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Lab Number: L1954309

Client: Anchor QEA, LLC

ATTN: Delaney Peterson

Project Name: GASCO PDI

Project Number: 000029-02.59

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CC Summary - FID17 Run: 12/12/19 09:21	1982
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PDI-084SC-B-06-08-191002 (L1954309-02D) Analyzed: 12/12/19 15:11	2028
PDI-079SC-B-06-08-191014 (L1954309-03D) Analyzed: 12/12/19 16:39	2062
PDI-071SC-B-06-08-191001 (L1954309-04D) Analyzed: 12/12/19 18:07	2091
PDI-066SC-B-06-08-191011 (L1954309-05D) Analyzed: 12/12/19 19:35	2123
Analytical Event	2153
Continuing Calibration	2154
CC Summary - FID6 Run: 12/02/19 15:54	2155
CC Quant - WG1315720-1 Inst. FID6 12/02/19 15:54	2157
Analytical Event	2160
Continuing Calibration	2161
CC Summary - FID6 Run: 12/03/19 14:02	2162
CC Quant - WG1315720-2 Inst. FID6 12/03/19 14:02	2164
Sample Raw Data	2167
PDI-059SC-B-06-08-191016 (L1954309-06) Analyzed: 12/04/19 07:42	2168
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Analytical Event	2248
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CC Summary - FID6 Run: 12/04/19 10:39	2250
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CC Quant - WG1315720-4 Inst. FID6 12/04/19 21:40	2257
Sample Raw Data	2260
PDI-1079SC-B-06-08-191014 (L1954309-08) Analyzed: 12/04/19 15:46	2261
Batch Quality Control	2302
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Sample Delivery Group Information



Sample Delivery Group Summary

Alpha Job Number : L1954309

Received : 14-NOV-2019

Reviewer : Andrew Kussmaul

Account Name : Anchor QEA, LLC

Project Number : 000029-02.59

Project Name : GASCO PDI

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	.5	

Condition Information

- 1) All samples on COC received? **YES**
- 2) Extra samples received? **YES**
Following additional samples were received: -08
- 3) Are there any sample container discrepancies? **YES**
L1954309-02A (A2-ALKPAH/BIOMARKER) was received in broken container.
- 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
Dec 13 2019, 07:01 pm

Login Number: L1954309

Account: ANCHOR Anchor QEA, LLCProject: 000029-02.59

Received: 14NOV19 Due Date: 13DEC19

Sample #	Client ID	Mat PR Collected
L1954309-01	PDI-090SC-B-06-08-191012	3 S0 12OCT19 14:22
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) DPKG-FULL Package Due Date: 12/13/19		
A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220,DPKG-FULL		
L1954309-02	PDI-084SC-B-06-08-191002	3 S0 02OCT19 11:39
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) Package Due Date: 12/13/19		
A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220		
L1954309-03	PDI-079SC-B-06-08-191014	3 S0 14OCT19 13:15
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) Package Due Date: 12/13/19		
A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220		
L1954309-04	PDI-071SC-B-06-08-191001	3 S0 01OCT19 14:00
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) Package Due Date: 12/13/19		

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 13 2019, 07:01 pm

Login Number: L1954309

Account: ANCHOR Anchor QEA, LLCProject: 000029-02.59

Received: 14NOV19 Due Date: 13DEC19

Sample #	Client ID	Mat PR Collected
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A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220

L1954309-05 PDI-066SC-B-06-08-191011 3 S0 11OCT19 08:40
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) Package Due Date: 12/13/19

A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220

L1954309-06 PDI-059SC-B-06-08-191016 3 S0 16OCT19 07:57
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) Package Due Date: 12/13/19

A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220

L1954309-07 PDI-049SC-B-06-08-191015 3 S0 15OCT19 13:32
12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) Package Due Date: 12/13/19

A2-ALKPAH/BIOMARKER,A2-SHC,A2-TS,COD-5220

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 13 2019, 07:01 pm

Login Number: L1954309

Account: ANCHOR Anchor QEA, LLCProject: 000029-02.59

Received: 14NOV19 Due Date: 13DEC19

Sample #	Client ID	Mat PR Collected
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L1954309-08	PDI-1079SC-B-06-08-191014	3 S0 14OCT19 13:15
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Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Samples maintained in Frozen storage until released to the lab - Please Freeze before and after sample prep ALKPAH/Bio: Report List made SHC: Report SHCs, DRO (C10-C28), Total Resolved SHC (C9-C40), Total SHCs and TPH C9-C44) 12/13/19 - FIRM DUE DATE - Anchor must have all data on/before this date Package Due Date: 12/13/19

A2-ALKPAH/BIOMARKER,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
L1954309-01A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-01A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-01A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-01A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kussmaul
L1954309-01A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kussmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul
L1954309-01B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN	CUSTODY Vincent Y Balestrier	W19-S3-B CUSTODY	W19-S3-B CUSTODY	Vincent Y Balestrier
L1954309-01B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L1954309-01B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-01B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A CUSTODY	W2-S3-A CUSTODY	William McClendon
L1954309-01B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kussmaul	CUSTODY	CUSTODY	Raymond Anable
L1954309-01B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kussmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable
L1954309-01B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kussmaul
L1954309-01B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kussmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul
L1954309-02A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-02A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-02A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-02A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kussmaul
L1954309-02A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kussmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul
L1954309-02B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN	CUSTODY Vincent Y Balestrier	W19-S3-B CUSTODY	W19-S3-B CUSTODY	Vincent Y Balestrier
L1954309-02B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L1954309-02B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-02B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A CUSTODY	W2-S3-A CUSTODY	William McClendon
L1954309-02B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kussmaul	CUSTODY	CUSTODY	Raymond Anable
L1954309-02B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kussmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable
L1954309-02B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kussmaul

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1954309-02B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-03A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-03A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-03A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-03A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kusssmaul
L1954309-03A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-03B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN	CUSTODY Vincent Y Balestrier	W19-S3-B CUSTODY	W19-S3-B CUSTODY	Vincent Y Balestrier
L1954309-03B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L1954309-03B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-03B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A CUSTODY	W2-S3-A CUSTODY	William McClendon
L1954309-03B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	CUSTODY	CUSTODY	Raymond Anable
L1954309-03B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable
L1954309-03B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul
L1954309-03B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-04A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-04A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-04A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-04A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kusssmaul
L1954309-04A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-04B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN	CUSTODY Vincent Y Balestrier	W19-S3-B CUSTODY	W19-S3-B CUSTODY	Vincent Y Balestrier
L1954309-04B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L1954309-04B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-04B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A CUSTODY	W2-S3-A CUSTODY	William McClendon
L1954309-04B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	CUSTODY	CUSTODY	Raymond Anable
L1954309-04B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1954309-04B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul
L1954309-04B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-05A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-05A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-05A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-05A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kusssmaul
L1954309-05A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-05B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN CUSTODY	Vincent Y Balestrier	W19-S3-B CUSTODY	W19-S3-B CUSTODY	Vincent Y Balestrier
L1954309-05B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L1954309-05B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-05B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A CUSTODY	W2-S3-A CUSTODY	William McClendon
L1954309-05B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	CUSTODY	CUSTODY	Raymond Anable
L1954309-05B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable
L1954309-05B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul
L1954309-05B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-06A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-06A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-06A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-06A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kusssmaul
L1954309-06A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-06B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN CUSTODY	Vincent Y Balestrier	W19-S3-B CUSTODY	W19-S3-B CUSTODY	Vincent Y Balestrier
L1954309-06B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tuan Hoang
L1954309-06B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-06B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A CUSTODY	W2-S3-A CUSTODY	William McClendon
L1954309-06B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	CUSTODY	CUSTODY	Raymond Anable

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1954309-06B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable
L1954309-06B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul
L1954309-06B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-07A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-07A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-07A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-07A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kusssmaul
L1954309-07A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-07B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN	CUSTODY Vincent Y Balestrier	W19-S3-B	CUSTODY W19-S3-B	CUSTODY Vincent Y Balestrier
L1954309-07B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN	CUSTODY RETURN WALK-IN	CUSTODY Tuan Hoang
L1954309-07B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A	CUSTODY Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-07B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A	CUSTODY W2-S3-A	CUSTODY William McClendon
L1954309-07B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	CUSTODY	CUSTODY	Raymond Anable
L1954309-07B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Raymond Anable
L1954309-07B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul
L1954309-07B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-08A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Christiaan van Zyl	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Christiaan van Zyl
L1954309-08A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Lauren Batalon	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Lauren Batalon
L1954309-08A	Glass-A.120	INTACT	22-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Z1	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L1954309-08A	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Andrew Kusssmaul
L1954309-08A	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul
L1954309-08B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	RETURN WALK-IN	CUSTODY Vincent Y Balestrier	W19-S3-B	CUSTODY W19-S3-B	CUSTODY Vincent Y Balestrier
L1954309-08B	Glass-A.120	INTACT	12-DEC-19	CUSTODY	WETCHEM	Tuan Hoang	RETURN WALK-IN	CUSTODY RETURN WALK-IN	CUSTODY Tuan Hoang
L1954309-08B	Glass-A.120	INTACT	11-DEC-19	CUSTODY	W2-S3-A	CUSTODY Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1954309-08B	Glass-A.120	INTACT	15-NOV-19	CUSTODY	CUSTODY	William McClendon	W2-S3-A	CUSTODY W2-S3-A	CUSTODY William McClendon

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1954309-08B	Glass-A.120	INTACT	15-NOV-19	TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul		CUSTODY	CUSTODY Raymond Anable
L1954309-08B	Glass-A.120	INTACT	15-NOV-19	COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO	Andrew Kusssmaul		TRANSIT COURIER	COOLER1-TRANSFER_TO_WESTBORO Raymond Anable
L1954309-08B	Glass-A.120	INTACT	15-NOV-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kusssmaul		COOLER1-TRANSFER_TO_WESTBORO	COOLER1-TRANSFER_TO_WESTBORO Andrew Kusssmaul
L1954309-08B	Glass-A.120	INTACT	15-NOV-19	A2-LOGIN	A2-LOGIN	Andrew Kusssmaul		A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE Andrew Kusssmaul

Chain of Custody

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1



Project Information

Project Name: Gasco PDI

Project Location:

Project #: 000029-02.59

Project Manager: Delaney Peterson

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Anchor QEA

Address: 6720 SW Macadam Ave.

Portland, Oregon 97219

Phone: 360-715-2707

Fax:

Email: dpeterson@anchorqea.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Samples frozen to extend hold time for PAHs. Hold samples frozen until extraction

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

Date Rec'd in Lab: 11/14/19

ALPHA Job #: L1951309

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"/>	<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		
-01	PDI-090SC-B-06-08-191012	10/12/19	14:22	SE	SN
-02	PDI-084SC-B-06-08-191002	10/2/19	11:39	SE	SN
-03	PDI-079SC-B-06-08-191014	10/14/19	13:15	SE	SN
-04	PDI-071SC-B-06-08-191001	10/01/19	14:00	SE	SN
-05	PDI-066SC-B-06-08-191011	10/11/19	8:40	SE	SN
-06	PDI-059SC-B-06-08-191016	10/16/19	7:57	SE	SN
-07	PDI-049SC-B-06-08-191015	10/15/19	13:32	SE	SN

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By: <i>Sasha Norwood</i> @ UPS FedEx	Date/Time 11/13/19 @ 13:00 11/14/19 09:28	Received By: <i>[Signature]</i> @ UPS FedEx	Date/Time 11/14/19 09:28
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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. 101-09(1-NJ)
(rev. 9-10-12)

Organics

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

Initial Calibration

Response Factor Report PAH2

Method Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Method File : PAH2100819.M
 Title : Decalins & Alkylated PAH's
 Last Update : Wed Oct 09 16:09:06 2019
 Response Via : Initial Calibration

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
-----ISTD-----									
1) i Acenaphthene-d10									
2) A1 trans-Decalin	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
3) t cis-Decalin	0.310	0.283	0.286	0.273	0.302	0.291	0.336	0.297	7.08
4) A2 C1-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
5) A2 C2-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
6) A2 C3-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
7) A2 C4-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
8) s Naphthalene-d8	1.802	1.742	1.790	1.787	1.887	1.870	2.024	1.843	5.09
9) A1 Naphthalene	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
10) A2 C1-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
11) A2 C2-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
12) A2 C3-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
13) A2 C4-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
14) t 2-Methylnaphth...	1.317	1.305	1.302	1.316	1.396	1.376	1.452	1.352	4.24
15) t 1-Methylnaphth...	1.303	1.258	1.268	1.261	1.339	1.307	1.354	1.299	2.94
16) A1 Benzothiophene	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
17) A2 C1-Benzo(b)thi...	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
18) A2 C2-Benzo(b)thi...	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
19) A2 C3-Benzo(b)thi...	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
20) A2 C4-Benzo(b)thi...	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
21) t Biphenyl	1.615	1.565	1.596	1.654	1.719	1.649	1.720	1.646	3.59
22) t 2,6-Dimethylna...	1.208	1.156	1.158	1.191	1.276	1.219	1.261	1.210	3.86
23) t Dibenzofuran	1.692	1.655	1.739	1.788	1.864	1.748	1.760	1.749	3.85
24) t Acenaphthylene	2.018	1.965	1.995	1.996	2.086	1.976	2.089	2.018	2.49
25) t Acenaphthene	1.239	1.253	1.244	1.263	1.306	1.250	1.265	1.260	1.76
26) t 2,3,5-Trimethy...	1.148	1.063	1.060	1.105	1.158	1.088	1.115	1.105	3.49
27) A1 Fluorene	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
28) A2 C1-Fluorenes	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
29) A2 C2-Fluorenes	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
30) A2 C3-Fluorenes	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
31) A1 Dibenzothiophene	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31

Response Factor Report PAH2

Method Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
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1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
32) A2 4-Methyldibenz...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
33) A2 2/3-Methyldibe...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
34) A2 1-Methyldibenz...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
35) A2 OTP	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
36) A2 C1-Dibenzothio...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
37) A2 C2-Dibenzothio...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
38) A2 C3-Dibenzothio...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
39) A2 C4-Dibenzothio...	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
40) s Phenanthrene-d10	1.550	1.531	1.593	1.672	1.740	1.627	1.631	1.621	4.42
41) A1 Phenanthrene	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
42) A2 3-Methylphenan...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
43) A2 2-Methylphenan...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
44) A2 2-Methylanthra...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
45) A2 9/4-Methylphen...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
46) A2 1-Methylphenan...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
47) A2 C1-Phenanthren...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
48) A2 C2-Phenanthren...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
49) A2 5AA IS BKGD	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
50) A2 C3-Phenanthren...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
51) A2 C4-Phenanthren...	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
52) t Retene	0.638	0.671	0.660	0.716	0.759	0.742	0.742	0.704	6.72
53) t Anthracene	1.735	1.782	1.922	1.926	1.598	1.415	1.893	1.753	10.86
54) t Carbazole	1.384	1.360	1.534	1.714	1.900	1.815	1.773	1.640	13.08
55) t 1-Methylphenan...	1.484	1.461	1.488	1.597	1.640	1.565	1.545	1.540	4.28
56) A1 Fluoranthene	2.353	2.223	2.264	2.413	2.489	2.358	2.316	2.345	3.80
57) A1 Benzo(b)fluorene	1.457	1.359	1.387	1.489	1.611	1.539	1.485	1.475	5.84
58) A2 7H-Benzo(c)flu...	1.457	1.359	1.387	1.489	1.611	1.539	1.485	1.475	5.84
59) A1 Pyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
60) A2 2-Methylpyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
61) A2 4-Methylpyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
62) A2 1-Methylpyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
63) A2 C1-Fluoranthen...	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66

Response Factor Report PAH2

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 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
64) A2 C2-Fluoranthen...	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
65) A2 C3-Fluoranthen...	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
66) A2 C4-Fluoranthen...	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
67) A1 Naphthobenzoth...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
68) A2 Naphthobenzoth...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
69) A2 Naphthobenzoth...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
70) A2 C1-Naphthobenz...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
71) A2 C2-Naphthobenz...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
72) A2 C3-Naphthobenz...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
73) A2 C4-Naphthobenz...	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.200	1.122	1.128	1.143	1.189	1.119	1.091	1.142	3.44
76) A1 Chrysene	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
77) A2 Chrysene/Triph...	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
78) A2 C1-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
79) A2 C2-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
80) A2 BBF-D12 Surr BKGD	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
81) A2 C3-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
82) A2 C4-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
83) s Benzo[b]fluora...	1.001	0.975	0.937	0.961	1.027	1.001	0.952	0.979	3.27
84) t Benzo[b]fluora...	1.511	1.459	1.324	1.354	1.437	1.341	1.252	1.383	6.48
85) A1 Benzo[j]+[k]fl...	1.500	1.421	1.441	1.468	1.443	1.295	1.169	1.391	8.43
86) A2 Benzo[a]fluora...	1.500	1.421	1.441	1.468	1.443	1.295	1.169	1.391	8.43
87) t Benzo[e]pyrene	1.501	1.391	1.331	1.340	1.346	1.240	1.146	1.328	8.42
88) s Benzo[a]pyrene...	0.789	0.767	0.759	0.762	0.789	0.729	0.703	0.757	4.12
89) t Benzo[a]pyrene	1.343	1.263	1.256	1.273	1.242	1.104	1.029	1.216	8.97
90) t Perylene	1.246	1.219	1.245	1.262	1.195	1.081	1.065	1.188	6.86
91) t Indeno[1,2,3-c...	1.383	1.344	1.400	1.390	1.554	1.543	1.510	1.446	5.98
92) t Dibenz[ah]+[ac...	1.351	1.299	1.278	1.299	1.389	1.330	1.291	1.320	2.98
93) t Benzo[g,h,i]pe...	1.551	1.486	1.434	1.423	1.473	1.403	1.349	1.446	4.47
94) A1 Hopane (T19)	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37

Response Factor Report PAH2

Method Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
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 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
95) A2 C23 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
96) A2 C24 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
97) A2 C25 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
98) A2 C24 Tetracycli...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
99) A2 C26 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
100) A2 C26 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
101) A2 C28 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
102) A2 C28 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
103) A2 C29 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
104) A2 C29 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
105) A2 18a-22,29,30-T...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
106) A2 C30 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
107) A2 C30 Tricyclic ...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
108) A2 17a(H)-22,29,3...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
109) A2 17a/b,21b/a 28...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
110) A2 17a(H),21b(H)-...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
111) A2 30-Norhopane (...)	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
112) A2 18a(H)-30-Norn...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
113) A2 17a(H)-Diahopa...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
114) A2 30-Normoretane...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
115) A2 18a(H)&18b(H)-...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
116) A2 Moretan (T20)	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
117) A2 30-Homohopane-...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
118) A2 30-Homohopane-...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
119) A2 Gammacerane/C3...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
120) A2 30,31-Bishomoh...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
121) A2 30,31-Bishomoh...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
122) A2 30,31-Trishomo...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
123) A2 30,31-Trishomo...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
124) A2 Tetrakishomoho...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
125) A2 Tetrakishomoho...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
126) A2 Pentakishomoho...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37

Response Factor Report PAH2

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 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
127) A2 Pentakishomoho...	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
128) SA1 5B(H)Cholane -...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
129) A2 13b(H),17a(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
130) A2 13b(H),17a(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
131) A2 13b,17a-20S-Me...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
132) A2 14a,17a-20S-Ch...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
133) A2 14a,17a-20R-Ch...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
134) A2 Unknown Steran...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
135) A2 13a,17b-20S-Et...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
136) A2 14a,17a-20S-Me...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
137) A2 14a,17a-20R-Me...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
138) A2 14a(H),17a(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
139) A2 14a(H),17a(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
140) A2 14b(H),17b(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
141) A2 14b(H),17b(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
142) A2 14b,17b-20R-Me...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
143) A2 14b,17b-20S-Me...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
144) A2 14b(H),17b(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
145) A2 14b(H),17b(H)-...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
146) A2 C20 Pregnane	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
147) A2 C21 20-Methylp...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
148) A2 C22 20-Ethylpr...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
149) A2 C22 20-Ethylpr...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
150) A2 C26,20S TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
151) A2 C26,20R+C27,20...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
152) A2 C28,20S TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
153) A2 C27,20R TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
154) A2 C28,20R TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
155) A2 C29,20S TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
156) A2 C29,20R TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
157) A2 5b(H)-C27 (20S...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
158) A2 5b(H)-C27 (20R...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50

Response Factor Report PAH2

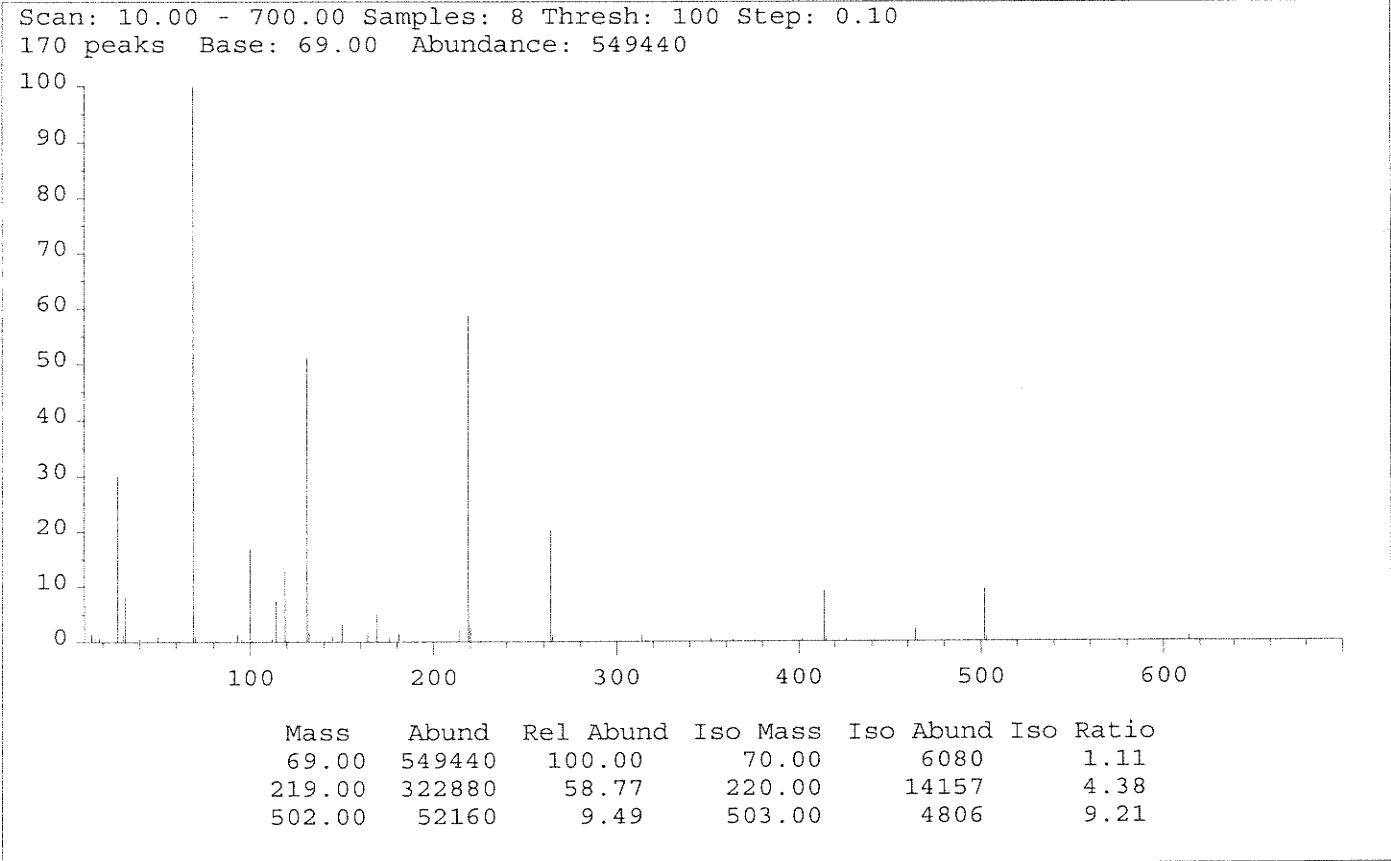
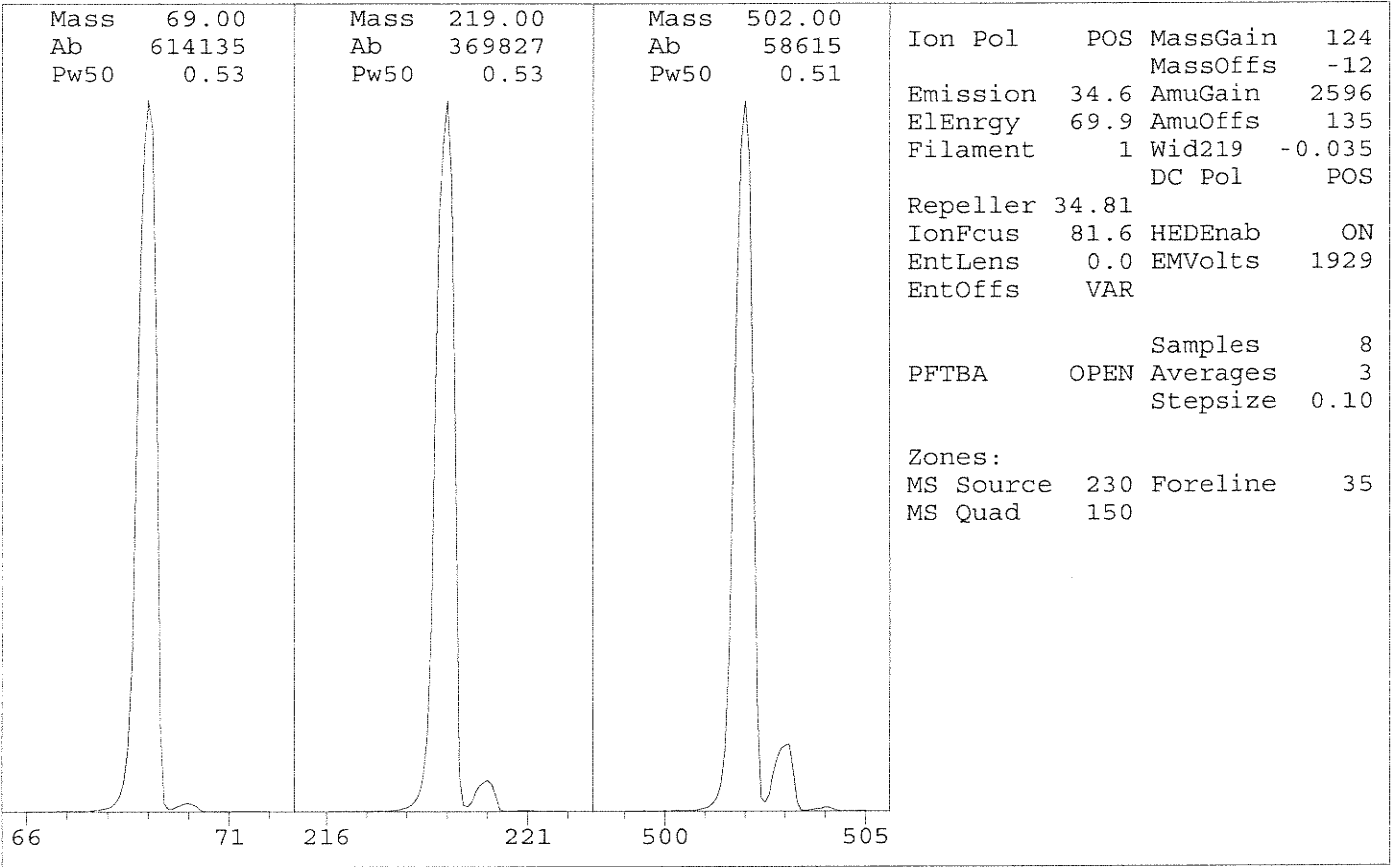
Method Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Method File : PAH2100819.M
 Title : Decalins & Alkylated PAH's
 Last Update : Wed Oct 09 16:09:06 2019
 Response Via : Initial Calibration

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
159) A2 5a(H)-C27 (20S...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
160) A2 5b(H)-C28 (20S...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
161) A2 5a(H)-C27 (20R...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
162) A2 5a(H)-C28 (20S...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
163) A2 5b(H)-C28 (20R...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
164) A2 5b(H)-C29 (20S...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
165) A2 5a(H)-C29 (20S...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
166) A2 5a(H)-C28 (20R...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
167) A2 5b(H)-C29 (20R...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
168) A2 5a(H)-C29 (20R...	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50

(#) = Out of Range



TARGET MASS:	50	69	131	219	414	502
DYNAMIC ENT OFFSET:	15.8	17.3	18.3	18.1	22.8	22.8
TARGET ABUND(%):	1.0	100.0	50.0	53.0	9.0	9.0
ACTUAL TUNE ABUND(%):	1.0	100.0	51.1	58.8	9.2	9.5

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081904.D
 Acq On : 8 Oct 2019 6:46 pm
 Operator : PAH2:ML
 Sample : i210081901
 Misc : WG1294599,ffbb19
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 09 11:10:03 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:27:52 2019
 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	27.220	164	71050	500.000	ng/mL	0.00	
74) Chrysene-d12	43.690	240	133886	500.000	ng/mL	-0.02	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	2561	9.642	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.96%#	
40) Phenanthrene-d10	33.106	188	2202	9.757	ng/mL	0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.98%#	
83) Benzo[b]fluoranthene-d12	47.620	264	2680	10.027	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.00%#	
88) Benzo[a]pyrene-d12	48.855	264	2114	10.149	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.01%#	
128) 5B(H)Cholane - Surr	44.307	217	462	10.136	ng/ml	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.01%#	
Target Compounds							
2) trans-Decalin	16.892	138	289	5.121	ng/mL	100	Qvalue
3) cis-Decalin	18.112	138	220	5.051	ng/mL	100	
9) Naphthalene	20.325	128	2906	10.127	ng/mL	100	
14) 2-Methylnaphthalene	23.019	142	1871	9.558	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	1851	9.727	ng/mL	100	
16) Benzothiophene	20.535	134	2156	9.223	ng/mL	100	
21) Biphenyl	24.901	154	2295	9.699	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.503	156	1717	9.796	ng/mL	100	
23) Dibenzofuran	27.987	168	2404	9.719	ng/mL	90	
24) Acenaphthylene	26.602	152	2868	9.947	ng/mL	100	
25) Acenaphthene	27.340	153	1761	9.611	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.906	170	1632	10.290	ng/mL	91	
27) Fluorene	29.372	166	1978	9.543	ng/mL	99	
31) Dibenzothiophene	32.699	184	2684	9.751	ng/mL	96	
41) Phenanthrene	33.181	178	2834	9.700	ng/mL	99	
52) Retene	40.167	234	907	8.970	ng/mL	77	
53) Anthracene	33.362	178	2465	10.284	ng/mL	99	
54) Carbazole	34.024	167	1967	8.341	ng/mL	98	
55) 1-Methylphenanthrene	35.695	192	2109	9.614	ng/mL	97	
56) Fluoranthene	37.969	202	3344	9.985	ng/mL#	88	
57) Benzo(b)fluorene	40.483	216	2071	9.667	ng/mL	97	
59) Pyrene	38.842	202	3571	10.323	ng/mL	94	
67) Naphthobenzothiophene-2,1	42.696	234	2977	10.014	ng/mL	97	
75) Benz[a]anthracene	43.630	228	3214M3	10.210	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081904.D
 Acq On : 8 Oct 2019 6:46 pm
 Operator : PAH2:ML
 Sample : i210081901
 Misc : WG1294599,ffbb19
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 09 11:10:03 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:27:52 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.795	228	3338	10.518	ng/mL	98
77) Chrysene/Triphenylene	43.795	228	3338	10.518	ng/mL	98
84) Benzo[b]fluoranthene	47.711	252	4046	10.783	ng/mL	91
85) Benzo[j]+[k]fluoranthene	47.786	252	4017	10.682	ng/mL	91
87) Benzo[e]pyrene	48.750	252	4018	11.274	ng/mL	90
89) Benzo[a]pyrene	48.946	252	3595	10.815	ng/mL	93
90) Perylene	49.277	252	3337	10.313	ng/mL	89
91) Indeno[1,2,3-cd]pyrene	54.006	276	3704M3	9.400	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.081	278	3617	9.963	ng/mL#	93
93) Benzo[g,h,i]perylene	55.376	276	4152	10.621	ng/mL	95
94) Hopane (T19)	53.087	191	707M4	10.284	ng/mL	

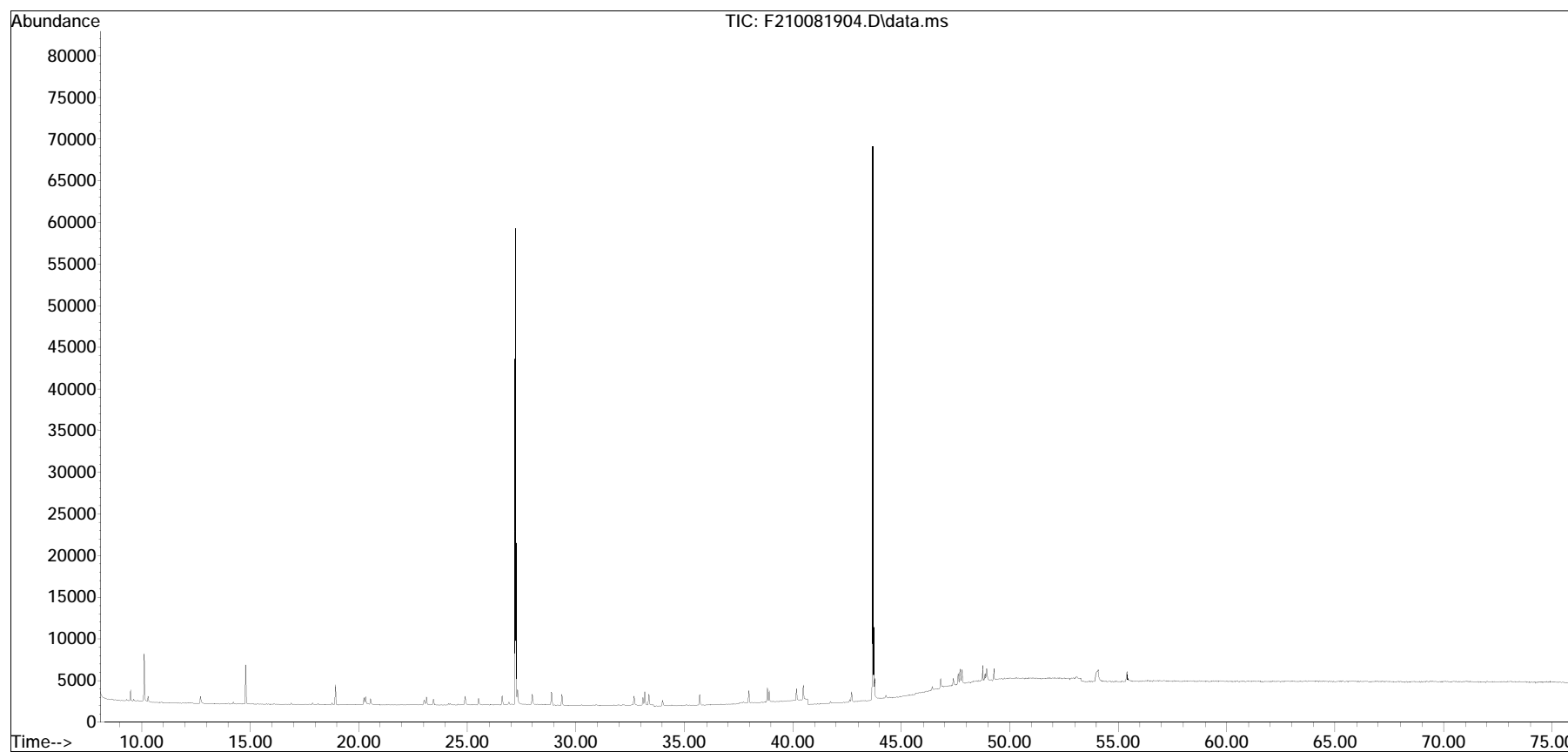
(#) = qualifier out of range (m) = manual integration (+) = signals summed

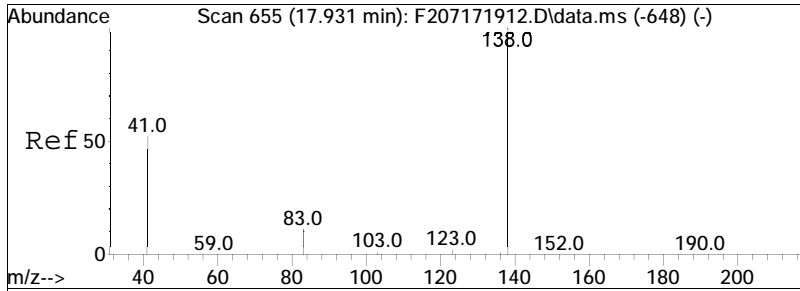
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081904.D
Acq On : 8 Oct 2019 6:46 pm
Operator : PAH2:ML
Sample : i210081901
Misc : WG1294599,ffbb19
ALS Vial : 4 Sample Multiplier: 1

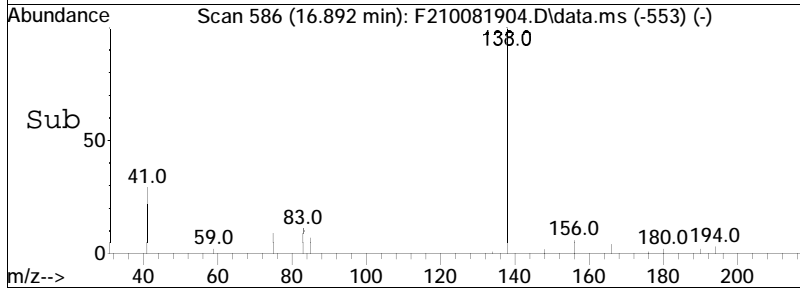
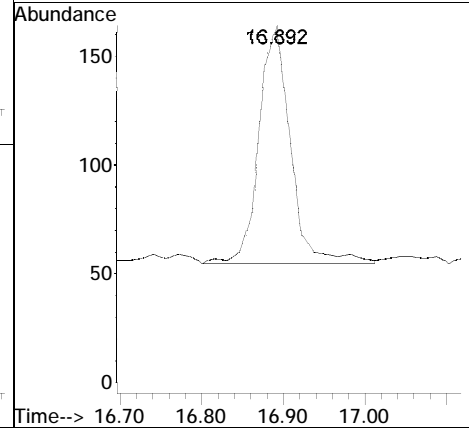
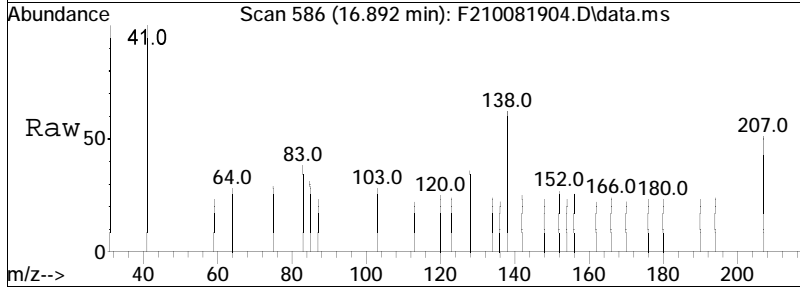
Quant Time: Oct 09 11:10:03 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Oct 08 10:27:52 2019
Response via : Initial Calibration

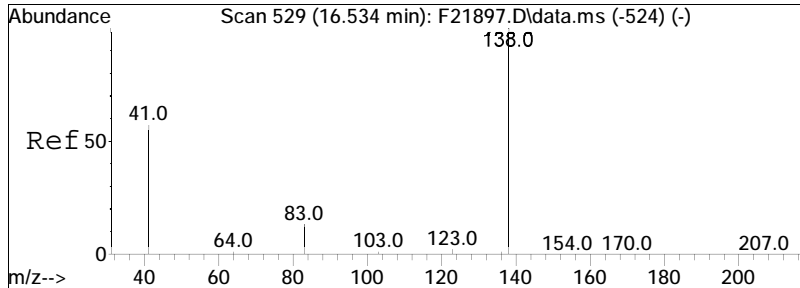
Sub List : ALKPAH_CCV - CC with five surrogates



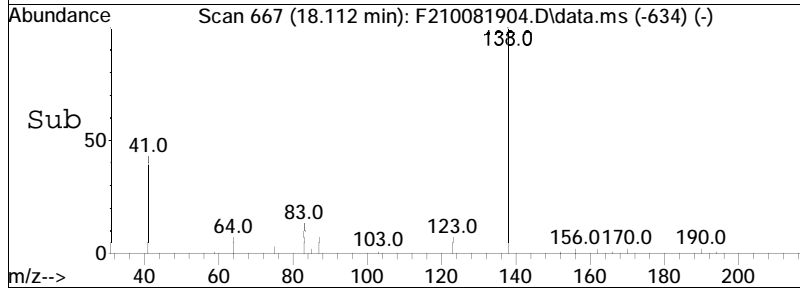
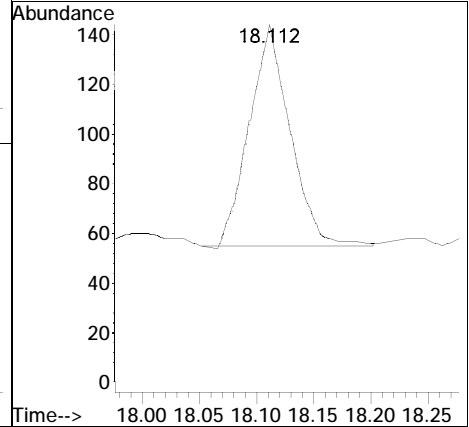
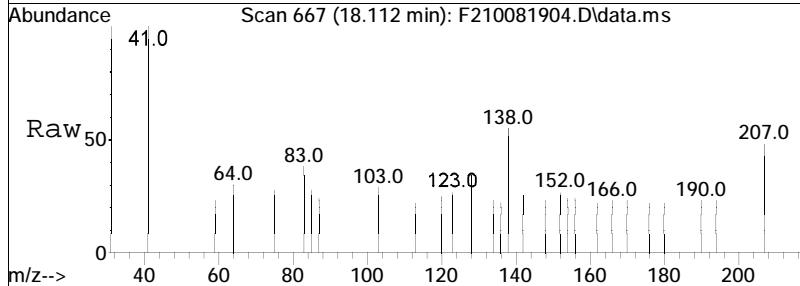


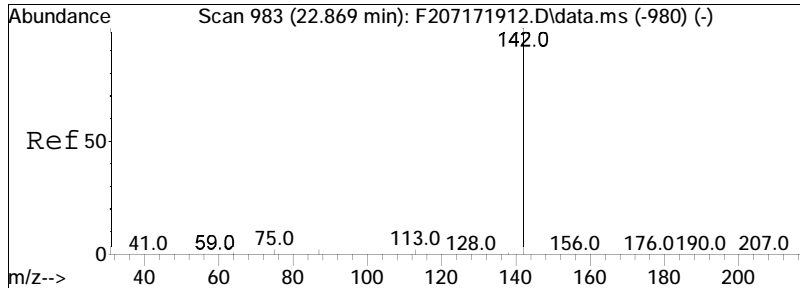
#2
 trans-Decalin
 Concen: 5.12 ng/mL
 RT: 16.892 min Scan# 586
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:138 Resp: 289



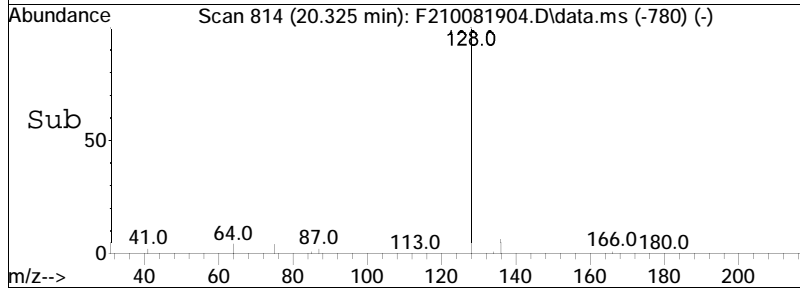
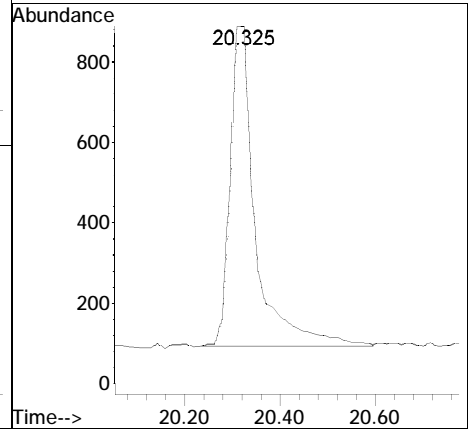
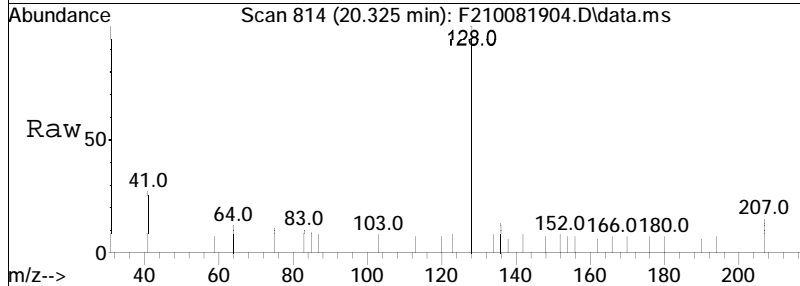


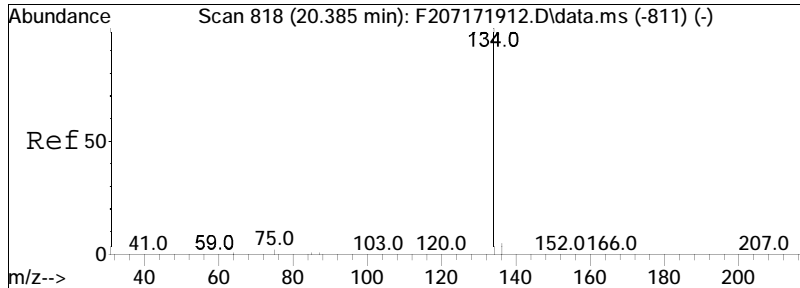
#3
 cis-Decalin
 Concen: 5.05 ng/mL
 RT: 18.112 min Scan# 667
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:138 Resp: 220



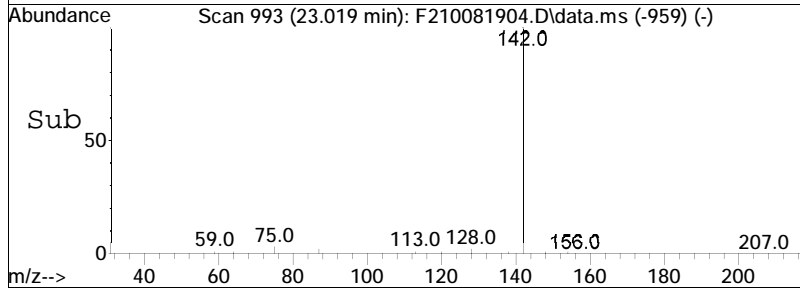
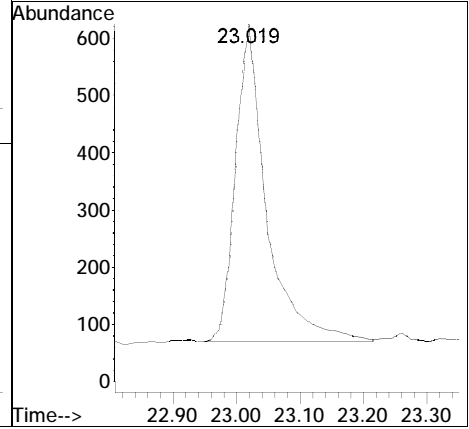
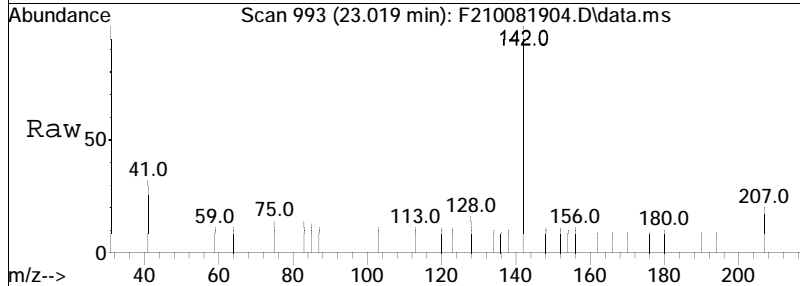


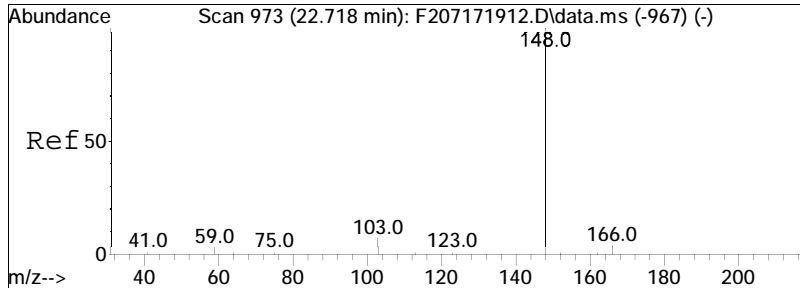
#9
 Naphthalene
 Concen: 10.13 ng/mL
 RT: 20.325 min Scan# 814
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:128 Resp: 2906



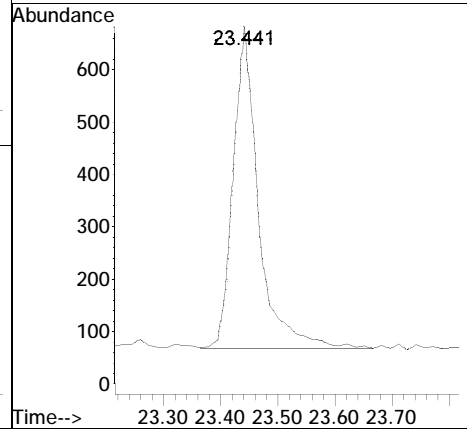
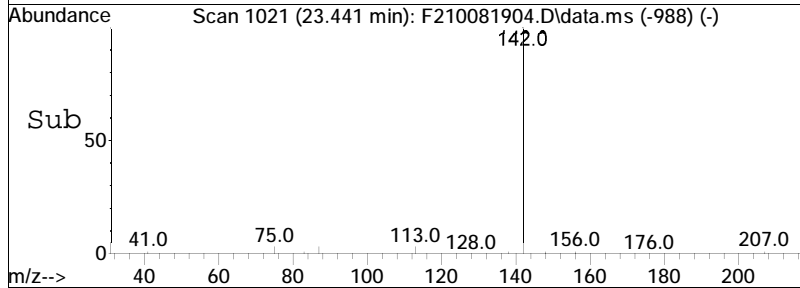
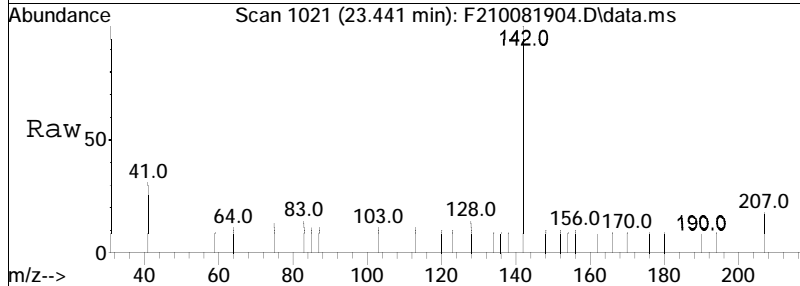


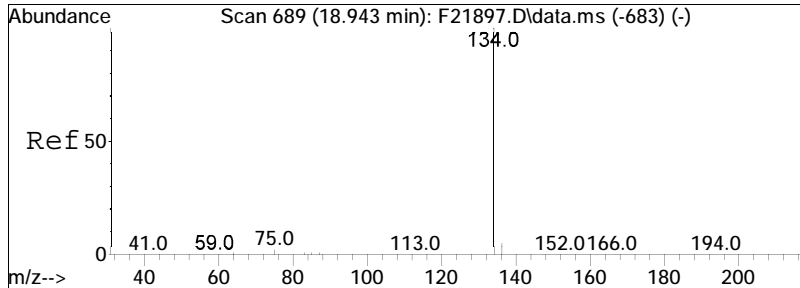
#14
2-Methylnaphthalene
Concen: 9.56 ng/mL
RT: 23.019 min Scan# 993
Delta R.T. 0.015 min
Lab File: F210081904.D
Acq: 8 Oct 2019 6:46 pm
Tgt Ion:142 Resp: 1871



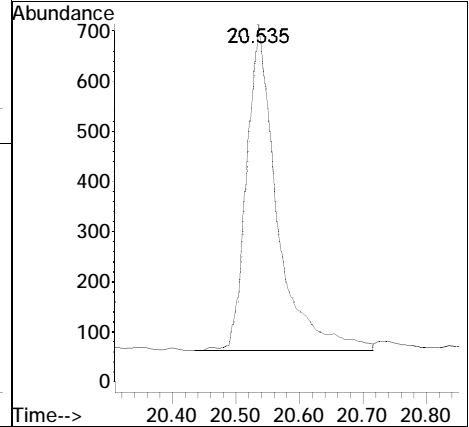
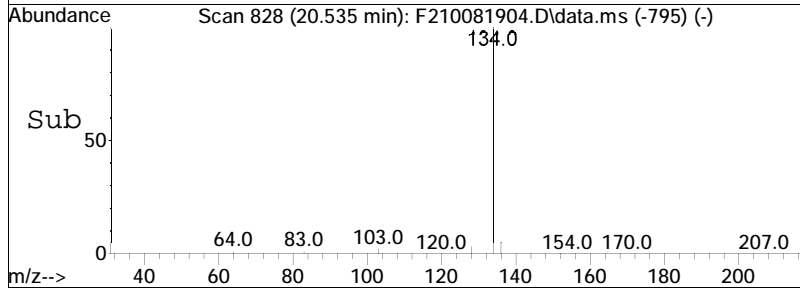
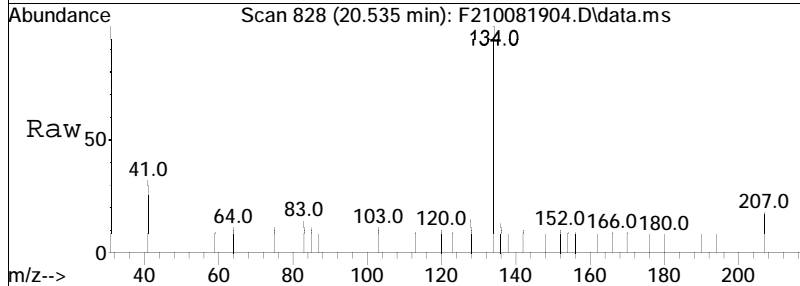


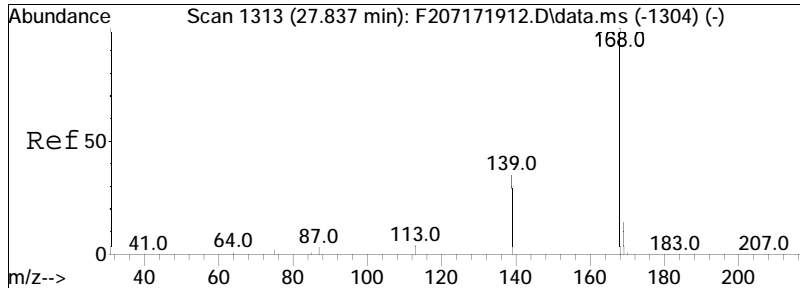
#15
 1-Methylnaphthalene
 Concen: 9.73 ng/mL
 RT: 23.441 min Scan# 1021
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:142 Resp: 1851



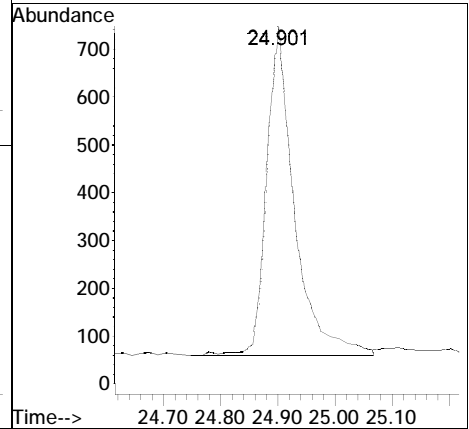
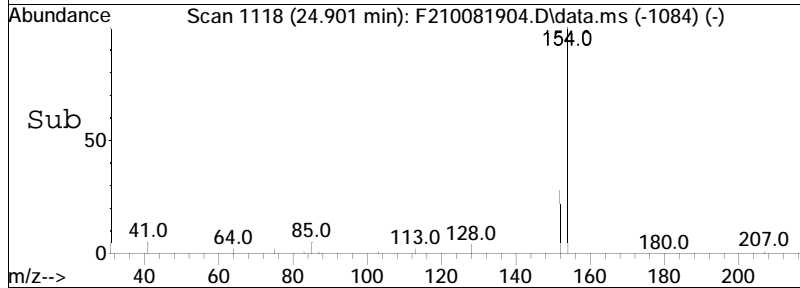
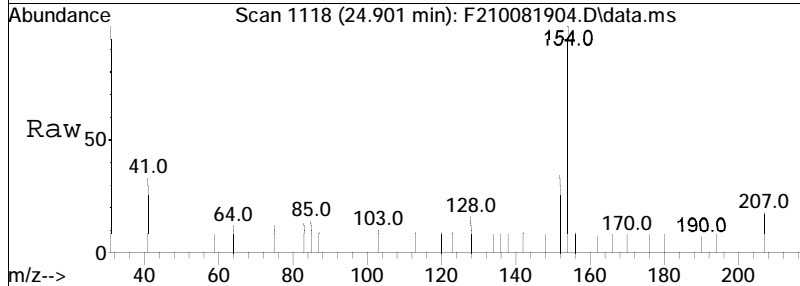


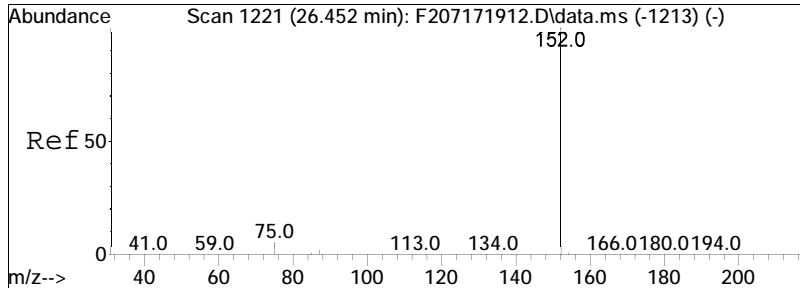
#16
 Benzo[thiophene]
 Concen: 9.22 ng/mL
 RT: 20.535 min Scan# 828
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:134 Resp: 2156



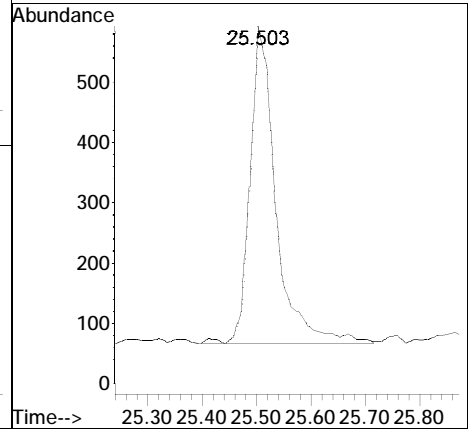
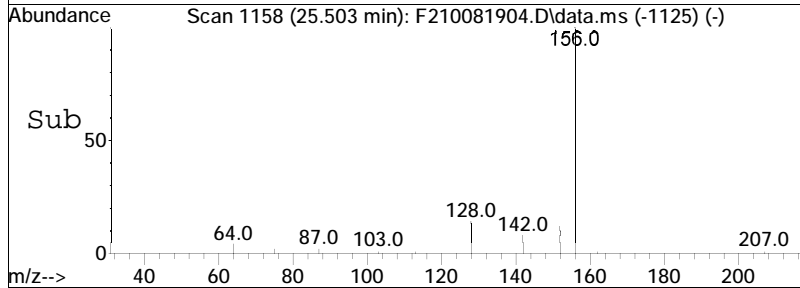
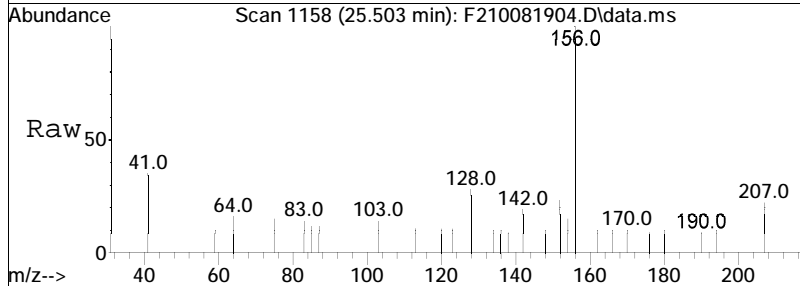


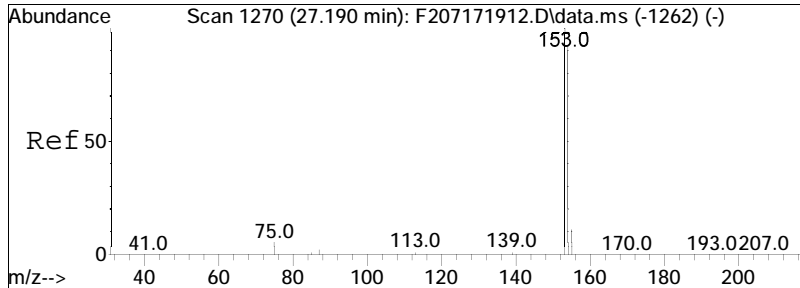
#21
 Biphenyl
 Concen: 9.70 ng/mL
 RT: 24.901 min Scan# 1118
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:154 Resp: 2295





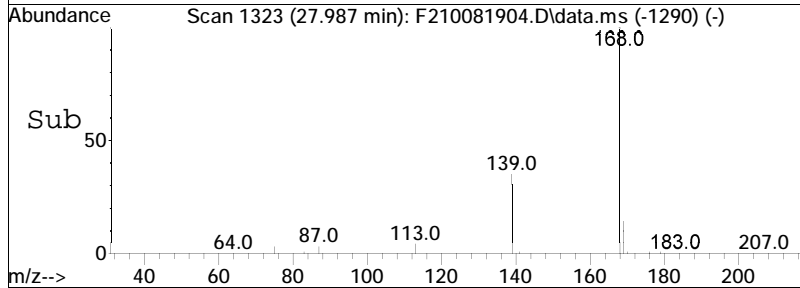
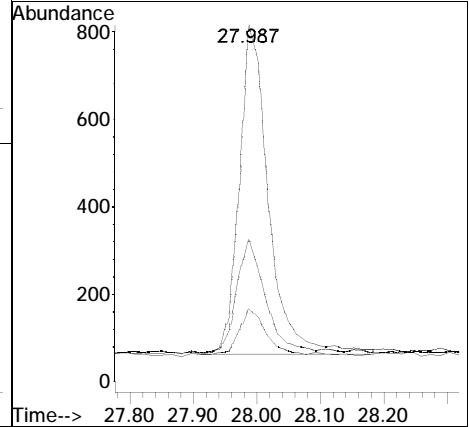
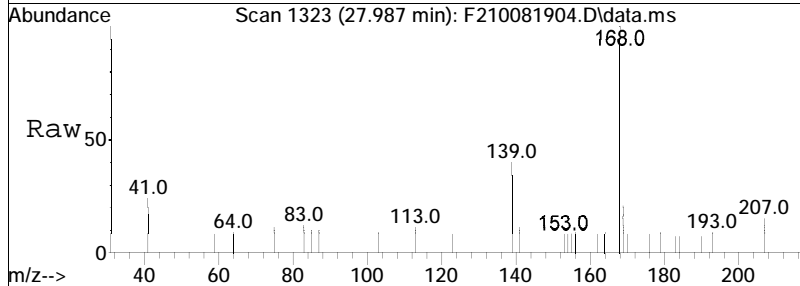
#22
 2,6-Dimethylnaphthalene
 Concen: 9.80 ng/mL
 RT: 25.503 min Scan# 1158
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:156 Resp: 1717

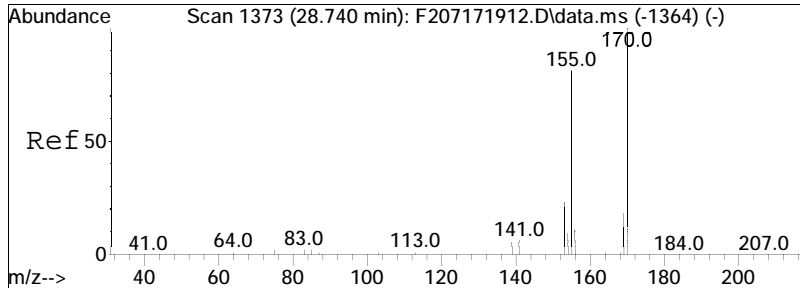




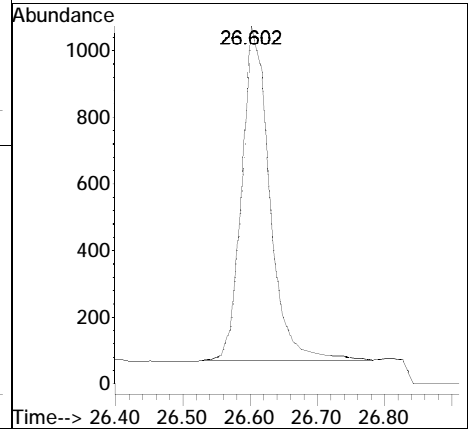
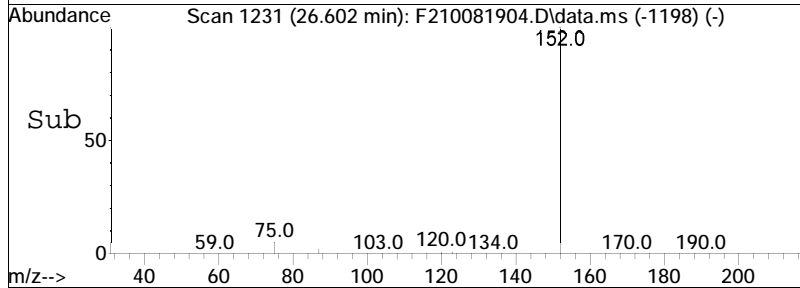
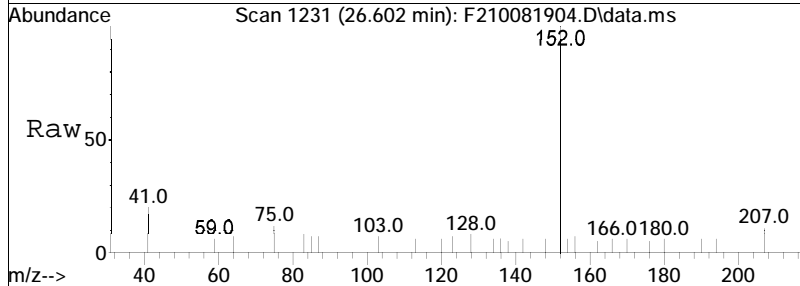
#23
 Dibenzofuran
 Concen: 9.72 ng/mL
 RT: 27.987 min Scan# 1323
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

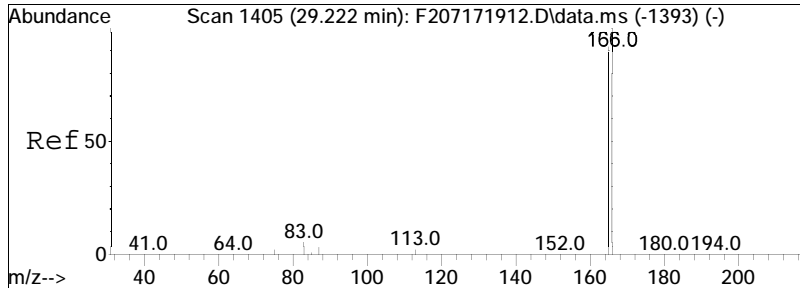
Tgt Ion	Ratio	Lower	Upper
168	100		
139	36.4	20.3	37.7
169	14.5	9.4	17.6





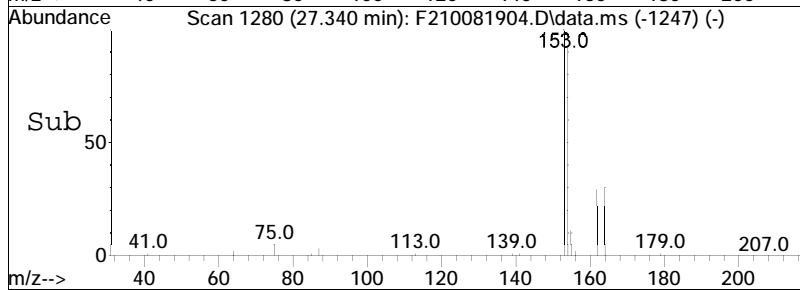
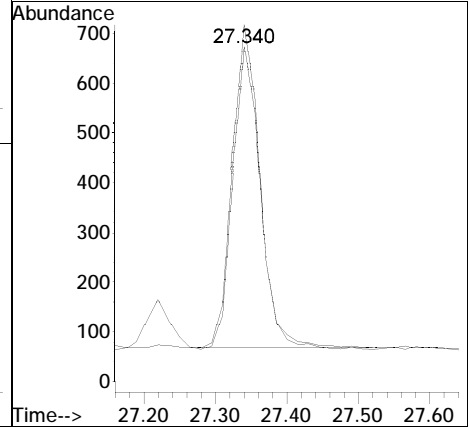
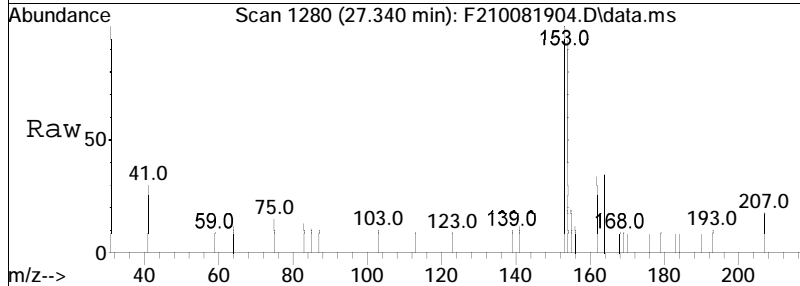
#24
 Acenaphthylene
 Concen: 9.95 ng/mL
 RT: 26.602 min Scan# 1231
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm
 Tgt Ion:152 Resp: 2868

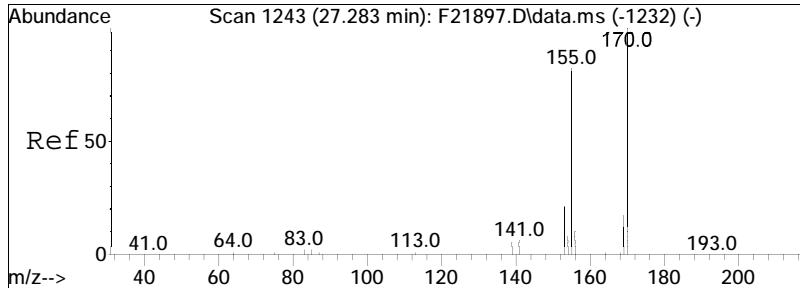




#25
 Acenaphthene
 Concen: 9.61 ng/mL
 RT: 27.340 min Scan# 1280
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

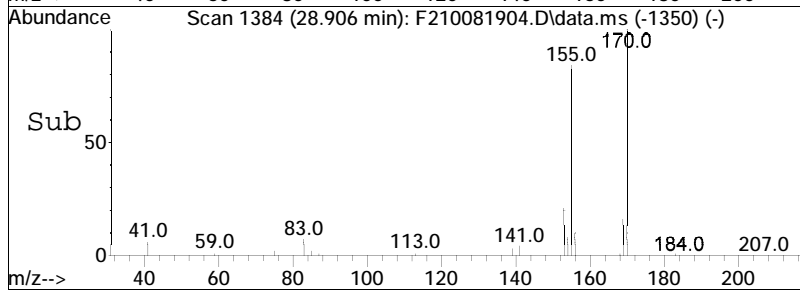
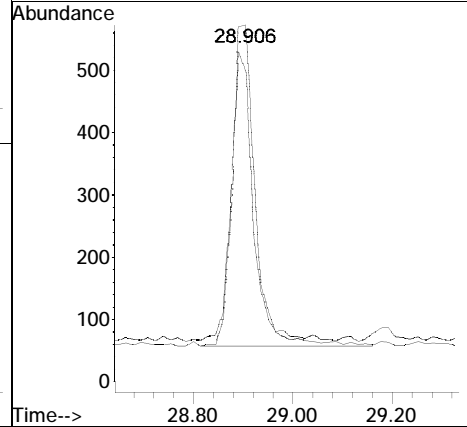
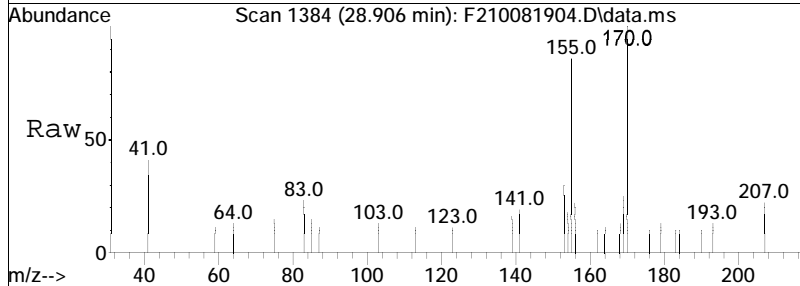
Tgt Ion: 153 Resp: 1761
 Ion Ratio Lower Upper
 153 100
 154 93.4 64.8 120.4

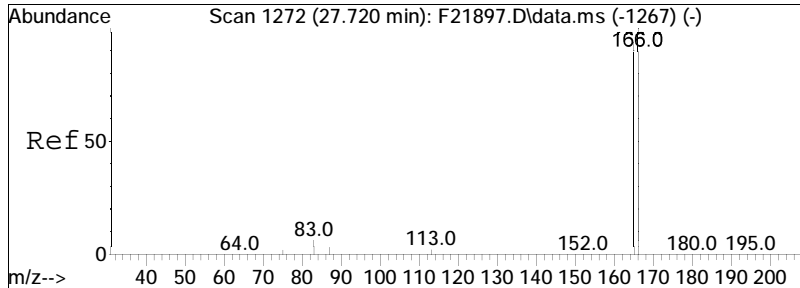




#26
 2,3,5-Trimethylnaphthalene
 Concen: 10.29 ng/mL
 RT: 28.906 min Scan# 1384
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

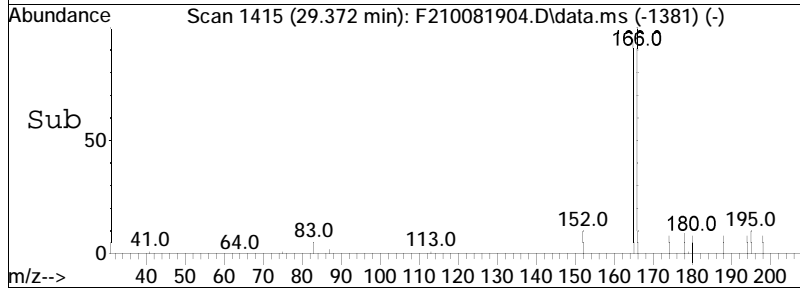
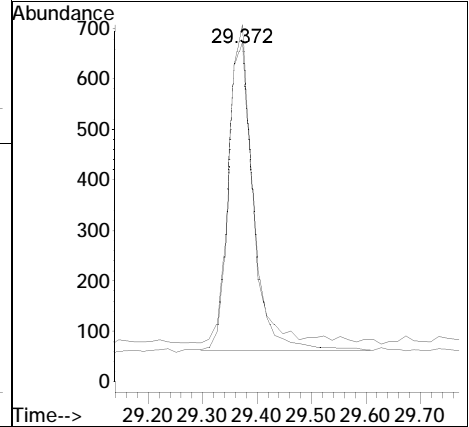
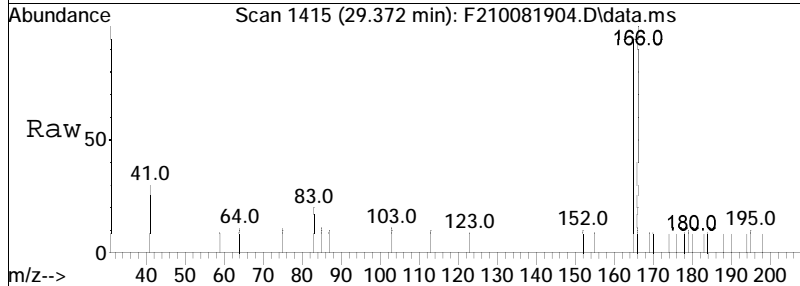
Tgt Ion:	170	Resp:	1632
Ion Ratio	Lower	Upper	
170	100		
155	84.3	53.3	98.9

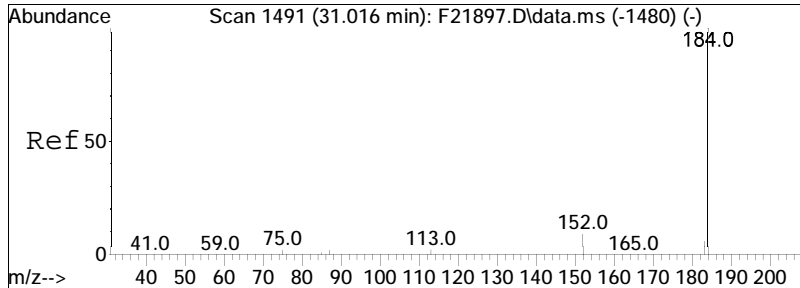




#27
 Fluorene
 Concen: 9.54 ng/mL
 RT: 29.372 min Scan# 1415
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

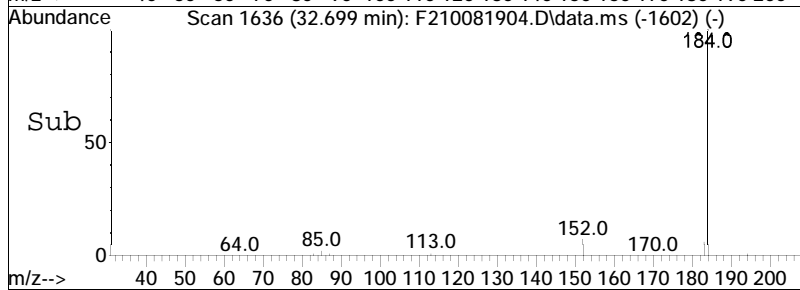
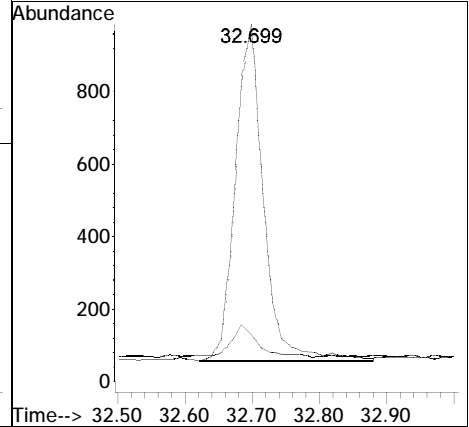
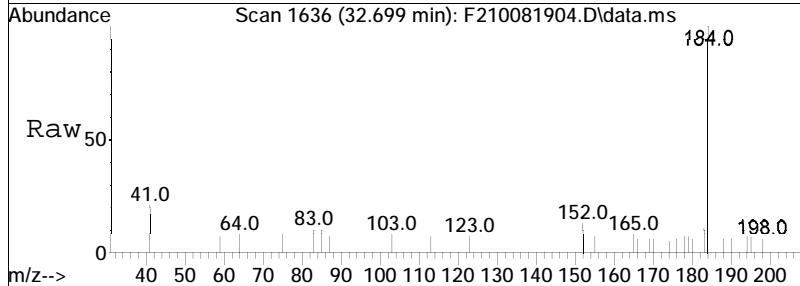
Tgt Ion: 166 Resp: 1978
 Ion Ratio Lower Upper
 166 100
 165 92.1 65.4 121.4

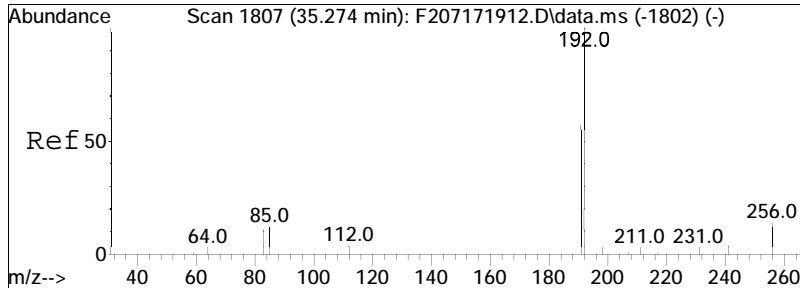




#31
 Dibenzothiophene
 Concen: 9.75 ng/mL
 RT: 32.699 min Scan# 1636
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

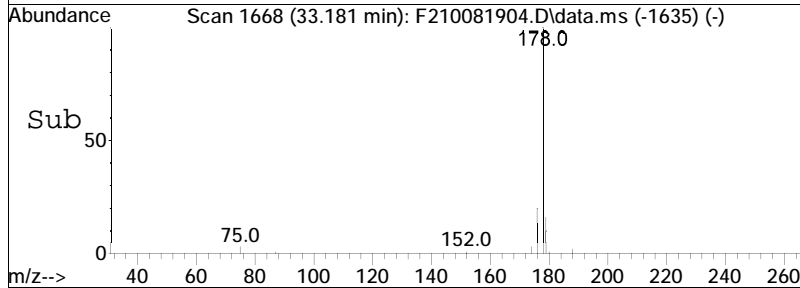
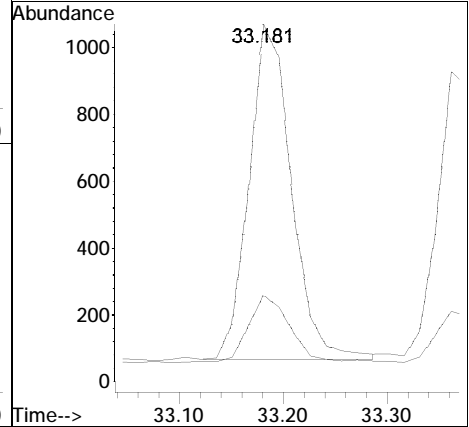
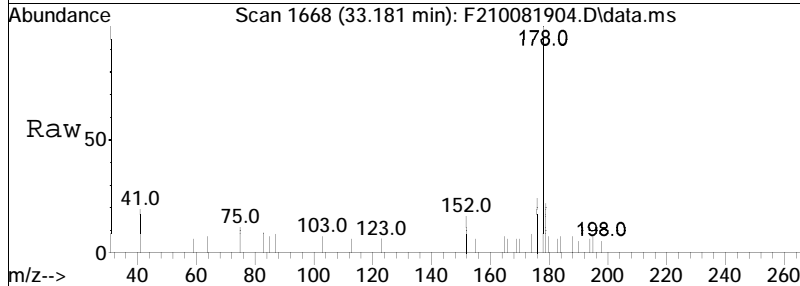
Tgt Ion: 184 Resp: 2684
 Ion Ratio Lower Upper
 184 100
 152 8.3 4.9 9.1

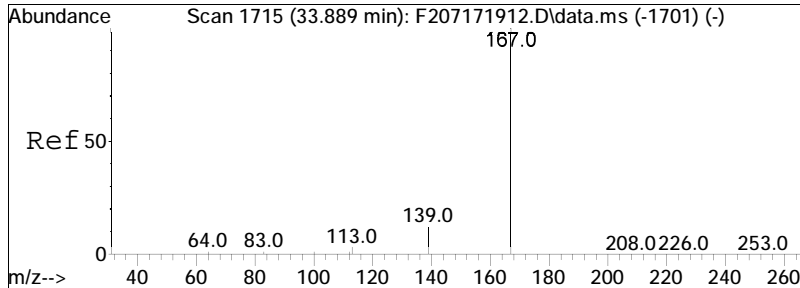




#41
 Phenanthrene
 Concen: 9.70 ng/mL
 RT: 33.181 min Scan# 1668
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

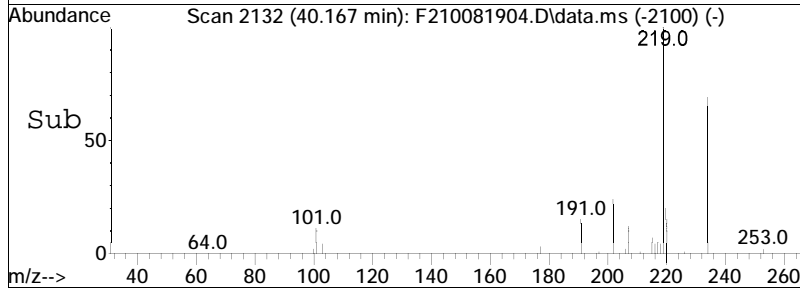
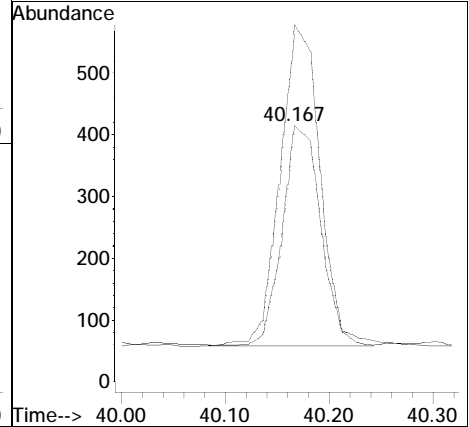
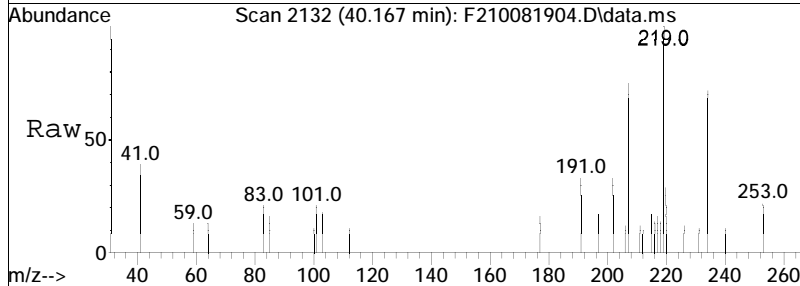
Tgt Ion: 178 Resp: 2834
 Ion Ratio Lower Upper
 178 100
 176 19.6 13.3 24.7

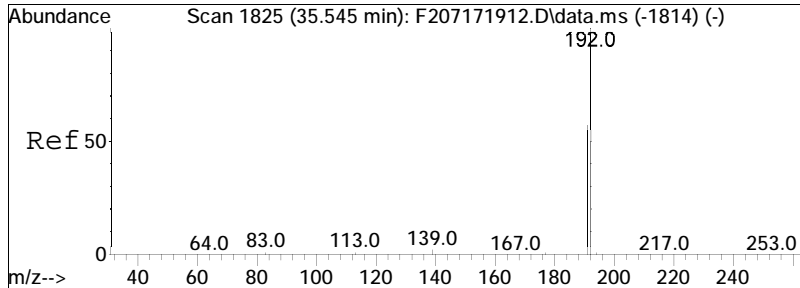




#52
 Retene
 Concen: 8.97 ng/mL
 RT: 40.167 min Scan# 2132
 Delta R.T. -0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

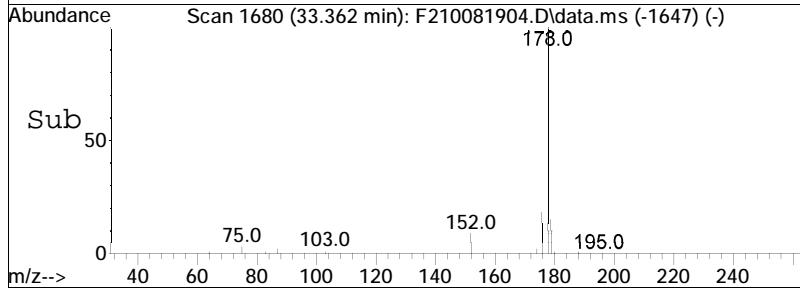
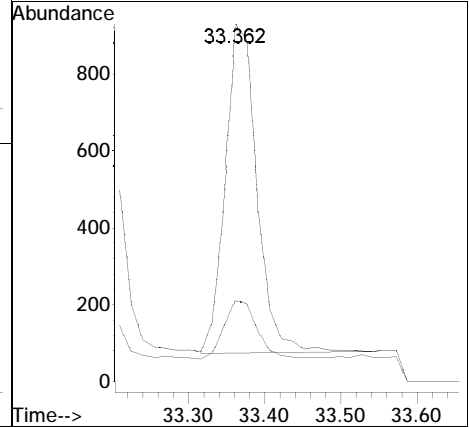
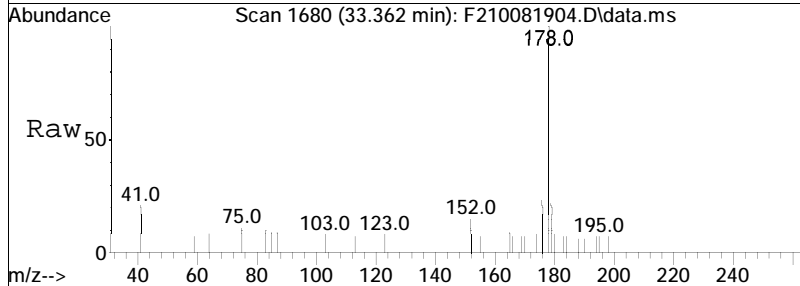
Tgt Ion	Ratio	Lower	Upper
234	100		
219	152.4	88.0	163.4

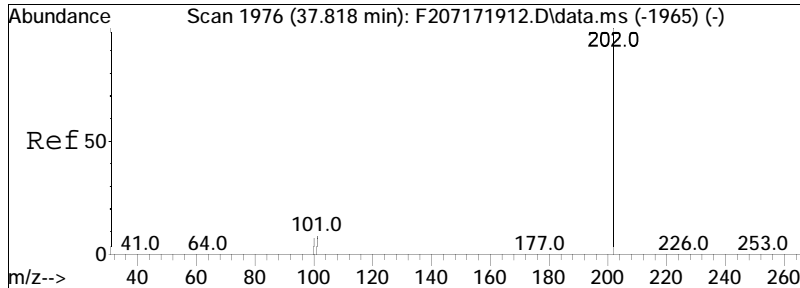




#53
 Anthracene
 Concen: 10.28 ng/mL
 RT: 33.362 min Scan# 1680
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

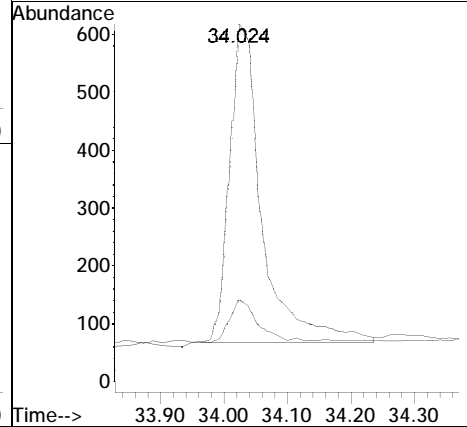
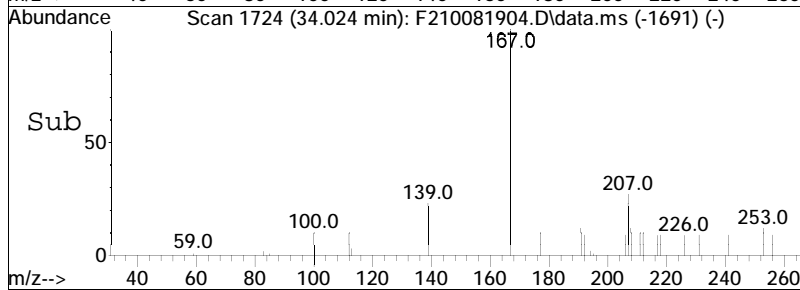
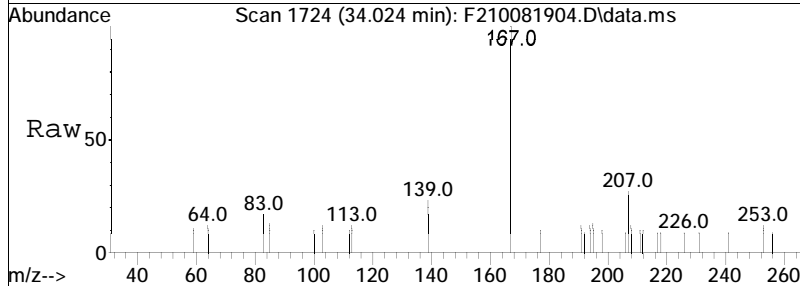
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.0	12.9	23.9

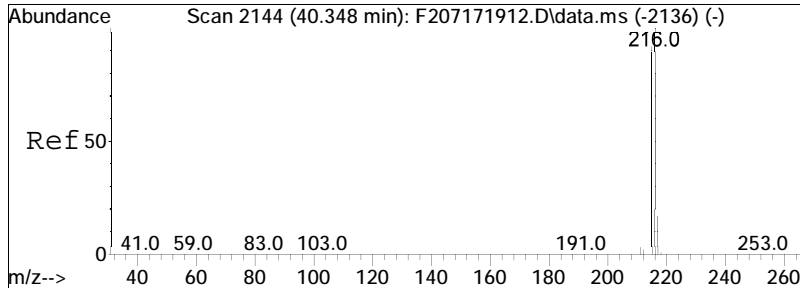




#54
 Carbazole
 Concen: 8.34 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

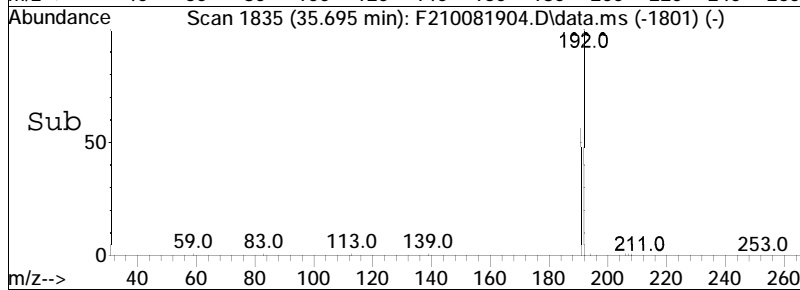
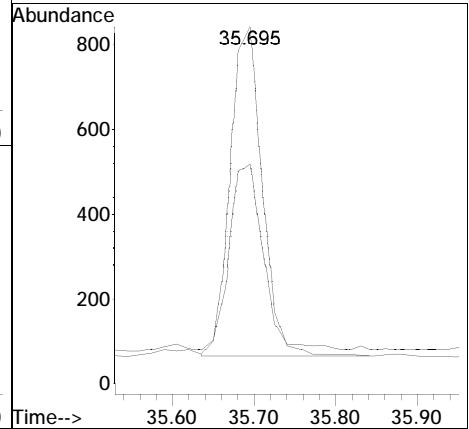
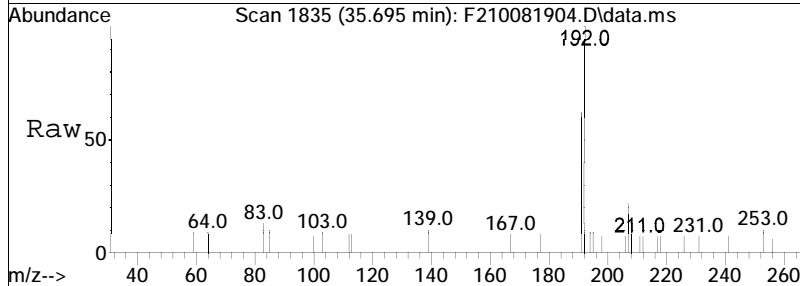
Tgt Ion: 167 Resp: 1967
 Ion Ratio Lower Upper
 167 100
 139 12.5 8.3 15.3

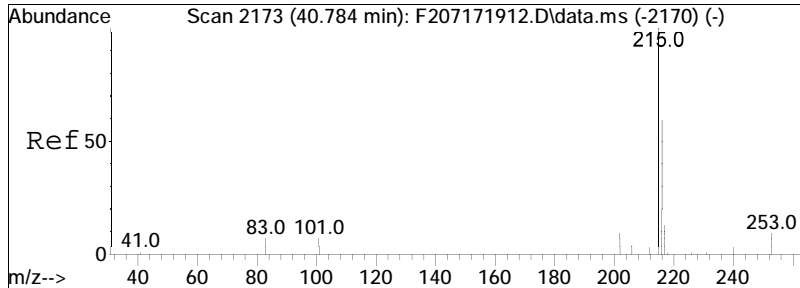




#55
 1-Methylphenanthrene
 Concen: 9.61 ng/mL
 RT: 35.695 min Scan# 1835
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

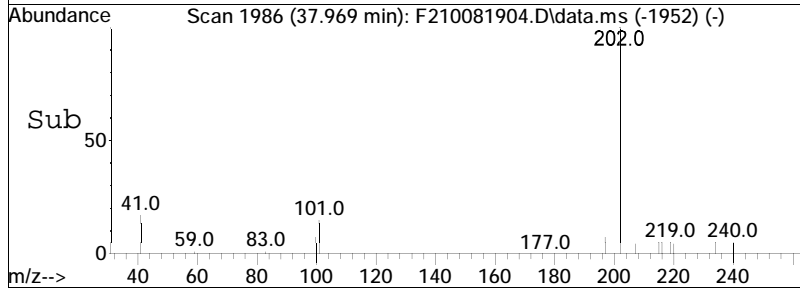
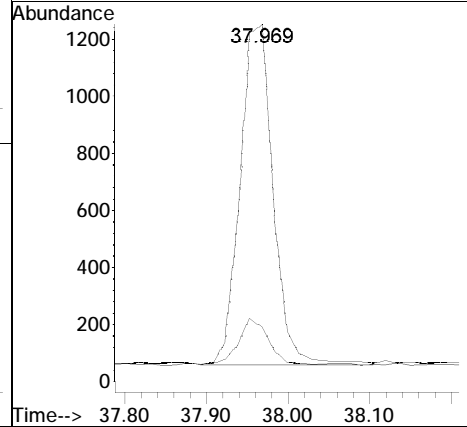
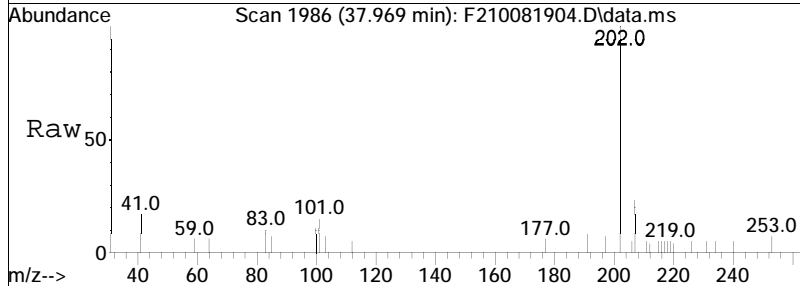
Tgt Ion: 192 Resp: 2109
 Ion Ratio Lower Upper
 192 100
 191 58.9 39.9 74.1

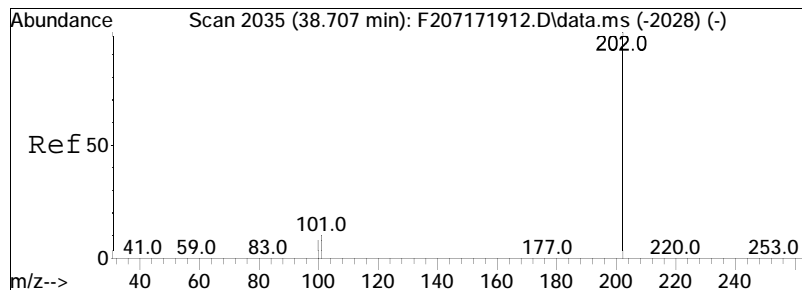




#56
 Fluoranthene
 Concen: 9.99 ng/mL
 RT: 37.969 min Scan# 1986
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

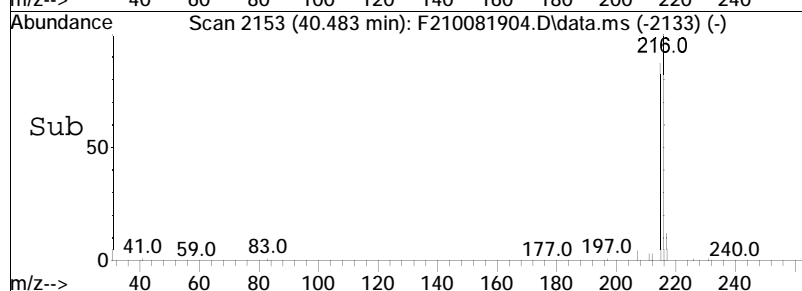
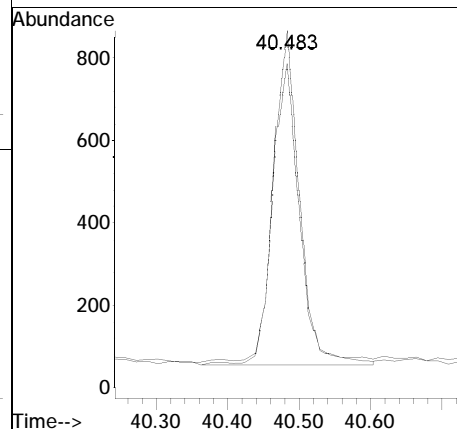
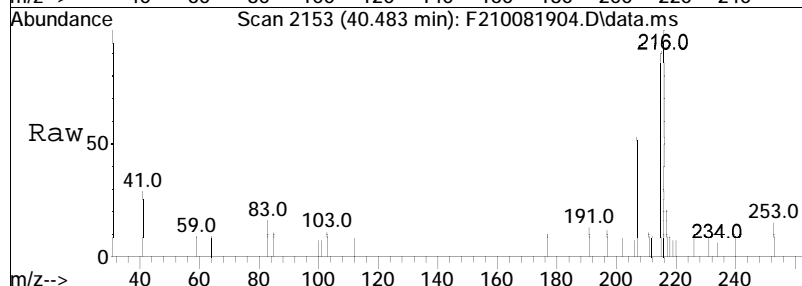
Tgt Ion: 202 Resp: 3344
 Ion Ratio Lower Upper
 202 100
 101 12.3 5.5 10.3#

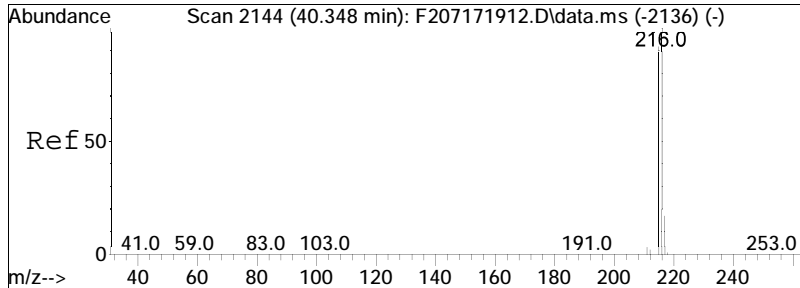




#57
 Benzo(b)fluorene
 Concen: 9.67 ng/mL
 RT: 40.483 min Scan# 2153
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

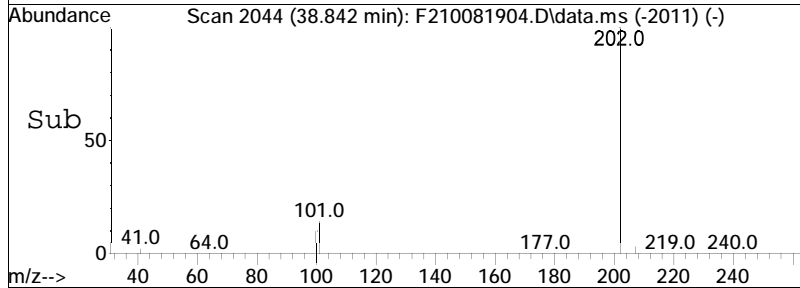
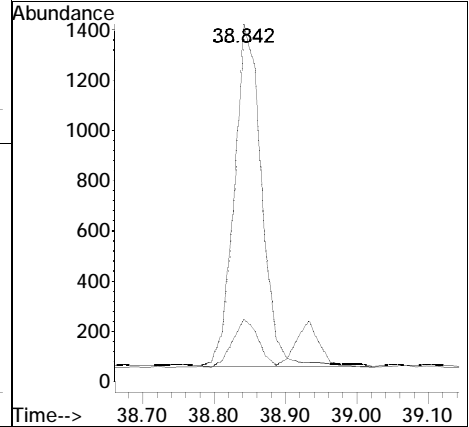
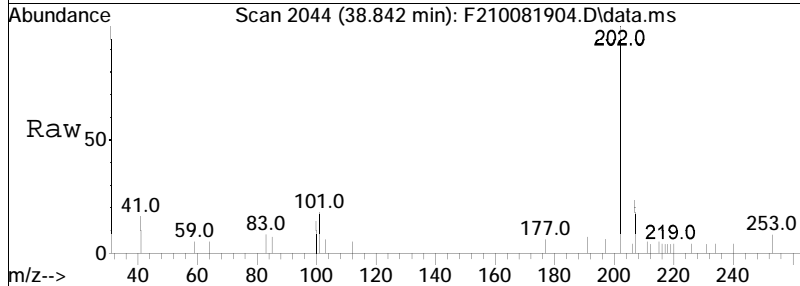
Tgt Ion	Ratio	Lower	Upper
216	100		
215	90.3	65.0	120.8

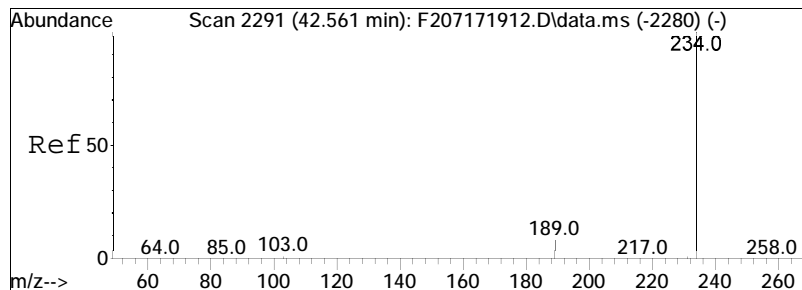




#59
 Pyrene
 Concen: 10.32 ng/mL
 RT: 38.842 min Scan# 2044
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

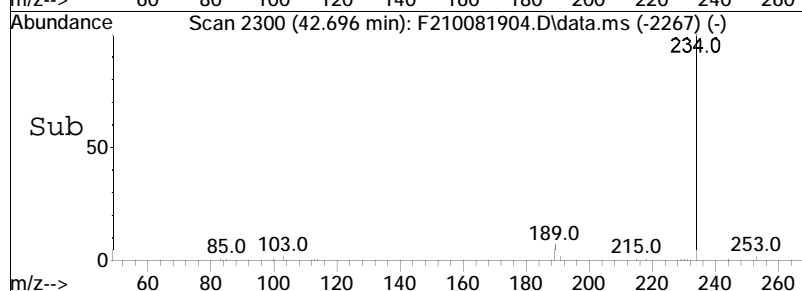
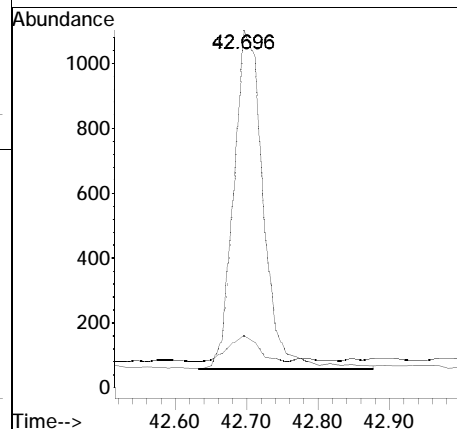
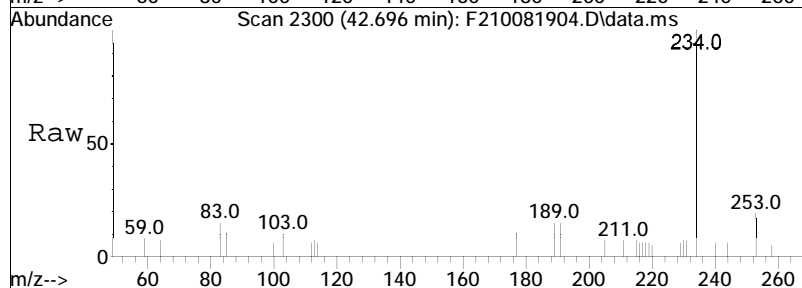
Tgt Ion: 202 Resp: 3571
 Ion Ratio Lower Upper
 202 100
 101 12.8 7.3 13.7

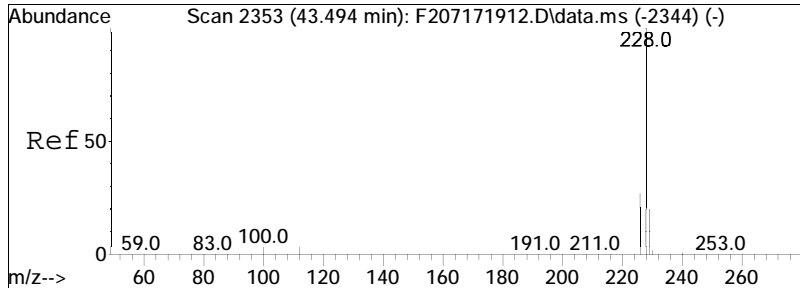




#67
 Naphthobenzothiophene-2,1-D
 Concen: 10.01 ng/mL
 RT: 42.696 min Scan# 2300
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

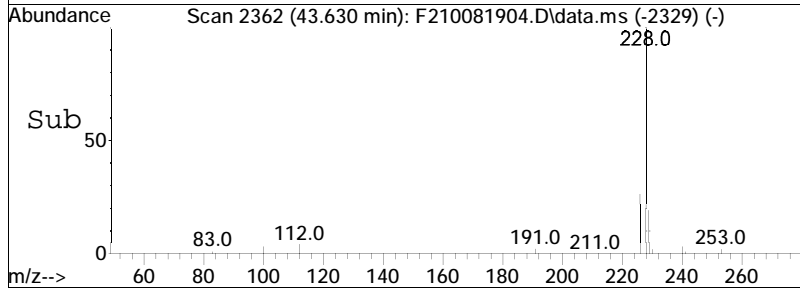
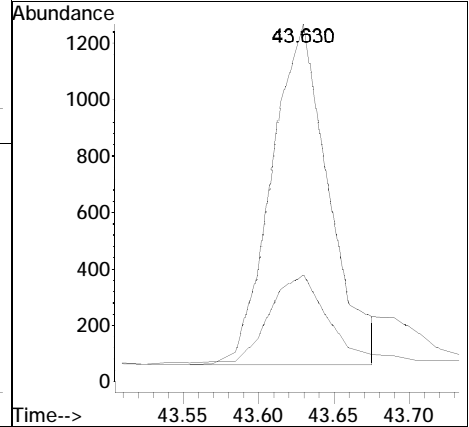
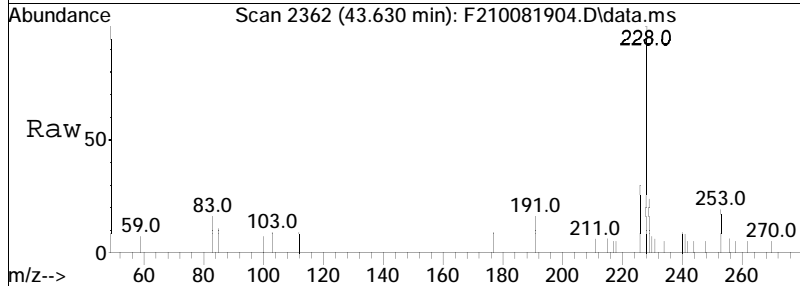
Tgt Ion: 234 Resp: 2977
 Ion Ratio Lower Upper
 234 100
 189 7.9 4.8 9.0

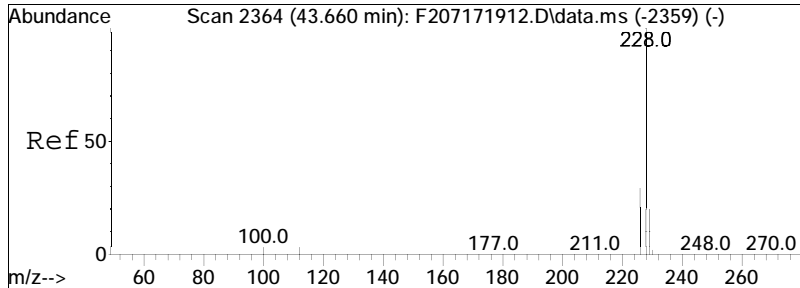




#75
 Benz[a]anthracene
 Concen: 10.21 ng/mL M3
 RT: 43.630 min Scan# 2362
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

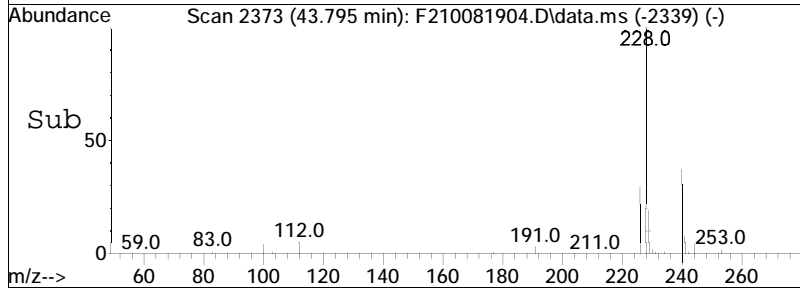
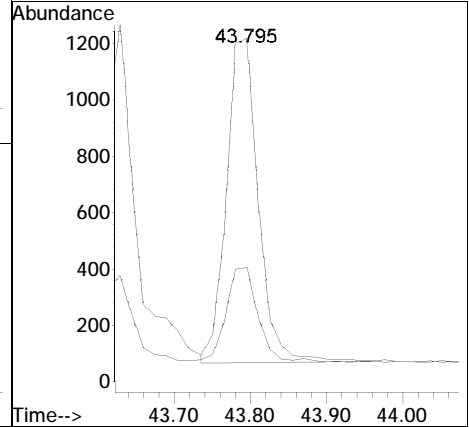
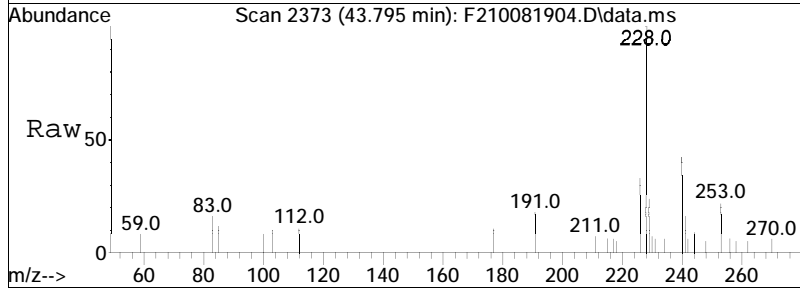
Tgt Ion	Resp	Lower	Upper
228	100		
226	28.7	18.1	33.5

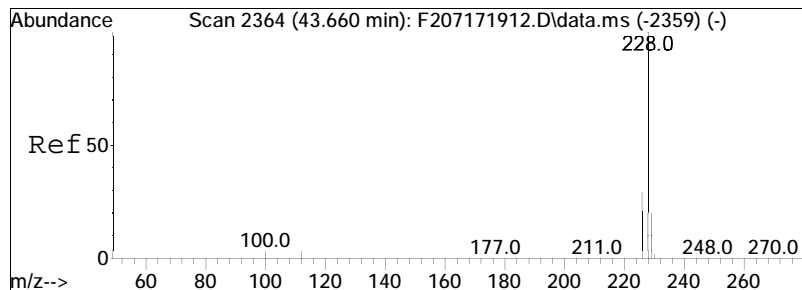




#76
 Chrysene
 Concen: 10.52 ng/mL
 RT: 43.795 min Scan# 2373
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

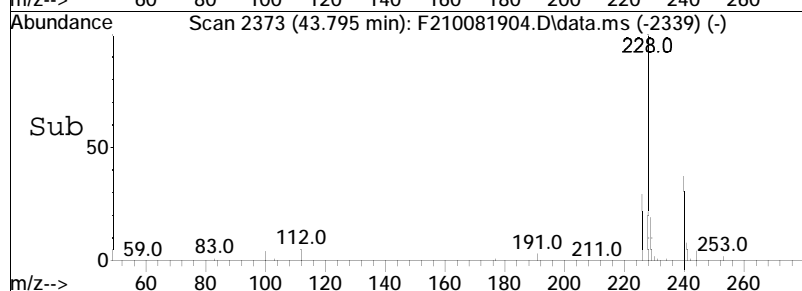
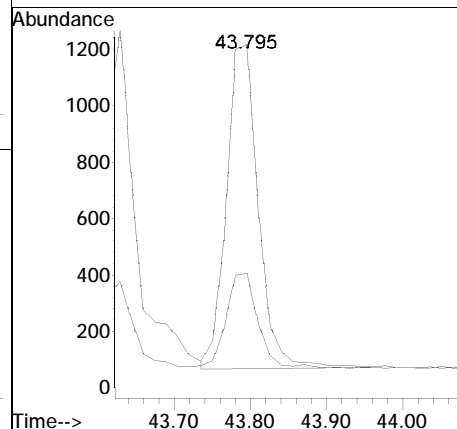
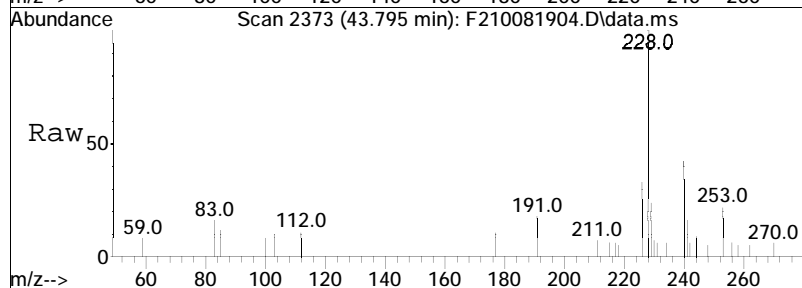
Tgt Ion: 228 Resp: 3338
 Ion Ratio Lower Upper
 228 100
 226 30.2 20.4 38.0

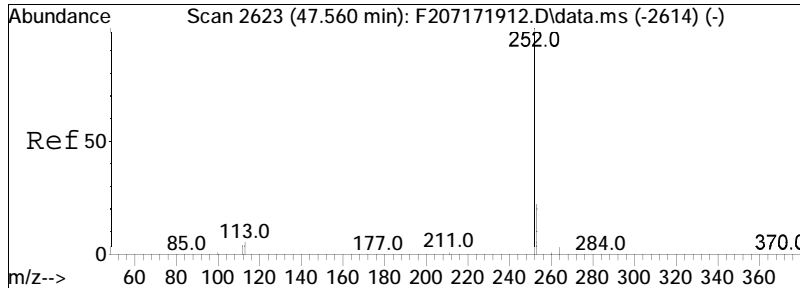




#77
 Chrysene/Triphenylene
 Concen: 10.52 ng/mL
 RT: 43.795 min Scan# 2373
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

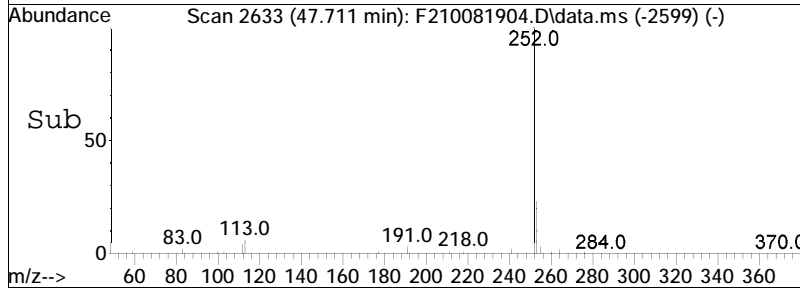
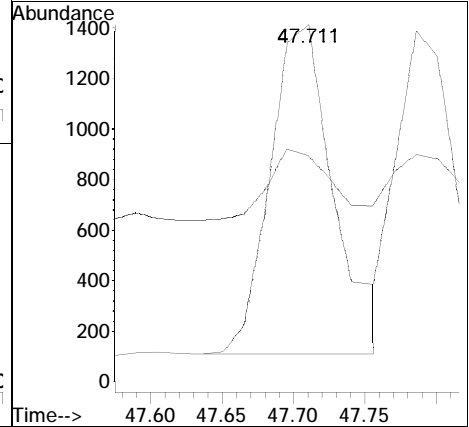
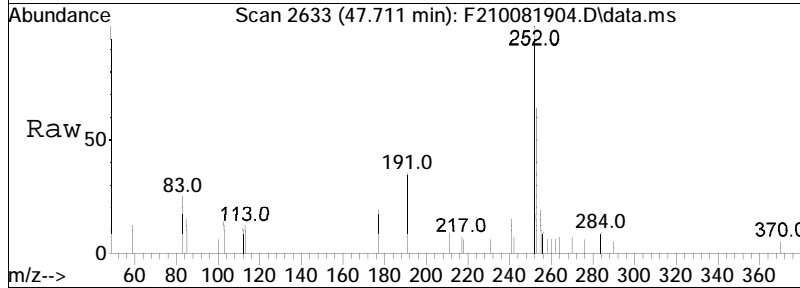
Tgt Ion: 228 Resp: 3338
 Ion Ratio Lower Upper
 228 100
 226 30.2 20.4 38.0

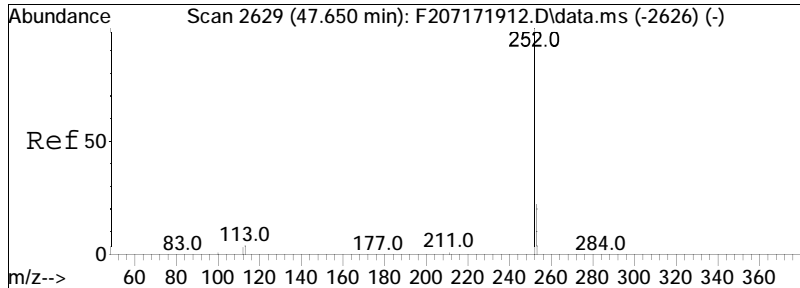




#84
 Benzo[b]fluoranthene
 Concen: 10.78 ng/mL
 RT: 47.711 min Scan# 2633
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

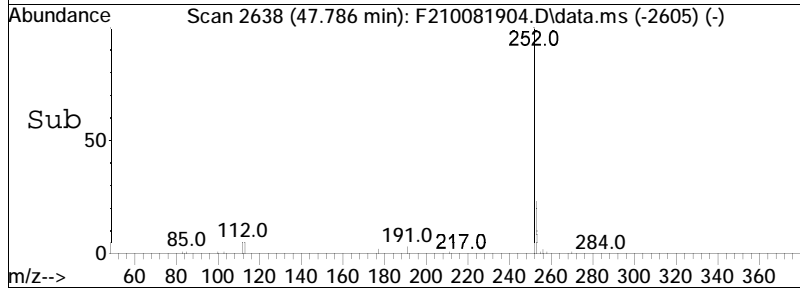
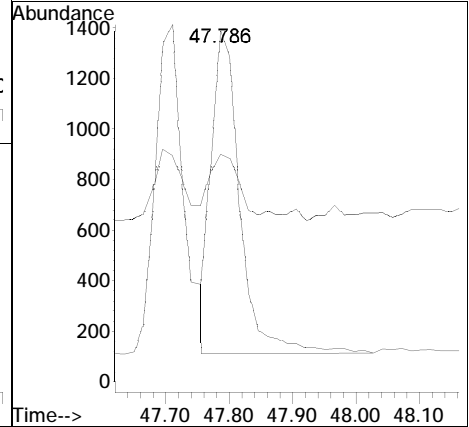
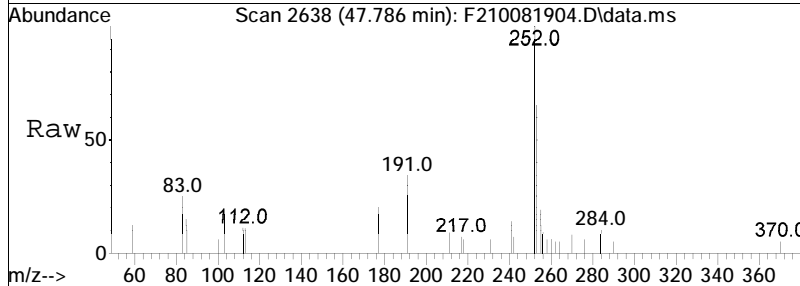
Tgt Ion	Resp	Lower	Upper
252	100		
253	27.1	15.8	29.4

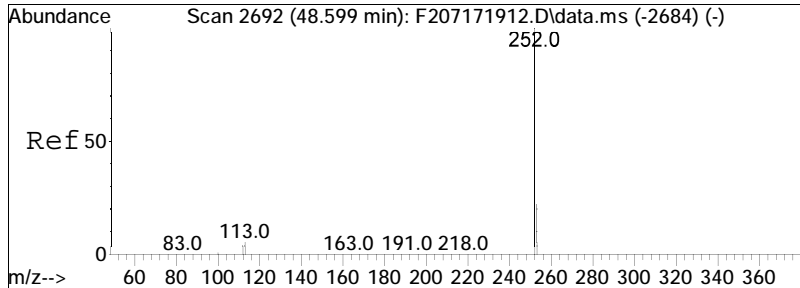




#85
 Benzo[j]+[k]fluoranthene
 Concen: 10.68 ng/mL
 RT: 47.786 min Scan# 2638
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

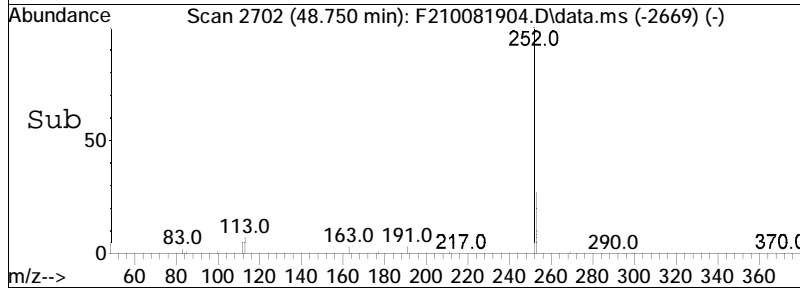
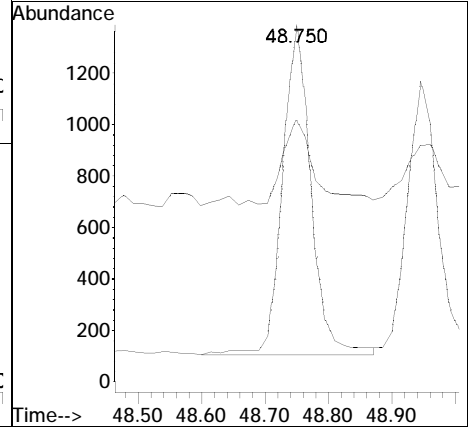
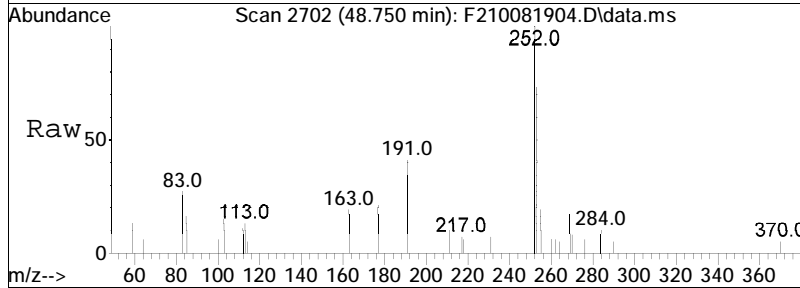
Tgt Ion	Resp	Lower	Upper
252	100		
253	26.8	15.7	29.1

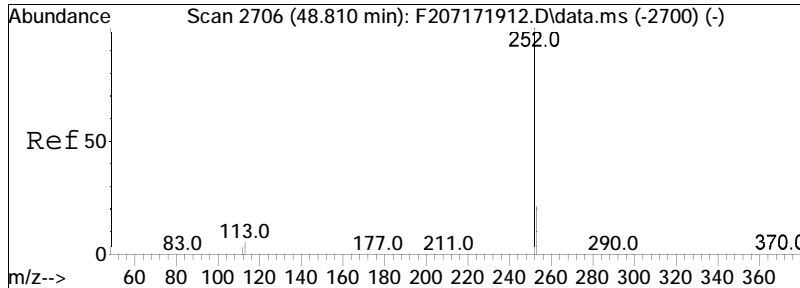




#87
 Benzo[e]pyrene
 Concen: 11.27 ng/mL
 RT: 48.750 min Scan# 2702
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

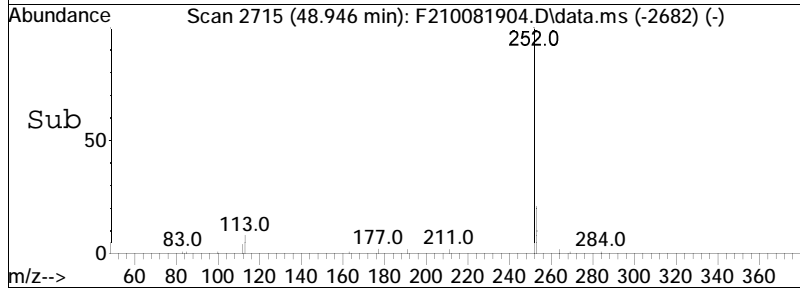
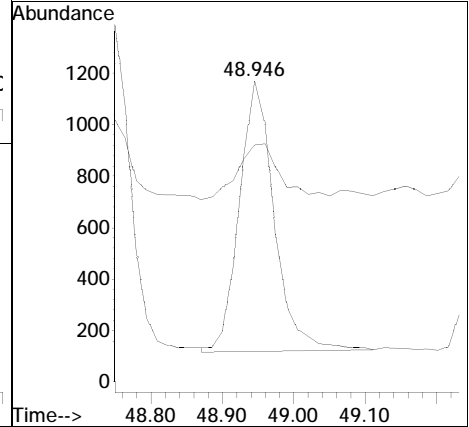
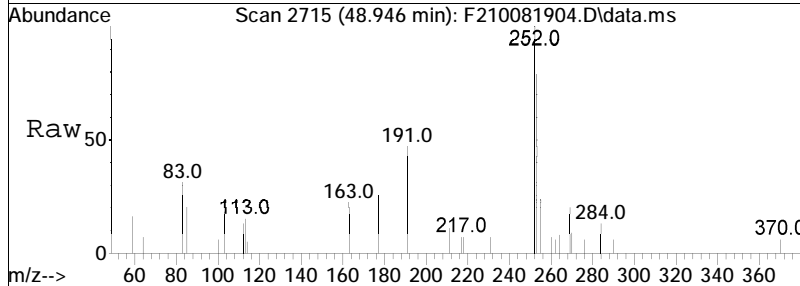
Tgt Ion	Resp	Lower	Upper
252	4018		
253	27.2	15.7	29.1

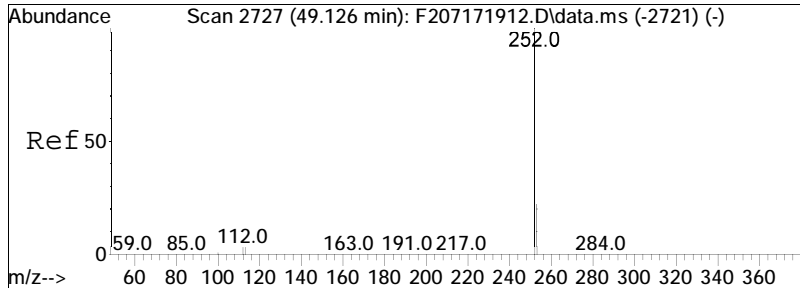




#89
 Benzo[a]pyrene
 Concen: 10.81 ng/mL
 RT: 48.946 min Scan# 2715
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

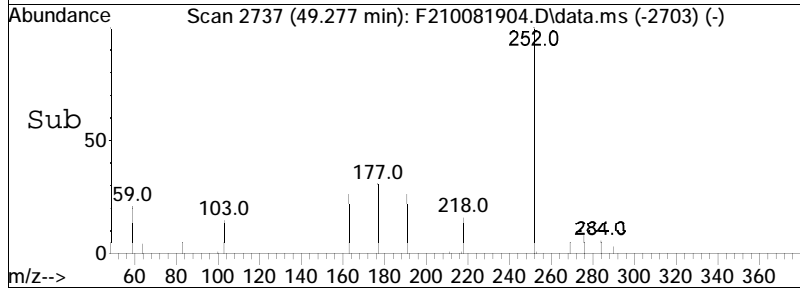
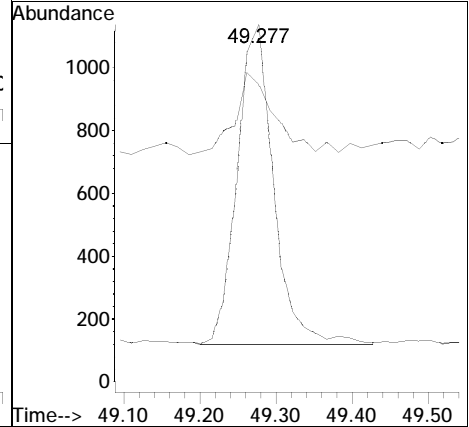
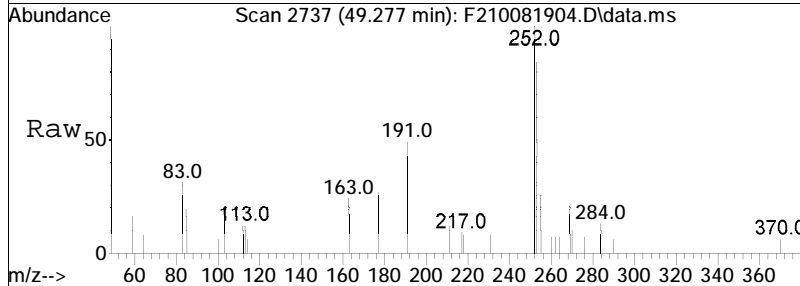
Tgt Ion	Resp	Lower	Upper
252	100		
253	25.7	15.6	29.0

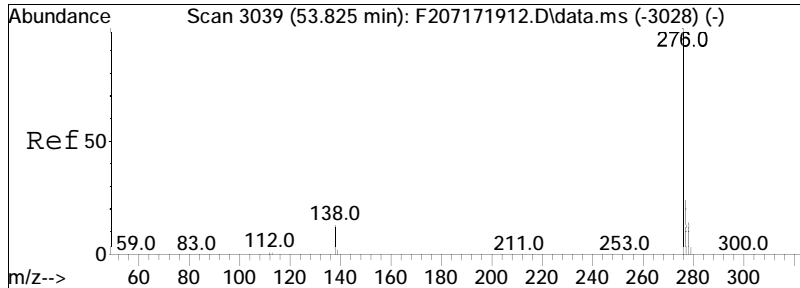




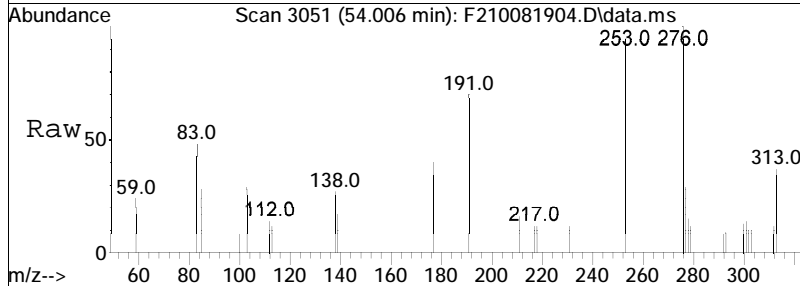
#90
 Perylene
 Concen: 10.31 ng/mL
 RT: 49.277 min Scan# 2737
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

Tgt Ion: 252 Resp: 3337
 Ion Ratio Lower Upper
 252 100
 253 27.6 15.6 29.0

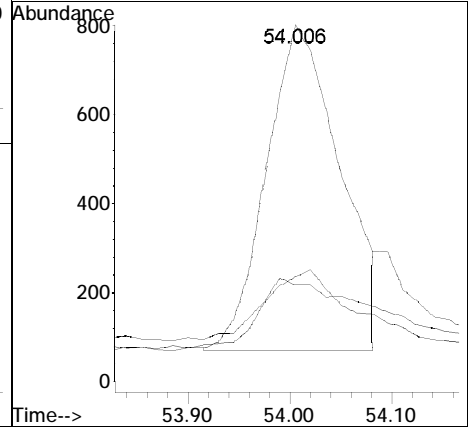
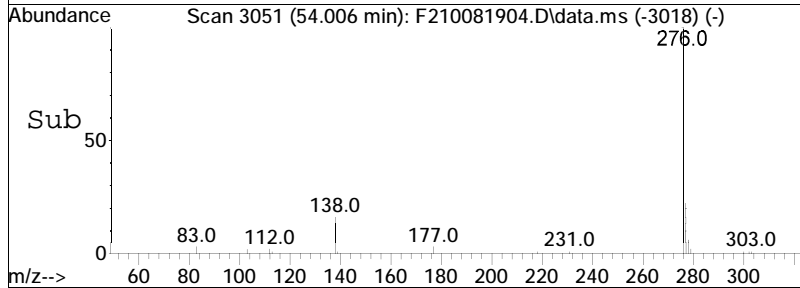


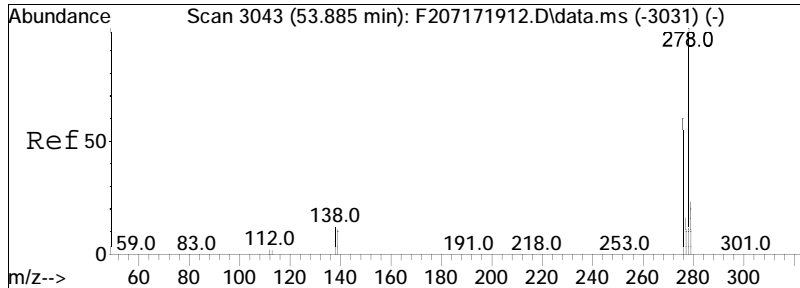


#91
 Indeno[1,2,3-cd]pyrene
 Concen: 9.40 ng/mL M3
 RT: 54.006 min Scan# 3051
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm



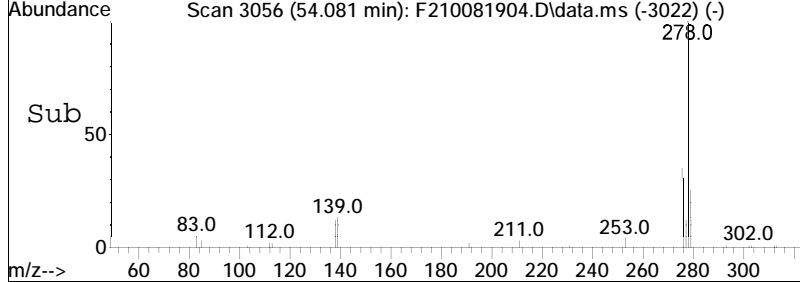
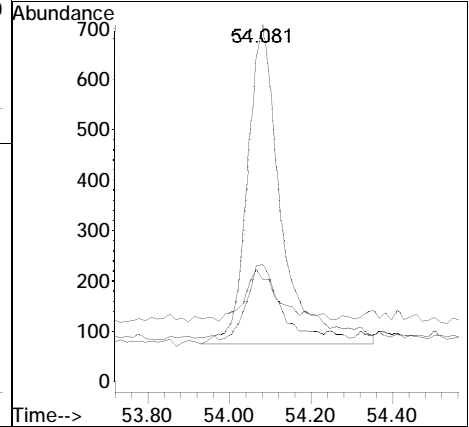
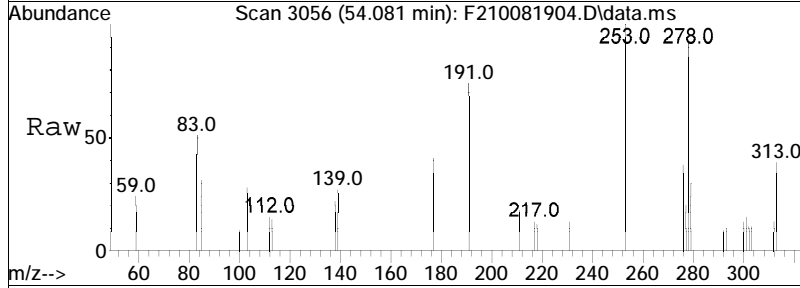
Tgt Ion	Ratio	Lower	Upper
276	100		
138	0.0	9.2	17.0#
277	31.8	16.9	31.3#

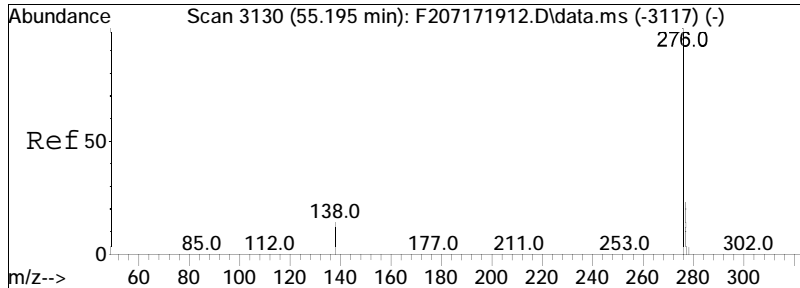




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 9.96 ng/mL
 RT: 54.081 min Scan# 3056
 Delta R.T. 0.015 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

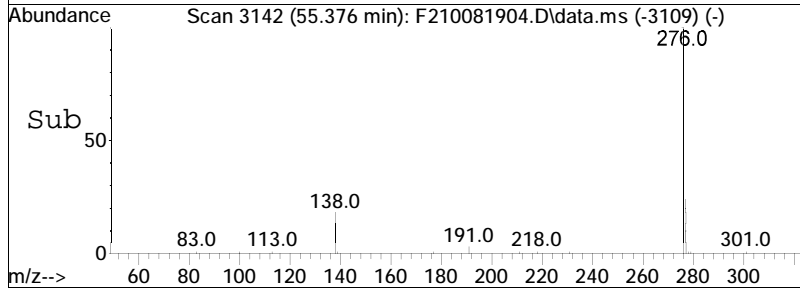
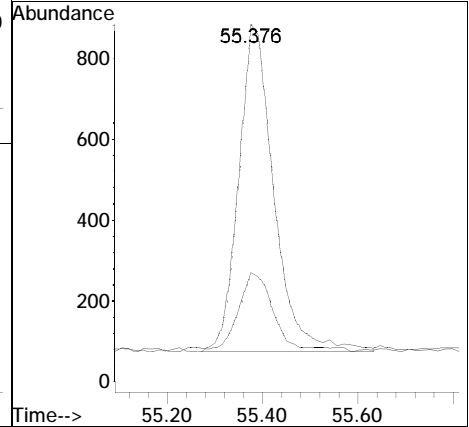
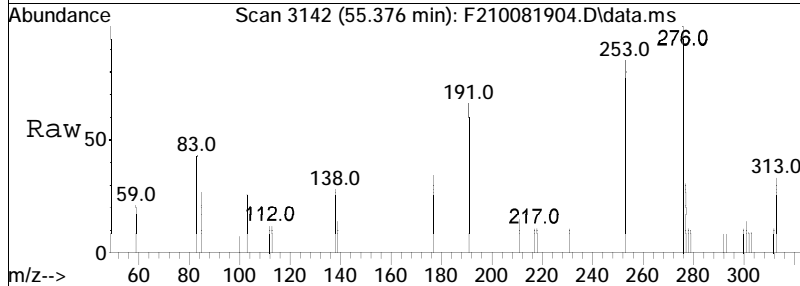
Tgt Ion	Resp	Lower	Upper
278	3617		
139	16.3	6.9	12.9#
279	23.3	17.4	32.2

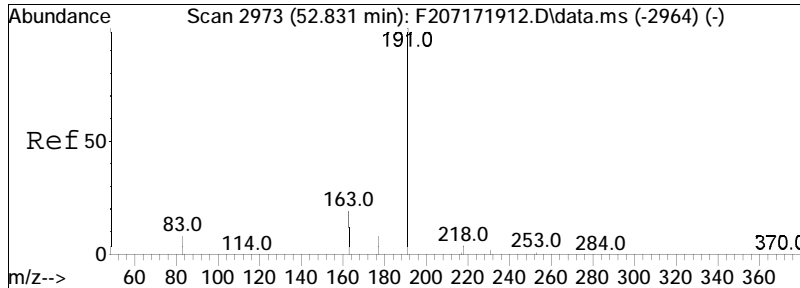




#93
 Benzo[g,h,i]perylene
 Concen: 10.62 ng/mL
 RT: 55.376 min Scan# 3142
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

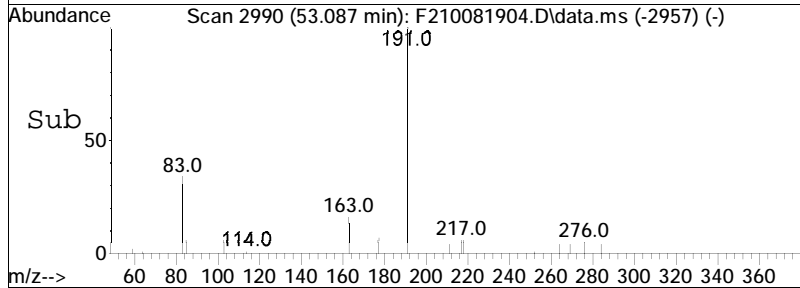
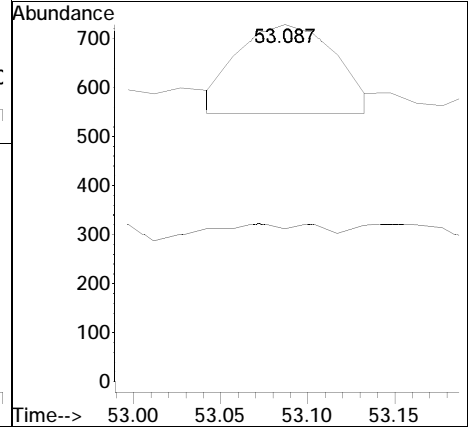
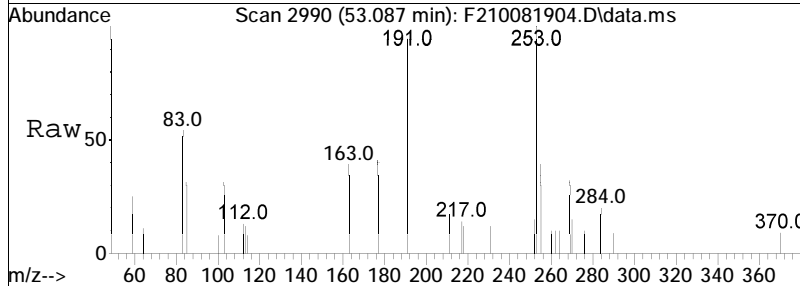
Tgt Ion	Resp	Lower	Upper
276	100		
277	21.5	16.8	31.2





#94
 Hopane (T19)
 Concen: 10.28 ng/mL M4
 RT: 53.087 min Scan# 2990
 Delta R.T. -0.000 min
 Lab File: F210081904.D
 Acq: 8 Oct 2019 6:46 pm

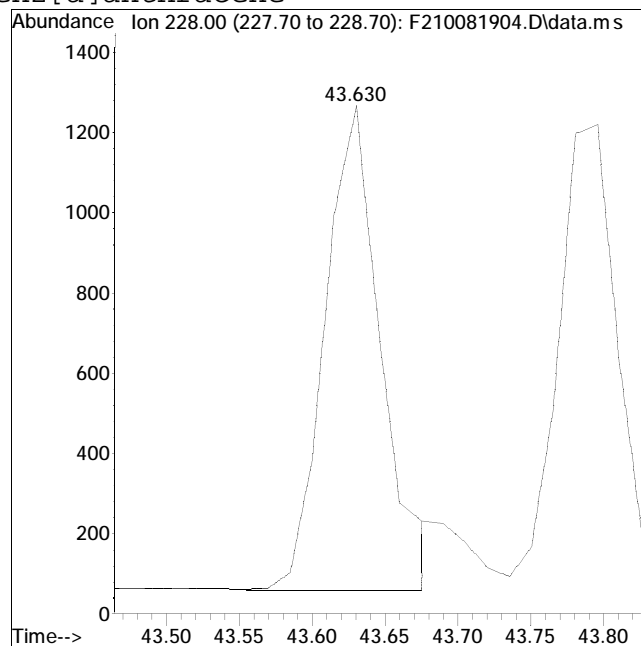
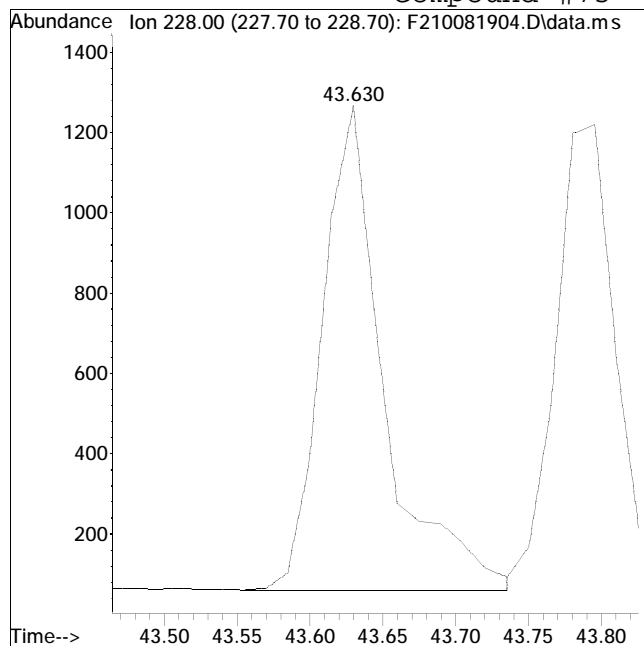
Tgt Ion: 191 Resp: 707
 Ion Ratio Lower Upper
 191 100
 177 20.7 5.7 10.5#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081904.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 6:46 pm Instrument : PAH2
Sample : i210081901 Quant Date : 10/9/2019 11:06 am

Compound #75: Benz[a]anthracene



Original Peak Response = 3538

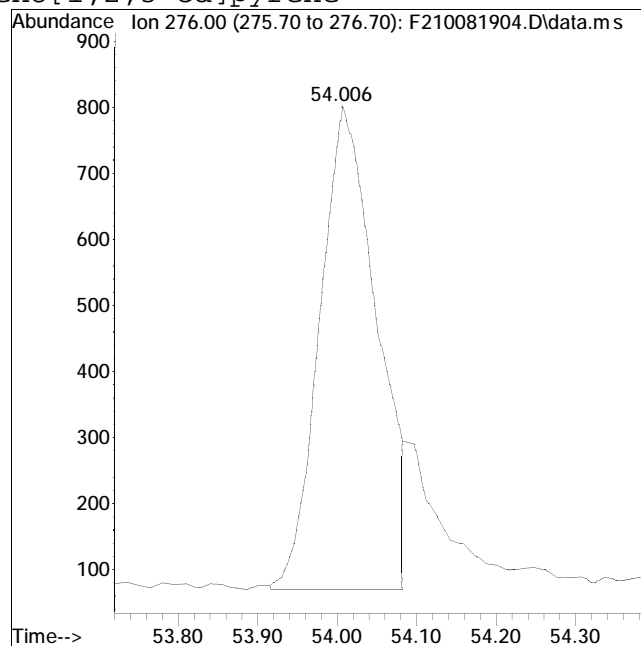
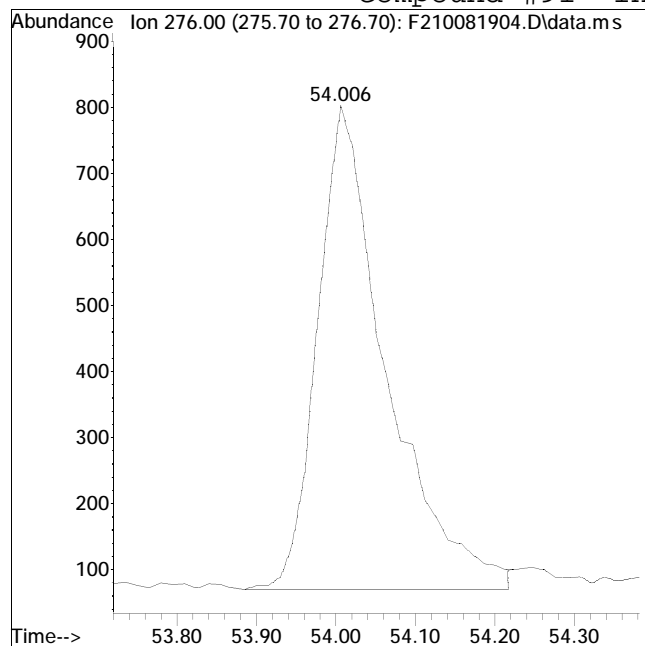
Manual Peak Response = 3214 M3

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\PAH2\2019QMethod : PAH2100819.M
Data File : F210081904.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 6:46 pm Instrument : PAH2
Sample : i210081901 Quant Date : 10/9/2019 11:06 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 4412

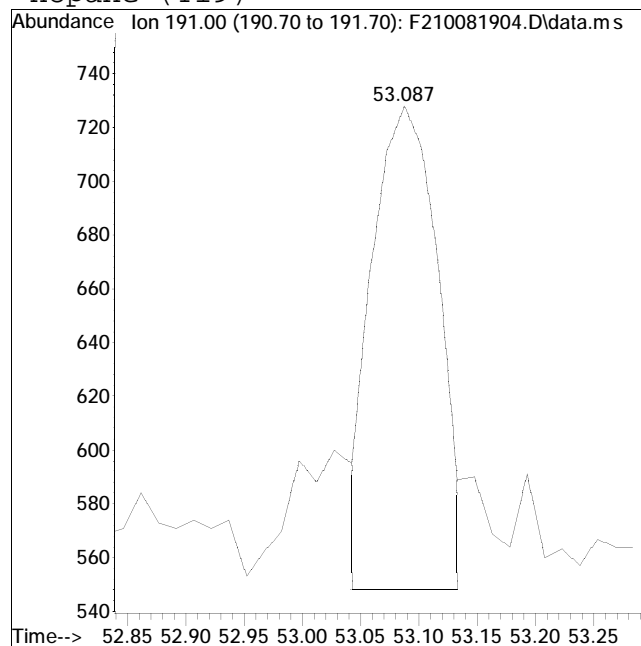
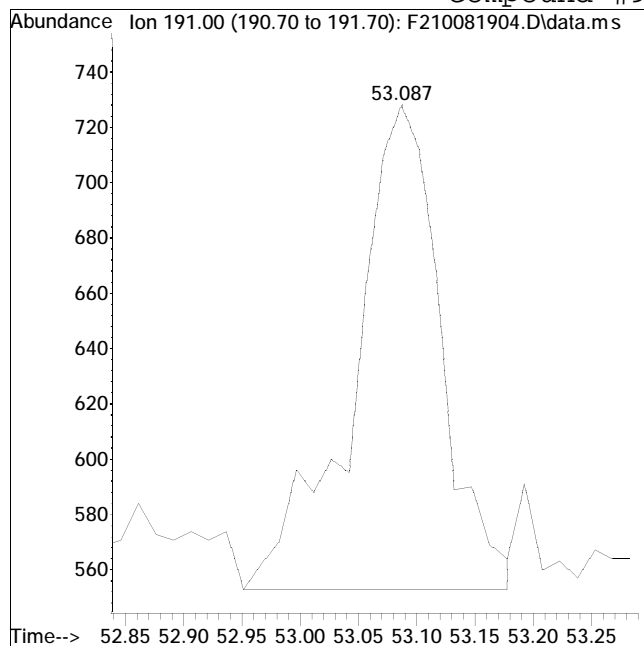
Manual Peak Response = 3704 M3

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\PAH2\2019QMethod : PAH2100819.M
Data File : F210081904.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 6:46 pm Instrument : PAH2
Sample : i210081901 Quant Date : 10/9/2019 11:06 am

Compound #94: Hopane (T19)



Original Peak Response = 912

Manual Peak Response = 707 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081905.D
 Acq On : 8 Oct 2019 8:13 pm
 Operator : PAH2:ML
 Sample : i210081902
 Misc : WG1294599,ffbb20
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 09 11:11:22 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 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	27.220	164	75983	500.000	ng/mL	0.00	
74) Chrysene-d12	43.690	240	142344	500.000	ng/mL	-0.01	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	6620	23.307	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.33%#	
40) Phenanthrene-d10	33.106	188	5818	24.106	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.41%#	
83) Benzo[b]fluoranthene-d12	47.620	264	6942	24.429	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.44%#	
88) Benzo[a]pyrene-d12	48.855	264	5457	24.642	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.46%#	
128) 5B(H)Cholane - Surr	44.308	217	1235	25.486	ng/ml	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.55%#	
Target Compounds							
2) trans-Decalin	16.892	138	710	11.763	ng/mL	100	Qvalue
3) cis-Decalin	18.112	138	538	11.551	ng/mL	100	
9) Naphthalene	20.310	128	7635	24.879	ng/mL	100	
14) 2-Methylnaphthalene	23.020	142	4959	23.688	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	4780	23.488	ng/mL	100	
16) Benzothiophene	20.535	134	5717	22.870	ng/mL	100	
21) Biphenyl	24.901	154	5946	23.498	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.504	156	4391	23.427	ng/mL	100	
23) Dibenzofuran	27.988	168	6286	23.763	ng/mL	93	
24) Acenaphthylene	26.602	152	7467M4	24.217	ng/mL		
25) Acenaphthene	27.340	153	4762	24.303	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	28.906	170	4037	23.801	ng/mL	89	
27) Fluorene	29.373	166	5210	23.505	ng/mL	99	
31) Dibenzothiophene	32.699	184	6853	23.280	ng/mL	96	
41) Phenanthrene	33.181	178	7540M4	24.132	ng/mL		
52) Retene	40.182	234	2549	23.572	ng/mL	86	
53) Anthracene	33.362	178	6770M4	26.410	ng/mL		
54) Carbazole	34.024	167	5168	20.491	ng/mL	99	
55) 1-Methylphenanthrene	35.695	192	5549M4	23.654	ng/mL		
56) Fluoranthene	37.969	202	8446	23.583	ng/mL#	89	
57) Benzo(b)fluorene	40.483	216	5163	22.535	ng/mL	99	
59) Pyrene	38.842	202	8836	23.884	ng/mL	92	
67) Naphthobenzothiophene-2,1	42.697	234	7782	24.479	ng/mL	97	
75) Benz[a]anthracene	43.630	228	7988M3	23.868	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081905.D
 Acq On : 8 Oct 2019 8:13 pm
 Operator : PAH2:ML
 Sample : i210081902
 Misc : WG1294599,ffbb20
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 09 11:11:22 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.796	228	8605	25.503	ng/mL	100
77) Chrysene/Triphenylene	43.796	228	8605	25.503	ng/mL	100
84) Benzo[b]fluoranthene	47.711	252	10381	26.022	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.786	252	10113	25.295	ng/mL	97
87) Benzo[e]pyrene	48.750	252	9899	26.125	ng/mL	100
89) Benzo[a]pyrene	48.946	252	8990	25.438	ng/mL	96
90) Perylene	49.277	252	8679	25.228	ng/mL	96
91) Indeno[1,2,3-cd]pyrene	54.006	276	9562M3	22.825	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.081	278	9245	23.952	ng/mL#	92
93) Benzo[g,h,i]perylene	55.391	276	10574	25.441	ng/mL	99
94) Hopane (T19)	53.087	191	1756	24.025	ng/mL	97

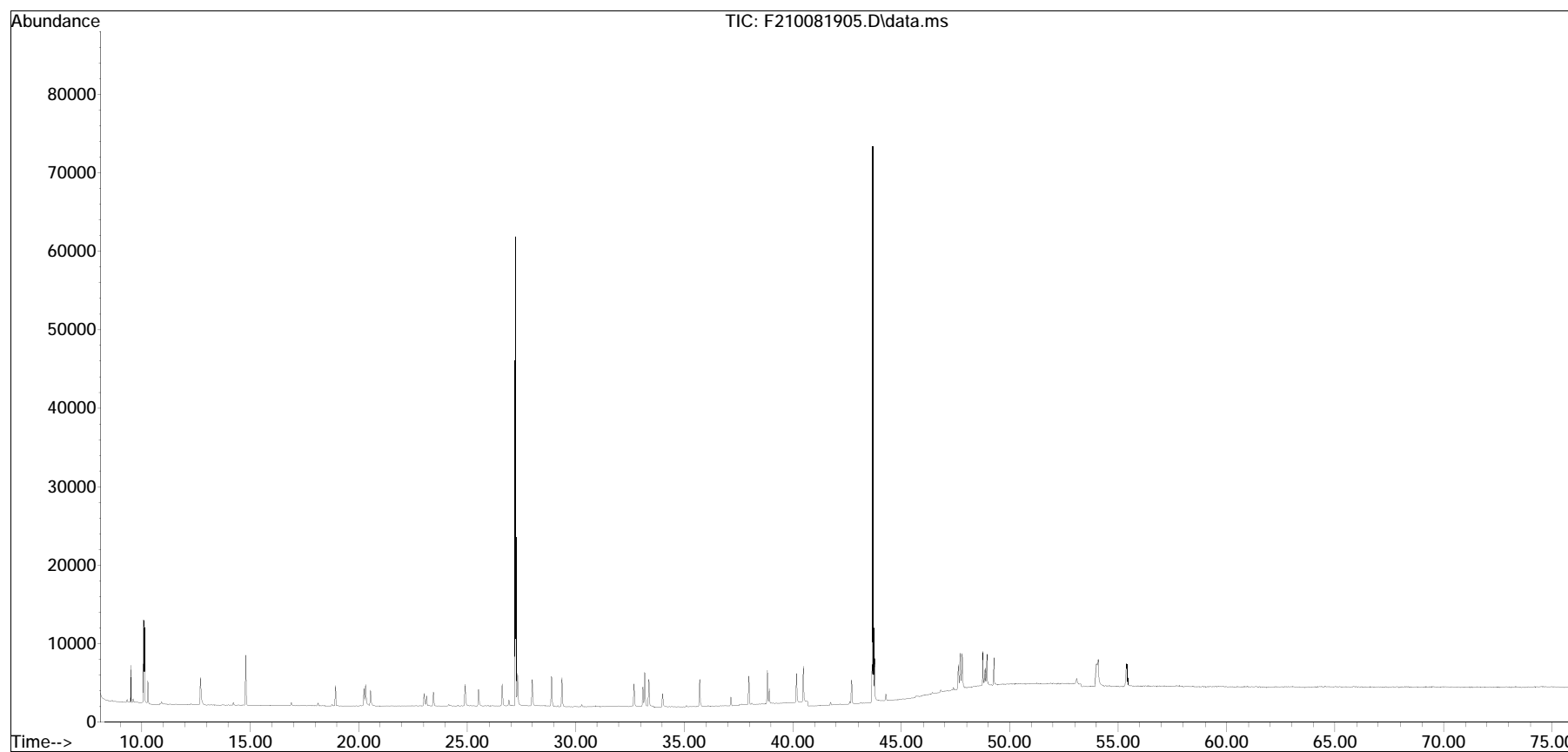
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081905.D
Acq On : 8 Oct 2019 8:13 pm
Operator : PAH2:ML
Sample : i210081902
Misc : WG1294599,ffbb20
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 09 11:11:22 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Oct 08 10:35:21 2019
Response via : Initial Calibration

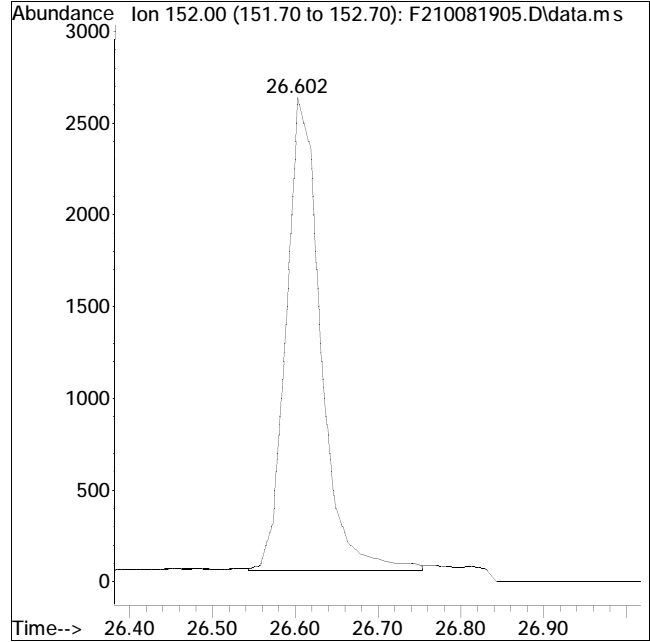
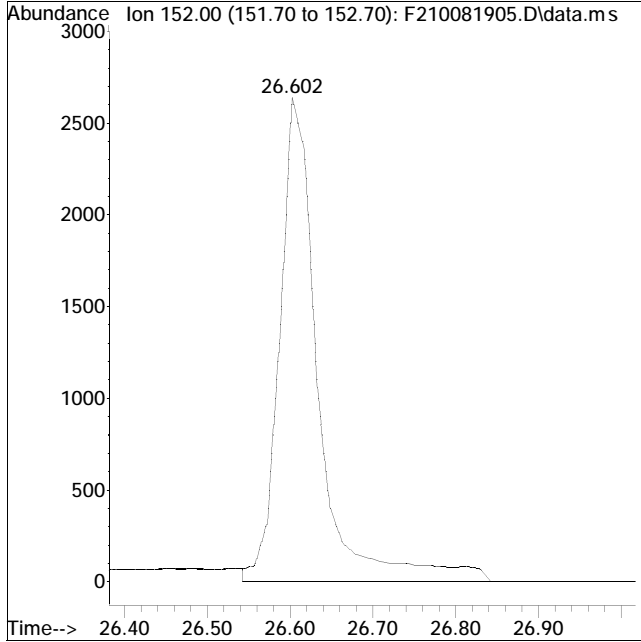
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081905.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 8:13 pm Instrument : PAH2
Sample : i210081902 Quant Date : 10/9/2019 11:06 am

Compound #24: Acenaphthylene



Original Peak Response = 8614

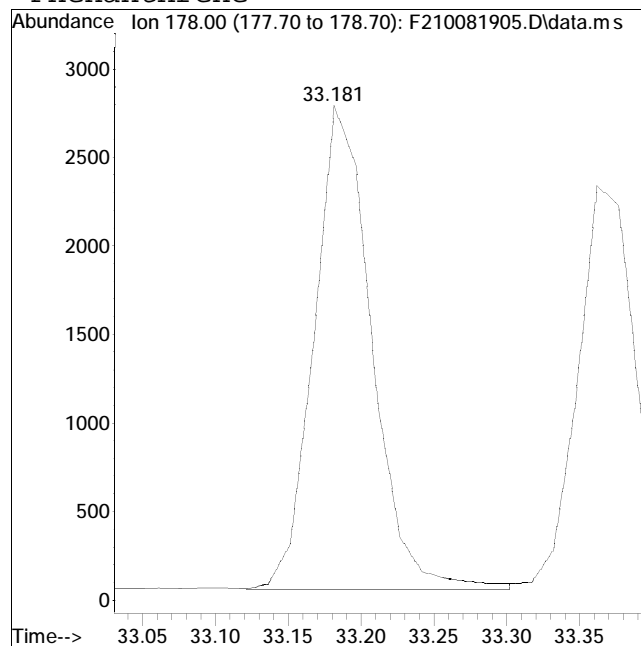
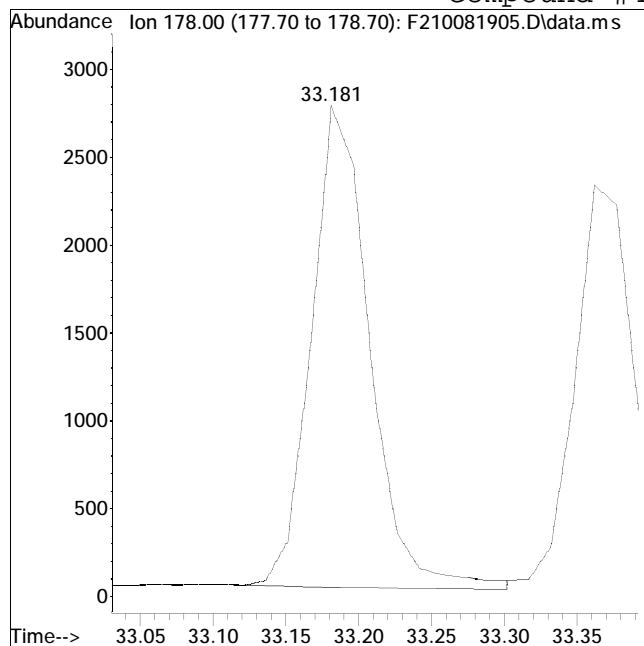
Manual Peak Response = 7467 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081905.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 8:13 pm Instrument : PAH2
Sample : i210081902 Quant Date : 10/9/2019 11:06 am

Compound #41: Phenanthrene



Original Peak Response = 7626

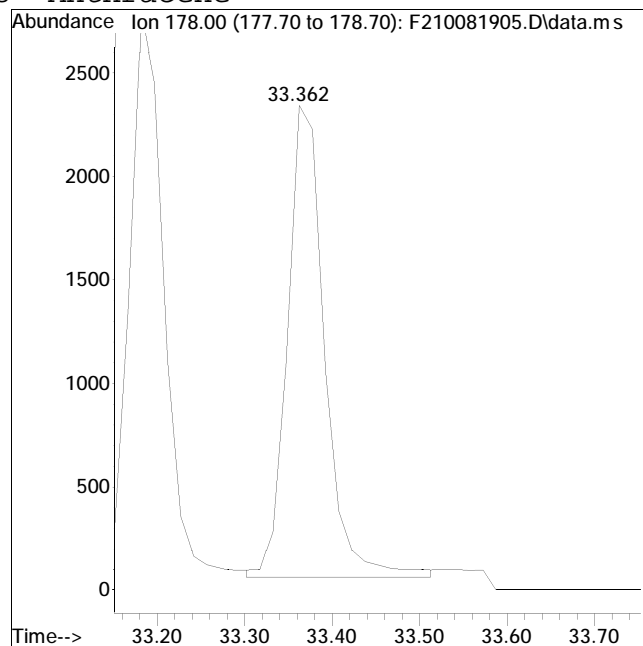
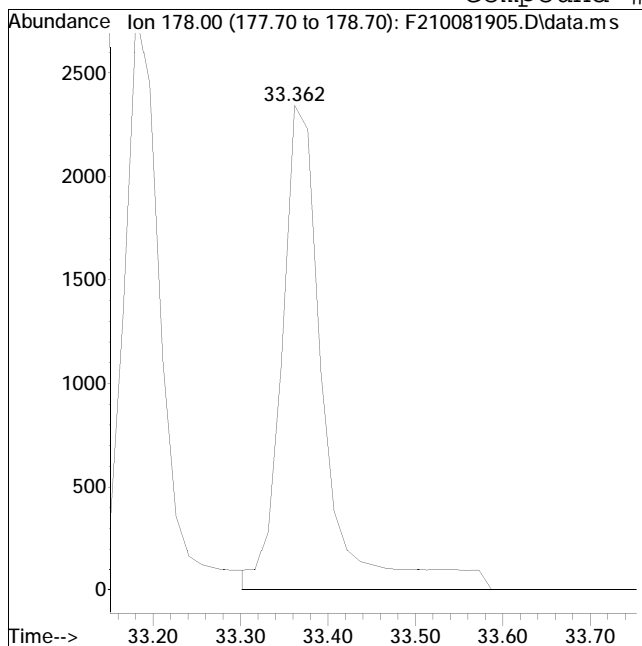
Manual Peak Response = 7540 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081905.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 8:13 pm Instrument : PAH2
Sample : i210081902 Quant Date : 10/9/2019 11:06 am

Compound #53: Anthracene



Original Peak Response = 7883

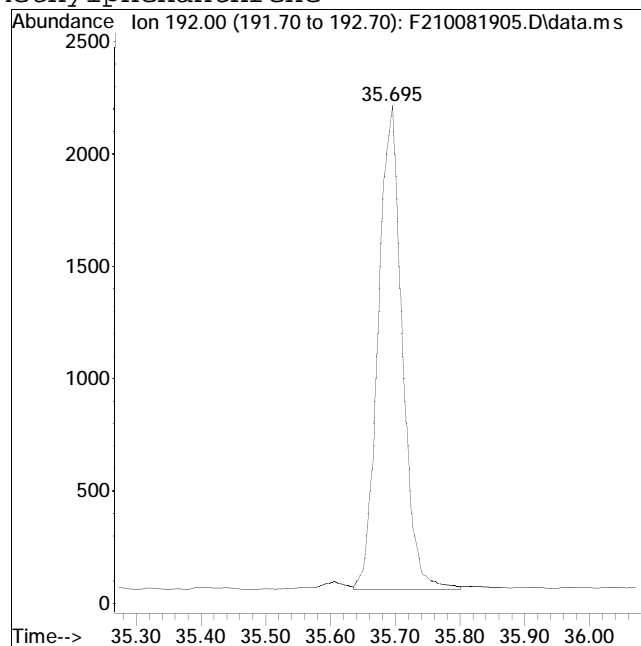
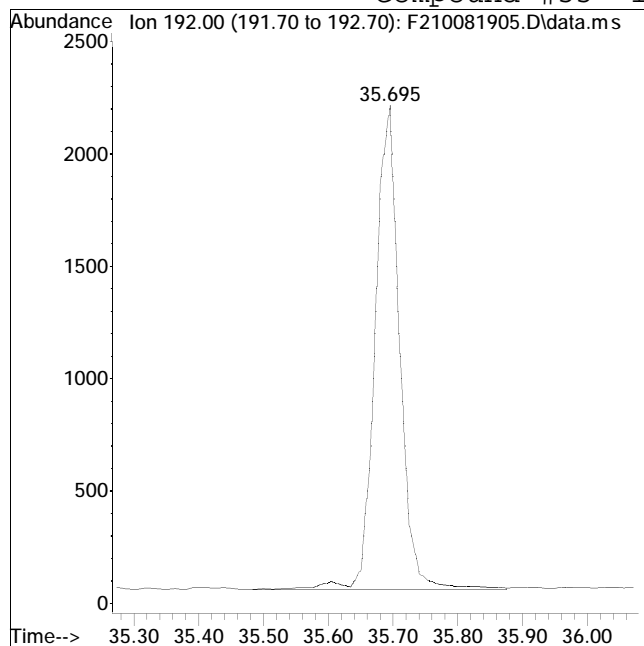
Manual Peak Response = 6770 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081905.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 8:13 pm Instrument : PAH2
Sample : i210081902 Quant Date : 10/9/2019 11:06 am

Compound #55: 1-Methylphenanthrene



Original Peak Response = 5731

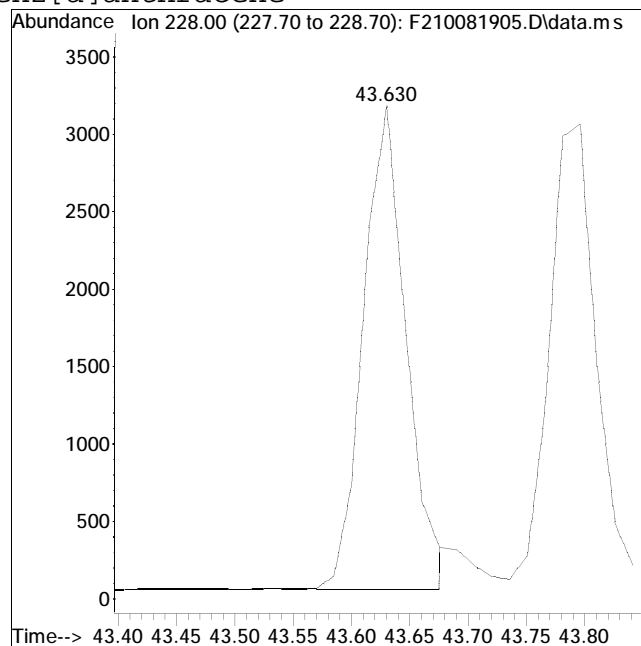
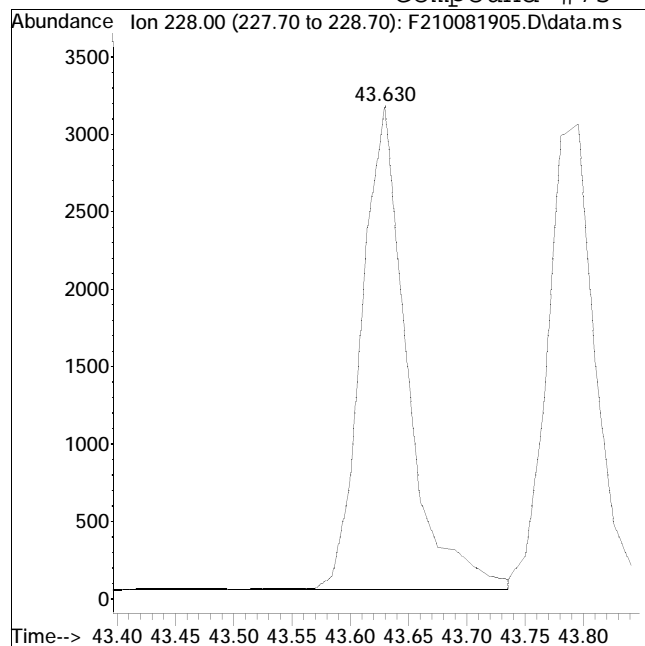
Manual Peak Response = 5549 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081905.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 8:13 pm Instrument : PAH2
Sample : i210081902 Quant Date : 10/9/2019 11:06 am

Compound #75: Benz[a]anthracene



Original Peak Response = 8494

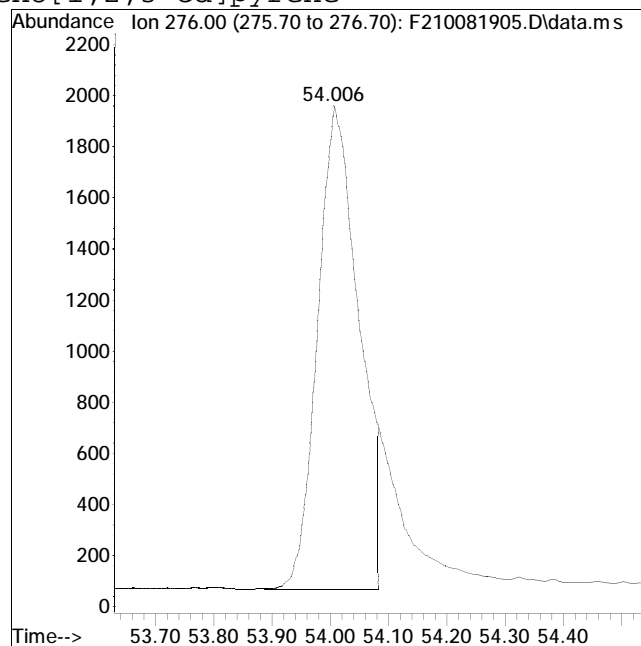
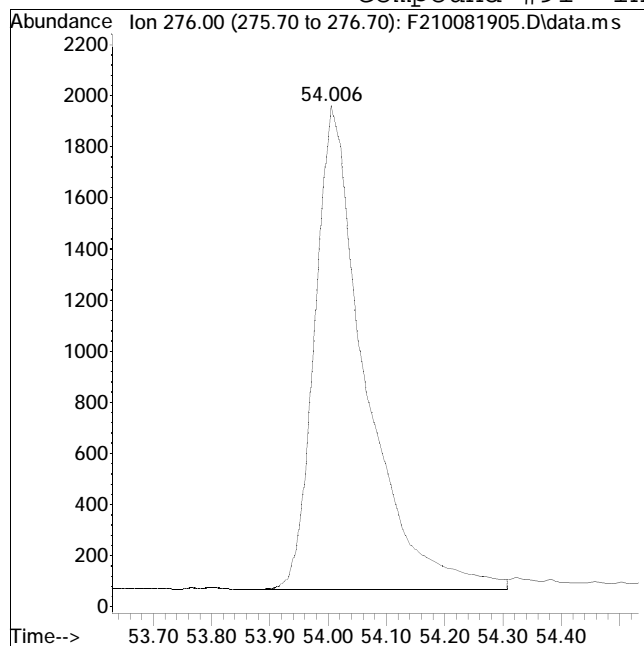
Manual Peak Response = 7988 M3

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\PAH2\2019QMethod : PAH2100819.M
Data File : F210081905.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 8:13 pm Instrument : PAH2
Sample : i210081902 Quant Date : 10/9/2019 11:06 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 11495

Manual Peak Response = 9562 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\PAH2\2019\Oct19\oct08\
 Data File : F210081906.D
 Acq On : 8 Oct 2019 9:41 pm
 Operator : PAH2:ML
 Sample : i210081903
 Misc : WG1294599,ffbb21
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 09 11:13:45 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 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	27.220	164	77108	500.000	ng/mL	0.00	
74) Chrysene-d12	43.690	240	143498	500.000	ng/mL	-0.02	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	27611	95.791	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.58%#	
40) Phenanthrene-d10	33.091	188	24568	100.308	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	10.03%#	
83) Benzo[b]fluoranthene-d12	47.620	264	26890	93.867	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.39%#	
88) Benzo[a]pyrene-d12	48.855	264	21773	97.528	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.75%#	
128) 5B(H)Cholane - Surr	44.307	217	4558	93.303	ng/ml	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.33%#	
Target Compounds							
2) trans-Decalin	16.892	138	2818	46.007	ng/mL	100	Qvalue
3) cis-Decalin	18.112	138	2203	46.609	ng/mL	100	
9) Naphthalene	20.310	128	30760	98.771	ng/mL	100	
14) 2-Methylnaphthalene	23.019	142	20079	94.512	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	19558	94.703	ng/mL	100	
16) Benzothiophene	20.535	134	24060	94.843	ng/mL	100	
21) Biphenyl	24.901	154	24620	95.876	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.503	156	17859	93.890	ng/mL	100	
23) Dibenzofuran	27.987	168	26824	99.923	ng/mL	92	
24) Acenaphthylene	26.602	152	30765M4	98.320	ng/mL		
25) Acenaphthene	27.340	153	19184	96.476	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.891	170	16344	94.952	ng/mL	86	
27) Fluorene	29.357	166	21787	96.858	ng/mL	99	
31) Dibenzothiophene	32.684	184	28924	96.823	ng/mL	96	
41) Phenanthrene	33.181	178	32076	101.161	ng/mL	100	
52) Retene	40.182	234	10175	92.723	ng/mL	83	
53) Anthracene	33.362	178	29639M4	113.935	ng/mL		
54) Carbazole	34.024	167	23652	92.410	ng/mL	99	
55) 1-Methylphenanthrene	35.695	192	22952M4	96.411	ng/mL		
56) Fluoranthene	37.954	202	34915	96.067	ng/mL#	89	
57) Benzo(b)fluorene	40.483	216	21392	92.008	ng/mL	98	
59) Pyrene	38.842	202	36389	96.925	ng/mL	92	
67) Naphthobenzothiophene-2,1	42.696	234	31308	97.044	ng/mL	98	
75) Benz[a]anthracene	43.630	228	32387	95.995	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081906.D
 Acq On : 8 Oct 2019 9:41 pm
 Operator : PAH2:ML
 Sample : i210081903
 Misc : WG1294599,ffbb21
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 09 11:13:45 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.795	228	33683	99.023	ng/mL	100
77) Chrysene/Triphenylene	43.795	228	33683	99.023	ng/mL	100
84) Benzo[b]fluoranthene	47.696	252	38006	94.504	ng/mL	99
85) Benzo[j]+[k]fluoranthene	47.786	252	41348	102.589	ng/mL	97
87) Benzo[e]pyrene	48.750	252	38203	100.013	ng/mL	100
89) Benzo[a]pyrene	48.946	252	36041	101.161	ng/mL	99
90) Perylene	49.277	252	35739	103.050	ng/mL	99
91) Indeno[1,2,3-cd]pyrene	54.006	276	40188M3	95.157	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.081	278	36679	94.263	ng/mL#	94
93) Benzo[g,h,i]perylene	55.376	276	41166	98.248	ng/mL	98
94) Hopane (T19)	53.087	191	7055	95.749	ng/mL	98

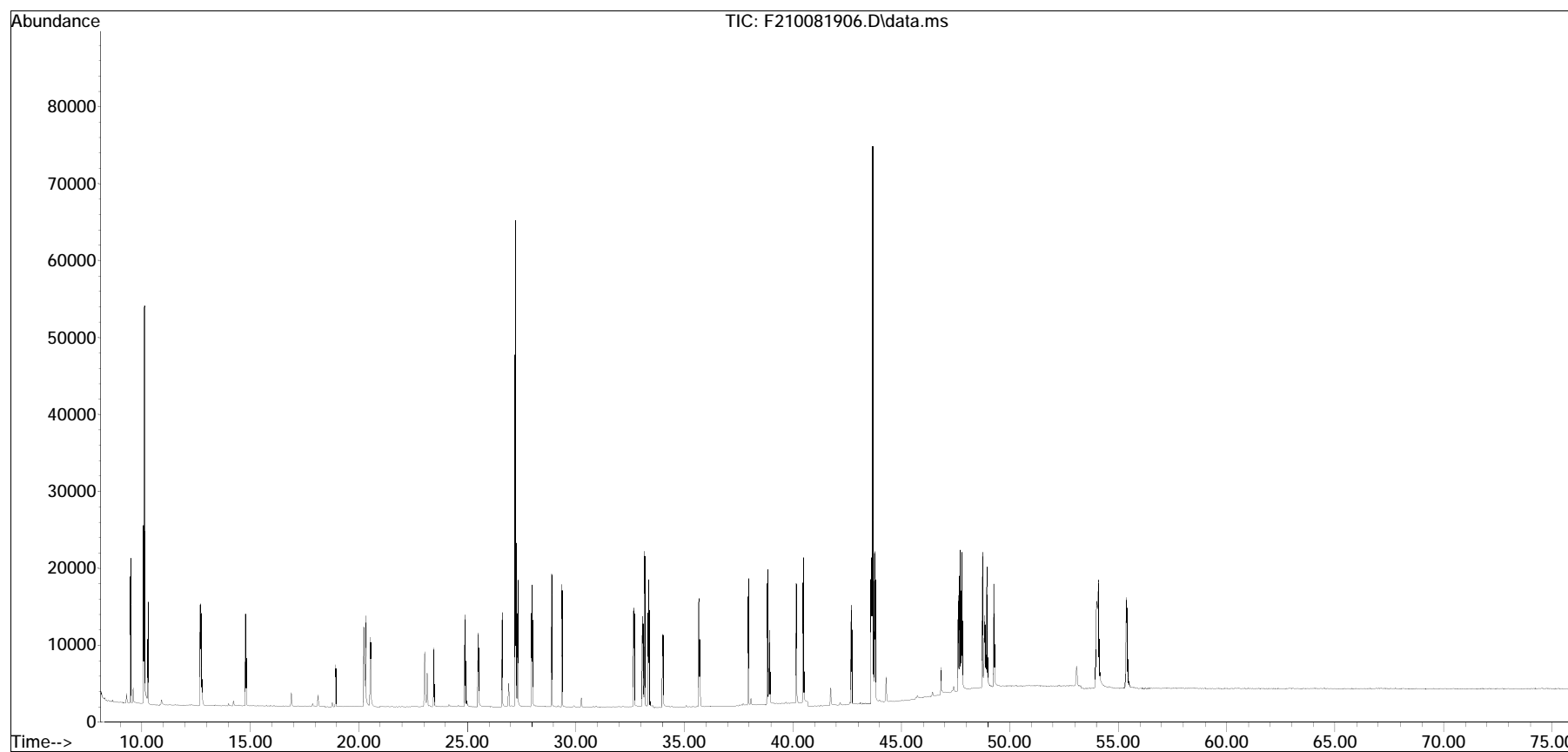
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081906.D
Acq On : 8 Oct 2019 9:41 pm
Operator : PAH2:ML
Sample : i210081903
Misc : WG1294599,ffbb21
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 09 11:13:45 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Oct 08 10:35:21 2019
Response via : Initial Calibration

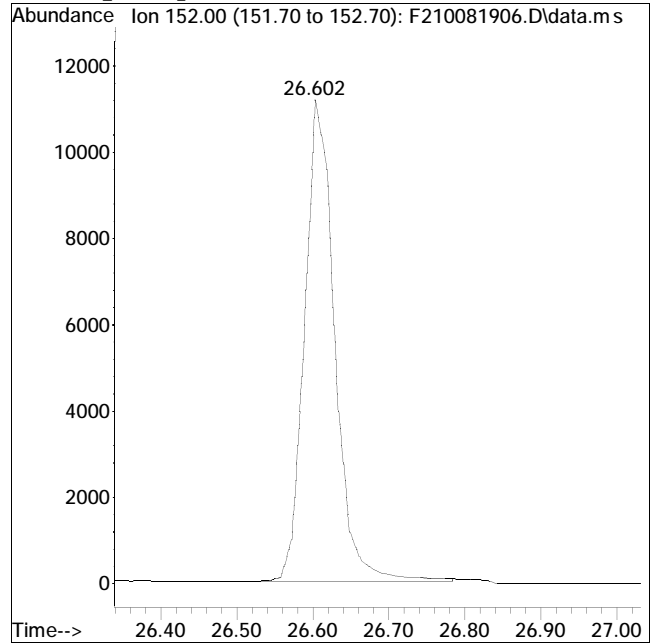
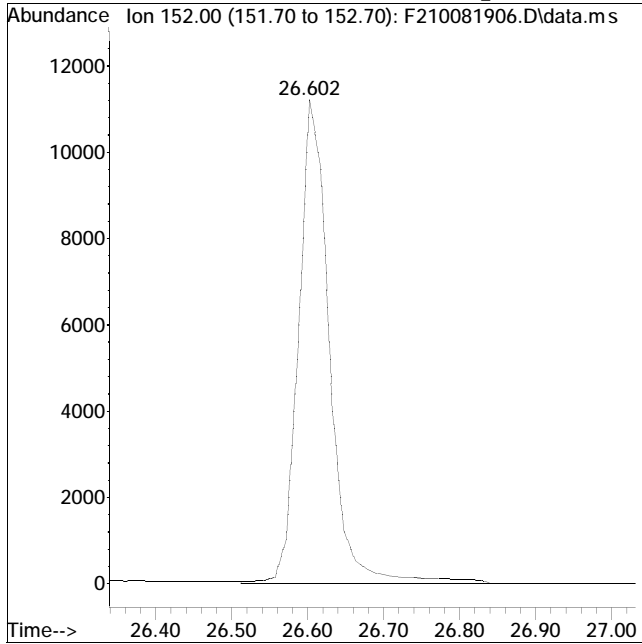
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081906.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 9:41 pm Instrument : PAH2
Sample : i210081903 Quant Date : 10/9/2019 11:06 am

Compound #24: Acenaphthylene



Original Peak Response = 31942

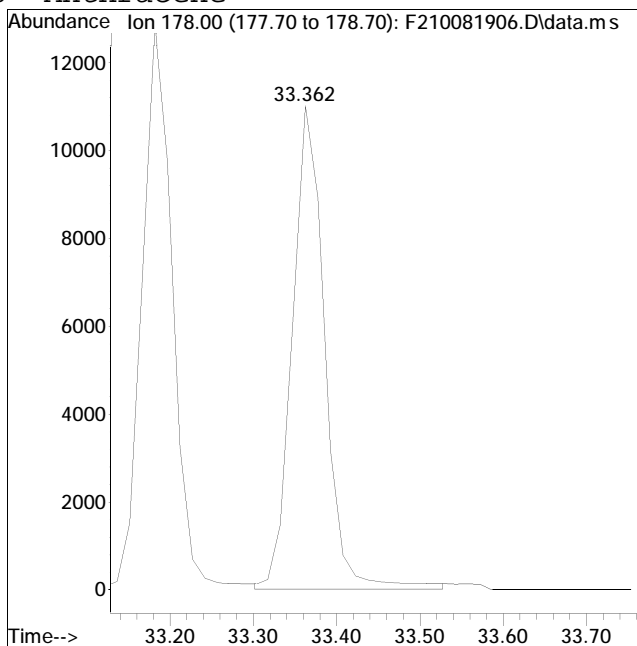
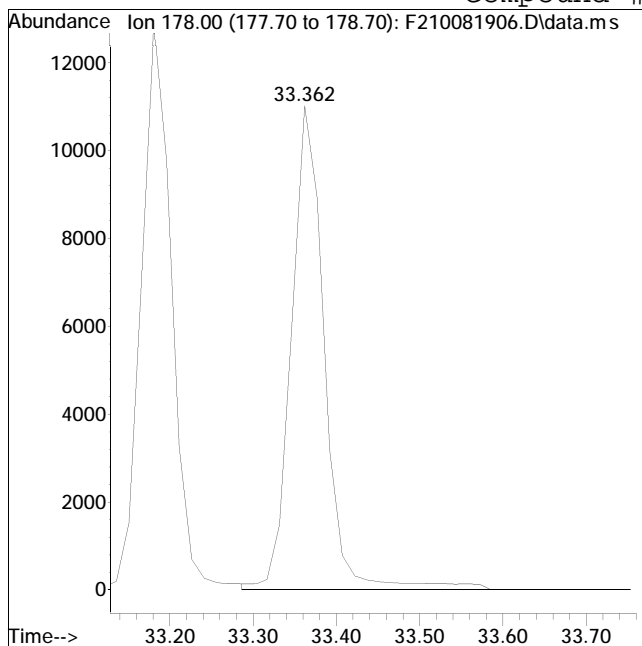
Manual Peak Response = 30765 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081906.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 9:41 pm Instrument : PAH2
Sample : i210081903 Quant Date : 10/9/2019 11:06 am

Compound #53: Anthracene



Original Peak Response = 30420

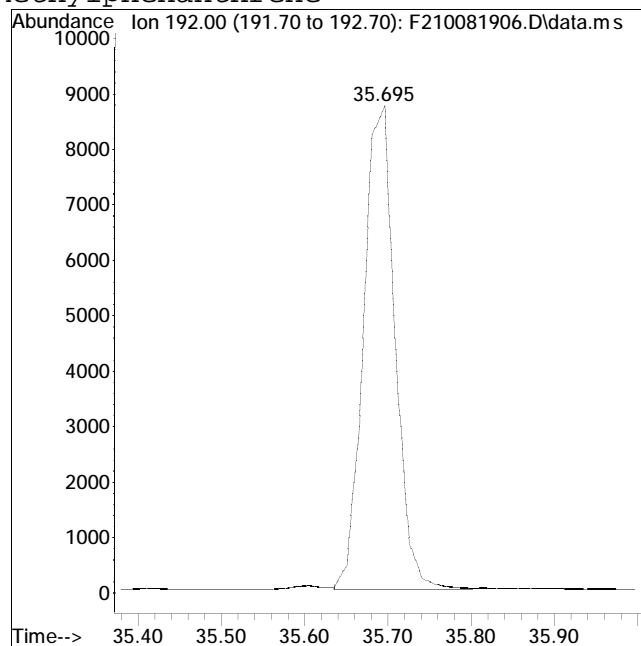
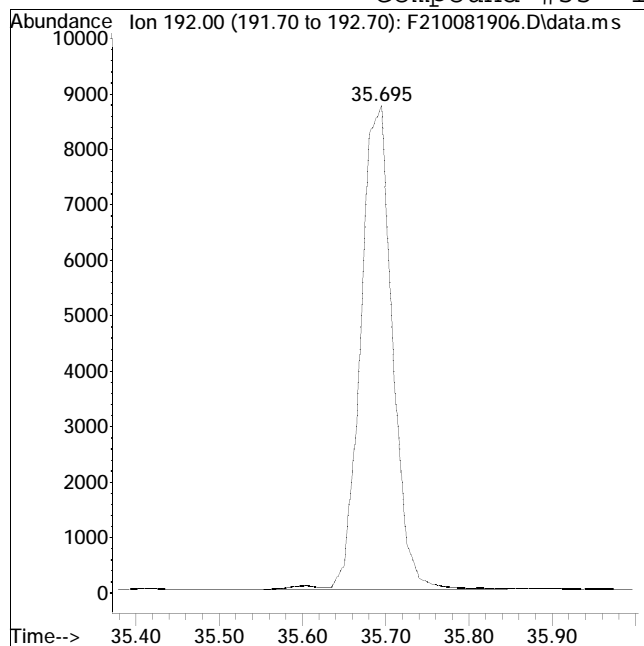
Manual Peak Response = 29639 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081906.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 9:41 pm Instrument : PAH2
Sample : i210081903 Quant Date : 10/9/2019 11:06 am

Compound #55: 1-Methylphenanthrene



Original Peak Response = 23265

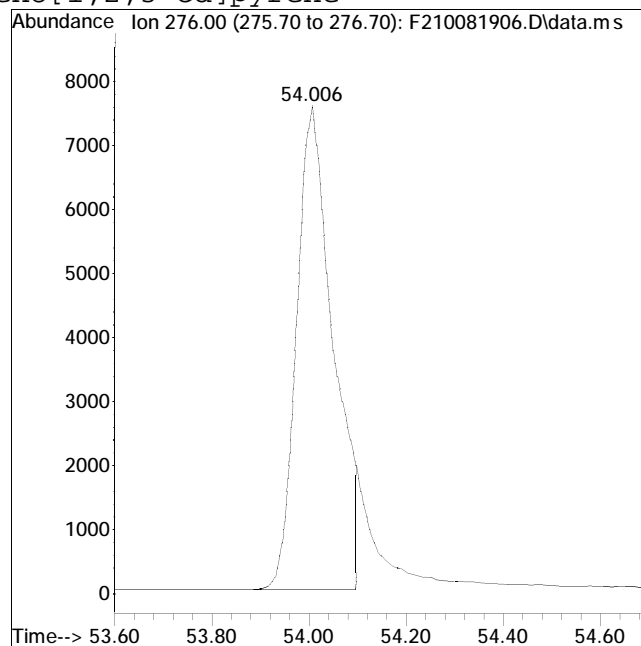
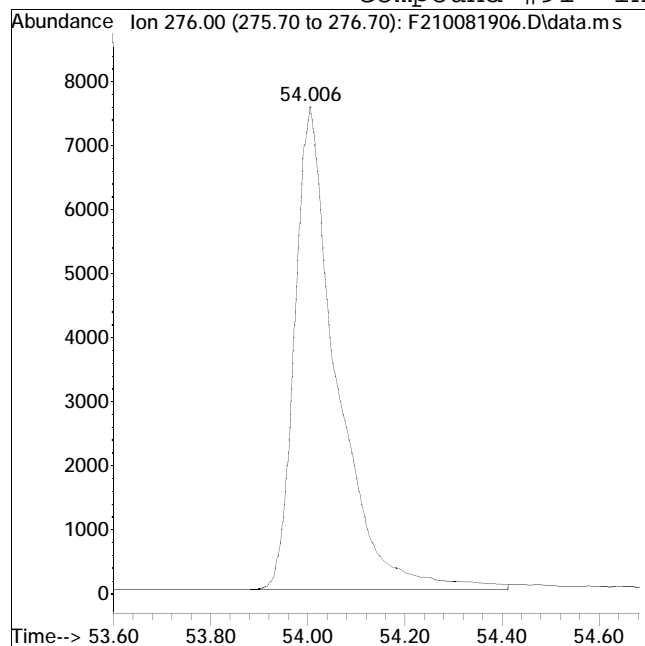
Manual Peak Response = 22952 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081906.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 9:41 pm Instrument : PAH2
Sample : i210081903 Quant Date : 10/9/2019 11:06 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 45683

Manual Peak Response = 40188 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\PAH2\2019\Oct19\oct08\
 Data File : F210081907.D
 Acq On : 8 Oct 2019 11:09 pm
 Operator : PAH2:ML
 Sample : i210081904
 Misc : WG1294599,ffbb46
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 09 11:15:14 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 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	27.220	164	68955	500.000	ng/mL	0.00	
74) Chrysene-d12	43.690	240	132981	500.000	ng/mL	-0.02	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	123231	478.074	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	47.81%#		
40) Phenanthrene-d10	33.091	188	115310	526.463	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	52.65%		
83) Benzo[b]fluoranthene-d12	47.620	264	127785	481.348	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	48.13%#		
88) Benzo[a]pyrene-d12	48.855	264	101266	489.474	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	48.95%#		
128) 5B(H)Cholane - Surr	44.307	217	22083	487.792	ng/ml	-0.03	
Spiked Amount	1000.000		Recovery	=	48.78%#		
Target Compounds							
2) trans-Decalin	16.892	138	12165	222.088	ng/mL	100	Qvalue
3) cis-Decalin	18.112	138	9416	222.770	ng/mL	100	
9) Naphthalene	20.310	128	135827	487.711	ng/mL	100	
14) 2-Methylnaphthalene	23.004	142	90774	477.794	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	86979	470.962	ng/mL	100	
16) Benzothiophene	20.535	134	107480	473.773	ng/mL	100	
21) Biphenyl	24.886	154	114032	496.572	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.503	156	82114	482.741	ng/mL	100	
23) Dibenzofuran	27.987	168	123291	513.580	ng/mL	92	
24) Acenaphthylene	26.602	152	137641M4	491.889	ng/mL		
25) Acenaphthene	27.340	153	87120	489.926	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.891	170	76190	494.969	ng/mL	88	
27) Fluorene	29.357	166	100813	501.172	ng/mL	99	
31) Dibenzothiophene	32.684	184	136347	510.388	ng/mL	96	
41) Phenanthrene	33.181	178	149753	528.132	ng/mL	99	
52) Retene	40.167	234	49339	502.777	ng/mL	85	
53) Anthracene	33.362	178	132819M4	570.938	ng/mL		
54) Carbazole	34.024	167	118197	516.408	ng/mL	99	
55) 1-Methylphenanthrene	35.695	192	110101	517.169	ng/mL	99	
56) Fluoranthene	37.954	202	166391	511.946	ng/mL#	90	
57) Benzo(b)fluorene	40.483	216	102697	493.930	ng/mL	99	
59) Pyrene	38.842	202	171002	509.332	ng/mL#	91	
67) Naphthobenzothiophene-2,1	42.696	234	145187	503.240	ng/mL	98	
75) Benz[a]anthracene	43.630	228	151999	486.154	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081907.D
 Acq On : 8 Oct 2019 11:09 pm
 Operator : PAH2:ML
 Sample : i210081904
 Misc : WG1294599,ffbb46
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 09 11:15:14 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.795	228	157166	498.588	ng/mL	99
77) Chrysene/Triphenylene	43.795	228	157166	498.588	ng/mL	99
84) Benzo[b]fluoranthene	47.695	252	180107	483.263	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.786	252	195176	522.551	ng/mL	98
87) Benzo[e]pyrene	48.750	252	178260	503.583	ng/mL	99
89) Benzo[a]pyrene	48.945	252	169289	512.744	ng/mL	99
90) Perylene	49.277	252	167843	522.236	ng/mL	98
91) Indeno[1,2,3-cd]pyrene	54.006	276	184809M3	472.199	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.081	278	172776	479.143	ng/mL#	94
93) Benzo[g,h,i]perylene	55.376	276	189226	487.330	ng/mL	99
94) Hopane (T19)	53.087	191	32446	475.176	ng/mL	100

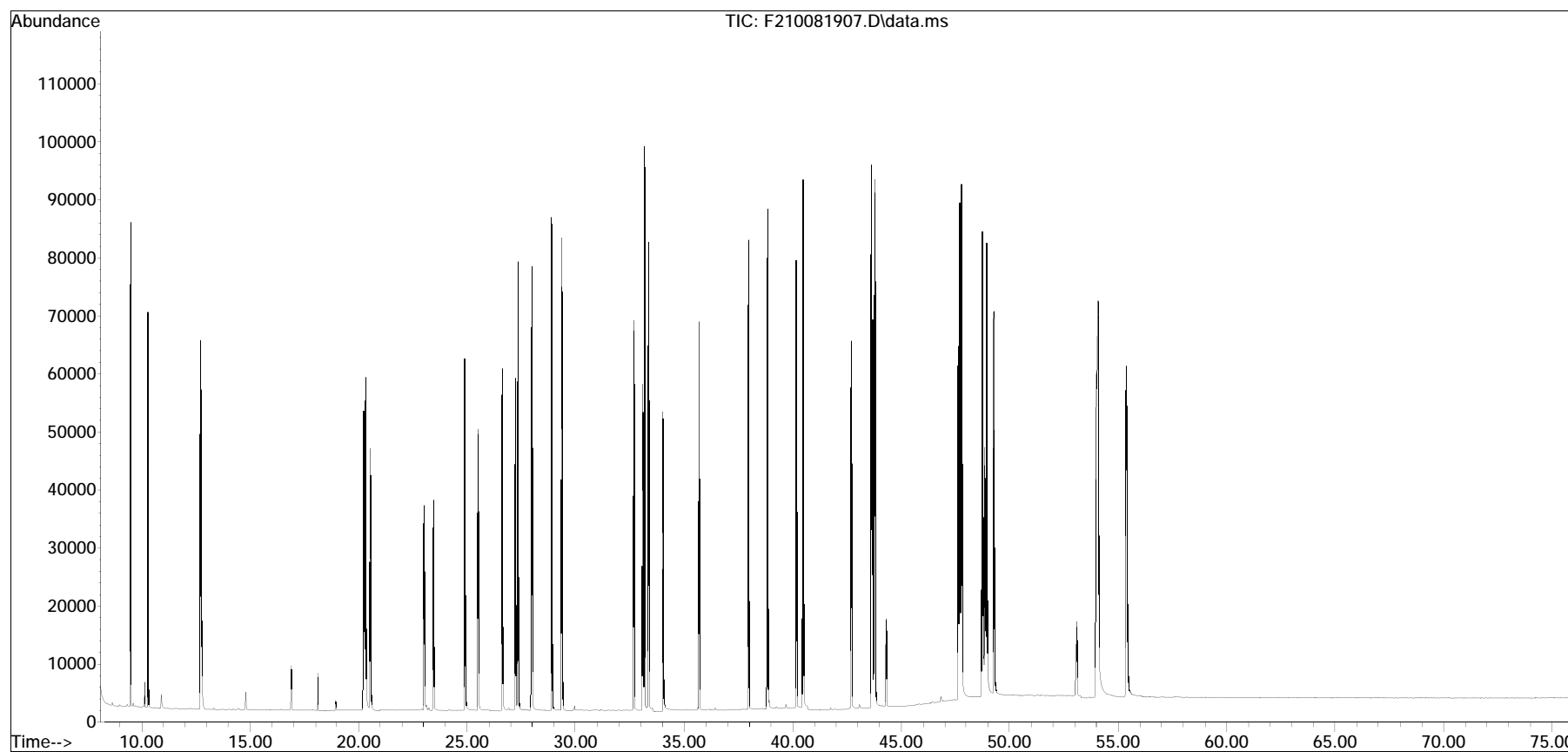
(#) = qualifier out of range (m) = manual integration (+) = signals summed

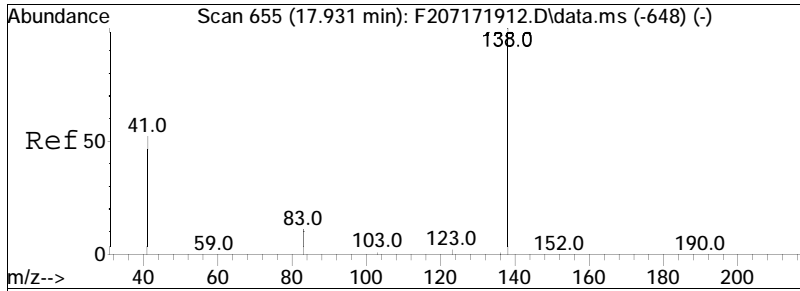
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081907.D
Acq On : 8 Oct 2019 11:09 pm
Operator : PAH2:ML
Sample : i210081904
Misc : WG1294599,ffbb46
ALS Vial : 7 Sample Multiplier: 1

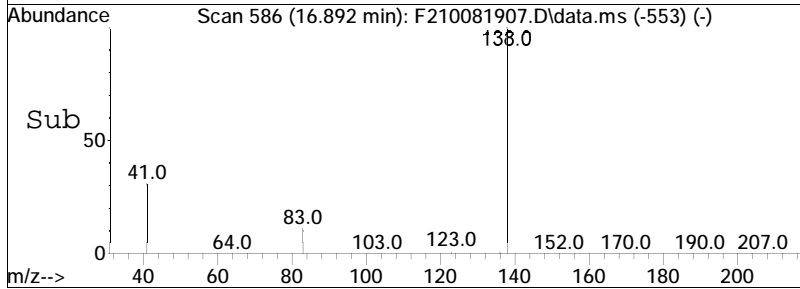
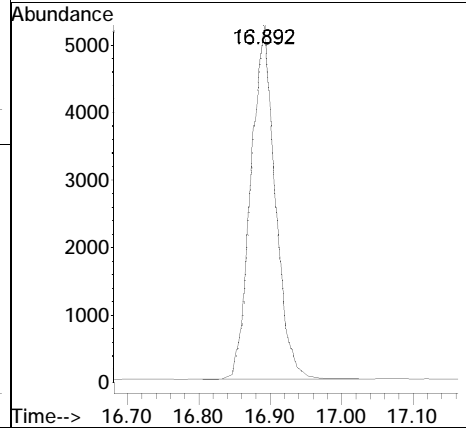
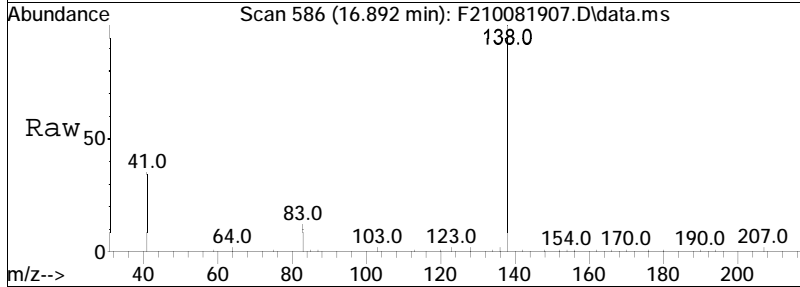
Quant Time: Oct 09 11:15:14 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Oct 08 10:35:21 2019
Response via : Initial Calibration

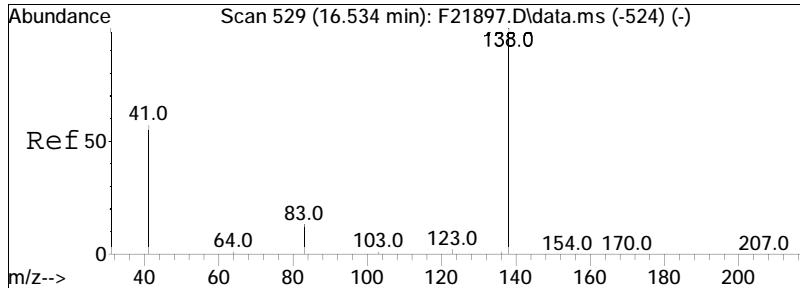
Sub List : ALKPAH_CCV - CC with five surrogates



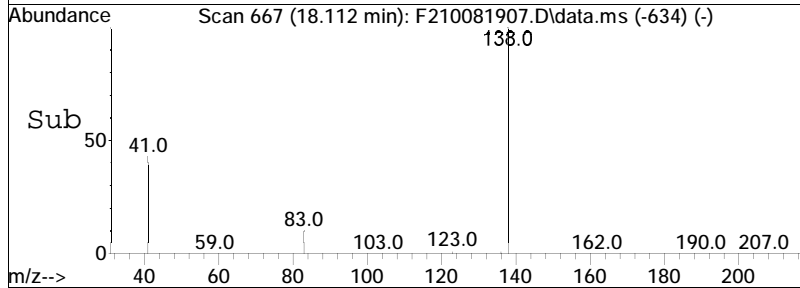
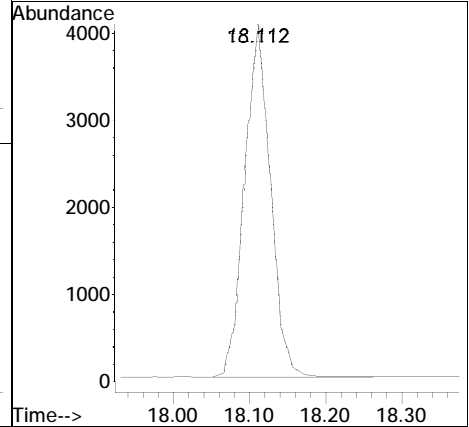
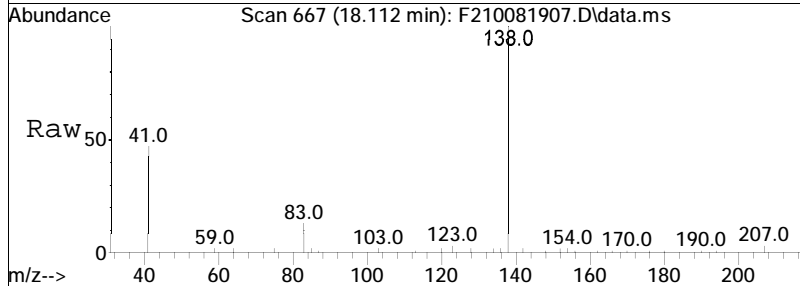


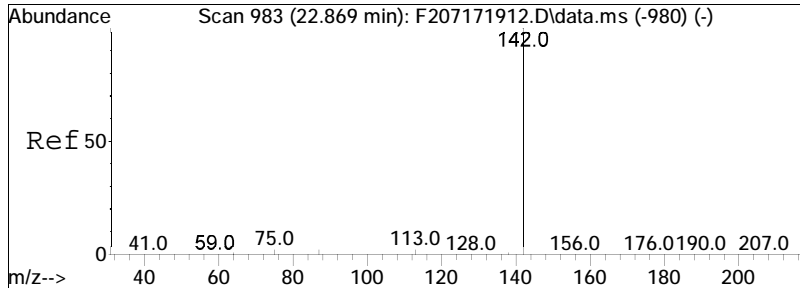
#2
 trans-Decalin
 Concen: 222.09 ng/mL
 RT: 16.892 min Scan# 586
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:138 Resp: 12165



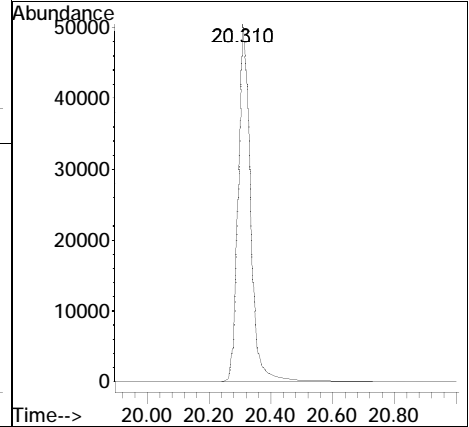
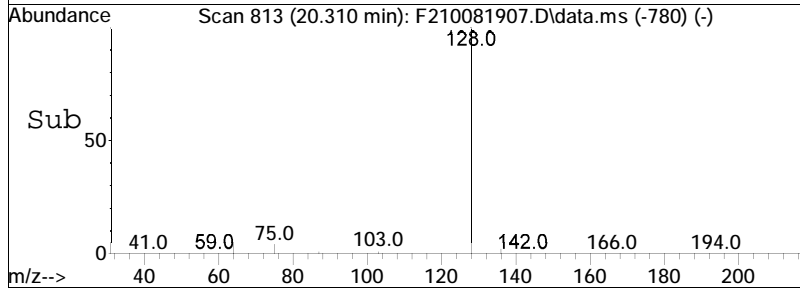
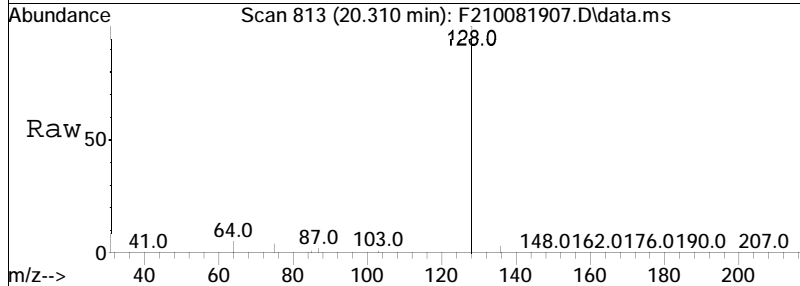


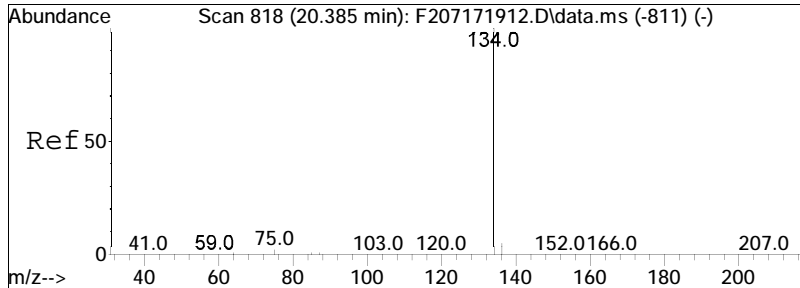
#3
cis-Decalin
Concen: 222.77 ng/mL
RT: 18.112 min Scan# 667
Delta R.T. -0.000 min
Lab File: F210081907.D
Acq: 8 Oct 2019 11:09 pm
Tgt Ion:138 Resp: 9416



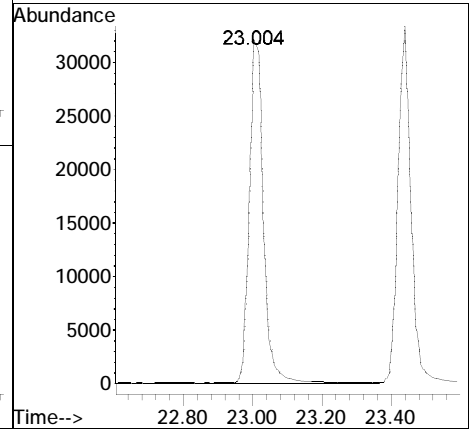
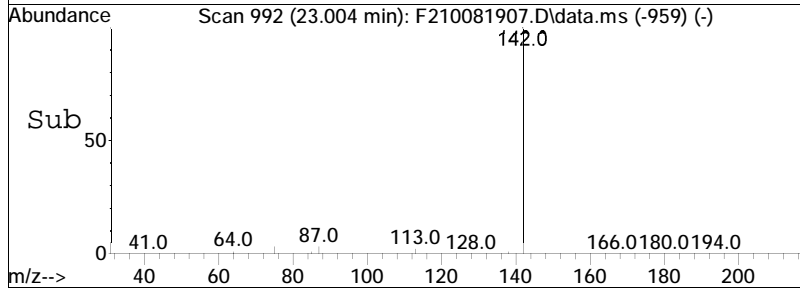
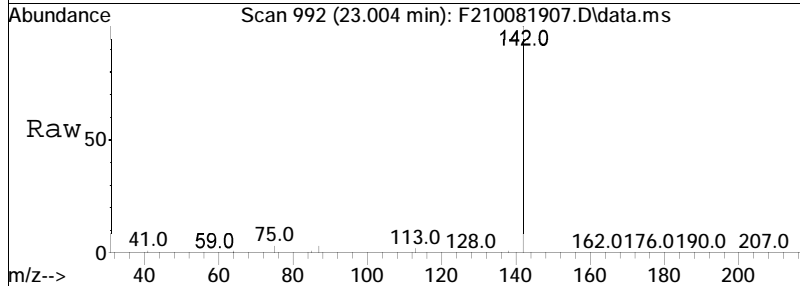


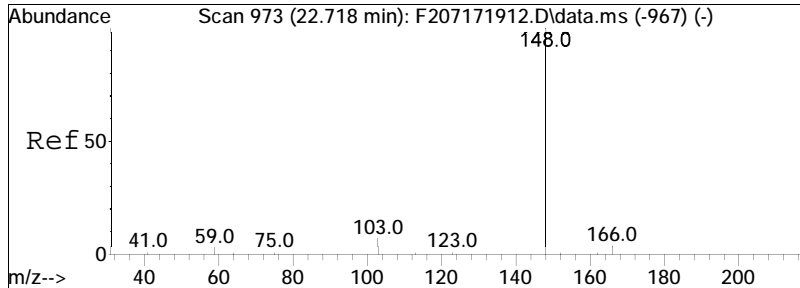
#9
 Naphthalene
 Concen: 487.71 ng/mL
 RT: 20.310 min Scan# 813
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:128 Resp: 135827



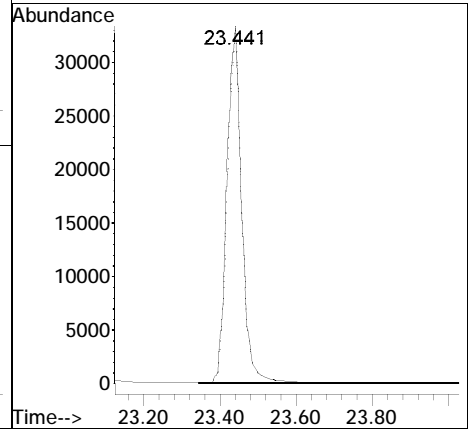
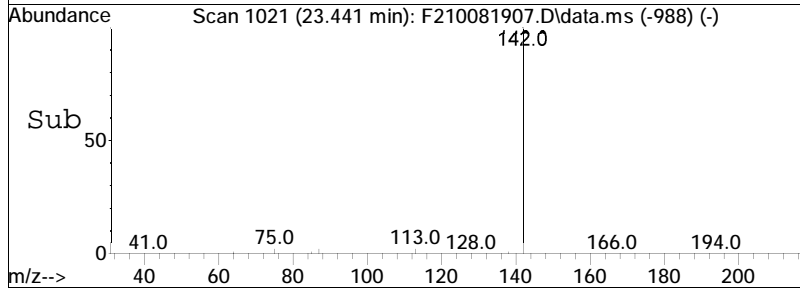
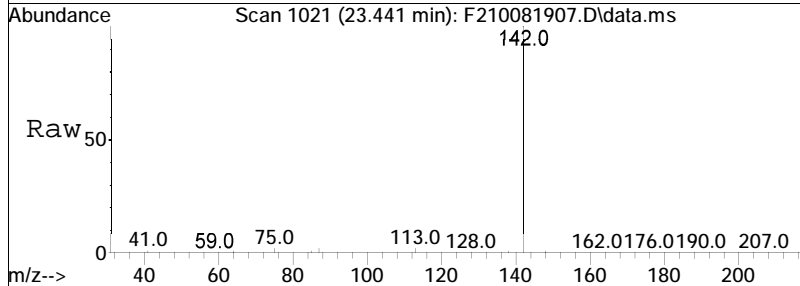


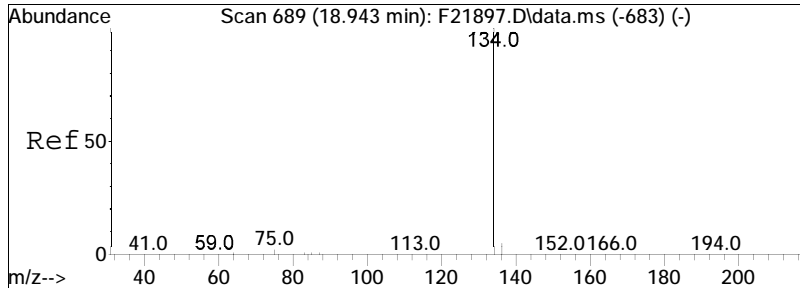
#14
 2-Methylnaphthalene
 Concen: 477.79 ng/mL
 RT: 23.004 min Scan# 992
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:142 Resp: 90774



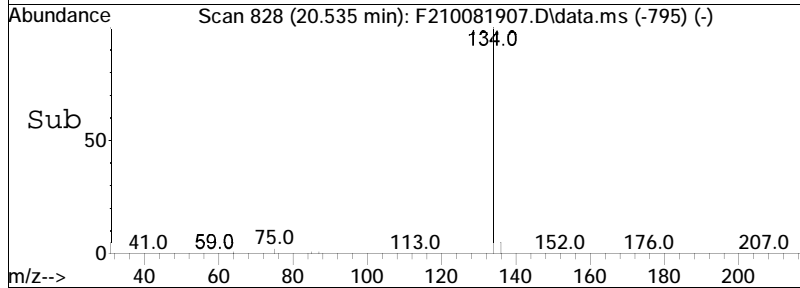
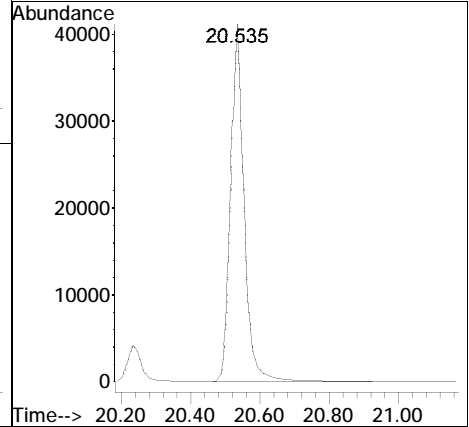
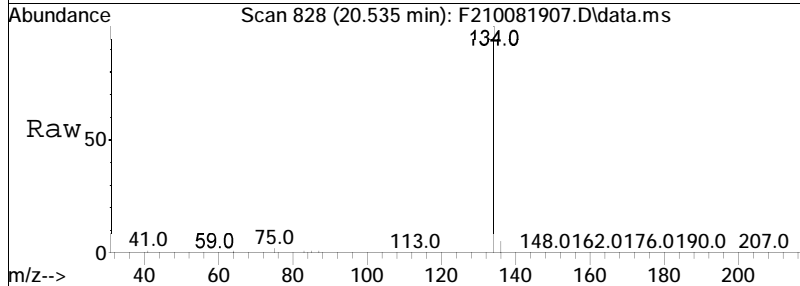


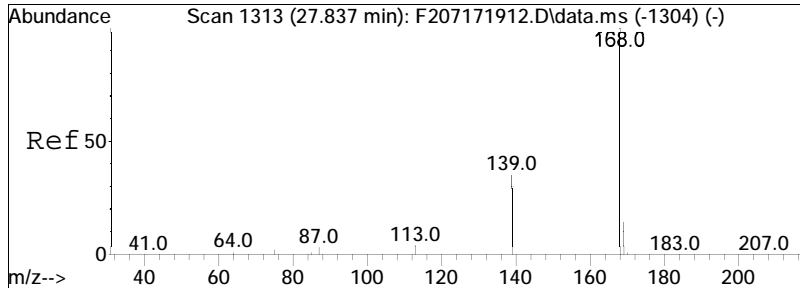
#15
1-Methylnaphthalene
Concen: 470.96 ng/mL
RT: 23.441 min Scan# 1021
Delta R.T. -0.000 min
Lab File: F210081907.D
Acq: 8 Oct 2019 11:09 pm
Tgt Ion:142 Resp: 86979



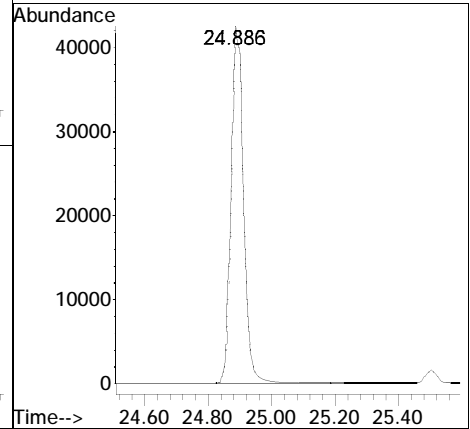
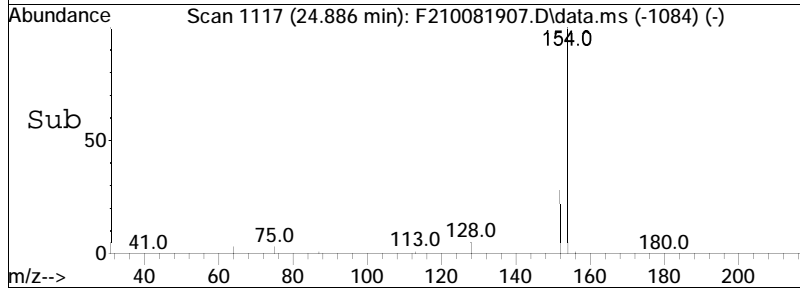
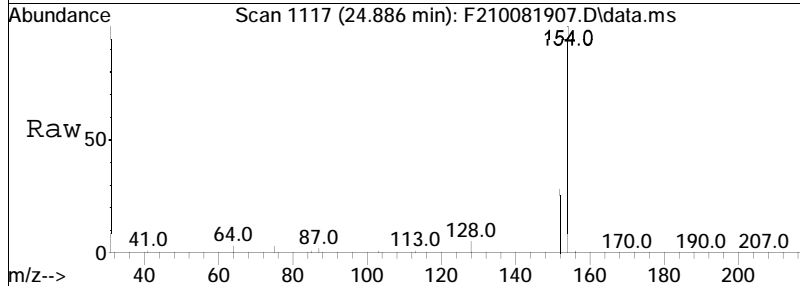


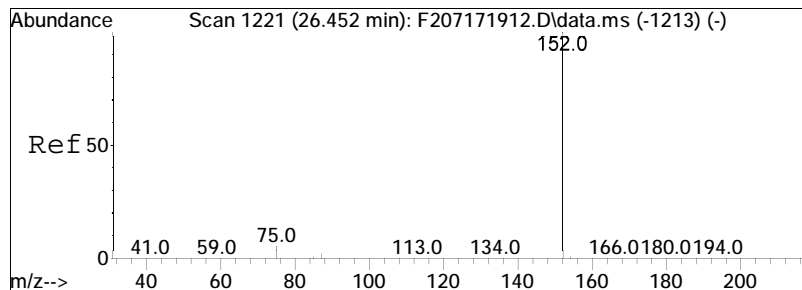
#16
 Benzothiophene
 Concen: 473.77 ng/mL
 RT: 20.535 min Scan# 828
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:134 Resp: 107480



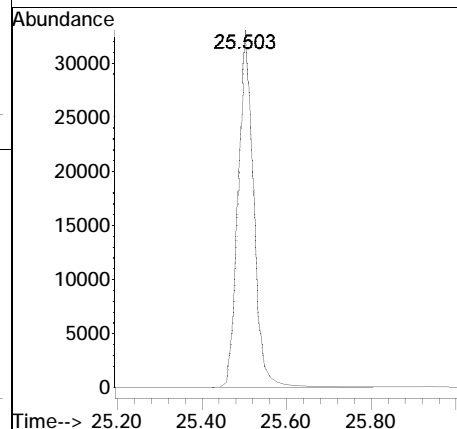
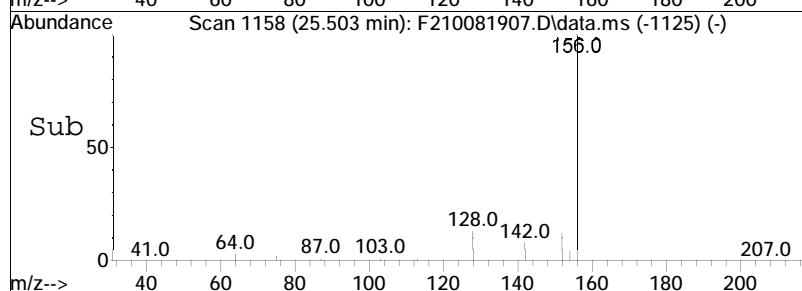
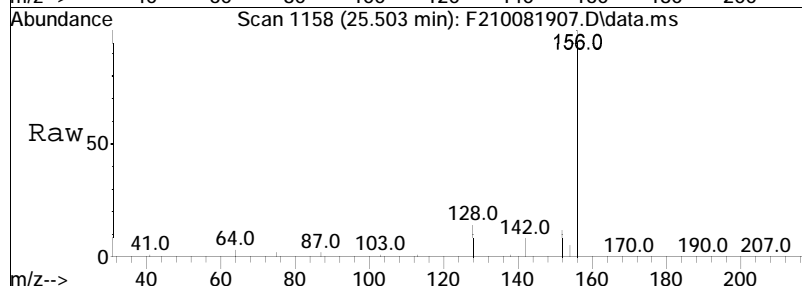


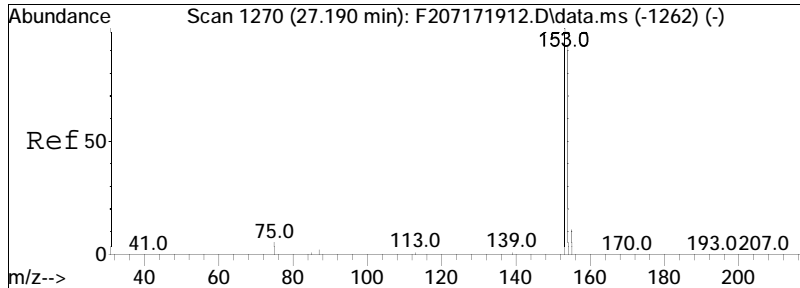
#21
 Biphenyl
 Concen: 496.57 ng/mL
 RT: 24.886 min Scan# 1117
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:154 Resp: 114032





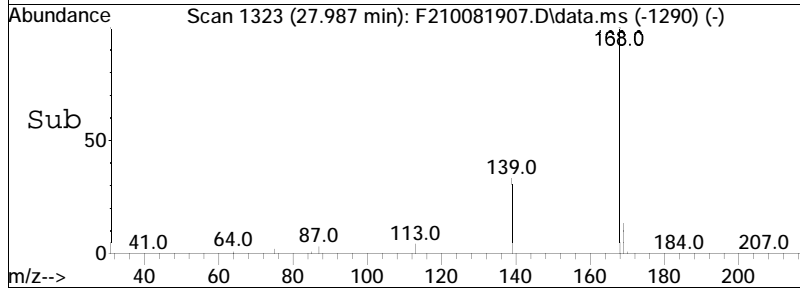
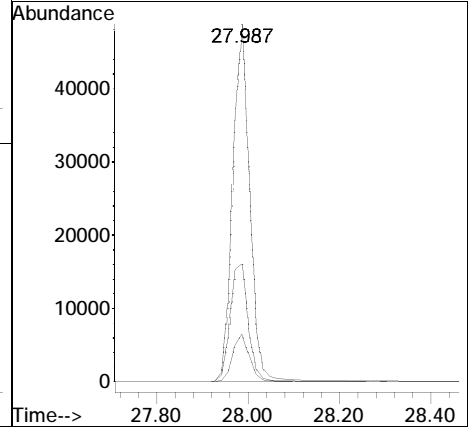
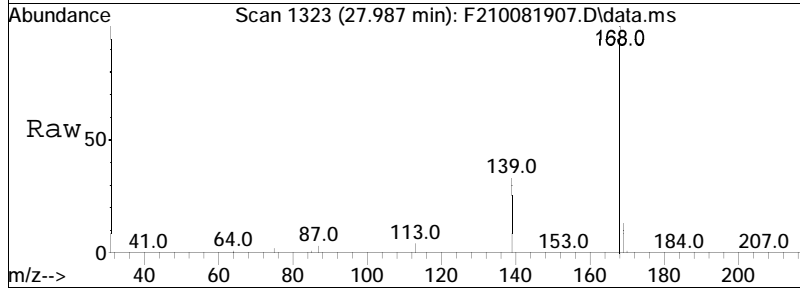
#22
 2,6-Dimethylnaphthalene
 Concen: 482.74 ng/mL
 RT: 25.503 min Scan# 1158
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:156 Resp: 82114

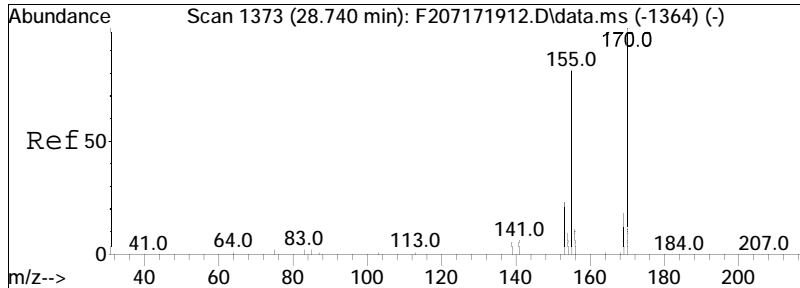




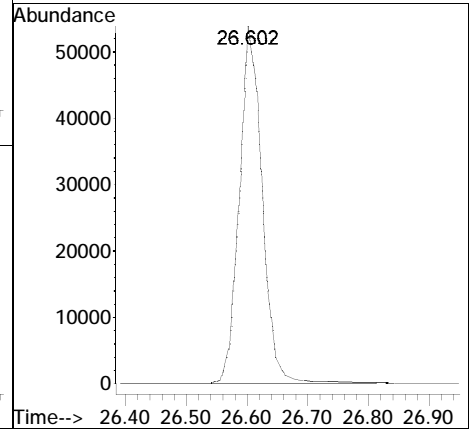
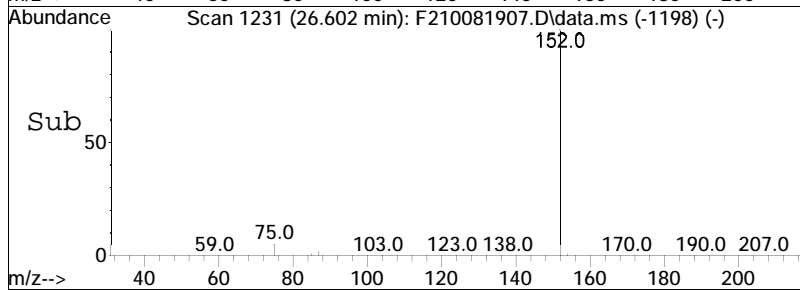
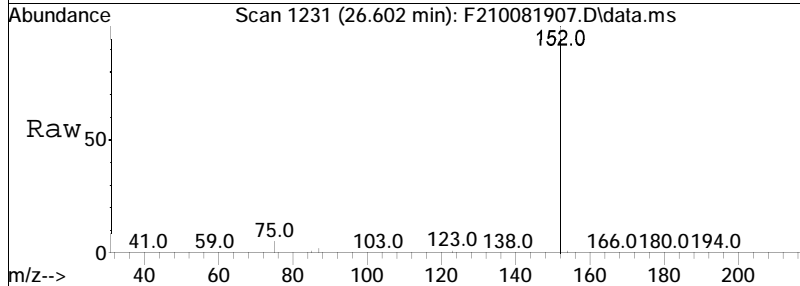
#23
 Dibenzofuran
 Concen: 513.58 ng/mL
 RT: 27.987 min Scan# 1323
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

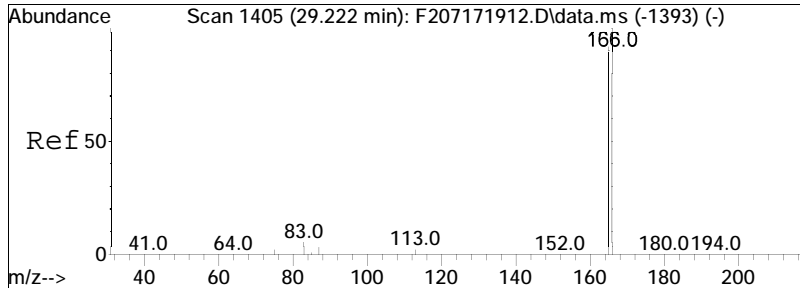
Tgt Ion	Ratio	Lower	Upper
168	100		
139	35.3	20.3	37.7
169	13.2	9.4	17.6





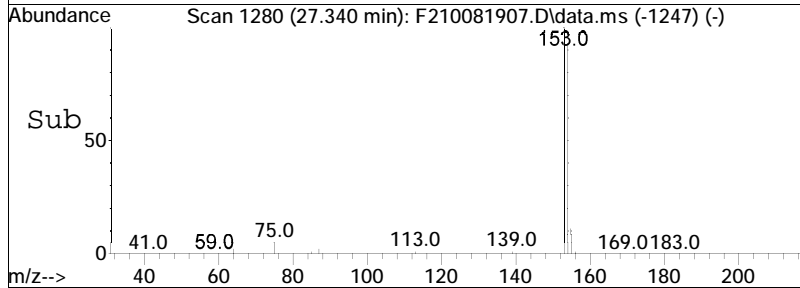
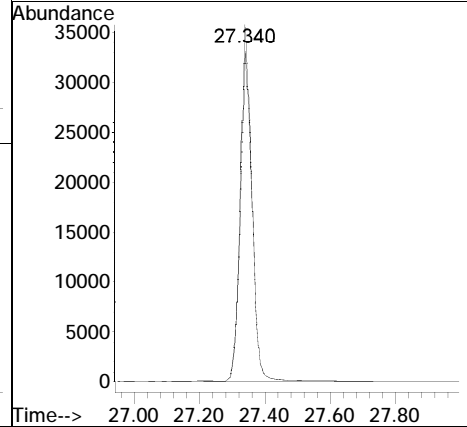
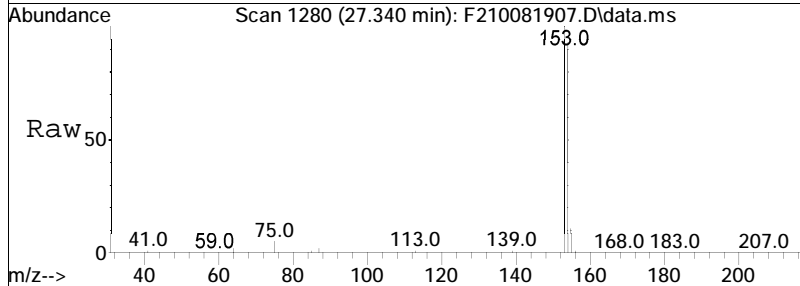
#24
 Acenaphthylene
 Concen: 491.89 ng/mL M4
 RT: 26.602 min Scan# 1231
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm
 Tgt Ion:152 Resp: 137641

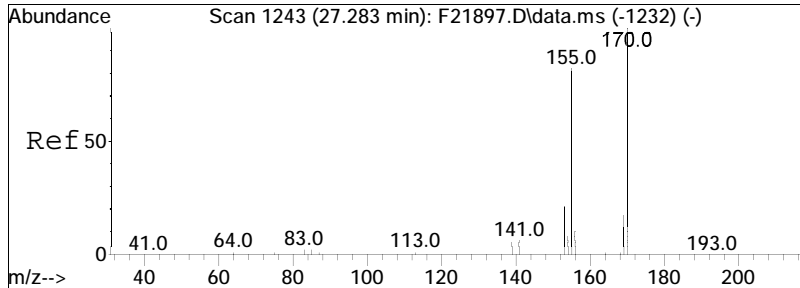




#25
 Acenaphthene
 Concen: 489.93 ng/mL
 RT: 27.340 min Scan# 1280
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

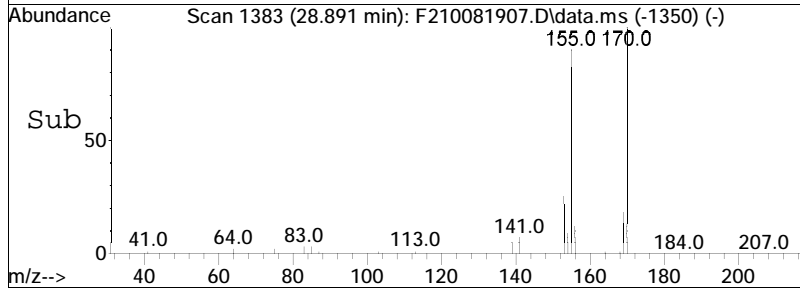
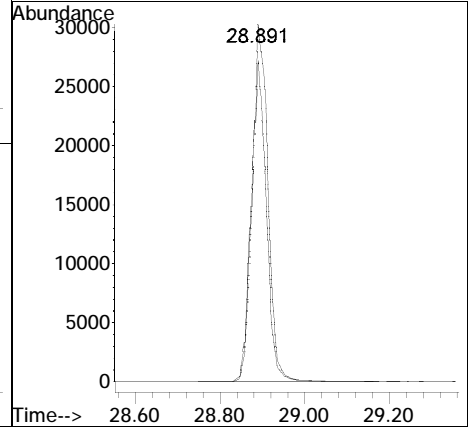
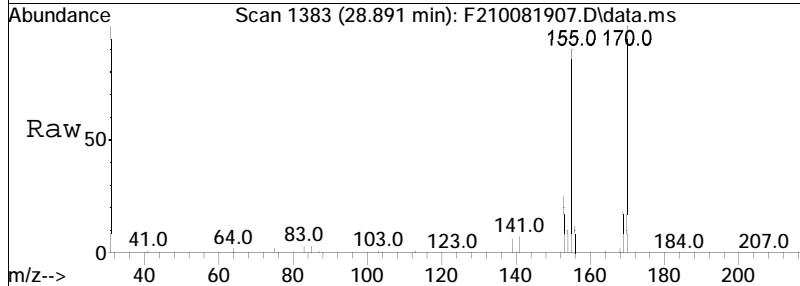
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.0	64.8	120.4

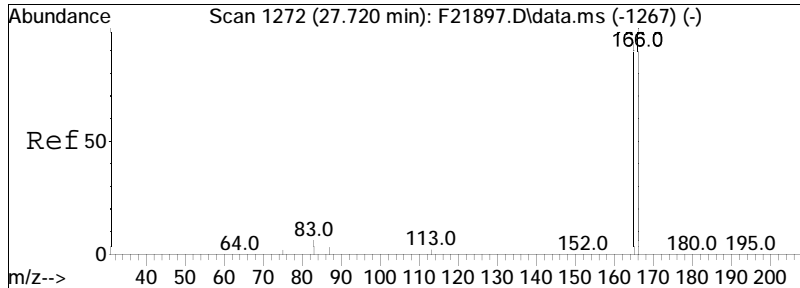




#26
 2,3,5-Trimethylnaphthalene
 Concen: 494.97 ng/mL
 RT: 28.891 min Scan# 1383
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

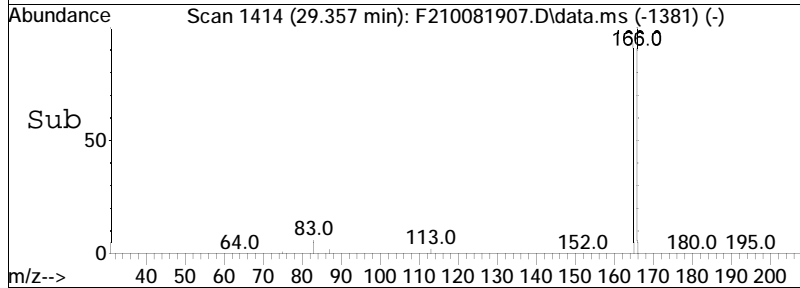
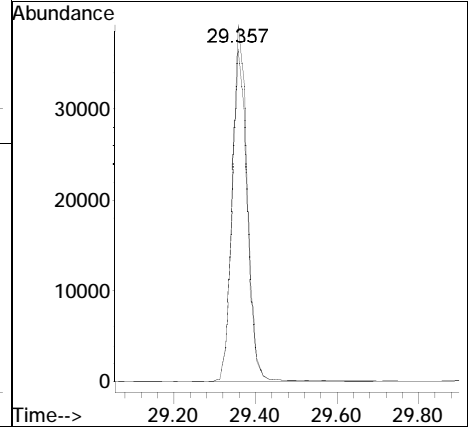
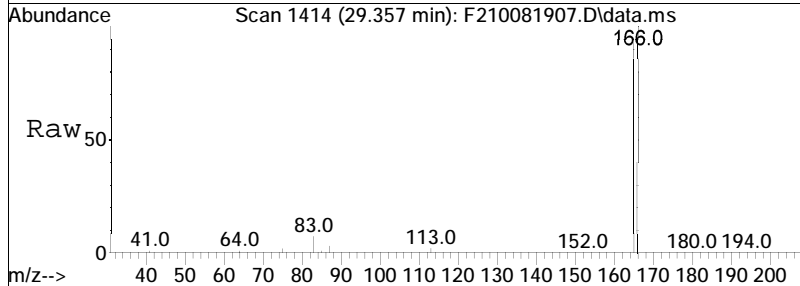
Tgt Ion:	170	Resp:	76190
Ion Ratio	Lower	Upper	
170	100		
155	86.2	53.3	98.9

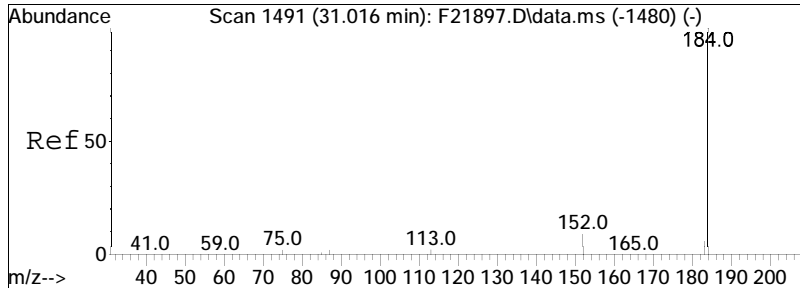




#27
 Fluorene
 Concen: 501.17 ng/mL
 RT: 29.357 min Scan# 1414
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

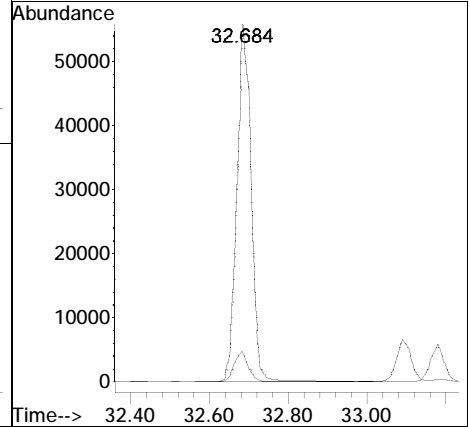
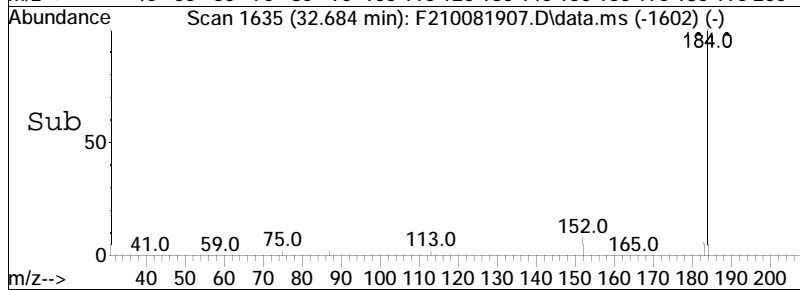
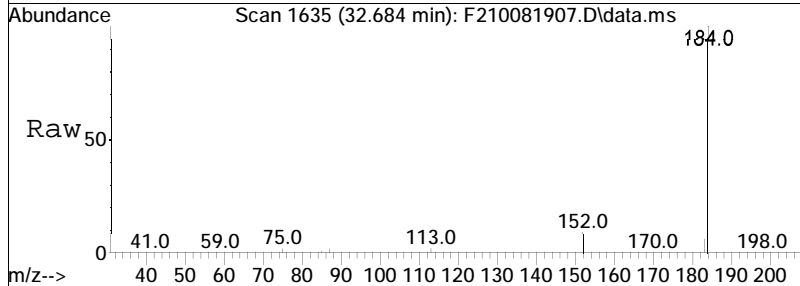
Tgt Ion	Resp	Lower	Upper
166	100		
165	92.2	65.4	121.4

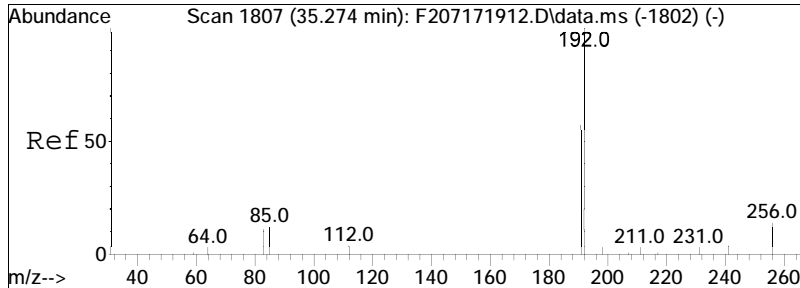




#31
 Dibenzothiophene
 Concen: 510.39 ng/mL
 RT: 32.684 min Scan# 1635
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

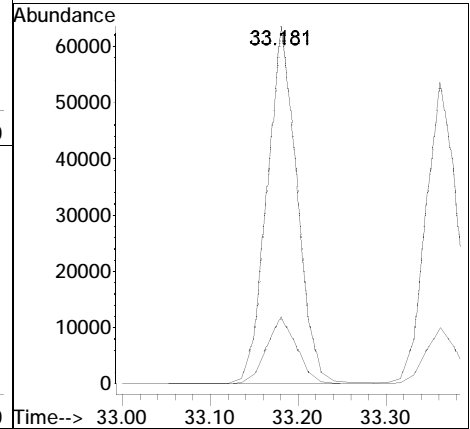
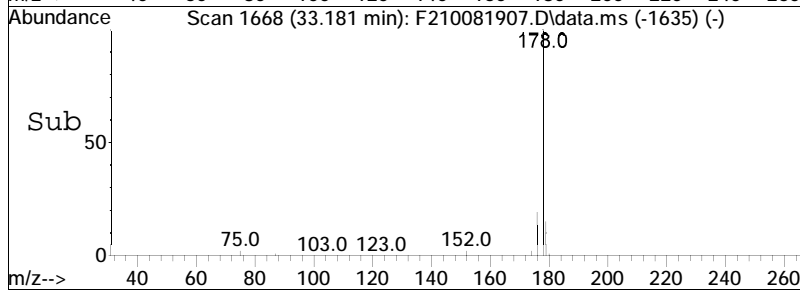
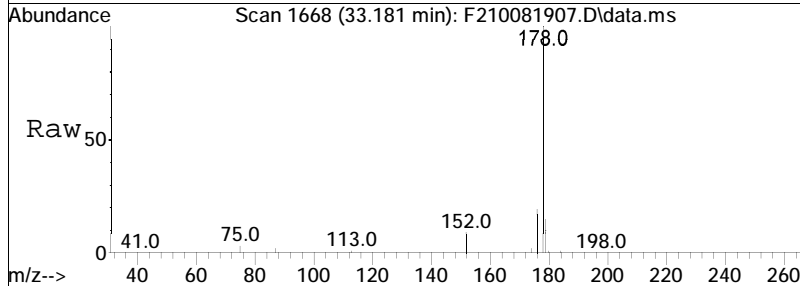
Tgt Ion	Resp	Lower	Upper
184	100		
152	8.3	4.9	9.1

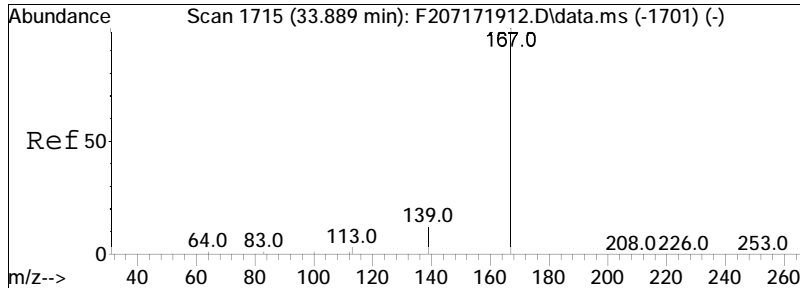




#41
 Phenanthrene
 Concen: 528.13 ng/mL
 RT: 33.181 min Scan# 1668
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

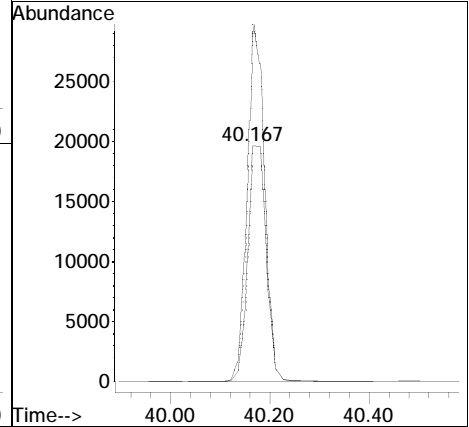
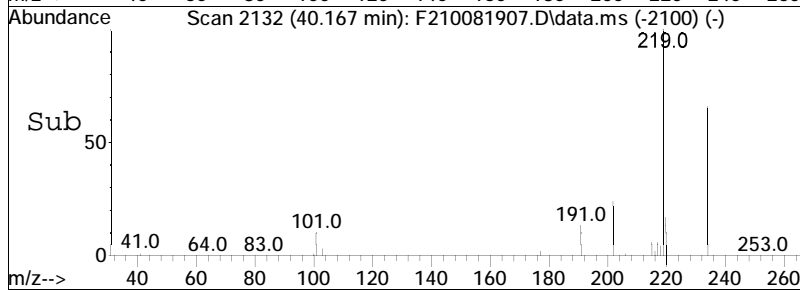
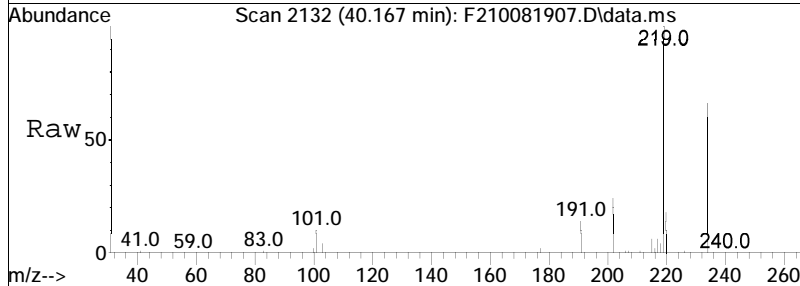
Tgt Ion: 178 Resp: 149753
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.3 24.7

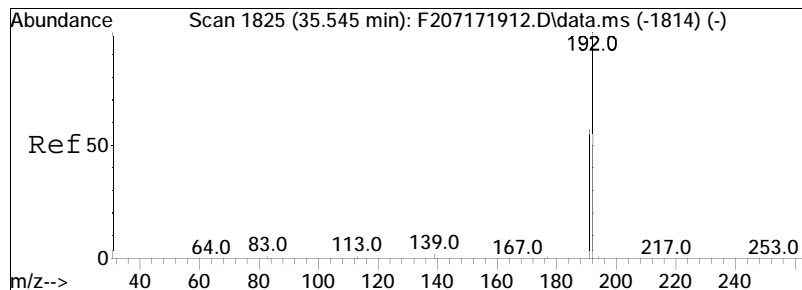




#52
 Retene
 Concen: 502.78 ng/mL
 RT: 40.167 min Scan# 2132
 Delta R.T. -0.015 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

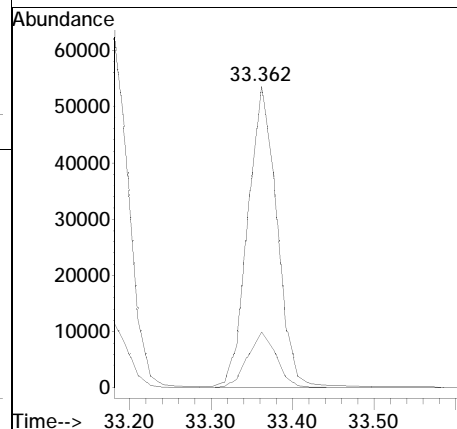
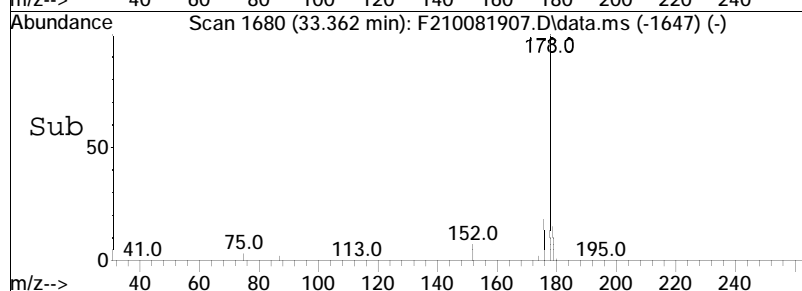
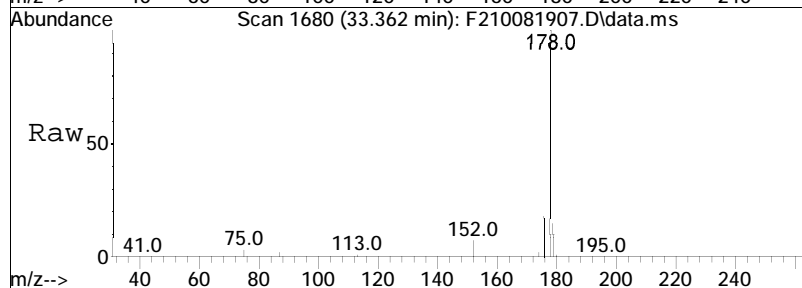
Tgt Ion	Resp	Lower	Upper
234	49339		
219	143.0	88.0	163.4

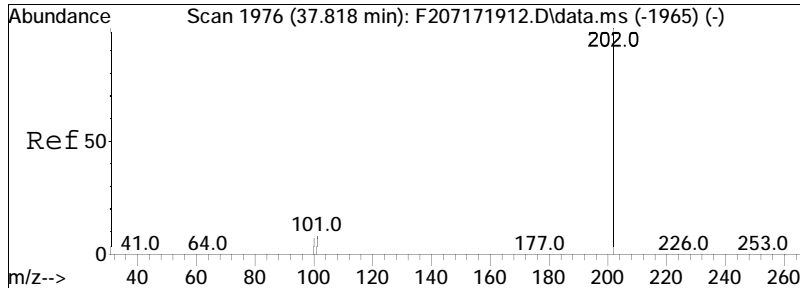




#53
 Anthracene
 Concen: 570.94 ng/mL M4
 RT: 33.362 min Scan# 1680
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

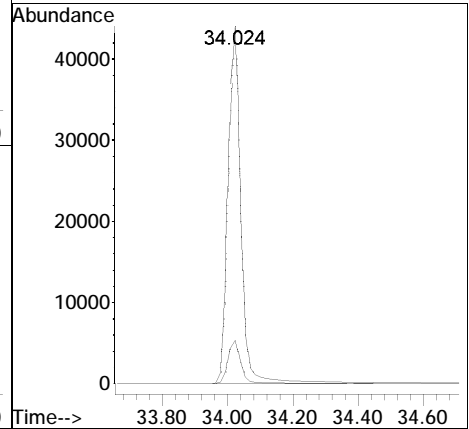
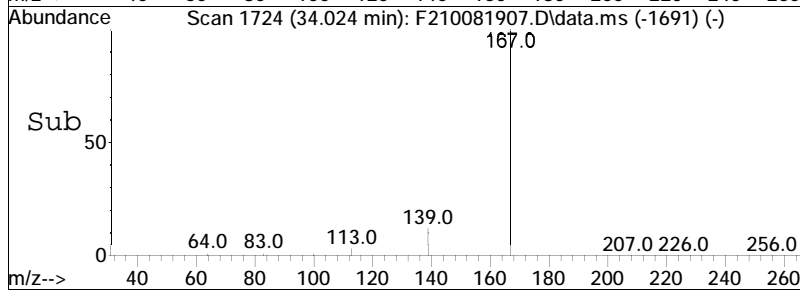
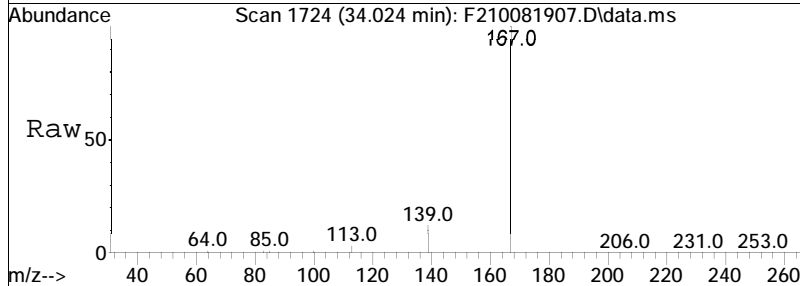
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.0	12.9	23.9

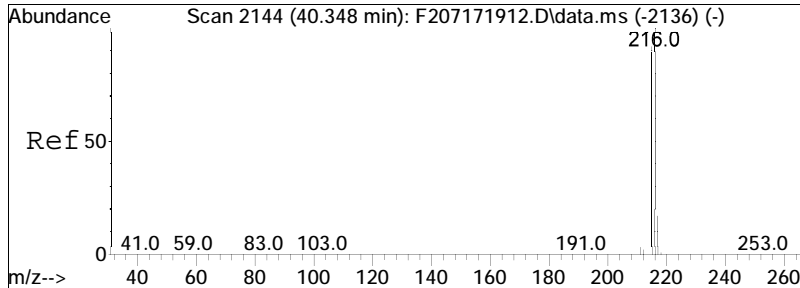




#54
 Carbazole
 Concen: 516.41 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

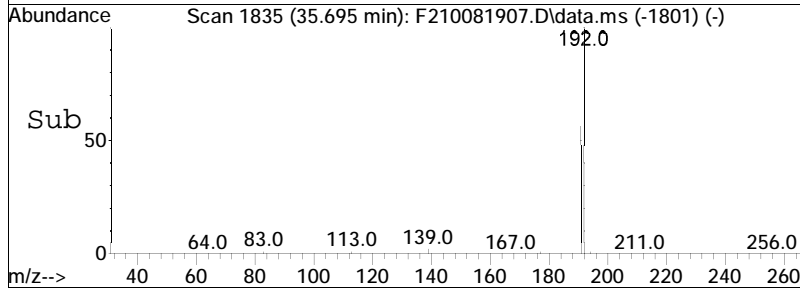
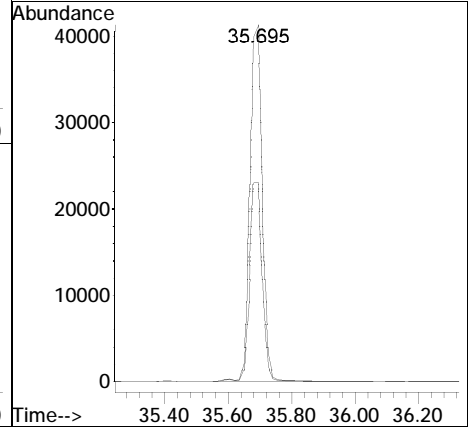
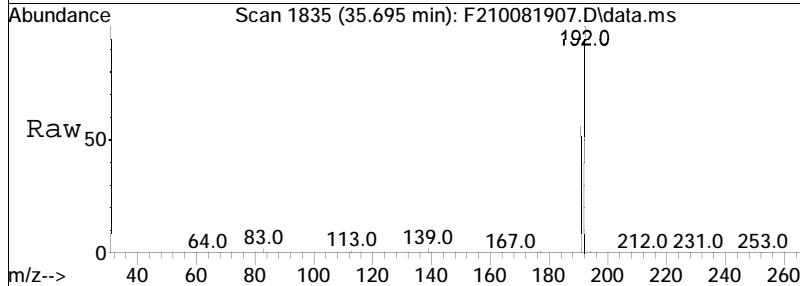
Tgt Ion: 167 Resp: 118197
 Ion Ratio Lower Upper
 167 100
 139 12.2 8.3 15.3

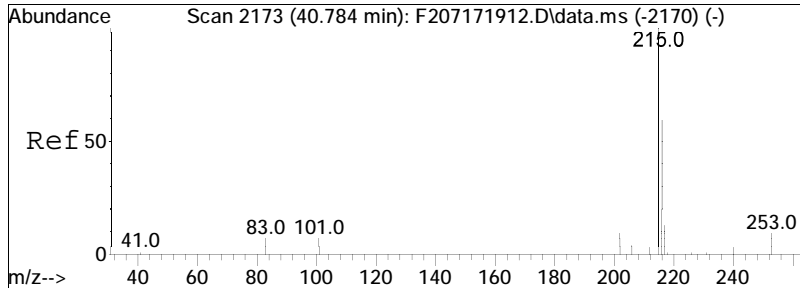




#55
 1-Methylphenanthrene
 Concen: 517.17 ng/mL
 RT: 35.695 min Scan# 1835
 Delta R.T. 0.015 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

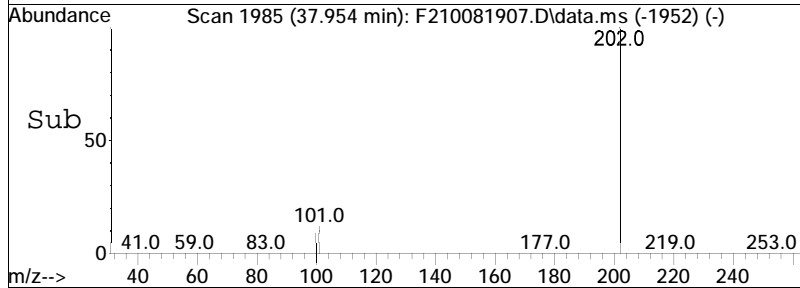
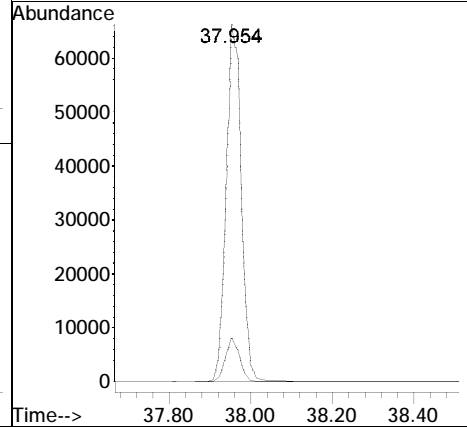
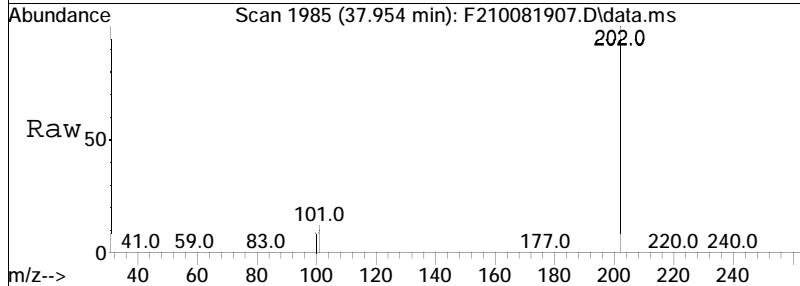
Tgt Ion	Resp	Lower	Upper
192	110101		
192	100		
191	56.5	39.9	74.1

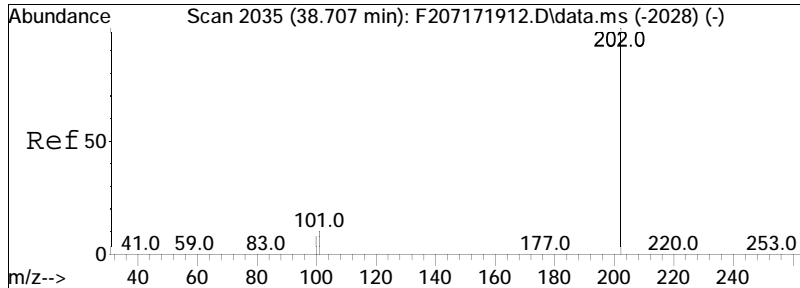




#56
 Fluoranthene
 Concen: 511.95 ng/mL
 RT: 37.954 min Scan# 1985
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

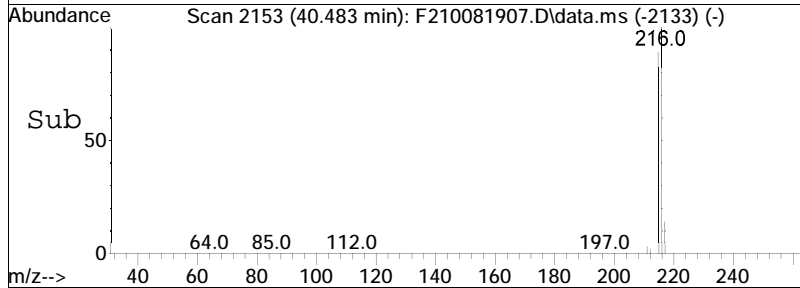
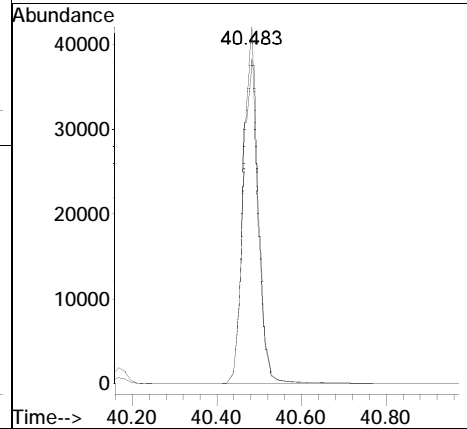
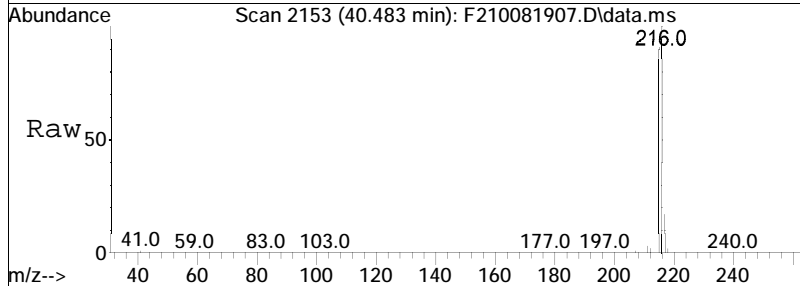
Tgt Ion: 202 Resp: 166391
 Ion Ratio Lower Upper
 202 100
 101 11.5 5.5 10.3#

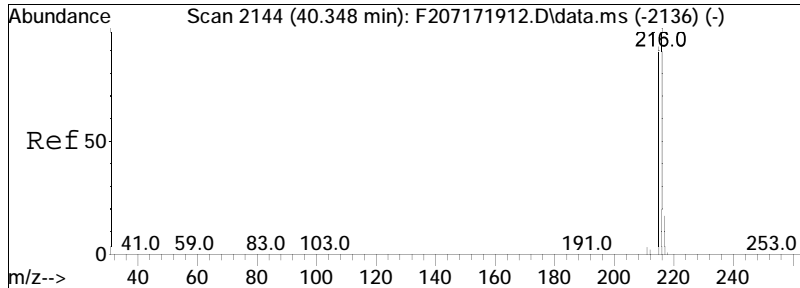




#57
 Benzo(b)fluorene
 Concen: 493.93 ng/mL
 RT: 40.483 min Scan# 2153
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

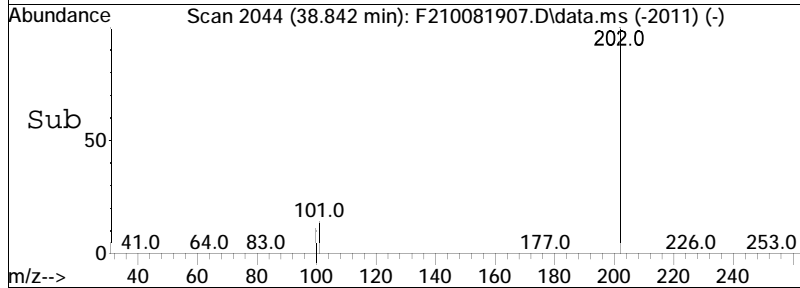
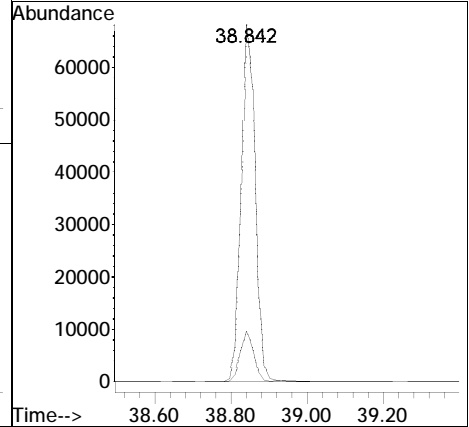
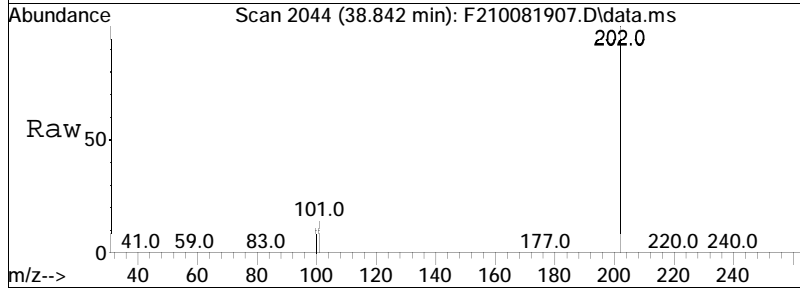
Tgt Ion	Resp	Lower	Upper
216	102697		
215	91.9	65.0	120.8

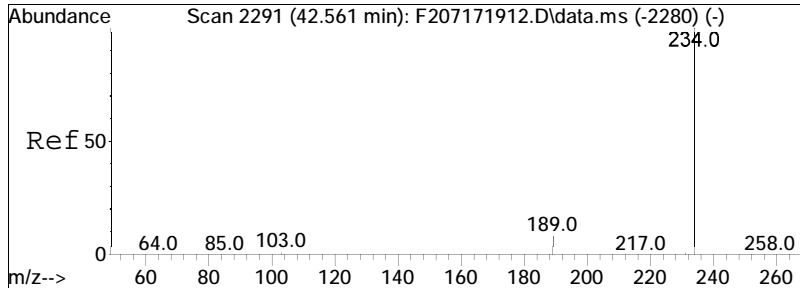




#59
 Pyrene
 Concen: 509.33 ng/mL
 RT: 38.842 min Scan# 2044
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

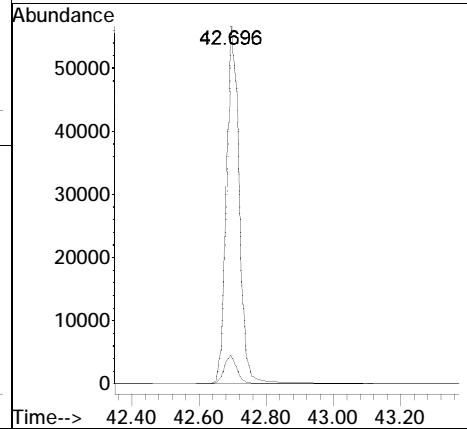
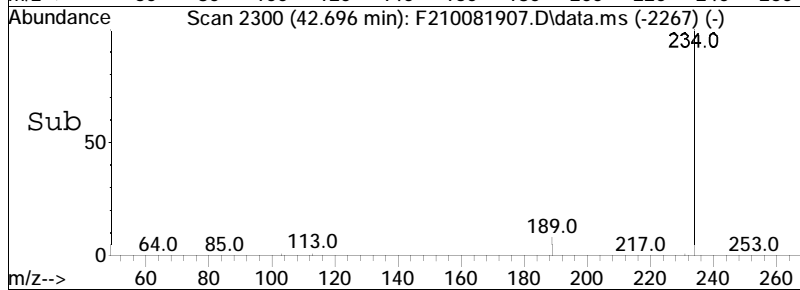
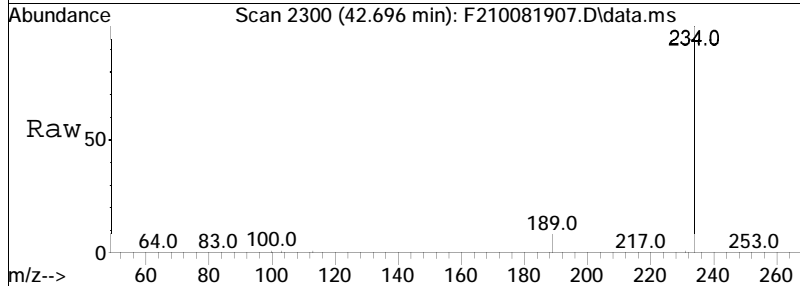
Tgt Ion: 202 Resp: 171002
 Ion Ratio Lower Upper
 202 100
 101 13.9 7.3 13.7#

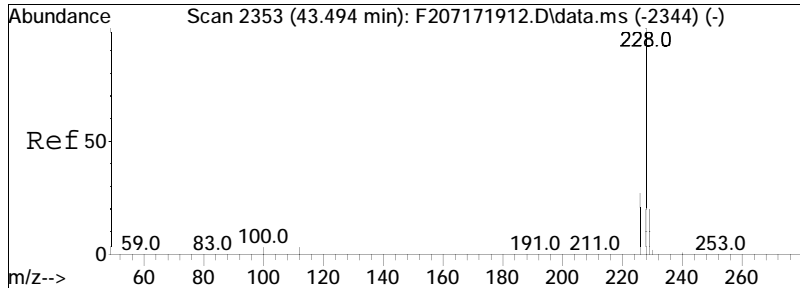




#67
 Naphthobenzothiophene-2,1-D
 Concen: 503.24 ng/mL
 RT: 42.696 min Scan# 2300
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

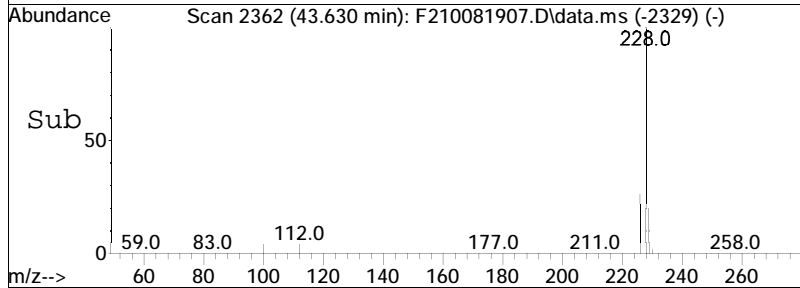
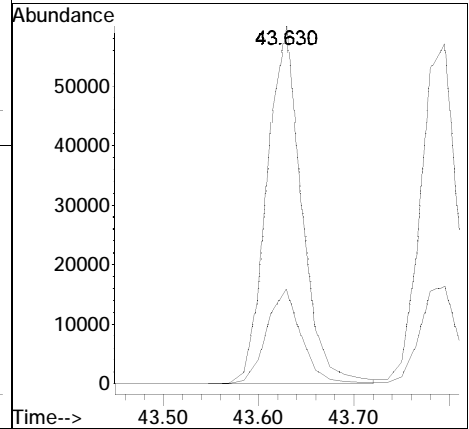
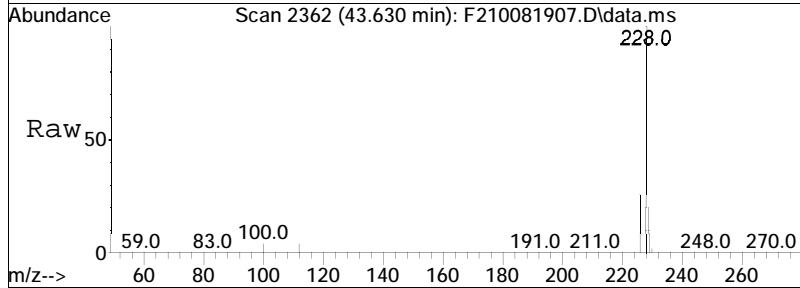
Tgt Ion: 234 Resp: 145187
 Ion Ratio Lower Upper
 234 100
 189 7.7 4.8 9.0

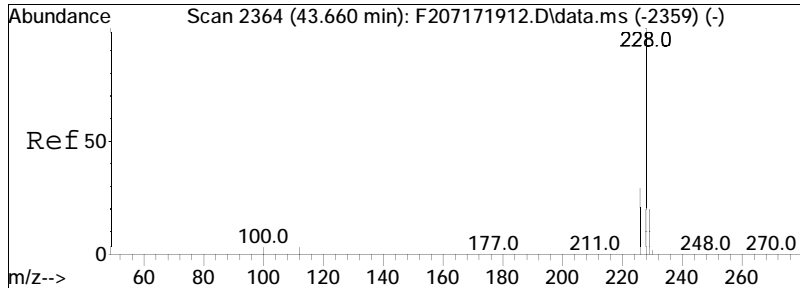




#75
 Benz[a]anthracene
 Concen: 486.15 ng/mL
 RT: 43.630 min Scan# 2362
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

