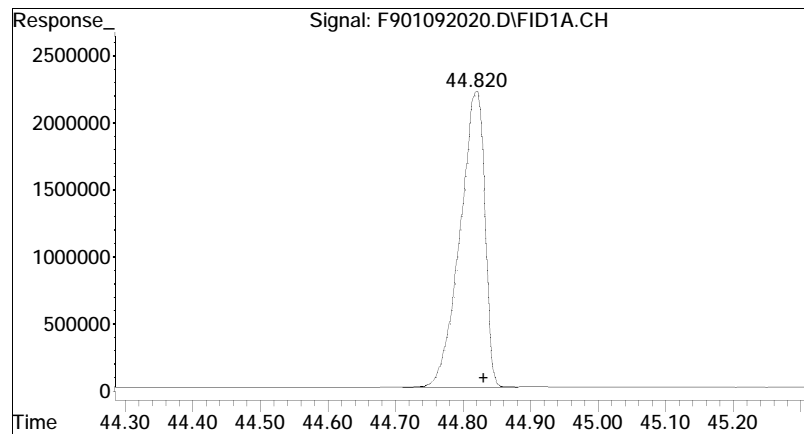
#30 n-Nonacosane (C29)

R.T.: 42.666 min
Delta R.T.: -0.009 min
Response: 55561663
Conc: 51.30 ug/mL M4



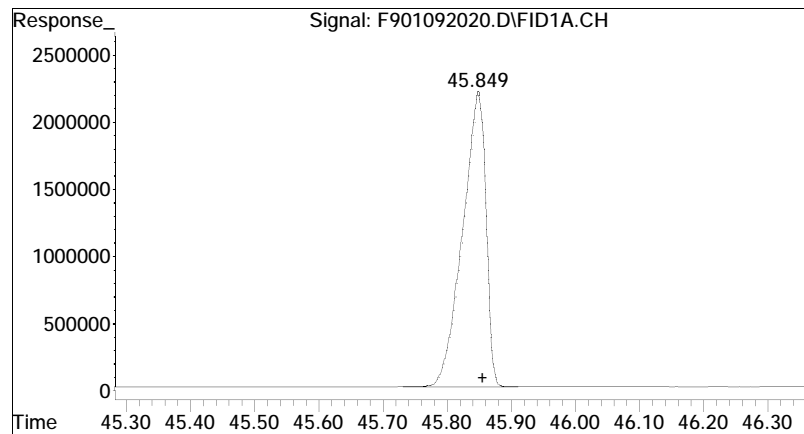
#31 n-Triacontane (C30)

R.T.: 43.758 min
Delta R.T.: -0.013 min
Response: 54827375
Conc: 51.39 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.820 min
Delta R.T.: -0.011 min
Response: 54979239
Conc: 51.23 ug/mL M4



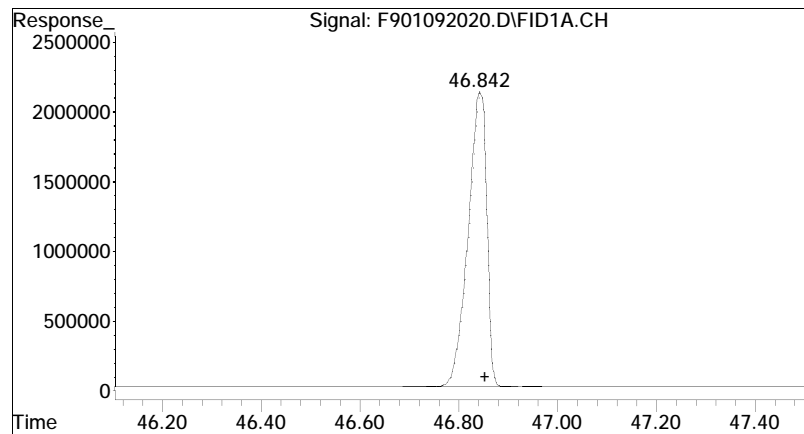
#33 n-Dotriacontane (C32)

R.T.: 45.849 min

Delta R.T.: -0.007 min

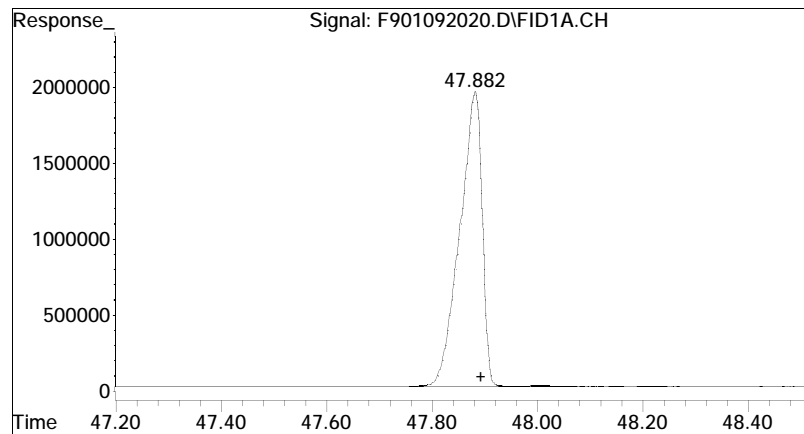
Response: 54085854

Conc: 51.21 ug/mL M4



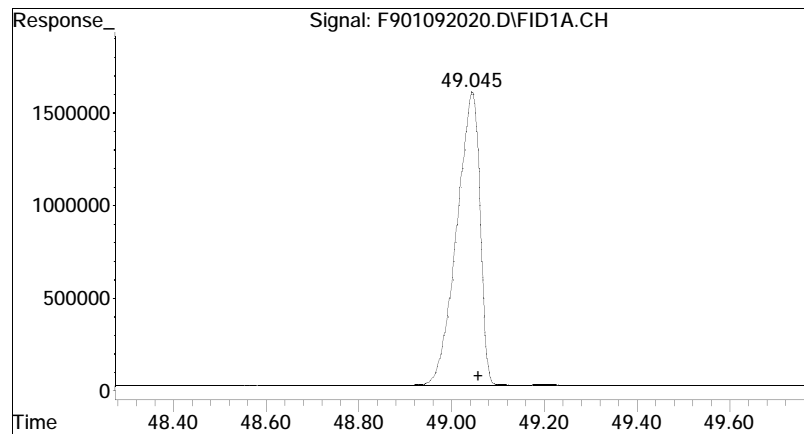
#34 n-Tritriacontane (C33)

R.T.: 46.842 min
Delta R.T.: -0.011 min
Response: 53550165
Conc: 51.27 ug/mL M4



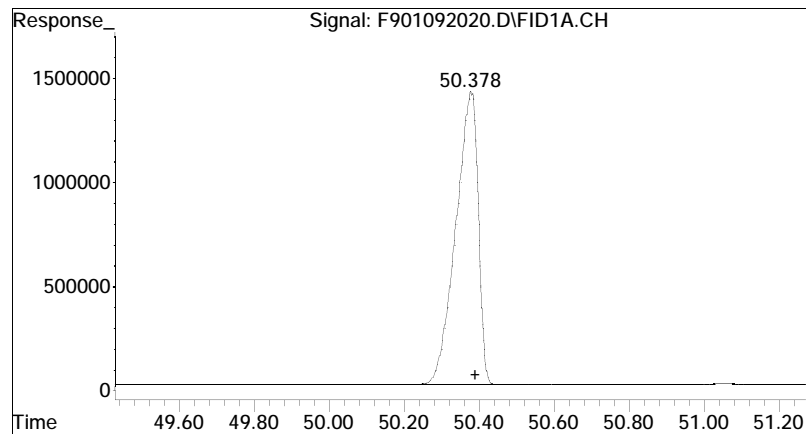
#35 n-tetratriacontane (C34)

R.T.: 47.882 min
Delta R.T.: -0.011 min
Response: 55441401
Conc: 51.13 ug/mL M4



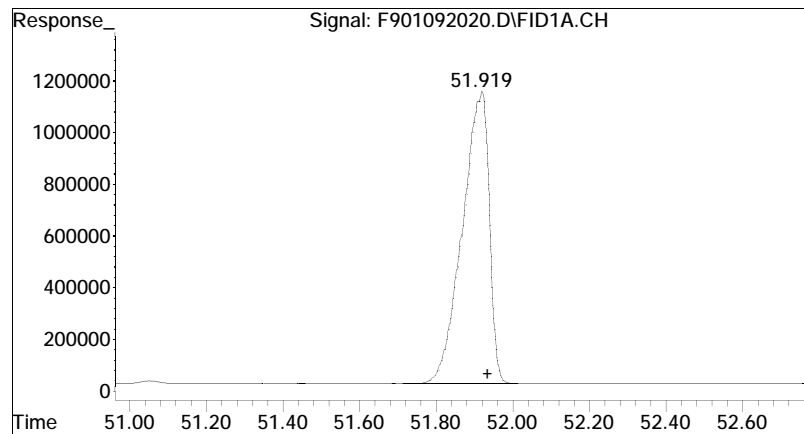
#36 n-Pentatriacontane (C35)

R.T.: 49.045 min
Delta R.T.: -0.014 min
Response: 53595139
Conc: 50.94 ug/mL M4



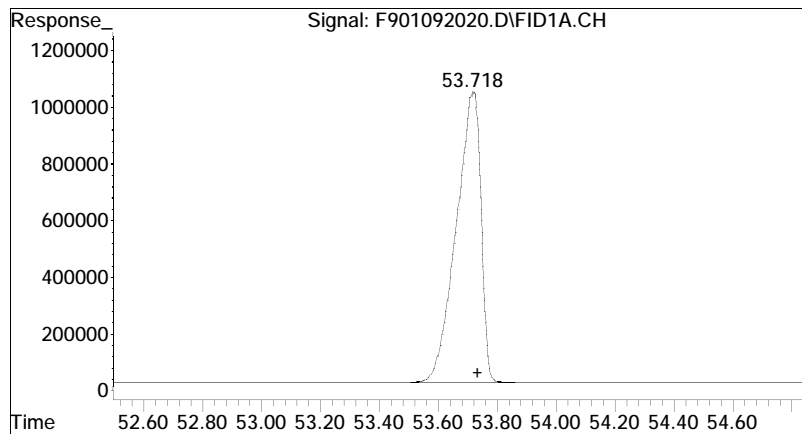
#37 n-Hexatriacontane (C36)

R.T.: 50.378 min
Delta R.T.: -0.013 min
Response: 56937669
Conc: 51.23 ug/mL M4



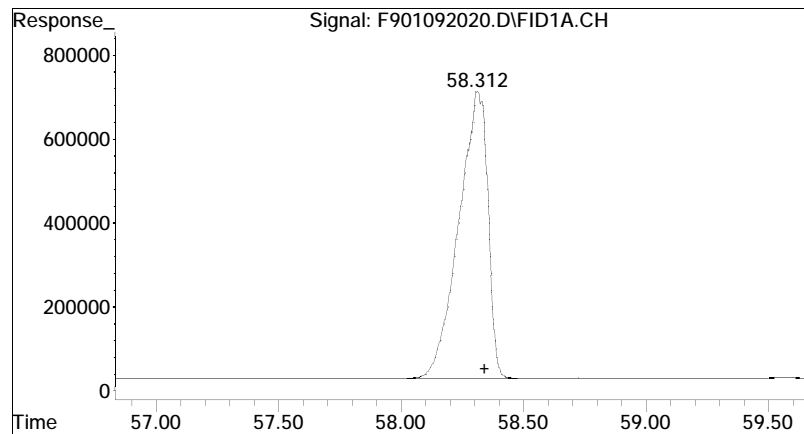
#38 n-Heptatriacontane (C37)

R.T.: 51.919 min
Delta R.T.: -0.016 min
Response: 53648112
Conc: 51.06 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 53.718 min
Delta R.T.: -0.016 min
Response: 58154827
Conc: 51.13 ug/mL M4



#41 n-Tetracontane (C40)

R.T.: 58.312 min

Delta R.T.: -0.029 min

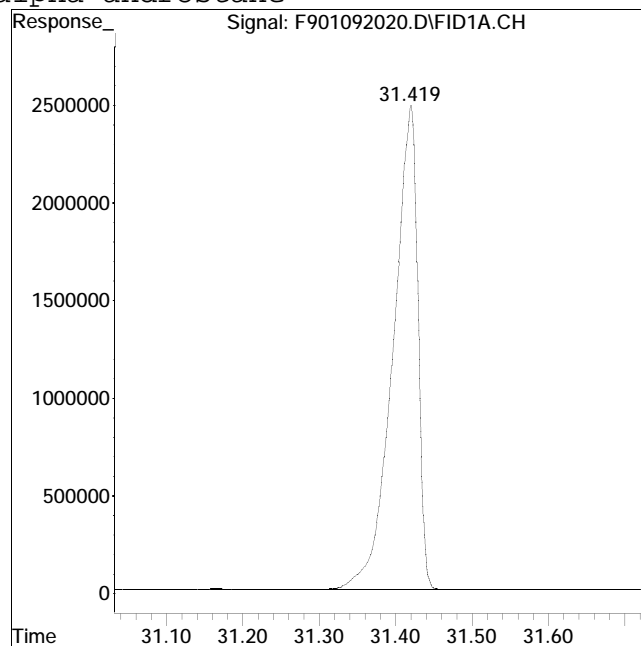
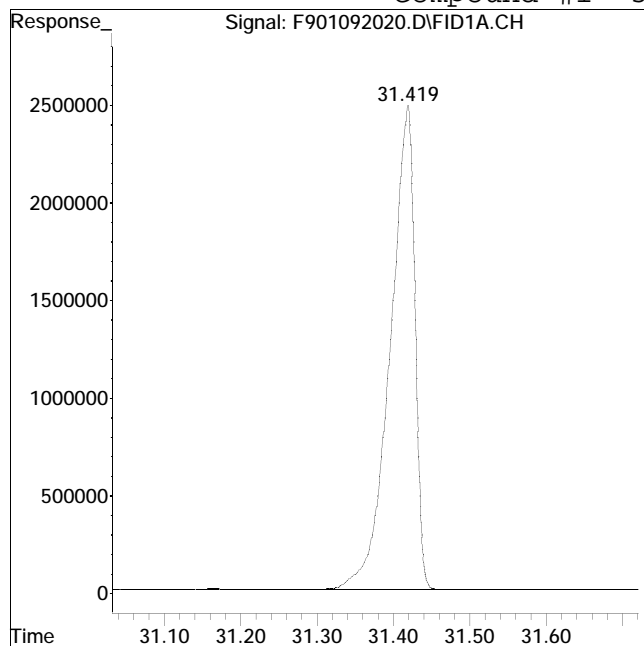
Response: 55280162

Conc: 50.89 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 55898912

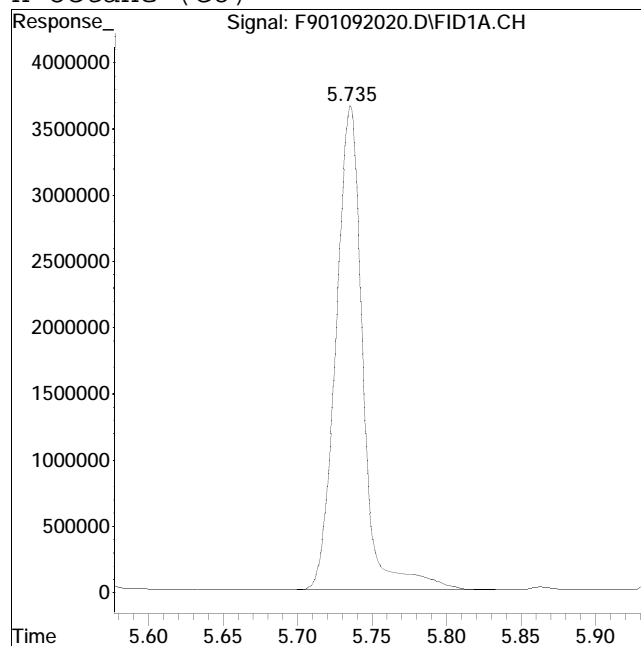
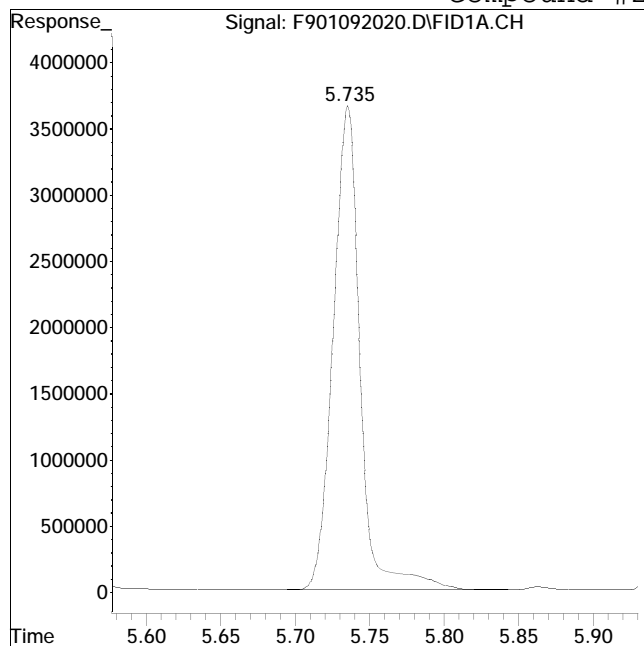
Manual Peak Response = 55854633 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #2: n-Octane (C8)



Original Peak Response = 46075454

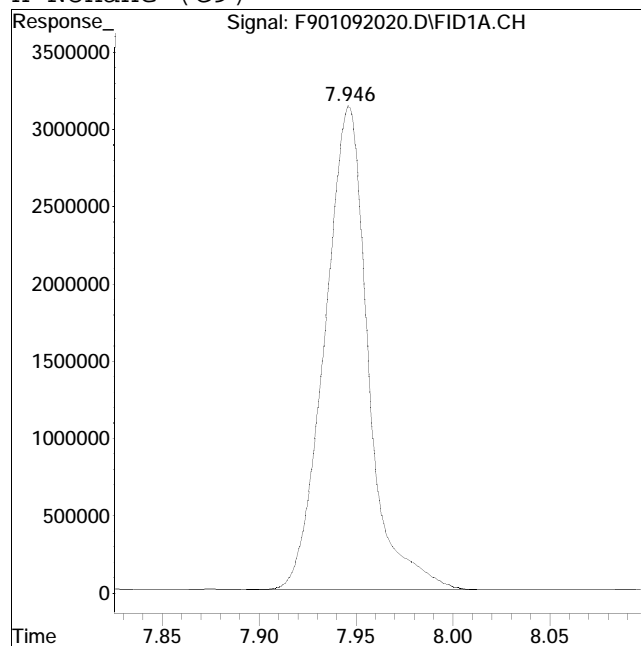
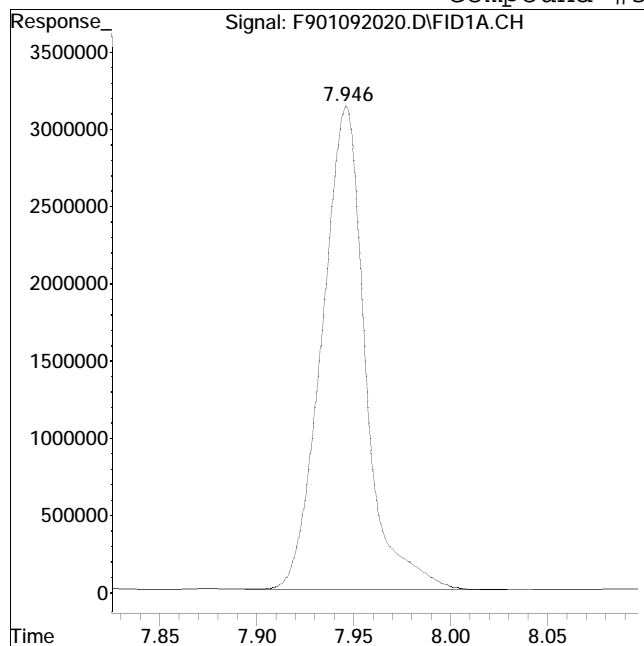
Manual Peak Response = 46000331 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 49013455

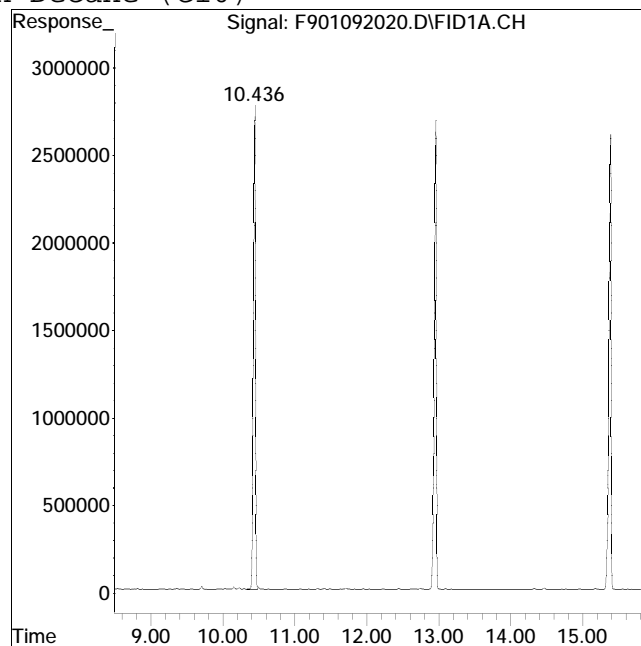
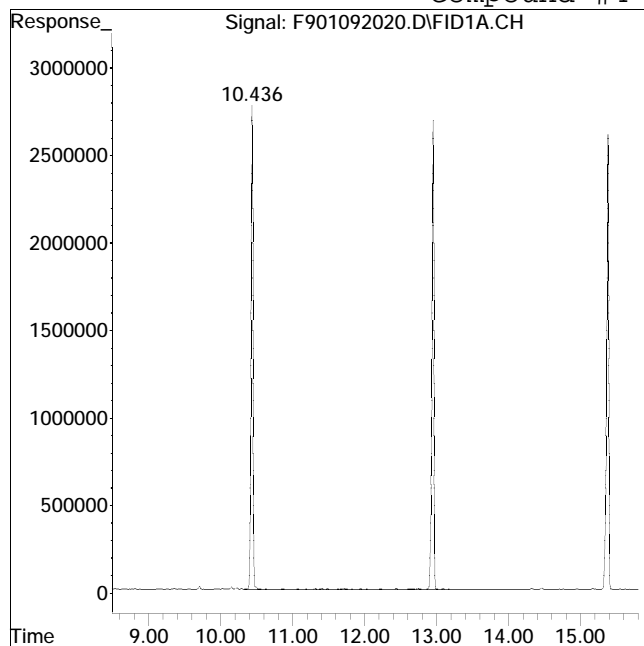
Manual Peak Response = 48815651 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #4: n-Decane (C10)



Original Peak Response = 47784125

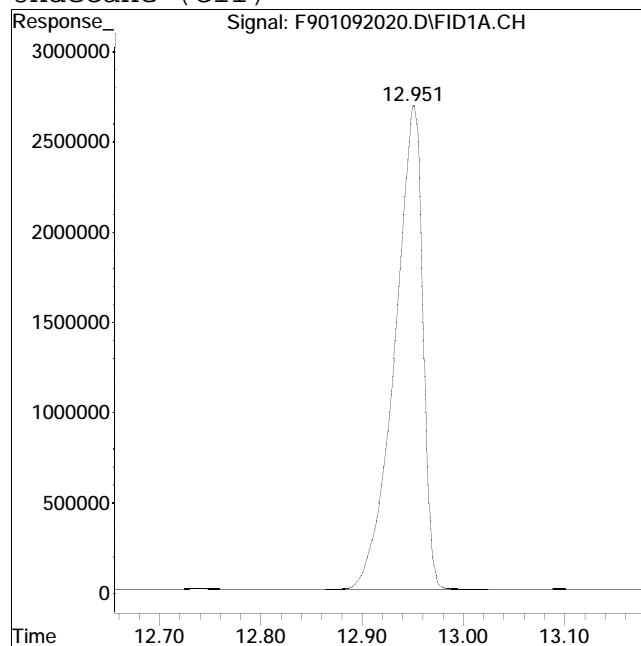
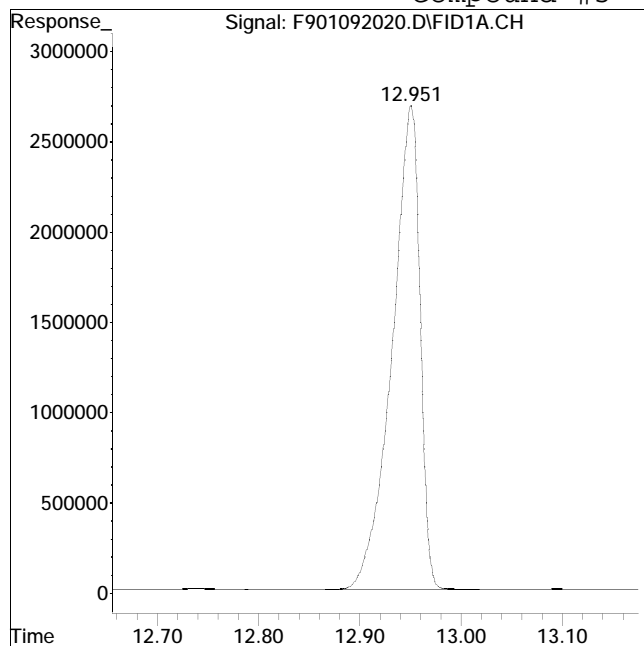
Manual Peak Response = 50554141 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 51652861

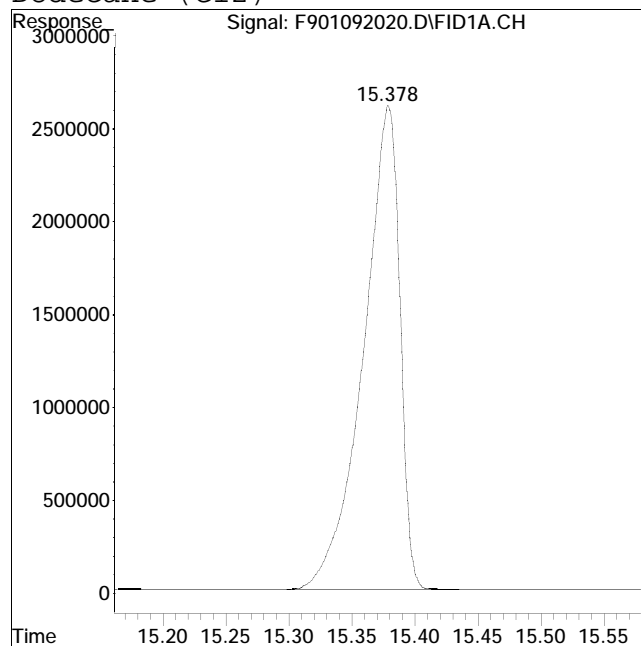
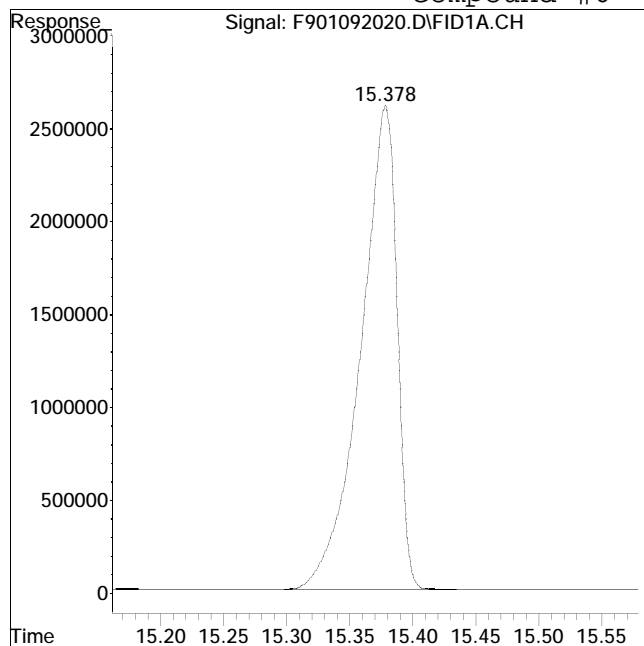
Manual Peak Response = 51652909 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 52333545

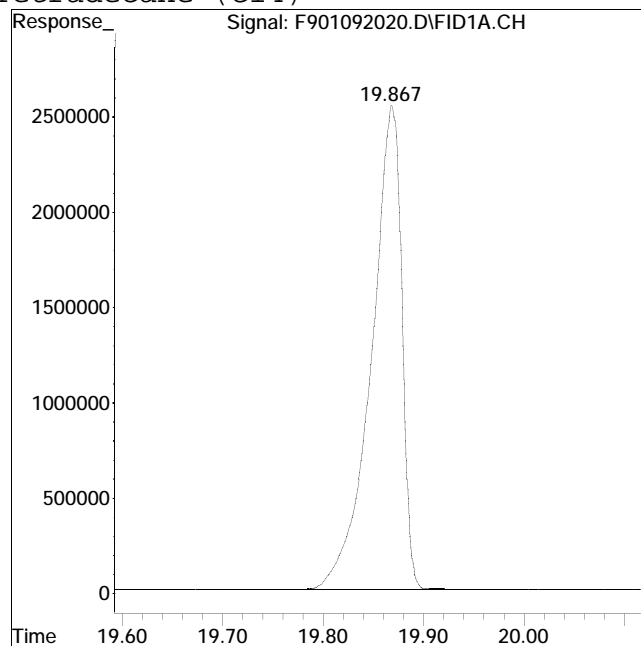
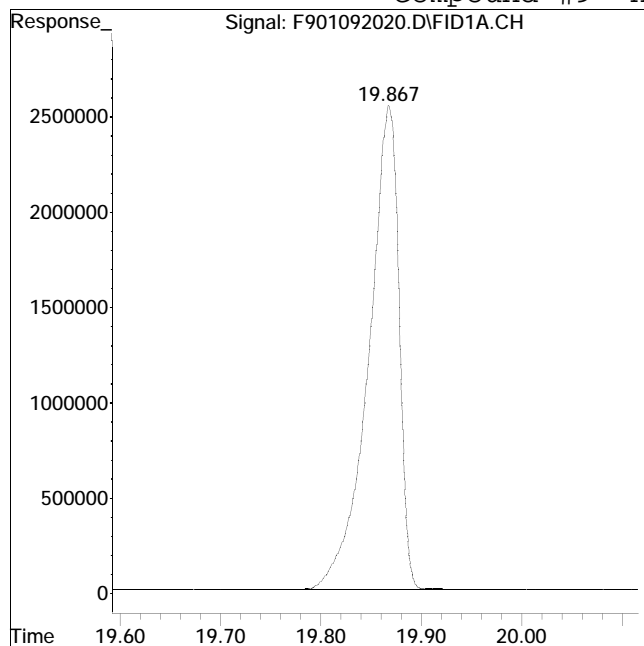
Manual Peak Response = 52336805 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 53511751

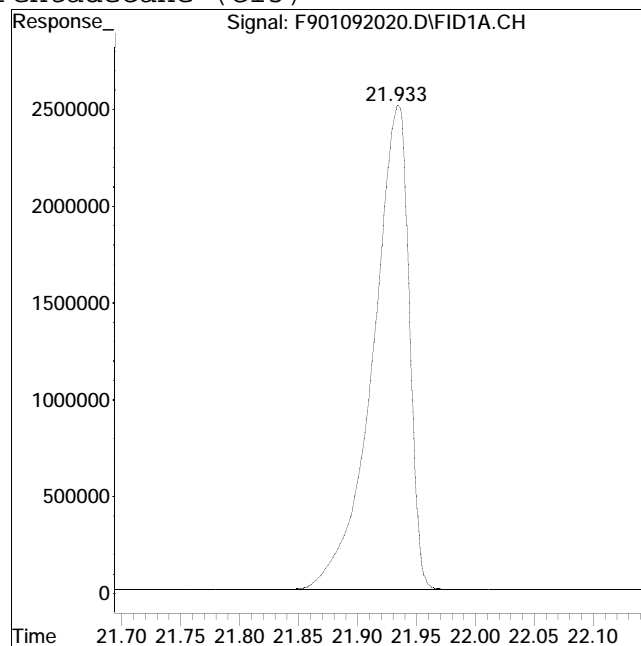
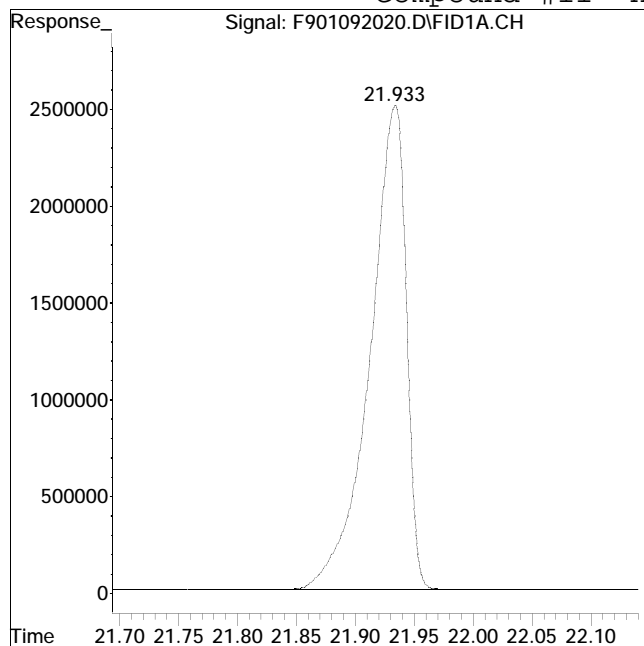
Manual Peak Response = 53538625 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 53594288

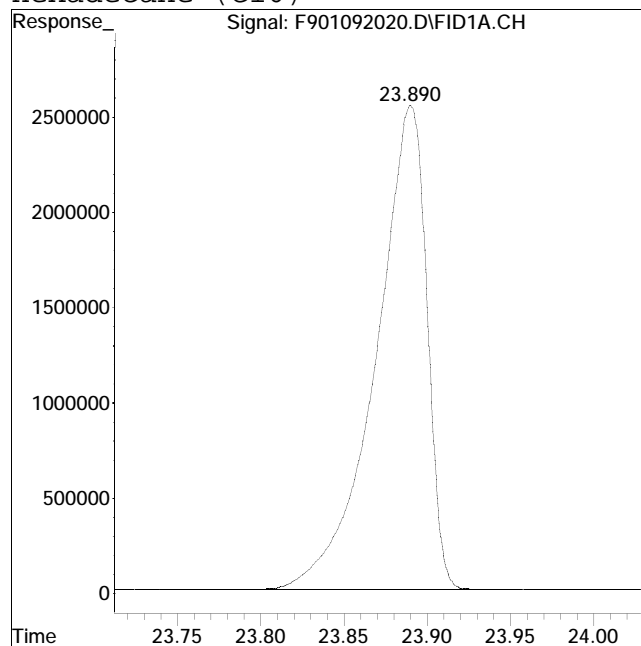
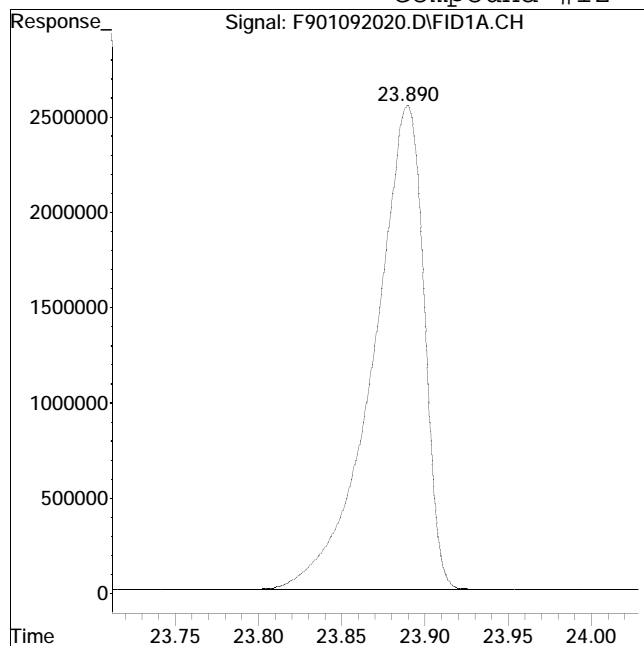
Manual Peak Response = 53629833 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 54150601

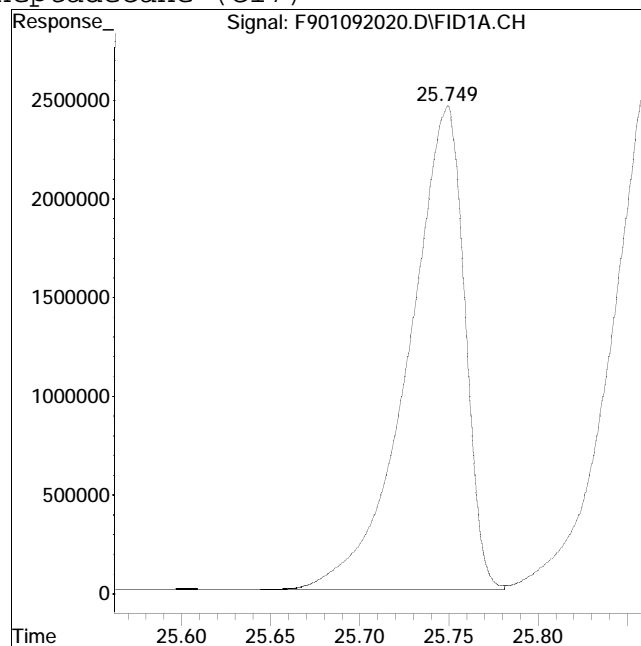
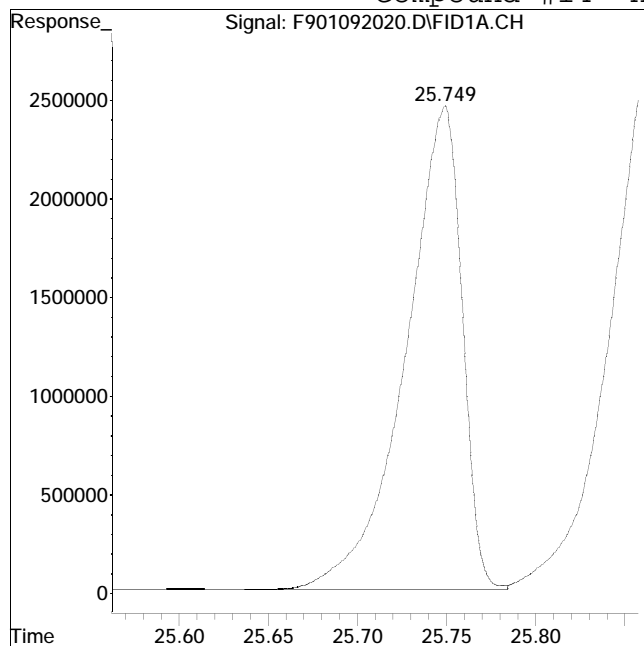
Manual Peak Response = 54114860 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 53997563

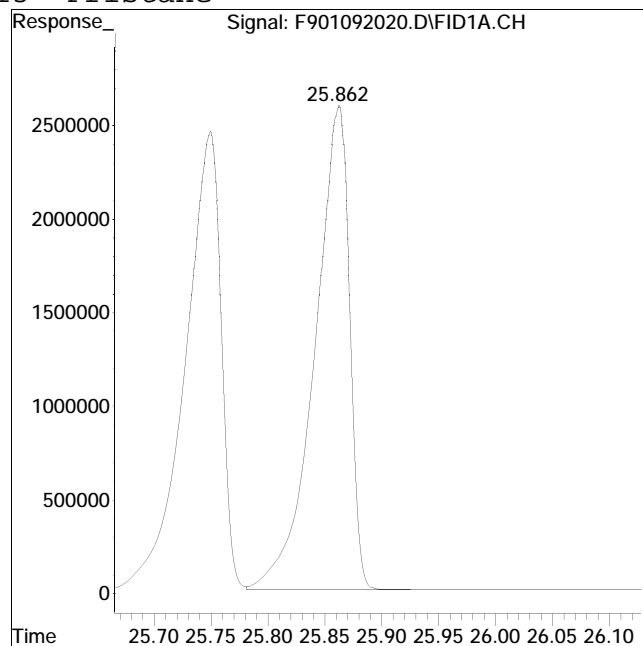
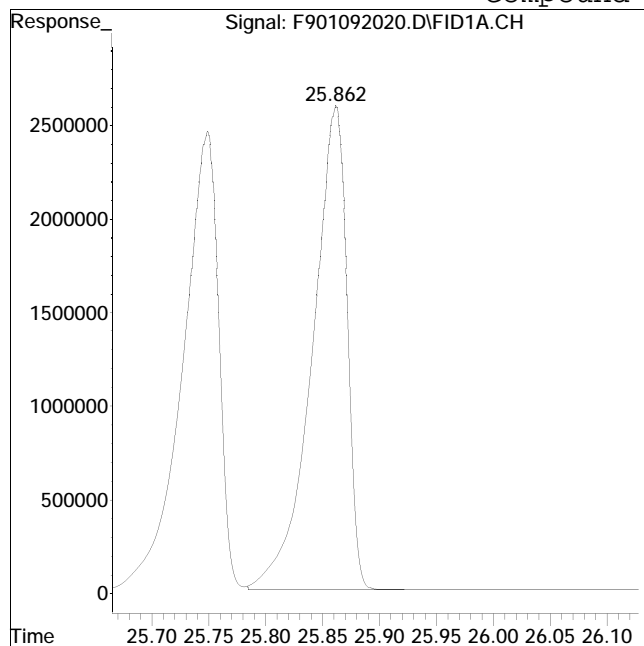
Manual Peak Response = 53935128 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #15: Pristane



Original Peak Response = 54991227

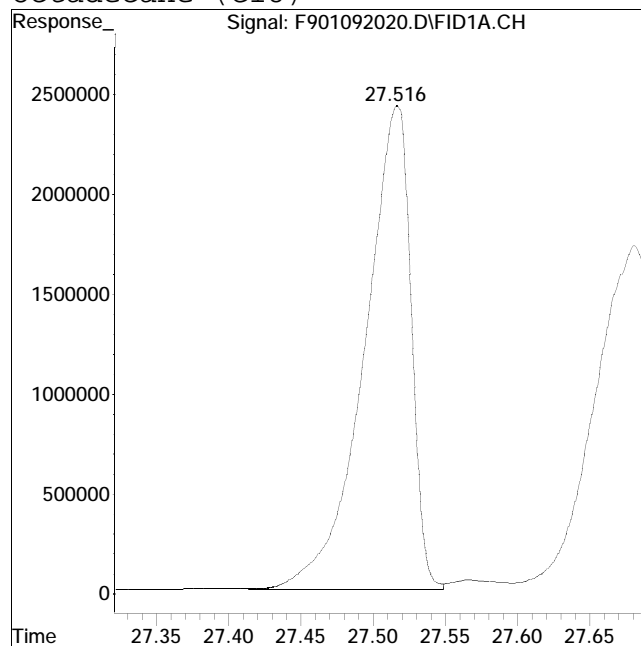
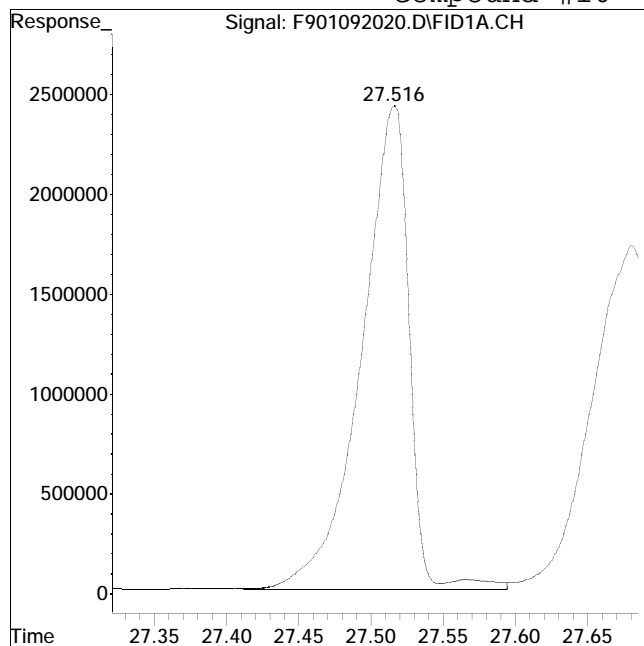
Manual Peak Response = 55022450 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 55835999

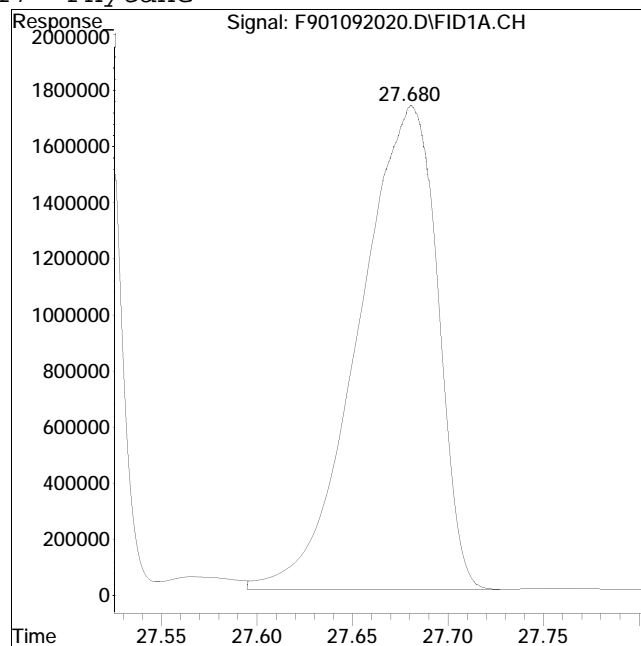
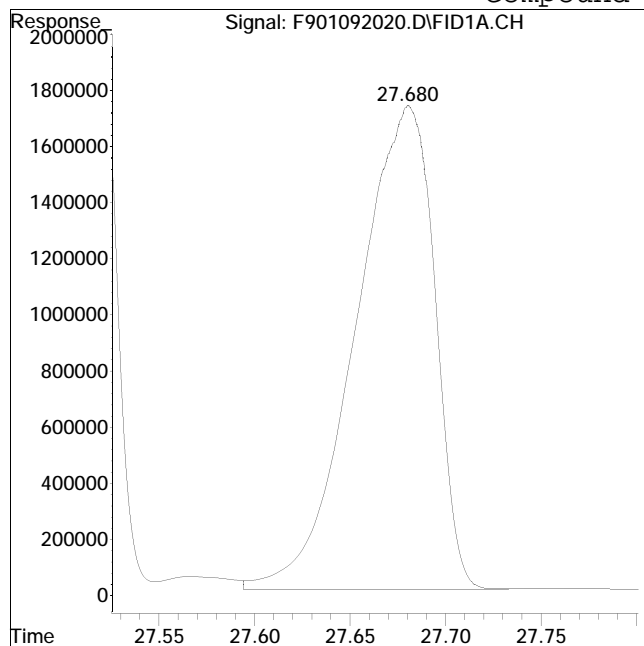
Manual Peak Response = 54572503 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #17: Phytane



Original Peak Response = 49443065

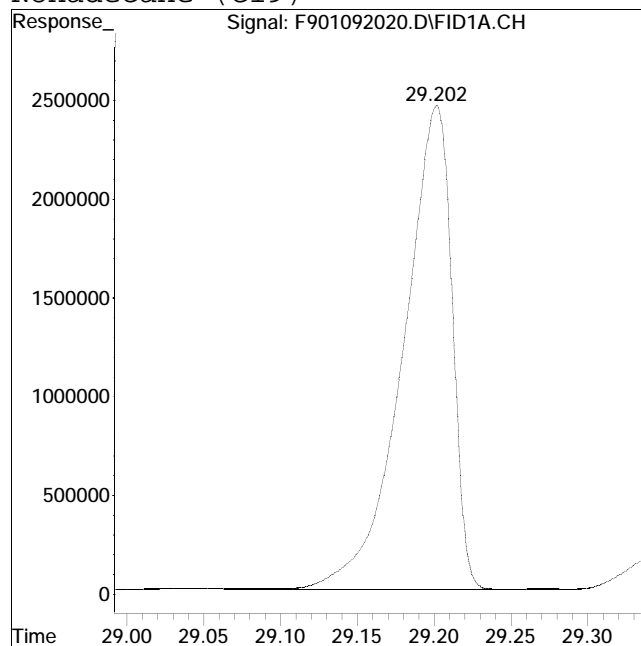
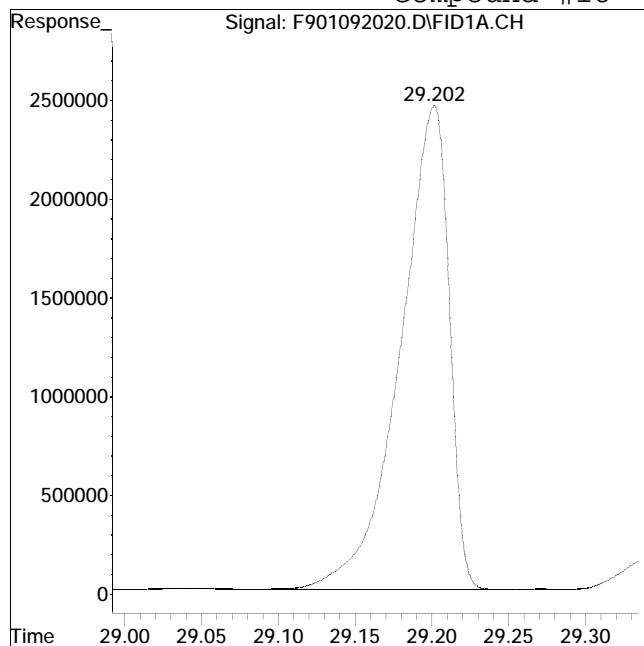
Manual Peak Response = 49344658 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 54249431

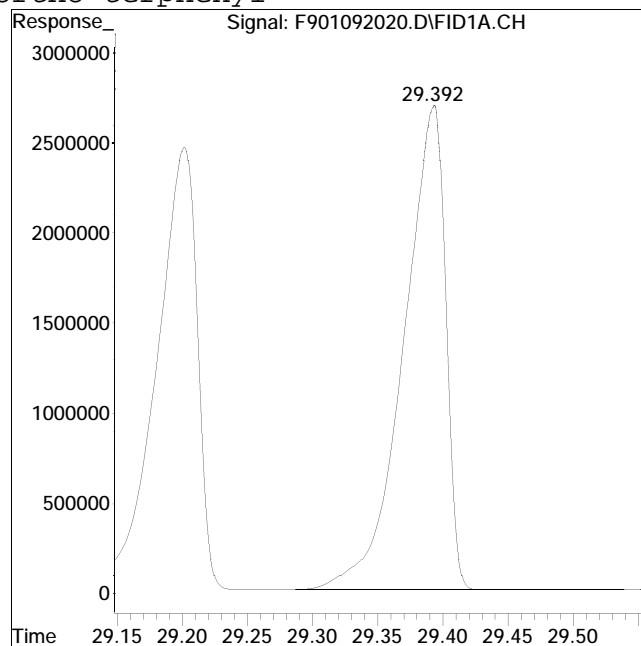
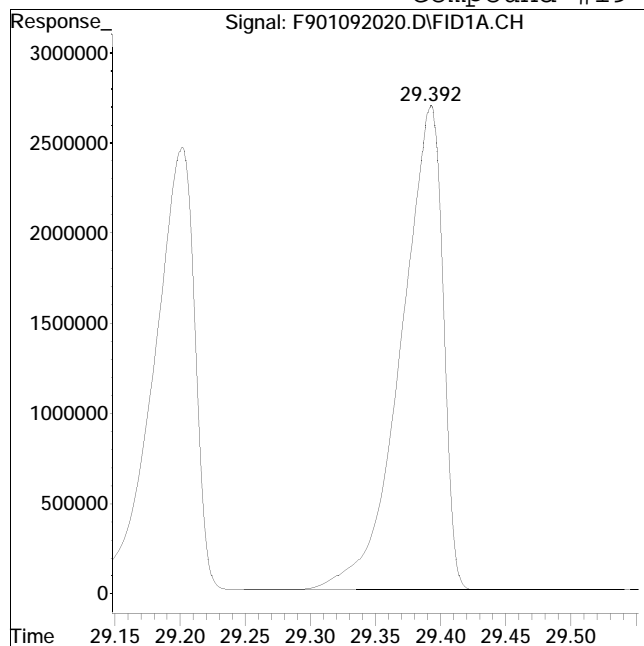
Manual Peak Response = 54446530 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #19: ortho-terphenyl



Original Peak Response = 60157586

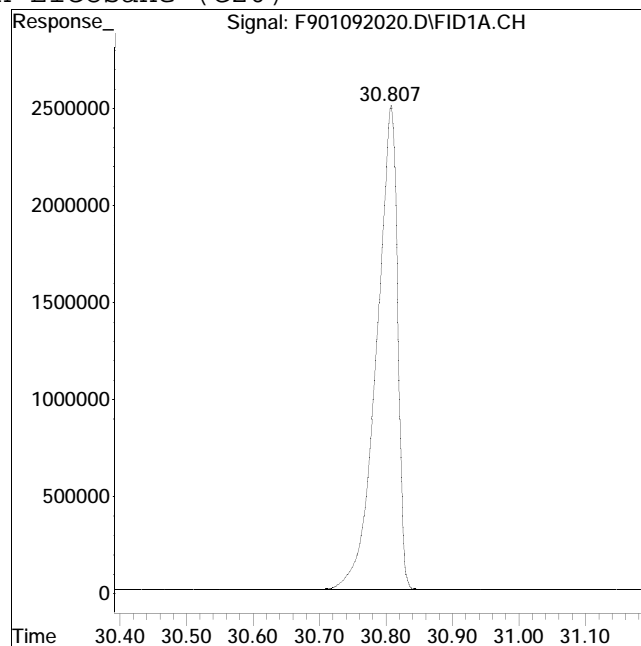
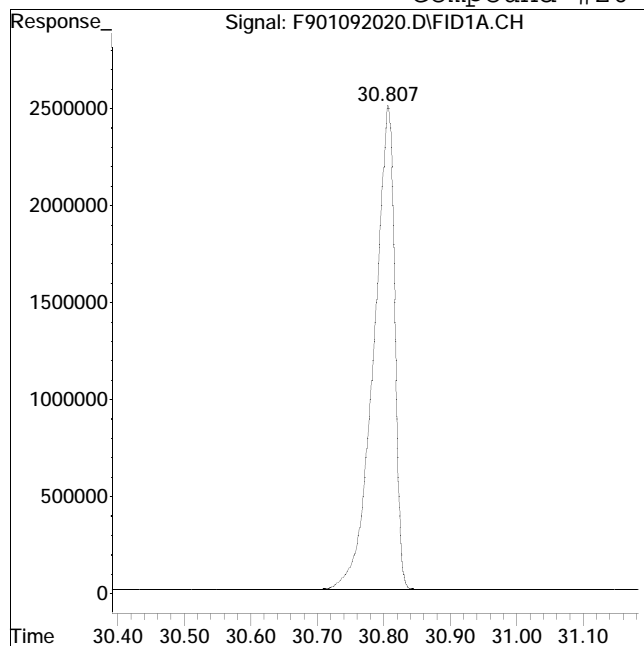
Manual Peak Response = 60238271 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 54738833

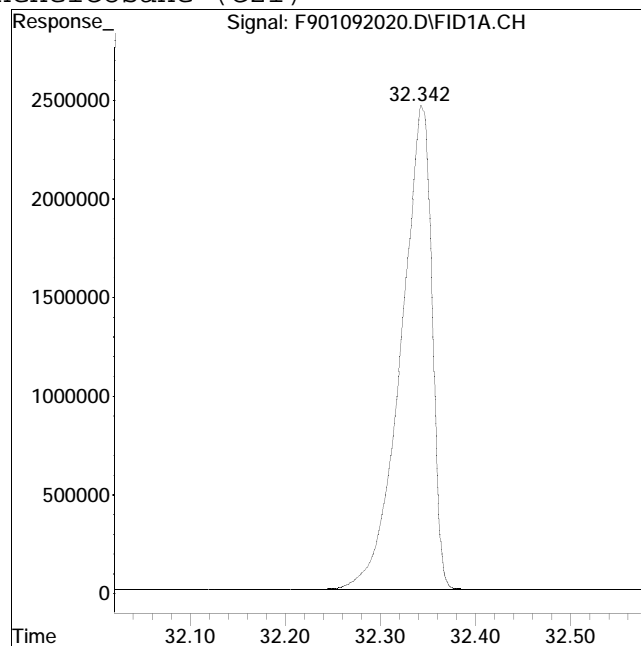
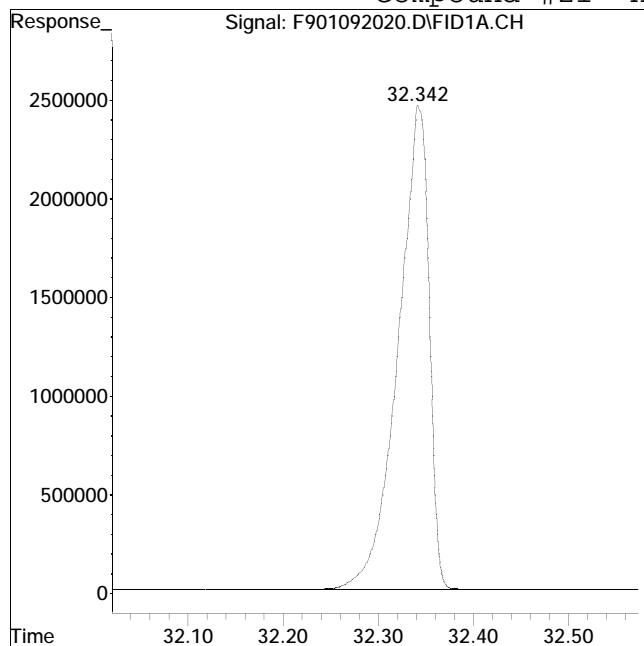
Manual Peak Response = 54582134 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 55480391

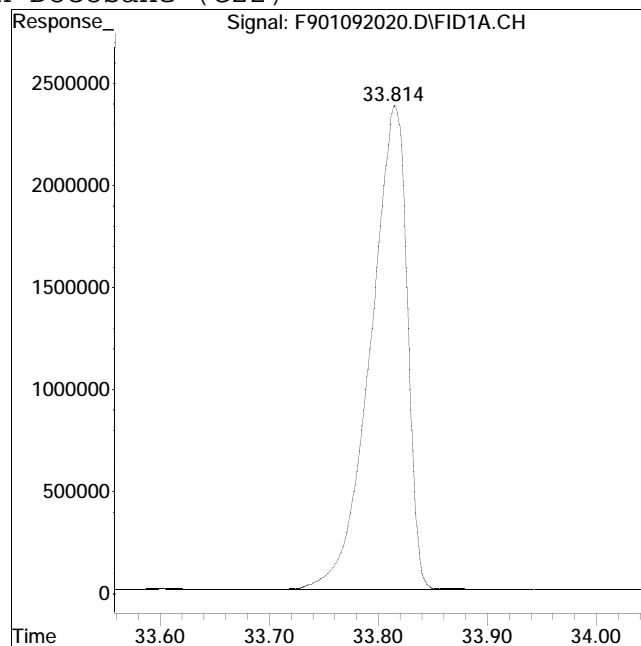
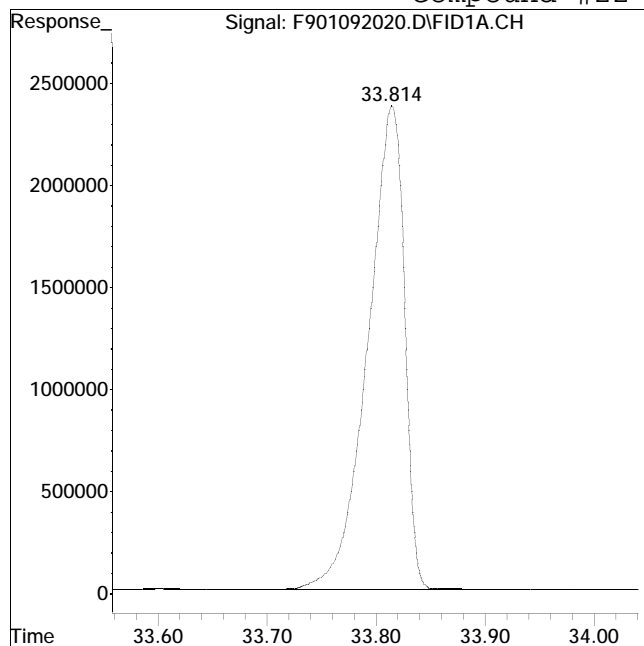
Manual Peak Response = 55428281 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 55462108

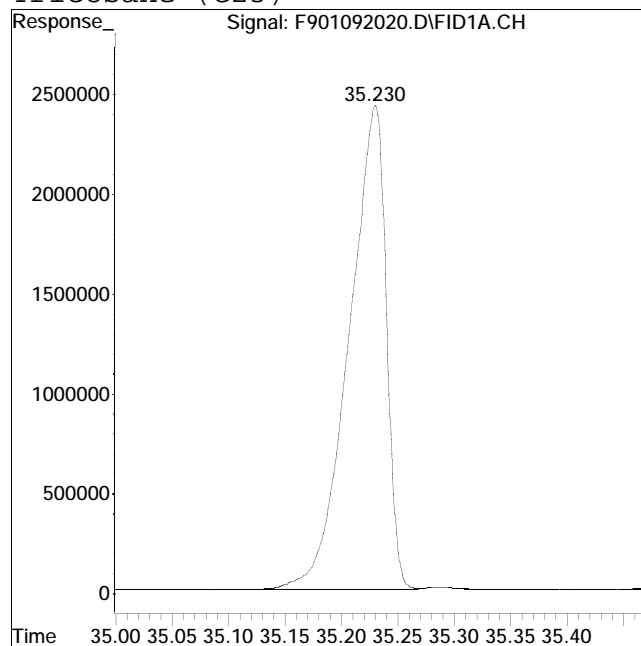
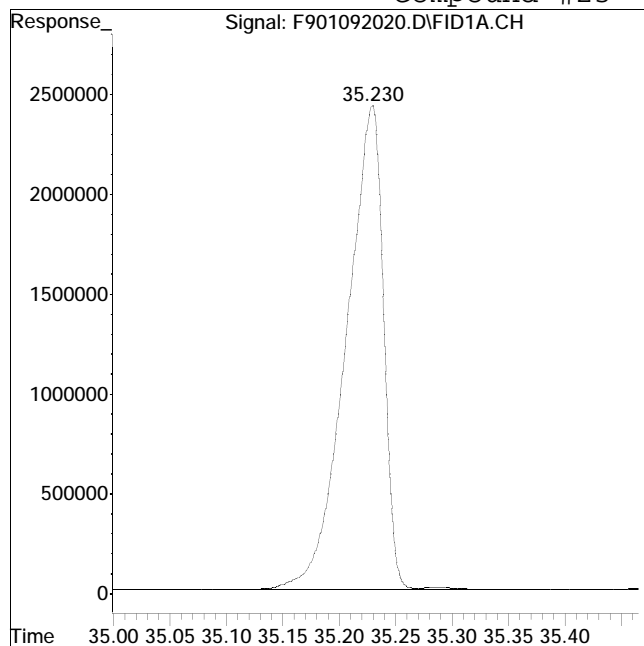
Manual Peak Response = 55446600 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 55850300

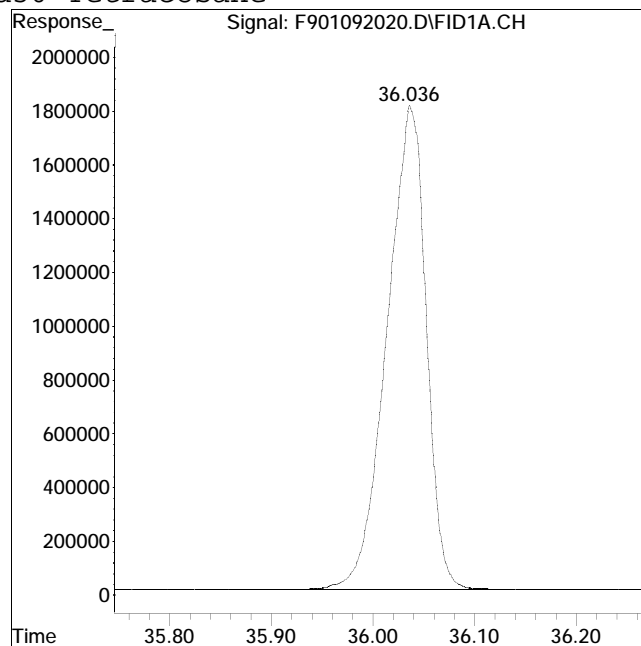
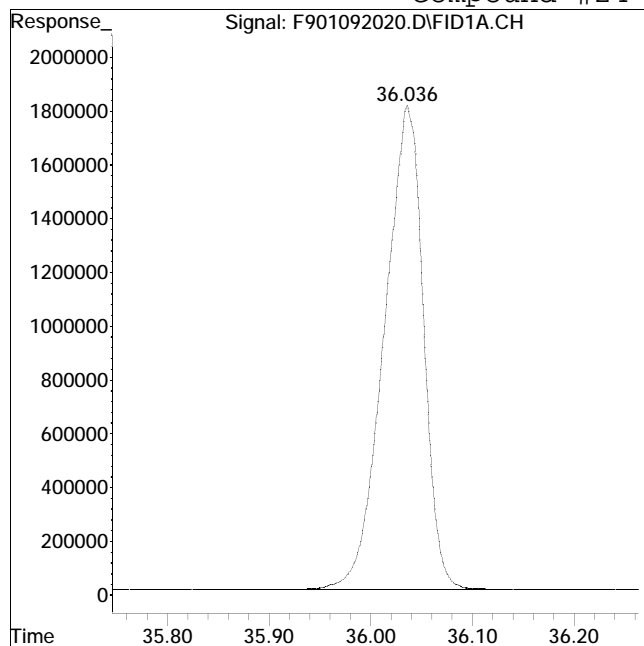
Manual Peak Response = 55577854 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #24: d50-Tetracosane



Original Peak Response = 48167744

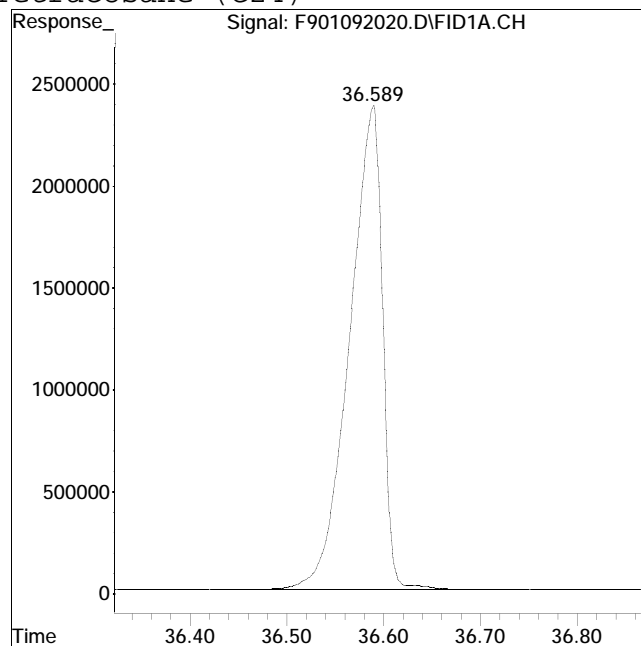
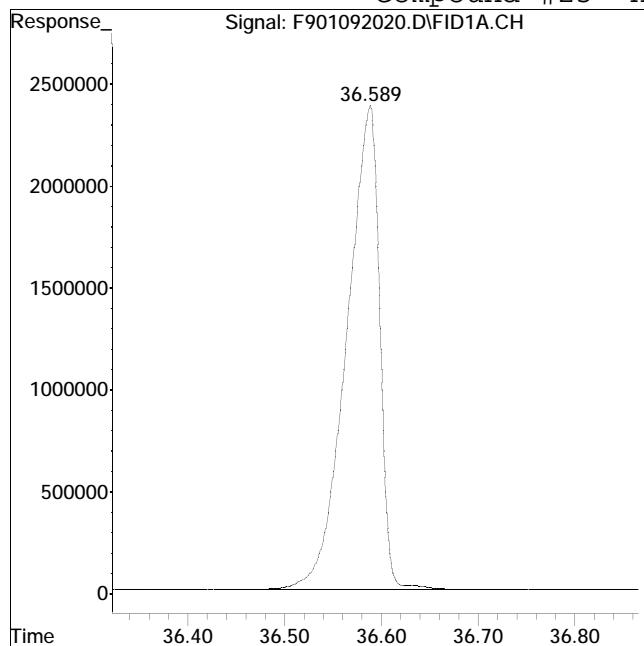
Manual Peak Response = 48194972 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 56178003

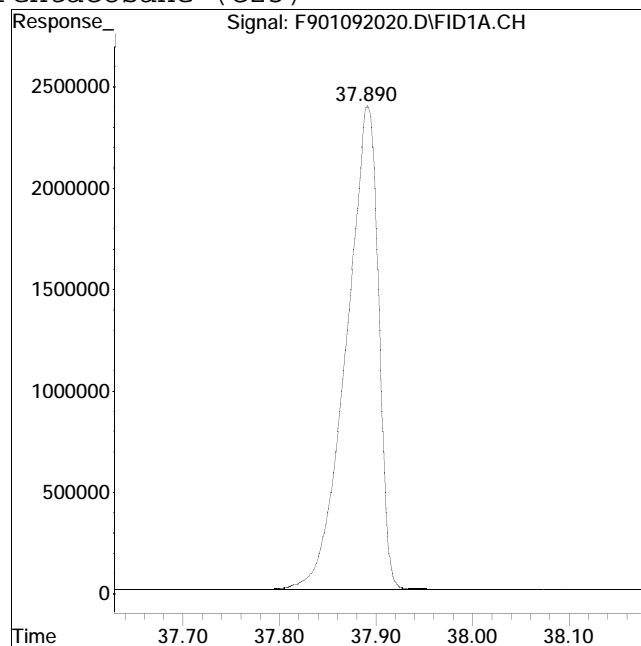
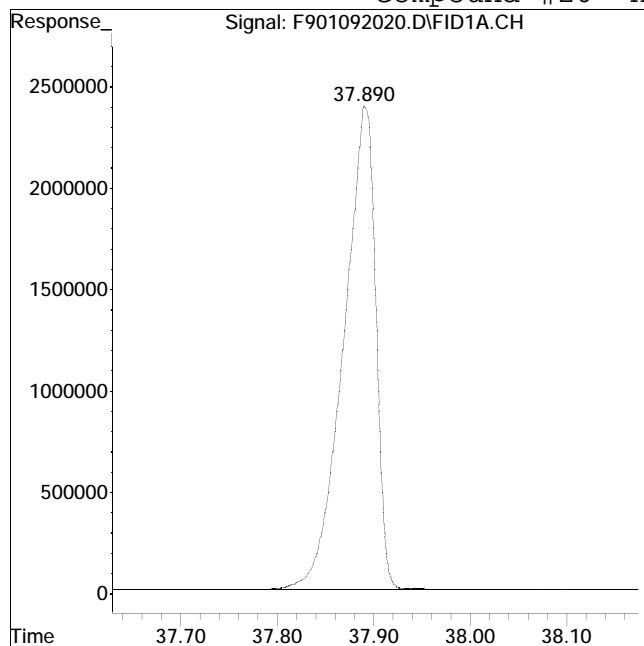
Manual Peak Response = 56211438 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 55244819

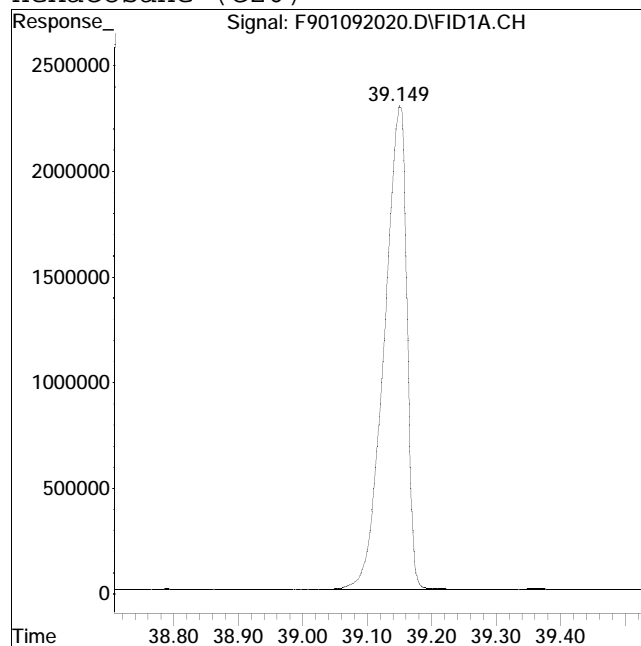
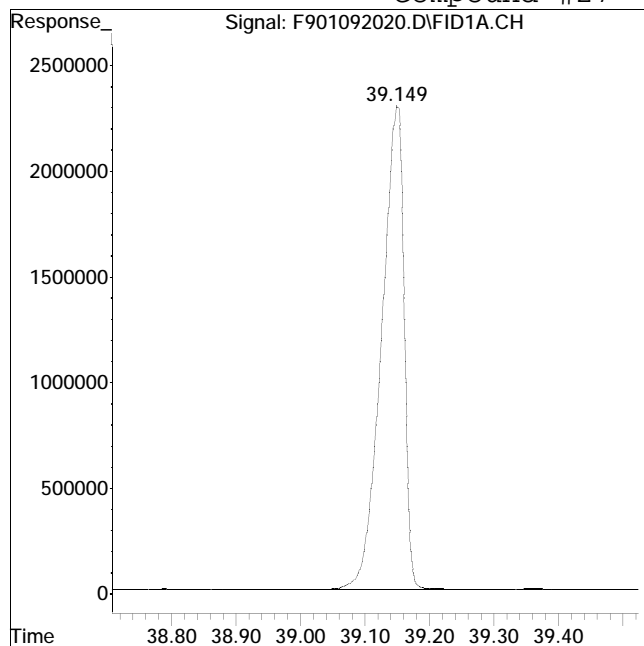
Manual Peak Response = 55256728 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 55840910

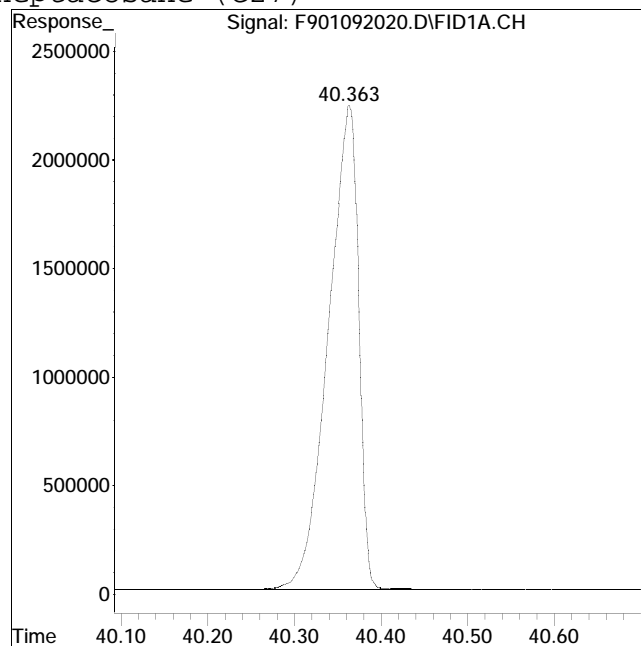
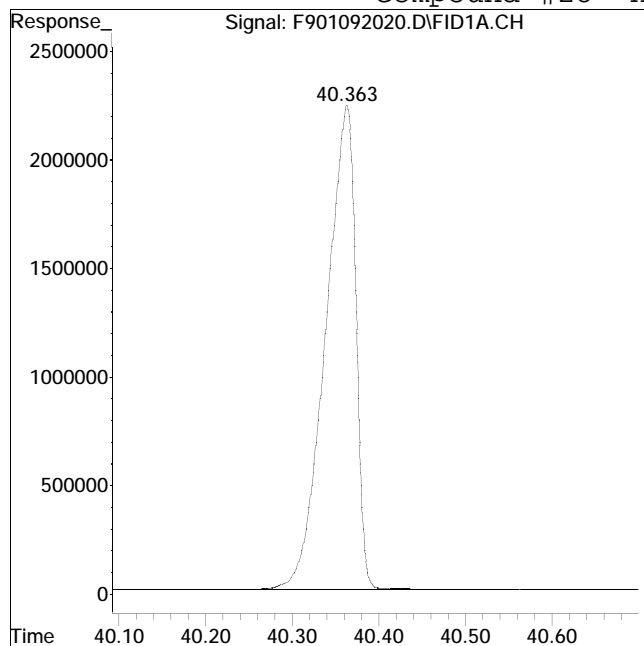
Manual Peak Response = 55615240 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 54189012

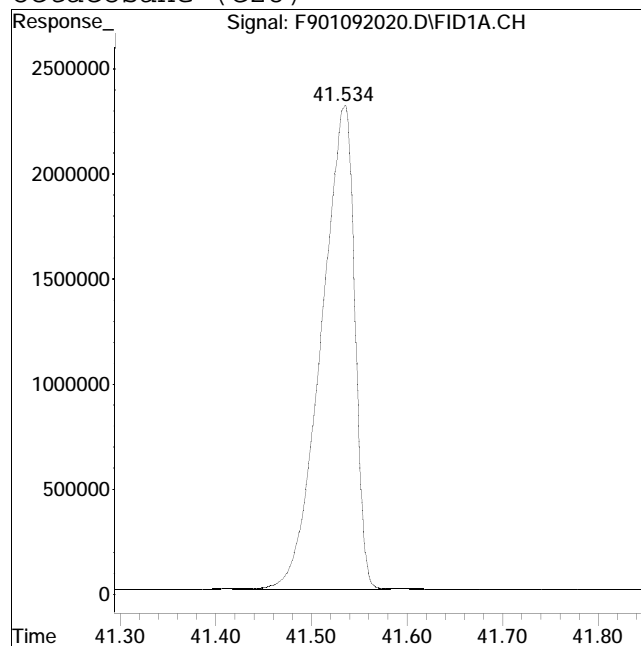
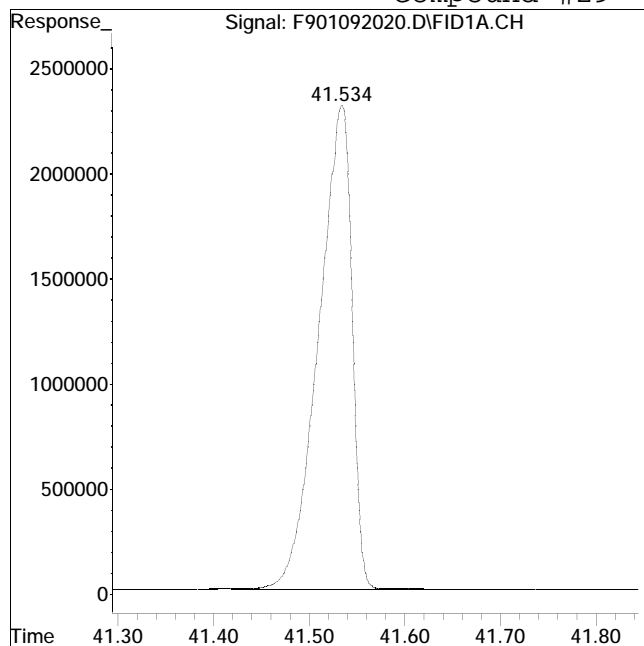
Manual Peak Response = 54105652 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 56147555

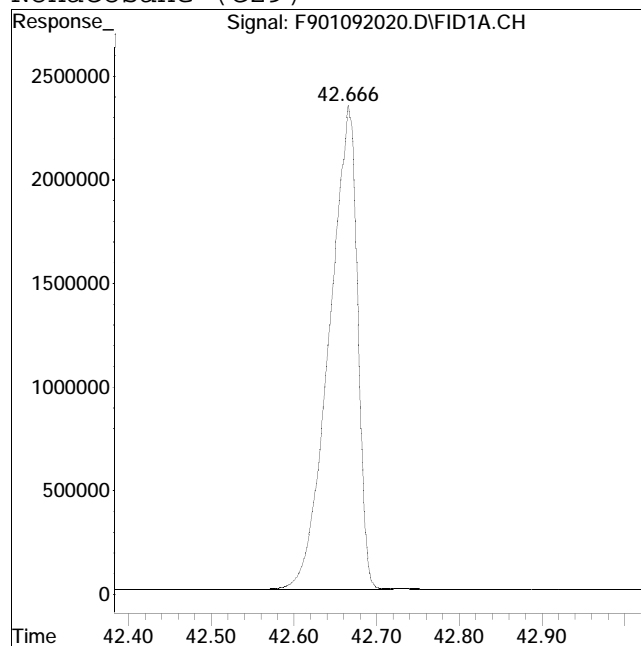
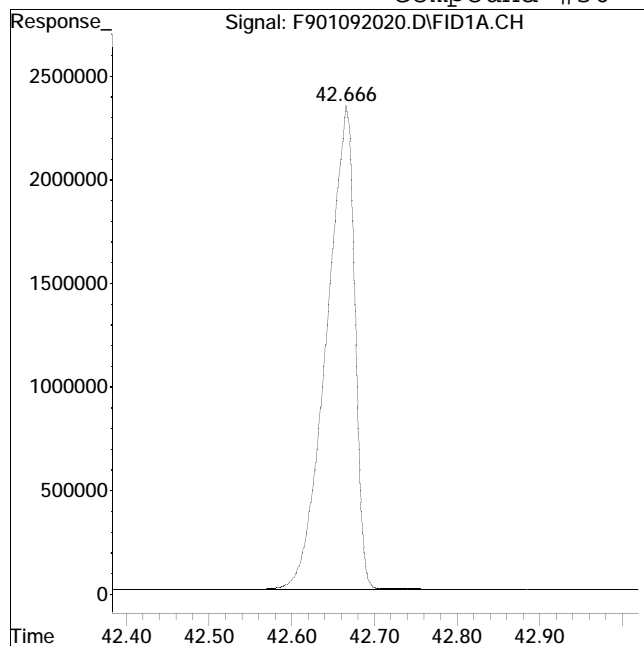
Manual Peak Response = 55954661 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 55778143

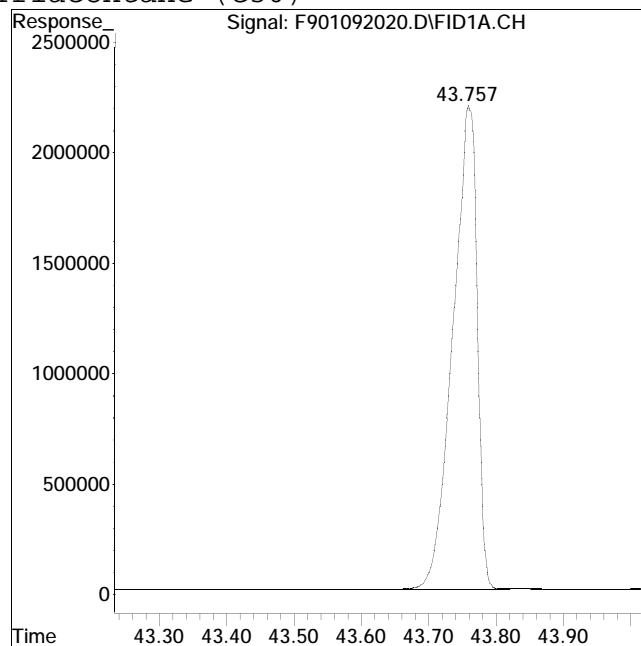
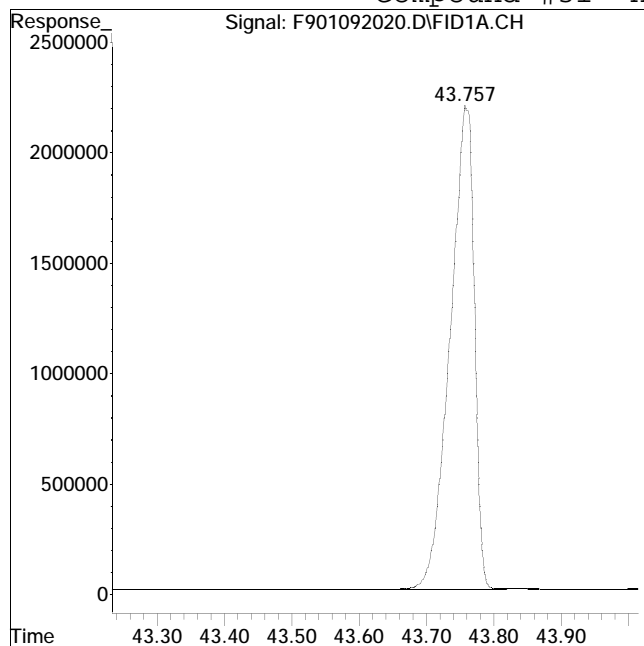
Manual Peak Response = 55561663 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 54930336

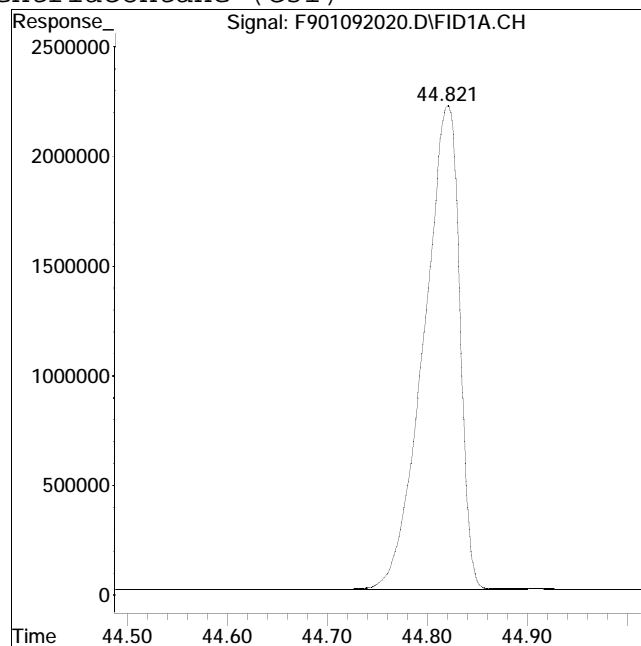
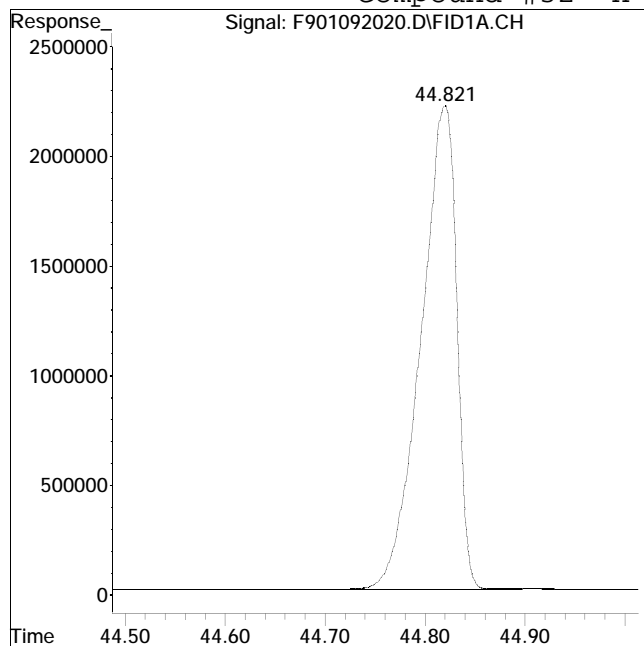
Manual Peak Response = 54827375 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 55037595

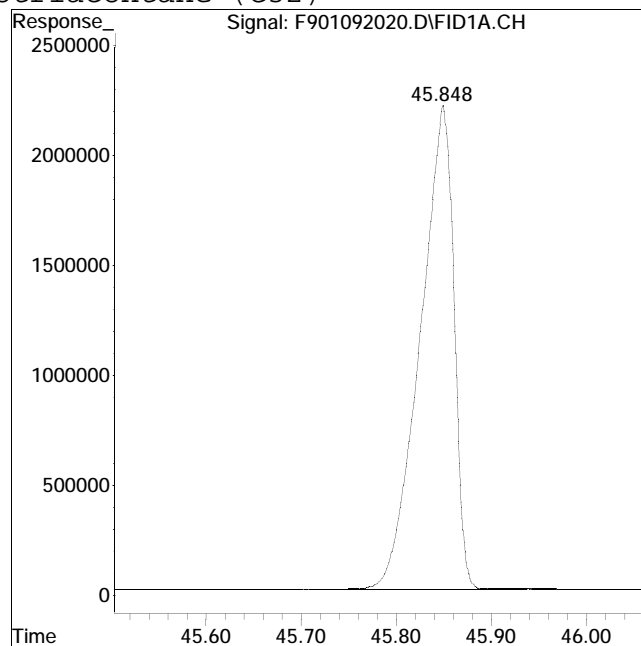
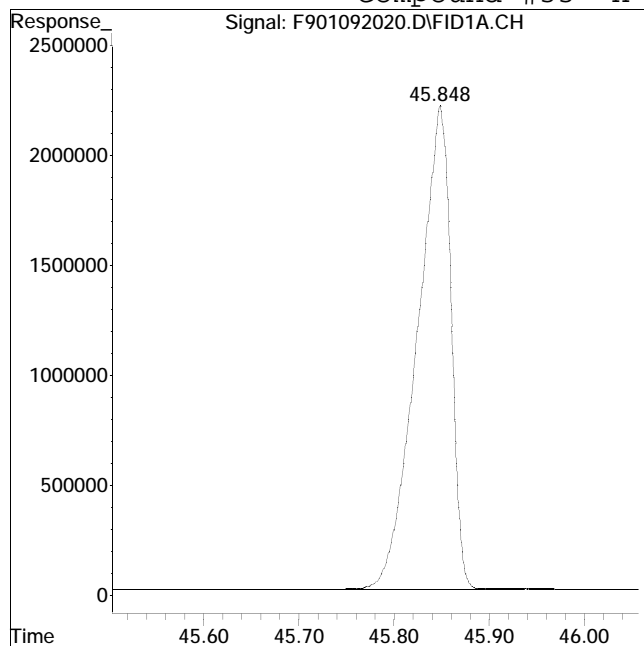
Manual Peak Response = 54979239 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 54153502

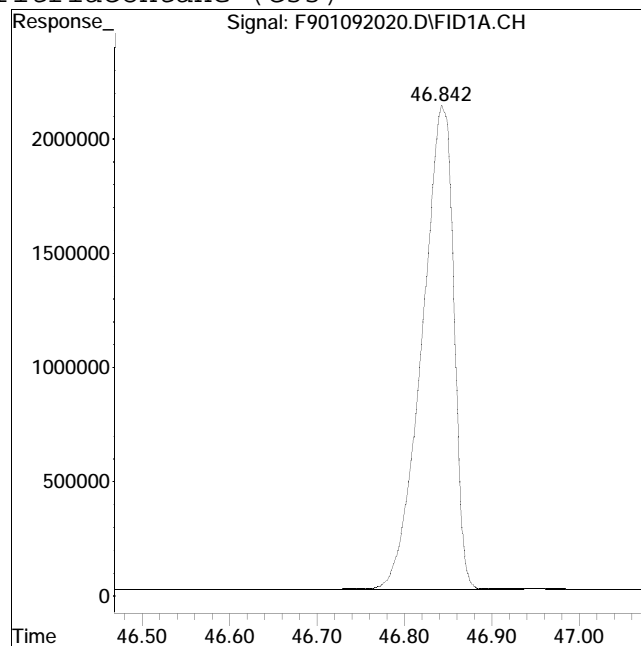
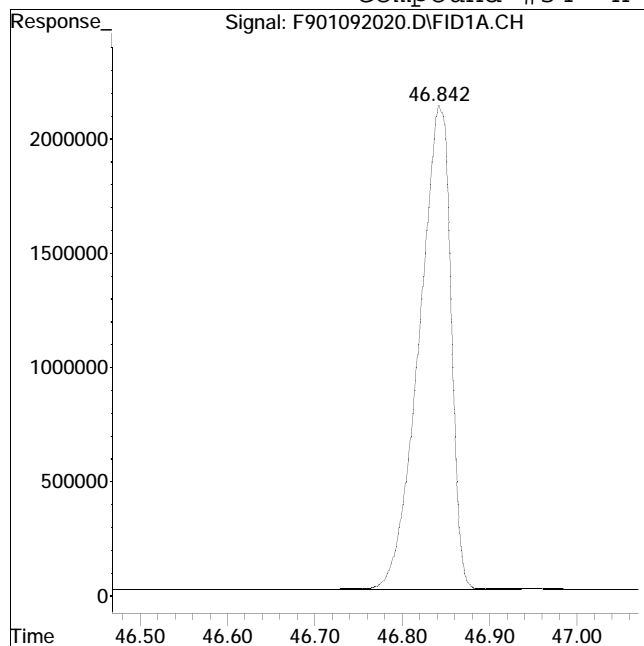
Manual Peak Response = 54085854 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 53605880

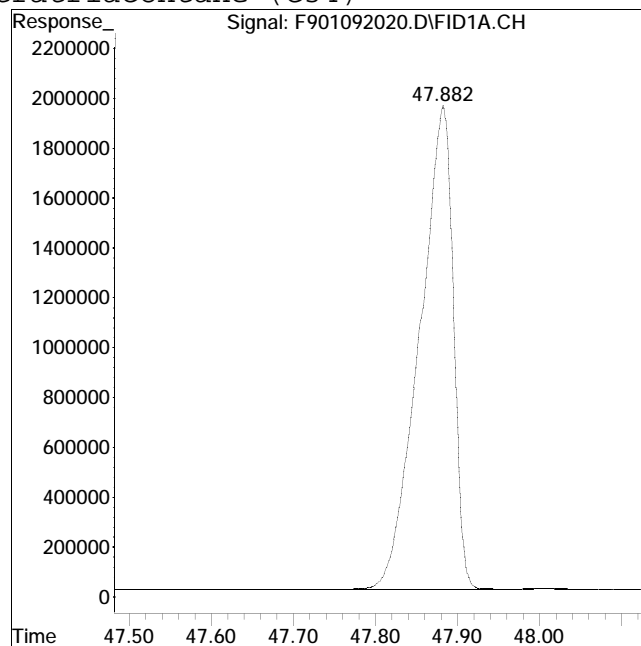
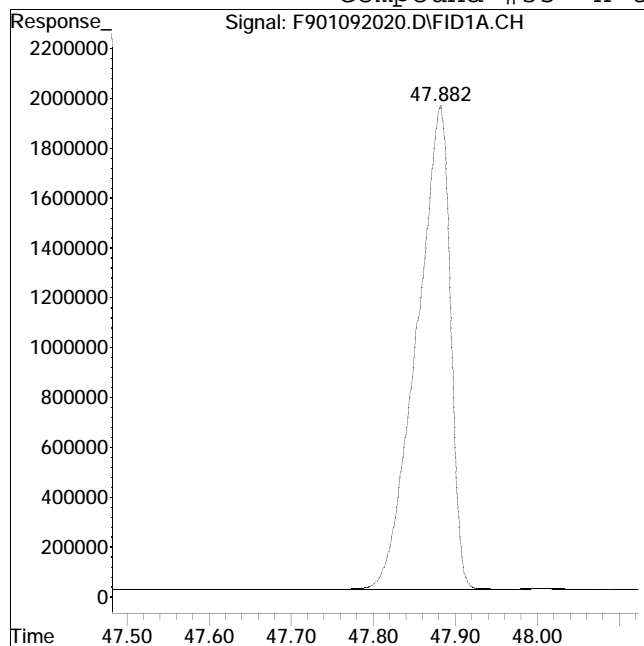
Manual Peak Response = 53550165 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 55448846

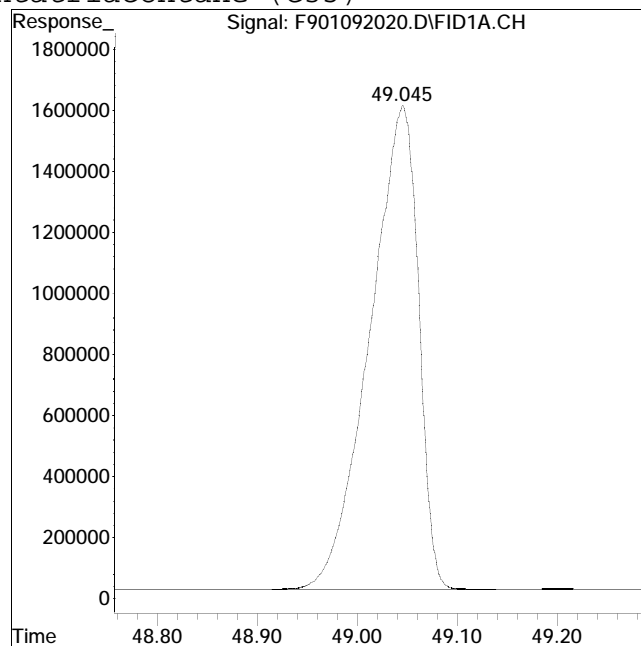
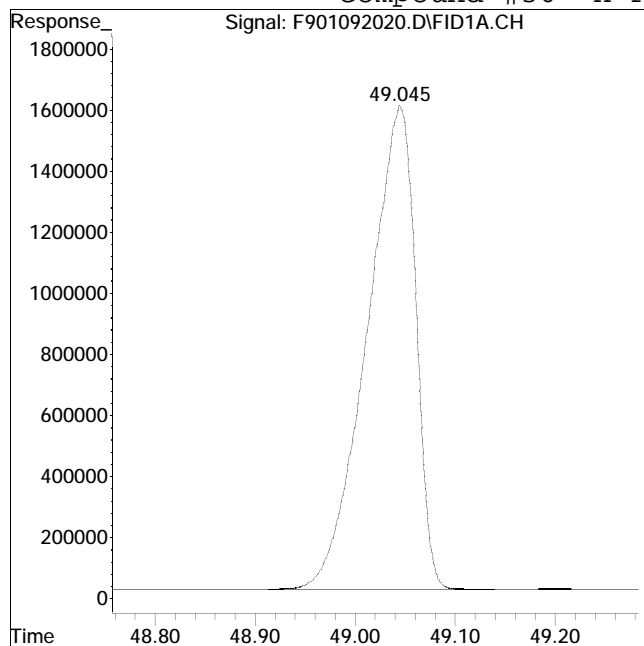
Manual Peak Response = 55441401 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 53608644

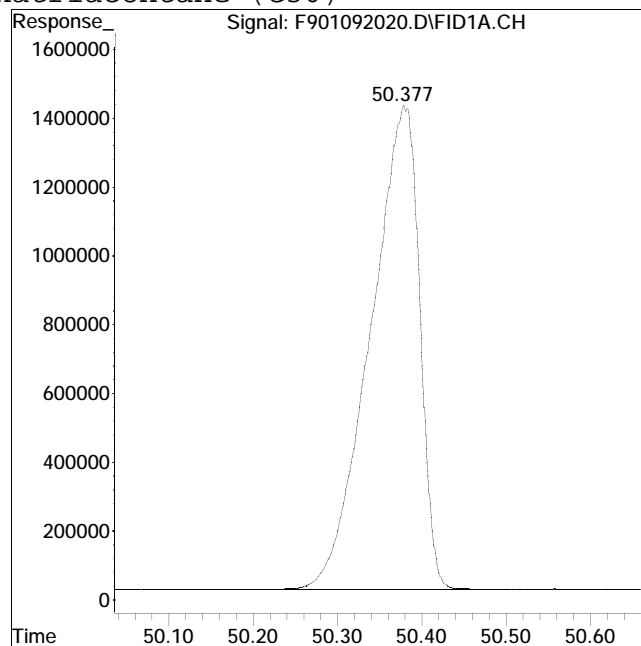
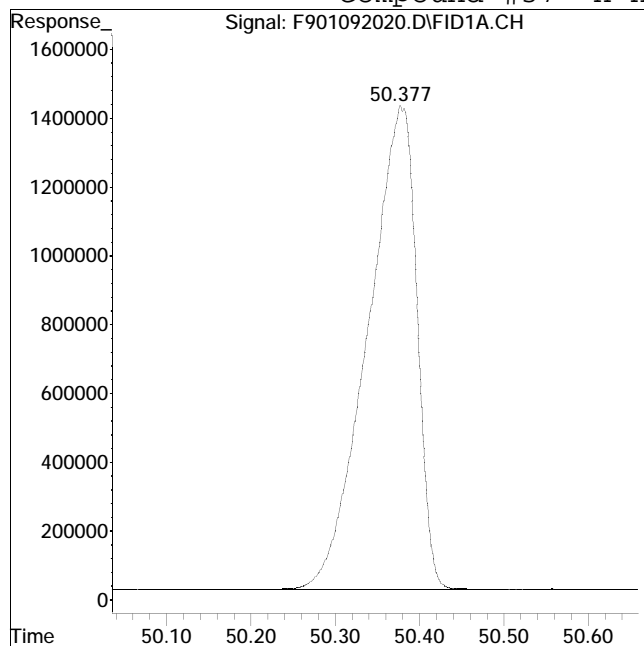
Manual Peak Response = 53595139 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 56934118

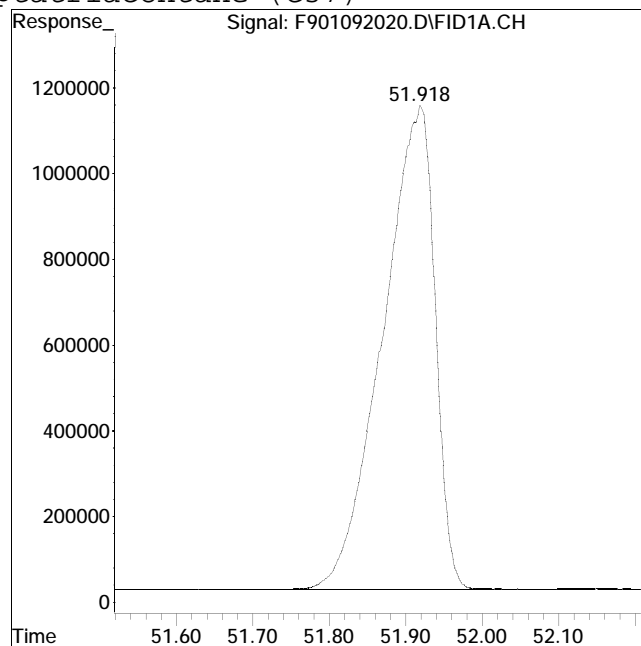
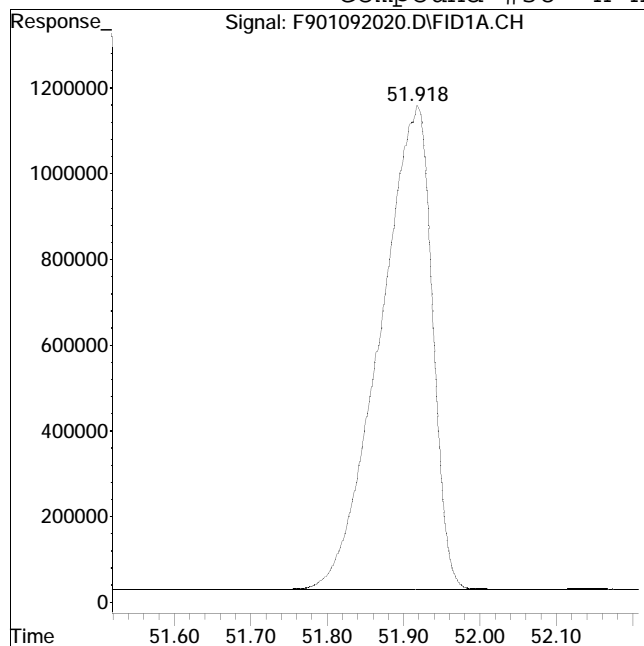
Manual Peak Response = 56937669 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 53528880

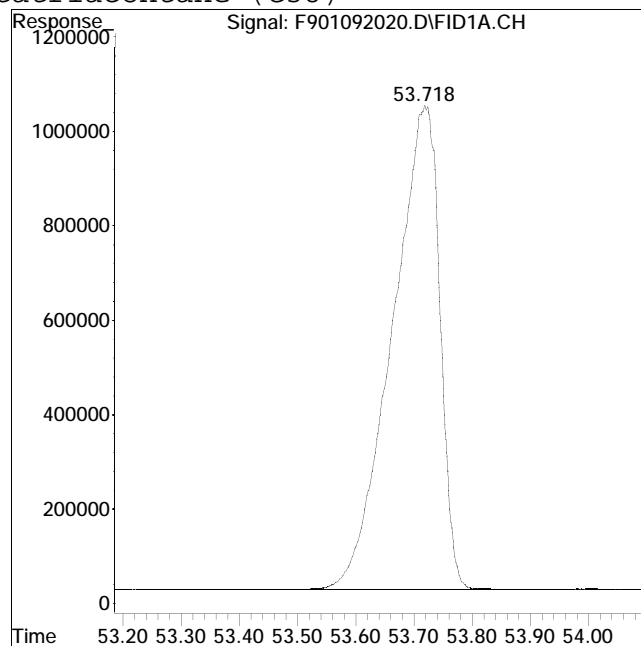
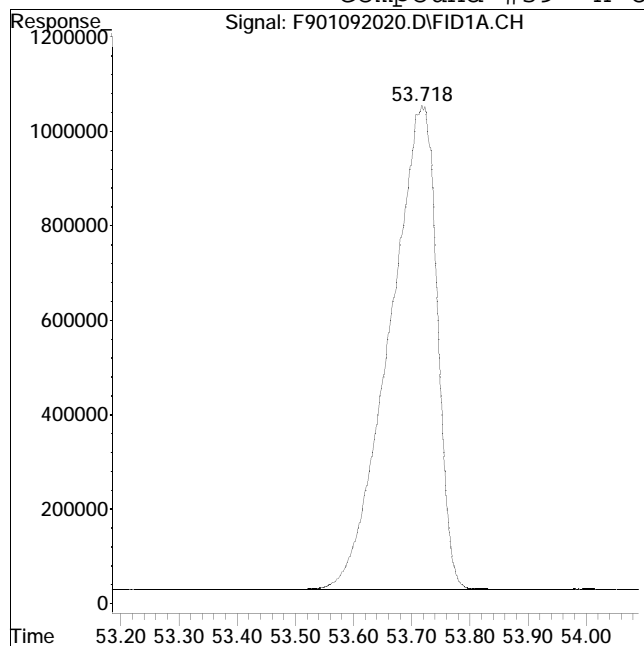
Manual Peak Response = 53648112 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 58101303

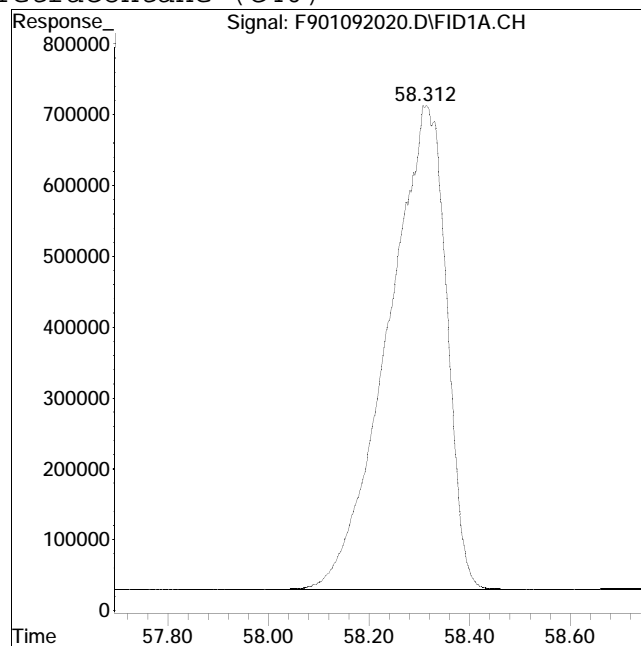
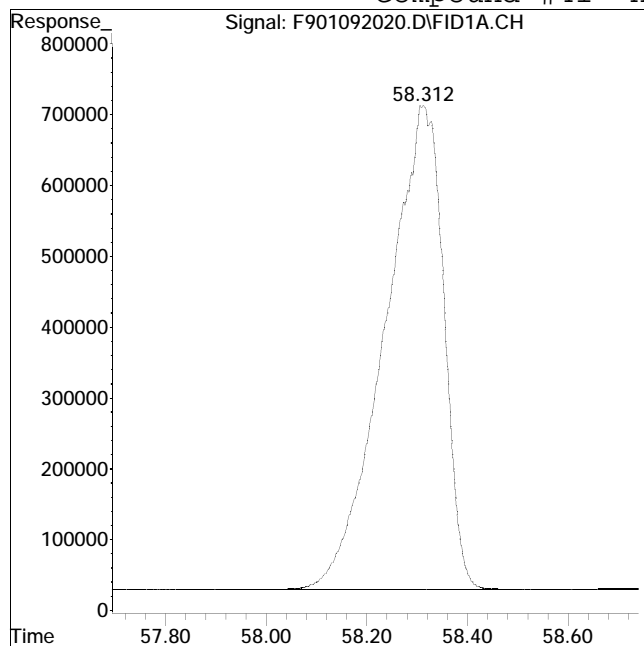
Manual Peak Response = 58154827 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092020.D Operator : FID9:WR
Date Inj'd : 1/9/2020 11:17 pm Instrument : FID 9
Sample : I901022003F Quant Date : 6/1/2020 4:24 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 55195053

Manual Peak Response = 55280162 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092022.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 12:45 am
 Operator : FID9:WR
 Sample : I901022004F
 Misc : WG1376652,FRBC24
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:25:07 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.425	63748123	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.416	119487376	89.971	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	179.94%#	
24) s d50-Tetracosane	36.059	95324571	89.723	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	179.45%#	
Target Compounds				
2) t n-Octane (C8)	5.769	91709067	88.445	ug/mL M4
3) t n-Nonane (C9)	7.972	97929788	89.533	ug/mL M4
4) t n-Decane (C10)	10.455	102151088	90.254	ug/mL M4
5) t n-Undecane (C11)	12.967	104258640	90.681	ug/mL M4
6) t n-Dodecane (C12)	15.394	105826171	90.573	ug/mL M4
7) t n-Tridecane (C13)	17.702	106473234	90.809	ug/mL M4
9) t n-Tetradecane (C14)	19.886	108145533	90.664	ug/mL M4
11) t n-Pentadecane (C15)	21.952	108270396	90.550	ug/mL M4
12) t n-Hexadecane (C16)	23.910	109448211	90.810	ug/mL M4
14) t n-Heptadecane (C17)	25.769	109341119	90.695	ug/mL M4
15) t Pristane	25.883	110774457	90.499	ug/mL M4
16) t n-Octadecane (C18)	27.536	110345980	90.814	ug/mL M4
17) t Phytane	27.703	99771955	90.161	ug/mL M4
18) t n-Nonadecane (C19)	29.224	109481030	90.376	ug/mL M4
20) t n-Eicosane (C20)	30.827	109759843	90.181	ug/mL M4
21) t n-Heneicosane (C21)	32.365	111631794	90.323	ug/mL M4
22) t n-Docosane (C22)	33.838	111661044	90.562	ug/mL M4
23) t n-Tricosane (C23)	35.251	112145332	90.605	ug/mL M4
25) t n-Tetracosane (C24)	36.612	112581091	89.981	ug/mL M4
26) t n-Pentacosane (C25)	37.918	111062064	90.332	ug/mL M4
27) t n-Hexacosane (C26)	39.175	111728503	90.447	ug/mL M4
28) t n-Heptacosane (C27)	40.386	108419632	90.061	ug/mL M4
29) t n-Octacosane (C28)	41.557	112194318	90.352	ug/mL M4
30) t n-Nonacosane (C29)	42.688	111049955	89.845	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092022.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 12:45 am
 Operator : FID9:WR
 Sample : I901022004F
 Misc : WG1376652,FRBC24
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:25:07 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.784	109300058	89.763 ug/mL M4
32) t n-Hentriacontane (C31)	44.843	109438161	89.356 ug/mL M4
33) t n-Dotriacontane (C32)	45.873	108014770	89.607 ug/mL M4
34) t n-Tritriacontane (C33)	46.873	106822304	89.603 ug/mL M4
35) t n-tetratriacontane (C34)	47.911	110793545	89.523 ug/mL M4
36) t n-Pentatriacontane (C35)	49.079	107377068	89.420 ug/mL M4
37) t n-Hexatriacontane (C36)	50.421	114311364	90.119 ug/mL M4
38) t n-Heptatriacontane (C37)	51.967	107875391	89.962 ug/mL M4
39) t n-Octatriacontane (C38)	53.780	117429882	90.467 ug/mL M4
41) t n-Tetracontane (C40)	58.396	111196434	89.682 ug/mL M4

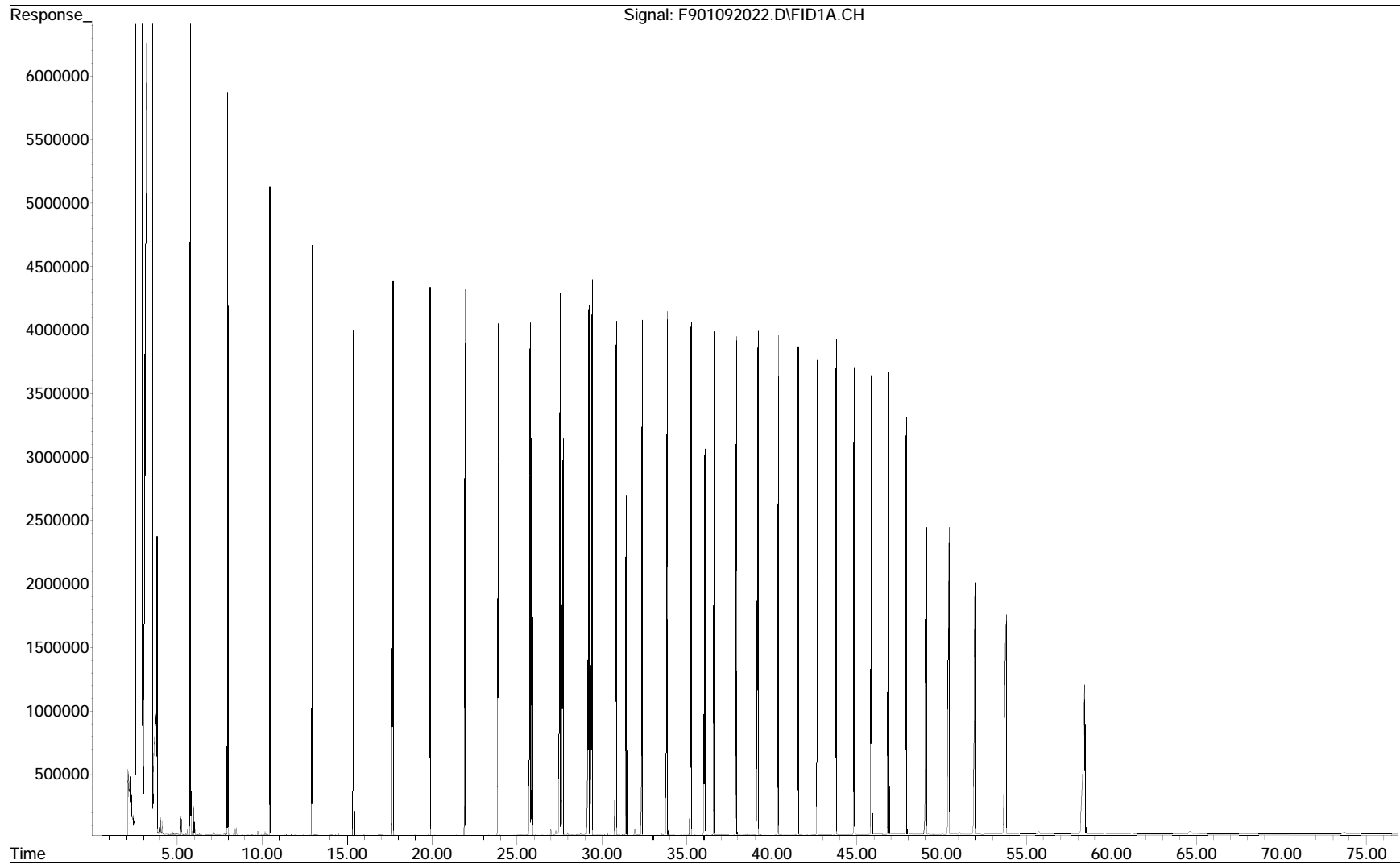
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

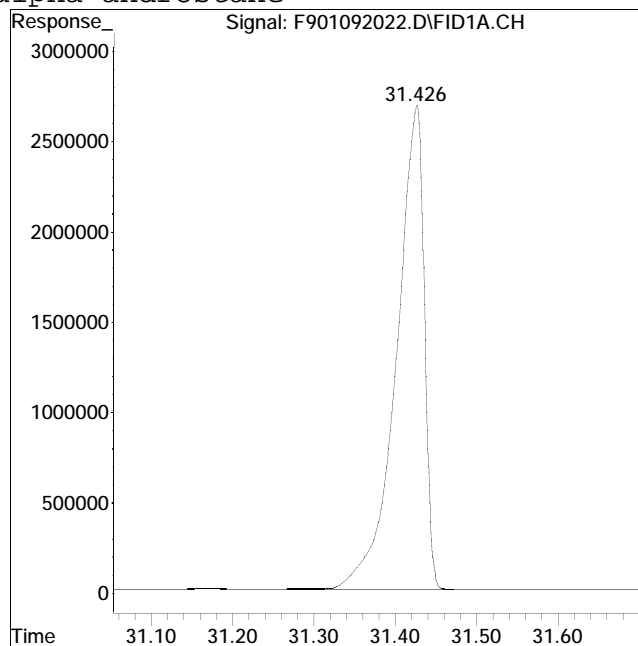
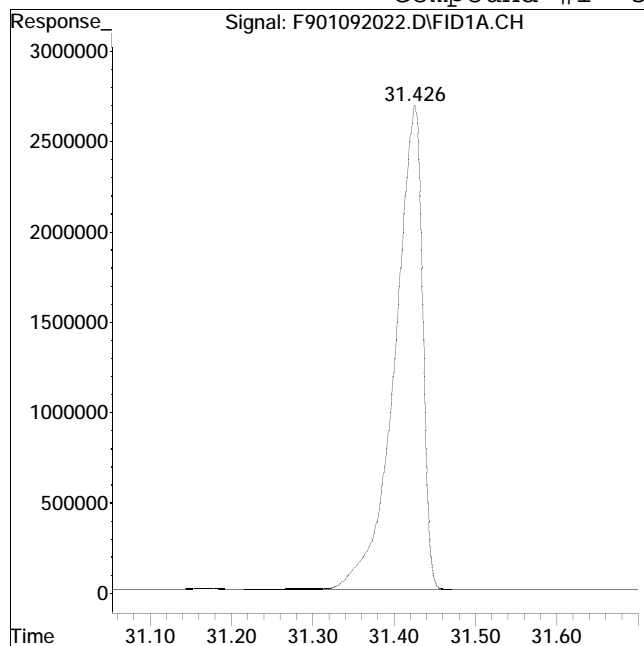
Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092022.D
Operator : FID9:WR
Acquired : 10 Jan 2020 12:45 am using AcqMethod FID9A.M
Instrument: FID 9
Sample : I901022004F
Misc Info : WG1376652,FRBC24
ALS Vial : 11



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 63795032

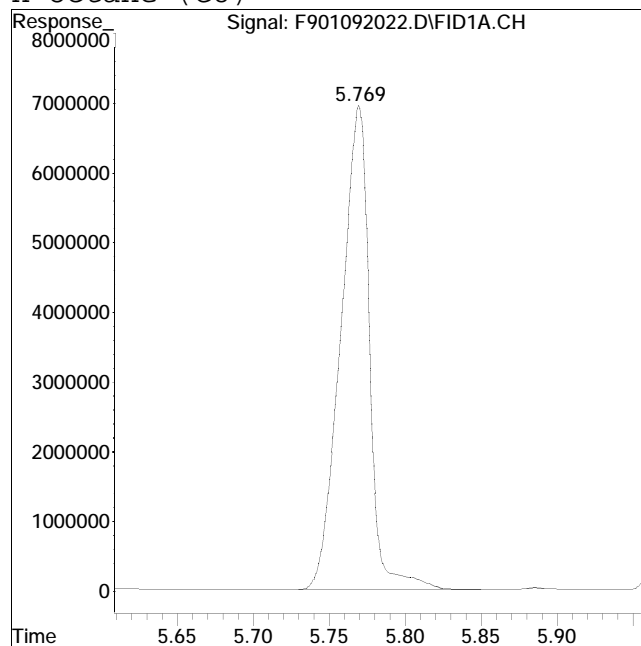
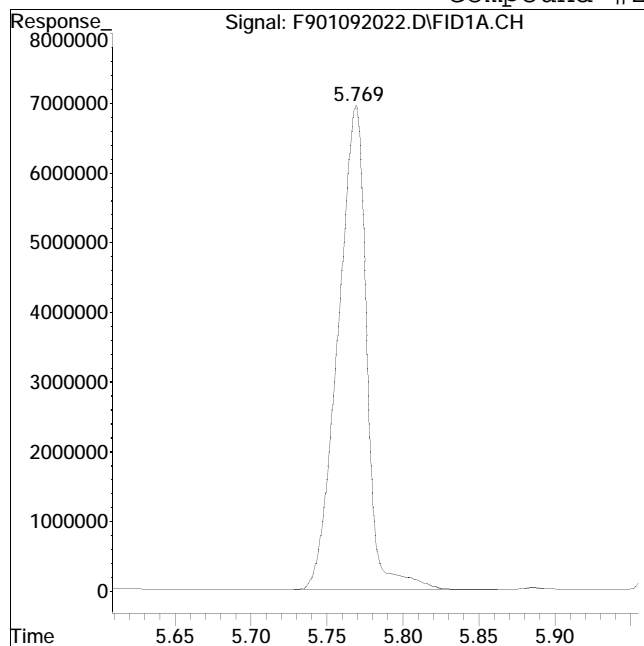
Manual Peak Response = 63748123 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #2: n-Octane (C8)



Original Peak Response = 91828479

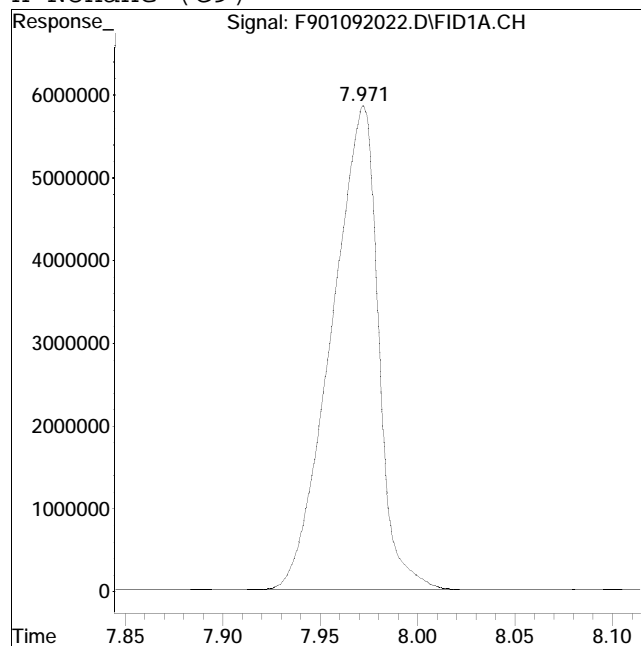
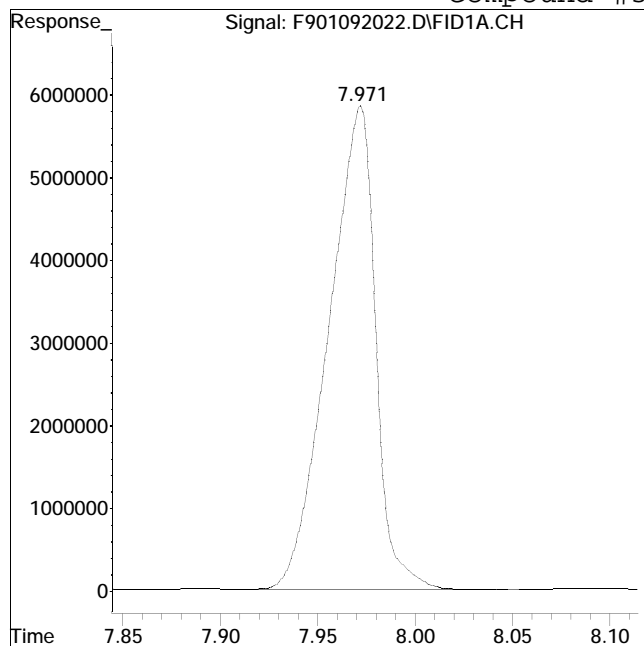
Manual Peak Response = 91709067 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 98376797

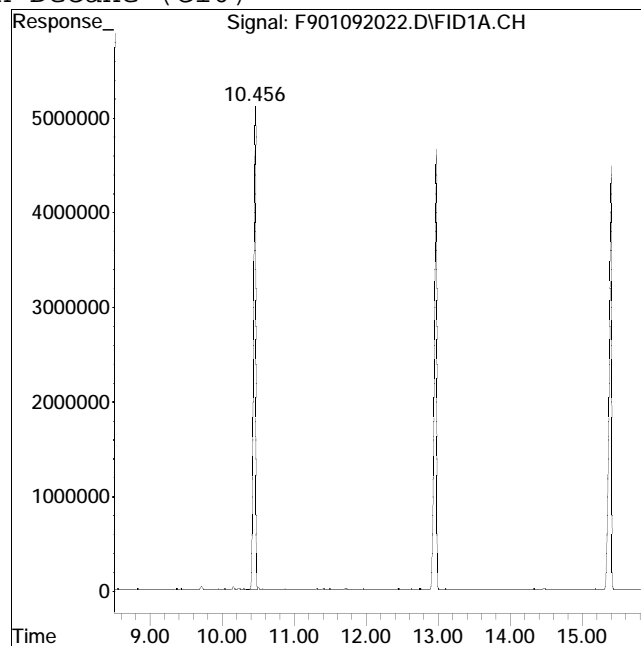
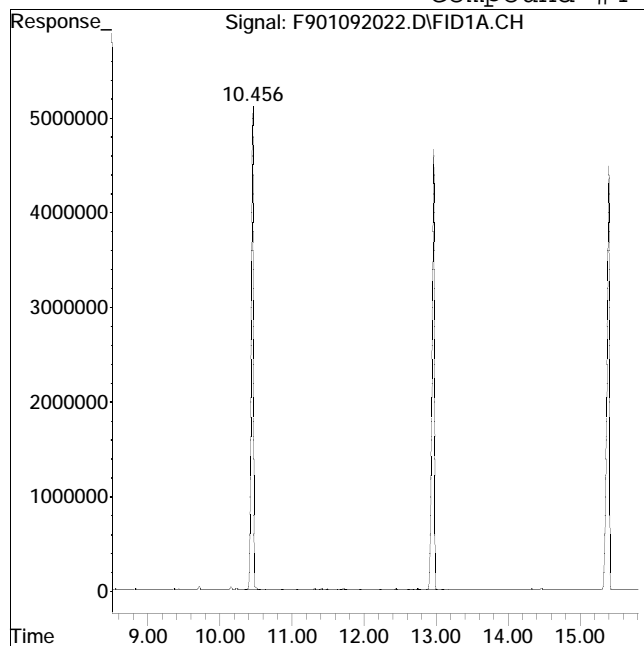
Manual Peak Response = 97929788 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #4: n-Decane (C10)



Original Peak Response = 97738644

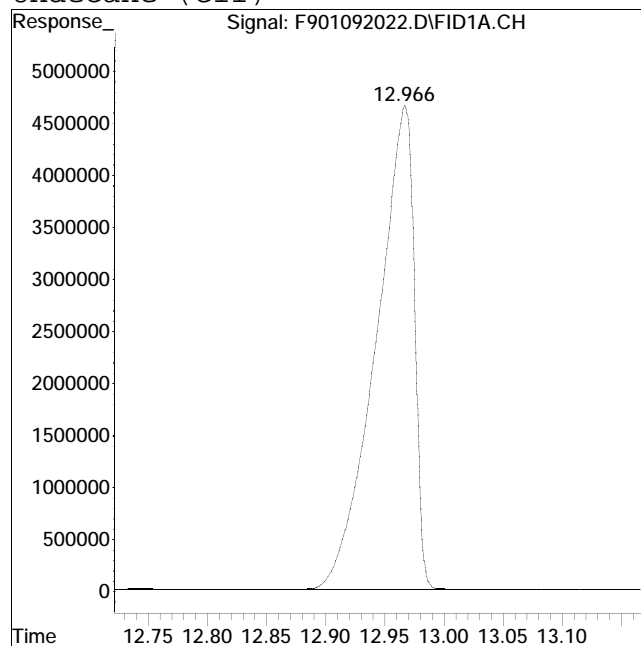
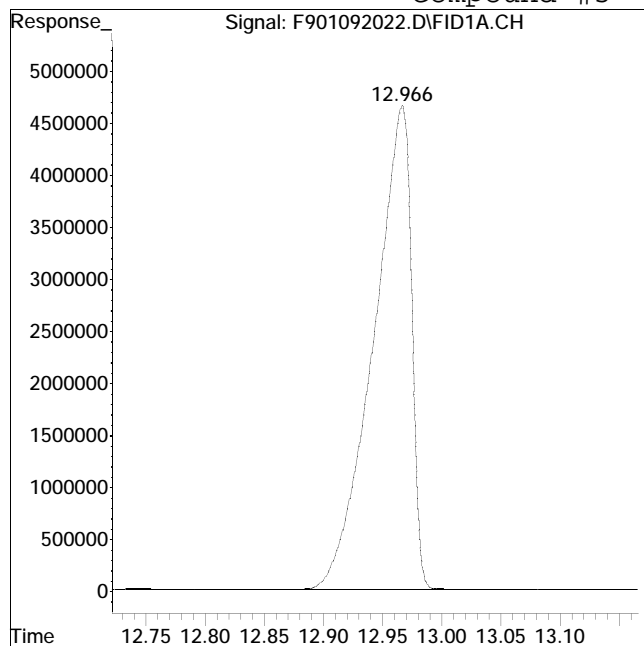
Manual Peak Response = 102151088 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 104268400

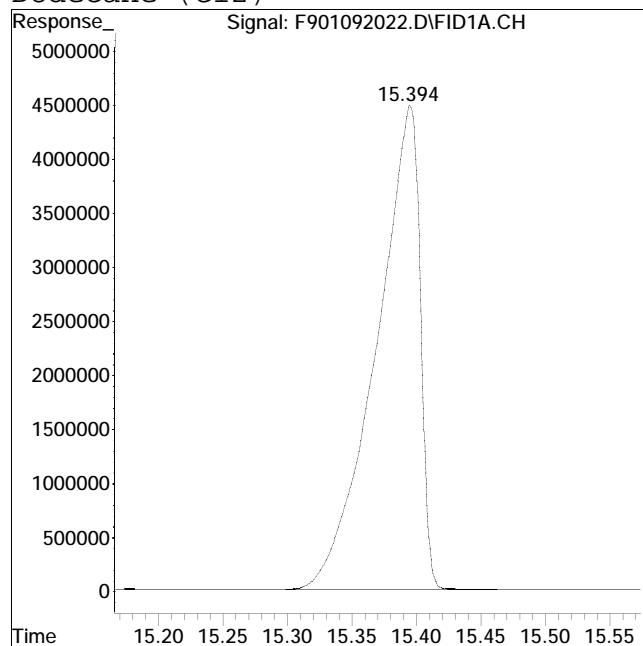
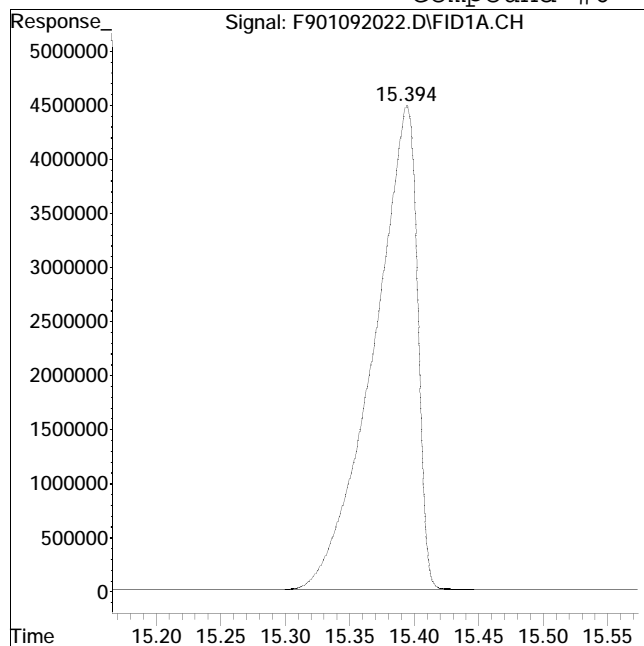
Manual Peak Response = 104258640 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 105769149

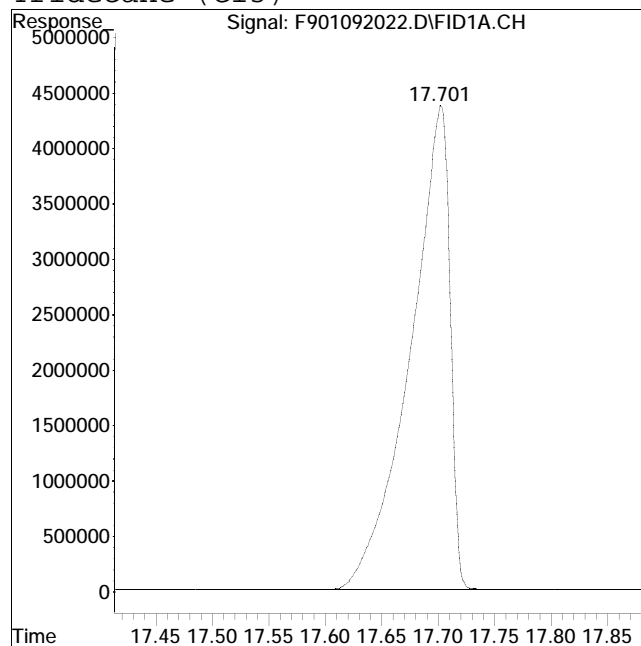
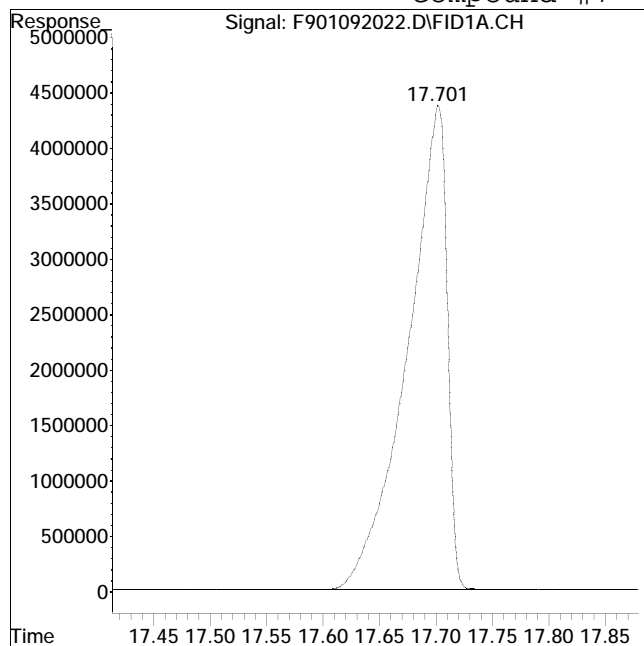
Manual Peak Response = 105826171 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 106539615