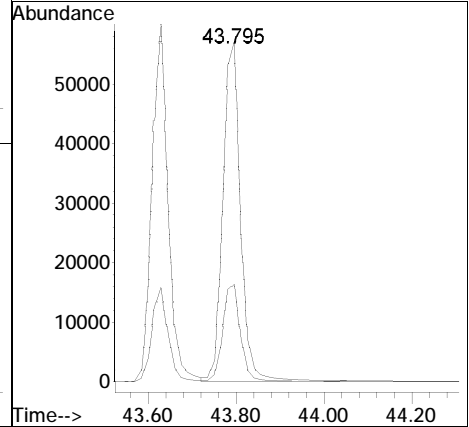
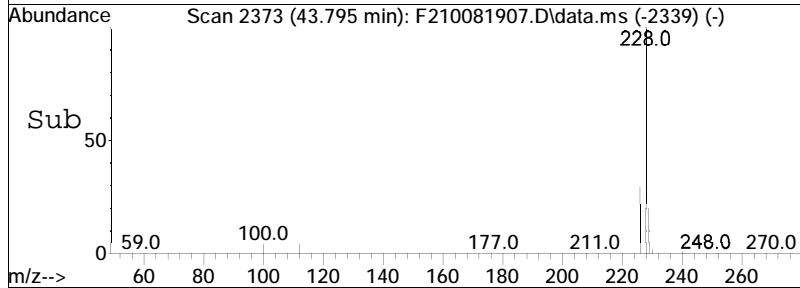
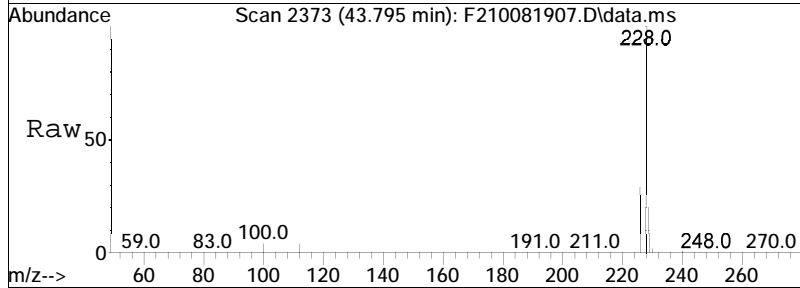
Tgt Ion	Resp	Lower	Upper
228	151999		
226	26.3	18.1	33.5

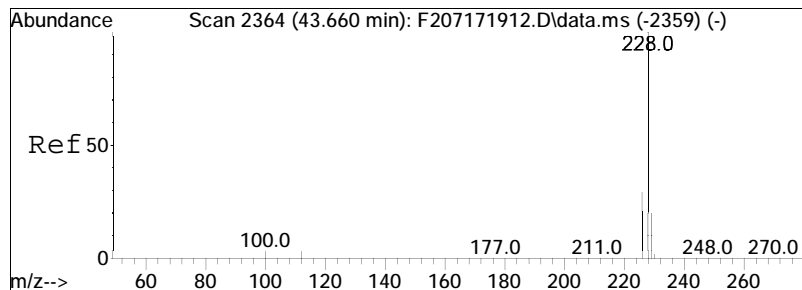




#76
 Chrysene
 Concen: 498.59 ng/mL
 RT: 43.795 min Scan# 2373
 Delta R.T. 0.015 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

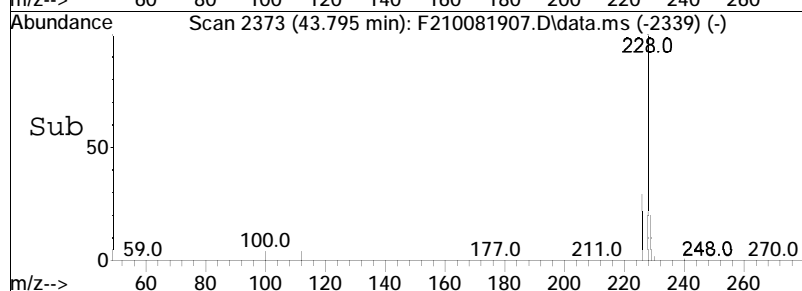
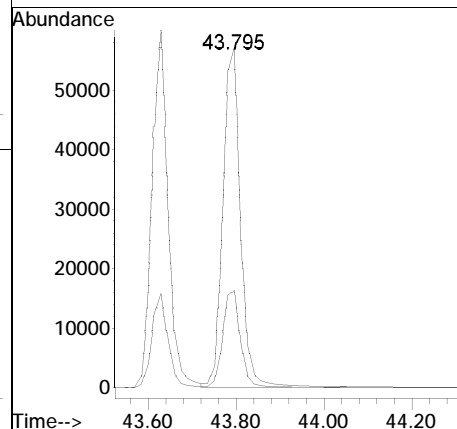
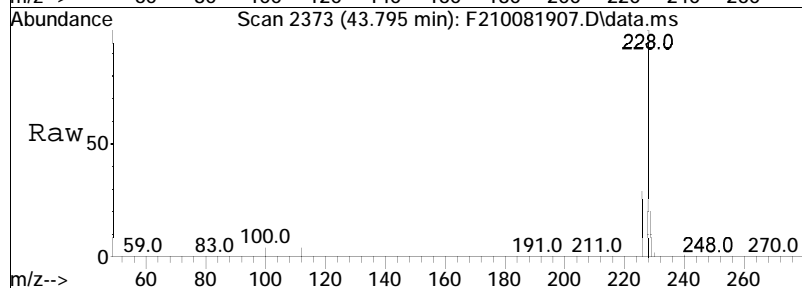
Tgt Ion	Resp	Lower	Upper
228	157166		
226	28.9	20.4	38.0

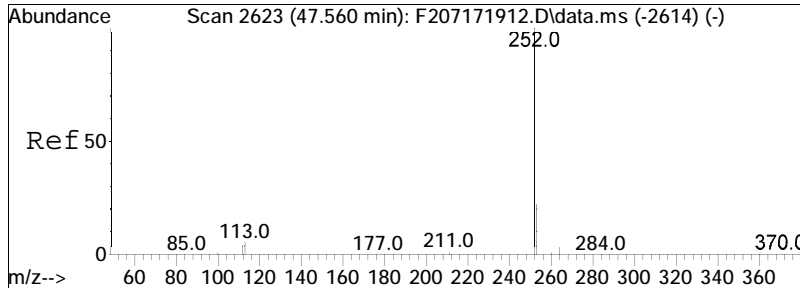




#77
 Chrysene/Triphenylene
 Concen: 498.59 ng/mL
 RT: 43.795 min Scan# 2373
 Delta R.T. 0.015 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

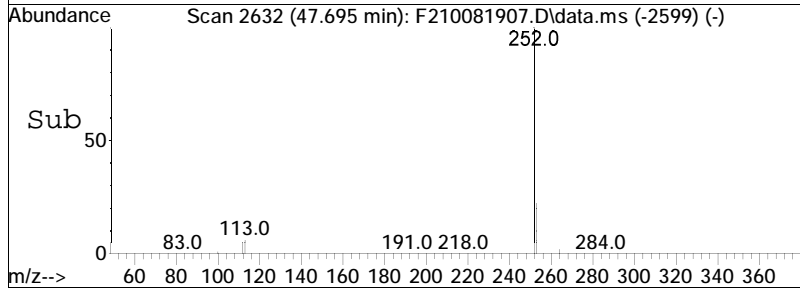
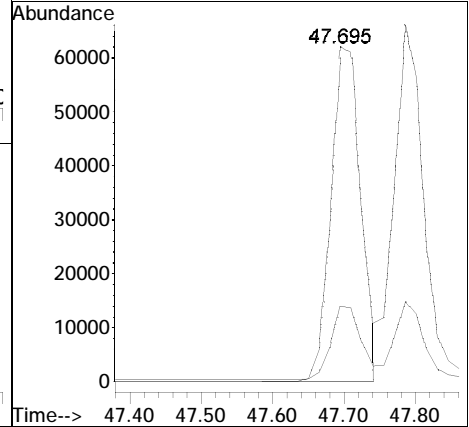
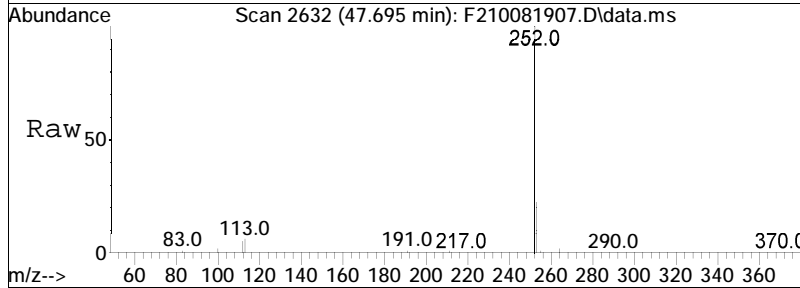
Tgt Ion	Resp	Lower	Upper
228	157166		
226	28.9	20.4	38.0

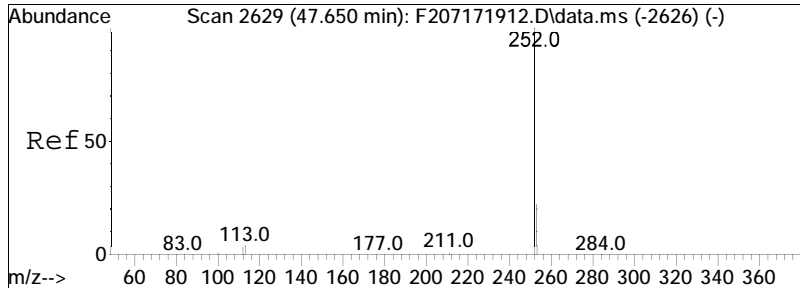




#84
 Benzo[b]fluoranthene
 Concen: 483.26 ng/mL
 RT: 47.695 min Scan# 2632
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

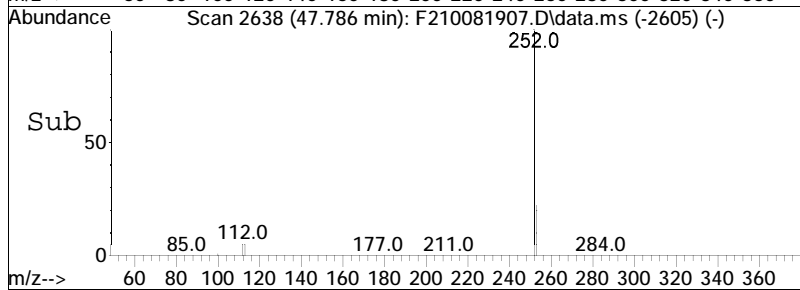
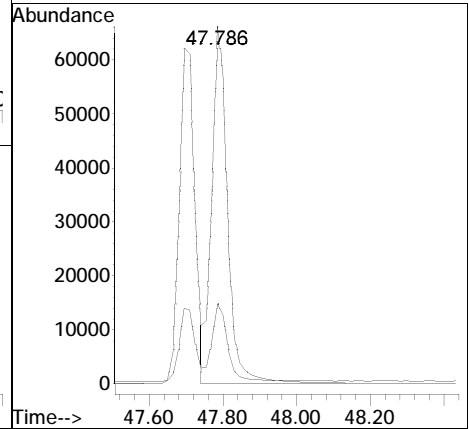
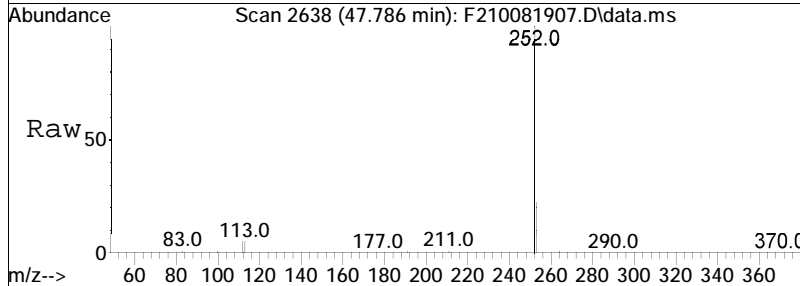
Tgt Ion	Resp	Lower	Upper
252	180107		
253	21.7	15.8	29.4

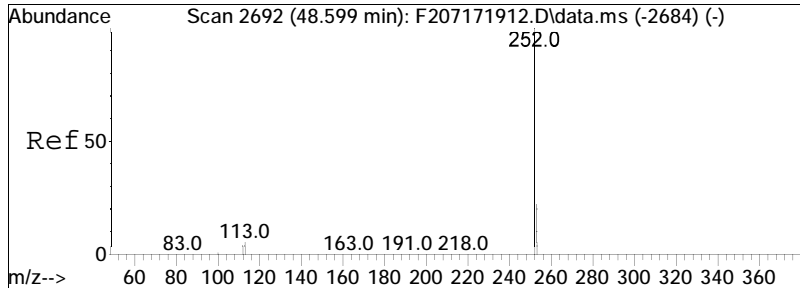




#85
 Benzo[j]+[k]fluoranthene
 Concen: 522.55 ng/mL
 RT: 47.786 min Scan# 2638
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

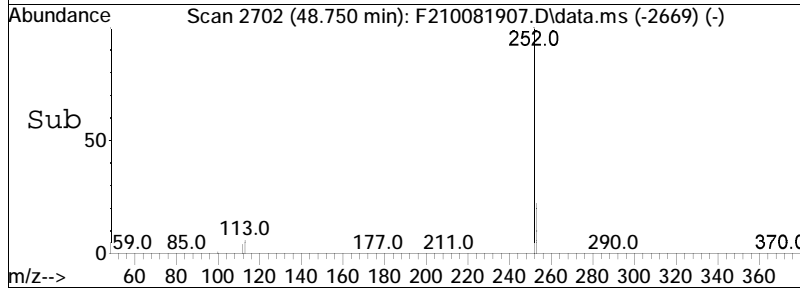
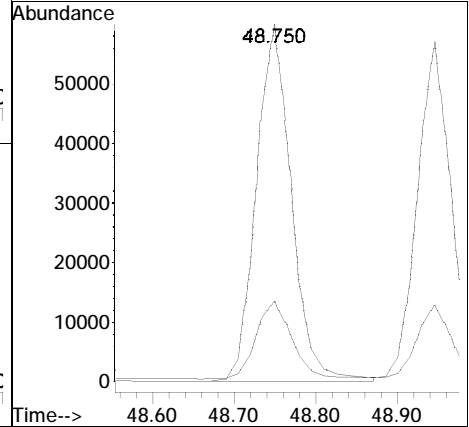
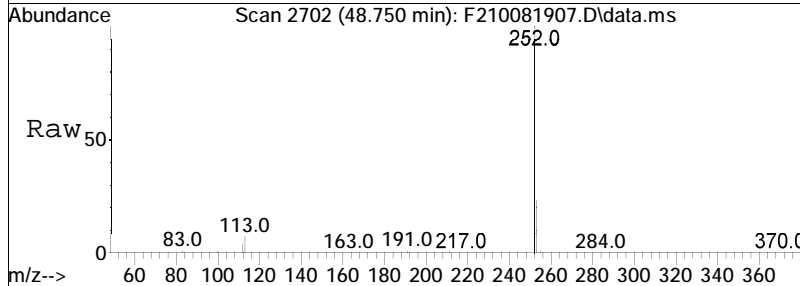
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.2	15.7	29.1

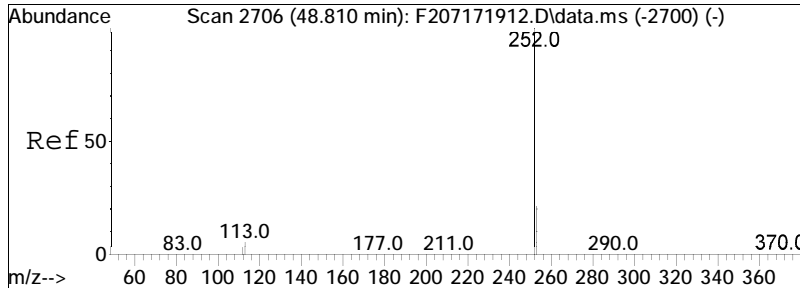




#87
 Benzo[e]pyrene
 Concen: 503.58 ng/mL
 RT: 48.750 min Scan# 2702
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

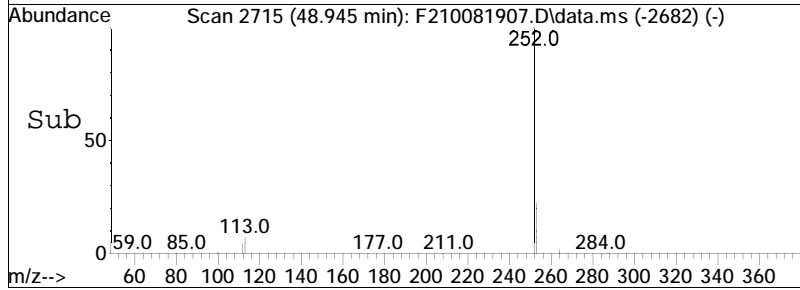
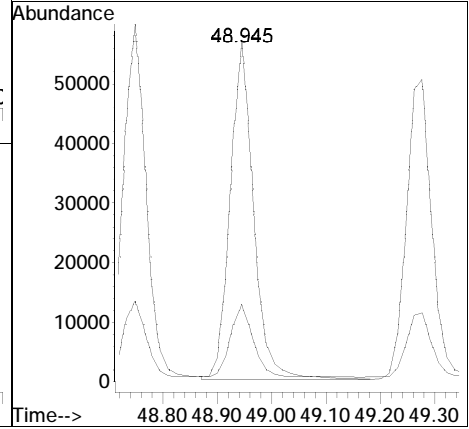
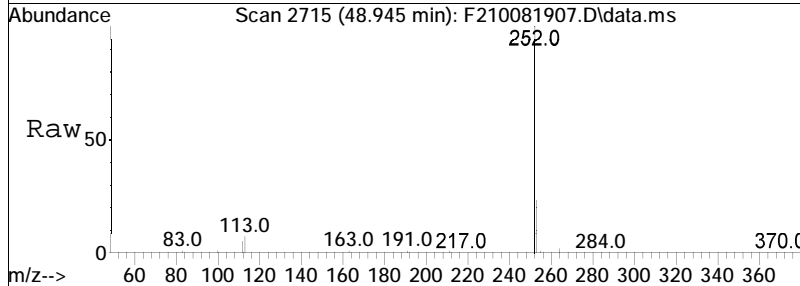
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	15.7	29.1

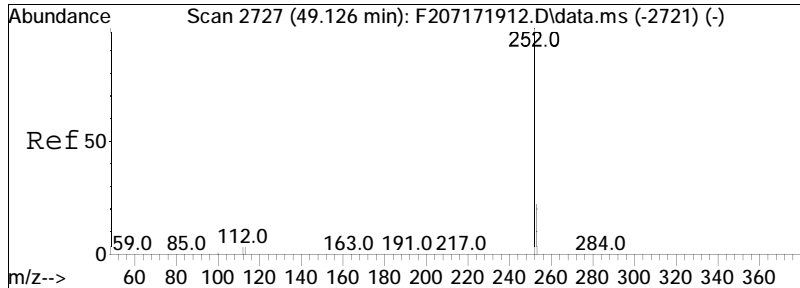




#89
 Benzo[a]pyrene
 Concen: 512.74 ng/mL
 RT: 48.945 min Scan# 2715
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

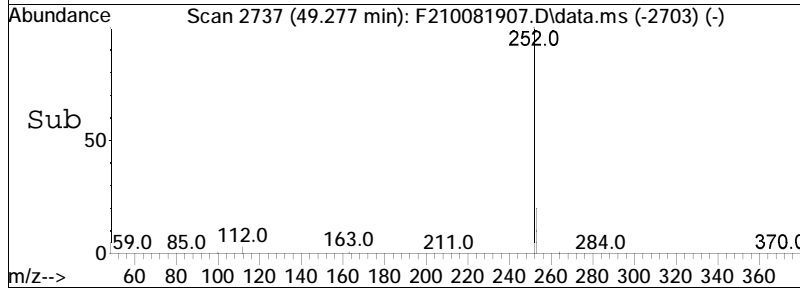
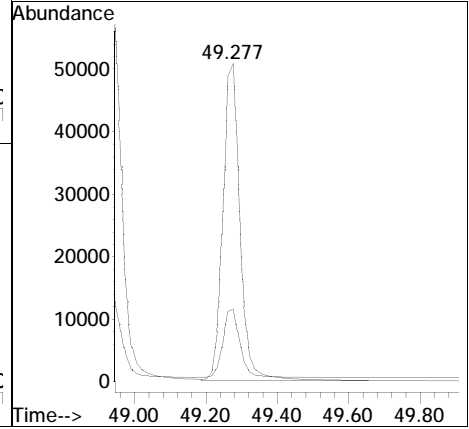
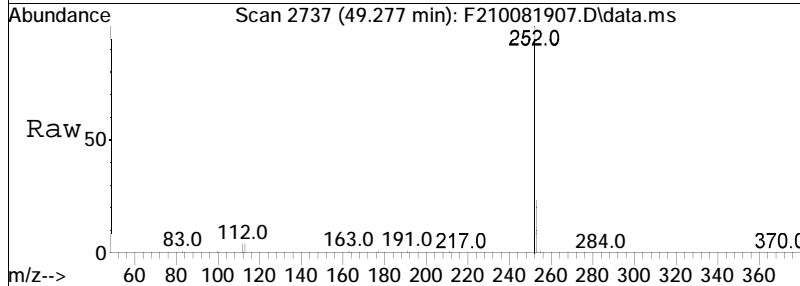
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.6	15.6	29.0

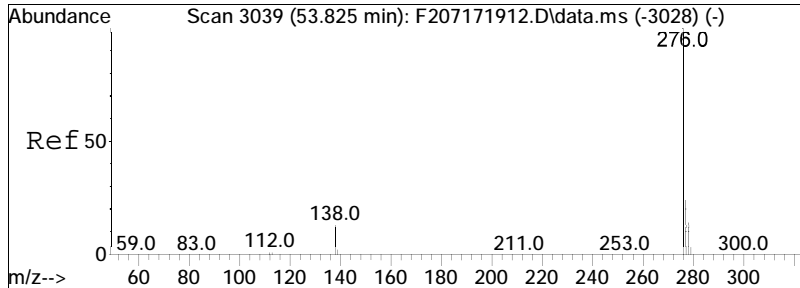




#90
 Perylene
 Concen: 522.24 ng/mL
 RT: 49.277 min Scan# 2737
 Delta R.T. 0.015 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

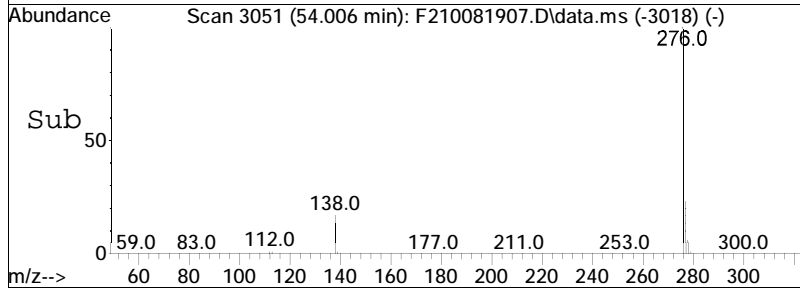
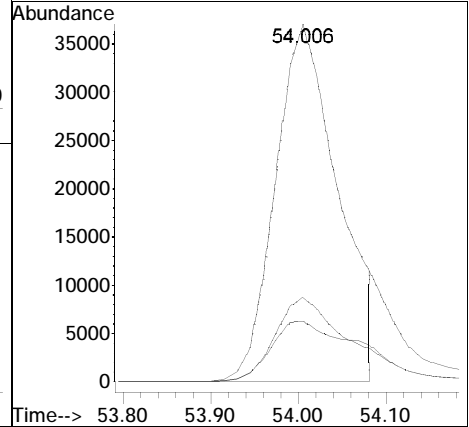
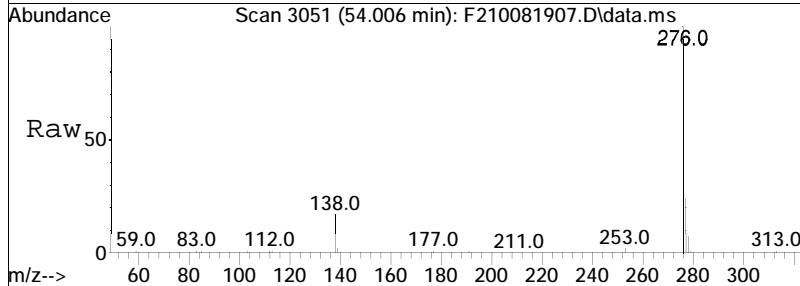
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.5	15.6	29.0

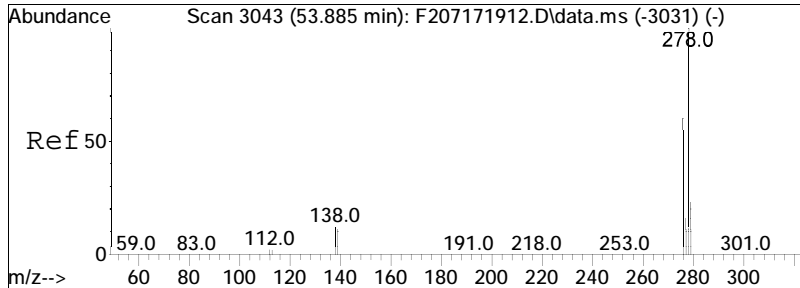




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 472.20 ng/mL M3
 RT: 54.006 min Scan# 3051
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

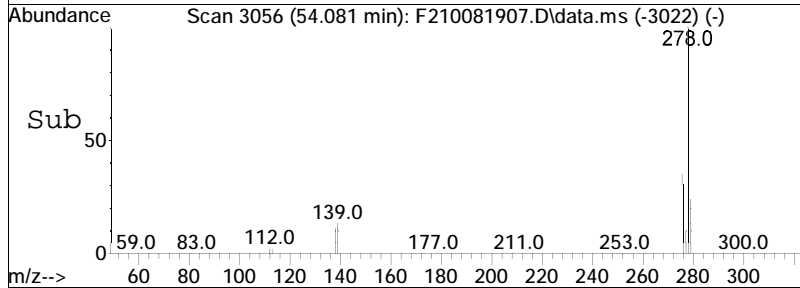
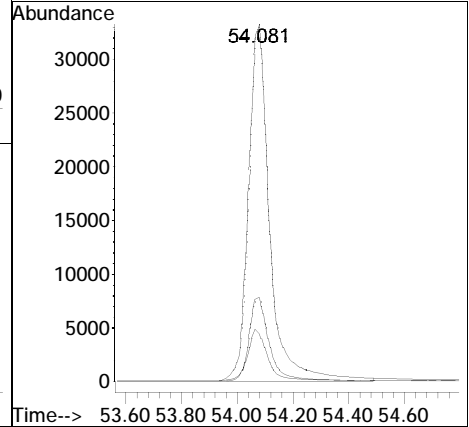
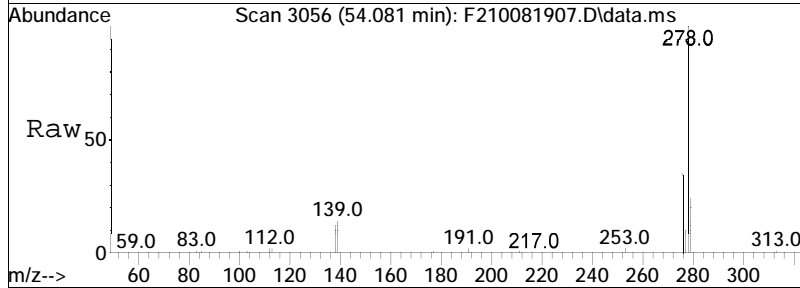
Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.1	9.2	17.0#
277	29.2	16.9	31.3

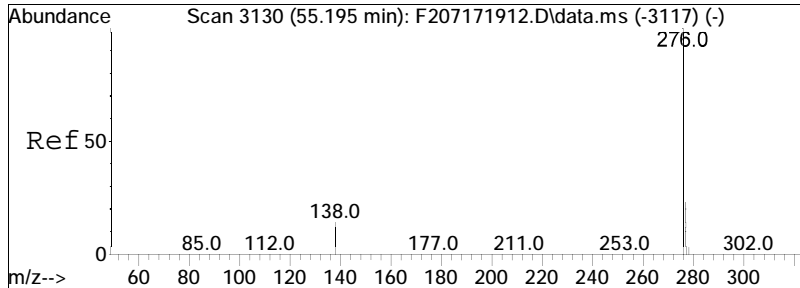




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 479.14 ng/mL
 RT: 54.081 min Scan# 3056
 Delta R.T. 0.015 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

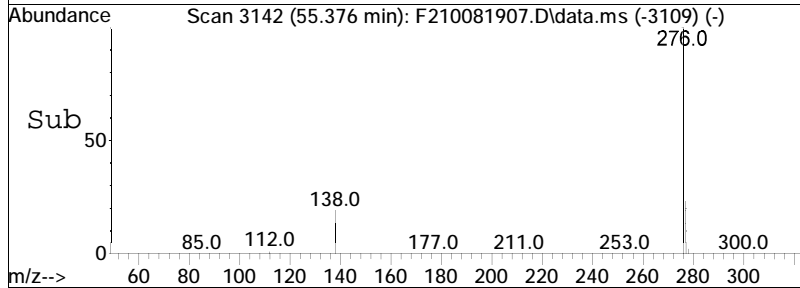
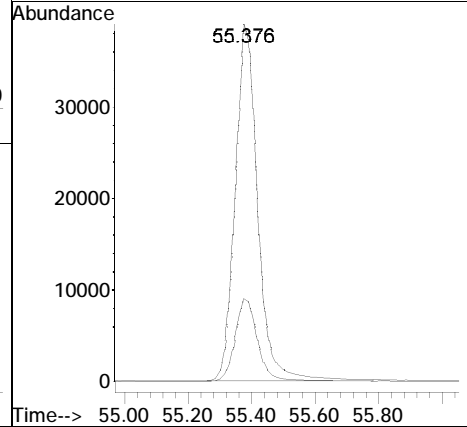
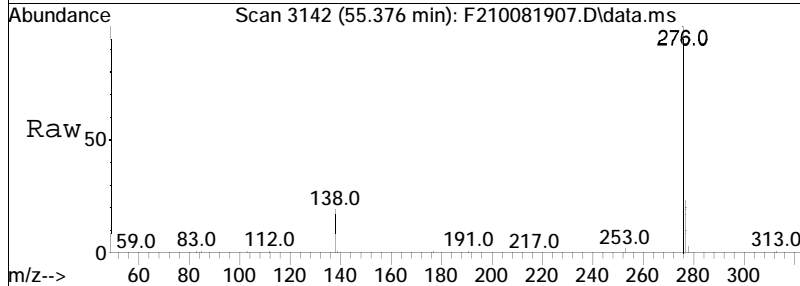
Tgt Ion	Resp	Lower	Upper
278	172776		
139	14.1	6.9	12.9#
279	23.1	17.4	32.2

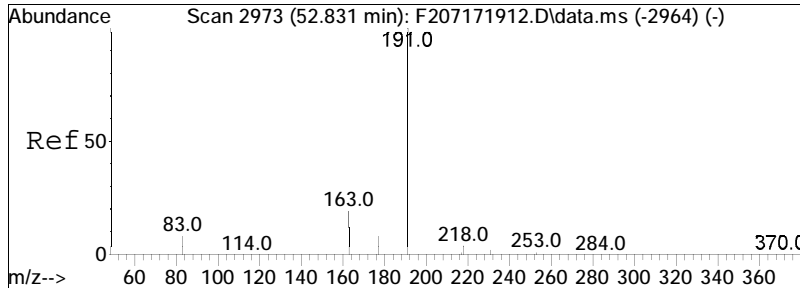




#93
 Benzo[g,h,i]perylene
 Concen: 487.33 ng/mL
 RT: 55.376 min Scan# 3142
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

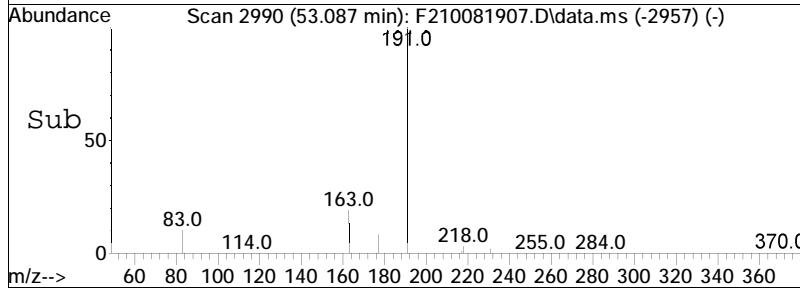
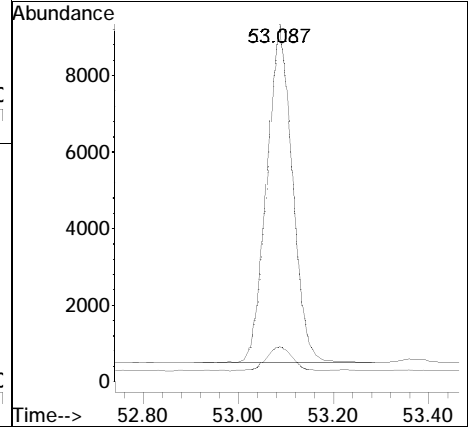
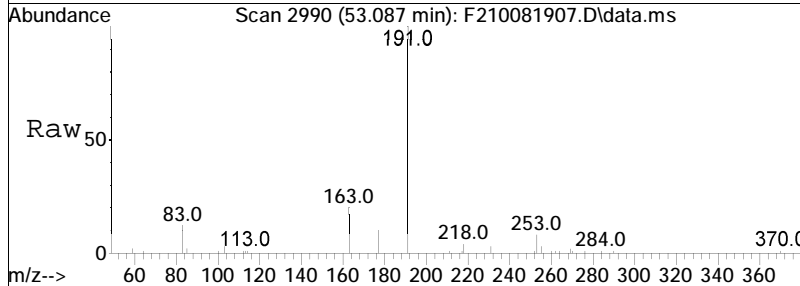
Tgt Ion	Resp	Lower	Upper
276	100		
277	23.3	16.8	31.2





#94
 Hopane (T19)
 Concen: 475.18 ng/mL
 RT: 53.087 min Scan# 2990
 Delta R.T. -0.000 min
 Lab File: F210081907.D
 Acq: 8 Oct 2019 11:09 pm

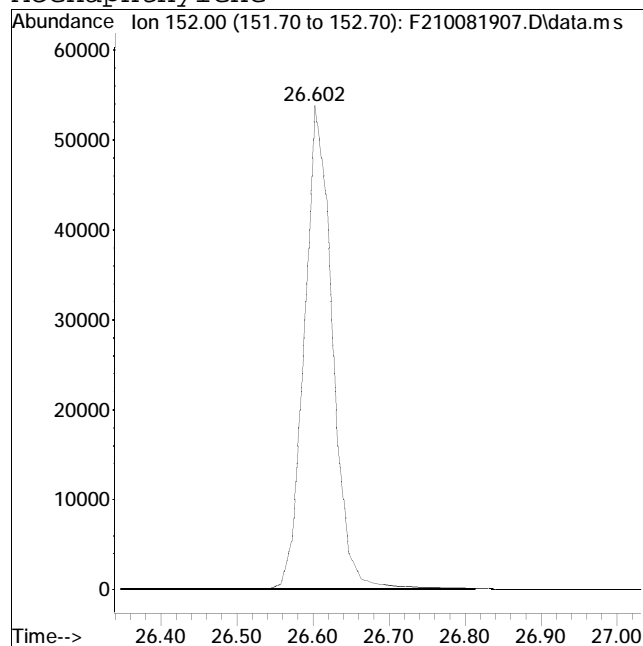
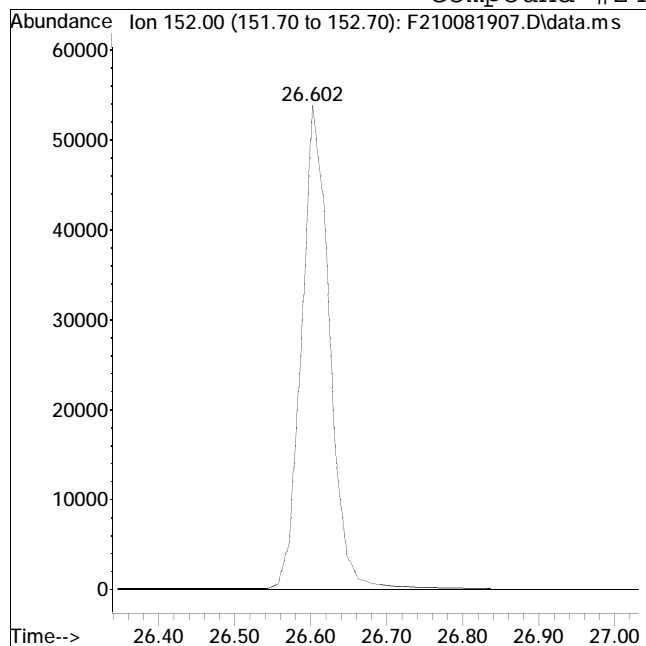
Tgt Ion	Resp	Lower	Upper
191	100		
177	8.0	5.7	10.5



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081907.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 11:09 pm Instrument : PAH2
Sample : i210081904 Quant Date : 10/9/2019 11:06 am

Compound #24: Acenaphthylene



Original Peak Response = 138964

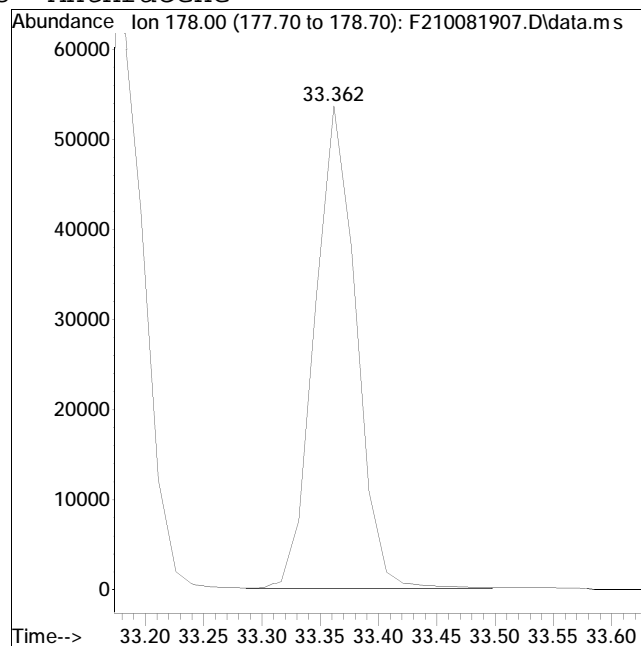
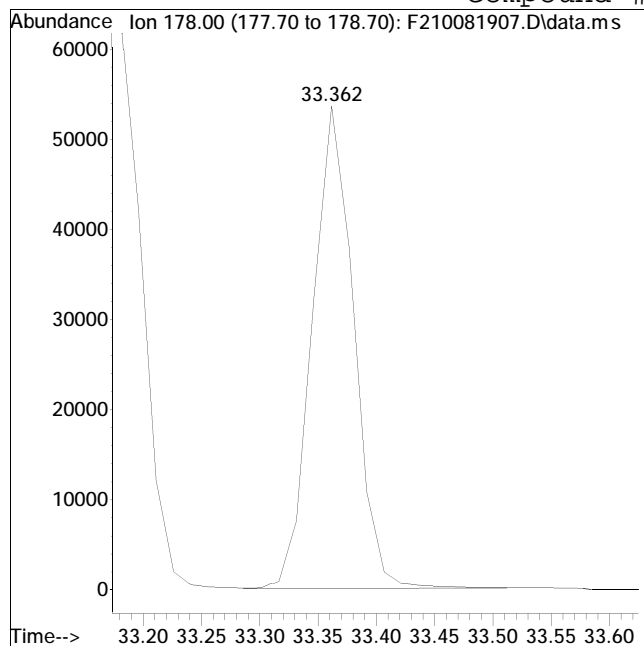
Manual Peak Response = 137641 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081907.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 11:09 pm Instrument : PAH2
Sample : i210081904 Quant Date : 10/9/2019 11:06 am

Compound #53: Anthracene



Original Peak Response = 131775

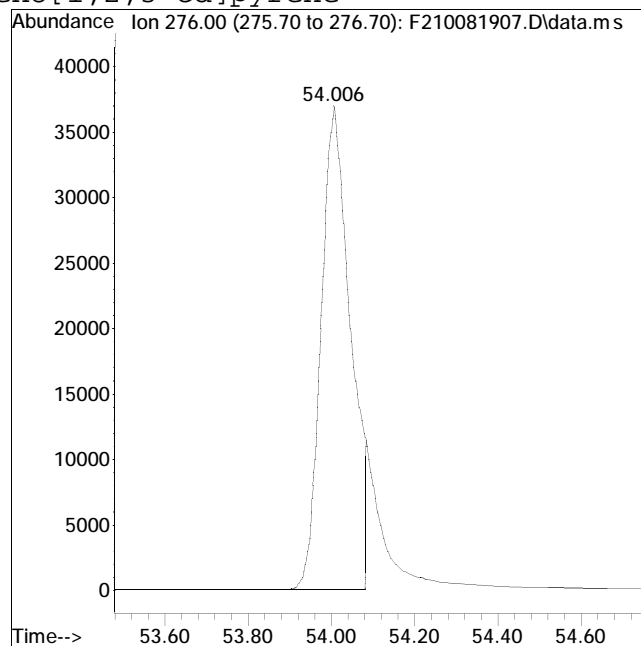
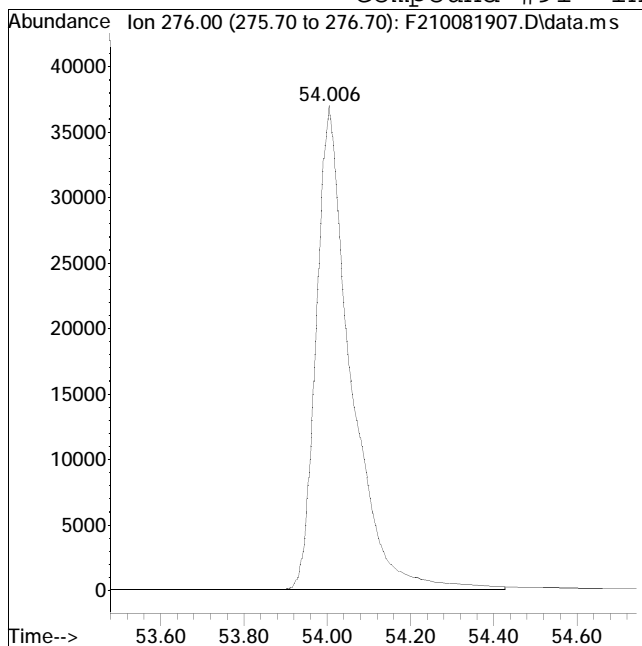
Manual Peak Response = 132819 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081907.D Operator : PAH2:ML
Date Inj'd : 10/8/2019 11:09 pm Instrument : PAH2
Sample : i210081904 Quant Date : 10/9/2019 11:06 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 214755

Manual Peak Response = 184809 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\PAH2\2019\Oct19\oct08\
 Data File : F210081908.D
 Acq On : 9 Oct 2019 12:38 am
 Operator : PAH2:ML
 Sample : i210081905
 Misc : WG1294599,ffbb23
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 09 11:16:57 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 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	27.220	164	71080	500.000	ng/mL	0.00	
74) Chrysene-d12	43.690	240	135993	500.000	ng/mL	-0.01	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	1341115	5047.309	ng/mL	0.00	
Spiked Amount	1000.000		Range 50 - 130	Recovery =	504.73%#		
40) Phenanthrene-d10	33.091	188	1236548	5476.845	ng/mL	0.00	
Spiked Amount	1000.000		Range 50 - 130	Recovery =	547.68%#		
83) Benzo[b]fluoranthene-d12	47.635	264	1397144	5146.281	ng/mL	0.02	
Spiked Amount	1000.000		Range 50 - 130	Recovery =	514.63%#		
88) Benzo[a]pyrene-d12	48.870	264	1072484	5069.091	ng/mL	0.02	
Spiked Amount	1000.000		Range 50 - 130	Recovery =	506.91%#		
128) 5B(H)Cholane - Surr	44.323	217	231220	4994.307	ng/ml	-0.01	
Spiked Amount	1000.000		Range 50 - 130	Recovery =	499.43%#		
Target Compounds							
2) trans-Decalin	16.892	138	136845	2423.599	ng/mL	100	Qvalue
3) cis-Decalin	18.112	138	107392	2464.792	ng/mL	100	
9) Naphthalene	20.310	128	1489606	5188.786	ng/mL	100	
14) 2-Methylnaphthalene	23.004	142	991937	5065.031	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	951767	4999.432	ng/mL	100	
16) Benzothiophene	20.535	134	1187787	5079.245	ng/mL	100	
21) Biphenyl	24.886	154	1221982	5162.249	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.503	156	907194	5173.869	ng/mL	100	
23) Dibenzofuran	27.987	168	1324934	5354.137	ng/mL	91	
24) Acenaphthylene	26.602	152	1482510M4	5139.669	ng/mL		
25) Acenaphthene	27.340	153	928084	5063.119	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.891	170	822941	5186.410	ng/mL	88	
27) Fluorene	29.357	166	1075072	5184.734	ng/mL	99	
31) Dibenzothiophene	32.684	184	1463147	5313.261	ng/mL	95	
41) Phenanthrene	33.181	178	1537105	5258.823	ng/mL	100	
52) Retene	40.182	234	539384	5332.141	ng/mL	85	
53) Anthracene	33.362	178	1135988M4	4737.188	ng/mL		
54) Carbazole	34.024	167	1350295	5723.133	ng/mL	98	
55) 1-Methylphenanthrene	35.695	192	1166051	5313.453	ng/mL	100	
56) Fluoranthene	37.969	202	1768833	5279.578	ng/mL#	89	
57) Benzo(b)fluorene	40.483	216	1145322	5343.844	ng/mL	99	
59) Pyrene	38.857	202	1825499	5274.726	ng/mL#	91	
67) Naphthobenzothiophene-2,1	42.712	234	1565673	5264.619	ng/mL	97	
75) Benz[a]anthracene	43.630	228	1616872	5056.867	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081908.D
 Acq On : 9 Oct 2019 12:38 am
 Operator : PAH2:ML
 Sample : i210081905
 Misc : WG1294599,ffbb23
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 09 11:16:57 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.796	228	1608738	4990.471	ng/mL	100
77) Chrysene/Triphenylene	43.796	228	1608738	4990.471	ng/mL	100
84) Benzo[b]fluoranthene	47.711	252	1953749	5126.194	ng/mL	99
85) Benzo[j]+[k]fluoranthene	47.801	252	1962327	5137.443	ng/mL	99
87) Benzo[e]pyrene	48.765	252	1830962	5057.893	ng/mL	99
89) Benzo[a]pyrene	48.961	252	1689232	5003.044	ng/mL	99
90) Perylene	49.277	252	1624523	4942.676	ng/mL	99
91) Indeno[1,2,3-cd]pyrene	54.036	276	2113296M3	5280.021	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.096	278	1889102	5122.828	ng/mL#	95
93) Benzo[g,h,i]perylene	55.406	276	2003028	5044.313	ng/mL	99
94) Hopane (T19)	53.087	191	343652	4921.359	ng/mL	99

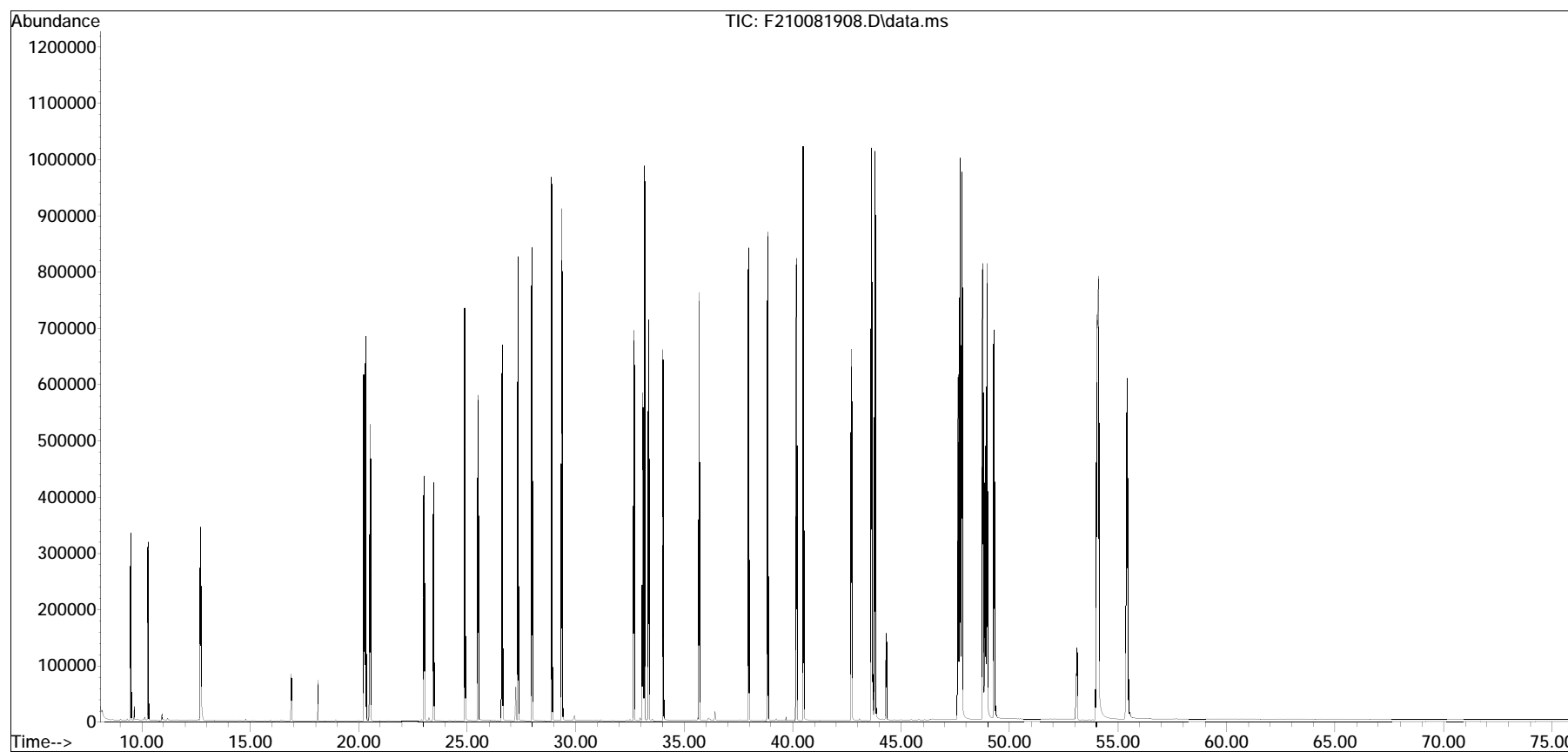
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081908.D
Acq On : 9 Oct 2019 12:38 am
Operator : PAH2:ML
Sample : i210081905
Misc : WG1294599,ffbb23
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 09 11:16:57 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Oct 08 10:35:21 2019
Response via : Initial Calibration

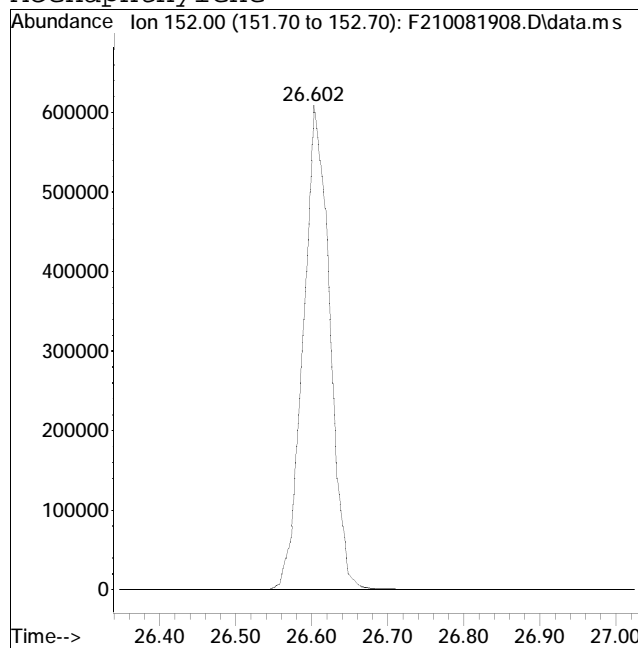
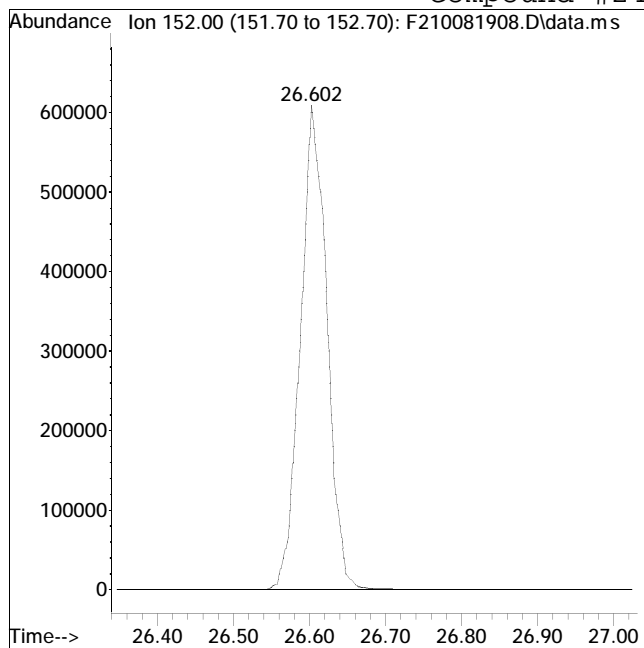
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081908.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 12:38 am Instrument : PAH2
Sample : i210081905 Quant Date : 10/9/2019 11:06 am

Compound #24: Acenaphthylene



Original Peak Response = 1484369

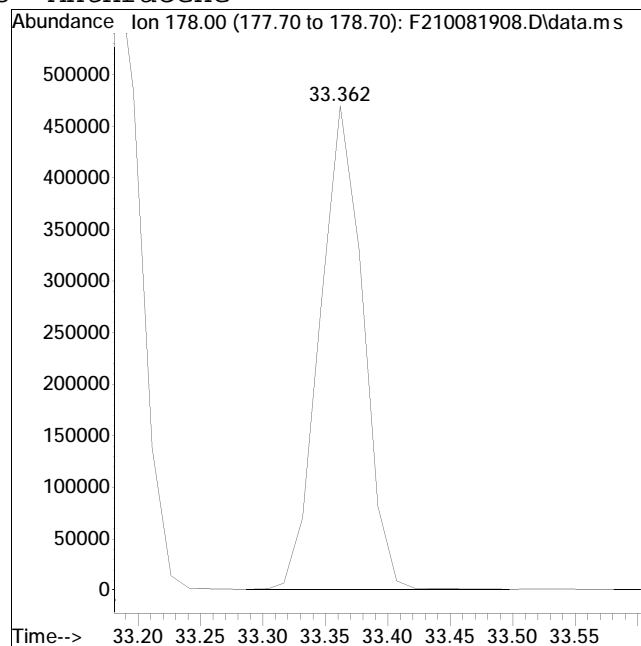
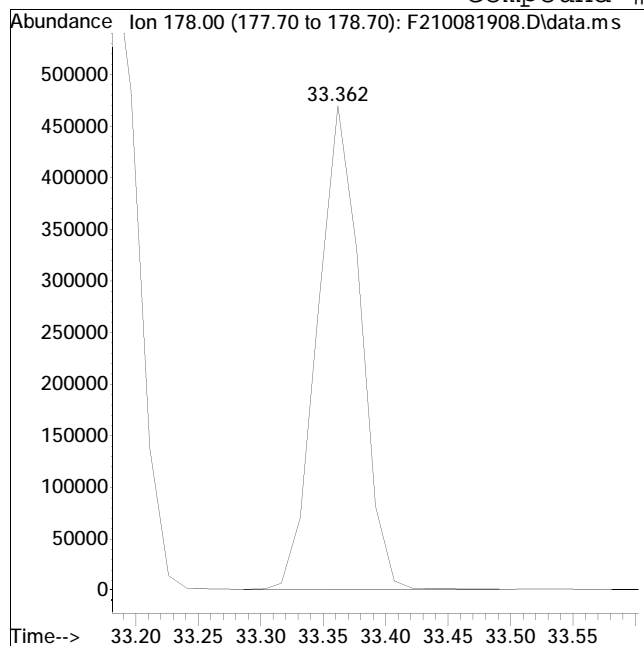
Manual Peak Response = 1482510 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081908.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 12:38 am Instrument : PAH2
Sample : i210081905 Quant Date : 10/9/2019 11:06 am

Compound #53: Anthracene



Original Peak Response = 1129033

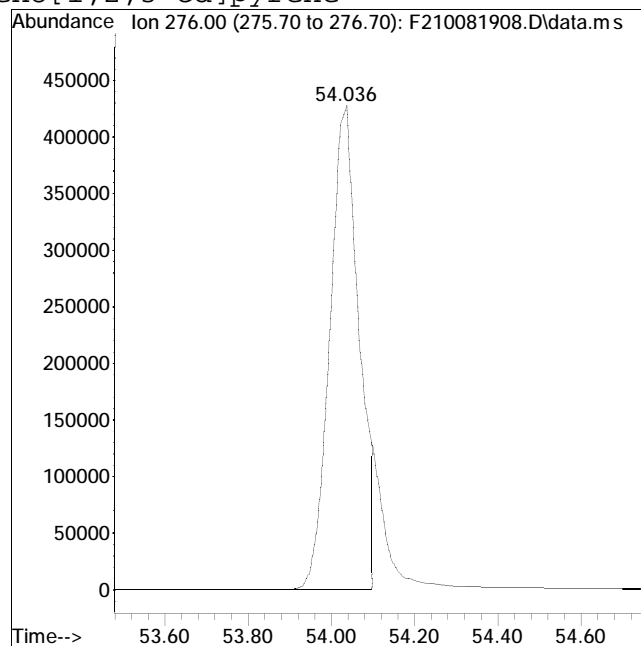
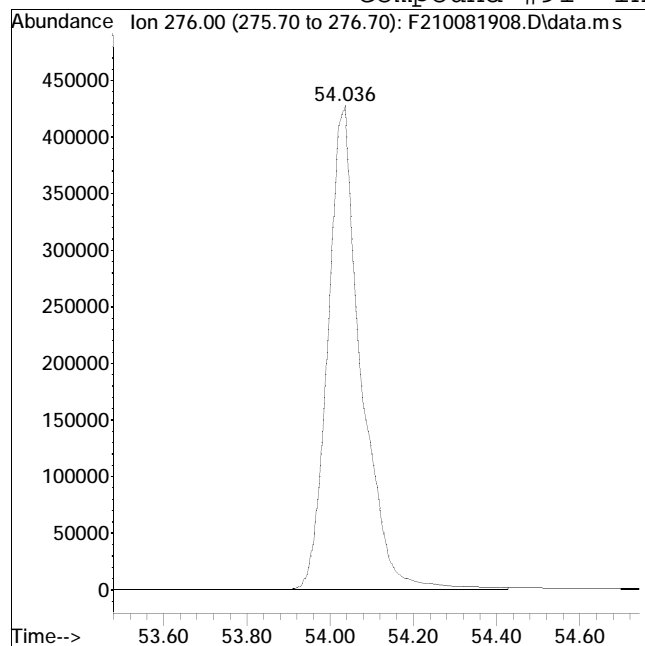
Manual Peak Response = 1135988 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081908.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 12:38 am Instrument : PAH2
Sample : i210081905 Quant Date : 10/9/2019 11:06 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 2360178

Manual Peak Response = 2113296 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\PAH2\2019\Oct19\oct08\
 Data File : F210081909.D
 Acq On : 9 Oct 2019 2:06 am
 Operator : PAH2:ML
 Sample : i210081906
 Misc : WG1294599,ffbb24
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 09 11:21:35 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 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	27.220	164	73893	500.000	ng/mL	0.00	
74) Chrysene-d12	43.705	240	143182	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	2763335	10003.950	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1000.40%#	
40) Phenanthrene-d10	33.106	188	2404773	10245.607	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1024.56%#	
83) Benzo[b]fluoranthene-d12	47.635	264	2866369	10027.960	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1002.80%#	
88) Benzo[a]pyrene-d12	48.885	264	2088744	9376.756	ng/mL	0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	937.68%#	
128) 5B(H)Cholane - Surr	44.323	217	459590	9428.629	ng/mL	-0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	942.86%#	
Target Compounds							
							Qvalue
2) trans-Decalin	16.892	138	278615	4746.577	ng/mL	100	
3) cis-Decalin	18.112	138	214903	4744.549	ng/mL	100	
9) Naphthalene	20.310	128	3020495	10120.841	ng/mL	100	
14) 2-Methylnaphthalene	23.004	142	2033254	9986.970	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	1931573	9759.898	ng/mL	100	
16) Benzothiophene	20.535	134	2408805	9908.464	ng/mL	100	
21) Biphenyl	24.901	154	2436670	9901.819	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.503	156	1801105	9880.944	ng/mL	100	
23) Dibenzofuran	27.987	168	2583330	10041.977	ng/mL	90	
24) Acenaphthylene	26.602	152	2920589M4	9739.845	ng/mL		
25) Acenaphthene	27.340	153	1846802	9691.596	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.906	170	1607184	9743.340	ng/mL	86	
27) Fluorene	29.372	166	2100741	9745.533	ng/mL	99	
31) Dibenzothiophene	32.699	184	2907023	10154.668	ng/mL	95	
41) Phenanthrene	33.196	178	2979492	9805.537	ng/mL	100	
52) Retene	40.182	234	1097153	10433.137	ng/mL	86	
53) Anthracene	33.362	178	2091115	8388.202	ng/mL	100	
54) Carbazole	34.024	167	2682692	10937.552	ng/mL	97	
55) 1-Methylphenanthrene	35.695	192	2312158	10134.934	ng/mL	100	
56) Fluoranthene	37.969	202	3485440	10007.236	ng/mL#	89	
57) Benzo(b)fluorene	40.498	216	2275074	10210.943	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081909.D
 Acq On : 9 Oct 2019 2:06 am
 Operator : PAH2:ML
 Sample : i210081906
 Misc : WG1294599,ffbb24
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 09 11:21:35 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Oct 08 10:35:21 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCv - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
59) Pyrene	38.857	202	3590102	9978.591	ng/mL#	91
67) Naphthobenzothiophene-2,1	42.712	234	3077713	9954.927	ng/mL	96
75) Benz[a]anthracene	43.645	228	3205830	9523.017	ng/mL	98
76) Chrysene	43.811	228	3151855	9286.468	ng/mL	100
77) Chrysene/Triphenylene	43.811	228	3151855	9286.468	ng/mL	100
84) Benzo[b]fluoranthene	47.726	252	3839919	9569.218	ng/mL	99
85) Benzo[j]+[k]fluoranthene	47.816	252	3707738	9219.616	ng/mL	99
87) Benzo[e]pyrene	48.780	252	3550842	9316.435	ng/mL	99
89) Benzo[a]pyrene	48.976	252	3162188	8895.305	ng/mL	99
90) Perylene	49.307	252	3094553	8942.570	ng/mL	99
91) Indeno[1,2,3-cd]pyrene	54.066	276	4418346M3	10484.872	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.126	278	3807906	9807.736	ng/mL#	95
93) Benzo[g,h,i]perylene	55.451	276	4017926	9610.479	ng/mL	100
94) Hopane (T19)	53.102	191	688622	9366.454	ng/mL	99

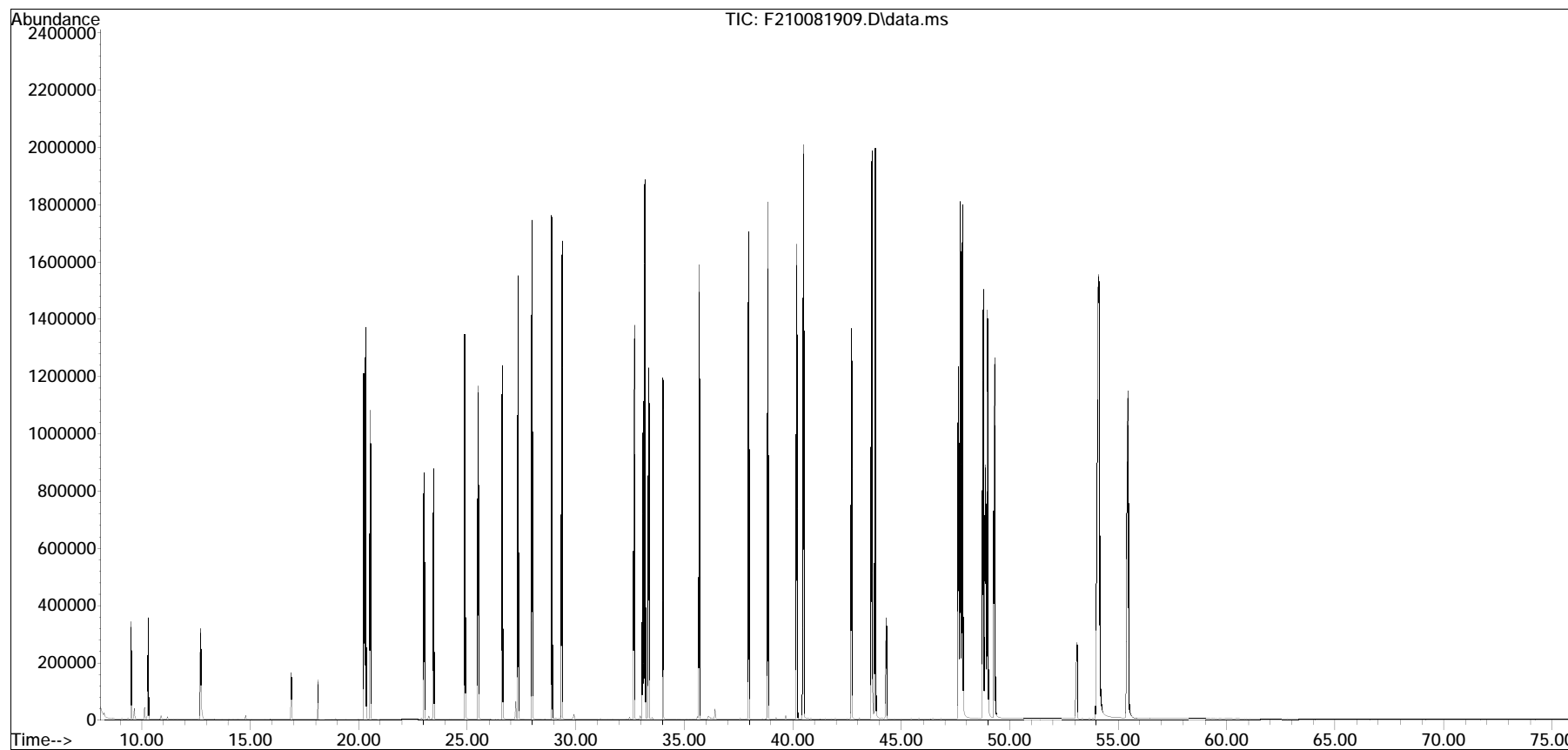
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081909.D
Acq On : 9 Oct 2019 2:06 am
Operator : PAH2:ML
Sample : i210081906
Misc : WG1294599,ffbb24
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 09 11:21:35 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Oct 08 10:35:21 2019
Response via : Initial Calibration

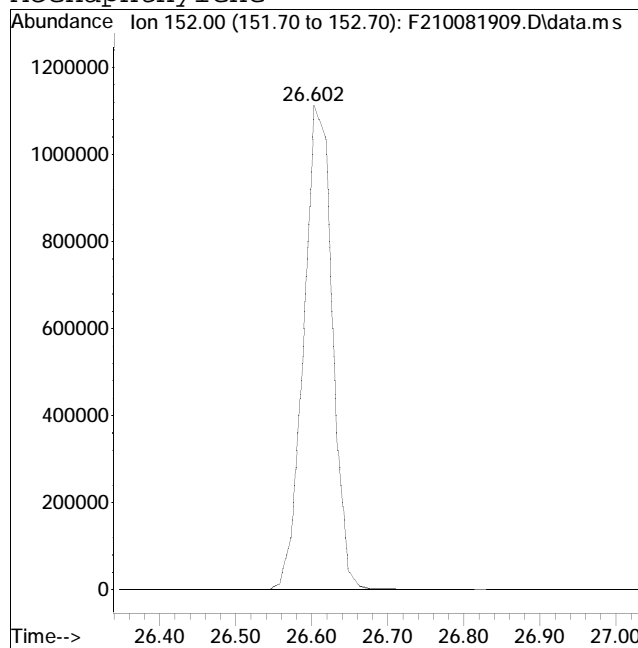
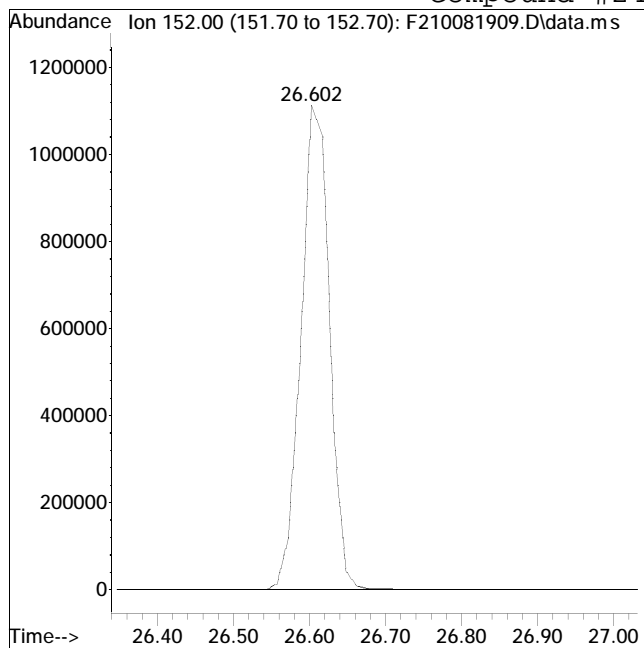
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081909.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 2:06 am Instrument : PAH2
Sample : i210081906 Quant Date : 10/9/2019 11:06 am

Compound #24: Acenaphthylene



Original Peak Response = 2923296

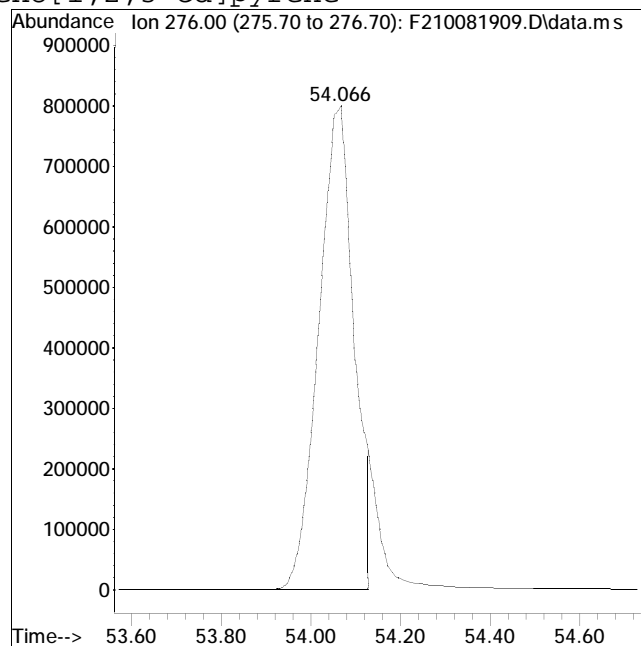
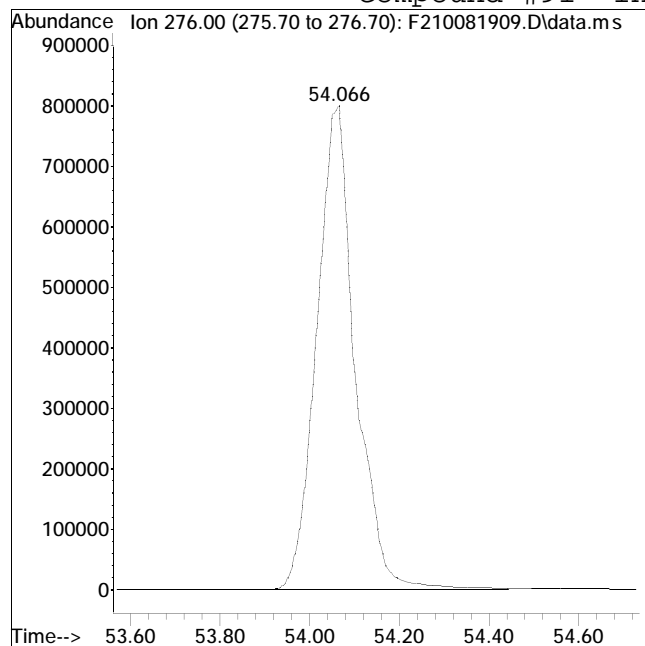
Manual Peak Response = 2920589 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081909.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 2:06 am Instrument : PAH2
Sample : i210081906 Quant Date : 10/9/2019 11:06 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 4789752

Manual Peak Response = 4418346 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\PAH2\2019\Oct19\oct08\
 Data File : F210081915.D
 Acq On : 9 Oct 2019 11:41 am
 Operator : PAH2:ML
 Sample : i210081907
 Misc : WG1294599,frbb25
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 09 16:08:24 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Oct 09 11:25:28 2019
 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	27.220	164	56216	500.000	ng/mL	0.00	
74) Chrysene-d12	43.705	240	109506	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.249	136	4550164	22047.930	ng/mL	0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2204.79%#	
40) Phenanthrene-d10	33.106	188	3668186	20101.180	ng/mL	0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2010.12%#	
83) Benzo[b]fluoranthene-d12	47.650	264	4167999	19329.971	ng/mL	0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1933.00%#	
88) Benzo[a]pyrene-d12	48.900	264	3079488	18618.869	ng/mL	0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1861.89%#	
128) 5B(H)Cholane - Surr	44.322	217	715368	19573.728	ng/ml	-0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1957.37%#	
Target Compounds							
							Qvalue
2) trans-Decalin	16.892	138	491582	11417.560	ng/mL	100	
3) cis-Decalin	18.112	138	378078	11387.245	ng/mL	100	
9) Naphthalene	20.325	128	4916560	21374.173	ng/mL	100	
14) 2-Methylnaphthalene	23.019	142	3265772	21490.349	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	3044810	20839.988	ng/mL	100	
16) Benzothiophene	20.535	134	3913158	21862.609	ng/mL	100	
21) Biphenyl	24.901	154	3868469	20926.281	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.503	156	2834923	20838.186	ng/mL	100	
23) Dibenzofuran	27.987	168	3957756	20086.364	ng/mL	89	
24) Acenaphthylene	26.617	152	4697832M4	20842.731	ng/mL		
25) Acenaphthene	27.355	153	2845425	20061.791	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.906	170	2507089	20172.491	ng/mL	86	
27) Fluorene	29.372	166	3190640	19829.397	ng/mL	99	
31) Dibenzothiophene	32.699	184	4409368	20212.926	ng/mL	94	
41) Phenanthrene	33.196	178	4463840	19288.378	ng/mL	99	
52) Retene	40.197	234	1667974	20887.086	ng/mL	87	
53) Anthracene	33.377	178	4257310	21892.086	ng/mL	99	
54) Carbazole	34.039	167	3986484	21477.306	ng/mL	96	
55) 1-Methylphenanthrene	35.695	192	3473951	19961.176	ng/mL	100	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081915.D
 Acq On : 9 Oct 2019 11:41 am
 Operator : PAH2:ML
 Sample : i210081907
 Misc : WG1294599,frbb25
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 09 16:08:24 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Oct 09 11:25:28 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Fluoranthene	37.984	202	5208246M4	19614.630	ng/mL	
57) Benzo(b)fluorene	40.513	216	3338112	19983.935	ng/mL	99
59) Pyrene	38.857	202	5331044	19322.825	ng/mL#	90
67) Naphthobenzothiophene-2,1	42.726	234	4534368	19183.198	ng/mL	96
75) Benz[a]anthracene	43.645	228	4780347	19210.050	ng/mL	98
76) Chrysene	43.810	228	4570851	17921.449	ng/mL	100
77) Chrysene/Triphenylene	43.810	228	4570851	17921.449	ng/mL	100
84) Benzo[b]fluoranthene	47.741	252	5484135	18079.141	ng/mL	100
85) Benzo[j]+[k]fluoranthene	47.831	252	5119396	16751.283	ng/mL	100
87) Benzo[e]pyrene	48.795	252	5021072	17185.891	ng/mL	99
89) Benzo[a]pyrene	49.006	252	4506043	16920.062	ng/mL	100
90) Perylene	49.322	252	4665125	18023.163	ng/mL	100
91) Indeno[1,2,3-cd]pyrene	54.081	276	6613299M3	20699.886	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.141	278	5655924	19496.976	ng/mL#	95
93) Benzo[g,h,i]perylene	55.481	276	5911057	18604.288	ng/mL	100
94) Hopane (T19)	0.000		0	N.D.	d	

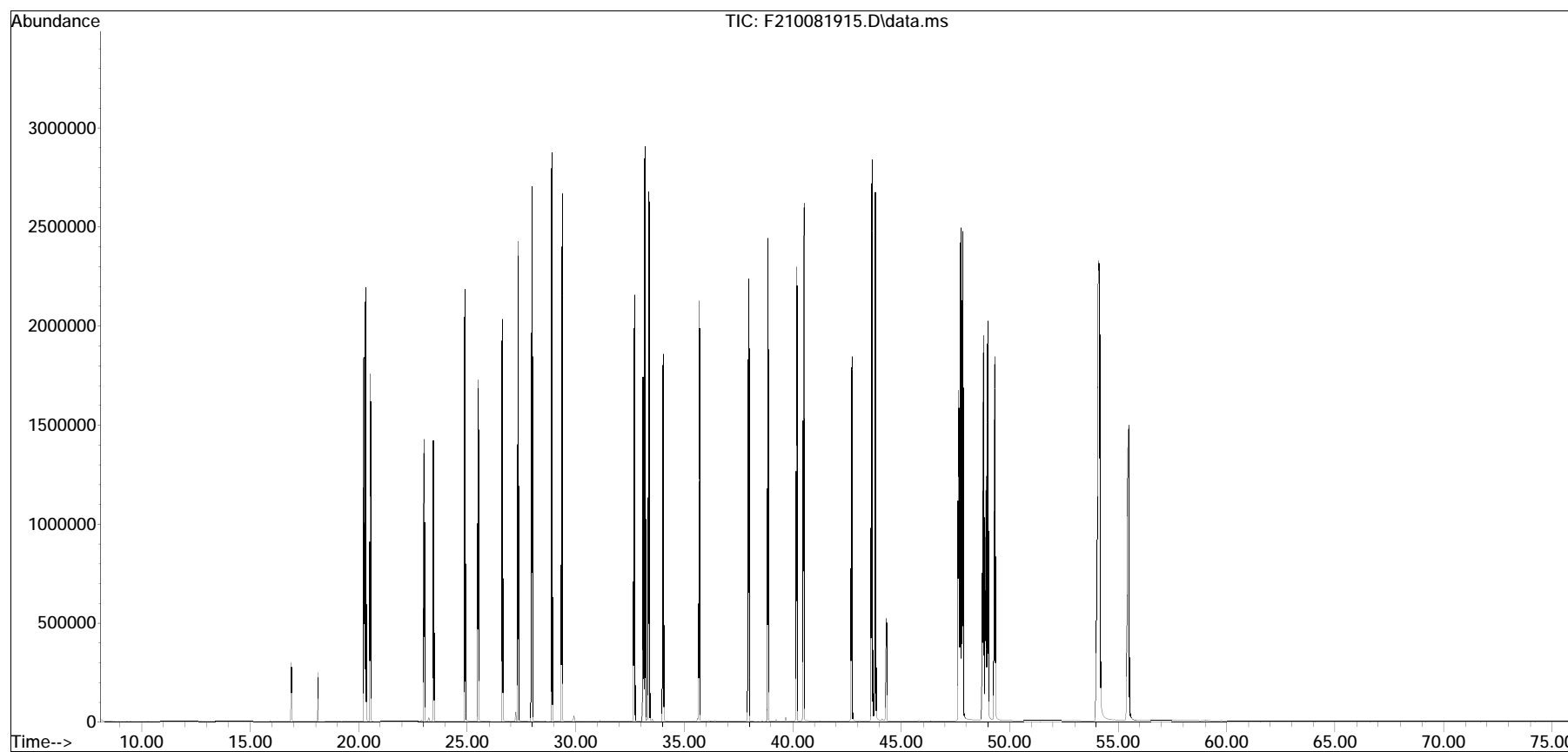
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081915.D
Acq On : 9 Oct 2019 11:41 am
Operator : PAH2:ML
Sample : i210081907
Misc : WG1294599,frbb25
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 09 16:08:24 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Oct 09 11:25:28 2019
Response via : Initial Calibration

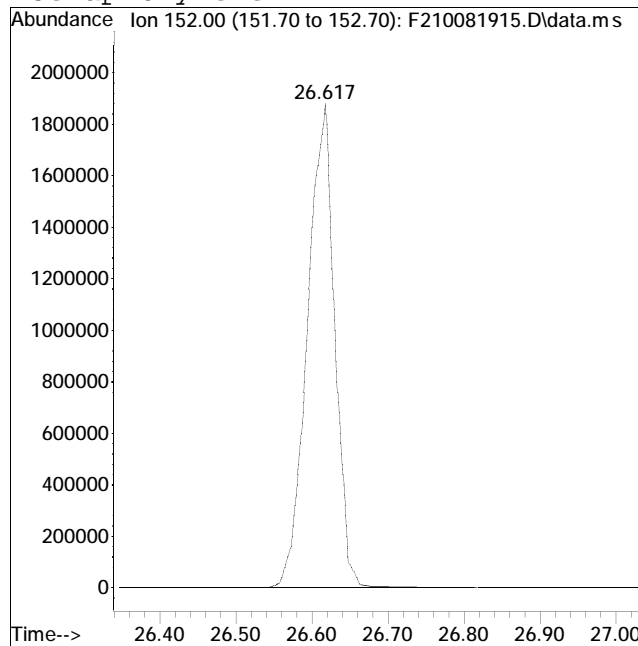
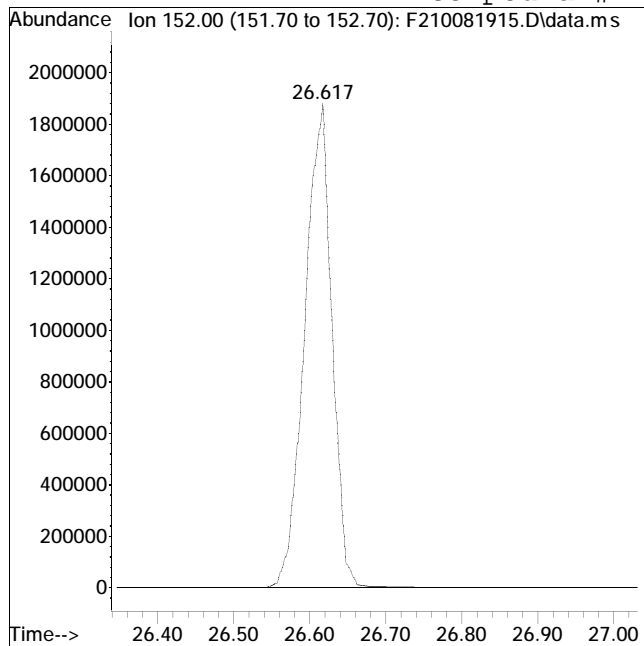
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081915.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 11:41 am Instrument : PAH2
Sample : i210081907 Quant Date : 10/9/2019 4:06 pm

Compound #24: Acenaphthylene



Original Peak Response = 4701512

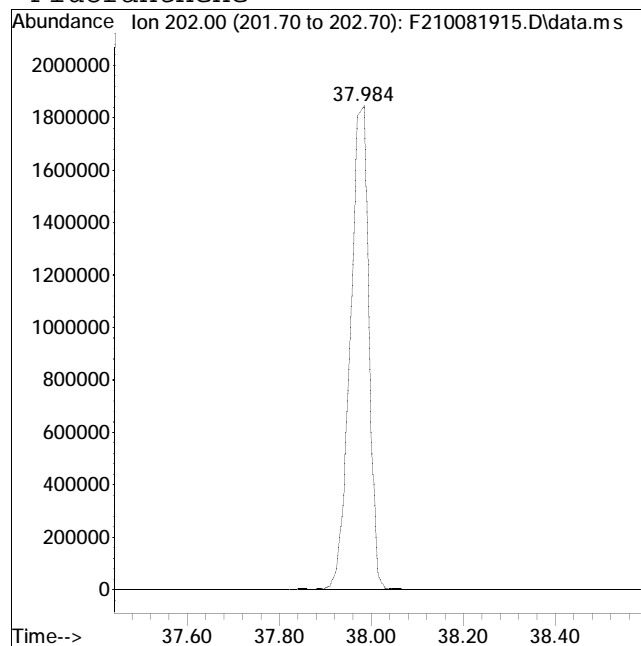
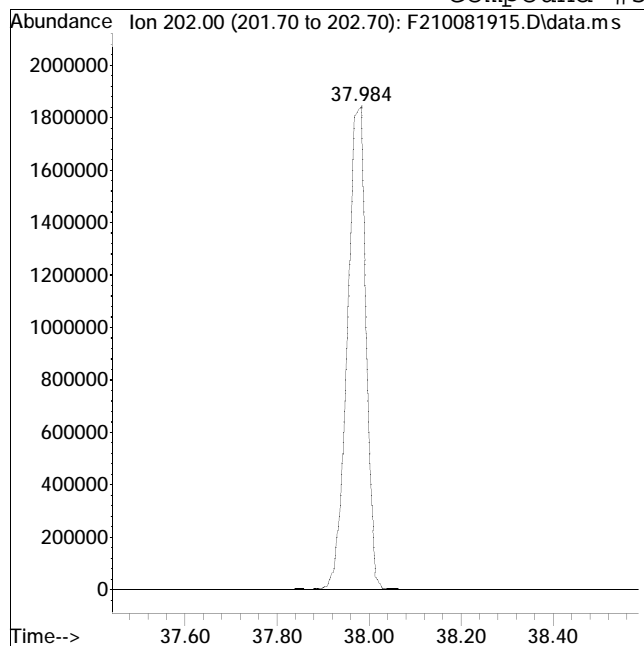
Manual Peak Response = 4697832 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081915.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 11:41 am Instrument : PAH2
Sample : i210081907 Quant Date : 10/9/2019 4:06 pm

Compound #56: Fluoranthene



Original Peak Response = 5221732

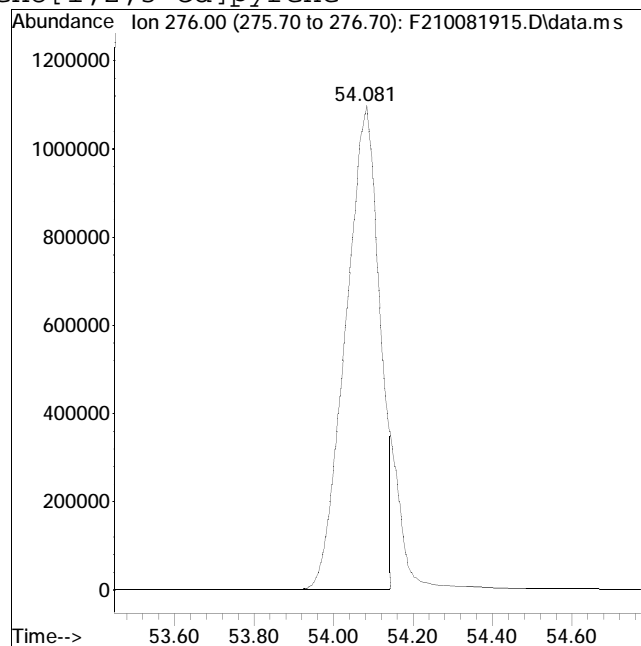
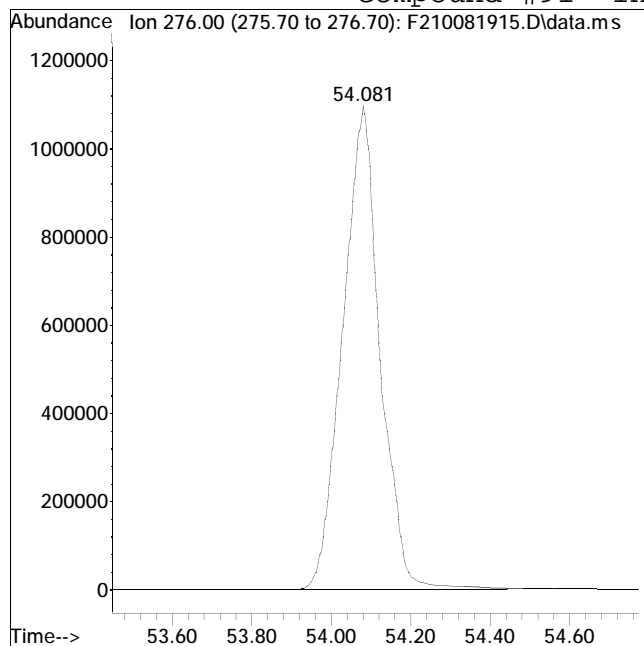
Manual Peak Response = 5208246 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081915.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 11:41 am Instrument : PAH2
Sample : i210081907 Quant Date : 10/9/2019 4:06 pm

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 7177061

Manual Peak Response = 6613299 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\PAH2\2019\Oct19\oct08\
 Data File : F210081917.D
 Acq On : 9 Oct 2019 2:43 pm
 Operator : PAH2:ML
 Sample : CQ210081902
 Misc : WGI294599,FRBB04
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 09:20:56 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Oct 09 16:09:06 2019
 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	87	0.00
2 A1	trans-Decalin	0.385	0.382	0.8	95	0.00
3 t	cis-Decalin	0.297	0.290	2.4	93	0.00
8 s	Naphthalene-d8	1.843	0.000#	100.0#	0#	-20.23#
9 A1	Naphthalene	2.049	2.007	2.0	89	0.00
14 t	2-Methylnaphthalene	1.352	1.326	1.9	88	0.01
15 t	1-Methylnaphthalene	1.299	1.285	1.1	89	0.00
16 A1	Benzothiophene	1.597	1.588	0.6	89	0.00
21 t	Biphenyl	1.646	1.648	-0.1	87	0.01
22 t	2,6-Dimethylnaphthalene	1.210	1.200	0.8	88	0.00
23 t	Dibenzofuran	1.749	1.815	-3.8	89	0.00
24 t	Acenaphthylene	2.018	2.061	-2.1	90	0.00
25 t	Acenaphthene	1.260	1.281	-1.7	89	0.00
26 t	2,3,5-Trimethylnaphthalene	1.105	1.113	-0.7	88	0.00
27 A1	Fluorene	1.427	1.467	-2.8	88	0.00
31 A1	Dibenzothiophene	1.933	1.968	-1.8	87	0.00
40 s	Phenanthrene-d10	1.621	0.000#	100.0#	0#	-33.09#
41 A1	Phenanthrene	2.056	2.145	-4.3	86	0.00
52 t	Retene	0.704	0.735	-4.4	90	-0.02
53 t	Anthracene	1.753	2.064	-17.7	94	0.00
54 t	Carbazole	1.640	1.756	-7.1	89	0.00
55 t	1-Methylphenanthrene	1.540	1.586	-3.0	87	0.01
56 A1	Fluoranthene	2.345	2.396	-2.2	87	0.00
57 A1	Benzo(b)fluorene	1.475	1.566	-6.2	92	0.00
59 A1	Pyrene	2.435	2.498	-2.6	88	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.083	2.137	-2.6	89	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	89	-0.01
75 t	Benz[a]anthracene	1.142	1.131	1.0	88	0.00
76 A1	Chrysene	1.163	1.181	-1.5	89	0.00
77 A2	Chrysene/Triphenylene	1.163	1.181	-1.5	89	0.00
83 s	Benzo[b]fluoranthene-d12	0.979	0.000#	100.0#	0#	-47.62#
84 t	Benzo[b]fluoranthene	1.383	1.321	4.5	87	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.447	-4.0	88	0.00
87 t	Benzo[e]pyrene	1.328	1.311	1.3	87	0.00
88 s	Benzo[a]pyrene-d12	0.757	0.000#	100.0#	0#	-48.86#
89 t	Benzo[a]pyrene	1.216	1.254	-3.1	88	0.00
90 t	Perylene	1.188	1.288	-8.4	91	0.00
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.396	3.5	89	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081917.D
 Acq On : 9 Oct 2019 2:43 pm
 Operator : PAH2:ML
 Sample : CQ210081902
 Misc : WG1294599,FRBB04
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 09:20:56 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Oct 09 16:09:06 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.302	1.4	89	0.00
93 t Benzo[g,h,i]perylene	1.446	1.428	1.2	89	0.00
94 A1 Hopane (T19)	0.249	0.000#	100.0#	0#	-53.09#
128 SA1 5B(H)Cholane - Surr	0.166	0.000#	100.0#	0#	-44.34#

* 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	0.95	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.31	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081917.D
 Acq On : 9 Oct 2019 2:43 pm
 Operator : PAH2:ML
 Sample : CQ210081902
 Misc : WG1294599,FRBB04
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 09:20:56 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Oct 09 16:09:06 2019
 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	27.220	164	60174	500.000	ng/mL	0.00
74) Chrysene-d12	43.690	240	118402	500.000	ng/mL	-0.01
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%#
88) Benzo[a]pyrene-d12	0.000	264	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
128) 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	16.892	138	11496	247.822	ng/mL	100
3) cis-Decalin	18.112	138	8711	243.482	ng/mL	100
9) Naphthalene	20.310	128	120782	489.733	ng/mL	100
14) 2-Methylnaphthalene	23.019	142	79782	490.328	ng/mL	100
15) 1-Methylnaphthalene	23.441	142	77318	494.713	ng/mL	100
16) Benzothiophene	20.535	134	95558	497.052	ng/mL	100
21) Biphenyl	24.901	154	99174	500.791	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.503	156	72230	496.088	ng/mL	100
23) Dibenzofuran	27.987	168	109242	518.873	ng/mL	92
24) Acenaphthylene	26.602	152	123999M4	510.578	ng/mL	
25) Acenaphthene	27.340	153	77107	508.444	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.891	170	66988	503.660	ng/mL	89
27) Fluorene	29.357	166	88285	513.970	ng/mL	100
31) Dibenzothiophene	32.684	184	118403	508.935	ng/mL	95
41) Phenanthrene	33.181	178	129087	521.612	ng/mL	100
52) Retene	40.167	234	44243	522.244	ng/mL	85
53) Anthracene	33.362	178	124217M4	588.781	ng/mL	
54) Carbazole	34.024	167	105665	535.357	ng/mL	99
55) 1-Methylphenanthrene	35.695	192	95407	514.794	ng/mL	99
56) Fluoranthene	37.954	202	144194	510.885	ng/mL#	89
57) Benzo(b)fluorene	40.483	216	94218	530.604	ng/mL	99
59) Pyrene	38.842	202	150334	512.954	ng/mL#	91
67) Naphthobenzothiophene-2,1	42.696	234	128596	512.987	ng/mL	98
75) Benz[a]anthracene	43.630	228	133922	495.225	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081917.D
 Acq On : 9 Oct 2019 2:43 pm
 Operator : PAH2:ML
 Sample : CQ210081902
 Misc : WG1294599,FRBB04
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 09:20:56 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Oct 09 16:09:06 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.780	228	139792	507.762	ng/mL	99
77) Chrysene/Triphenylene	43.780	228	139792	507.762	ng/mL	99
84) Benzo[b]fluoranthene	47.696	252	156464	477.910	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.786	252	171353	520.261	ng/mL	98
87) Benzo[e]pyrene	48.750	252	155266	493.748	ng/mL	99
89) Benzo[a]pyrene	48.946	252	148431	515.611	ng/mL	99
90) Perylene	49.262	252	152461	542.117	ng/mL	98
91) Indeno[1,2,3-cd]pyrene	54.006	276	165290M3	482.642	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.066	278	154198	493.459	ng/mL#	95
93) Benzo[g,h,i]perylene	55.376	276	169052	493.843	ng/mL	99
94) Hopane (T19)	0.000		0	N.D.	d	

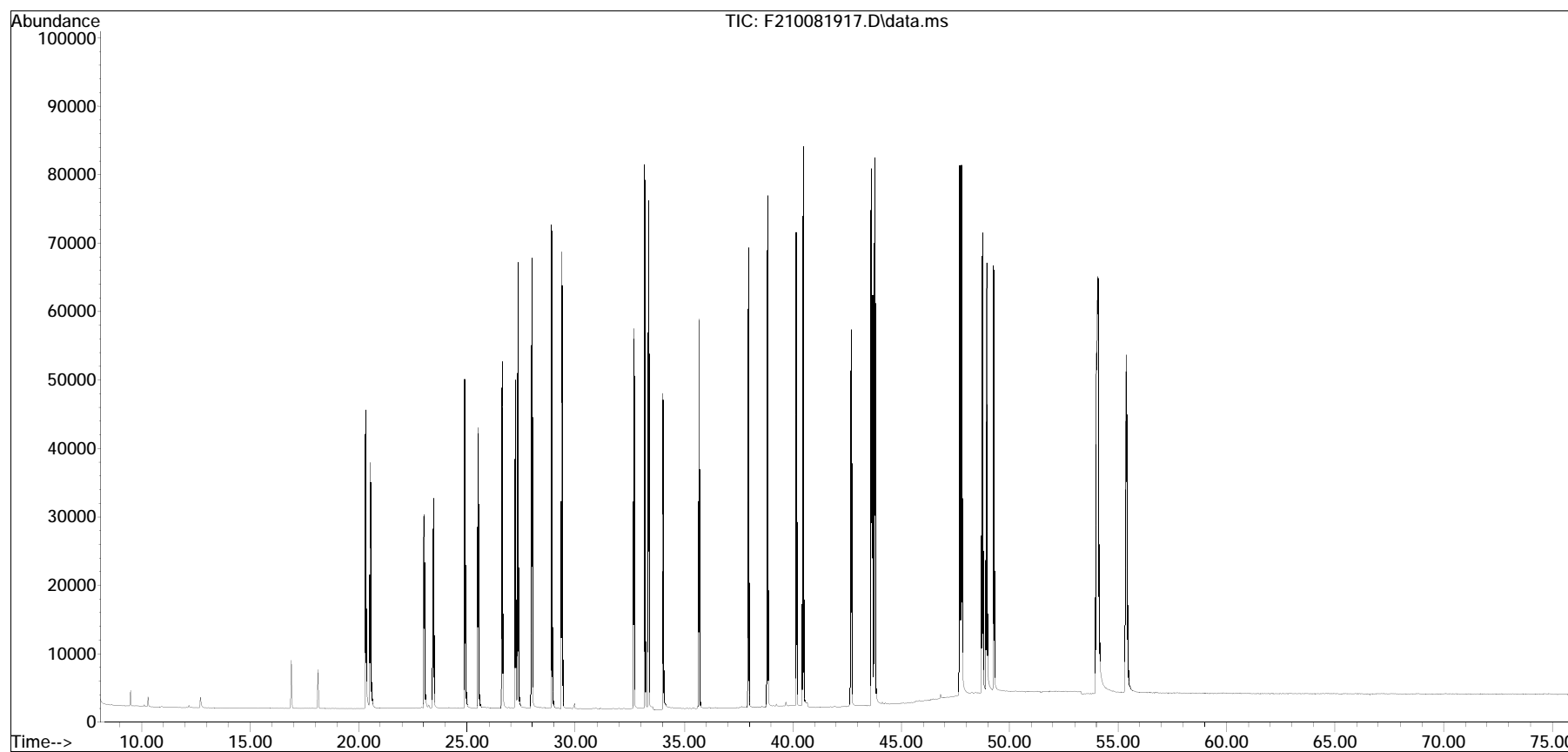
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081917.D
Acq On : 9 Oct 2019 2:43 pm
Operator : PAH2:ML
Sample : CQ210081902
Misc : WG1294599,FRBB04
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 09:20:56 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Oct 09 16:09:06 2019
Response via : Initial Calibration

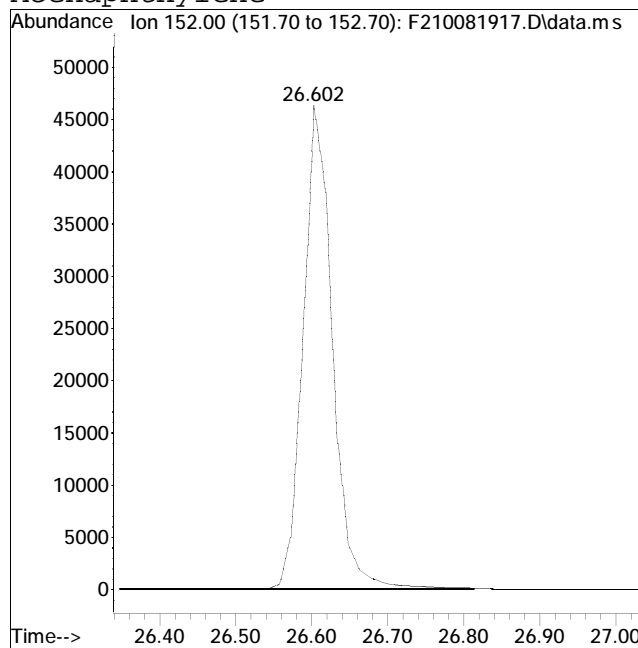
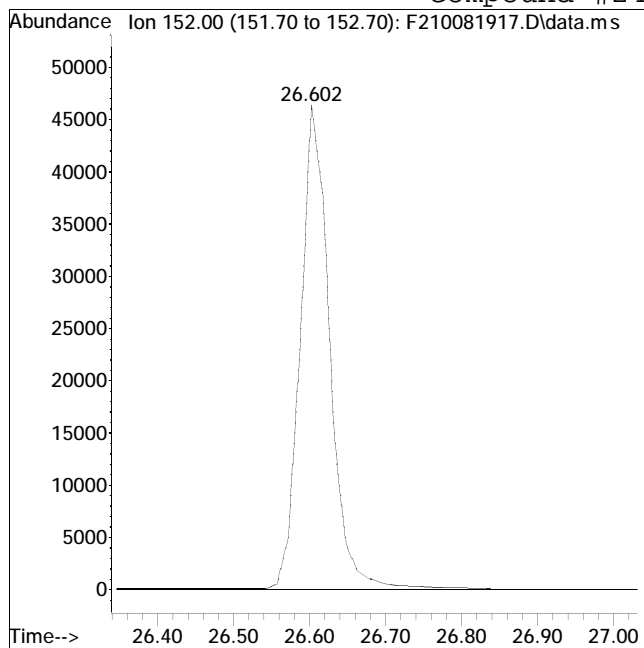
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081917.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 2:43 pm Instrument : PAH2
Sample : CQ210081902 Quant Date : 10/10/2019 9:19 am

Compound #24: Acenaphthylene



Original Peak Response = 125373

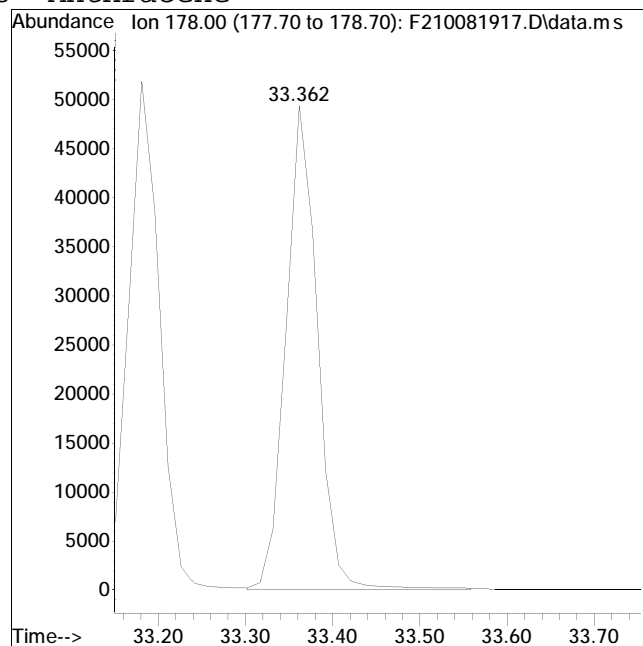
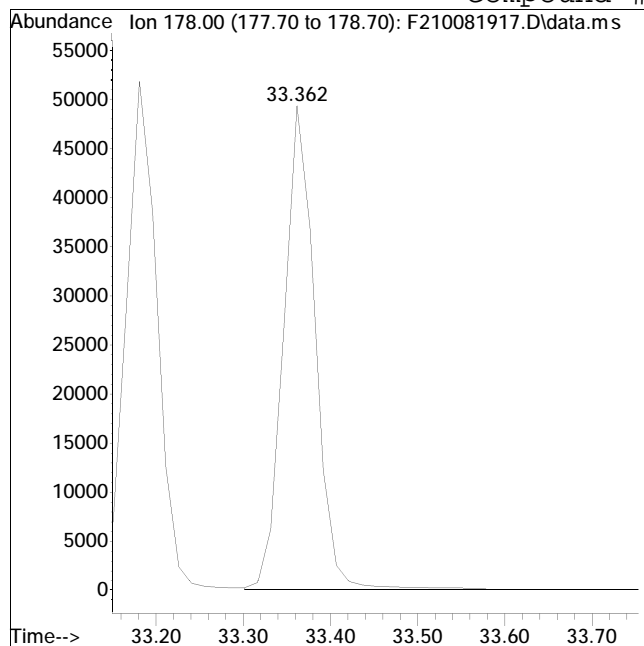
Manual Peak Response = 123999 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081917.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 2:43 pm Instrument : PAH2
Sample : CQ210081902 Quant Date : 10/10/2019 9:19 am

Compound #53: Anthracene



Original Peak Response = 125038

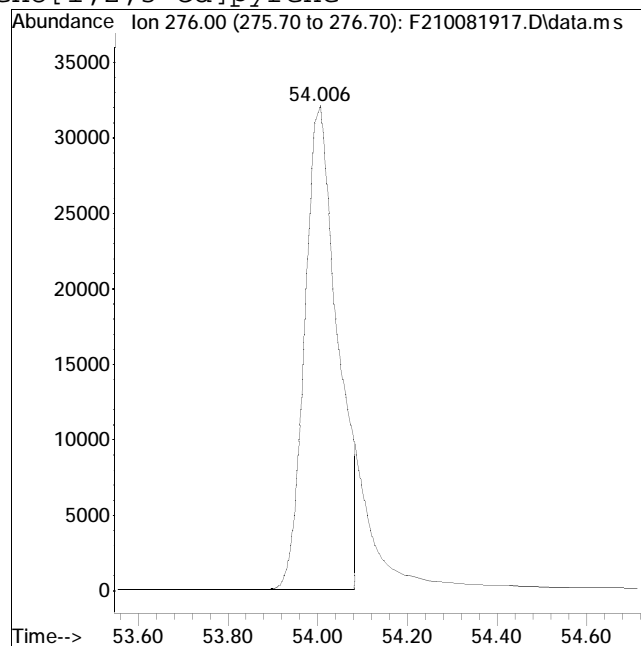
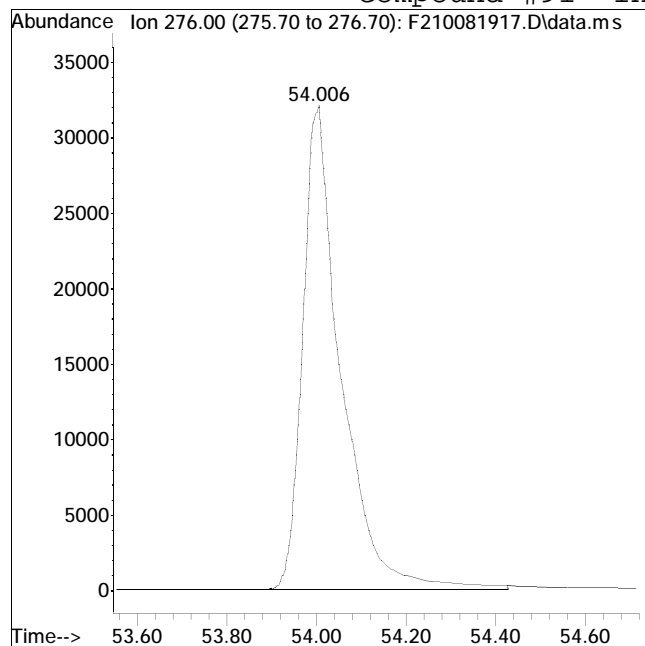
Manual Peak Response = 124217 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH2\2019QMethod : PAH2100819.M
Data File : F210081917.D Operator : PAH2:ML
Date Inj'd : 10/9/2019 2:43 pm Instrument : PAH2
Sample : CQ210081902 Quant Date : 10/10/2019 9:19 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 190820

Manual Peak Response = 165290 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\PAH2\2019\Oct19\oct08\
 Data File : F210081919.D
 Acq On : 9 Oct 2019 5:43 pm
 Operator : PAH2:ML
 Sample : WG1294599-1,.05088
 Misc : WG1294599,frbb69 5.088
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 11 13:45:24 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Oct 10 11:02:41 2019
 Response via : Initial Calibration

Sub List : Default - All compounds listed

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

Internal Standards							
1) Acenaphthene-d10	27.220	164	51046M4	500.000	ng/mL	0.00	
74) Chrysene-d12	43.690	240	93413	500.000	ng/mL	-0.01	
System Monitoring Compounds							
8) Naphthalene-d8	20.234	136	192786	1024.499	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	102.45%	
40) Phenanthrene-d10	33.091	188	152712	922.984	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	92.30%	
83) Benzo[b]fluoranthene-d12	47.620	264	185581	1014.500	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	101.45%	
88) Benzo[a]pyrene-d12	48.855	264	182073	1287.774	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	128.78%	
128) 5B(H)Cholane - Surr	44.323	217	32681	1051.275	ng/ml	-0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	105.13%	
Target Compounds							
2) trans-Decalin	16.892	138	108254	2750.963	ng/mL	100	Qvalue
3) cis-Decalin	18.112	138	4509M4	148.568	ng/mL		
4) C1-Decalins	18.834	152	177080M5	4499.977	ng/mL		
5) C2-Decalins	20.159	166	162545M5	4130.612	ng/mL		
6) C3-Decalins	22.628	180	84350M5	2143.512	ng/mL		
7) C4-Decalins	26.031	194	83245M5	2115.431	ng/mL		
9) Naphthalene	20.310	128	648088	3097.690	ng/mL	100	
10) C1-Naphthalenes	23.005	142	1349697M5	6451.196	ng/mL		
11) C2-Naphthalenes	25.850	156	1647308M5	7873.698	ng/mL		
12) C3-Naphthalenes	28.198	170	1186092M5	5669.207	ng/mL		
13) C4-Naphthalenes	30.953	184	664801M5	3177.574	ng/mL		
14) 2-Methylnaphthalene	23.005	142	790618	5727.900	ng/mL	100	
15) 1-Methylnaphthalene	23.441	142	559508	4220.134	ng/mL	100	
16) Benzothiophene	20.521	134	5373M4	32.946	ng/mL		
17) C1-Benzo(b)thiophenes	22.568	148	28103M5	172.320	ng/mL		
18) C2-Benzo(b)thiophenes	26.061	162	46639M5	285.977	ng/mL		
19) C3-Benzo(b)thiophenes	28.033	176	94112M5	577.068	ng/mL		
20) C4-Benzo(b)thiophenes	30.140	190	86958M5	533.202	ng/mL		
21) Biphenyl	24.886	154	133992	797.598	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.519	156	412525	3339.938	ng/mL	100	
23) Dibenzofuran	27.988	168	47565	266.322	ng/mL#	70	
24) Acenaphthylene	26.603	152	7133M4	34.623	ng/mL		
25) Acenaphthene	27.355	153	12965M4	100.779	ng/mL		
26) 2,3,5-Trimethylnaphthalen	28.891	170	72558M3	643.092	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081919.D
 Acq On : 9 Oct 2019 5:43 pm
 Operator : PAH2:ML
 Sample : WG1294599-1,.05088
 Misc : WG1294599,frbb69 5.088
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 11 13:45:24 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Oct 10 11:02:41 2019
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.358	166	55543	381.178	ng/mL	90
28) C1-Fluorenes	31.721	180	126076M5	865.228	ng/mL	
29) C2-Fluorenes	33.919	194	192036M5	1317.895	ng/mL	
30) C3-Fluorenes	35.756	208	184265M5	1264.564	ng/mL	
31) Dibenzothiophene	32.684	184	136237	690.306	ng/mL#	64
32) 4-Methyldibenzothiophene(	34.461	198	138286	700.689	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.807	198	105458M3	534.351	ng/mL	
34) 1-Methyldibenzothiophene(	35.229	198	42653	216.121	ng/mL	100
35) OTP	34.867	198	16677M3	84.502	ng/mL	
36) C1-Dibenzothiophenes	34.461	198	308039M5	1560.819	ng/mL	
36) C1-Dibenzothiophenes BS	34.461	198	291362M5	1476.317	ng/mL	
37) C2-Dibenzothiophenes	36.147	212	397327M5	2013.237	ng/mL	
38) C3-Dibenzothiophenes	37.954	226	367159M5	1860.377	ng/mL	
39) C4-Dibenzothiophenes	39.640	240	204135M5	1034.342	ng/mL	
41) Phenanthrene	33.181	178	218801	1042.224	ng/mL	96
42) 3-Methylphenanthrene(3MP)	35.138	192	90085	429.106	ng/mL	99
43) 2-Methylphenanthrene(2MP)	35.259	192	96094	457.729	ng/mL	98
44) 2-Methylanthracene(2MA)	35.409	192	3301	15.724	ng/mL	86
45) 9/4-Methylphenanthrene(9M	35.605	192	145282	692.028	ng/mL	100
46) 1-Methylphenanthrene(1MP)	35.695	192	100937	480.798	ng/mL	99
47) C1-Phenanthrenes/Anthrace	35.605	192	438889M5	2090.579	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.412	206	512828M5	2442.776	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.412	206	512828M5	2442.776	ng/mL	
49) 5AA IS BKGD	0.000		0	N.D.	d	
50) C3-Phenanthrenes/Anthrace	39.249	220	355269M5	1692.268	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.432	234	146996M5	700.192	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	0.000		0	N.D.	d	
54) Carbazole	34.024	167	5045	30.131	ng/mL#	27
55) 1-Methylphenanthrene	35.695	192	99509	632.940	ng/mL	98
56) Fluoranthene	37.954	202	4692M4	19.597	ng/mL	
57) Benzo(b)fluorene	40.483	216	3494M3	23.196	ng/mL	
58) 7H-Benzo(c)fluorene	40.529	216	3102M3	20.593	ng/mL	
59) Pyrene	38.842	202	13399M3	53.894	ng/mL	
60) 2-Methylpyrene	40.649	216	5039M4	20.268	ng/mL	
61) 4-Methylpyrene	41.010	216	12387	49.824	ng/mL	81
62) 1-Methylpyrene	41.131	216	8356	33.610	ng/mL	84
63) C1-Fluoranthenes/Pyrenes	40.242	216	67411M5	271.144	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.365	230	112815M5	453.770	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.067	244	140598M5	565.520	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.407	258	126664M5	509.474	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
 Data File : F210081919.D
 Acq On : 9 Oct 2019 5:43 pm
 Operator : PAH2:ML
 Sample : WG1294599-1,.05088
 Misc : WG1294599,frbb69 5.088
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 11 13:45:24 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Oct 10 11:02:41 2019
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) Naphthobenzothiophene-2,1	42.712	234	32646	153.517	ng/mL#	78
68) Naphthobenzothiophene-1,2	43.043	234	7823	36.787	ng/mL#	9
69) Naphthobenzothiophene-2,3	43.344	234	3972M3	18.678	ng/mL	
70) C1-Naphthobenzothiophenes	44.097	248	122301M5	575.117	ng/ml	
71) C2-Naphthobenzothiophenes	46.145	262	180625M5	849.384	ng/ml	
72) C3-Naphthobenzothiophenes	47.726	276	144958M5	681.661	ng/ml	
73) C4-Naphthobenzothiophenes	48.855	290	100970M5	474.809	ng/mL	
75) Benz[a]anthracene	43.630	228	2807M4	13.157	ng/mL	
76) Chrysene	43.766	228	38754	178.421	ng/mL	92
77) Chrysene/Triphenylene	43.766	228	38754	178.421	ng/mL	92
78) C1-Chrysenes	45.271	242	68470M5	315.232	ng/mL	
79) C2-Chrysenes	46.702	256	99874M5	459.814	ng/mL	
79) C2-Chrysenes BS	46.702	256	93093M5	428.594	ng/mL	
80) BBF-D12 Surr BKGD	47.620	256	6781	31.219	ng/mL	100
81) C3-Chrysenes	50.181	270	95395M5	439.193	ng/mL	
82) C4-Chrysenes	50.181	284	66110M5	304.366	ng/mL	
84) Benzo[b]fluoranthene	47.711	252	6466M4	25.033	ng/mL	
85) Benzo[j]+[k]fluoranthene	47.786	252	1213M4	4.668	ng/mL	
86) Benzo[a]fluoranthene	0.000		0	N.D.	d	
87) Benzo[e]pyrene	48.750	252	11450M4	46.152	ng/mL	
89) Benzo[a]pyrene	48.946	252	2119M4	9.330	ng/mL	
90) Perylene	49.277	252	3359	15.139	ng/mL#	28
91) Indeno[1,2,3-cd]pyrene	54.006	276	1243M4	4.600	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.066	278	1544M4	6.263	ng/mL	
93) Benzo[g,h,i]perylene	55.391	276	4496	16.647	ng/mL#	84
94) Hopane (T19)	53.087	191	44617	959.268	ng/mL	98
95) C23 Tricyclic Terpane (T4	41.342	191	21081M4	453.243	ng/ml	
96) C24 Tricyclic Terpane (T5	42.064	191	11307	243.101	ng/ml	100
97) C25 Tricyclic Terpane (T6	43.585	191	11435M4	245.853	ng/ml	
98) C24 Tetracyclic Terpane (	44.880	191	4263	91.655	ng/ml	100
99) C26 Tricyclic Terpane-22S	44.609	191	4497M4	96.686	ng/ml	
100) C26 Tricyclic Terpane-22R	44.699	191	4141M4	89.032	ng/ml	
101) C28 Tricyclic Terpane-22S	46.988	191	4298M4	92.407	ng/ml	
102) C28 Tricyclic Terpane-22R	47.154	191	4988M4	107.242	ng/ml	
103) C29 Tricyclic Terpane-22S	47.696	191	5069M4	108.984	ng/ml	
104) C29 Tricyclic Terpane-22R	47.891	191	5656M4	121.604	ng/ml	
105) 18a-22,29,30-Trisnorneo	49.096	191	8044	172.946	ng/ml	100
106) C30 Tricyclic Terpane-22S	49.172	191	4082M4	87.763	ng/mL	
107) C30 Tricyclic Terpane-22R	49.428	191	4277M4	91.956	ng/mL	
108) 17a(H)-22,29,30-Trisnor	49.669	191	9378	201.627	ng/ml	100
109) 17a/b,21b/a 28,30-Bisnor	50.904	191	1861M4	40.012	ng/ml	

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 Misc : WG1294599,frbb69 5.088
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 11 13:45:24 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Oct 10 11:02:41 2019
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 17a(H),21b(H)-25-Norhopan	50.693	191	2247	48.311	ng/ml	100
111) 30-Norhopane (T15)	51.642	191	24674M4	530.492	ng/ml	
112) 18a(H)-30-Norneohopane-C2	51.747	191	6231M4	133.967	ng/ml	
113) 17a(H)-Diahopane (X)	51.883	191	3440M4	73.960	ng/ml	
114) 30-Normoretane (T17)	52.455	191	2998	64.457	ng/ml	100
115) 18a(H)&18b(H)-Oleananes (	0.000		0	N.D.	d	
116) Moretane (T20)	53.825	191	5233	112.510	ng/ml	100
117) 30-Homohopane-22S (T21)	55.000	191	18218	391.688	ng/ml	100
118) 30-Homohopane-22R (T22)	55.241	191	15939	342.689	ng/ml	100
119) Gammacerane/C32-diahopane	55.828	191	3545M4	76.218	ng/mL	
120) 30,31-Bishomohopane-22S (	56.671	191	13201	283.822	ng/ml	100
121) 30,31-Bishomohopane-22R (	57.078	191	9798	210.658	ng/ml	100
122) 30,31-Trishomohopane-22S	58.960	191	10612	228.159	ng/ml	100
123) 30,31-Trishomohopane-22R	59.623	191	6980M4	150.070	ng/ml	
124) Tetrakishomohopane-22S (T	61.791	191	7489	161.014	ng/ml	100
125) Tetrakishomohopane-22R (T	62.755	191	5234	112.531	ng/ml	100
126) Pentakishomohopane-22S (T	65.149	191	7860	168.990	ng/ml	100
127) Pentakishomohopane-22R (T	66.550	191	6728	144.652	ng/ml	100
129) 13b(H),17a(H)-20S-Diachol	45.813	217	7924	254.897	ng/ml	100
130) 13b(H),17a(H)-20R-Diachol	46.250	217	3937M4	126.644	ng/ml	
131) 13b,17a-20S-Methyl diachol	46.943	217	3772M3	121.337	ng/ml	
132) 14a,17a-20S-Chol/13b,17a-	47.846	217	9047	291.022	ng/ml	100
133) 14a,17a-20R-Chol/13b,17a-	48.388	217	10276M4	330.556	ng/ml	
134) Unknown Sterane (S18)	48.675	217	2799	90.038	ng/ml	100
135) 13a,17b-20S-Ethyl diachole	48.946	217	506	16.277	ng/ml	100
136) 14a,17a-20S-Methylcholest	49.111	217	4850	156.014	ng/ml	100
137) 14a,17a-20R-Methylcholest	49.864	217	5097M4	163.959	ng/ml	
138) 14a(H),17a(H)-20S-Ethylch	50.241	217	6210M4	199.762	ng/ml	
139) 14a(H),17a(H)-20R-Ethylch	51.205	217	5761M4	185.318	ng/ml	
140) 14b(H),17b(H)-20R-Cholest	47.937	218	6498M4	209.026	ng/ml	
141) 14b(H),17b(H)-20S-Cholest	48.027	218	6508M4	209.348	ng/ml	
142) 14b,17b-20R-Methylcholest	49.292	218	6824M4	219.513	ng/ml	
143) 14b,17b-20S-Methylcholest	49.382	218	9001M4	289.542	ng/ml	
144) 14b(H),17b(H)-20R-Ethylch	50.512	218	9447M3	303.889	ng/ml	
145) 14b(H),17b(H)-20S-Ethylch	50.542	218	5997M3	192.910	ng/ml	
146) C20 Pregnane	43.254	231	15708	505.291	ng/mL	100
147) C21 20-Methylpregnane	44.503	231	16376	526.779	ng/mL	100
148) C22 20-Ethylpregnane (a)	45.648	231	5596	180.011	ng/mL	100
149) C22 20-Ethylpregnane (b)	45.828	231	4347	139.833	ng/mL	100
150) C26,20S TAS	49.142	231	13058	420.047	ng/mL	100
151) C26,20R+C27,20S TAS	50.196	231	43568M4	1401.485	ng/mL	

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 QLast Update : Thu Oct 10 11:02:41 2019
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
152) C28,20S TAS	51.099	231	28245	908.579	ng/mL	100
153) C27,20R TAS	51.581	231	26693	858.654	ng/mL	100
154) C28,20R TAS	52.861	231	22540M4	725.061	ng/mL	
155) C29,20S TAS	51.822	231	11066M4	355.968	ng/mL	
156) C29,20R TAS	53.976	231	7196M4	231.479	ng/mL	
157) 5b(H)-C27 (20S) MAS+	45.256	253	10336	332.486	ng/mL	100
158) 5b(H)-C27 (20R) MAS+>	45.994	253	1603M3	51.565	ng/mL	
159) 5a(H)-C27 (20S) MAS	46.145	253	2172	69.868	ng/mL	100
160) 5b(H)-C28 (20S) MAS+	46.280	253	12555M4	403.866	ng/mL	
161) 5a(H)-C27 (20R) MAS	46.958	253	1756M4	56.487	ng/mL	
162) 5a(H)-C28 (20S) MAS	47.078	253	10745	345.643	ng/mL	100
163) 5b(H)-C28 (20R) MAS+	47.154	253	8833M4	284.138	ng/mL	
164) 5b(H)-C29 (20S) MAS+	47.214	253	2577M4	82.896	ng/mL	
165) 5a(H)-C29 (20S) MAS	47.891	253	3692	118.763	ng/mL	100
166) 5a(H)-C28 (20R) MAS	47.997	253	1605M4	51.629	ng/mL	
167) 5b(H)-C29 (20R) MAS+	48.057	253	11817M4	380.126	ng/mL	
168) 5a(H)-C29 (20R) MAS	49.066	253	2691	86.563	ng/mL	100

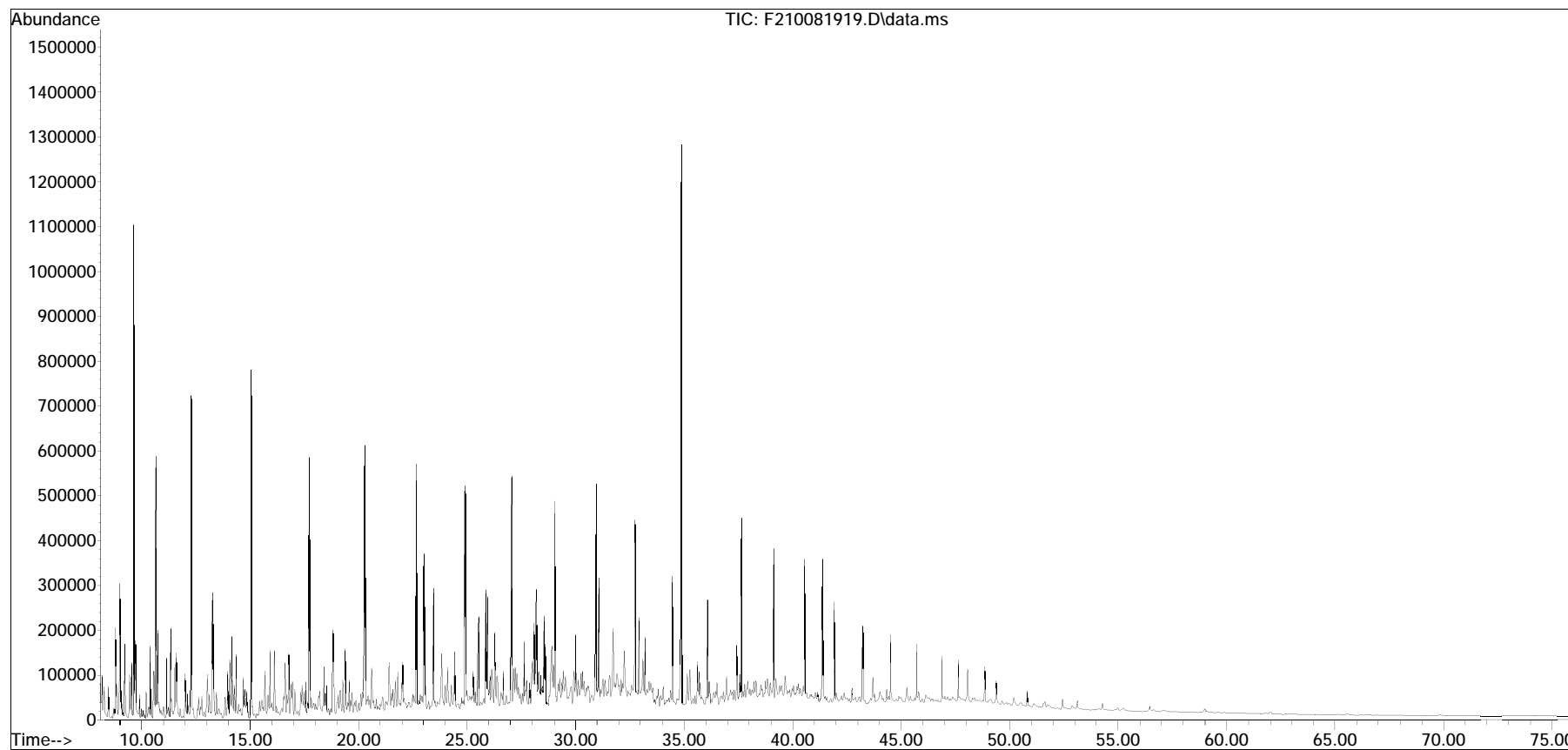
(#) = qualifier out of range (m) = manual integration (+) = signals summed

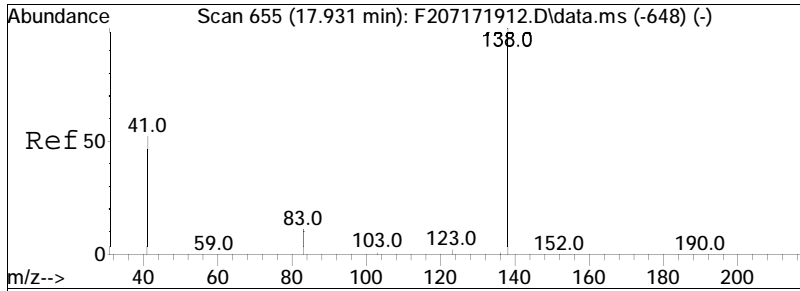
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\Oct19\oct08\
Data File : F210081919.D
Acq On : 9 Oct 2019 5:43 pm
Operator : PAH2:ML
Sample : WG1294599-1,.05088
Misc : WG1294599,frbb69 5.088
ALS Vial : 19 Sample Multiplier: 1

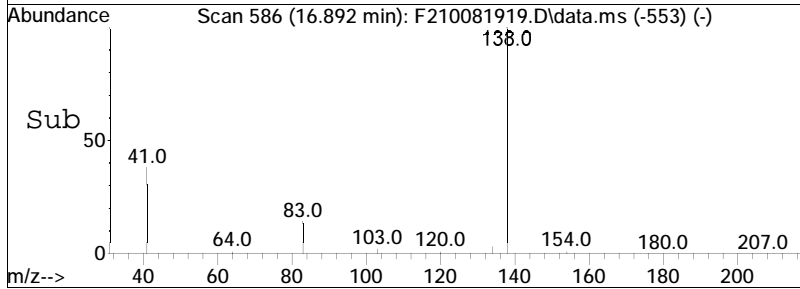
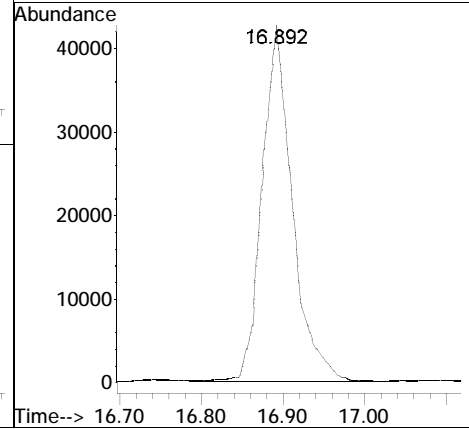
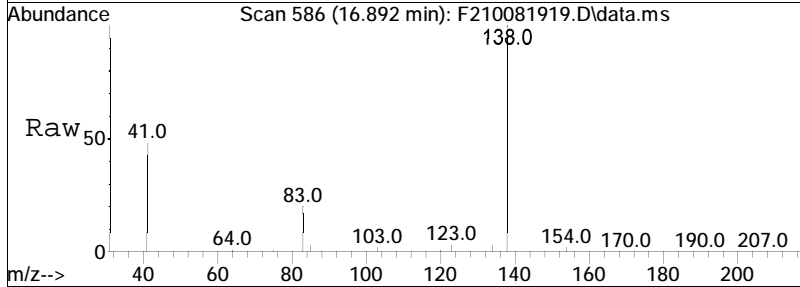
Quant Time: Oct 11 13:45:24 2019
Quant Method : O:\Forensics\Data\PAH2\2019\Oct19\oct08\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Oct 10 11:02:41 2019
Response via : Initial Calibration

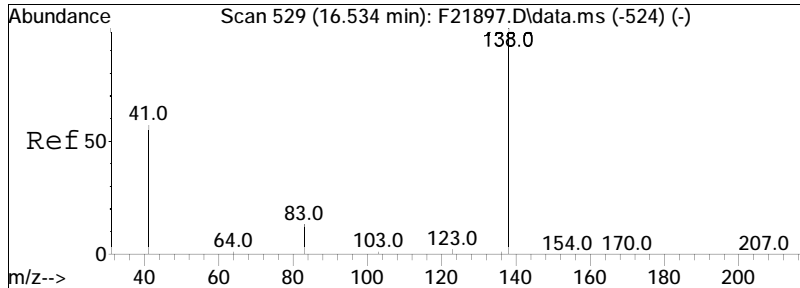
Sub List : Default - All compounds listed



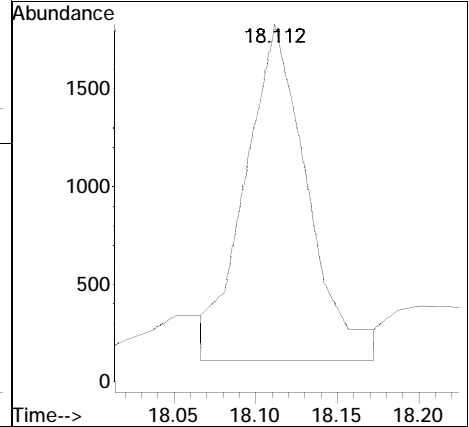
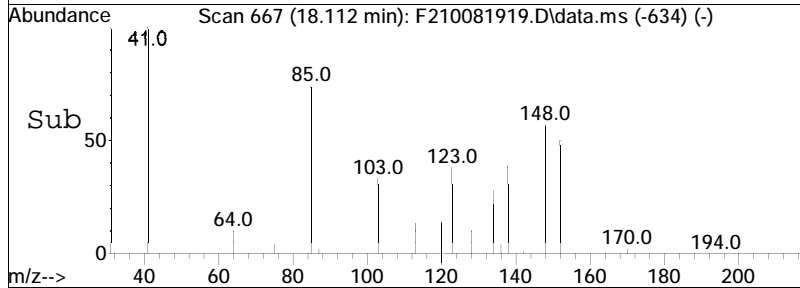
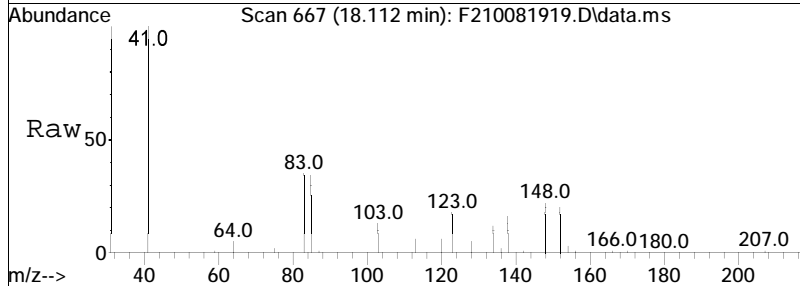


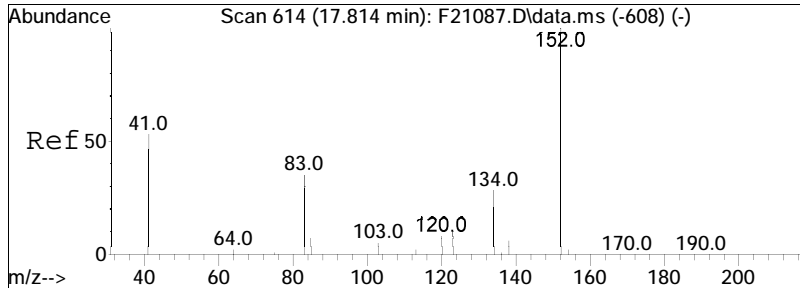
#2
 trans-Decalin
 Concen: 2750.96 ng/mL
 RT: 16.892 min Scan# 586
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:138 Resp: 108254



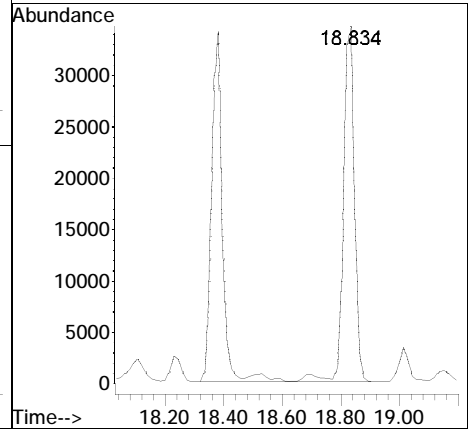
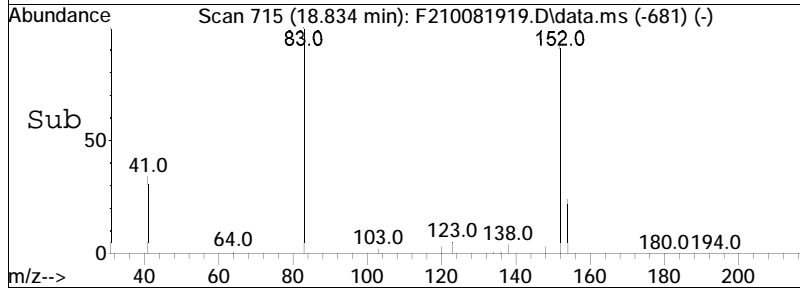
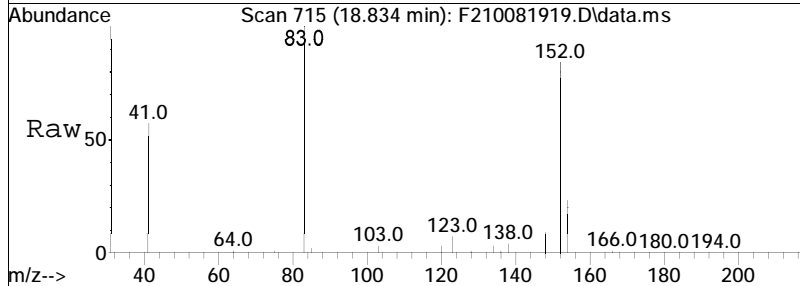


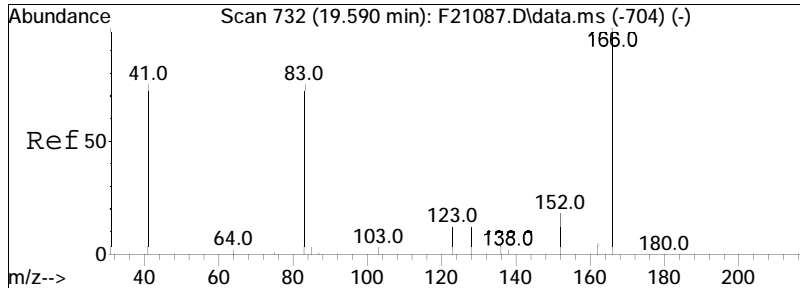
#3
 cis-Decalin
 Concen: 148.57 ng/mL M4
 RT: 18.112 min Scan# 667
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:138 Resp: 4509



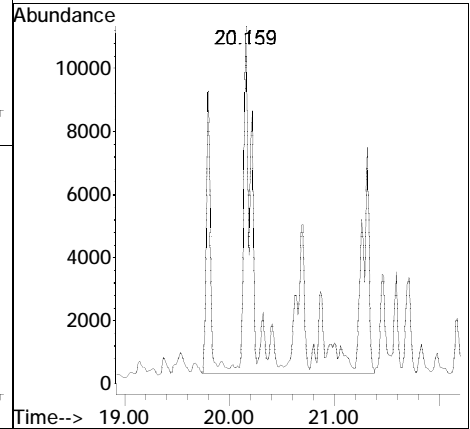
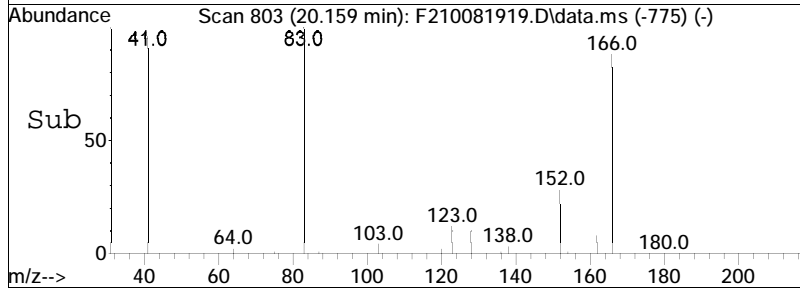
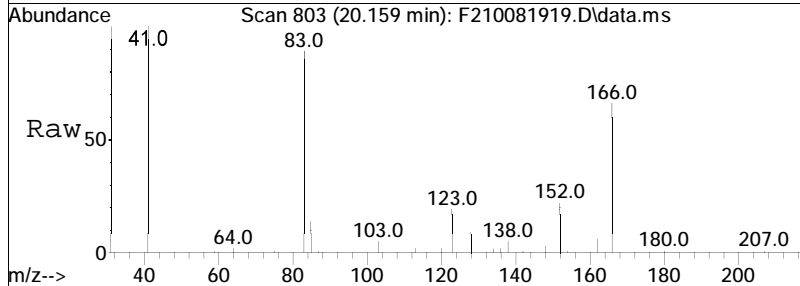


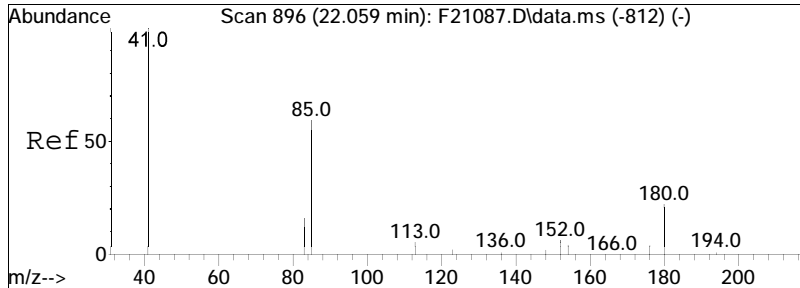
#4
 Cl-Decalins
 Concen: 4499.98 ng/mL M5
 RT: 18.834 min Scan# 715
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:152 Resp: 177080



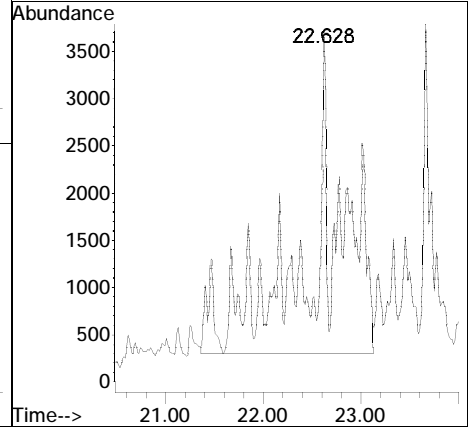
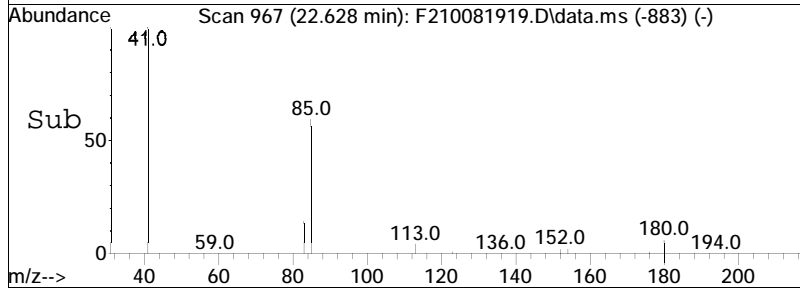
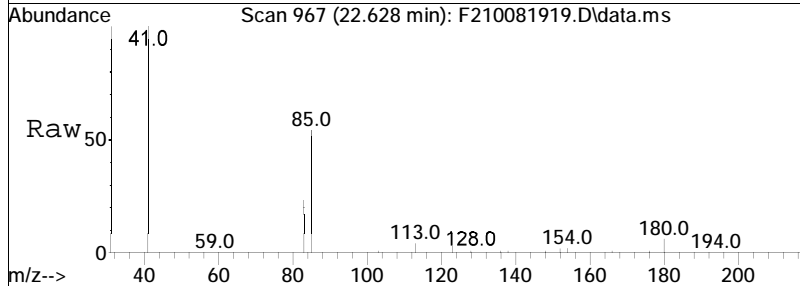


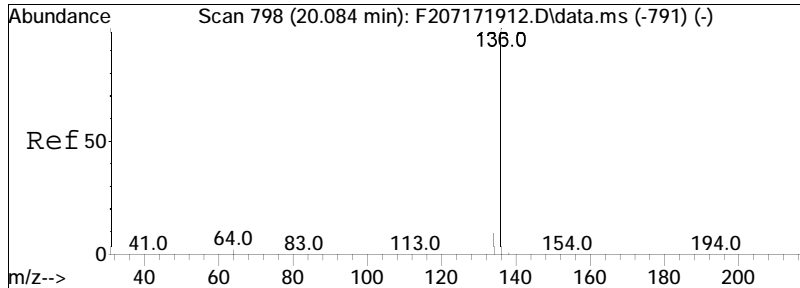
#5
 C2-Decalins
 Concen: 4130.61 ng/mL M5
 RT: 20.159 min Scan# 803
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:166 Resp: 162545



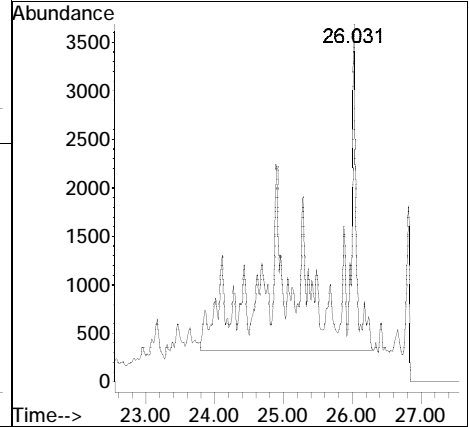
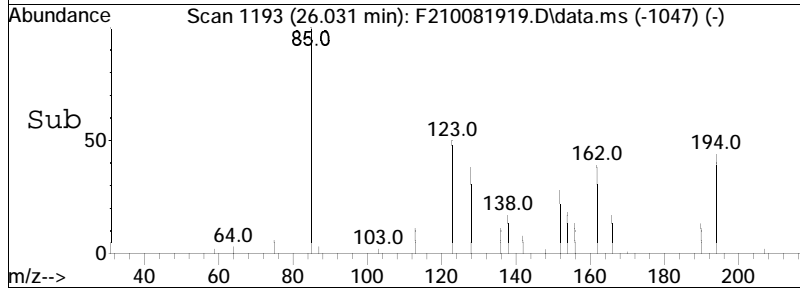
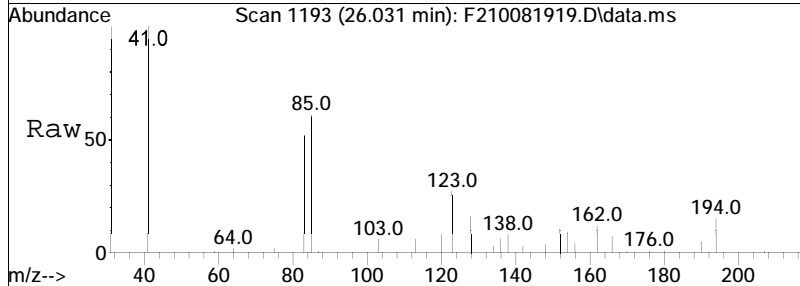


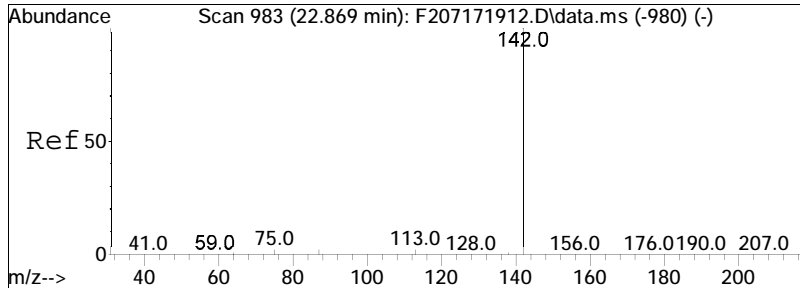
#6
 C3-Decalins
 Concen: 2143.51 ng/mL M5
 RT: 22.628 min Scan# 967
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:180 Resp: 84350



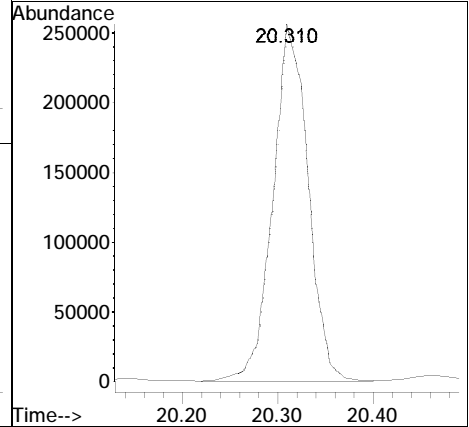
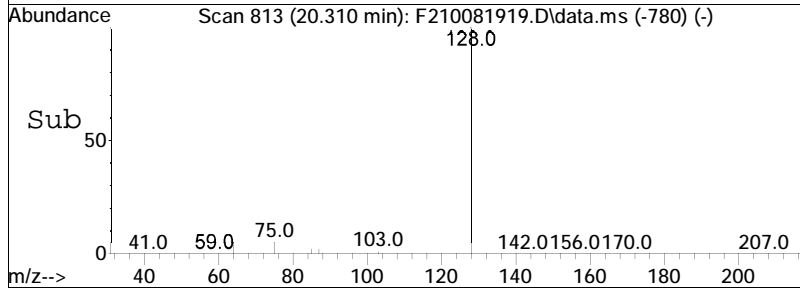
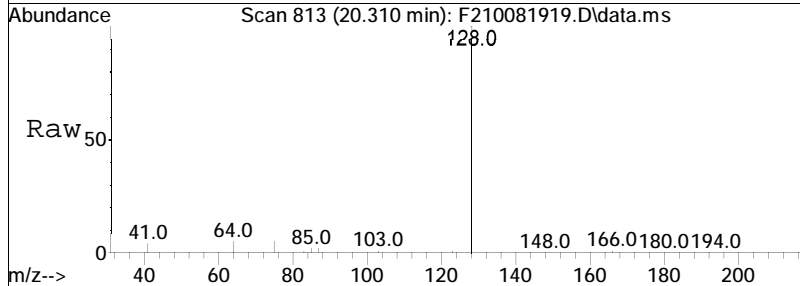


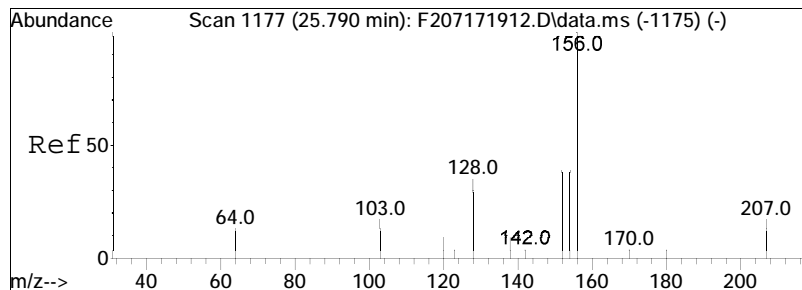
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 C4-Decalins
 Concen: 2115.43 ng/mL M5
 RT: 26.031 min Scan# 1193
 Delta R.T. -0.010 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:194 Resp: 83245



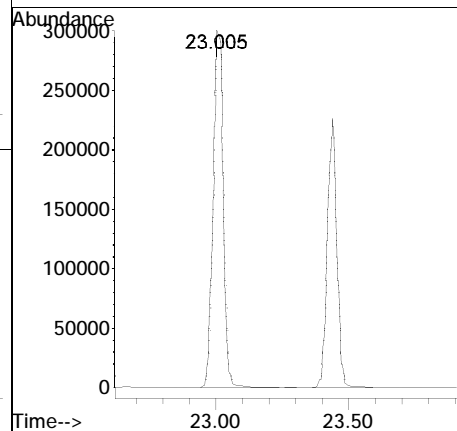
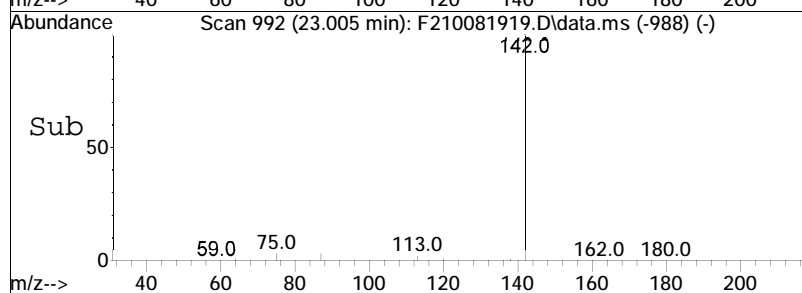
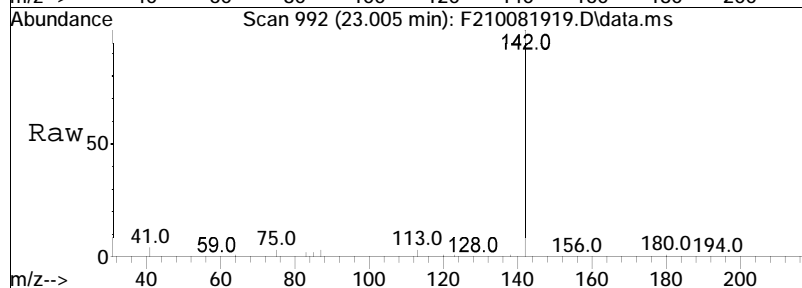


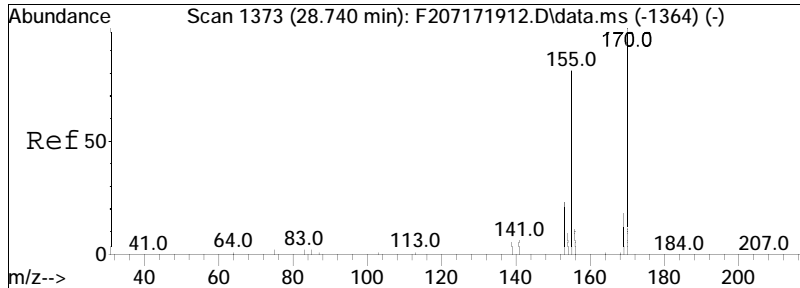
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 Naphthalene
 Concen: 3097.69 ng/mL
 RT: 20.310 min Scan# 813
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:128 Resp: 648088



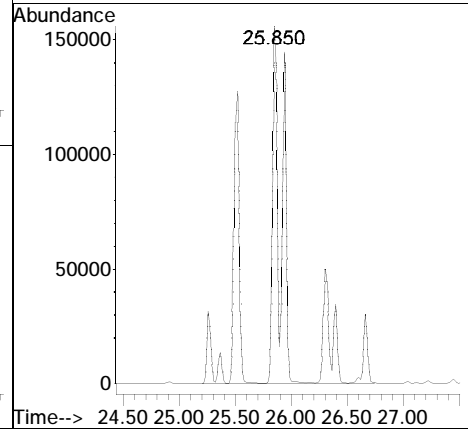
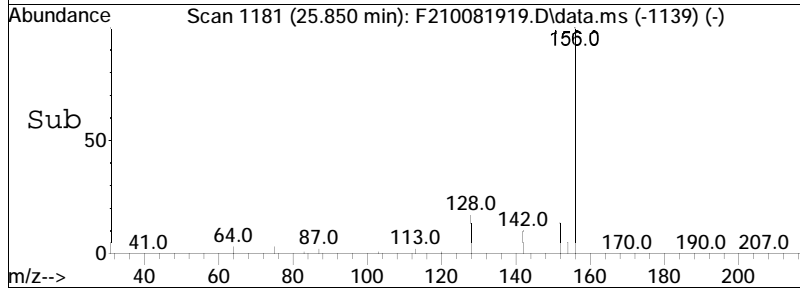
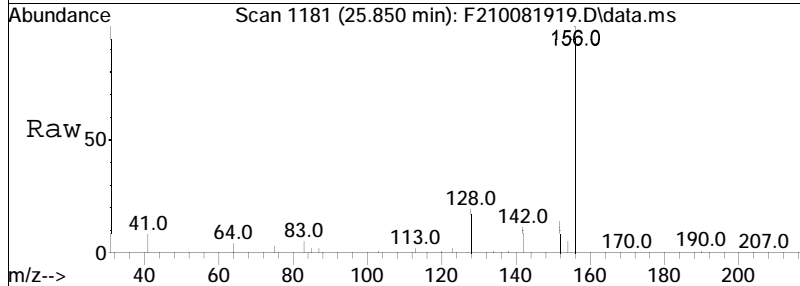


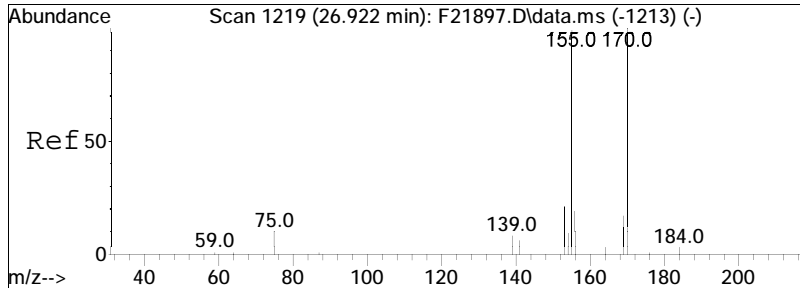
#10
 Cl-Naphthalenes
 Concen: 6451.20 ng/mL M5
 RT: 23.005 min Scan# 992
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:142 Resp: 1349697





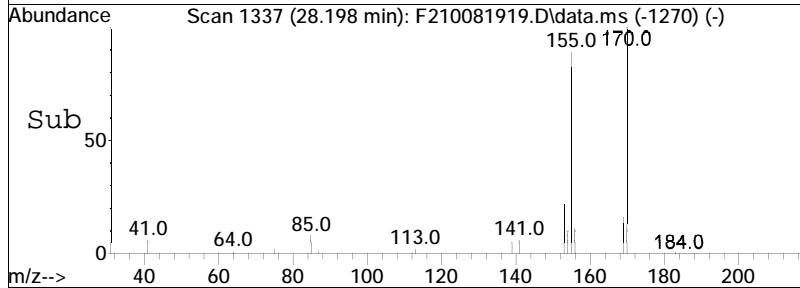
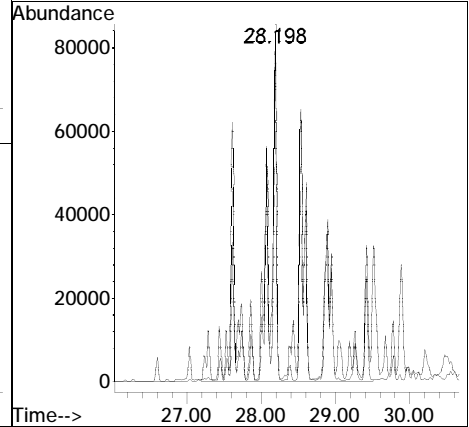
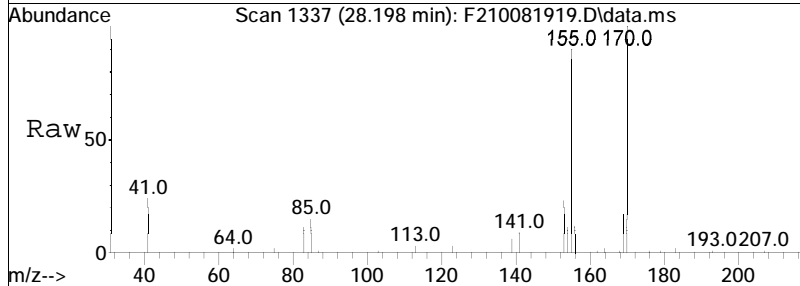
#11
 C2-Naphthalenes
 Concen: 7873.70 ng/mL M5
 RT: 25.850 min Scan# 1181
 Delta R.T. -0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:156 Resp: 1647308

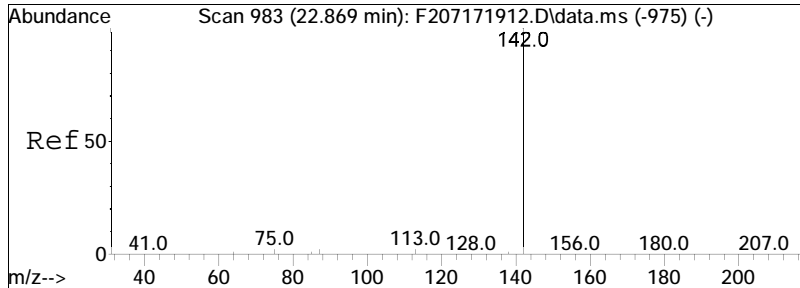




#12
 C3-Naphthalenes
 Concen: 5669.21 ng/mL M5
 RT: 28.198 min Scan# 1337
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

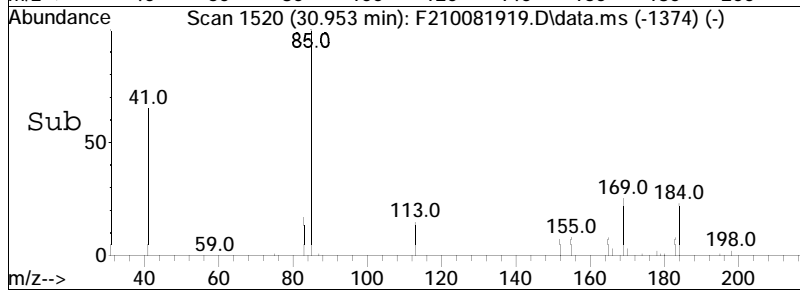
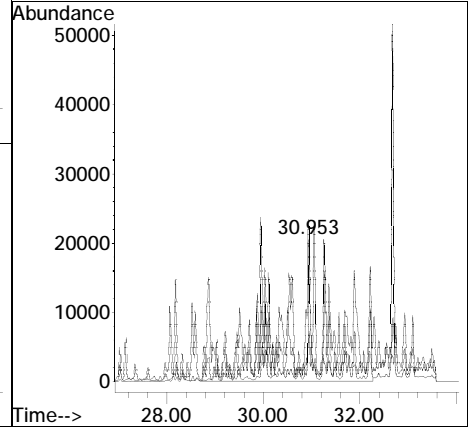
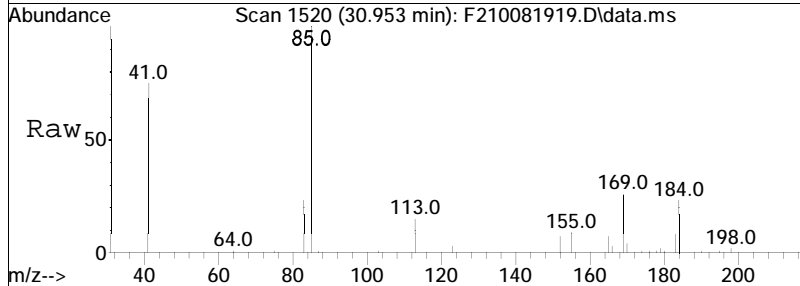
Tgt Ion: 170 Resp: 1186092
 Ion Ratio Lower Upper
 170 100
 155 18.7 75.4 140.0#

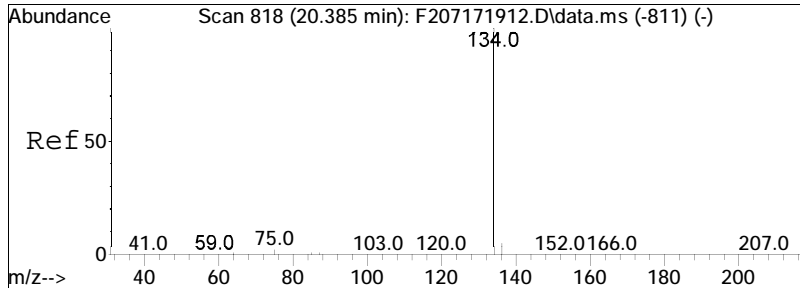




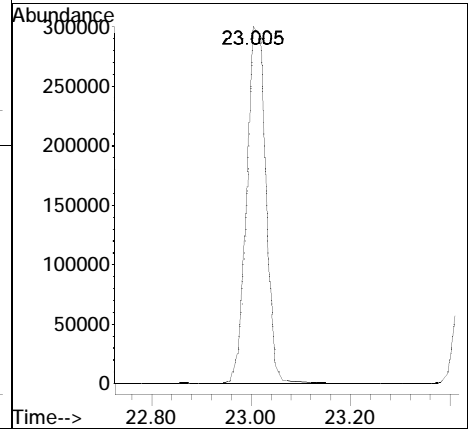
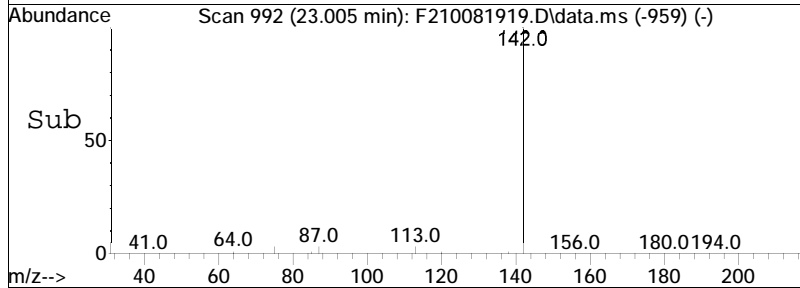
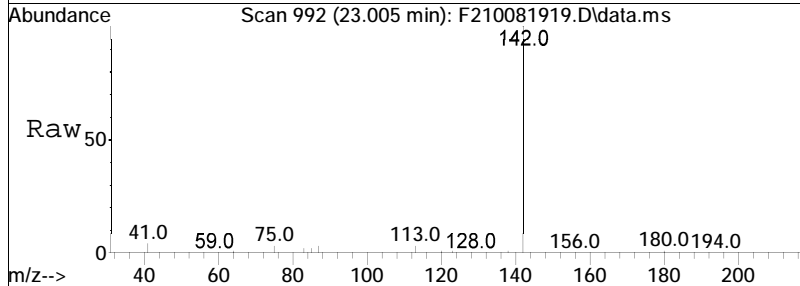
#13
 C4-Naphthalenes
 Concen: 3177.57 ng/mL M5
 RT: 30.953 min Scan# 1520
 Delta R.T. -0.032 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

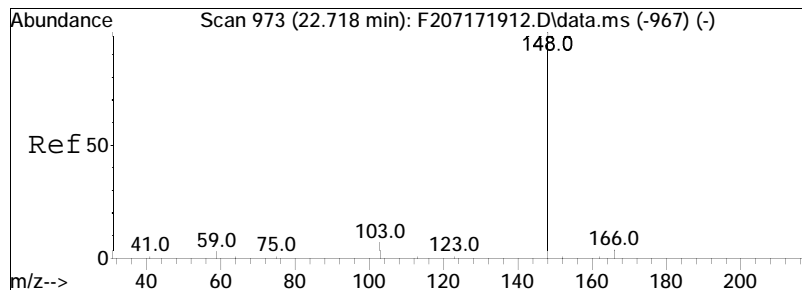
Tgt Ion	Ratio	Lower	Upper
184	100		
169	16.0	72.2	134.2#
183	2.4	21.5	39.9#



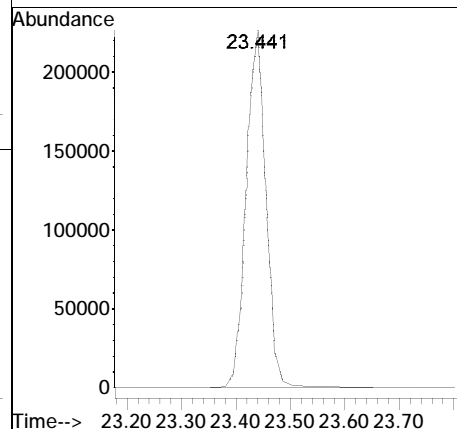
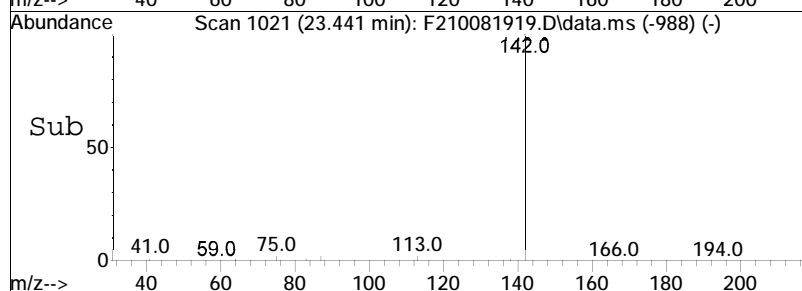
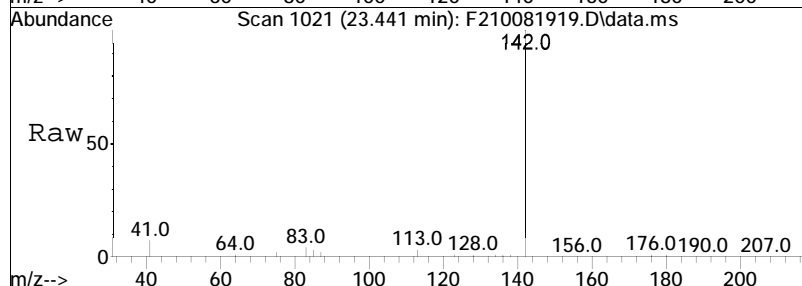


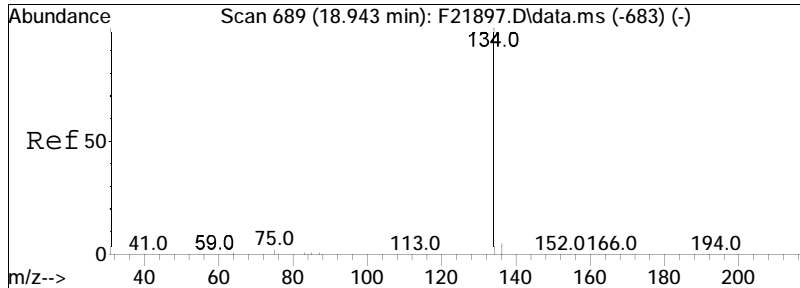
#14
 2-Methylnaphthalene
 Concen: 5727.90 ng/mL
 RT: 23.005 min Scan# 992
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:142 Resp: 790618



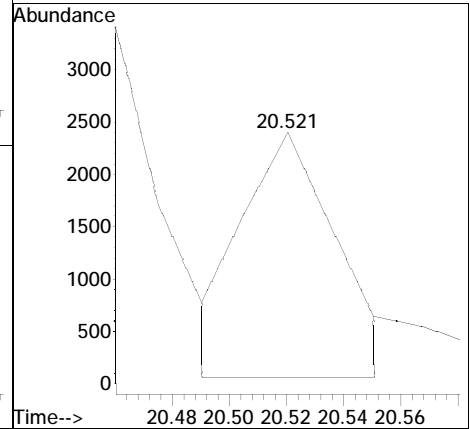
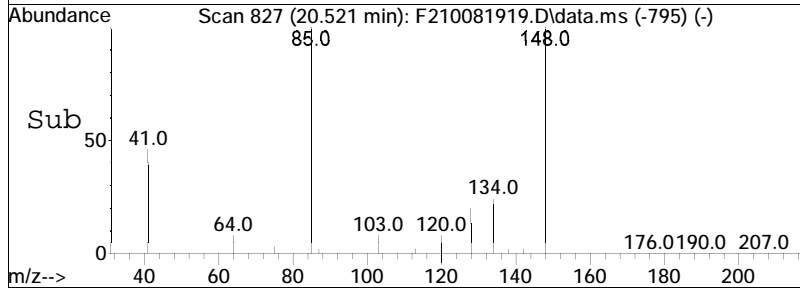
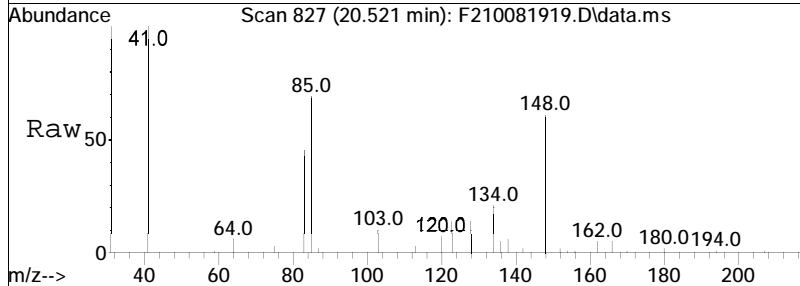


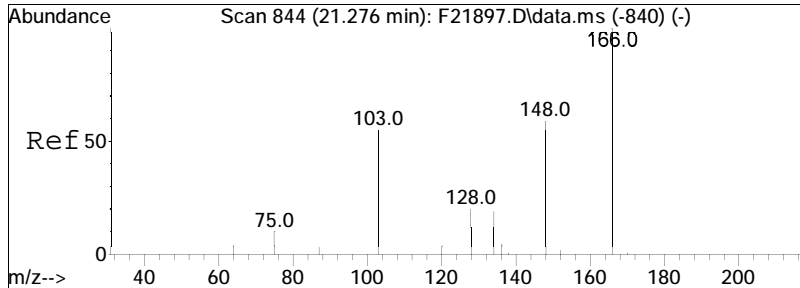
#15
 1-Methylnaphthalene
 Concen: 4220.13 ng/mL
 RT: 23.441 min Scan# 1021
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:142 Resp: 559508



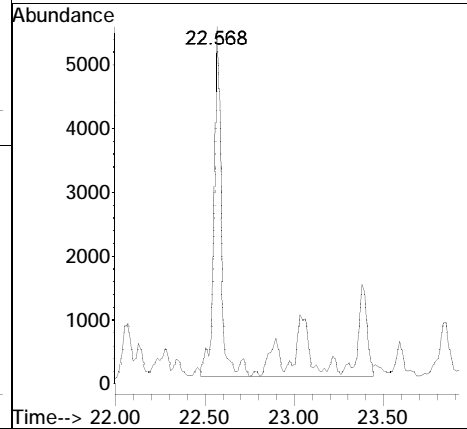
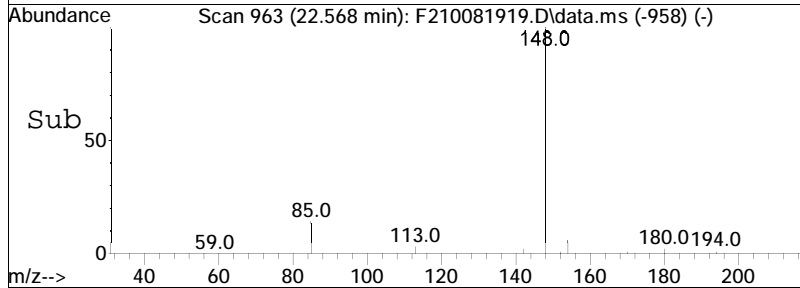
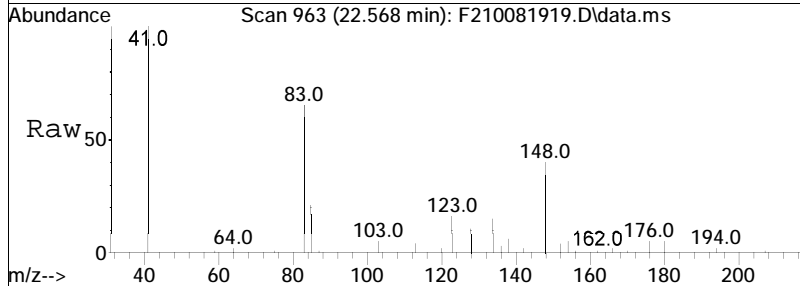


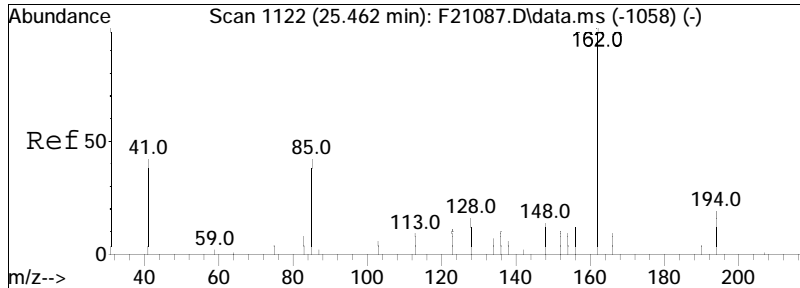
#16
 Benzothiophene
 Concen: 32.95 ng/mL M4
 RT: 20.521 min Scan# 827
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:134 Resp: 5373



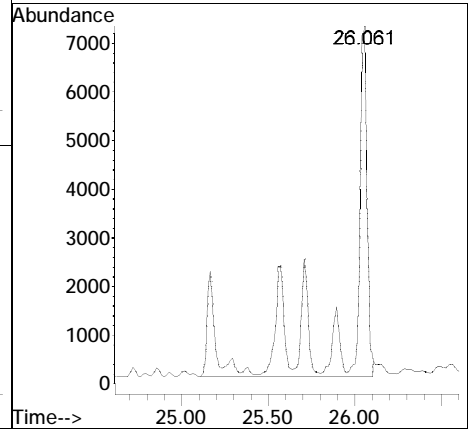
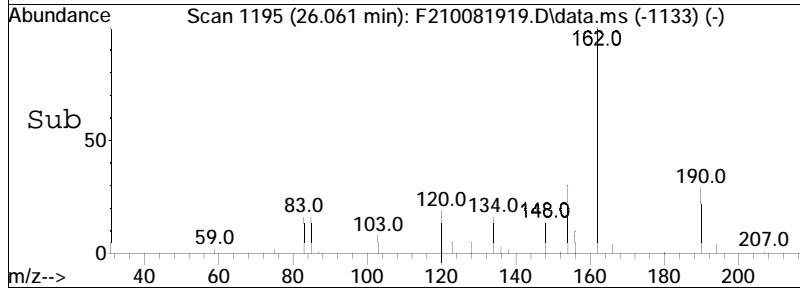
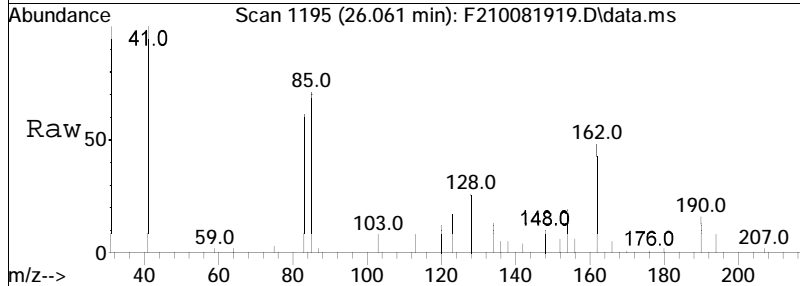


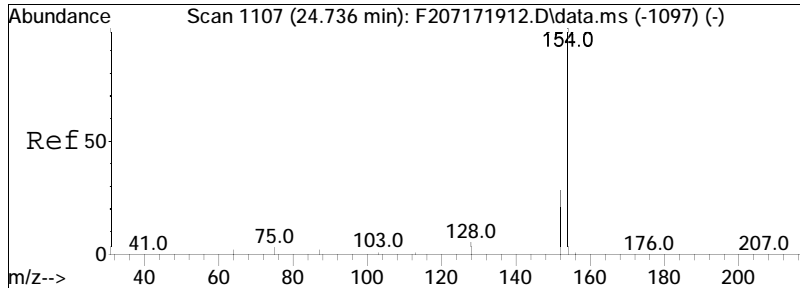
#17
 Cl-Benzo(b)thiophenes
 Concen: 172.32 ng/mL M5
 RT: 22.568 min Scan# 963
 Delta R.T. 0.006 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:148 Resp: 28103



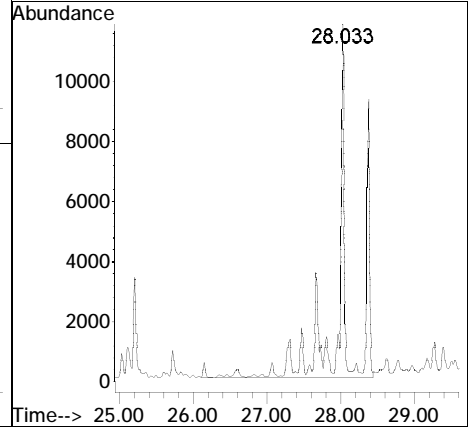
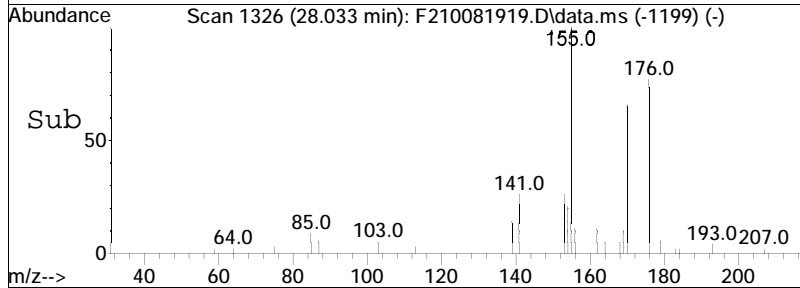
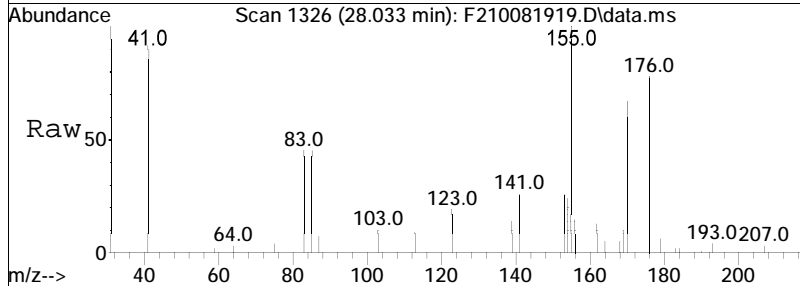


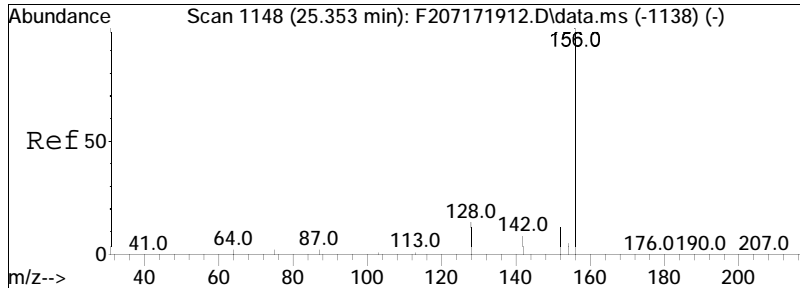
#18
 C2-Benzo(b)thiophenes
 Concen: 285.98 ng/mL M5
 RT: 26.061 min Scan# 1195
 Delta R.T. 0.005 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:162 Resp: 46639



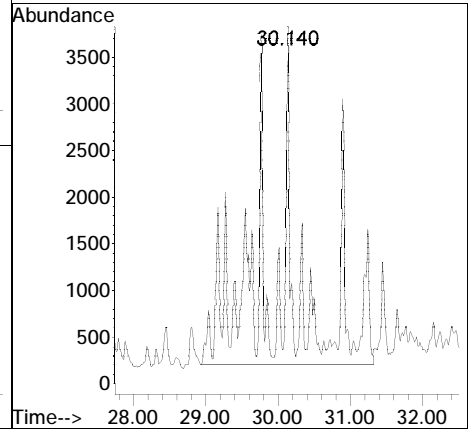
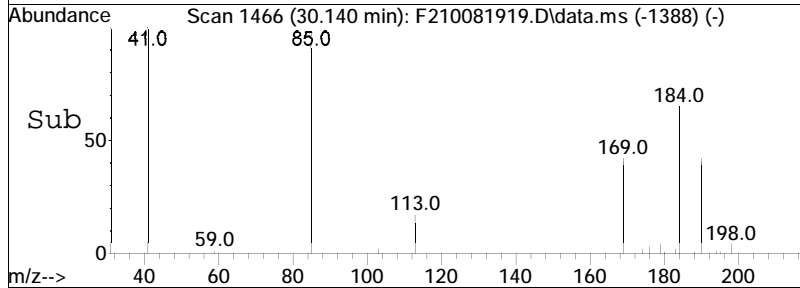
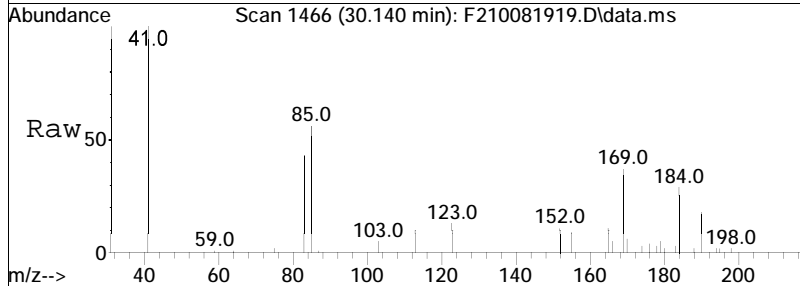


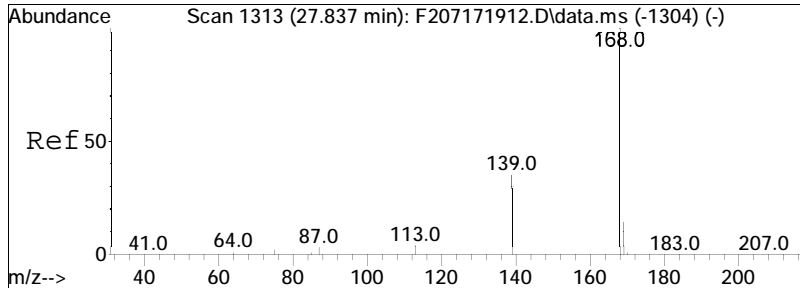
#19
 C3-Benzo(b)thiophenes
 Concen: 577.07 ng/mL M5
 RT: 28.033 min Scan# 1326
 Delta R.T. -0.033 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:176 Resp: 94112



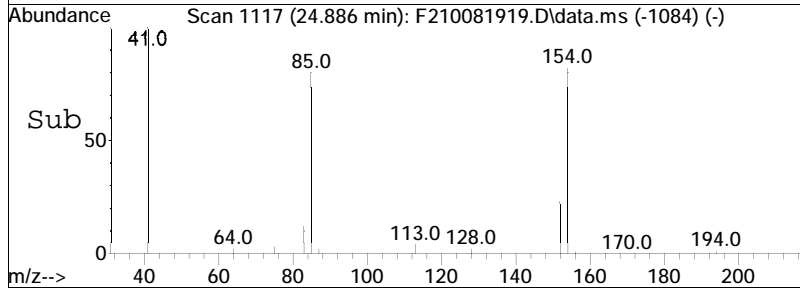
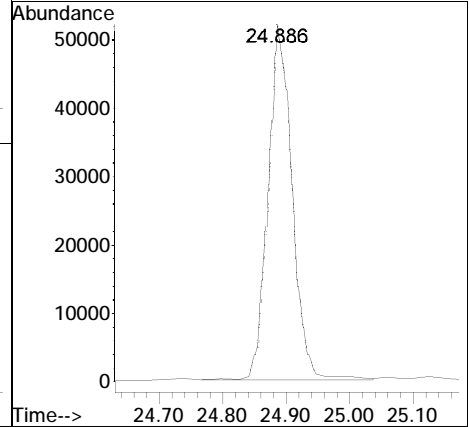
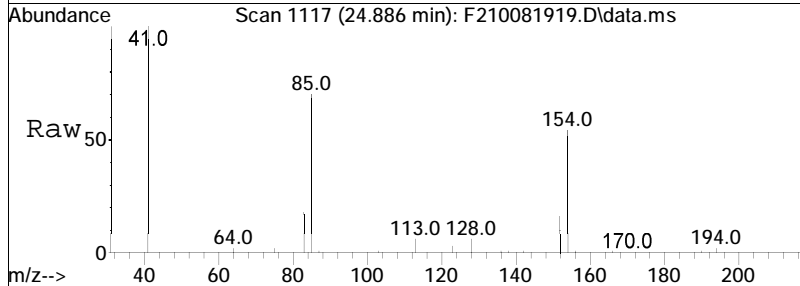


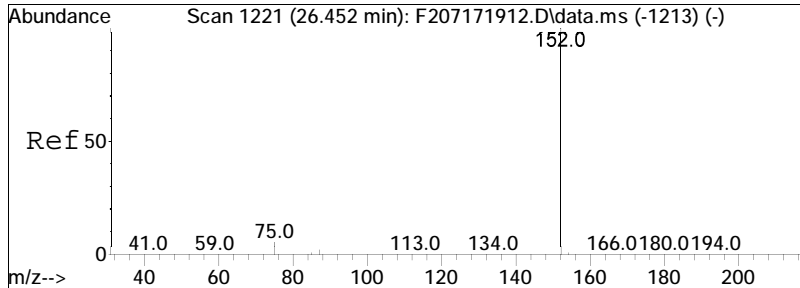
#20
 C4-Benzo(b)thiophenes
 Concen: 533.20 ng/mL M5
 RT: 30.140 min Scan# 1466
 Delta R.T. 0.350 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:190 Resp: 86958



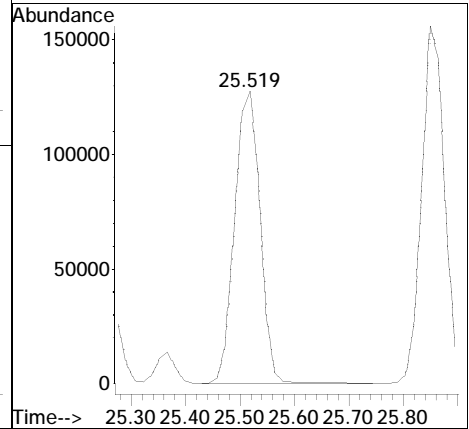
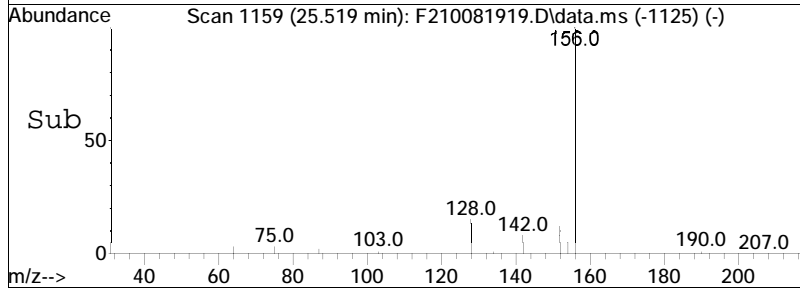
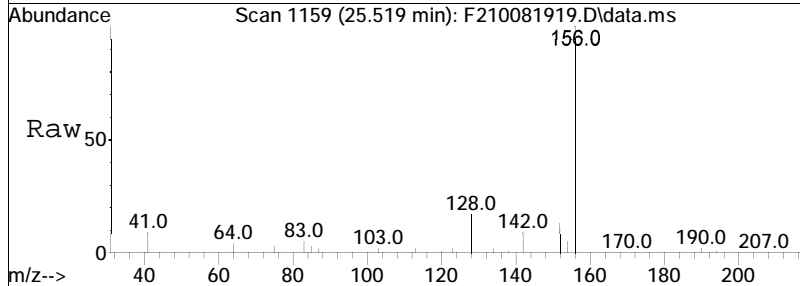


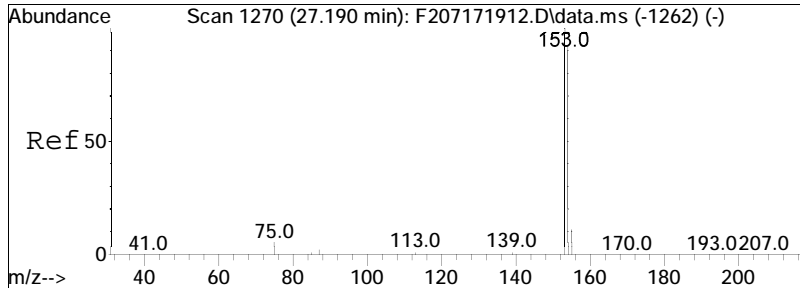
#21
 Biphenyl
 Concen: 797.60 ng/mL
 RT: 24.886 min Scan# 1117
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:154 Resp: 133992





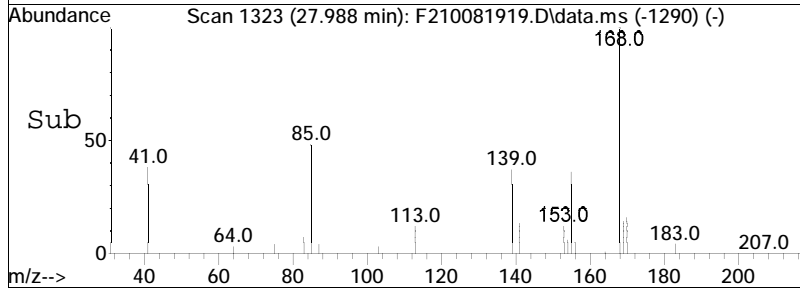
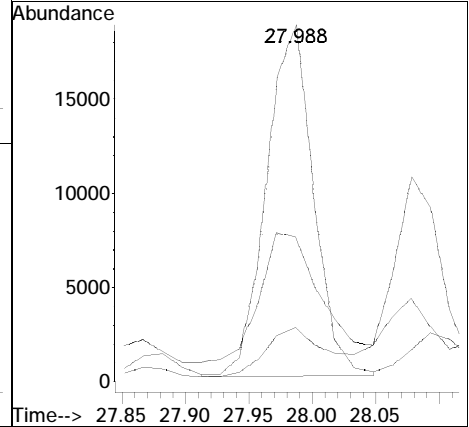
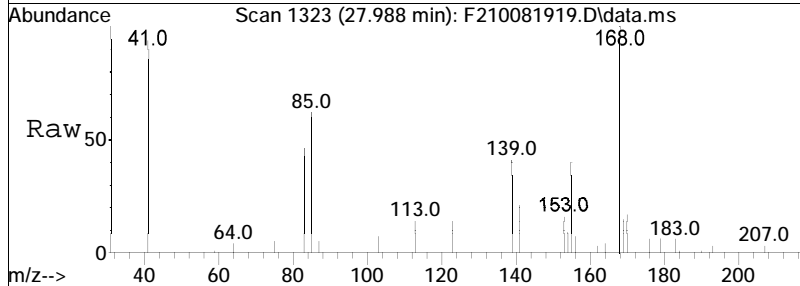
#22
 2,6-Dimethylnaphthalene
 Concen: 3339.94 ng/mL
 RT: 25.519 min Scan# 1159
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:156 Resp: 412525

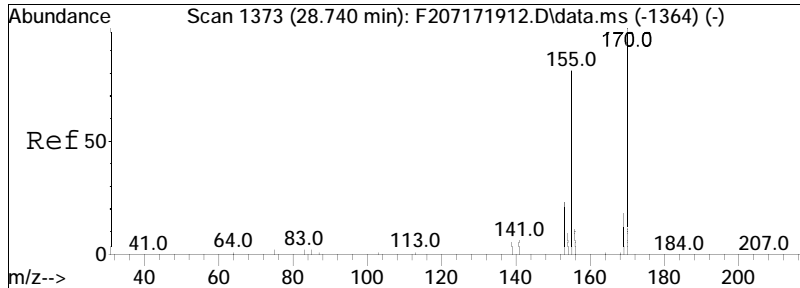




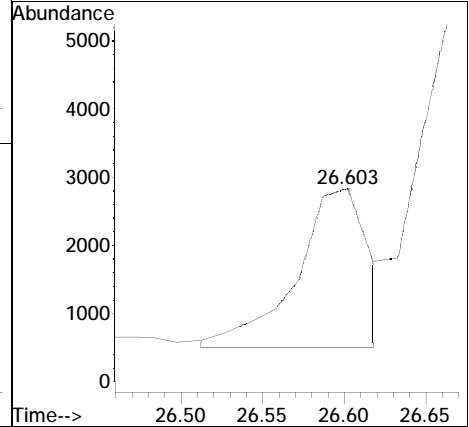
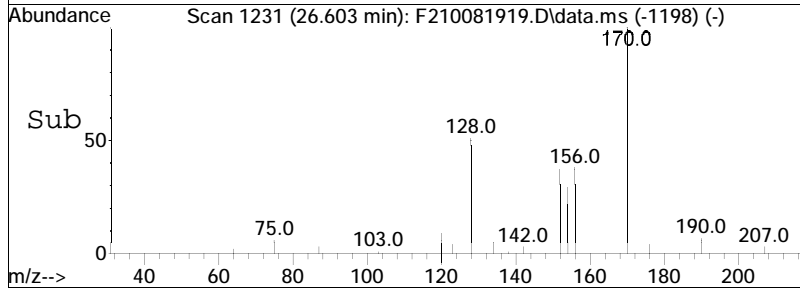
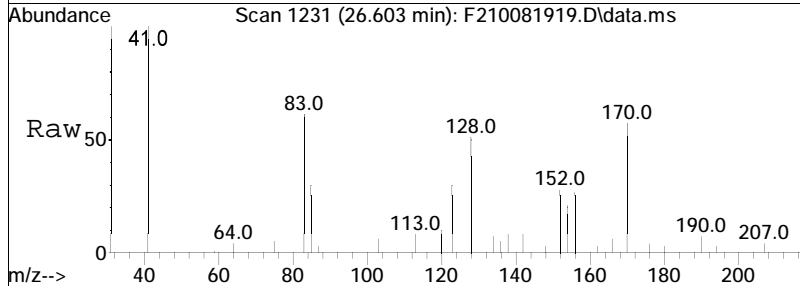
#23
 Dibenzofuran
 Concen: 266.32 ng/mL
 RT: 27.988 min Scan# 1323
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

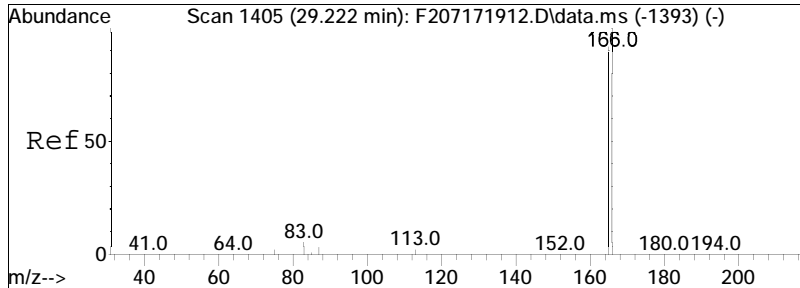
Tgt Ion	Ratio	Lower	Upper
168	100		
139	49.0	20.3	37.7#
169	19.1	9.4	17.6#





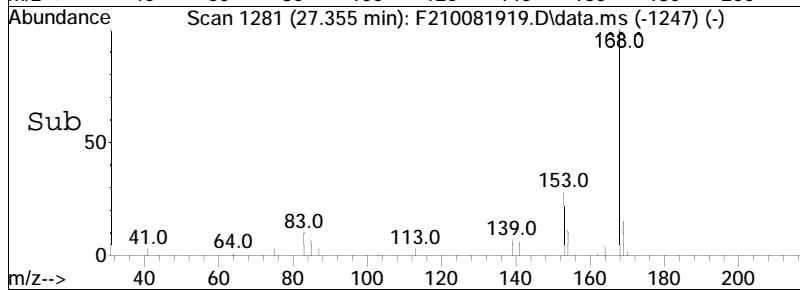
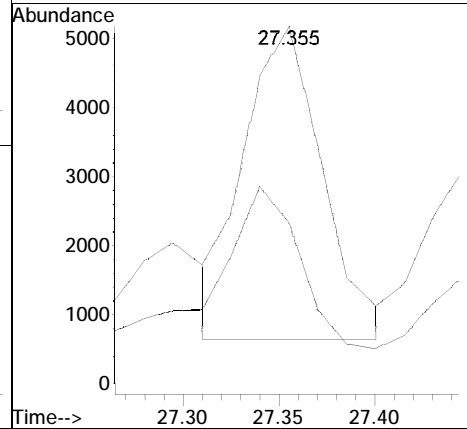
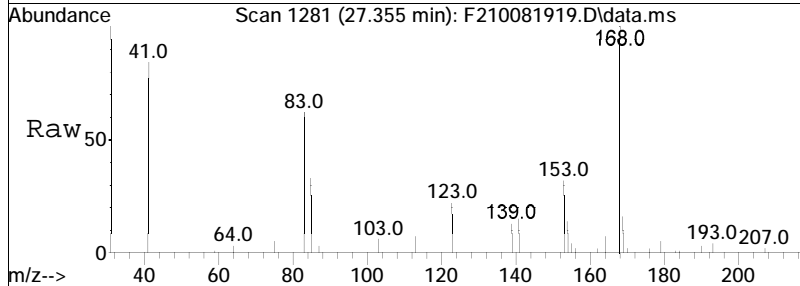
#24
 Acenaphthylene
 Concen: 34.62 ng/mL M4
 RT: 26.603 min Scan# 1231
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:152 Resp: 7133

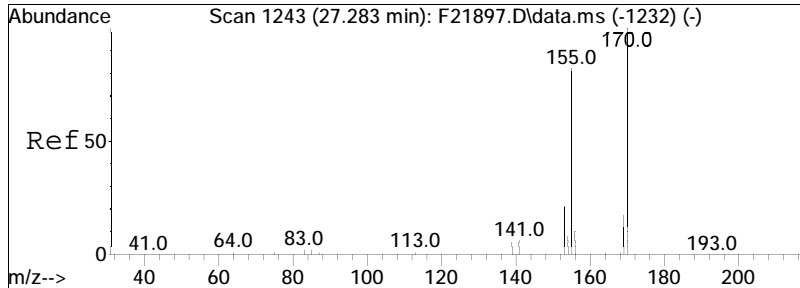




#25
 Acenaphthene
 Concen: 100.78 ng/mL M4
 RT: 27.355 min Scan# 1281
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

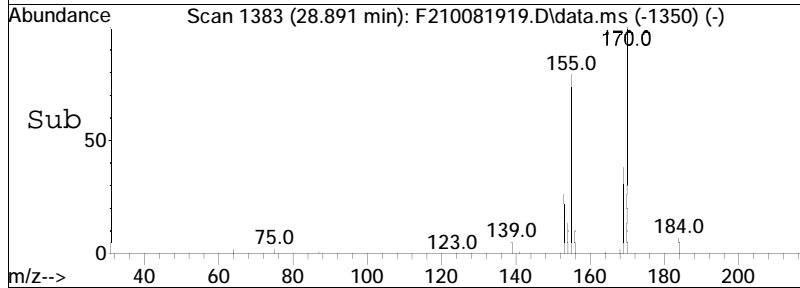
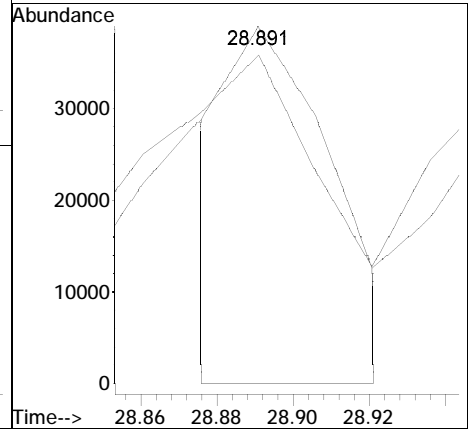
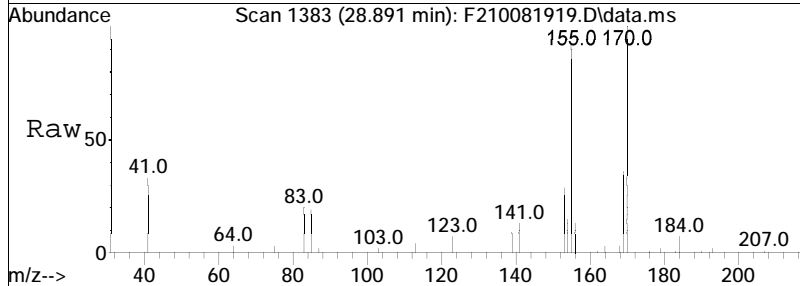
Tgt Ion	Resp	Lower	Upper
153	100		
154	53.5	64.8	120.4#

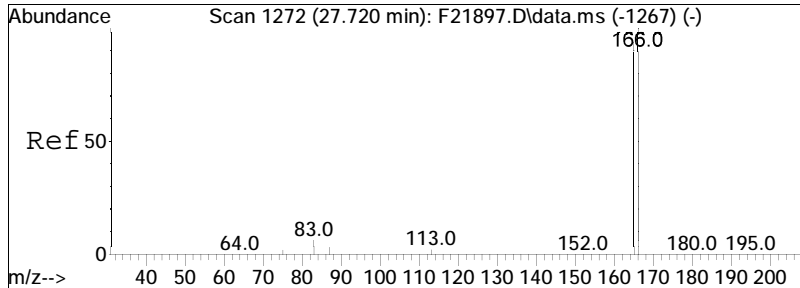




#26
 2,3,5-Trimethylnaphthalene
 Concen: 643.09 ng/mL M3
 RT: 28.891 min Scan# 1383
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

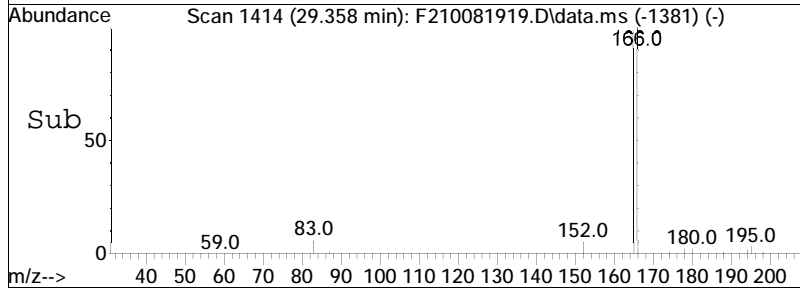
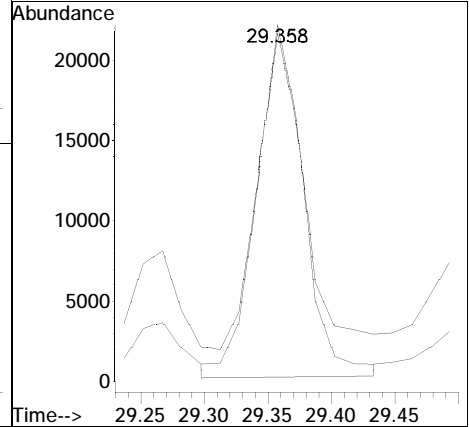
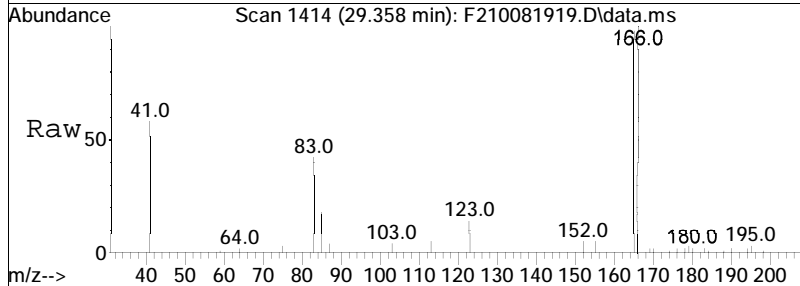
Tgt Ion	Resp	Lower	Upper
170	72558		
155	122.1	53.3	98.9#

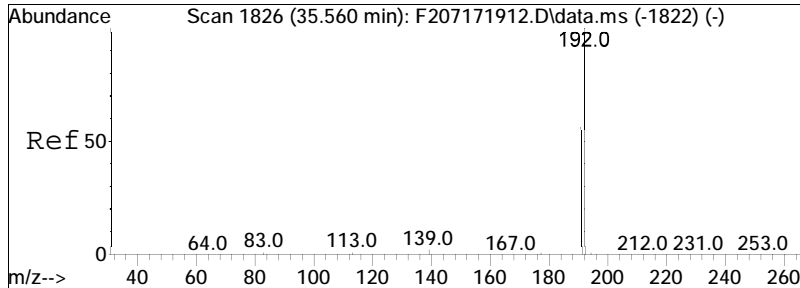




#27
 Fluorene
 Concen: 381.18 ng/mL
 RT: 29.358 min Scan# 1414
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

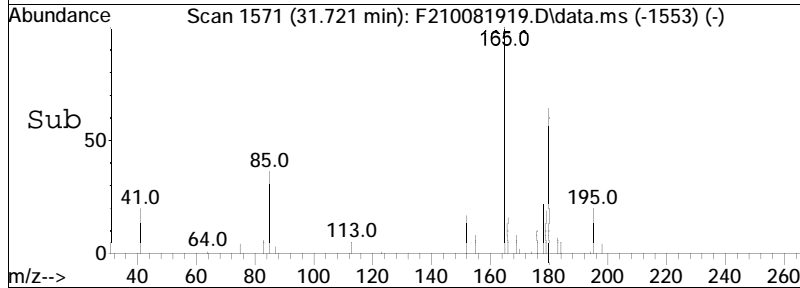
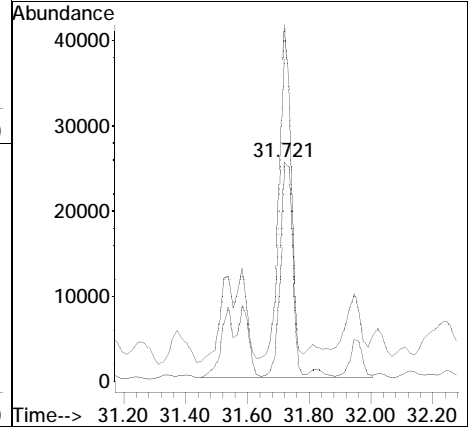
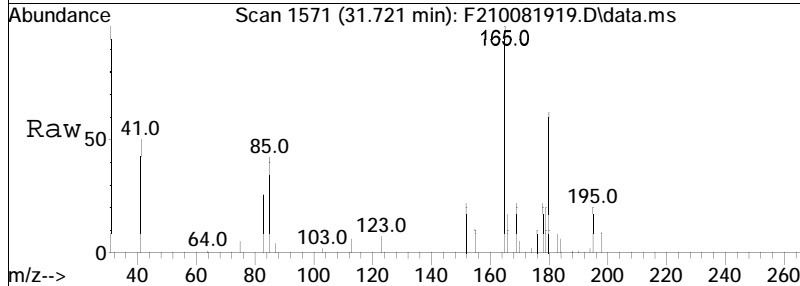
Tgt Ion	Resp	Lower	Upper
166	100		
165	102.6	65.4	121.4

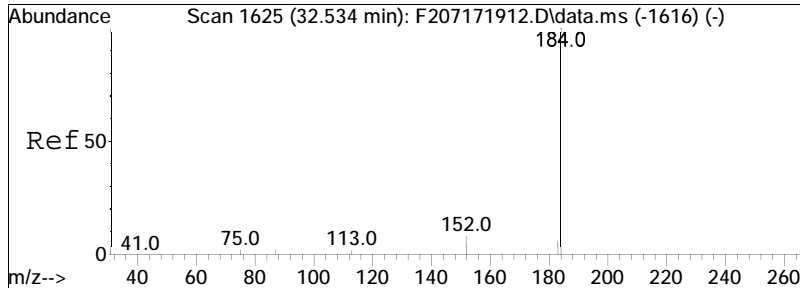




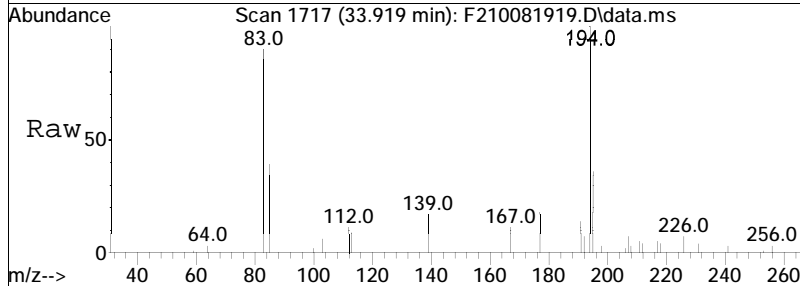
#28
 Cl-Fluorenes
 Concen: 865.23 ng/mL M5
 RT: 31.721 min Scan# 1571
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
165	79.2	108.5	201.5#

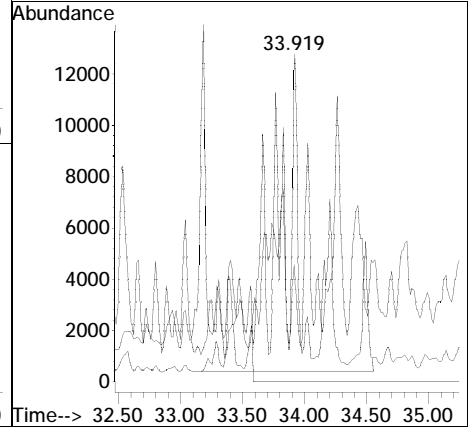
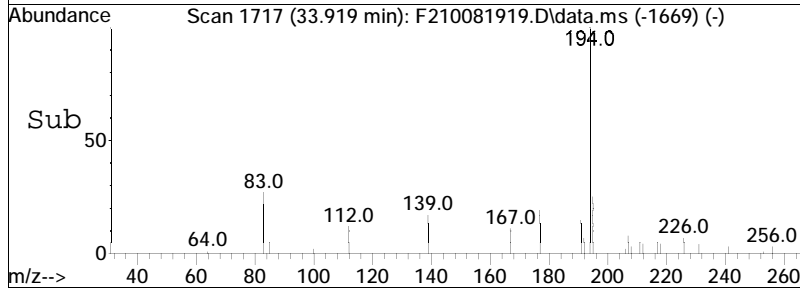


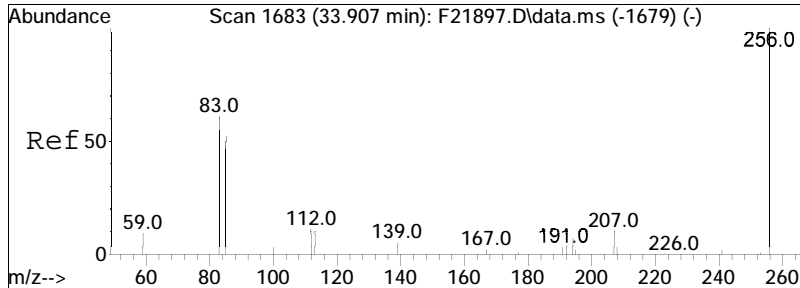


#29
 C2-Fluorenes
 Concen: 1317.89 ng/mL M5
 RT: 33.919 min Scan# 1717
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

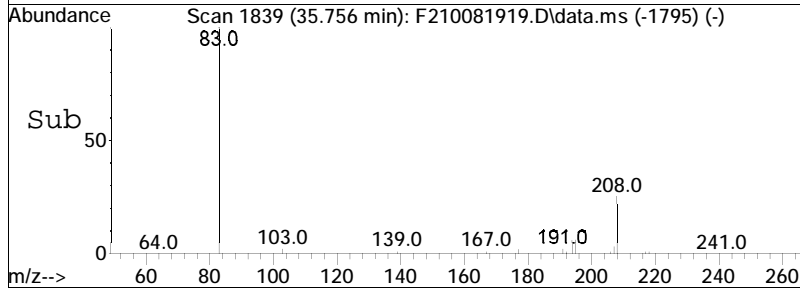
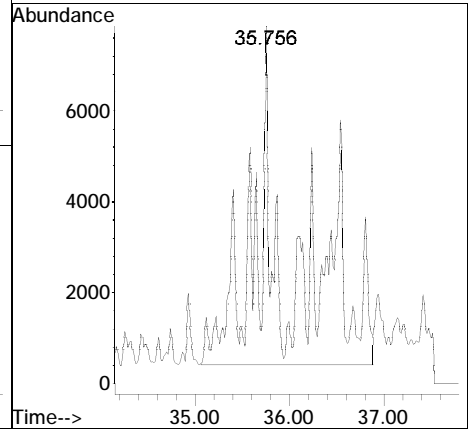
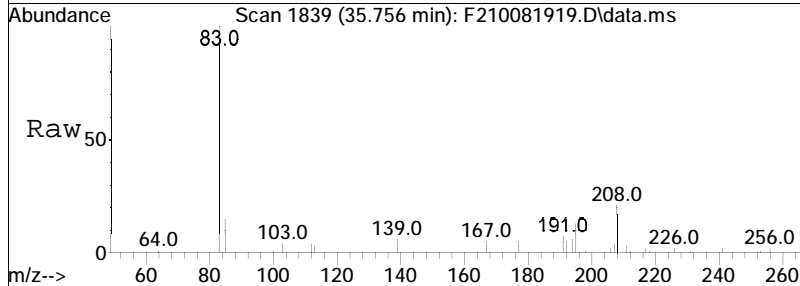


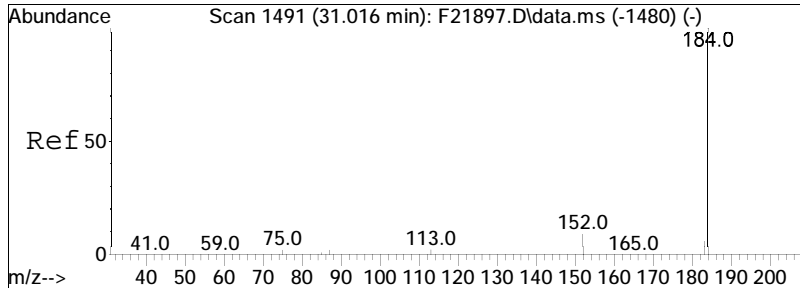
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	4.1	24.1	44.7#





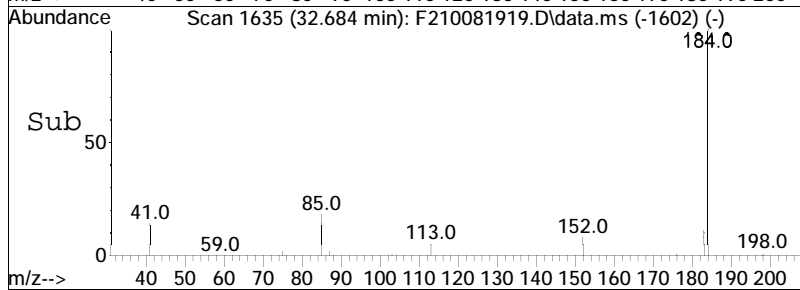
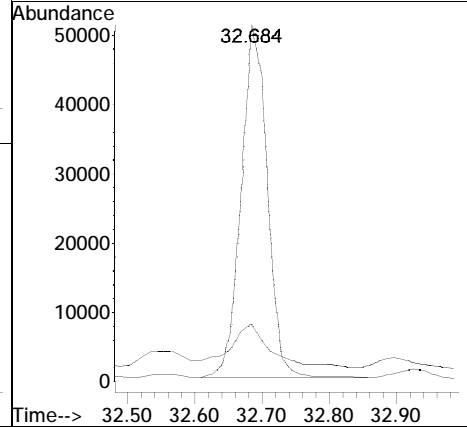
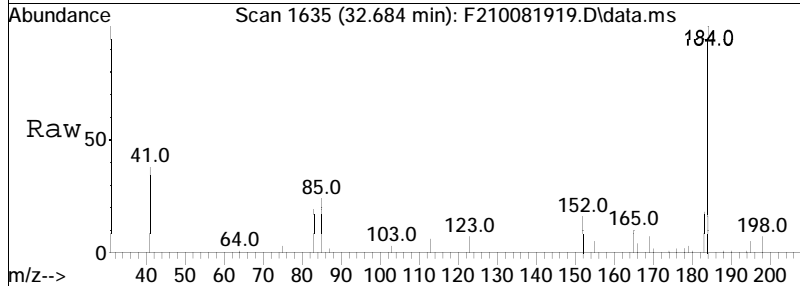
#30
 C3-Fluorenes
 Concen: 1264.56 ng/mL M5
 RT: 35.756 min Scan# 1839
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 208 Resp: 184265

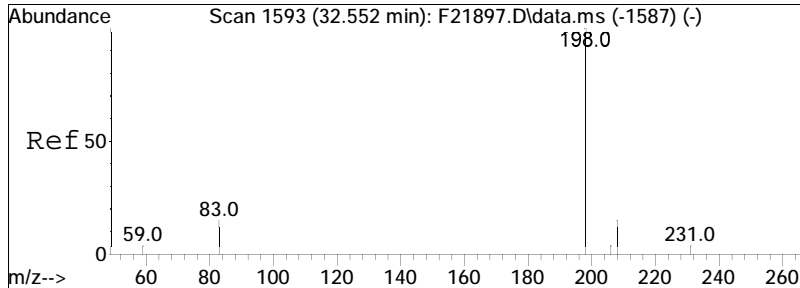




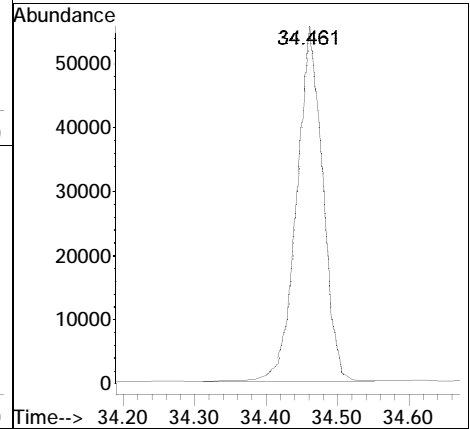
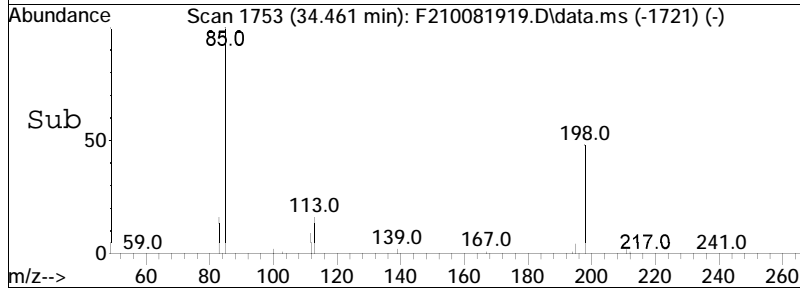
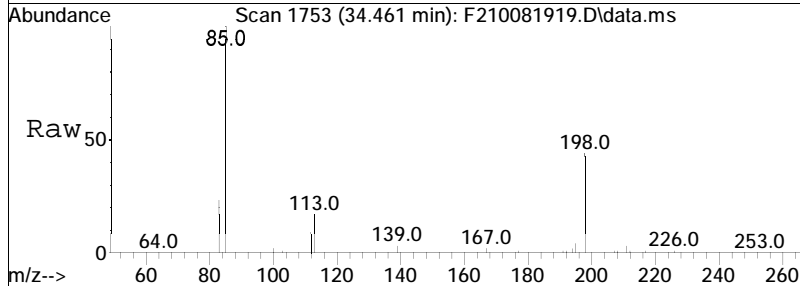
#31
 Dibenzothiophene
 Concen: 690.31 ng/mL
 RT: 32.684 min Scan# 1635
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

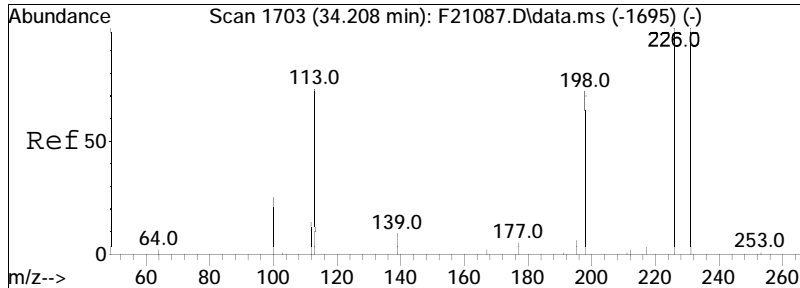
Tgt Ion	Resp	Lower	Upper
184	100		
152	19.4	4.9	9.1#



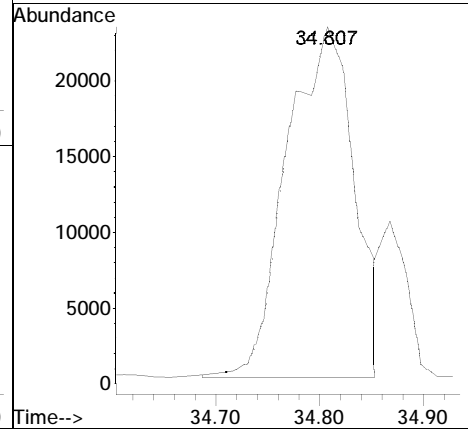
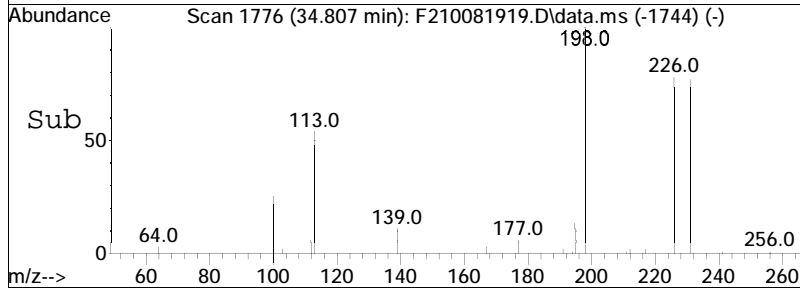
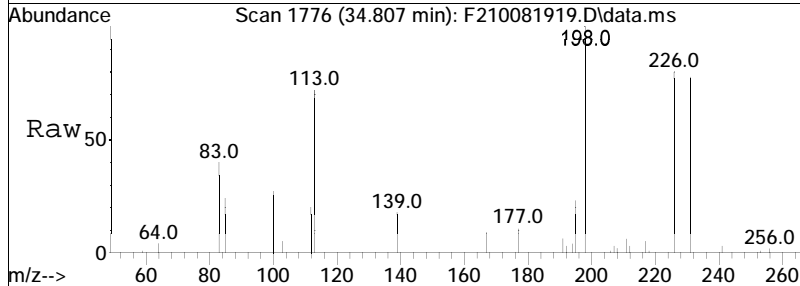


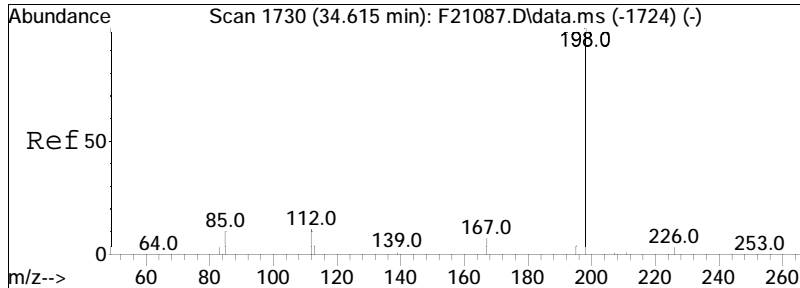
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 700.69 ng/mL
 RT: 34.461 min Scan# 1753
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 198 Resp: 138286



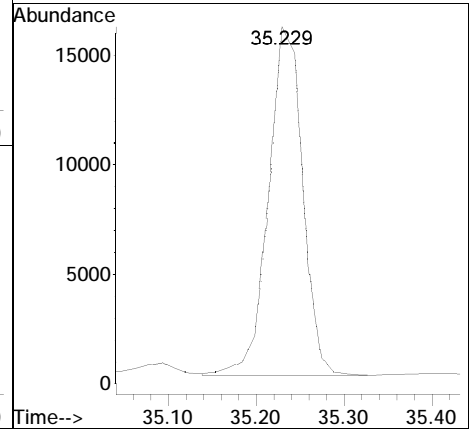
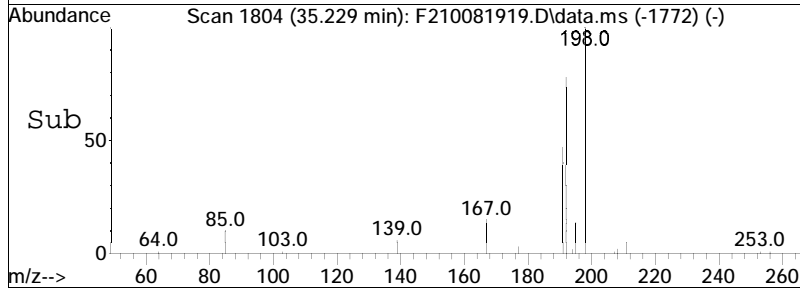
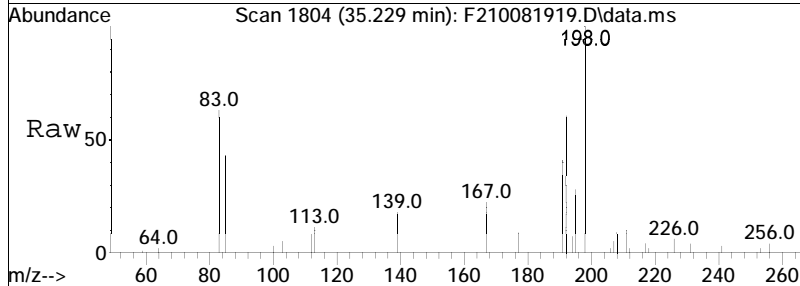


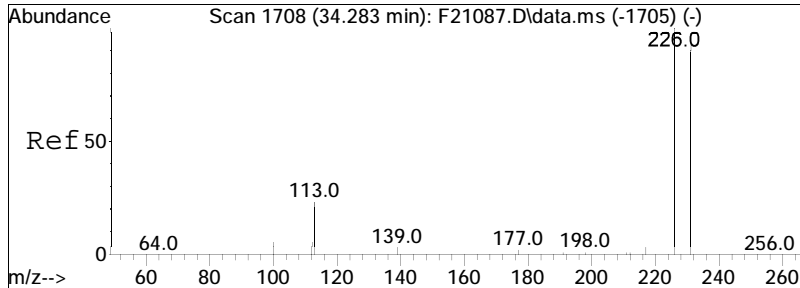
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 534.35 ng/mL M3
 RT: 34.807 min Scan# 1776
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:198 Resp: 105458



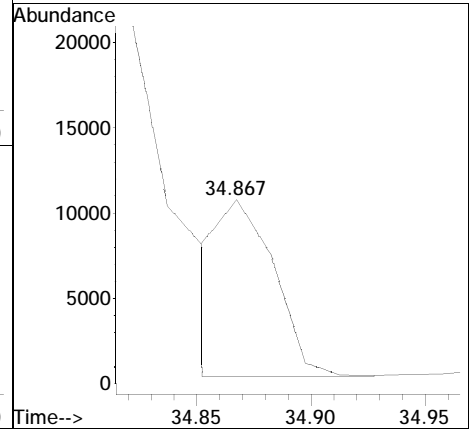
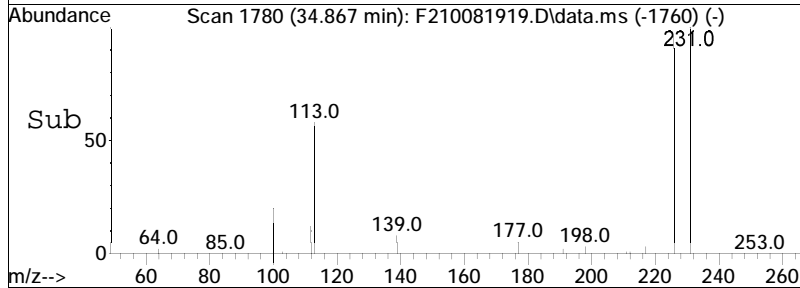
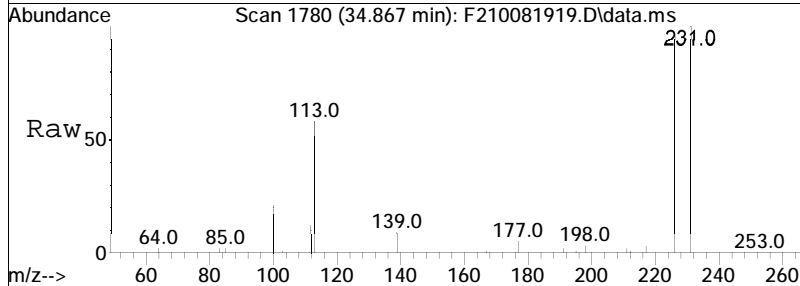


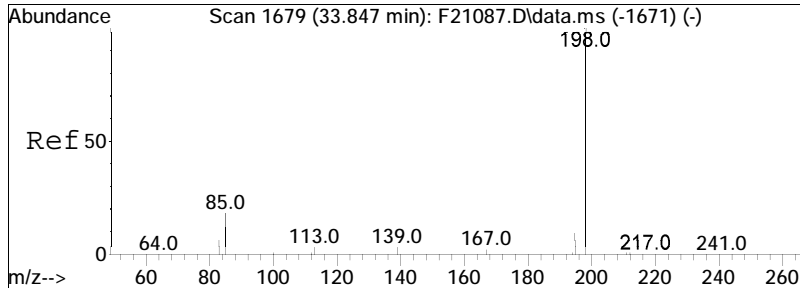
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 216.12 ng/mL
 RT: 35.229 min Scan# 1804
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:198 Resp: 42653



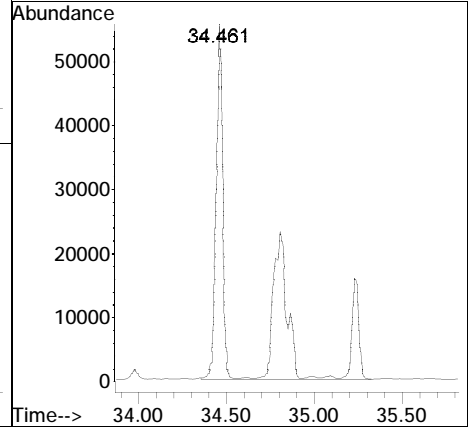
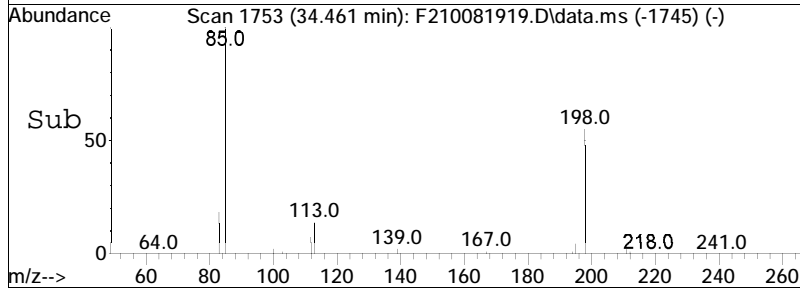
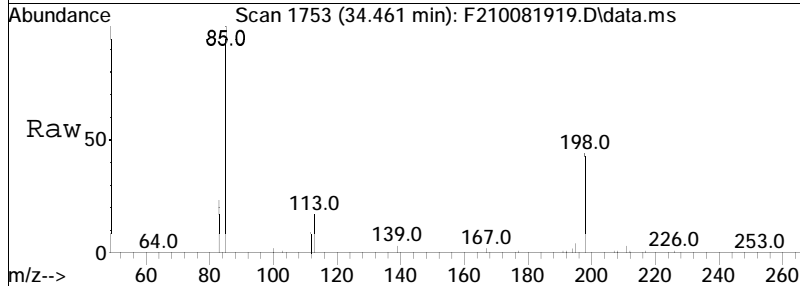


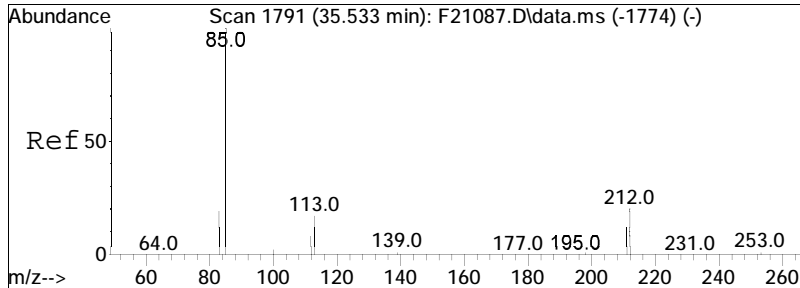
#35
 OTP
 Concen: 84.50 ng/mL M3
 RT: 34.867 min Scan# 1780
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:198 Resp: 16677



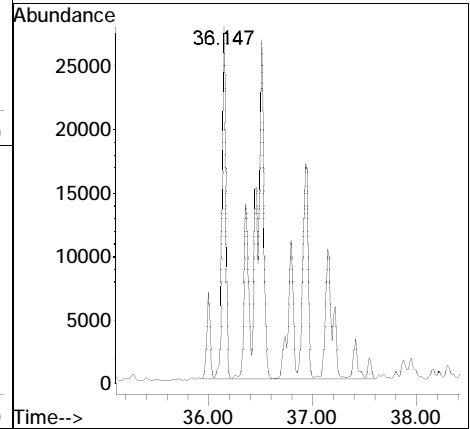
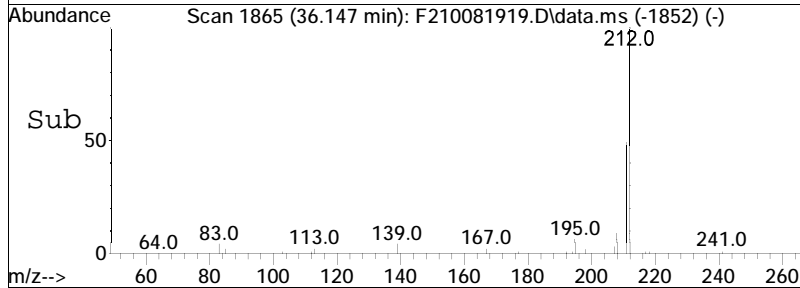
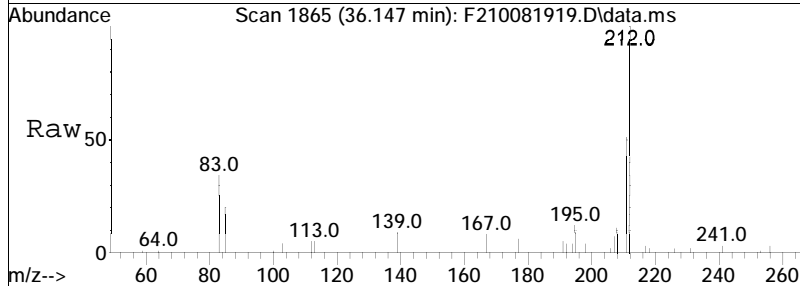


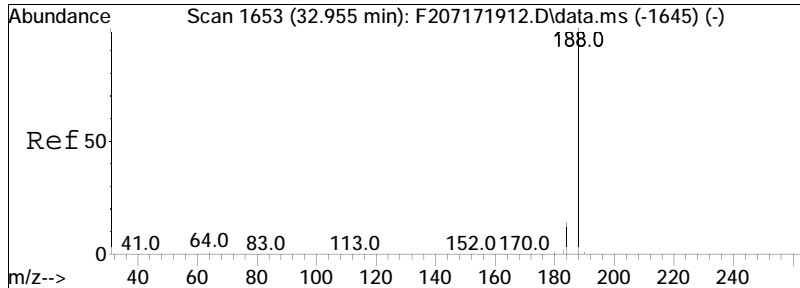
#36
 Cl-Dibenzothiophenes
 Concen: 1560.82 ng/mL M5
 RT: 34.461 min Scan# 1753
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:198 Resp: 308039





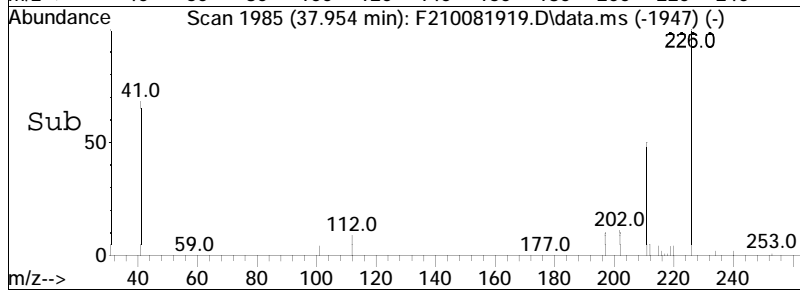
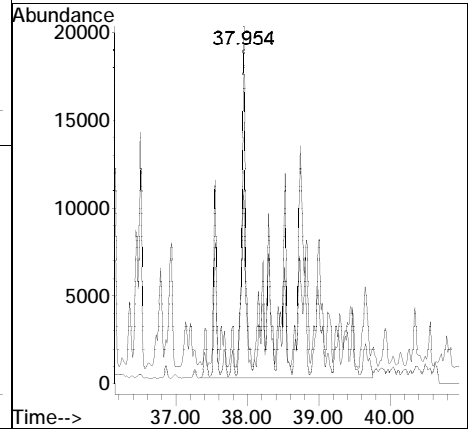
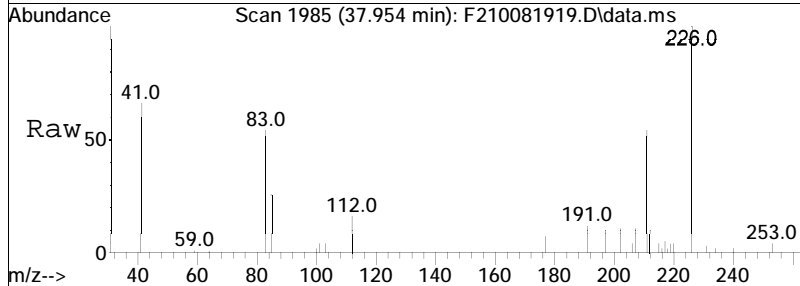
#37
 C2-Dibenzothiophenes
 Concen: 2013.24 ng/mL M5
 RT: 36.147 min Scan# 1865
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:212 Resp: 397327

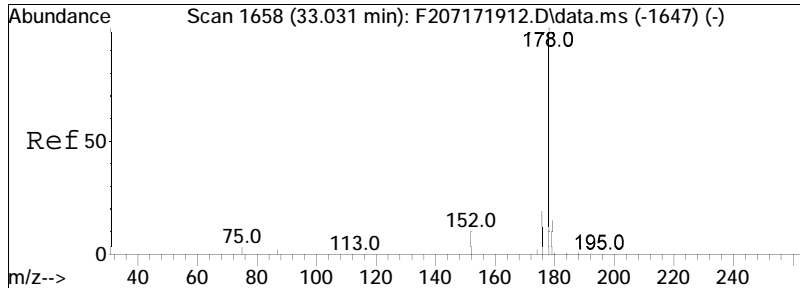




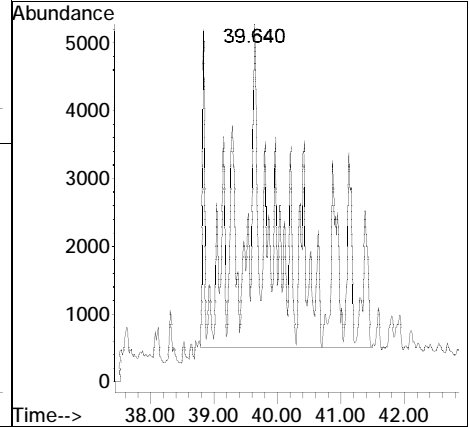
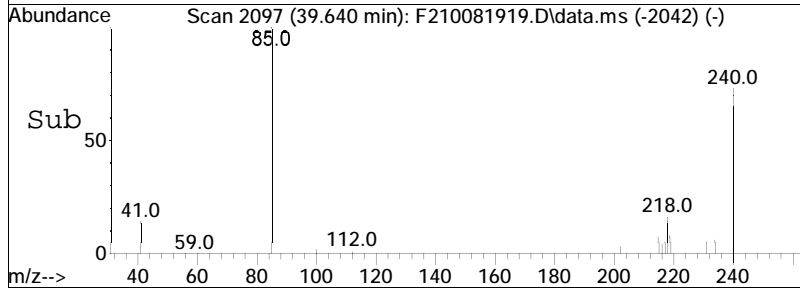
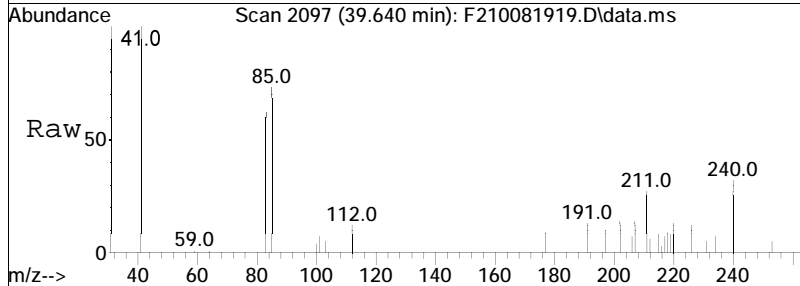
#38
 C3-Dibenzothiophenes
 Concen: 1860.38 ng/mL M5
 RT: 37.954 min Scan# 1985
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

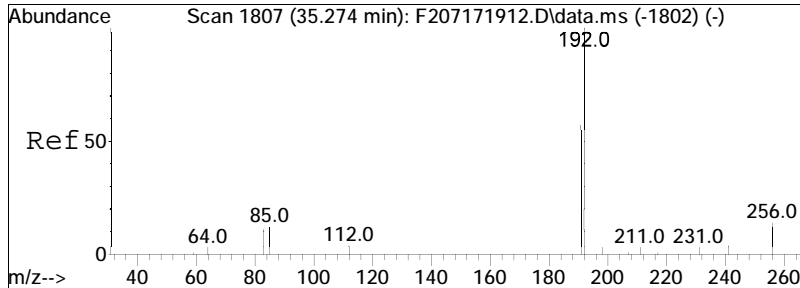
Tgt Ion: 226 Resp: 367159
 Ion Ratio Lower Upper
 226 100
 211 12.6 38.1 70.7#





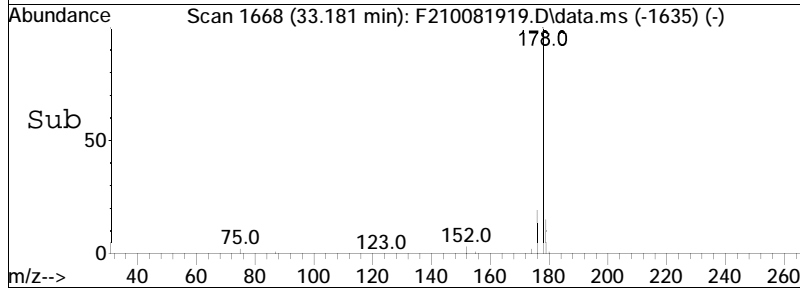
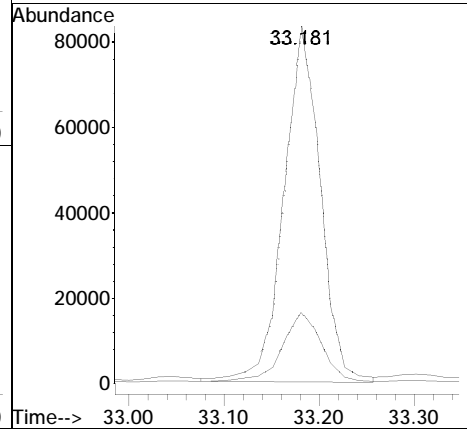
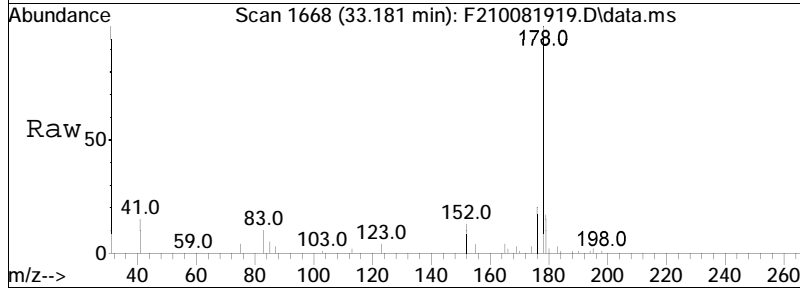
#39
 C4-Dibenzothiophenes
 Concen: 1034.34 ng/mL M5
 RT: 39.640 min Scan# 2097
 Delta R.T. 0.783 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:240 Resp: 204135

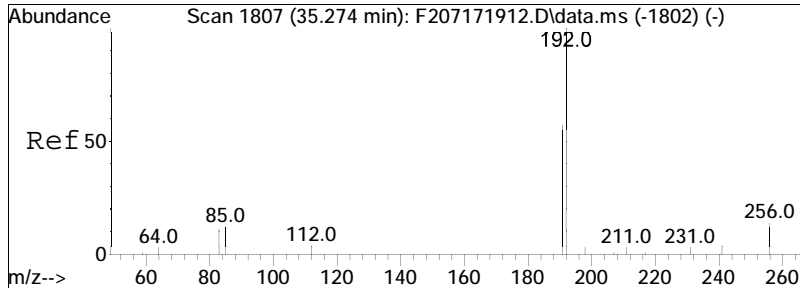




#41
 Phenanthrene
 Concen: 1042.22 ng/mL
 RT: 33.181 min Scan# 1668
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

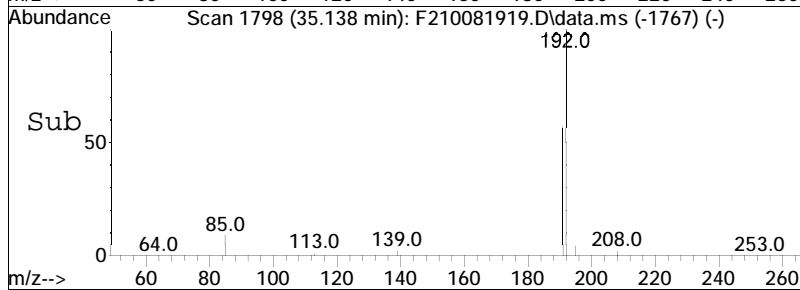
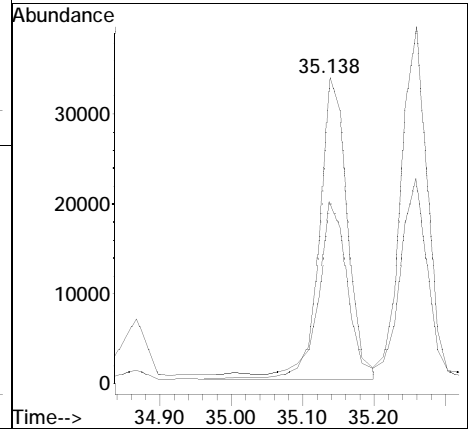
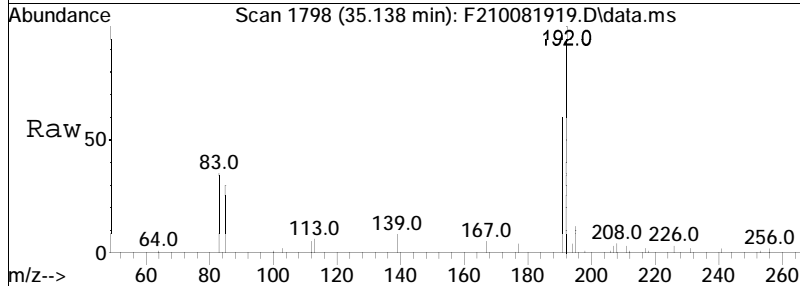
Tgt Ion	Resp	Lower	Upper
178	100		
176	20.7	13.3	24.7

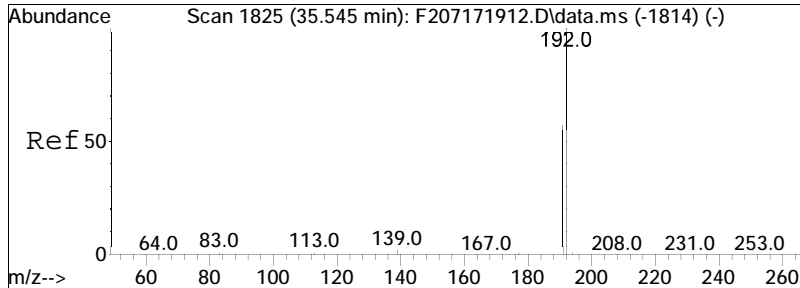




#42
 3-Methylphenanthrene (3MP)
 Concen: 429.11 ng/mL
 RT: 35.138 min Scan# 1798
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

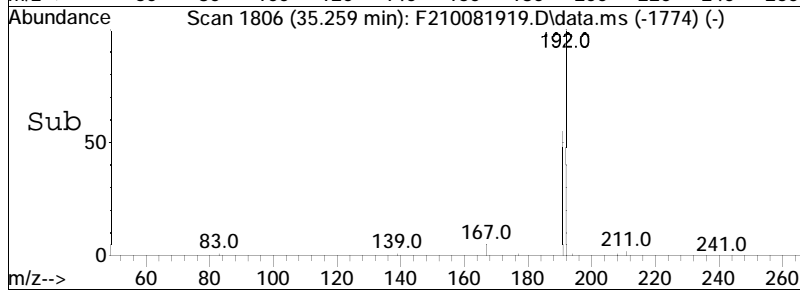
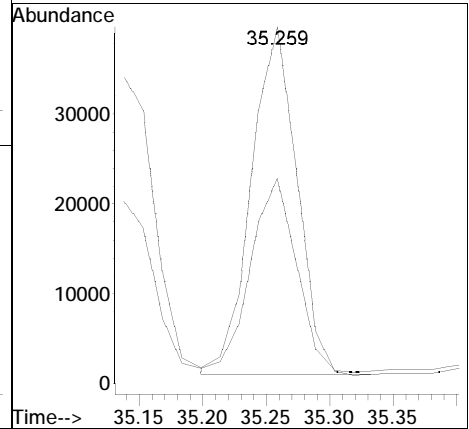
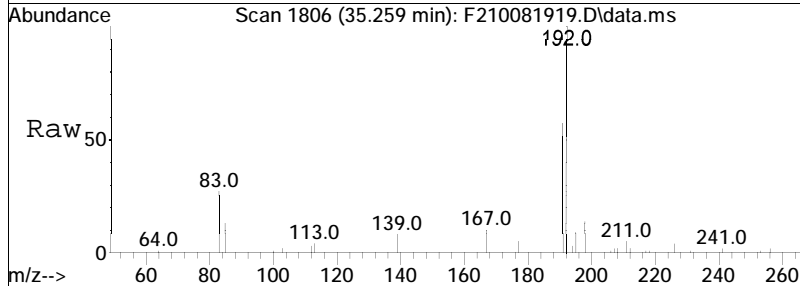
Tgt Ion	Resp	Lower	Upper
192	100		
191	57.3	40.4	75.0

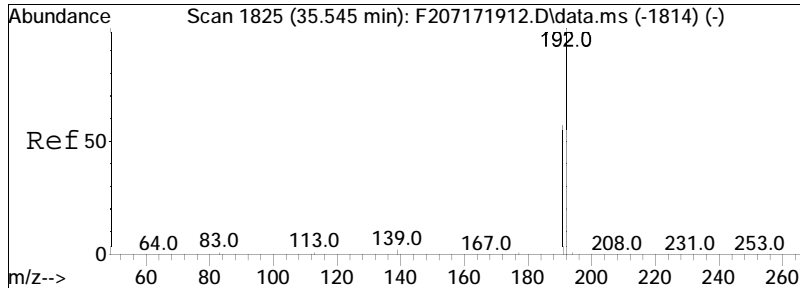




#43
 2-Methylphenanthrene (2MP)
 Concen: 457.73 ng/mL
 RT: 35.259 min Scan# 1806
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

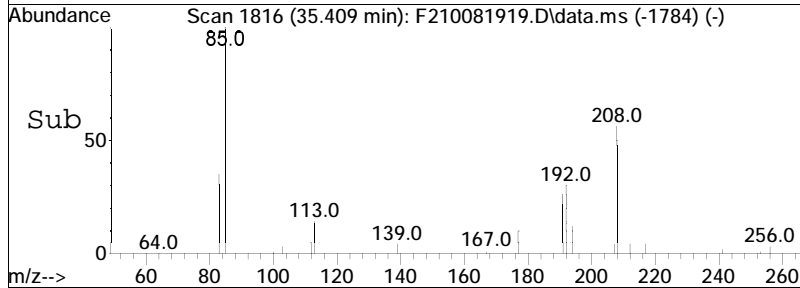
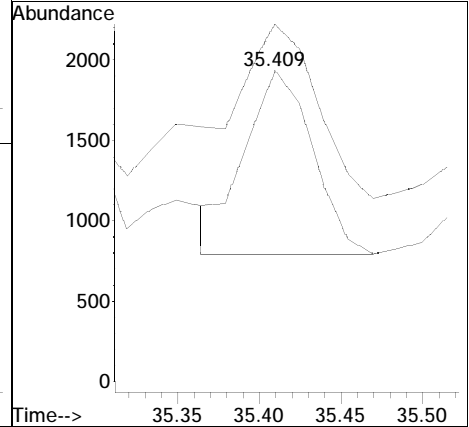
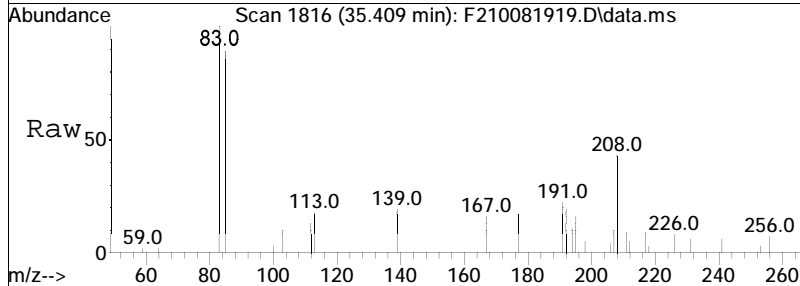
Tgt Ion	Resp	Lower	Upper
192	100		
191	56.0	40.3	74.8

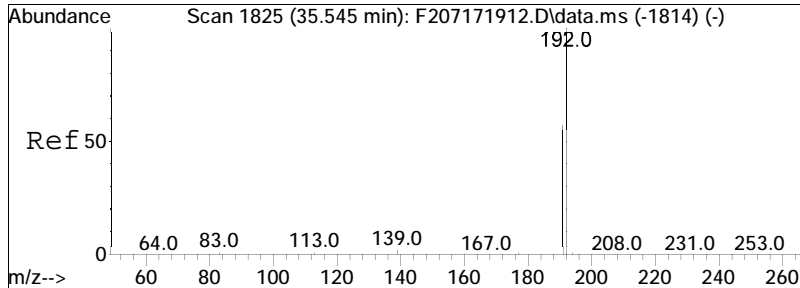




#44
 2-Methylantracene(2MA)
 Concen: 15.72 ng/mL
 RT: 35.409 min Scan# 1816
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

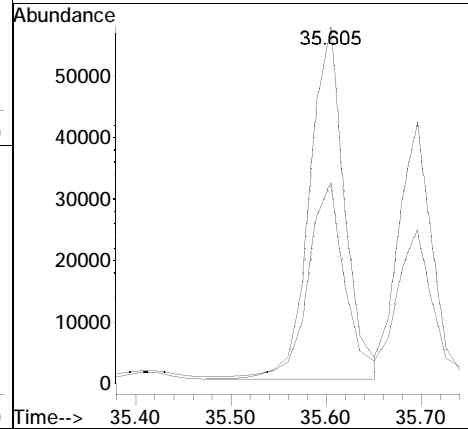
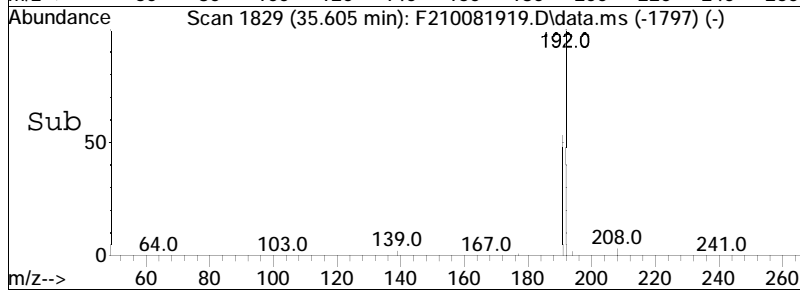
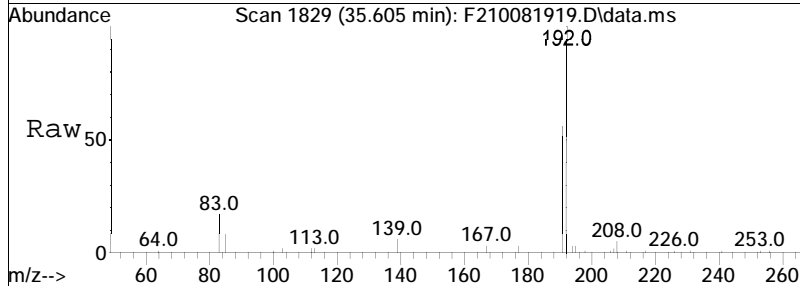
Tgt Ion	Resp	Lower	Upper
192	100		
191	139.5	86.3	160.3

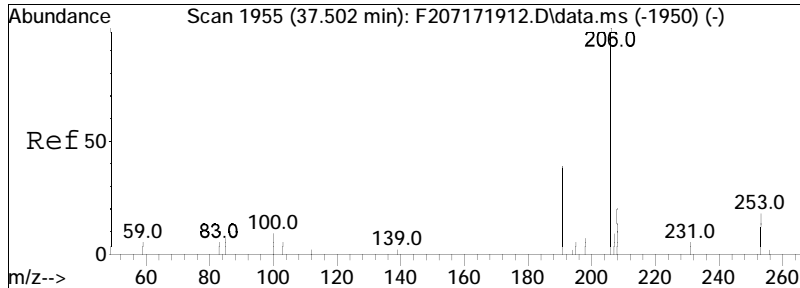




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 692.03 ng/mL
 RT: 35.605 min Scan# 1829
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

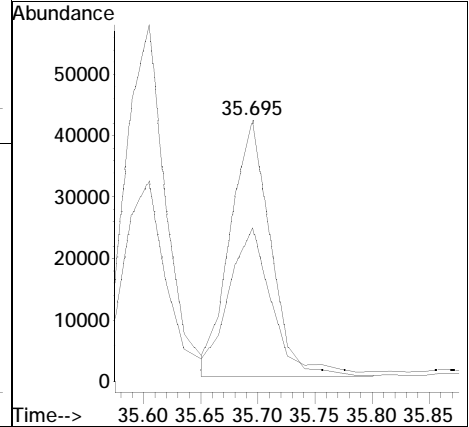
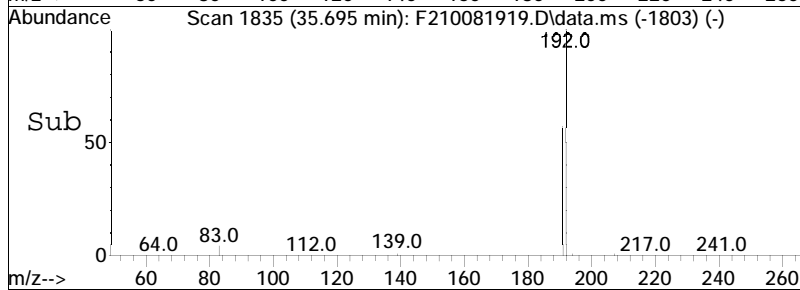
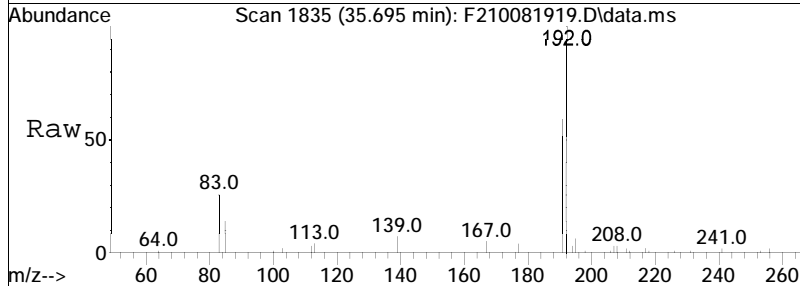
Tgt Ion	Resp	Lower	Upper
192	100		
191	57.3	39.8	74.0

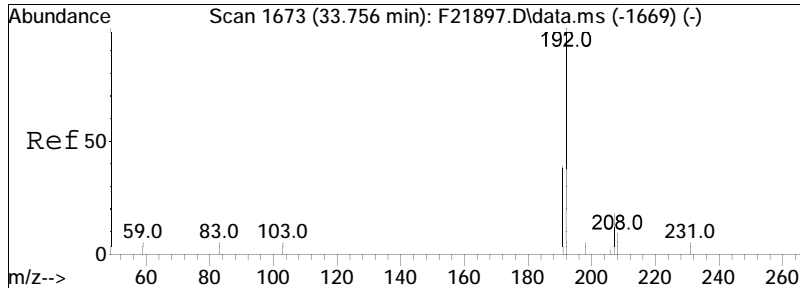




#46
 1-Methylphenanthrene (1MP)
 Concen: 480.80 ng/mL
 RT: 35.695 min Scan# 1835
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

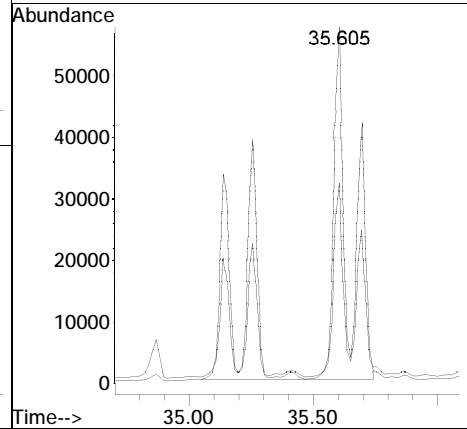
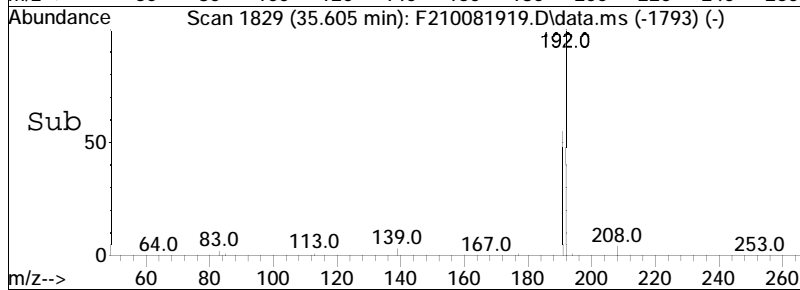
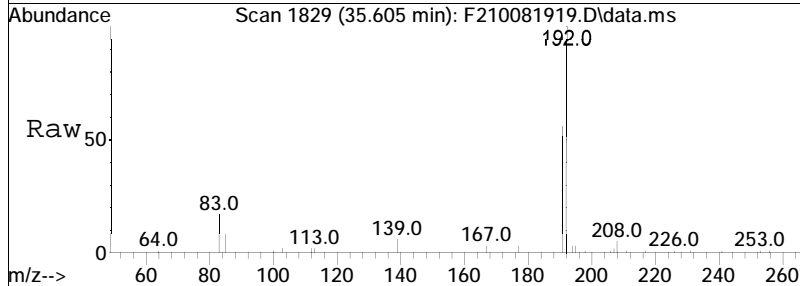
Tgt Ion: 192 Resp: 100937
 Ion Ratio Lower Upper
 192 100
 191 60.2 41.4 77.0

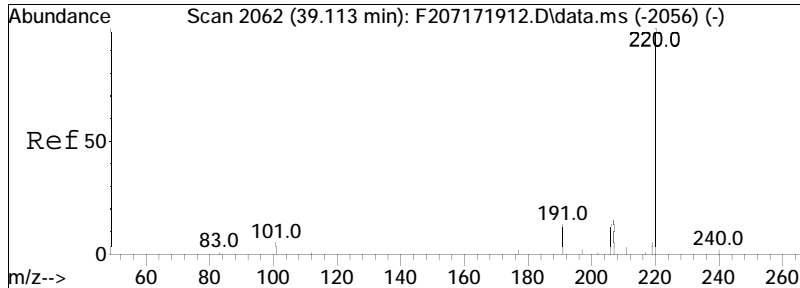




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 2090.58 ng/mL M5
 RT: 35.605 min Scan# 1829
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

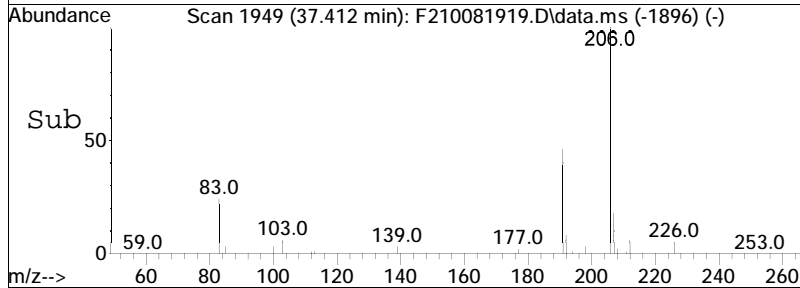
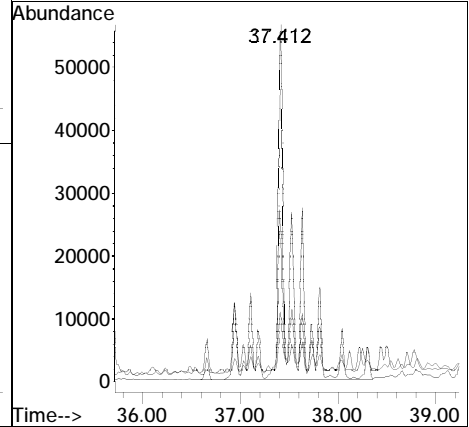
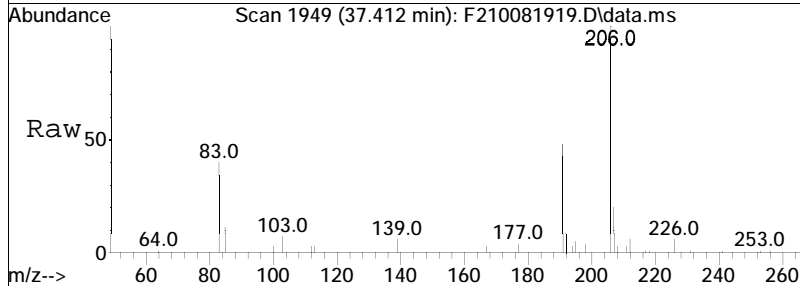
Tgt Ion: 192 Resp: 438889
 Ion Ratio Lower Upper
 192 100
 191 19.0 39.8 74.0#

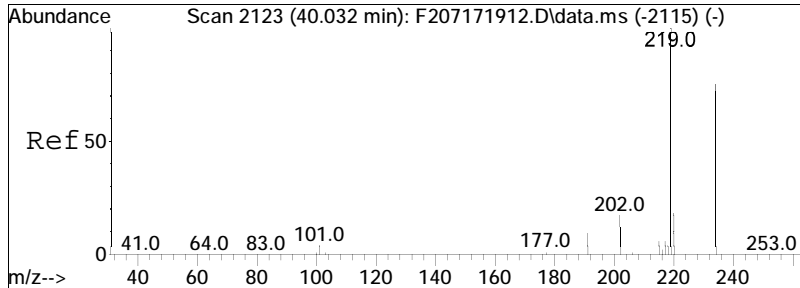




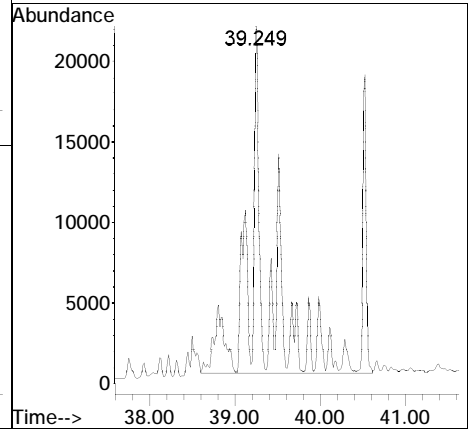
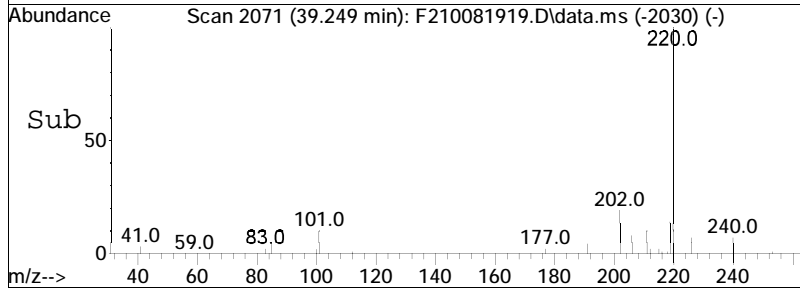
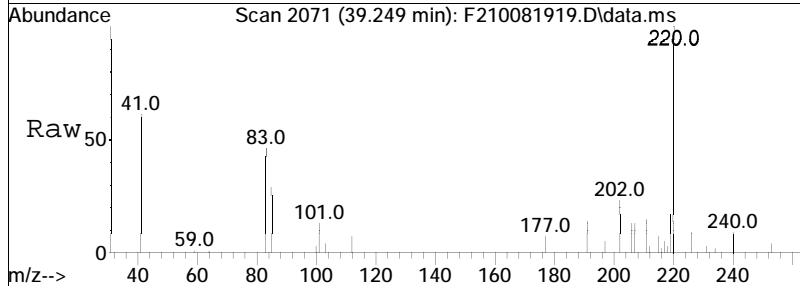
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 2442.78 ng/mL M5
 RT: 37.412 min Scan# 1949
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

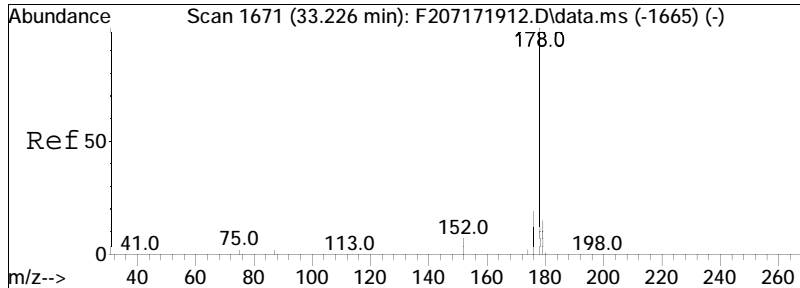
Tgt Ion	Ratio	Lower	Upper
206	100		
191	15.2	35.0	65.0#
207	5.8	13.5	25.1#





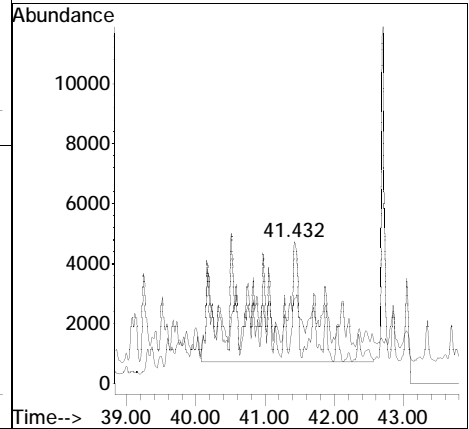
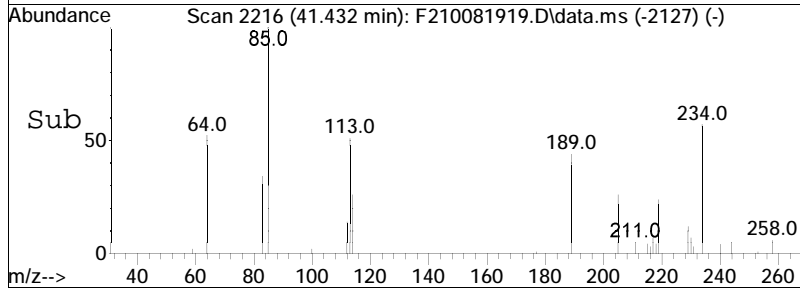
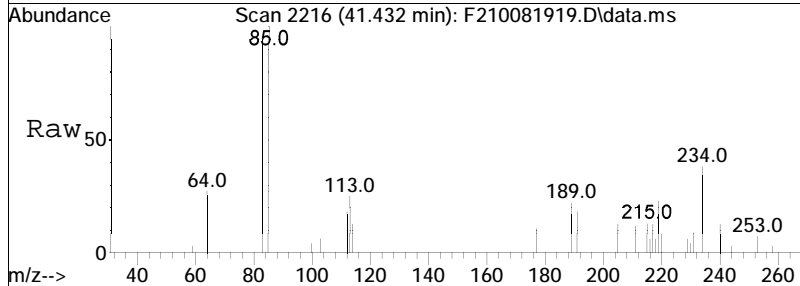
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1692.27 ng/mL M5
 RT: 39.249 min Scan# 2071
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:220 Resp: 355269

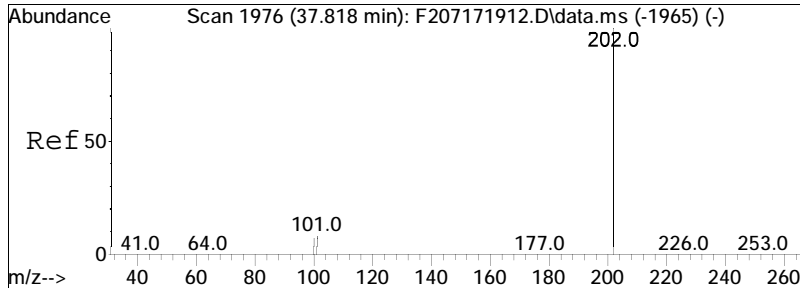




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 700.19 ng/mL M5
 RT: 41.432 min Scan# 2216
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

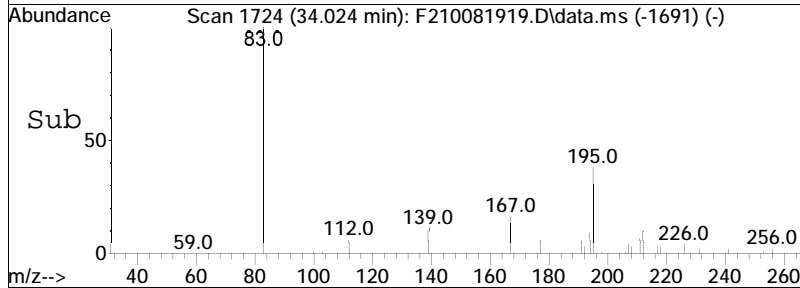
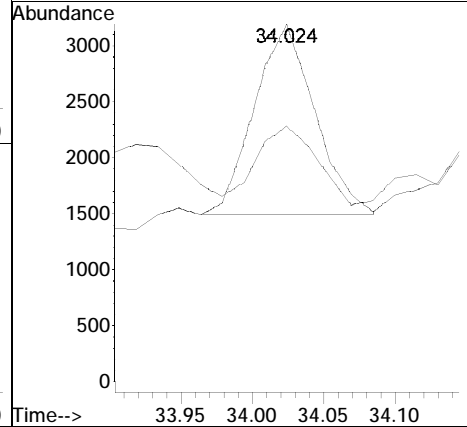
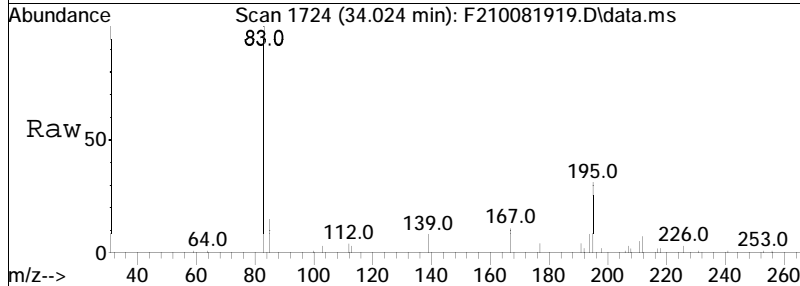
Tgt Ion	Resp	Lower	Upper
234	146996		
234	100		
219	2.3	43.8	81.4#

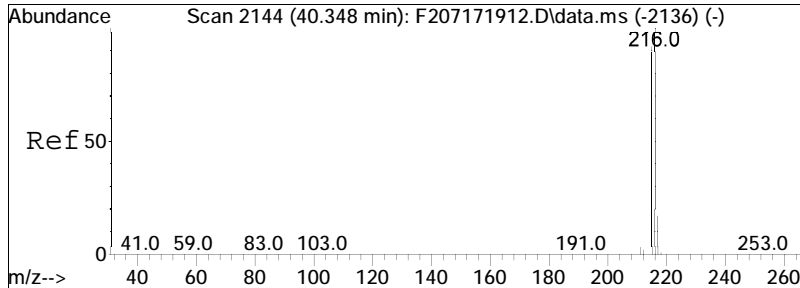




#54
 Carbazole
 Concen: 30.13 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

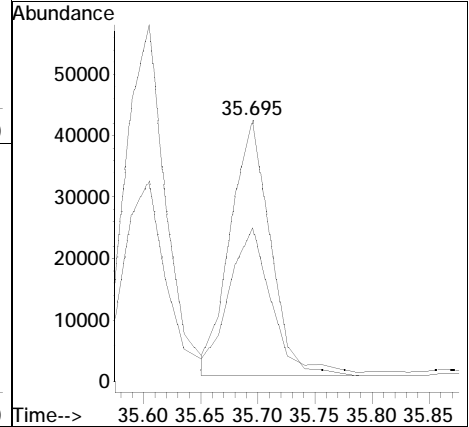
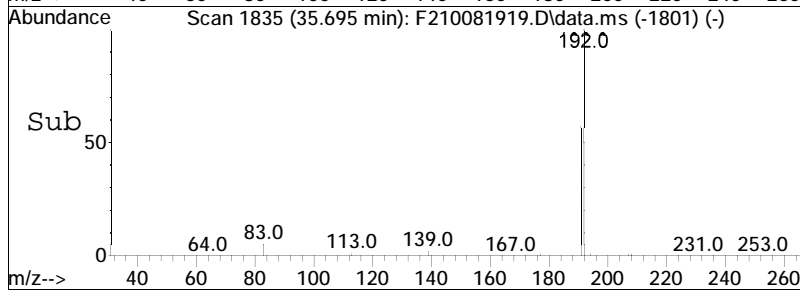
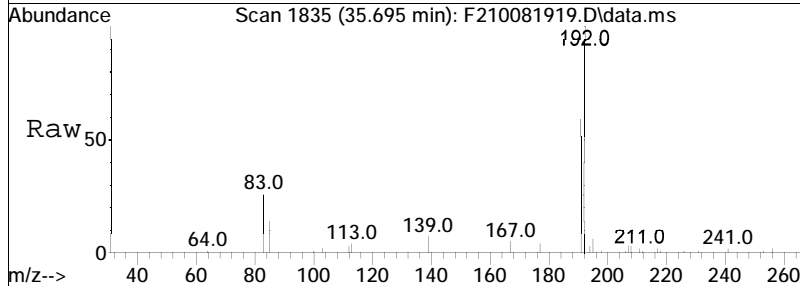
Tgt Ion: 167 Resp: 5045
 Ion Ratio Lower Upper
 167 100
 139 40.1 8.3 15.3#

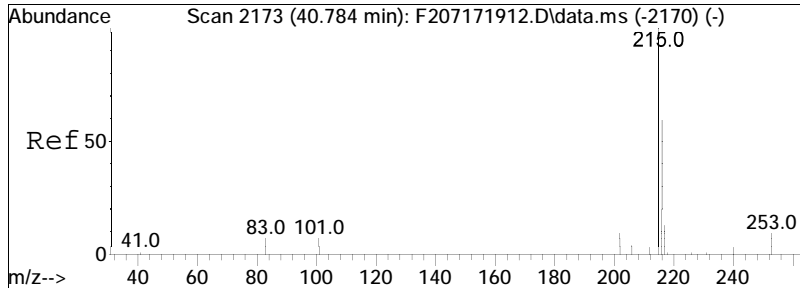




#55
 1-Methylphenanthrene
 Concen: 632.94 ng/mL
 RT: 35.695 min Scan# 1835
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

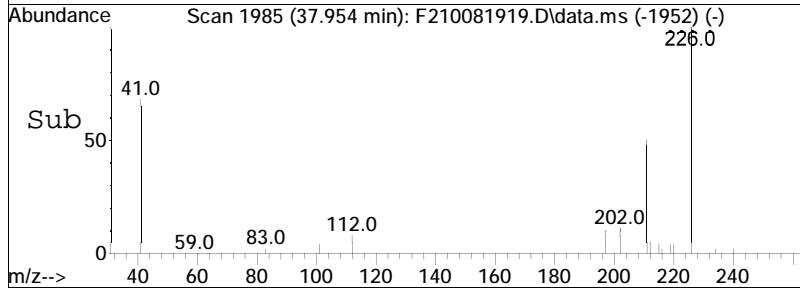
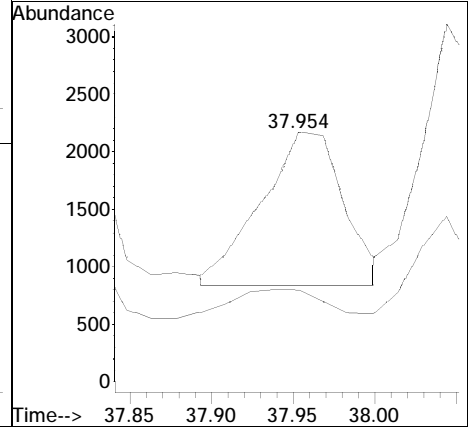
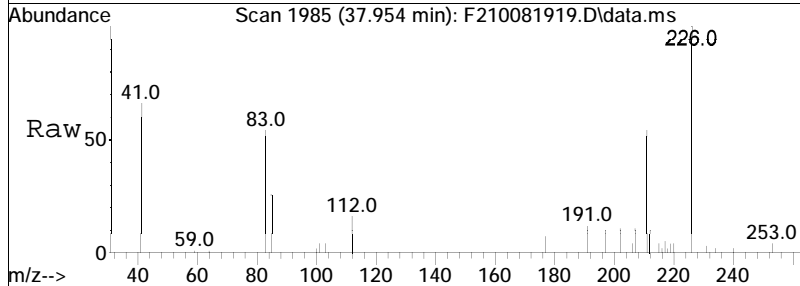
Tgt Ion	Resp	Lower	Upper
192	99509		
191	58.4	39.9	74.1

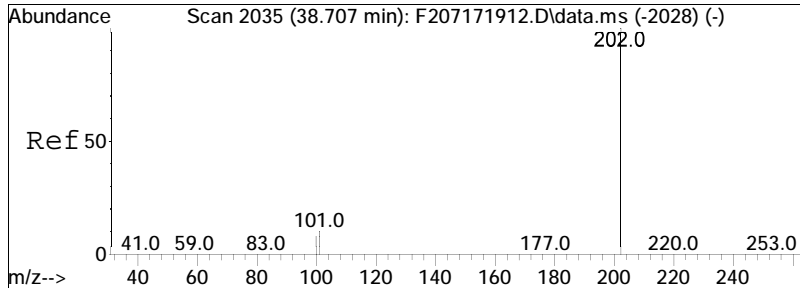




#56
 Fluoranthene
 Concen: 19.60 ng/mL M4
 RT: 37.954 min Scan# 1985
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

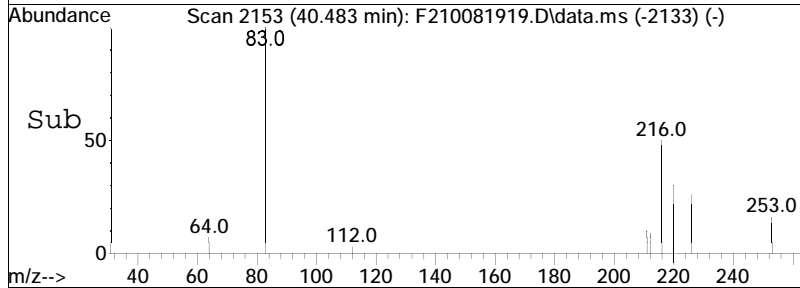
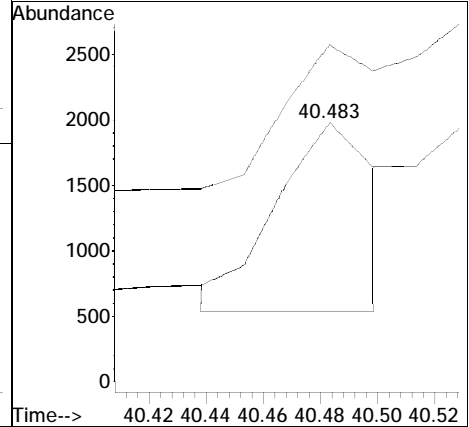
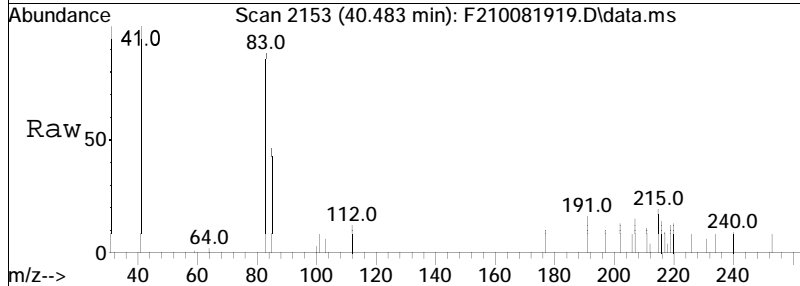
Tgt Ion: 202 Resp: 4692
 Ion Ratio Lower Upper
 202 100
 101 30.8 5.5 10.3#

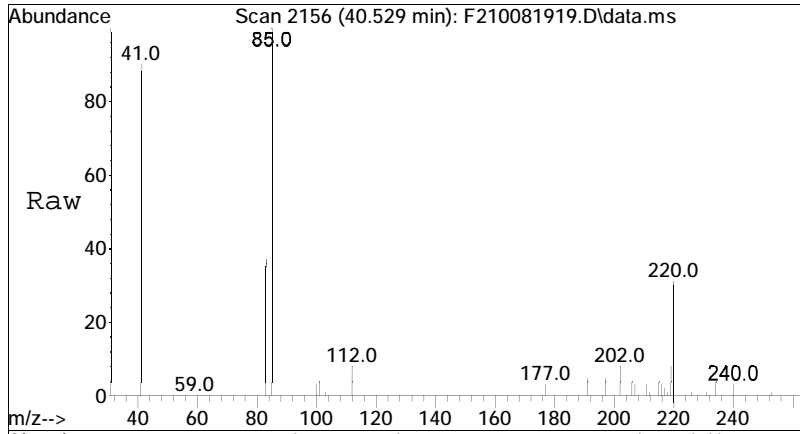




#57
 Benzo(b)fluorene
 Concen: 23.20 ng/mL M3
 RT: 40.483 min Scan# 2153
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

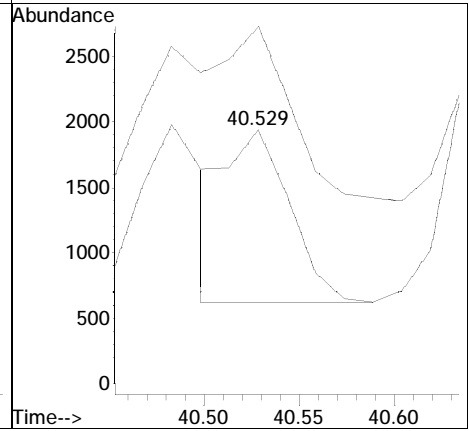
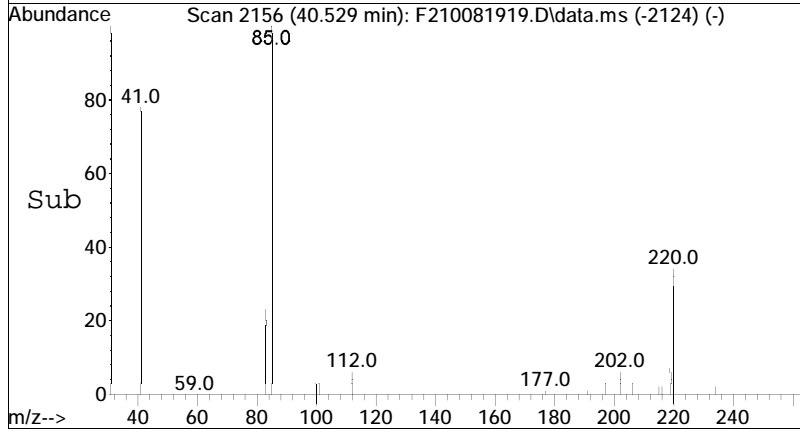
Tgt Ion: 216 Resp: 3494
 Ion Ratio Lower Upper
 216 100
 215 99.7 65.0 120.8

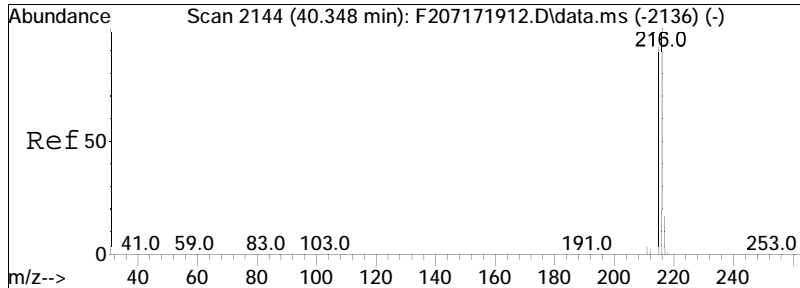




#58
 7H-Benzo(c)fluorene
 Concen: 20.59 ng/mL M3
 RT: 40.529 min Scan# 2156
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

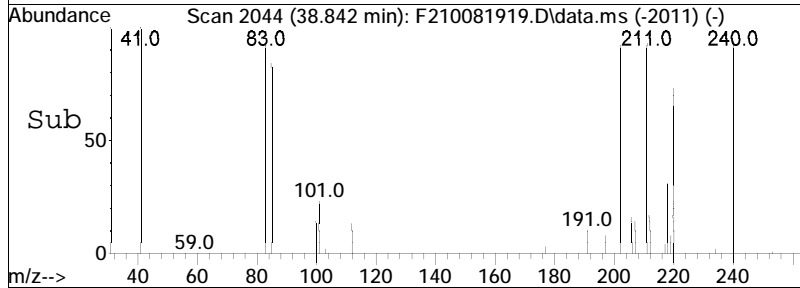
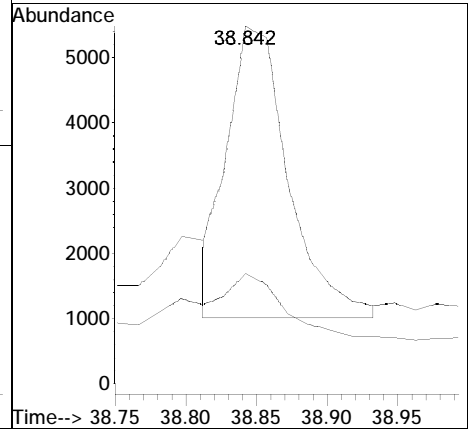
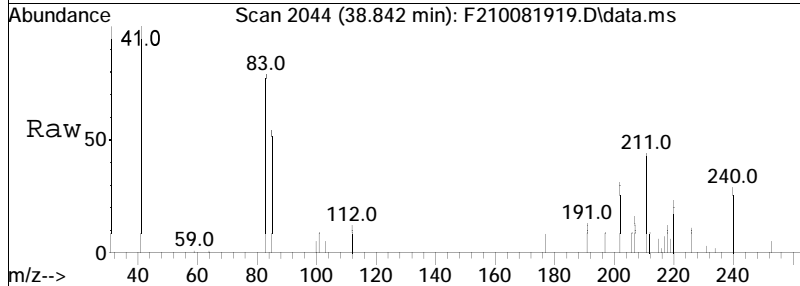
Tgt Ion	Resp	Lower	Upper
216	100		
215	0.0	102.2	189.8#

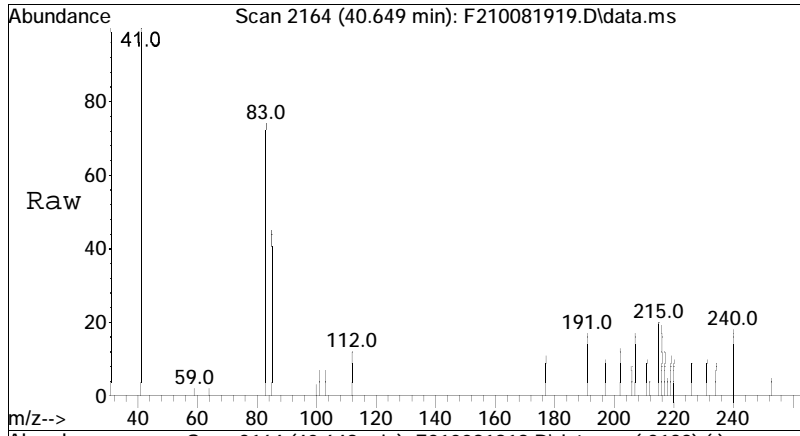




#59
 Pyrene
 Concen: 53.89 ng/mL M3
 RT: 38.842 min Scan# 2044
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

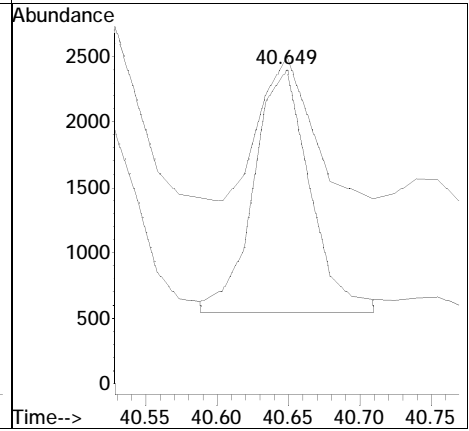
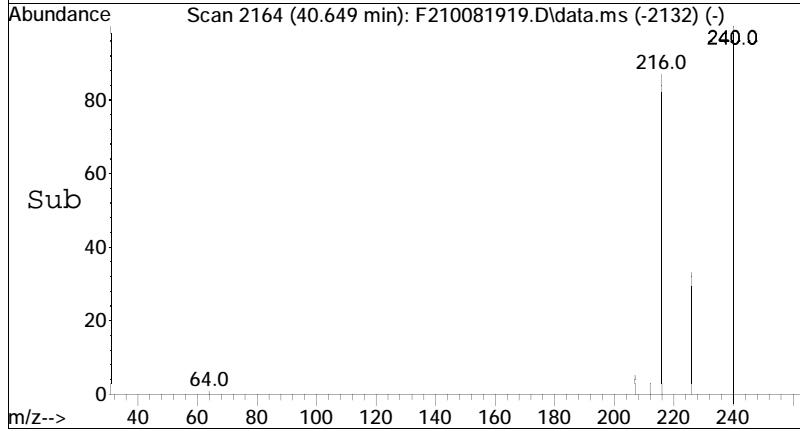
Tgt Ion: 202 Resp: 13399
 Ion Ratio Lower Upper
 202 100
 101 48.3 7.3 13.7#

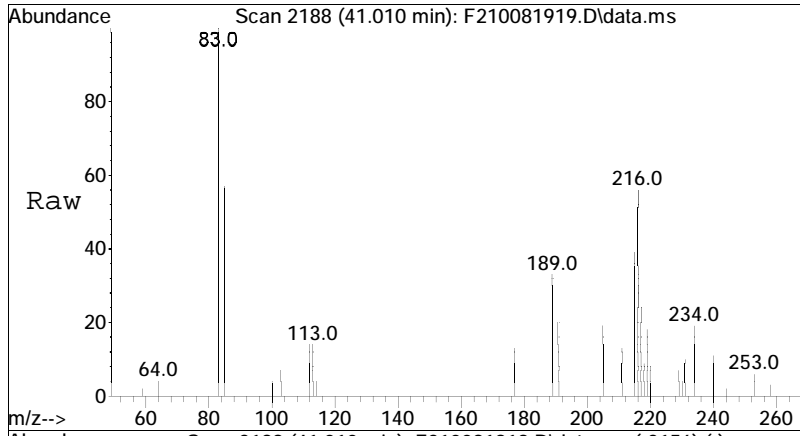




#60
 2-Methylpyrene
 Concen: 20.27 ng/mL M4
 RT: 40.649 min Scan# 2164
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

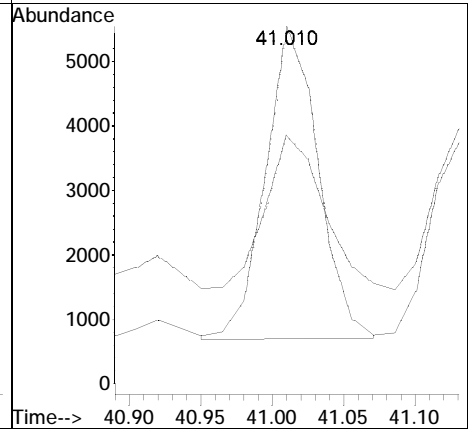
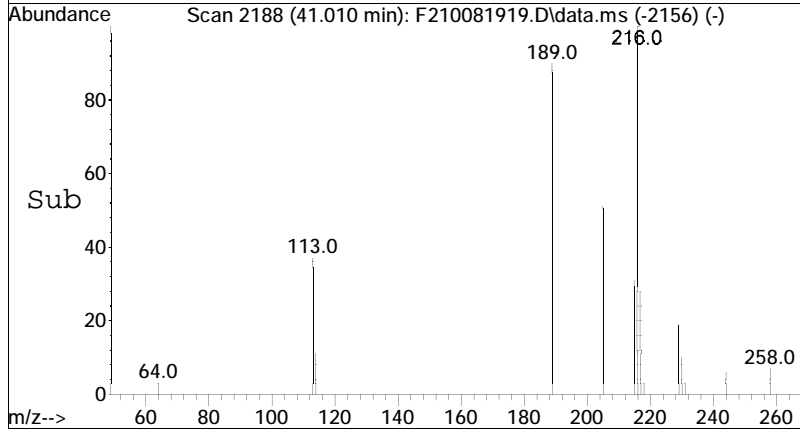
Tgt Ion	Resp	Lower	Upper
216	100		
215	305.4	74.5	138.3#

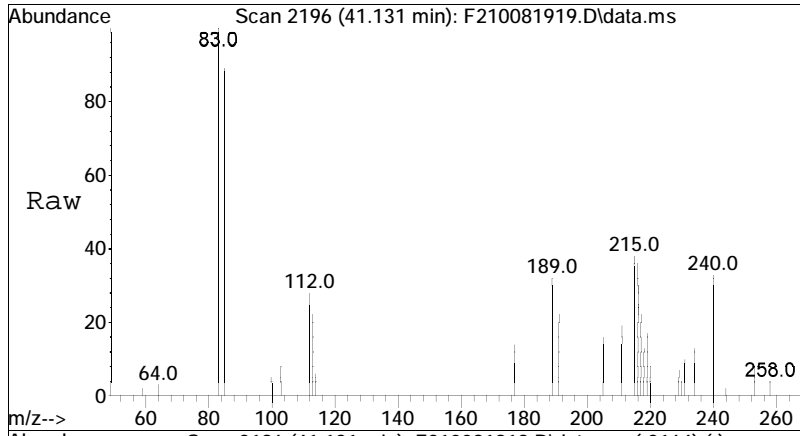




#61
 4-Methylpyrene
 Concen: 49.82 ng/mL
 RT: 41.010 min Scan# 2188
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

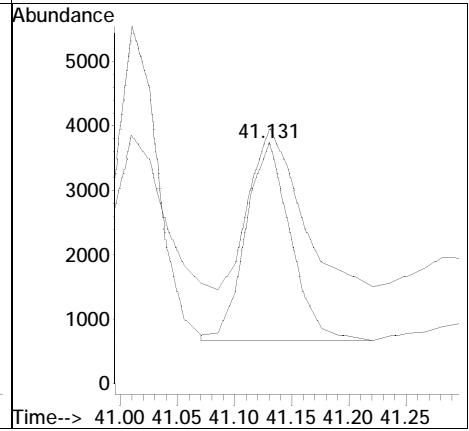
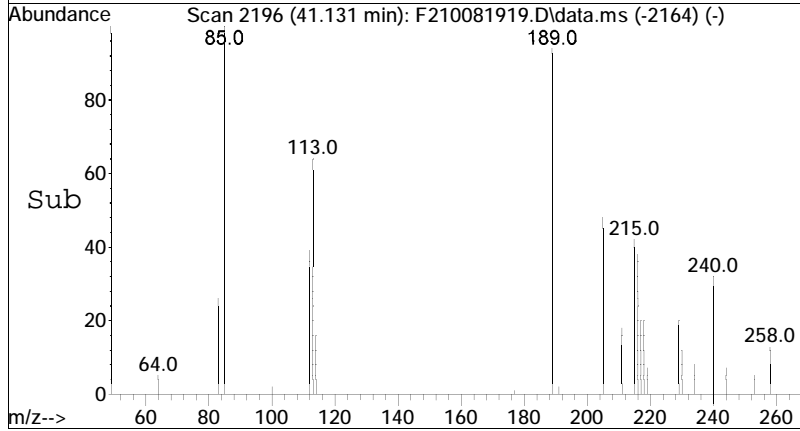
Tgt Ion	Resp	Lower	Upper
216	100		
215	54.0	48.8	90.6

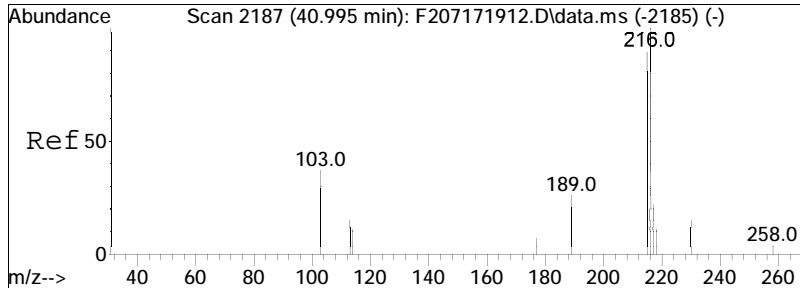




#62
 1-Methylpyrene
 Concen: 33.61 ng/mL
 RT: 41.131 min Scan# 2196
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

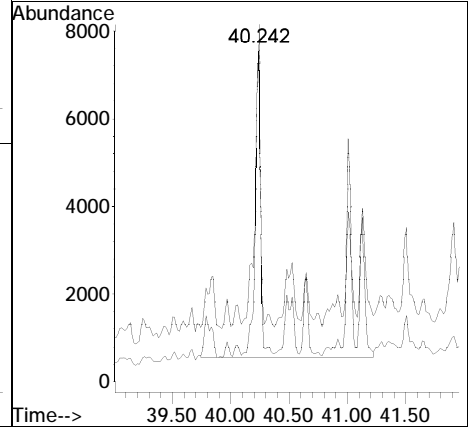
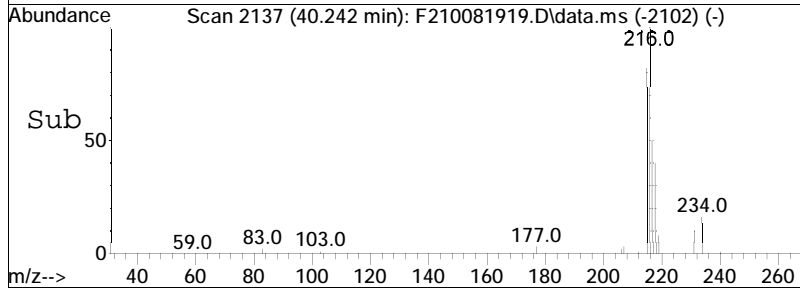
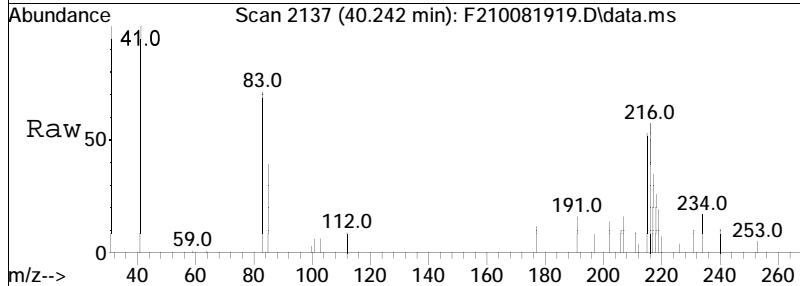
Tgt Ion	Resp	Lower	Upper
216	100		
215	92.4	76.2	141.6

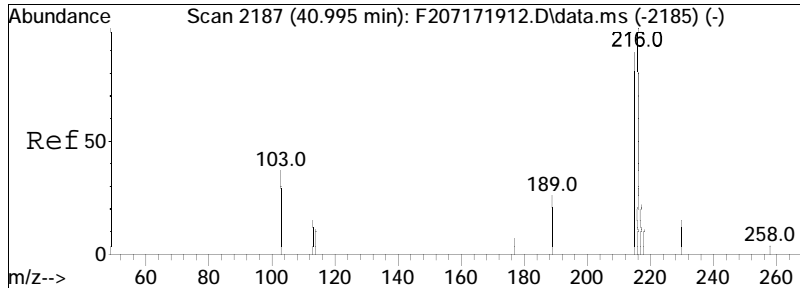




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 271.14 ng/mL M5
 RT: 40.242 min Scan# 2137
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

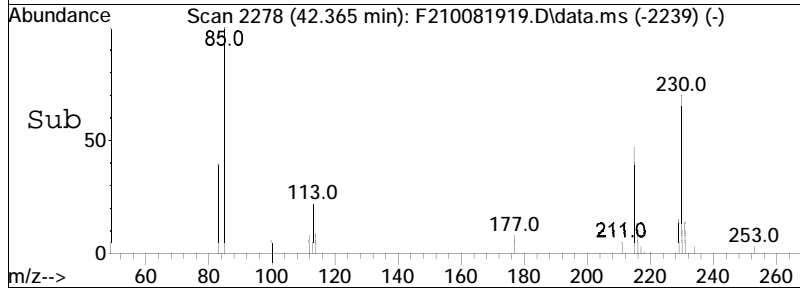
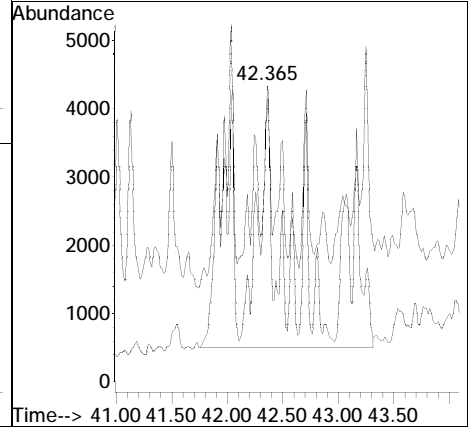
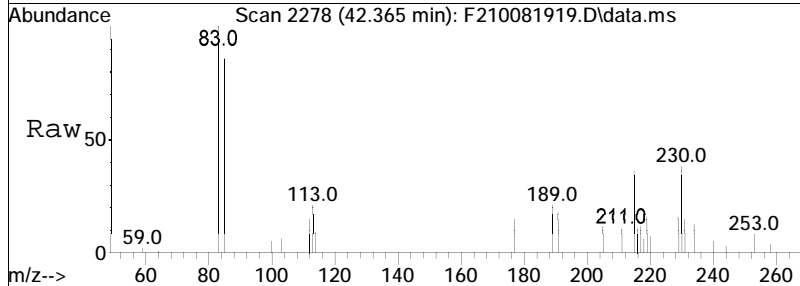
Tgt Ion: 216 Resp: 67411
 Ion Ratio Lower Upper
 216 100
 215 30.1 65.5 121.7#

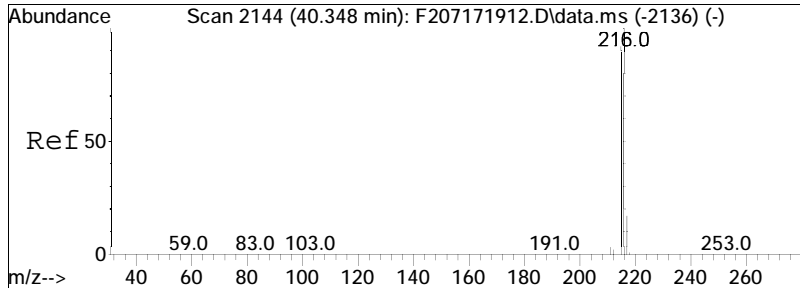




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 453.77 ng/mL M5
 RT: 42.365 min Scan# 2278
 Delta R.T. 0.301 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

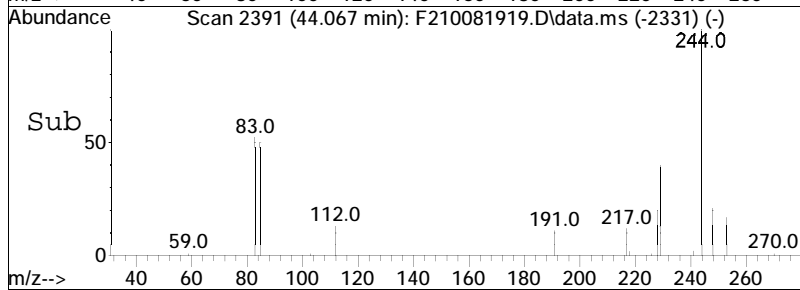
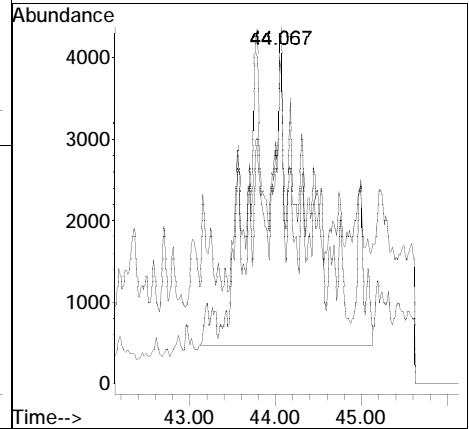
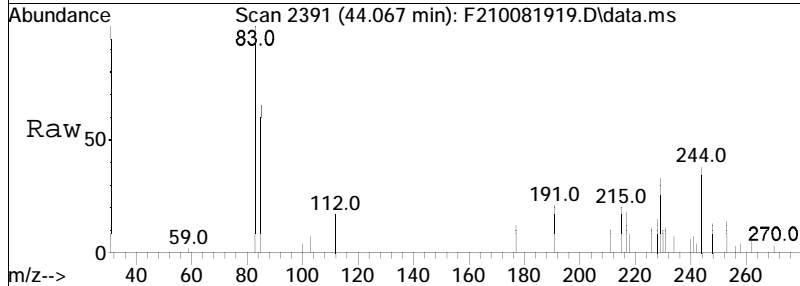
Tgt Ion	Ratio	Lower	Upper
230	100		
215	11.7	71.6	133.0#

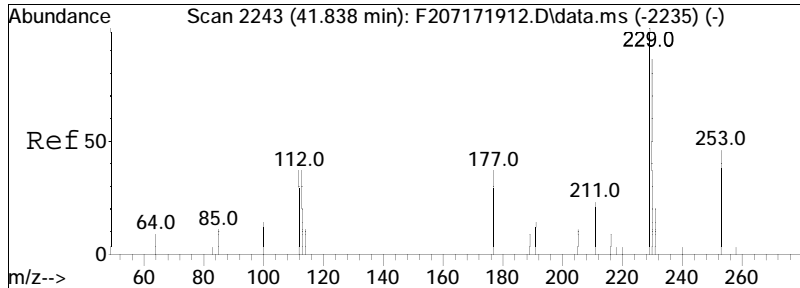




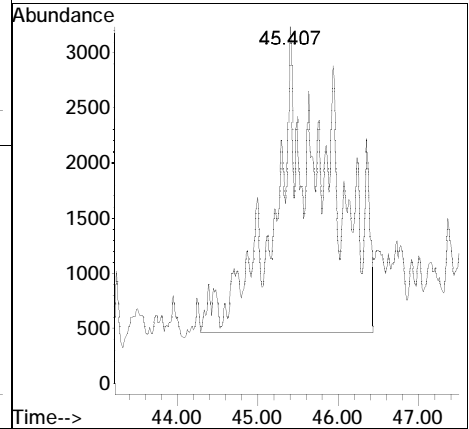
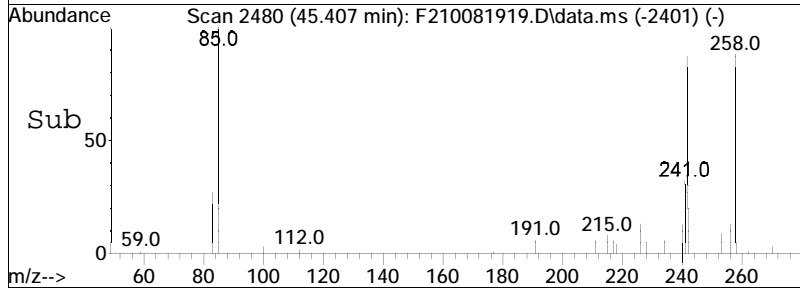
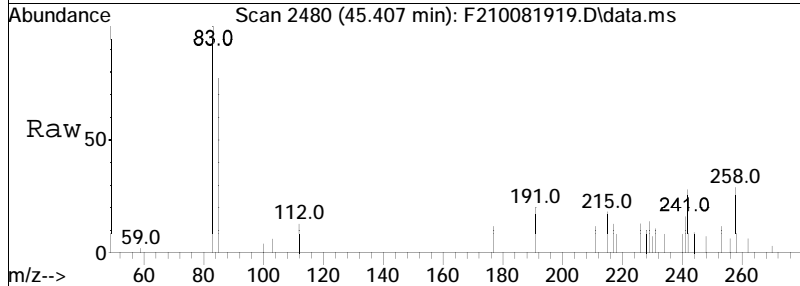
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 565.52 ng/mL M5
 RT: 44.067 min Scan# 2391
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

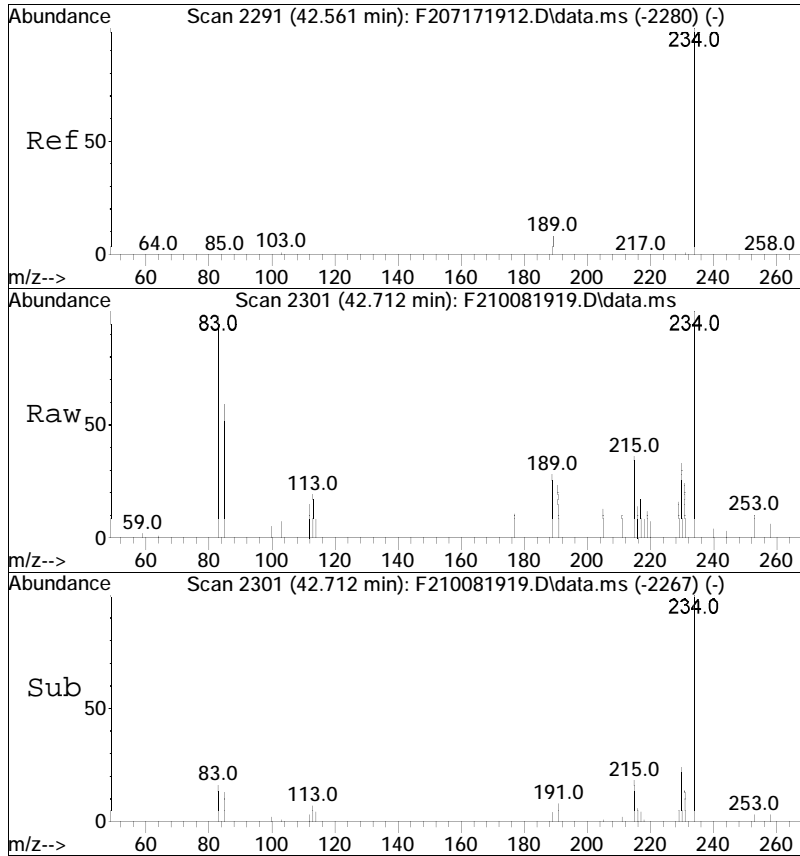
Tgt Ion: 244 Resp: 140598
 Ion Ratio Lower Upper
 244 100
 229 11.5 64.0 118.8#





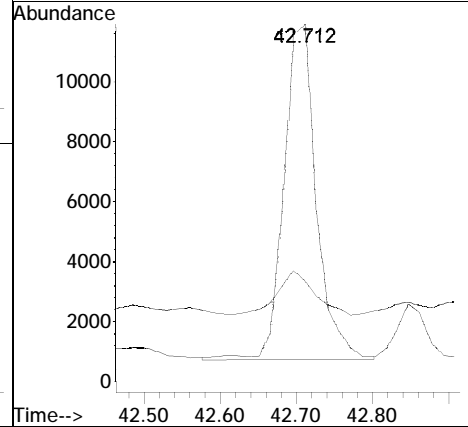
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 509.47 ng/mL M5
 RT: 45.407 min Scan# 2480
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:258 Resp: 126664

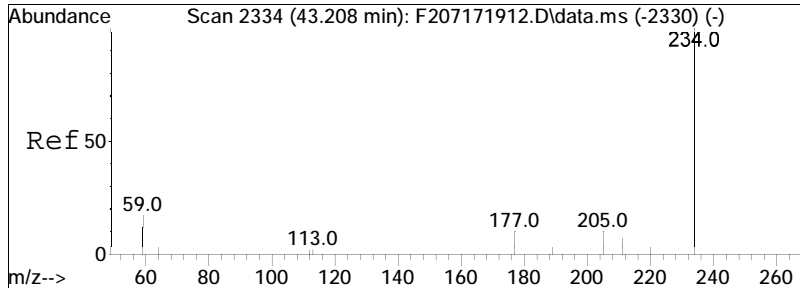




#67
 Naphthobenzothiophene-2,1-D
 Concen: 153.52 ng/mL
 RT: 42.712 min Scan# 2301
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

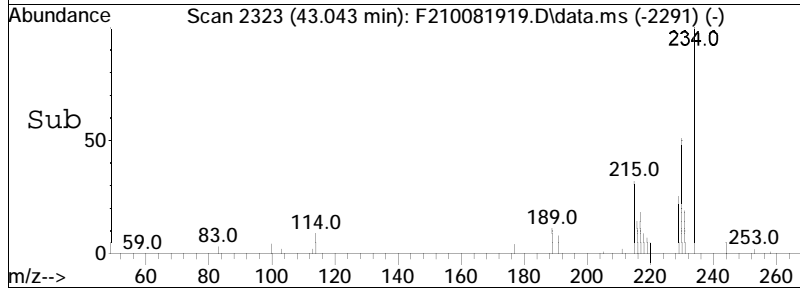
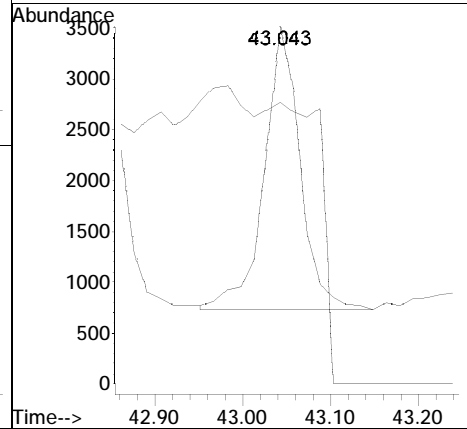
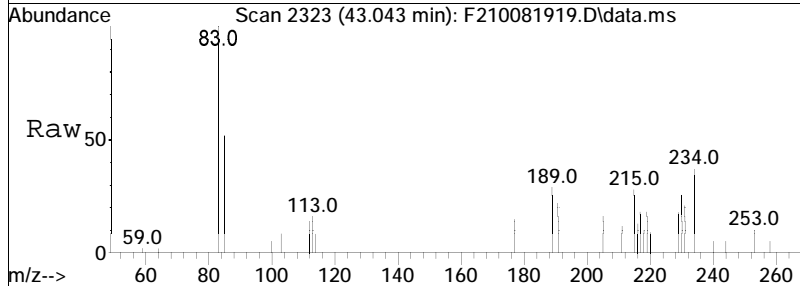
Tgt Ion	Ratio	Lower	Upper
234	100		
189	14.5	4.8	9.0#

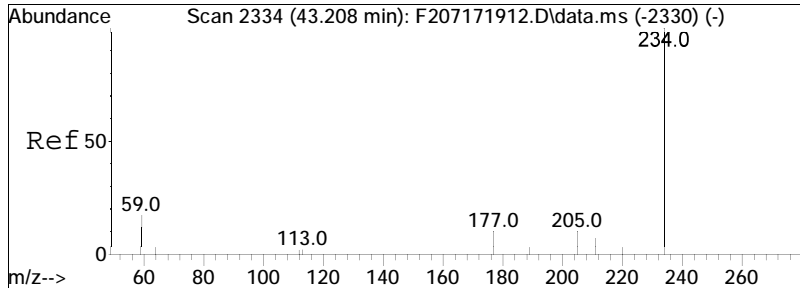




#68
 Naphthobenzothiophene-1,2-D
 Concen: 36.79 ng/mL
 RT: 43.043 min Scan# 2323
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

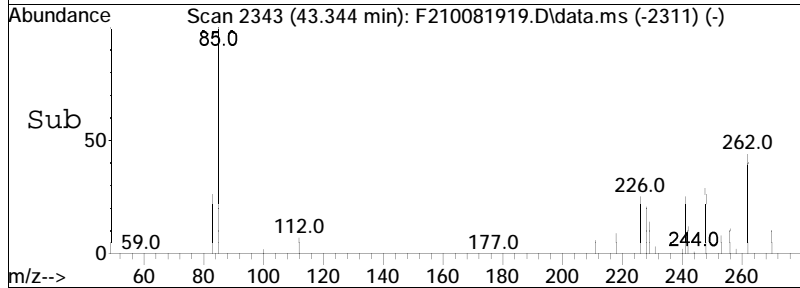
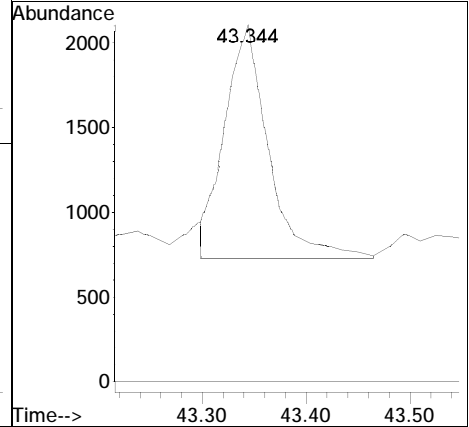
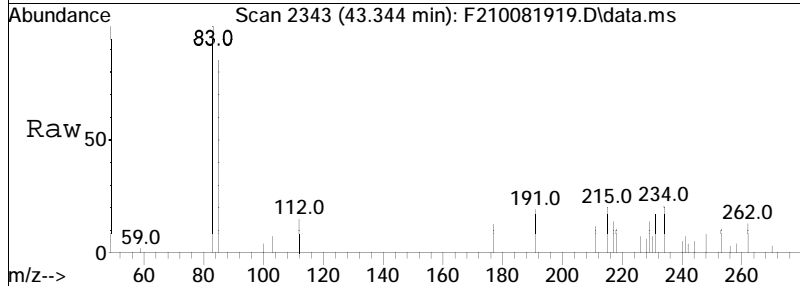
Tgt Ion: 234 Resp: 7823
 Ion Ratio Lower Upper
 234 100
 189 0.0 56.3 104.5#

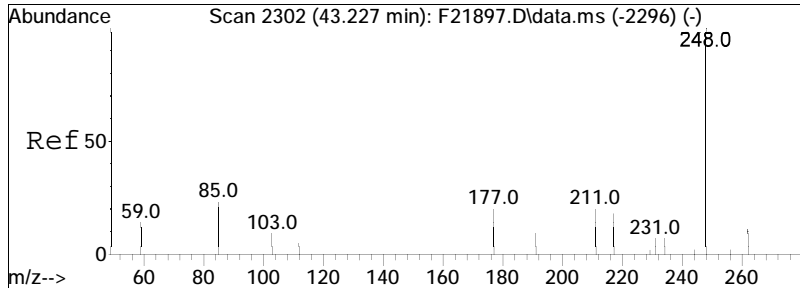




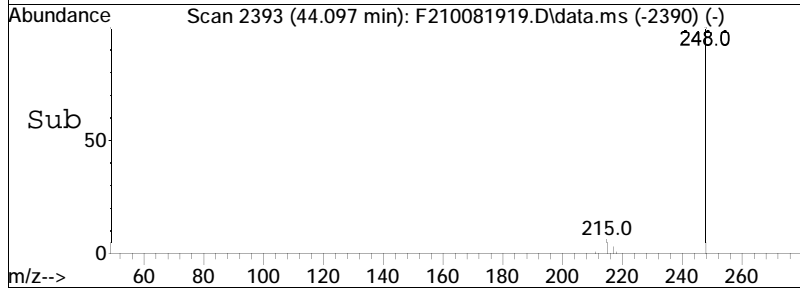
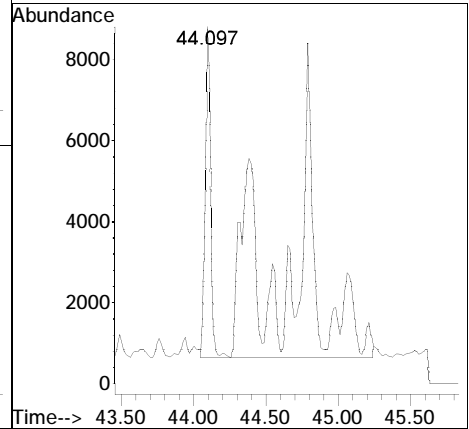
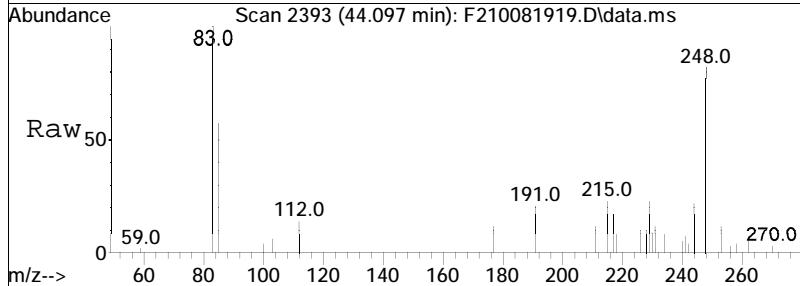
#69
 Naphthobenzothiophene-2,3-D
 Concen: 18.68 ng/mL M3
 RT: 43.344 min Scan# 2343
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

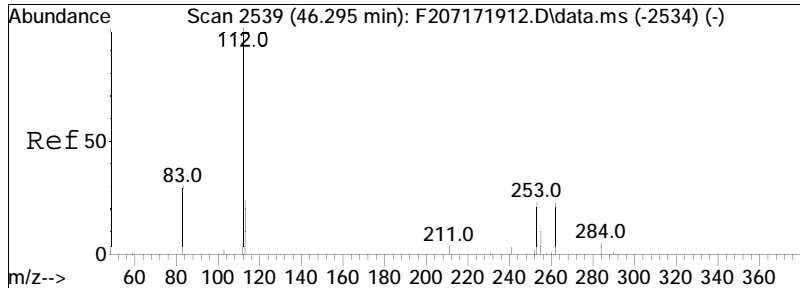
Tgt Ion: 234 Resp: 3972
 Ion Ratio Lower Upper
 234 100
 189 0.0 0.0 0.0



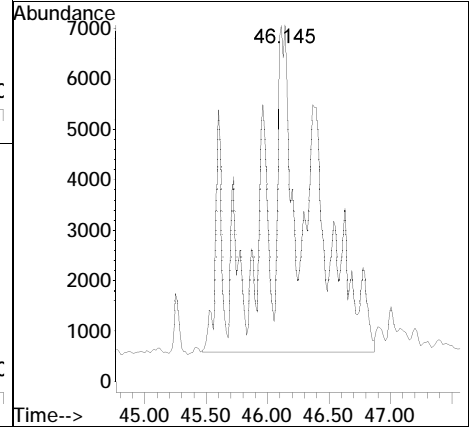
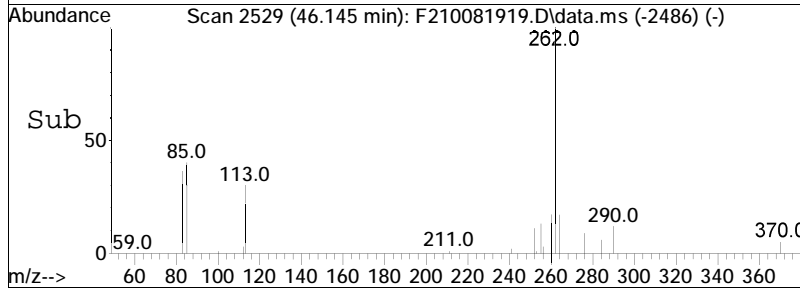
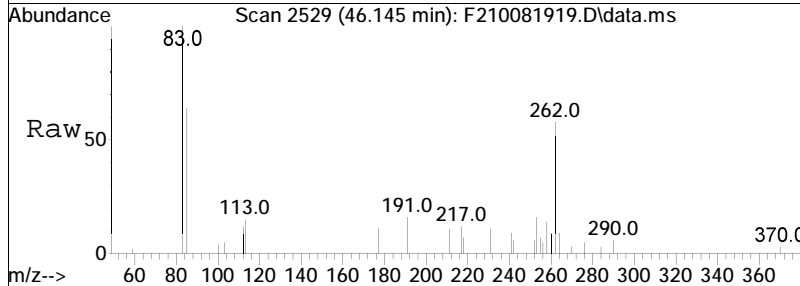


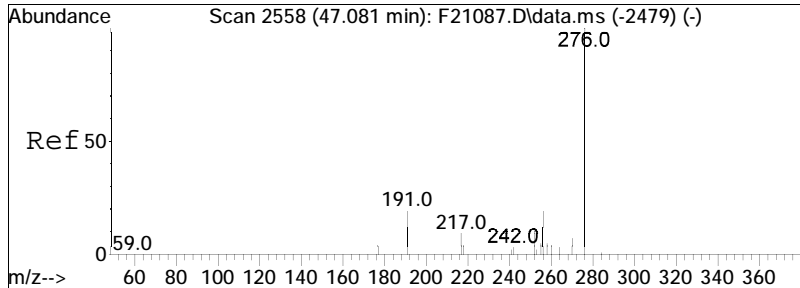
#70
 Cl-Naphthobenzothiophenes
 Concen: 575.12 ng/ml M5
 RT: 44.097 min Scan# 2393
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:248 Resp: 122301



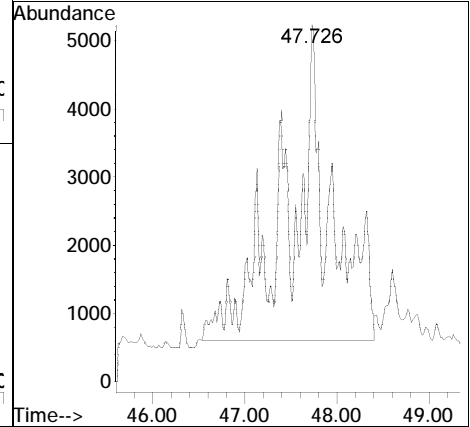
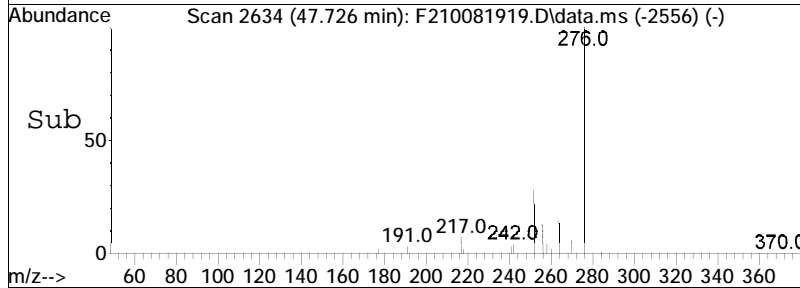
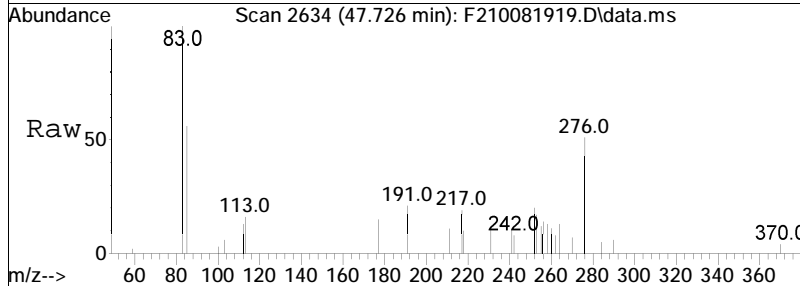


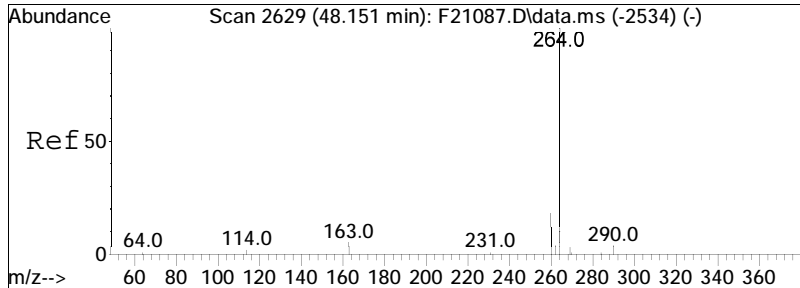
#71
 C2-Naphthobenzothiophenes
 Concen: 849.38 ng/ml M5
 RT: 46.145 min Scan# 2529
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 262 Resp: 180625



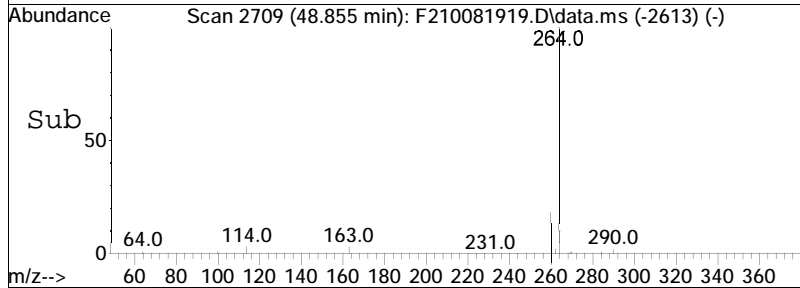
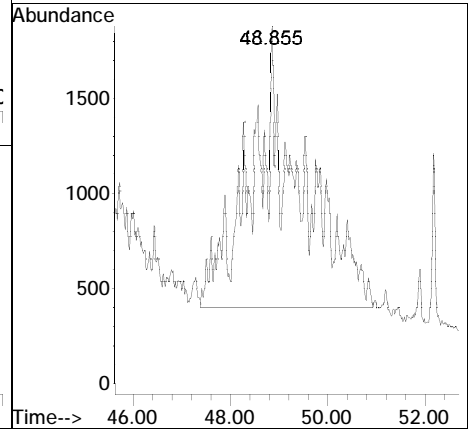
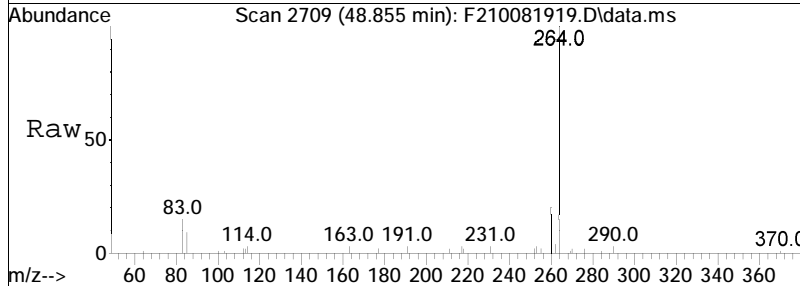


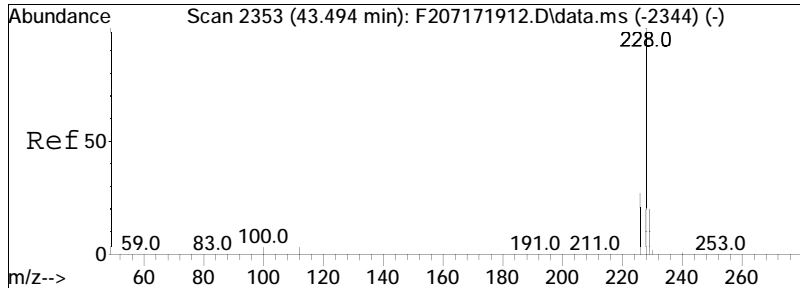
#72
 C3-Naphthobenzothiophenes
 Concen: 681.66 ng/ml M5
 RT: 47.726 min Scan# 2634
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 276 Resp: 144958





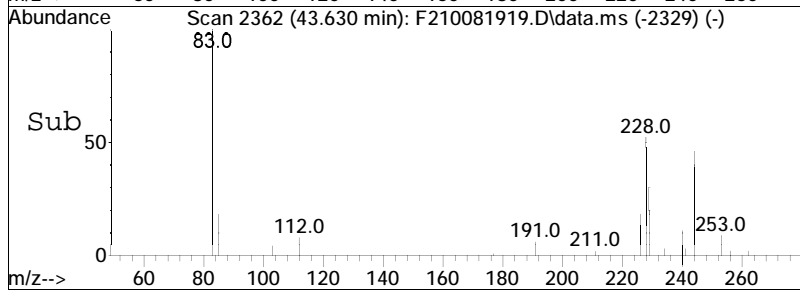
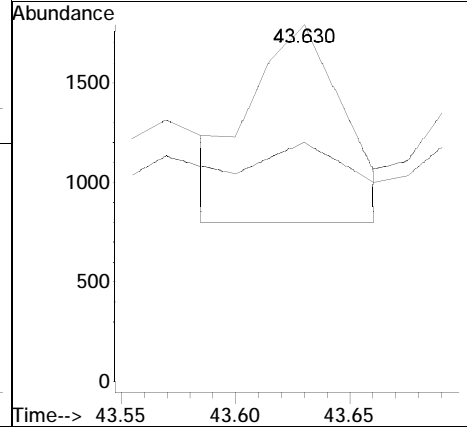
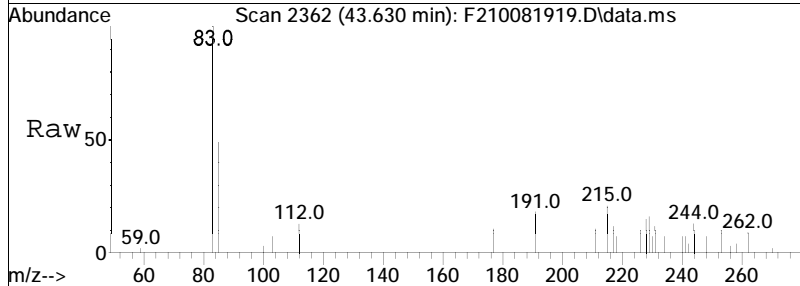
#73
 C4-Naphthobenzothiophenes
 Concen: 474.81 ng/mL M5
 RT: 48.855 min Scan# 2709
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:290 Resp: 100970

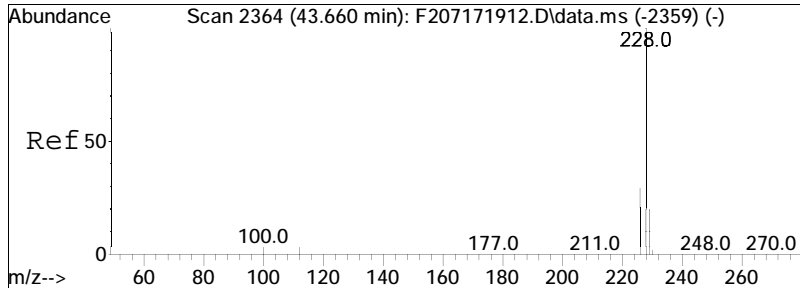




#75
 Benz[a]anthracene
 Concen: 13.16 ng/mL M4
 RT: 43.630 min Scan# 2362
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

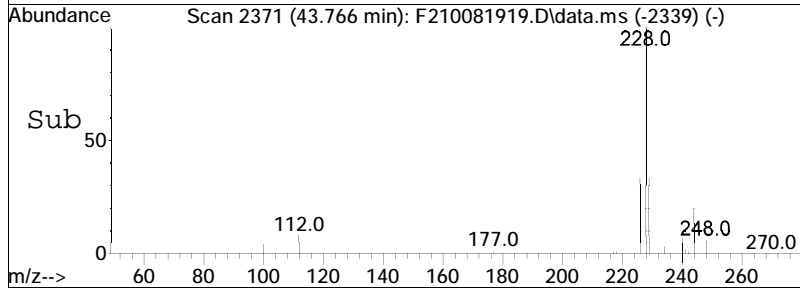
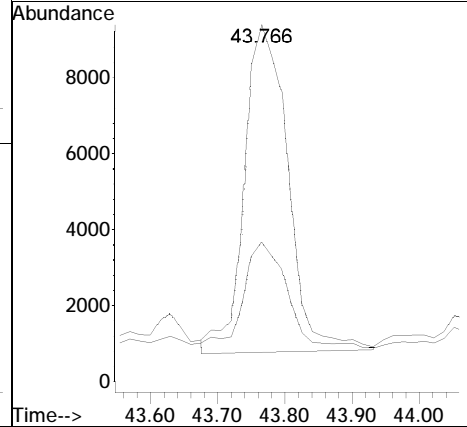
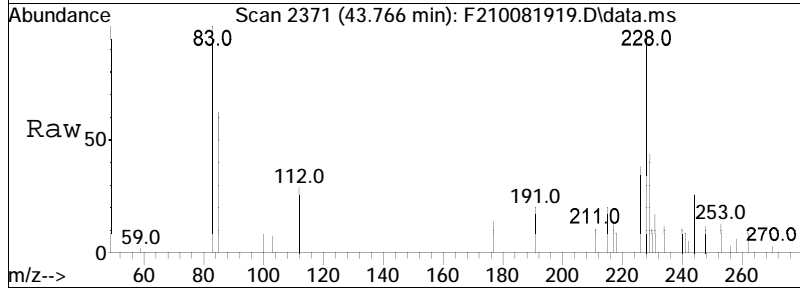
Tgt Ion: 228 Resp: 2807
 Ion Ratio Lower Upper
 228 100
 226 6.6 18.1 33.5#

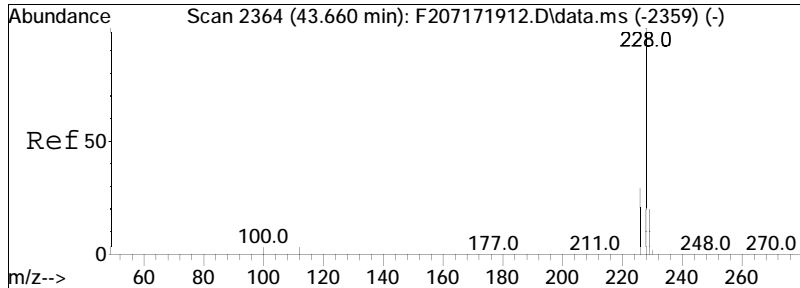




#76
 Chrysene
 Concen: 178.42 ng/mL
 RT: 43.766 min Scan# 2371
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

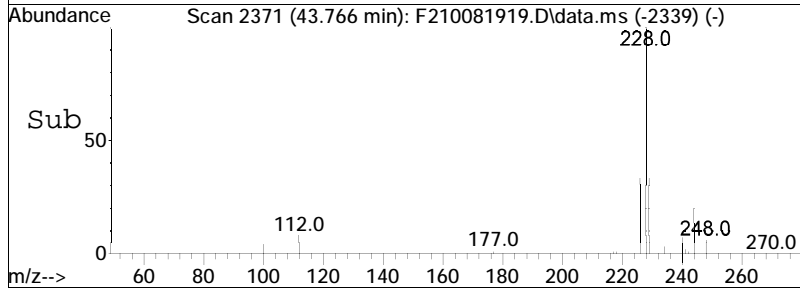
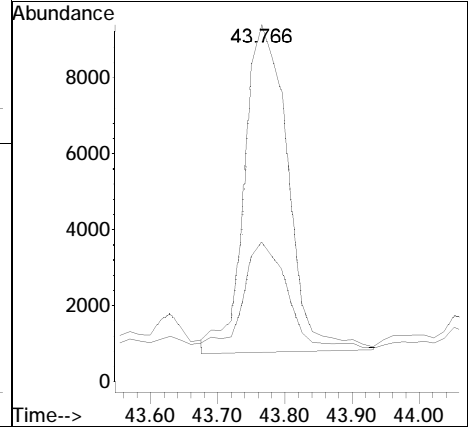
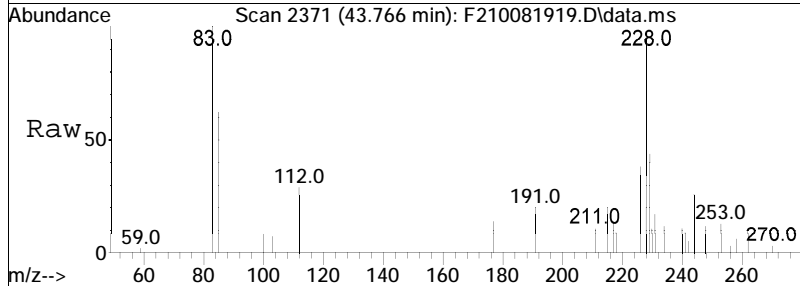
Tgt Ion	Resp	Lower	Upper
228	100		
226	33.7	20.4	38.0

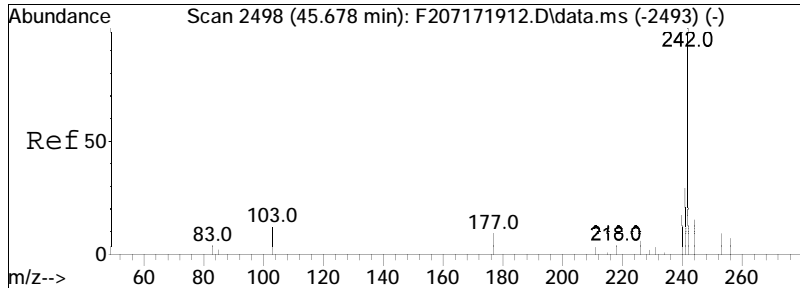




#77
 Chrysene/Triphenylene
 Concen: 178.42 ng/mL
 RT: 43.766 min Scan# 2371
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

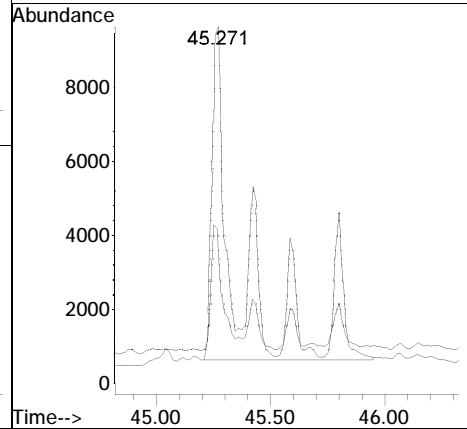
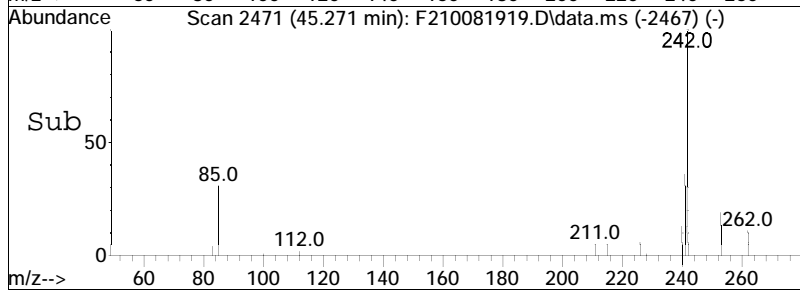
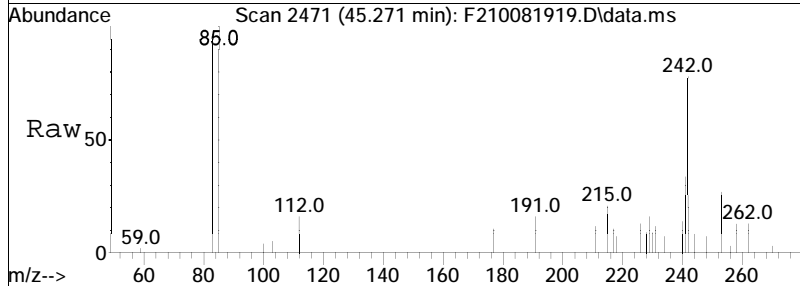
Tgt Ion: 228 Resp: 38754
 Ion Ratio Lower Upper
 228 100
 226 33.7 20.4 38.0

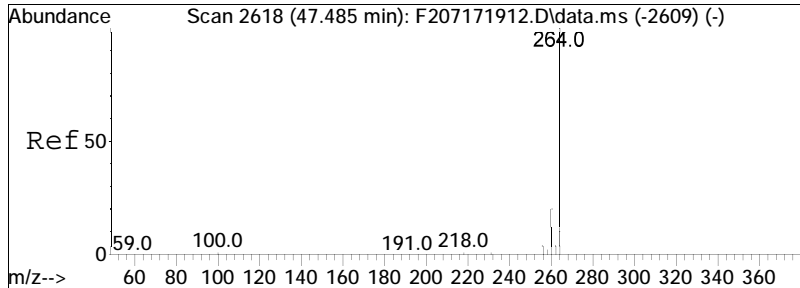




#78
 C1-Chrysenes
 Concen: 315.23 ng/mL M5
 RT: 45.271 min Scan# 2471
 Delta R.T. -0.005 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

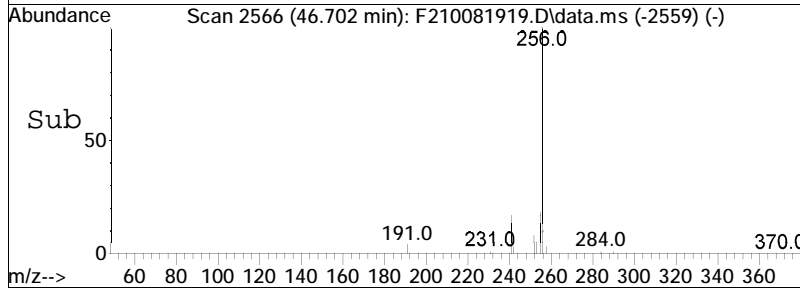
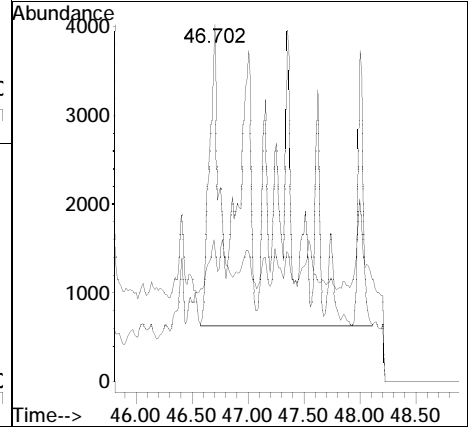
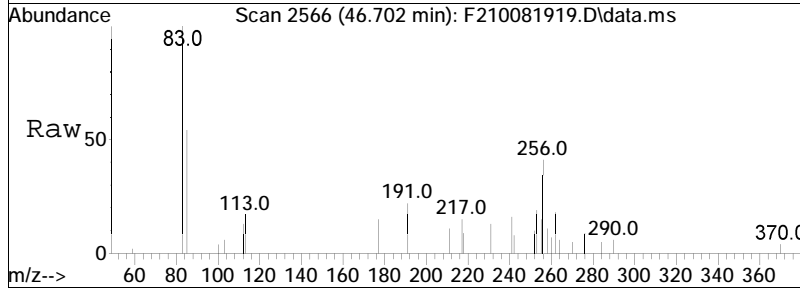
Tgt Ion: 242 Resp: 68470
 Ion Ratio Lower Upper
 242 100
 241 13.9 29.2 54.2#

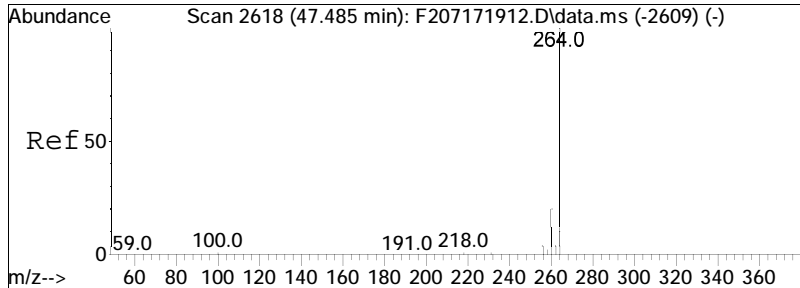




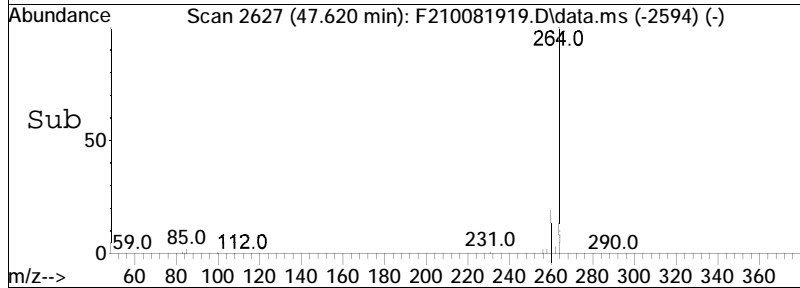
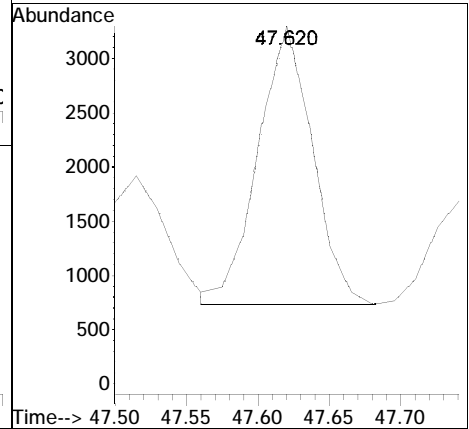
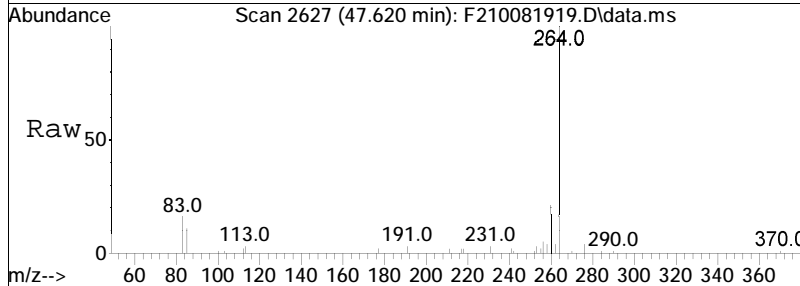
#79
 C2-Chrysenes
 Concen: 459.81 ng/mL M5
 RT: 46.702 min Scan# 2566
 Delta R.T. -0.704 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

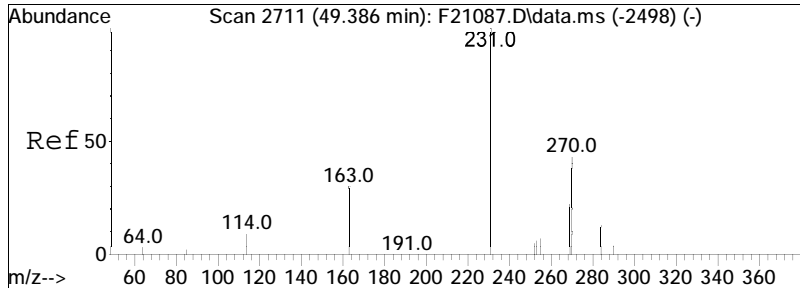
Tgt Ion	Resp	Lower	Upper
256	100		
241	1.5	24.4	45.2#





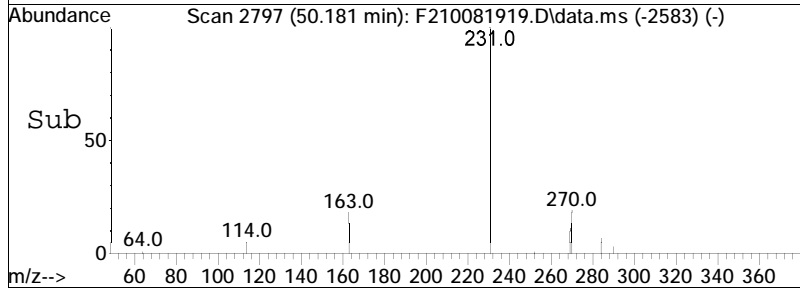
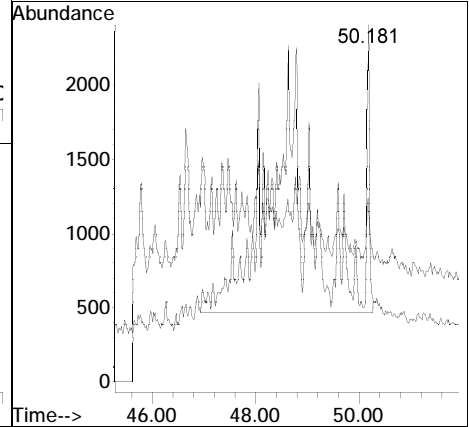
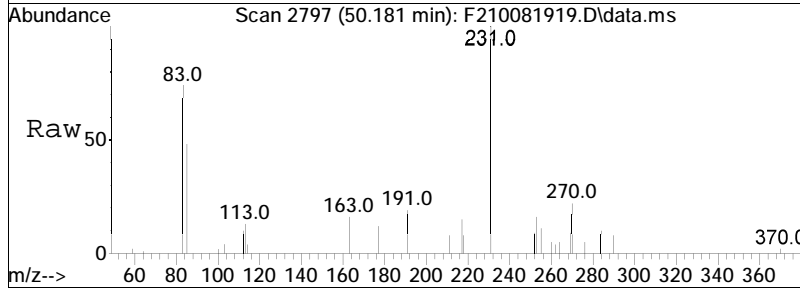
#80
 BBF-D12 Surr BKGD
 Concen: 31.22 ng/mL
 RT: 47.620 min Scan# 2627
 Delta R.T. 0.003 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 256 Resp: 6781

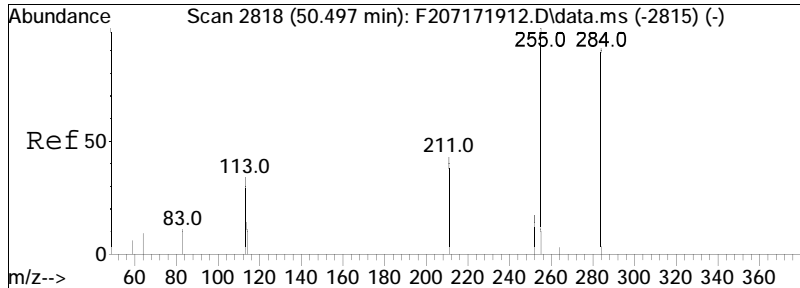




#81
 C3-Chrysenes
 Concen: 439.19 ng/mL M5
 RT: 50.181 min Scan# 2797
 Delta R.T. 0.025 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

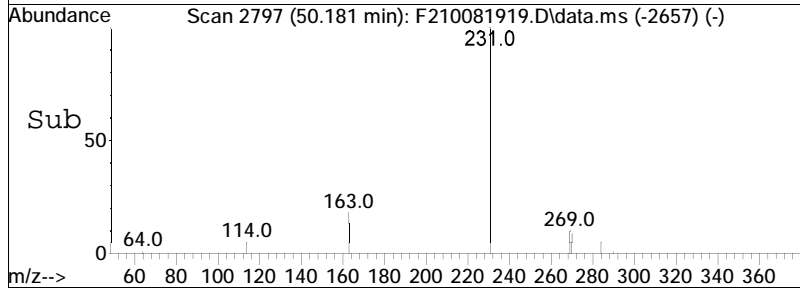
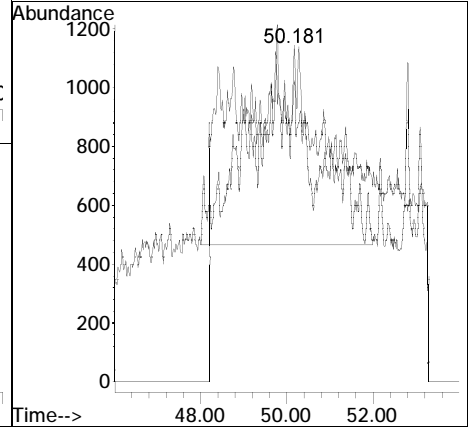
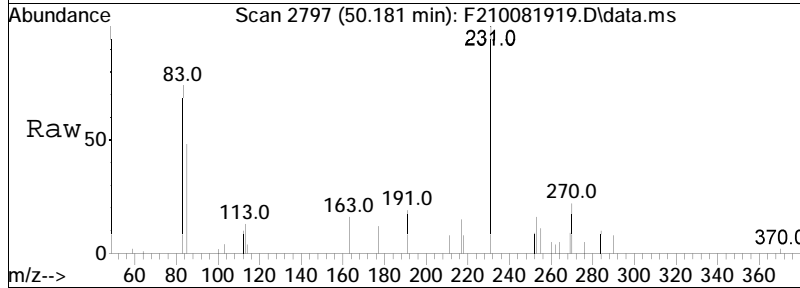
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.6	34.7	64.5#

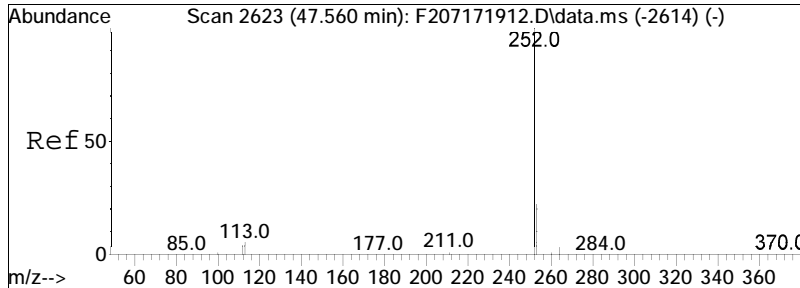




#82
 C4-Chrysenes
 Concen: 304.37 ng/mL M5
 RT: 50.181 min Scan# 2797
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

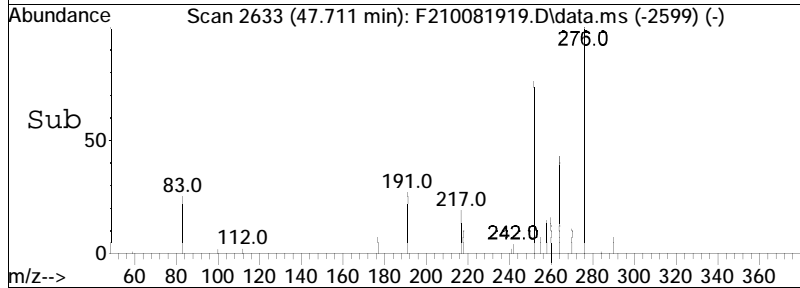
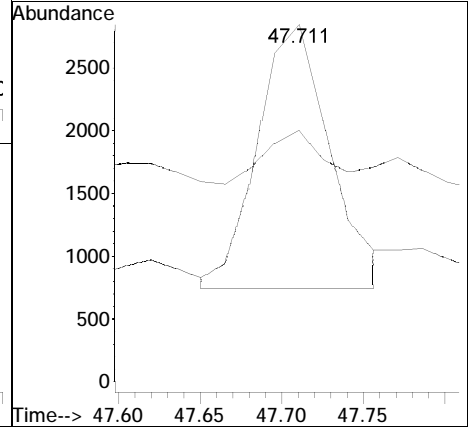
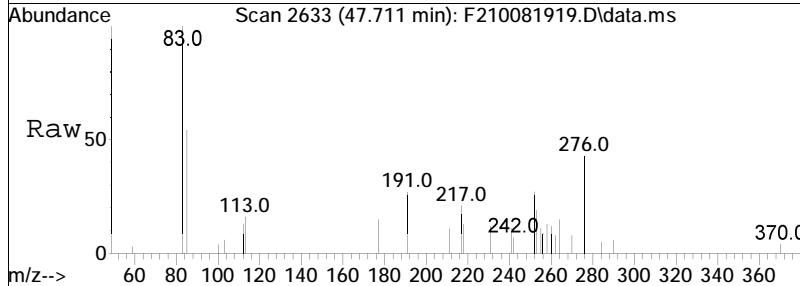
Tgt Ion	Ratio	Lower	Upper
284	100		
269	0.0	63.6	118.2#

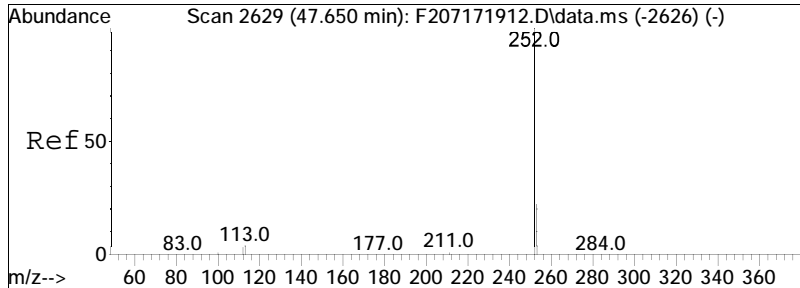




#84
 Benzo[b]fluoranthene
 Concen: 25.03 ng/mL M4
 RT: 47.711 min Scan# 2633
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

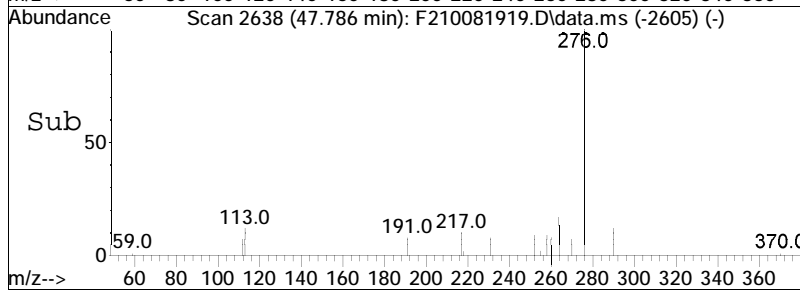
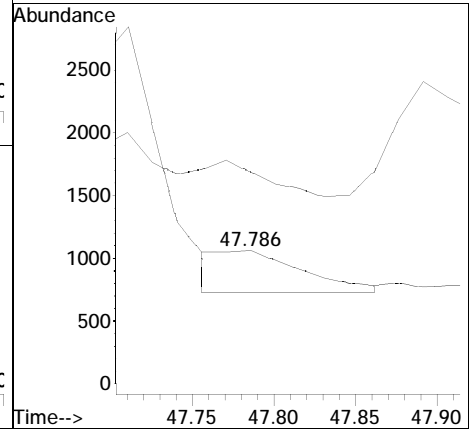
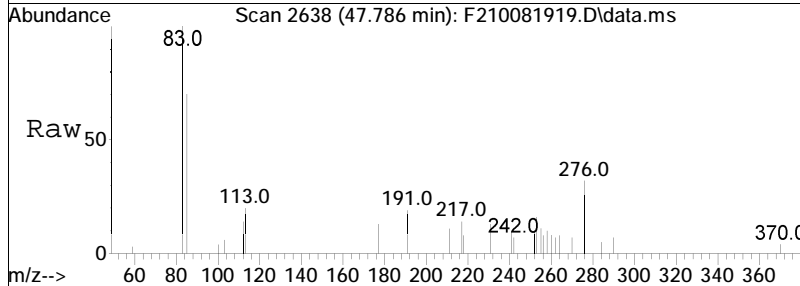
Tgt Ion: 252 Resp: 6466
 Ion Ratio Lower Upper
 252 100
 253 16.1 15.8 29.4

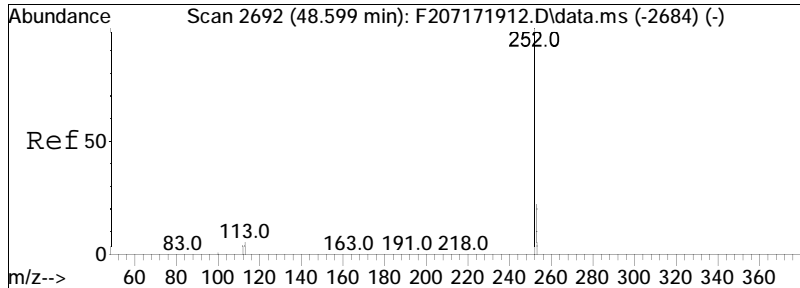




#85
 Benzo[j]+[k]fluoranthene
 Concen: 4.67 ng/mL M4
 RT: 47.786 min Scan# 2638
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

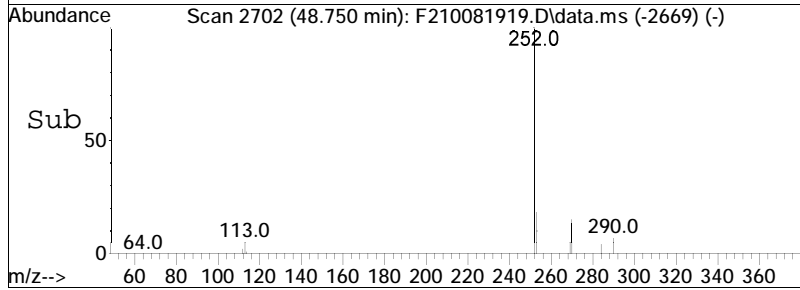
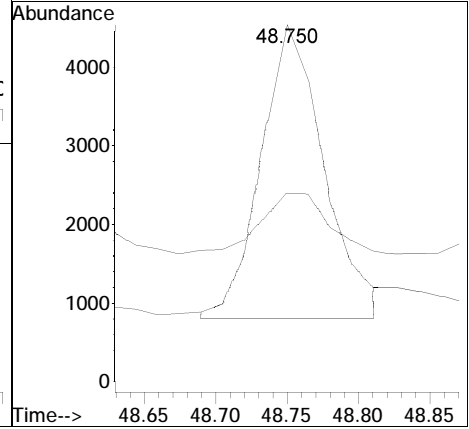
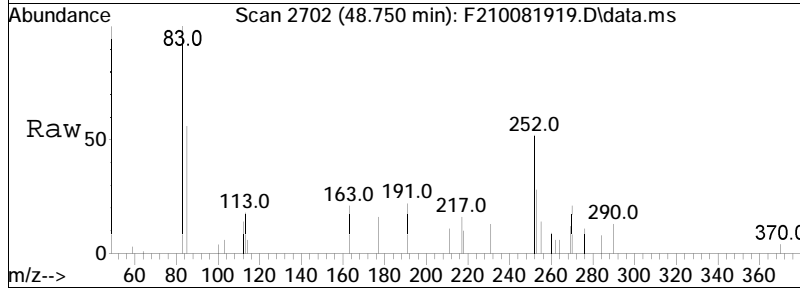
Tgt Ion	Resp	Lower	Upper
252	100		
253	86.0	15.7	29.1#

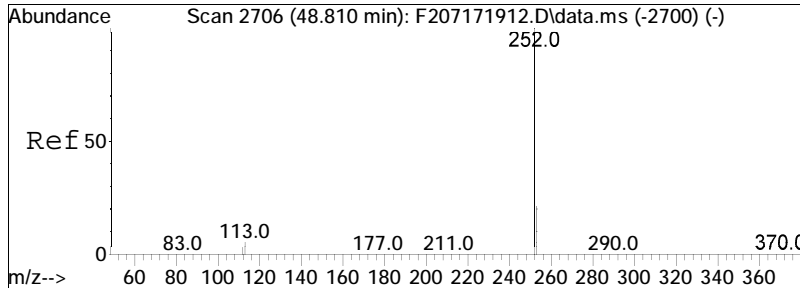




#87
 Benzo[e]pyrene
 Concen: 46.15 ng/mL M4
 RT: 48.750 min Scan# 2702
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

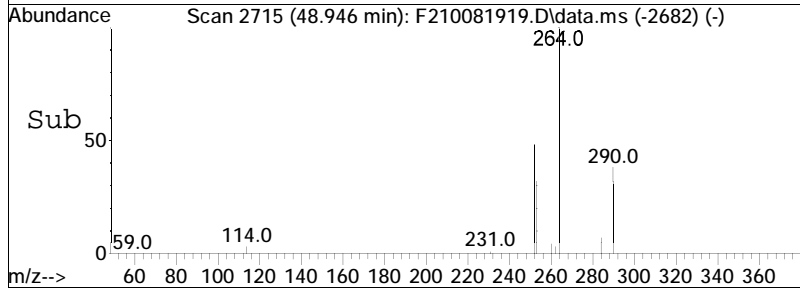
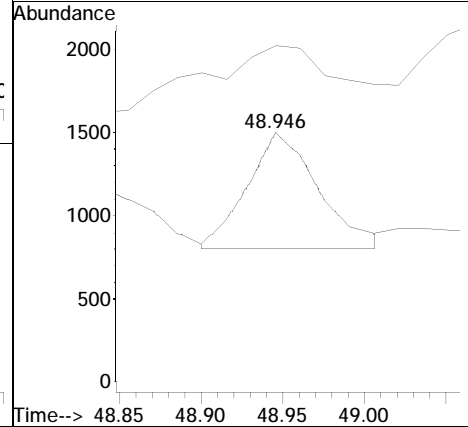
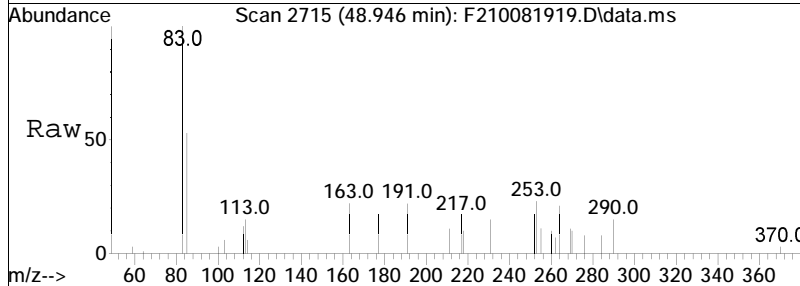
Tgt Ion	Resp	Lower	Upper
252	100		
253	28.4	15.7	29.1

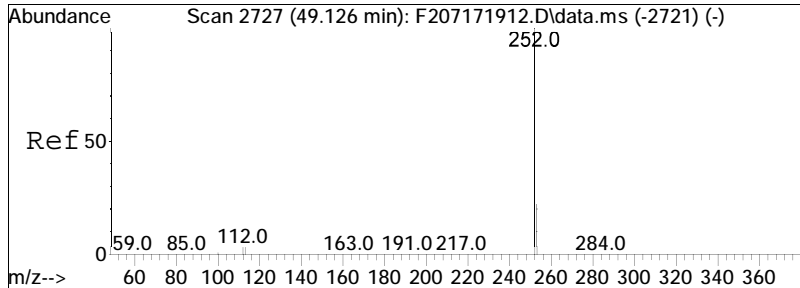




#89
 Benzo[a]pyrene
 Concen: 9.33 ng/mL M4
 RT: 48.946 min Scan# 2715
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

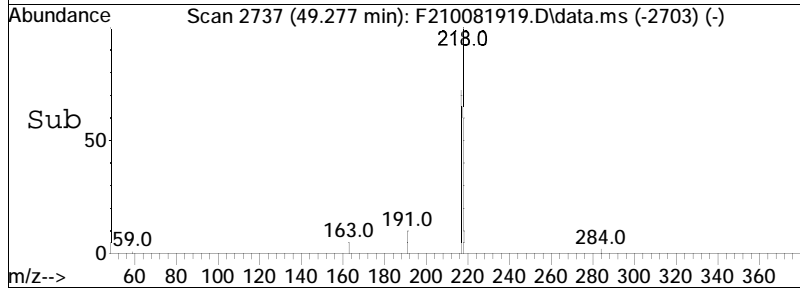
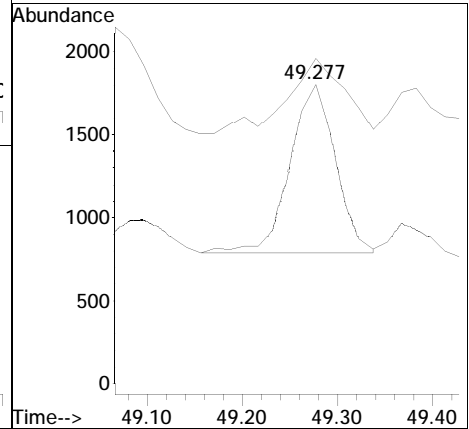
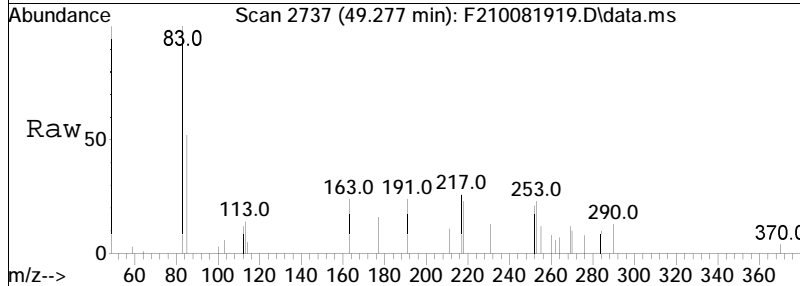
Tgt Ion	Resp	Lower	Upper
252	100		
253	138.6	15.6	29.0#

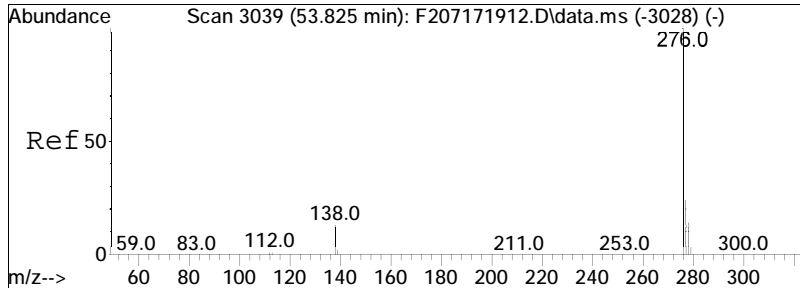




#90
 Perylene
 Concen: 15.14 ng/mL
 RT: 49.277 min Scan# 2737
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

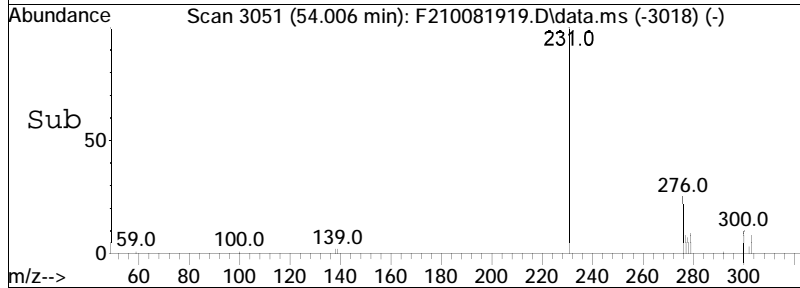
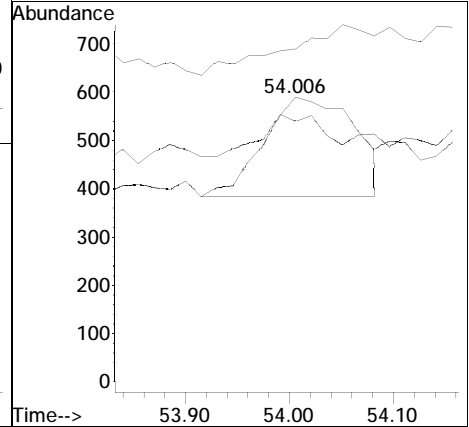
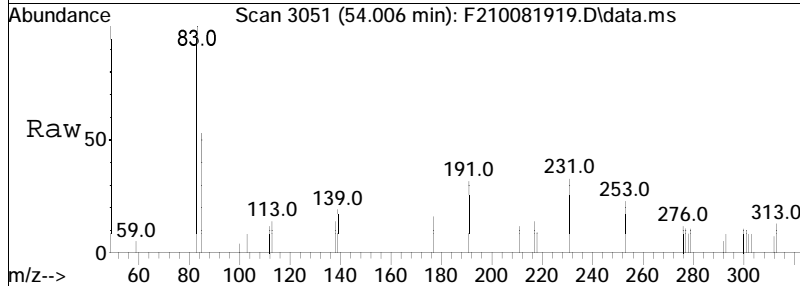
Tgt Ion	Resp	Lower	Upper
252	100		
253	56.8	15.6	29.0#

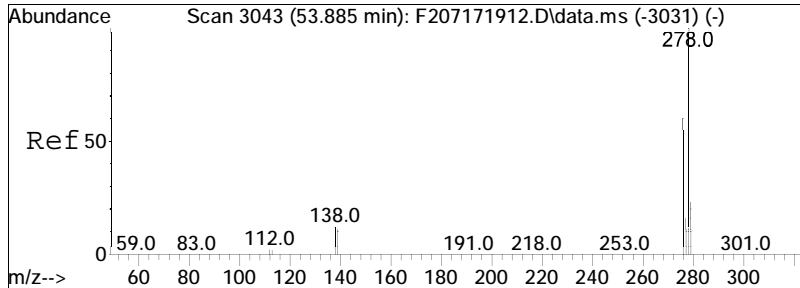




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 4.60 ng/mL M4
 RT: 54.006 min Scan# 3051
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

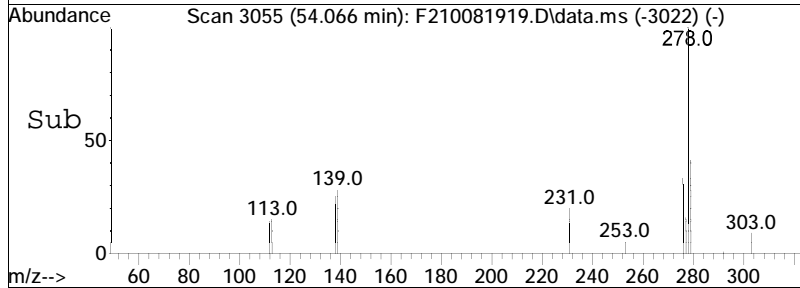
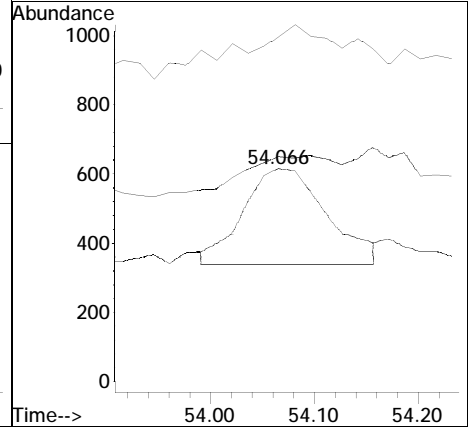
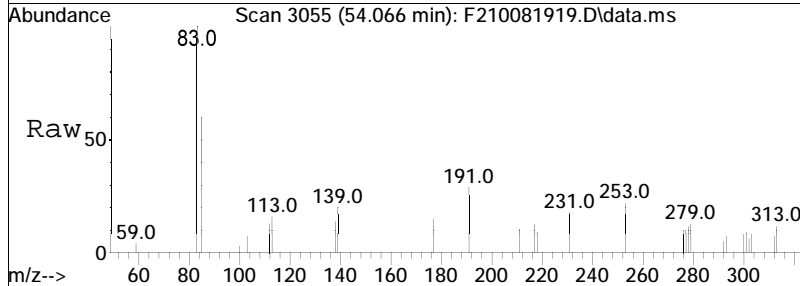
Tgt Ion	Resp	Lower	Upper
276	100		
138	0.0	9.2	17.0#
277	28.6	16.9	31.3

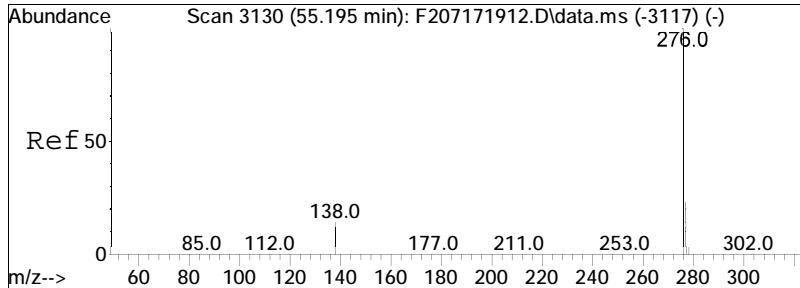




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 6.26 ng/mL M4
 RT: 54.066 min Scan# 3055
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

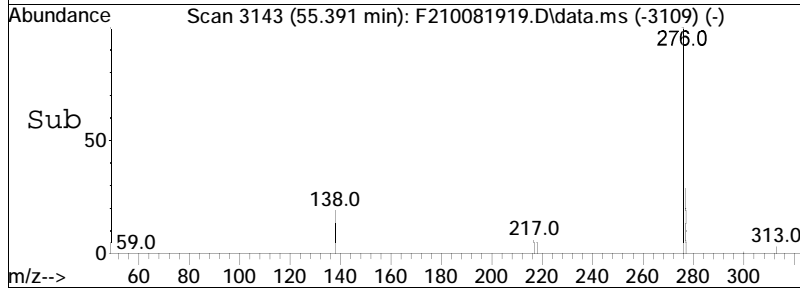
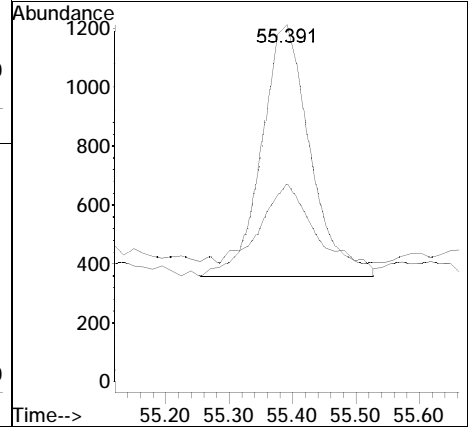
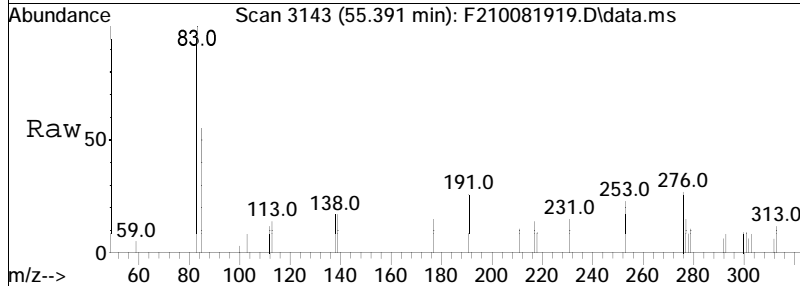
Tgt Ion	Resp	Lower	Upper
278	100		
139	79.7	6.9	12.9#
279	0.0	17.4	32.2#

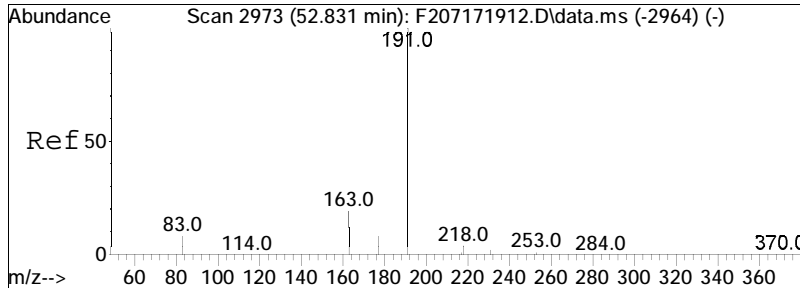




#93
 Benzo[g,h,i]perylene
 Concen: 16.65 ng/mL
 RT: 55.391 min Scan# 3143
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

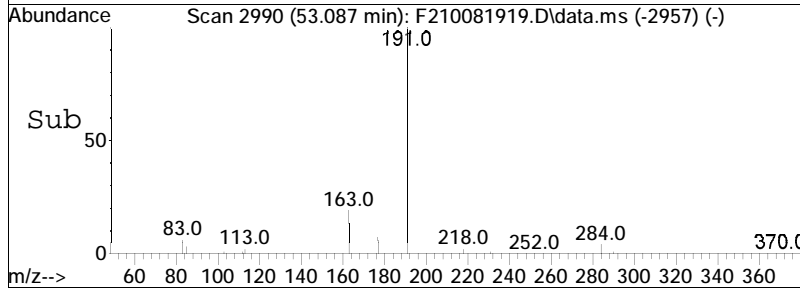
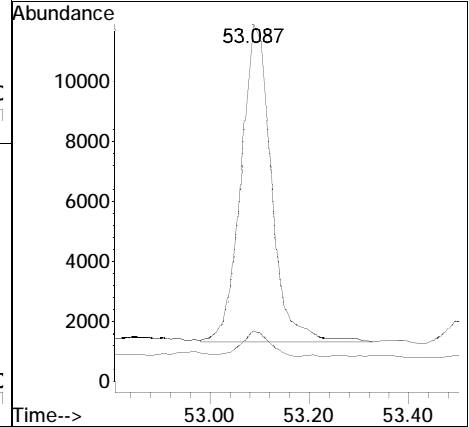
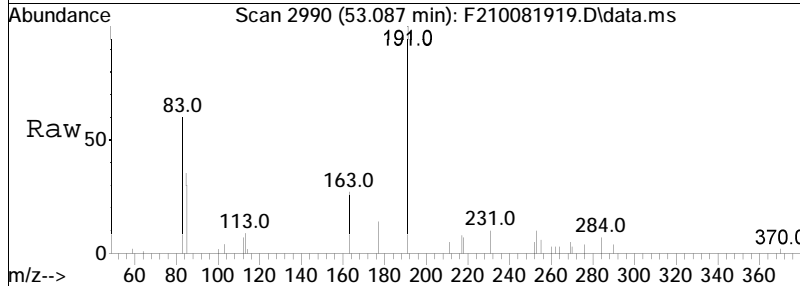
Tgt Ion: 276 Resp: 4496
 Ion Ratio Lower Upper
 276 100
 277 31.9 16.8 31.2#

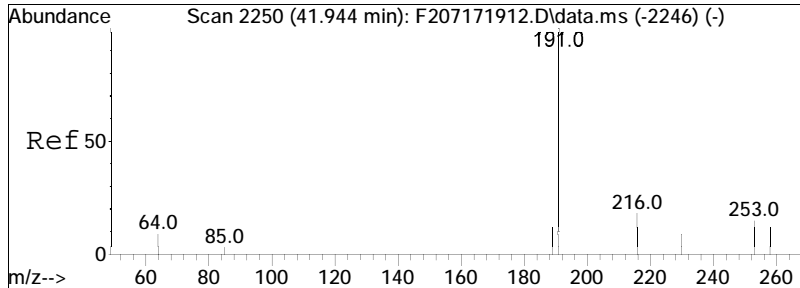




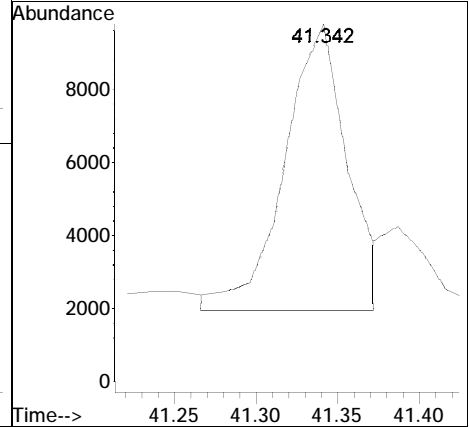
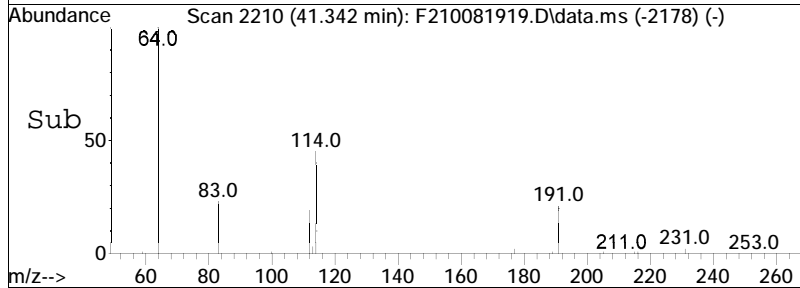
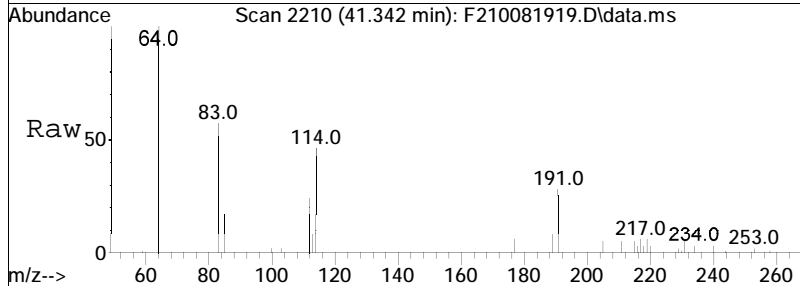
#94
 Hopane (T19)
 Concen: 959.27 ng/mL
 RT: 53.087 min Scan# 2990
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

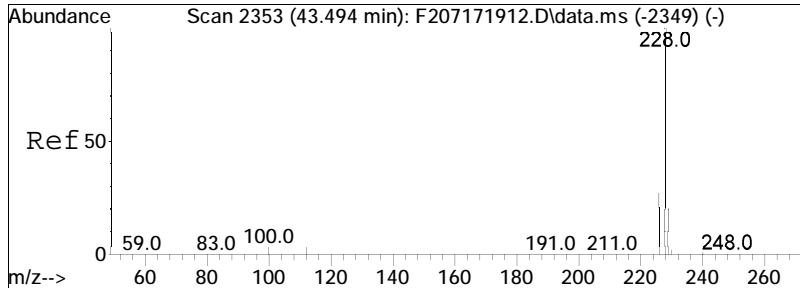
Tgt Ion	Resp	Lower	Upper
191	100		
177	7.5	5.7	10.5



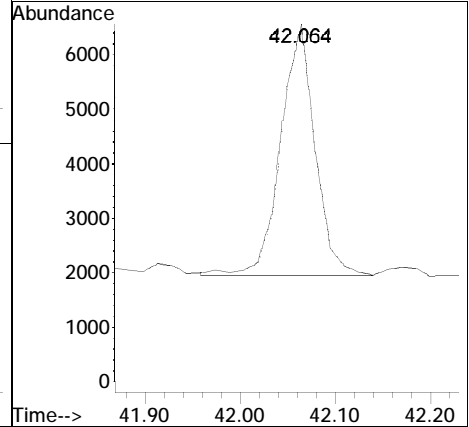
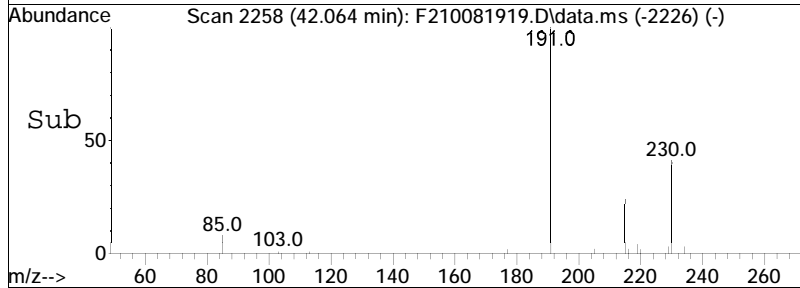
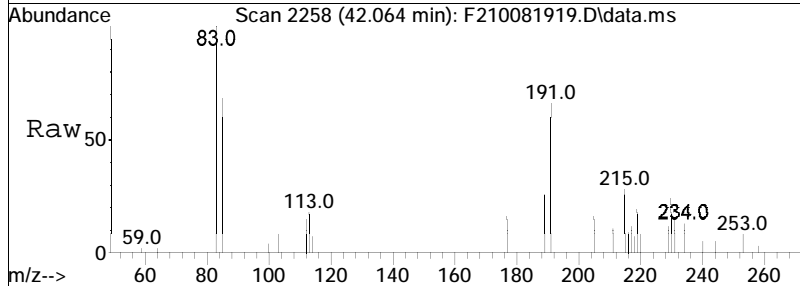


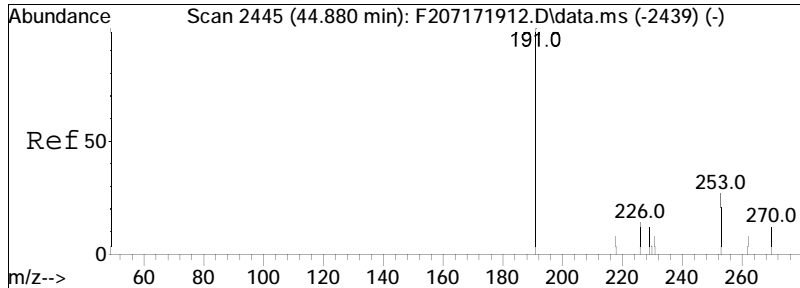
#95
 C23 Tricyclic Terpene (T4)
 Concen: 453.24 ng/ml M4
 RT: 41.342 min Scan# 2210
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 21081



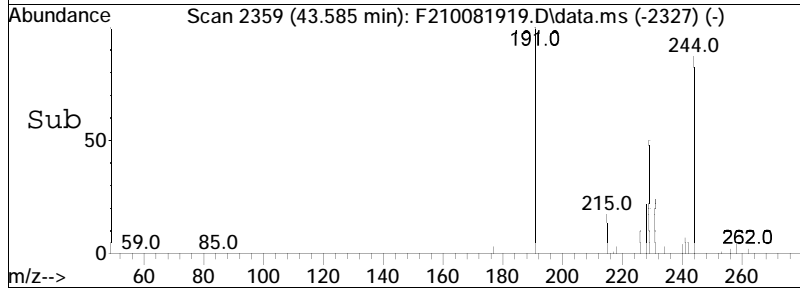
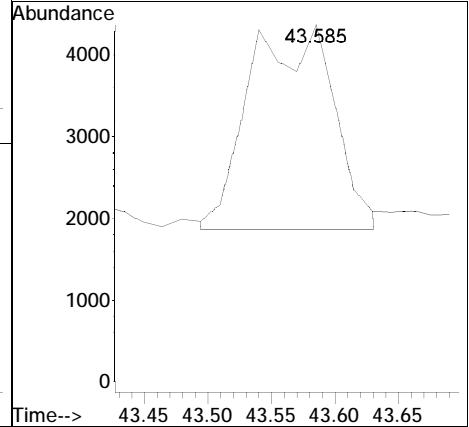
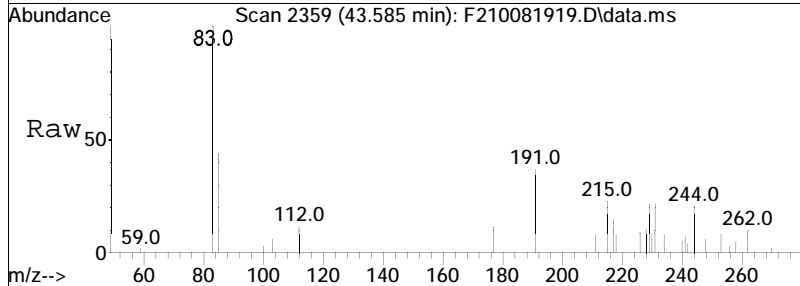


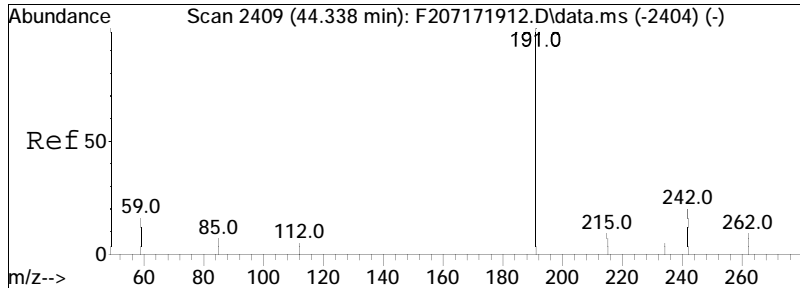
#96
 C24 Tricyclic Terpene (T5)
 Concen: 243.10 ng/ml
 RT: 42.064 min Scan# 2258
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 11307



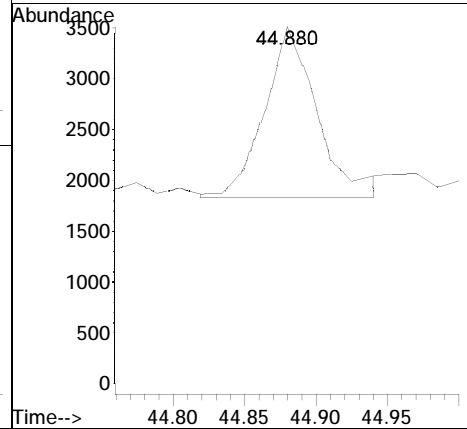
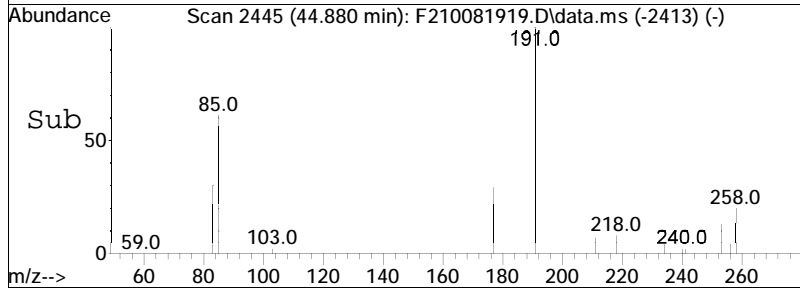
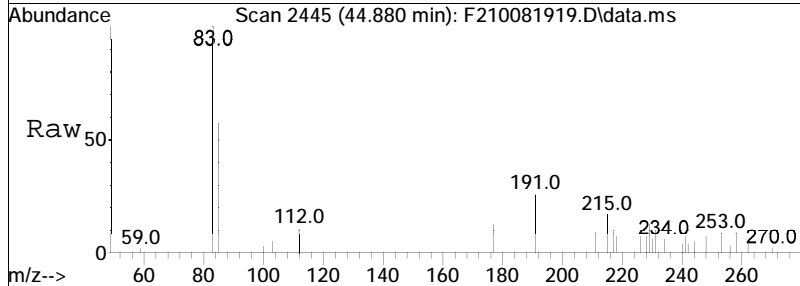


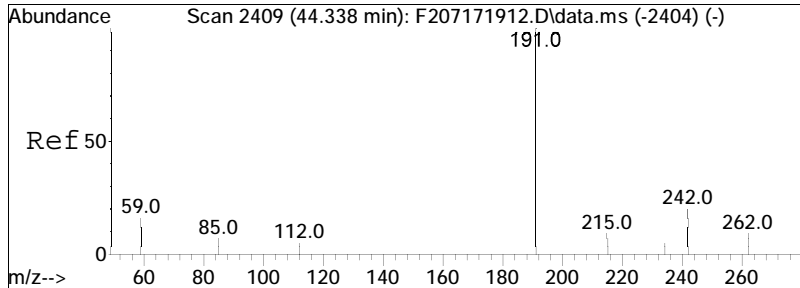
#97
 C25 Tricyclic Terpene (T6)
 Concen: 245.85 ng/ml M4
 RT: 43.585 min Scan# 2359
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 11435



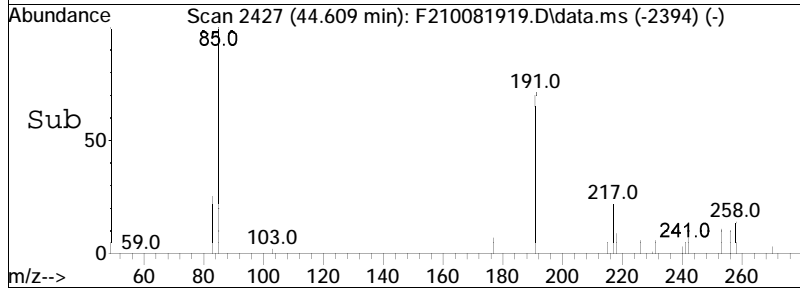
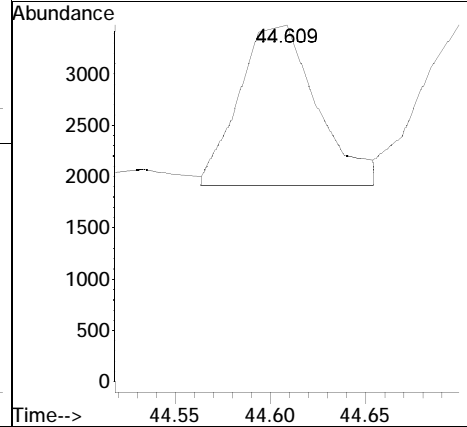
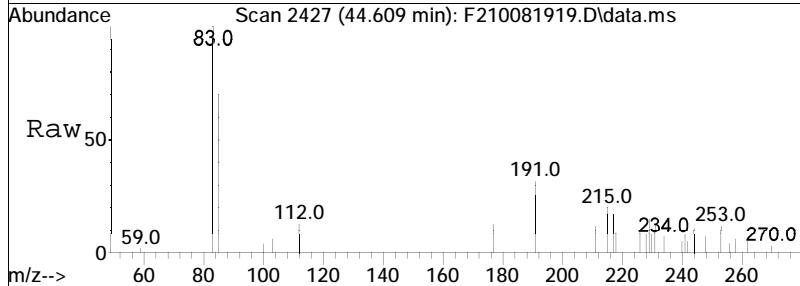


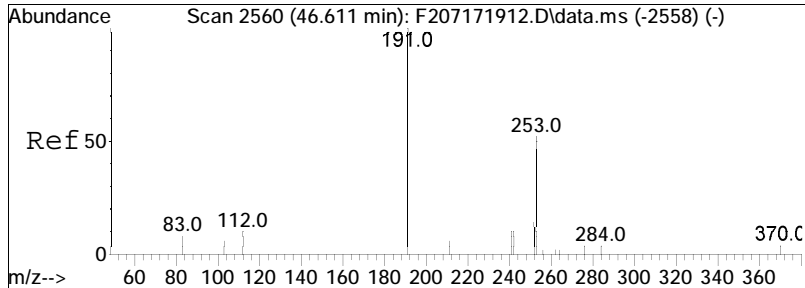
#98
 C24 Tetracyclic Terpene (T6a)
 Concen: 91.65 ng/ml
 RT: 44.880 min Scan# 2445
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 4263



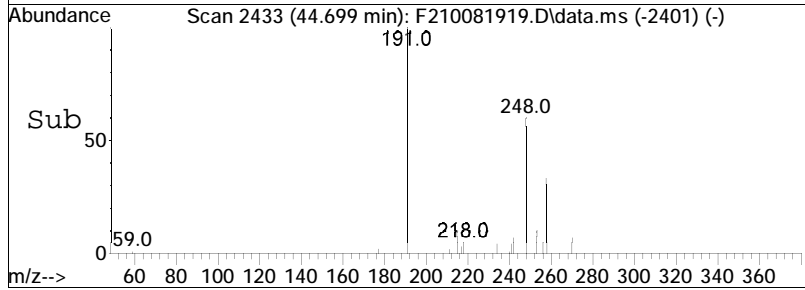
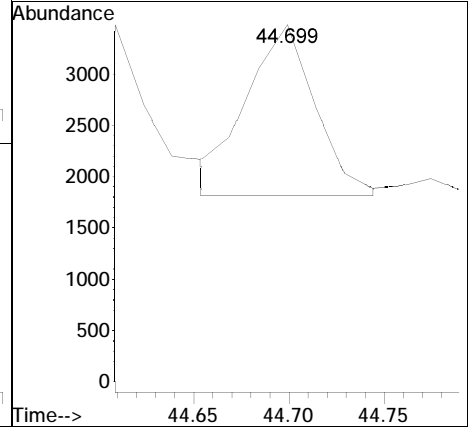
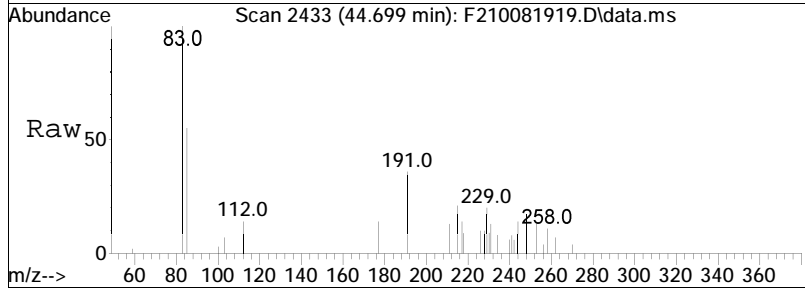


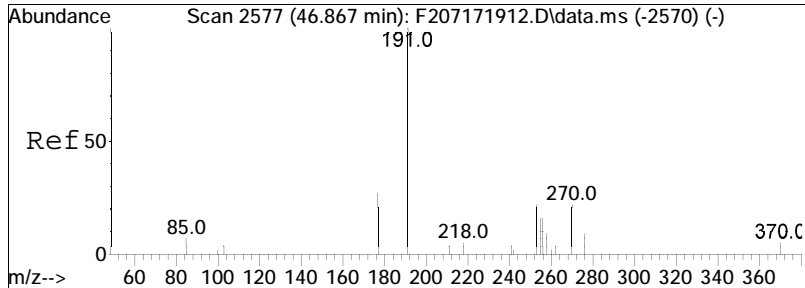
#99
 C26 Tricyclic Terpane-22S (T6b)
 Concen: 96.69 ng/ml M4
 RT: 44.609 min Scan# 2427
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 4497



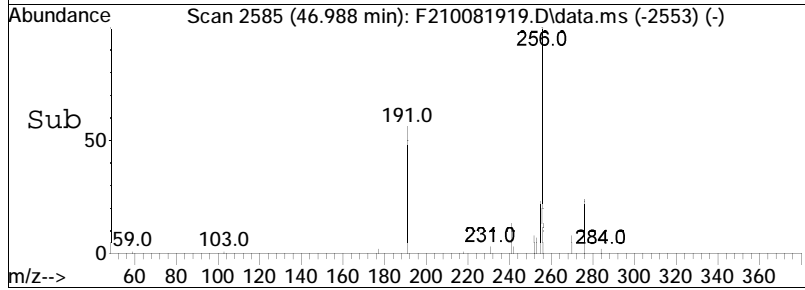
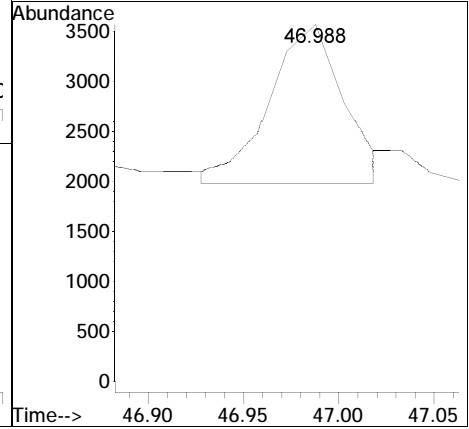
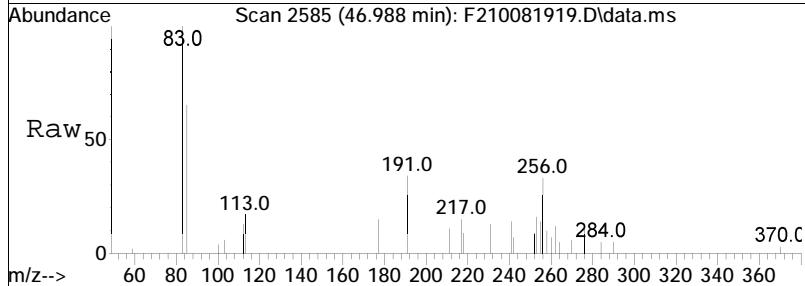


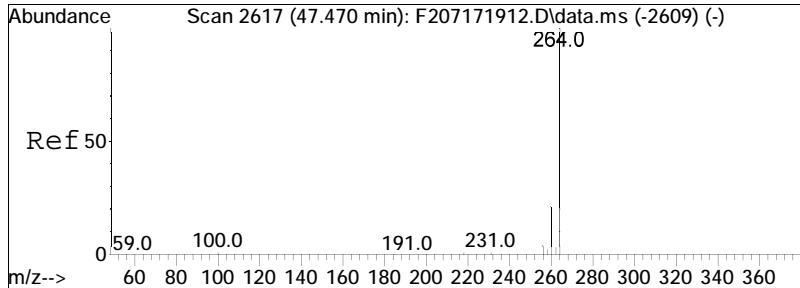
#100
 C26 Tricyclic Terpene-22R (T6c
 Concen: 89.03 ng/ml M4
 RT: 44.699 min Scan# 2433
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 4141





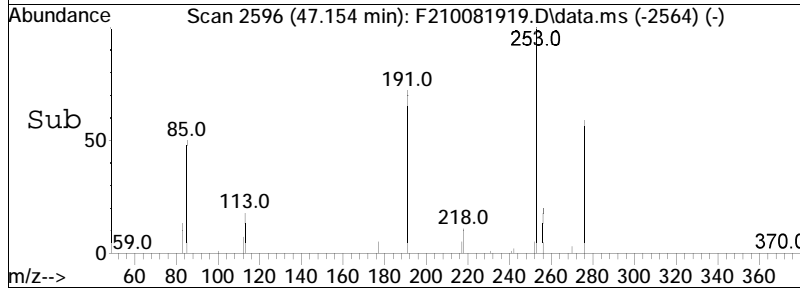
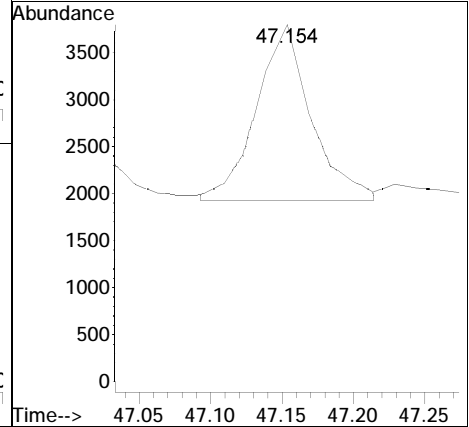
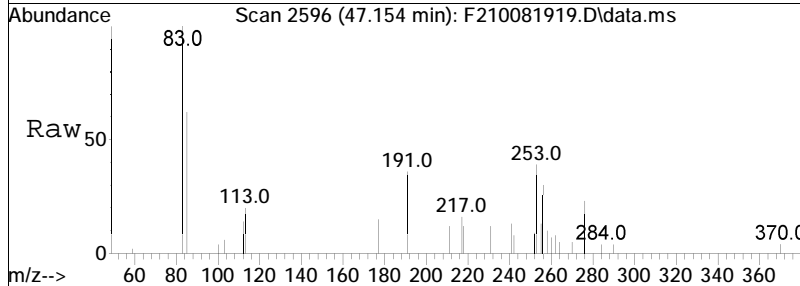
#101
C28 Tricyclic Terpane-22S (T7)
Concen: 92.41 ng/ml M4
RT: 46.988 min Scan# 2585
Delta R.T. -0.015 min
Lab File: F210081919.D
Acq: 9 Oct 2019 5:43 pm
Tgt Ion:191 Resp: 4298

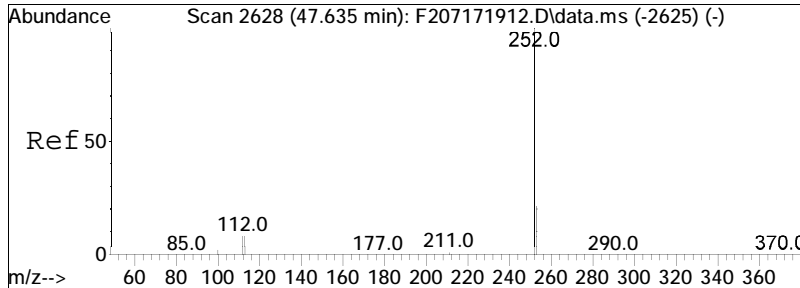




#102
 C28 Tricyclic Terpene-22R (T8)
 Concen: 107.24 ng/ml M4
 RT: 47.154 min Scan# 2596
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

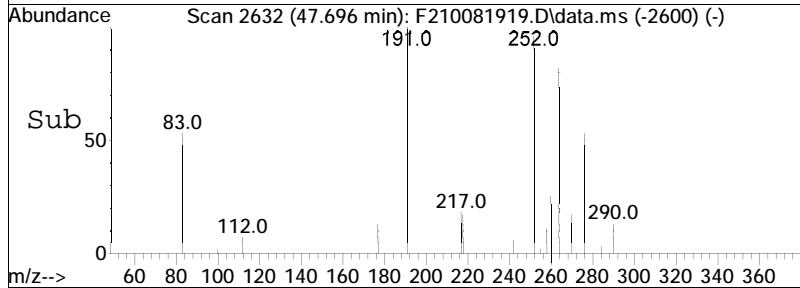
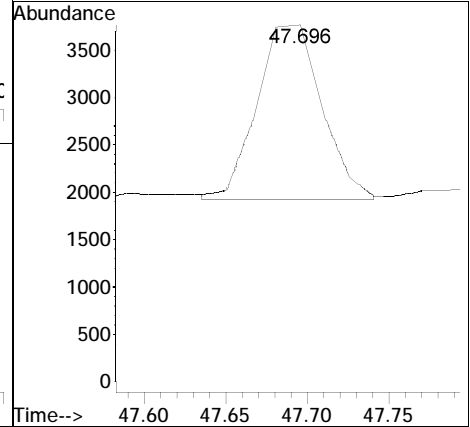
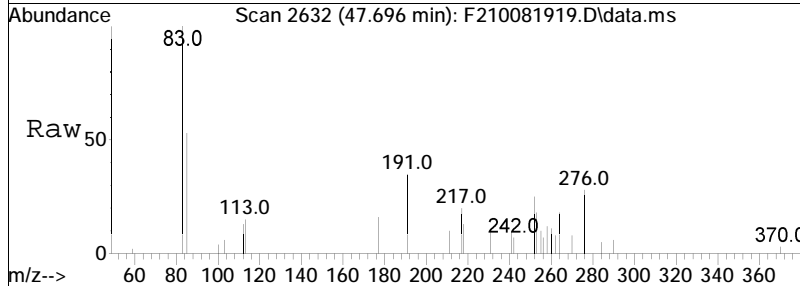
Tgt Ion:191 Resp: 4988

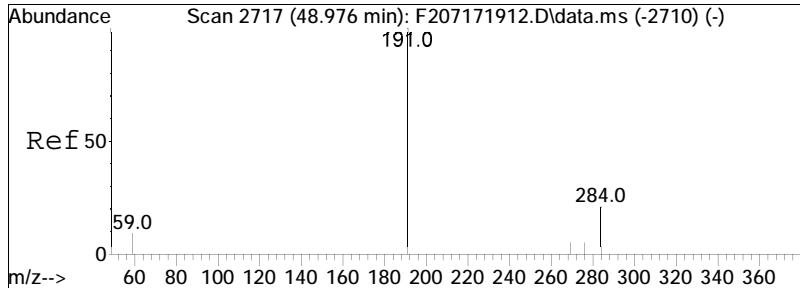




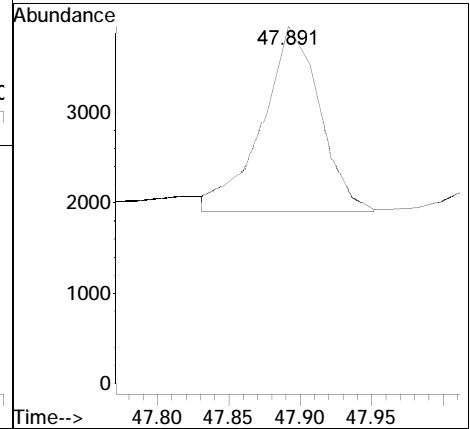
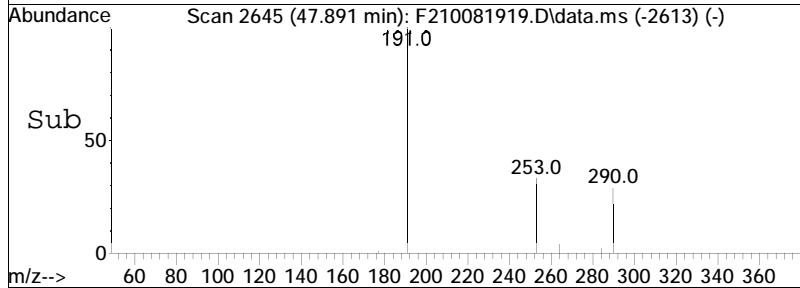
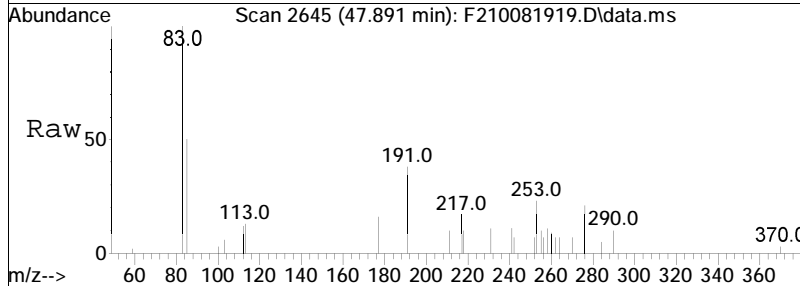
#103
 C29 Tricyclic Terpene-22S (T9)
 Concen: 108.98 ng/ml M4
 RT: 47.696 min Scan# 2632
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

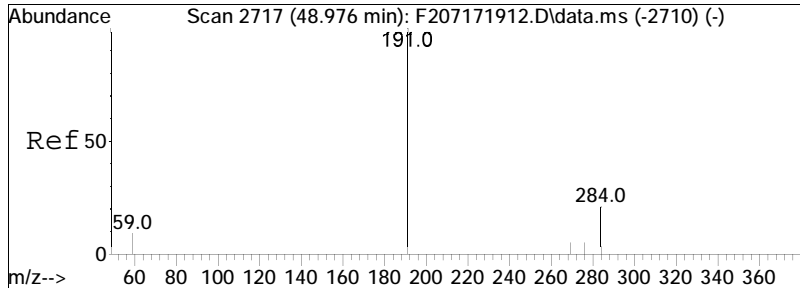
Tgt Ion:191 Resp: 5069



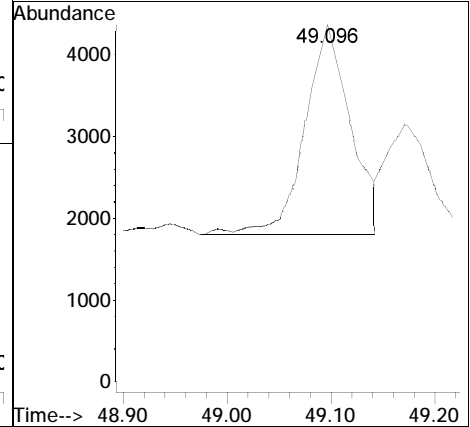
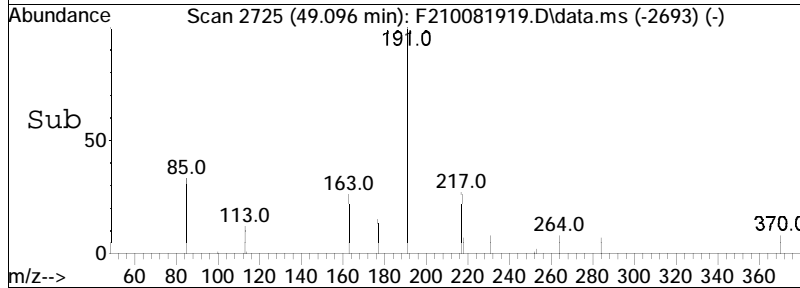
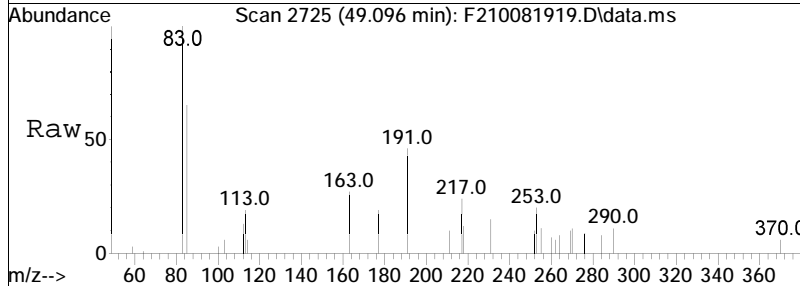


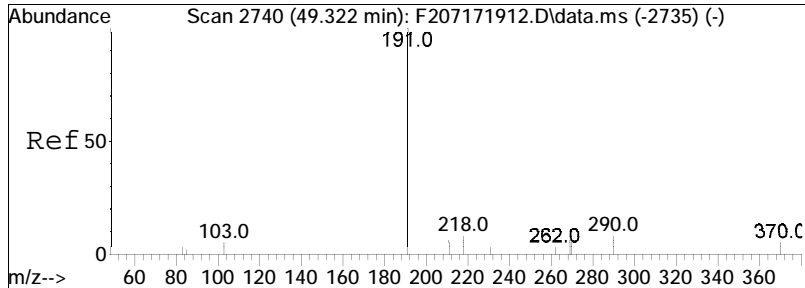
#104
 C29 Tricyclic Terpene-22R (T10)
 Concen: 121.60 ng/ml M4
 RT: 47.891 min Scan# 2645
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 5656



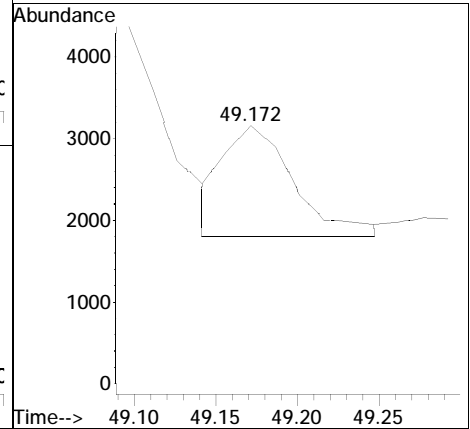
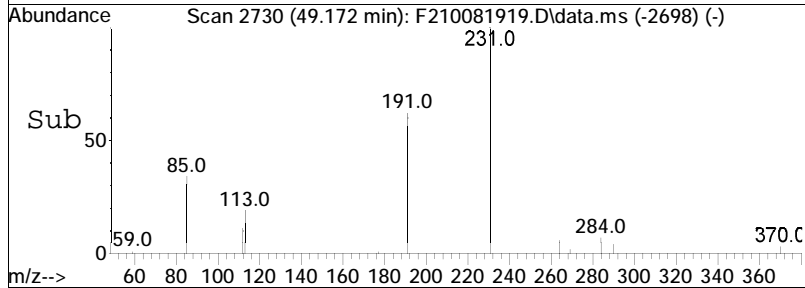
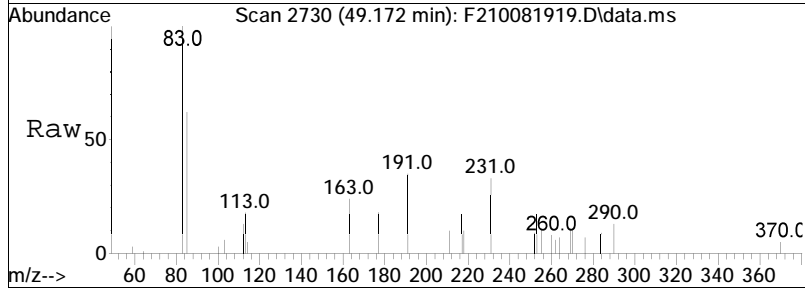


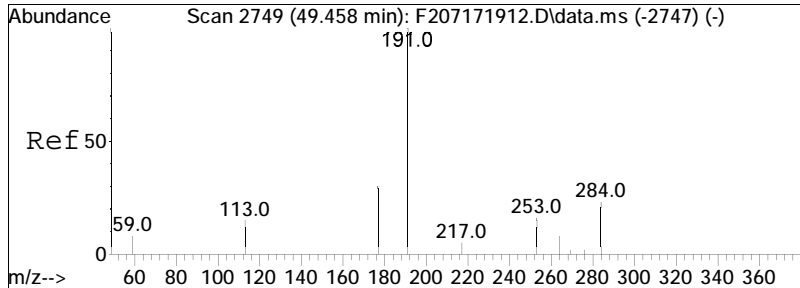
#105
 18a-22,29,30-Trisnorneohopane-
 Concen: 172.95 ng/ml
 RT: 49.096 min Scan# 2725
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 8044



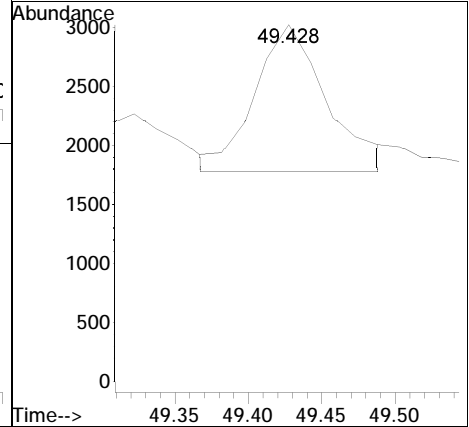
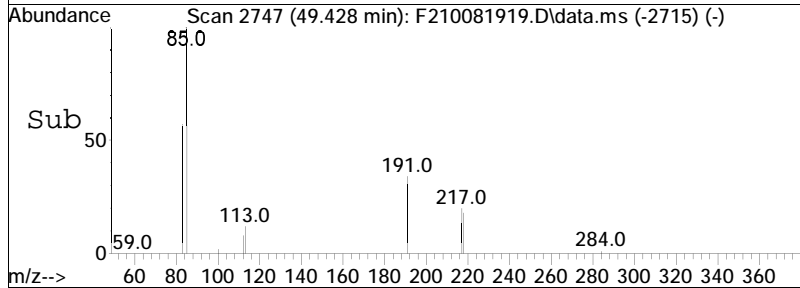
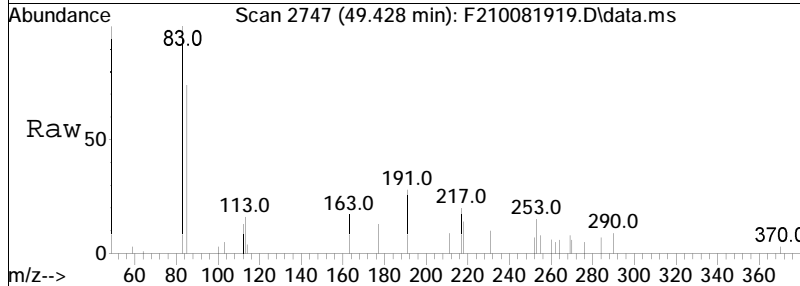


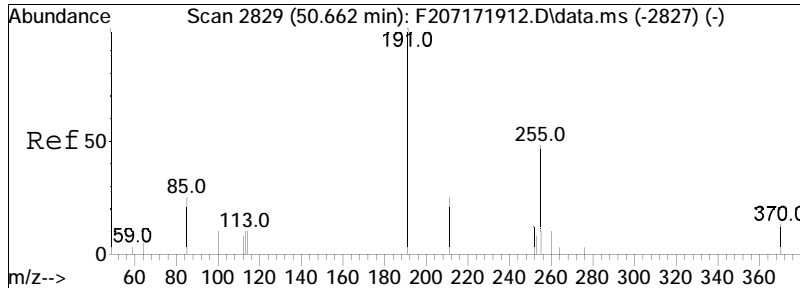
#106
 C30 Tricyclic Terpene-22S
 Concen: 87.76 ng/mL M4
 RT: 49.172 min Scan# 2730
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 4082



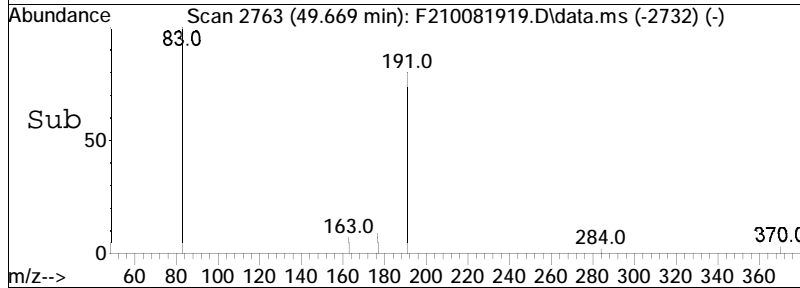
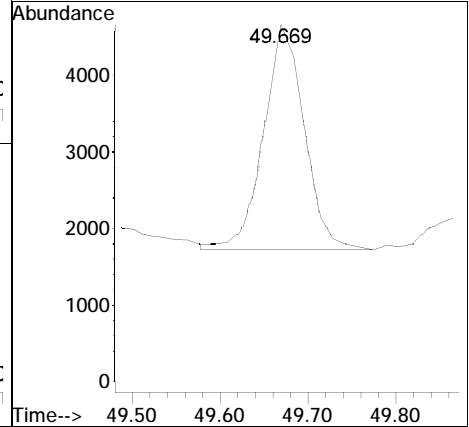
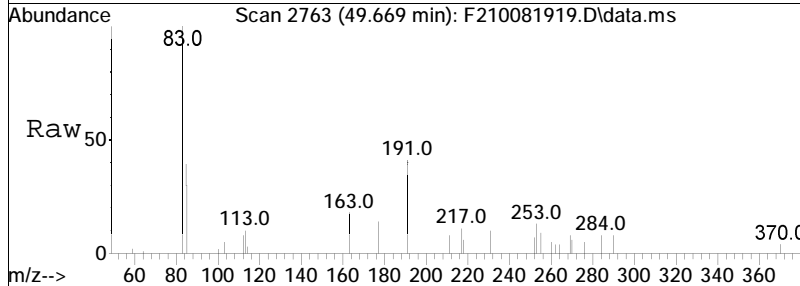


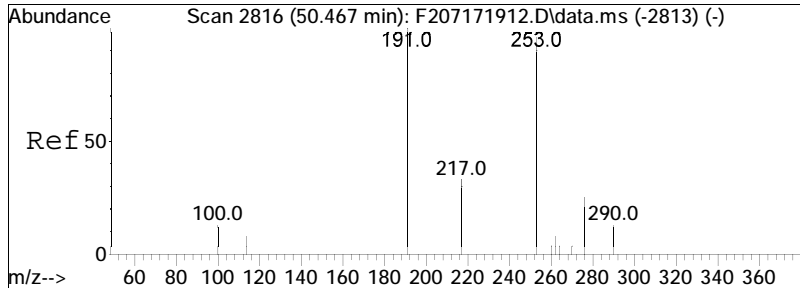
#107
 C30 Tricyclic Terpene-22R
 Concen: 91.96 ng/mL M4
 RT: 49.428 min Scan# 2747
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 4277



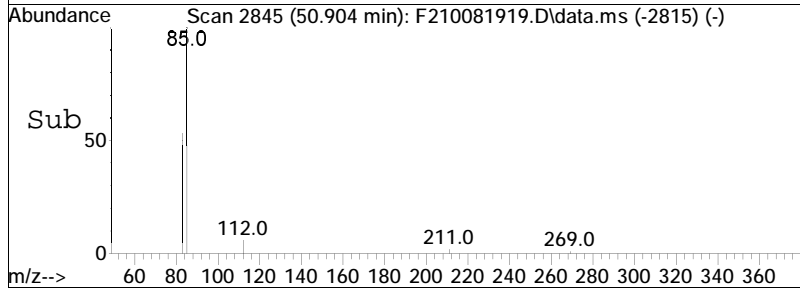
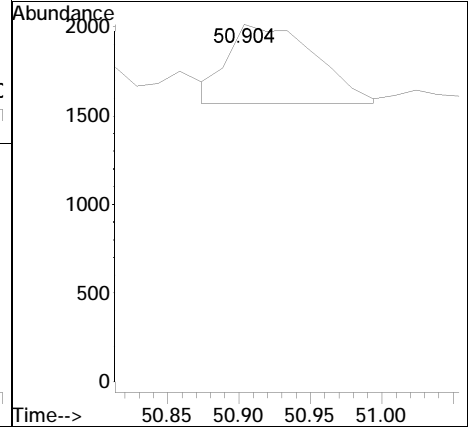
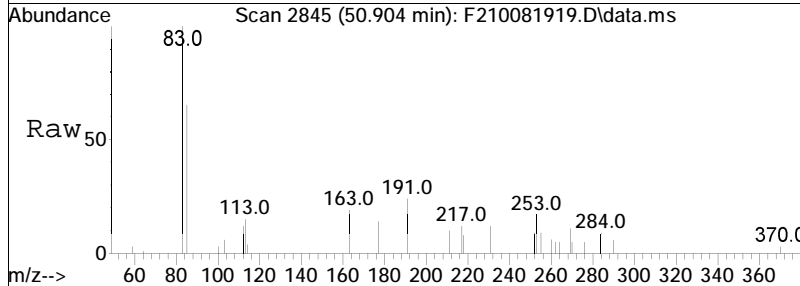


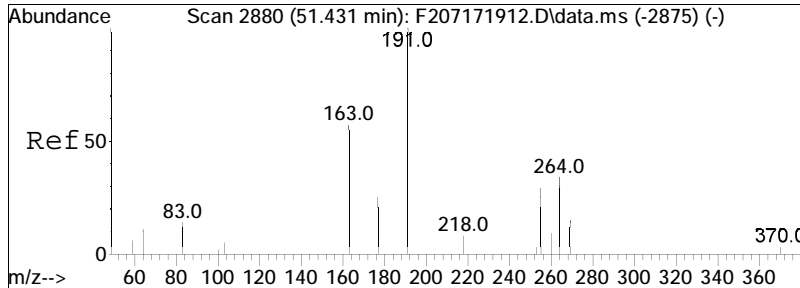
#108
 17a(H)-22,29,30-Trisnorhopane-
 Concen: 201.63 ng/ml
 RT: 49.669 min Scan# 2763
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 9378



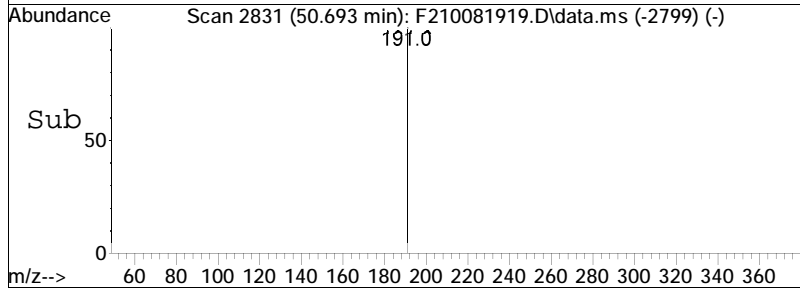
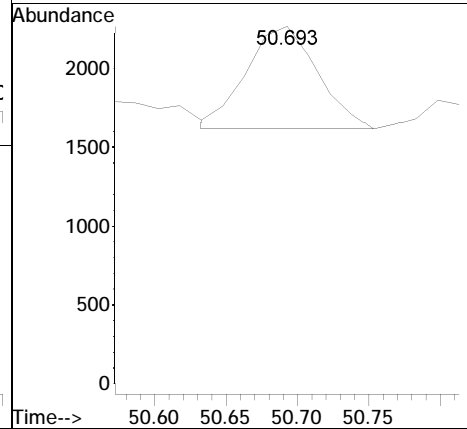
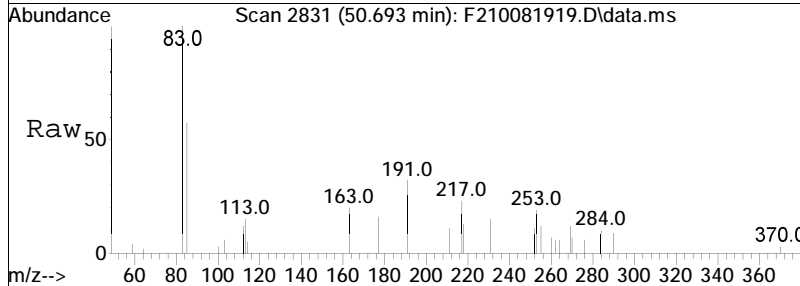


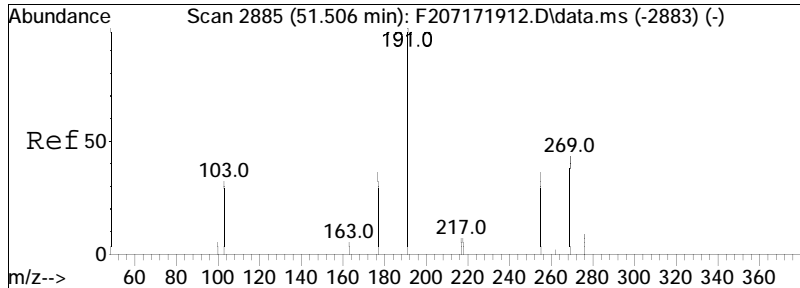
#109
 17a/b,21b/a 28,30-Bisnorhopane
 Concen: 40.01 ng/ml M4
 RT: 50.904 min Scan# 2845
 Delta R.T. -0.045 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 1861



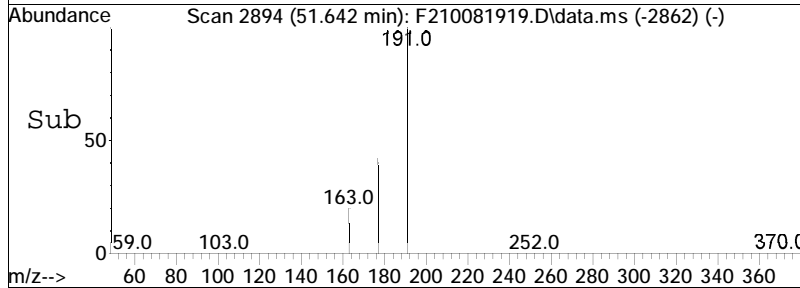
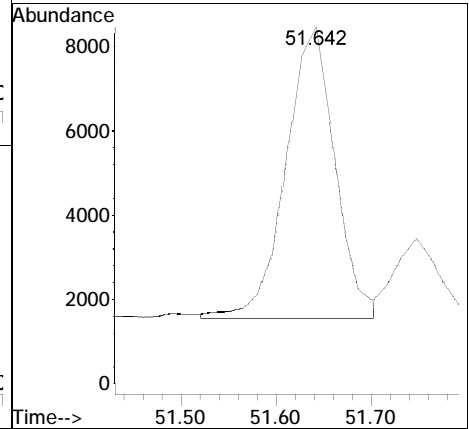
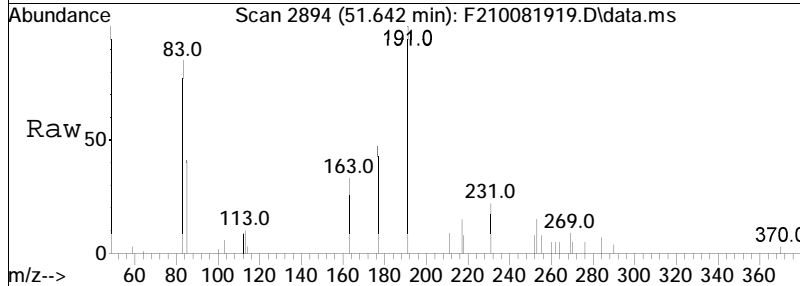


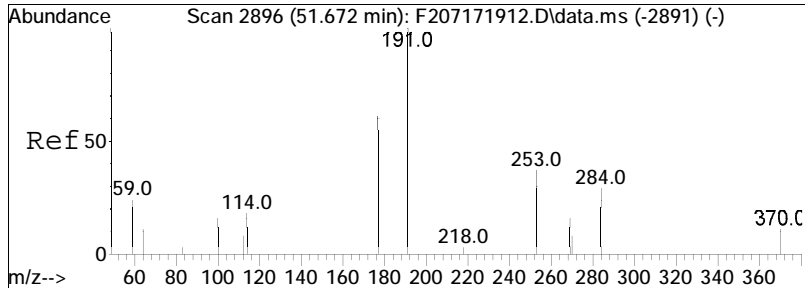
#110
 17a(H),21b(H)-25-Norhopane (T1
 Concen: 48.31 ng/ml
 RT: 50.693 min Scan# 2831
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 2247



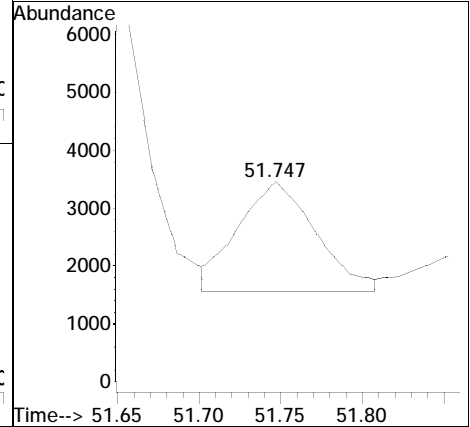
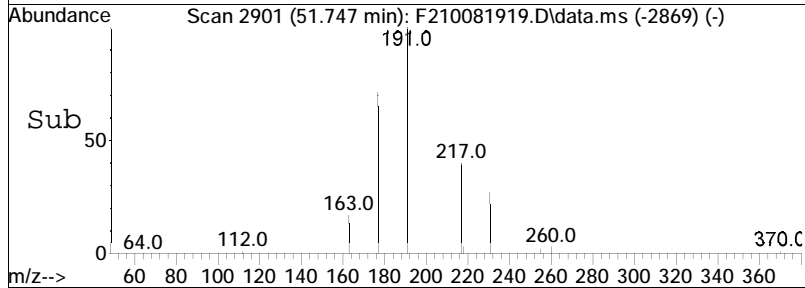
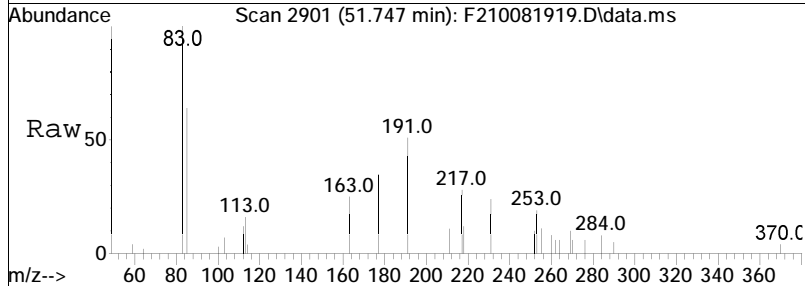


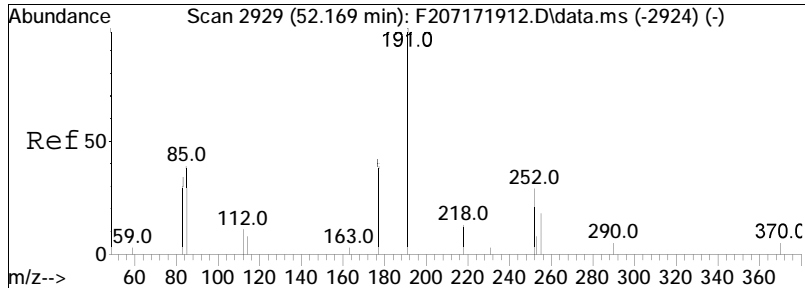
#111
 30-Norhopane (T15)
 Concen: 530.49 ng/ml M4
 RT: 51.642 min Scan# 2894
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 24674



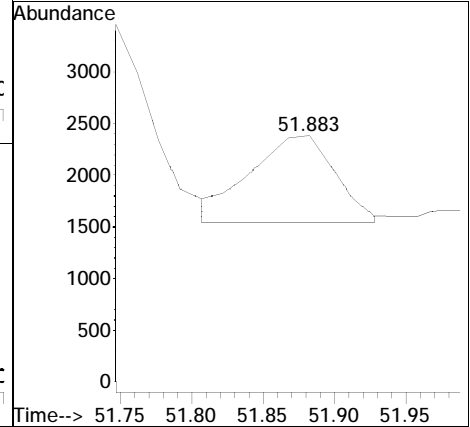
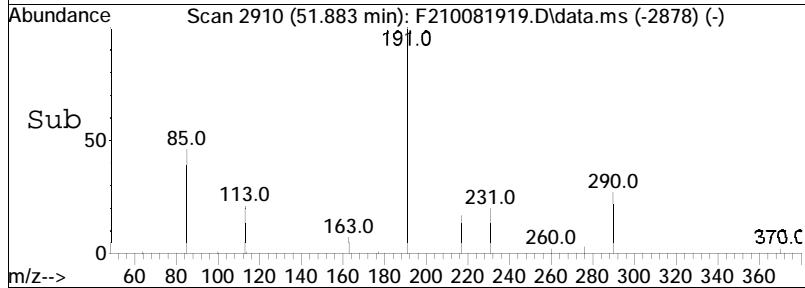
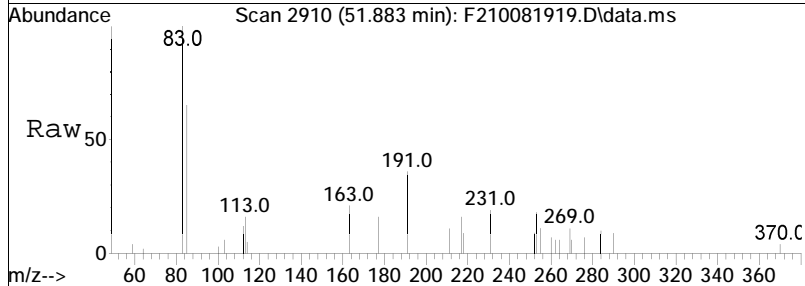


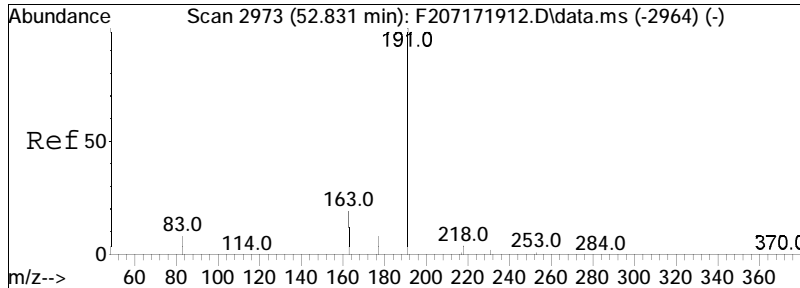
#112
 18a(H)-30-Norneohopane-C29Ts (
 Concen: 133.97 ng/ml M4
 RT: 51.747 min Scan# 2901
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 6231



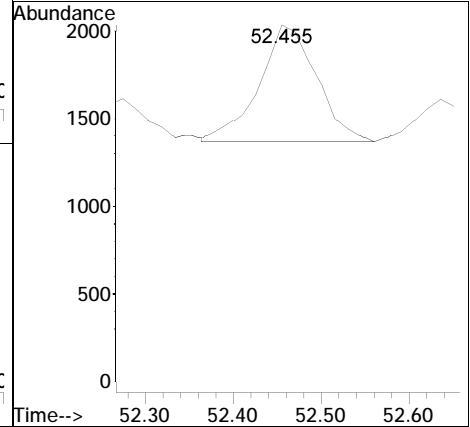
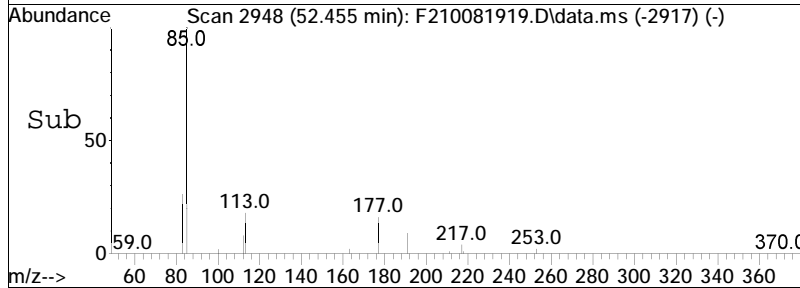
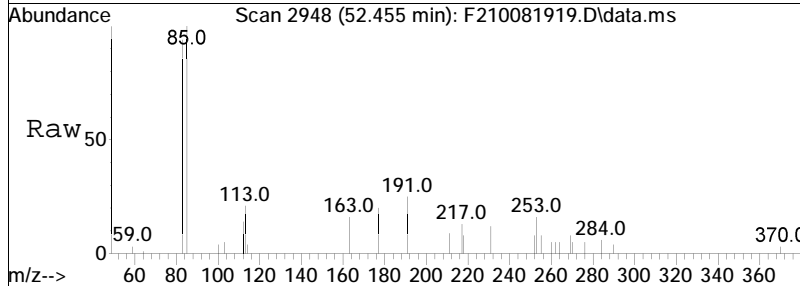


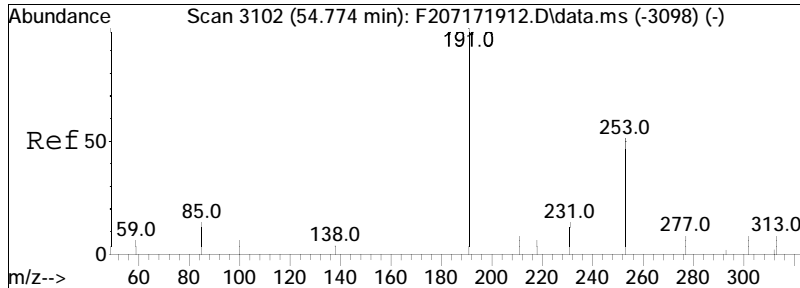
#113
 17a(H)-Diahopane (X)
 Concen: 73.96 ng/ml M4
 RT: 51.883 min Scan# 2910
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 3440



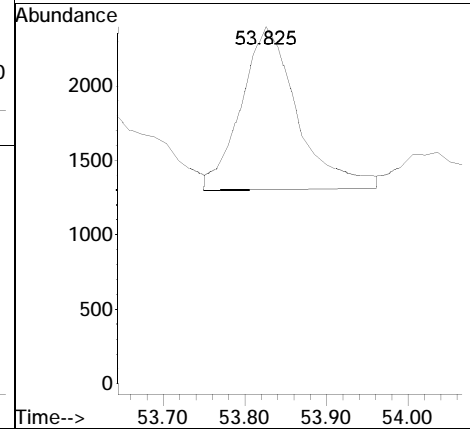
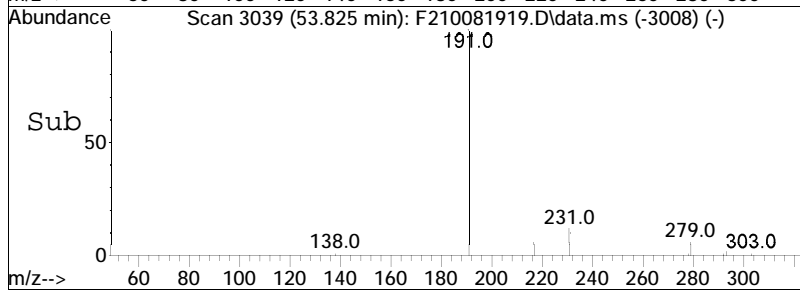
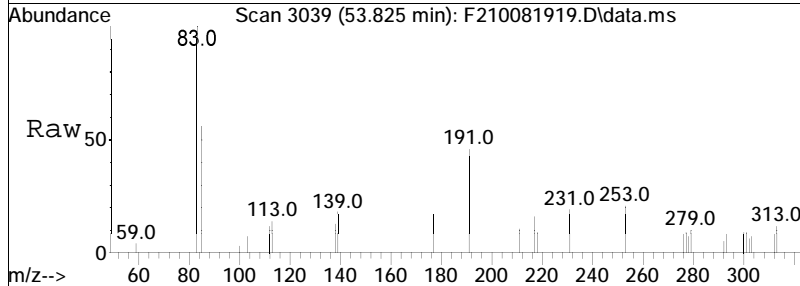


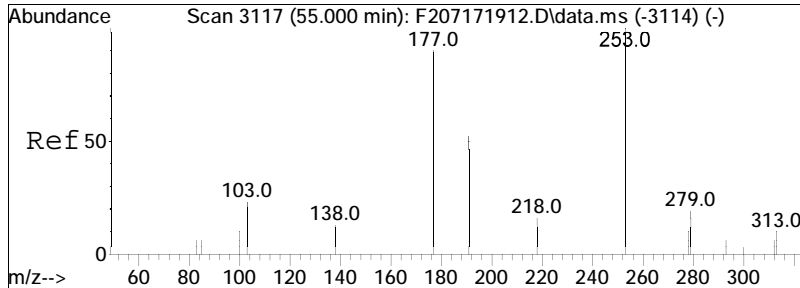
#114
 30-Normoretane (T17)
 Concen: 64.46 ng/ml
 RT: 52.455 min Scan# 2948
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 2998



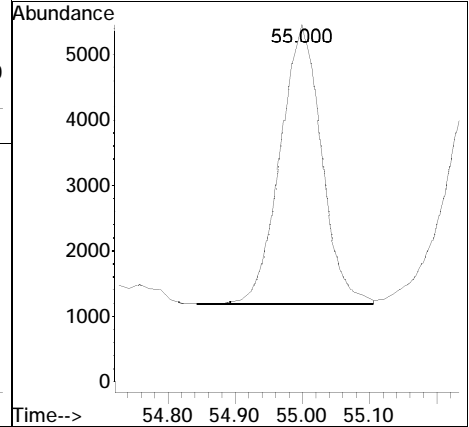
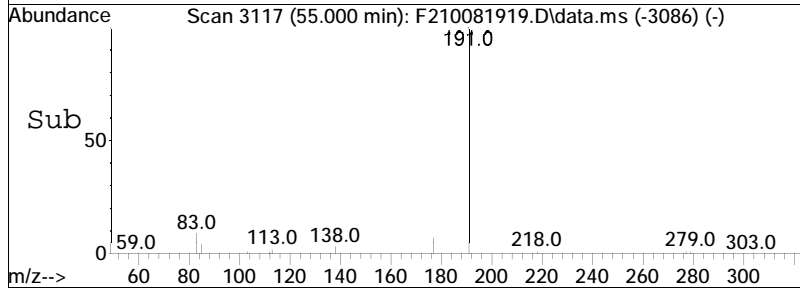
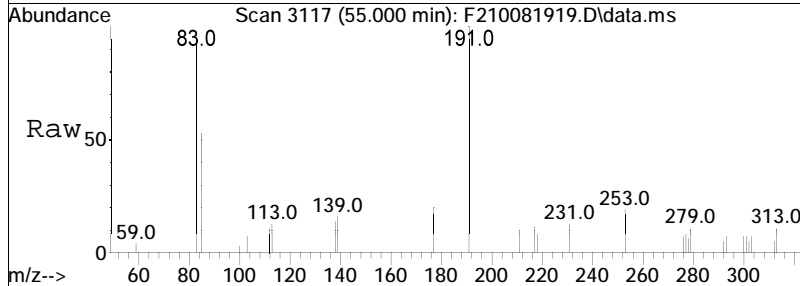


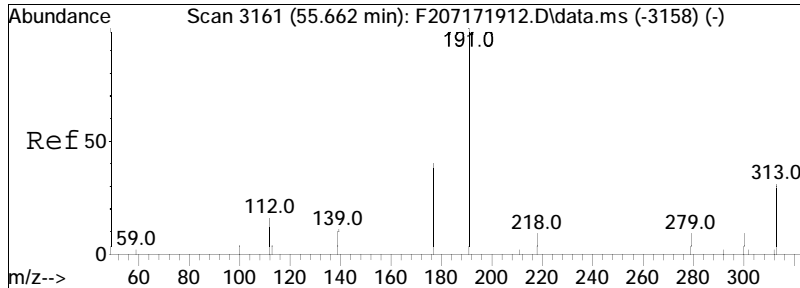
#116
 Moretane (T20)
 Concen: 112.51 ng/ml
 RT: 53.825 min Scan# 3039
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 5233



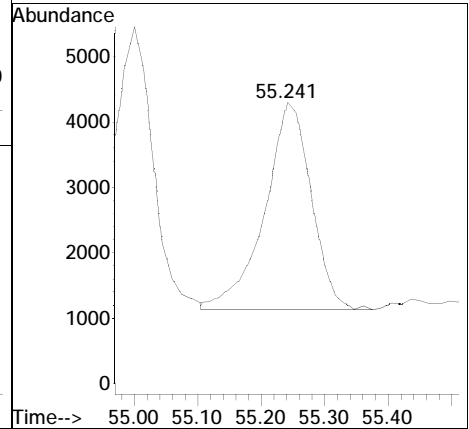
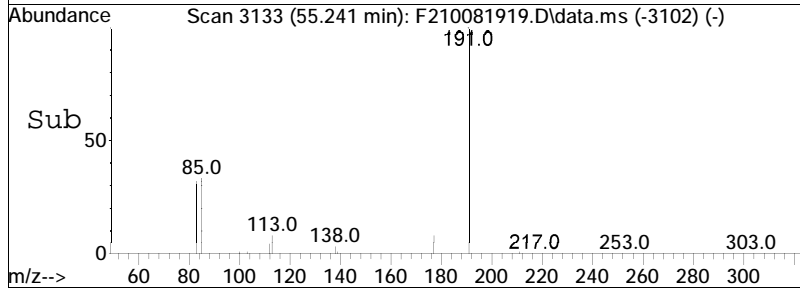
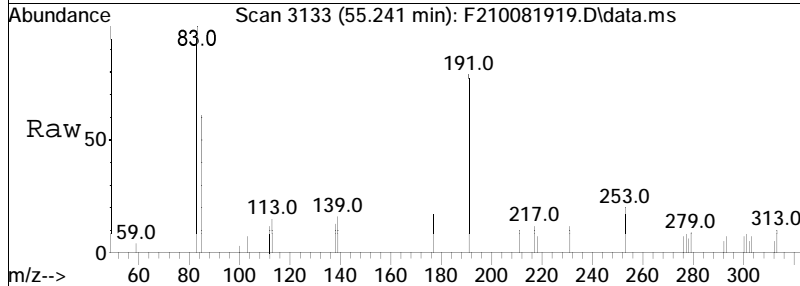


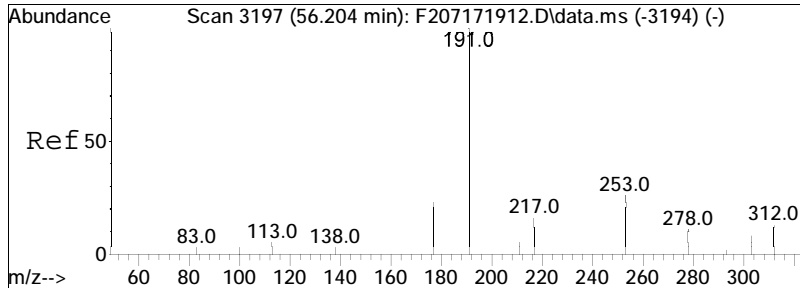
#117
 30-Homohopane-22S (T21)
 Concen: 391.69 ng/ml
 RT: 55.000 min Scan# 3117
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 18218



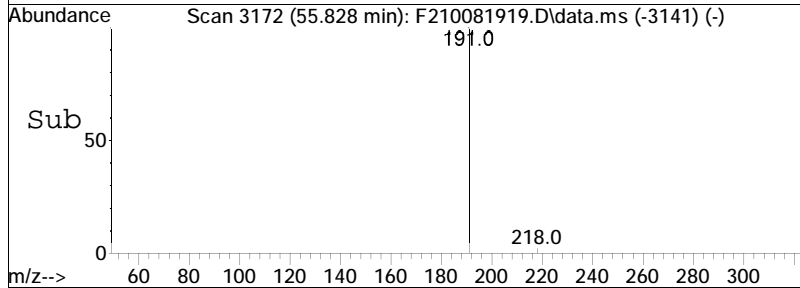
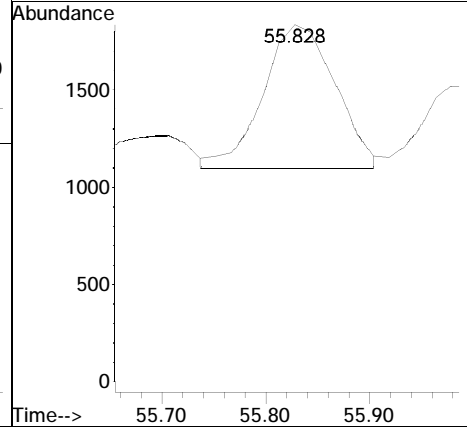
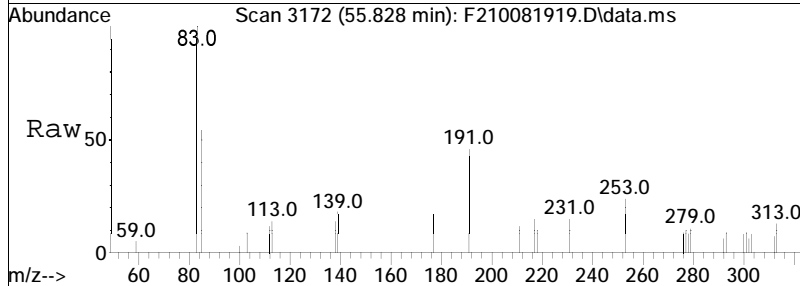


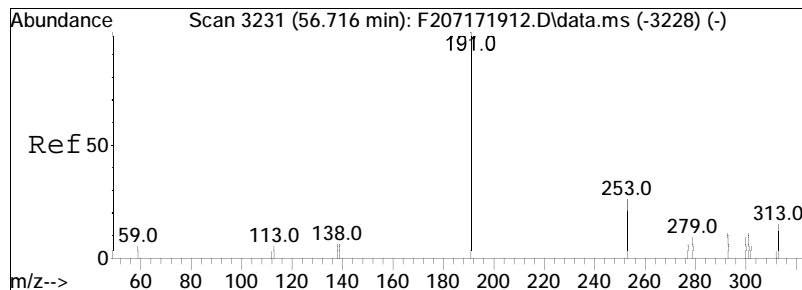
#118
 30-Homohopane-22R (T22)
 Concen: 342.69 ng/ml
 RT: 55.241 min Scan# 3133
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 15939



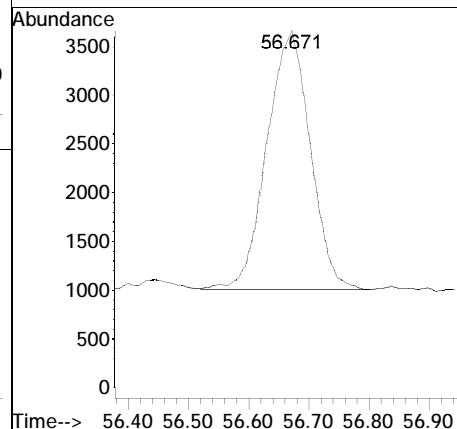
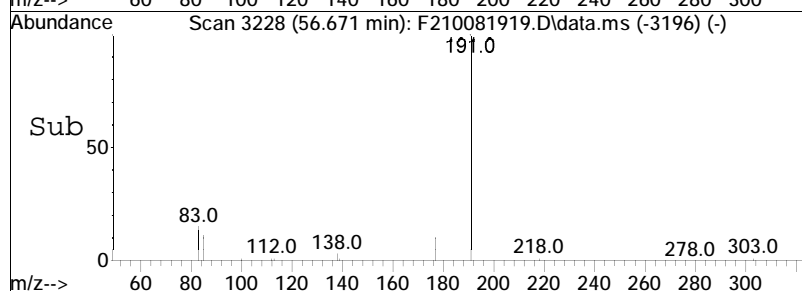
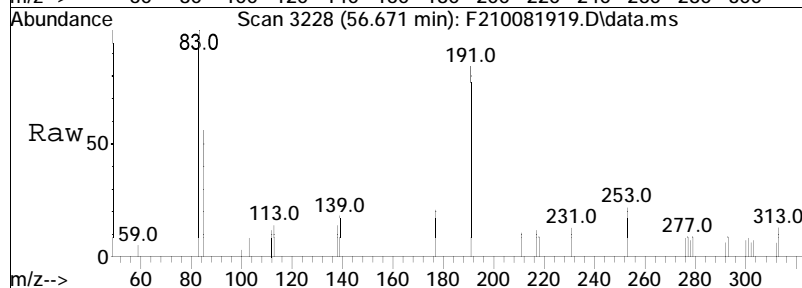


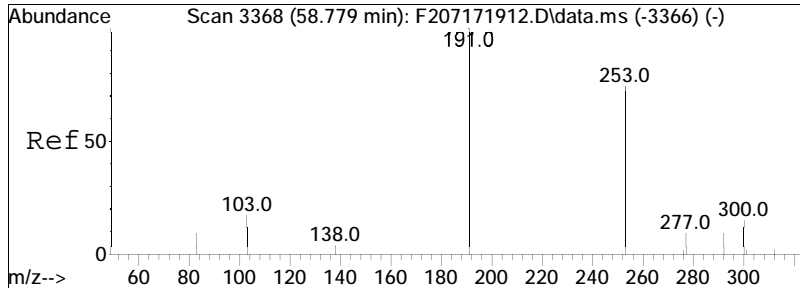
#119
 Gammacerane/C32-diahopane
 Concen: 76.22 ng/mL M4
 RT: 55.828 min Scan# 3172
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 3545



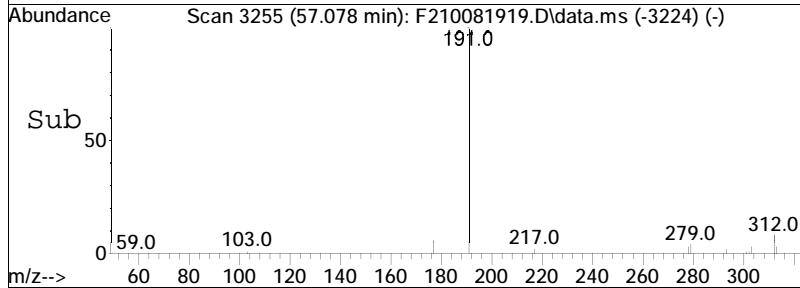
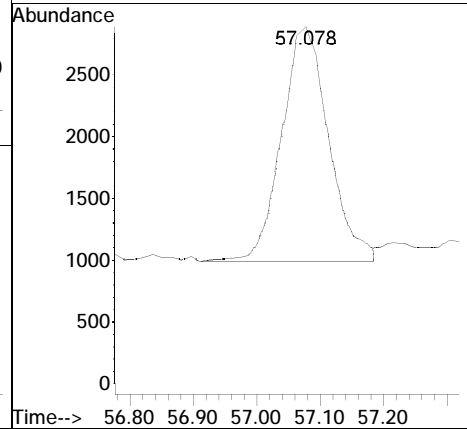
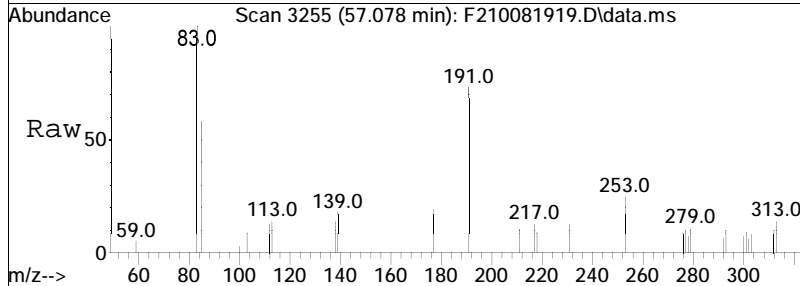


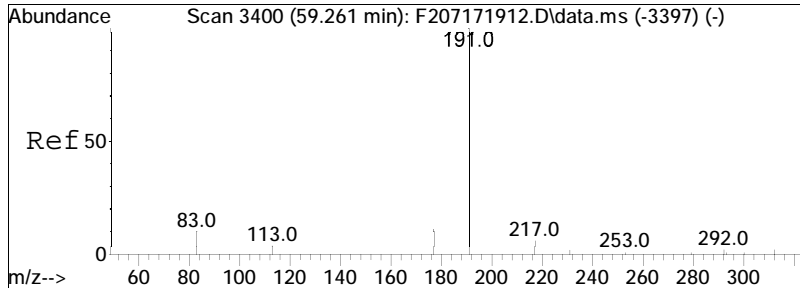
#120
 30,31-Bishomohopane-22S (T26)
 Concen: 283.82 ng/ml
 RT: 56.671 min Scan# 3228
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 13201



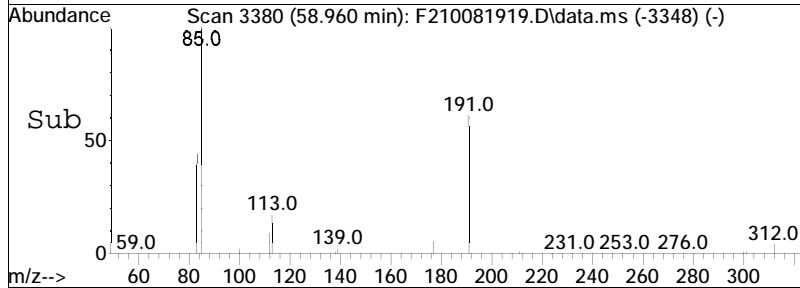
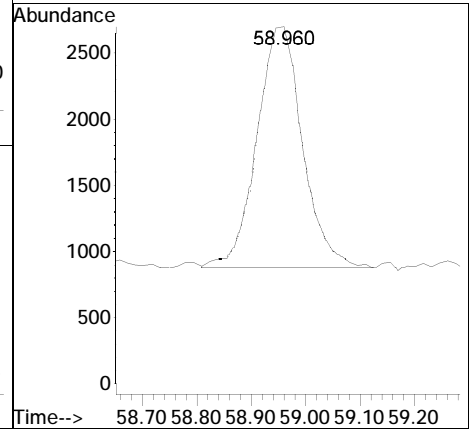
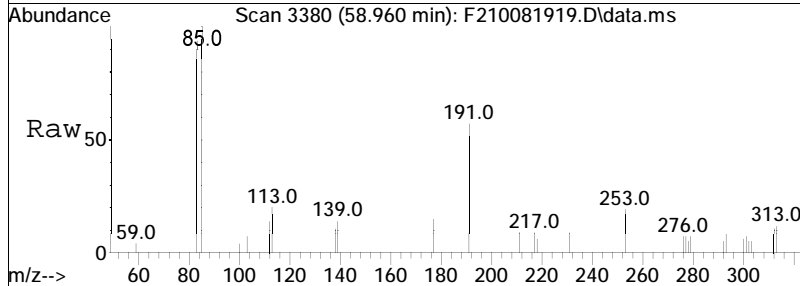


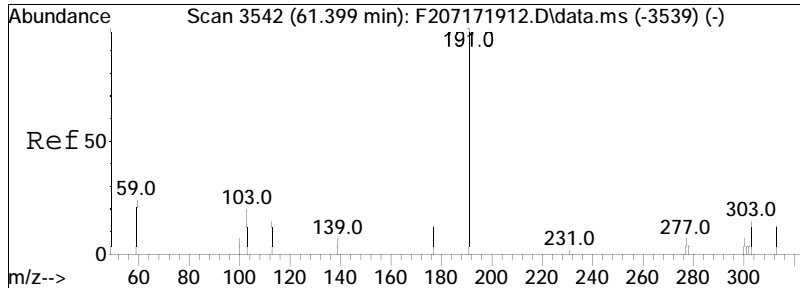
#121
 30,31-Bishomohopane-22R (T27)
 Concen: 210.66 ng/ml
 RT: 57.078 min Scan# 3255
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 9798



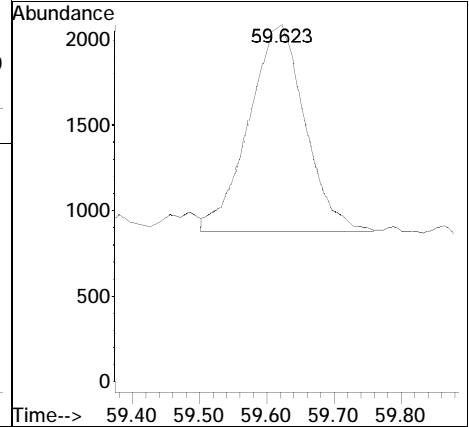
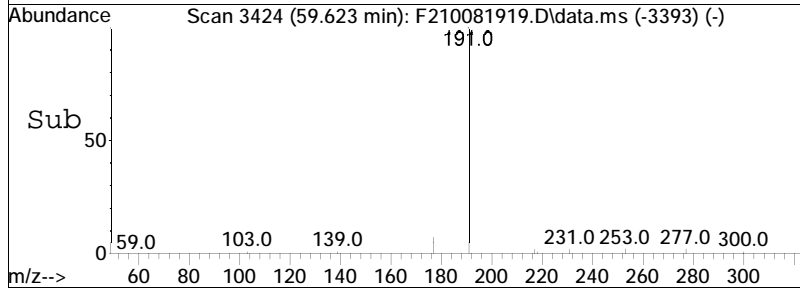
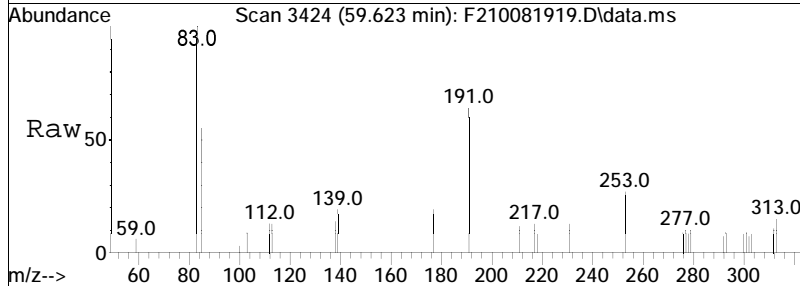


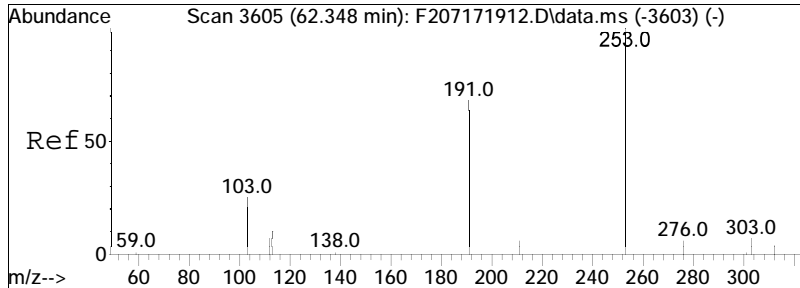
#122
 30,31-Trishomohopane-22S (T30)
 Concen: 228.16 ng/ml
 RT: 58.960 min Scan# 3380
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 10612



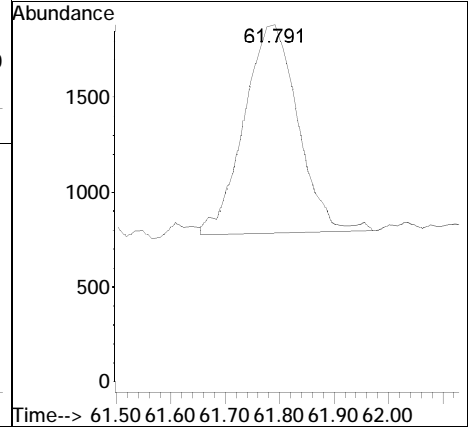
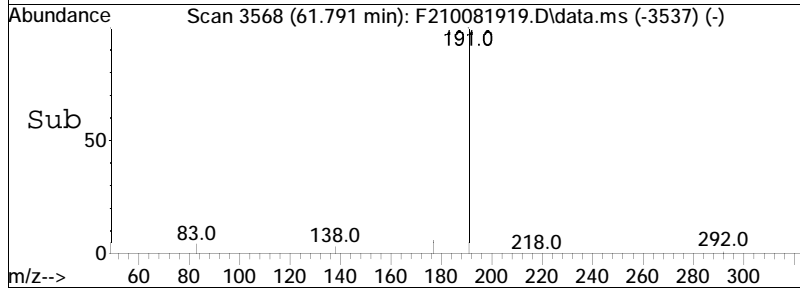
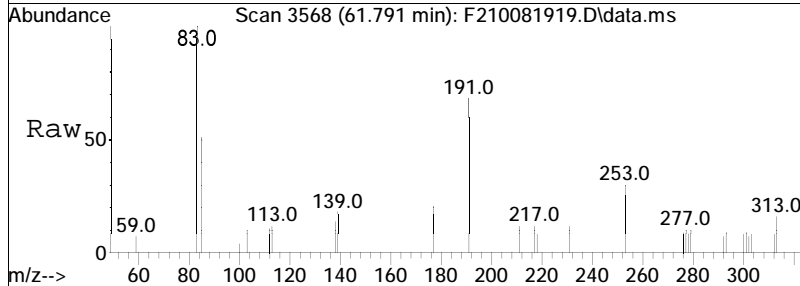


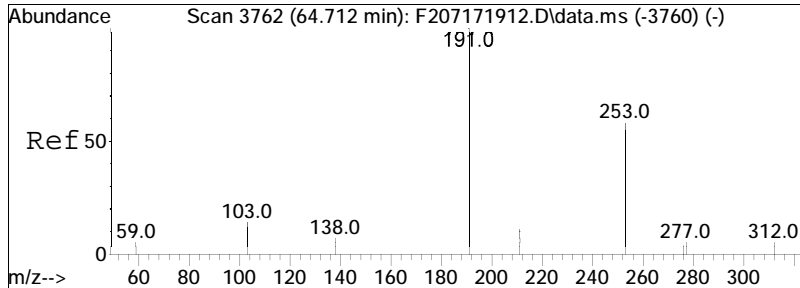
#123
 30,31-Trishomohopane-22R (T31)
 Concen: 150.07 ng/ml M4
 RT: 59.623 min Scan# 3424
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 6980



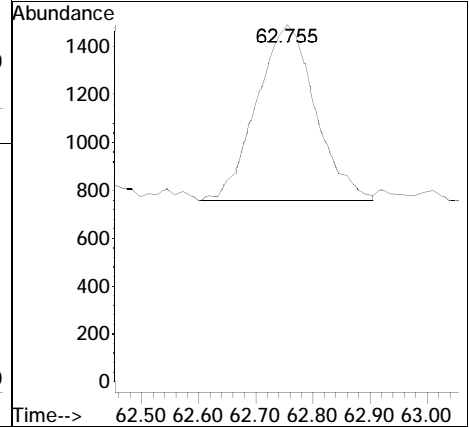
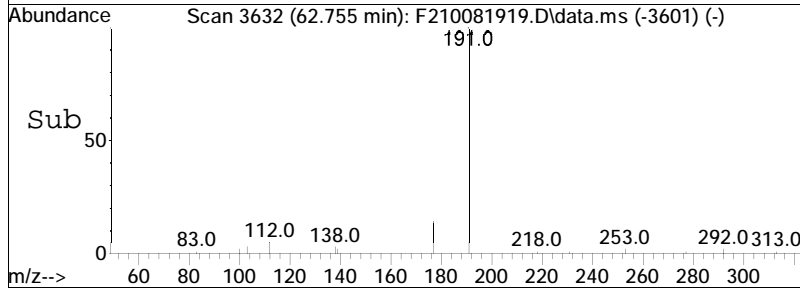
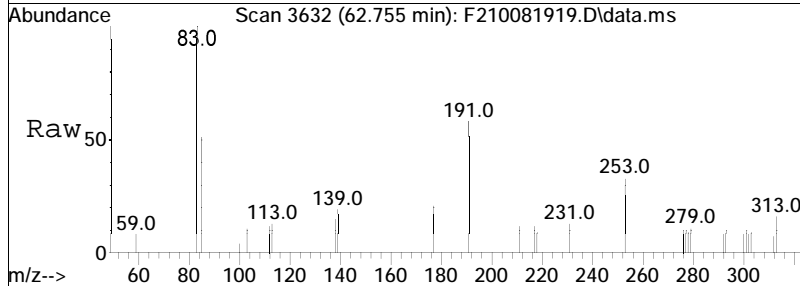


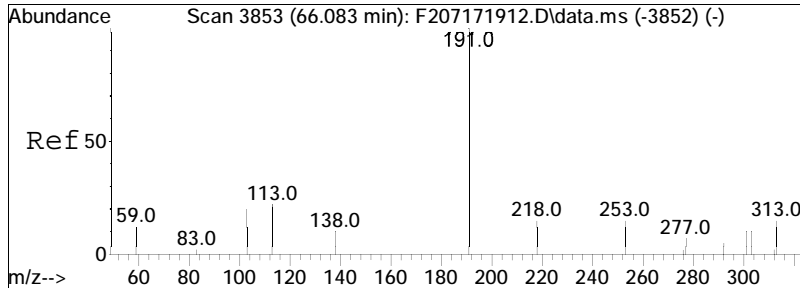
#124
 Tetrakishomohopane-22S (T32)
 Concen: 161.01 ng/ml
 RT: 61.791 min Scan# 3568
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 7489



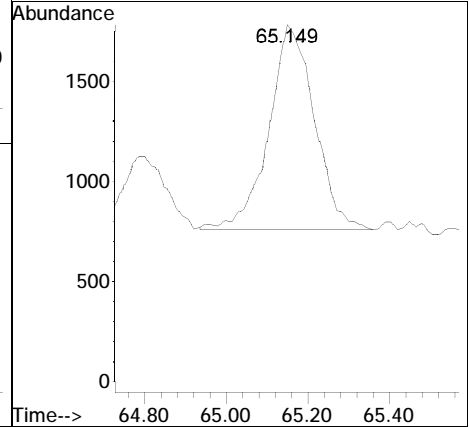
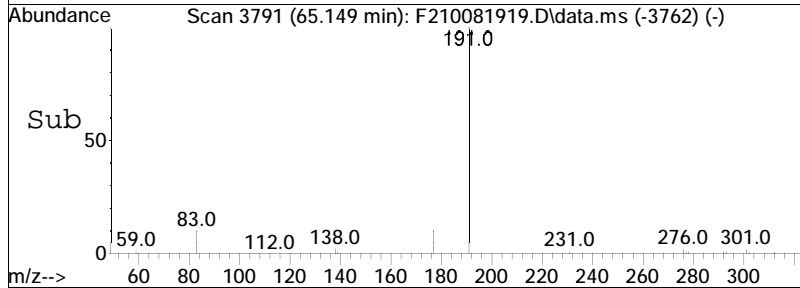
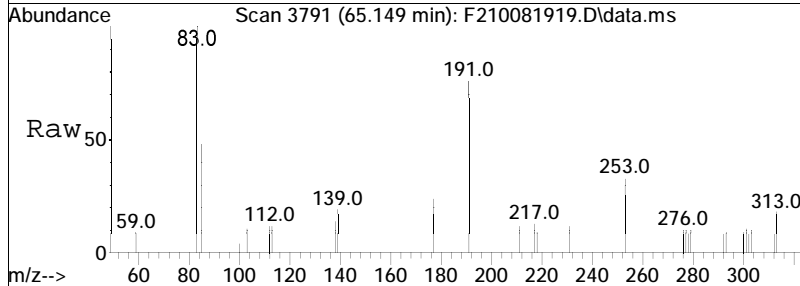


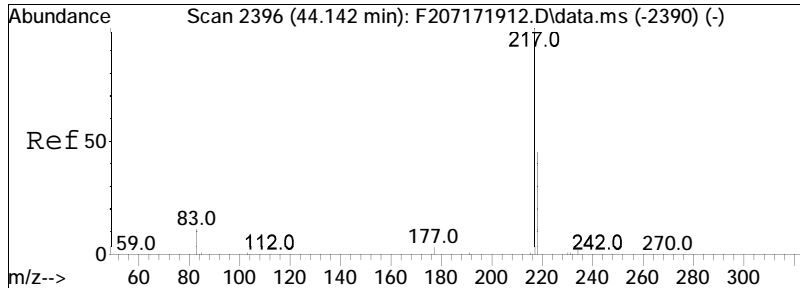
#125
 Tetrakishomohopane-22R (T33)
 Concen: 112.53 ng/ml
 RT: 62.755 min Scan# 3632
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 5234





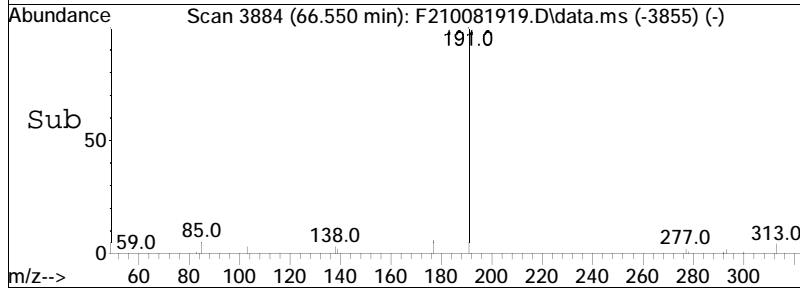
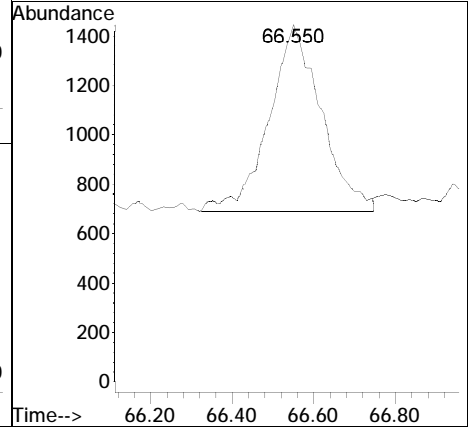
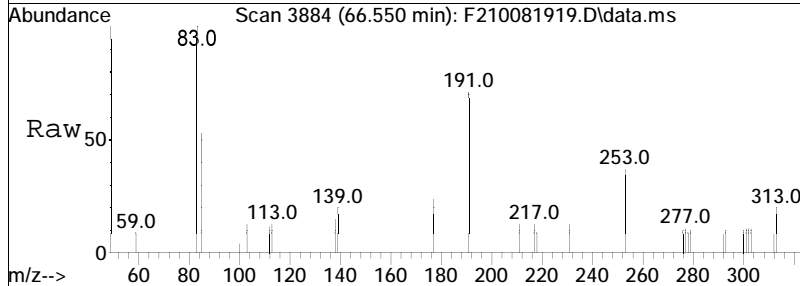
#126
 Pentakishomohopane-22S (T34)
 Concen: 168.99 ng/ml
 RT: 65.149 min Scan# 3791
 Delta R.T. -0.060 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:191 Resp: 7860

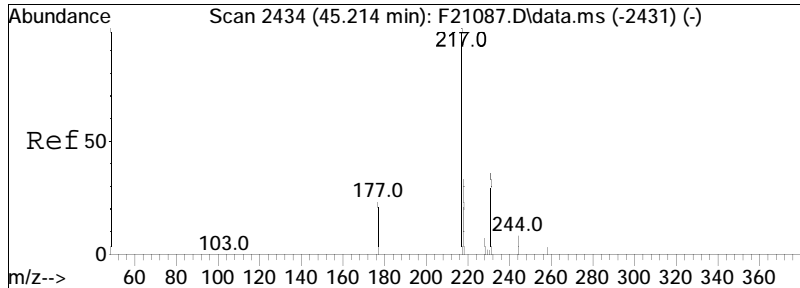




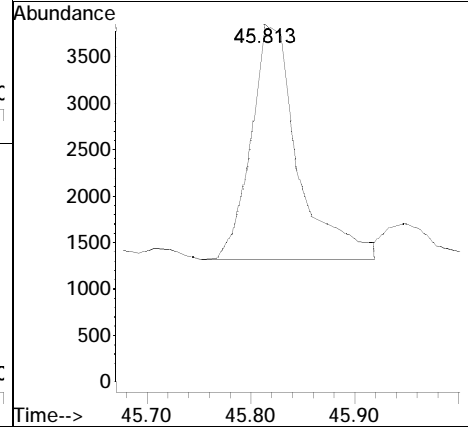
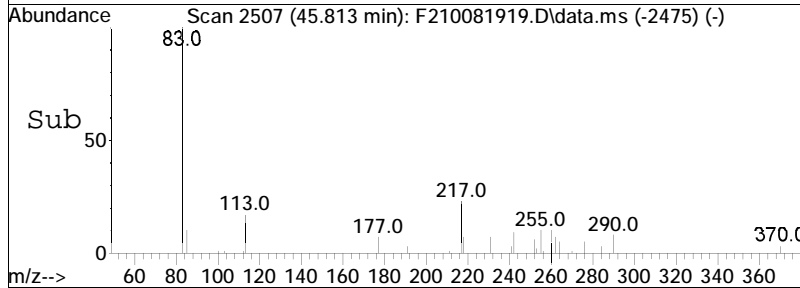
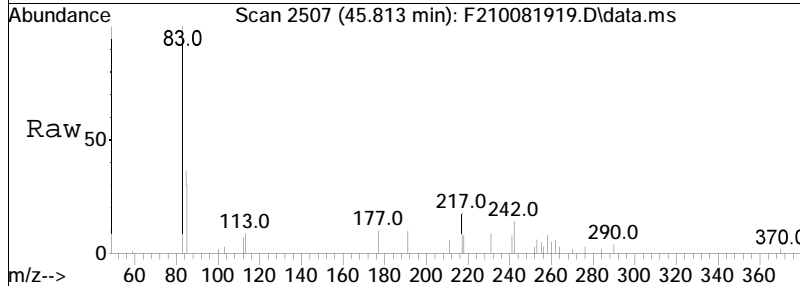
#127
 Pentakishomohopane-22R (T35)
 Concen: 144.65 ng/ml
 RT: 66.550 min Scan# 3884
 Delta R.T. -0.060 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

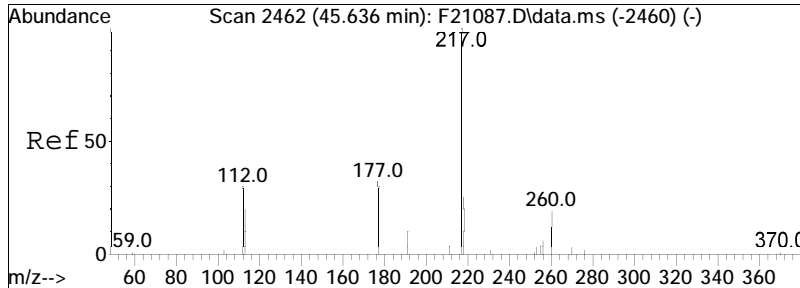
Tgt Ion:191 Resp: 6728





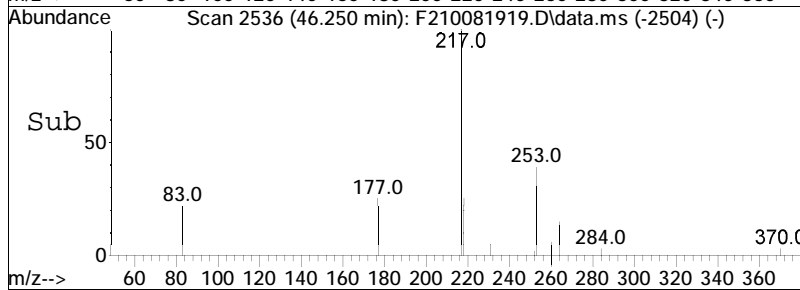
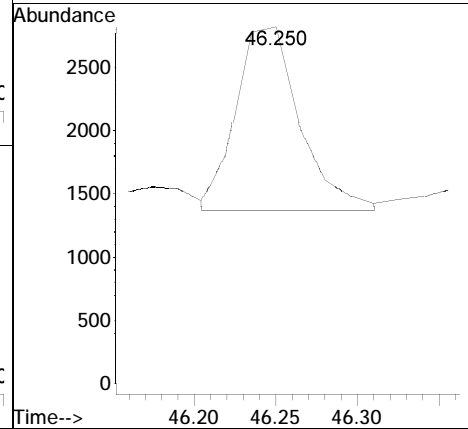
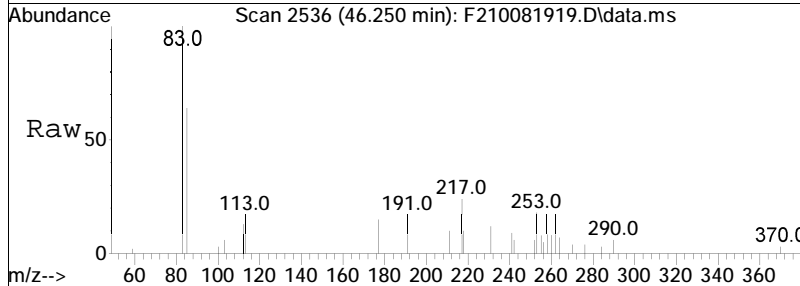
#129
 13b(H),17a(H)-20S-Diacholestan
 Concen: 254.90 ng/ml
 RT: 45.813 min Scan# 2507
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:217 Resp: 7924

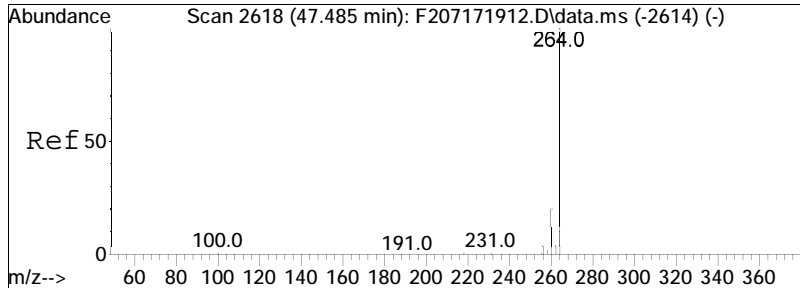




#130
 13b(H),17a(H)-20R-Diacholestan
 Concen: 126.64 ng/ml M4
 RT: 46.250 min Scan# 2536
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

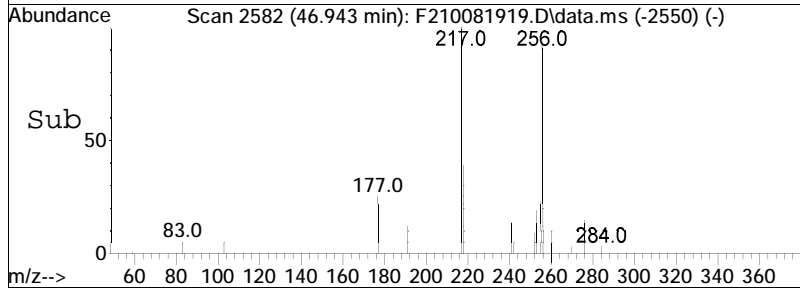
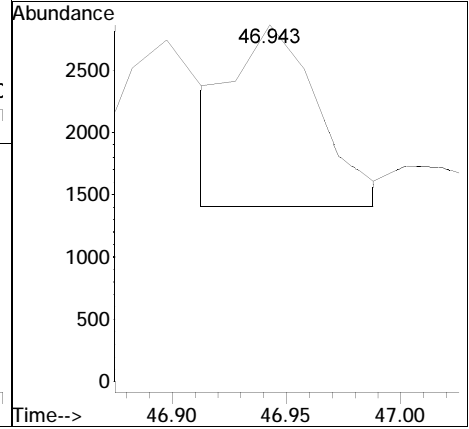
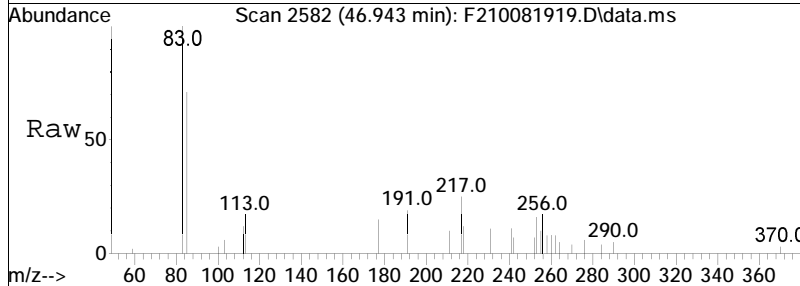
Tgt Ion: 217 Resp: 3937

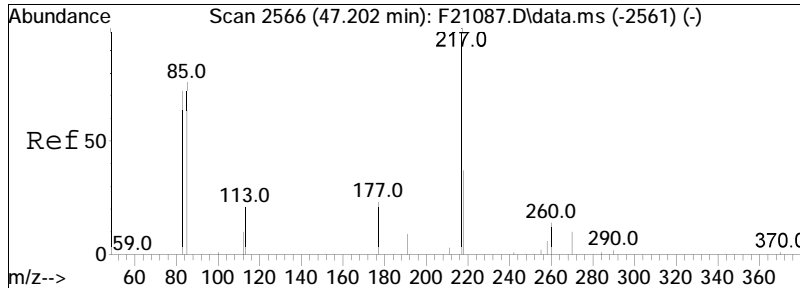




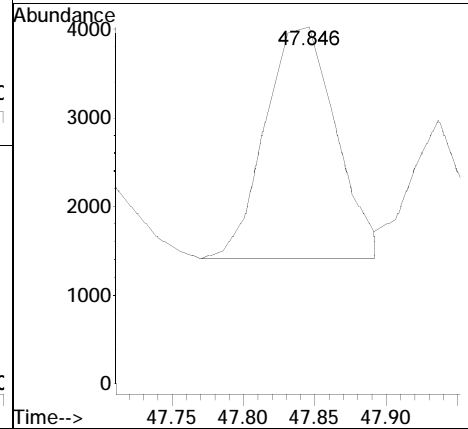
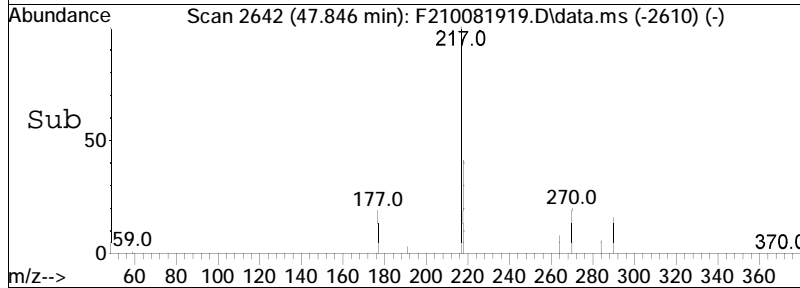
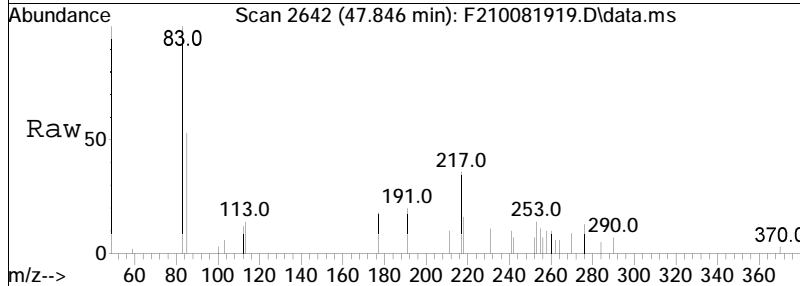
#131
 13b,17a-20S-Methyldiacholestan
 Concen: 121.34 ng/ml M3
 RT: 46.943 min Scan# 2582
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

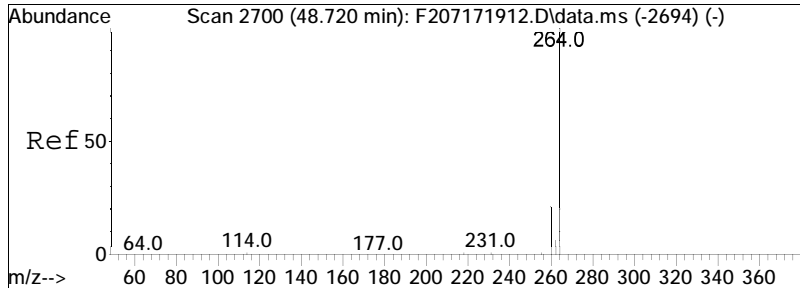
Tgt Ion: 217 Resp: 3772





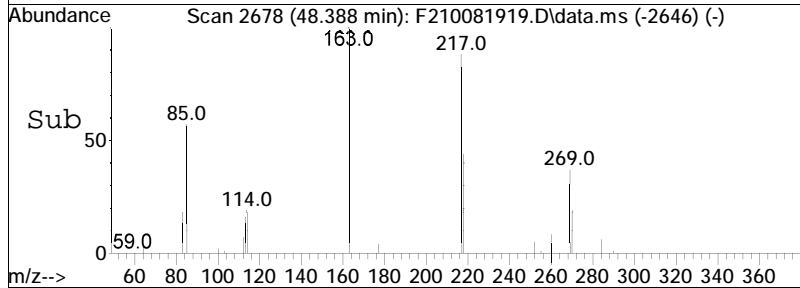
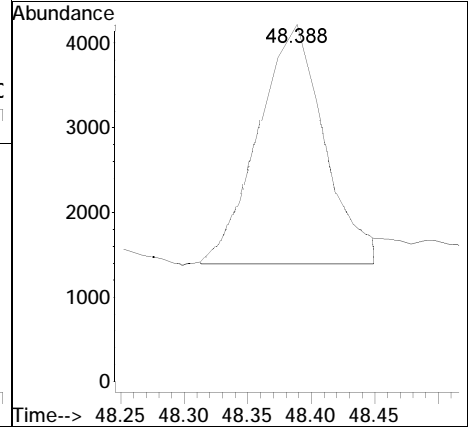
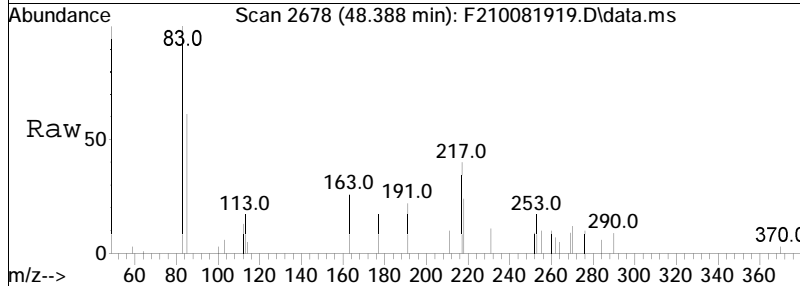
#132
 14a,17a-20S-Chol/13b,17a-20S-E
 Concen: 291.02 ng/ml
 RT: 47.846 min Scan# 2642
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:217 Resp: 9047

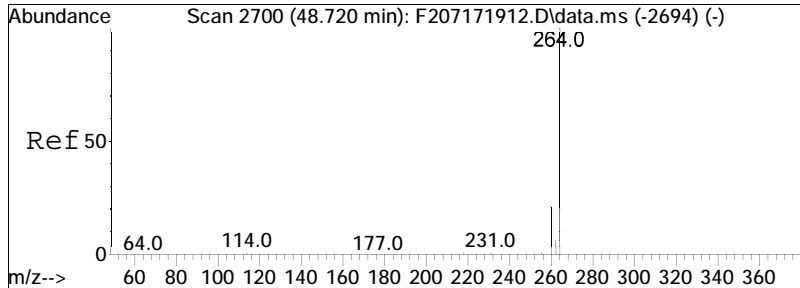




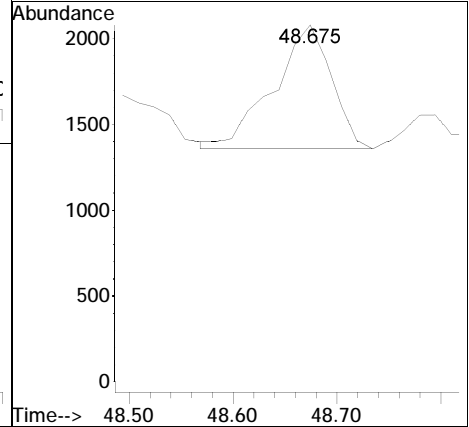
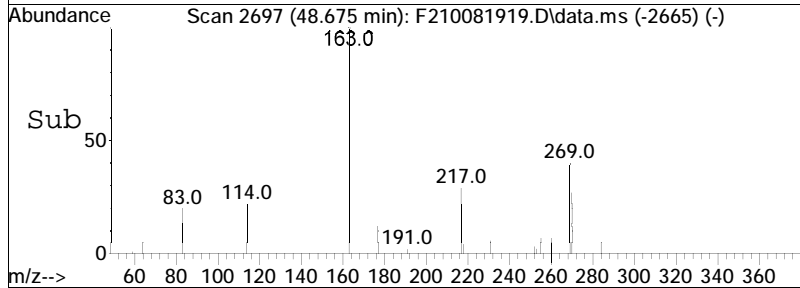
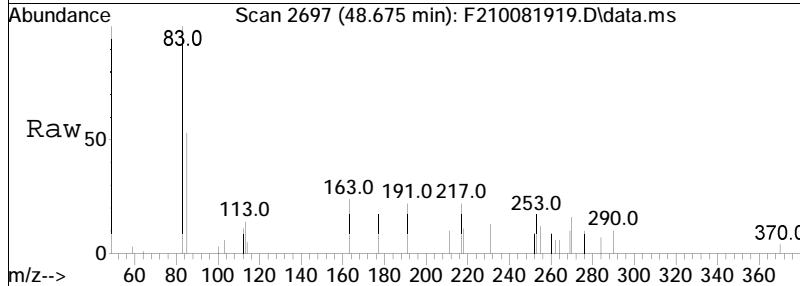
#133
 14a,17a-20R-Chol/13b,17a-20R-E
 Concen: 330.56 ng/ml M4
 RT: 48.388 min Scan# 2678
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

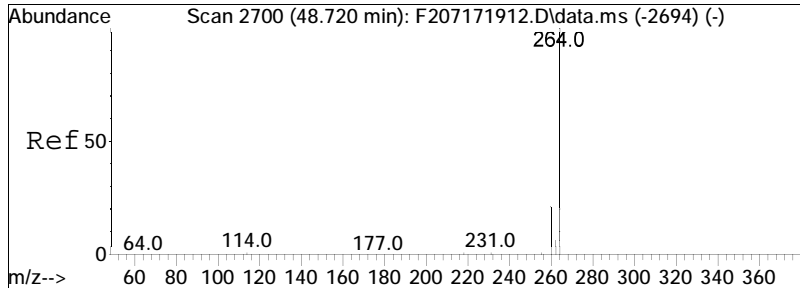
Tgt Ion: 217 Resp: 10276





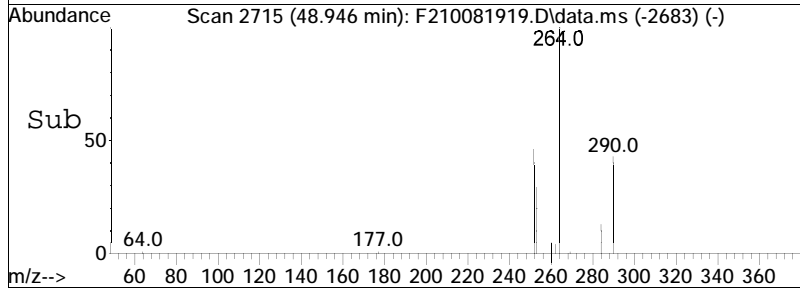
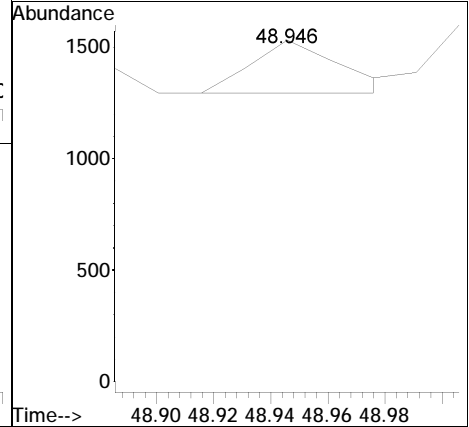
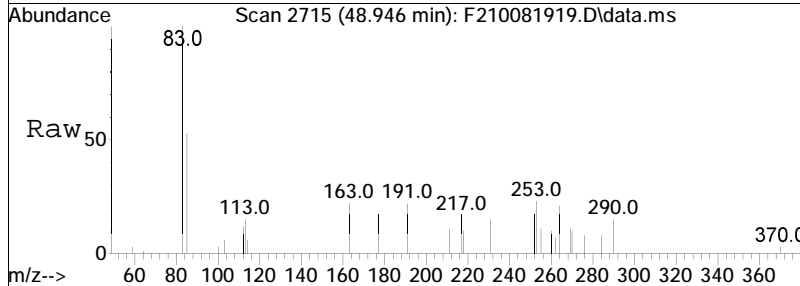
#134
 Unknown Sterane (S18)
 Concen: 90.04 ng/ml
 RT: 48.675 min Scan# 2697
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 217 Resp: 2799

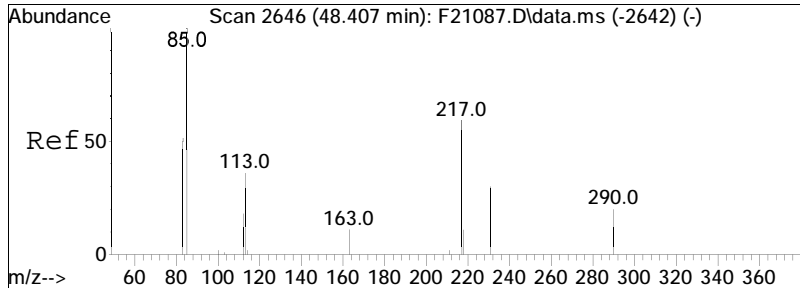




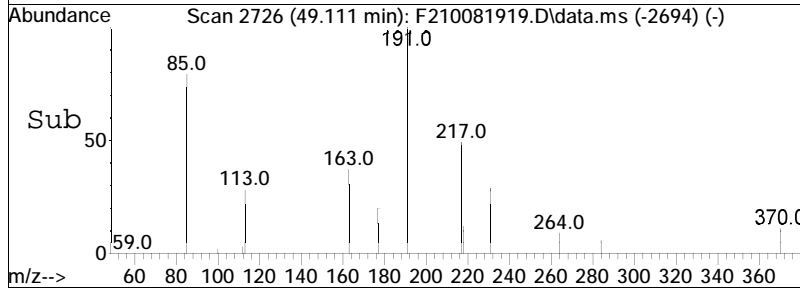
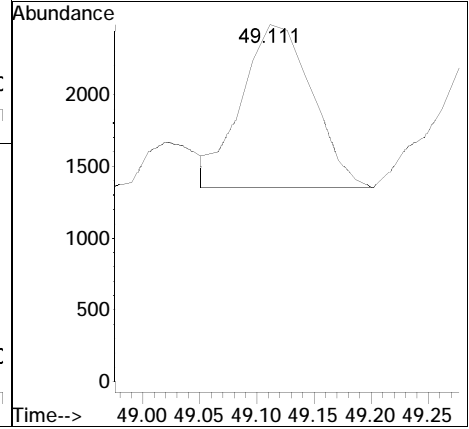
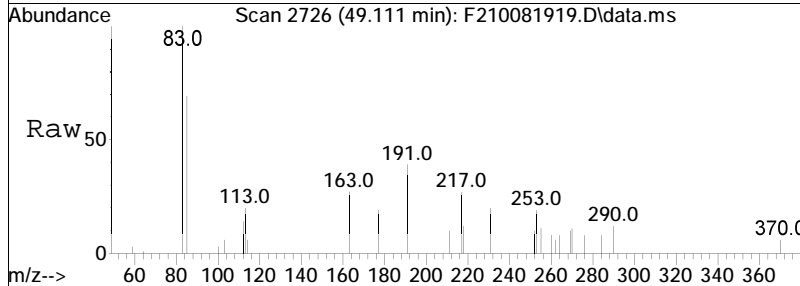
#135
 13a,17b-20S-Ethyldiacholestane
 Concen: 16.28 ng/ml
 RT: 48.946 min Scan# 2715
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

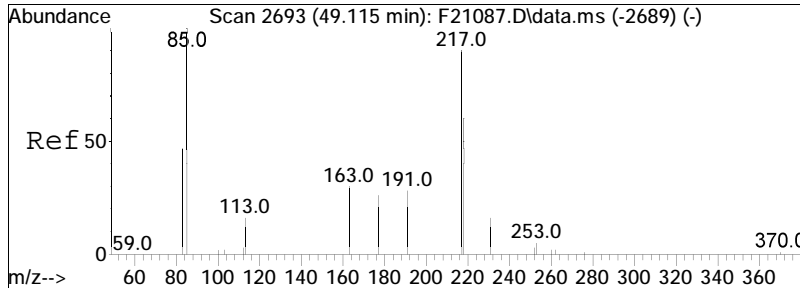
Tgt Ion:217 Resp: 506





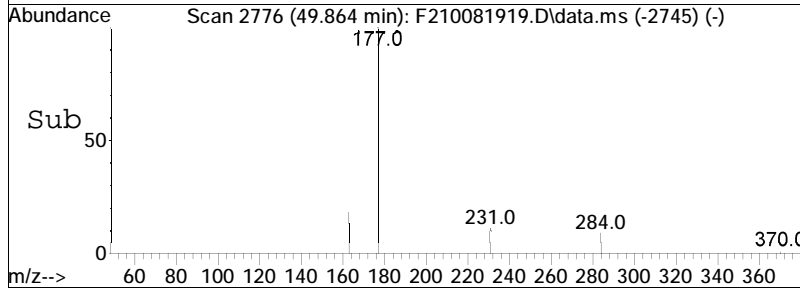
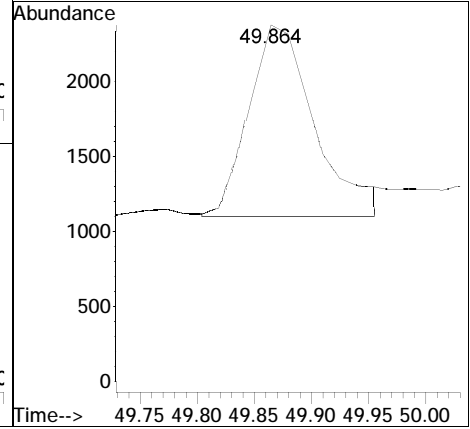
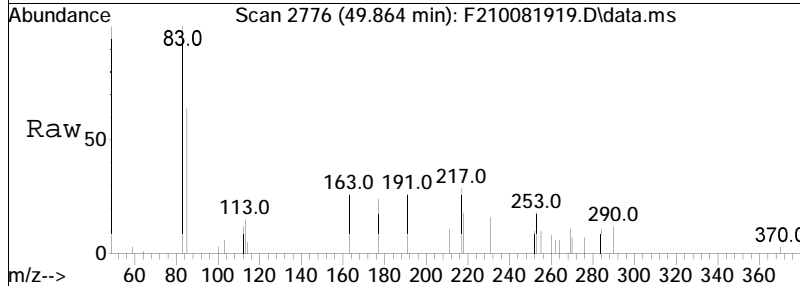
#136
 14a,17a-20S-Methylcholestane (
 Concen: 156.01 ng/ml
 RT: 49.111 min Scan# 2726
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:217 Resp: 4850

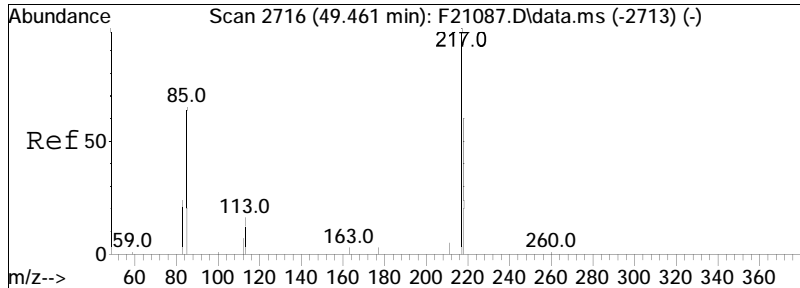




#137
 14a,17a-20R-Methylcholestane (
 Concen: 163.96 ng/ml M4
 RT: 49.864 min Scan# 2776
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

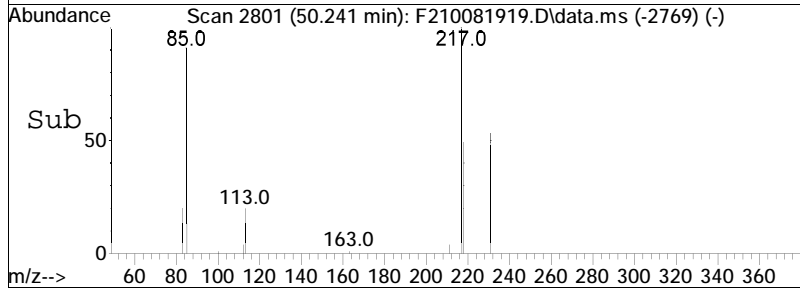
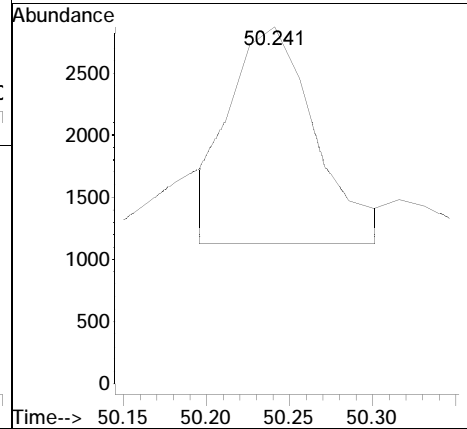
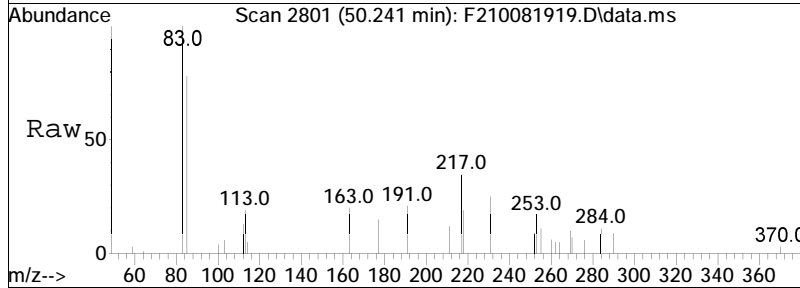
Tgt Ion: 217 Resp: 5097

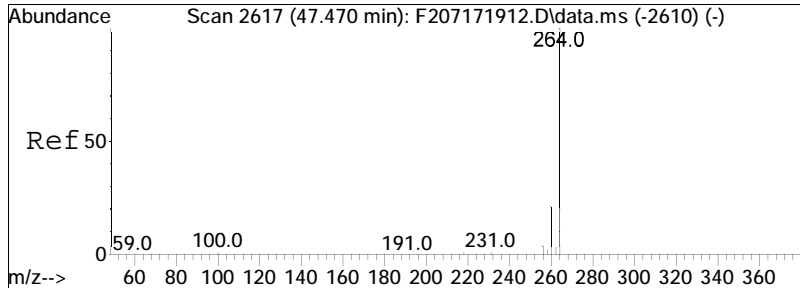




#138
 14a(H),17a(H)-20S-Ethylcholest
 Concen: 199.76 ng/ml M4
 RT: 50.241 min Scan# 2801
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

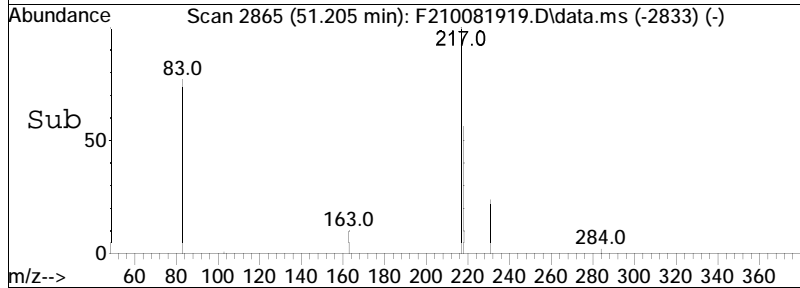
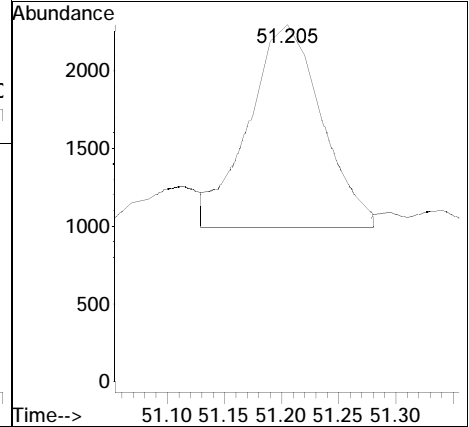
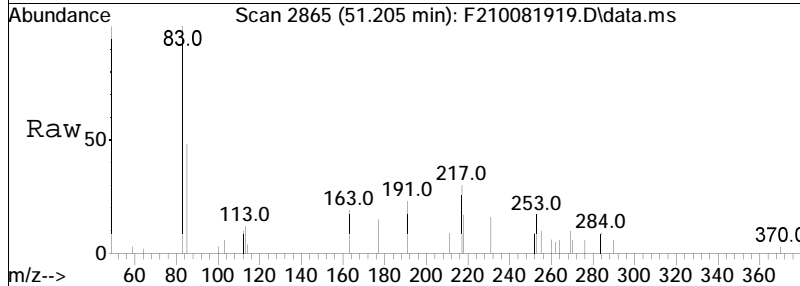
Tgt Ion: 217 Resp: 6210

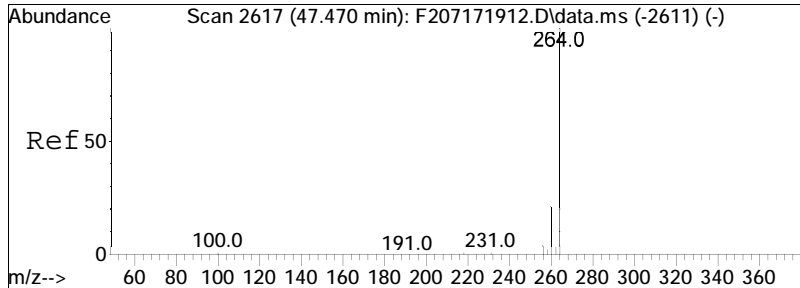




#139
 14a(H),17a(H)-20R-Ethylcholest
 Concen: 185.32 ng/ml M4
 RT: 51.205 min Scan# 2865
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

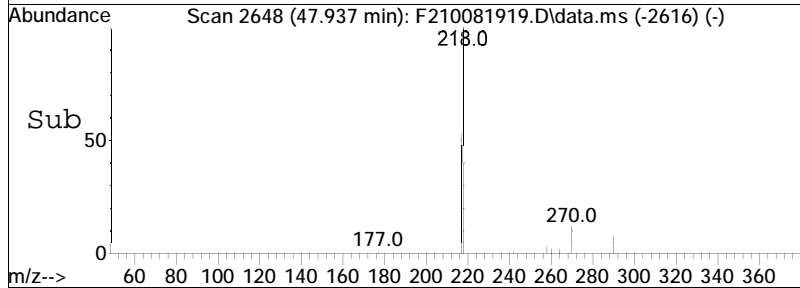
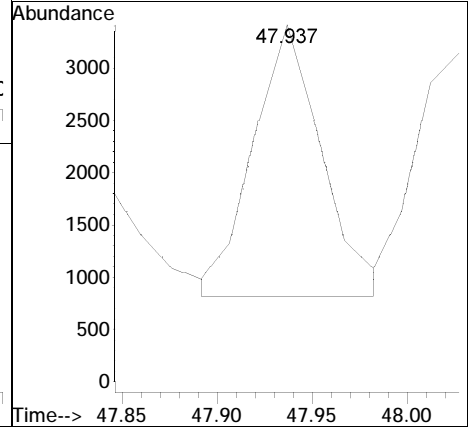
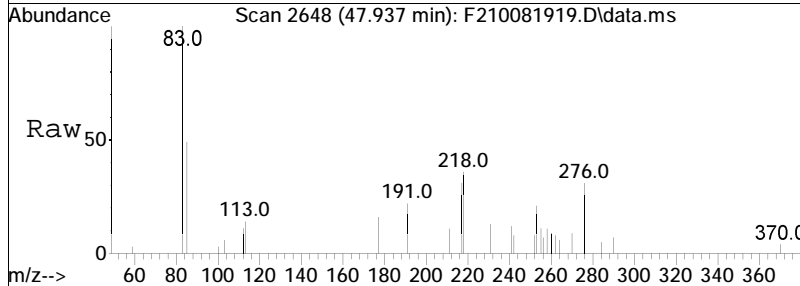
Tgt Ion:217 Resp: 5761

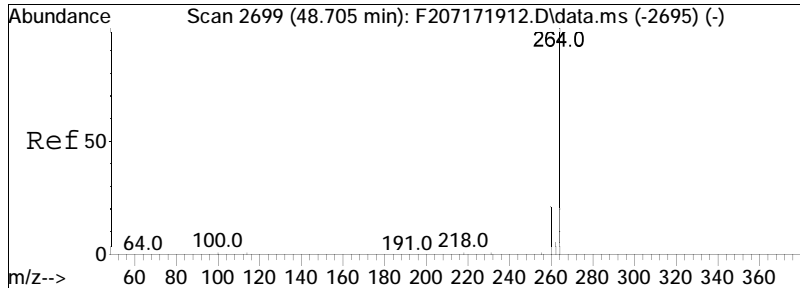




#140
 14b(H),17b(H)-20R-Cholestane (
 Concen: 209.03 ng/ml M4
 RT: 47.937 min Scan# 2648
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

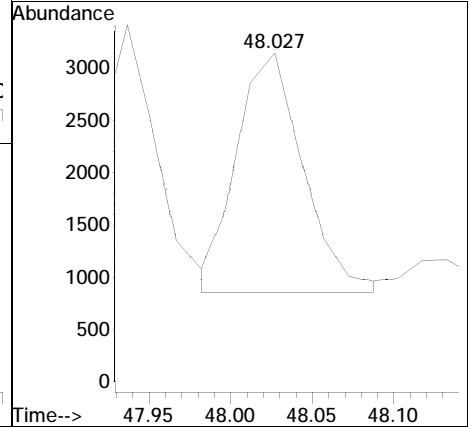
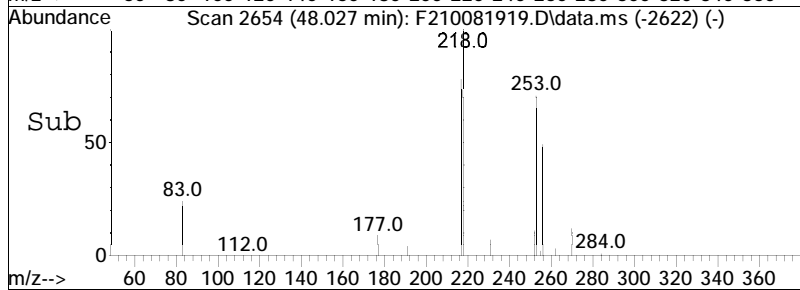
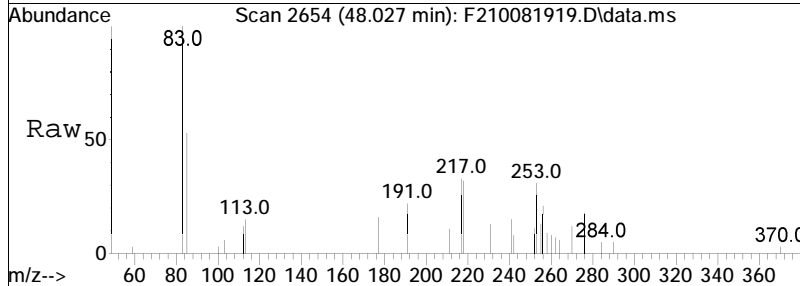
Tgt Ion:218 Resp: 6498

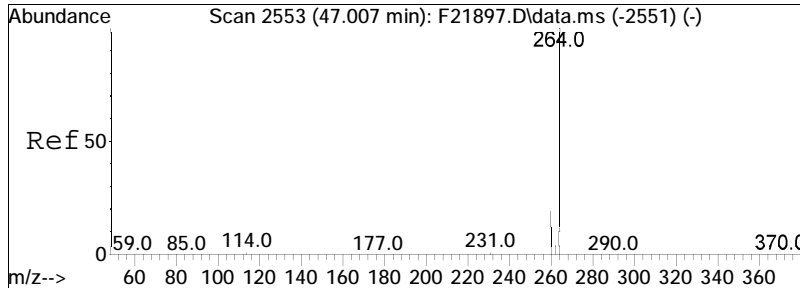




#141
 14b(H),17b(H)-20S-Cholestane (
 Concen: 209.35 ng/ml M4
 RT: 48.027 min Scan# 2654
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

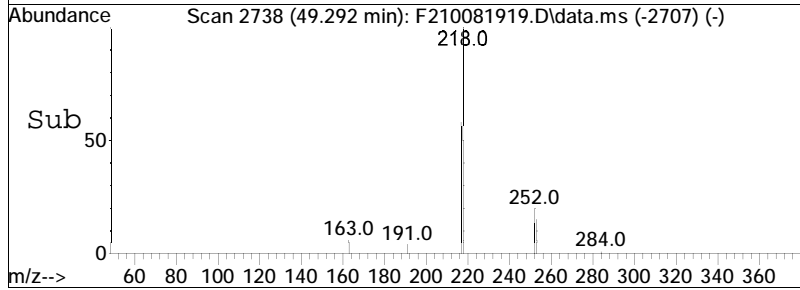
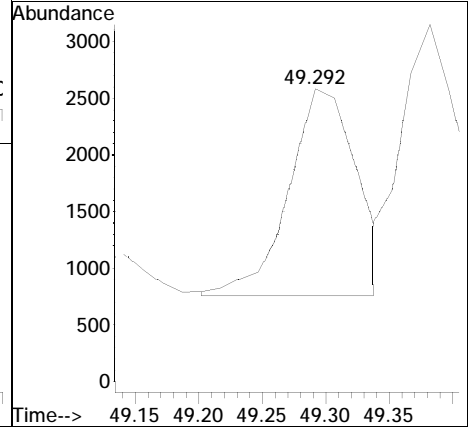
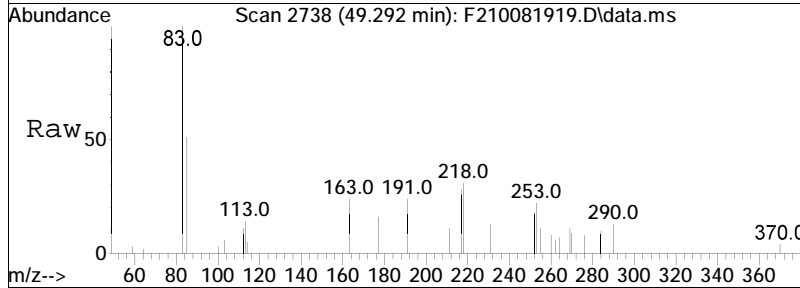
Tgt Ion:218 Resp: 6508

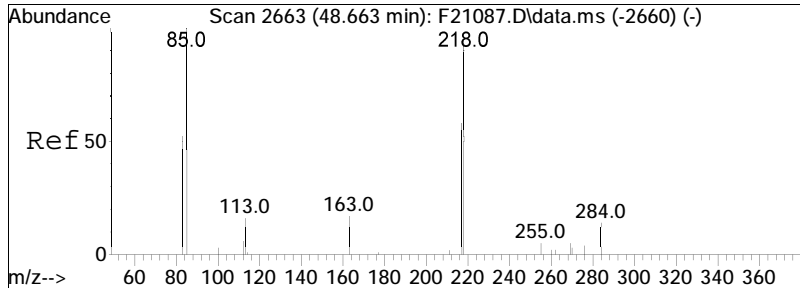




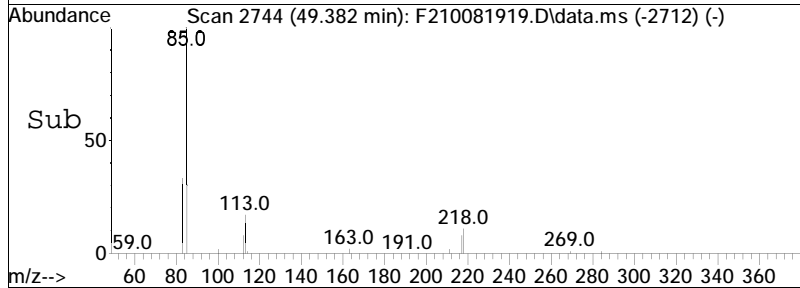
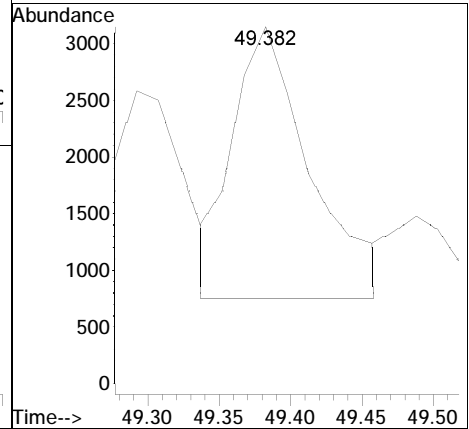
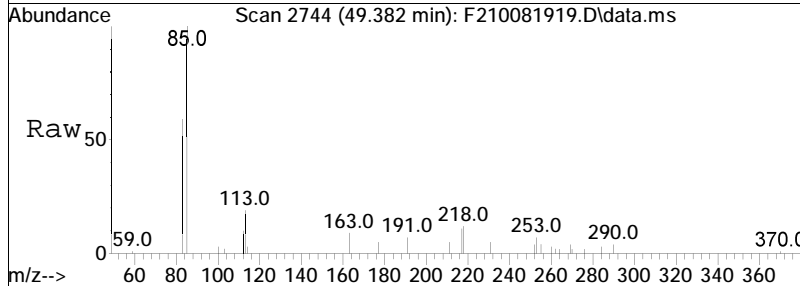
#142
 14b,17b-20R-Methylcholestane (
 Concen: 219.51 ng/ml M4
 RT: 49.292 min Scan# 2738
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

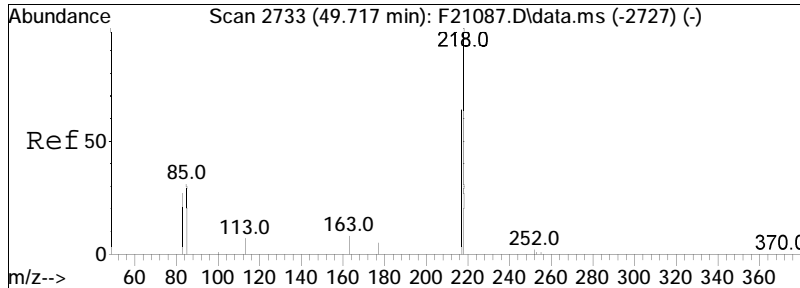
Tgt Ion:218 Resp: 6824



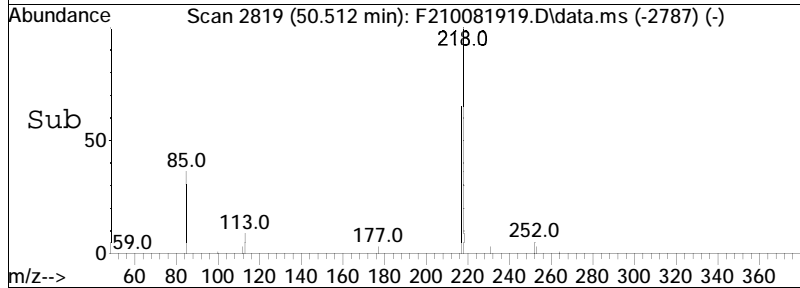
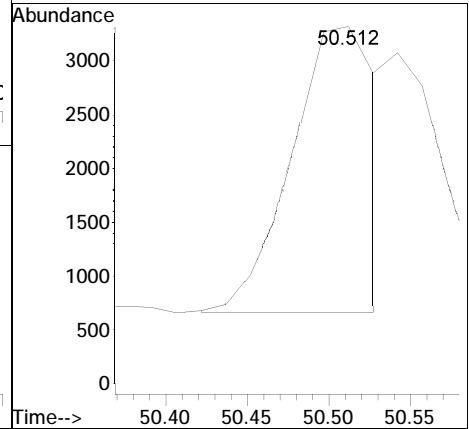
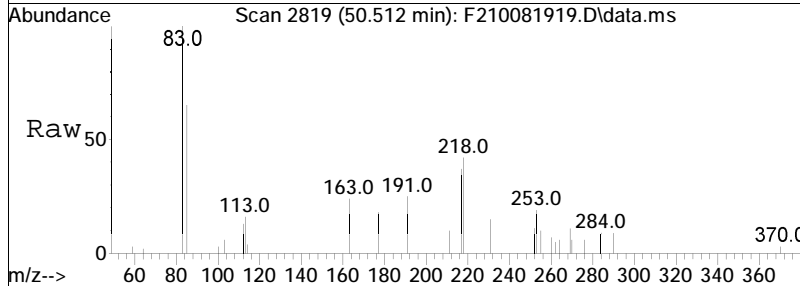


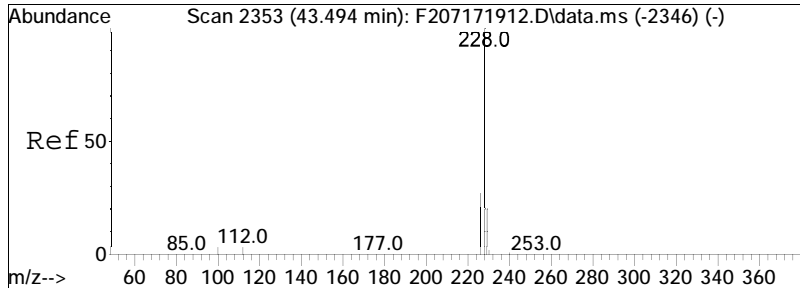
#143
 14b,17b-20S-Methylcholestane (
 Concen: 289.54 ng/ml M4
 RT: 49.382 min Scan# 2744
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:218 Resp: 9001





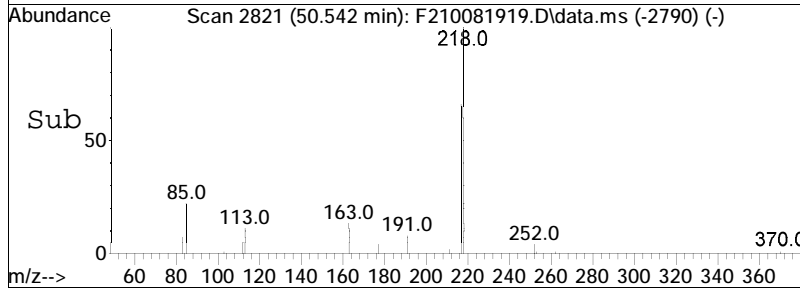
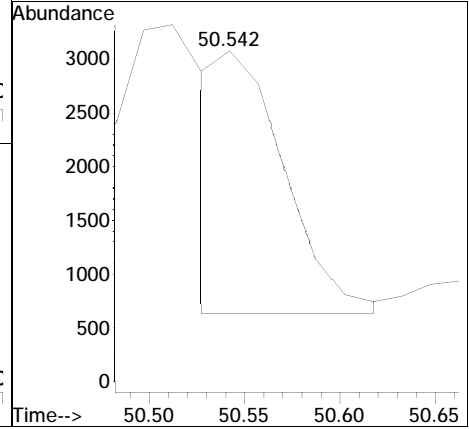
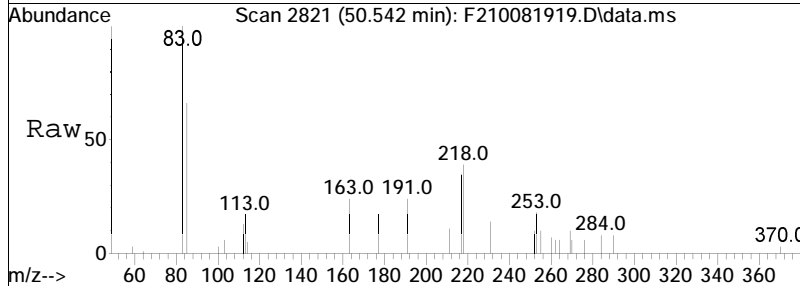
#144
 14b(H),17b(H)-20R-Ethylcholest
 Concen: 303.89 ng/ml M3
 RT: 50.512 min Scan# 2819
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:218 Resp: 9447

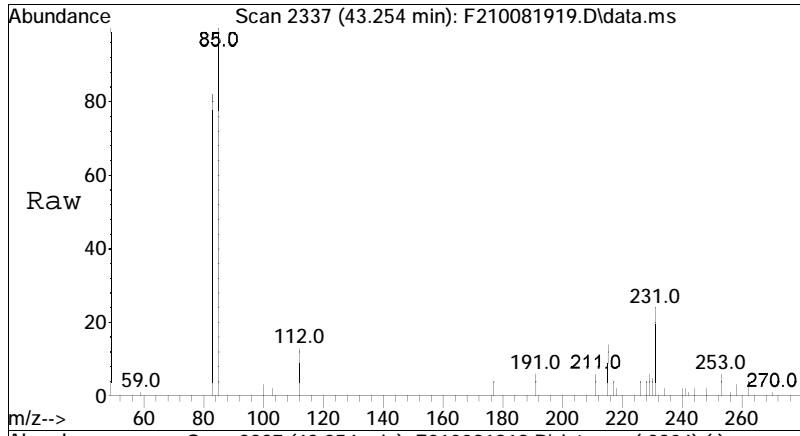




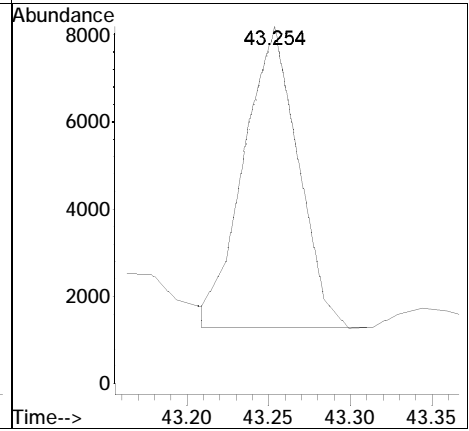
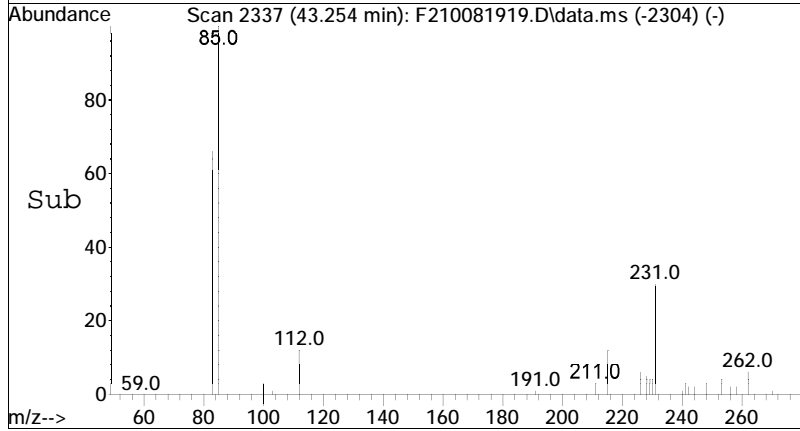
#145
 14b(H),17b(H)-20S-Ethylcholest
 Concen: 192.91 ng/ml M3
 RT: 50.542 min Scan# 2821
 Delta R.T. -0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

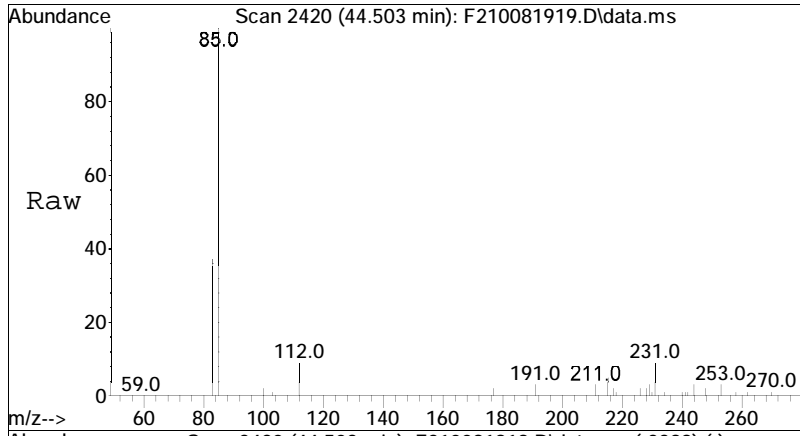
Tgt Ion:218 Resp: 5997



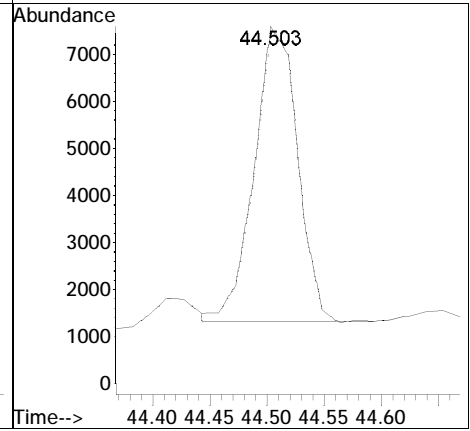
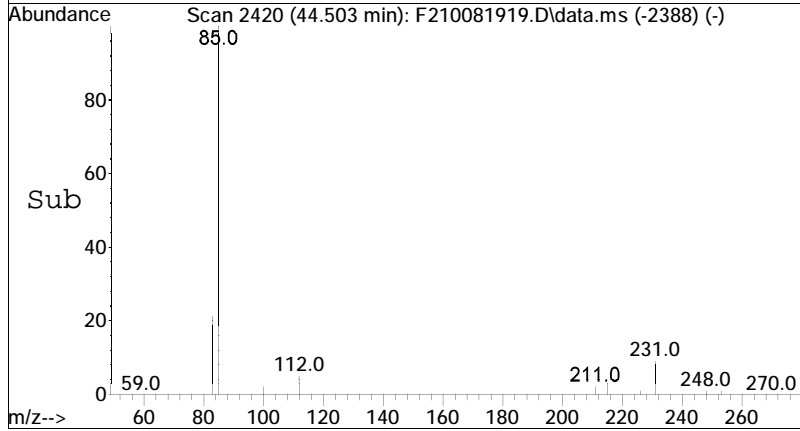


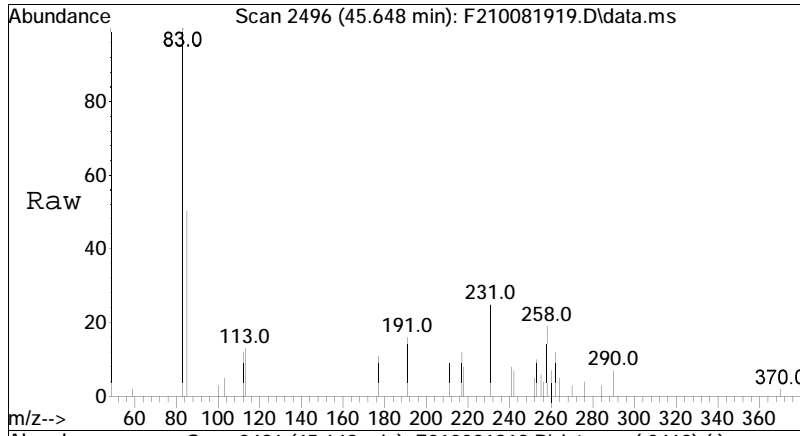
#146
 C20 Pregnane
 Concen: 505.29 ng/mL
 RT: 43.254 min Scan# 2337
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 231 Resp: 15708



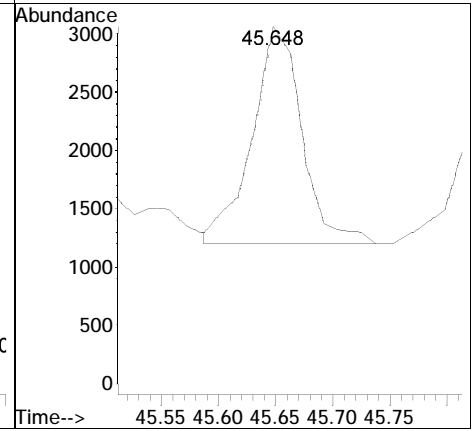
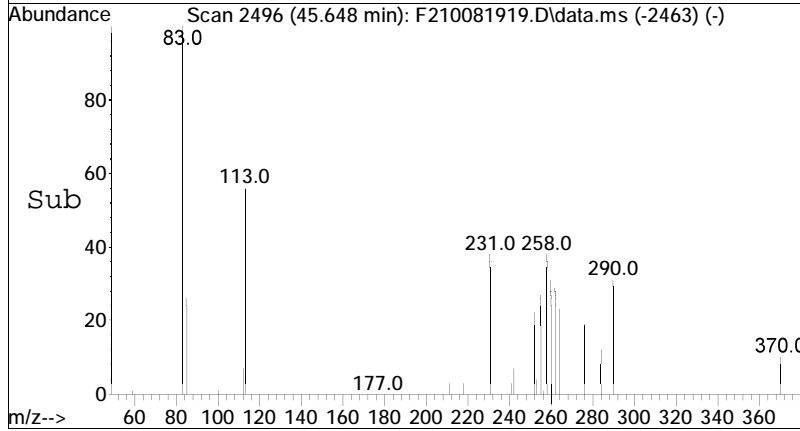


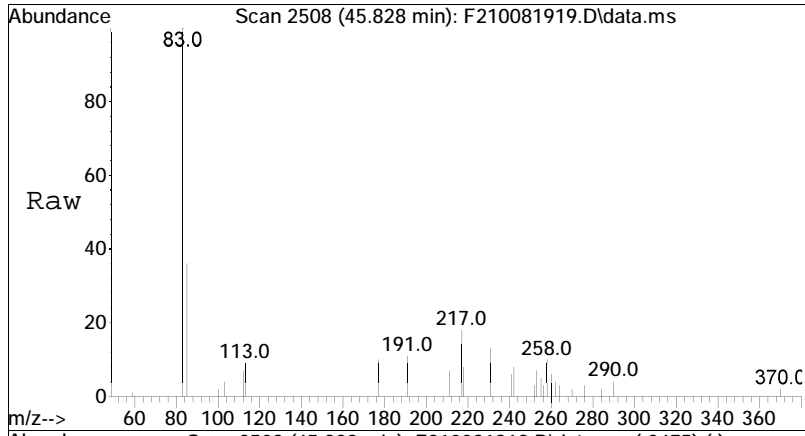
#147
 C21 20-Methylpregnane
 Concen: 526.78 ng/mL
 RT: 44.503 min Scan# 2420
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 16376



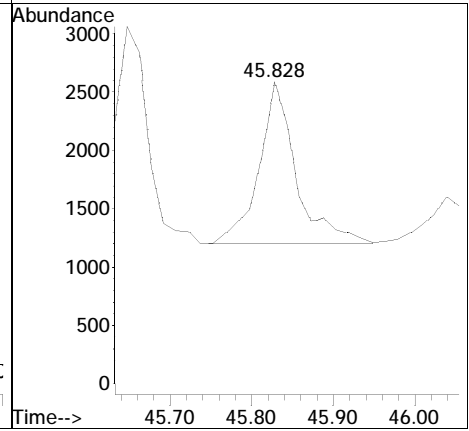
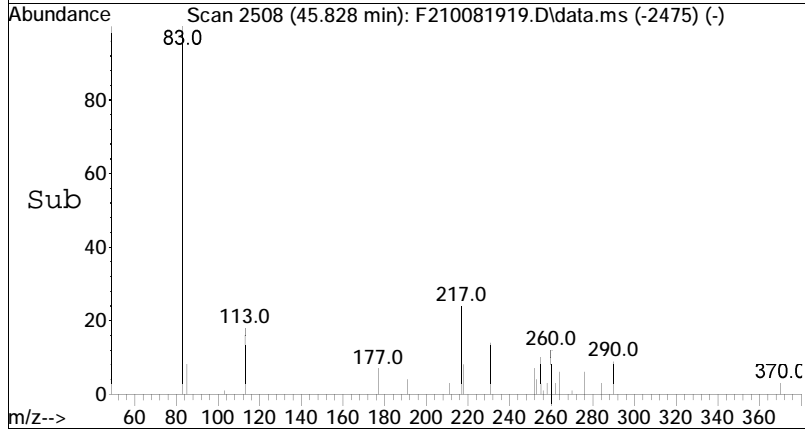


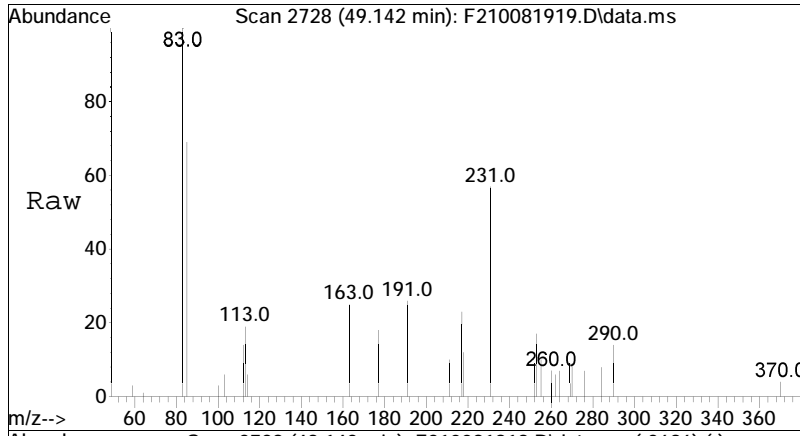
#148
 C22 20-Ethylpregnane (a)
 Concen: 180.01 ng/mL
 RT: 45.648 min Scan# 2496
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 231 Resp: 5596



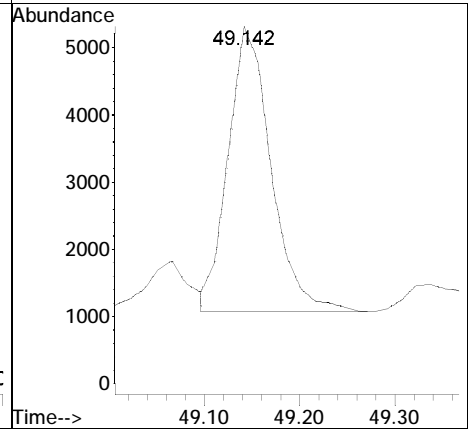
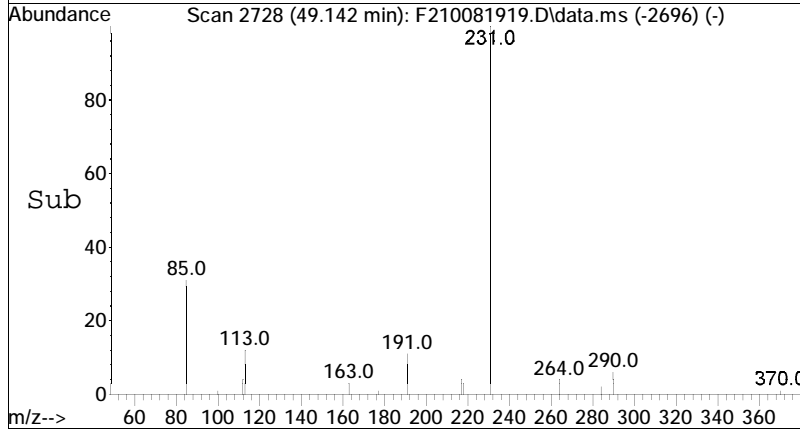


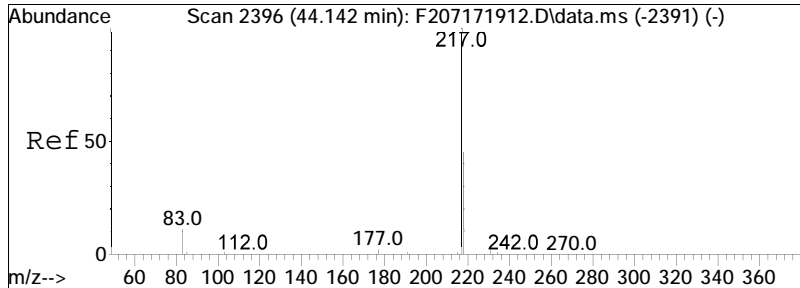
#149
 C22 20-Ethylpregnane (b)
 Concen: 139.83 ng/mL
 RT: 45.828 min Scan# 2508
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 4347



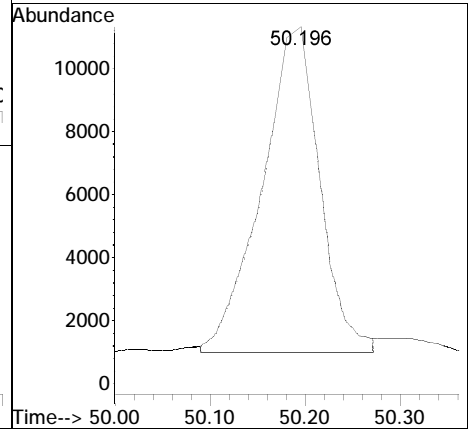
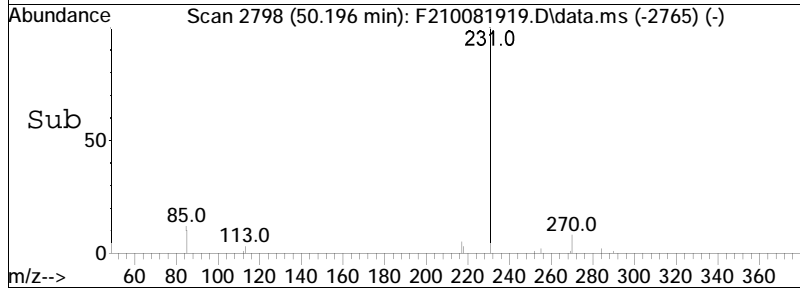
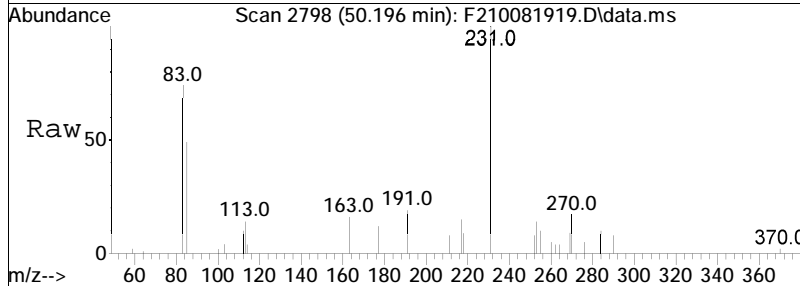


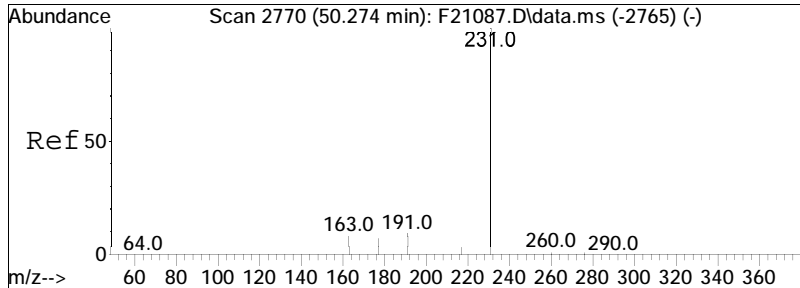
#150
 C26,20S TAS
 Concen: 420.05 ng/mL
 RT: 49.142 min Scan# 2728
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 13058



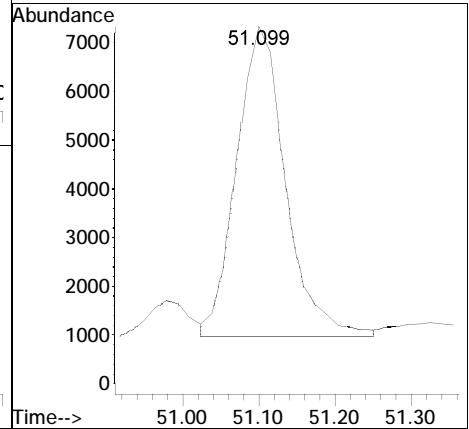
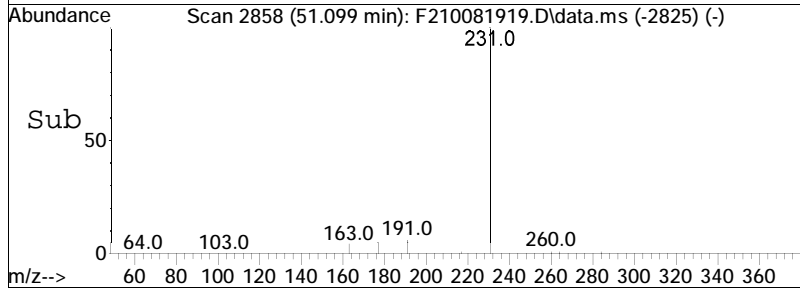
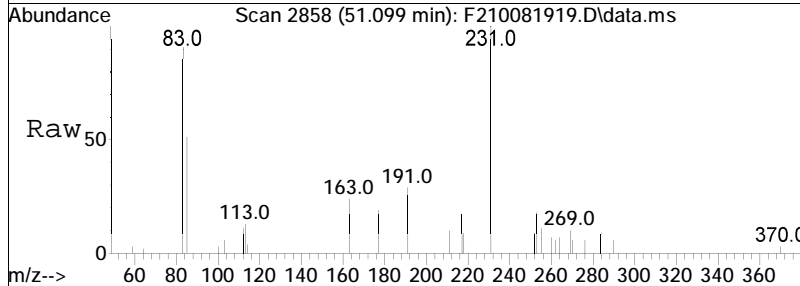


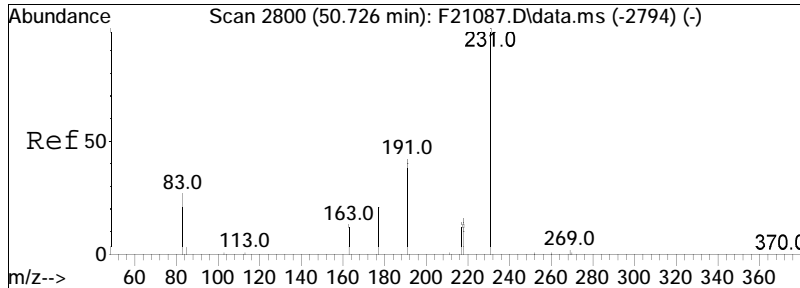
#151
 C26,20R+C27,20S TAS
 Concen: 1401.49 ng/mL M4
 RT: 50.196 min Scan# 2798
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 43568