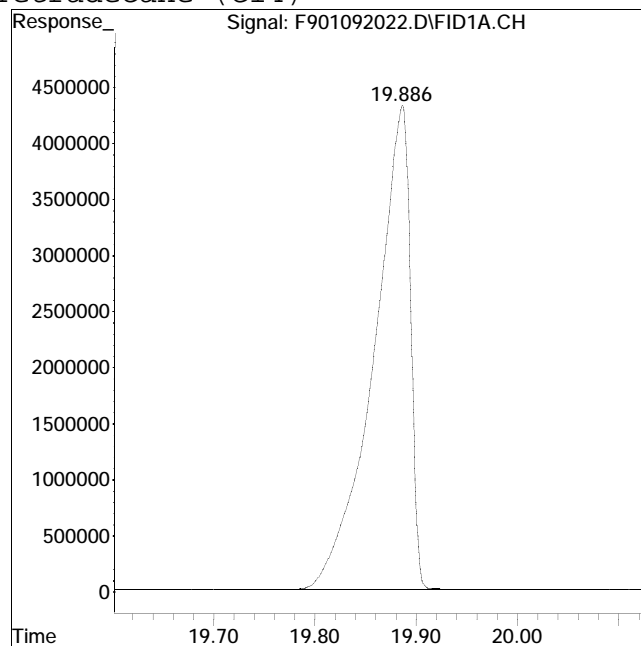
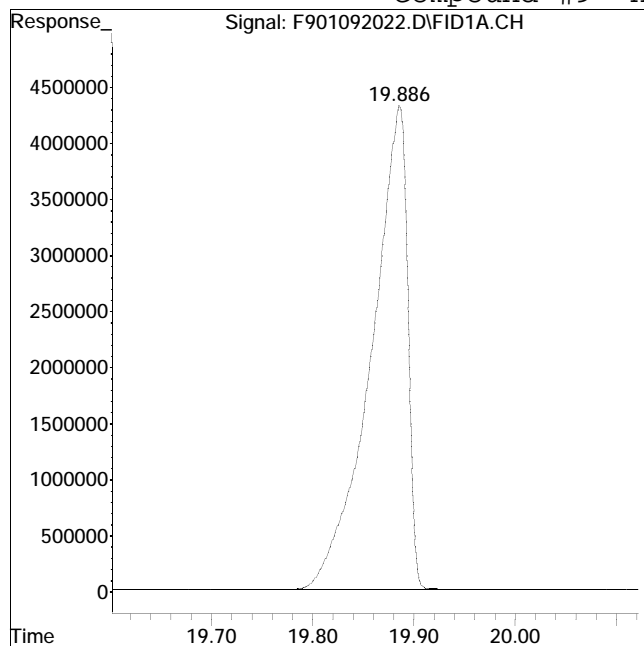
Manual Peak Response = 106473234 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 108141527

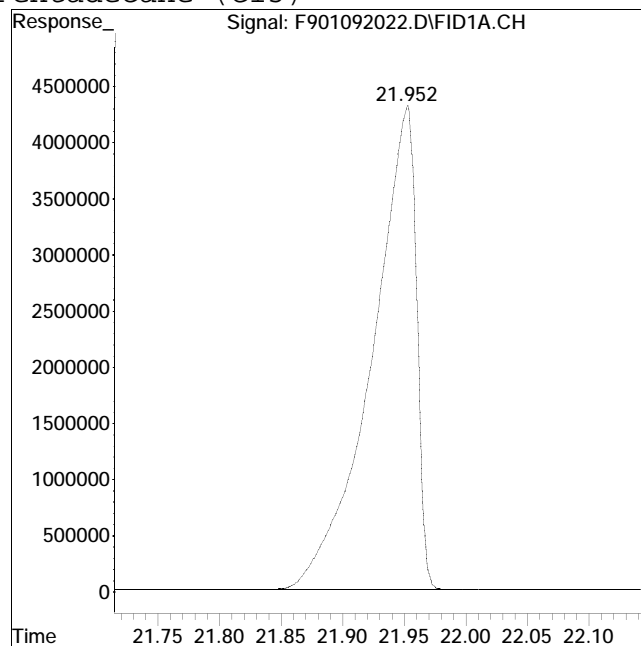
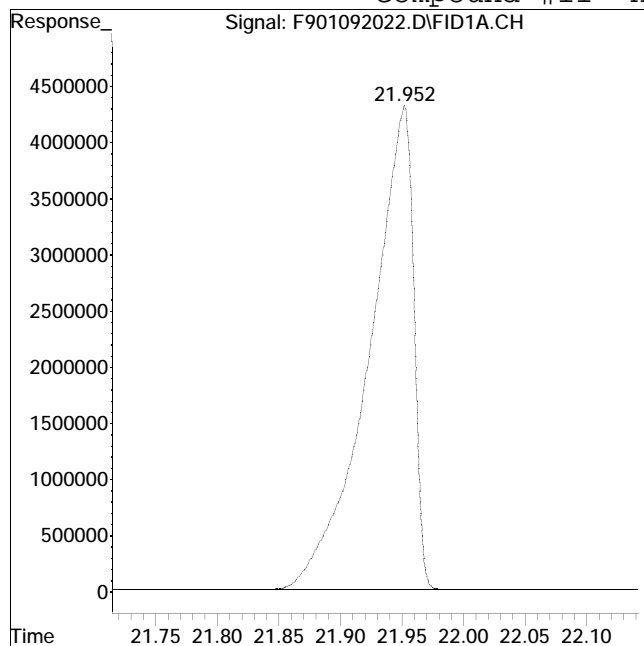
Manual Peak Response = 108145533 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 108258822

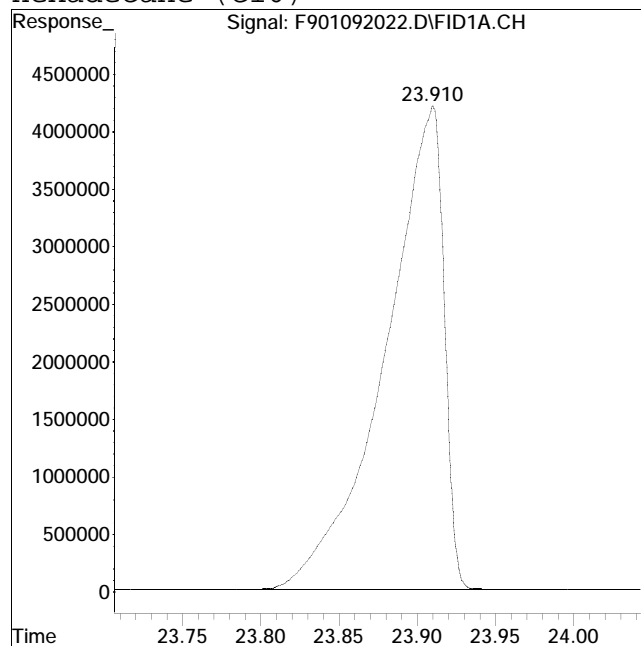
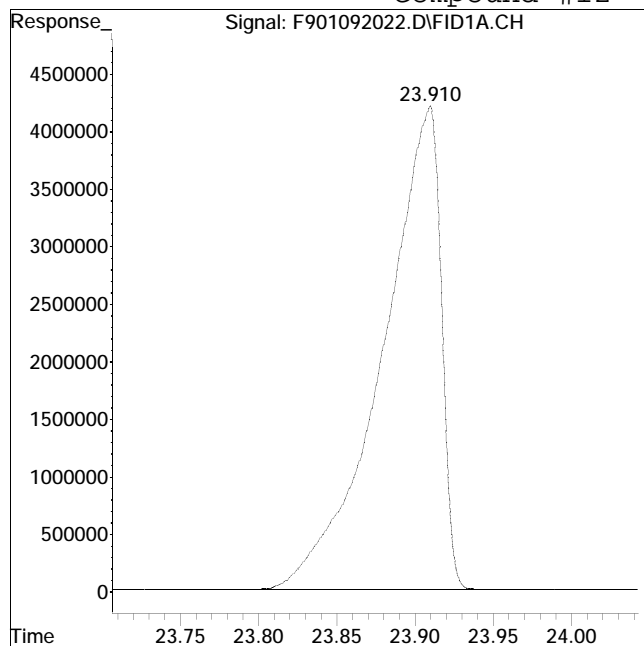
Manual Peak Response = 108270396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 109352858

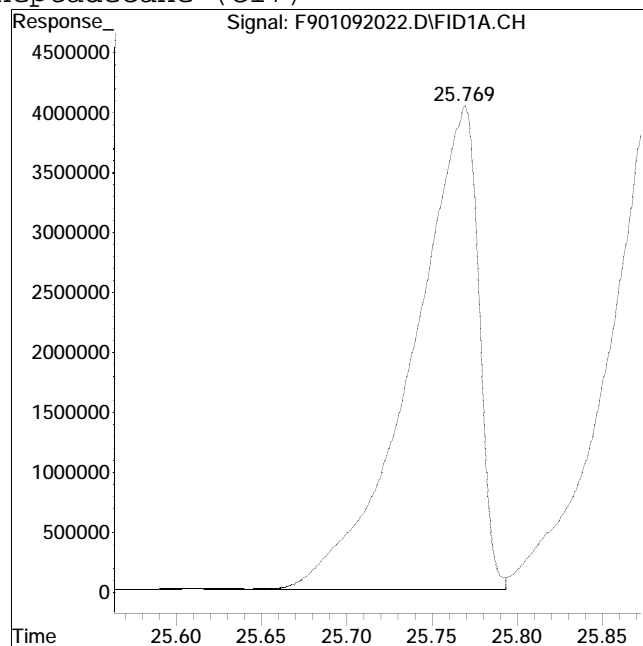
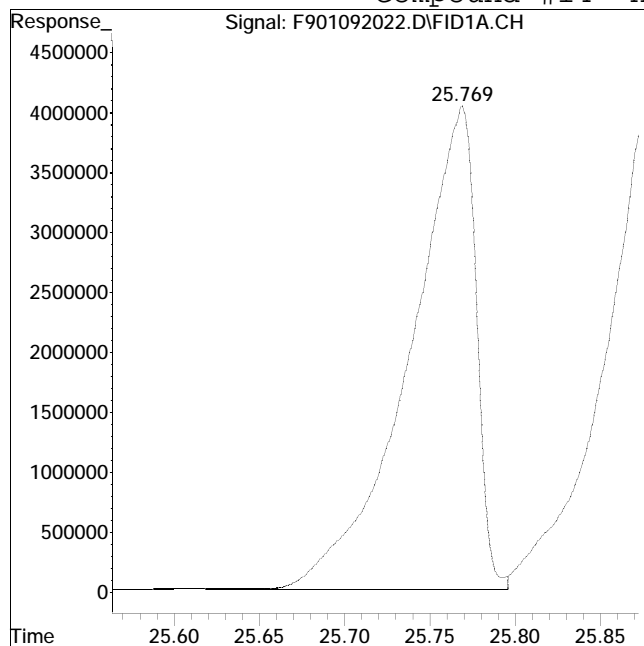
Manual Peak Response = 109448211 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 109438436

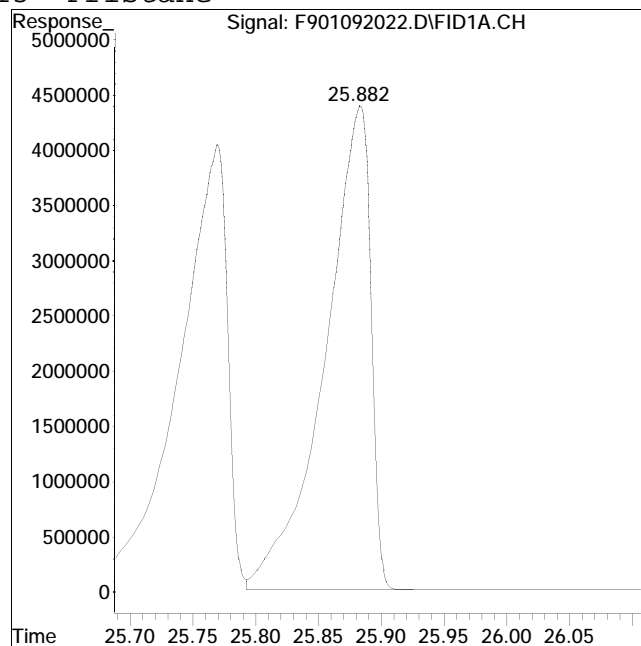
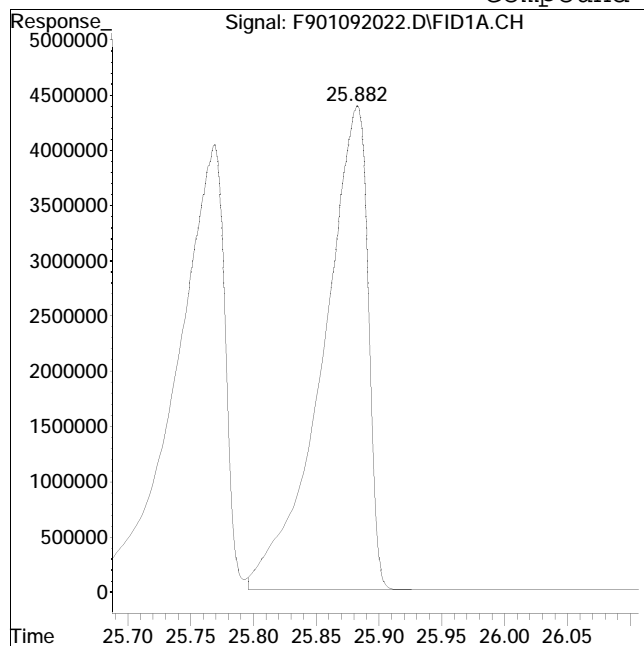
Manual Peak Response = 109341119 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #15: Pristane



Original Peak Response = 110622479

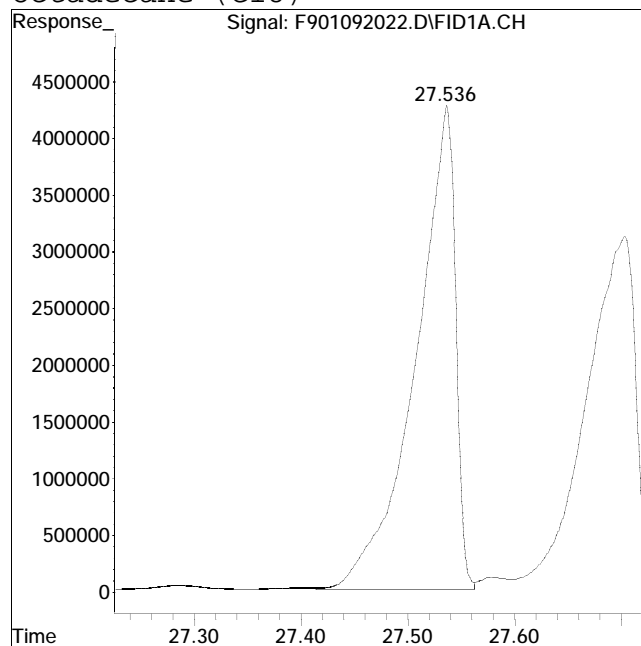
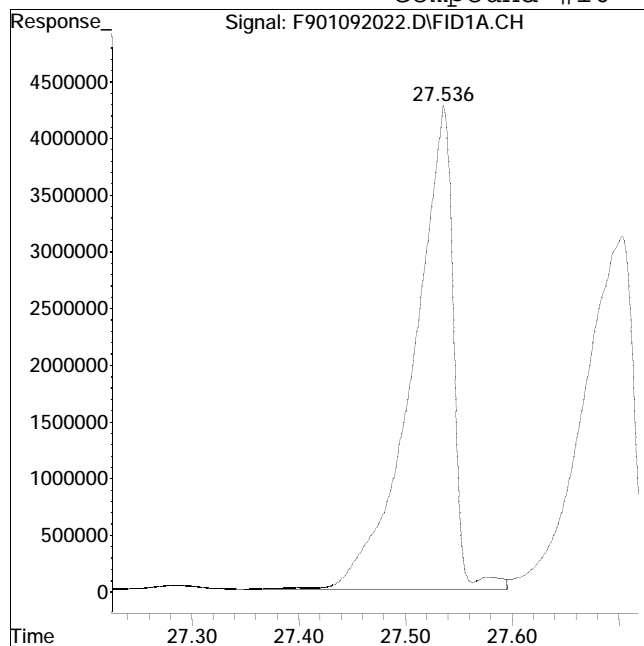
Manual Peak Response = 110774457 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 112785722

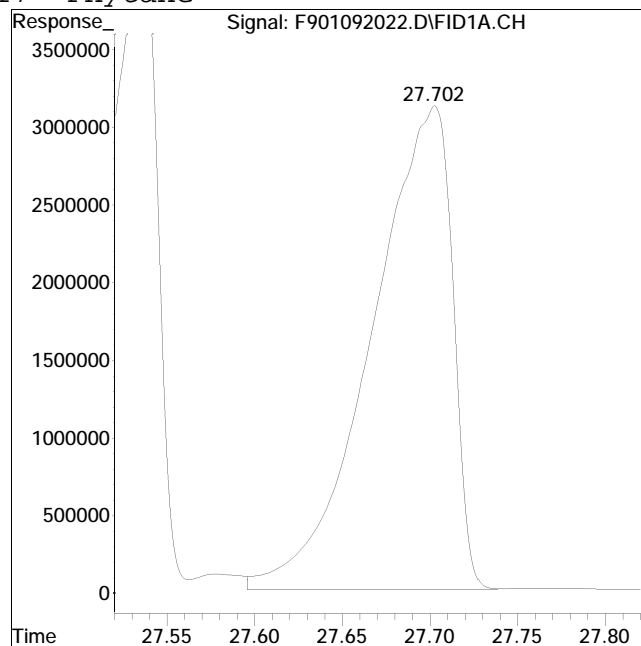
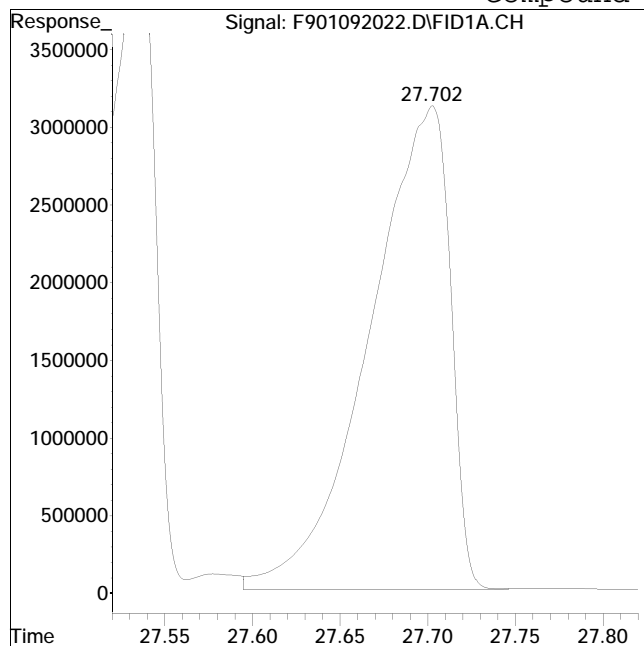
Manual Peak Response = 110345980 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #17: Phytane



Original Peak Response = 99904876

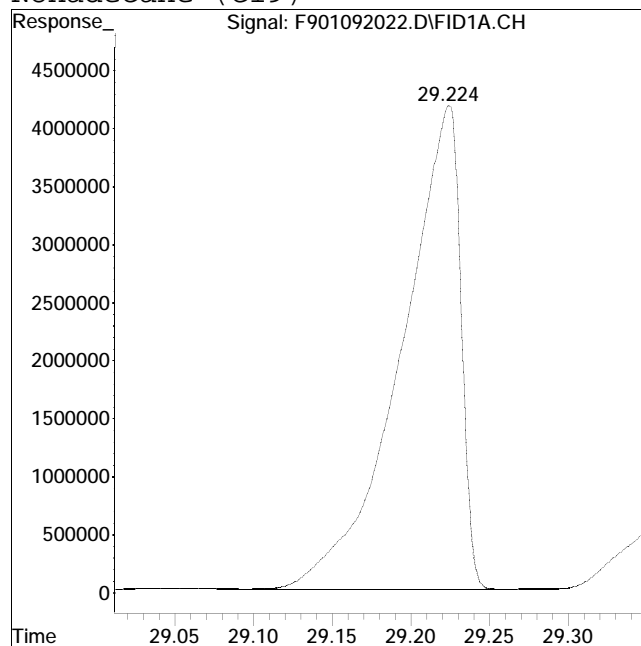
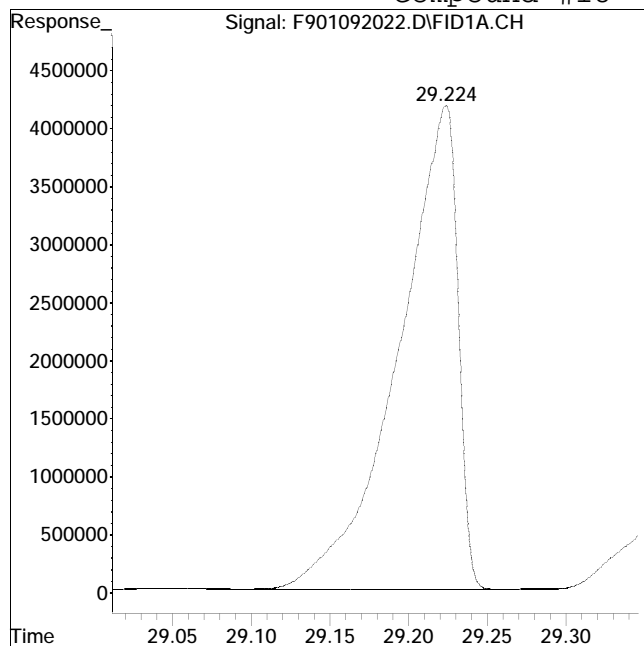
Manual Peak Response = 99771955 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 109206666

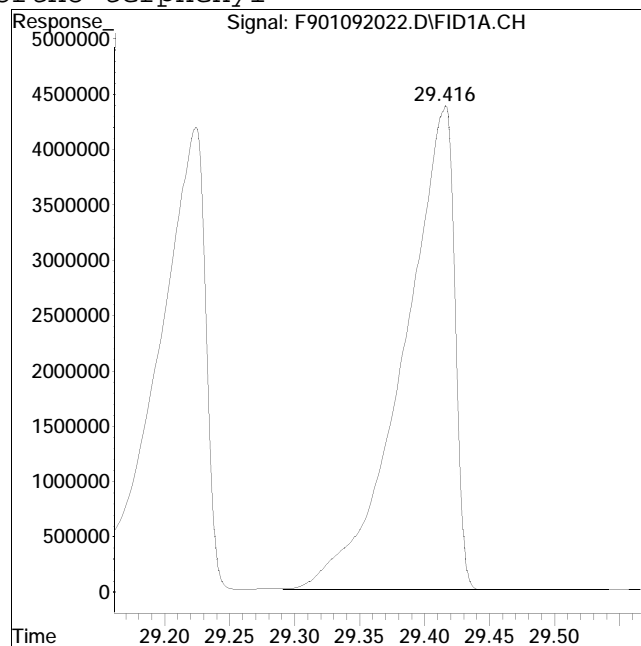
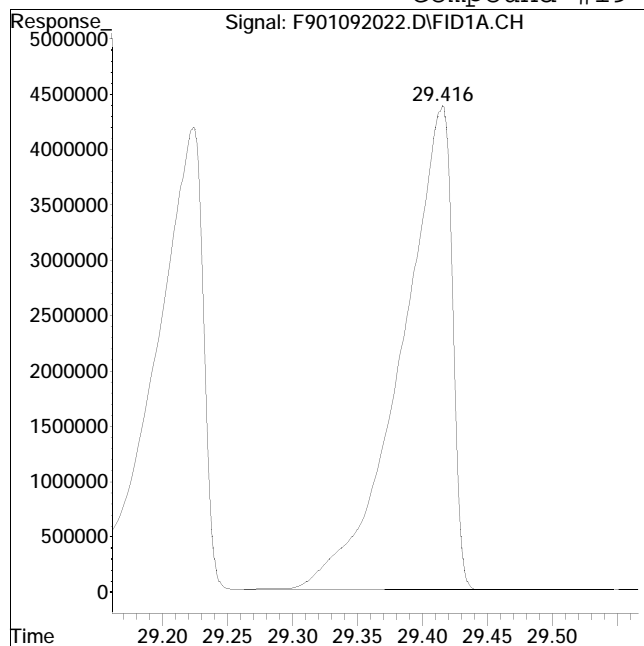
Manual Peak Response = 109481030 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #19: ortho-terphenyl



Original Peak Response = 119290114

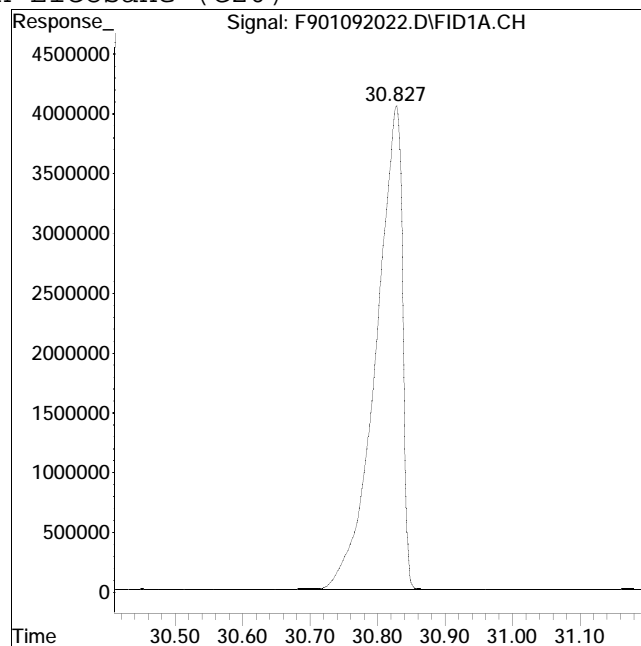
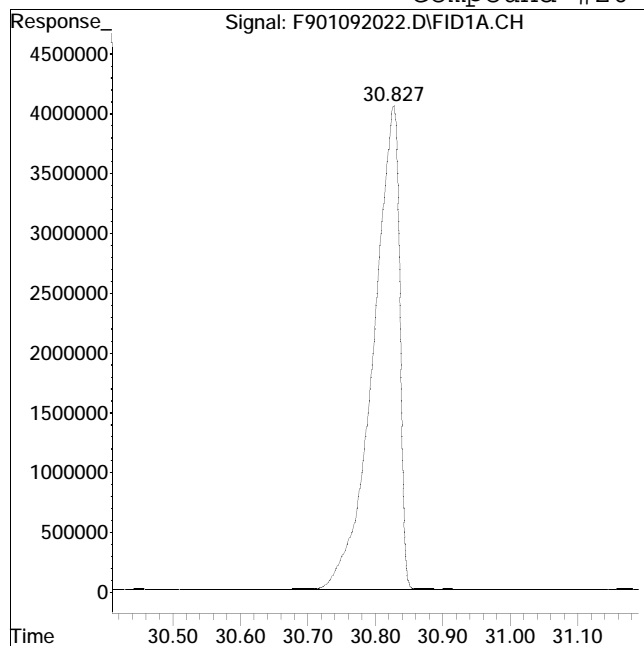
Manual Peak Response = 119487376 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 110371783

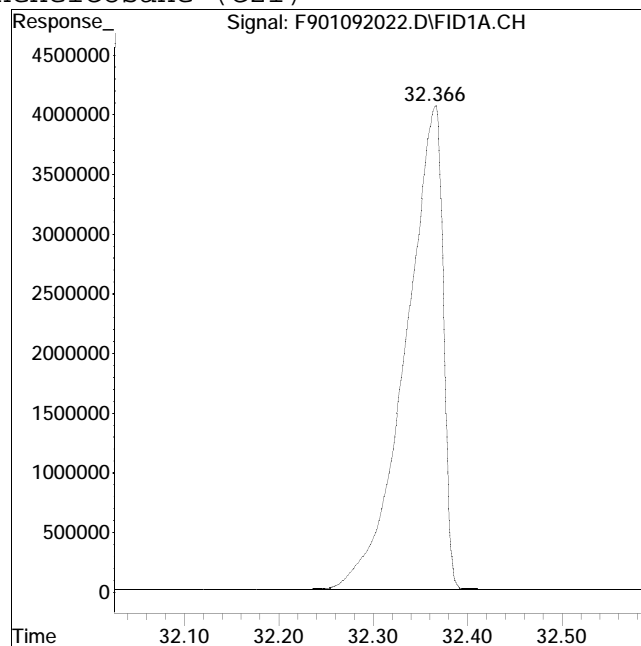
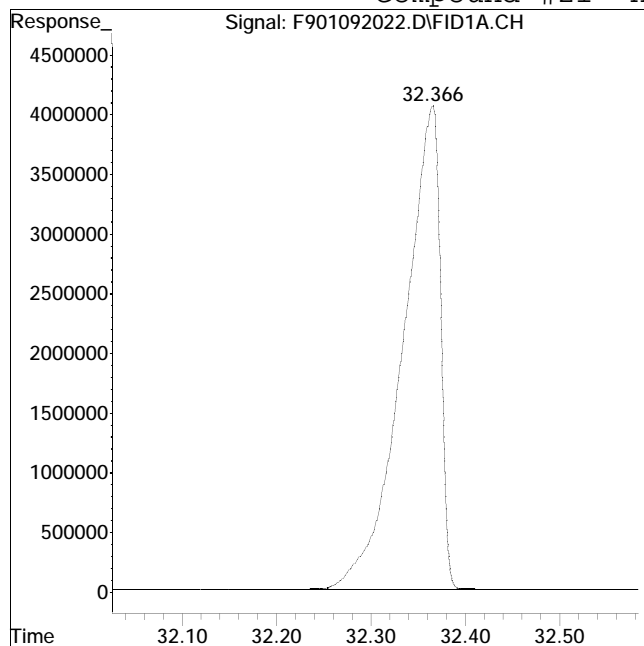
Manual Peak Response = 109759843 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 111757642

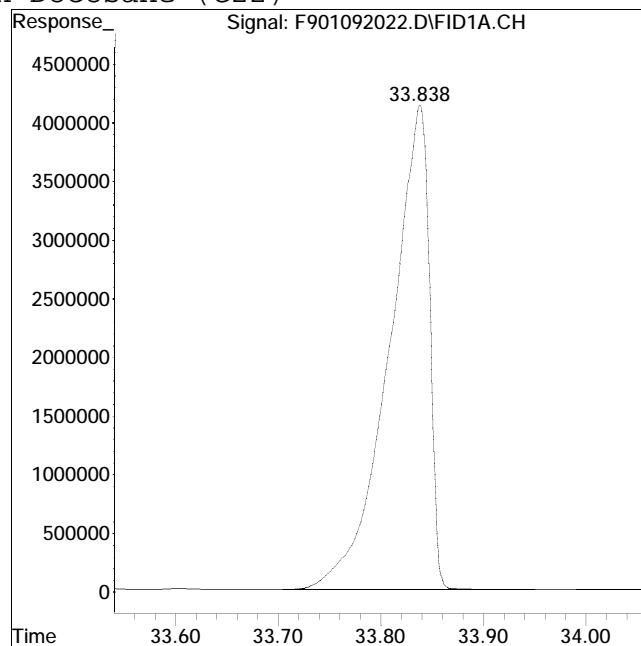
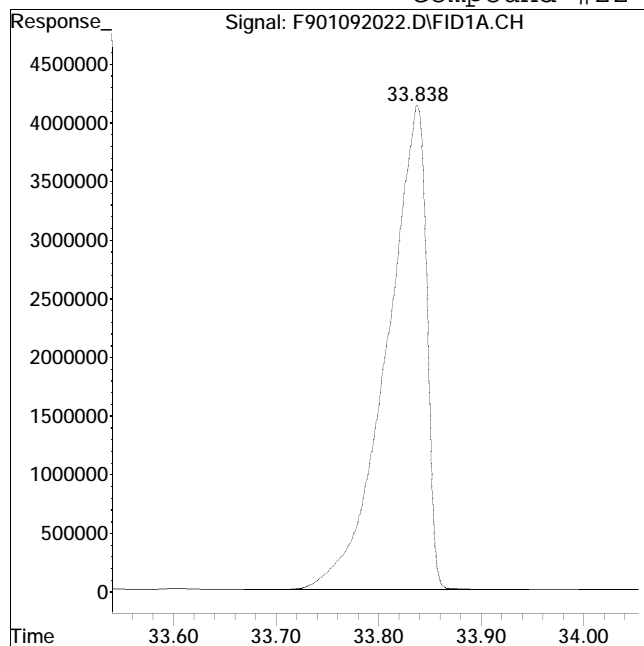
Manual Peak Response = 111631794 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 111797232

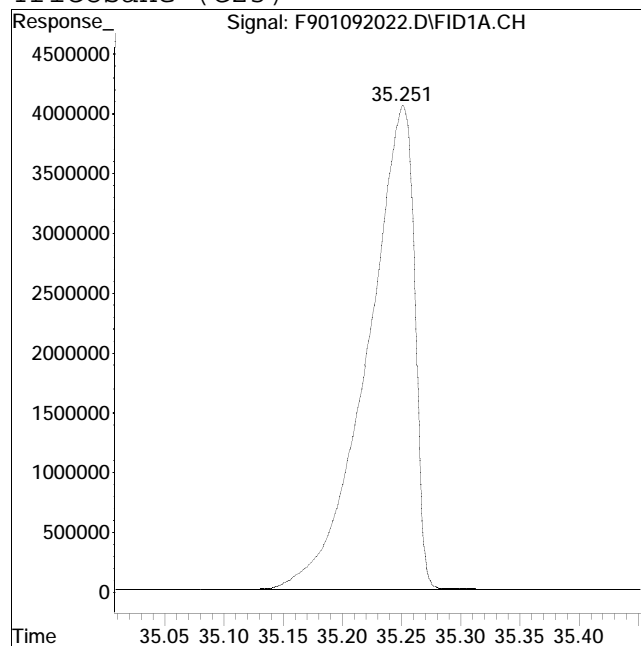
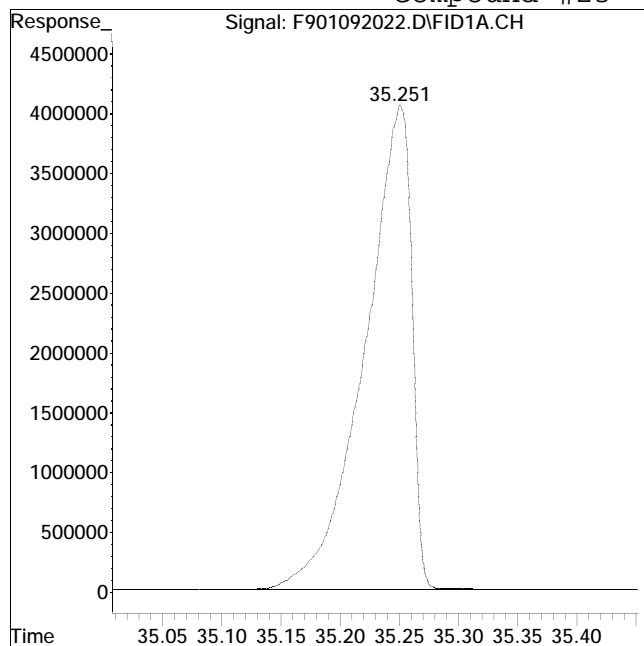
Manual Peak Response = 111661044 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 111938032

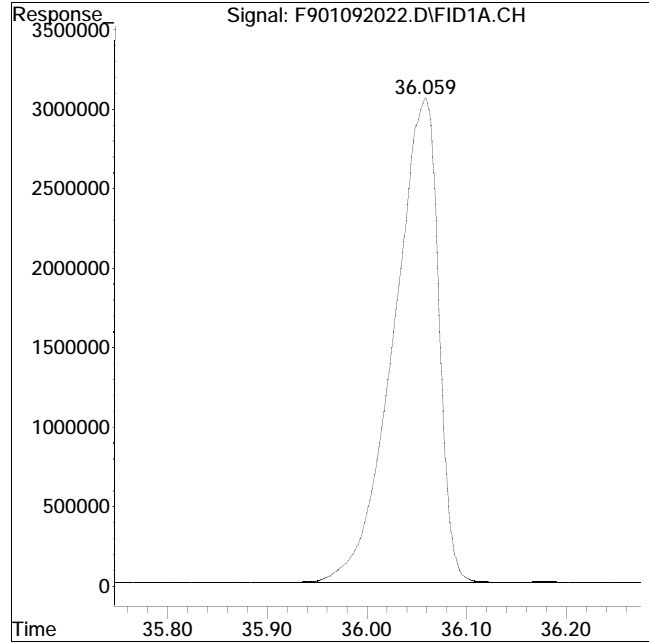
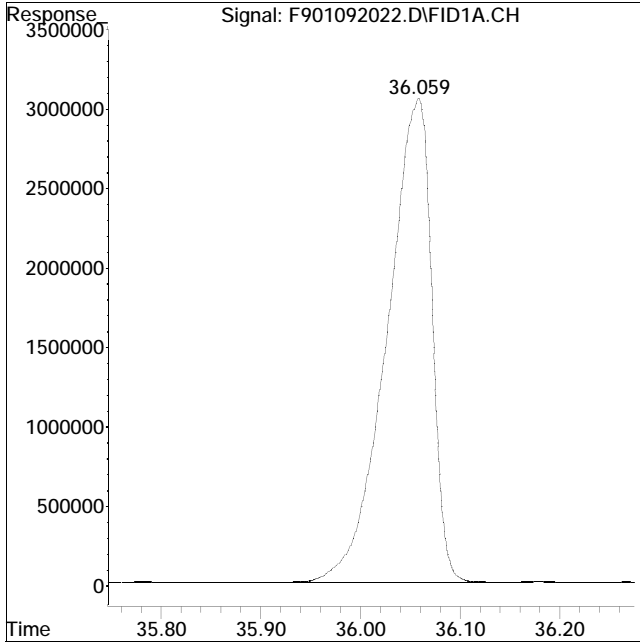
Manual Peak Response = 112145332 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #24: d50-Tetracosane



Original Peak Response = 95514908

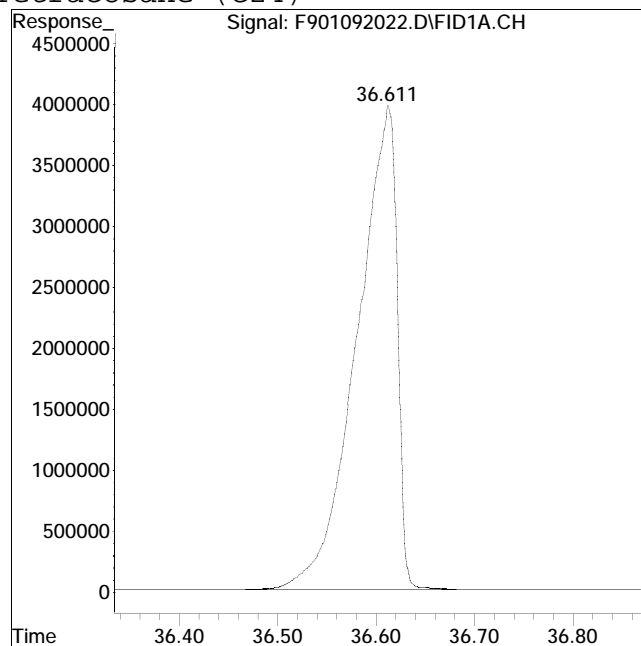
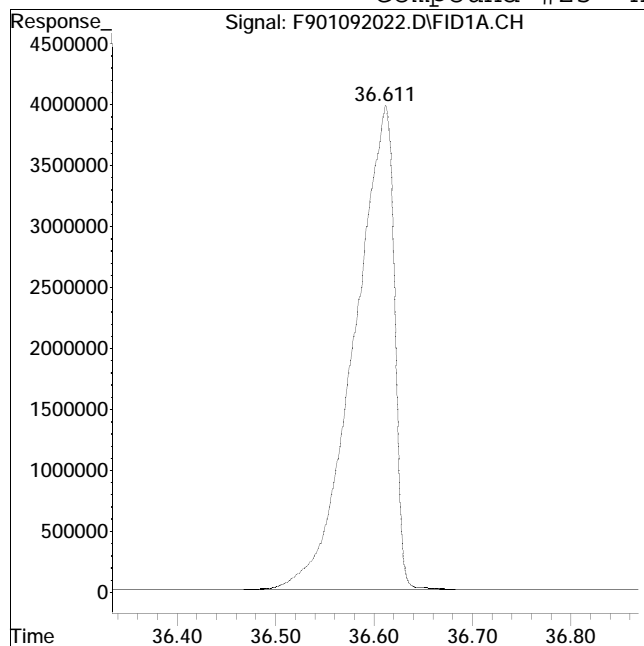
Manual Peak Response = 95324571 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 112553379

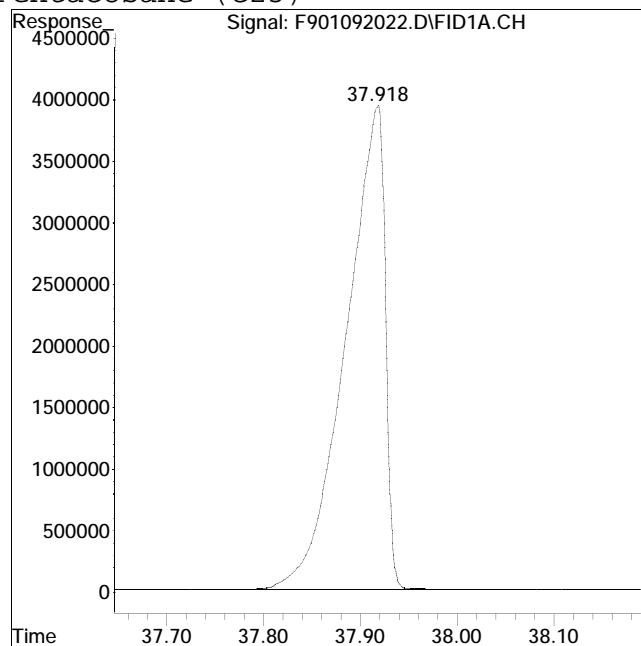
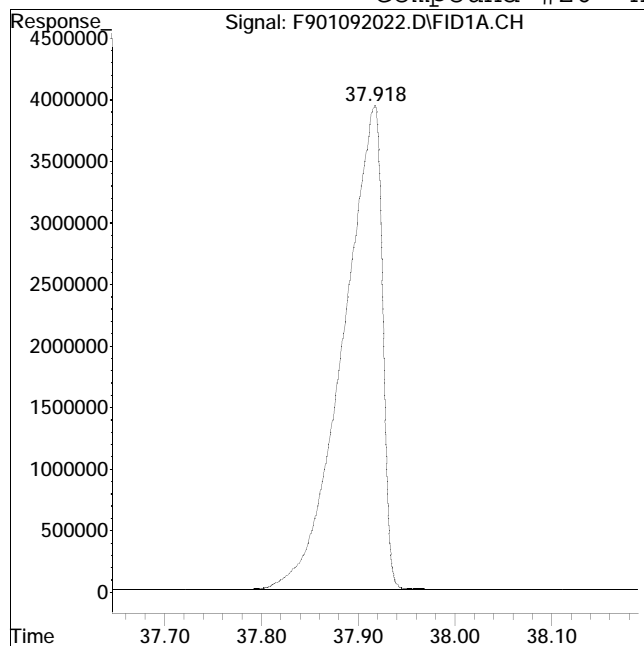
Manual Peak Response = 112581091 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 111069601

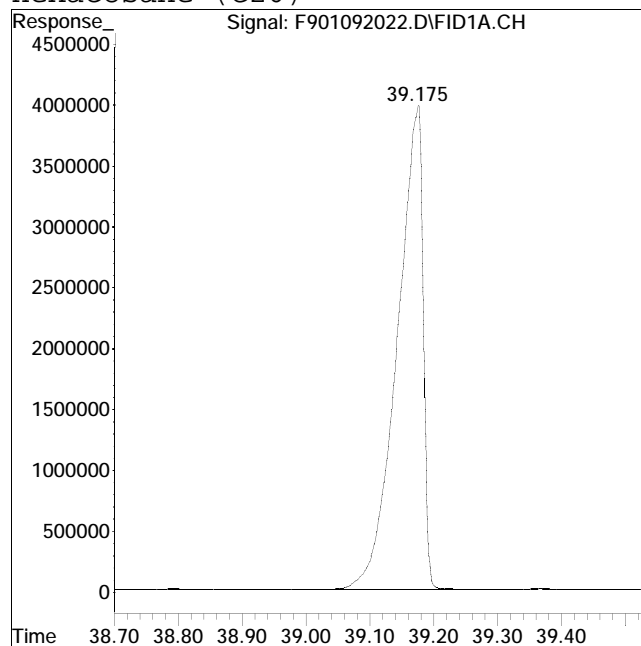
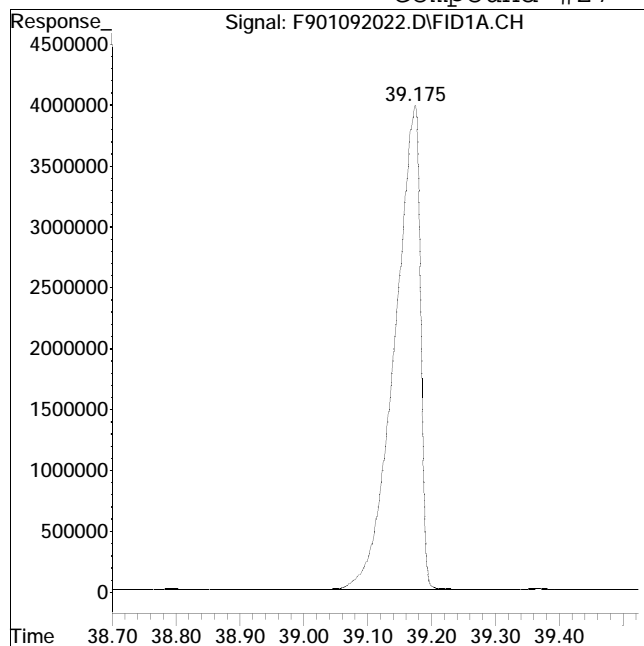
Manual Peak Response = 111062064 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 112051133

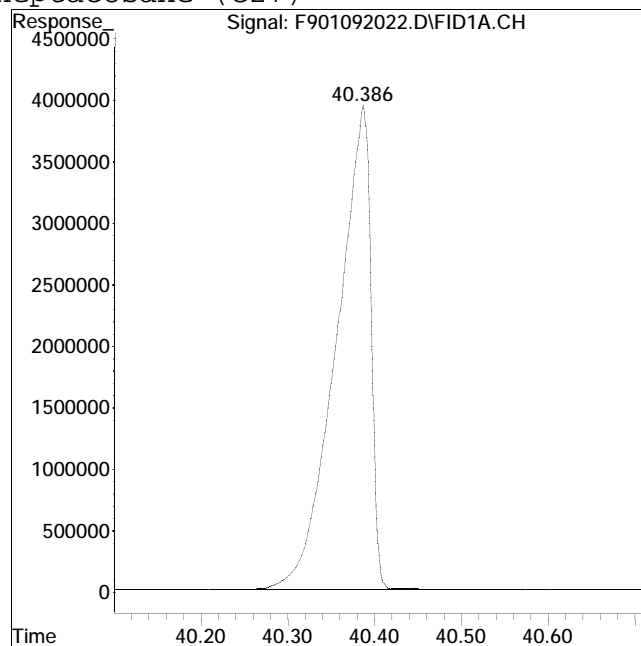
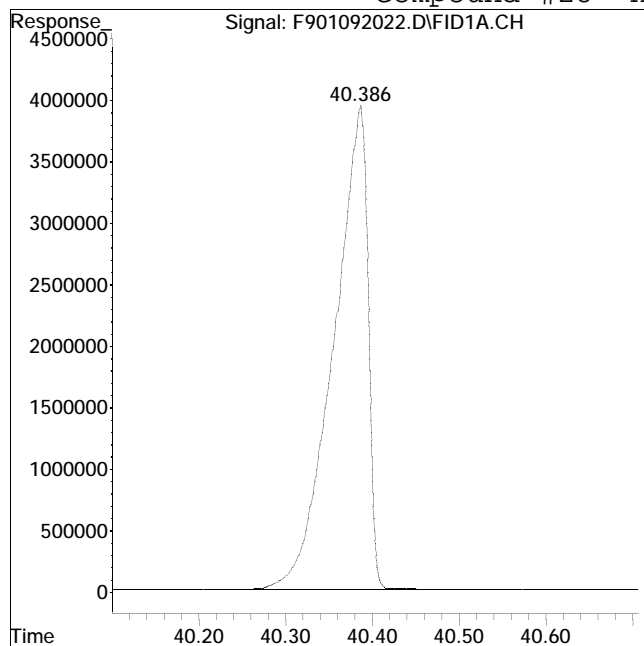
Manual Peak Response = 111728503 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 108519475

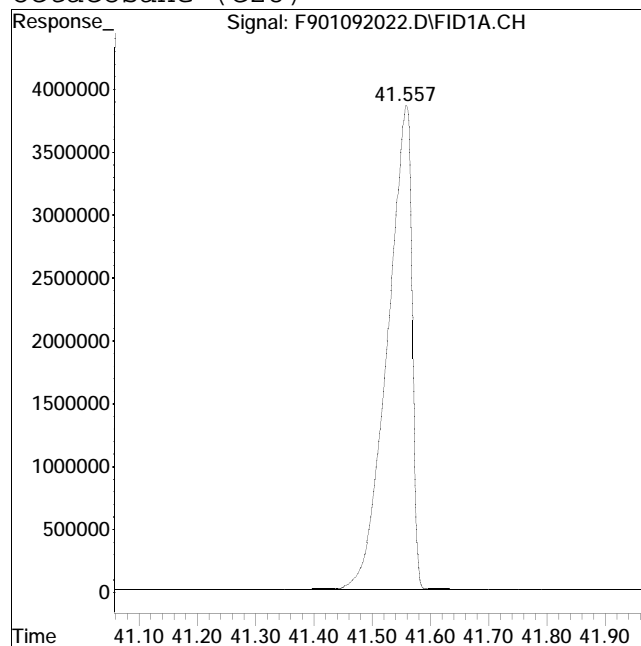
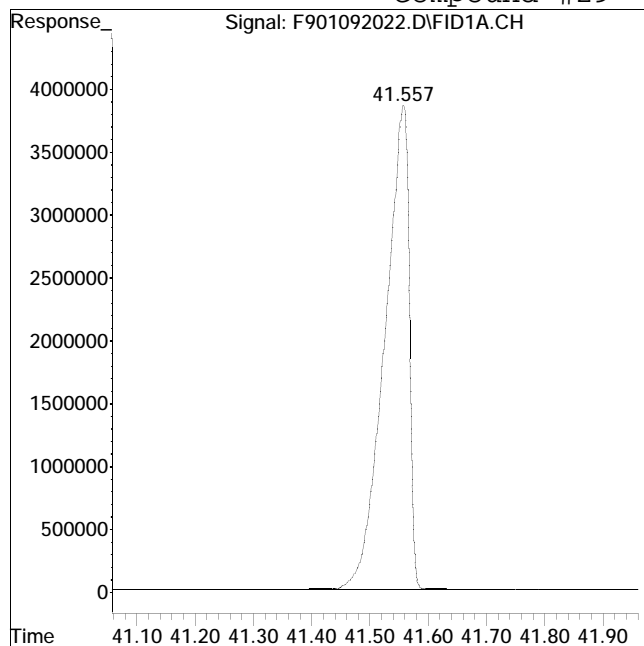
Manual Peak Response = 108419632 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 112598446

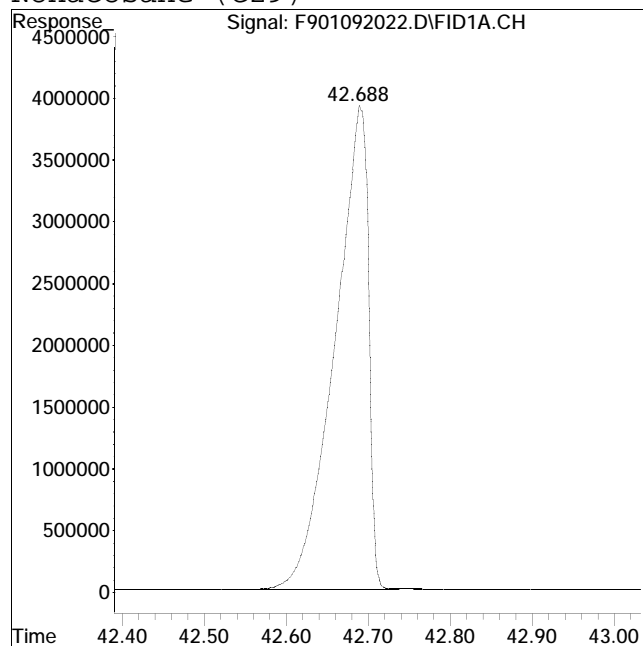
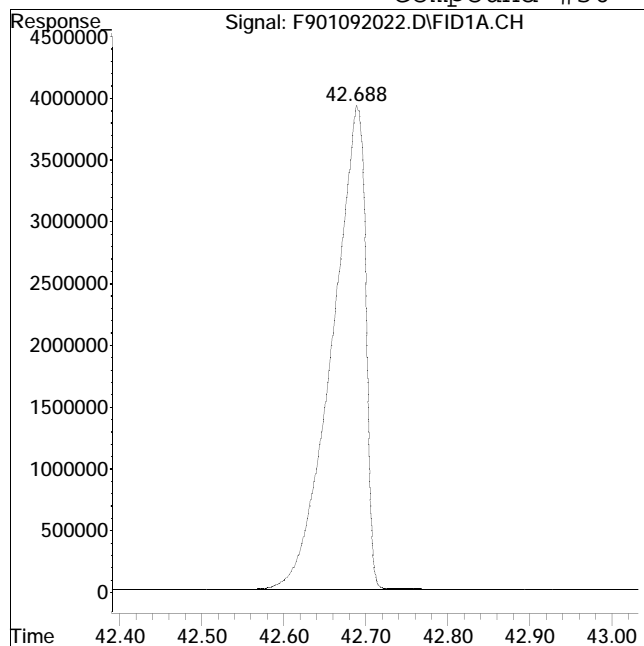
Manual Peak Response = 112194318 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 111397634

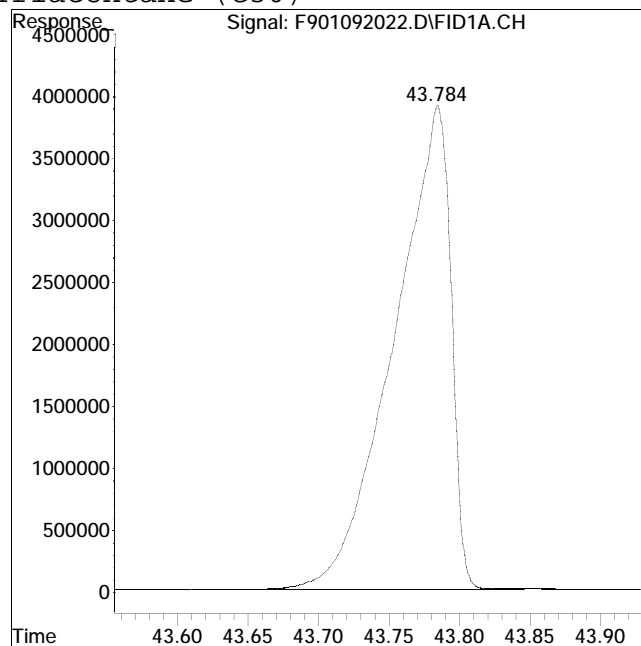
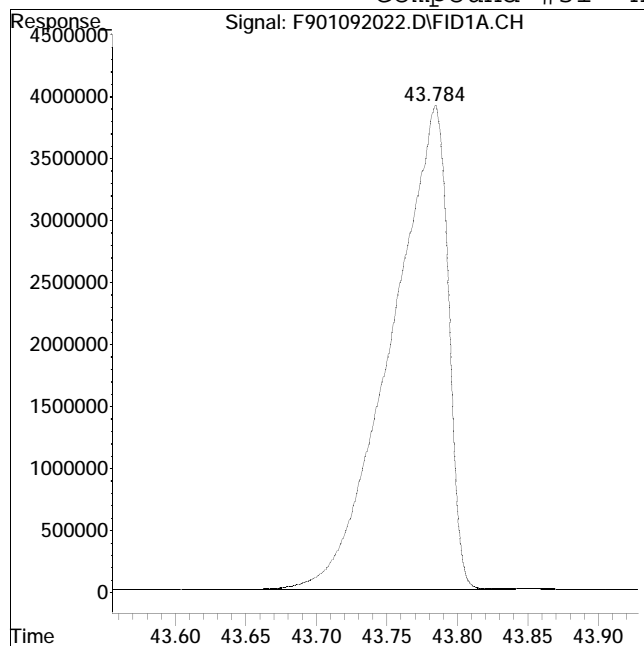
Manual Peak Response = 111049955 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 109356007

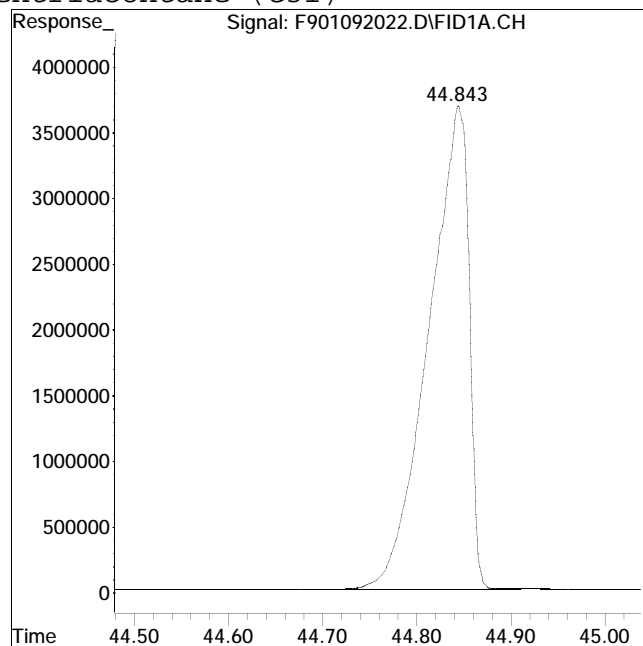
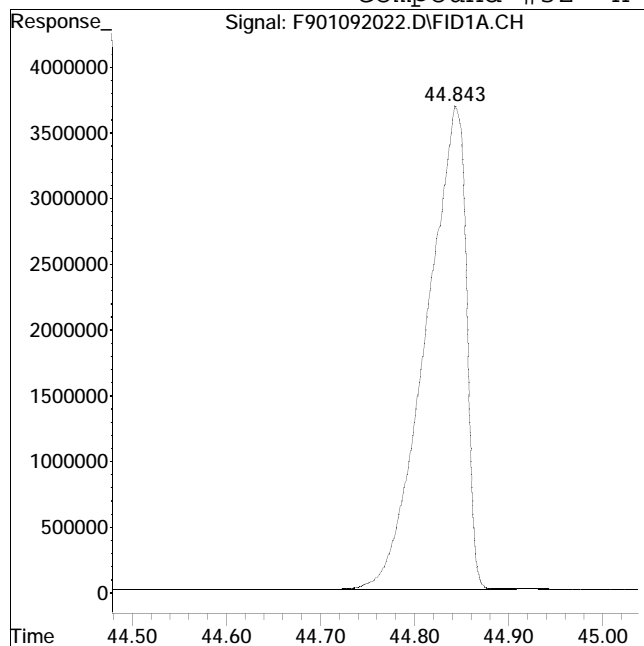
Manual Peak Response = 109300058 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 109656901

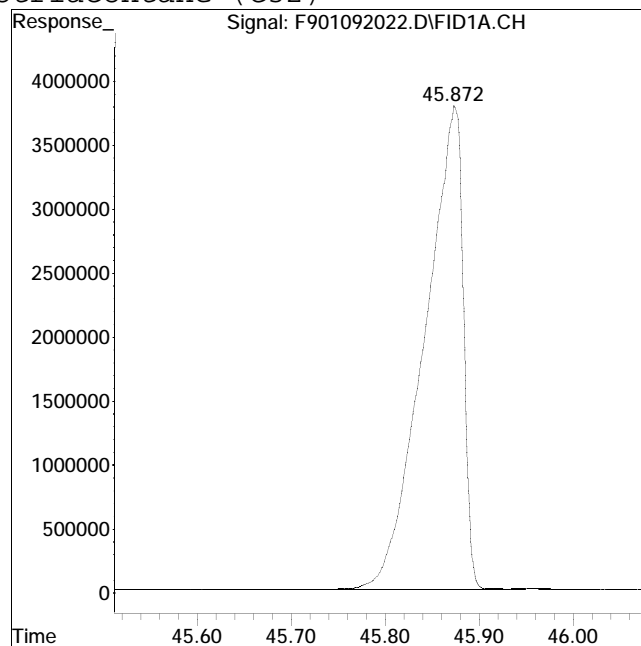
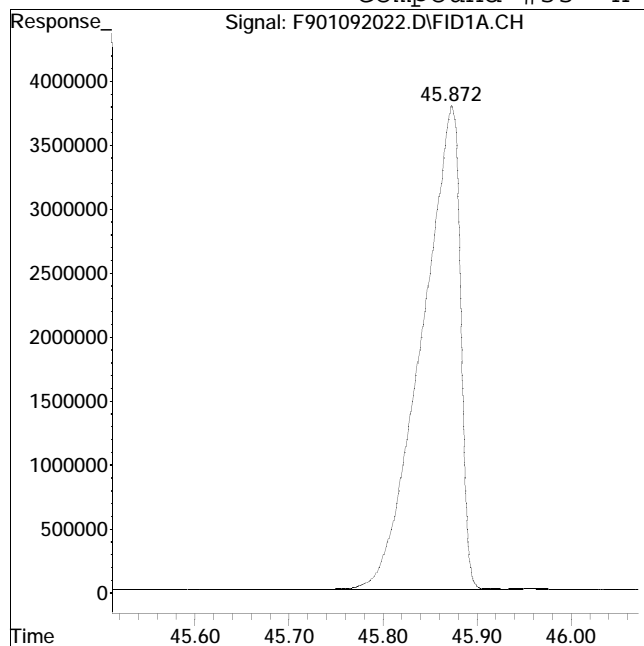
Manual Peak Response = 109438161 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 107845612

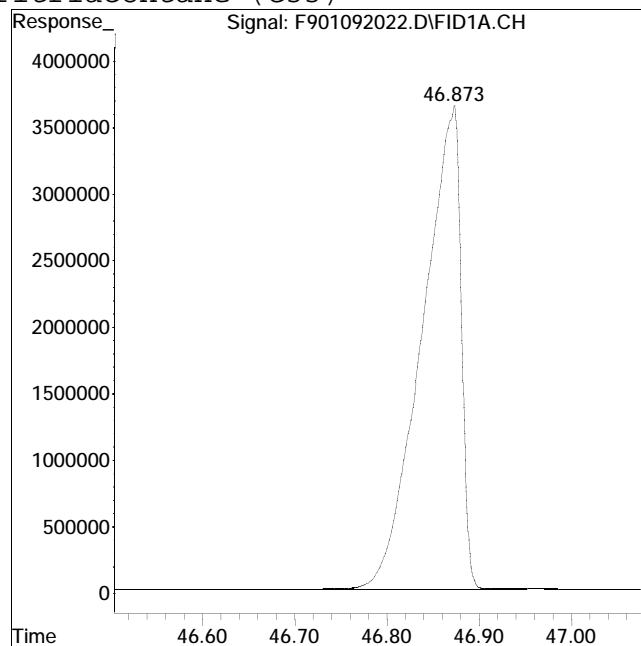
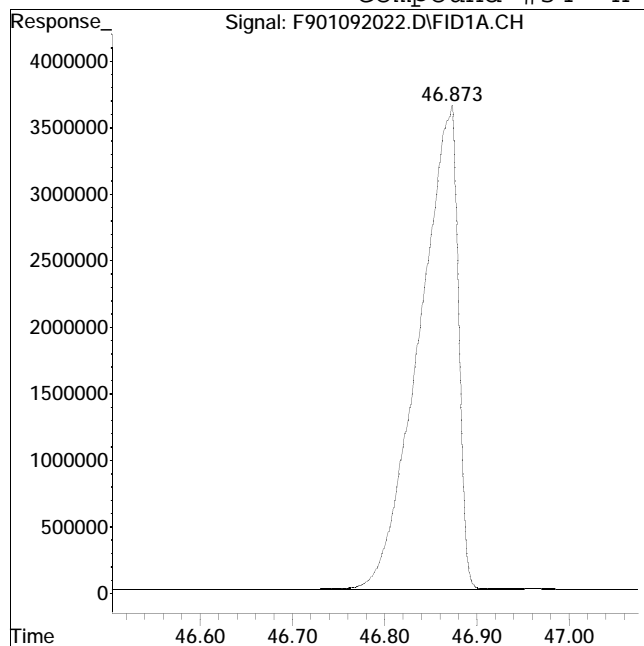
Manual Peak Response = 108014770 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 106762856

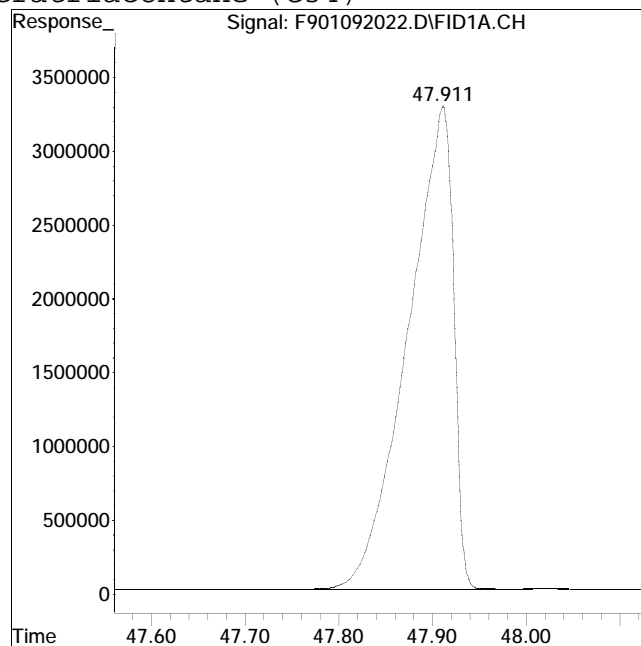
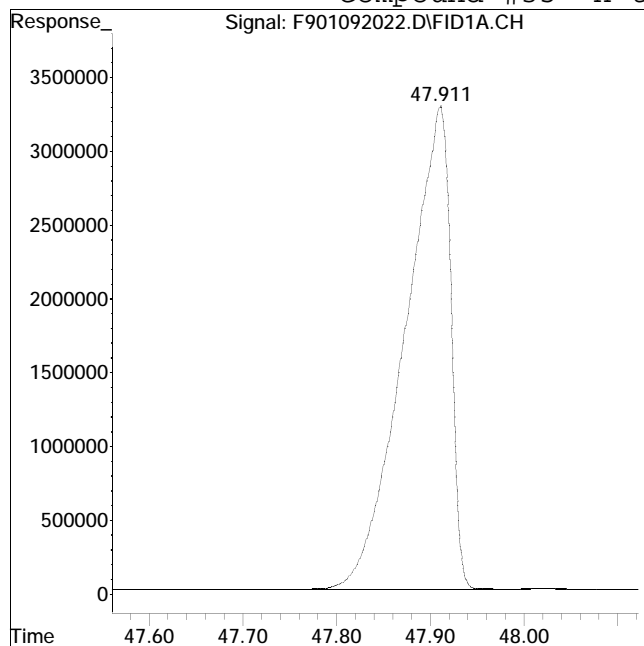
Manual Peak Response = 106822304 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 110722974

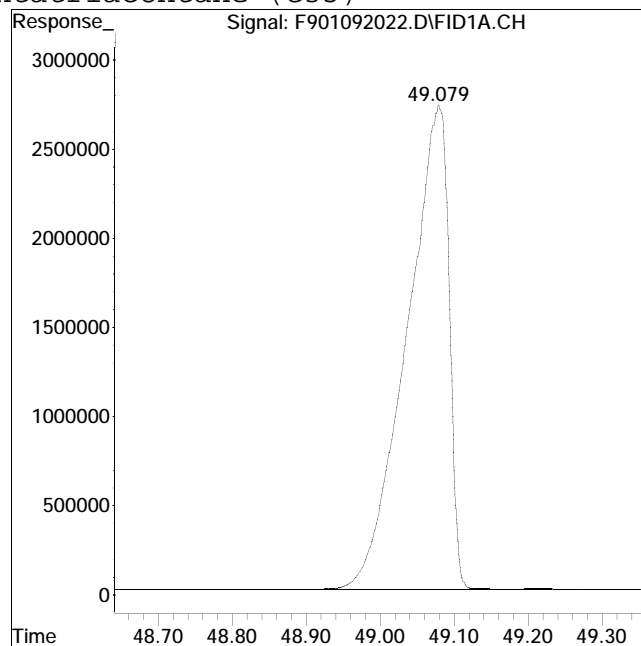
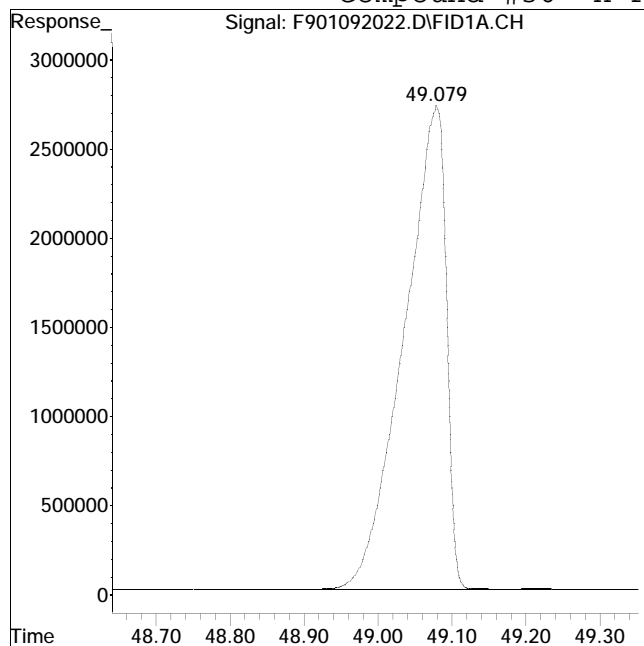
Manual Peak Response = 110793545 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 107429078

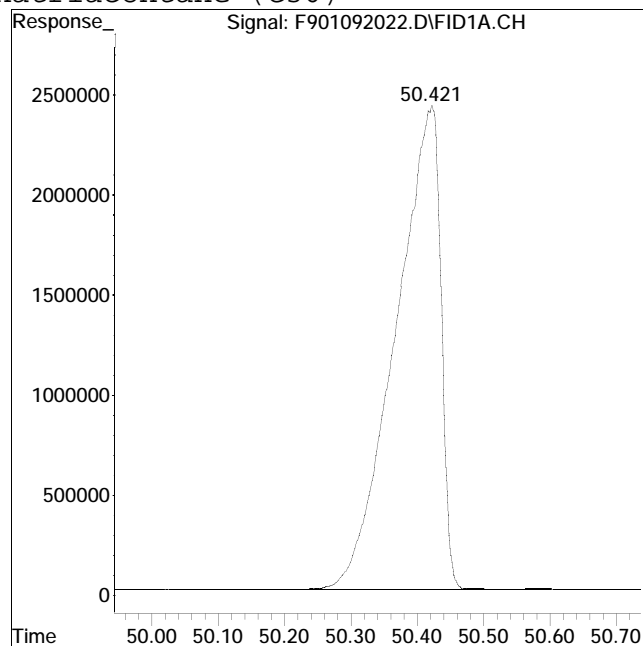
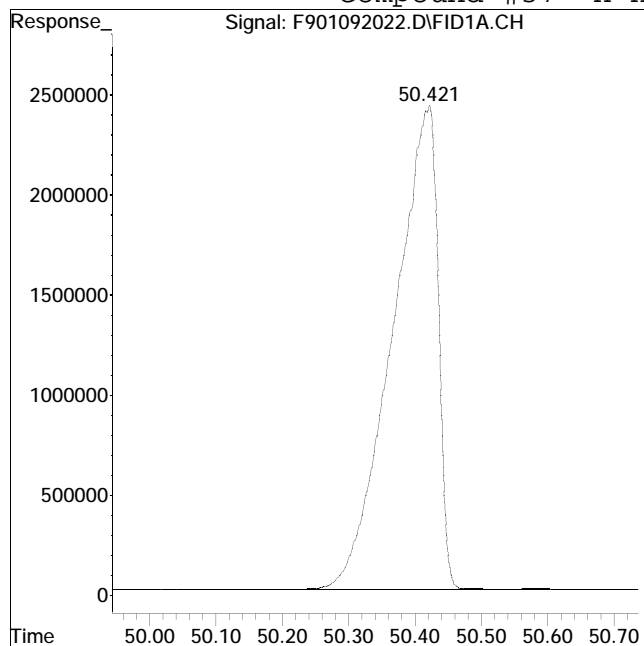
Manual Peak Response = 107377068 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 114383681

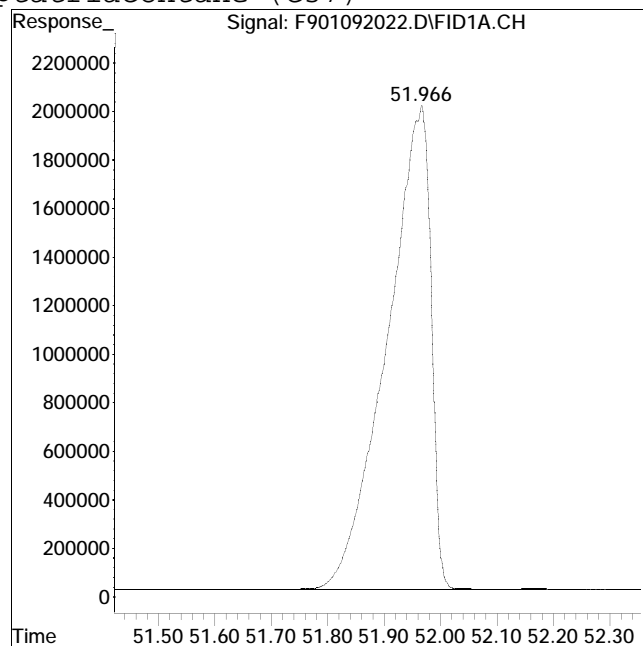
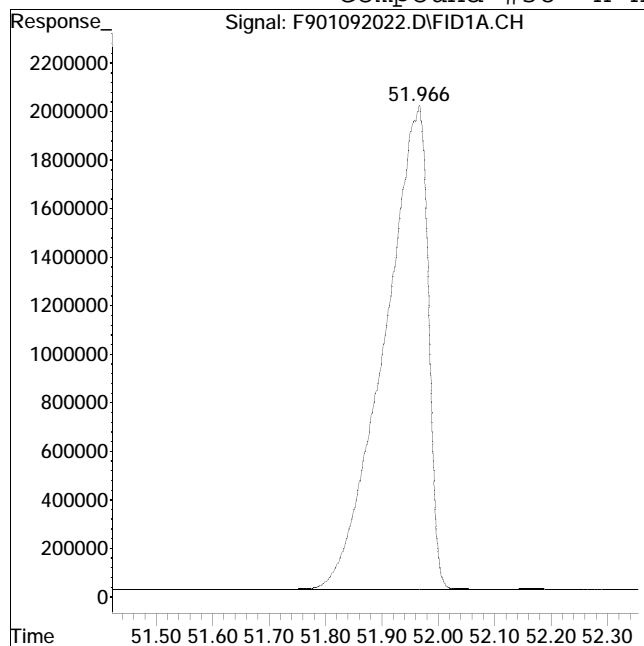
Manual Peak Response = 114311364 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 107732729

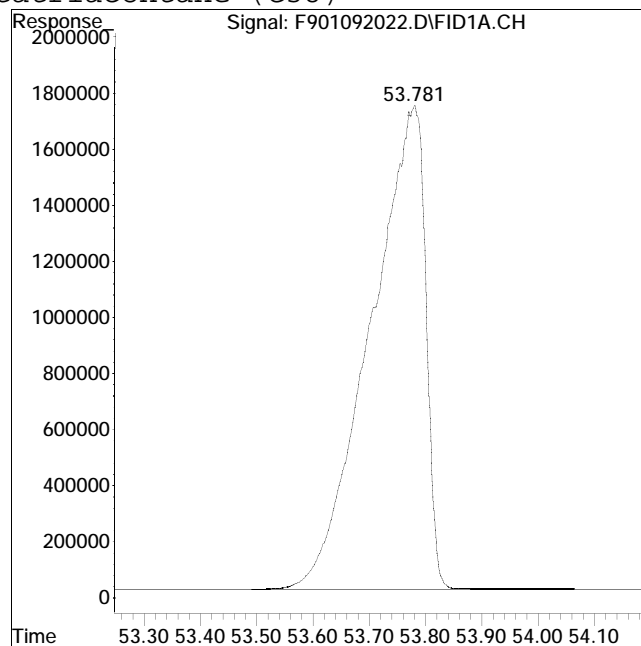
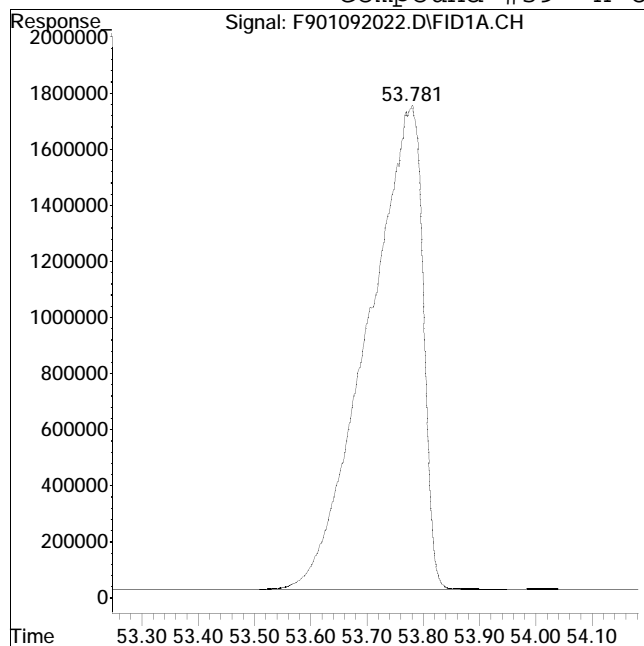
Manual Peak Response = 107875391 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 117126881

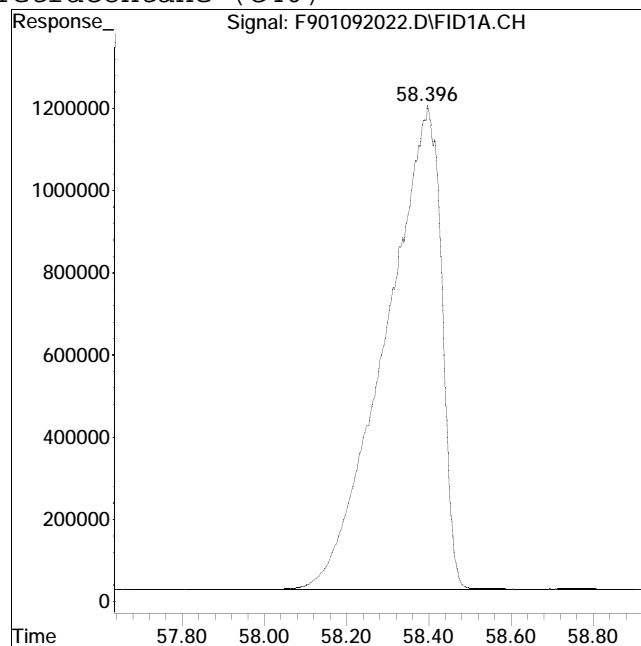
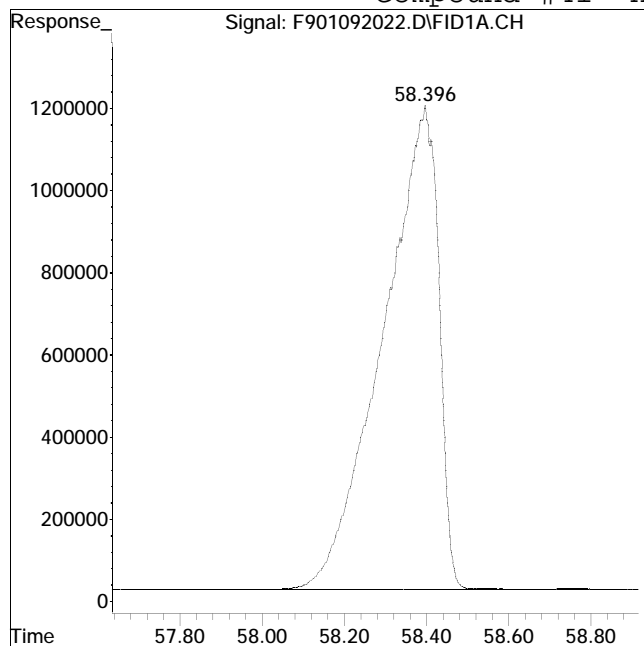
Manual Peak Response = 117429882 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092022.D Operator : FID9:WR
Date Inj'd : 1/10/2020 12:45 am Instrument : FID 9
Sample : I901022004F Quant Date : 6/1/2020 4:25 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 110923271

Manual Peak Response = 111196434 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092024.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 2:13 am
 Operator : FID9:WR
 Sample : I901022005F
 Misc : WG1376652,FRBC25
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:25:34 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.427	55253804	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.443	232939233	202.363	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	404.73%#	
24) s d50-Tetracosane	36.082	185274527	201.195	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	402.39%#	
Target Compounds				
2) t n-Octane (C8)	5.835f	177855217	197.894	ug/mL M4
3) t n-Nonane (C9)	8.018	187842743	198.137	ug/mL M4
4) t n-Decane (C10)	10.485	195101540	198.879	ug/mL M4
5) t n-Undecane (C11)	12.990	199187761	199.881	ug/mL M4
6) t n-Dodecane (C12)	15.414	202102797	199.563	ug/mL M4
7) t n-Tridecane (C13)	17.721	203708893	200.450	ug/mL M4
9) t n-Tetradecane (C14)	19.906	207168884	200.381	ug/mL M4
11) t n-Pentadecane (C15)	21.972	207597188	200.311	ug/mL M4
12) t n-Hexadecane (C16)	23.929	209731197	200.767	ug/mL M4
14) t n-Heptadecane (C17)	25.793	211537348	202.439	ug/mL M4
15) t Pristane	25.910	210267741	198.191	ug/mL M4
16) t n-Octadecane (C18)	27.563	212790132	202.048	ug/mL M4
17) t Phytane	27.728	194039082	202.305	ug/mL M4
18) t n-Nonadecane (C19)	29.249	211178866	201.128	ug/mL M4
20) t n-Eicosane (C20)	30.854	211705684	200.682	ug/mL M4
21) t n-Heneicosane (C21)	32.392	214459319	200.197	ug/mL M4
22) t n-Docosane (C22)	33.866	214153681	200.390	ug/mL M4
23) t n-Tricosane (C23)	35.280	215077596	200.480	ug/mL M4
25) t n-Tetracosane (C24)	36.639	215172812	198.417	ug/mL M4
26) t n-Pentacosane (C25)	37.945	212512750	199.420	ug/mL M4
27) t n-Hexacosane (C26)	39.204	213615648	199.511	ug/mL M4
28) t n-Heptacosane (C27)	40.415	207227058	198.600	ug/mL M4
29) t n-Octacosane (C28)	41.589	213995716	198.827	ug/mL M4
30) t n-Nonacosane (C29)	42.721	212665669	198.507	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092024.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 2:13 am
 Operator : FID9:WR
 Sample : I901022005F
 Misc : WG1376652,FRBC25
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:25:34 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.817	209930585	198.910 ug/mL M4
32) t n-Hentriacontane (C31)	44.877	211623819	199.353 ug/mL M4
33) t n-Dotriacontane (C32)	45.906	209771718	200.776 ug/mL M4
34) t n-Tritriacontane (C33)	46.904	208493048	201.770 ug/mL M4
35) t n-tetratriacontane (C34)	47.953	217403350	202.671 ug/mL M4
36) t n-Pentatriacontane (C35)	49.127	211165141	202.885 ug/mL M4
37) t n-Hexatriacontane (C36)	50.481	224792812	204.463 ug/mL M4
38) t n-Heptatriacontane (C37)	52.031	212026528	204.001 ug/mL M4
39) t n-Octatriacontane (C38)	53.863	229335186	203.840 ug/mL M4
41) t n-Tetracontane (C40)	58.520	216075799	201.061 ug/mL M4

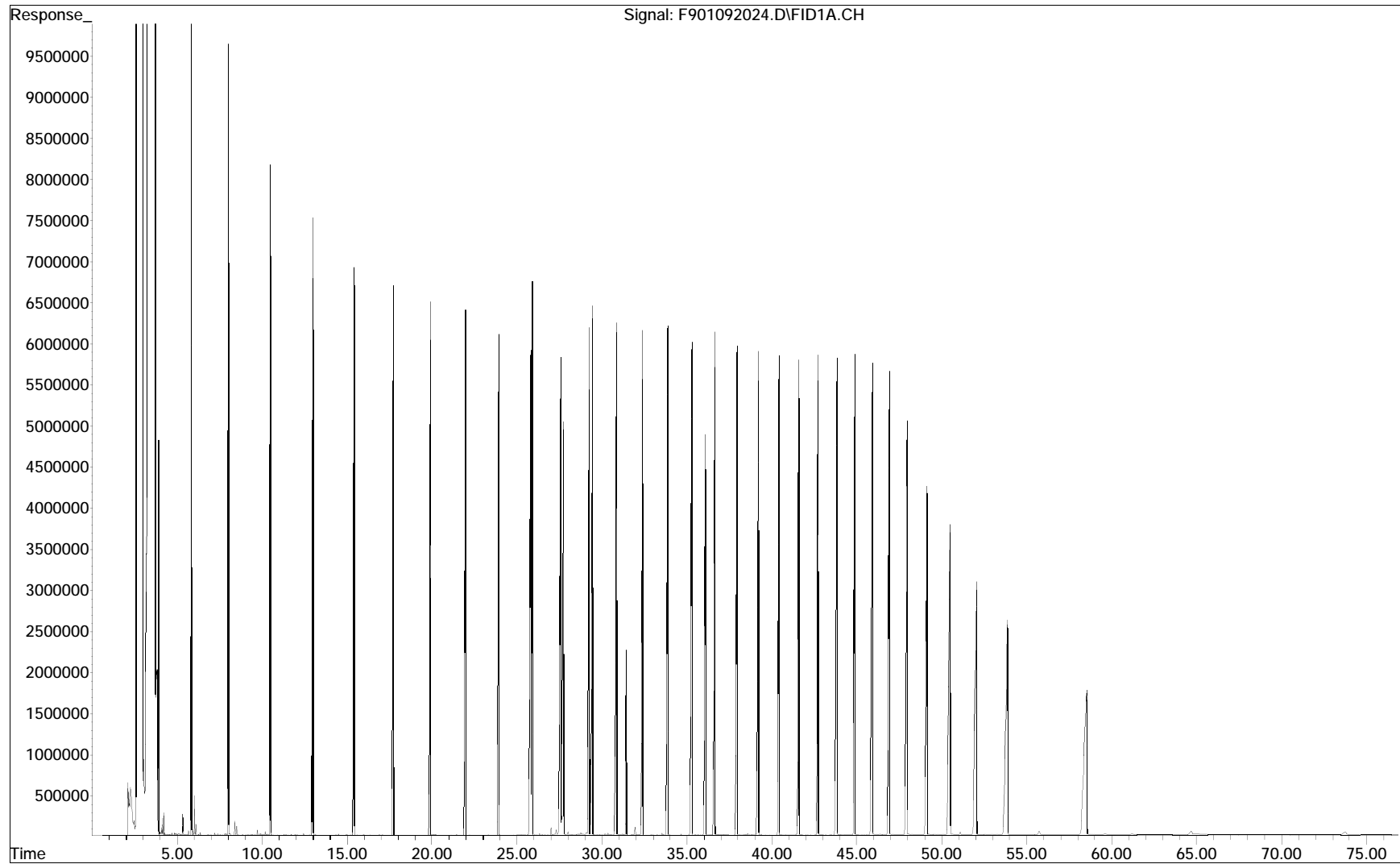
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

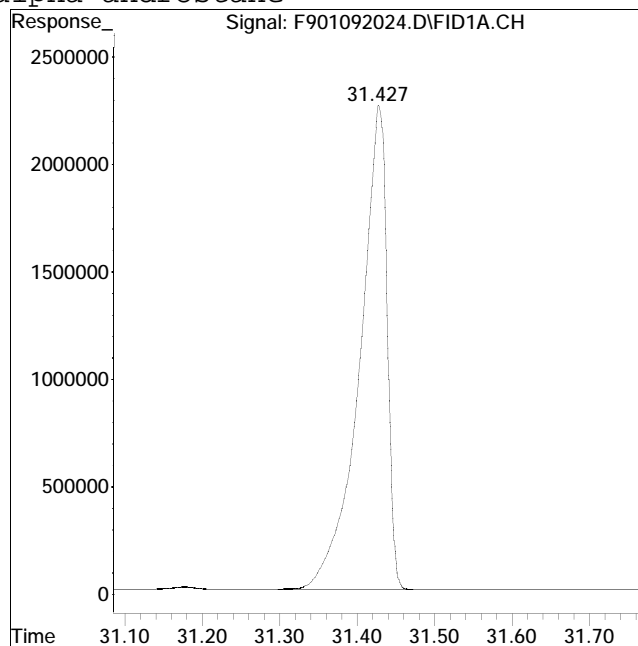
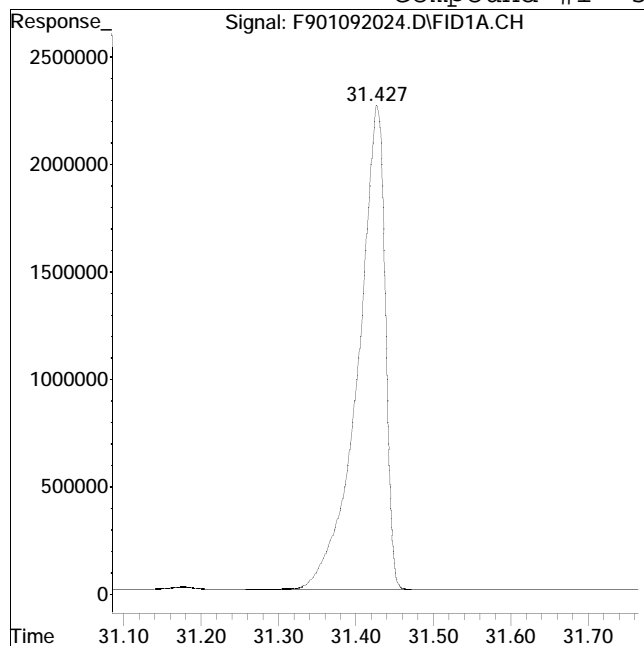
Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092024.D
Operator : FID9:WR
Acquired : 10 Jan 2020 2:13 am using AcqMethod FID9A.M
Instrument: FID 9
Sample : I901022005F
Misc Info : WG1376652,FRBC25
ALS Vial : 12



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 55336492

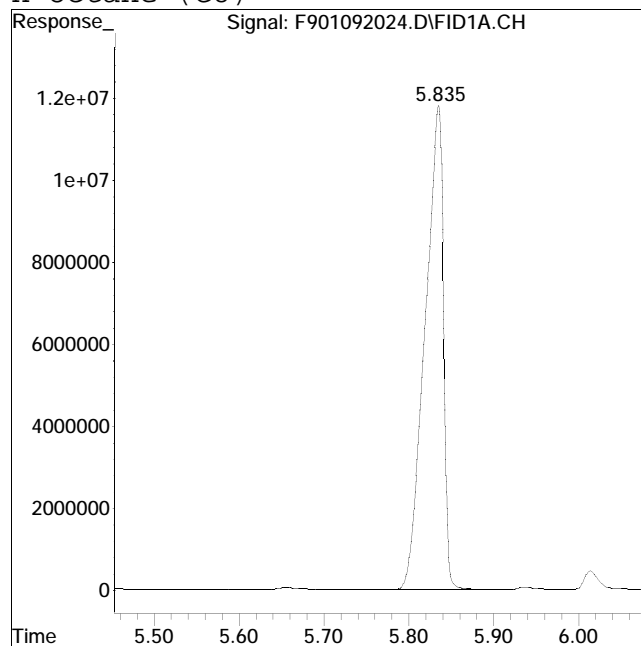
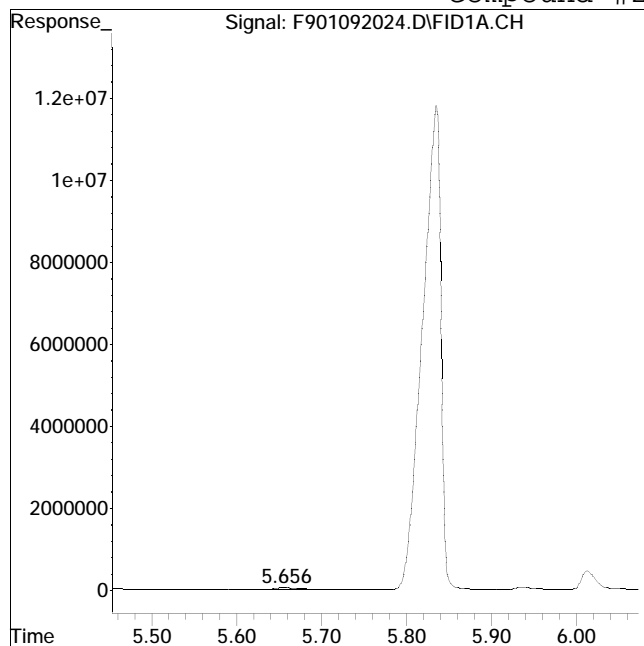
Manual Peak Response = 55253804 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #2: n-Octane (C8)



Original Peak Response = 1076464

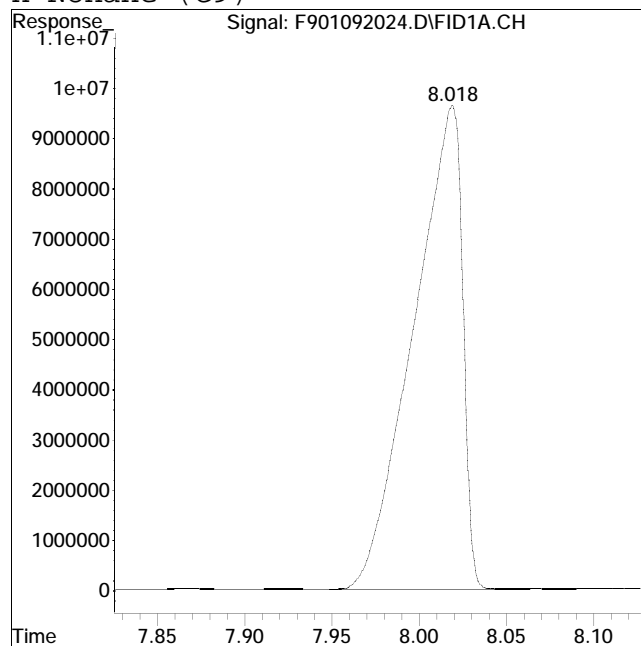
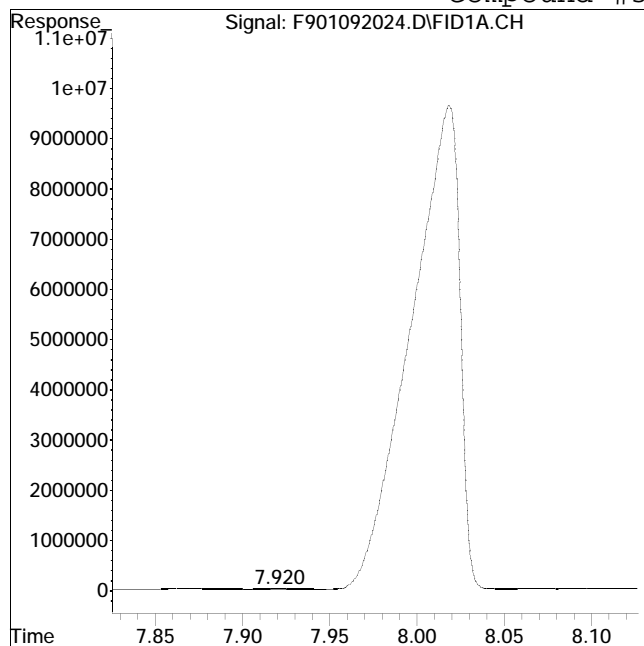
Manual Peak Response = 177855217 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 415255

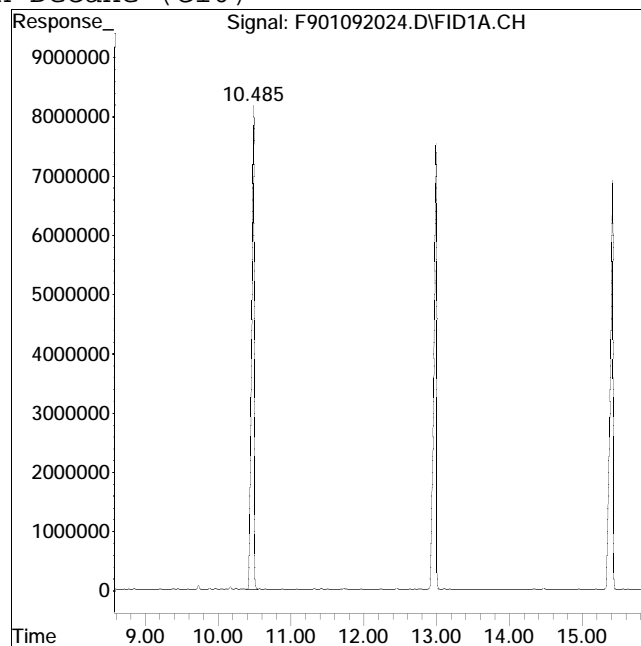
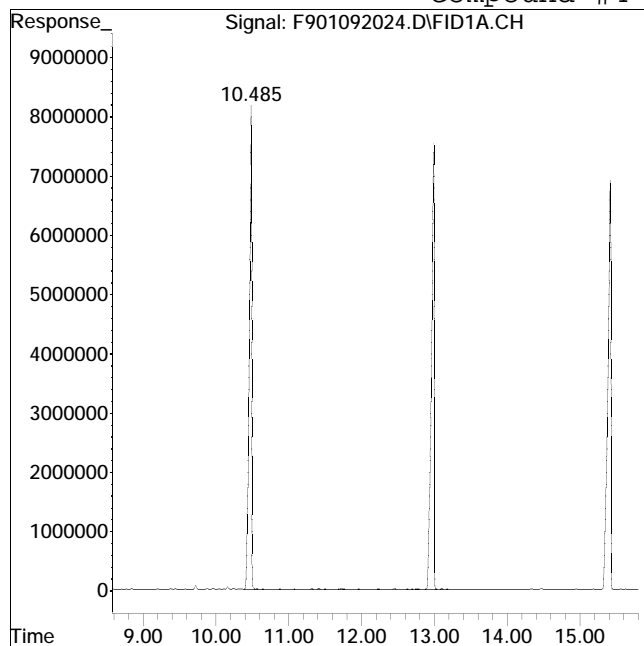
Manual Peak Response = 187842743 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #4: n-Decane (C10)



Original Peak Response = 186217961

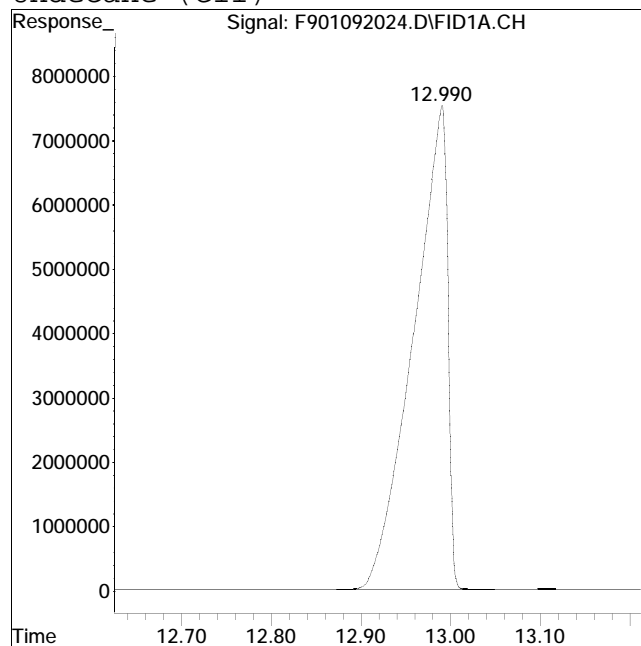
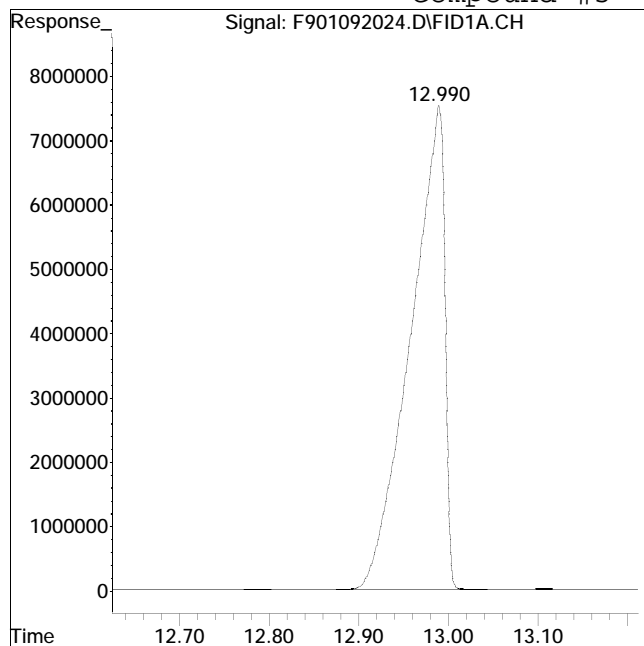
Manual Peak Response = 195101540 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 199269281

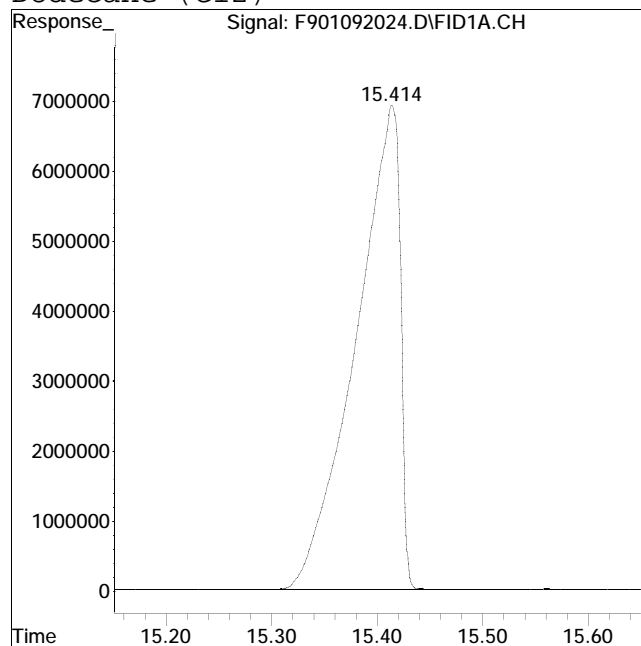
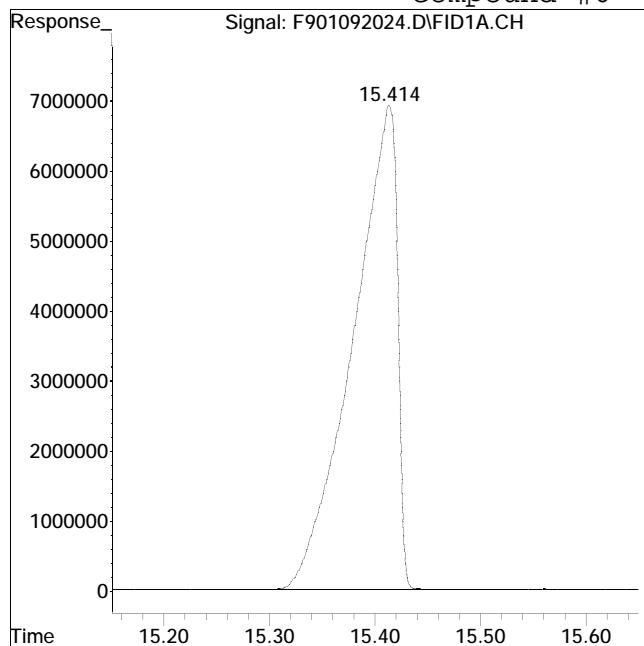
Manual Peak Response = 199187761 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 202162311

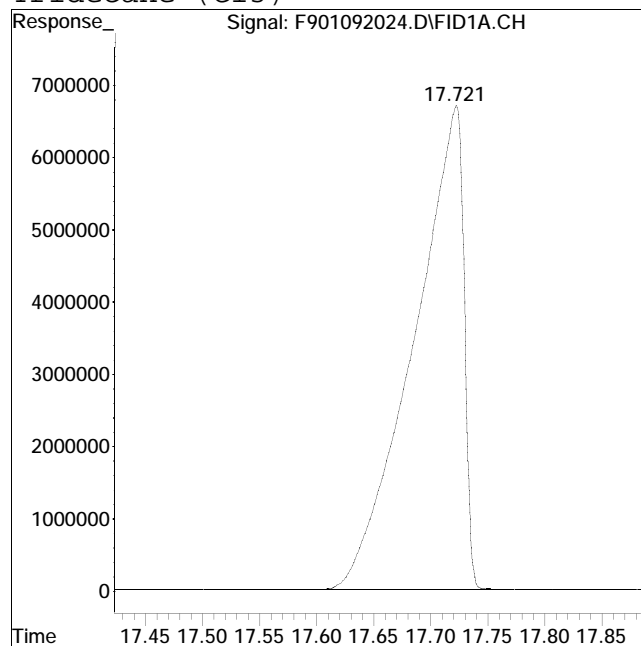
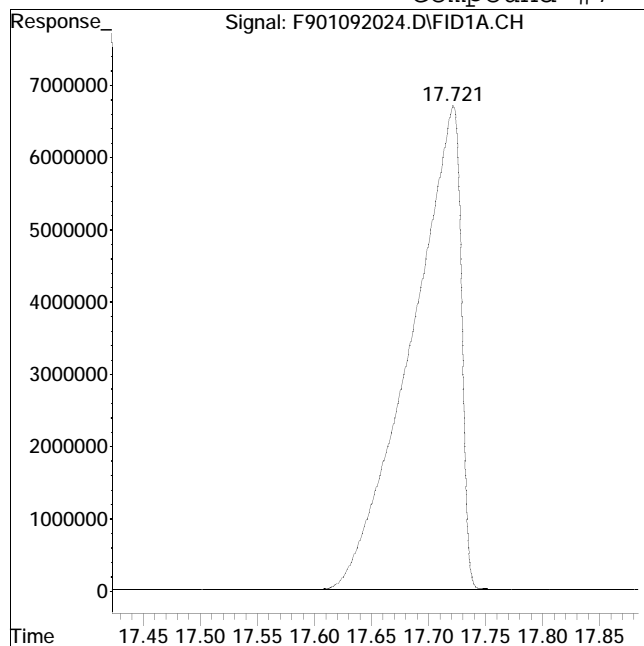
Manual Peak Response = 202102797 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 203752171

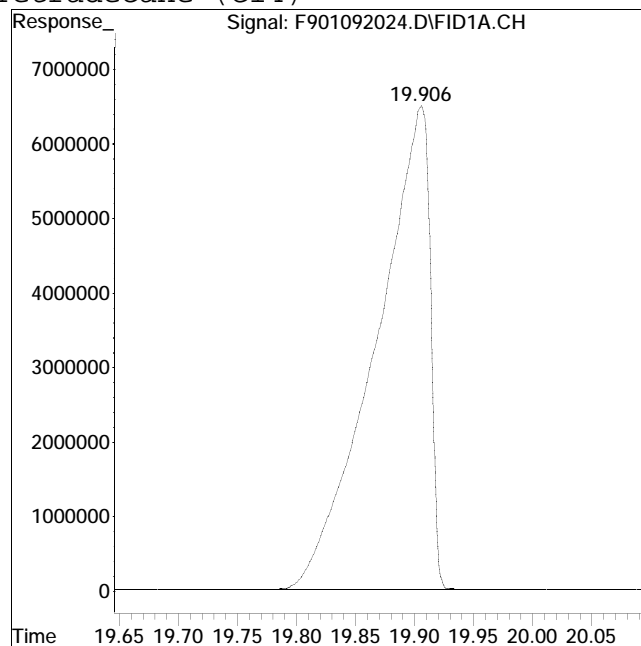
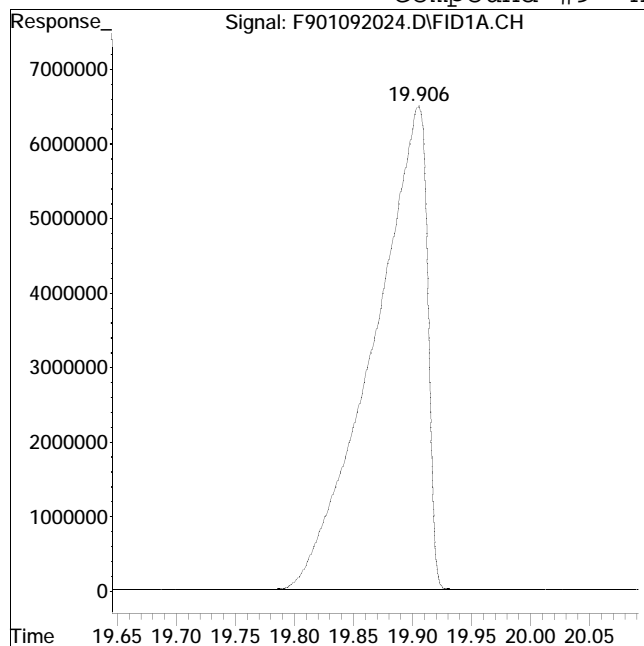
Manual Peak Response = 203708893 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 207031720

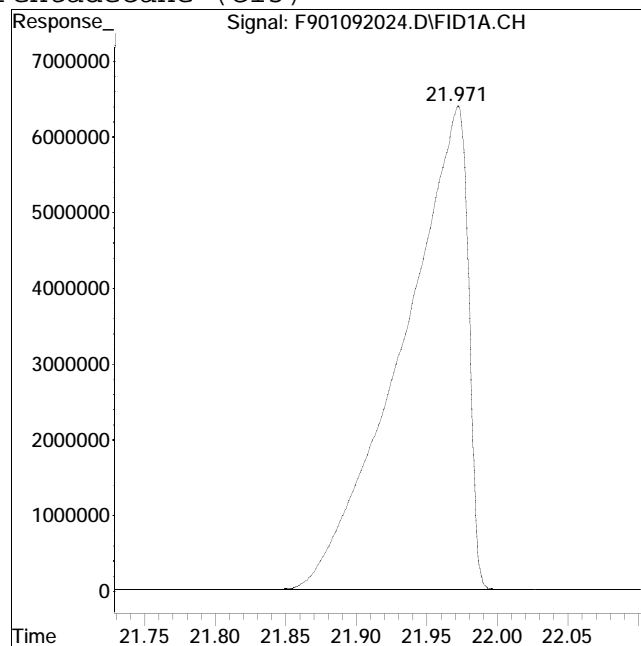
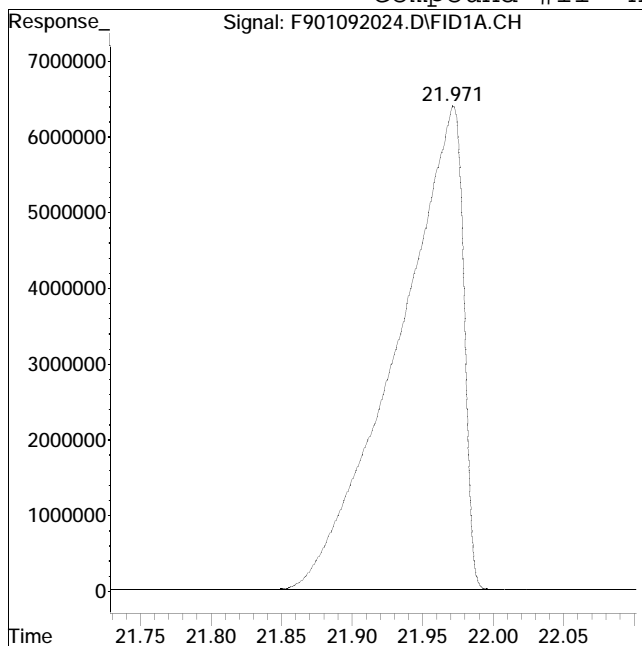
Manual Peak Response = 207168884 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 207336972

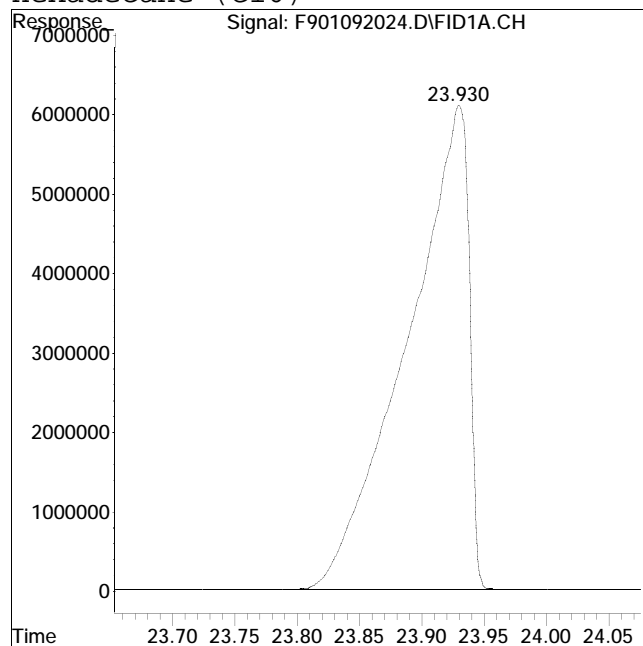
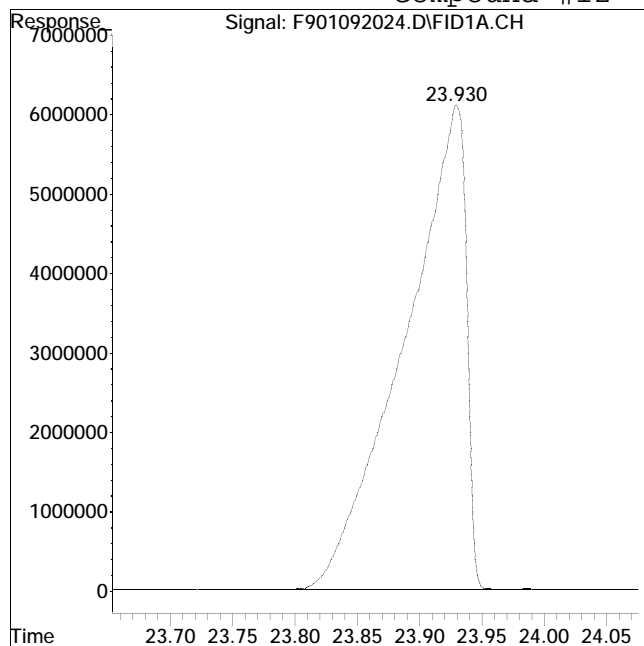
Manual Peak Response = 207597188 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 209877129

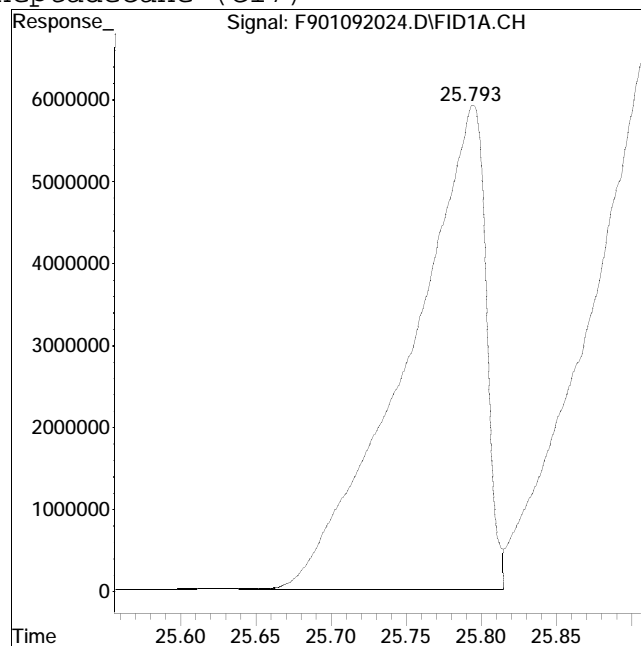
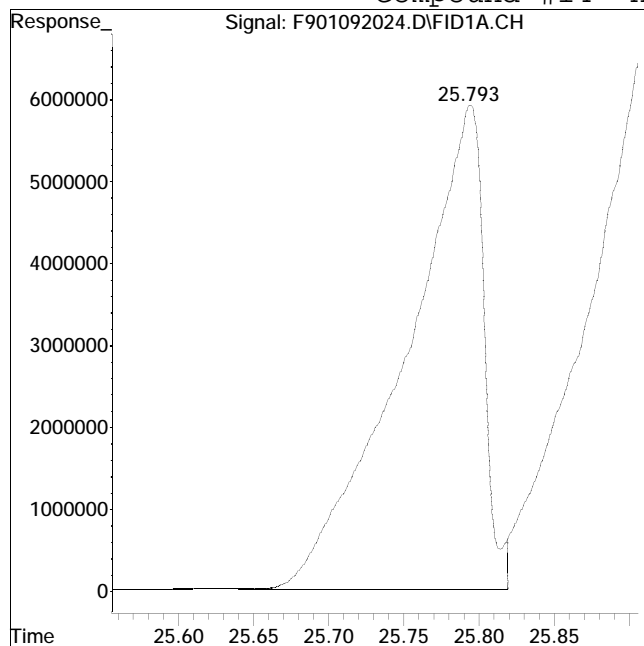
Manual Peak Response = 209731197 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 212775637

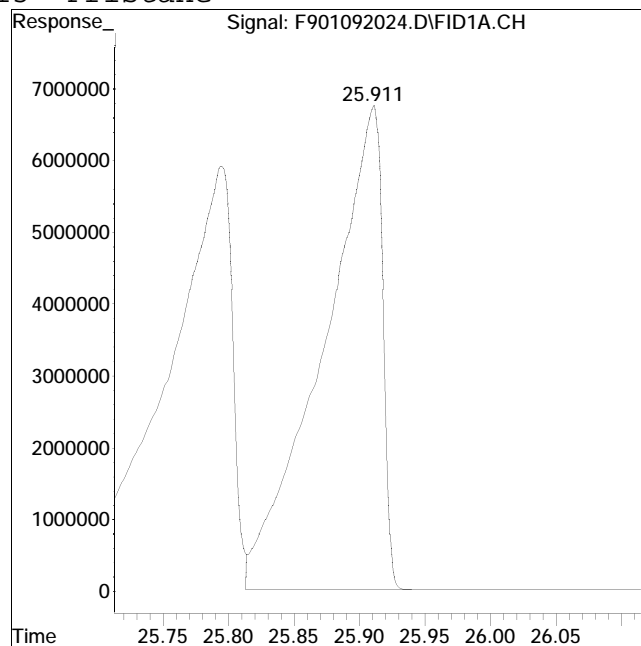
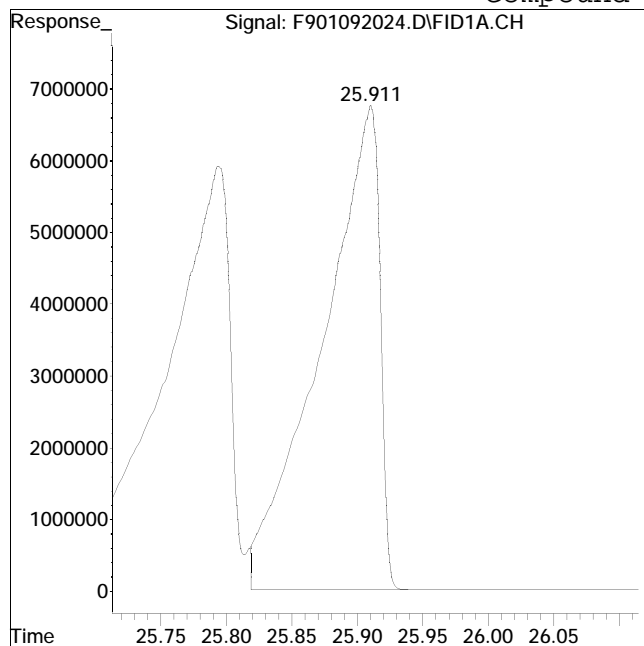
Manual Peak Response = 211537348 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #15: Pristane



Original Peak Response = 208681744

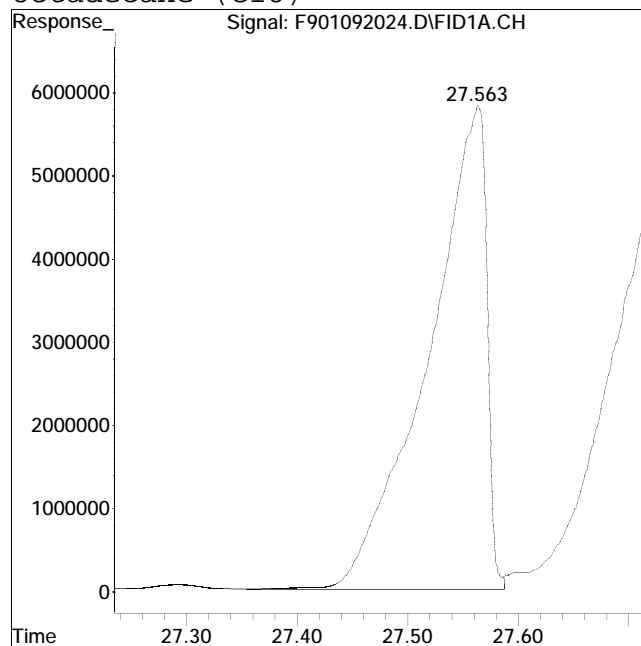
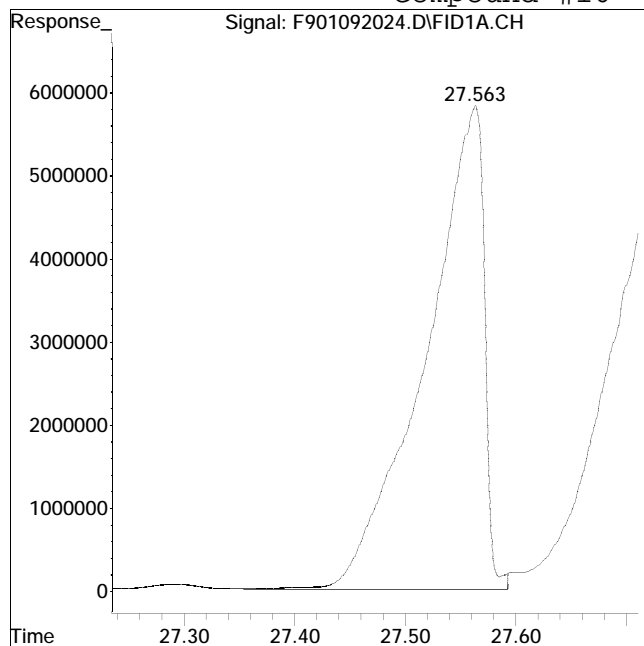
Manual Peak Response = 210267741 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 213865627

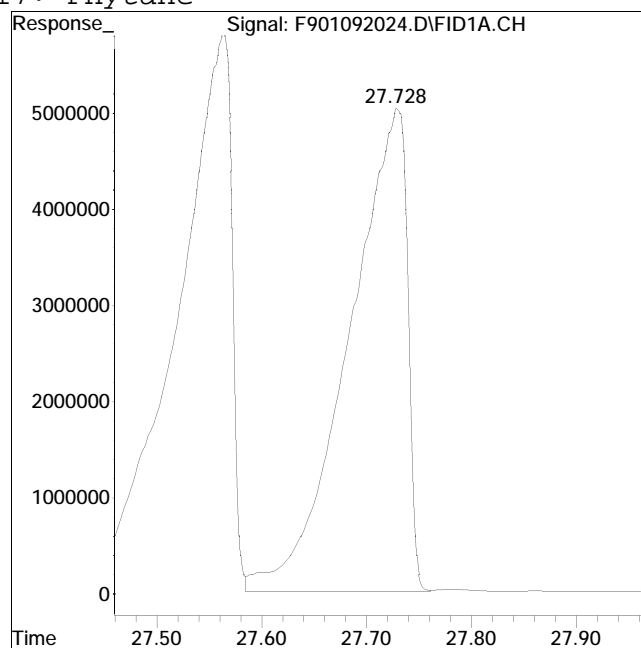
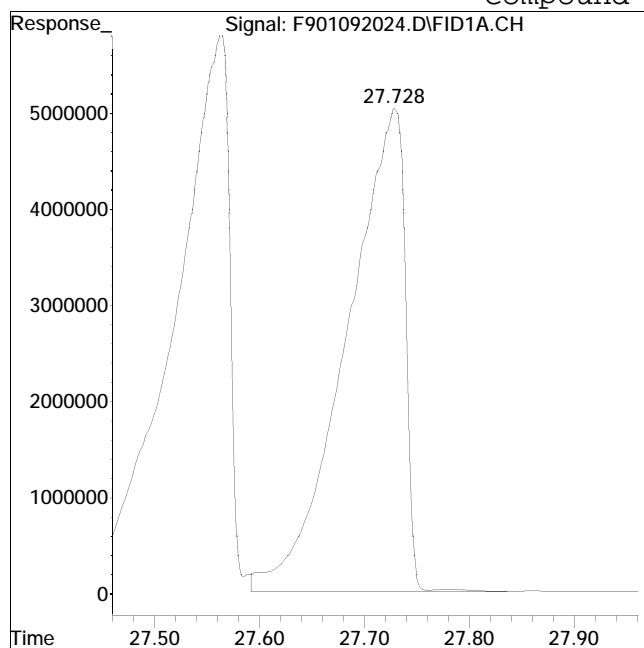
Manual Peak Response = 212790132 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #17: Phytane



Original Peak Response = 194391346

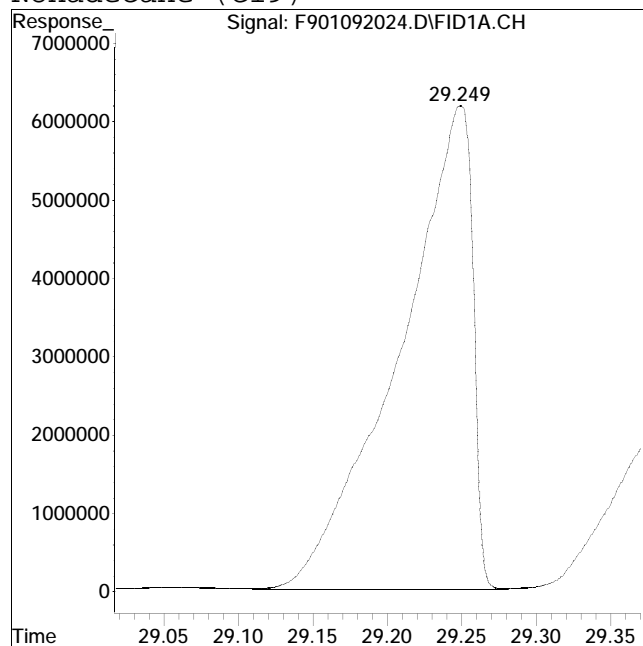
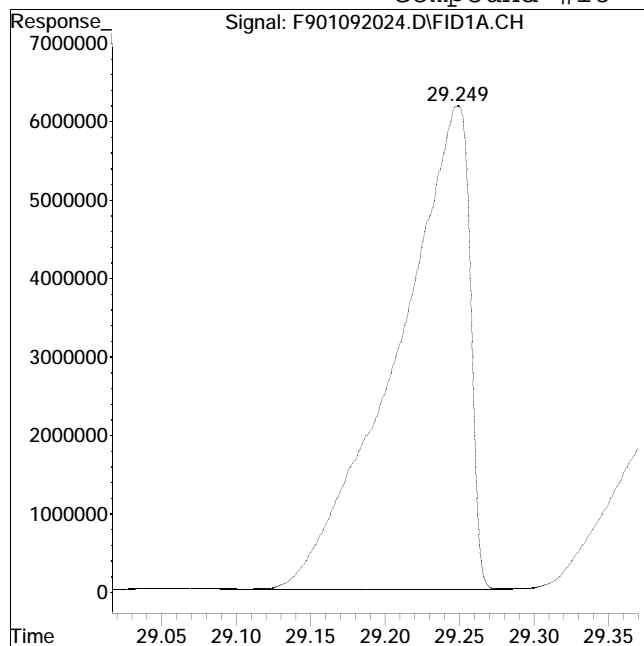
Manual Peak Response = 194039082 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 209845412

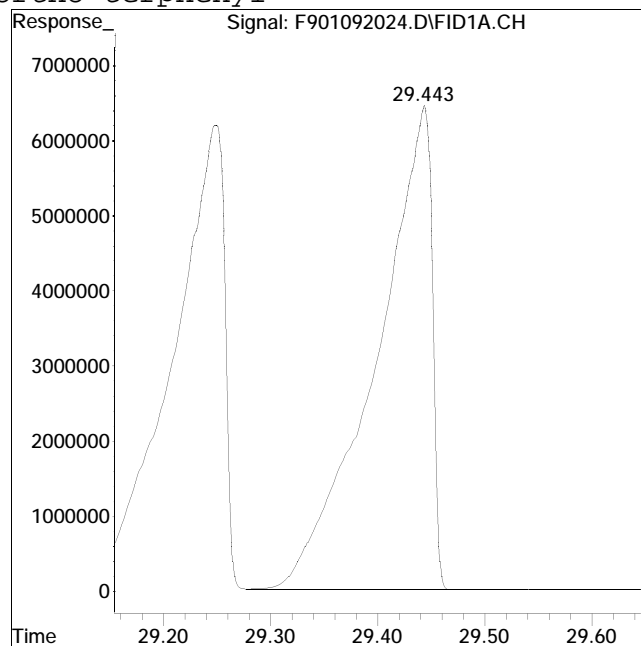
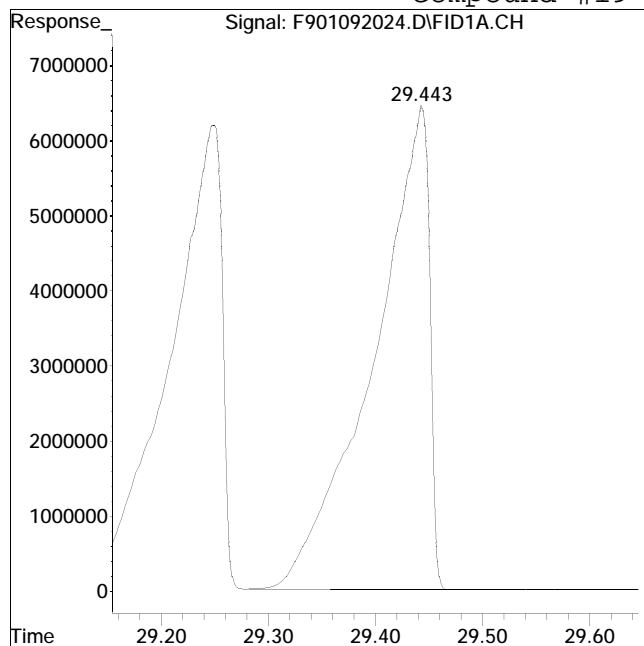
Manual Peak Response = 211178866 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #19: ortho-terphenyl



Original Peak Response = 232126362

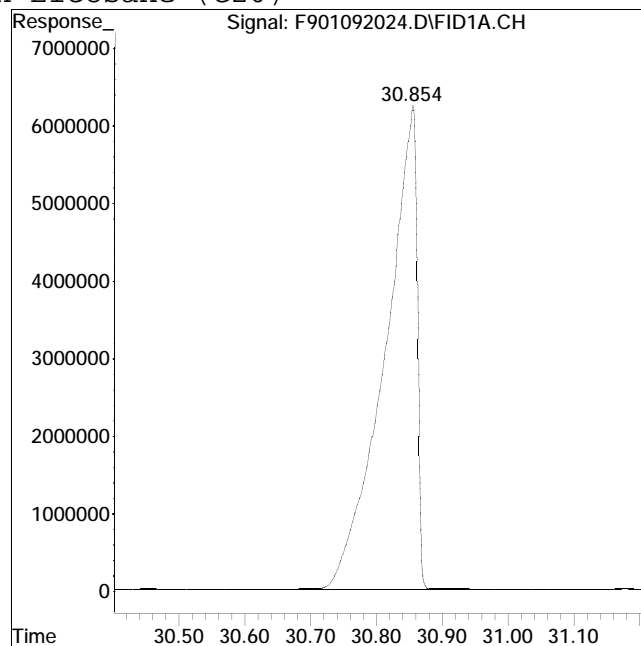
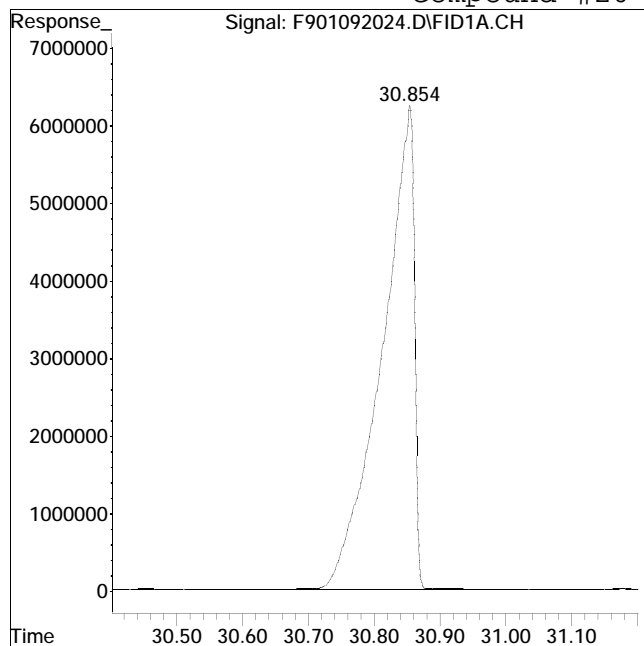
Manual Peak Response = 232939233 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 211819013