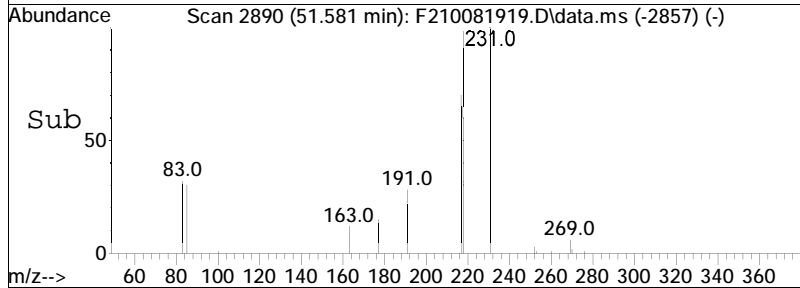
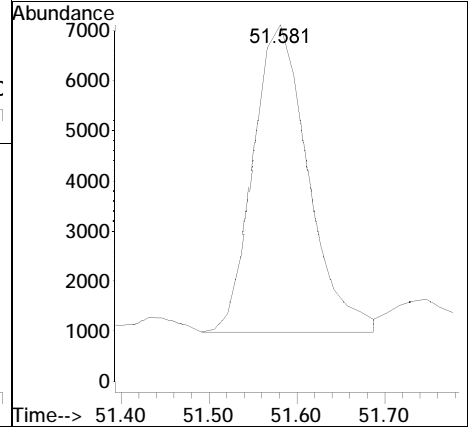
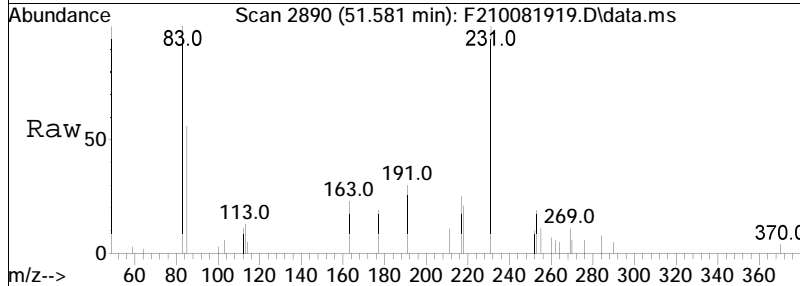


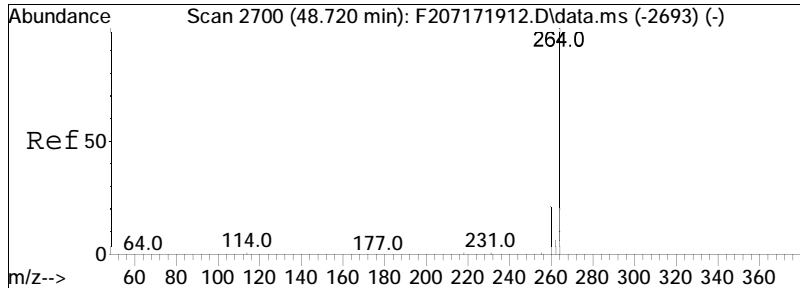
#152
 C28,20S TAS
 Concen: 908.58 ng/mL
 RT: 51.099 min Scan# 2858
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 28245





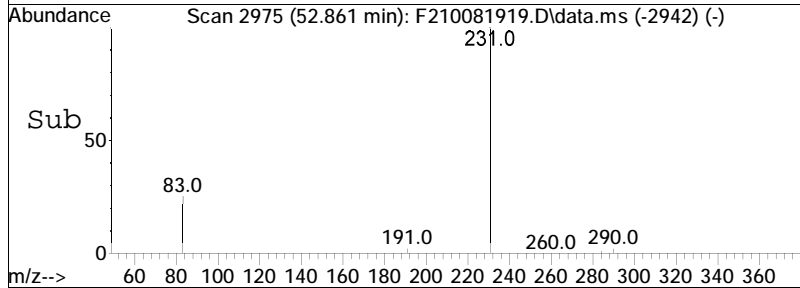
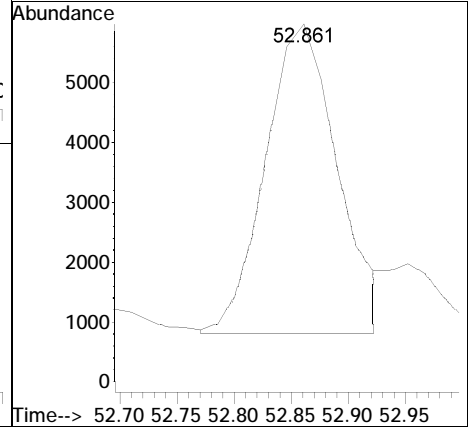
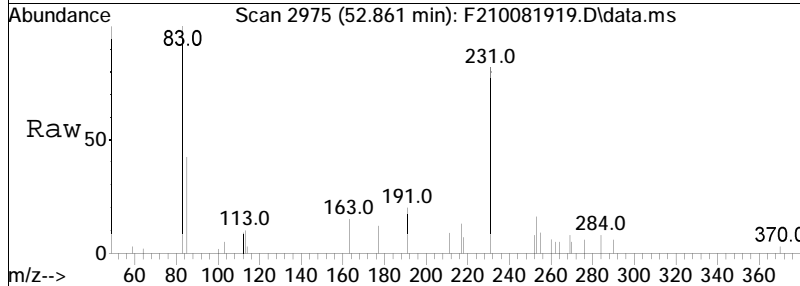
#153
 C27,20R TAS
 Concen: 858.65 ng/mL
 RT: 51.581 min Scan# 2890
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 26693

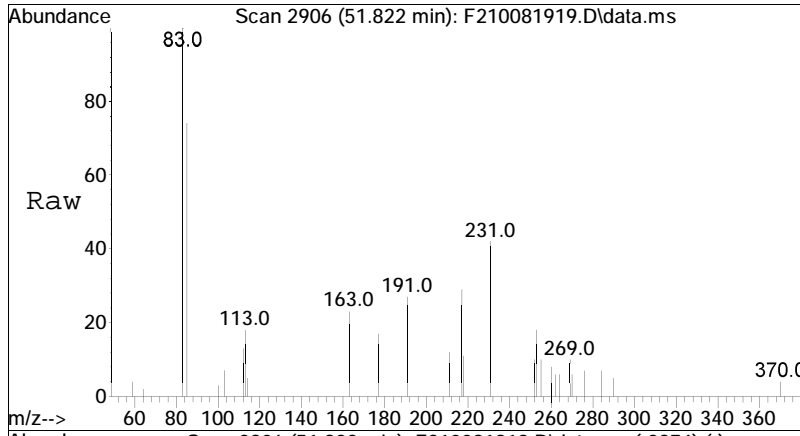




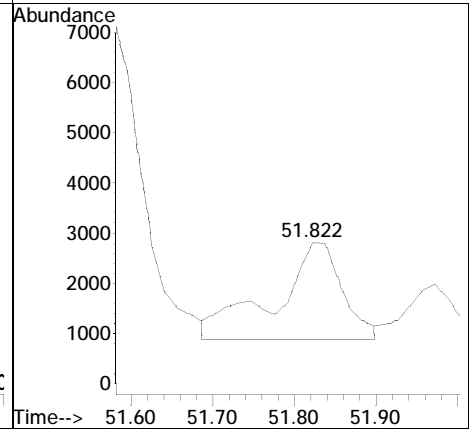
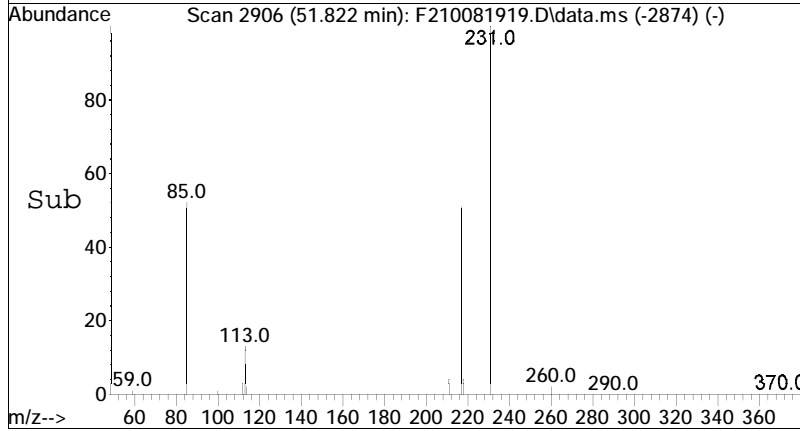
#154
 C28,20R TAS
 Concen: 725.06 ng/mL M4
 RT: 52.861 min Scan# 2975
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm

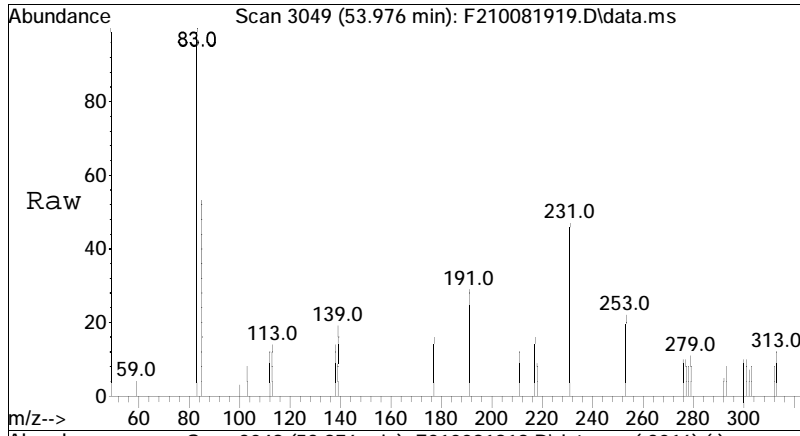
Tgt Ion:231 Resp: 22540



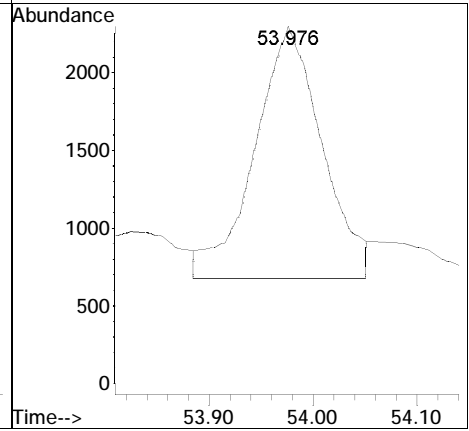
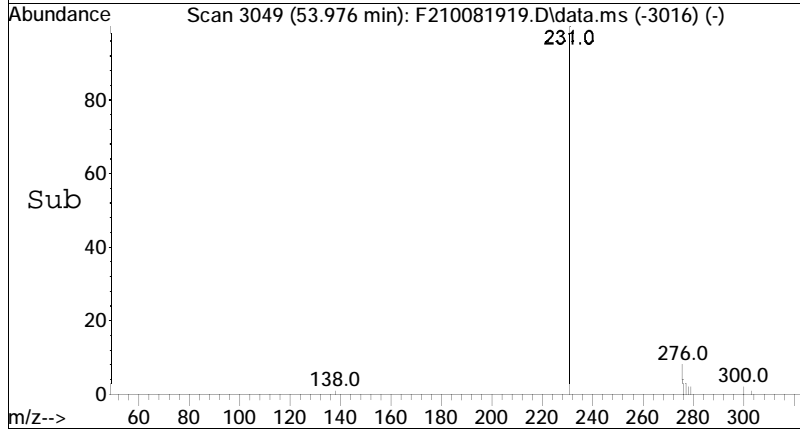


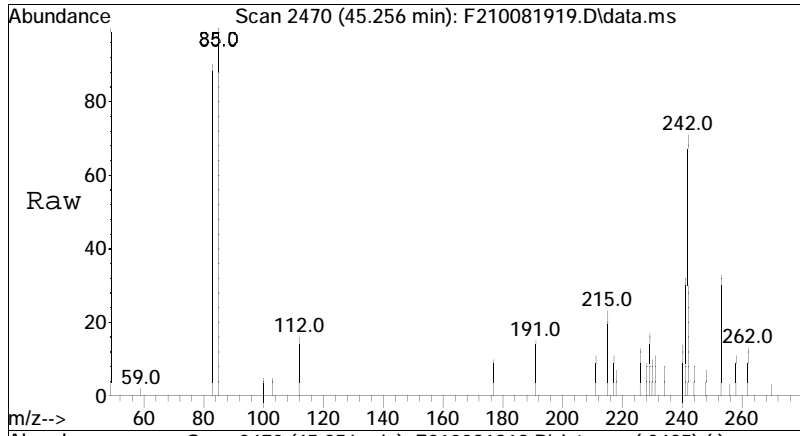
#155
 C29,20S TAS
 Concen: 355.97 ng/mL M4
 RT: 51.822 min Scan# 2906
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:231 Resp: 11066



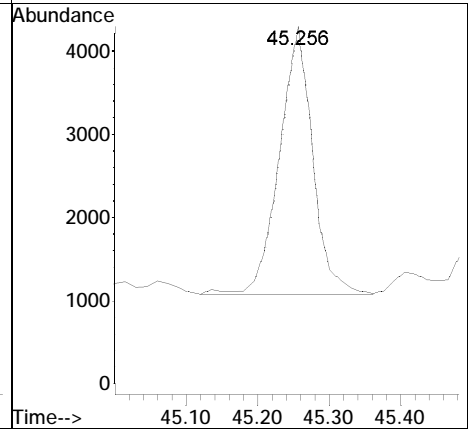
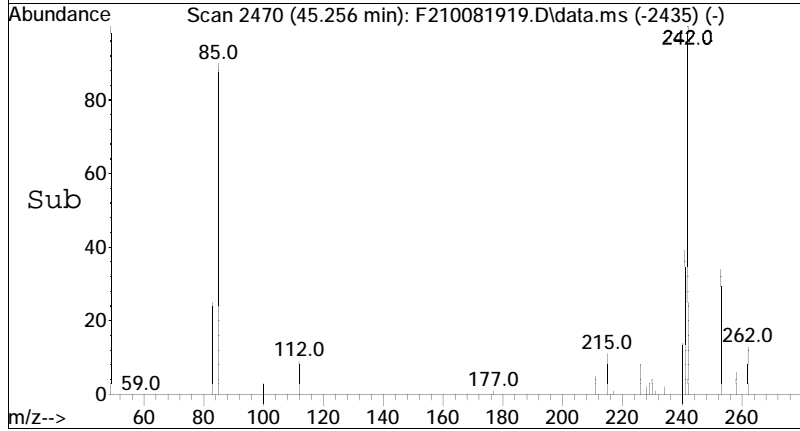


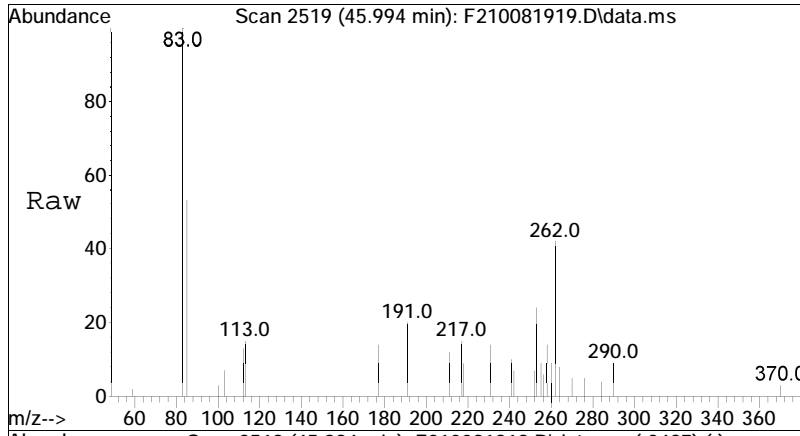
#156
 C29,20R TAS
 Concen: 231.48 ng/mL M4
 RT: 53.976 min Scan# 3049
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 231 Resp: 7196



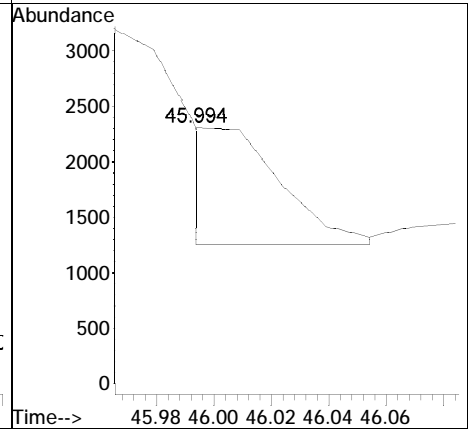
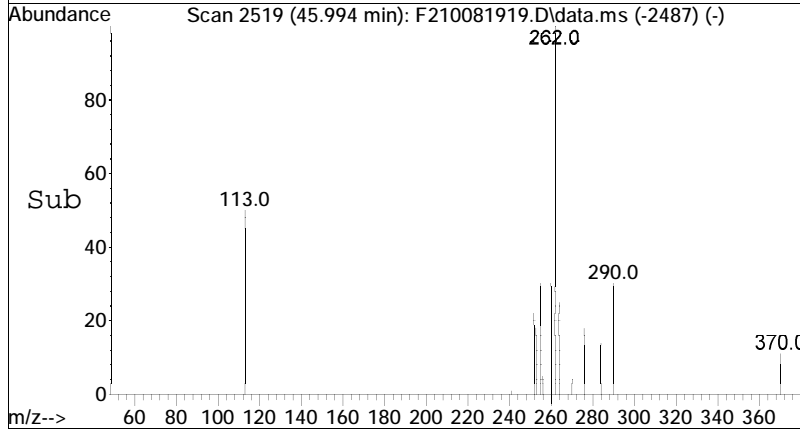


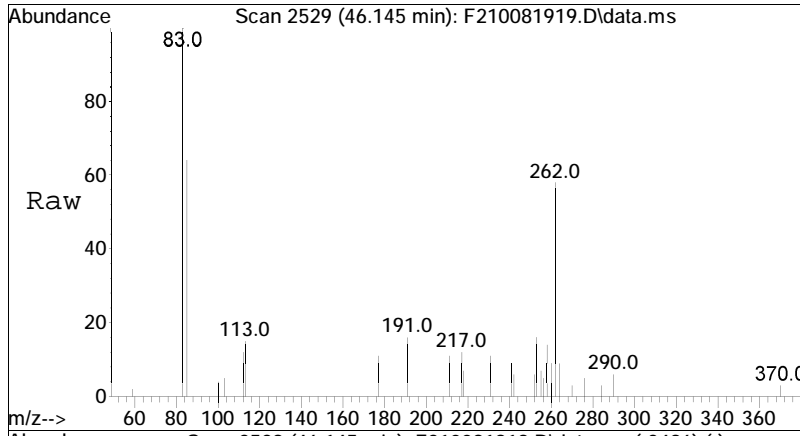
#157
 5b(H)-C27 (20S) MAS+
 Concen: 332.49 ng/mL
 RT: 45.256 min Scan# 2470
 Delta R.T. 0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 10336



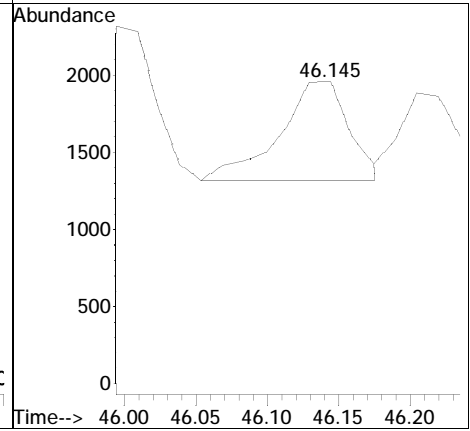
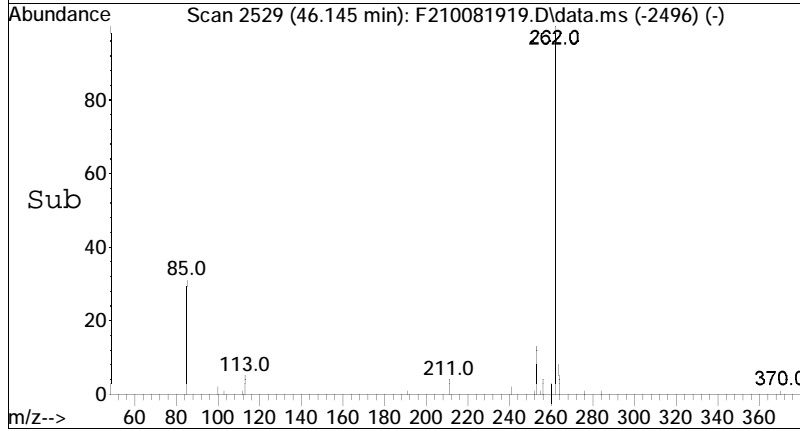


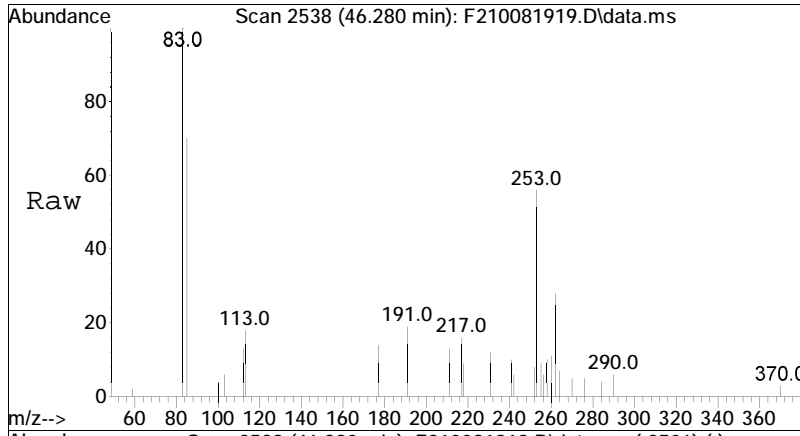
#158
 5b(H)-C27 (20R) MAS+>
 Concen: 51.56 ng/mL M3
 RT: 45.994 min Scan# 2519
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 1603



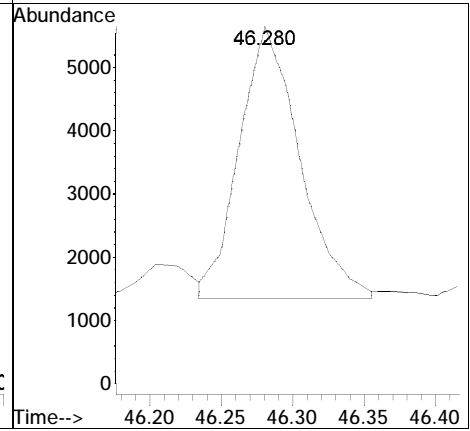
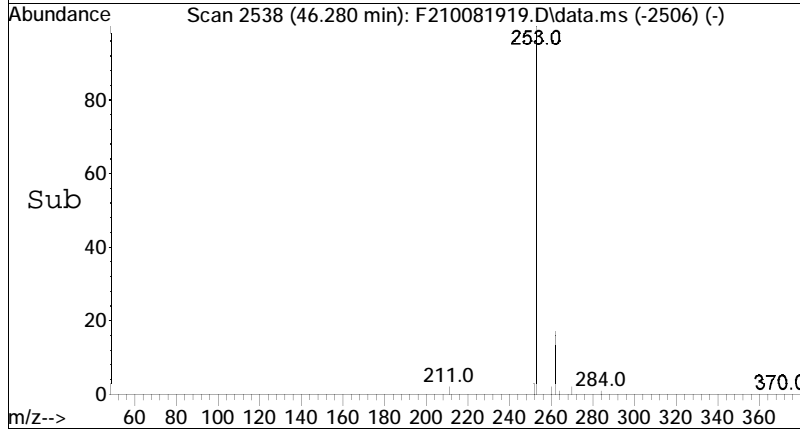


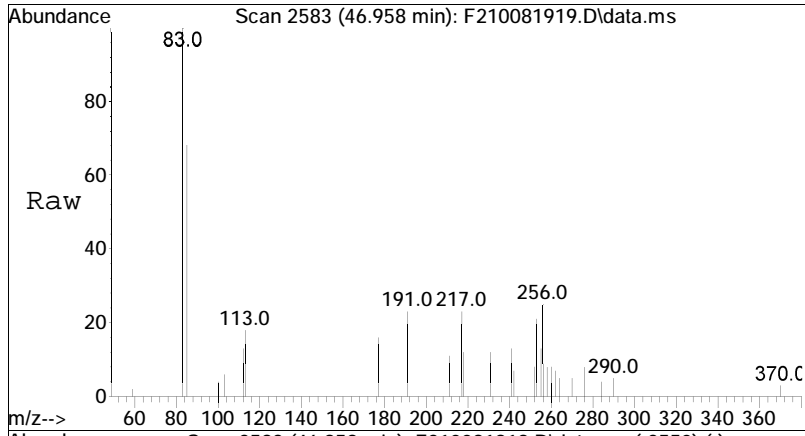
#159
 5a(H)-C27 (20S) MAS
 Concen: 69.87 ng/mL
 RT: 46.145 min Scan# 2529
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 2172



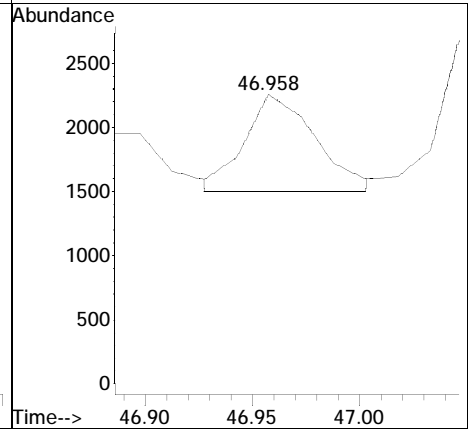
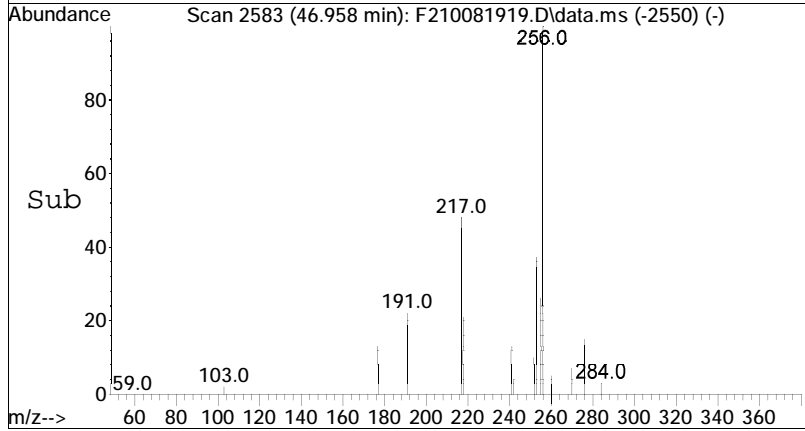


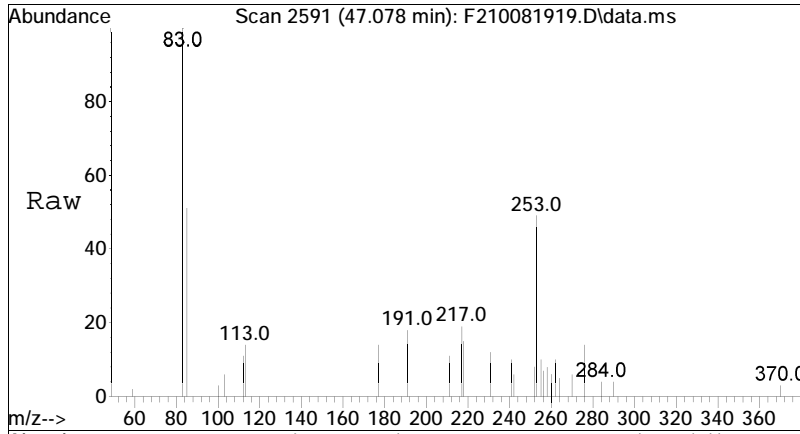
#160
 5b(H)-C28 (20S) MAS+
 Concen: 403.87 ng/mL M4
 RT: 46.280 min Scan# 2538
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 12555



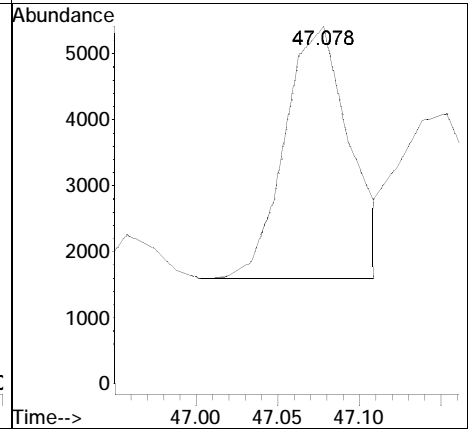
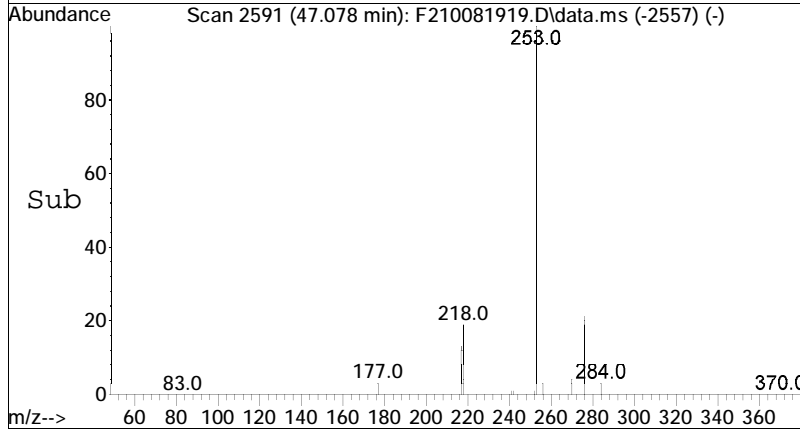


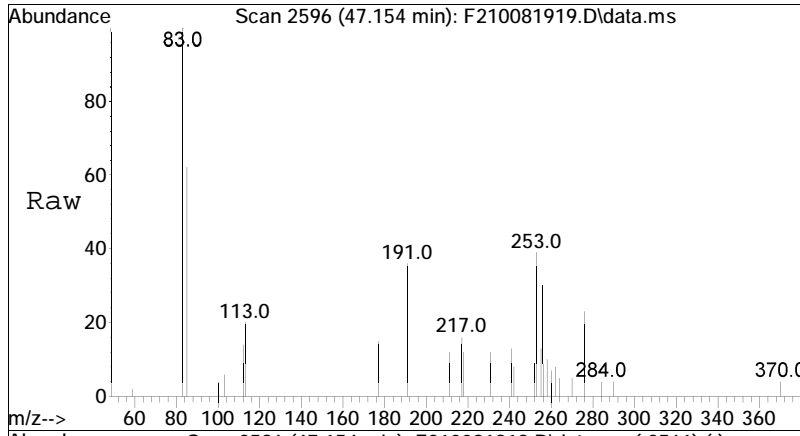
#161
 5a(H)-C27 (20R) MAS
 Concen: 56.49 ng/mL M4
 RT: 46.958 min Scan# 2583
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 1756



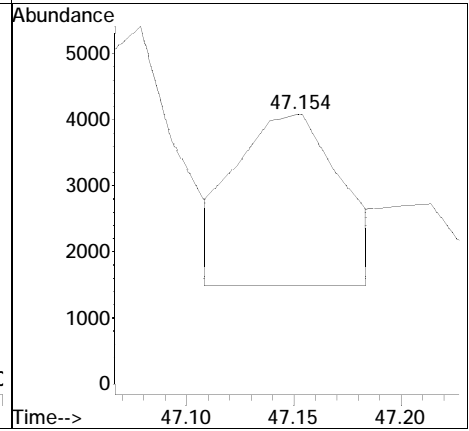
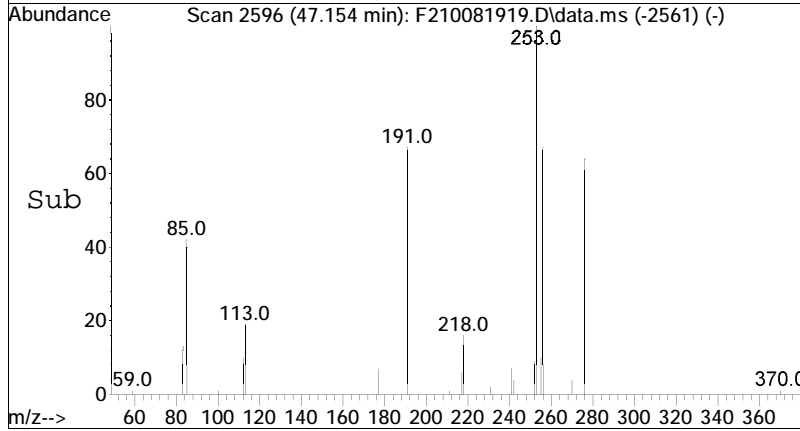


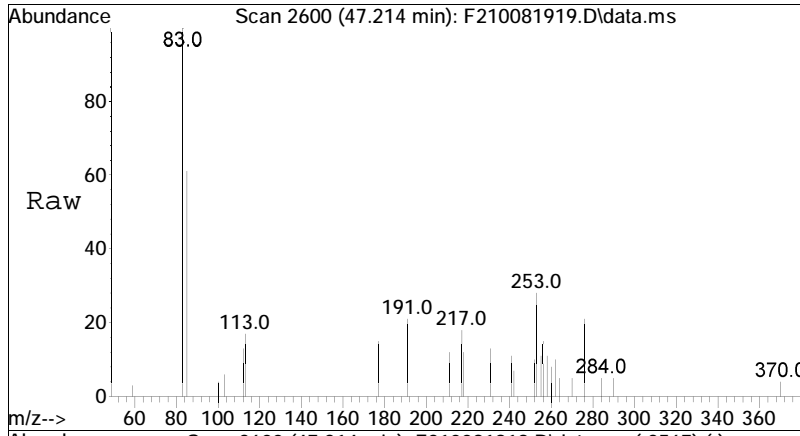
#162
 5a(H)-C28 (20S) MAS
 Concen: 345.64 ng/mL
 RT: 47.078 min Scan# 2591
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 10745



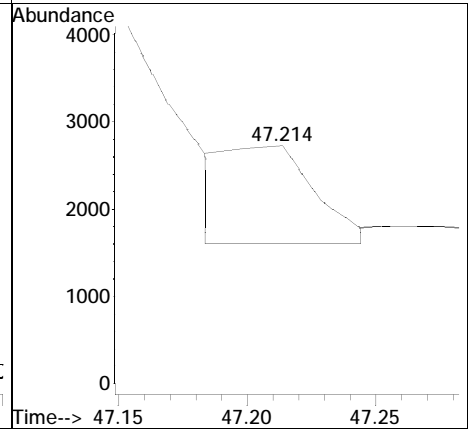
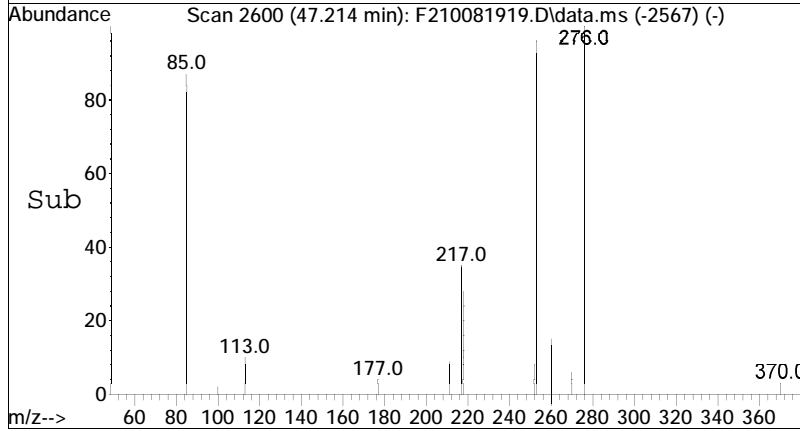


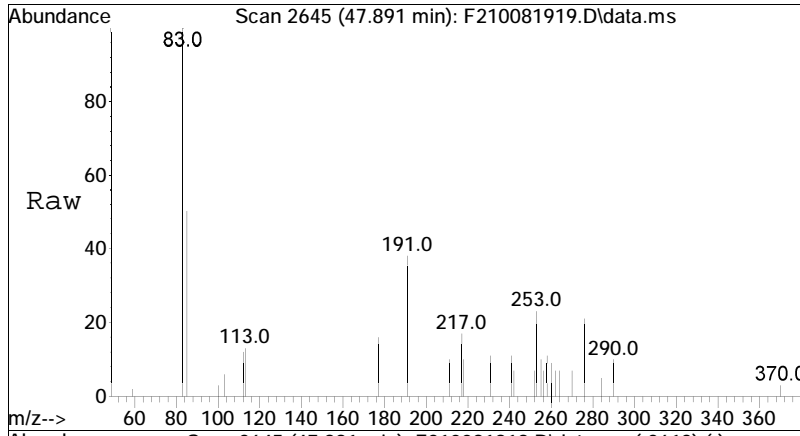
#163
 5b(H)-C28 (20R) MAS+
 Concen: 284.14 ng/mL M4
 RT: 47.154 min Scan# 2596
 Delta R.T. 0.030 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 8833



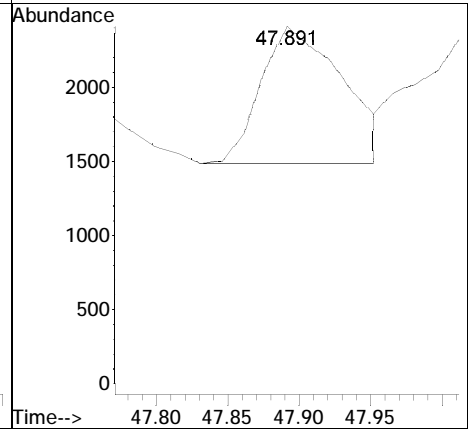
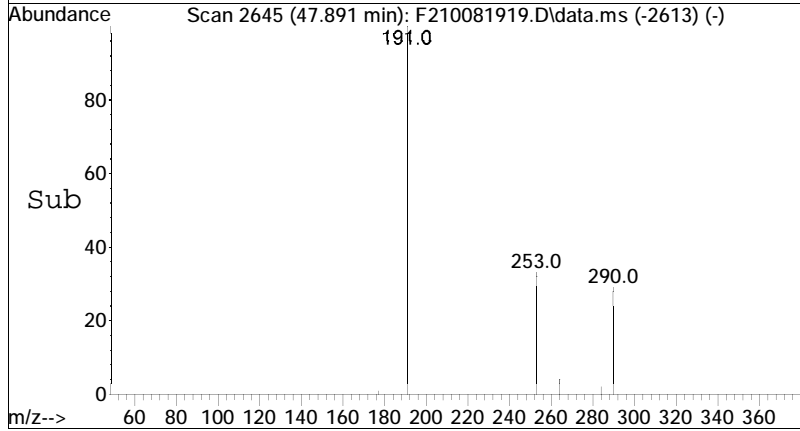


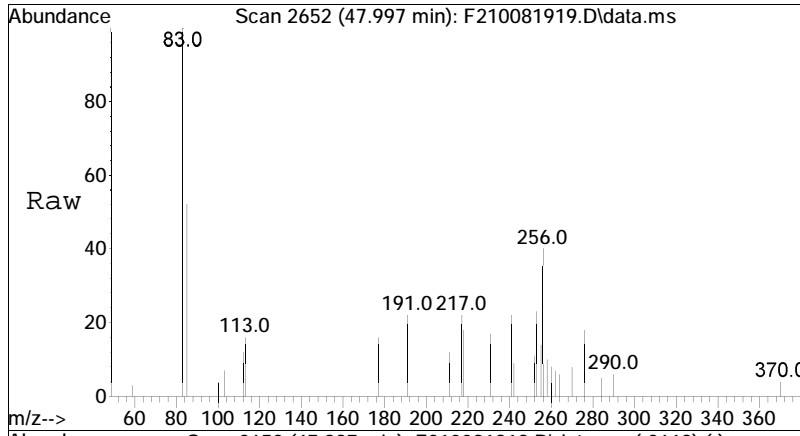
#164
 5b(H)-C29 (20S) MAS+
 Concen: 82.90 ng/mL M4
 RT: 47.214 min Scan# 2600
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 2577



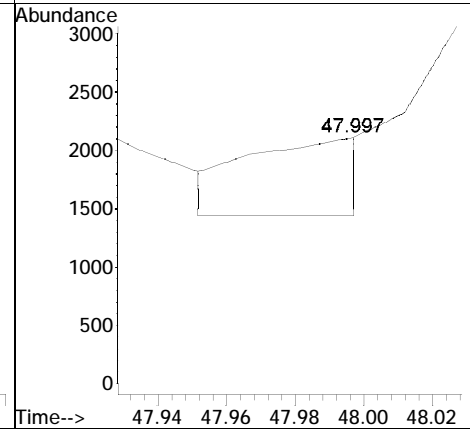
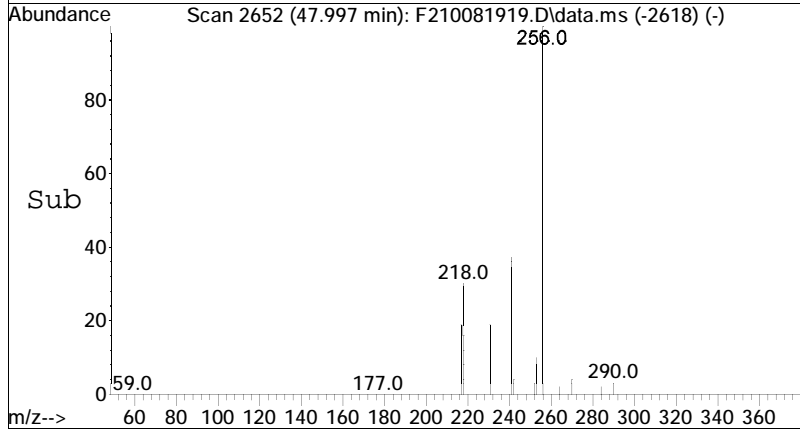


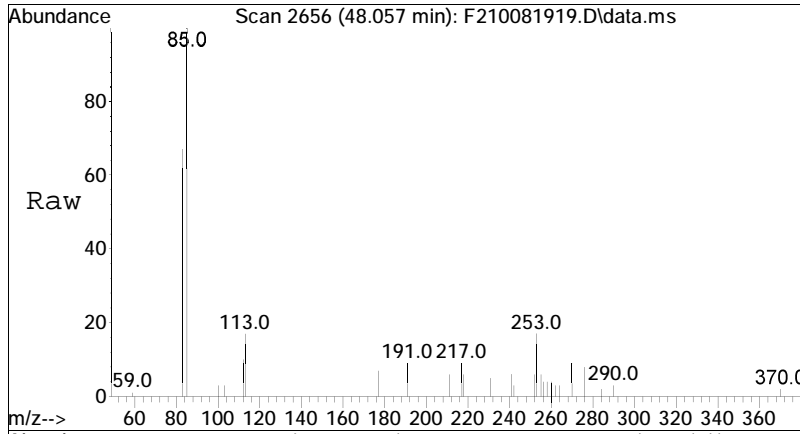
#165
 5a(H)-C29 (20S) MAS
 Concen: 118.76 ng/mL
 RT: 47.891 min Scan# 2645
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 3692



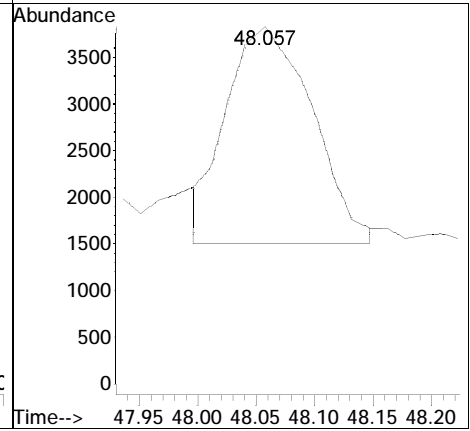
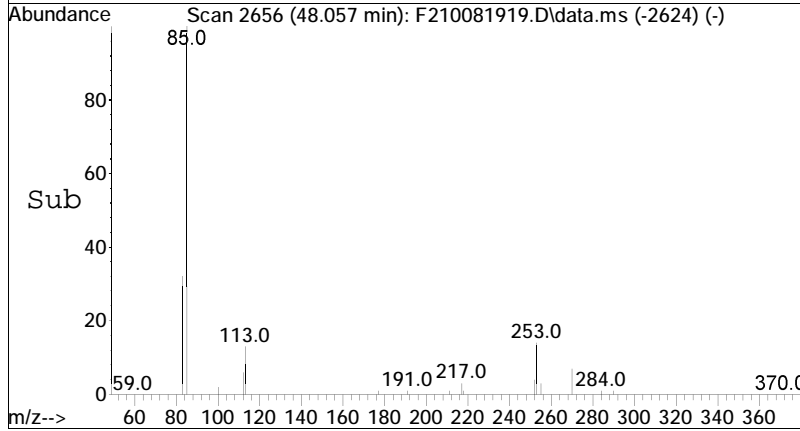


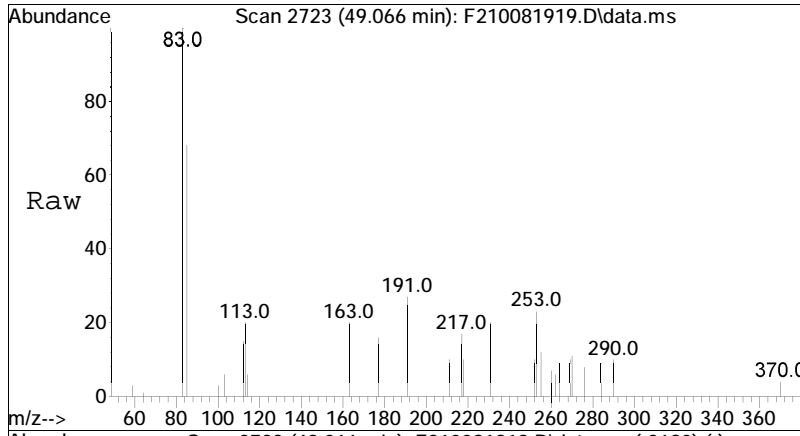
#166
 5a(H)-C28 (20R) MAS
 Concen: 51.63 ng/mL M4
 RT: 47.997 min Scan# 2652
 Delta R.T. 0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 1605



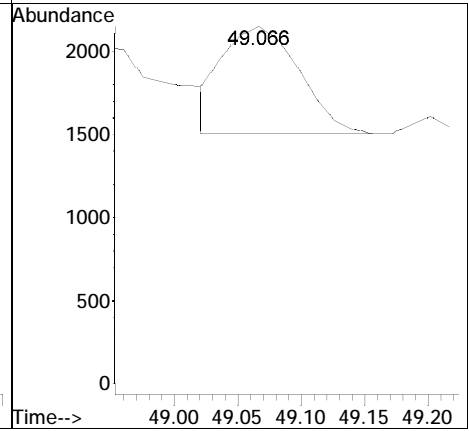
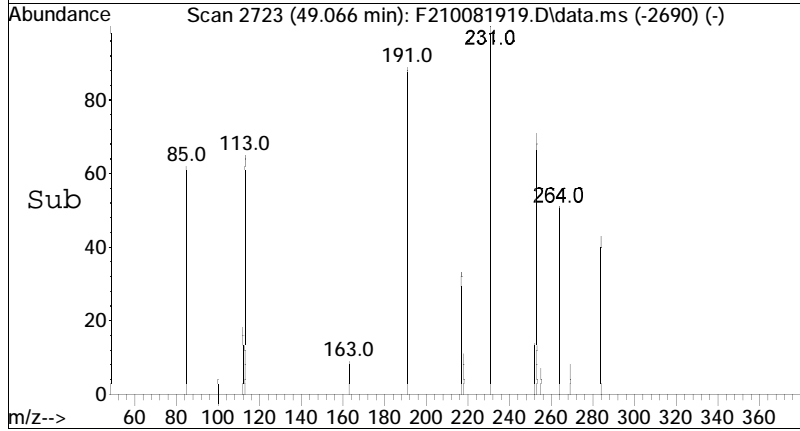


#167
 5b(H)-C29 (20R) MAS+
 Concen: 380.13 ng/mL M4
 RT: 48.057 min Scan# 2656
 Delta R.T. -0.015 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion:253 Resp: 11817





#168
 5a(H)-C29 (20R) MAS
 Concen: 86.56 ng/mL
 RT: 49.066 min Scan# 2723
 Delta R.T. 0.000 min
 Lab File: F210081919.D
 Acq: 9 Oct 2019 5:43 pm
 Tgt Ion: 253 Resp: 2691



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Dec 12 2019, 05:24 pm

Work Group: WG1312512 for Department: 2 Organic Preparation

Created: 22-NOV-19 Due: Operator: LB'

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1954309-01	PDI-090SC-B-06-08-191012	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1026	1213	S0	Glass-A.120
L1954309-01	PDI-090SC-B-06-08-191012	S A2-SHC	SOIL	DONE	U	1026	1213	S0	Glass-A.120
L1954309-02	PDI-084SC-B-06-08-191002	S A2-SHC	SOIL	DONE	U	1016	1213	S0	Glass-A.120
L1954309-02	PDI-084SC-B-06-08-191002	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1016	1213	S0	Glass-A.120
L1954309-03	PDI-079SC-B-06-08-191014	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1954309-03	PDI-079SC-B-06-08-191014	S A2-SHC	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1954309-04	PDI-071SC-B-06-08-191001	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1015	1213	S0	Glass-A.120
L1954309-04	PDI-071SC-B-06-08-191001	S A2-SHC	SOIL	DONE	U	1015	1213	S0	Glass-A.120
L1954309-05	PDI-066SC-B-06-08-191011	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1025	1213	S0	Glass-A.120
L1954309-05	PDI-066SC-B-06-08-191011	S A2-SHC	SOIL	DONE	U	1025	1213	S0	Glass-A.120
L1954309-06	PDI-059SC-B-06-08-191016	S A2-SHC	SOIL	DONE	U	1030	1213	S0	Glass-A.120
L1954309-06	PDI-059SC-B-06-08-191016	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1030	1213	S0	Glass-A.120
L1954309-07	PDI-049SC-B-06-08-191015	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1029	1213	S0	Glass-A.120
L1954309-07	PDI-049SC-B-06-08-191015	S A2-SHC	SOIL	DONE	U	1029	1213	S0	Glass-A.120
L1954309-08	PDI-1079SC-B-06-08-191014	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1954309-08	PDI-1079SC-B-06-08-191014	S A2-SHC	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1955791-01	MW-003-191120-SO-A06	S A2-SHC	SOIL	DONE	U	1204	1206	S0	Glass-A.120
L1955791-02	MW-003-191120-SO-B08	S A2-SHC	SOIL	DONE	U	1204	1206	S0	Glass-A.120
L1955791-03	DUP-01-191120	S A2-SHC	SOIL	DONE	U	1204	1206	S0	Glass-A.120
WG1312512-1	Laboratory Method Bl	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U				
WG1312512-1	Laboratory Method Bl	S A2-SHC	SOIL	DONE	U				
WG1312512-2	Laboratory Control S	S A2-SHC	SOIL	DONE	U				
WG1312512-2	Laboratory Control S	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U				
WG1312512-3	LCS Duplicate	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U				
WG1312512-3	LCS Duplicate	S A2-SHC	SOIL	DONE	U				

Comments:

WG1312512-3 WG1312512-2

Sequence Logs

Analysis log File

Total Files Reported in Log : 22
 Log Generated From Directory: O:\Forensics\Data\PAH2\2019\Oct19\oct08\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F210081901.D	FRNC2A.M	PRIME	CC FRBA81 500NG/ML	10/8/2019	2:23 pm
2	F210081902.D	FRNC2A.M	CC	frbb24	10/8/2019	3:51 pm
3	F210081903.D	FRNC2A.M	dcm	dcm	10/8/2019	5:18 pm
4	F210081904.D	FRNC2A.M	i210081901	WG1294599,ffbb19	10/8/2019	6:46 pm
5	F210081905.D	FRNC2A.M	i210081902	WG1294599,ffbb20	10/8/2019	8:13 pm
6	F210081906.D	FRNC2A.M	i210081903	WG1294599,ffbb21	10/8/2019	9:41 pm
7	F210081907.D	FRNC2A.M	i210081904	WG1294599,ffbb46	10/8/2019	11:09 pm
8	F210081908.D	FRNC2A.M	i210081905	WG1294599,ffbb23	10/9/2019	12:38 am
9	F210081909.D	FRNC2A.M	i210081906	WG1294599,ffbb24	10/9/2019	2:06 am
10	F210081910.D	FRNC2A.M	i210081907	ffbb25 use rerun	10/9/2019	3:35 am
11	F210081911.D	FRNC2A.M	dcm	dcm	10/9/2019	5:04 am
12	F210081912.D	FRNC2A.M	qc210081901	ffbb04	10/9/2019	6:33 am
13	F210081913.D	FRNC2A.M	dcm	dcm	10/9/2019	8:00 am
14	F210081914.D	FRNC2A.M	ans210081902	5..088	10/9/2019	9:26 am
15	F210081915.D	FRNC2A.M	i210081907	WG1294599,frbb25	10/9/2019	11:41 am
16	F210081916.D	FRNC2A.M	dcm	dcm	10/9/2019	1:13 pm
17	F210081917.D	FRNC2A.M	CQ210081902	WG1294599,FRBB04	10/9/2019	2:43 pm
18	F210081918.D	FRNC2A.M	dcm	dcm	10/9/2019	4:13 pm
19	F210081919.D	FRNC2A.M	WG1294599-1,.05088	WG1294599,frbb69 5.088	10/9/2019	5:43 pm
20	F210081919a.D	FRNC2A.M	P1210081901		10/9/2019	7:12 pm
21	F210081919b.D	FRNC2A.M	dcm		10/9/2019	8:42 pm
22	F210081919c.D	FRNC2A.M	dcm		10/10/2019	6:48 am

Analysis log File

Total Files Reported in Log : 37

Log Generated From Directory: O:\Forensics\Data\PAH2\2019\DEC19\DEC01\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F212011901.D	FRNC2A.M	pPRIME		12/1/2019	11:58 am
2	F212011902.D	FRNC2A.M	WG1315412-1	WG1315412,FRBB74 500..	12/1/2019	1:25 pm
3	F212011903.D	FRNC2A.M	ANS212011901	ANS	12/1/2019	2:52 pm
4	F212011904.D	FRNC2A.M	DCM	WG	12/1/2019	4:20 pm
5	F212011905.D	FRNC2A.M	DCM	WG	12/1/2019	5:47 pm
6	F212011906.D	FRNC2A.M	WG1311556-1	WG1315412,WG1311556,..	12/1/2019	7:14 pm
7	F212011907.D	FRNC2A.M	WG1311556-2	WG1315412,WG1311556,..	12/1/2019	8:41 pm
8	F212011908.D	FRNC2A.M	WG1311556-3	WG1315412,WG1311556,..	12/1/2019	10:08 pm
9	F212011909.D	FRNC2A.M	L1955225-01	WG1315412,WG1311556,..	12/1/2019	11:35 pm
10	F212011910.D	FRNC2A.M	L1955225-02	WG1315412,WG1311556,..	12/2/2019	1:02 am
11	F212011911.D	FRNC2A.M	L1955225-03	WG1315412,WG1311556,..	12/2/2019	2:30 am
12	F212011912.D	FRNC2A.M	L1955225-04	WG1315412,WG1311556,..	12/2/2019	3:57 am
13	F212011913.D	FRNC2A.M	L1955225-05	WG1315412,WG1311556,..	12/2/2019	5:25 am
14	F212011914.D	FRNC2A.M	L1955225-06	WG1315412,WG1311556,..	12/2/2019	6:52 am
15	F212011915.D	FRNC2A.M	WG1315412-2	WG1315412,FRBB74 500..	12/2/2019	8:21 am
16	F212011916.D	FRNC2A.M	WG1312428-5	WG1312428,FRBB74 500..	12/2/2019	2:35 pm
17	F212011917.D	FRNC2A.M	L1952434-07	WG1312428,WG1306988,..	12/2/2019	4:02 pm
18	F212011918.D	FRNC2A.M	WG1312428-6	WG1312428,FRBB74 500..	12/2/2019	5:30 pm
19	F212011919.D	FRNC2A.M	WG1316430-1	WG1316430,FRBB74 500..	12/3/2019	8:25 am
20	F212011920.D	FRNC2A.M	DCM	DCM	12/3/2019	11:51 am
21	F212011921.D	FRNC2A.M	DCM	DCM	12/3/2019	1:19 pm
22	F212011922.D	FRNC2A.M	WG1312512-1	WG1316430,WG1312512,..	12/3/2019	2:47 pm
23	F212011923.D	FRNC2A.M	WG1312512-2	WG1316430,WG1312512,..	12/3/2019	4:16 pm
24	F212011924.D	FRNC2A.M	WG1312512-3	WG1316430,WG1312512,..	12/3/2019	5:44 pm
25	F212011925.D	FRNC2A.M	L1955602-01	WG1316430,WG1312511,..	12/3/2019	7:12 pm
26	F212011925A.D	FRNC2A.M	L1953298-01D,32,2	WG1316008,WG1310093,..	12/3/2019	8:40 pm
27	F212011925B.D	FRNC2A.M	WG1310093-4D,32,2	WG1316008,WG1310093,..	12/3/2019	10:08 pm
28	F212011926.D	FRNC2A.M	WG1316430-2	WG1316430,FRBB74 500..	12/3/2019	11:35 pm
29	F212011927.D	FRNC2A.M	L1954309-01	see 4x,40x	12/4/2019	1:03 am
30	F212011928.D	FRNC2A.M	L1954309-02	WG1316430,WG1312512,..	12/4/2019	2:30 am
31	F212011929.D	FRNC2A.M	L1954309-03	see 4x,40x	12/4/2019	3:58 am
32	F212011930.D	FRNC2A.M	L1954309-04	see 4x,40x	12/4/2019	5:25 am
33	F212011931.D	FRNC2A.M	L1954309-05	see 4x,40x	12/4/2019	6:52 am
34	F212011932.D	FRNC2A.M	L1954309-06	WG1316430,WG1312512,..	12/4/2019	8:19 am
35	F212011933.D	FRNC2A.M	L1954309-07	WG1316430,WG1312512,..	12/4/2019	9:47 am
36	F212011934.D	FRNC2A.M	L1954309-08	see 4x,40x	12/4/2019	11:15 am
37	F212011935.D	FRNC2A.M	WG1316430-3	WG1316430,FRBB74 500..	12/4/2019	12:43 pm

Analysis log File

Total Files Reported in Log : 22
 Log Generated From Directory: O:\Forensics\Data\PAH2\2019\DEC19\DEC05\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F212051901.D	FRNC2A.M	pPRIME		12/5/2019	7:03 am
2	F212051902.D	FRNC2A.M	WG1316430-4	WG1316430,FRBB74 500..	12/5/2019	8:31 am
3	F212051903.D	FRNC2A.M	ANS212051901	ANS	12/5/2019	9:58 am
4	F212051904.D	FRNC2A.M	L1954309-08d,32,4	WG1316430,WG1312512,..	12/5/2019	11:26 am
5	F212051905.D	FRNC2A.M	L1954309-08d2,32,40	WG1316430,WG1312512,..	12/5/2019	12:54 pm
6	F212051906.D	FRNC2A.M	L1954309-07d,32,4	WG1316430,WG1312512,..	12/5/2019	2:22 pm
7	F212051907.D	FRNC2A.M	L1954309-05d,32,4	WG1316430,WG1312512,..	12/5/2019	3:50 pm
8	F212051908.D	FRNC2A.M	L1954309-05d2,32,40	see RA	12/5/2019	5:17 pm
9	F212051909.D	FRNC2A.M	L1954309-04d,32,4	WG1316430,WG1312512,..	12/5/2019	6:44 pm
10	F212051910.D	FRNC2A.M	L1954309-04d2,32,40	WG1316430,WG1312512,..	12/5/2019	8:12 pm
11	F212051911.D	FRNC2A.M	L1954309-03d,32,4	WG1316430,WG1312512,..	12/5/2019	9:39 pm
12	F212051912.D	FRNC2A.M	L1954309-03d2,32,40	see RA	12/5/2019	11:07 pm
13	F212051913.D	FRNC2A.M	L1954309-02d,32,10	WG1316430,WG1312512,..	12/6/2019	12:34 am
14	F212051914.D	FRNC2A.M	L1954309-01d,32,4	WG1316430,WG1312512,..	12/6/2019	2:00 am
15	F212051915.D	FRNC2A.M	L1954309-01d2,32,40	WG1316430,WG1312512,..	12/6/2019	3:27 am
16	F212051916.D	FRNC2A.M	WG1316430-5	WG1316430,FRBB74 500..	12/6/2019	4:54 am
17	F212051917.D	FRNC2A.M	L1950654-13	WG1317146,WG1305772,..	12/6/2019	7:00 am
18	F212051918.D	FRNC2A.M	WG1316430-6	WG1316430,FRBB74 500..	12/6/2019	8:35 am
19	F212051919.D	FRNC2A.M	L1954309-03D2,32,40	WG1316430,WG1312512,..	12/6/2019	11:03 am
20	F212051920.D	FRNC2A.M	L1954309-05D2,32,40	WG1316430,WG1312512,..	12/6/2019	12:30 pm
21	F212051921.D	FRNC2A.M	WG1316430-7	WG1316430,FRBB74 500..	12/6/2019	1:58 pm
22	F212051922.D	FRNC2A.M	BIO CHK		12/6/2019	4:05 pm

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011919.D
 Acq On : 3 Dec 2019 8:25 am
 Operator : PAH2:MJS
 Sample : WG1316430-1
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 04 10:30:06 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	116	0.01
2 A1	trans-Decalin	0.385	0.392	-1.8	129	-0.03
3 t	cis-Decalin	0.297	0.294	1.0	125	-0.03
8 s	Naphthalene-d8	1.843	1.758	4.6	114	0.00
9 A1	Naphthalene	2.049	1.992	2.8	118	0.00
14 t	2-Methylnaphthalene	1.352	1.263	6.6	111	0.07
15 t	1-Methylnaphthalene	1.299	1.237	4.8	114	0.04
16 A1	Benzothiophene	1.597	1.489	6.8	111	0.00
21 t	Biphenyl	1.646	1.585	3.7	111	0.07
22 t	2,6-Dimethylnaphthalene	1.210	1.152	4.8	112	0.07
23 t	Dibenzofuran	1.749	1.714	2.0	111	0.08
24 t	Acenaphthylene	2.018	1.974	2.2	115	0.03
25 t	Acenaphthene	1.260	1.245	1.2	114	0.03
26 t	2,3,5-Trimethylnaphthalene	1.105	1.067	3.4	112	0.06
27 A1	Fluorene	1.427	1.387	2.8	110	0.08
31 A1	Dibenzothiophene	1.933	1.828	5.4	107	0.05
40 s	Phenanthrene-d10	1.621	1.597	1.5	111	0.05
41 A1	Phenanthrene	2.056	2.042	0.7	109	0.05
52 t	Retene	0.704	0.630	10.5	102	0.07
53 t	Anthracene	1.753	1.799	-2.6	109	0.07
54 t	Carbazole	1.640	1.675	-2.1	114	0.09
55 t	1-Methylphenanthrene	1.540	1.461	5.1	106	0.07
56 A1	Fluoranthene	2.345	2.172	7.4	105	0.08
57 A1	Benzo(b)fluorene	1.475	1.378	6.6	108	0.07
59 A1	Pyrene	2.435	2.280	6.4	107	0.06
67 A1	Napthobenzothiophene-2,1-D	2.083	1.900	8.8	105	0.09
74 i	Chrysene-d12	1.000	1.000	0.0	103	0.03
75 t	Benz[a]anthracene	1.142	1.131	1.0	102	0.04
76 A1	Chrysene	1.163	1.223	-5.2	107	0.05
77 A2	Chrysene/Triphenylene	1.163	1.223	-5.2	107	0.05
83 s	Benzo[b]fluoranthene-d12	0.979	0.913	6.7	98	0.03
84 t	Benzo[b]fluoranthene	1.383	1.232	10.9	94	0.03
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.501	-7.9	106	0.05
87 t	Benzo[e]pyrene	1.328	1.279	3.7	99	0.03
88 s	Benzo[a]pyrene-d12	0.757	0.723	4.5	98	0.05
89 t	Benzo[a]pyrene	1.216	1.135	6.7	92	0.05
90 t	Perylene	1.188	1.248	-5.1	102	0.05
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.265	12.5	94	0.10

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011919.D
 Acq On : 3 Dec 2019 8:25 am
 Operator : PAH2:MJS
 Sample : WG1316430-1
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 04 10:30:06 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.146	13.2	91	0.08
93 t Benzo[g,h,i]perylene	1.446	1.271	12.1	92	0.11
94 A1 Hopane (T19)	0.249	0.252	-1.2	107	-0.02
128 SA1 5B(H)Cholane - Surr	0.166	0.169	-1.8	105	-0.01

* 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	0.89	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.07	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011919.D
 Acq On : 3 Dec 2019 8:25 am
 Operator : PAH2:MJS
 Sample : WG1316430-1
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 04 10:30:06 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	26.949	164	80126M4	500.000	ng/mL	0.01
74) Chrysene-d12	43.449	240	137483	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.963	136	140889	476.982	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.70%#
40) Phenanthrene-d10	32.850	188	127997	492.844	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.28%#
83) Benzo[b]fluoranthene-d12	47.364	264	125478	466.063	ng/mL	0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.61%#
88) Benzo[a]pyrene-d12	48.599	264	99466	477.999	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.80%#
128) 5B(H)Cholane - Surr	44.036	217	23255	508.271	ng/ml	-0.01
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.83%
Target Compounds						
2) trans-Decalin	16.591	138	15710	254.334	ng/mL	100
3) cis-Decalin	17.811	138	11777	247.211	ng/mL	100
9) Naphthalene	20.039	128	159617	486.039	ng/mL	100
14) 2-Methylnaphthalene	22.794	142	101185	467.017	ng/mL	100
15) 1-Methylnaphthalene	23.200	142	99130	476.336	ng/mL	100
16) Benzothiophene	20.264	134	119299	466.023	ng/mL	100
21) Biphenyl	24.675	154	127035	481.745	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.293	156	92277	475.959	ng/mL	100
23) Dibenzofuran	27.762	168	137356	489.953	ng/mL	97
24) Acenaphthylene	26.346	152	158183M4	489.147	ng/mL	
25) Acenaphthene	27.084	153	99727	493.853	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.665	170	85521	482.891	ng/mL	95
27) Fluorene	29.147	166	111155M4	485.977	ng/mL	
31) Dibenzothiophene	32.443	184	146497	472.894	ng/mL	98
41) Phenanthrene	32.940	178	163582	496.404	ng/mL	99
52) Retene	39.926	234	50498	447.650	ng/mL	99
53) Anthracene	33.136	178	144114M4	512.996	ng/mL	
54) Carbazole	33.813	167	134180	510.547	ng/mL	99
55) 1-Methylphenanthrene	35.454	192	117066	474.372	ng/mL	100
56) Fluoranthene	37.728	202	174008M4	463.000	ng/mL	
57) Benzo(b)fluorene	40.242	216	110446	467.113	ng/mL	99
59) Pyrene	38.601	202	182660	468.059	ng/mL	98
67) Naphthobenzothiophene-2,1	42.471	234	152257	456.133	ng/mL	99
75) Benz[a]anthracene	43.404	228	155427	494.979	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011919.D
 Acq On : 3 Dec 2019 8:25 am
 Operator : PAH2:MJS
 Sample : WG1316430-1
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 04 10:30:06 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.555	228	168091	525.814	ng/mL	100
77) Chrysene/Triphenylene	43.555	228	168091	525.814	ng/mL	100
84) Benzo[b]fluoranthene	47.455	252	169424	445.674	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.545	252	206399	539.694	ng/mL	97
87) Benzo[e]pyrene	48.479	252	175835	481.553	ng/mL	96
89) Benzo[a]pyrene	48.690	252	155987	466.655	ng/mL	96
90) Perylene	49.006	252	171541	525.306	ng/mL	93
91) Indeno[1,2,3-cd]pyrene	53.690	276	173860M3	437.208	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.735	278	157589	434.318	ng/mL	98
93) Benzo[g,h,i]perylene	55.045	276	174698	439.508	ng/mL	100
94) Hopane (T19)	52.665	191	34633	505.927	ng/mL#	88

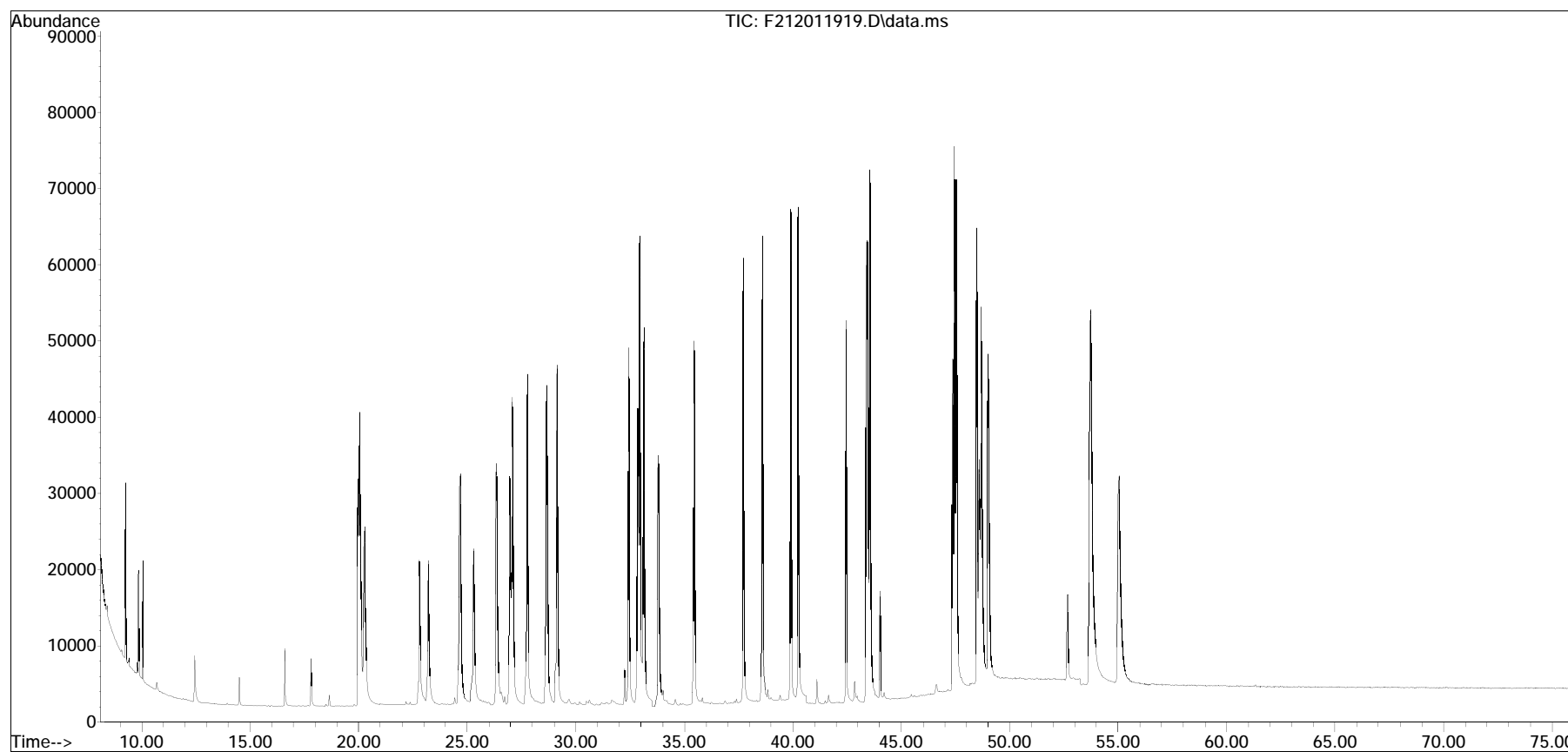
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011919.D
Acq On : 3 Dec 2019 8:25 am
Operator : PAH2:MJS
Sample : WG1316430-1
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 04 10:30:06 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011926.D
 Acq On : 3 Dec 2019 11:35 pm
 Operator : PAH2:MJS
 Sample : WG1316430-2
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 04 10:28:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	108	0.00
2 A1	trans-Decalin	0.385	0.401	-4.2	123	-0.03
3 t	cis-Decalin	0.297	0.298	-0.3	118	-0.03
8 s	Naphthalene-d8	1.843	1.721	6.6	104	0.00
9 A1	Naphthalene	2.049	1.933	5.7	106	0.00
14 t	2-Methylnaphthalene	1.352	1.378	-1.9	113	0.04
15 t	1-Methylnaphthalene	1.299	1.319	-1.5	113	0.00
16 A1	Benzothiophene	1.597	1.400	12.3	97	0.00
21 t	Biphenyl	1.646	1.495	9.2	98	0.03
22 t	2,6-Dimethylnaphthalene	1.210	1.352	-11.7	122	0.03
23 t	Dibenzofuran	1.749	1.599	8.6	96	0.05
24 t	Acenaphthylene	2.018	1.896	6.0	102	0.01
25 t	Acenaphthene	1.260	1.192	5.4	102	0.00
26 t	2,3,5-Trimethylnaphthalene	1.105	1.174	-6.2	115	0.03
27 A1	Fluorene	1.427	1.339	6.2	99	0.03
31 A1	Dibenzothiophene	1.933	1.739	10.0	95	0.04
40 s	Phenanthrene-d10	1.621	1.600	1.3	103	0.05
41 A1	Phenanthrene	2.056	1.923	6.5	96	0.04
52 t	Retene	0.704	0.639	9.2	96	0.07
53 t	Anthracene	1.753	1.701	3.0	95	0.06
54 t	Carbazole	1.640	1.551	5.4	98	0.09
55 t	1-Methylphenanthrene	1.540	1.448	6.0	98	0.07
56 A1	Fluoranthene	2.345	2.042	12.9	91	0.08
57 A1	Benzo(b)fluorene	1.475	1.312	11.1	95	0.08
59 A1	Pyrene	2.435	2.151	11.7	94	0.08
67 A1	Napthobenzothiophene-2,1-D	2.083	1.770	15.0	91	0.09
74 i	Chrysene-d12	1.000	1.000	0.0	99	0.05
75 t	Benz[a]anthracene	1.142	1.028	10.0	89	0.05
76 A1	Chrysene	1.163	1.146	1.5	96	0.06
77 A2	Chrysene/Triphenylene	1.163	1.146	1.5	96	0.06
83 s	Benzo[b]fluoranthene-d12	0.979	0.941	3.9	97	0.05
84 t	Benzo[b]fluoranthene	1.383	1.218	11.9	89	0.03
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.378	0.9	93	0.06
87 t	Benzo[e]pyrene	1.328	1.221	8.1	90	0.05
88 s	Benzo[a]pyrene-d12	0.757	0.751	0.8	97	0.06
89 t	Benzo[a]pyrene	1.216	1.057	13.1	82	0.06
90 t	Perylene	1.188	1.180	0.7	92	0.06
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.241	14.2	88	0.11

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011926.D
 Acq On : 3 Dec 2019 11:35 pm
 Operator : PAH2:MJS
 Sample : WG1316430-2
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 04 10:28:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.121	15.1	85	0.11
93 t Benzo[g,h,i]perylene	1.446	1.240	14.2	86	0.11
94 A1 Hopane (T19)	0.249	0.233	6.4	94	-0.04
128 SA1 5B(H)Cholane - Surr	0.166	0.164	1.2	97	-0.01

* 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	0.92	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.14	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011926.D
 Acq On : 3 Dec 2019 11:35 pm
 Operator : PAH2:MJS
 Sample : WG1316430-2
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 04 10:28:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	26.934	164	74415M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.464	240	131350	500.000	ng/mL	0.05
System Monitoring Compounds						
8) Naphthalene-d8	19.964	136	128069	466.854	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.69%#
40) Phenanthrene-d10	32.850	188	119075	493.677	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.37%#
83) Benzo[b]fluoranthene-d12	47.380	264	123549	480.325	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.03%#
88) Benzo[a]pyrene-d12	48.614	264	98696	496.445	ng/mL	0.06
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.64%#
128) 5B(H)Cholane - Surr	44.037	217	21507	492.015	ng/ml	-0.01
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.20%#
Target Compounds						
2) trans-Decalin	16.591	138	14911	259.925	ng/mL	100
3) cis-Decalin	17.811	138	11089	250.634	ng/mL	100
9) Naphthalene	20.039	128	143816	471.533	ng/mL	100
14) 2-Methylnaphthalene	22.764	142	102560	509.692	ng/mL	100
15) 1-Methylnaphthalene	23.170	142	98176	507.956	ng/mL	100
16) Benzothiophene	20.265	134	104216	438.347	ng/mL	100
21) Biphenyl	24.630	154	111261	454.307	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.248	156	100586	558.633	ng/mL	100
23) Dibenzofuran	27.732	168	118953	456.873	ng/mL	98
24) Acenaphthylene	26.332	152	141064M4	469.687	ng/mL	
25) Acenaphthene	27.054	153	88668	472.786	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.635	170	87330	530.948	ng/mL	92
27) Fluorene	29.102	166	99673M4	469.220	ng/mL	
31) Dibenzothiophene	32.429	184	129431	449.869	ng/mL	96
41) Phenanthrene	32.925	178	143080	467.511	ng/mL	100
52) Retene	39.926	234	47585	454.200	ng/mL	94
53) Anthracene	33.121	178	126580	485.161	ng/mL	99
54) Carbazole	33.814	167	115401	472.792	ng/mL	97
55) 1-Methylphenanthrene	35.455	192	107774	470.236	ng/mL	98
56) Fluoranthene	37.728	202	151985M4	435.437	ng/mL	
57) Benzo(b)fluorene	40.258	216	97601	444.467	ng/mL	99
59) Pyrene	38.616	202	160095	441.721	ng/mL	97
67) Naphthobenzothiophene-2,1	42.471	234	131685	424.780	ng/mL	100
75) Benz[a]anthracene	43.404	228	135059	450.197	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011926.D
 Acq On : 3 Dec 2019 11:35 pm
 Operator : PAH2:MJS
 Sample : WG1316430-2
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 04 10:28:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.570	228	150590	493.064	ng/mL	99
77) Chrysene/Triphenylene	43.570	228	150590	493.064	ng/mL	99
84) Benzo[b]fluoranthene	47.455	252	159994	440.519	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.560	252	180939	495.212	ng/mL	96
87) Benzo[e]pyrene	48.494	252	160386	459.753	ng/mL	96
89) Benzo[a]pyrene	48.705	252	138896	434.927	ng/mL	95
90) Perylene	49.021	252	155025	496.895	ng/mL	93
91) Indeno[1,2,3-cd]pyrene	53.705	276	163036M3	429.132	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.765	278	147307	424.937	ng/mL	99
93) Benzo[g,h,i]perylene	55.045	276	162875	428.896	ng/mL	100
94) Hopane (T19)	52.651	191	30657	468.756	ng/mL#	87

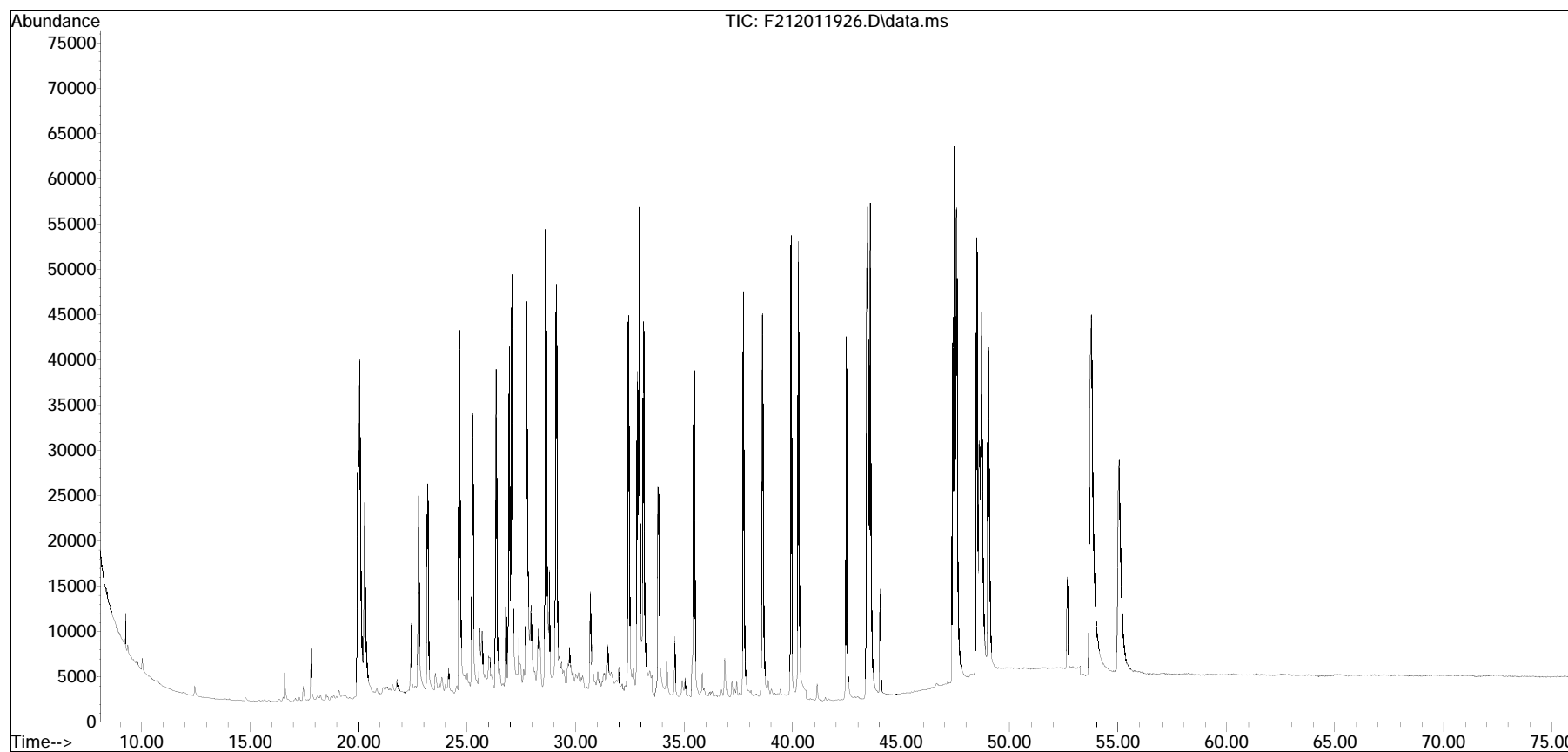
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011926.D
Acq On : 3 Dec 2019 11:35 pm
Operator : PAH2:MJS
Sample : WG1316430-2
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 04 10:28:01 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011935.D
 Acq On : 4 Dec 2019 12:43 pm
 Operator : PAH2:MJS
 Sample : WG1316430-3
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 14:21:46 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	101	0.08
2 A1	trans-Decalin	0.385	0.412	-7.0	118	-0.03
3 t	cis-Decalin	0.297	0.303	-2.0	112	-0.03
8 s	Naphthalene-d8	1.843	1.981	-7.5	112	0.09
9 A1	Naphthalene	2.049	1.963	4.2	101	0.12
14 t	2-Methylnaphthalene	1.352	1.135	16.1	87	0.17
15 t	1-Methylnaphthalene	1.299	1.361	-4.8	109	0.13
16 A1	Benzothiophene	1.597	1.527	4.4	99	0.11
21 t	Biphenyl	1.646	1.453	11.7	89	0.16
22 t	2,6-Dimethylnaphthalene	1.210	1.072	11.4	91	0.19
23 t	Dibenzofuran	1.749	1.623	7.2	92	0.17
24 t	Acenaphthylene	2.018	1.865	7.6	95	0.09
25 t	Acenaphthene	1.260	1.158	8.1	93	0.08
26 t	2,3,5-Trimethylnaphthalene	1.105	1.031	6.7	95	0.12
27 A1	Fluorene	1.427	1.394	2.3	97	0.15
31 A1	Dibenzothiophene	1.933	1.823	5.7	93	0.11
40 s	Phenanthrene-d10	1.621	1.742	-7.5	106	0.12
41 A1	Phenanthrene	2.056	1.961	4.6	91	0.12
52 t	Retene	0.704	0.743	-5.5	105	0.08
53 t	Anthracene	1.753	2.044	-16.6	107	0.13
54 t	Carbazole	1.640	1.821	-11.0	108	0.13
55 t	1-Methylphenanthrene	1.540	1.531	0.6	97	0.12
56 A1	Fluoranthene	2.345	2.269	3.2	95	0.11
57 A1	Benzo(b)fluorene	1.475	1.530	-3.7	104	0.11
59 A1	Pyrene	2.435	2.345	3.7	96	0.09
67 A1	Napthhobenzothiophene-2,1-D	2.083	1.924	7.6	93	0.12
74 i	Chrysene-d12	1.000	1.000	0.0	102	0.06
75 t	Benz[a]anthracene	1.142	1.038	9.1	93	0.06
76 A1	Chrysene	1.163	1.088	6.4	94	0.08
77 A2	Chrysene/Triphenylene	1.163	1.088	6.4	94	0.08
83 s	Benzo[b]fluoranthene-d12	0.979	0.882	9.9	93	0.06
84 t	Benzo[b]fluoranthene	1.383	0.970	29.9#	73	0.06
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.293	7.0	90	0.06
87 t	Benzo[e]pyrene	1.328	1.013	23.7	77	0.06
88 s	Benzo[a]pyrene-d12	0.757	0.678	10.4	91	0.06
89 t	Benzo[a]pyrene	1.216	0.944	22.4	76	0.08
90 t	Perylene	1.188	1.026	13.6	83	0.06
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.192	17.6	87	0.14

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011935.D
 Acq On : 4 Dec 2019 12:43 pm
 Operator : PAH2:MJS
 Sample : WG1316430-3
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 14:21:46 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.121	15.1	88	0.11
93 t Benzo[g,h,i]perylene	1.446	1.131	21.8	81	0.14
94 A1 Hopane (T19)	0.249	0.194	22.1	81	-0.04
128 SA1 5B(H)Cholane - Surr	0.166	0.159	4.2	98	-0.01

* 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	0.82	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.12	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011935.D
 Acq On : 4 Dec 2019 12:43 pm
 Operator : PAH2:MJS
 Sample : WG1316430-3
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 14:21:46 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	27.009	164	69856M4	500.000	ng/mL	0.08	
74) Chrysene-d12	43.479	240	135486	500.000	ng/mL	0.06	
System Monitoring Compounds							
8) Naphthalene-d8	20.054	136	138408M1	537.471	ng/mL	0.09	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	53.75%	
40) Phenanthrene-d10	32.910	188	121693	537.458	ng/mL	0.12	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	53.75%	
83) Benzo[b]fluoranthene-d12	47.394	264	119458	450.243	ng/mL	0.06	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.02%#	
88) Benzo[a]pyrene-d12	48.614	264	91865	447.979	ng/mL	0.06	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.80%#	
128) 5B(H)Cholane - Surr	44.036	217	21578	478.569	ng/ml	-0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.86%#	
Target Compounds							
2) trans-Decalin	16.591	138	14401	267.418	ng/mL	100	Qvalue
3) cis-Decalin	17.811	138	10579	254.711	ng/mL	100	
9) Naphthalene	20.159	128	137158M1	479.052	ng/mL		
14) 2-Methylnaphthalene	22.899	142	79293M4	419.780	ng/mL		
15) 1-Methylnaphthalene	23.290	142	95047M4	523.861	ng/mL		
16) Benzothiophene	20.370	134	106673M4	477.964	ng/mL		
21) Biphenyl	24.766	154	101535	441.651	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.413	156	74886	443.044	ng/mL	100	
23) Dibenzofuran	27.852	168	113404	463.986	ng/mL	97	
24) Acenaphthylene	26.407	152	130283M4	462.101	ng/mL		
25) Acenaphthene	27.129	153	80877	459.388	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.725	170	72041	466.579	ng/mL	98	
27) Fluorene	29.222	166	97381	488.349	ng/mL	97	
31) Dibenzothiophene	32.504	184	127373	471.609	ng/mL	98	
41) Phenanthrene	33.000	178	136974	476.769	ng/mL	100	
52) Retene	39.941	234	51916	527.880	ng/mL	90	
53) Anthracene	33.196	178	142766M4	582.912	ng/mL		
54) Carbazole	33.859	167	127219	555.226	ng/mL	97	
55) 1-Methylphenanthrene	35.500	192	106947	497.081	ng/mL	99	
56) Fluoranthene	37.758	202	158472M4	483.653	ng/mL		
57) Benzo(b)fluorene	40.288	216	106882	518.497	ng/mL	99	
59) Pyrene	38.631	202	163825	481.512	ng/mL	97	
67) Naphthobenzothiophene-2,1	42.501	234	134380	461.763	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011935.D
 Acq On : 4 Dec 2019 12:43 pm
 Operator : PAH2:MJS
 Sample : WG1316430-3
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 14:21:46 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
75) Benz[a]anthracene	43.419	228	140612	454.399	ng/mL	89
76) Chrysene	43.585	228	147354	467.740	ng/mL	98
77) Chrysene/Triphenylene	43.585	228	147354	467.740	ng/mL	98
84) Benzo[b]fluoranthene	47.485	252	131413	350.780	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.560	252	175131	464.684	ng/mL	93
87) Benzo[e]pyrene	48.509	252	137215	381.325	ng/mL	96
89) Benzo[a]pyrene	48.720	252	127885	388.223	ng/mL	95
90) Perylene	49.021	252	139002	431.937	ng/mL	93
91) Indeno[1,2,3-cd]pyrene	53.735	276	161481M3	412.064	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.765	278	151924	424.877	ng/mL	97
93) Benzo[g,h,i]perylene	55.075	276	153253	391.239	ng/mL	100
94) Hopane (T19)	52.651	191	26233	388.866	ng/mL#	87

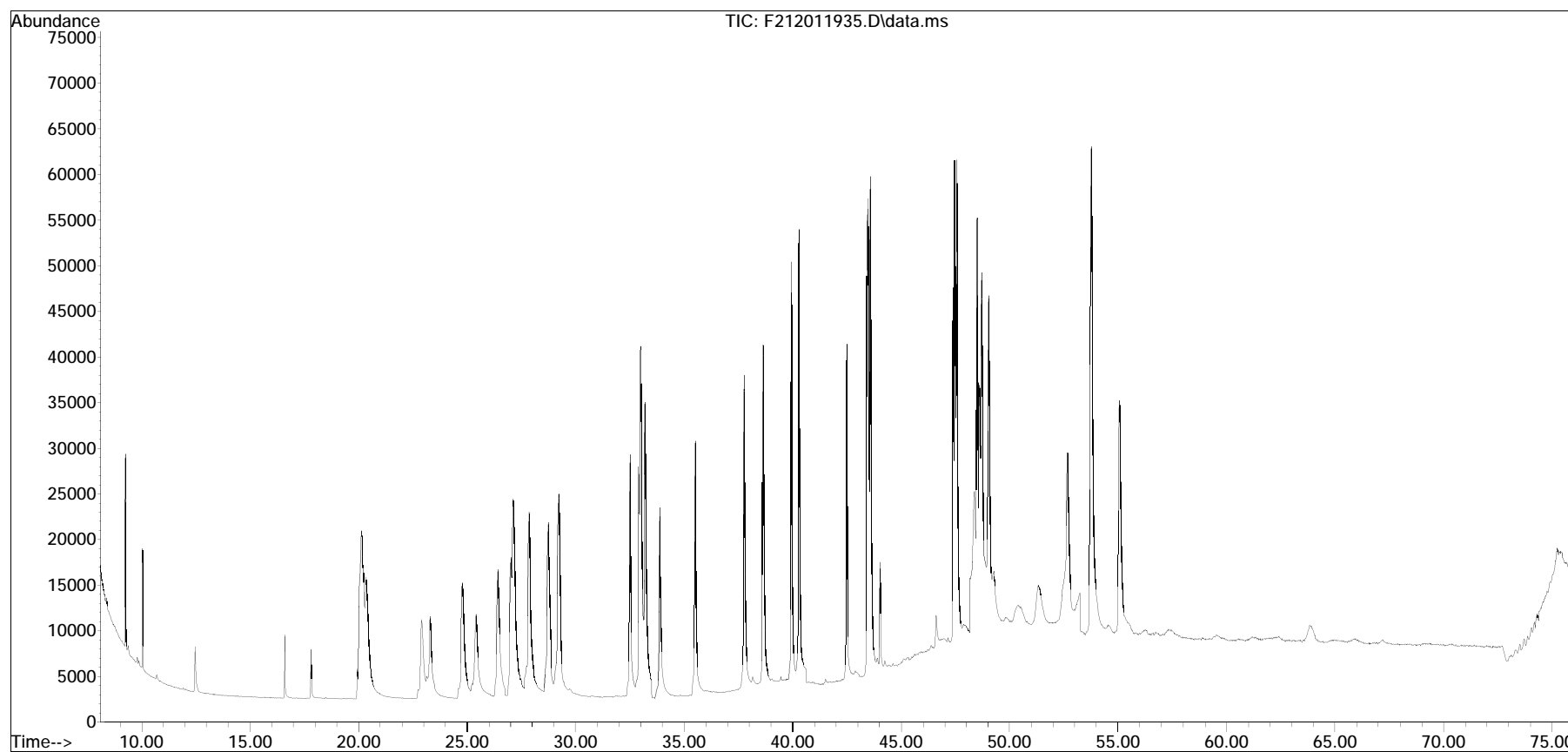
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011935.D
Acq On : 4 Dec 2019 12:43 pm
Operator : PAH2:MJS
Sample : WG1316430-3
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 14:21:46 2019
Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011928.D
 Acq On : 4 Dec 2019 2:30 am
 Operator : PAH2:MJS
 Sample : L1954309-02
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 10 14:01:41 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.919	164	83148M4	500.000	ng/mL	-0.02	
74) Chrysene-d12	43.434	240	144236	500.000	ng/mL	0.01	
System Monitoring Compounds							
8) Naphthalene-d8	19.933	136	292352	953.789	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	95.38%	
40) Phenanthrene-d10	32.820	188	221224	820.849	ng/mL	0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	82.08%	
83) Benzo[b]fluoranthene-d12	47.364	264	300070	1062.367	ng/mL	0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	106.24%	
88) Benzo[a]pyrene-d12	48.584	264	198615	909.787	ng/mL	0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	90.98%	
Target Compounds							
							Qvalue
2) trans-Decalin	16.591	138	24800	386.903	ng/mL		100
3) cis-Decalin	17.811	138	1902	38.474	ng/mL		100
4) C1-Decalins	18.518	152	66782M5	1041.862	ng/mL		
5) C2-Decalins	19.858	166	115147M5	1796.401	ng/mL		
6) C3-Decalins	22.327	180	89775M5	1400.574	ng/mL		
7) C4-Decalins	24.600	194	93202M5	1454.038	ng/mL		
9) Naphthalene	20.008	128	1901157	5578.685	ng/mL		100
10) C1-Naphthalenes	23.140	142	1820599M5	5342.299	ng/mL		
11) C2-Naphthalenes	25.564	156	4289656M5	12587.408	ng/mL		
12) C3-Naphthalenes	27.897	170	3784695M5	11105.669	ng/mL		
13) C4-Naphthalenes	30.667	184	1977055M5	5801.397	ng/mL		
14) 2-Methylnaphthalene	22.703	142	854002	3798.372	ng/mL		100
15) 1-Methylnaphthalene	23.140	142	964733	4467.216	ng/mL		100
16) Benzothiophene	20.234	134	132502	498.786	ng/mL		100
17) C1-Benzo(b)thiophenes	22.568	148	178617M5	672.380	ng/mL		
18) C2-Benzo(b)thiophenes	25.278	162	476255M5	1792.800	ng/mL		
19) C3-Benzo(b)thiophenes	27.385	176	531776M5	2001.801	ng/mL		
20) C4-Benzo(b)thiophenes	29.839	190	371269M5	1397.594	ng/mL		
21) Biphenyl	24.585	154	182626	667.387	ng/mL		100
22) 2,6-Dimethylnaphthalene	25.217	156	1102171	5478.316	ng/mL		100
23) Dibenzofuran	27.686	168	349258	1200.536	ng/mL		94
24) Acenaphthylene	26.301	152	423645M3	1262.418	ng/mL		
25) Acenaphthene	27.039	153	2749866	13122.534	ng/mL		97
26) 2,3,5-Trimethylnaphthalen	28.590	170	279868M3	1522.828	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011928.D
 Acq On : 4 Dec 2019 2:30 am
 Operator : PAH2:MJS
 Sample : L1954309-02
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 10 14:01:41 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.071	166	1971479M4	8306.157	ng/mL	
28) C1-Fluorenes	31.299	180	975871M5	4111.501	ng/mL	
29) C2-Fluorenes	33.482	194	1054614M5	4443.258	ng/mL	
30) C3-Fluorenes	35.469	208	775235M5	3266.189	ng/mL	
31) Dibenzothiophene	32.398	184	2429817	7558.407	ng/mL#	91
32) 4-Methyldibenzothiophene(	34.175	198	486613	1513.702	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.491	198	582152M3	1810.894	ng/mL	
34) 1-Methyldibenzothiophene(	34.958	198	155972	485.180	ng/mL	100
36) C1-Dibenzothiophenes	34.175	198	1477958M5	4597.469	ng/mL	
36) C1-Dibenzothiophenes BS	34.175	198	1454879M5	4525.677	ng/mL	
37) C2-Dibenzothiophenes	36.237	212	1300061M5	4044.086	ng/mL	
38) C3-Dibenzothiophenes	37.683	226	835277M5	2598.288	ng/mL	
39) C4-Dibenzothiophenes	39.369	240	368715M5	1146.958	ng/mL	
41) Phenanthrene	32.940	178	22107083	64647.727	ng/mL	97
42) 3-Methylphenanthrene(3MP)	34.867	192	1872361	5475.344	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.988	192	2267504	6630.860	ng/mL	97
44) 2-Methylanthracene(2MA)	35.138	192	707787	2069.781	ng/mL#	36
45) 9/4-Methylphenanthrene(9M	35.319	192	1505495	4402.518	ng/mL	83
47) C1-Phenanthrenes/Anthrace	34.988	192	7543385M5	22059.115	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.141	206	4620739M5	13512.424	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.141	206	4620739M5	13512.424	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.926	220	3068387M5	8972.882	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.926	234	4494358M5	13142.848	ng/mL	
52) Retene	39.926	234	3821395	32644.350	ng/mL	87
53) Anthracene	33.091	178	3846816	13195.665	ng/mL	98
54) Carbazole	33.738	167	129076	473.276	ng/mL#	86
55) 1-Methylphenanthrene	35.409	192	1076434M3	4203.369	ng/mL	
56) Fluoranthene	37.728	202	13960228	35795.273	ng/mL	99
57) Benzo(b)fluorene	40.227	216	672073M3	2739.115	ng/mL	
58) 7H-Benzo(c)fluorene	40.257	216	246487M3	1004.588	ng/mL	
59) Pyrene	38.616	202	17643087	43566.546	ng/mL	96
60) 2-Methylpyrene	40.378	216	794192M3	1961.120	ng/mL	
61) 4-Methylpyrene	40.739	216	714613M3	1764.613	ng/mL	
62) 1-Methylpyrene	40.860	216	670046	1654.562	ng/mL	74
63) C1-Fluoranthenes/Pyrenes	39.986	216	5505402M5	13594.636	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.440	230	2031428M5	5016.259	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.916	244	1046148M5	2583.281	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.151	258	589470M5	1455.594	ng/mL	
67) Naphthobenzothiophene-2,1	42.440	234	848682	2450.084	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011928.D
 Acq On : 4 Dec 2019 2:30 am
 Operator : PAH2:MJS
 Sample : L1954309-02
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 10 14:01:41 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.772	234	196108M3	566.150	ng/mL	
69) Naphthobenzothiophene-2,3	43.073	234	306954M3	886.154	ng/mL	
70) C1-Naphthobenzothiophenes	43.841	248	617023M5	1781.301	ng/ml	
71) C2-Naphthobenzothiophenes	45.346	262	441397M5	1274.282	ng/ml	
72) C3-Naphthobenzothiophenes	47.229	276	280252M5	809.068	ng/ml	
73) C4-Naphthobenzothiophenes	48.569	290	115443M5	333.276	ng/mL	
75) Benz[a]anthracene	43.374	228	4161117M3	12631.232	ng/mL	
76) Chrysene	43.555	228	5001932	14914.235	ng/mL	100
78) C1-Chrysenes	45.015	242	1988952M5	5930.448	ng/mL	
79) C2-Chrysenes	46.717	256	1196641M5	3568.018	ng/mL	
79) C2-Chrysenes BS	46.717	256	1183222M5	3528.007	ng/mL	
81) C3-Chrysenes	48.358	270	677417M5	2019.851	ng/mL	
82) C4-Chrysenes	49.367	284	296154M5	883.041	ng/mL	
84) Benzo[b]fluoranthene	47.455	252	3829949	9603.074	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.530	252	2635532	6568.761	ng/mL	98
86) Benzo[a]fluoranthene	47.846	252	935856	2332.514	ng/mL#	7
87) Benzo[e]pyrene	48.479	252	3042693	7942.782	ng/mL	100
89) Benzo[a]pyrene	48.690	252	4984625	14213.960	ng/mL	98
90) Perylene	48.991	252	1202847	3510.993	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.659	276	3749411M4	8987.248	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.674	278	710299	1865.945	ng/mL	95
93) Benzo[g,h,i]perylene	55.030	276	4479556	10742.103	ng/mL	99

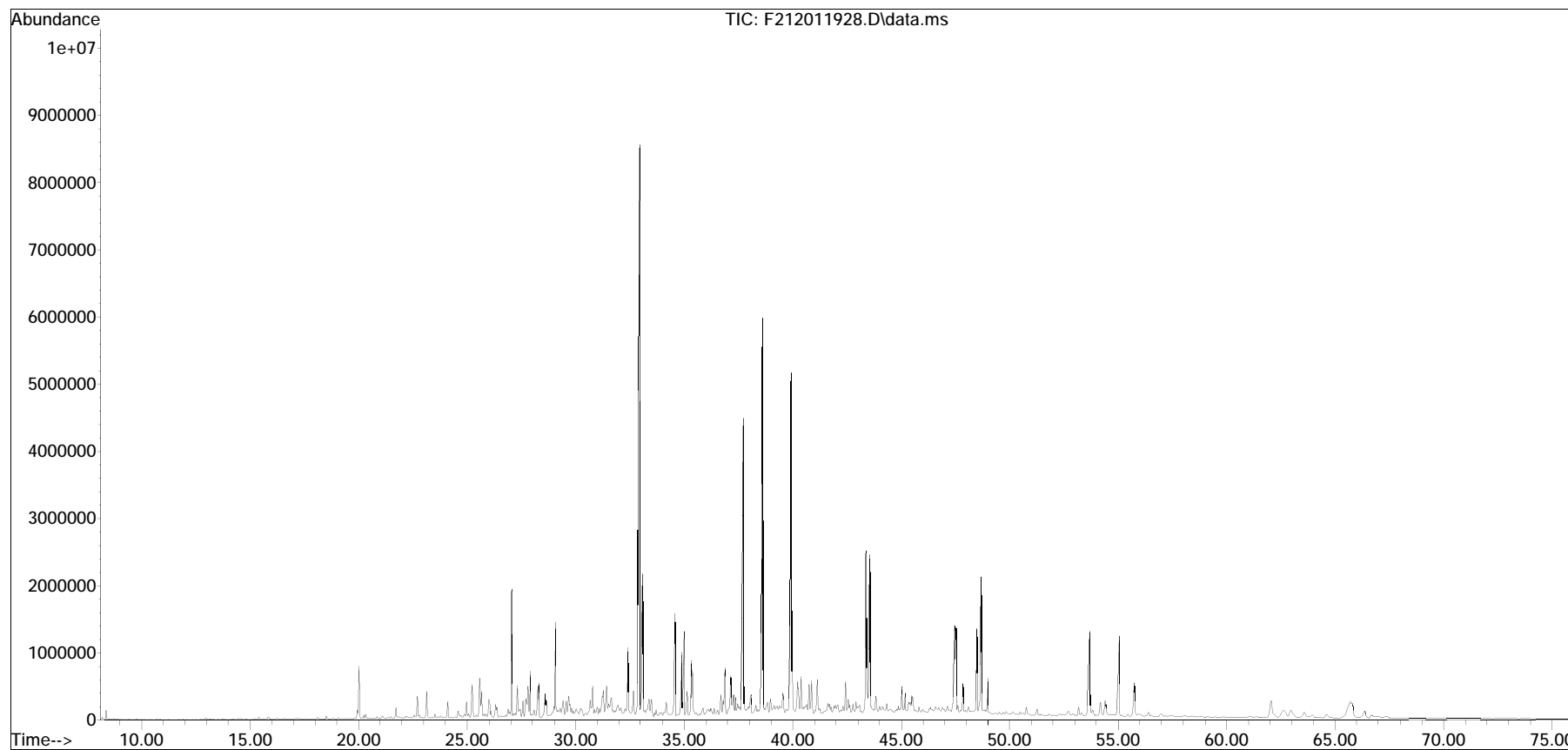
(#) = qualifier out of range (m) = manual integration (+) = signals summed

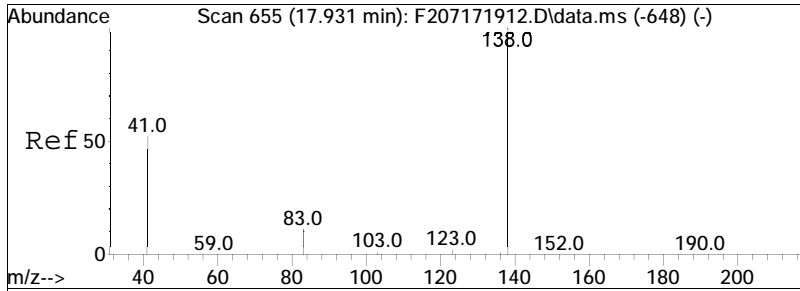
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC01\
Data File : F212011928.D
Acq On : 4 Dec 2019 2:30 am
Operator : PAH2:MJS
Sample : L1954309-02
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 28 Sample Multiplier: 1

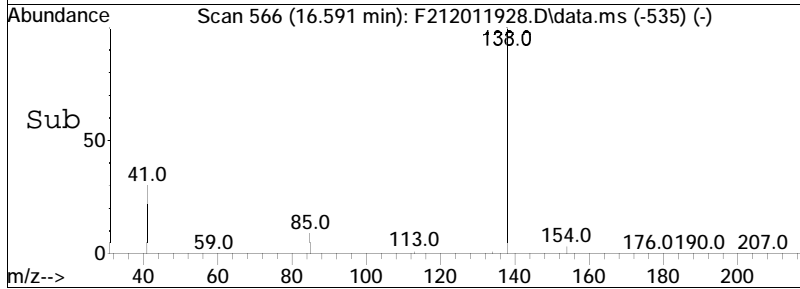
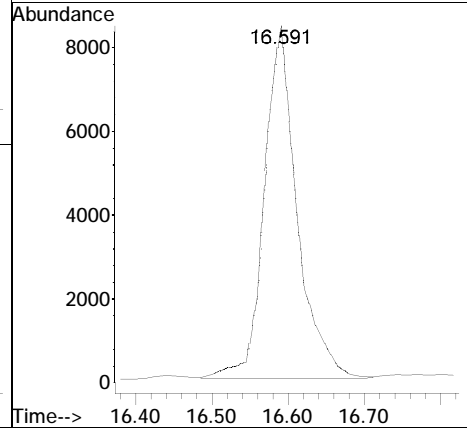
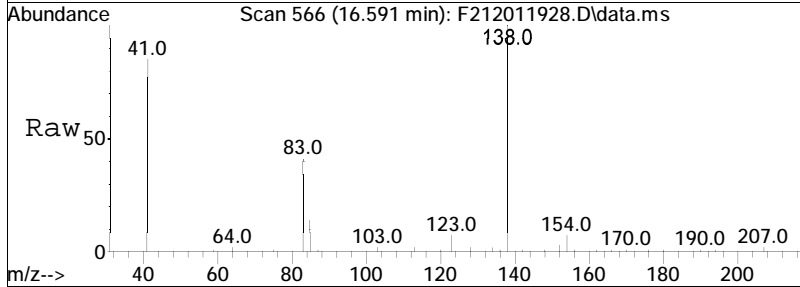
Quant Time: Dec 10 14:01:41 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

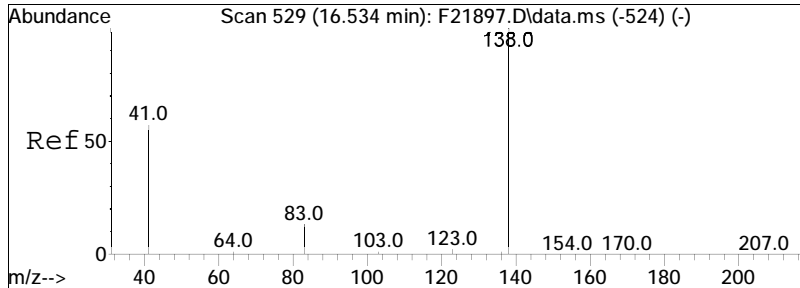
Sub List : ALKPAH - POI+MP+BcF



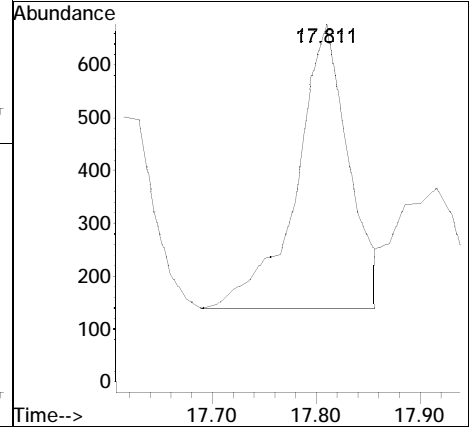
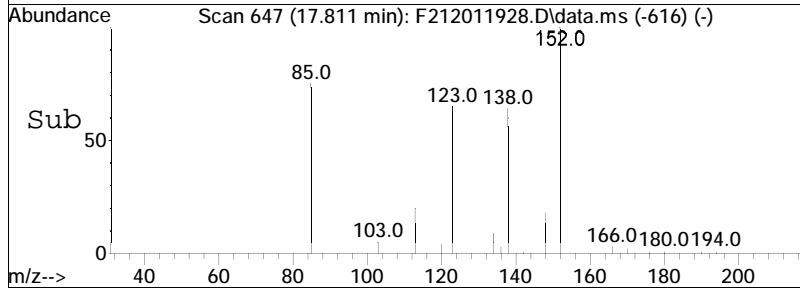
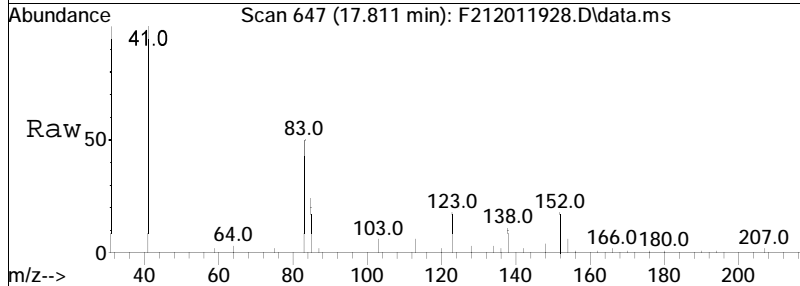


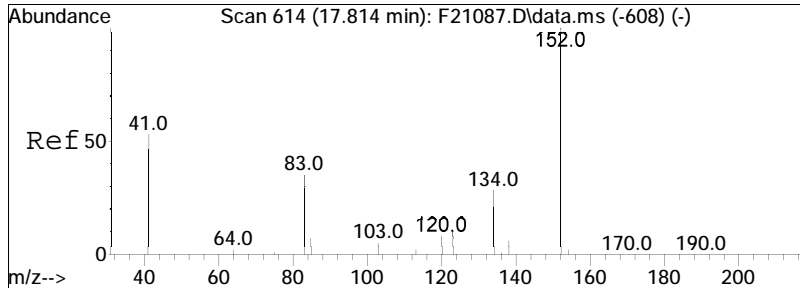
#2
 trans-Decalin
 Concen: 386.90 ng/mL
 RT: 16.591 min Scan# 566
 Delta R.T. -0.032 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:138 Resp: 24800



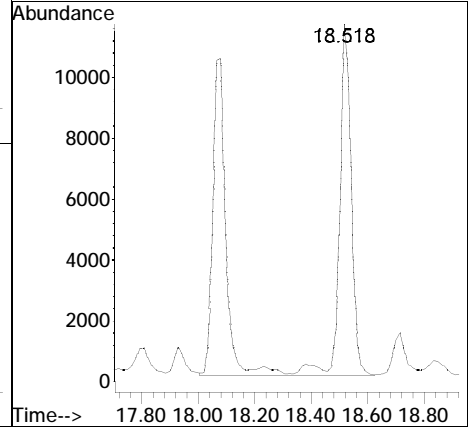
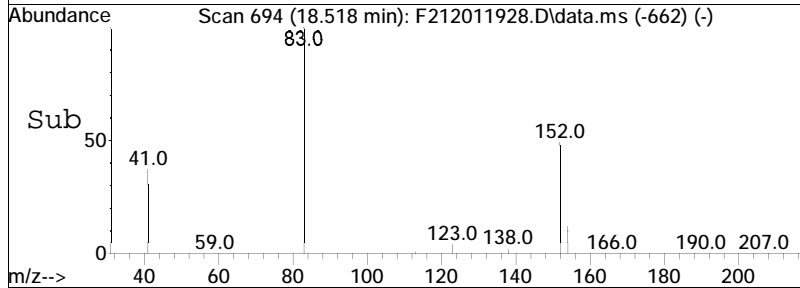
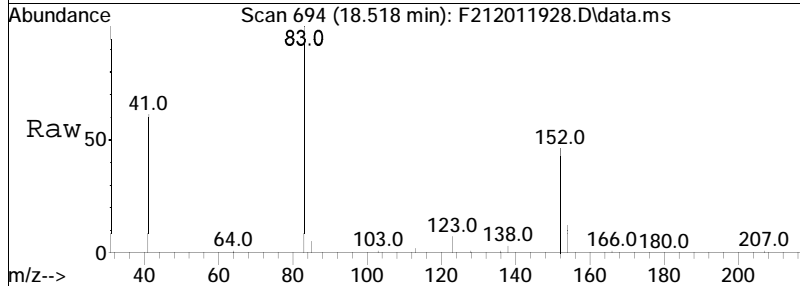


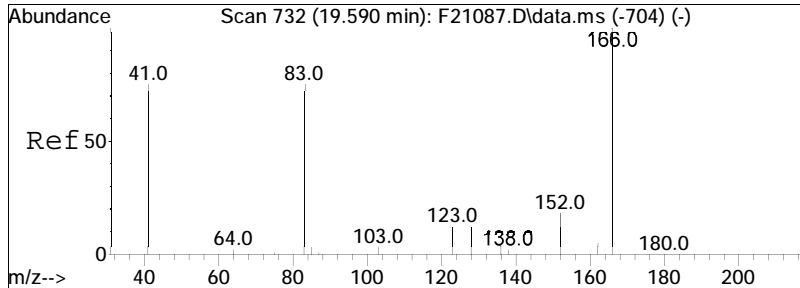
#3
 cis-Decalin
 Concen: 38.47 ng/mL
 RT: 17.811 min Scan# 647
 Delta R.T. -0.030 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:138 Resp: 1902



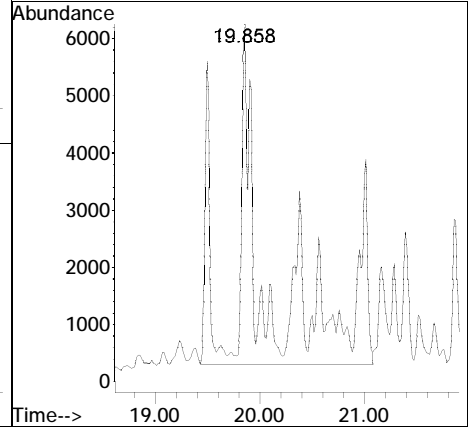
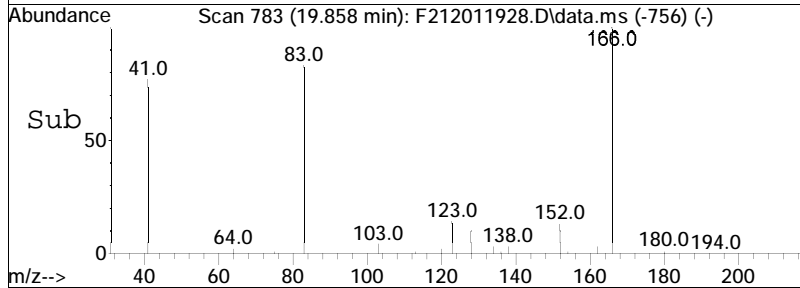
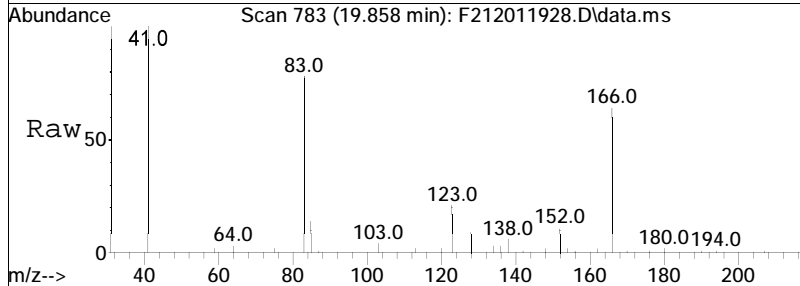


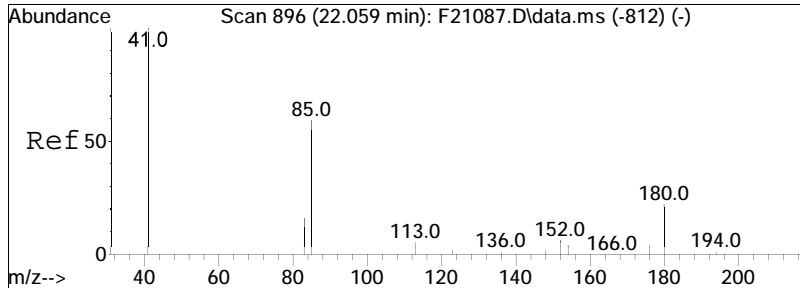
#4
 C1-Decalins
 Concen: 1041.86 ng/mL M5
 RT: 18.518 min Scan# 694
 Delta R.T. -0.044 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:152 Resp: 66782



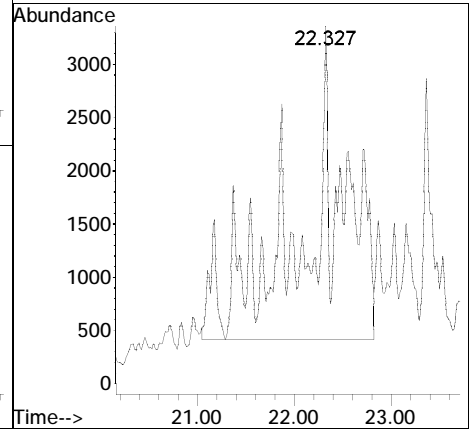
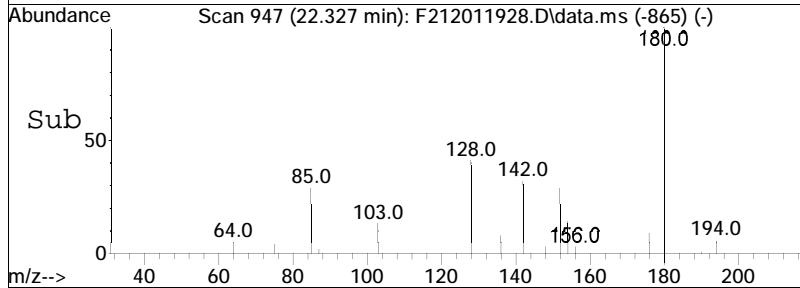
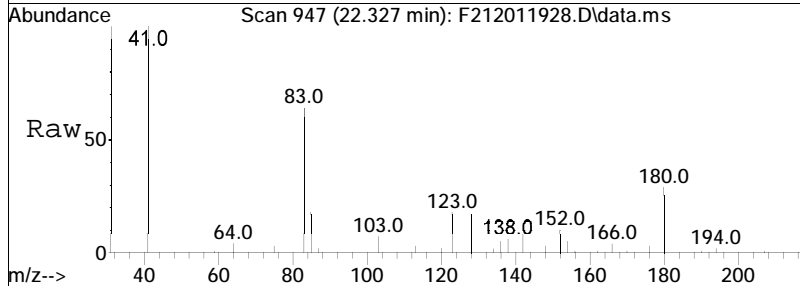


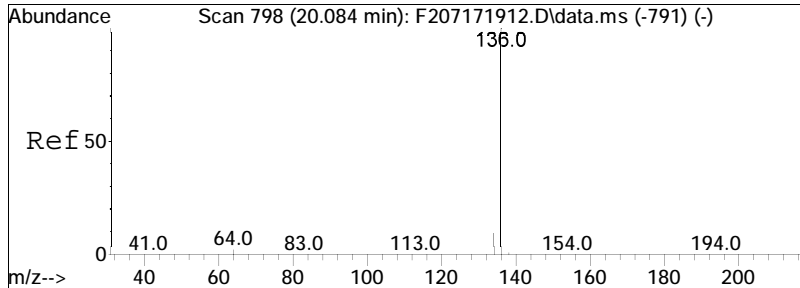
#5
 C2-Decalins
 Concen: 1796.40 ng/mL M5
 RT: 19.858 min Scan# 783
 Delta R.T. -0.027 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:166 Resp: 115147



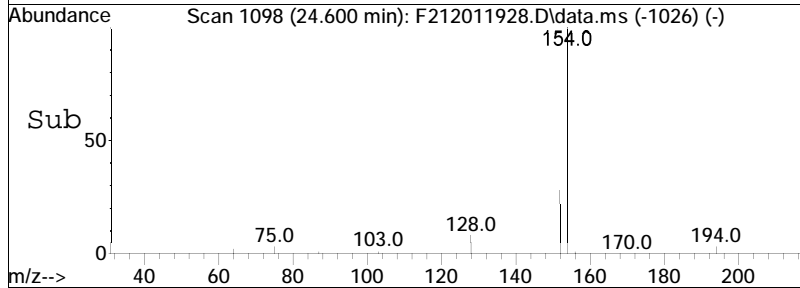
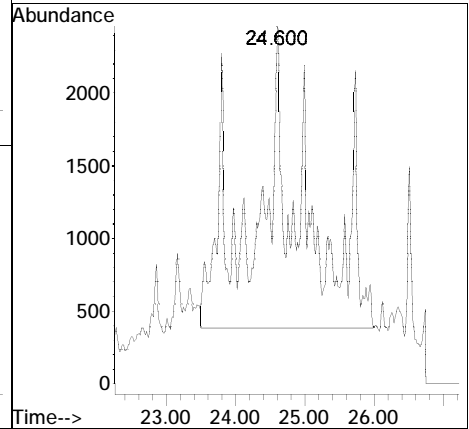
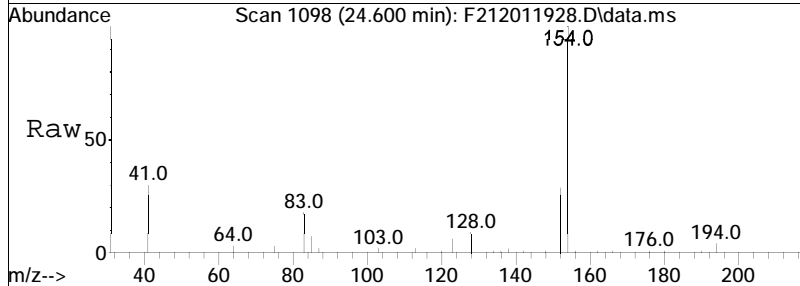


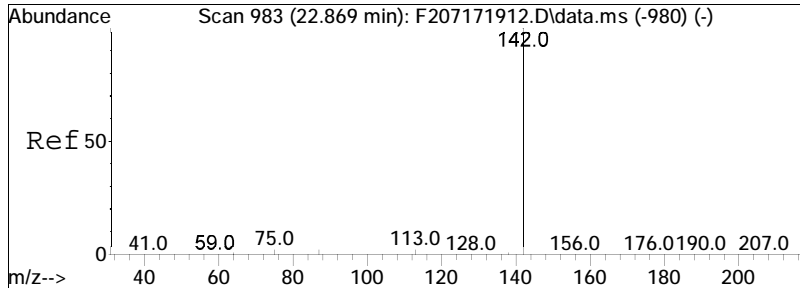
#6
 C3-Decalins
 Concen: 1400.57 ng/mL M5
 RT: 22.327 min Scan# 947
 Delta R.T. -0.051 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:180 Resp: 89775



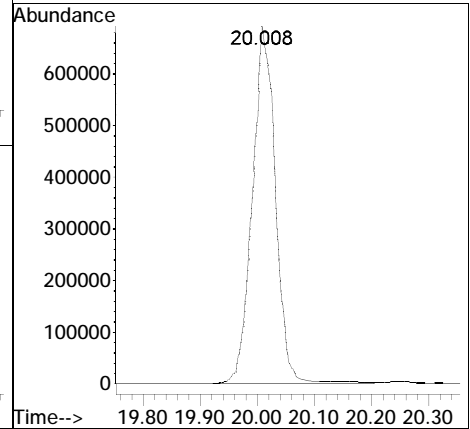
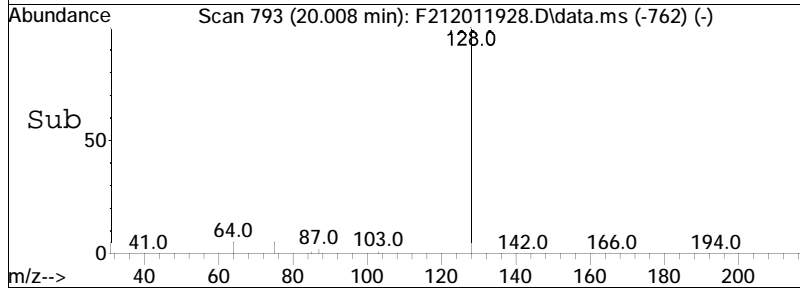
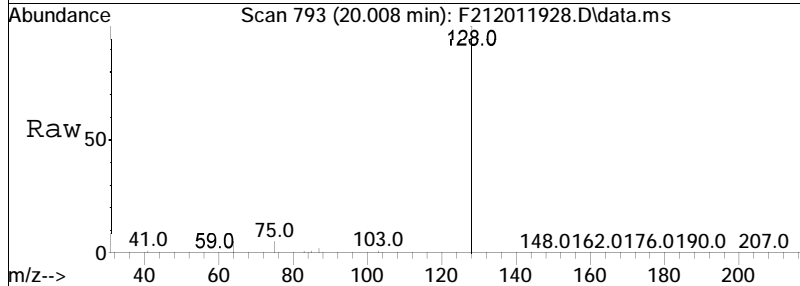


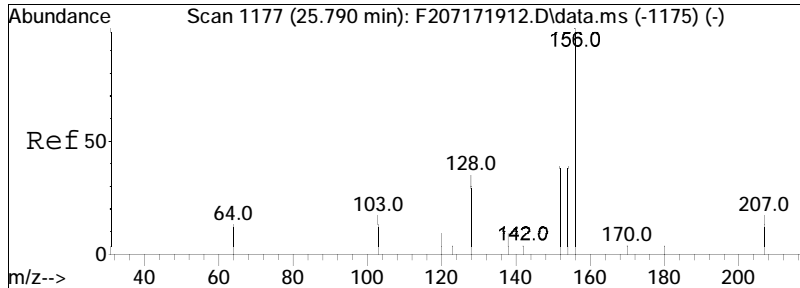
#7
 C4-Decalins
 Concen: 1454.04 ng/mL M5
 RT: 24.600 min Scan# 1098
 Delta R.T. -1.150 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:194 Resp: 93202



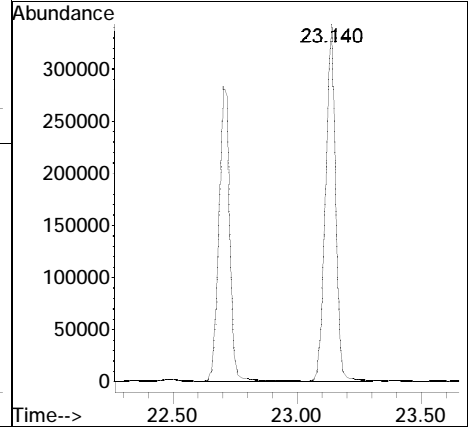
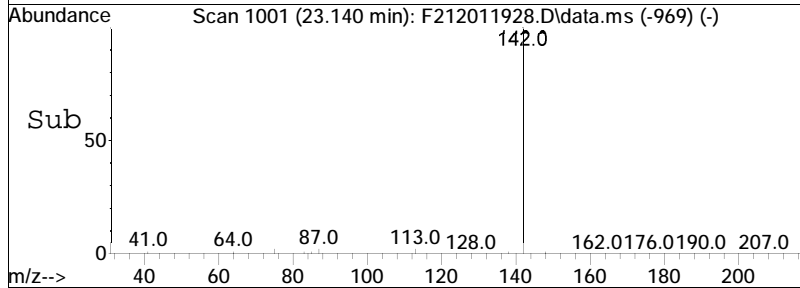
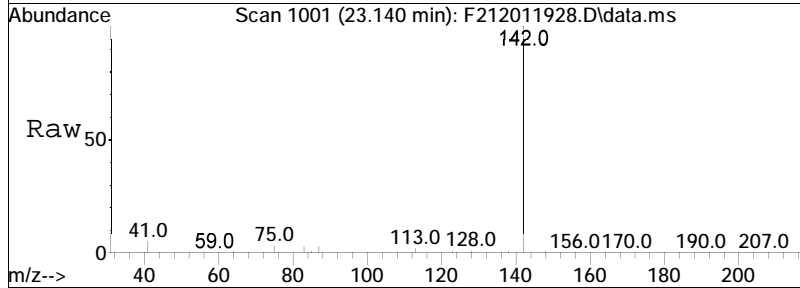


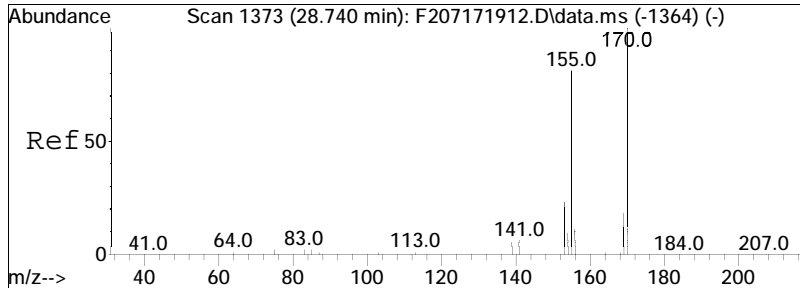
#9
 Naphthalene
 Concen: 5578.68 ng/mL
 RT: 20.008 min Scan# 793
 Delta R.T. -0.027 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:128 Resp: 1901157



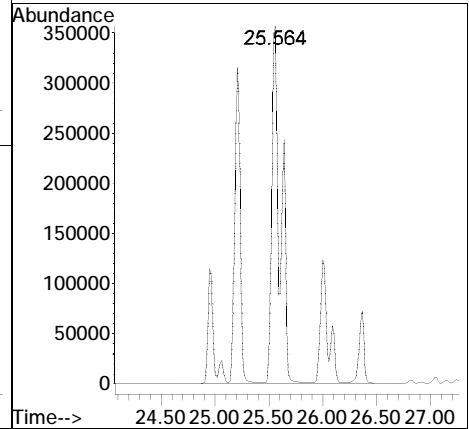
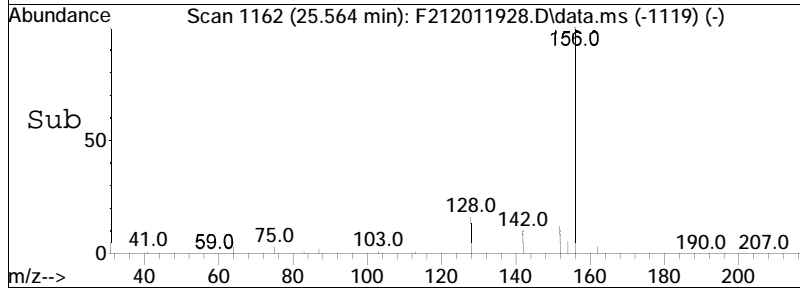
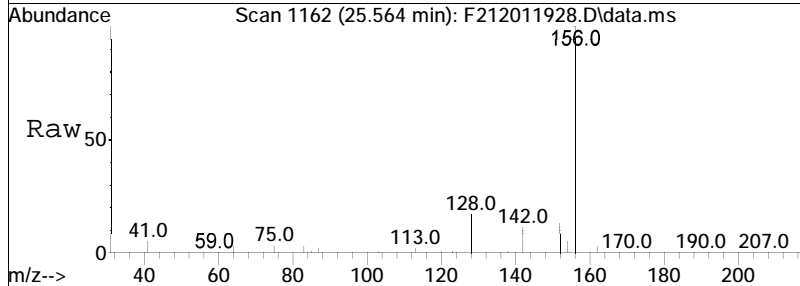


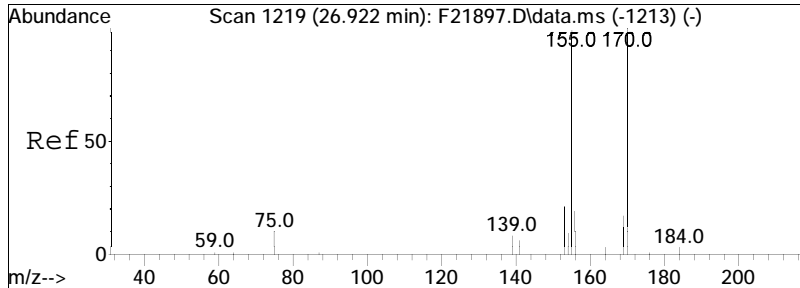
#10
 Cl-Naphthalenes
 Concen: 5342.30 ng/mL M5
 RT: 23.140 min Scan# 1001
 Delta R.T. 0.409 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:142 Resp: 1820599





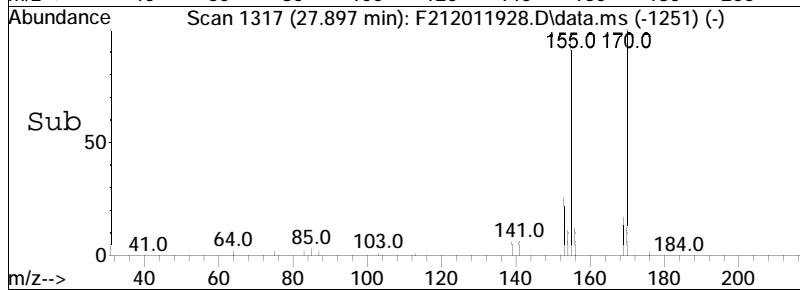
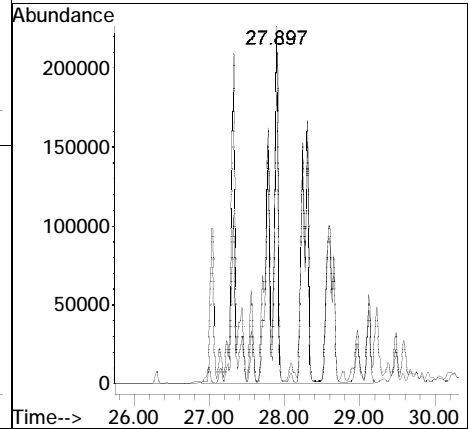
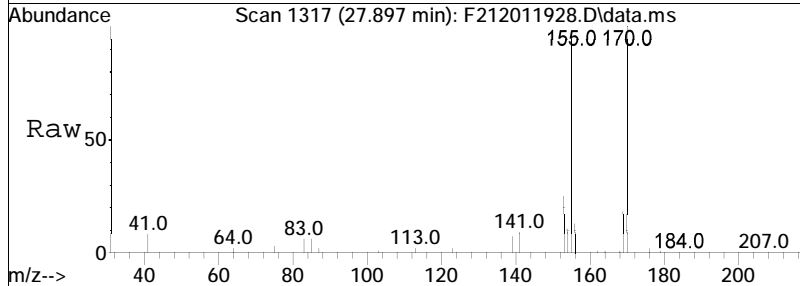
#11
 C2-Naphthalenes
 Concen: 12587.41 ng/mL M5
 RT: 25.564 min Scan# 1162
 Delta R.T. -0.021 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:156 Resp: 4289656

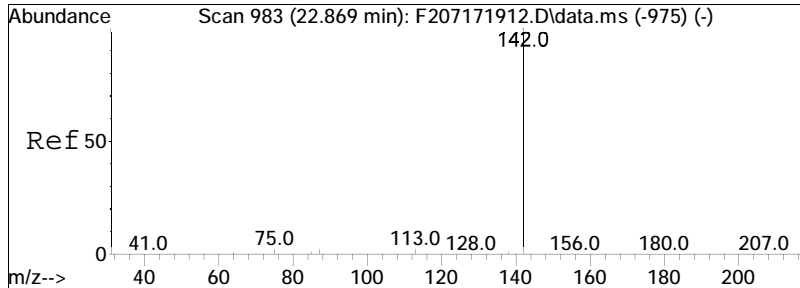




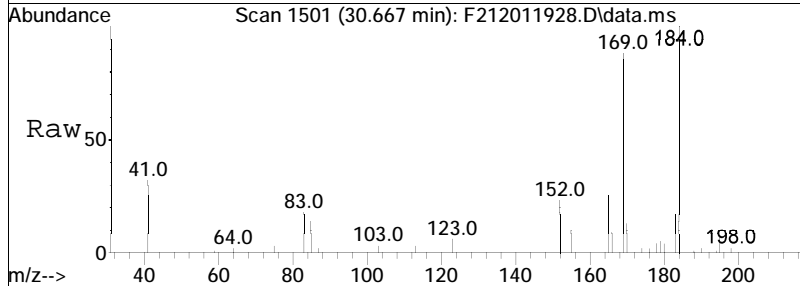
#12
 C3-Naphthalenes
 Concen: 11105.67 ng/mL M5
 RT: 27.897 min Scan# 1317
 Delta R.T. -0.011 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

Tgt Ion:170 Resp: 3784695
 Ion Ratio Lower Upper
 170 100
 155 17.4 66.8 124.0#

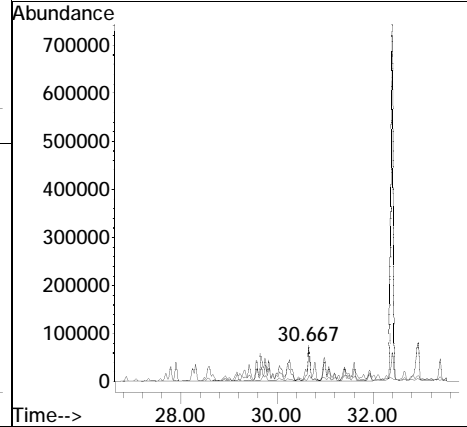
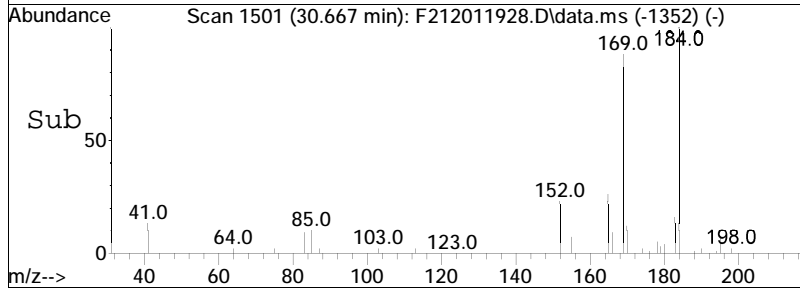


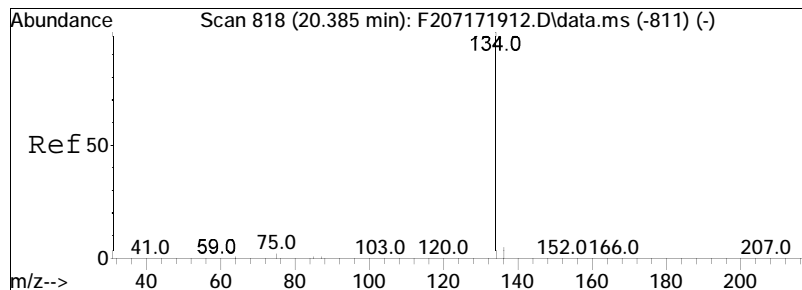


#13
 C4-Naphthalenes
 Concen: 5801.40 ng/mL M5
 RT: 30.667 min Scan# 1501
 Delta R.T. 0.002 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

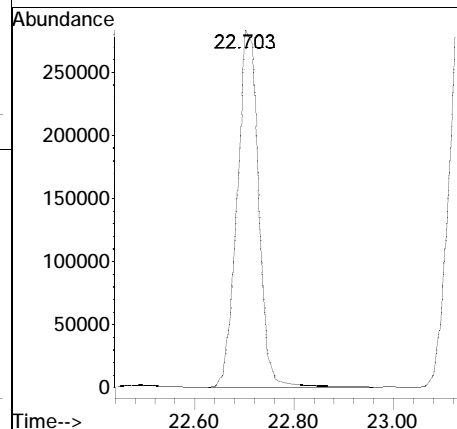
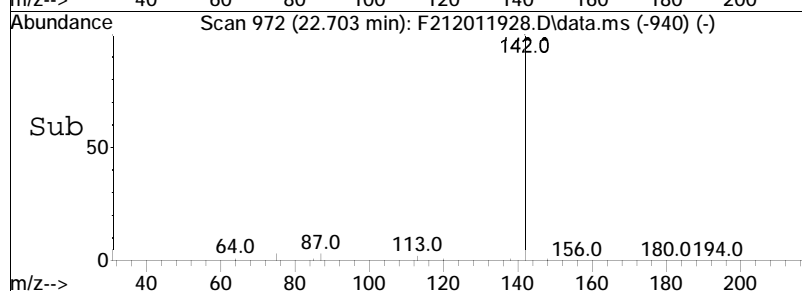
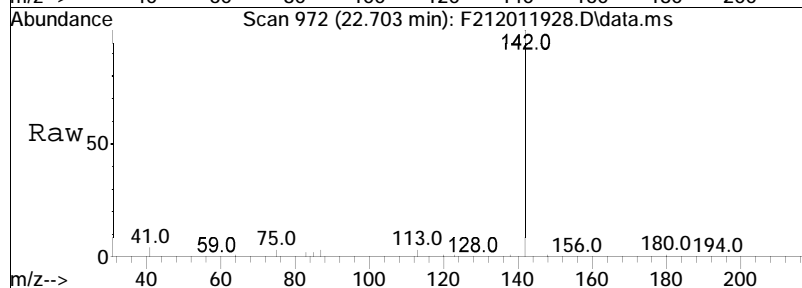


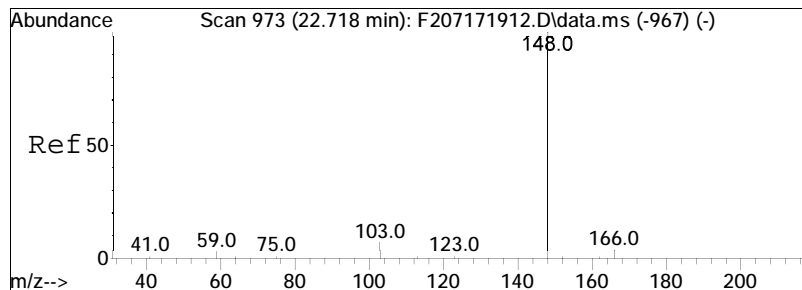
Tgt Ion	Resp	Lower	Upper
184	100		
169	14.2	65.7	121.9#
183	1.5	22.5	41.9#



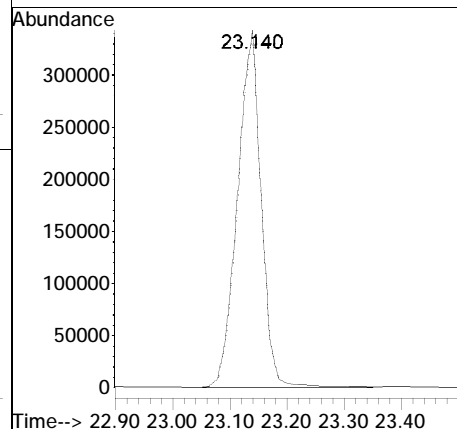
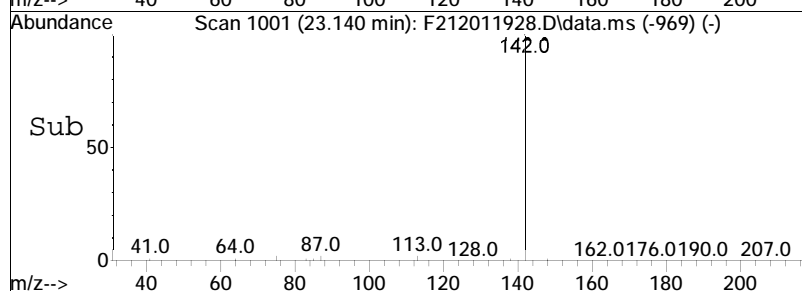
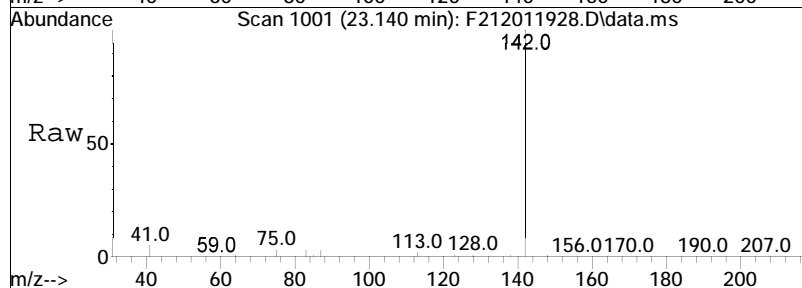


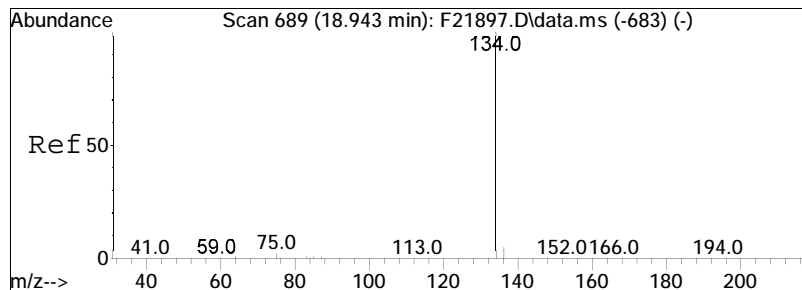
#14
 2-Methylnaphthalene
 Concen: 3798.37 ng/mL
 RT: 22.703 min Scan# 972
 Delta R.T. -0.022 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:142 Resp: 854002



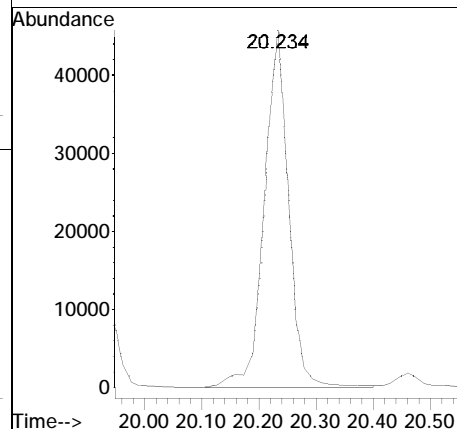
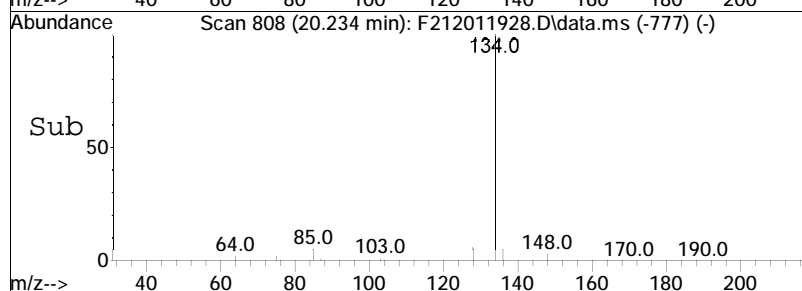
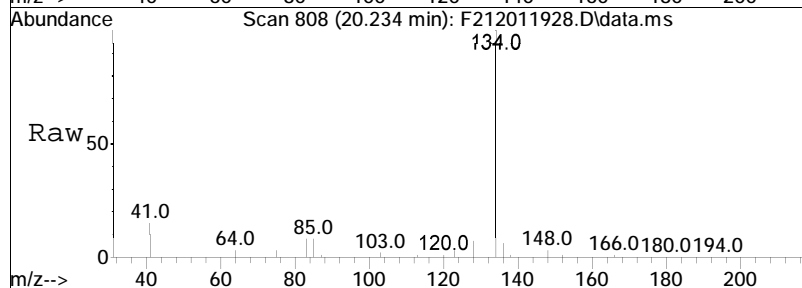


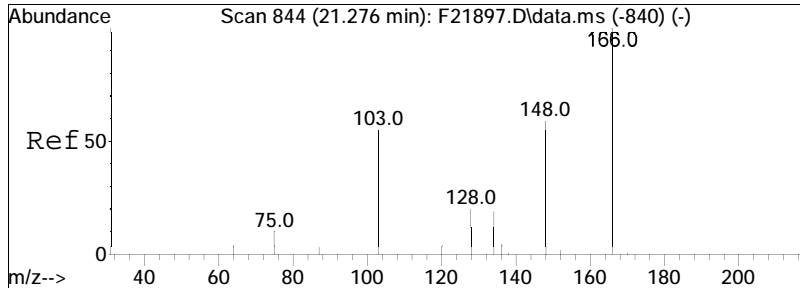
#15
 1-Methylnaphthalene
 Concen: 4467.22 ng/mL
 RT: 23.140 min Scan# 1001
 Delta R.T. -0.022 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:142 Resp: 964733



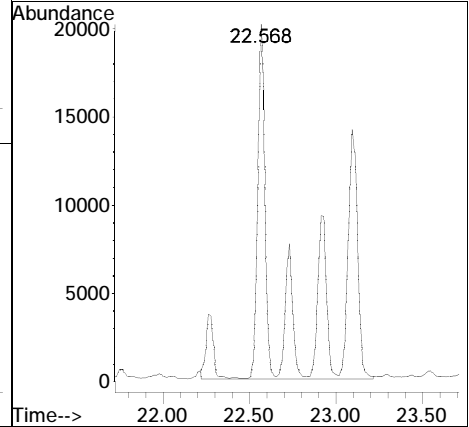
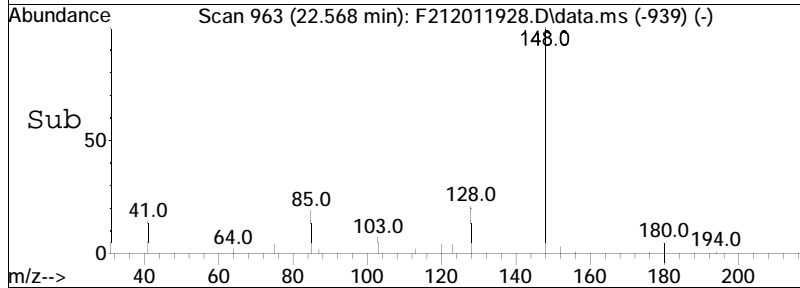
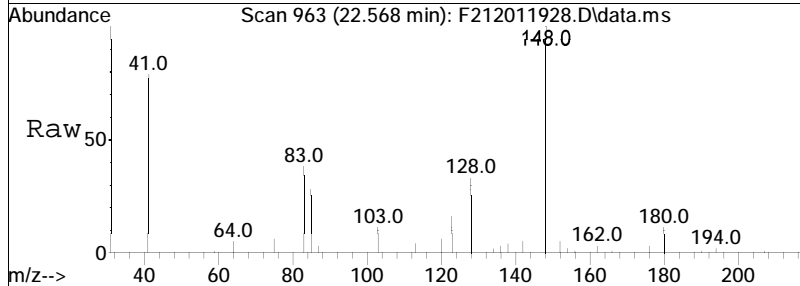


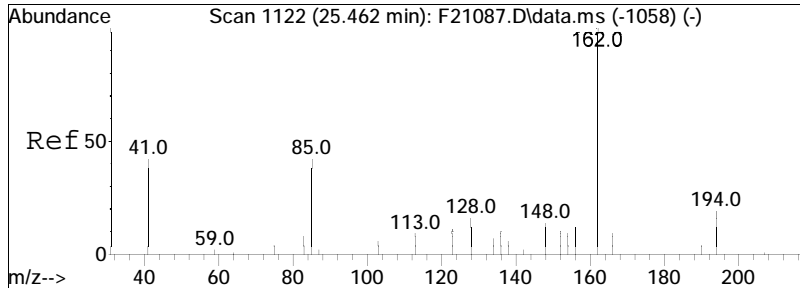
#16
 Benzothiophene
 Concen: 498.79 ng/mL
 RT: 20.234 min Scan# 808
 Delta R.T. -0.026 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:134 Resp: 132502



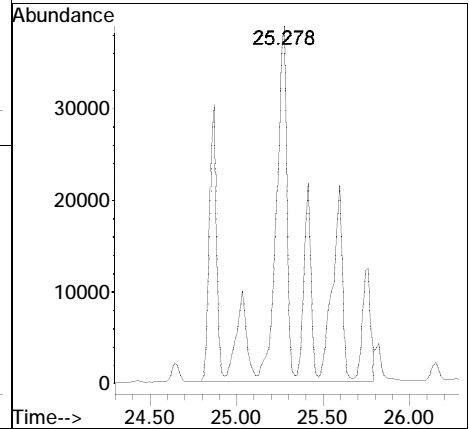
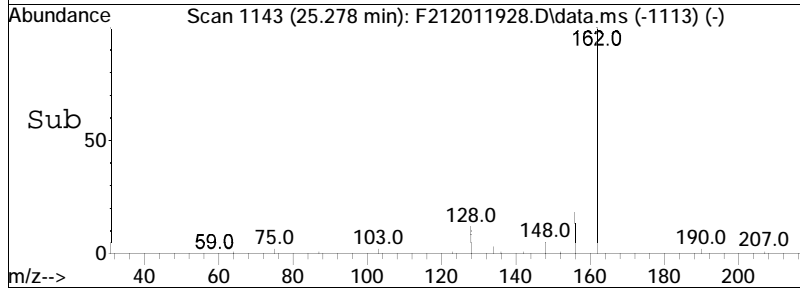
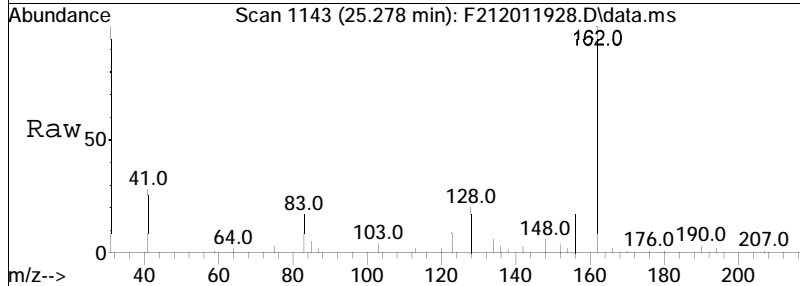


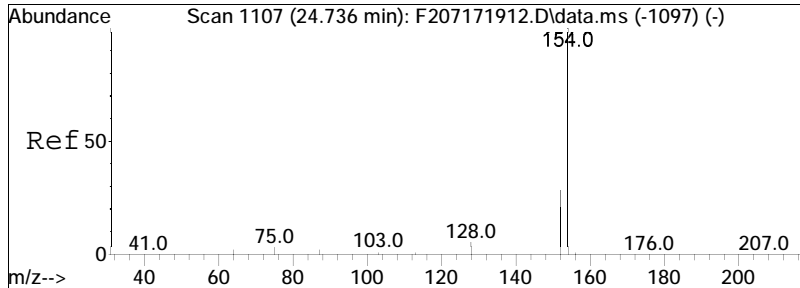
#17
 Cl-Benzo(b)thiophenes
 Concen: 672.38 ng/mL M5
 RT: 22.568 min Scan# 963
 Delta R.T. 0.265 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:148 Resp: 178617



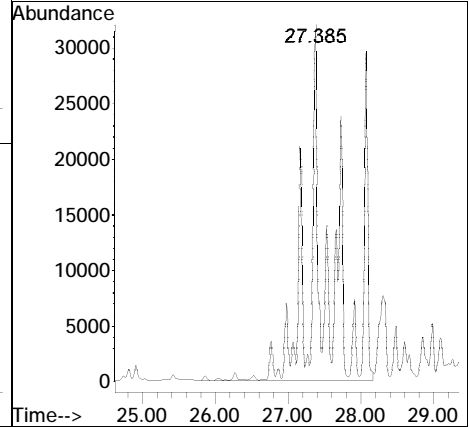
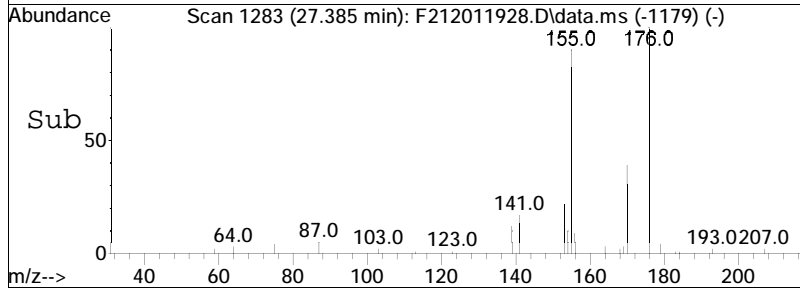
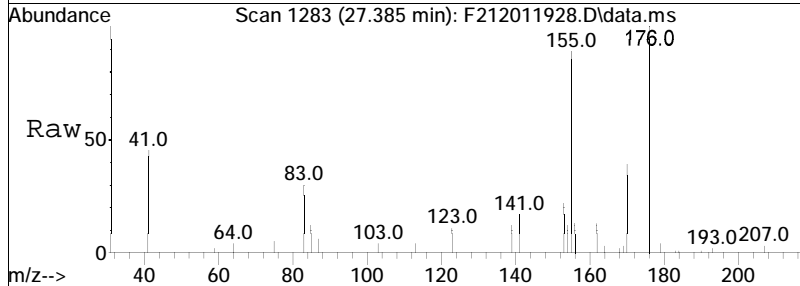


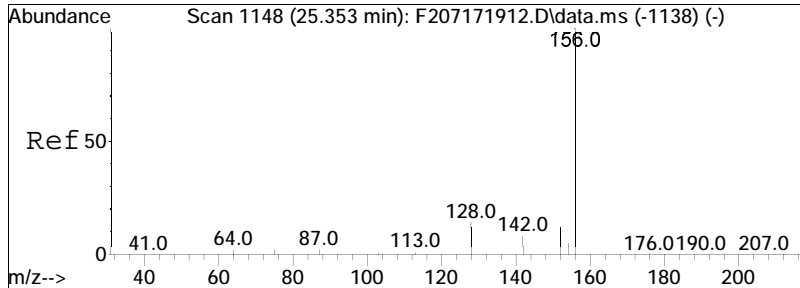
#18
 C2-Benzo(b)thiophenes
 Concen: 1792.80 ng/mL M5
 RT: 25.278 min Scan# 1143
 Delta R.T. -0.502 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:162 Resp: 476255



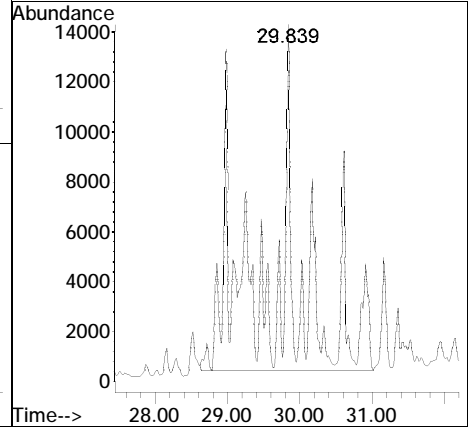
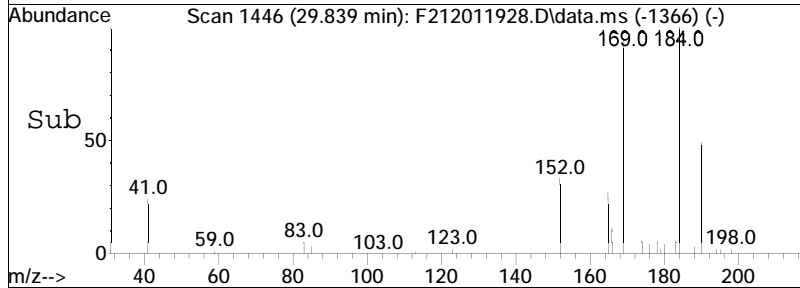
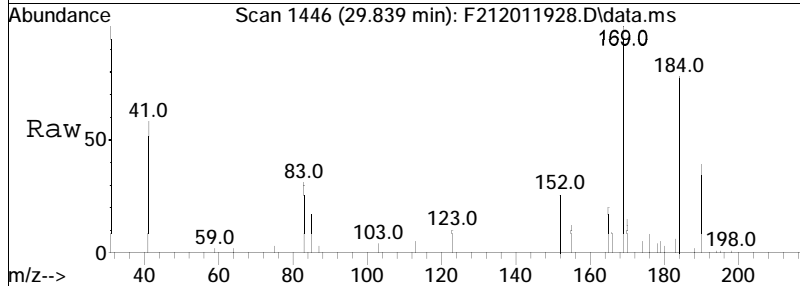


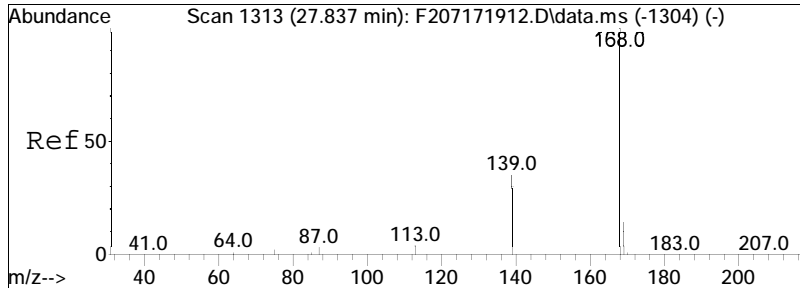
#19
 C3-Benzo(b)thiophenes
 Concen: 2001.80 ng/mL M5
 RT: 27.385 min Scan# 1283
 Delta R.T. -0.358 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:176 Resp: 531776



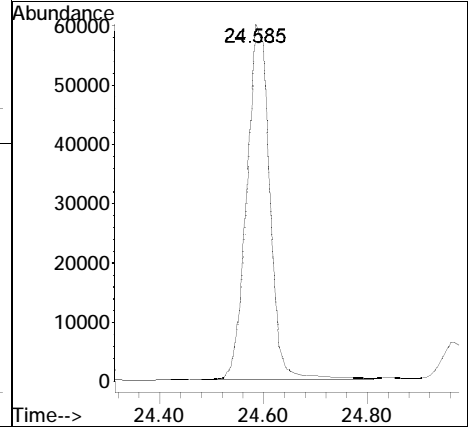
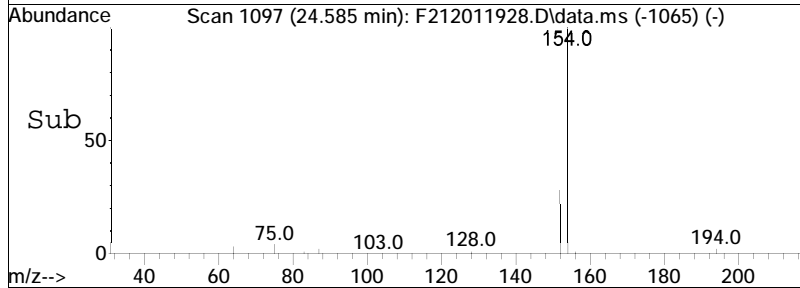
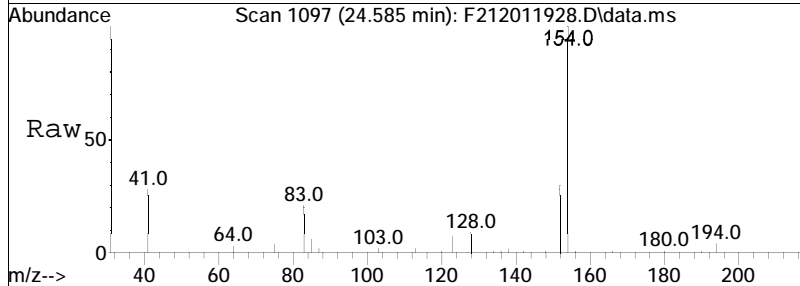


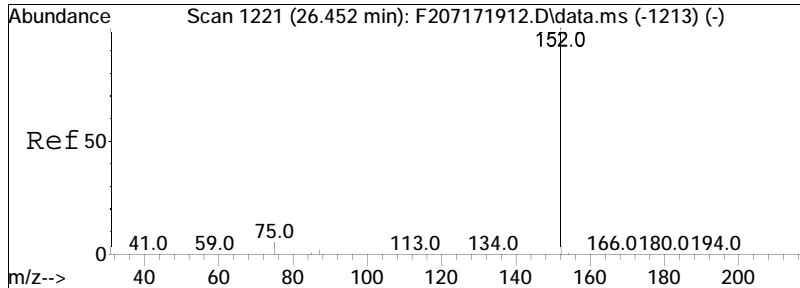
#20
 C4-Benzo(b)thiophenes
 Concen: 1397.59 ng/mL M5
 RT: 29.839 min Scan# 1446
 Delta R.T. 0.358 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:190 Resp: 371269



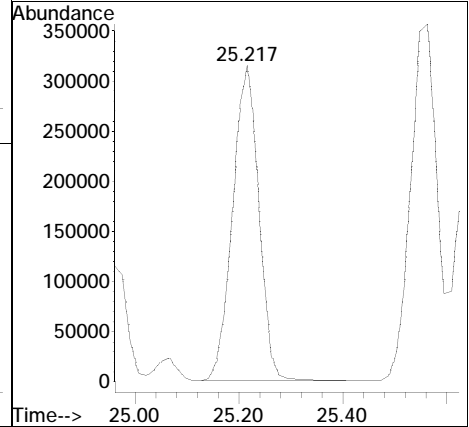
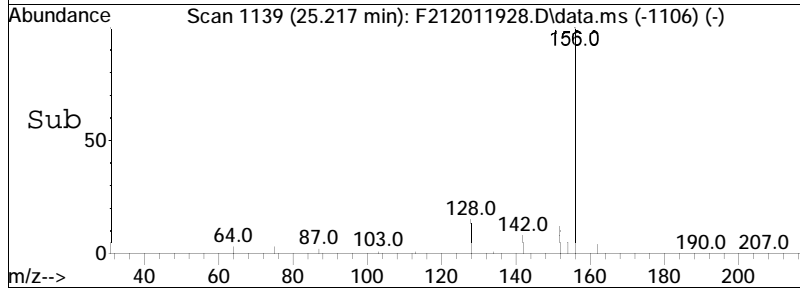
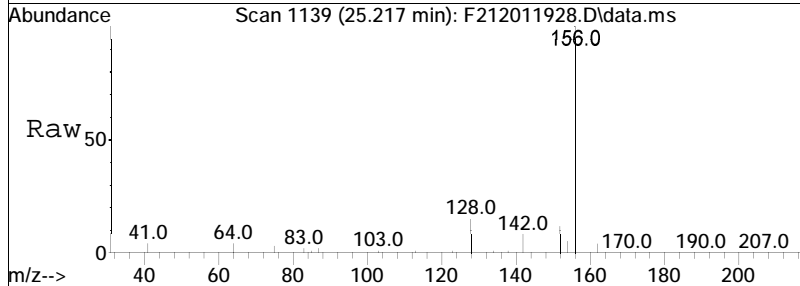


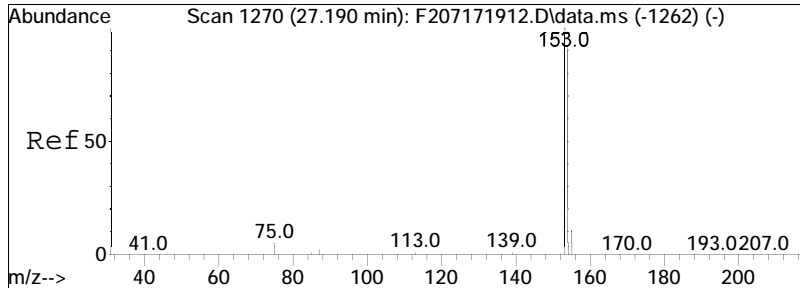
#21
 Biphenyl
 Concen: 667.39 ng/mL
 RT: 24.585 min Scan# 1097
 Delta R.T. -0.019 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:154 Resp: 182626





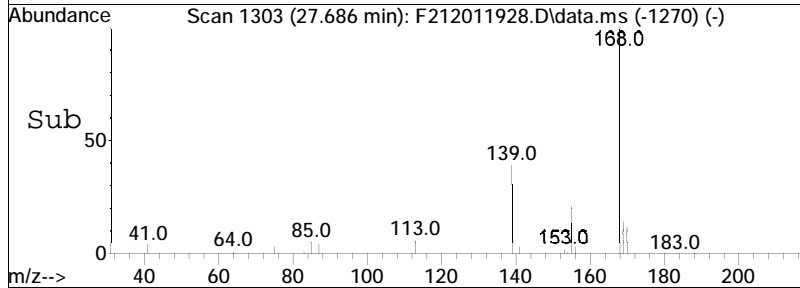
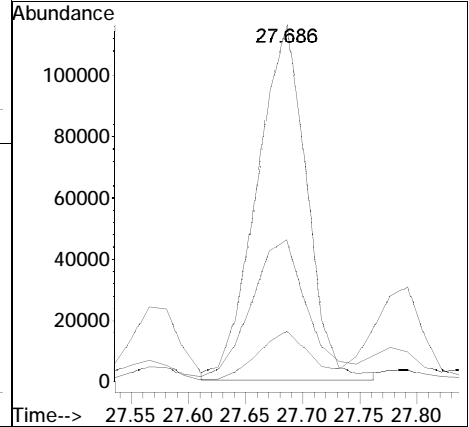
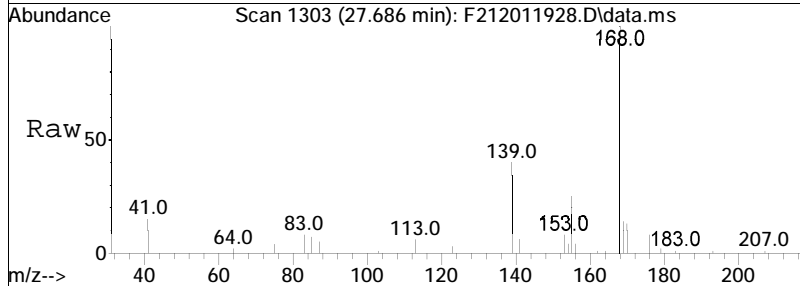
#22
 2,6-Dimethylnaphthalene
 Concen: 5478.32 ng/mL
 RT: 25.217 min Scan# 1139
 Delta R.T. -0.003 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:156 Resp: 1102171

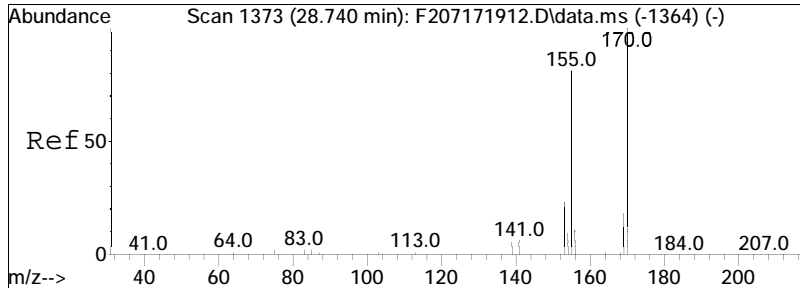




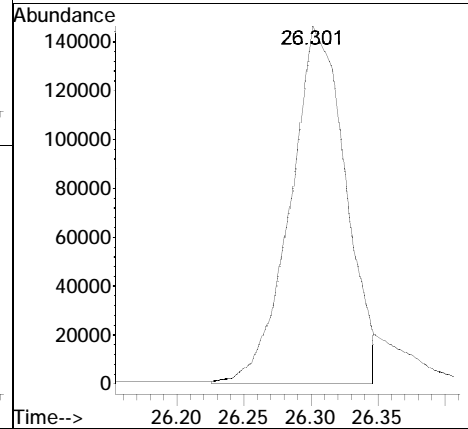
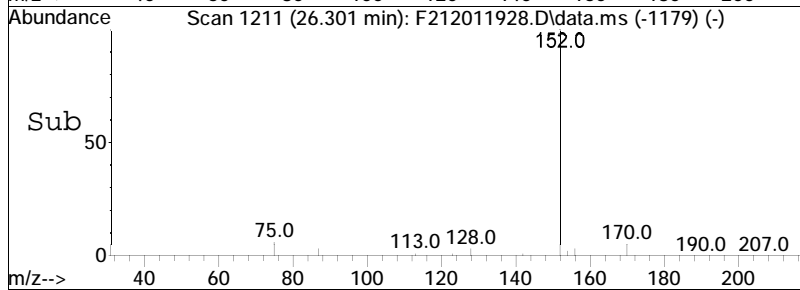
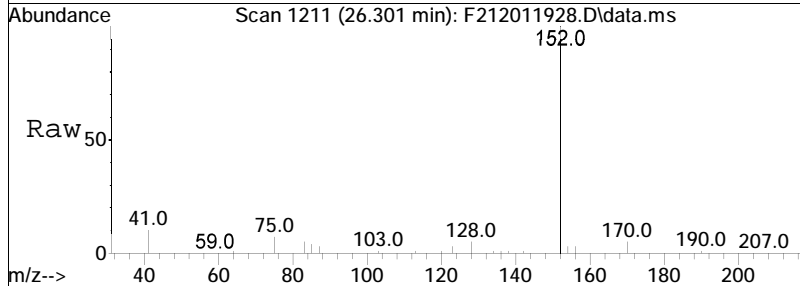
#23
 Dibenzofuran
 Concen: 1200.54 ng/mL
 RT: 27.686 min Scan# 1303
 Delta R.T. 0.001 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

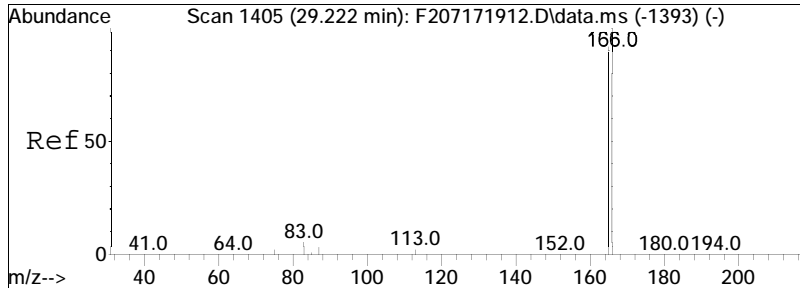
Tgt Ion	Ratio	Lower	Upper
168	100		
139	42.9	27.2	50.4
169	15.0	9.5	17.7





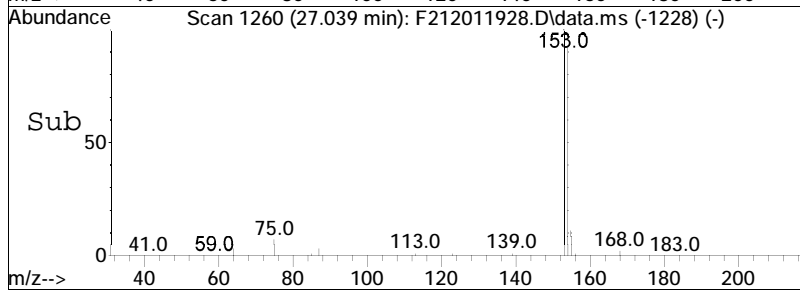
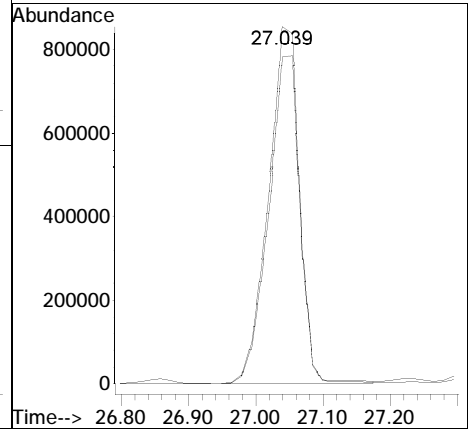
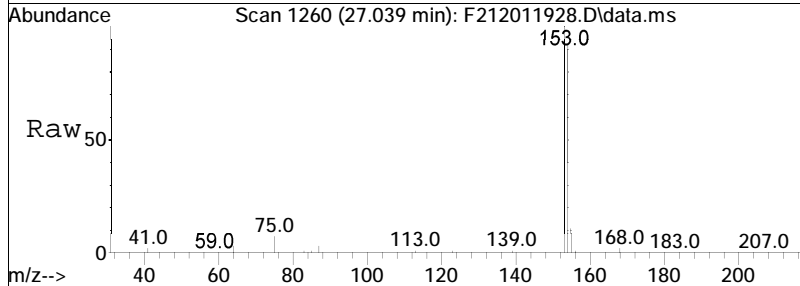
#24
 Acenaphthylene
 Concen: 1262.42 ng/mL M3
 RT: 26.301 min Scan# 1211
 Delta R.T. -0.016 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:152 Resp: 423645

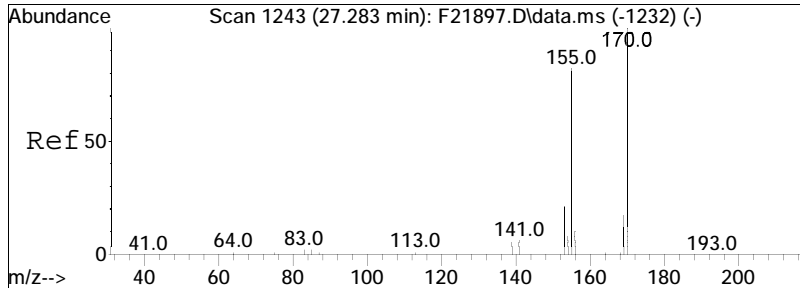




#25
 Acenaphthene
 Concen: 13122.53 ng/mL
 RT: 27.039 min Scan# 1260
 Delta R.T. -0.015 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

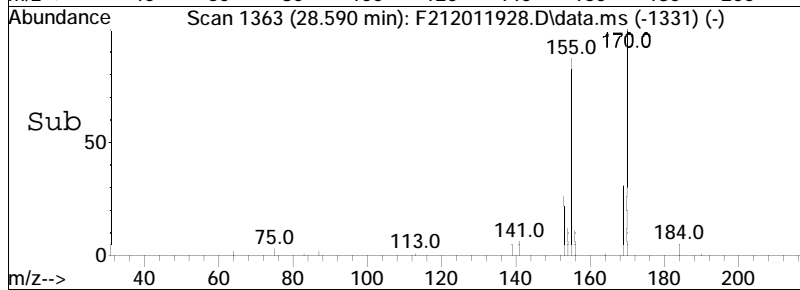
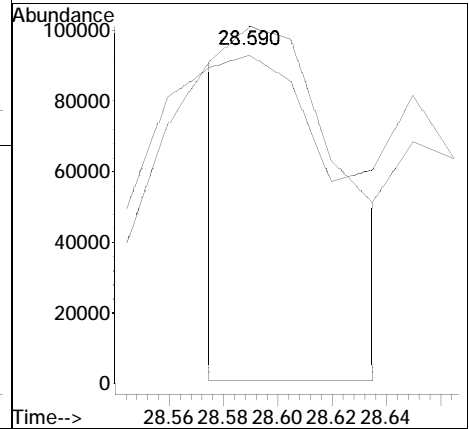
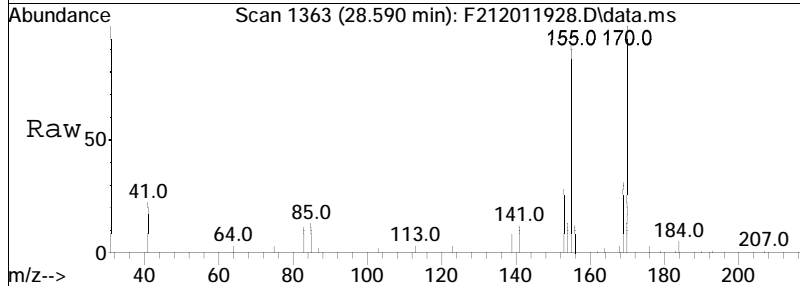
Tgt Ion: 153 Resp: 2749866
 Ion Ratio Lower Upper
 153 100
 154 91.8 66.5 123.5

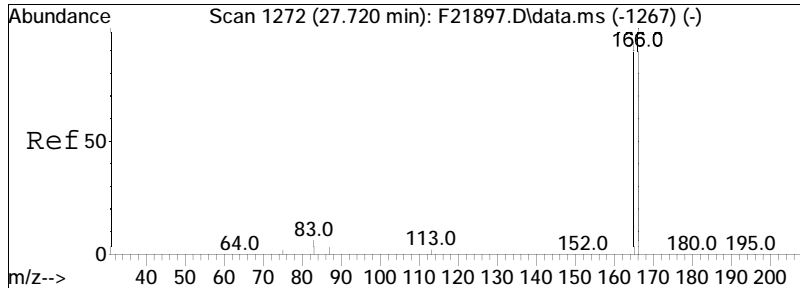




#26
 2,3,5-Trimethylnaphthalene
 Concen: 1522.83 ng/mL M3
 RT: 28.590 min Scan# 1363
 Delta R.T. -0.012 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

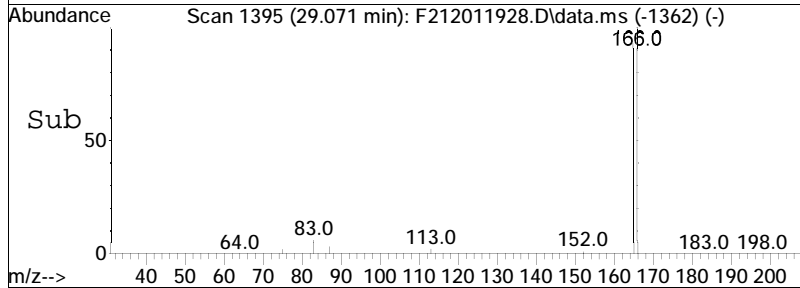
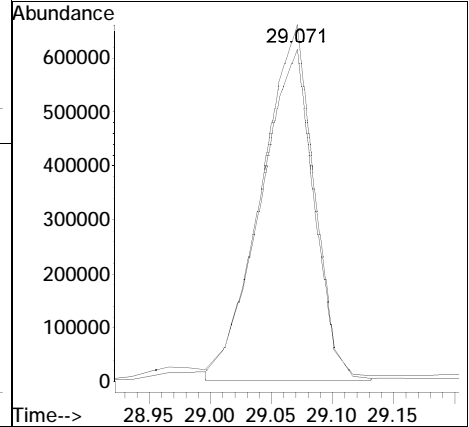
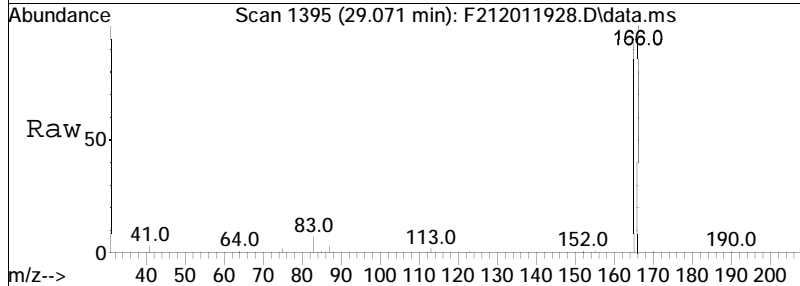
Tgt Ion	Resp	Lower	Upper
170	279868		
155	173.0	59.1	109.7#

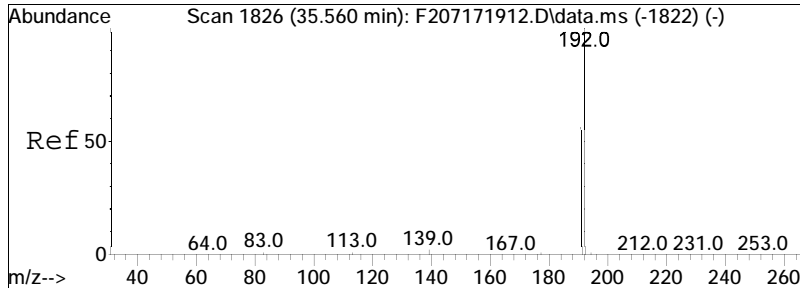




#27
 Fluorene
 Concen: 8306.16 ng/mL M4
 RT: 29.071 min Scan# 1395
 Delta R.T. 0.003 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

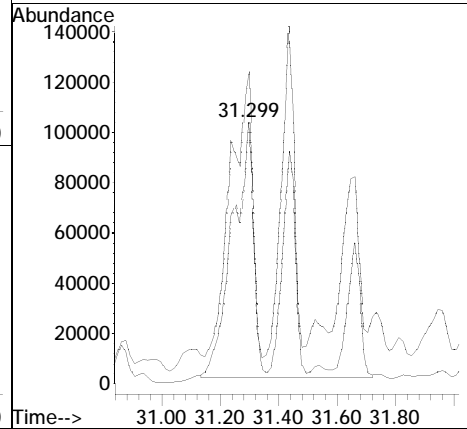
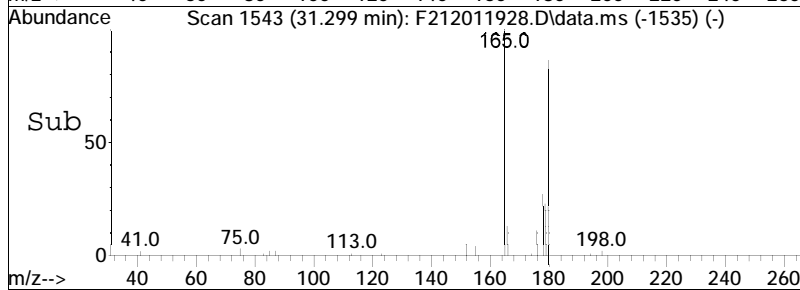
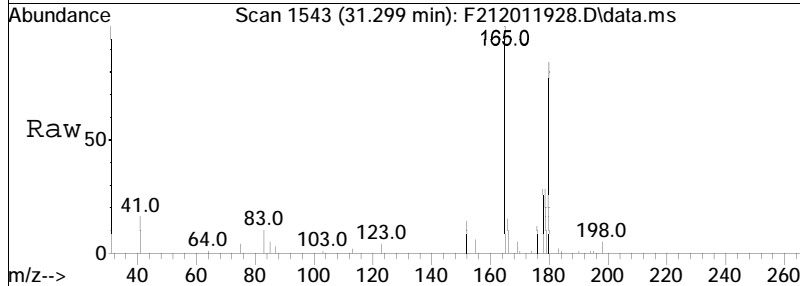
Tgt Ion	Resp	Lower	Upper
166	100		
165	102.8	63.9	118.7

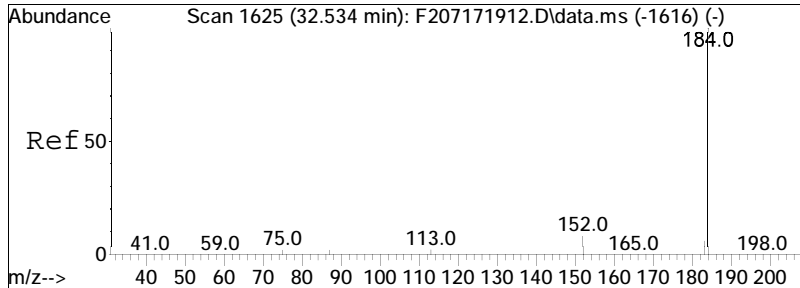




#28
 Cl-Fluorenes
 Concen: 4111.50 ng/mL M5
 RT: 31.299 min Scan# 1543
 Delta R.T. -0.131 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

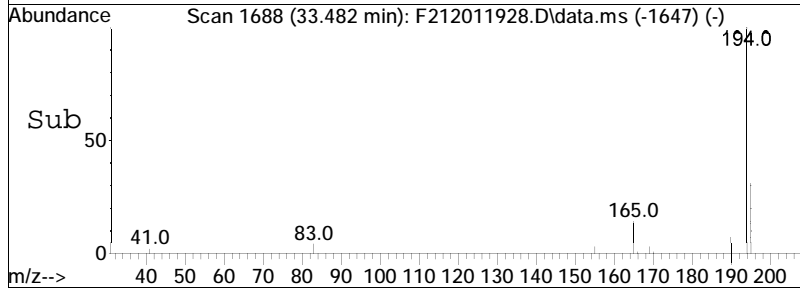
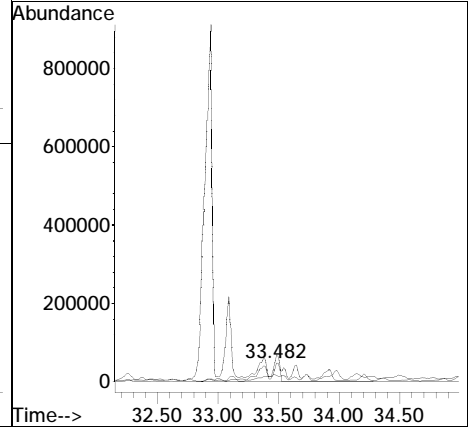
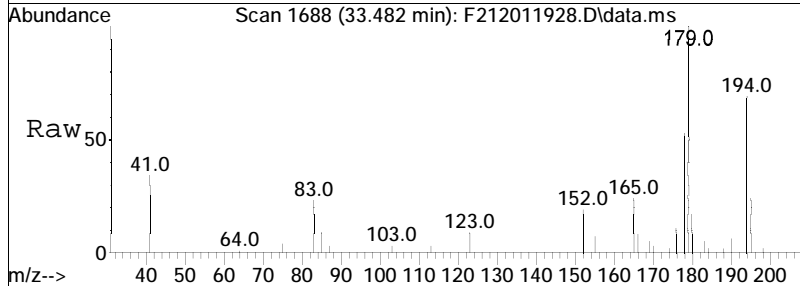
Tgt Ion	Ratio	Lower	Upper
180	100		
165	41.1	97.6	181.2#

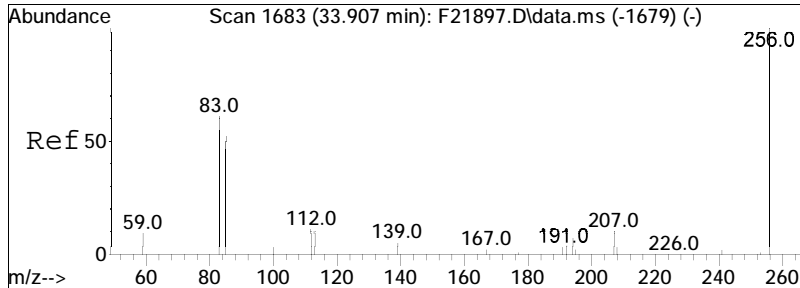




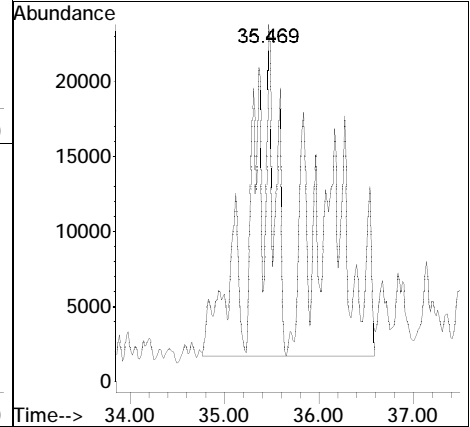
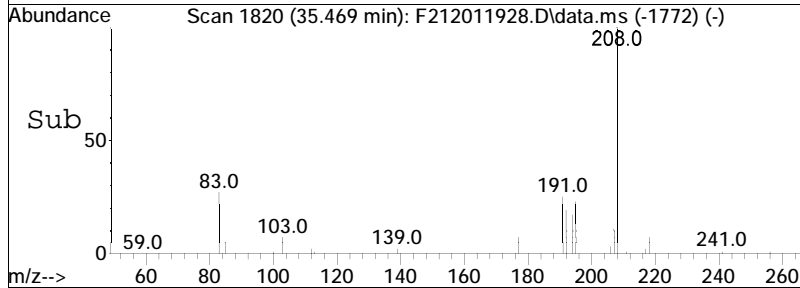
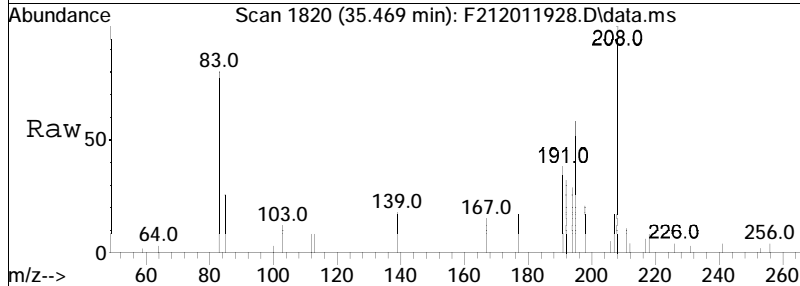
#29
 C2-Fluorenes
 Concen: 4443.26 ng/mL M5
 RT: 33.482 min Scan# 1688
 Delta R.T. -0.139 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

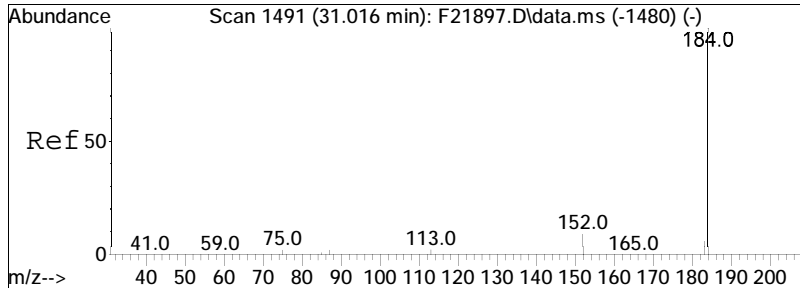
Tgt Ion	Resp	Lower	Upper
194	1054614		
194	100		
179	0.0	0.0	0.0
195	1.8	25.7	47.7#





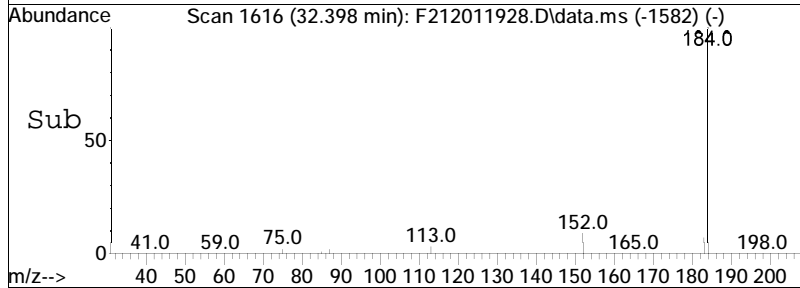
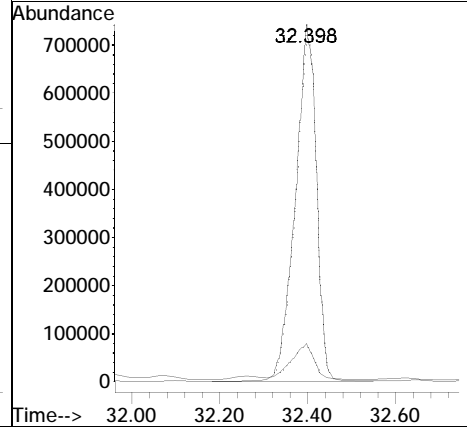
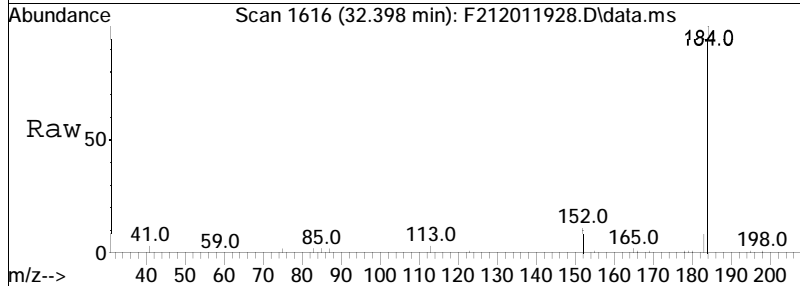
#30
 C3-Fluorenes
 Concen: 3266.19 ng/mL M5
 RT: 35.469 min Scan# 1820
 Delta R.T. 0.023 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion: 208 Resp: 775235

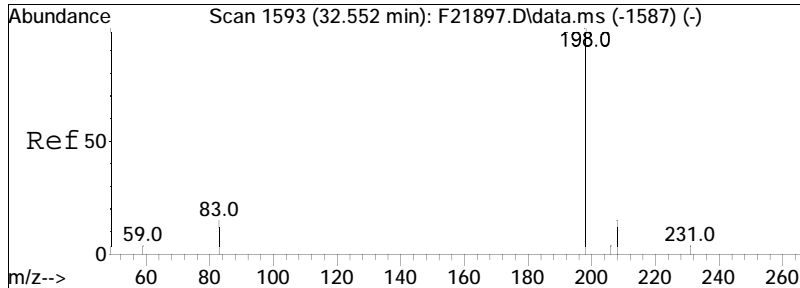




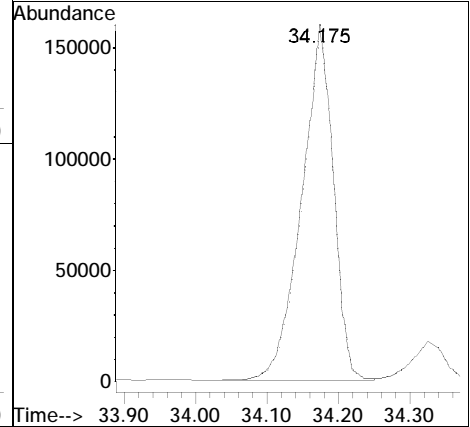
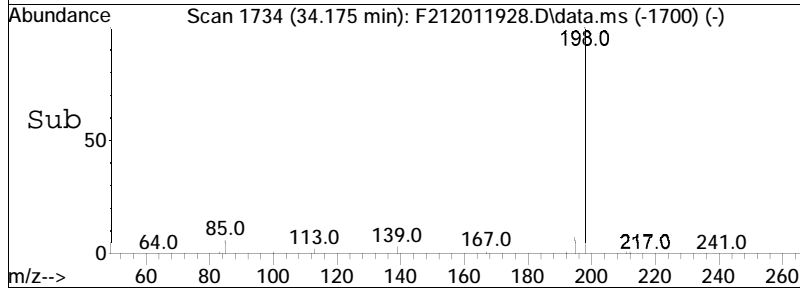
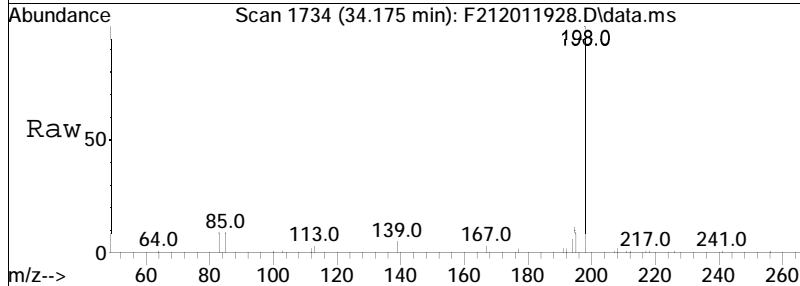
#31
 Dibenzothiophene
 Concen: 7558.41 ng/mL
 RT: 32.398 min Scan# 1616
 Delta R.T. 0.009 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

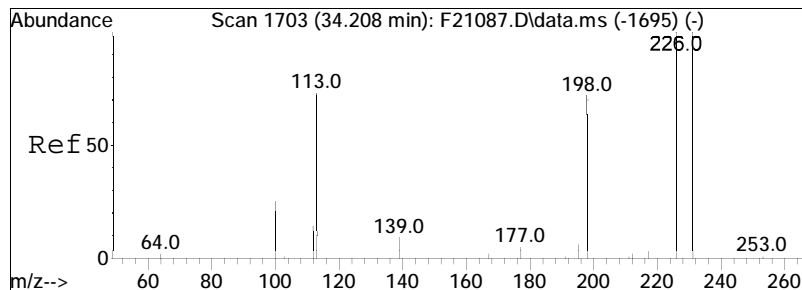
Tgt Ion:184 Resp: 2429817
 Ion Ratio Lower Upper
 184 100
 152 11.3 5.7 10.5#



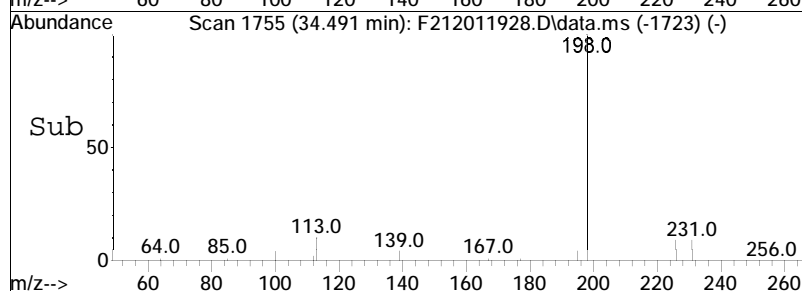
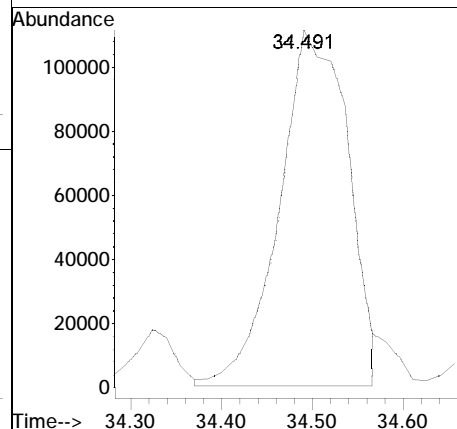
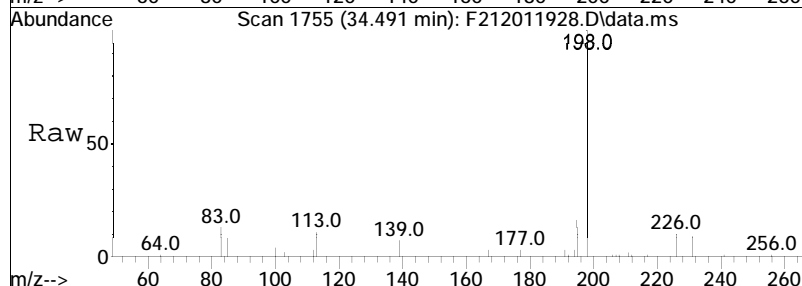


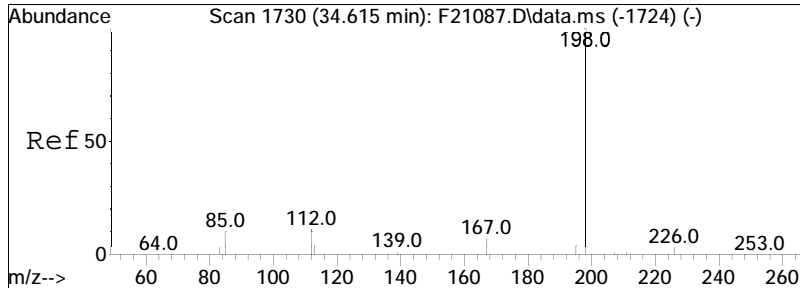
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 1513.70 ng/mL
 RT: 34.175 min Scan# 1734
 Delta R.T. 0.012 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:198 Resp: 486613



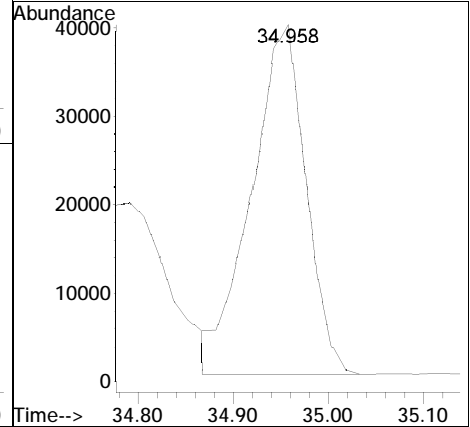
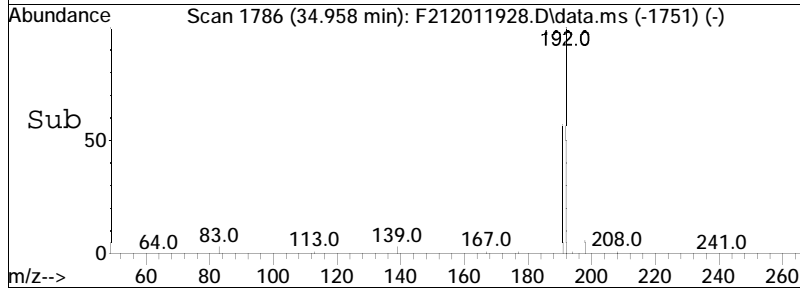
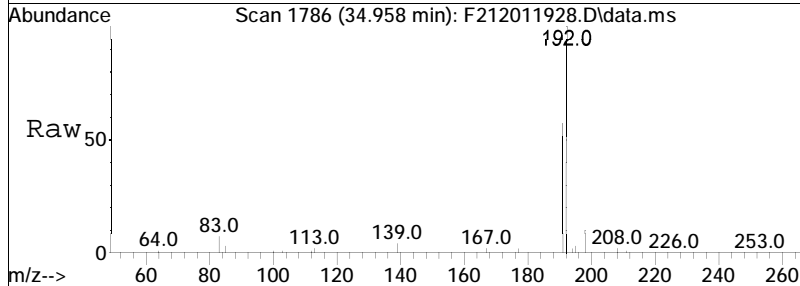


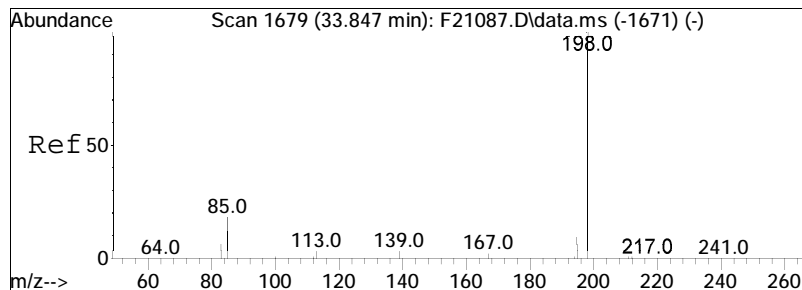
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 1810.89 ng/mL M3
 RT: 34.491 min Scan# 1755
 Delta R.T. -0.018 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:198 Resp: 582152



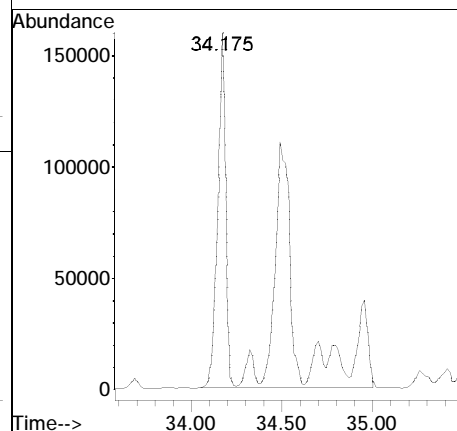
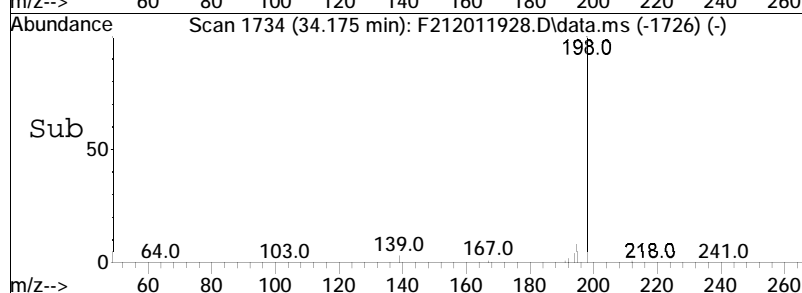
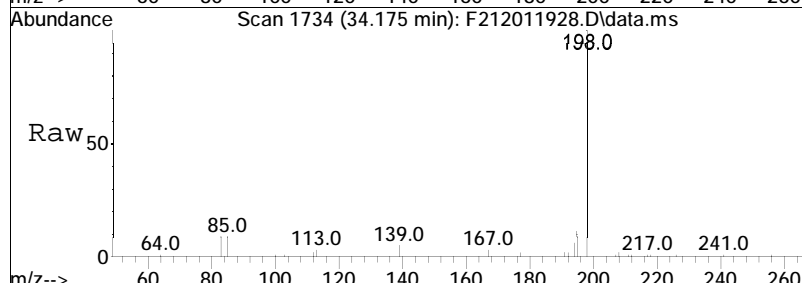


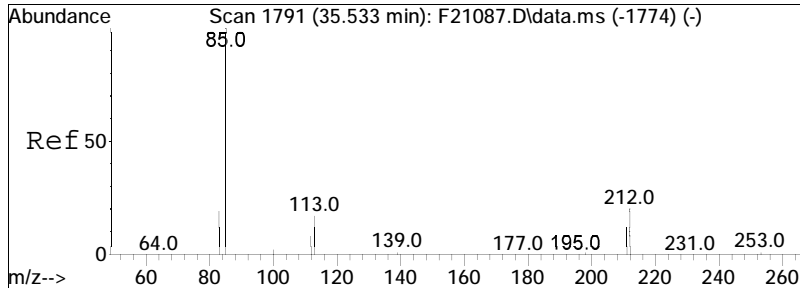
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 485.18 ng/mL
 RT: 34.958 min Scan# 1786
 Delta R.T. 0.028 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:198 Resp: 155972



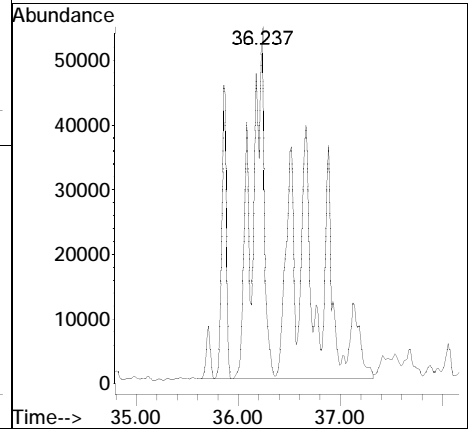
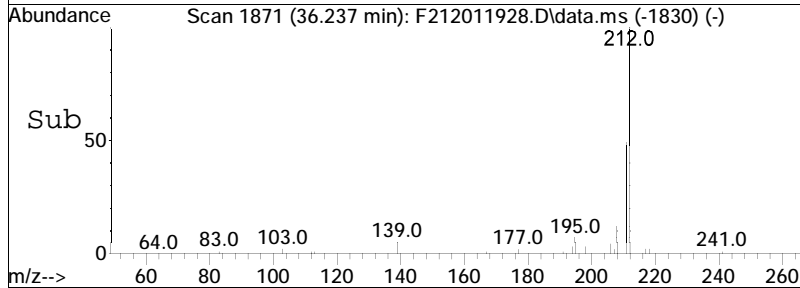
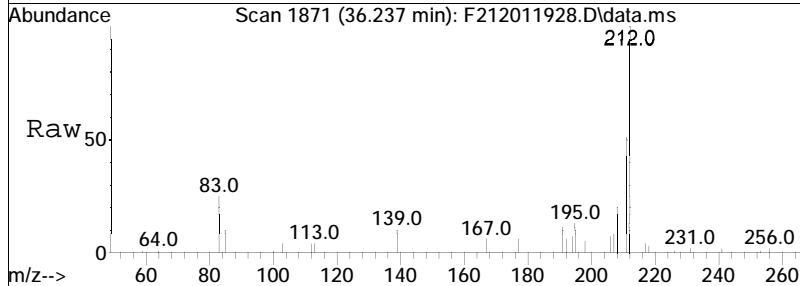


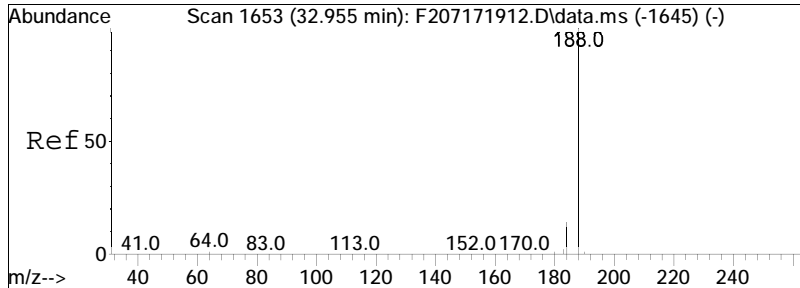
#36
 Cl-Dibenzothiophenes
 Concen: 4597.47 ng/mL M5
 RT: 34.175 min Scan# 1734
 Delta R.T. 0.012 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:198 Resp: 1477958





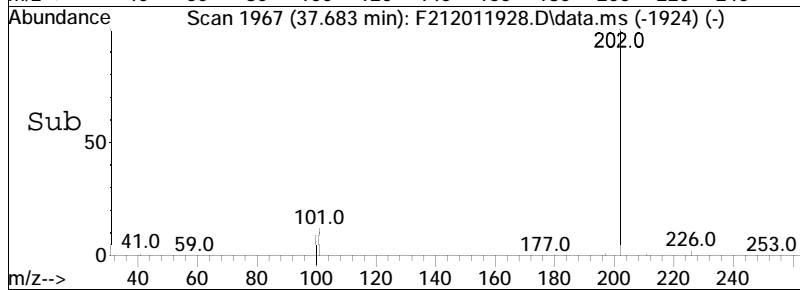
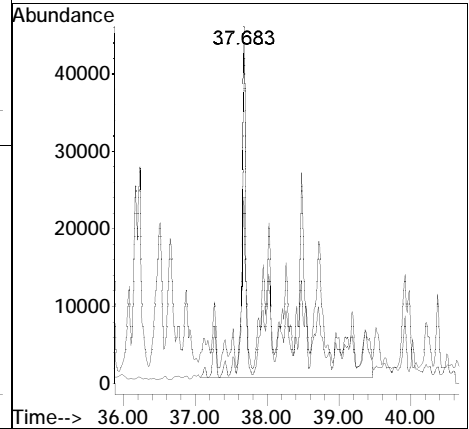
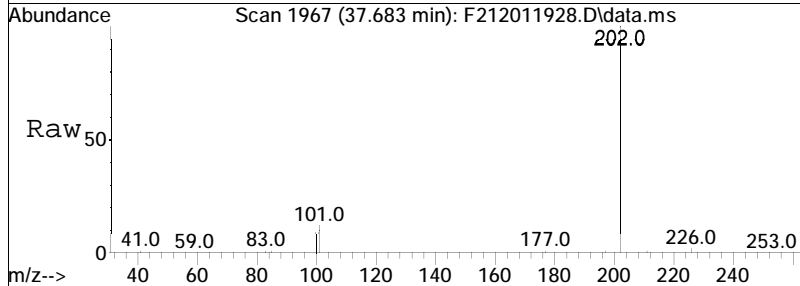
#37
 C2-Dibenzothiophenes
 Concen: 4044.09 ng/mL M5
 RT: 36.237 min Scan# 1871
 Delta R.T. 0.391 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:212 Resp: 1300061

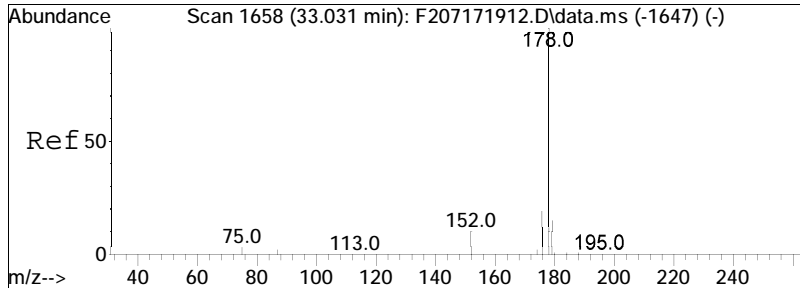




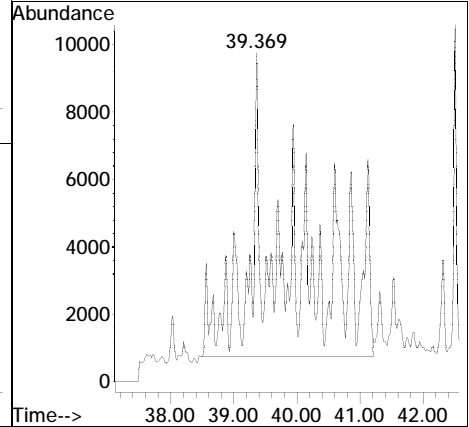
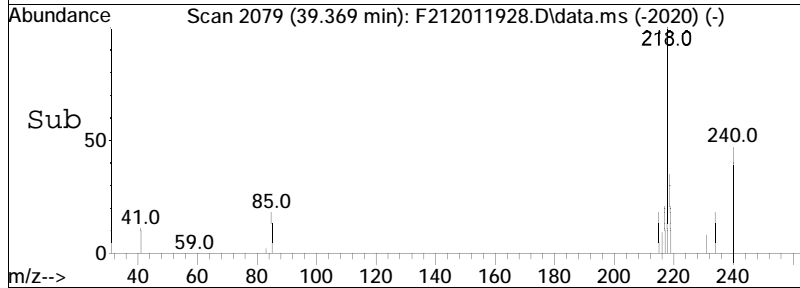
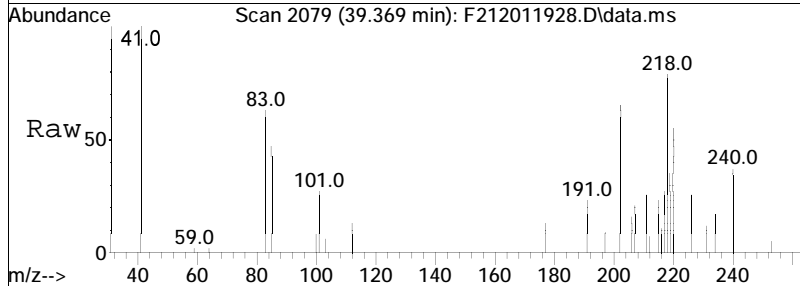
#38
 C3-Dibenzothiophenes
 Concen: 2598.29 ng/mL M5
 RT: 37.683 min Scan# 1967
 Delta R.T. 0.033 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

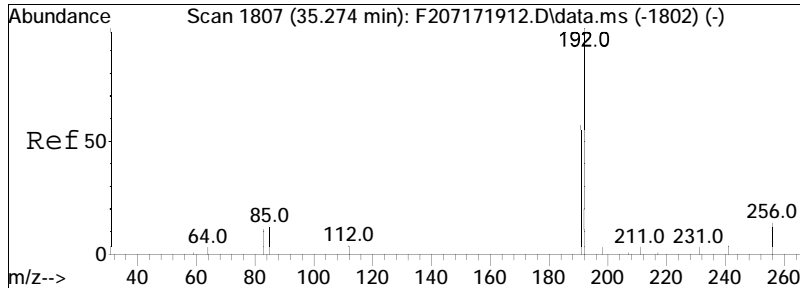
Tgt Ion: 226 Resp: 835277
 Ion Ratio Lower Upper
 226 100
 211 10.8 38.6 71.6#





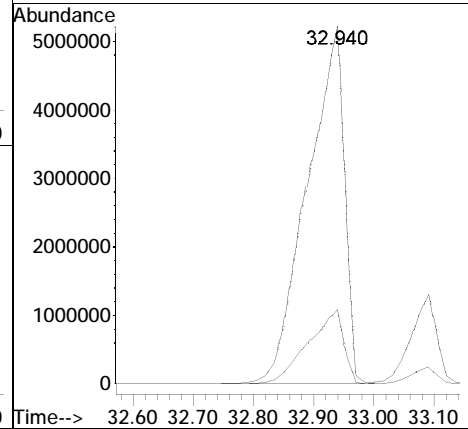
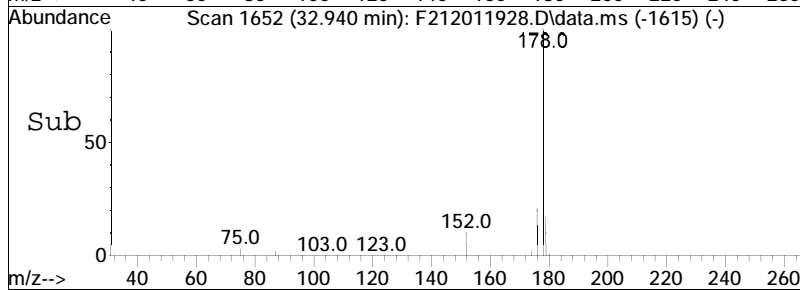
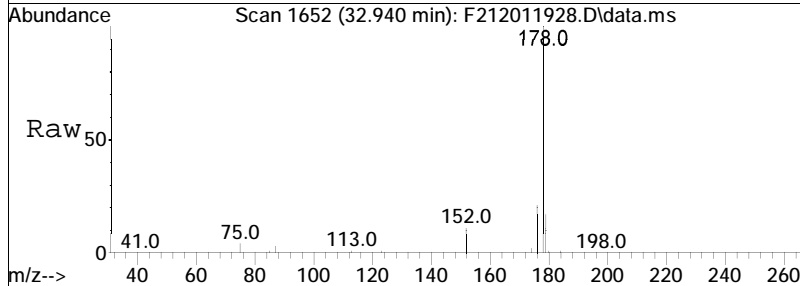
#39
 C4-Dibenzothiophenes
 Concen: 1146.96 ng/mL M5
 RT: 39.369 min Scan# 2079
 Delta R.T. 0.036 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:240 Resp: 368715

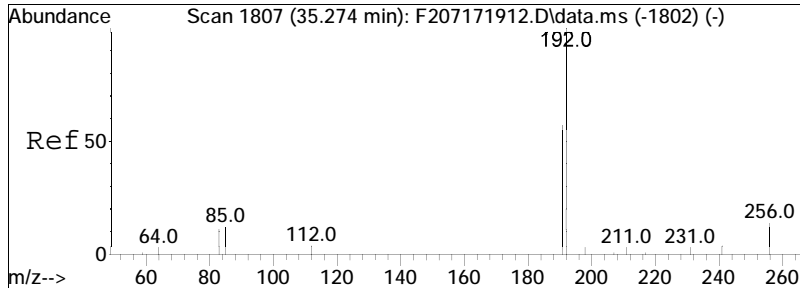




#41
 Phenanthrene
 Concen: 64647.73 ng/mL
 RT: 32.940 min Scan# 1652
 Delta R.T. 0.055 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

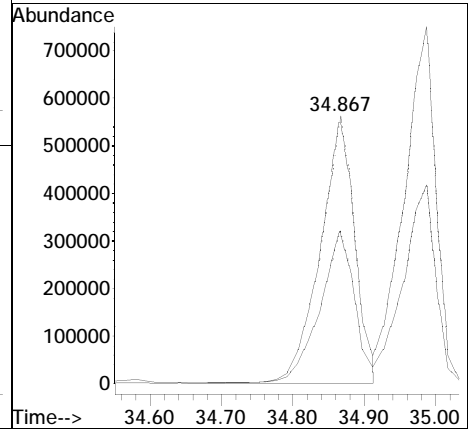
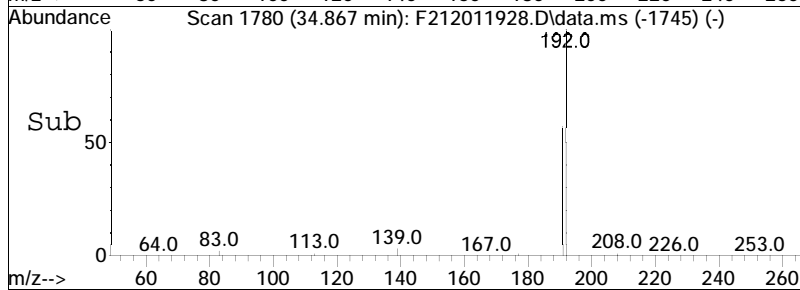
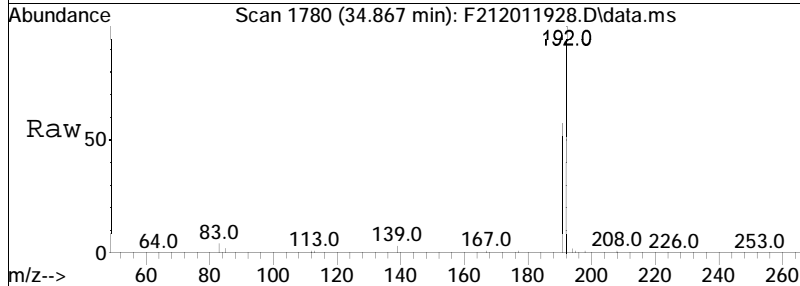
Tgt Ion: 178 Resp: 22107083
 Ion Ratio Lower Upper
 178 100
 176 20.1 13.0 24.1

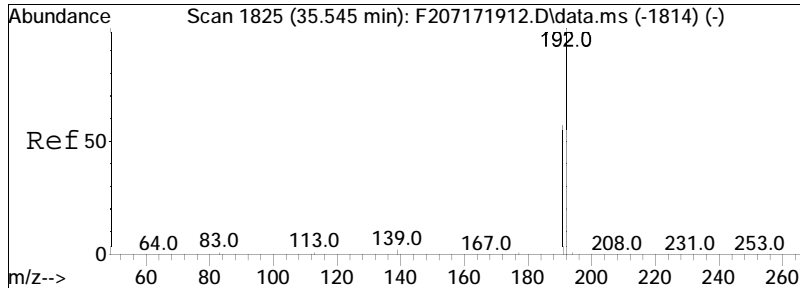




#42
 3-Methylphenanthrene (3MP)
 Concen: 5475.34 ng/mL
 RT: 34.867 min Scan# 1780
 Delta R.T. 0.028 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

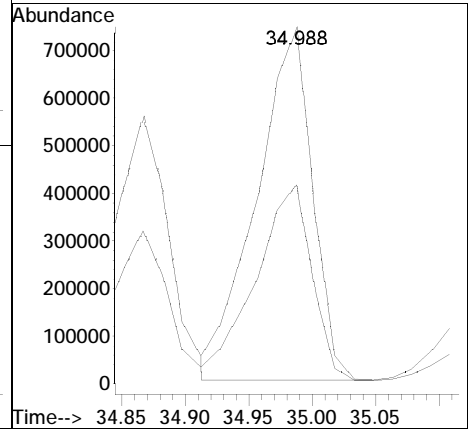
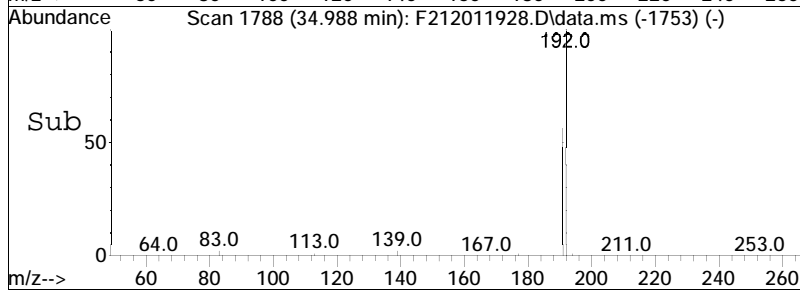
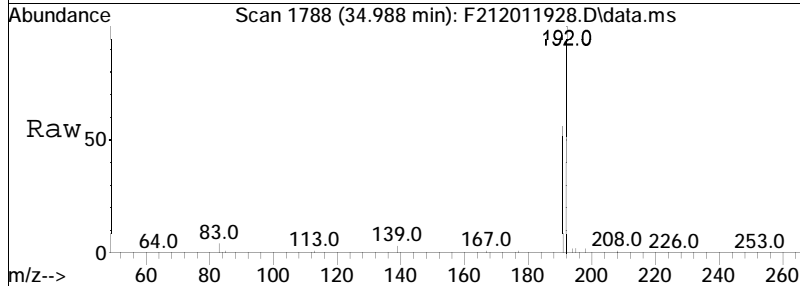
Tgt Ion: 192 Resp: 1872361
 Ion Ratio Lower Upper
 192 100
 191 57.2 42.1 78.1

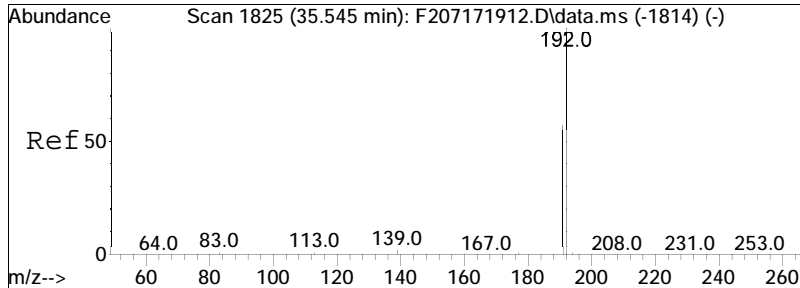




#43
 2-Methylphenanthrene (2MP)
 Concen: 6630.86 ng/mL
 RT: 34.988 min Scan# 1788
 Delta R.T. 0.028 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

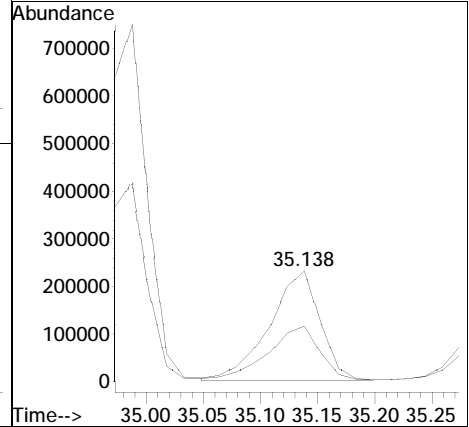
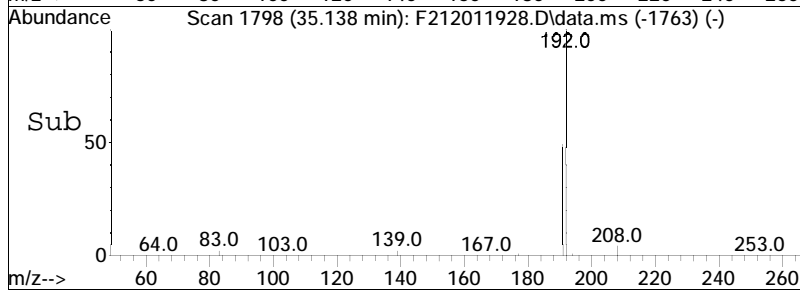
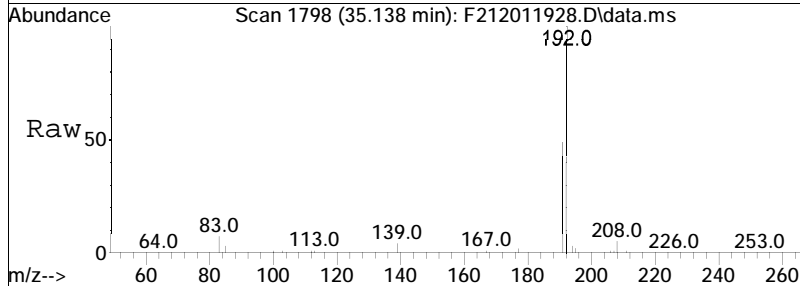
Tgt Ion: 192 Resp: 2267504
 Ion Ratio Lower Upper
 192 100
 191 55.7 40.5 75.3

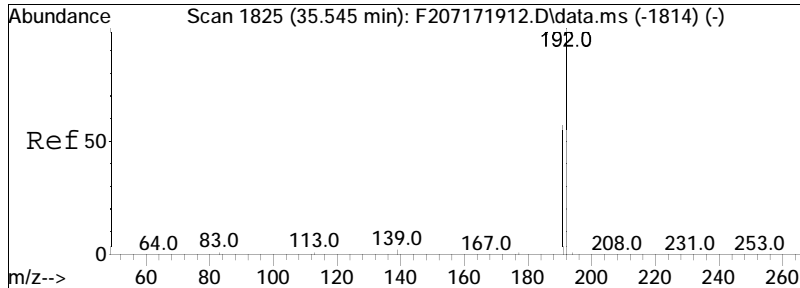




#44
 2-Methylantracene(2MA)
 Concen: 2069.78 ng/mL
 RT: 35.138 min Scan# 1798
 Delta R.T. 0.029 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

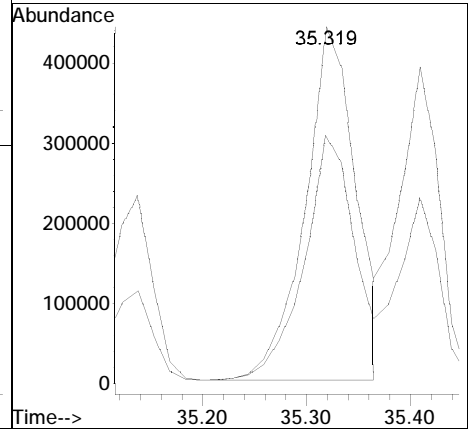
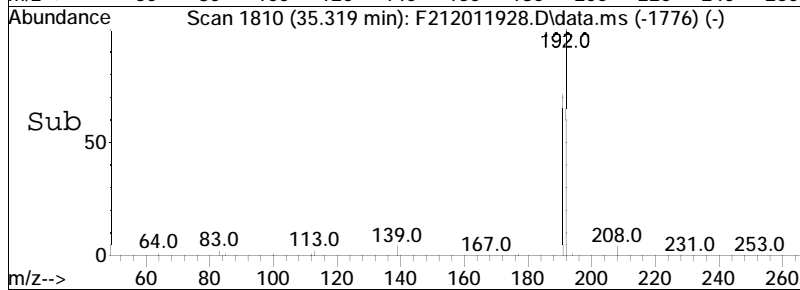
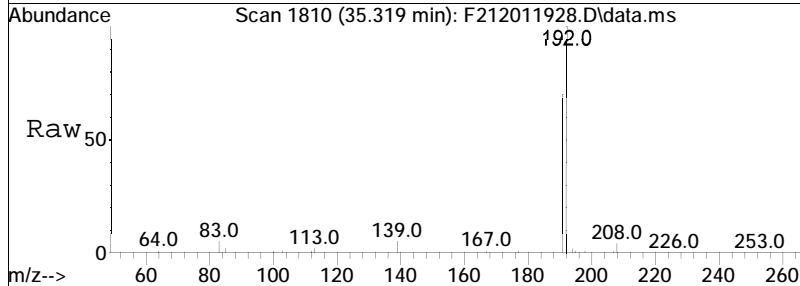
Tgt Ion	Resp	Lower	Upper
192	100		
191	50.0	85.2	158.2#

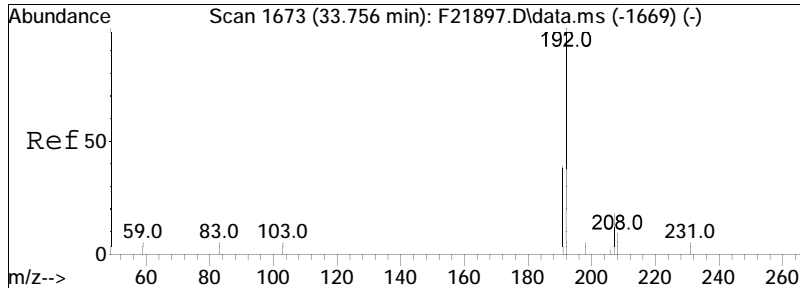




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 4402.52 ng/mL
 RT: 35.319 min Scan# 1810
 Delta R.T. 0.014 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

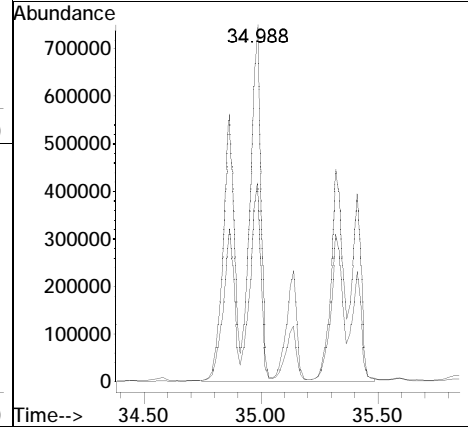
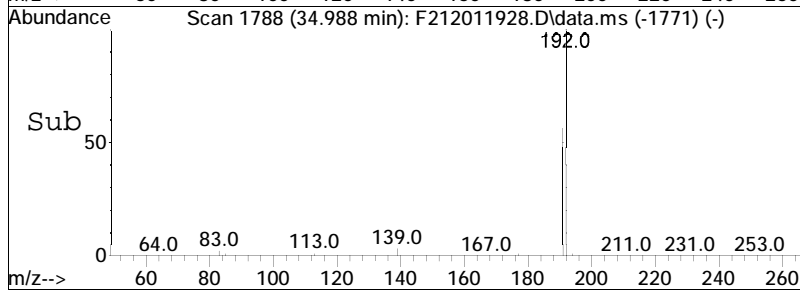
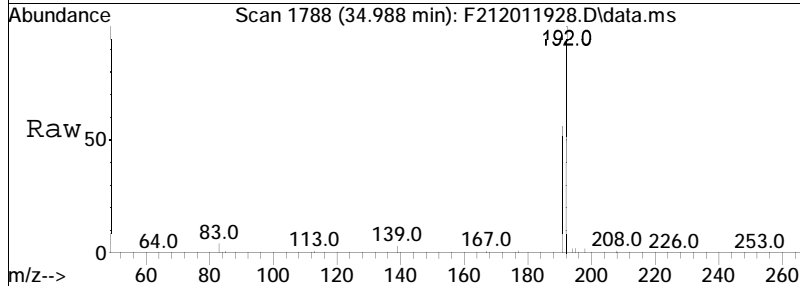
Tgt Ion:192 Resp: 1505495
 Ion Ratio Lower Upper
 192 100
 191 69.2 39.7 73.7

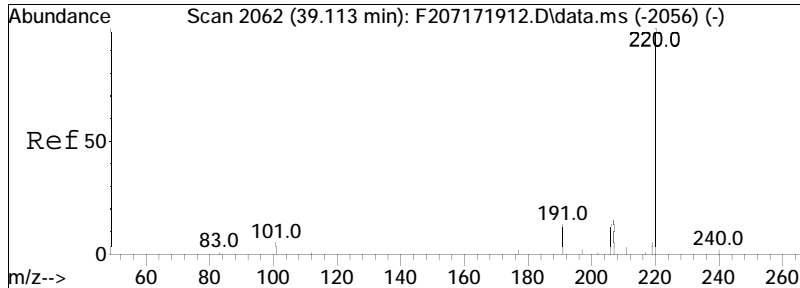




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 22059.12 ng/mL M5
 RT: 34.988 min Scan# 1788
 Delta R.T. -0.317 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

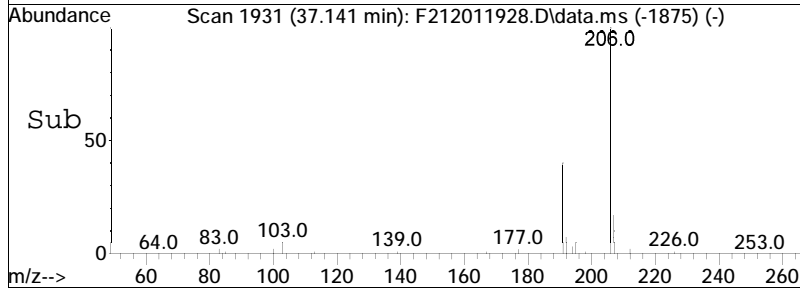
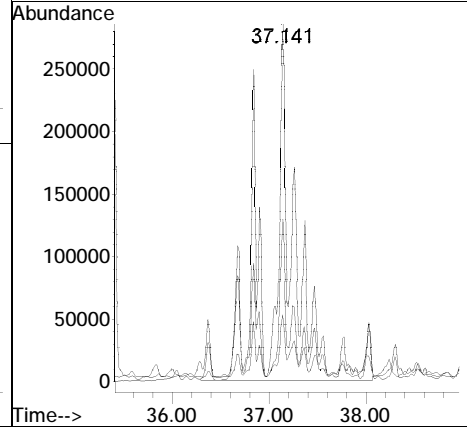
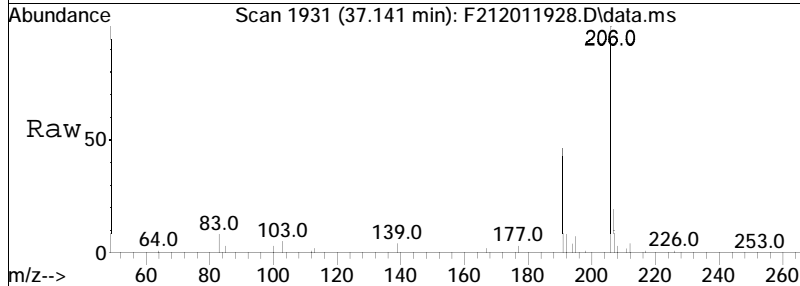
Tgt Ion:192 Resp: 7543385
 Ion Ratio Lower Upper
 192 100
 191 13.8 39.7 73.7#

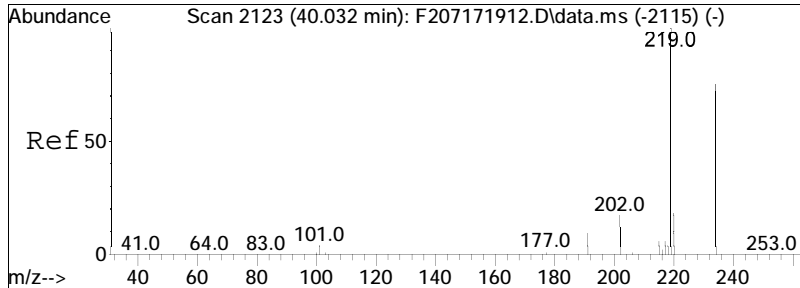




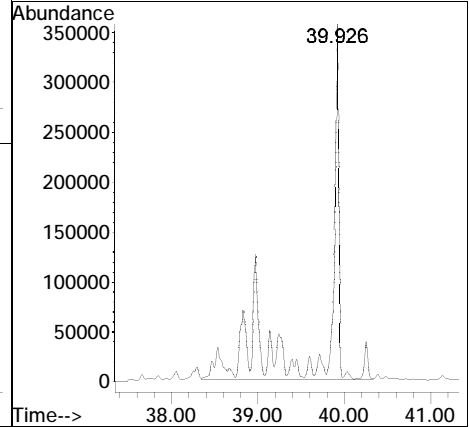
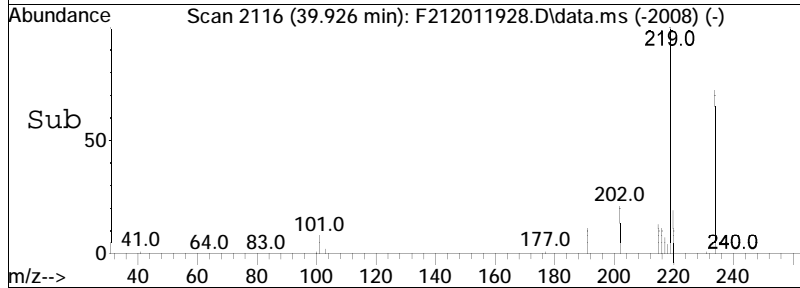
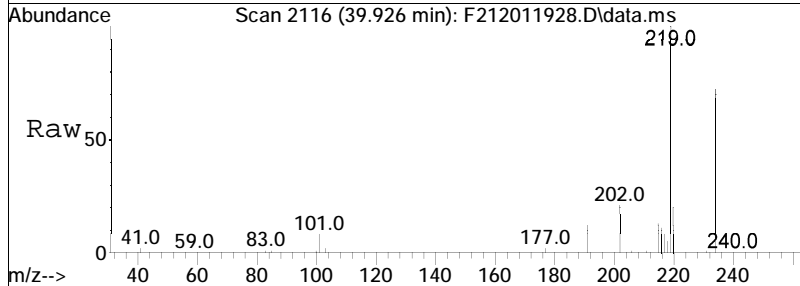
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 13512.42 ng/mL M5
 RT: 37.141 min Scan# 1931
 Delta R.T. 0.032 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

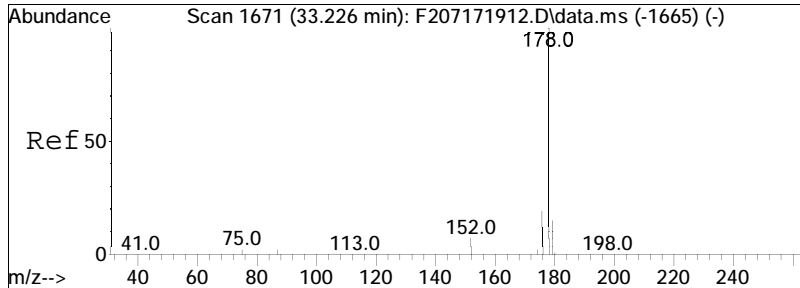
Tgt Ion	Ratio	Lower	Upper
206	100		
191	11.1	33.9	62.9#
207	4.6	13.9	25.7#





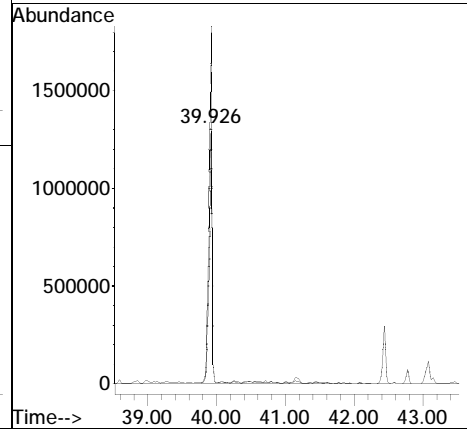
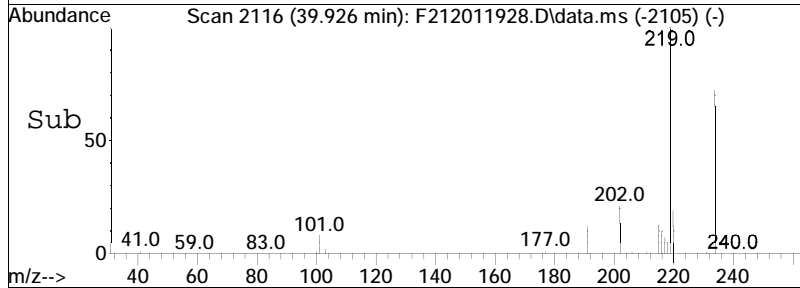
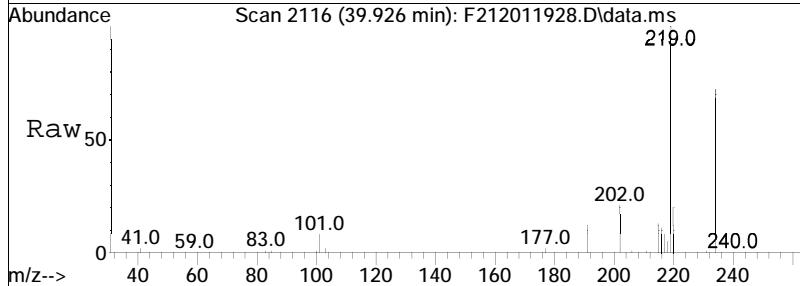
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 8972.88 ng/mL M5
 RT: 39.926 min Scan# 2116
 Delta R.T. 0.969 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:220 Resp: 3068387

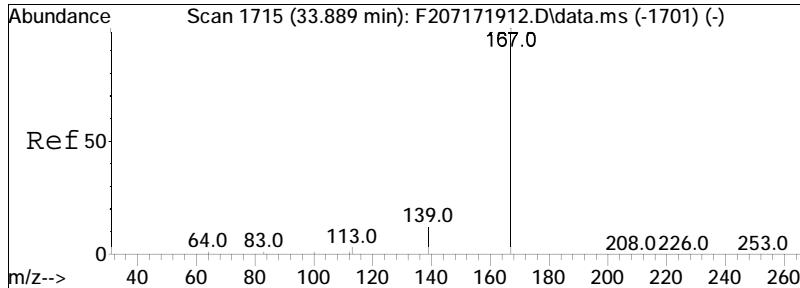




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 13142.85 ng/mL M5
 RT: 39.926 min Scan# 2116
 Delta R.T. -1.196 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

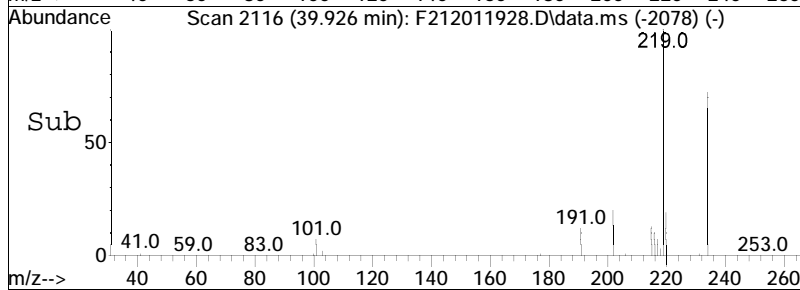
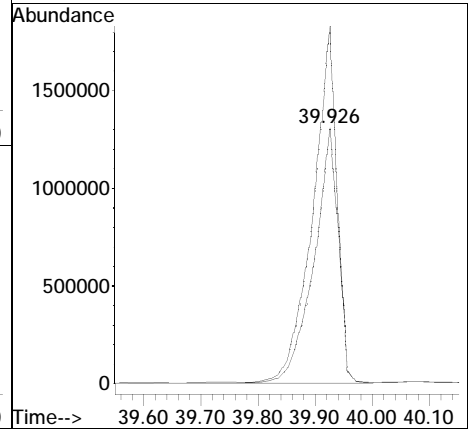
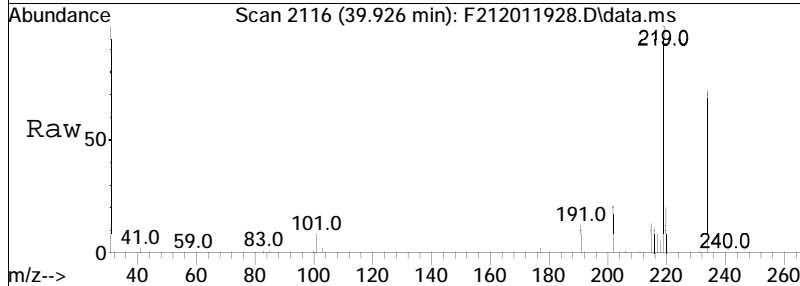
Tgt Ion: 234 Resp: 4494358
 Ion Ratio Lower Upper
 234 100
 219 1.4 39.5 73.3#

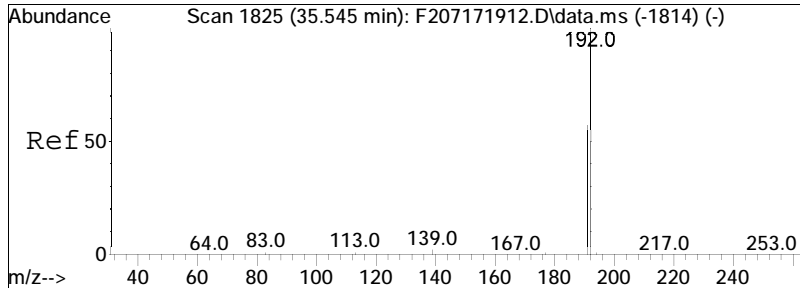




#52
 Retene
 Concen: 32644.35 ng/mL
 RT: 39.926 min Scan# 2116
 Delta R.T. 0.067 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

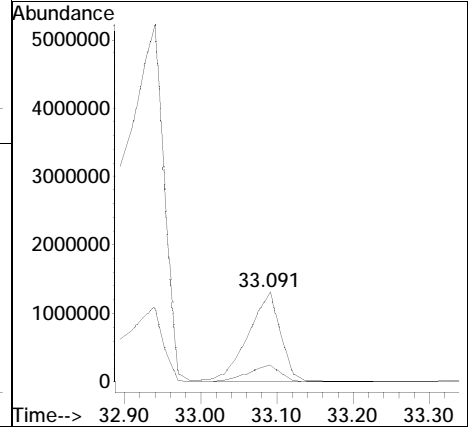
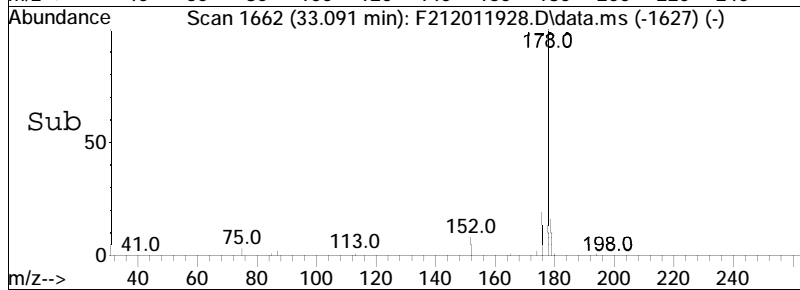
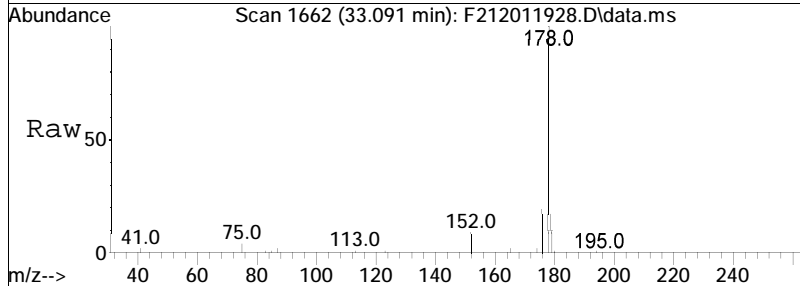
Tgt Ion: 234 Resp: 3821395
 Ion Ratio Lower Upper
 234 100
 219 137.4 108.2 201.0

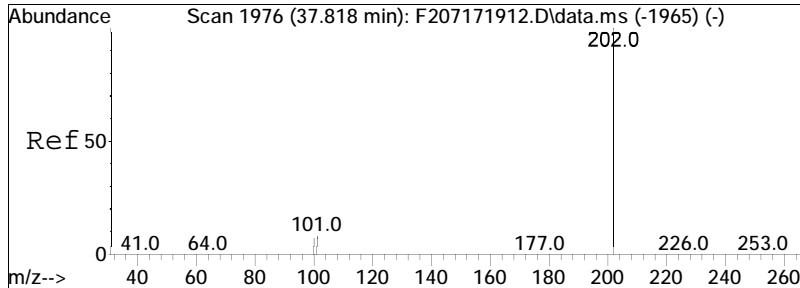




#53
 Anthracene
 Concen: 13195.66 ng/mL
 RT: 33.091 min Scan# 1662
 Delta R.T. 0.025 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

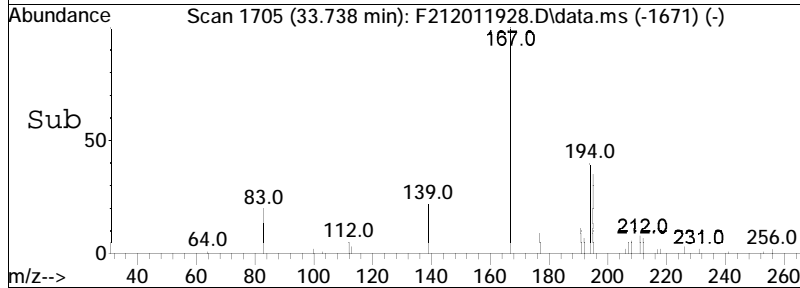
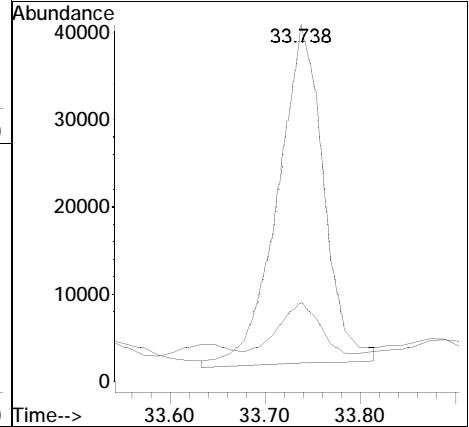
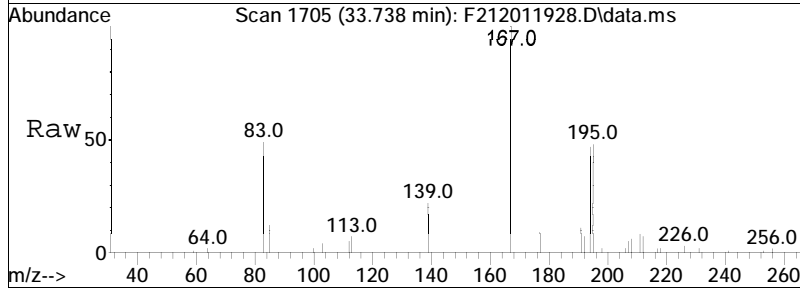
Tgt Ion: 178 Resp: 3846816
 Ion Ratio Lower Upper
 178 100
 176 18.8 12.5 23.3

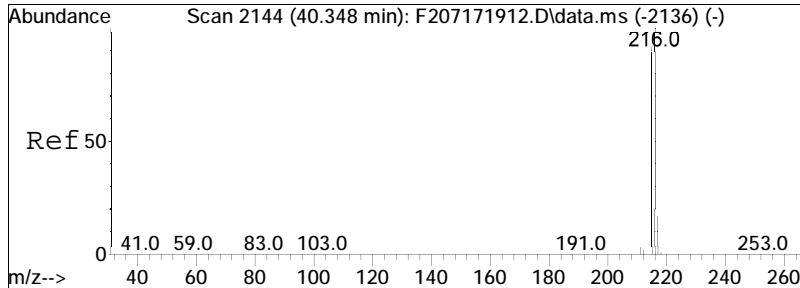




#54
 Carbazole
 Concen: 473.28 ng/mL
 RT: 33.738 min Scan# 1705
 Delta R.T. 0.011 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

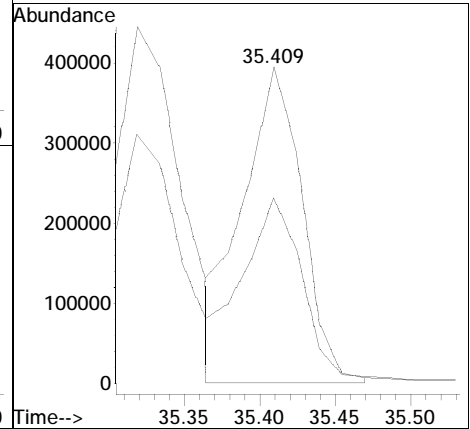
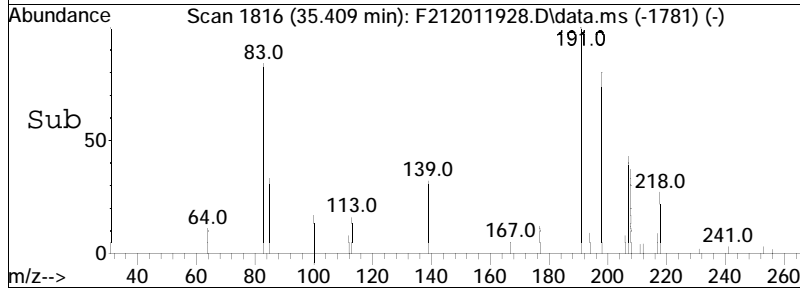
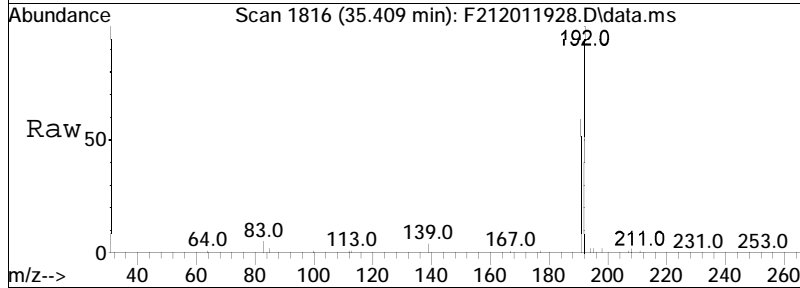
Tgt Ion: 167 Resp: 129076
 Ion Ratio Lower Upper
 167 100
 139 18.0 8.7 16.1#

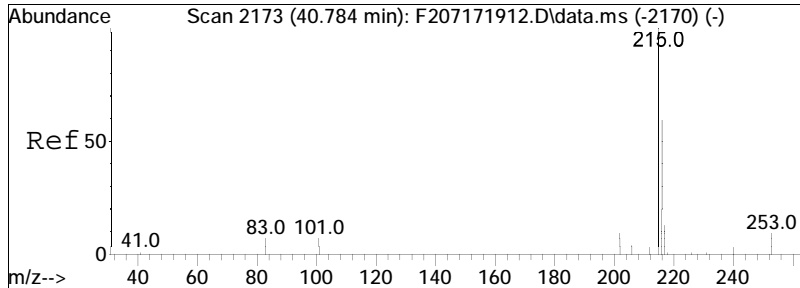




#55
 1-Methylphenanthrene
 Concen: 4203.37 ng/mL M3
 RT: 35.409 min Scan# 1816
 Delta R.T. 0.029 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

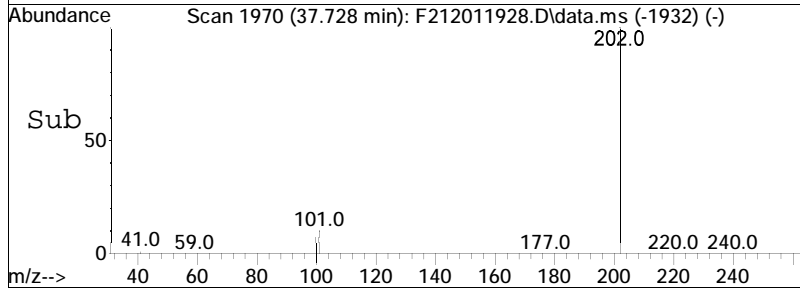
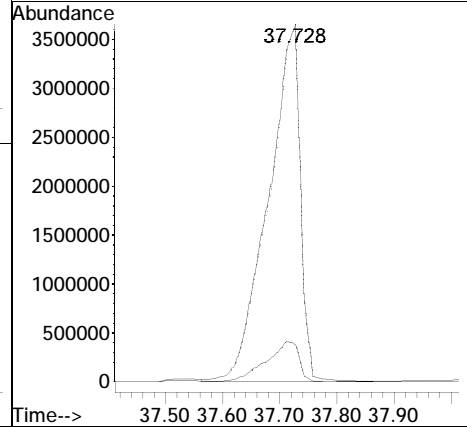
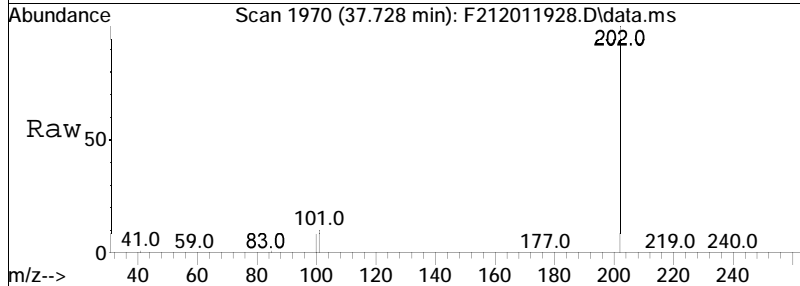
Tgt Ion: 192 Resp: 1076434
 Ion Ratio Lower Upper
 192 100
 191 96.7 39.3 73.1#

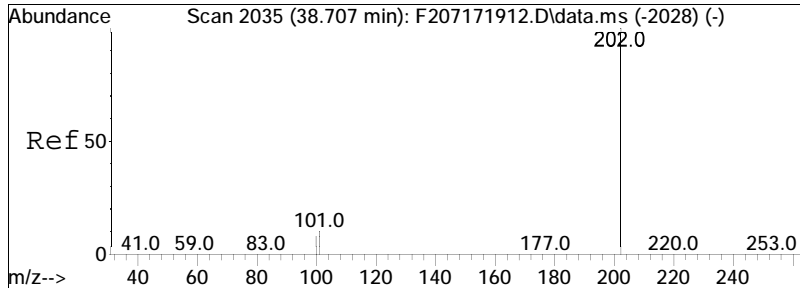




#56
 Fluoranthene
 Concen: 35795.27 ng/mL
 RT: 37.728 min Scan# 1970
 Delta R.T. 0.078 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

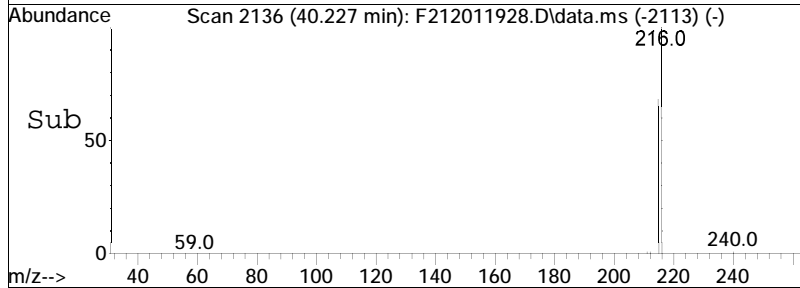
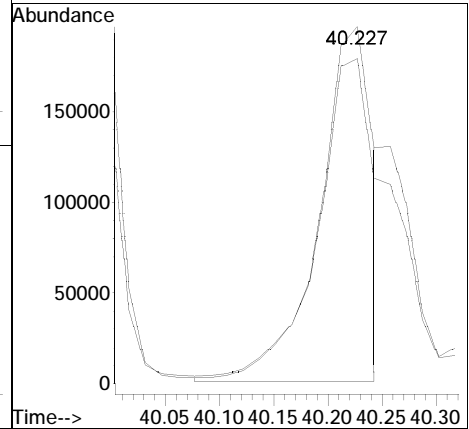
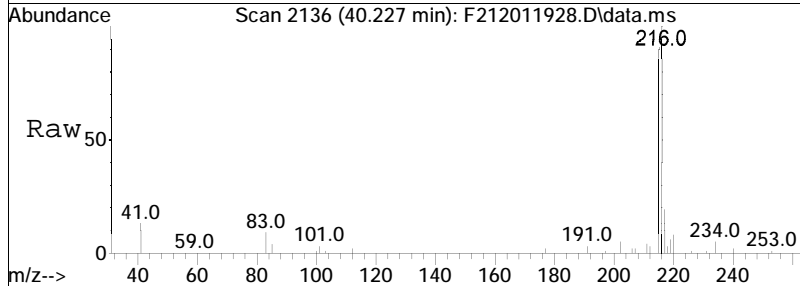
Tgt Ion: 202 Resp: 13960228
 Ion Ratio Lower Upper
 202 100
 101 11.7 8.0 14.8

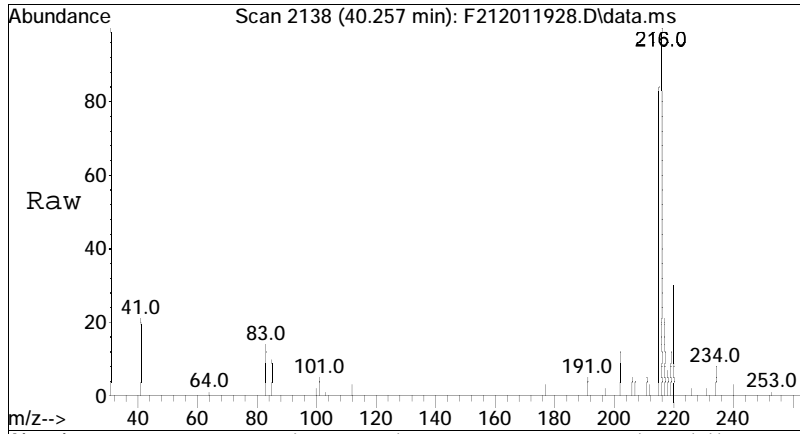




#57
 Benzo(b)fluorene
 Concen: 2739.12 ng/mL M3
 RT: 40.227 min Scan# 2136
 Delta R.T. 0.052 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

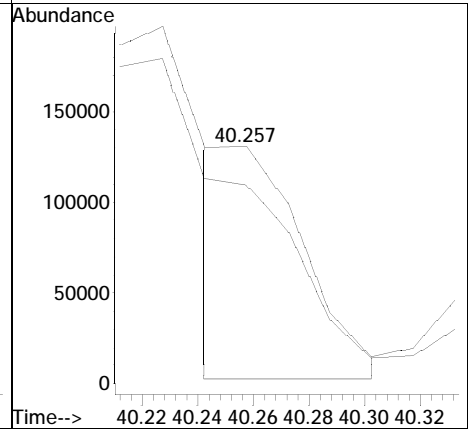
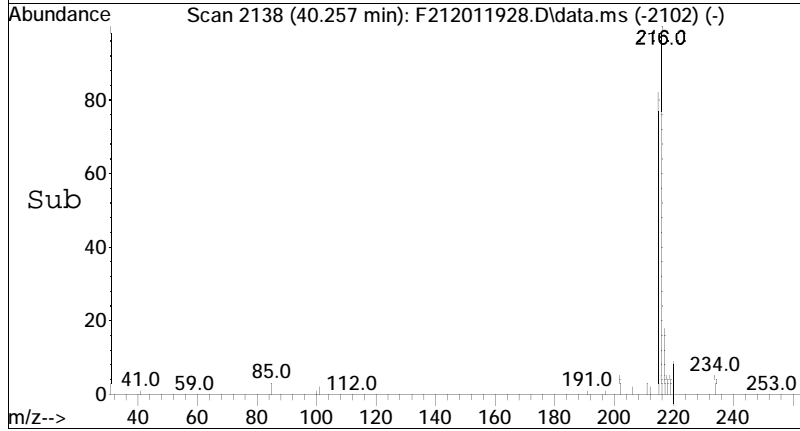
Tgt Ion	Ratio	Lower	Upper
216	100		
215	120.2	63.9	118.7#

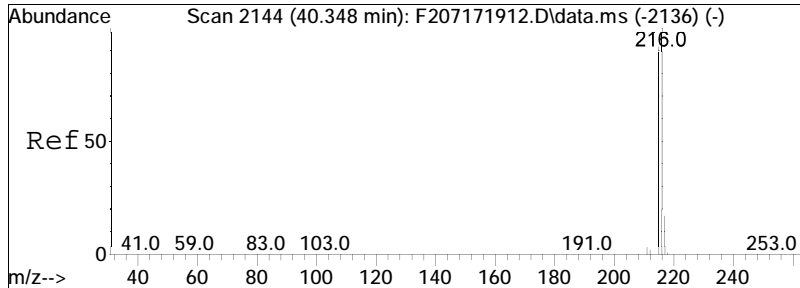




#58
 7H-Benzo(c)fluorene
 Concen: 1004.59 ng/mL M3
 RT: 40.257 min Scan# 2138
 Delta R.T. 0.037 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

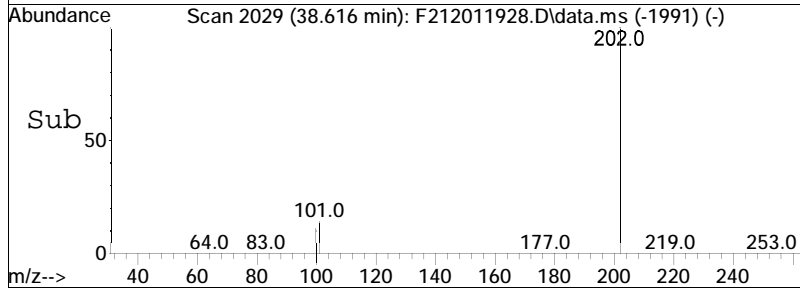
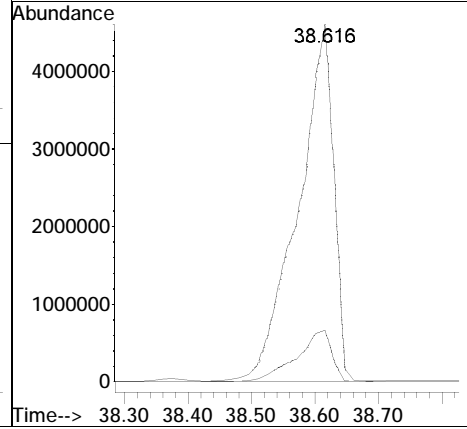
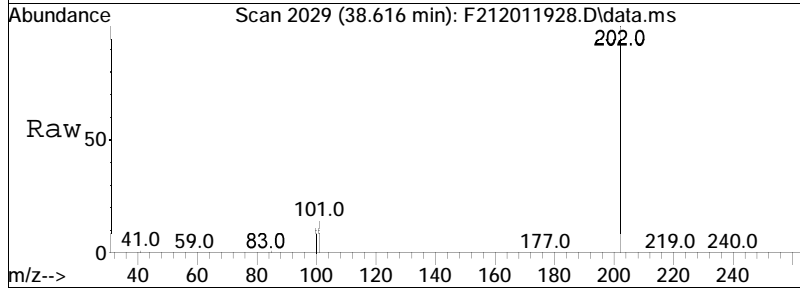
Tgt Ion	Resp	Lower	Upper
216	100		
215	327.7	102.3	189.9#

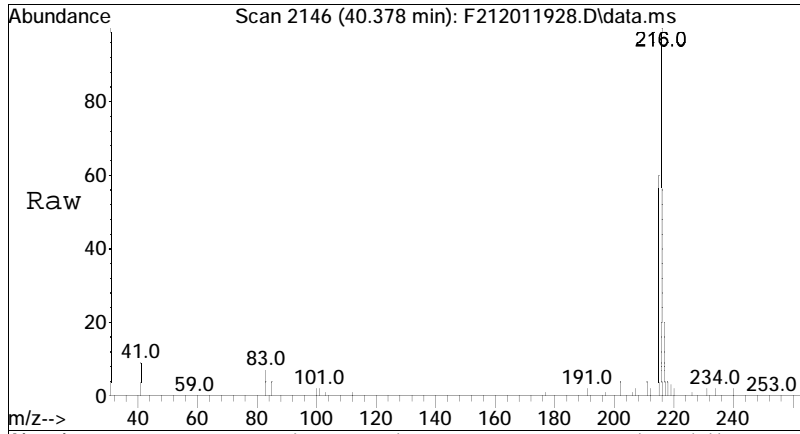




#59
 Pyrene
 Concen: 43566.55 ng/mL
 RT: 38.616 min Scan# 2029
 Delta R.T. 0.079 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

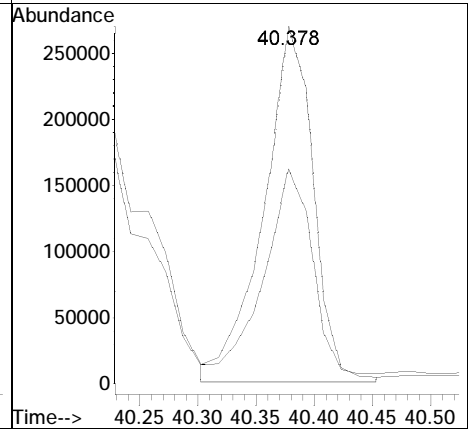
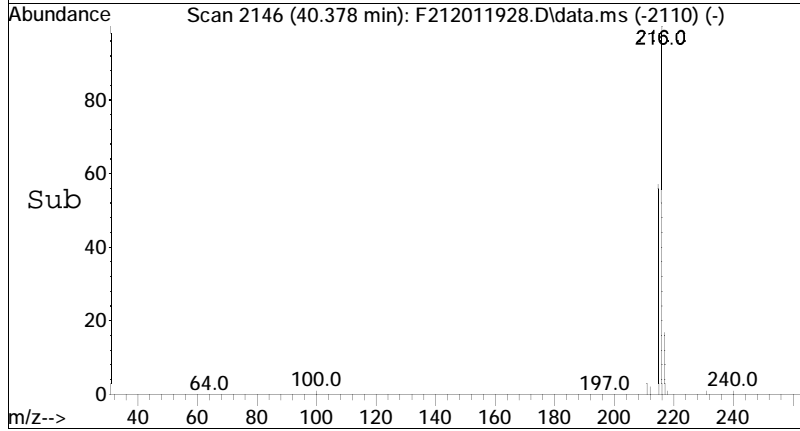
Tgt Ion: 202 Resp: 17643087
 Ion Ratio Lower Upper
 202 100
 101 14.5 9.0 16.8

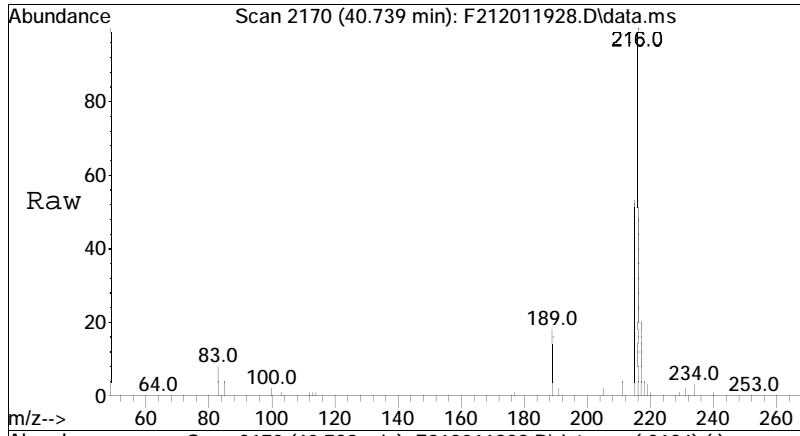




#60
 2-Methylpyrene
 Concen: 1961.12 ng/mL M3
 RT: 40.378 min Scan# 2146
 Delta R.T. 0.037 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

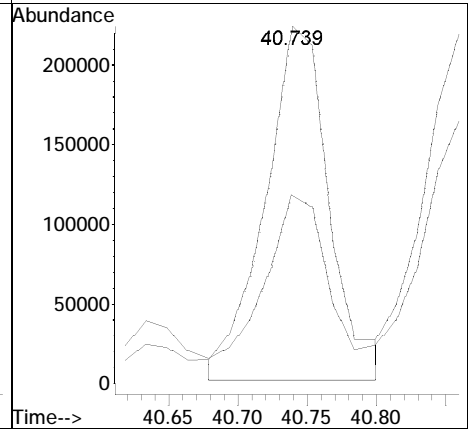
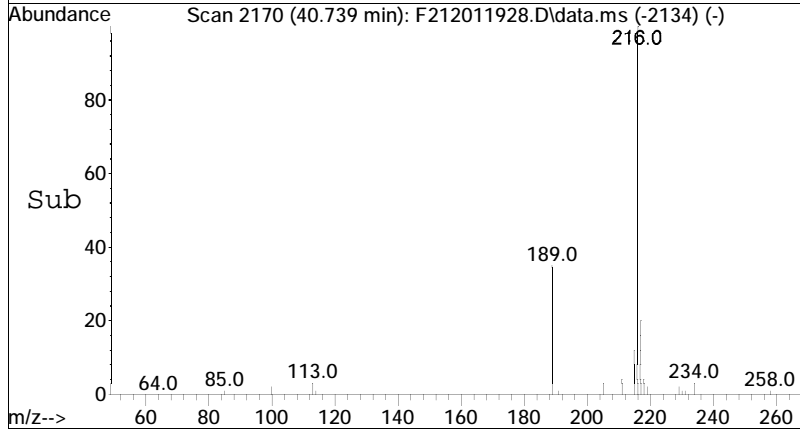
Tgt Ion	Resp	Lower	Upper
216	100		
215	101.7	73.1	135.7

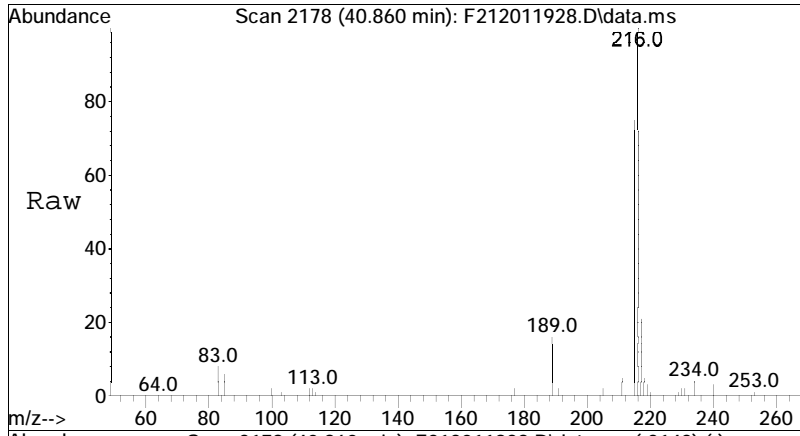




#61
 4-Methylpyrene
 Concen: 1764.61 ng/mL M3
 RT: 40.739 min Scan# 2170
 Delta R.T. 0.038 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

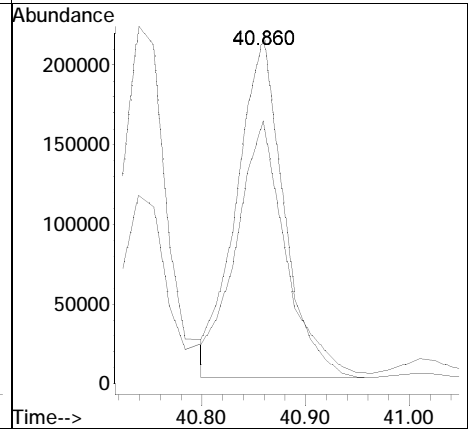
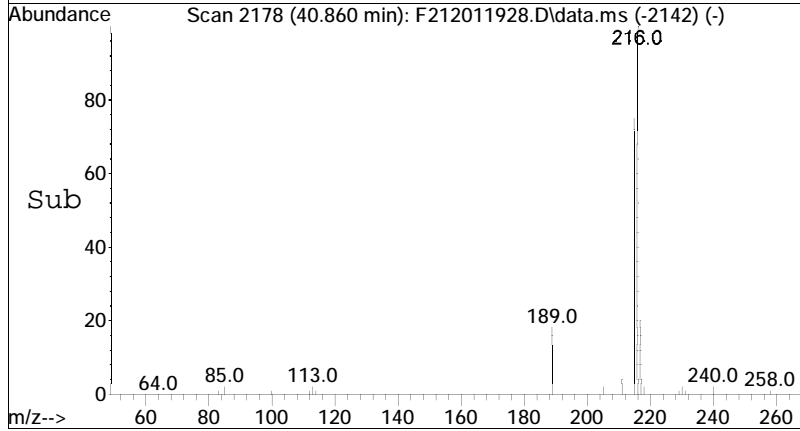
Tgt Ion	Resp	Lower	Upper
216	100		
215	74.0	49.5	91.9

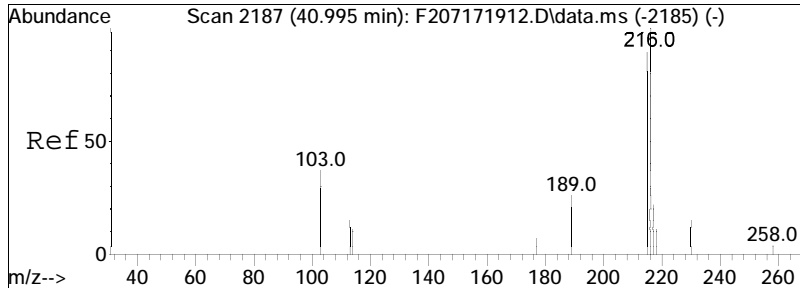




#62
 1-Methylpyrene
 Concen: 1654.56 ng/mL
 RT: 40.860 min Scan# 2178
 Delta R.T. 0.038 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

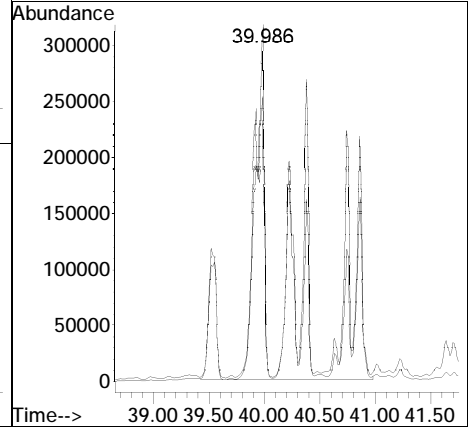
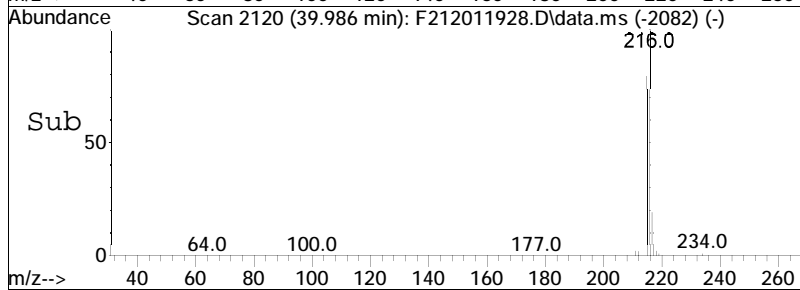
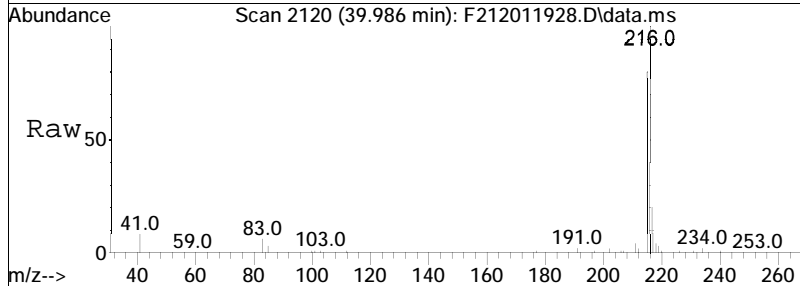
Tgt Ion	Resp	Lower	Upper
216	100		
215	78.9	73.7	136.9