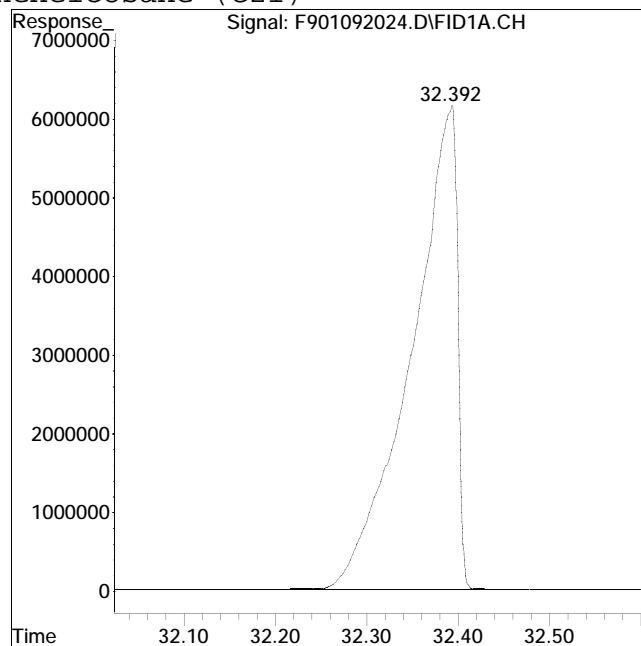
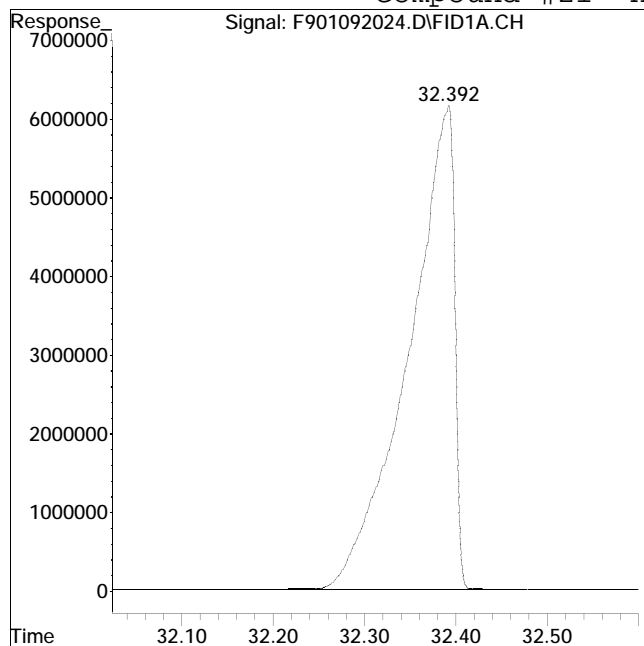
Manual Peak Response = 211705684 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 214373437

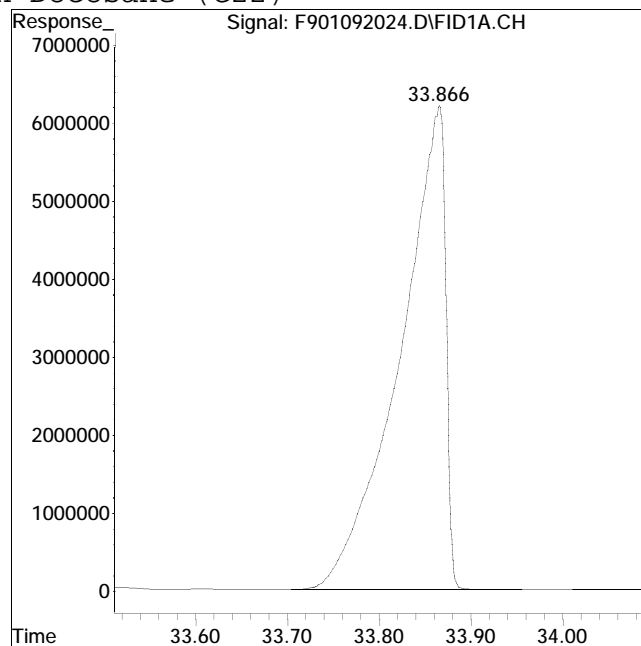
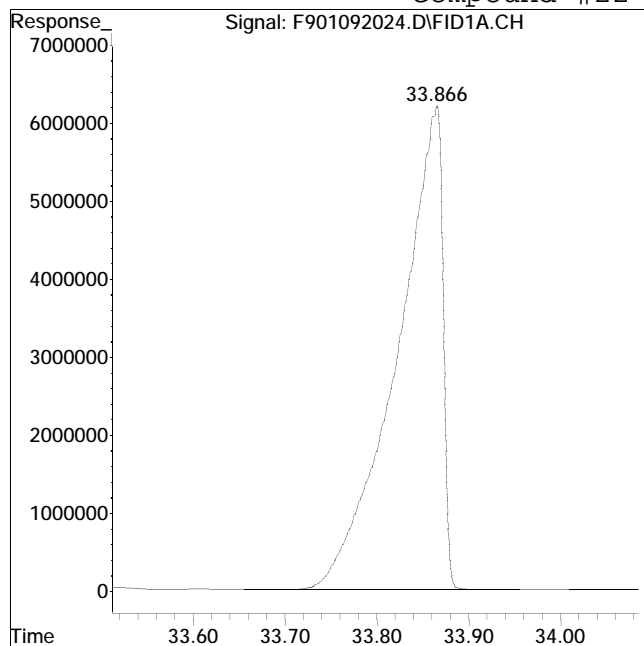
Manual Peak Response = 214459319 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 214316527

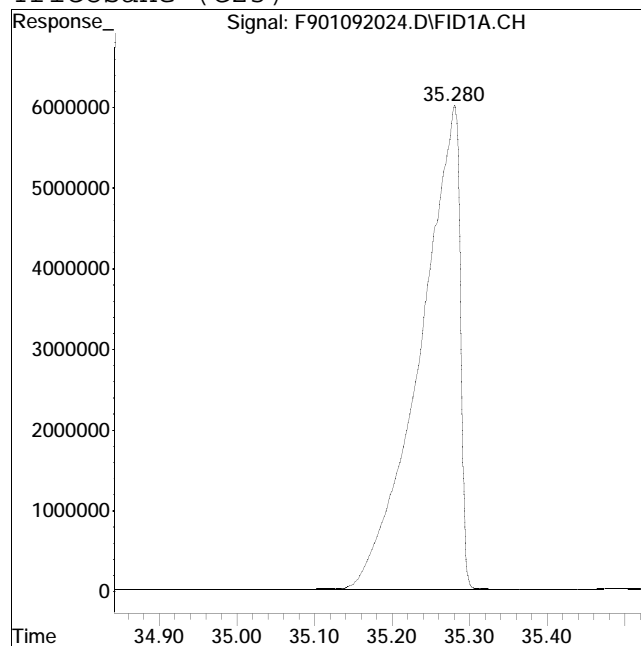
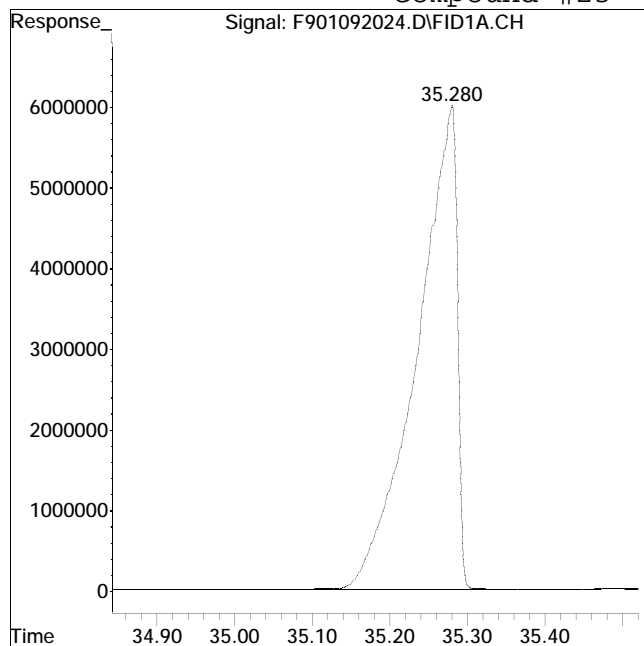
Manual Peak Response = 214153681 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 214994132

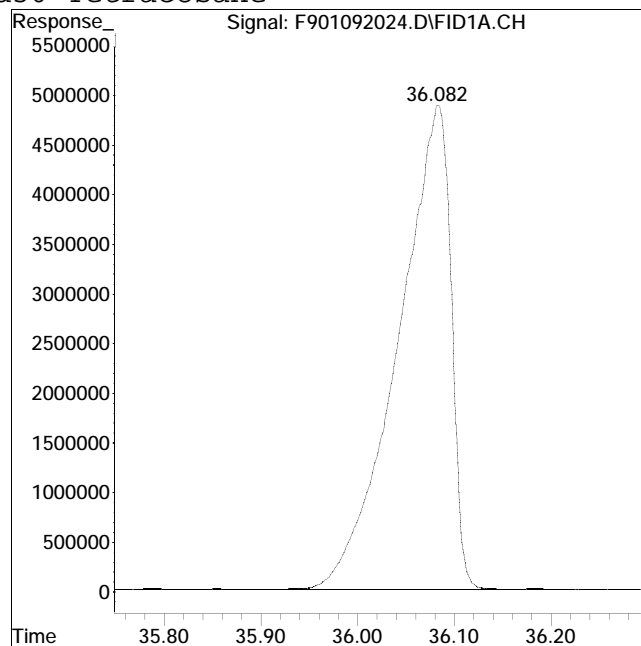
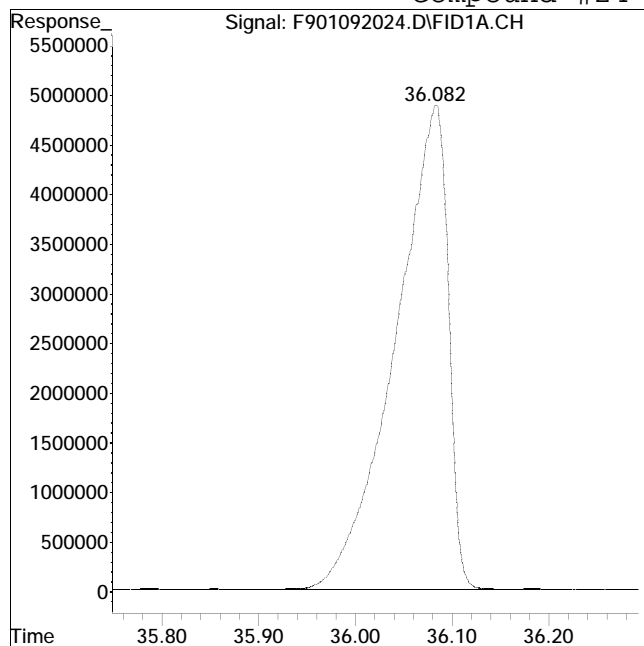
Manual Peak Response = 215077596 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #24: d50-Tetracosane



Original Peak Response = 185322639

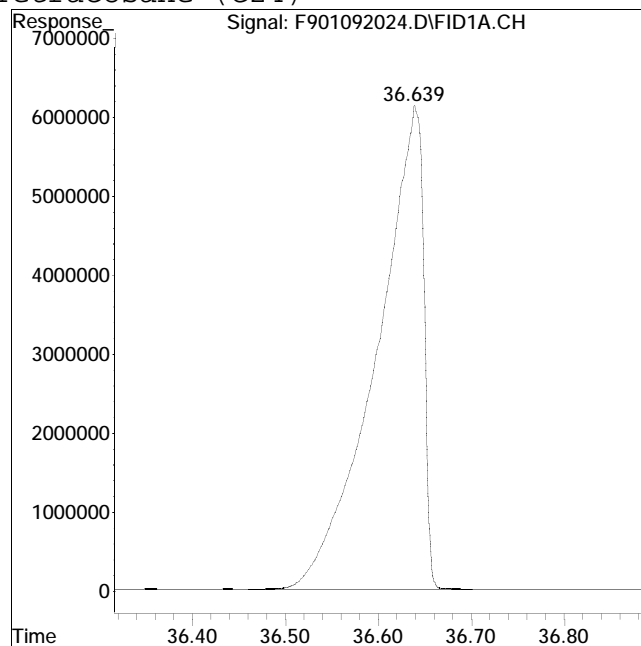
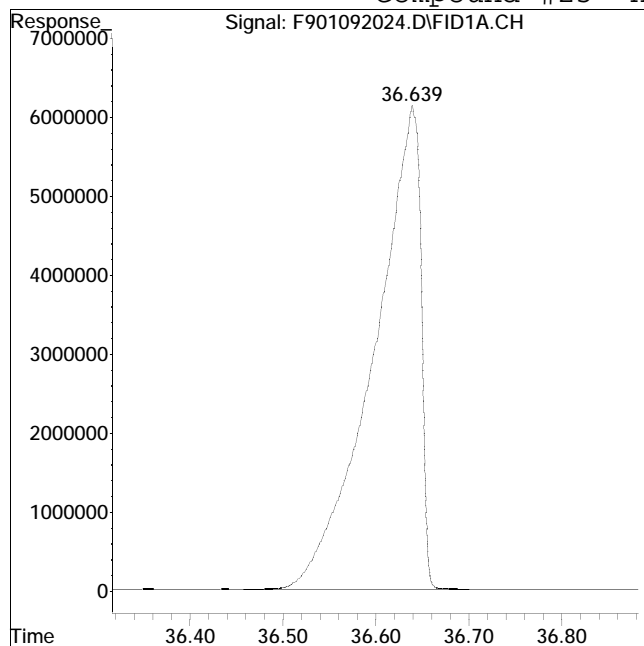
Manual Peak Response = 185274527 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 215034752

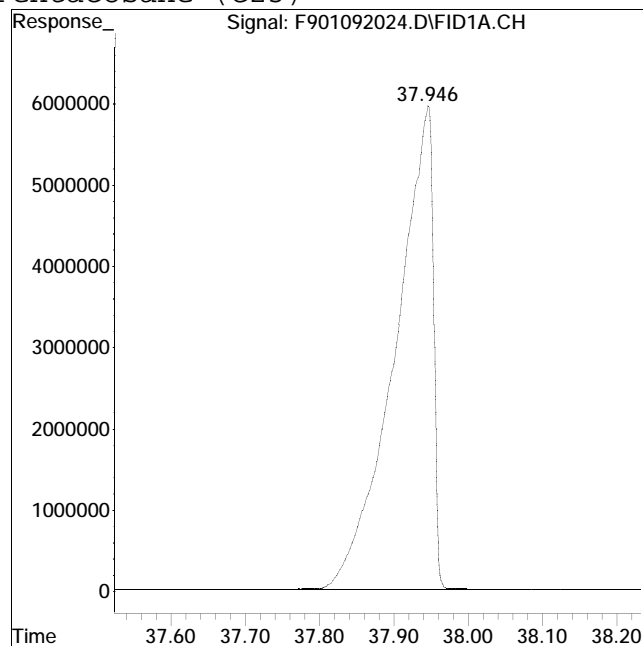
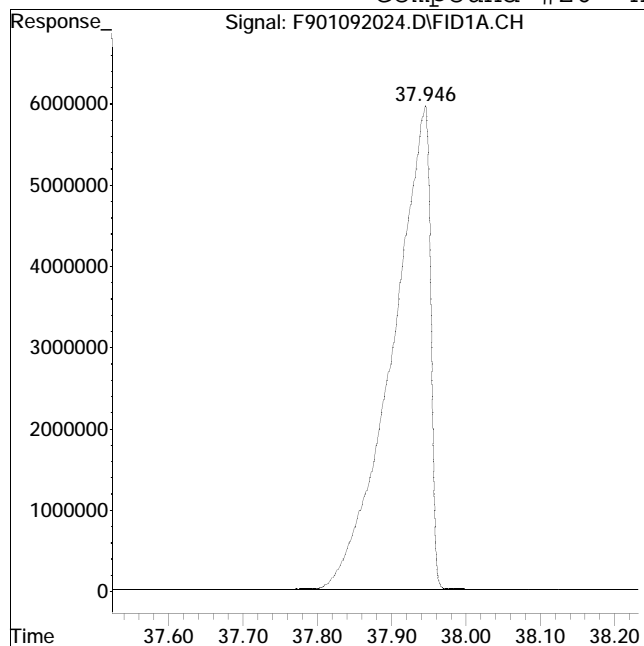
Manual Peak Response = 215172812 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 212458132

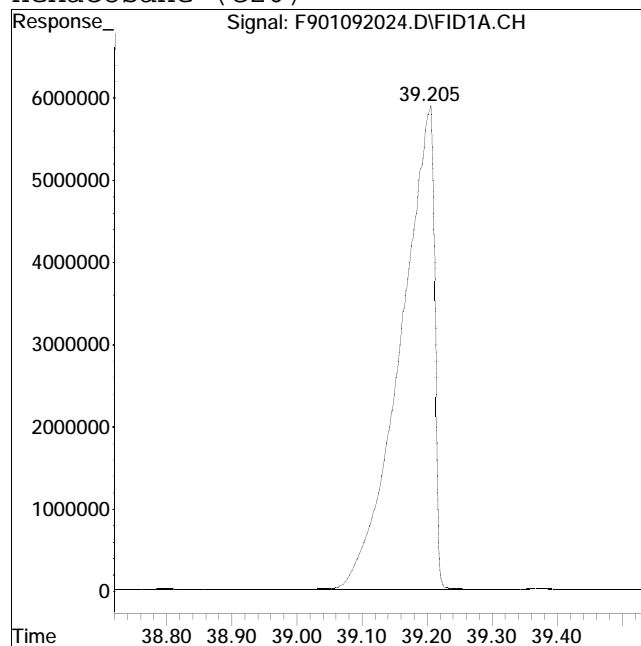
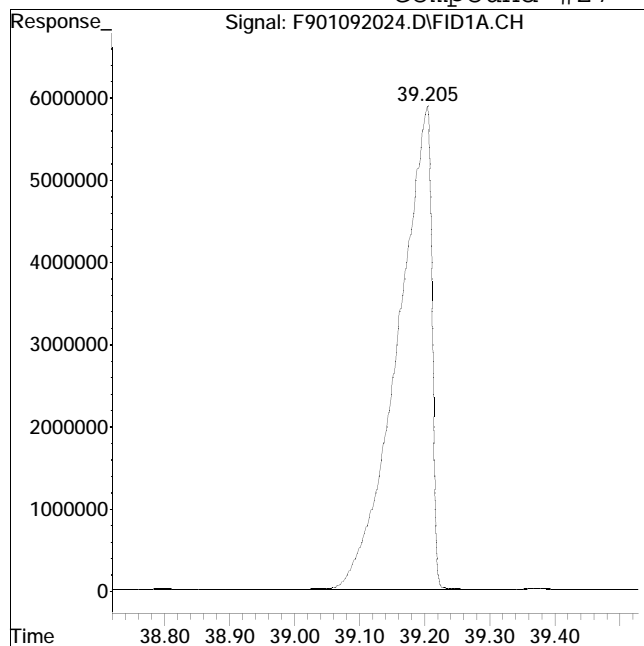
Manual Peak Response = 212512750 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 213795464

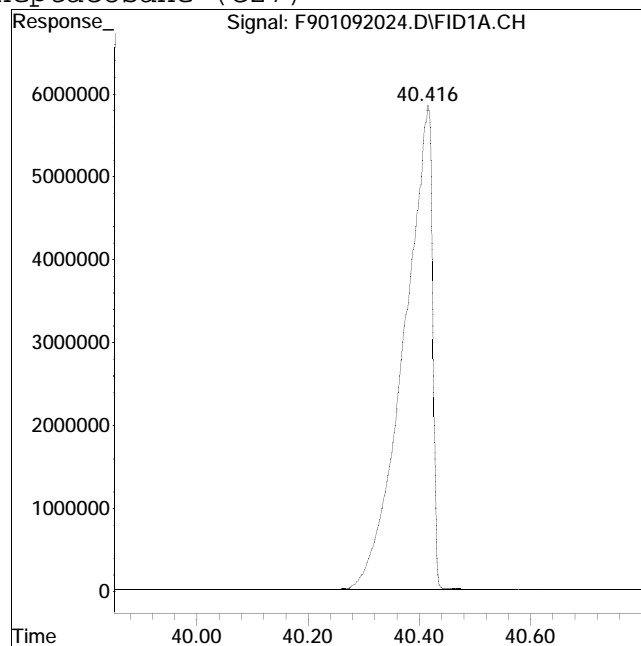
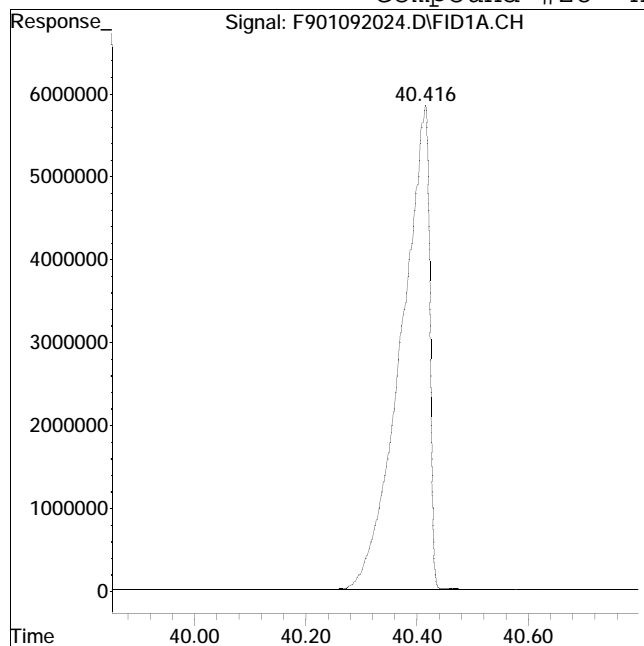
Manual Peak Response = 213615648 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 207350814

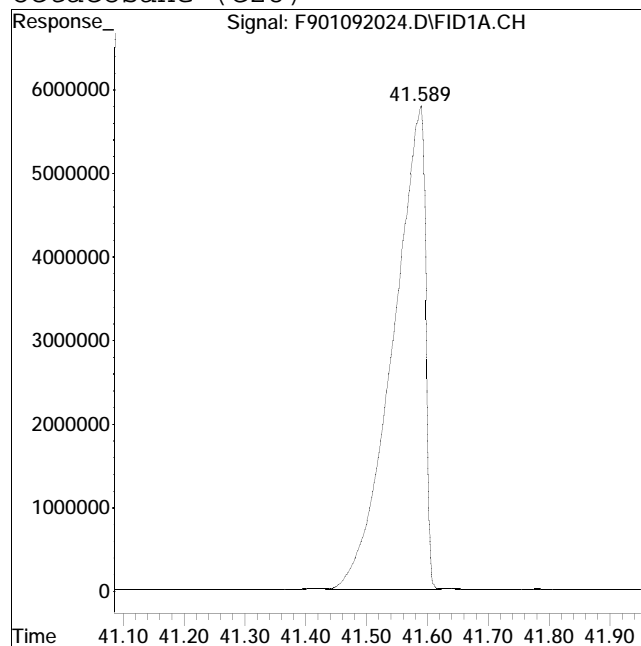
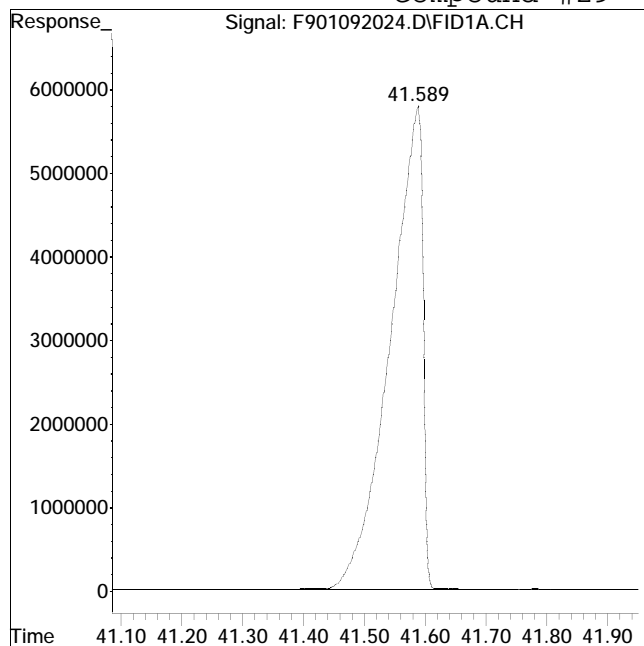
Manual Peak Response = 207227058 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 214978778

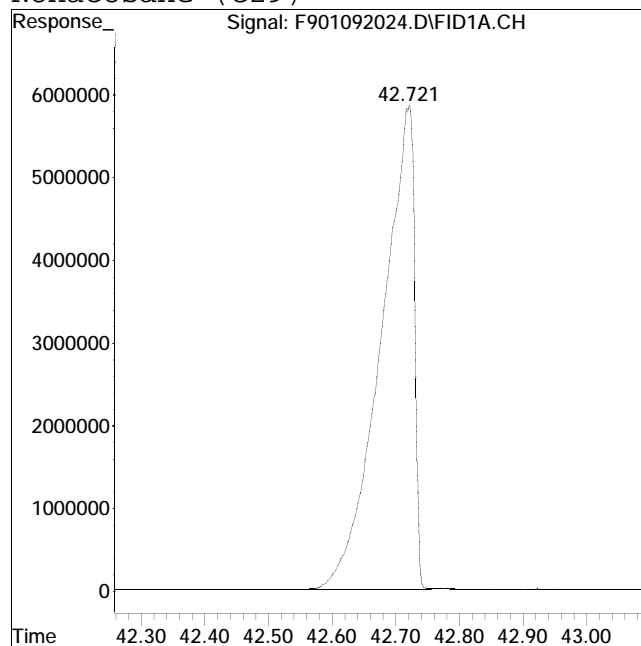
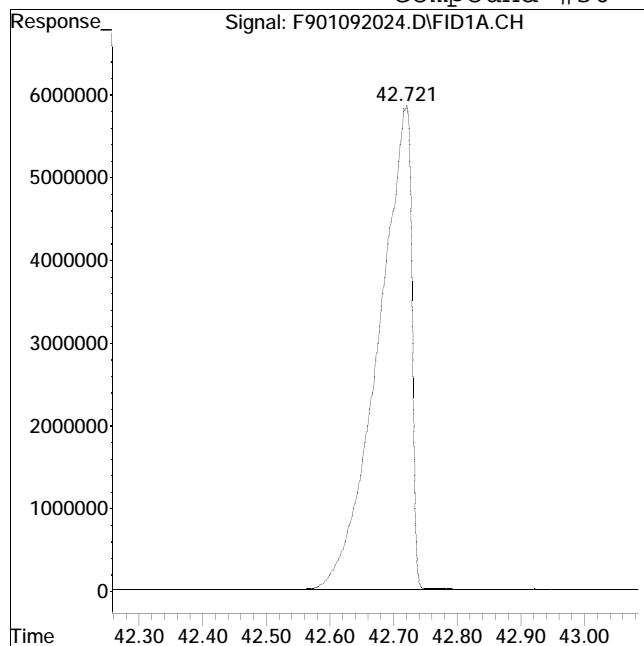
Manual Peak Response = 213995716 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 213170183

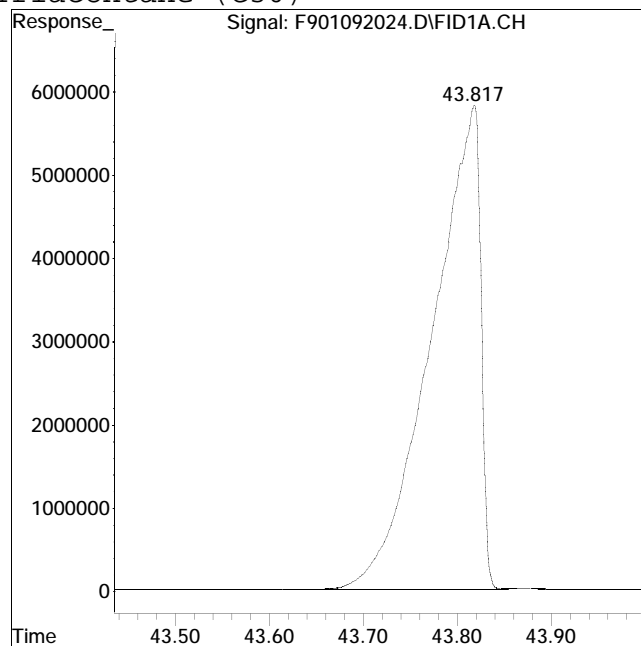
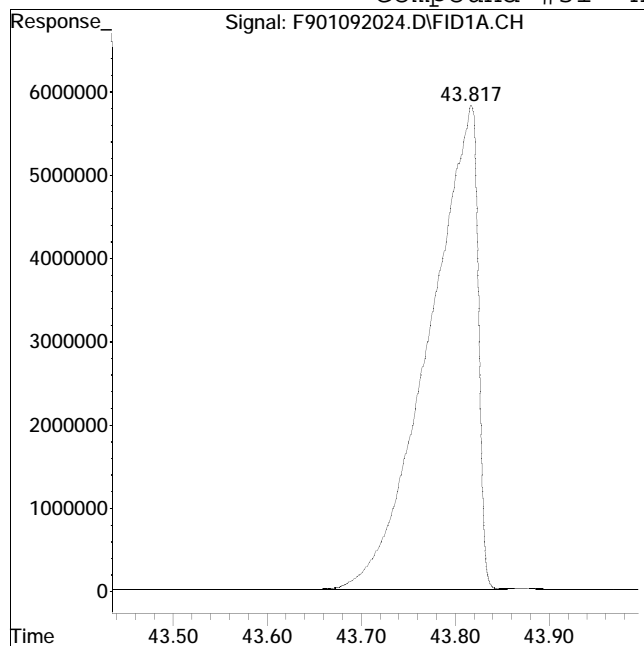
Manual Peak Response = 212665669 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 210041224

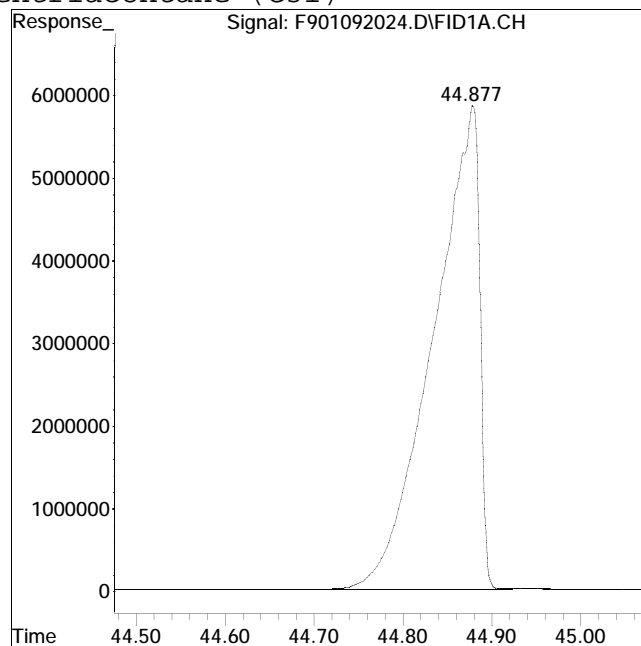
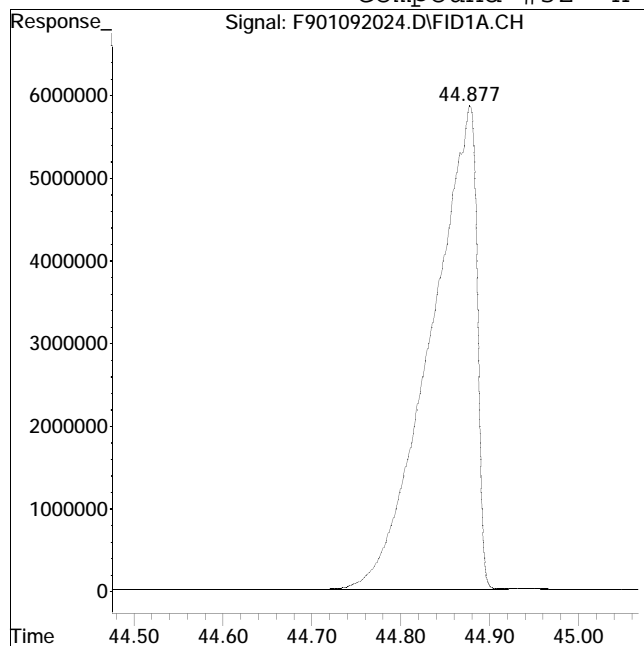
Manual Peak Response = 209930585 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 211639363

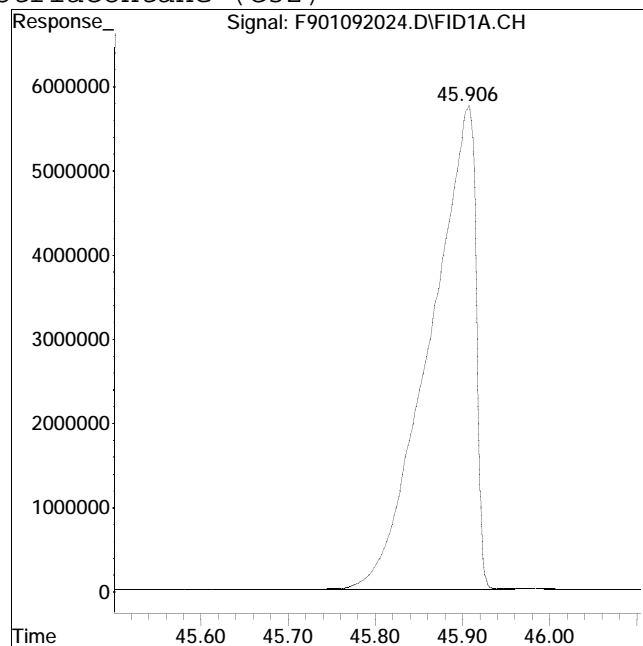
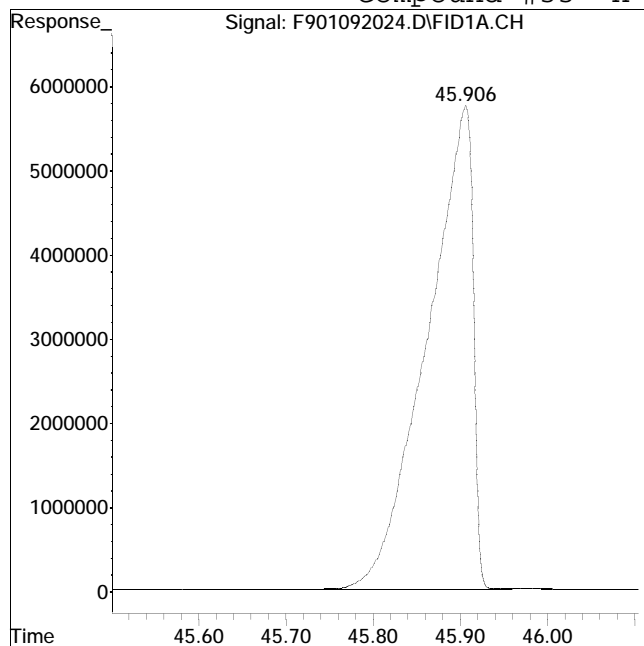
Manual Peak Response = 211623819 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 209457542

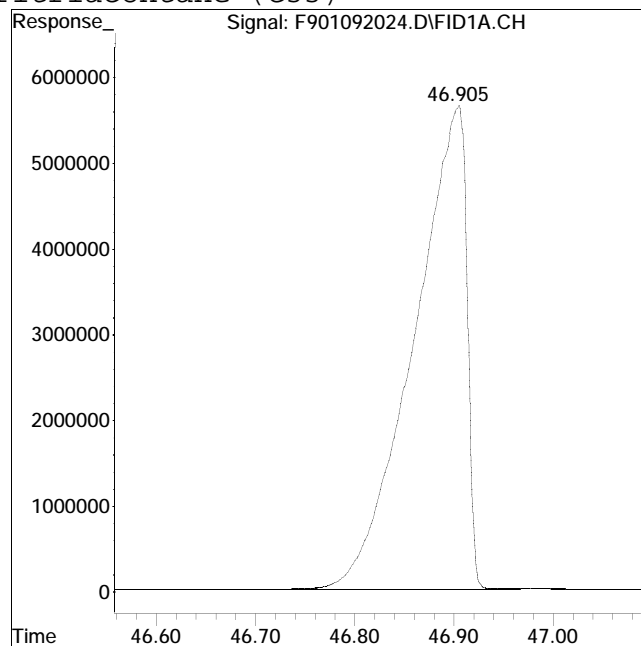
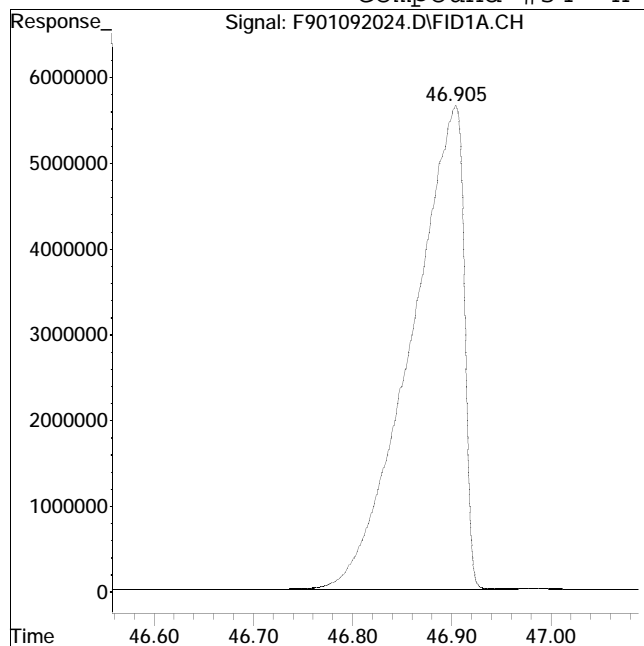
Manual Peak Response = 209771718 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 208433265

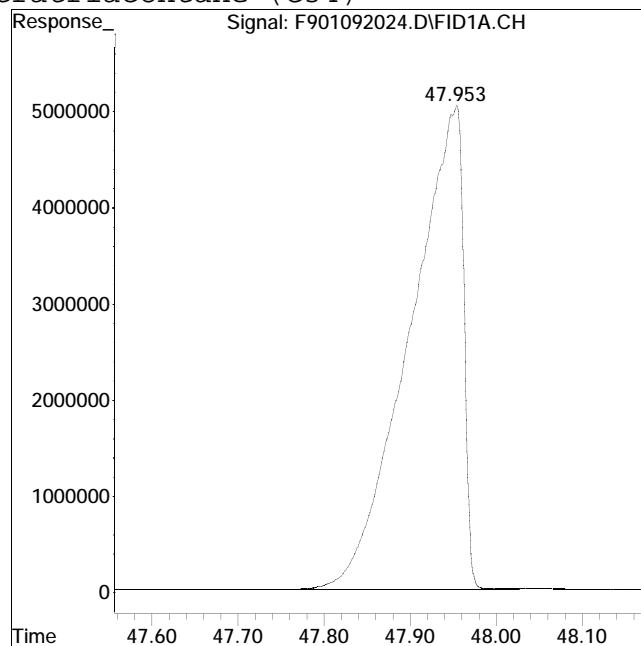
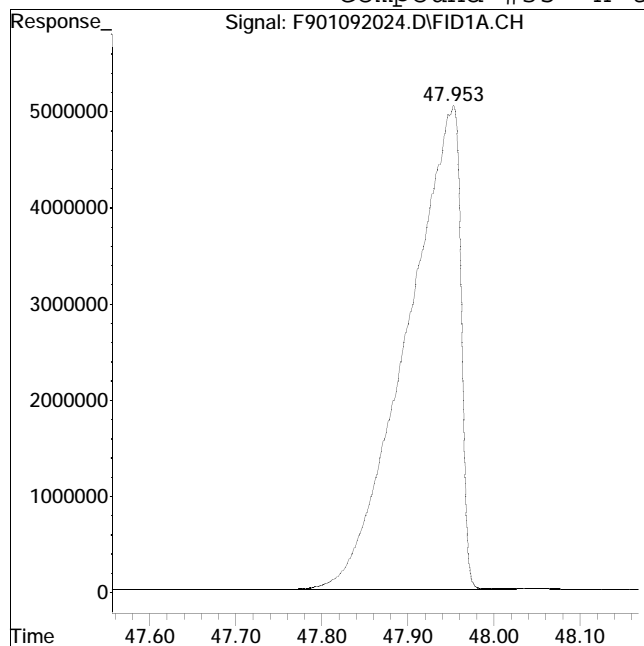
Manual Peak Response = 208493048 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 217244848

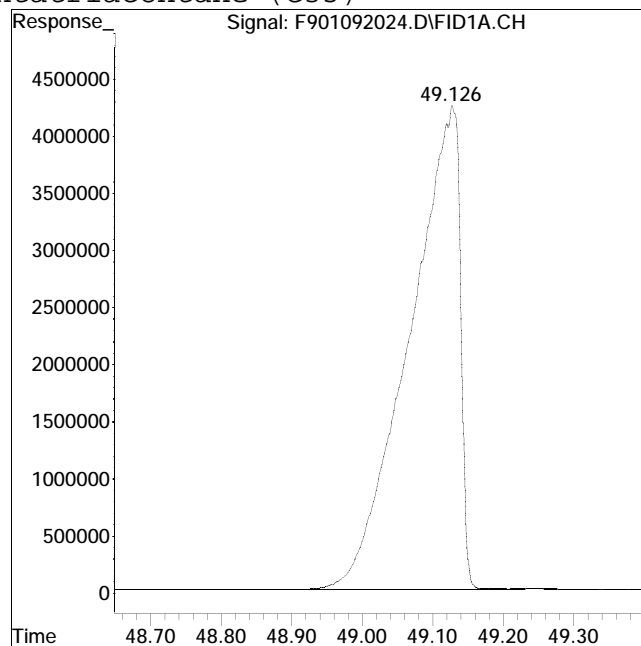
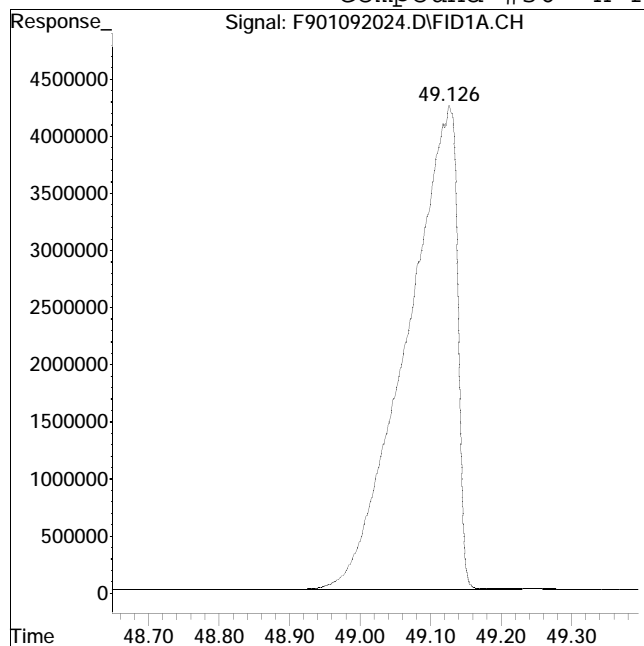
Manual Peak Response = 217403350 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 211215151

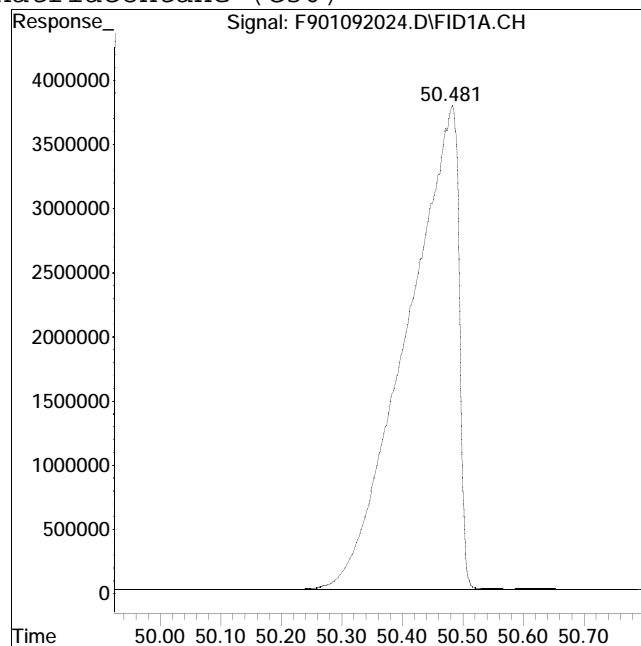
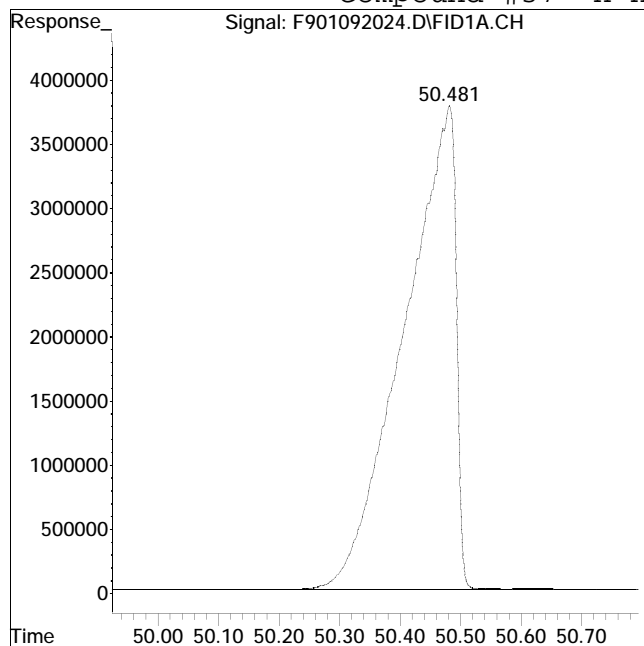
Manual Peak Response = 211165141 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 224829962

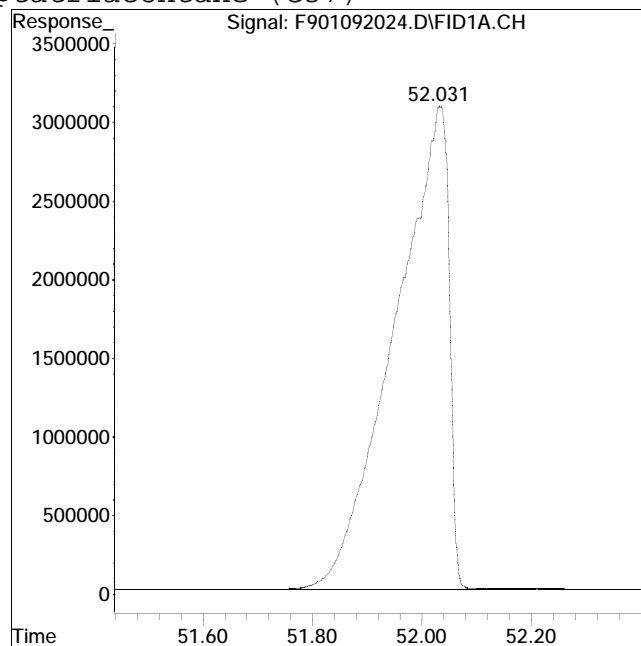
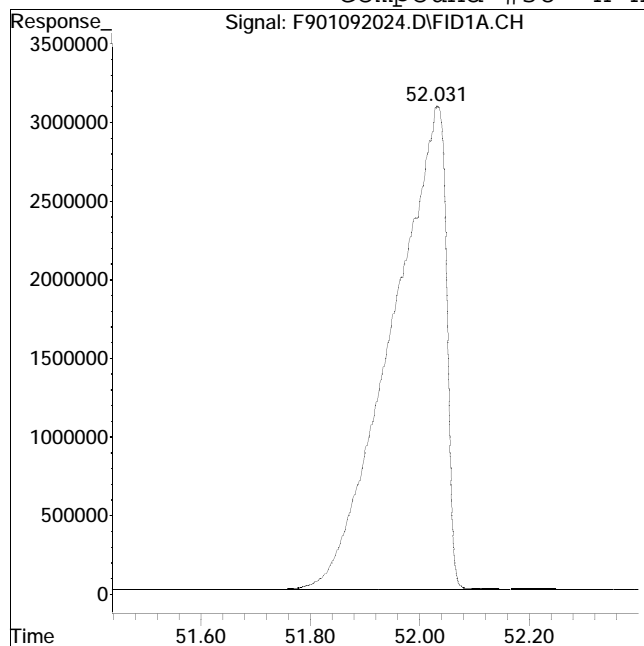
Manual Peak Response = 224792812 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 211388995

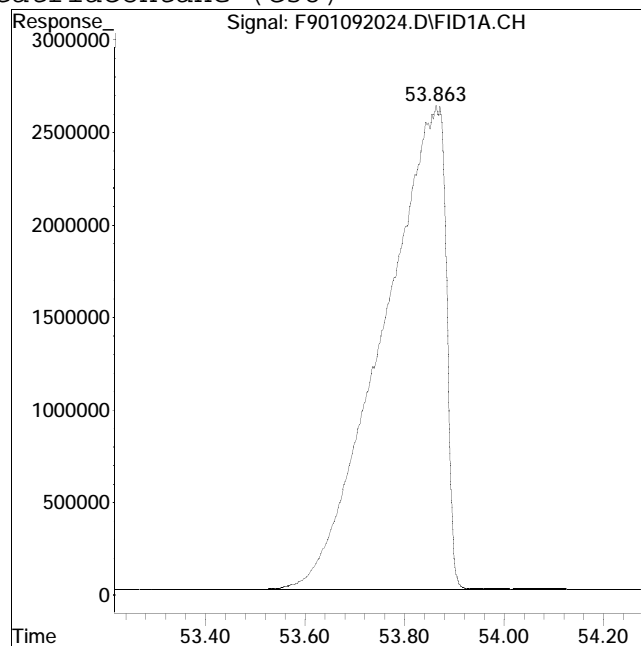
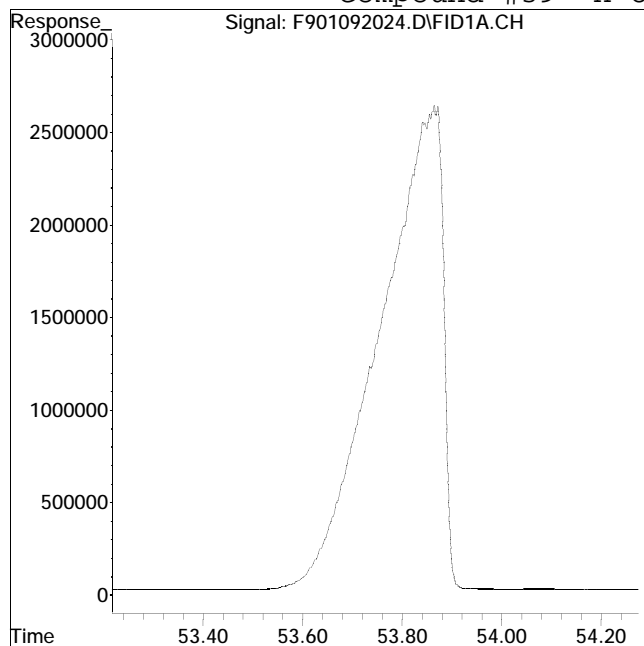
Manual Peak Response = 212026528 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

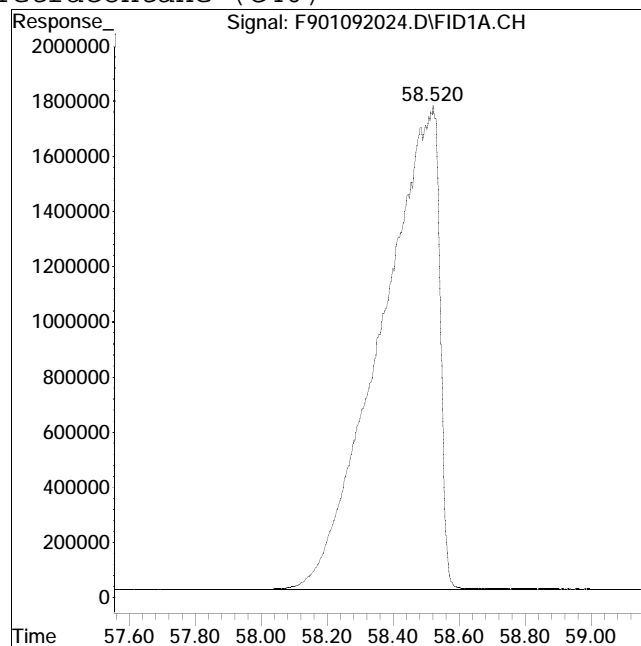
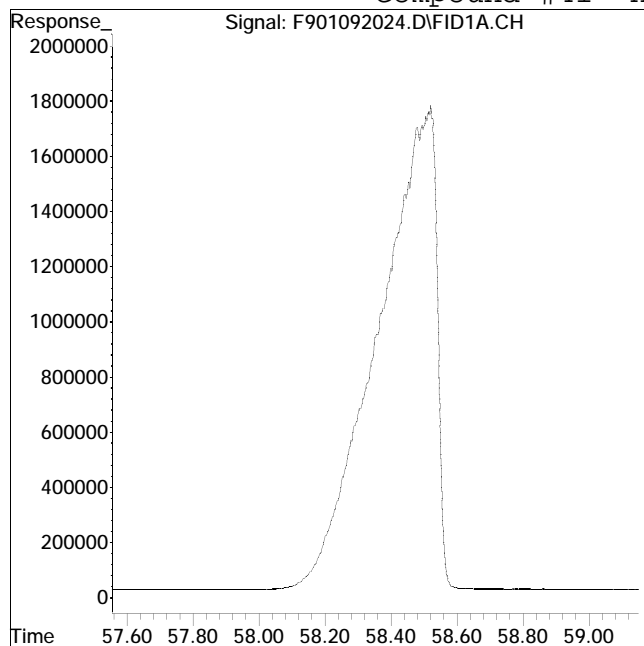
Manual Peak Response = 229335186 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092024.D Operator : FID9:WR
Date Inj'd : 1/10/2020 2:13 am Instrument : FID 9
Sample : I901022005F Quant Date : 6/1/2020 4:25 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 216075799 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092026.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 3:41 am
 Operator : FID9:WR
 Sample : I901022006F
 Misc : WG1376652,FRBC26
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:25:51 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.423	57786472	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.497f	593290626	492.823	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	985.65%#	
24) s d50-Tetracosane	36.136	476006053	494.255	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	988.51%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL d
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL d
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL d
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL d
7) t n-Tridecane (C13)	0.000	0	N.D.	ug/mL d
9) t n-Tetradecane (C14)	0.000	0	N.D.	ug/mL d
11) t n-Pentadecane (C15)	0.000	0	N.D.	ug/mL d
12) t n-Hexadecane (C16)	0.000	0	N.D.	ug/mL d
14) t n-Heptadecane (C17)	0.000	0	N.D.	ug/mL d
15) t Pristane	0.000	0	N.D.	ug/mL d
16) t n-Octadecane (C18)	0.000	0	N.D.	ug/mL d
17) t Phytane	0.000	0	N.D.	ug/mL d
18) t n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t n-Eicosane (C20)	0.000	0	N.D.	ug/mL d
21) t n-Heneicosane (C21)	0.000	0	N.D.	ug/mL d
22) t n-Docosane (C22)	0.000	0	N.D.	ug/mL d
23) t n-Tricosane (C23)	0.000	0	N.D.	ug/mL d
25) t n-Tetracosane (C24)	0.000	0	N.D.	ug/mL d
26) t n-Pentacosane (C25)	0.000	0	N.D.	ug/mL d
27) t n-Hexacosane (C26)	0.000	0	N.D.	ug/mL d
28) t n-Heptacosane (C27)	0.000	0	N.D.	ug/mL d
29) t n-Octacosane (C28)	0.000	0	N.D.	ug/mL d
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092026.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 3:41 am
 Operator : FID9:WR
 Sample : I901022006F
 Misc : WG1376652,FRBC26
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:25:51 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units
31) t n-Triacontane (C30)	0.000	0	N.D.	ug/mL d
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL d
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL d
34) t n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL d
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL d
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL d
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL d
38) t n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL d
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL d
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d

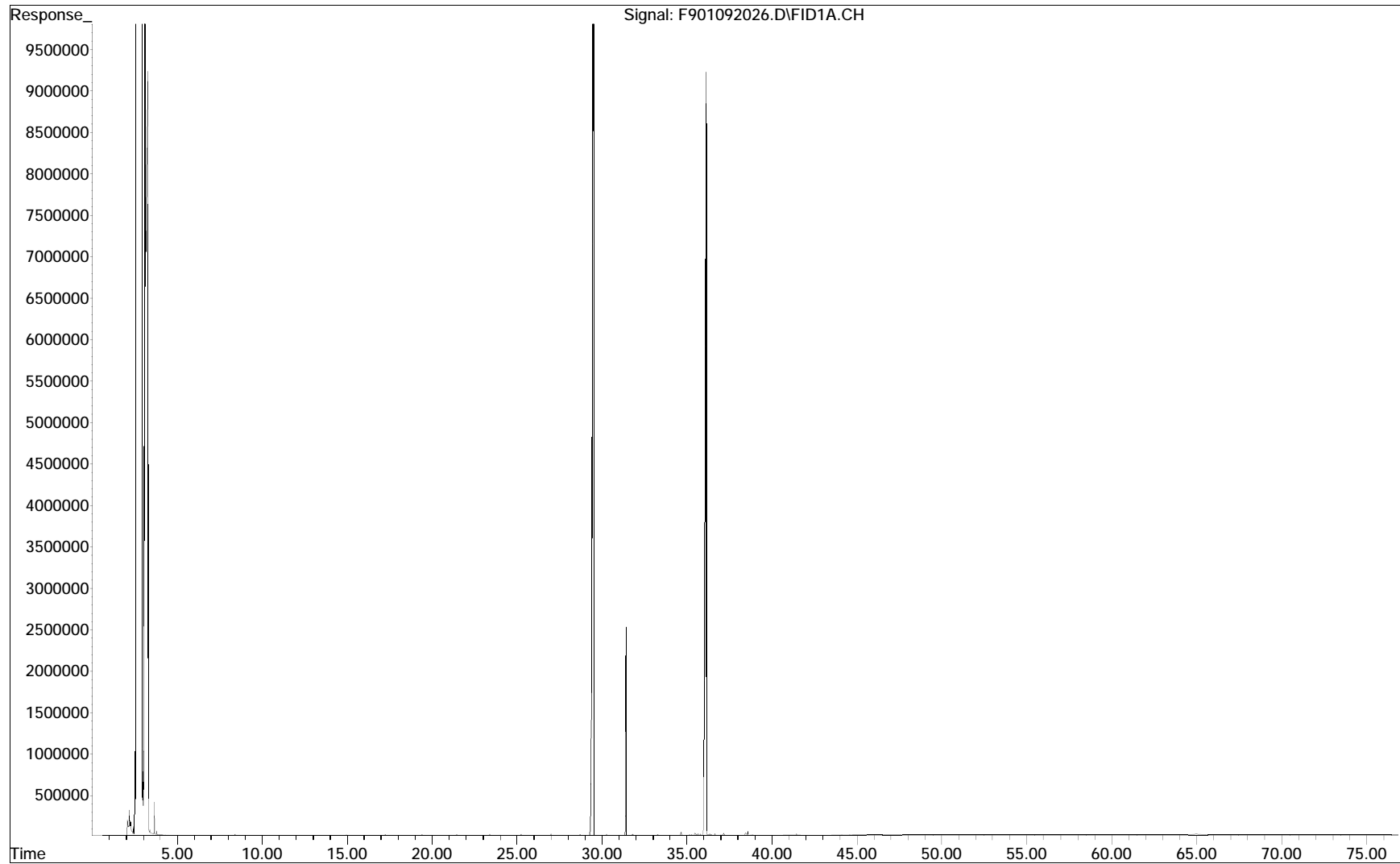
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

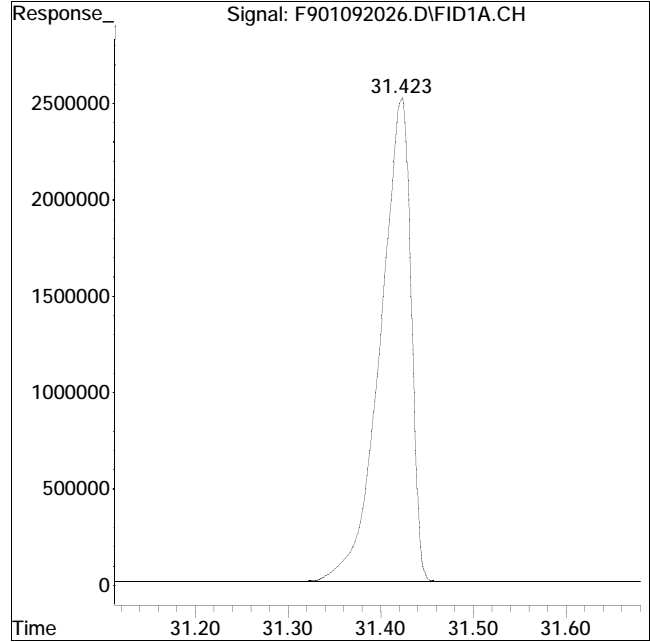
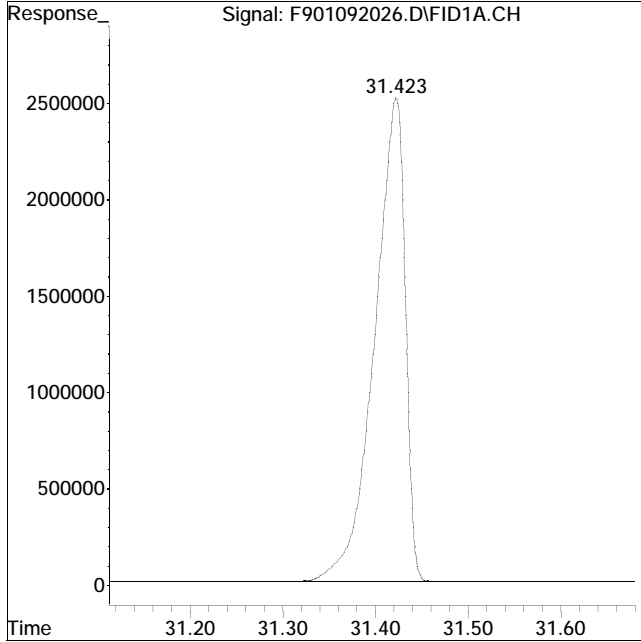
Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092026.D
Operator : FID9:WR
Acquired : 10 Jan 2020 3:41 am using AcqMethod FID9A.M
Instrument: FID 9
Sample : I901022006F
Misc Info : WG1376652,FRBC26
ALS Vial : 13



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092026.D Operator : FID9:WR
Date Inj'd : 1/10/2020 3:41 am Instrument : FID 9
Sample : I901022006F Quant Date : 6/1/2020 4:25 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 57806814

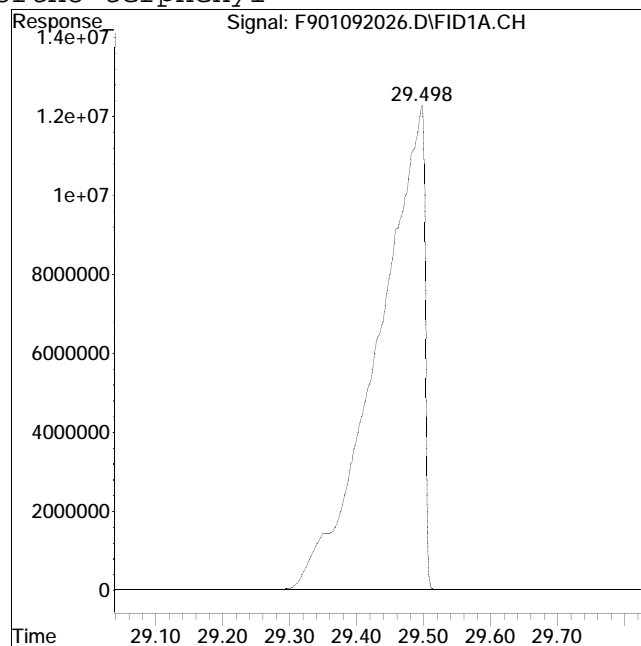
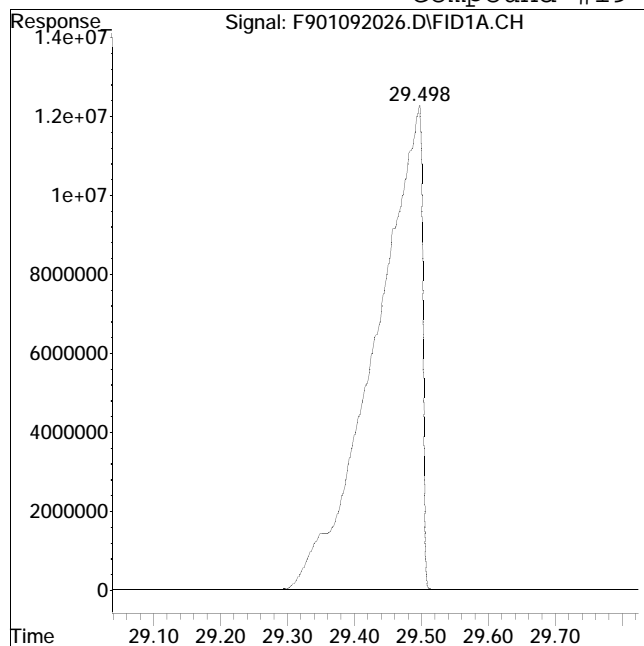
Manual Peak Response = 57786472 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092026.D Operator : FID9:WR
Date Inj'd : 1/10/2020 3:41 am Instrument : FID 9
Sample : I901022006F Quant Date : 6/1/2020 4:25 pm

Compound #19: ortho-terphenyl



Original Peak Response = 593155049

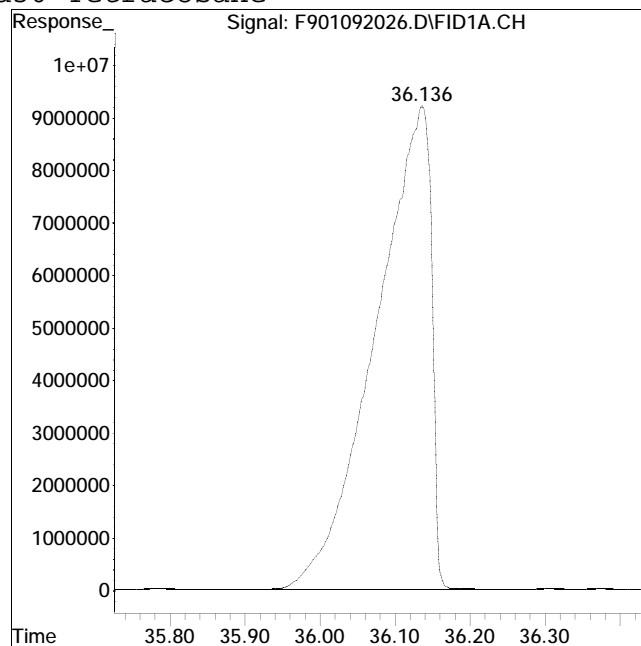
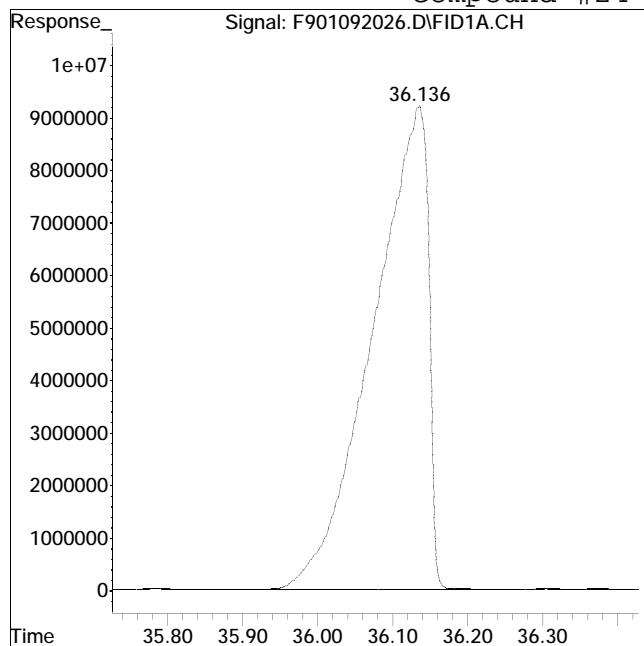
Manual Peak Response = 593290626 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092026.D Operator : FID9:WR
Date Inj'd : 1/10/2020 3:41 am Instrument : FID 9
Sample : I901022006F Quant Date : 6/1/2020 4:25 pm

Compound #24: d50-Tetracosane



Original Peak Response = 474545849

Manual Peak Response = 476006053 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092030.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 6:37 am
 Operator : FID9:WR
 Sample : CQ901022001F
 Misc : WG1376652,FRBC20
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:27:00 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 I	5-alpha-androstane	1.000	1.000	0.0	98	0.00
2 t	n-Octane (C8)	0.813	0.811	0.2	96	0.00
3 t	n-Nonane (C9)	0.858	0.858	0.0	96	0.00
4 t	n-Decane (C10)	0.888	0.902	-1.6	98	0.00
5 t	n-Undecane (C11)	0.902	0.910	-0.9	96	0.00
6 t	n-Dodecane (C12)	0.916	0.932	-1.7	97	0.00
7 t	n-Tridecane (C13)	0.920	0.922	-0.2	96	0.00
9 t	n-Tetradecane (C14)	0.936	0.944	-0.9	96	0.00
11 t	n-Pentadecane (C15)	0.938	0.951	-1.4	97	0.00
12 t	n-Hexadecane (C16)	0.945	0.966	-2.2	98	0.00
14 t	n-Heptadecane (C17)	0.946	0.939	0.7	95	0.00
15 t	Pristane	0.960	0.962	-0.2	96	0.00
16 t	n-Octadecane (C18)	0.953	0.951	0.2	95	0.00
17 t	Phytane	0.868	0.869	-0.1	96	0.00
18 t	n-Nonadecane (C19)	0.950	0.969	-2.0	97	0.00
19 s	ortho-terphenyl	1.042	1.058	-1.5	96	0.00
20 t	n-Eicosane (C20)	0.955	0.975	-2.1	98	0.00
21 t	n-Heneicosane (C21)	0.969	0.975	-0.6	96	0.00
22 t	n-Docosane (C22)	0.967	1.005	-3.9	99	0.00
23 t	n-Tricosane (C23)	0.971	0.953	1.9	94	0.00
24 s	d50-Tetracosane	0.833	0.847	-1.7	96	0.00
25 t	n-Tetracosane (C24)	0.981	0.980	0.1	95	0.00
26 t	n-Pentacosane (C25)	0.964	0.964	0.0	95	0.00
27 t	n-Hexacosane (C26)	0.969	0.987	-1.9	97	0.00
28 t	n-Heptacosane (C27)	0.944	0.949	-0.5	96	0.00
29 t	n-Octacosane (C28)	0.974	0.976	-0.2	95	0.00
30 t	n-Nonacosane (C29)	0.969	0.966	0.3	95	0.00
31 t	n-Triacontane (C30)	0.955	0.967	-1.3	97	0.00
32 t	n-Hentriacontane (C31)	0.961	0.947	1.5	94	0.00
33 t	n-Dotriacontane (C32)	0.945	0.944	0.1	96	0.00
34 t	n-Tritriacontane (C33)	0.935	0.941	-0.6	96	0.00
35 t	n-tetratriacontane (C34)	0.971	0.953	1.9	94	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092030.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 6:37 am
 Operator : FID9:WR
 Sample : CQ901022001F
 Misc : WG1376652,FRBC20
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:27:00 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
36 t	n-Pentatriacontane (C35)	0.942	0.924	1.9	94	0.00
37 t	n-Hexatriacontane (C36)	0.995	0.981	1.4	94	0.00
38 t	n-Heptatriacontane (C37)	0.941	0.933	0.9	95	0.00
39 t	n-Octatriacontane (C38)	1.018	0.966	5.1	91	0.00
41 t	n-Tetracontane (C40)	0.972	0.876	9.9	87	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.01	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092030.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 6:37 am
 Operator : FID9:WR
 Sample : CQ901022001F
 Misc : WG1376652,FRBC20
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:27:00 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.421	54726825	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.394	57912271	50.795	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	101.59%	
24) s d50-Tetracosane	36.036	46332276	50.798	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	101.60%	
Target Compounds				
2) t n-Octane (C8)	5.734	44359596	49.833	ug/mL M4
3) t n-Nonane (C9)	7.946	46974186	50.026	ug/mL M4
4) t n-Decane (C10)	10.436	49337637	50.777	ug/mL M4
5) t n-Undecane (C11)	12.951	49778378	50.433	ug/mL M4
6) t n-Dodecane (C12)	15.380	50991890	50.836	ug/mL M4
7) t n-Tridecane (C13)	17.686	50441230	50.112	ug/mL M4
9) t n-Tetradecane (C14)	19.870	51648324	50.437	ug/mL M4
11) t n-Pentadecane (C15)	21.935	52033988	50.691	ug/mL M4
12) t n-Hexadecane (C16)	23.892	52866422	51.094	ug/mL M4
14) t n-Heptadecane (C17)	25.750	51409069	49.672	ug/mL M4
15) t Pristane	25.862	52644009	50.098	ug/mL M4
16) t n-Octadecane (C18)	27.517	52039507	49.888	ug/mL M4
17) t Phytane	27.679	47555187	50.058	ug/mL
18) t n-Nonadecane (C19)	29.203	53004396	50.968	ug/mL M4
20) t n-Eicosane (C20)	30.809	53346980	51.056	ug/mL M4
21) t n-Heneicosane (C21)	32.344	53369391	50.300	ug/mL M4
22) t n-Docosane (C22)	33.816	54979355	51.941	ug/mL M4
23) t n-Tricosane (C23)	35.232	52151177	49.080	ug/mL M4
25) t n-Tetracosane (C24)	36.588	53653575	49.952	ug/mL M4
26) t n-Pentacosane (C25)	37.892	52756655	49.983	ug/mL M4
27) t n-Hexacosane (C26)	39.152	54032455	50.951	ug/mL M4
28) t n-Heptacosane (C27)	40.362	51920578	50.238	ug/mL M4
29) t n-Octacosane (C28)	41.534	53411880	50.104	ug/mL M4
30) t n-Nonacosane (C29)	42.666	52861588	49.817	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092030.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 6:37 am
 Operator : FID9:WR
 Sample : CQ901022001F
 Misc : WG1376652,FRBC20
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 01 16:27:00 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu Jan 16 11:05:54 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.759	52942693	50.647 ug/mL M4
32) t n-Hentriacontane (C31)	44.823	51850667	49.314 ug/mL M4
33) t n-Dotriacontane (C32)	45.851	51678350	49.938 ug/mL M4
34) t n-Tritriacontane (C33)	46.848	51524798	50.343 ug/mL M4
35) t n-tetratriacontane (C34)	47.883	52164937	49.098 ug/mL M4
36) t n-Pentatriacontane (C35)	49.047	50582730	49.067 ug/mL M4
37) t n-Hexatriacontane (C36)	50.374	53667099	49.284 ug/mL M4
38) t n-Heptatriacontane (C37)	51.923	51062985	49.603 ug/mL M4
39) t n-Octatriacontane (C38)	53.722	52888681	47.462 ug/mL M4
41) t n-Tetracontane (C40)	58.306	47938578	45.037 ug/mL M4

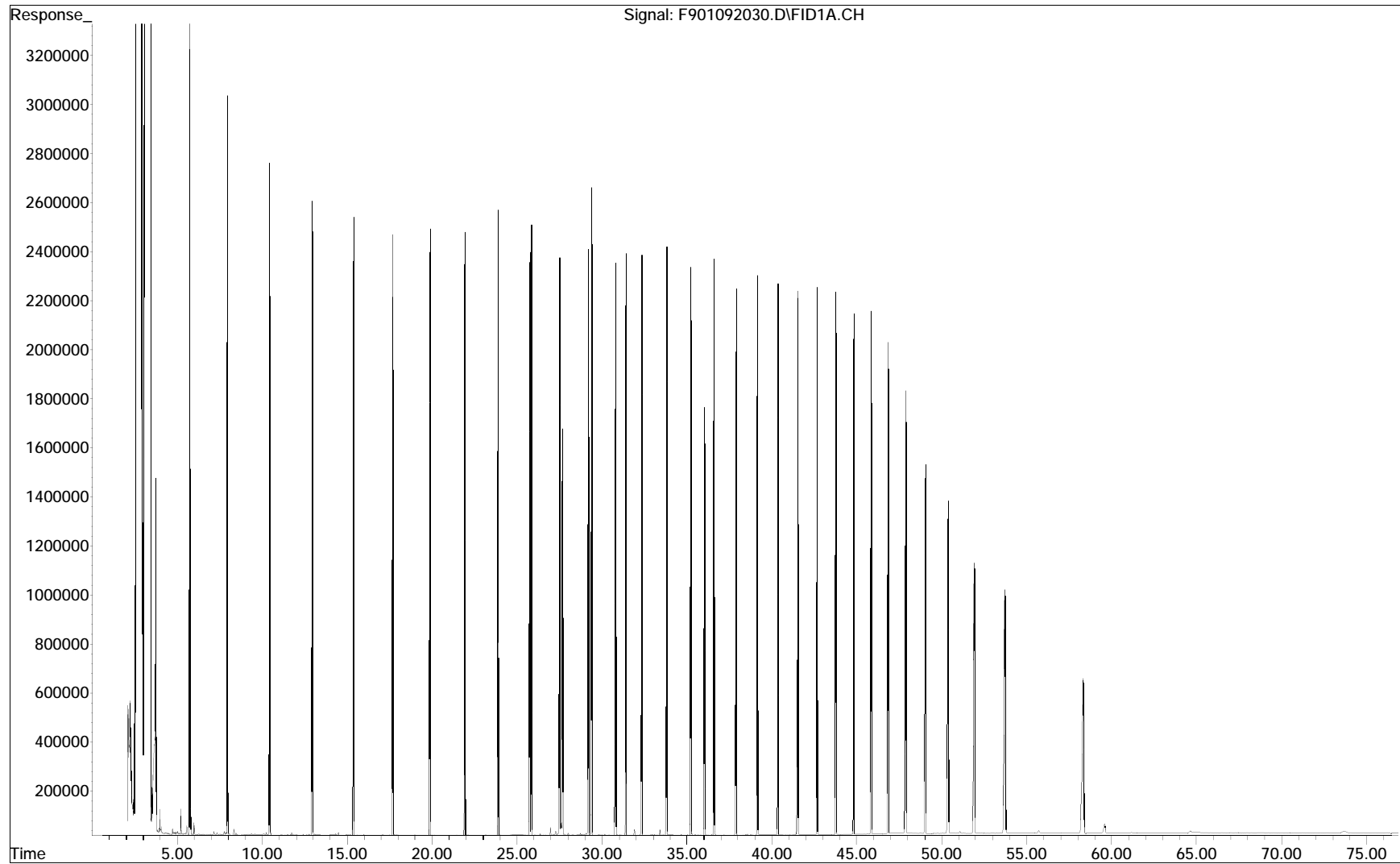
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

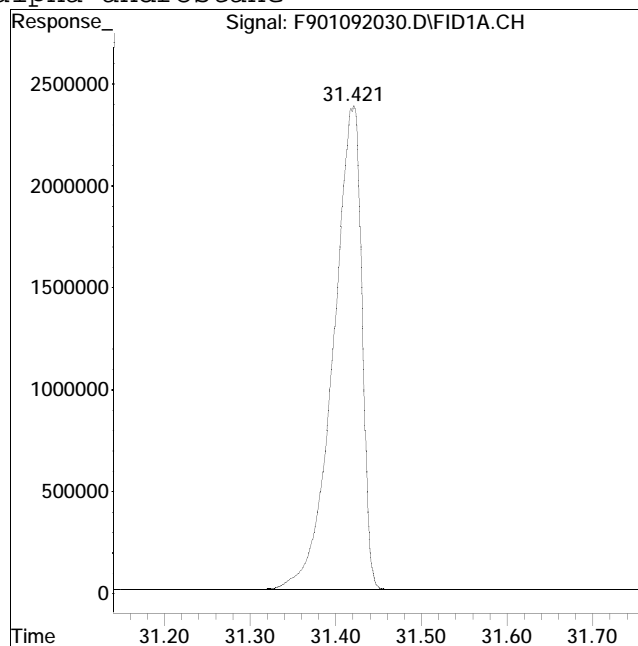
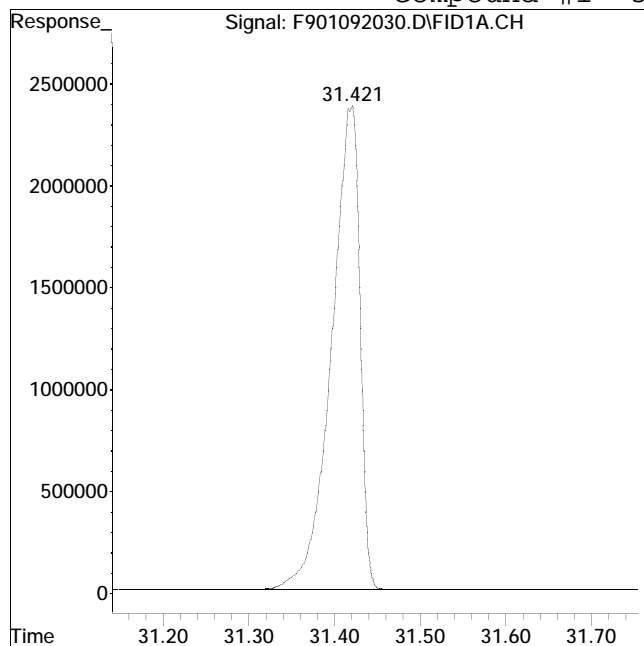
Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092030.D
Operator : FID9:WR
Acquired : 10 Jan 2020 6:37 am using AcqMethod FID9A.M
Instrument: FID 9
Sample : CQ901022001F
Misc Info : WG1376652,FRBC20
ALS Vial : 15



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 54769025

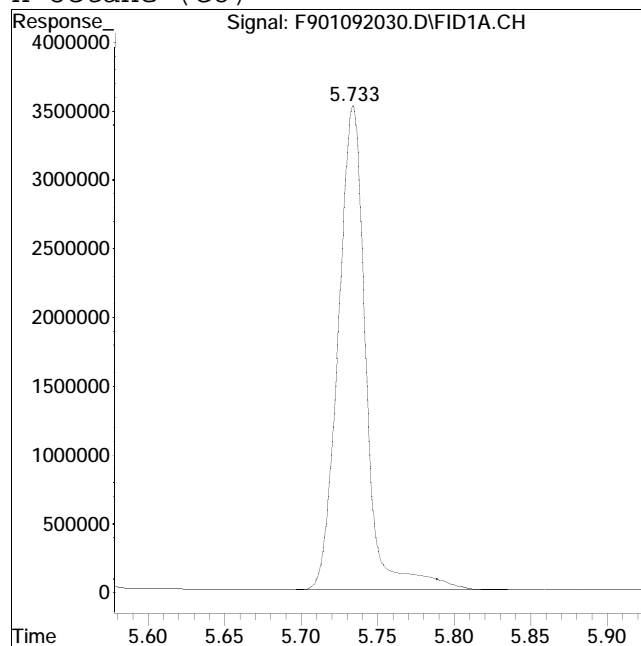
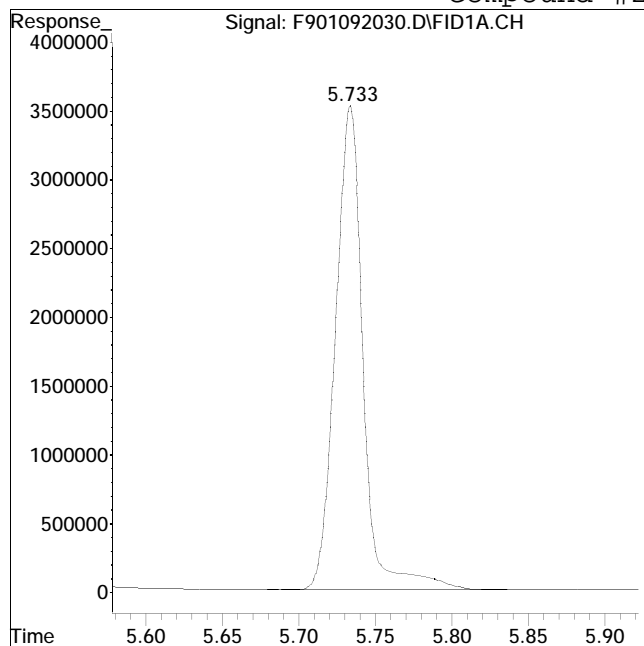
Manual Peak Response = 54726825 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #2: n-Octane (C8)



Original Peak Response = 44439273

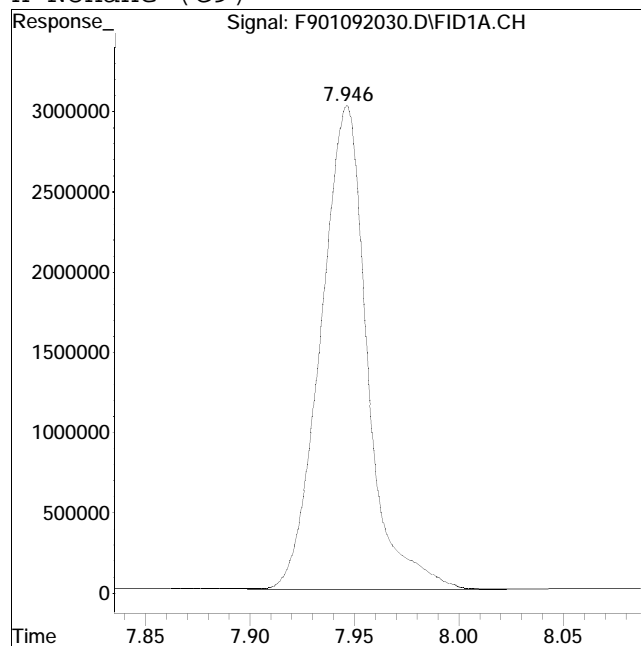
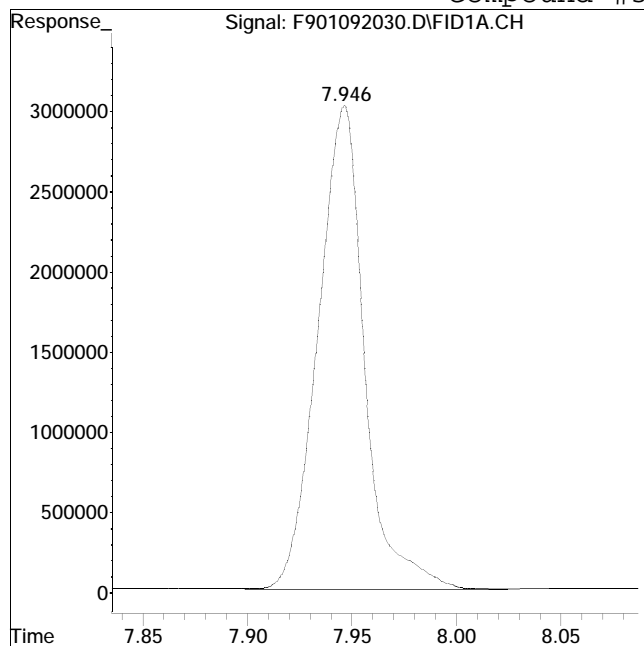
Manual Peak Response = 44359596 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 47102694

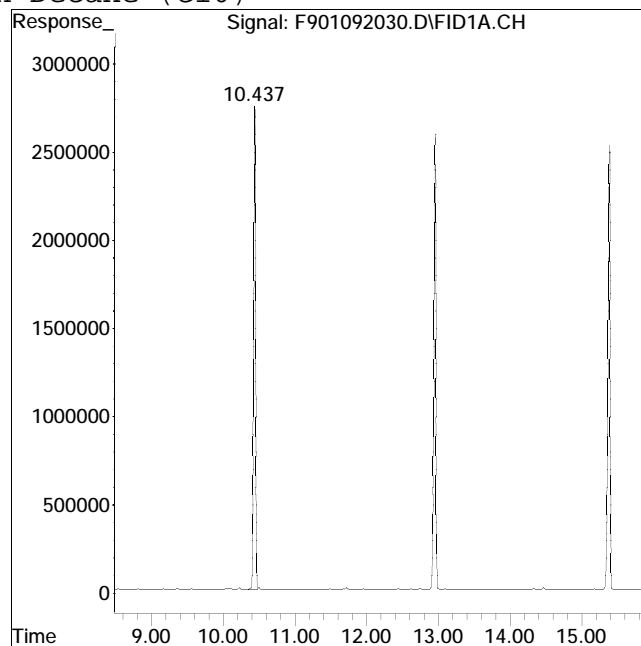
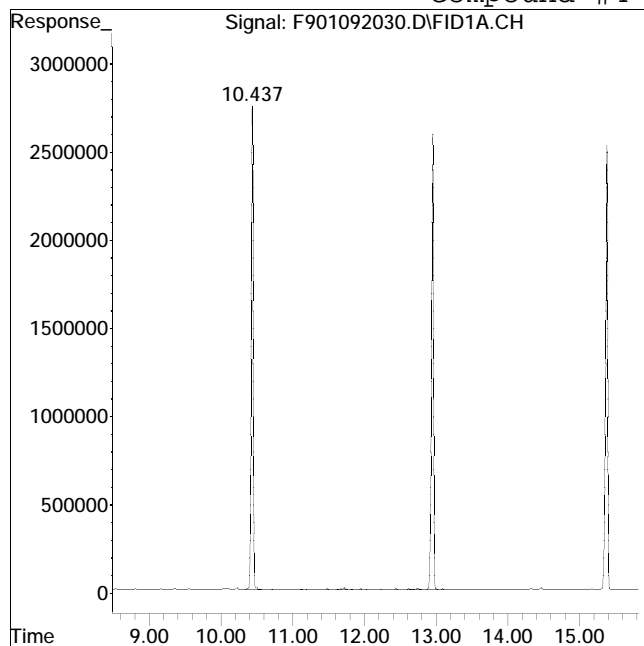
Manual Peak Response = 46974186 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #4: n-Decane (C10)



Original Peak Response = 46345167

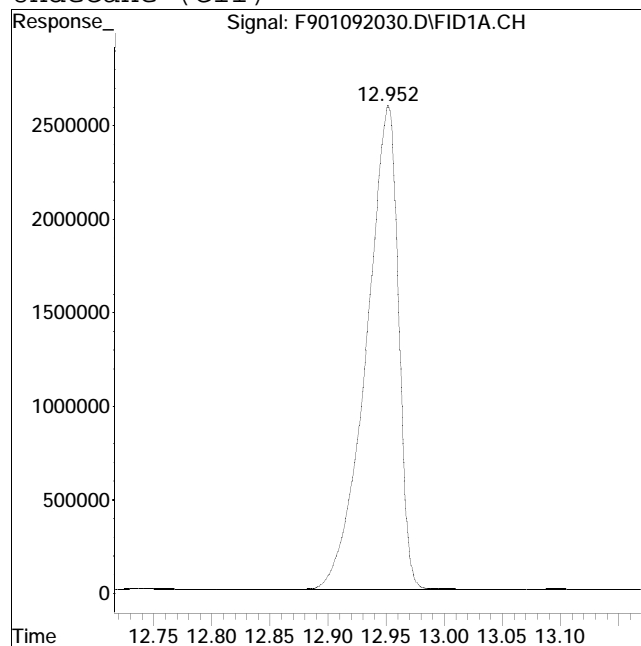
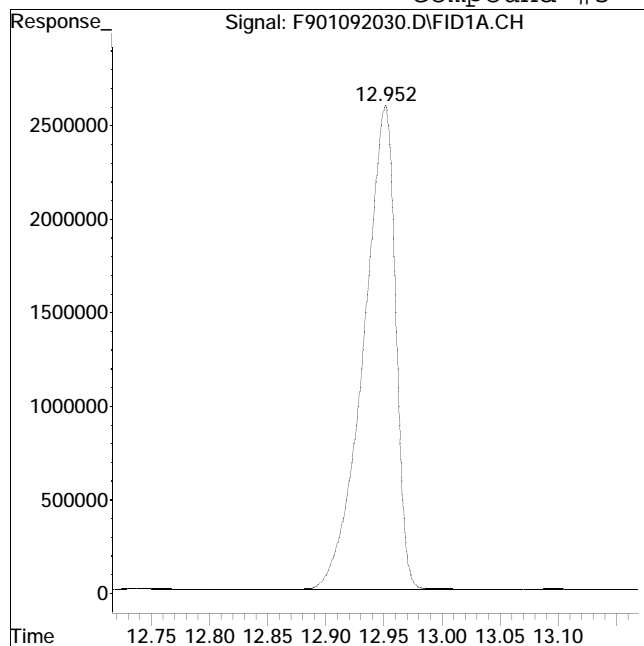
Manual Peak Response = 49337637 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 49780880

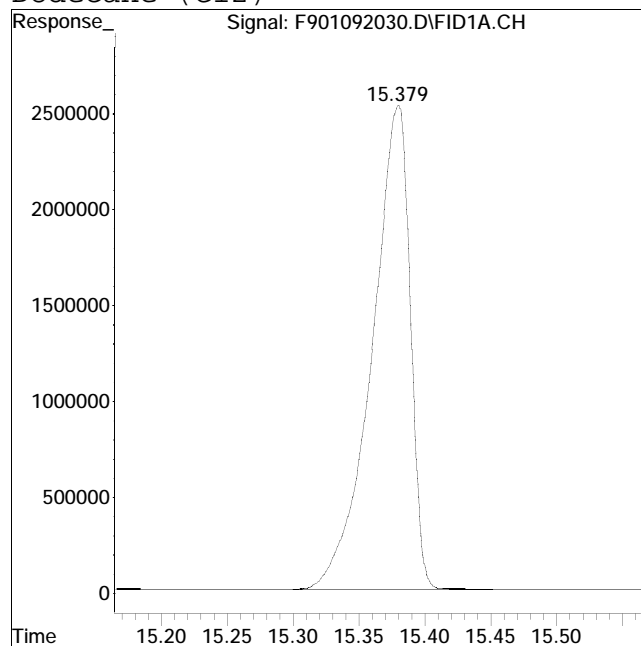
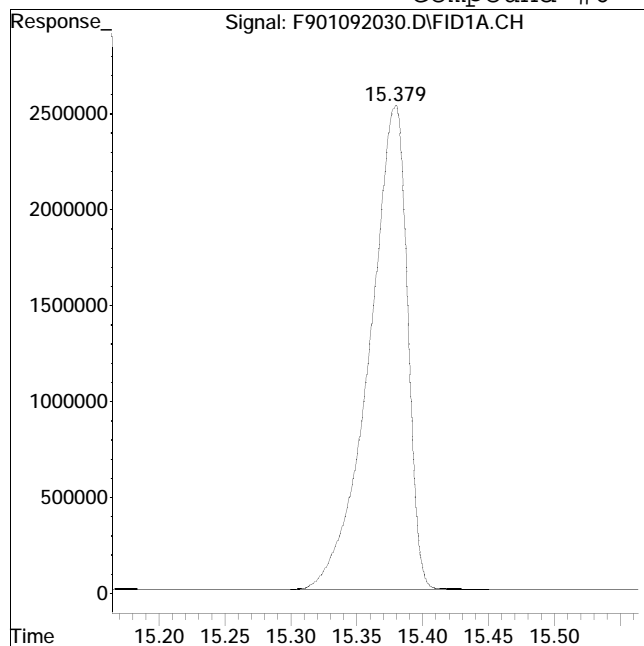
Manual Peak Response = 49778378 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 50989053

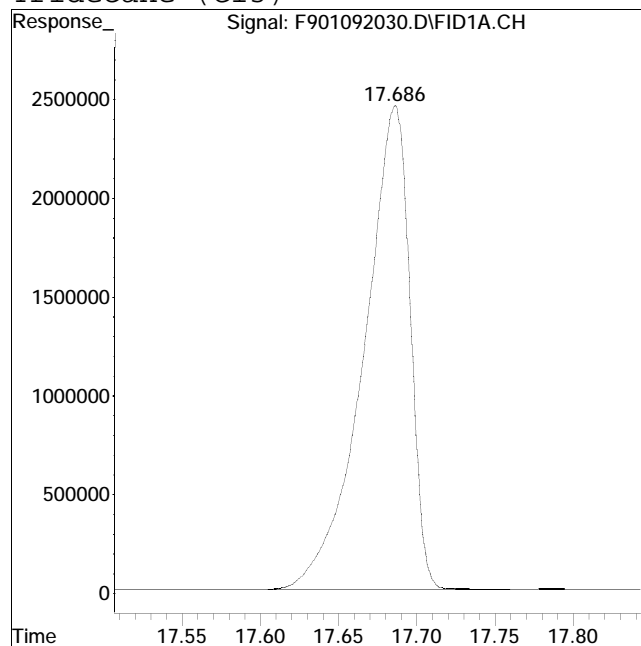
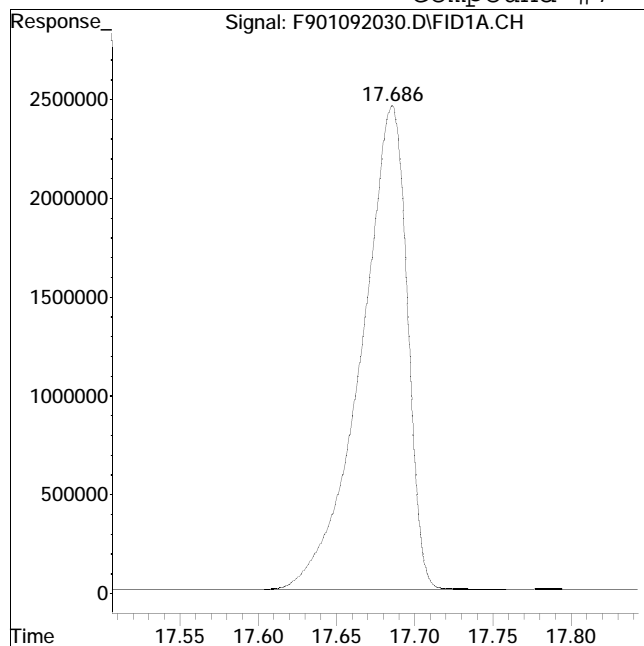
Manual Peak Response = 50991890 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 50444335

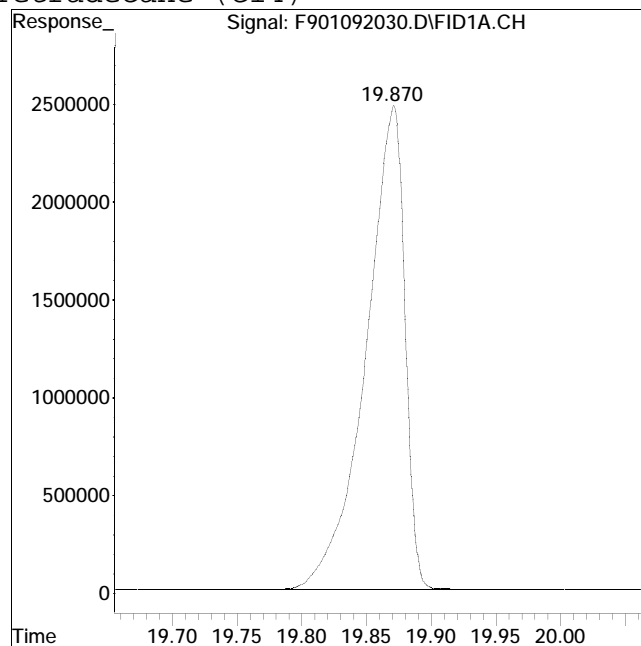
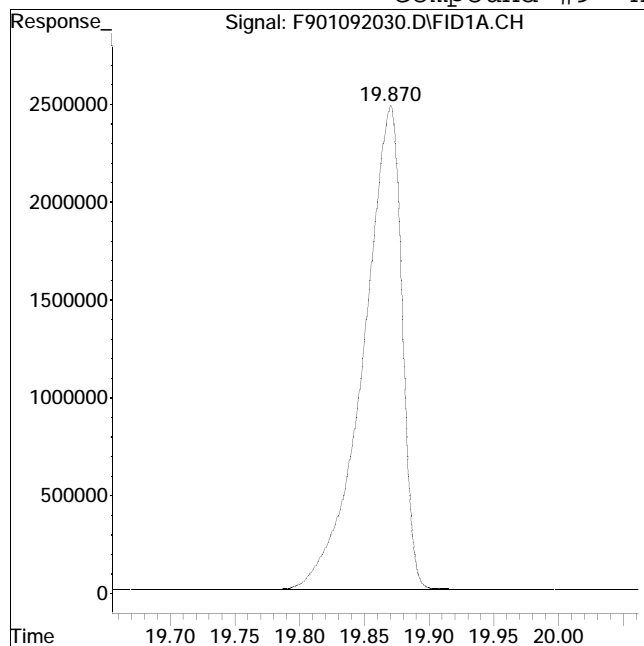
Manual Peak Response = 50441230 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 51667535

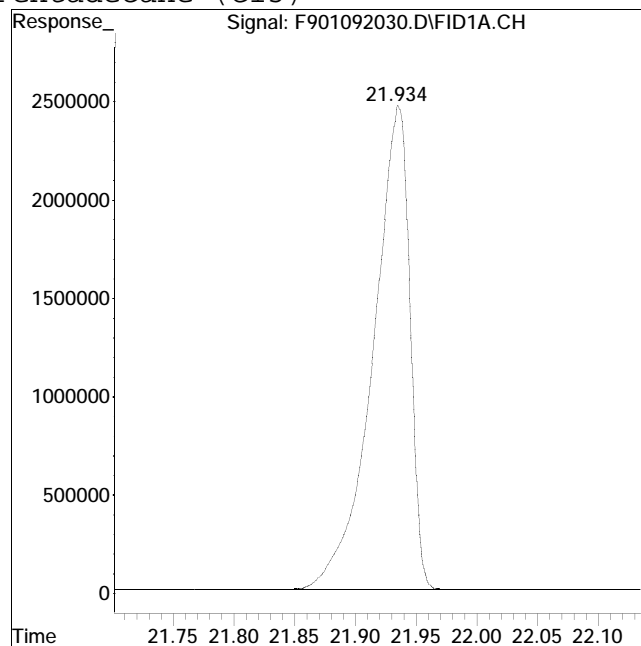
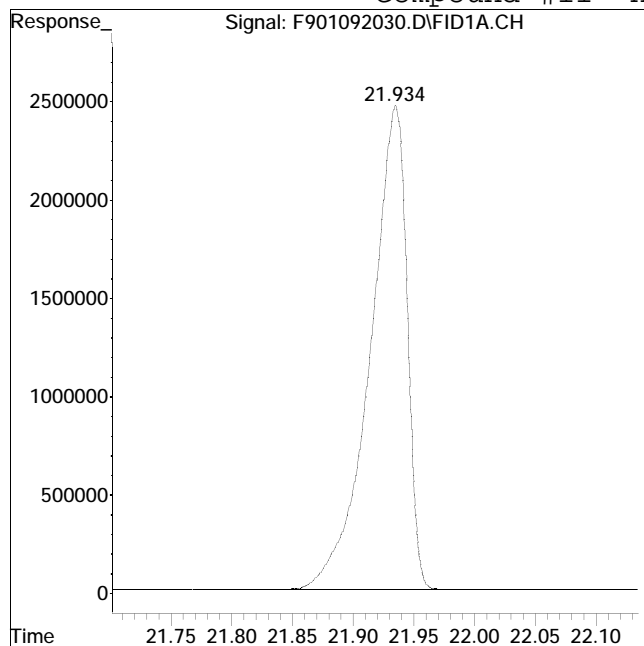
Manual Peak Response = 51648324 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 52005235

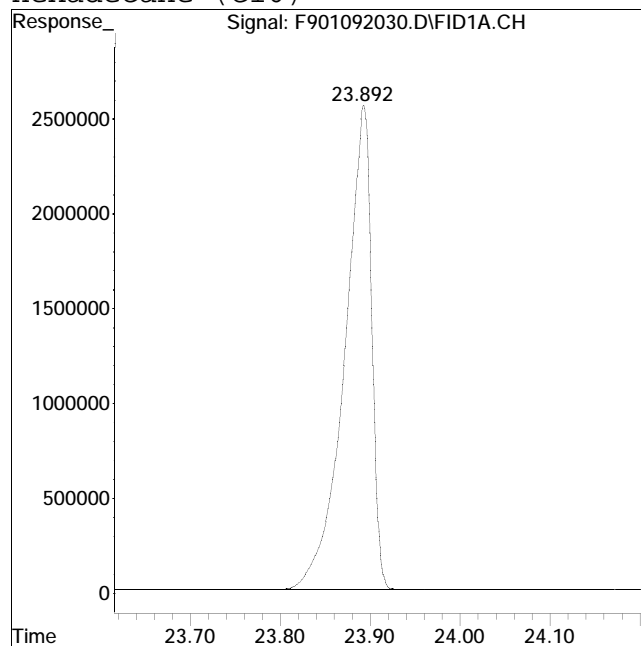
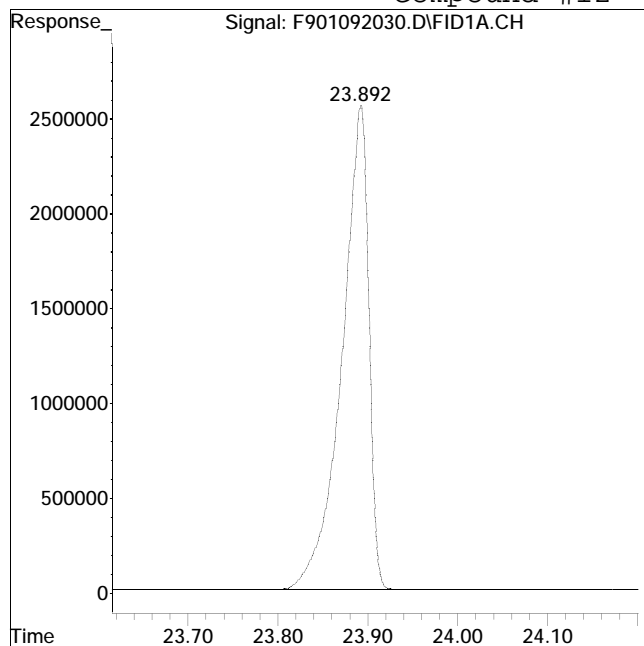
Manual Peak Response = 52033988 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 52964143

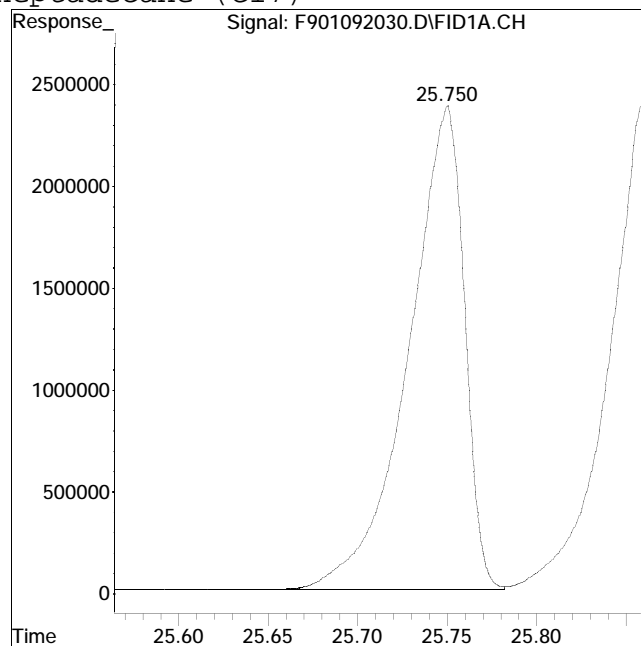
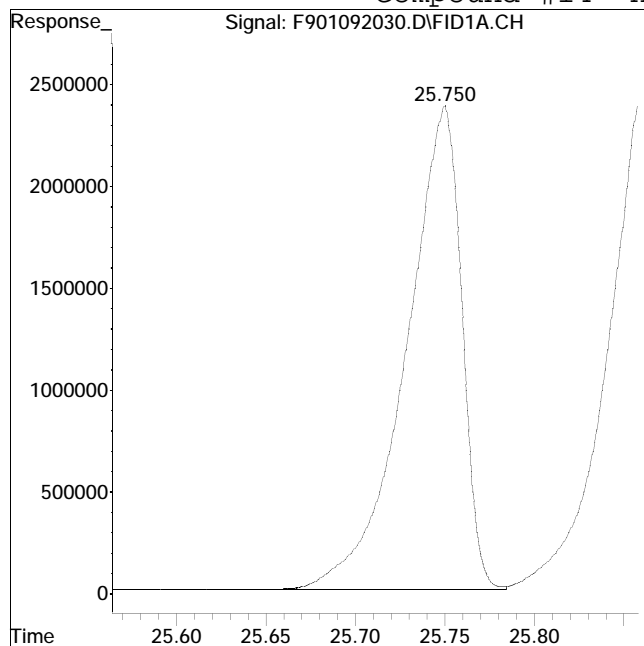
Manual Peak Response = 52866422 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 51434916

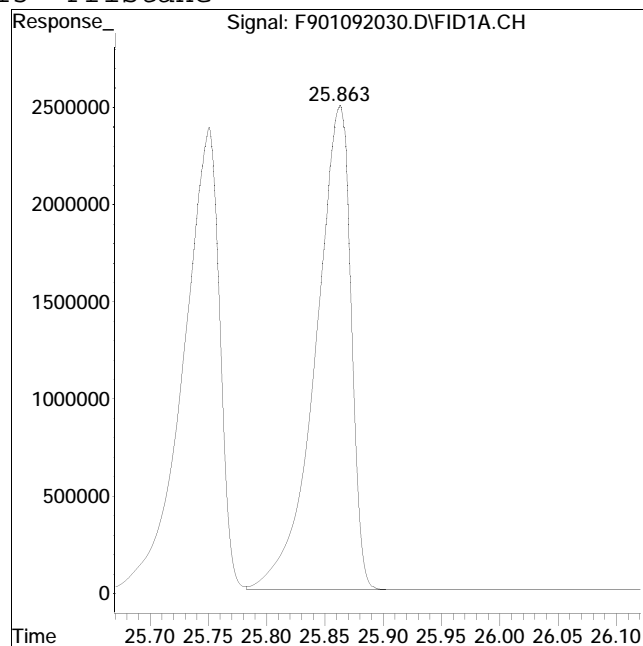
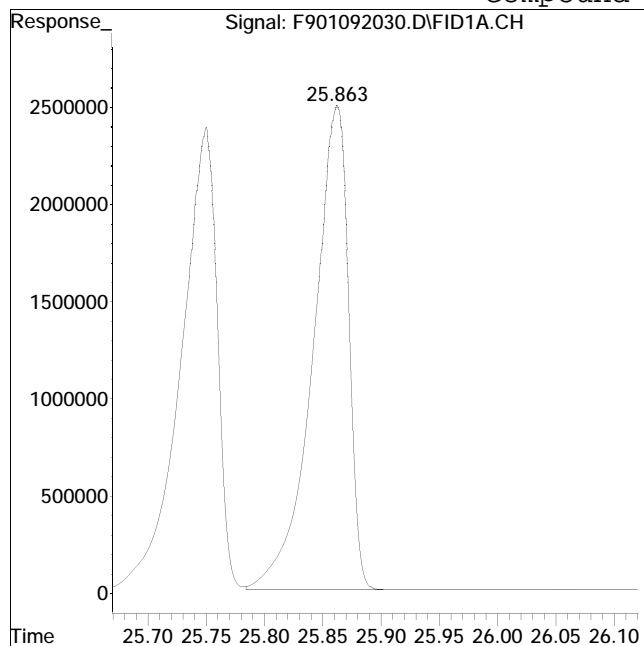
Manual Peak Response = 51409069 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #15: Pristane



Original Peak Response = 52649976

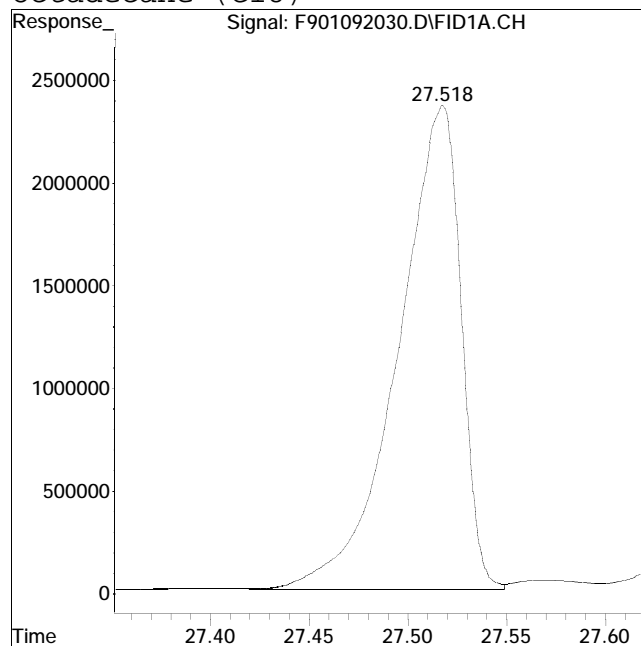
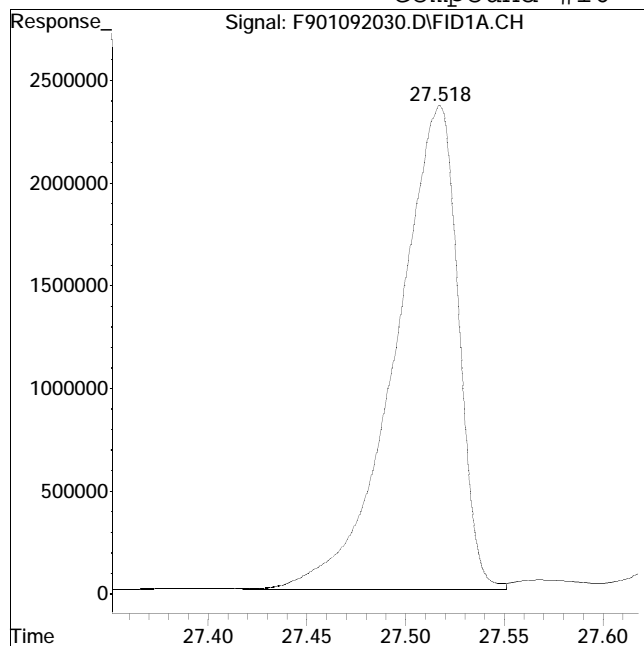
Manual Peak Response = 52644009 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 52184912

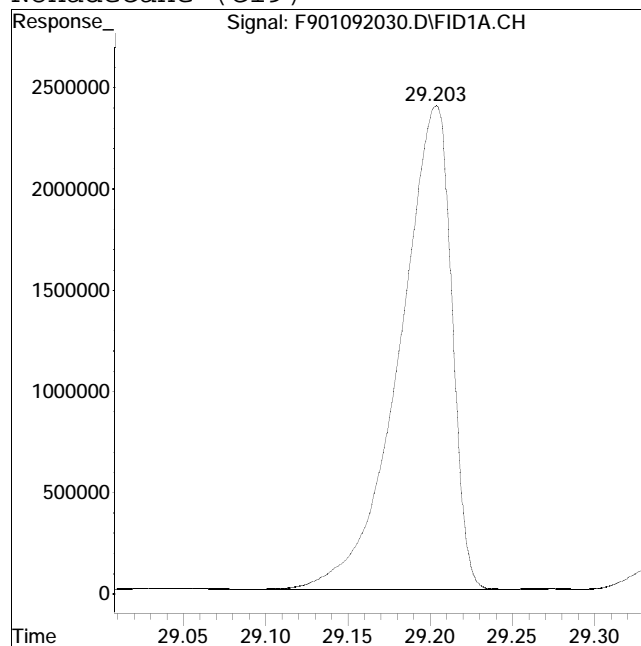
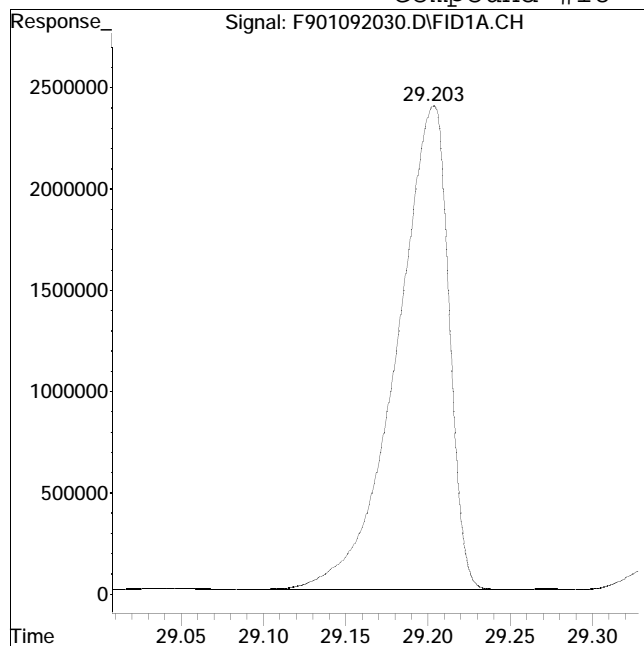
Manual Peak Response = 52039507 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 52845810

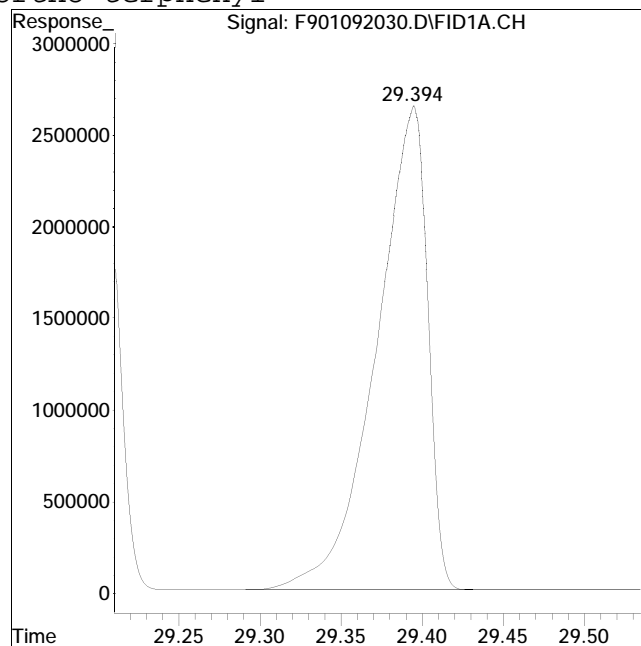
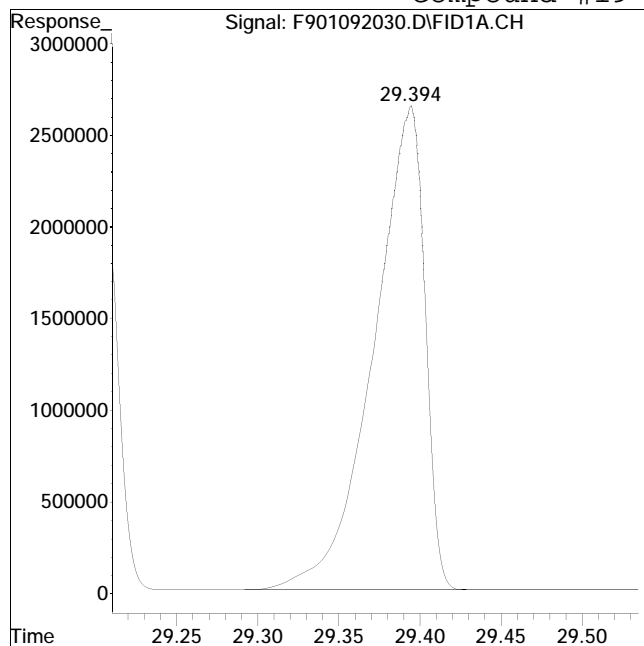
Manual Peak Response = 53004396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #19: ortho-terphenyl



Original Peak Response = 57786177

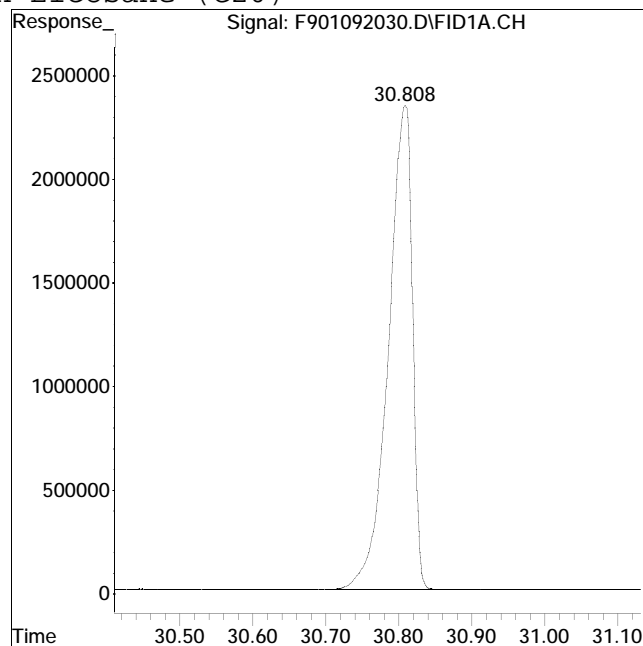
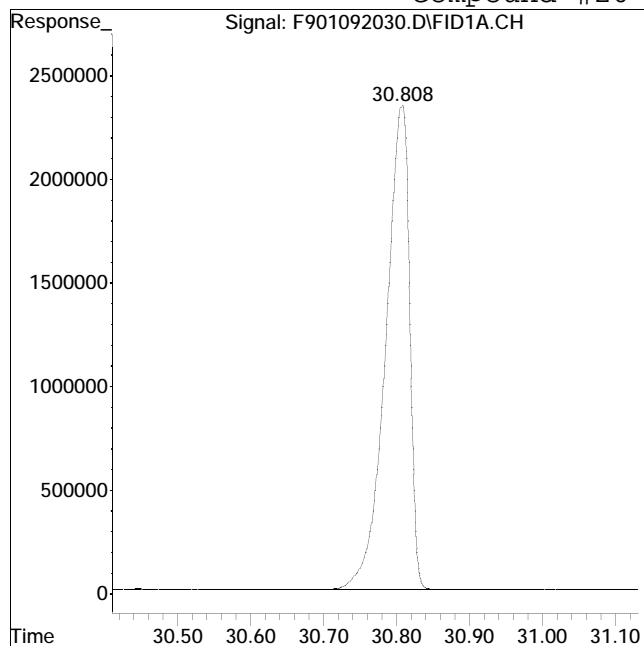
Manual Peak Response = 57912271 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 53490614

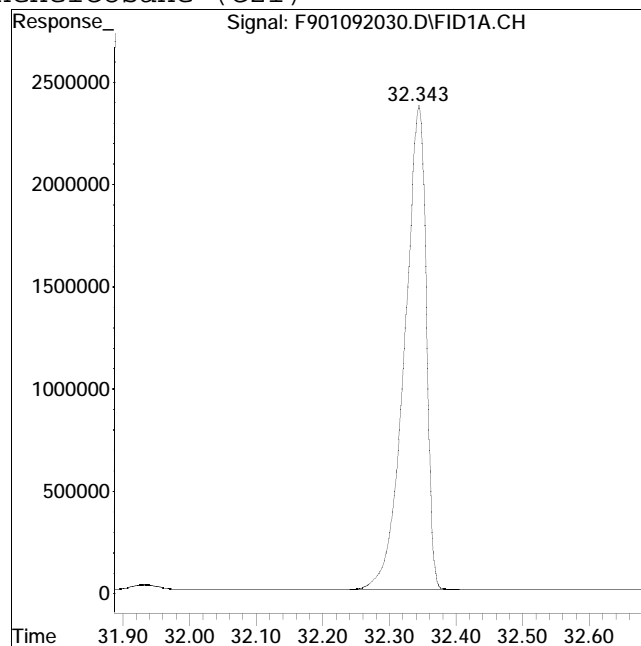
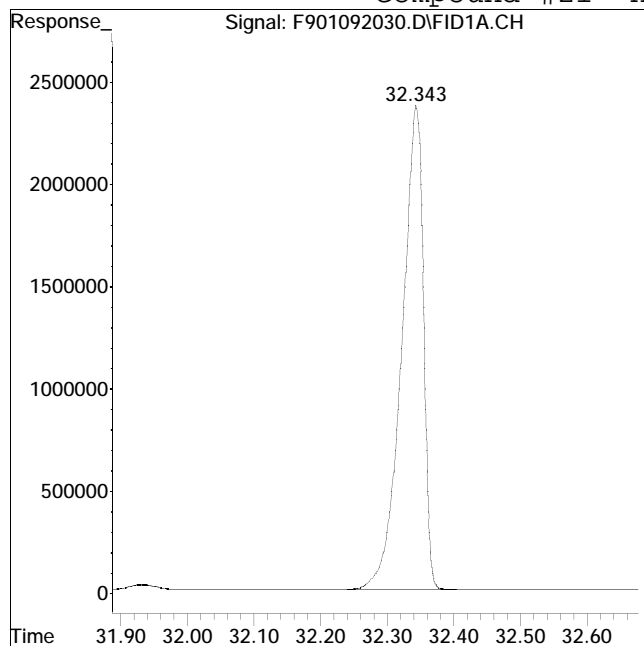
Manual Peak Response = 53346980 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 53430672

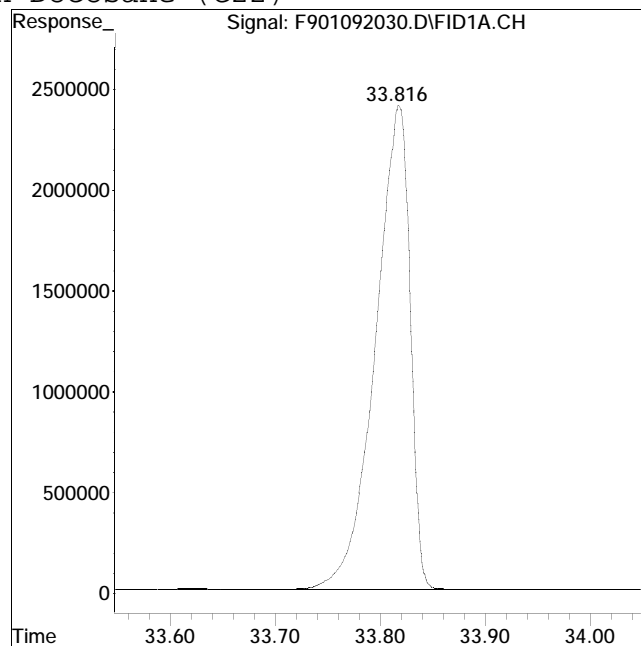
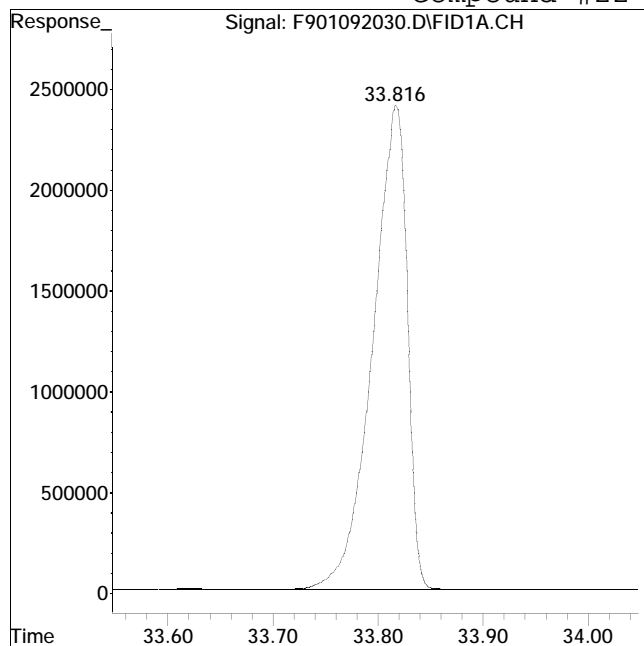
Manual Peak Response = 53369391 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 54950800

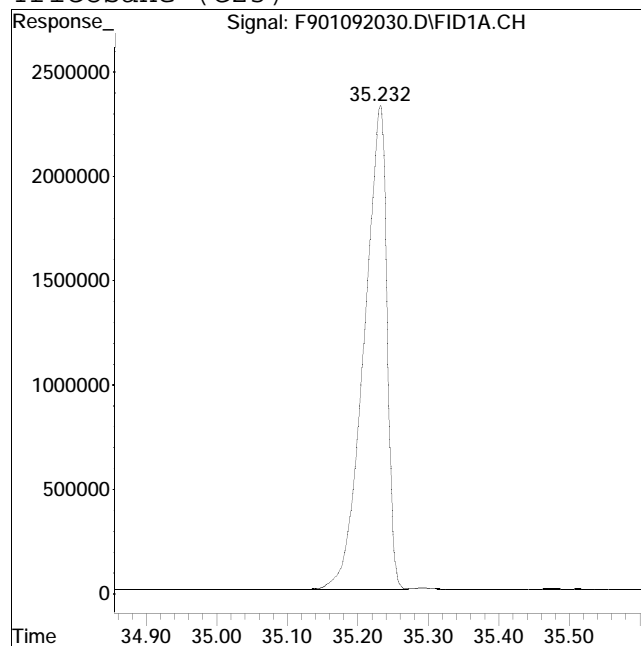
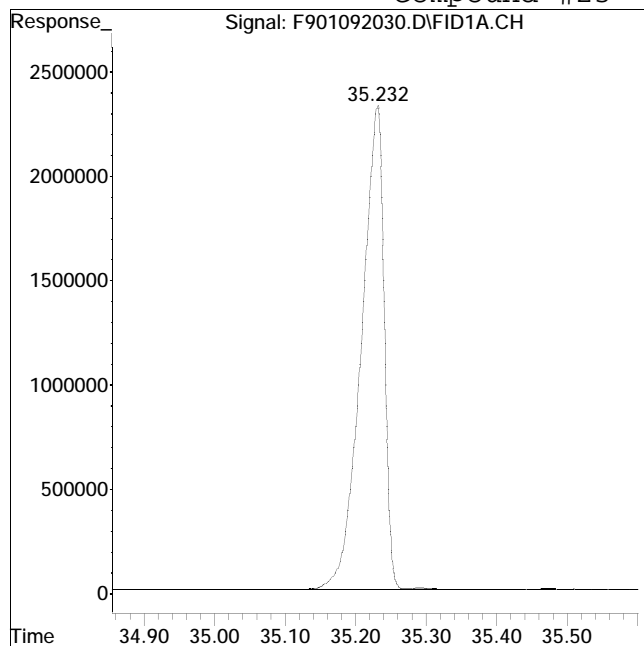
Manual Peak Response = 54979355 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 52397059

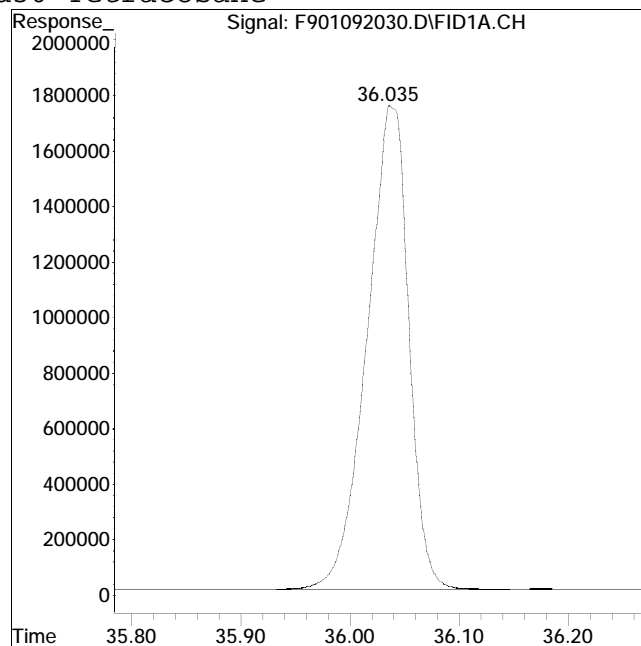
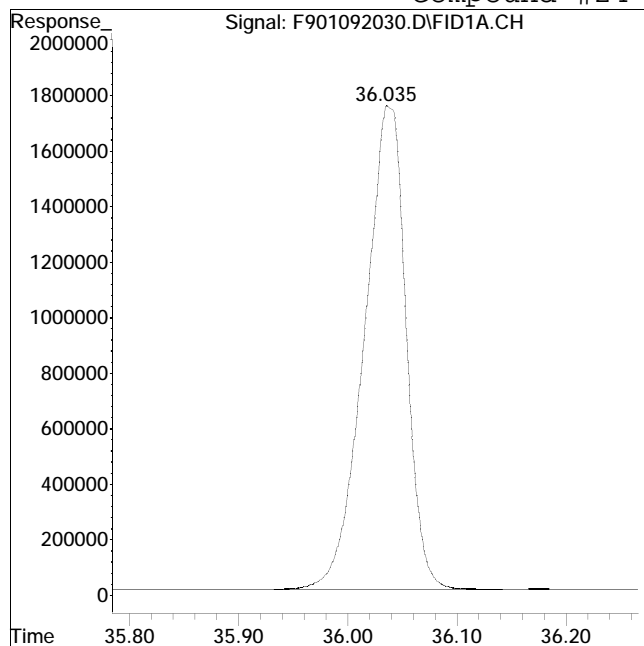
Manual Peak Response = 52151177 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #24: d50-Tetracosane



Original Peak Response = 46302000

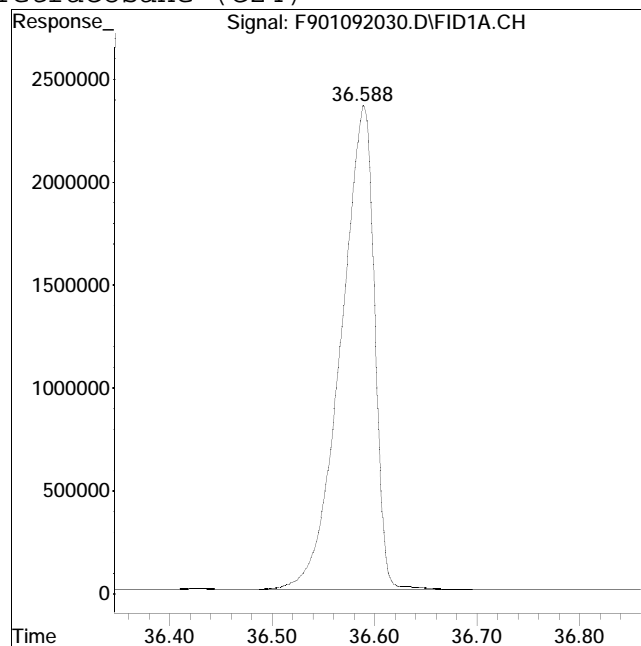
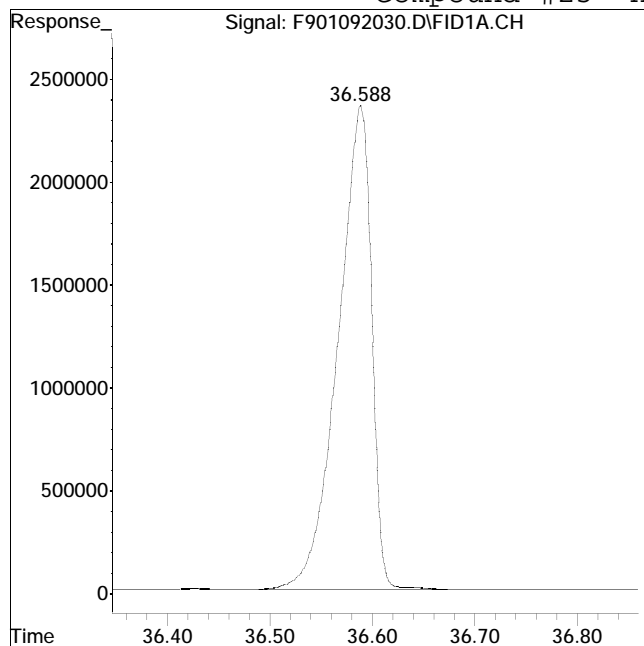
Manual Peak Response = 46332276 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 53565159