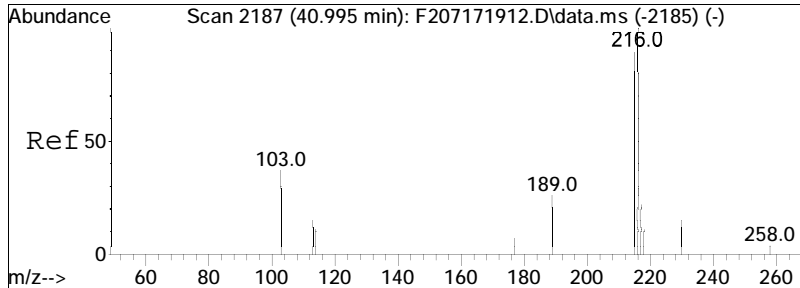




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 13594.64 ng/mL M5
 RT: 39.986 min Scan# 2120
 Delta R.T. 0.052 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

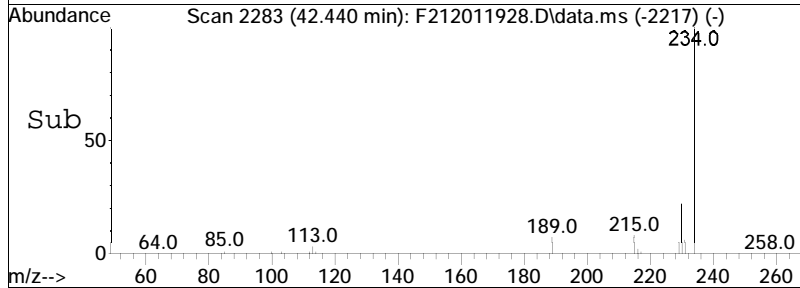
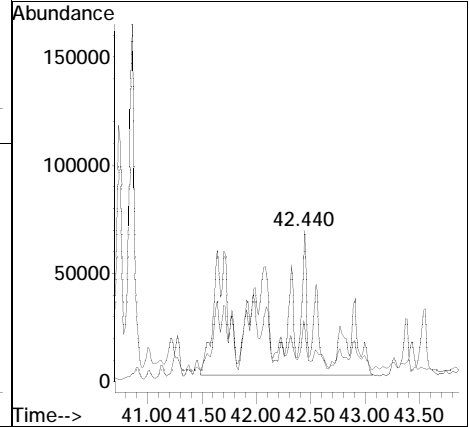
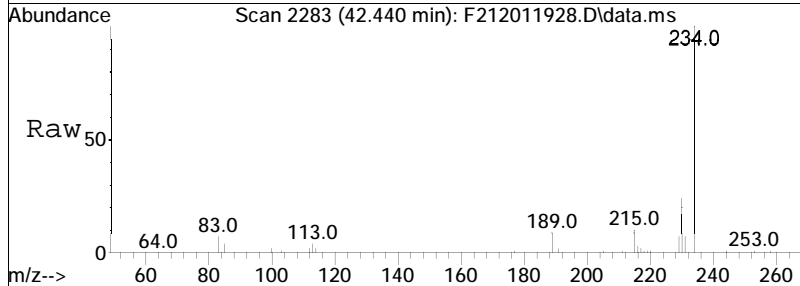
Tgt Ion: 216 Resp: 5505402
 Ion Ratio Lower Upper
 216 100
 215 14.7 66.0 122.6#

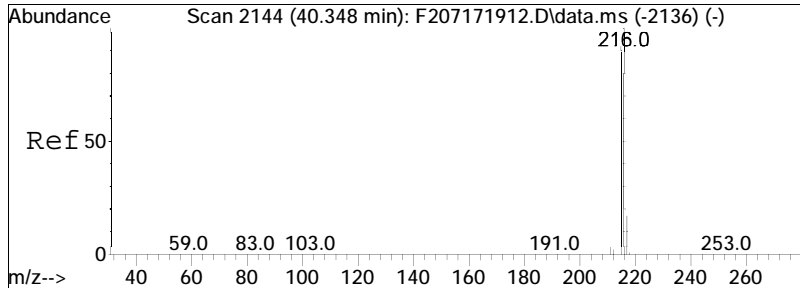




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 5016.26 ng/mL M5
 RT: 42.440 min Scan# 2283
 Delta R.T. 0.702 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

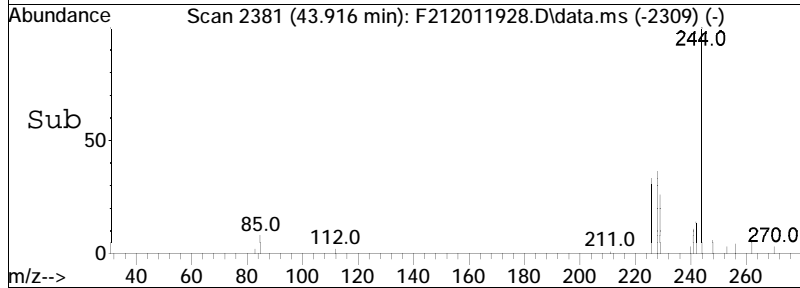
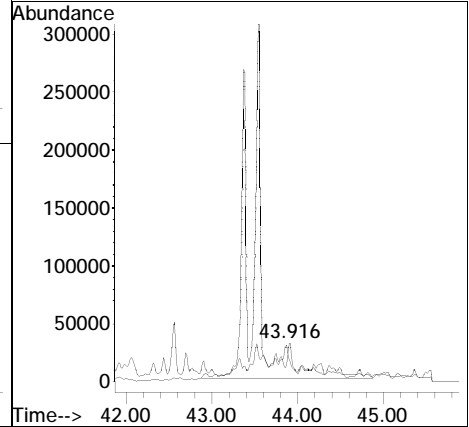
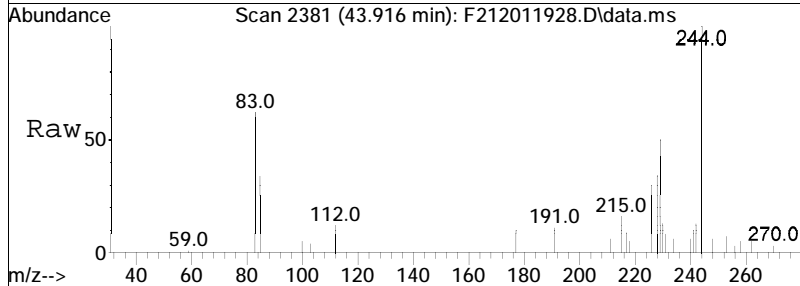
Tgt Ion: 230 Resp: 2031428
 Ion Ratio Lower Upper
 230 100
 215 4.6 74.8 138.8#

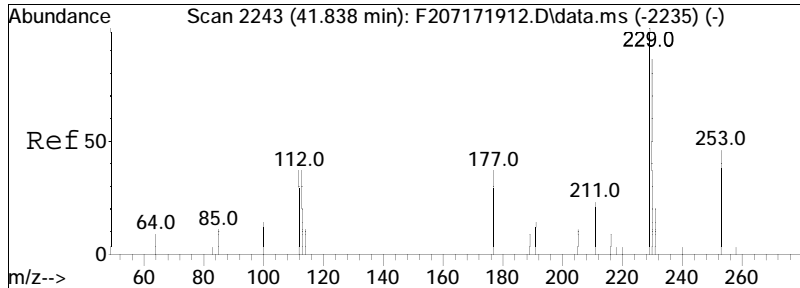




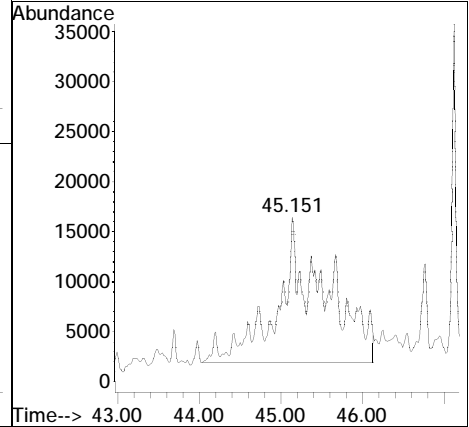
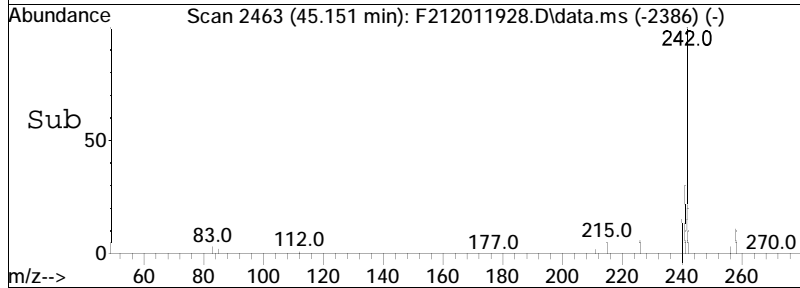
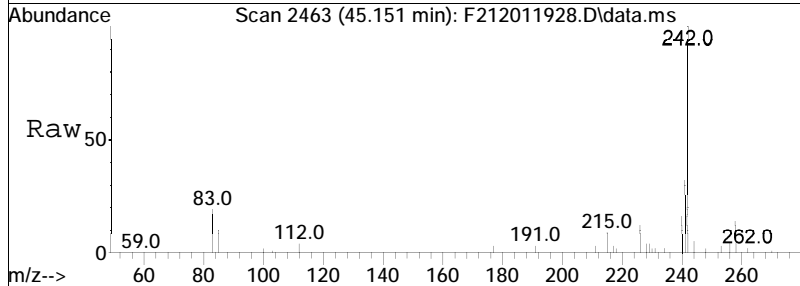
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 2583.28 ng/mL M5
 RT: 43.916 min Scan# 2381
 Delta R.T. 0.164 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

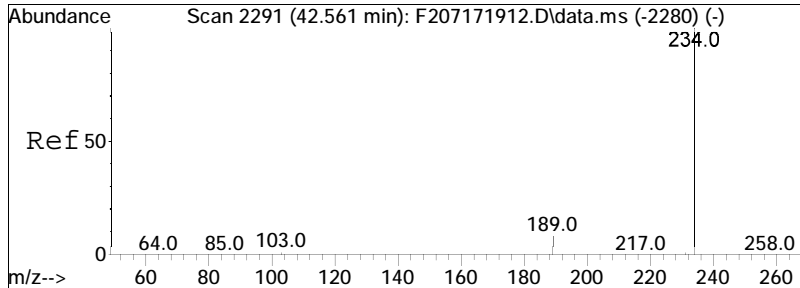
Tgt Ion: 244 Resp: 1046148
 Ion Ratio Lower Upper
 244 100
 229 1.8 62.0 115.2#





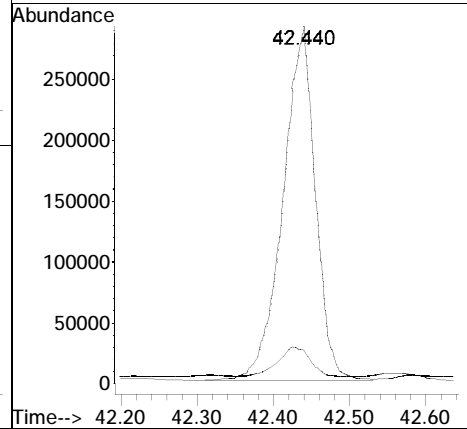
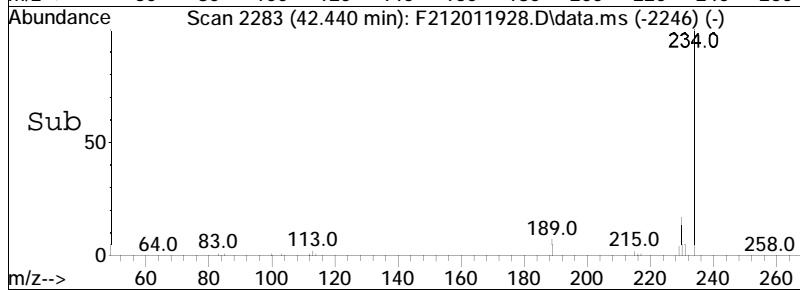
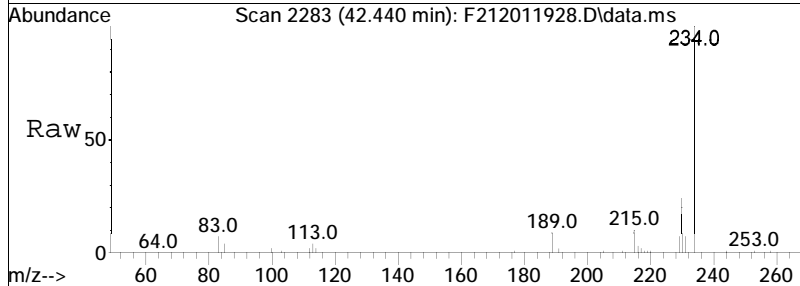
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 1455.59 ng/mL M5
 RT: 45.151 min Scan# 2463
 Delta R.T. 0.045 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:258 Resp: 589470

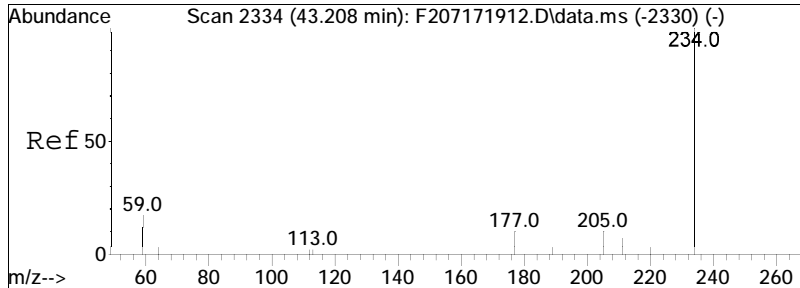




#67
 Naphthobenzothiophene-2,1-D
 Concen: 2450.08 ng/mL
 RT: 42.440 min Scan# 2283
 Delta R.T. 0.056 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

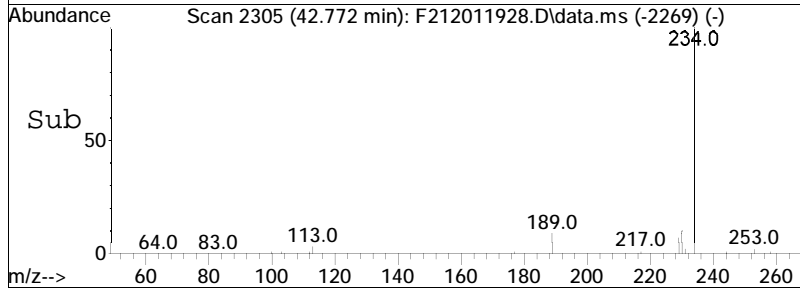
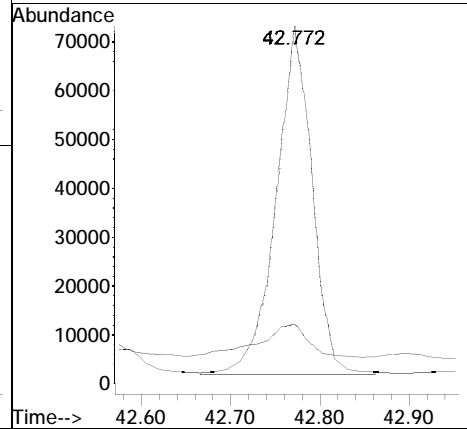
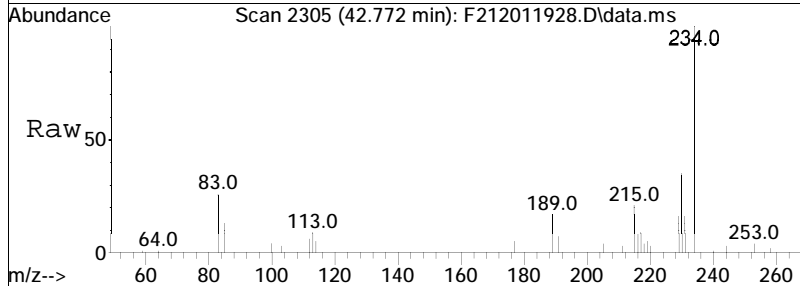
Tgt Ion: 234 Resp: 848682
 Ion Ratio Lower Upper
 234 100
 189 8.7 5.5 10.3

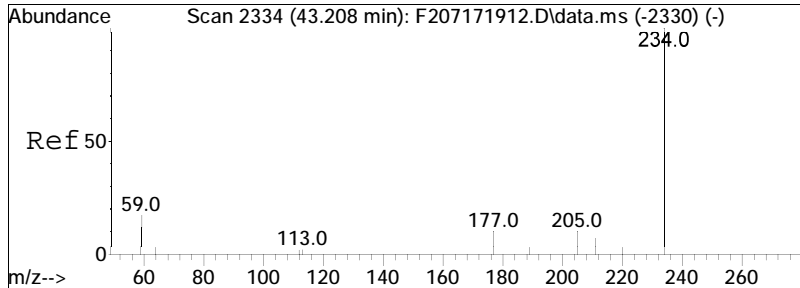




#68
 Naphthobenzothiophene-1,2-D
 Concen: 566.15 ng/mL M3
 RT: 42.772 min Scan# 2305
 Delta R.T. 0.041 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

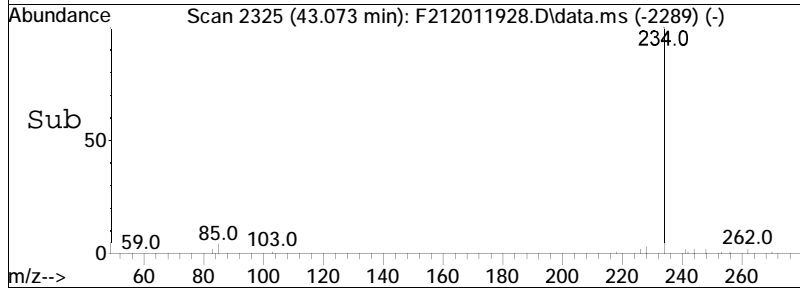
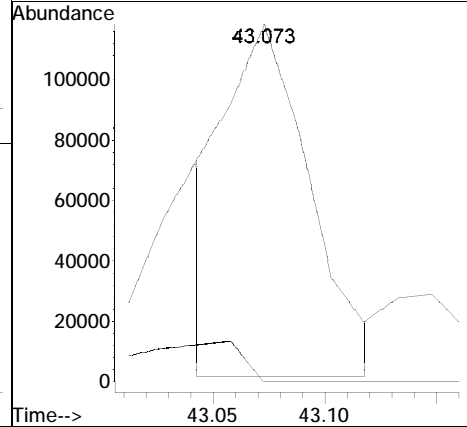
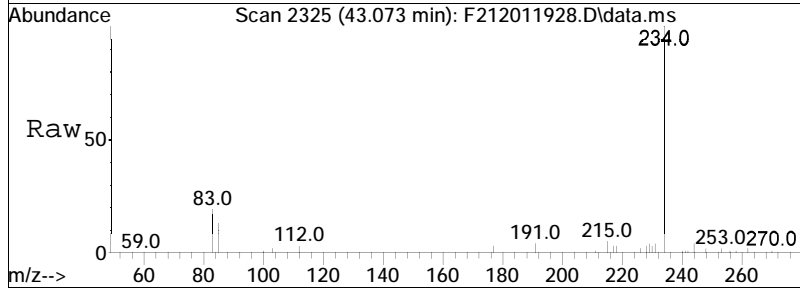
Tgt Ion	Resp	Lower	Upper
234	100		
189	5.8	56.7	105.3#

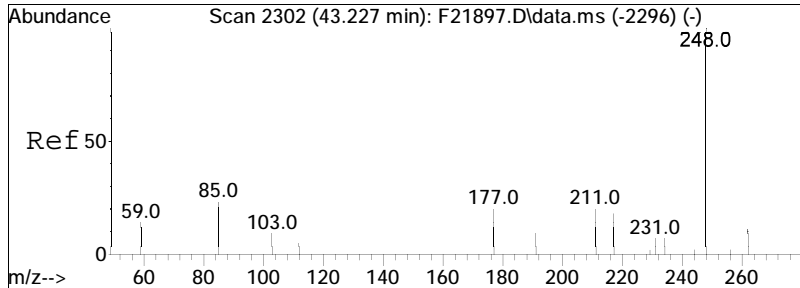




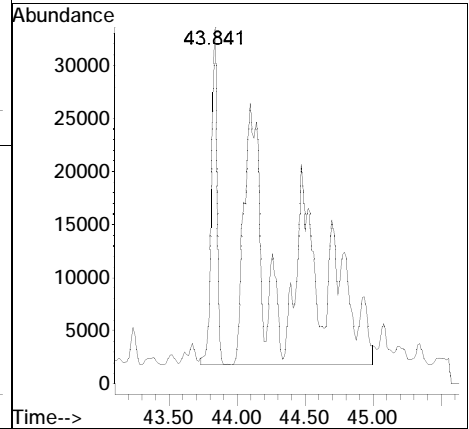
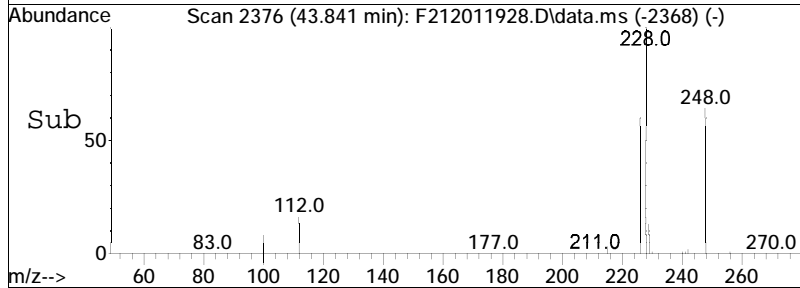
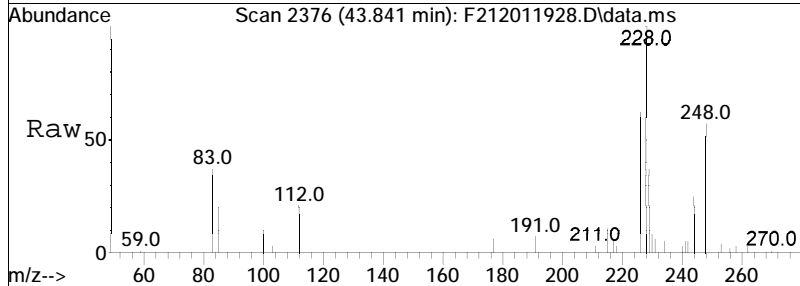
#69
 Naphthobenzothiophene-2,3-D
 Concen: 886.15 ng/mL M3
 RT: 43.073 min Scan# 2325
 Delta R.T. 0.042 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

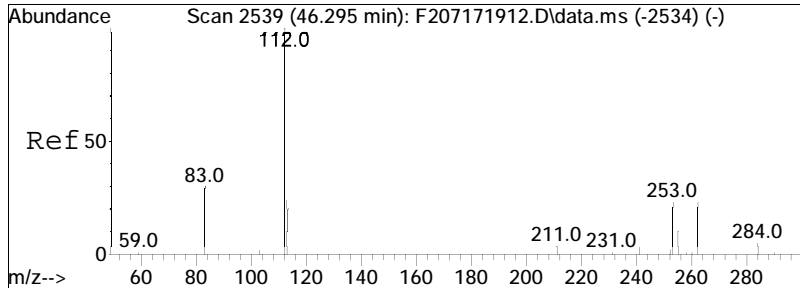
Tgt Ion: 234 Resp: 306954
 Ion Ratio Lower Upper
 234 100
 189 16.9 0.0 0.0#



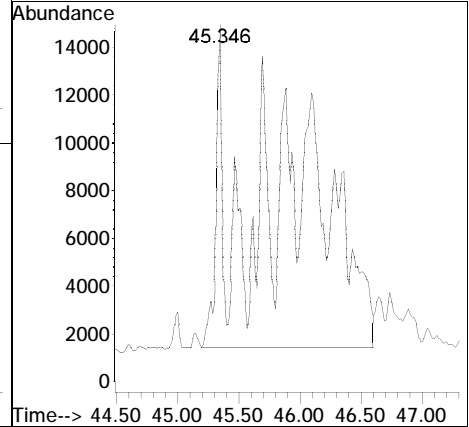
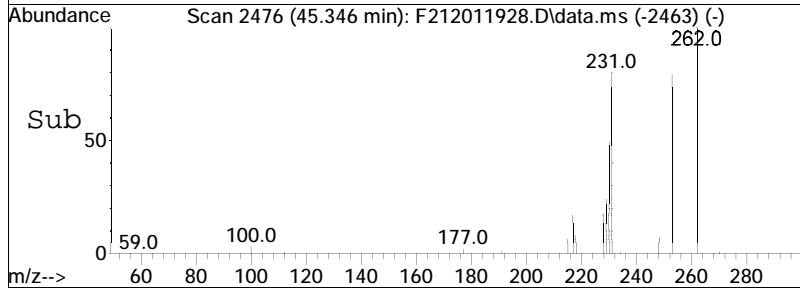
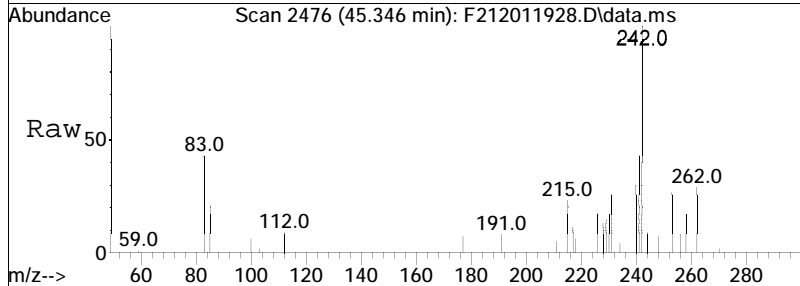


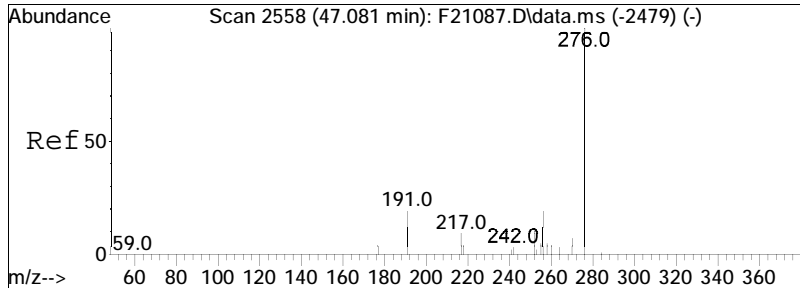
#70
 Cl-Naphthobenzothiophenes
 Concen: 1781.30 ng/ml M5
 RT: 43.841 min Scan# 2376
 Delta R.T. -0.633 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:248 Resp: 617023



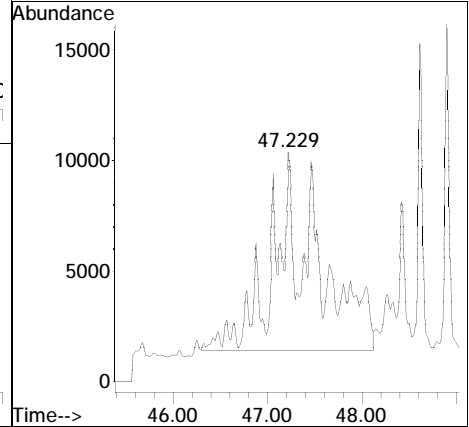
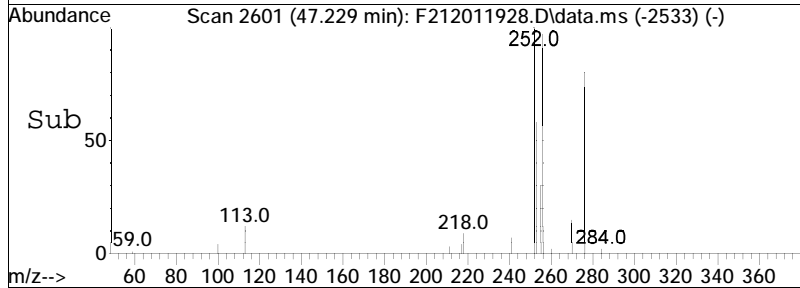
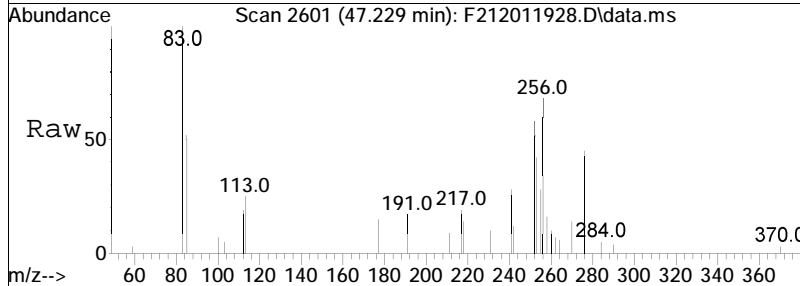


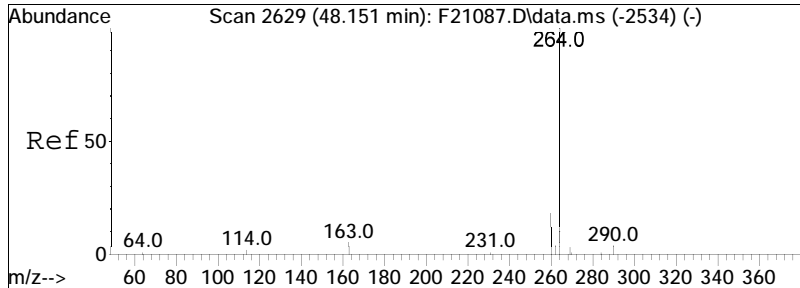
#71
 C2-Naphthobenzothiophenes
 Concen: 1274.28 ng/ml M5
 RT: 45.346 min Scan# 2476
 Delta R.T. -0.450 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion: 262 Resp: 441397



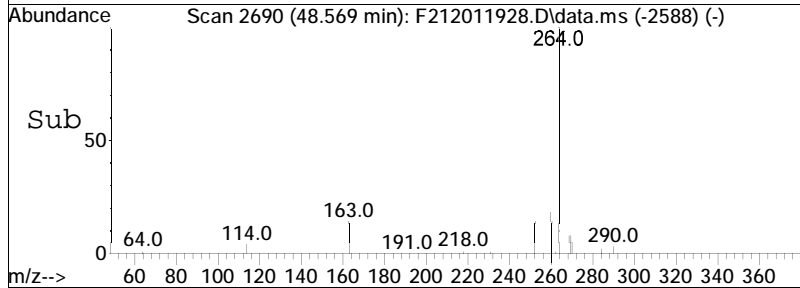
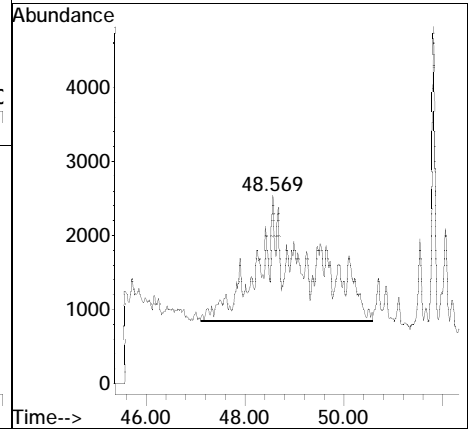
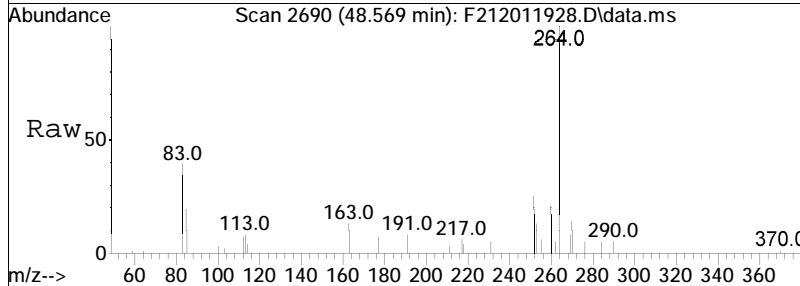


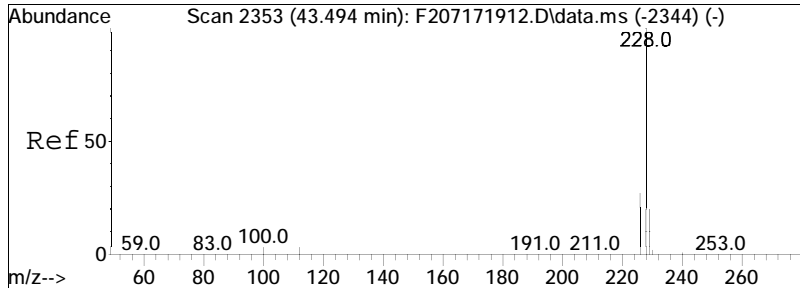
#72
 C3-Naphthobenzothiophenes
 Concen: 809.07 ng/ml M5
 RT: 47.229 min Scan# 2601
 Delta R.T. -0.177 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion: 276 Resp: 280252





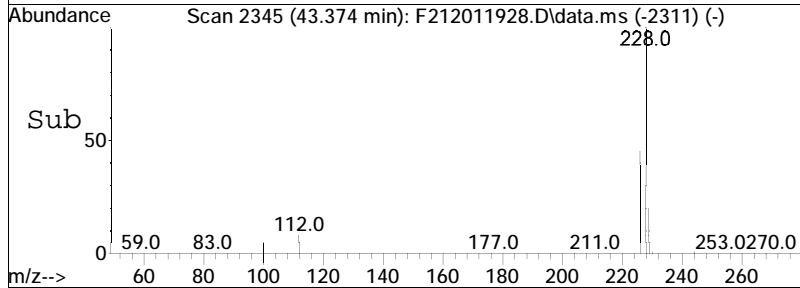
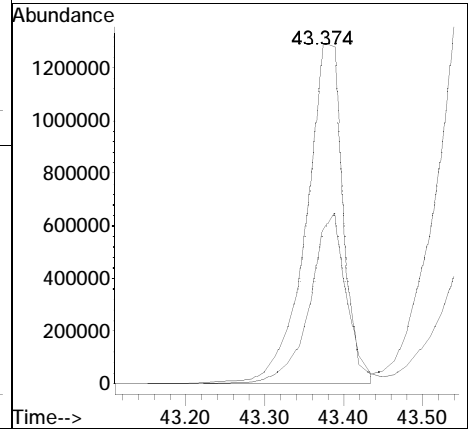
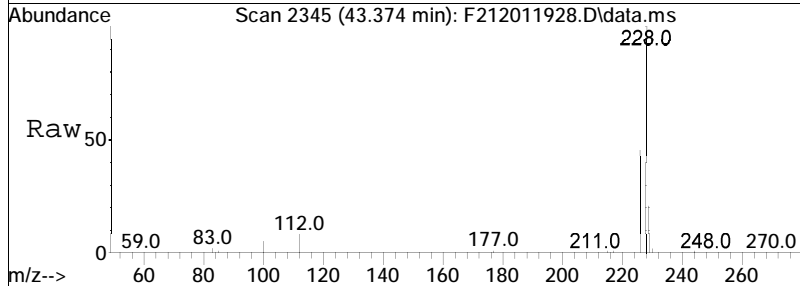
#73
 C4-Naphthobenzothiophenes
 Concen: 333.28 ng/mL M5
 RT: 48.569 min Scan# 2690
 Delta R.T. 0.051 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am
 Tgt Ion:290 Resp: 115443

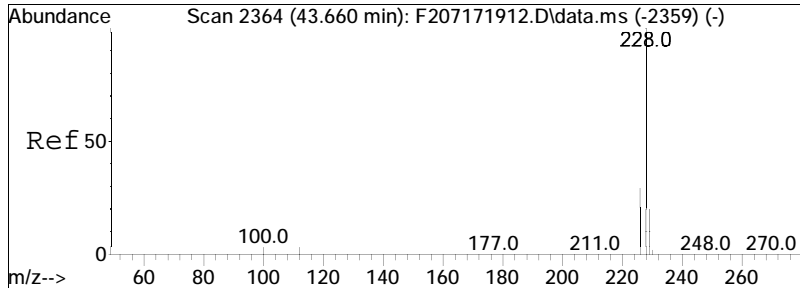




#75
 Benz[a]anthracene
 Concen: 12631.23 ng/mL M3
 RT: 43.374 min Scan# 2345
 Delta R.T. 0.015 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

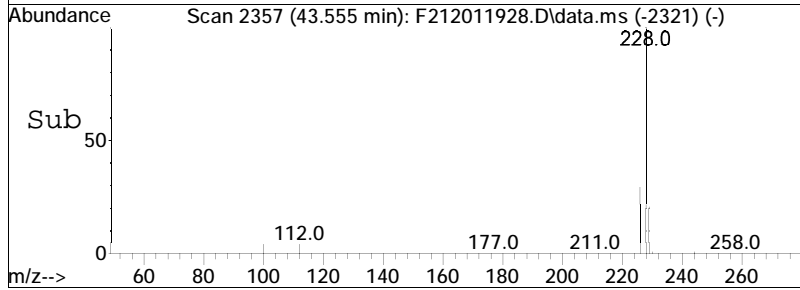
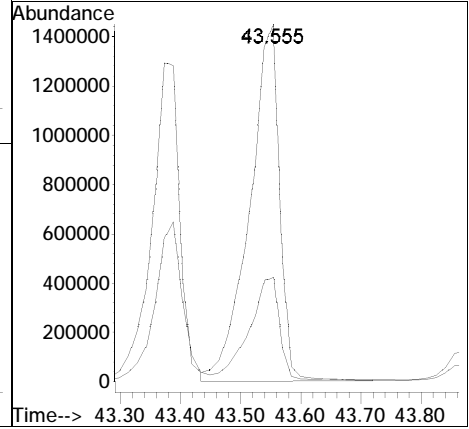
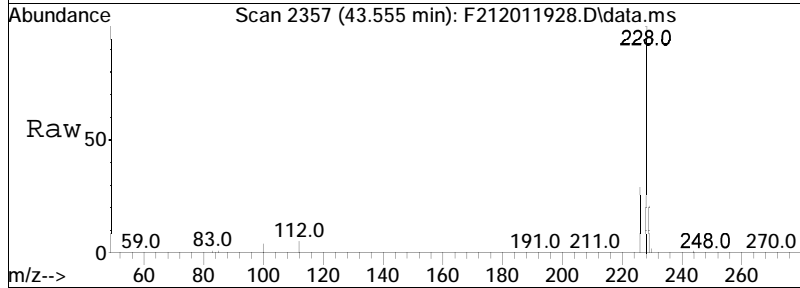
Tgt Ion: 228 Resp: 4161117
 Ion Ratio Lower Upper
 228 100
 226 34.6 18.2 33.8#

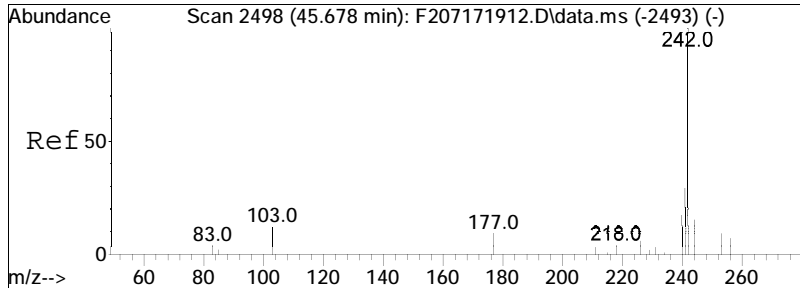




#76
 Chrysene
 Concen: 14914.23 ng/mL
 RT: 43.555 min Scan# 2357
 Delta R.T. 0.045 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

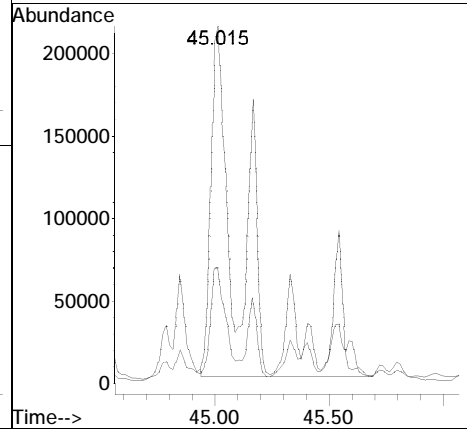
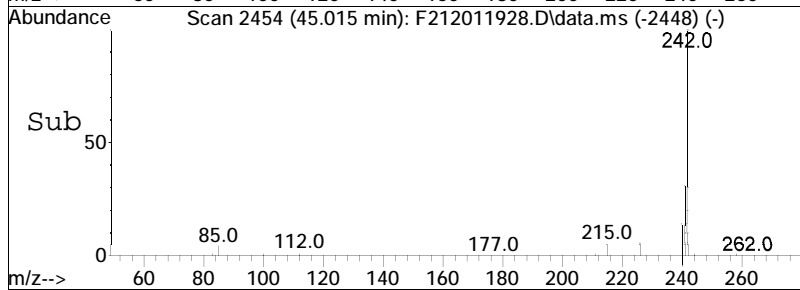
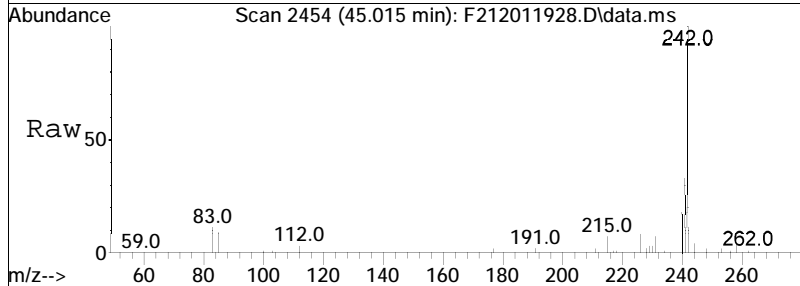
Tgt Ion: 228 Resp: 5001932
 Ion Ratio Lower Upper
 228 100
 226 28.8 20.3 37.7

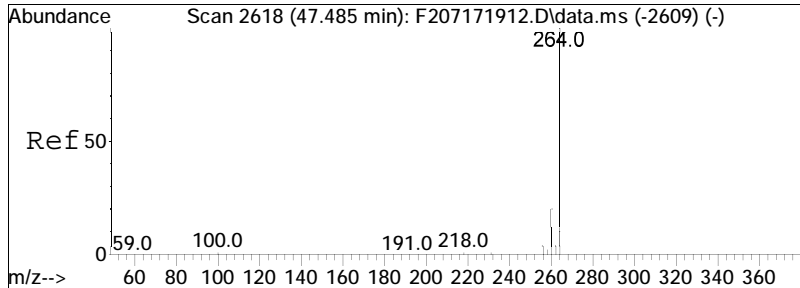




#78
 C1-Chrysenes
 Concen: 5930.45 ng/mL M5
 RT: 45.015 min Scan# 2454
 Delta R.T. 0.034 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

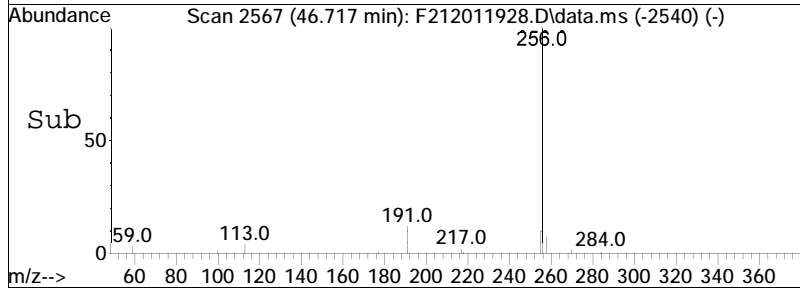
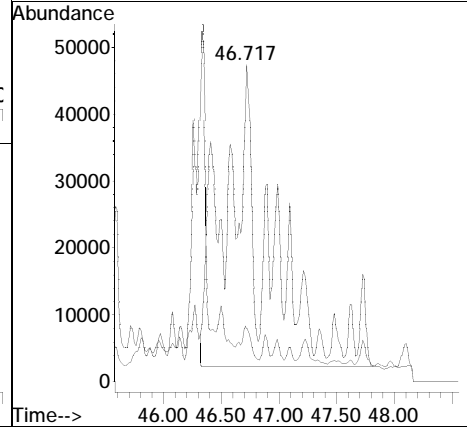
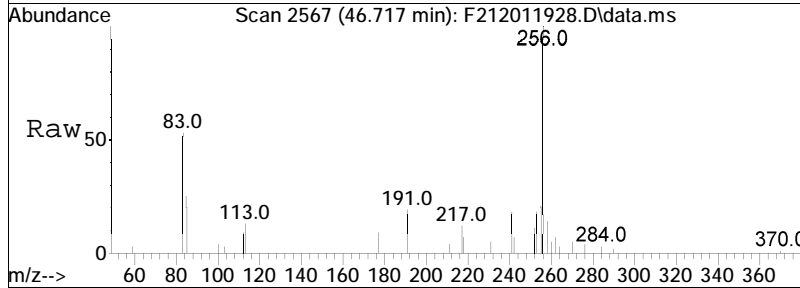
Tgt Ion: 242 Resp: 1988952
 Ion Ratio Lower Upper
 242 100
 241 3.6 31.3 58.1#

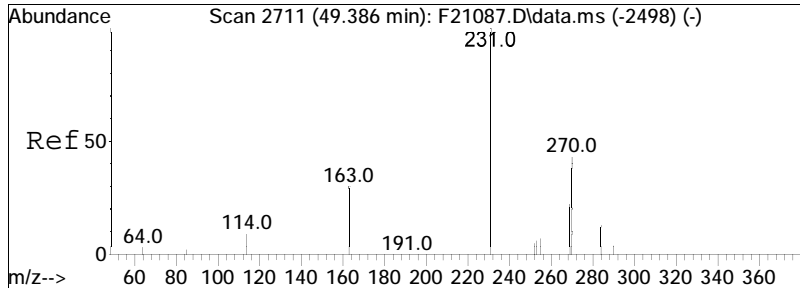




#79
 C2-Chrysenes
 Concen: 3568.02 ng/mL M5
 RT: 46.717 min Scan# 2567
 Delta R.T. -0.359 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

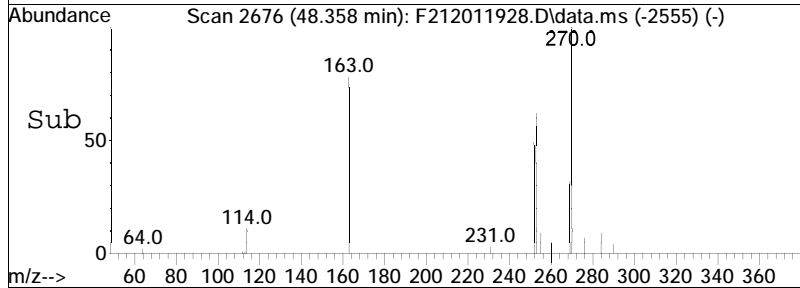
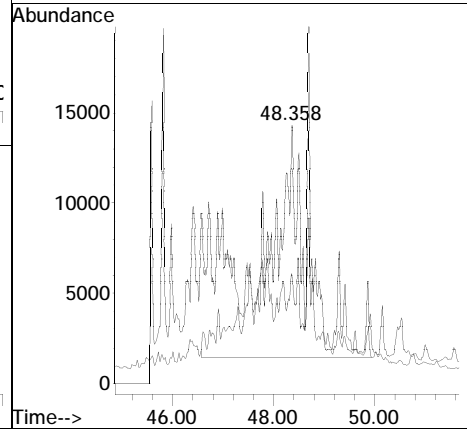
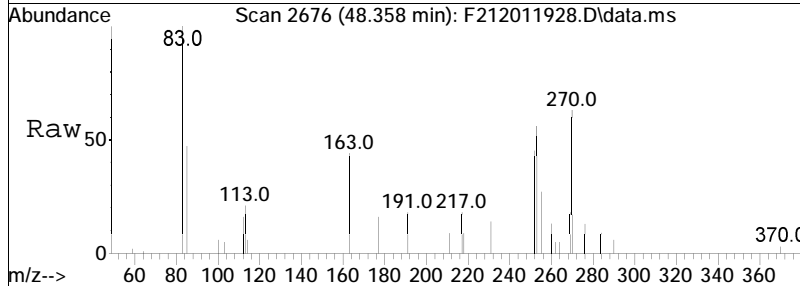
Tgt Ion	Resp	Lower	Upper
256	100		
241	1.6	25.6	47.4#

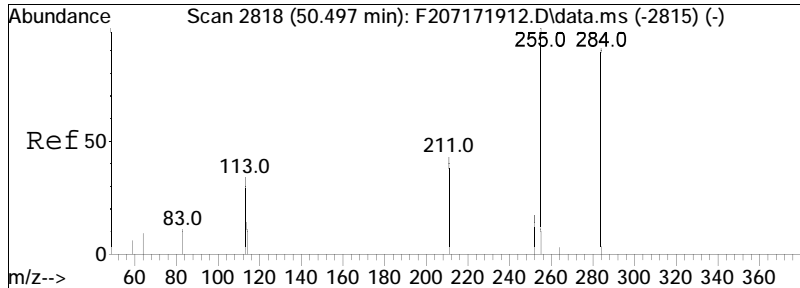




#81
 C3-Chrysenes
 Concen: 2019.85 ng/mL M5
 RT: 48.358 min Scan# 2676
 Delta R.T. -1.487 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

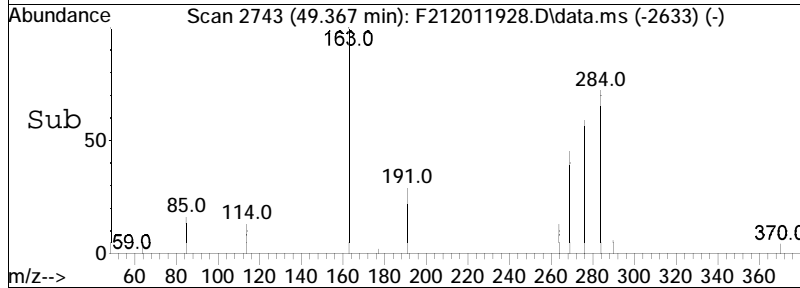
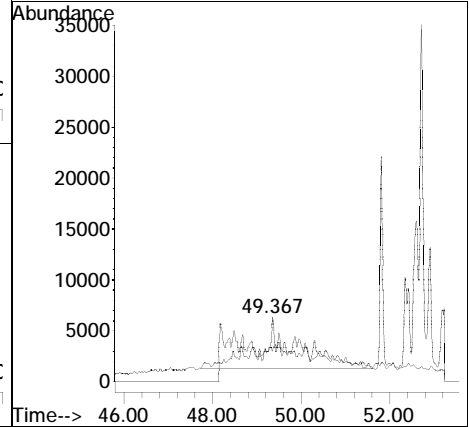
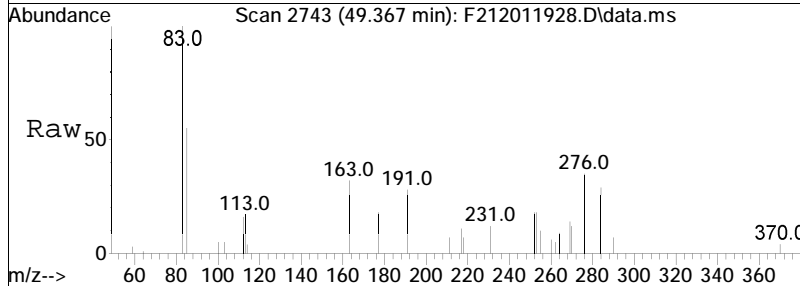
Tgt Ion	Ratio	Lower	Upper
270	100		
255	0.3	38.4	71.4#

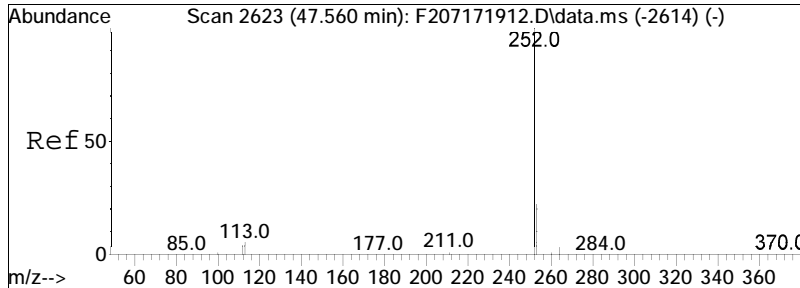




#82
 C4-Chrysenes
 Concen: 883.04 ng/mL M5
 RT: 49.367 min Scan# 2743
 Delta R.T. -0.583 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

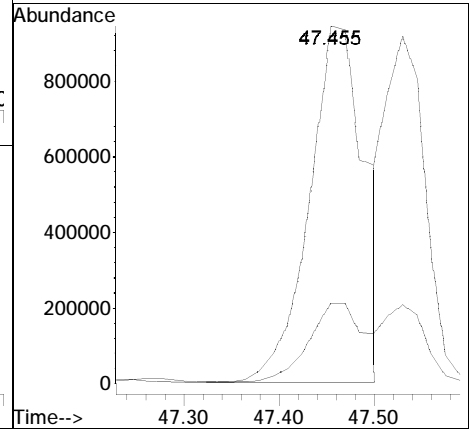
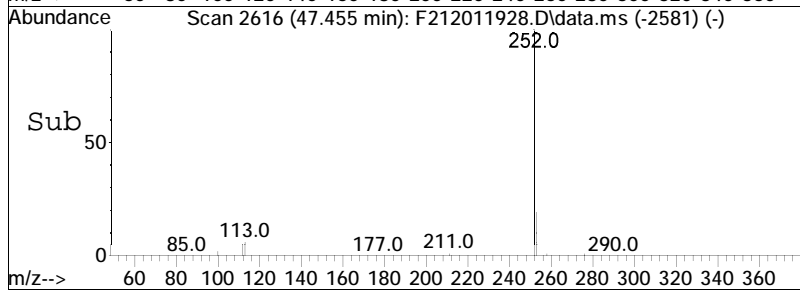
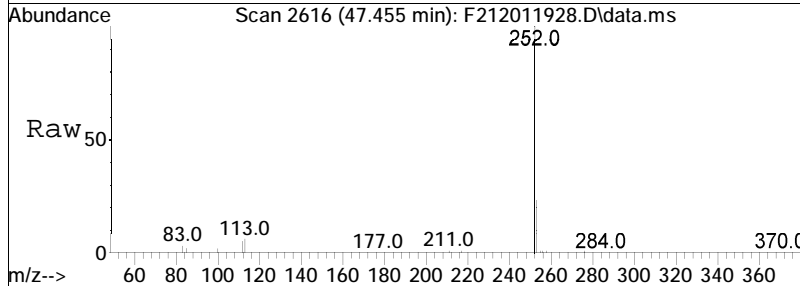
Tgt Ion	Ratio	Lower	Upper
284	100		
269	0.0	57.2	106.2#

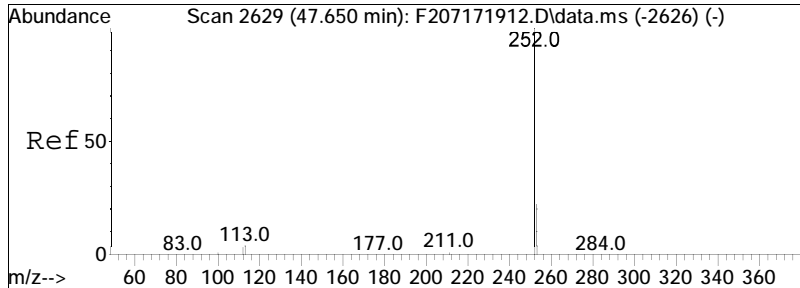




#84
 Benzo[b]fluoranthene
 Concen: 9603.07 ng/mL
 RT: 47.455 min Scan# 2616
 Delta R.T. 0.033 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

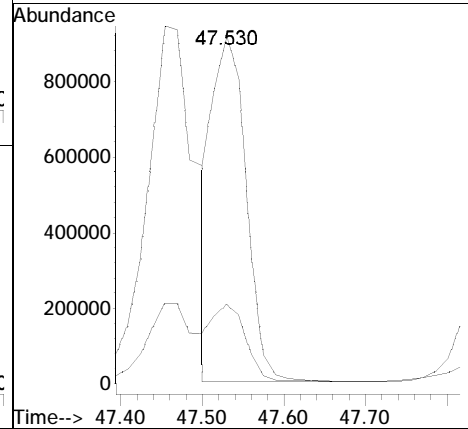
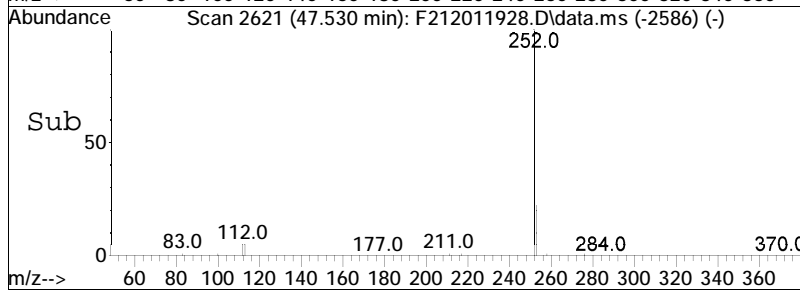
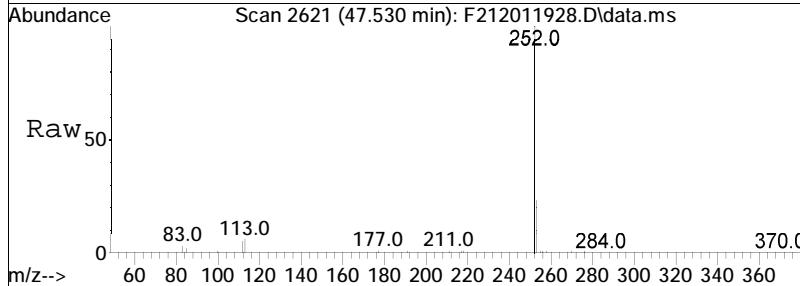
Tgt Ion: 252 Resp: 3829949
 Ion Ratio Lower Upper
 252 100
 253 22.3 16.4 30.4

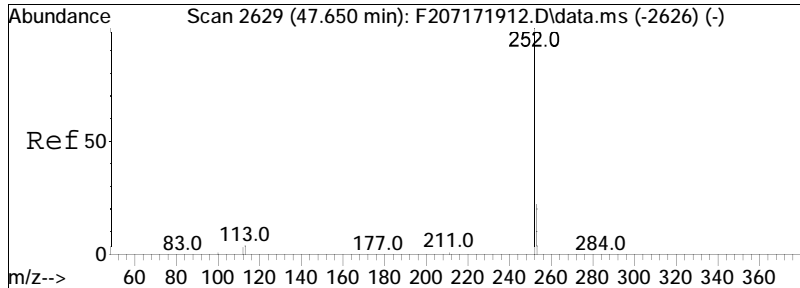




#85
 Benzo[j]+[k]fluoranthene
 Concen: 6568.76 ng/mL
 RT: 47.530 min Scan# 2621
 Delta R.T. 0.033 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

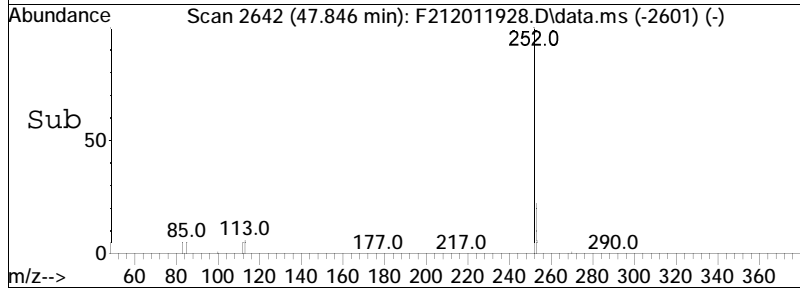
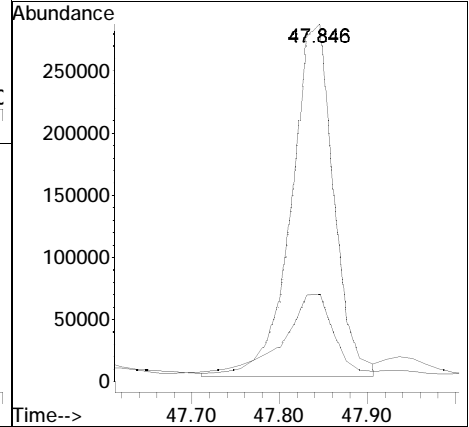
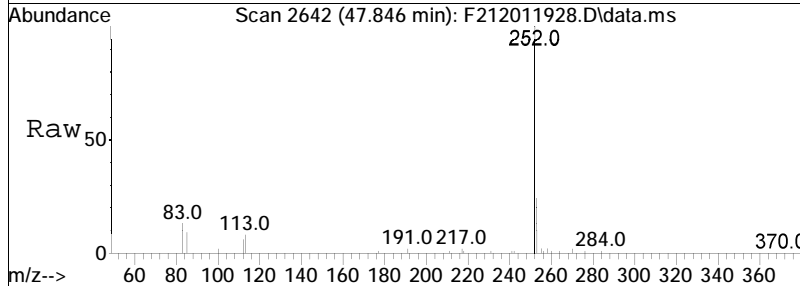
Tgt Ion: 252 Resp: 2635532
 Ion Ratio Lower Upper
 252 100
 253 22.4 16.4 30.4

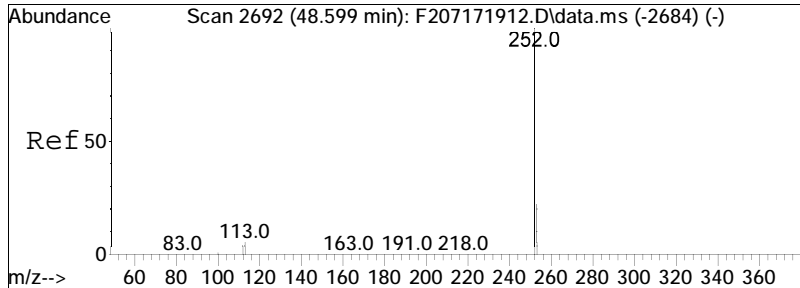




#86
 Benzo[a]fluoranthene
 Concen: 2332.51 ng/mL
 RT: 47.846 min Scan# 2642
 Delta R.T. 0.117 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

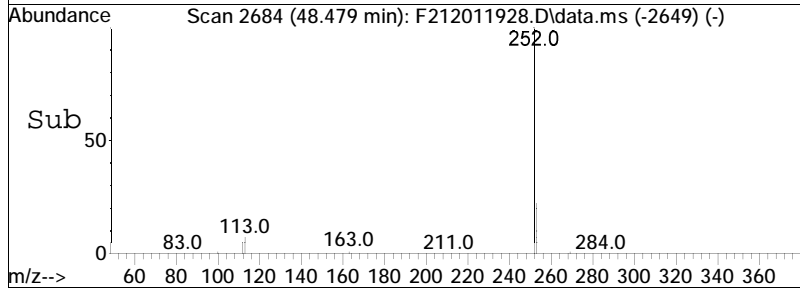
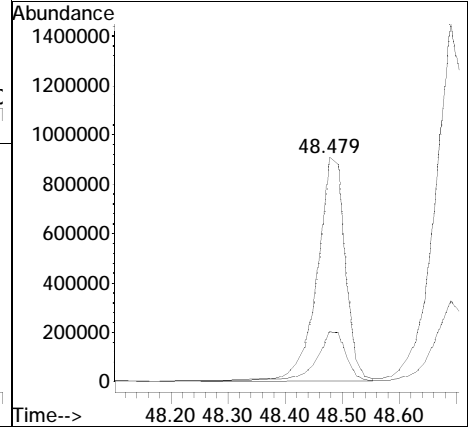
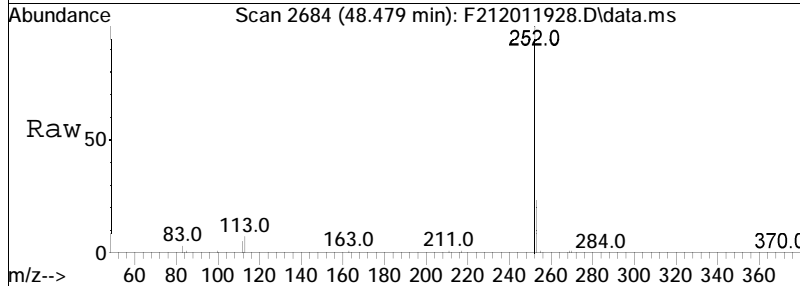
Tgt Ion	Resp	Lower	Upper
252	100		
253	26.0	96.2	178.8#

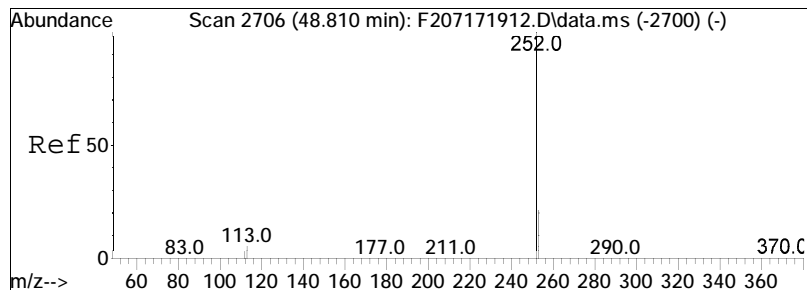




#87
 Benzo[e]pyrene
 Concen: 7942.78 ng/mL
 RT: 48.479 min Scan# 2684
 Delta R.T. 0.033 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

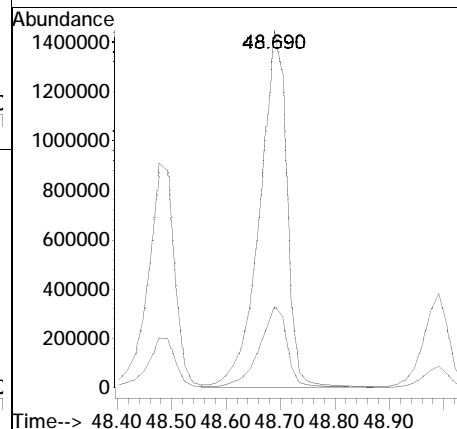
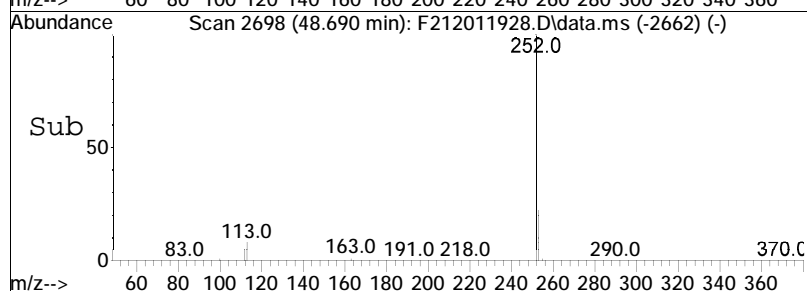
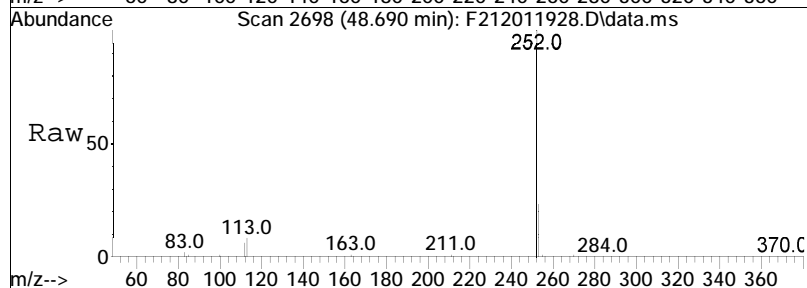
Tgt Ion: 252 Resp: 3042693
 Ion Ratio Lower Upper
 252 100
 253 23.6 16.6 30.8

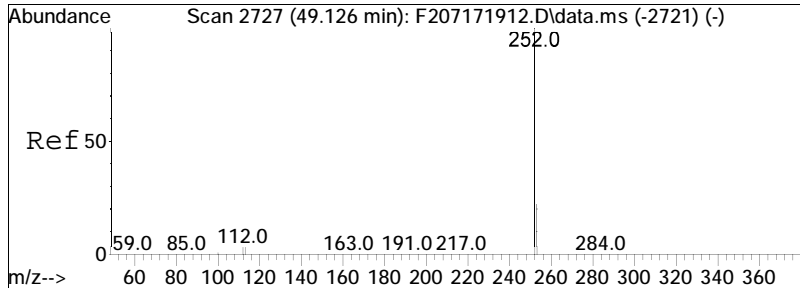




#89
 Benzo[a]pyrene
 Concen: 14213.96 ng/mL
 RT: 48.690 min Scan# 2698
 Delta R.T. 0.049 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

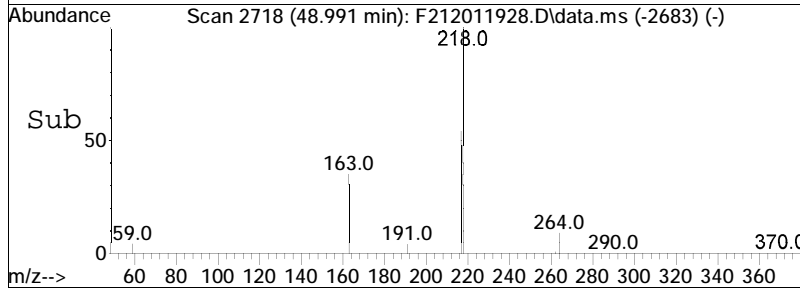
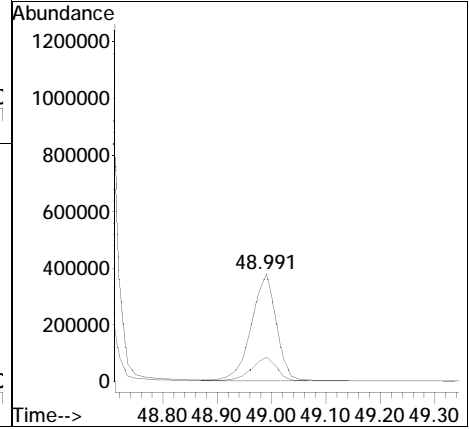
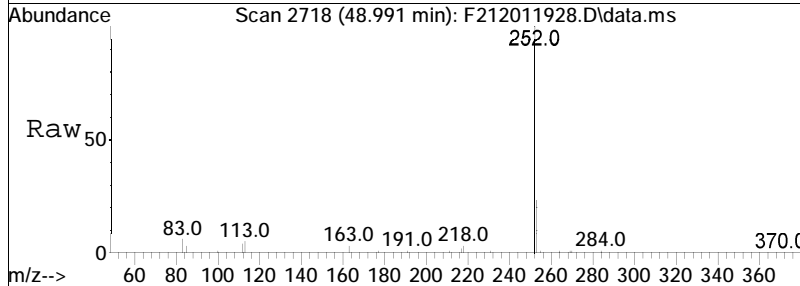
Tgt Ion: 252 Resp: 4984625
 Ion Ratio Lower Upper
 252 100
 253 22.7 16.7 31.1

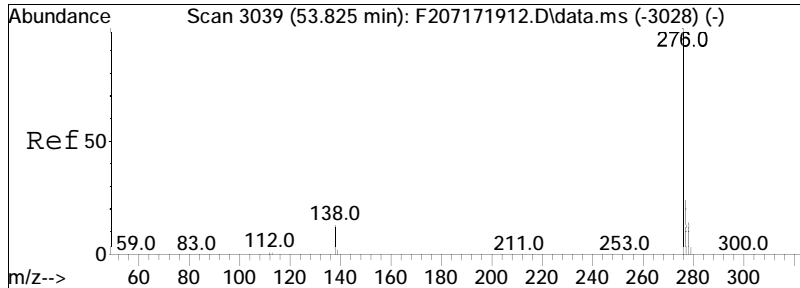




#90
 Perylene
 Concen: 3510.99 ng/mL
 RT: 48.991 min Scan# 2718
 Delta R.T. 0.034 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

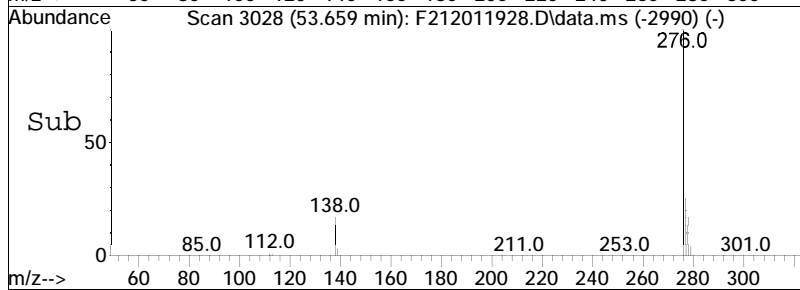
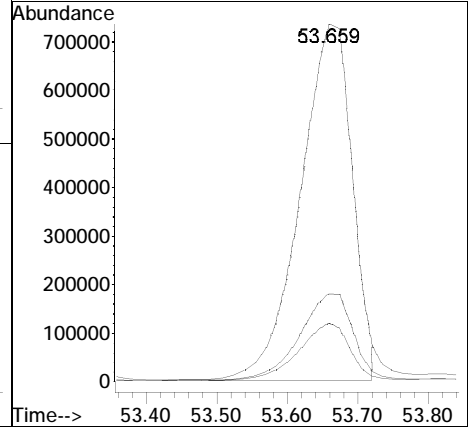
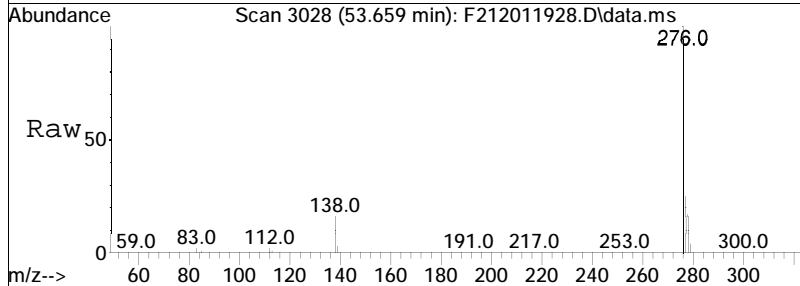
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.1	17.1	31.7

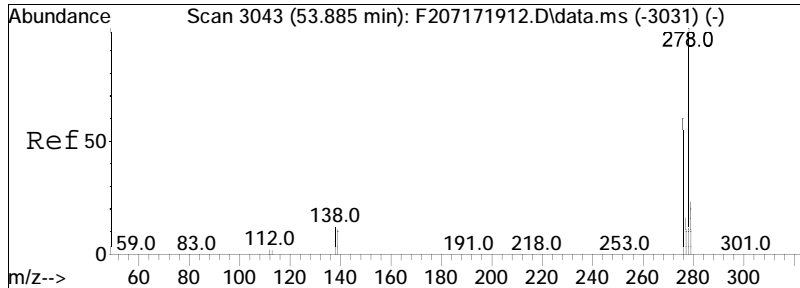




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 8987.25 ng/mL M4
 RT: 53.659 min Scan# 3028
 Delta R.T. 0.067 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

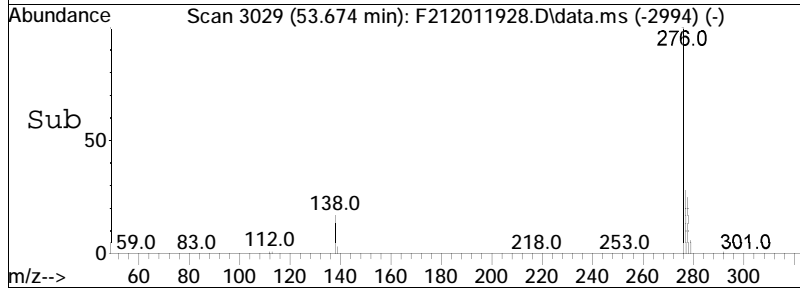
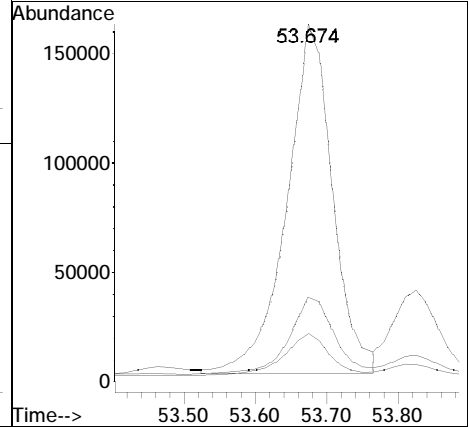
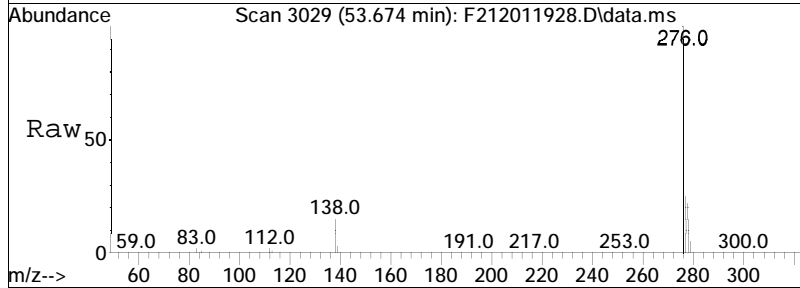
Tgt Ion	Resp	Lower	Upper
276	100		
138	15.7	11.3	20.9
277	25.7	16.8	31.2

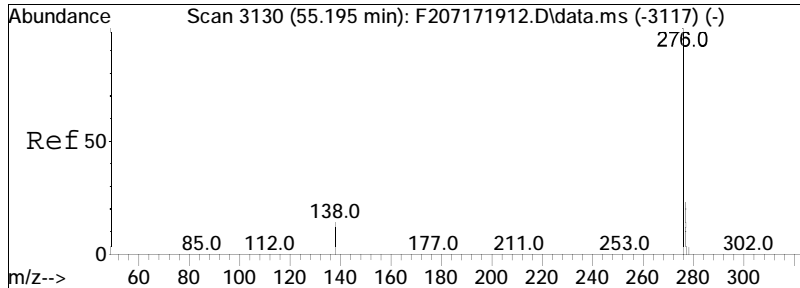




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 1865.94 ng/mL
 RT: 53.674 min Scan# 3029
 Delta R.T. 0.022 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

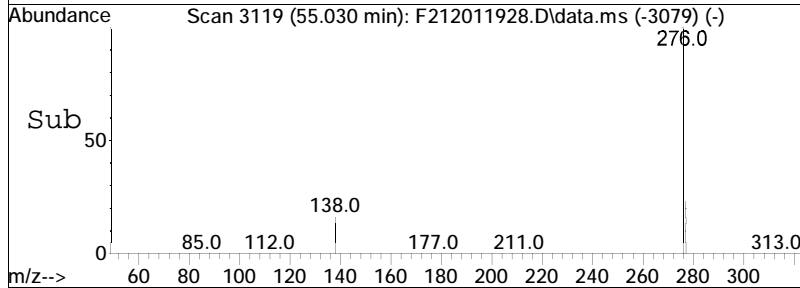
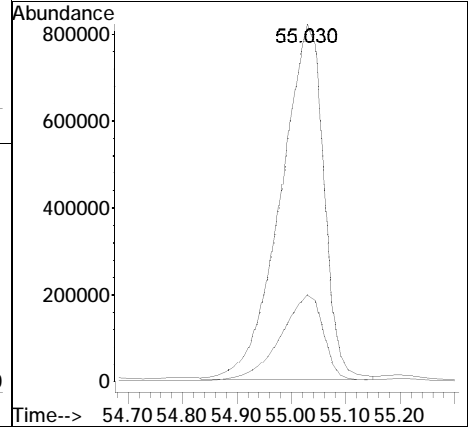
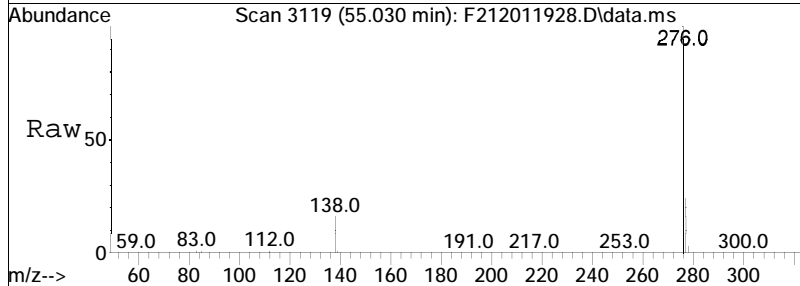
Tgt Ion	Ratio	Lower	Upper
278	100		
139	11.3	9.2	17.2
279	21.1	16.6	30.8





#93
 Benzo[g,h,i]perylene
 Concen: 10742.10 ng/mL
 RT: 55.030 min Scan# 3119
 Delta R.T. 0.098 min
 Lab File: F212011928.D
 Acq: 4 Dec 2019 2:30 am

Tgt Ion: 276 Resp: 4479556
 Ion Ratio Lower Upper
 276 100
 277 24.1 16.5 30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011932.D
 Acq On : 4 Dec 2019 8:19 am
 Operator : PAH2:MJS
 Sample : L1954309-06
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 10 14:11:26 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.919	164	89117M4	500.000	ng/mL	-0.02
74) Chrysene-d12	43.449	240	139880	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.948	136	98685	300.392	ng/mL	-0.01
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	30.04%#	
40) Phenanthrene-d10	32.805	188	113937	394.446	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	39.44%#	
83) Benzo[b]fluoranthene-d12	47.364	264	111358	406.529	ng/mL	0.03
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	40.65%#	
88) Benzo[a]pyrene-d12	48.584	264	70492	332.955	ng/mL	0.03
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	33.30%#	
Target Compounds						
2) trans-Decalin	16.576	138	180	2.620	ng/mL	100
3) cis-Decalin	0.000		0	N.D.	d	
4) C1-Decalins	18.217	152	644M5	9.374	ng/mL	
5) C2-Decalins	0.000		0	N.D.	d	
6) C3-Decalins	0.000		0	N.D.	d	
7) C4-Decalins	0.000		0	N.D.	d	
9) Naphthalene	20.039	128	159435	436.505	ng/mL	100
10) C1-Naphthalenes	23.155	142	320347M5	877.053	ng/mL	
11) C2-Naphthalenes	25.579	156	217609M5	595.775	ng/mL	
12) C3-Naphthalenes	27.927	170	54937M5	150.408	ng/mL	
13) C4-Naphthalenes	30.682	184	13253M5	36.284	ng/mL	
14) 2-Methylnaphthalene	22.748	142	31002	128.653	ng/mL	100
15) 1-Methylnaphthalene	23.155	142	292041	1261.726	ng/mL	100
16) Benzothiophene	20.249	134	54124	190.096	ng/mL	100
17) C1-Benzo(b)thiophenes	22.598	148	97339M5	341.877	ng/mL	
18) C2-Benzo(b)thiophenes	25.293	162	49938M5	175.394	ng/mL	
19) C3-Benzo(b)thiophenes	27.400	176	14850M5	52.157	ng/mL	
20) C4-Benzo(b)thiophenes	28.996	190	3683M5	12.936	ng/mL	
21) Biphenyl	24.630	154	11691	39.862	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.247	156	49664	230.320	ng/mL	100
23) Dibenzofuran	27.716	168	30434	97.607	ng/mL	95
24) Acenaphthylene	26.316	152	38257	106.366	ng/mL	100
25) Acenaphthene	27.054	153	857783	3819.222	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	28.605	170	4059M3	20.607	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011932.D
 Acq On : 4 Dec 2019 8:19 am
 Operator : PAH2:MJS
 Sample : L1954309-06
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 10 14:11:26 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.086	166	293601M4	1154.135	ng/mL	
28) C1-Fluorenes	31.314	180	23370M5	91.867	ng/mL	
29) C2-Fluorenes	33.392	194	8117M5	31.908	ng/mL	
30) C3-Fluorenes	36.222	208	5474M5	21.518	ng/mL	
31) Dibenzothiophene	32.413	184	178570	518.270	ng/mL	99
32) 4-Methyldibenzothiophene(	34.190	198	5530	16.050	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.506	198	3933M3	11.415	ng/mL	
34) 1-Methyldibenzothiophene(	34.958	198	2135	6.196	ng/mL	100
36) C1-Dibenzothiophenes	34.551	198	33970M5	98.592	ng/mL	
36) C1-Dibenzothiophenes BS	34.551	198	14768M5	42.862	ng/mL	
37) C2-Dibenzothiophenes	36.252	212	7245M5	21.027	ng/mL	
38) C3-Dibenzothiophenes	39.444	226	5286M5	15.342	ng/mL	
39) C4-Dibenzothiophenes	0.000		0	N.D.	d	
41) Phenanthrene	32.895	178	1293001	3527.865	ng/mL	100
42) 3-Methylphenanthrene(3MP)	34.867	192	22333	60.934	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.988	192	26761M4	73.016	ng/mL	
44) 2-Methylanthracene(2MA)	35.153	192	6563M3	17.907	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.319	192	17180M3	46.874	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.988	192	86833M5	236.918	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.870	206	36616M5	99.904	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.870	206	20932M5	57.112	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.993	220	9067M5	24.739	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.911	234	5783M5	15.779	ng/mL	
52) Retene	39.911	234	2448	19.511	ng/mL	91
53) Anthracene	33.091	178	149436	478.274	ng/mL	100
54) Carbazole	33.768	167	253247	866.373	ng/mL	99
55) 1-Methylphenanthrene	35.424	192	11961	43.578	ng/mL	97
56) Fluoranthene	37.698	202	318306	761.499	ng/mL	98
57) Benzo(b)fluorene	40.227	216	9216M3	35.045	ng/mL	
58) 7H-Benzo(c)fluorene	40.257	216	4178M3	15.887	ng/mL	
59) Pyrene	38.586	202	372720	858.722	ng/mL	96
60) 2-Methylpyrene	40.393	216	8571M3	19.747	ng/mL	
61) 4-Methylpyrene	40.754	216	7968M4	18.358	ng/mL	
62) 1-Methylpyrene	40.875	216	8665	19.964	ng/mL	71
63) C1-Fluoranthenes/Pyrenes	39.986	216	77155M5	177.760	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.658	230	18190M5	41.909	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.142	244	10717M5	24.691	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.157	258	6429M5	14.812	ng/mL	
67) Naphthobenzothiophene-2,1	42.456	234	13013	35.051	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011932.D
 Acq On : 4 Dec 2019 8:19 am
 Operator : PAH2:MJS
 Sample : L1954309-06
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 10 14:11:26 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.787	234	2818	7.590	ng/mL#	9
69) Naphthobenzothiophene-2,3	43.088	234	3662M3	9.864	ng/mL	
70) C1-Naphthobenzothiophenes	43.856	248	7575M5	20.404	ng/ml	
71) C2-Naphthobenzothiophenes	46.190	262	4985M5	13.427	ng/ml	
72) C3-Naphthobenzothiophenes	47.063	276	6455M5	17.387	ng/ml	
73) C4-Naphthobenzothiophenes	0.000		0	N.D.	d	
75) Benz[a]anthracene	43.389	228	61981M3	194.005	ng/mL	
76) Chrysene	43.540	228	80019	246.022	ng/mL	89
78) C1-Chrysenes	45.030	242	20309M5	62.441	ng/mL	
79) C2-Chrysenes	47.364	256	13127M5	40.360	ng/mL	
79) C2-Chrysenes BS	47.364	256	9234M5	28.390	ng/mL	
81) C3-Chrysenes	0.000		0	N.D.	d	
82) C4-Chrysenes	0.000		0	N.D.	d	
84) Benzo[b]fluoranthene	47.455	252	54033	139.699	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.515	252	51232	131.666	ng/mL	97
86) Benzo[a]fluoranthene	47.846	252	19238	49.442	ng/mL#	12
87) Benzo[e]pyrene	48.479	252	46863	126.143	ng/mL	96
89) Benzo[a]pyrene	48.675	252	74814	219.980	ng/mL	95
90) Perylene	48.991	252	285456	859.166	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.659	276	59572M3	147.239	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.690	278	10355M3	28.050	ng/mL	
93) Benzo[g,h,i]perylene	55.000	276	68771	170.050	ng/mL	100

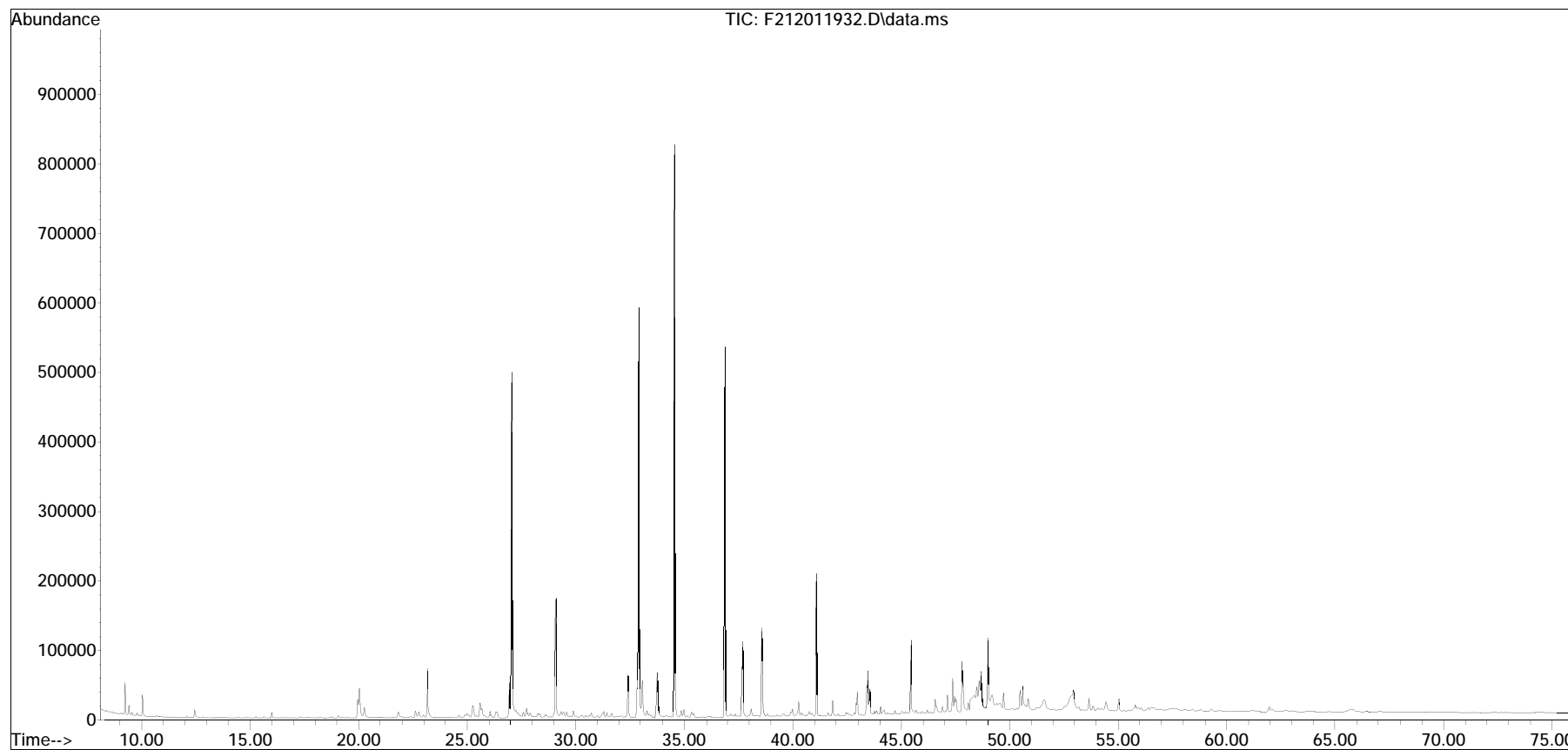
(#) = qualifier out of range (m) = manual integration (+) = signals summed

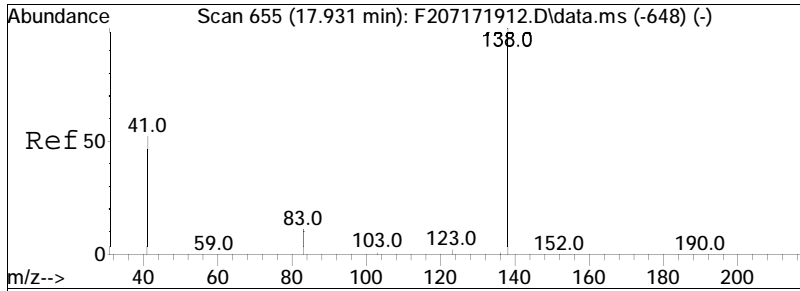
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011932.D
Acq On : 4 Dec 2019 8:19 am
Operator : PAH2:MJS
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Quant Time: Dec 10 14:11:26 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

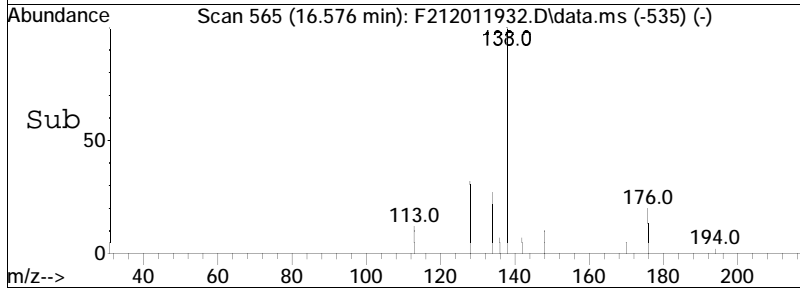
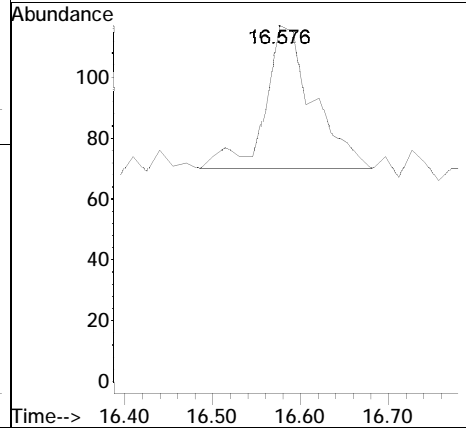
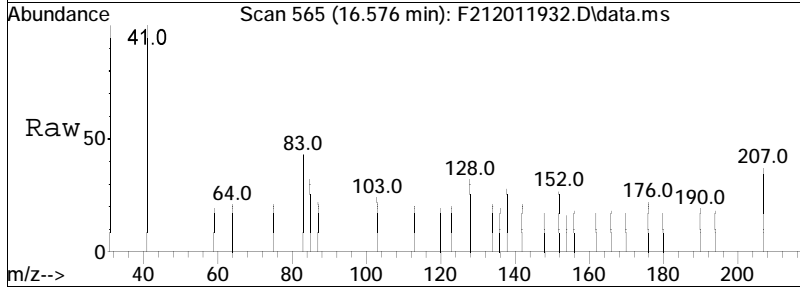
Sub List : ALKPAH - POI+MP+BcF

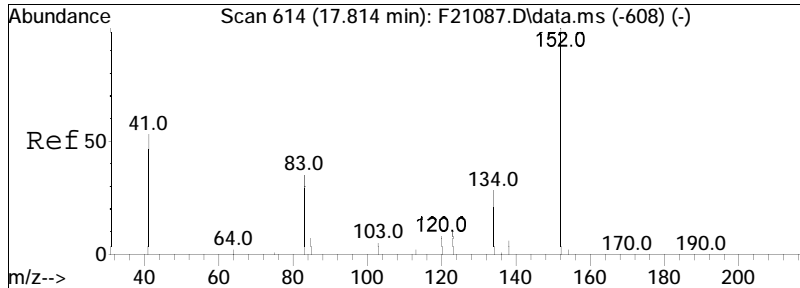




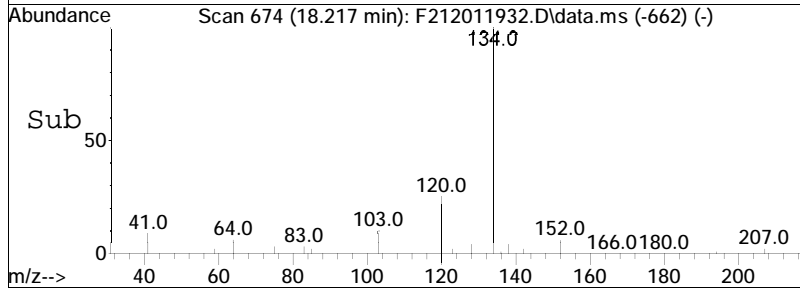
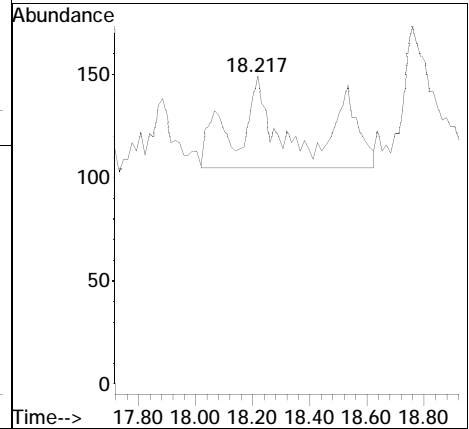
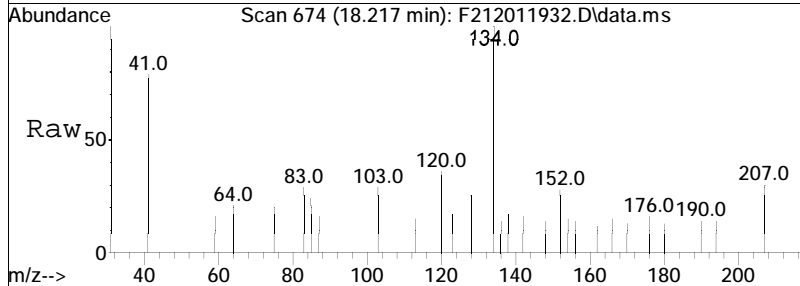
#2
 trans-Decalin
 Concen: 2.62 ng/mL
 RT: 16.576 min Scan# 565
 Delta R.T. -0.047 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

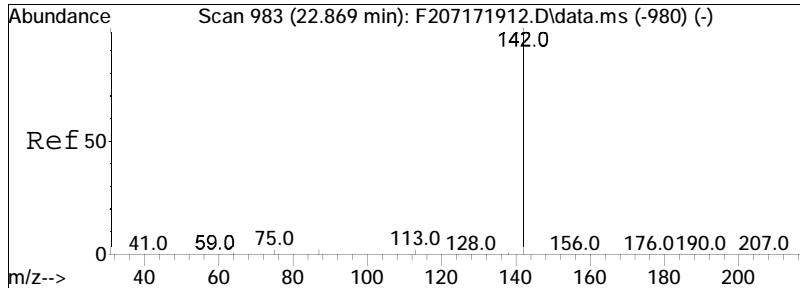
Tgt Ion: 138 Resp: 180



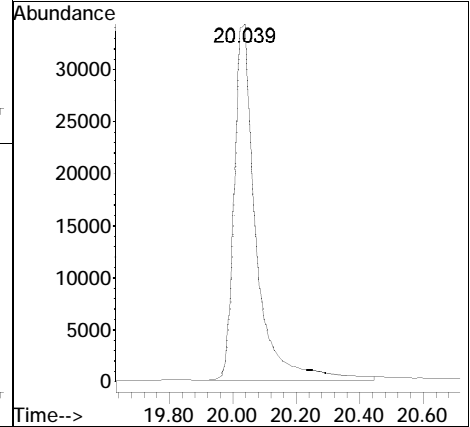
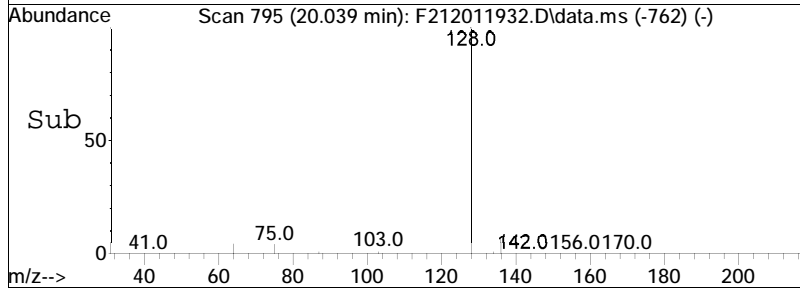
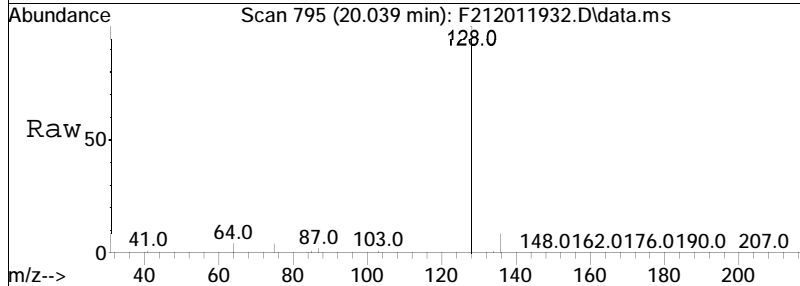


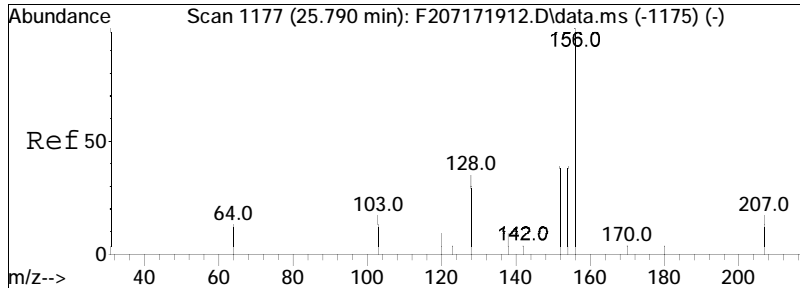
#4
 C1-Decalins
 Concen: 9.37 ng/mL M5
 RT: 18.217 min Scan# 674
 Delta R.T. -0.345 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:152 Resp: 644



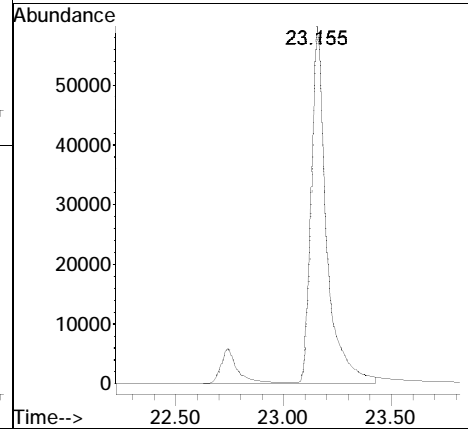
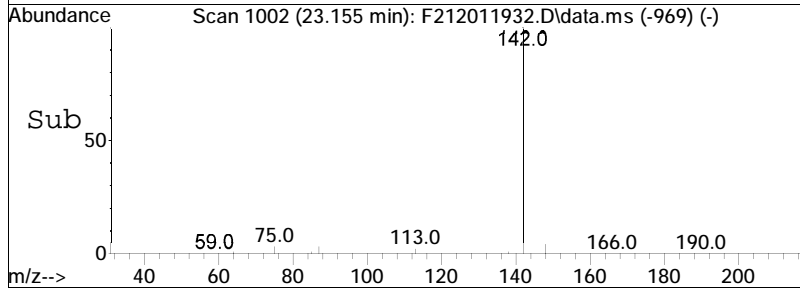
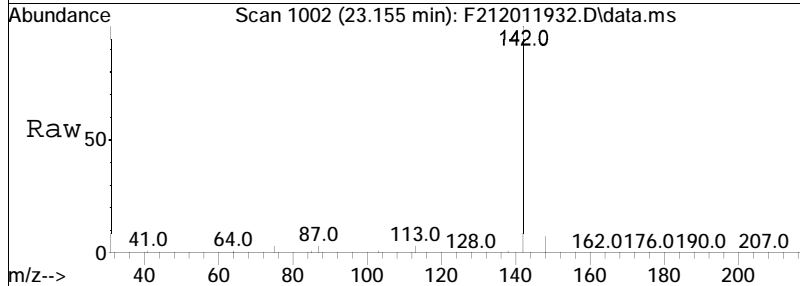


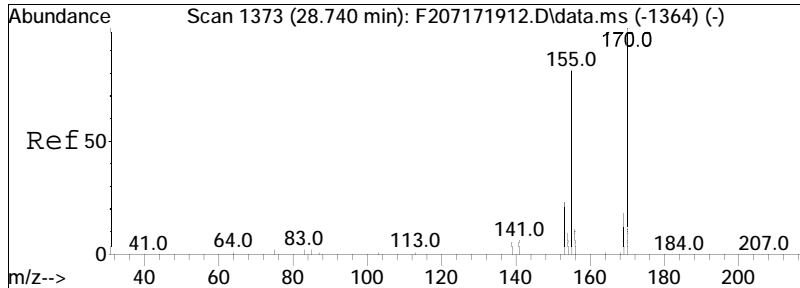
#9
 Naphthalene
 Concen: 436.50 ng/mL
 RT: 20.039 min Scan# 795
 Delta R.T. 0.003 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:128 Resp: 159435



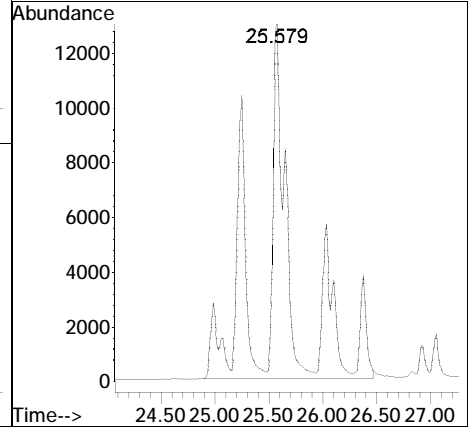
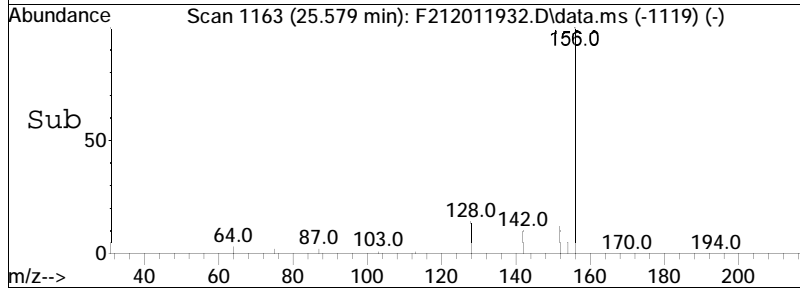
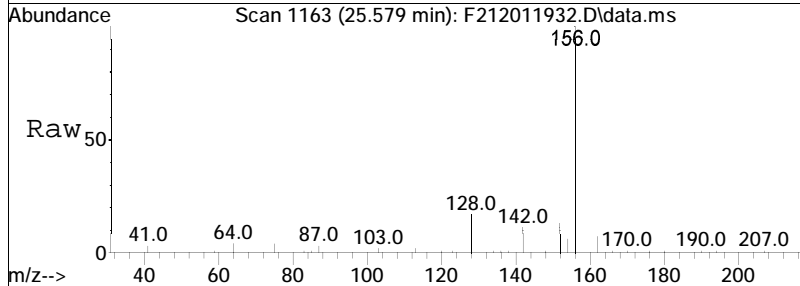


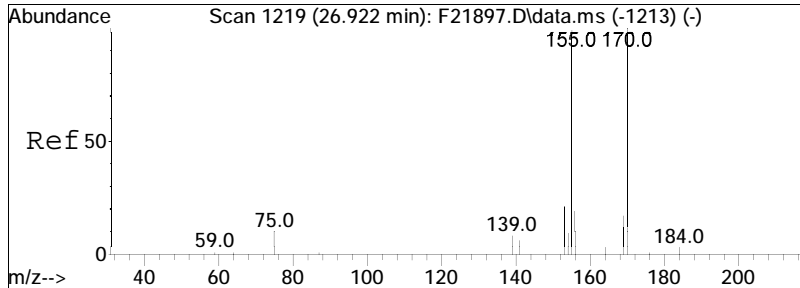
#10
 Cl-Naphthalenes
 Concen: 877.05 ng/mL M5
 RT: 23.155 min Scan# 1002
 Delta R.T. 0.424 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:142 Resp: 320347





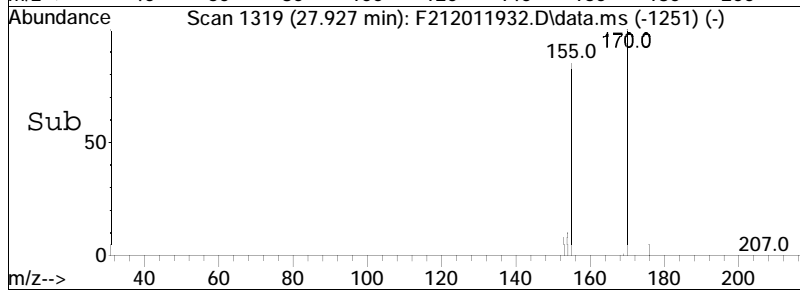
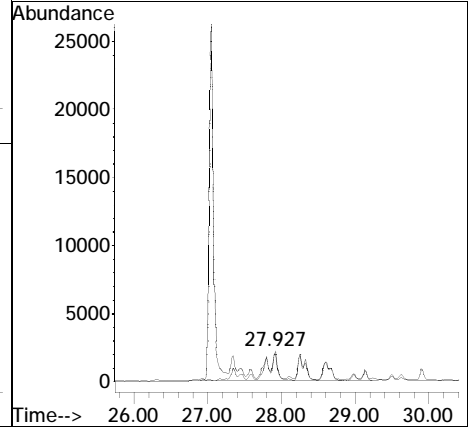
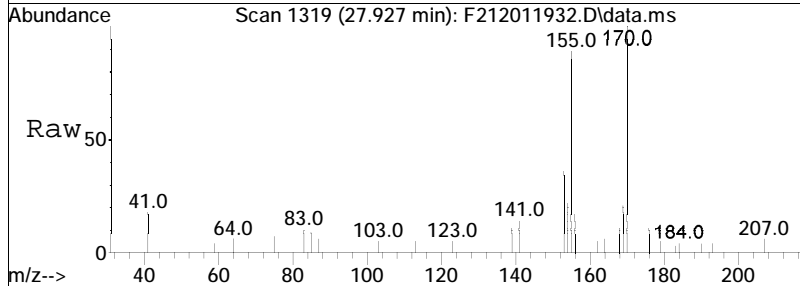
#11
 C2-Naphthalenes
 Concen: 595.77 ng/mL M5
 RT: 25.579 min Scan# 1163
 Delta R.T. -0.006 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:156 Resp: 217609

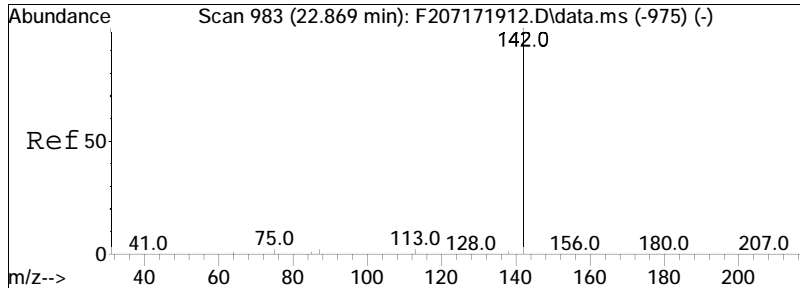




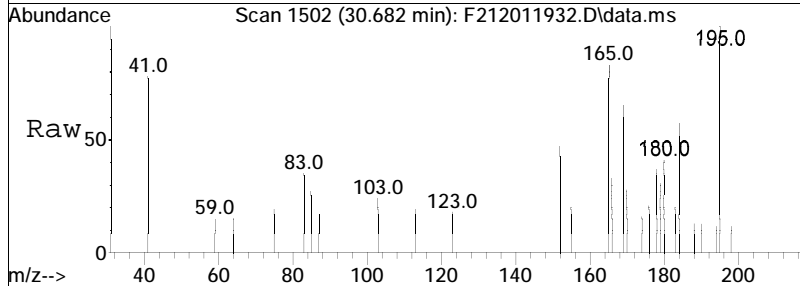
#12
 C3-Naphthalenes
 Concen: 150.41 ng/mL M5
 RT: 27.927 min Scan# 1319
 Delta R.T. 0.019 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

Tgt Ion	Resp	Lower	Upper
170	100		
155	14.4	66.8	124.0#

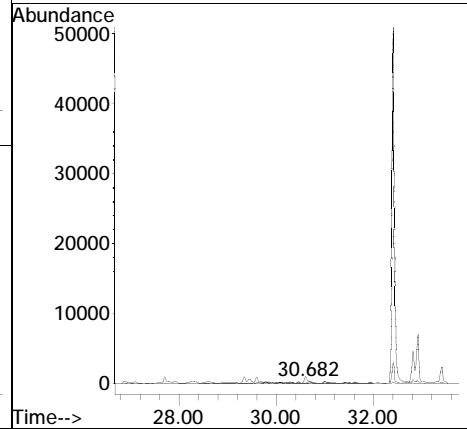
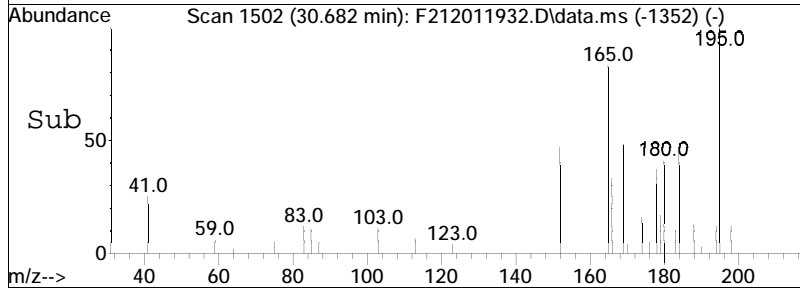


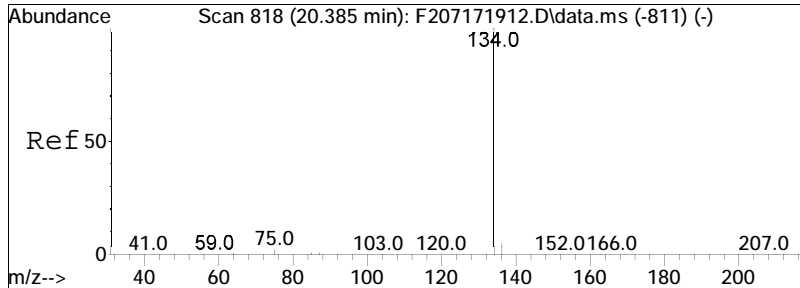


#13
 C4-Naphthalenes
 Concen: 36.28 ng/mL M5
 RT: 30.682 min Scan# 1502
 Delta R.T. 0.017 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

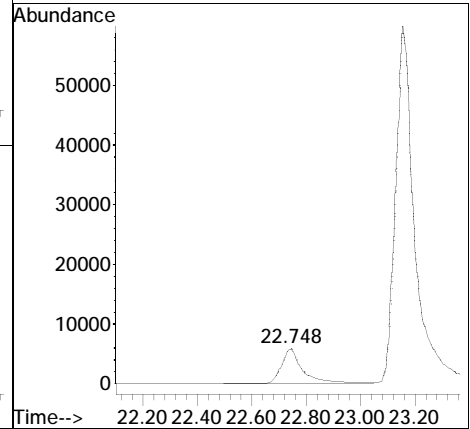
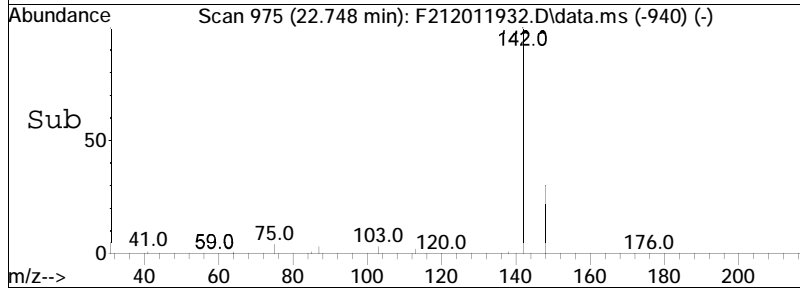
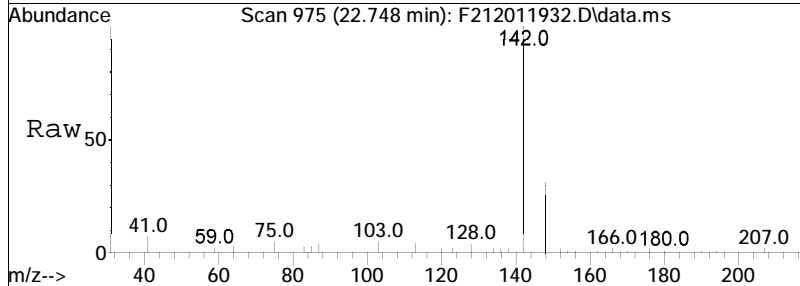


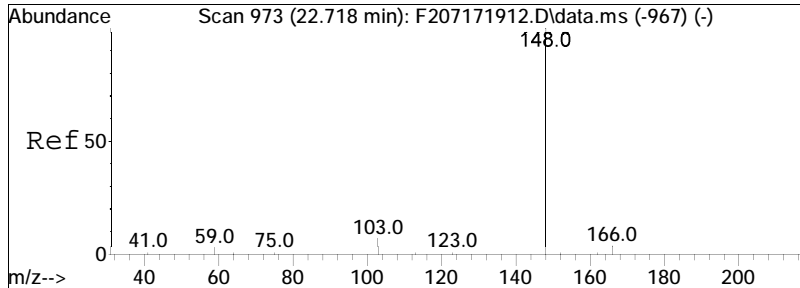
Tgt Ion	Ratio	Resp	Lower	Upper
184	100	13253		
169	8.1		65.7	121.9#
183	2.0		22.5	41.9#



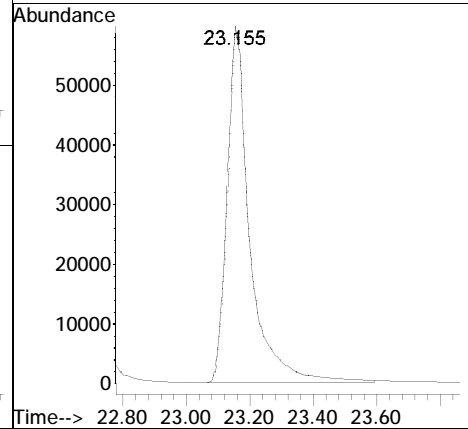
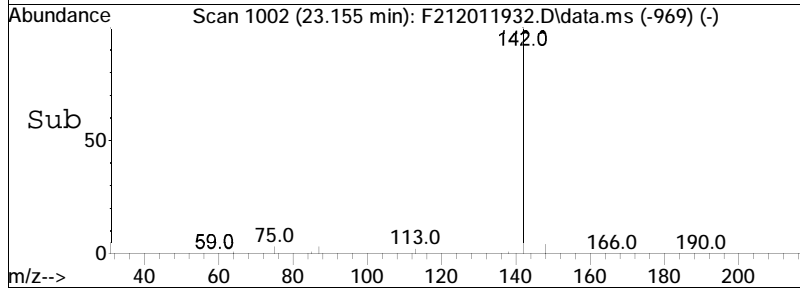
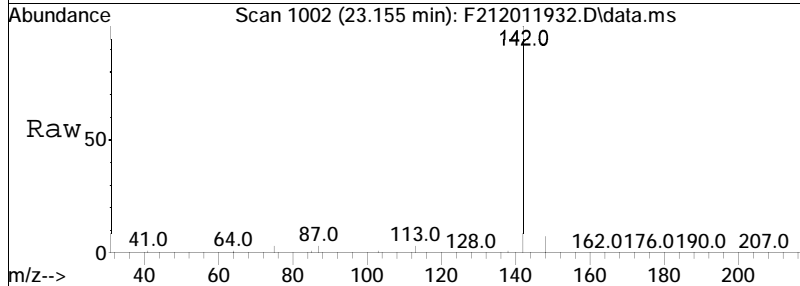


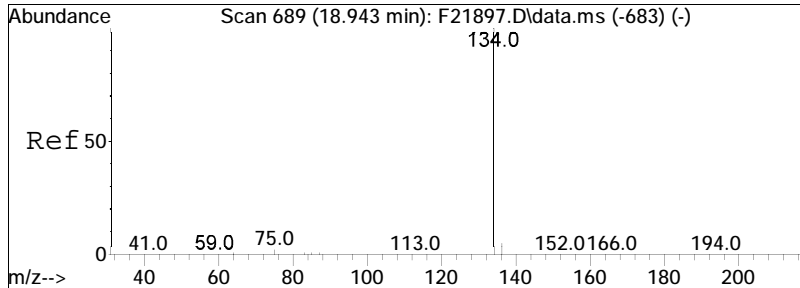
#14
 2-Methylnaphthalene
 Concen: 128.65 ng/mL
 RT: 22.748 min Scan# 975
 Delta R.T. 0.023 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:142 Resp: 31002



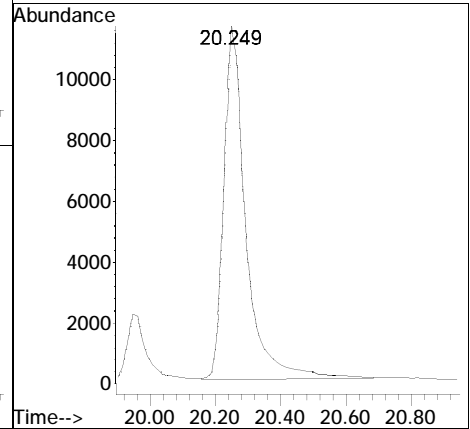
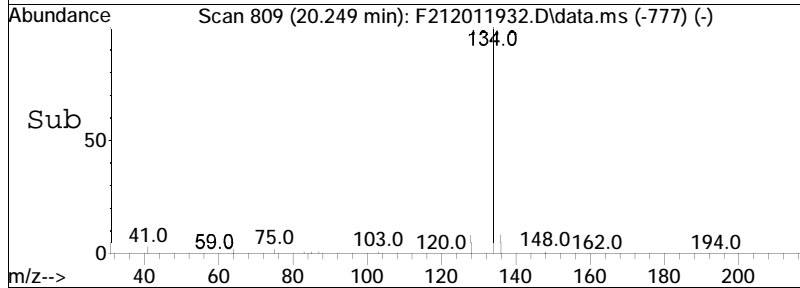
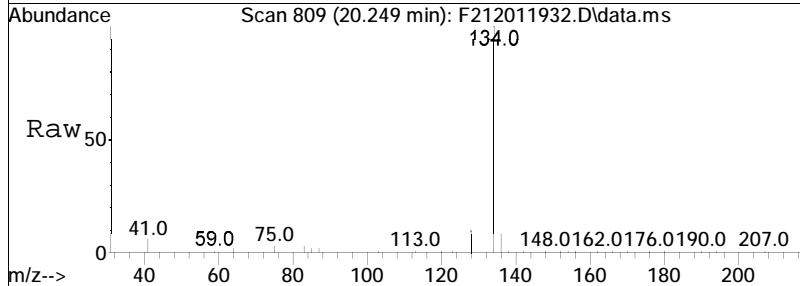


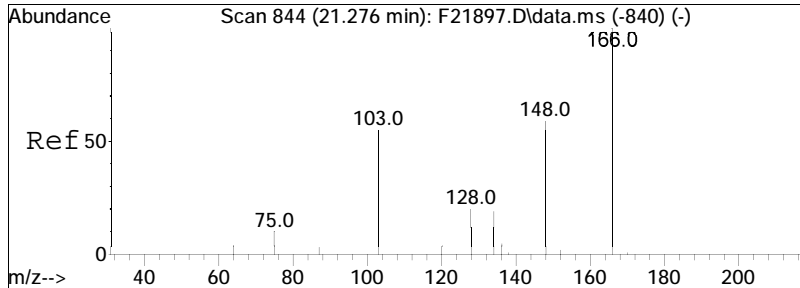
#15
 1-Methylnaphthalene
 Concen: 1261.73 ng/mL
 RT: 23.155 min Scan# 1002
 Delta R.T. -0.006 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:142 Resp: 292041



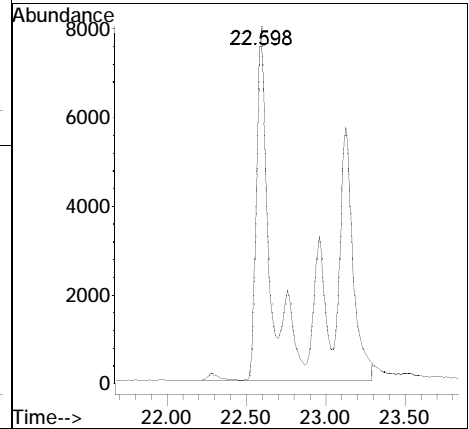
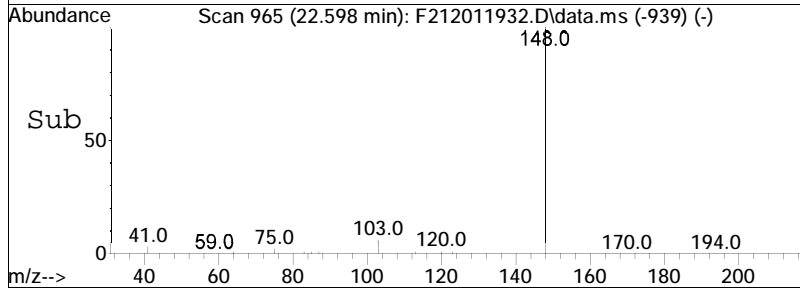
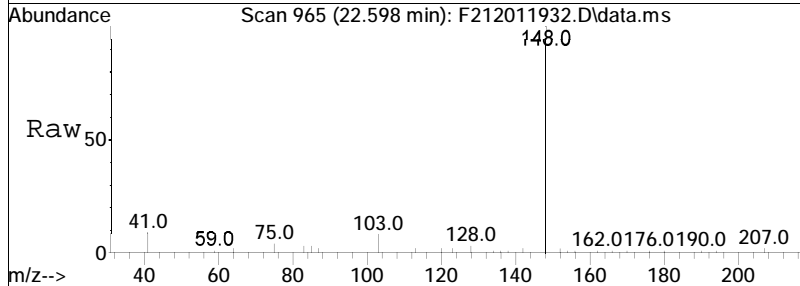


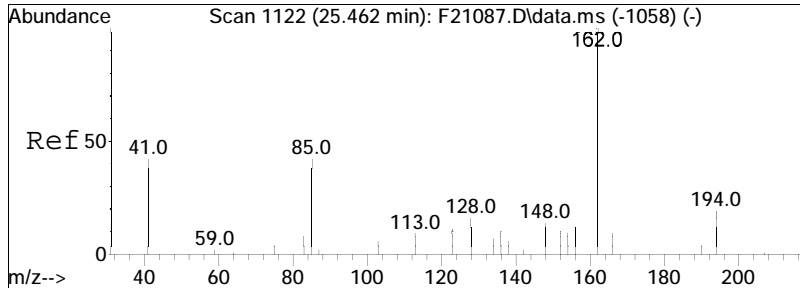
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 Benzothiophene
 Concen: 190.10 ng/mL
 RT: 20.249 min Scan# 809
 Delta R.T. -0.011 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:134 Resp: 54124



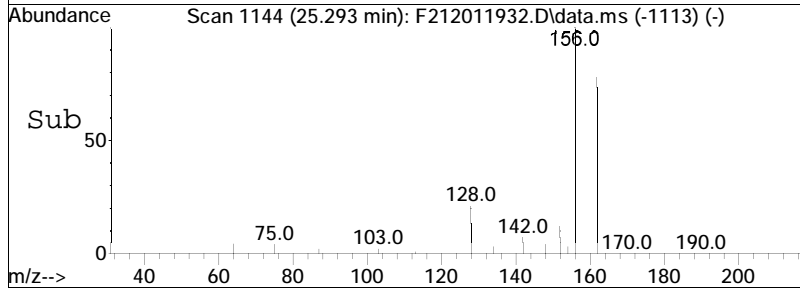
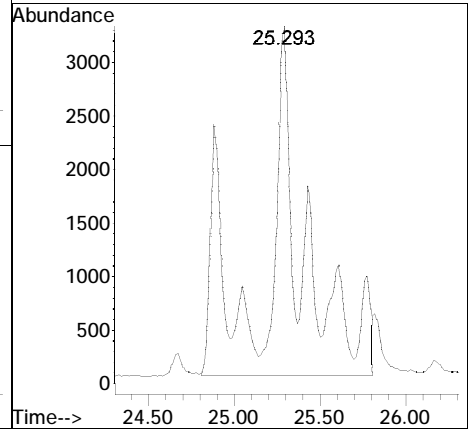
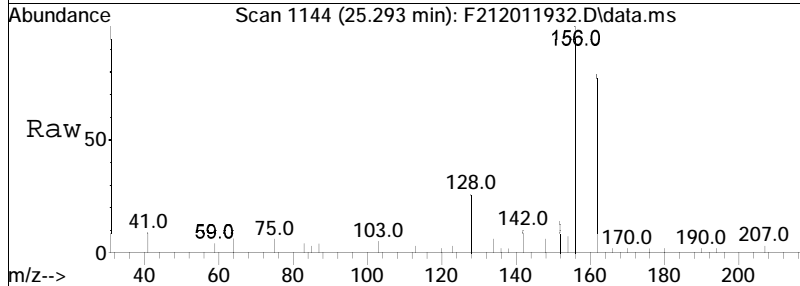


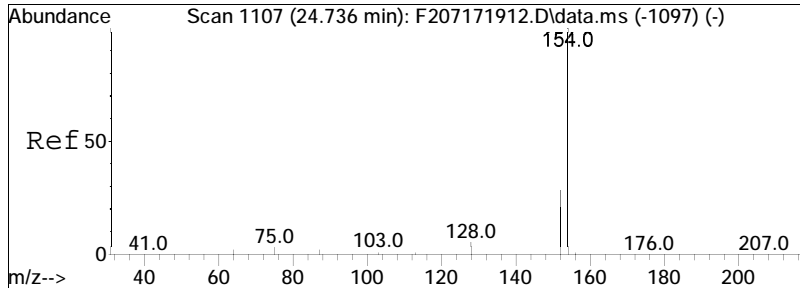
#17
 Cl-Benzo(b)thiophenes
 Concen: 341.88 ng/mL M5
 RT: 22.598 min Scan# 965
 Delta R.T. 0.295 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:148 Resp: 97339



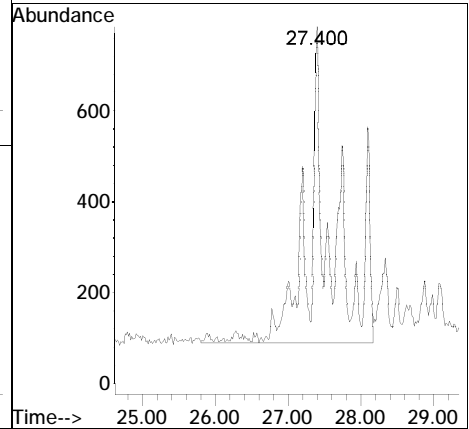
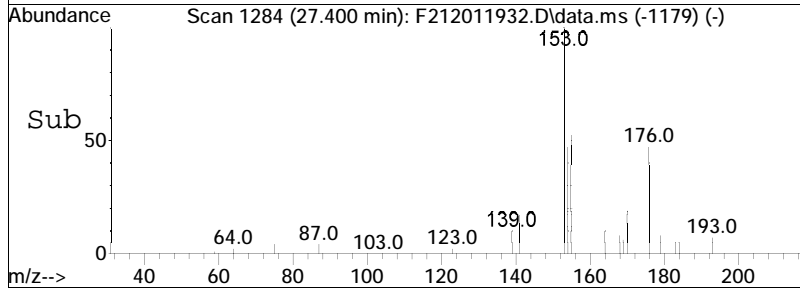
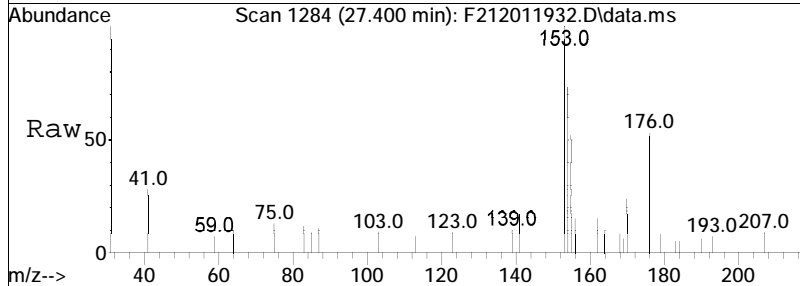


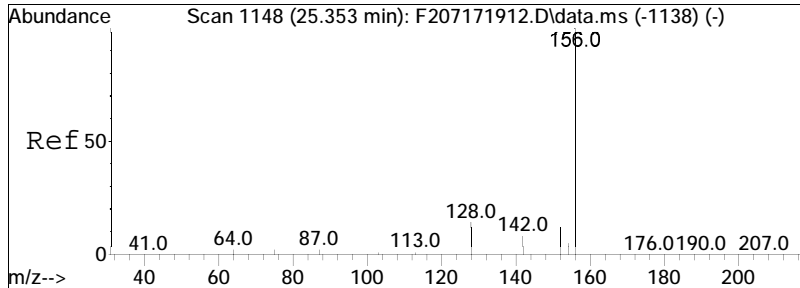
#18
 C2-Benzo(b)thiophenes
 Concen: 175.39 ng/mL M5
 RT: 25.293 min Scan# 1144
 Delta R.T. -0.487 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:162 Resp: 49938



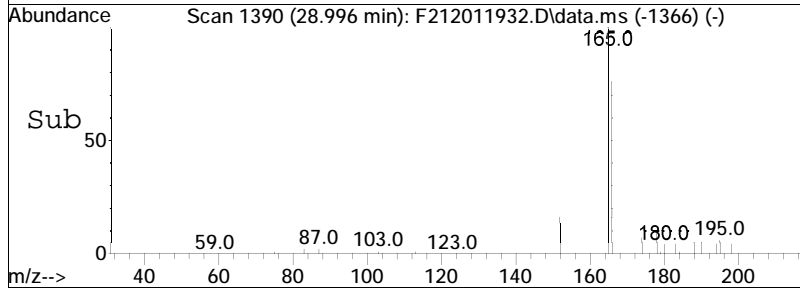
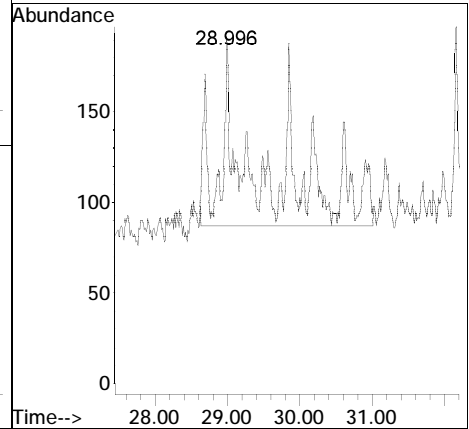
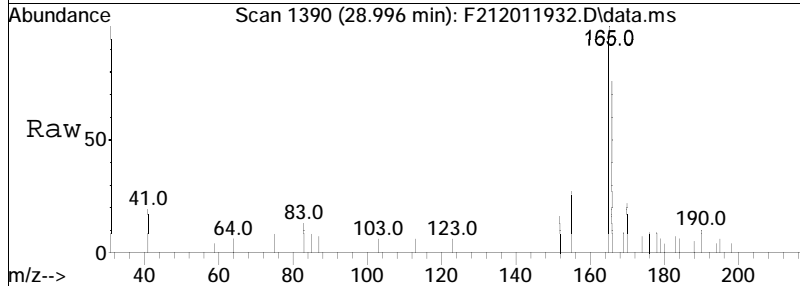


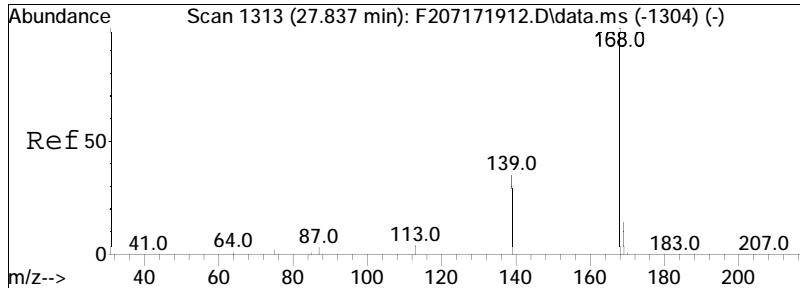
#19
 C3-Benzo(b)thiophenes
 Concen: 52.16 ng/mL M5
 RT: 27.400 min Scan# 1284
 Delta R.T. -0.343 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:176 Resp: 14850



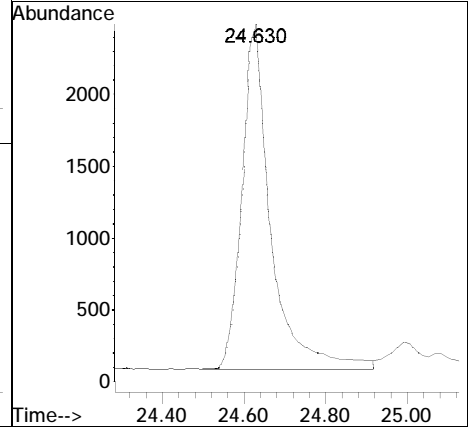
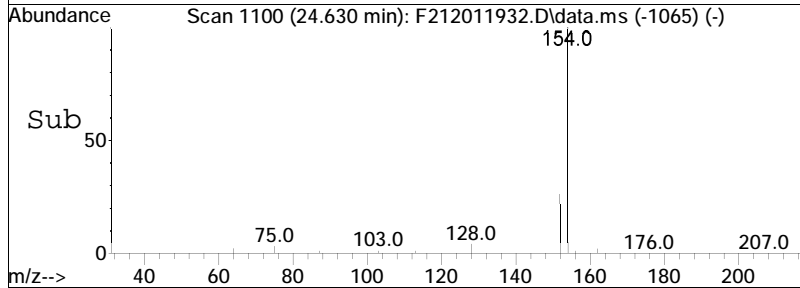
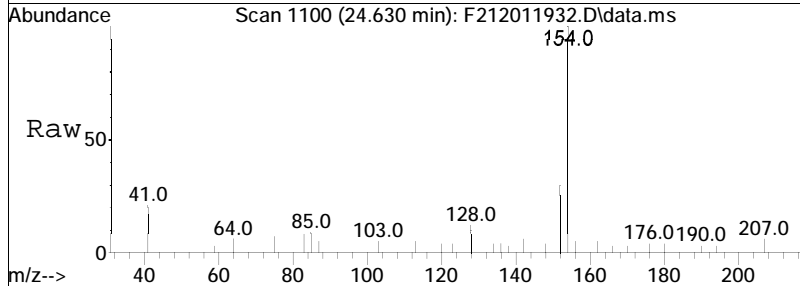


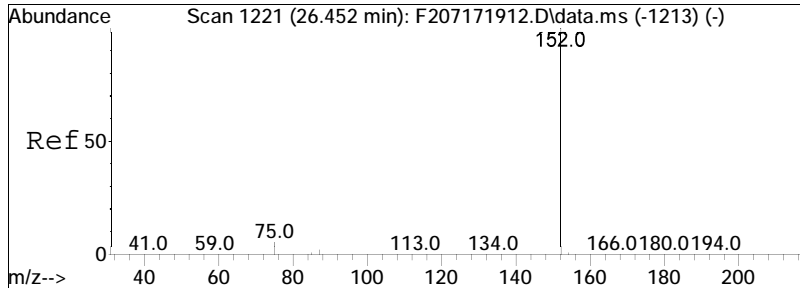
#20
 C4-Benzo(b)thiophenes
 Concen: 12.94 ng/mL M5
 RT: 28.996 min Scan# 1390
 Delta R.T. -0.485 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:190 Resp: 3683



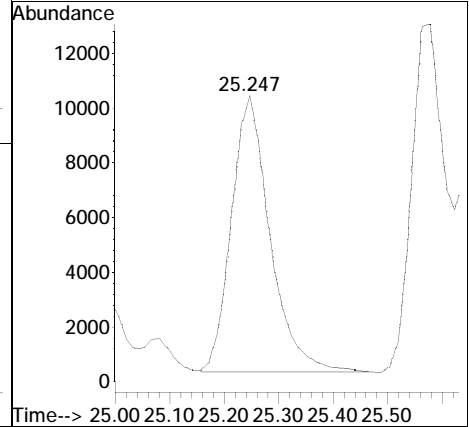
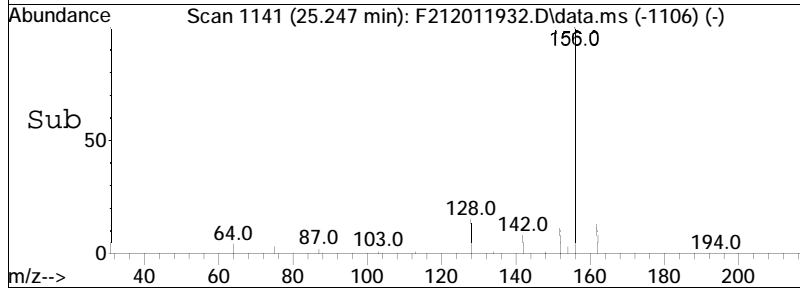
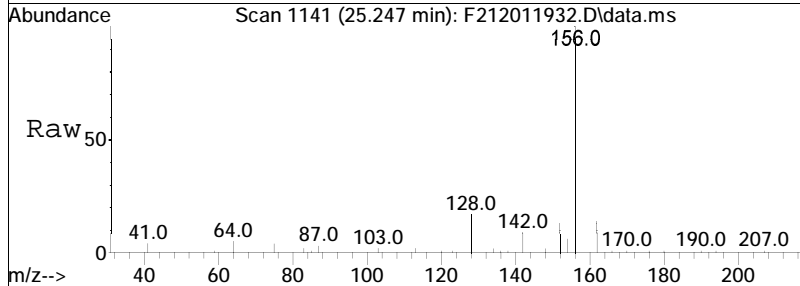


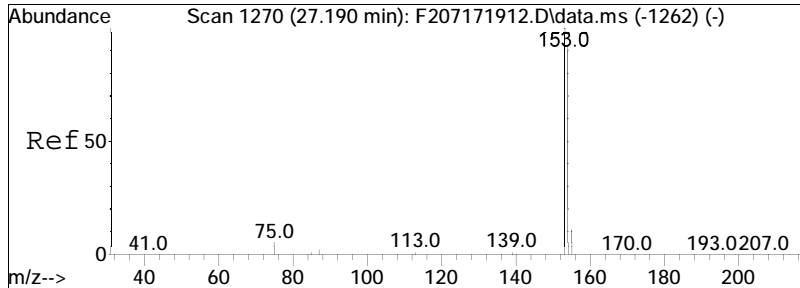
#21
 Biphenyl
 Concen: 39.86 ng/mL
 RT: 24.630 min Scan# 1100
 Delta R.T. 0.026 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:154 Resp: 11691





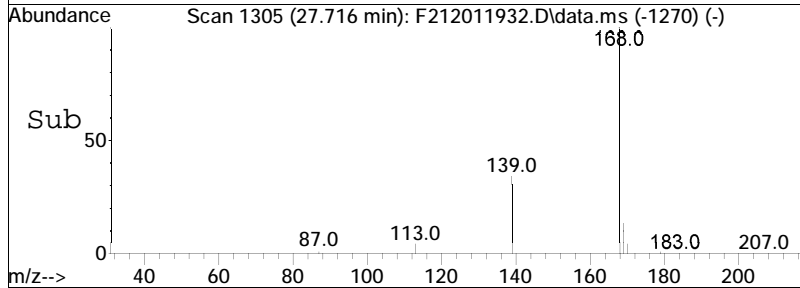
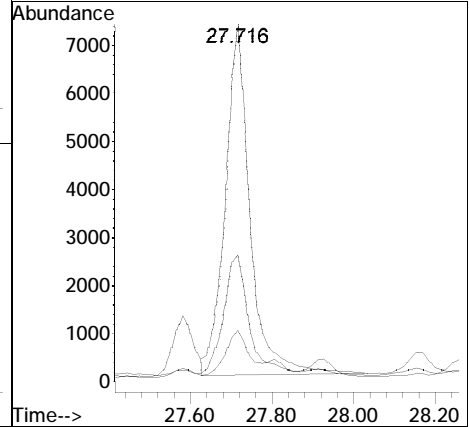
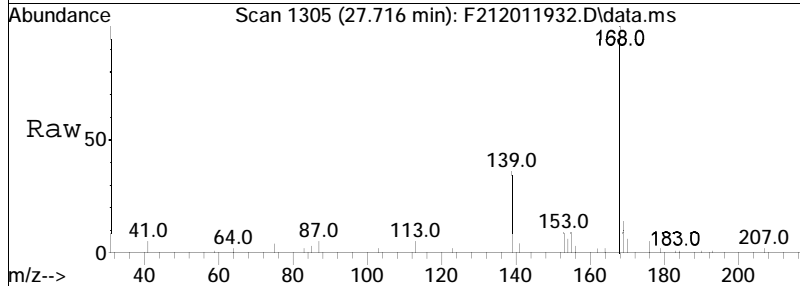
#22
 2,6-Dimethylnaphthalene
 Concen: 230.32 ng/mL
 RT: 25.247 min Scan# 1141
 Delta R.T. 0.027 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:156 Resp: 49664

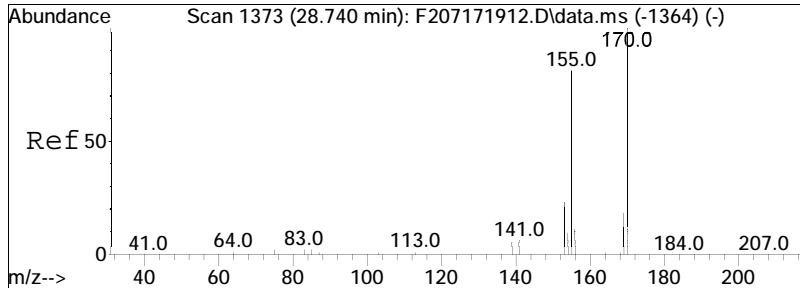




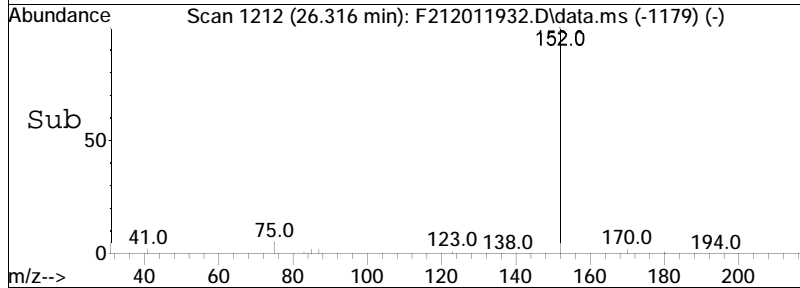
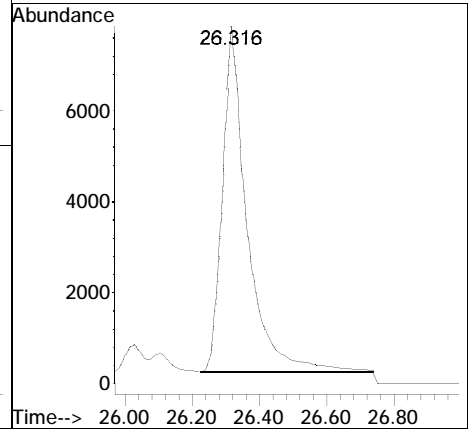
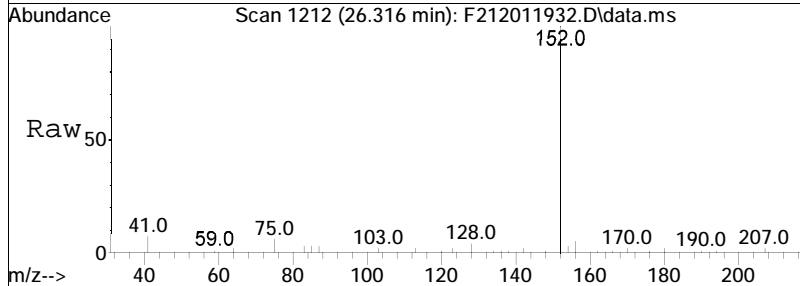
#23
 Dibenzofuran
 Concen: 97.61 ng/mL
 RT: 27.716 min Scan# 1305
 Delta R.T. 0.031 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

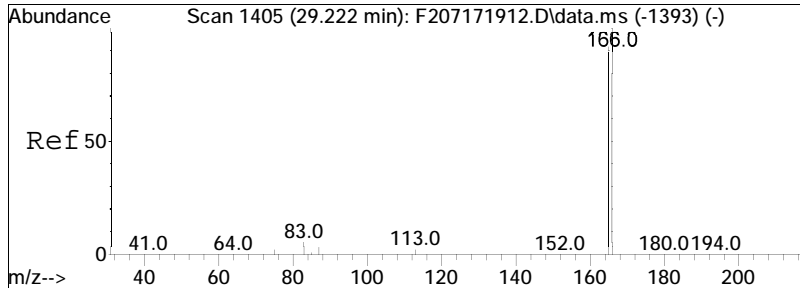
Tgt Ion	Ratio	Lower	Upper
168	100		
139	35.9	27.2	50.4
169	11.9	9.5	17.7





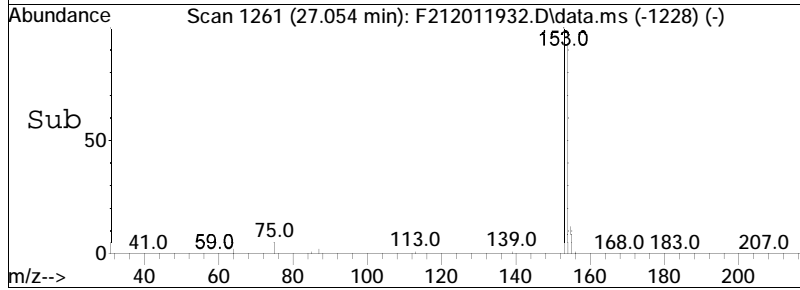
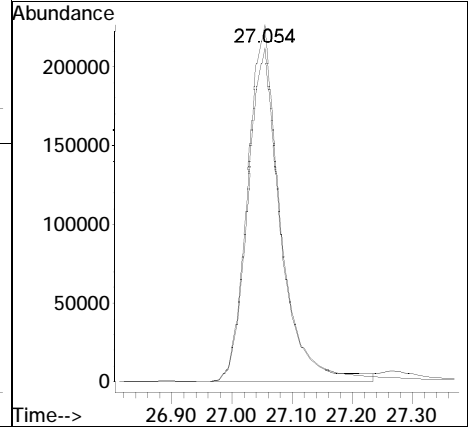
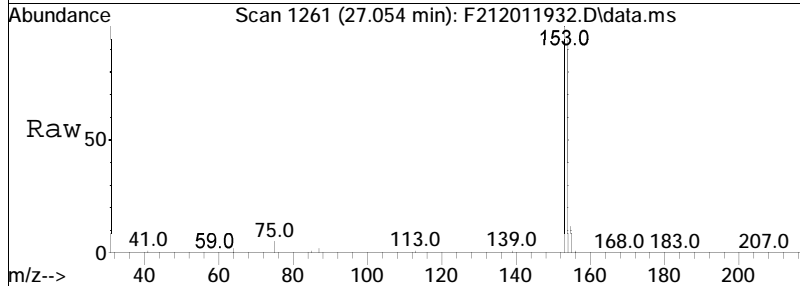
#24
 Acenaphthylene
 Concen: 106.37 ng/mL
 RT: 26.316 min Scan# 1212
 Delta R.T. -0.001 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:152 Resp: 38257

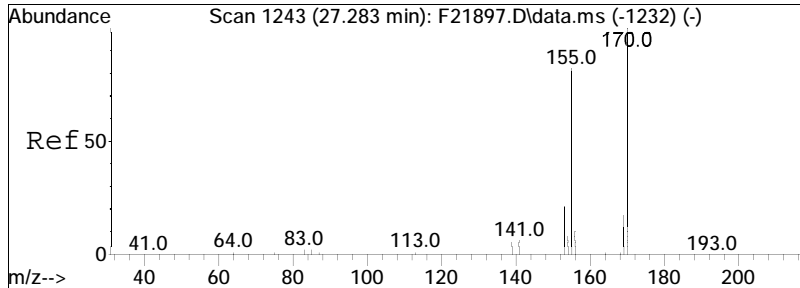




#25
 Acenaphthene
 Concen: 3819.22 ng/mL
 RT: 27.054 min Scan# 1261
 Delta R.T. 0.000 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

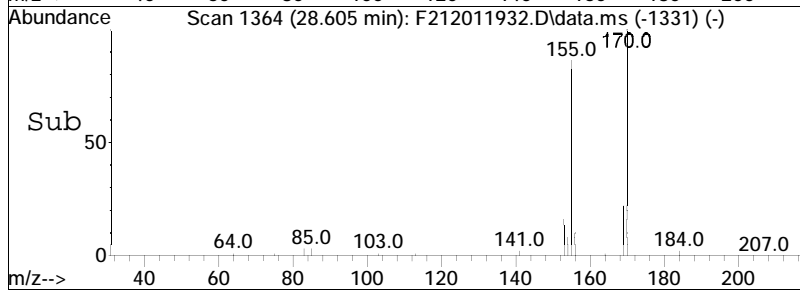
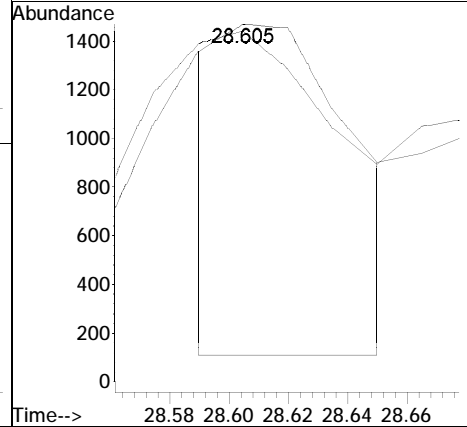
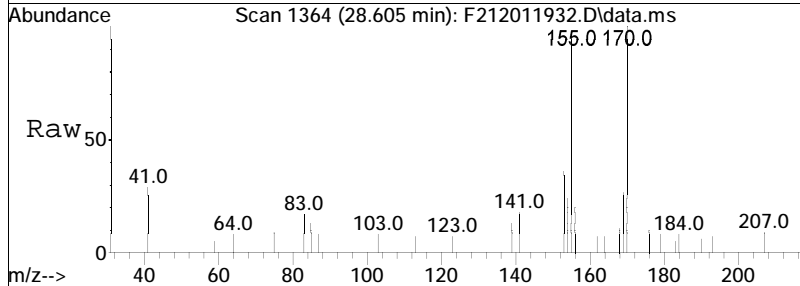
Tgt Ion: 153 Resp: 857783
 Ion Ratio Lower Upper
 153 100
 154 94.8 66.5 123.5

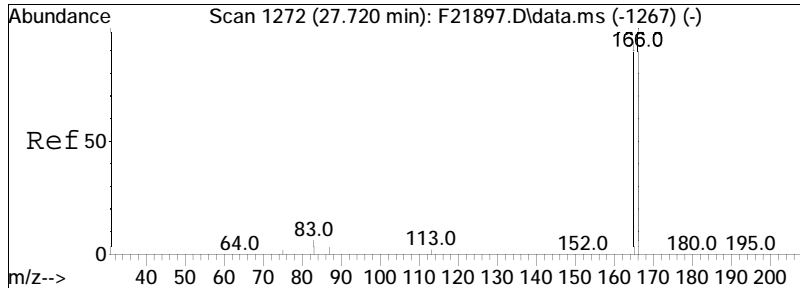




#26
 2,3,5-Trimethylnaphthalene
 Concen: 20.61 ng/mL M3
 RT: 28.605 min Scan# 1364
 Delta R.T. 0.003 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

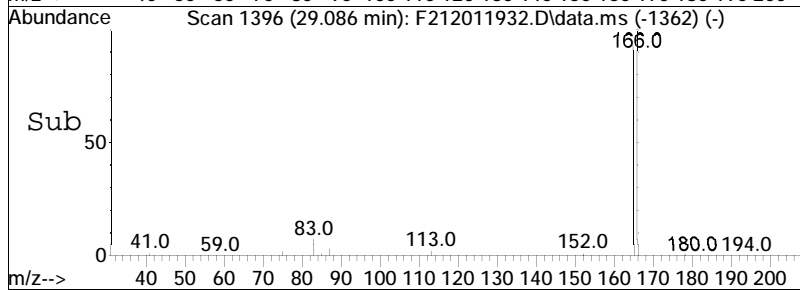
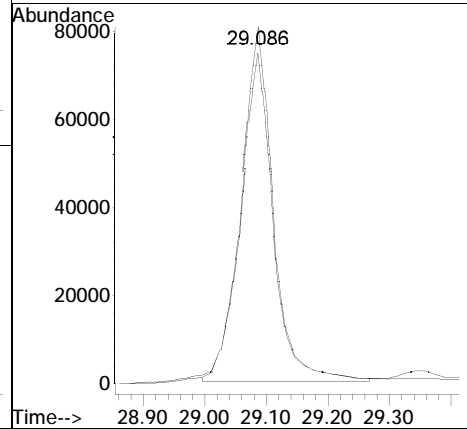
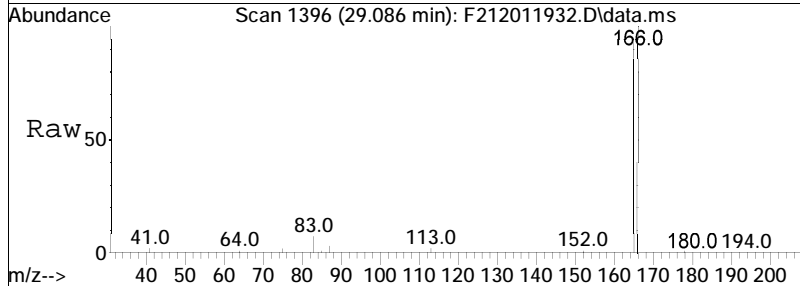
Tgt Ion: 170 Resp: 4059
 Ion Ratio Lower Upper
 170 100
 155 164.3 59.1 109.7#

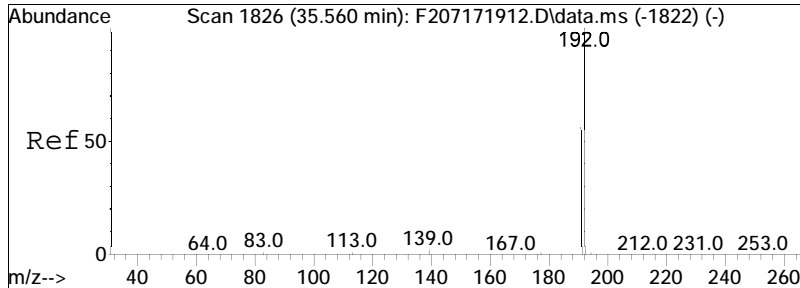




#27
 Fluorene
 Concen: 1154.14 ng/mL M4
 RT: 29.086 min Scan# 1396
 Delta R.T. 0.018 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

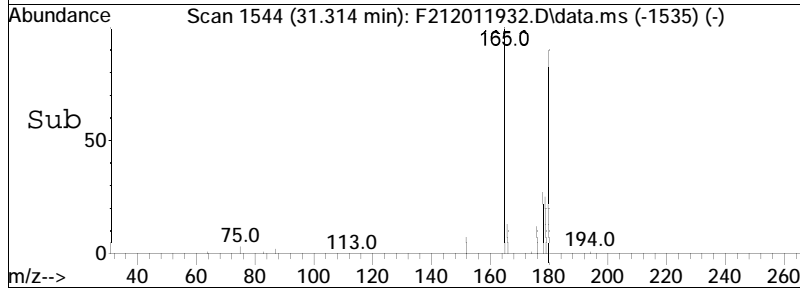
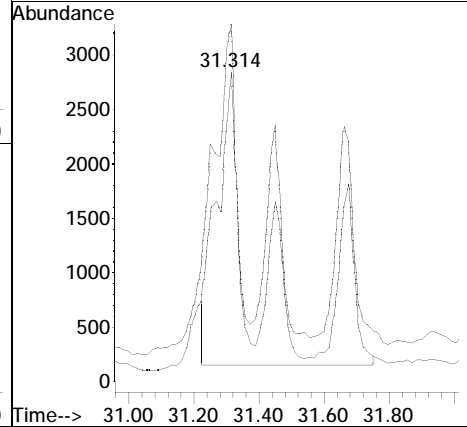
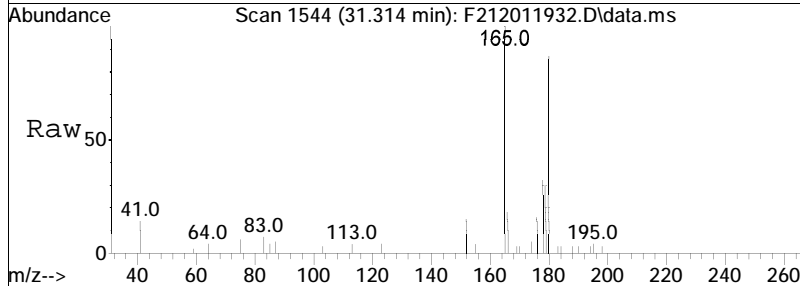
Tgt Ion	Resp	Lower	Upper
166	100		
165	98.5	63.9	118.7

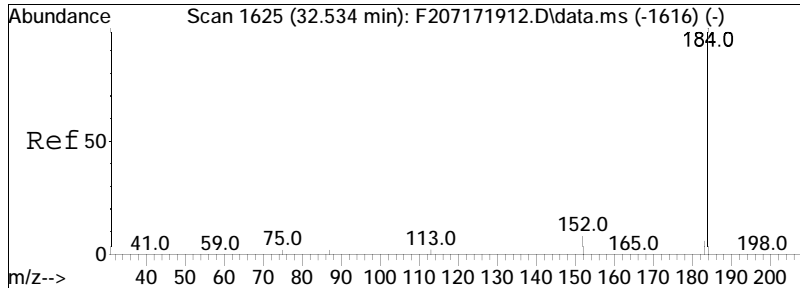




#28
 Cl-Fluorenes
 Concen: 91.87 ng/mL M5
 RT: 31.314 min Scan# 1544
 Delta R.T. -0.115 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

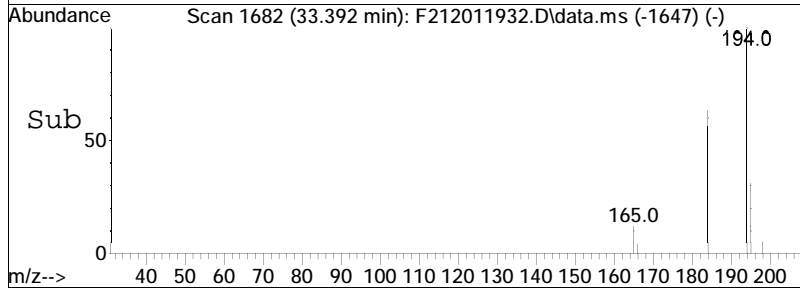
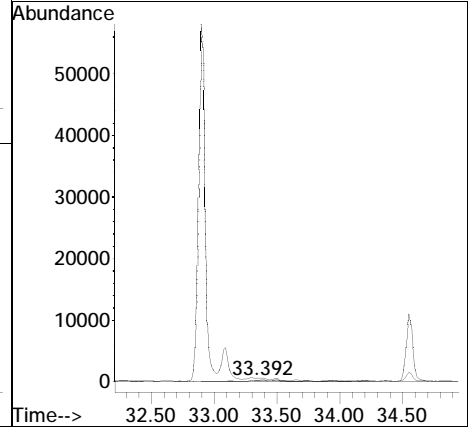
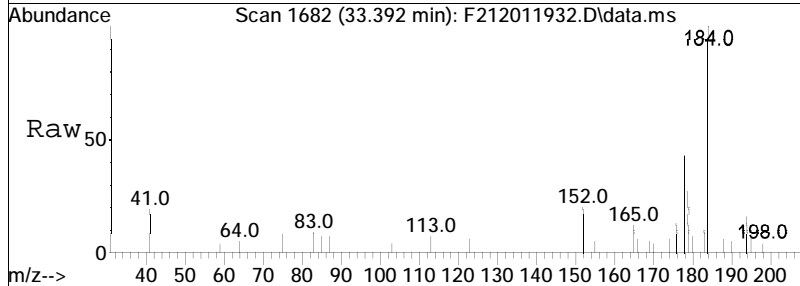
Tgt Ion	Ratio	Lower	Upper
180	100		
165	26.3	97.6	181.2#

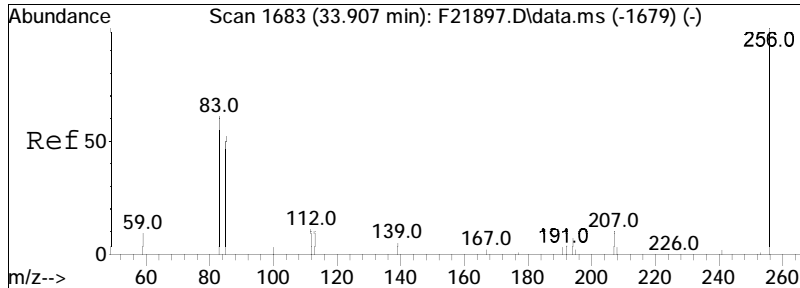




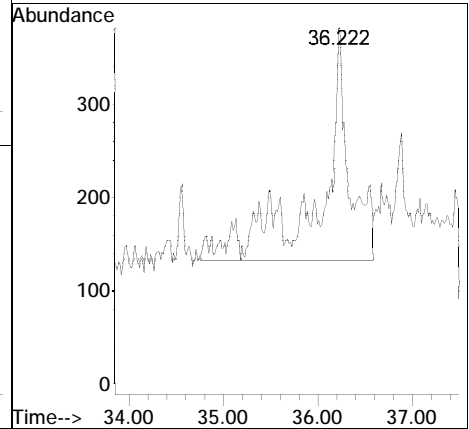
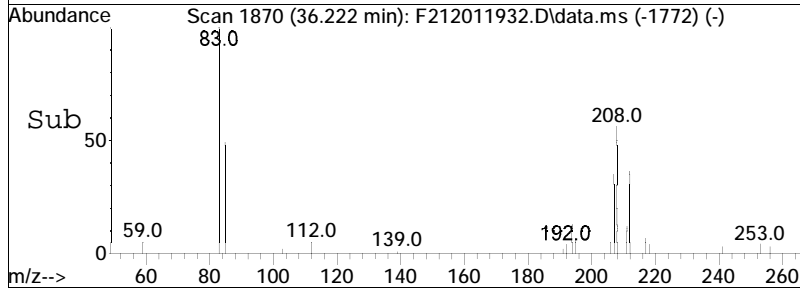
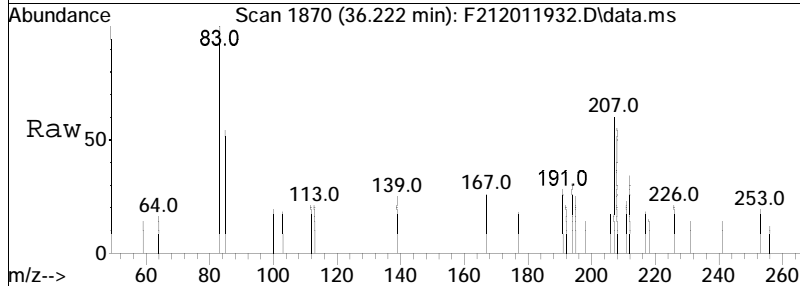
#29
 C2-Fluorenes
 Concen: 31.91 ng/mL M5
 RT: 33.392 min Scan# 1682
 Delta R.T. -0.230 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

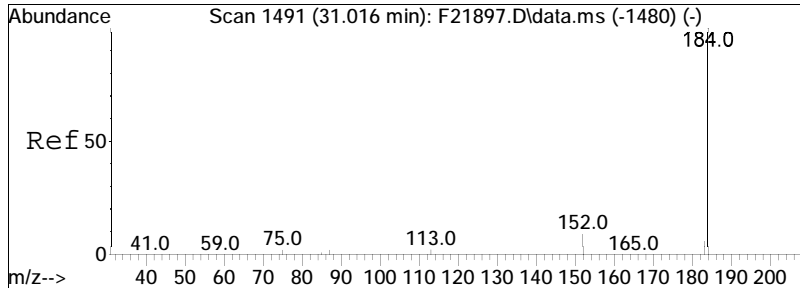
Tgt Ion	Resp	Lower	Upper
194	8117		
194	100		
179	0.0	0.0	0.0
195	0.0	25.7	47.7#





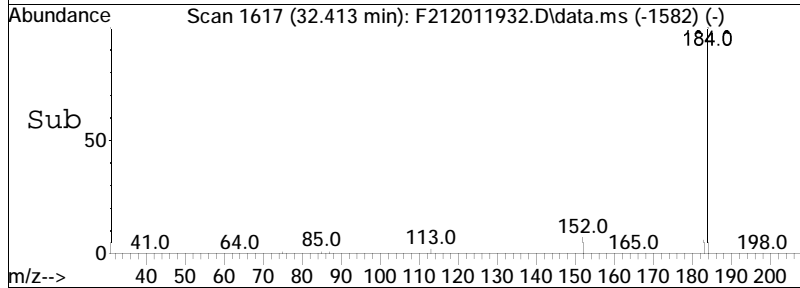
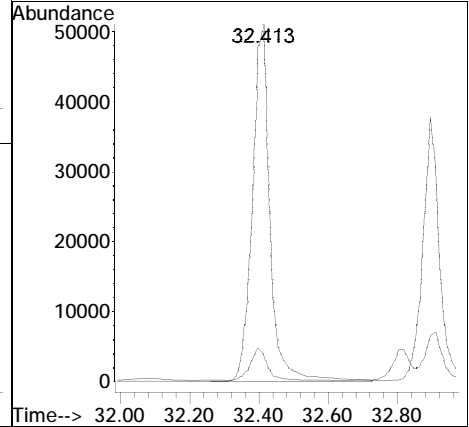
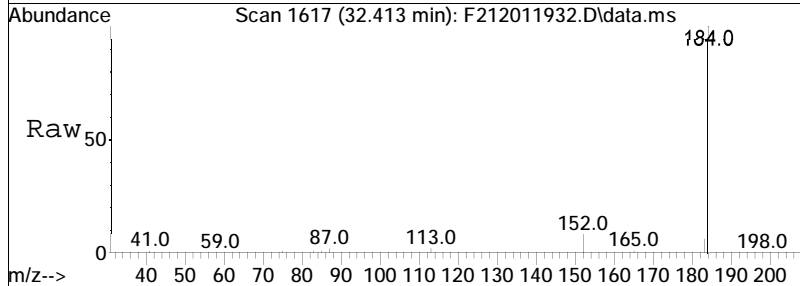
#30
 C3-Fluorenes
 Concen: 21.52 ng/mL M5
 RT: 36.222 min Scan# 1870
 Delta R.T. 0.776 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 208 Resp: 5474

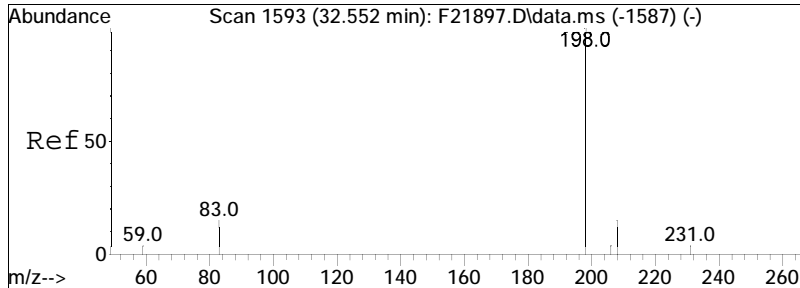




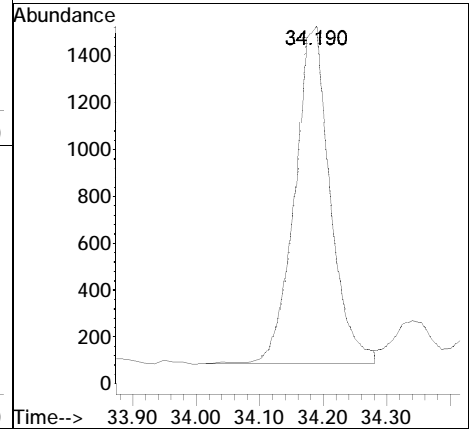
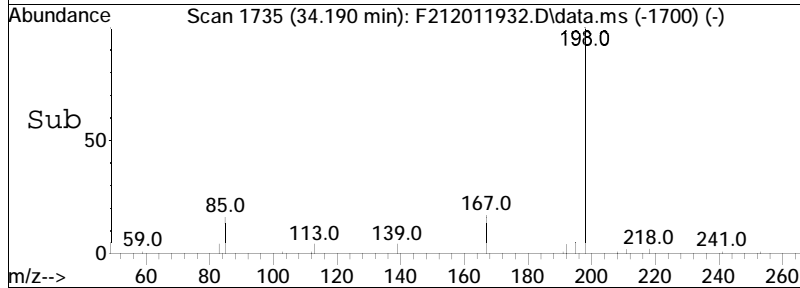
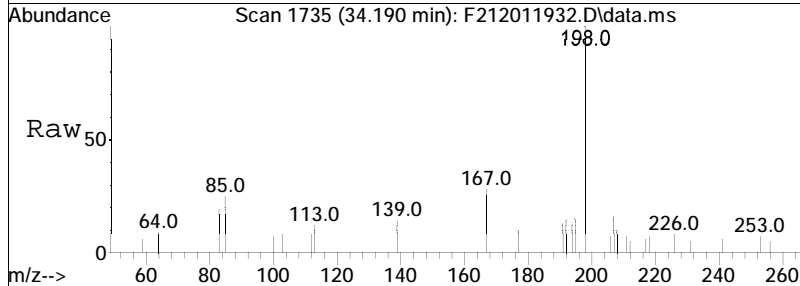
#31
 Dibenzothiophene
 Concen: 518.27 ng/mL
 RT: 32.413 min Scan# 1617
 Delta R.T. 0.024 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

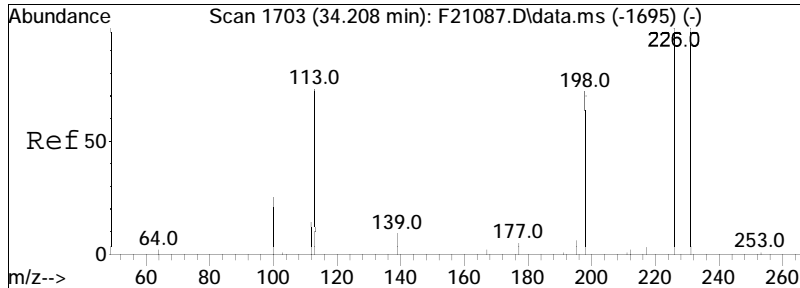
Tgt Ion: 184 Resp: 178570
 Ion Ratio Lower Upper
 184 100
 152 8.6 5.7 10.5



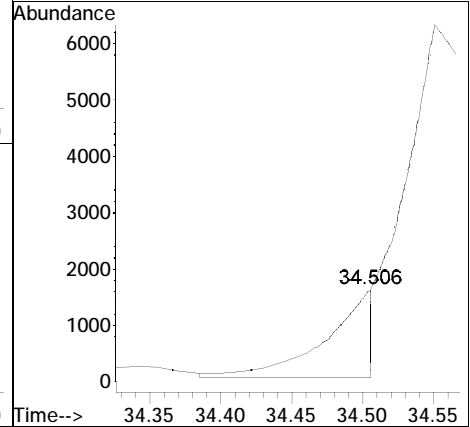
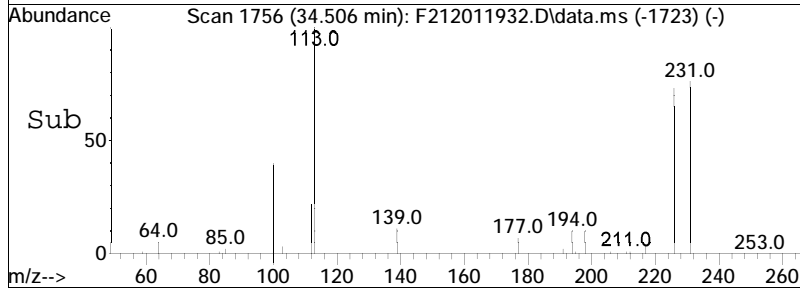
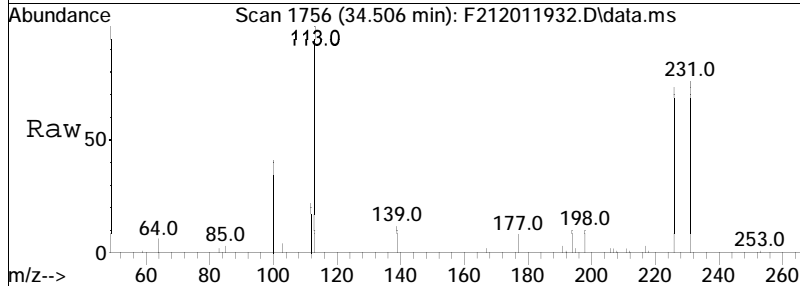


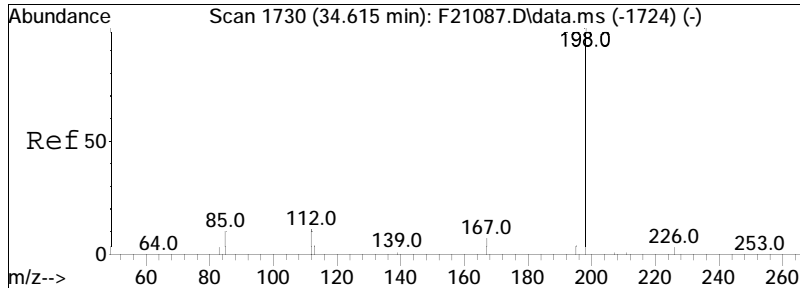
#32
 4-Methyldibenzothiophene(4MDT)
 Concen: 16.05 ng/mL
 RT: 34.190 min Scan# 1735
 Delta R.T. 0.027 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:198 Resp: 5530



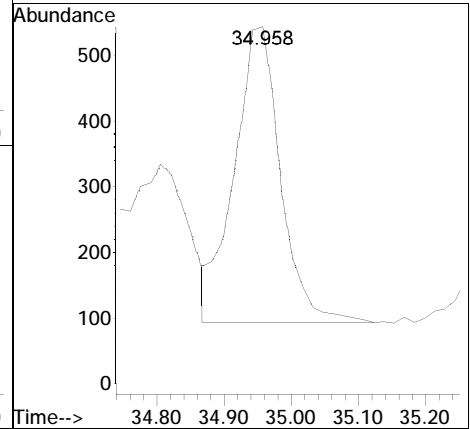
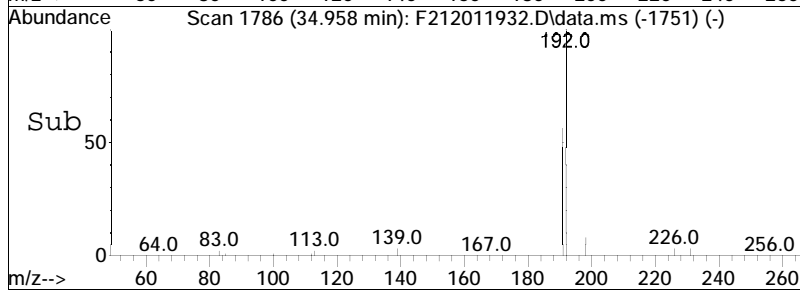
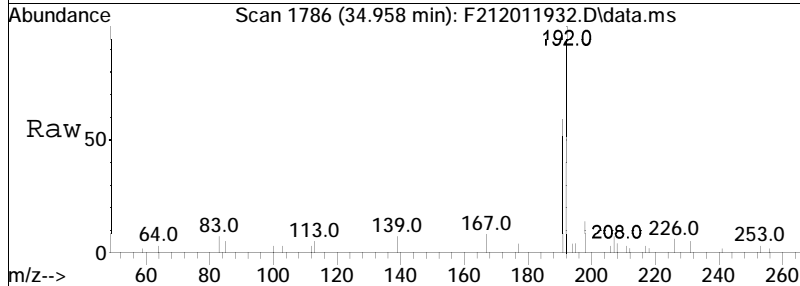


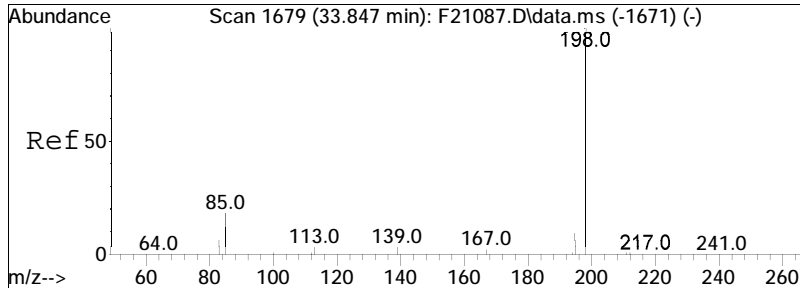
#33
 2/3-Methyldibenzothiophene (2MD)
 Concen: 11.41 ng/mL M3
 RT: 34.506 min Scan# 1756
 Delta R.T. -0.002 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 198 Resp: 3933



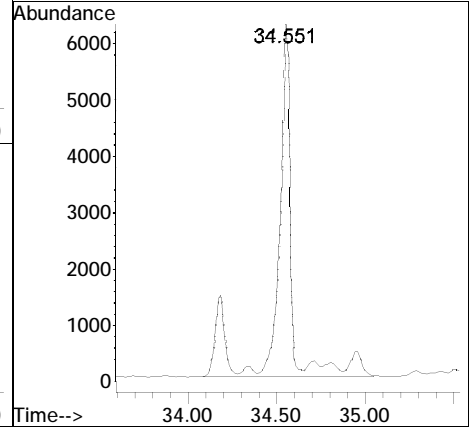
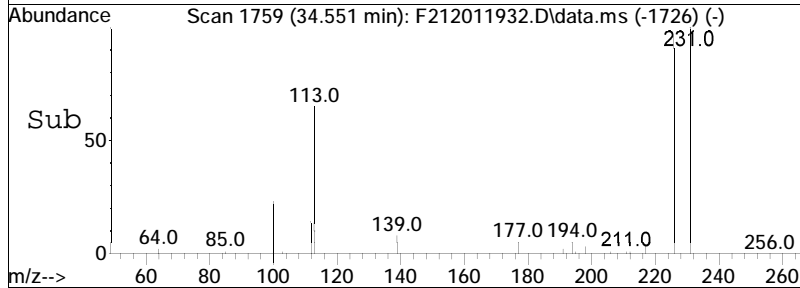
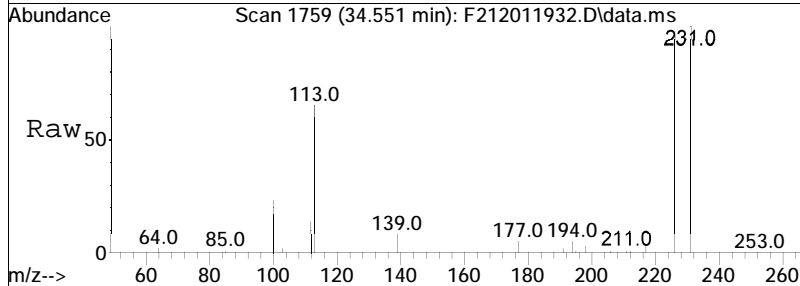


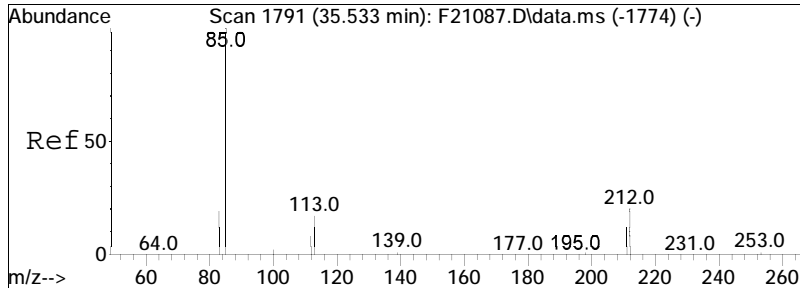
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 6.20 ng/mL
 RT: 34.958 min Scan# 1786
 Delta R.T. 0.028 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:198 Resp: 2135



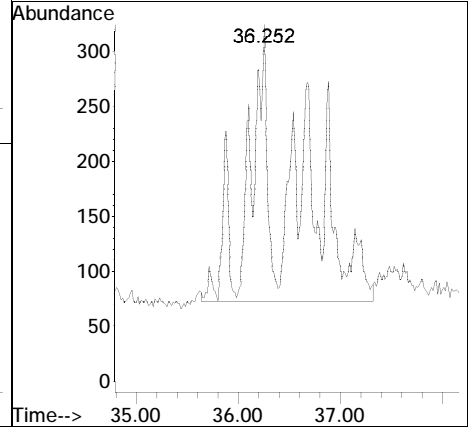
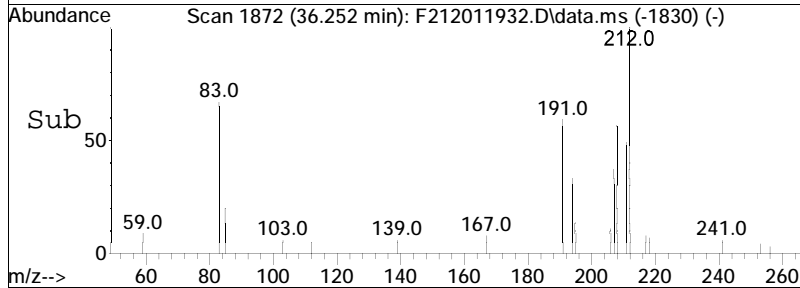
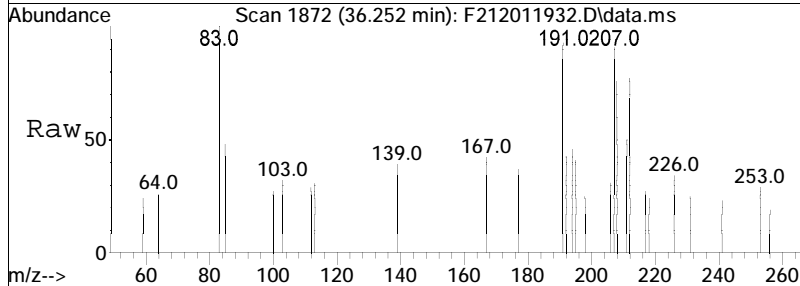


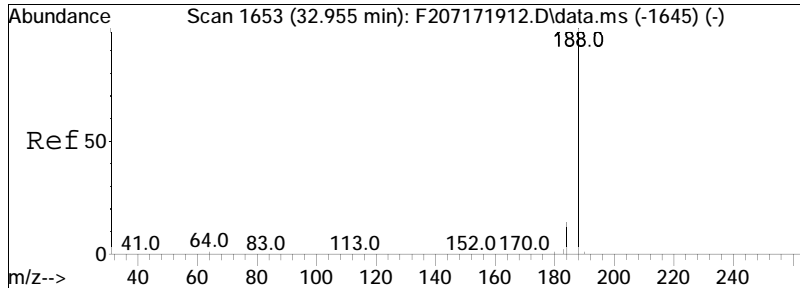
#36
 Cl-Dibenzothiophenes
 Concen: 98.59 ng/mL M5
 RT: 34.551 min Scan# 1759
 Delta R.T. 0.388 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion:198 Resp: 33970





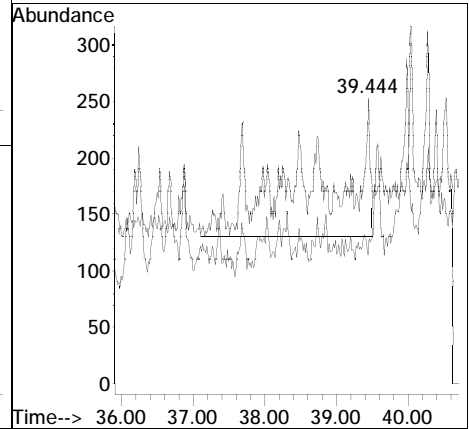
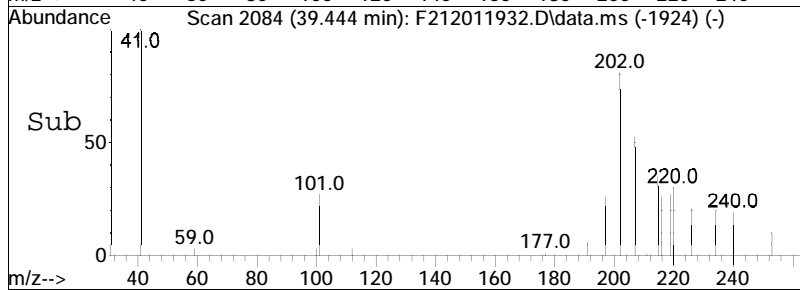
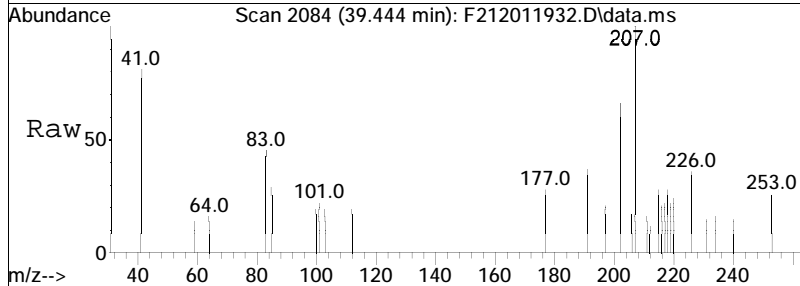
#37
 C2-Dibenzothiophenes
 Concen: 21.03 ng/mL M5
 RT: 36.252 min Scan# 1872
 Delta R.T. 0.406 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 212 Resp: 7245

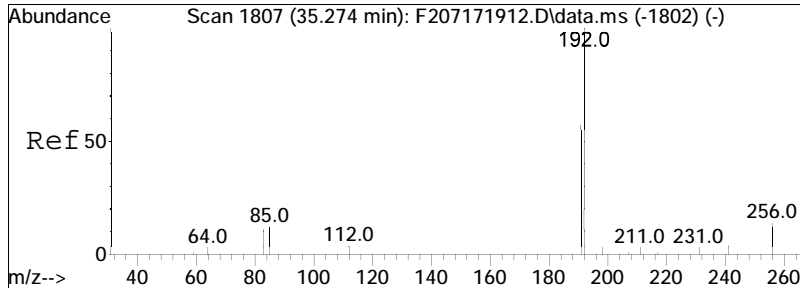




#38
 C3-Dibenzothiophenes
 Concen: 15.34 ng/mL M5
 RT: 39.444 min Scan# 2084
 Delta R.T. 1.795 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

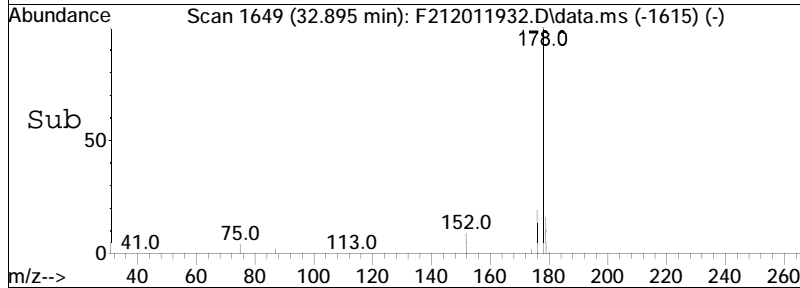
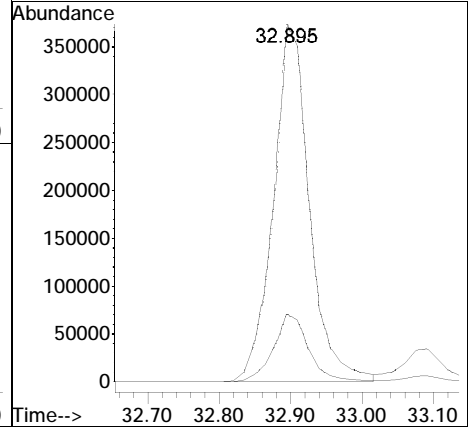
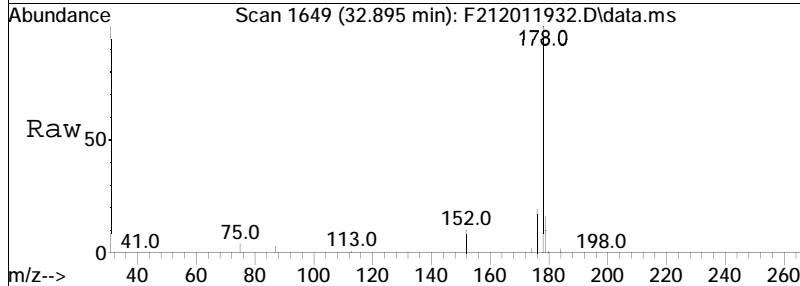
Tgt Ion: 226 Resp: 5286
 Ion Ratio Lower Upper
 226 100
 211 5.8 38.6 71.6#

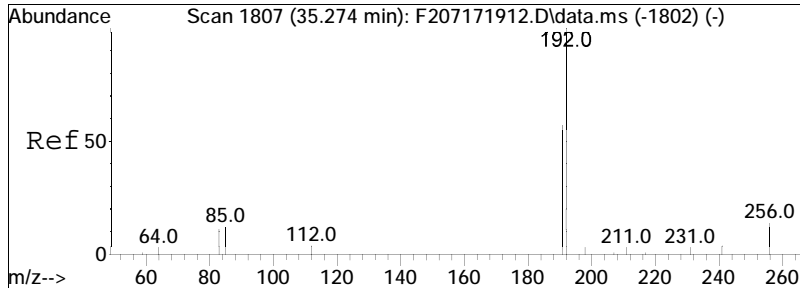




#41
 Phenanthrene
 Concen: 3527.86 ng/mL
 RT: 32.895 min Scan# 1649
 Delta R.T. 0.010 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

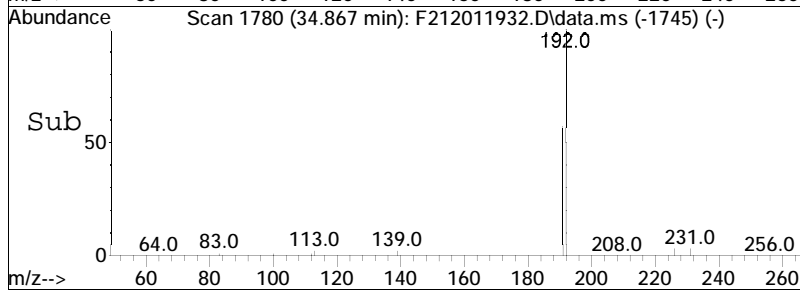
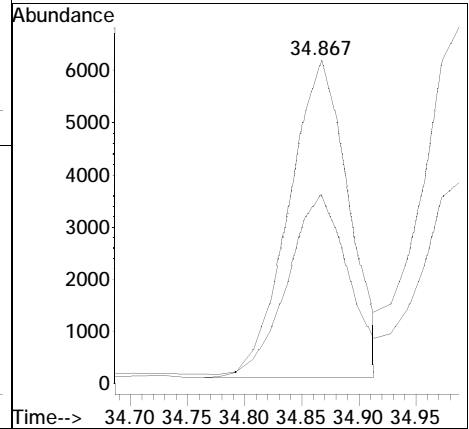
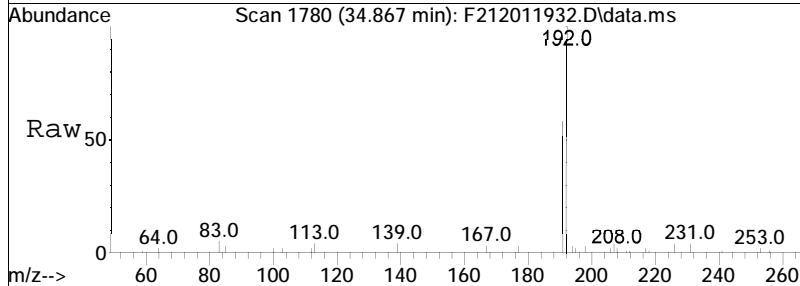
Tgt Ion: 178 Resp: 1293001
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.0 24.1

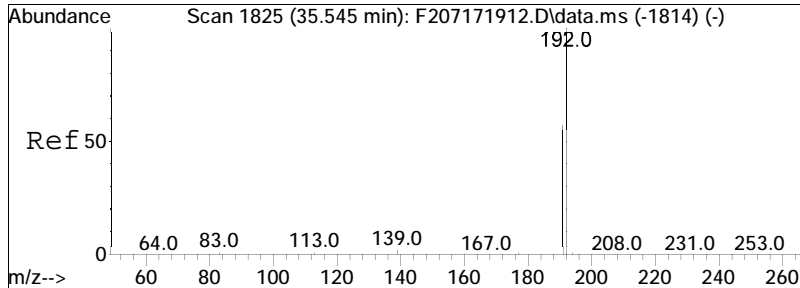




#42
 3-Methylphenanthrene (3MP)
 Concen: 60.93 ng/mL
 RT: 34.867 min Scan# 1780
 Delta R.T. 0.028 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

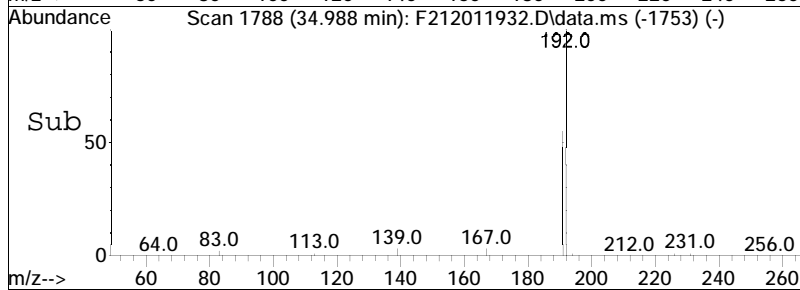
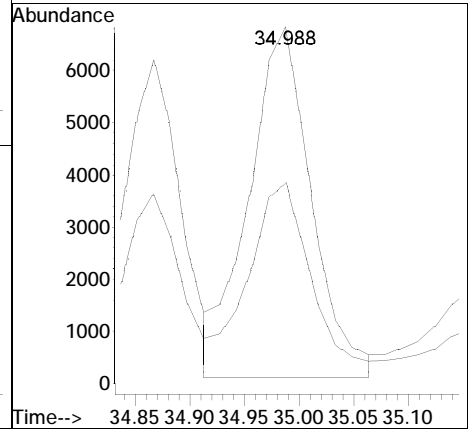
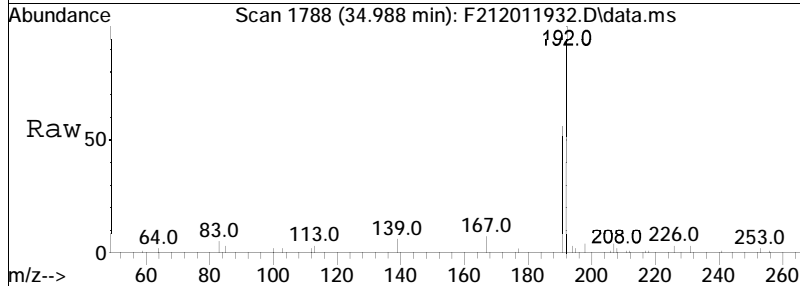
Tgt Ion: 192 Resp: 22333
 Ion Ratio Lower Upper
 192 100
 191 56.7 42.1 78.1

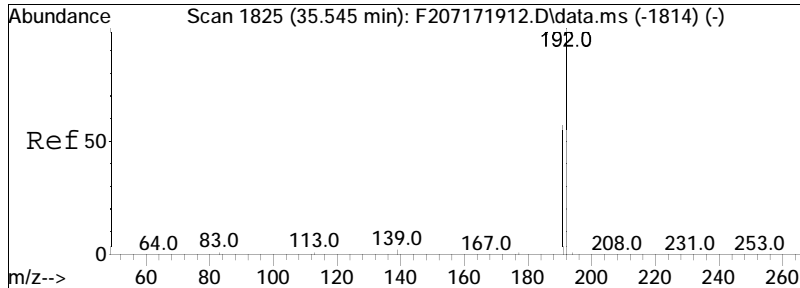




#43
 2-Methylphenanthrene (2MP)
 Concen: 73.02 ng/mL M4
 RT: 34.988 min Scan# 1788
 Delta R.T. 0.028 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

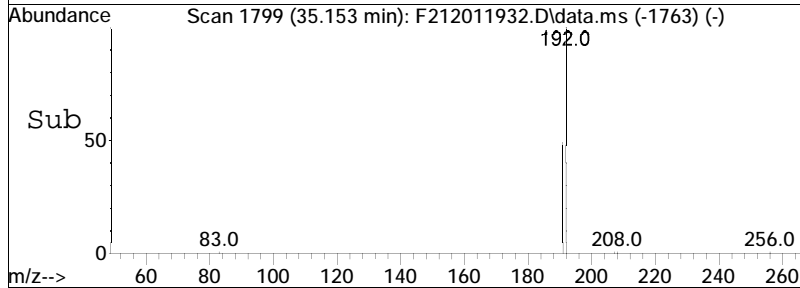
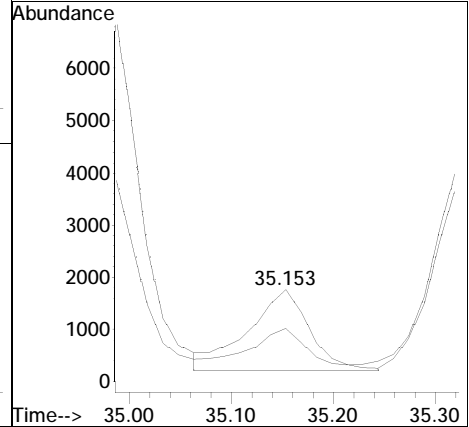
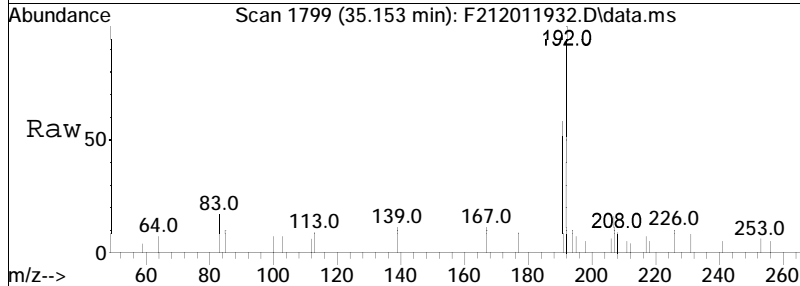
Tgt Ion	Resp	Lower	Upper
192	100		
191	46.0	40.5	75.3

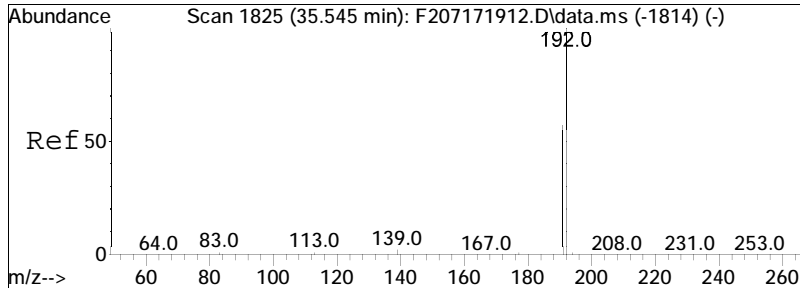




#44
 2-Methylantracene(2MA)
 Concen: 17.91 ng/mL M3
 RT: 35.153 min Scan# 1799
 Delta R.T. 0.044 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

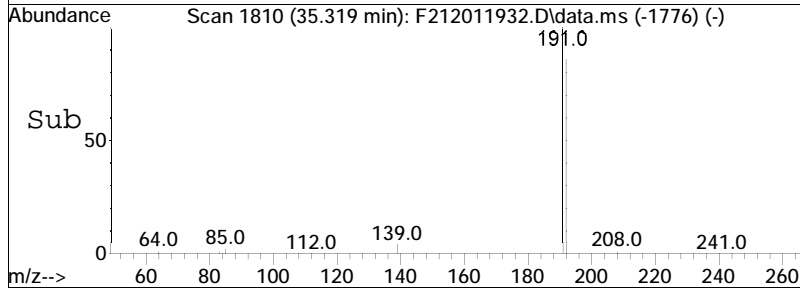
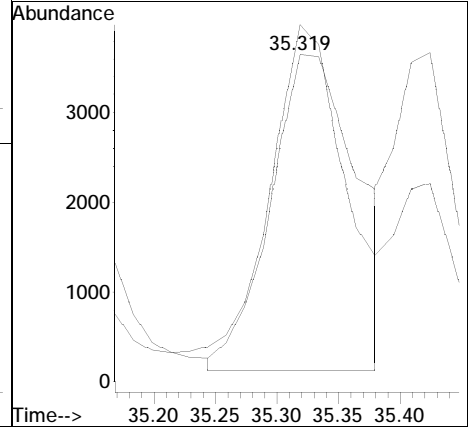
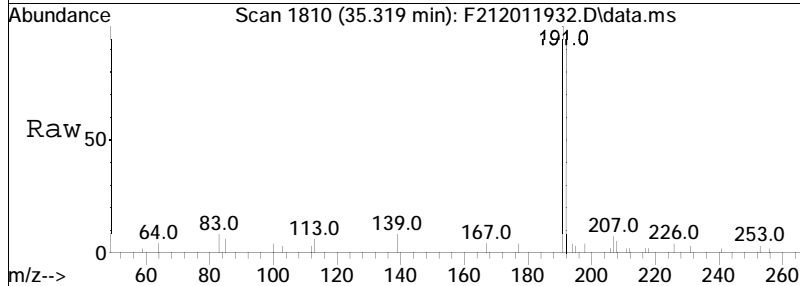
Tgt Ion	Resp	Lower	Upper
192	100		
191	245.4	85.2	158.2#

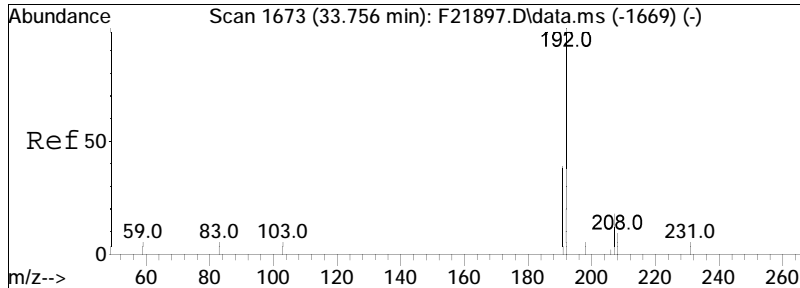




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 46.87 ng/mL M3
 RT: 35.319 min Scan# 1810
 Delta R.T. 0.014 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

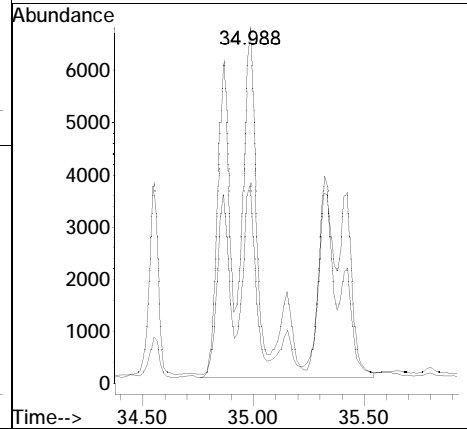
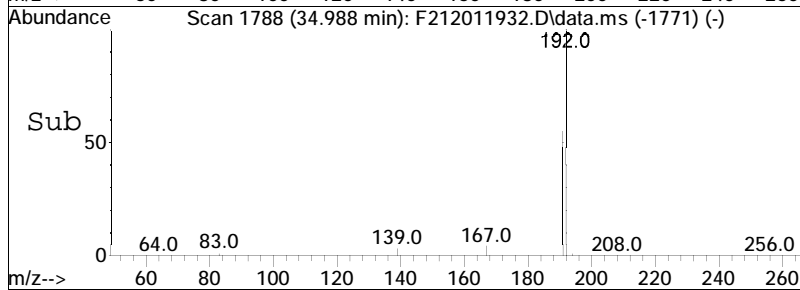
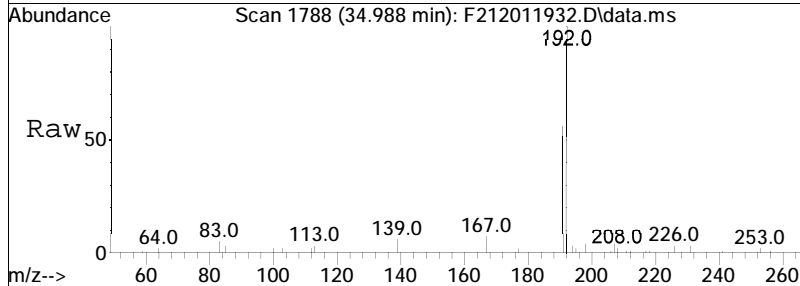
Tgt Ion:192 Resp: 17180
 Ion Ratio Lower Upper
 192 100
 191 13.7 39.7 73.7#

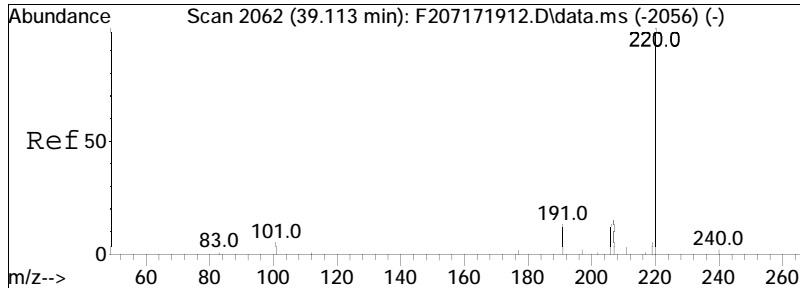




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 236.92 ng/mL M5
 RT: 34.988 min Scan# 1788
 Delta R.T. -0.317 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

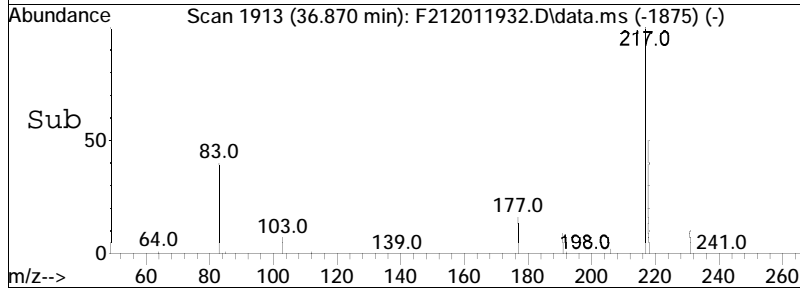
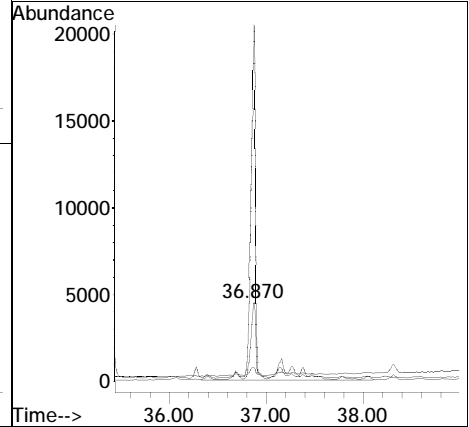
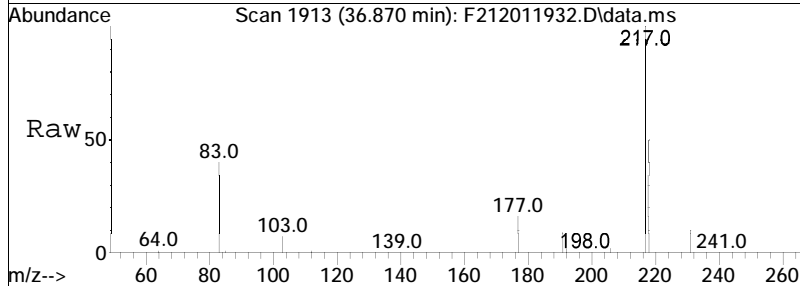
Tgt Ion: 192 Resp: 86833
 Ion Ratio Lower Upper
 192 100
 191 2.7 39.7 73.7#

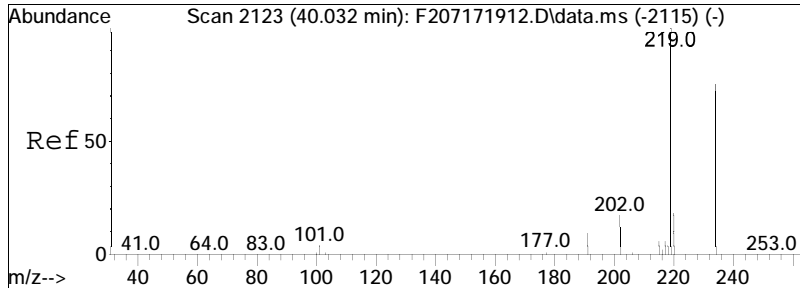




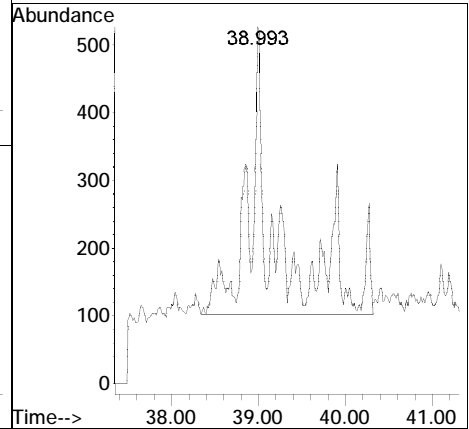
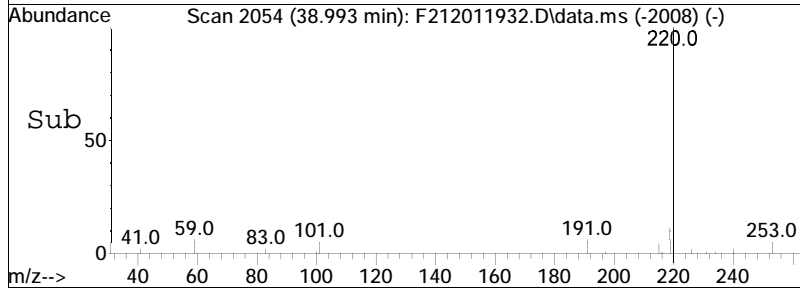
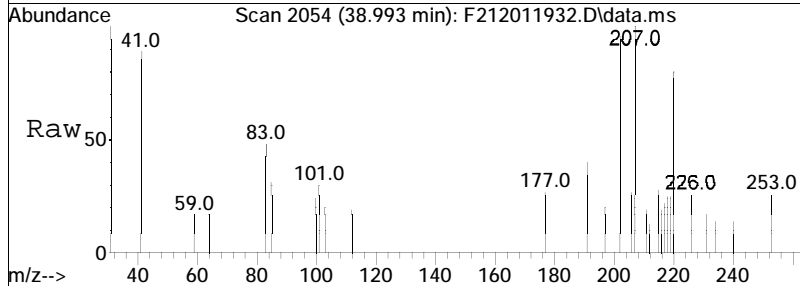
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 99.90 ng/mL M5
 RT: 36.870 min Scan# 1913
 Delta R.T. -0.239 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

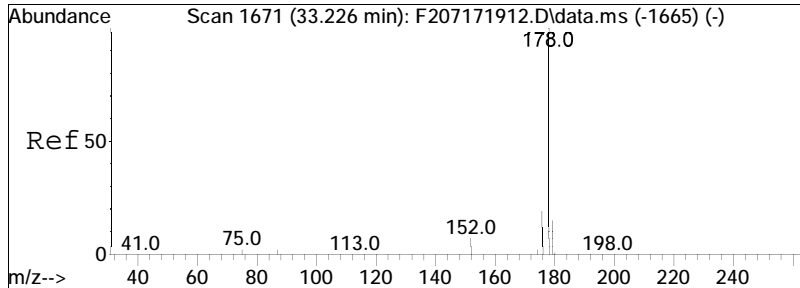
Tgt Ion	Ratio	Lower	Upper
206	100		
191	8.5	33.9	62.9#
207	3.3	13.9	25.7#





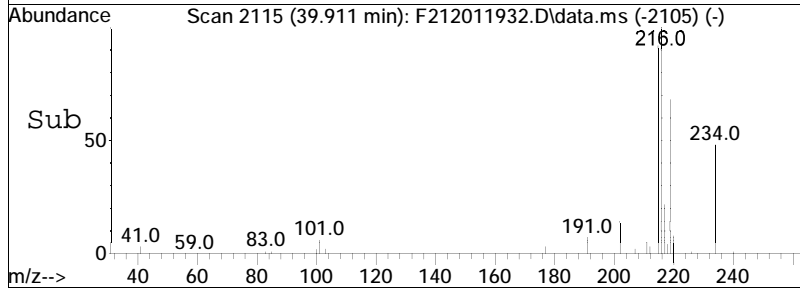
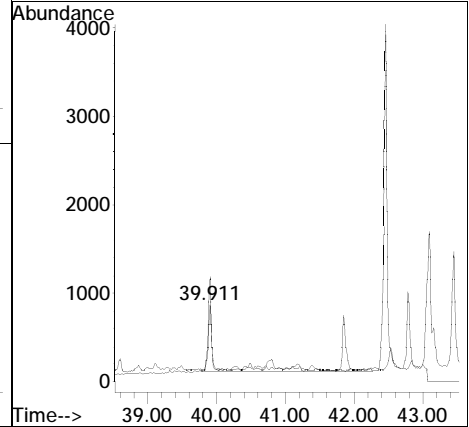
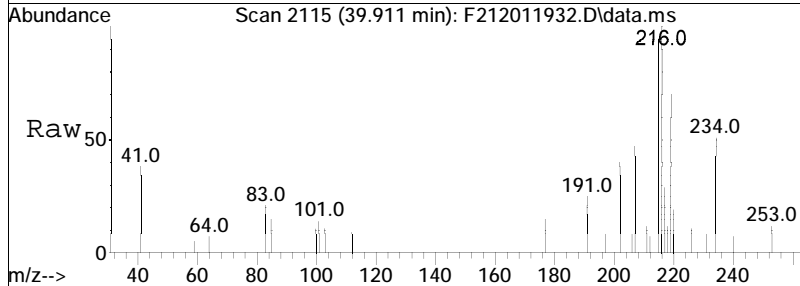
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 24.74 ng/mL M5
 RT: 38.993 min Scan# 2054
 Delta R.T. 0.035 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 220 Resp: 9067

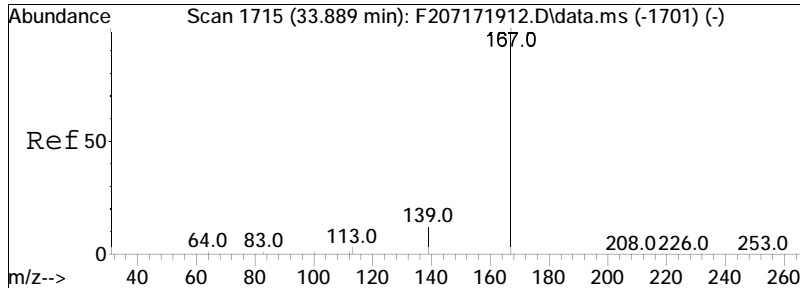




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 15.78 ng/mL M5
 RT: 39.911 min Scan# 2115
 Delta R.T. -1.211 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

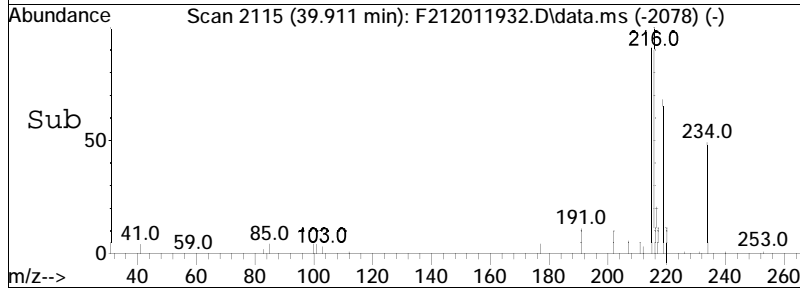
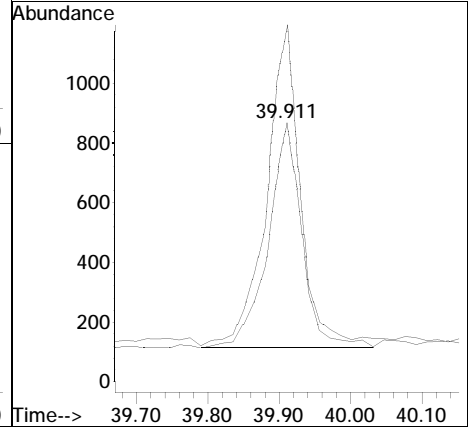
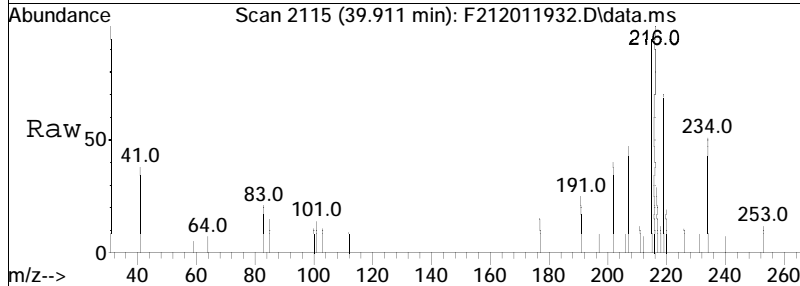
Tgt Ion: 234 Resp: 5783
 Ion Ratio Lower Upper
 234 100
 219 0.0 39.5 73.3#

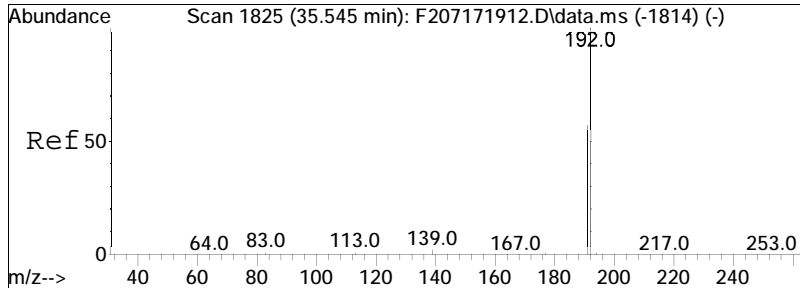




#52
 Retene
 Concen: 19.51 ng/mL
 RT: 39.911 min Scan# 2115
 Delta R.T. 0.052 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

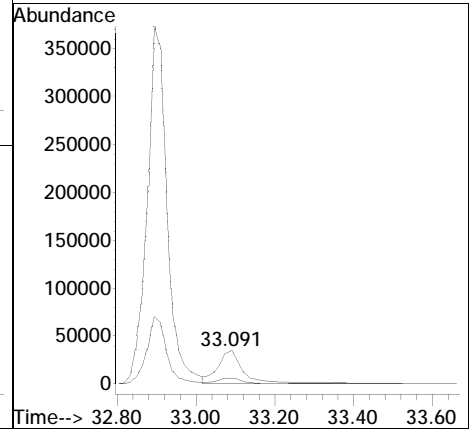
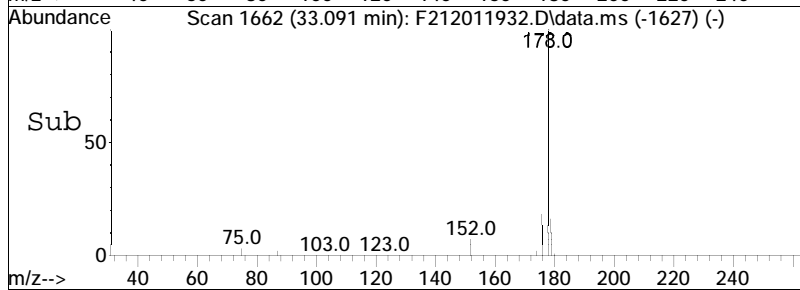
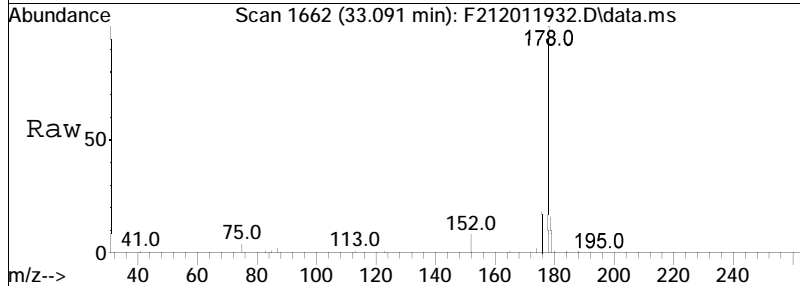
Tgt Ion: 234 Resp: 2448
 Ion Ratio Lower Upper
 234 100
 219 142.7 108.2 201.0

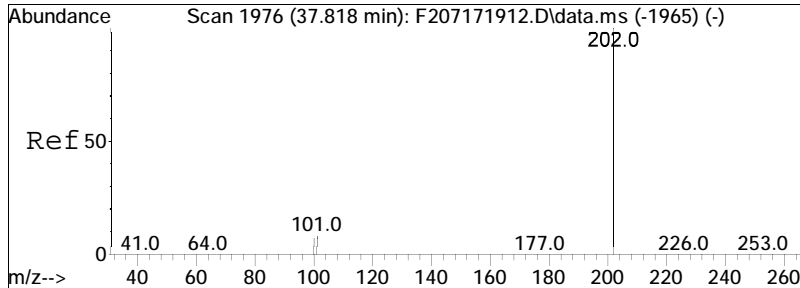




#53
 Anthracene
 Concen: 478.27 ng/mL
 RT: 33.091 min Scan# 1662
 Delta R.T. 0.025 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

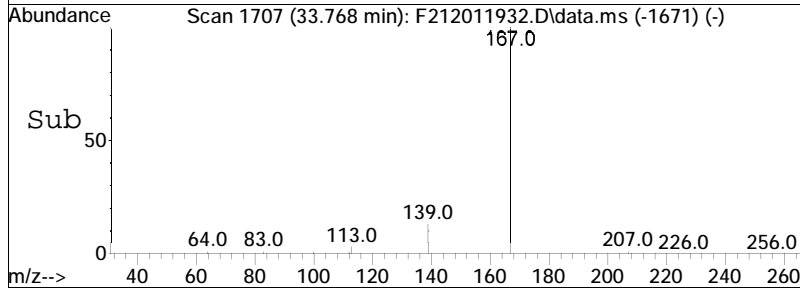
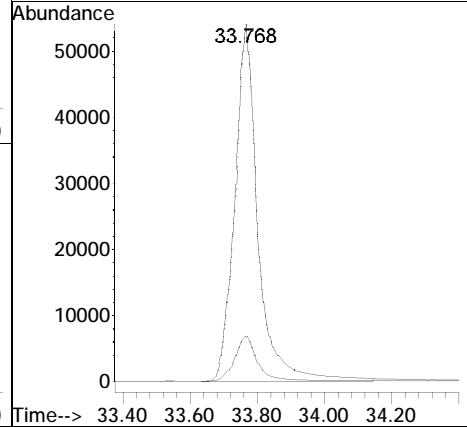
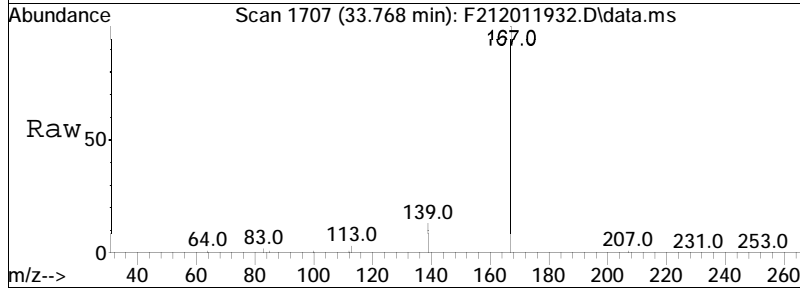
Tgt Ion: 178 Resp: 149436
 Ion Ratio Lower Upper
 178 100
 176 18.1 12.5 23.3

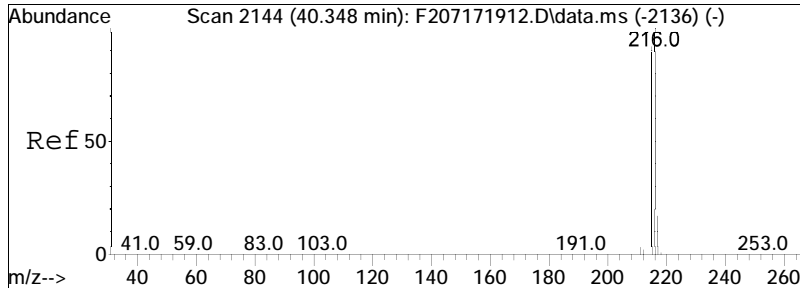




#54
 Carbazole
 Concen: 866.37 ng/mL
 RT: 33.768 min Scan# 1707
 Delta R.T. 0.041 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

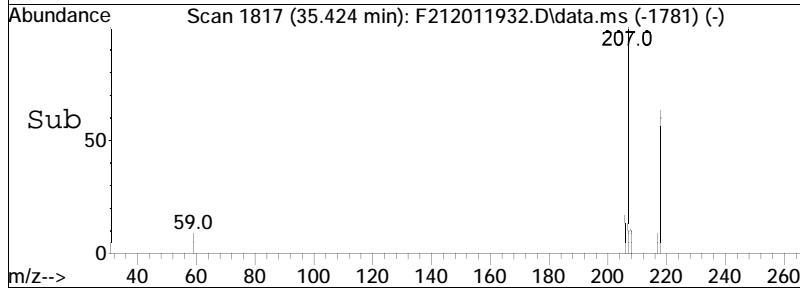
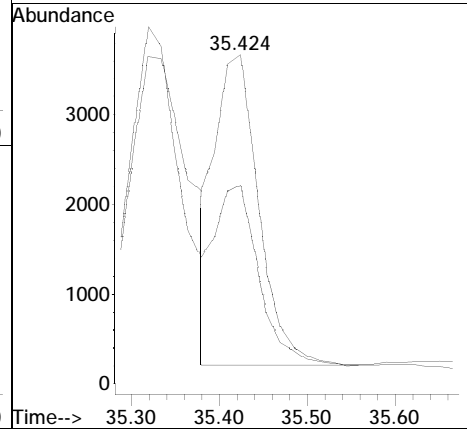
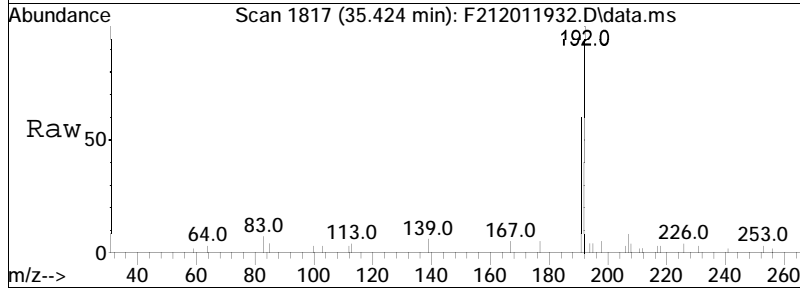
Tgt Ion: 167 Resp: 253247
 Ion Ratio Lower Upper
 167 100
 139 12.8 8.7 16.1

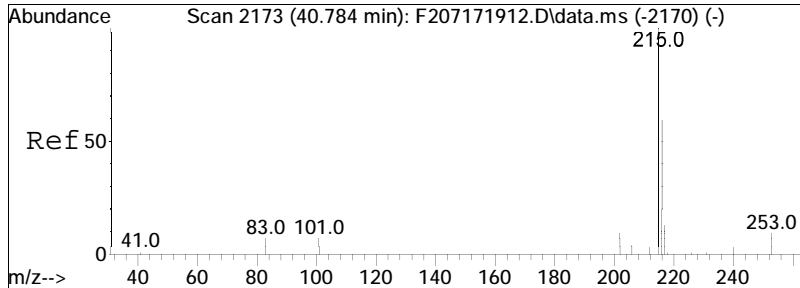




#55
 1-Methylphenanthrene
 Concen: 43.58 ng/mL
 RT: 35.424 min Scan# 1817
 Delta R.T. 0.044 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

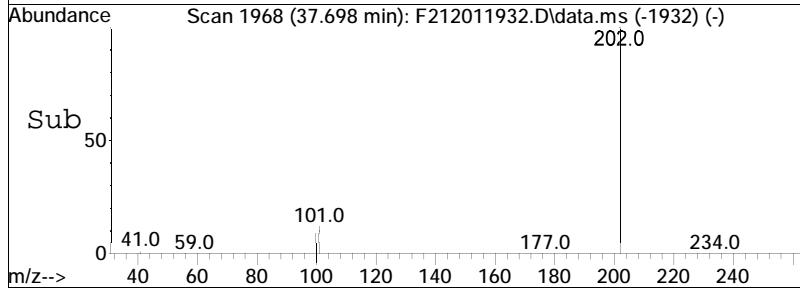
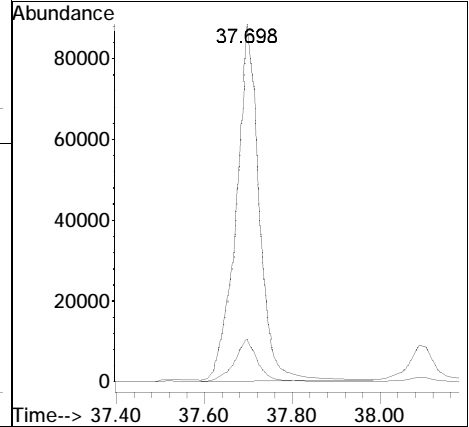
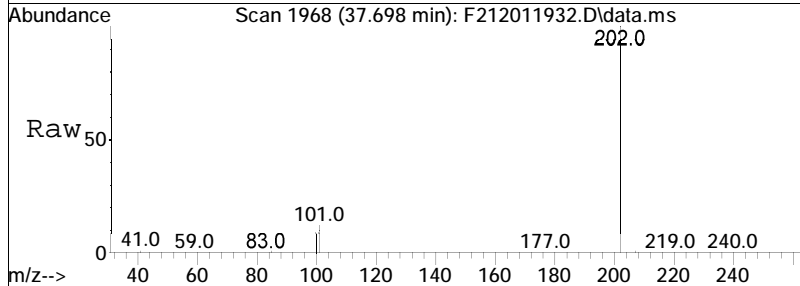
Tgt Ion: 192 Resp: 11961
 Ion Ratio Lower Upper
 192 100
 191 58.4 39.3 73.1

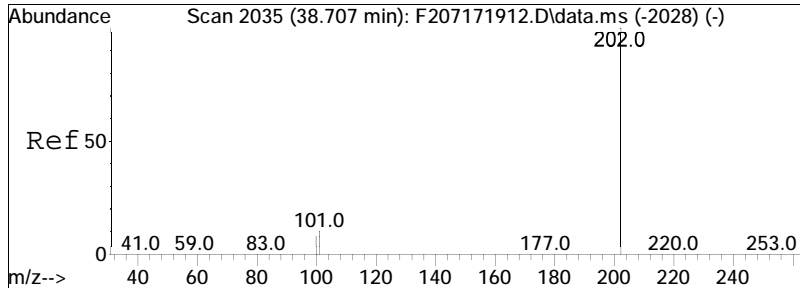




#56
 Fluoranthene
 Concen: 761.50 ng/mL
 RT: 37.698 min Scan# 1968
 Delta R.T. 0.048 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

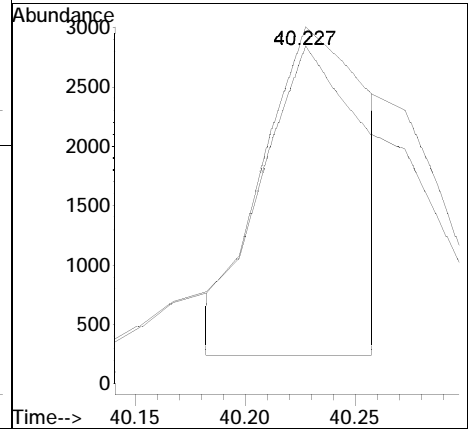
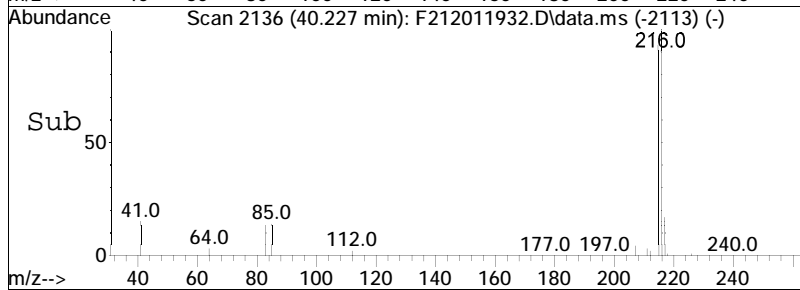
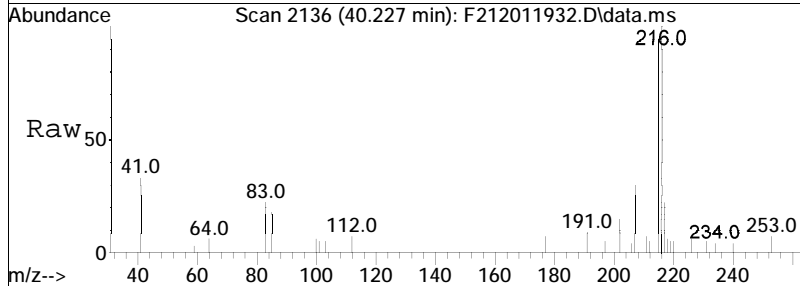
Tgt Ion: 202 Resp: 318306
 Ion Ratio Lower Upper
 202 100
 101 12.1 8.0 14.8

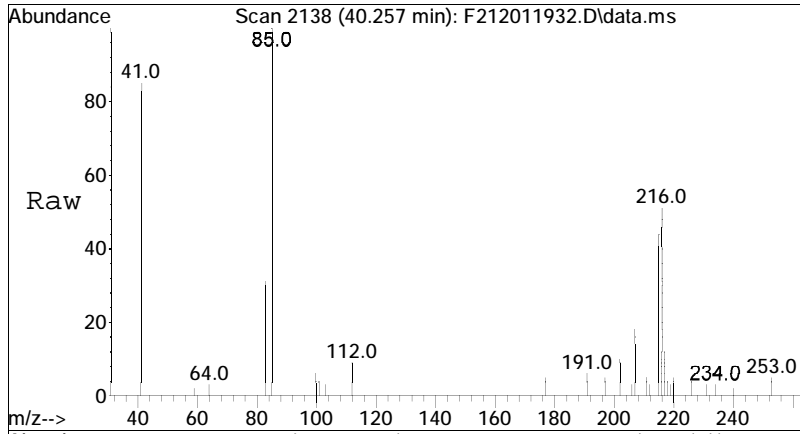




#57
 Benzo(b)fluorene
 Concen: 35.05 ng/mL M3
 RT: 40.227 min Scan# 2136
 Delta R.T. 0.052 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

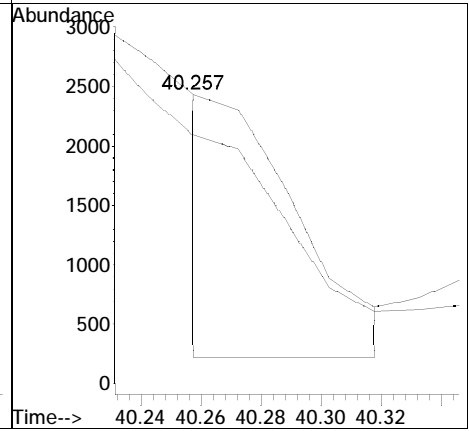
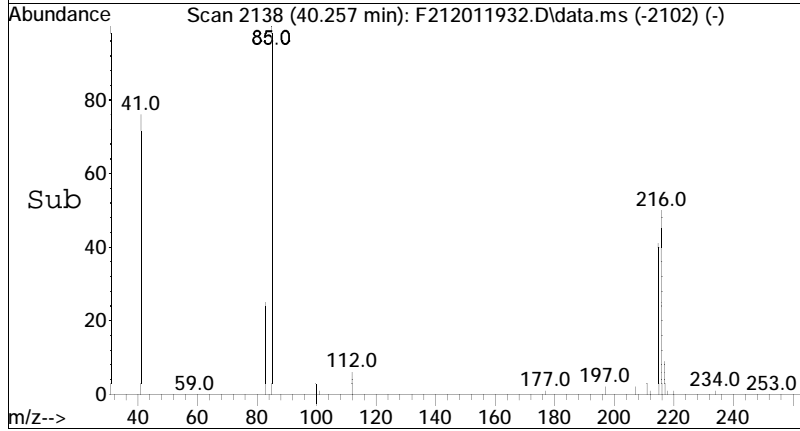
Tgt Ion: 216 Resp: 9216
 Ion Ratio Lower Upper
 216 100
 215 138.4 63.9 118.7#

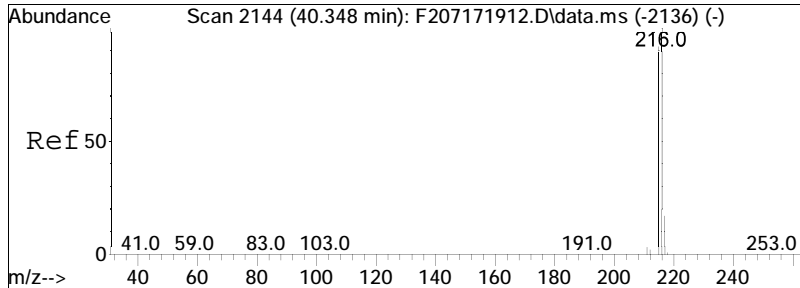




#58
 7H-Benzo(c)fluorene
 Concen: 15.89 ng/mL M3
 RT: 40.257 min Scan# 2138
 Delta R.T. 0.037 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

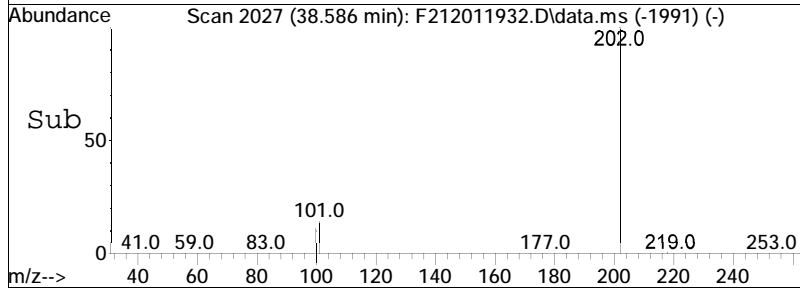
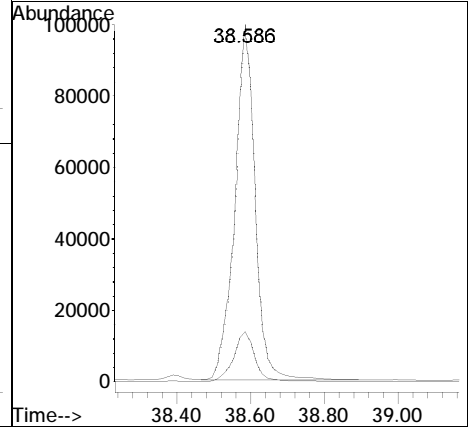
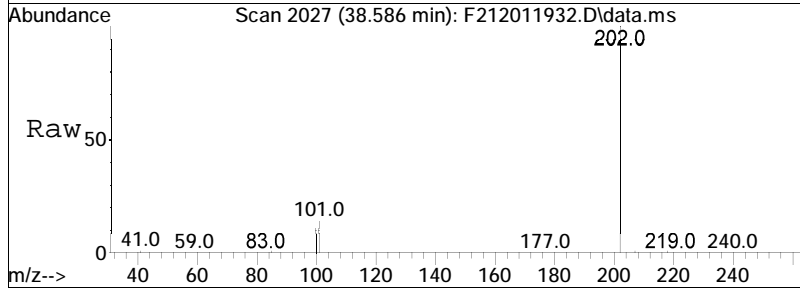
Tgt Ion	Resp	Lower	Upper
216	100		
215	305.9	102.3	189.9#

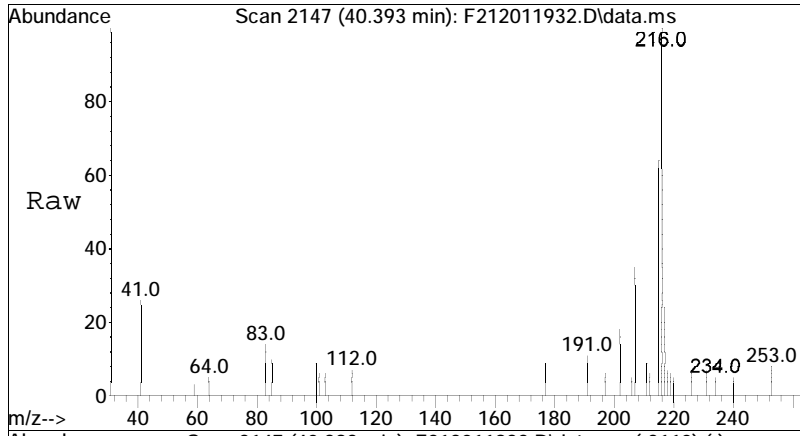




#59
 Pyrene
 Concen: 858.72 ng/mL
 RT: 38.586 min Scan# 2027
 Delta R.T. 0.049 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

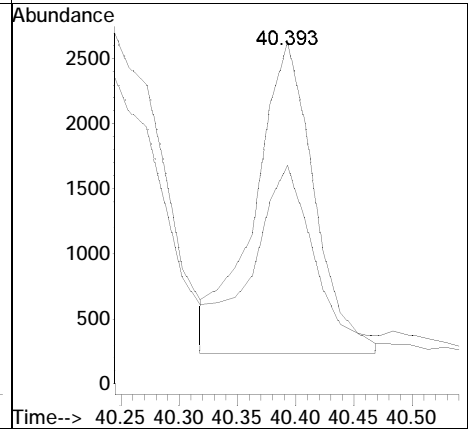
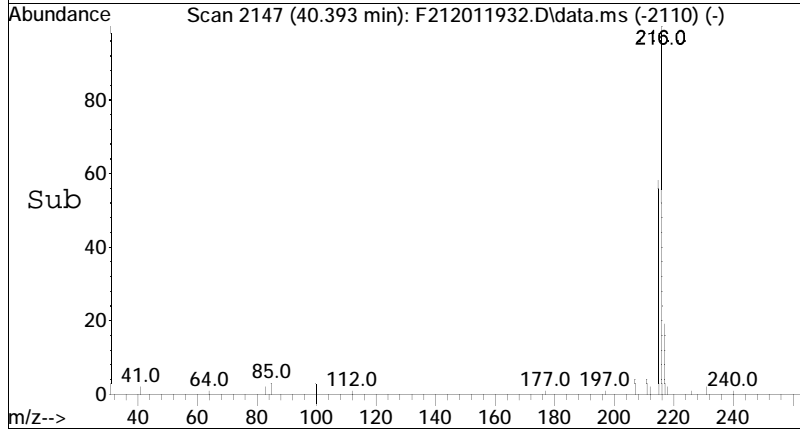
Tgt Ion: 202 Resp: 372720
 Ion Ratio Lower Upper
 202 100
 101 14.5 9.0 16.8

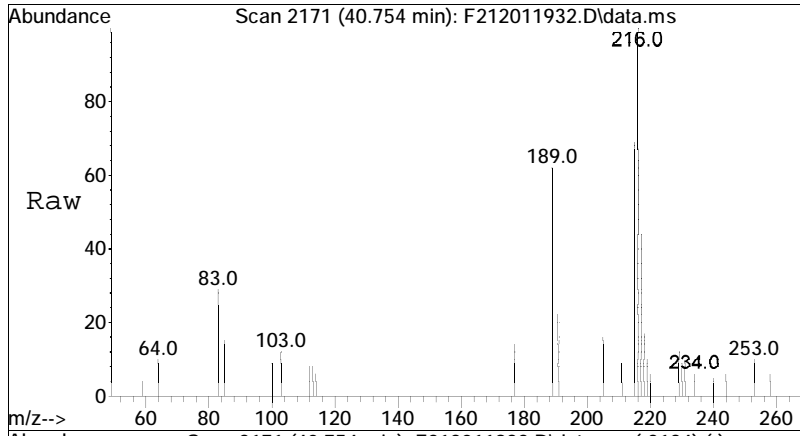




#60
 2-Methylpyrene
 Concen: 19.75 ng/mL M3
 RT: 40.393 min Scan# 2147
 Delta R.T. 0.052 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

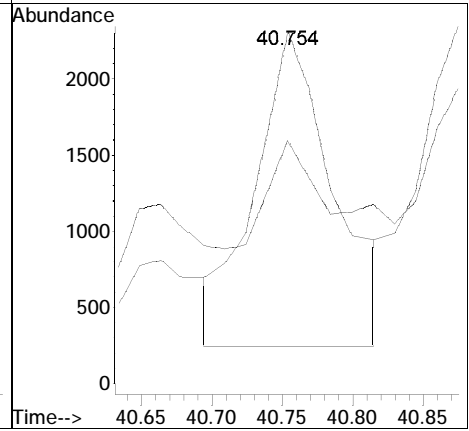
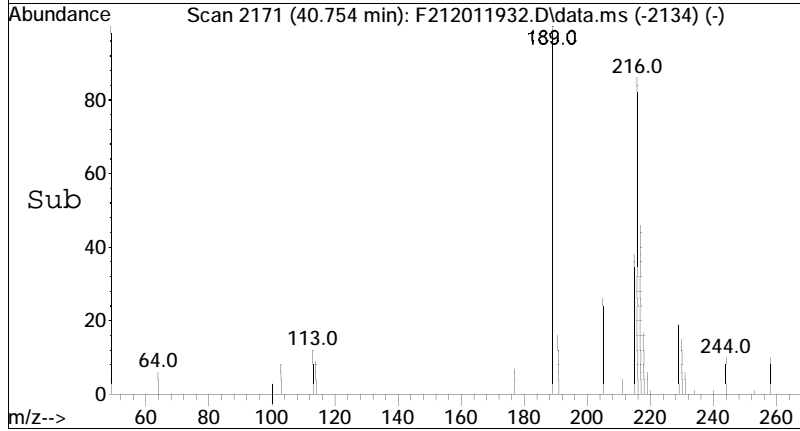
Tgt Ion	Resp	Lower	Upper
216	100		
215	148.8	73.1	135.7#

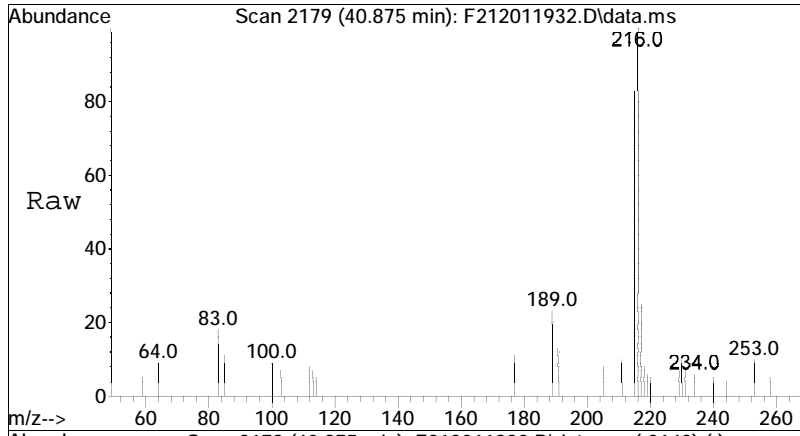




#61
 4-Methylpyrene
 Concen: 18.36 ng/mL M4
 RT: 40.754 min Scan# 2171
 Delta R.T. 0.053 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

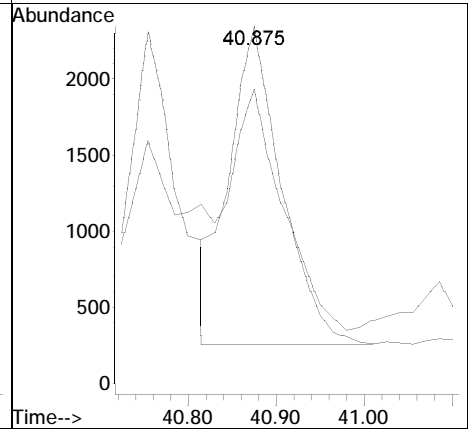
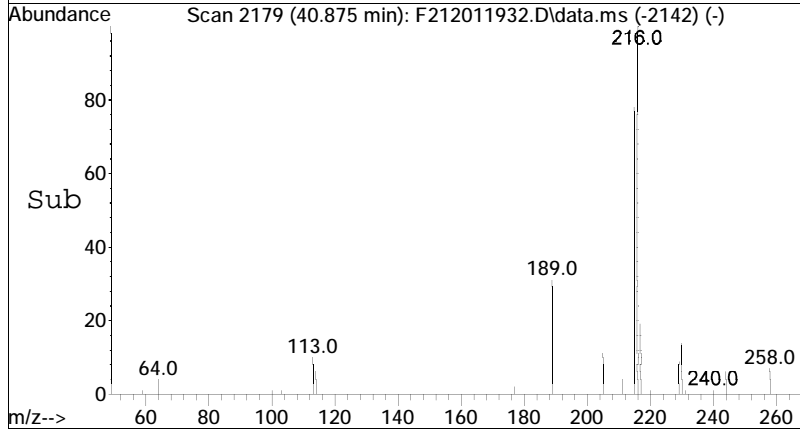
Tgt Ion	Resp	Lower	Upper
216	100		
215	50.9	49.5	91.9

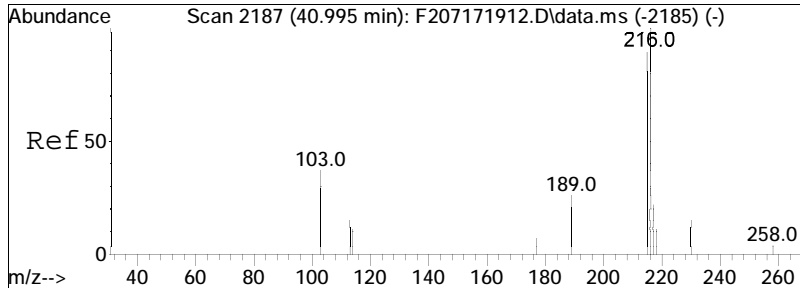




#62
 1-Methylpyrene
 Concen: 19.96 ng/mL
 RT: 40.875 min Scan# 2179
 Delta R.T. 0.053 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

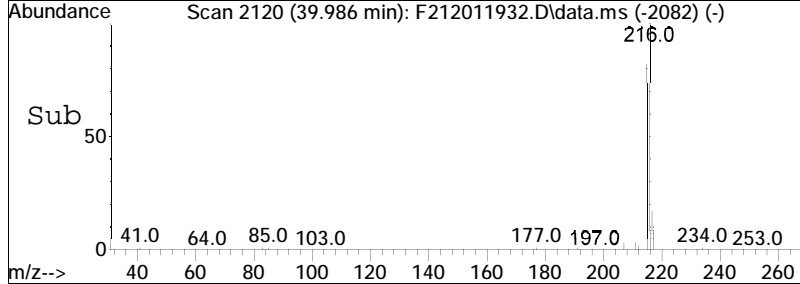
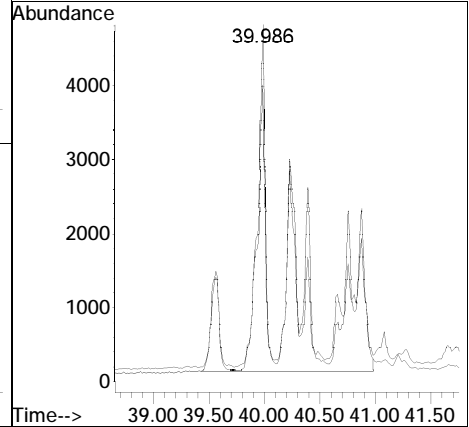
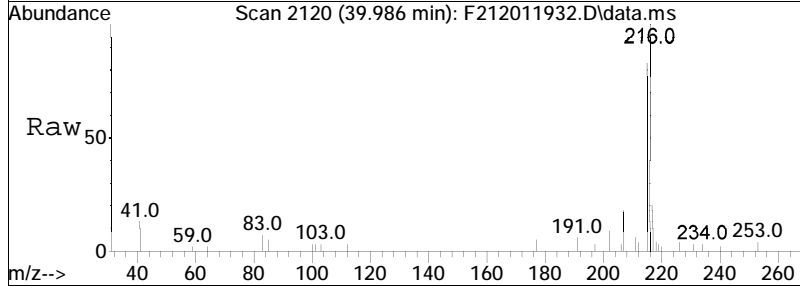
Tgt Ion	Resp	Lower	Upper
216	100		
215	75.8	73.7	136.9

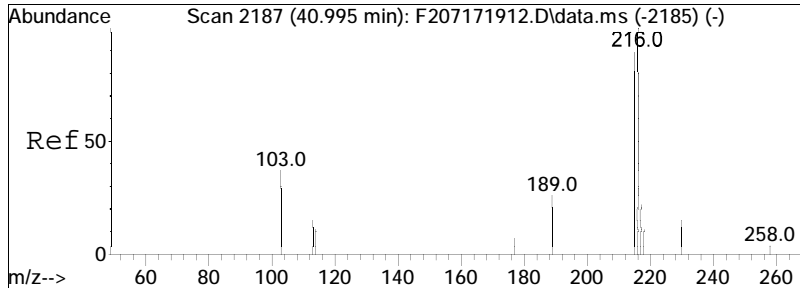




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 177.76 ng/mL M5
 RT: 39.986 min Scan# 2120
 Delta R.T. 0.052 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

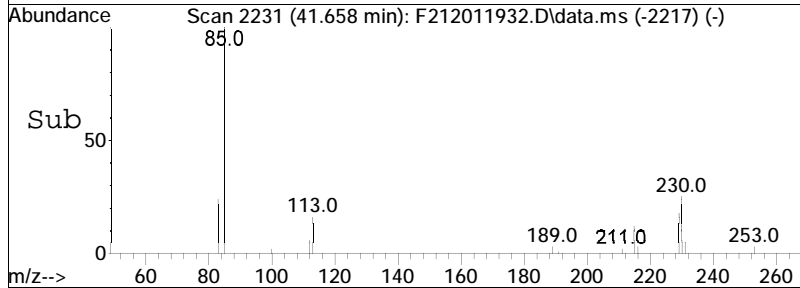
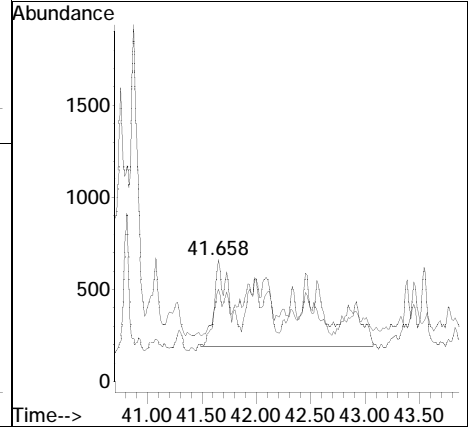
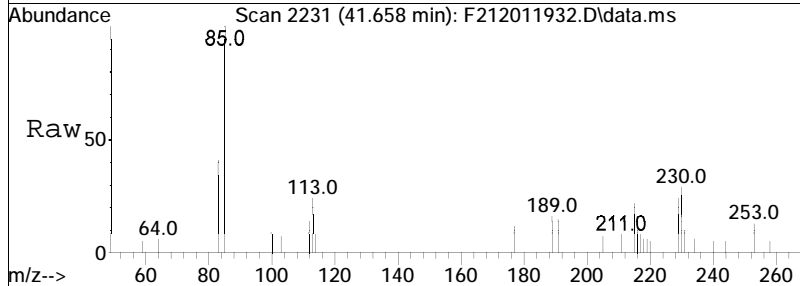
Tgt Ion	Resp	Lower	Upper
216	100		
215	24.5	66.0	122.6#

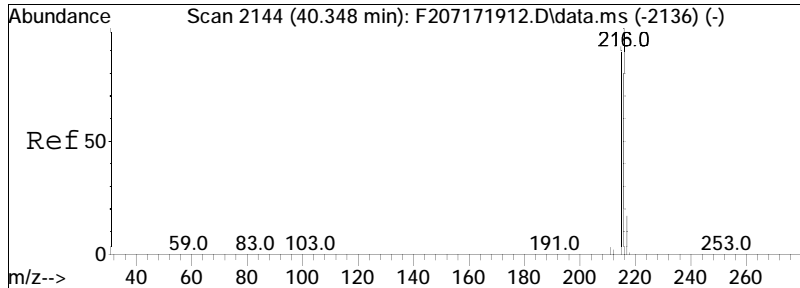




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 41.91 ng/mL M5
 RT: 41.658 min Scan# 2231
 Delta R.T. -0.081 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

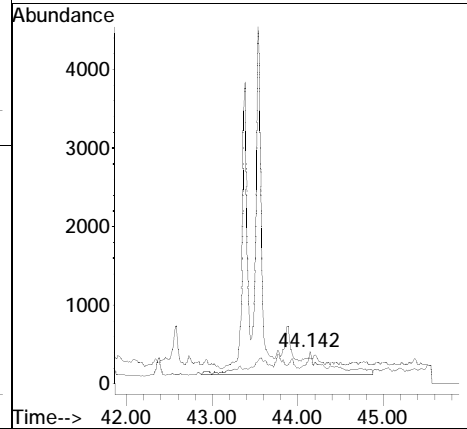
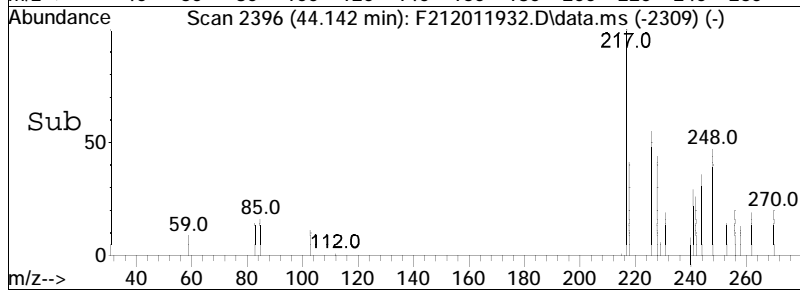
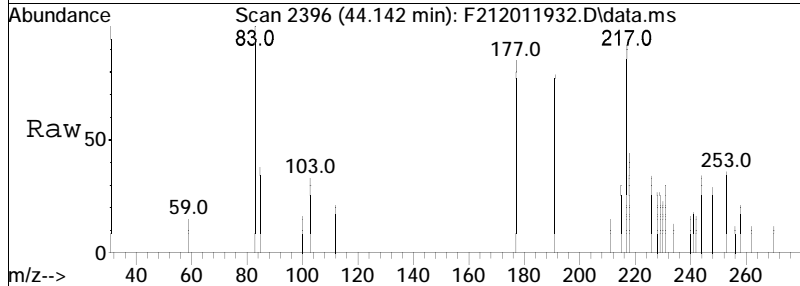
Tgt Ion: 230 Resp: 18190
 Ion Ratio Lower Upper
 230 100
 215 3.6 74.8 138.8#

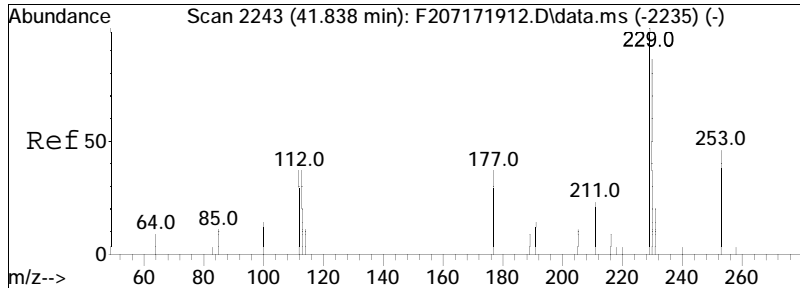




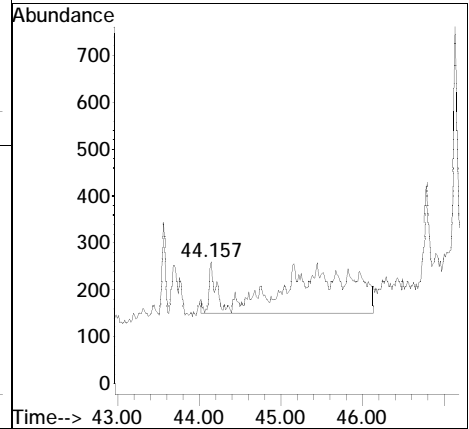
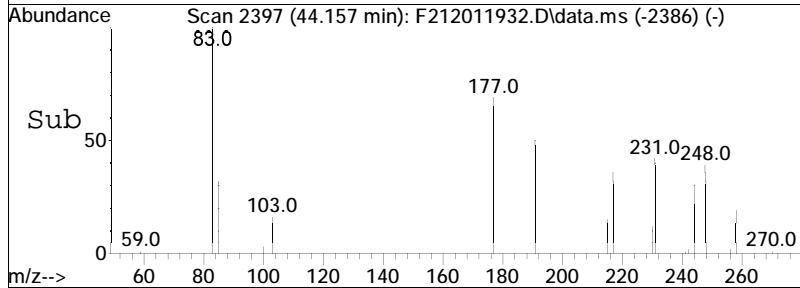
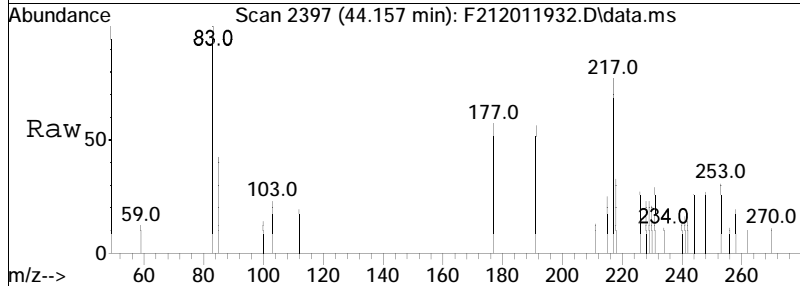
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 24.69 ng/mL M5
 RT: 44.142 min Scan# 2396
 Delta R.T. 0.389 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

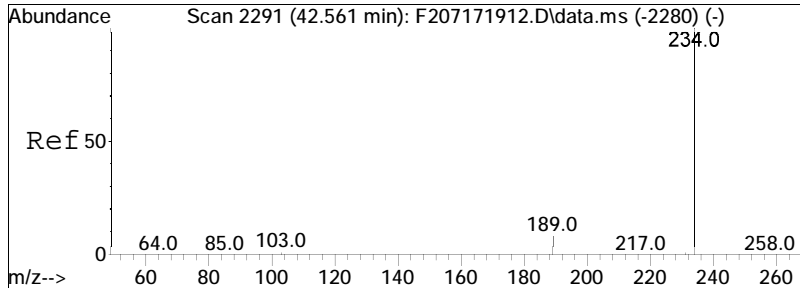
Tgt Ion	Ratio	Lower	Upper
244	100		
229	6.6	62.0	115.2#





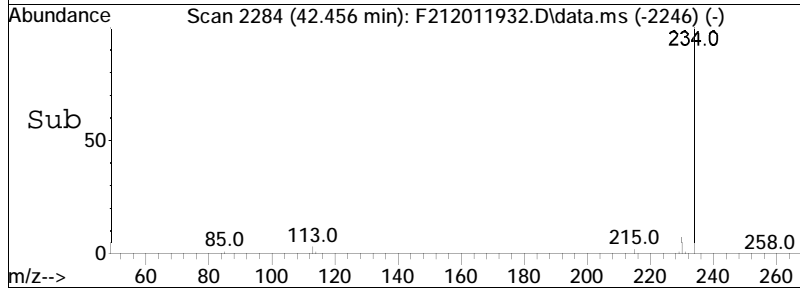
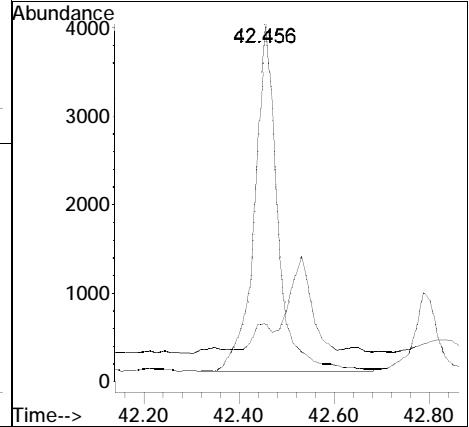
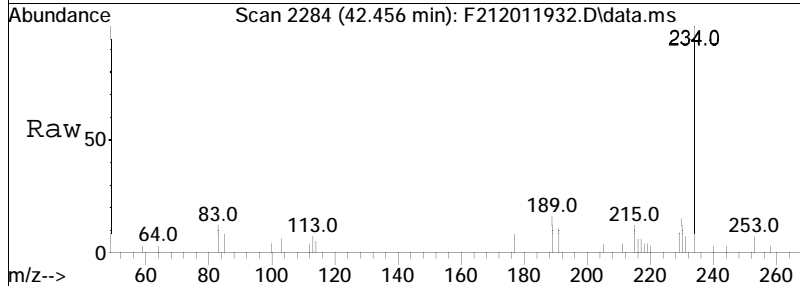
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 14.81 ng/mL M5
 RT: 44.157 min Scan# 2397
 Delta R.T. -0.948 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 258 Resp: 6429

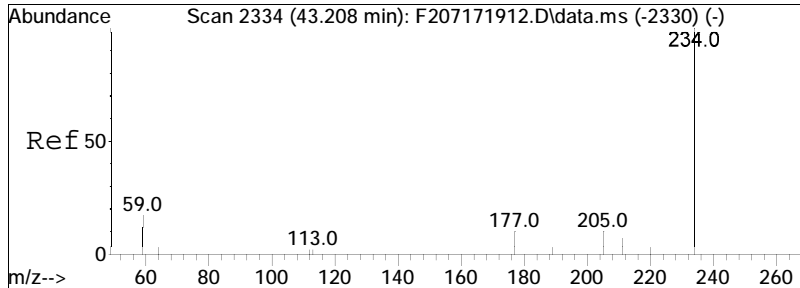




#67
 Naphthobenzothiophene-2,1-D
 Concen: 35.05 ng/mL
 RT: 42.456 min Scan# 2284
 Delta R.T. 0.071 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

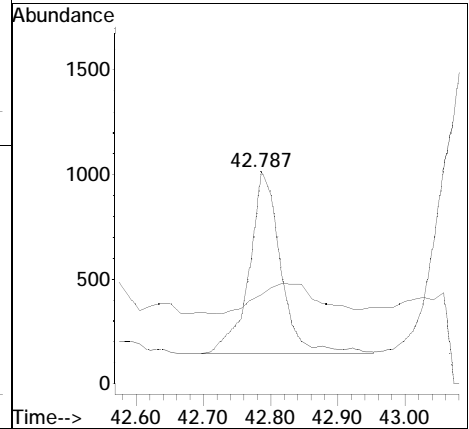
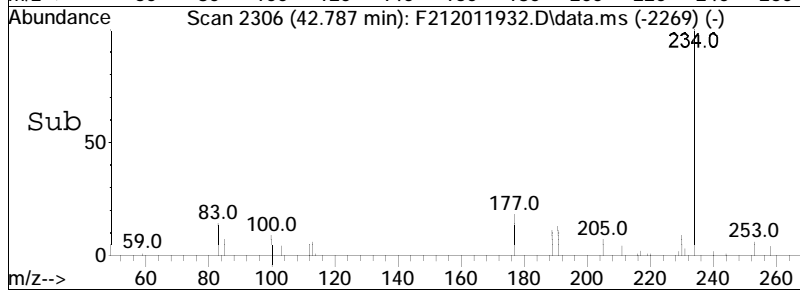
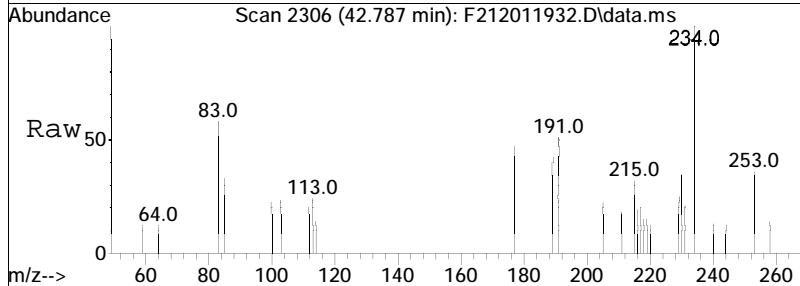
Tgt Ion: 234 Resp: 13013
 Ion Ratio Lower Upper
 234 100
 189 6.8 5.5 10.3

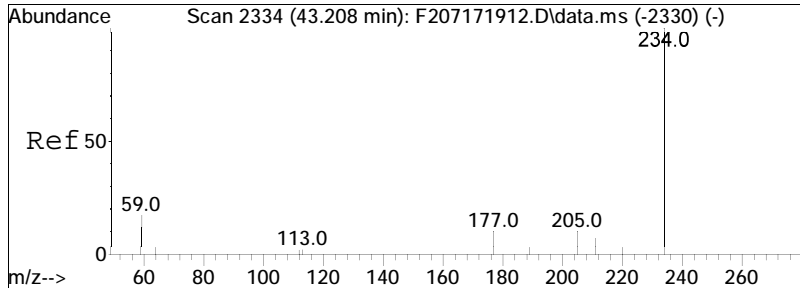




#68
 Naphthobenzothiophene-1,2-D
 Concen: 7.59 ng/mL
 RT: 42.787 min Scan# 2306
 Delta R.T. 0.056 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

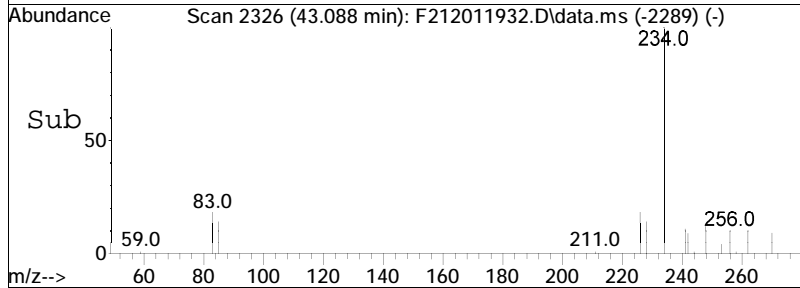
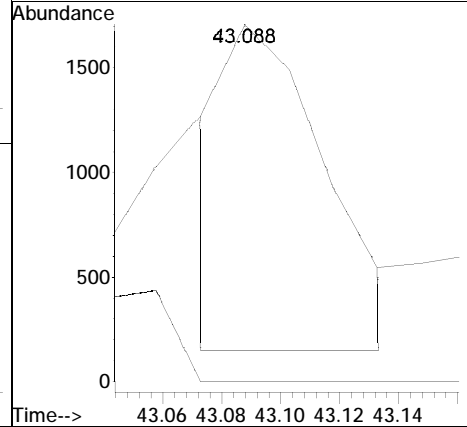
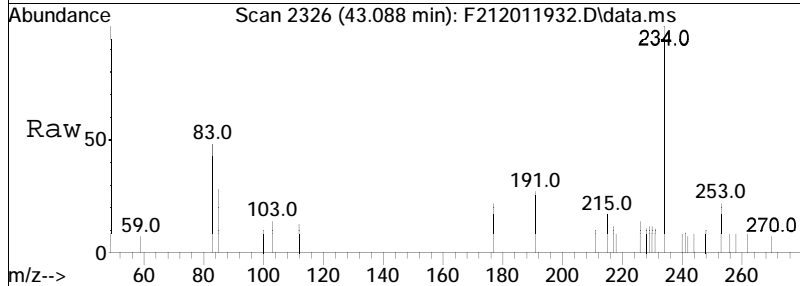
Tgt Ion: 234 Resp: 2818
 Ion Ratio Lower Upper
 234 100
 189 0.0 56.7 105.3#

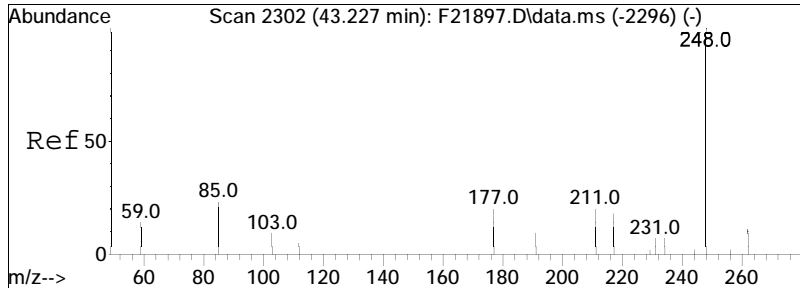




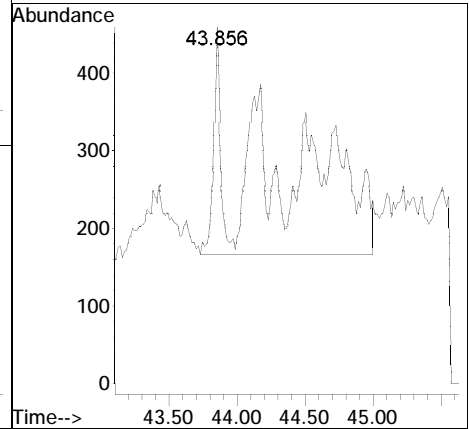
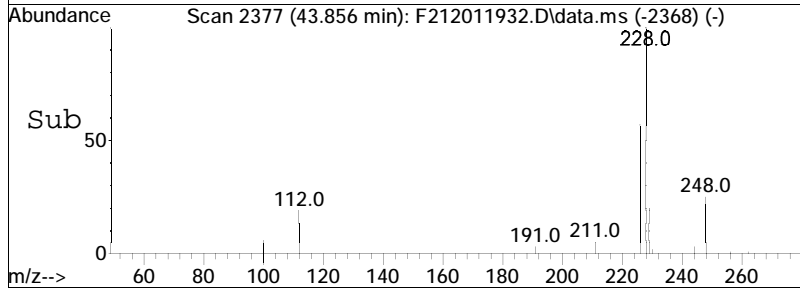
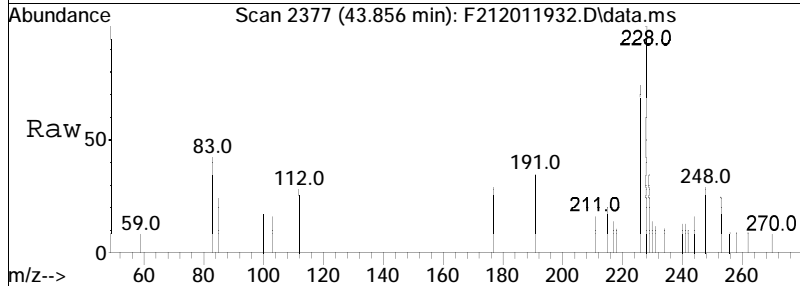
#69
 Naphthobenzothiophene-2,3-D
 Concen: 9.86 ng/mL M3
 RT: 43.088 min Scan# 2326
 Delta R.T. 0.057 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

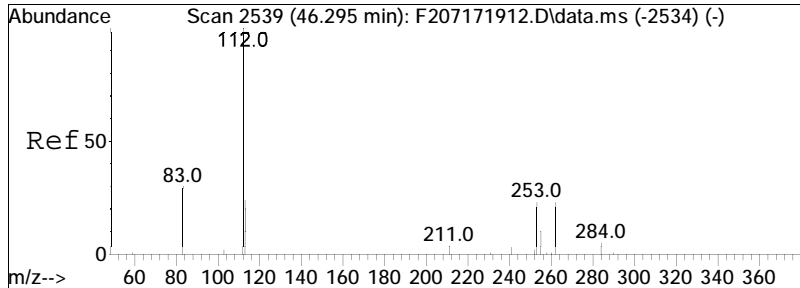
Tgt Ion: 234 Resp: 3662
 Ion Ratio Lower Upper
 234 100
 189 0.0 0.0 0.0



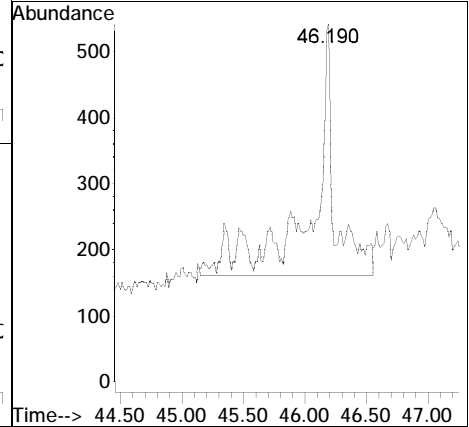
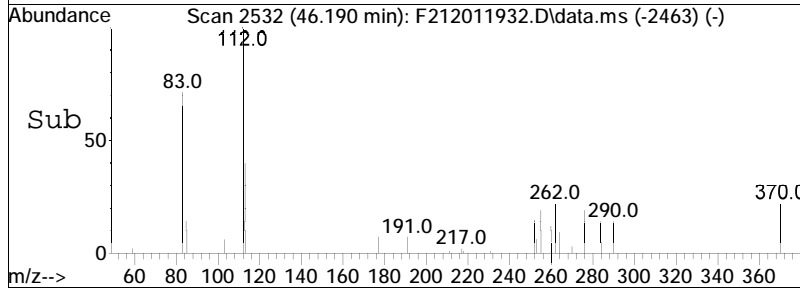
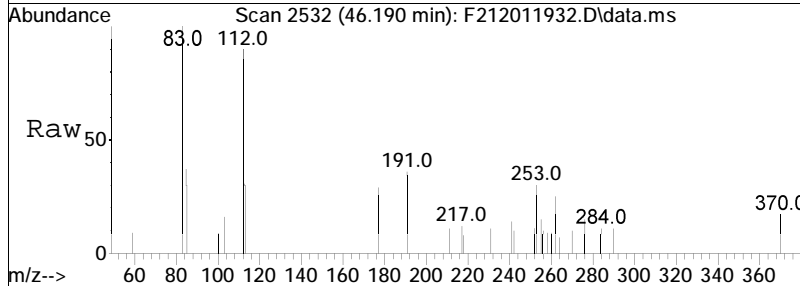


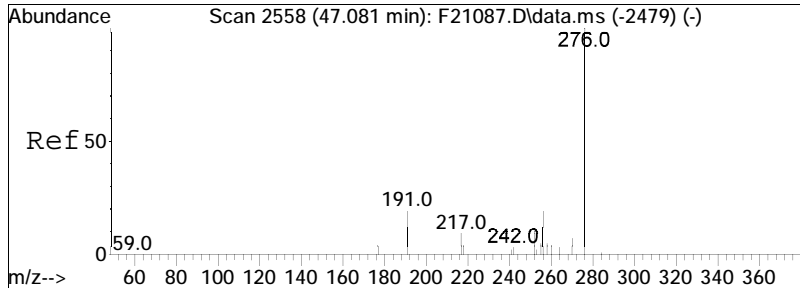
#70
 Cl-Naphthobenzothiophenes
 Concen: 20.40 ng/ml M5
 RT: 43.856 min Scan# 2377
 Delta R.T. -0.618 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 248 Resp: 7575



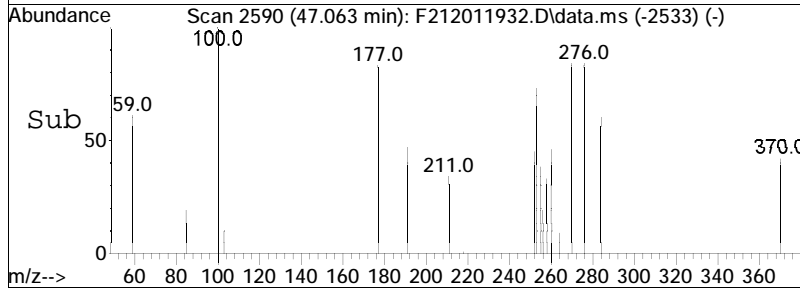
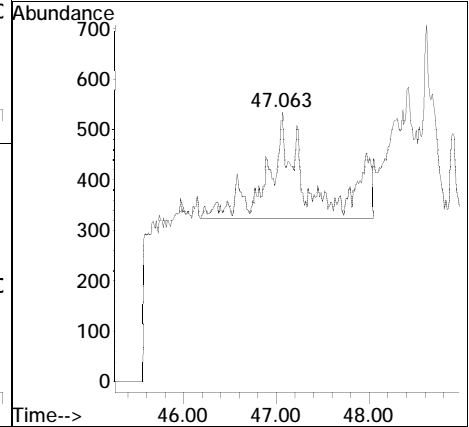
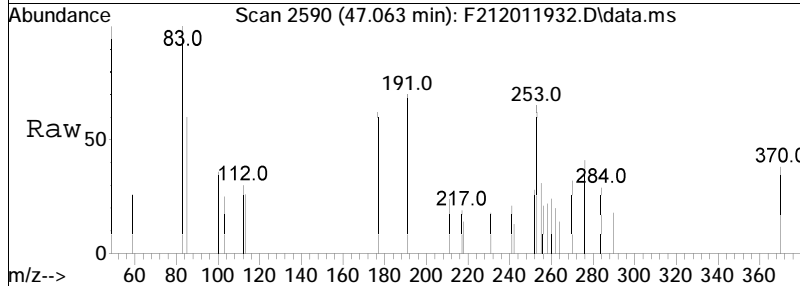


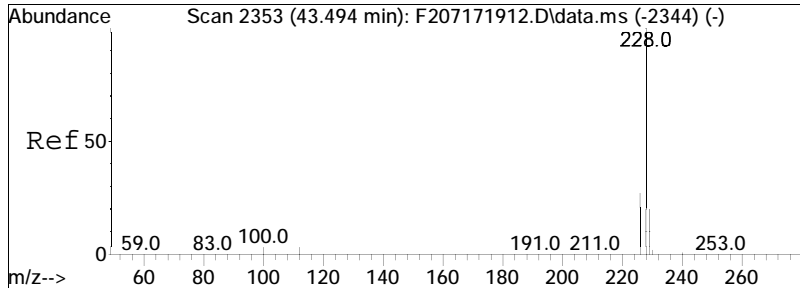
#71
 C2-Naphthobenzothiophenes
 Concen: 13.43 ng/ml M5
 RT: 46.190 min Scan# 2532
 Delta R.T. 0.393 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 262 Resp: 4985





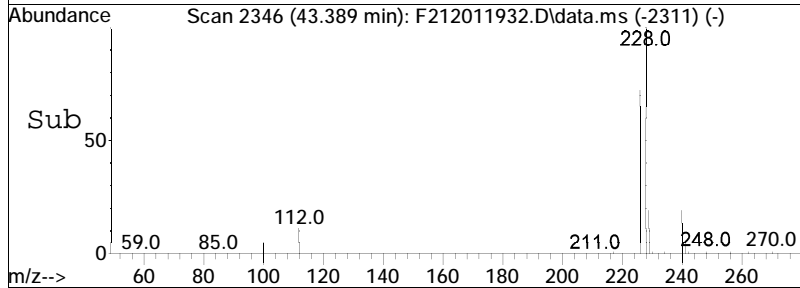
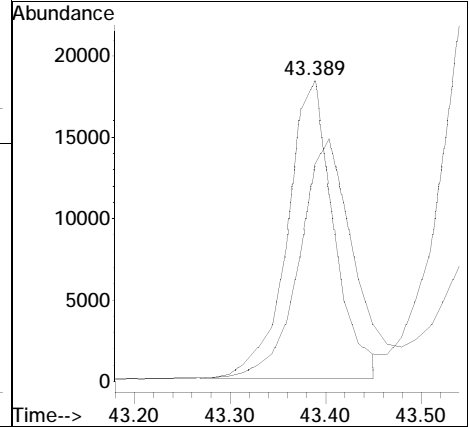
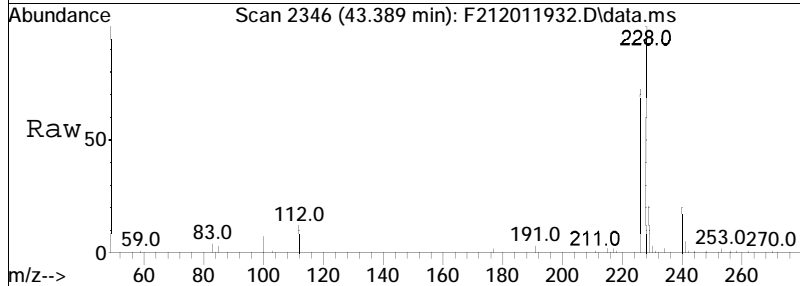
#72
 C3-Naphthobenzothiophenes
 Concen: 17.39 ng/ml M5
 RT: 47.063 min Scan# 2590
 Delta R.T. -0.342 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am
 Tgt Ion: 276 Resp: 6455

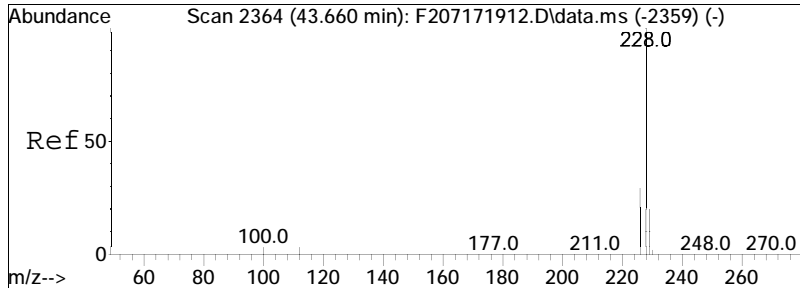




#75
 Benz[a]anthracene
 Concen: 194.00 ng/mL M3
 RT: 43.389 min Scan# 2346
 Delta R.T. 0.030 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

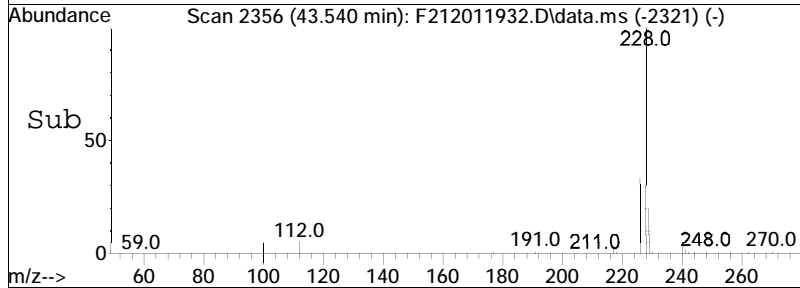
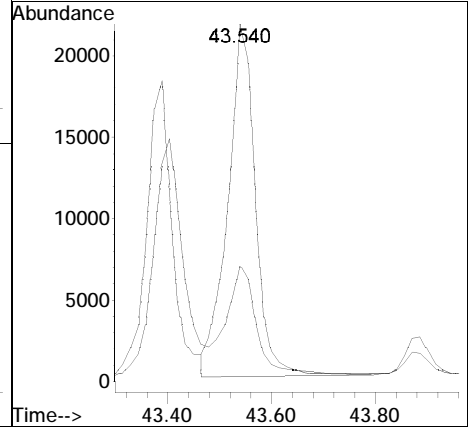
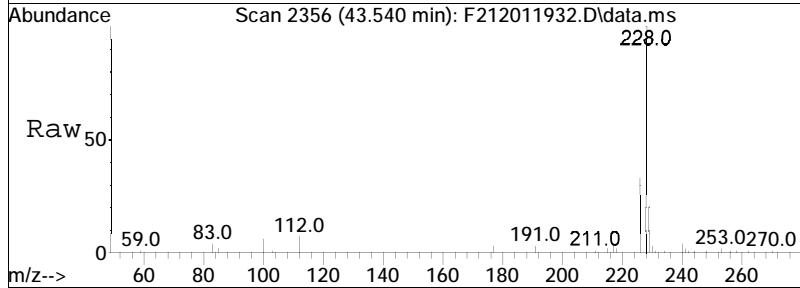
Tgt Ion	Resp	Lower	Upper
228	100		
226	43.6	18.2	33.8#

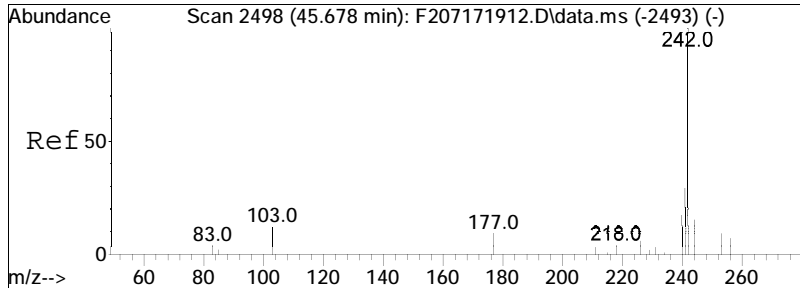




#76
 Chrysene
 Concen: 246.02 ng/mL
 RT: 43.540 min Scan# 2356
 Delta R.T. 0.030 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

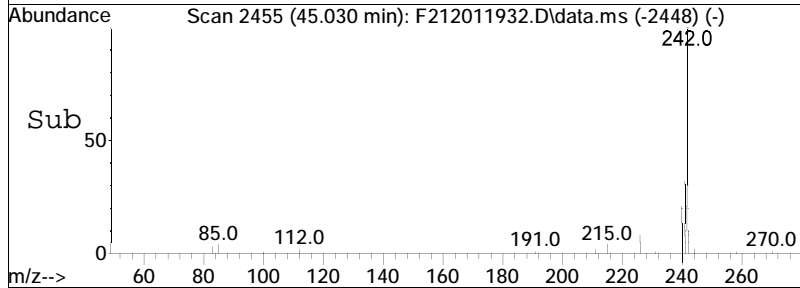
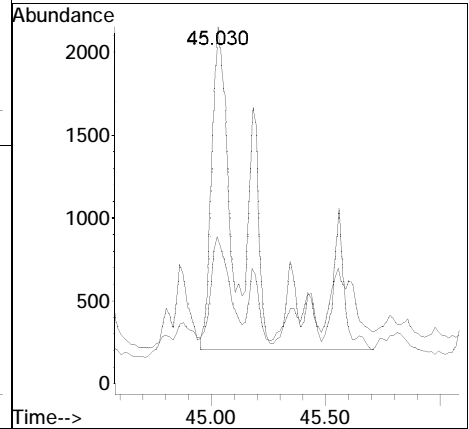
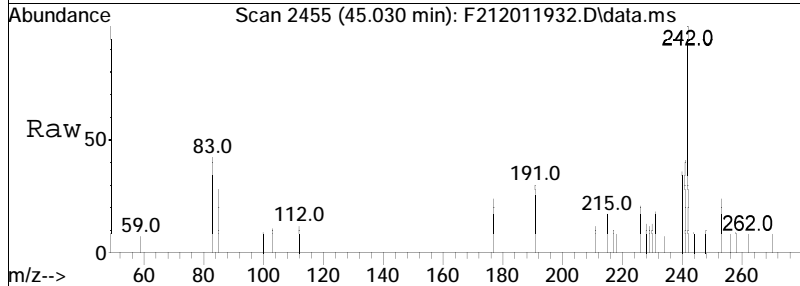
Tgt Ion: 228 Resp: 80019
 Ion Ratio Lower Upper
 228 100
 226 34.7 20.3 37.7

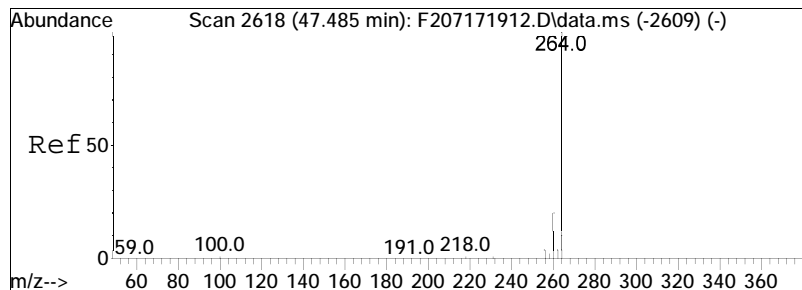




#78
 C1-Chrysenes
 Concen: 62.44 ng/mL M5
 RT: 45.030 min Scan# 2455
 Delta R.T. 0.049 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

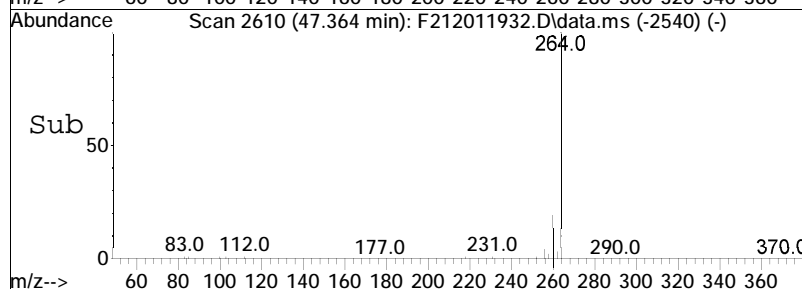
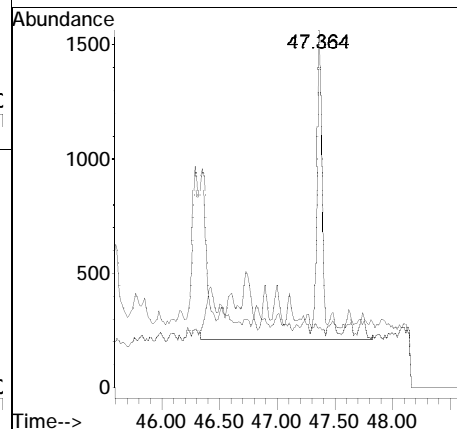
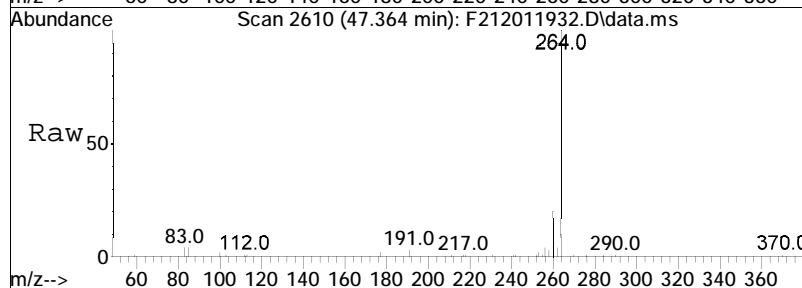
Tgt Ion: 242 Resp: 20309
 Ion Ratio Lower Upper
 242 100
 241 11.7 31.3 58.1#

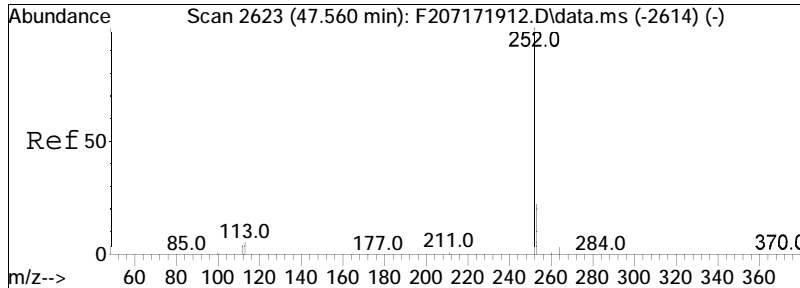




#79
 C2-Chrysenes
 Concen: 40.36 ng/mL M5
 RT: 47.364 min Scan# 2610
 Delta R.T. 0.289 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

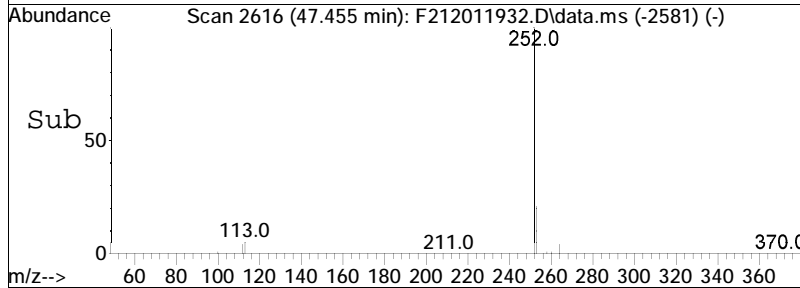
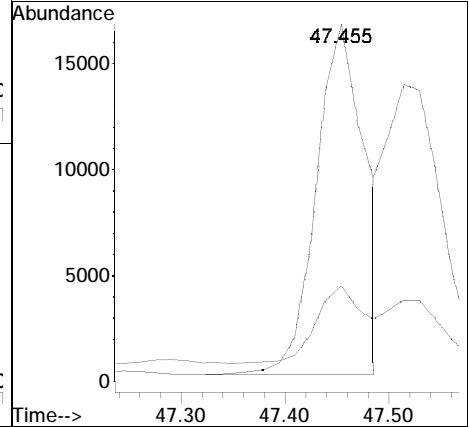
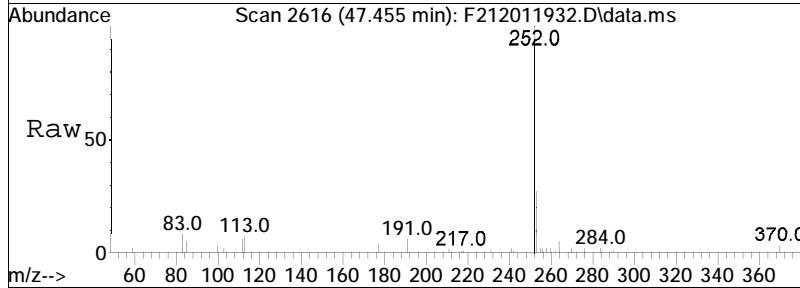
Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.5	25.6	47.4#

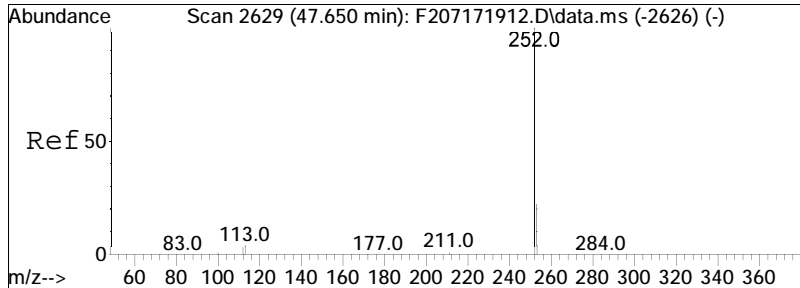




#84
 Benzo[b]fluoranthene
 Concen: 139.70 ng/mL
 RT: 47.455 min Scan# 2616
 Delta R.T. 0.033 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

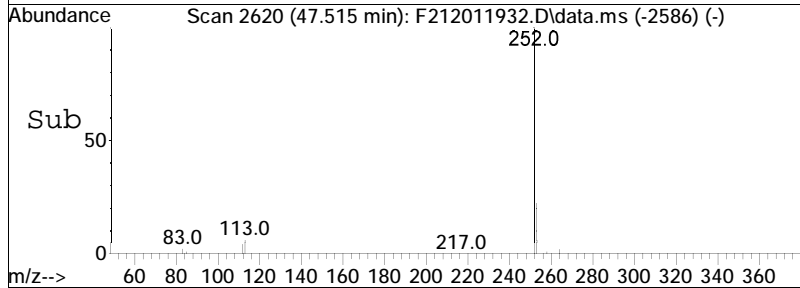
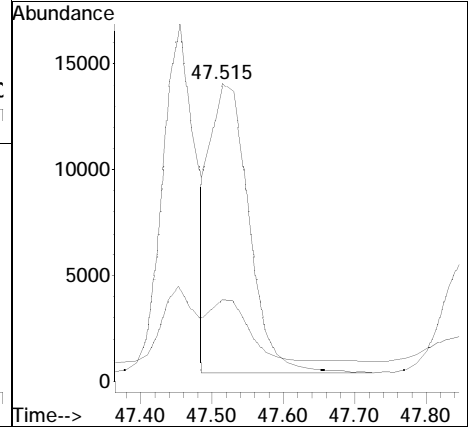
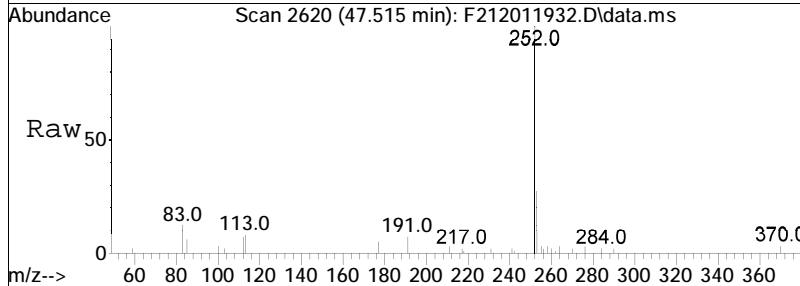
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	16.4	30.4

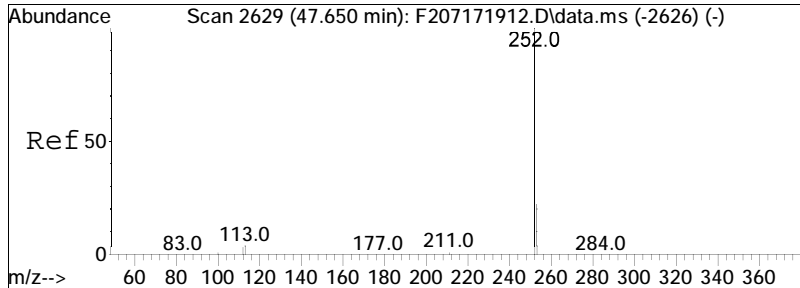




#85
 Benzo[j]+[k]fluoranthene
 Concen: 131.67 ng/mL
 RT: 47.515 min Scan# 2620
 Delta R.T. 0.018 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

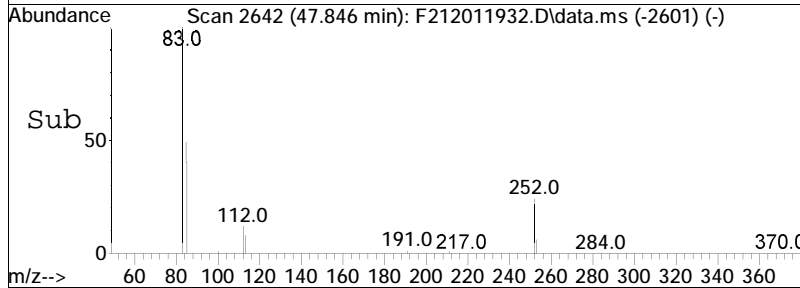
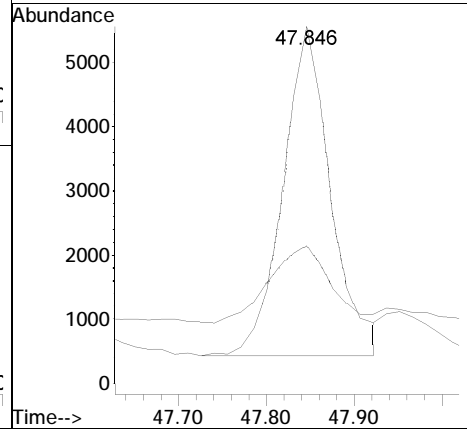
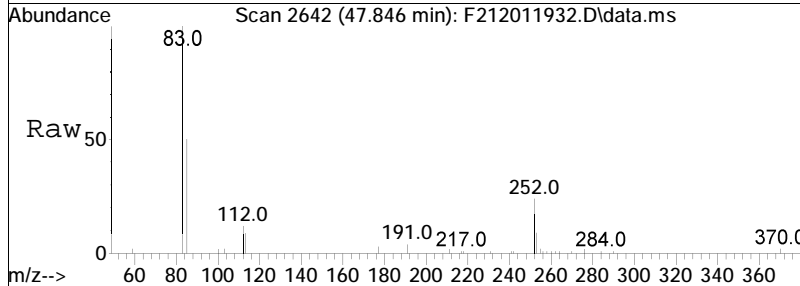
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	16.4	30.4

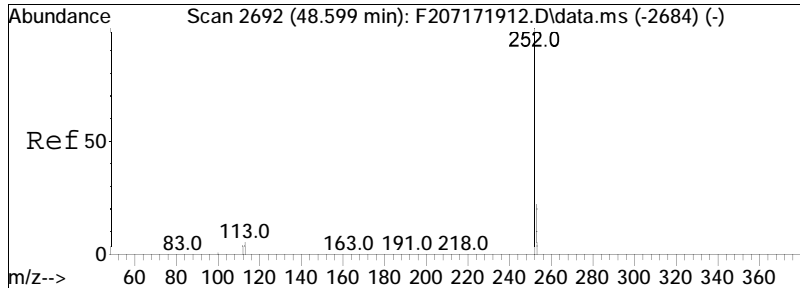




#86
 Benzo[a]fluoranthene
 Concen: 49.44 ng/mL
 RT: 47.846 min Scan# 2642
 Delta R.T. 0.117 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

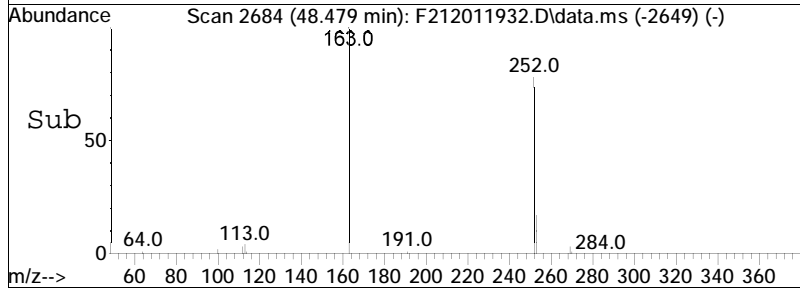
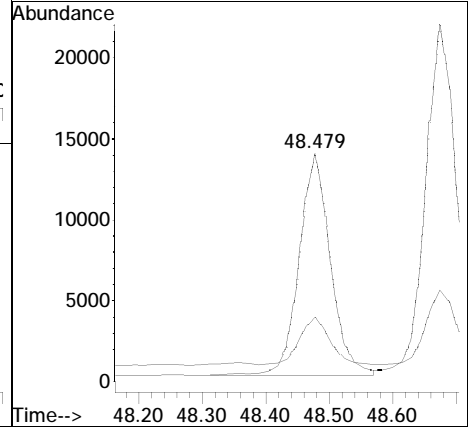
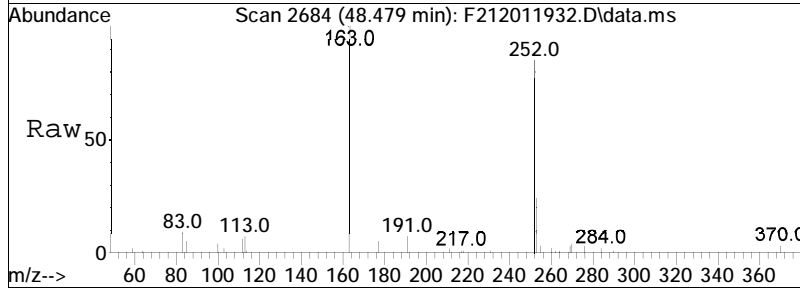
Tgt Ion	Resp	Lower	Upper
252	100		
253	30.9	96.2	178.8#

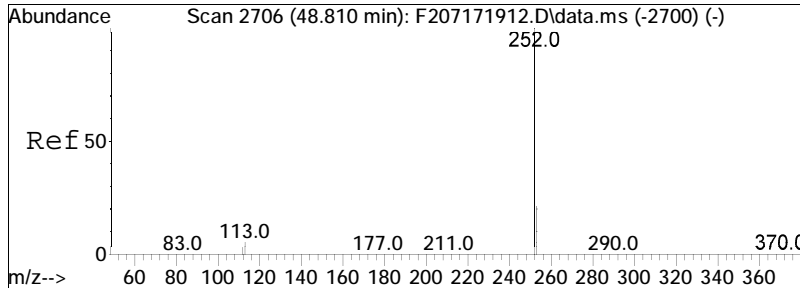




#87
 Benzo[e]pyrene
 Concen: 126.14 ng/mL
 RT: 48.479 min Scan# 2684
 Delta R.T. 0.033 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

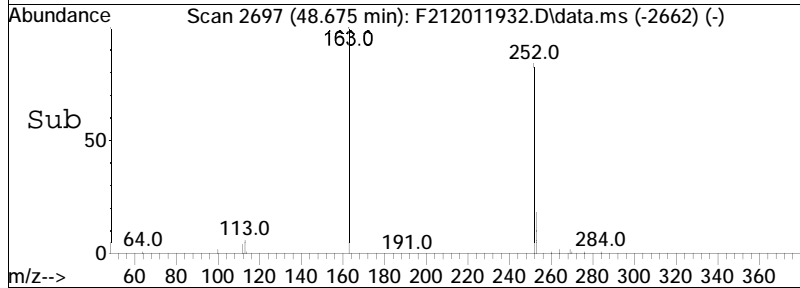
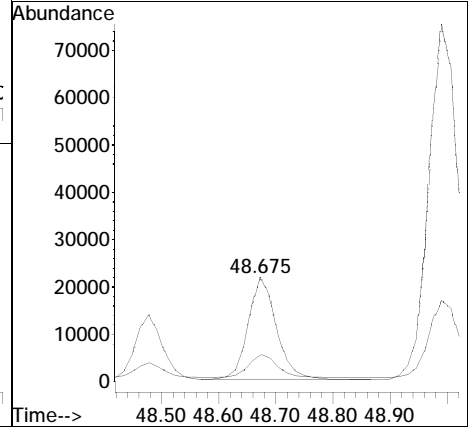
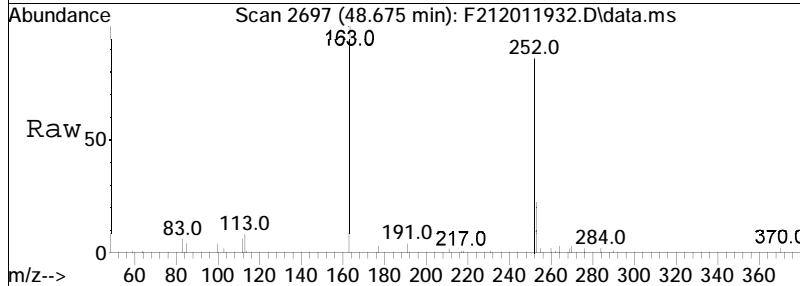
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	16.6	30.8

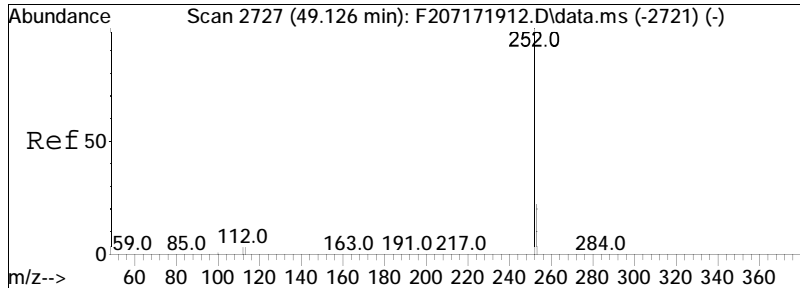




#89
 Benzo[a]pyrene
 Concen: 219.98 ng/mL
 RT: 48.675 min Scan# 2697
 Delta R.T. 0.034 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

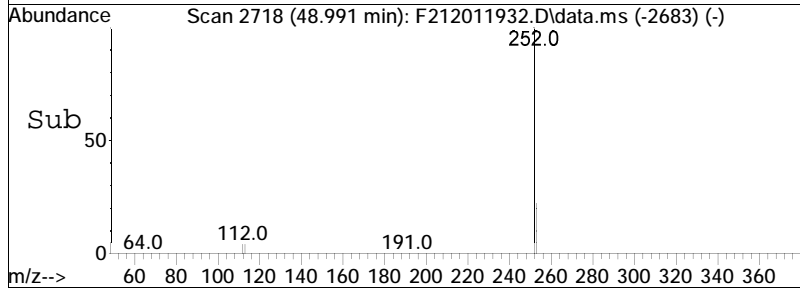
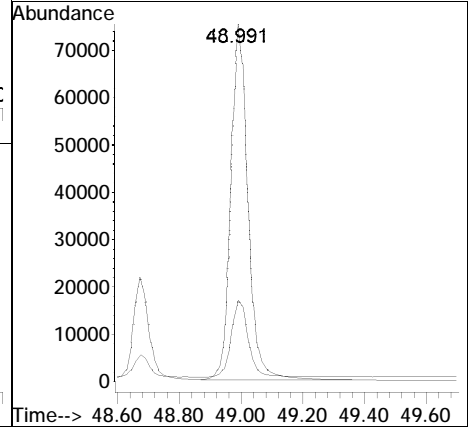
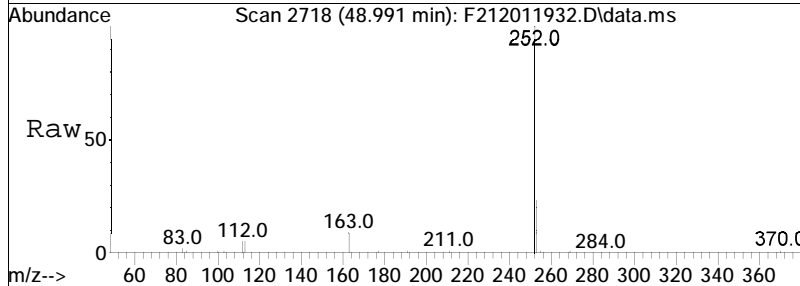
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.7	16.7	31.1

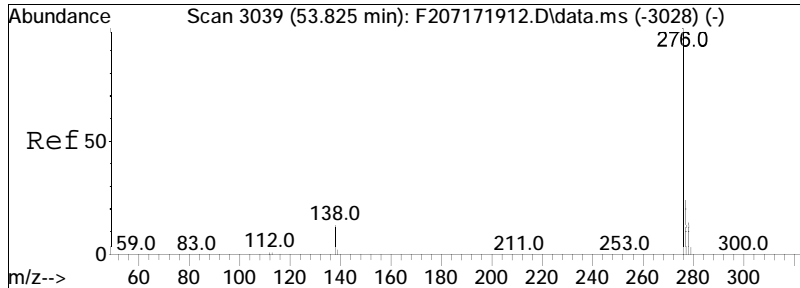




#90
 Perylene
 Concen: 859.17 ng/mL
 RT: 48.991 min Scan# 2718
 Delta R.T. 0.034 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

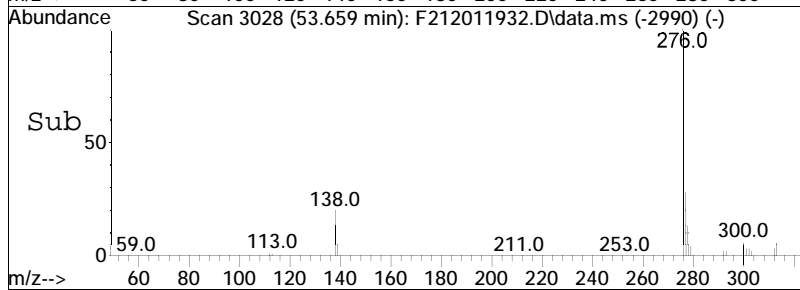
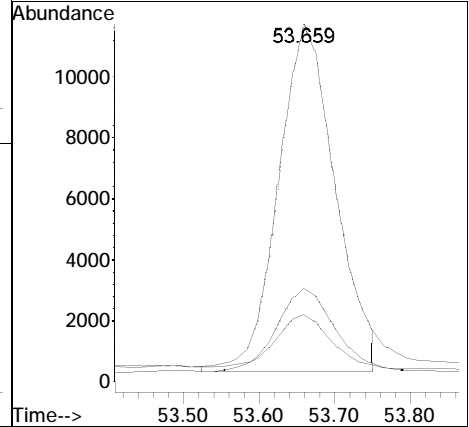
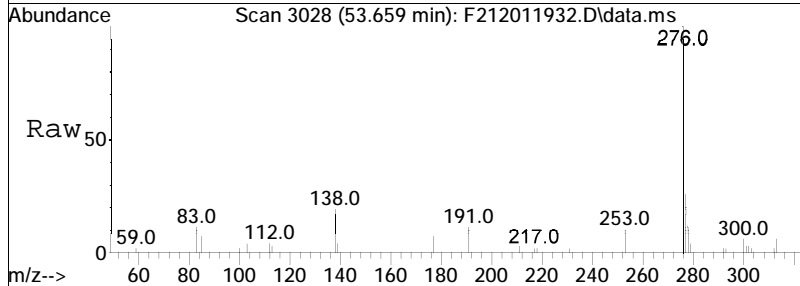
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.8	17.1	31.7

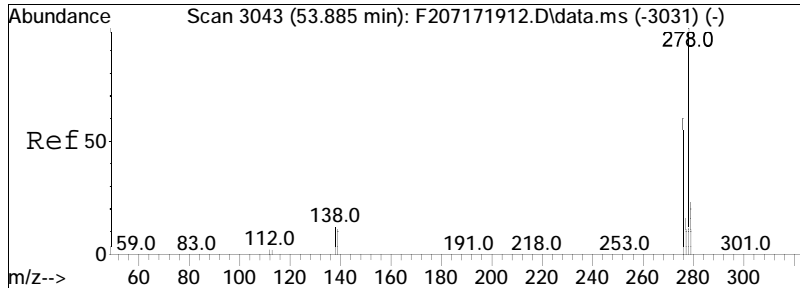




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 147.24 ng/mL M3
 RT: 53.659 min Scan# 3028
 Delta R.T. 0.067 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

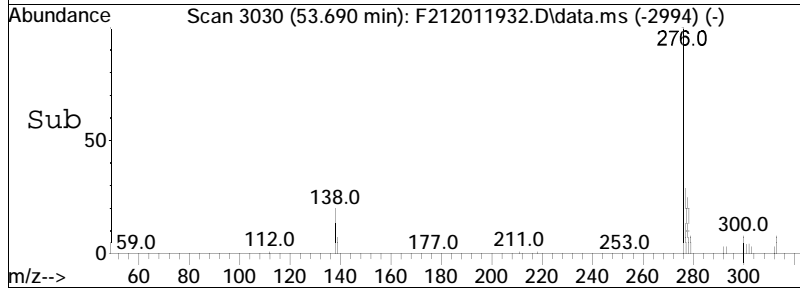
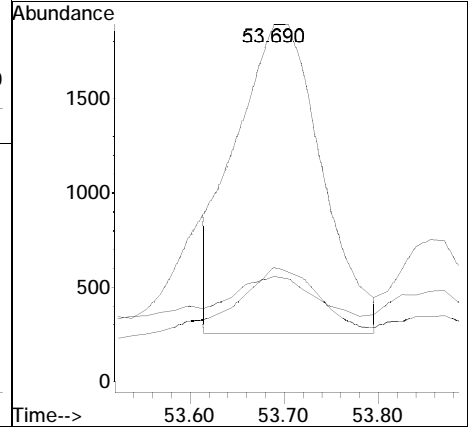
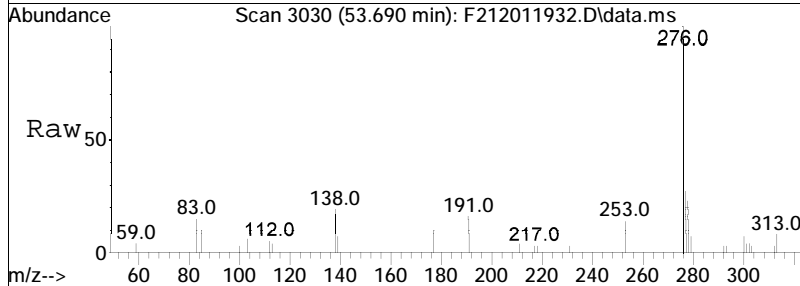
Tgt Ion	Ratio	Lower	Upper
276	100		
138	15.4	11.3	20.9
277	27.6	16.8	31.2

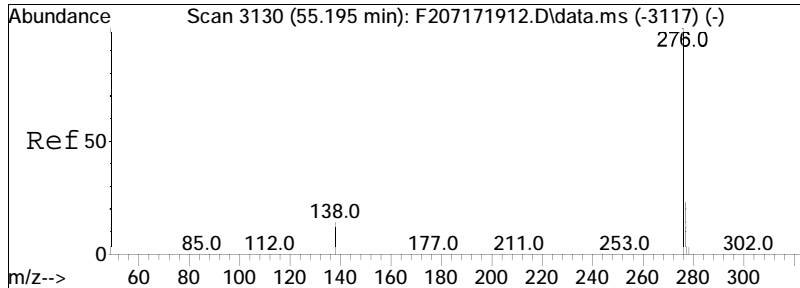




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 28.05 ng/mL M3
 RT: 53.690 min Scan# 3030
 Delta R.T. 0.037 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

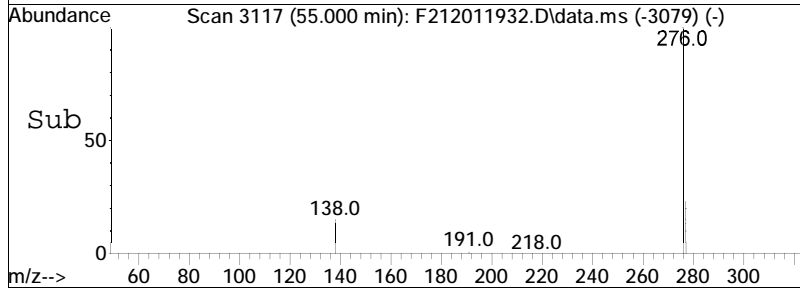
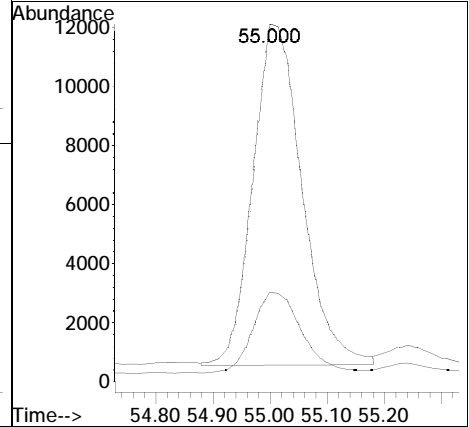
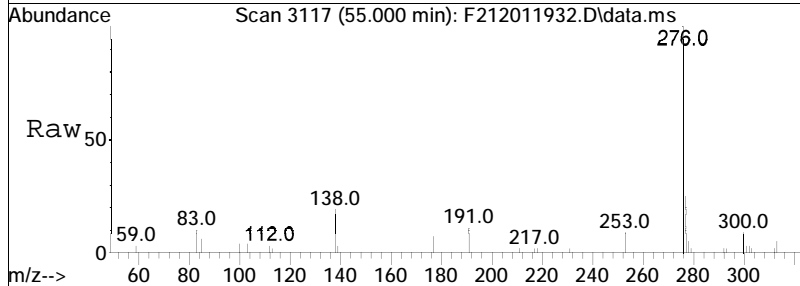
Tgt Ion	Ratio	Lower	Upper
278	100		
139	10.2	9.2	17.2
279	15.7	16.6	30.8#





#93
 Benzo[g,h,i]perylene
 Concen: 170.05 ng/mL
 RT: 55.000 min Scan# 3117
 Delta R.T. 0.068 min
 Lab File: F212011932.D
 Acq: 4 Dec 2019 8:19 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	23.6	16.5	30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011933.D
 Acq On : 4 Dec 2019 9:47 am
 Operator : PAH2:MJS
 Sample : L1954309-07
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 10 14:18:50 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.919	164	85957M4	500.000	ng/mL	-0.02	
74) Chrysene-d12	43.434	240	126228	500.000	ng/mL	0.02	
System Monitoring Compounds							
8) Naphthalene-d8	19.933	136	531791	1678.254	ng/mL	-0.03	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	167.83%#		
40) Phenanthrene-d10	32.805	188	505857	1815.638	ng/mL	0.00	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	181.56%#		
83) Benzo[b]fluoranthene-d12	47.349	264	553525	2239.274	ng/mL	0.02	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	223.93%#		
88) Benzo[a]pyrene-d12	48.569	264	355619	1861.362	ng/mL	0.02	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	186.14%#		
Target Compounds							
2) trans-Decalin	16.591	138	1977	29.835	ng/mL	100	Qvalue
3) cis-Decalin	17.811	138	156	3.052	ng/mL	100	
4) C1-Decalins	18.518	152	7783M5	117.454	ng/mL		
5) C2-Decalins	19.858	166	12336M5	186.164	ng/mL		
6) C3-Decalins	22.327	180	8606M5	129.874	ng/mL		
7) C4-Decalins	24.615	194	8456M5	127.610	ng/mL		
9) Naphthalene	20.009	128	603462	1712.909	ng/mL	100	
10) C1-Naphthalenes	22.718	142	191902M5	544.708	ng/mL		
11) C2-Naphthalenes	25.564	156	673078M5	1910.512	ng/mL		
12) C3-Naphthalenes	27.897	170	449712M5	1276.494	ng/mL		
13) C4-Naphthalenes	30.667	184	169789M5	481.941	ng/mL		
14) 2-Methylnaphthalene	22.718	142	100491	432.351	ng/mL	100	
15) 1-Methylnaphthalene	23.140	142	91508	409.883	ng/mL	100	
16) Benzothiophene	20.234	134	76330	277.944	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.583	148	43651M5	158.949	ng/mL		
18) C2-Benzo(b)thiophenes	25.278	162	93147M5	339.181	ng/mL		
19) C3-Benzo(b)thiophenes	27.370	176	75689M5	275.610	ng/mL		
20) C4-Benzo(b)thiophenes	28.981	190	36135M5	131.580	ng/mL		
21) Biphenyl	24.600	154	50122	177.180	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.217	156	188422	905.942	ng/mL	100	
23) Dibenzofuran	27.686	168	107419	357.174	ng/mL	99	
24) Acenaphthylene	26.301	152	101485	292.532	ng/mL	100	
25) Acenaphthene	27.039	153	1388672	6410.271	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.590	170	34347M3	180.783	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011933.D
 Acq On : 4 Dec 2019 9:47 am
 Operator : PAH2:MJS
 Sample : L1954309-07
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 10 14:18:50 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.056	166	967540M4	3943.188	ng/mL	
28) C1-Fluorenes	31.299	180	190510M5	776.419	ng/mL	
29) C2-Fluorenes	33.482	194	108024M5	440.249	ng/mL	
30) C3-Fluorenes	36.162	208	71202M5	290.182	ng/mL	
31) Dibenzothiophene	32.398	184	1153439	3470.738	ng/mL	97
32) 4-Methyldibenzothiophene(	34.175	198	74364	223.764	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.536	198	130600M1	392.980	ng/mL	
34) 1-Methyldibenzothiophene(	34.943	198	22569	67.911	ng/mL	100
36) C1-Dibenzothiophenes	34.175	198	302120M5	909.090	ng/mL	
36) C1-Dibenzothiophenes BS	34.175	198	262659M5	790.350	ng/mL	
37) C2-Dibenzothiophenes	36.222	212	127675M5	384.179	ng/mL	
38) C3-Dibenzothiophenes	37.668	226	71710M5	215.778	ng/mL	
39) C4-Dibenzothiophenes	38.661	240	38105M5	114.659	ng/mL	
41) Phenanthrene	32.910	178	10125542	28642.482	ng/mL	98
42) 3-Methylphenanthrene(3MP)	34.867	192	285050	806.331	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.973	192	332107	939.443	ng/mL	97
44) 2-Methylanthracene(2MA)	35.123	192	64585M3	182.694	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.319	192	227761M3	644.276	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.973	192	1089044M5	3080.618	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.126	206	445806M5	1261.067	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.126	206	445806M5	1261.067	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.978	220	174153M5	492.633	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.896	234	95048M5	268.866	ng/mL	
52) Retene	39.896	234	34047	281.343	ng/mL	87
53) Anthracene	33.076	178	514183	1706.154	ng/mL	99
54) Carbazole	33.753	167	33252M4	117.939	ng/mL	
55) 1-Methylphenanthrene	35.394	192	162745	614.736	ng/mL	98
56) Fluoranthene	37.698	202	5379559	13342.905	ng/mL	99
57) Benzo(b)fluorene	40.212	216	198337M3	781.931	ng/mL	
58) 7H-Benzo(c)fluorene	40.242	216	45022M3	177.496	ng/mL	
59) Pyrene	38.586	202	6947532	16595.092	ng/mL	95
60) 2-Methylpyrene	40.378	216	150352M3	359.135	ng/mL	
61) 4-Methylpyrene	40.739	216	123023	293.857	ng/mL	77
62) 1-Methylpyrene	40.860	216	132449	316.372	ng/mL	71
63) C1-Fluoranthenes/Pyrenes	39.971	216	1148415M5	2743.140	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.703	230	255982M5	611.447	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.916	244	120500M5	287.830	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.151	258	69980M5	167.156	ng/mL	
67) Naphthobenzothiophene-2,1	42.441	234	209067	583.838	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011933.D
 Acq On : 4 Dec 2019 9:47 am
 Operator : PAH2:MJS
 Sample : L1954309-07
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 10 14:18:50 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.772	234	46874	130.900	ng/mL#	18
69) Naphthobenzothiophene-2,3	43.073	234	78627M3	219.573	ng/mL	
70) C1-Naphthobenzothiophenes	43.826	248	100191M5	279.792	ng/ml	
71) C2-Naphthobenzothiophenes	45.346	262	62935M5	175.751	ng/ml	
72) C3-Naphthobenzothiophenes	47.229	276	49680M5	138.736	ng/ml	
73) C4-Naphthobenzothiophenes	48.569	290	16011M5	44.712	ng/mL	
75) Benz[a]anthracene	43.374	228	1152568M3	3997.793	ng/mL	
76) Chrysene	43.525	228	1396840	4759.133	ng/mL	98
78) C1-Chrysenes	45.000	242	349389M5	1190.393	ng/mL	
79) C2-Chrysenes	47.349	256	187475M5	638.741	ng/mL	
79) C2-Chrysenes BS	47.349	256	168225M5	573.154	ng/mL	
81) C3-Chrysenes	48.343	270	88569M5	301.761	ng/mL	
82) C4-Chrysenes	49.367	284	53275M5	181.512	ng/mL	
84) Benzo[b]fluoranthene	47.440	252	1099824	3151.073	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.515	252	1042192M6	2968.116	ng/mL	
86) Benzo[a]fluoranthene	47.831	252	265371	755.765	ng/mL#	7
87) Benzo[e]pyrene	48.464	252	1035039	3087.374	ng/mL	96
89) Benzo[a]pyrene	48.675	252	1619435	5276.720	ng/mL	96
90) Perylene	48.976	252	509180	1698.279	ng/mL	94
91) Indeno[1,2,3-cd]pyrene	53.644	276	1389983M4	3807.073	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.660	278	215653	647.338	ng/mL	95
93) Benzo[g,h,i]perylene	55.000	276	1725055	4726.888	ng/mL	99

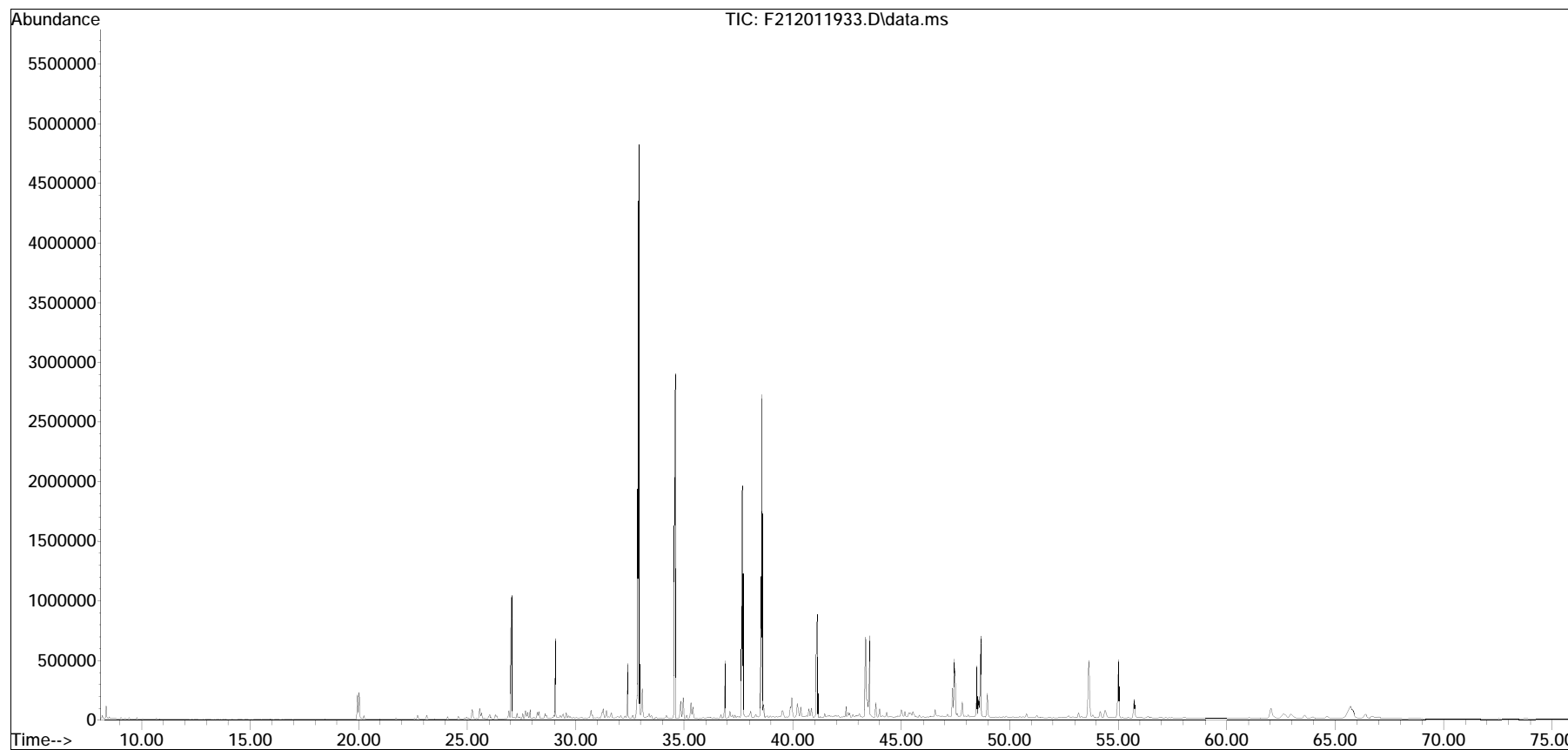
(#) = qualifier out of range (m) = manual integration (+) = signals summed

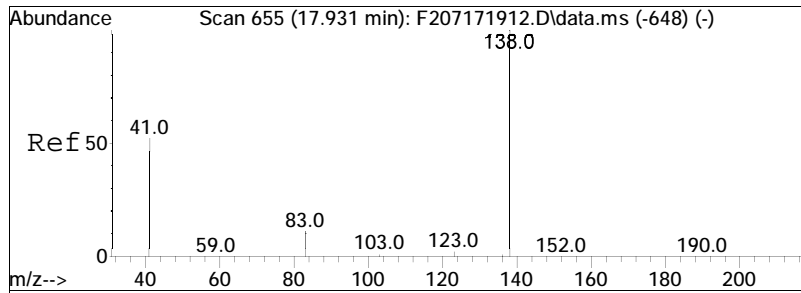
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC01\
Data File : F212011933.D
Acq On : 4 Dec 2019 9:47 am
Operator : PAH2:MJS
Sample : L1954309-07
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 33 Sample Multiplier: 1

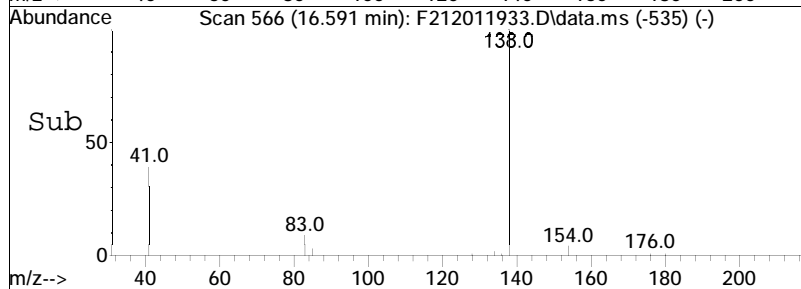
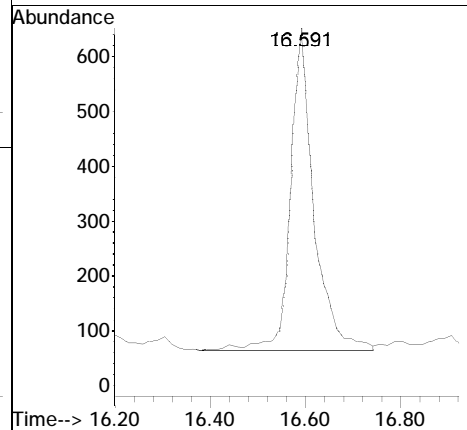
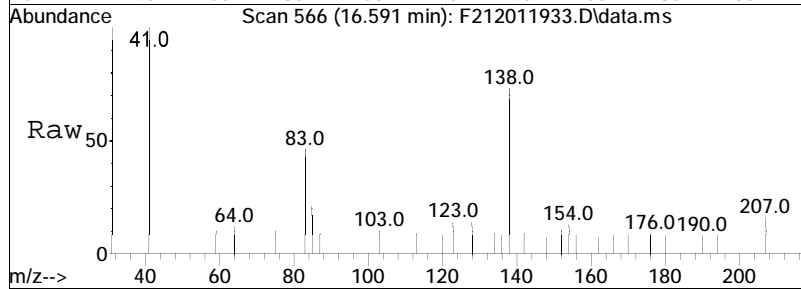
Quant Time: Dec 10 14:18:50 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

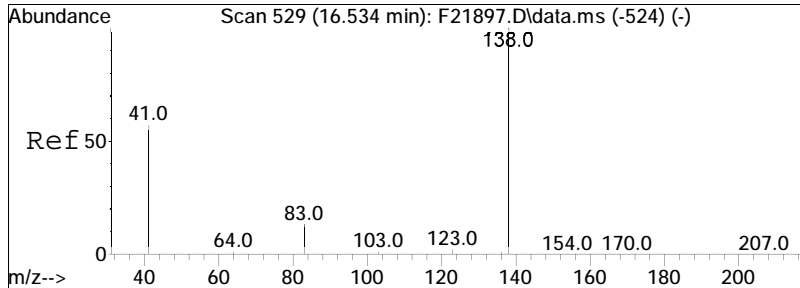
Sub List : ALKPAH - POI+MP+BcF



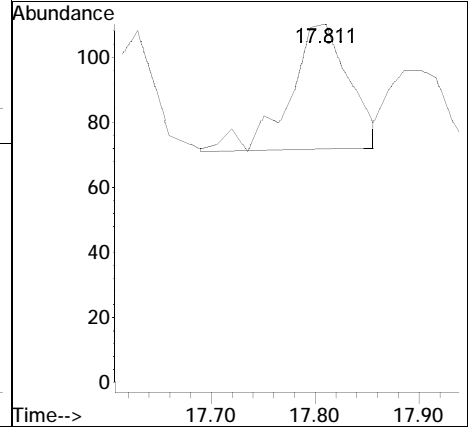
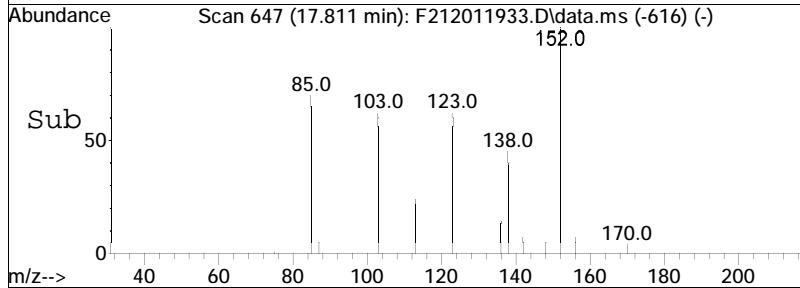
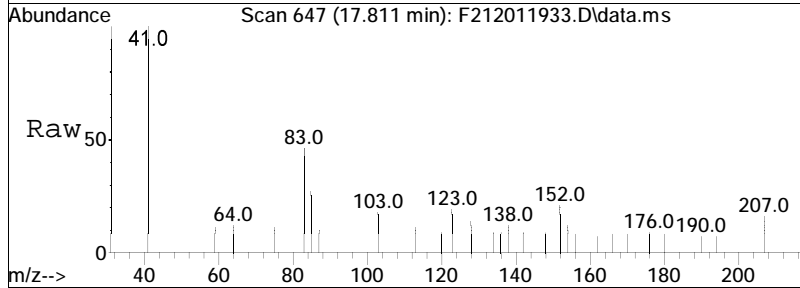


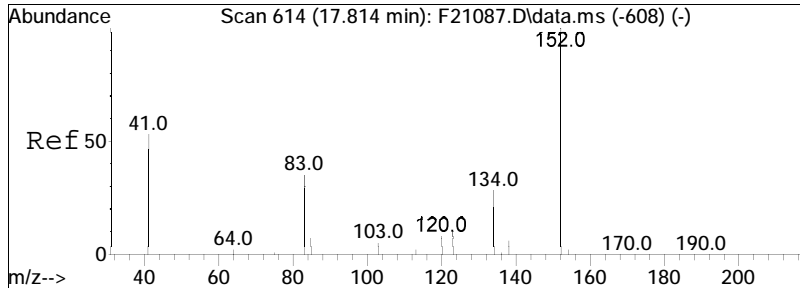
#2
 trans-Decalin
 Concen: 29.84 ng/mL
 RT: 16.591 min Scan# 566
 Delta R.T. -0.032 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:138 Resp: 1977



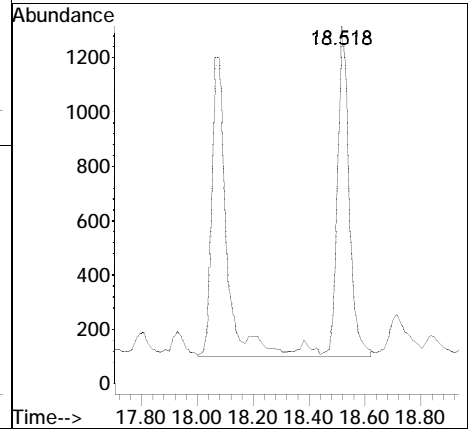
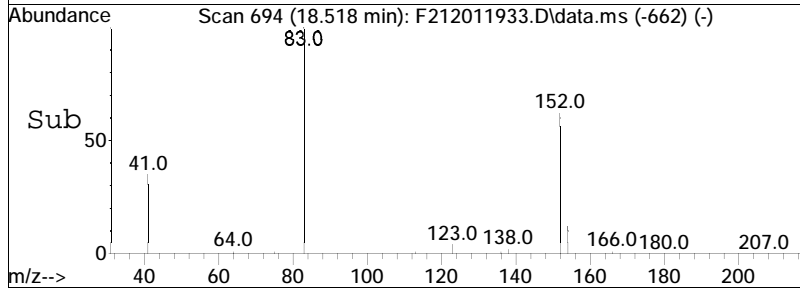
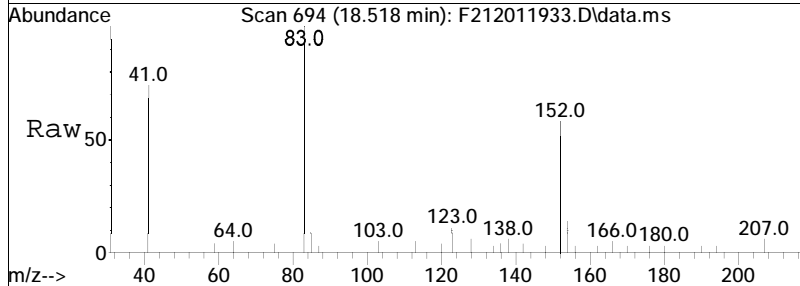


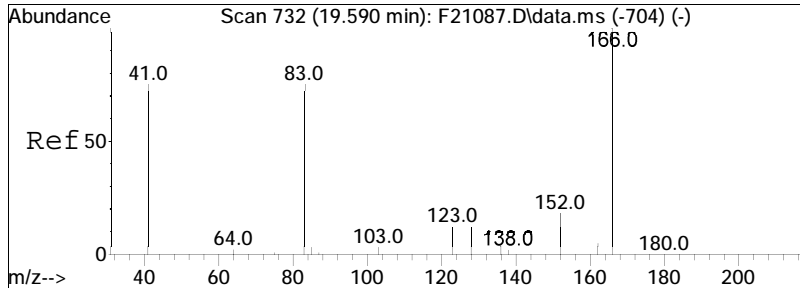
#3
 cis-Decalin
 Concen: 3.05 ng/mL
 RT: 17.811 min Scan# 647
 Delta R.T. -0.030 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:138 Resp: 156



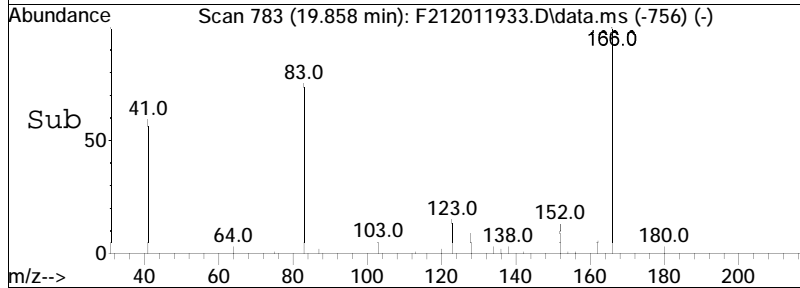
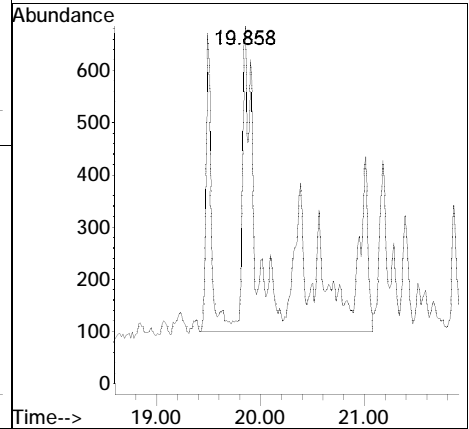
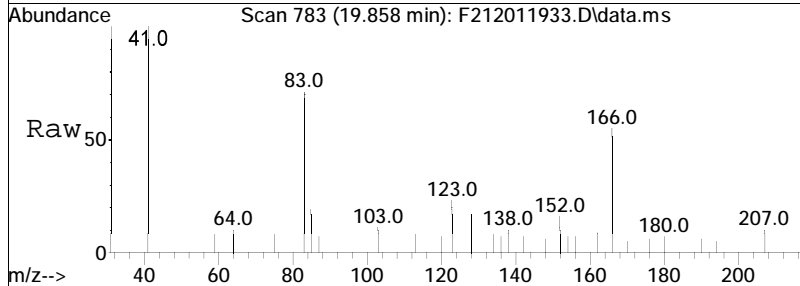


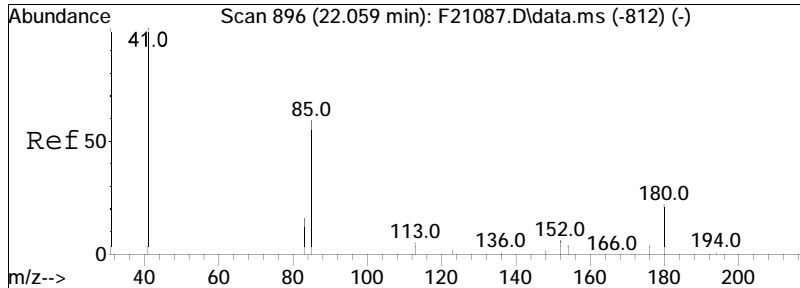
#4
 C1-Decalins
 Concen: 117.45 ng/mL M5
 RT: 18.518 min Scan# 694
 Delta R.T. -0.044 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:152 Resp: 7783



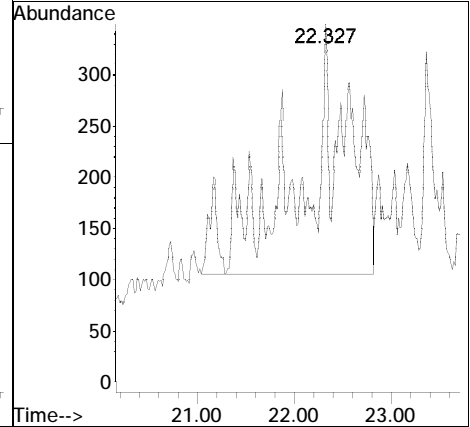
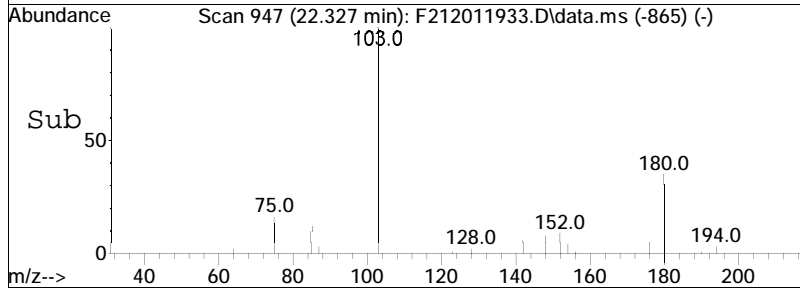
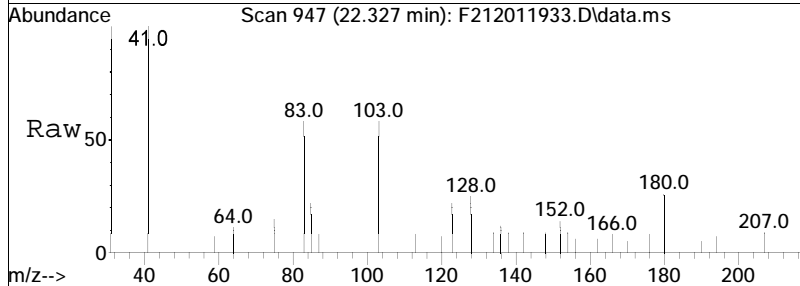


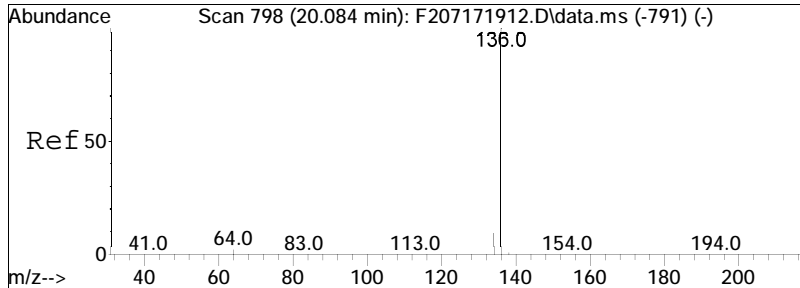
#5
 C2-Decalins
 Concen: 186.16 ng/mL M5
 RT: 19.858 min Scan# 783
 Delta R.T. -0.027 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:166 Resp: 12336





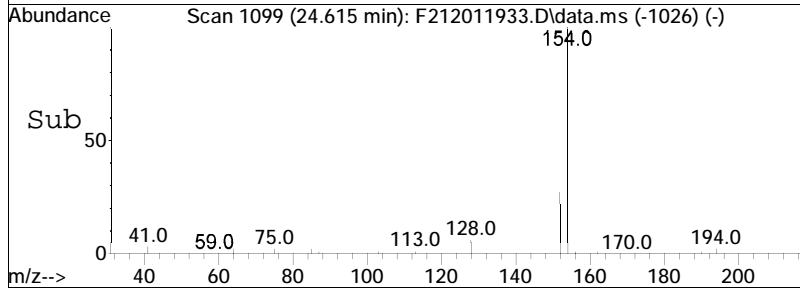
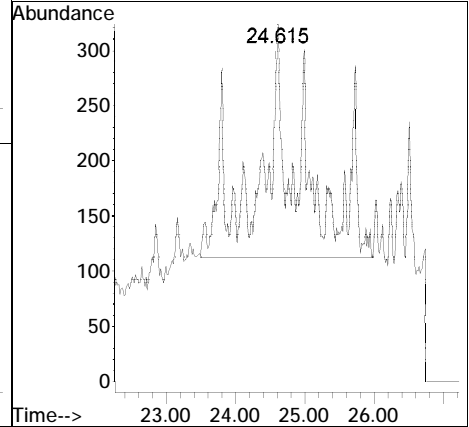
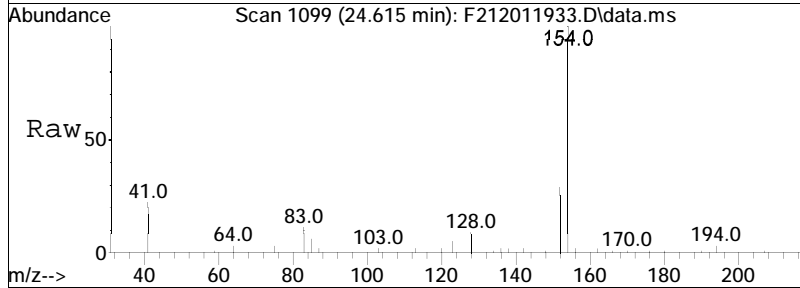
#6
 C3-Decalins
 Concen: 129.87 ng/mL M5
 RT: 22.327 min Scan# 947
 Delta R.T. -0.050 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:180 Resp: 8606

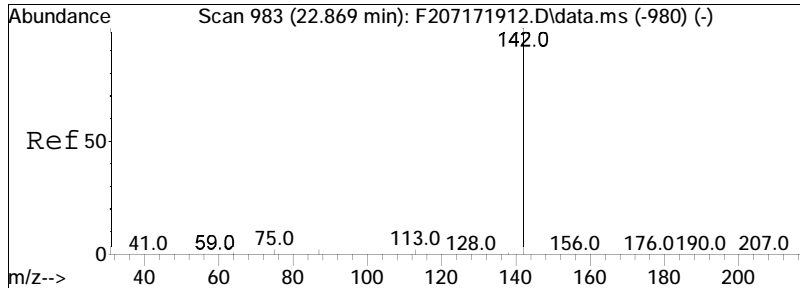




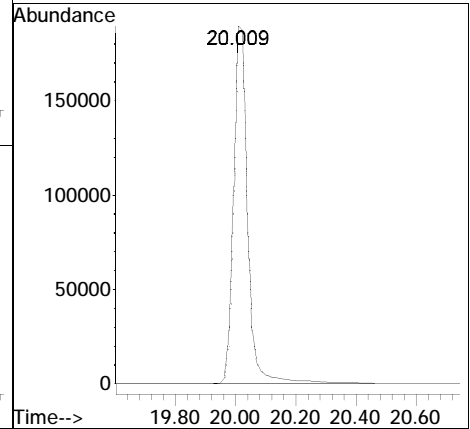
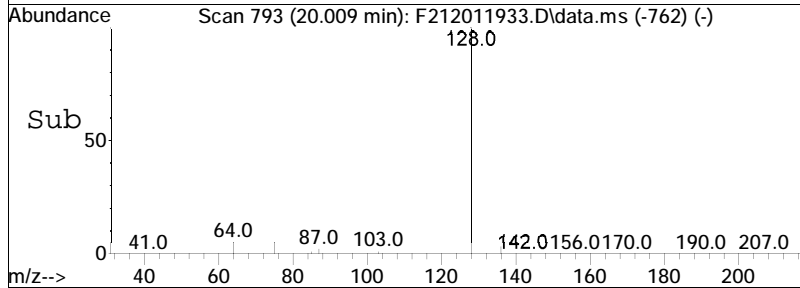
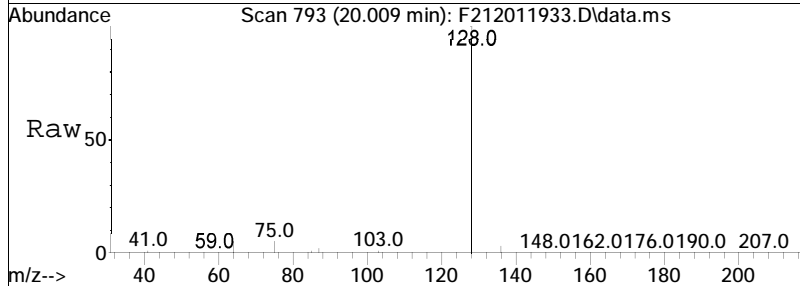
#7
 C4-Decalins
 Concen: 127.61 ng/mL M5
 RT: 24.615 min Scan# 1099
 Delta R.T. -1.134 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

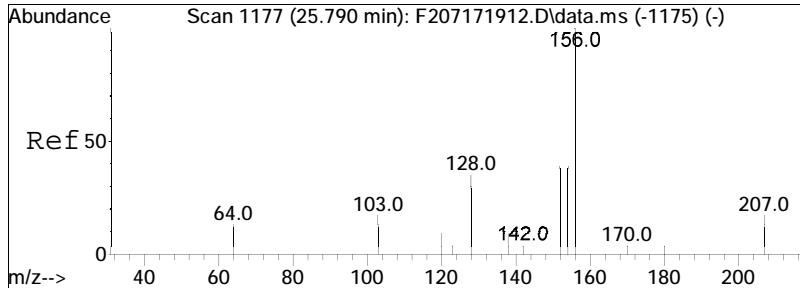
Tgt Ion:194 Resp: 8456



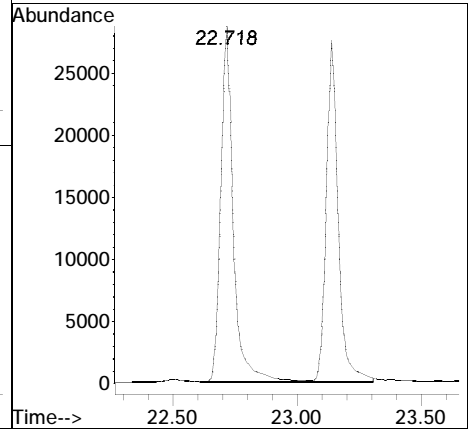
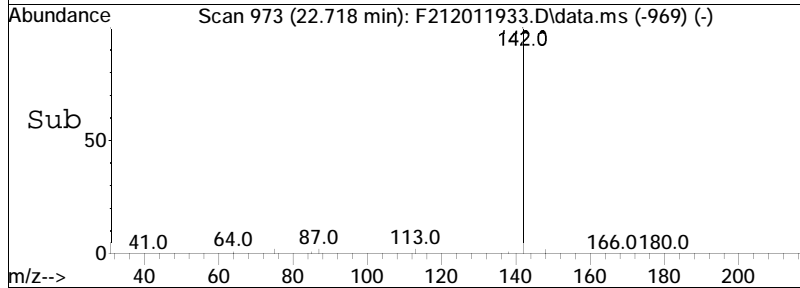
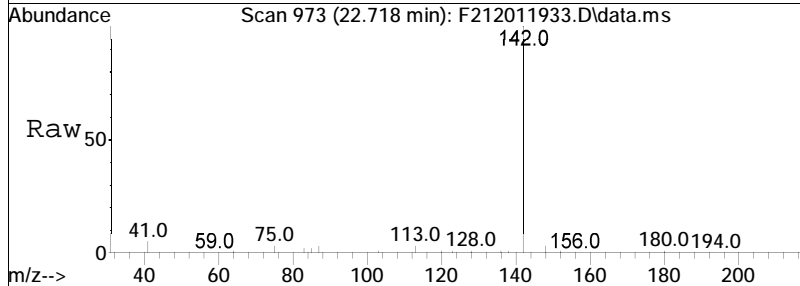


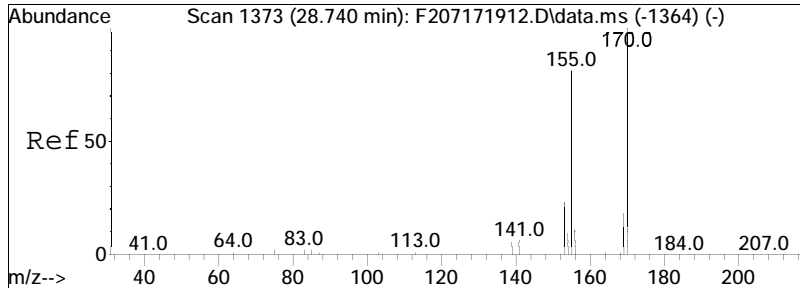
#9
 Naphthalene
 Concen: 1712.91 ng/mL
 RT: 20.009 min Scan# 793
 Delta R.T. -0.027 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:128 Resp: 603462



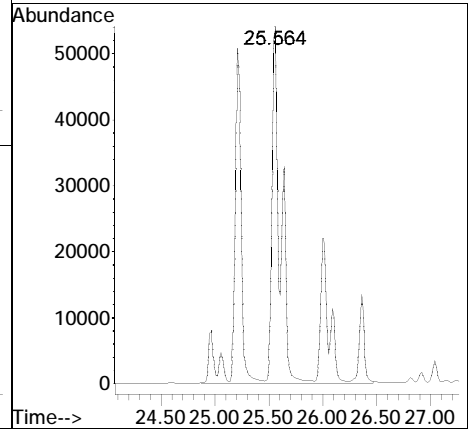
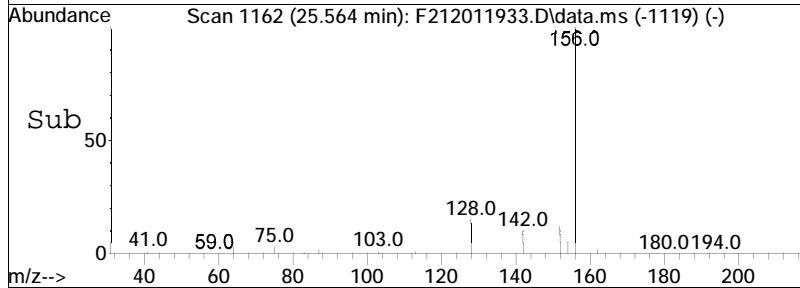
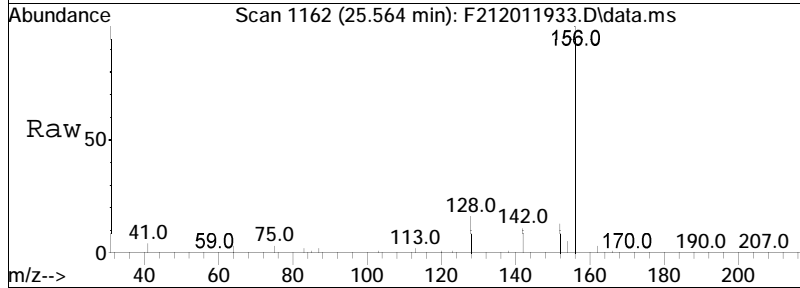


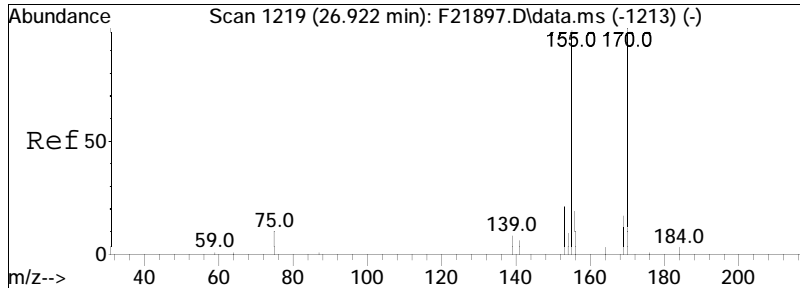
#10
 Cl-Naphthalenes
 Concen: 544.71 ng/mL M5
 RT: 22.718 min Scan# 973
 Delta R.T. -0.012 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:142 Resp: 191902





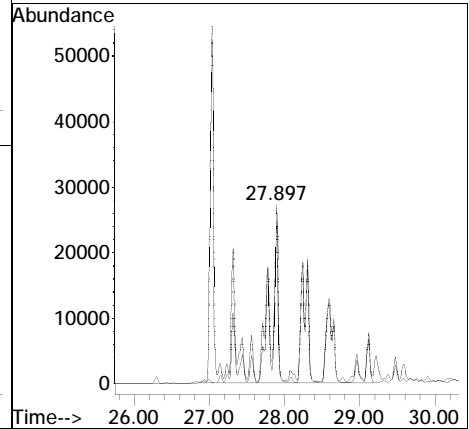
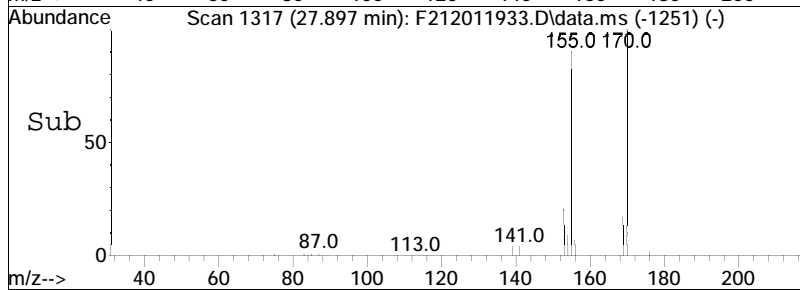
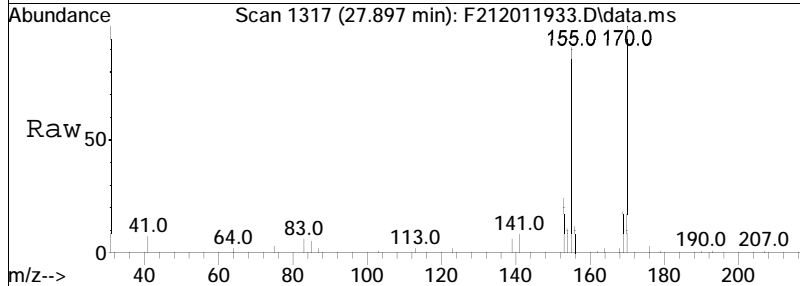
#11
 C2-Naphthalenes
 Concen: 1910.51 ng/mL M5
 RT: 25.564 min Scan# 1162
 Delta R.T. -0.021 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:156 Resp: 673078

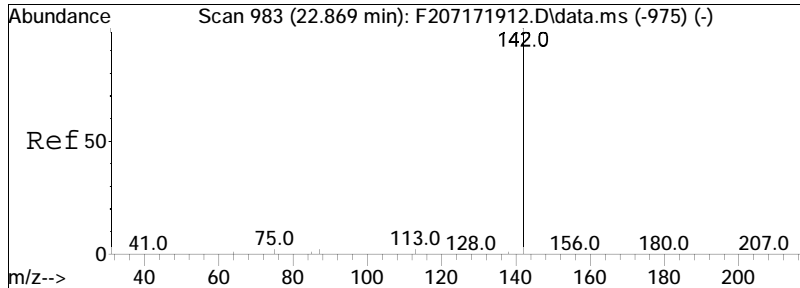




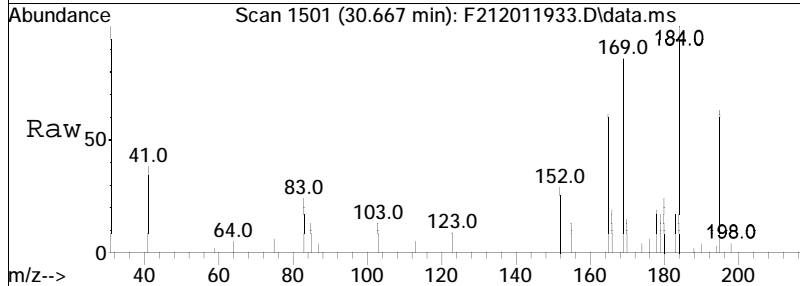
#12
 C3-Naphthalenes
 Concen: 1276.49 ng/mL M5
 RT: 27.897 min Scan# 1317
 Delta R.T. -0.011 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

Tgt Ion	Resp	Lower	Upper
170	100		
155	17.0	66.8	124.0#

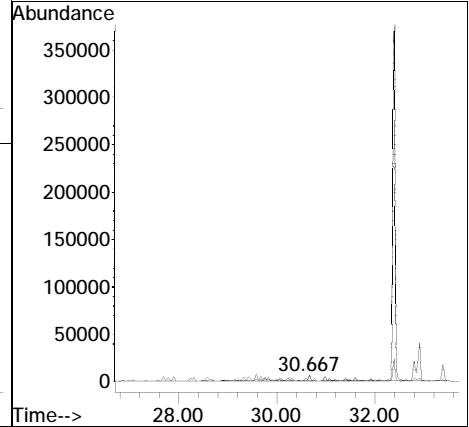
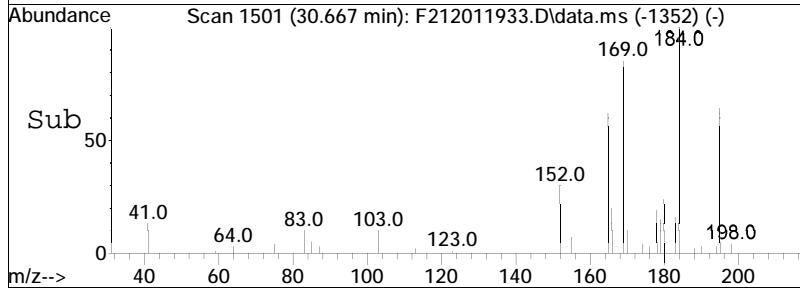


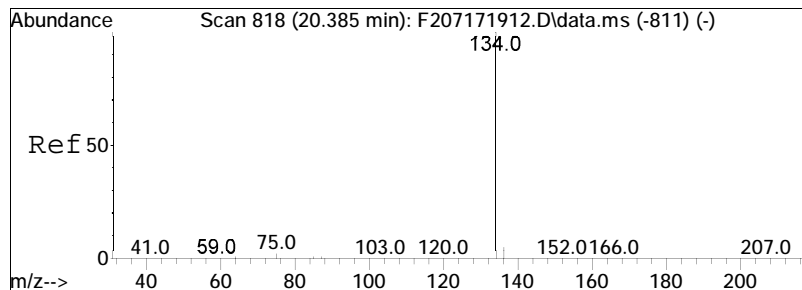


#13
 C4-Naphthalenes
 Concen: 481.94 ng/mL M5
 RT: 30.667 min Scan# 1501
 Delta R.T. 0.002 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

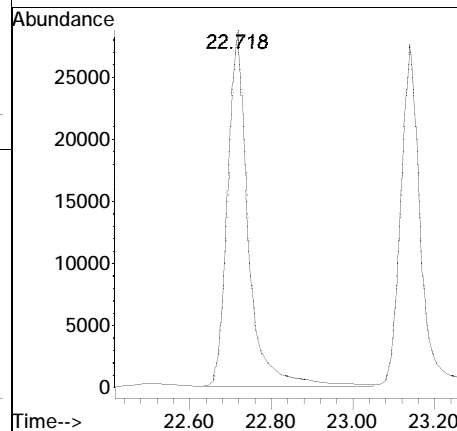
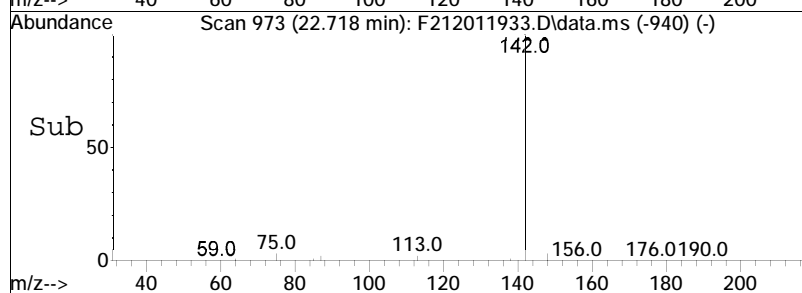
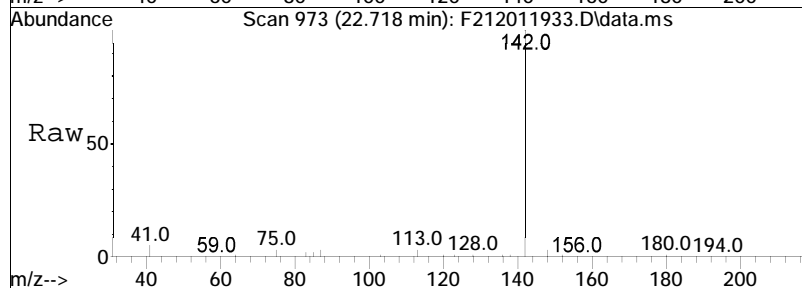


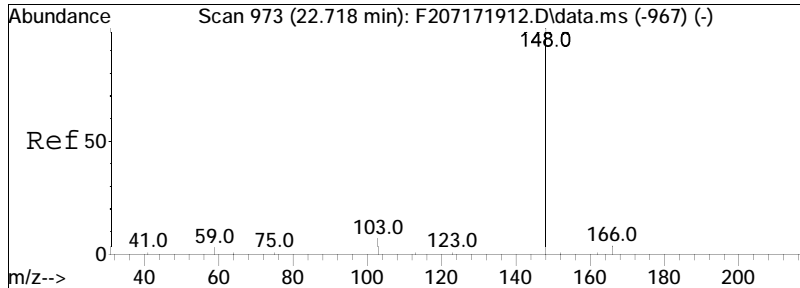
Tgt Ion	Resp	Lower	Upper
184	169789		
184	100		
169	10.0	65.7	121.9#
183	1.7	22.5	41.9#



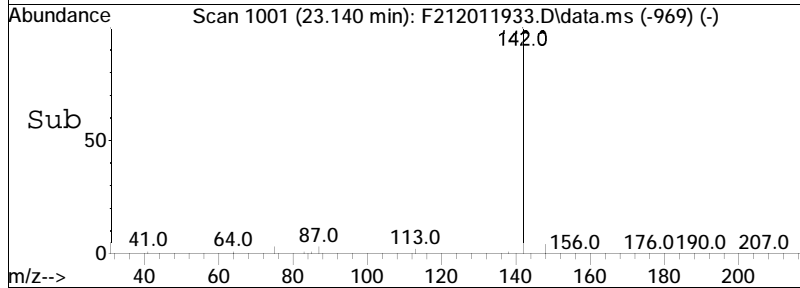
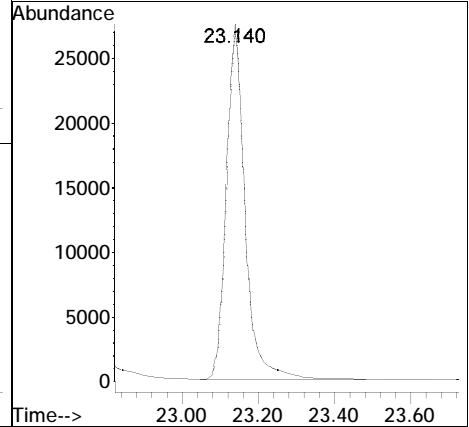
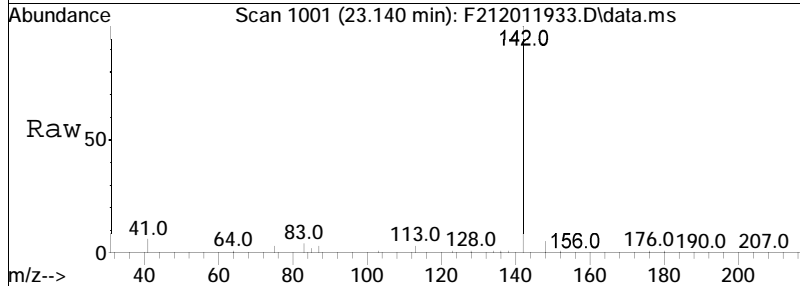


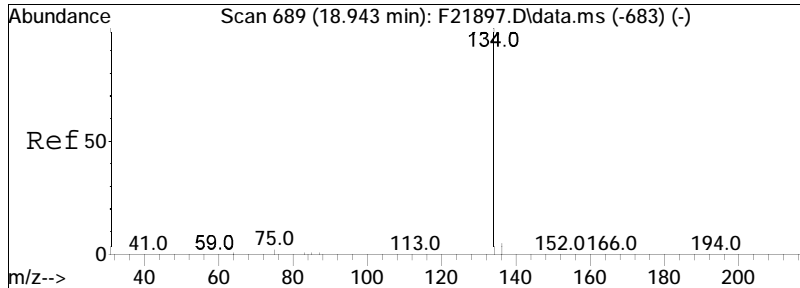
#14
 2-Methylnaphthalene
 Concen: 432.35 ng/mL
 RT: 22.718 min Scan# 973
 Delta R.T. -0.007 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:142 Resp: 100491



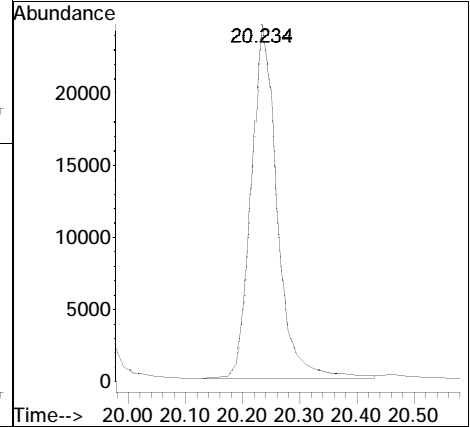
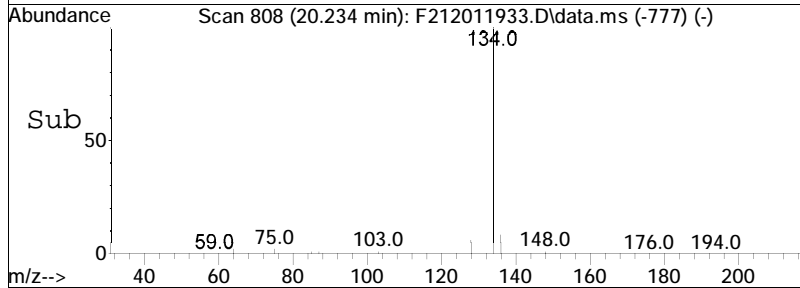
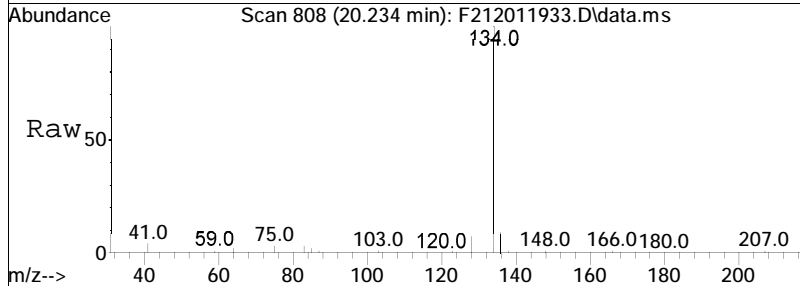


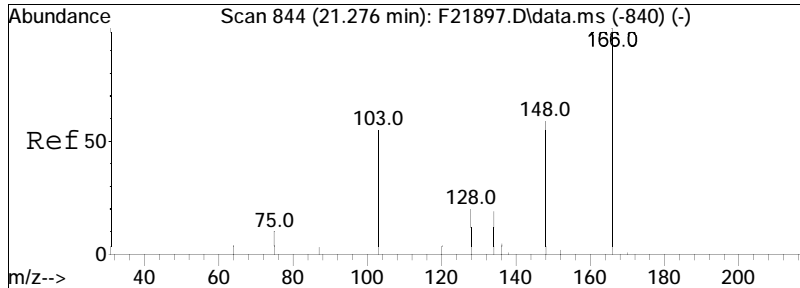
#15
 1-Methylnaphthalene
 Concen: 409.88 ng/mL
 RT: 23.140 min Scan# 1001
 Delta R.T. -0.021 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:142 Resp: 91508



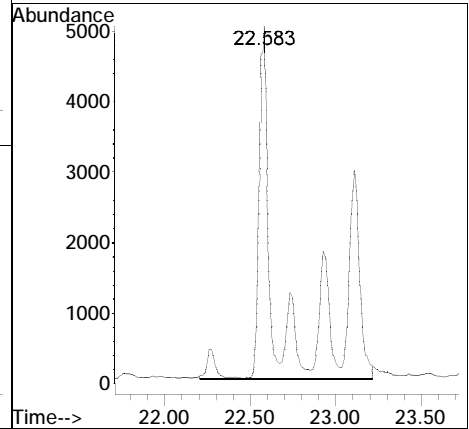
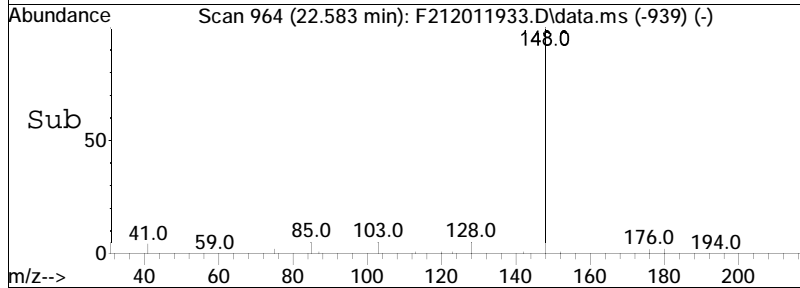
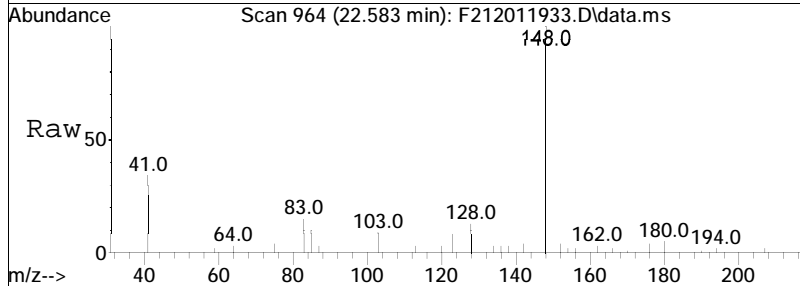


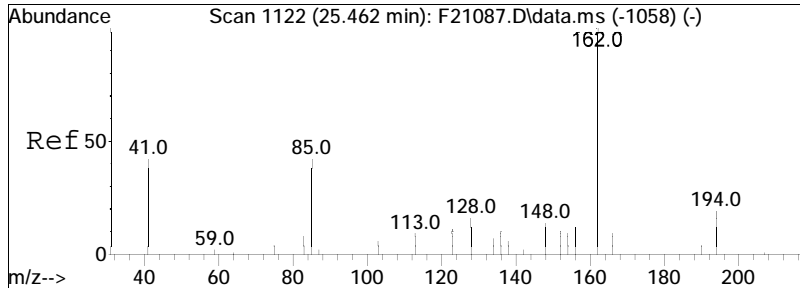
#16
 Benzothiophene
 Concen: 277.94 ng/mL
 RT: 20.234 min Scan# 808
 Delta R.T. -0.026 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:134 Resp: 76330



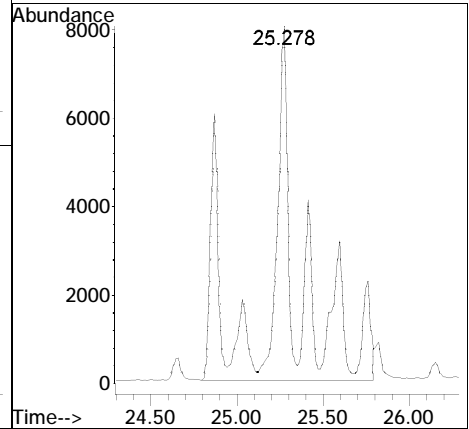
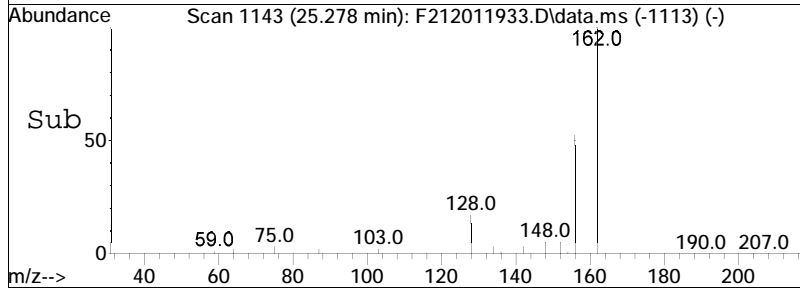
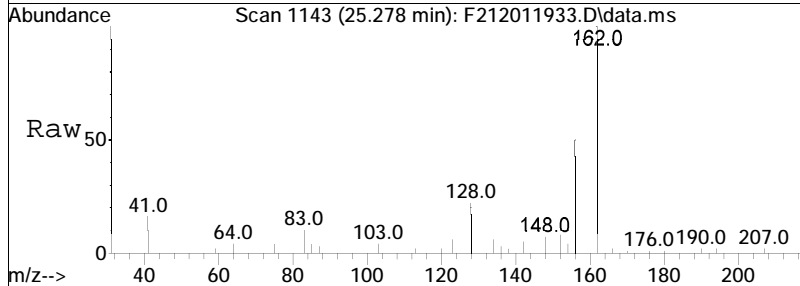


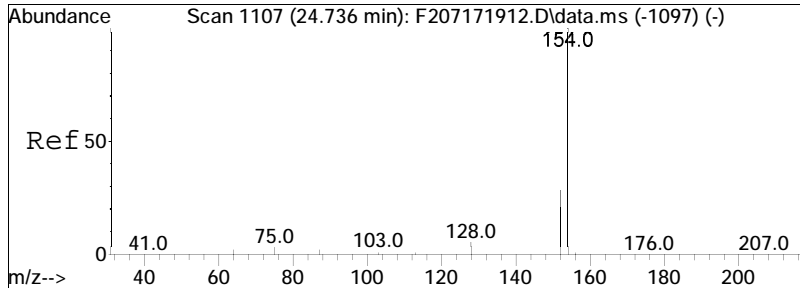
#17
 Cl-Benzo(b)thiophenes
 Concen: 158.95 ng/mL M5
 RT: 22.583 min Scan# 964
 Delta R.T. 0.280 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:148 Resp: 43651



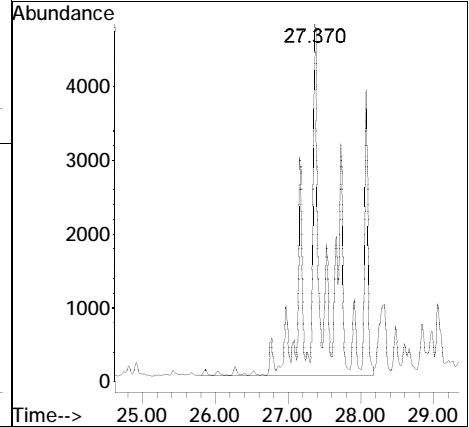
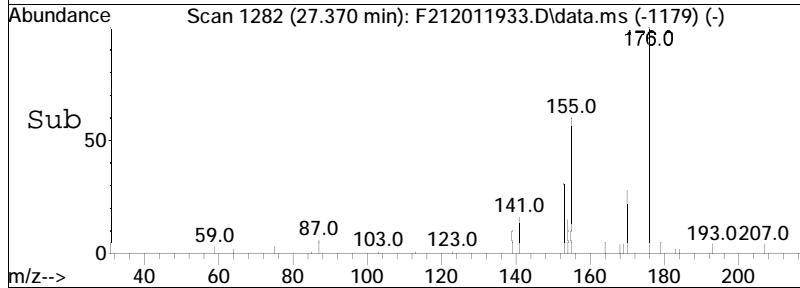
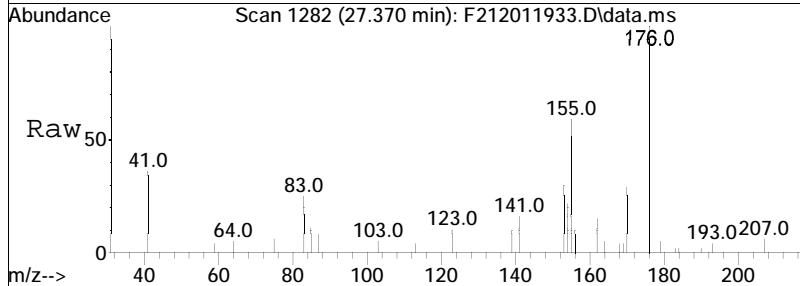


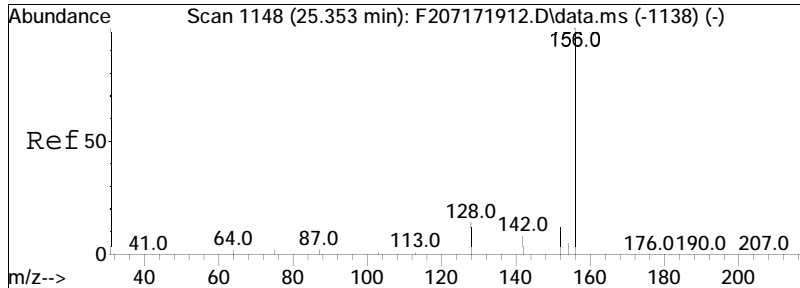
#18
 C2-Benzo(b)thiophenes
 Concen: 339.18 ng/mL M5
 RT: 25.278 min Scan# 1143
 Delta R.T. -0.502 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:162 Resp: 93147



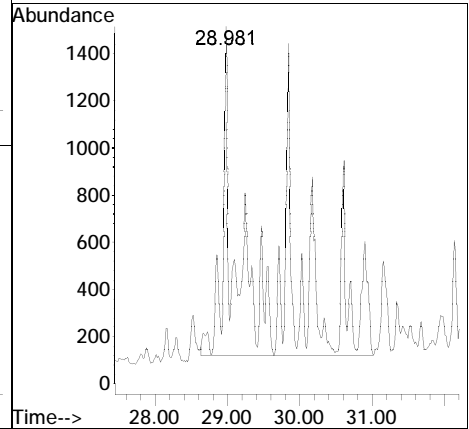
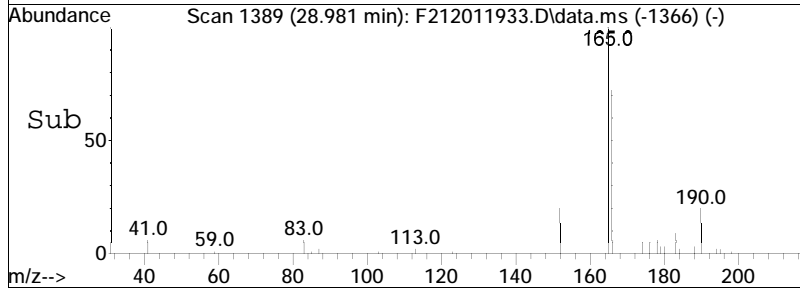
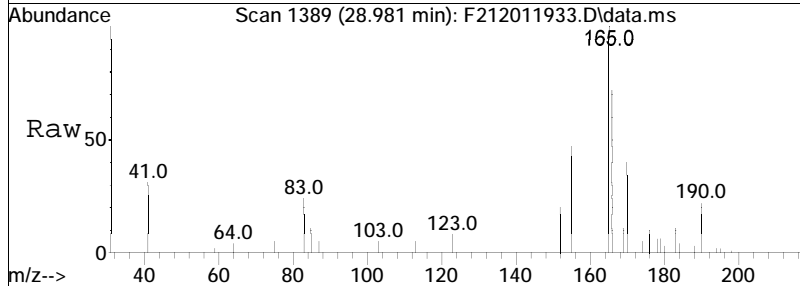


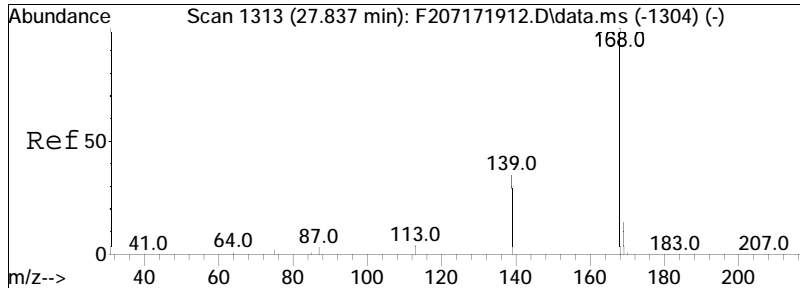
#19
 C3-Benzo(b)thiophenes
 Concen: 275.61 ng/mL M5
 RT: 27.370 min Scan# 1282
 Delta R.T. -0.373 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:176 Resp: 75689



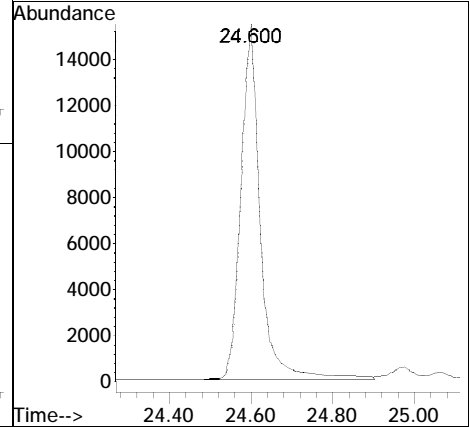
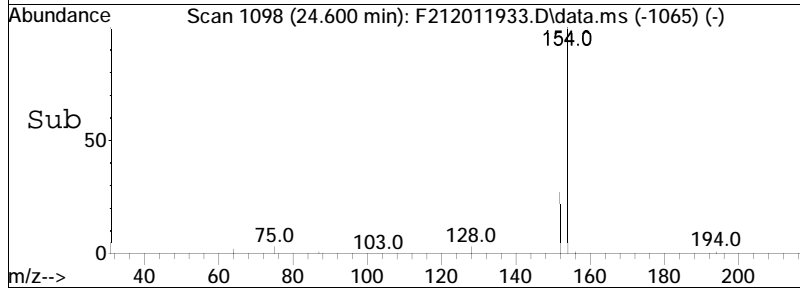
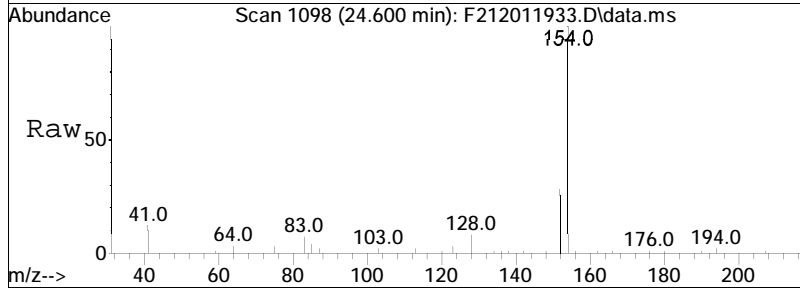


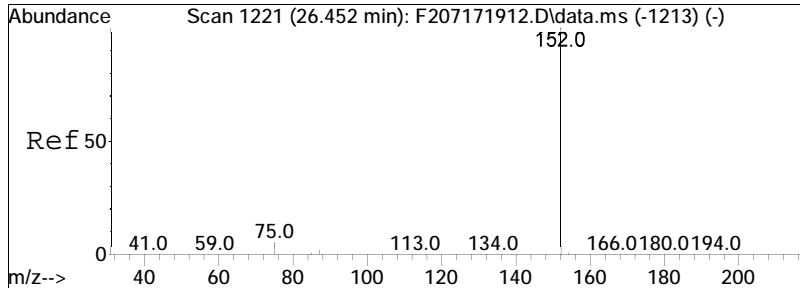
#20
 C4-Benzo(b)thiophenes
 Concen: 131.58 ng/mL M5
 RT: 28.981 min Scan# 1389
 Delta R.T. -0.500 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:190 Resp: 36135



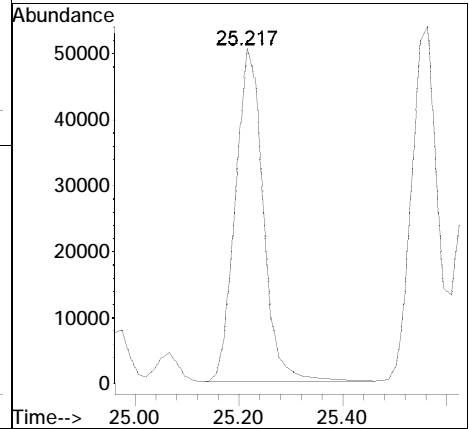
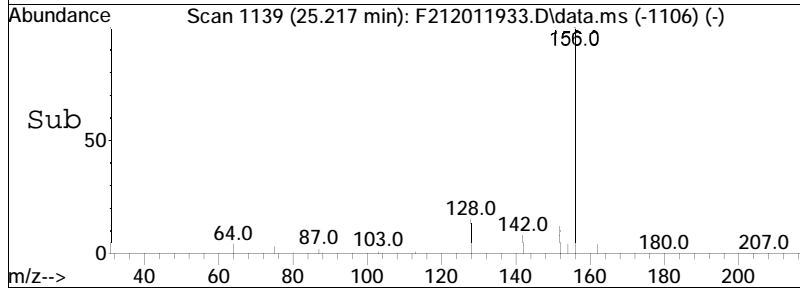
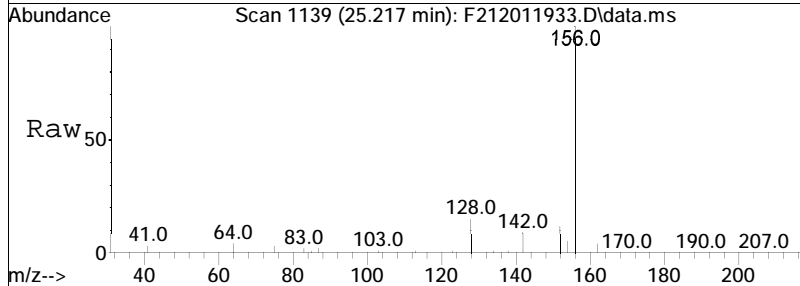


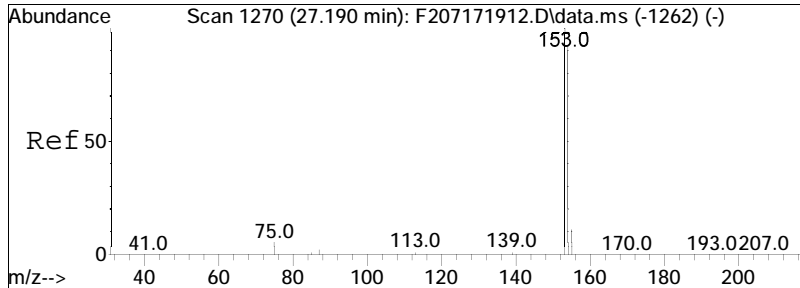
#21
 Biphenyl
 Concen: 177.18 ng/mL
 RT: 24.600 min Scan# 1098
 Delta R.T. -0.004 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:154 Resp: 50122





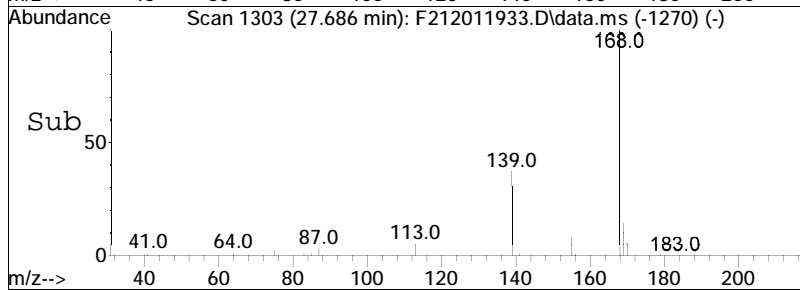
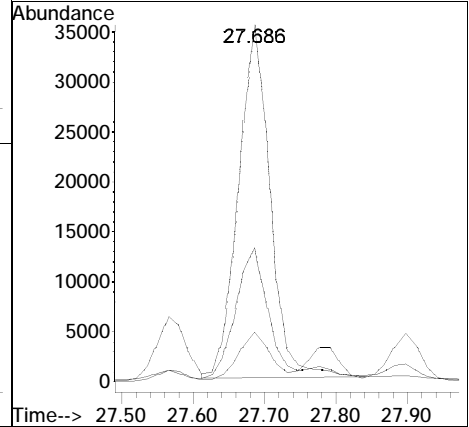
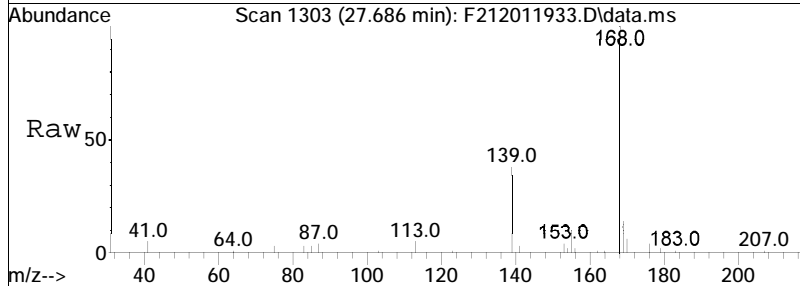
#22
 2,6-Dimethylnaphthalene
 Concen: 905.94 ng/mL
 RT: 25.217 min Scan# 1139
 Delta R.T. -0.003 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:156 Resp: 188422

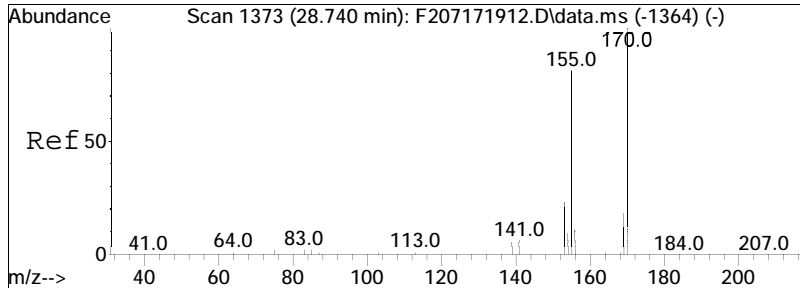




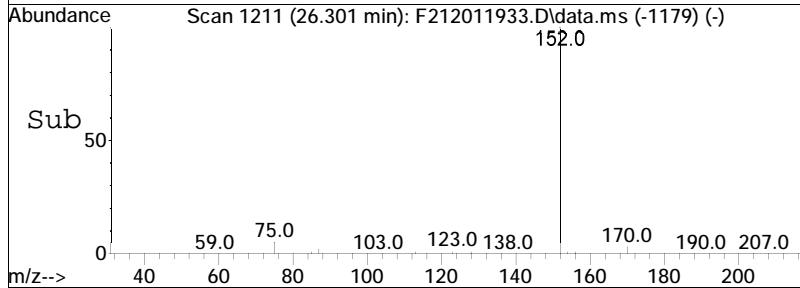
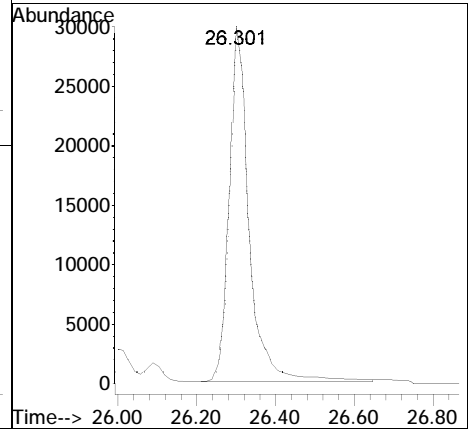
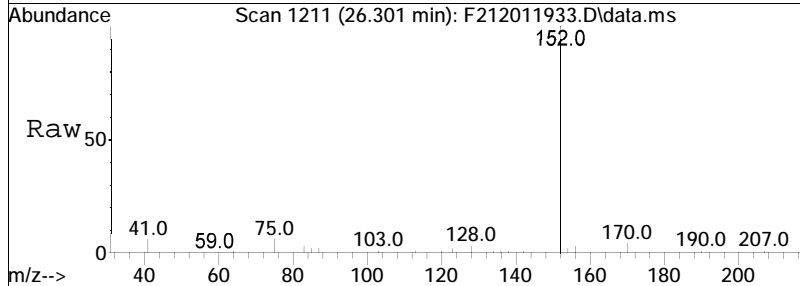
#23
 Dibenzofuran
 Concen: 357.17 ng/mL
 RT: 27.686 min Scan# 1303
 Delta R.T. 0.001 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

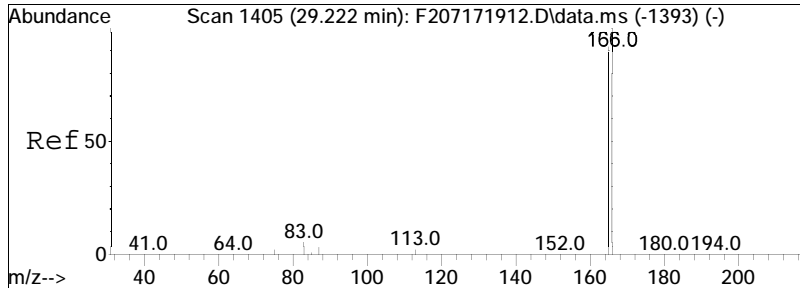
Tgt Ion	Ratio	Lower	Upper
168	100		
139	37.7	27.2	50.4
169	13.8	9.5	17.7





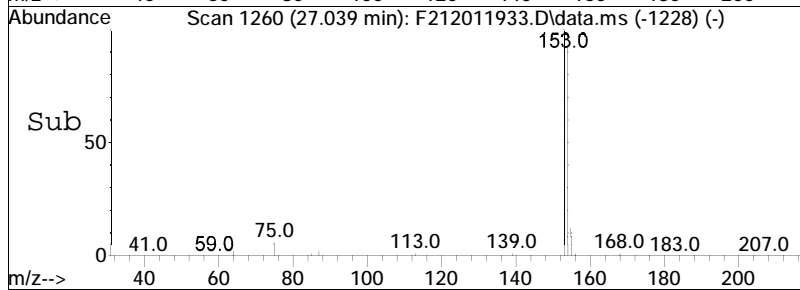
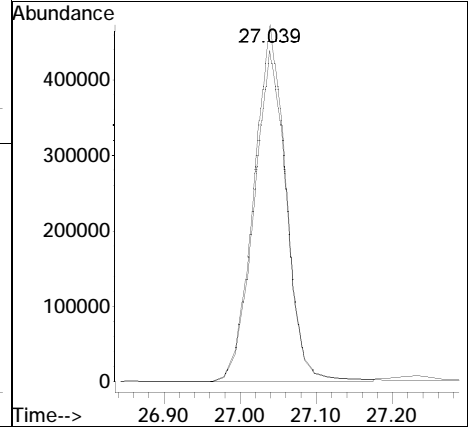
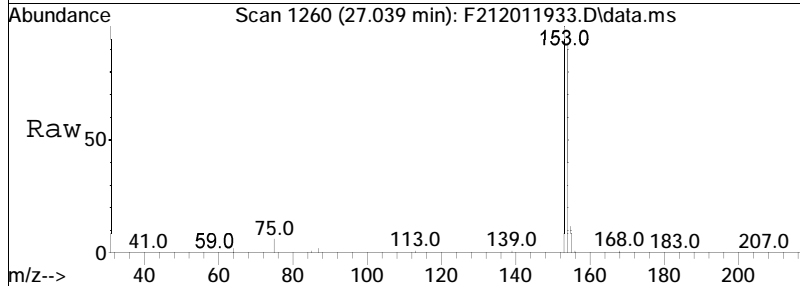
#24
 Acenaphthylene
 Concen: 292.53 ng/mL
 RT: 26.301 min Scan# 1211
 Delta R.T. -0.016 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:152 Resp: 101485

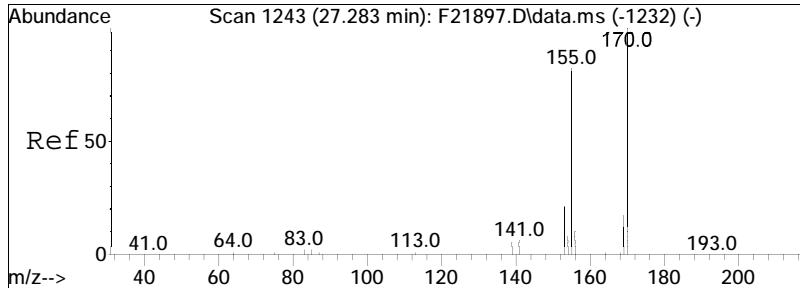




#25
 Acenaphthene
 Concen: 6410.27 ng/mL
 RT: 27.039 min Scan# 1260
 Delta R.T. -0.015 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

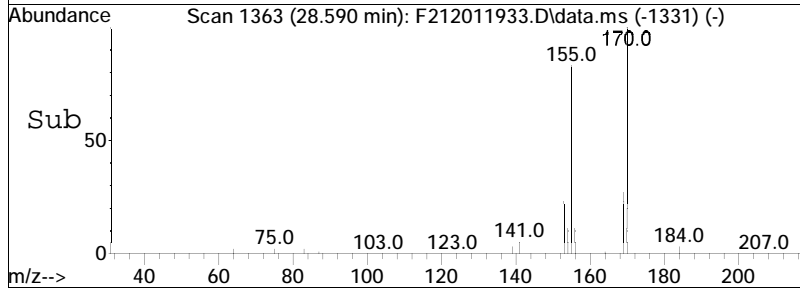
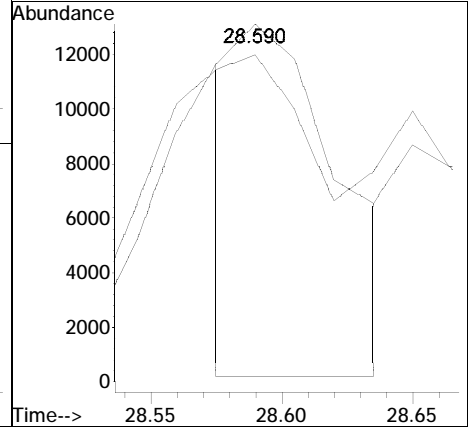
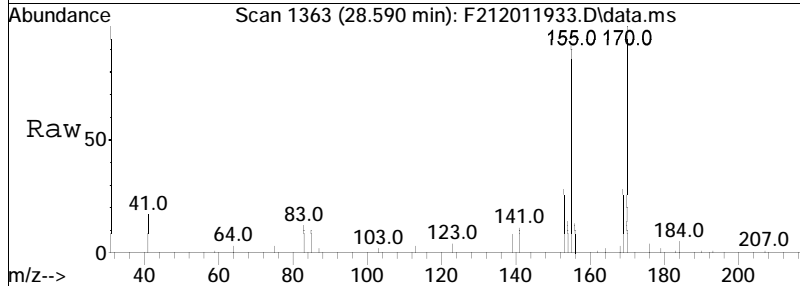
Tgt Ion: 153 Resp: 1388672
 Ion Ratio Lower Upper
 153 100
 154 93.9 66.5 123.5

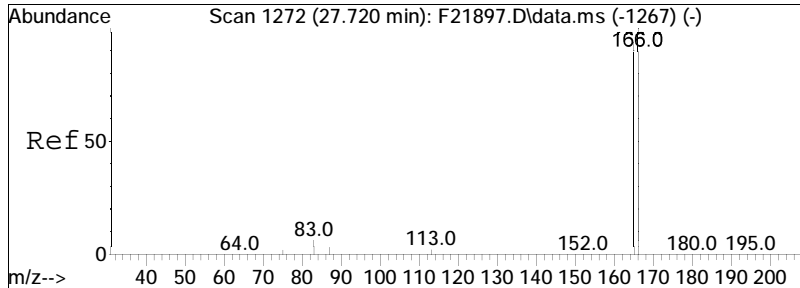




#26
 2,3,5-Trimethylnaphthalene
 Concen: 180.78 ng/mL M3
 RT: 28.590 min Scan# 1363
 Delta R.T. -0.012 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

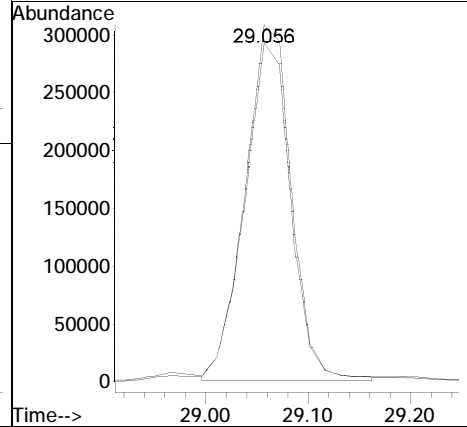
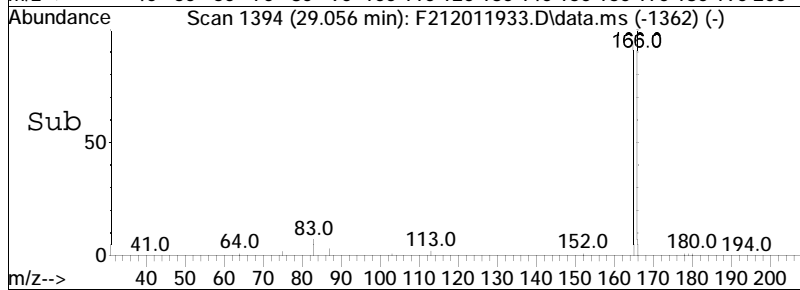
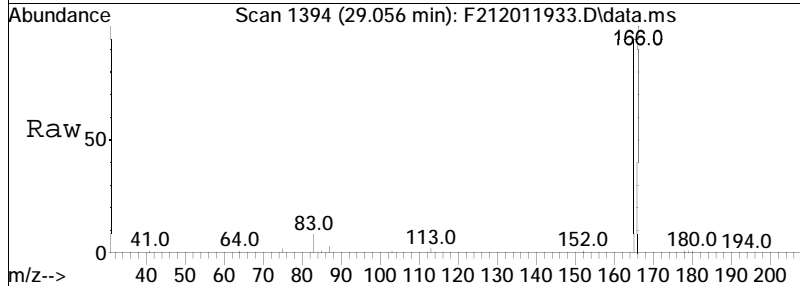
Tgt Ion: 170 Resp: 34347
 Ion Ratio Lower Upper
 170 100
 155 152.5 59.1 109.7#

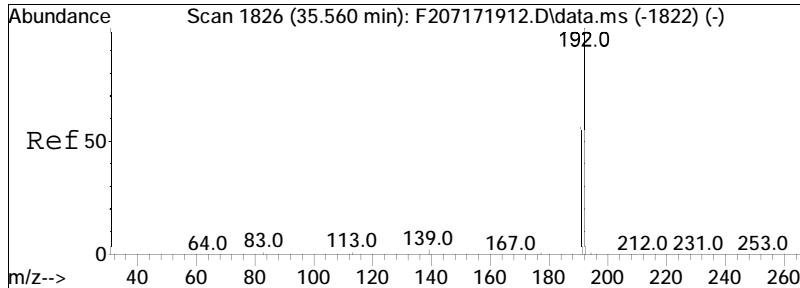




#27
 Fluorene
 Concen: 3943.19 ng/mL M4
 RT: 29.056 min Scan# 1394
 Delta R.T. -0.012 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

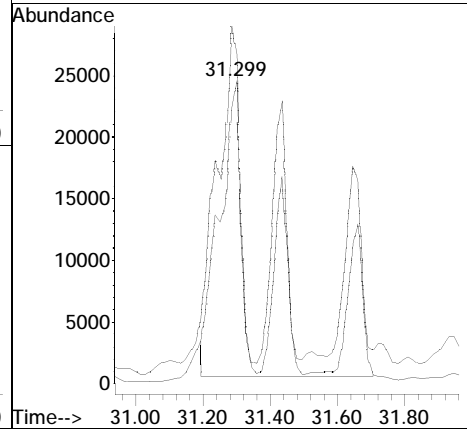
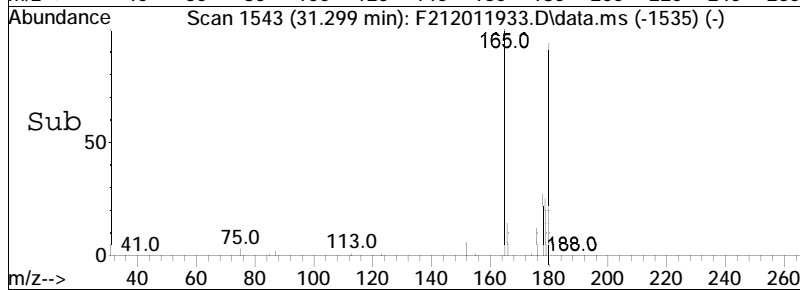
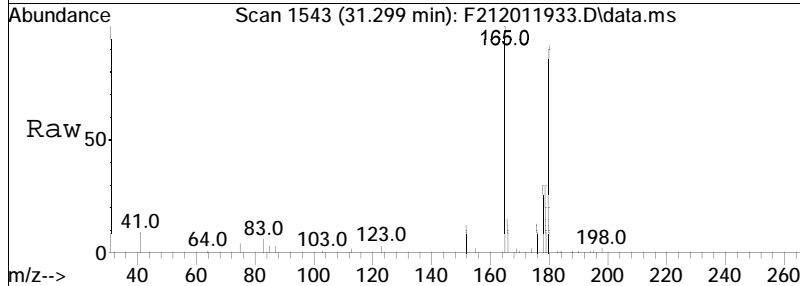
Tgt Ion	Resp	Lower	Upper
166	100		
165	100.0	63.9	118.7

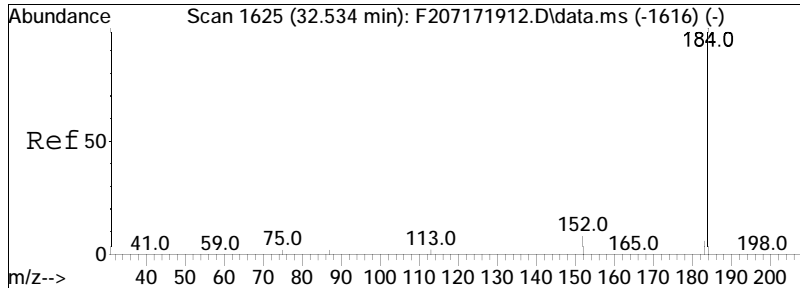




#28
 Cl-Fluorenes
 Concen: 776.42 ng/mL M5
 RT: 31.299 min Scan# 1543
 Delta R.T. -0.130 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

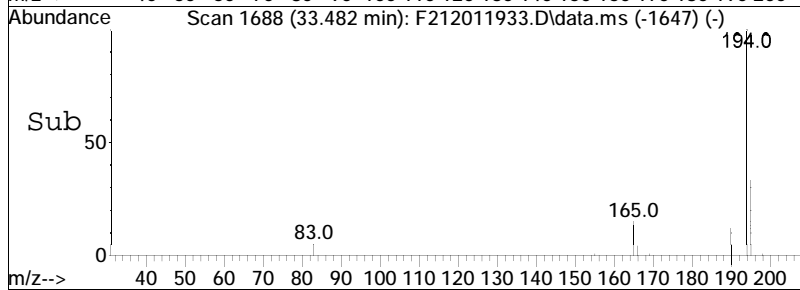
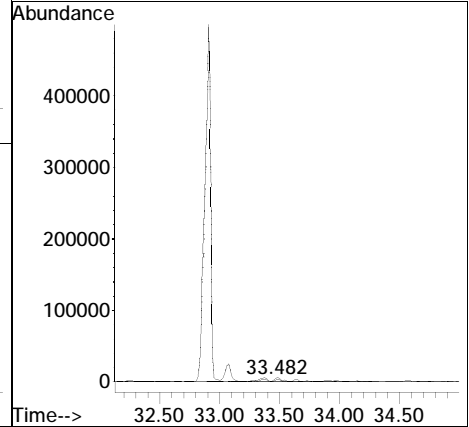
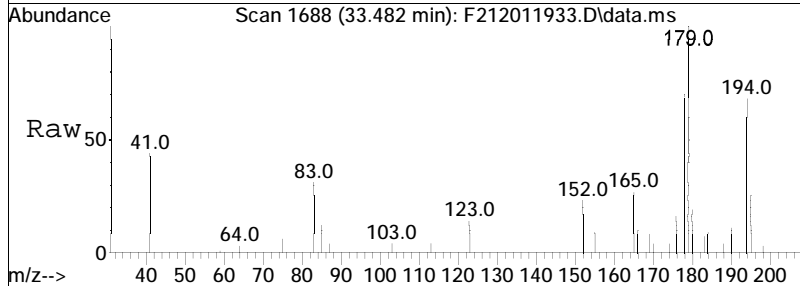
Tgt Ion	Ratio	Lower	Upper
180	100		
165	32.9	97.6	181.2#

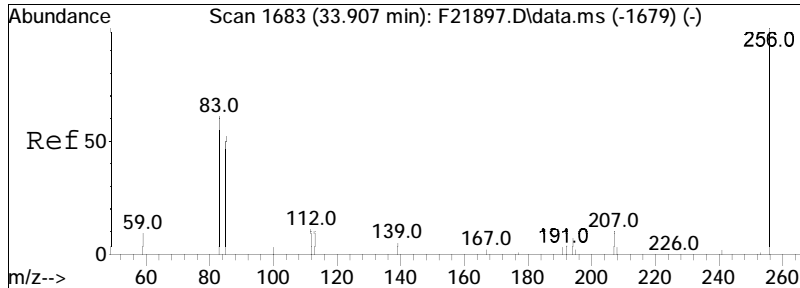




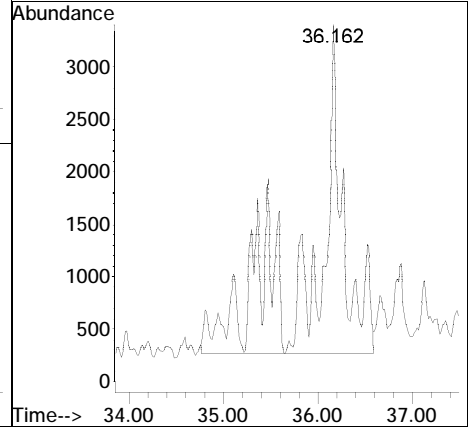
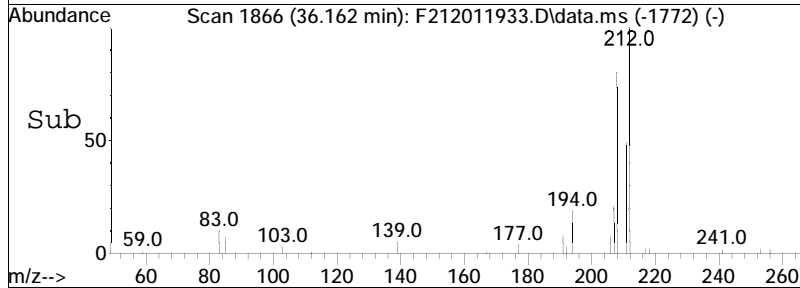
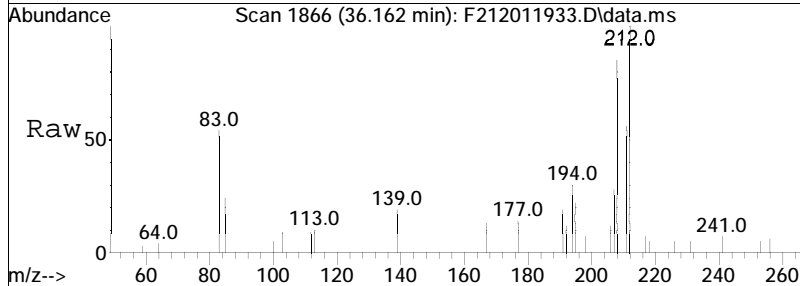
#29
 C2-Fluorenes
 Concen: 440.25 ng/mL M5
 RT: 33.482 min Scan# 1688
 Delta R.T. -0.139 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

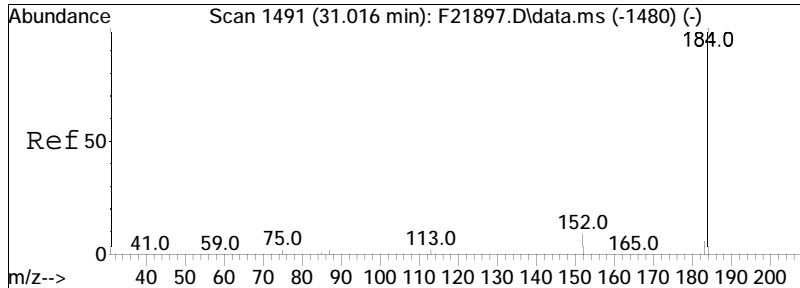
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	1.6	25.7	47.7#





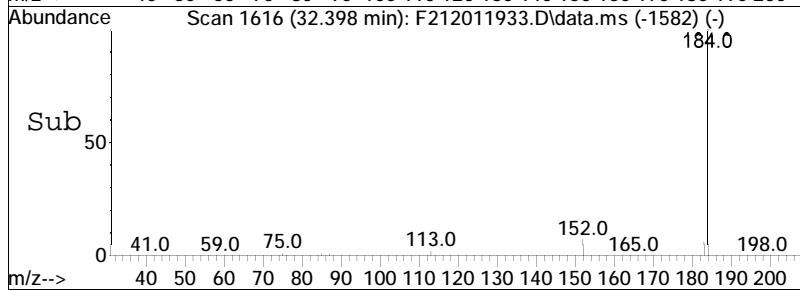
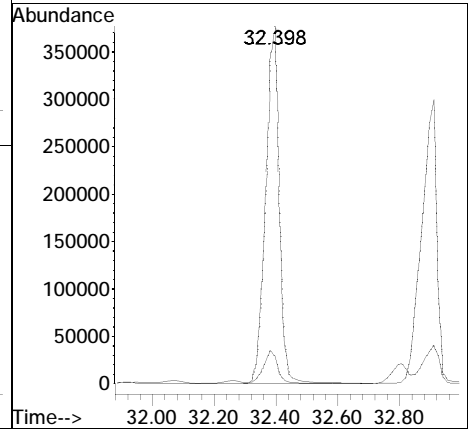
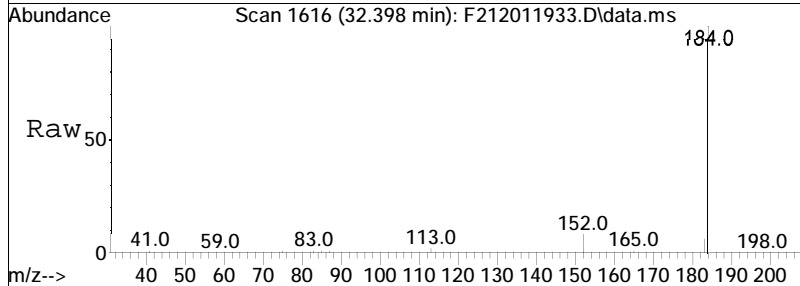
#30
 C3-Fluorenes
 Concen: 290.18 ng/mL M5
 RT: 36.162 min Scan# 1866
 Delta R.T. 0.716 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion: 208 Resp: 71202

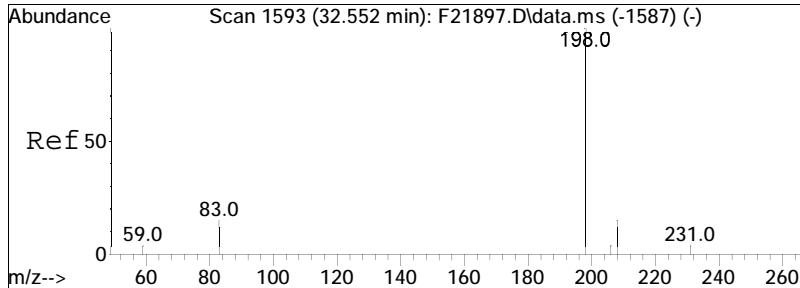




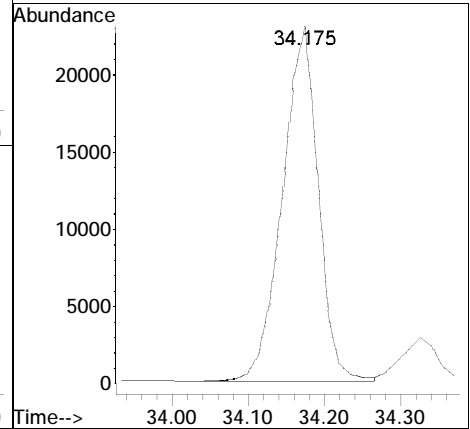
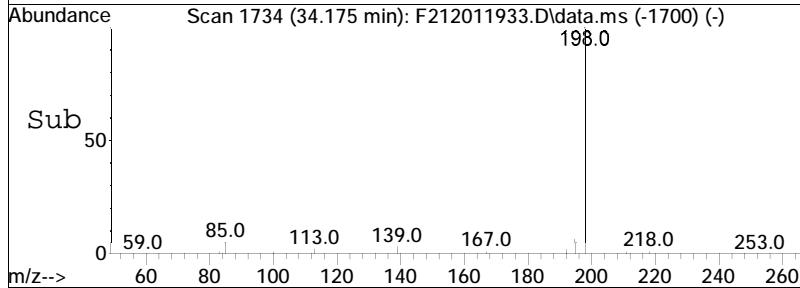
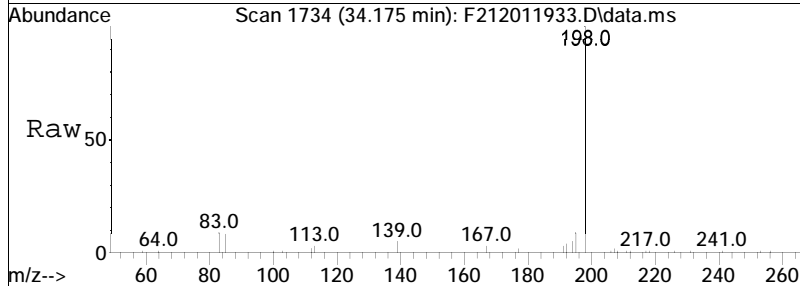
#31
 Dibenzothiophene
 Concen: 3470.74 ng/mL
 RT: 32.398 min Scan# 1616
 Delta R.T. 0.009 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

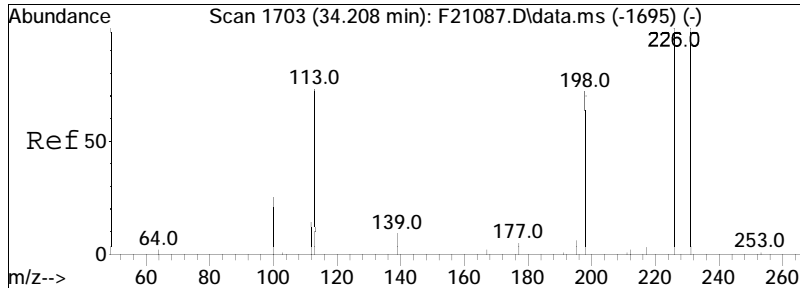
Tgt Ion:184 Resp: 1153439
 Ion Ratio Lower Upper
 184 100
 152 9.2 5.7 10.5



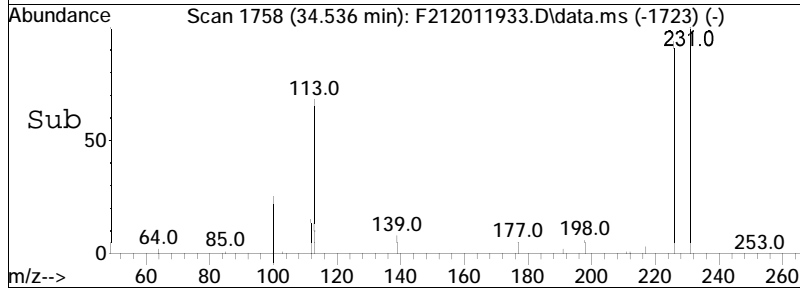
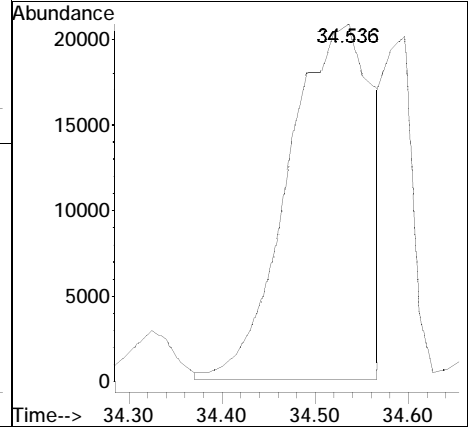
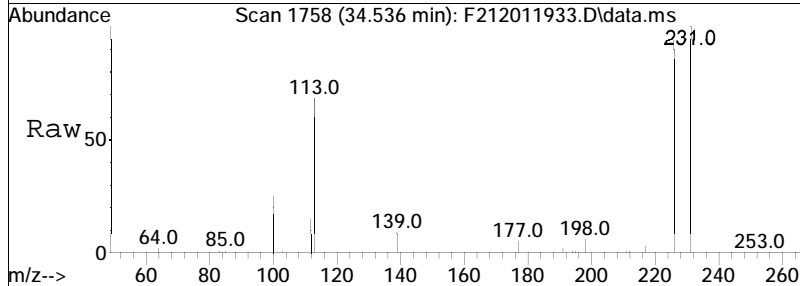


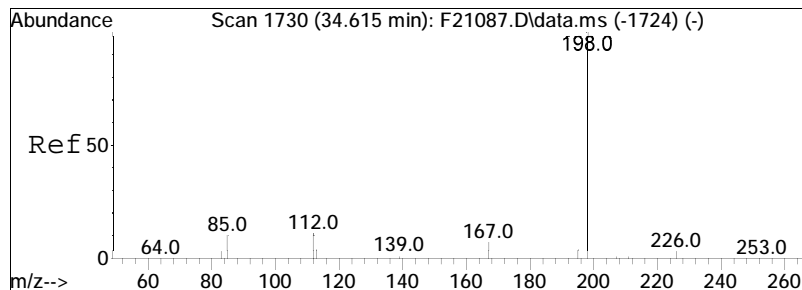
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 223.76 ng/mL
 RT: 34.175 min Scan# 1734
 Delta R.T. 0.012 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:198 Resp: 74364



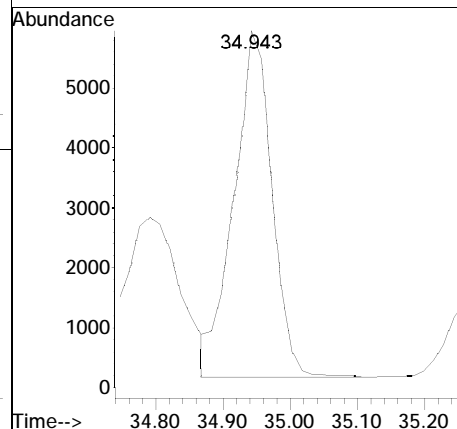
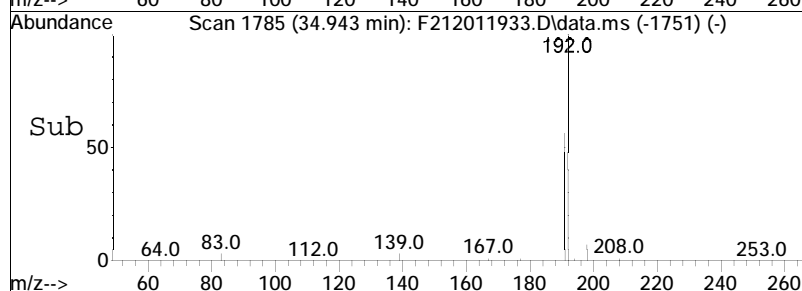
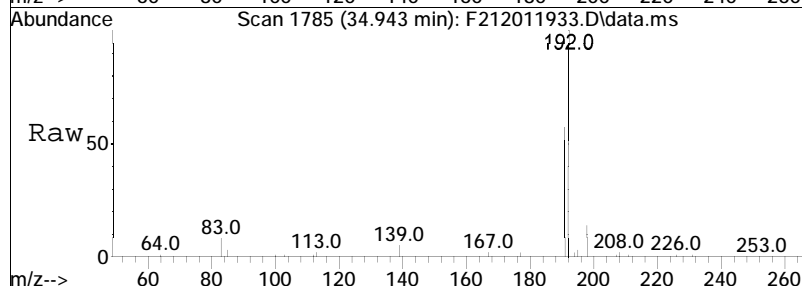


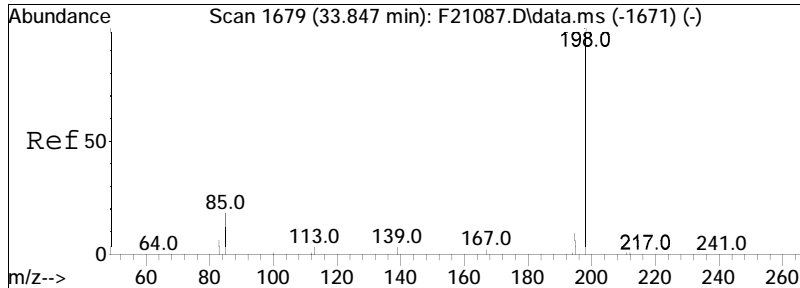
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 392.98 ng/mL M1
 RT: 34.536 min Scan# 1758
 Delta R.T. 0.028 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:198 Resp: 130600



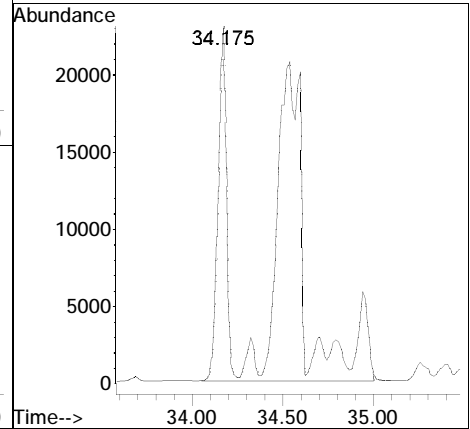
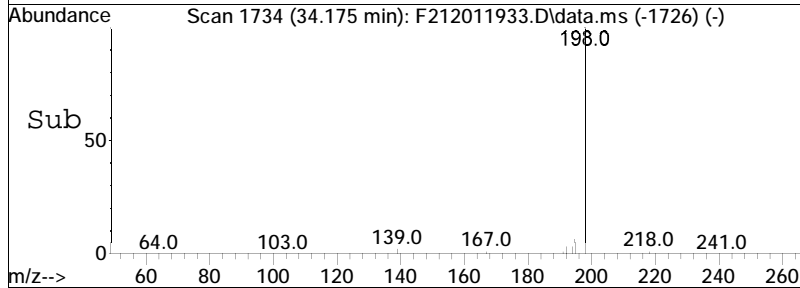
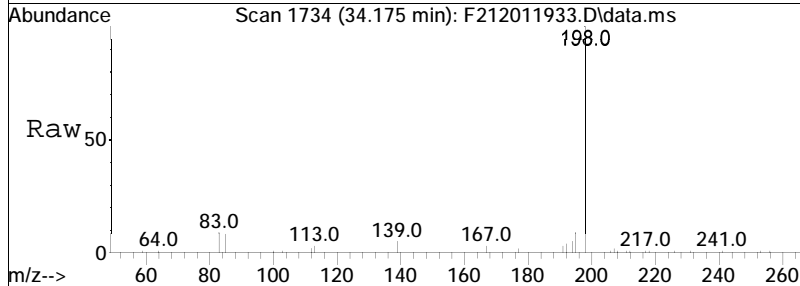


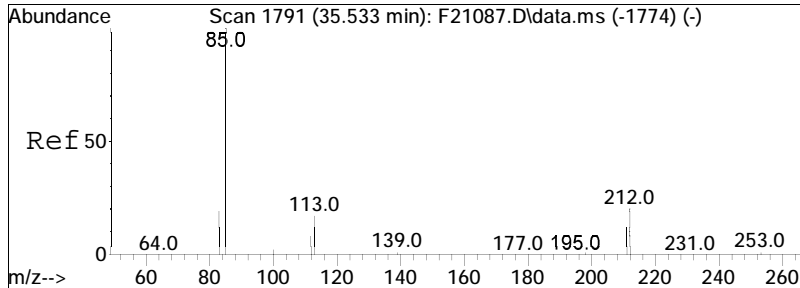
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 67.91 ng/mL
 RT: 34.943 min Scan# 1785
 Delta R.T. 0.013 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:198 Resp: 22569



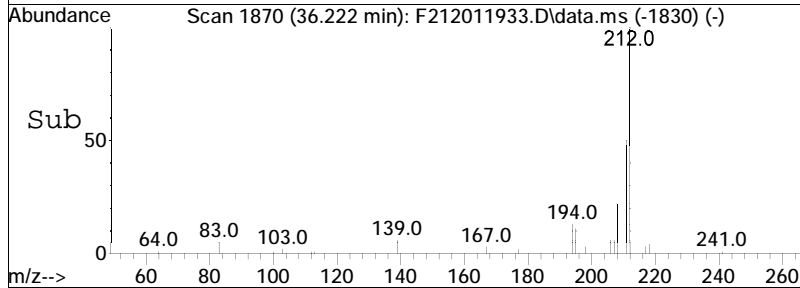
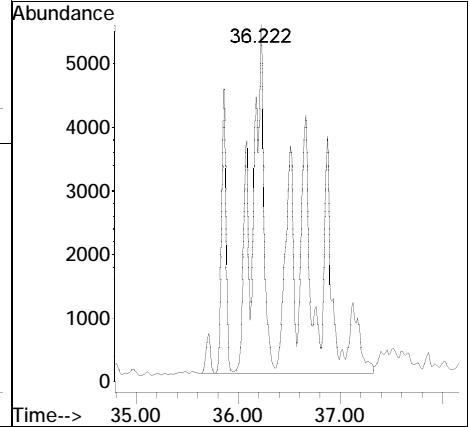
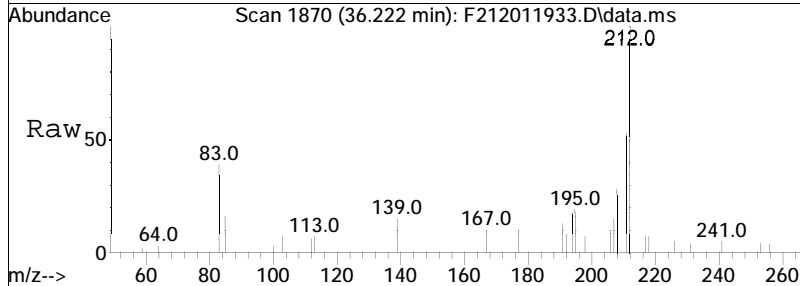


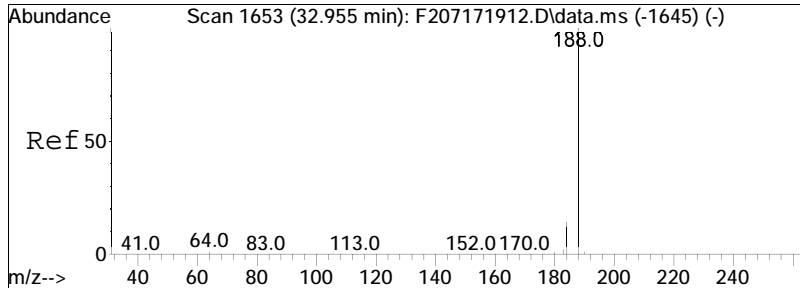
#36
 Cl-Dibenzothiophenes
 Concen: 909.09 ng/mL M5
 RT: 34.175 min Scan# 1734
 Delta R.T. 0.012 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:198 Resp: 302120





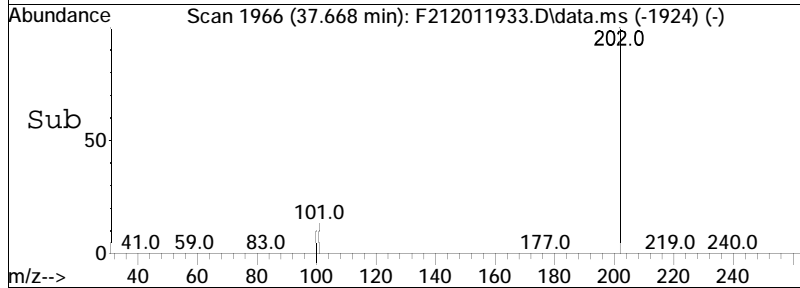
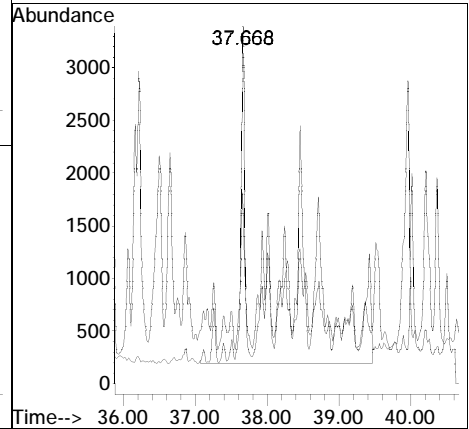
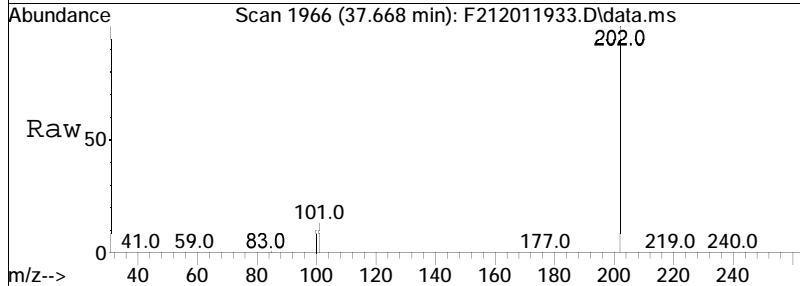
#37
 C2-Dibenzothiophenes
 Concen: 384.18 ng/mL M5
 RT: 36.222 min Scan# 1870
 Delta R.T. 0.376 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:212 Resp: 127675

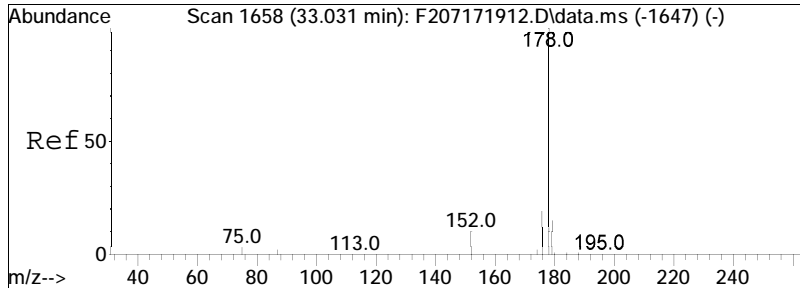




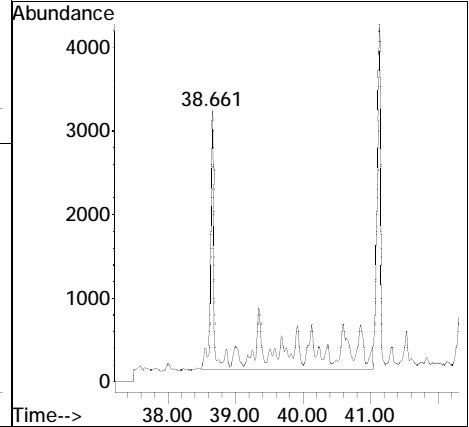
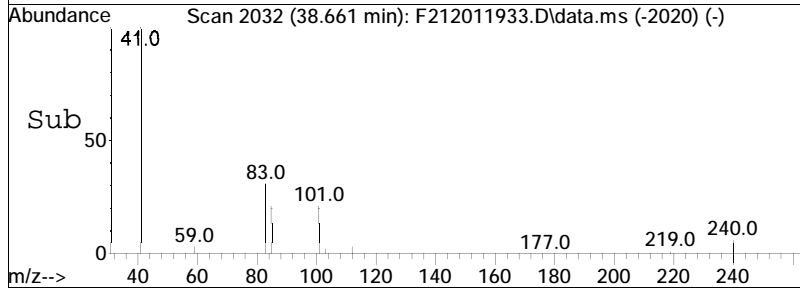
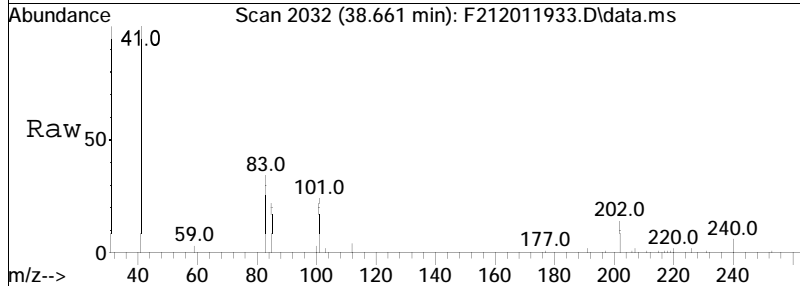
#38
 C3-Dibenzothiophenes
 Concen: 215.78 ng/mL M5
 RT: 37.668 min Scan# 1966
 Delta R.T. 0.018 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

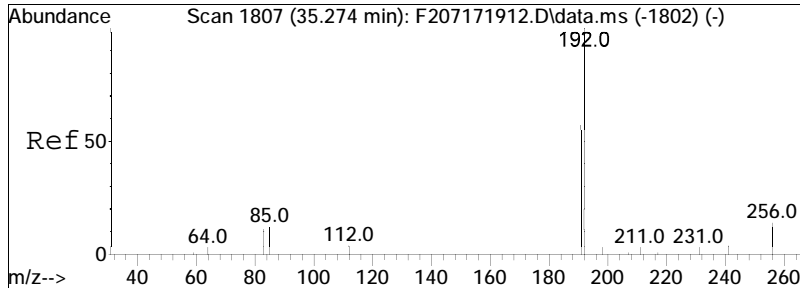
Tgt Ion	Ratio	Lower	Upper
226	100		
211	8.9	38.6	71.6#





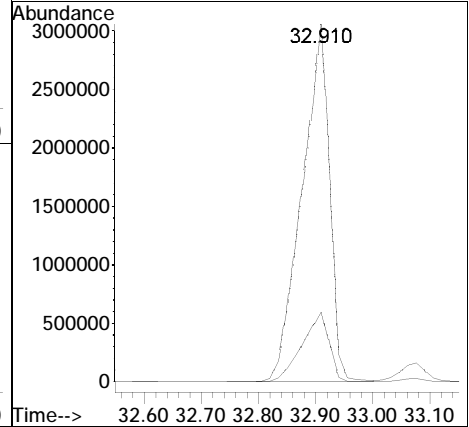
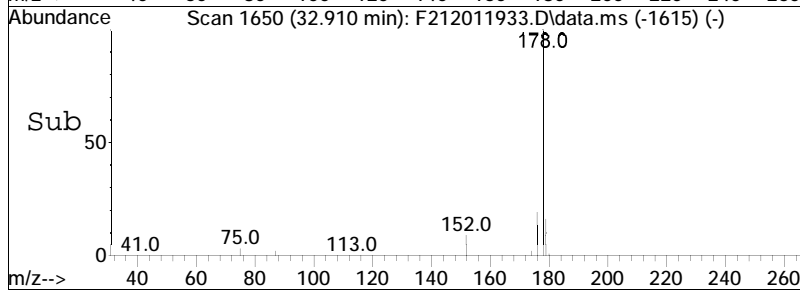
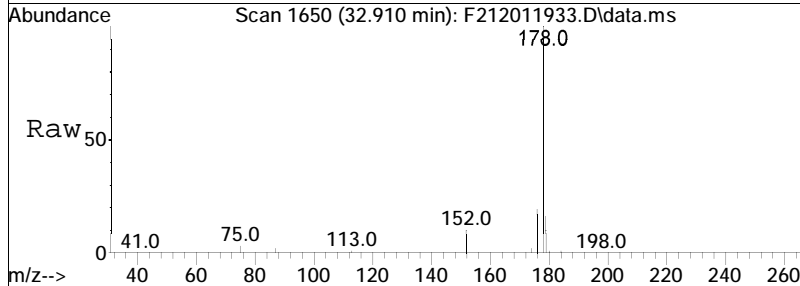
#39
 C4-Dibenzothiophenes
 Concen: 114.66 ng/mL M5
 RT: 38.661 min Scan# 2032
 Delta R.T. -0.672 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:240 Resp: 38105

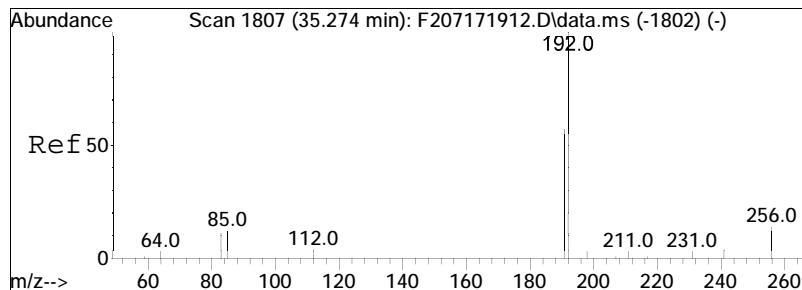




#41
 Phenanthrene
 Concen: 28642.48 ng/mL
 RT: 32.910 min Scan# 1650
 Delta R.T. 0.025 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

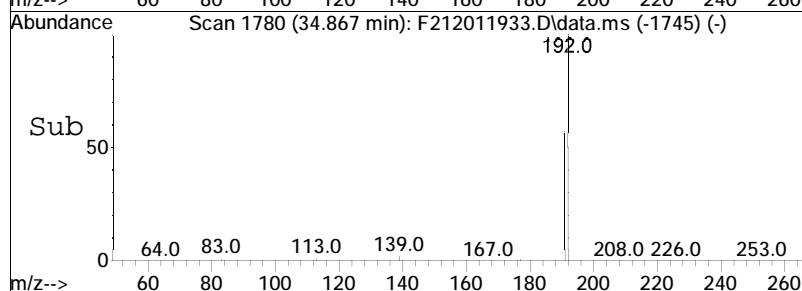
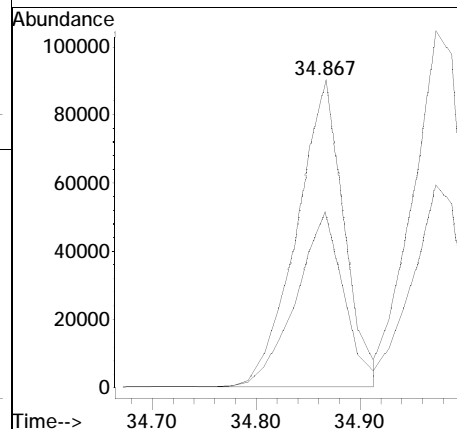
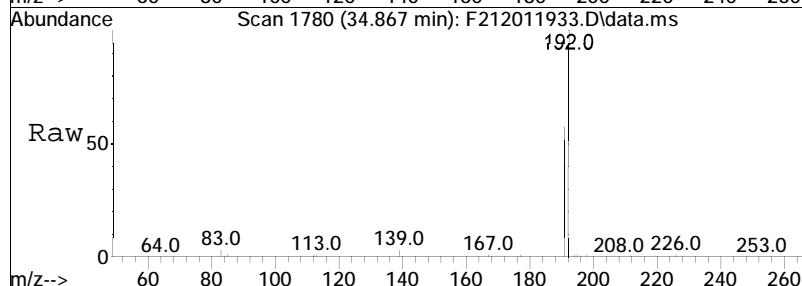
Tgt Ion: 178 Resp: 10125542
 Ion Ratio Lower Upper
 178 100
 176 19.2 13.0 24.1

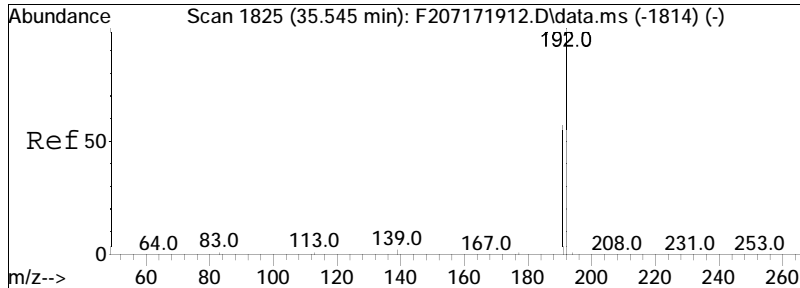




#42
 3-Methylphenanthrene (3MP)
 Concen: 806.33 ng/mL
 RT: 34.867 min Scan# 1780
 Delta R.T. 0.028 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

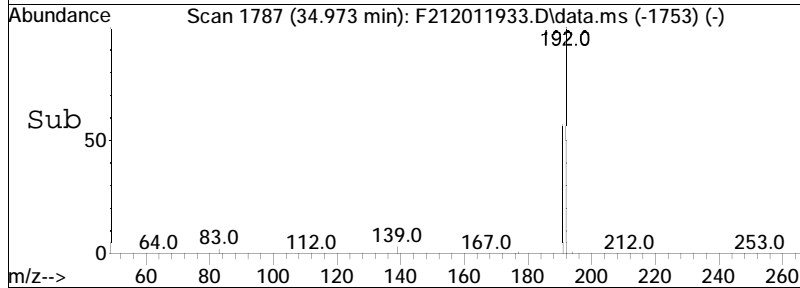
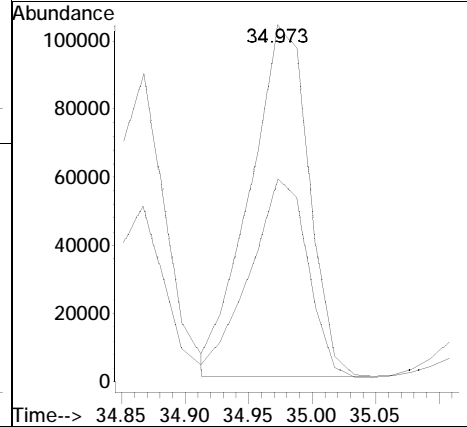
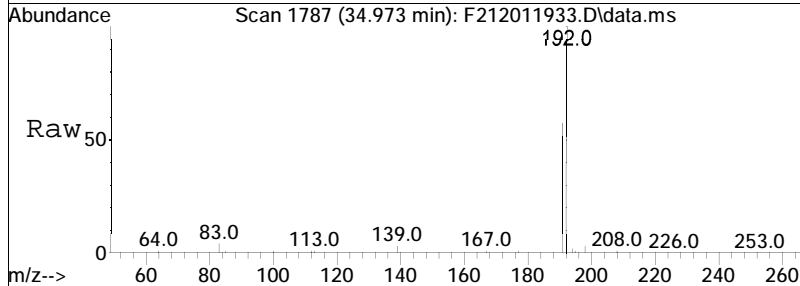
Tgt Ion: 192 Resp: 285050
 Ion Ratio Lower Upper
 192 100
 191 57.1 42.1 78.1

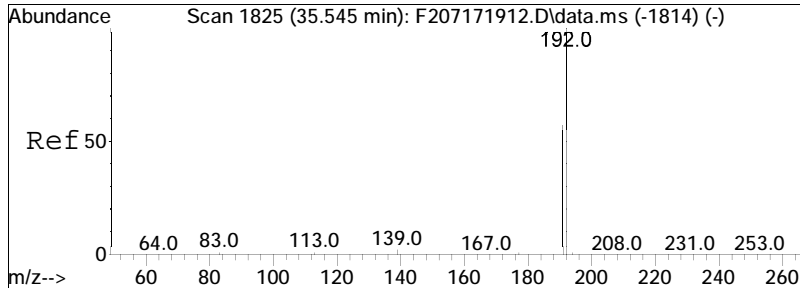




#43
 2-Methylphenanthrene (2MP)
 Concen: 939.44 ng/mL
 RT: 34.973 min Scan# 1787
 Delta R.T. 0.013 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

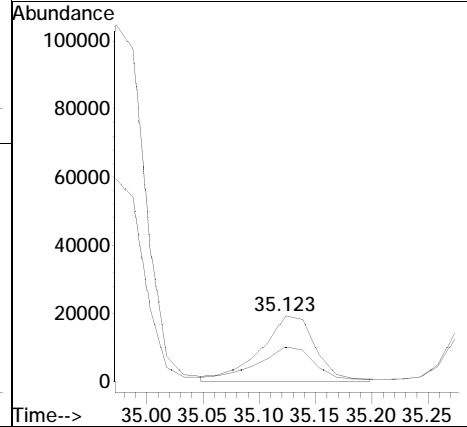
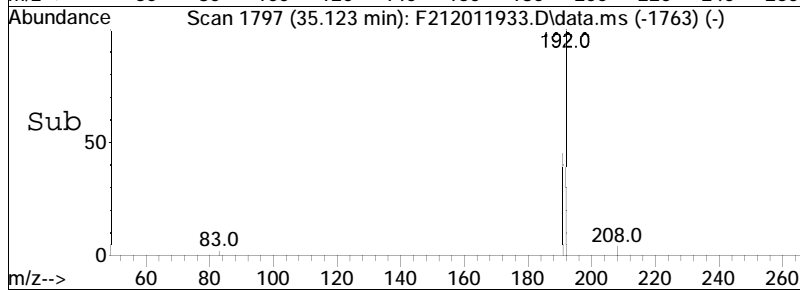
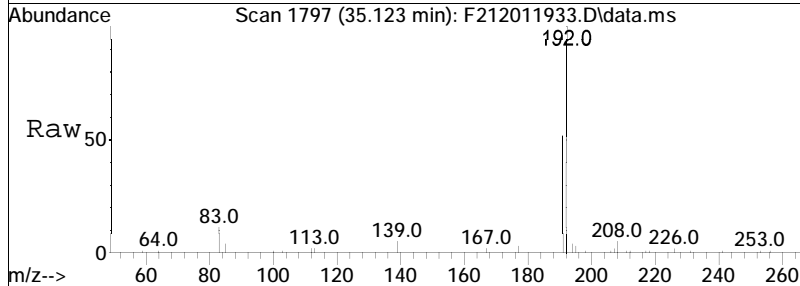
Tgt Ion	Resp	Lower	Upper
192	100		
191	55.5	40.5	75.3

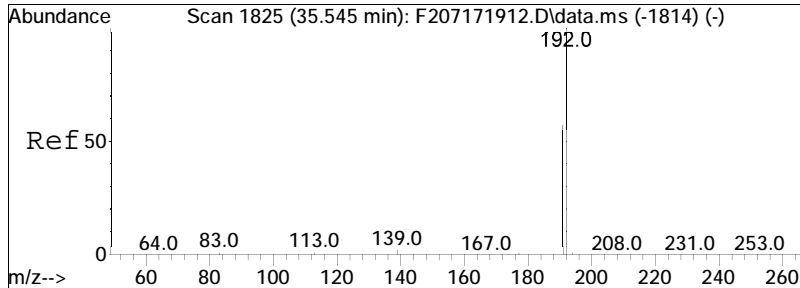




#44
 2-Methylantracene(2MA)
 Concen: 182.69 ng/mL M3
 RT: 35.123 min Scan# 1797
 Delta R.T. 0.014 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

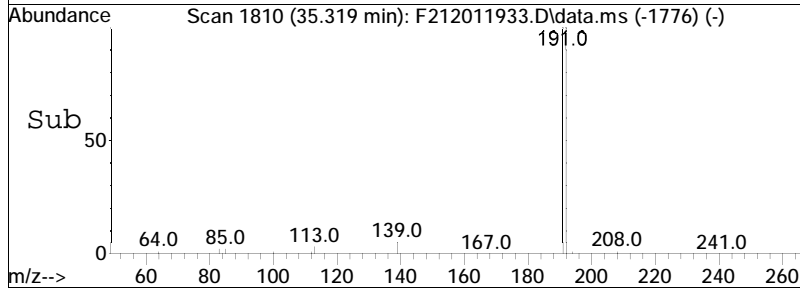
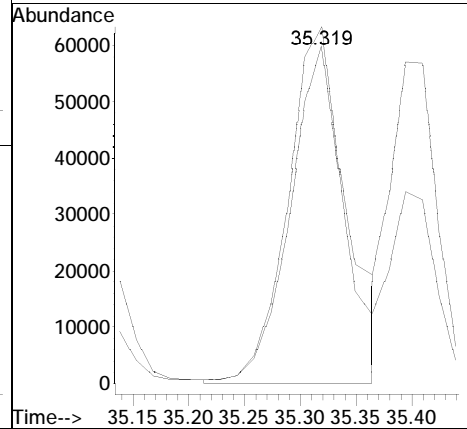
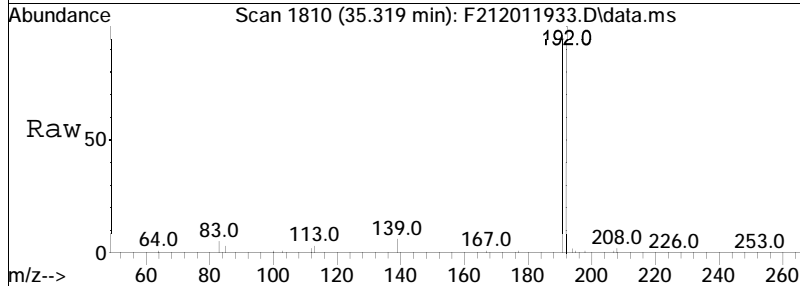
Tgt Ion	Resp	Lower	Upper
192	100		
191	303.5	85.2	158.2#

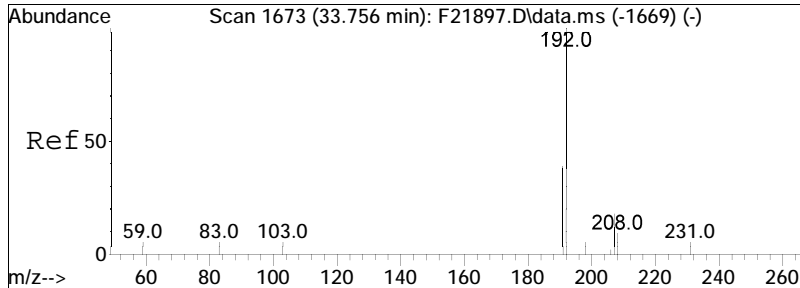




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 644.28 ng/mL M3
 RT: 35.319 min Scan# 1810
 Delta R.T. 0.014 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

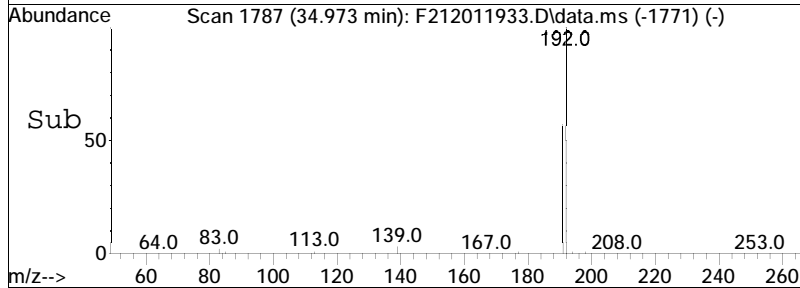
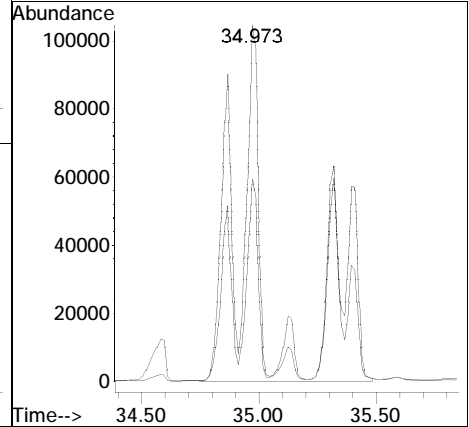
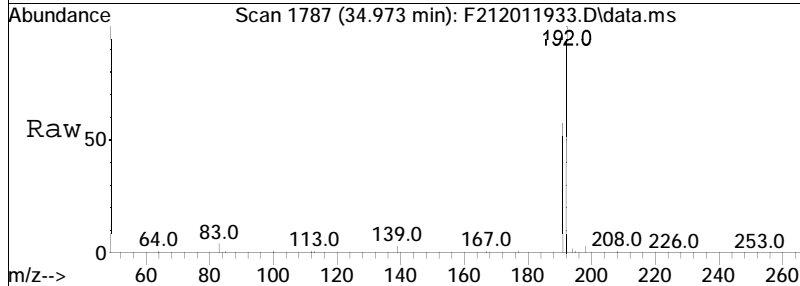
Tgt Ion:192 Resp: 227761
 Ion Ratio Lower Upper
 192 100
 191 41.3 39.7 73.7

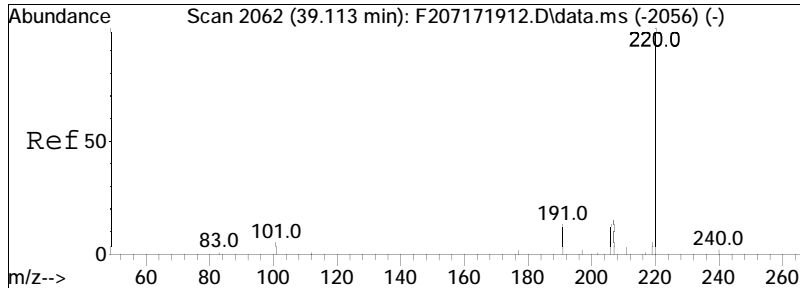




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 3080.62 ng/mL M5
 RT: 34.973 min Scan# 1787
 Delta R.T. -0.332 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

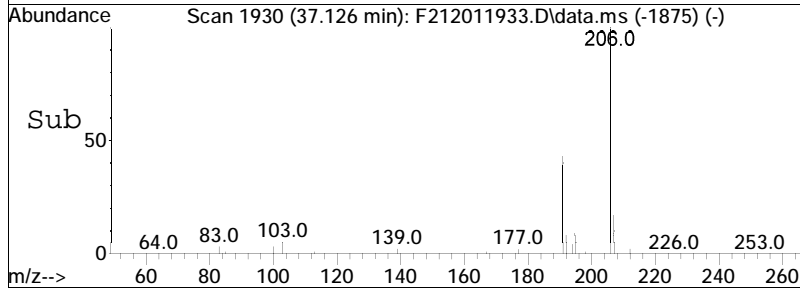
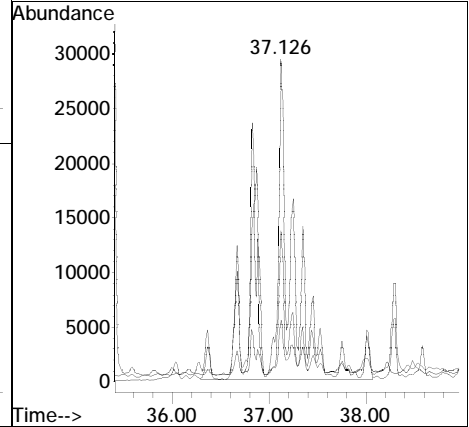
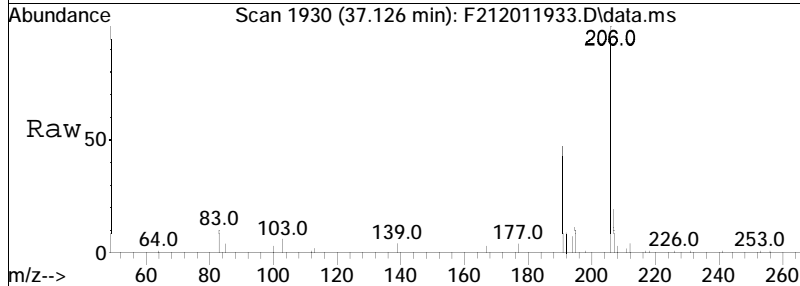
Tgt Ion: 192 Resp: 1089044
 Ion Ratio Lower Upper
 192 100
 191 2.9 39.7 73.7#

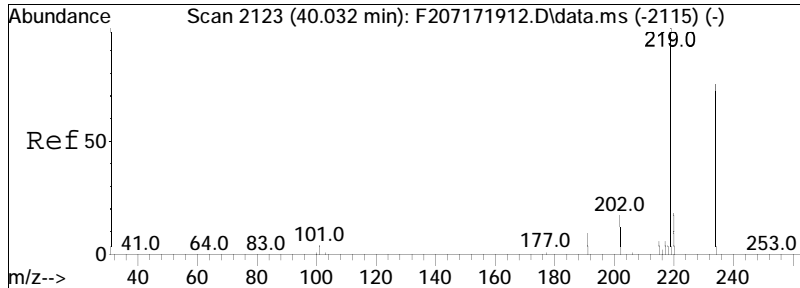




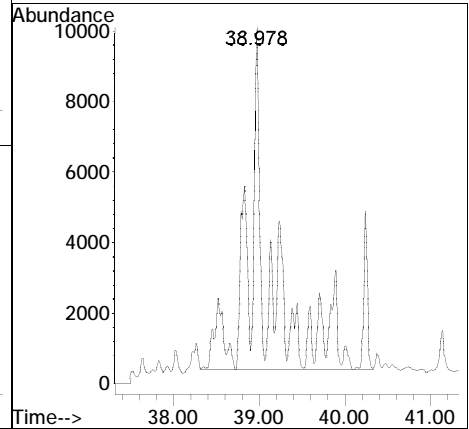
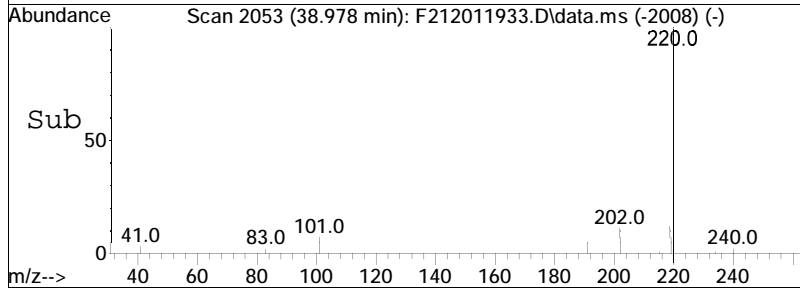
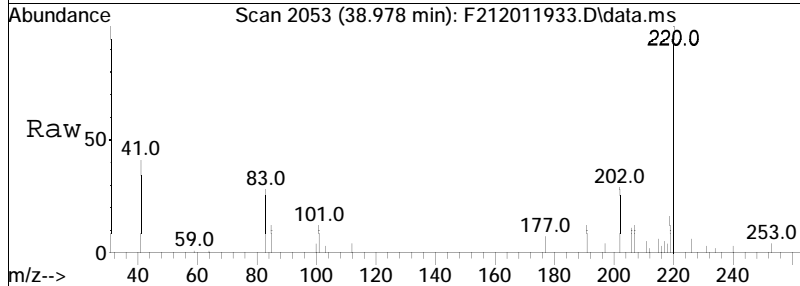
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 1261.07 ng/mL M5
 RT: 37.126 min Scan# 1930
 Delta R.T. 0.017 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

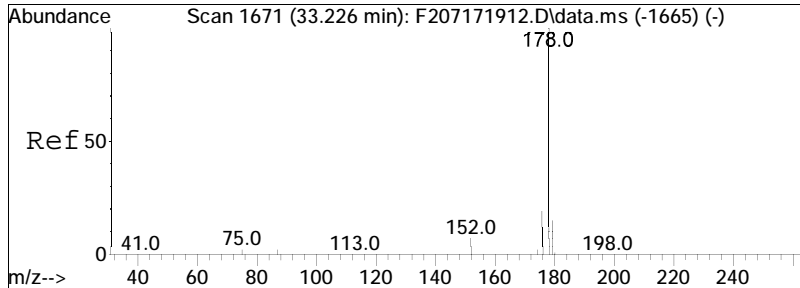
Tgt Ion	Ratio	Lower	Upper
206	100		
191	10.9	33.9	62.9#
207	4.7	13.9	25.7#





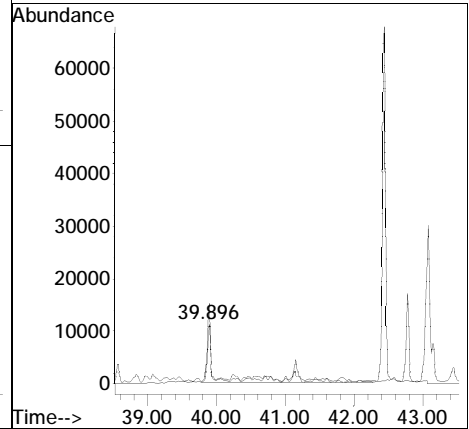
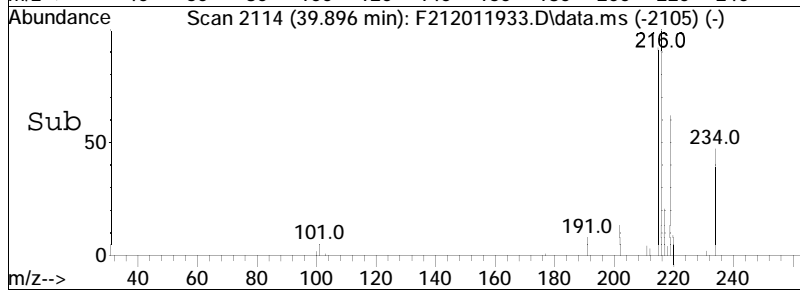
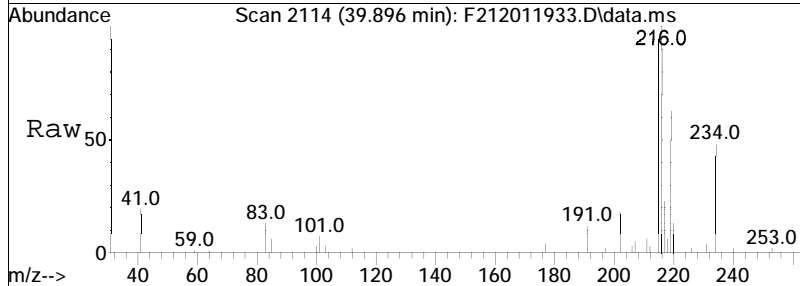
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 492.63 ng/mL M5
 RT: 38.978 min Scan# 2053
 Delta R.T. 0.020 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:220 Resp: 174153

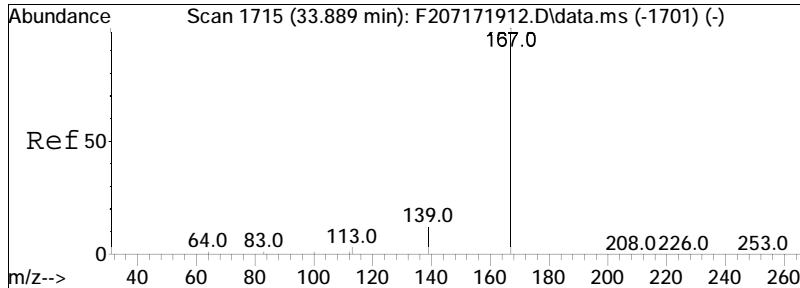




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 268.87 ng/mL M5
 RT: 39.896 min Scan# 2114
 Delta R.T. -1.226 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

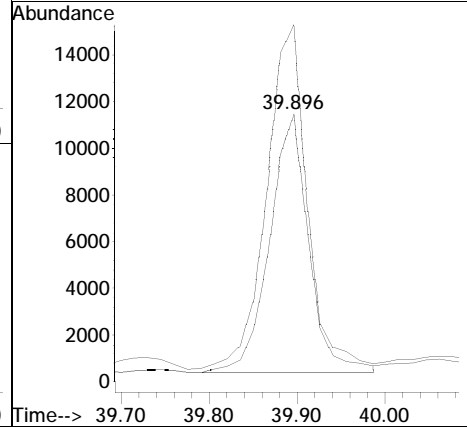
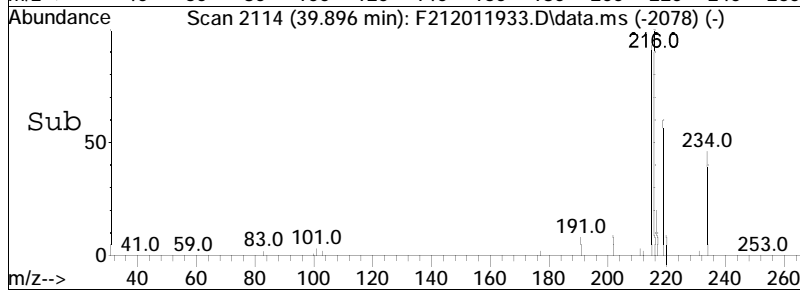
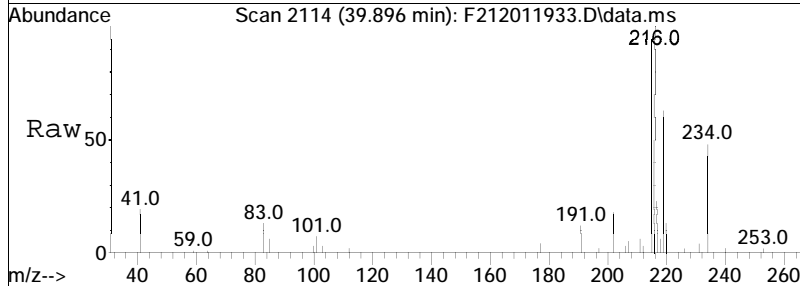
Tgt Ion: 234 Resp: 95048
 Ion Ratio Lower Upper
 234 100
 219 8.1 39.5 73.3#

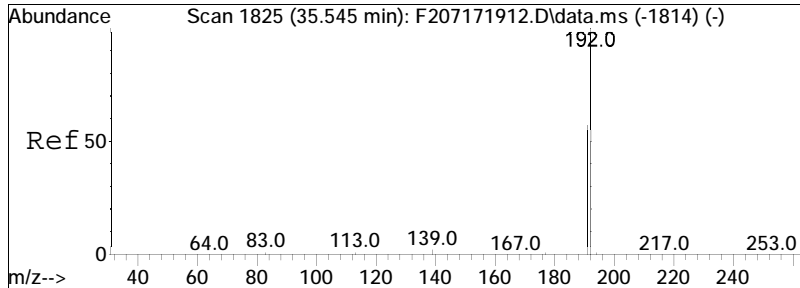




#52
 Retene
 Concen: 281.34 ng/mL
 RT: 39.896 min Scan# 2114
 Delta R.T. 0.037 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

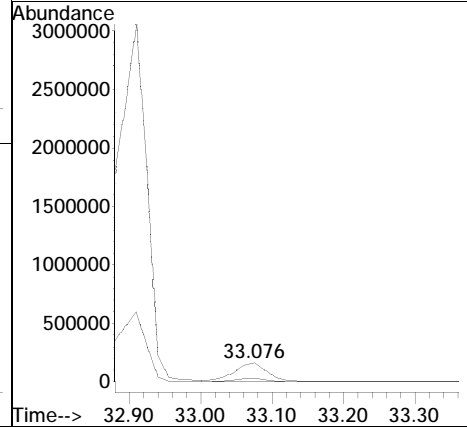
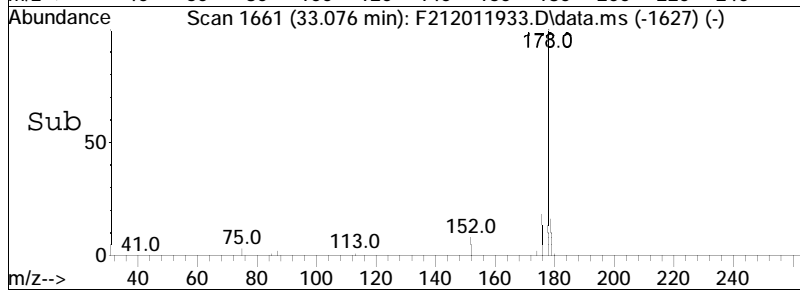
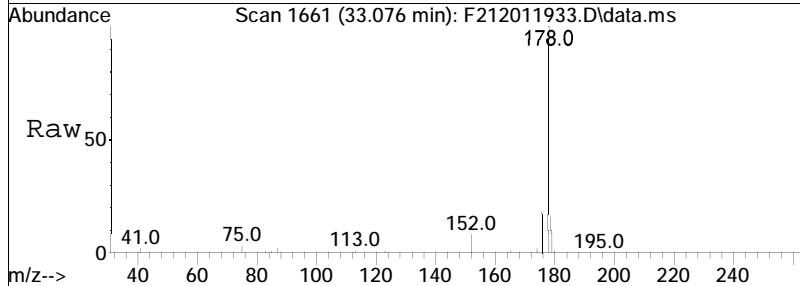
Tgt Ion: 234 Resp: 34047
 Ion Ratio Lower Upper
 234 100
 219 137.9 108.2 201.0

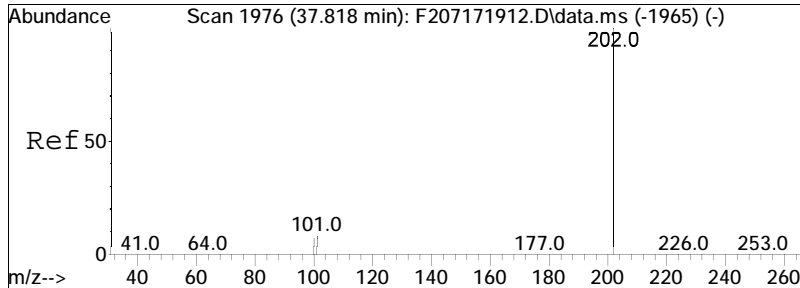




#53
 Anthracene
 Concen: 1706.15 ng/mL
 RT: 33.076 min Scan# 1661
 Delta R.T. 0.010 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

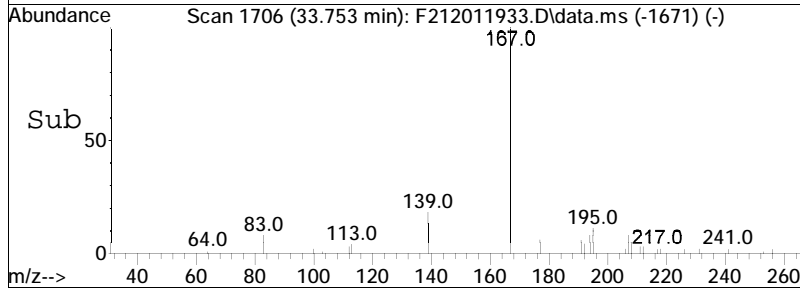
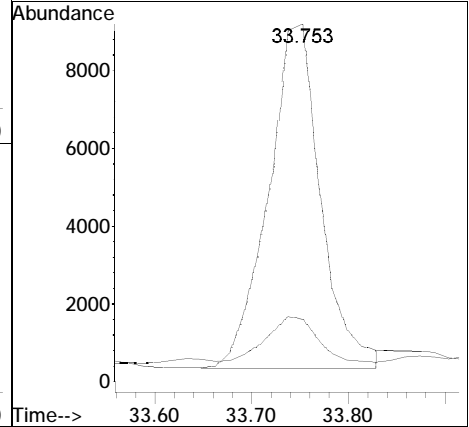
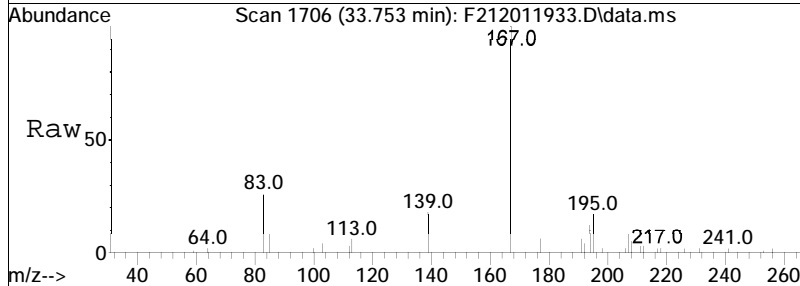
Tgt Ion: 178 Resp: 514183
 Ion Ratio Lower Upper
 178 100
 176 18.5 12.5 23.3

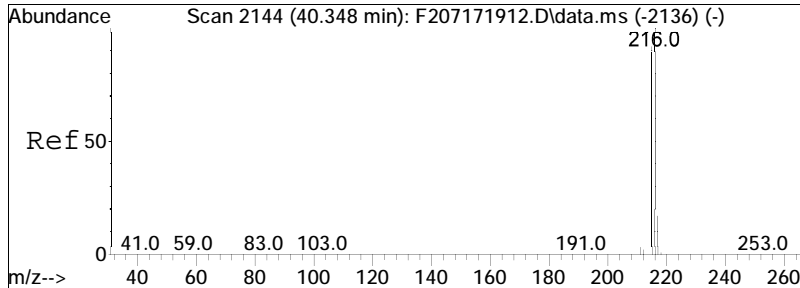




#54
 Carbazole
 Concen: 117.94 ng/mL M4
 RT: 33.753 min Scan# 1706
 Delta R.T. 0.026 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

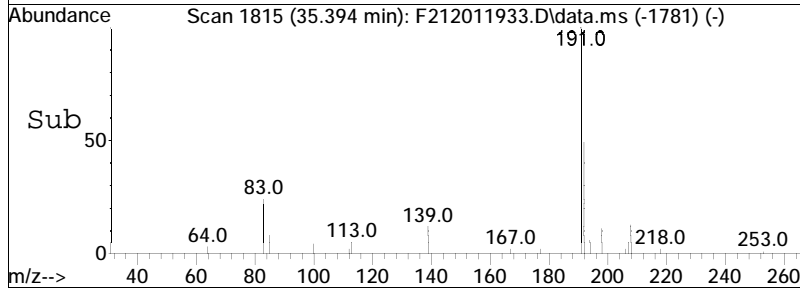
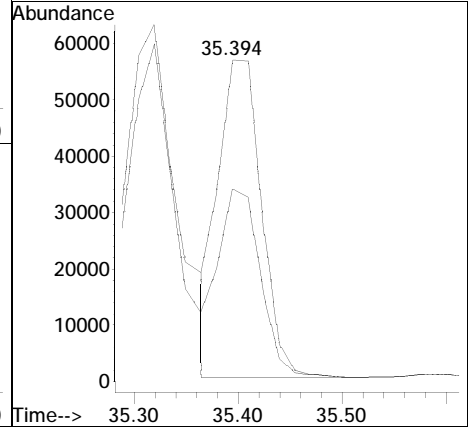
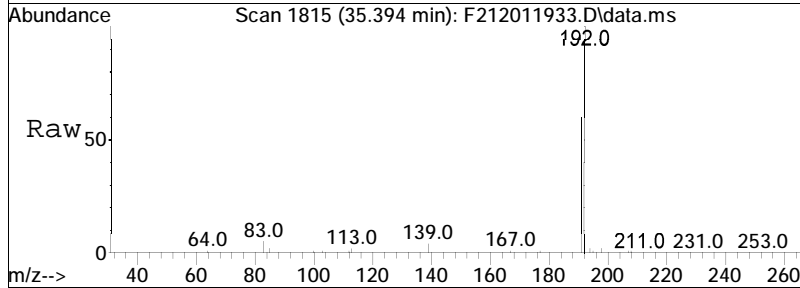
Tgt Ion: 167 Resp: 33252
 Ion Ratio Lower Upper
 167 100
 139 16.2 8.7 16.1#

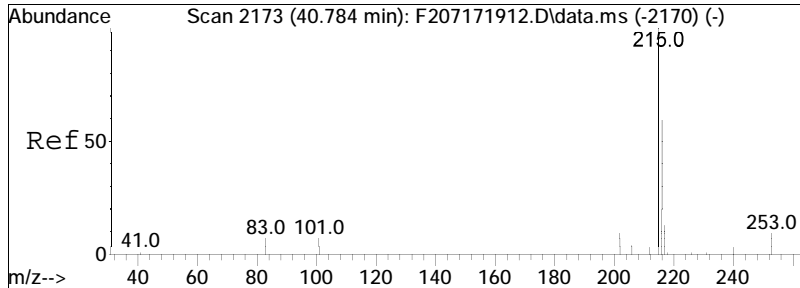




#55
 1-Methylphenanthrene
 Concen: 614.74 ng/mL
 RT: 35.394 min Scan# 1815
 Delta R.T. 0.014 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

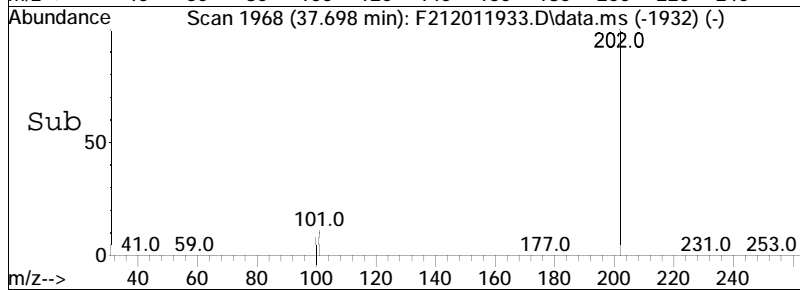
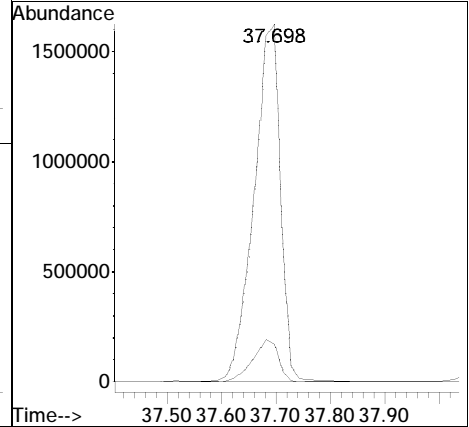
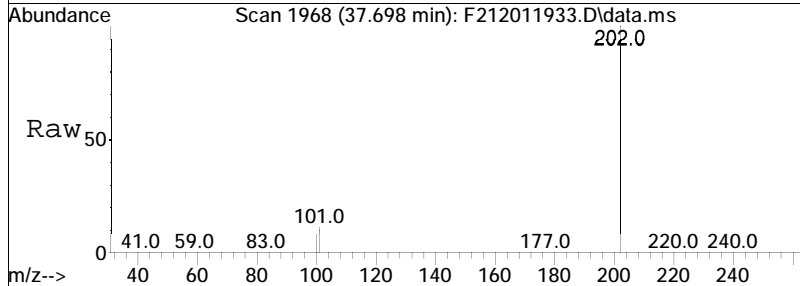
Tgt Ion	Resp	Lower	Upper
192	100		
191	57.9	39.3	73.1

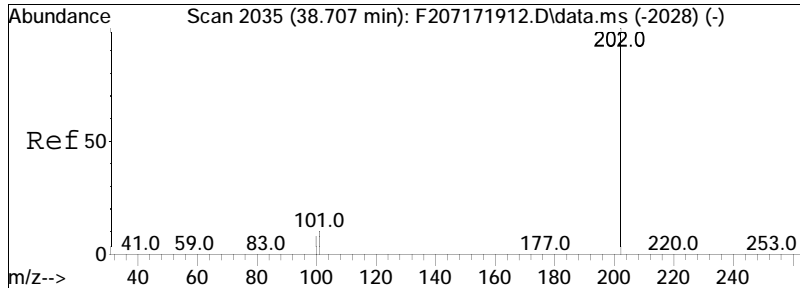




#56
 Fluoranthene
 Concen: 13342.91 ng/mL
 RT: 37.698 min Scan# 1968
 Delta R.T. 0.048 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

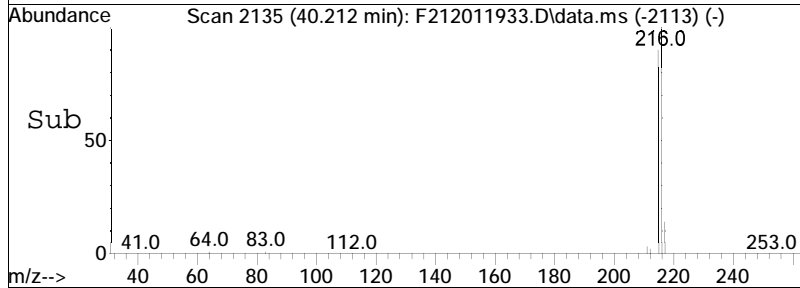
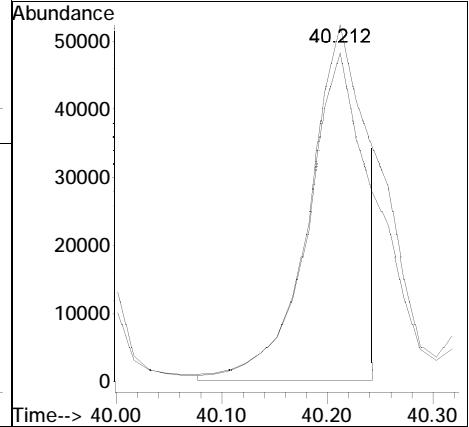
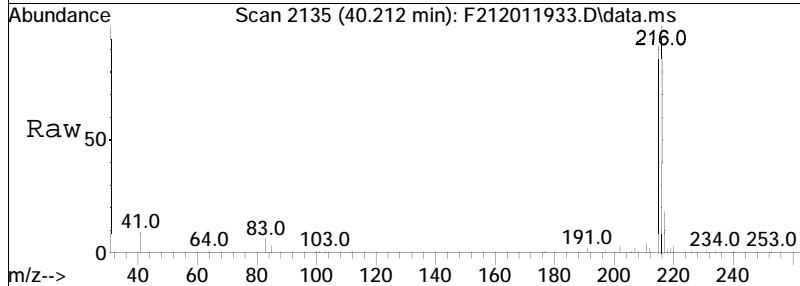
Tgt Ion: 202 Resp: 5379559
 Ion Ratio Lower Upper
 202 100
 101 11.8 8.0 14.8

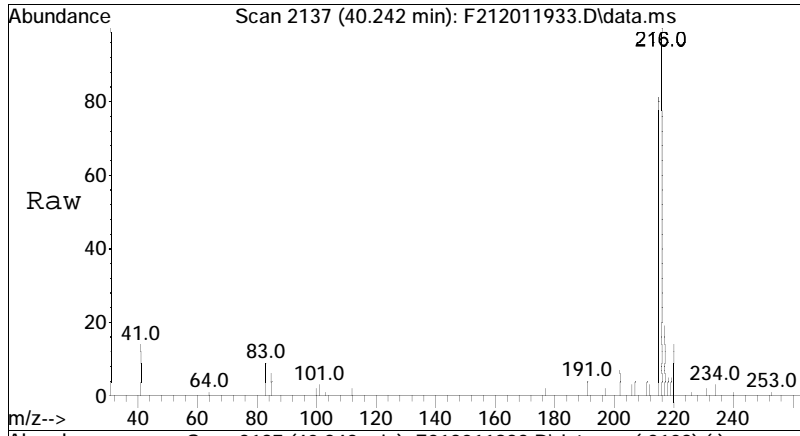




#57
 Benzo(b)fluorene
 Concen: 781.93 ng/mL M3
 RT: 40.212 min Scan# 2135
 Delta R.T. 0.037 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

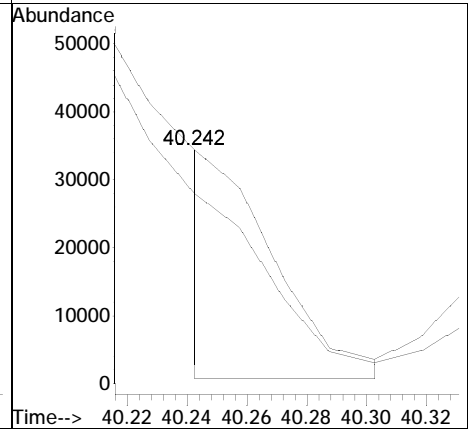
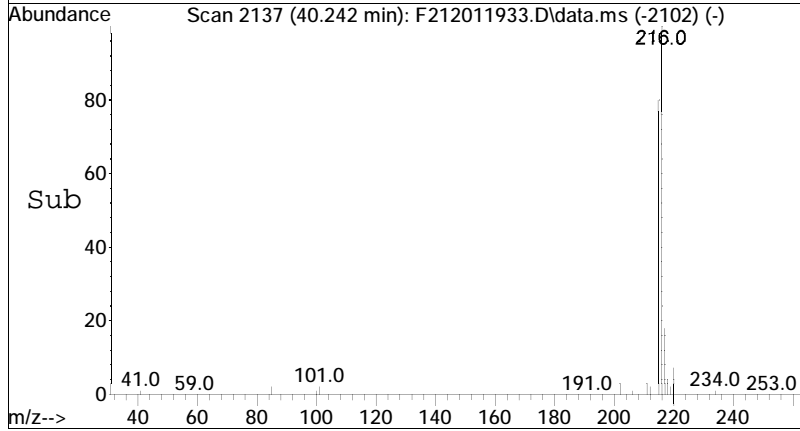
Tgt Ion	Resp	Lower	Upper
216	198337		
215	104.8	63.9	118.7

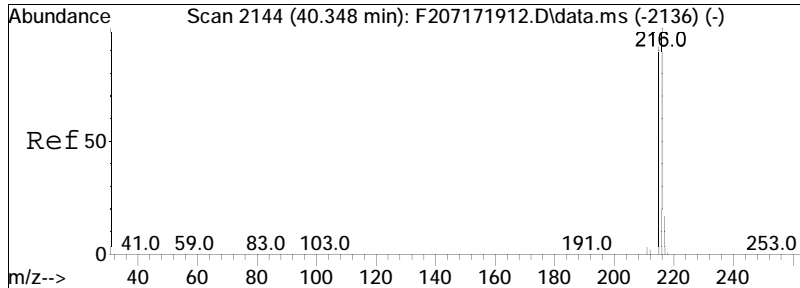




#58
 7H-Benzo(c)fluorene
 Concen: 177.50 ng/mL M3
 RT: 40.242 min Scan# 2137
 Delta R.T. 0.022 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

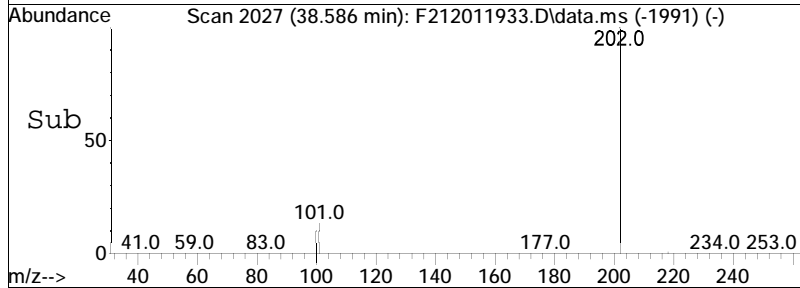
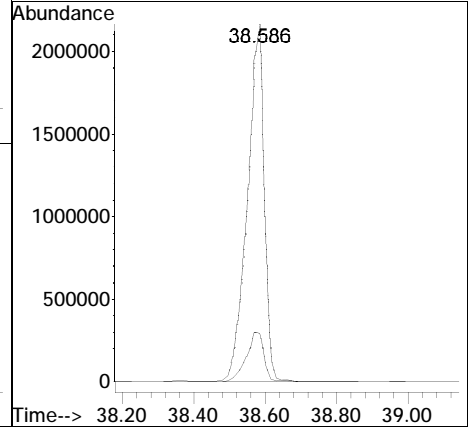
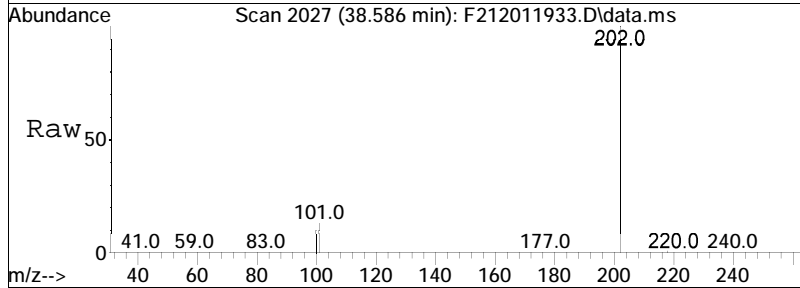
Tgt Ion	Resp	Lower	Upper
216	100		
215	465.1	102.3	189.9#

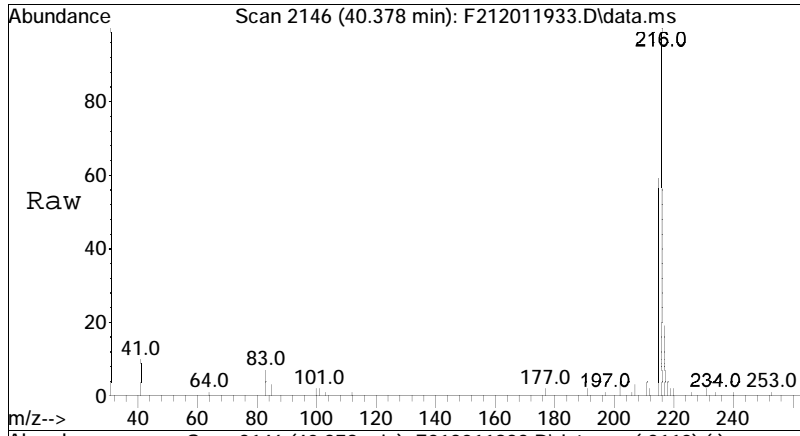




#59
 Pyrene
 Concen: 16595.09 ng/mL
 RT: 38.586 min Scan# 2027
 Delta R.T. 0.049 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

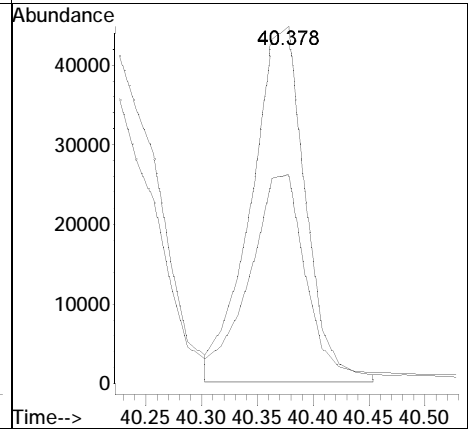
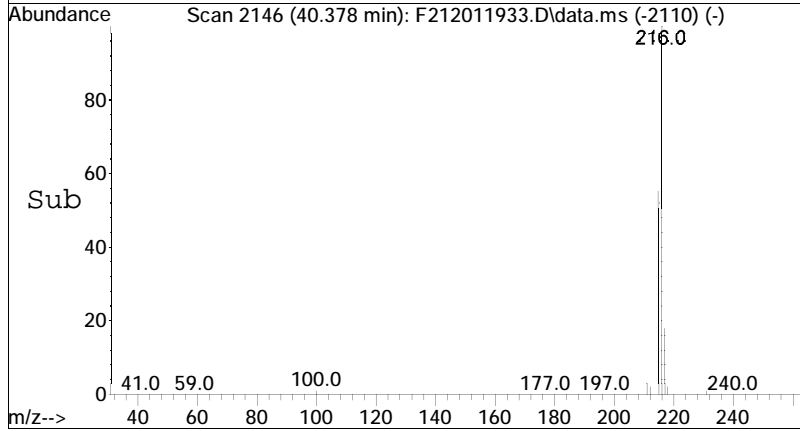
Tgt Ion: 202 Resp: 6947532
 Ion Ratio Lower Upper
 202 100
 101 14.8 9.0 16.8

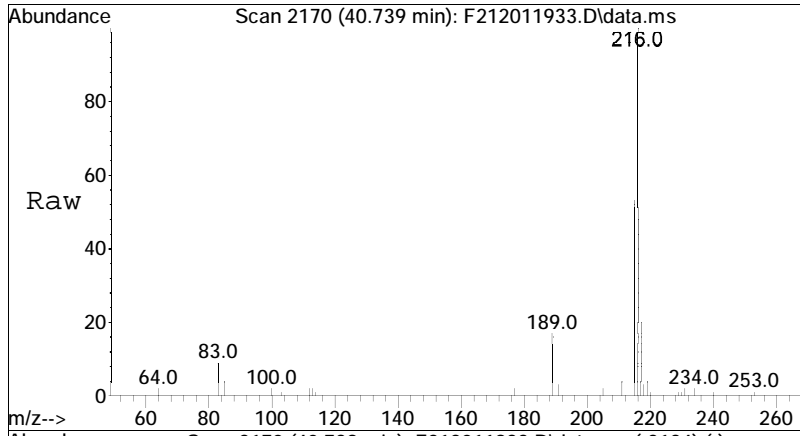




#60
 2-Methylpyrene
 Concen: 359.14 ng/mL M3
 RT: 40.378 min Scan# 2146
 Delta R.T. 0.037 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

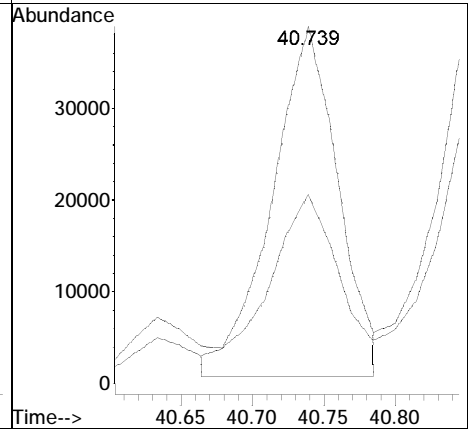
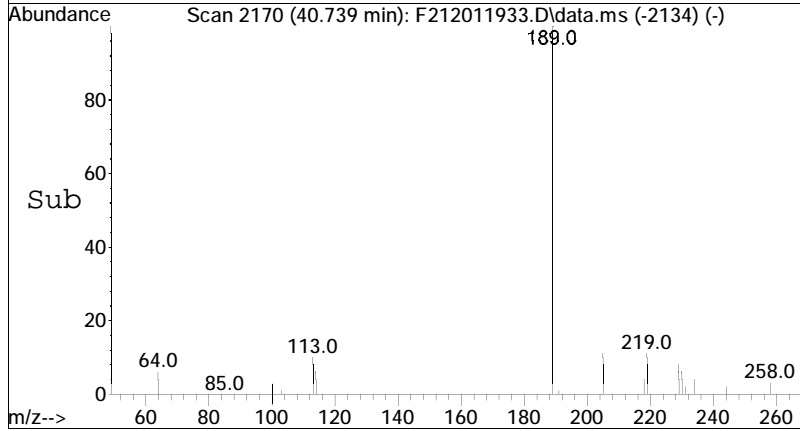
Tgt Ion	Resp	Lower	Upper
216	100		
215	138.2	73.1	135.7#

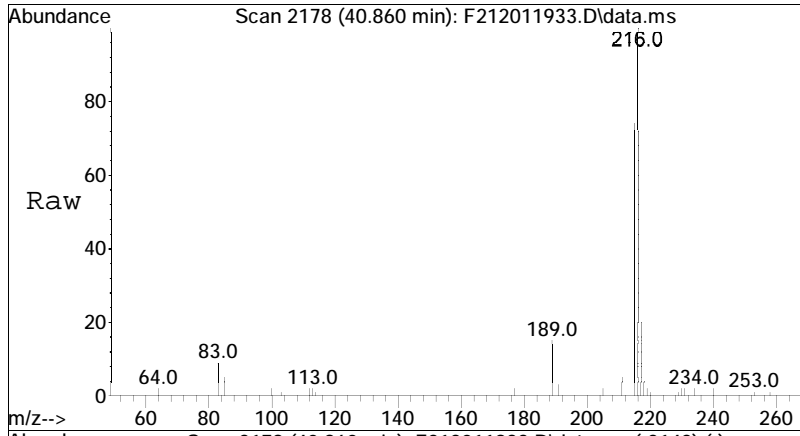




#61
 4-Methylpyrene
 Concen: 293.86 ng/mL
 RT: 40.739 min Scan# 2170
 Delta R.T. 0.038 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

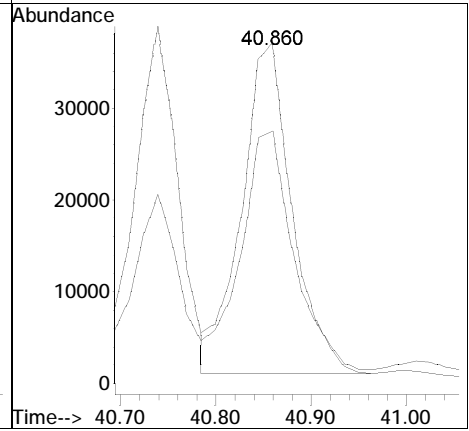
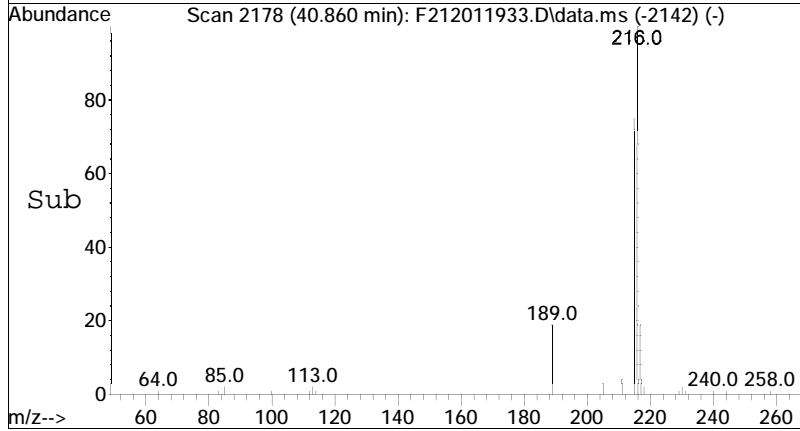
Tgt Ion	Resp	Lower	Upper
216	100		
215	51.4	49.5	91.9

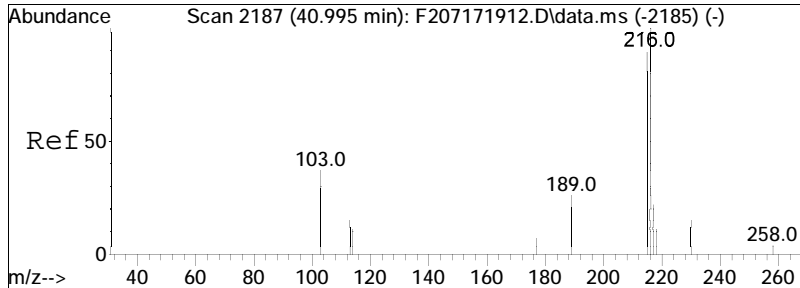




#62
 1-Methylpyrene
 Concen: 316.37 ng/mL
 RT: 40.860 min Scan# 2178
 Delta R.T. 0.038 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

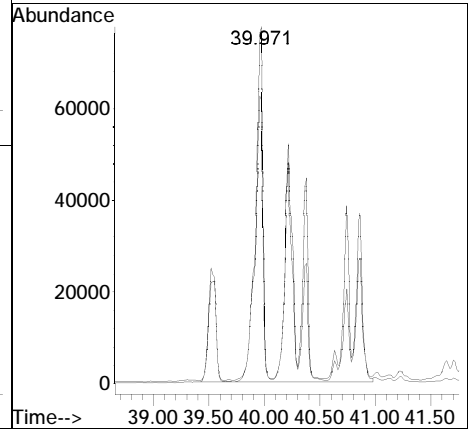
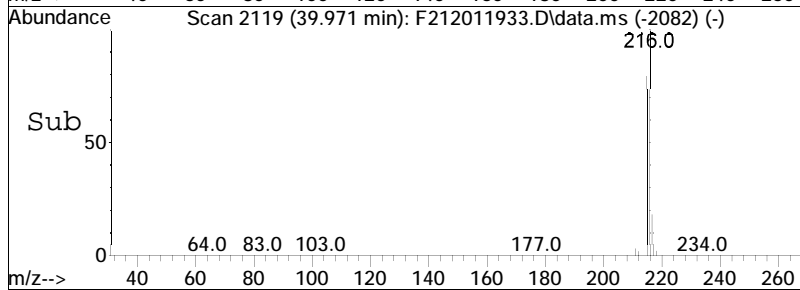
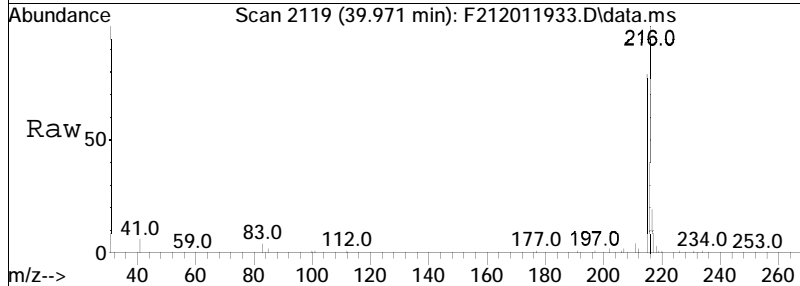
Tgt Ion	Resp	Lower	Upper
216	100		
215	75.2	73.7	136.9

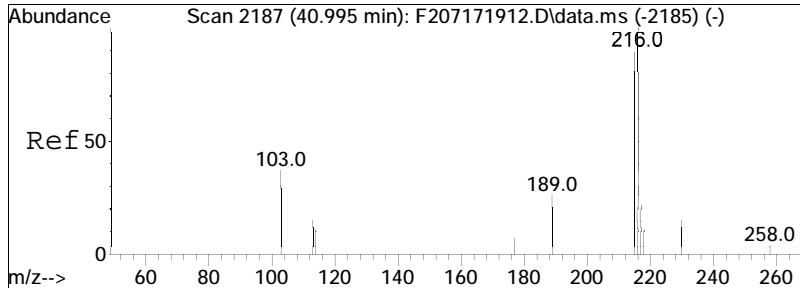




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 2743.14 ng/mL M5
 RT: 39.971 min Scan# 2119
 Delta R.T. 0.037 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

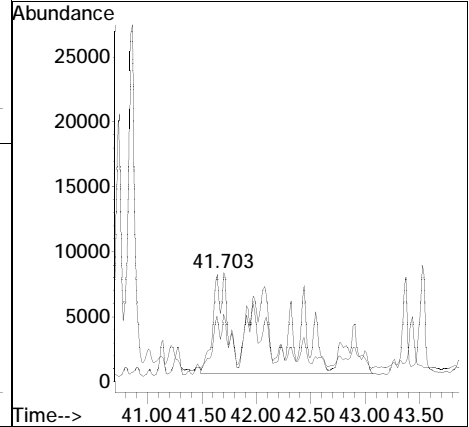
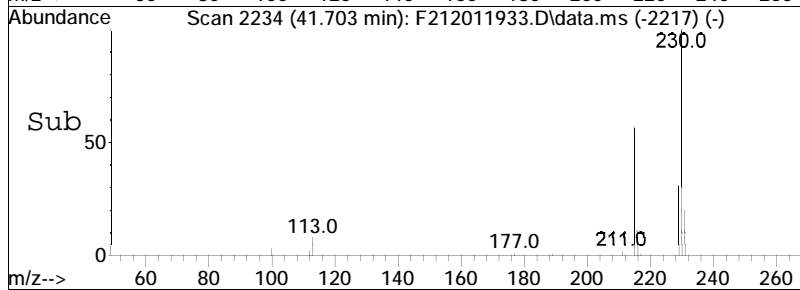
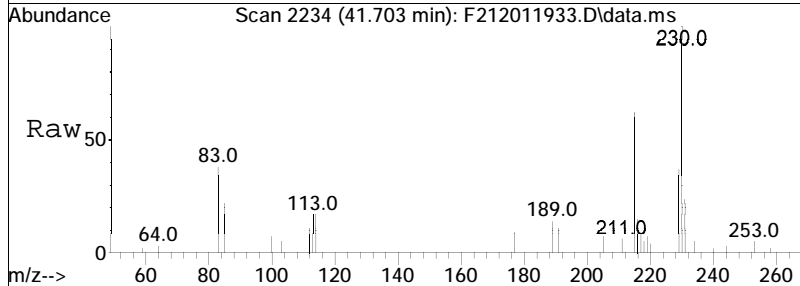
Tgt Ion: 216 Resp: 1148415
 Ion Ratio Lower Upper
 216 100
 215 26.0 66.0 122.6#

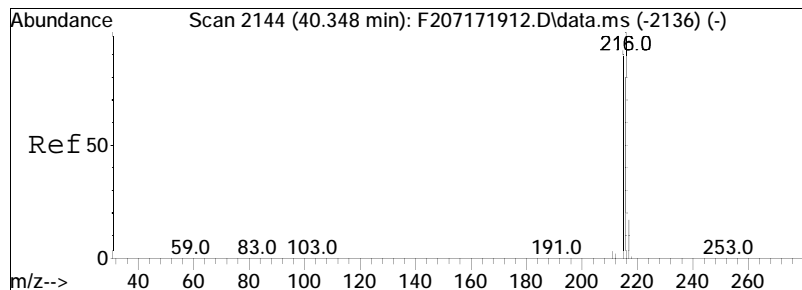




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 611.45 ng/mL M5
 RT: 41.703 min Scan# 2234
 Delta R.T. -0.035 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

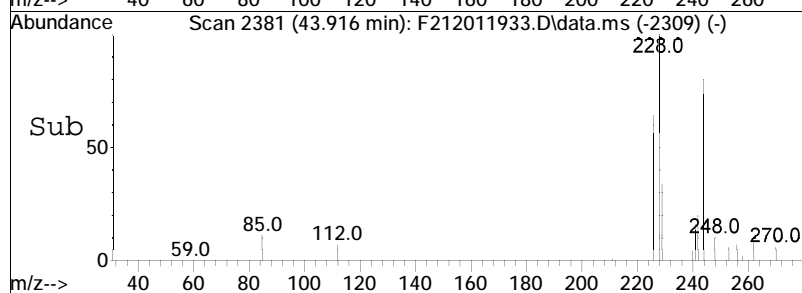
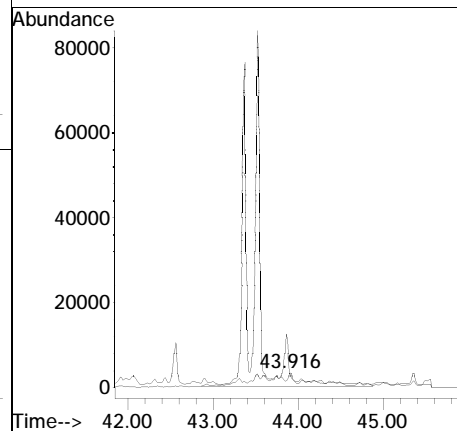
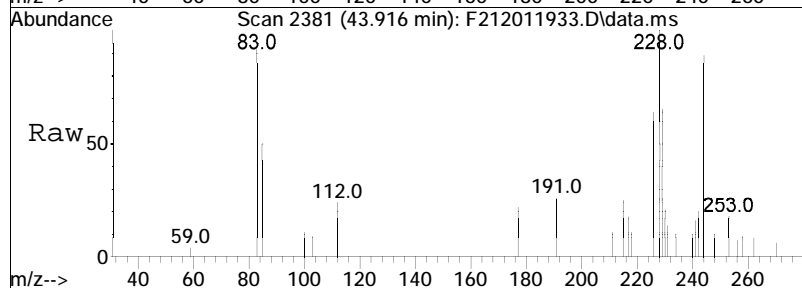
Tgt Ion	Resp	Lower	Upper
230	100		
215	4.7	74.8	138.8#

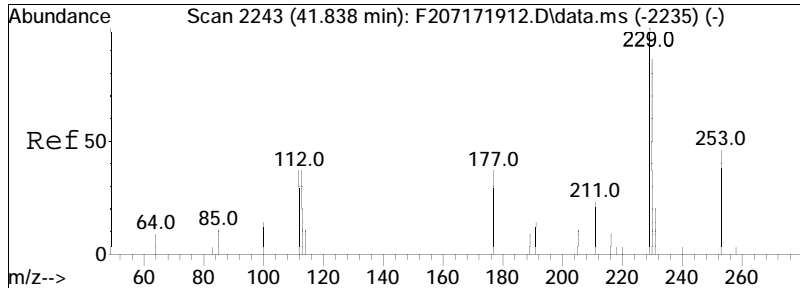




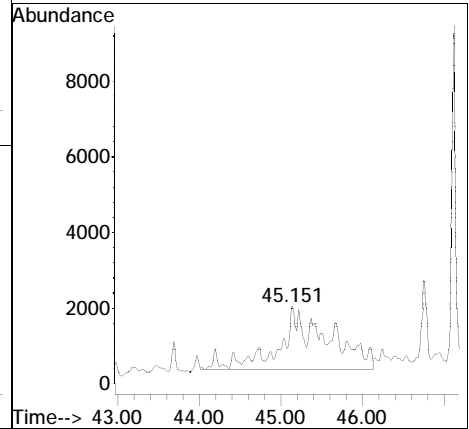
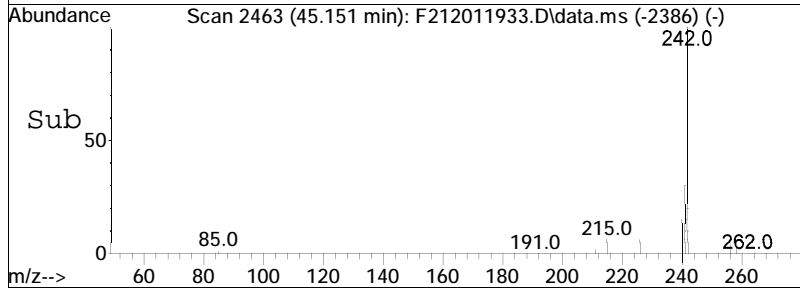
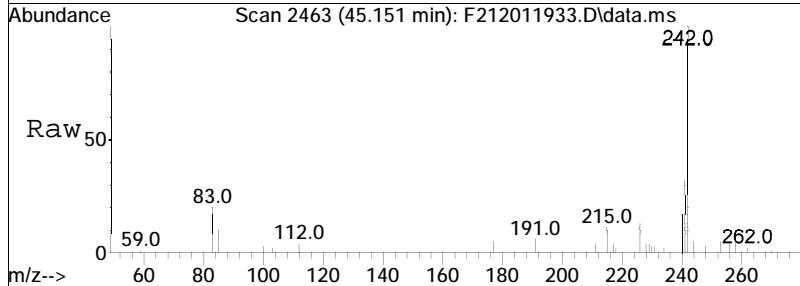
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 287.83 ng/mL M5
 RT: 43.916 min Scan# 2381
 Delta R.T. 0.164 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

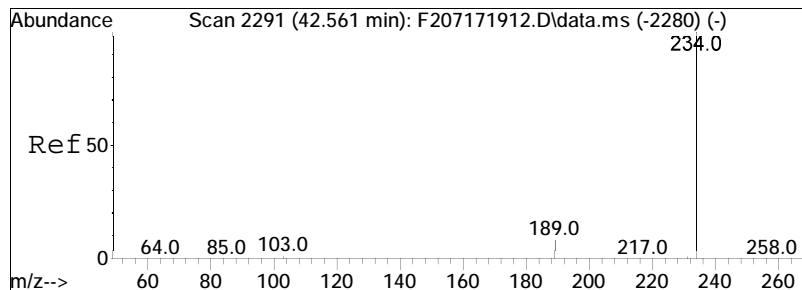
Tgt Ion	Resp	Lower	Upper
244	100		
229	1.7	62.0	115.2#





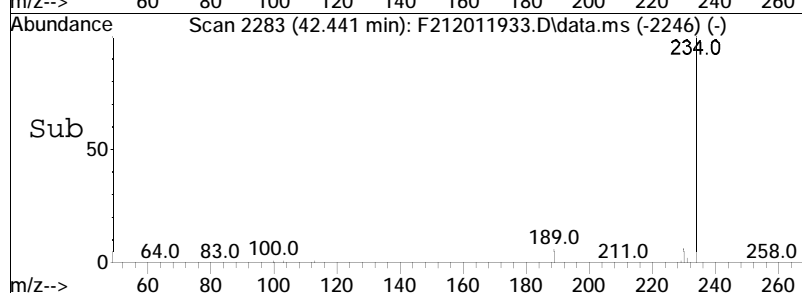
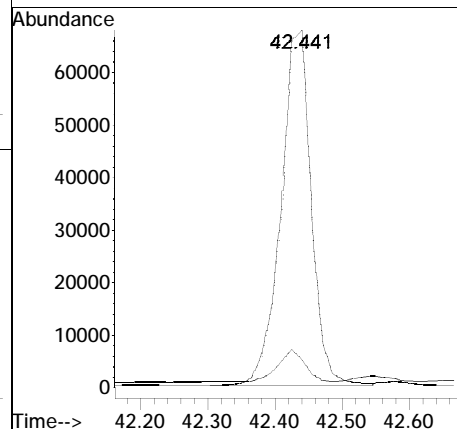
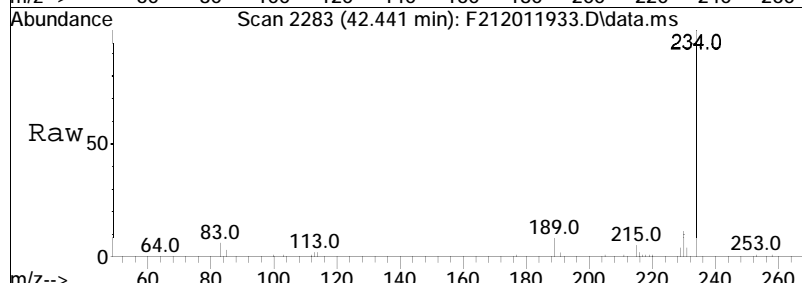
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 167.16 ng/mL M5
 RT: 45.151 min Scan# 2463
 Delta R.T. 0.045 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion: 258 Resp: 69980

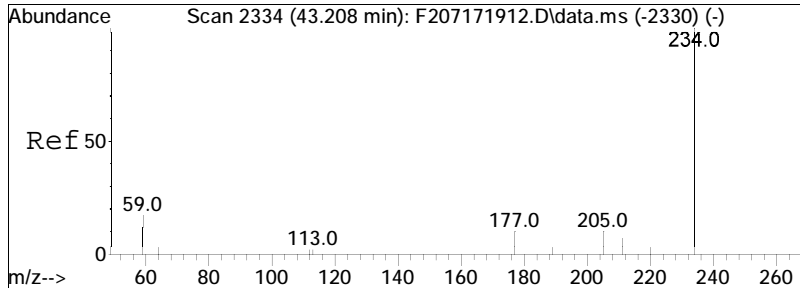




#67
 Naphthobenzothiophene-2,1-D
 Concen: 583.84 ng/mL
 RT: 42.441 min Scan# 2283
 Delta R.T. 0.056 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

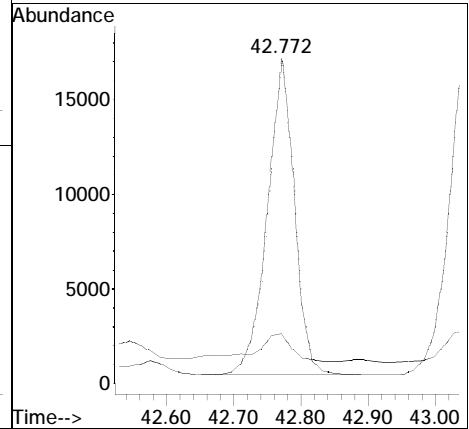
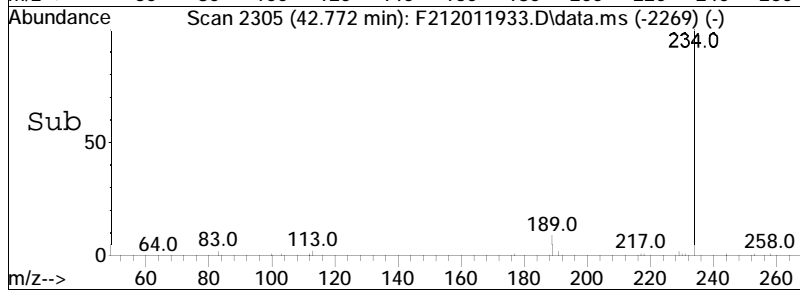
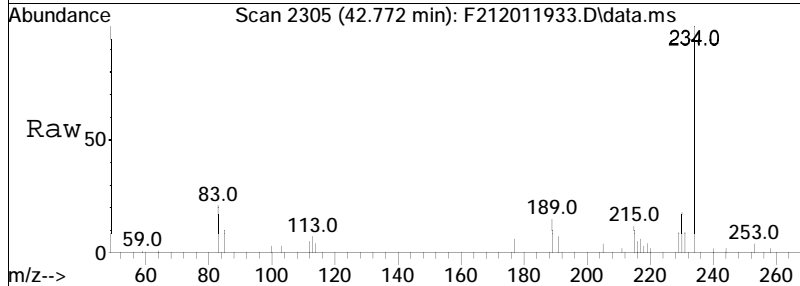
Tgt Ion: 234 Resp: 209067
 Ion Ratio Lower Upper
 234 100
 189 8.0 5.5 10.3

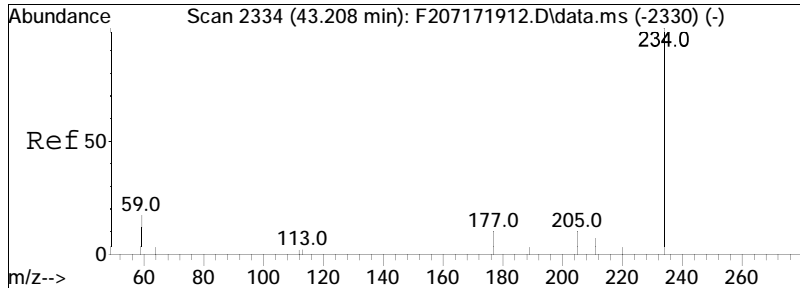




#68
 Naphthobenzothiophene-1,2-D
 Concen: 130.90 ng/mL
 RT: 42.772 min Scan# 2305
 Delta R.T. 0.041 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

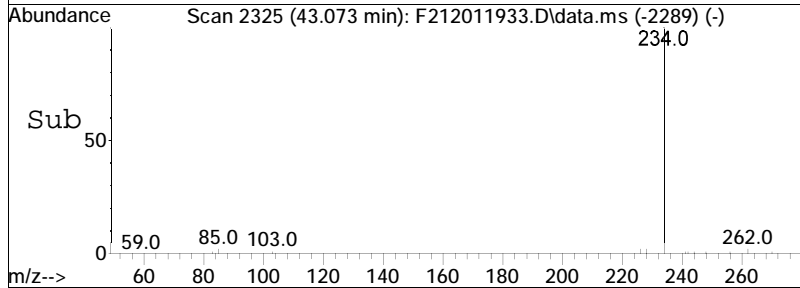
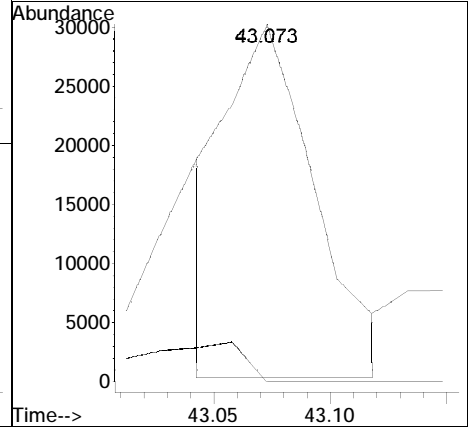
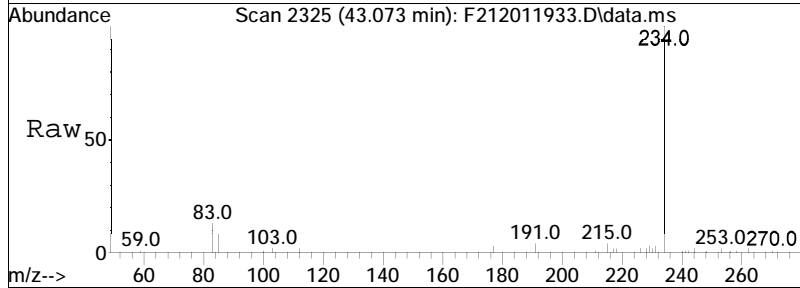
Tgt Ion	Resp	Lower	Upper
234	100		
189	8.4	56.7	105.3#

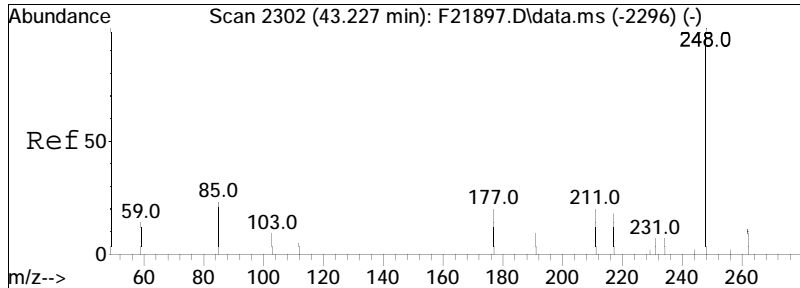




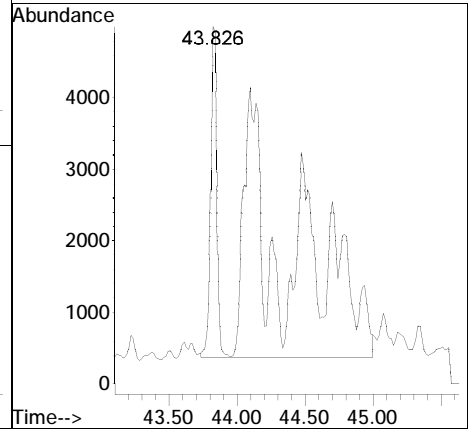
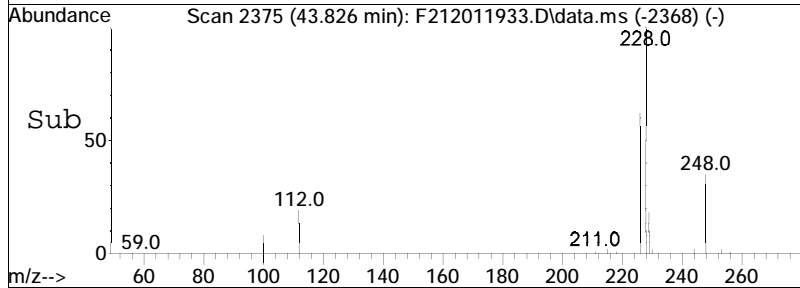
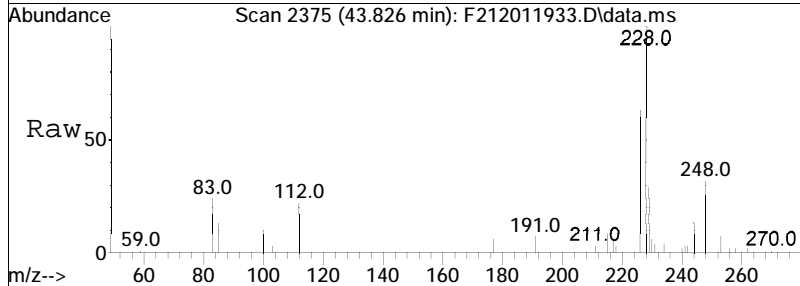
#69
 Naphthobenzothiophene-2,3-D
 Concen: 219.57 ng/mL M3
 RT: 43.073 min Scan# 2325
 Delta R.T. 0.042 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

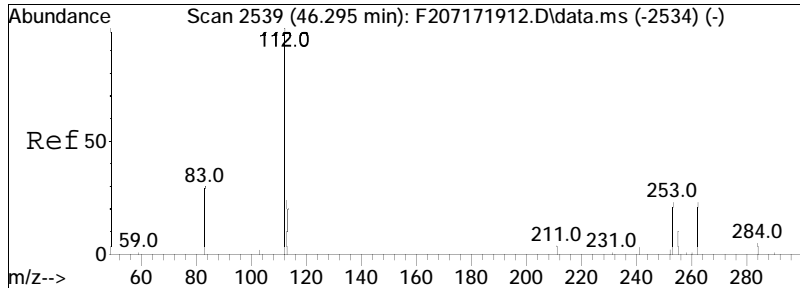
Tgt Ion: 234 Resp: 78627
 Ion Ratio Lower Upper
 234 100
 189 15.5 0.0 0.0#



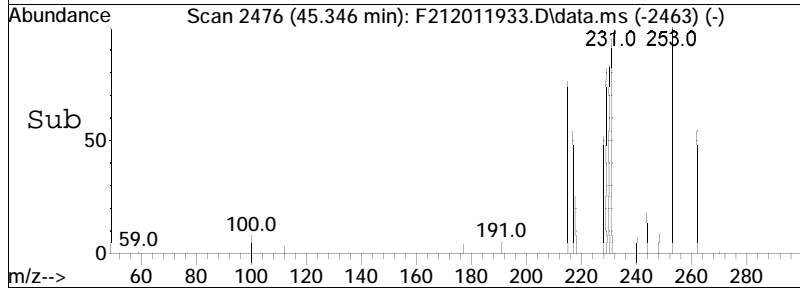
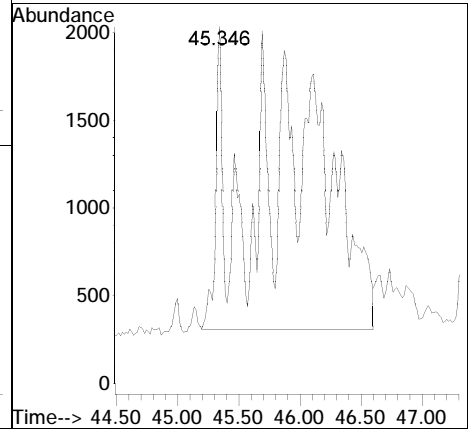
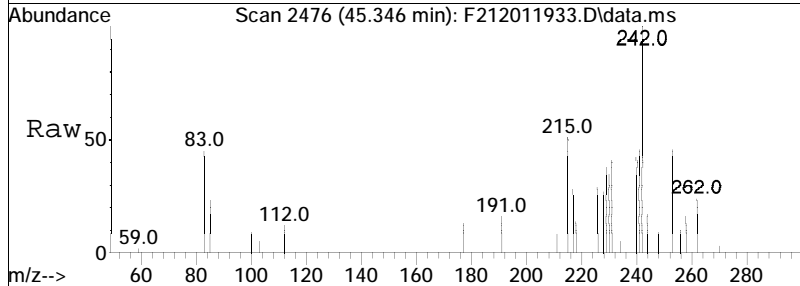


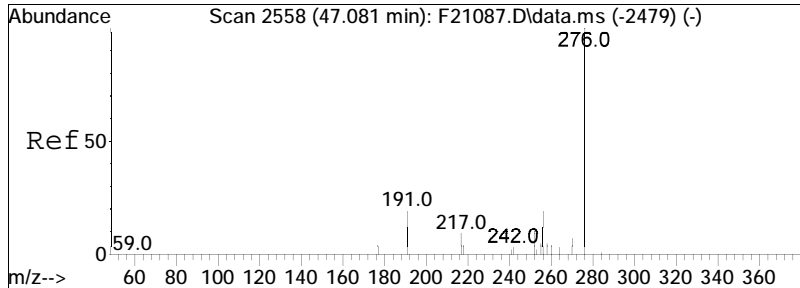
#70
 Cl-Naphthobenzothiophenes
 Concen: 279.79 ng/ml M5
 RT: 43.826 min Scan# 2375
 Delta R.T. -0.648 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion:248 Resp: 100191



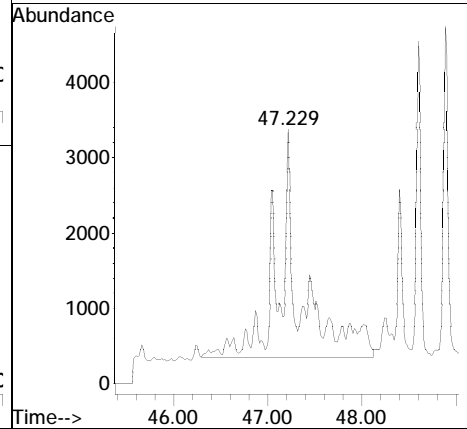
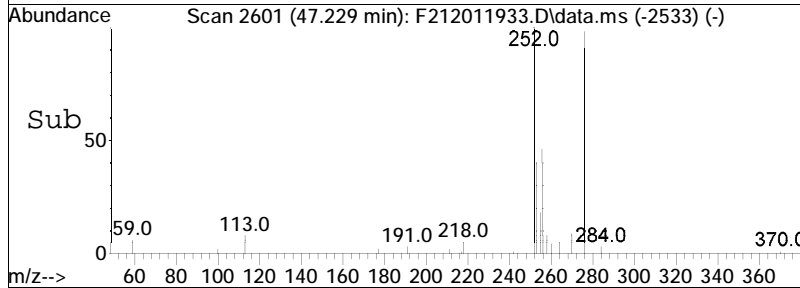
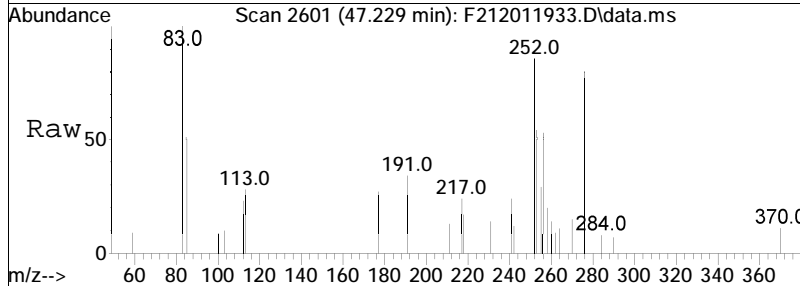


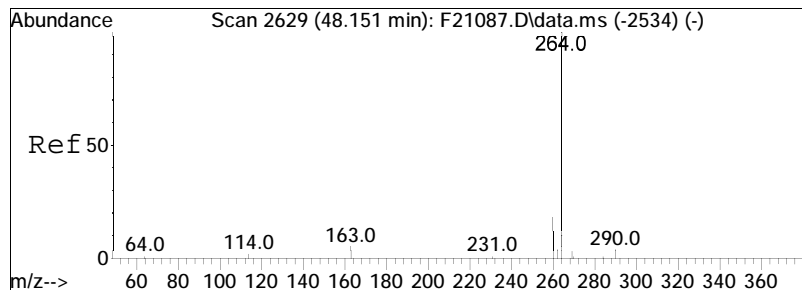
#71
 C2-Naphthobenzothiophenes
 Concen: 175.75 ng/ml M5
 RT: 45.346 min Scan# 2476
 Delta R.T. -0.450 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion: 262 Resp: 62935



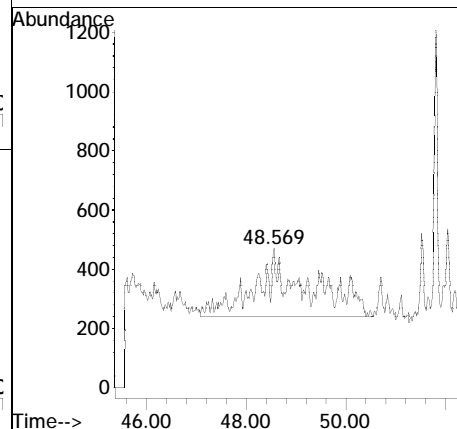
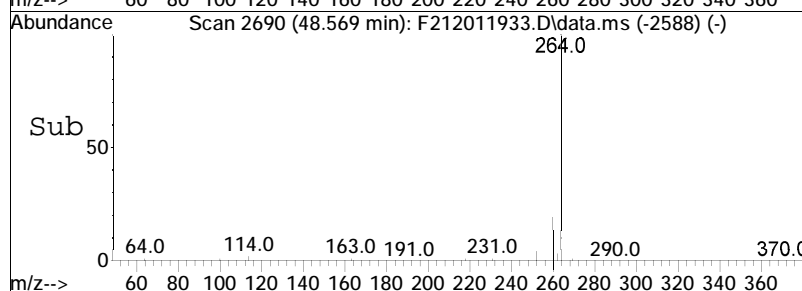
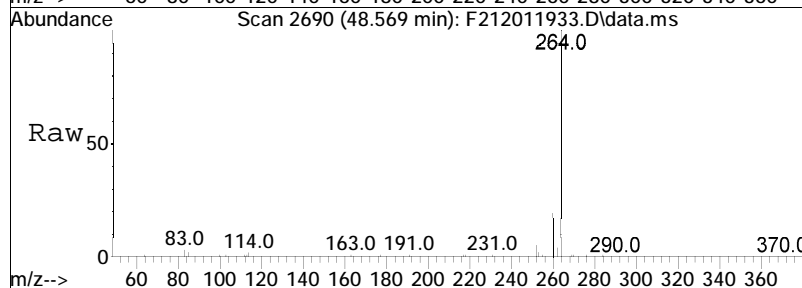


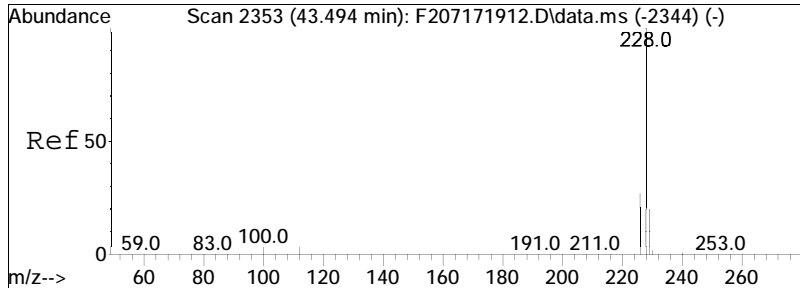
#72
 C3-Naphthobenzothiophenes
 Concen: 138.74 ng/ml M5
 RT: 47.229 min Scan# 2601
 Delta R.T. -0.177 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion: 276 Resp: 49680





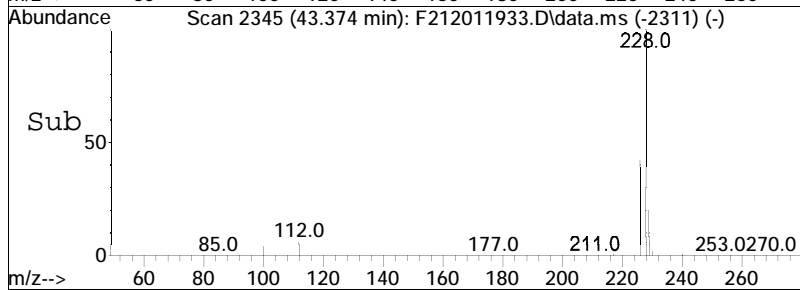
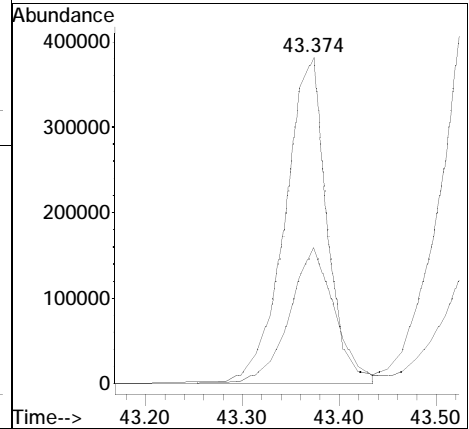
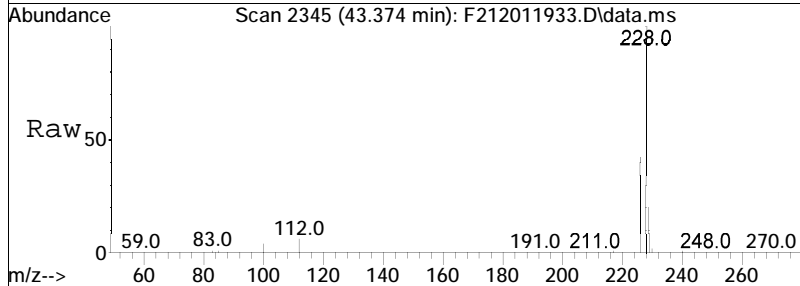
#73
 C4-Naphthobenzothiophenes
 Concen: 44.71 ng/mL M5
 RT: 48.569 min Scan# 2690
 Delta R.T. 0.051 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am
 Tgt Ion: 290 Resp: 16011

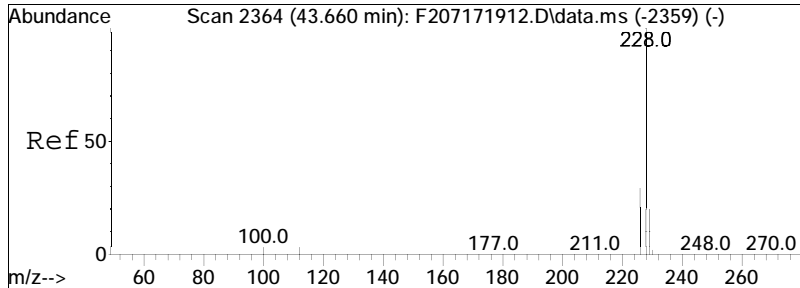




#75
 Benz[a]anthracene
 Concen: 3997.79 ng/mL M3
 RT: 43.374 min Scan# 2345
 Delta R.T. 0.015 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

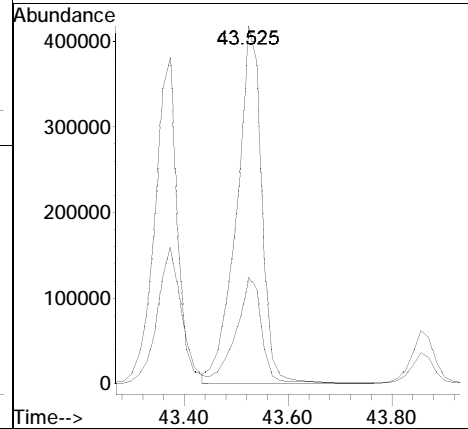
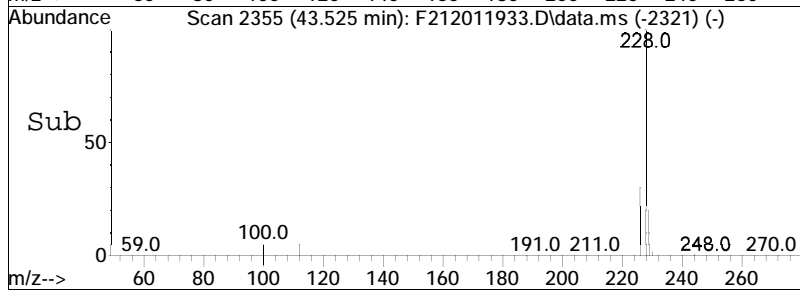
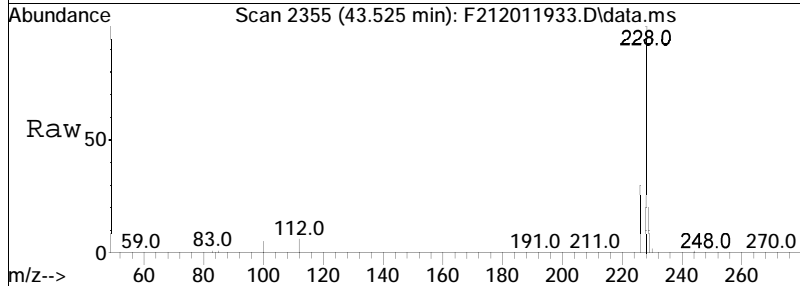
Tgt Ion: 228 Resp: 1152568
 Ion Ratio Lower Upper
 228 100
 226 36.2 18.2 33.8#

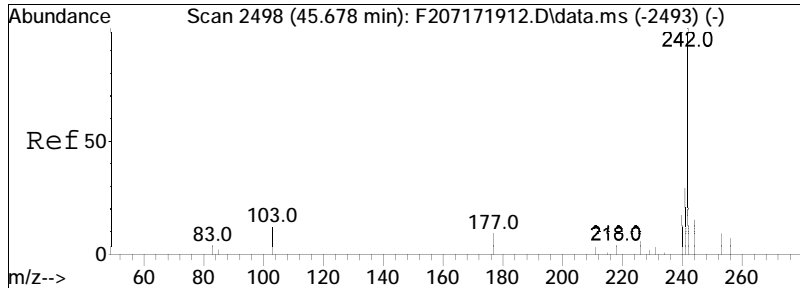




#76
 Chrysene
 Concen: 4759.13 ng/mL
 RT: 43.525 min Scan# 2355
 Delta R.T. 0.015 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

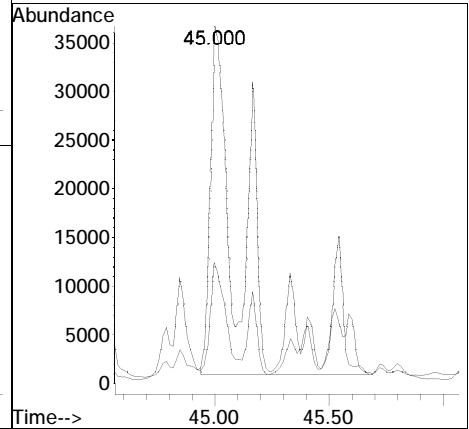
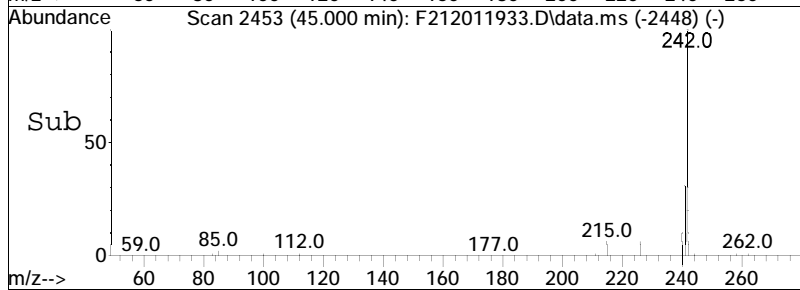
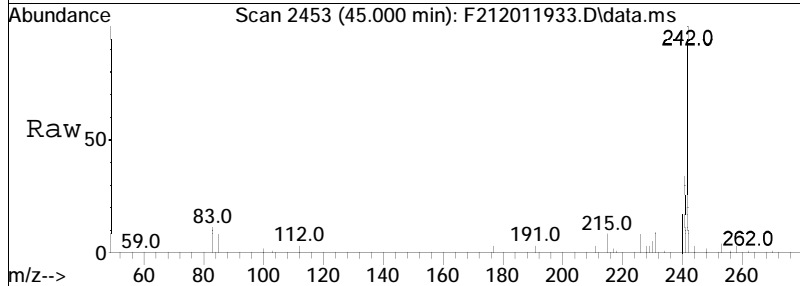
Tgt Ion: 228 Resp: 1396840
 Ion Ratio Lower Upper
 228 100
 226 30.3 20.3 37.7

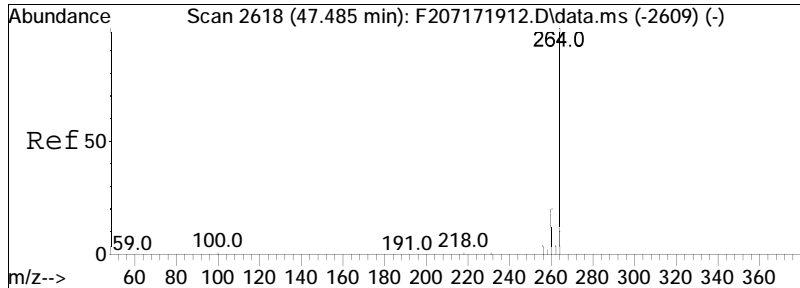




#78
 C1-Chrysenes
 Concen: 1190.39 ng/mL M5
 RT: 45.000 min Scan# 2453
 Delta R.T. 0.019 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

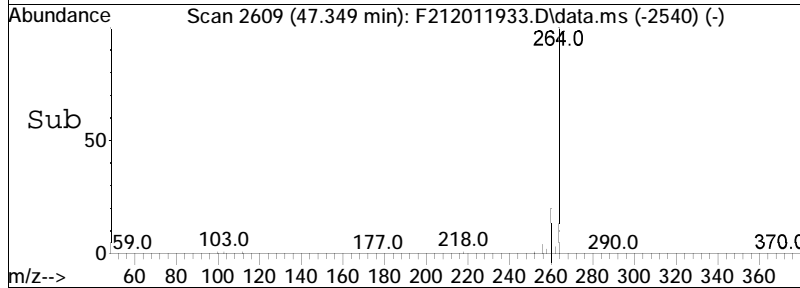
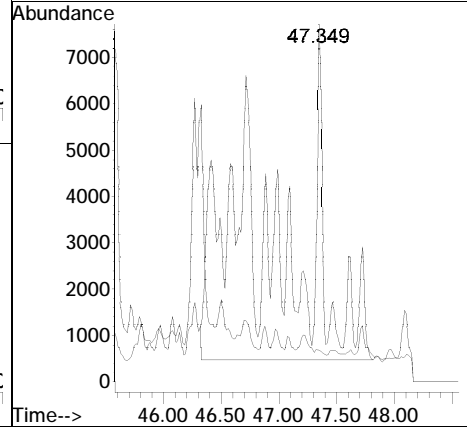
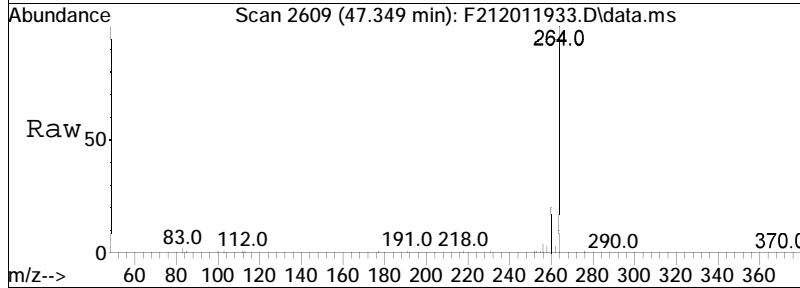
Tgt Ion	Resp	Lower	Upper
242	100		
241	10.6	31.3	58.1#

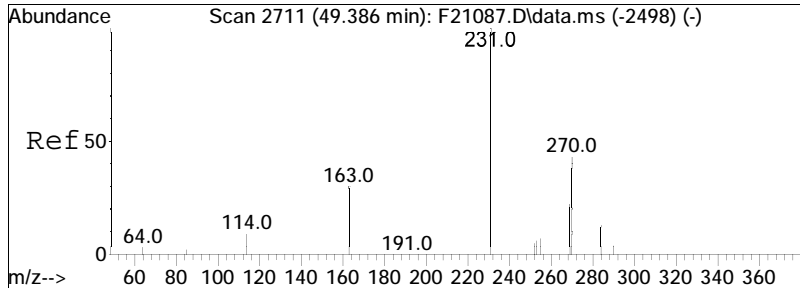




#79
 C2-Chrysenes
 Concen: 638.74 ng/mL M5
 RT: 47.349 min Scan# 2609
 Delta R.T. 0.274 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

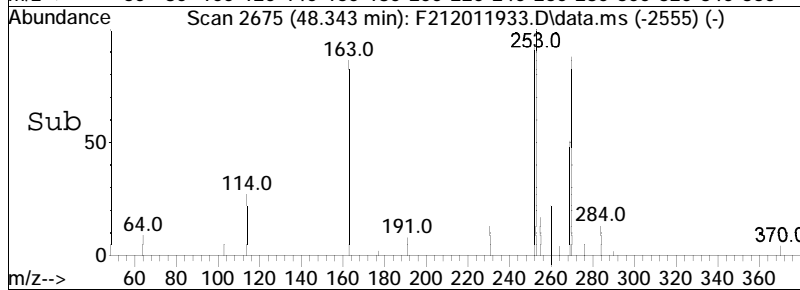
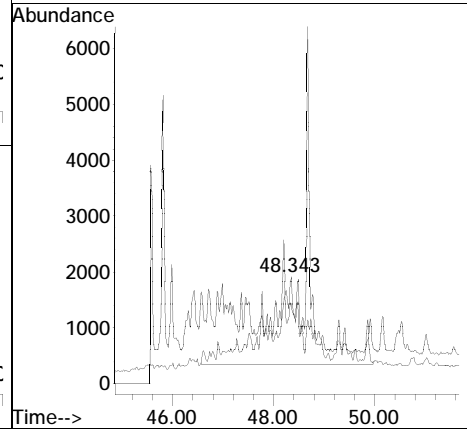
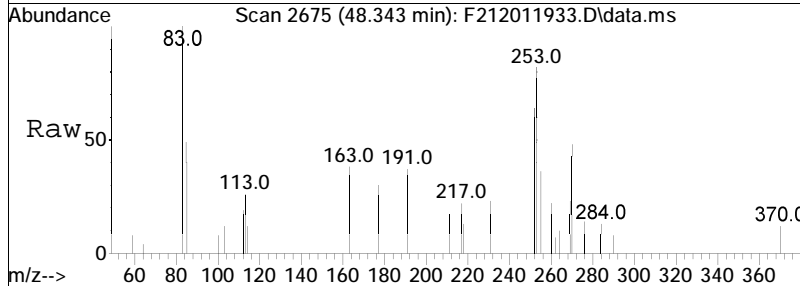
Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.0	25.6	47.4#