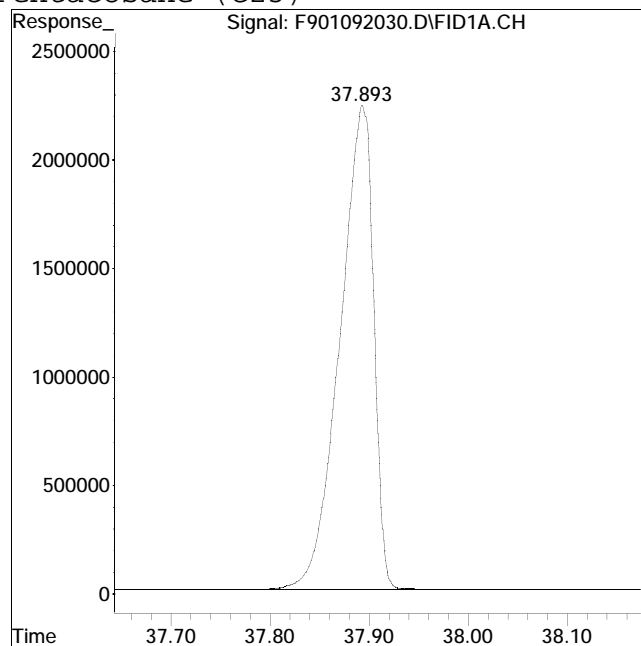
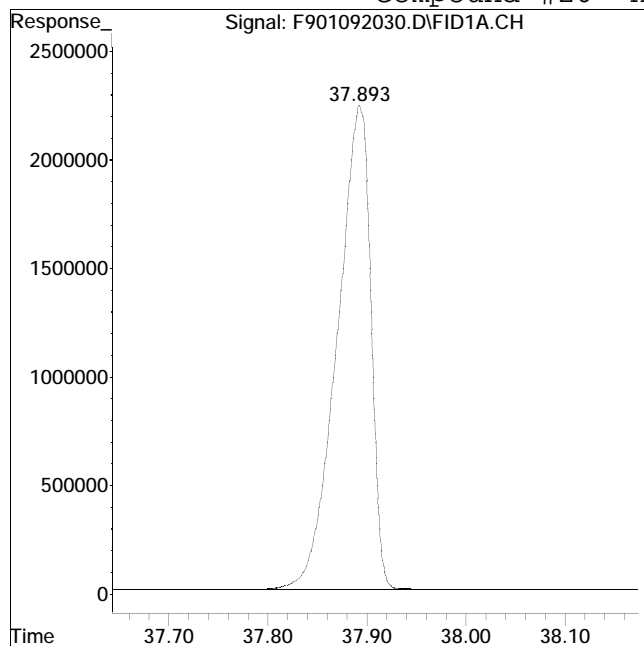
Manual Peak Response = 53653575 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 52729048

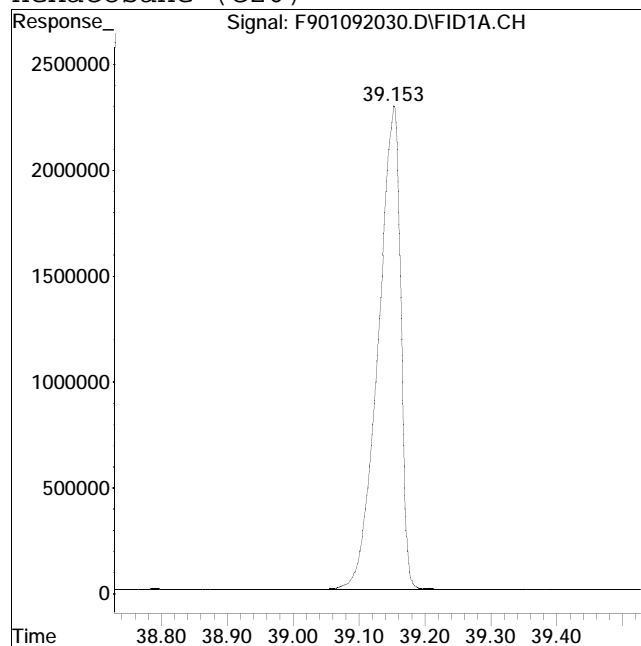
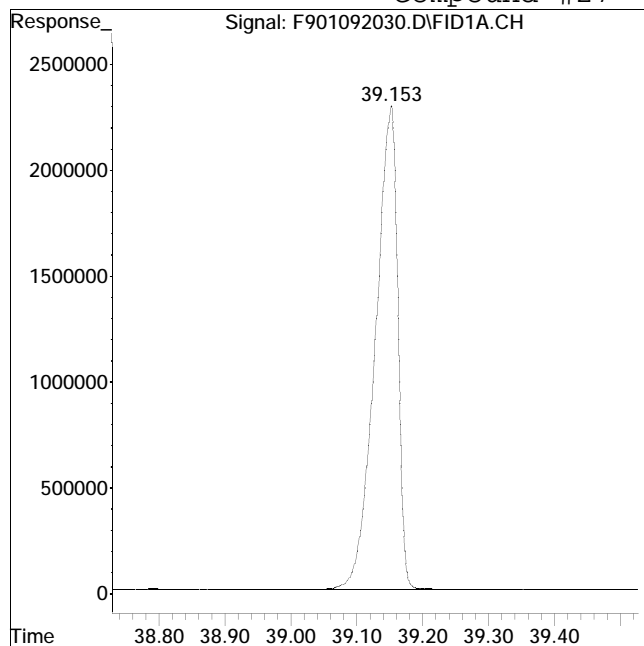
Manual Peak Response = 52756655 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 54127742

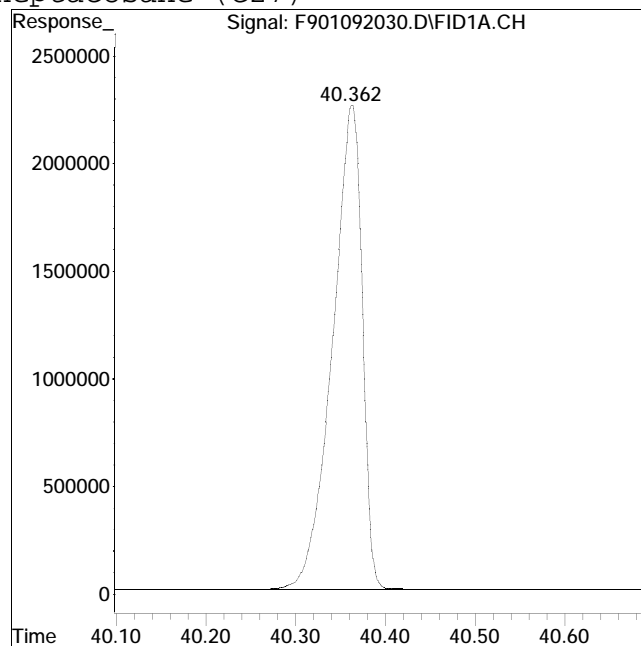
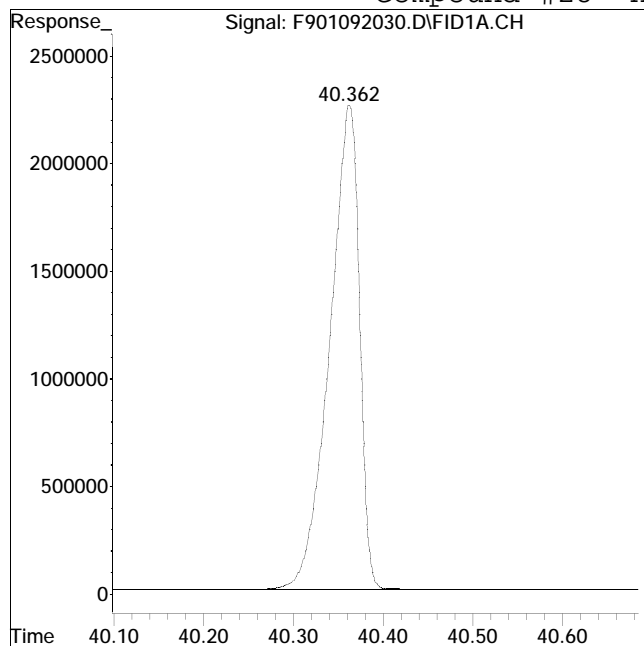
Manual Peak Response = 54032455 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 51917085

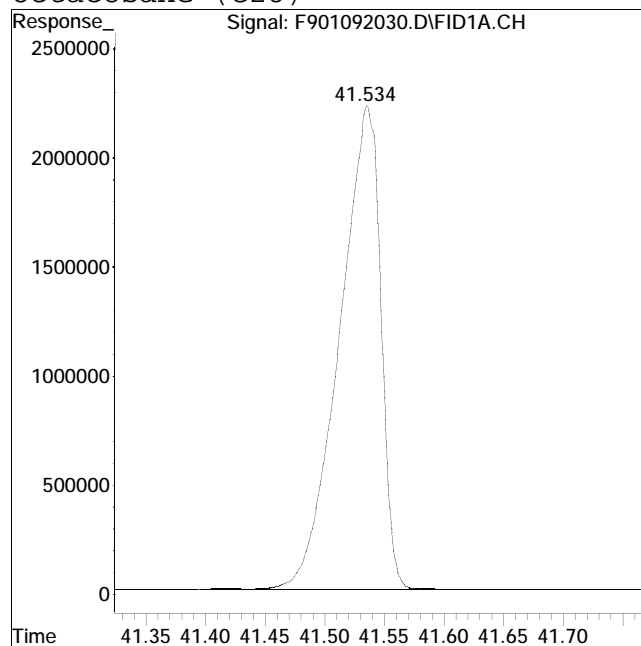
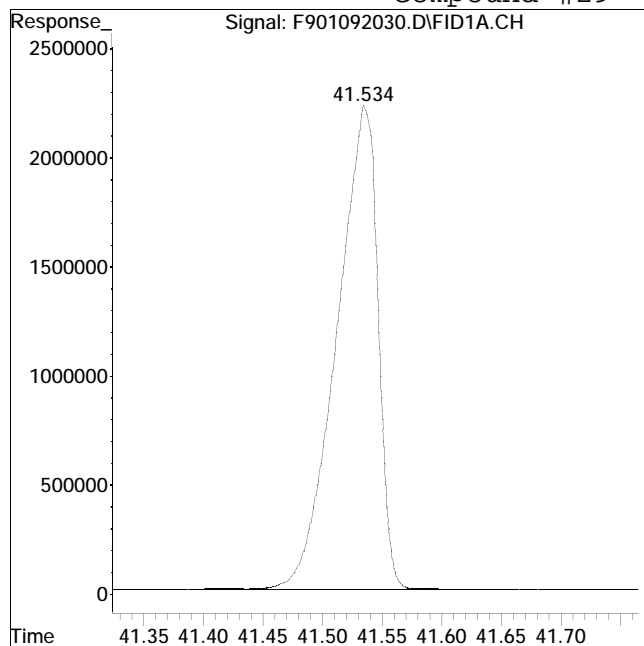
Manual Peak Response = 51920578 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 53503006

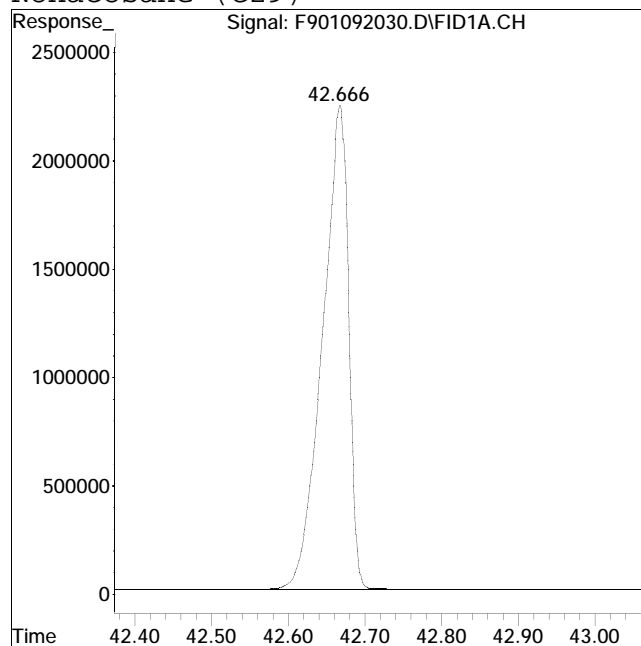
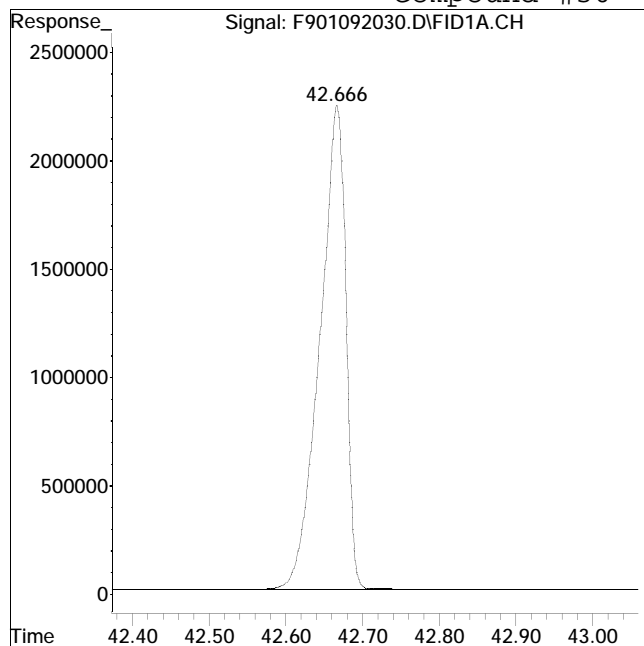
Manual Peak Response = 53411880 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 52948236

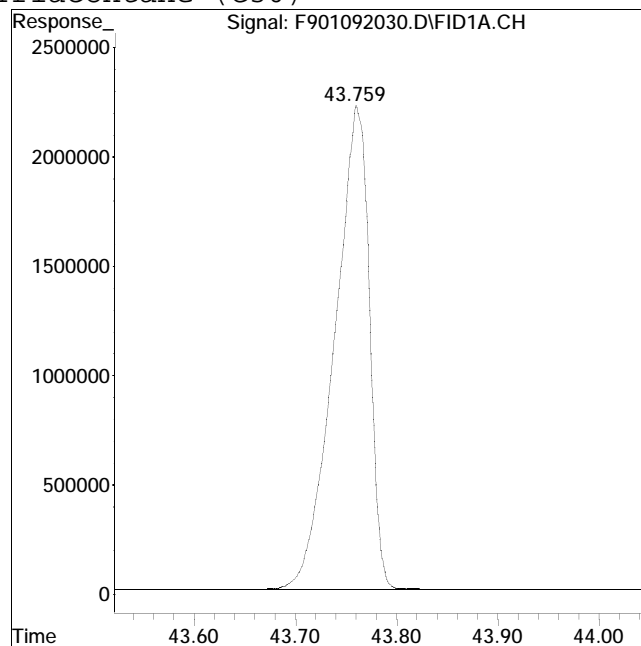
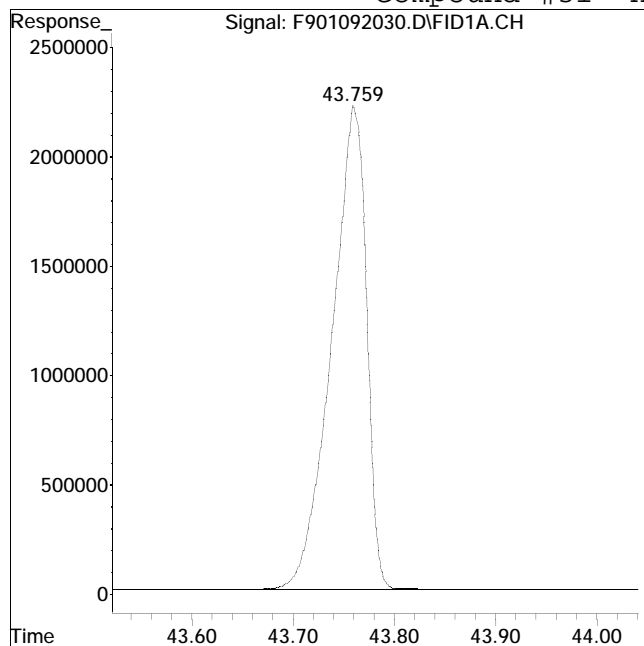
Manual Peak Response = 52861588 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 52943555

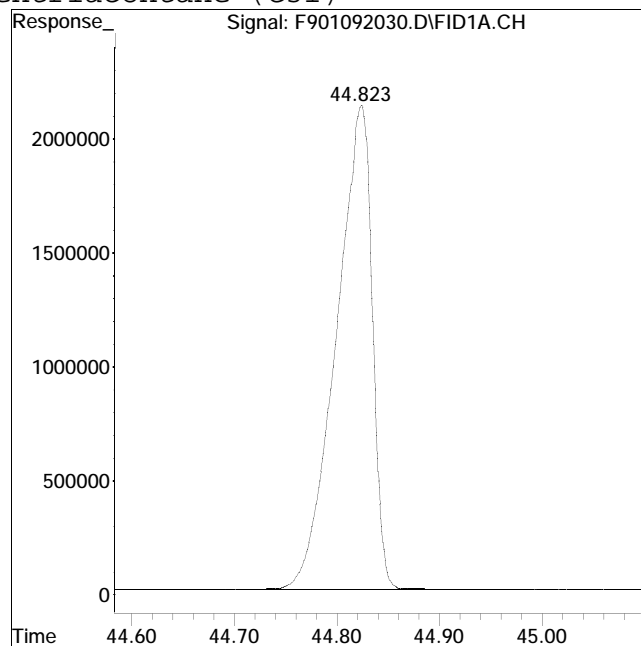
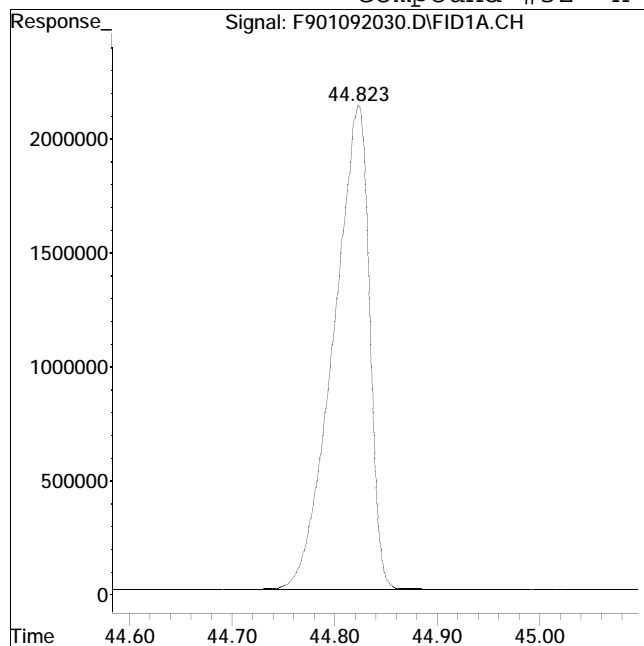
Manual Peak Response = 52942693 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 51868534

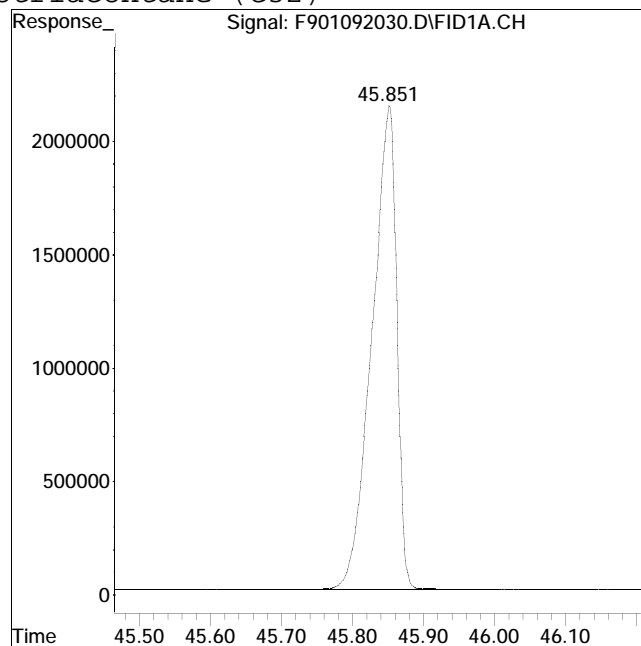
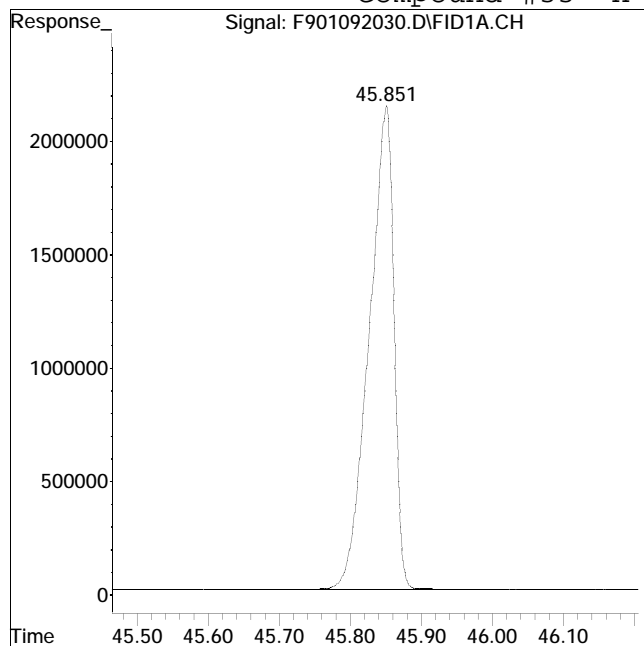
Manual Peak Response = 51850667 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 51684539

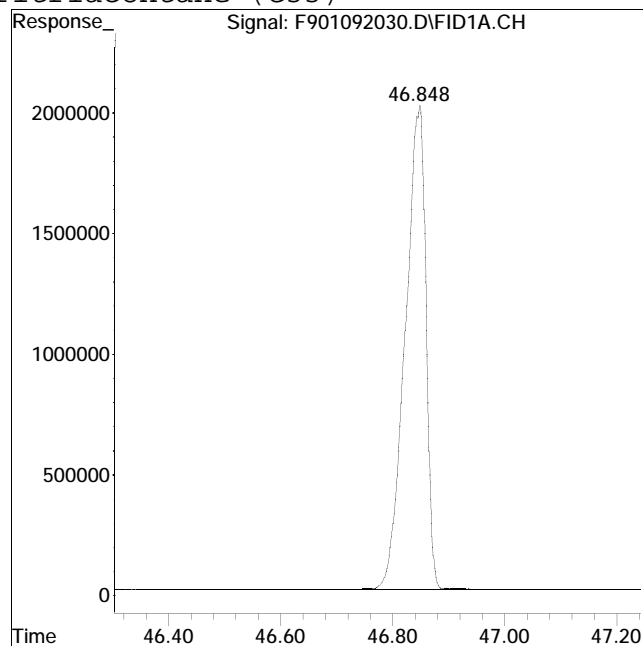
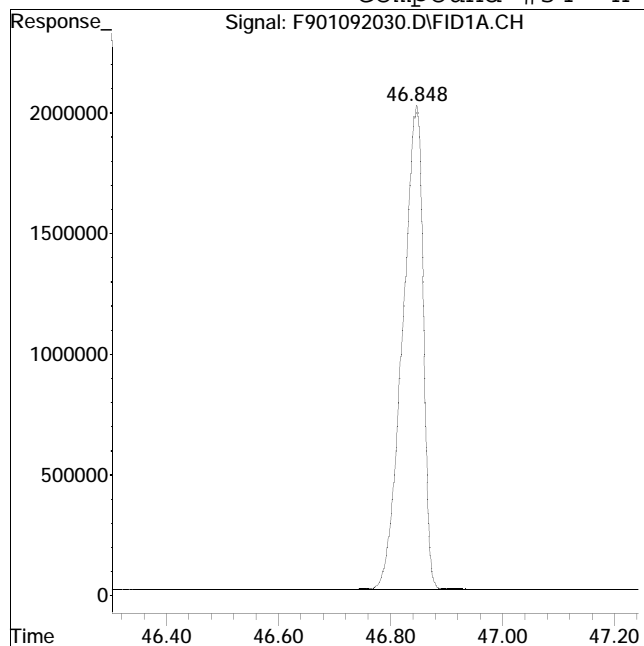
Manual Peak Response = 51678350 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 51565768

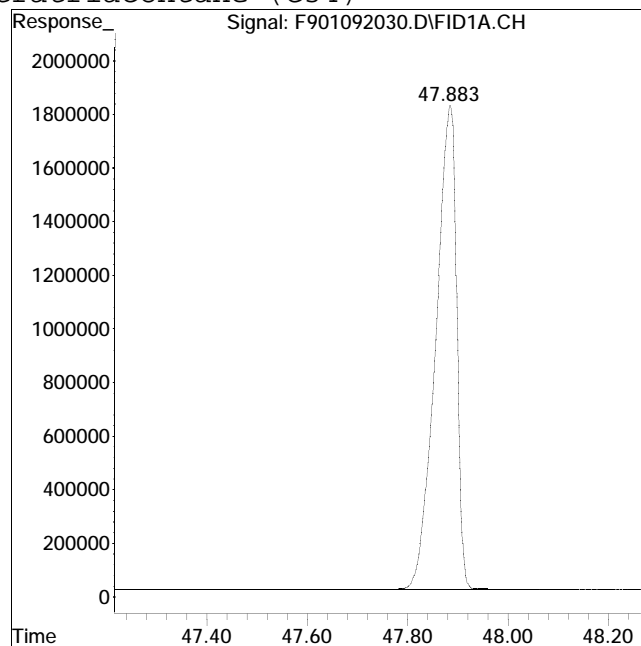
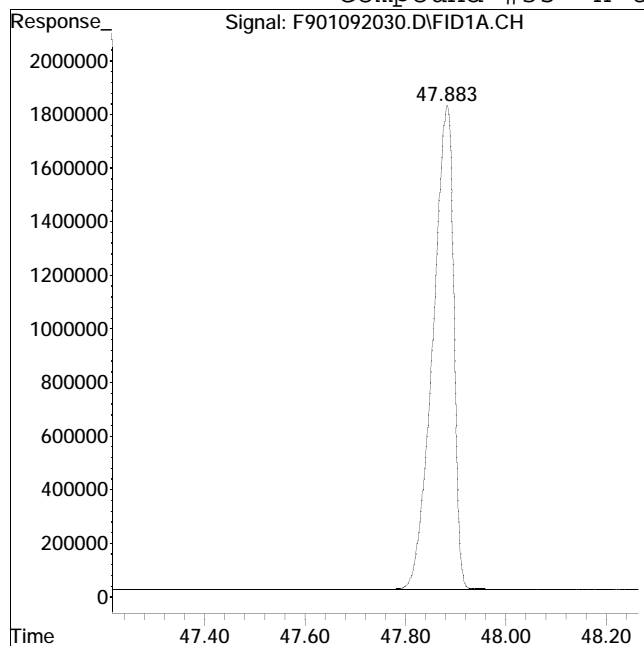
Manual Peak Response = 51524798 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 52178399

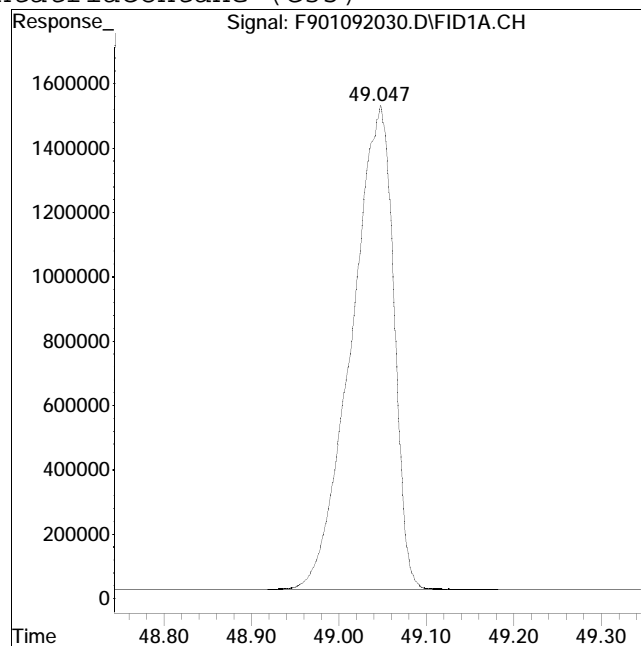
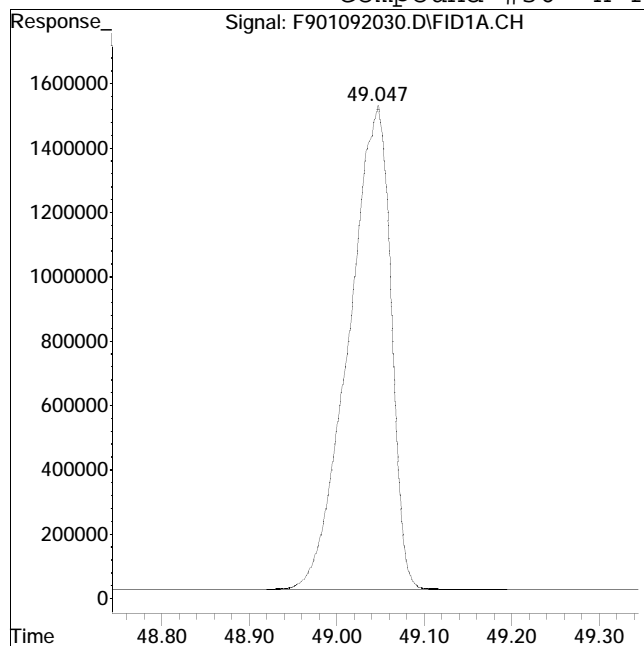
Manual Peak Response = 52164937 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 50530420

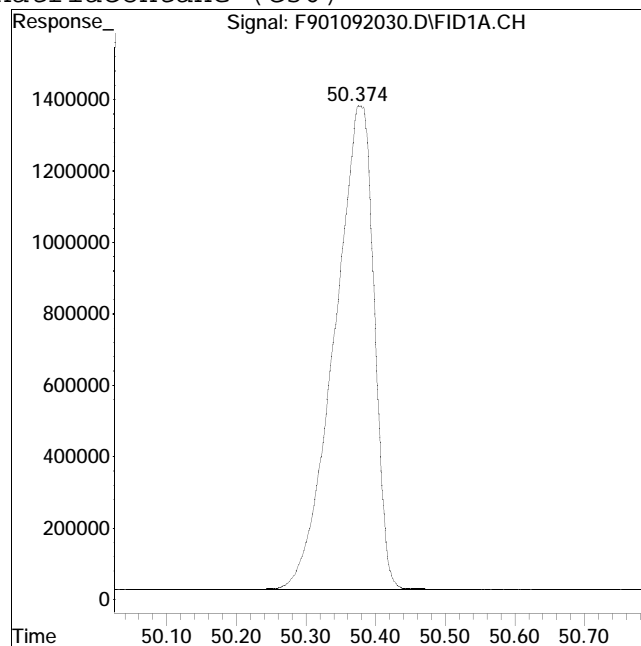
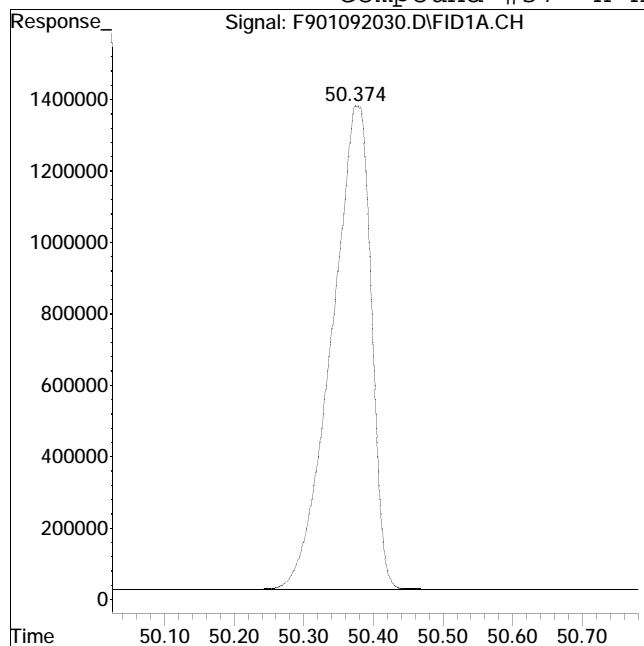
Manual Peak Response = 50582730 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 53658890

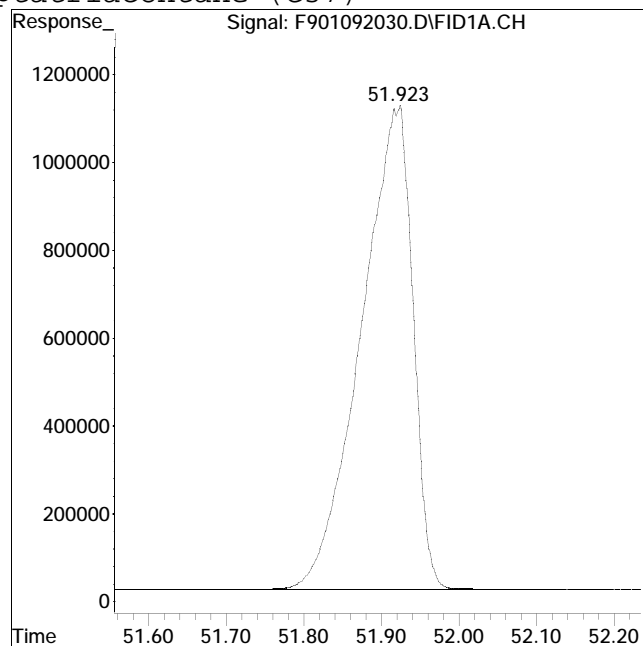
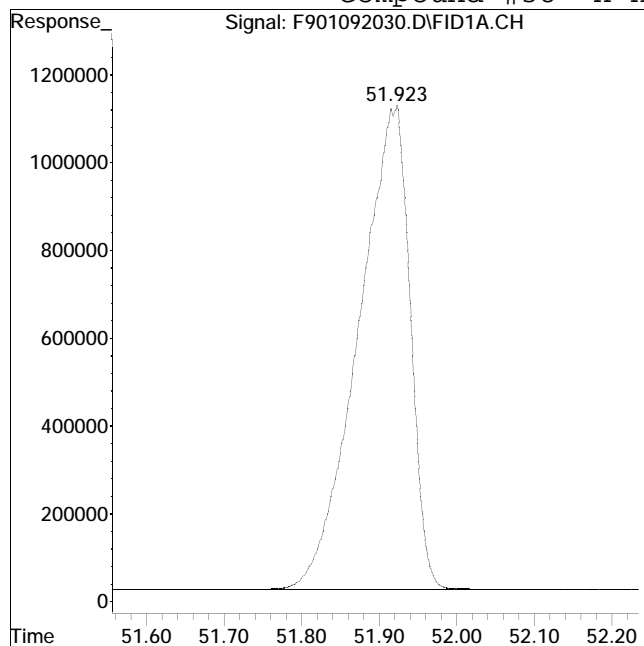
Manual Peak Response = 53667099 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 50976639

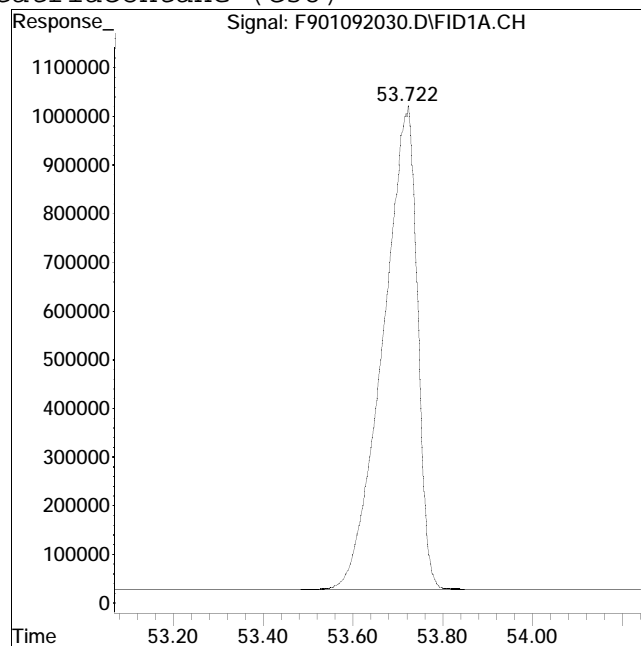
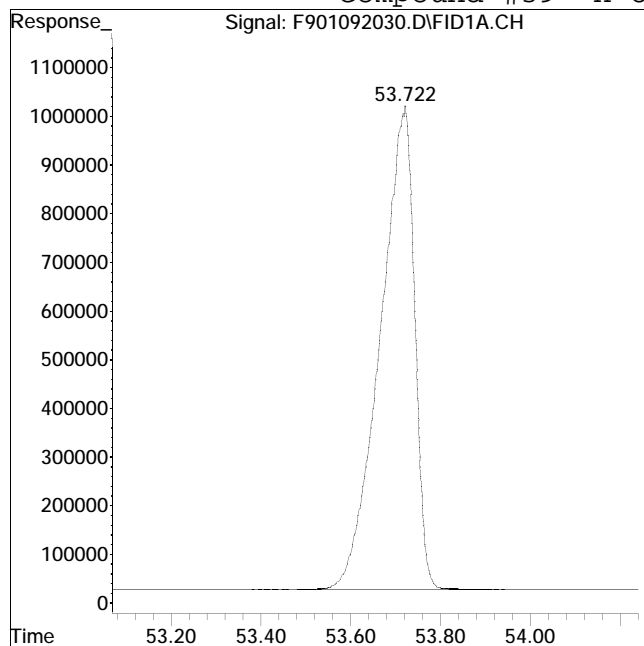
Manual Peak Response = 51062985 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 52994033

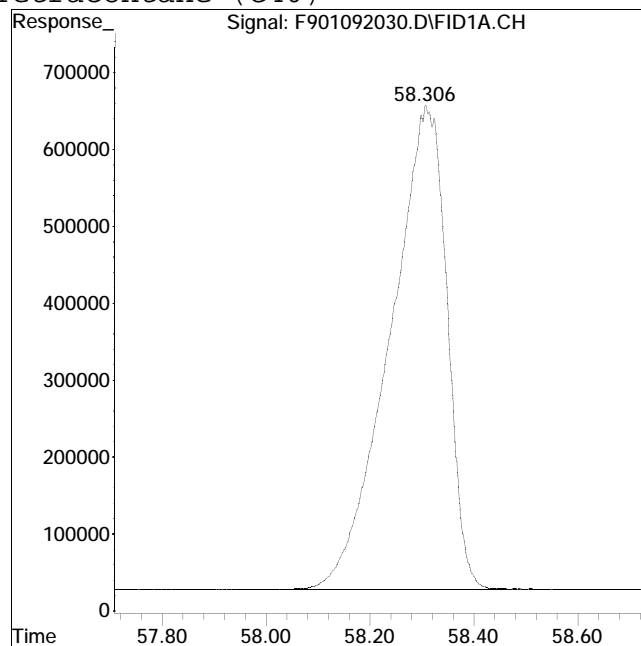
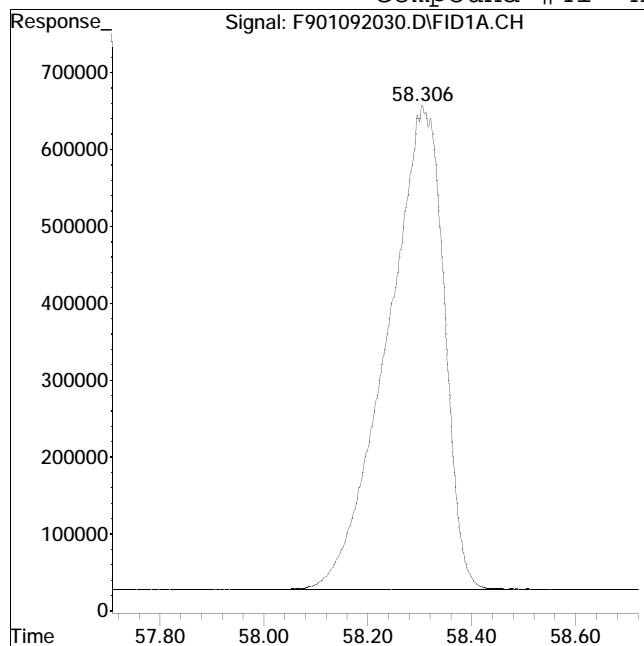
Manual Peak Response = 52888681 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID9\2020QMethod : HC9010920F_DRO.M
Data File : F901092030.D Operator : FID9:WR
Date Inj'd : 1/10/2020 6:37 am Instrument : FID 9
Sample : CQ901022001F Quant Date : 6/1/2020 4:26 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 47881328

Manual Peak Response = 47938578 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092034.D
 Signal(s) : FID1A.CH
 Acq On : 10 Jan 2020 9:33 am
 Operator : FID9:WR
 Sample : WG1376652-1,0.10148
 Misc : WG1376652,FRBB40
 ALS Vial : 17 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 04 15:14:14 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 16:03:19 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB901092001F
 Blank File : F901092014.D

Sub List : DRO_ORO_QC - DRO_ORO_QC

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.431	70487213	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.402	72428964	49.323	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	98.65%	
24) s d50-Tetracosane	36.051	57037288	48.553	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	97.11%	
Target Compounds				
3) t n-Nonane (C9)	7.938	79260221	65.536	ug/mL M4
4) t n-Decane (C10)	10.436	67440180	53.889	ug/mL M4
6) t n-Dodecane (C12)	15.382	55843606	43.225	ug/mL M4
9) t n-Tetradecane (C14)	19.873	47040697	35.666	ug/mL M4
12) t n-Hexadecane (C16)	23.890	43355800	32.533	ug/mL M4
16) t n-Octadecane (C18)	27.515	32781814	24.400	ug/mL M4
18) t n-Nonadecane (C19)	29.201	32107275	23.970	ug/mL M4
20) t n-Eicosane (C20)	30.807	35801610	26.603	ug/mL M4
22) t n-Docosane (C22)	33.814	27539641	20.200	ug/mL M4
25) t n-Tetracosane (C24)	36.582	22251265	16.084	ug/mL M4
27) t n-Hexacosane (C26)	39.142	19427902	14.224	ug/mL M4
29) t n-Octacosane (C28)	41.523	10567226	7.696	ug/mL M4
31) t n-Triacontane (C30)	43.748	8496315	6.311	ug/mL M4
37) t n-Hexatriacontane (C36)	50.348	2323637	1.657	ug/mL M4
42) h C9-C44 Total Petroleu...	40.891	8034165870	6012.835	ug/mL m
42) h C9-C44 Total Petroleu BS	40.891	7644012210	5720.841	ug/mLm
44) h C10-C28 DRO	25.985	5419008899	4060.309	ug/mL m
44) h C10-C28 DRO BS	25.985	5355027754	4012.370	ug/mLm
47) h C28-C40 ORO	49.923	1941251992	1427.197	ug/mL m
47) h C28-C40 ORO BS	49.923	1778013220	1307.185	ug/mLm
48) h Total Resolved Hydroc...	36.191	2759382679	2065.144	ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
Data File : F901092034.D
Signal(s) : FID1A.CH
Acq On : 10 Jan 2020 9:33 am
Operator : FID9:WR
Sample : WG1376652-1,0.10148
Misc : WG1376652,FRBB40
ALS Vial : 17 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jun 04 15:14:14 2020
Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
Quant Title : FID Forensics
QLast Update : Wed Jun 03 16:03:19 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Blank Name : IB901092001F
Blank File : F901092014.D

Sub List : DRO_ORO_QC - DRO_ORO_QC

Compound	R.T.	Response	Conc Units

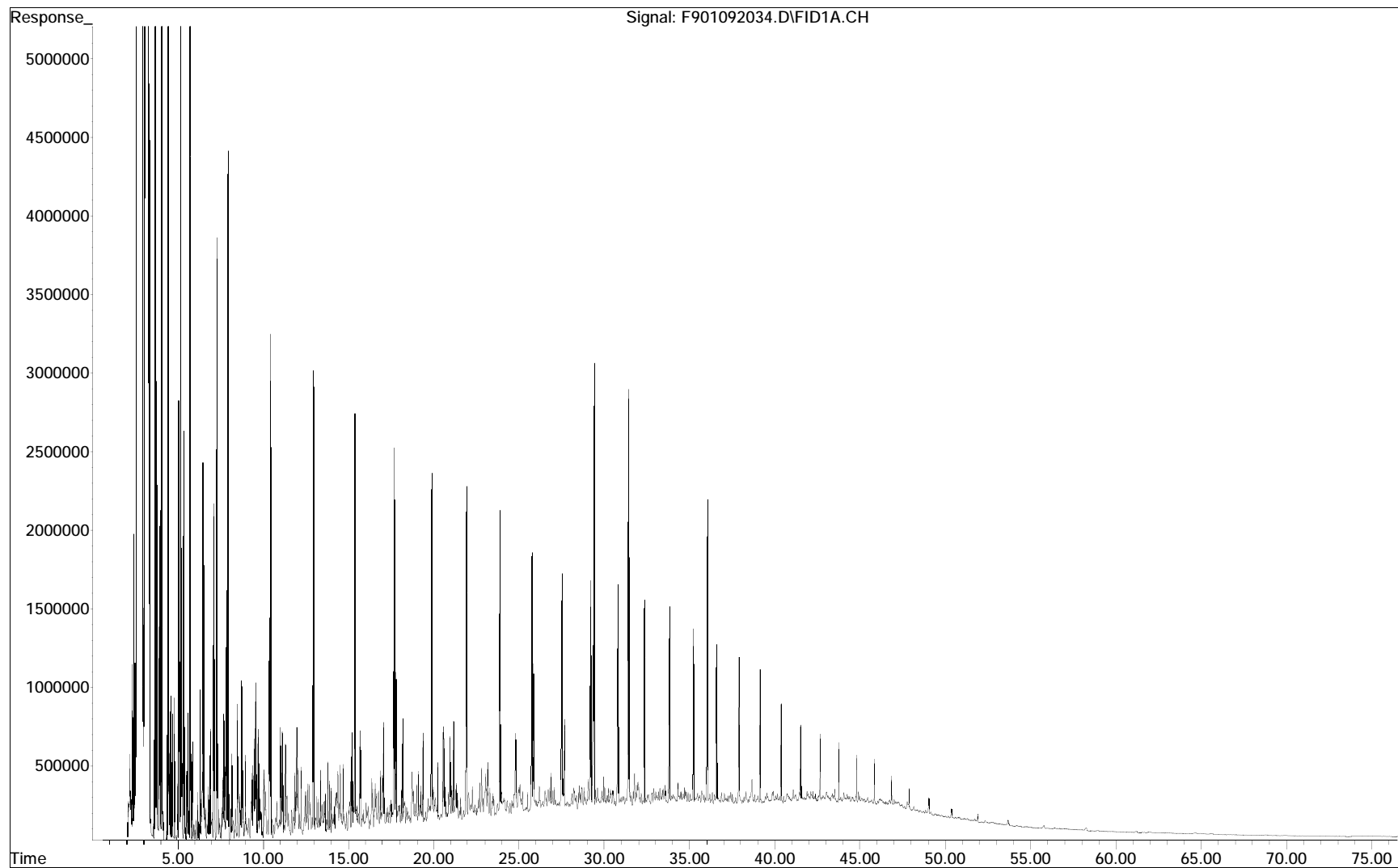
SemiQuant Compounds - Not Calibrated on this Instrument			

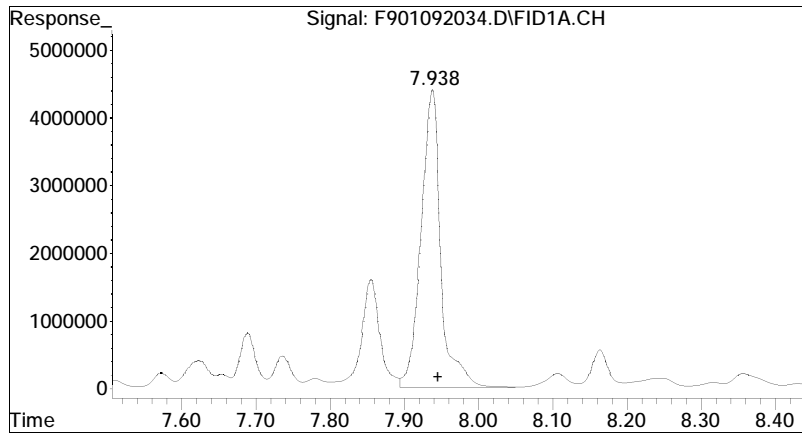
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

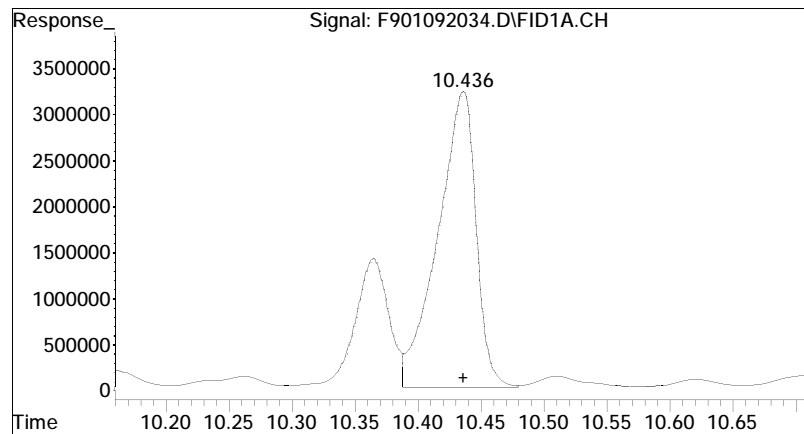
File : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\F901092034.D
Operator : FID9:WR
Acquired : 10 Jan 2020 9:33 am using AcqMethod FID9A.M
Sample Name: WG1376652-1,0.10148
Instrument: FID 9
Misc Info : WG1376652,FRBB40
Vial Number: 17
CurrentMeth: O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M





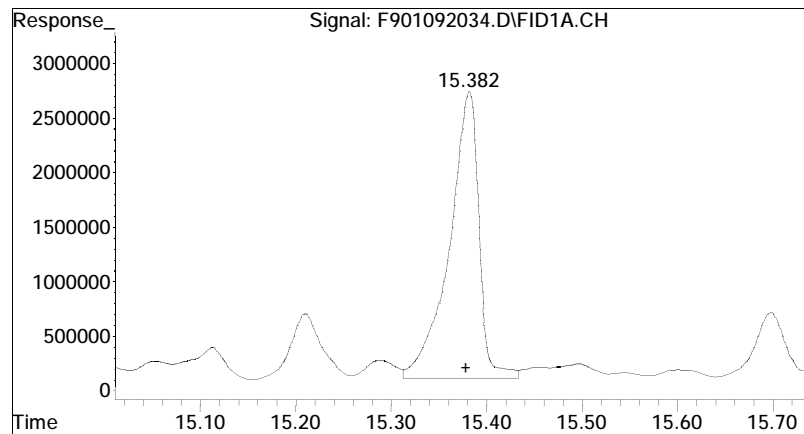
#3 n-Nonane (C9)

R.T.: 7.938 min
Delta R.T.: -0.008 min
Response: 79260221
Conc: 65.54 ug/mL M4



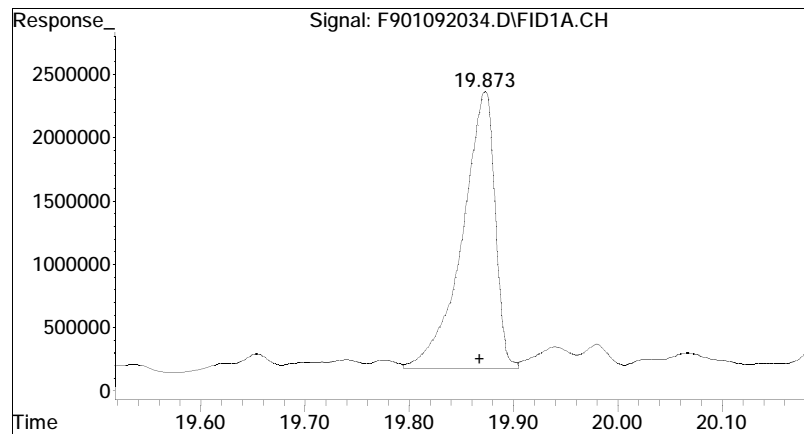
#4 n-Decane (C10)

R.T.: 10.436 min
Delta R.T.: 0.000 min
Response: 67440180
Conc: 53.89 ug/mL M4

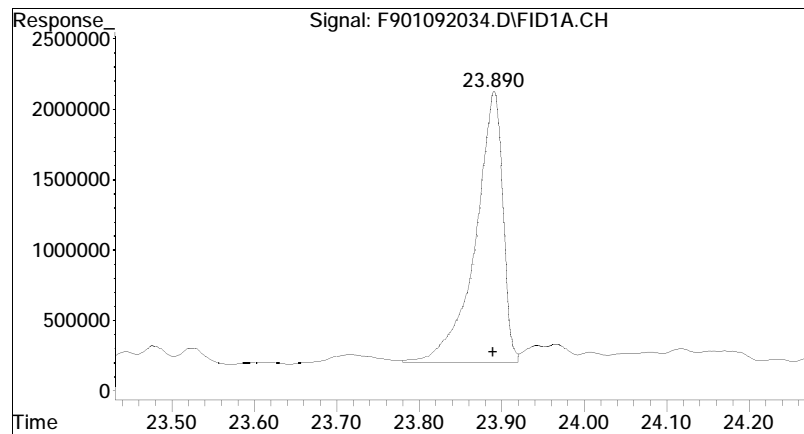


#6 n-Dodecane (C12)

R.T.: 15.382 min
Delta R.T.: 0.003 min
Response: 55843606
Conc: 43.22 ug/mL M4

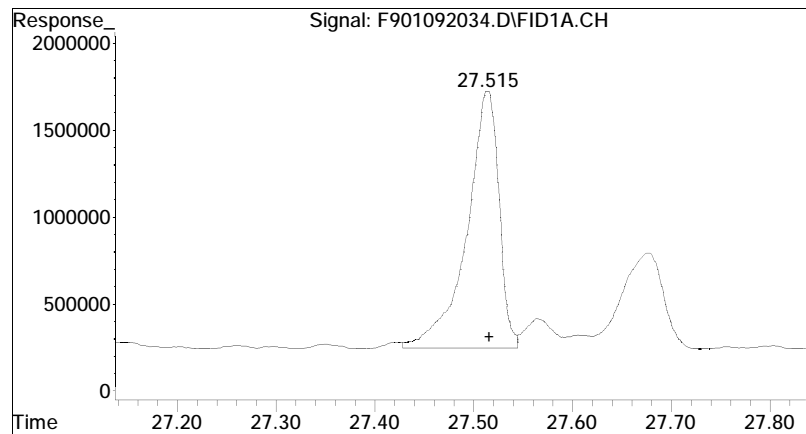


#9 n-Tetradecane (C14)
R.T.: 19.873 min
Delta R.T.: 0.005 min
Response: 47040697
Conc: 35.67 ug/mL M4

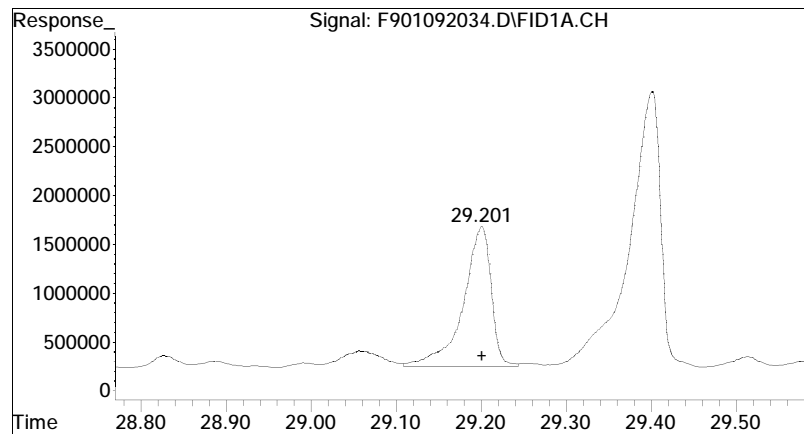


#12 n-Hexadecane (C16)

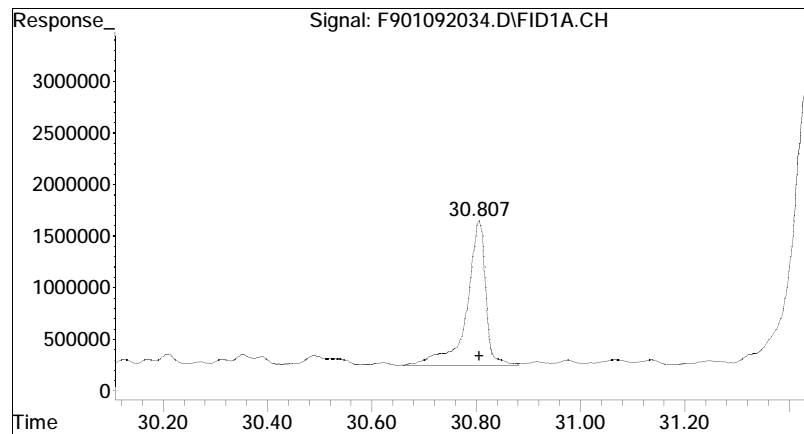
R.T.: 23.890 min
Delta R.T.: 0.000 min
Response: 4335800
Conc: 32.53 ug/mL M4



#16 n-Octadecane (C18)
R.T.: 27.515 min
Delta R.T.: -0.001 min
Response: 32781814
Conc: 24.40 ug/mL M4

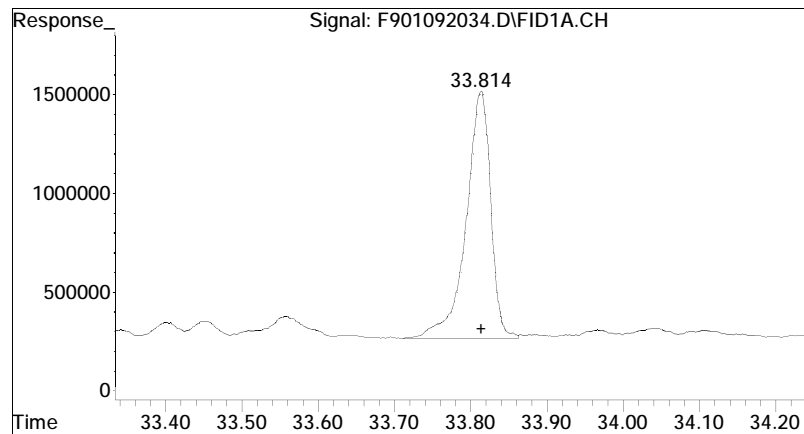


#18 n-Nonadecane (C19)
R.T.: 29.201 min
Delta R.T.: 0.000 min
Response: 32107275
Conc: 23.97 ug/mL M4



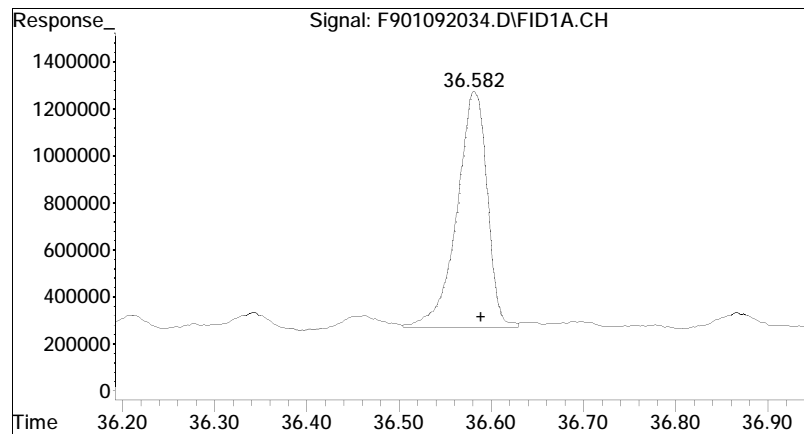
#20 n-Eicosane (C20)

R.T.: 30.807 min
Delta R.T.: 0.000 min
Response: 35801610
Conc: 26.60 ug/mL M4



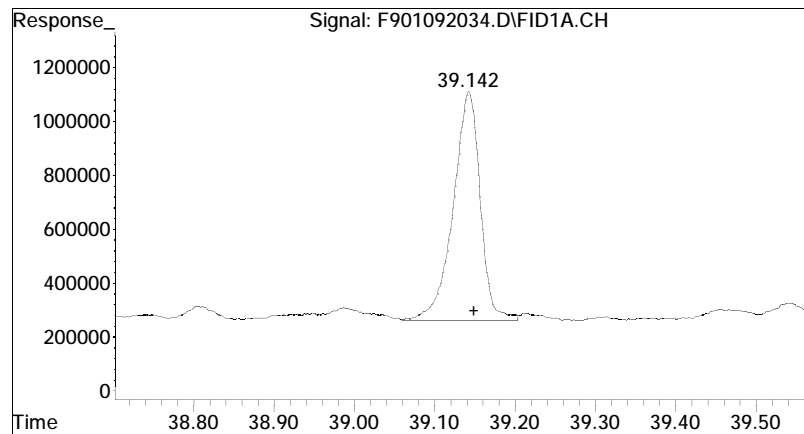
#22 n-Docosane (C22)

R.T.: 33.814 min
Delta R.T.: 0.000 min
Response: 27539641
Conc: 20.20 ug/mL M4



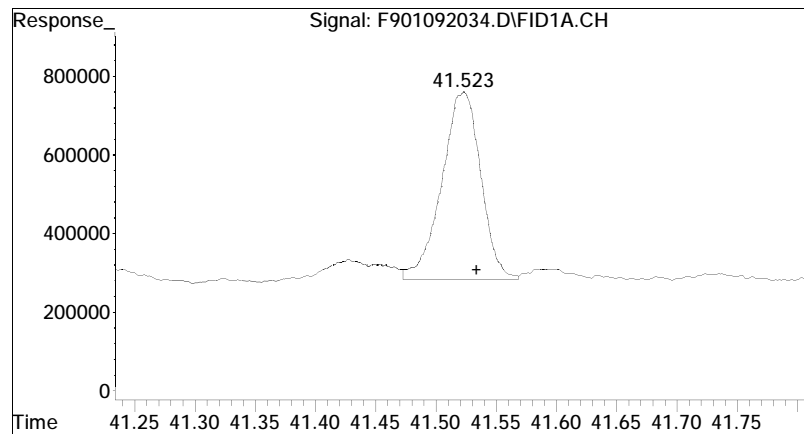
#25 n-Tetracosane (C24)

R.T.: 36.582 min
Delta R.T.: -0.007 min
Response: 22251265
Conc: 16.08 ug/mL M4



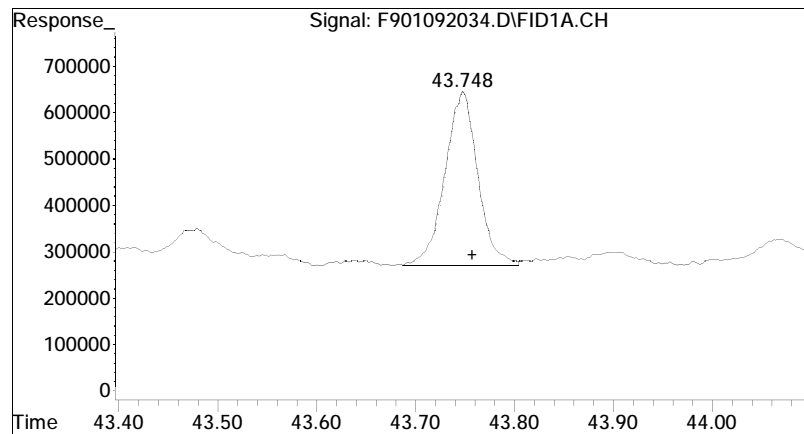
#27 n-Hexacosane (C26)

R.T.: 39.142 min
Delta R.T.: -0.007 min
Response: 19427902
Conc: 14.22 ug/mL M4

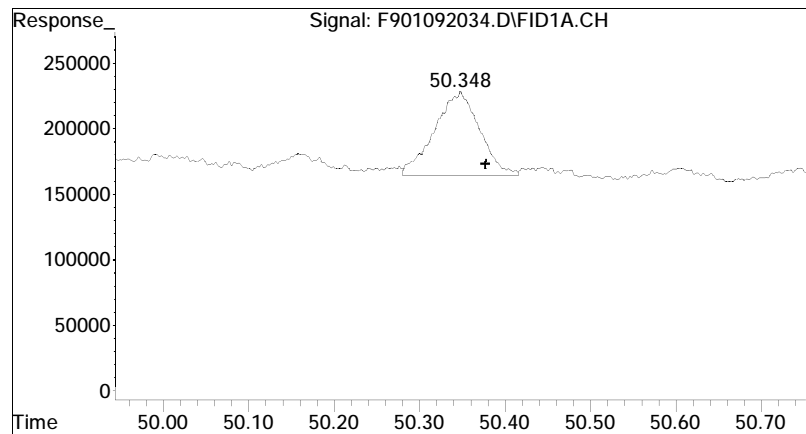


#29 n-Octacosane (C28)

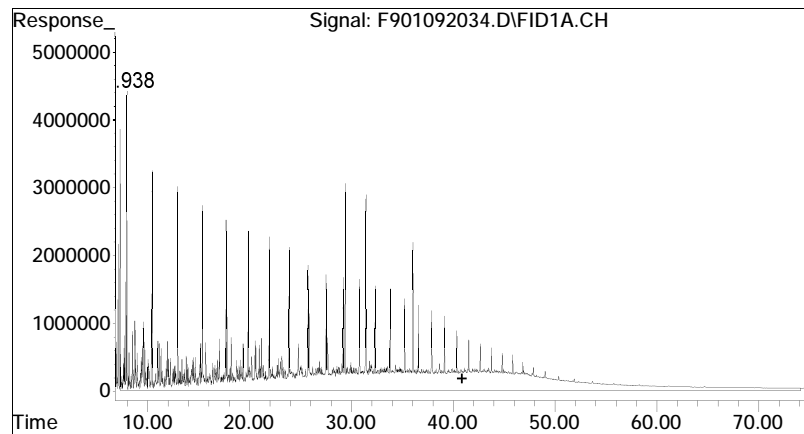
R.T.: 41.523 min
Delta R.T.: -0.011 min
Response: 10567226
Conc: 7.70 ug/mL M4



#31 n-Triacontane (C30)
R.T.: 43.748 min
Delta R.T.: -0.010 min
Response: 8496315
Conc: 6.31 ug/mL M4

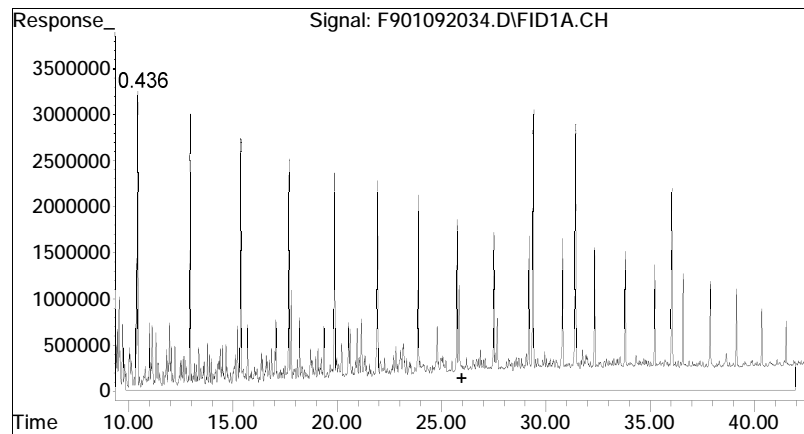


#37 n-Hexatriacontane (C36)
R.T.: 50.348 min
Delta R.T.: -0.030 min
Response: 2323637
Conc: 1.66 ug/mL M4



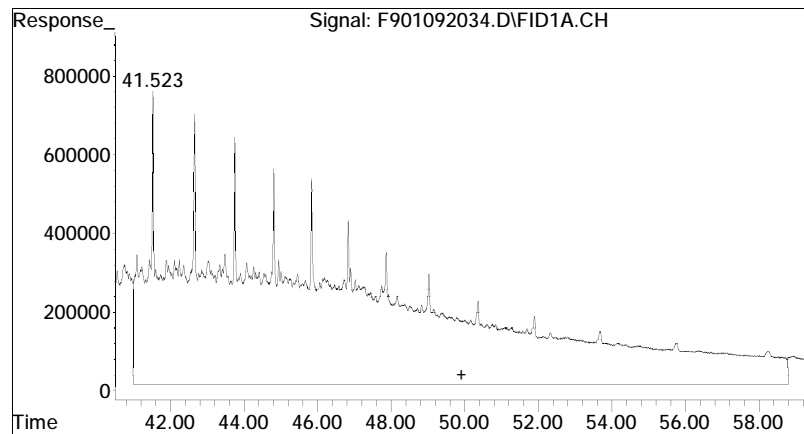
#42 C9-C44 Total Petroleum Hy

R.T.: 40.891 min
Delta R.T.: 0.000 min
Response: 8034165870
Conc: 6012.84 ug/mL m



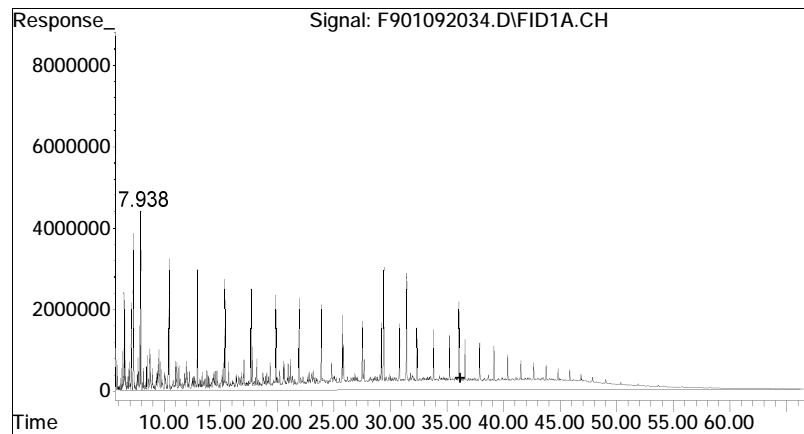
#44 C10-C28 DRO

R.T.: 25.985 min
Delta R.T.: 0.000 min
Response: 5419008899
Conc: 4060.31 ug/mL m



#47 C28-C40 ORO

R.T.: 49.923 min
Delta R.T.: 0.000 min
Response: 1941251992
Conc: 1427.20 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 2759382679
Conc: 2065.14 ug/mL m

Data Path : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\
 Data File : F901092014.D
 Signal(s) : FID1A.CH
 Acq On : 09 Jan 2020 6:54 pm
 Operator : FID9:WR
 Sample : IB901092001F
 Misc : DCM
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 04 15:11:52 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 16:03:19 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : DRO_ORO_QC - DRO_ORO_QC

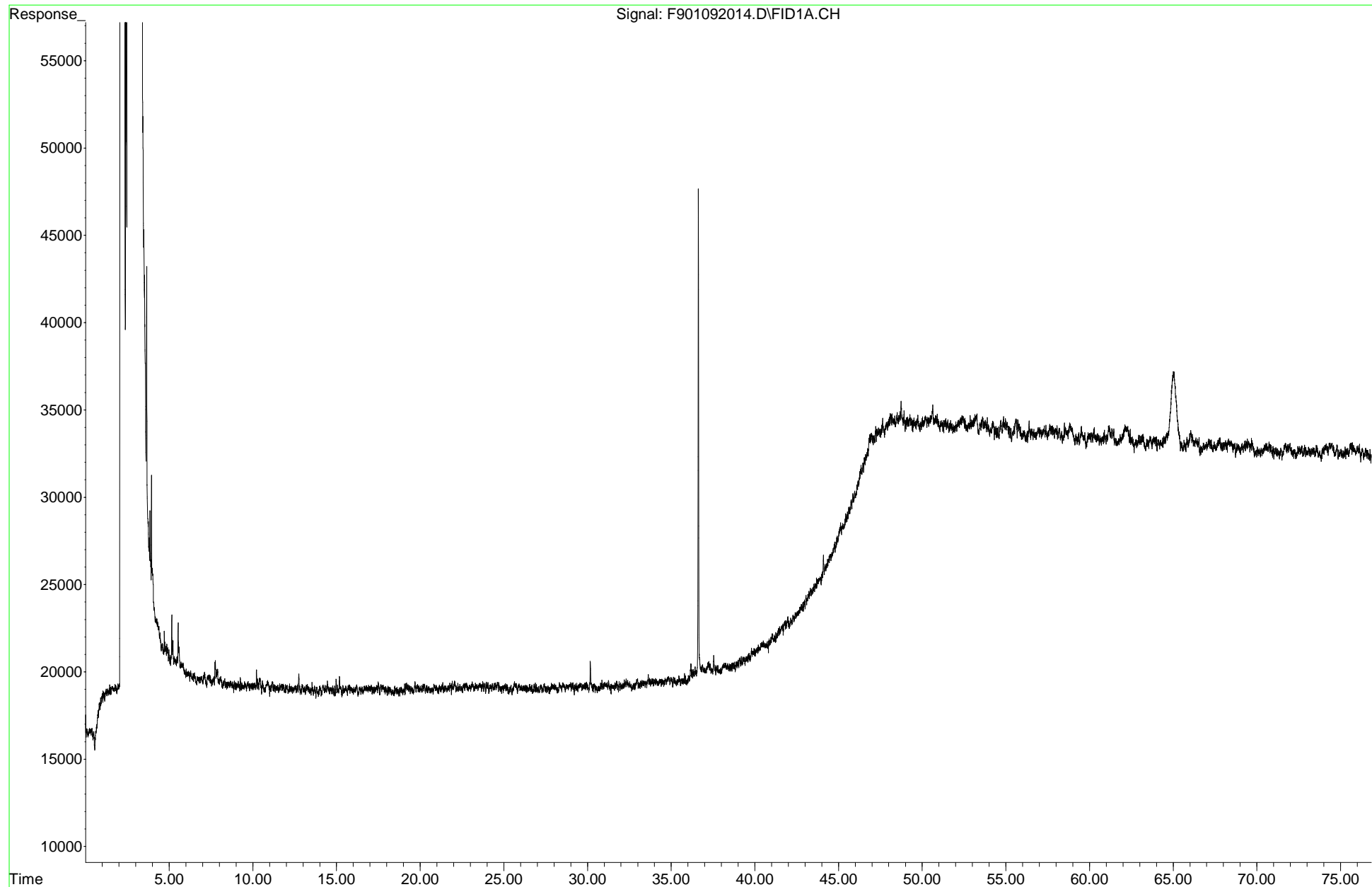
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.632f	66337	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	40.891	390153660	310260.044 ug/mL M5
44) h C10-C28 DRO	25.985	63981145	50938.122 ug/mL M5
47) h C28-C40 ORO	49.923	163238772	127519.636 ug/mL M5
48) h Total Resolved Hydroc...	36.191	11767532	9357.839 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\F901092014.D
Operator : FID9:WR
Acquired : 09 Jan 2020 6:54 pm using AcqMethod FID9A.M
Sample Name: IB901092001F
Instrument: FID 9
Misc Info : DCM
Vial Number: 7
CurrentMeth: O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\HC9010920F_DRO.M



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jun 08 2020, 12:51 pm

Work Group: WG1372713 for Department: 2 Organic Preparation

Created: 20-MAY-20 Due: Operator: LB

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2020213-01	PDI-051SC-B-06-08-200506	S A2-SHC	SOIL	DONE	U	0520	0608	S0	Glass-A.120
L2020213-01	PDI-051SC-B-06-08-200506	S A2-ALKPAH	SOIL	DONE	U	0520	0608	S0	Glass-A.120
L2020213-02	PDI-056SC-B-05-07-200510	S A2-ALKPAH	SOIL	DONE	U	0524	0608	S0	Glass-A.120
L2020213-02	PDI-056SC-B-05-07-200510	S A2-SHC	SOIL	DONE	U	0524	0608	S0	Glass-A.120
L2020213-03	PDI-063SC-B-05-07-200429	S A2-ALKPAH	SOIL	DONE	U	0513	0608	S0	Glass-A.120
L2020213-03	PDI-063SC-B-05-07-200429	S A2-SHC	SOIL	DONE	U	0513	0608	S0	Glass-A.120
L2020213-04	PDI-1056SC-B-05-07-200510	S A2-ALKPAH	SOIL	DONE	U	0524	0608	S0	Glass-A.120
L2020213-04	PDI-1056SC-B-05-07-200510	S A2-SHC	SOIL	DONE	U	0524	0608	S0	Glass-A.120
WG1372713-1	Laboratory Method Bl	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-1	Laboratory Method Bl	S A2-SHC	SOIL	DONE	U				
WG1372713-2	Laboratory Control S	S A2-SHC	SOIL	DONE	U				
WG1372713-2	Laboratory Control S	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-3	LCS Duplicate	S A2-SHC	SOIL	DONE	U				
WG1372713-3	LCS Duplicate	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-4	Matrix Spike	S A2-SHC	SOIL	DONE	U				
WG1372713-4	Matrix Spike	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-5	Matrix Spike Duplica	S A2-ALKPAH	SOIL	DONE	U				
WG1372713-5	Matrix Spike Duplica	S A2-SHC	SOIL	DONE	U				
Comments:									
WG1372713-3	WG1372713-2								
WG1372713-4	L2020213-03								
WG1372713-5	L2020213-03								

Sequence Logs

Analysis log File

Total Files Reported in Log : 18

Log Generated From Directory: O:\Forensics\Data\FID9\2020\JAN\JAN09\DRO\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F901092002.D	FID9A.M	LL		1/9/2020	10:06 am
2	F901092004.D	FID9A.M	DCM		1/9/2020	11:33 am
3	F901092006.D	FID9A.M	DCM		1/9/2020	1:02 pm
4	F901092008.D	FID9A.M	DCM		1/9/2020	2:30 pm
5	F901092010.D	FID9A.M	ANS		1/9/2020	3:58 pm
6	F901092012.D	FID9A.M	DCM		1/9/2020	5:26 pm
7	F901092014.D	FID9A.M	IB901092001F	DCM	1/9/2020	6:54 pm
8	F901092016.D	FID9A.M	I901022001F	WG1376652,FRBC22	1/9/2020	8:22 pm
9	F901092018.D	FID9A.M	I901022002F	WG1376652,FRBC23	1/9/2020	9:50 pm
10	F901092020.D	FID9A.M	I901022003F	WG1376652,FRBC21	1/9/2020	11:17 pm
11	F901092022.D	FID9A.M	I901022004F	WG1376652,FRBC24	1/10/2020	12:45 am
12	F901092024.D	FID9A.M	I901022005F	WG1376652,FRBC25	1/10/2020	2:13 am
13	F901092026.D	FID9A.M	I901022006F	WG1376652,FRBC26	1/10/2020	3:41 am
14	F901092028.D	FID9A.M	DCM		1/10/2020	5:09 am
15	F901092030.D	FID9A.M	CQ901022001F	WG1376652,FRBC20	1/10/2020	6:37 am
16	F901092032.D	FID9A.M	DCM		1/10/2020	8:05 am
17	F901092034.D	FID9A.M	WG1376652-1,0.10148	WG1376652,FRBB40	1/10/2020	9:33 am
18	F901092036.D	FID9A.M	DCM		1/10/2020	11:01 am

Analysis log File

Total Files Reported in Log : 47

Log Generated From Directory: O:\Forensics\Data\FID9\2020\MAY\MAY23\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F90523002.D	FID9A.M	LL		5/23/2020	7:00 pm
2	F90523004.D	FID9A.M	ANS		5/23/2020	8:28 pm
3	F90523006.D	FID9A.M	WG1373840-1	WG1373840,FRBC59,ICAL16..	5/23/2020	9:57 pm
4	F90523008.D	FID9A.M	DCM		5/23/2020	11:26 pm
5	F90523010.D	FID9A.M	IB905232001F		5/24/2020	12:54 am
6	F90523012.D	FID9A.M	WG1372666-1	WG1373840, WG1372666, ICA..	5/24/2020	2:23 am
7	F90523014.D	FID9A.M	WG1372666-2	WG1373840, WG1372666, ICA..	5/24/2020	3:52 am
8	F90523016.D	FID9A.M	WG1372666-3	WG1373840, WG1372666, ICA..	5/24/2020	5:20 am
9	F90523018.D	FID9A.M	DCM		5/24/2020	6:49 am
10	F90523020.D	FID9A.M	L2020365-02	WG1373840, WG1372666, ICA..	5/24/2020	8:18 am
11	F90523022.D	FID9A.M	L2020365-03	WG1373840, WG1372666, ICA..	5/24/2020	9:46 am
12	F90523024.D	FID9A.M	L2020365-04	WG1373840, WG1372666, ICA..	5/24/2020	11:14 am
13	F90523026.D	FID9A.M	L2020365-06	WG1373840, WG1372666, ICA..	5/24/2020	12:43 pm
14	F90523028.D	FID9A.M	L2020365-08	WG1373840, WG1372666, ICA..	5/24/2020	2:11 pm
15	F90523030.D	FID9A.M	L2020365-10	WG1373840, WG1372666, ICA..	5/24/2020	3:38 pm
16	F90523032.D	FID9A.M	L2020365-12	WG1373840, WG1372666, ICA..	5/24/2020	5:06 pm
17	F90523034.D	FID9A.M	L2020365-14	WG1373840, WG1372666, ICA..	5/24/2020	6:35 pm
18	F90523036.D	FID9A.M	WG1373840-2	WG1373840,FRBC59,ICAL16..	5/24/2020	8:03 pm
19	F90523038.D	FID9A.M	DCM		5/24/2020	9:31 pm
20	F90523040.D	FID9A.M	IB905232002F		5/24/2020	11:00 pm
21	F90523042.D	FID9A.M	L2020365-15	WG1373840, WG1372666, ICA..	5/25/2020	12:29 am
22	F90523044.D	FID9A.M	L2020365-16	WG1373840, WG1372666, ICA..	5/25/2020	1:58 am
23	F90523046.D	FID9A.M	L2020365-17	WG1373840, WG1372666, ICA..	5/25/2020	3:27 am
24	F90523048.D	FID9A.M	L2020365-18	WG1373840, WG1372666, ICA..	5/25/2020	4:56 am
25	F90523050.D	FID9A.M	L2020365-19	WG1373840, WG1372666, ICA..	5/25/2020	6:25 am
26	F90523052.D	FID9A.M	L2020365-21	WG1373840, WG1372666, ICA..	5/25/2020	7:54 am
27	F90523054.D	FID9A.M	L2020365-23	WG1373840, WG1372666, ICA..	5/25/2020	9:22 am
28	F90523056.D	FID9A.M	L2020365-25	WG1373840, WG1372666, ICA..	5/25/2020	10:51 am
29	F90523058.D	FID9A.M	L2020365-27	WG1373840, WG1372666, ICA..	5/25/2020	12:19 pm
30	F90523060.D	FID9A.M	L2020365-28	WG1373840, WG1372666, ICA..	5/25/2020	1:47 pm
31	F90523062.D	FID9A.M	L2020365-30	WG1373840, WG1372666, ICA..	5/25/2020	3:16 pm
32	F90523064.D	FID9A.M	WG1373840-3	WG1373840,FRBC59,ICAL16..	5/25/2020	4:44 pm
33	F90523066.D	FID9A.M	DCM		5/25/2020	6:13 pm
34	F90523068.D	FID9A.M	IB905232003F		5/25/2020	7:42 pm
35	F90523070.D	FID9A.M	WG1372713-1	WG1373840, WG1372713, ICA..	5/25/2020	9:10 pm
36	F90523072.D	FID9A.M	WG1372713-2	WG1373840, WG1372713, ICA..	5/25/2020	10:38 pm
37	F90523074.D	FID9A.M	WG1372713-3	WG1373840, WG1372713, ICA..	5/26/2020	12:06 am
38	F90523076.D	FID9A.M	DCM		5/26/2020	1:34 am
39	F90523078.D	FID9A.M	L2020213-01		5/26/2020	3:02 am
40	F90523080.D	FID9A.M	L2020213-02		5/26/2020	4:31 am
41	F90523082.D	FID9A.M	L2020213-03		5/26/2020	5:59 am
42	F90523084.D	FID9A.M	WG1372713-4		5/26/2020	7:27 am
43	F90523086.D	FID9A.M	WG1372713-5		5/26/2020	8:56 am
44	F90523088.D	FID9A.M	L202013-04		5/26/2020	10:25 am
45	F90523090.D	FID9A.M	WG1373840-4	WG1373840,FRBC59,ICAL16..	5/26/2020	11:55 am
46	F90523092.D	FID9A.M	DCM		5/26/2020	1:24 pm
47	F90523094.D	FID9A.M	IB		5/26/2020	2:54 pm

Analysis log File

Total Files Reported in Log : 43

Log Generated From Directory: O:\Forensics\Data\FID9\2020\JUN\JUN05\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F9060520002.D	FID9A.M	LL		6/5/2020	4:39 pm
2	F9060520004.D	FID9A.M	ANS		6/5/2020	6:09 pm
3	F9060520006.D	FID9A.M	WG1373840-5	WG1373840,FRBC59,ICAL16..	6/5/2020	7:39 pm
4	F9060520008.D	FID9A.M	DCM		6/5/2020	9:08 pm
5	F9060520010.D	FID9A.M	IB906052001F		6/5/2020	10:37 pm
6	F9060520012.D	FID9A.M	L2020213-01D,42,5	WG1373840,WG1372713,ICA..	6/6/2020	12:06 am
7	F9060520014.D	FID9A.M	L2020213-02D,42,5	WG1373840,WG1372713,ICA..	6/6/2020	1:36 am
8	F9060520016.D	FID9A.M	L2020213-04D,42,5	WG1373840,WG1372713,ICA..	6/6/2020	3:05 am
9	F9060520018.D	FID9A.M	L2020213-03D,42,10	WG1373840,WG1372713,ICA..	6/6/2020	4:33 am
10	F9060520020.D	FID9A.M	WG1372713-4D,42,10	WG1373840,WG1372713,ICA..	6/6/2020	6:02 am
11	F9060520022.D	FID9A.M	WG1372713-5D,42,10	WG1373840,WG1372713,ICA..	6/6/2020	7:31 am
12	F9060520024.D	FID9A.M	WG1373840-6	WG1373840,FRBC59,ICAL16..	6/6/2020	9:00 am
13	F9060520026.D	FID9A.M	DCM		6/6/2020	10:29 am
14	F9060520028.D	FID9A.M	IB		6/6/2020	11:59 am
15	F9060520030.D	FID9A.M	WG1375917-1		6/6/2020	1:30 pm
16	F9060520032.D	FID9A.M	WG1375917-2		6/6/2020	3:00 pm
17	F9060520034.D	FID9A.M	WG1375917-3		6/6/2020	4:30 pm
18	F9060520036.D	FID9A.M	DCM		6/6/2020	5:59 pm
19	F9060520038.D	FID9A.M	L2021666-02		6/6/2020	7:28 pm
20	F9060520040.D	FID9A.M	L202166-03		6/6/2020	8:57 pm
21	F9060520042.D	FID9A.M	L2021666-04		6/6/2020	10:27 pm
22	F9060520044.D	FID9A.M	L2021666-05		6/6/2020	11:55 pm
23	F9060520046.D	FID9A.M	L2021666-07		6/7/2020	1:24 am
24	F9060520048.D	FID9A.M	L2021666-09		6/7/2020	2:52 am
25	F9060520050.D	FID9A.M	L2021666-10		6/7/2020	4:20 am
26	F9060520052.D	FID9A.M	L2021666-12		6/7/2020	5:48 am
27	F9060520054.D	FID9A.M	CCV		6/7/2020	7:17 am
28	F9060520056.D	FID9A.M	DCM		6/7/2020	8:45 am
29	F9060520058.D	FID9A.M	IB		6/7/2020	10:13 am
30	F9060520060.D	FID9A.M	L2021666-14		6/7/2020	11:41 am
31	F9060520062.D	FID9A.M	L2021666-16		6/7/2020	1:10 pm
32	F9060520064.D	FID9A.M	L2021666-17		6/7/2020	2:38 pm
33	F9060520066.D	FID9A.M	L2021666-18		6/7/2020	4:07 pm
34	F9060520068.D	FID9A.M	L2021666-19		6/7/2020	5:35 pm
35	F9060520070.D	FID9A.M	L2021666-20		6/7/2020	7:04 pm
36	F9060520072.D	FID9A.M	L2021666-22		6/7/2020	8:32 pm
37	F9060520074.D	FID9A.M	L2021666-24		6/7/2020	10:00 pm
38	F9060520076.D	FID9A.M	L2021666-26		6/7/2020	11:28 pm
39	F9060520078.D	FID9A.M	L2021666-28		6/8/2020	12:56 am
40	F9060520080.D	FID9A.M	L2021666-30		6/8/2020	2:25 am
41	F9060520082.D	FID9A.M	CCV		6/8/2020	3:53 am
42	F9060520084.D	FID9A.M	DCM		6/8/2020	5:21 am
43	F9060520086.D	FID9A.M	IB		6/8/2020	6:49 am

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523064.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 4:44 pm
 Operator : FID9:WR
 Sample : WG1373840-3
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 22:56:30 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:54:59 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 I	5-alpha-androstane	1.000	1.000	0.0	131	0.00
2 t	n-Octane (C8)	0.813	0.732	10.0	117	0.00
3 t	n-Nonane (C9)	0.858	0.826	3.7	124	0.00
4 t	n-Decane (C10)	0.888	0.887	0.1	129	0.00
5 t	n-Undecane (C11)	0.902	0.890	1.3	127	0.00
6 t	n-Dodecane (C12)	0.916	0.907	1.0	127	0.00
7 t	n-Tridecane (C13)	0.920	0.919	0.1	128	0.00
9 t	n-Tetradecane (C14)	0.936	0.948	-1.3	130	0.00
11 t	n-Pentadecane (C15)	0.938	0.957	-2.0	131	0.00
12 t	n-Hexadecane (C16)	0.945	0.956	-1.2	130	0.00
14 t	n-Heptadecane (C17)	0.946	0.964	-1.9	131	0.00
15 t	Pristane	0.960	0.986	-2.7	132	0.00
16 t	n-Octadecane (C18)	0.953	0.981	-2.9	132	0.00
17 t	Phytane	0.868	0.909	-4.7	135	0.00
18 t	n-Nonadecane (C19)	0.950	0.981	-3.3	132	0.00
19 s	ortho-terphenyl	1.042	1.123	-7.8	137	0.00
20 t	n-Eicosane (C20)	0.955	0.987	-3.4	133	0.00
21 t	n-Heneicosane (C21)	0.969	0.992	-2.4	131	0.00
22 t	n-Docosane (C22)	0.967	0.987	-2.1	131	0.00
23 t	n-Tricosane (C23)	0.971	0.987	-1.6	130	0.00
24 s	d50-Tetracosane	0.833	0.875	-5.0	133	0.00
25 t	n-Tetracosane (C24)	0.981	0.981	0.0	128	0.00
26 t	n-Pentacosane (C25)	0.964	0.966	-0.2	128	0.00
27 t	n-Hexacosane (C26)	0.969	0.985	-1.7	130	0.00
28 t	n-Heptacosane (C27)	0.944	0.978	-3.6	133	0.00
29 t	n-Octacosane (C28)	0.974	0.995	-2.2	131	0.00
30 t	n-Nonacosane (C29)	0.969	0.994	-2.6	131	0.00
31 t	n-Triacontane (C30)	0.955	0.991	-3.8	133	0.00
32 t	n-Hentriacontane (C31)	0.961	0.959	0.2	128	0.00
33 t	n-Dotriacontane (C32)	0.945	0.992	-5.0	135	0.00
34 t	n-Tritriacontane (C33)	0.935	0.968	-3.5	133	0.00
35 t	n-tetratriacontane (C34)	0.971	0.967	0.4	128	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523064.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 4:44 pm
 Operator : FID9:WR
 Sample : WG1373840-3
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 22:56:30 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:54:59 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
36 t	n-Pentatriacontane (C35)	0.942	0.924	1.9	127	0.00
37 t	n-Hexatriacontane (C36)	0.995	1.064	-6.9	137	0.00
38 t	n-Heptatriacontane (C37)	0.941	0.974	-3.5	133	0.00
39 t	n-Octatriacontane (C38)	1.018	0.996	2.2	126	0.00
41 t	n-Tetracontane (C40)	0.972	0.973	-0.1	129	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.08	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523064.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 4:44 pm
 Operator : FID9:WR
 Sample : WG1373840-3
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 22:56:30 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:54:59 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.005	73443782	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.991	82458915	53.893	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	107.79%	
24) s d50-Tetracosane	35.664	64242411	52.485	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	104.97%	
Target Compounds				
2) t n-Octane (C8)	5.478	53768716	45.009	ug/mL M4
3) t n-Nonane (C9)	7.643	60629043	48.113	ug/mL M4
4) t n-Decane (C10)	10.102	65171904	49.980	ug/mL M4
5) t n-Undecane (C11)	12.600	65348784	49.335	ug/mL M4
6) t n-Dodecane (C12)	15.021	66588499	49.467	ug/mL M4
7) t n-Tridecane (C13)	17.322	67464156	49.943	ug/mL M4
9) t n-Tetradecane (C14)	19.502	69621988	50.662	ug/mL M4
11) t n-Pentadecane (C15)	21.565	70255886	51.000	ug/mL M4
12) t n-Hexadecane (C16)	23.518	70176653	50.539	ug/mL M4
14) t n-Heptadecane (C17)	25.379	70814349	50.984	ug/mL M4
15) t Pristane	25.487	72390519	51.333	ug/mL M4
16) t n-Octadecane (C18)	27.141	72050374	51.469	ug/mL M4
17) t Phytane	27.300	66734113	52.345	ug/mL M4
18) t n-Nonadecane (C19)	28.827	72056120	51.630	ug/mL M4
20) t n-Eicosane (C20)	30.431	72454524	51.671	ug/mL M4
21) t n-Heneicosane (C21)	31.968	72863264	51.172	ug/mL M4
22) t n-Docosane (C22)	33.442	72513965	51.048	ug/mL M4
23) t n-Tricosane (C23)	34.855	72470377	50.821	ug/mL M4
25) t n-Tetracosane (C24)	36.213	72059034	49.990	ug/mL M4
26) t n-Pentacosane (C25)	37.518	70975077	50.107	ug/mL M4
27) t n-Hexacosane (C26)	38.773	72307649	50.807	ug/mL M4
28) t n-Heptacosane (C27)	39.989	71818122	51.781	ug/mL M4
29) t n-Octacosane (C28)	41.161	73112209	51.106	ug/mL M4
30) t n-Nonacosane (C29)	42.294	73008870	51.270	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523064.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 4:44 pm
 Operator : FID9:WR
 Sample : WG1373840-3
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 22:56:30 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:54:59 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.389	72778325	51.879 ug/mL M4
32) t n-Hentriacontane (C31)	44.449	70428290	49.913 ug/mL M4
33) t n-Dotriacontane (C32)	45.478	72880540	52.479 ug/mL M4
34) t n-Tritriacontane (C33)	46.477	71075625	51.748 ug/mL M4
35) t n-tetratriacontane (C34)	47.470	71028130	49.815 ug/mL M4
36) t n-Pentatriacontane (C35)	48.572	67830246	49.030 ug/mL M4
37) t n-Hexatriacontane (C36)	49.831	78177291	53.496 ug/mL M4
38) t n-Heptatriacontane (C37)	51.274	71515871	51.767 ug/mL M4
39) t n-Octatriacontane (C38)	52.962	73137947	48.907 ug/mL M4
41) t n-Tetracontane (C40)	57.267	71463273	50.028 ug/mL M4

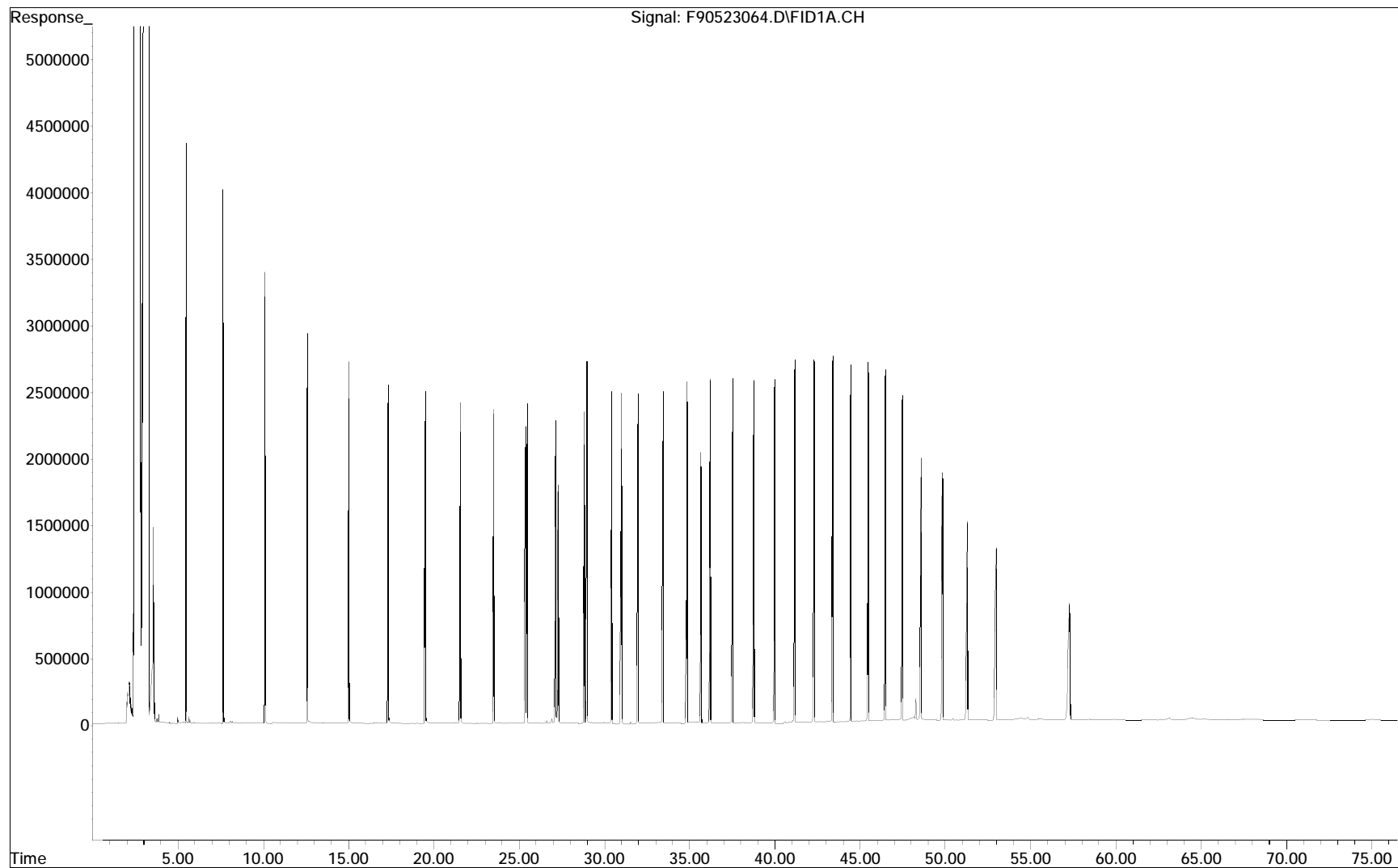
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\MAY\MAY23\F90523064.D
Operator : FID9:WR
Acquired : 25 May 2020 4:44 pm using AcqMethod FID9A.M
Sample Name: WG1373840-3
Instrument: FID 9
Misc Info : WG1373840,FRBC59,ICAL16844
Vial Number: 32
CurrentMeth: O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523090.D
 Signal(s) : FID1A.CH
 Acq On : 26 May 2020 11:55 am
 Operator : FID9:WR
 Sample : WG1373840-4
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 45 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 23:24:23 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:56:12 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 I	5-alpha-androstane	1.000	1.000	0.0	115	0.00
2 t	n-Octane (C8)	0.813	0.727	10.6	102	0.00
3 t	n-Nonane (C9)	0.858	0.764	11.0	101	0.00
4 t	n-Decane (C10)	0.888	0.836	5.9	107	0.00
5 t	n-Undecane (C11)	0.902	0.865	4.1	108	0.00
6 t	n-Dodecane (C12)	0.916	0.896	2.2	110	0.00
7 t	n-Tridecane (C13)	0.920	0.916	0.4	112	0.00
9 t	n-Tetradecane (C14)	0.936	0.950	-1.5	114	0.00
11 t	n-Pentadecane (C15)	0.938	0.960	-2.3	115	0.00
12 t	n-Hexadecane (C16)	0.945	0.959	-1.5	114	0.00
14 t	n-Heptadecane (C17)	0.946	0.962	-1.7	115	0.00
15 t	Pristane	0.960	0.998	-4.0	117	0.00
16 t	n-Octadecane (C18)	0.953	0.996	-4.5	118	0.00
17 t	Phytane	0.868	0.915	-5.4	119	0.00
18 t	n-Nonadecane (C19)	0.950	0.986	-3.8	117	0.00
19 s	ortho-terphenyl	1.042	1.126	-8.1	120	0.00
20 t	n-Eicosane (C20)	0.955	0.994	-4.1	117	0.00
21 t	n-Heneicosane (C21)	0.969	1.003	-3.5	117	0.00
22 t	n-Docosane (C22)	0.967	0.998	-3.2	116	0.00
23 t	n-Tricosane (C23)	0.971	1.000	-3.0	116	0.00
24 s	d50-Tetracosane	0.833	0.883	-6.0	118	0.00
25 t	n-Tetracosane (C24)	0.981	0.992	-1.1	114	0.00
26 t	n-Pentacosane (C25)	0.964	0.979	-1.6	114	0.00
27 t	n-Hexacosane (C26)	0.969	0.999	-3.1	116	0.00
28 t	n-Heptacosane (C27)	0.944	0.995	-5.4	119	0.00
29 t	n-Octacosane (C28)	0.974	1.012	-3.9	117	0.00
30 t	n-Nonacosane (C29)	0.969	1.006	-3.8	117	0.00
31 t	n-Triacontane (C30)	0.955	1.008	-5.5	118	0.00
32 t	n-Hentriacontane (C31)	0.961	0.975	-1.5	114	0.00
33 t	n-Dotriacontane (C32)	0.945	1.013	-7.2	121	0.00
34 t	n-Tritriacontane (C33)	0.935	0.997	-6.6	120	0.00
35 t	n-tetratriacontane (C34)	0.971	0.992	-2.2	115	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523090.D
 Signal(s) : FID1A.CH
 Acq On : 26 May 2020 11:55 am
 Operator : FID9:WR
 Sample : WG1373840-4
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 45 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 23:24:23 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:56:12 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
36 t	n-Pentatriacontane (C35)	0.942	0.939	0.3	113	0.00
37 t	n-Hexatriacontane (C36)	0.995	1.081	-8.6	122	0.00
38 t	n-Heptatriacontane (C37)	0.941	0.993	-5.5	119	-0.01
39 t	n-Octatriacontane (C38)	1.018	1.011	0.7	112	0.00
41 t	n-Tetracontane (C40)	0.972	0.986	-1.4	115	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.09	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523090.D
 Signal(s) : FID1A.CH
 Acq On : 26 May 2020 11:55 am
 Operator : FID9:WR
 Sample : WG1373840-4
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 45 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 23:24:23 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:56:12 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.001	64410733	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.986	72511909	54.038	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	108.08%	
24) s d50-Tetracosane	35.657	56895946	53.001	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	106.00%	
Target Compounds				
2) t n-Octane (C8)	5.474	46853373	44.721	ug/mL M4
3) t n-Nonane (C9)	7.637	49226088	44.542	ug/mL M4
4) t n-Decane (C10)	10.096	53847221	47.086	ug/mL M4
5) t n-Undecane (C11)	12.596	55711409	47.957	ug/mL M4
6) t n-Dodecane (C12)	15.017	57721007	48.893	ug/mL M4
7) t n-Tridecane (C13)	17.319	59009977	49.811	ug/mL M4
9) t n-Tetradecane (C14)	19.499	61191549	50.772	ug/mL M4
11) t n-Pentadecane (C15)	21.561	61802641	51.156	ug/mL M4
12) t n-Hexadecane (C16)	23.514	61768147	50.722	ug/mL M4
14) t n-Heptadecane (C17)	25.373	61981144	50.883	ug/mL M4
15) t Pristane	25.482	64309524	51.998	ug/mL M4
16) t n-Octadecane (C18)	27.139	64171071	52.269	ug/mL M4
17) t Phytane	27.295	58911202	52.689	ug/mL M4
18) t n-Nonadecane (C19)	28.821	63524423	51.900	ug/mL M4
20) t n-Eicosane (C20)	30.427	64029391	52.067	ug/mL M4
21) t n-Heneicosane (C21)	31.963	64585152	51.719	ug/mL M4
22) t n-Docosane (C22)	33.436	64261714	51.583	ug/mL M4
23) t n-Tricosane (C23)	34.849	64392473	51.489	ug/mL M4
25) t n-Tetracosane (C24)	36.207	63909643	50.555	ug/mL M4
26) t n-Pentacosane (C25)	37.512	63083105	50.781	ug/mL M4
27) t n-Hexacosane (C26)	38.771	64361545	51.566	ug/mL M4
28) t n-Heptacosane (C27)	39.985	64117051	52.712	ug/mL M4
29) t n-Octacosane (C28)	41.153	65193294	51.961	ug/mL M4
30) t n-Nonacosane (C29)	42.289	64827688	51.909	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523090.D
 Signal(s) : FID1A.CH
 Acq On : 26 May 2020 11:55 am
 Operator : FID9:WR
 Sample : WG1373840-4
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 45 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 03 23:24:23 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:56:12 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.383	64909651	52.759 ug/mL M4
32) t n-Hentriacontane (C31)	44.443	62826489	50.770 ug/mL M4
33) t n-Dotriacontane (C32)	45.471	65255956	53.578 ug/mL M4
34) t n-Tritriacontane (C33)	46.469	64220856	53.314 ug/mL M4
35) t n-tetratriacontane (C34)	47.460	63896626	51.098 ug/mL M4
36) t n-Pentatriacontane (C35)	48.561	60484442	49.851 ug/mL M4
37) t n-Hexatriacontane (C36)	49.822	69647223	54.343 ug/mL M4
38) t n-Heptatriacontane (C37)	51.263	63989694	52.815 ug/mL M4
39) t n-Octatriacontane (C38)	52.949	65135224	49.664 ug/mL M4
41) t n-Tetracontane (C40)	57.257	63515269	50.699 ug/mL M4

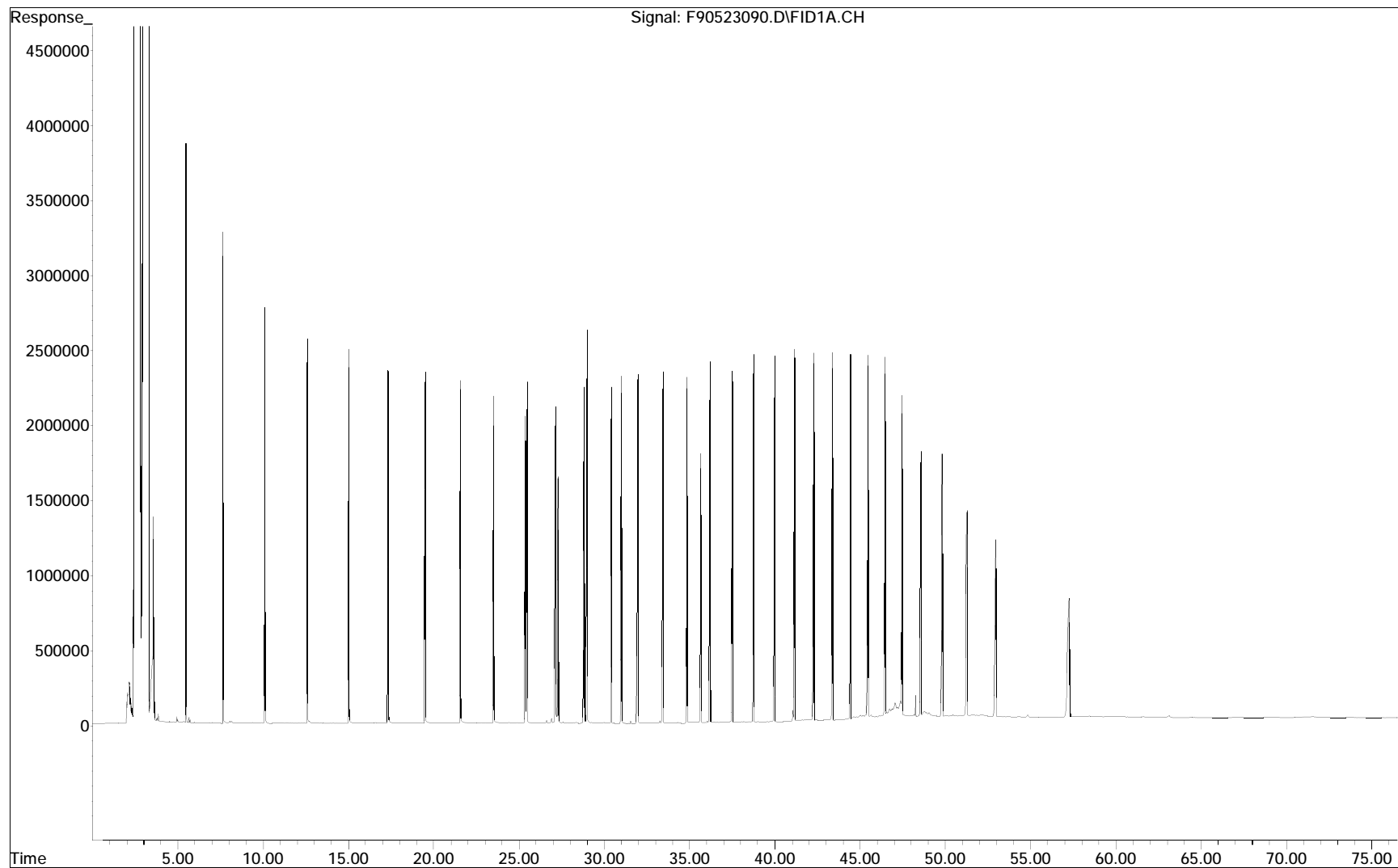
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\MAY\MAY23\F90523090.D
Operator : FID9:WR
Acquired : 26 May 2020 11:55 am using AcqMethod FID9A.M
Sample Name: WG1373840-4
Instrument: FID 9
Misc Info : WG1373840,FRBC59,ICAL16844
Vial Number: 45
CurrentMeth: O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520006.D
 Signal(s) : FID1A.CH
 Acq On : 05 Jun 2020 7:39 pm
 Operator : FID9:WR
 Sample : WG1373840-5
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:12:50 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 I	5-alpha-androstane	1.000	1.000	0.0	103	0.00
2 t	n-Octane (C8)	0.813	0.803	1.2	101	0.00
3 t	n-Nonane (C9)	0.858	0.836	2.6	99	0.00
4 t	n-Decane (C10)	0.888	0.872	1.8	100	0.00
5 t	n-Undecane (C11)	0.902	0.891	1.2	100	0.00
6 t	n-Dodecane (C12)	0.916	0.909	0.8	100	0.00
7 t	n-Tridecane (C13)	0.920	0.922	-0.2	101	0.00
9 t	n-Tetradecane (C14)	0.936	0.952	-1.7	103	0.00
11 t	n-Pentadecane (C15)	0.938	0.960	-2.3	103	0.00
12 t	n-Hexadecane (C16)	0.945	0.959	-1.5	102	0.00
14 t	n-Heptadecane (C17)	0.946	0.965	-2.0	103	0.00
15 t	Pristane	0.960	0.994	-3.5	104	0.00
16 t	n-Octadecane (C18)	0.953	0.981	-2.9	104	0.00
17 t	Phytane	0.868	0.915	-5.4	107	0.00
18 t	n-Nonadecane (C19)	0.950	0.984	-3.6	104	0.00
19 s	ortho-terphenyl	1.042	1.126	-8.1	108	0.00
20 t	n-Eicosane (C20)	0.955	0.991	-3.8	105	0.00
21 t	n-Heneicosane (C21)	0.969	0.996	-2.8	104	0.00
22 t	n-Docosane (C22)	0.967	0.993	-2.7	103	0.00
23 t	n-Tricosane (C23)	0.971	0.994	-2.4	103	0.00
24 s	d50-Tetracosane	0.833	0.879	-5.5	105	0.00
25 t	n-Tetracosane (C24)	0.981	0.989	-0.8	102	0.00
26 t	n-Pentacosane (C25)	0.964	0.973	-0.9	102	0.00
27 t	n-Hexacosane (C26)	0.969	0.992	-2.4	103	0.00
28 t	n-Heptacosane (C27)	0.944	0.984	-4.2	105	0.00
29 t	n-Octacosane (C28)	0.974	1.006	-3.3	104	0.00
30 t	n-Nonacosane (C29)	0.969	0.998	-3.0	104	0.00
31 t	n-Triacontane (C30)	0.955	0.999	-4.6	105	0.00
32 t	n-Hentriacontane (C31)	0.961	0.968	-0.7	102	0.00
33 t	n-Dotriacontane (C32)	0.945	1.004	-6.2	107	0.00
34 t	n-Tritriacontane (C33)	0.935	0.979	-4.7	106	0.00
35 t	n-tetratriacontane (C34)	0.971	0.981	-1.0	102	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520006.D
 Signal(s) : FID1A.CH
 Acq On : 05 Jun 2020 7:39 pm
 Operator : FID9:WR
 Sample : WG1373840-5
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:12:50 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
36 t	n-Pentatriacontane (C35)	0.942	0.924	1.9	100	0.00
37 t	n-Hexatriacontane (C36)	0.995	1.083	-8.8	110	0.00
38 t	n-Heptatriacontane (C37)	0.941	0.992	-5.4	107	0.00
39 t	n-Octatriacontane (C38)	1.018	1.013	0.5	101	0.00
41 t	n-Tetracontane (C40)	0.972	0.984	-1.2	103	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.09	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520006.D
 Signal(s) : FID1A.CH
 Acq On : 05 Jun 2020 7:39 pm
 Operator : FID9:WR
 Sample : WG1373840-5
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:12:50 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.902	57746203	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.893	65042833	54.066	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	108.13%	
24) s d50-Tetracosane	35.569	50764005	52.747	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	105.49%	
Target Compounds				
2) t n-Octane (C8)	5.408	46353876	49.351	ug/mL M4
3) t n-Nonane (C9)	7.567	48283303	48.731	ug/mL M4
4) t n-Decane (C10)	10.019	50338851	49.099	ug/mL M4
5) t n-Undecane (C11)	12.518	51452798	49.403	ug/mL M4
6) t n-Dodecane (C12)	14.937	52510335	49.613	ug/mL M4
7) t n-Tridecane (C13)	17.238	53214867	50.103	ug/mL M4
9) t n-Tetradecane (C14)	19.416	54966385	50.871	ug/mL M4
11) t n-Pentadecane (C15)	21.477	55418138	51.165	ug/mL M4
12) t n-Hexadecane (C16)	23.428	55354084	50.701	ug/mL M4
14) t n-Heptadecane (C17)	25.287	55722420	51.024	ug/mL M4
15) t Pristane	25.395	57412069	51.779	ug/mL M4
16) t n-Octadecane (C18)	27.051	56665049	51.482	ug/mL M4
17) t Phytane	27.210	52849354	52.722	ug/mL M4
18) t n-Nonadecane (C19)	28.734	56843813	51.802	ug/mL M4
20) t n-Eicosane (C20)	30.339	57228869	51.907	ug/mL M4
21) t n-Heneicosane (C21)	31.877	57508593	51.367	ug/mL M4
22) t n-Docosane (C22)	33.349	57363261	51.360	ug/mL M4
23) t n-Tricosane (C23)	34.761	57390680	51.187	ug/mL M4
25) t n-Tetracosane (C24)	36.119	57128950	50.407	ug/mL M4
26) t n-Pentacosane (C25)	37.424	56166351	50.431	ug/mL M4
27) t n-Hexacosane (C26)	38.682	57288736	51.197	ug/mL M4
28) t n-Heptacosane (C27)	39.894	56829219	52.113	ug/mL M4
29) t n-Octacosane (C28)	41.065	58083738	51.637	ug/mL M4
30) t n-Nonacosane (C29)	42.197	57646063	51.486	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520006.D
 Signal(s) : FID1A.CH
 Acq On : 05 Jun 2020 7:39 pm
 Operator : FID9:WR
 Sample : WG1373840-5
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:12:50 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.293	57664194	52.279 ug/mL M4
32) t n-Hentriacontane (C31)	44.352	55915356	50.400 ug/mL M4
33) t n-Dotriacontane (C32)	45.382	57956812	53.077 ug/mL M4
34) t n-Tritriacontane (C33)	46.378	56507620	52.325 ug/mL M4
35) t n-tetratriacontane (C34)	47.363	56634740	50.518 ug/mL M4
36) t n-Pentatriacontane (C35)	48.444	53329525	49.027 ug/mL M4
37) t n-Hexatriacontane (C36)	49.687	62540301	54.429 ug/mL M4
38) t n-Heptatriacontane (C37)	51.108	57290478	52.743 ug/mL M4
39) t n-Octatriacontane (C38)	52.762	58524299	49.773 ug/mL M4
41) t n-Tetracontane (C40)	56.989	56808294	50.579 ug/mL M4

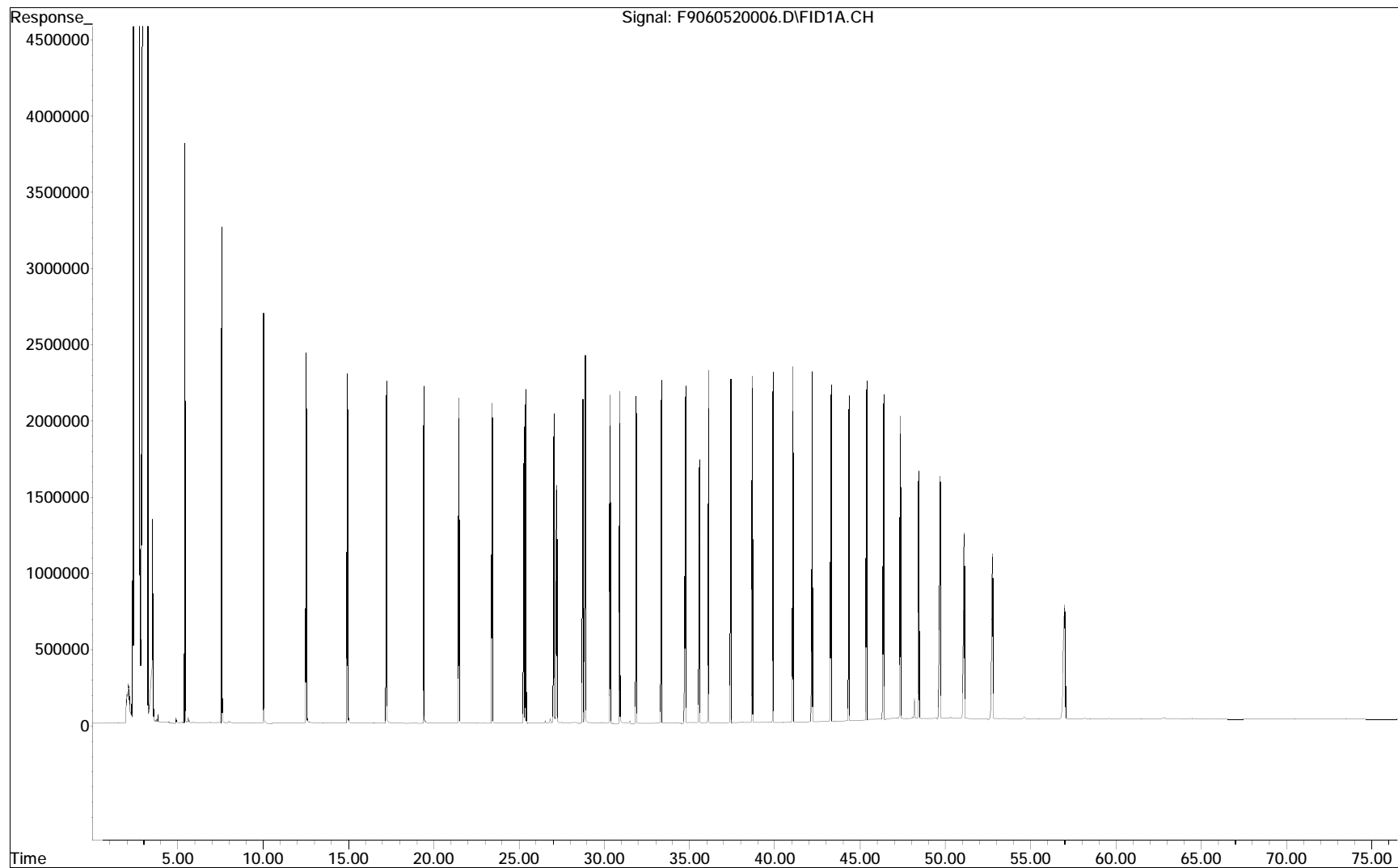
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520006.D
Operator : FID9:WR
Acquired : 05 Jun 2020 7:39 pm using AcqMethod FID9A.M
Sample Name: WG1373840-5
Instrument: FID 9
Misc Info : WG1373840,FRBC59,ICAL16844
Vial Number: 3
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520024.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 9:00 am
 Operator : FID9:WR
 Sample : WG1373840-6
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:31:51 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 I	5-alpha-androstane	1.000	1.000	0.0	104	0.00
2 t	n-Octane (C8)	0.813	0.784	3.6	99	0.00
3 t	n-Nonane (C9)	0.858	0.826	3.7	98	0.00
4 t	n-Decane (C10)	0.888	0.866	2.5	99	0.00
5 t	n-Undecane (C11)	0.902	0.888	1.6	100	0.00
6 t	n-Dodecane (C12)	0.916	0.910	0.7	101	0.00
7 t	n-Tridecane (C13)	0.920	0.919	0.1	101	0.00
9 t	n-Tetradecane (C14)	0.936	0.948	-1.3	103	0.00
11 t	n-Pentadecane (C15)	0.938	0.959	-2.2	104	0.00
12 t	n-Hexadecane (C16)	0.945	0.958	-1.4	103	0.00
14 t	n-Heptadecane (C17)	0.946	0.966	-2.1	104	0.00
15 t	Pristane	0.960	0.998	-4.0	105	0.00
16 t	n-Octadecane (C18)	0.953	0.982	-3.0	104	0.00
17 t	Phytane	0.868	0.920	-6.0	108	0.00
18 t	n-Nonadecane (C19)	0.950	0.988	-4.0	105	0.00
19 s	ortho-terphenyl	1.042	1.127	-8.2	109	0.00
20 t	n-Eicosane (C20)	0.955	0.995	-4.2	106	0.00
21 t	n-Heneicosane (C21)	0.969	1.003	-3.5	105	0.00
22 t	n-Docosane (C22)	0.967	1.001	-3.5	105	0.00
23 t	n-Tricosane (C23)	0.971	1.001	-3.1	104	0.00
24 s	d50-Tetracosane	0.833	0.885	-6.2	107	0.00
25 t	n-Tetracosane (C24)	0.981	0.996	-1.5	103	0.00
26 t	n-Pentacosane (C25)	0.964	0.980	-1.7	103	0.00
27 t	n-Hexacosane (C26)	0.969	1.000	-3.2	104	0.00
28 t	n-Heptacosane (C27)	0.944	0.992	-5.1	106	0.00
29 t	n-Octacosane (C28)	0.974	1.017	-4.4	105	0.00
30 t	n-Nonacosane (C29)	0.969	1.009	-4.1	105	0.00
31 t	n-Triacontane (C30)	0.955	1.009	-5.7	107	0.00
32 t	n-Hentriacontane (C31)	0.961	0.980	-2.0	103	0.00
33 t	n-Dotriacontane (C32)	0.945	1.021	-8.0	109	0.00
34 t	n-Tritriacontane (C33)	0.935	0.991	-6.0	107	0.00
35 t	n-tetratriacontane (C34)	0.971	0.993	-2.3	104	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520024.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 9:00 am
 Operator : FID9:WR
 Sample : WG1373840-6
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:31:51 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
36 t	n-Pentatriacontane (C35)	0.942	0.936	0.6	101	0.00
37 t	n-Hexatriacontane (C36)	0.995	1.097	-10.3	112	0.00
38 t	n-Heptatriacontane (C37)	0.941	1.004	-6.7	109	0.00
39 t	n-Octatriacontane (C38)	1.018	1.026	-0.8	102	0.00
41 t	n-Tetracontane (C40)	0.972	0.998	-2.7	105	0.00

Evaluate Continuing Calibration Report - Not Finds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.10	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520024.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 9:00 am
 Operator : FID9:WR
 Sample : WG1373840-6
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:31:51 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.900	57995580	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.891	65375688	54.109	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	108.22%	
24) s d50-Tetracosane	35.568	51348090	53.124	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	106.25%	
Target Compounds				
2) t n-Octane (C8)	5.411	45497146	48.230	ug/mL M4
3) t n-Nonane (C9)	7.567	47887324	48.124	ug/mL M4
4) t n-Decane (C10)	10.018	50244718	48.796	ug/mL M4
5) t n-Undecane (C11)	12.516	51520948	49.256	ug/mL M4
6) t n-Dodecane (C12)	14.934	52784196	49.657	ug/mL M4
7) t n-Tridecane (C13)	17.237	53296036	49.964	ug/mL M4
9) t n-Tetradecane (C14)	19.414	54983024	50.667	ug/mL M4
11) t n-Pentadecane (C15)	21.474	55601565	51.114	ug/mL M4
12) t n-Hexadecane (C16)	23.429	55567562	50.678	ug/mL M4
14) t n-Heptadecane (C17)	25.287	56001694	51.059	ug/mL M4
15) t Pristane	25.395	57859984	51.958	ug/mL M4
16) t n-Octadecane (C18)	27.051	56931597	51.502	ug/mL M4
17) t Phytane	27.211	53327207	52.970	ug/mL M4
18) t n-Nonadecane (C19)	28.734	57315552	52.007	ug/mL M4
20) t n-Eicosane (C20)	30.338	57727491	52.135	ug/mL M4
21) t n-Heneicosane (C21)	31.873	58157592	51.723	ug/mL M4
22) t n-Docosane (C22)	33.347	58048603	51.750	ug/mL M4
23) t n-Tricosane (C23)	34.759	58041505	51.545	ug/mL M4
25) t n-Tetracosane (C24)	36.118	57753742	50.739	ug/mL M4
26) t n-Pentacosane (C25)	37.424	56814056	50.793	ug/mL M4
27) t n-Hexacosane (C26)	38.679	57976352	51.588	ug/mL M4
28) t n-Heptacosane (C27)	39.890	57534573	52.532	ug/mL M4
29) t n-Octacosane (C28)	41.062	58963972	52.194	ug/mL M4
30) t n-Nonacosane (C29)	42.195	58516311	52.038	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520024.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 9:00 am
 Operator : FID9:WR
 Sample : WG1373840-6
 Misc : WG1373840,FRBC59,ICAL16844
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 07 23:31:51 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units
31) t n-Triacontane (C30)	43.291	58513184	52.821 ug/mL M4
32) t n-Hentriacontane (C31)	44.348	56832931	51.006 ug/mL M4
33) t n-Dotriacontane (C32)	45.378	59194379	53.977 ug/mL M4
34) t n-Tritriacontane (C33)	46.373	57498328	53.014 ug/mL M4
35) t n-tetratriacontane (C34)	47.361	57596951	51.155 ug/mL M4
36) t n-Pentatriacontane (C35)	48.443	54264164	49.672 ug/mL M4
37) t n-Hexatriacontane (C36)	49.681	63627408	55.137 ug/mL M4
38) t n-Heptatriacontane (C37)	51.106	58248341	53.394 ug/mL M4
39) t n-Octatriacontane (C38)	52.763	59531761	50.412 ug/mL M4
41) t n-Tetracontane (C40)	56.992	57867548	51.301 ug/mL M4

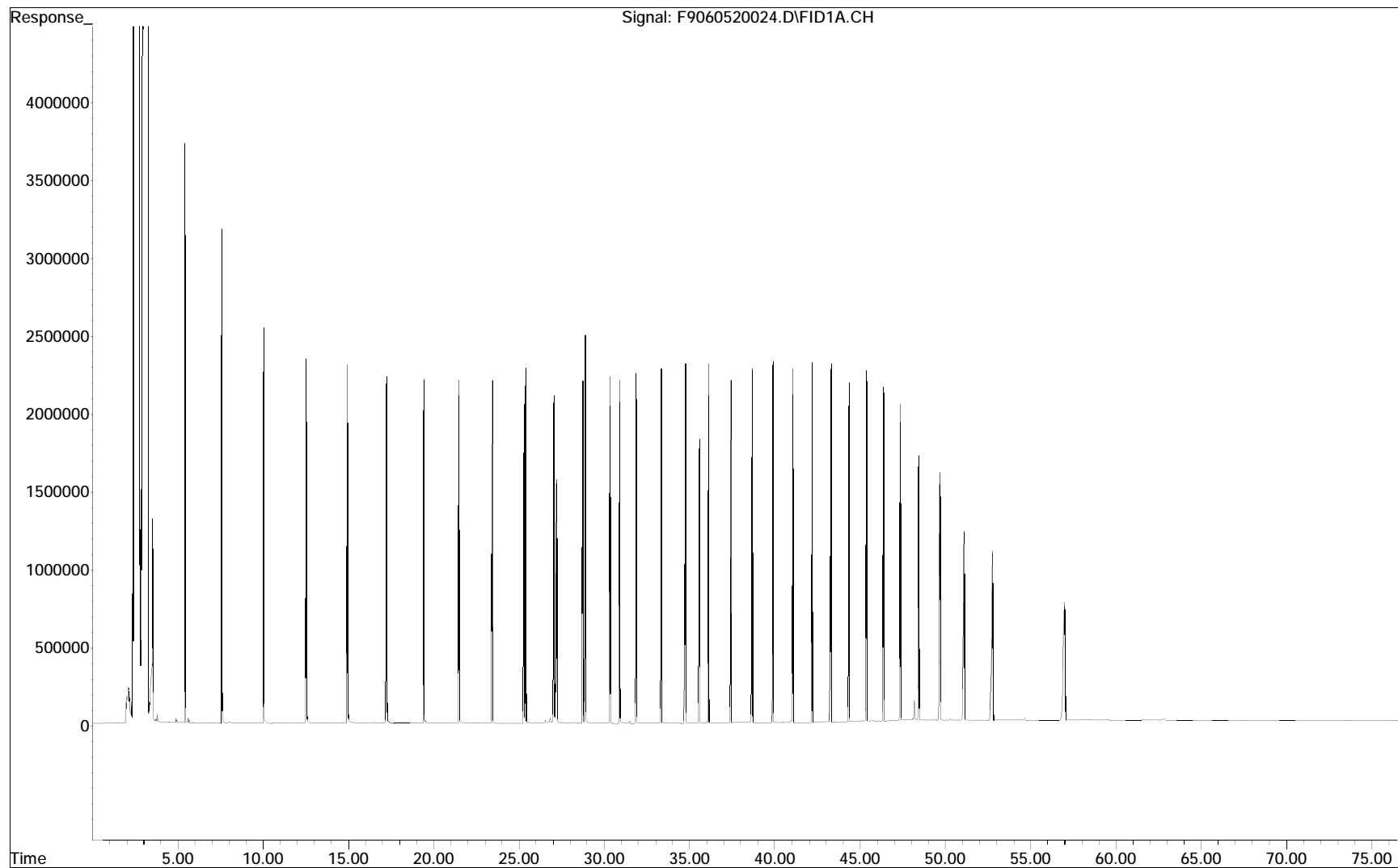
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520024.D
Operator : FID9:WR
Acquired : 06 Jun 2020 9:00 am using AcqMethod FID9A.M
Sample Name: WG1373840-6
Instrument: FID 9
Misc Info : WG1373840,FRBC59,ICAL16844
Vial Number: 12
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520012.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 12:06 am
 Operator : FID9:WR
 Sample : L2020213-01D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:58:23 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.900	62318070	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.866	6723949	5.179	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	10.36%#	
24) s d50-Tetracosane	35.549	5391983	5.192	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	10.38%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	7.540	17333	0.016	ug/mL M4
4) t n-Decane (C10)	10.004	40839	0.037	ug/mL M4
5) t n-Undecane (C11)	12.496	58909	0.052	ug/mL M4
6) t n-Dodecane (C12)	14.963	358556	0.314	ug/mL M4
7) t n-Tridecane (C13)	17.232	61980	0.054	ug/mL M4
8) t 1380	18.893	710120	0.609	ug/mL M4
9) t n-Tetradecane (C14)	19.390	226473	0.194	ug/mL M4
10) t 1470	20.680	814206	0.697	ug/mL M4
11) t n-Pentadecane (C15)	21.443	10020767	8.573	ug/mL M4
12) t n-Hexadecane (C16)	23.395	5668260	4.811	ug/mL M4
13) t 1650	24.314	1431016	1.214	ug/mL M4
14) t n-Heptadecane (C17)	25.265	82433	0.070	ug/mL M4
15) t Pristane	25.359	1855674	1.551	ug/mL M4
16) t n-Octadecane (C18)	27.084	52205265G	43.951	ug/mL M4
17) t Phytane	27.239	14545307G	13.446	ug/mL M4
18) t n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t n-Eicosane (C20)	0.000	0	N.D.	ug/mL d
21) t n-Heneicosane (C21)	31.838	543434	0.450	ug/mL M4
22) t n-Docosane (C22)	33.318	237473	0.197	ug/mL M4
23) t n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520012.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 12:06 am
 Operator : FID9:WR
 Sample : L2020213-01D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:58:23 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units
25) t n-Tetracosane (C24)	36.084	298621	0.244 ug/mL M4
26) t n-Pentacosane (C25)	0.000	0	N.D. ug/mL d
27) t n-Hexacosane (C26)	38.639	139782	0.116 ug/mL M4
28) t n-Heptacosane (C27)	39.864	673005	0.572 ug/mL M4
29) t n-Octacosane (C28)	41.011	415387	0.342 ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t n-Triacontane (C30)	43.292	484959	0.407 ug/mL M4
32) t n-Hentriacontane (C31)	44.358	1738239	1.452 ug/mL M4
33) t n-Dotriacontane (C32)	45.329	1115402	0.947 ug/mL M4
34) t n-Tritriacontane (C33)	46.310	4039301	3.466 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL d
36) t n-Pentatriacontane (C35)	48.391	1639872	1.397 ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t n-Heptatriacontane (C37)	51.084	1485693	1.267 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t n-Nonatriacontane (C39)	54.650	451596	0.373 ug/mL M4
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h C9-C44 Total Petroleu...	39.336	1697157900	1436.670 ug/mL m
42) h C9-C44 Total Petroleu BS	39.336	1268429310	1073.745 ug/mLm
43) h C9-C40 Total Petroleu...	32.246	1440437284	1219.352 ug/ml m
43) h C9-C40 Total Petroleu BS	32.246	1203665627	1018.921 ug/mlm
44) h C10-C28 DRO	25.531	851013131	721.227 ug/mL m
44) h C10-C28 DRO BS	25.531	799163860	677.285 ug/mLm
45) h >C12-C44 Total Petrol...	0.000	0	N.D. ug/mL d
46) h >C12-C40 Total Petrol...	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO BS	0.000	0	N.D. ug/mLd
48) h Total Resolved Hydroc...	36.191	621882905	526.433 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
Data File : F9060520012.D
Signal(s) : FID1A.CH
Acq On : 06 Jun 2020 12:06 am
Operator : FID9:WR
Sample : L2020213-01D,42,5
Misc : WG1373840,WG1372713,ICAL16844
ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jun 08 11:58:23 2020
Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
Quant Title : FID Forensics
QLast Update : Sun Jun 07 22:58:14 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Blank Name : IB906052001F
Blank File : F9060520010.D