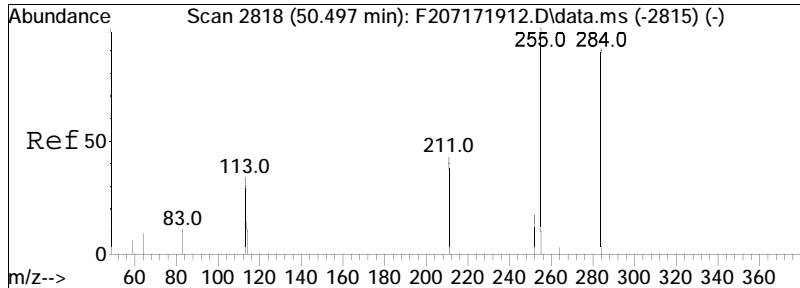




#81
 C3-Chrysenes
 Concen: 301.76 ng/mL M5
 RT: 48.343 min Scan# 2675
 Delta R.T. -1.502 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

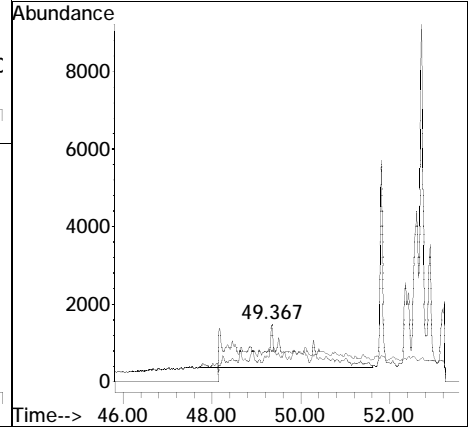
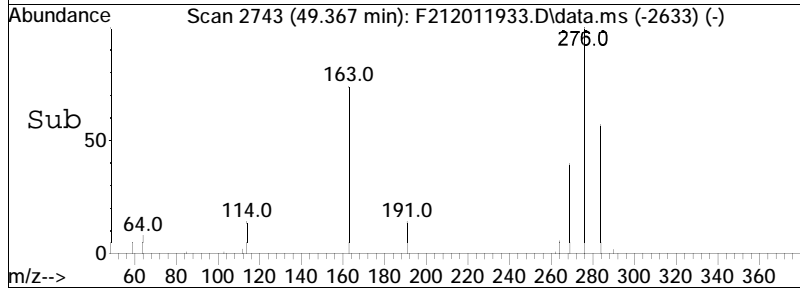
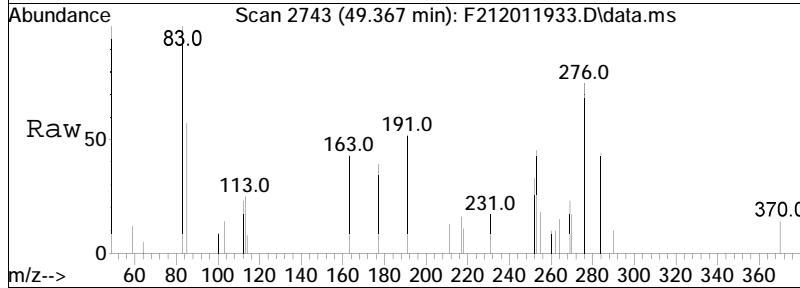
Tgt Ion:	270	Resp:	88569
Ion Ratio	Lower	Upper	
270	100		
255	0.3	38.4	71.4#

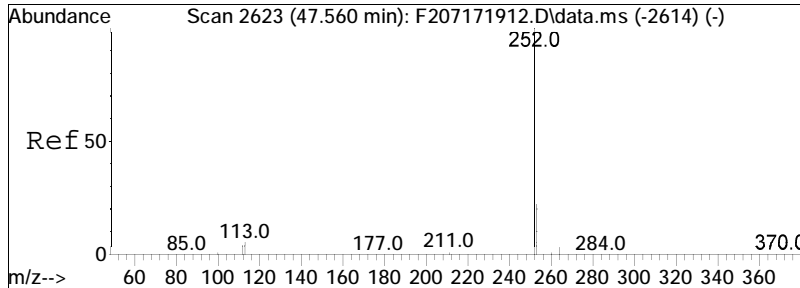




#82
 C4-Chrysenes
 Concen: 181.51 ng/mL M5
 RT: 49.367 min Scan# 2743
 Delta R.T. -0.583 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

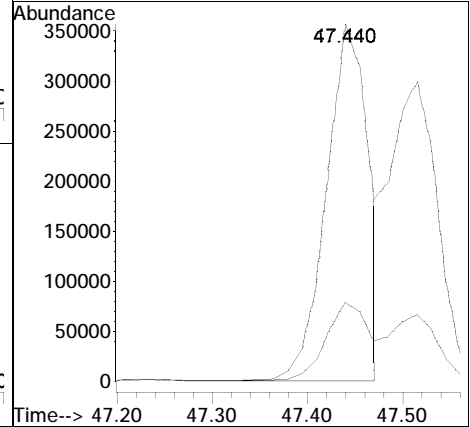
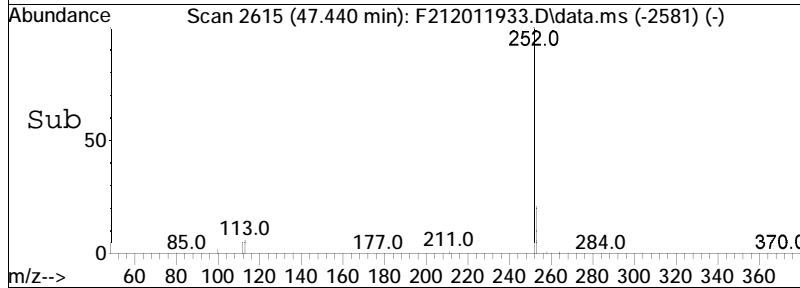
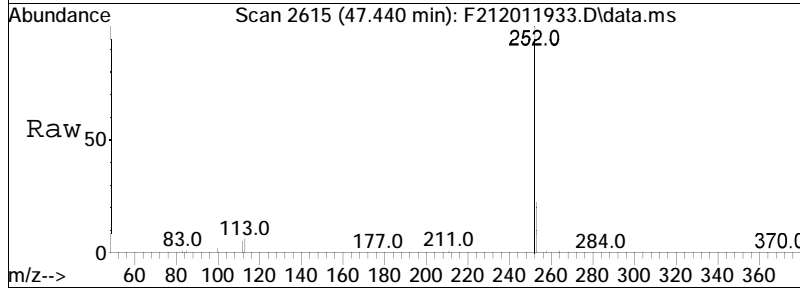
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	57.2	106.2#

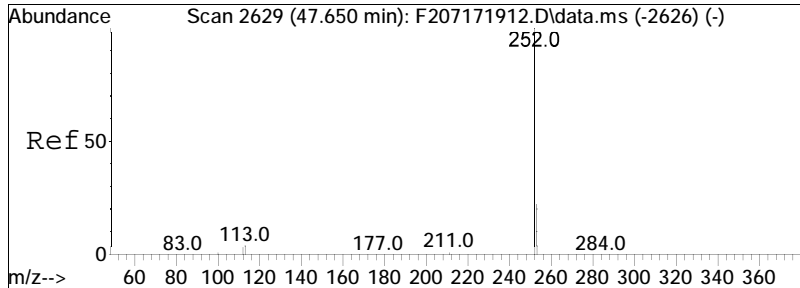




#84
 Benzo[b]fluoranthene
 Concen: 3151.07 ng/mL
 RT: 47.440 min Scan# 2615
 Delta R.T. 0.018 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

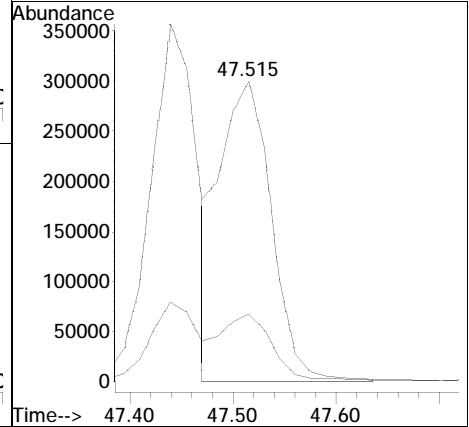
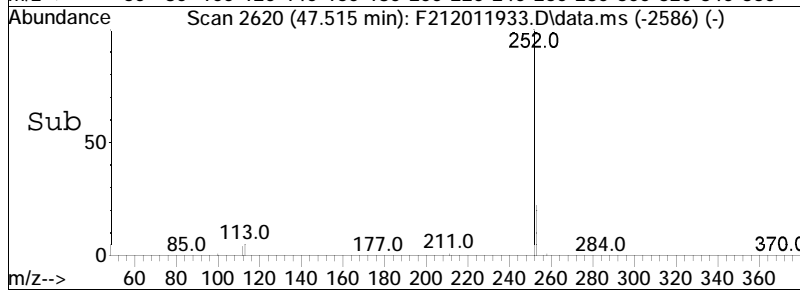
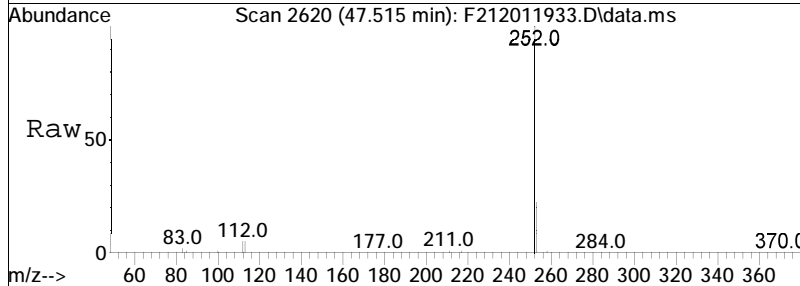
Tgt Ion: 252 Resp: 1099824
 Ion Ratio Lower Upper
 252 100
 253 22.0 16.4 30.4

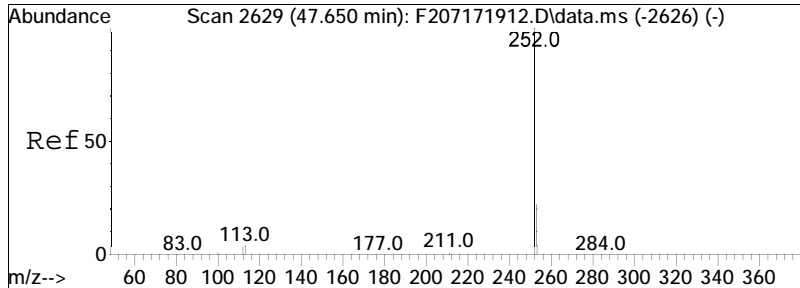




#85
 Benzo[j]+[k]fluoranthene
 Concen: 2968.12 ng/mL M6
 RT: 47.515 min Scan# 2620
 Delta R.T. 0.018 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

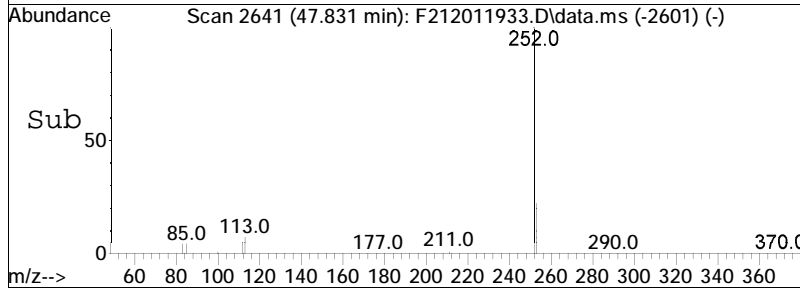
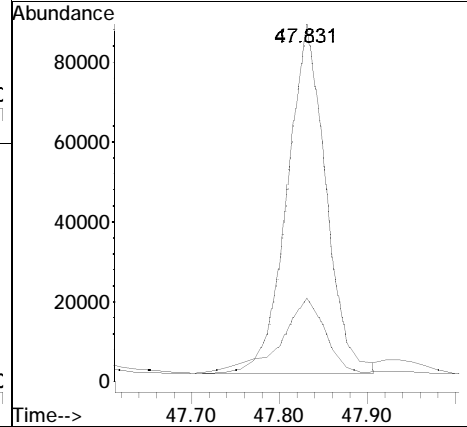
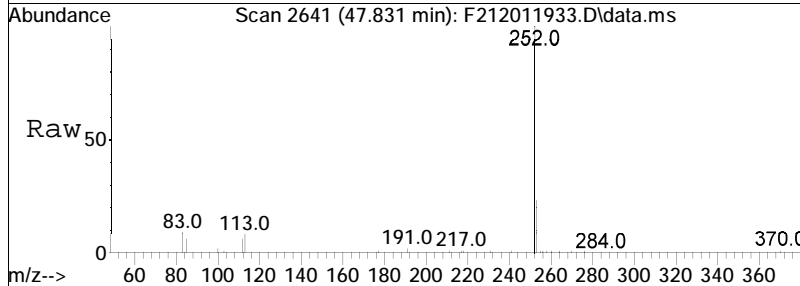
Tgt Ion: 252 Resp: 1042192
 Ion Ratio Lower Upper
 252 100
 253 17.9 16.4 30.4

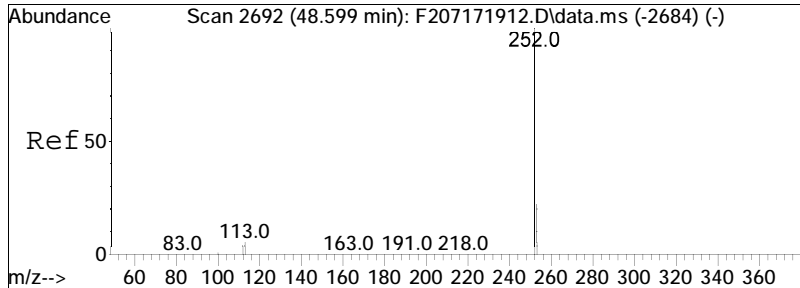




#86
 Benzo[a]fluoranthene
 Concen: 755.76 ng/mL
 RT: 47.831 min Scan# 2641
 Delta R.T. 0.102 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

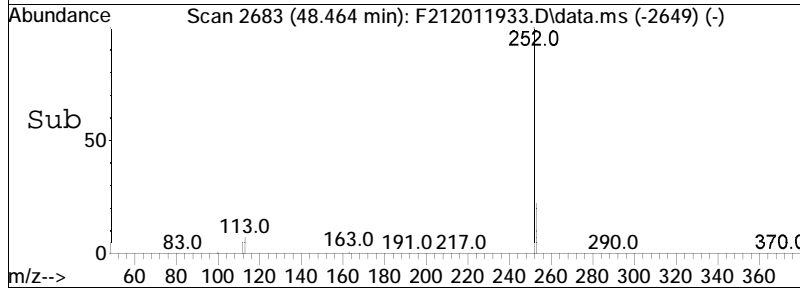
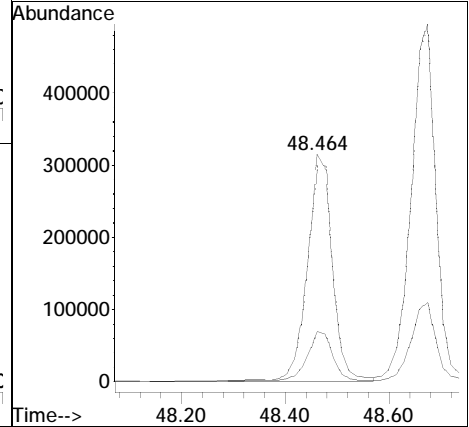
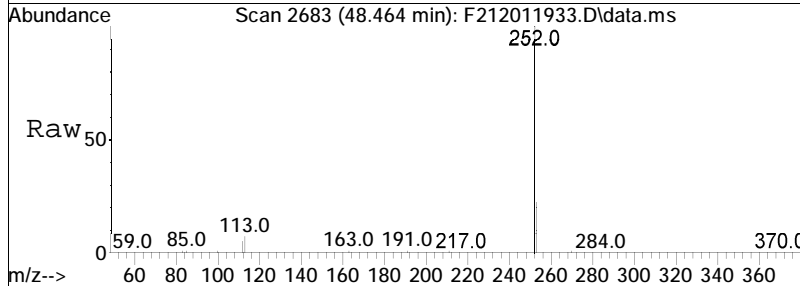
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.0	96.2	178.8#

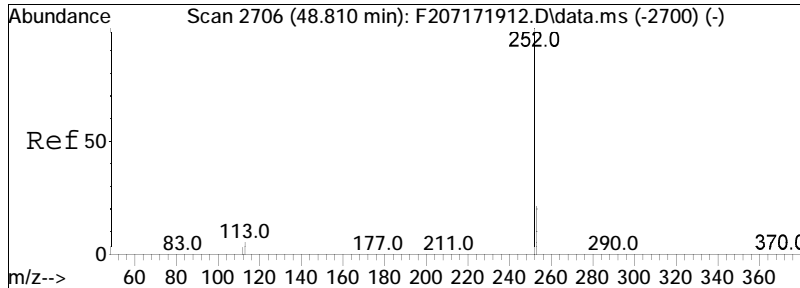




#87
 Benzo[e]pyrene
 Concen: 3087.37 ng/mL
 RT: 48.464 min Scan# 2683
 Delta R.T. 0.018 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

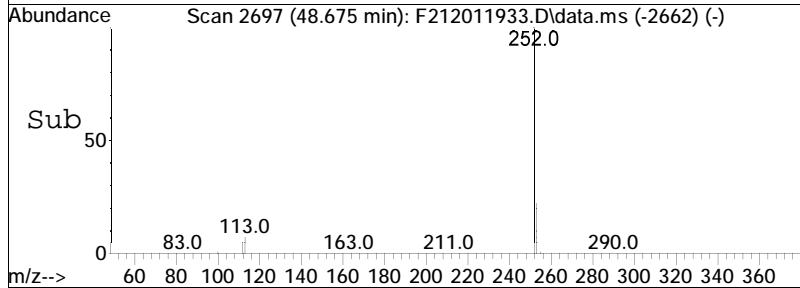
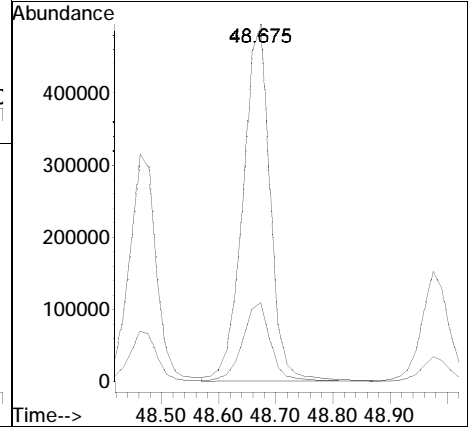
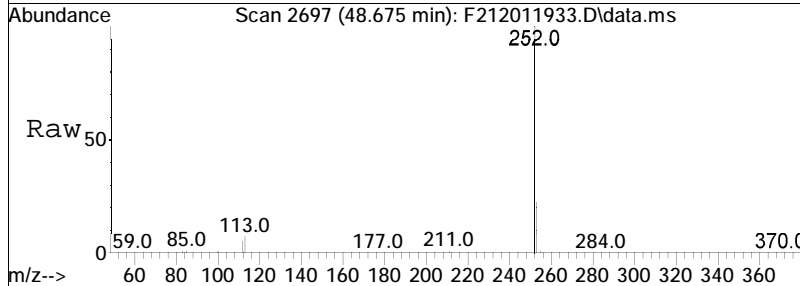
Tgt Ion: 252 Resp: 1035039
 Ion Ratio Lower Upper
 252 100
 253 21.9 16.6 30.8

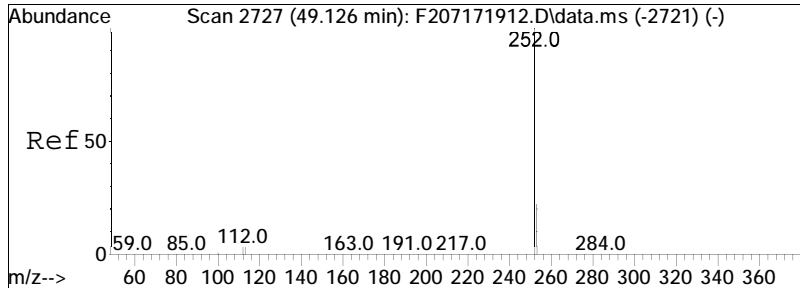




#89
 Benzo[a]pyrene
 Concen: 5276.72 ng/mL
 RT: 48.675 min Scan# 2697
 Delta R.T. 0.034 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

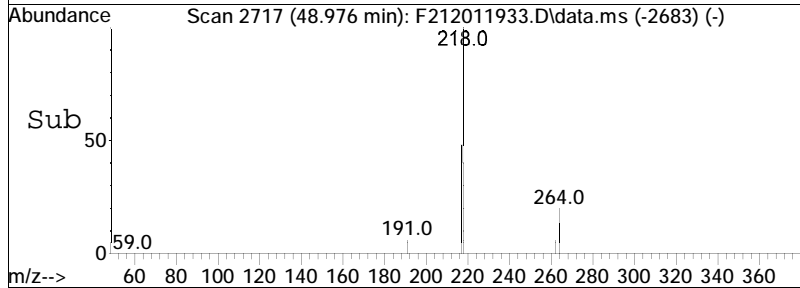
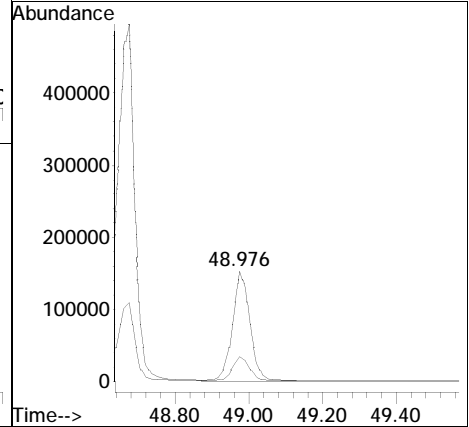
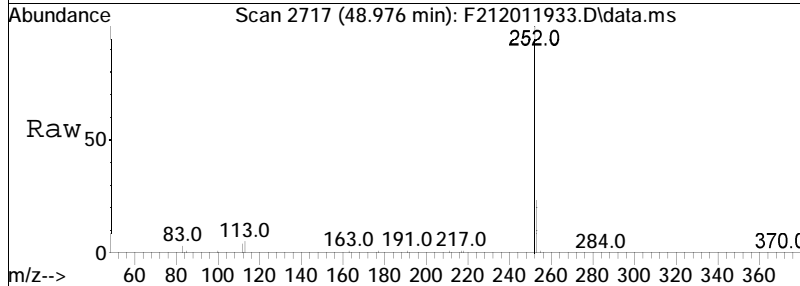
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	16.7	31.1

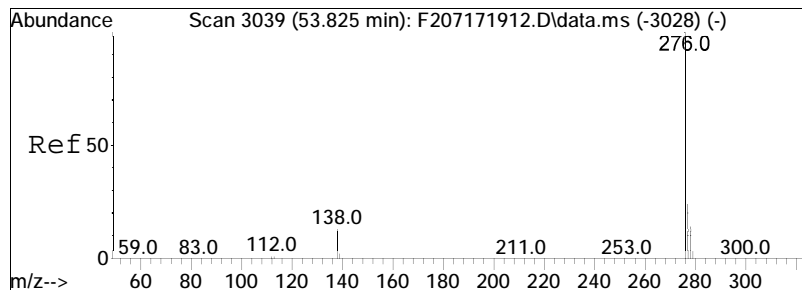




#90
 Perylene
 Concen: 1698.28 ng/mL
 RT: 48.976 min Scan# 2717
 Delta R.T. 0.019 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

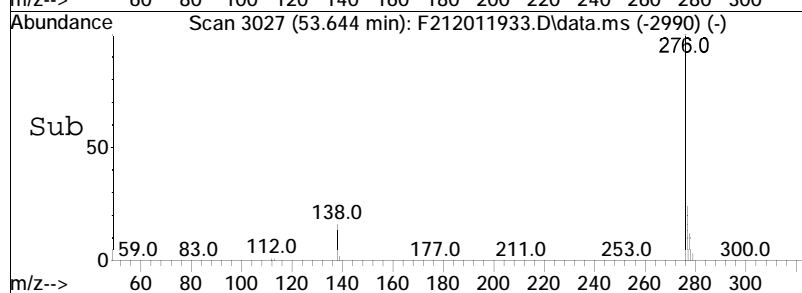
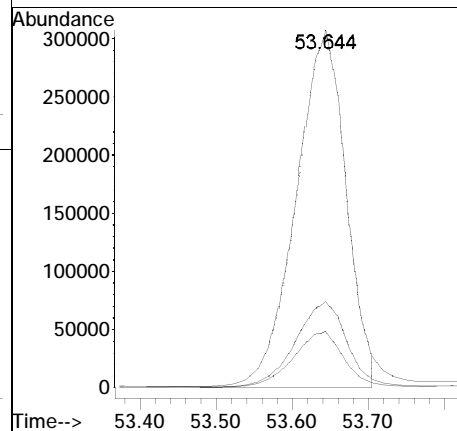
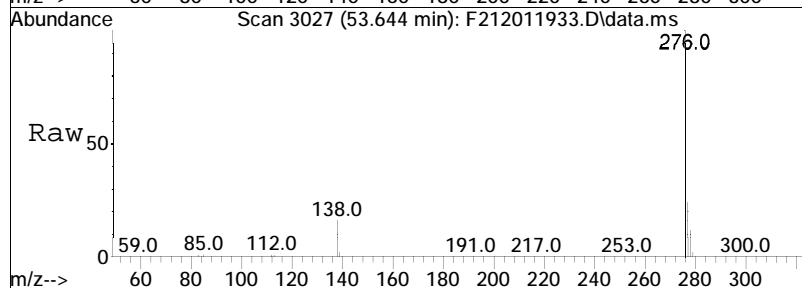
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.5	17.1	31.7

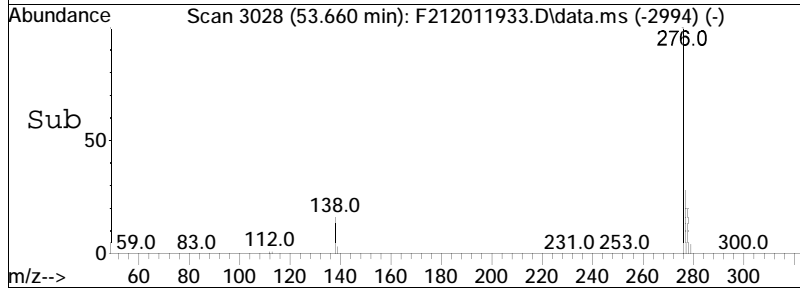
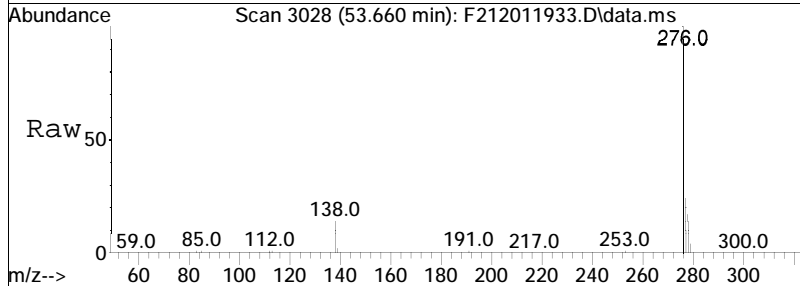
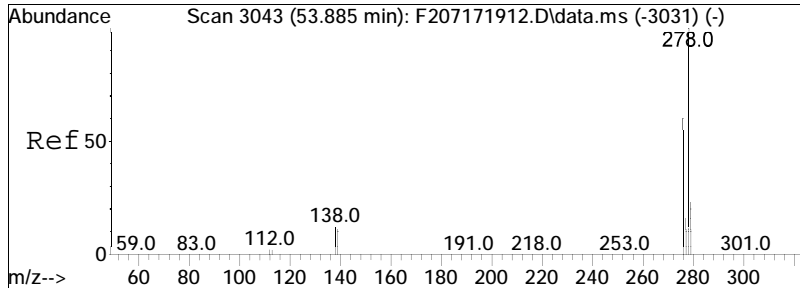




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 3807.07 ng/mL M4
 RT: 53.644 min Scan# 3027
 Delta R.T. 0.052 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

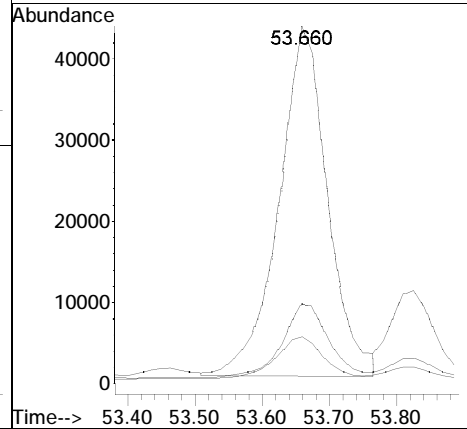
Tgt Ion	Resp	Lower	Upper
276	100		
138	15.9	11.3	20.9
277	26.2	16.8	31.2

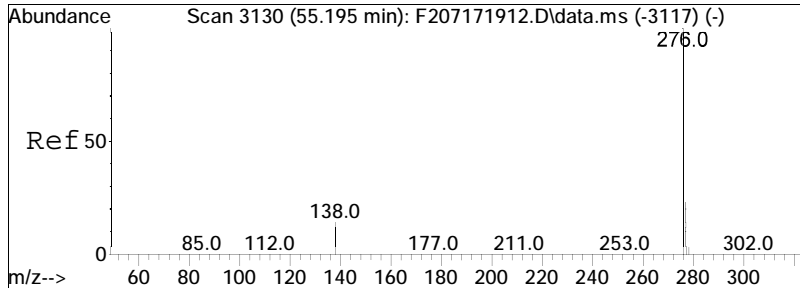




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 647.34 ng/mL
 RT: 53.660 min Scan# 3028
 Delta R.T. 0.007 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

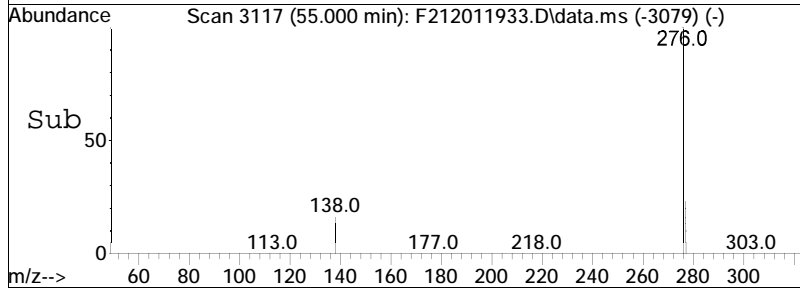
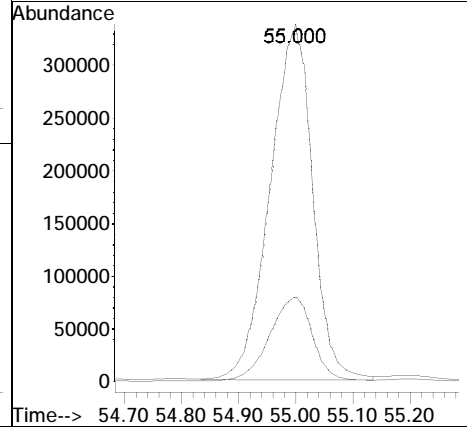
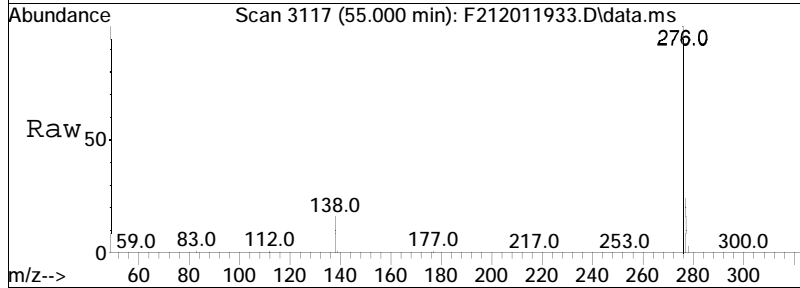
Tgt Ion	Ratio	Lower	Upper
278	100		
139	11.9	9.2	17.2
279	20.7	16.6	30.8





#93
 Benzo[g,h,i]perylene
 Concen: 4726.89 ng/mL
 RT: 55.000 min Scan# 3117
 Delta R.T. 0.068 min
 Lab File: F212011933.D
 Acq: 4 Dec 2019 9:47 am

Tgt Ion: 276 Resp: 1725055
 Ion Ratio Lower Upper
 276 100
 277 23.9 16.5 30.7



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051902.D
 Acq On : 5 Dec 2019 8:31 am
 Operator : PAH2:MJS
 Sample : WG1316430-4
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 06 09:36:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	100	0.00
2 A1	trans-Decalin	0.385	0.394	-2.3	112	0.00
3 t	cis-Decalin	0.297	0.305	-2.7	112	0.00
8 s	Naphthalene-d8	1.843	1.818	1.4	102	0.00
9 A1	Naphthalene	2.049	1.915	6.5	97	0.00
14 t	2-Methylnaphthalene	1.352	1.279	5.4	97	0.00
15 t	1-Methylnaphthalene	1.299	1.205	7.2	95	0.00
16 A1	Benzothiophene	1.597	1.473	7.8	94	0.00
21 t	Biphenyl	1.646	1.539	6.5	93	0.00
22 t	2,6-Dimethylnaphthalene	1.210	1.157	4.4	97	0.00
23 t	Dibenzofuran	1.749	1.651	5.6	92	0.00
24 t	Acenaphthylene	2.018	1.902	5.7	95	0.00
25 t	Acenaphthene	1.260	1.188	5.7	94	0.00
26 t	2,3,5-Trimethylnaphthalene	1.105	1.072	3.0	97	0.00
27 A1	Fluorene	1.427	1.349	5.5	92	0.00
31 A1	Dibenzothiophene	1.933	1.740	10.0	88	0.00
40 s	Phenanthrene-d10	1.621	1.604	1.0	96	0.00
41 A1	Phenanthrene	2.056	1.965	4.4	90	0.00
52 t	Retene	0.704	0.662	6.0	92	0.00
53 t	Anthracene	1.753	1.874	-6.9	97	0.00
54 t	Carbazole	1.640	1.707	-4.1	99	0.00
55 t	1-Methylphenanthrene	1.540	1.451	5.8	91	0.00
56 A1	Fluoranthene	2.345	2.180	7.0	90	0.00
57 A1	Benzo(b)fluorene	1.475	1.421	3.7	95	0.00
59 A1	Pyrene	2.435	2.230	8.4	90	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.083	1.842	11.6	87	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	93	0.00
75 t	Benz[a]anthracene	1.142	1.105	3.2	90	0.00
76 A1	Chrysene	1.163	1.129	2.9	89	0.00
77 A2	Chrysene/Triphenylene	1.163	1.129	2.9	89	0.00
83 s	Benzo[b]fluoranthene-d12	0.979	0.906	7.5	88	0.00
84 t	Benzo[b]fluoranthene	1.383	1.234	10.8	85	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.282	7.8	81	0.00
87 t	Benzo[e]pyrene	1.328	1.187	10.6	82	0.00
88 s	Benzo[a]pyrene-d12	0.757	0.721	4.8	88	0.00
89 t	Benzo[a]pyrene	1.216	1.147	5.7	84	0.00
90 t	Perylene	1.188	1.117	6.0	82	0.00
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.326	8.3	89	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051902.D
 Acq On : 5 Dec 2019 8:31 am
 Operator : PAH2:MJS
 Sample : WG1316430-4
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 06 09:36:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.191	9.8	85	0.00
93 t Benzo[g,h,i]perylene	1.446	1.249	13.6	82	0.00
94 A1 Hopane (T19)	0.249	0.200	19.7	76	0.00
128 SA1 5B(H)Cholane - Surr	0.166	0.162	2.4	91	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	0.90	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.14	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051902.D
 Acq On : 5 Dec 2019 8:31 am
 Operator : PAH2:MJS
 Sample : WG1316430-4
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 06 09:36:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	26.783	164	68873M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	123633	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	125224	493.215	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.32%#
40) Phenanthrene-d10	32.654	188	110451	494.770	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	49.48%#
83) Benzo[b]fluoranthene-d12	47.184	264	111969	462.476	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.25%#
88) Benzo[a]pyrene-d12	48.373	264	89197	476.670	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.67%#
128) 5B(H)Cholane - Surr	43.886	217	20018	486.535	ng/ml	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.65%#
Target Compounds						
2) trans-Decalin	16.471	138	13569	255.565	ng/mL	100
3) cis-Decalin	17.690	138	10510	256.662	ng/mL	100
9) Naphthalene	19.888	128	131911	467.302	ng/mL	100
14) 2-Methylnaphthalene	22.583	142	88076	472.932	ng/mL	100
15) 1-Methylnaphthalene	23.020	142	83011	464.054	ng/mL	100
16) Benzothiophene	20.114	134	101422	460.922	ng/mL	100
21) Biphenyl	24.465	154	105965	467.499	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.082	156	79703	478.273	ng/mL	100
23) Dibenzofuran	27.551	168	113687	471.783	ng/mL	96
24) Acenaphthylene	26.181	152	130987	471.229	ng/mL	100
25) Acenaphthene	26.904	153	81838M4	471.481	ng/mL	
26) 2,3,5-Trimethylnaphthalen	28.469	170	73799	484.787	ng/mL	98
27) Fluorene	28.936	166	92881M4	472.430	ng/mL	
31) Dibenzothiophene	32.248	184	119806	449.923	ng/mL	98
41) Phenanthrene	32.745	178	135306	477.685	ng/mL	100
52) Retene	39.746	234	45597	470.246	ng/mL	94
53) Anthracene	32.925	178	129100	534.637	ng/mL	100
54) Carbazole	33.603	167	117537M4	520.292	ng/mL	
55) 1-Methylphenanthrene	35.259	192	99952	471.199	ng/mL	100
56) Fluoranthene	37.532	202	150171M4	464.860	ng/mL	
57) Benzo(b)fluorene	40.047	216	97883	481.619	ng/mL	99
59) Pyrene	38.421	202	153597	457.893	ng/mL	98
67) Naphthobenzothiophene-2,1	42.275	234	126851	442.112	ng/mL	100
75) Benz[a]anthracene	43.208	228	136582	483.692	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051902.D
 Acq On : 5 Dec 2019 8:31 am
 Operator : PAH2:MJS
 Sample : WG1316430-4
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 06 09:36:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.359	228	139520	485.332	ng/mL	100
77) Chrysene/Triphenylene	43.359	228	139520	485.332	ng/mL	100
84) Benzo[b]fluoranthene	47.259	252	152524	446.164	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.349	252	158450	460.730	ng/mL	95
87) Benzo[e]pyrene	48.268	252	146724	446.843	ng/mL	97
89) Benzo[a]pyrene	48.464	252	141787	471.692	ng/mL	96
90) Perylene	48.780	252	138046	470.092	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.343	276	163914M3	458.373	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.404	278	147261M4	451.320	ng/mL	
93) Benzo[g,h,i]perylene	54.669	276	154459	432.122	ng/mL	100
94) Hopane (T19)	52.425	191	24717	401.521	ng/mL#	90

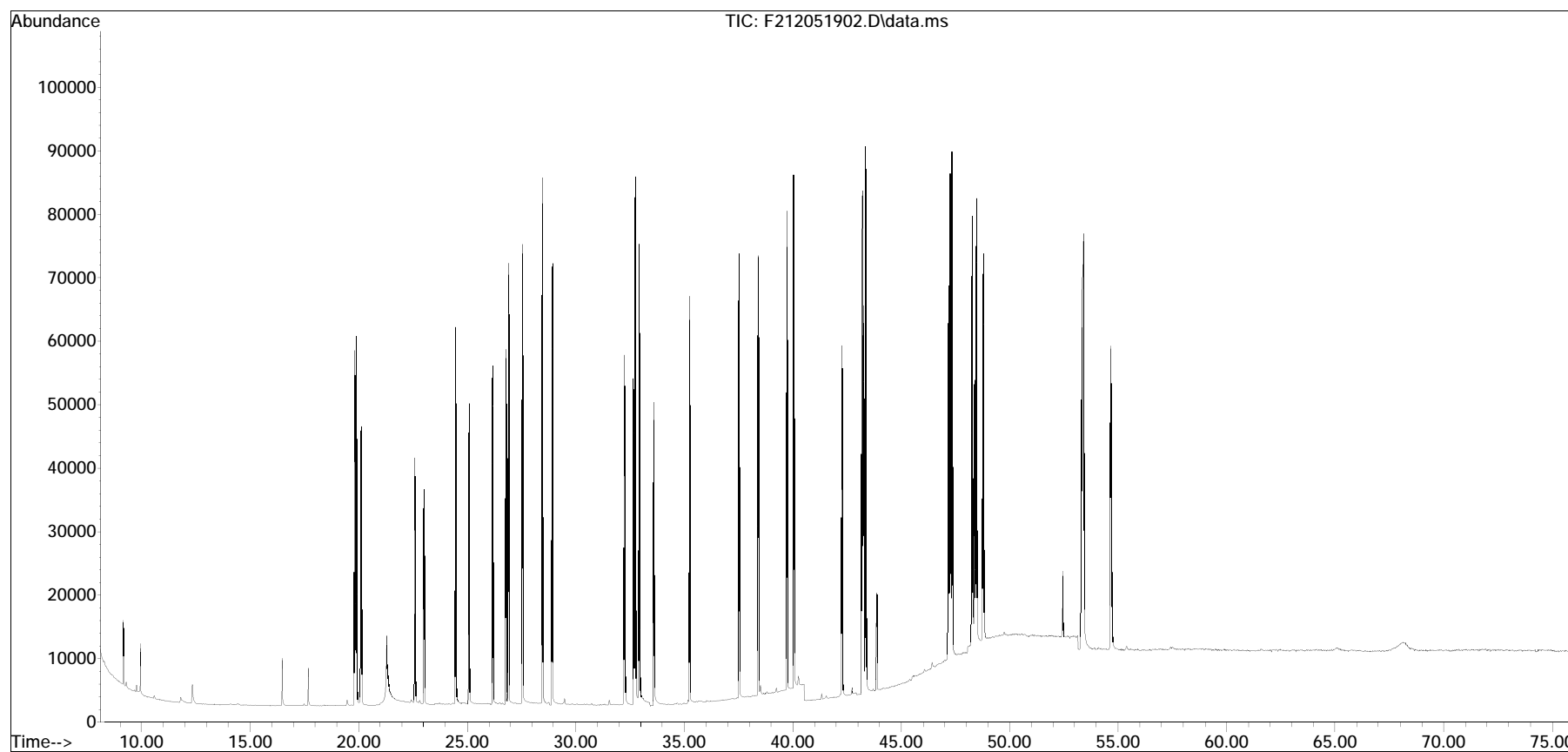
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051902.D
Acq On : 5 Dec 2019 8:31 am
Operator : PAH2:MJS
Sample : WG1316430-4
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 06 09:36:01 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051916.D
 Acq On : 6 Dec 2019 4:54 am
 Operator : PAH2:MJS
 Sample : WG1316430-5
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 06 08:34:07 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	114	0.00
2 A1	trans-Decalin	0.385	0.388	-0.8	125	0.00
3 t	cis-Decalin	0.297	0.299	-0.7	125	0.00
8 s	Naphthalene-d8	1.843	1.802	2.2	115	0.00
9 A1	Naphthalene	2.049	1.934	5.6	112	0.00
14 t	2-Methylnaphthalene	1.352	1.277	5.5	110	0.00
15 t	1-Methylnaphthalene	1.299	1.233	5.1	111	-0.02
16 A1	Benzothiophene	1.597	1.470	8.0	107	0.00
21 t	Biphenyl	1.646	1.562	5.1	108	0.00
22 t	2,6-Dimethylnaphthalene	1.210	1.137	6.0	109	0.00
23 t	Dibenzofuran	1.749	1.676	4.2	107	0.00
24 t	Acenaphthylene	2.018	1.937	4.0	111	-0.02
25 t	Acenaphthene	1.260	1.217	3.4	110	0.00
26 t	2,3,5-Trimethylnaphthalene	1.105	1.060	4.1	109	0.00
27 A1	Fluorene	1.427	1.359	4.8	106	-0.02
31 A1	Dibenzothiophene	1.933	1.749	9.5	101	0.00
40 s	Phenanthrene-d10	1.621	1.597	1.5	109	0.00
41 A1	Phenanthrene	2.056	1.968	4.3	103	0.00
52 t	Retene	0.704	0.643	8.7	102	0.00
53 t	Anthracene	1.753	1.874	-6.9	111	0.00
54 t	Carbazole	1.640	1.691	-3.1	112	-0.02
55 t	1-Methylphenanthrene	1.540	1.467	4.7	105	-0.02
56 A1	Fluoranthene	2.345	2.156	8.1	102	-0.02
57 A1	Benzo(b)fluorene	1.475	1.410	4.4	108	0.00
59 A1	Pyrene	2.435	2.203	9.5	101	-0.02
67 A1	Napthobenzothiophene-2,1-D	2.083	1.849	11.2	100	-0.02
74 i	Chrysene-d12	1.000	1.000	0.0	103	-0.02
75 t	Benz[a]anthracene	1.142	1.127	1.3	102	-0.02
76 A1	Chrysene	1.163	1.154	0.8	101	0.00
77 A2	Chrysene/Triphenylene	1.163	1.154	0.8	101	0.00
83 s	Benzo[b]fluoranthene-d12	0.979	0.924	5.6	99	-0.02
84 t	Benzo[b]fluoranthene	1.383	1.363	1.4	104	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.281	7.9	90	-0.02
87 t	Benzo[e]pyrene	1.328	1.234	7.1	95	0.00
88 s	Benzo[a]pyrene-d12	0.757	0.727	4.0	99	0.00
89 t	Benzo[a]pyrene	1.216	1.203	1.1	98	-0.02
90 t	Perylene	1.188	1.184	0.3	97	-0.02
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.404	2.9	104	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051916.D
 Acq On : 6 Dec 2019 4:54 am
 Operator : PAH2:MJS
 Sample : WG1316430-5
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 06 08:34:07 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.263	4.3	100	-0.02
93 t Benzo[g,h,i]perylene	1.446	1.336	7.6	97	-0.03
94 A1 Hopane (T19)	0.249	0.216	13.3	91	0.00
128 SA1 5B(H)Cholane - Surr	0.166	0.163	1.8	101	-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	0.97	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.19	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051916.D
 Acq On : 6 Dec 2019 4:54 am
 Operator : PAH2:MJS
 Sample : WG1316430-5
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 06 08:34:07 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	26.783	164	78540M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.254	240	137290	500.000	ng/mL	-0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	141530	488.827	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.88%#		
40) Phenanthrene-d10	32.654	188	125441	492.755	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.28%#		
83) Benzo[b]fluoranthene-d12	47.169	264	126794	471.613	ng/mL	-0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.16%#		
88) Benzo[a]pyrene-d12	48.373	264	99841	480.476	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.05%#		
128) 5B(H)Cholane - Surr	43.871	217	22374	489.703	ng/ml	-0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.97%#		
Target Compounds						
2) trans-Decalin	16.471	138	15250	251.873	ng/mL	100
3) cis-Decalin	17.690	138	11727	251.133	ng/mL	100
9) Naphthalene	19.888	128	151904	471.893	ng/mL	100
14) 2-Methylnaphthalene	22.583	142	100304	472.300	ng/mL	100
15) 1-Methylnaphthalene	23.004	142	96839	474.724	ng/mL	100
16) Benzothiophene	20.114	134	115482	460.222	ng/mL	100
21) Biphenyl	24.465	154	122652	474.516	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.082	156	89299	469.900	ng/mL	100
23) Dibenzofuran	27.551	168	131616	478.959	ng/mL	97
24) Acenaphthylene	26.166	152	152149	479.989	ng/mL	100
25) Acenaphthene	26.904	153	95548	482.713	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.469	170	83277	479.715	ng/mL	97
27) Fluorene	28.921	166	106718M4	476.000	ng/mL	
31) Dibenzothiophene	32.248	184	137358	452.347	ng/mL	97
41) Phenanthrene	32.745	178	154537	478.426	ng/mL	100
52) Retene	39.746	234	50483	456.554	ng/mL	96
53) Anthracene	32.925	178	147178	534.483	ng/mL	100
54) Carbazole	33.588	167	132783M4	515.434	ng/mL	
55) 1-Methylphenanthrene	35.244	192	115239	476.399	ng/mL	99
56) Fluoranthene	37.517	202	169323M4	459.632	ng/mL	
57) Benzo(b)fluorene	40.047	216	110738	477.806	ng/mL	99
59) Pyrene	38.406	202	173052	452.393	ng/mL	98
67) Naphthobenzothiophene-2,1	42.260	234	145254	443.941	ng/mL	99
75) Benz[a]anthracene	43.193	228	154675	493.277	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051916.D
 Acq On : 6 Dec 2019 4:54 am
 Operator : PAH2:MJS
 Sample : WG1316430-5
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 06 08:34:07 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.359	228	158408	496.221	ng/mL	100
77) Chrysene/Triphenylene	43.359	228	158408	496.221	ng/mL	100
84) Benzo[b]fluoranthene	47.259	252	187077	492.802	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.334	252	175897	460.583	ng/mL	96
87) Benzo[e]pyrene	48.268	252	169431	464.667	ng/mL	97
89) Benzo[a]pyrene	48.449	252	165224	494.983	ng/mL	96
90) Perylene	48.765	252	162569	498.531	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.328	276	192771M3	485.445	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.389	278	173445M4	478.690	ng/mL	
93) Benzo[g,h,i]perylene	54.638	276	183473	462.233	ng/mL	100
94) Hopane (T19)	52.425	191	29683	434.226	ng/mL#	89

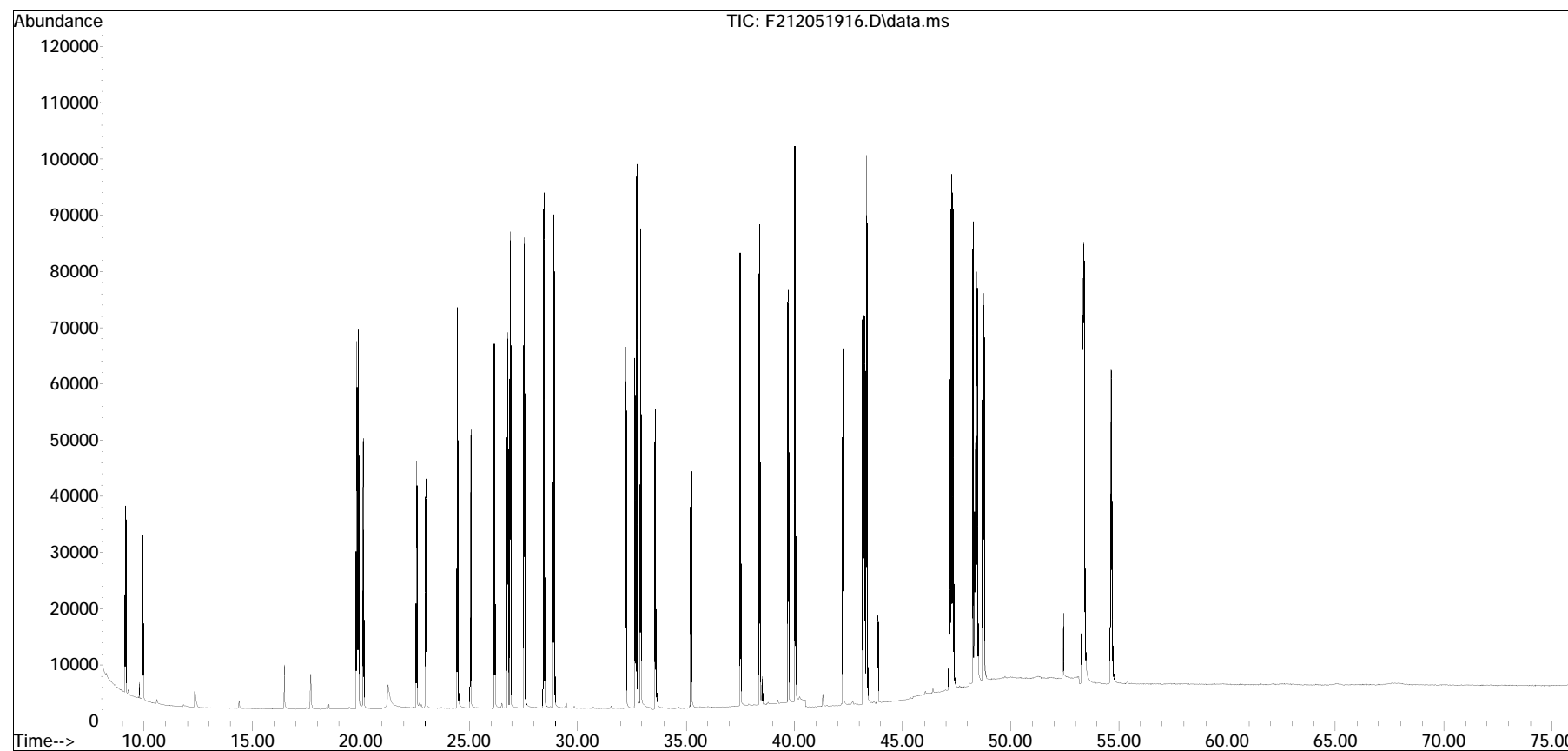
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051916.D
Acq On : 6 Dec 2019 4:54 am
Operator : PAH2:MJS
Sample : WG1316430-5
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 06 08:34:07 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051904.D
 Acq On : 5 Dec 2019 11:26 am
 Operator : PAH2:MJS
 Sample : L1954309-08d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 10 15:02:42 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.783	164	67092M4	500.000	ng/mL	0.00	
74) Chrysene-d12	43.269	240	106260	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	19.813	136	41428	167.502	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	16.75%#	
40) Phenanthrene-d10	32.669	188	33515	154.117	ng/mL	0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	15.41%#	
83) Benzo[b]fluoranthene-d12	47.184	264	39179	188.282	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	18.83%#	
88) Benzo[a]pyrene-d12	48.388	264	26130	162.469	ng/mL	0.01	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	16.25%#	
Target Compounds							
2) trans-Decalin	16.471	138	2585	49.980	ng/mL	100	Qvalue
3) cis-Decalin	17.690	138	382	9.576	ng/mL	100	
4) C1-Decalins	18.398	152	9988M5	193.112	ng/mL		
5) C2-Decalins	19.737	166	19111M5	369.501	ng/mL		
6) C3-Decalins	22.206	180	14190M5	274.356	ng/mL		
7) C4-Decalins	24.480	194	14175M5	274.066	ng/mL		
9) Naphthalene	19.888	128	2803736	10196.052	ng/mL	100	
10) C1-Naphthalenes	22.583	142	3120955M5	11349.649	ng/mL		
11) C2-Naphthalenes	25.428	156	2848569M5	10359.091	ng/mL		
12) C3-Naphthalenes	27.762	170	1714459M5	6234.793	ng/mL		
13) C4-Naphthalenes	30.532	184	684012M5	2487.475	ng/mL		
14) 2-Methylnaphthalene	22.583	142	1904604	10498.431	ng/mL	100	
15) 1-Methylnaphthalene	23.004	142	1212968	6960.818	ng/mL	100	
16) Benzothiophene	20.114	134	155979	727.678	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.447	148	257102M5	1199.441	ng/mL		
18) C2-Benzo(b)thiophenes	25.142	162	325073M5	1516.541	ng/mL		
19) C3-Benzo(b)thiophenes	27.250	176	231601M5	1080.473	ng/mL		
20) C4-Benzo(b)thiophenes	29.704	190	125018M5	583.238	ng/mL		
21) Biphenyl	24.465	154	256618	1162.207	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.082	156	801264	4935.769	ng/mL	100	
23) Dibenzofuran	27.551	168	169079	720.277	ng/mL	97	
24) Acenaphthylene	26.181	152	167665M3	619.191	ng/mL		
25) Acenaphthene	26.919	153	1570620	9288.774	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	28.469	170	132117M3	890.917	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051904.D
 Acq On : 5 Dec 2019 11:26 am
 Operator : PAH2:MJS
 Sample : L1954309-08d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 10 15:02:42 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.936	166	963041	5028.447	ng/mL	100
28) C1-Fluorenes	31.164	180	486086M5	2538.062	ng/mL	
29) C2-Fluorenes	33.347	194	486662M5	2541.069	ng/mL	
30) C3-Fluorenes	35.334	208	326628M5	1705.464	ng/mL	
31) Dibenzothiophene	32.263	184	1098310	4234.115	ng/mL	94
32) 4-Methyldibenzothiophene(	34.024	198	235584	908.204	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.340	198	283068	1091.261	ng/mL	100
34) 1-Methyldibenzothiophene(	34.807	198	72468	279.373	ng/mL	100
36) C1-Dibenzothiophenes	34.024	198	710499M5	2739.058	ng/mL	
36) C1-Dibenzothiophenes BS	34.024	198	710499M5	2739.058	ng/mL	
37) C2-Dibenzothiophenes	36.087	212	619462M5	2388.100	ng/mL	
38) C3-Dibenzothiophenes	37.532	226	348009M5	1341.616	ng/mL	
39) C4-Dibenzothiophenes	39.218	240	140754M5	542.623	ng/mL	
41) Phenanthrene	32.775	178	9265935	33580.885	ng/mL	98
42) 3-Methylphenanthrene(3MP)	34.717	192	1065767	3862.470	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.837	192	1349269M3	4889.916	ng/mL	
44) 2-Methylanthracene(2MA)	34.988	192	356734	1292.848	ng/mL#	36
45) 9/4-Methylphenanthrene(9M	35.168	192	671705	2434.341	ng/mL	91
47) C1-Phenanthrenes/Anthrace	34.837	192	3935242M5	14261.800	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.704	206	2379133M5	8622.270	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.704	206	2379133M5	8622.270	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.827	220	994013M5	3602.425	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.040	234	329615M5	1194.565	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	32.940	178	1597131	6789.714	ng/mL	99
54) Carbazole	33.603	167	491300	2232.529	ng/mL	97
55) 1-Methylphenanthrene	35.259	192	475937	2303.248	ng/mL	91
56) Fluoranthene	37.547	202	4419353M4	14043.422	ng/mL	
57) Benzo(b)fluorene	40.062	216	231314M3	1168.360	ng/mL	
58) 7H-Benzo(c)fluorene	40.107	216	75673M3	382.222	ng/mL	
59) Pyrene	38.435	202	6013665	18403.433	ng/mL	97
60) 2-Methylpyrene	40.227	216	360070M3	1101.911	ng/mL	
61) 4-Methylpyrene	40.589	216	296148	906.293	ng/mL	77
62) 1-Methylpyrene	40.694	216	299892	917.750	ng/mL	72
63) C1-Fluoranthenes/Pyrenes	39.821	216	2186559M5	6691.459	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.290	230	969785M5	2967.803	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.750	244	517666M5	1584.197	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.000	258	254068M5	777.516	ng/mL	
67) Naphthobenzothiophene-2,1	42.275	234	304478	1089.364	ng/mL	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051904.D
 Acq On : 5 Dec 2019 11:26 am
 Operator : PAH2:MJS
 Sample : L1954309-08d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 10 15:02:42 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.621	234	71205M3	254.758	ng/mL	
69) Naphthobenzothiophene-2,3	42.922	234	105216M3	376.443	ng/mL	
70) C1-Naphthobenzothiophenes	43.675	248	255798M5	915.196	ng/ml	
71) C2-Naphthobenzothiophenes	45.181	262	188560M5	674.632	ng/ml	
72) C3-Naphthobenzothiophenes	47.063	276	123480M5	441.788	ng/ml	
73) C4-Naphthobenzothiophenes	48.388	290	46654M5	166.919	ng/mL	
75) Benz[a]anthracene	43.208	228	1353262M3	5575.984	ng/mL	
76) Chrysene	43.374	228	1629909	6596.756	ng/mL	100
78) C1-Chrysenes	44.849	242	827485M5	3349.093	ng/mL	
79) C2-Chrysenes	46.551	256	541402M5	2191.225	ng/mL	
79) C2-Chrysenes BS	46.551	256	536748M5	2172.388	ng/mL	
81) C3-Chrysenes	48.178	270	304489M5	1232.363	ng/mL	
82) C4-Chrysenes	49.171	284	132418M5	535.937	ng/mL	
84) Benzo[b]fluoranthene	47.274	252	1047316	3564.502	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.349	252	1014599	3432.523	ng/mL	97
86) Benzo[a]fluoranthene	47.650	252	304675M3	1030.756	ng/mL	
87) Benzo[e]pyrene	48.283	252	1035532	3669.289	ng/mL	97
89) Benzo[a]pyrene	48.479	252	1699925	6579.853	ng/mL	97
90) Perylene	48.780	252	434021	1719.627	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.358	276	1315505M4	4280.160	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.388	278	226527M4	807.758	ng/mL	
93) Benzo[g,h,i]perylene	54.698	276	1657938	5396.678	ng/mL	99

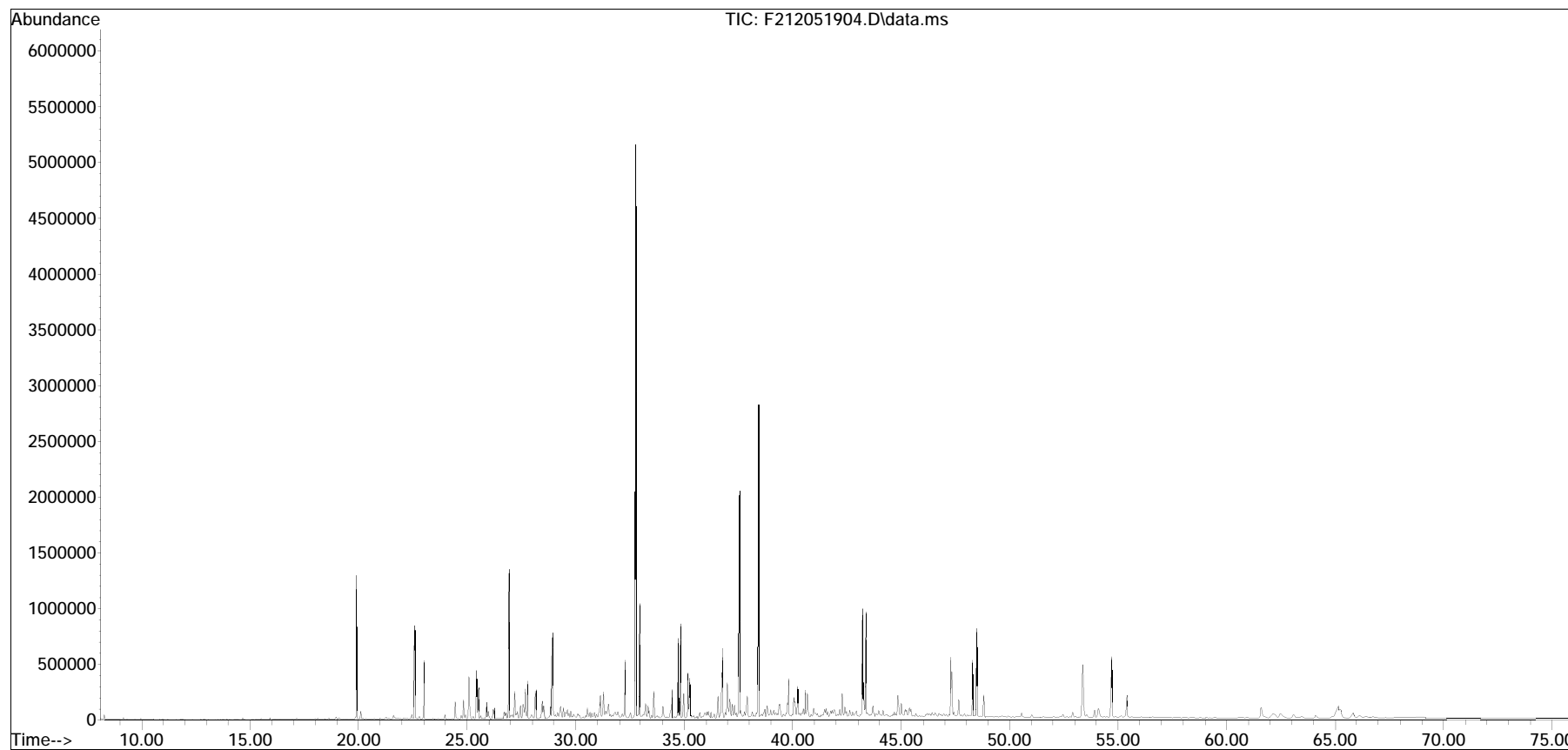
(#) = qualifier out of range (m) = manual integration (+) = signals summed

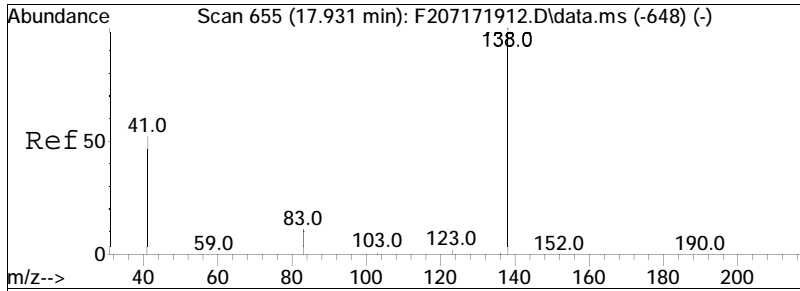
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051904.D
Acq On : 5 Dec 2019 11:26 am
Operator : PAH2:MJS
Sample : L1954309-08d,32,4
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 4 Sample Multiplier: 1

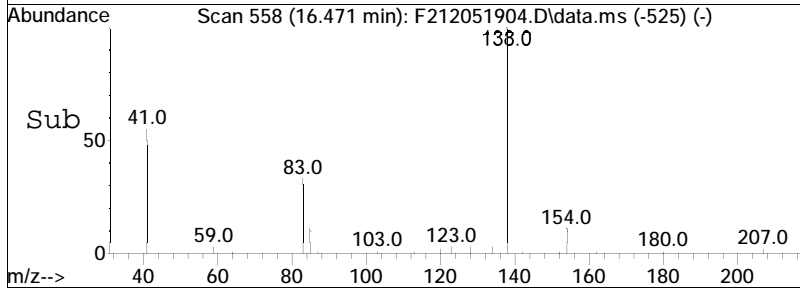
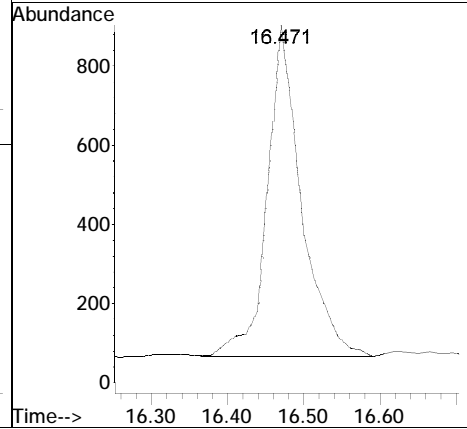
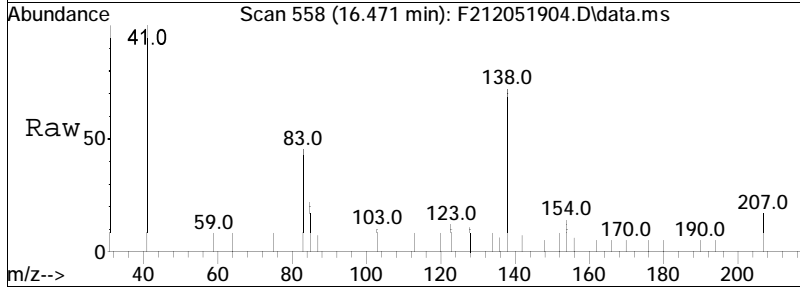
Quant Time: Dec 10 15:02:42 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

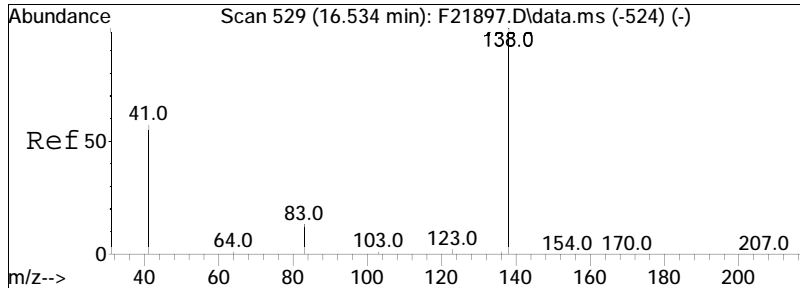
Sub List : ALKPAH - POI+MP+BcF



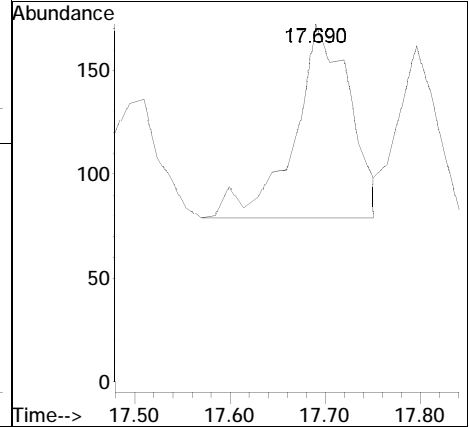
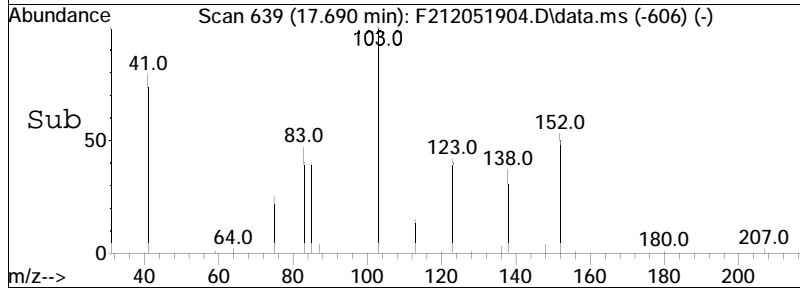
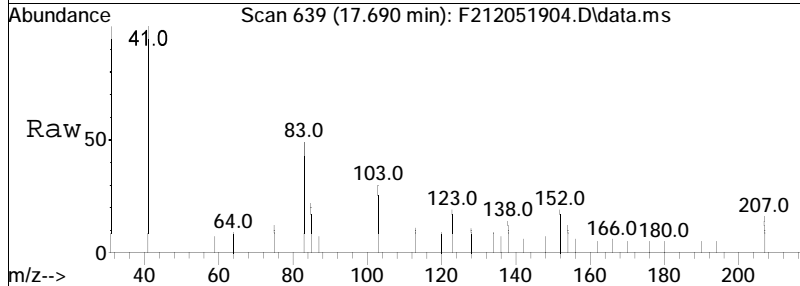


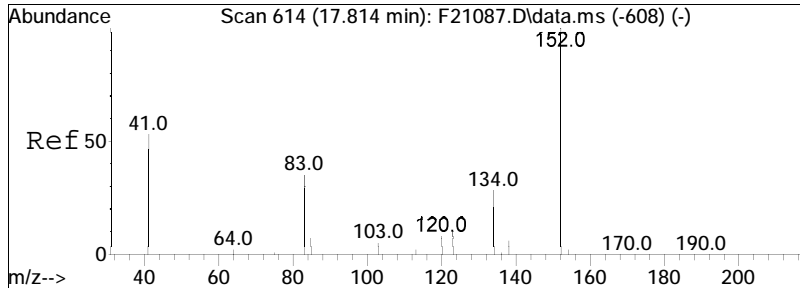
#2
 trans-Decalin
 Concen: 49.98 ng/mL
 RT: 16.471 min Scan# 558
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:138 Resp: 2585



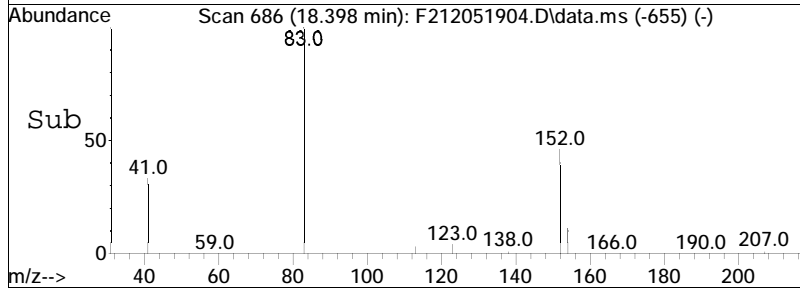
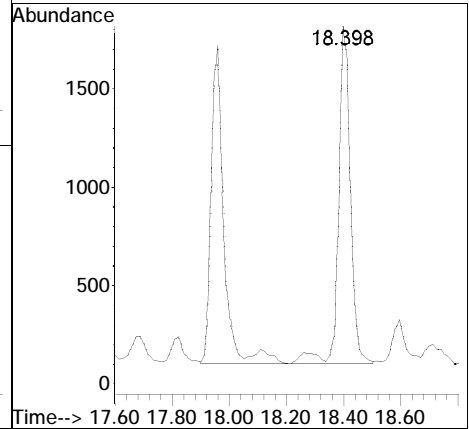
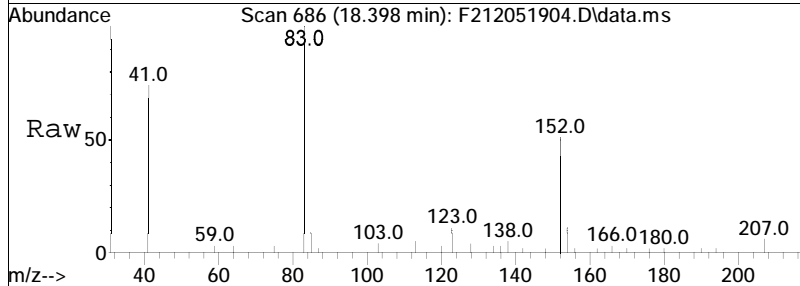


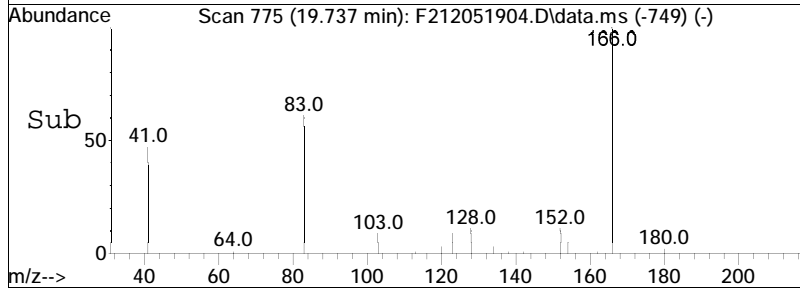
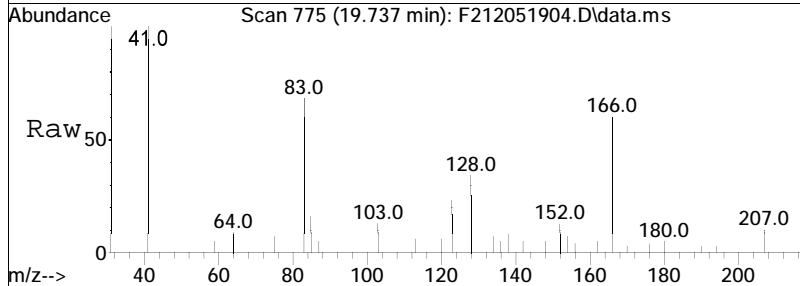
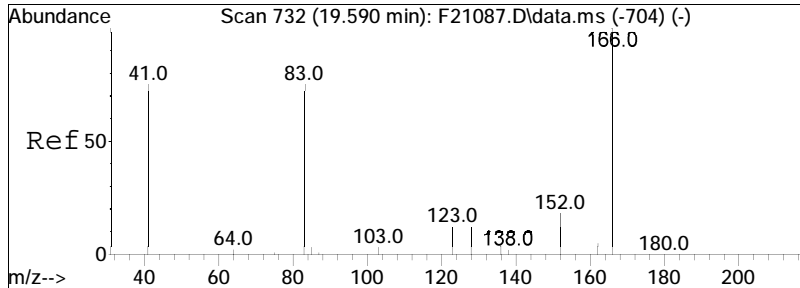
#3
 cis-Decalin
 Concen: 9.58 ng/mL
 RT: 17.690 min Scan# 639
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:138 Resp: 382



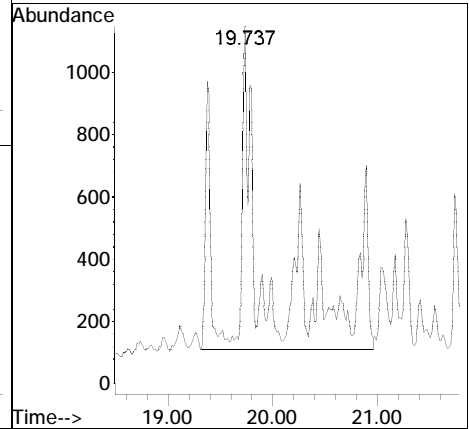


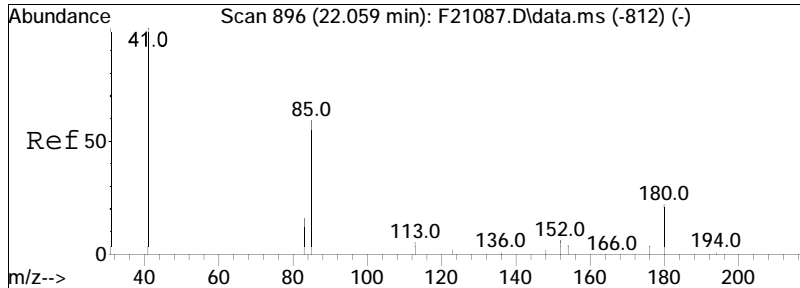
#4
 C1-Decalins
 Concen: 193.11 ng/mL M5
 RT: 18.398 min Scan# 686
 Delta R.T. -0.061 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:152 Resp: 9988



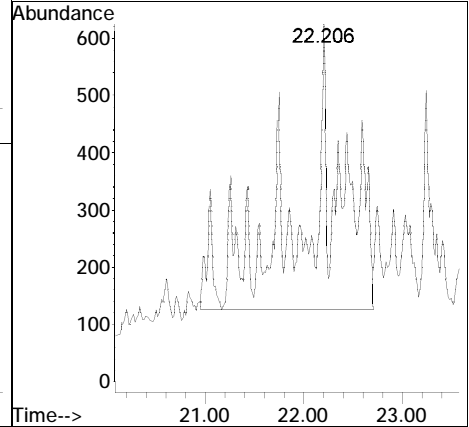
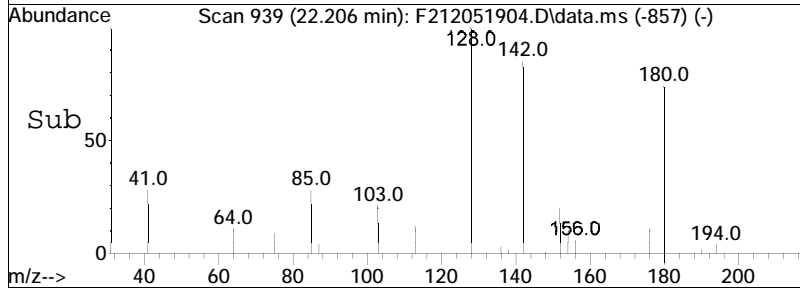
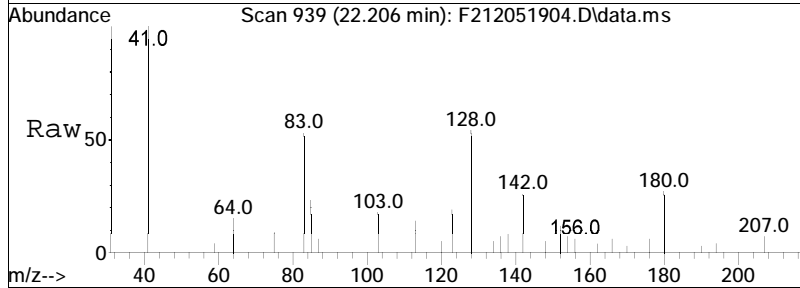


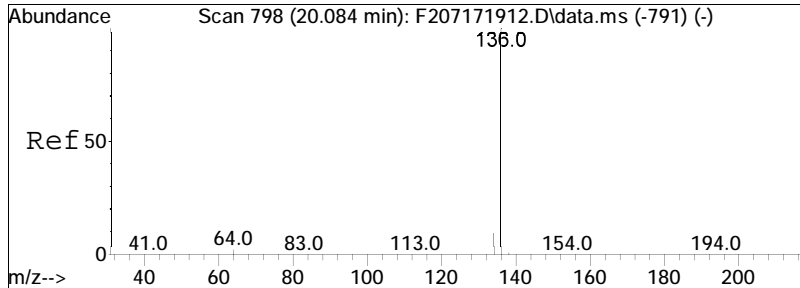
#5
 C2-Decalins
 Concen: 369.50 ng/mL M5
 RT: 19.737 min Scan# 775
 Delta R.T. -0.036 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:166 Resp: 19111



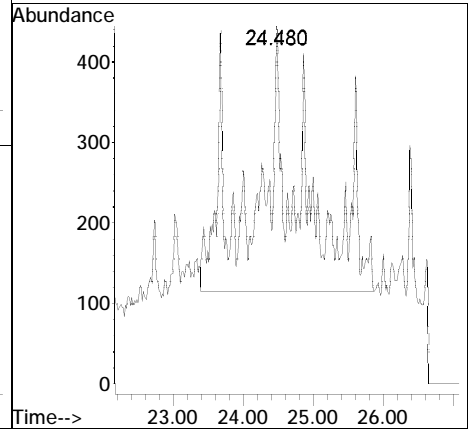
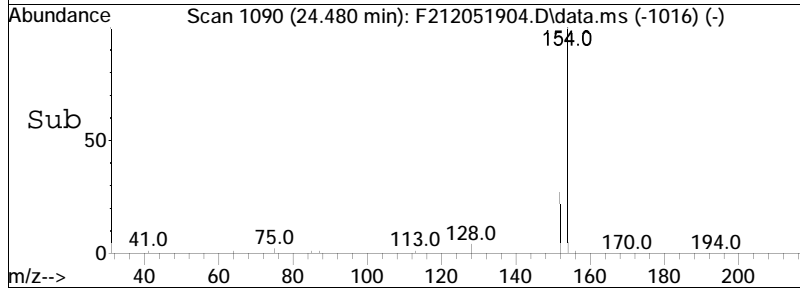
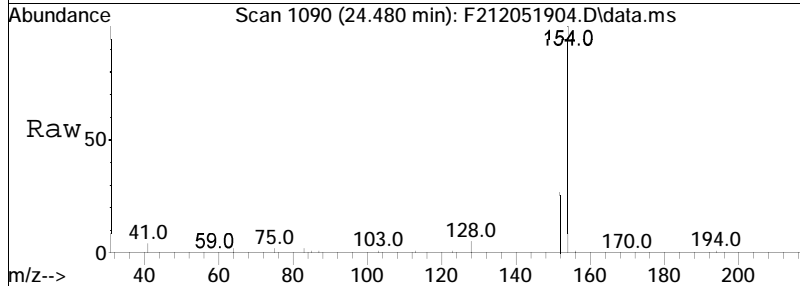


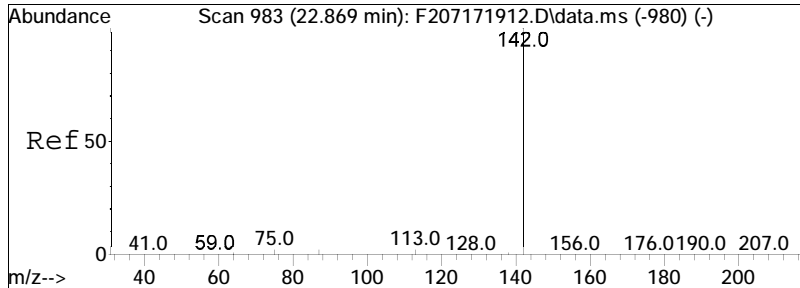
#6
 C3-Decalins
 Concen: 274.36 ng/mL M5
 RT: 22.206 min Scan# 939
 Delta R.T. -0.046 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:180 Resp: 14190



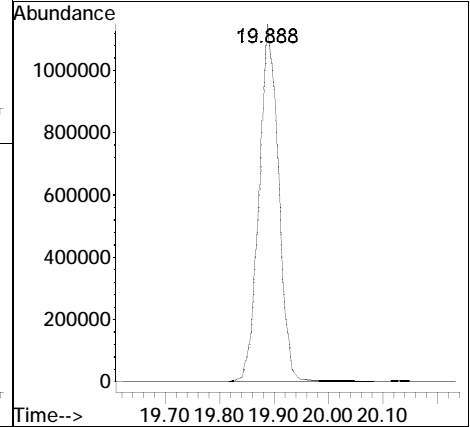
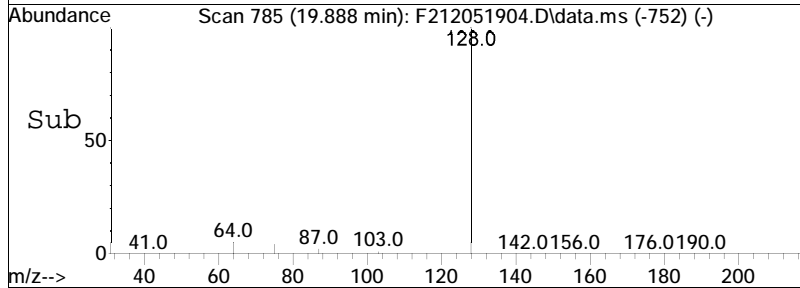
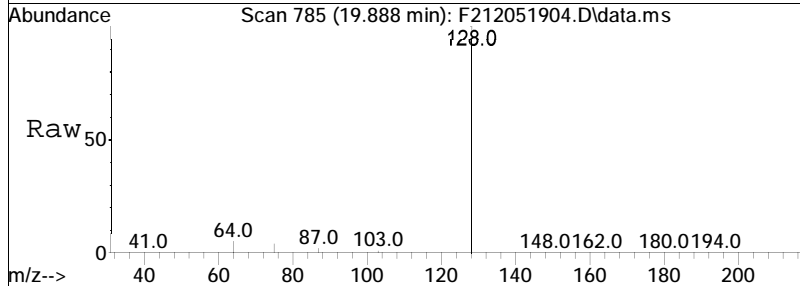


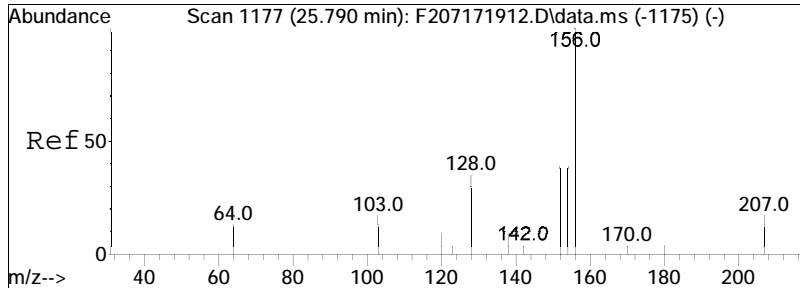
#7
C4-Decalins
Concen: 274.07 ng/mL M5
RT: 24.480 min Scan# 1090
Delta R.T. -1.126 min
Lab File: F212051904.D
Acq: 5 Dec 2019 11:26 am
Tgt Ion:194 Resp: 14175



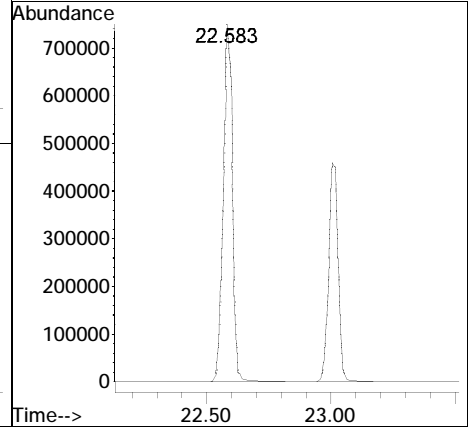
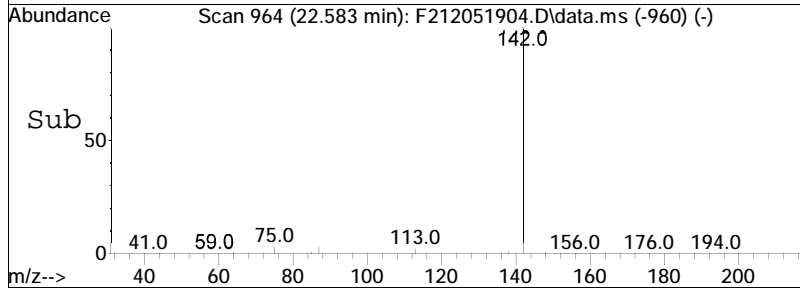
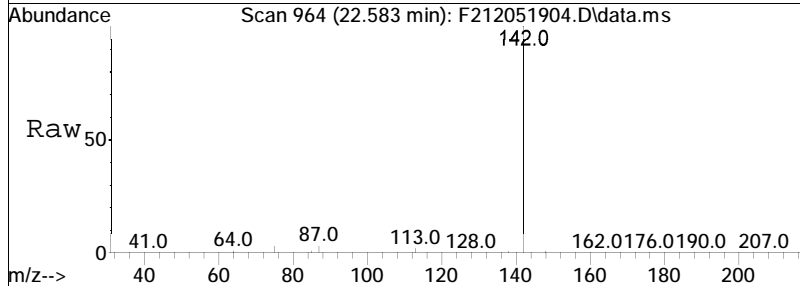


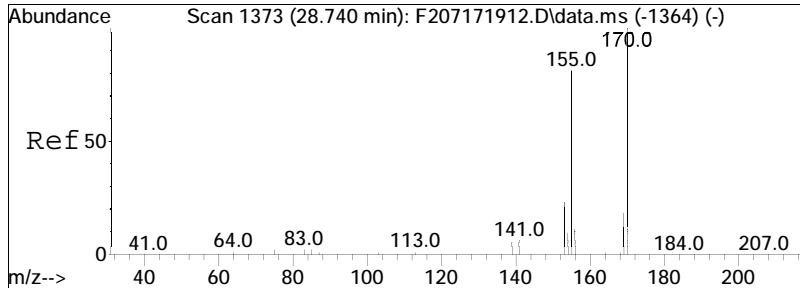
#9
 Naphthalene
 Concen: 10196.05 ng/mL
 RT: 19.888 min Scan# 785
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:128 Resp: 2803736



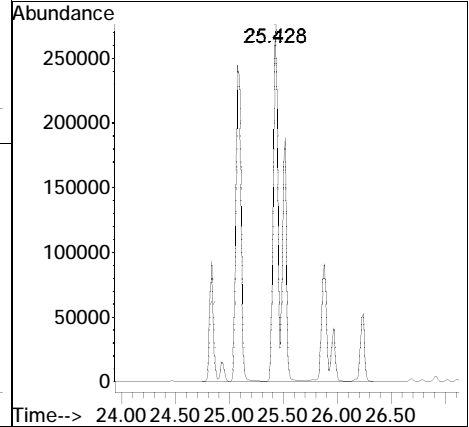
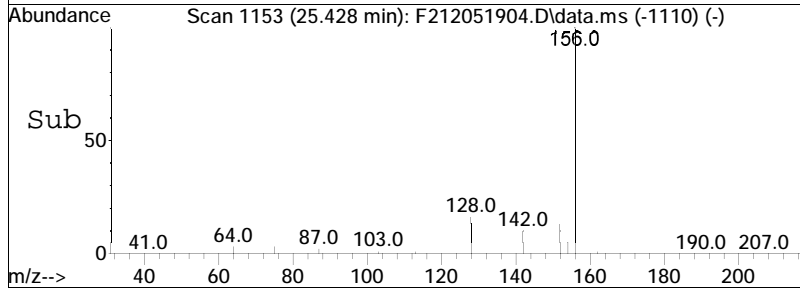
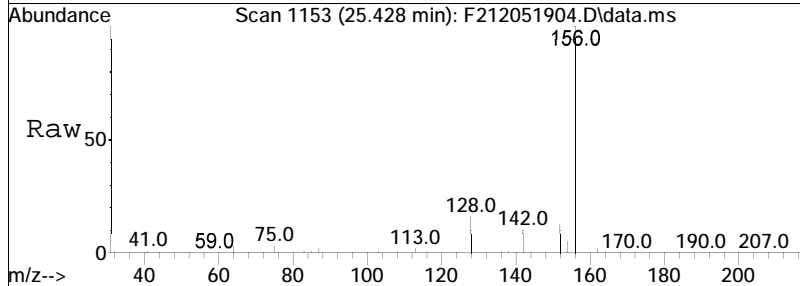


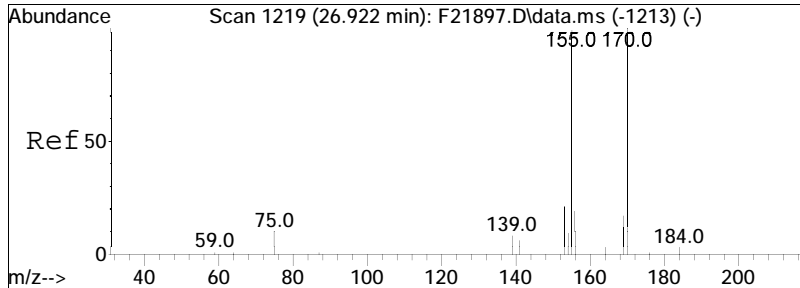
#10
 Cl-Naphthalenes
 Concen: 11349.65 ng/mL M5
 RT: 22.583 min Scan# 964
 Delta R.T. -0.021 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:142 Resp: 3120955





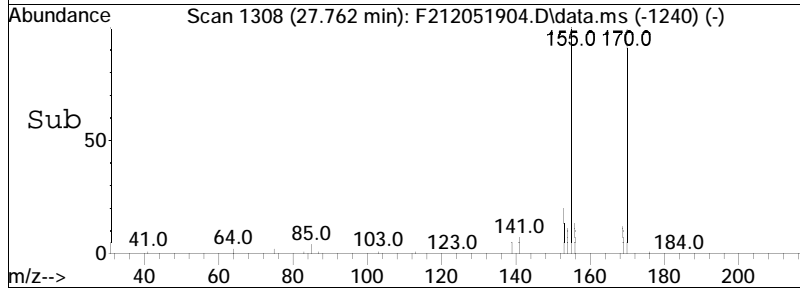
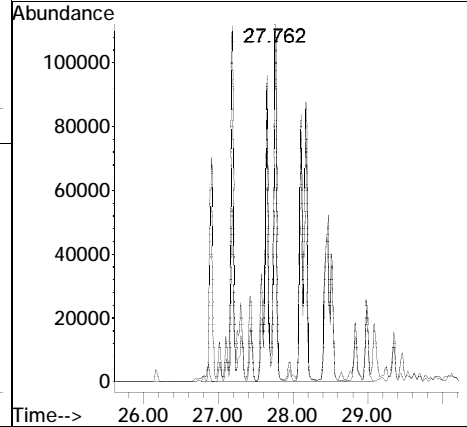
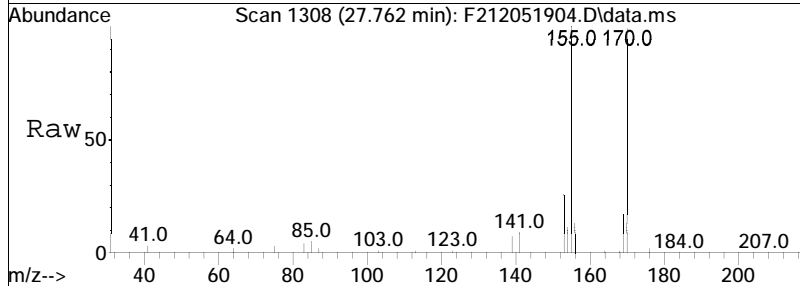
#11
 C2-Naphthalenes
 Concen: 10359.09 ng/mL M5
 RT: 25.428 min Scan# 1153
 Delta R.T. -0.014 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:156 Resp: 2848569

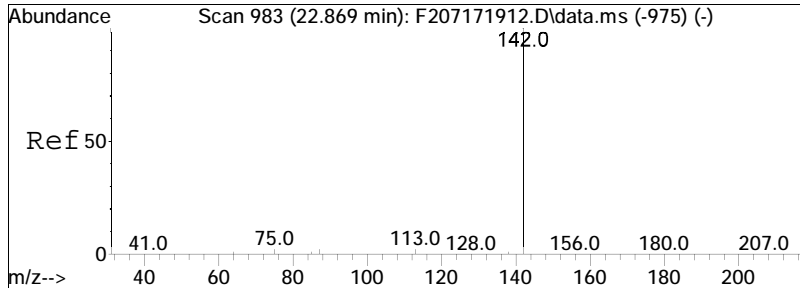




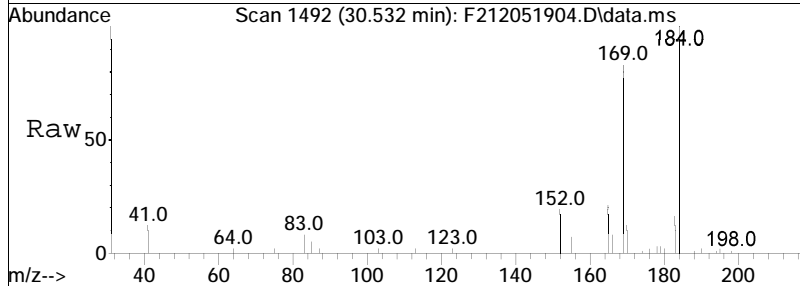
#12
 C3-Naphthalenes
 Concen: 6234.79 ng/mL M5
 RT: 27.762 min Scan# 1308
 Delta R.T. 0.010 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

Tgt Ion:170 Resp: 1714459
 Ion Ratio Lower Upper
 170 100
 155 16.3 66.8 124.0#

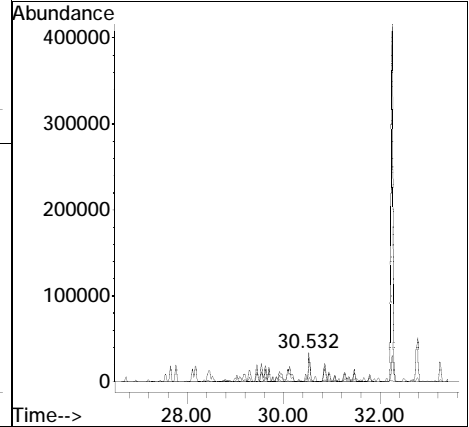
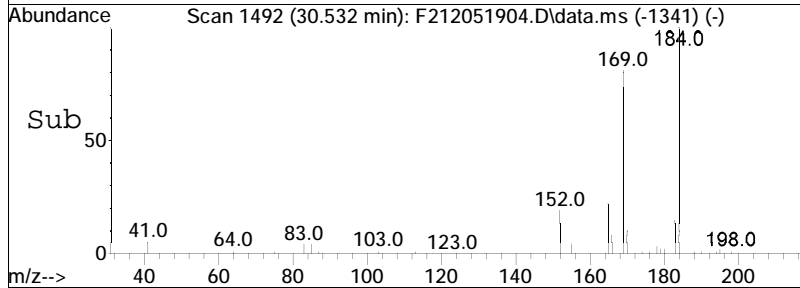


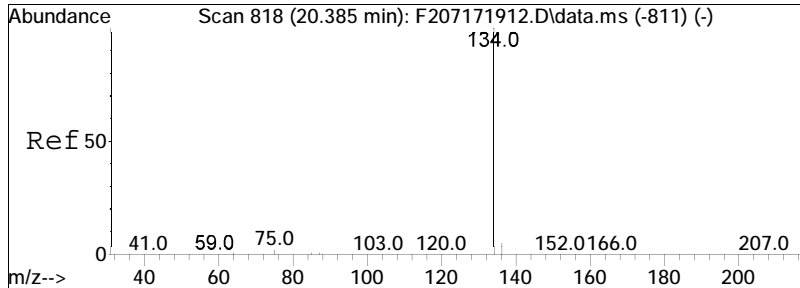


#13
 C4-Naphthalenes
 Concen: 2487.47 ng/mL M5
 RT: 30.532 min Scan# 1492
 Delta R.T. 0.037 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

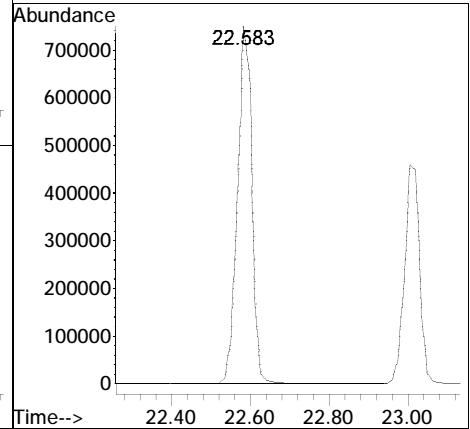
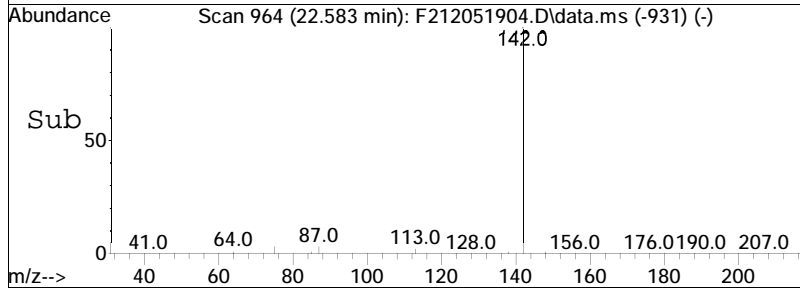
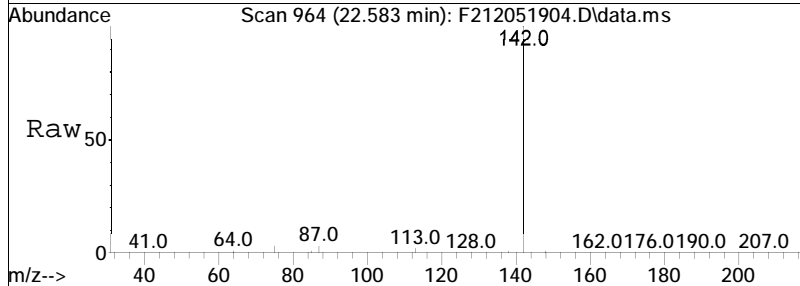


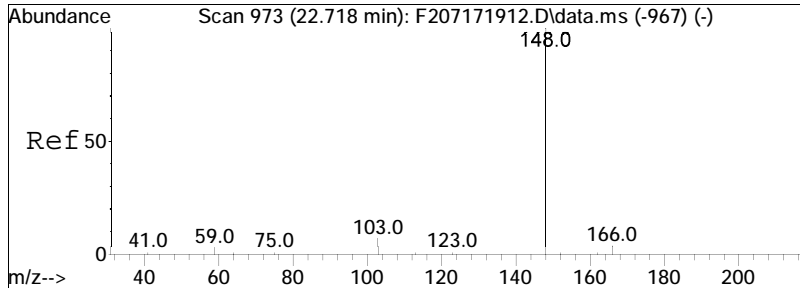
Tgt Ion	Ratio	Lower	Upper
184	100		
169	10.5	65.7	121.9#
183	1.5	22.5	41.9#



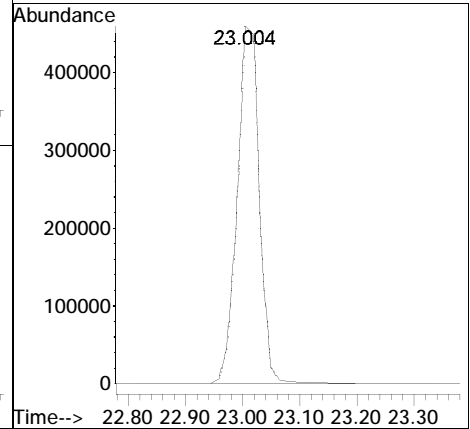
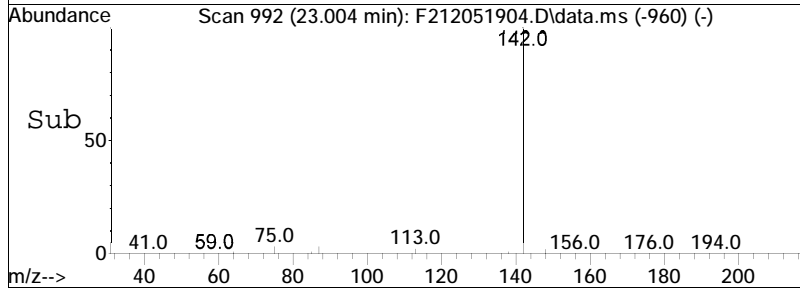
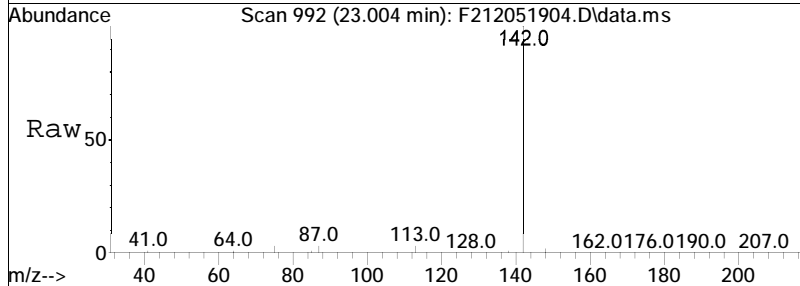


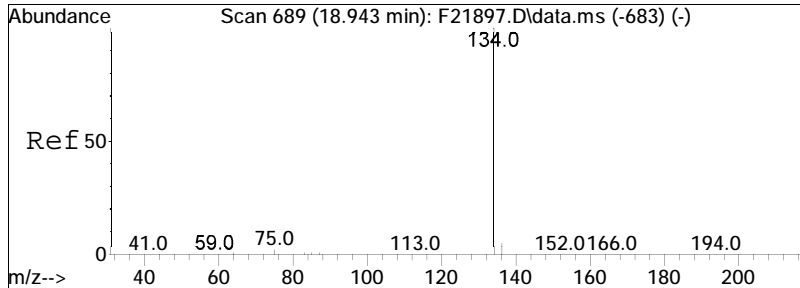
#14
 2-Methylnaphthalene
 Concen: 10498.43 ng/mL
 RT: 22.583 min Scan# 964
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:142 Resp: 1904604



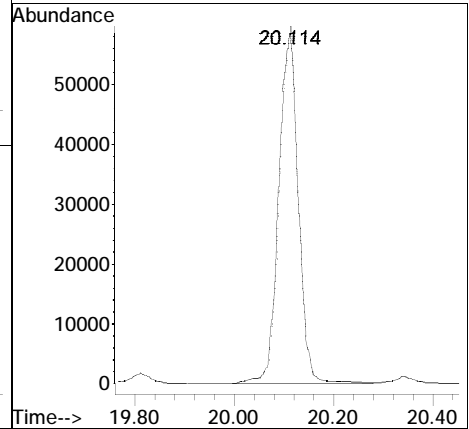
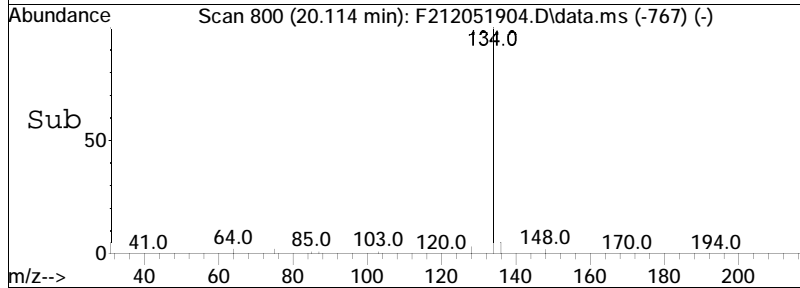
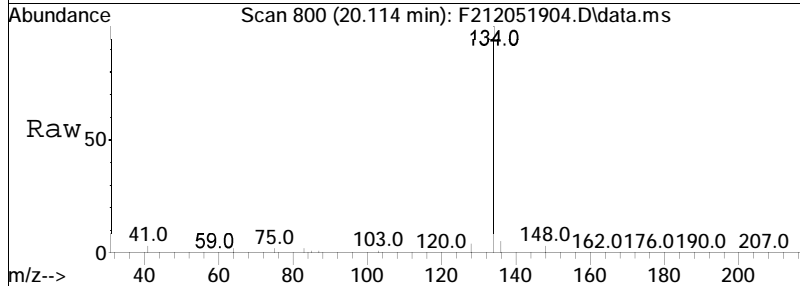


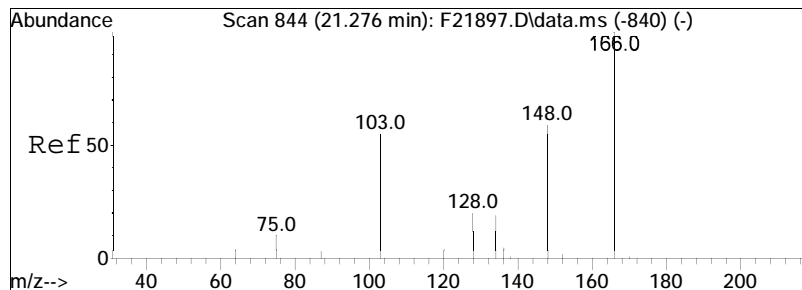
#15
 1-Methylnaphthalene
 Concen: 6960.82 ng/mL
 RT: 23.004 min Scan# 992
 Delta R.T. -0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:142 Resp: 1212968



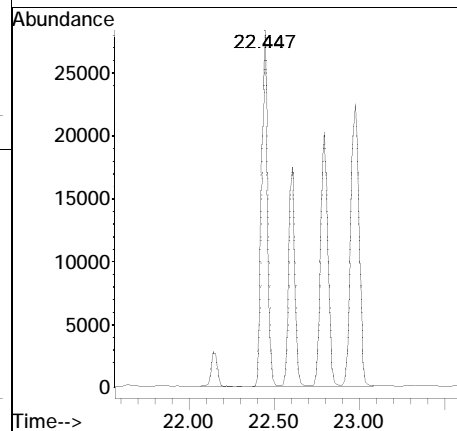
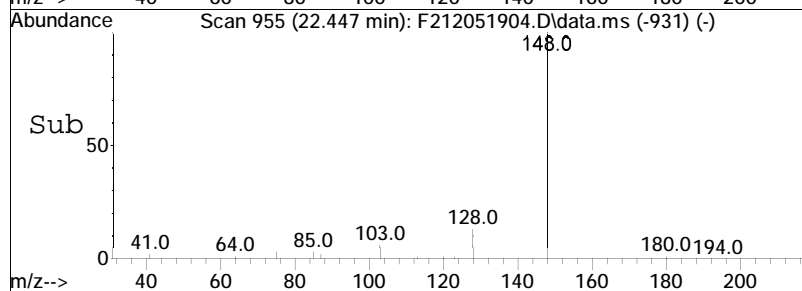
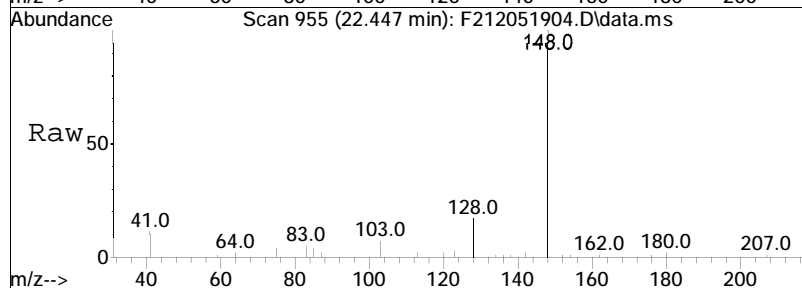


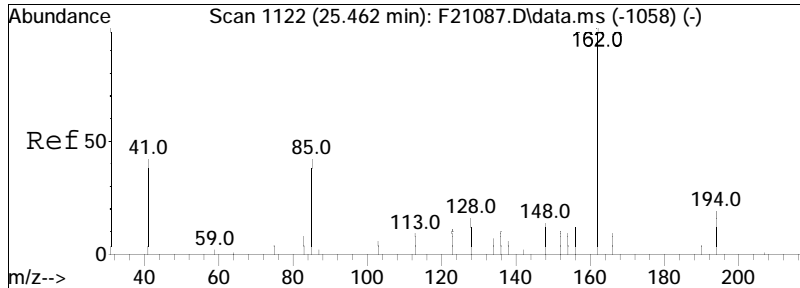
#16
 Benzothiophene
 Concen: 727.68 ng/mL
 RT: 20.114 min Scan# 800
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:134 Resp: 155979



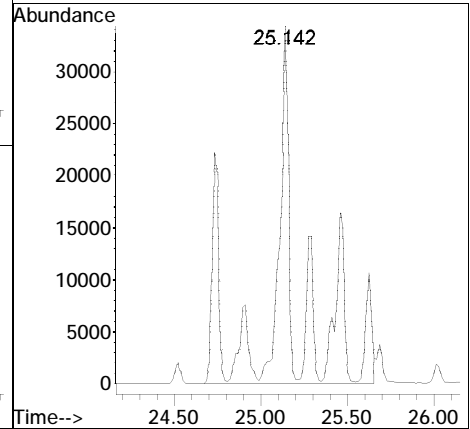
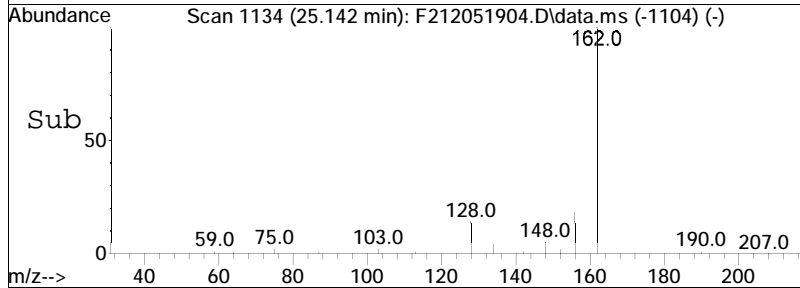
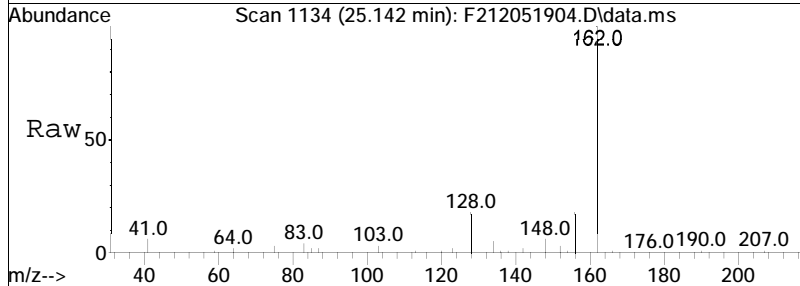


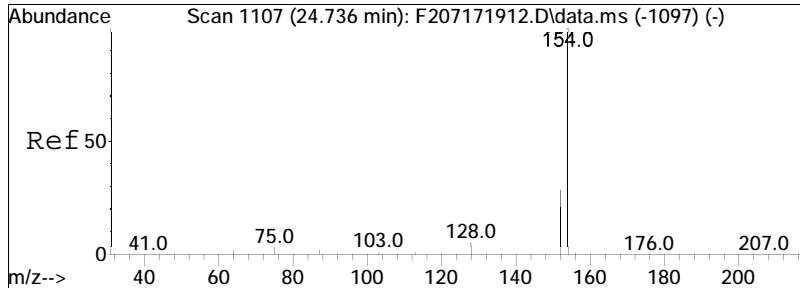
#17
 Cl-Benzo(b)thiophenes
 Concen: 1199.44 ng/mL M5
 RT: 22.447 min Scan# 955
 Delta R.T. 0.269 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:148 Resp: 257102



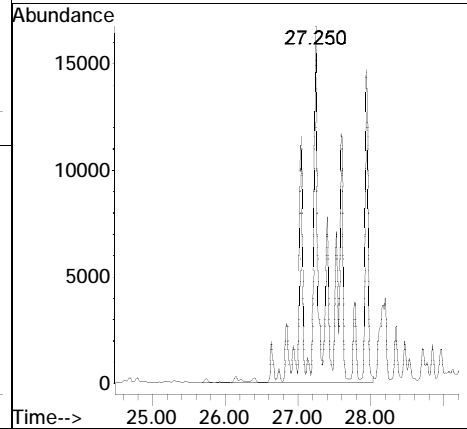
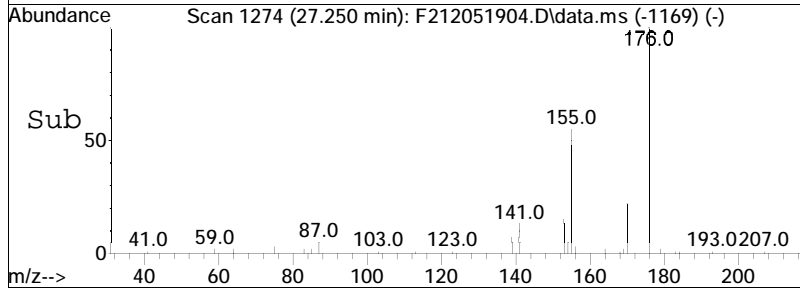
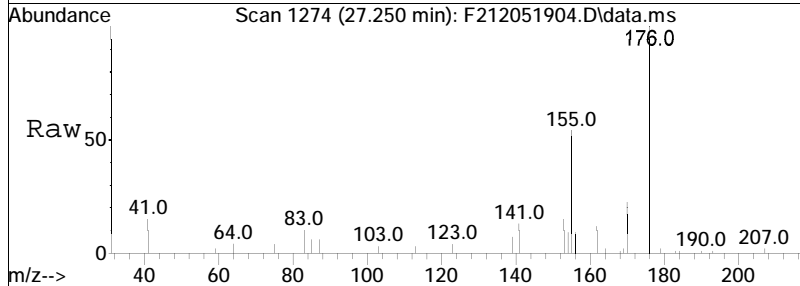


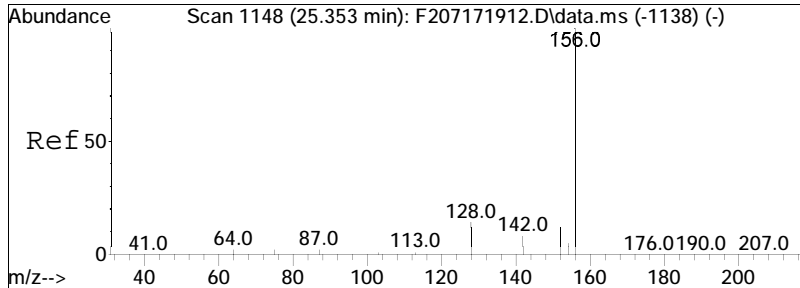
#18
 C2-Benzo(b)thiophenes
 Concen: 1516.54 ng/mL M5
 RT: 25.142 min Scan# 1134
 Delta R.T. -0.494 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:162 Resp: 325073



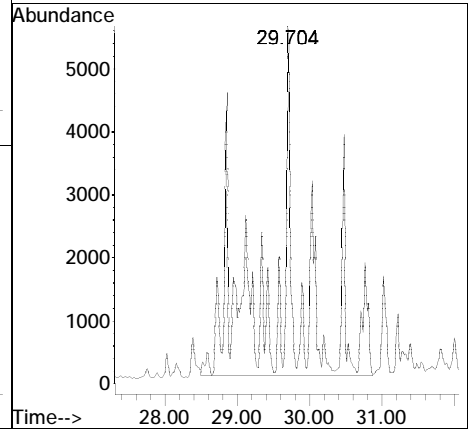
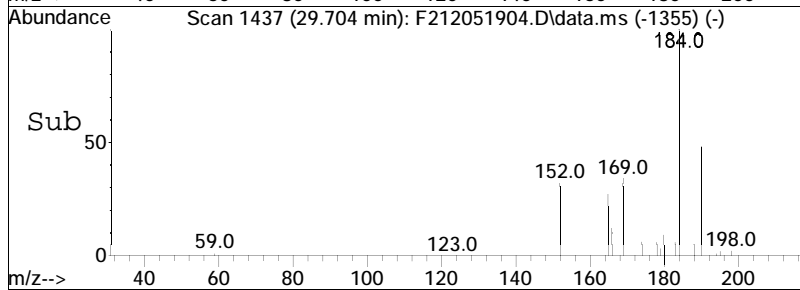
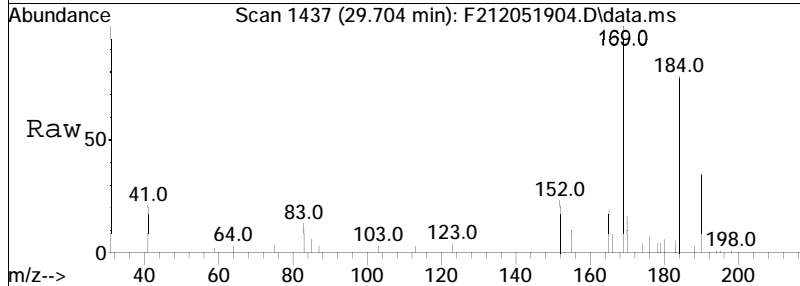


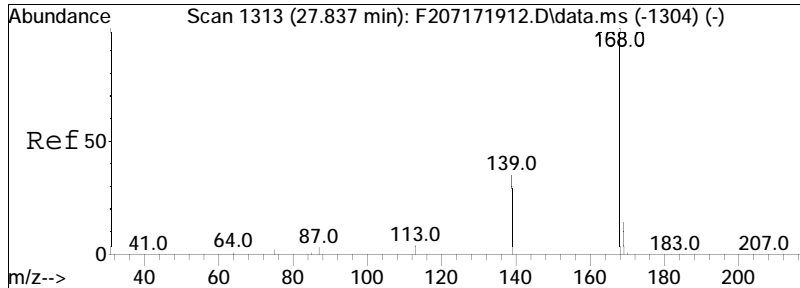
#19
 C3-Benzo(b)thiophenes
 Concen: 1080.47 ng/mL M5
 RT: 27.250 min Scan# 1274
 Delta R.T. -0.338 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:176 Resp: 231601



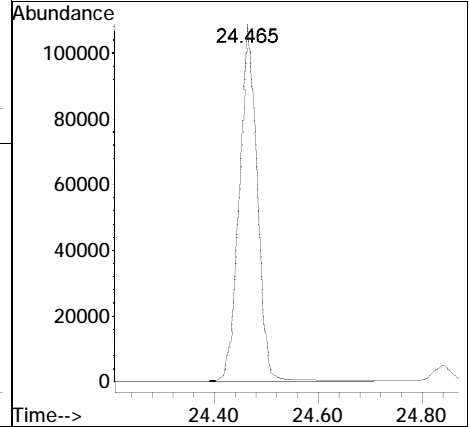
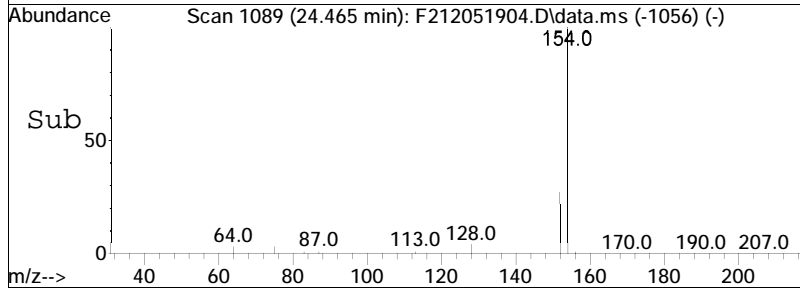
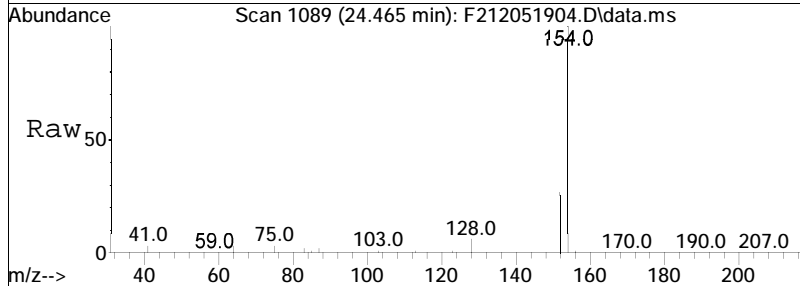


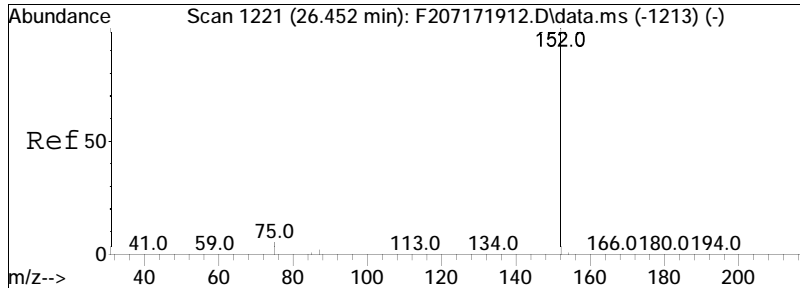
#20
 C4-Benzo(b)thiophenes
 Concen: 583.24 ng/mL M5
 RT: 29.704 min Scan# 1437
 Delta R.T. 0.387 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:190 Resp: 125018



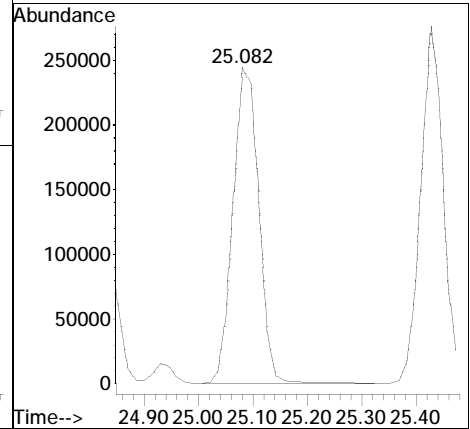
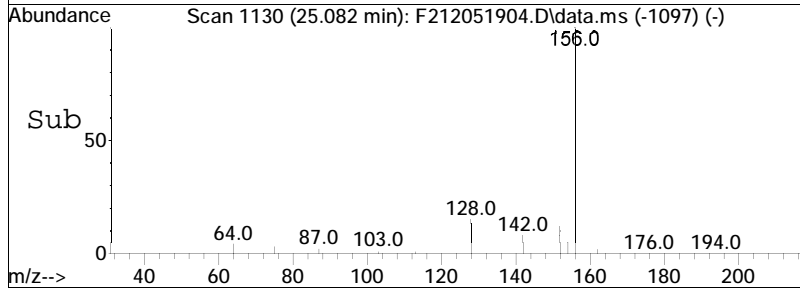
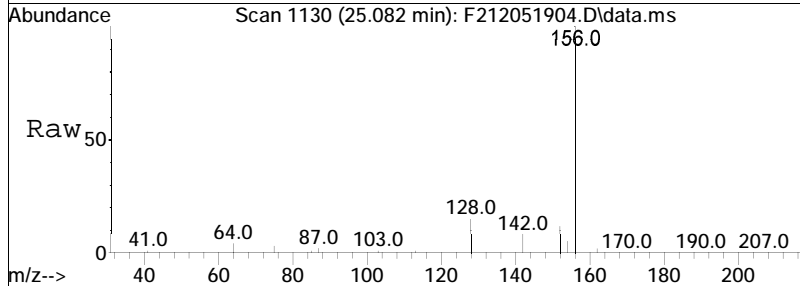


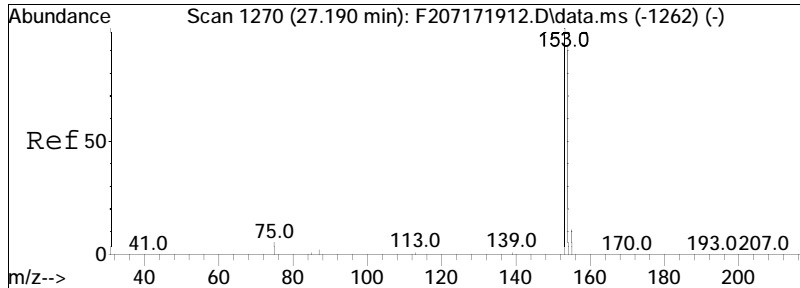
#21
 Biphenyl
 Concen: 1162.21 ng/mL
 RT: 24.465 min Scan# 1089
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:154 Resp: 256618





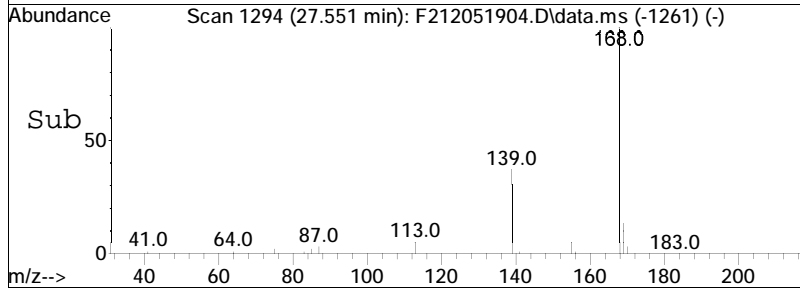
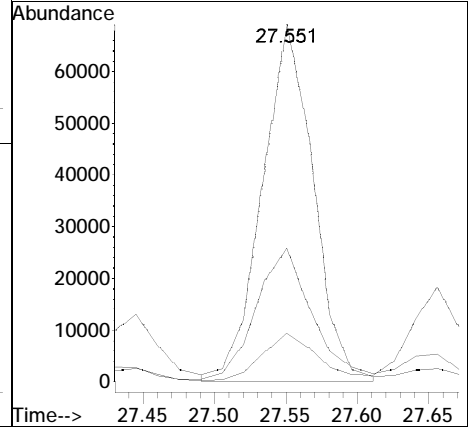
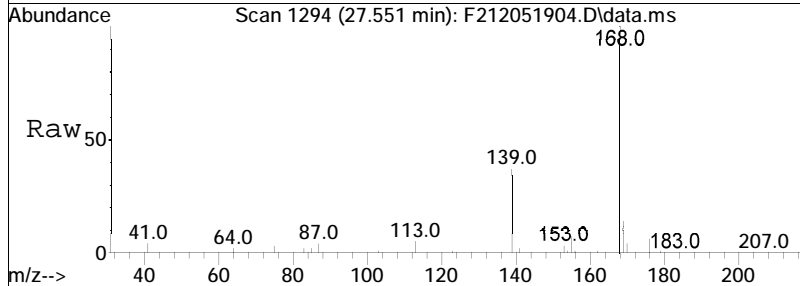
#22
 2,6-Dimethylnaphthalene
 Concen: 4935.77 ng/mL
 RT: 25.082 min Scan# 1130
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:156 Resp: 801264

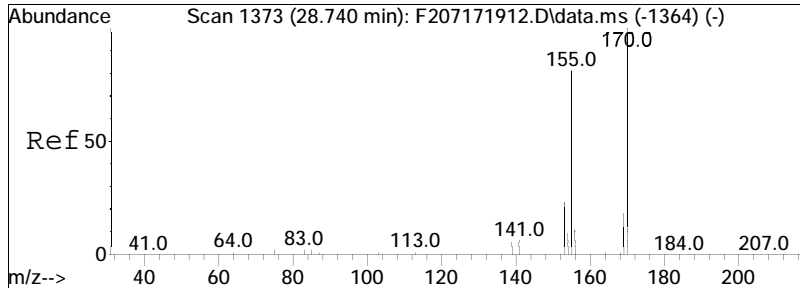




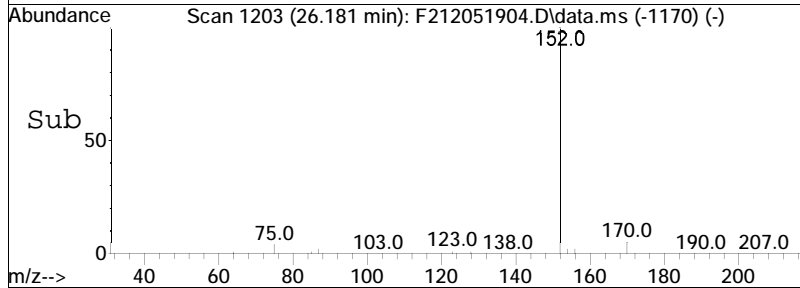
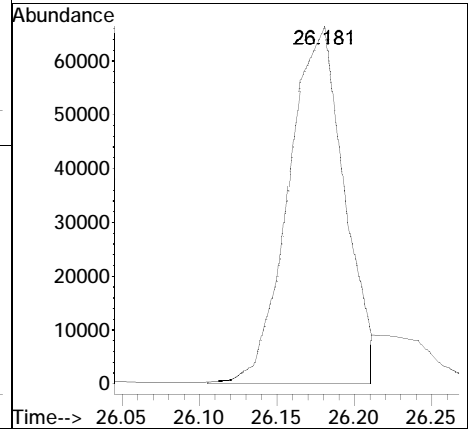
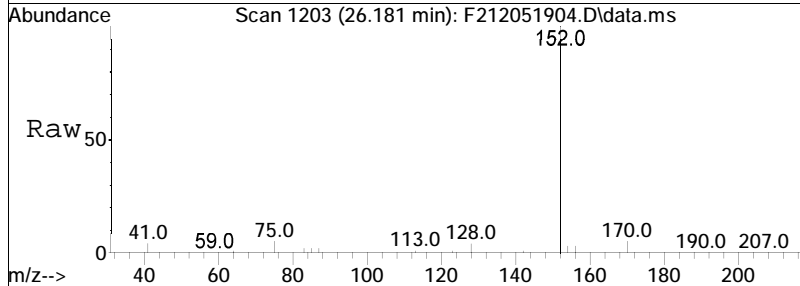
#23
 Dibenzofuran
 Concen: 720.28 ng/mL
 RT: 27.551 min Scan# 1294
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

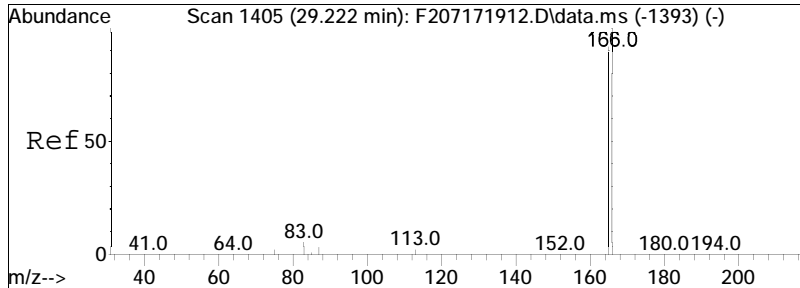
Tgt Ion	Ratio	Lower	Upper
168	100		
139	40.7	27.2	50.4
169	14.7	9.5	17.7





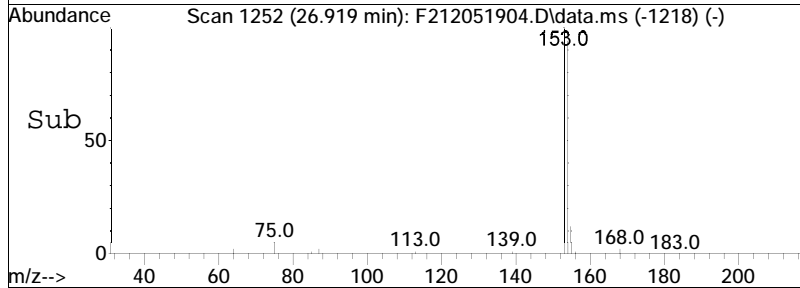
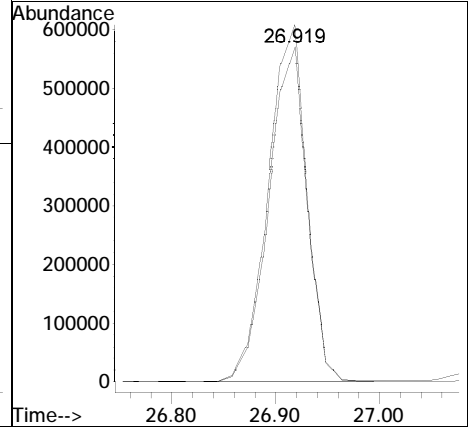
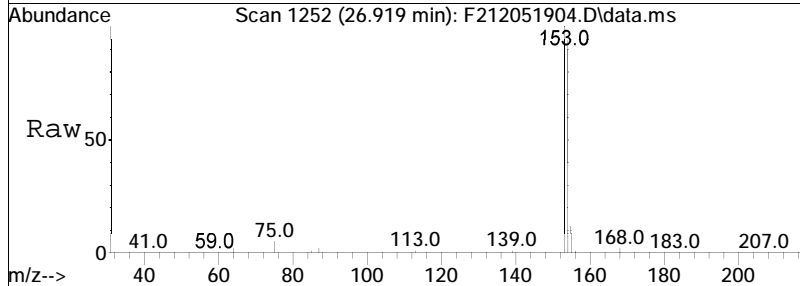
#24
 Acenaphthylene
 Concen: 619.19 ng/mL M3
 RT: 26.181 min Scan# 1203
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:152 Resp: 167665

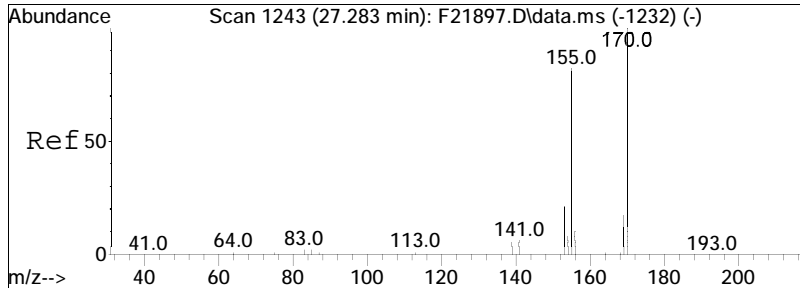




#25
 Acenaphthene
 Concen: 9288.77 ng/mL
 RT: 26.919 min Scan# 1252
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

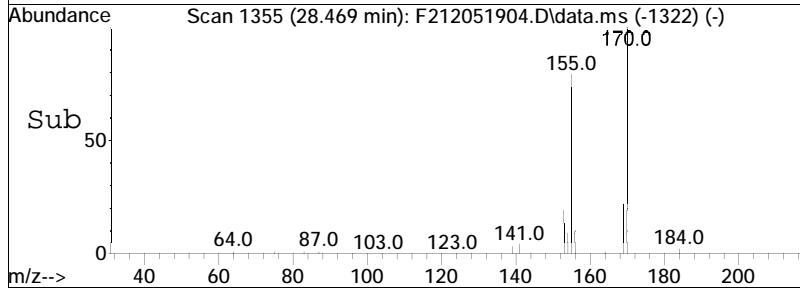
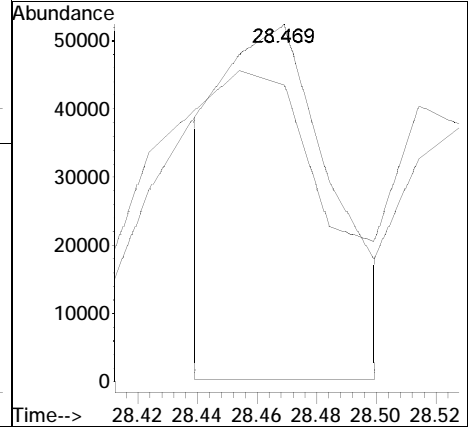
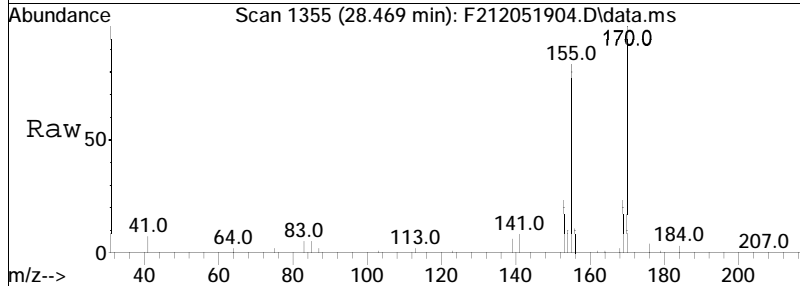
Tgt Ion: 153 Resp: 1570620
 Ion Ratio Lower Upper
 153 100
 154 93.1 66.5 123.5

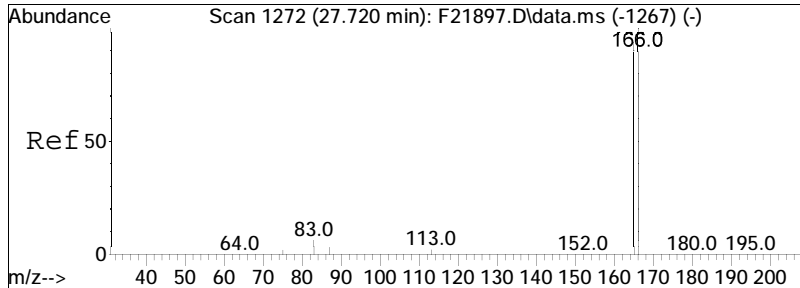




#26
 2,3,5-Trimethylnaphthalene
 Concen: 890.92 ng/mL M3
 RT: 28.469 min Scan# 1355
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

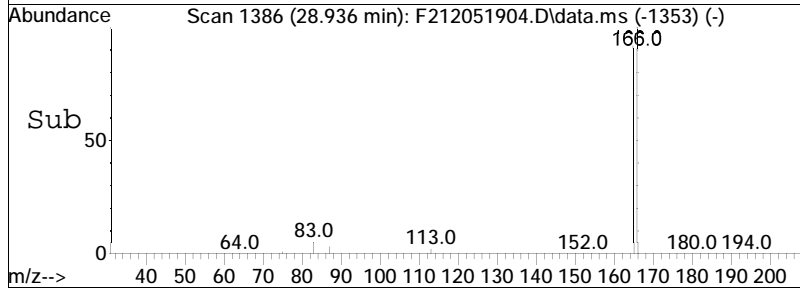
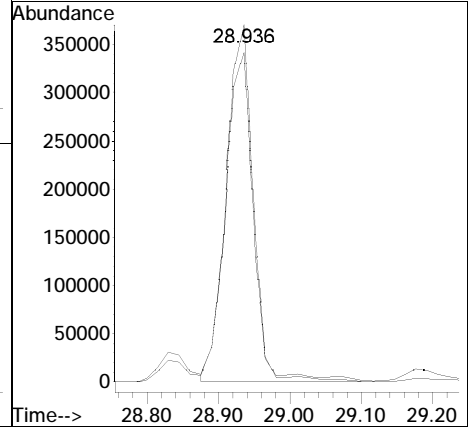
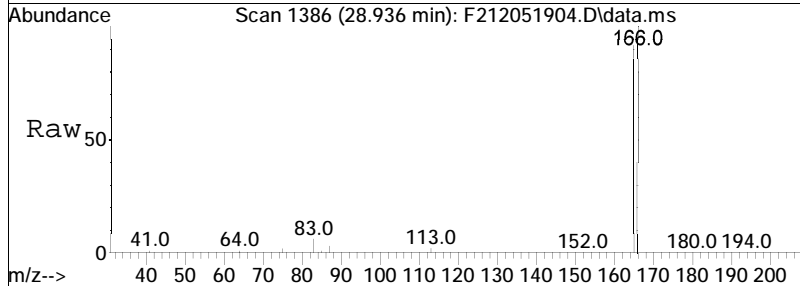
Tgt Ion: 170 Resp: 132117
 Ion Ratio Lower Upper
 170 100
 155 150.7 59.1 109.7#

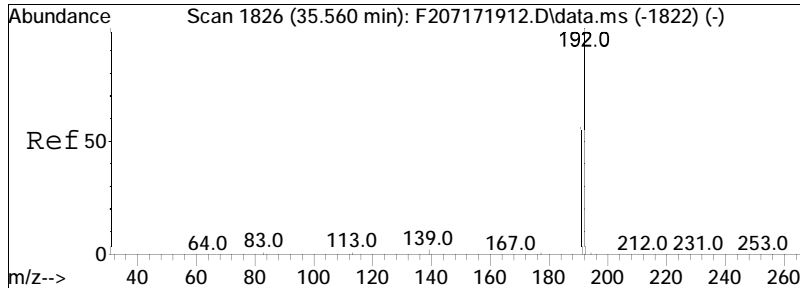




#27
 Fluorene
 Concen: 5028.45 ng/mL
 RT: 28.936 min Scan# 1386
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

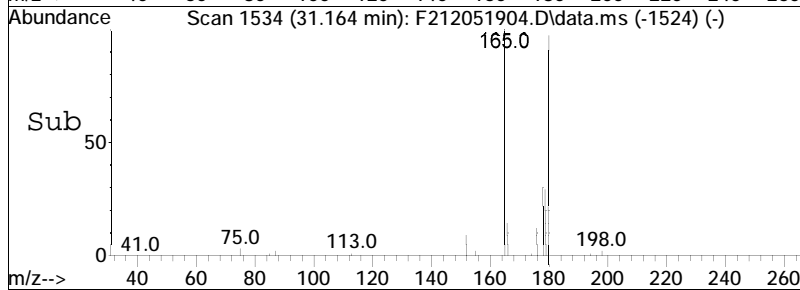
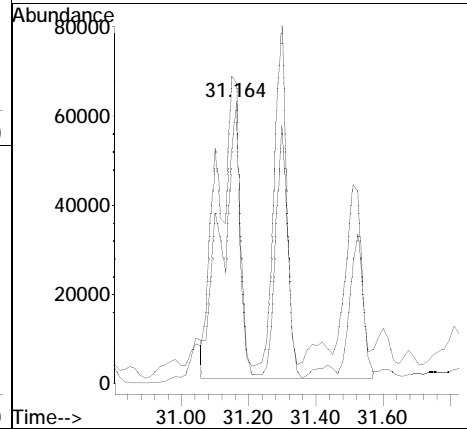
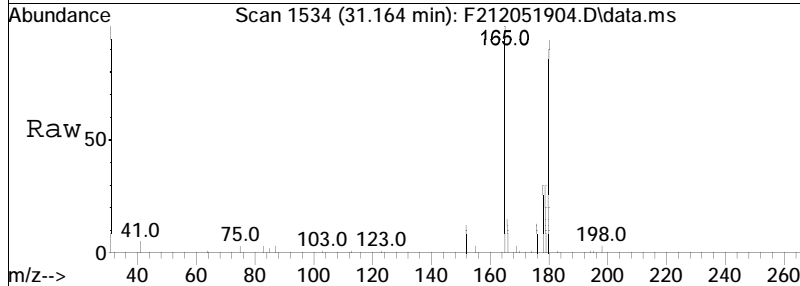
Tgt Ion	Resp	Lower	Upper
166	100		
165	91.7	63.9	118.7

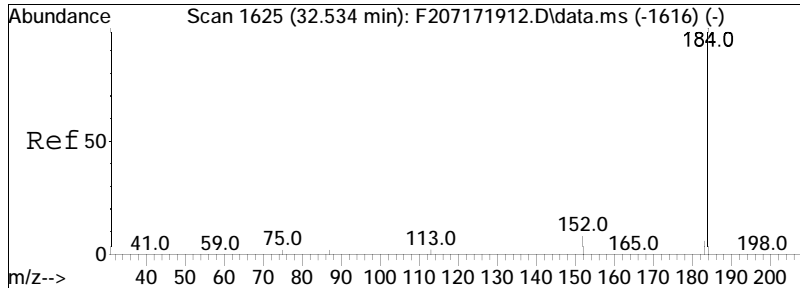




#28
 Cl-Fluorenes
 Concen: 2538.06 ng/mL M5
 RT: 31.164 min Scan# 1534
 Delta R.T. -0.090 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

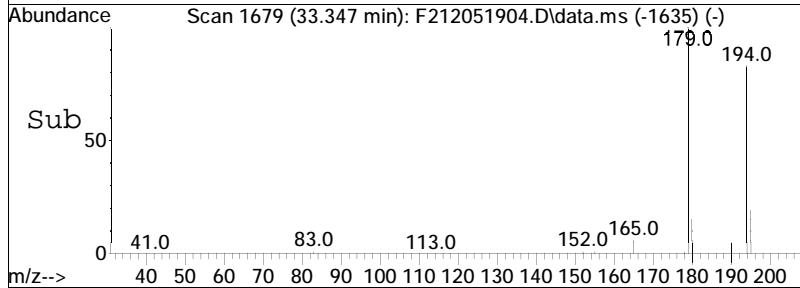
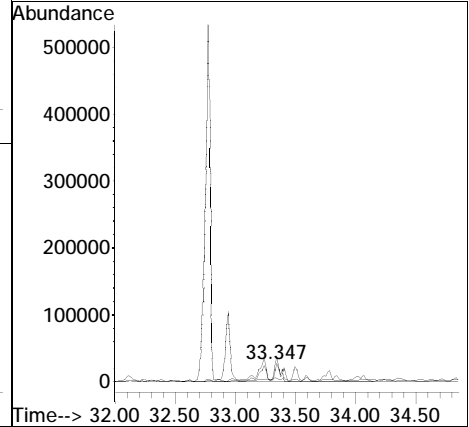
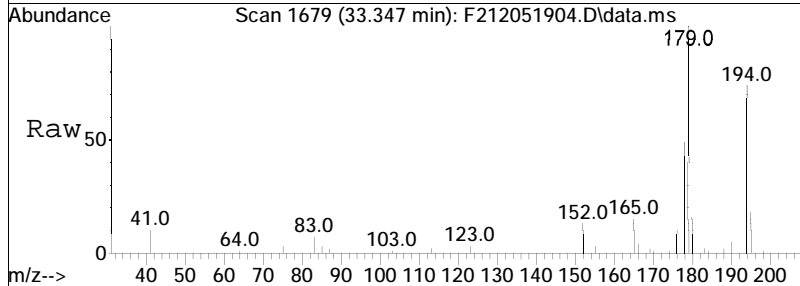
Tgt Ion	Ratio	Lower	Upper
180	100		
165	39.6	97.6	181.2#

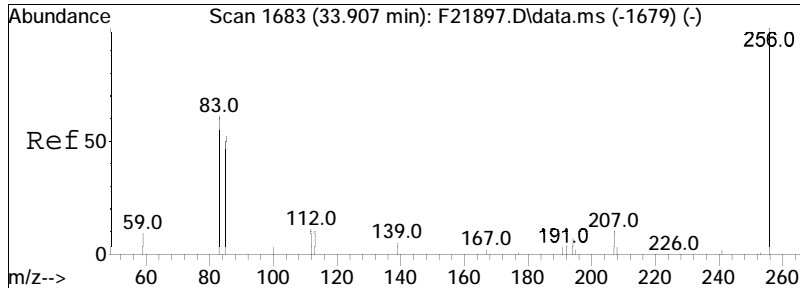




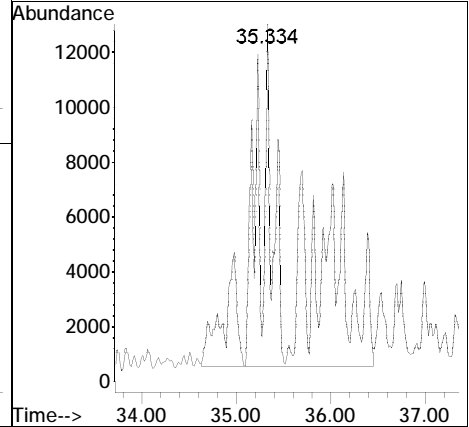
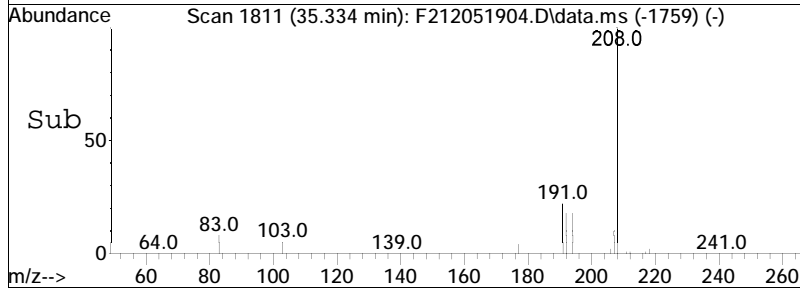
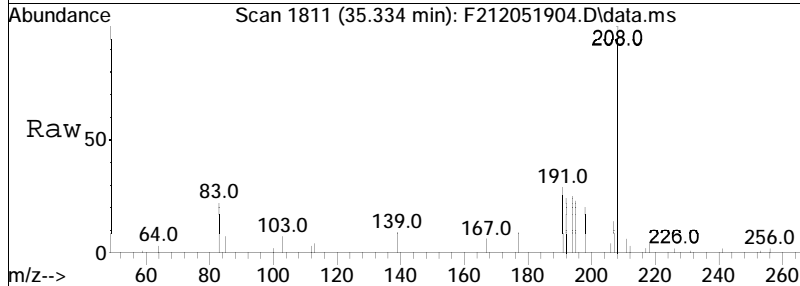
#29
 C2-Fluorenes
 Concen: 2541.07 ng/mL M5
 RT: 33.347 min Scan# 1679
 Delta R.T. -0.087 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

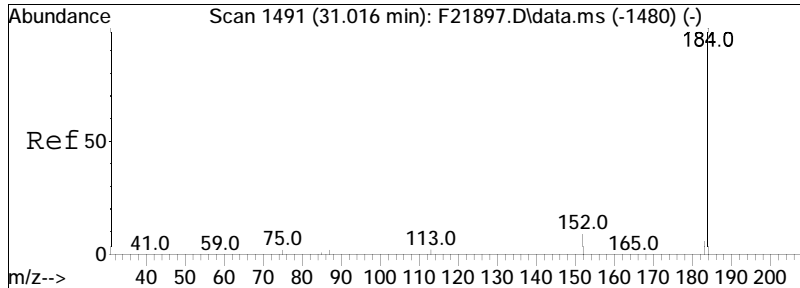
Tgt Ion	Resp	Lower	Upper
194	486662		
194	100		
179	0.0	0.0	0.0
195	2.7	25.7	47.7#





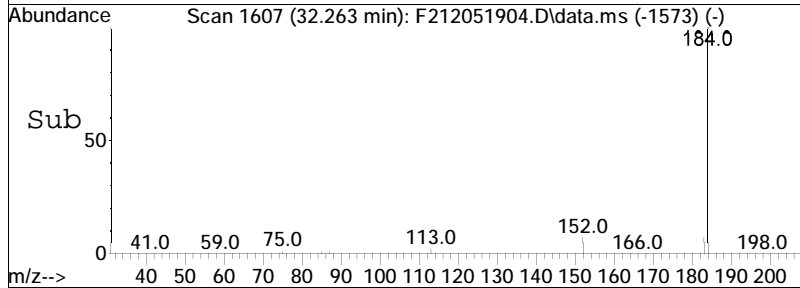
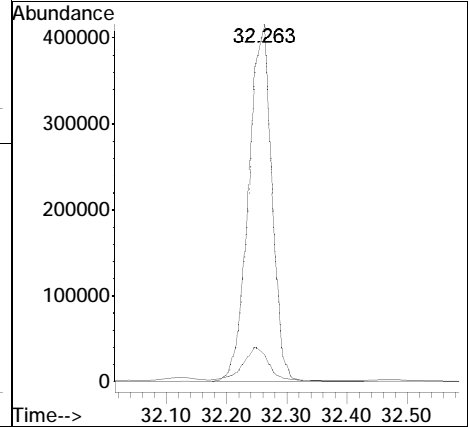
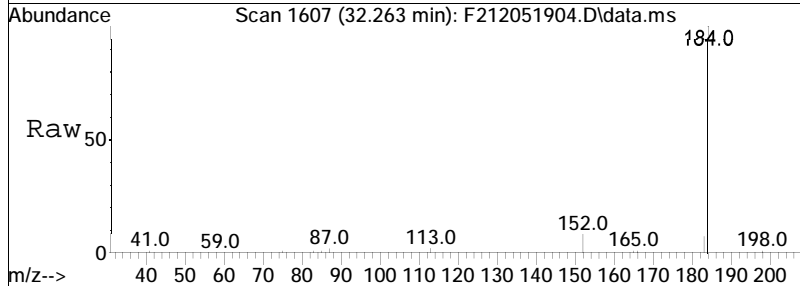
#30
 C3-Fluorenes
 Concen: 1705.46 ng/mL M5
 RT: 35.334 min Scan# 1811
 Delta R.T. 0.085 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion: 208 Resp: 326628

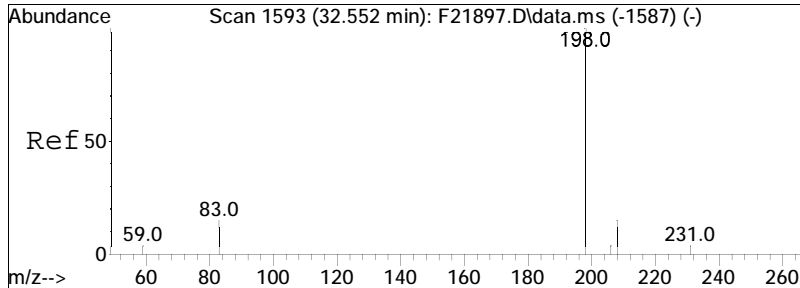




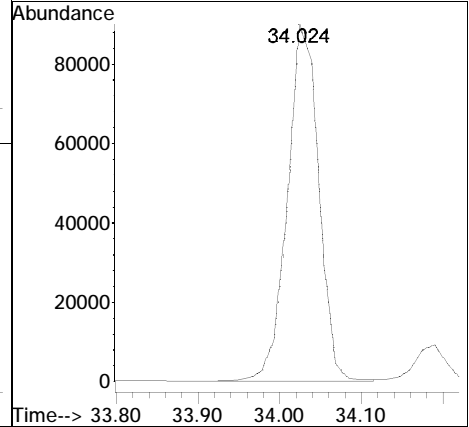
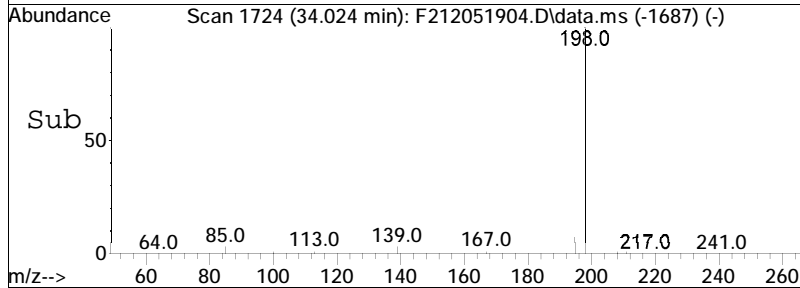
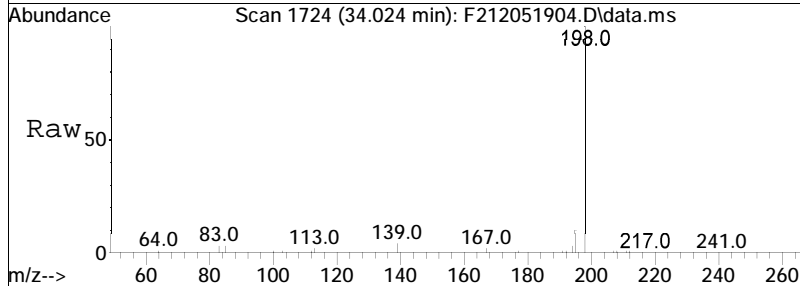
#31
 Dibenzothiophene
 Concen: 4234.12 ng/mL
 RT: 32.263 min Scan# 1607
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

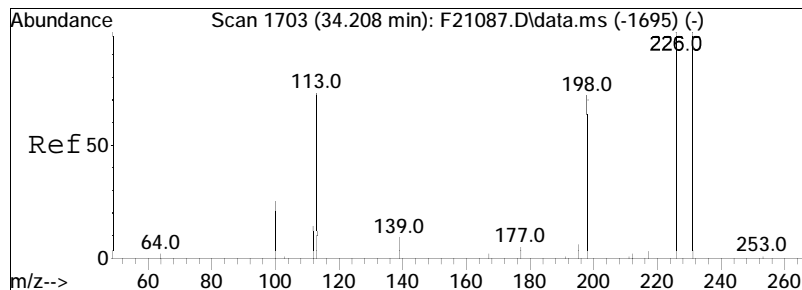
Tgt Ion: 184 Resp: 1098310
 Ion Ratio Lower Upper
 184 100
 152 10.3 5.7 10.5



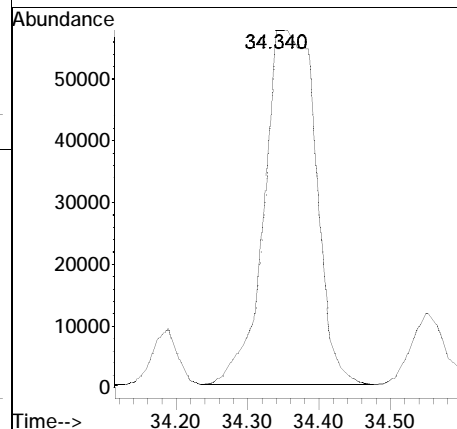
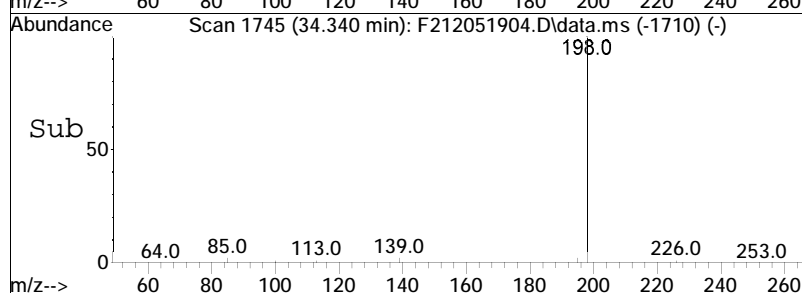
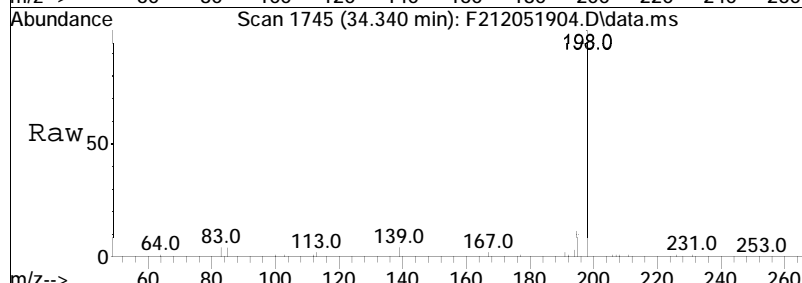


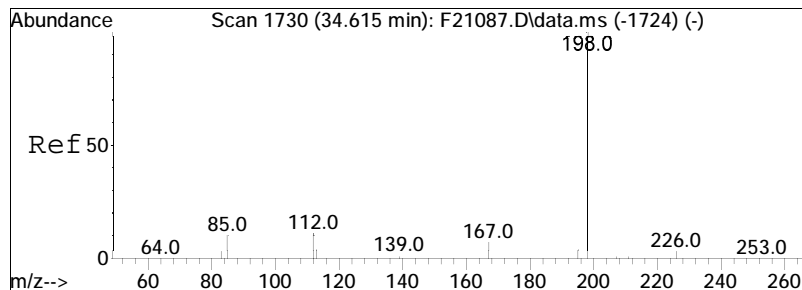
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 908.20 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:198 Resp: 235584



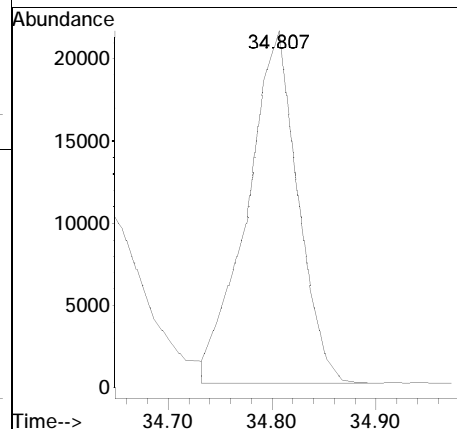
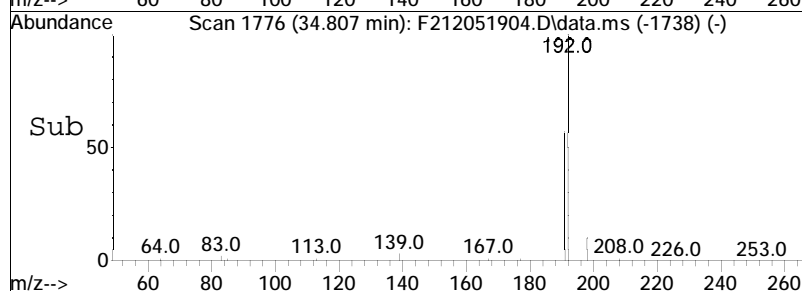
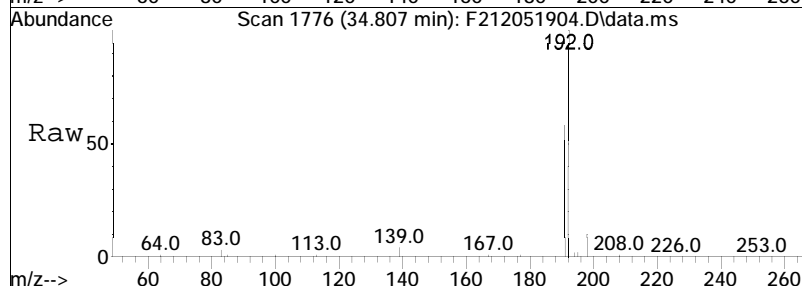


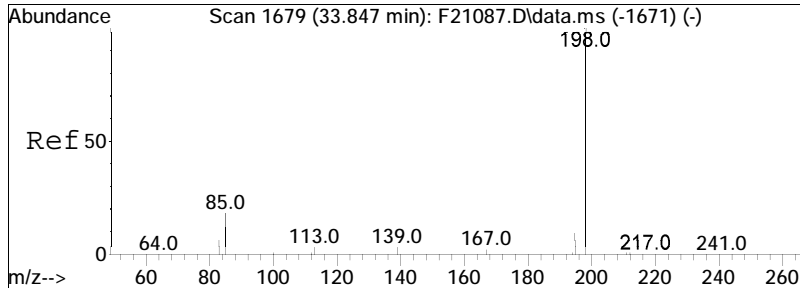
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 1091.26 ng/mL
 RT: 34.340 min Scan# 1745
 Delta R.T. 0.025 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:198 Resp: 283068



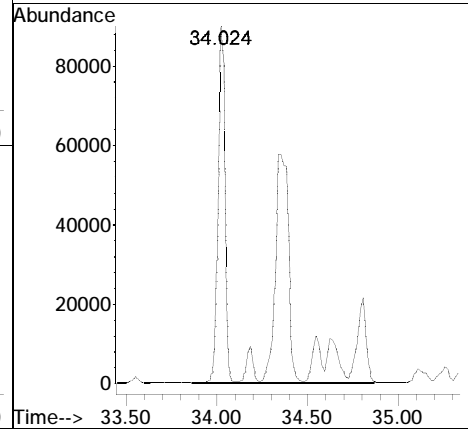
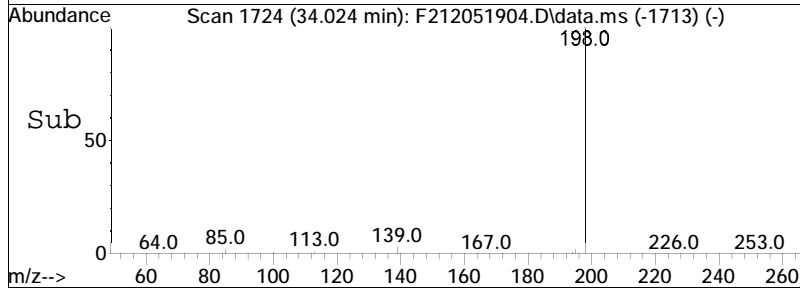
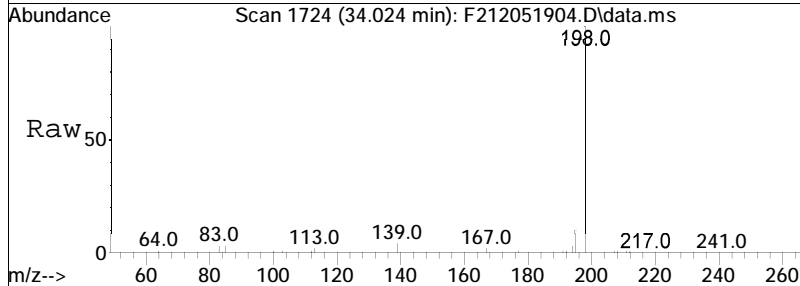


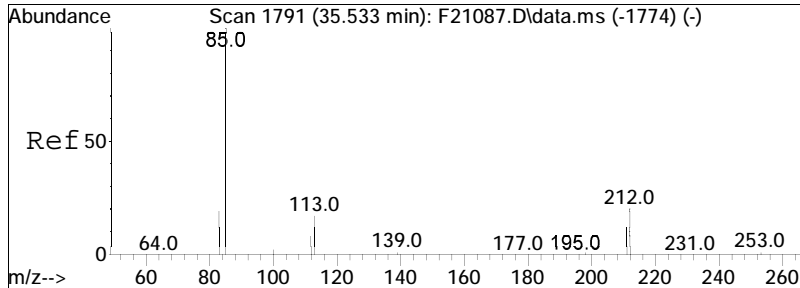
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 279.37 ng/mL
 RT: 34.807 min Scan# 1776
 Delta R.T. 0.073 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:198 Resp: 72468



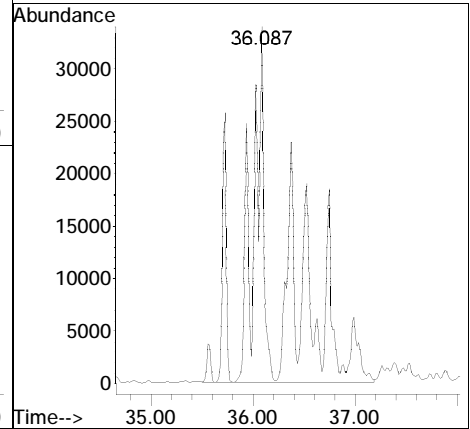
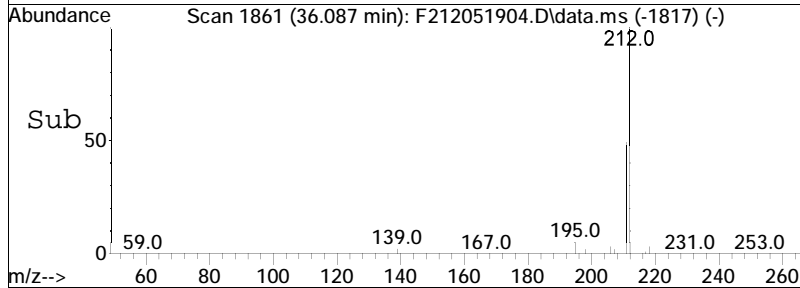
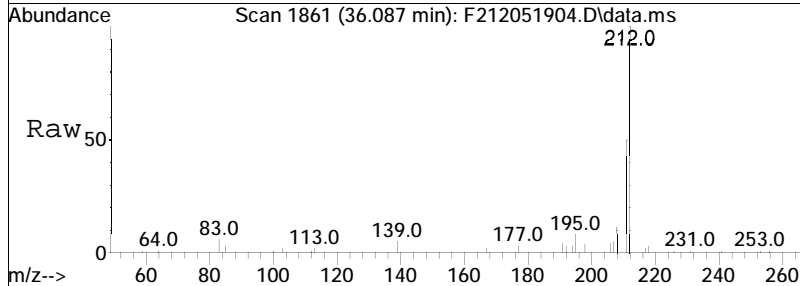


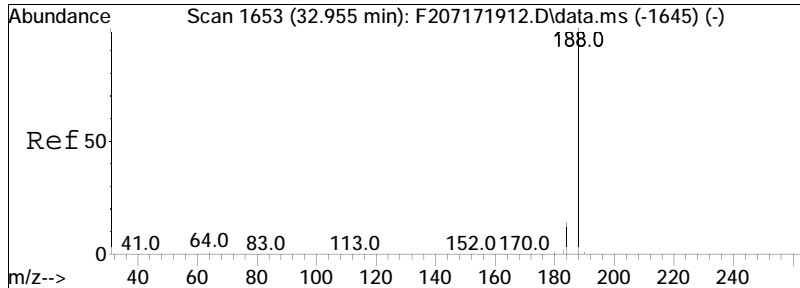
#36
 Cl-Dibenzothiophenes
 Concen: 2739.06 ng/mL M5
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:198 Resp: 710499





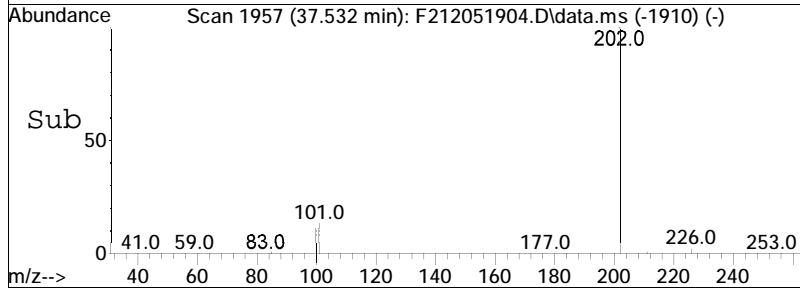
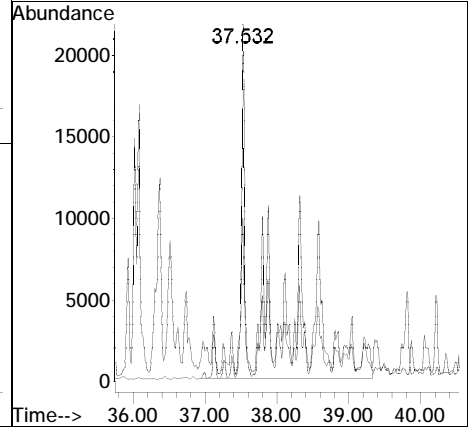
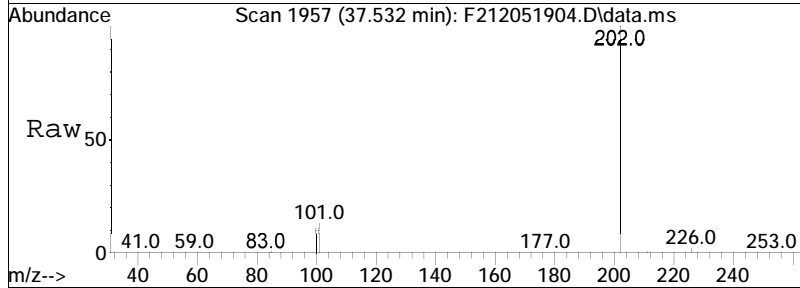
#37
 C2-Dibenzothiophenes
 Concen: 2388.10 ng/mL M5
 RT: 36.087 min Scan# 1861
 Delta R.T. 0.441 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:212 Resp: 619462

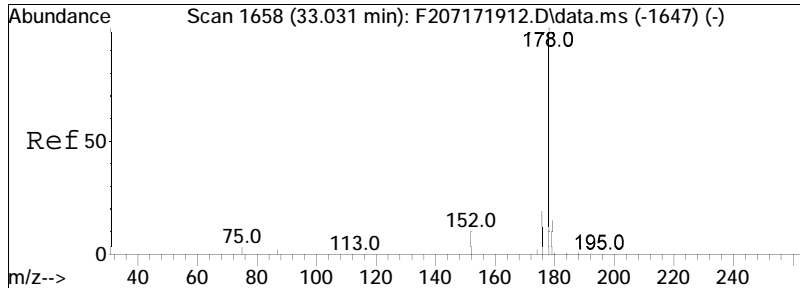




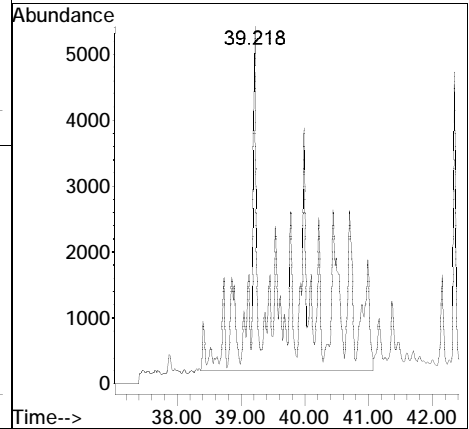
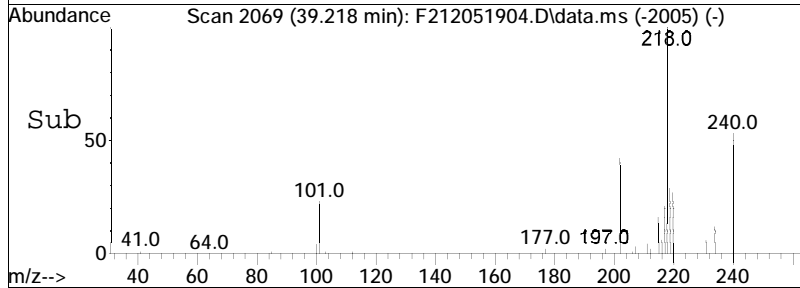
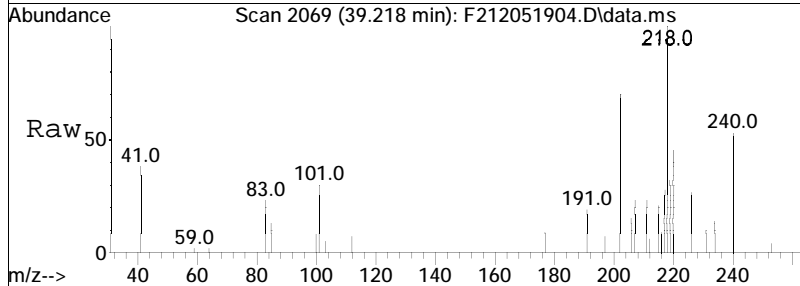
#38
 C3-Dibenzothiophenes
 Concen: 1341.62 ng/mL M5
 RT: 37.532 min Scan# 1957
 Delta R.T. 0.093 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

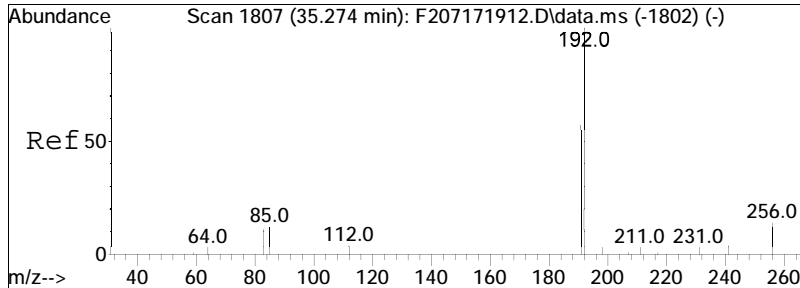
Tgt Ion: 226 Resp: 348009
 Ion Ratio Lower Upper
 226 100
 211 10.4 38.6 71.6#





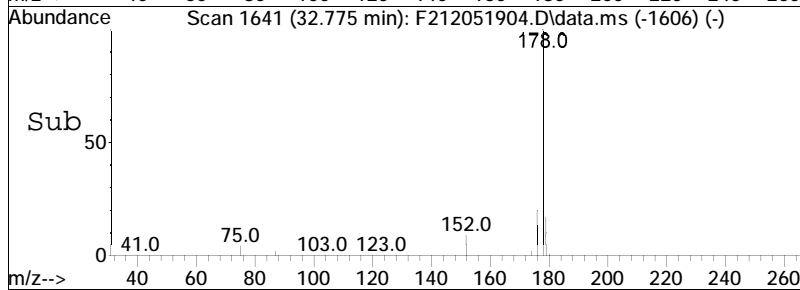
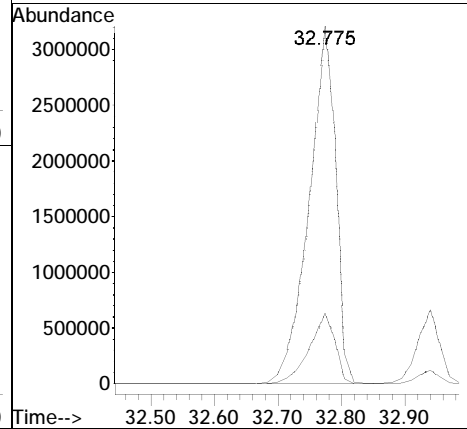
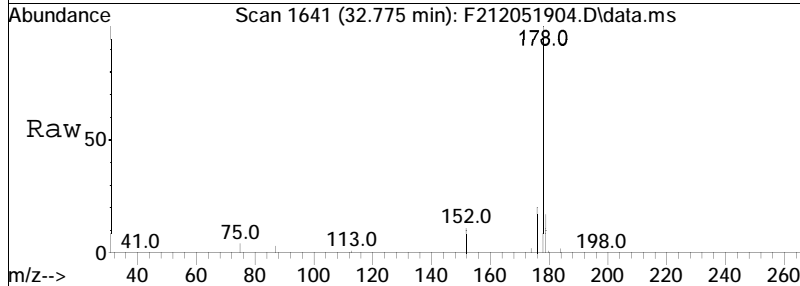
#39
 C4-Dibenzothiophenes
 Concen: 542.62 ng/mL M5
 RT: 39.218 min Scan# 2069
 Delta R.T. 0.105 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:240 Resp: 140754

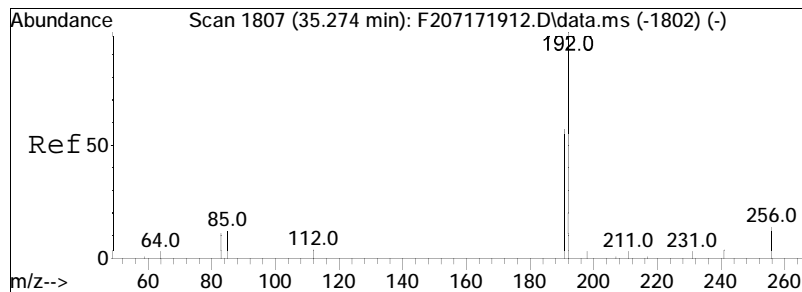




#41
 Phenanthrene
 Concen: 33580.88 ng/mL
 RT: 32.775 min Scan# 1641
 Delta R.T. 0.030 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

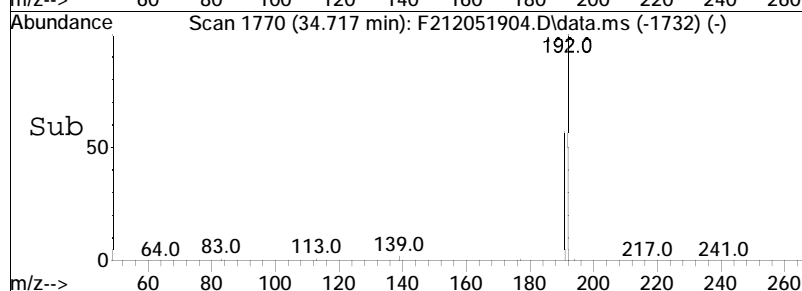
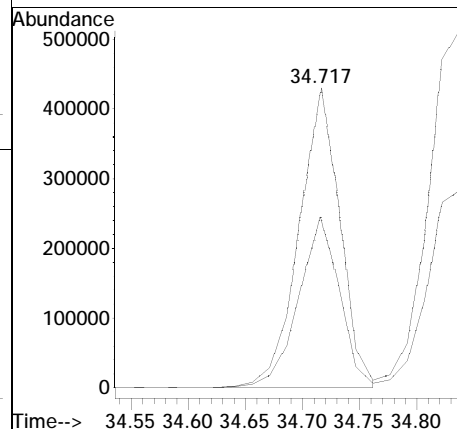
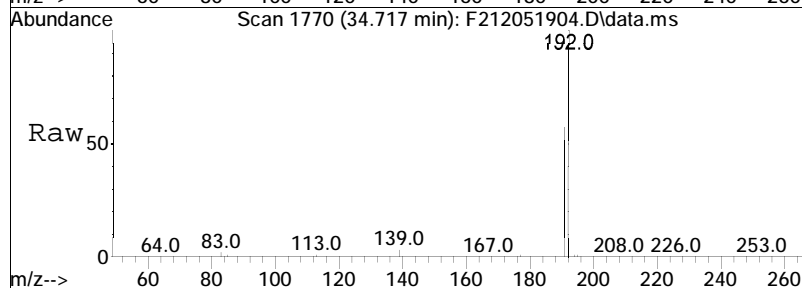
Tgt Ion: 178 Resp: 9265935
 Ion Ratio Lower Upper
 178 100
 176 19.3 13.0 24.1

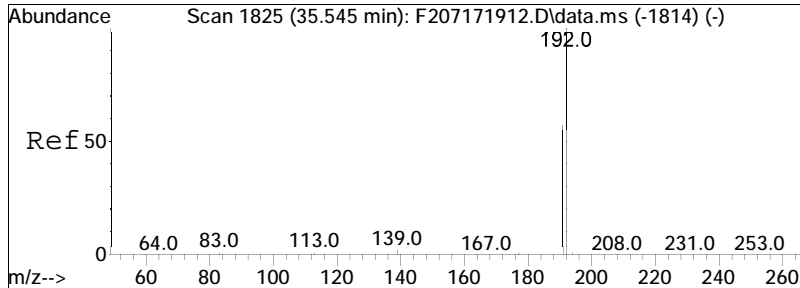




#42
 3-Methylphenanthrene (3MP)
 Concen: 3862.47 ng/mL
 RT: 34.717 min Scan# 1770
 Delta R.T. 0.072 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

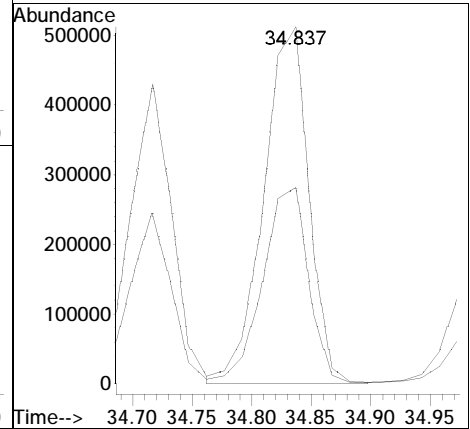
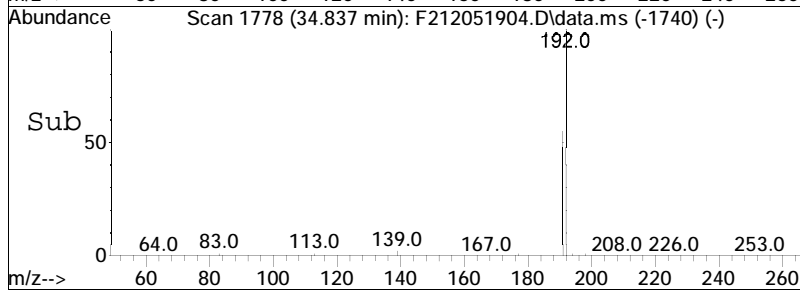
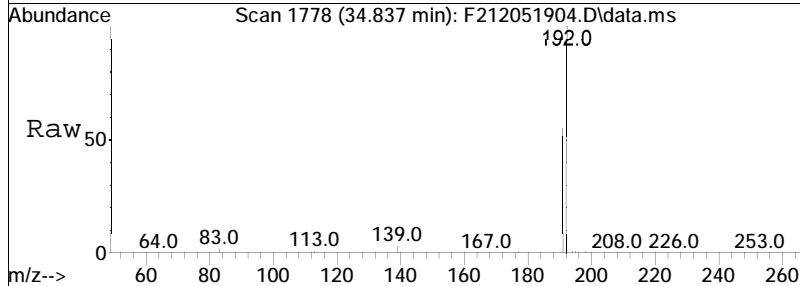
Tgt Ion: 192 Resp: 1065767
 Ion Ratio Lower Upper
 192 100
 191 56.9 42.1 78.1

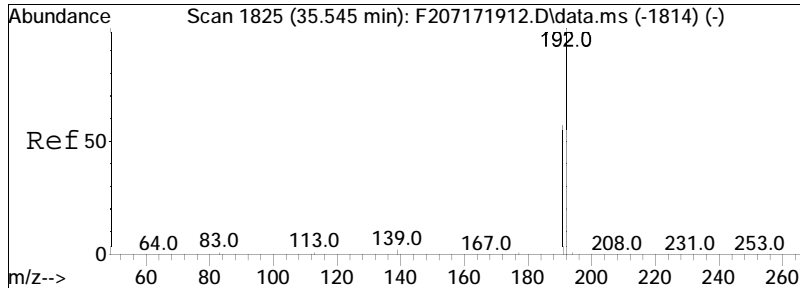




#43
 2-Methylphenanthrene (2MP)
 Concen: 4889.92 ng/mL M3
 RT: 34.837 min Scan# 1778
 Delta R.T. 0.073 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

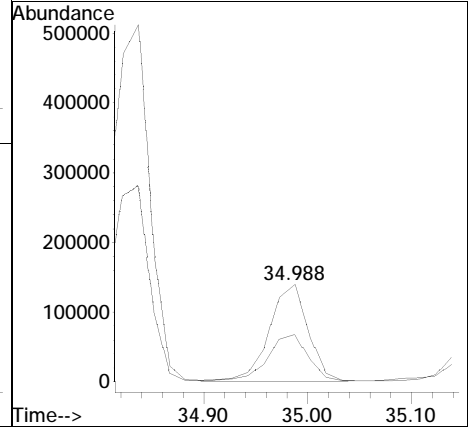
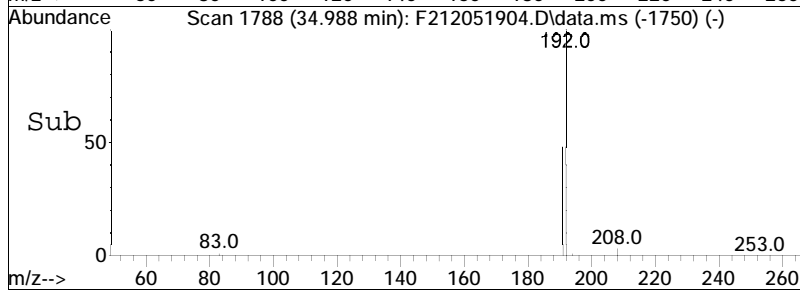
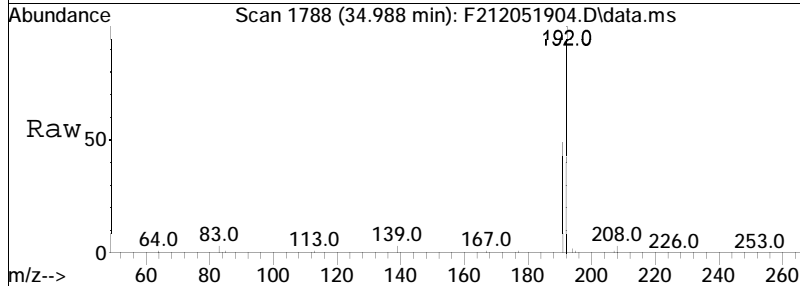
Tgt Ion	Resp	Lower	Upper
192	1349269		
191	45.0	40.5	75.3

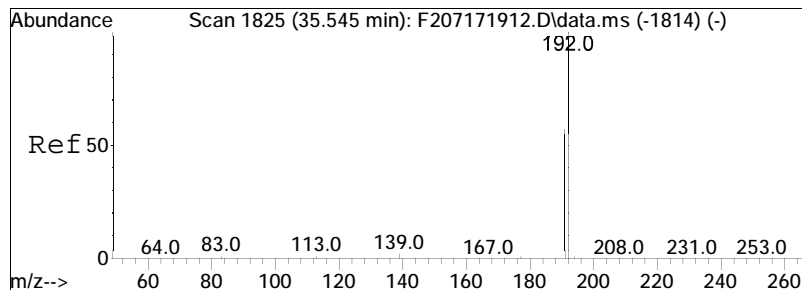




#44
 2-Methylantracene(2MA)
 Concen: 1292.85 ng/mL
 RT: 34.988 min Scan# 1788
 Delta R.T. 0.074 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

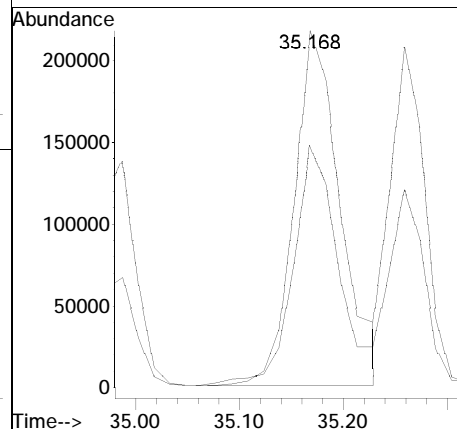
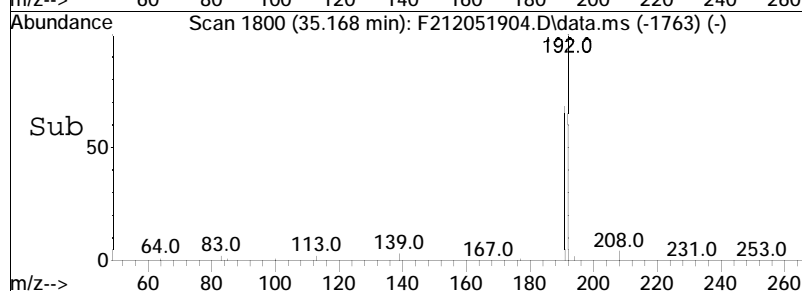
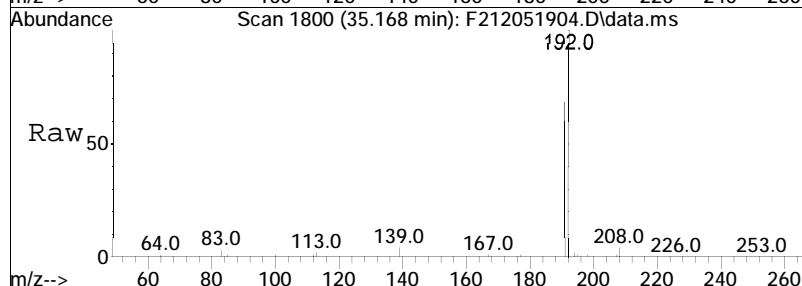
Tgt Ion	Resp	Lower	Upper
192	100		
191	49.5	85.2	158.2#

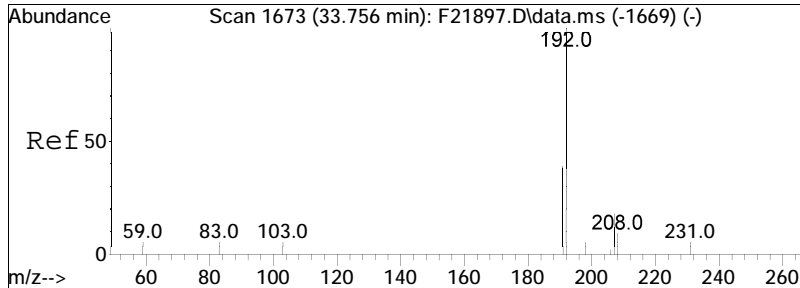




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 2434.34 ng/mL
 RT: 35.168 min Scan# 1800
 Delta R.T. 0.061 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

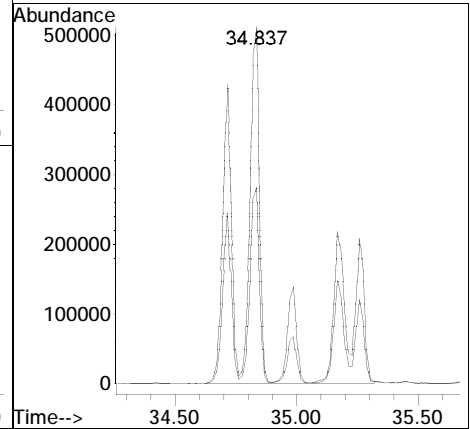
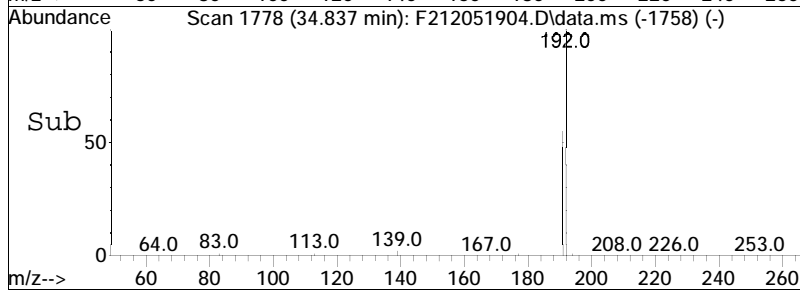
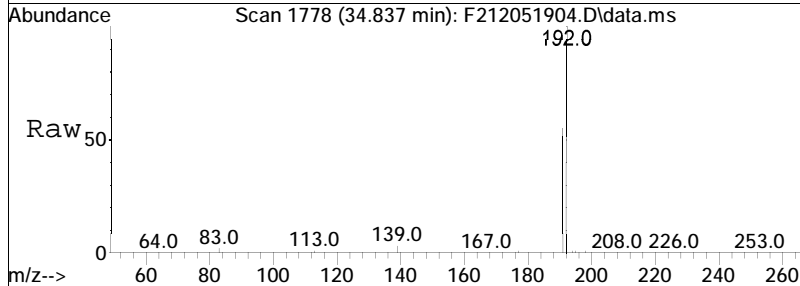
Tgt Ion	Resp	Lower	Upper
192	100		
191	63.1	39.7	73.7

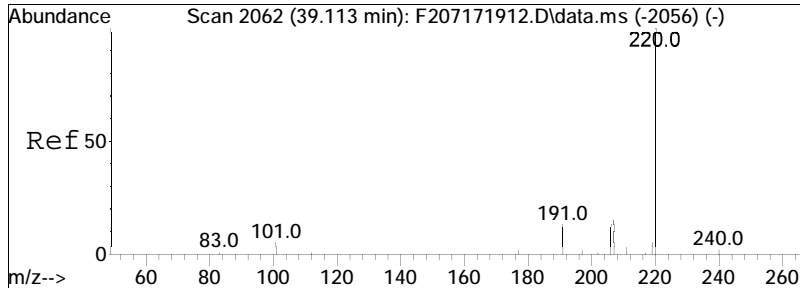




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 14261.80 ng/mL M5
 RT: 34.837 min Scan# 1778
 Delta R.T. -0.271 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

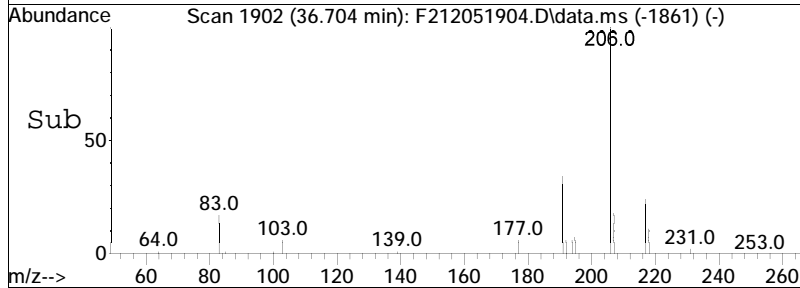
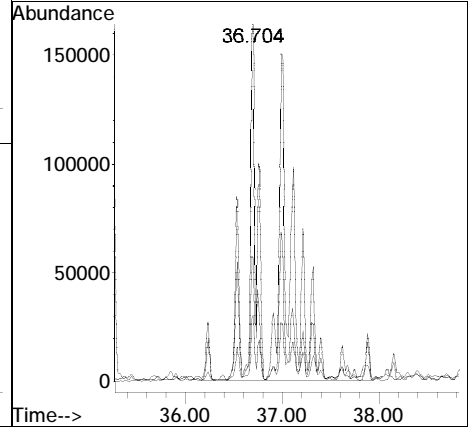
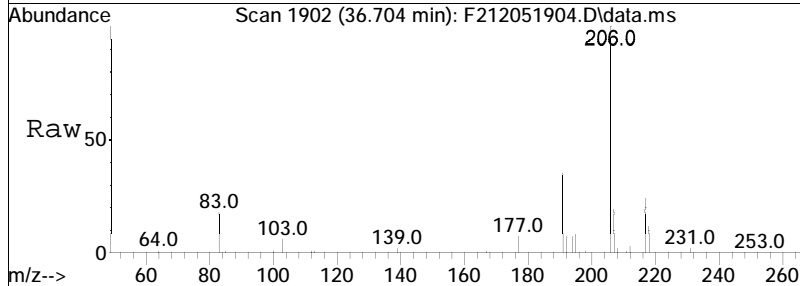
Tgt Ion: 192 Resp: 3935242
 Ion Ratio Lower Upper
 192 100
 191 10.2 39.7 73.7#

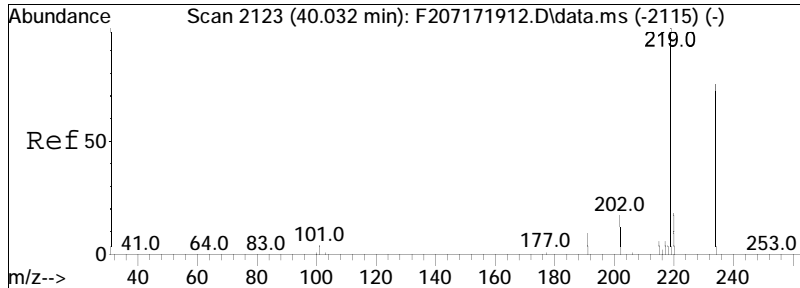




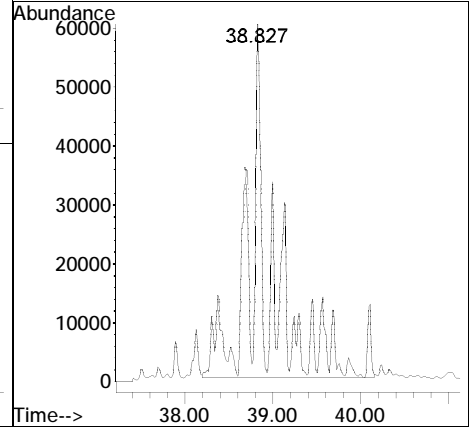
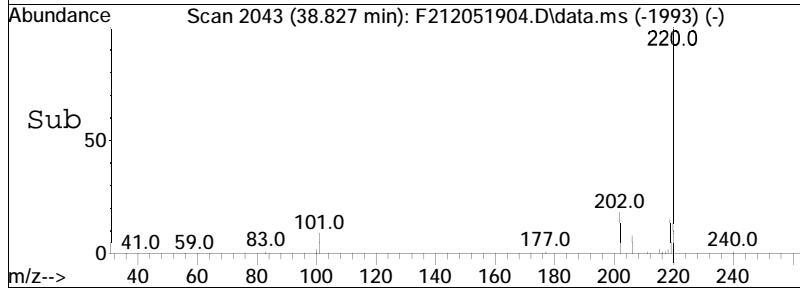
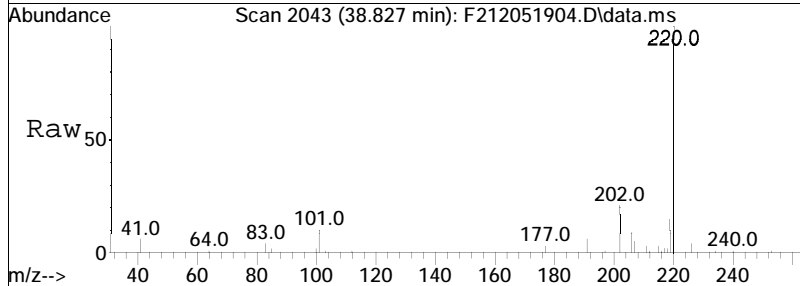
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 8622.27 ng/mL M5
 RT: 36.704 min Scan# 1902
 Delta R.T. -0.197 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

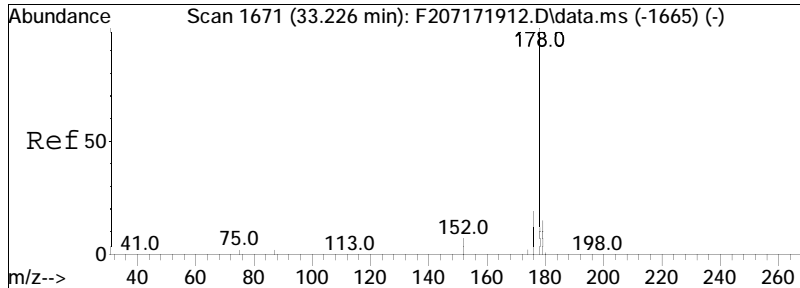
Tgt Ion	Ratio	Lower	Upper
206	100		
191	10.5	33.9	62.9#
207	3.4	13.9	25.7#





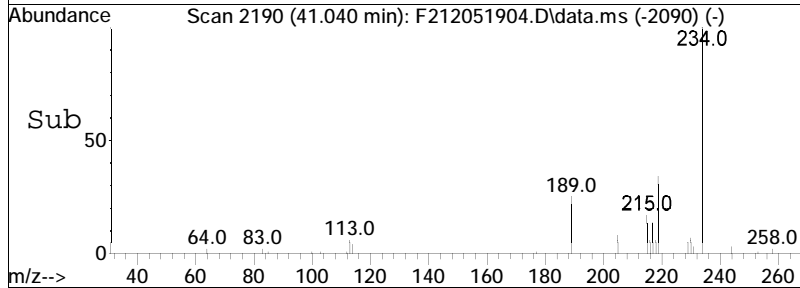
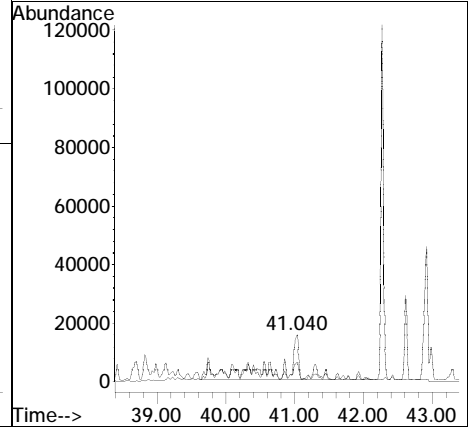
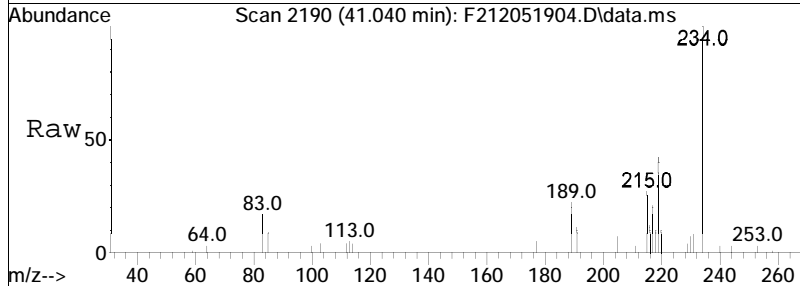
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 3602.43 ng/mL M5
 RT: 38.827 min Scan# 2043
 Delta R.T. 0.087 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:220 Resp: 994013

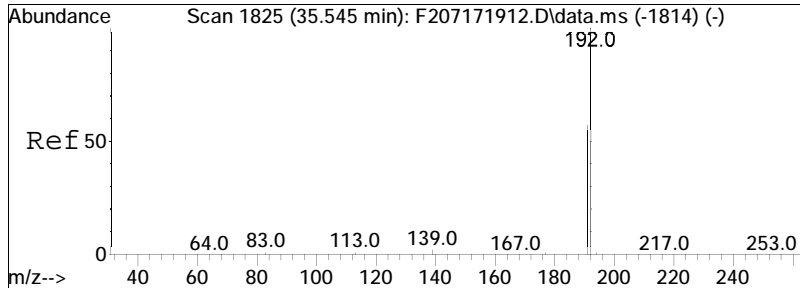




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 1194.57 ng/mL M5
 RT: 41.040 min Scan# 2190
 Delta R.T. 0.148 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

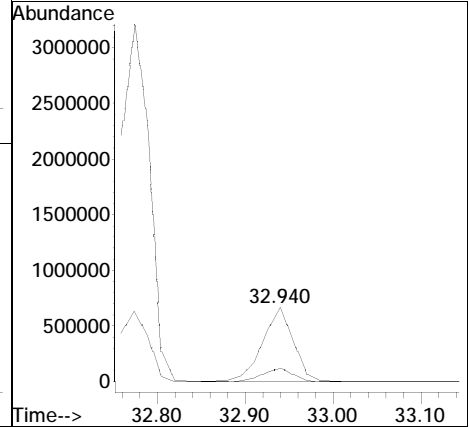
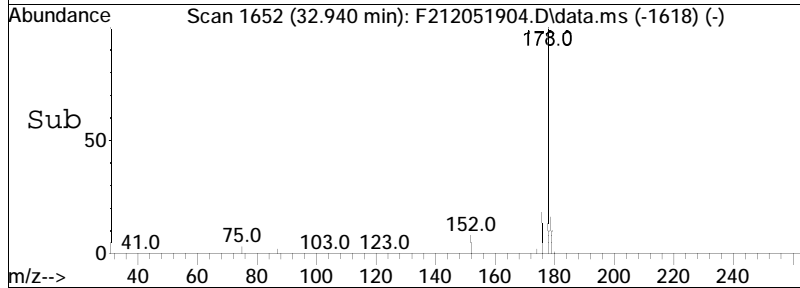
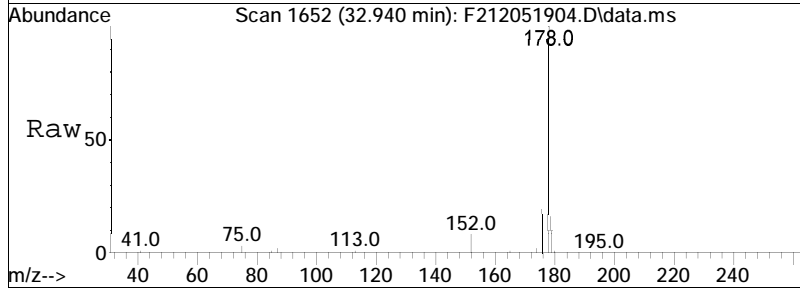
Tgt Ion	Resp	Lower	Upper
234	100		
219	1.4	39.5	73.3#

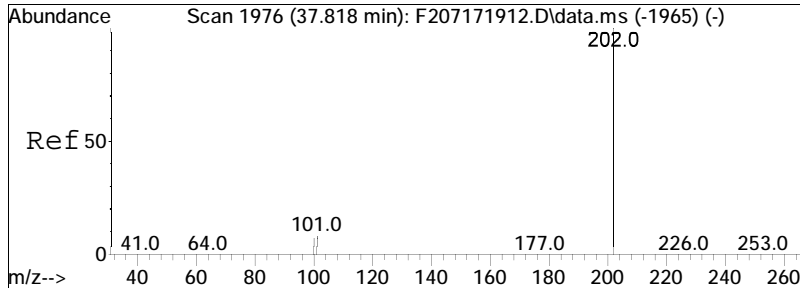




#53
 Anthracene
 Concen: 6789.71 ng/mL
 RT: 32.940 min Scan# 1652
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

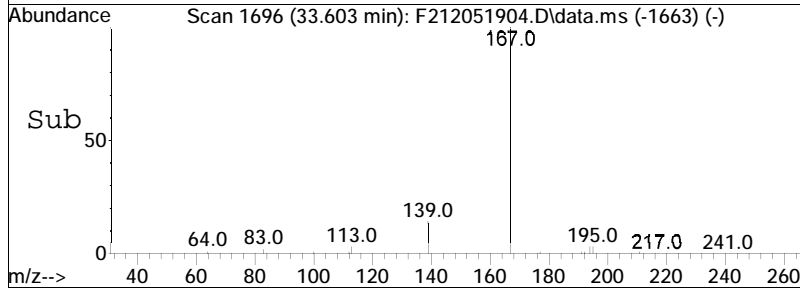
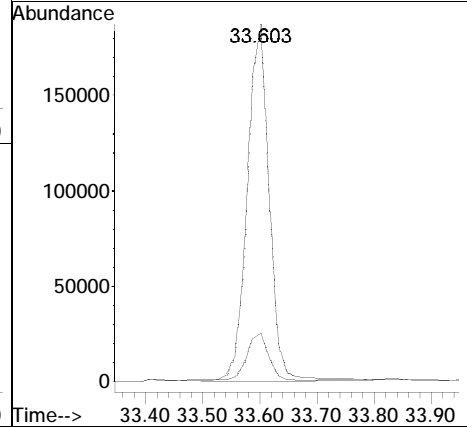
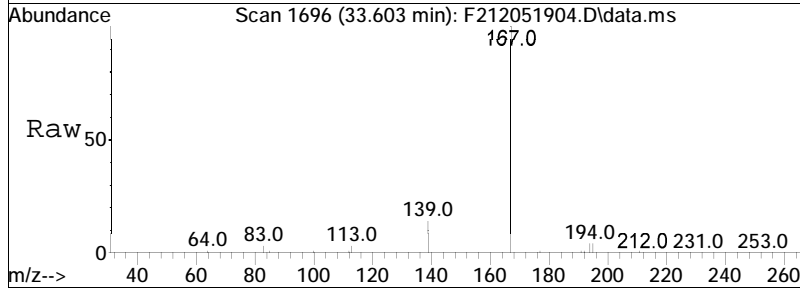
Tgt Ion:178 Resp: 1597131
 Ion Ratio Lower Upper
 178 100
 176 18.5 12.5 23.3

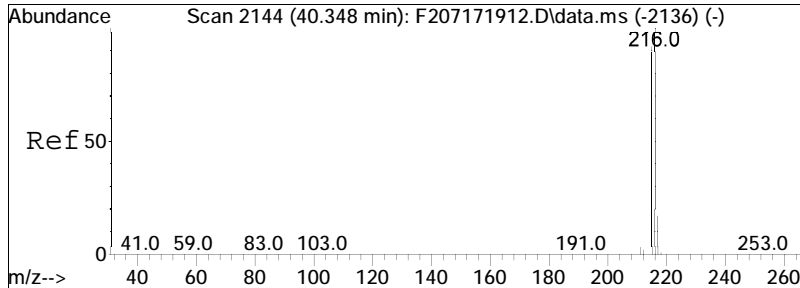




#54
 Carbazole
 Concen: 2232.53 ng/mL
 RT: 33.603 min Scan# 1696
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

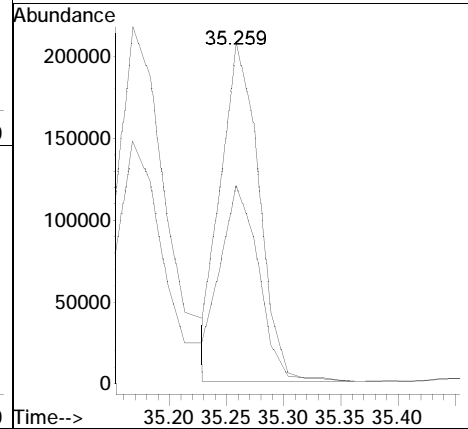
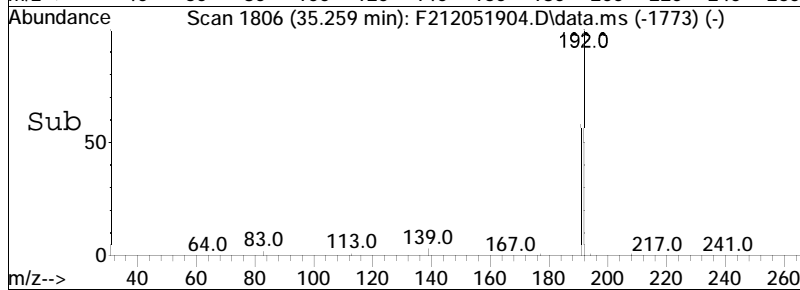
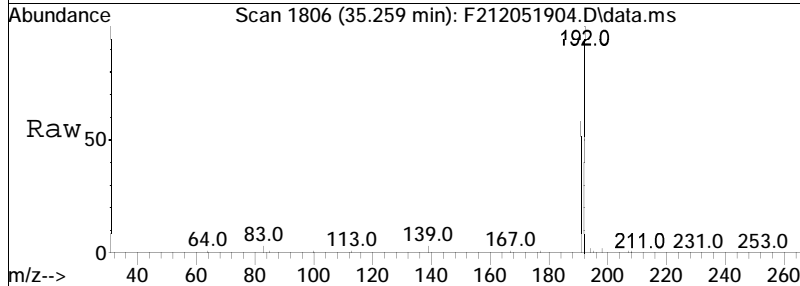
Tgt Ion	Resp	Lower	Upper
167	491300		
167	100		
139	13.4	8.7	16.1

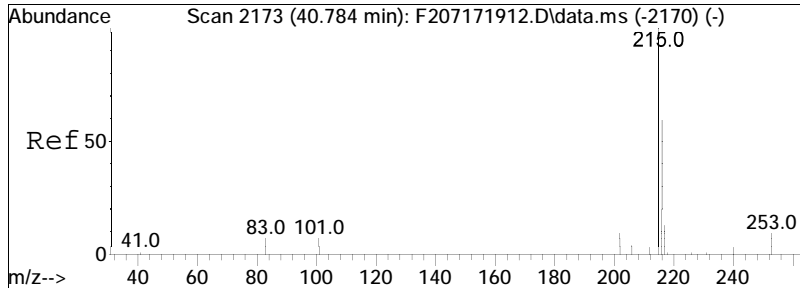




#55
 1-Methylphenanthrene
 Concen: 2303.25 ng/mL
 RT: 35.259 min Scan# 1806
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

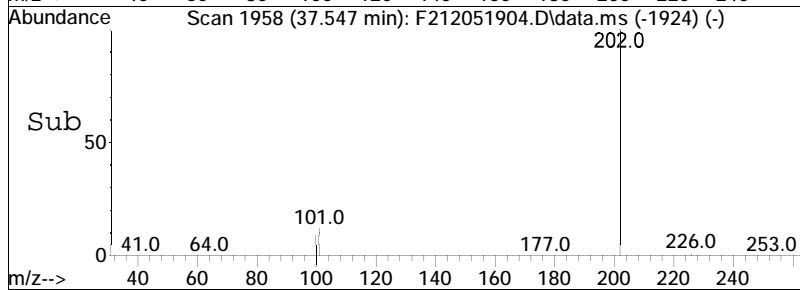
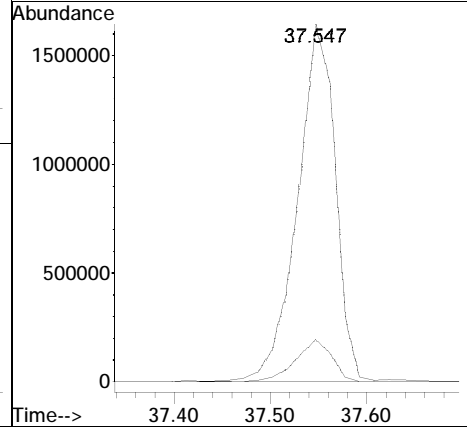
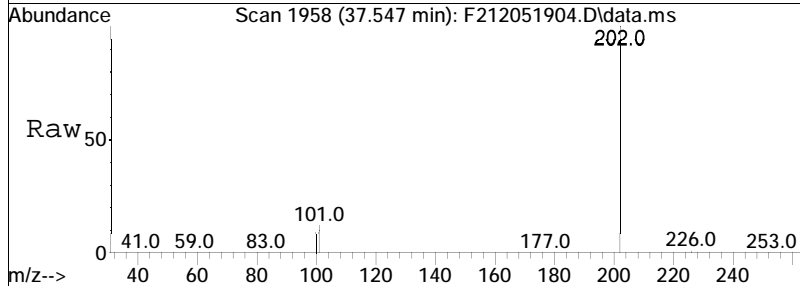
Tgt Ion	Resp	Lower	Upper
192	475937		
192	100		
191	62.9	39.3	73.1

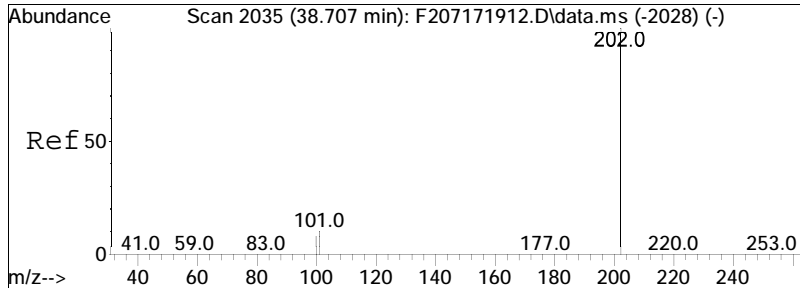




#56
 Fluoranthene
 Concen: 14043.42 ng/mL M4
 RT: 37.547 min Scan# 1958
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

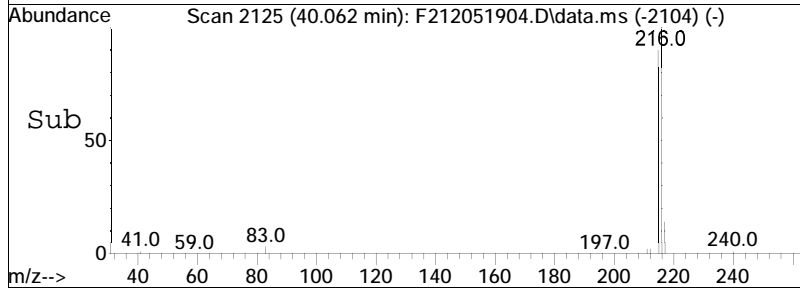
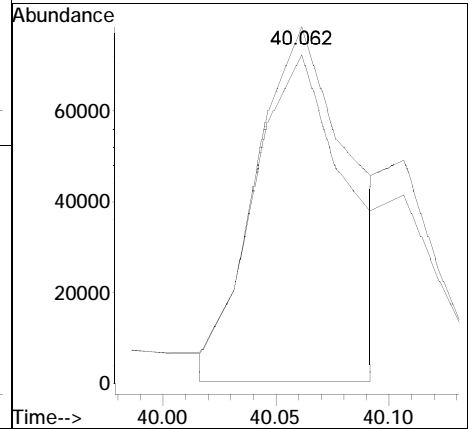
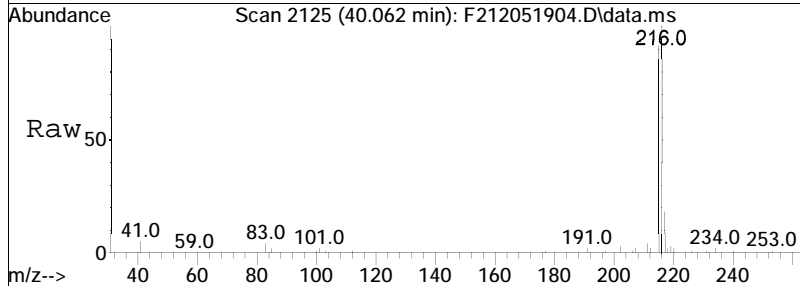
Tgt Ion	Resp	Lower	Upper
202	4419353		
101	11.8	8.0	14.8

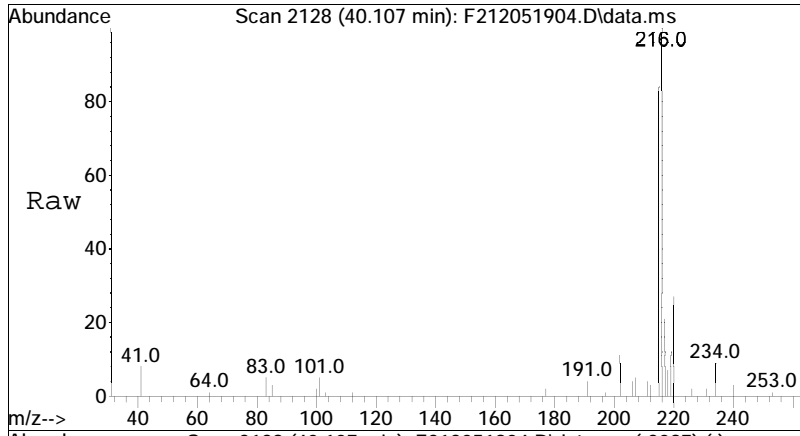




#57
 Benzo(b)fluorene
 Concen: 1168.36 ng/mL M3
 RT: 40.062 min Scan# 2125
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

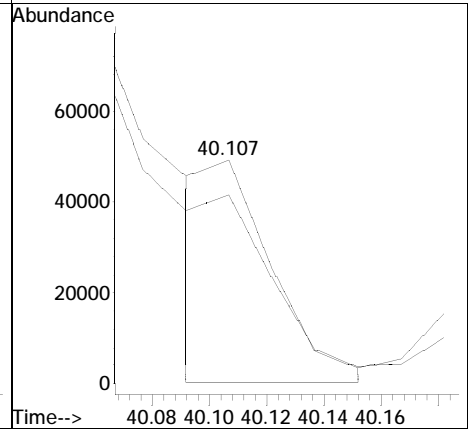
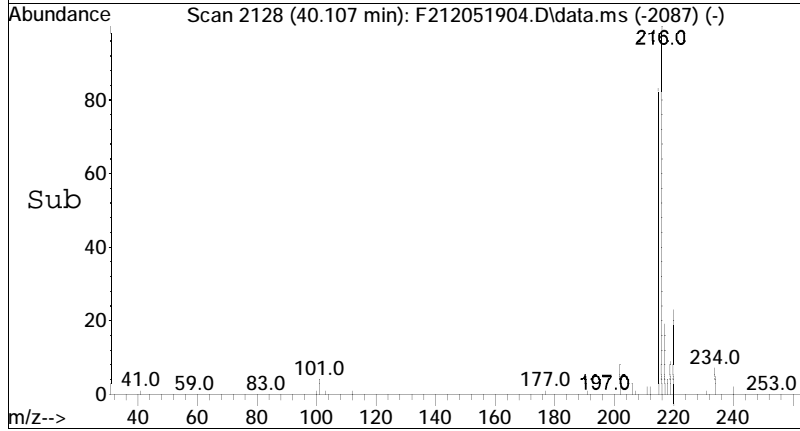
Tgt Ion	Resp	Lower	Upper
216	231314		
216	100		
215	125.2	63.9	118.7#

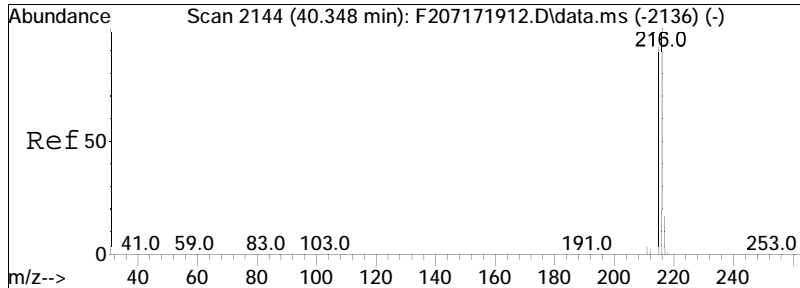




#58
 7H-Benzo(c)fluorene
 Concen: 382.22 ng/mL M3
 RT: 40.107 min Scan# 2128
 Delta R.T. 0.111 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

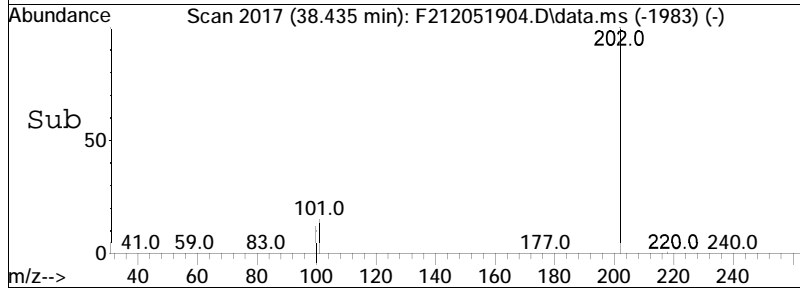
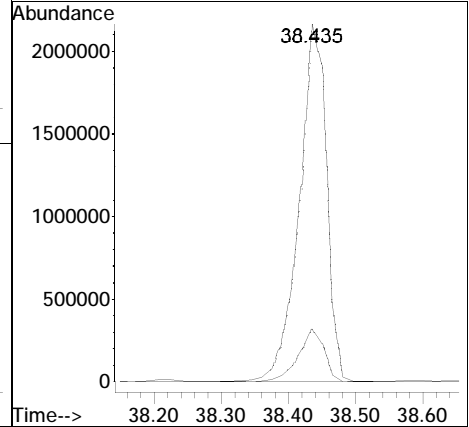
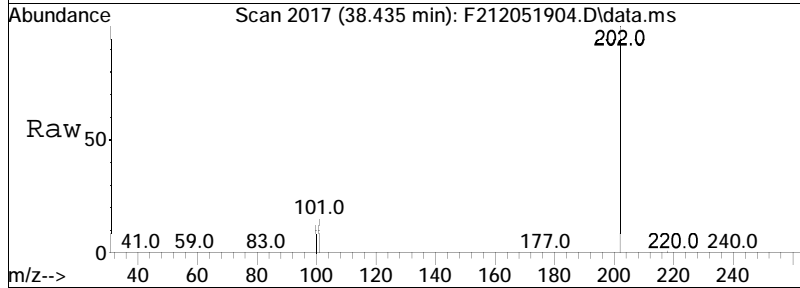
Tgt Ion	Resp	Lower	Upper
216	100		
215	5.0	102.3	189.9#

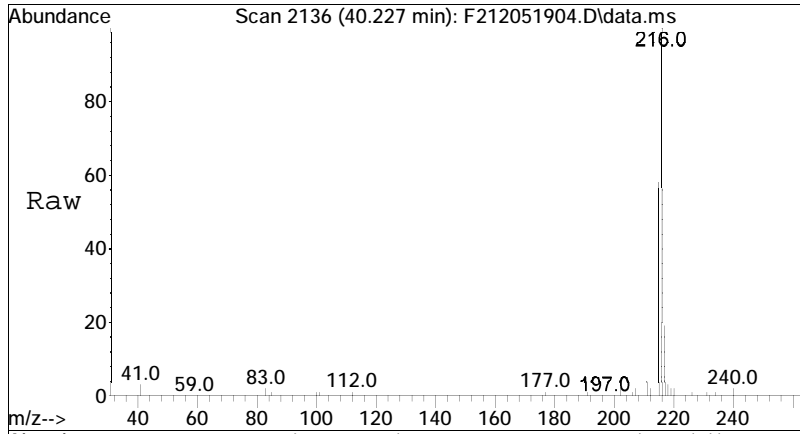




#59
 Pyrene
 Concen: 18403.43 ng/mL
 RT: 38.435 min Scan# 2017
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

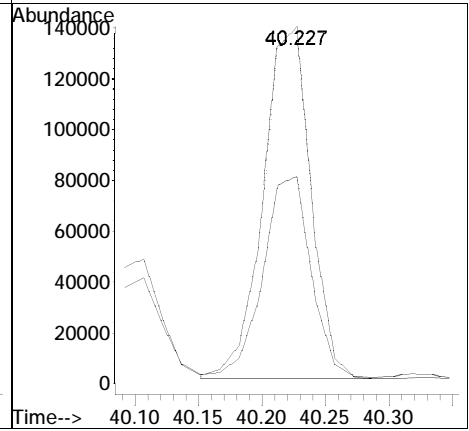
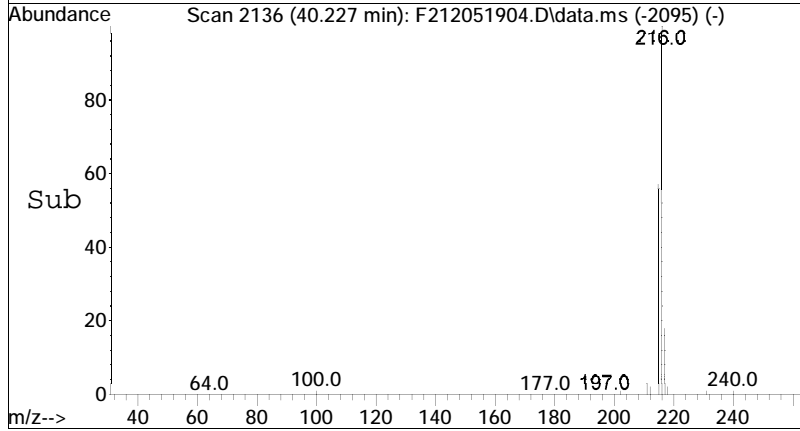
Tgt Ion: 202 Resp: 6013665
 Ion Ratio Lower Upper
 202 100
 101 14.2 9.0 16.8

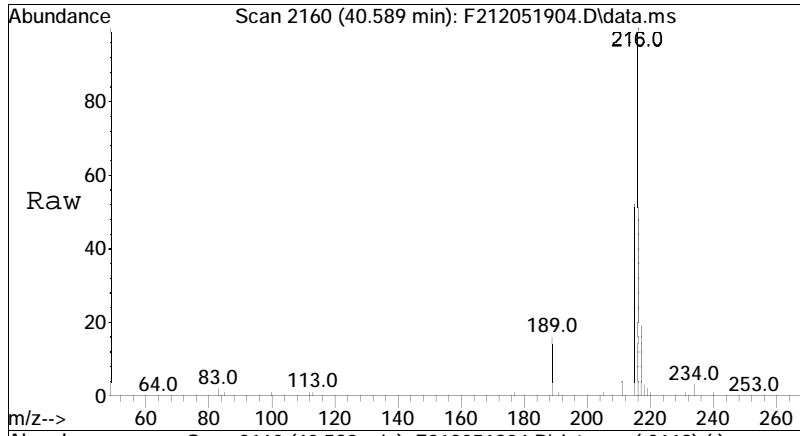




#60
 2-Methylpyrene
 Concen: 1101.91 ng/mL M3
 RT: 40.227 min Scan# 2136
 Delta R.T. 0.112 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

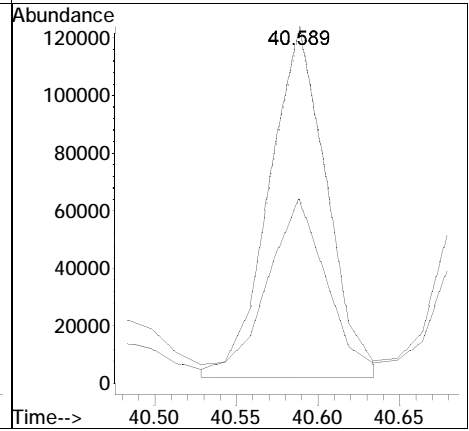
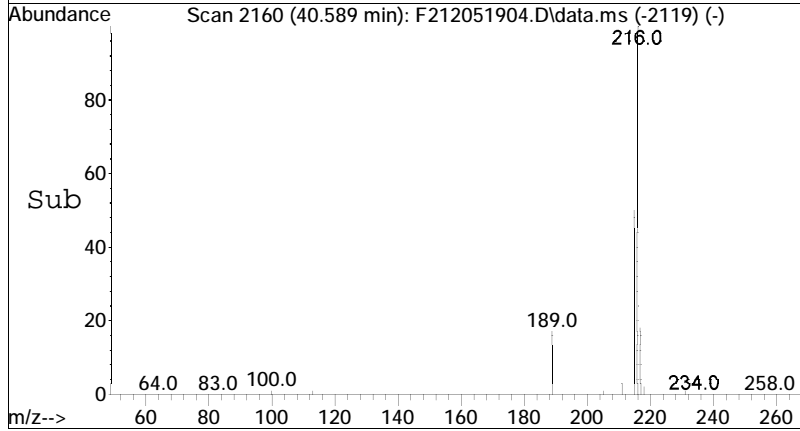
Tgt Ion	Resp	Lower	Upper
216	100		
215	80.4	73.1	135.7

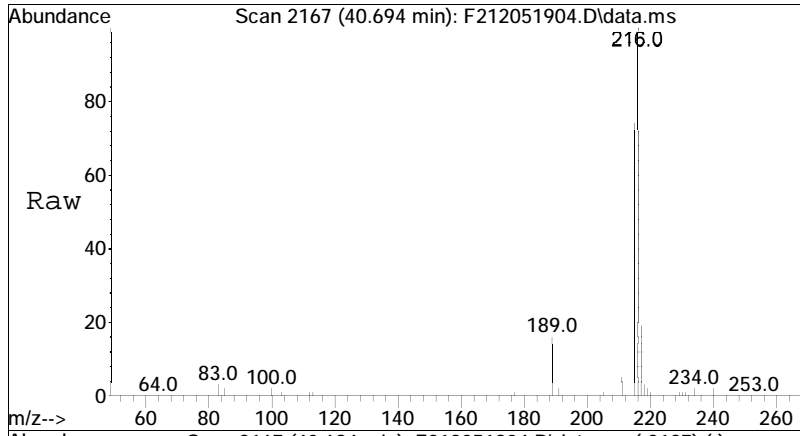




#61
 4-Methylpyrene
 Concen: 906.29 ng/mL
 RT: 40.589 min Scan# 2160
 Delta R.T. 0.115 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

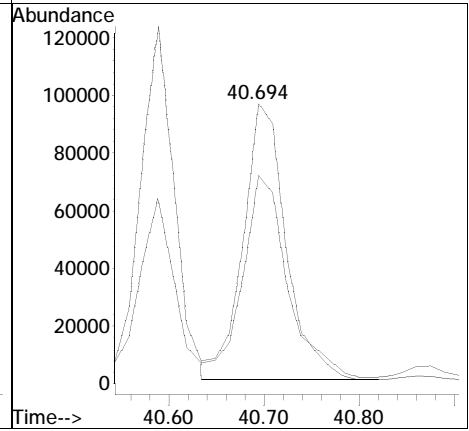
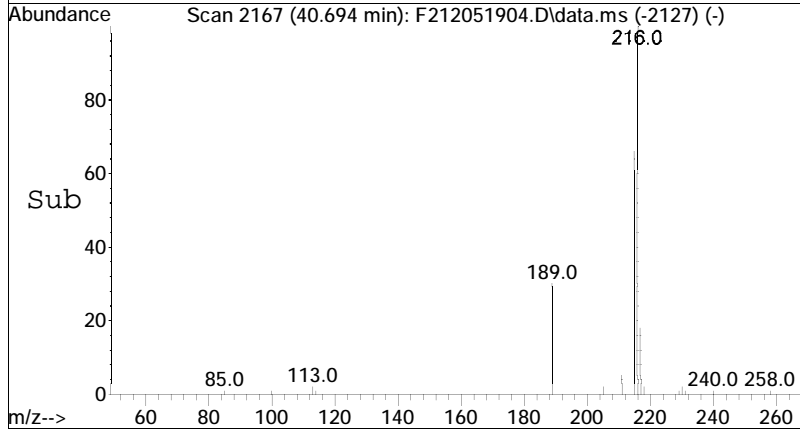
Tgt Ion	Resp	Lower	Upper
216	100		
215	51.7	49.5	91.9

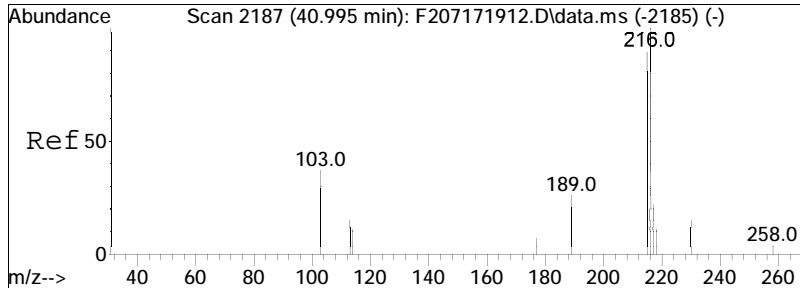




#62
 1-Methylpyrene
 Concen: 917.75 ng/mL
 RT: 40.694 min Scan# 2167
 Delta R.T. 0.101 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

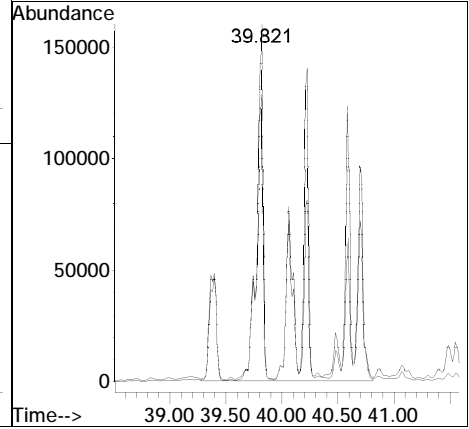
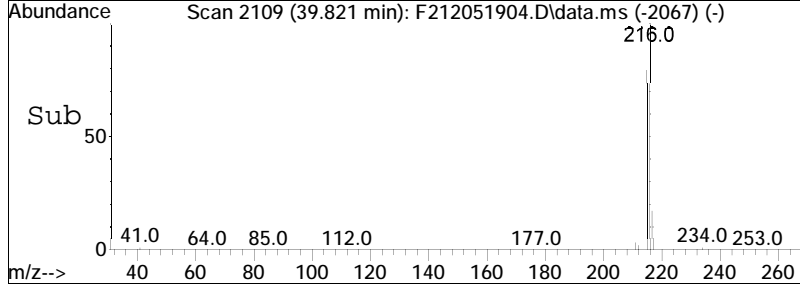
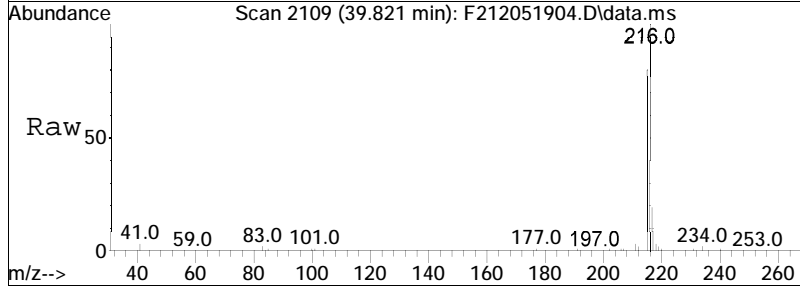
Tgt Ion	Resp	Lower	Upper
216	100		
215	76.2	73.7	136.9

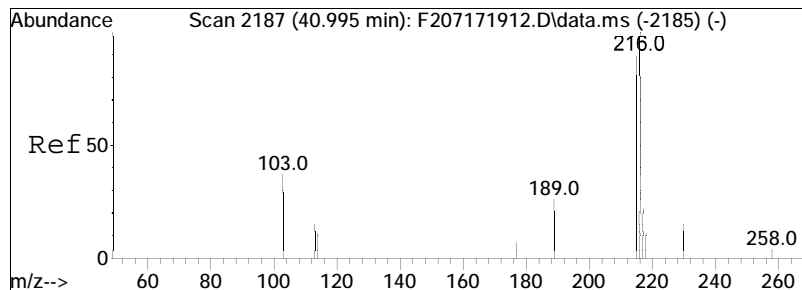




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 6691.46 ng/mL M5
 RT: 39.821 min Scan# 2109
 Delta R.T. 0.109 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

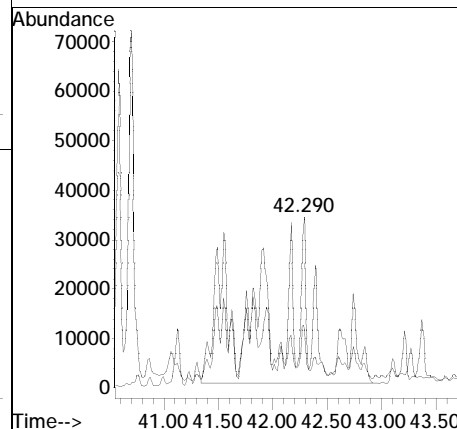
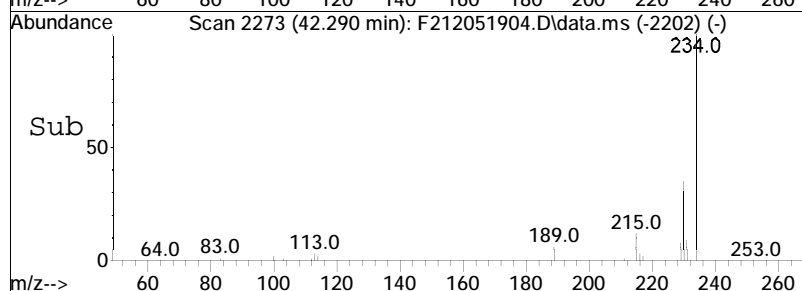
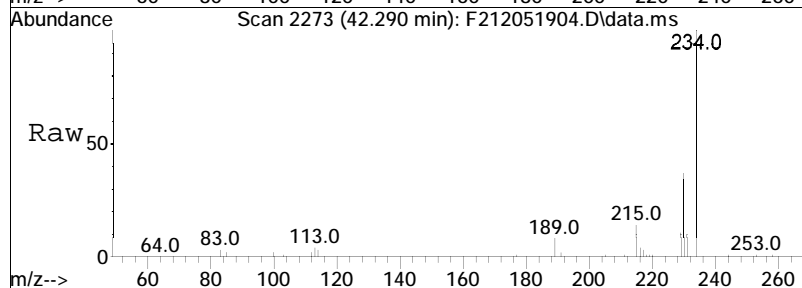
Tgt Ion: 216 Resp: 2186559
 Ion Ratio Lower Upper
 216 100
 215 23.3 66.0 122.6#

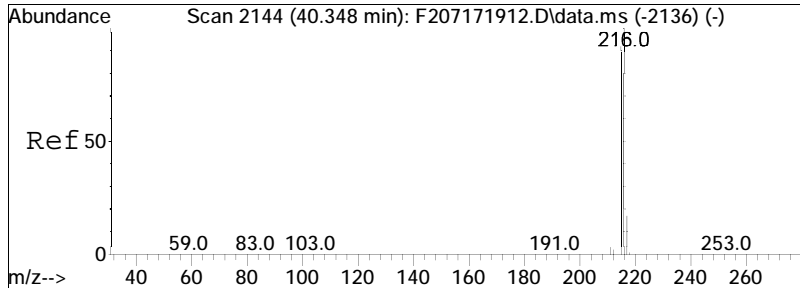




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 2967.80 ng/mL M5
 RT: 42.290 min Scan# 2273
 Delta R.T. 0.785 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

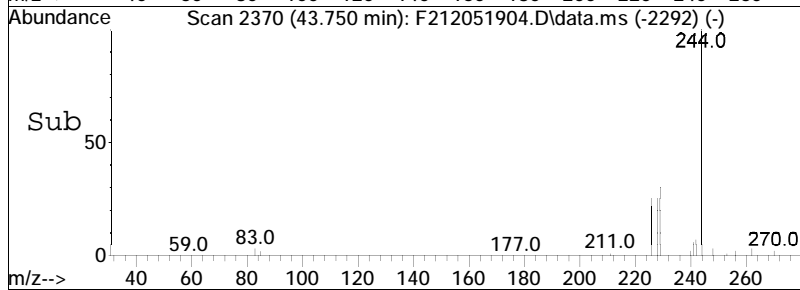
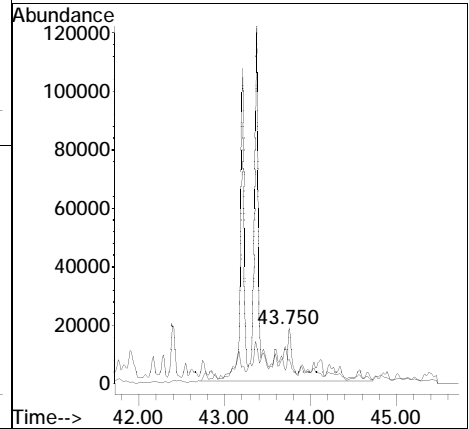
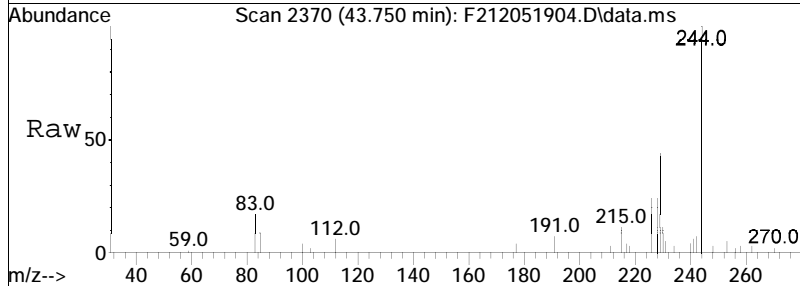
Tgt Ion	Resp	Lower	Upper
230	100		
215	3.0	74.8	138.8#

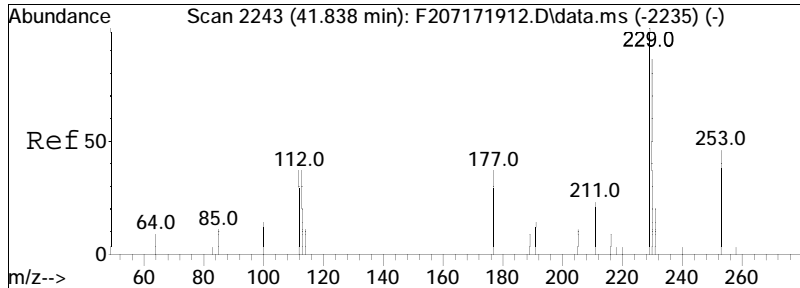




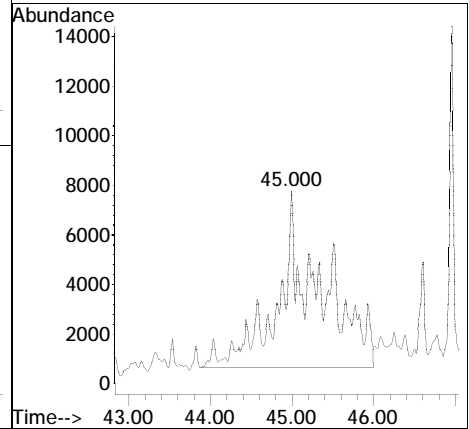
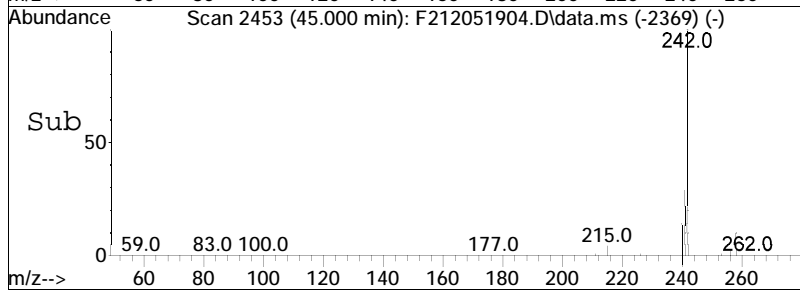
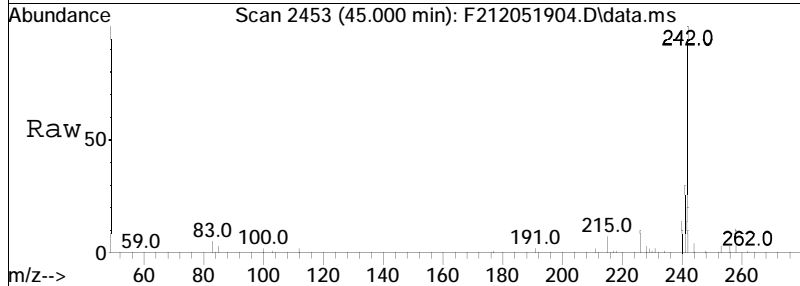
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 1584.20 ng/mL M5
 RT: 43.750 min Scan# 2370
 Delta R.T. 0.242 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

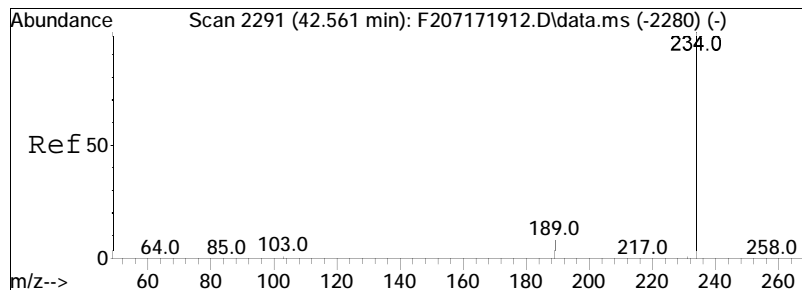
Tgt Ion	Ratio	Lower	Upper
244	100		
229	2.6	62.0	115.2#





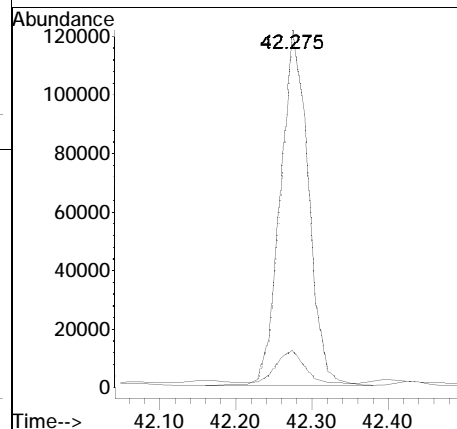
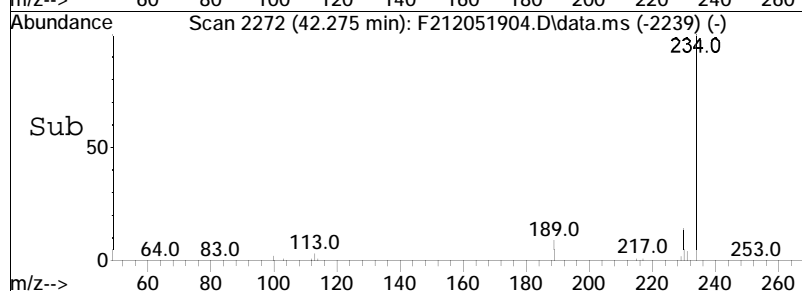
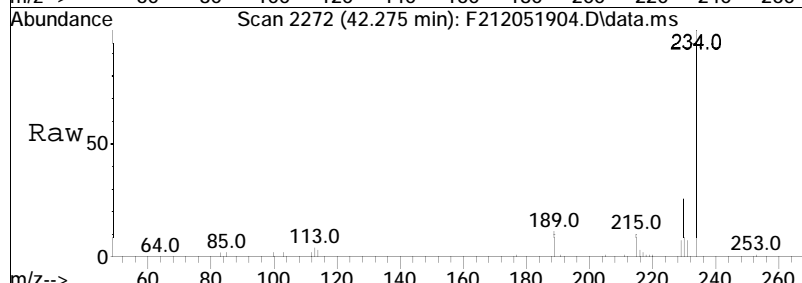
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 777.52 ng/mL M5
 RT: 45.000 min Scan# 2453
 Delta R.T. 0.147 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:258 Resp: 254068

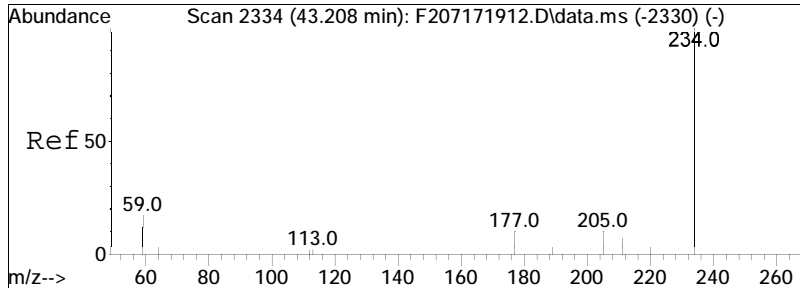




#67
 Naphthobenzothiophene-2,1-D
 Concen: 1089.36 ng/mL
 RT: 42.275 min Scan# 2272
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

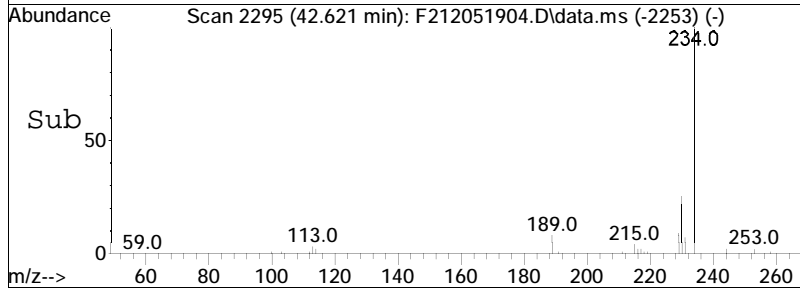
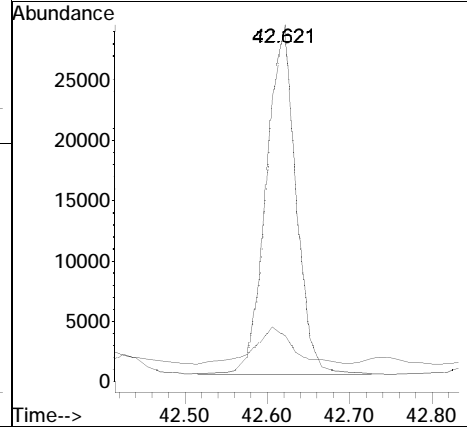
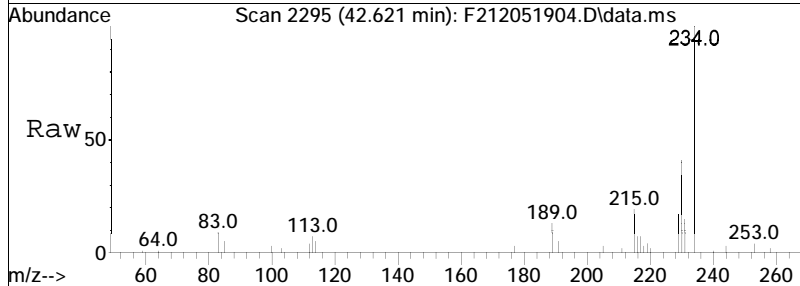
Tgt Ion	Resp	Lower	Upper
234	100		
189	9.5	5.5	10.3

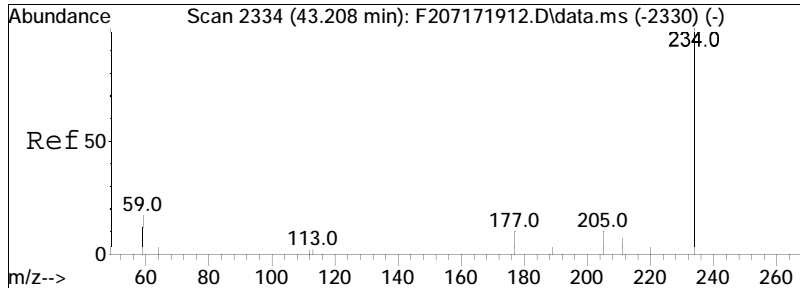




#68
 Naphthobenzothiophene-1,2-D
 Concen: 254.76 ng/mL M3
 RT: 42.621 min Scan# 2295
 Delta R.T. 0.130 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

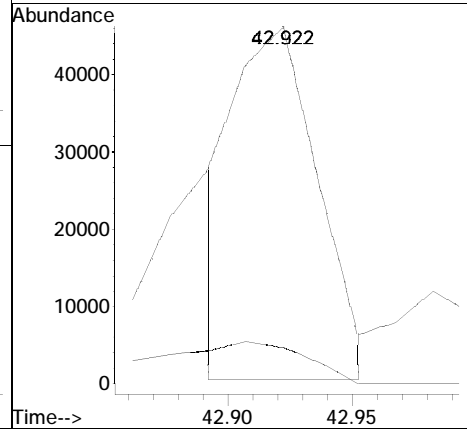
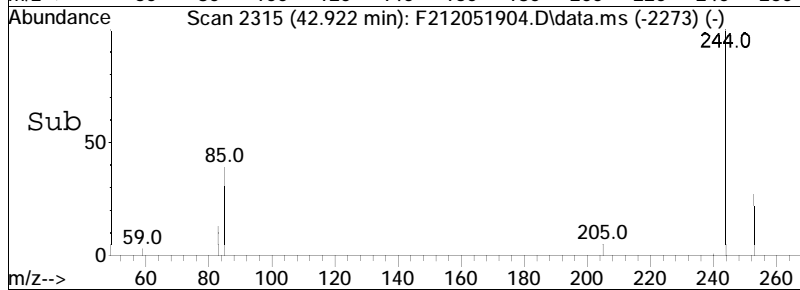
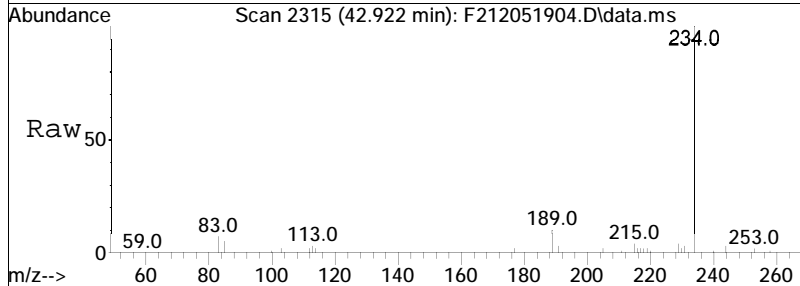
Tgt Ion	Resp	Lower	Upper
234	100		
189	0.0	56.7	105.3#

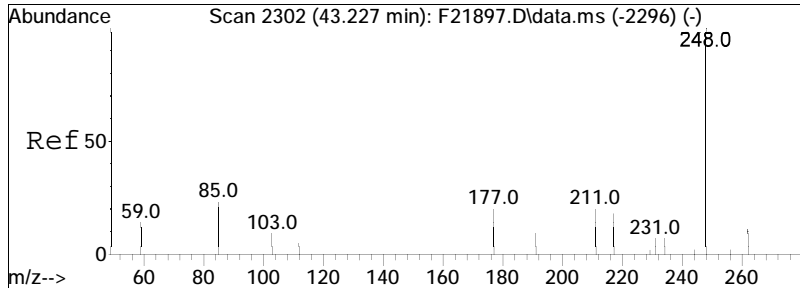




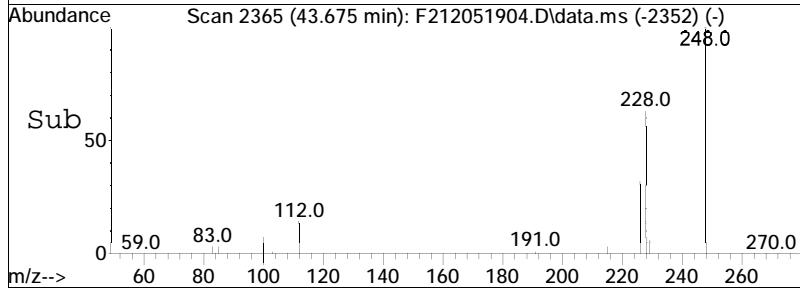
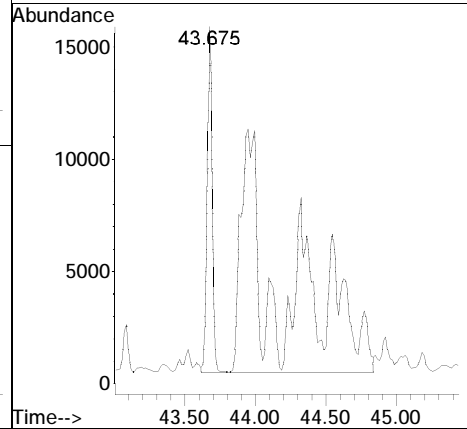
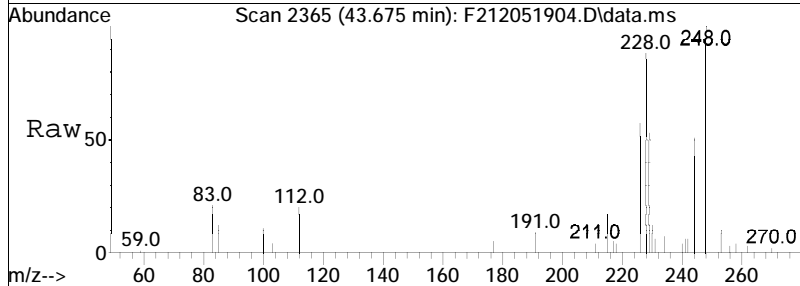
#69
 Naphthobenzothiophene-2,3-D
 Concen: 376.44 ng/mL M3
 RT: 42.922 min Scan# 2315
 Delta R.T. 0.132 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

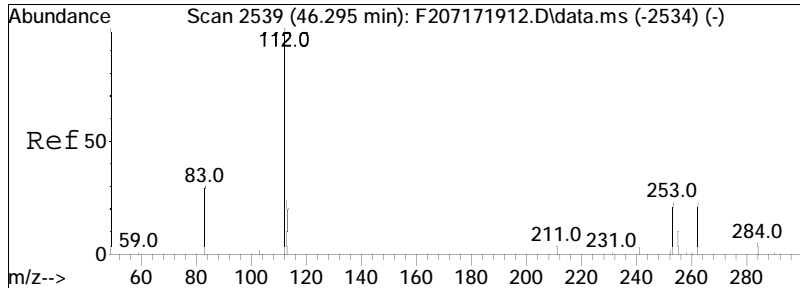
Tgt Ion	Resp	Lower	Upper
234	100	0.0	0.0#
189	23.8	0.0	0.0#



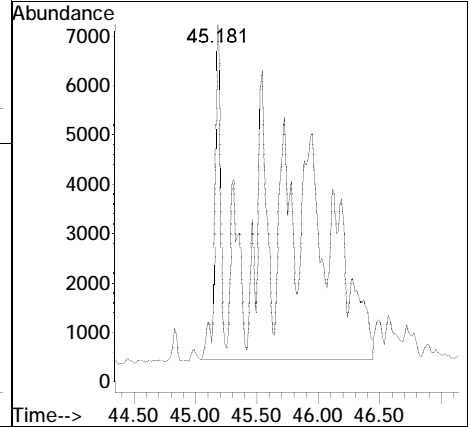
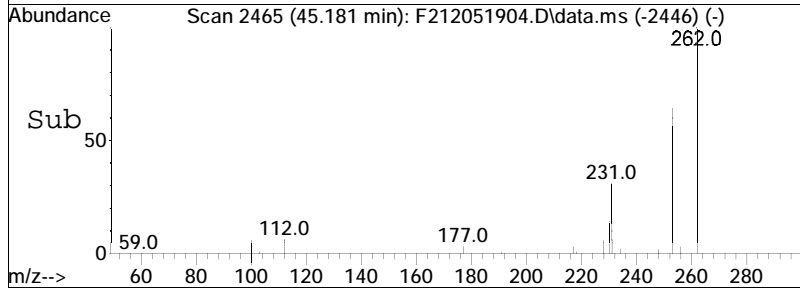
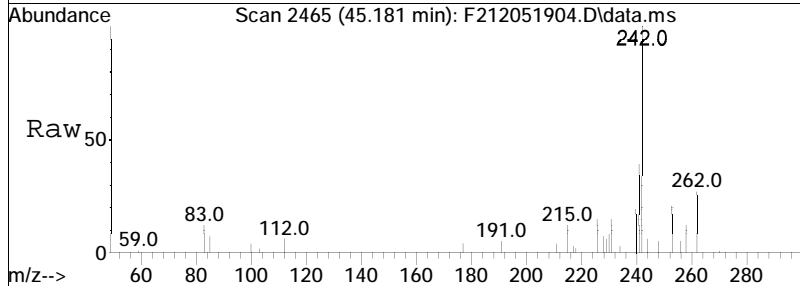


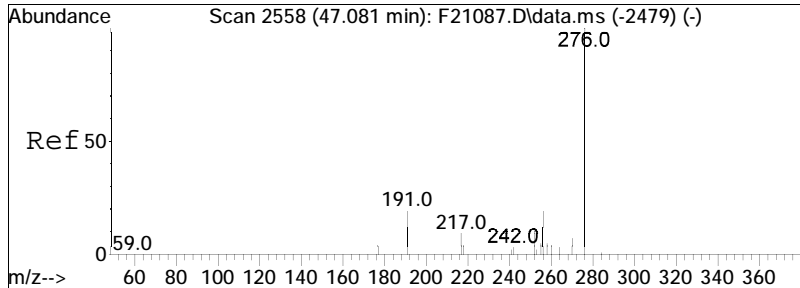
#70
 C1-Naphthobenzothiophenes
 Concen: 915.20 ng/ml M5
 RT: 43.675 min Scan# 2365
 Delta R.T. -0.550 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion:248 Resp: 255798



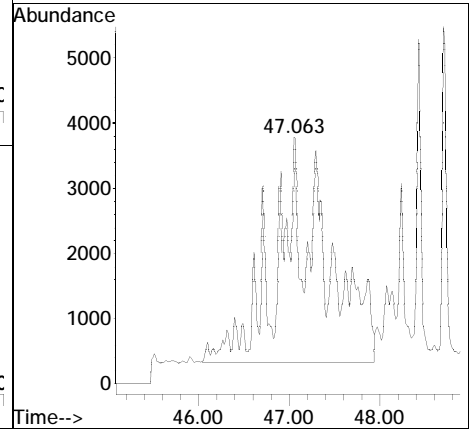
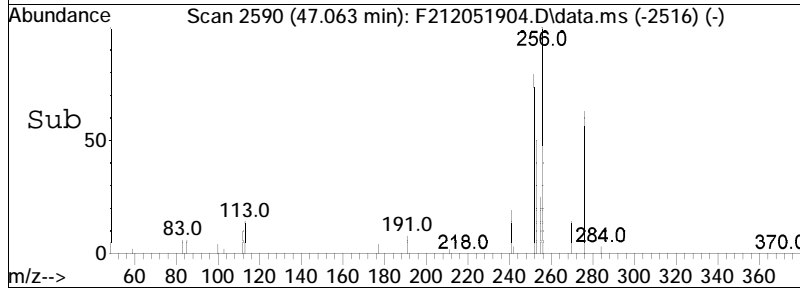
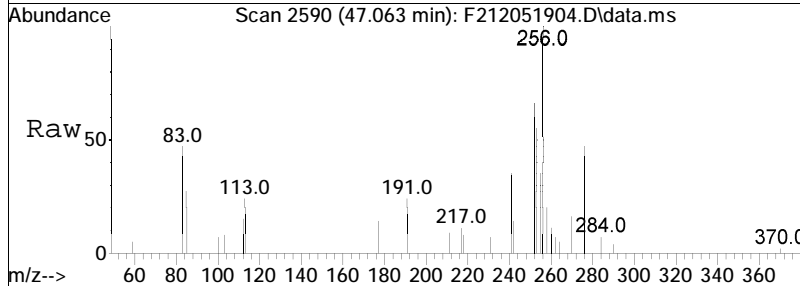


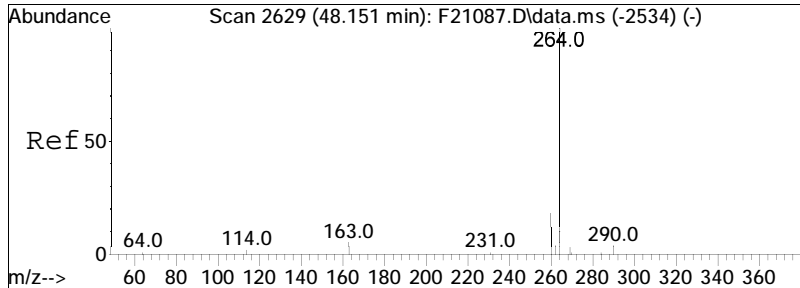
#71
 C2-Naphthobenzothiophenes
 Concen: 674.63 ng/ml M5
 RT: 45.181 min Scan# 2465
 Delta R.T. -0.360 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion: 262 Resp: 188560



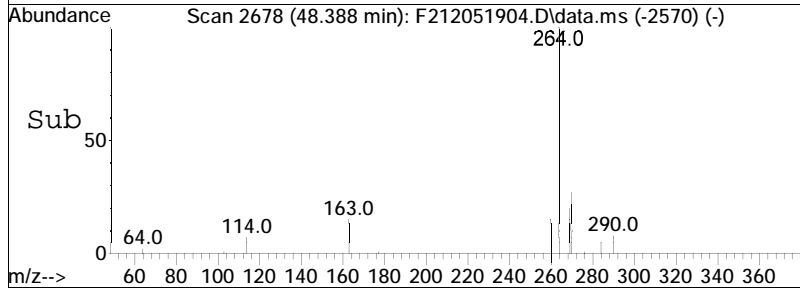
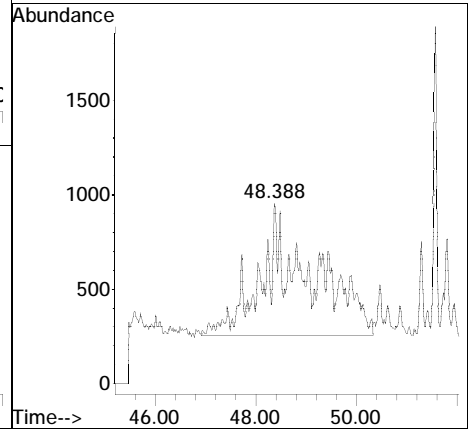
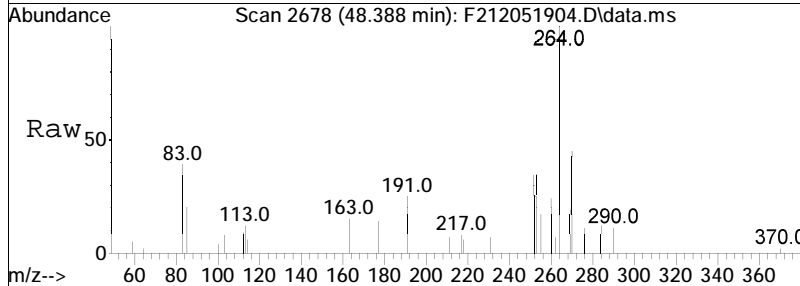


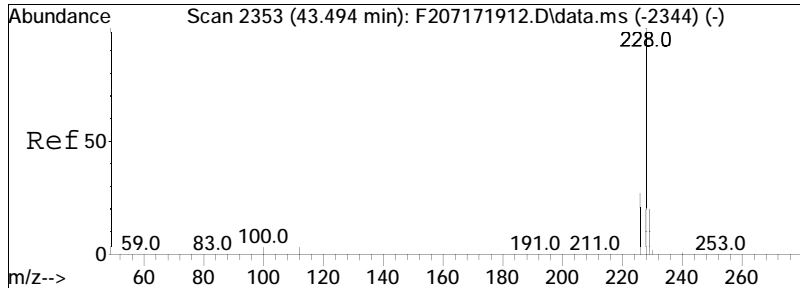
#72
 C3-Naphthobenzothiophenes
 Concen: 441.79 ng/ml M5
 RT: 47.063 min Scan# 2590
 Delta R.T. -0.077 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion: 276 Resp: 123480





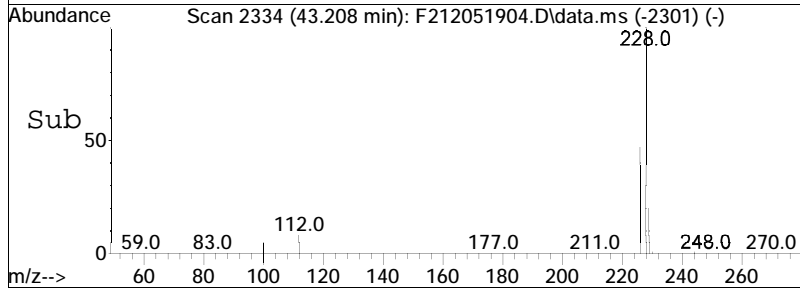
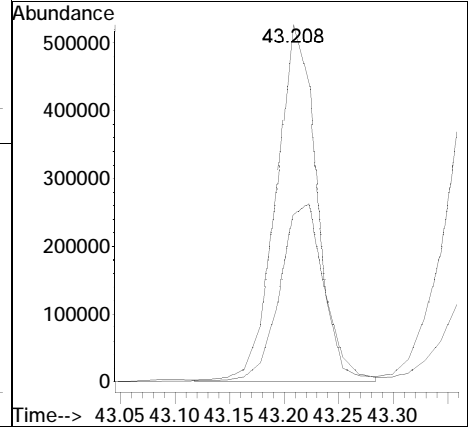
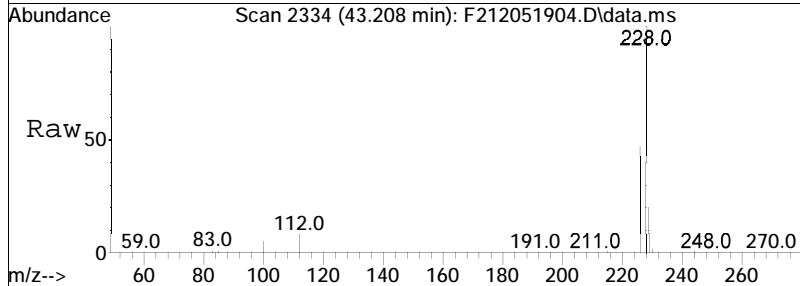
#73
 C4-Naphthobenzothiophenes
 Concen: 166.92 ng/mL M5
 RT: 48.388 min Scan# 2678
 Delta R.T. 0.141 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am
 Tgt Ion: 290 Resp: 46654

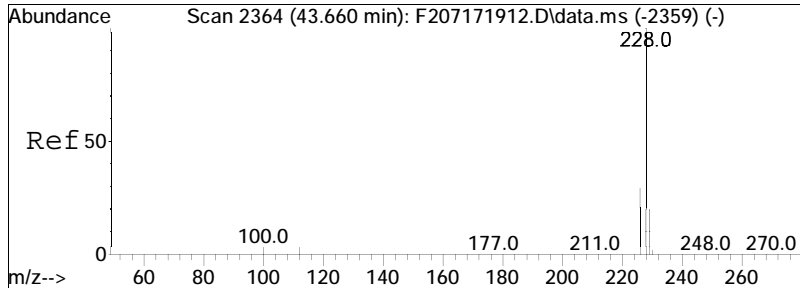




#75
 Benz[a]anthracene
 Concen: 5575.98 ng/mL M3
 RT: 43.208 min Scan# 2334
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

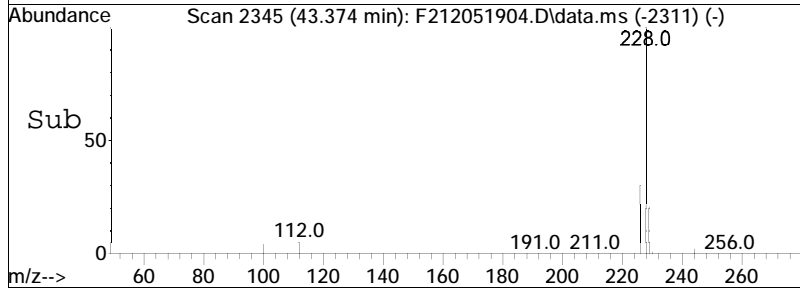
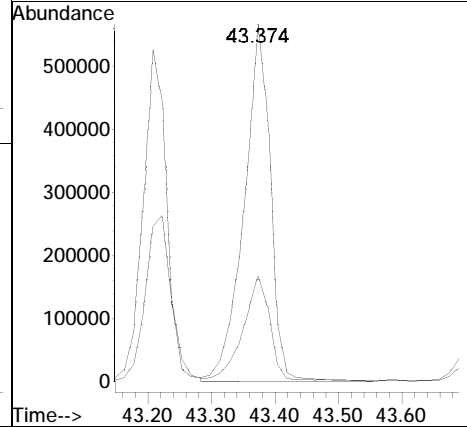
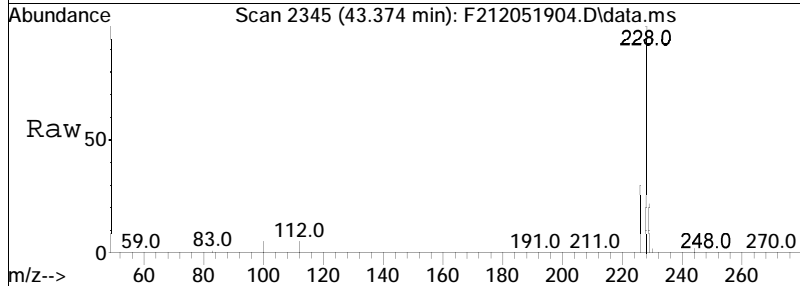
Tgt Ion: 228 Resp: 1353262
 Ion Ratio Lower Upper
 228 100
 226 34.7 18.2 33.8#

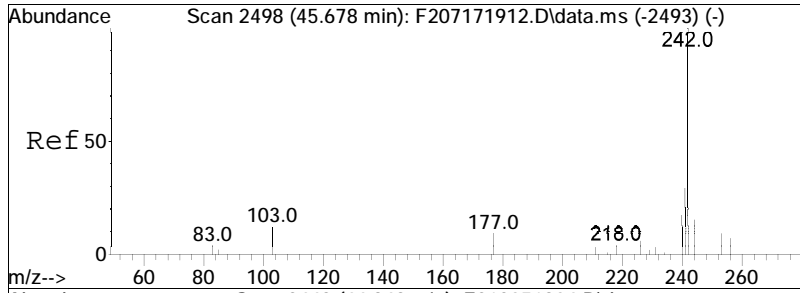




#76
 Chrysene
 Concen: 6596.76 ng/mL
 RT: 43.374 min Scan# 2345
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

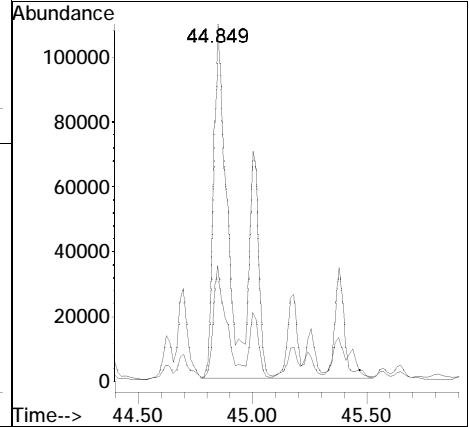
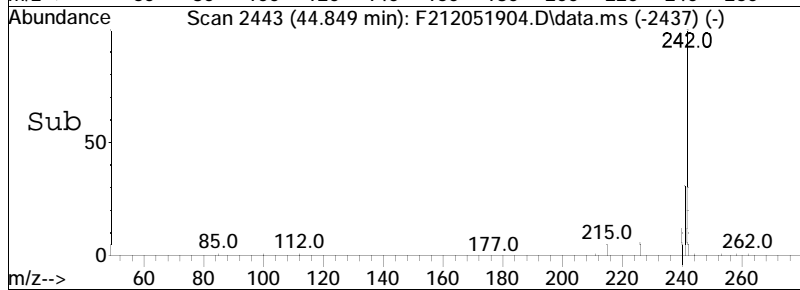
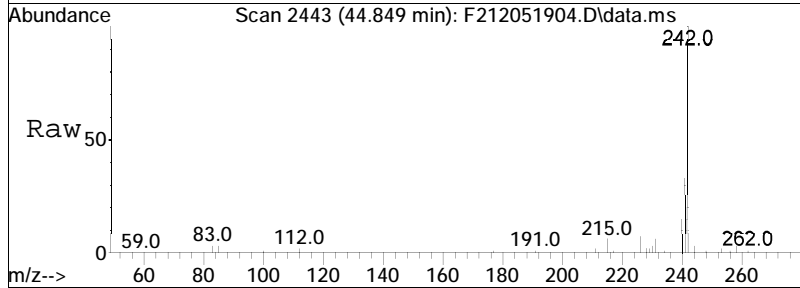
Tgt Ion: 228 Resp: 1629909
 Ion Ratio Lower Upper
 228 100
 226 28.8 20.3 37.7

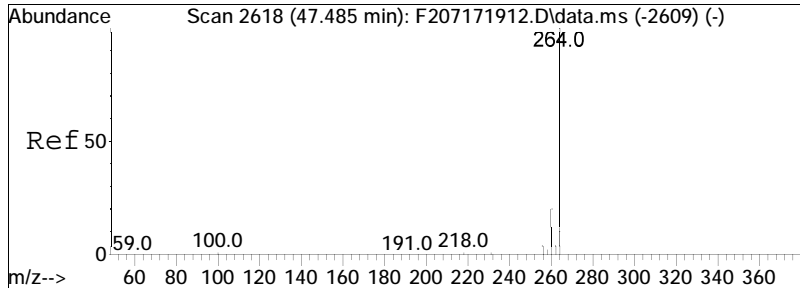




#78
 Cl-Chrysenes
 Concen: 3349.09 ng/mL M5
 RT: 44.849 min Scan# 2443
 Delta R.T. 0.025 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