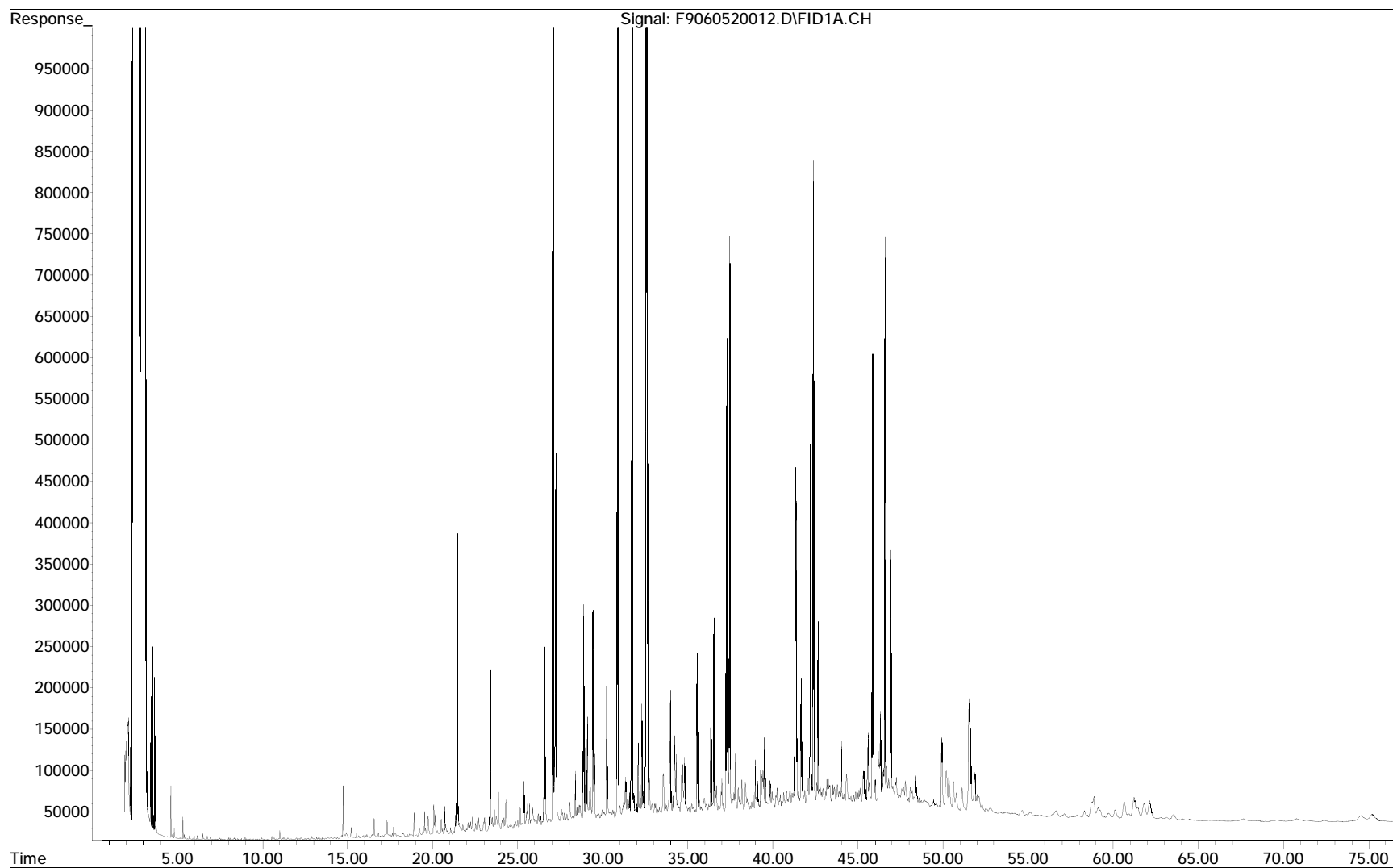
Sub List : Default - All compounds listed

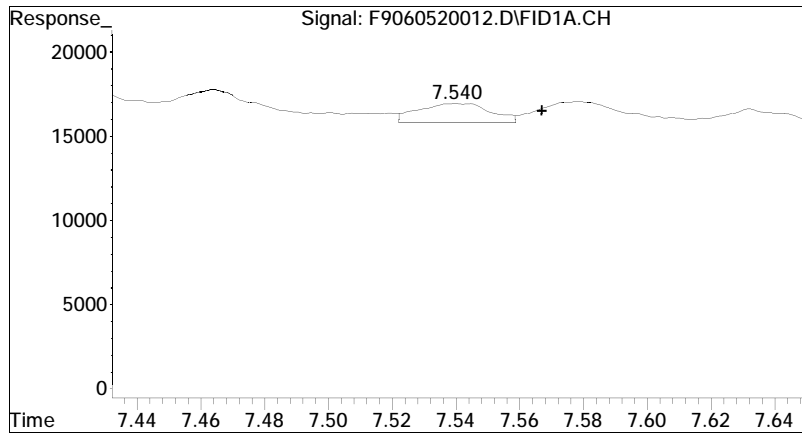
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

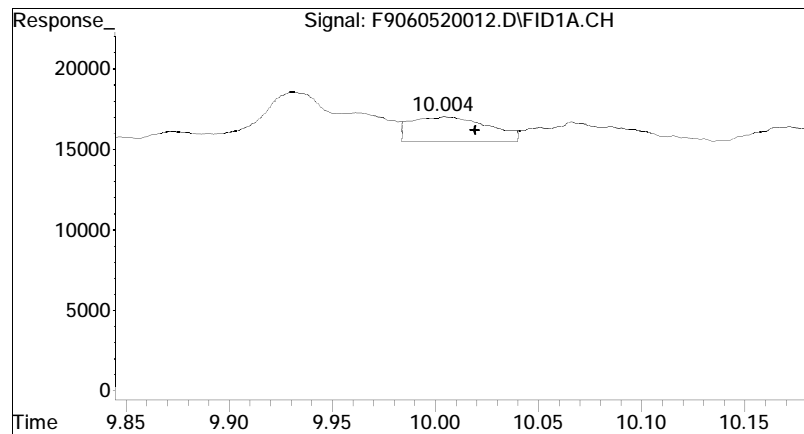
File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520012.D
Operator : FID9:WR
Acquired : 06 Jun 2020 12:06 am using AcqMethod FID9A.M
Sample Name: L2020213-01D,42,5
Instrument: FID 9
Misc Info : WG1373840,WG1372713,ICAL16844
Vial Number: 6
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M



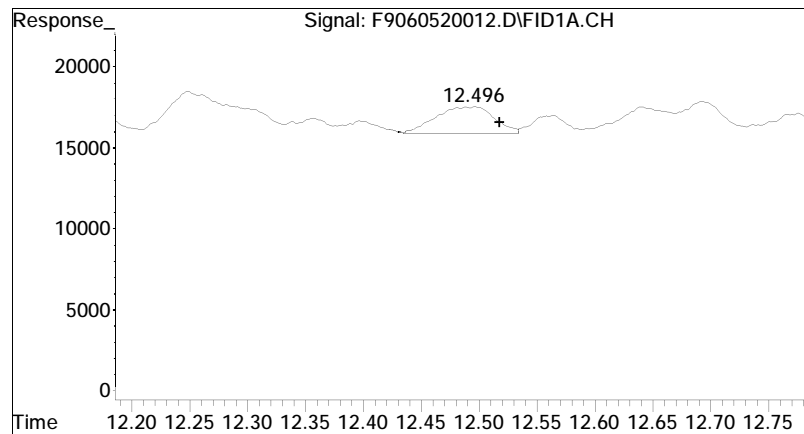


#3 n-Nonane (C9)

R.T.: 7.540 min
Delta R.T.: -0.027 min
Response: 17333
Conc: 0.02 ug/mL M4

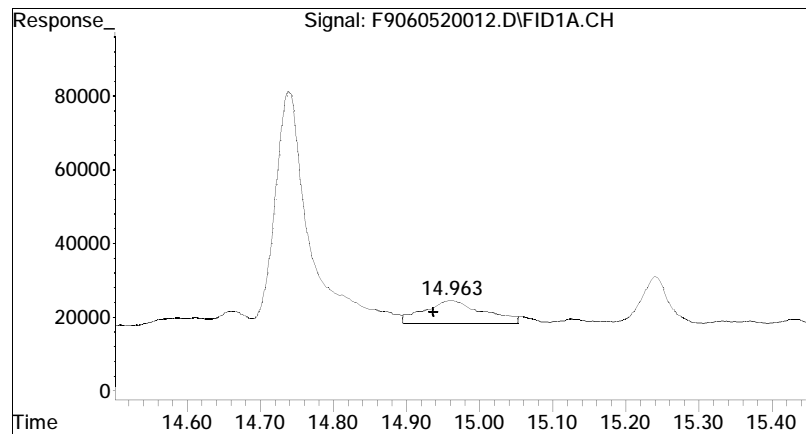


#4 n-Decane (C10)
R.T.: 10.004 min
Delta R.T.: -0.015 min
Response: 40839
Conc: 0.04 ug/mL M4



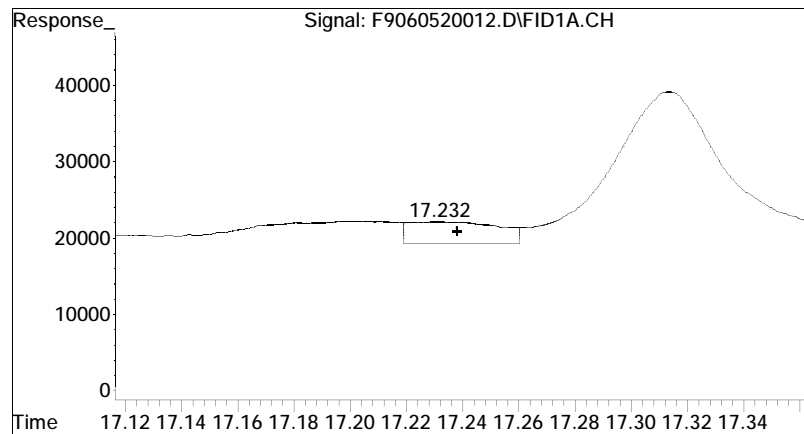
#5 n-Undecane (C11)

R.T.: 12.496 min
Delta R.T.: -0.022 min
Response: 58909
Conc: 0.05 ug/mL M4



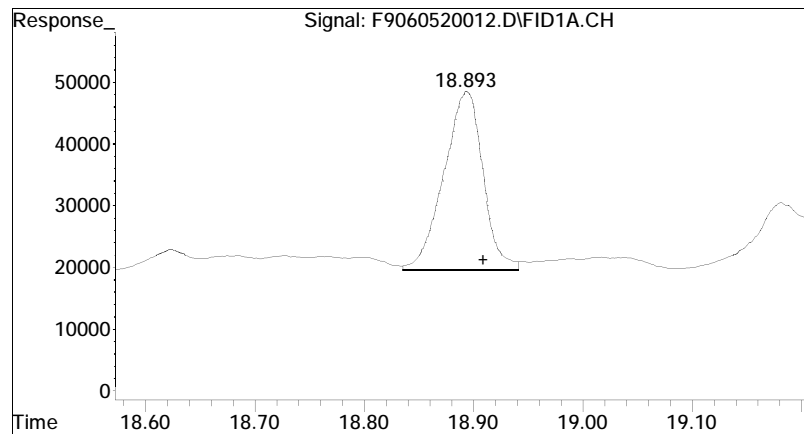
#6 n-Dodecane (C12)

R.T.: 14.963 min
Delta R.T.: 0.026 min
Response: 358556
Conc: 0.31 ug/mL M4



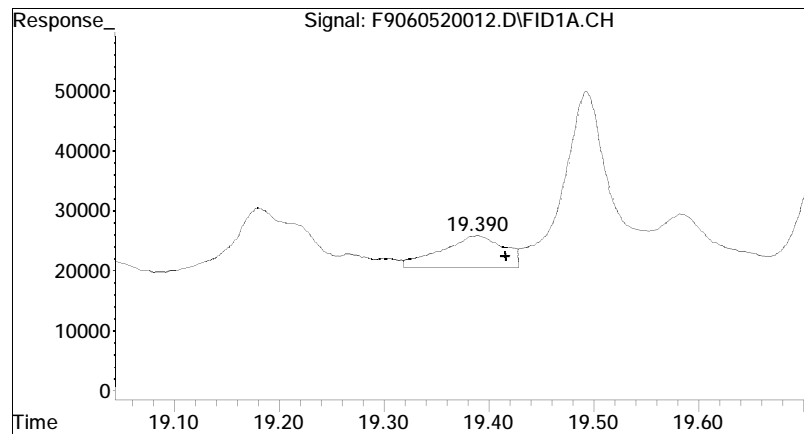
#7 n-Tridecane (C13)

R.T.: 17.232 min
Delta R.T.: -0.006 min
Response: 61980
Conc: 0.05 ug/mL M4



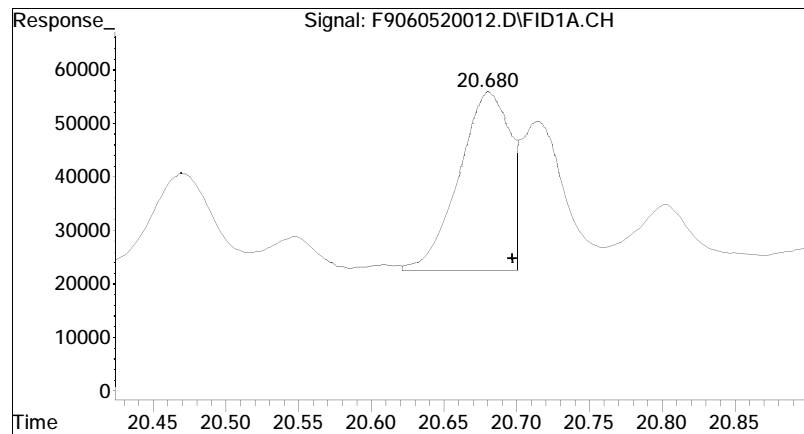
#8 1380

R.T.: 18.893 min
Delta R.T.: -0.016 min
Response: 710120
Conc: 0.61 ug/mL M4



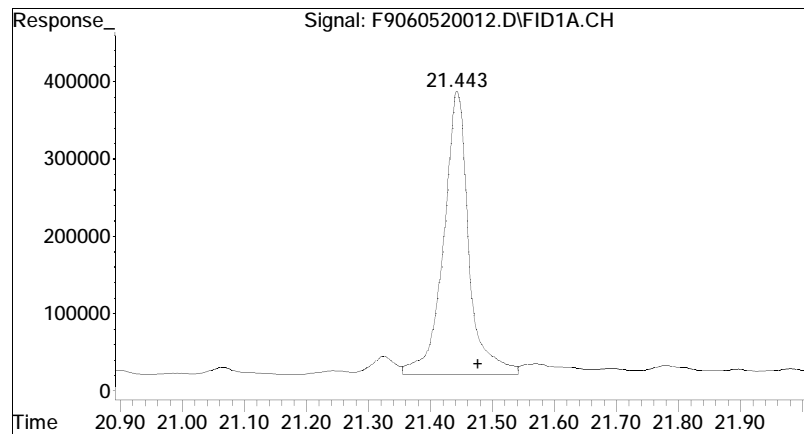
#9 n-Tetradecane (C14)

R.T.: 19.390 min
Delta R.T.: -0.027 min
Response: 226473
Conc: 0.19 ug/mL M4

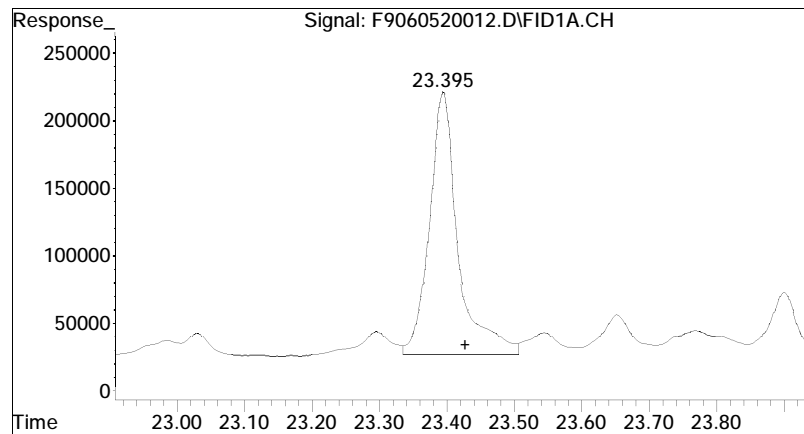


#10 1470

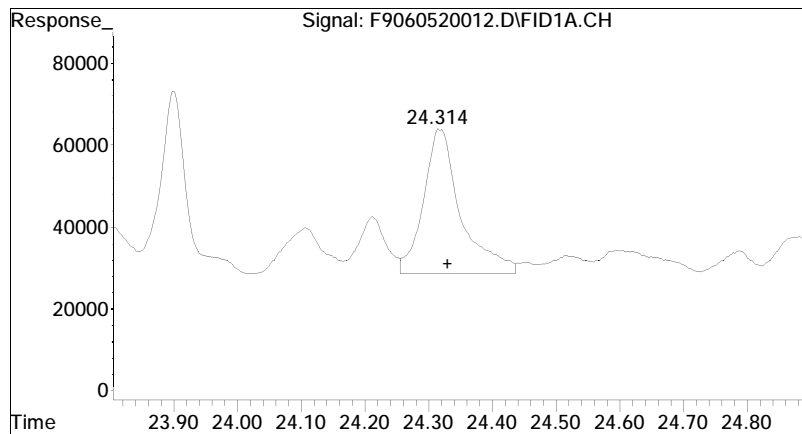
R.T.: 20.680 min
Delta R.T.: -0.017 min
Response: 814206
Conc: 0.70 ug/mL M4



#11 n-Pentadecane (C15)
R.T.: 21.443 min
Delta R.T.: -0.033 min
Response: 10020767
Conc: 8.57 ug/mL M4

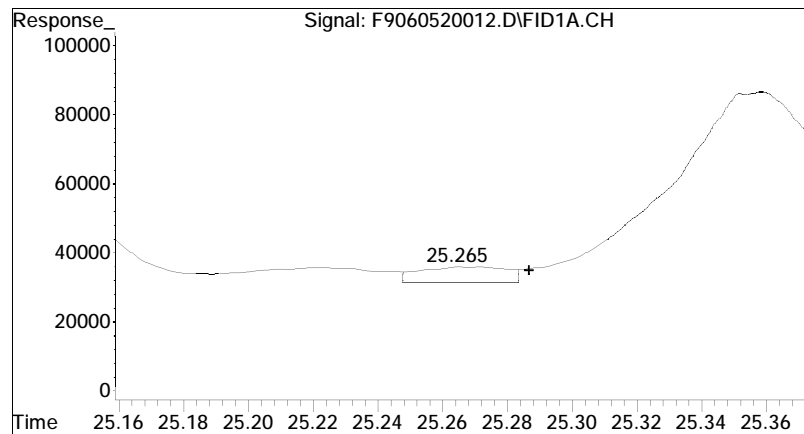


#12 n-Hexadecane (C16)
R.T.: 23.395 min
Delta R.T.: -0.033 min
Response: 5668260
Conc: 4.81 ug/mL M4



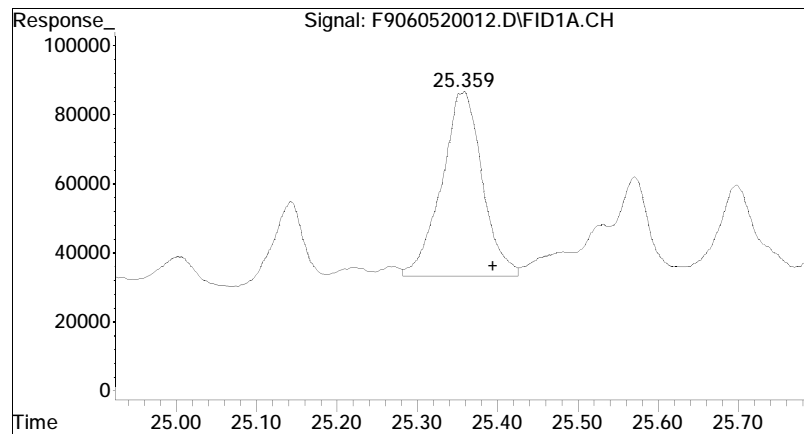
#13 1650

R.T.: 24.314 min
Delta R.T.: -0.016 min
Response: 1431016
Conc: 1.21 ug/mL M4



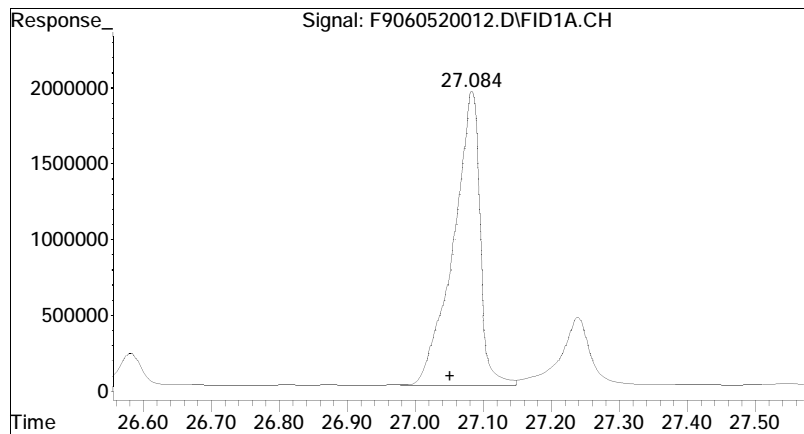
#14 n-Heptadecane (C17)

R.T.: 25.265 min
Delta R.T.: -0.022 min
Response: 82433
Conc: 0.07 ug/mL M4

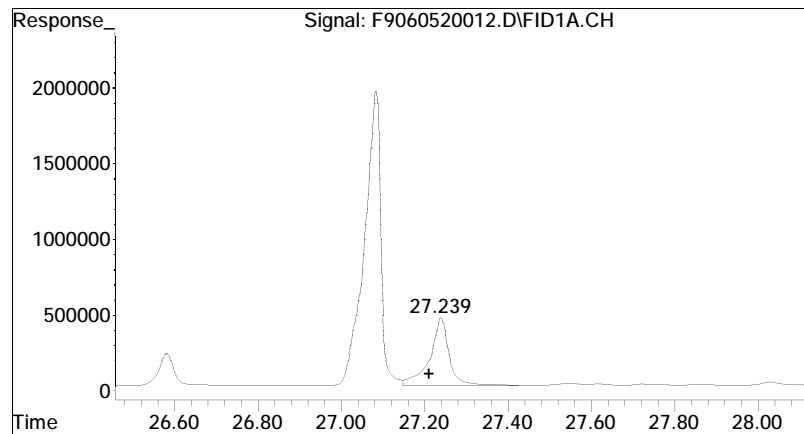


#15 Pristane

R.T.: 25.359 min
Delta R.T.: -0.036 min
Response: 1855674
Conc: 1.55 ug/mL M4

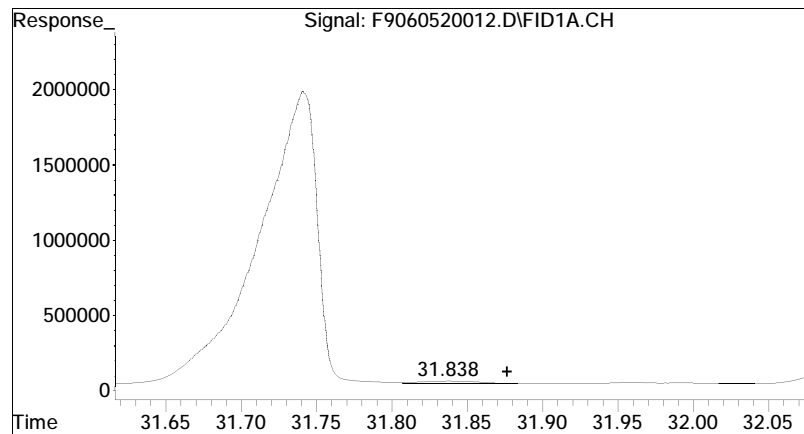


#16 n-Octadecane (C18)
R.T.: 27.084 min
Delta R.T.: 0.032 min
Response: 52205265
Conc: 43.95 ug/mL M4

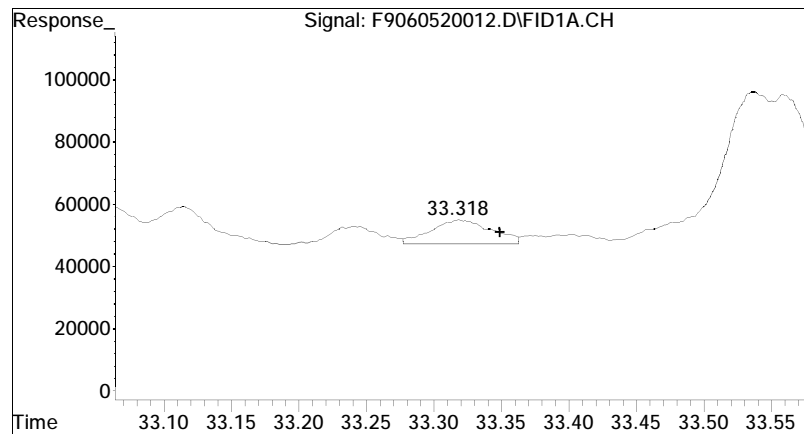


#17 Phytane

R.T.: 27.239 min
Delta R.T.: 0.029 min
Response: 14545307
Conc: 13.45 ug/mL M4

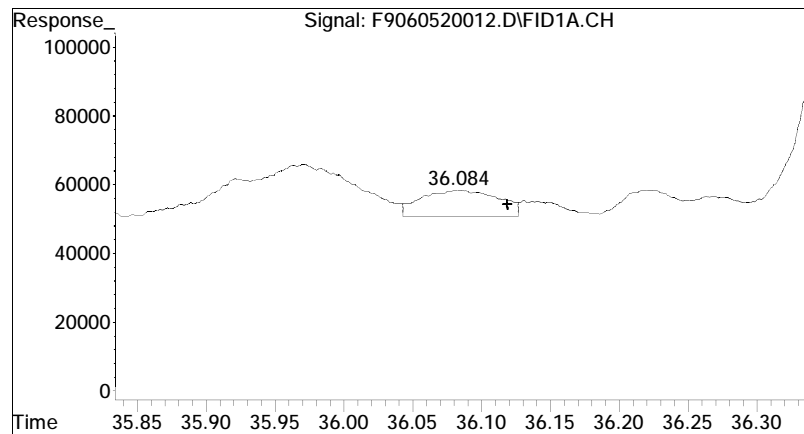


#21 n-Heneicosane (C21)
R.T.: 31.838 min
Delta R.T.: -0.039 min
Response: 543434
Conc: 0.45 ug/mL M4



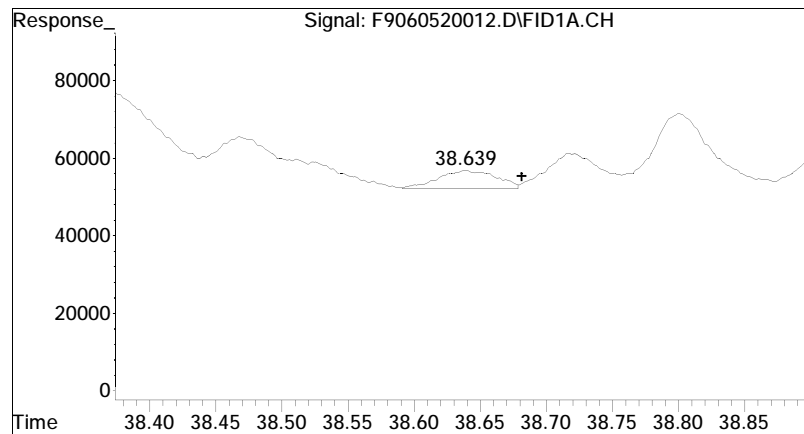
#22 n-Docosane (C22)

R.T.: 33.318 min
Delta R.T.: -0.031 min
Response: 237473
Conc: 0.20 ug/mL M4



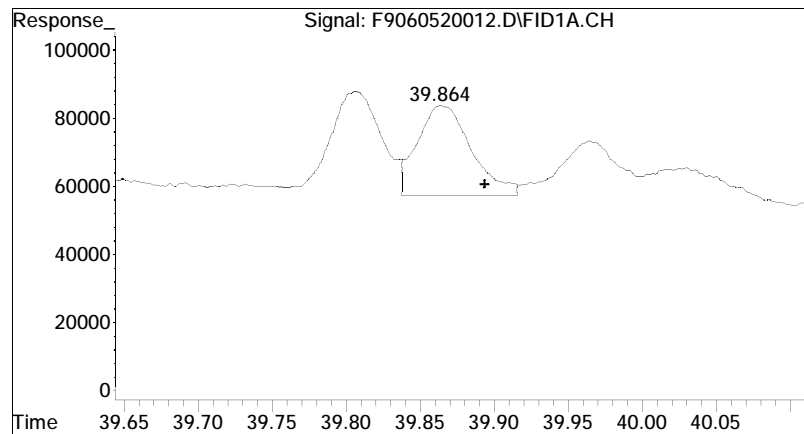
#25 n-Tetracosane (C24)

R.T.: 36.084 min
Delta R.T.: -0.035 min
Response: 298621
Conc: 0.24 ug/mL M4

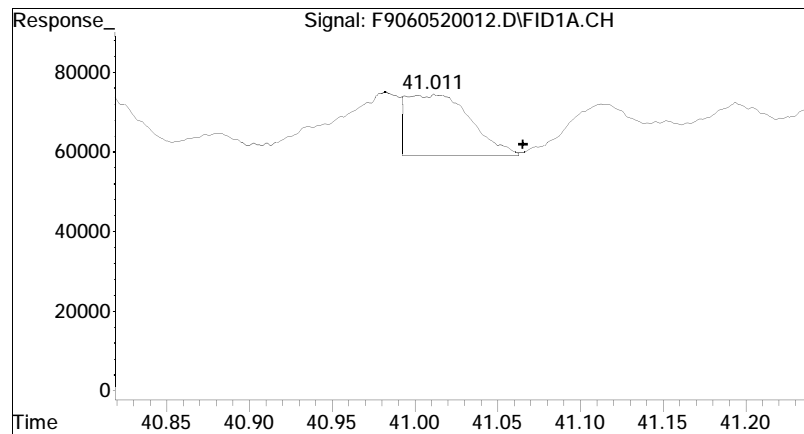


#27 n-Hexacosane (C26)

R.T.: 38.639 min
Delta R.T.: -0.042 min
Response: 139782
Conc: 0.12 ug/mL M4

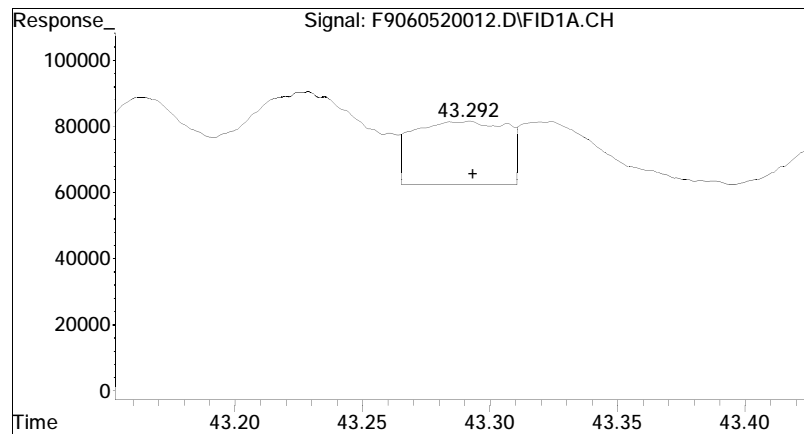


#28 n-Heptacosane (C27)
R.T.: 39.864 min
Delta R.T.: -0.030 min
Response: 673005
Conc: 0.57 ug/mL M4



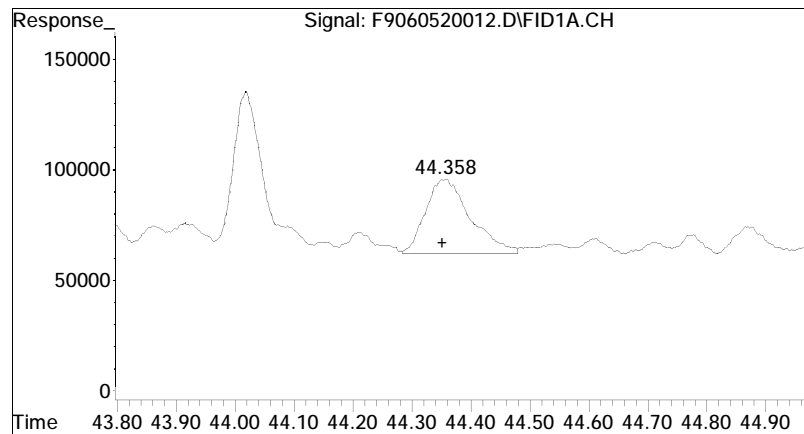
#29 n-Octacosane (C28)

R.T.: 41.011 min
Delta R.T.: -0.054 min
Response: 415387
Conc: 0.34 ug/mL M4



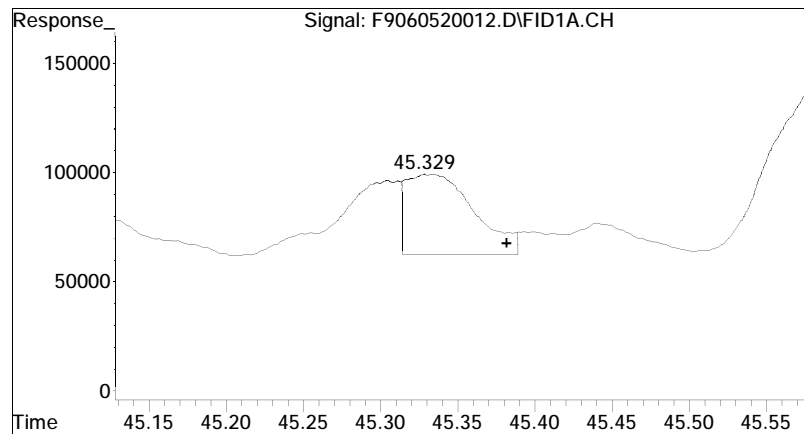
#31 n-Triacontane (C30)

R.T.: 43.292 min
Delta R.T.: -0.002 min
Response: 484959
Conc: 0.41 ug/mL M4

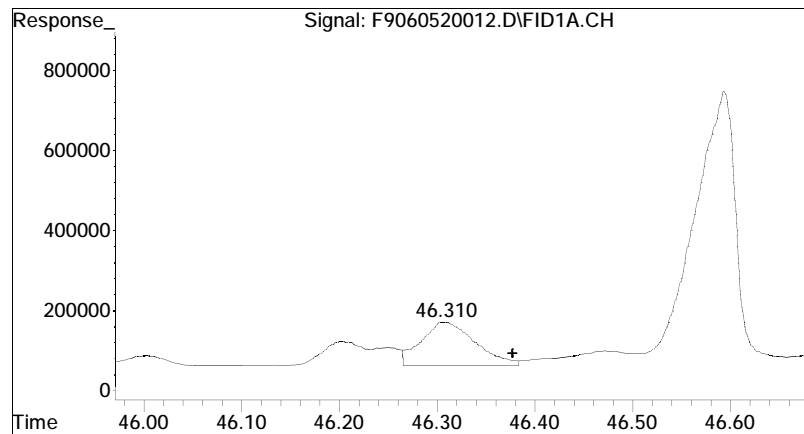


#32 n-Hentriacontane (C31)

R.T.: 44.358 min
Delta R.T.: 0.006 min
Response: 1738239
Conc: 1.45 ug/mL M4

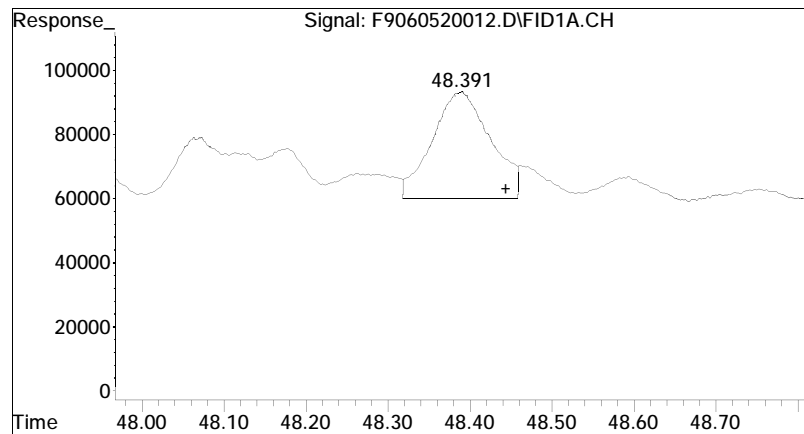


#33 n-Dotriacontane (C32)
R.T.: 45.329 min
Delta R.T.: -0.053 min
Response: 1115402
Conc: 0.95 ug/mL M4



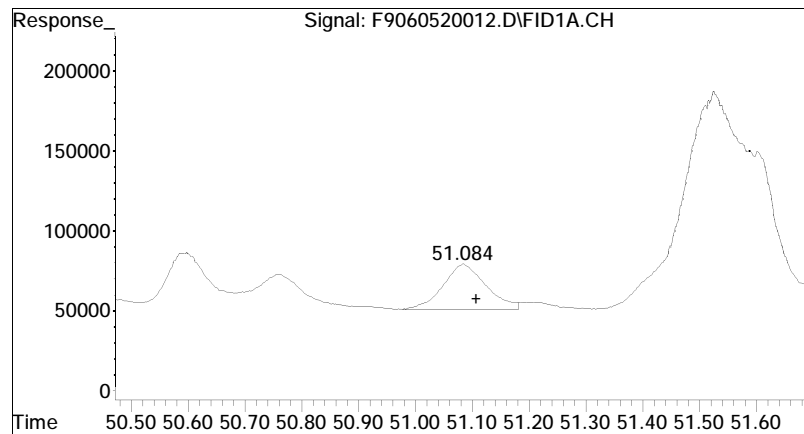
#34 n-Tritriacontane (C33)

R.T.: 46.310 min
Delta R.T.: -0.068 min
Response: 4039301
Conc: 3.47 ug/mL M4



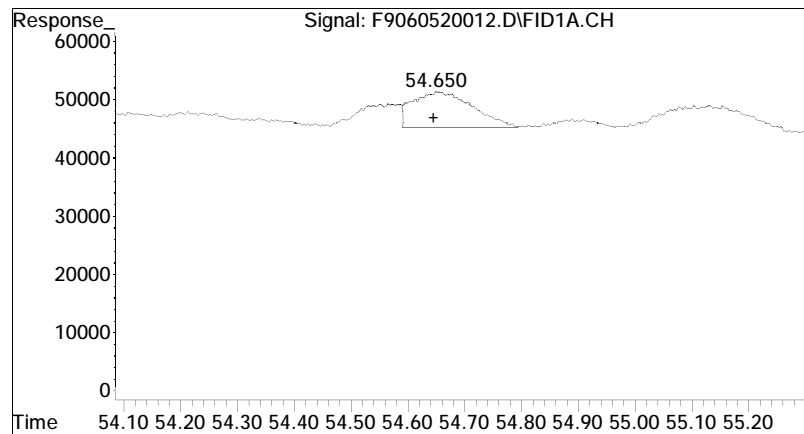
#36 n-Pentatriacontane (C35)

R.T.: 48.391 min
Delta R.T.: -0.054 min
Response: 1639872
Conc: 1.40 ug/mL M4



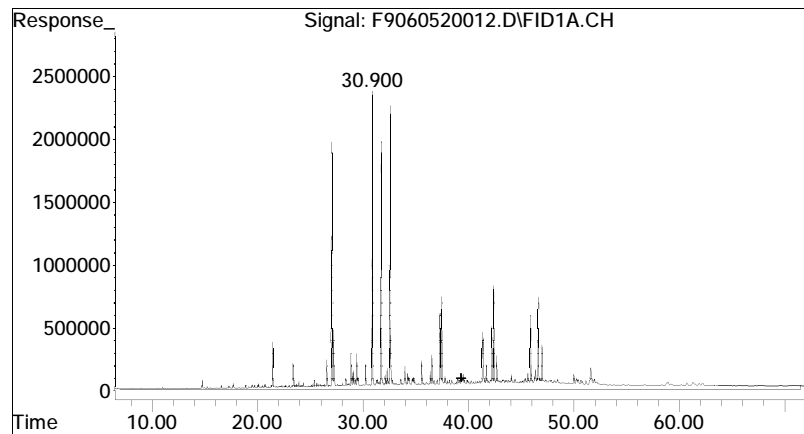
#38 n-Heptatriacontane (C37)

R.T.: 51.084 min
Delta R.T.: -0.024 min
Response: 1485693
Conc: 1.27 ug/mL M4



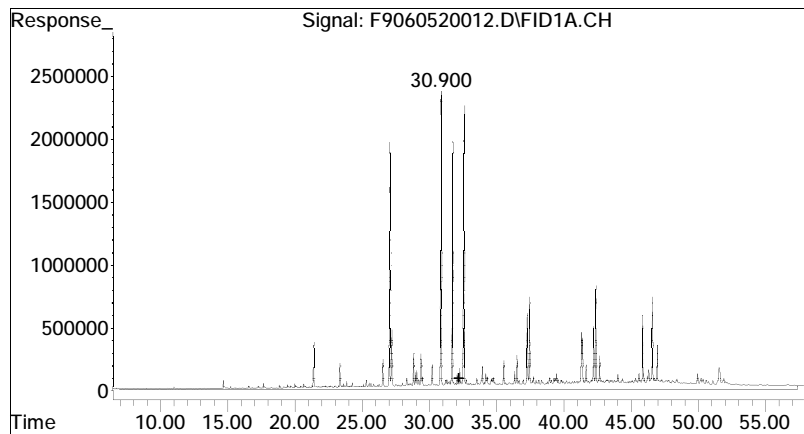
#40 n-Nonatriacontane (C39)

R.T.: 54.650 min
Delta R.T.: 0.004 min
Response: 451596
Conc: 0.37 ug/mL M4



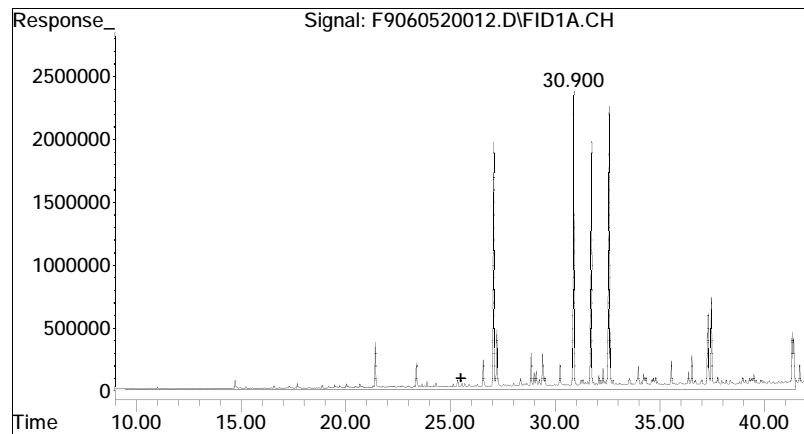
#42 C9-C44 Total Petroleum Hy

R.T.: 39.336 min
Delta R.T.: 0.000 min
Response: 1697157900
Conc: 1436.67 ug/mL m



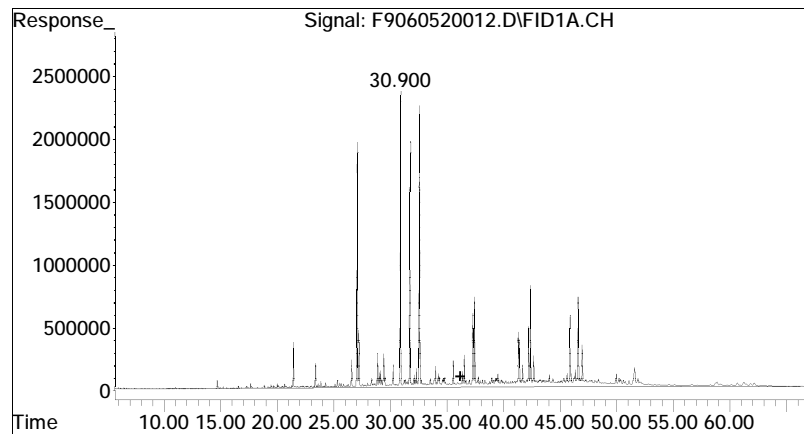
#43 C9-C40 Total Petroleum Hy

R.T.: 32.246 min
Delta R.T.: 0.000 min
Response: 1440437284
Conc: 1219.35 ug/ml m



#44 C10-C28 DRO

R.T.: 25.531 min
Delta R.T.: 0.000 min
Response: 851013131
Conc: 721.23 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 621882905
Conc: 526.43 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520014.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 1:36 am
 Operator : FID9:WR
 Sample : L2020213-02D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:48:18 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.902	63250426	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.864	3244879	2.463	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	4.93%#	
24) s d50-Tetracosane	35.547	2694478	2.556	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	5.11%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	9.993	26161	0.023	ug/mL M4
5) t n-Undecane (C11)	12.498	33273	0.029	ug/mL M4
6) t n-Dodecane (C12)	14.962	554103	0.478	ug/mL M4
7) t n-Tridecane (C13)	17.233	66674	0.057	ug/mL M4
8) t 1380	18.895	143572	0.121	ug/mL M4
9) t n-Tetradecane (C14)	19.392	124592	0.105	ug/mL M4
10) t 1470	20.686	145921	0.123	ug/mL M4
11) t n-Pentadecane (C15)	21.446	15043099	12.680	ug/mL M4
12) t n-Hexadecane (C16)	23.396	6152771	5.145	ug/mL M4
13) t 1650	24.317	368756	0.308	ug/mL M4
14) t n-Heptadecane (C17)	25.270	52822	0.044	ug/mL M4
15) t Pristane	25.356	610998	0.503	ug/mL M4
16) t n-Octadecane (C18)	27.088	58390625G	48.433	ug/mL M4
17) t Phytane	27.239	12956322G	11.800	ug/mL M4
18) t n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t n-Eicosane (C20)	0.000	0	N.D.	ug/mL
21) t n-Heneicosane (C21)	31.838	238689	0.195	ug/mL M4
22) t n-Docosane (C22)	33.320	89199	0.073	ug/mL M4
23) t n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520014.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 1:36 am
 Operator : FID9:WR
 Sample : L2020213-02D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:48:18 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units
25) t n-Tetracosane (C24)	36.087	256250	0.206 ug/mL M4
26) t n-Pentacosane (C25)	0.000	0	N.D. ug/mL d
27) t n-Hexacosane (C26)	38.645	51143	0.042 ug/mL M4
28) t n-Heptacosane (C27)	39.868	257712	0.216 ug/mL M4
29) t n-Octacosane (C28)	41.008	266241	0.216 ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t n-Triacontane (C30)	43.295	399764	0.331 ug/mL M4
32) t n-Hentriacontane (C31)	44.355	1137785	0.936 ug/mL M4
33) t n-Dotriacontane (C32)	45.334	1274306	1.065 ug/mL M4
34) t n-Tritriacontane (C33)	46.312	3414730	2.887 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL d
36) t n-Pentatriacontane (C35)	48.385	1162953	0.976 ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t n-Heptatriacontane (C37)	51.092	1313680	1.104 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t n-Nonatriacontane (C39)	54.649	360467	0.293 ug/mL M4
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h C9-C44 Total Petroleu...	39.336	1277422278	1065.418 ug/mL m
42) h C9-C44 Total Petroleu BS	39.336	848693688	707.842 ug/mLm
43) h C9-C40 Total Petroleu...	32.246	1038236986	865.928 ug/ml m
43) h C9-C40 Total Petroleu BS	32.246	801465329	668.452 ug/mlm
44) h C10-C28 DRO	25.531	589600326	492.316 ug/mL m
44) h C10-C28 DRO BS	25.531	537751055	449.022 ug/mLm
45) h >C12-C44 Total Petrol...	46.457	838737426	699.538 ug/mL m
46) h >C12-C40 Total Petrol...	38.170	797928015	665.502 ug/mL m
47) h C28-C40 ORO	48.993	291564499	238.882 ug/mL m
47) h C28-C40 ORO BS	48.993	291564499	238.882 ug/mLm
48) h Total Resolved Hydroc...	36.191	575305185	479.826 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
Data File : F9060520014.D
Signal(s) : FID1A.CH
Acq On : 06 Jun 2020 1:36 am
Operator : FID9:WR
Sample : L2020213-02D,42,5
Misc : WG1373840,WG1372713,ICAL16844
ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jun 08 11:48:18 2020
Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
Quant Title : FID Forensics
QLast Update : Sun Jun 07 22:58:14 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Blank Name : IB906052001F
Blank File : F9060520010.D

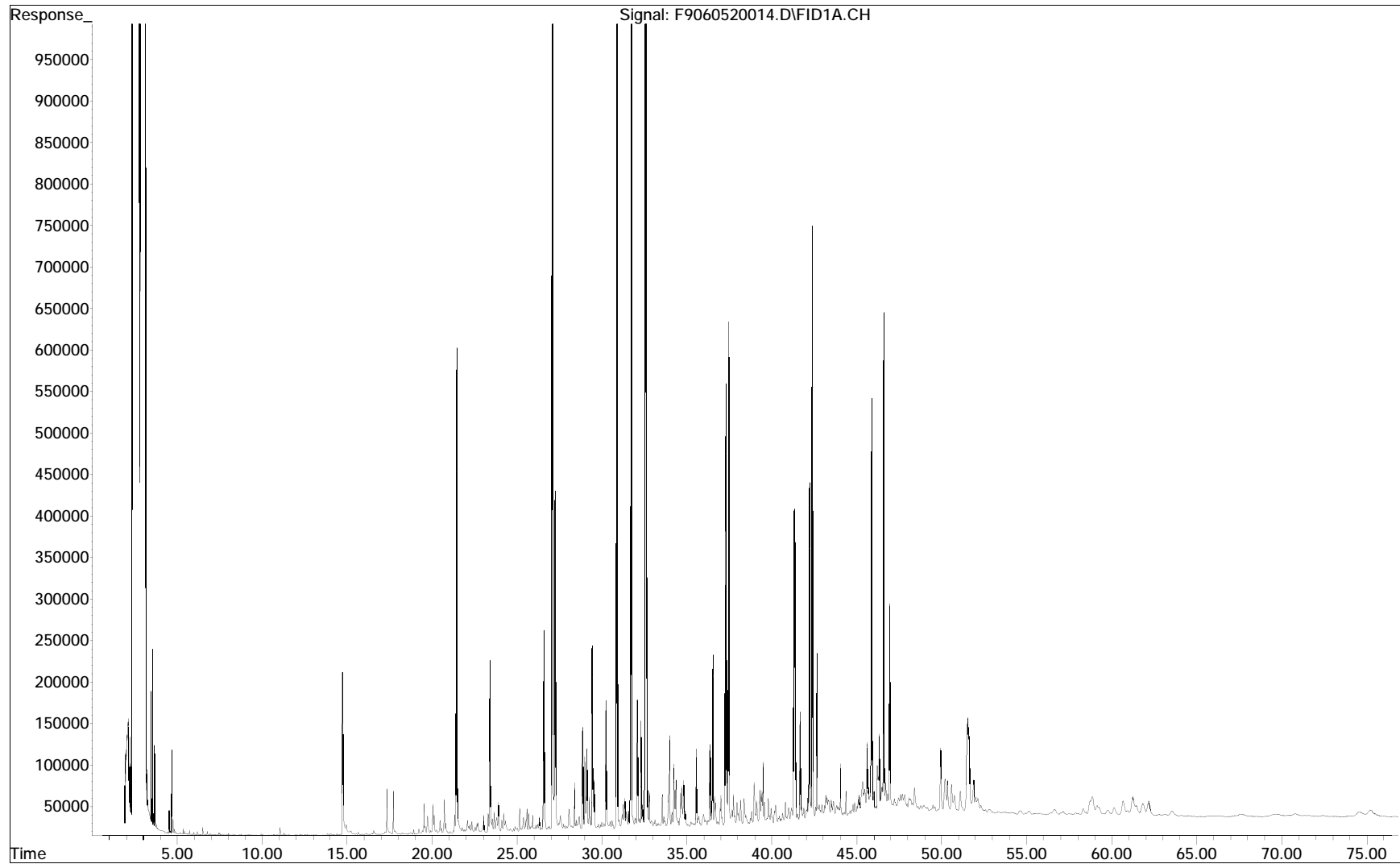
Sub List : Default - All compounds listed

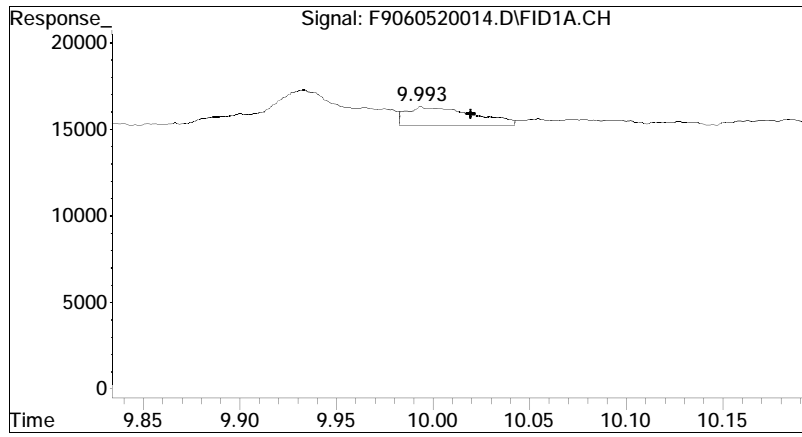
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

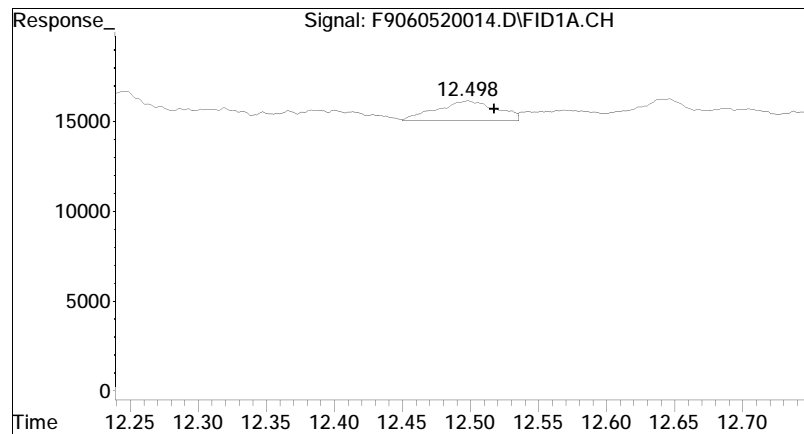
File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520014.D
Operator : FID9:WR
Acquired : 06 Jun 2020 1:36 am using AcqMethod FID9A.M
Sample Name: L2020213-02D,42,5
Instrument: FID 9
Misc Info : WG1373840,WG1372713,ICAL16844
Vial Number: 7
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M





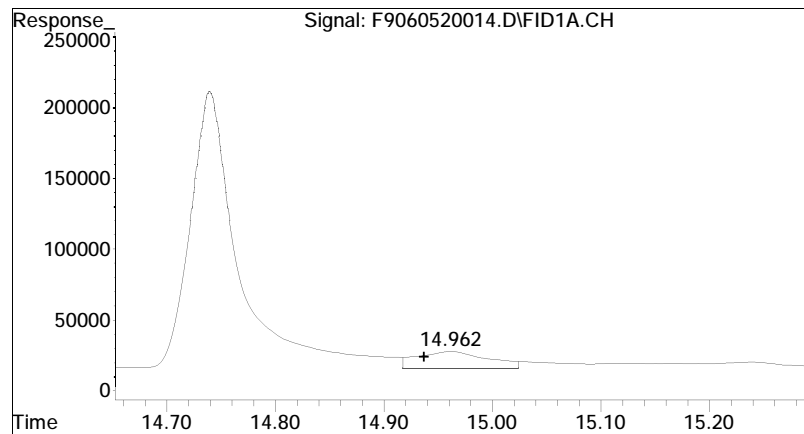
#4 n-Decane (C10)

R.T.: 9.993 min
Delta R.T.: -0.026 min
Response: 26161
Conc: 0.02 ug/mL M4



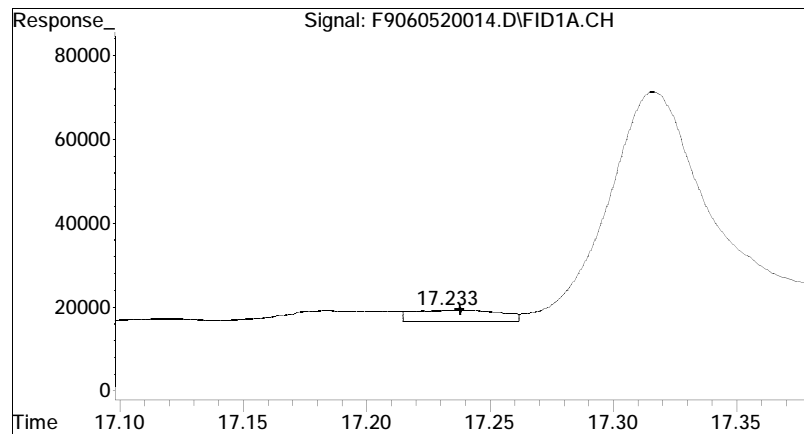
#5 n-Undecane (C11)

R.T.: 12.498 min
Delta R.T.: -0.020 min
Response: 33273
Conc: 0.03 ug/mL M4



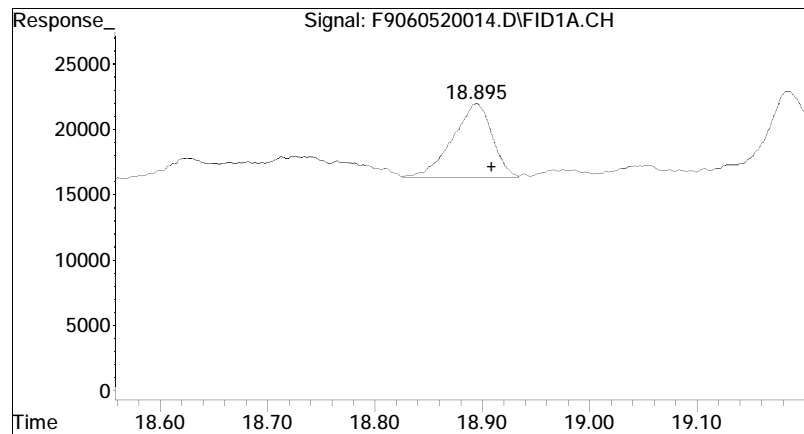
#6 n-Dodecane (C12)

R.T.: 14.962 min
Delta R.T.: 0.025 min
Response: 554103
Conc: 0.48 ug/mL M4



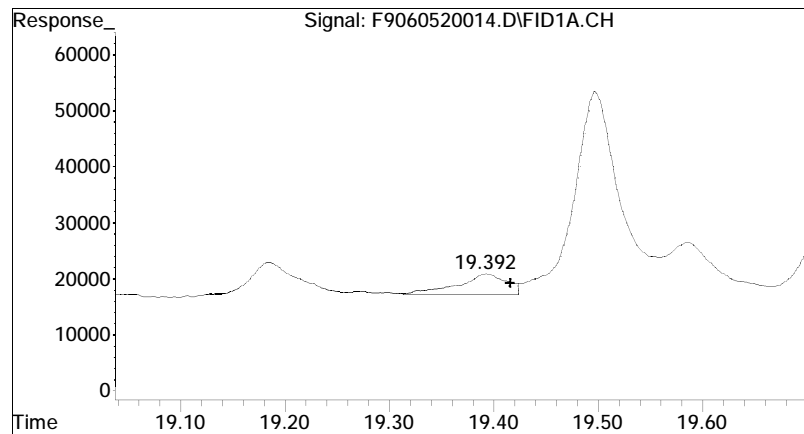
#7 n-Tridecane (C13)

R.T.: 17.233 min
Delta R.T.: -0.005 min
Response: 66674
Conc: 0.06 ug/mL M4



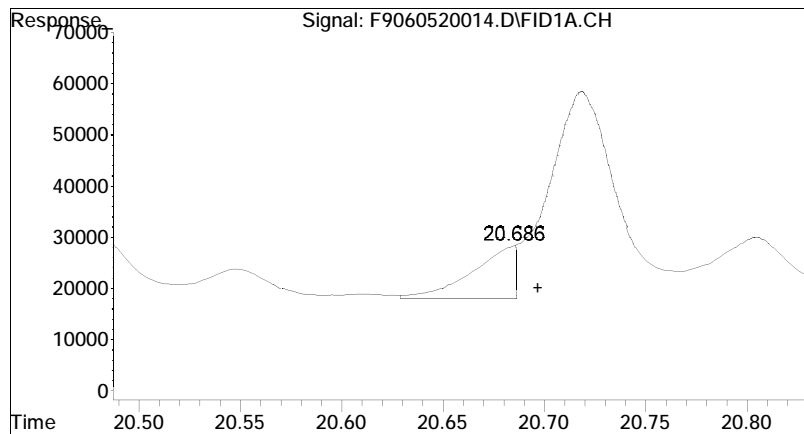
#8 1380

R.T.: 18.895 min
Delta R.T.: -0.014 min
Response: 143572
Conc: 0.12 ug/mL M4



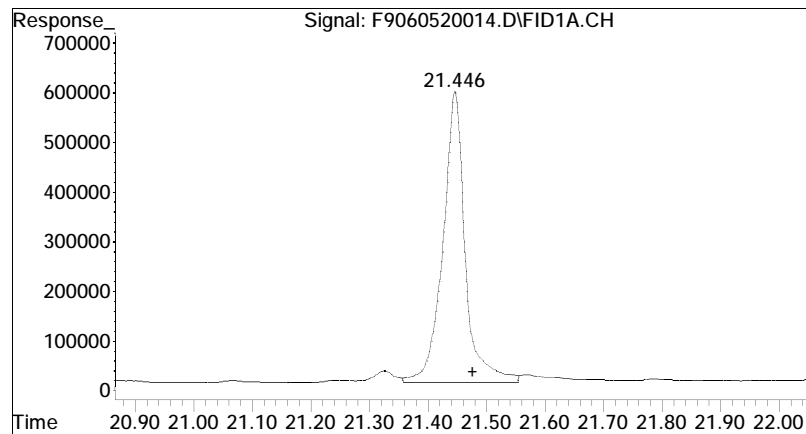
#9 n-Tetradecane (C14)

R.T.: 19.392 min
Delta R.T.: -0.024 min
Response: 124592
Conc: 0.11 ug/mL M4

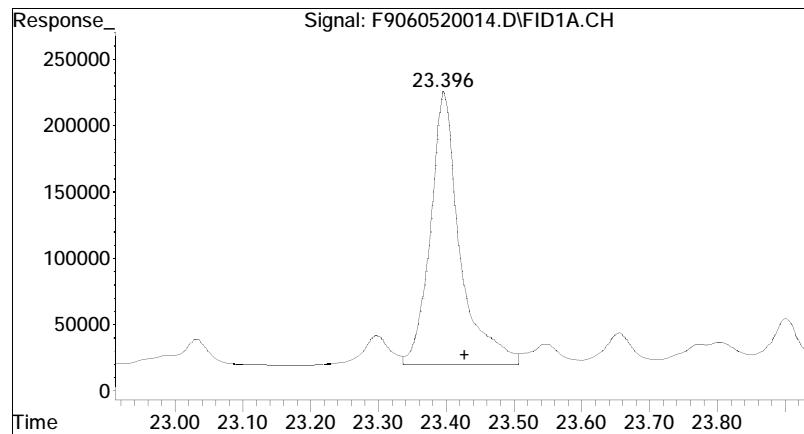


#10 1470

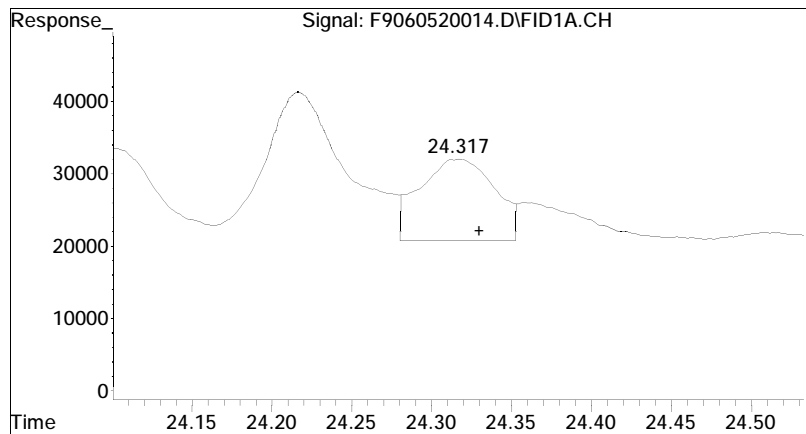
R.T.: 20.686 min
Delta R.T.: -0.011 min
Response: 145921
Conc: 0.12 ug/mL M4



#11 n-Pentadecane (C15)
R.T.: 21.446 min
Delta R.T.: -0.031 min
Response: 15043099
Conc: 12.68 ug/mL M4

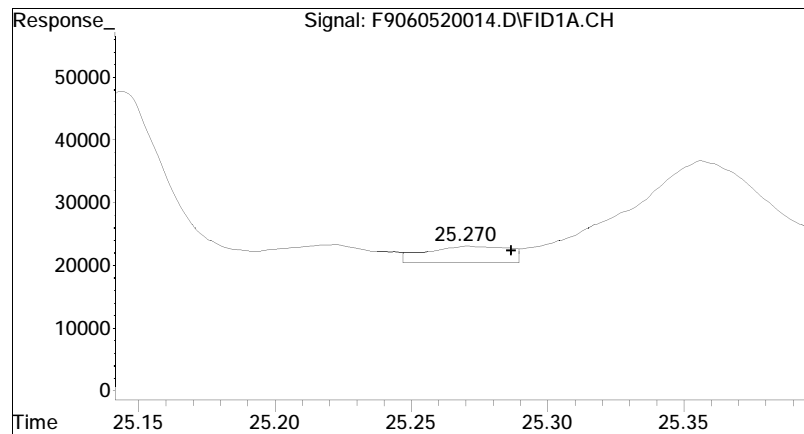


#12 n-Hexadecane (C16)
R.T.: 23.396 min
Delta R.T.: -0.032 min
Response: 6152771
Conc: 5.15 ug/mL M4



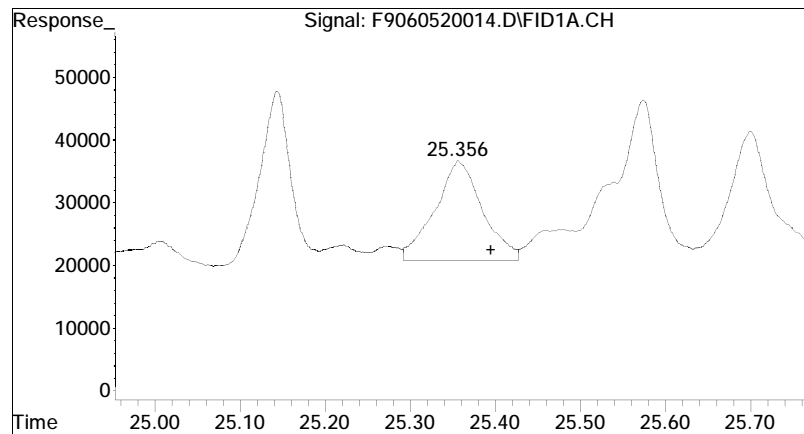
#13 1650

R.T.: 24.317 min
Delta R.T.: -0.013 min
Response: 368756
Conc: 0.31 ug/mL M4



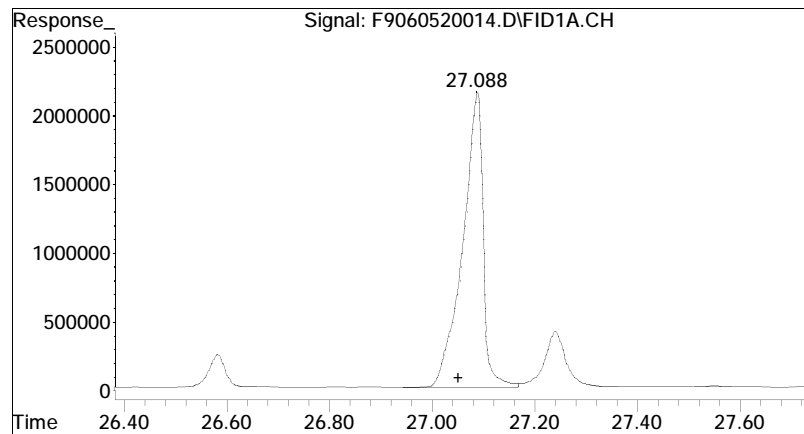
#14 n-Heptadecane (C17)

R.T.: 25.270 min
Delta R.T.: -0.017 min
Response: 52822
Conc: 0.04 ug/mL M4

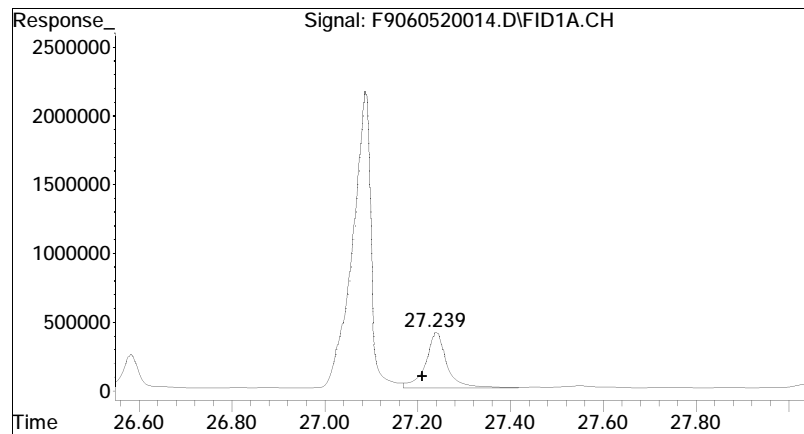


#15 Pristane

R.T.: 25.356 min
Delta R.T.: -0.039 min
Response: 610998
Conc: 0.50 ug/mL M4

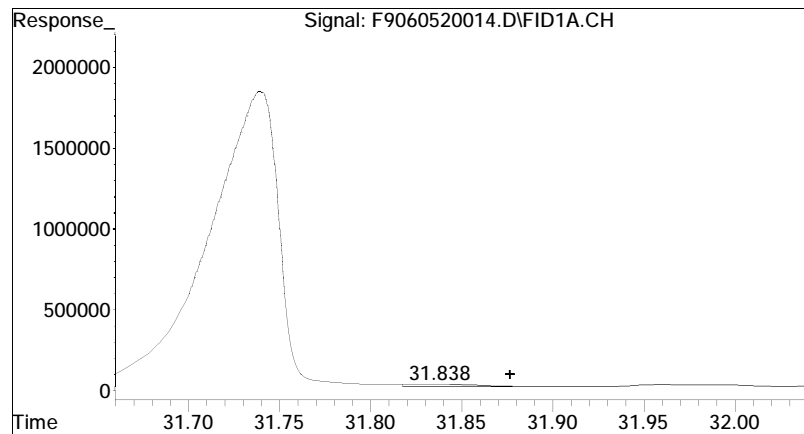


#16 n-Octadecane (C18)
R.T.: 27.088 min
Delta R.T.: 0.036 min
Response: 58390625
Conc: 48.43 ug/mL M4

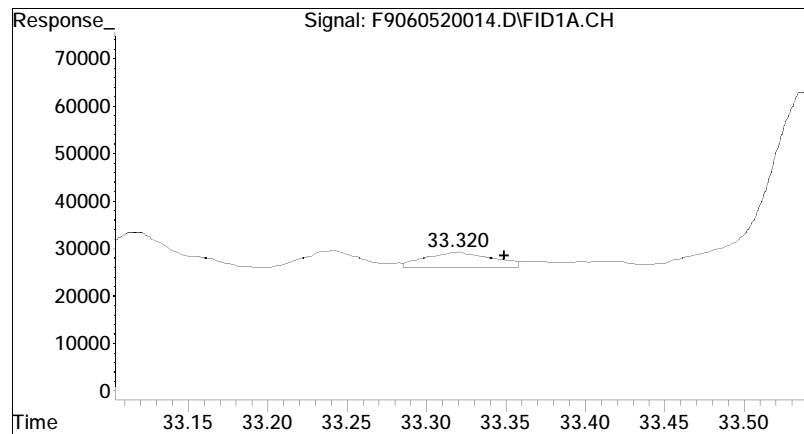


#17 Phytane

R.T.: 27.239 min
Delta R.T.: 0.028 min
Response: 12956322
Conc: 11.80 ug/mL M4

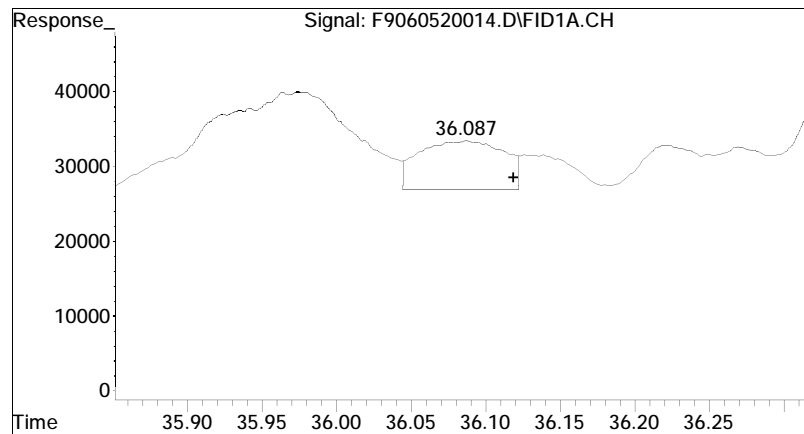


#21 n-Heneicosane (C21)
R.T.: 31.838 min
Delta R.T.: -0.039 min
Response: 238689
Conc: 0.19 ug/mL M4

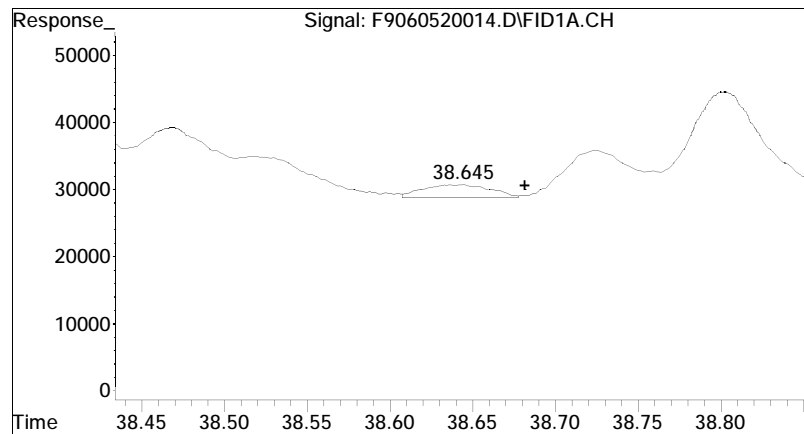


#22 n-Docosane (C22)

R.T.: 33.320 min
Delta R.T.: -0.029 min
Response: 89199
Conc: 0.07 ug/mL M4

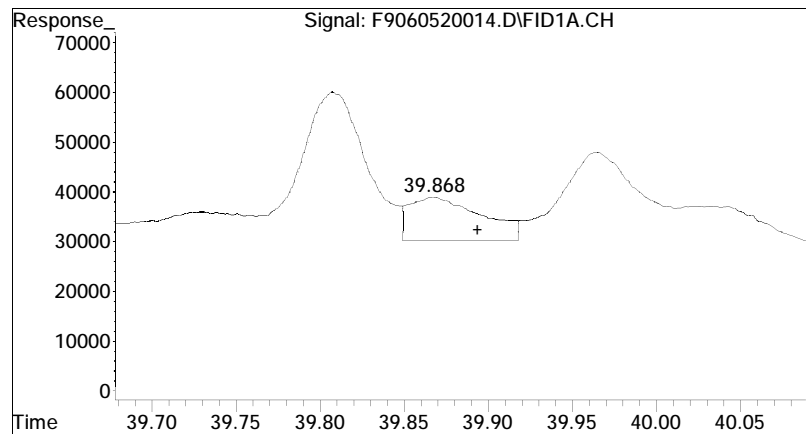


#25 n-Tetracosane (C24)
R.T.: 36.087 min
Delta R.T.: -0.032 min
Response: 256250
Conc: 0.21 ug/mL M4

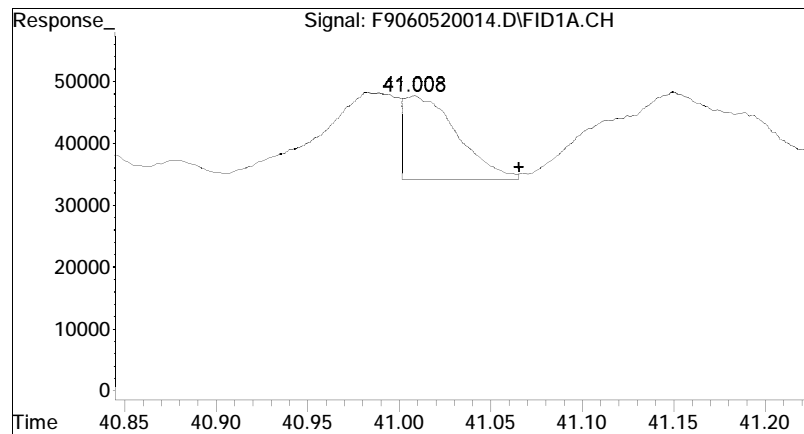


#27 n-Hexacosane (C26)

R.T.: 38.645 min
Delta R.T.: -0.037 min
Response: 51143
Conc: 0.04 ug/mL M4

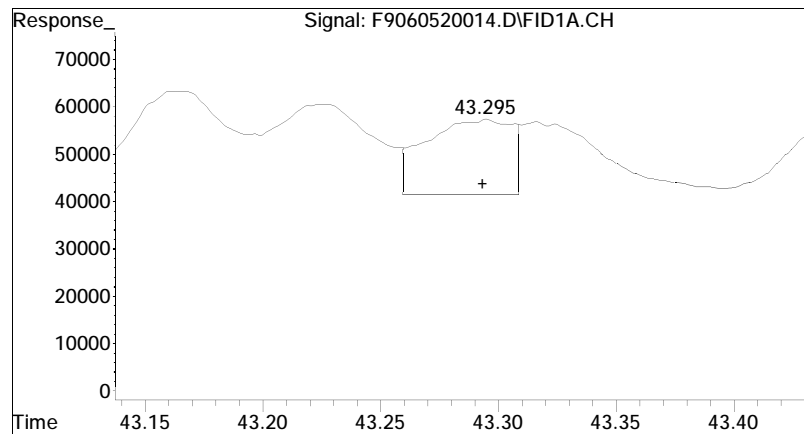


#28 n-Heptacosane (C27)
R.T.: 39.868 min
Delta R.T.: -0.025 min
Response: 257712
Conc: 0.22 ug/mL M4



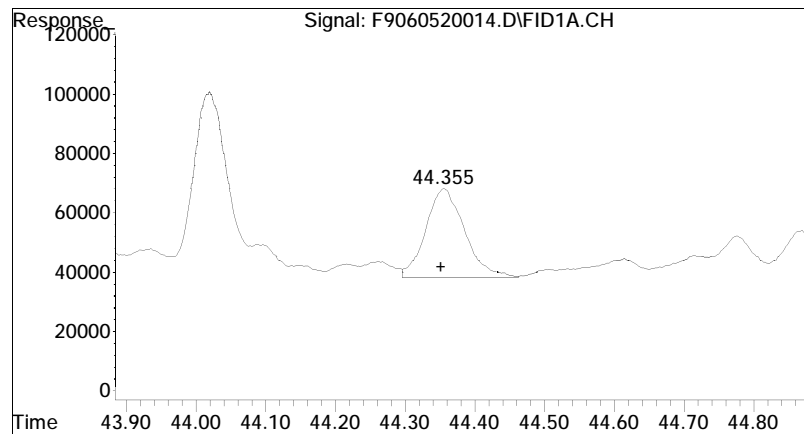
#29 n-Octacosane (C28)

R.T.: 41.008 min
Delta R.T.: -0.057 min
Response: 266241
Conc: 0.22 ug/mL M4



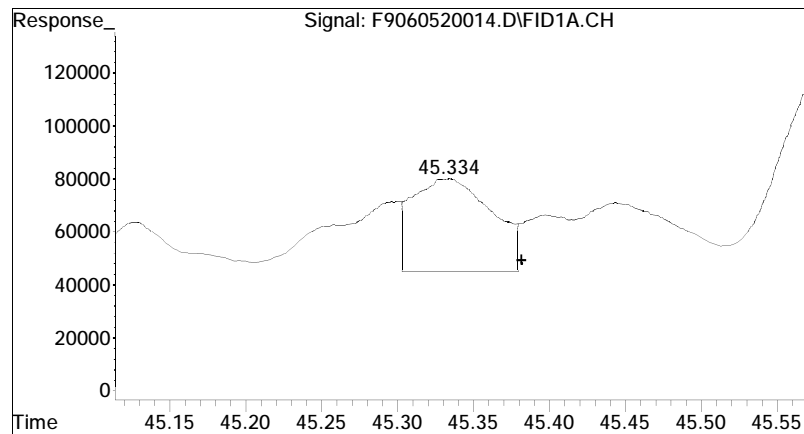
#31 n-Triacontane (C30)

R.T.: 43.295 min
Delta R.T.: 0.001 min
Response: 399764
Conc: 0.33 ug/mL M4



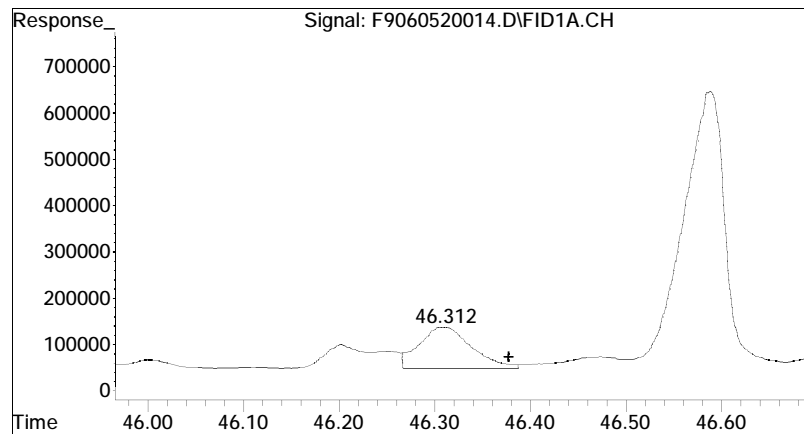
#32 n-Hentriacontane (C31)

R.T.: 44.355 min
Delta R.T.: 0.003 min
Response: 1137785
Conc: 0.94 ug/mL M4



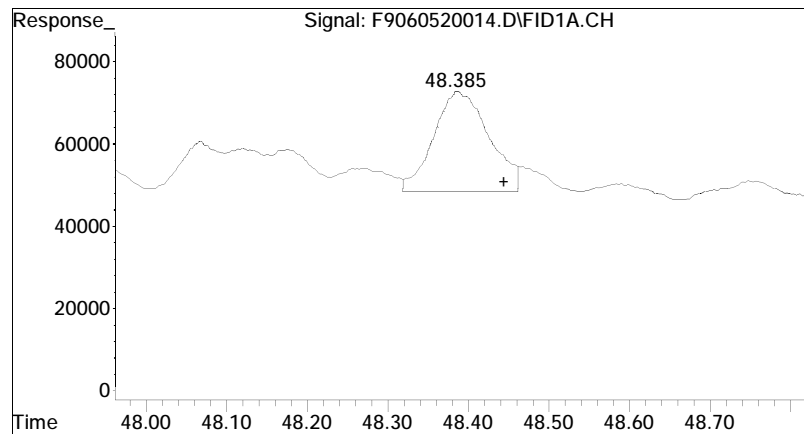
#33 n-Dotriacontane (C32)

R.T.: 45.334 min
Delta R.T.: -0.048 min
Response: 1274306
Conc: 1.07 ug/mL M4



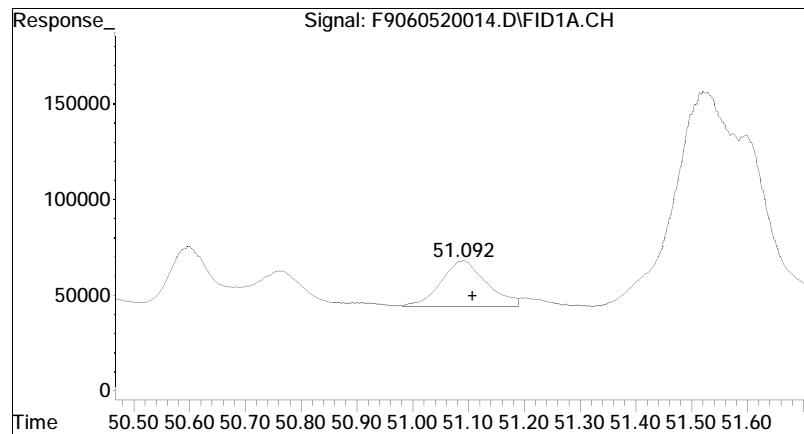
#34 n-Tritriacontane (C33)

R.T.: 46.312 min
Delta R.T.: -0.065 min
Response: 3414730
Conc: 2.89 ug/mL M4



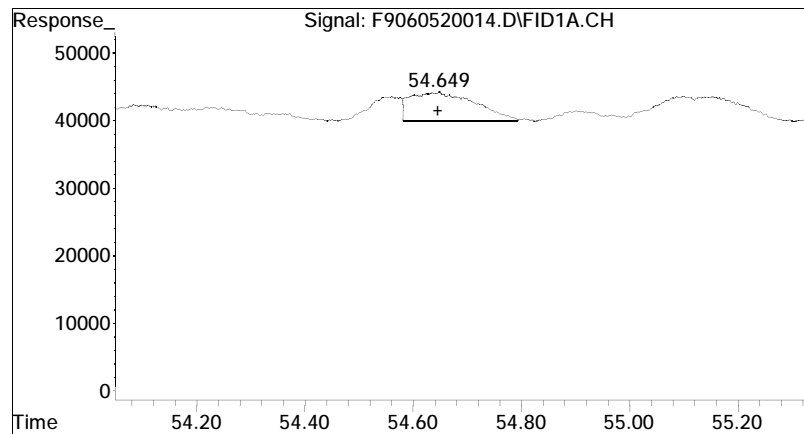
#36 n-Pentatriacontane (C35)

R.T.: 48.385 min
Delta R.T.: -0.060 min
Response: 1162953
Conc: 0.98 ug/mL M4



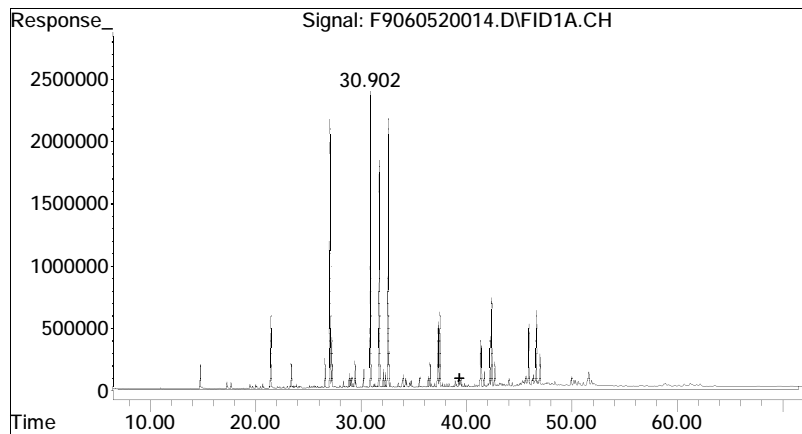
#38 n-Heptatriacontane (C37)

R.T.: 51.092 min
Delta R.T.: -0.015 min
Response: 1313680
Conc: 1.10 ug/mL M4



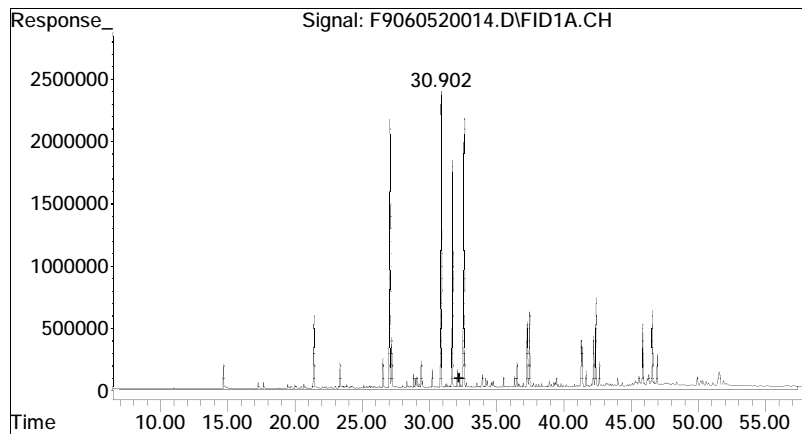
#40 n-Nonatriacontane (C39)

R.T.: 54.649 min
Delta R.T.: 0.003 min
Response: 360467
Conc: 0.29 ug/mL M4



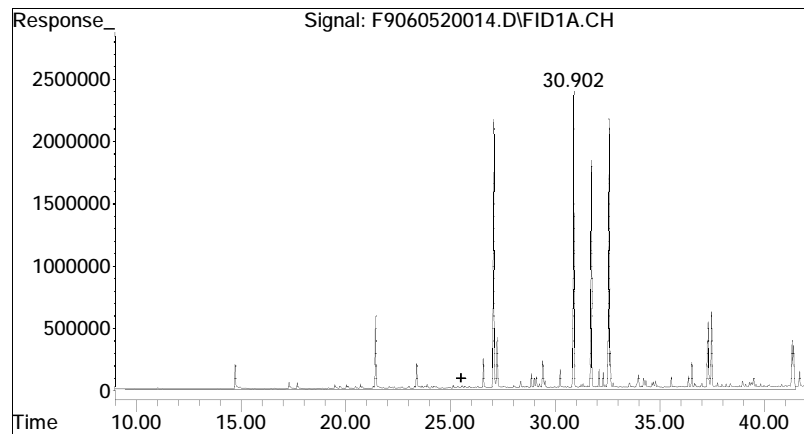
#42 C9-C44 Total Petroleum Hy

R.T.: 39.336 min
Delta R.T.: 0.000 min
Response: 1277422278
Conc: 1065.42 ug/mL m



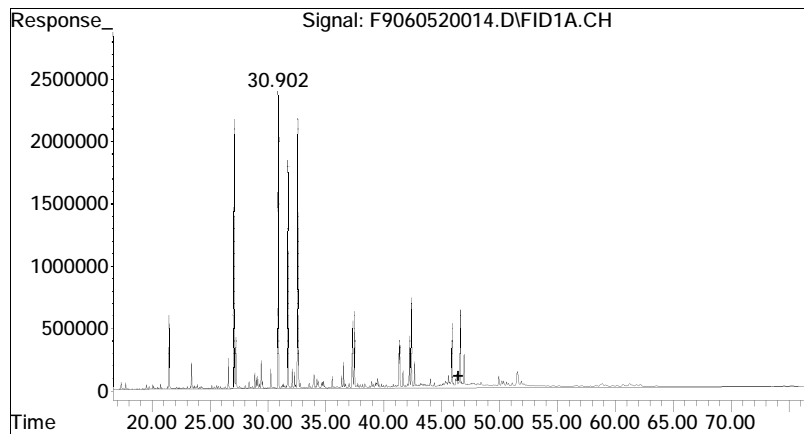
#43 C9-C40 Total Petroleum Hy

R.T.: 32.246 min
Delta R.T.: 0.000 min
Response: 1038236986
Conc: 865.93 ug/ml m



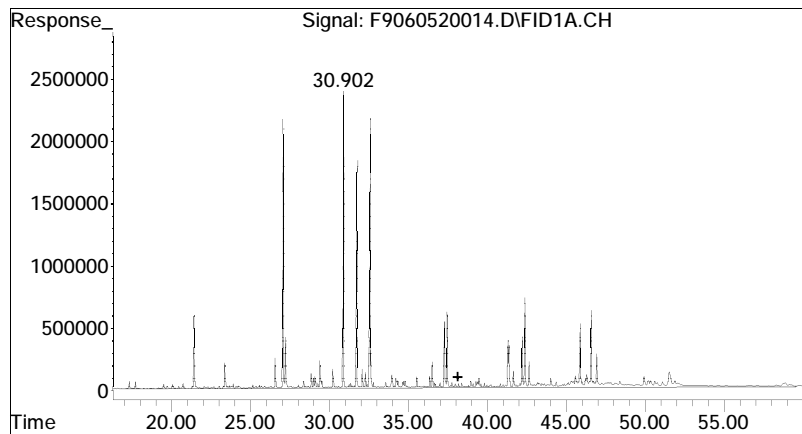
#44 C10-C28 DRO

R.T.: 25.531 min
Delta R.T.: 0.000 min
Response: 589600326
Conc: 492.32 ug/mL m



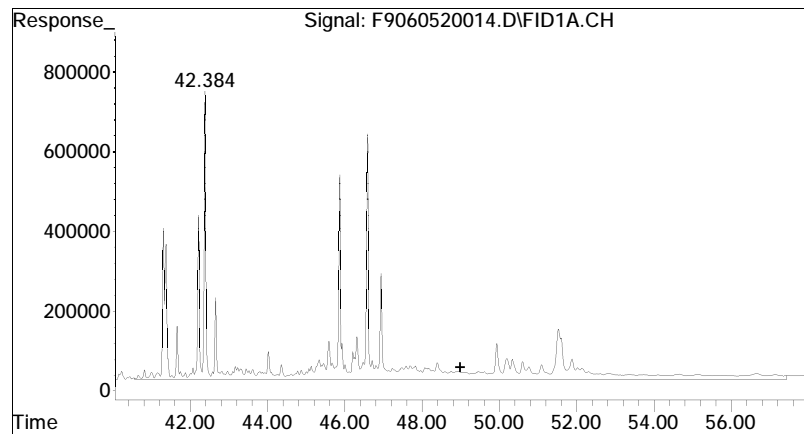
#45 >C12-C44 Total Petroleum

R.T.: 46.457 min
Delta R.T.: 0.000 min
Response: 838737426
Conc: 699.54 ug/mL m



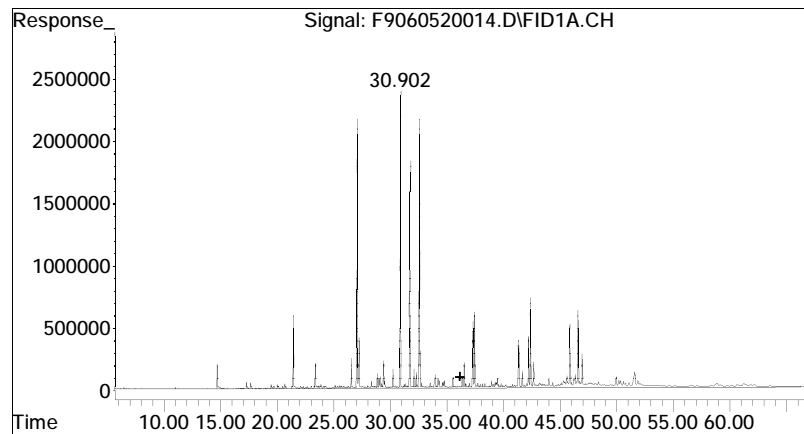
#46 >C12-C40 Total Petroleum

R.T.: 38.170 min
Delta R.T.: 0.000 min
Response: 797928015
Conc: 665.50 ug/mL m



#47 C28-C40 ORO

R.T.: 48.993 min
Delta R.T.: 0.000 min
Response: 291564499
Conc: 238.88 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 575305185
Conc: 479.83 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520016.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 3:05 am
 Operator : FID9:WR
 Sample : L2020213-04D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:55:28 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.899	62862589	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.867	6610102	5.047	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	10.09%#	
24) s d50-Tetracosane	35.548	5340966	5.098	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	10.20%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	9.996	22207	0.020	ug/mL M4
5) t n-Undecane (C11)	12.501	35200	0.031	ug/mL M4
6) t n-Dodecane (C12)	14.961	760828	0.660	ug/mL M4
7) t n-Tridecane (C13)	17.238	111755	0.097	ug/mL M4
8) t 1380	18.895	210616	0.179	ug/mL M4
9) t n-Tetradecane (C14)	19.393	99825	0.085	ug/mL M4
10) t 1470	20.690	267219	0.227	ug/mL M4
11) t n-Pentadecane (C15)	21.446	15231491	12.918	ug/mL M4
12) t n-Hexadecane (C16)	23.396	6350298	5.343	ug/mL M4
13) t 1650	24.317	800734	0.674	ug/mL M4
14) t n-Heptadecane (C17)	25.271	117999	0.099	ug/mL M4
15) t Pristane	25.359	841249	0.697	ug/mL M4
16) t n-Octadecane (C18)	27.089	62044752G	51.782	ug/mL M4
17) t Phytane	27.240	13983763G	12.815	ug/mL M4
18) t n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t n-Eicosane (C20)	0.000	0	N.D.	ug/mL
21) t n-Heneicosane (C21)	31.833	298560	0.245	ug/mL M4
22) t n-Docosane (C22)	33.321	93742	0.077	ug/mL M4
23) t n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520016.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 3:05 am
 Operator : FID9:WR
 Sample : L2020213-04D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:55:28 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units
25) t n-Tetracosane (C24)	36.083	258915	0.210 ug/mL M4
26) t n-Pentacosane (C25)	0.000	0	N.D. ug/mL d
27) t n-Hexacosane (C26)	38.642	65926	0.054 ug/mL M4
28) t n-Heptacosane (C27)	39.869	357691	0.301 ug/mL M4
29) t n-Octacosane (C28)	41.012	249987	0.204 ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t n-Triacontane (C30)	43.294	367813	0.306 ug/mL M4
32) t n-Hentriacontane (C31)	44.356	1176469	0.974 ug/mL M4
33) t n-Dotriacontane (C32)	45.334	1566023	1.317 ug/mL M4
34) t n-Tritriacontane (C33)	46.313	3427831	2.916 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL
36) t n-Pentatriacontane (C35)	48.391	1383903	1.169 ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t n-Heptatriacontane (C37)	51.092	1318952	1.115 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t n-Nonatriacontane (C39)	54.653	399498	0.327 ug/mL M4
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h C9-C44 Total Petroleu...	39.336	1365882613	1146.225 ug/mL m
42) h C9-C44 Total Petroleu BS	39.336	937154023	786.444 ug/mLm
43) h C9-C40 Total Petroleu...	32.246	1124590515	943.737 ug/ml m
43) h C9-C40 Total Petroleu BS	32.246	887818858	745.042 ug/mlm
44) h C10-C28 DRO	25.531	646464636	543.128 ug/mL m
44) h C10-C28 DRO BS	25.531	594615365	499.567 ug/mLm
45) h >C12-C44 Total Petrol...	0.000	0	N.D. ug/mL d
46) h >C12-C40 Total Petrol...	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO BS	0.000	0	N.D. ug/mLd
48) h Total Resolved Hydroc...	36.191	601889263	505.095 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520016.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 3:05 am
 Operator : FID9:WR
 Sample : L2020213-04D,42,5
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:55:28 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

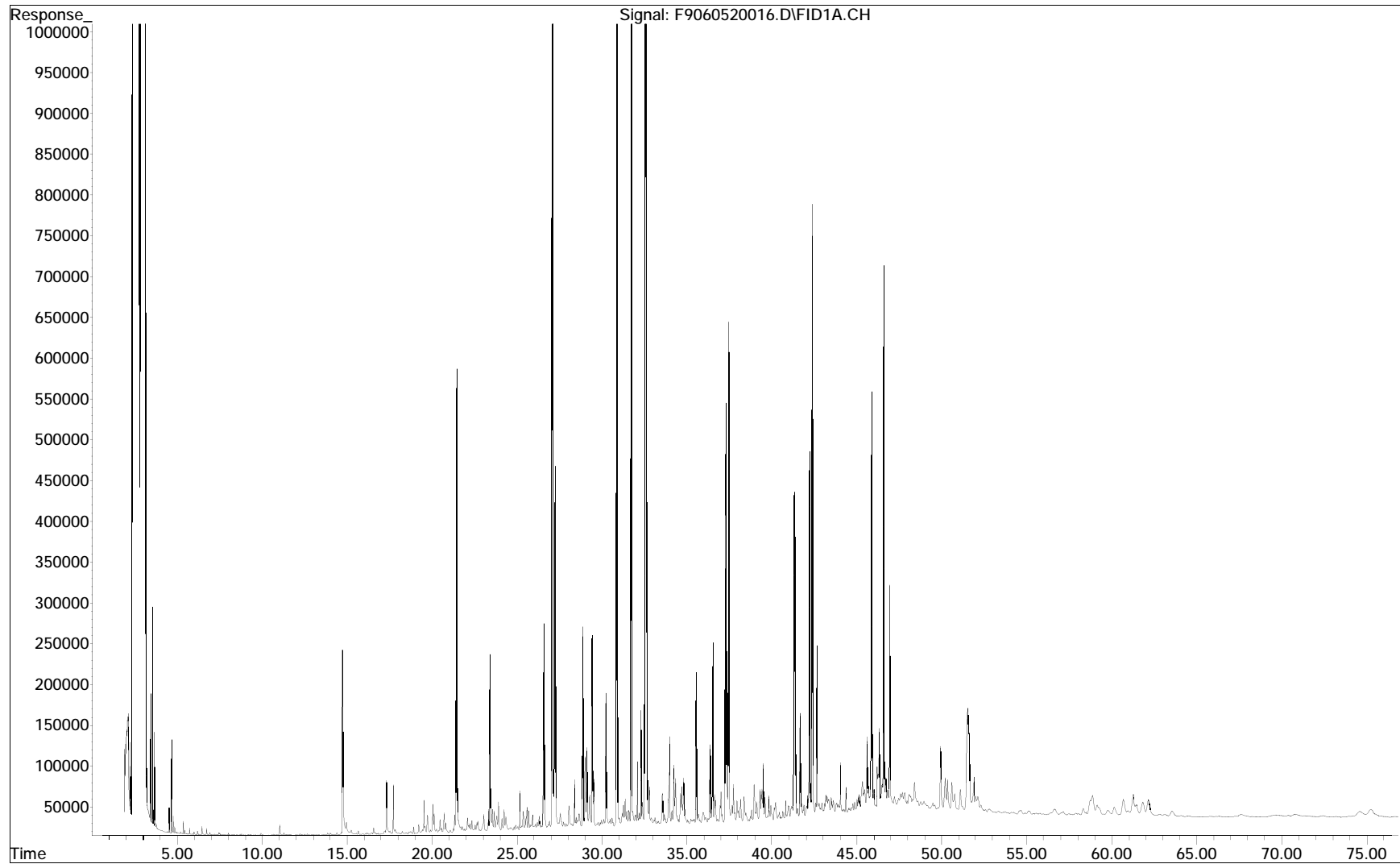
Sub List : Default - All compounds listed

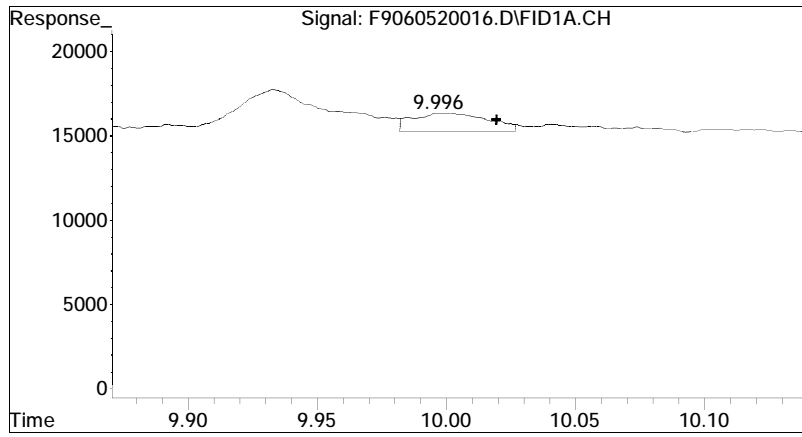
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

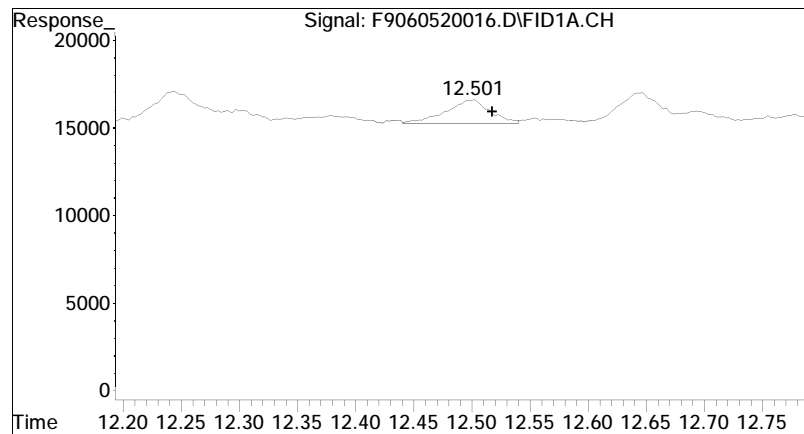
File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520016.D
Operator : FID9:WR
Acquired : 06 Jun 2020 3:05 am using AcqMethod FID9A.M
Sample Name: L2020213-04D,42,5
Instrument: FID 9
Misc Info : WG1373840,WG1372713,ICAL16844
Vial Number: 8
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M





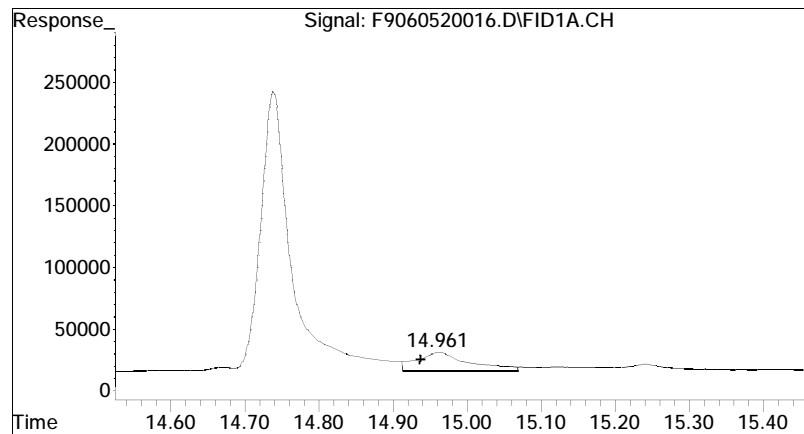
#4 n-Decane (C10)

R.T.: 9.996 min
Delta R.T.: -0.023 min
Response: 22207
Conc: 0.02 ug/mL M4

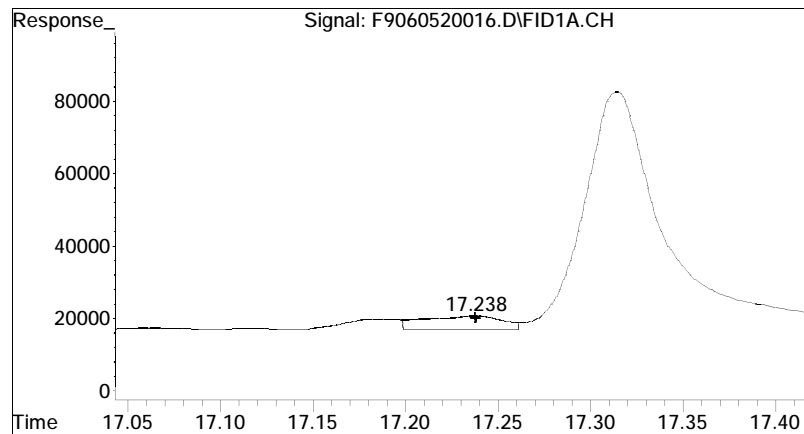


#5 n-Undecane (C11)

R.T.: 12.501 min
Delta R.T.: -0.016 min
Response: 35200
Conc: 0.03 ug/mL M4

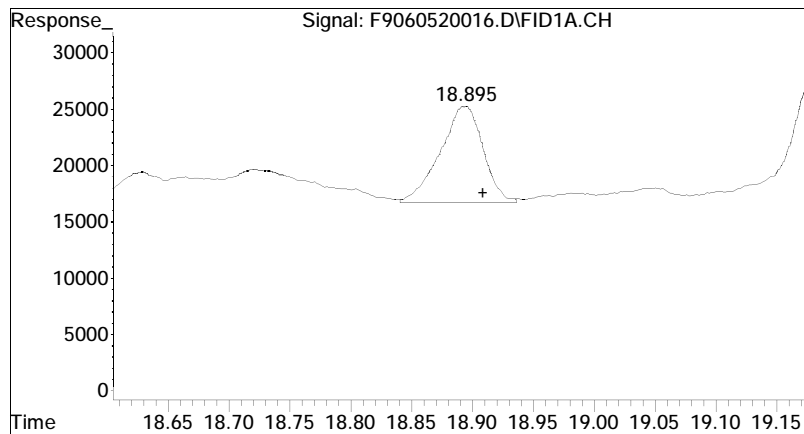


#6 n-Dodecane (C12)
R.T.: 14.961 min
Delta R.T.: 0.023 min
Response: 760828
Conc: 0.66 ug/mL M4



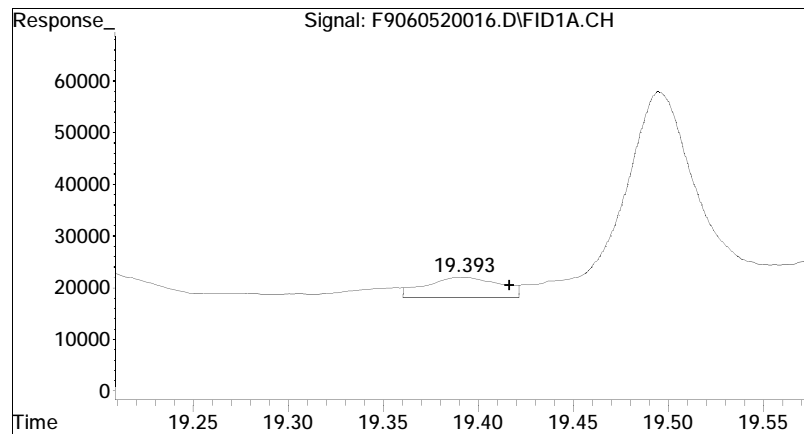
#7 n-Tridecane (C13)

R.T.: 17.238 min
Delta R.T.: 0.000 min
Response: 111755
Conc: 0.10 ug/mL M4

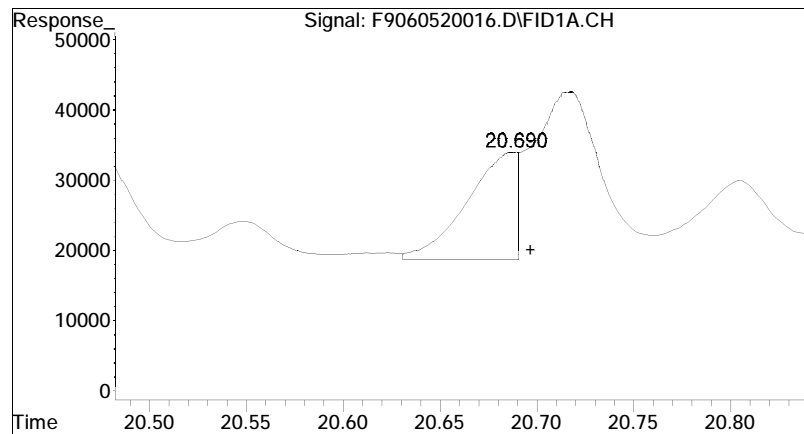


#8 1380

R.T.: 18.895 min
Delta R.T.: -0.014 min
Response: 210616
Conc: 0.18 ug/mL M4

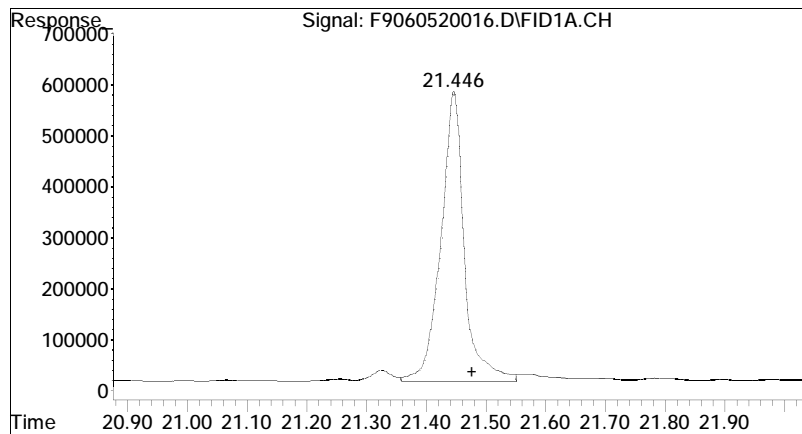


#9 n-Tetradecane (C14)
R.T.: 19.393 min
Delta R.T.: -0.023 min
Response: 99825
Conc: 0.08 ug/mL M4



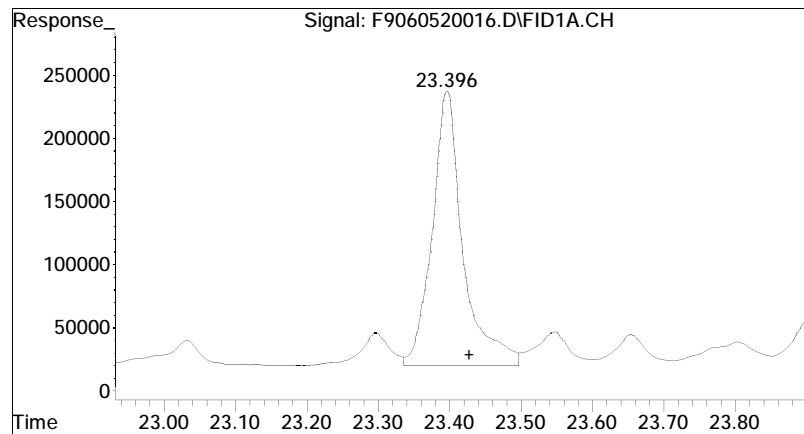
#10 1470

R.T.: 20.690 min
Delta R.T.: -0.007 min
Response: 267219
Conc: 0.23 ug/mL M4

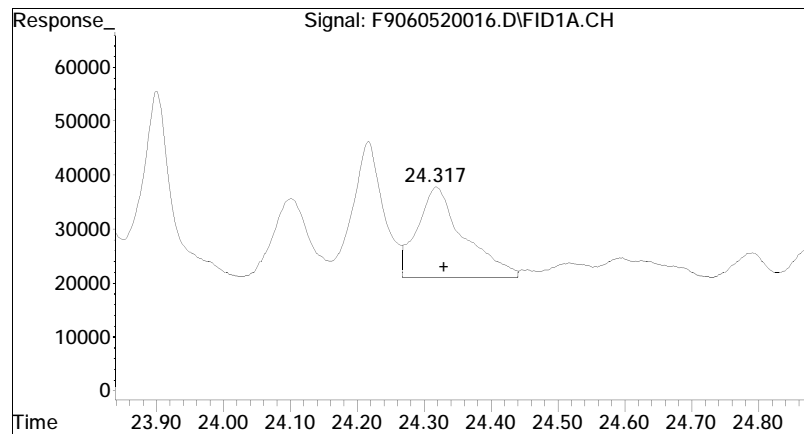


#11 n-Pentadecane (C15)

R.T.: 21.446 min
Delta R.T.: -0.030 min
Response: 15231491
Conc: 12.92 ug/mL M4

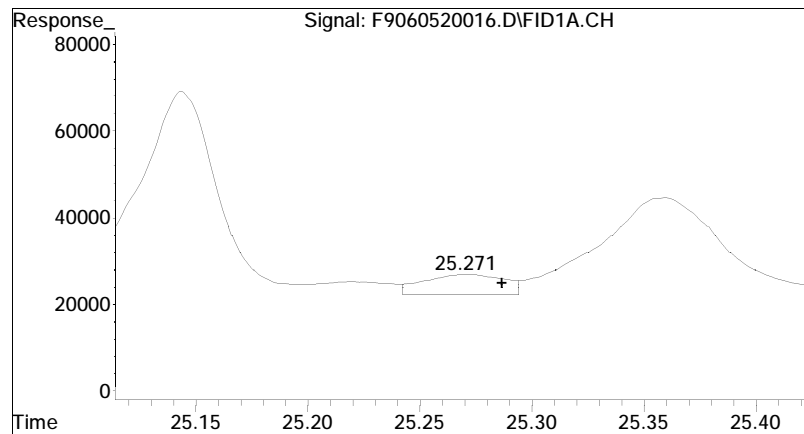


#12 n-Hexadecane (C16)
R.T.: 23.396 min
Delta R.T.: -0.032 min
Response: 6350298
Conc: 5.34 ug/mL M4

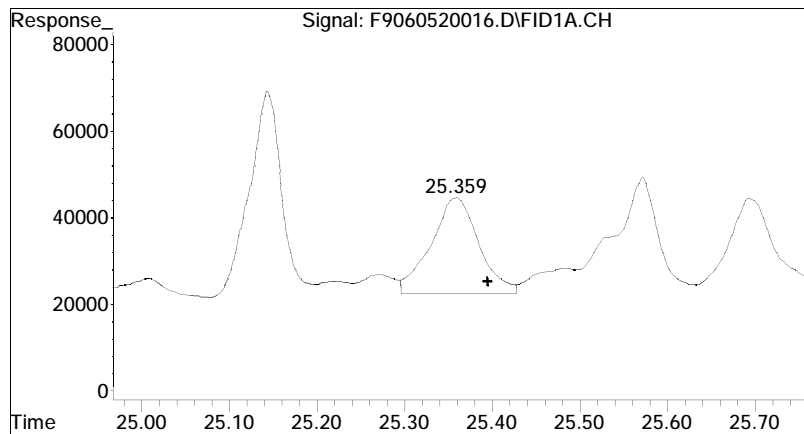


#13 1650

R.T.: 24.317 min
Delta R.T.: -0.013 min
Response: 800734
Conc: 0.67 ug/mL M4

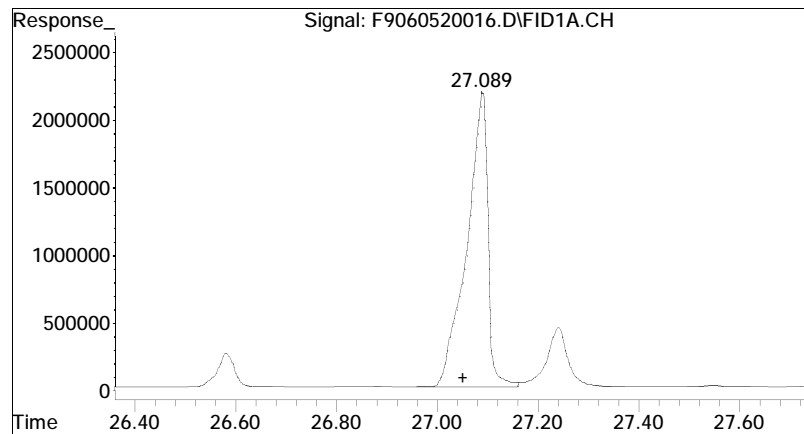


#14 n-Heptadecane (C17)
R.T.: 25.271 min
Delta R.T.: -0.016 min
Response: 117999
Conc: 0.10 ug/mL M4



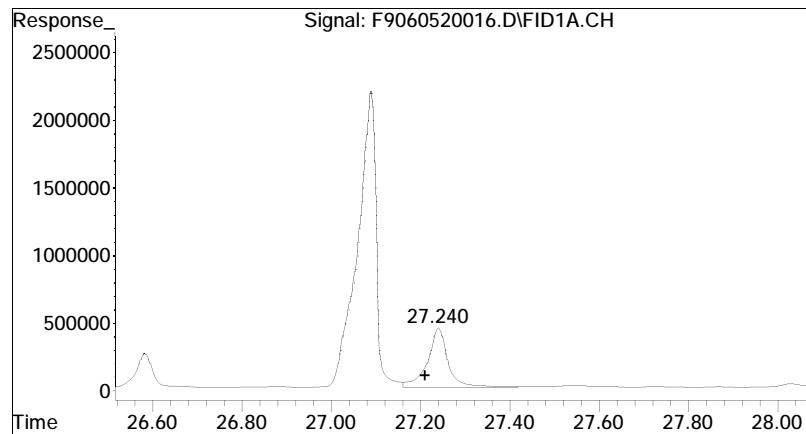
#15 Pristane

R.T.: 25.359 min
Delta R.T.: -0.035 min
Response: 841249
Conc: 0.70 ug/mL M4



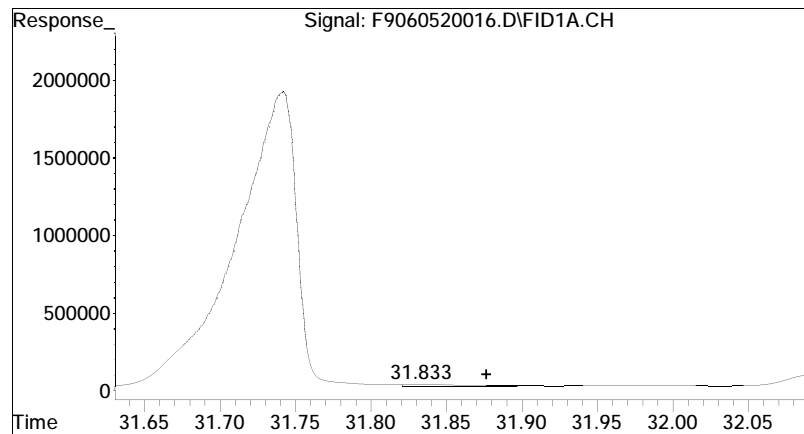
#16 n-Octadecane (C18)

R.T.: 27.089 min
Delta R.T.: 0.038 min
Response: 62044752
Conc: 51.78 ug/mL M4

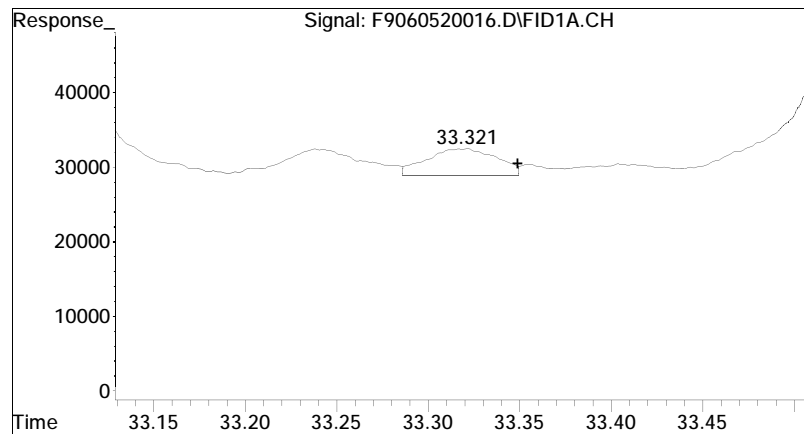


#17 Phytane

R.T.: 27.240 min
Delta R.T.: 0.029 min
Response: 13983763
Conc: 12.81 ug/mL M4

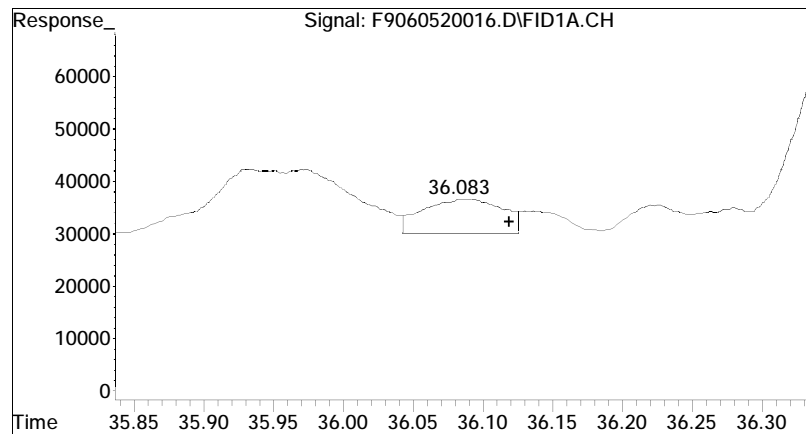


#21 n-Heneicosane (C21)
R.T.: 31.833 min
Delta R.T.: -0.043 min
Response: 298560
Conc: 0.24 ug/mL M4

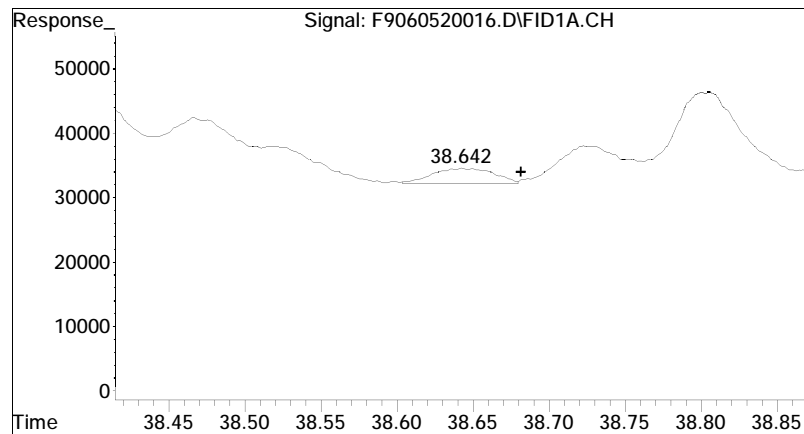


#22 n-Docosane (C22)

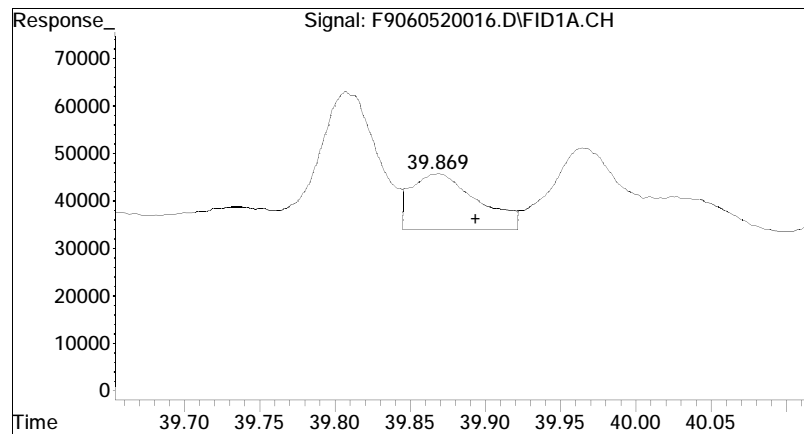
R.T.: 33.321 min
Delta R.T.: -0.028 min
Response: 93742
Conc: 0.08 ug/mL M4



#25 n-Tetracosane (C24)
R.T.: 36.083 min
Delta R.T.: -0.036 min
Response: 258915
Conc: 0.21 ug/mL M4

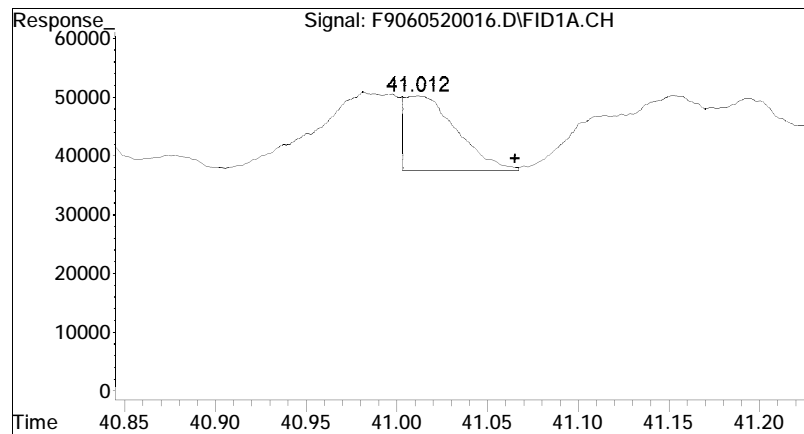


#27 n-Hexacosane (C26)
R.T.: 38.642 min
Delta R.T.: -0.040 min
Response: 65926
Conc: 0.05 ug/mL M4

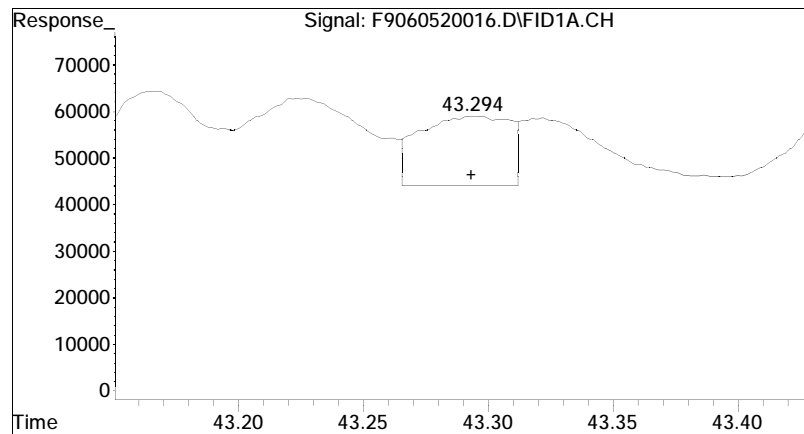


#28 n-Heptacosane (C27)

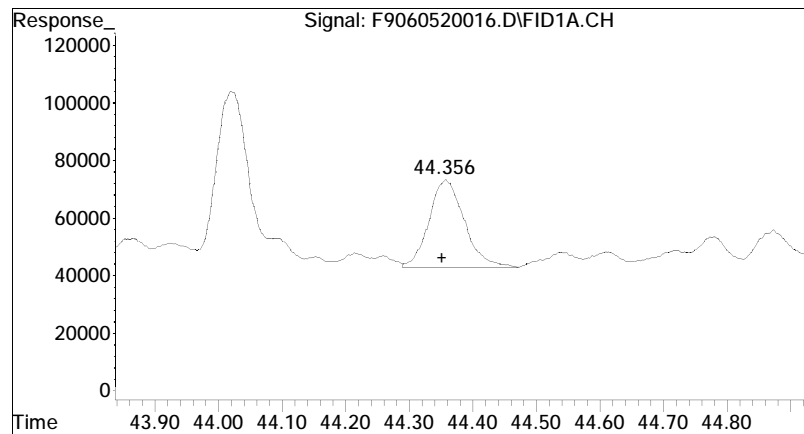
R.T.: 39.869 min
Delta R.T.: -0.025 min
Response: 357691
Conc: 0.30 ug/mL M4



#29 n-Octacosane (C28)
R.T.: 41.012 min
Delta R.T.: -0.053 min
Response: 249987
Conc: 0.20 ug/mL M4

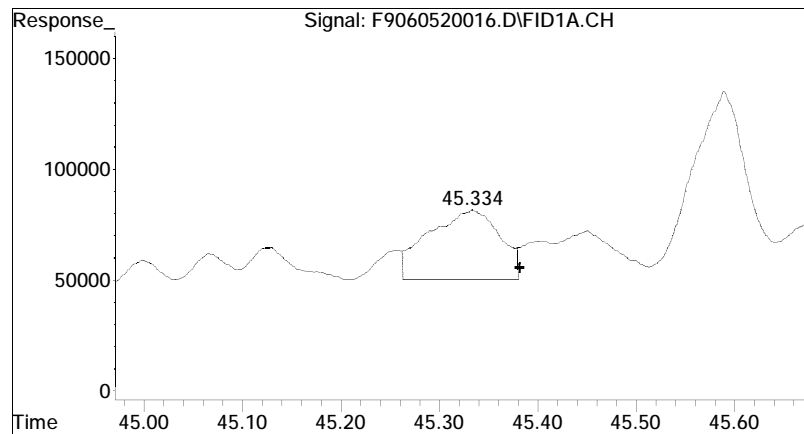


#31 n-Triacontane (C30)
R.T.: 43.294 min
Delta R.T.: 0.000 min
Response: 367813
Conc: 0.31 ug/mL M4

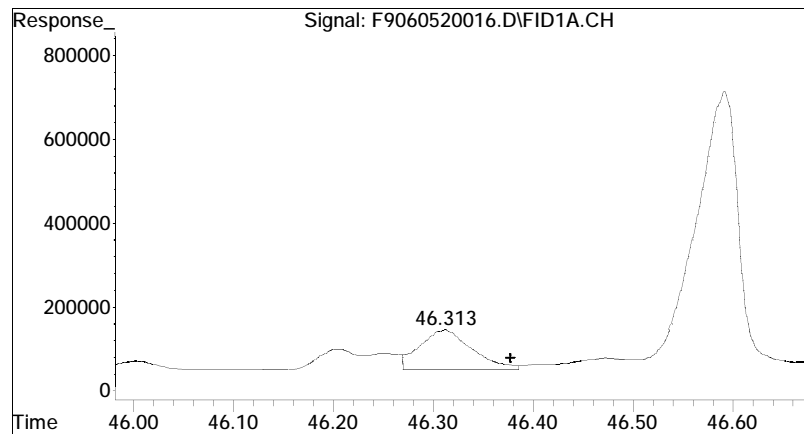


#32 n-Hentriacontane (C31)

R.T.: 44.356 min
Delta R.T.: 0.004 min
Response: 1176469
Conc: 0.97 ug/mL M4

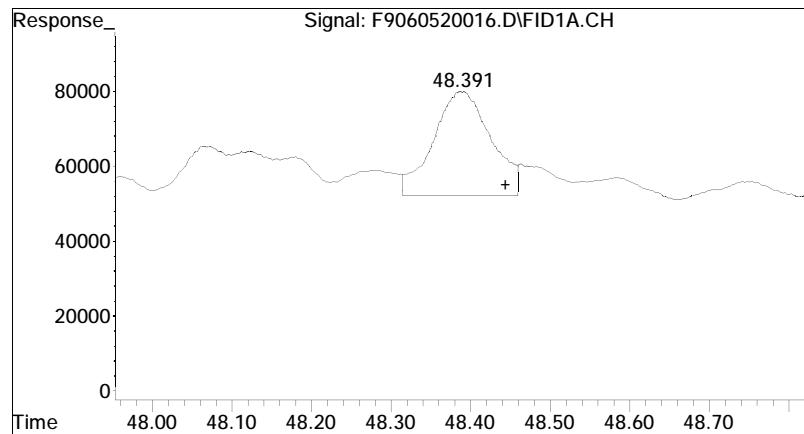


#33 n-Dotriacontane (C32)
R.T.: 45.334 min
Delta R.T.: -0.047 min
Response: 1566023
Conc: 1.32 ug/mL M4



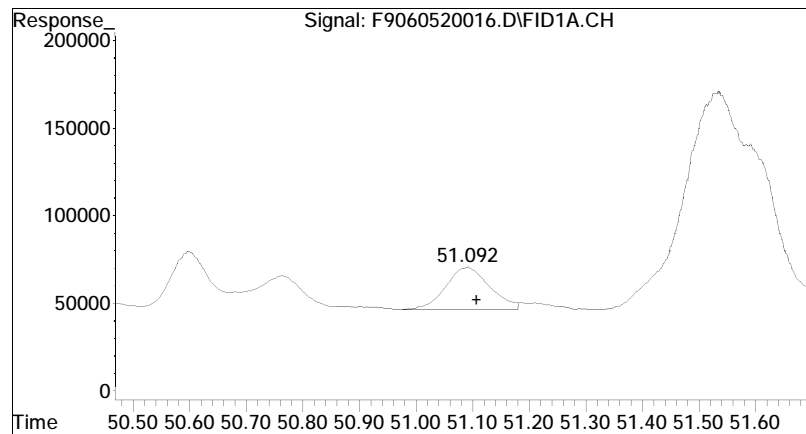
#34 n-Tritriacontane (C33)

R.T.: 46.313 min
Delta R.T.: -0.065 min
Response: 3427831
Conc: 2.92 ug/mL M4



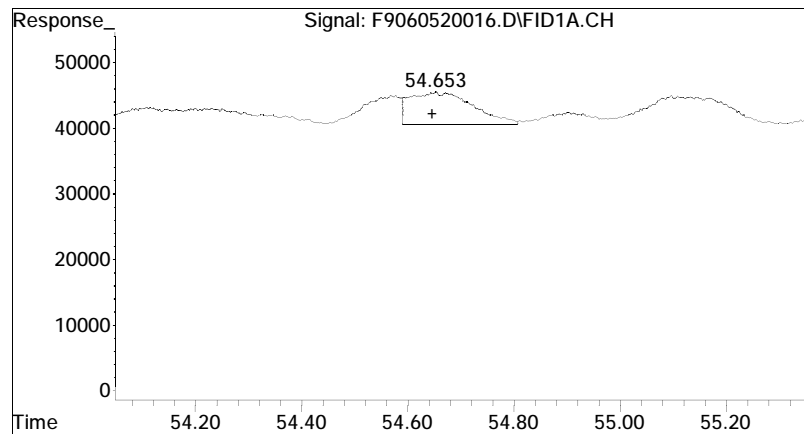
#36 n-Pentatriacontane (C35)

R.T.: 48.391 min
Delta R.T.: -0.053 min
Response: 1383903
Conc: 1.17 ug/mL M4



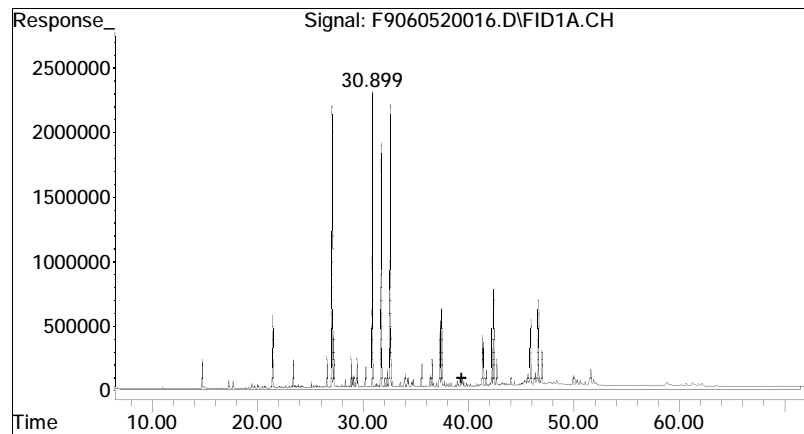
#38 n-Heptatriacontane (C37)

R.T.: 51.092 min
Delta R.T.: -0.016 min
Response: 1318952
Conc: 1.12 ug/mL M4



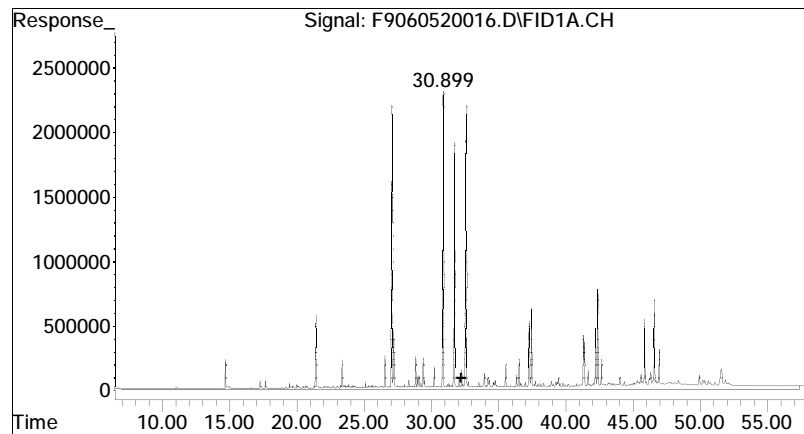
#40 n-Nonatriacontane (C39)

R.T.: 54.653 min
Delta R.T.: 0.007 min
Response: 399498
Conc: 0.33 ug/mL M4



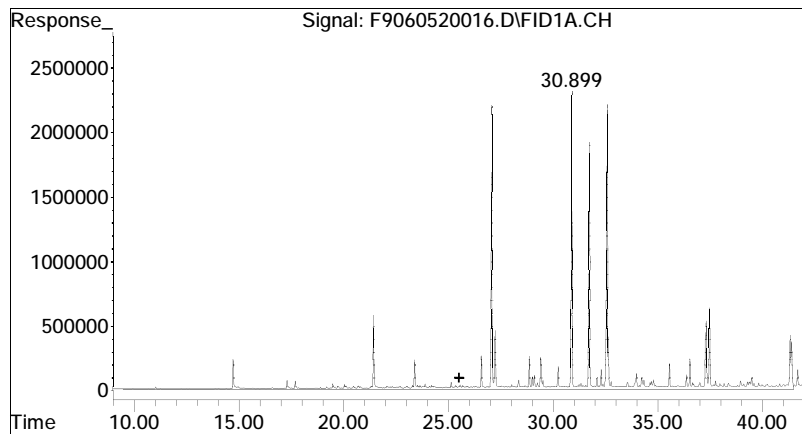
#42 C9-C44 Total Petroleum Hy

R.T.: 39.336 min
Delta R.T.: 0.000 min
Response: 1365882613
Conc: 1146.23 ug/mL m



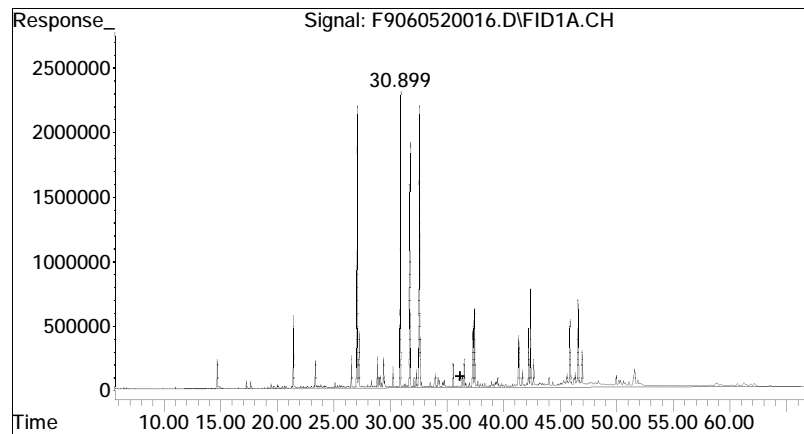
#43 C9-C40 Total Petroleum Hy

R.T.: 32.246 min
Delta R.T.: 0.000 min
Response: 1124590515
Conc: 943.74 ug/ml m



#44 C10-C28 DRO

R.T.: 25.531 min
Delta R.T.: 0.000 min
Response: 646464636
Conc: 543.13 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 601889263
Conc: 505.10 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520018.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 4:33 am
 Operator : FID9:WR
 Sample : L2020213-03D,42,10
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:57:32 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.900	63152280	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.862	1650939	1.255	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 2.51%#
24) s d50-Tetracosane	35.544	1322044	1.256	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 2.51%#
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	7.539	23106	0.021	ug/mL M4
4) t n-Decane (C10)	10.001	94646	0.084	ug/mL M4
5) t n-Undecane (C11)	12.494	121791	0.107	ug/mL M4
6) t n-Dodecane (C12)	14.953	3884883G	3.356	ug/mL M4
7) t n-Tridecane (C13)	0.000	0	N.D.	ug/mL d
8) t 1380	18.893	346002	0.293	ug/mL M4
9) t n-Tetradecane (C14)	19.389	373971	0.316	ug/mL M4
10) t 1470	20.683	368490	0.311	ug/mL M4
11) t n-Pentadecane (C15)	21.449	22458879	18.960	ug/mL M4
12) t n-Hexadecane (C16)	23.398	9749434	8.165	ug/mL M4
13) t 1650	24.318	606665	0.508	ug/mL M4
14) t n-Heptadecane (C17)	0.000	0	N.D.	ug/mL d
15) t Pristane	25.354	721523	0.595	ug/mL M4
16) t n-Octadecane (C18)	27.087	60330895G	50.121	ug/mL M4
17) t Phytane	27.241	12614035G	11.507	ug/mL M4
18) t n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t n-Eicosane (C20)	30.295	271974	0.226	ug/mL M4
21) t n-Heneicosane (C21)	31.830	271745	0.222	ug/mL M4
22) t n-Docosane (C22)	33.326	104978	0.086	ug/mL M4
23) t n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520018.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 4:33 am
 Operator : FID9:WR
 Sample : L2020213-03D,42,10
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:57:32 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units
25) t n-Tetracosane (C24)	36.079	194484	0.157 ug/mL M4
26) t n-Pentacosane (C25)	0.000	0	N.D. ug/mL d
27) t n-Hexacosane (C26)	38.649	35445	0.029 ug/mL M4
28) t n-Heptacosane (C27)	39.871	134996	0.113 ug/mL M4
29) t n-Octacosane (C28)	41.013	260343	0.212 ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t n-Triacontane (C30)	43.296	326009	0.270 ug/mL M4
32) t n-Hentriacontane (C31)	44.360	658196	0.542 ug/mL M4
33) t n-Dotriacontane (C32)	45.332	650850	0.545 ug/mL M4
34) t n-Tritriacontane (C33)	46.312	1973089	1.671 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL
36) t n-Pentatriacontane (C35)	48.392	877215	0.737 ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t n-Heptatriacontane (C37)	51.089	757330	0.638 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t n-Nonatriacontane (C39)	54.660	266445	0.217 ug/mL M4
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h C9-C44 Total Petroleu...	39.336	1240593572	1036.309 ug/mL m
42) h C9-C44 Total Petroleu BS	39.336	811864982	678.178 ug/mLm
43) h C9-C40 Total Petroleu...	32.246	1026912886	857.815 ug/ml m
43) h C9-C40 Total Petroleu BS	32.246	790141229	660.031 ug/mlm
44) h C10-C28 DRO	25.531	673669838	563.388 ug/mL m
44) h C10-C28 DRO BS	25.531	621820567	520.027 ug/mLm
45) h >C12-C44 Total Petrol...	0.000	0	N.D. ug/mL d
46) h >C12-C40 Total Petrol...	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO BS	0.000	0	N.D. ug/mLd
48) h Total Resolved Hydroc...	36.191	567962541	474.438 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520018.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 4:33 am
 Operator : FID9:WR
 Sample : L2020213-03D,42,10
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:57:32 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

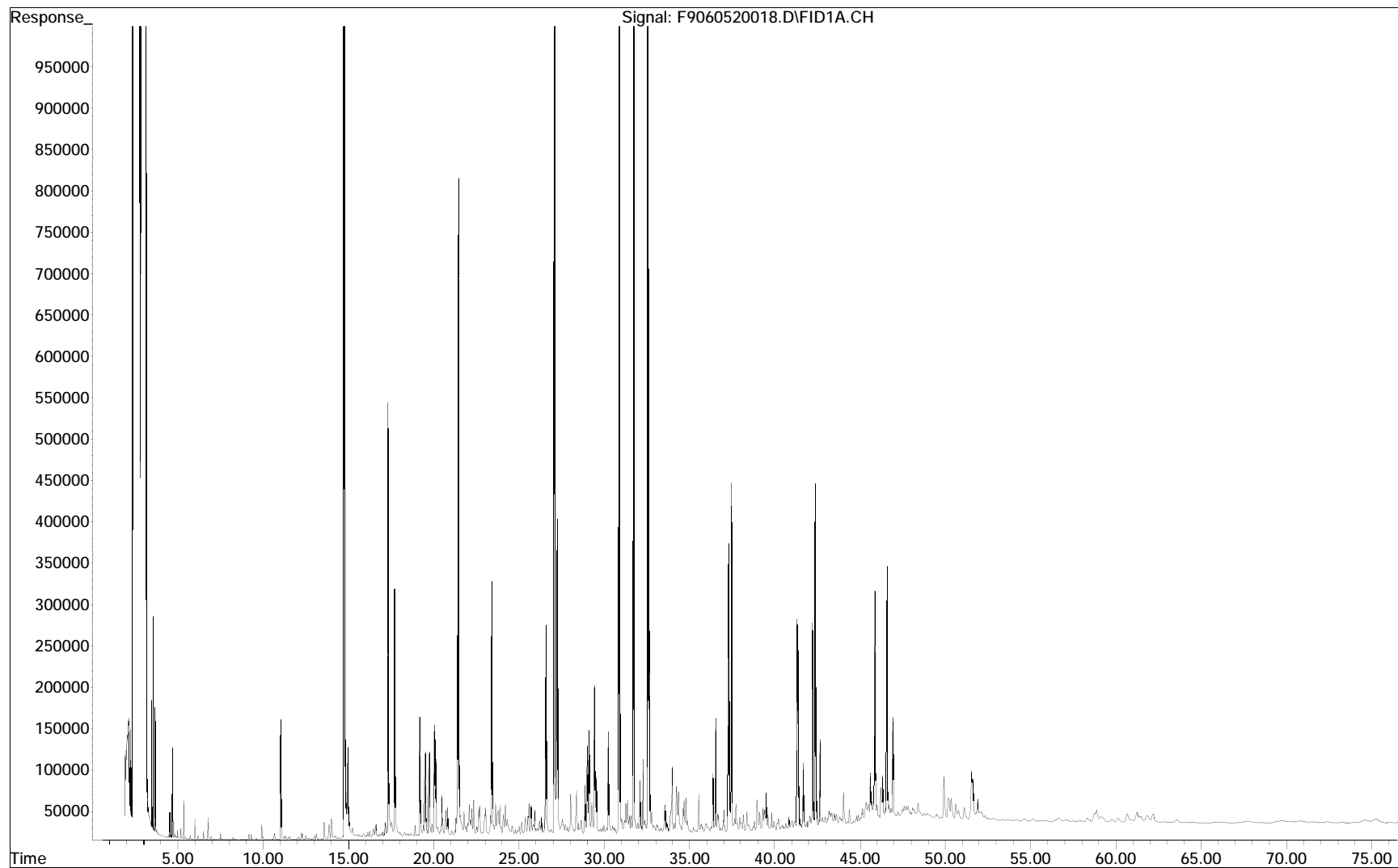
Sub List : Default - All compounds listed

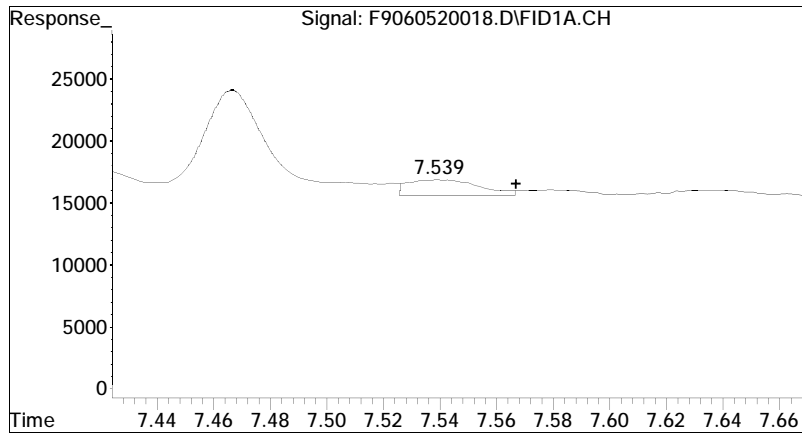
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520018.D
Operator : FID9:WR
Acquired : 06 Jun 2020 4:33 am using AcqMethod FID9A.M
Sample Name: L2020213-03D,42,10
Instrument: FID 9
Misc Info : WG1373840,WG1372713,ICAL16844
Vial Number: 9
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M





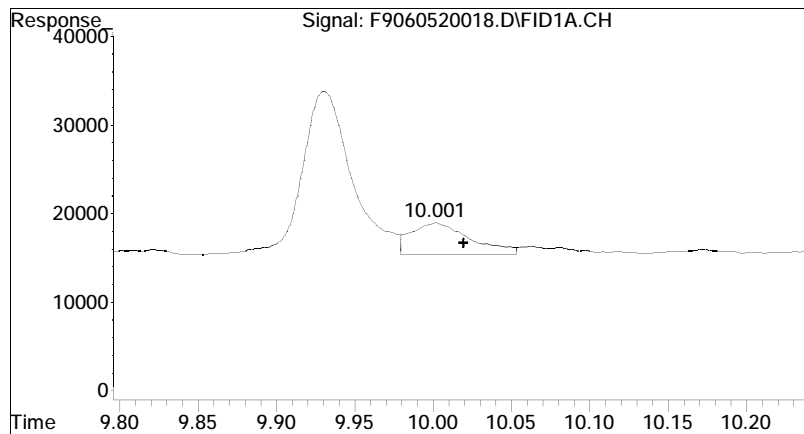
#3 n-Nonane (C9)

R.T.: 7.539 min

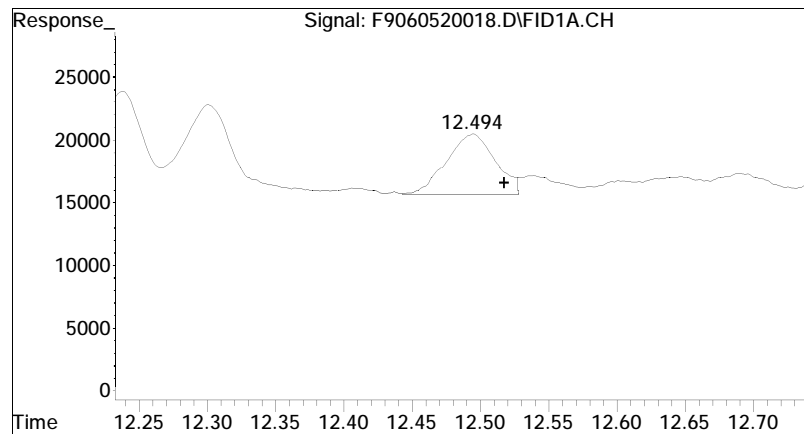
Delta R.T.: -0.028 min

Response: 23106

Conc: 0.02 ug/mL M4

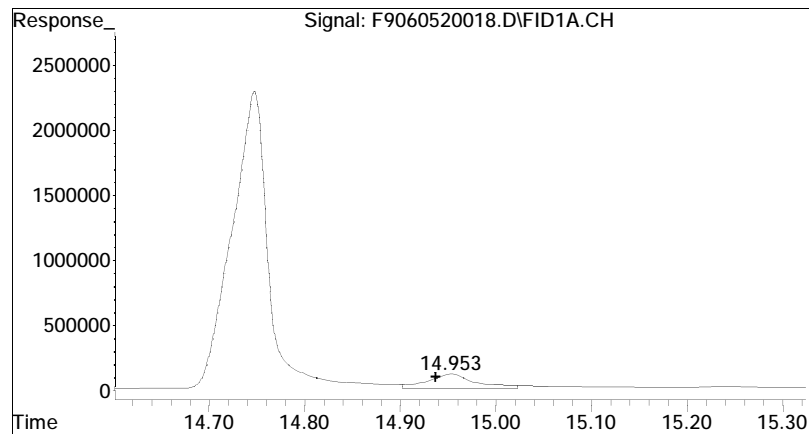


#4 n-Decane (C10)
R.T.: 10.001 min
Delta R.T.: -0.018 min
Response: 94646
Conc: 0.08 ug/mL M4



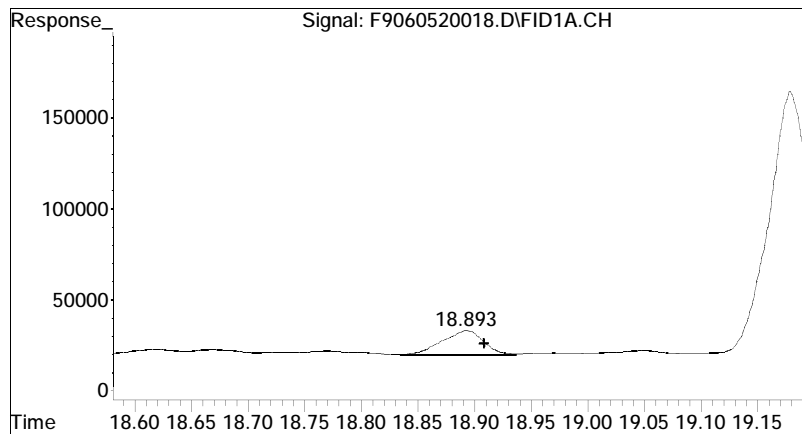
#5 n-Undecane (C11)

R.T.: 12.494 min
Delta R.T.: -0.024 min
Response: 121791
Conc: 0.11 ug/mL M4



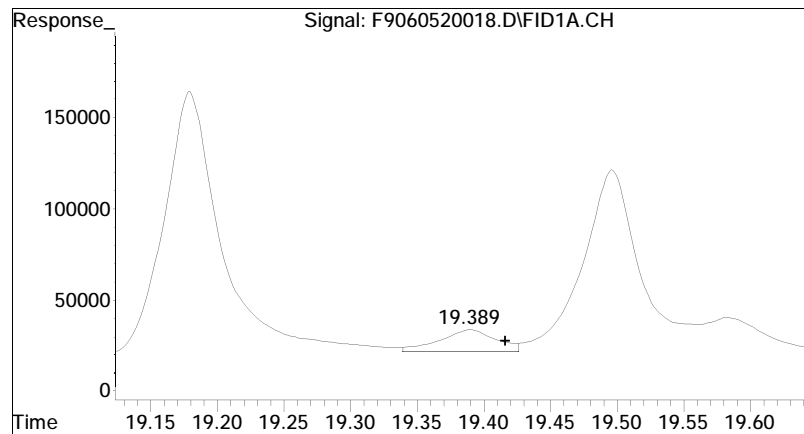
#6 n-Dodecane (C12)

R.T.: 14.953 min
Delta R.T.: 0.016 min
Response: 3884883
Conc: 3.36 ug/mL M4

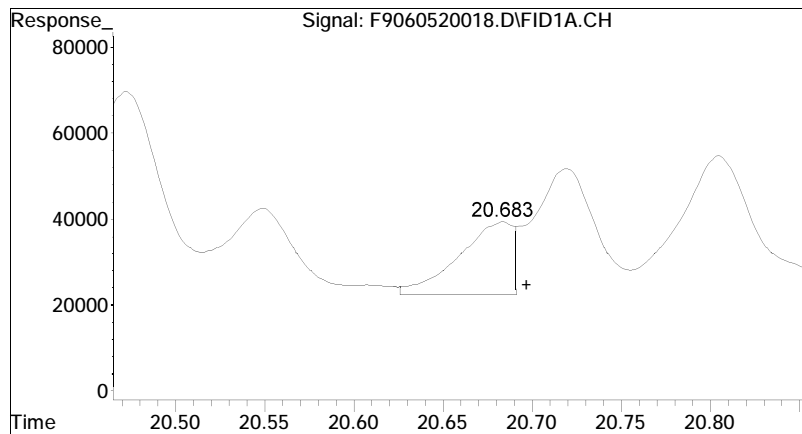


#8 1380

R.T.: 18.893 min
Delta R.T.: -0.016 min
Response: 346002
Conc: 0.29 ug/mL M4

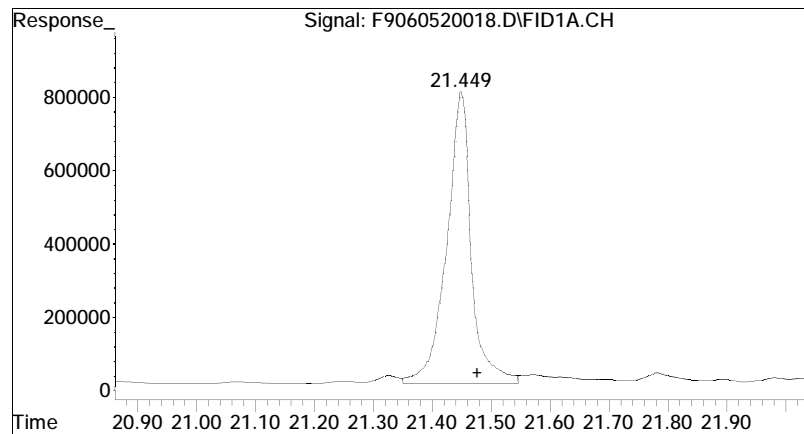


#9 n-Tetradecane (C14)
R.T.: 19.389 min
Delta R.T.: -0.027 min
Response: 373971
Conc: 0.32 ug/mL M4

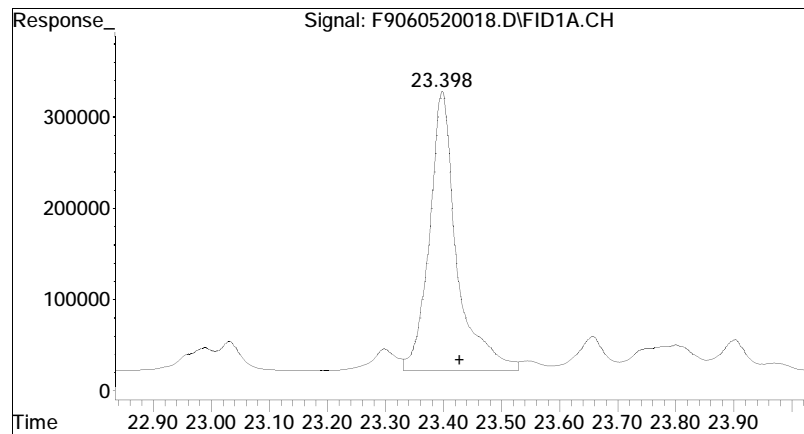


#10 1470

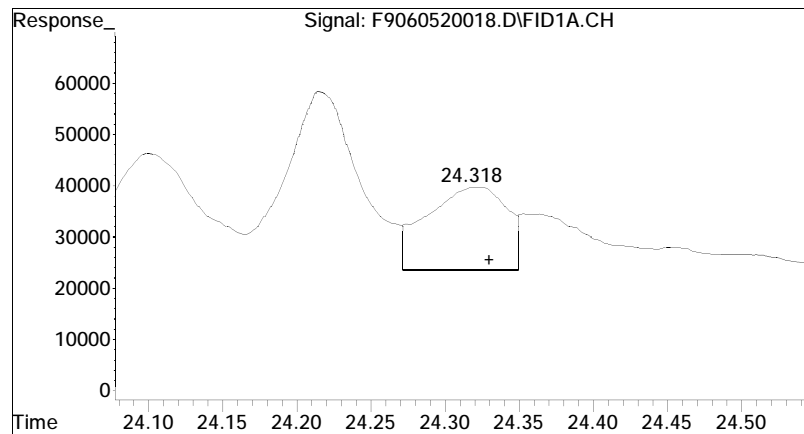
R.T.: 20.683 min
Delta R.T.: -0.014 min
Response: 368490
Conc: 0.31 ug/mL M4



#11 n-Pentadecane (C15)
R.T.: 21.449 min
Delta R.T.: -0.028 min
Response: 22458879
Conc: 18.96 ug/mL M4

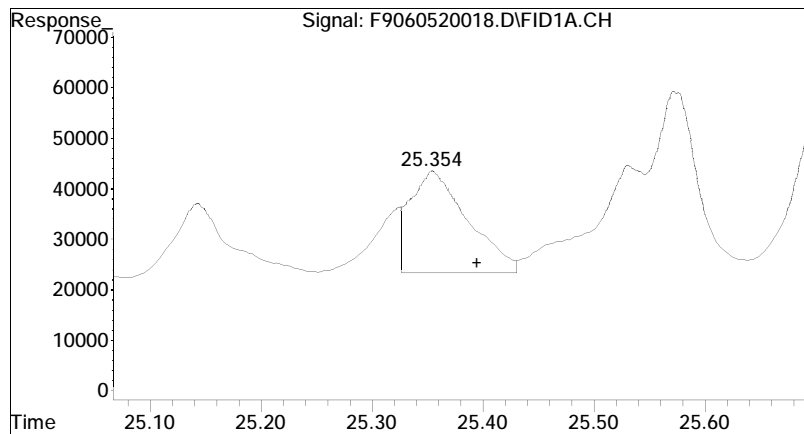


#12 n-Hexadecane (C16)
R.T.: 23.398 min
Delta R.T.: -0.030 min
Response: 9749434
Conc: 8.17 ug/mL M4



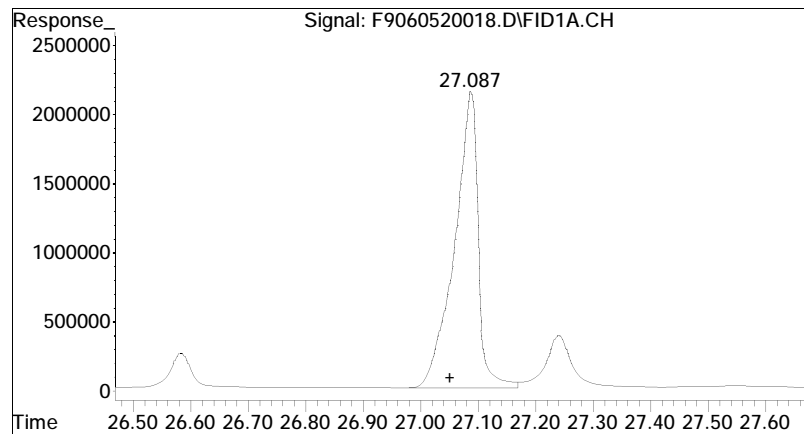
#13 1650

R.T.: 24.318 min
Delta R.T.: -0.012 min
Response: 606665
Conc: 0.51 ug/mL M4



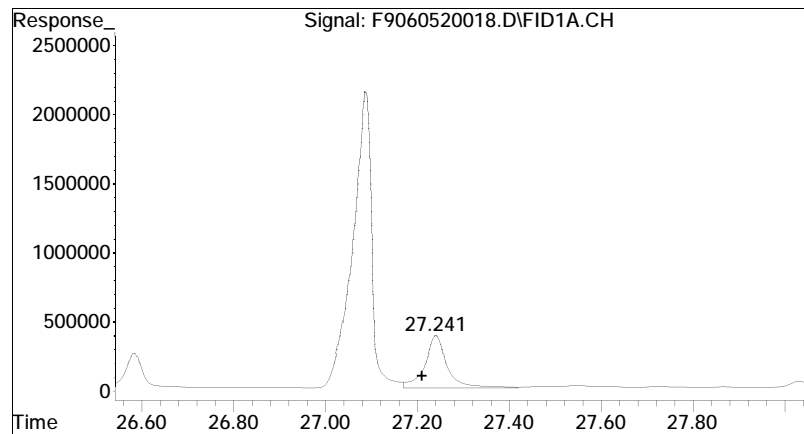
#15 Pristane

R.T.: 25.354 min
Delta R.T.: -0.041 min
Response: 721523
Conc: 0.60 ug/mL M4



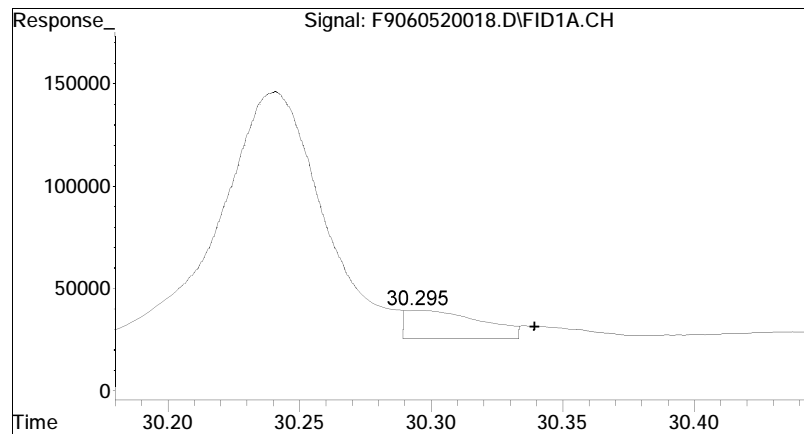
#16 n-Octadecane (C18)

R.T.: 27.087 min
Delta R.T.: 0.035 min
Response: 60330895
Conc: 50.12 ug/mL M4



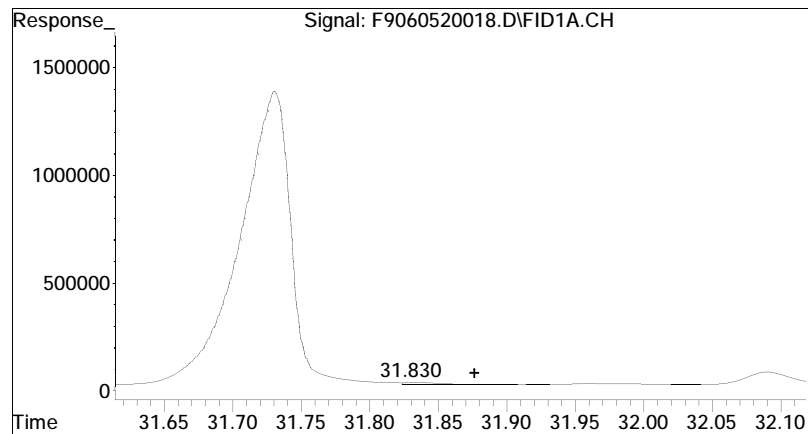
#17 Phytane

R.T.: 27.241 min
Delta R.T.: 0.030 min
Response: 12614035
Conc: 11.51 ug/mL M4

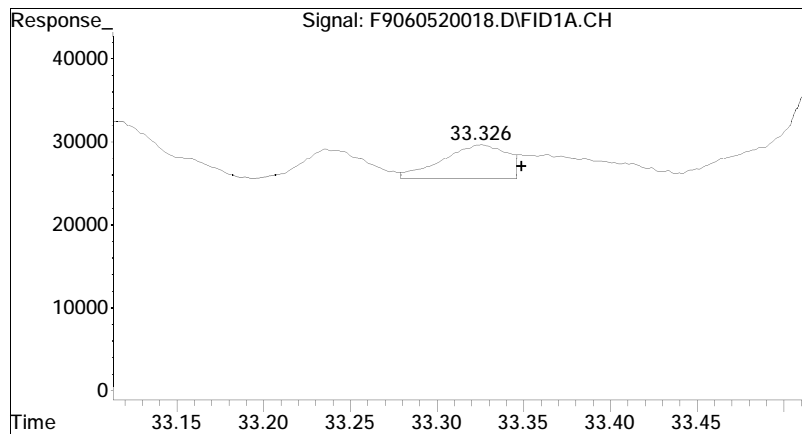


#20 n-Eicosane (C20)

R.T.: 30.295 min
Delta R.T.: -0.044 min
Response: 271974
Conc: 0.23 ug/mL M4

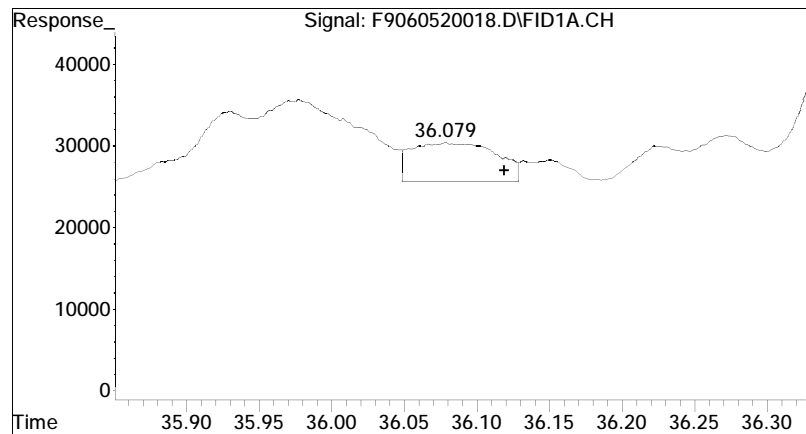


#21 n-Heneicosane (C21)
R.T.: 31.830 min
Delta R.T.: -0.046 min
Response: 271745
Conc: 0.22 ug/mL M4

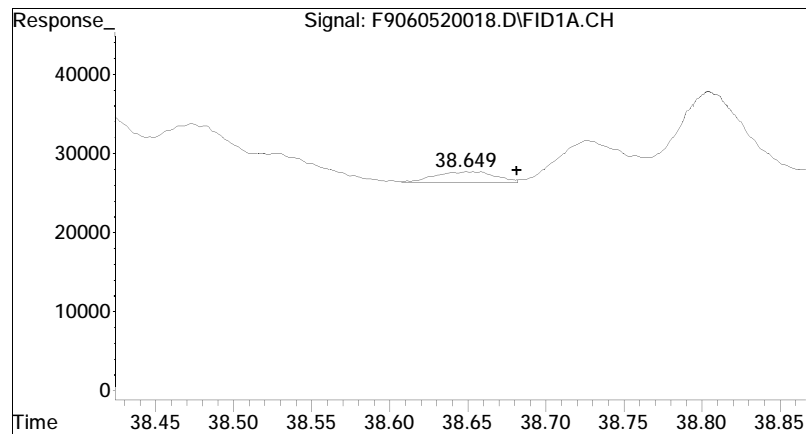


#22 n-Docosane (C22)

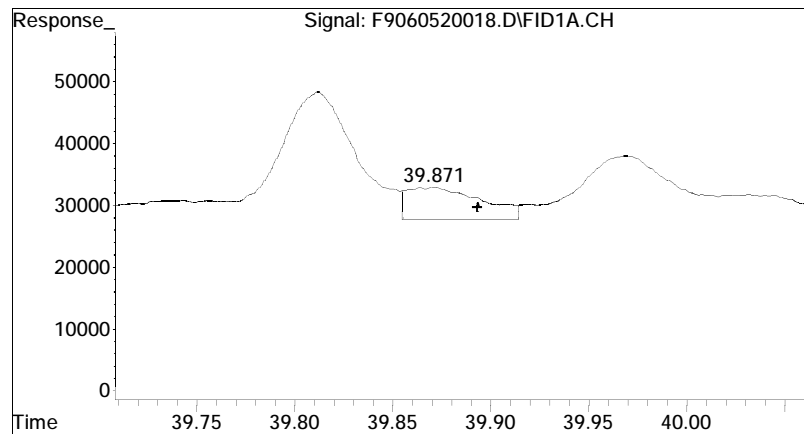
R.T.: 33.326 min
Delta R.T.: -0.023 min
Response: 104978
Conc: 0.09 ug/mL M4



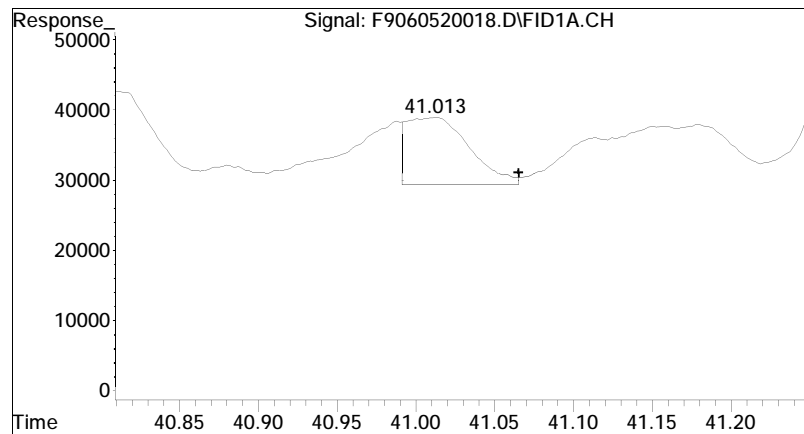
#25 n-Tetracosane (C24)
R.T.: 36.079 min
Delta R.T.: -0.040 min
Response: 194484
Conc: 0.16 ug/mL M4



#27 n-Hexacosane (C26)
R.T.: 38.649 min
Delta R.T.: -0.033 min
Response: 35445
Conc: 0.03 ug/mL M4

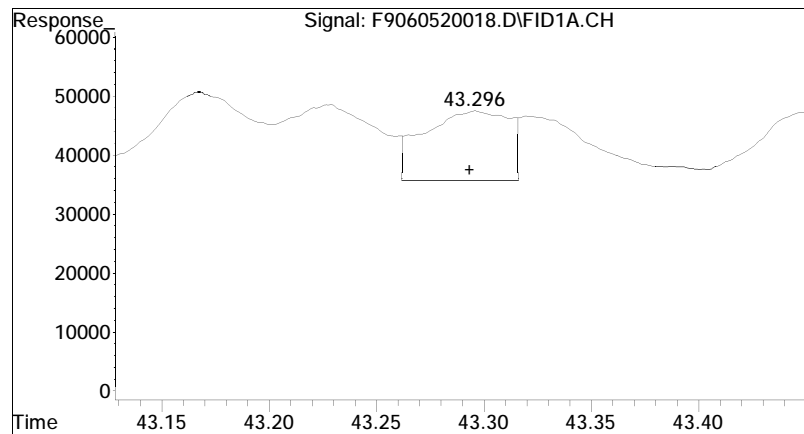


#28 n-Heptacosane (C27)
R.T.: 39.871 min
Delta R.T.: -0.022 min
Response: 134996
Conc: 0.11 ug/mL M4



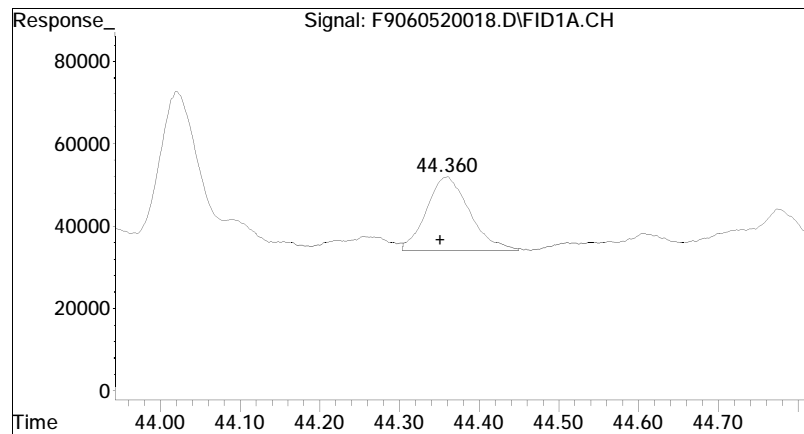
#29 n-Octacosane (C28)

R.T.: 41.013 min
Delta R.T.: -0.053 min
Response: 260343
Conc: 0.21 ug/mL M4



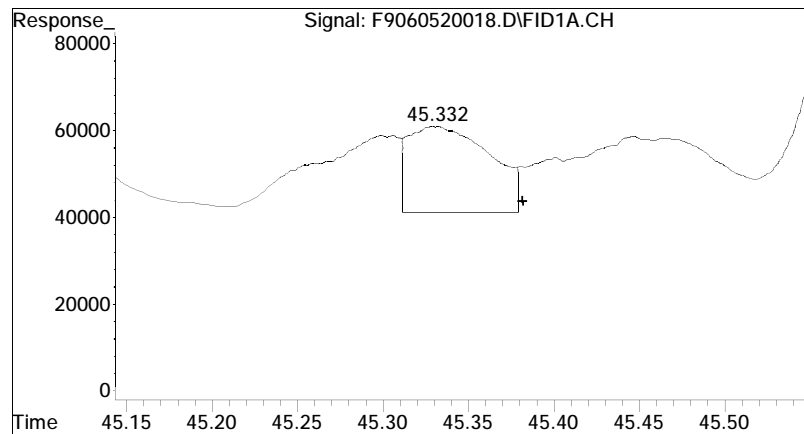
#31 n-Triacontane (C30)

R.T.: 43.296 min
Delta R.T.: 0.002 min
Response: 326009
Conc: 0.27 ug/mL M4



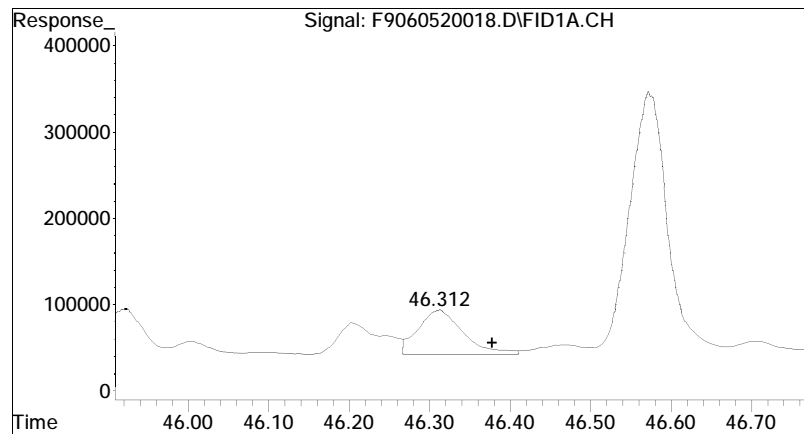
#32 n-Hentriacontane (C31)

R.T.: 44.360 min
Delta R.T.: 0.008 min
Response: 658196
Conc: 0.54 ug/mL M4



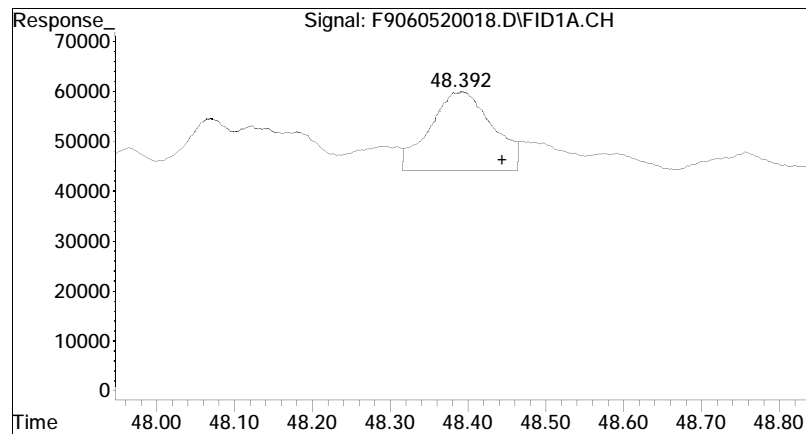
#33 n-Dotriacontane (C32)

R.T.: 45.332 min
Delta R.T.: -0.049 min
Response: 650850
Conc: 0.55 ug/mL M4



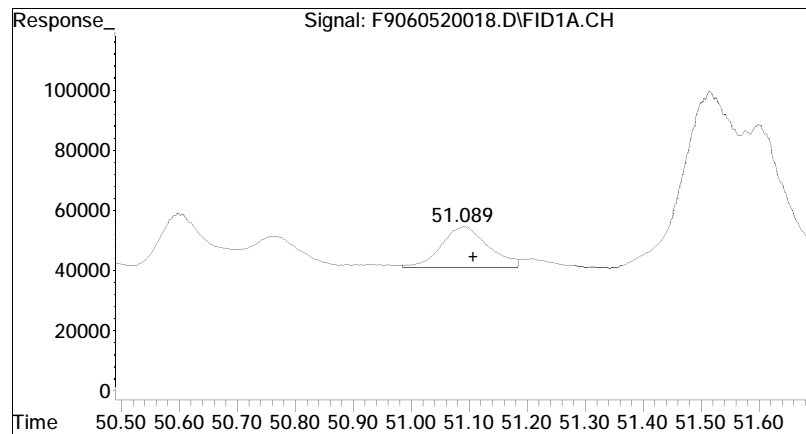
#34 n-Tritriacontane (C33)

R.T.: 46.312 min
Delta R.T.: -0.065 min
Response: 1973089
Conc: 1.67 ug/mL M4



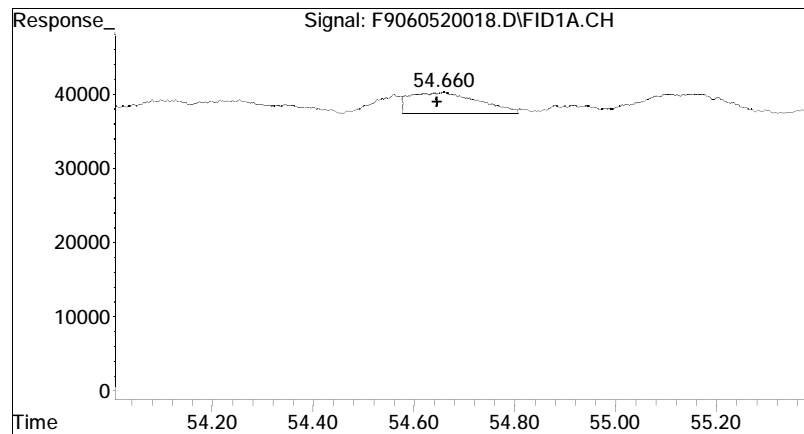
#36 n-Pentatriacontane (C35)

R.T.: 48.392 min
Delta R.T.: -0.053 min
Response: 877215
Conc: 0.74 ug/mL M4



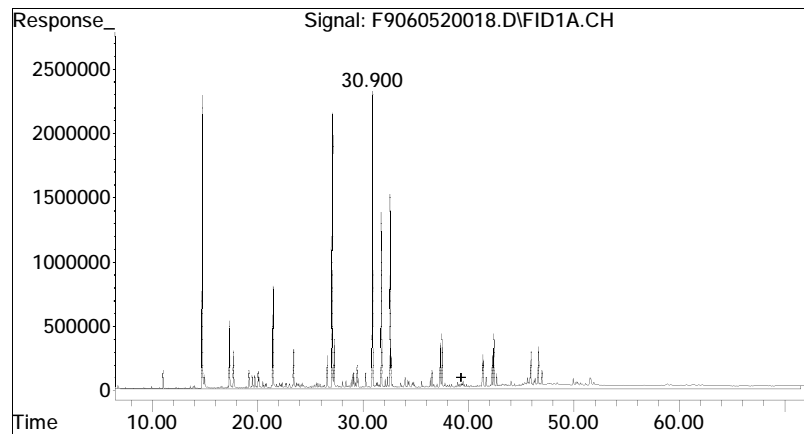
#38 n-Heptatriacontane (C37)

R.T.: 51.089 min
Delta R.T.: -0.019 min
Response: 757330
Conc: 0.64 ug/mL M4



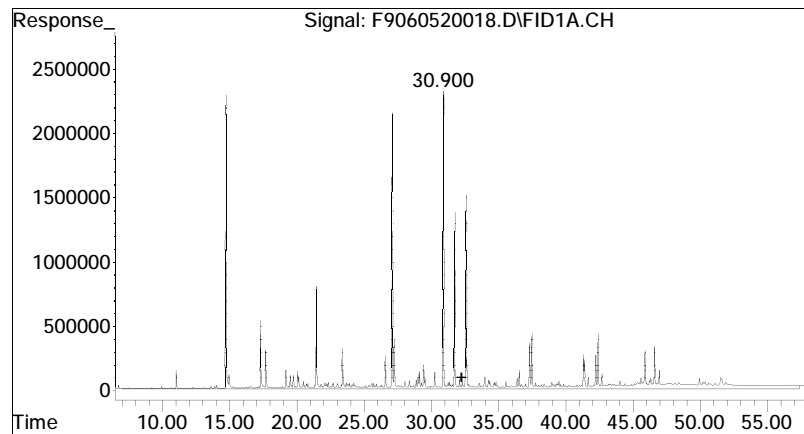
#40 n-Nonatriacontane (C39)

R.T.: 54.660 min
Delta R.T.: 0.014 min
Response: 266445
Conc: 0.22 ug/mL M4



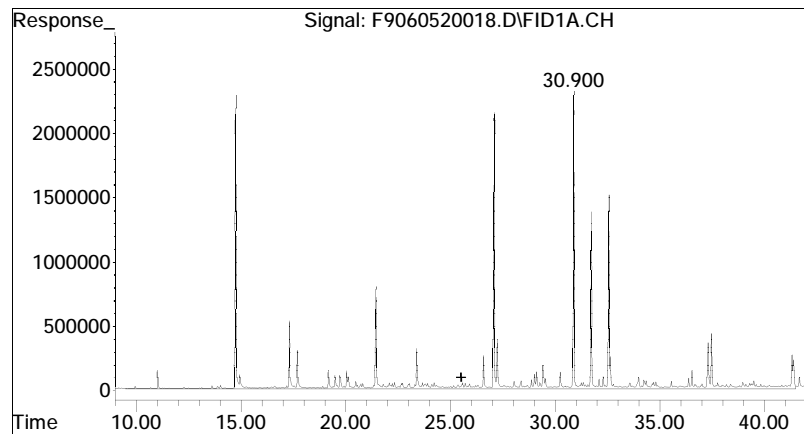
#42 C9-C44 Total Petroleum Hy

R.T.: 39.336 min
Delta R.T.: 0.000 min
Response: 1240593572
Conc: 1036.31 ug/mL m



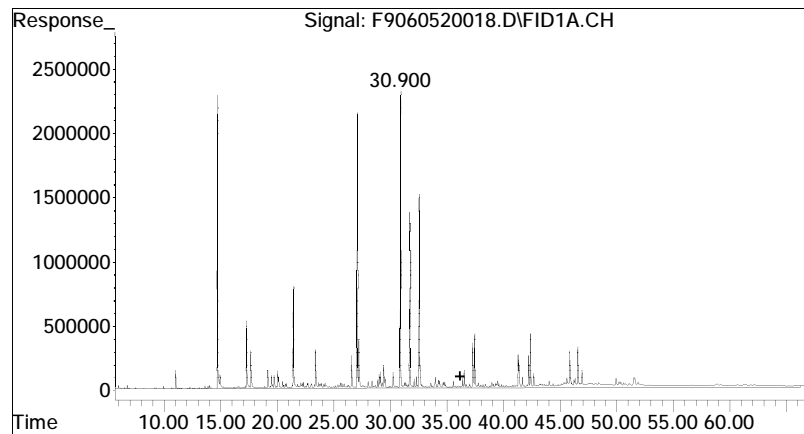
#43 C9-C40 Total Petroleum Hy

R.T.: 32.246 min
Delta R.T.: 0.000 min
Response: 1026912886
Conc: 857.81 ug/ml m



#44 C10-C28 DRO

R.T.: 25.531 min
Delta R.T.: 0.000 min
Response: 673669838
Conc: 563.39 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 567962541
Conc: 474.44 ug/mL m

Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523070.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 9:10 pm
 Operator : FID9:WR
 Sample : WG1372713-1
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 35 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:34:13 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:11 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB905232003F
 Blank File : F90523068.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.010	95892154	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.975	44424144	22.237	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	44.47%#	
24) s d50-Tetracosane	35.649	36027716	22.543	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	45.09%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL d
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL d
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	15.007	32002	0.018	ug/mL M4
7) t n-Tridecane (C13)	0.000	0	N.D.	ug/mL
8) t 1380	0.000	0	N.D.	ug/mL
9) t n-Tetradecane (C14)	0.000	0	N.D.	ug/mL
10) t 1470	0.000	0	N.D.	ug/mL
11) t n-Pentadecane (C15)	0.000	0	N.D.	ug/mL
12) t n-Hexadecane (C16)	0.000	0	N.D.	ug/mL d
13) t 1650	0.000	0	N.D.	ug/mL d
14) t n-Heptadecane (C17)	0.000	0	N.D.	ug/mL
15) t Pristane	0.000	0	N.D.	ug/mL
16) t n-Octadecane (C18)	27.072	819367C	0.448	ug/mL M4
17) t Phytane	0.000	0	N.D.	ug/mL d
18) t n-Nonadecane (C19)	0.000	0	N.D.	ug/mL
20) t n-Eicosane (C20)	0.000	0	N.D.	ug/mL
21) t n-Heneicosane (C21)	0.000	0	N.D.	ug/mL
22) t n-Docosane (C22)	0.000	0	N.D.	ug/mL
23) t n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523070.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 9:10 pm
 Operator : FID9:WR
 Sample : WG1372713-1
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 35 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:34:13 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:11 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB905232003F
 Blank File : F90523068.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units
25) t n-Tetracosane (C24)	0.000	0	N.D. ug/mL
26) t n-Pentacosane (C25)	37.445	1034195C	0.559 ug/mL M4
27) t n-Hexacosane (C26)	38.747	45273	0.024 ug/mL M4
28) t n-Heptacosane (C27)	39.953	54282	0.030 ug/mL M4
29) t n-Octacosane (C28)	41.114	139128	0.074 ug/mL M4
30) t n-Nonacosane (C29)	42.257	53849	0.029 ug/mL M4
31) t n-Triacontane (C30)	43.352	40876	0.022 ug/mL M4
32) t n-Hentriacontane (C31)	44.406	69169	0.038 ug/mL M4
33) t n-Dotriacontane (C32)	45.439	60563	0.033 ug/mL M4
34) t n-Tritriacontane (C33)	46.435	27018	0.015 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL d
36) t n-Pentatriacontane (C35)	0.000	0	N.D. ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t n-Heptatriacontane (C37)	51.246	470884	0.261 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL
40) t n-Nonatriacontane (C39)	54.887	1519312	0.815 ug/mL M4
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h C9-C44 Total Petroleu...	39.628	465734697	256.215 ug/mL m
42) h C9-C44 Total Petroleu BS	39.628	5499730	3.026 ug/mLm
43) h C9-C40 Total Petroleu...	31.469	253170389	139.277 ug/ml m
43) h C9-C40 Total Petroleu BS	31.469	14859219	8.175 ug/mlm
44) h C10-C28 DRO	25.629	66030232	36.367 ug/mL m
44) h C10-C28 DRO BS	25.629	19052027	10.493 ug/mLm
45) h >C12-C44 Total Petrol...	0.000	0	N.D. ug/mL d
46) h >C12-C40 Total Petrol...	0.000	0	N.D. ug/mL d
47) h C28-C40 ORO	49.183	189197265	102.245 ug/mL m
47) h C28-C40 ORO BS	49.183	189197265	102.245 ug/mLm
48) h Total Resolved Hydroc...	36.191	24043153	13.227 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523070.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 9:10 pm
 Operator : FID9:WR
 Sample : WG1372713-1
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 35 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:34:13 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:11 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB905232003F
 Blank File : F90523068.D

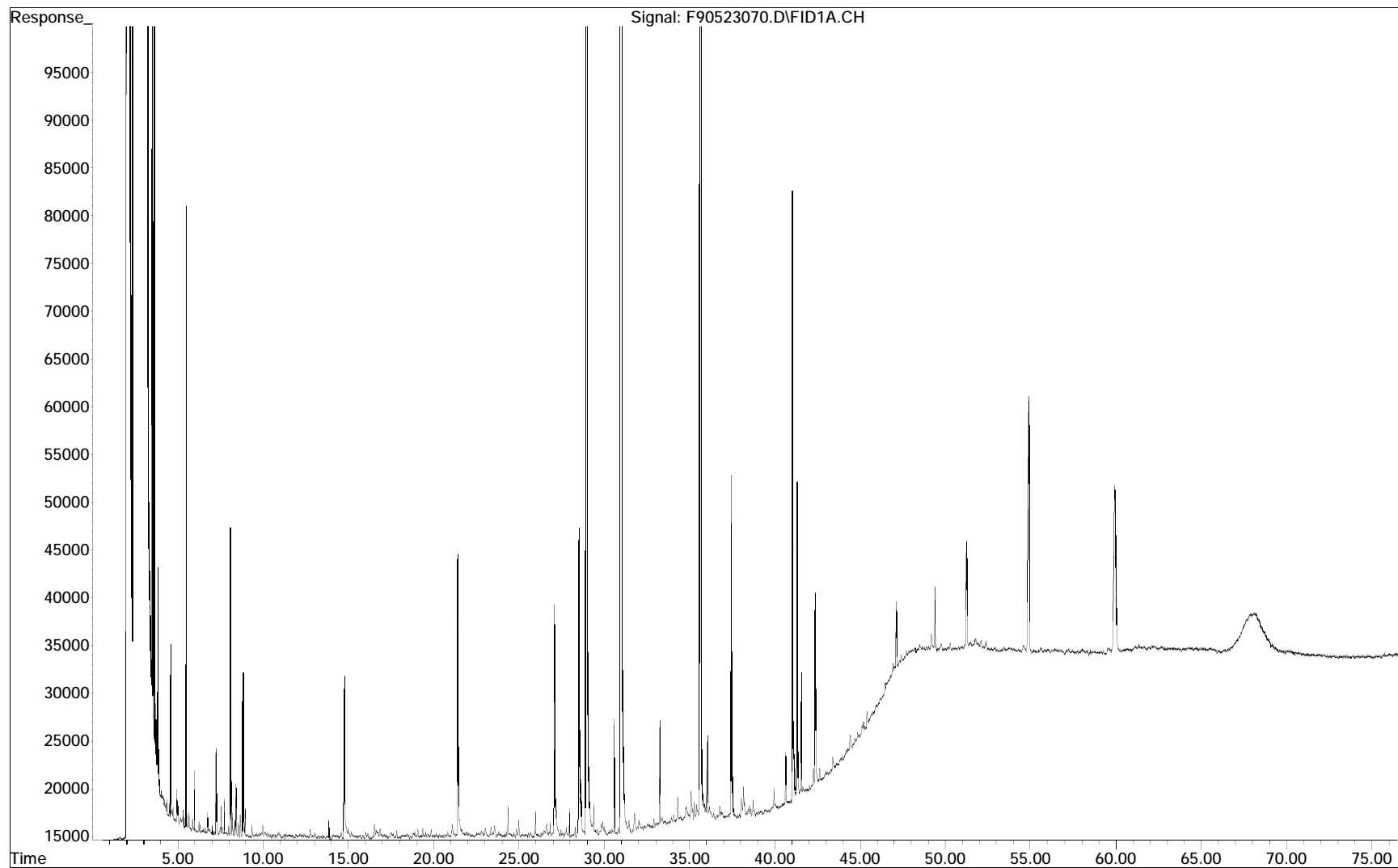
Sub List : Default - All compounds listed

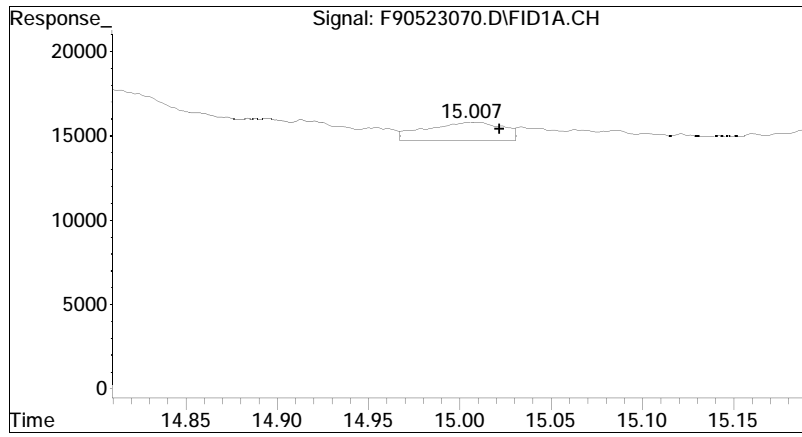
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

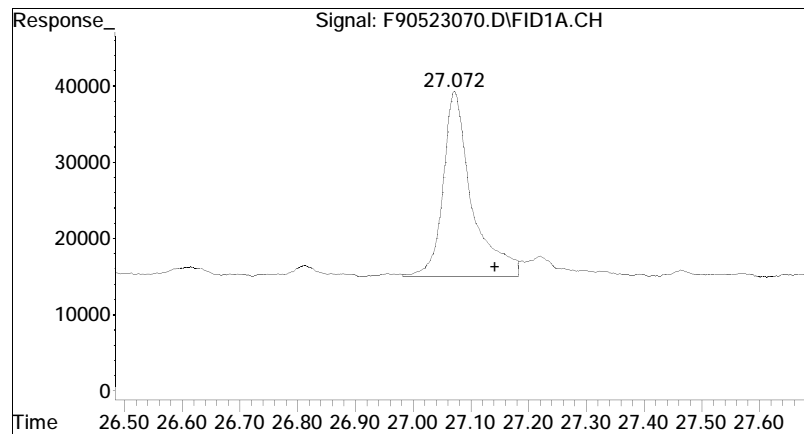
File : O:\Forensics\Data\FID9\2020\MAY\MAY23\F90523070.D
Operator : FID9:WR
Acquired : 25 May 2020 9:10 pm using AcqMethod FID9A.M
Sample Name: WG1372713-1
Instrument: FID 9
Misc Info : WG1373840, WG1372713, ICAL16844
Vial Number: 35
CurrentMeth: O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M



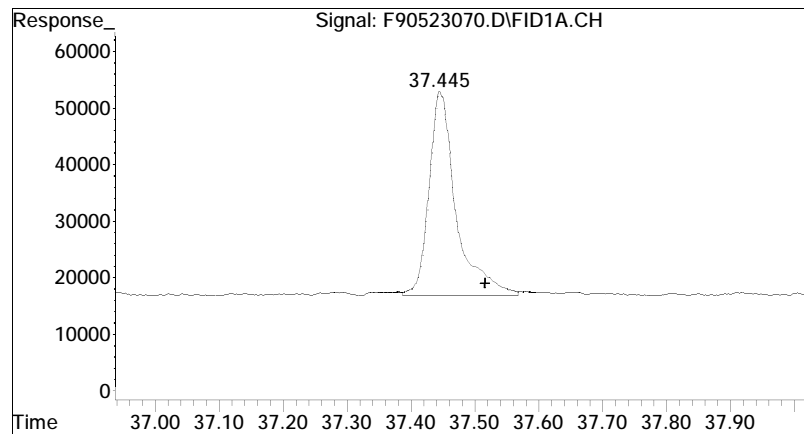


#6 n-Dodecane (C12)

R.T.: 15.007 min
Delta R.T.: -0.015 min
Response: 32002
Conc: 0.02 ug/mL M4

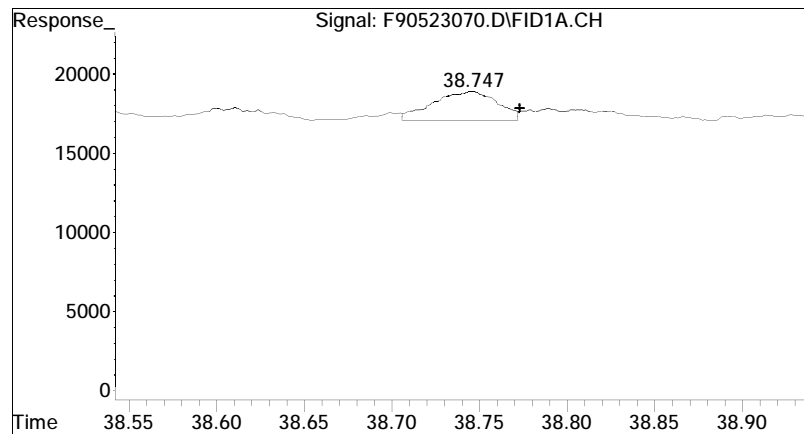


#16 n-Octadecane (C18)
R.T.: 27.072 min
Delta R.T.: -0.070 min
Response: 819367
Conc: 0.45 ug/mL M4



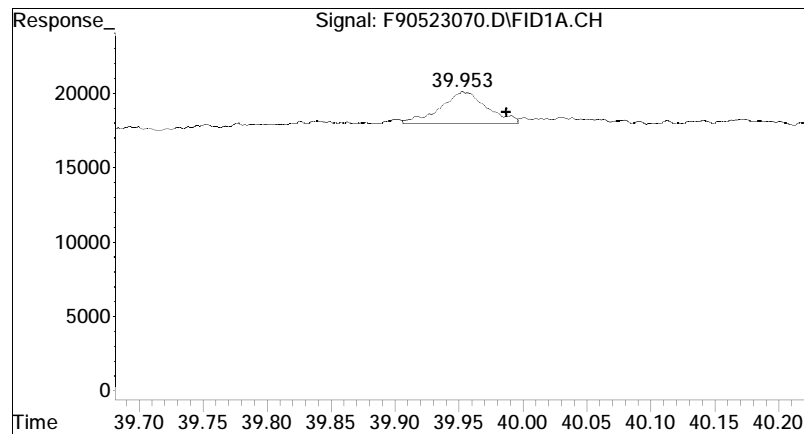
#26 n-Pentacosane (C25)

R.T.: 37.445 min
Delta R.T.: -0.071 min
Response: 1034195
Conc: 0.56 ug/mL M4



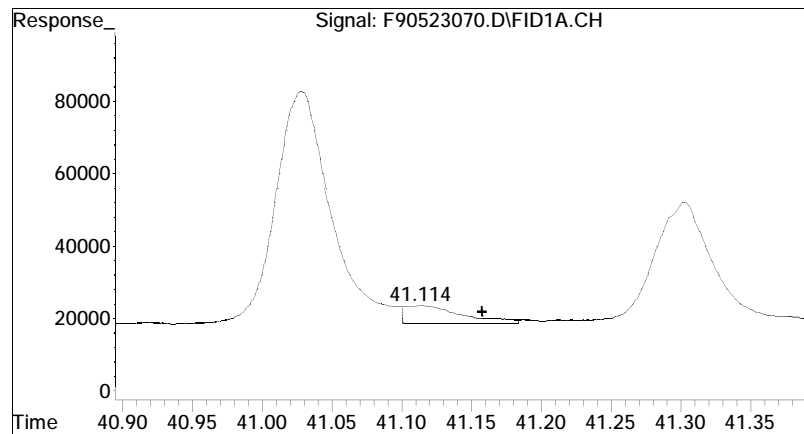
#27 n-Hexacosane (C26)

R.T.: 38.747 min
Delta R.T.: -0.026 min
Response: 45273
Conc: 0.02 ug/mL M4

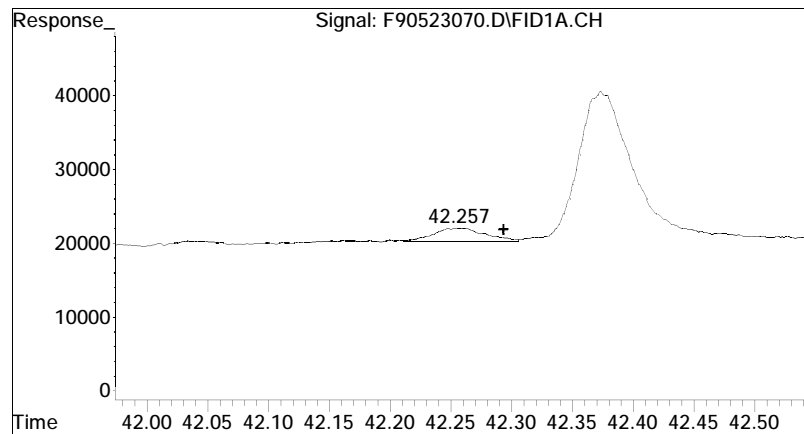


#28 n-Heptacosane (C27)

R.T.: 39.953 min
Delta R.T.: -0.034 min
Response: 54282
Conc: 0.03 ug/mL M4

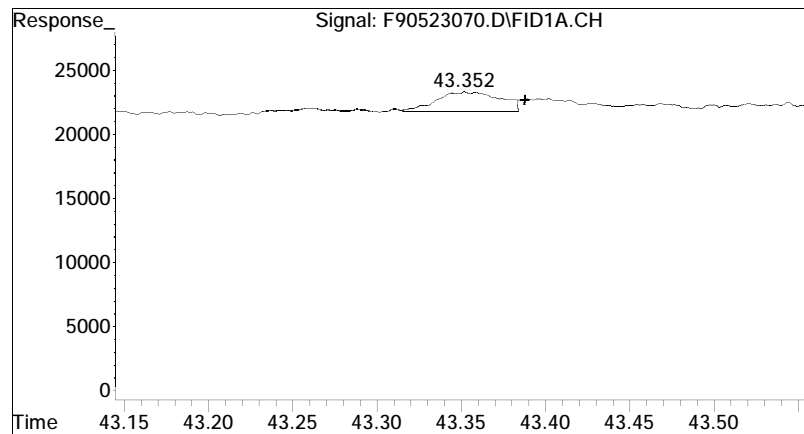


#29 n-Octacosane (C28)
R.T.: 41.114 min
Delta R.T.: -0.044 min
Response: 139128
Conc: 0.07 ug/mL M4



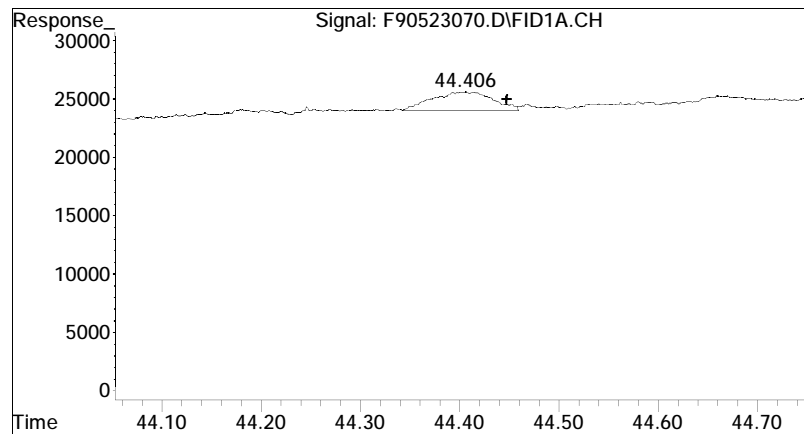
#30 n-Nonacosane (C29)

R.T.: 42.257 min
Delta R.T.: -0.037 min
Response: 53849
Conc: 0.03 ug/mL M4



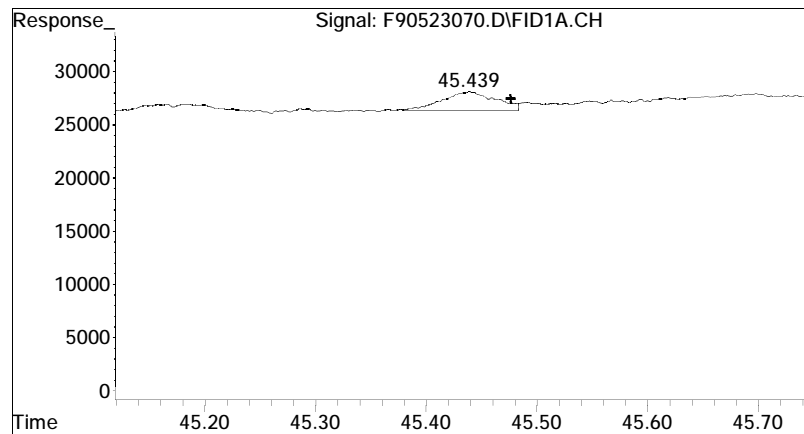
#31 n-Triacontane (C30)

R.T.: 43.352 min
Delta R.T.: -0.036 min
Response: 40876
Conc: 0.02 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.406 min
Delta R.T.: -0.042 min
Response: 69169
Conc: 0.04 ug/mL M4



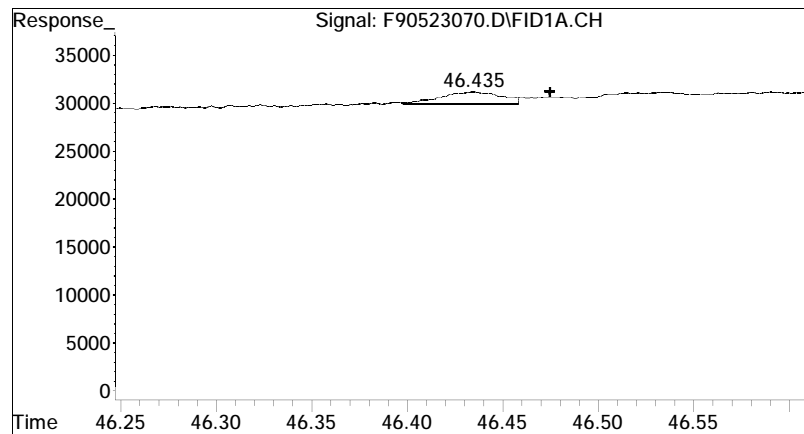
#33 n-Dotriacontane (C32)

R.T.: 45.439 min

Delta R.T.: -0.038 min

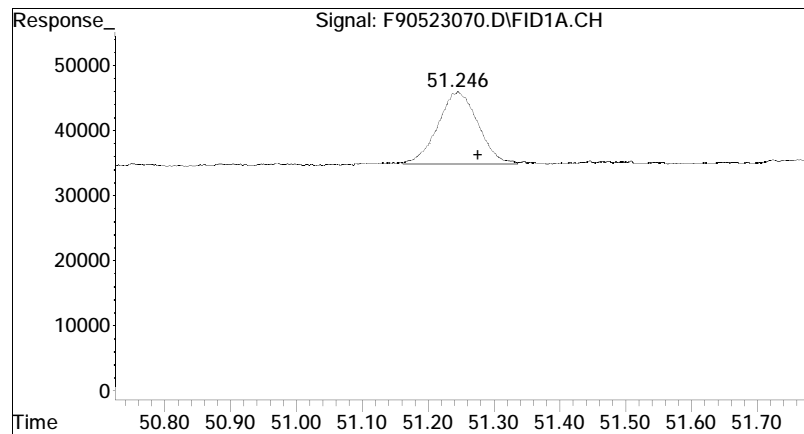
Response: 60563

Conc: 0.03 ug/mL M4



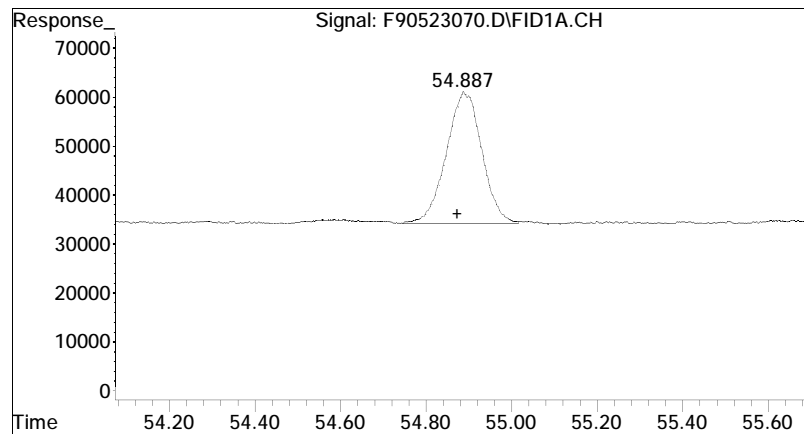
#34 n-Tritriacontane (C33)

R.T.: 46.435 min
Delta R.T.: -0.040 min
Response: 27018
Conc: 0.02 ug/mL M4



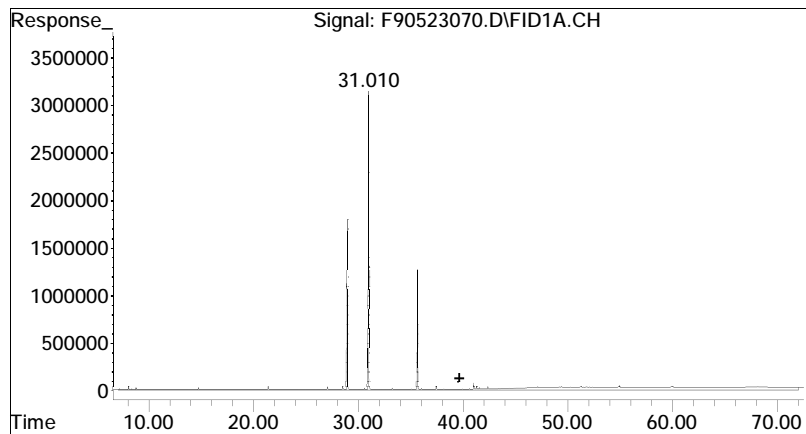
#38 n-Heptatriacontane (C37)

R.T.: 51.246 min
Delta R.T.: -0.030 min
Response: 470884
Conc: 0.26 ug/mL M4



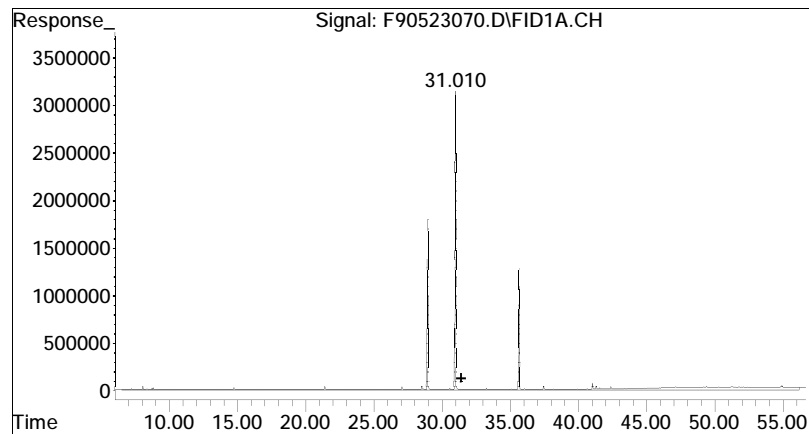
#40 n-Nonatriacontane (C39)

R.T.: 54.887 min
Delta R.T.: 0.013 min
Response: 1519312
Conc: 0.81 ug/mL M4



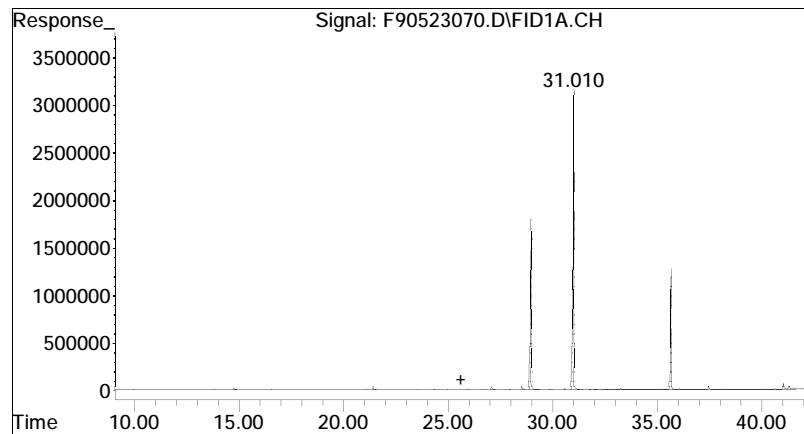
#42 C9-C44 Total Petroleum Hy

R.T.: 39.628 min
Delta R.T.: 0.000 min
Response: 465734697
Conc: 256.21 ug/mL m



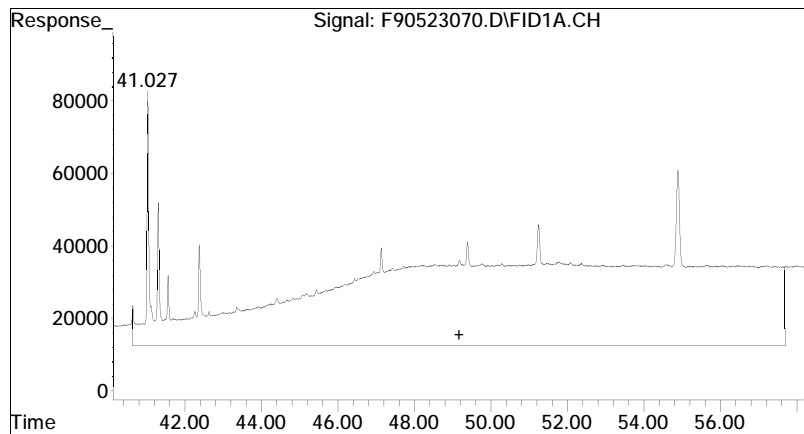
#43 C9-C40 Total Petroleum Hy

R.T.: 31.469 min
Delta R.T.: 0.000 min
Response: 253170389
Conc: 139.28 ug/ml m



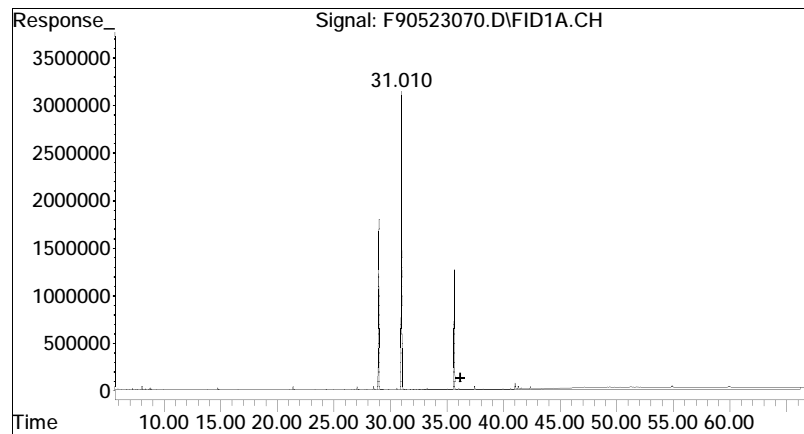
#44 C10-C28 DRO

R.T.: 25.629 min
Delta R.T.: 0.000 min
Response: 66030232
Conc: 36.37 ug/mL m



#47 C28-C40 ORO

R.T.: 49.183 min
Delta R.T.: 0.000 min
Response: 189197265
Conc: 102.25 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 24043153
Conc: 13.23 ug/mL m

LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523072.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 10:38 pm
 Operator : FID9:WR
 Sample : WG1372713-2
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 36 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 04 15:44:01 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:18 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB905232003F
 Blank File : F90523068.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I 5-alpha-androstane	31.004	80344114	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.970	38396195	22.940	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 45.88%#
24) s d50-Tetracosane	35.646	31030979	23.174	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 46.35%#
Target Compounds				
3) t n-Nonane (C9)	7.611	7817611	5.671	ug/mL M4
4) t n-Decane (C10)	10.078	9395326	6.586	ug/mL M4
6) t n-Dodecane (C12)	15.000	10413792	7.072	ug/mL M4
9) t n-Tetradecane (C14)	19.482	11419714	7.596	ug/mL M4
12) t n-Hexadecane (C16)	23.496	13426171	8.839	ug/mL M4
16) t n-Octadecane (C18)	27.118	15211887	9.933	ug/mL M4
18) t n-Nonadecane (C19)	28.803	14001276	9.171	ug/mL M4
20) t n-Eicosane (C20)	30.407	14292791	9.318	ug/mL M4
22) t n-Docosane (C22)	33.413	14439434	9.292	ug/mL M4
25) t n-Tetracosane (C24)	36.182	14604444	9.262	ug/mL M4
27) t n-Hexacosane (C26)	38.744	14510254	9.320	ug/mL M4
29) t n-Octacosane (C28)	41.126	14674649	9.377	ug/mL M4
31) t n-Triacontane (C30)	43.355	14580135	9.501	ug/mL M4
37) t n-Hexatriacontane (C36)	49.771	14038780	8.782	ug/mL M4
42) h C9-C44 Total Petroleu...	39.628	633446311	415.915	ug/mL m
42) h C9-C44 Total Petroleu BS	39.628	173211344	113.729	ug/mLm
48) h Total Resolved Hydroc...	36.191	209853709	137.788	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
Data File : F90523072.D
Signal(s) : FID1A.CH
Acq On : 25 May 2020 10:38 pm
Operator : FID9:WR
Sample : WG1372713-2
Misc : WG1373840,WG1372713,ICAL16844
ALS Vial : 36 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jun 04 15:44:01 2020
Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
Quant Title : FID Forensics
QLast Update : Wed Jun 03 18:55:18 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Blank Name : IB905232003F
Blank File : F90523068.D

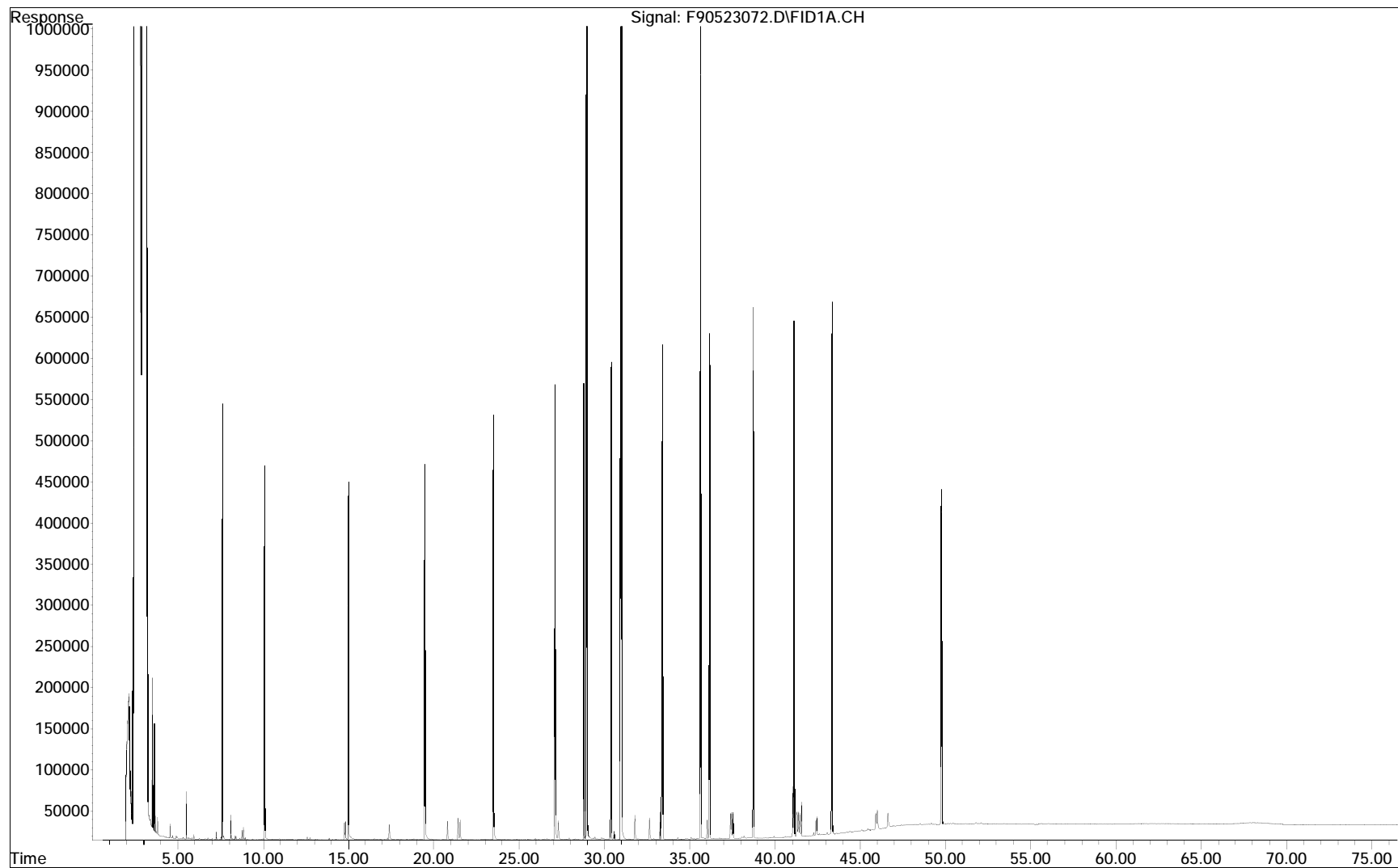
Sub List : SHC_QC_Samples - SHC_QC_Samples

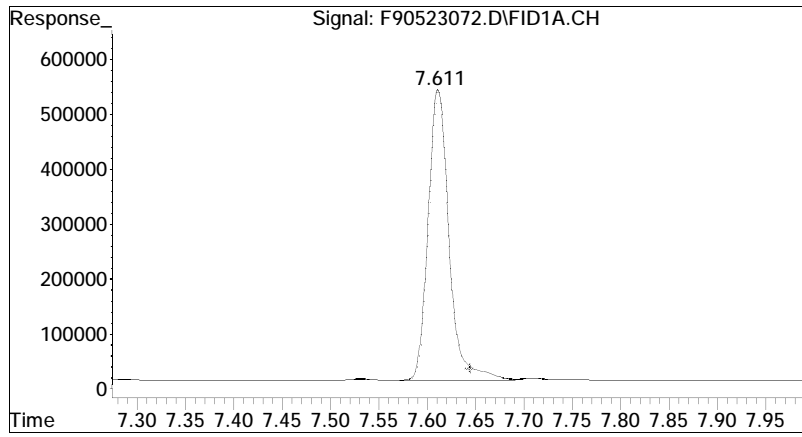
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

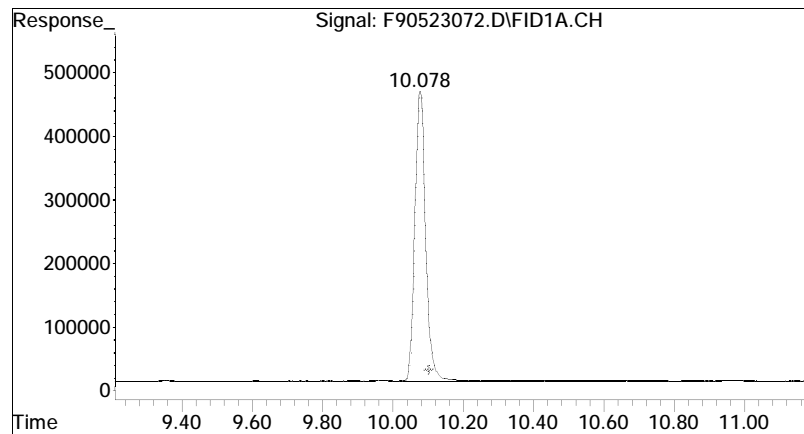
File : O:\Forensics\Data\FID9\2020\MAY\MAY23\F90523072.D
Operator : FID9:WR
Acquired : 25 May 2020 10:38 pm using AcqMethod FID9A.M
Sample Name: WG1372713-2
Instrument: FID 9
Misc Info : WG1373840, WG1372713, ICAL16844
Vial Number: 36
CurrentMeth: O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M





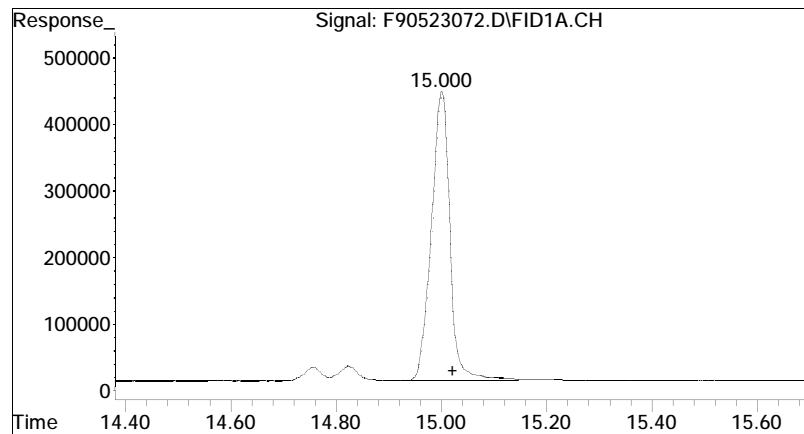
#3 n-Nonane (C9)

R.T.: 7.611 min
Delta R.T.: -0.033 min
Response: 7817611
Conc: 5.67 ug/mL M4



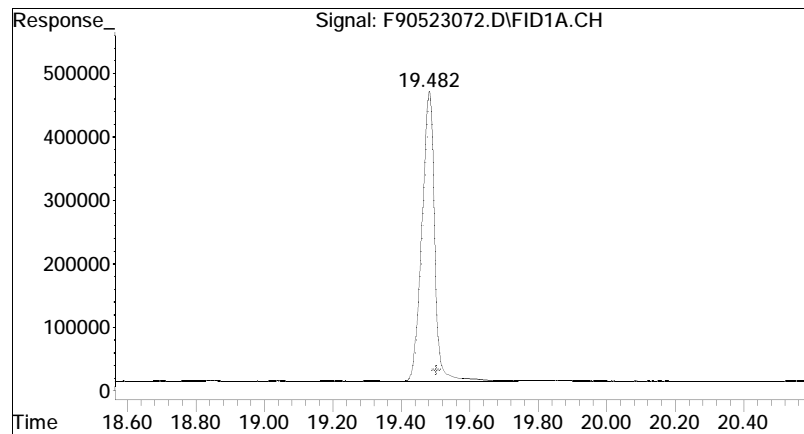
#4 n-Decane (C10)

R.T.: 10.078 min
Delta R.T.: -0.025 min
Response: 9395326
Conc: 6.59 ug/mL M4



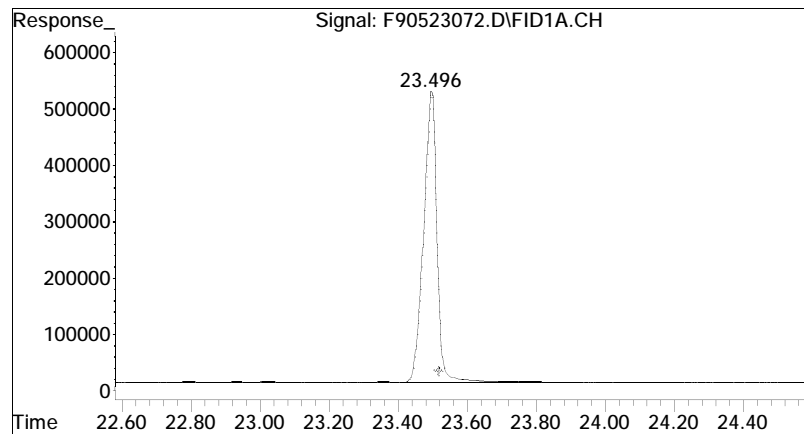
#6 n-Dodecane (C12)

R.T.: 15.000 min
Delta R.T.: -0.022 min
Response: 10413792
Conc: 7.07 ug/mL M4



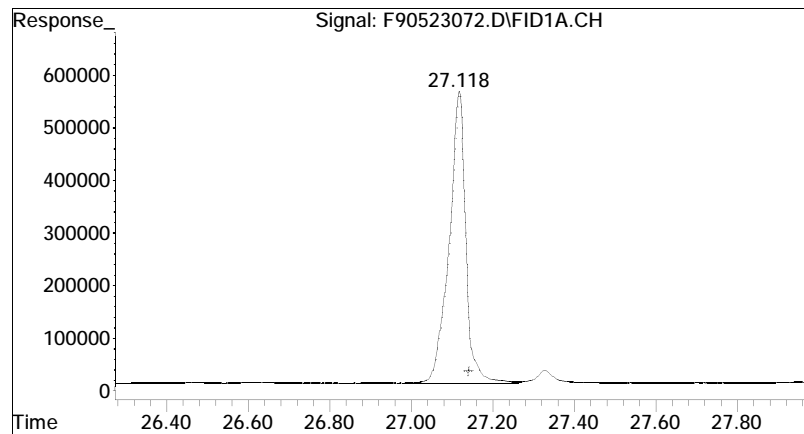
#9 n-Tetradecane (C14)

R.T.: 19.482 min
Delta R.T.: -0.021 min
Response: 11419714
Conc: 7.60 ug/mL M4



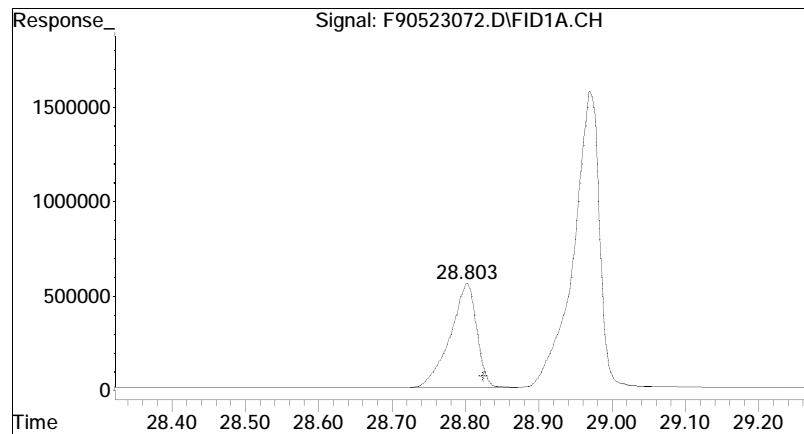
#12 n-Hexadecane (C16)

R.T.: 23.496 min
Delta R.T.: -0.023 min
Response: 13426171
Conc: 8.84 ug/mL M4



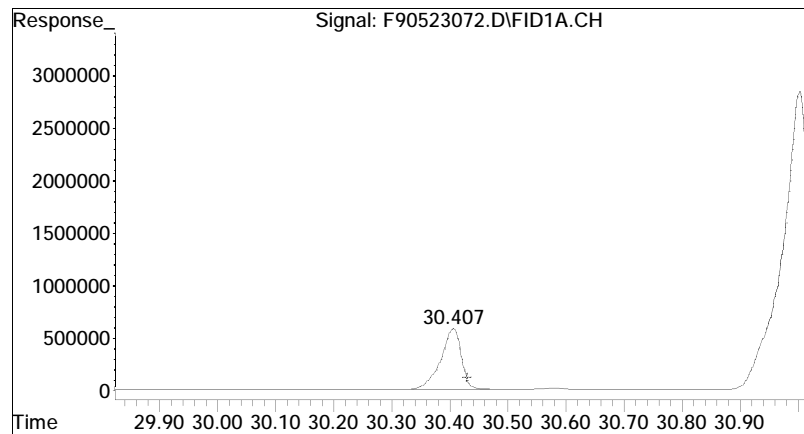
#16 n-Octadecane (C18)

R.T.: 27.118 min
Delta R.T.: -0.024 min
Response: 15211887
Conc: 9.93 ug/mL M4



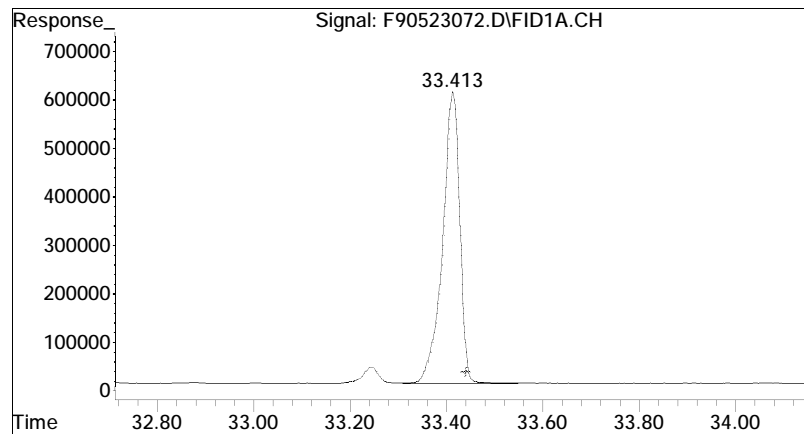
#18 n-Nonadecane (C19)

R.T.: 28.803 min
Delta R.T.: -0.022 min
Response: 14001276
Conc: 9.17 ug/mL M4



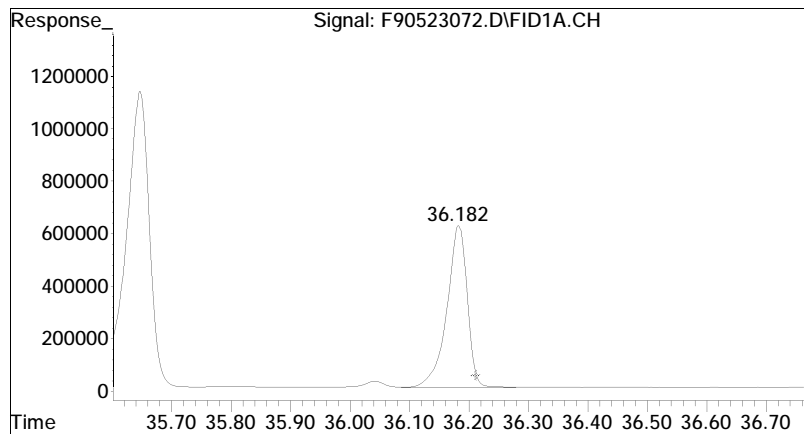
#20 n-Eicosane (C20)

R.T.: 30.407 min
Delta R.T.: -0.024 min
Response: 14292791
Conc: 9.32 ug/mL M4



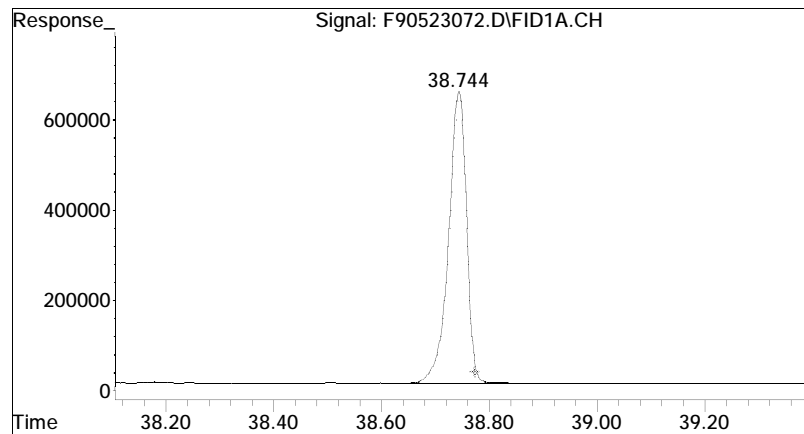
#22 n-Docosane (C22)

R.T.: 33.413 min
Delta R.T.: -0.028 min
Response: 14439434
Conc: 9.29 ug/mL M4



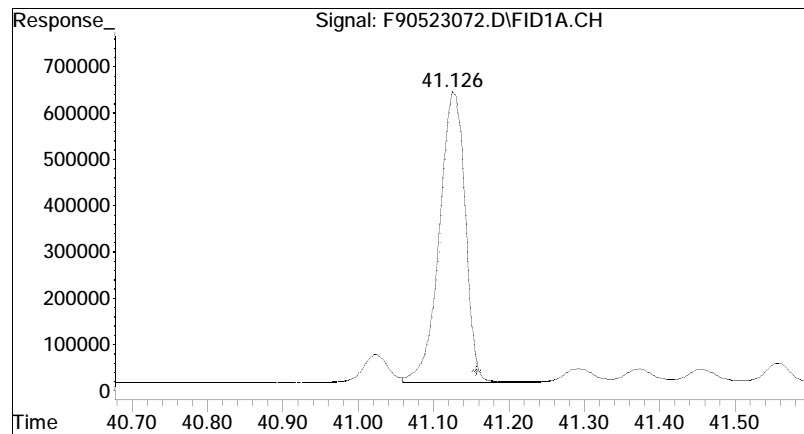
#25 n-Tetracosane (C24)

R.T.: 36.182 min
Delta R.T.: -0.030 min
Response: 14604444
Conc: 9.26 ug/mL M4



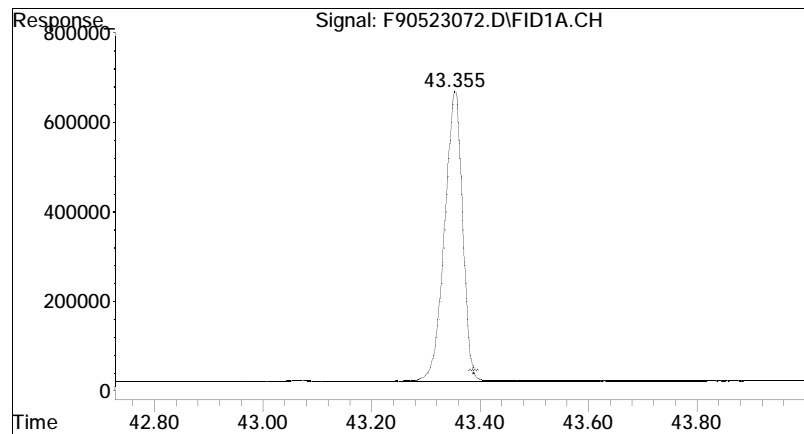
#27 n-Hexacosane (C26)

R.T.: 38.744 min
Delta R.T.: -0.029 min
Response: 14510254
Conc: 9.32 ug/mL M4



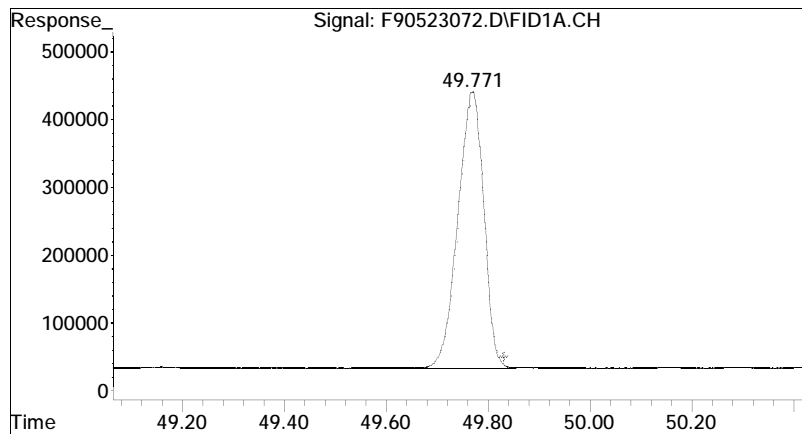
#29 n-Octacosane (C28)

R.T.: 41.126 min
Delta R.T.: -0.032 min
Response: 14674649
Conc: 9.38 ug/mL M4



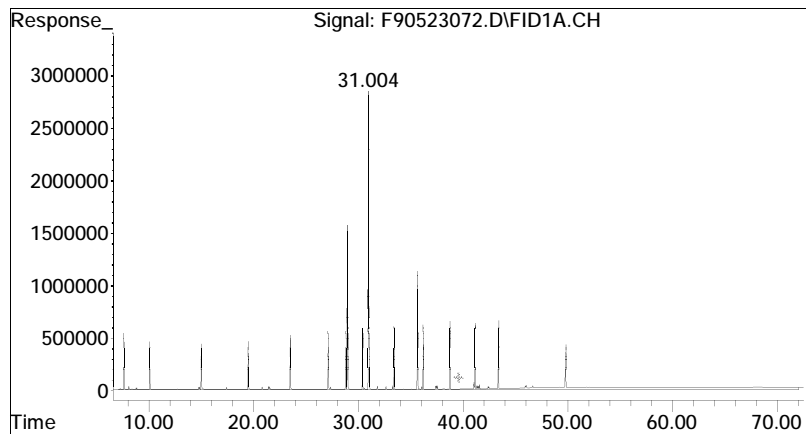
#31 n-Triacontane (C30)

R.T.: 43.355 min
Delta R.T.: -0.033 min
Response: 14580135
Conc: 9.50 ug/mL M4



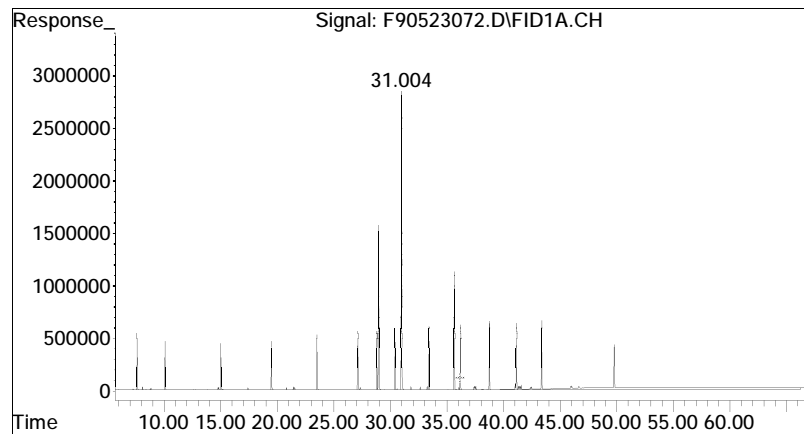
#37 n-Hexatriacontane (C36)

R.T.: 49.771 min
Delta R.T.: -0.060 min
Response: 14038780
Conc: 8.78 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 39.628 min
Delta R.T.: 0.000 min
Response: 633446311
Conc: 415.91 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 209853709
Conc: 137.79 ug/mL m

LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523074.D
 Signal(s) : FID1A.CH
 Acq On : 26 May 2020 12:06 am
 Operator : FID9:WR
 Sample : WG1372713-3
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 37 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 04 15:44:02 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:25 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB905232003F
 Blank File : F90523068.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I 5-alpha-androstane	30.998	75172982	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.970	36158452	23.089	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 46.18%#
24) s d50-Tetracosane	35.646	29404986	23.471	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 46.94%#
Target Compounds				
3) t n-Nonane (C9)	7.613	6843250	5.306	ug/mL M4
4) t n-Decane (C10)	10.077	8506601	6.374	ug/mL M4
6) t n-Dodecane (C12)	15.001	9498531	6.894	ug/mL M4
9) t n-Tetradecane (C14)	19.482	10643181	7.567	ug/mL M4
12) t n-Hexadecane (C16)	23.498	12755939	8.975	ug/mL M4
16) t n-Octadecane (C18)	27.119	14462133	10.093	ug/mL M4
18) t n-Nonadecane (C19)	28.801	13289588	9.303	ug/mL M4
20) t n-Eicosane (C20)	30.406	13559654	9.448	ug/mL M4
22) t n-Docosane (C22)	33.414	13712799	9.431	ug/mL M4
25) t n-Tetracosane (C24)	36.181	13875966	9.405	ug/mL M4
27) t n-Hexacosane (C26)	38.742	13793931	9.469	ug/mL M4
29) t n-Octacosane (C28)	41.124	13912558	9.501	ug/mL M4
31) t n-Triacontane (C30)	43.351	13861666	9.654	ug/mL M4
37) t n-Hexatriacontane (C36)	49.768	13335904	8.916	ug/mL M4
42) h C9-C44 Total Petroleu...	39.628	601369257	422.015	ug/mL m
42) h C9-C44 Total Petroleu BS	39.628	141134290	99.042	ug/mLm
48) h Total Resolved Hydroc...	36.191	195809106	137.411	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523074.D
 Signal(s) : FID1A.CH
 Acq On : 26 May 2020 12:06 am
 Operator : FID9:WR
 Sample : WG1372713-3
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 37 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 04 15:44:02 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:25 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB905232003F
 Blank File : F90523068.D

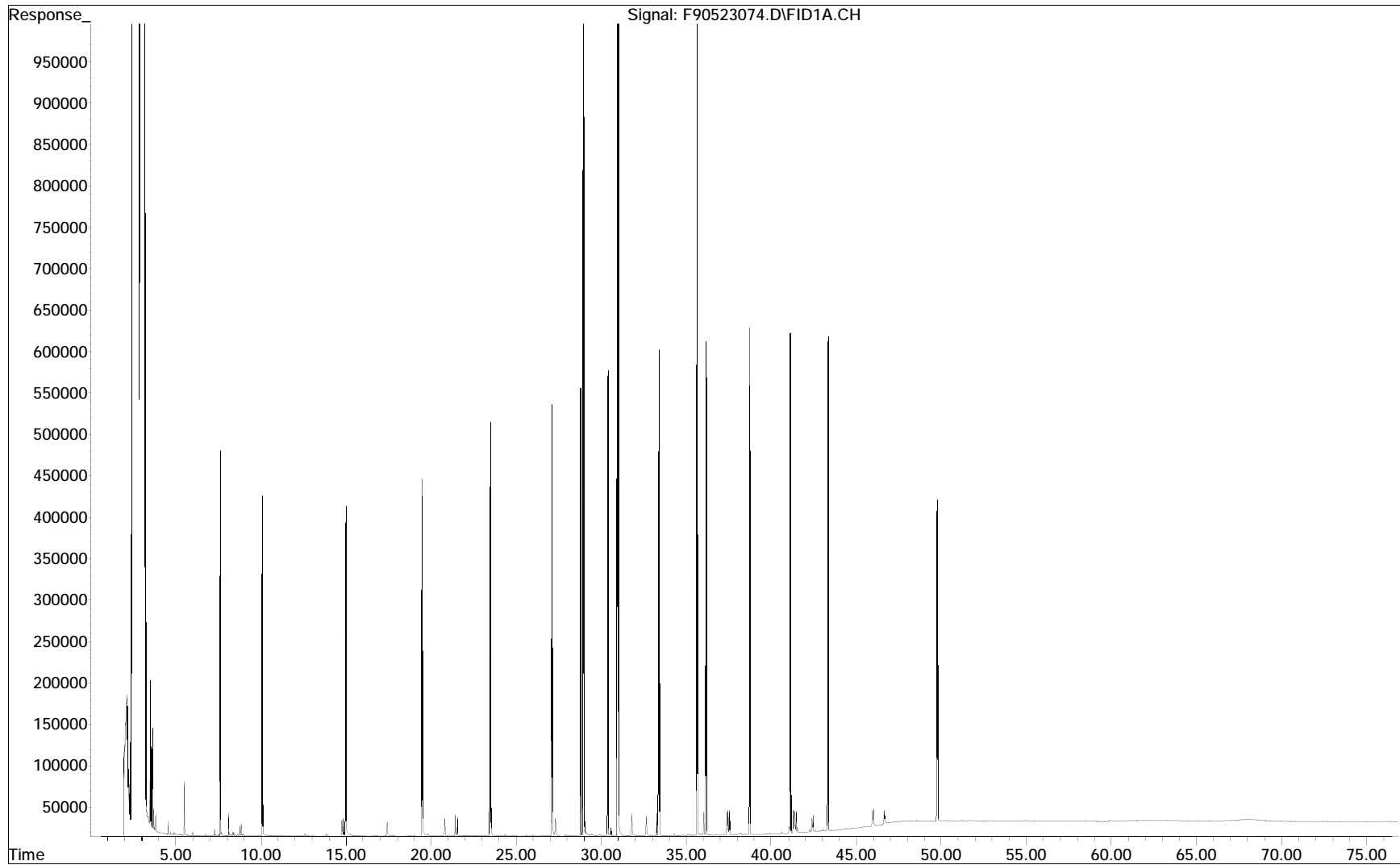
Sub List : SHC_QC_Samples - SHC_QC_Samples

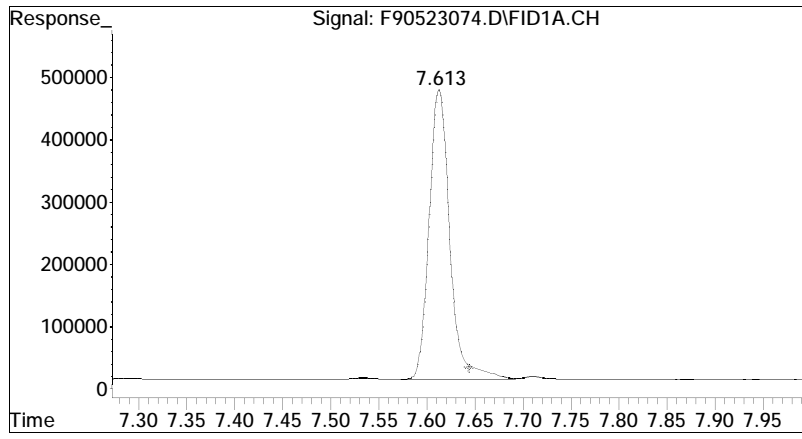
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

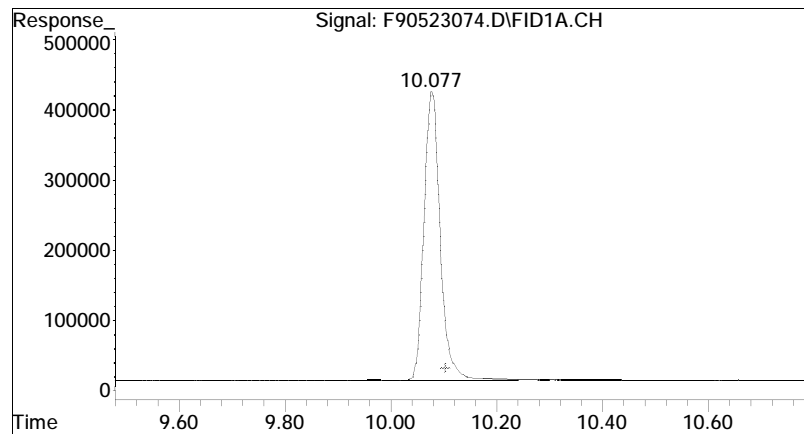
File : O:\Forensics\Data\FID9\2020\MAY\MAY23\F90523074.D
Operator : FID9:WR
Acquired : 26 May 2020 12:06 am using AcqMethod FID9A.M
Sample Name: WG1372713-3
Instrument: FID 9
Misc Info : WG1373840, WG1372713, ICAL16844
Vial Number: 37
CurrentMeth: O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M





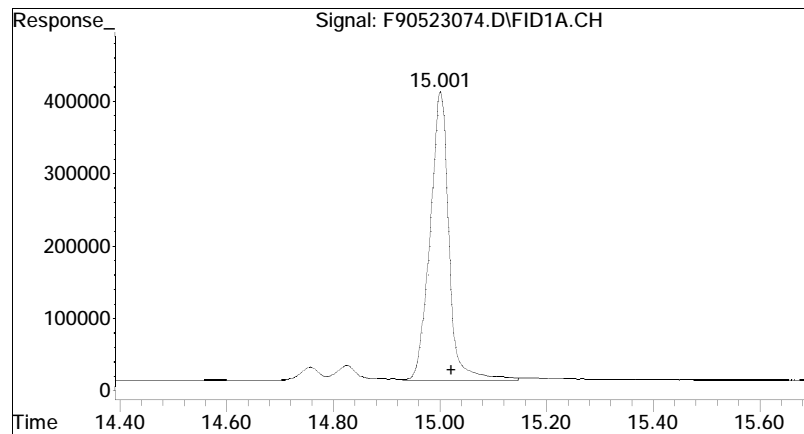
#3 n-Nonane (C9)

R.T.: 7.613 min
Delta R.T.: -0.031 min
Response: 6843250
Conc: 5.31 ug/mL M4



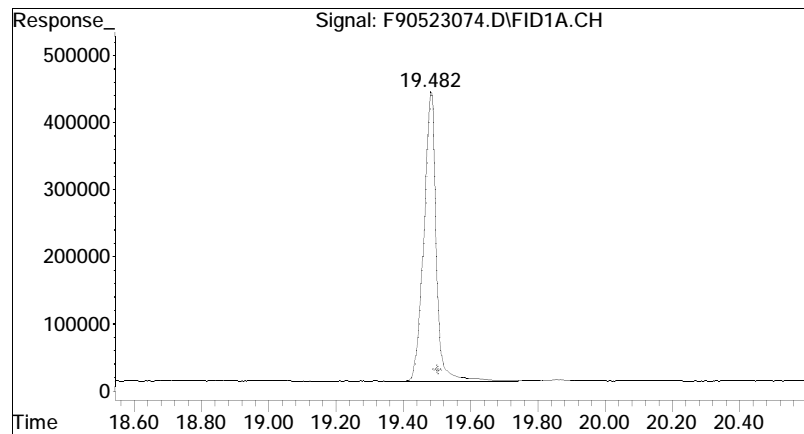
#4 n-Decane (C10)

R.T.: 10.077 min
Delta R.T.: -0.026 min
Response: 8506601
Conc: 6.37 ug/mL M4



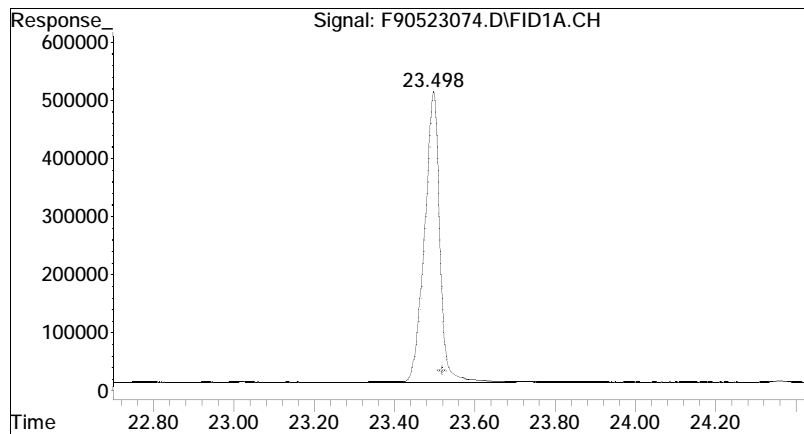
#6 n-Dodecane (C12)

R.T.: 15.001 min
Delta R.T.: -0.021 min
Response: 9498531
Conc: 6.89 ug/mL M4



#9 n-Tetradecane (C14)

R.T.: 19.482 min
Delta R.T.: -0.021 min
Response: 10643181
Conc: 7.57 ug/mL M4



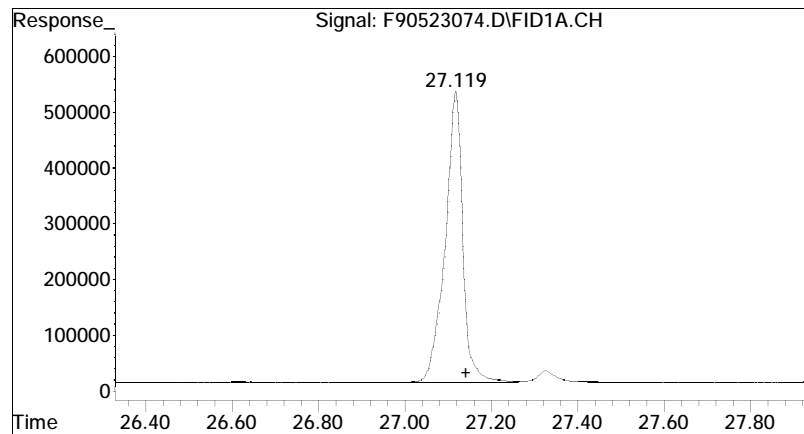
#12 n-Hexadecane (C16)

R.T.: 23.498 min

Delta R.T.: -0.021 min

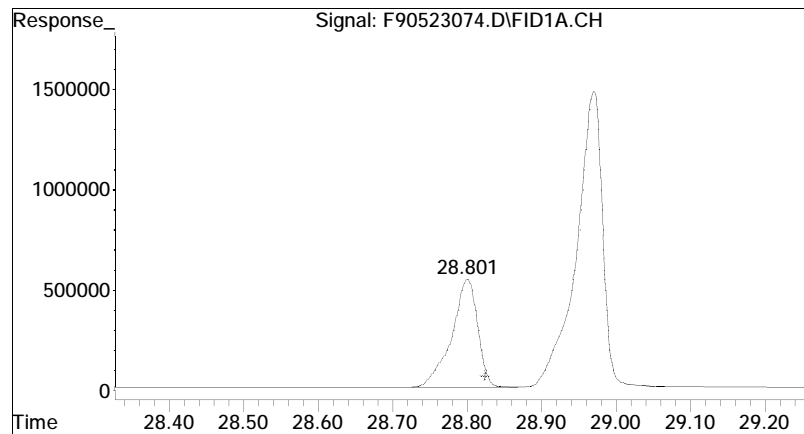
Response: 12755939

Conc: 8.98 ug/mL M4



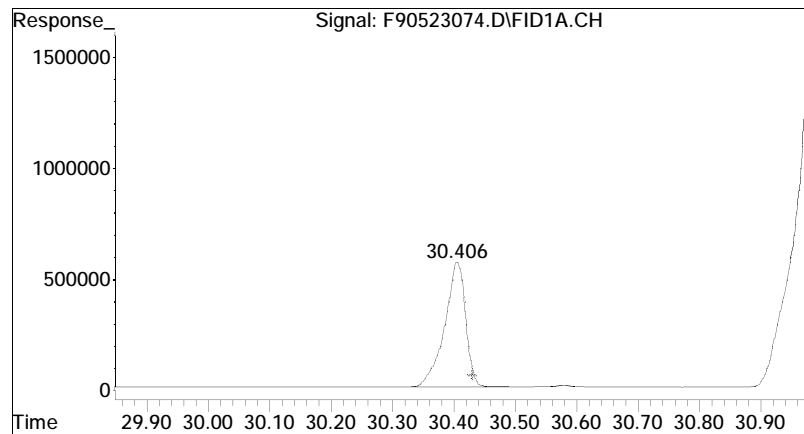
#16 n-Octadecane (C18)

R.T.: 27.119 min
Delta R.T.: -0.023 min
Response: 14462133
Conc: 10.09 ug/mL M4



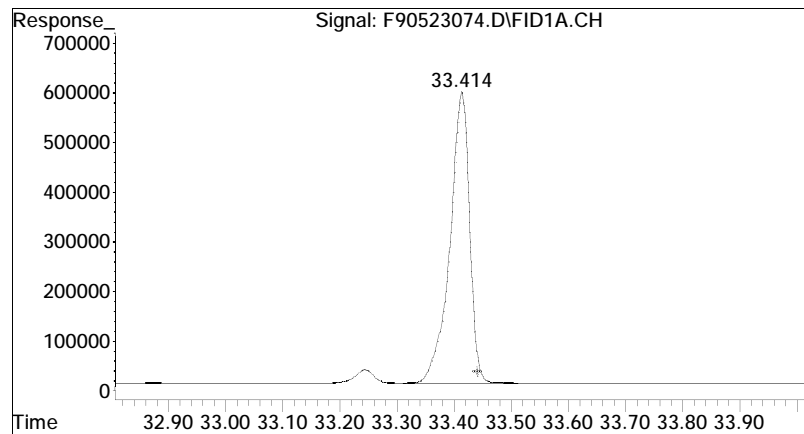
#18 n-Nonadecane (C19)

R.T.: 28.801 min
Delta R.T.: -0.024 min
Response: 13289588
Conc: 9.30 ug/mL M4



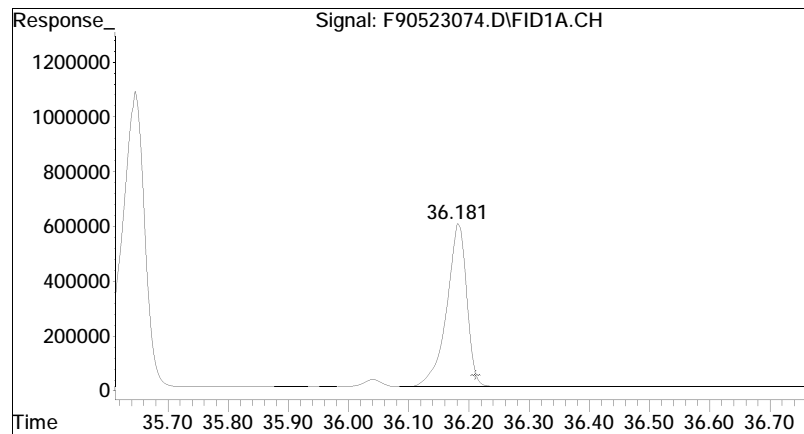
#20 n-Eicosane (C20)

R.T.: 30.406 min
Delta R.T.: -0.025 min
Response: 13559654
Conc: 9.45 ug/mL M4



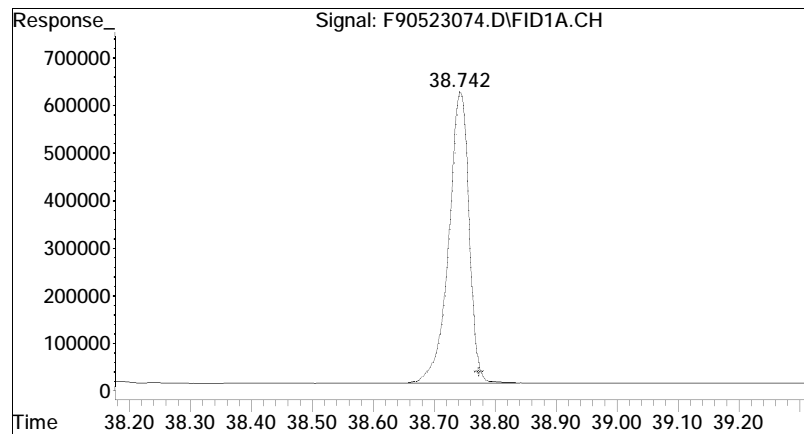
#22 n-Docosane (C22)

R.T.: 33.414 min
Delta R.T.: -0.027 min
Response: 13712799
Conc: 9.43 ug/mL M4



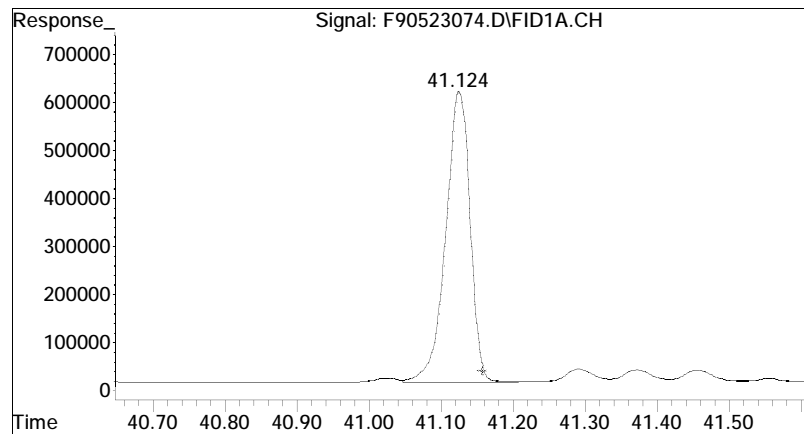
#25 n-Tetracosane (C24)

R.T.: 36.181 min
Delta R.T.: -0.031 min
Response: 13875966
Conc: 9.40 ug/mL M4



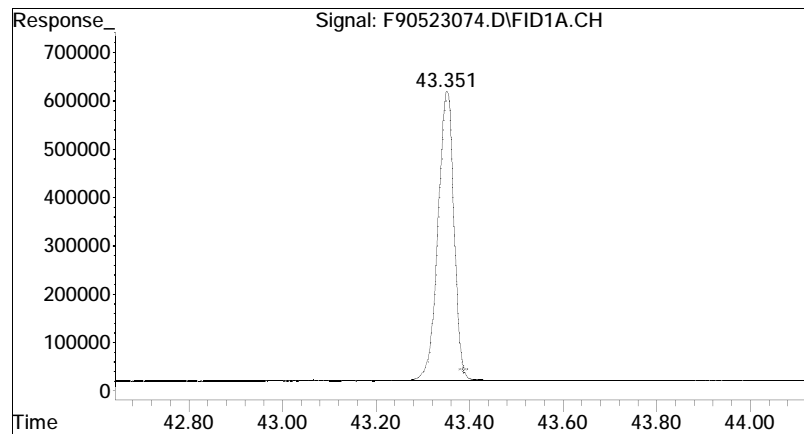
#27 n-Hexacosane (C26)

R.T.: 38.742 min
Delta R.T.: -0.031 min
Response: 13793931
Conc: 9.47 ug/mL M4



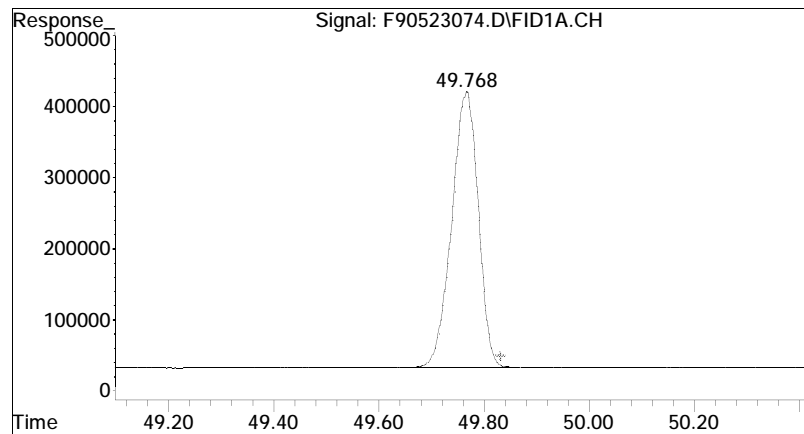
#29 n-Octacosane (C28)

R.T.: 41.124 min
Delta R.T.: -0.034 min
Response: 13912558
Conc: 9.50 ug/mL M4



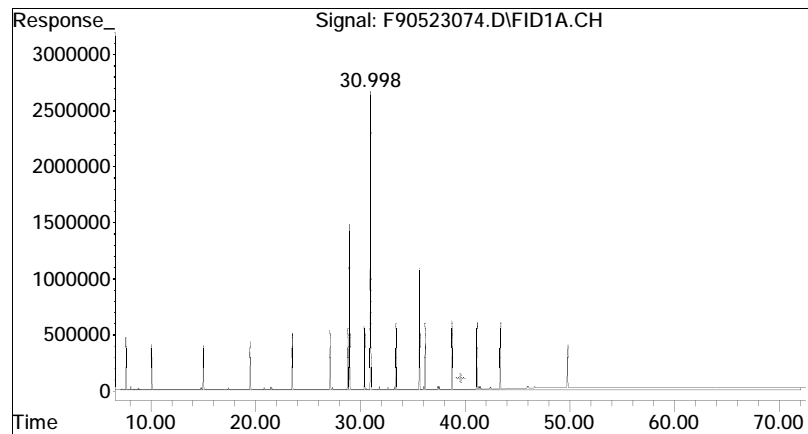
#31 n-Triacontane (C30)

R.T.: 43.351 min
Delta R.T.: -0.037 min
Response: 13861666
Conc: 9.65 ug/mL M4



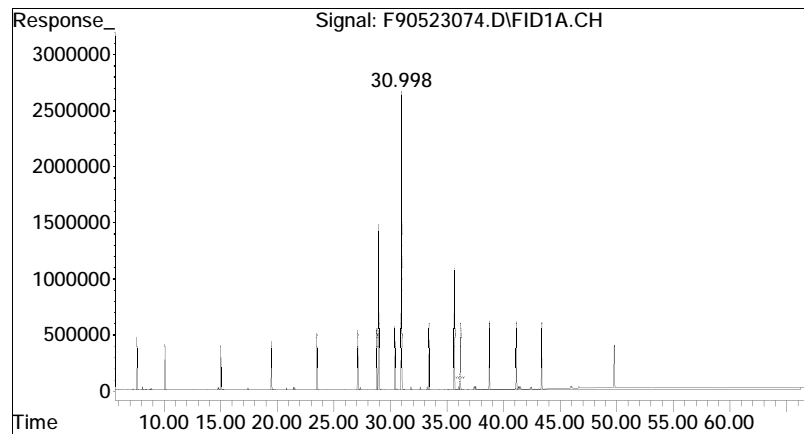
#37 n-Hexatriacontane (C36)

R.T.: 49.768 min
Delta R.T.: -0.063 min
Response: 13335904
Conc: 8.92 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 39.628 min
Delta R.T.: 0.000 min
Response: 601369257
Conc: 422.02 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 195809106
Conc: 137.41 ug/mL m

**Matrix Spike / Matrix Spike Duplicate
Raw Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520020.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 6:02 am
 Operator : FID9:WR
 Sample : WG1372713-4D,42,10
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 00:20:30 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I 5-alpha-androstane	30.896	64782465	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.862	1557425	1.154	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 2.31%#
24) s d50-Tetracosane	35.541	1291199	1.196	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 2.39%#
Target Compounds				
3) t n-Nonane (C9)	7.540	278021	0.250	ug/mL M4
4) t n-Decane (C10)	9.997	390409	0.339	ug/mL M4
6) t n-Dodecane (C12)	14.952	4017795	3.384	ug/mL M4
9) t n-Tetradecane (C14)	19.393	725661	0.599	ug/mL M4
12) t n-Hexadecane (C16)	23.395	9355903	7.639	ug/mL M4
16) t n-Octadecane (C18)	27.085	55728107G	45.132	ug/mL M4
18) t n-Nonadecane (C19)	28.704	527869	0.429	ug/mL M4
20) t n-Eicosane (C20)	30.312	934913	0.756	ug/mL M4
22) t n-Docosane (C22)	33.320	697304	0.557	ug/mL M4
25) t n-Tetracosane (C24)	36.089	709276	0.558	ug/mL M4
27) t n-Hexacosane (C26)	38.648	535524	0.427	ug/mL M4
29) t n-Octacosane (C28)	41.030	1038895	0.823	ug/mL M4
31) t n-Triacontane (C30)	43.252	1201476	0.971	ug/mL M4
37) t n-Hexatriacontane (C36)	49.624	626454	0.486	ug/mL M4
42) h C9-C44 Total Petroleu...	39.336	1161467043	945.798	ug/mL m
42) h C9-C44 Total Petroleu BS	39.336	732738453	596.678	ug/mLm
48) h Total Resolved Hydroc...	36.191	521789210	424.900	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
Data File : F9060520020.D
Signal(s) : FID1A.CH
Acq On : 06 Jun 2020 6:02 am
Operator : FID9:WR
Sample : WG1372713-4D,42,10
Misc : WG1373840,WG1372713,ICAL16844
ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jun 08 00:20:30 2020
Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
Quant Title : FID Forensics
QLast Update : Sun Jun 07 22:58:14 2020
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Blank Name : IB906052001F
Blank File : F9060520010.D

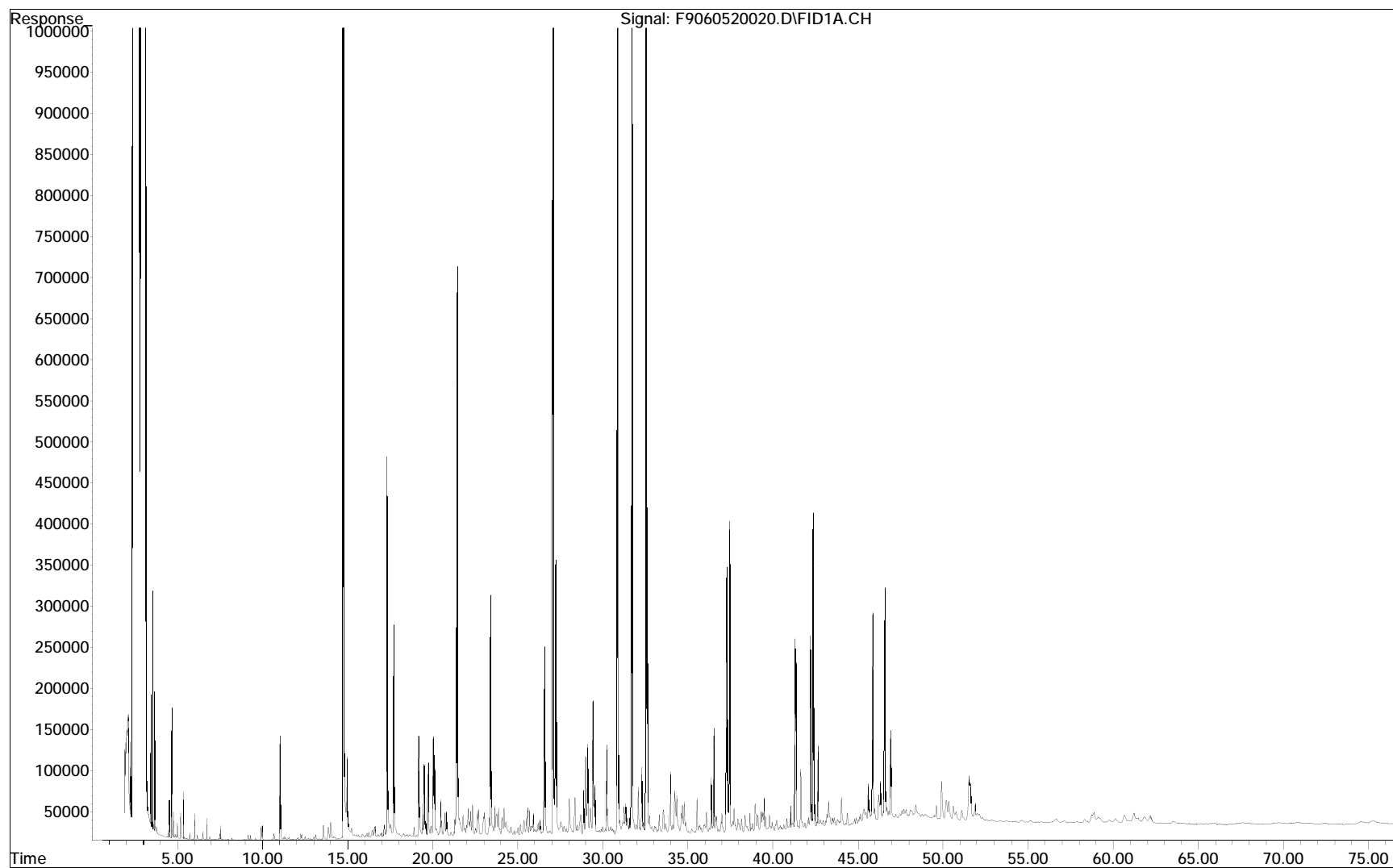
Sub List : SHC_QC_Samples - SHC_QC_Samples

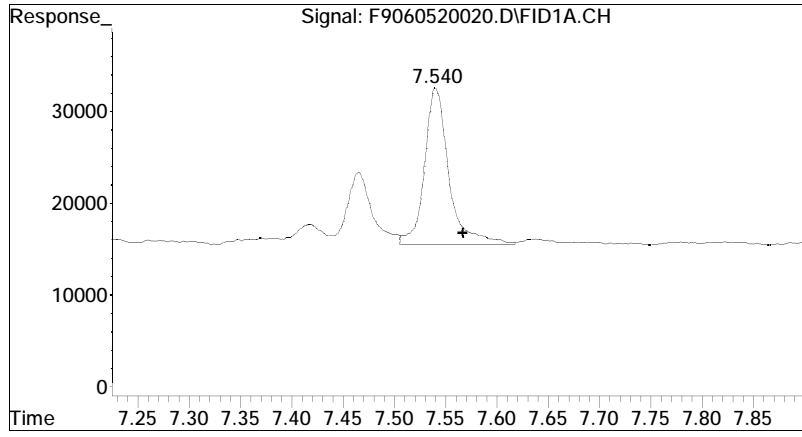
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520020.D
Operator : FID9:WR
Acquired : 06 Jun 2020 6:02 am using AcqMethod FID9A.M
Sample Name: WG1372713-4D,42,10
Instrument: FID 9
Misc Info : WG1373840,WG1372713,ICAL16844
Vial Number: 10
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M





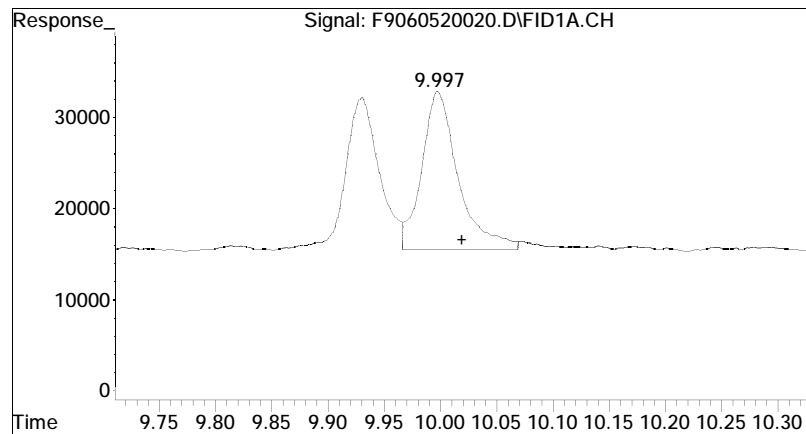
#3 n-Nonane (C9)

R.T.: 7.540 min

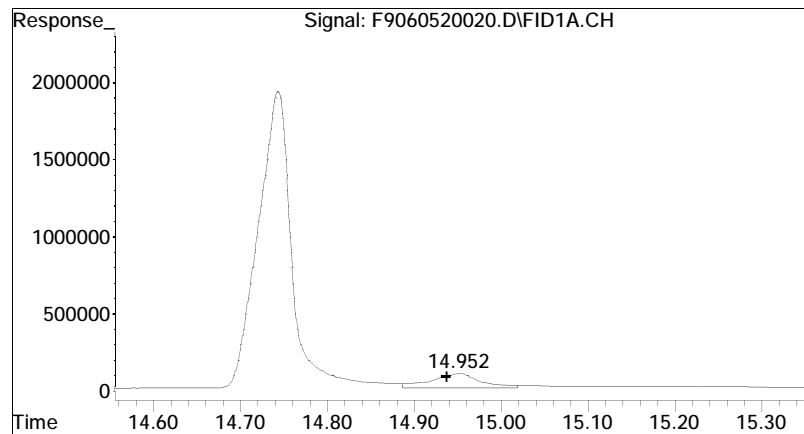
Delta R.T.: -0.027 min

Response: 278021

Conc: 0.25 ug/mL M4

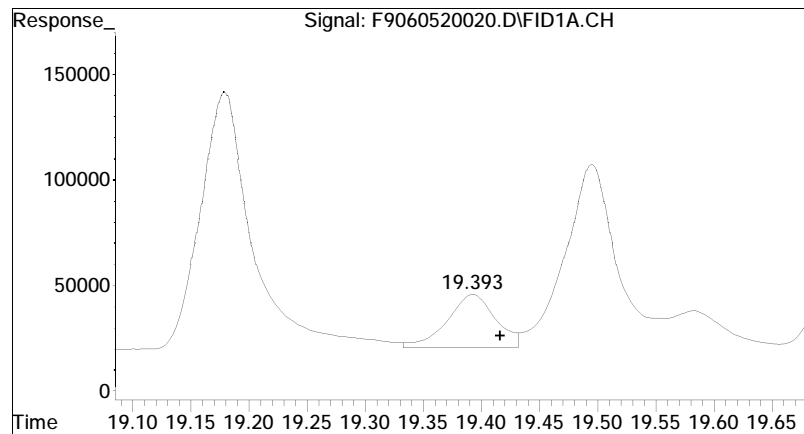


#4 n-Decane (C10)
R.T.: 9.997 min
Delta R.T.: -0.022 min
Response: 390409
Conc: 0.34 ug/mL M4

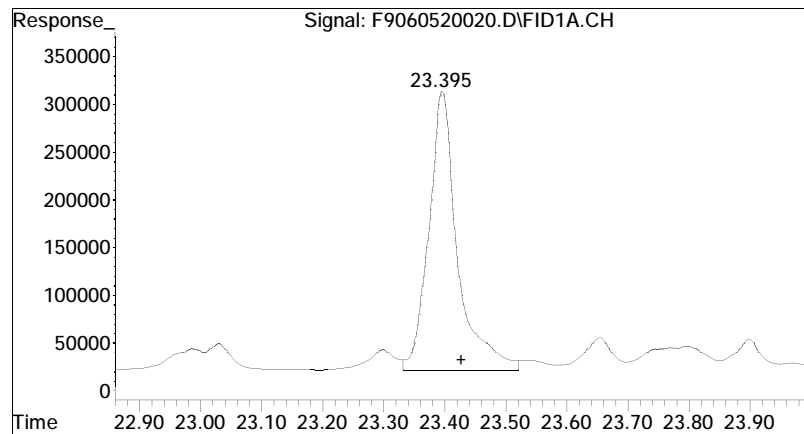


#6 n-Dodecane (C12)

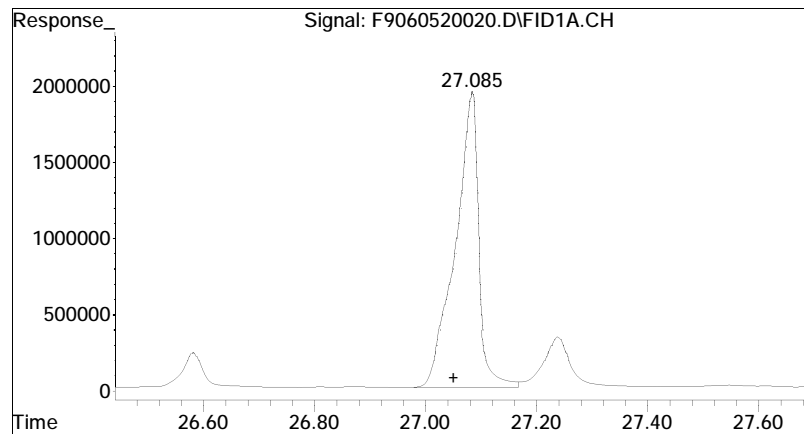
R.T.: 14.952 min
Delta R.T.: 0.015 min
Response: 4017795
Conc: 3.38 ug/mL M4



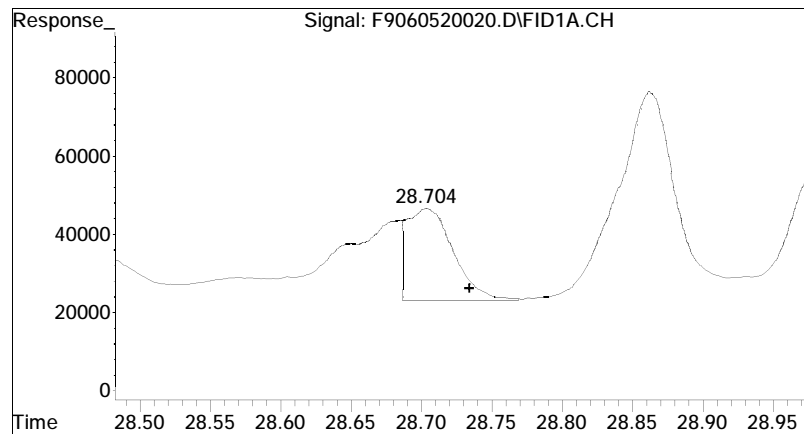
#9 n-Tetradecane (C14)
R.T.: 19.393 min
Delta R.T.: -0.024 min
Response: 725661
Conc: 0.60 ug/mL M4



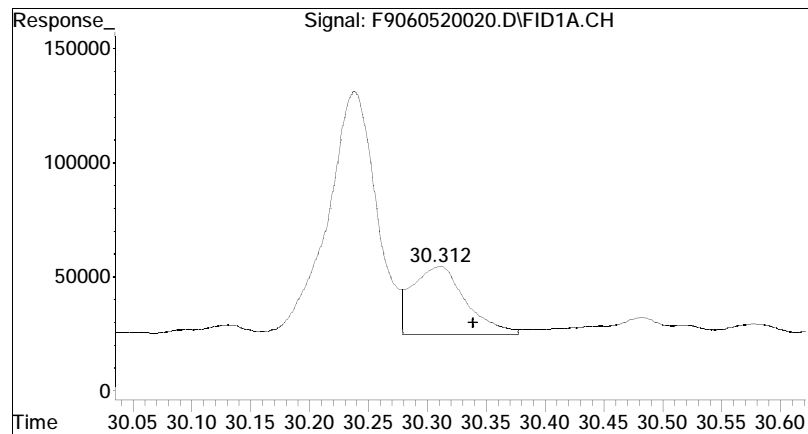
#12 n-Hexadecane (C16)
R.T.: 23.395 min
Delta R.T.: -0.033 min
Response: 9355903
Conc: 7.64 ug/mL M4



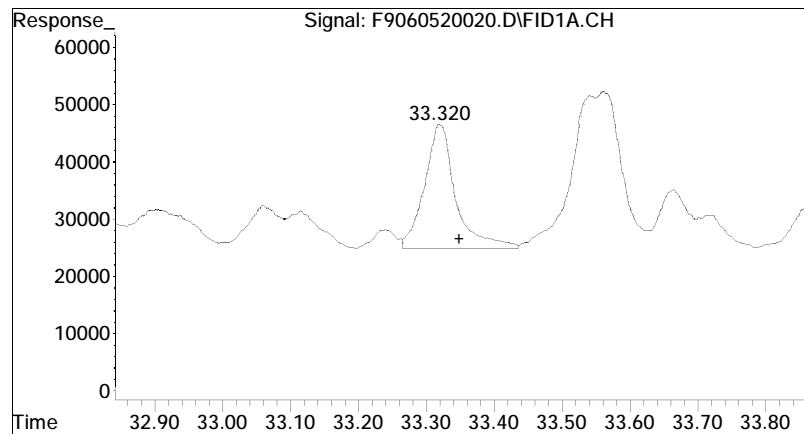
#16 n-Octadecane (C18)
R.T.: 27.085 min
Delta R.T.: 0.033 min
Response: 55728107
Conc: 45.13 ug/mL M4



#18 n-Nonadecane (C19)
R.T.: 28.704 min
Delta R.T.: -0.031 min
Response: 527869
Conc: 0.43 ug/mL M4

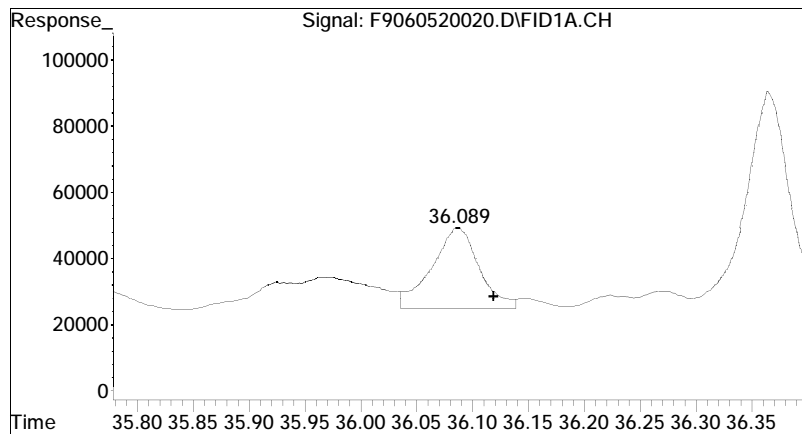


#20 n-Eicosane (C20)
R.T.: 30.312 min
Delta R.T.: -0.028 min
Response: 934913
Conc: 0.76 ug/mL M4



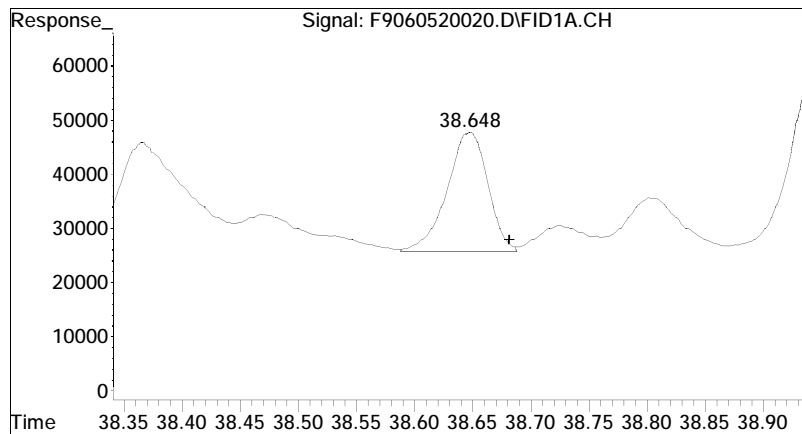
#22 n-Docosane (C22)

R.T.: 33.320 min
Delta R.T.: -0.029 min
Response: 697304
Conc: 0.56 ug/mL M4



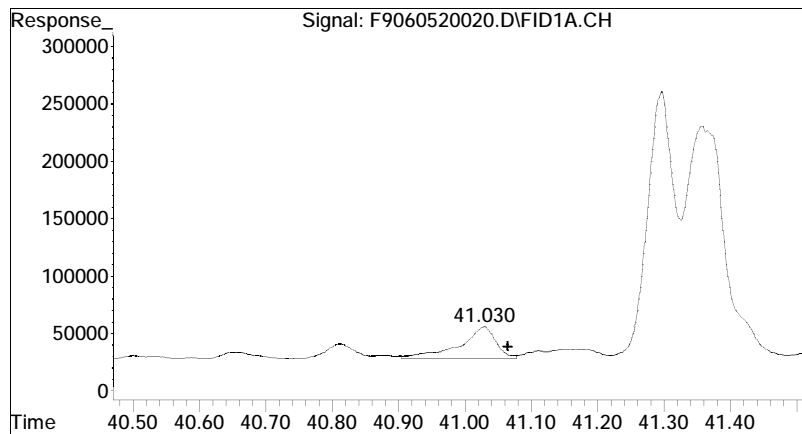
#25 n-Tetracosane (C24)

R.T.: 36.089 min
Delta R.T.: -0.030 min
Response: 709276
Conc: 0.56 ug/mL M4

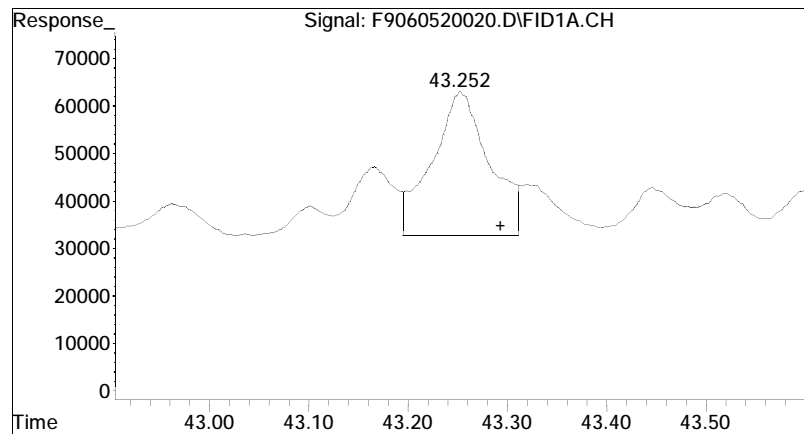


#27 n-Hexacosane (C26)

R.T.: 38.648 min
Delta R.T.: -0.034 min
Response: 535524
Conc: 0.43 ug/mL M4

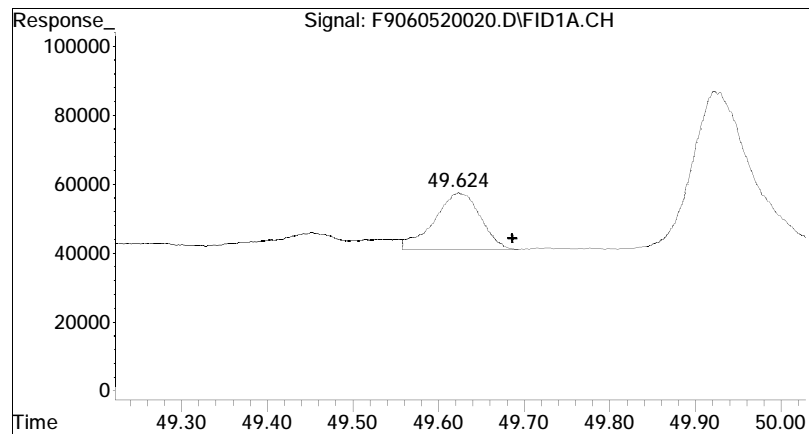


#29 n-Octacosane (C28)
R.T.: 41.030 min
Delta R.T.: -0.035 min
Response: 1038895
Conc: 0.82 ug/mL M4



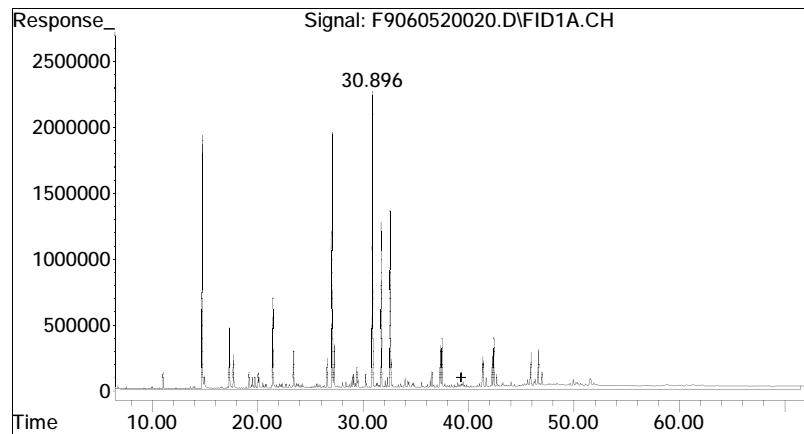
#31 n-Triacontane (C30)

R.T.: 43.252 min
Delta R.T.: -0.041 min
Response: 1201476
Conc: 0.97 ug/mL M4



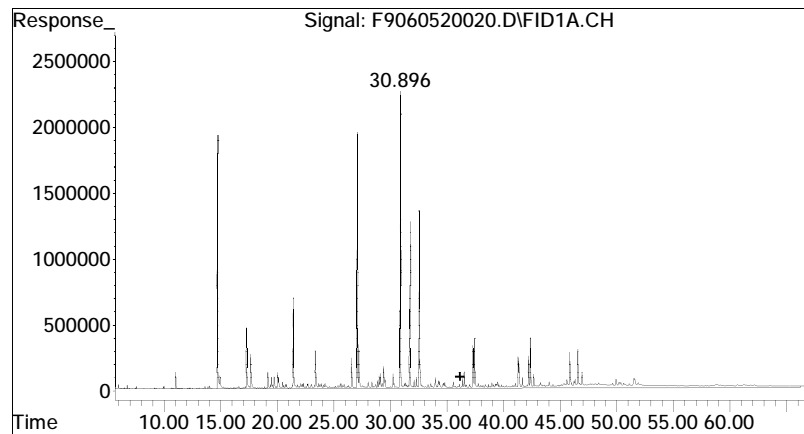
#37 n-Hexatriacontane (C36)

R.T.: 49.624 min
Delta R.T.: -0.063 min
Response: 626454
Conc: 0.49 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 39.336 min
Delta R.T.: 0.000 min
Response: 1161467043
Conc: 945.80 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 521789210
Conc: 424.90 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520022.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 7:31 am
 Operator : FID9:WR
 Sample : WG1372713-5D,42,10
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 00:29:16 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.900	61742687	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.864	1506591	1.171	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 2.34%#
24) s d50-Tetracosane	35.544	1269359	1.234	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 2.47%#
Target Compounds				
3) t n-Nonane (C9)	7.544	244137	0.230	ug/mL M4
4) t n-Decane (C10)	10.003	359862	0.328	ug/mL M4
6) t n-Dodecane (C12)	14.956	3621639	3.200	ug/mL M4
9) t n-Tetradecane (C14)	19.397	720497	0.624	ug/mL M4
12) t n-Hexadecane (C16)	23.401	9159233	7.846	ug/mL M4
16) t n-Octadecane (C18)	27.087	53929106G	45.825	ug/mL M4
18) t n-Nonadecane (C19)	28.708	892057	0.760	ug/mL M4
20) t n-Eicosane (C20)	30.313	904950	0.768	ug/mL M4
22) t n-Docosane (C22)	33.323	666285	0.558	ug/mL M4
25) t n-Tetracosane (C24)	36.089	677662	0.559	ug/mL M4
27) t n-Hexacosane (C26)	38.647	546486	0.457	ug/mL M4
29) t n-Octacosane (C28)	41.028	784276	0.652	ug/mL M4
31) t n-Triacontane (C30)	43.254	1023465	0.868	ug/mL M4
37) t n-Hexatriacontane (C36)	49.626	609047	0.496	ug/mL M4
42) h C9-C44 Total Petroleu...	39.336	1121277708	958.024	ug/mL m
42) h C9-C44 Total Petroleu BS	39.336	692549118	591.717	ug/mLm
48) h Total Resolved Hydroc...	36.191	520298079	444.545	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520022.D
 Signal(s) : FID1A.CH
 Acq On : 06 Jun 2020 7:31 am
 Operator : FID9:WR
 Sample : WG1372713-5D,42,10
 Misc : WG1373840,WG1372713,ICAL16844
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 00:29:16 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB906052001F
 Blank File : F9060520010.D

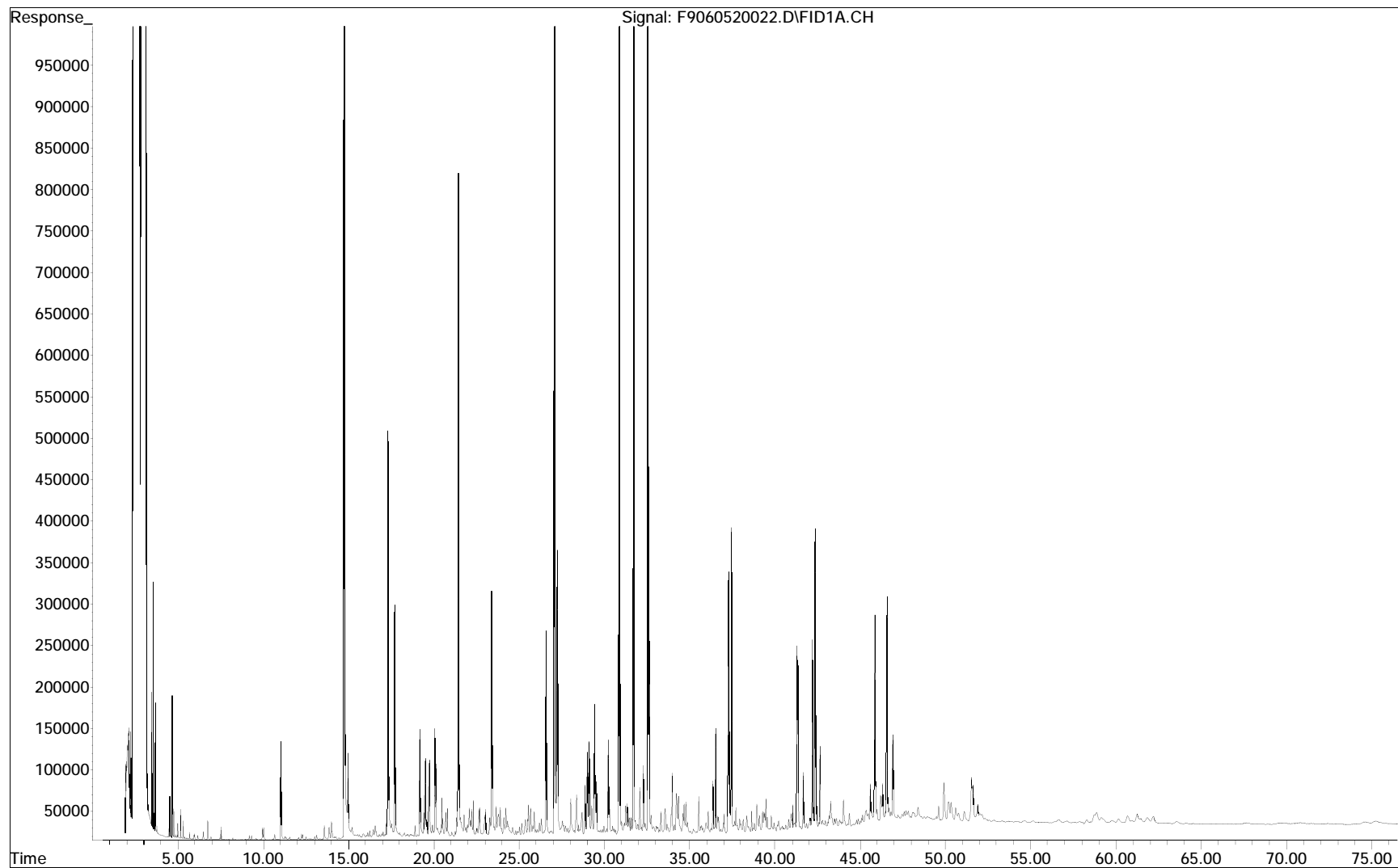
Sub List : SHC_QC_Samples - SHC_QC_Samples

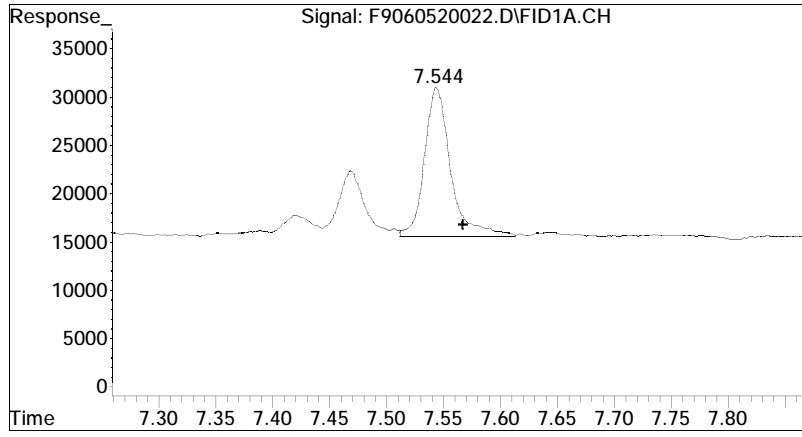
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520022.D
Operator : FID9:WR
Acquired : 06 Jun 2020 7:31 am using AcqMethod FID9A.M
Sample Name: WG1372713-5D,42,10
Instrument: FID 9
Misc Info : WG1373840,WG1372713,ICAL16844
Vial Number: 11
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M





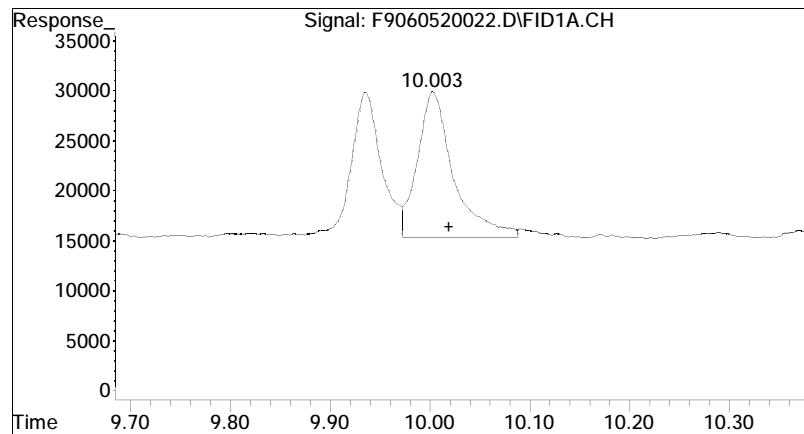
#3 n-Nonane (C9)

R.T.: 7.544 min

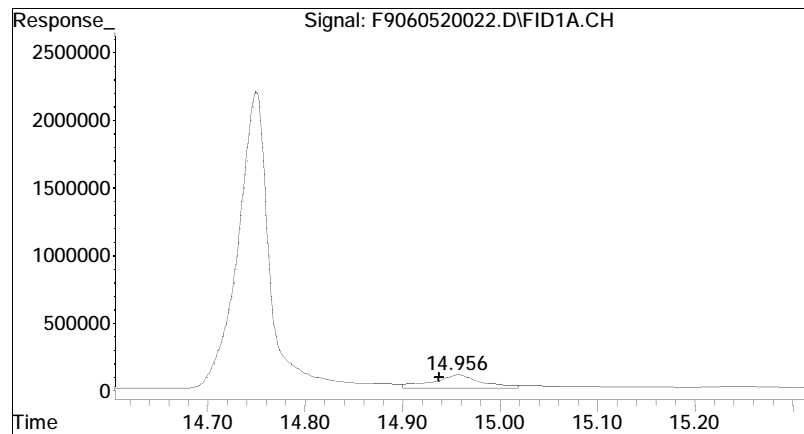
Delta R.T.: -0.023 min

Response: 244137

Conc: 0.23 ug/mL M4

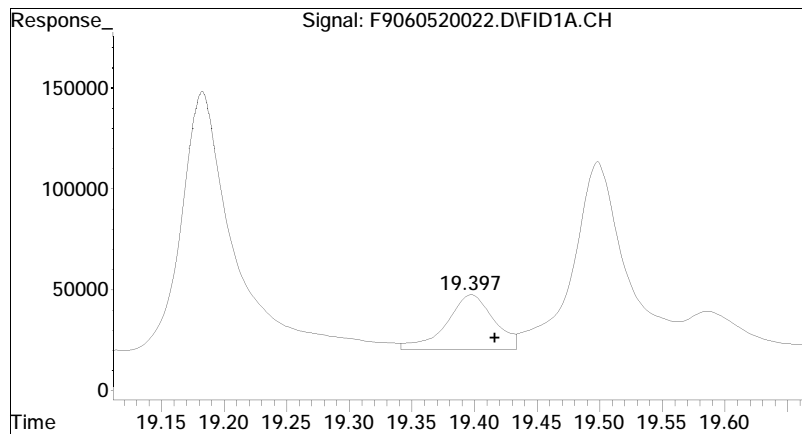


#4 n-Decane (C10)
R.T.: 10.003 min
Delta R.T.: -0.017 min
Response: 359862
Conc: 0.33 ug/mL M4

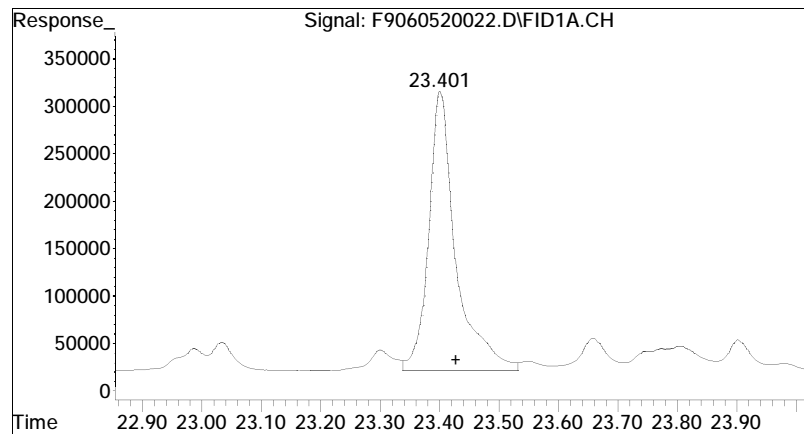


#6 n-Dodecane (C12)

R.T.: 14.956 min
Delta R.T.: 0.019 min
Response: 3621639
Conc: 3.20 ug/mL M4

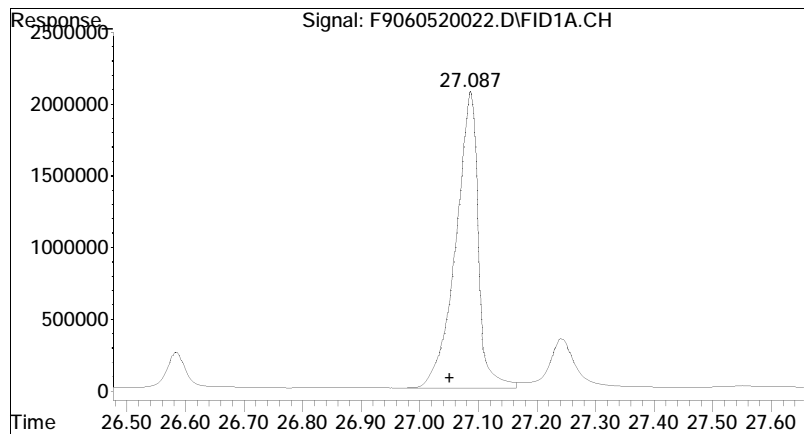


#9 n-Tetradecane (C14)
R.T.: 19.397 min
Delta R.T.: -0.019 min
Response: 720497
Conc: 0.62 ug/mL M4

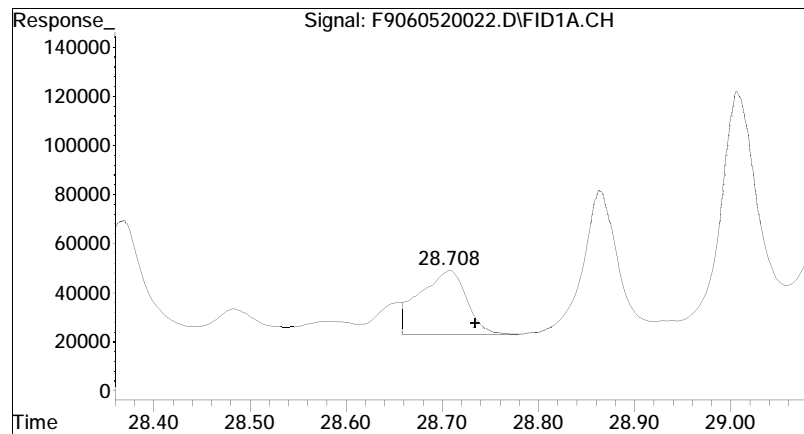


#12 n-Hexadecane (C16)

R.T.: 23.401 min
Delta R.T.: -0.027 min
Response: 9159233
Conc: 7.85 ug/mL M4

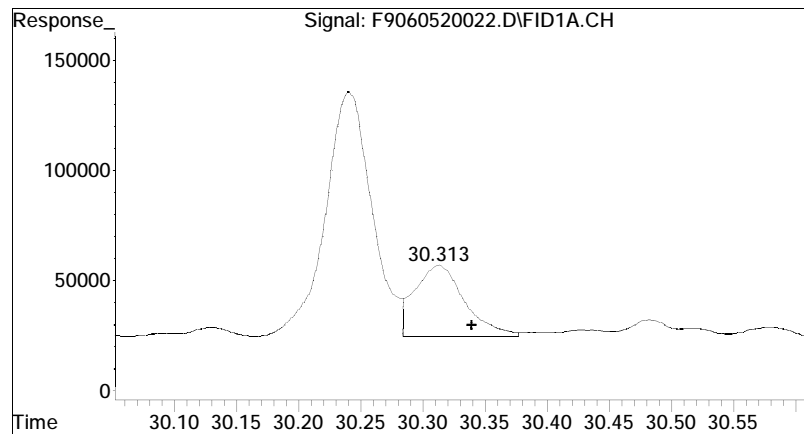


#16 n-Octadecane (C18)
R.T.: 27.087 min
Delta R.T.: 0.036 min
Response: 53929106
Conc: 45.83 ug/mL M4



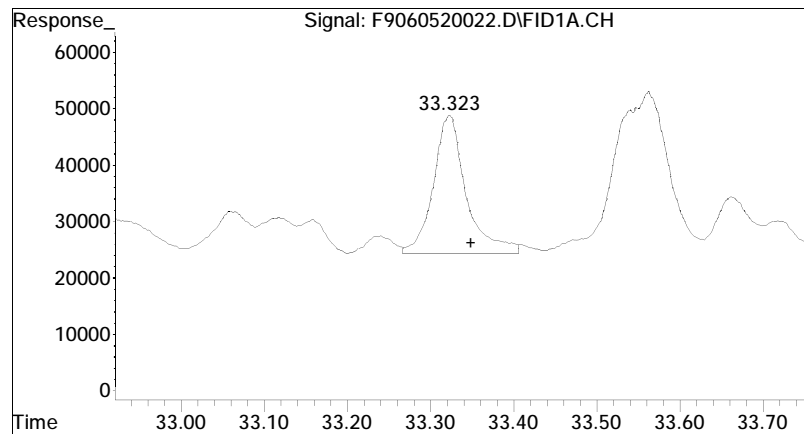
#18 n-Nonadecane (C19)

R.T.: 28.708 min
Delta R.T.: -0.027 min
Response: 892057
Conc: 0.76 ug/mL M4



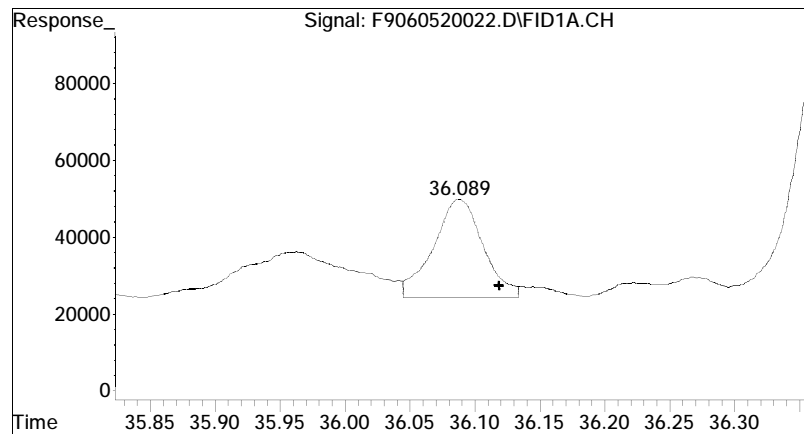
#20 n-Eicosane (C20)

R.T.: 30.313 min
Delta R.T.: -0.026 min
Response: 904950
Conc: 0.77 ug/mL M4



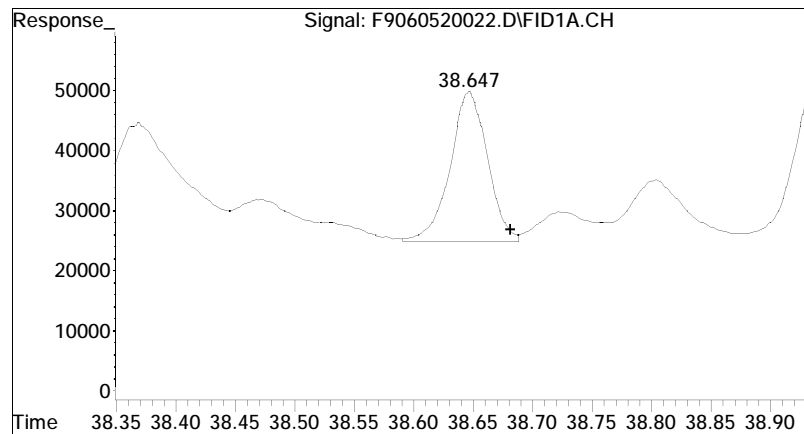
#22 n-Docosane (C22)

R.T.: 33.323 min
Delta R.T.: -0.026 min
Response: 666285
Conc: 0.56 ug/mL M4



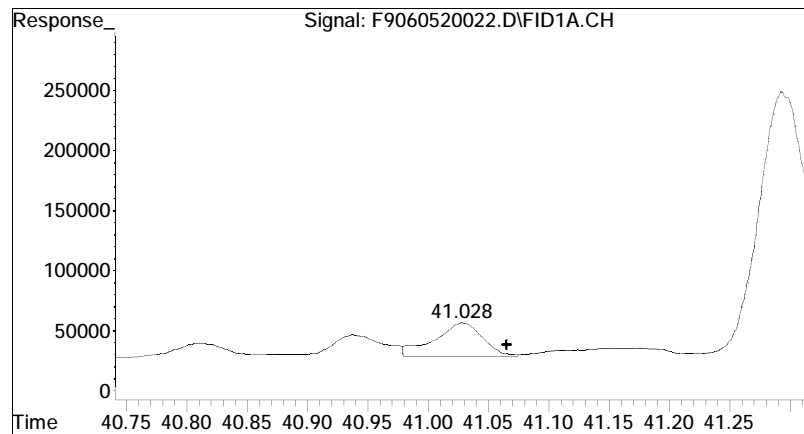
#25 n-Tetracosane (C24)

R.T.: 36.089 min
Delta R.T.: -0.030 min
Response: 677662
Conc: 0.56 ug/mL M4

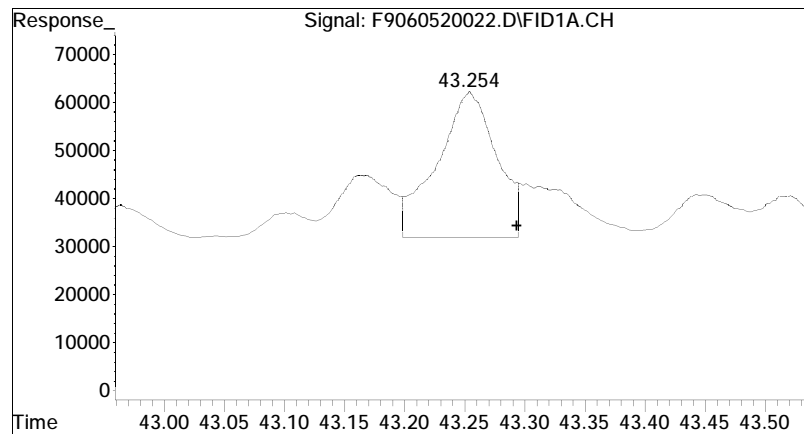


#27 n-Hexacosane (C26)

R.T.: 38.647 min
Delta R.T.: -0.035 min
Response: 546486
Conc: 0.46 ug/mL M4

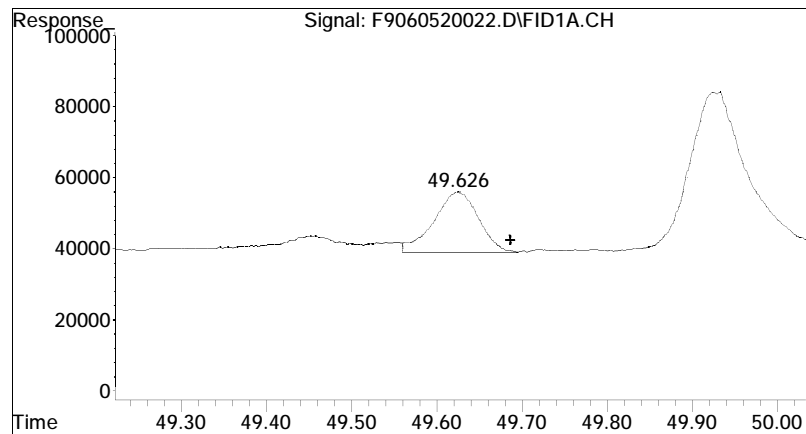


#29 n-Octacosane (C28)
R.T.: 41.028 min
Delta R.T.: -0.037 min
Response: 784276
Conc: 0.65 ug/mL M4



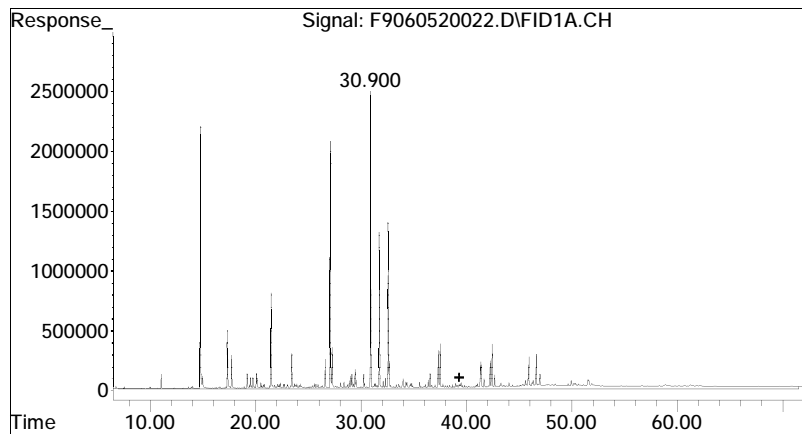
#31 n-Triacontane (C30)

R.T.: 43.254 min
Delta R.T.: -0.040 min
Response: 1023465
Conc: 0.87 ug/mL M4



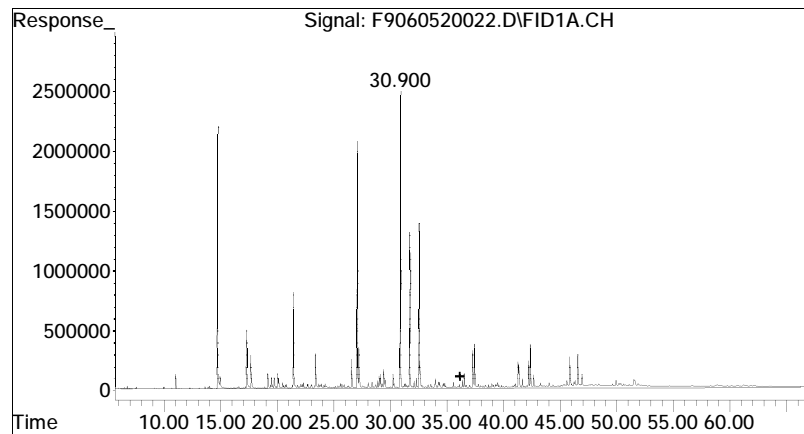
#37 n-Hexatriacontane (C36)

R.T.: 49.626 min
Delta R.T.: -0.061 min
Response: 609047
Conc: 0.50 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 39.336 min
Delta R.T.: 0.000 min
Response: 1121277708
Conc: 958.02 ug/mL m



#48 Total Resolved Hydrocarbo

R.T.: 36.191 min
Delta R.T.: 0.000 min
Response: 520298079
Conc: 444.54 ug/mL m

Instrument Blank Raw Data

Data Path : O:\Forensics\Data\FID9\2020\JUN\JUN05\
 Data File : F9060520010.D
 Signal(s) : FID1A.CH
 Acq On : 05 Jun 2020 10:37 pm
 Operator : FID9:WR
 Sample : IB906052001F
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:43:38 2020
 Quant Method : O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Sun Jun 07 22:58:14 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : Default - All compounds listed

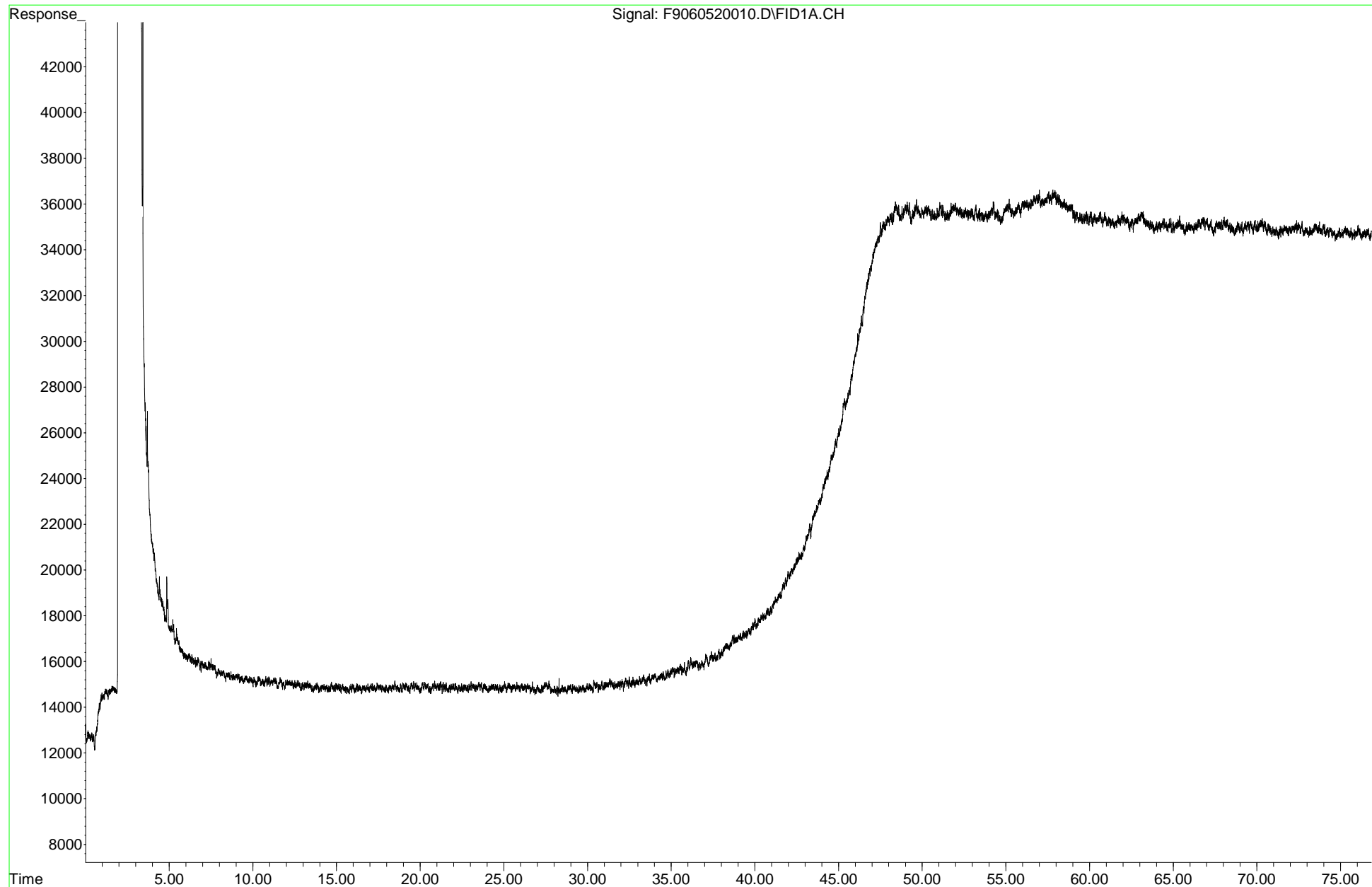
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	30.859	17084	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	39.336	428728590	1323885.298 ug/mL M5
43) h C9-C40 Total Petroleu...	32.246	236771657	731135.090 ug/ml M5
44) h C10-C28 DRO	25.531	51849271	160291.809 ug/mL M5
48) h Total Resolved Hydroc...	36.191	6329673	19545.609 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID9\2020\JUN\JUN05\F9060520010.D
Operator : FID9:WR
Acquired : 05 Jun 2020 10:37 pm using AcqMethod FID9A.M
Sample Name: IB906052001F
Instrument: FID 9
Misc Info :
Vial Number: 5
CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M



Data Path : O:\Forensics\Data\FID9\2020\MAY\MAY23\
 Data File : F90523068.D
 Signal(s) : FID1A.CH
 Acq On : 25 May 2020 7:42 pm
 Operator : FID9:WR
 Sample : IB905232003F
 Misc :
 ALS Vial : 34 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jun 08 11:33:30 2020
 Quant Method : O:\Forensics\Data\FID9\2020\MAY\MAY23\HC9010920F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jun 03 18:55:05 2020
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : Default - All compounds listed

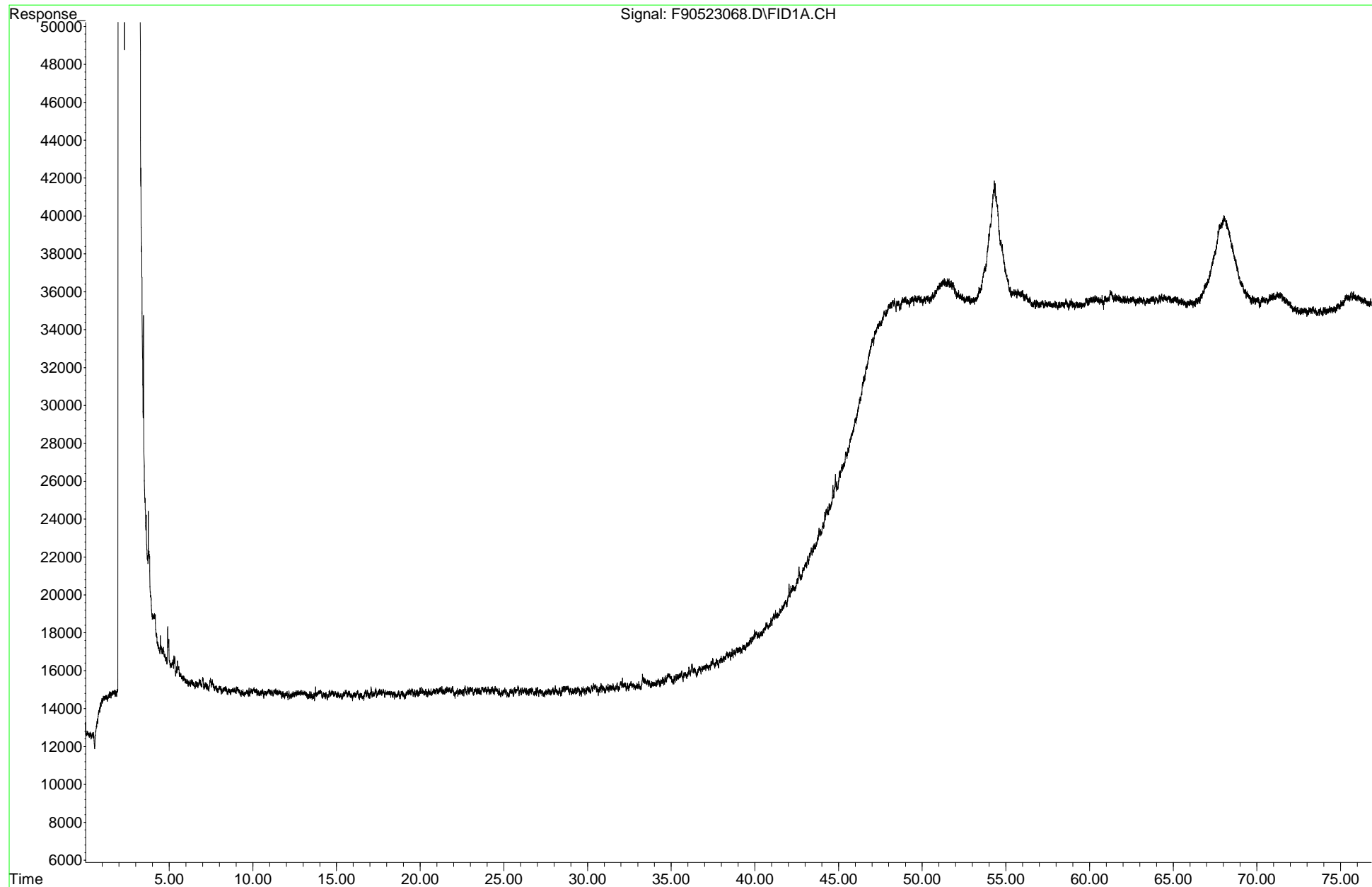
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	30.953	15146	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL d
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	39.628	460234967	1602941.894 ug/mL m
43) h C9-C40 Total Petroleu...	31.469	238311170	830008.551 ug/ml M5
44) h C10-C28 DRO	25.629	46978205	163808.091 ug/mL m
48) h Total Resolved Hydroc...	36.191	7012509	24423.709 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID9\2020\MAY\MAY23\F90523068.D
 Operator : FID9:WR
 Acquired : 25 May 2020 7:42 pm using AcqMethod FID9A.M
 Sample Name: IB905232003F
 Instrument: FID 9
 Misc Info :
 Vial Number: 34
 CurrentMeth: O:\Forensics\Data\FID9\2020\JUN\JUN05\HC9010920F_DRO.M



Sample Preparation

Workgroup: WG1372713

<p>Prep Method: ALPHA OP-013 Solvent Type: DCM Lot #: DY141-US Surrogate Type: A2-PAH/SHC Lot #: FRBC54 Spike Type: A2-PAH/SHC Lot #: FRBC52 Spike Verify by: NA Lims Spikelot: A2-PAH/SHC Additional Reagents/Std</p> <table border="1"> <tr> <td>Na2SO4</td> <td>0000244889</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Na2SO4	0000244889					<p>Conc.Method: S-EVAP Solvent Type: DCM Lot #: DY141-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Glass Wool</td> <td>19218999</td> </tr> <tr> <td>Na2SO4</td> <td>0000244889</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR052220A</td> </tr> </table>	Glass Wool	19218999	Na2SO4	0000244889	Granulated Copper	OWR052220A	<p>Cleanup 1 Cleanup Method 1: EPA 3611B Cleanup Method 2: Solvent Type: DCM Lot #: DY141-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Glass Wool</td> <td>19218999</td> </tr> <tr> <td>Alumina</td> <td>95</td> </tr> <tr> <td>Na2SO4</td> <td>0000244889</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR052220A</td> </tr> </table>	Glass Wool	19218999	Alumina	95	Na2SO4	0000244889	Granulated Copper	OWR052220A
Na2SO4	0000244889																					
Glass Wool	19218999																					
Na2SO4	0000244889																					
Granulated Copper	OWR052220A																					
Glass Wool	19218999																					
Alumina	95																					
Na2SO4	0000244889																					
Granulated Copper	OWR052220A																					

Extraction

Concentration

Sample Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L2020213-01 SAMP	05/20/20 10:34	Lauren Batalon	15.184	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
L2020213-02 SAMP	05/20/20 10:34	Lauren Batalon	5.035	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
L2020213-03 SAMP	05/20/20 10:34	Lauren Batalon	10.492	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
L2020213-04 SAMP	05/20/20 10:34	Lauren Batalon	5.063	BAL-18	0.5		05/22/20 05:00	Brian Anderson	10	SEVAP 3
WG1372713-1 BLANK	05/20/20 10:34	Lauren Batalon	30	BAL-18	0.1		05/22/20 05:00	Brian Anderson	4	SEVAP 3
WG1372713-2 LCS	05/20/20 10:34	Lauren Batalon	30	BAL-18	0.1	0.1	05/22/20 05:00	Brian Anderson	4	SEVAP 3

Workgroup: WG1372713

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
WG1372713- 3 LCSD	05/20/20 10:34	Lauren Batalon	30	BAL-18	0.1	0.1	05/22/20 05:00	Brian Anderson	4	SEVAP 3
WG1372713- 4 MS	05/20/20 10:34	Lauren Batalon	10.442	BAL-18	0.5	0.5	05/22/20 05:00	Brian Anderson	10	SEVAP 3
WG1372713- 5 MSD	05/20/20 10:34	Lauren Batalon	10.349	BAL-18	0.5	0.5	05/22/20 05:00	Brian Anderson	10	SEVAP 3

Workgroup: WG1372713

Sample/ Type	Cleanup 1						Cleanup 2					
	Cleanup Date	Cleanup Vol ml	Conc Date	Analyst	Conc Method	Final Cleanup Vol	Cleanup Date	Frac Cleanup Vol	Conc Date	Analyst	Conc Method	Final Frac Cleanup Vol
L2020213-01 SAMP	05/22/20 09:00	1	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
L2020213-02 SAMP	05/22/20 09:00	.5	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
L2020213-03 SAMP	05/22/20 09:00	.4	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
L2020213-04 SAMP	05/22/20 09:00	1	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-1 BLANK	05/22/20 09:00	2	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
All samples spiked with 100ul LCS. BA 5/22/20												
WG1372713-2 LCS	05/22/20 09:00	2	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-3 LCSD	05/22/20 09:00	2	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-4 MS	05/22/20 09:00	.4	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						
WG1372713-5 MSD	05/22/20 09:00	.4	05/22/20 10:53	BRIAN ANDERS ON	SEVAP3/ NEVAP4	1						

Supporting Documentation

ETR L2020213

Alpha Analytical

Analyst BA
Date 05/21/2020

- Pre-Alumina
Post-Alumina
Pre-Silica
Oily Material Prep.
Other

Table with columns: ETR, Lab ID, QC, Extract Volume (uL), Aliquot Removed (uL), Aliquot Weight (mg), Total Extract Weight (mg), Volume Removed for Column (uL), Extract Weight to Column (mg), Split Factor, QC (%R). Rows include data for ETR L2020213 and a Gravimetric Standard.

Note: Total Extract Weight (mg) = (Extract Volume ÷ Aliquot Removed) (Aliquot Weight)
Gravimetric Standard = 5 mg/mL
LCS Acceptance Criteria: 95% - 105%

Verified by:
Date:

Wet Chemistry

Total Solids / Percent Moisture Analysis

Sample Raw Data

WorkGroup WG1372621	Temp In (C) 105	Temp In (C) 105	Temp In (C)	Temp In (C)
Title Solids, Total	Temp Out (C) 105	Temp Out (C) 105	Temp Out (C)	Temp Out (C)
Method SM2540G	Time In 20-MAY-20 10:28	Time In 21-MAY-20 08:48	Time In	Time In
Instrument BALANCE#18	Time Out 21-MAY-20 08:39	Time Out 21-MAY-20 12:01	Time Out	Time Out

Sample #	Analysis Date	Analyst	Tare Weight (gm)	Gross Weight (gm)	Net Weight (1) (gm)	Net Weight (2) (gm)	Net Weight (3) (gm)	Net Weight (4) (gm)	Result %	Comment
L2020213-01	20-MAY-20 08:31	LAUREN BATALON	1.174	7.032	4.512	4.503			56.83	
L2020213-02	20-MAY-20 08:31	LAUREN BATALON	1.168	9.068	5.741	5.734			57.80	
L2020213-03	20-MAY-20 08:31	LAUREN BATALON	1.167	7.634	5.283	5.275			63.52	
L2020213-04	20-MAY-20 08:31	LAUREN BATALON	1.171	7.627	4.893	4.888			57.57	
L2020475-01	20-MAY-20 08:31	LAUREN BATALON	1.177	9.683	9.039	9.036			92.39	
L2020475-02	20-MAY-20 08:31	LAUREN BATALON	1.155	7.769	7.267	7.262			92.33	
L2020475-03	20-MAY-20 08:31	LAUREN BATALON	1.159	11.027	9.797	9.792			87.48	
L2020475-04	20-MAY-20 08:31	LAUREN BATALON	1.175	9.076	8.185	8.18			88.66	
L2020475-05	20-MAY-20 08:31	LAUREN BATALON	1.175	10.317	9.328	9.323			89.13	
L2020475-06	20-MAY-20 08:31	LAUREN BATALON	1.165	7.144	6.647	6.643			91.62	
L2020475-07	20-MAY-20 08:31	LAUREN BATALON	1.162	8.457	7.85	7.848			91.65	
L2020475-08	20-MAY-20 08:31	LAUREN BATALON	1.161	9.087	8.816	8.813			96.54	
L2020475-09	20-MAY-20 08:31	LAUREN BATALON	1.172	8.375	7.921	7.92			93.68	
L2020475-10	20-MAY-20 08:31	LAUREN BATALON	1.182	7.314	7.056	7.05			95.69	
L2020475-11	20-MAY-20 08:31	LAUREN BATALON	1.167	7.399	6.79	6.788			90.20	
L2020475-13	20-MAY-20 08:31	LAUREN BATALON	1.176	8.006	7.699	7.698			95.49	
L2020475-14	20-MAY-20 08:31	LAUREN BATALON	1.174	9.873	8.85	8.855			88.24	
L2020475-15	20-MAY-20 08:31	LAUREN BATALON	1.184	6.652	6.339	6.336			94.22	
L2020475-16	20-MAY-20 08:31	LAUREN BATALON	1.173	7.03	6.518	6.519			91.26	
L2020475-17	20-MAY-20 08:31	LAUREN BATALON	1.182	8.937	7.601	7.598			82.73	
WG1372621-1	20-MAY-20 08:31	LAUREN BATALON	1.172	7.716	5.337	5.325			63.46	
WG1372621-2	20-MAY-20 08:31	LAUREN BATALON								
WG1372621-3	20-MAY-20 08:31	LAUREN BATALON								

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 27 2020, 06:25 am

Work Group: WG1372621 for Department: 7 Wet Chemistry

Created: 20-MAY-20 Due: Operator: LB

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2020213-01	PDI-051SC-B-06-08-200506	S A2-TS	SOIL	DONE	U	0513	0608	S0	Glass-A.120
L2020213-02	PDI-056SC-B-05-07-200510	S A2-TS	SOIL	DONE	U	0517	0608	S0	Glass-A.120
L2020213-03	PDI-063SC-B-05-07-200429	S A2-TS	SOIL	DONE	U	0506	0608	S0	Glass-A.120
L2020213-04	PDI-1056SC-B-05-07-200510	S A2-TS	SOIL	DONE	U	0517	0608	S0	Glass-A.120
L2020475-01	SB-15_2-4	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-02	SB-15_6-8	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-03	SB-15_10-12	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-04	SB-15_14-16	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-05	SB-15_18-20	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-06	DUP-20200518	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-07	SB-14_2-4	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-08	SB-14_6-8	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-09	SB-14_10-12	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-10	SB-14_14-16	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-11	SB-14_18-20	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-13	SB-13_2-4	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-14	SB-13_6-8	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-15	SB-13_10-12	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-16	SB-13_14-16	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
L2020475-17	SB-13_18-20	S A2-TS	SOIL	DONE	U	0525	0602	S0	Plastic-A-TS
WG1372621-1	Duplicate Sample	S A2-TS	SOIL	DONE	U				

Comments:

WG1372621-1 L2020213-03

Chemical Oxygen Demand Analysis

Sample Raw Data

ALPHA ANALYTICAL
WET CHEMISTRY DEPARTMENT
 CHEMICAL OXYGEN DEMAND

Last Change 3/17/16 JPL
 File COD-SOIL.xlt

SOP No.: 07-16
 Product: COD-S220
 Curve Calibration Date : 4/7/2020
 Curve Identifier: 040720 (env exp HIGH tubes only)
 Analysis: COD
 Method: SM S220D(M)
 Instrument: GENSYS10vis
 Wavelength: 620 nm (High)
 Spike Volume (ml): 5
 Spike Concentration(mg/l): 5000.00
 COD Reactor Temp (°C): 150
 Analyte: COD
 Prep Date/Time: 5/19/20 20:10 5/19/20 22:10
 Technician: TLH
 Work group: WG1372406
 RDL: 200 mg/kg
 COD Reactor ID: E-274

Mean signal			Calibration Curve		Reagents/Media Information	
Standard	(pk area)	Dilution	Volume: 2.0 mls		Material	Lot No.
ppm	abs		Slope	y-intercept	High LCS/ICV:	COD-050720-W
0	0.000	1.0	0.000449	0.00346275	Low LCS:	COD-050720-W
20	0.012	1.0			CCV:	COD-050720-W
50	0.025	1.0			MS:	20420
100	0.049	1.0			COD Tubes:	WC-2784
200	0.093	1.0				
400	0.189	1.0				
800	0.359	1.0				
1000	0.459	1.0				
1250	0.559	1.0				
			Correlation Coefficient			
			0.999810			

Time	Date	Sample number	Sample Weight (g)	Final Volume (ml)	Absorbance	RESULT (mg/l)	Dilution Factor	RDL Multiplier	FINAL RESULT (mg/kg)	Recovery %
22:50	5/19/2020	ICB			0	0.000	1	1	0.00	
22:51	5/19/2020	ICV - 50 PPM			0.026	50.376	1	1	50.38	
22:51	5/19/2020	ICV - 500 PPM			0.224	491.534	1	1	491.53	
22:52	5/19/2020	L2020026-02	10.0016	100	0.039	79.341	4	4	3173.12	
22:52	5/19/2020	L2020026-04	10.0865	100	0.032	63.744	4	4	2527.90	
22:52	5/19/2020	L2020213-01	10.0432	100	0.153	333.341	4	4	13276.29	
22:52	5/19/2020	L2020213-02	10.0479	100	0.13	282.095	4	4	11230.02	
22:52	5/19/2020	L2020213-03	10.0692	100	0.076	161.779	4	4	6426.70	
22:52	5/19/2020	L2020213-04	10.0003	100	0.208	455.885	4	4	18234.85	
22:53	5/19/2020	400PPM CCV			0.185	404.639				
22:53	5/19/2020	CCB			-0.001	0.000				
22:53	5/19/2020	WG1372406-1	10.0007	100	0	0.000	1	1	0.00	
22:54	5/19/2020	WG1372406-4	10.0581	100	0.088	188.516	4	4	7497.09	DUP
		Sample number	Sample Weight	Final volume (ml)	Absorbance	Sample Result mg/kg	Dilution Factor	Spike conc. mg/kg	Spike Result mg/kg	Recovery %
22:54	5/19/2020	WG1372406-3	10.0815	100	0.118	6426.70	4	2479.79	10148.52	150
22:54	5/19/2020	WG1372406-2	10.0121	100	0.115		1	2496.98	2487.99	100
							1	0.00	491.53	
							1	0.00		

COMMENTS & OBSERVATIONS										SAMPLE RESULTS
										ICB
Result in mg/l.										ICV - 50 PPM
Result in mg/l.										ICV - 500 PPM
										150 L2020026-02
										150 L2020026-04
										150 L2020213-01
										150 L2020213-02
										150 L2020213-03
										150 L2020213-04
										150 400PPM CCV
										150 CCB
L2020213-03										

L2020213-03										
LCS										

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jun 05 2020, 06:18 pm

Work Group: WG1372406 for Department: 7 Wet Chemistry

Created: 19-MAY-20 Due: Operator: tlh

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2020026-02	WSW-1 SED.	S COD-5220	SOIL	DONE	U	0611	0521	S0	Glass-A.25
L2020026-04	WSW-2 SED.	S COD-5220	SOIL	DONE	U	0611	0521	S0	Glass-A.25
L2020213-01	PDI-051SC-B-06-08-200506	S COD-5220	SOIL	DONE	U	0603	0608	S0	SGlass-A.120
L2020213-02	PDI-056SC-B-05-07-200510	S COD-5220	SOIL	DONE	U	0607	0608	S0	SGlass-A.120
L2020213-03	PDI-063SC-B-05-07-200429	S COD-5220	SOIL	DONE	U	0527	0608	S0	SGlass-A.120
L2020213-04	PDI-1056SC-B-05-07-200510	S COD-5220	SOIL	DONE	U	0607	0608	S0	SGlass-A.120
WG1372406-1	Laboratory Method Bl	S COD-5220	SOIL	DONE	U				
WG1372406-2	Laboratory Control S	S COD-5220	SOIL	DONE	U				
WG1372406-3	Matrix Spike	S COD-5220	SOIL	DONE	U				
WG1372406-4	Duplicate Sample	S COD-5220	SOIL	DONE	U				

Comments:

WG1372406-3 L2020213-03
 WG1372406-4 L2020213-03

Alpha Report



ANALYTICAL REPORT

Lab Number:	L2020213
Client:	Anchor QEA, LLC 1605 Cornwall Avenue Bellingham, WA 98225
ATTN:	Delaney Peterson
Phone:	(360) 715-2707
Project Name:	GASCO PDI
Project Number:	000029-02.59
Report Date:	06/09/20

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2020213-01	PDI-051SC-B-06-08-200506	SEDIMENT	SEATTLE, WA	05/06/20 08:45	05/15/20
L2020213-02	PDI-056SC-B-05-07-200510	SEDIMENT	SEATTLE, WA	05/10/20 08:30	05/15/20
L2020213-03	PDI-063SC-B-05-07-200429	SEDIMENT	SEATTLE, WA	04/29/20 08:50	05/15/20
L2020213-04	PDI-1056SC-B-05-07-200510	SEDIMENT	SEATTLE, WA	05/10/20 08:30	05/15/20

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Case Narrative (continued)

Report Reissue

This report replaces the report issued June 8, 2020. The compounds Chrysene/Triphenylene have been replaced, and are reported as Chrysene.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2020213-03 was received with the method required holding time exceeded.

Alkylated PAHs

L2020213-01, -02, -03 and -04: The sample was re-analyzed on dilution in order to quantify the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

L2020213-03 was extracted with the method required holding time exceeded.

The WG1372713-4/-5 MS/MSD recoveries, performed on L2020213-03, are outside the acceptance criteria for many compounds. The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

Saturated Hydrocarbons

L2020213-01, -02, -03 and -04: The sample has elevated detection limits due to the dilution required by the sample matrix.

L2020213-03 was extracted with the method required holding time exceeded.

The WG1372713-4/-5 MS/MSD recoveries, performed on L2020213-03, are outside the acceptance criteria for several compounds; however, the associated LCS/LCSD recoveries are within overall method allowances.

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Case Narrative (continued)

No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Elizabeth Porta

Title: Technical Director/Representative

Date: 06/09/20

ORGANICS

SEMIVOLATILES

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01
Client ID: PDI-051SC-B-06-08-200506
Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/24/20 00:16
Analyst: ML
Percent Solids: 57%

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
cis/trans-Decalin	239.		ug/kg	8.70	4.37	1
C1-Decalins	847.		ug/kg	17.4	4.37	1
C2-Decalins	1650		ug/kg	17.4	4.37	1
C3-Decalins	1370		ug/kg	17.4	4.37	1
C4-Decalins	1740		ug/kg	17.4	4.37	1
Naphthalene	10900		ug/kg	17.4	5.00	1
C1-Naphthalenes	5310		ug/kg	17.4	5.00	1
C2-Naphthalenes	9520		ug/kg	17.4	5.00	1
C3-Naphthalenes	7080		ug/kg	17.4	5.00	1
C4-Naphthalenes	3970		ug/kg	17.4	5.00	1
2-Methylnaphthalene	2900		ug/kg	17.4	4.48	1
1-Methylnaphthalene	5350		ug/kg	17.4	5.48	1
Benzothiophene	823.		ug/kg	17.4	5.45	1
C1-Benzo(b)thiophenes	562.		ug/kg	17.4	5.45	1
C2-Benzo(b)thiophenes	1170		ug/kg	17.4	5.45	1
C3-Benzo(b)thiophenes	1250		ug/kg	17.4	5.45	1
C4-Benzo(b)thiophenes	765.		ug/kg	17.4	5.45	1
Biphenyl	1460		ug/kg	17.4	5.37	1
2,6-Dimethylnaphthalene	3930		ug/kg	17.4	4.13	1
Dibenzofuran	2010		ug/kg	17.4	5.48	1
Acenaphthylene	3610		ug/kg	17.4	3.32	1
Acenaphthene	44600	E	ug/kg	17.4	3.06	1
2,3,5-Trimethylnaphthalene	1060		ug/kg	17.4	2.84	1
Fluorene	26000	E	ug/kg	17.4	4.64	1
C1-Fluorenes	7480		ug/kg	17.4	4.64	1
C2-Fluorenes	5580		ug/kg	17.4	4.64	1
C3-Fluorenes	3530		ug/kg	17.4	4.64	1
Dibenzothiophene	30400	E	ug/kg	17.4	4.80	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01
Client ID: PDI-051SC-B-06-08-200506
Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
4-Methyldibenzothiophene(4MDT)	3360		ug/kg	17.4	4.80	1
2/3-Methyldibenzothiophene(2MDT)	4070		ug/kg	17.4	4.80	1
1-Methyldibenzothiophene(1MDT)	1100		ug/kg	17.4	4.80	1
C1-Dibenzothiophenes BS	10400		ug/kg	17.4	4.80	1
C2-Dibenzothiophenes	6030		ug/kg	17.4	4.80	1
C3-Dibenzothiophenes	3530		ug/kg	17.4	4.80	1
C4-Dibenzothiophenes	1170		ug/kg	17.4	4.80	1
Phenanthrene	271000	E	ug/kg	17.4	5.76	1
3-Methylphenanthrene (3MP)	11800		ug/kg	17.4	5.76	1
2-Methylphenanthrene (2MP)	14000		ug/kg	17.4	5.76	1
2-Methylanthracene (2MA)	6450		ug/kg	17.4	5.76	1
9/4-Methylphenanthrene (9MP)	11400		ug/kg	17.4	5.76	1
C1-Phenanthrenes/Anthracenes	51300		ug/kg	17.4	5.76	1
C2-Phenanthrenes/Anthr BS	18100		ug/kg	17.4	5.76	1
C3-Phenanthrenes/Anthracenes	7340		ug/kg	17.4	5.76	1
C4-Phenanthrenes/Anthracenes	2550		ug/kg	17.4	5.76	1
Retene	1200		ug/kg	17.4	4.27	1
Anthracene	77100	E	ug/kg	17.4	3.58	1
Carbazole	4210		ug/kg	17.4	5.69	1
1-Methylphenanthrene	10300		ug/kg	17.4	4.59	1
Fluoranthene	273000	E	ug/kg	17.4	5.53	1
Benzo(b)fluorene	15600		ug/kg	17.4	5.04	1
7H-Benzo(c)fluorene	6490		ug/kg	17.4	5.04	1
2-Methylpyrene ¹	6740		ug/kg	17.4	4.57	1
4-Methylpyrene ¹	6020		ug/kg	17.4	4.57	1
1-Methylpyrene ¹	7910		ug/kg	17.4	4.57	1
Pyrene	349000	E	ug/kg	17.4	4.57	1
C1-Fluoranthenes/Pyrenes	62300		ug/kg	17.4	4.57	1
C2-Fluoranthenes/Pyrenes	11600		ug/kg	17.4	4.57	1
C3-Fluoranthenes/Pyrenes	3940		ug/kg	17.4	4.57	1
C4-Fluoranthenes/Pyrenes	2060		ug/kg	17.4	4.57	1
Naphthobenzothiophenes	28400		ug/kg	17.4	4.87	1
C1-Naphthobenzothiophenes	7460		ug/kg	17.4	4.87	1
C2-Naphthobenzothiophenes	3230		ug/kg	17.4	4.87	1
C3-Naphthobenzothiophenes	2420		ug/kg	17.4	4.87	1
C4-Naphthobenzothiophenes	673.		ug/kg	17.4	4.87	1
Benz(a)anthracene	70300	E	ug/kg	17.4	3.54	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01
 Client ID: PDI-051SC-B-06-08-200506
 Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Chrysene	78800	E	ug/kg	17.4	3.52	1
C1-Chrysenes	15800		ug/kg	17.4	3.52	1
C2-Chrysenes BS	5380		ug/kg	17.4	3.52	1
C3-Chrysenes	2820		ug/kg	17.4	3.52	1
C4-Chrysenes	1850		ug/kg	17.4	3.52	1
Benzo(b)fluoranthene	66100	E	ug/kg	17.4	4.52	1
Benzo(j)+(k)fluoranthene	43000	E	ug/kg	17.4	3.45	1
Benzo(a)fluoranthene	17200		ug/kg	17.4	3.45	1
Benzo(e)pyrene	55600	E	ug/kg	17.4	3.59	1
Benzo(a)pyrene	102000	E	ug/kg	17.4	4.96	1
Perylene	29000	E	ug/kg	17.4	3.36	1
Indeno(1,2,3-cd)pyrene	71400	E	ug/kg	17.4	4.72	1
Dibenz(a,h)+(a,c)anthracene	11400		ug/kg	17.4	4.70	1
Benzo(g,h,i)perylene	93000	E	ug/kg	17.4	4.62	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	82		50-130
Phenanthrene-d10	116		50-130
Benzo(a)pyrene-d12	105		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01 D
Client ID: PDI-051SC-B-06-08-200506
Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/27/20 03:38
Analyst: ML
Percent Solids: 57%

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Acenaphthene	39600		ug/kg	348	61.3	20
Fluorene	21600		ug/kg	348	92.8	20
Dibenzothiophene	23700		ug/kg	348	95.9	20
Phenanthrene	205000		ug/kg	348	115.	20
Anthracene	56600		ug/kg	348	71.7	20
Fluoranthene	204000		ug/kg	348	110.	20
Pyrene	256000		ug/kg	348	91.5	20
Benz(a)anthracene	55800		ug/kg	348	70.9	20
Chrysene	64900		ug/kg	348	70.3	20
Benzo(b)fluoranthene	45800		ug/kg	348	90.5	20
Benzo(j)+(k)fluoranthene	48200		ug/kg	348	69.0	20
Benzo(e)pyrene	48100		ug/kg	348	71.8	20
Benzo(a)pyrene	86500		ug/kg	348	99.3	20
Perylene	24800		ug/kg	348	67.1	20
Indeno(1,2,3-cd)pyrene	64400		ug/kg	348	94.4	20
Benzo(g,h,i)perylene	86200		ug/kg	348	92.4	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	68		50-130
Phenanthrene-d10	89		50-130
Benzo(a)pyrene-d12	98		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02
Client ID: PDI-056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/24/20 01:40
Analyst: ML
Percent Solids: 58%

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
cis/trans-Decalin	310.		ug/kg	51.5	25.9	1
C1-Decalins	876.		ug/kg	103	25.9	1
C2-Decalins	1960		ug/kg	103	25.9	1
C3-Decalins	1940		ug/kg	103	25.9	1
C4-Decalins	2310		ug/kg	103	25.9	1
Naphthalene	225000	E	ug/kg	103	29.6	1
C1-Naphthalenes	75900		ug/kg	103	29.6	1
C2-Naphthalenes	67600		ug/kg	103	29.6	1
C3-Naphthalenes	32200		ug/kg	103	29.6	1
C4-Naphthalenes	12300		ug/kg	103	29.6	1
2-Methylnaphthalene	65900		ug/kg	103	26.6	1
1-Methylnaphthalene	51200		ug/kg	103	32.5	1
Benzothiophene	8770		ug/kg	103	32.3	1
C1-Benzo(b)thiophenes	5950		ug/kg	103	32.3	1
C2-Benzo(b)thiophenes	9230		ug/kg	103	32.3	1
C3-Benzo(b)thiophenes	6800		ug/kg	103	32.3	1
C4-Benzo(b)thiophenes	3060		ug/kg	103	32.3	1
Biphenyl	6970		ug/kg	103	31.8	1
2,6-Dimethylnaphthalene	25200		ug/kg	103	24.5	1
Dibenzofuran	16200		ug/kg	103	32.5	1
Acenaphthylene	38900		ug/kg	103	19.7	1
Acenaphthene	452000	E	ug/kg	103	18.2	1
2,3,5-Trimethylnaphthalene	4070		ug/kg	103	16.8	1
Fluorene	188000	E	ug/kg	103	27.5	1
C1-Fluorenes	40000		ug/kg	103	27.5	1
C2-Fluorenes	22600		ug/kg	103	27.5	1
C3-Fluorenes	12100		ug/kg	103	27.5	1
Dibenzothiophene	206000	E	ug/kg	103	28.4	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02
Client ID: PDI-056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	16800		ug/kg	103	28.4	1
2/3-Methyl dibenzothiophene(2MDT)	21000		ug/kg	103	28.4	1
1-Methyl dibenzothiophene(1MDT)	5660		ug/kg	103	28.4	1
C1-Dibenzothiophenes BS	53900		ug/kg	103	28.4	1
C2-Dibenzothiophenes	26200		ug/kg	103	28.4	1
C3-Dibenzothiophenes	13600		ug/kg	103	28.4	1
C4-Dibenzothiophenes	3780		ug/kg	103	28.4	1
Phenanthrene	1810000	E	ug/kg	103	34.2	1
3-Methylphenanthrene (3MP)	61000		ug/kg	103	34.2	1
2-Methylphenanthrene (2MP)	71800		ug/kg	103	34.2	1
2-Methylanthracene (2MA)	30300		ug/kg	103	34.2	1
9/4-Methylphenanthrene (9MP)	54700		ug/kg	103	34.2	1
C1-Phenanthrenes/Anthracenes	257000		ug/kg	103	34.2	1
C2-Phenanthrenes/Anthr BS	73800		ug/kg	103	34.2	1
C3-Phenanthrenes/Anthracenes	24700		ug/kg	103	34.2	1
C4-Phenanthrenes/Anthracenes	7370		ug/kg	103	34.2	1
Retene	2030		ug/kg	103	25.3	1
Anthracene	454000	E	ug/kg	103	21.2	1
Carbazole	31800		ug/kg	103	33.7	1
1-Methylphenanthrene	51900		ug/kg	103	27.2	1
Fluoranthene	1490000	E	ug/kg	103	32.8	1
Benzo(b)fluorene	78100		ug/kg	103	29.9	1
7H-Benzo(c)fluorene	29900		ug/kg	103	29.9	1
2-Methylpyrene ¹	35200		ug/kg	103	27.1	1
4-Methylpyrene ¹	30400		ug/kg	103	27.1	1
1-Methylpyrene ¹	40900		ug/kg	103	27.1	1
Pyrene	1890000	E	ug/kg	103	27.1	1
C1-Fluoranthenes/Pyrenes	322000		ug/kg	103	27.1	1
C2-Fluoranthenes/Pyrenes	57500		ug/kg	103	27.1	1
C3-Fluoranthenes/Pyrenes	17900		ug/kg	103	27.1	1
C4-Fluoranthenes/Pyrenes	8150		ug/kg	103	27.1	1
Naphthobenzothiophenes	150000		ug/kg	103	28.8	1
C1-Naphthobenzothiophenes	37700		ug/kg	103	28.8	1
C2-Naphthobenzothiophenes	14600		ug/kg	103	28.8	1
C3-Naphthobenzothiophenes	11300		ug/kg	103	28.8	1
C4-Naphthobenzothiophenes	3100		ug/kg	103	28.8	1
Benz(a)anthracene	350000	E	ug/kg	103	21.0	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02
Client ID: PDI-056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Chrysene	386000	E	ug/kg	103	20.8	1
C1-Chrysenes	77400		ug/kg	103	20.8	1
C2-Chrysenes BS	24600		ug/kg	103	20.8	1
C3-Chrysenes	12600		ug/kg	103	20.8	1
C4-Chrysenes	8840		ug/kg	103	20.8	1
Benzo(b)fluoranthene	337000	E	ug/kg	103	26.8	1
Benzo(j)+(k)fluoranthene	218000	E	ug/kg	103	20.4	1
Benzo(a)fluoranthene	87100		ug/kg	103	20.4	1
Benzo(e)pyrene	282000	E	ug/kg	103	21.3	1
Benzo(a)pyrene	517000	E	ug/kg	103	29.4	1
Perylene	151000	E	ug/kg	103	19.9	1
Indeno(1,2,3-cd)pyrene	368000	E	ug/kg	103	28.0	1
Dibenz(a,h)+(a,c)anthracene	57900		ug/kg	103	27.8	1
Benzo(g,h,i)perylene	472000	E	ug/kg	103	27.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	86		50-130
Phenanthrene-d10	112		50-130
Benzo(a)pyrene-d12	104		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02 D
 Client ID: PDI-056SC-B-05-07-200510
 Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 05/27/20 05:03
 Analyst: ML
 Percent Solids: 58%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	174000		ug/kg	2060	592.	20
Acenaphthene	376000		ug/kg	2060	363.	20
Fluorene	148000		ug/kg	2060	550.	20
Dibenzothiophene	163000		ug/kg	2060	568.	20
Phenanthrene	1430000		ug/kg	2060	683.	20
Anthracene	335000		ug/kg	2060	425.	20
Fluoranthene	1180000		ug/kg	2060	655.	20
Pyrene	1470000		ug/kg	2060	542.	20
Benz(a)anthracene	304000		ug/kg	2060	420.	20
Chrysene	348000		ug/kg	2060	417.	20
Benzo(b)fluoranthene	251000		ug/kg	2060	536.	20
Benzo(j)+(k)fluoranthene	259000		ug/kg	2060	409.	20
Benzo(e)pyrene	258000		ug/kg	2060	425.	20
Benzo(a)pyrene	463000		ug/kg	2060	588.	20
Perylene	130000		ug/kg	2060	398.	20
Indeno(1,2,3-cd)pyrene	347000		ug/kg	2060	560.	20
Benzo(g,h,i)perylene	462000		ug/kg	2060	548.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	66		50-130
Phenanthrene-d10	82		50-130
Benzo(a)pyrene-d12	104		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03 D2
 Client ID: PDI-063SC-B-05-07-200429
 Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 05/28/20 08:10
 Analyst: ML
 Percent Solids: 64%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	1610000		ug/kg	2250	647.	40
C1-Naphthalenes	407000		ug/kg	2250	647.	40
2-Methylnaphthalene	403000		ug/kg	2250	580.	40
Acenaphthene	557000		ug/kg	2250	397.	40
Phenanthrene	1530000		ug/kg	2250	746.	40
Anthracene	344000		ug/kg	2250	464.	40
Fluoranthene	919000		ug/kg	2250	715.	40
Pyrene	1110000		ug/kg	2250	592.	40
Benzo(a)pyrene	274000		ug/kg	2250	643.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	82		50-130
Phenanthrene-d10	94		50-130
Benzo(a)pyrene-d12	76		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03 D
 Client ID: PDI-063SC-B-05-07-200429
 Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 05/27/20 12:12
 Analyst: ML
 Percent Solids: 64%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
cis/trans-Decalin	394.	J	ug/kg	112	56.5	4
C1-Decalins	1320		ug/kg	225	56.5	4
C2-Decalins	3630		ug/kg	225	56.5	4
C3-Decalins	3800		ug/kg	225	56.5	4
C4-Decalins	4190		ug/kg	225	56.5	4
Naphthalene	1620000	E	ug/kg	225	64.7	4
C1-Naphthalenes	435000	E	ug/kg	225	64.7	4
C2-Naphthalenes	217000		ug/kg	225	64.7	4
C3-Naphthalenes	103000		ug/kg	225	64.7	4
C4-Naphthalenes	38400		ug/kg	225	64.7	4
2-Methylnaphthalene	436000	E	ug/kg	225	58.0	4
1-Methylnaphthalene	231000		ug/kg	225	70.9	4
Benzothiophene	88000		ug/kg	225	70.5	4
C1-Benzo(b)thiophenes	32400		ug/kg	225	70.5	4
C2-Benzo(b)thiophenes	30000		ug/kg	225	70.5	4
C3-Benzo(b)thiophenes	19700		ug/kg	225	70.5	4
C4-Benzo(b)thiophenes	10800		ug/kg	225	70.5	4
Biphenyl	118000		ug/kg	225	69.6	4
2,6-Dimethylnaphthalene	101000		ug/kg	225	53.5	4
Dibenzofuran	34900		ug/kg	225	70.9	4
Acenaphthylene	23700		ug/kg	225	43.0	4
Acenaphthene	606000	E	ug/kg	225	39.7	4
2,3,5-Trimethylnaphthalene	13700		ug/kg	225	36.8	4
Fluorene	253000		ug/kg	225	60.0	4
C1-Fluorenes	51900		ug/kg	225	60.0	4
C2-Fluorenes	36900		ug/kg	225	60.0	4
C3-Fluorenes	22600		ug/kg	225	60.0	4
Dibenzothiophene	205000		ug/kg	225	62.1	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03 D
 Client ID: PDI-063SC-B-05-07-200429
 Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
4-Methyldibenzothiophene(4MDT)	18200		ug/kg	225	62.1	4
2/3-Methyldibenzothiophene(2MDT)	21000		ug/kg	225	62.1	4
1-Methyldibenzothiophene(1MDT)	5850		ug/kg	225	62.1	4
C1-Dibenzothiophenes BS	55300		ug/kg	225	62.1	4
C2-Dibenzothiophenes	30700		ug/kg	225	62.1	4
C3-Dibenzothiophenes	17100		ug/kg	225	62.1	4
C4-Dibenzothiophenes	5920		ug/kg	225	62.1	4
Phenanthrene	1760000	E	ug/kg	225	74.6	4
3-Methylphenanthrene (3MP)	74000		ug/kg	225	74.6	4
2-Methylphenanthrene (2MP)	90500		ug/kg	225	74.6	4
2-Methylanthracene (2MA)	31700		ug/kg	225	74.6	4
9/4-Methylphenanthrene (9MP)	53500		ug/kg	225	74.6	4
C1-Phenanthrenes/Anthracenes	297000		ug/kg	225	74.6	4
C2-Phenanthrenes/Anthr BS	101000		ug/kg	225	74.6	4
C3-Phenanthrenes/Anthracenes	36700		ug/kg	225	74.6	4
C4-Phenanthrenes/Anthracenes	10100		ug/kg	225	74.6	4
Retene	ND		ug/kg	225	55.2	4
Anthracene	411000	E	ug/kg	225	46.4	4
Carbazole	55600		ug/kg	225	73.6	4
1-Methylphenanthrene	59600		ug/kg	225	59.4	4
Fluoranthene	1060000	E	ug/kg	225	71.5	4
Benzo(b)fluorene	60800		ug/kg	225	65.2	4
7H-Benzo(c)fluorene	22800		ug/kg	225	65.2	4
2-Methylpyrene ¹	31400		ug/kg	225	59.2	4
4-Methylpyrene ¹	26100		ug/kg	225	59.2	4
1-Methylpyrene ¹	32200		ug/kg	225	59.2	4
Pyrene	1300000	E	ug/kg	225	59.2	4
C1-Fluoranthenes/Pyrenes	253000		ug/kg	225	59.2	4
C2-Fluoranthenes/Pyrenes	51200		ug/kg	225	59.2	4
C3-Fluoranthenes/Pyrenes	18800		ug/kg	225	59.2	4
C4-Fluoranthenes/Pyrenes	9320		ug/kg	225	59.2	4
Naphthobenzothiophenes	112000		ug/kg	225	63.0	4
C1-Naphthobenzothiophenes	27500		ug/kg	225	63.0	4
C2-Naphthobenzothiophenes	11800		ug/kg	225	63.0	4
C3-Naphthobenzothiophenes	9460		ug/kg	225	63.0	4
C4-Naphthobenzothiophenes	3200		ug/kg	225	63.0	4
Benz(a)anthracene	262000		ug/kg	225	45.9	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03 D
 Client ID: PDI-063SC-B-05-07-200429
 Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Chrysene	295000		ug/kg	225	45.5	4
C1-Chrysenes	65200		ug/kg	225	45.5	4
C2-Chrysenes BS	23400		ug/kg	225	45.5	4
C3-Chrysenes	11600		ug/kg	225	45.5	4
C4-Chrysenes	7400		ug/kg	225	45.5	4
Benzo(b)fluoranthene	207000		ug/kg	225	58.6	4
Benzo(j)+(k)fluoranthene	186000		ug/kg	225	44.7	4
Benzo(a)fluoranthene	58100		ug/kg	225	44.7	4
Benzo(e)pyrene	196000		ug/kg	225	46.4	4
Benzo(a)pyrene	357000	E	ug/kg	225	64.3	4
Perylene	98800		ug/kg	225	43.4	4
Indeno(1,2,3-cd)pyrene	236000		ug/kg	225	61.1	4
Dibenz(a,h)+(a,c)anthracene	43700		ug/kg	225	60.8	4
Benzo(g,h,i)perylene	294000		ug/kg	225	59.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	79		50-130
Phenanthrene-d10	113		50-130
Benzo(a)pyrene-d12	106		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04
Client ID: PDI-1056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/24/20 07:19
Analyst: ML
Percent Solids: 58%

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
cis/trans-Decalin	179.		ug/kg	25.7	12.9	1
C1-Decalins	635.		ug/kg	51.4	12.9	1
C2-Decalins	1360		ug/kg	51.4	12.9	1
C3-Decalins	1130		ug/kg	51.4	12.9	1
C4-Decalins	1500		ug/kg	51.4	12.9	1
Naphthalene	113000	E	ug/kg	51.4	14.8	1
C1-Naphthalenes	39500		ug/kg	51.4	14.8	1
C2-Naphthalenes	32300		ug/kg	51.4	14.8	1
C3-Naphthalenes	15600		ug/kg	51.4	14.8	1
C4-Naphthalenes	6220		ug/kg	51.4	14.8	1
2-Methylnaphthalene	34500		ug/kg	51.4	13.3	1
1-Methylnaphthalene	26300		ug/kg	51.4	16.2	1
Benzothiophene	5300		ug/kg	51.4	16.1	1
C1-Benzo(b)thiophenes	3220		ug/kg	51.4	16.1	1
C2-Benzo(b)thiophenes	4440		ug/kg	51.4	16.1	1
C3-Benzo(b)thiophenes	3320		ug/kg	51.4	16.1	1
C4-Benzo(b)thiophenes	1510		ug/kg	51.4	16.1	1
Biphenyl	5680		ug/kg	51.4	15.9	1
2,6-Dimethylnaphthalene	12400		ug/kg	51.4	12.2	1
Dibenzofuran	8670		ug/kg	51.4	16.2	1
Acenaphthylene	10100		ug/kg	51.4	9.81	1
Acenaphthene	216000	E	ug/kg	51.4	9.07	1
2,3,5-Trimethylnaphthalene	2290		ug/kg	51.4	8.41	1
Fluorene	93400	E	ug/kg	51.4	13.7	1
C1-Fluorenes	18900		ug/kg	51.4	13.7	1
C2-Fluorenes	10300		ug/kg	51.4	13.7	1
C3-Fluorenes	5720		ug/kg	51.4	13.7	1
Dibenzothiophene	106000	E	ug/kg	51.4	14.2	1



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04
Client ID: PDI-1056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
4-Methyldibenzothiophene(4MDT)	8000		ug/kg	51.4	14.2	1
2/3-Methyldibenzothiophene(2MDT)	9970		ug/kg	51.4	14.2	1
1-Methyldibenzothiophene(1MDT)	2650		ug/kg	51.4	14.2	1
C1-Dibenzothiophenes BS	25400		ug/kg	51.4	14.2	1
C2-Dibenzothiophenes	11600		ug/kg	51.4	14.2	1
C3-Dibenzothiophenes	6080		ug/kg	51.4	14.2	1
C4-Dibenzothiophenes	1810		ug/kg	51.4	14.2	1
Phenanthrene	899000	E	ug/kg	51.4	17.0	1
3-Methylphenanthrene (3MP)	28100		ug/kg	51.4	17.0	1
2-Methylphenanthrene (2MP)	32700		ug/kg	51.4	17.0	1
2-Methylanthracene (2MA)	13900		ug/kg	51.4	17.0	1
9/4-Methylphenanthrene (9MP)	25300		ug/kg	51.4	17.0	1
C1-Phenanthrenes/Anthracenes	117000		ug/kg	51.4	17.0	1
C2-Phenanthrenes/Anthr BS	31000		ug/kg	51.4	17.0	1
C3-Phenanthrenes/Anthracenes	10300		ug/kg	51.4	17.0	1
C4-Phenanthrenes/Anthracenes	3460		ug/kg	51.4	17.0	1
Retene	1410		ug/kg	51.4	12.6	1
Anthracene	227000	E	ug/kg	51.4	10.6	1
Carbazole	16100		ug/kg	51.4	16.8	1
1-Methylphenanthrene	22900		ug/kg	51.4	13.6	1
Fluoranthene	737000	E	ug/kg	51.4	16.3	1
Benzo(b)fluorene	34600		ug/kg	51.4	14.9	1
7H-Benzo(c)fluorene	13000		ug/kg	51.4	14.9	1
2-Methylpyrene ¹	15600		ug/kg	51.4	13.5	1
4-Methylpyrene ¹	13800		ug/kg	51.4	13.5	1
1-Methylpyrene ¹	18400		ug/kg	51.4	13.5	1
Pyrene	961000	E	ug/kg	51.4	13.5	1
C1-Fluoranthenes/Pyrenes	141000		ug/kg	51.4	13.5	1
C2-Fluoranthenes/Pyrenes	22500		ug/kg	51.4	13.5	1
C3-Fluoranthenes/Pyrenes	6630		ug/kg	51.4	13.5	1
C4-Fluoranthenes/Pyrenes	3490		ug/kg	51.4	13.5	1
Naphthobenzothiophenes	70200		ug/kg	51.4	14.4	1
C1-Naphthobenzothiophenes	15500		ug/kg	51.4	14.4	1
C2-Naphthobenzothiophenes	5620		ug/kg	51.4	14.4	1
C3-Naphthobenzothiophenes	5020		ug/kg	51.4	14.4	1
C4-Naphthobenzothiophenes	1220		ug/kg	51.4	14.4	1
Benz(a)anthracene	177000	E	ug/kg	51.4	10.5	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04
Client ID: PDI-1056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Chrysene	199000	E	ug/kg	51.4	10.4	1
C1-Chrysenes	34200		ug/kg	51.4	10.4	1
C2-Chrysenes BS	10300		ug/kg	51.4	10.4	1
C3-Chrysenes	5310		ug/kg	51.4	10.4	1
C4-Chrysenes	3970		ug/kg	51.4	10.4	1
Benzo(b)fluoranthene	175000	E	ug/kg	51.4	13.4	1
Benzo(j)+(k)fluoranthene	113000	E	ug/kg	51.4	10.2	1
Benzo(a)fluoranthene	43200		ug/kg	51.4	10.2	1
Benzo(e)pyrene	151000	E	ug/kg	51.4	10.6	1
Benzo(a)pyrene	276000	E	ug/kg	51.4	14.7	1
Perylene	80000	E	ug/kg	51.4	9.93	1
Indeno(1,2,3-cd)pyrene	194000	E	ug/kg	51.4	14.0	1
Dibenz(a,h)+(a,c)anthracene	29600		ug/kg	51.4	13.9	1
Benzo(g,h,i)perylene	257000	E	ug/kg	51.4	13.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	89		50-130
Phenanthrene-d10	110		50-130
Benzo(a)pyrene-d12	105		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04 D
 Client ID: PDI-1056SC-B-05-07-200510
 Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 05/27/20 10:45
 Analyst: ML
 Percent Solids: 58%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	93800		ug/kg	1030	296.	20
Acenaphthene	200000		ug/kg	1030	181.	20
Fluorene	83000		ug/kg	1030	274.	20
Dibenzothiophene	94500		ug/kg	1030	284.	20
Phenanthrene	825000		ug/kg	1030	341.	20
Anthracene	195000		ug/kg	1030	212.	20
Fluoranthene	715000		ug/kg	1030	327.	20
Pyrene	917000		ug/kg	1030	270.	20
Benz(a)anthracene	157000		ug/kg	1030	210.	20
Chrysene	188000		ug/kg	1030	208.	20
Benzo(b)fluoranthene	139000		ug/kg	1030	268.	20
Benzo(j)+(k)fluoranthene	138000		ug/kg	1030	204.	20
Benzo(e)pyrene	146000		ug/kg	1030	212.	20
Benzo(a)pyrene	261000		ug/kg	1030	294.	20
Perylene	74800		ug/kg	1030	198.	20
Indeno(1,2,3-cd)pyrene	193000		ug/kg	1030	279.	20
Benzo(g,h,i)perylene	273000		ug/kg	1030	273.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	71		50-130
Phenanthrene-d10	91		50-130
Benzo(a)pyrene-d12	97		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/23/20 20:01
Analyst: ML

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-04 Batch: WG1372713-1					
cis/trans-Decalin	ND		ug/kg	0.500	0.251
C1-Decalins	ND		ug/kg	1.00	0.251
C2-Decalins	ND		ug/kg	1.00	0.251
C3-Decalins	ND		ug/kg	1.00	0.251
C4-Decalins	ND		ug/kg	1.00	0.251
Naphthalene	0.937	J	ug/kg	1.00	0.287
C1-Naphthalenes	0.343	J	ug/kg	1.00	0.287
C2-Naphthalenes	0.427	J	ug/kg	1.00	0.287
C3-Naphthalenes	0.287	J	ug/kg	1.00	0.287
C4-Naphthalenes	ND		ug/kg	1.00	0.287
2-Methylnaphthalene	0.318	J	ug/kg	1.00	0.258
1-Methylnaphthalene	ND		ug/kg	1.00	0.315
Benzothiophene	ND		ug/kg	1.00	0.313
C1-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
C2-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
C3-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
C4-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
Biphenyl	ND		ug/kg	1.00	0.309
2,6-Dimethylnaphthalene	ND		ug/kg	1.00	0.238
Dibenzofuran	ND		ug/kg	1.00	0.315
Acenaphthylene	ND		ug/kg	1.00	0.191
Acenaphthene	0.394	J	ug/kg	1.00	0.176
2,3,5-Trimethylnaphthalene	ND		ug/kg	1.00	0.164
Fluorene	ND		ug/kg	1.00	0.267
C1-Fluorenes	ND		ug/kg	1.00	0.267
C2-Fluorenes	ND		ug/kg	1.00	0.267
C3-Fluorenes	ND		ug/kg	1.00	0.267
Dibenzothiophene	ND		ug/kg	1.00	0.276
4-Methyldibenzothiophene(4MDT)	ND		ug/kg	1.00	0.276

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/23/20 20:01
Analyst: ML

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-04 Batch: WG1372713-1					
2/3-Methyldibenzothiophene(2MDT)	ND		ug/kg	1.00	0.276
1-Methyldibenzothiophene(1MDT)	ND		ug/kg	1.00	0.276
C1-Dibenzothiophenes BS	ND		ug/kg	1.00	0.276
C2-Dibenzothiophenes	ND		ug/kg	1.00	0.276
C3-Dibenzothiophenes	ND		ug/kg	1.00	0.276
C4-Dibenzothiophenes	ND		ug/kg	1.00	0.276
Phenanthrene	0.816	J	ug/kg	1.00	0.331
3-Methylphenanthrene (3MP)	ND		ug/kg	1.00	0.331
2-Methylphenanthrene (2MP)	ND		ug/kg	1.00	0.331
2-Methylanthracene (2MA)	ND		ug/kg	1.00	0.331
9/4-Methylphenanthrene (9MP)	ND		ug/kg	1.00	0.331
C1-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C2-Phenanthrenes/Anthr BS	ND		ug/kg	1.00	0.331
C3-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C4-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
Retene	ND		ug/kg	1.00	0.245
Anthracene	ND		ug/kg	1.00	0.206
Carbazole	ND		ug/kg	1.00	0.327
1-Methylphenanthrene	ND		ug/kg	1.00	0.264
Fluoranthene	ND		ug/kg	1.00	0.318
Benzo(b)fluorene	ND		ug/kg	1.00	0.290
7H-Benzo(c)fluorene	ND		ug/kg	1.00	0.290
2-Methylpyrene ¹	ND		ug/kg	1.00	0.263
4-Methylpyrene ¹	ND		ug/kg	1.00	0.263
1-Methylpyrene ¹	ND		ug/kg	1.00	0.263
Pyrene	0.292	J	ug/kg	1.00	0.263
C1-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
C2-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
C3-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 05/23/20 20:01
Analyst: ML

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-04 Batch: WG1372713-1					
C4-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C1-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C2-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C3-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C4-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
Benz(a)anthracene	ND		ug/kg	1.00	0.204
Chrysene	ND		ug/kg	1.00	0.202
C1-Chrysenes	ND		ug/kg	1.00	0.202
C2-Chrysenes BS	ND		ug/kg	1.00	0.202
C3-Chrysenes	ND		ug/kg	1.00	0.202
C4-Chrysenes	ND		ug/kg	1.00	0.202
Benzo(b)fluoranthene	ND		ug/kg	1.00	0.260
Benzo(j)+(k)fluoranthene	ND		ug/kg	1.00	0.198
Benzo(a)fluoranthene	ND		ug/kg	1.00	0.198
Benzo(e)pyrene	ND		ug/kg	1.00	0.206
Benzo(a)pyrene	ND		ug/kg	1.00	0.285
Perylene	ND		ug/kg	1.00	0.193
Indeno(1,2,3-cd)pyrene	ND		ug/kg	1.00	0.271
Dibenz(a,h)+(a,c)anthracene	ND		ug/kg	1.00	0.270
Benzo(g,h,i)perylene	ND		ug/kg	1.00	0.266

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	73		50-130
Phenanthrene-d10	95		50-130
Benzo(a)pyrene-d12	99		50-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PAHs - Mansfield Lab Associated sample(s): 01-04 Batch: WG1372713-2 WG1372713-3								
Naphthalene	83		79		50-130	5		30
2-Methylnaphthalene	82		79		50-130	4		30
Acenaphthylene	81		79		50-130	3		30
Acenaphthene	86		85		50-130	1		30
Fluorene	87		88		50-130	1		30
Phenanthrene	94		100		50-130	6		30
Anthracene	100		101		50-130	1		30
Fluoranthene	92		94		50-130	2		30
Pyrene	88		90		50-130	2		30
Benz(a)anthracene	89		89		50-130	0		30
Chrysene	89		90		50-130	1		30
Benzo(b)fluoranthene	91		92		50-130	1		30
Benzo(j)+(k)fluoranthene	94		94		50-130	0		30
Benzo(a)pyrene	82		80		50-130	2		30
Indeno(1,2,3-cd)pyrene	92		92		50-130	0		30
Dibenz(a,h)+(a,c)anthracene	104		103		50-130	1		30
Benzo(g,h,i)perylene	88		88		50-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
PAHs - Mansfield Lab Associated sample(s): 01-04 Batch: WG1372713-2 WG1372713-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Naphthalene-d8	83		78		50-130
Phenanthrene-d10	101		101		50-130
Benzo(a)pyrene-d12	100		97		50-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1372713-4 WG1372713-5 QC Sample: L2020213-03 Client ID: PDI-063SC-B-05-07-200429												
Naphthalene	162000E	754	136000E	0	Q	137000E	0	Q	50-150	1		30
Naphthalene	1610000	754	1470000	0	Q	1430000	0	Q	50-150	3		30
2-Methylnaphthalene	436000E	754	374000E	0	Q	390000E	0	Q	50-150	4		30
2-Methylnaphthalene	403000	754	377000	0	Q	373000	0	Q	50-150	1		30
Acenaphthylene	23700	754	20900	0	Q	21400	0	Q	50-150	2		30
Acenaphthene	606000E	754	525000E	0	Q	545000E	0	Q	50-150	4		30
Acenaphthene	557000	754	524000	0	Q	522000	0	Q	50-150	0		30
Fluorene	253000	754	218000	0	Q	229000	0	Q	50-150	5		30
Phenanthrene	1760000E	754	1510000E	0	Q	1570000E	0	Q	50-150	4		30
Phenanthrene	1530000	754	1440000	0	Q	1420000	0	Q	50-150	1		30
Anthracene	411000E	754	360000E	0	Q	373000E	0	Q	50-150	4		30
Anthracene	344000	754	330000	0	Q	324000	0	Q	50-150	2		30
Fluoranthene	919000	754	865000	0	Q	853000	0	Q	50-150	1		30
Fluoranthene	1060000E	754	919000E	0	Q	955000E	0	Q	50-150	4		30
Pyrene	1300000E	754	1120000E	0	Q	1160000E	0	Q	50-150	4		30
Pyrene	1110000	754	1050000	0	Q	1030000	0	Q	50-150	2		30
Benz(a)anthracene	262000	754	233000	0	Q	236000	0	Q	50-150	1		30
Chrysene	295000	754	267000	0	Q	269000	0	Q	50-150	1		30
Benzo(b)fluoranthene	207000	754	173000	0	Q	190000	0	Q	50-150	9		30
Benzo(j)+(k)fluoranthene	186000	754	181000	0	Q	167000	0	Q	50-150	8		30
Benzo(a)pyrene	357000E	754	318000E	0	Q	323000E	0	Q	50-150	2		30
Benzo(a)pyrene	274000	754	260000	0	Q	259000	0	Q	50-150	0		30
Indeno(1,2,3-cd)pyrene	236000	754	210000	0	Q	213000	0	Q	50-150	1		30

Matrix Spike Analysis Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1372713-4 WG1372713-5 QC Sample: L2020213-03 Client ID: PDI-063SC-B-05-07-200429												
Dibenz(a,h)+(a,c)anthracene	43700	754	40100	0	Q	40600	0	Q	50-150	1		30
Benzo(g,h,i)perylene	294000	754	260000	0	Q	262000	0	Q	50-150	1		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
Benzo(a)pyrene-d12	103		99		50-130
Benzo(a)pyrene-d12	84		87		50-130
Naphthalene-d8	81		82		50-130
Naphthalene-d8	75		76		50-130
Phenanthrene-d10	100		105		50-130
Phenanthrene-d10	104		107		50-130

PETROLEUM HYDROCARBONS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01 D
 Client ID: PDI-051SC-B-06-08-200506
 Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 06/06/20 00:06
 Analyst: WR
 Percent Solids: 57%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	5.80	1.72	5
n-Decane (C10)	ND		mg/kg	5.80	1.85	5
n-Undecane (C11)	ND		mg/kg	5.80	1.73	5
n-Dodecane (C12)	1.82	J	mg/kg	5.80	1.26	5
n-Tridecane (C13)	ND		mg/kg	5.80	1.59	5
2,6,10-Trimethyldodecane (1380)	3.53	J	mg/kg	5.80	0.872	5
n-Tetradecane (C14)	1.12	J	mg/kg	5.80	0.872	5
2,6,10-Trimethyltridecane (1470)	4.04	J	mg/kg	5.80	0.692	5
n-Pentadecane (C15)	49.7		mg/kg	5.80	0.692	5
n-Hexadecane (C16)	27.9		mg/kg	5.80	0.873	5
Norpristane (1650)	7.04		mg/kg	5.80	1.91	5
n-Heptadecane (C17)	ND		mg/kg	5.80	1.91	5
Pristane	8.99		mg/kg	5.80	1.24	5
n-Octadecane (C18)	255	G	mg/kg	5.80	1.16	5
Phytane	78.0	G	mg/kg	5.80	0.728	5
n-Nonadecane (C19)	ND		mg/kg	5.80	1.49	5
n-Eicosane (C20)	ND		mg/kg	5.80	0.820	5
n-Heneicosane (C21)	2.61	J	mg/kg	5.80	0.694	5
n-Docosane (C22)	1.14	J	mg/kg	5.80	0.605	5
n-Tricosane (C23)	ND		mg/kg	5.80	0.737	5
n-Tetracosane (C24)	1.41	J	mg/kg	5.80	0.970	5
n-Pentacosane (C25)	ND		mg/kg	5.80	3.07	5
n-Hexacosane (C26)	ND		mg/kg	5.80	0.852	5
n-Heptacosane (C27)	3.32	J	mg/kg	5.80	0.698	5
n-Octacosane (C28)	1.98	J	mg/kg	5.80	1.24	5
n-Nonacosane (C29)	ND		mg/kg	5.80	3.86	5
n-Triacontane (C30)	2.36	J	mg/kg	5.80	0.665	5
n-Hentriacontane (C31)	8.42		mg/kg	5.80	0.821	5

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01 D
 Client ID: PDI-051SC-B-06-08-200506
 Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	5.49	J	mg/kg	5.80	0.730	5
n-Tritriacontane (C33)	20.1		mg/kg	5.80	0.816	5
n-Tetratriacontane (C34)	ND		mg/kg	5.80	0.922	5
n-Pentatriacontane (C35)	8.10		mg/kg	5.80	1.01	5
n-Hexatriacontane (C36)	ND		mg/kg	5.80	1.15	5
n-Heptatriacontane (C37)	7.34		mg/kg	5.80	1.29	5
n-Octatriacontane (C38)	ND		mg/kg	5.80	1.35	5
n-Nonatriacontane (C39)	2.16	J	mg/kg	5.80	1.88	5
n-Tetracontane (C40)	ND		mg/kg	5.80	1.88	5
Total Petroleum Hydrocarbons (C9-C44)	6220		mg/kg	191	42.1	5
Total Petroleum Hydrocarbons (C9-C40)	5910		mg/kg	191	42.1	5
DRO (C10-C28)	3930		mg/kg	122	25.1	5
Total Saturated Hydrocarbons	502	J	mg/kg	5.80	0.605	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	104		50-130
d50-Tetracosane	104		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02 D
 Client ID: PDI-056SC-B-05-07-200510
 Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 06/06/20 01:36
 Analyst: WR
 Percent Solids: 58%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	34.4	10.2	5
n-Decane (C10)	ND		mg/kg	34.4	11.0	5
n-Undecane (C11)	ND		mg/kg	34.4	10.3	5
n-Dodecane (C12)	16.4	J	mg/kg	34.4	7.49	5
n-Tridecane (C13)	ND		mg/kg	34.4	9.43	5
2,6,10-Trimethyldodecane (1380)	ND		mg/kg	34.4	5.17	5
n-Tetradecane (C14)	ND		mg/kg	34.4	5.17	5
2,6,10-Trimethyltridecane (1470)	4.23	J	mg/kg	34.4	4.10	5
n-Pentadecane (C15)	436		mg/kg	34.4	4.10	5
n-Hexadecane (C16)	177		mg/kg	34.4	5.17	5
Norpristane (1650)	ND		mg/kg	34.4	11.3	5
n-Heptadecane (C17)	ND		mg/kg	34.4	11.3	5
Pristane	17.3	J	mg/kg	34.4	7.34	5
n-Octadecane (C18)	1660	G	mg/kg	34.4	6.90	5
Phytane	405	G	mg/kg	34.4	4.32	5
n-Nonadecane (C19)	ND		mg/kg	34.4	8.83	5
n-Eicosane (C20)	ND		mg/kg	34.4	4.86	5
n-Heneicosane (C21)	6.70	J	mg/kg	34.4	4.11	5
n-Docosane (C22)	ND		mg/kg	34.4	3.58	5
n-Tricosane (C23)	ND		mg/kg	34.4	4.37	5
n-Tetracosane (C24)	7.08	J	mg/kg	34.4	5.75	5
n-Pentacosane (C25)	ND		mg/kg	34.4	18.2	5
n-Hexacosane (C26)	ND		mg/kg	34.4	5.05	5
n-Heptacosane (C27)	7.42	J	mg/kg	34.4	4.14	5
n-Octacosane (C28)	7.42	J	mg/kg	34.4	7.37	5
n-Nonacosane (C29)	ND		mg/kg	34.4	22.9	5
n-Triacontane (C30)	11.4	J	mg/kg	34.4	3.94	5
n-Hentriacontane (C31)	32.2	J	mg/kg	34.4	4.87	5

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02 D
 Client ID: PDI-056SC-B-05-07-200510
 Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	36.6		mg/kg	34.4	4.33	5
n-Tritriacontane (C33)	99.2		mg/kg	34.4	4.83	5
n-Tetracontane (C34)	ND		mg/kg	34.4	5.47	5
n-Pentatriacontane (C35)	33.5	J	mg/kg	34.4	6.00	5
n-Hexatriacontane (C36)	ND		mg/kg	34.4	6.83	5
n-Heptatriacontane (C37)	37.9		mg/kg	34.4	7.63	5
n-Octatriacontane (C38)	ND		mg/kg	34.4	8.01	5
n-Nonatriacontane (C39)	ND		mg/kg	34.4	11.2	5
n-Tetracontane (C40)	ND		mg/kg	34.4	11.2	5
Total Petroleum Hydrocarbons (C9-C44)	24300		mg/kg	1130	250.	5
Total Petroleum Hydrocarbons (C9-C40)	23000		mg/kg	1130	250.	5
DRO (C10-C28)	15400		mg/kg	722	149.	5
Total Saturated Hydrocarbons	3000	J	mg/kg	34.4	3.58	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	99		50-130
d50-Tetracosane	102		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03 D
 Client ID: PDI-063SC-B-05-07-200429
 Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 06/06/20 04:33
 Analyst: WR
 Percent Solids: 64%

Extraction Method: ALPHA OP-013
 Extraction Date: 05/20/20 10:34
 Cleanup Method: EPA 3611B
 Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	37.5	11.1	10
n-Decane (C10)	ND		mg/kg	37.5	12.0	10
n-Undecane (C11)	ND		mg/kg	37.5	11.2	10
n-Dodecane (C12)	126	G	mg/kg	37.5	8.18	10
n-Tridecane (C13)	ND		mg/kg	37.5	10.3	10
2,6,10-Trimethyldodecane (1380)	11.0	J	mg/kg	37.5	5.64	10
n-Tetradecane (C14)	11.8	J	mg/kg	37.5	5.64	10
2,6,10-Trimethyltridecane (1470)	11.7	J	mg/kg	37.5	4.48	10
n-Pentadecane (C15)	711		mg/kg	37.5	4.48	10
n-Hexadecane (C16)	306		mg/kg	37.5	5.65	10
Norpristane (1650)	19.1	J	mg/kg	37.5	12.4	10
n-Heptadecane (C17)	ND		mg/kg	37.5	12.4	10
Pristane	22.3	J	mg/kg	37.5	8.02	10
n-Octadecane (C18)	1880	G	mg/kg	37.5	7.53	10
Phytane	432	G	mg/kg	37.5	4.71	10
n-Nonadecane (C19)	ND		mg/kg	37.5	9.64	10
n-Eicosane (C20)	8.48	J	mg/kg	37.5	5.31	10
n-Heneicosane (C21)	8.33	J	mg/kg	37.5	4.49	10
n-Docosane (C22)	ND		mg/kg	37.5	3.91	10
n-Tricosane (C23)	ND		mg/kg	37.5	4.77	10
n-Tetracosane (C24)	ND		mg/kg	37.5	6.28	10
n-Pentacosane (C25)	ND		mg/kg	37.5	19.9	10
n-Hexacosane (C26)	ND		mg/kg	37.5	5.51	10
n-Heptacosane (C27)	ND		mg/kg	37.5	4.52	10
n-Octacosane (C28)	ND		mg/kg	37.5	8.05	10
n-Nonacosane (C29)	ND		mg/kg	37.5	25.0	10
n-Triacontane (C30)	10.1	J	mg/kg	37.5	4.30	10
n-Hentriacontane (C31)	20.3	J	mg/kg	37.5	5.32	10

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03 D
 Client ID: PDI-063SC-B-05-07-200429
 Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	20.4	J	mg/kg	37.5	4.73	10
n-Tritriacontane (C33)	62.7		mg/kg	37.5	5.28	10
n-Tetratriacontane (C34)	ND		mg/kg	37.5	5.97	10
n-Pentatriacontane (C35)	27.6	J	mg/kg	37.5	6.55	10
n-Hexatriacontane (C36)	ND		mg/kg	37.5	7.46	10
n-Heptatriacontane (C37)	23.9	J	mg/kg	37.5	8.33	10
n-Octatriacontane (C38)	ND		mg/kg	37.5	8.75	10
n-Nonatriacontane (C39)	ND		mg/kg	37.5	12.2	10
n-Tetracontane (C40)	ND		mg/kg	37.5	12.2	10
Total Petroleum Hydrocarbons (C9-C44)	25400		mg/kg	1240	272.	10
Total Petroleum Hydrocarbons (C9-C40)	24800		mg/kg	1240	272.	10
DRO (C10-C28)	19500		mg/kg	788	162.	10
Total Saturated Hydrocarbons	3710	J	mg/kg	37.5	3.91	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	126		50-130
d50-Tetracosane	126		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04 D
Client ID: PDI-1056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
Analytical Method: 1,8015D(M)
Analytical Date: 06/06/20 03:05
Analyst: WR
Percent Solids: 58%

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	17.1	5.09	5
n-Decane (C10)	ND		mg/kg	17.1	5.47	5
n-Undecane (C11)	ND		mg/kg	17.1	5.12	5
n-Dodecane (C12)	11.3	J	mg/kg	17.1	3.74	5
n-Tridecane (C13)	ND		mg/kg	17.1	4.70	5
2,6,10-Trimethyldodecane (1380)	3.07	J	mg/kg	17.1	2.58	5
n-Tetradecane (C14)	ND		mg/kg	17.1	2.58	5
2,6,10-Trimethyltridecane (1470)	3.89	J	mg/kg	17.1	2.04	5
n-Pentadecane (C15)	221		mg/kg	17.1	2.04	5
n-Hexadecane (C16)	91.6		mg/kg	17.1	2.58	5
Norpristane (1650)	11.6	J	mg/kg	17.1	5.66	5
n-Heptadecane (C17)	ND		mg/kg	17.1	5.66	5
Pristane	12.0	J	mg/kg	17.1	3.66	5
n-Octadecane (C18)	888	G	mg/kg	17.1	3.44	5
Phytane	220	G	mg/kg	17.1	2.15	5
n-Nonadecane (C19)	ND		mg/kg	17.1	4.41	5
n-Eicosane (C20)	ND		mg/kg	17.1	2.43	5
n-Heneicosane (C21)	4.20	J	mg/kg	17.1	2.05	5
n-Docosane (C22)	ND		mg/kg	17.1	1.79	5
n-Tricosane (C23)	ND		mg/kg	17.1	2.18	5
n-Tetracosane (C24)	3.60	J	mg/kg	17.1	2.87	5
n-Pentacosane (C25)	ND		mg/kg	17.1	9.07	5
n-Hexacosane (C26)	ND		mg/kg	17.1	2.52	5
n-Heptacosane (C27)	5.16	J	mg/kg	17.1	2.06	5
n-Octacosane (C28)	ND		mg/kg	17.1	3.68	5
n-Nonacosane (C29)	ND		mg/kg	17.1	11.4	5
n-Triacontane (C30)	5.25	J	mg/kg	17.1	1.97	5
n-Hentriacontane (C31)	16.7	J	mg/kg	17.1	2.43	5

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04 D
 Client ID: PDI-1056SC-B-05-07-200510
 Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
 Date Received: 05/15/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	22.6		mg/kg	17.1	2.16	5
n-Tritriacontane (C33)	50.0		mg/kg	17.1	2.41	5
n-Tetratriacontane (C34)	ND		mg/kg	17.1	2.73	5
n-Pentatriacontane (C35)	20.0		mg/kg	17.1	2.99	5
n-Hexatriacontane (C36)	ND		mg/kg	17.1	3.41	5
n-Heptatriacontane (C37)	19.1		mg/kg	17.1	3.81	5
n-Octatriacontane (C38)	ND		mg/kg	17.1	4.00	5
n-Nonatriacontane (C39)	5.61	J	mg/kg	17.1	5.57	5
n-Tetracontane (C40)	ND		mg/kg	17.1	5.57	5
Total Petroleum Hydrocarbons (C9-C44)	13500		mg/kg	566	124.	5
Total Petroleum Hydrocarbons (C9-C40)	12800		mg/kg	566	124.	5
DRO (C10-C28)	8560		mg/kg	360	74.2	5
Total Saturated Hydrocarbons	1610	J	mg/kg	17.1	1.79	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	101		50-130
d50-Tetracosane	102		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 05/25/20 21:10
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 01-04 Batch: WG1372713-1					
n-Nonane (C9)	ND		mg/kg	0.067	0.020
n-Decane (C10)	ND		mg/kg	0.067	0.021
n-Undecane (C11)	ND		mg/kg	0.067	0.020
n-Dodecane (C12)	ND		mg/kg	0.067	0.015
n-Tridecane (C13)	ND		mg/kg	0.067	0.018
2,6,10-Trimethyldodecane (1380)	ND		mg/kg	0.067	0.010
n-Tetradecane (C14)	ND		mg/kg	0.067	0.010
2,6,10-Trimethyltridecane (1470)	ND		mg/kg	0.067	0.008
n-Pentadecane (C15)	ND		mg/kg	0.067	0.008
n-Hexadecane (C16)	ND		mg/kg	0.067	0.010
Norpristane (1650)	ND		mg/kg	0.067	0.022
n-Heptadecane (C17)	ND		mg/kg	0.067	0.022
Pristane	ND		mg/kg	0.067	0.014
n-Octadecane (C18)	0.030	JC	mg/kg	0.067	0.013
Phytane	ND		mg/kg	0.067	0.008
n-Nonadecane (C19)	ND		mg/kg	0.067	0.017
n-Eicosane (C20)	ND		mg/kg	0.067	0.009
n-Heneicosane (C21)	ND		mg/kg	0.067	0.008
n-Docosane (C22)	ND		mg/kg	0.067	0.007
n-Tricosane (C23)	ND		mg/kg	0.067	0.008
n-Tetracosane (C24)	ND		mg/kg	0.067	0.011
n-Pentacosane (C25)	0.037	JC	mg/kg	0.067	0.035
n-Hexacosane (C26)	ND		mg/kg	0.067	0.010
n-Heptacosane (C27)	ND		mg/kg	0.067	0.008
n-Octacosane (C28)	ND		mg/kg	0.067	0.014
n-Nonacosane (C29)	ND		mg/kg	0.067	0.044
n-Triacontane (C30)	ND		mg/kg	0.067	0.008
n-Hentriacontane (C31)	ND		mg/kg	0.067	0.009
n-Dotriacontane (C32)	ND		mg/kg	0.067	0.008

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8015D(M)
Analytical Date: 05/25/20 21:10
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 05/20/20 10:34
Cleanup Method: EPA 3611B
Cleanup Date: 05/22/20

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 01-04 Batch: WG1372713-1					
n-Tritriacontane (C33)	ND		mg/kg	0.067	0.009
n-Tetratriacontane (C34)	ND		mg/kg	0.067	0.011
n-Pentatriacontane (C35)	ND		mg/kg	0.067	0.012
n-Hexatriacontane (C36)	ND		mg/kg	0.067	0.013
n-Heptatriacontane (C37)	0.017	J	mg/kg	0.067	0.015
n-Octatriacontane (C38)	ND		mg/kg	0.067	0.016
n-Nonatriacontane (C39)	0.054	J	mg/kg	0.067	0.022
n-Tetracontane (C40)	ND		mg/kg	0.067	0.022
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/kg	2.20	0.484
Total Petroleum Hydrocarbons (C9-C40)	0.545	J	mg/kg	2.20	0.484
DRO (C10-C28)	0.700	J	mg/kg	1.40	0.288
Total Saturated Hydrocarbons	0.139	J	mg/kg	0.067	0.007

Surrogate	%Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	89		50-130
d50-Tetracosane	90		50-130

Lab Control Sample Analysis Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01-04 Batch: WG1372713-2 WG1372713-3								
Nonane (C9)	57		53		50-130	7		30
n-Decane (C10)	66		64		50-130	3		30
n-Dodecane (C12)	71		69		50-130	3		30
n-Tetradecane (C14)	76		76		50-130	0		30
n-Hexadecane (C16)	88		90		50-130	2		30
n-Octadecane (C18)	99		101		50-130	2		30
n-Nonadecane (C19)	92		93		50-130	1		30
n-Eicosane (C20)	93		94		50-130	1		30
n-Docosane (C22)	93		94		50-130	1		30
n-Tetracosane (C24)	93		94		50-130	1		30
n-Hexacosane (C26)	93		95		50-130	2		30
n-Octacosane (C28)	94		95		50-130	1		30
n-Triacontane (C30)	95		96		50-130	1		30
n-Hexatriacontane (C36)	88		89		50-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
ortho-terphenyl	92		92		50-130
d50-Tetracosane	93		94		50-130

Matrix Spike Analysis Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1372713-4 WG1372713-5 QC Sample: L2020213-03 Client ID: PDI-063SC-B-05-07-200429												
n-Nonane (C9)	ND	15.1	ND	0	Q	ND	0	Q	50-150	NC		30
n-Decane (C10)	ND	15.1	12.8J	85		12.5J	82		50-150	2		30
n-Dodecane (C12)	126G	15.1	128	13	Q	122	0	Q	50-150	5		30
n-Tetradecane (C14)	11.8J	15.1	22.6J	150		23.7J	156	Q	50-150	5		30
n-Hexadecane (C16)	306	15.1	288	0	Q	298	0	Q	50-150	3		30
n-Octadecane (C18)	1880G	15.1	1700G	0	Q	1740G	0	Q	50-150	2		30
n-Nonadecane (C19)	ND	15.1	16.2J	107		28.9J	190	Q	50-150	56	Q	30
n-Eicosane (C20)	8.48J	15.1	28.5J	189	Q	29.2J	192	Q	50-150	2		30
n-Docosane (C22)	ND	15.1	21.0J	139		21.2J	139		50-150	1		30
n-Tetracosane (C24)	ND	15.1	21.0J	139		21.3J	140		50-150	1		30
n-Hexacosane (C26)	ND	15.1	16.1J	107		17.4J	114		50-150	8		30
n-Octacosane (C28)	ND	15.1	31.0J	206	Q	24.8J	163	Q	50-150	22		30
n-Triacontane (C30)	10.1J	15.1	36.6J	243	Q	33.0J	217	Q	50-150	10		30
n-Hexatriacontane (C36)	ND	15.1	18.3J	121		18.9J	124		50-150	3		30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
d50-Tetracosane	120		123		50-130
ortho-terphenyl	115		117		50-130



INORGANICS & MISCELLANEOUS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-01
Client ID: PDI-051SC-B-06-08-200506
Sample Location: SEATTLE, WA

Date Collected: 05/06/20 08:45
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chemical Oxygen Demand	23400		mg/kg	1410	1410	4	05/19/20 20:10	05/19/20 22:52	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	56.8		%	0.100	0.100	1	-	05/20/20 08:31	121,2540G	LB



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-02
Client ID: PDI-056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chemical Oxygen Demand	19400		mg/kg	1380	1380	4	05/19/20 20:10	05/19/20 22:52	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	57.8		%	0.100	0.100	1	-	05/20/20 08:31	121,2540G	LB



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-03
Client ID: PDI-063SC-B-05-07-200429
Sample Location: SEATTLE, WA

Date Collected: 04/29/20 08:50
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chemical Oxygen Demand	10100		mg/kg	1260	1260	4	05/19/20 20:10	05/19/20 22:52	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	63.5		%	0.100	0.100	1	-	05/20/20 08:31	121,2540G	LB



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

SAMPLE RESULTS

Lab ID: L2020213-04
Client ID: PDI-1056SC-B-05-07-200510
Sample Location: SEATTLE, WA

Date Collected: 05/10/20 08:30
Date Received: 05/15/20
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chemical Oxygen Demand	31600		mg/kg	1390	1390	4	05/19/20 20:10	05/19/20 22:52	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	57.6		%	0.100	0.100	1	-	05/20/20 08:31	121,2540G	LB



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1372406-1									
Chemical Oxygen Demand	ND	mg/kg	200	200.	1	05/19/20 20:10	05/19/20 22:53	121,5220D(M)	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1372406-2								
Chemical Oxygen Demand	100		-		85-115	-		

Matrix Spike Analysis Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1372406-3 QC Sample: L2020213-03 Client ID: PDI-063SC-B-05-07-200429												
Chemical Oxygen Demand	10100	3900	16000	151	Q	-	-		75-125	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1372406-4 QC Sample: L2020213-03 Client ID: PDI-063SC-B-05-07-200429						
Chemical Oxygen Demand	10100	11800	mg/kg	16		20
General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1372621-1 QC Sample: L2020213-03 Client ID: PDI-063SC-B-05-07-200429						
Solids, Total	63.5	63.5	%	0		10



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2020213-01A	Glass 250ml/8oz unpreserved	A	NA		3.1	Y	Absent		A2-SHC(14),A2-ALKPAH(14),A2-TS(7)
L2020213-01X	Glass 120ml unpreserved split	A	NA		3.1	Y	Absent		COD-5220(28)
L2020213-02A	Glass 250ml/8oz unpreserved	A	NA		3.1	Y	Absent		A2-SHC(14),A2-ALKPAH(14),A2-TS(7)
L2020213-02X	Glass 120ml unpreserved split	A	NA		3.1	Y	Absent		COD-5220(28)
L2020213-03A	Glass 250ml/8oz unpreserved	A	NA		3.1	Y	Absent		A2-SHC(14),A2-ALKPAH(14),A2-TS(7)
L2020213-03B	Glass 250ml/8oz unpreserved	A	NA		3.1	Y	Absent		A2-SHC(14),A2-ALKPAH(14),A2-TS(7)
L2020213-03X	Glass 120ml unpreserved split	A	NA		3.1	Y	Absent		COD-5220(28)
L2020213-04A	Glass 250ml/8oz unpreserved	A	NA		3.1	Y	Absent		A2-SHC(14),A2-ALKPAH(14),A2-TS(7)
L2020213-04X	Glass 120ml unpreserved split	A	NA		3.1	Y	Absent		COD-5220(28)

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: GASCO PDI
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L2020213
Report Date: 06/09/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

MANSFIELD CHAIN OF CUSTODY

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 FAX: 508-898-9193 FAX: 508-822-3288

Project Information

Project Name: Gasco PDI

Project Location:

Project #: 000029-02.5

Project Manager: Delaney Peterson

ALPHA Quote #:

Client Information

Client: Anchor QEA

Address: 6720 S. Macadam Ave., suite 125

Portland, OR 97219

Phone: 360-715-2707

Turn-Around Time

Fax: Standard Rush (ONLY IF PRE-APPROVED)

Email: dpeterson@anchorqea.com

These samples have been Previously analyzed by Alpha

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

MS/MSD (at unit cost) will be omitted unless you check here

Date Rec'd in Lab: 5/15/20

ALPHA Job #: 12020213

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

ANALYSIS

PAHs	TPH(DRO Range + sat hydrocarbons)	COD															
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
202B-01	PDI-051SC-B-06-08-200506	5/6/20	0845	sediment	SN
-02	PDI-056SC-B-05-07-200510	5/10/20	0830	sediment	SN
-03	PDI-063SC-B-05-07-200429	4/29/20	0850	sediment	SN
-04	PDI-1056SC-B-05-07-200510	5/10/20	0830	sediment	SN

Container Type	Glass	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	None	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
Sasha Narwood Fedex	5/14/20 1330	Fedex Kurt... -HAC	5/15/20 10:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO. 101-000-NJ
 (rev. 5-JAN-12)

Alpha Summary Forms

Organic Summary Forms

Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-01
 Client ID : PDI-051SC-B-06-08-200506
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232009
 Sample Amount : 15.184 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/06/20 08:45
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 00:16
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	239.	8.70	4.37	
DECALINSC1	C1-Decalins	847.	17.4	4.37	
DECALINSC2	C2-Decalins	1650	17.4	4.37	
DECALINSC3	C3-Decalins	1370	17.4	4.37	
DECALINSC4	C4-Decalins	1740	17.4	4.37	
91-20-3	Naphthalene	10900	17.4	5.00	
91-20-3C1	C1-Naphthalenes	5310	17.4	5.00	
91-20-3C2	C2-Naphthalenes	9520	17.4	5.00	
91-20-3C3	C3-Naphthalenes	7080	17.4	5.00	
91-20-3C4	C4-Naphthalenes	3970	17.4	5.00	
91-57-6	2-Methylnaphthalene	2900	17.4	4.48	
90-12-0	1-Methylnaphthalene	5350	17.4	5.48	
95-15-8	Benzothiophene	823.	17.4	5.45	
95-15-8C1	C1-Benzo(b)thiophenes	562.	17.4	5.45	
95-15-8C2	C2-Benzo(b)thiophenes	1170	17.4	5.45	
95-15-8C3	C3-Benzo(b)thiophenes	1250	17.4	5.45	
95-15-8C4	C4-Benzo(b)thiophenes	765.	17.4	5.45	
92-52-4	Biphenyl	1460	17.4	5.37	
581-42-0	2,6-Dimethylnaphthalene	3930	17.4	4.13	
132-64-9	Dibenzofuran	2010	17.4	5.48	
208-96-8	Acenaphthylene	3610	17.4	3.32	
83-32-9	Acenaphthene	44600	17.4	3.06	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-01
 Client ID : PDI-051SC-B-06-08-200506
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232009
 Sample Amount : 15.184 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/06/20 08:45
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 00:16
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	1060	17.4	2.84	
86-73-7	Fluorene	26000	17.4	4.64	E
86-73-7C1	C1-Fluorenes	7480	17.4	4.64	
86-73-7C2	C2-Fluorenes	5580	17.4	4.64	
86-73-7C3	C3-Fluorenes	3530	17.4	4.64	
132-65-0	Dibenzothiophene	30400	17.4	4.80	E
7372-88-5	4-Methyldibenzothiophene(4MDT)	3360	17.4	4.80	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	4070	17.4	4.80	
31317-07-4	1-Methyldibenzothiophene(1MDT)	1100	17.4	4.80	
132-65-0C1	C1-Dibenzothiophenes BS	10400	17.4	4.80	
132-65-0C2	C2-Dibenzothiophenes	6030	17.4	4.80	
132-65-0C3	C3-Dibenzothiophenes	3530	17.4	4.80	
132-65-0C4	C4-Dibenzothiophenes	1170	17.4	4.80	
85-01-8	Phenanthrene	271000	17.4	5.76	E
832-71-3	3-Methylphenanthrene (3MP)	11800	17.4	5.76	
2531-84-2	2-Methylphenanthrene (2MP)	14000	17.4	5.76	
613-12-7	2-Methylanthracene (2MA)	6450	17.4	5.76	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	11400	17.4	5.76	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	51300	17.4	5.76	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	18100	17.4	5.76	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	7340	17.4	5.76	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	2550	17.4	5.76	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-01
 Client ID : PDI-051SC-B-06-08-200506
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232009
 Sample Amount : 15.184 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/06/20 08:45
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 00:16
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	1200	17.4	4.27	
120-12-7	Anthracene	77100	17.4	3.58	E
86-74-8	Carbazole	4210	17.4	5.69	
832-69-9	1-Methylphenanthrene	10300	17.4	4.59	
206-44-0	Fluoranthene	273000	17.4	5.53	E
243-17-4	Benzo(b)fluorene	15600	17.4	5.04	
205-12-9	7H-Benzo(c)fluorene	6490	17.4	5.04	
3442-78-2	2-Methylpyrene	6740	17.4	4.57	
3353-12-6	4-Methylpyrene	6020	17.4	4.57	
2381-21-7	1-Methylpyrene	7910	17.4	4.57	
129-00-0	Pyrene	349000	17.4	4.57	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	62300	17.4	4.57	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	11600	17.4	4.57	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	3940	17.4	4.57	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	2060	17.4	4.57	
61523-34-0	Naphthobenzothiophenes	28400	17.4	4.87	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	7460	17.4	4.87	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	3230	17.4	4.87	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	2420	17.4	4.87	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	673.	17.4	4.87	
56-55-3	Benz(a)anthracene	70300	17.4	3.54	E
218-01-9	Chrysene	78800	17.4	3.52	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-01
 Client ID : PDI-051SC-B-06-08-200506
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232009
 Sample Amount : 15.184 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/06/20 08:45
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 00:16
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	15800	17.4	3.52	
218-01-9C2	C2-Chrysenes BS	5380	17.4	3.52	
218-01-9C3	C3-Chrysenes	2820	17.4	3.52	
218-01-9C4	C4-Chrysenes	1850	17.4	3.52	
205-99-2	Benzo(b)fluoranthene	66100	17.4	4.52	E
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	43000	17.4	3.45	E
203-33-8	Benzo(a)fluoranthene	17200	17.4	3.45	
192-97-2	Benzo(e)pyrene	55600	17.4	3.59	E
50-32-8	Benzo(a)pyrene	102000	17.4	4.96	E
198-55-0	Perylene	29000	17.4	3.36	E
193-39-5	Indeno(1,2,3-cd)pyrene	71400	17.4	4.72	E
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	11400	17.4	4.70	
191-24-2	Benzo(g,h,i)perylene	93000	17.4	4.62	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-01D
 Client ID : PDI-051SC-B-06-08-200506
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232018
 Sample Amount : 15.184 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/06/20 08:45
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 03:38
 Date Extracted : 05/20/20
 Dilution Factor : 20
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	39600	348	61.3	
86-73-7	Fluorene	21600	348	92.8	
132-65-0	Dibenzothiophene	23700	348	95.9	
85-01-8	Phenanthrene	205000	348	115.	
120-12-7	Anthracene	56600	348	71.7	
206-44-0	Fluoranthene	204000	348	110.	
129-00-0	Pyrene	256000	348	91.5	
56-55-3	Benz(a)anthracene	55800	348	70.9	
218-01-9	Chrysene	64900	348	70.3	
205-99-2	Benzo(b)fluoranthene	45800	348	90.5	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	48200	348	69.0	
192-97-2	Benzo(e)pyrene	48100	348	71.8	
50-32-8	Benzo(a)pyrene	86500	348	99.3	
198-55-0	Perylene	24800	348	67.1	
193-39-5	Indeno(1,2,3-cd)pyrene	64400	348	94.4	
191-24-2	Benzo(g,h,i)perylene	86200	348	92.4	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-02
 Client ID : PDI-056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232010
 Sample Amount : 5.035 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 01:40
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	310.	51.5	25.9	
DECALINSC1	C1-Decalins	876.	103	25.9	
DECALINSC2	C2-Decalins	1960	103	25.9	
DECALINSC3	C3-Decalins	1940	103	25.9	
DECALINSC4	C4-Decalins	2310	103	25.9	
91-20-3	Naphthalene	225000	103	29.6	E
91-20-3C1	C1-Naphthalenes	75900	103	29.6	
91-20-3C2	C2-Naphthalenes	67600	103	29.6	
91-20-3C3	C3-Naphthalenes	32200	103	29.6	
91-20-3C4	C4-Naphthalenes	12300	103	29.6	
91-57-6	2-Methylnaphthalene	65900	103	26.6	
90-12-0	1-Methylnaphthalene	51200	103	32.5	
95-15-8	Benzo(b)thiophene	8770	103	32.3	
95-15-8C1	C1-Benzo(b)thiophenes	5950	103	32.3	
95-15-8C2	C2-Benzo(b)thiophenes	9230	103	32.3	
95-15-8C3	C3-Benzo(b)thiophenes	6800	103	32.3	
95-15-8C4	C4-Benzo(b)thiophenes	3060	103	32.3	
92-52-4	Biphenyl	6970	103	31.8	
581-42-0	2,6-Dimethylnaphthalene	25200	103	24.5	
132-64-9	Dibenzofuran	16200	103	32.5	
208-96-8	Acenaphthylene	38900	103	19.7	
83-32-9	Acenaphthene	452000	103	18.2	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-02
 Client ID : PDI-056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232010
 Sample Amount : 5.035 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 01:40
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	4070	103	16.8	
86-73-7	Fluorene	188000	103	27.5	E
86-73-7C1	C1-Fluorenes	40000	103	27.5	
86-73-7C2	C2-Fluorenes	22600	103	27.5	
86-73-7C3	C3-Fluorenes	12100	103	27.5	
132-65-0	Dibenzothiophene	206000	103	28.4	E
7372-88-5	4-Methyldibenzothiophene(4MDT)	16800	103	28.4	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	21000	103	28.4	
31317-07-4	1-Methyldibenzothiophene(1MDT)	5660	103	28.4	
132-65-0C1	C1-Dibenzothiophenes BS	53900	103	28.4	
132-65-0C2	C2-Dibenzothiophenes	26200	103	28.4	
132-65-0C3	C3-Dibenzothiophenes	13600	103	28.4	
132-65-0C4	C4-Dibenzothiophenes	3780	103	28.4	
85-01-8	Phenanthrene	1810000	103	34.2	E
832-71-3	3-Methylphenanthrene (3MP)	61000	103	34.2	
2531-84-2	2-Methylphenanthrene (2MP)	71800	103	34.2	
613-12-7	2-Methylanthracene (2MA)	30300	103	34.2	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	54700	103	34.2	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	257000	103	34.2	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	73800	103	34.2	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	24700	103	34.2	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	7370	103	34.2	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab ID : L2020213-02
Client ID : PDI-056SC-B-05-07-200510
Sample Location : SEATTLE, WA
Sample Matrix : Sediment
Analytical Method : 1,8270D-SIM(M)
Lab File ID : A905232010
Sample Amount : 5.035 g
Extraction Method : ALPHA OP-013
Extract Volume : 10000 uL
GPC Cleanup : N

Lab Number : L2020213
Project Number : 000029-02.59
Date Collected : 05/10/20 08:30
Date Received : 05/15/20
Date Analyzed : 05/24/20 01:40
Date Extracted : 05/20/20
Dilution Factor : 1
Analyst : ML
Instrument ID : PAH9
GC Column : ZB-5
%Solids : 58
Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	2030	103	25.3	
120-12-7	Anthracene	454000	103	21.2	E
86-74-8	Carbazole	31800	103	33.7	
832-69-9	1-Methylphenanthrene	51900	103	27.2	
206-44-0	Fluoranthene	1490000	103	32.8	E
243-17-4	Benzo(b)fluorene	78100	103	29.9	
205-12-9	7H-Benzo(c)fluorene	29900	103	29.9	
3442-78-2	2-Methylpyrene	35200	103	27.1	
3353-12-6	4-Methylpyrene	30400	103	27.1	
2381-21-7	1-Methylpyrene	40900	103	27.1	
129-00-0	Pyrene	1890000	103	27.1	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	322000	103	27.1	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	57500	103	27.1	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	17900	103	27.1	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	8150	103	27.1	
61523-34-0	Naphthobenzothiophenes	150000	103	28.8	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	37700	103	28.8	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	14600	103	28.8	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	11300	103	28.8	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	3100	103	28.8	
56-55-3	Benz(a)anthracene	350000	103	21.0	E
218-01-9	Chrysene	386000	103	20.8	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-02
 Client ID : PDI-056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232010
 Sample Amount : 5.035 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 01:40
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	77400	103	20.8	
218-01-9C2	C2-Chrysenes BS	24600	103	20.8	
218-01-9C3	C3-Chrysenes	12600	103	20.8	
218-01-9C4	C4-Chrysenes	8840	103	20.8	
205-99-2	Benzo(b)fluoranthene	337000	103	26.8	E
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	218000	103	20.4	E
203-33-8	Benzo(a)fluoranthene	87100	103	20.4	
192-97-2	Benzo(e)pyrene	282000	103	21.3	E
50-32-8	Benzo(a)pyrene	517000	103	29.4	E
198-55-0	Perylene	151000	103	19.9	E
193-39-5	Indeno(1,2,3-cd)pyrene	368000	103	28.0	E
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	57900	103	27.8	
191-24-2	Benzo(g,h,i)perylene	472000	103	27.4	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-02D
 Client ID : PDI-056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232019
 Sample Amount : 5.035 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 05:03
 Date Extracted : 05/20/20
 Dilution Factor : 20
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
91-20-3	Naphthalene	174000	2060	592.	
83-32-9	Acenaphthene	376000	2060	363.	
86-73-7	Fluorene	148000	2060	550.	
132-65-0	Dibenzothiophene	163000	2060	568.	
85-01-8	Phenanthrene	1430000	2060	683.	
120-12-7	Anthracene	335000	2060	425.	
206-44-0	Fluoranthene	1180000	2060	655.	
129-00-0	Pyrene	1470000	2060	542.	
56-55-3	Benzo(a)anthracene	304000	2060	420.	
218-01-9	Chrysene	348000	2060	417.	
205-99-2	Benzo(b)fluoranthene	251000	2060	536.	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	259000	2060	409.	
192-97-2	Benzo(e)pyrene	258000	2060	425.	
50-32-8	Benzo(a)pyrene	463000	2060	588.	
198-55-0	Perylene	130000	2060	398.	
193-39-5	Indeno(1,2,3-cd)pyrene	347000	2060	560.	
191-24-2	Benzo(g,h,i)perylene	462000	2060	548.	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-03D
 Client ID : PDI-063SC-B-05-07-200429
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232024
 Sample Amount : 10.492 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 04/29/20 08:50
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 12:12
 Date Extracted : 05/20/20
 Dilution Factor : 4
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 64
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	394.	112	56.5	J
DECALINSC1	C1-Decalins	1320	225	56.5	
DECALINSC2	C2-Decalins	3630	225	56.5	
DECALINSC3	C3-Decalins	3800	225	56.5	
DECALINSC4	C4-Decalins	4190	225	56.5	
91-20-3	Naphthalene	1620000	225	64.7	E
91-20-3C1	C1-Naphthalenes	435000	225	64.7	E
91-20-3C2	C2-Naphthalenes	217000	225	64.7	
91-20-3C3	C3-Naphthalenes	103000	225	64.7	
91-20-3C4	C4-Naphthalenes	38400	225	64.7	
91-57-6	2-Methylnaphthalene	436000	225	58.0	E
90-12-0	1-Methylnaphthalene	231000	225	70.9	
95-15-8	Benzo(b)thiophene	88000	225	70.5	
95-15-8C1	C1-Benzo(b)thiophenes	32400	225	70.5	
95-15-8C2	C2-Benzo(b)thiophenes	30000	225	70.5	
95-15-8C3	C3-Benzo(b)thiophenes	19700	225	70.5	
95-15-8C4	C4-Benzo(b)thiophenes	10800	225	70.5	
92-52-4	Biphenyl	118000	225	69.6	
581-42-0	2,6-Dimethylnaphthalene	101000	225	53.5	
132-64-9	Dibenzofuran	34900	225	70.9	
208-96-8	Acenaphthylene	23700	225	43.0	
83-32-9	Acenaphthene	606000	225	39.7	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-03D
 Client ID : PDI-063SC-B-05-07-200429
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232024
 Sample Amount : 10.492 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 04/29/20 08:50
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 12:12
 Date Extracted : 05/20/20
 Dilution Factor : 4
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 64
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	13700	225	36.8	
86-73-7	Fluorene	253000	225	60.0	
86-73-7C1	C1-Fluorenes	51900	225	60.0	
86-73-7C2	C2-Fluorenes	36900	225	60.0	
86-73-7C3	C3-Fluorenes	22600	225	60.0	
132-65-0	Dibenzothiophene	205000	225	62.1	
7372-88-5	4-Methyldibenzothiophene(4MDT)	18200	225	62.1	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	21000	225	62.1	
31317-07-4	1-Methyldibenzothiophene(1MDT)	5850	225	62.1	
132-65-0C1	C1-Dibenzothiophenes BS	55300	225	62.1	
132-65-0C2	C2-Dibenzothiophenes	30700	225	62.1	
132-65-0C3	C3-Dibenzothiophenes	17100	225	62.1	
132-65-0C4	C4-Dibenzothiophenes	5920	225	62.1	
85-01-8	Phenanthrene	1760000	225	74.6	E
832-71-3	3-Methylphenanthrene (3MP)	74000	225	74.6	
2531-84-2	2-Methylphenanthrene (2MP)	90500	225	74.6	
613-12-7	2-Methylanthracene (2MA)	31700	225	74.6	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	53500	225	74.6	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	297000	225	74.6	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	101000	225	74.6	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	36700	225	74.6	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	10100	225	74.6	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-03D
 Client ID : PDI-063SC-B-05-07-200429
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232024
 Sample Amount : 10.492 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 04/29/20 08:50
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 12:12
 Date Extracted : 05/20/20
 Dilution Factor : 4
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 64
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	ND	225	55.2	U
120-12-7	Anthracene	411000	225	46.4	E
86-74-8	Carbazole	55600	225	73.6	
832-69-9	1-Methylphenanthrene	59600	225	59.4	
206-44-0	Fluoranthene	1060000	225	71.5	E
243-17-4	Benzo(b)fluorene	60800	225	65.2	
205-12-9	7H-Benzo(c)fluorene	22800	225	65.2	
3442-78-2	2-Methylpyrene	31400	225	59.2	
3353-12-6	4-Methylpyrene	26100	225	59.2	
2381-21-7	1-Methylpyrene	32200	225	59.2	
129-00-0	Pyrene	1300000	225	59.2	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	253000	225	59.2	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	51200	225	59.2	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	18800	225	59.2	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	9320	225	59.2	
61523-34-0	Naphthobenzothiophenes	112000	225	63.0	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	27500	225	63.0	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	11800	225	63.0	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	9460	225	63.0	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	3200	225	63.0	
56-55-3	Benz(a)anthracene	262000	225	45.9	
218-01-9	Chrysene	295000	225	45.5	



Results Summary
Form 1
PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-03D
 Client ID : PDI-063SC-B-05-07-200429
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232024
 Sample Amount : 10.492 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 04/29/20 08:50
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 12:12
 Date Extracted : 05/20/20
 Dilution Factor : 4
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 64
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	65200	225	45.5	
218-01-9C2	C2-Chrysenes BS	23400	225	45.5	
218-01-9C3	C3-Chrysenes	11600	225	45.5	
218-01-9C4	C4-Chrysenes	7400	225	45.5	
205-99-2	Benzo(b)fluoranthene	207000	225	58.6	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	186000	225	44.7	
203-33-8	Benzo(a)fluoranthene	58100	225	44.7	
192-97-2	Benzo(e)pyrene	196000	225	46.4	
50-32-8	Benzo(a)pyrene	357000	225	64.3	E
198-55-0	Perylene	98800	225	43.4	
193-39-5	Indeno(1,2,3-cd)pyrene	236000	225	61.1	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	43700	225	60.8	
191-24-2	Benzo(g,h,i)perylene	294000	225	59.8	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab ID : L2020213-03D2
Client ID : PDI-063SC-B-05-07-200429
Sample Location : SEATTLE, WA
Sample Matrix : Sediment
Analytical Method : 1,8270D-SIM(M)
Lab File ID : A905232034
Sample Amount : 10.492 g
Extraction Method : ALPHA OP-013
Extract Volume : 10000 uL
GPC Cleanup : N

Lab Number : L2020213
Project Number : 000029-02.59
Date Collected : 04/29/20 08:50
Date Received : 05/15/20
Date Analyzed : 05/28/20 08:10
Date Extracted : 05/20/20
Dilution Factor : 40
Analyst : ML
Instrument ID : PAH9
GC Column : ZB-5
%Solids : 64
Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
91-20-3	Naphthalene	1610000	2250	647.	
91-20-3C1	C1-Naphthalenes	407000	2250	647.	
91-57-6	2-Methylnaphthalene	403000	2250	580.	
83-32-9	Acenaphthene	557000	2250	397.	
85-01-8	Phenanthrene	1530000	2250	746.	
120-12-7	Anthracene	344000	2250	464.	
206-44-0	Fluoranthene	919000	2250	715.	
129-00-0	Pyrene	1110000	2250	592.	
50-32-8	Benzo(a)pyrene	274000	2250	643.	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-04
 Client ID : PDI-1056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232014
 Sample Amount : 5.063 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 07:19
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	179.	25.7	12.9	
DECALINSC1	C1-Decalins	635.	51.4	12.9	
DECALINSC2	C2-Decalins	1360	51.4	12.9	
DECALINSC3	C3-Decalins	1130	51.4	12.9	
DECALINSC4	C4-Decalins	1500	51.4	12.9	
91-20-3	Naphthalene	113000	51.4	14.8	E
91-20-3C1	C1-Naphthalenes	39500	51.4	14.8	
91-20-3C2	C2-Naphthalenes	32300	51.4	14.8	
91-20-3C3	C3-Naphthalenes	15600	51.4	14.8	
91-20-3C4	C4-Naphthalenes	6220	51.4	14.8	
91-57-6	2-Methylnaphthalene	34500	51.4	13.3	
90-12-0	1-Methylnaphthalene	26300	51.4	16.2	
95-15-8	Benzo(b)thiophene	5300	51.4	16.1	
95-15-8C1	C1-Benzo(b)thiophenes	3220	51.4	16.1	
95-15-8C2	C2-Benzo(b)thiophenes	4440	51.4	16.1	
95-15-8C3	C3-Benzo(b)thiophenes	3320	51.4	16.1	
95-15-8C4	C4-Benzo(b)thiophenes	1510	51.4	16.1	
92-52-4	Biphenyl	5680	51.4	15.9	
581-42-0	2,6-Dimethylnaphthalene	12400	51.4	12.2	
132-64-9	Dibenzofuran	8670	51.4	16.2	
208-96-8	Acenaphthylene	10100	51.4	9.81	
83-32-9	Acenaphthene	216000	51.4	9.07	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab ID : L2020213-04
Client ID : PDI-1056SC-B-05-07-200510
Sample Location : SEATTLE, WA
Sample Matrix : Sediment
Analytical Method : 1,8270D-SIM(M)
Lab File ID : A905232014
Sample Amount : 5.063 g
Extraction Method : ALPHA OP-013
Extract Volume : 10000 uL
GPC Cleanup : N

Lab Number : L2020213
Project Number : 000029-02.59
Date Collected : 05/10/20 08:30
Date Received : 05/15/20
Date Analyzed : 05/24/20 07:19
Date Extracted : 05/20/20
Dilution Factor : 1
Analyst : ML
Instrument ID : PAH9
GC Column : ZB-5
%Solids : 58
Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	2290	51.4	8.41	
86-73-7	Fluorene	93400	51.4	13.7	E
86-73-7C1	C1-Fluorenes	18900	51.4	13.7	
86-73-7C2	C2-Fluorenes	10300	51.4	13.7	
86-73-7C3	C3-Fluorenes	5720	51.4	13.7	
132-65-0	Dibenzothiophene	106000	51.4	14.2	E
7372-88-5	4-Methyldibenzothiophene(4MDT)	8000	51.4	14.2	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	9970	51.4	14.2	
31317-07-4	1-Methyldibenzothiophene(1MDT)	2650	51.4	14.2	
132-65-0C1	C1-Dibenzothiophenes BS	25400	51.4	14.2	
132-65-0C2	C2-Dibenzothiophenes	11600	51.4	14.2	
132-65-0C3	C3-Dibenzothiophenes	6080	51.4	14.2	
132-65-0C4	C4-Dibenzothiophenes	1810	51.4	14.2	
85-01-8	Phenanthrene	899000	51.4	17.0	E
832-71-3	3-Methylphenanthrene (3MP)	28100	51.4	17.0	
2531-84-2	2-Methylphenanthrene (2MP)	32700	51.4	17.0	
613-12-7	2-Methylanthracene (2MA)	13900	51.4	17.0	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	25300	51.4	17.0	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	117000	51.4	17.0	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	31000	51.4	17.0	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	10300	51.4	17.0	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	3460	51.4	17.0	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-04
 Client ID : PDI-1056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232014
 Sample Amount : 5.063 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 07:19
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	1410	51.4	12.6	
120-12-7	Anthracene	227000	51.4	10.6	E
86-74-8	Carbazole	16100	51.4	16.8	
832-69-9	1-Methylphenanthrene	22900	51.4	13.6	
206-44-0	Fluoranthene	737000	51.4	16.3	E
243-17-4	Benzo(b)fluorene	34600	51.4	14.9	
205-12-9	7H-Benzo(c)fluorene	13000	51.4	14.9	
3442-78-2	2-Methylpyrene	15600	51.4	13.5	
3353-12-6	4-Methylpyrene	13800	51.4	13.5	
2381-21-7	1-Methylpyrene	18400	51.4	13.5	
129-00-0	Pyrene	961000	51.4	13.5	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	141000	51.4	13.5	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	22500	51.4	13.5	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	6630	51.4	13.5	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	3490	51.4	13.5	
61523-34-0	Naphthobenzothiophenes	70200	51.4	14.4	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	15500	51.4	14.4	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	5620	51.4	14.4	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	5020	51.4	14.4	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	1220	51.4	14.4	
56-55-3	Benz(a)anthracene	177000	51.4	10.5	E
218-01-9	Chrysene	199000	51.4	10.4	E



Results Summary
Form 1
PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-04
 Client ID : PDI-1056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232014
 Sample Amount : 5.063 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/24/20 07:19
 Date Extracted : 05/20/20
 Dilution Factor : 1
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	34200	51.4	10.4	
218-01-9C2	C2-Chrysenes BS	10300	51.4	10.4	
218-01-9C3	C3-Chrysenes	5310	51.4	10.4	
218-01-9C4	C4-Chrysenes	3970	51.4	10.4	
205-99-2	Benzo(b)fluoranthene	175000	51.4	13.4	E
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	113000	51.4	10.2	E
203-33-8	Benzo(a)fluoranthene	43200	51.4	10.2	
192-97-2	Benzo(e)pyrene	151000	51.4	10.6	E
50-32-8	Benzo(a)pyrene	276000	51.4	14.7	E
198-55-0	Perylene	80000	51.4	9.93	E
193-39-5	Indeno(1,2,3-cd)pyrene	194000	51.4	14.0	E
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	29600	51.4	13.9	
191-24-2	Benzo(g,h,i)perylene	257000	51.4	13.7	E



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-04D
 Client ID : PDI-1056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : A905232023
 Sample Amount : 5.063 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 05/27/20 10:45
 Date Extracted : 05/20/20
 Dilution Factor : 20
 Analyst : ML
 Instrument ID : PAH9
 GC Column : ZB-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
91-20-3	Naphthalene	93800	1030	296.	
83-32-9	Acenaphthene	200000	1030	181.	
86-73-7	Fluorene	83000	1030	274.	
132-65-0	Dibenzothiophene	94500	1030	284.	
85-01-8	Phenanthrene	825000	1030	341.	
120-12-7	Anthracene	195000	1030	212.	
206-44-0	Fluoranthene	715000	1030	327.	
129-00-0	Pyrene	917000	1030	270.	
56-55-3	Benzo(a)anthracene	157000	1030	210.	
218-01-9	Chrysene	188000	1030	208.	
205-99-2	Benzo(b)fluoranthene	139000	1030	268.	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	138000	1030	204.	
192-97-2	Benzo(e)pyrene	146000	1030	212.	
50-32-8	Benzo(a)pyrene	261000	1030	294.	
198-55-0	Perylene	74800	1030	198.	
193-39-5	Indeno(1,2,3-cd)pyrene	193000	1030	279.	
191-24-2	Benzo(g,h,i)perylene	273000	1030	273.	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1372713-1	Date Collected : NA
Client ID : WG1372713-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/23/20 20:01
Sample Matrix : SOIL	Date Extracted : 05/20/20
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : A905232006	Analyst : ML
Sample Amount : 30 g	Instrument ID : PAH9
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	0.500	0.251	U
DECALINSC1	C1-Decalins	ND	1.00	0.251	U
DECALINSC2	C2-Decalins	ND	1.00	0.251	U
DECALINSC3	C3-Decalins	ND	1.00	0.251	U
DECALINSC4	C4-Decalins	ND	1.00	0.251	U
91-20-3	Naphthalene	0.937	1.00	0.287	J
91-20-3C1	C1-Naphthalenes	0.343	1.00	0.287	J
91-20-3C2	C2-Naphthalenes	0.427	1.00	0.287	J
91-20-3C3	C3-Naphthalenes	0.287	1.00	0.287	J
91-20-3C4	C4-Naphthalenes	ND	1.00	0.287	U
91-57-6	2-Methylnaphthalene	0.318	1.00	0.258	J
90-12-0	1-Methylnaphthalene	ND	1.00	0.315	U
95-15-8	Benzothiophene	ND	1.00	0.313	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	1.00	0.313	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	1.00	0.313	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	1.00	0.313	U
95-15-8C4	C4-Benzo(b)thiophenes	ND	1.00	0.313	U
92-52-4	Biphenyl	ND	1.00	0.309	U
581-42-0	2,6-Dimethylnaphthalene	ND	1.00	0.238	U
132-64-9	Dibenzofuran	ND	1.00	0.315	U
208-96-8	Acenaphthylene	ND	1.00	0.191	U
83-32-9	Acenaphthene	0.394	1.00	0.176	J



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1372713-1	Date Collected : NA
Client ID : WG1372713-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/23/20 20:01
Sample Matrix : SOIL	Date Extracted : 05/20/20
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : A905232006	Analyst : ML
Sample Amount : 30 g	Instrument ID : PAH9
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	ND	1.00	0.164	U
86-73-7	Fluorene	ND	1.00	0.267	U
86-73-7C1	C1-Fluorenes	ND	1.00	0.267	U
86-73-7C2	C2-Fluorenes	ND	1.00	0.267	U
86-73-7C3	C3-Fluorenes	ND	1.00	0.267	U
132-65-0	Dibenzothiophene	ND	1.00	0.276	U
7372-88-5	4-Methyldibenzothiophene(4MDT)	ND	1.00	0.276	U
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	ND	1.00	0.276	U
31317-07-4	1-Methyldibenzothiophene(1MDT)	ND	1.00	0.276	U
132-65-0C1	C1-Dibenzothiophenes BS	ND	1.00	0.276	U
132-65-0C2	C2-Dibenzothiophenes	ND	1.00	0.276	U
132-65-0C3	C3-Dibenzothiophenes	ND	1.00	0.276	U
132-65-0C4	C4-Dibenzothiophenes	ND	1.00	0.276	U
85-01-8	Phenanthrene	0.816	1.00	0.331	J
832-71-3	3-Methylphenanthrene (3MP)	ND	1.00	0.331	U
2531-84-2	2-Methylphenanthrene (2MP)	ND	1.00	0.331	U
613-12-7	2-Methylanthracene (2MA)	ND	1.00	0.331	U
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	ND	1.00	0.331	U
PHENANTHC1	C1-Phenanthrenes/Anthracenes	ND	1.00	0.331	U
PHENANTHC2	C2-Phenanthrenes/Anthr BS	ND	1.00	0.331	U
PHENANTHC3	C3-Phenanthrenes/Anthracenes	ND	1.00	0.331	U
PHENANTHC4	C4-Phenanthrenes/Anthracenes	ND	1.00	0.331	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1372713-1	Date Collected : NA
Client ID : WG1372713-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/23/20 20:01
Sample Matrix : SOIL	Date Extracted : 05/20/20
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : A905232006	Analyst : ML
Sample Amount : 30 g	Instrument ID : PAH9
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	ND	1.00	0.245	U
120-12-7	Anthracene	ND	1.00	0.206	U
86-74-8	Carbazole	ND	1.00	0.327	U
832-69-9	1-Methylphenanthrene	ND	1.00	0.264	U
206-44-0	Fluoranthene	ND	1.00	0.318	U
243-17-4	Benzo(b)fluorene	ND	1.00	0.290	U
205-12-9	7H-Benzo(c)fluorene	ND	1.00	0.290	U
3442-78-2	2-Methylpyrene	ND	1.00	0.263	U
3353-12-6	4-Methylpyrene	ND	1.00	0.263	U
2381-21-7	1-Methylpyrene	ND	1.00	0.263	U
129-00-0	Pyrene	0.292	1.00	0.263	J
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
61523-34-0	Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	1.00	0.280	U
56-55-3	Benz(a)anthracene	ND	1.00	0.204	U
218-01-9	Chrysene	ND	1.00	0.202	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1372713-1	Date Collected : NA
Client ID : WG1372713-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/23/20 20:01
Sample Matrix : SOIL	Date Extracted : 05/20/20
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : A905232006	Analyst : ML
Sample Amount : 30 g	Instrument ID : PAH9
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	ND	1.00	0.202	U
218-01-9C2	C2-Chrysenes BS	ND	1.00	0.202	U
218-01-9C3	C3-Chrysenes	ND	1.00	0.202	U
218-01-9C4	C4-Chrysenes	ND	1.00	0.202	U
205-99-2	Benzo(b)fluoranthene	ND	1.00	0.260	U
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	ND	1.00	0.198	U
203-33-8	Benzo(a)fluoranthene	ND	1.00	0.198	U
192-97-2	Benzo(e)pyrene	ND	1.00	0.206	U
50-32-8	Benzo(a)pyrene	ND	1.00	0.285	U
198-55-0	Perylene	ND	1.00	0.193	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.00	0.271	U
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	ND	1.00	0.270	U
191-24-2	Benzo(g,h,i)perylene	ND	1.00	0.266	U



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Anchor QEA, LLC
Project Name: GASCO PDI

Lab Number: L2020213
Project Number: 000029-02.59
Matrix: Sediment

CLIENT ID (LAB SAMPLE NO.)	S1 (ND8)	S2 (PHE)	S3 (BAP)	S4 ()	S5 ()	S6 ()	TOT OUT
PDI-051SC-B-06-08-200506 (L2020213-01)	82	116	105	--	--	--	0
PDI-051SC-B-06-08-200506 (L2020213-01D)	68	89	98	--	--	--	0
PDI-056SC-B-05-07-200510 (L2020213-02)	86	112	104	--	--	--	0
PDI-056SC-B-05-07-200510 (L2020213-02D)	66	82	104	--	--	--	0
PDI-063SC-B-05-07-200429 (L2020213-03D)	79	113	106	--	--	--	0
PDI-063SC-B-05-07-200429 (L2020213-03D2)	82	94	76	--	--	--	0
PDI-1056SC-B-05-07-200510 (L2020213-04)	89	110	105	--	--	--	0
PDI-1056SC-B-05-07-200510 (L2020213-04D)	71	91	97	--	--	--	0
WG1372713-1BLANK	73	95	99	--	--	--	0
WG1372713-2LCS	83	101	100	--	--	--	0
WG1372713-3LCSD	78	101	97	--	--	--	0
PDI-063SC-B-05-07-200429MS	75	104	103	--	--	--	0
PDI-063SC-B-05-07-200429MS	81	100	84	--	--	--	0
PDI-063SC-B-05-07-200429MSD	76	107	99	--	--	--	0
PDI-063SC-B-05-07-200429MSD	82	105	87	--	--	--	0

QC LIMITS

(50-130) ND8 = NAPHTHALENE-D8
(50-130) PHE = PHENANTHRENE-D10
(50-130) BAP = BENZO(A)PYRENE-D12

* Values outside of QC limits

FORM II A2-ALKPAH



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Anchor QEA, LLC **Lab Number** : L2020213
Project Name : GASCO PDI **Project Number** : 000029-02.59
Matrix : SOIL
LCS Sample ID : WG1372713-2 **Analysis Date** : 05/23/20 21:26 **File ID** : A905232007
LCSD Sample ID : WG1372713-3 **Analysis Date** : 05/23/20 22:51 **File ID** : A905232008

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/kg)	Found (ug/kg)	%R	True (ug/kg)	Found (ug/kg)	%R			
Naphthalene	33.3	27.7	83	33.3	26.4	79	5	50-130	30
2-Methylnaphthalene	33.3	27.4	82	33.3	26.4	79	4	50-130	30
Acenaphthylene	33.3	27.0	81	33.3	26.3	79	3	50-130	30
Acenaphthene	33.3	28.5	86	33.3	28.4	85	1	50-130	30
Fluorene	33.3	29.1	87	33.3	29.2	88	1	50-130	30
Phenanthrene	33.3	31.2	94	33.3	33.4	100	6	50-130	30
Anthracene	33.3	33.4	100	33.3	33.6	101	1	50-130	30
Fluoranthene	33.3	30.6	92	33.3	31.5	94	2	50-130	30
Pyrene	33.3	29.4	88	33.3	29.8	90	2	50-130	30
Benz(a)anthracene	33.3	29.8	89	33.3	29.8	89	0	50-130	30
Chrysene	33.3	29.7	89	33.3	30.0	90	1	50-130	30
Benzo(b)fluoranthene	33.3	30.4	91	33.3	30.6	92	1	50-130	30
Benzo(j)+(k)fluoranthene	33.3	31.2	94	33.3	31.4	94	0	50-130	30
Benzo(a)pyrene	33.3	27.2	82	33.3	26.6	80	2	50-130	30
Indeno(1,2,3-cd)pyrene	33.3	30.8	92	33.3	30.6	92	0	50-130	30
Dibenz(a,h)+(a,c)anthracene	33.3	34.6	104	33.3	34.3	103	1	50-130	30
Benzo(g,h,i)perylene	33.3	29.4	88	33.3	29.4	88	0	50-130	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Client Sample ID : PDI-063SC-B-05-07-200429	Matrix : SOIL
Lab Sample ID : L2020213-03	Analysis Date : 05/28/20 08:10
Matrix Spike : WG1372713-4	MS Analysis Date : 05/28/20 09:35
Matrix Spike Dup : WG1372713-5	MSD Analysis Date : 05/28/20 11:00

Parameter	Sample Conc. (ug/kg)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/kg)	Spike Conc. (ug/kg)	%R	Spike Added (ug/kg)	Spike Conc. (ug/kg)	%R			
Naphthalene	1610000	754	1470000	0 Q	761	1430000	0 Q	3	50-150	30
2-Methylnaphthalene	403000	754	377000	0 Q	761	373000	0 Q	1	50-150	30
Acenaphthene	557000	754	524000	0 Q	761	522000	0 Q	0	50-150	30
Phenanthrene	1530000	754	1440000	0 Q	761	1420000	0 Q	1	50-150	30
Anthracene	344000	754	330000	0 Q	761	324000	0 Q	2	50-150	30
Fluoranthene	919000	754	865000	0 Q	761	853000	0 Q	1	50-150	30
Pyrene	1110000	754	1050000	0 Q	761	1030000	0 Q	2	50-150	30
Benzo(a)pyrene	274000	754	260000	0 Q	761	259000	0 Q	0	50-150	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Client Sample ID : PDI-063SC-B-05-07-200429	Matrix : SOIL
Lab Sample ID : L2020213-03	Analysis Date : 05/27/20 12:12
Matrix Spike : WG1372713-4	MS Analysis Date : 05/27/20 13:38
Matrix Spike Dup : WG1372713-5	MSD Analysis Date : 05/27/20 15:04

Parameter	Sample Conc. (ug/kg)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/kg)	Spike Conc. (ug/kg)	%R	Spike Added (ug/kg)	Spike Conc. (ug/kg)	%R			
Naphthalene	1620000E	754	1360000E	0 Q	761	1370000E	0 Q	1	50-150	30
2-Methylnaphthalene	436000E	754	374000E	0 Q	761	390000E	0 Q	4	50-150	30
Acenaphthylene	23700	754	20900	0 Q	761	21400	0 Q	2	50-150	30
Acenaphthene	606000E	754	525000E	0 Q	761	545000E	0 Q	4	50-150	30
Fluorene	253000	754	218000	0 Q	761	229000	0 Q	5	50-150	30
Phenanthrene	1760000E	754	1510000E	0 Q	761	1570000E	0 Q	4	50-150	30
Anthracene	411000E	754	360000E	0 Q	761	373000E	0 Q	4	50-150	30
Fluoranthene	1060000E	754	919000E	0 Q	761	955000E	0 Q	4	50-150	30
Pyrene	1300000E	754	1120000E	0 Q	761	1160000E	0 Q	4	50-150	30
Benz(a)anthracene	262000	754	233000	0 Q	761	236000	0 Q	1	50-150	30
Chrysene	295000	754	267000	0 Q	761	269000	0 Q	1	50-150	30
Benzo(b)fluoranthene	207000	754	173000	0 Q	761	190000	0 Q	9	50-150	30
Benzo(j)+(k)fluoranthene	186000	754	181000	0 Q	761	167000	0 Q	8	50-150	30
Benzo(a)pyrene	357000E	754	318000E	0 Q	761	323000E	0 Q	2	50-150	30
Indeno(1,2,3-cd)pyrene	236000	754	210000	0 Q	761	213000	0 Q	1	50-150	30
Dibenz(a,h)+(a,c)anthracene	43700	754	40100	0 Q	761	40600	0 Q	1	50-150	30
Benzo(g,h,i)perylene	294000	754	260000	0 Q	761	262000	0 Q	1	50-150	30



Method Blank Summary

Form 4

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab Sample ID : WG1372713-1
Instrument ID : PAH9
Matrix : SOIL
Level : LOW

Lab Number : L2020213
Project Number : 000029-02.59
Lab File ID : A905232006
Extraction Date : 05/20/20
Analysis Date : 05/23/20 20:01

Client Sample No.	Lab Sample ID	Analysis Date
WG1372713-2LCS	WG1372713-2	05/23/20 21:26
WG1372713-3LCSD	WG1372713-3	05/23/20 22:51
PDI-051SC-B-06-08-200506	L2020213-01	05/24/20 00:16
PDI-056SC-B-05-07-200510	L2020213-02	05/24/20 01:40
PDI-1056SC-B-05-07-200510	L2020213-04	05/24/20 07:19
PDI-051SC-B-06-08-200506	L2020213-01D	05/27/20 03:38
PDI-056SC-B-05-07-200510	L2020213-02D	05/27/20 05:03
PDI-1056SC-B-05-07-200510	L2020213-04D	05/27/20 10:45
PDI-063SC-B-05-07-200429	L2020213-03D	05/27/20 12:12
PDI-063SC-B-05-07-200429MS	WG1372713-4D	05/27/20 13:38
PDI-063SC-B-05-07-200429MSD	WG1372713-5D	05/27/20 15:04
PDI-063SC-B-05-07-200429	L2020213-03D2	05/28/20 08:10
PDI-063SC-B-05-07-200429MS	WG1372713-4D2	05/28/20 09:35
PDI-063SC-B-05-07-200429MSD	WG1372713-5D2	05/28/20 11:00



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : PAH9	Ical Ref : ICAL16710
Calibration dates : 04/19/20 20:08 04/20/20 07:32	

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
1) i Acenaphthene-d10	-----ISTD-----								
2) A1 trans-Decalin	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
3) t cis-Decalin	0.324	0.318	0.310	0.299	0.301	0.303	0.304	0.309	3.02
4) A2 C1-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
5) A2 C2-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
6) A2 C3-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
7) A2 C4-Decalins	0.494	0.401	0.389	0.383	0.379	0.388	0.391	0.404	10.08
8) s Naphthalene-d8	1.849	1.815	1.814	1.824	1.871	1.823	1.796	1.827	1.36
9) A1 Naphthalene	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
10) A2 C1-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
11) A2 C2-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
12) A2 C3-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
13) A2 C4-Naphthalenes	2.191	2.150	2.126	2.140	2.166	2.084	2.034	2.127	2.50
14) t 2-Methylnaphthalene	1.410	1.358	1.371	1.382	1.469	1.445	1.437	1.410	2.97
15) t 1-Methylnaphthalene	1.327	1.307	1.321	1.326	1.391	1.360	1.351	1.340	2.13
16) A1 Benzothiophene	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
17) A2 C1-Benzo(b)thi	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
18) A2 C2-Benzo(b)thi	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
19) A2 C3-Benzo(b)thi	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
20) A2 C4-Benzo(b)thi	1.997	1.966	1.957	1.977	2.001	1.929	1.905	1.962	1.79
21) t Biphenyl	1.707	1.699	1.702	1.708	1.782	1.751	1.747	1.728	1.86
22) t 2,6-Dimethylnaphthalene	1.202	1.168	1.188	1.216	1.306	1.289	1.294	1.238	4.62
23) t Dibenzofuran	1.942	1.956	1.975	1.977	2.073	2.053	2.074	2.007	2.86
24) t Acenaphthylene	1.893	1.980	2.004	2.070	2.270	2.230	2.298	2.106	7.56
25) t Acenaphthene	1.250	1.257	1.266	1.291	1.369	1.346	1.358	1.305	3.92
26) t 2,3,5-Trimethylnaphthalen	1.050	1.087	1.094	1.116	1.231	1.230	1.253	1.152	7.25
27) A1 Fluorene	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
28) A2 C1-Fluorenes	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
29) A2 C2-Fluorenes	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
30) A2 C3-Fluorenes	1.390	1.457	1.470	1.513	1.656	1.656	1.683	1.546	7.56
31) A1 Dibenzothiophene	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
32) A2 4-Methyldibenz	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
33) A2 2/3-Methyldibe	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
34) A2 1-Methyldibenz	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
35) A2 OTP	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
36) A2 C1-Dibenzothio	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : PAH9	Ical Ref : ICAL16710
Calibration dates : 04/19/20 20:08 04/20/20 07:32	

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
37) A2 C2-Dibenzothio	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
38) A2 C3-Dibenzothio	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
39) A2 C4-Dibenzothio	2.148	2.144	2.185	2.224	2.429	2.424	2.446	2.286	6.14
40) s Phenanthrene-d10	1.588	1.604	1.624	1.668	1.824	1.818	1.852	1.711	6.75
41) A1 Phenanthrene	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
42) A2 3-Methylphenan	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
43) A2 2-Methylphenan	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
44) A2 2-Methylanthra	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
45) A2 9/4-Methylphen	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
46) A2 1-Methylphenan	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
47) A2 C1-Phenanthren	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
48) A2 C2-Phenanthren	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
49) A2 5AA IS BKGD	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
50) A2 C3-Phenanthren	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
51) A2 C4-Phenanthren	2.274	2.204	2.207	2.224	2.340	2.325	2.374	2.279	3.04
52) t Retene	0.599	0.688	0.703	0.724	0.860	0.864	0.885	0.760	14.39
53) t Anthracene	1.768	1.913	1.988	2.053	2.052	1.892	2.400	2.009	9.92
54) t Carbazole	1.992	1.925	1.932	2.000	2.253	2.291	2.321	2.102	8.45
55) t 1-Methylphenanthrene	1.424	1.551	1.579	1.609	1.830	1.853	1.885	1.676	10.67
56) A1 Fluoranthene	3.125	2.715	2.375	2.386	2.684	2.691	2.722	2.671	9.42
57) A1 Benzo(b)fluorene	1.293	1.469	1.431	1.513	1.758	1.778	1.834	1.582	13.07
58) A2 7H-Benzo(c)flu	1.293	1.469	1.431	1.513	1.758	1.778	1.834	1.582	13.07
59) A1 Pyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
60) A2 2-Methylpyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
61) A2 4-Methylpyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
62) A2 1-Methylpyrene	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
63) A2 C1-Fluoranthen	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
64) A2 C2-Fluoranthen	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
65) A2 C3-Fluoranthen	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
66) A2 C4-Fluoranthen	3.556	2.918	2.474	2.484	2.755	2.759	2.797	2.820	12.88
67) A1 Naphthobenzothiophene-2,1	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
68) A2 Naphthobenzoth	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
69) A2 Naphthobenzoth	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
70) A2 C1-Naphthobenz	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
71) A2 C2-Naphthobenz	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
72) A2 C3-Naphthobenz	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : PAH9	Ical Ref : ICAL16710
Calibration dates : 04/19/20 20:08 04/20/20 07:32	

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
73) A2 C4-Naphthobenz	2.094	2.154	2.062	2.112	2.412	2.443	2.498	2.254	8.36
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.246	1.248	1.187	1.185	1.314	1.298	1.323	1.257	4.54
76) A1 Chrysene	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
77) A2 Chrysene/Triphenylene	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
78) A2 C1-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
79) A2 C2-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
80) A2 BBF-d12 Surr BKGD	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
81) A2 C3-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
82) A2 C4-Chrysenes	1.609	1.365	1.206	1.209	1.284	1.283	1.278	1.319	10.52
83) S Benzo[b]fluoranthene-d12	1.241	1.209	1.156	1.170	1.310	1.299	1.299	1.241	5.18
84) t Benzo[b]fluoranthene	2.022	1.625	1.380	1.348	1.471	1.451	1.462	1.537	15.05
85) A1 Benzo[j]+[k]fluoranthene	1.769	1.630	1.402	1.380	1.461	1.481	1.495	1.517	9.06
86) A2 Benzo(k)fluoranthene	1.769	1.630	1.402	1.380	1.461	1.481	1.495	1.517	9.06
87) A2 Benzo[a]fluora	1.769	1.630	1.402	1.380	1.461	1.481	1.495	1.517	9.06
88) t Benzo[e]pyrene	2.026	1.668	1.339	1.299	1.418	1.432	1.437	1.517	16.68
89) s Benzo[a]pyrene-d12	0.777	0.818	0.782	0.774	0.876	0.890	0.893	0.830	6.60
90) t Benzo[a]pyrene	1.805	1.506	1.298	1.275	1.398	1.419	1.428	1.447	12.20
91) t Perylene	1.345	1.351	1.235	1.221	1.394	1.420	1.445	1.344	6.48
92) t Indeno[1,2,3-cd]pyrene	2.087	1.785	1.442	1.487	1.681	1.665	1.669	1.688	12.59
93) A1 Dibenz[ah]+[ac]anthracene	1.417	1.433	1.352	1.392	1.526	1.527	1.521	1.453	4.94
94) A2 Dibenz(a,h)anthracene	1.417	1.433	1.352	1.392	1.526	1.527	1.521	1.453	4.94
95) t Benzo[g,h,i]perylene	2.369	1.996	1.533	1.461	1.588	1.601	1.592	1.734	18.93
96) A1 Hopane (T19)	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
97) A2 C23 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
98) A2 C24 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
99) A2 C25 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
100) A2 C24 Tetracycli	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
101) A2 C26 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
102) A2 C26 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
103) A2 C28 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
104) A2 C28 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
105) A2 C29 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
106) A2 C29 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
107) A2 18a-22,29,30-T	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
108) A2 C30 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : PAH9	Ical Ref : ICAL16710
Calibration dates : 04/19/20 20:08 04/20/20 07:32	

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
109) A2 C30 Tricyclic	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
110) A2 17a(H)-22,29,3	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
111) A2 17a/b,21b/a 28	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
112) A2 17a(H),21b(H)-	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
113) A2 30-Norhopane (	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
114) A2 18a(H)-30-Norn	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
115) A2 17a(H)-Diahopa	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
116) A2 30-Normoretane	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
117) A2 18a(H)&18b(H)-	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
118) A2 Moretane (T20)	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
119) A2 30-Homohopane-	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
120) A2 30-Homohopane-	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
121) A2 Gammacerane/C3	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
122) A2 30,31-Bishomoh	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
123) A2 30,31-Bishomoh	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
124) A2 30,31-Trishomo	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
125) A2 30,31-Trishomo	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
126) A2 Tetrakishomoho	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
127) A2 Tetrakishomoho	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
128) A2 Pentakishomoho	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
129) A2 Pentakishomoho	0.557	0.443	0.393	0.376	0.431	0.418		0.436	14.66
130) SA1 5B(H)Cholane - Surr	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
131) A2 13b(H),17a(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
132) A2 13b(H),17a(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
133) A2 13b,17a-20S-Me	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
134) A2 14a,17a-20S-Ch	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
135) A2 14a,17a-20R-Ch	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
136) A2 Unknown Steran	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
137) A2 13a,17b-20S-Et	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
138) A2 14a,17a-20S-Me	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
139) A2 14a,17a-20R-Me	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
140) A2 14a(H),17a(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
141) A2 14a(H),17a(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
142) A2 14b(H),17b(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
143) A2 14b(H),17b(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
144) A2 14b,17b-20R-Me	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : PAH9
Calibration dates : 04/19/20 20:08 04/20/20 07:32

Lab Number : L2020213
Project Number : 000029-02.59
Ical Ref : ICAL16710

Calibration Files

10 =A904192013.D 25 =A904192005.D 100 =A904192006.D 500 =A904192007.D 5000=A904192008.D
 1e4 =A904192009.D 2e4 =A904192010.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
145) A2 14b,17b-20S-Me	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
146) A2 14b(H),17b(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
147) A2 14b(H),17b(H)-	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
148) A2 C20 Pregnane	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
149) A2 C21 20-Methylp	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
150) A2 C22 20-Ethylpr	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
151) A2 C22 20-Ethylpr	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
152) A2 C26,20S TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
153) A2 C26,20R+C27,20	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
154) A2 C28,20S TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
155) A2 C27,20R TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
156) A2 C28,20R TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
157) A2 C29,20S TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
158) A2 C29,20R TAS	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
159) A2 5b(H)-C27 (20S	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
160) A2 5b(H)-C27 (20R	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
161) A2 5a(H)-C27 (20S	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
162) A2 5b(H)-C28 (20S	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
163) A2 5a(H)-C27 (20R	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
164) A2 5a(H)-C28 (20S	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
165) A2 5b(H)-C28 (20R	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
166) A2 5b(H)-C29 (20S	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
167) A2 5a(H)-C29 (20S	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
168) A2 5a(H)-C28 (20R	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
169) A2 5b(H)-C29 (20R	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92
170) A2 5a(H)-C29 (20R	0.181	0.224	0.206	0.209	0.238	0.243	0.248	0.221	10.92



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Lab File ID : A905232002
 Sample No : WG1374011-1
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/23/20 14:22
 Init. Calib. Date(s) : 04/19/20 04/20/20
 Init. Calib. Times : 20:08 07:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	88	0
trans-Decalin	0.404	0.389	.05	3.7	25	89	0
cis-Decalin	0.309	0.297	.05	3.9	25	87	0
Naphthalene-d8	1.827	1.759	.05	3.7	25	84	0
Naphthalene	2.127	2.021	.05	5	25	83	0
2-Methylnaphthalene	1.41	1.333	.05	5.5	25	85	0
1-Methylnaphthalene	1.34	1.278	.05	4.6	25	85	0
Benzothiophene	1.962	1.861	.05	5.1	25	82	0
Biphenyl	1.728	1.69	.05	2.2	25	87	0
2,6-Dimethylnaphthalene	1.238	1.202	.05	2.9	25	87	0
Dibenzofuran	2.007	1.973	.05	1.7	25	87	0
Acenaphthylene	2.106	2.043	.05	3	25	87	0
Acenaphthene	1.305	1.273	.05	2.5	25	86	0
2,3,5-Trimethylnaphthalene	1.152	1.125	.05	2.3	25	88	0
Fluorene	1.546	1.498	.05	3.1	25	87	0
Dibenzothiophene	2.286	2.2	.05	3.8	25	87	0
Phenanthrene-d10	1.711	1.718	.05	-0.4	25	90	0
Phenanthrene	2.279	2.201	.05	3.4	25	87	0
Retene	0.76	0.752	.05	1.1	25	91	0
Anthracene	2.009	2.032	.05	-1.1	25	87	0
Carbazole	2.102	1.805	.05	14.1	25	79	0
1-Methylphenanthrene	1.676	1.584	.05	5.5	25	86	0
Fluoranthene	2.671	2.343	.05	12.3	25	86	0
Benzo(b)fluorene	1.582	1.51	.05	4.6	25	87	0
Pyrene	2.82	2.422	.05	14.1	25	85	0
Naphthobenzothiophene-2,1-	2.254	2.115	.05	6.2	25	88	0
Chrysene-d12	1	1	.05	0	25	97	0
Benz[a]anthracene	1.257	1.083	.05	13.8	25	89	0
Chrysene	1.319	1.159	.05	12.1	25	93	0
Chrysene/Triphenylene	1.319	1.159	.05	12.1	25	93	0
Benzo[b]fluoranthene-d12	1.241	1.187	.05	4.4	25	98	0
Benzo[b]fluoranthene	1.537	1.313	.05	14.6	25	94	0
Benzo[j]+[k]fluoranthene	1.517	1.397	.05	7.9	25	98	0
Benzo[e]pyrene	1.517	1.286	.05	15.2	25	96	0
Benzo[a]pyrene-d12	0.83	0.78	.05	6	25	98	0
Benzo[a]pyrene	1.447	1.254	.05	13.3	25	95	0
Perylene	1.344	1.215	.05	9.6	25	96	0
Indeno[1,2,3-cd]pyrene	1.688	1.693	.05	-0.3	25	110	0
Dibenz[ah]+[ac]anthracene	1.453	1.442	.05	0.8	25	100	0
Benzo[g,h,i]perylene	1.734	1.481	.05	14.6	25	98	0
Hopane (T19)	0.436	0.336	.05	22.9	25	87	0
5B(H)Cholane - Surr	0.221	0.188	.05	14.9	25	87	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Lab File ID : A905232015
 Sample No : WG1374011-2
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/24/20 08:44
 Init. Calib. Date(s) : 04/19/20 04/20/20
 Init. Calib. Times : 20:08 07:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	103	.02
trans-Decalin	0.404	0.381	.05	5.7	25	102	0
cis-Decalin	0.309	0.292	.05	5.5	25	100	0
Naphthalene-d8	1.827	1.687	.05	7.7	25	95	0
Naphthalene	2.127	2.021	.05	5	25	97	0
2-Methylnaphthalene	1.41	1.317	.05	6.6	25	98	0
1-Methylnaphthalene	1.34	1.283	.05	4.3	25	100	0
Benzothiophene	1.962	1.874	.05	4.5	25	98	0
Biphenyl	1.728	1.674	.05	3.1	25	101	.02
2,6-Dimethylnaphthalene	1.238	1.198	.05	3.2	25	101	.02
Dibenzofuran	2.007	1.99	.05	0.8	25	104	.02
Acenaphthylene	2.106	2.212	.05	-5	25	110	.02
Acenaphthene	1.305	1.339	.05	-2.6	25	107	0
2,3,5-Trimethylnaphthalene	1.152	1.129	.05	2	25	104	.02
Fluorene	1.546	1.559	.05	-0.8	25	106	.02
Dibenzothiophene	2.286	2.265	.05	0.9	25	105	.02
Phenanthrene-d10	1.711	1.693	.05	1.1	25	104	.02
Phenanthrene	2.279	2.247	.05	1.4	25	104	.02
Retene	0.76	0.794	.05	-4.5	25	113	.02
Anthracene	2.009	2.182	.05	-8.6	25	109	.03
Carbazole	2.102	1.979	.05	5.9	25	102	.03
1-Methylphenanthrene	1.676	1.609	.05	4	25	103	.03
Fluoranthene	2.671	2.512	.05	6	25	108	.02
Benzo(b)fluorene	1.582	1.62	.05	-2.4	25	110	.03
Pyrene	2.82	2.62	.05	7.1	25	109	.03
Naphthobenzothiophene-2,1-	2.254	2.241	.05	0.6	25	109	.03
Chrysene-d12	1	1	.05	0	25	108	.03
Benz[a]anthracene	1.257	1.225	.05	2.5	25	112	.03
Chrysene	1.319	1.215	.05	7.9	25	109	.03
Chrysene/Triphenylene	1.319	1.215	.05	7.9	25	109	.03
Benzo[b]fluoranthene-d12	1.241	1.243	.05	-0.2	25	115	.04
Benzo[b]fluoranthene	1.537	1.441	.05	6.2	25	115	.03
Benzo[j]+[k]fluoranthene	1.517	1.486	.05	2	25	116	.04
Benzo[e]pyrene	1.517	1.385	.05	8.7	25	115	.04
Benzo[a]pyrene-d12	0.83	0.85	.05	-2.4	25	119	.05
Benzo[a]pyrene	1.447	1.403	.05	3	25	119	.04
Perylene	1.344	1.362	.05	-1.3	25	121	.05
Indeno[1,2,3-cd]pyrene	1.688	1.888	.05	-11.8	25	137	.08
Dibenz[ah]+[ac]anthracene	1.453	1.683	.05	-15.8	25	131	.06
Benzo[g,h,i]perylene	1.734	1.717	.05	1	25	127	.08
Hopane (T19)	0.436	0.394	.05	9.6	25	113	.02
5B(H)Cholane - Surr	0.221	0.211	.05	4.5	25	109	.02

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Lab File ID : A905232017
 Sample No : WG1374011-3
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/27/20 02:13
 Init. Calib. Date(s) : 04/19/20 04/20/20
 Init. Calib. Times : 20:08 07:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	87	0
trans-Decalin	0.404	0.44	.05	-8.9	25	100	0
cis-Decalin	0.309	0.332	.05	-7.4	25	97	0
Naphthalene-d8	1.827	1.806	.05	1.1	25	87	0
Naphthalene	2.127	2.054	.05	3.4	25	84	0
2-Methylnaphthalene	1.41	1.31	.05	7.1	25	83	0
1-Methylnaphthalene	1.34	1.265	.05	5.6	25	83	0
Benzothiophene	1.962	1.835	.05	6.5	25	81	0
Biphenyl	1.728	1.613	.05	6.7	25	83	0
2,6-Dimethylnaphthalene	1.238	1.168	.05	5.7	25	84	0
Dibenzofuran	2.007	1.886	.05	6	25	83	0
Acenaphthylene	2.106	2.012	.05	4.5	25	85	0
Acenaphthene	1.305	1.226	.05	6.1	25	83	0
2,3,5-Trimethylnaphthalene	1.152	1.115	.05	3.2	25	87	0
Fluorene	1.546	1.442	.05	6.7	25	83	0
Dibenzothiophene	2.286	2.077	.05	9.1	25	82	0
Phenanthrene-d10	1.711	1.678	.05	1.9	25	88	0
Phenanthrene	2.279	2.086	.05	8.5	25	82	0
Retene	0.76	0.789	.05	-3.8	25	95	0
Anthracene	2.009	2.009	.05	0	25	86	0
Carbazole	2.102	1.759	.05	16.3	25	77	0
1-Methylphenanthrene	1.676	1.572	.05	6.2	25	85	0
Fluoranthene	2.671	2.409	.05	9.8	25	88	0
Benzo(b)fluorene	1.582	1.573	.05	0.6	25	91	.02
Pyrene	2.82	2.624	.05	7	25	92	0
Naphthobenzothiophene-2,1-	2.254	2.15	.05	4.6	25	89	.02
Chrysene-d12	1	1	.05	0	25	94	.02
Benz[a]anthracene	1.257	1.23	.05	2.1	25	97	.02
Chrysene	1.319	1.261	.05	4.4	25	98	.02
Chrysene/Triphenylene	1.319	1.261	.05	4.4	25	98	.02
Benzo[b]fluoranthene-d12	1.241	1.249	.05	-0.6	25	100	.03
Benzo[b]fluoranthene	1.537	1.412	.05	8.1	25	98	.03
Benzo[j]+[k]fluoranthene	1.517	1.448	.05	4.5	25	98	.03
Benzo[e]pyrene	1.517	1.377	.05	9.2	25	99	.03
Benzo[a]pyrene-d12	0.83	0.847	.05	-2	25	103	.03
Benzo[a]pyrene	1.447	1.4	.05	3.2	25	103	.03
Perylene	1.344	1.323	.05	1.6	25	102	.03
Indeno[1,2,3-cd]pyrene	1.688	1.814	.05	-7.5	25	114	.06
Dibenz[ah]+[ac]anthracene	1.453	1.602	.05	-10.3	25	108	.05
Benzo[g,h,i]perylene	1.734	1.7	.05	2	25	109	.06
Hopane (T19)	0.436	0.378	.05	13.3	25	94	0
5B(H)Cholane - Surr	0.221	0.211	.05	4.5	25	95	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Lab File ID : A905232027
 Sample No : WG1374011-4
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/27/20 16:30
 Init. Calib. Date(s) : 04/19/20 04/20/20
 Init. Calib. Times : 20:08 07:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	58	.02
trans-Decalin	0.404	0.408	.05	-1	25	62	0
cis-Decalin	0.309	0.295	.05	4.5	25	57	0
Naphthalene-d8	1.827	1.745	.05	4.5	25	55	0
Naphthalene	2.127	2.001	.05	5.9	25	54	.02
2-Methylnaphthalene	1.41	1.311	.05	7	25	55	.03
1-Methylnaphthalene	1.34	1.267	.05	5.4	25	55	.02
Benzothiophene	1.962	1.797	.05	8.4	25	53	.02
Biphenyl	1.728	1.678	.05	2.9	25	57	.03
2,6-Dimethylnaphthalene	1.238	1.196	.05	3.4	25	57	.02
Dibenzofuran	2.007	1.934	.05	3.6	25	57	.03
Acenaphthylene	2.106	2.104	.05	0.1	25	59	.02
Acenaphthene	1.305	1.329	.05	-1.8	25	60	0
2,3,5-Trimethylnaphthalene	1.152	1.134	.05	1.6	25	59	.03
Fluorene	1.546	1.523	.05	1.5	25	58	.04
Dibenzothiophene	2.286	2.127	.05	7	25	55	.03
Phenanthrene-d10	1.711	1.731	.05	-1.2	25	60	.02
Phenanthrene	2.279	2.196	.05	3.6	25	57	.02
Retene	0.76	0.78	.05	-2.6	25	62	0
Anthracene	2.009	2.096	.05	-4.3	25	59	.04
Carbazole	2.102	1.743	.05	17.1	25	50	.04
1-Methylphenanthrene	1.676	1.694	.05	-1.1	25	61	.03
Fluoranthene	2.671	2.581	.05	3.4	25	63	.02
Benzo(b)fluorene	1.582	1.629	.05	-3	25	62	.03
Pyrene	2.82	2.648	.05	6.1	25	62	.02
Naphthobenzothiophene-2,1-	2.254	2.377	.05	-5.5	25	65	.03
Chrysene-d12	1	1	.05	0	25	64	.02
Benz[a]anthracene	1.257	1.176	.05	6.4	25	64	.03
Chrysene	1.319	1.303	.05	1.2	25	69	.03
Chrysene/Triphenylene	1.319	1.303	.05	1.2	25	69	.03
Benzo[b]fluoranthene-d12	1.241	1.23	.05	0.9	25	68	.03
Benzo[b]fluoranthene	1.537	1.45	.05	5.7	25	69	.02
Benzo[j]+[k]fluoranthene	1.517	1.62	.05	-6.8	25	76	.03
Benzo[e]pyrene	1.517	1.458	.05	3.9	25	72	.03
Benzo[a]pyrene-d12	0.83	0.817	.05	1.6	25	68	.04
Benzo[a]pyrene	1.447	1.434	.05	0.9	25	73	.04
Perylene	1.344	1.487	.05	-10.6	25	79	.04
Indeno[1,2,3-cd]pyrene	1.688	1.731	.05	-2.5	25	75	.07
Dibenz[ah]+[ac]anthracene	1.453	1.694	.05	-16.6	25	78	.05
Benzo[g,h,i]perylene	1.734	1.809	.05	-4.3	25	80	.07
Hopane (T19)	0.436	0.382	.05	12.4	25	65	0
5B(H)Cholane - Surr	0.221	0.203	.05	8.1	25	63	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Lab File ID : A905232033
 Sample No : WG1374011-5
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/28/20 06:45
 Init. Calib. Date(s) : 04/19/20 04/20/20
 Init. Calib. Times : 20:08 07:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	74	.02
trans-Decalin	0.404	0.393	.05	2.7	25	76	0
cis-Decalin	0.309	0.297	.05	3.9	25	73	0
Naphthalene-d8	1.827	1.796	.05	1.7	25	73	0
Naphthalene	2.127	2.129	.05	-0.1	25	74	0
2-Methylnaphthalene	1.41	1.286	.05	8.8	25	69	.03
1-Methylnaphthalene	1.34	1.318	.05	1.6	25	74	.02
Benzothiophene	1.962	1.841	.05	6.2	25	69	.02
Biphenyl	1.728	1.632	.05	5.6	25	71	.03
2,6-Dimethylnaphthalene	1.238	1.145	.05	7.5	25	70	.03
Dibenzofuran	2.007	1.838	.05	8.4	25	69	.04
Acenaphthylene	2.106	1.985	.05	5.7	25	71	.02
Acenaphthene	1.305	1.327	.05	-1.7	25	76	.02
2,3,5-Trimethylnaphthalene	1.152	1.076	.05	6.6	25	71	.03
Fluorene	1.546	1.45	.05	6.2	25	71	.05
Dibenzothiophene	2.286	2.037	.05	10.9	25	68	.03
Phenanthrene-d10	1.711	1.714	.05	-0.2	25	76	.03
Phenanthrene	2.279	2.162	.05	5.1	25	72	.02
Retene	0.76	0.737	.05	3	25	75	0
Anthracene	2.009	2.09	.05	-4	25	75	.04
Carbazole	2.102	1.645	.05	21.7	25	61	.04
1-Methylphenanthrene	1.676	1.617	.05	3.5	25	75	.03
Fluoranthene	2.671	2.465	.05	7.7	25	77	.02
Benzo(b)fluorene	1.582	1.524	.05	3.7	25	75	.03
Pyrene	2.82	2.61	.05	7.4	25	78	.02
Naphthobenzothiophene-2,1-	2.254	2.199	.05	2.4	25	77	.03
Chrysene-d12	1	1	.05	0	25	81	.02
Benz[a]anthracene	1.257	1.075	.05	14.5	25	74	.03
Chrysene	1.319	1.332	.05	-1	25	89	.03
Chrysene/Triphenylene	1.319	1.332	.05	-1	25	89	.03
Benzo[b]fluoranthene-d12	1.241	1.175	.05	5.3	25	81	.02
Benzo[b]fluoranthene	1.537	1.247	.05	18.9	25	75	.02
Benzo[j]+[k]fluoranthene	1.517	1.741	.05	-14.8	25	102	.03
Benzo[e]pyrene	1.517	1.387	.05	8.6	25	87	.02
Benzo[a]pyrene-d12	0.83	0.734	.05	11.6	25	77	.03
Benzo[a]pyrene	1.447	1.288	.05	11	25	82	.03
Perylene	1.344	1.283	.05	4.5	25	85	.03
Indeno[1,2,3-cd]pyrene	1.688	1.411	.05	16.4	25	77	.06
Dibenz[ah]+[ac]anthracene	1.453	1.433	.05	1.4	25	83	.05
Benzo[g,h,i]perylene	1.734	1.554	.05	10.4	25	86	.05
Hopane (T19)	0.436	0.349	.05	20	25	75	0
5B(H)Cholane - Surr	0.221	0.202	.05	8.6	25	79	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Lab File ID : A905232037
 Sample No : WG1374011-6
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/28/20 12:26
 Init. Calib. Date(s) : 04/19/20 04/20/20
 Init. Calib. Times : 20:08 07:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	81	.02
trans-Decalin	0.404	0.41	.05	-1.5	25	87	0
cis-Decalin	0.309	0.297	.05	3.9	25	81	0
Naphthalene-d8	1.827	1.706	.05	6.6	25	76	.02
Naphthalene	2.127	1.964	.05	7.7	25	75	.02
2-Methylnaphthalene	1.41	1.234	.05	12.5	25	73	.04
1-Methylnaphthalene	1.34	1.221	.05	8.9	25	75	.03
Benzothiophene	1.962	1.788	.05	8.9	25	74	.02
Biphenyl	1.728	1.566	.05	9.4	25	75	.03
2,6-Dimethylnaphthalene	1.238	1.111	.05	10.3	25	74	.03
Dibenzofuran	2.007	1.765	.05	12.1	25	73	.05
Acenaphthylene	2.106	1.949	.05	7.5	25	77	.02
Acenaphthene	1.305	1.256	.05	3.8	25	79	.02
2,3,5-Trimethylnaphthalene	1.152	1.043	.05	9.5	25	76	.05
Fluorene	1.546	1.368	.05	11.5	25	74	.05
Dibenzothiophene	2.286	1.899	.05	16.9	25	69	.03
Phenanthrene-d10	1.711	1.625	.05	5	25	79	.03
Phenanthrene	2.279	1.971	.05	13.5	25	72	.03
Retene	0.76	0.735	.05	3.3	25	83	0
Anthracene	2.009	2.018	.05	-0.4	25	80	.05
Carbazole	2.102	1.708	.05	18.7	25	69	.05
1-Methylphenanthrene	1.676	1.513	.05	9.7	25	77	.04
Fluoranthene	2.671	2.292	.05	14.2	25	78	.02
Benzo(b)fluorene	1.582	1.494	.05	5.6	25	80	.04
Pyrene	2.82	2.431	.05	13.8	25	80	.02
Naphthobenzothiophene-2,1-	2.254	2.1	.05	6.8	25	81	.03
Chrysene-d12	1	1	.05	0	25	88	.02
Benz[a]anthracene	1.257	1.035	.05	17.7	25	77	.03
Chrysene	1.319	1.244	.05	5.7	25	91	.03
Chrysene/Triphenylene	1.319	1.244	.05	5.7	25	91	.03
Benzo[b]fluoranthene-d12	1.241	1.25	.05	-0.7	25	94	.02
Benzo[b]fluoranthene	1.537	1.189	.05	22.6	25	78	.02
Benzo[j]+[k]fluoranthene	1.517	1.662	.05	-9.6	25	106	.03
Benzo[e]pyrene	1.517	1.322	.05	12.9	25	90	.02
Benzo[a]pyrene-d12	0.83	0.813	.05	2	25	92	.03
Benzo[a]pyrene	1.447	1.262	.05	12.8	25	87	.03
Perylene	1.344	1.336	.05	0.6	25	96	.03
Indeno[1,2,3-cd]pyrene	1.688	1.437	.05	14.9	25	85	.06
Dibenz[ah]+[ac]anthracene	1.453	1.431	.05	1.5	25	91	.05
Benzo[g,h,i]perylene	1.734	1.508	.05	13	25	91	.06
Hopane (T19)	0.436	0.345	.05	20.9	25	81	0
5B(H)Cholane - Surr	0.221	0.199	.05	10	25	84	0

* Value outside of QC limits.



**Internal Standard Area and RT Summary
Form 8a
Semivolatiles**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Sample No : WG1374011-1

Lab Number : L2020213
 Project Number : 000029-02.59
 Analysis Date : 05/23/20 14:22
 Lab File ID : A905232002

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1374011-1	24854	26.53	51652	42.96		
Upper Limit	49708	27.03	103304	43.46		
Lower Limit	12427	26.03	25826	42.46		
<hr/>						
Sample ID						
WG1372713-1 BLANK	25675	26.54	51812	42.96		
WG1372713-2 LCS	24490	26.53	51473	42.96		
WG1372713-3 LCSD	24568	26.53	51822	42.96		
PDI-051SC-B-06-08-200506	24813	26.54	56628	43.01		
PDI-056SC-B-05-07-200510	25100	26.54	58665	43.01		
PDI-1056SC-B-05-07-200510	30517	26.55	63623	43.03		
WG1374011-2 CCAL	29170	26.55	57615	42.99		

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits



**Internal Standard Area and RT Summary
Form 8a
Semivolatiles**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH9
 Sample No : WG1374011-3

Lab Number : L2020213
 Project Number : 000029-02.59
 Analysis Date : 05/27/20 02:13
 Lab File ID : A905232017

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1374011-3	24790	26.54	49962	42.98		
Upper Limit	49580	27.04	99924	43.48		
Lower Limit	12395	26.04	24981	42.48		
Sample ID						
PDI-051SC-B-06-08-200506	23269	26.54	49766	42.98		
PDI-056SC-B-05-07-200510	20158	26.54	42934	42.98		
PDI-1056SC-B-05-07-200510	14638	26.54	33079	42.98		
PDI-063SC-B-05-07-200429	14423	26.54	34580	42.99		
PDI-063SC-B-05-07-200429 MS	16316	26.54	38165	42.99		
PDI-063SC-B-05-07-200429 MSD	17057	26.54	40887	42.99		
WG1374011-4 CCAL	16398	26.55	34387	42.98		

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits



**Internal Standard Area and RT Summary
Form 8a
Semivolatiles**

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : PAH9
Sample No : WG1374011-5

Lab Number : L2020213
Project Number : 000029-02.59
Analysis Date : 05/28/20 06:45
Lab File ID : A905232033

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1374011-5	21018	26.55	43229	42.98		
Upper Limit	42036	27.05	86458	43.48		
Lower Limit	10509	26.05	21615	42.48		
Sample ID						
PDI-063SC-B-05-07-200429	20737	26.54	46713	42.97		
PDI-063SC-B-05-07-200429 MS	21856	26.54	49610	42.97		
PDI-063SC-B-05-07-200429 MSD	22915	26.54	51762	42.97		
WG1374011-6 CCAL	23070	26.55	46935	42.98		

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L2020213-01D	Date Collected : 05/06/20 08:45
Client ID : PDI-051SC-B-06-08-200506	Date Received : 05/15/20
Sample Location : SEATTLE, WA	Date Analyzed : 06/06/20 00:06
Sample Matrix : Sediment	Date Extracted : 05/20/20
Analytical Method : 1,8015D(M)	Dilution Factor : 5
Lab File ID : F9060520012	Analyst : WR
Sample Amount : 15.184 g	Instrument ID : FID9
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 10000 uL	%Solids : 57
GPC Cleanup : N	Injection Volume : 1 uL
Sulfur Cleanup : N	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	5.80	1.72	U
124-18-5	n-Decane (C10)	ND	5.80	1.85	U
1120-21-4	n-Undecane (C11)	ND	5.80	1.73	U
112-40-3	n-Dodecane (C12)	1.82	5.80	1.26	J
629-50-5	n-Tridecane (C13)	ND	5.80	1.59	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	3.53	5.80	0.872	J
629-59-4	n-Tetradecane (C14)	1.12	5.80	0.872	J
TMTD1470	2,6,10-Trimethyltridecane (1470)	4.04	5.80	0.692	J
629-62-9	n-Pentadecane (C15)	49.7	5.80	0.692	
544-76-3	n-Hexadecane (C16)	27.9	5.80	0.873	
3892-00-0	Norpristane (1650)	7.04	5.80	1.91	
629-78-7	n-Heptadecane (C17)	ND	5.80	1.91	U
1921-70-6	Pristane	8.99	5.80	1.24	
593-45-3	n-Octadecane (C18)	255	5.80	1.16	G
638-36-8	Phytane	78.0	5.80	0.728	G
629-92-5	n-Nonadecane (C19)	ND	5.80	1.49	U
112-95-8	n-Eicosane (C20)	ND	5.80	0.820	U
629-94-7	n-Heneicosane (C21)	2.61	5.80	0.694	J
629-97-0	n-Docosane (C22)	1.14	5.80	0.605	J
638-67-5	n-Tricosane (C23)	ND	5.80	0.737	U
646-31-1	n-Tetracosane (C24)	1.41	5.80	0.970	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-01D
 Client ID : PDI-051SC-B-06-08-200506
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8015D(M)
 Lab File ID : F9060520012
 Sample Amount : 15.184 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/06/20 08:45
 Date Received : 05/15/20
 Date Analyzed : 06/06/20 00:06
 Date Extracted : 05/20/20
 Dilution Factor : 5
 Analyst : WR
 Instrument ID : FID9
 GC Column : RTX-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	ND	5.80	3.07	U
630-01-3	n-Hexacosane (C26)	ND	5.80	0.852	U
593-49-7	n-Heptacosane (C27)	3.32	5.80	0.698	J
630-02-4	n-Octacosane (C28)	1.98	5.80	1.24	J
630-03-5	n-Nonacosane (C29)	ND	5.80	3.86	U
638-68-6	n-Triacontane (C30)	2.36	5.80	0.665	J
630-04-6	n-Hentriacontane (C31)	8.42	5.80	0.821	
544-85-4	n-Dotriacontane (C32)	5.49	5.80	0.730	J
630-05-7	n-Tritriacontane (C33)	20.1	5.80	0.816	
14167-59-0	n-Tetracontane (C34)	ND	5.80	0.922	U
630-07-9	n-Pentatriacontane (C35)	8.10	5.80	1.01	
630-06-8	n-Hexatriacontane (C36)	ND	5.80	1.15	U
7194-84-5	n-Heptatriacontane (C37)	7.34	5.80	1.29	
7194-85-6	n-Octatriacontane (C38)	ND	5.80	1.35	U
7194-86-7	n-Nonatriacontane (C39)	2.16	5.80	1.88	J
4181-95-7	n-Tetracontane (C40)	ND	5.80	1.88	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	6220	191	42.1	
NONE	Total Petroleum Hydrocarbons (C9-C40)	5910	191	42.1	
NONE	DRO (C10-C28)	3930	122	25.1	
TSATHC	Total Saturated Hydrocarbons	502	5.80	0.605	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L2020213-02D	Date Collected : 05/10/20 08:30
Client ID : PDI-056SC-B-05-07-200510	Date Received : 05/15/20
Sample Location : SEATTLE, WA	Date Analyzed : 06/06/20 01:36
Sample Matrix : Sediment	Date Extracted : 05/20/20
Analytical Method : 1,8015D(M)	Dilution Factor : 5
Lab File ID : F9060520014	Analyst : WR
Sample Amount : 5.035 g	Instrument ID : FID9
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 10000 uL	%Solids : 58
GPC Cleanup : N	Injection Volume : 1 uL
Sulfur Cleanup : N	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	34.4	10.2	U
124-18-5	n-Decane (C10)	ND	34.4	11.0	U
1120-21-4	n-Undecane (C11)	ND	34.4	10.3	U
112-40-3	n-Dodecane (C12)	16.4	34.4	7.49	J
629-50-5	n-Tridecane (C13)	ND	34.4	9.43	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	ND	34.4	5.17	U
629-59-4	n-Tetradecane (C14)	ND	34.4	5.17	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	4.23	34.4	4.10	J
629-62-9	n-Pentadecane (C15)	436	34.4	4.10	
544-76-3	n-Hexadecane (C16)	177	34.4	5.17	
3892-00-0	Norpristane (1650)	ND	34.4	11.3	U
629-78-7	n-Heptadecane (C17)	ND	34.4	11.3	U
1921-70-6	Pristane	17.3	34.4	7.34	J
593-45-3	n-Octadecane (C18)	1660	34.4	6.90	G
638-36-8	Phytane	405	34.4	4.32	G
629-92-5	n-Nonadecane (C19)	ND	34.4	8.83	U
112-95-8	n-Eicosane (C20)	ND	34.4	4.86	U
629-94-7	n-Heneicosane (C21)	6.70	34.4	4.11	J
629-97-0	n-Docosane (C22)	ND	34.4	3.58	U
638-67-5	n-Tricosane (C23)	ND	34.4	4.37	U
646-31-1	n-Tetracosane (C24)	7.08	34.4	5.75	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-02D
 Client ID : PDI-056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8015D(M)
 Lab File ID : F9060520014
 Sample Amount : 5.035 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 06/06/20 01:36
 Date Extracted : 05/20/20
 Dilution Factor : 5
 Analyst : WR
 Instrument ID : FID9
 GC Column : RTX-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	ND	34.4	18.2	U
630-01-3	n-Hexacosane (C26)	ND	34.4	5.05	U
593-49-7	n-Heptacosane (C27)	7.42	34.4	4.14	J
630-02-4	n-Octacosane (C28)	7.42	34.4	7.37	J
630-03-5	n-Nonacosane (C29)	ND	34.4	22.9	U
638-68-6	n-Triacontane (C30)	11.4	34.4	3.94	J
630-04-6	n-Hentriacontane (C31)	32.2	34.4	4.87	J
544-85-4	n-Dotriacontane (C32)	36.6	34.4	4.33	
630-05-7	n-Tritriacontane (C33)	99.2	34.4	4.83	
14167-59-0	n-Tetracontane (C34)	ND	34.4	5.47	U
630-07-9	n-Pentatriacontane (C35)	33.5	34.4	6.00	J
630-06-8	n-Hexatriacontane (C36)	ND	34.4	6.83	U
7194-84-5	n-Heptatriacontane (C37)	37.9	34.4	7.63	
7194-85-6	n-Octatriacontane (C38)	ND	34.4	8.01	U
7194-86-7	n-Nonatriacontane (C39)	ND	34.4	11.2	U
4181-95-7	n-Tetracontane (C40)	ND	34.4	11.2	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	24300	1130	250.	
NONE	Total Petroleum Hydrocarbons (C9-C40)	23000	1130	250.	
NONE	DRO (C10-C28)	15400	722	149.	
TSATHC	Total Saturated Hydrocarbons	3000	34.4	3.58	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client	: Anchor QEA, LLC	Lab Number	: L2020213
Project Name	: GASCO PDI	Project Number	: 000029-02.59
Lab ID	: L2020213-03D	Date Collected	: 04/29/20 08:50
Client ID	: PDI-063SC-B-05-07-200429	Date Received	: 05/15/20
Sample Location	: SEATTLE, WA	Date Analyzed	: 06/06/20 04:33
Sample Matrix	: Sediment	Date Extracted	: 05/20/20
Analytical Method	: 1,8015D(M)	Dilution Factor	: 10
Lab File ID	: F9060520018	Analyst	: WR
Sample Amount	: 10.492 g	Instrument ID	: FID9
Extraction Method	: ALPHA OP-013	GC Column	: RTX-5
Extract Volume	: 10000 uL	%Solids	: 64
GPC Cleanup	: N	Injection Volume	: 1 uL
Sulfur Cleanup	: N		

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	37.5	11.1	U
124-18-5	n-Decane (C10)	ND	37.5	12.0	U
1120-21-4	n-Undecane (C11)	ND	37.5	11.2	U
112-40-3	n-Dodecane (C12)	126	37.5	8.18	G
629-50-5	n-Tridecane (C13)	ND	37.5	10.3	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	11.0	37.5	5.64	J
629-59-4	n-Tetradecane (C14)	11.8	37.5	5.64	J
TMTD1470	2,6,10-Trimethyltridecane (1470)	11.7	37.5	4.48	J
629-62-9	n-Pentadecane (C15)	711	37.5	4.48	
544-76-3	n-Hexadecane (C16)	306	37.5	5.65	
3892-00-0	Norpristane (1650)	19.1	37.5	12.4	J
629-78-7	n-Heptadecane (C17)	ND	37.5	12.4	U
1921-70-6	Pristane	22.3	37.5	8.02	J
593-45-3	n-Octadecane (C18)	1880	37.5	7.53	G
638-36-8	Phytane	432	37.5	4.71	G
629-92-5	n-Nonadecane (C19)	ND	37.5	9.64	U
112-95-8	n-Eicosane (C20)	8.48	37.5	5.31	J
629-94-7	n-Heneicosane (C21)	8.33	37.5	4.49	J
629-97-0	n-Docosane (C22)	ND	37.5	3.91	U
638-67-5	n-Tricosane (C23)	ND	37.5	4.77	U
646-31-1	n-Tetracosane (C24)	ND	37.5	6.28	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-03D
 Client ID : PDI-063SC-B-05-07-200429
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8015D(M)
 Lab File ID : F9060520018
 Sample Amount : 10.492 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 04/29/20 08:50
 Date Received : 05/15/20
 Date Analyzed : 06/06/20 04:33
 Date Extracted : 05/20/20
 Dilution Factor : 10
 Analyst : WR
 Instrument ID : FID9
 GC Column : RTX-5
 %Solids : 64
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	ND	37.5	19.9	U
630-01-3	n-Hexacosane (C26)	ND	37.5	5.51	U
593-49-7	n-Heptacosane (C27)	ND	37.5	4.52	U
630-02-4	n-Octacosane (C28)	ND	37.5	8.05	U
630-03-5	n-Nonacosane (C29)	ND	37.5	25.0	U
638-68-6	n-Triacontane (C30)	10.1	37.5	4.30	J
630-04-6	n-Hentriacontane (C31)	20.3	37.5	5.32	J
544-85-4	n-Dotriacontane (C32)	20.4	37.5	4.73	J
630-05-7	n-Tritriacontane (C33)	62.7	37.5	5.28	
14167-59-0	n-Tetracontane (C34)	ND	37.5	5.97	U
630-07-9	n-Pentatriacontane (C35)	27.6	37.5	6.55	J
630-06-8	n-Hexatriacontane (C36)	ND	37.5	7.46	U
7194-84-5	n-Heptatriacontane (C37)	23.9	37.5	8.33	J
7194-85-6	n-Octatriacontane (C38)	ND	37.5	8.75	U
7194-86-7	n-Nonatriacontane (C39)	ND	37.5	12.2	U
4181-95-7	n-Tetracontane (C40)	ND	37.5	12.2	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	25400	1240	272.	
NONE	Total Petroleum Hydrocarbons (C9-C40)	24800	1240	272.	
NONE	DRO (C10-C28)	19500	788	162.	
TSATHC	Total Saturated Hydrocarbons	3710	37.5	3.91	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L2020213-04D	Date Collected : 05/10/20 08:30
Client ID : PDI-1056SC-B-05-07-200510	Date Received : 05/15/20
Sample Location : SEATTLE, WA	Date Analyzed : 06/06/20 03:05
Sample Matrix : Sediment	Date Extracted : 05/20/20
Analytical Method : 1,8015D(M)	Dilution Factor : 5
Lab File ID : F9060520016	Analyst : WR
Sample Amount : 5.063 g	Instrument ID : FID9
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 10000 uL	%Solids : 58
GPC Cleanup : N	Injection Volume : 1 uL
Sulfur Cleanup : N	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	17.1	5.09	U
124-18-5	n-Decane (C10)	ND	17.1	5.47	U
1120-21-4	n-Undecane (C11)	ND	17.1	5.12	U
112-40-3	n-Dodecane (C12)	11.3	17.1	3.74	J
629-50-5	n-Tridecane (C13)	ND	17.1	4.70	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	3.07	17.1	2.58	J
629-59-4	n-Tetradecane (C14)	ND	17.1	2.58	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	3.89	17.1	2.04	J
629-62-9	n-Pentadecane (C15)	221	17.1	2.04	
544-76-3	n-Hexadecane (C16)	91.6	17.1	2.58	
3892-00-0	Norpristane (1650)	11.6	17.1	5.66	J
629-78-7	n-Heptadecane (C17)	ND	17.1	5.66	U
1921-70-6	Pristane	12.0	17.1	3.66	J
593-45-3	n-Octadecane (C18)	888	17.1	3.44	G
638-36-8	Phytane	220	17.1	2.15	G
629-92-5	n-Nonadecane (C19)	ND	17.1	4.41	U
112-95-8	n-Eicosane (C20)	ND	17.1	2.43	U
629-94-7	n-Heneicosane (C21)	4.20	17.1	2.05	J
629-97-0	n-Docosane (C22)	ND	17.1	1.79	U
638-67-5	n-Tricosane (C23)	ND	17.1	2.18	U
646-31-1	n-Tetracosane (C24)	3.60	17.1	2.87	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L2020213-04D
 Client ID : PDI-1056SC-B-05-07-200510
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8015D(M)
 Lab File ID : F9060520016
 Sample Amount : 5.063 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2020213
 Project Number : 000029-02.59
 Date Collected : 05/10/20 08:30
 Date Received : 05/15/20
 Date Analyzed : 06/06/20 03:05
 Date Extracted : 05/20/20
 Dilution Factor : 5
 Analyst : WR
 Instrument ID : FID9
 GC Column : RTX-5
 %Solids : 58
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	ND	17.1	9.07	U
630-01-3	n-Hexacosane (C26)	ND	17.1	2.52	U
593-49-7	n-Heptacosane (C27)	5.16	17.1	2.06	J
630-02-4	n-Octacosane (C28)	ND	17.1	3.68	U
630-03-5	n-Nonacosane (C29)	ND	17.1	11.4	U
638-68-6	n-Triacontane (C30)	5.25	17.1	1.97	J
630-04-6	n-Hentriacontane (C31)	16.7	17.1	2.43	J
544-85-4	n-Dotriacontane (C32)	22.6	17.1	2.16	
630-05-7	n-Tritriacontane (C33)	50.0	17.1	2.41	
14167-59-0	n-Tettratriacontane (C34)	ND	17.1	2.73	U
630-07-9	n-Pentatriacontane (C35)	20.0	17.1	2.99	
630-06-8	n-Hexatriacontane (C36)	ND	17.1	3.41	U
7194-84-5	n-Heptatriacontane (C37)	19.1	17.1	3.81	
7194-85-6	n-Octatriacontane (C38)	ND	17.1	4.00	U
7194-86-7	n-Nonatriacontane (C39)	5.61	17.1	5.57	J
4181-95-7	n-Tetracontane (C40)	ND	17.1	5.57	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	13500	566	124.	
NONE	Total Petroleum Hydrocarbons (C9-C40)	12800	566	124.	
NONE	DRO (C10-C28)	8560	360	74.2	
TSATHC	Total Saturated Hydrocarbons	1610	17.1	1.79	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1372713-1	Date Collected : NA
Client ID : WG1372713-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/25/20 21:10
Sample Matrix : SOIL	Date Extracted : 05/20/20
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F90523070	Analyst : WR
Sample Amount : 30 g	Instrument ID : FID9
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL
Sulfur Cleanup : N	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	0.067	0.020	U
124-18-5	n-Decane (C10)	ND	0.067	0.021	U
1120-21-4	n-Undecane (C11)	ND	0.067	0.020	U
112-40-3	n-Dodecane (C12)	ND	0.067	0.015	U
629-50-5	n-Tridecane (C13)	ND	0.067	0.018	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	ND	0.067	0.010	U
629-59-4	n-Tetradecane (C14)	ND	0.067	0.010	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	ND	0.067	0.008	U
629-62-9	n-Pentadecane (C15)	ND	0.067	0.008	U
544-76-3	n-Hexadecane (C16)	ND	0.067	0.010	U
3892-00-0	Norpristane (1650)	ND	0.067	0.022	U
629-78-7	n-Heptadecane (C17)	ND	0.067	0.022	U
1921-70-6	Pristane	ND	0.067	0.014	U
593-45-3	n-Octadecane (C18)	0.030	0.067	0.013	JC
638-36-8	Phytane	ND	0.067	0.008	U
629-92-5	n-Nonadecane (C19)	ND	0.067	0.017	U
112-95-8	n-Eicosane (C20)	ND	0.067	0.009	U
629-94-7	n-Heneicosane (C21)	ND	0.067	0.008	U
629-97-0	n-Docosane (C22)	ND	0.067	0.007	U
638-67-5	n-Tricosane (C23)	ND	0.067	0.008	U
646-31-1	n-Tetracosane (C24)	ND	0.067	0.011	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1372713-1	Date Collected : NA
Client ID : WG1372713-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/25/20 21:10
Sample Matrix : SOIL	Date Extracted : 05/20/20
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F90523070	Analyst : WR
Sample Amount : 30 g	Instrument ID : FID9
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL
Sulfur Cleanup : N	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	0.037	0.067	0.035	JC
630-01-3	n-Hexacosane (C26)	ND	0.067	0.010	U
593-49-7	n-Heptacosane (C27)	ND	0.067	0.008	U
630-02-4	n-Octacosane (C28)	ND	0.067	0.014	U
630-03-5	n-Nonacosane (C29)	ND	0.067	0.044	U
638-68-6	n-Triacontane (C30)	ND	0.067	0.008	U
630-04-6	n-Hentriacontane (C31)	ND	0.067	0.009	U
544-85-4	n-Dotriacontane (C32)	ND	0.067	0.008	U
630-05-7	n-Tritriacontane (C33)	ND	0.067	0.009	U
14167-59-0	n-Tetracontane (C34)	ND	0.067	0.011	U
630-07-9	n-Pentatriacontane (C35)	ND	0.067	0.012	U
630-06-8	n-Hexatriacontane (C36)	ND	0.067	0.013	U
7194-84-5	n-Heptatriacontane (C37)	0.017	0.067	0.015	J
7194-85-6	n-Octatriacontane (C38)	ND	0.067	0.016	U
7194-86-7	n-Nonatriacontane (C39)	0.054	0.067	0.022	J
4181-95-7	n-Tetracontane (C40)	ND	0.067	0.022	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	ND	2.20	0.484	U
NONE	Total Petroleum Hydrocarbons (C9-C40)	0.545	2.20	0.484	J
NONE	DRO (C10-C28)	0.700	1.40	0.288	J
TSATHC	Total Saturated Hydrocarbons	0.139	0.067	0.007	J



Surrogate Recovery Summary

Form 2

Petroleum

Client: Anchor QEA, LLC
 Project Name: GASCO PDI

Lab Number: L2020213
 Project Number: 000029-02.59
 Matrix: Sediment

GC Column 1: RTX-5

CLIENT ID (LAB SAMPLE NO.)	d50 %REC	OTP %REC	%REC	%REC	OTHER (1)	OTHER (2)	TOT OUT
PDI-051SC-B-06-08-200506 (L2020213-01D)	104	104	--	--			0
PDI-056SC-B-05-07-200510 (L2020213-02D)	102	99	--	--			0
PDI-063SC-B-05-07-200429 (L2020213-03D)	126	126	--	--			0
PDI-1056SC-B-05-07-200510 (L2020213-04D)	102	101	--	--			0
WG1372713-1BLANK	90	89	--	--			0
WG1372713-2LCS	93	92	--	--			0
WG1372713-3LCSD	94	92	--	--			0
PDI-063SC-B-05-07-200429MS	120	115	--	--			0
PDI-063SC-B-05-07-200429MSD	123	117	--	--			0

QC LIMITS

(50-130) d50- = D50-TETRACOSANE

(50-130) OTP = O-TERPHENYL

* Values outside of QC limits

FORM II A2-SHC



Matrix Spike Sample Summary

Form 3

Petroleum

Client : Anchor QEA, LLC	Lab Number : L2020213
Project Name : GASCO PDI	Project Number : 000029-02.59
Client Sample ID : PDI-063SC-B-05-07-200429	Matrix : SOIL
Lab Sample ID : L2020213-03	Analysis Date : 06/06/20 04:33
Matrix Spike : WG1372713-4	MS Analysis Date : 06/06/20 06:02
Matrix Spike Dup : WG1372713-5	MSD Analysis Date : 06/06/20 07:31

Parameter	Sample Conc. (mg/kg)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (mg/kg)	Spike Conc. (mg/kg)	%R	Spike Added (mg/kg)	Spike Conc. (mg/kg)	%R			
n-Nonane (C9)	ND	15.1	ND	0 Q	15.2	ND	0 Q	NC	50-150	30
n-Decane (C10)	ND	15.1	12.8J	85	15.2	12.5J	82	2	50-150	30
n-Dodecane (C12)	126	15.1	128	13 Q	15.2	122	0 Q	5	50-150	30
n-Tetradecane (C14)	11.8J	15.1	22.6J	150	15.2	23.7J	156 Q	5	50-150	30
n-Hexadecane (C16)	306	15.1	288	0 Q	15.2	298	0 Q	3	50-150	30
n-Octadecane (C18)	1880	15.1	1700G	0 Q	15.2	1740G	0 Q	2	50-150	30
n-Nonadecane (C19)	ND	15.1	16.2J	107	15.2	28.9J	190 Q	56 Q	50-150	30
n-Eicosane (C20)	8.48J	15.1	28.5J	189 Q	15.2	29.2J	192 Q	2	50-150	30
n-Docosane (C22)	ND	15.1	21.0J	139	15.2	21.2J	139	1	50-150	30
n-Tetracosane (C24)	ND	15.1	21.0J	139	15.2	21.3J	140	1	50-150	30
n-Hexacosane (C26)	ND	15.1	16.1J	107	15.2	17.4J	114	8	50-150	30
n-Octacosane (C28)	ND	15.1	31.0J	206 Q	15.2	24.8J	163 Q	22	50-150	30
n-Triacontane (C30)	10.1J	15.1	36.6J	243 Q	15.2	33.0J	217 Q	10	50-150	30
n-Hexatriacontane (C36)	ND	15.1	18.3J	121	15.2	18.9J	124	3	50-150	30



**Method Blank Summary
Form 4
Petroleum**

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab Sample ID : WG1372713-1
Instrument ID : FID9
Matrix : SOIL
Level : LOW

Lab Number : L2020213
Project Number : 000029-02.59
Lab File ID : F90523070
Extraction Date : 05/20/20
Analysis Date : 05/25/20 21:10

Client Sample No.	Lab Sample ID	Analysis Date
WG1372713-2LCS	WG1372713-2	05/25/20 22:38
WG1372713-3LCSD	WG1372713-3	05/26/20 00:06
PDI-051SC-B-06-08-200506	L2020213-01D	06/06/20 00:06
PDI-056SC-B-05-07-200510	L2020213-02D	06/06/20 01:36
PDI-1056SC-B-05-07-200510	L2020213-04D	06/06/20 03:05
PDI-063SC-B-05-07-200429	L2020213-03D	06/06/20 04:33
PDI-063SC-B-05-07-200429MS	WG1372713-4D	06/06/20 06:02
PDI-063SC-B-05-07-200429MSD	WG1372713-5D	06/06/20 07:31



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : FID9
Calibration dates : 01/09/20 20:22 01/10/20 03:41

Lab Number : L2020213
Project Number : 000029-02.59
Ical Ref : ICAL16844

Calibration Files

1 =F901092016.D 10 =F901092018.D 50 =F901092020.D 100 =F901092022.D 200 =F901092024.D
 500 =F901092026.D

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.900	0.819	0.824	0.719	0.805		0.813	7.92
3) t n-Nonane (C9)	0.941	0.857	0.874	0.768	0.850		0.858	7.20
4) t n-Decane (C10)	0.969	0.881	0.905	0.801	0.883		0.888	6.77
5) t n-Undecane (C11)	0.972	0.893	0.925	0.818	0.901		0.902	6.24
6) t n-Dodecane (C12)	0.994	0.906	0.937	0.830	0.914		0.916	6.47
7) t n-Tridecane (C13)	0.985	0.913	0.943	0.835	0.922		0.920	5.97
8) t 1380	1.006	0.928	0.959	0.848	0.937		0.936	6.14
9) t n-Tetradecane (C14)	1.006	0.928	0.959	0.848	0.937		0.936	6.14
10) t 1470	1.012	0.929	0.960	0.849	0.939		0.938	6.28
11) t n-Pentadecane (C15)	1.012	0.929	0.960	0.849	0.939		0.938	6.28
12) t n-Hexadecane (C16)	1.010	0.940	0.969	0.858	0.949		0.945	5.88
13) t 1650	1.013	0.935	0.966	0.858	0.957		0.946	6.01
14) t n-Heptadecane (C17)	1.013	0.935	0.966	0.858	0.957		0.946	6.01
15) t Pristane	1.038	0.957	0.985	0.869	0.951		0.960	6.42
16) t n-Octadecane (C18)	1.013	0.946	0.977	0.865	0.963		0.953	5.76
17) t Phytane	0.935	0.861	0.883	0.783	0.878		0.868	6.36
18) t n-Nonadecane (C19)	1.015	0.947	0.975	0.859	0.955		0.950	6.04
19) s ortho-terphenyl	1.130	1.023	1.078	0.937	1.054	1.027	1.042	6.20
20) t n-Eicosane (C20)	1.027	0.950	0.977	0.861	0.958		0.955	6.32
21) t n-Heneicosane (C21)	1.044	0.965	0.992	0.876	0.970		0.969	6.30
22) t n-Docosane (C22)	1.033	0.965	0.993	0.876	0.969		0.967	5.98
23) t n-Tricosane (C23)	1.034	0.972	0.995	0.880	0.973		0.971	5.87
24) s d50-Tetracosane	0.905	0.822	0.863	0.748	0.838	0.824	0.833	6.27
25) t n-Tetracosane (C24)	1.066	0.978	1.006	0.883	0.974		0.981	6.74
26) t n-Pentacosane (C25)	1.038	0.962	0.989	0.871	0.962		0.964	6.28
27) t n-Hexacosane (C26)	1.036	0.970	0.996	0.876	0.967		0.969	6.05
28) t n-Heptacosane (C27)	1.019	0.946	0.969	0.850	0.938		0.944	6.49
29) t n-Octacosane (C28)	1.042	0.978	1.002	0.880	0.968		0.974	6.13
30) t n-Nonacosane (C29)	1.047	0.972	0.995	0.871	0.962		0.969	6.61
31) t n-Triacontane (C30)	1.027	0.959	0.982	0.857	0.950		0.955	6.52
32) t n-Hentriacontane (C31)	1.037	0.965	0.984	0.858	0.958		0.961	6.78
33) t n-Dotriacontane (C32)	1.013	0.950	0.968	0.847	0.949		0.945	6.42
34) t n-Tritriacontane (C33)	0.997	0.938	0.959	0.838	0.943		0.935	6.31
35) t n-tetratriacontane (C34)	1.037	0.971	0.993	0.869	0.984		0.971	6.39
36) t n-Pentatriacontane (C35)	1.011	0.941	0.960	0.842	0.955		0.942	6.55



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : FID9
Calibration dates : 01/09/20 20:22 01/10/20 03:41

Lab Number : L2020213
Project Number : 000029-02.59
Ical Ref : ICAL16844

Calibration Files

1 =F901092016.D 10 =F901092018.D 50 =F901092020.D 100 =F901092022.D 200 =F901092024.D
 500 =F901092026.D

Compound	1	10	50	100	200	500	Avg	%RSD
37) t n-Hexatriacontane (C36)	1.041	1.001	1.019	0.897	1.017		0.995	5.70
38) t n-Heptatriacontane (C37)	0.998	0.939	0.960	0.846	0.959		0.941	6.05
39) t n-Octatriacontane (C38)	1.071	1.019	1.041	0.921	1.038		1.018	5.64
40) t n-Nonatriacon	1.055	0.968	0.990	0.872	0.978		0.972	6.75
41) t n-Tetracontane (C40)	1.055	0.968	0.990	0.872	0.978		0.972	6.75
42) h C9-C44 Total	1.017	0.945	0.971	0.855	0.951		0.948	6.24
43) h C9-C40 Total	1.017	0.945	0.971	0.855	0.951		0.948	6.24
44) h C10-C28 DRO	1.017	0.942	0.970	0.857	0.947		0.947	6.18
45) h >C12-C44 Tota	1.017	0.945	0.971	0.855	0.951		0.948	6.24
46) h >C12-C40 Tota	1.017	0.945	0.971	0.855	0.951		0.948	6.24
47) h C28-C40 ORO	1.031	0.967	0.988	0.867	0.972		0.965	6.27
48) h Total Resolve	1.017	0.945	0.971	0.855	0.951		0.948	6.24



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID9
 Lab File ID : F90523064
 Sample No : WG1373840-3
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/25/20 16:44
 Init. Calib. Date(s) : 01/09/20 01/10/20
 Init. Calib. Times : 20:22 03:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	131	0
n-Octane (C8)	0.813	0.732	.05	10	25	117	0
n-Nonane (C9)	0.858	0.826	.05	3.7	25	124	0
n-Decane (C10)	0.888	0.887	.05	0.1	25	129	0
n-Undecane (C11)	0.902	0.89	.05	1.3	25	127	0
n-Dodecane (C12)	0.916	0.907	.05	1	25	127	0
n-Tridecane (C13)	0.92	0.919	.05	0.1	25	128	0
n-Tetradecane (C14)	0.936	0.948	.05	-1.3	25	130	0
n-Pentadecane (C15)	0.938	0.957	.05	-2	25	131	0
n-Hexadecane (C16)	0.945	0.956	.05	-1.2	25	130	0
n-Heptadecane (C17)	0.946	0.964	.05	-1.9	25	131	0
Pristane	0.96	0.986	.05	-2.7	25	132	0
n-Octadecane (C18)	0.953	0.981	.05	-2.9	25	132	0
Phytane	0.868	0.909	.05	-4.7	25	135	0
n-Nonadecane (C19)	0.95	0.981	.05	-3.3	25	132	0
ortho-terphenyl	1.042	1.123	.05	-7.8	25	137	0
n-Eicosane (C20)	0.955	0.987	.05	-3.4	25	133	0
n-Heneicosane (C21)	0.969	0.992	.05	-2.4	25	131	0
n-Docosane (C22)	0.967	0.987	.05	-2.1	25	131	0
n-Tricosane (C23)	0.971	0.987	.05	-1.6	25	130	0
d50-Tetracosane	0.833	0.875	.05	-5	25	133	0
n-Tetracosane (C24)	0.981	0.981	.05	0	25	128	0
n-Pentacosane (C25)	0.964	0.966	.05	-0.2	25	128	0
n-Hexacosane (C26)	0.969	0.985	.05	-1.7	25	130	0
n-Heptacosane (C27)	0.944	0.978	.05	-3.6	25	133	0
n-Octacosane (C28)	0.974	0.995	.05	-2.2	25	131	0
n-Nonacosane (C29)	0.969	0.994	.05	-2.6	25	131	0
n-Triacontane (C30)	0.955	0.991	.05	-3.8	25	133	0
n-Hentriacontane (C31)	0.961	0.959	.05	0.2	25	128	0
n-Dotriacontane (C32)	0.945	0.992	.05	-5	25	135	0
n-Tritriacontane (C33)	0.935	0.968	.05	-3.5	25	133	0
n-tetratriacontane (C34)	0.971	0.967	.05	0.4	25	128	0
n-Pentatriacontane (C35)	0.942	0.924	.05	1.9	25	127	0
n-Hexatriacontane (C36)	0.995	1.064	.05	-6.9	25	137	0
n-Heptatriacontane (C37)	0.941	0.974	.05	-3.5	25	133	0
n-Octatriacontane (C38)	1.018	0.996	.05	2.2	25	126	0
n-Tetracontane (C40)	0.972	0.973	.05	-0.1	25	129	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID9
 Lab File ID : F90523090
 Sample No : WG1373840-4
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 05/26/20 11:55
 Init. Calib. Date(s) : 01/09/20 01/10/20
 Init. Calib. Times : 20:22 03:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	115	0
n-Octane (C8)	0.813	0.727	.05	10.6	25	102	0
n-Nonane (C9)	0.858	0.764	.05	11	25	101	0
n-Decane (C10)	0.888	0.836	.05	5.9	25	107	0
n-Undecane (C11)	0.902	0.865	.05	4.1	25	108	0
n-Dodecane (C12)	0.916	0.896	.05	2.2	25	110	0
n-Tridecane (C13)	0.92	0.916	.05	0.4	25	112	0
n-Tetradecane (C14)	0.936	0.95	.05	-1.5	25	114	0
n-Pentadecane (C15)	0.938	0.96	.05	-2.3	25	115	0
n-Hexadecane (C16)	0.945	0.959	.05	-1.5	25	114	0
n-Heptadecane (C17)	0.946	0.962	.05	-1.7	25	115	0
Pristane	0.96	0.998	.05	-4	25	117	0
n-Octadecane (C18)	0.953	0.996	.05	-4.5	25	118	0
Phytane	0.868	0.915	.05	-5.4	25	119	0
n-Nonadecane (C19)	0.95	0.986	.05	-3.8	25	117	0
ortho-terphenyl	1.042	1.126	.05	-8.1	25	120	0
n-Eicosane (C20)	0.955	0.994	.05	-4.1	25	117	0
n-Heneicosane (C21)	0.969	1.003	.05	-3.5	25	117	0
n-Docosane (C22)	0.967	0.998	.05	-3.2	25	116	0
n-Tricosane (C23)	0.971	1	.05	-3	25	116	0
d50-Tetracosane	0.833	0.883	.05	-6	25	118	0
n-Tetracosane (C24)	0.981	0.992	.05	-1.1	25	114	0
n-Pentacosane (C25)	0.964	0.979	.05	-1.6	25	114	0
n-Hexacosane (C26)	0.969	0.999	.05	-3.1	25	116	0
n-Heptacosane (C27)	0.944	0.995	.05	-5.4	25	119	0
n-Octacosane (C28)	0.974	1.012	.05	-3.9	25	117	0
n-Nonacosane (C29)	0.969	1.006	.05	-3.8	25	117	0
n-Triacontane (C30)	0.955	1.008	.05	-5.5	25	118	0
n-Hentriacontane (C31)	0.961	0.975	.05	-1.5	25	114	0
n-Dotriacontane (C32)	0.945	1.013	.05	-7.2	25	121	0
n-Tritriacontane (C33)	0.935	0.997	.05	-6.6	25	120	0
n-tetratriacontane (C34)	0.971	0.992	.05	-2.2	25	115	0
n-Pentatriacontane (C35)	0.942	0.939	.05	0.3	25	113	0
n-Hexatriacontane (C36)	0.995	1.081	.05	-8.6	25	122	0
n-Heptatriacontane (C37)	0.941	0.993	.05	-5.5	25	119	-.01
n-Octatriacontane (C38)	1.018	1.011	.05	0.7	25	112	0
n-Tetracontane (C40)	0.972	0.986	.05	-1.4	25	115	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID9
 Lab File ID : F9060520006
 Sample No : WG1373840-5
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 06/05/20 19:39
 Init. Calib. Date(s) : 01/09/20 01/10/20
 Init. Calib. Times : 20:22 03:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	103	0
n-Octane (C8)	0.813	0.803	.05	1.2	25	101	0
n-Nonane (C9)	0.858	0.836	.05	2.6	25	99	0
n-Decane (C10)	0.888	0.872	.05	1.8	25	100	0
n-Undecane (C11)	0.902	0.891	.05	1.2	25	100	0
n-Dodecane (C12)	0.916	0.909	.05	0.8	25	100	0
n-Tridecane (C13)	0.92	0.922	.05	-0.2	25	101	0
n-Tetradecane (C14)	0.936	0.952	.05	-1.7	25	103	0
n-Pentadecane (C15)	0.938	0.96	.05	-2.3	25	103	0
n-Hexadecane (C16)	0.945	0.959	.05	-1.5	25	102	0
n-Heptadecane (C17)	0.946	0.965	.05	-2	25	103	0
Pristane	0.96	0.994	.05	-3.5	25	104	0
n-Octadecane (C18)	0.953	0.981	.05	-2.9	25	104	0
Phytane	0.868	0.915	.05	-5.4	25	107	0
n-Nonadecane (C19)	0.95	0.984	.05	-3.6	25	104	0
ortho-terphenyl	1.042	1.126	.05	-8.1	25	108	0
n-Eicosane (C20)	0.955	0.991	.05	-3.8	25	105	0
n-Heneicosane (C21)	0.969	0.996	.05	-2.8	25	104	0
n-Docosane (C22)	0.967	0.993	.05	-2.7	25	103	0
n-Tricosane (C23)	0.971	0.994	.05	-2.4	25	103	0
d50-Tetracosane	0.833	0.879	.05	-5.5	25	105	0
n-Tetracosane (C24)	0.981	0.989	.05	-0.8	25	102	0
n-Pentacosane (C25)	0.964	0.973	.05	-0.9	25	102	0
n-Hexacosane (C26)	0.969	0.992	.05	-2.4	25	103	0
n-Heptacosane (C27)	0.944	0.984	.05	-4.2	25	105	0
n-Octacosane (C28)	0.974	1.006	.05	-3.3	25	104	0
n-Nonacosane (C29)	0.969	0.998	.05	-3	25	104	0
n-Triacontane (C30)	0.955	0.999	.05	-4.6	25	105	0
n-Hentriacontane (C31)	0.961	0.968	.05	-0.7	25	102	0
n-Dotriacontane (C32)	0.945	1.004	.05	-6.2	25	107	0
n-Tritriacontane (C33)	0.935	0.979	.05	-4.7	25	106	0
n-tetratriacontane (C34)	0.971	0.981	.05	-1	25	102	0
n-Pentatriacontane (C35)	0.942	0.924	.05	1.9	25	100	0
n-Hexatriacontane (C36)	0.995	1.083	.05	-8.8	25	110	0
n-Heptatriacontane (C37)	0.941	0.992	.05	-5.4	25	107	0
n-Octatriacontane (C38)	1.018	1.013	.05	0.5	25	101	0
n-Tetracontane (C40)	0.972	0.984	.05	-1.2	25	103	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID9
 Lab File ID : F9060520024
 Sample No : WG1373840-6
 Channel :

Lab Number : L2020213
 Project Number : 000029-02.59
 Calibration Date : 06/06/20 09:00
 Init. Calib. Date(s) : 01/09/20 01/10/20
 Init. Calib. Times : 20:22 03:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	104	0
n-Octane (C8)	0.813	0.784	.05	3.6	25	99	0
n-Nonane (C9)	0.858	0.826	.05	3.7	25	98	0
n-Decane (C10)	0.888	0.866	.05	2.5	25	99	0
n-Undecane (C11)	0.902	0.888	.05	1.6	25	100	0
n-Dodecane (C12)	0.916	0.91	.05	0.7	25	101	0
n-Tridecane (C13)	0.92	0.919	.05	0.1	25	101	0
n-Tetradecane (C14)	0.936	0.948	.05	-1.3	25	103	0
n-Pentadecane (C15)	0.938	0.959	.05	-2.2	25	104	0
n-Hexadecane (C16)	0.945	0.958	.05	-1.4	25	103	0
n-Heptadecane (C17)	0.946	0.966	.05	-2.1	25	104	0
Pristane	0.96	0.998	.05	-4	25	105	0
n-Octadecane (C18)	0.953	0.982	.05	-3	25	104	0
Phytane	0.868	0.92	.05	-6	25	108	0
n-Nonadecane (C19)	0.95	0.988	.05	-4	25	105	0
ortho-terphenyl	1.042	1.127	.05	-8.2	25	109	0
n-Eicosane (C20)	0.955	0.995	.05	-4.2	25	106	0
n-Heneicosane (C21)	0.969	1.003	.05	-3.5	25	105	0
n-Docosane (C22)	0.967	1.001	.05	-3.5	25	105	0
n-Tricosane (C23)	0.971	1.001	.05	-3.1	25	104	0
d50-Tetracosane	0.833	0.885	.05	-6.2	25	107	0
n-Tetracosane (C24)	0.981	0.996	.05	-1.5	25	103	0
n-Pentacosane (C25)	0.964	0.98	.05	-1.7	25	103	0
n-Hexacosane (C26)	0.969	1	.05	-3.2	25	104	0
n-Heptacosane (C27)	0.944	0.992	.05	-5.1	25	106	0
n-Octacosane (C28)	0.974	1.017	.05	-4.4	25	105	0
n-Nonacosane (C29)	0.969	1.009	.05	-4.1	25	105	0
n-Triacontane (C30)	0.955	1.009	.05	-5.7	25	107	0
n-Hentriacontane (C31)	0.961	0.98	.05	-2	25	103	0
n-Dotriacontane (C32)	0.945	1.021	.05	-8	25	109	0
n-Tritriacontane (C33)	0.935	0.991	.05	-6	25	107	0
n-tetratriacontane (C34)	0.971	0.993	.05	-2.3	25	104	0
n-Pentatriacontane (C35)	0.942	0.936	.05	0.6	25	101	0
n-Hexatriacontane (C36)	0.995	1.097	.05	-10.3	25	112	0
n-Heptatriacontane (C37)	0.941	1.004	.05	-6.7	25	109	0
n-Octatriacontane (C38)	1.018	1.026	.05	-0.8	25	102	0
n-Tetracontane (C40)	0.972	0.998	.05	-2.7	25	105	0

* Value outside of QC limits.



Analytical Sequence Form 8b Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID9

Lab Number : L2020213
 Project Number : 000029-02.59
 Initial Calib. Date(s) : 01/09/20 01/10/20

Client ID	Lab ID	Date/Time Analyzed
STD1	R1318484-1	01/09/20 20:22
STD10	R1318484-3	01/09/20 21:50
STD50	R1318484-2	01/09/20 23:17
STD100	R1318484-4	01/10/20 00:45
STD200	R1318484-5	01/10/20 02:13
STD500	R1318484-6	01/10/20 03:41
R1318484-7 ICV	R1318484-7	01/10/20 06:37
WG1376652-1 ANS	WG1376652-1	01/10/20 09:33
WG1373840-3 CCAL	WG1373840-3	05/25/20 16:44
WG1372713-1 BLANK	WG1372713-1	05/25/20 21:10
WG1372713-2 LCS	WG1372713-2	05/25/20 22:38
WG1372713-3 LCSD	WG1372713-3	05/26/20 00:06
WG1373840-4 CCAL	WG1373840-4	05/26/20 11:55
WG1373840-5 CCAL	WG1373840-5	06/05/20 19:39
PDI-051SC-B-06-08-200506	L2020213-01 D	06/06/20 00:06
PDI-056SC-B-05-07-200510	L2020213-02 D	06/06/20 01:36
PDI-1056SC-B-05-07-200510	L2020213-04 D	06/06/20 03:05
PDI-063SC-B-05-07-200429	L2020213-03 D	06/06/20 04:33
PDI-063SC-B-05-07-200429 MS	WG1372713-4 D	06/06/20 06:02
PDI-063SC-B-05-07-200429 MSD	WG1372713-5 D	06/06/20 07:31
WG1373840-6 CCAL	WG1373840-6	06/06/20 09:00



Analytical Sequence Form 8b Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2020213
Project Name	: GASCO PDI	Project Number	: 000029-02.59
Instrument ID	: FID9	Initial Calib. Date(s)	: 01/09/20 01/10/20

Client ID	Lab ID	Date/Time Analyzed
STD1	R1318484-1	01/09/20 20:22
STD10	R1318484-3	01/09/20 21:50
STD50	R1318484-2	01/09/20 23:17
STD100	R1318484-4	01/10/20 00:45
STD200	R1318484-5	01/10/20 02:13
STD500	R1318484-6	01/10/20 03:41
R1318484-7 ICV	R1318484-7	01/10/20 06:37
WG1376652-1 ANS	WG1376652-1	01/10/20 09:33
WG1373840-3 CCAL	WG1373840-3	05/25/20 16:44
WG1372713-1 BLANK	WG1372713-1	05/25/20 21:10
WG1372713-2 LCS	WG1372713-2	05/25/20 22:38
WG1372713-3 LCSD	WG1372713-3	05/26/20 00:06
WG1373840-4 CCAL	WG1373840-4	05/26/20 11:55
WG1373840-5 CCAL	WG1373840-5	06/05/20 19:39
PDI-051SC-B-06-08-200506	L2020213-01 D	06/06/20 00:06
PDI-056SC-B-05-07-200510	L2020213-02 D	06/06/20 01:36
PDI-1056SC-B-05-07-200510	L2020213-04 D	06/06/20 03:05
PDI-063SC-B-05-07-200429	L2020213-03 D	06/06/20 04:33
PDI-063SC-B-05-07-200429 MS	WG1372713-4 D	06/06/20 06:02
PDI-063SC-B-05-07-200429 MSD	WG1372713-5 D	06/06/20 07:31
WG1373840-6 CCAL	WG1373840-6	06/06/20 09:00