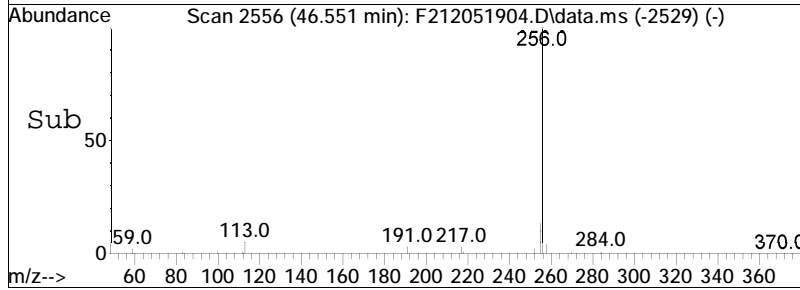
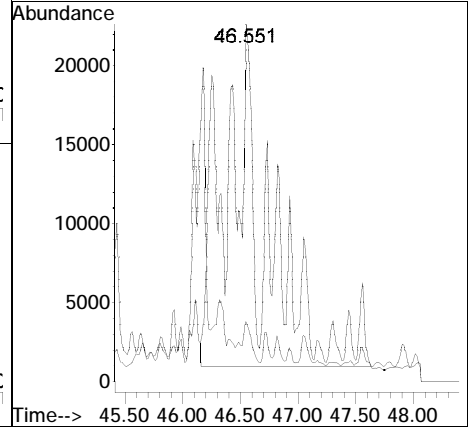
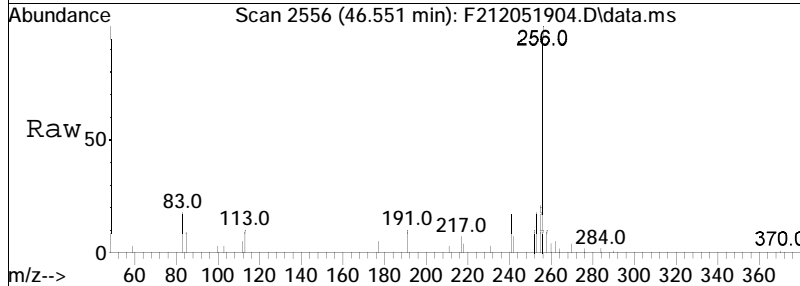
Tgt Ion	Resp	Lower	Upper
242	100		
241	16.0	31.3	58.1#

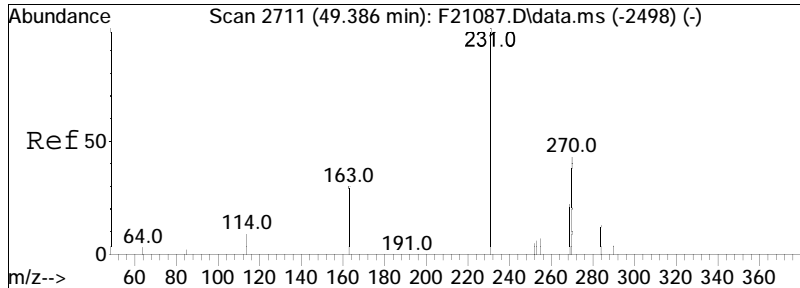




#79
 C2-Chrysenes
 Concen: 2191.22 ng/mL M5
 RT: 46.551 min Scan# 2556
 Delta R.T. -0.362 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

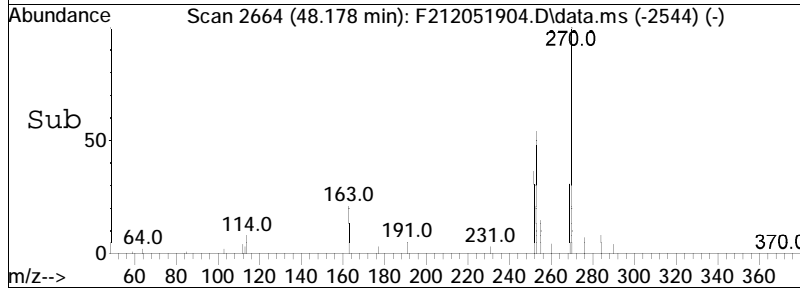
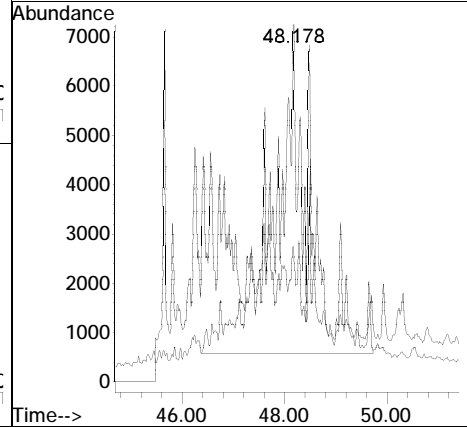
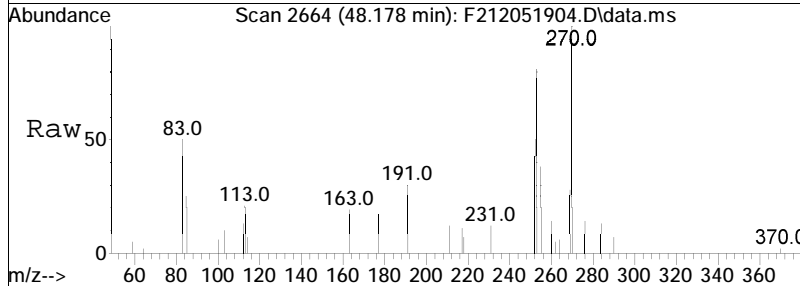
Tgt Ion	Ratio	Lower	Upper
256	100		
241	0.7	25.6	47.4#

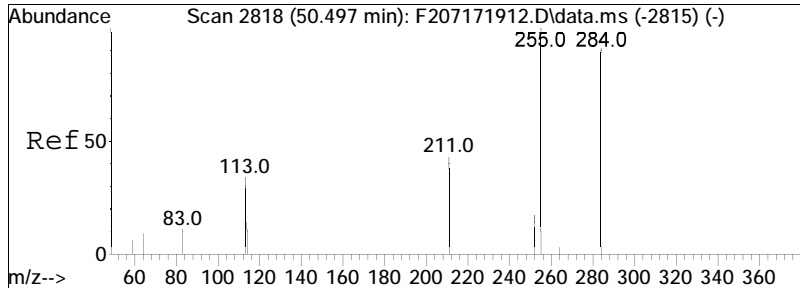




#81
 C3-Chrysenes
 Concen: 1232.36 ng/mL M5
 RT: 48.178 min Scan# 2664
 Delta R.T. -1.495 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

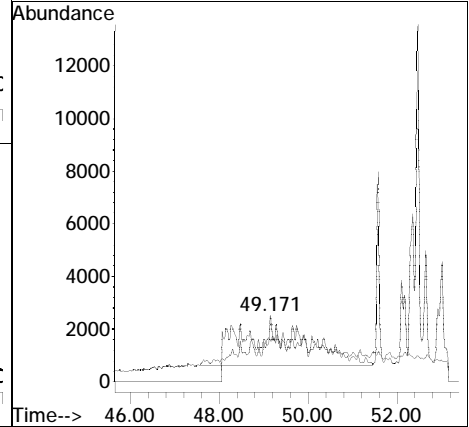
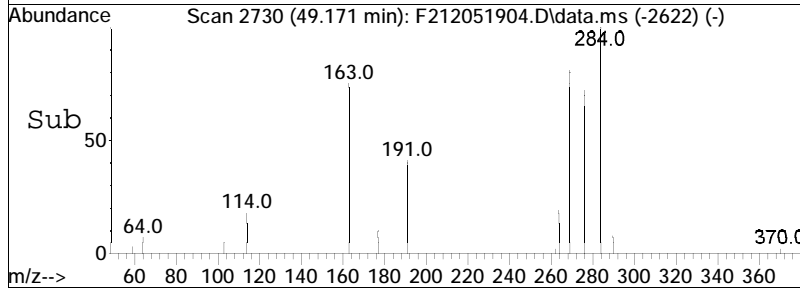
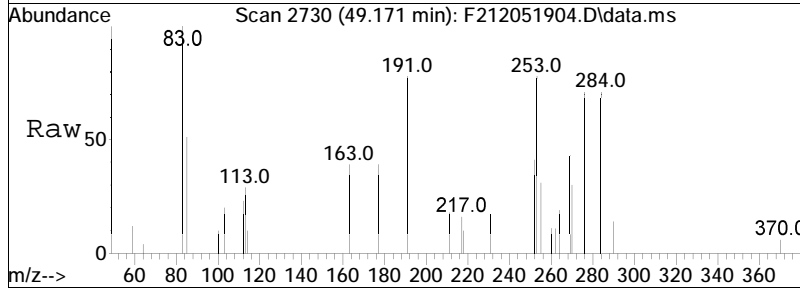
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.0	38.4	71.4#

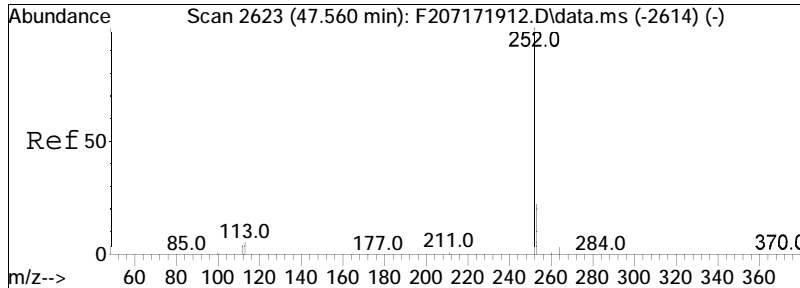




#82
 C4-Chrysenes
 Concen: 535.94 ng/mL M5
 RT: 49.171 min Scan# 2730
 Delta R.T. -0.606 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

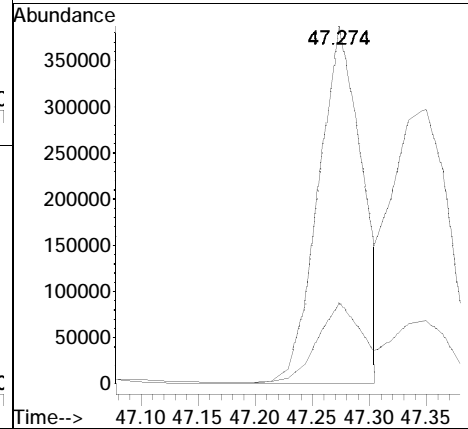
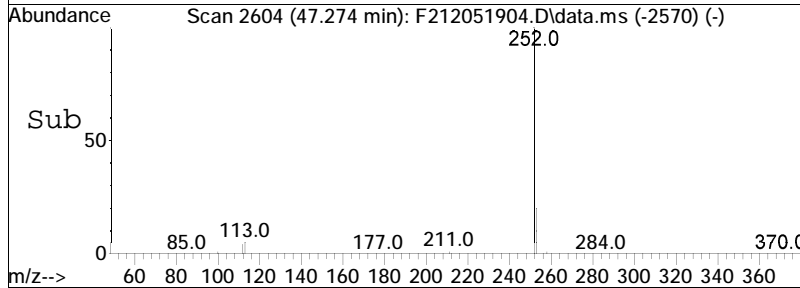
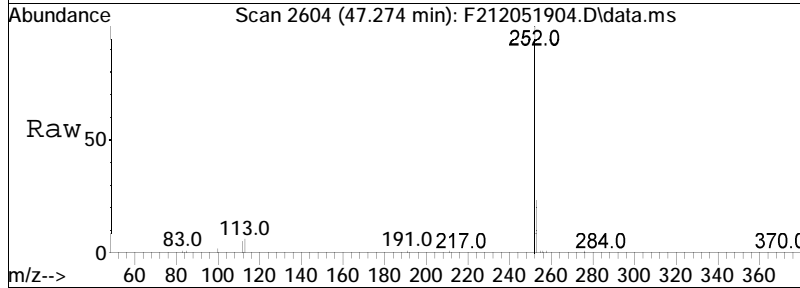
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.6	57.2	106.2#

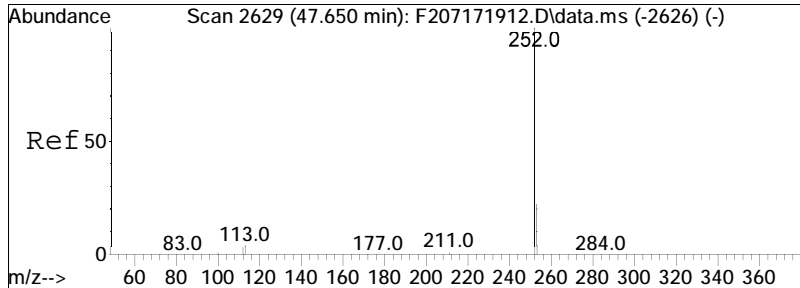




#84
 Benzo[b]fluoranthene
 Concen: 3564.50 ng/mL
 RT: 47.274 min Scan# 2604
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

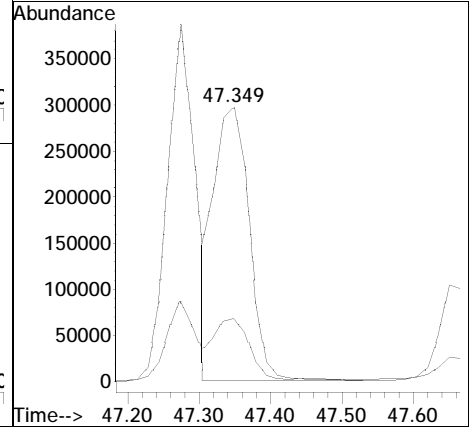
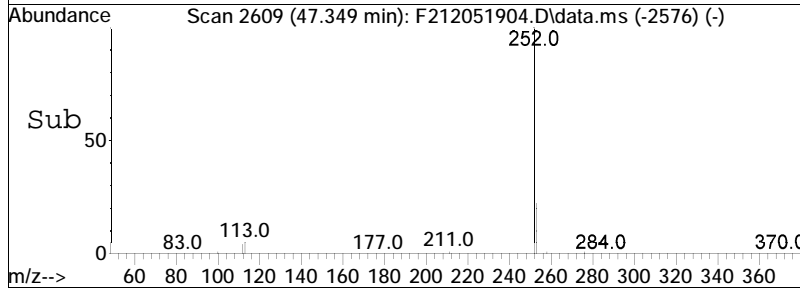
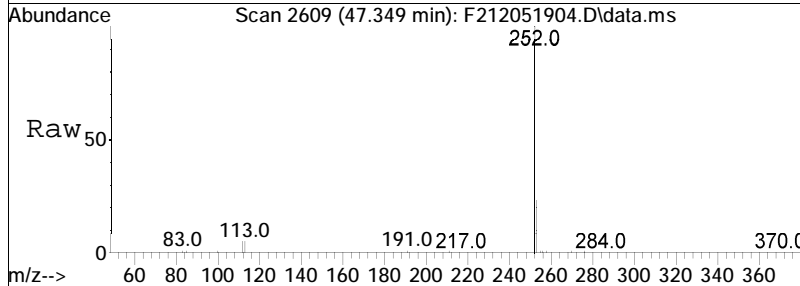
Tgt Ion: 252 Resp: 1047316
 Ion Ratio Lower Upper
 252 100
 253 22.4 16.4 30.4

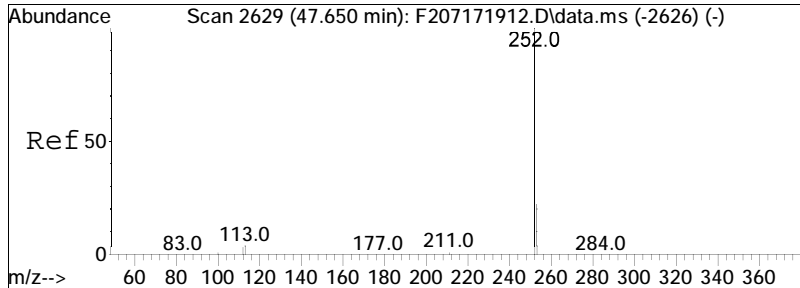




#85
 Benzo[j]+[k]fluoranthene
 Concen: 3432.52 ng/mL
 RT: 47.349 min Scan# 2609
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

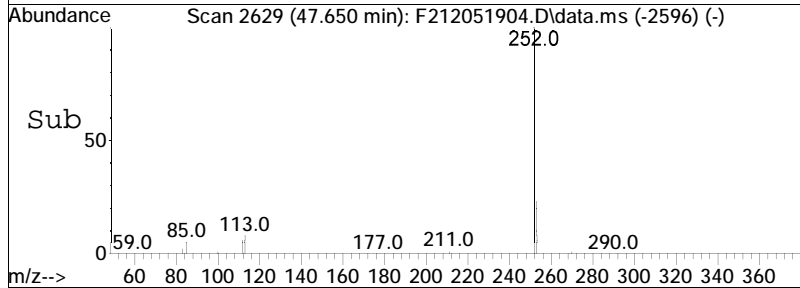
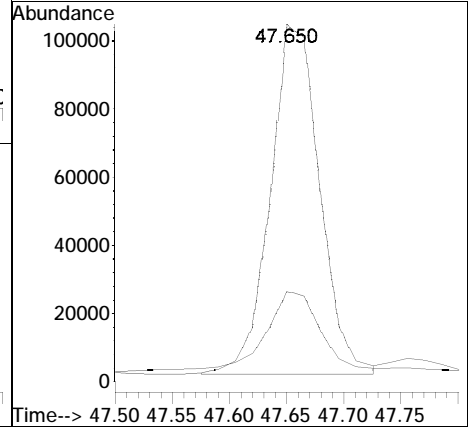
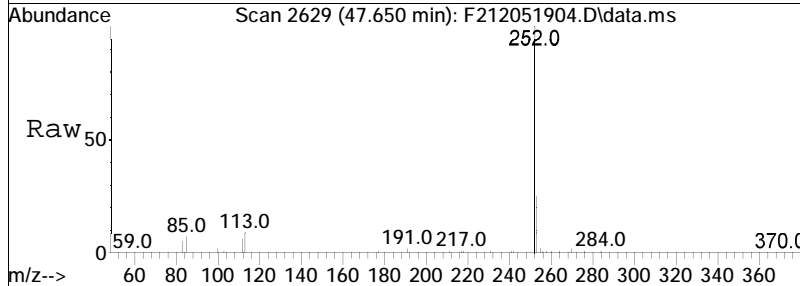
Tgt Ion	Resp	Lower	Upper
252	1014599		
253	22.0	16.4	30.4

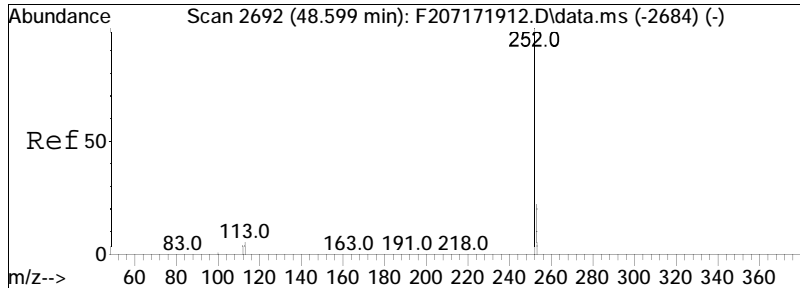




#86
 Benzo[a]fluoranthene
 Concen: 1030.76 ng/mL M3
 RT: 47.650 min Scan# 2629
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

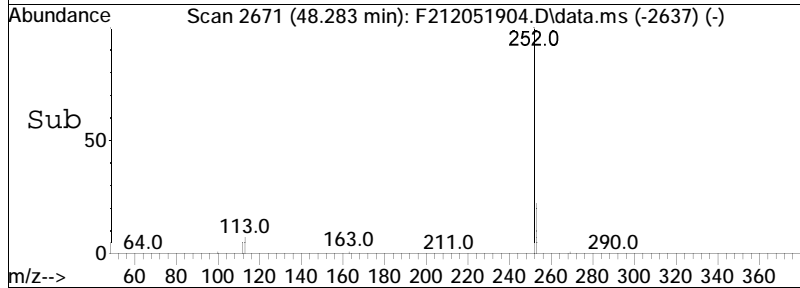
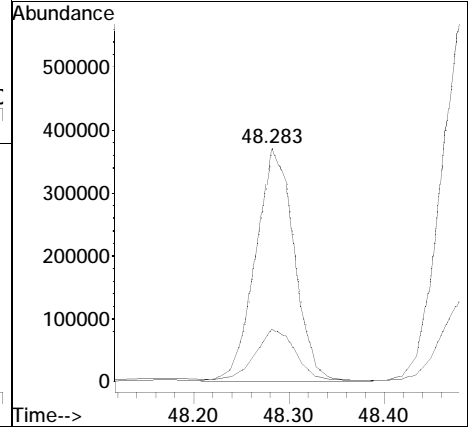
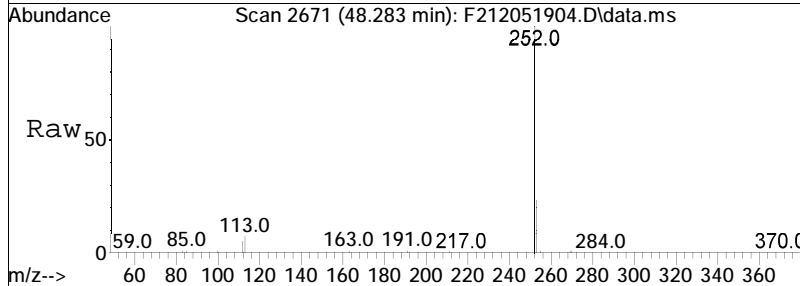
Tgt Ion	Resp	Lower	Upper
252	304675		
252	100		
253	0.6	96.2	178.8#

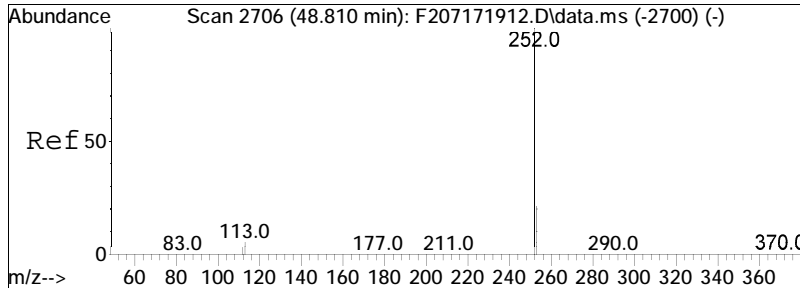




#87
 Benzo[e]pyrene
 Concen: 3669.29 ng/mL
 RT: 48.283 min Scan# 2671
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

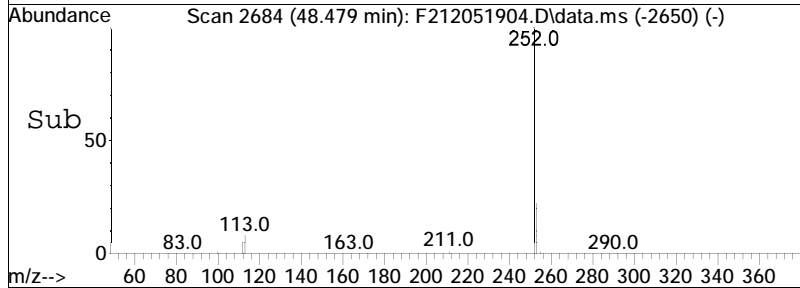
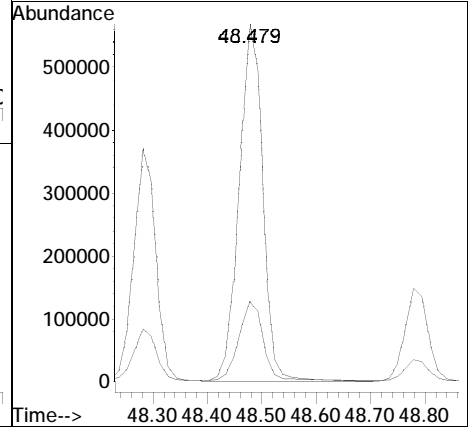
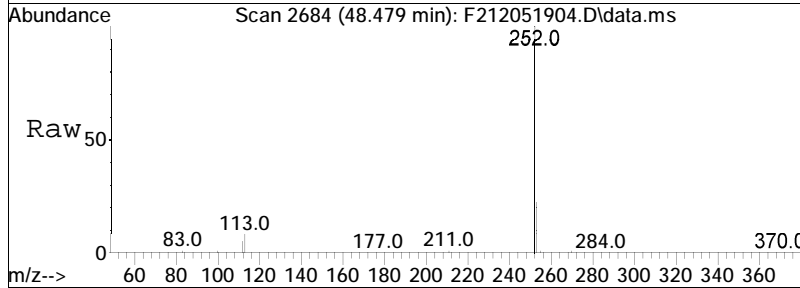
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.3	16.6	30.8

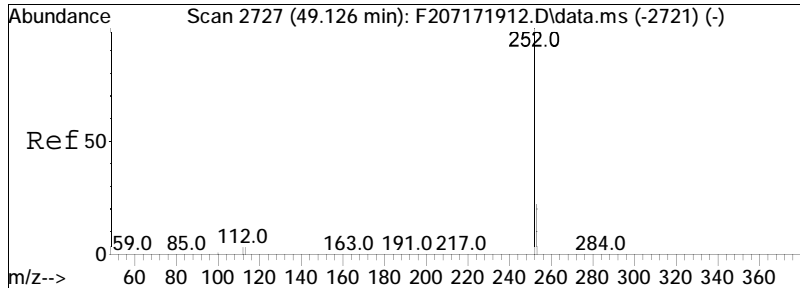




#89
 Benzo[a]pyrene
 Concen: 6579.85 ng/mL
 RT: 48.479 min Scan# 2684
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

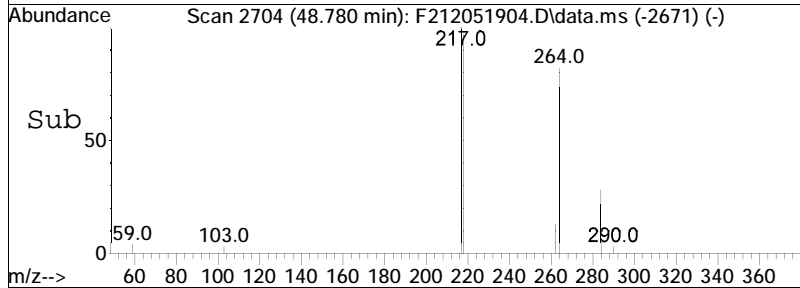
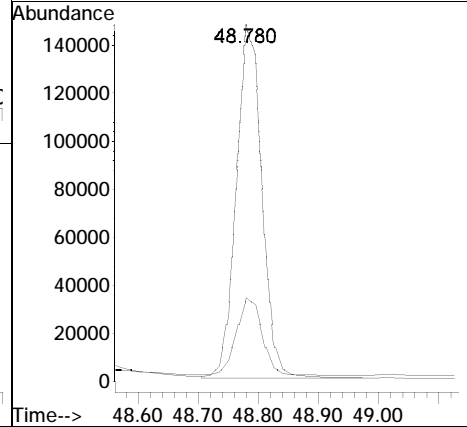
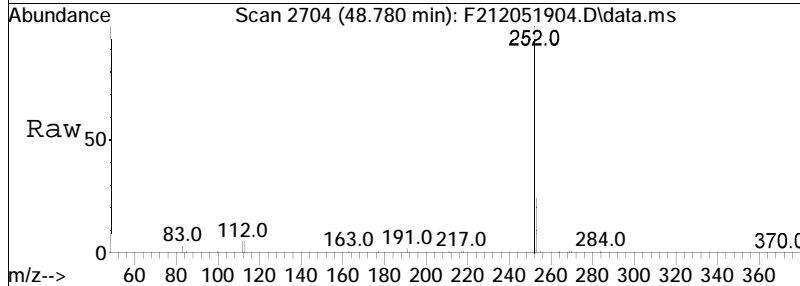
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.6	16.7	31.1

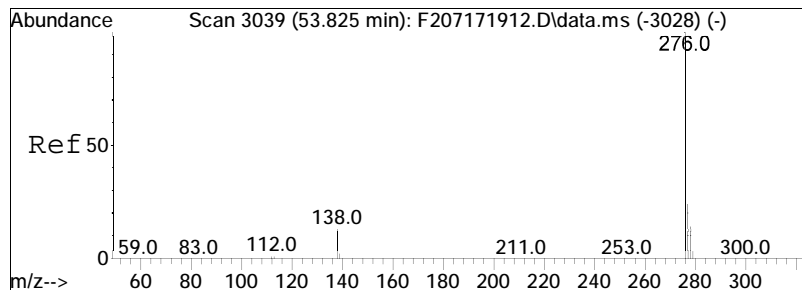




#90
 Perylene
 Concen: 1719.63 ng/mL
 RT: 48.780 min Scan# 2704
 Delta R.T. -0.000 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

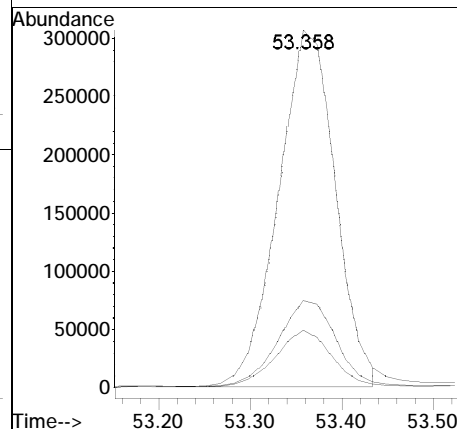
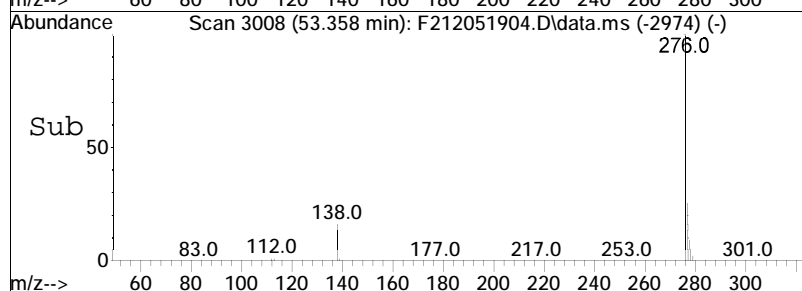
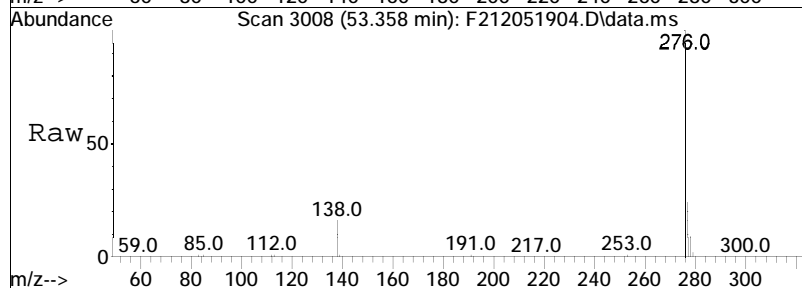
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.1	17.1	31.7

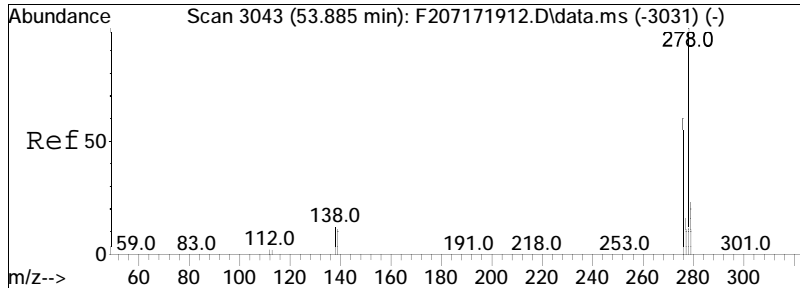




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 4280.16 ng/mL M4
 RT: 53.358 min Scan# 3008
 Delta R.T. 0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

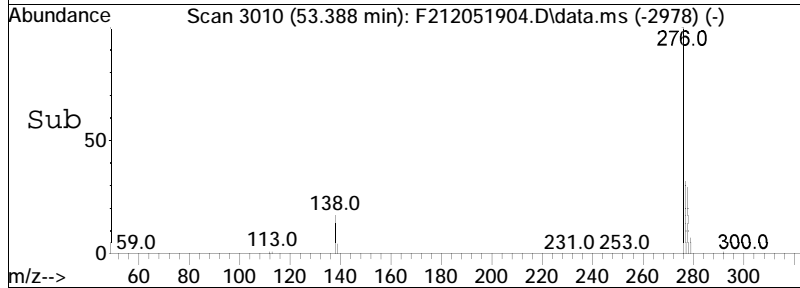
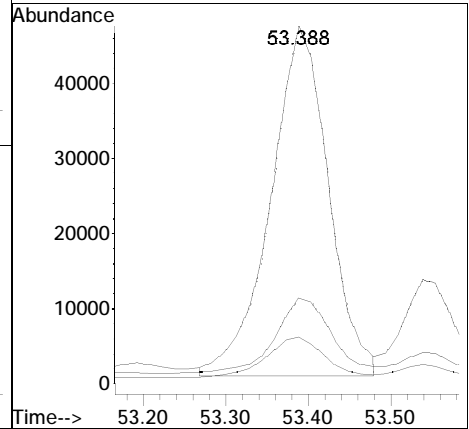
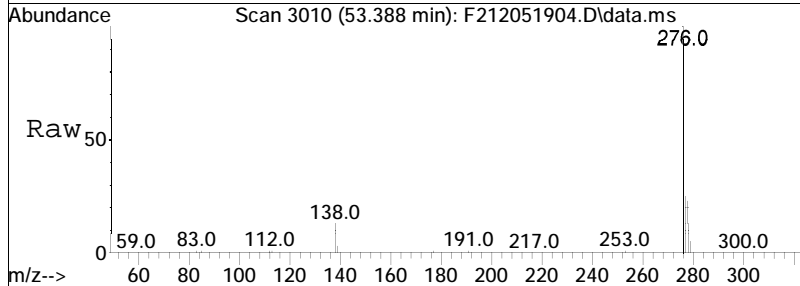
Tgt Ion	Ratio	Lower	Upper
276	100		
138	16.7	11.3	20.9
277	25.2	16.8	31.2

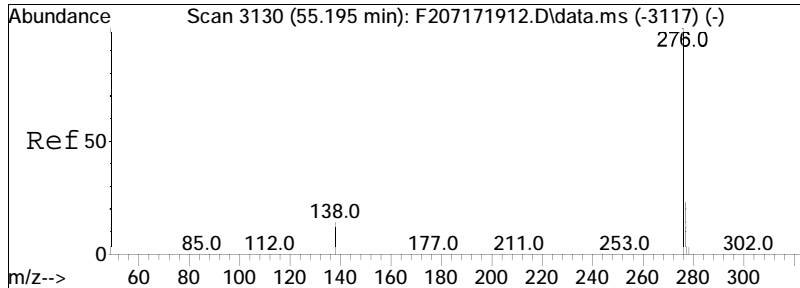




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 807.76 ng/mL M4
 RT: 53.388 min Scan# 3010
 Delta R.T. -0.015 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

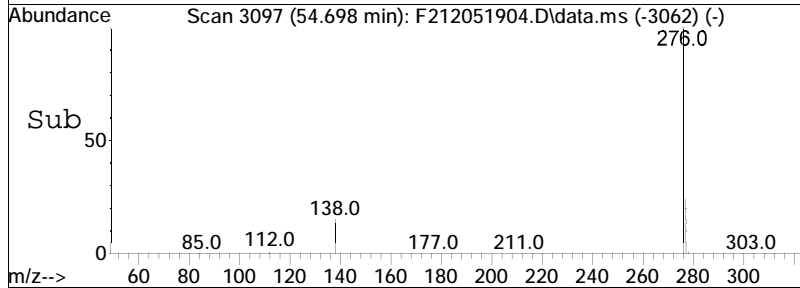
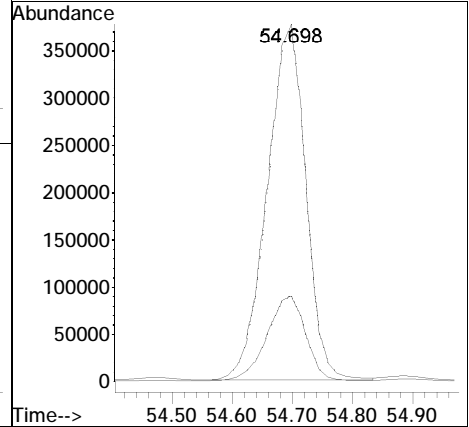
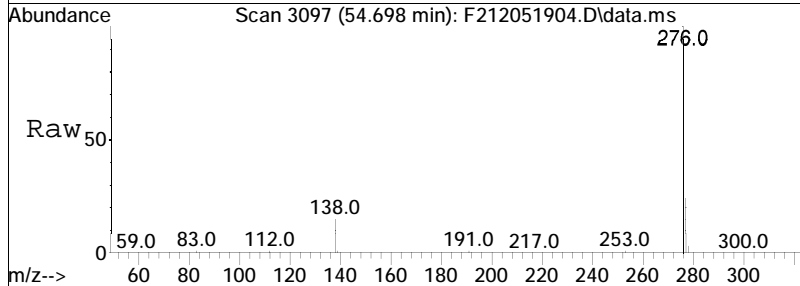
Tgt Ion	Ratio	Lower	Upper
278	100		
139	14.7	9.2	17.2
279	25.0	16.6	30.8





#93
 Benzo[g,h,i]perylene
 Concen: 5396.68 ng/mL
 RT: 54.698 min Scan# 3097
 Delta R.T. 0.030 min
 Lab File: F212051904.D
 Acq: 5 Dec 2019 11:26 am

Tgt Ion: 276 Resp: 1657938
 Ion Ratio Lower Upper
 276 100
 277 24.1 16.5 30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051905.D
 Acq On : 5 Dec 2019 12:54 pm
 Operator : PAH2:MJS
 Sample : L1954309-08d2,32,40
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 10 15:51:19 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 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	26.783	164	73540M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	122652	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	4580	16.894	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.69%#
40) Phenanthrene-d10	32.654	188	4714	19.776	ng/mL	0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.98%#
83) Benzo[b]fluoranthene-d12	47.184	264	4848	20.184	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.02%#
88) Benzo[a]pyrene-d12	48.373	264	3221	17.351	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.74%#
128) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
Target Compounds						
41) Phenanthrene	32.745	178	1257086	4156.378	ng/mL	Qvalue 100

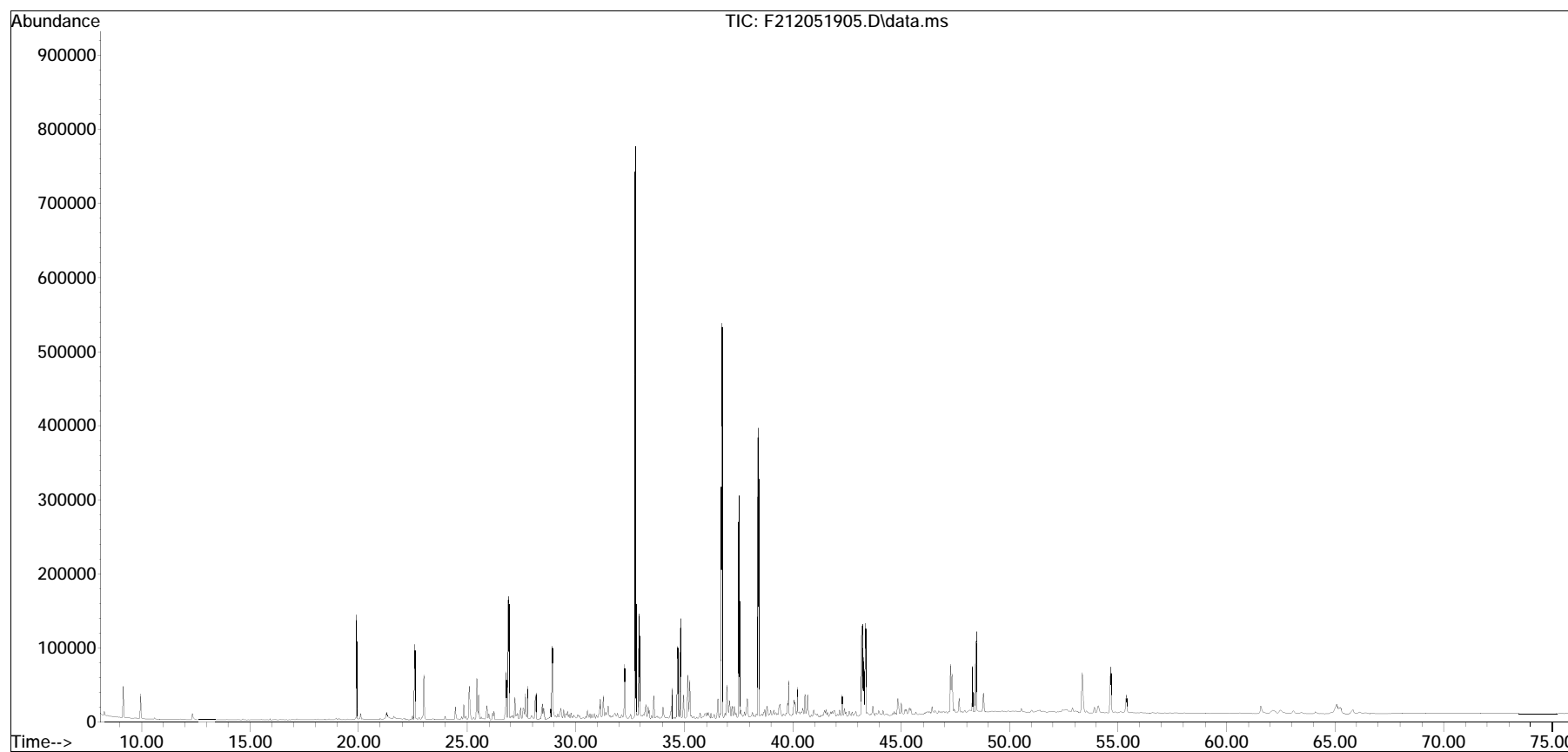
(#) = qualifier out of range (m) = manual integration (+) = signals summed

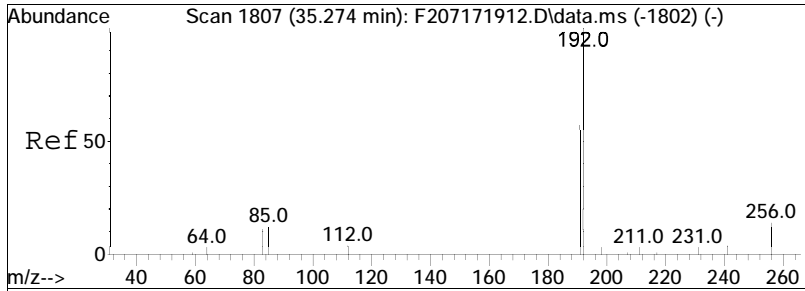
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051905.D
Acq On : 5 Dec 2019 12:54 pm
Operator : PAH2:MJS
Sample : L1954309-08d2,32,40
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 10 15:51:19 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

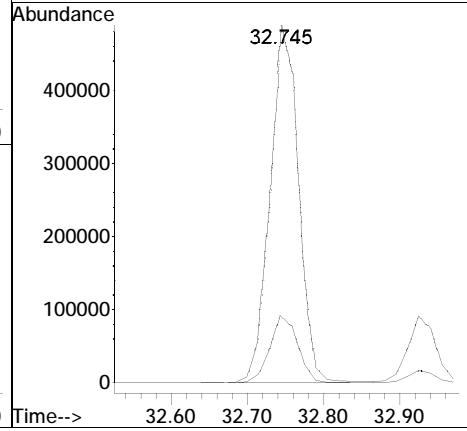
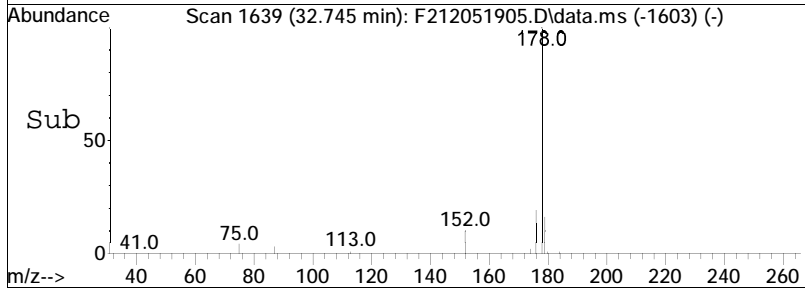
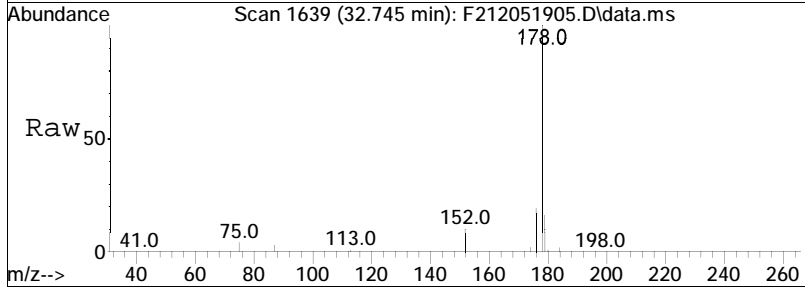
Sub List : ALKPAH_LCS_QC - LCS_spike compounds





#41
 Phenanthrene
 Concen: 4156.38 ng/mL
 RT: 32.745 min Scan# 1639
 Delta R.T. 0.043 min
 Lab File: F212051905.D
 Acq: 5 Dec 2019 12:54 pm

Tgt Ion:178 Resp: 1257086
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.0 24.1



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051906.D
 Acq On : 5 Dec 2019 2:22 pm
 Operator : PAH2:MJS
 Sample : L1954309-07d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 10 15:52:02 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 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	26.783	164	74241M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	115623	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	125023	456.819	ng/mL	-0.04
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	45.68%#	
40) Phenanthrene-d10	32.654	188	126238	524.601	ng/mL	0.04
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	52.46%	
83) Benzo[b]fluoranthene-d12	47.184	264	134451	593.807	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	59.38%	
88) Benzo[a]pyrene-d12	48.373	264	89681	512.457	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	51.25%	
128) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
Target Compounds						
41) Phenanthrene	32.745	178	2547219	8342.498	ng/mL	99

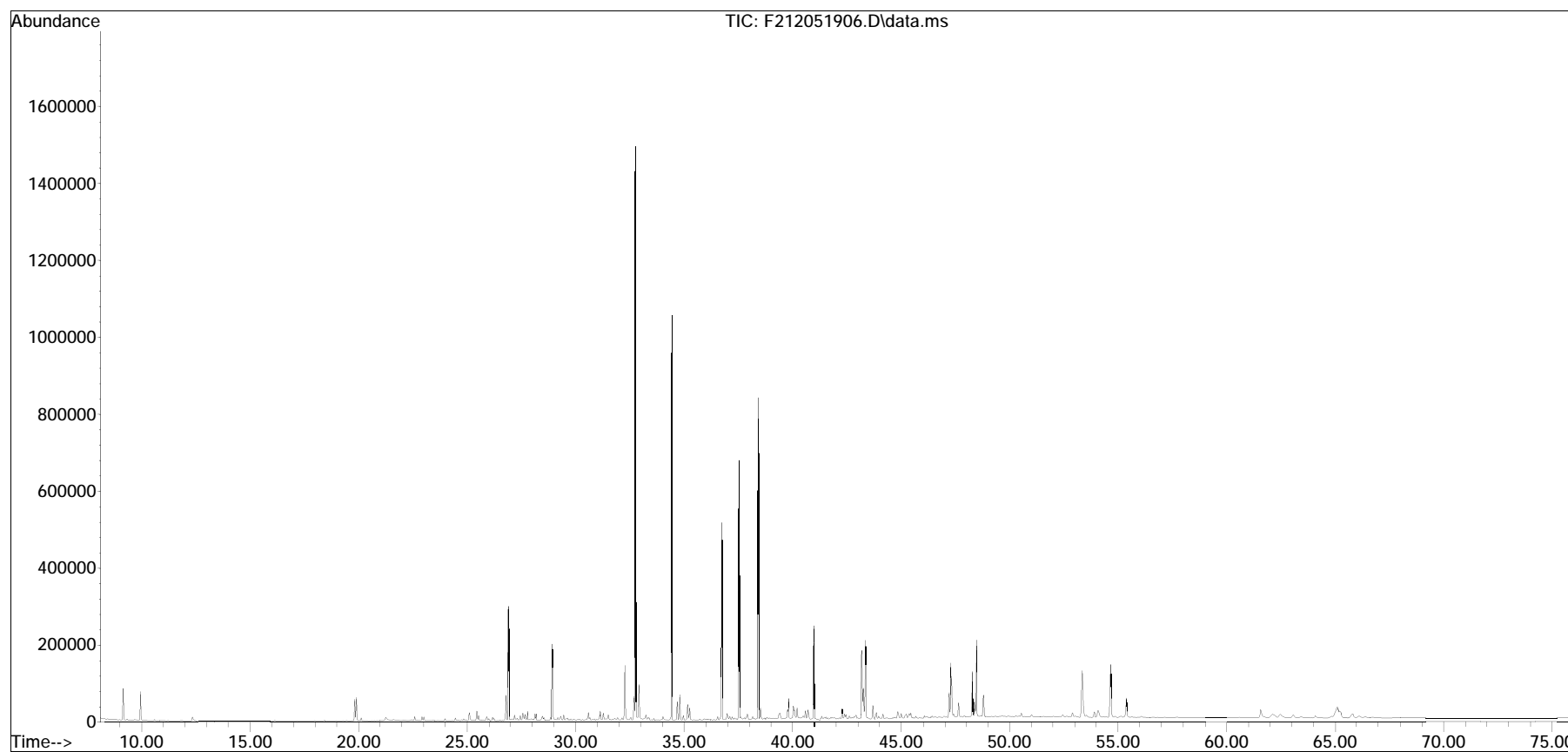
(#) = qualifier out of range (m) = manual integration (+) = signals summed

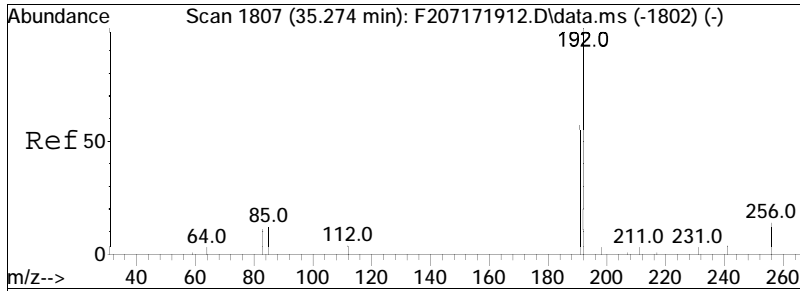
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051906.D
Acq On : 5 Dec 2019 2:22 pm
Operator : PAH2:MJS
Sample : L1954309-07d,32,4
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 10 15:52:02 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

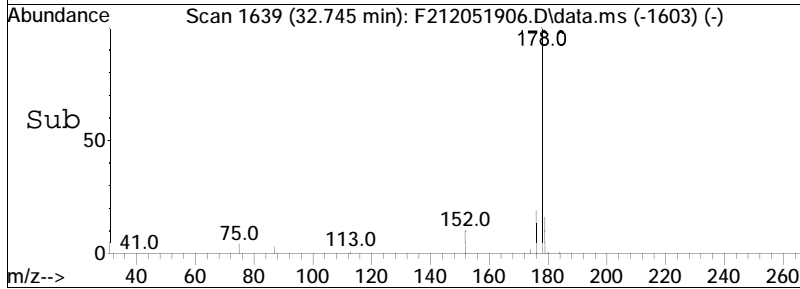
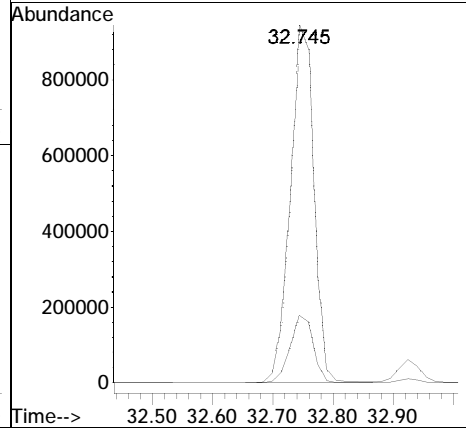
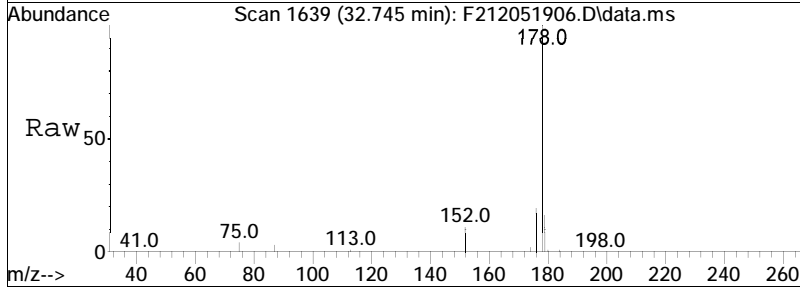
Sub List : ALKPAH_LCS_QC - LCS_spike compounds





#41
 Phenanthrene
 Concen: 8342.50 ng/mL
 RT: 32.745 min Scan# 1639
 Delta R.T. 0.043 min
 Lab File: F212051906.D
 Acq: 5 Dec 2019 2:22 pm

Tgt Ion:178 Resp: 2547219
 Ion Ratio Lower Upper
 178 100
 176 18.8 13.0 24.1



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051907.D
 Acq On : 5 Dec 2019 3:50 pm
 Operator : PAH2:MJS
 Sample : L1954309-05d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 10 15:16:03 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	58621M3	500.000	ng/mL	0.00
74) Chrysene-d12	43.284	240	105625	500.000	ng/mL	0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.828	136	53037	245.428	ng/mL	-0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	24.54%#
40) Phenanthrene-d10	32.669	188	41656	219.234	ng/mL	0.06
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	21.92%#
83) Benzo[b]fluoranthene-d12	47.184	264	51729	250.088	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	25.01%#
88) Benzo[a]pyrene-d12	48.388	264	33260	208.045	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	20.80%#
Target Compounds						
2) trans-Decalin	16.471	138	3628	80.282	ng/mL	100
3) cis-Decalin	17.690	138	485	13.915	ng/mL	100
4) C1-Decalins	18.398	152	12941M5	286.363	ng/mL	
5) C2-Decalins	19.738	166	23546M5	521.034	ng/mL	
6) C3-Decalins	22.207	180	21125M5	467.462	ng/mL	
7) C4-Decalins	24.480	194	21247M5	470.161	ng/mL	
9) Naphthalene	19.918	128	26481646	110219.240	ng/mL	100
10) C1-Naphthalenes	22.598	142	8161058M5	33967.134	ng/mL	
11) C2-Naphthalenes	25.428	156	3705251M5	15421.623	ng/mL	
12) C3-Naphthalenes	27.777	170	1576153M5	6560.105	ng/mL	
13) C4-Naphthalenes	30.532	184	601698M5	2504.327	ng/mL	
14) 2-Methylnaphthalene	22.598	142	5436830	34299.119	ng/mL	100
15) 1-Methylnaphthalene	23.020	142	2716212	17839.886	ng/mL	100
16) Benzothiophene	20.114	134	1305888	6972.632	ng/mL	100
17) C1-Benzo(b)thiophenes	22.447	148	561082M5	2995.830	ng/mL	
18) C2-Benzo(b)thiophenes	25.142	162	477459M5	2549.335	ng/mL	
19) C3-Benzo(b)thiophenes	27.250	176	291748M5	1557.753	ng/mL	
20) C4-Benzo(b)thiophenes	28.861	190	149284M5	797.084	ng/mL	
21) Biphenyl	24.465	154	2039742	10572.780	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.097	156	1044882	7366.546	ng/mL	100
23) Dibenzofuran	27.551	168	479655	2338.602	ng/mL	98
24) Acenaphthylene	26.181	152	254195M3	1074.401	ng/mL	
25) Acenaphthene	26.919	153	3610360	24437.416	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.469	170	126878M3	979.225	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051907.D
 Acq On : 5 Dec 2019 3:50 pm
 Operator : PAH2:MJS
 Sample : L1954309-05d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 10 15:16:03 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.936	166	2340849	13988.784	ng/mL	99
28) C1-Fluorenes	31.164	180	478773M5	2861.121	ng/mL	
29) C2-Fluorenes	33.347	194	303514M5	1813.783	ng/mL	
30) C3-Fluorenes	35.334	208	193419M5	1155.861	ng/mL	
31) Dibenzothiophene	32.263	184	2644777	11669.287	ng/mL	96
32) 4-Methyldibenzothiophene(	34.024	198	192533	849.494	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.340	198	229599	1013.037	ng/mL	100
34) 1-Methyldibenzothiophene(	34.807	198	62020	273.645	ng/mL	100
36) C1-Dibenzothiophenes	34.024	198	594726M5	2624.051	ng/mL	
36) C1-Dibenzothiophenes BS	34.024	198	594726M5	2624.051	ng/mL	
37) C2-Dibenzothiophenes	36.087	212	369100M5	1628.543	ng/mL	
38) C3-Dibenzothiophenes	37.547	226	193013M5	851.612	ng/mL	
39) C4-Dibenzothiophenes	39.219	240	73536M5	324.456	ng/mL	
41) Phenanthrene	32.805	178	21933998	90978.380	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.717	192	773184	3207.032	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.822	192	998027M3	4139.641	ng/mL	
44) 2-Methylanthracene(2MA)	34.988	192	306173	1269.952	ng/mL#	37
45) 9/4-Methylphenanthrene(9M	35.168	192	586253M3	2431.675	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.822	192	3083418M5	12789.478	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.990	206	1157120M5	4799.531	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.990	206	1157120M5	4799.531	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.827	220	417081M5	1729.979	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.746	234	189837M5	787.411	ng/mL	
52) Retene	39.746	234	76150	922.687	ng/mL	89
53) Anthracene	32.955	178	3342594	16263.427	ng/mL	99
54) Carbazole	33.603	167	395759M4	2058.253	ng/mL	
55) 1-Methylphenanthrene	35.259	192	416393	2306.280	ng/mL	98
56) Fluoranthene	37.577	202	13314834M4	48424.764	ng/mL	
57) Benzo(b)fluorene	40.062	216	446293M3	2579.957	ng/mL	
58) 7H-Benzo(c)fluorene	40.107	216	127145M3	735.007	ng/mL	
59) Pyrene	38.466	202	16402757	57450.523	ng/mL	95
60) 2-Methylpyrene	40.227	216	380412M3	1332.390	ng/mL	
61) 4-Methylpyrene	40.589	216	316351	1108.017	ng/mL	80
62) 1-Methylpyrene	40.694	216	376197	1317.627	ng/mL	72
63) C1-Fluoranthenes/Pyrenes	39.821	216	3065407M5	10736.563	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.552	230	720975M5	2525.209	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.750	244	267858M5	938.170	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.985	258	144758M5	507.014	ng/mL	
67) Naphthobenzothiophene-2,1	42.275	234	726524	2974.984	ng/mL	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051907.D
 Acq On : 5 Dec 2019 3:50 pm
 Operator : PAH2:MJS
 Sample : L1954309-05d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 10 15:16:03 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.621	234	147027M3	602.049	ng/mL	
69) Naphthobenzothiophene-2,3	42.922	234	252465M3	1033.798	ng/mL	
70) C1-Naphthobenzothiophenes	43.675	248	273488M5	1119.884	ng/ml	
71) C2-Naphthobenzothiophenes	45.181	262	138027M5	565.195	ng/ml	
72) C3-Naphthobenzothiophenes	47.078	276	113450M5	464.557	ng/ml	
73) C4-Naphthobenzothiophenes	48.494	290	29042M5	118.922	ng/mL	
75) Benz[a]anthracene	43.224	228	3618462M3	14999.153	ng/mL	
76) Chrysene	43.389	228	4182623	17030.165	ng/mL	100
78) C1-Chrysenes	44.850	242	953205M5	3881.114	ng/mL	
79) C2-Chrysenes	46.566	256	375348M5	1528.285	ng/mL	
79) C2-Chrysenes BS	46.566	256	372070M5	1514.938	ng/mL	
81) C3-Chrysenes	48.313	270	174074M5	708.768	ng/mL	
82) C4-Chrysenes	49.172	284	102445M5	417.120	ng/mL	
84) Benzo[b]fluoranthene	47.289	252	3338338	11430.218	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.364	252	3099400M6	10548.719	ng/mL	
86) Benzo[a]fluoranthene	47.666	252	844310M3	2873.585	ng/mL	
87) Benzo[e]pyrene	48.298	252	3011598	10735.405	ng/mL	97
89) Benzo[a]pyrene	48.509	252	4970371	19354.339	ng/mL	97
90) Perylene	48.795	252	1260401	5023.834	ng/mL	94
91) Indeno[1,2,3-cd]pyrene	53.404	276	4071860	13327.954	ng/mL	99
92) Dibenz[ah]+[ac]anthracene	53.419	278	695120M3	2493.586	ng/mL	
93) Benzo[g,h,i]perylene	54.744	276	4777594	15644.819	ng/mL	99

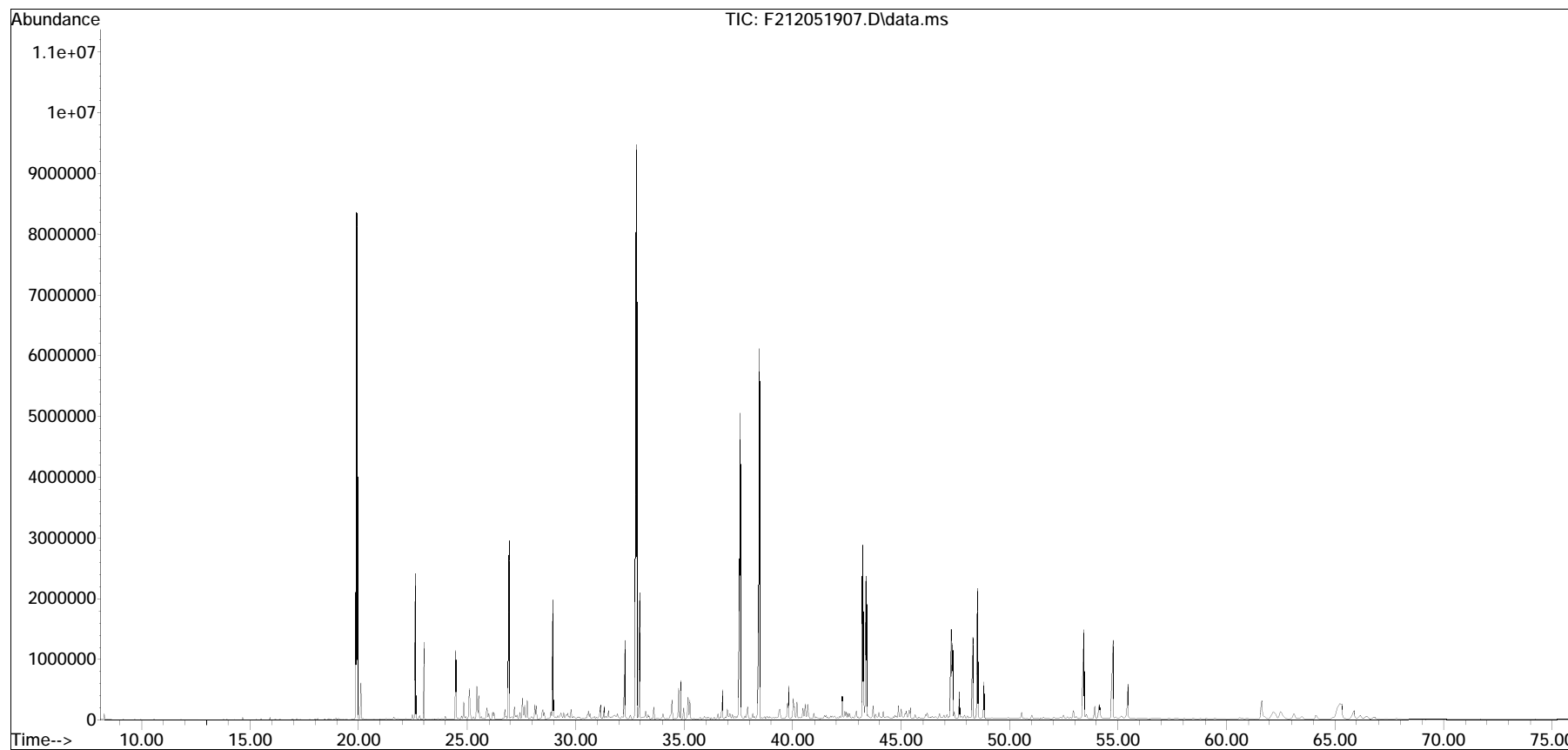
(#) = qualifier out of range (m) = manual integration (+) = signals summed

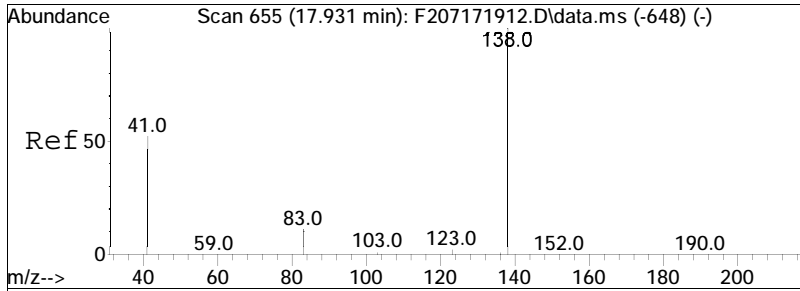
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051907.D
Acq On : 5 Dec 2019 3:50 pm
Operator : PAH2:MJS
Sample : L1954309-05d,32,4
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 7 Sample Multiplier: 1

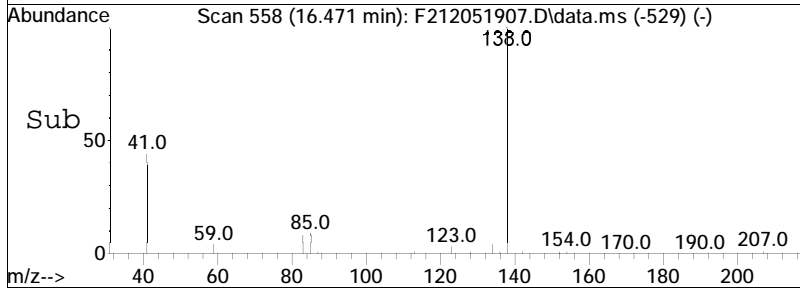
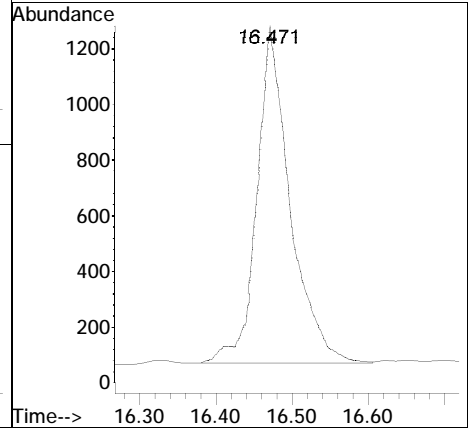
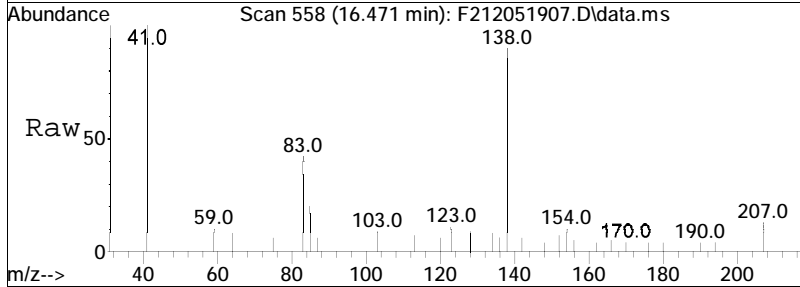
Quant Time: Dec 10 15:16:03 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

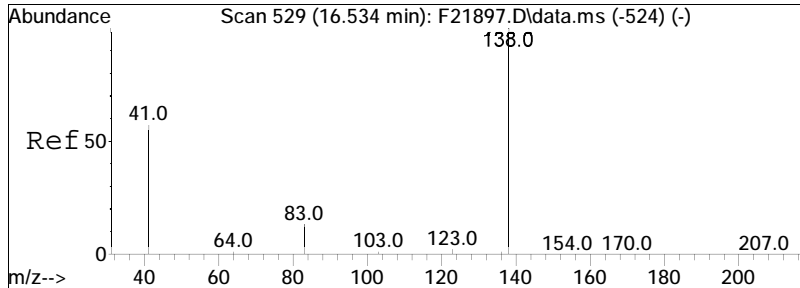
Sub List : ALKPAH - POI+MP+BcF



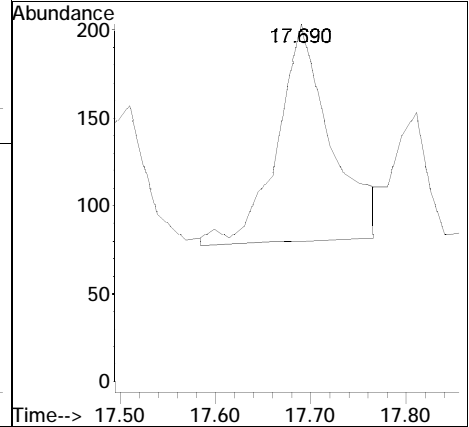
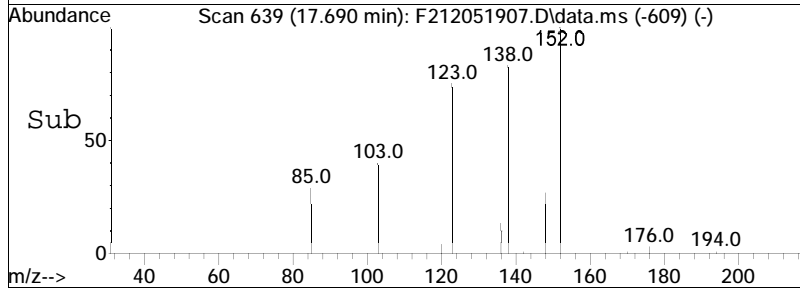
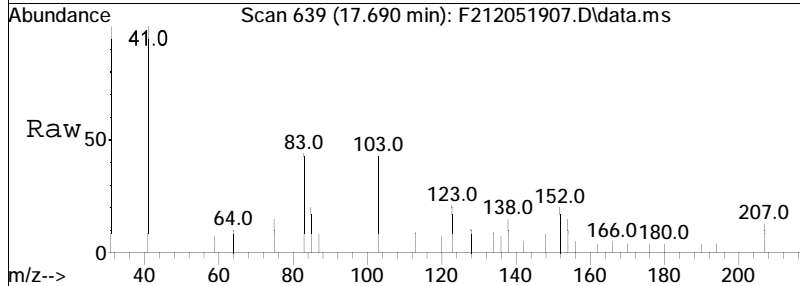


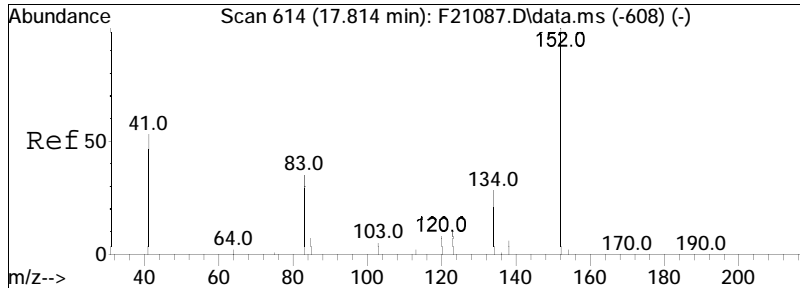
#2
 trans-Decalin
 Concen: 80.28 ng/mL
 RT: 16.471 min Scan# 558
 Delta R.T. -0.060 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:138 Resp: 3628



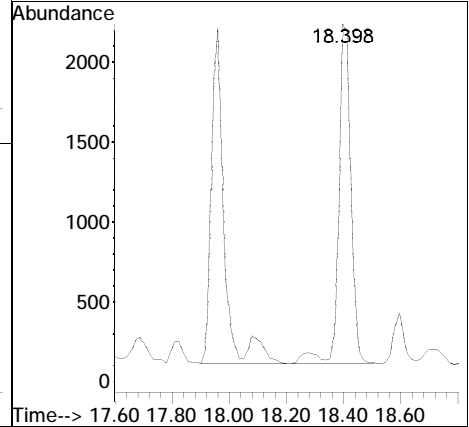
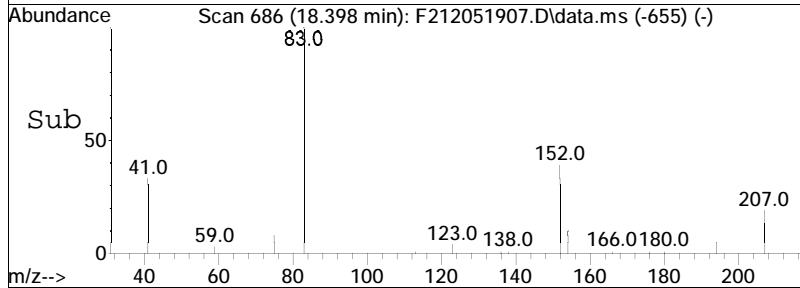
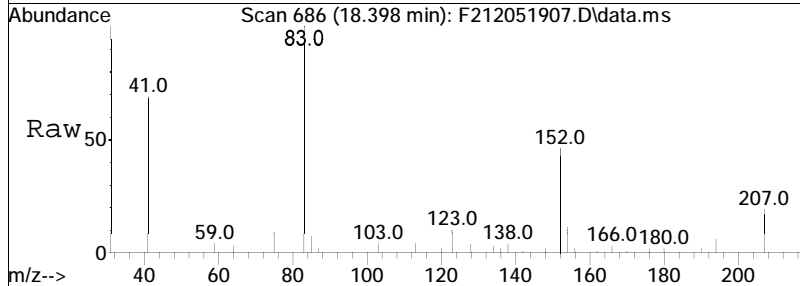


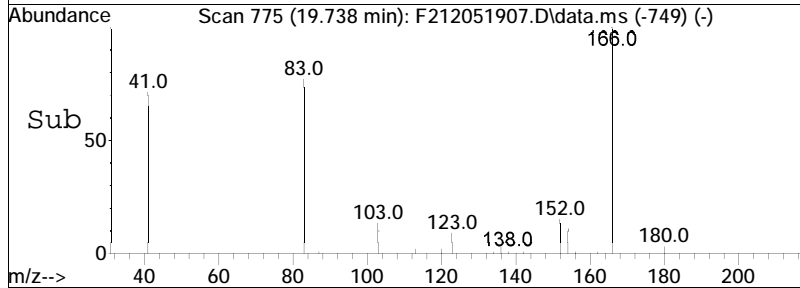
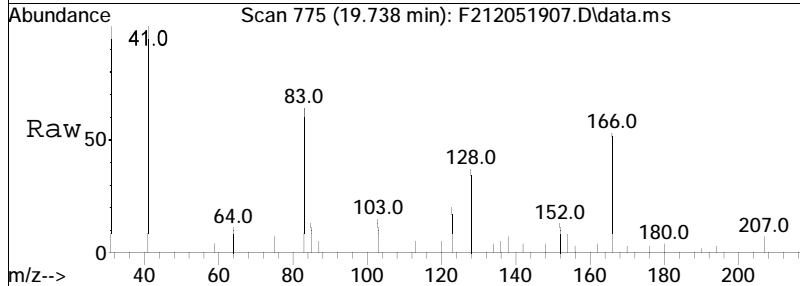
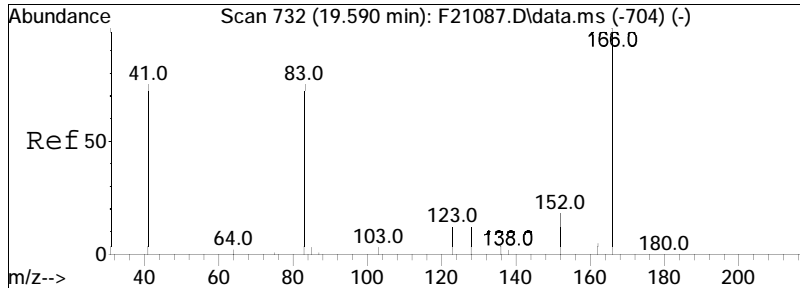
#3
 cis-Decalin
 Concen: 13.92 ng/mL
 RT: 17.690 min Scan# 639
 Delta R.T. -0.051 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:138 Resp: 485



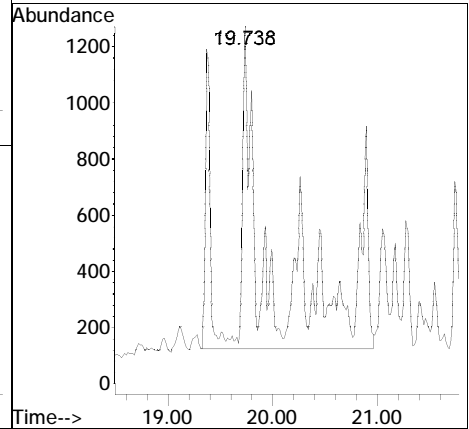


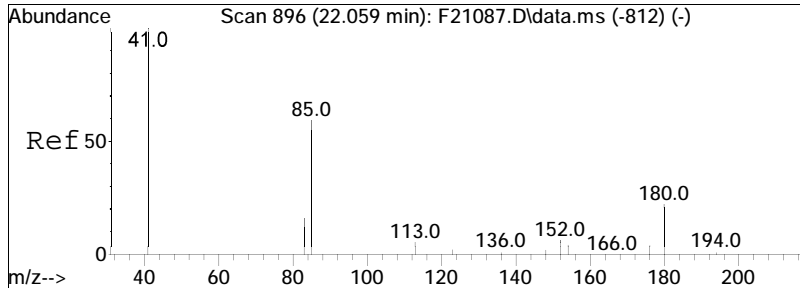
#4
 C1-Decalins
 Concen: 286.36 ng/mL M5
 RT: 18.398 min Scan# 686
 Delta R.T. -0.061 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:152 Resp: 12941



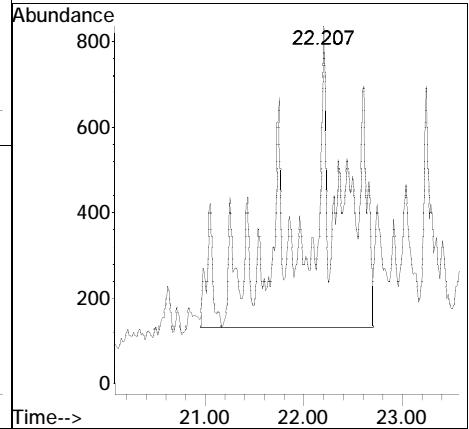
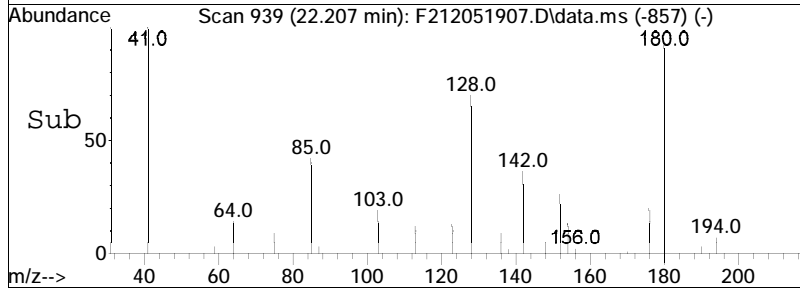
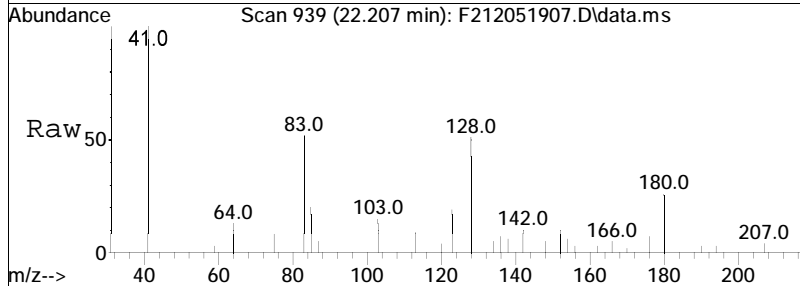


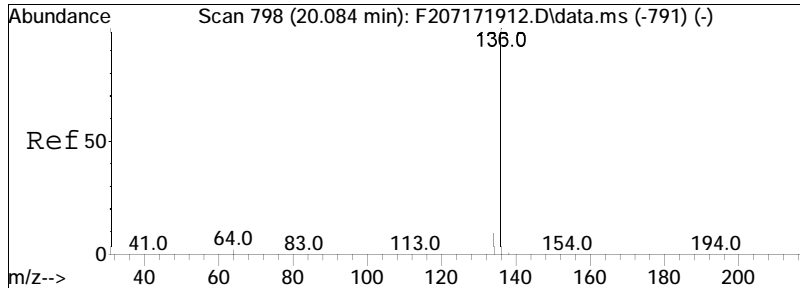
#5
 C2-Decalins
 Concen: 521.03 ng/mL M5
 RT: 19.738 min Scan# 775
 Delta R.T. -0.036 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:166 Resp: 23546



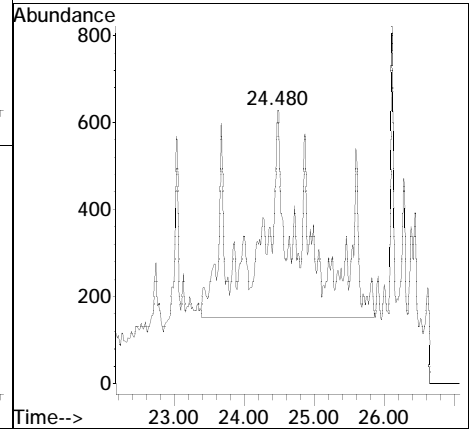
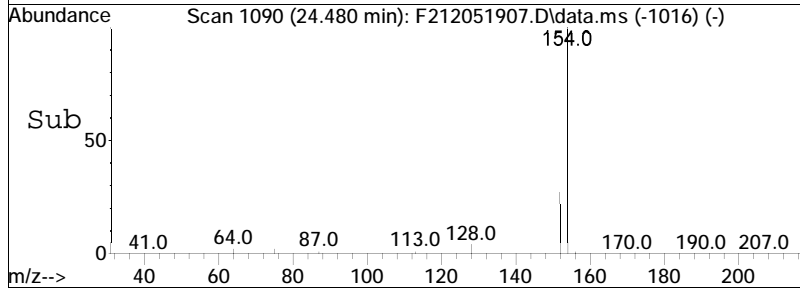
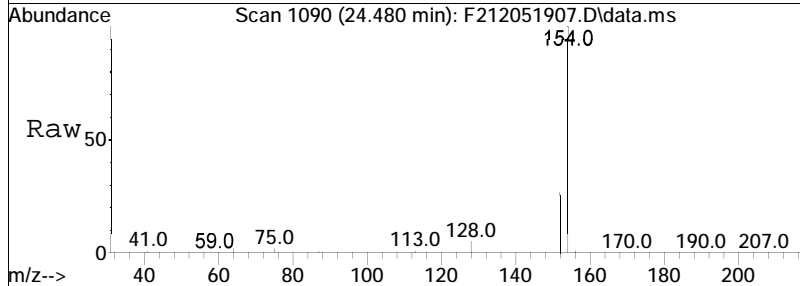


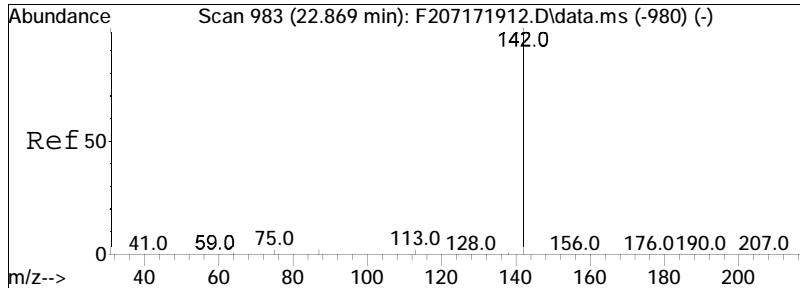
#6
 C3-Decalins
 Concen: 467.46 ng/mL M5
 RT: 22.207 min Scan# 939
 Delta R.T. -0.046 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:180 Resp: 21125



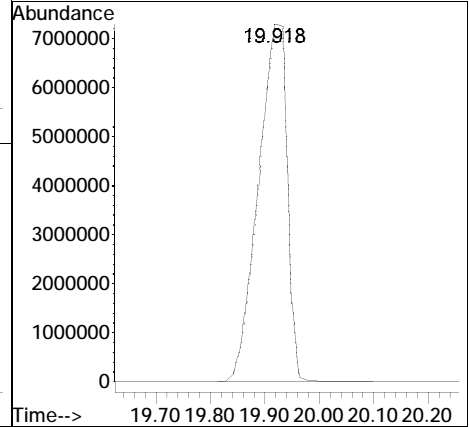
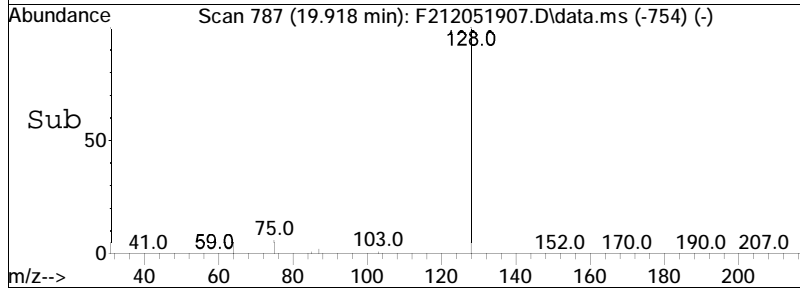
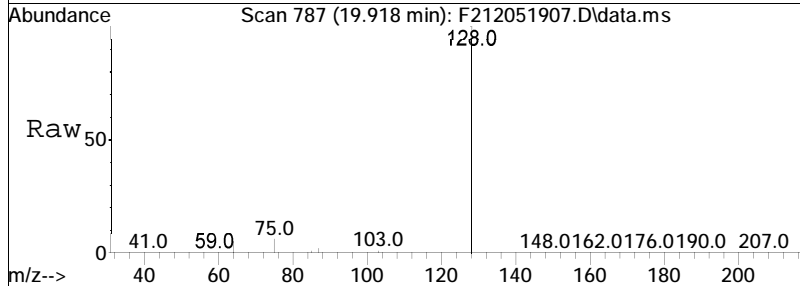


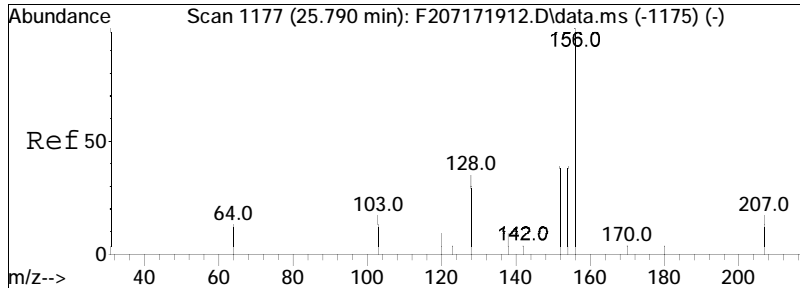
#7
 C4-Decalins
 Concen: 470.16 ng/mL M5
 RT: 24.480 min Scan# 1090
 Delta R.T. -1.126 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:194 Resp: 21247



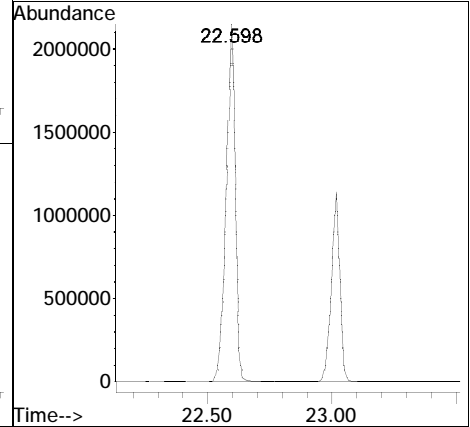
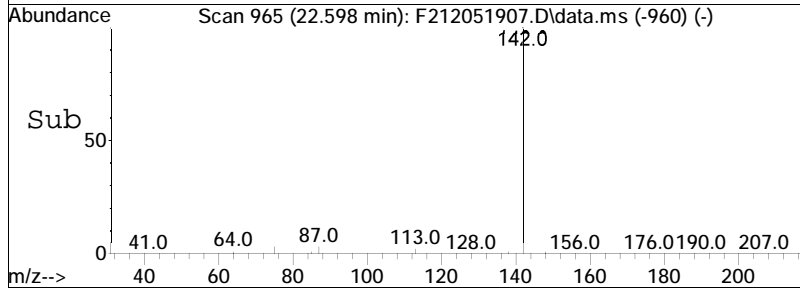
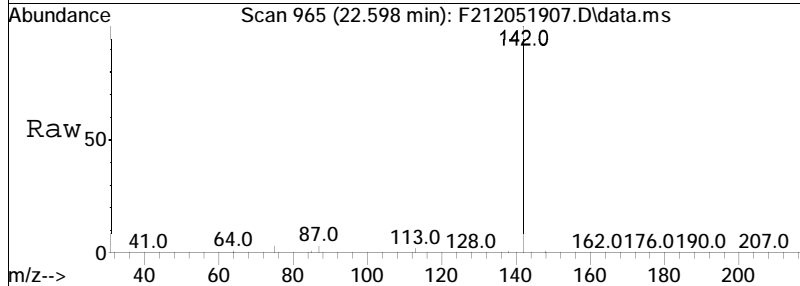


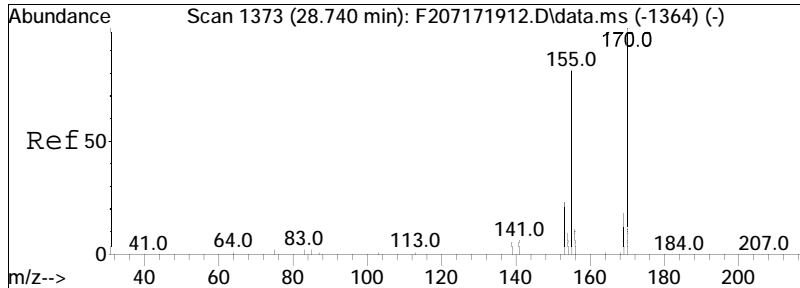
#9
 Naphthalene
 Concen: 110219.24 ng/mL
 RT: 19.918 min Scan# 787
 Delta R.T. -0.005 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:128 Resp:26481646



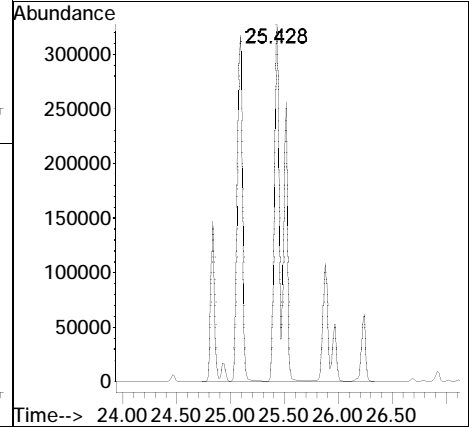
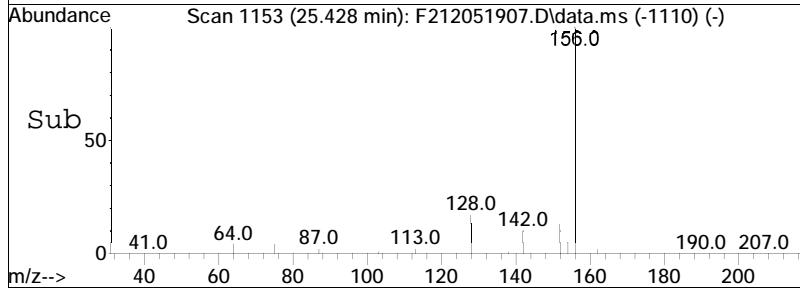
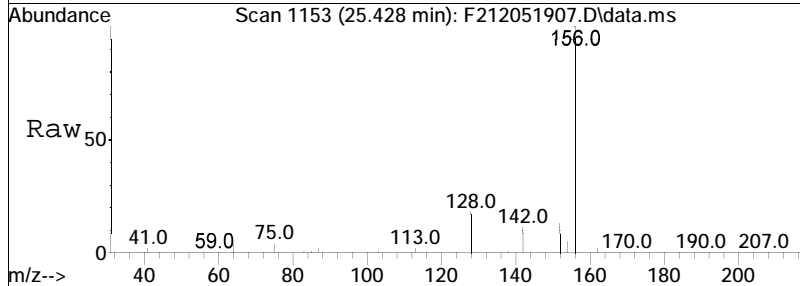


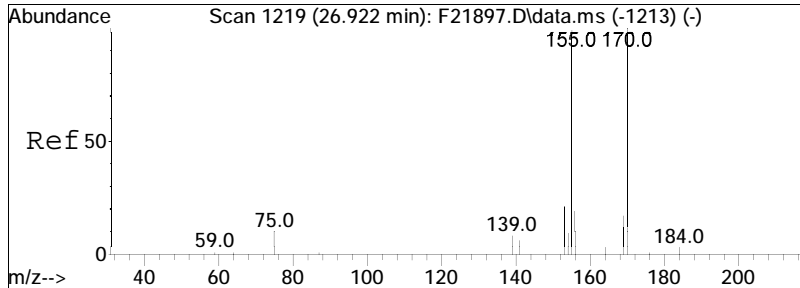
#10
 Cl-Naphthalenes
 Concen: 33967.13 ng/mL M5
 RT: 22.598 min Scan# 965
 Delta R.T. -0.006 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:142 Resp: 8161058





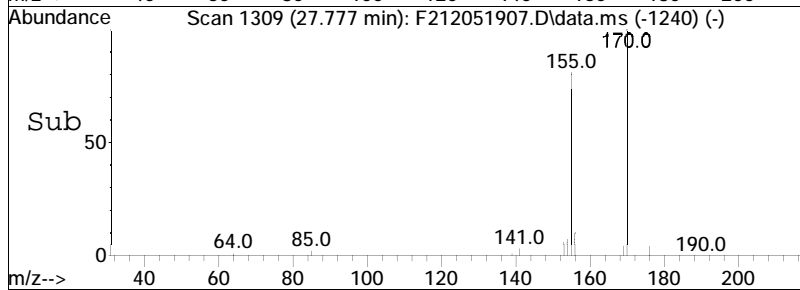
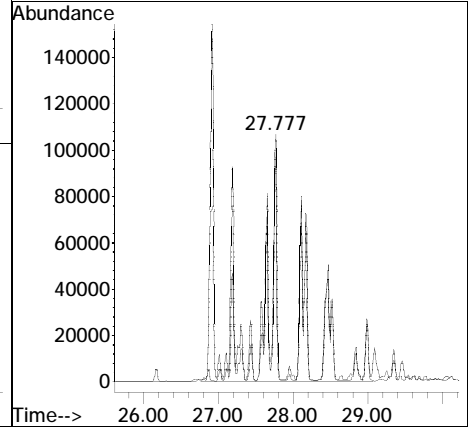
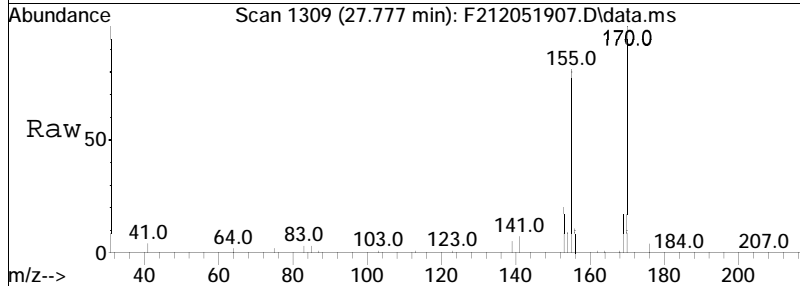
#11
 C2-Naphthalenes
 Concen: 15421.62 ng/mL M5
 RT: 25.428 min Scan# 1153
 Delta R.T. -0.014 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:156 Resp: 3705251

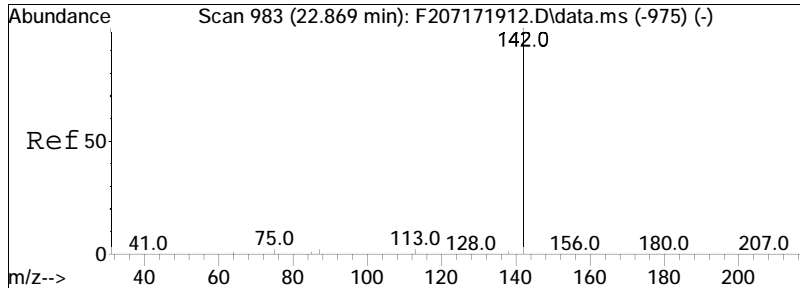




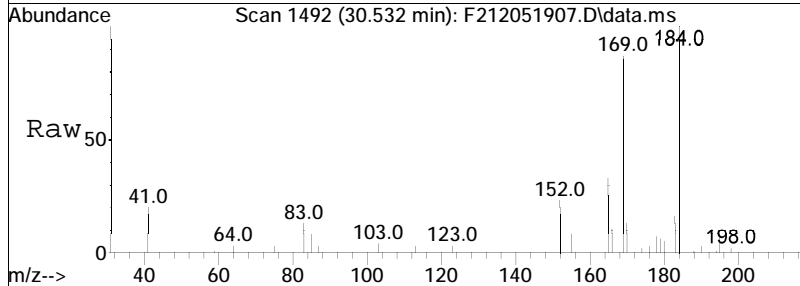
#12
 C3-Naphthalenes
 Concen: 6560.11 ng/mL M5
 RT: 27.777 min Scan# 1309
 Delta R.T. 0.025 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

Tgt Ion:170 Resp: 1576153
 Ion Ratio Lower Upper
 170 100
 155 17.0 66.8 124.0#

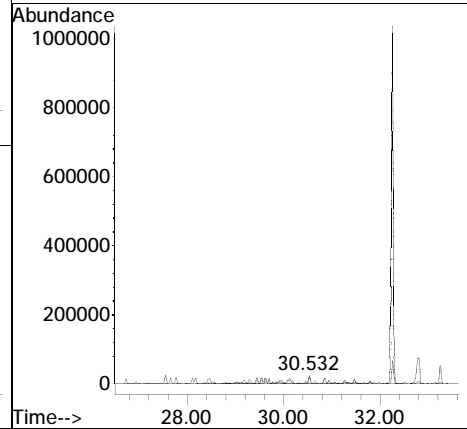
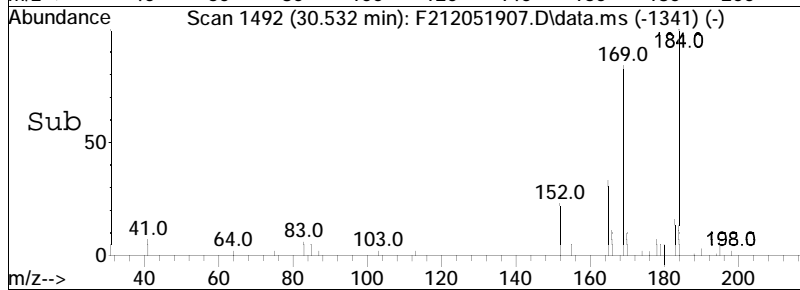


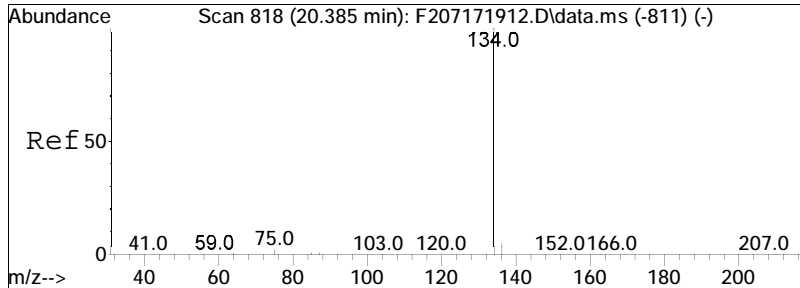


#13
 C4-Naphthalenes
 Concen: 2504.33 ng/mL M5
 RT: 30.532 min Scan# 1492
 Delta R.T. 0.037 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

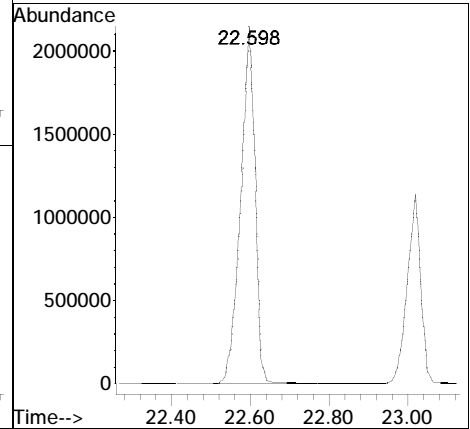
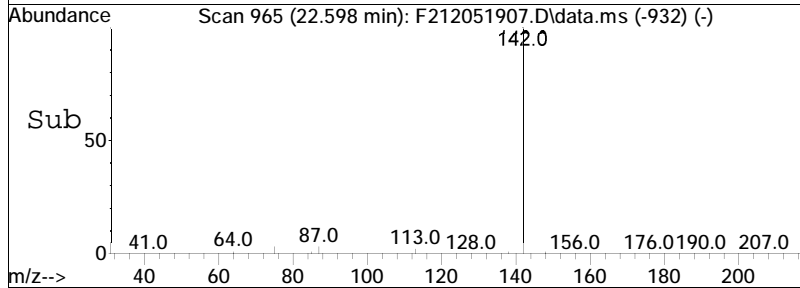
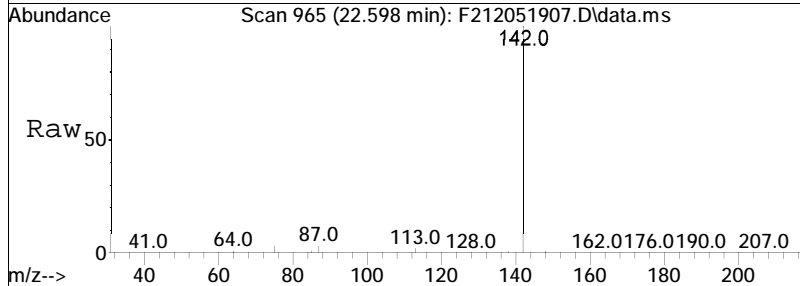


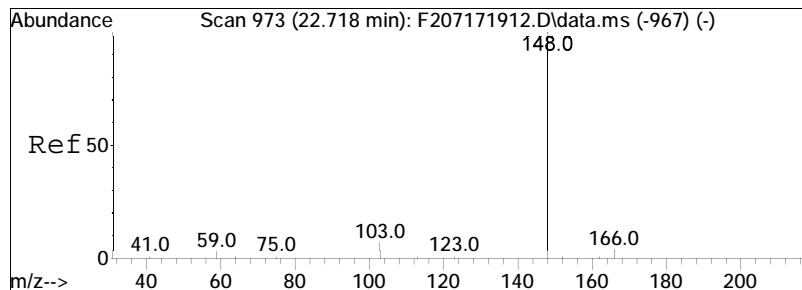
Tgt Ion	Ratio	Lower	Upper
184	100		
169	3.6	65.7	121.9#
183	0.9	22.5	41.9#



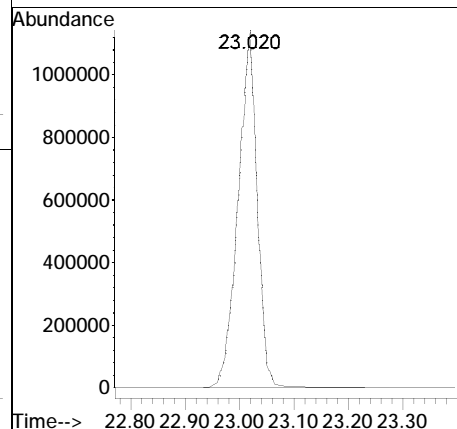
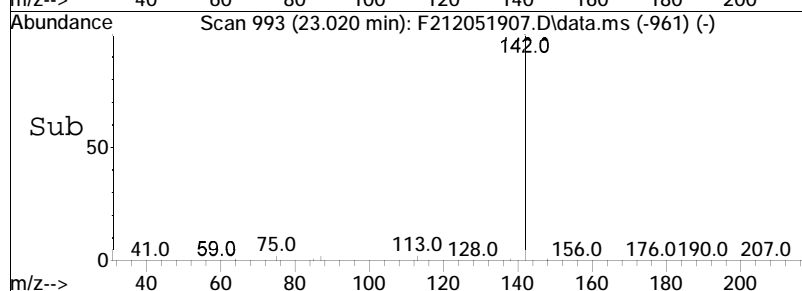
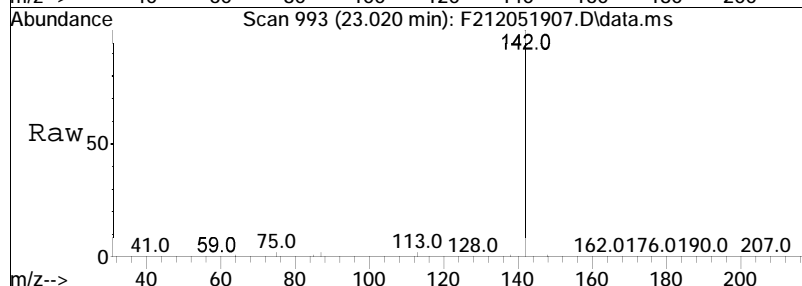


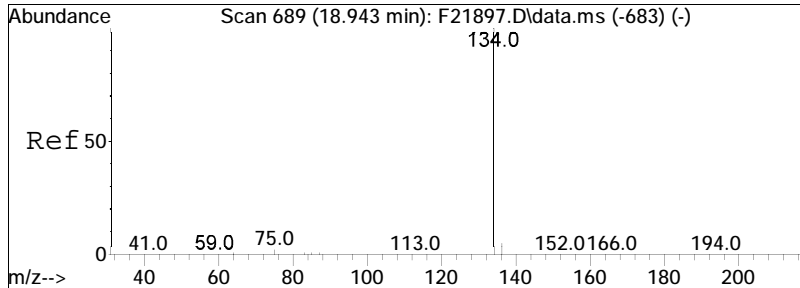
#14
 2-Methylnaphthalene
 Concen: 34299.12 ng/mL
 RT: 22.598 min Scan# 965
 Delta R.T. -0.001 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:142 Resp: 5436830



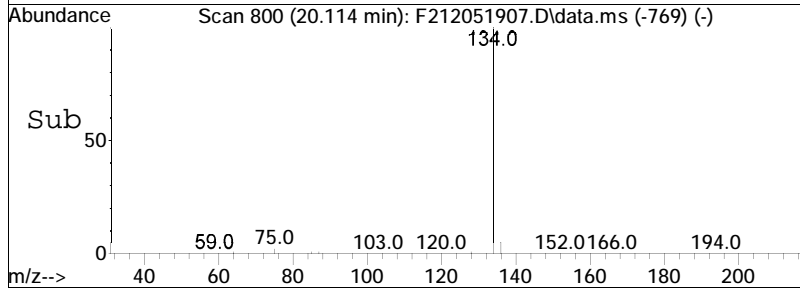
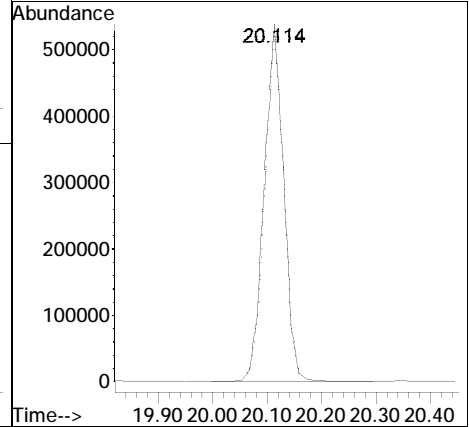
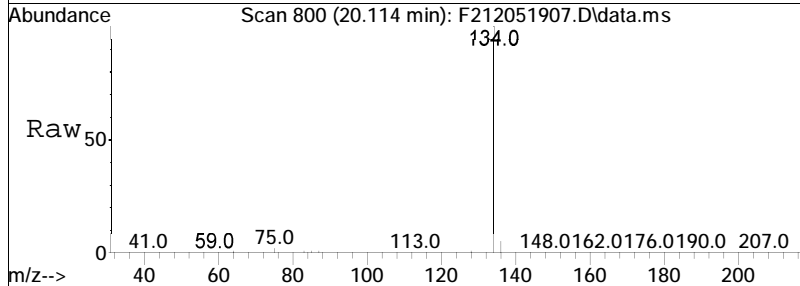


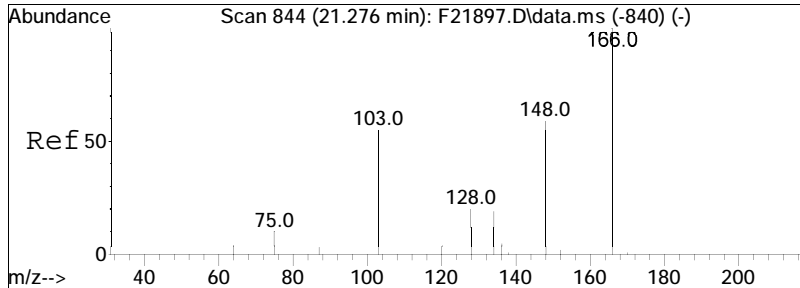
#15
 1-Methylnaphthalene
 Concen: 17839.89 ng/mL
 RT: 23.020 min Scan# 993
 Delta R.T. -0.012 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:142 Resp: 2716212



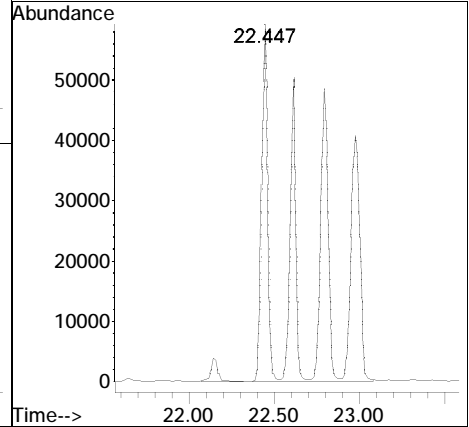
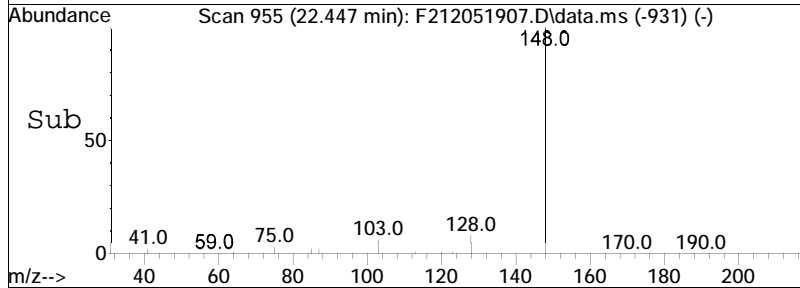
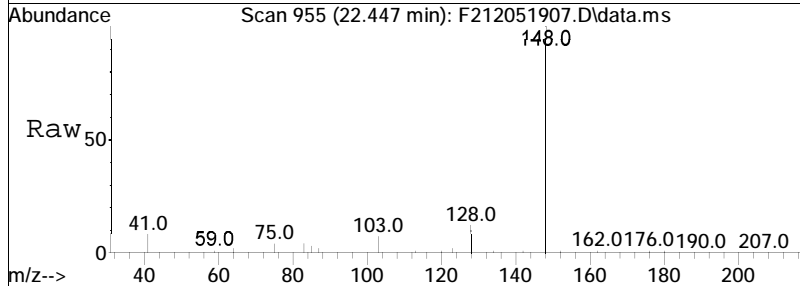


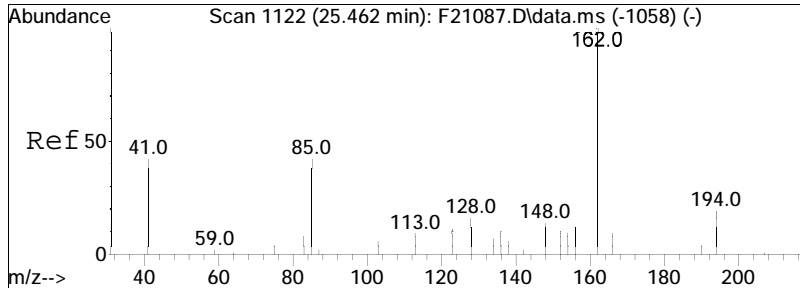
#16
 Benzothiophene
 Concen: 6972.63 ng/mL
 RT: 20.114 min Scan# 800
 Delta R.T. -0.033 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:134 Resp: 1305888



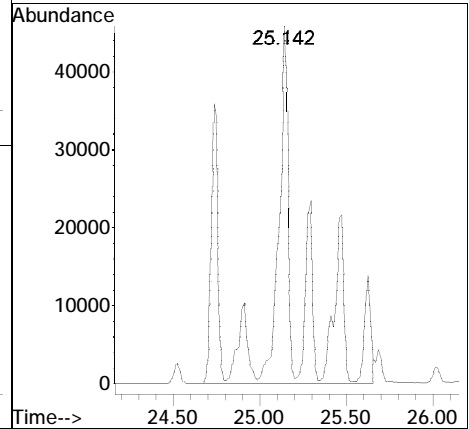
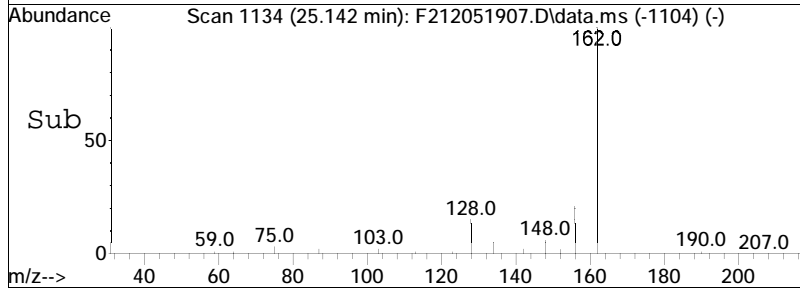
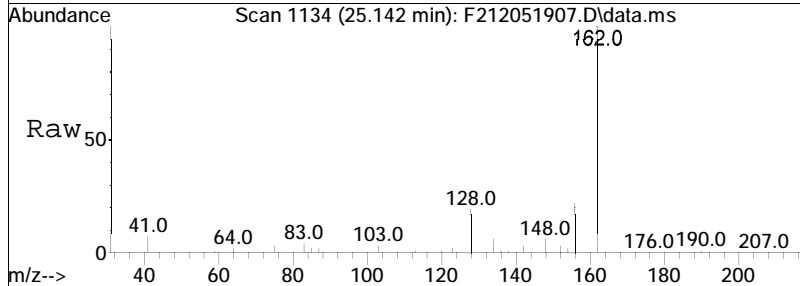


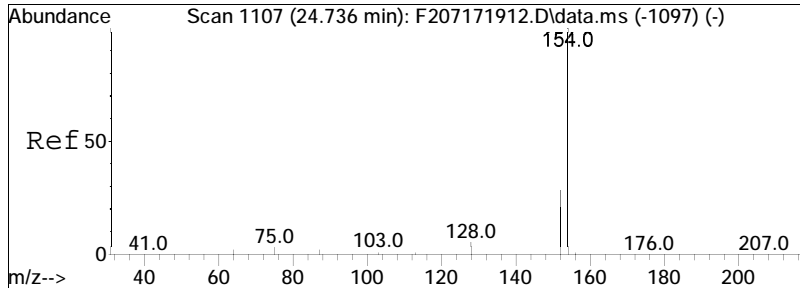
#17
 Cl-Benzo(b)thiophenes
 Concen: 2995.83 ng/mL M5
 RT: 22.447 min Scan# 955
 Delta R.T. 0.270 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:148 Resp: 561082



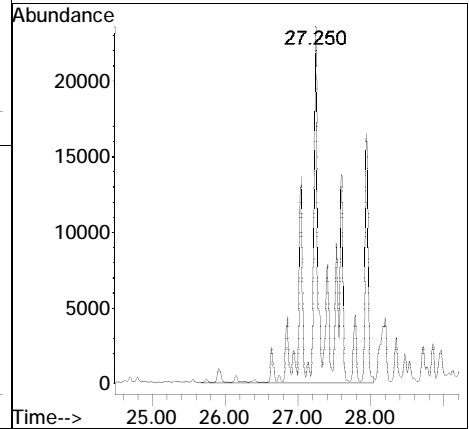
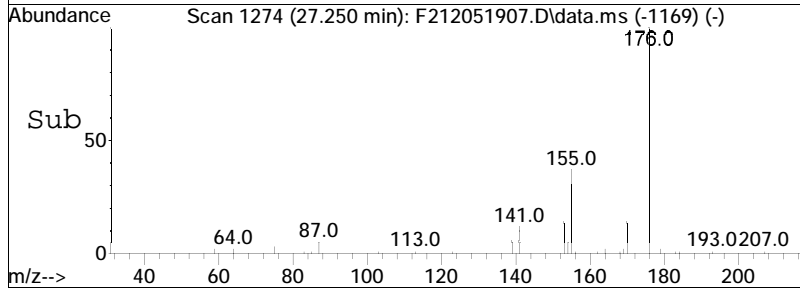
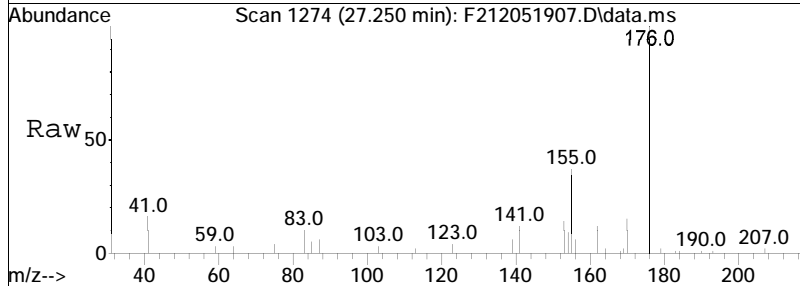


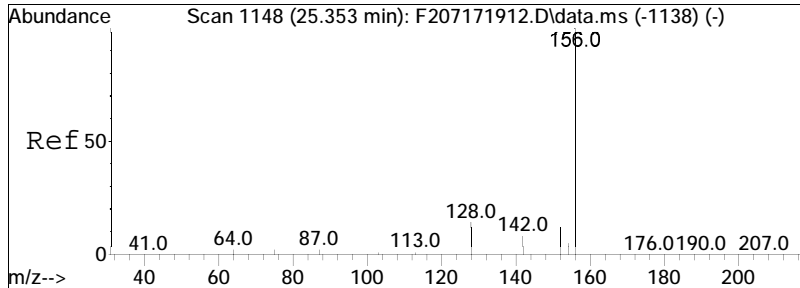
#18
 C2-Benzo(b)thiophenes
 Concen: 2549.33 ng/mL M5
 RT: 25.142 min Scan# 1134
 Delta R.T. -0.493 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:162 Resp: 477459



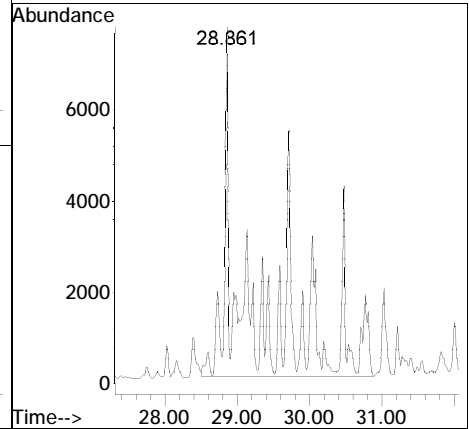
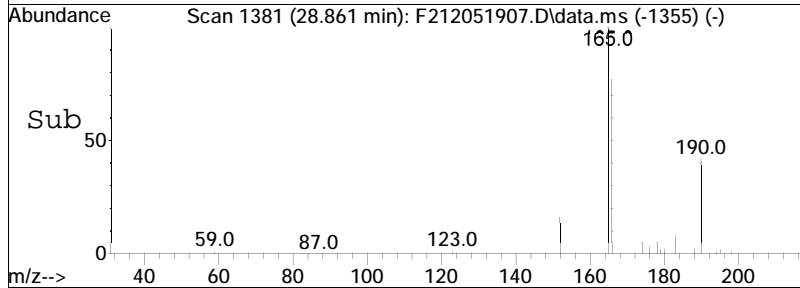
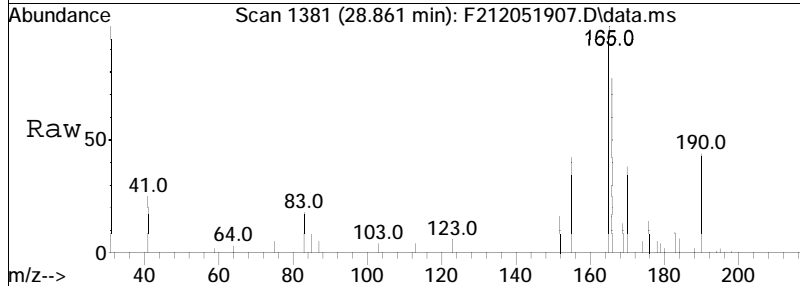


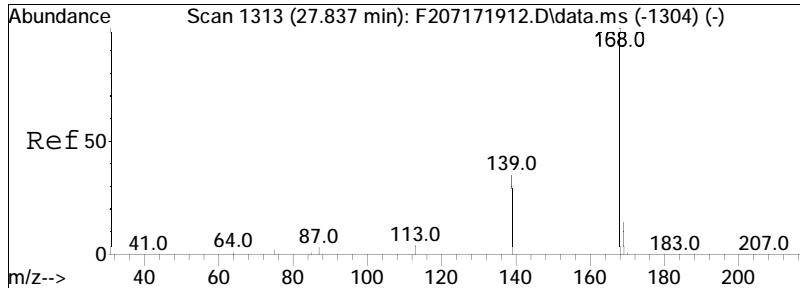
#19
 C3-Benzo(b)thiophenes
 Concen: 1557.75 ng/mL M5
 RT: 27.250 min Scan# 1274
 Delta R.T. -0.338 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:176 Resp: 291748



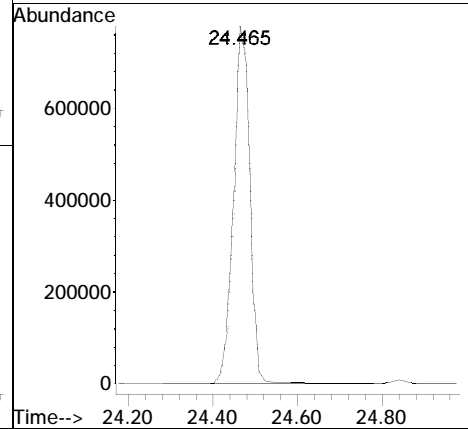
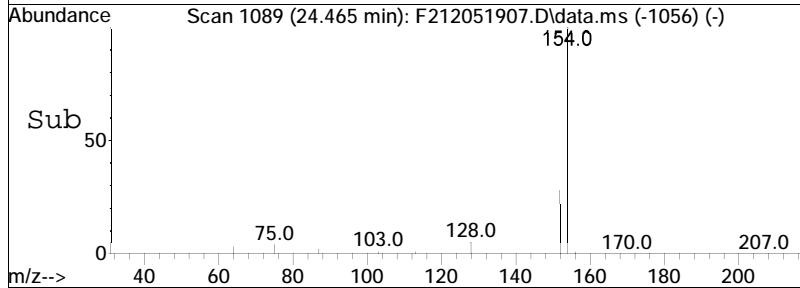
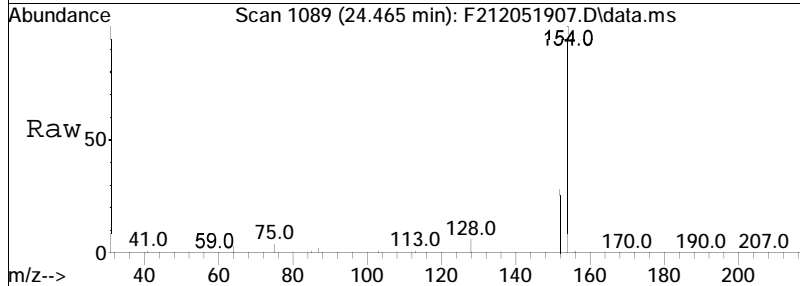


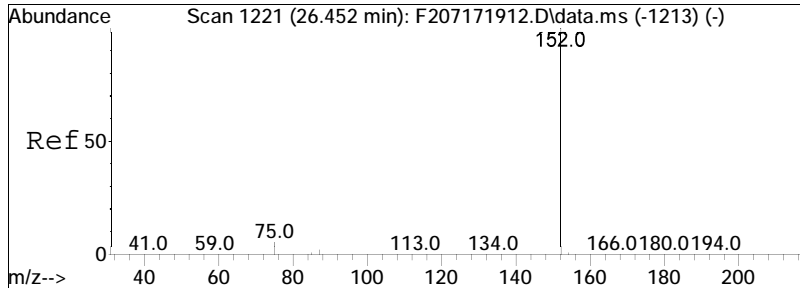
#20
 C4-Benzo(b)thiophenes
 Concen: 797.08 ng/mL M5
 RT: 28.861 min Scan# 1381
 Delta R.T. -0.456 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:190 Resp: 149284



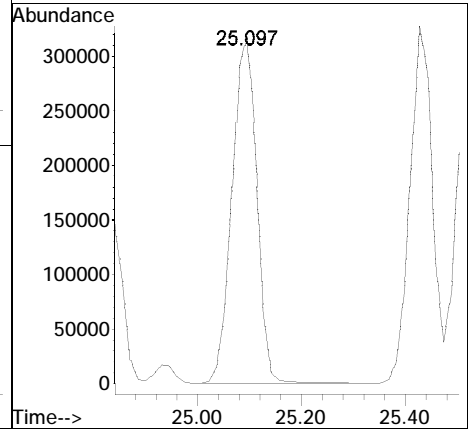
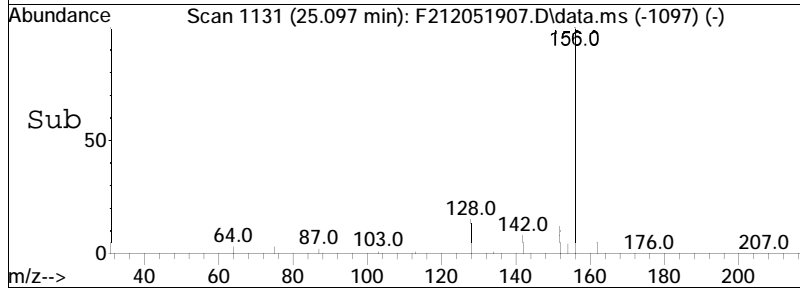
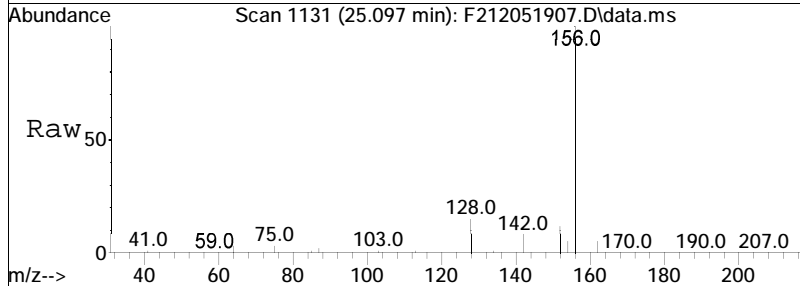


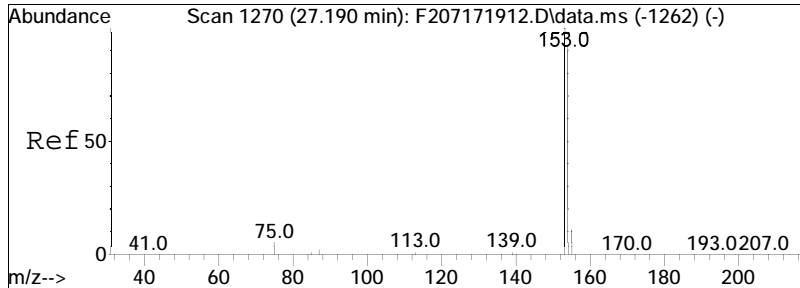
#21
 Biphenyl
 Concen: 10572.78 ng/mL
 RT: 24.465 min Scan# 1089
 Delta R.T. -0.002 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:154 Resp: 2039742





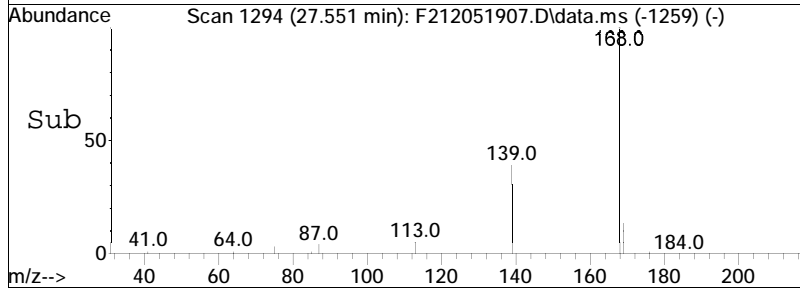
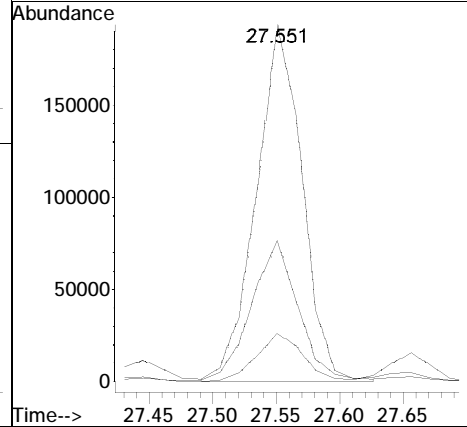
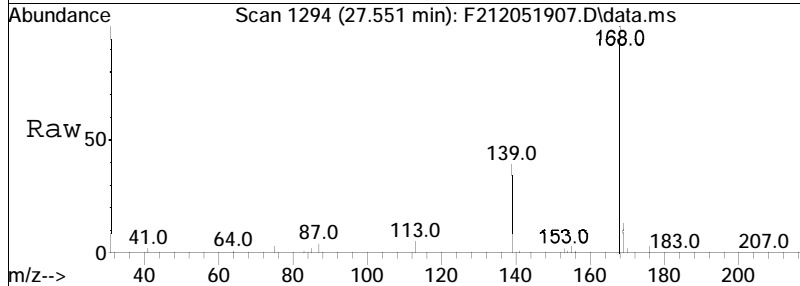
#22
 2,6-Dimethylnaphthalene
 Concen: 7366.55 ng/mL
 RT: 25.097 min Scan# 1131
 Delta R.T. 0.018 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:156 Resp: 1044882

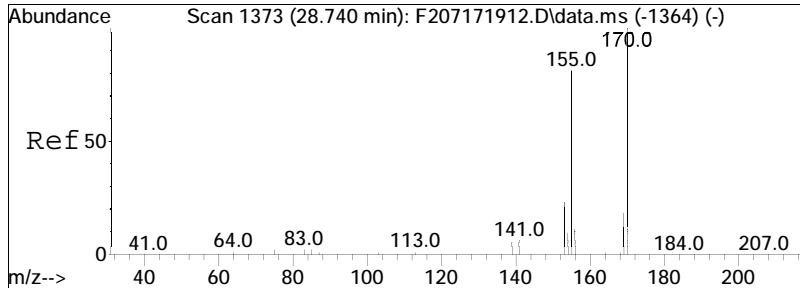




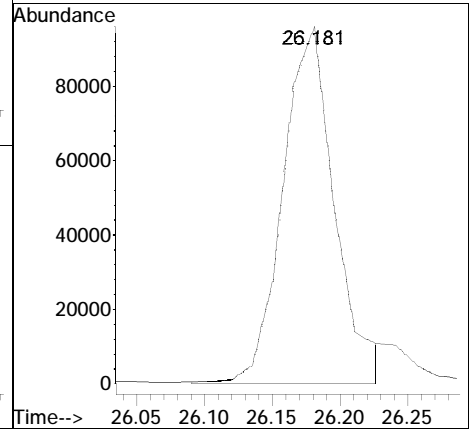
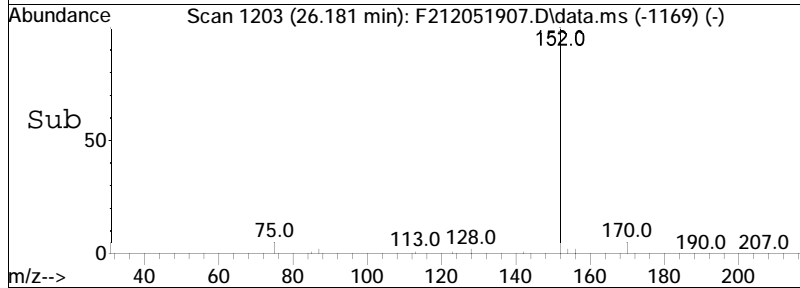
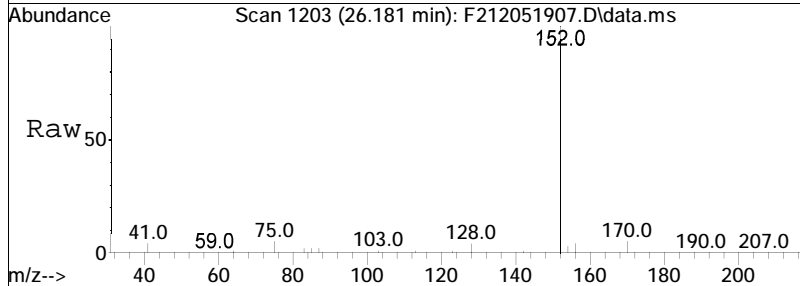
#23
 Dibenzofuran
 Concen: 2338.60 ng/mL
 RT: 27.551 min Scan# 1294
 Delta R.T. 0.020 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

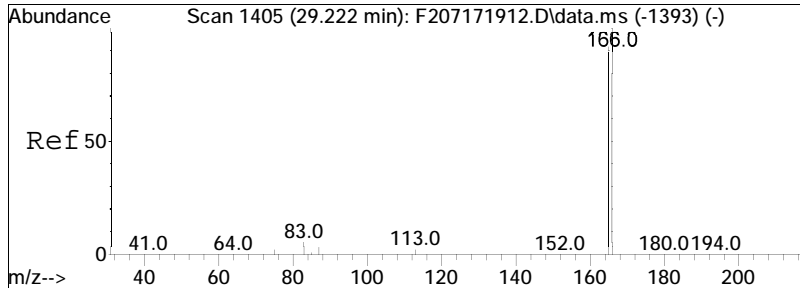
Tgt Ion	Ratio	Lower	Upper
168	100		
139	40.1	27.2	50.4
169	13.9	9.5	17.7





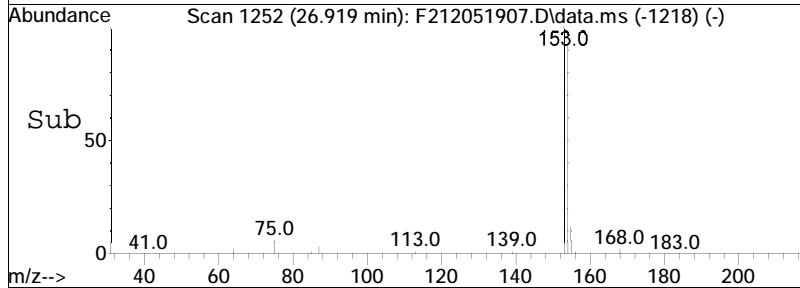
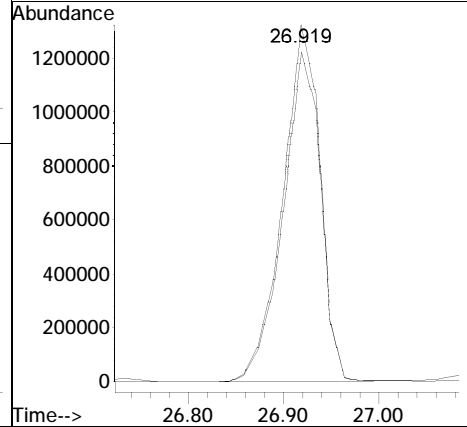
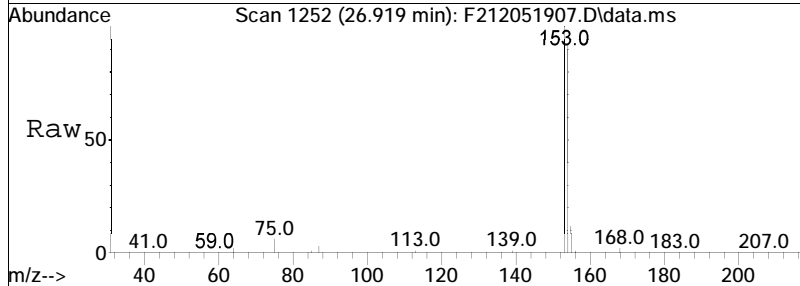
#24
 Acenaphthylene
 Concen: 1074.40 ng/mL M3
 RT: 26.181 min Scan# 1203
 Delta R.T. 0.010 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:152 Resp: 254195

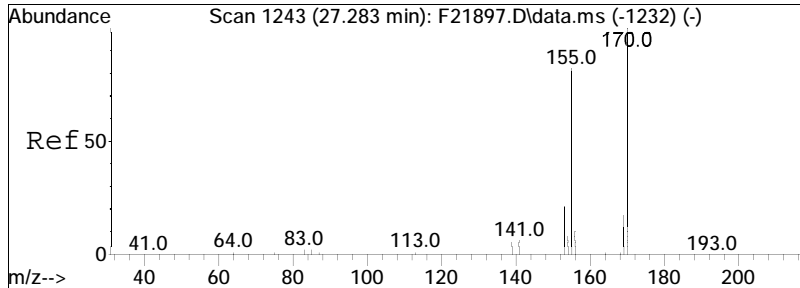




#25
 Acenaphthene
 Concen: 24437.42 ng/mL
 RT: 26.919 min Scan# 1252
 Delta R.T. 0.016 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

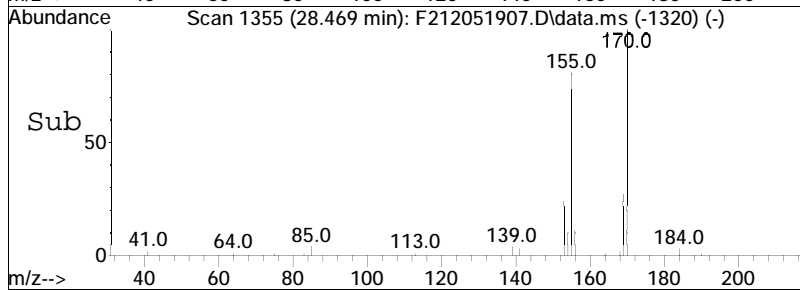
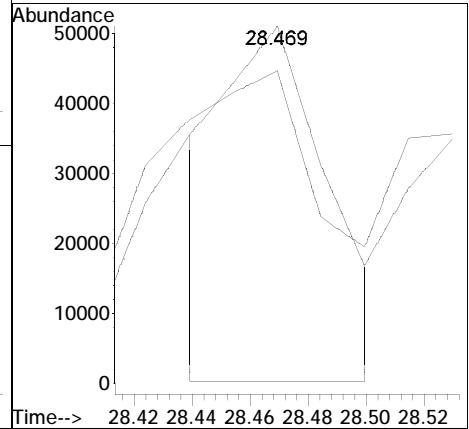
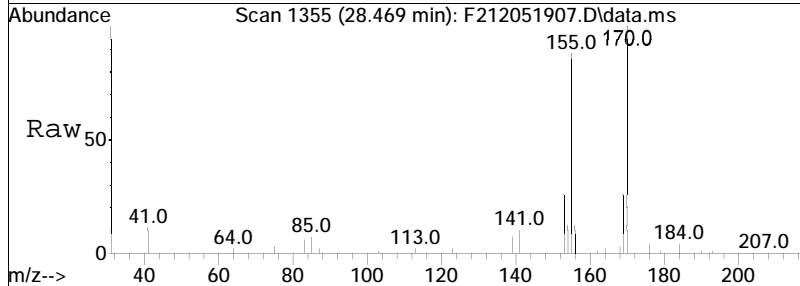
Tgt Ion: 153 Resp: 3610360
 Ion Ratio Lower Upper
 153 100
 154 93.1 66.5 123.5

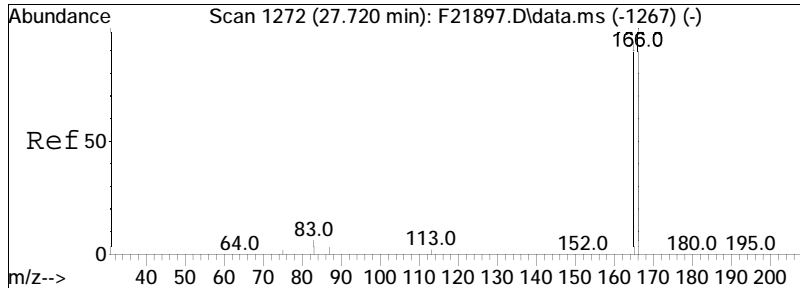




#26
 2,3,5-Trimethylnaphthalene
 Concen: 979.22 ng/mL M3
 RT: 28.469 min Scan# 1355
 Delta R.T. 0.027 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

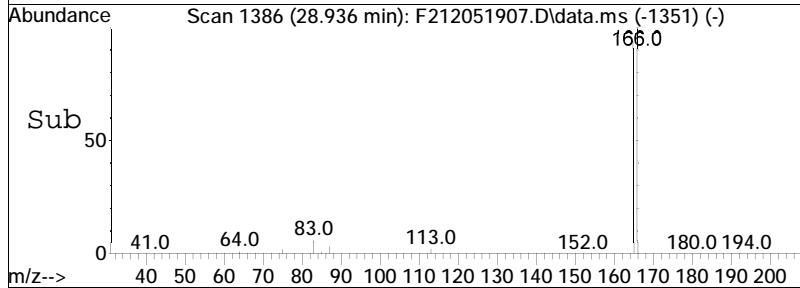
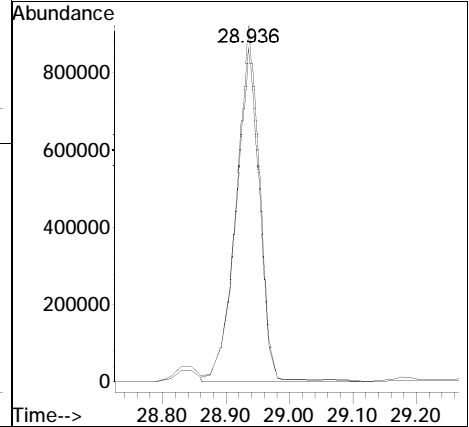
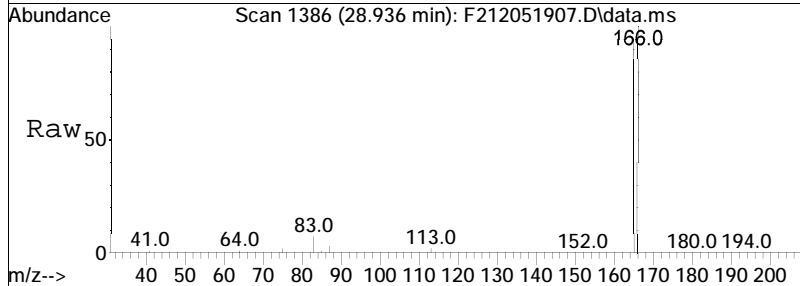
Tgt Ion:	170	Resp:	126878
Ion Ratio	Lower	Upper	
170	100		
155	151.0	59.1	109.7#

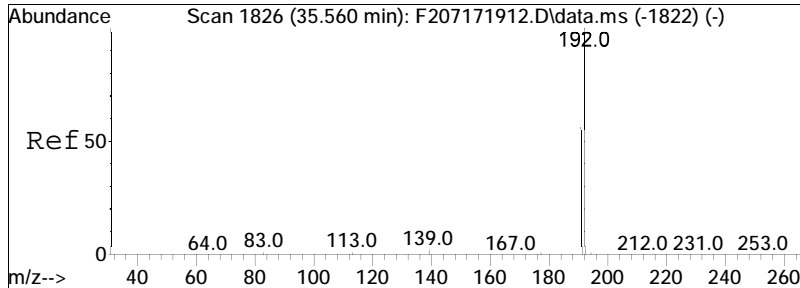




#27
 Fluorene
 Concen: 13988.78 ng/mL
 RT: 28.936 min Scan# 1386
 Delta R.T. 0.030 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

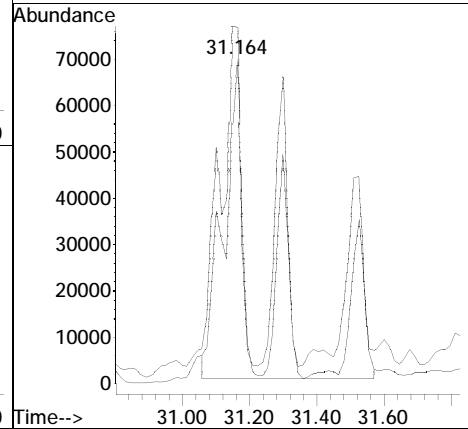
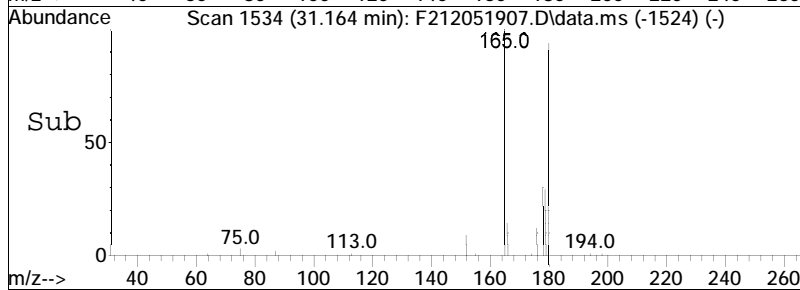
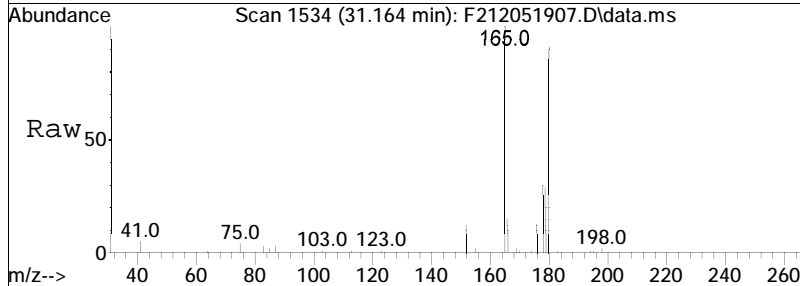
Tgt Ion: 166 Resp: 2340849
 Ion Ratio Lower Upper
 166 100
 165 92.1 63.9 118.7

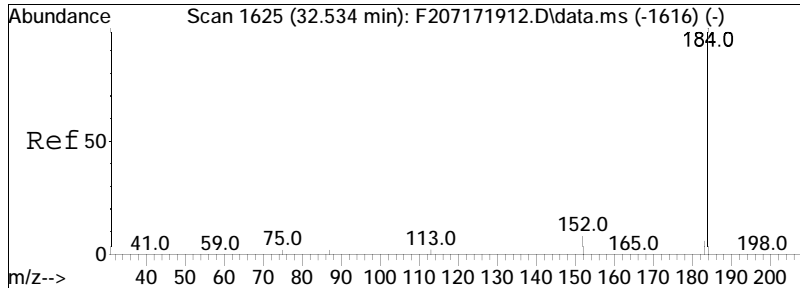




#28
 Cl-Fluorenes
 Concen: 2861.12 ng/mL M5
 RT: 31.164 min Scan# 1534
 Delta R.T. -0.090 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

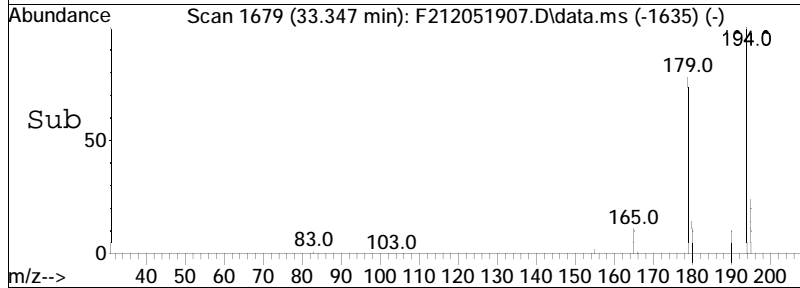
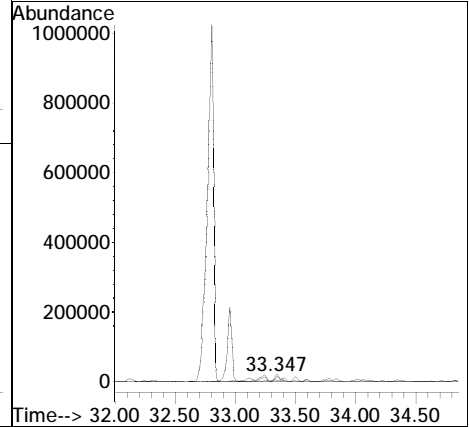
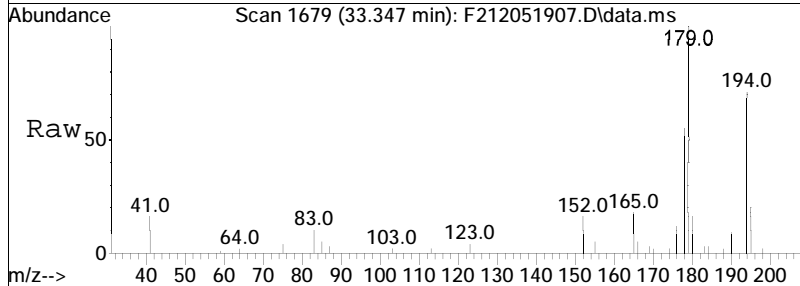
Tgt Ion	Ratio	Lower	Upper
180	100		
165	32.8	97.6	181.2#

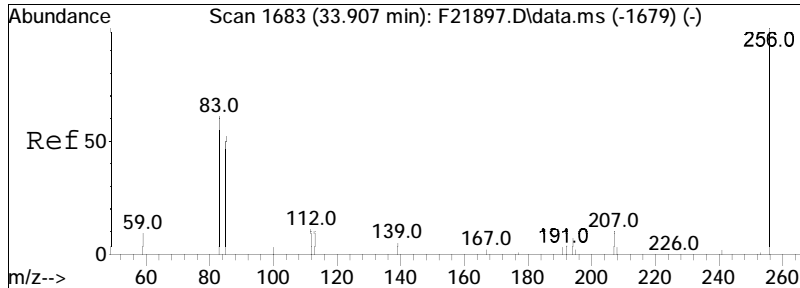




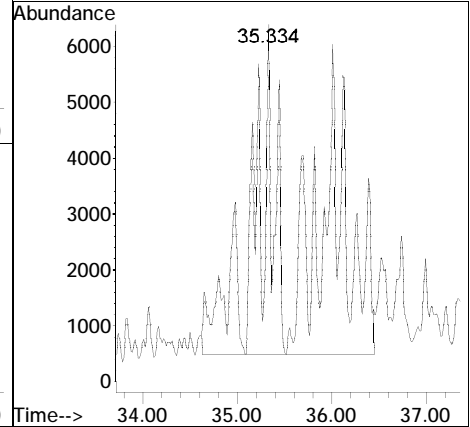
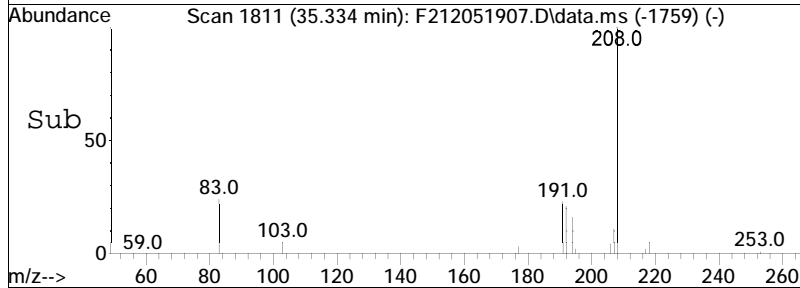
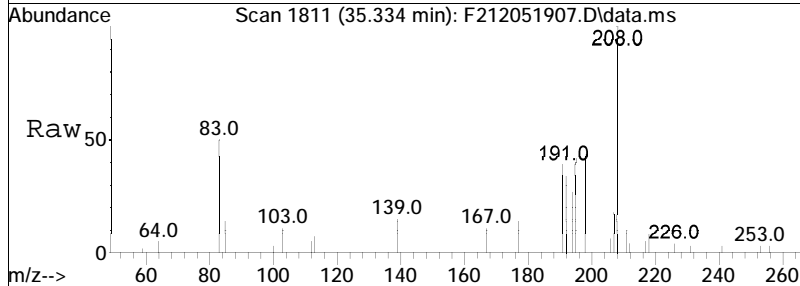
#29
 C2-Fluorenes
 Concen: 1813.78 ng/mL M5
 RT: 33.347 min Scan# 1679
 Delta R.T. -0.087 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

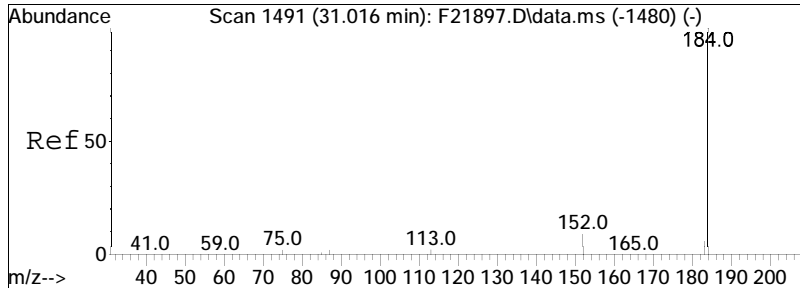
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.2	25.7	47.7#





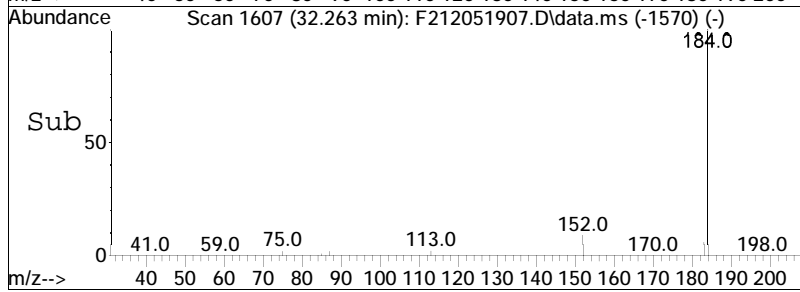
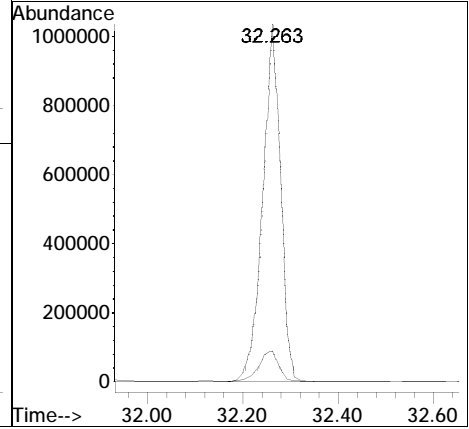
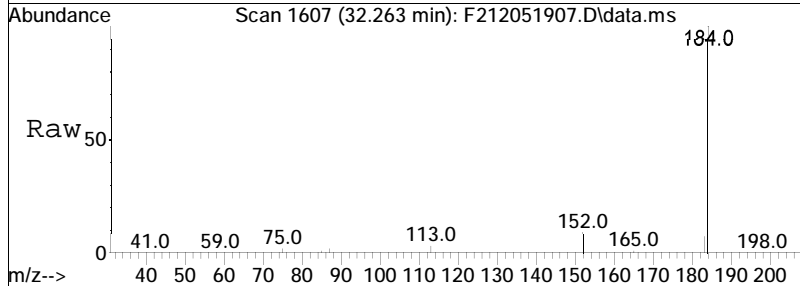
#30
 C3-Fluorenes
 Concen: 1155.86 ng/mL M5
 RT: 35.334 min Scan# 1811
 Delta R.T. 0.086 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion: 208 Resp: 193419

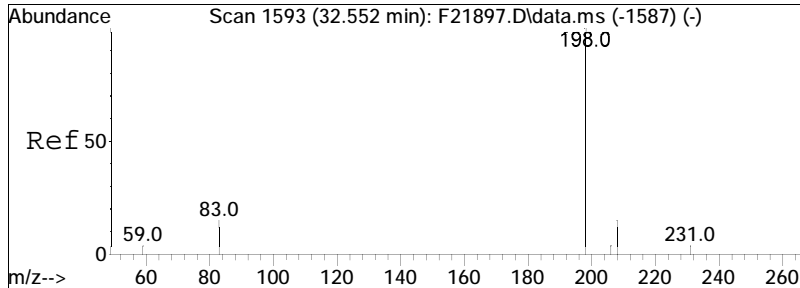




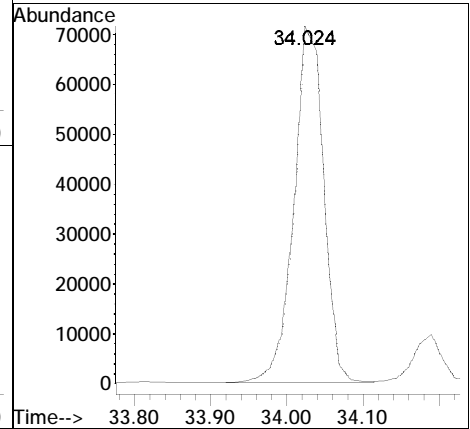
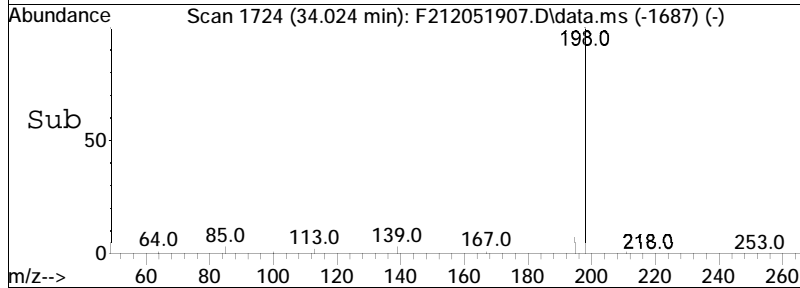
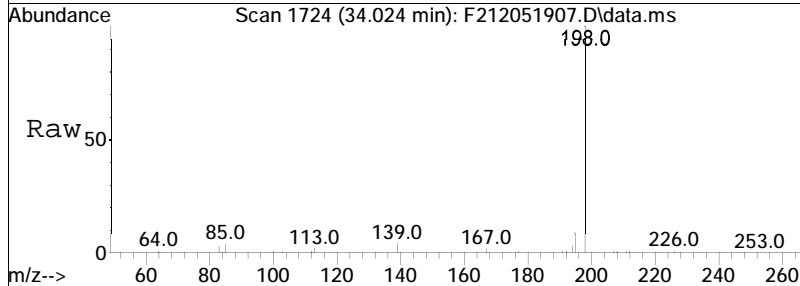
#31
 Dibenzothiophene
 Concen: 11669.29 ng/mL
 RT: 32.263 min Scan# 1607
 Delta R.T. 0.055 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

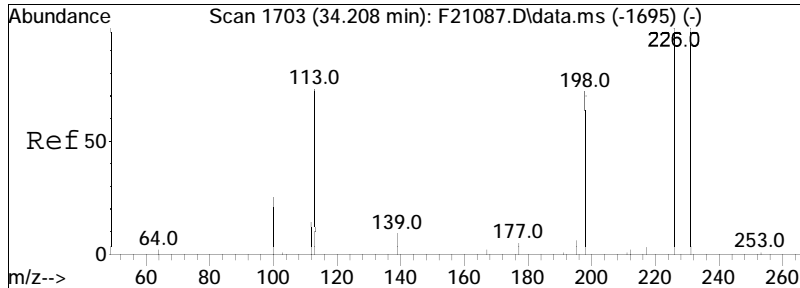
Tgt Ion: 184 Resp: 2644777
 Ion Ratio Lower Upper
 184 100
 152 9.7 5.7 10.5



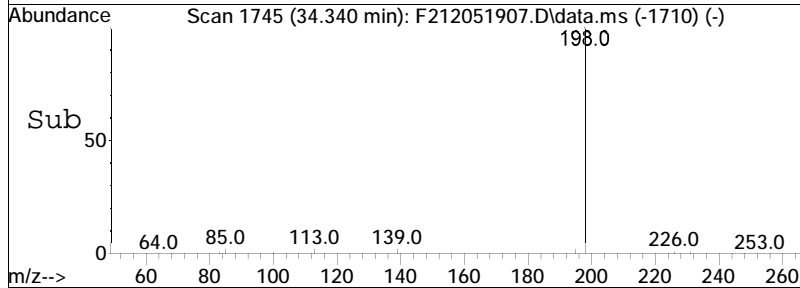
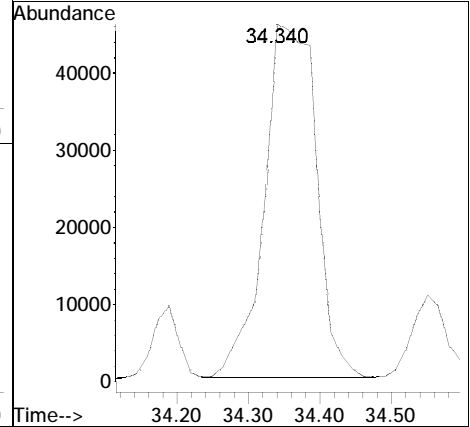
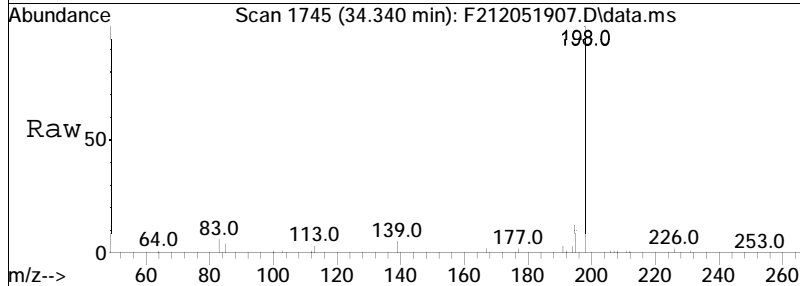


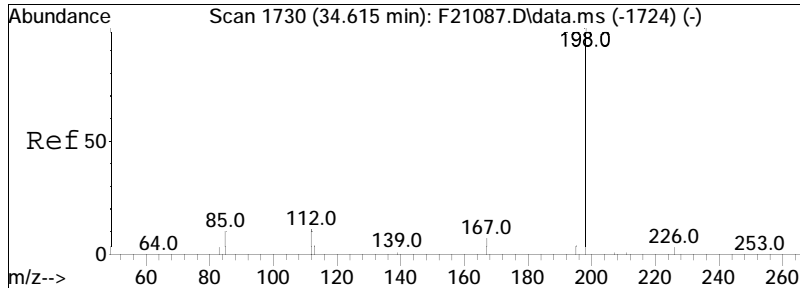
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 849.49 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:198 Resp: 192533



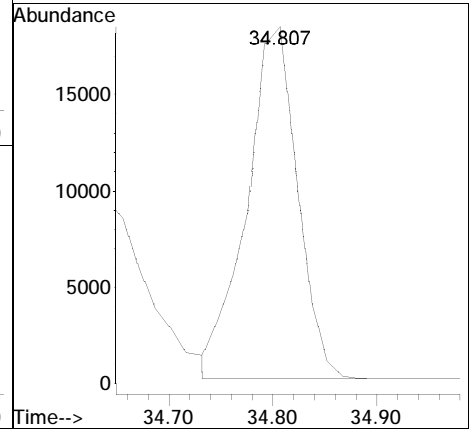
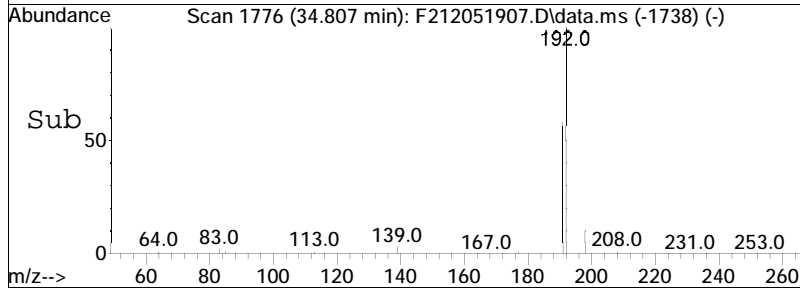
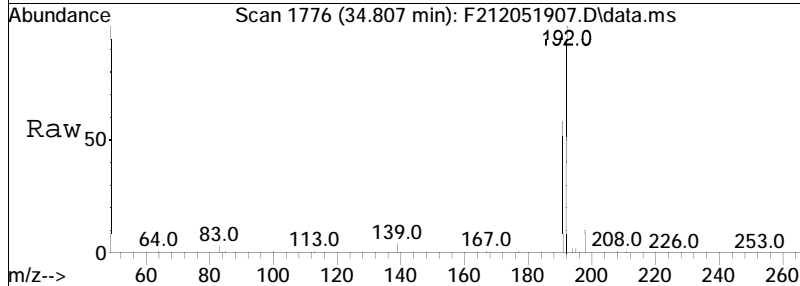


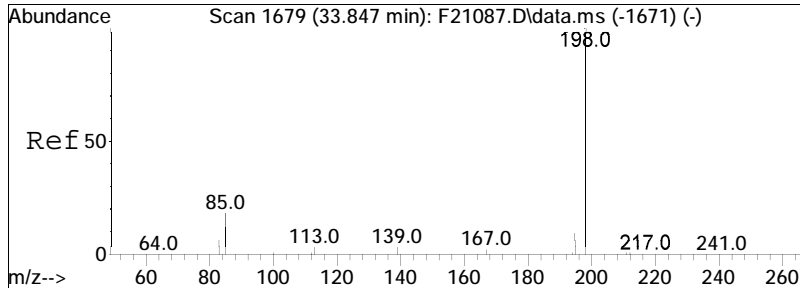
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 1013.04 ng/mL
 RT: 34.340 min Scan# 1745
 Delta R.T. 0.025 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:198 Resp: 229599



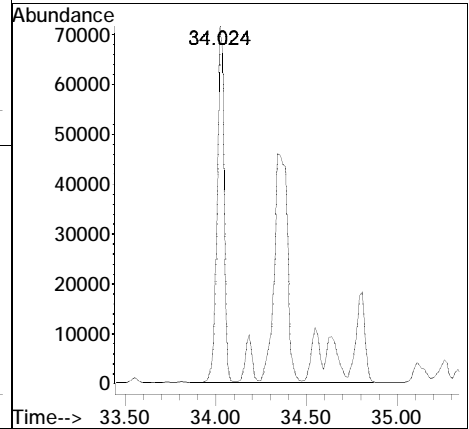
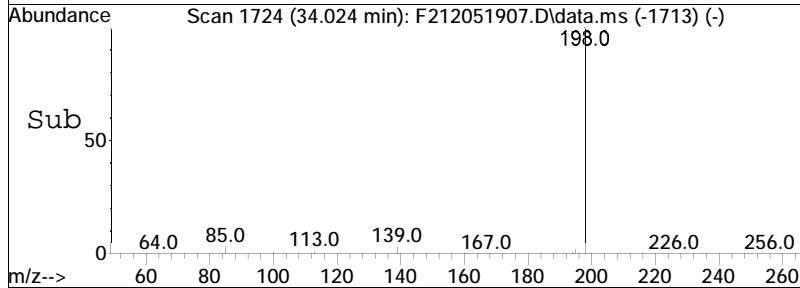
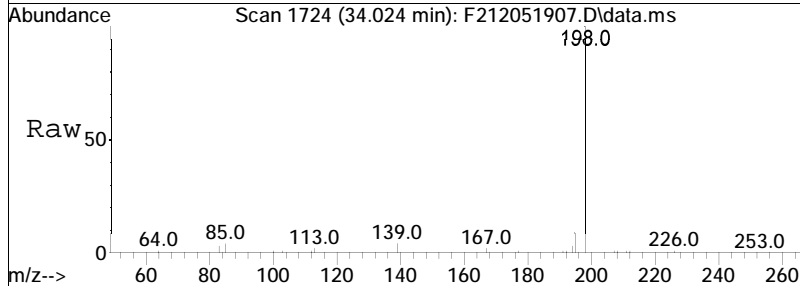


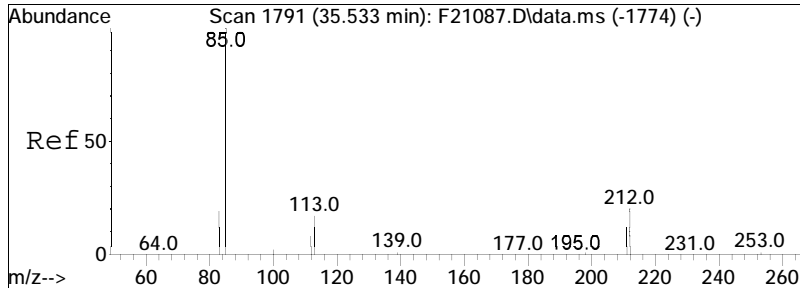
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 273.64 ng/mL
 RT: 34.807 min Scan# 1776
 Delta R.T. 0.073 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:198 Resp: 62020



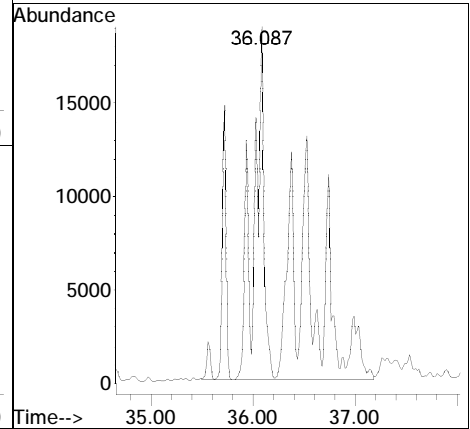
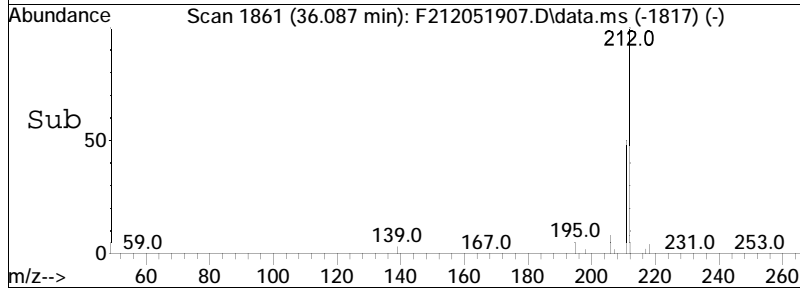
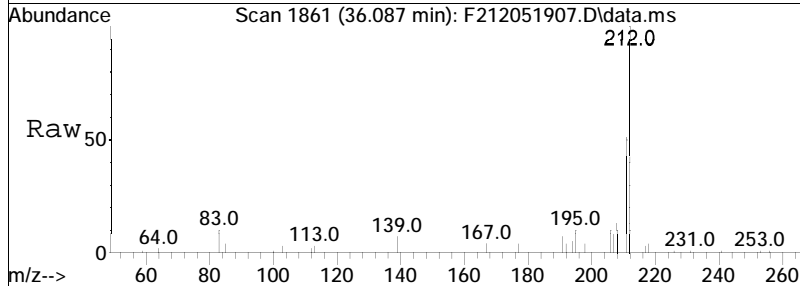


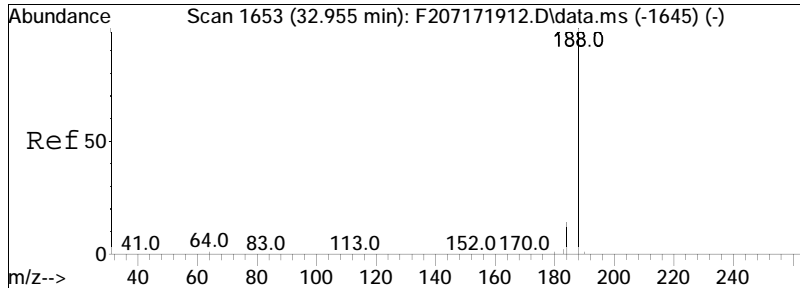
#36
 Cl-Dibenzothiophenes
 Concen: 2624.05 ng/mL M5
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:198 Resp: 594726





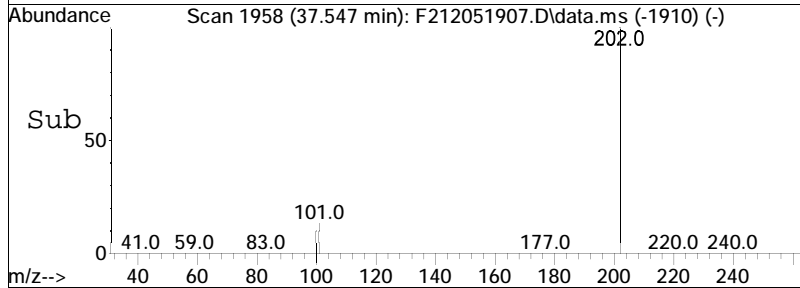
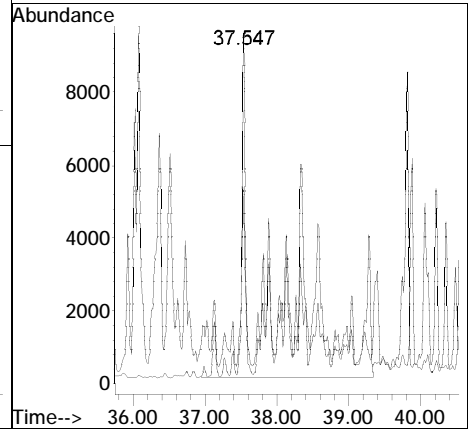
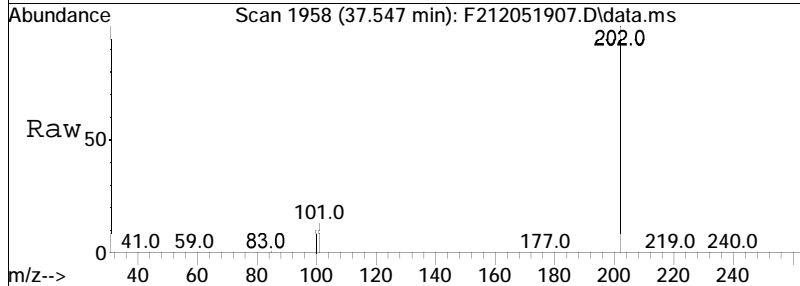
#37
 C2-Dibenzothiophenes
 Concen: 1628.54 ng/mL M5
 RT: 36.087 min Scan# 1861
 Delta R.T. 0.441 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:212 Resp: 369100

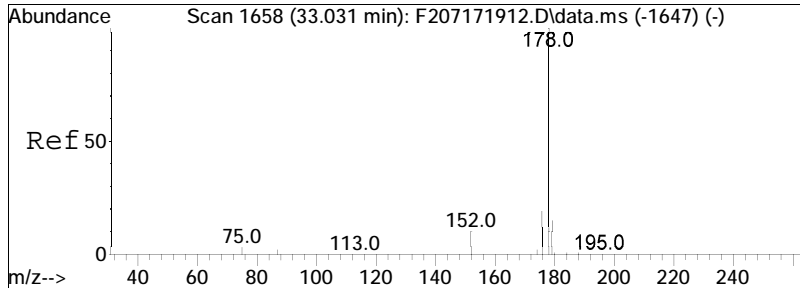




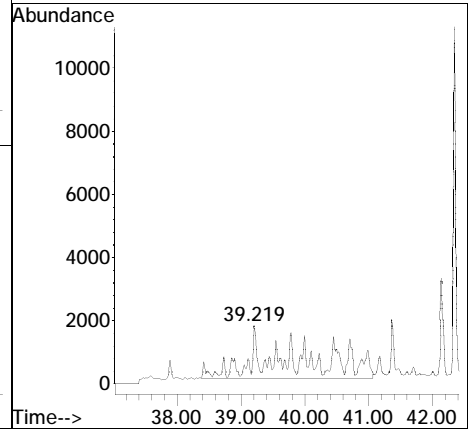
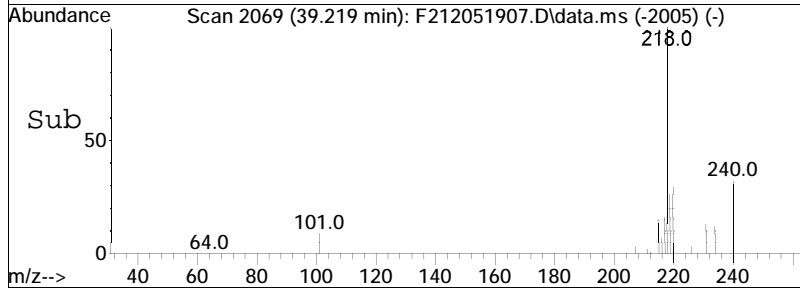
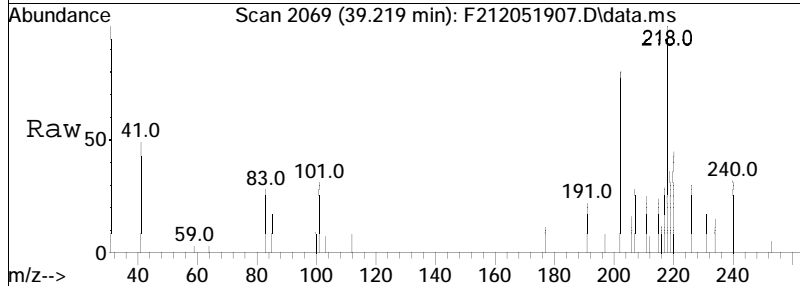
#38
 C3-Dibenzothiophenes
 Concen: 851.61 ng/mL M5
 RT: 37.547 min Scan# 1958
 Delta R.T. 0.108 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

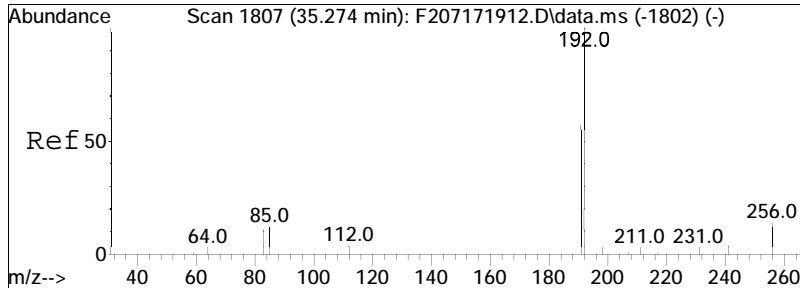
Tgt Ion: 226 Resp: 193013
 Ion Ratio Lower Upper
 226 100
 211 10.0 38.6 71.6#





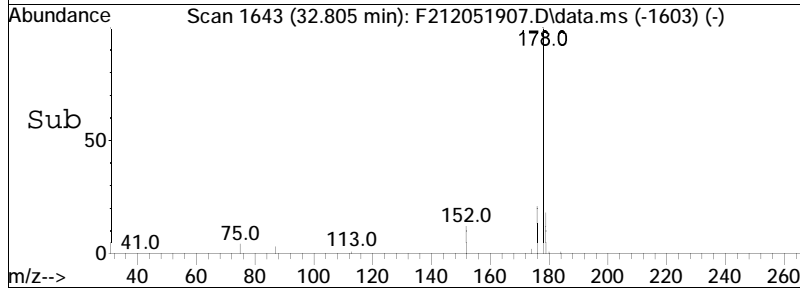
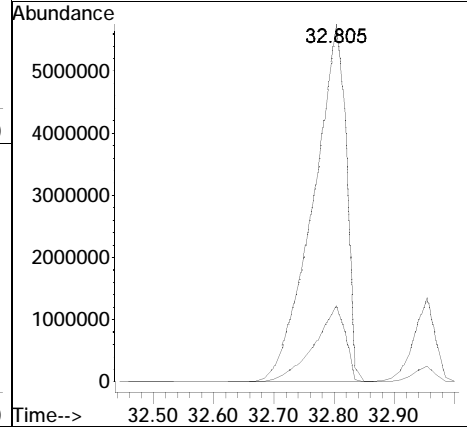
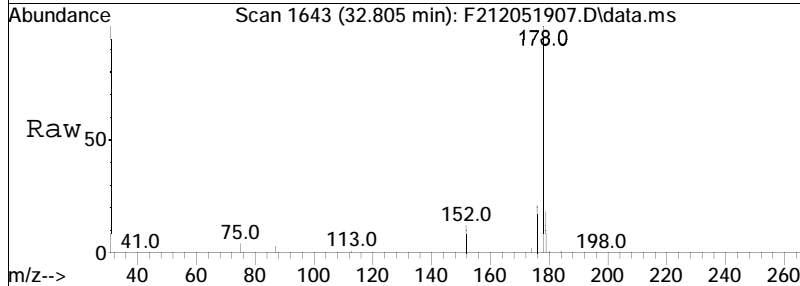
#39
 C4-Dibenzothiophenes
 Concen: 324.46 ng/mL M5
 RT: 39.219 min Scan# 2069
 Delta R.T. 0.105 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:240 Resp: 73536

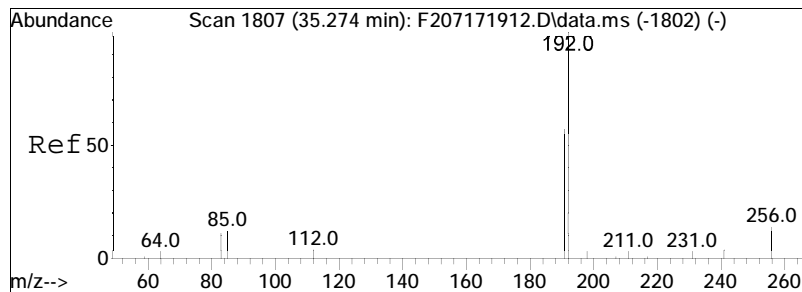




#41
 Phenanthrene
 Concen: 90978.38 ng/mL
 RT: 32.805 min Scan# 1643
 Delta R.T. 0.103 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

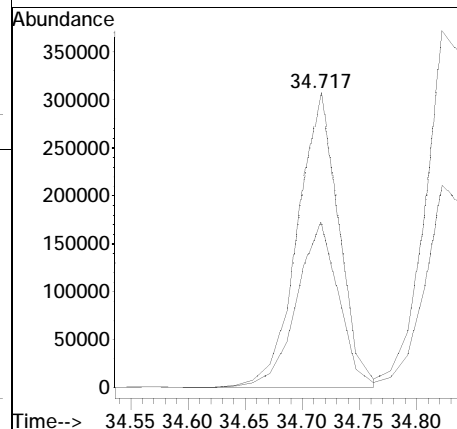
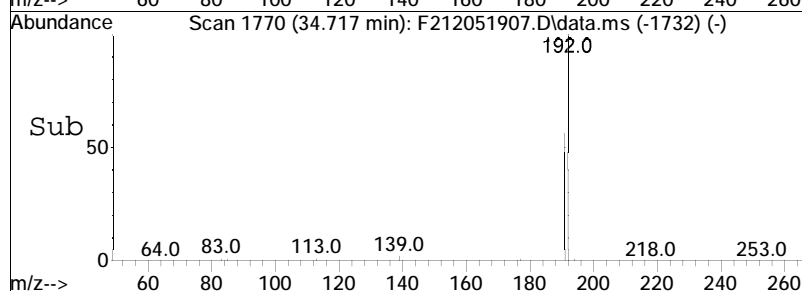
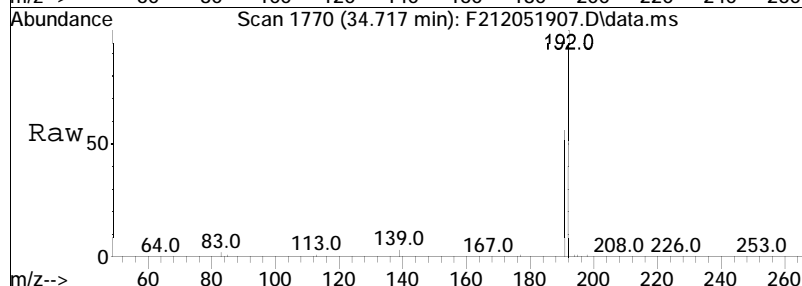
Tgt Ion: 178 Resp: 21933998
 Ion Ratio Lower Upper
 178 100
 176 20.1 13.0 24.1

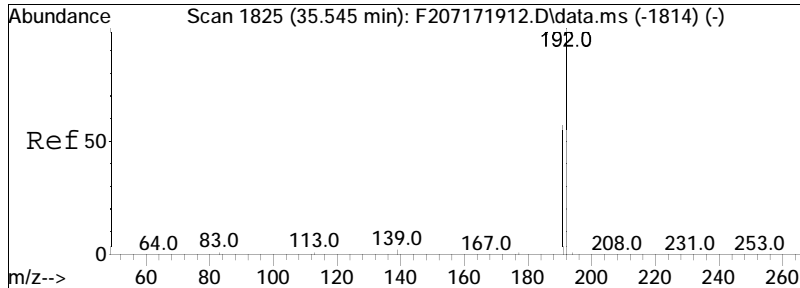




#42
 3-Methylphenanthrene (3MP)
 Concen: 3207.03 ng/mL
 RT: 34.717 min Scan# 1770
 Delta R.T. 0.072 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

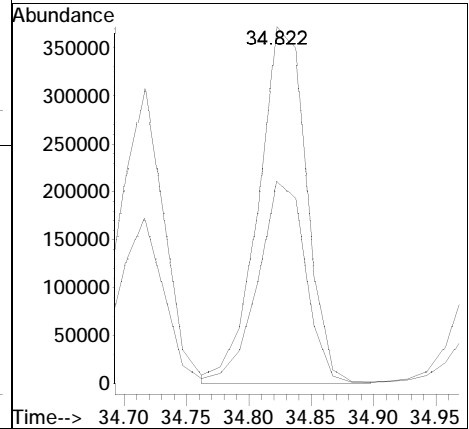
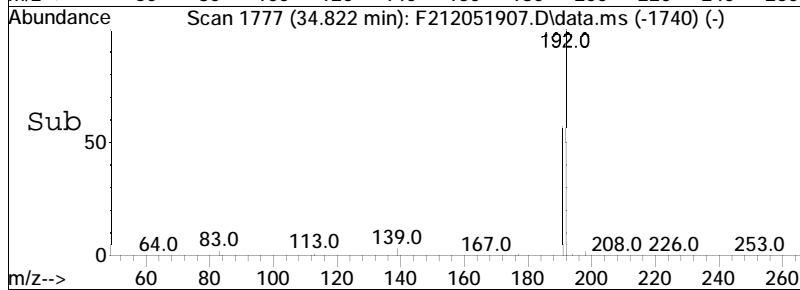
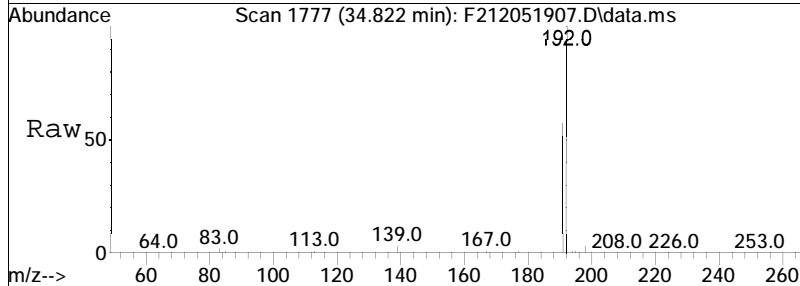
Tgt Ion: 192 Resp: 773184
 Ion Ratio Lower Upper
 192 100
 191 56.7 42.1 78.1

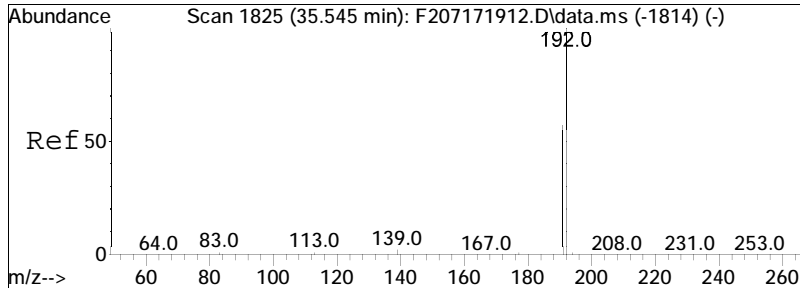




#43
 2-Methylphenanthrene (2MP)
 Concen: 4139.64 ng/mL M3
 RT: 34.822 min Scan# 1777
 Delta R.T. 0.058 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

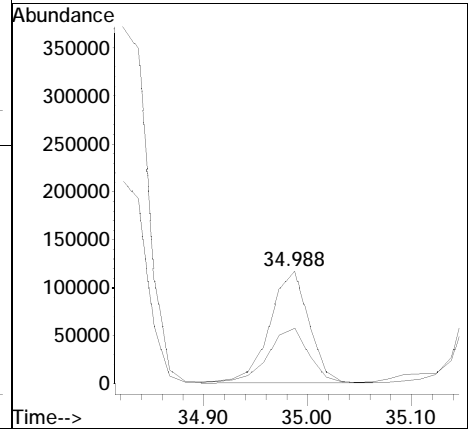
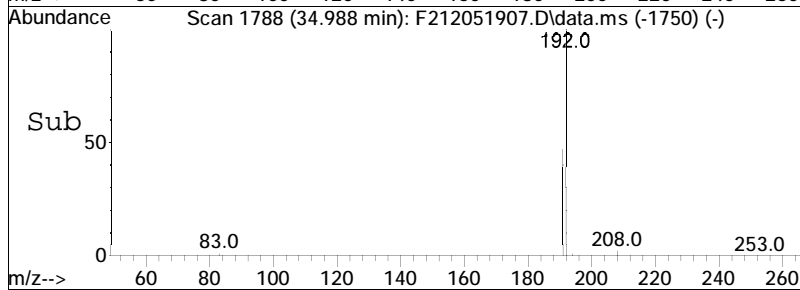
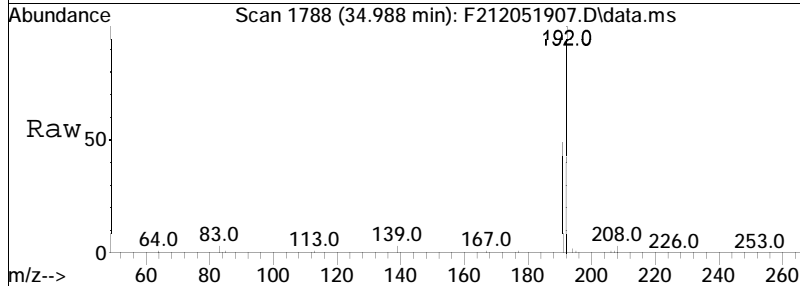
Tgt Ion	Ratio	Lower	Upper
192	100		
191	44.0	40.5	75.3

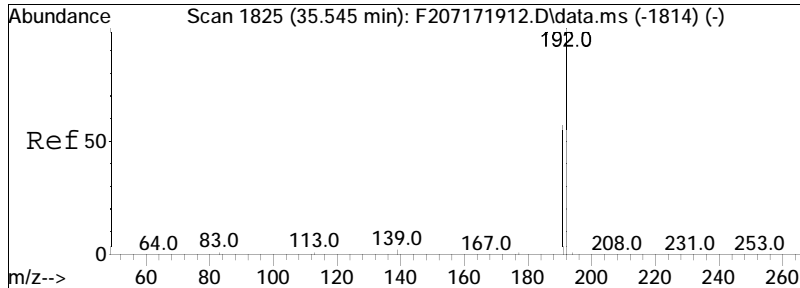




#44
 2-Methylantracene(2MA)
 Concen: 1269.95 ng/mL
 RT: 34.988 min Scan# 1788
 Delta R.T. 0.074 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

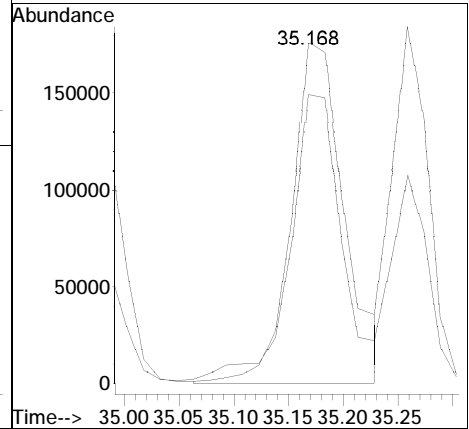
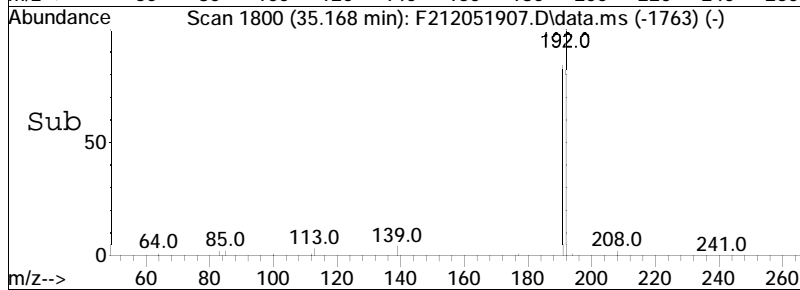
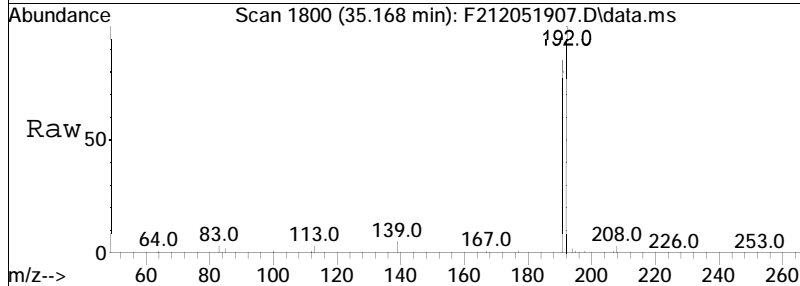
Tgt Ion:192 Resp: 306173
 Ion Ratio Lower Upper
 192 100
 191 50.7 85.2 158.2#

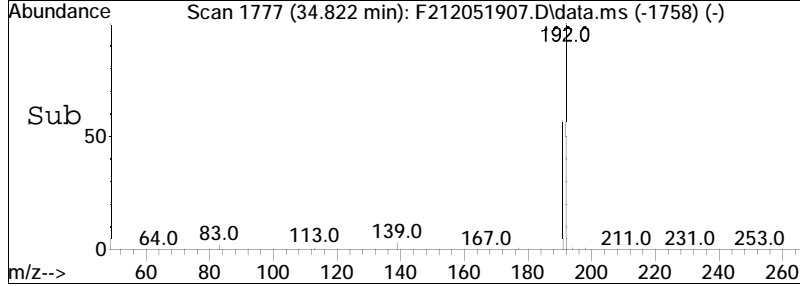
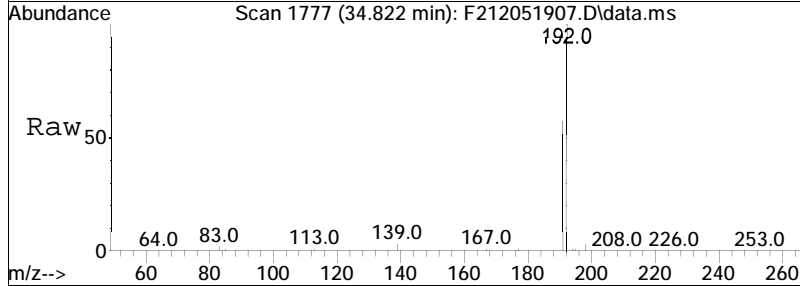
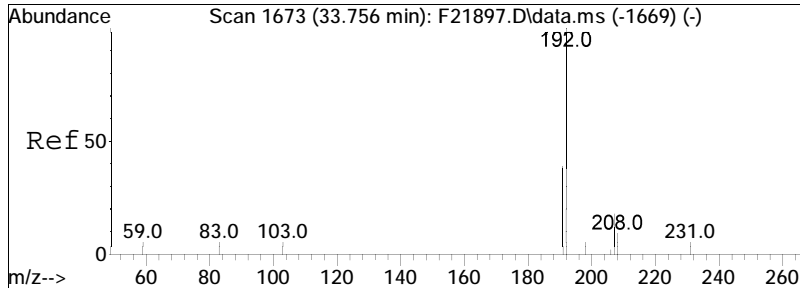




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 2431.67 ng/mL M3
 RT: 35.168 min Scan# 1800
 Delta R.T. 0.061 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

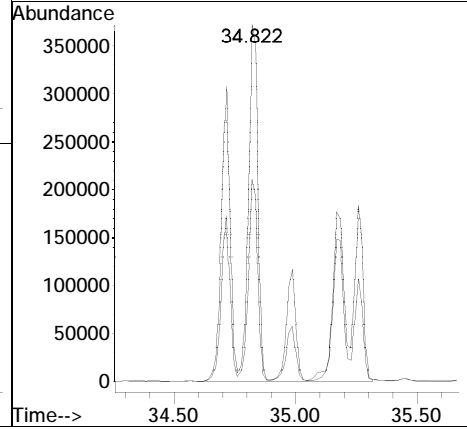
Tgt Ion	Resp	Lower	Upper
192	100		
191	25.8	39.7	73.7#

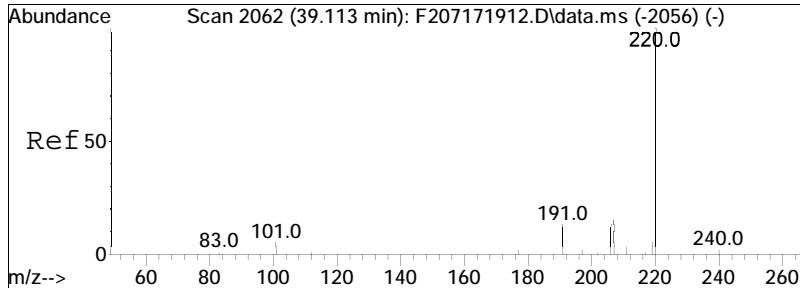




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 12789.48 ng/mL M5
 RT: 34.822 min Scan# 1777
 Delta R.T. -0.286 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

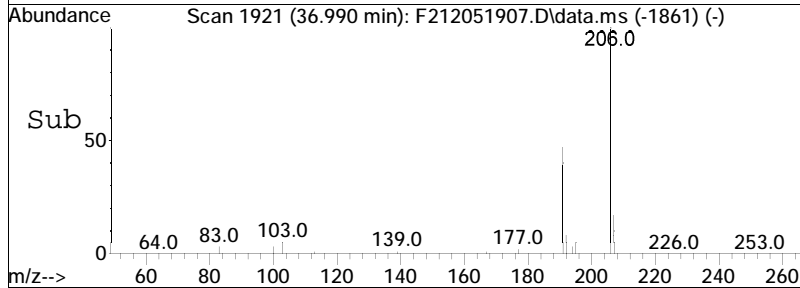
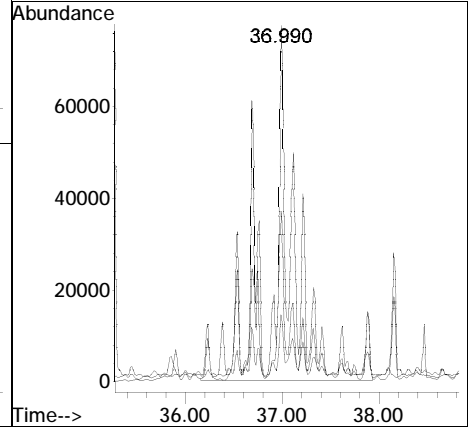
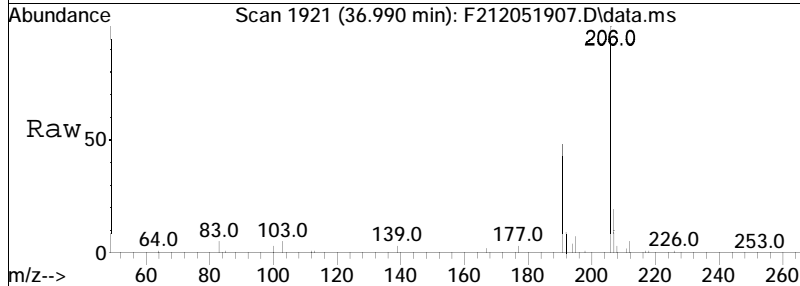
Tgt Ion: 192 Resp: 3083418
 Ion Ratio Lower Upper
 192 100
 191 4.9 39.7 73.7#

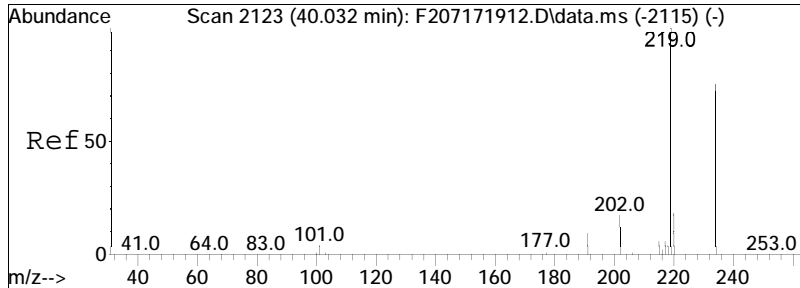




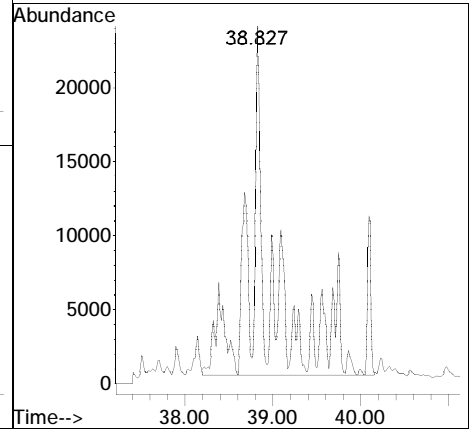
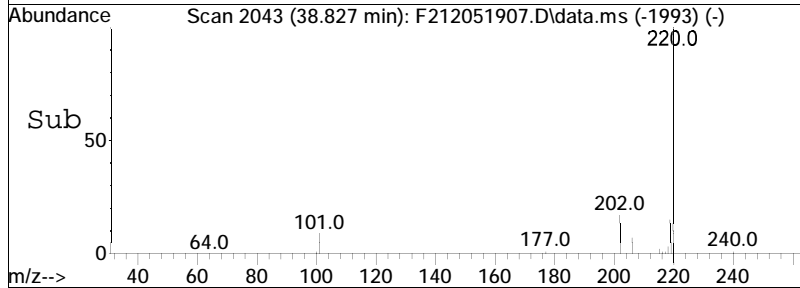
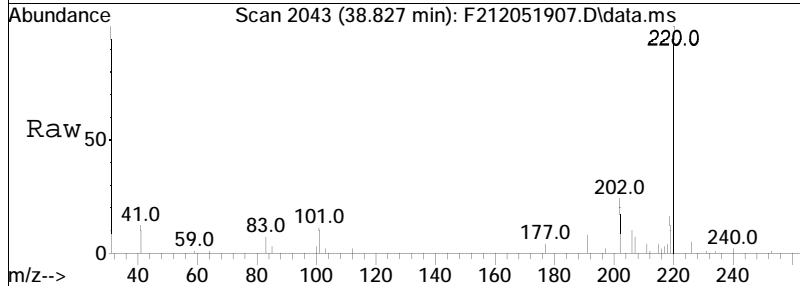
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 4799.53 ng/mL M5
 RT: 36.990 min Scan# 1921
 Delta R.T. 0.089 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

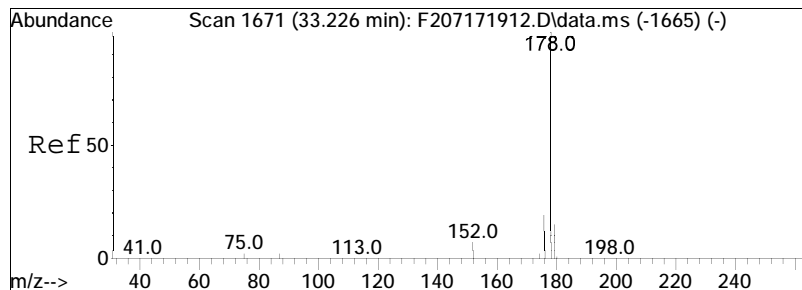
Tgt Ion	Resp	Lower	Upper
206	1157120		
206	100		
191	12.7	33.9	62.9#
207	3.7	13.9	25.7#





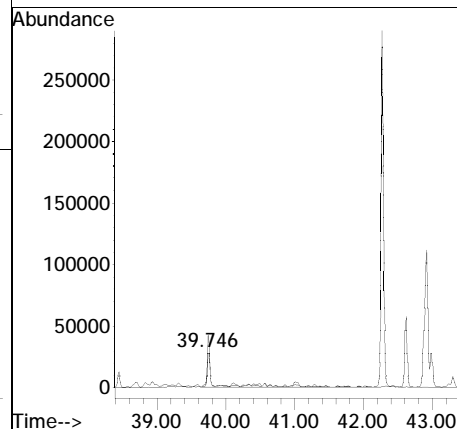
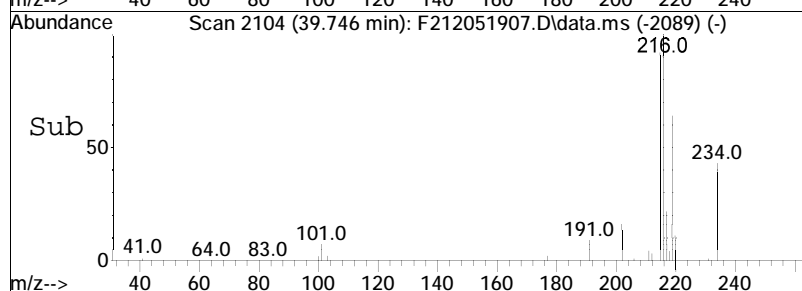
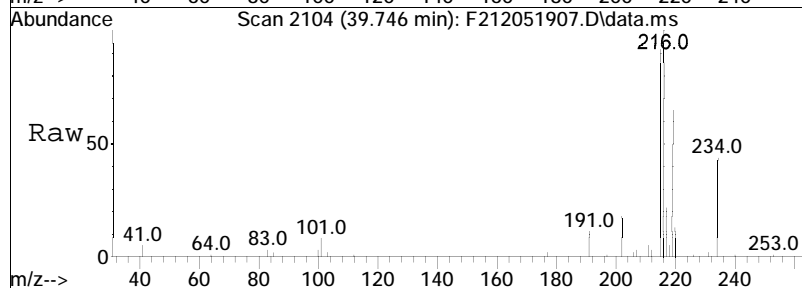
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1729.98 ng/mL M5
 RT: 38.827 min Scan# 2043
 Delta R.T. 0.087 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:220 Resp: 417081

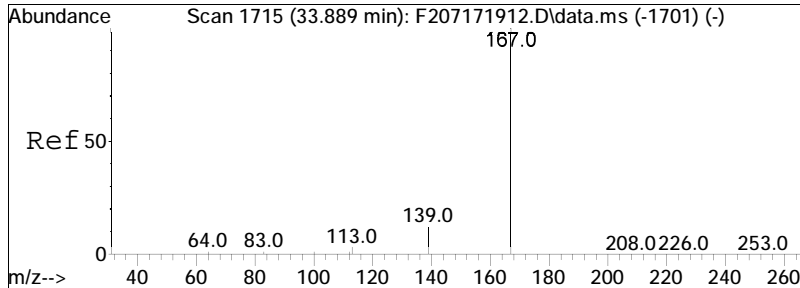




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 787.41 ng/mL M5
 RT: 39.746 min Scan# 2104
 Delta R.T. -1.147 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

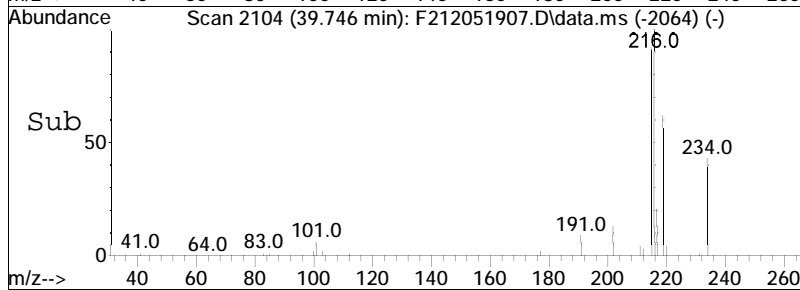
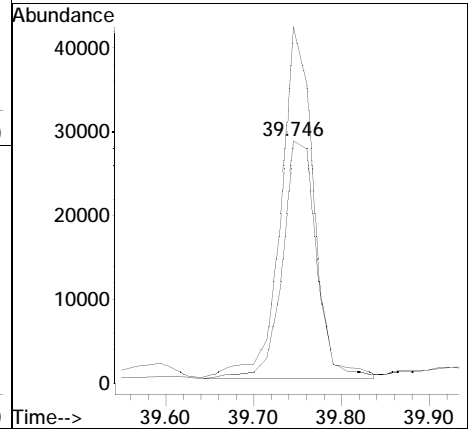
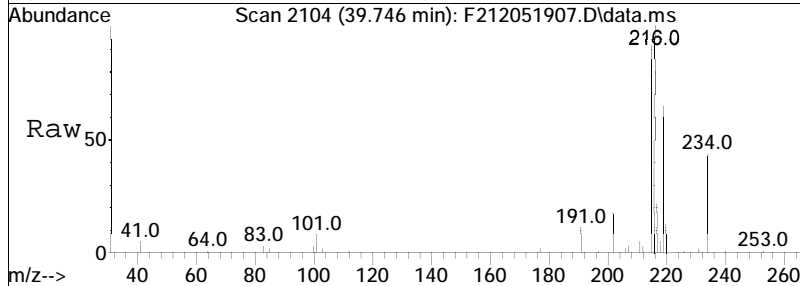
Tgt Ion: 234 Resp: 189837
 Ion Ratio Lower Upper
 234 100
 219 5.1 39.5 73.3#

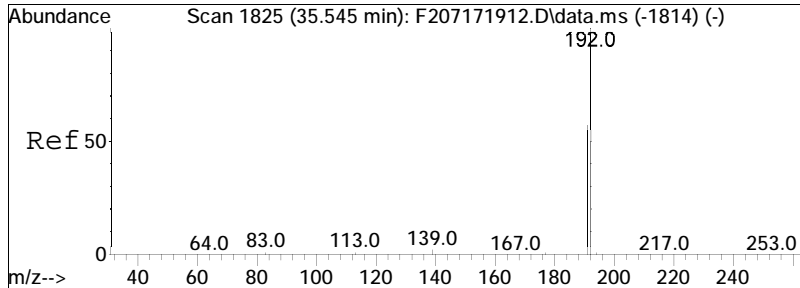




#52
 Retene
 Concen: 922.69 ng/mL
 RT: 39.746 min Scan# 2104
 Delta R.T. 0.109 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

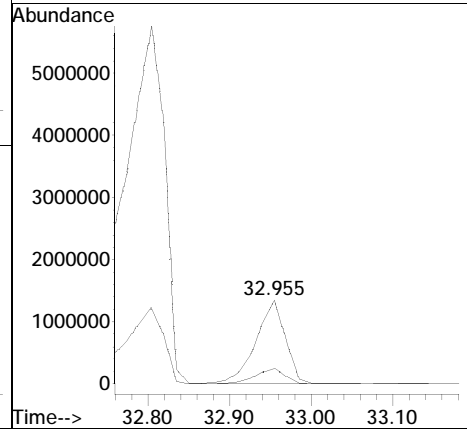
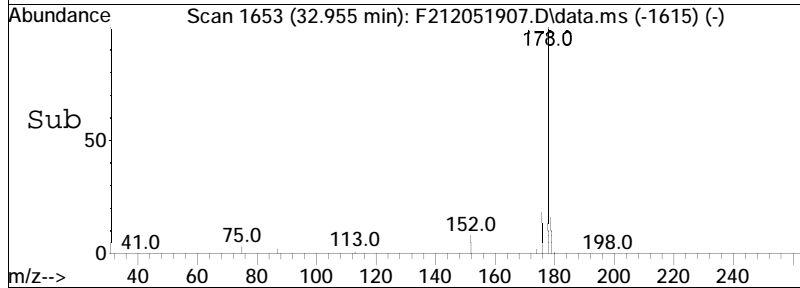
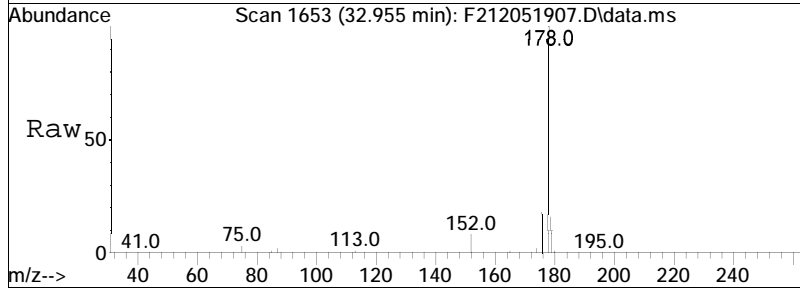
Tgt Ion: 234 Resp: 76150
 Ion Ratio Lower Upper
 234 100
 219 140.9 108.2 201.0

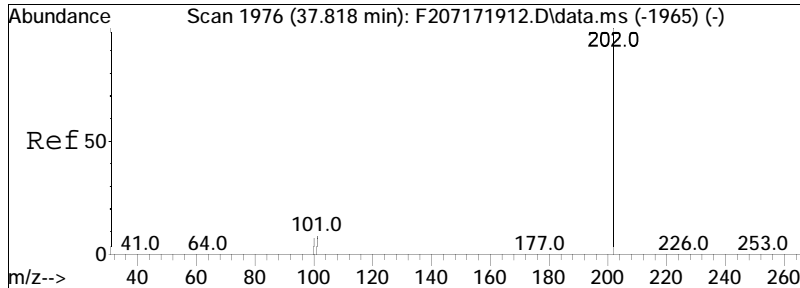




#53
 Anthracene
 Concen: 16263.43 ng/mL
 RT: 32.955 min Scan# 1653
 Delta R.T. 0.075 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

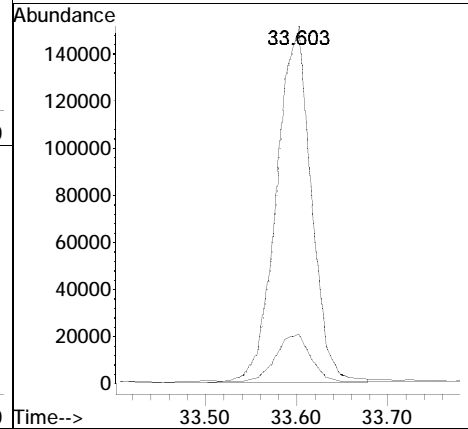
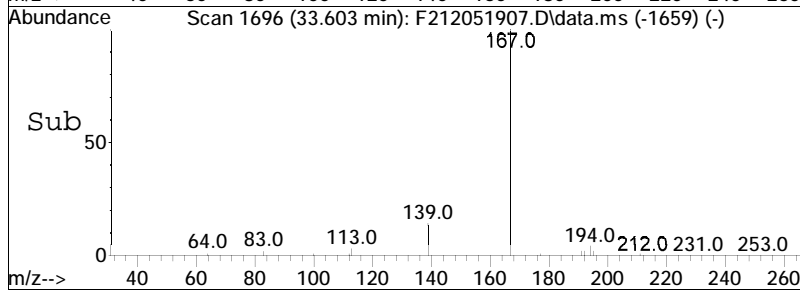
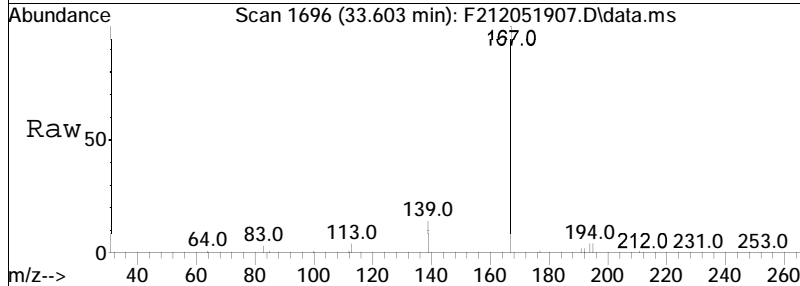
Tgt Ion: 178 Resp: 3342594
 Ion Ratio Lower Upper
 178 100
 176 18.6 12.5 23.3

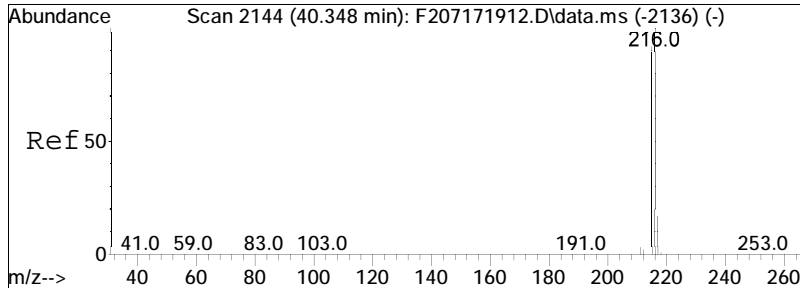




#54
 Carbazole
 Concen: 2058.25 ng/mL M4
 RT: 33.603 min Scan# 1696
 Delta R.T. 0.064 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

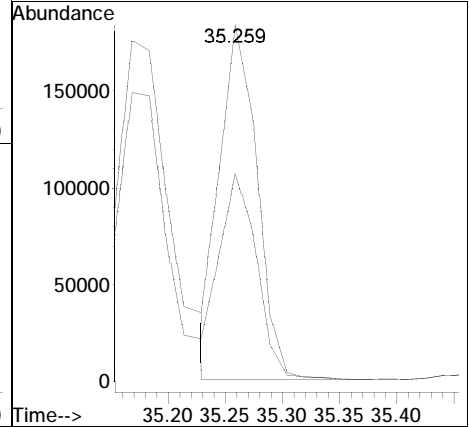
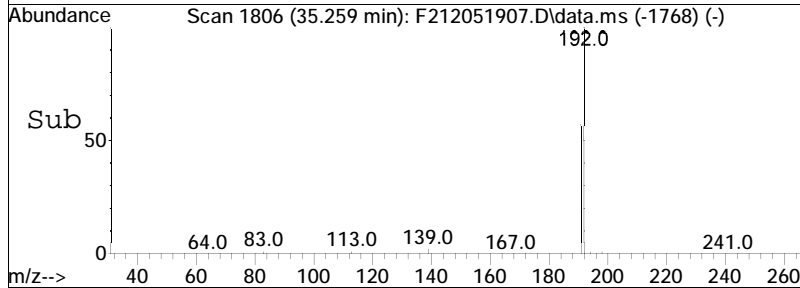
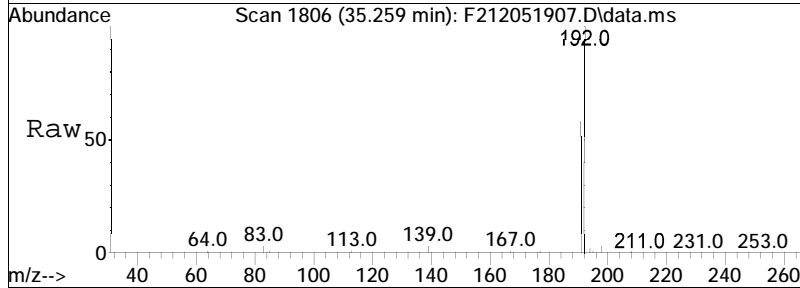
Tgt Ion	Resp	Lower	Upper
167	395759		
167	100		
139	14.0	8.7	16.1

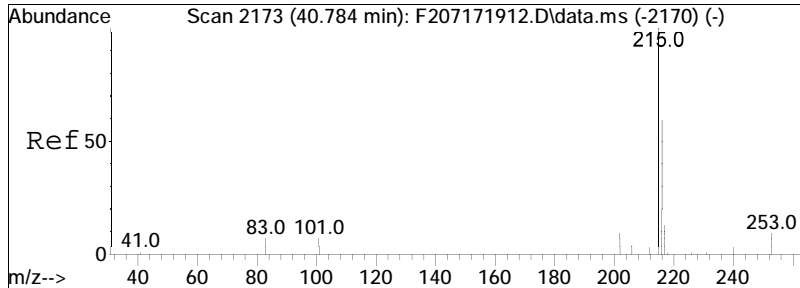




#55
 1-Methylphenanthrene
 Concen: 2306.28 ng/mL
 RT: 35.259 min Scan# 1806
 Delta R.T. 0.076 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

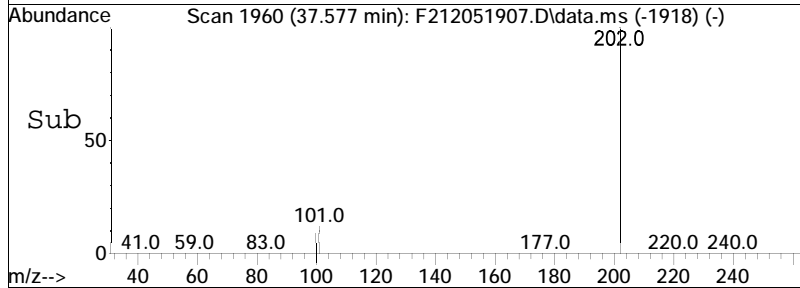
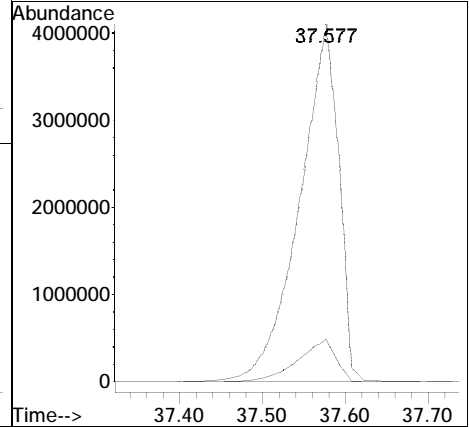
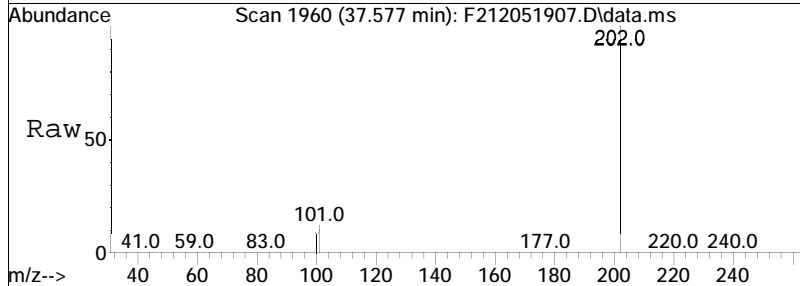
Tgt Ion	Resp	Lower	Upper
192	416393		
191	58.0	39.3	73.1

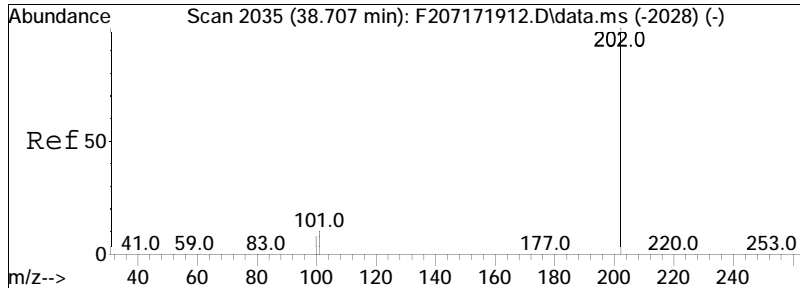




#56
 Fluoranthene
 Concen: 48424.76 ng/mL M4
 RT: 37.577 min Scan# 1960
 Delta R.T. 0.138 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

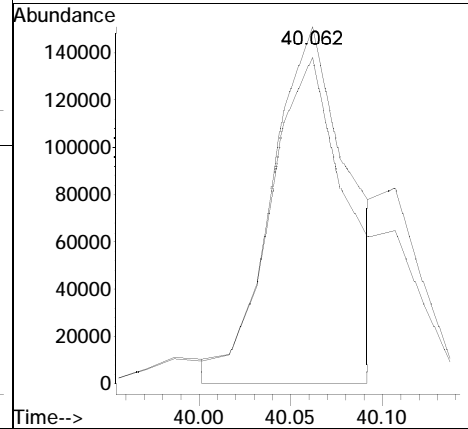
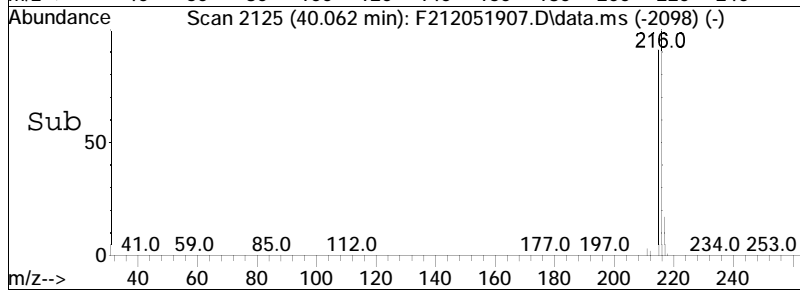
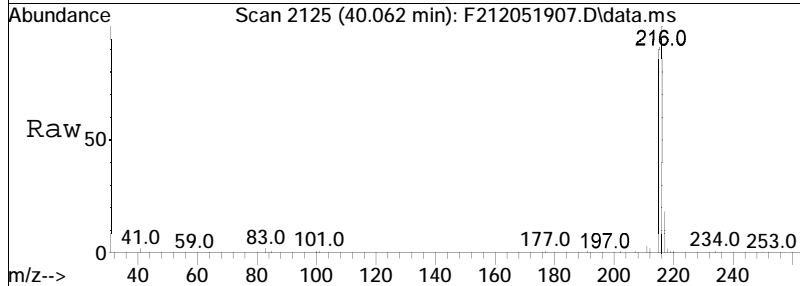
Tgt Ion: 202 Resp: 13314834
 Ion Ratio Lower Upper
 202 100
 101 11.8 8.0 14.8

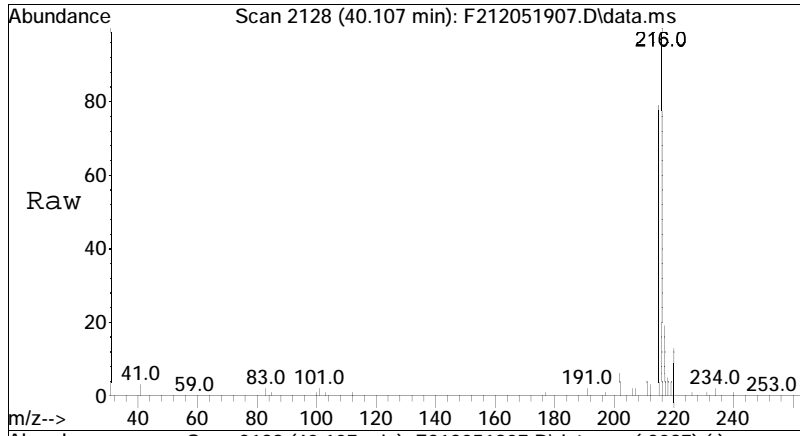




#57
 Benzo(b)fluorene
 Concen: 2579.96 ng/mL M3
 RT: 40.062 min Scan# 2125
 Delta R.T. 0.111 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

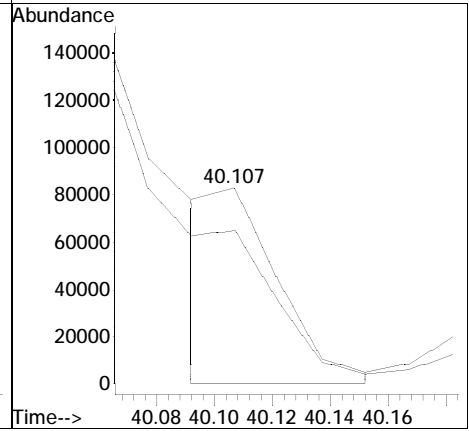
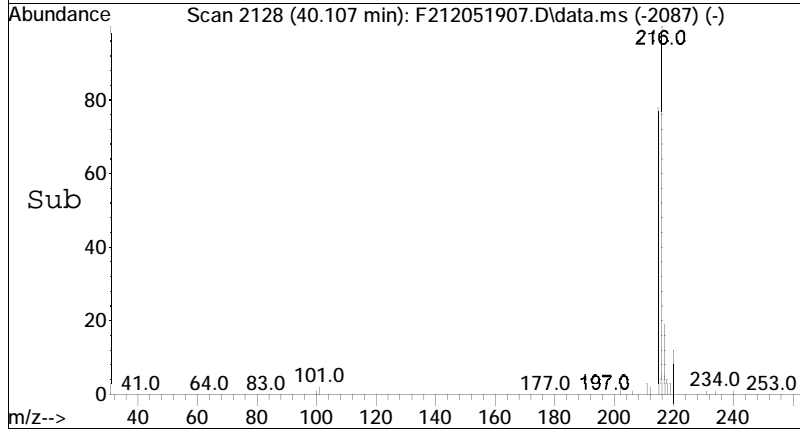
Tgt Ion	Resp	Lower	Upper
216	100		
215	115.8	63.9	118.7

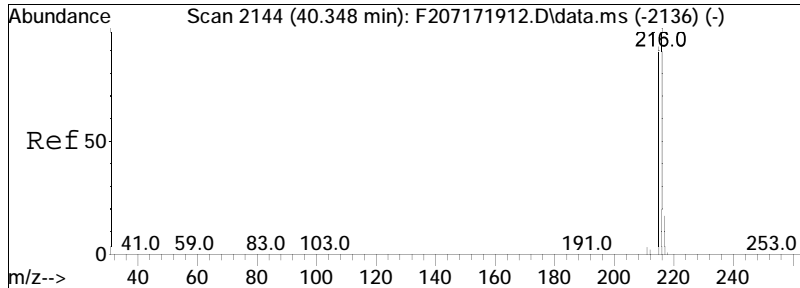




#58
 7H-Benzo(c)fluorene
 Concen: 735.01 ng/mL M3
 RT: 40.107 min Scan# 2128
 Delta R.T. 0.111 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

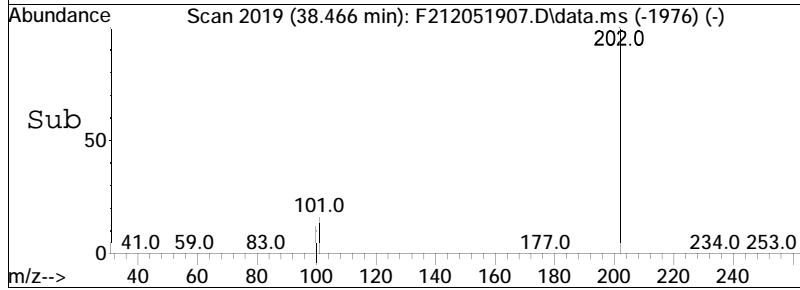
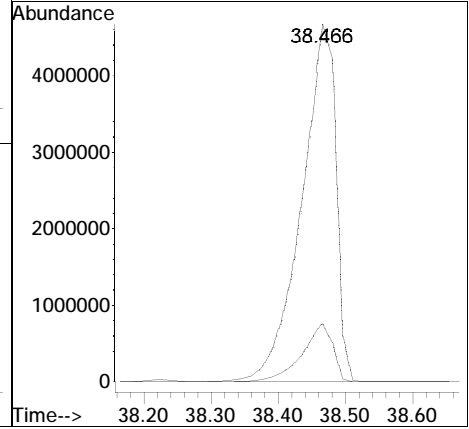
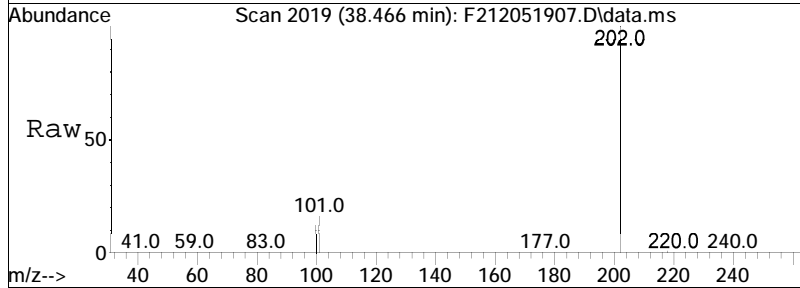
Tgt Ion	Resp	Lower	Upper
216	100		
215	1.2	102.3	189.9#

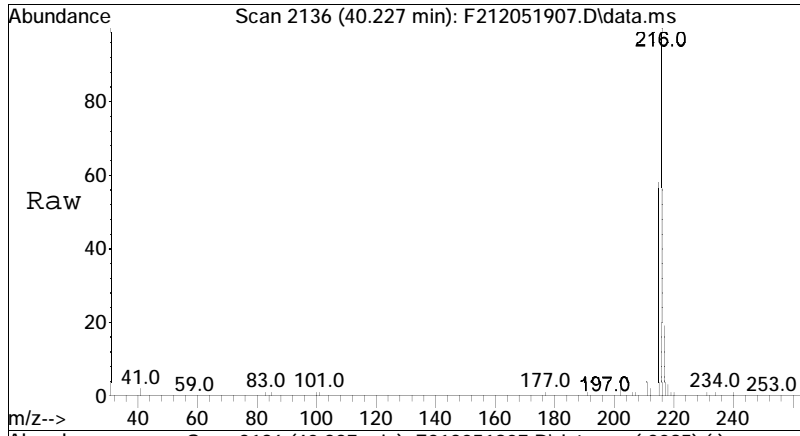




#59
 Pyrene
 Concen: 57450.52 ng/mL
 RT: 38.466 min Scan# 2019
 Delta R.T. 0.144 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

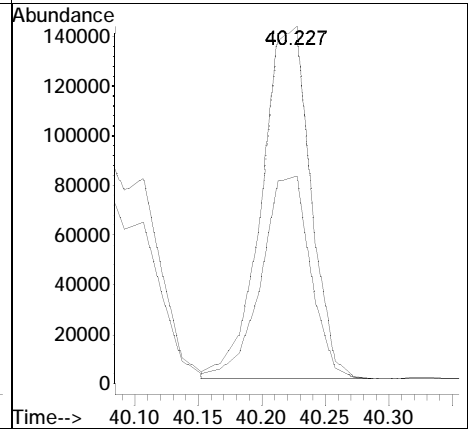
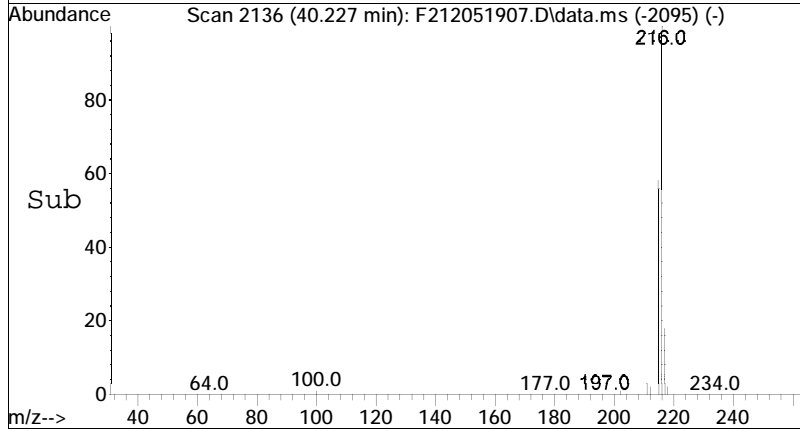
Tgt Ion: 202 Resp: 16402757
 Ion Ratio Lower Upper
 202 100
 101 14.7 9.0 16.8

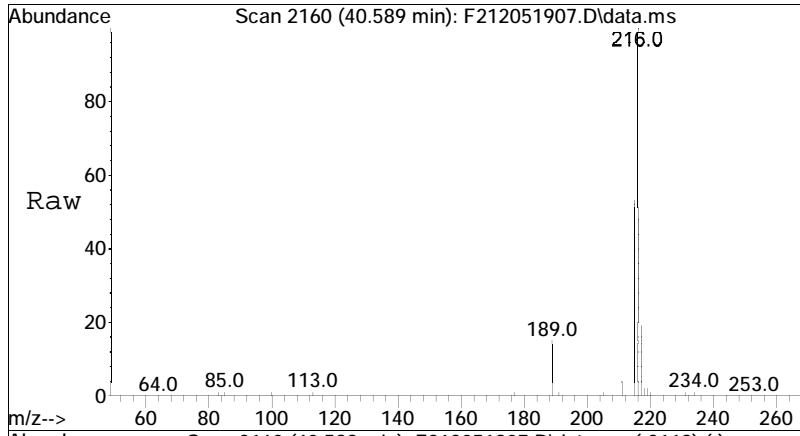




#60
 2-Methylpyrene
 Concen: 1332.39 ng/mL M3
 RT: 40.227 min Scan# 2136
 Delta R.T. 0.112 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

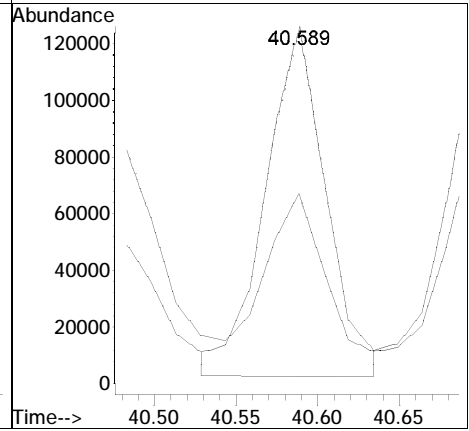
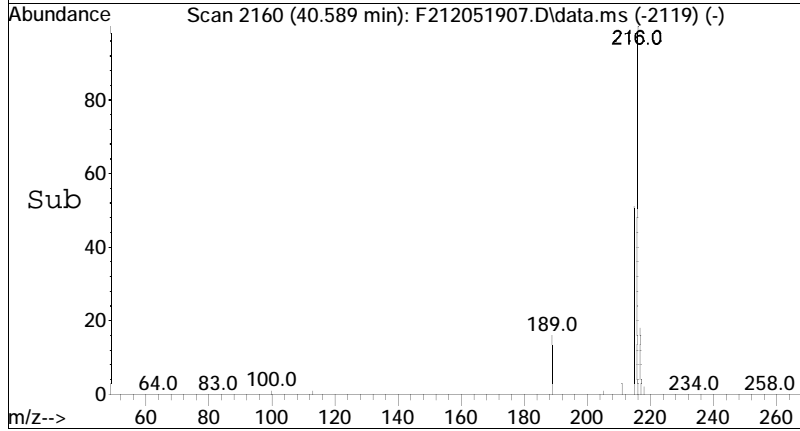
Tgt Ion	Resp	Lower	Upper
216	100		
215	135.9	73.1	135.7#

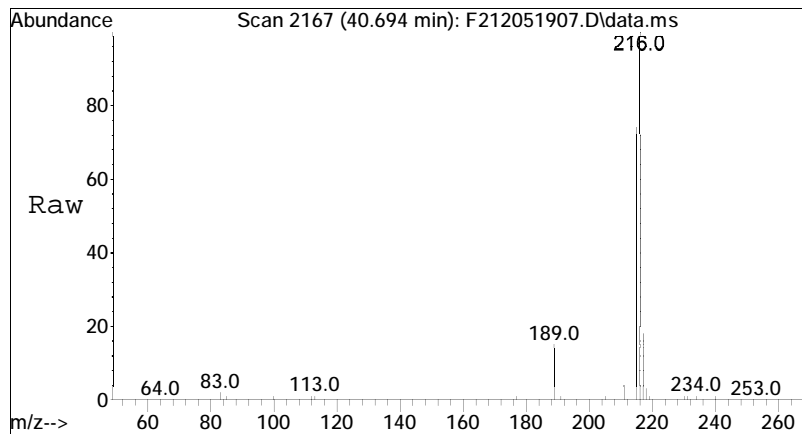




#61
 4-Methylpyrene
 Concen: 1108.02 ng/mL
 RT: 40.589 min Scan# 2160
 Delta R.T. 0.115 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

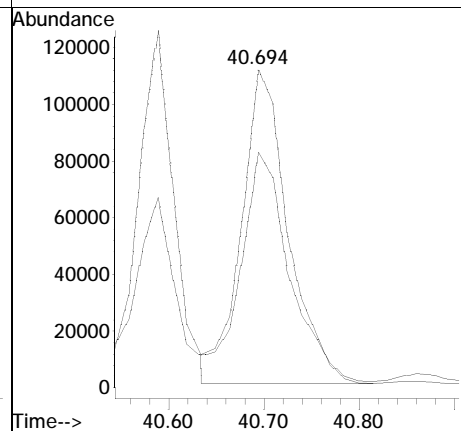
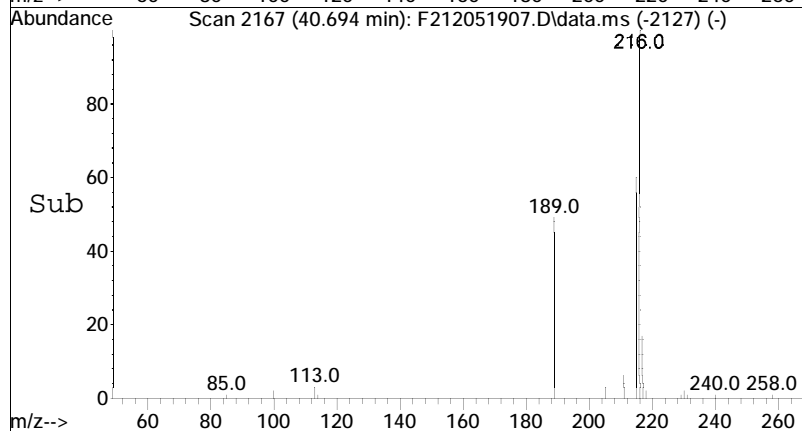
Tgt Ion	Resp	Lower	Upper
216	100		
215	54.3	49.5	91.9

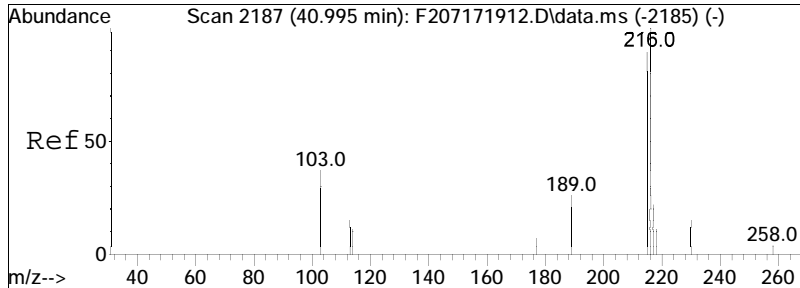




#62
 1-Methylpyrene
 Concen: 1317.63 ng/mL
 RT: 40.694 min Scan# 2167
 Delta R.T. 0.101 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

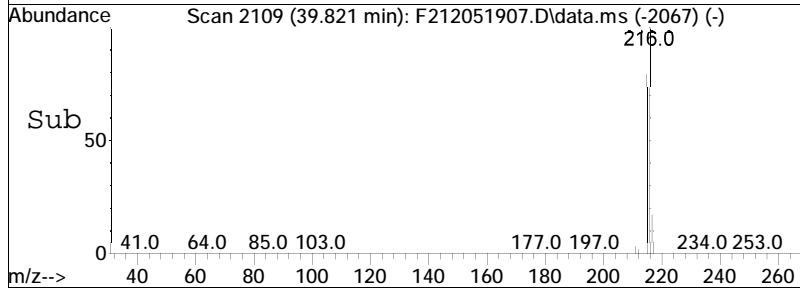
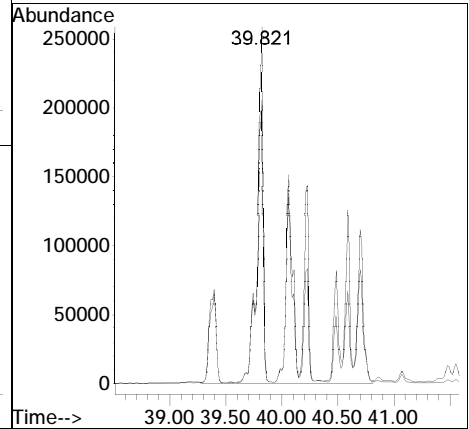
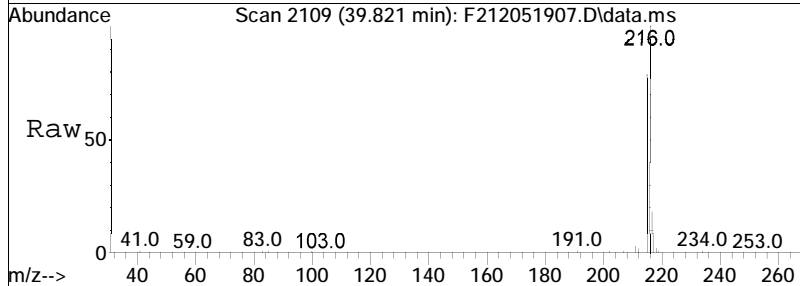
Tgt Ion	Resp	Lower	Upper
216	100		
215	76.4	73.7	136.9

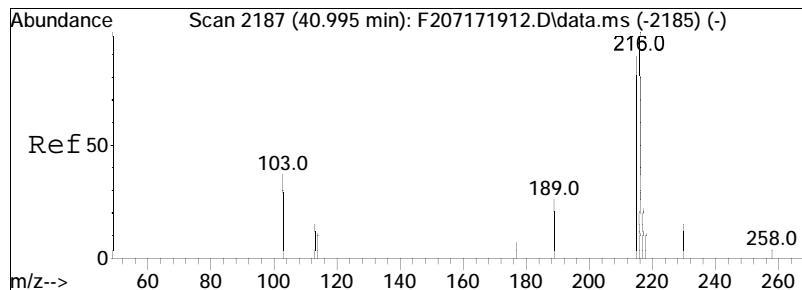




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 10736.56 ng/mL M5
 RT: 39.821 min Scan# 2109
 Delta R.T. 0.109 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

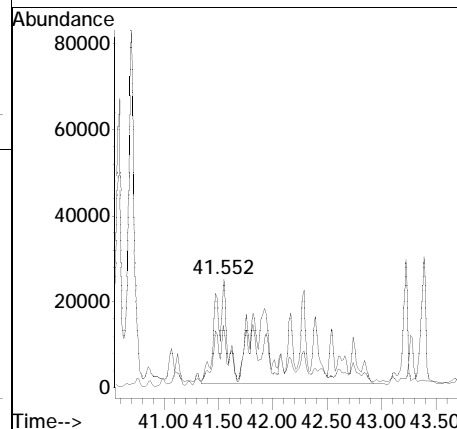
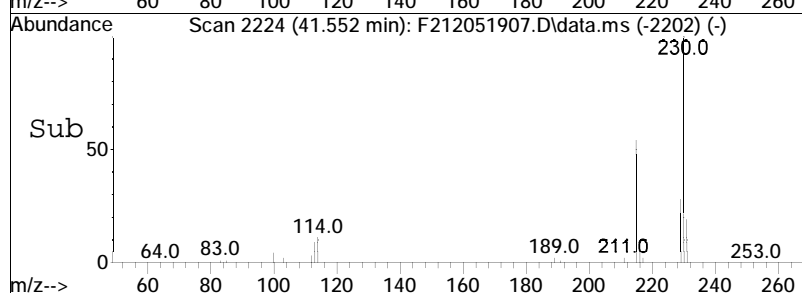
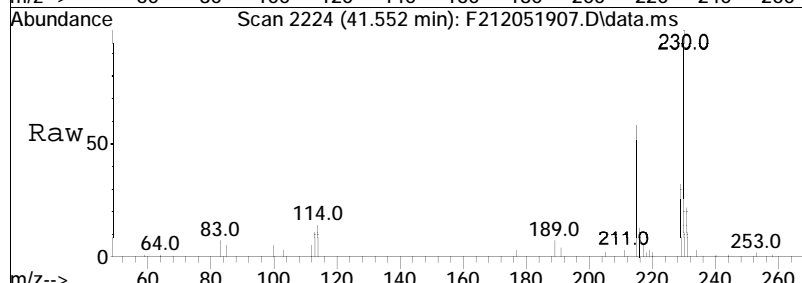
Tgt Ion: 216 Resp: 3065407
 Ion Ratio Lower Upper
 216 100
 215 25.0 66.0 122.6#

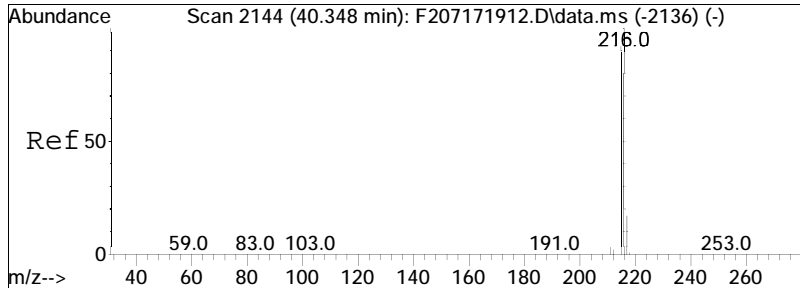




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 2525.21 ng/mL M5
 RT: 41.552 min Scan# 2224
 Delta R.T. 0.047 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

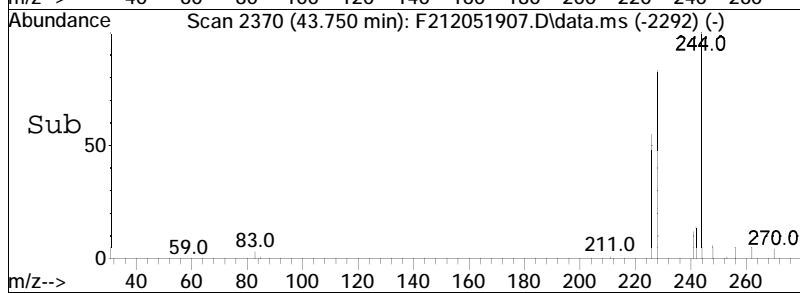
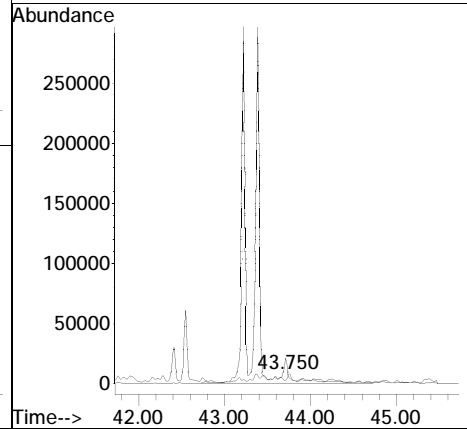
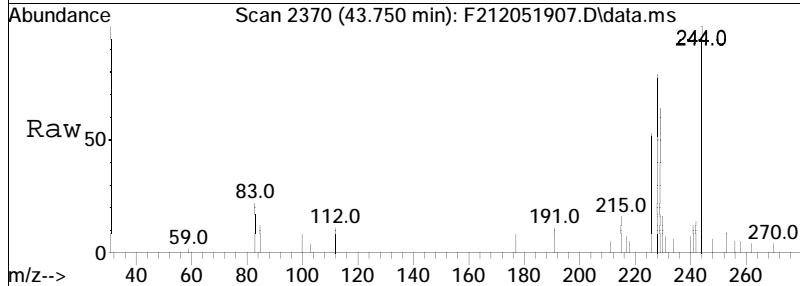
Tgt Ion: 230 Resp: 720975
 Ion Ratio Lower Upper
 230 100
 215 2.4 74.8 138.8#

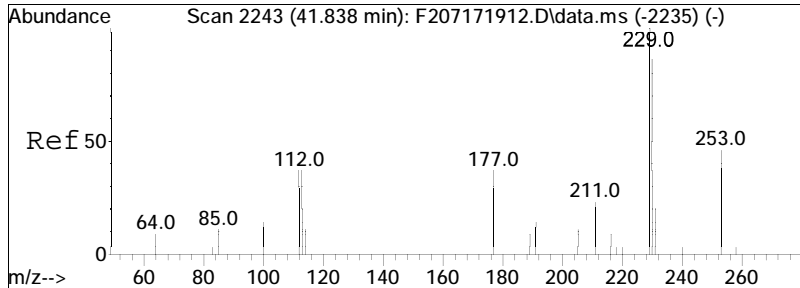




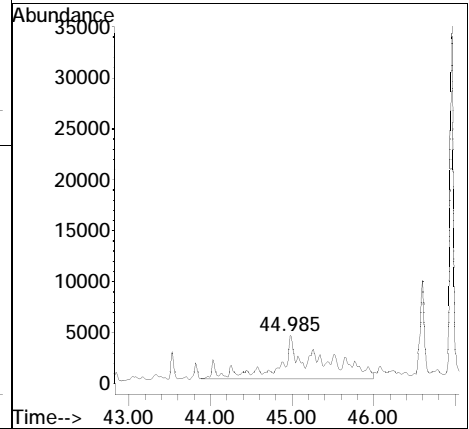
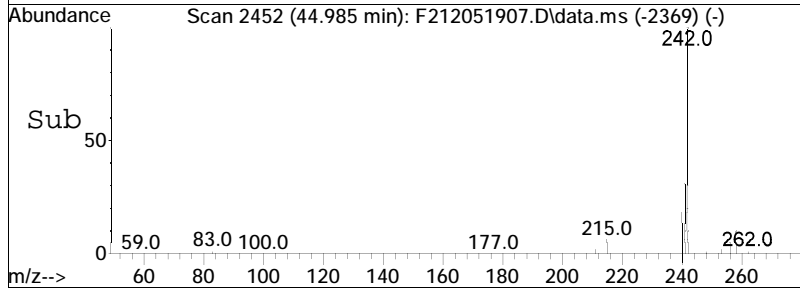
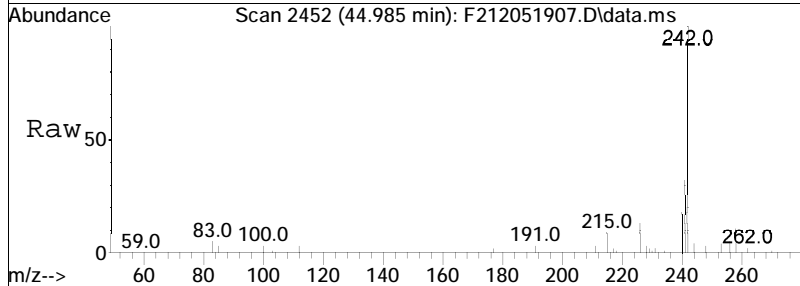
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 938.17 ng/mL M5
 RT: 43.750 min Scan# 2370
 Delta R.T. 0.242 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

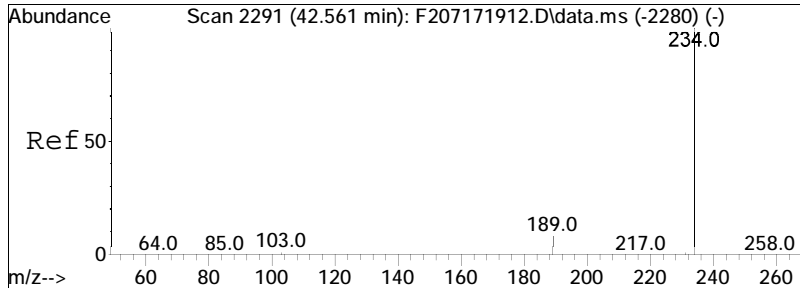
Tgt Ion	Resp	Lower	Upper
244	100		
229	2.6	62.0	115.2#





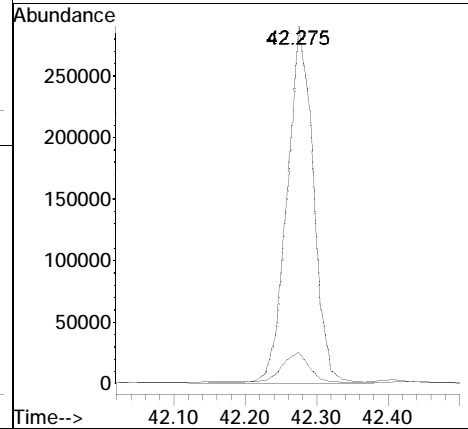
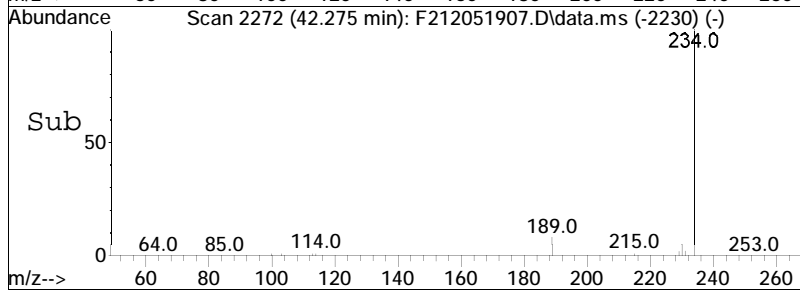
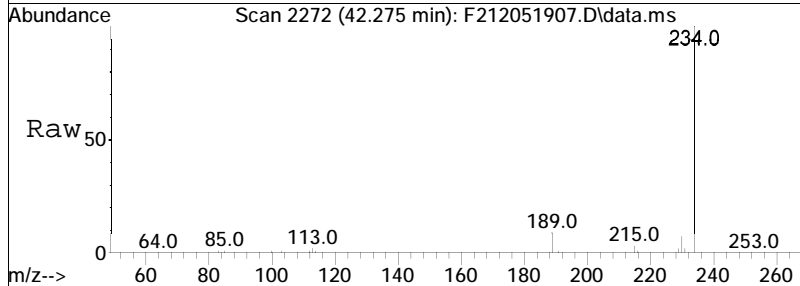
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 507.01 ng/mL M5
 RT: 44.985 min Scan# 2452
 Delta R.T. 0.132 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion:258 Resp: 144758

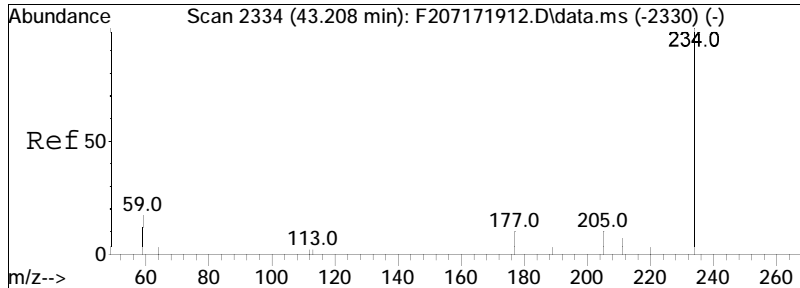




#67
 Naphthobenzothiophene-2,1-D
 Concen: 2974.98 ng/mL
 RT: 42.275 min Scan# 2272
 Delta R.T. 0.127 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

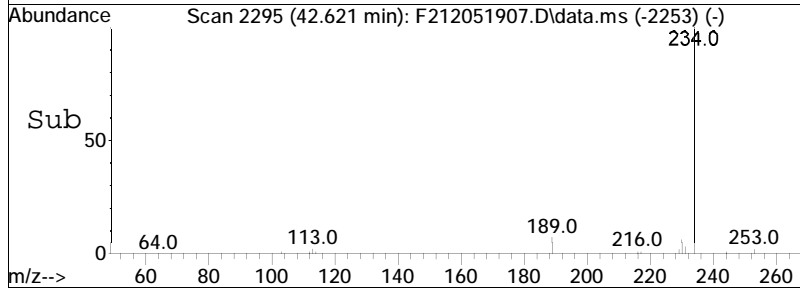
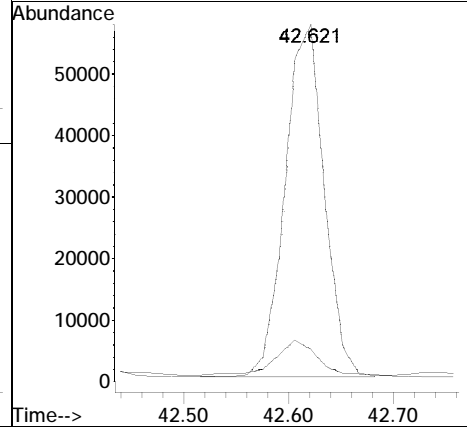
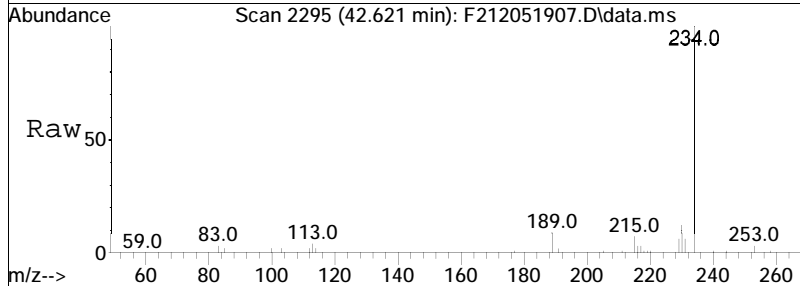
Tgt Ion: 234 Resp: 726524
 Ion Ratio Lower Upper
 234 100
 189 9.2 5.5 10.3

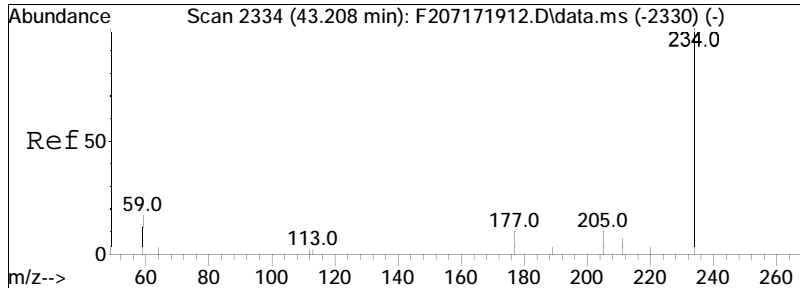




#68
 Naphthobenzothiophene-1,2-D
 Concen: 602.05 ng/mL M3
 RT: 42.621 min Scan# 2295
 Delta R.T. 0.130 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

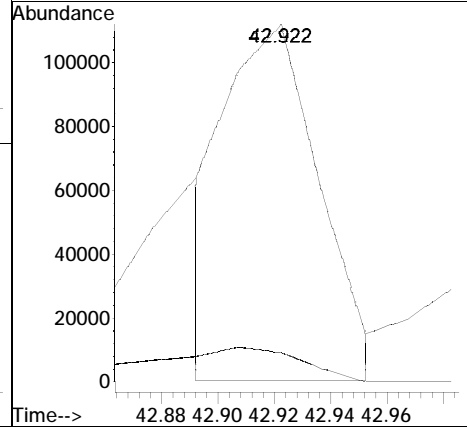
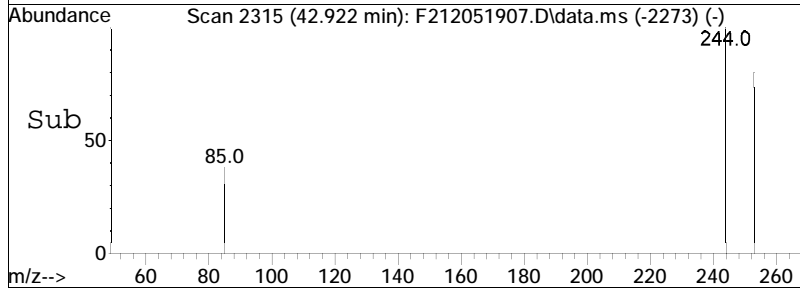
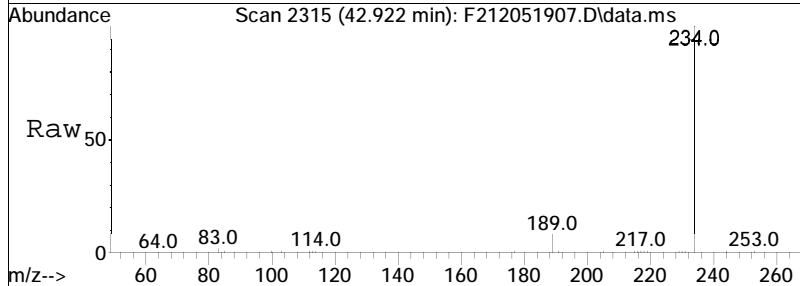
Tgt Ion	Ratio	Lower	Upper
234	100		
189	4.8	56.7	105.3#

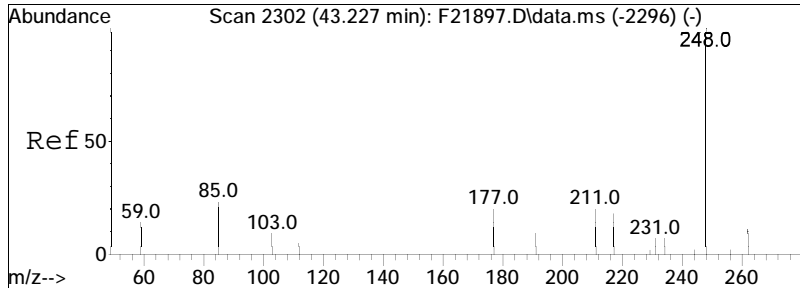




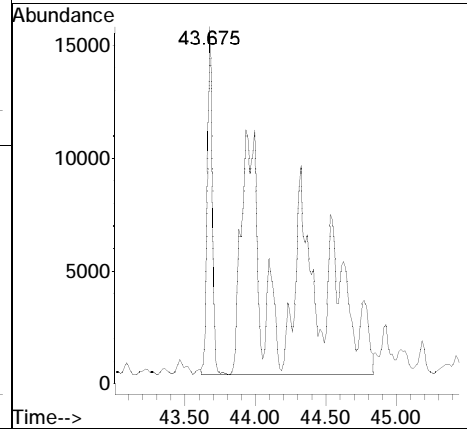
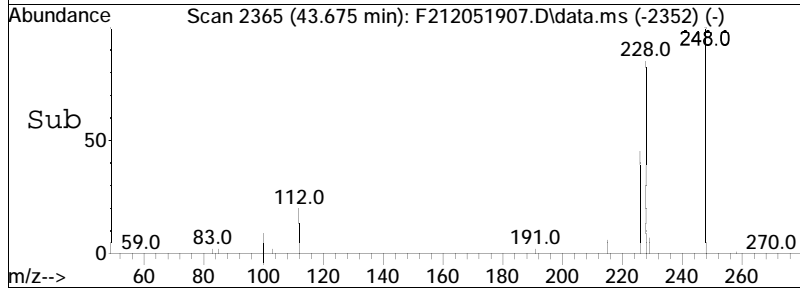
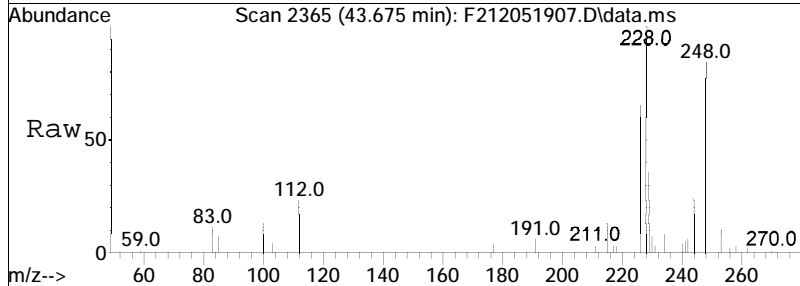
#69
 Naphthobenzothiophene-2,3-D
 Concen: 1033.80 ng/mL M3
 RT: 42.922 min Scan# 2315
 Delta R.T. 0.132 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

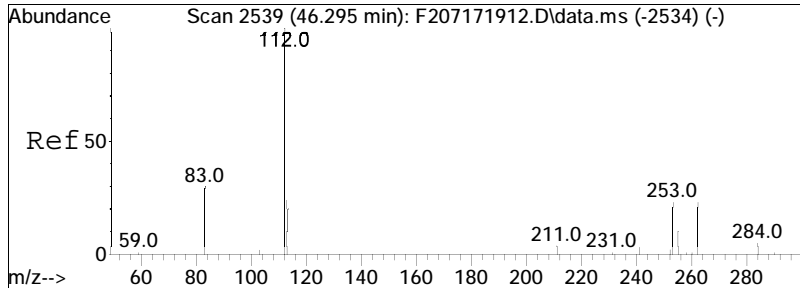
Tgt Ion	Resp	Lower	Upper
234	100	0.0	0.0#
189	17.7	0.0	0.0#



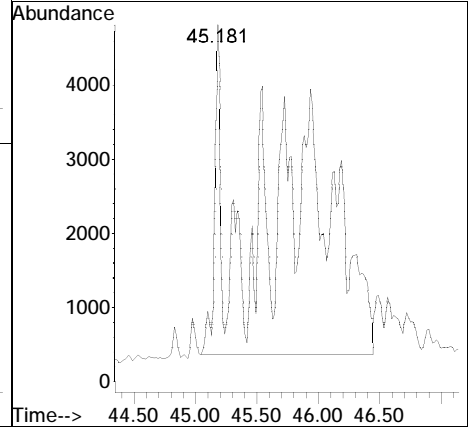
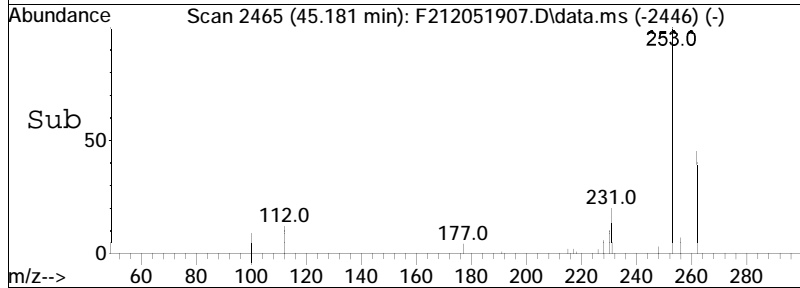
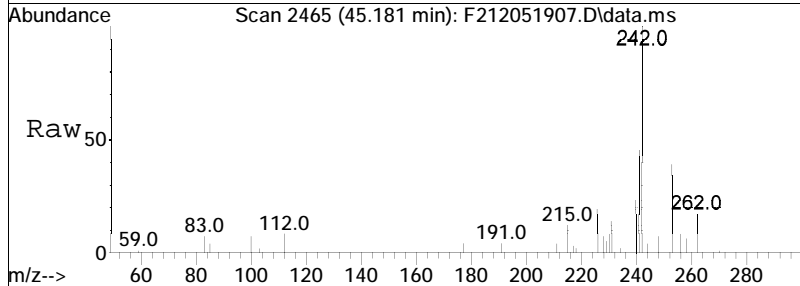


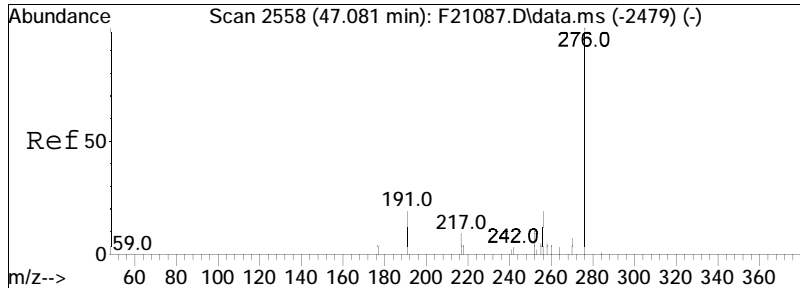
#70
 Cl-Naphthobenzothiophenes
 Concen: 1119.88 ng/ml M5
 RT: 43.675 min Scan# 2365
 Delta R.T. -0.550 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion: 248 Resp: 273488



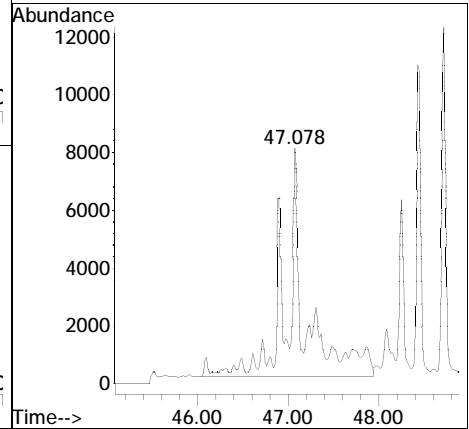
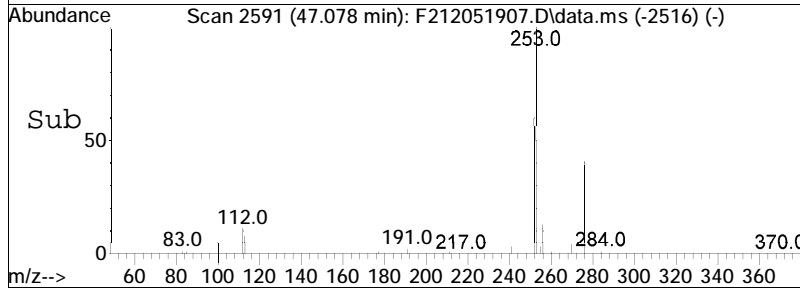
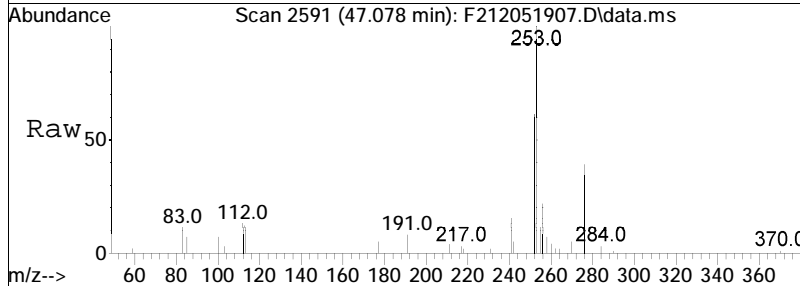


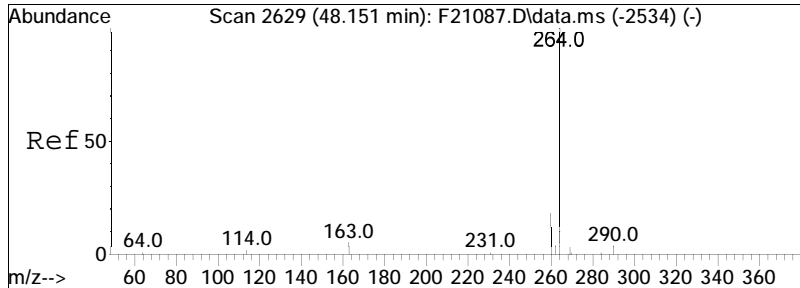
#71
 C2-Naphthobenzothiophenes
 Concen: 565.20 ng/ml M5
 RT: 45.181 min Scan# 2465
 Delta R.T. -0.360 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion: 262 Resp: 138027



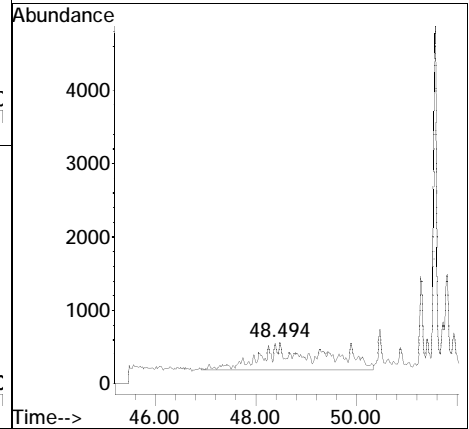
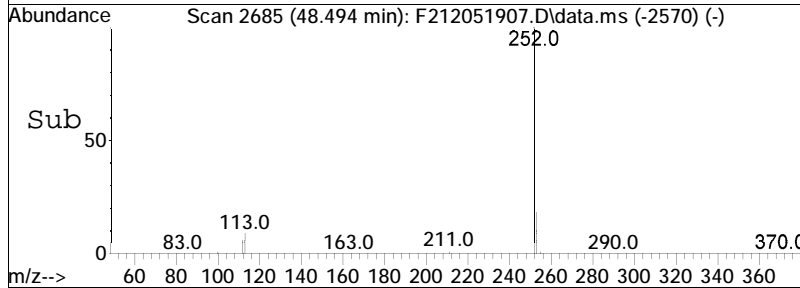
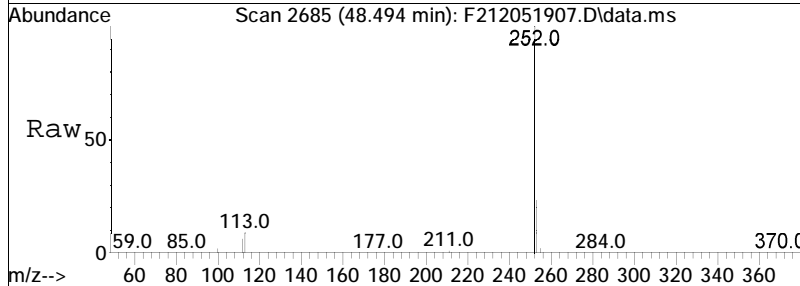


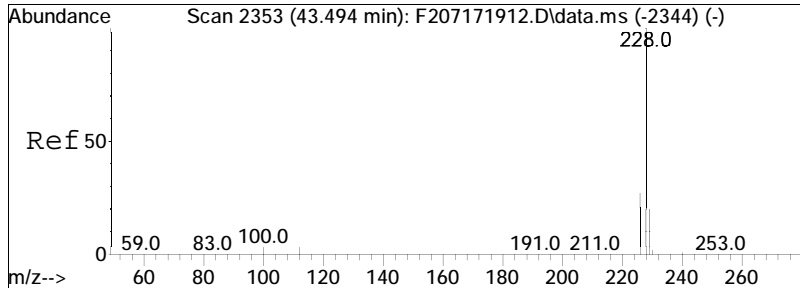
#72
 C3-Naphthobenzothiophenes
 Concen: 464.56 ng/ml M5
 RT: 47.078 min Scan# 2591
 Delta R.T. -0.062 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion: 276 Resp: 113450





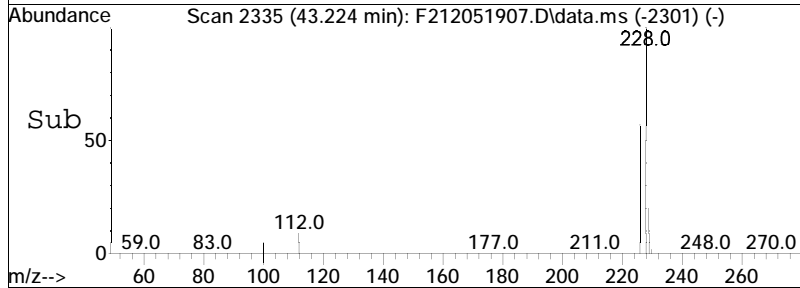
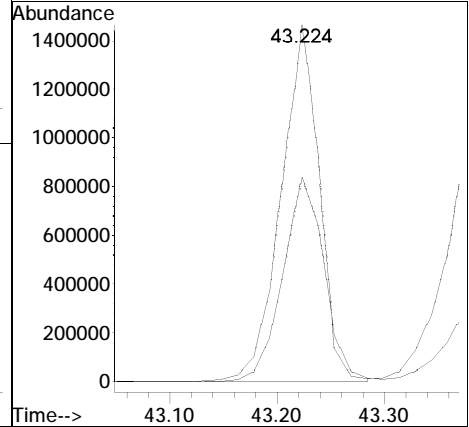
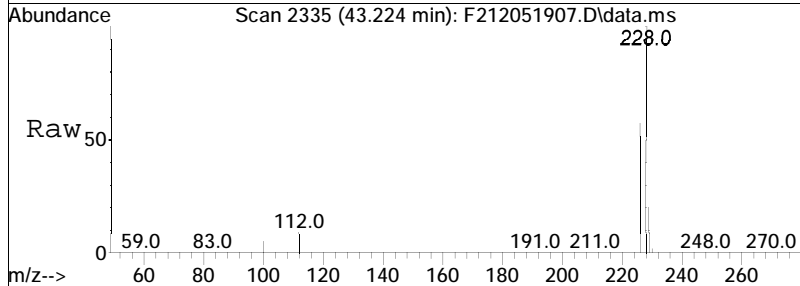
#73
 C4-Naphthobenzothiophenes
 Concen: 118.92 ng/mL M5
 RT: 48.494 min Scan# 2685
 Delta R.T. 0.247 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm
 Tgt Ion: 290 Resp: 29042

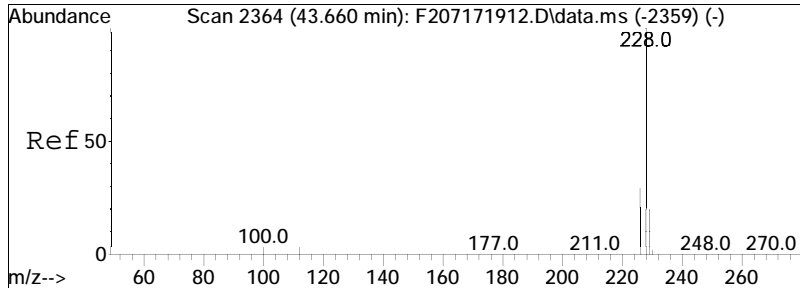




#75
 Benz[a]anthracene
 Concen: 14999.15 ng/mL M3
 RT: 43.224 min Scan# 2335
 Delta R.T. 0.015 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

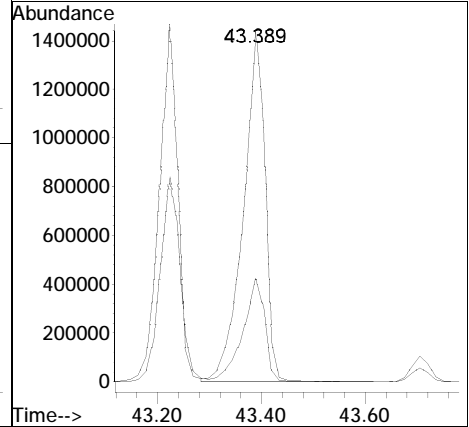
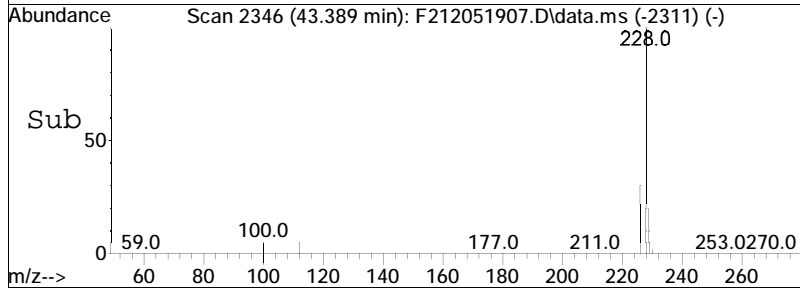
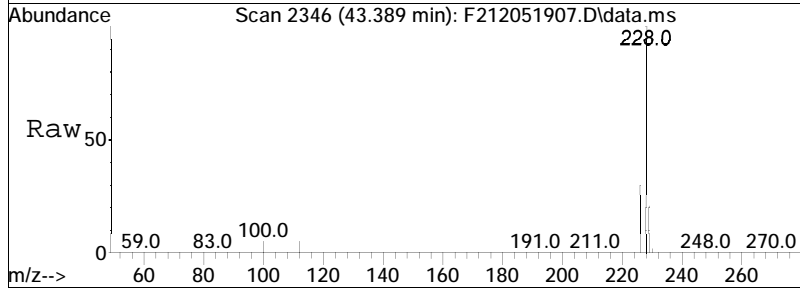
Tgt Ion: 228 Resp: 3618462
 Ion Ratio Lower Upper
 228 100
 226 33.4 18.2 33.8

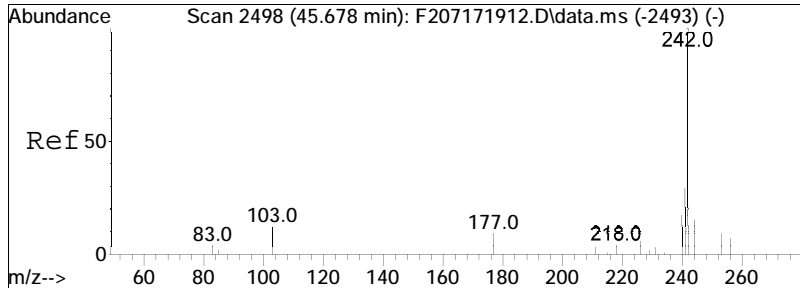




#76
 Chrysene
 Concen: 17030.17 ng/mL
 RT: 43.389 min Scan# 2346
 Delta R.T. 0.030 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

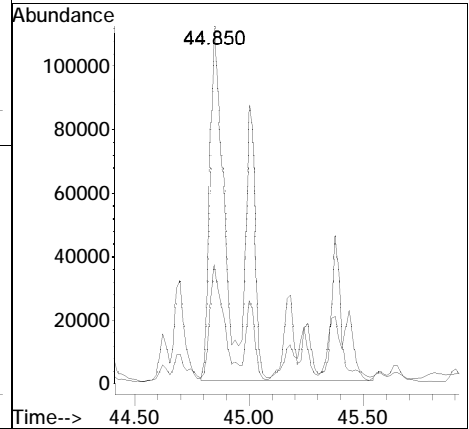
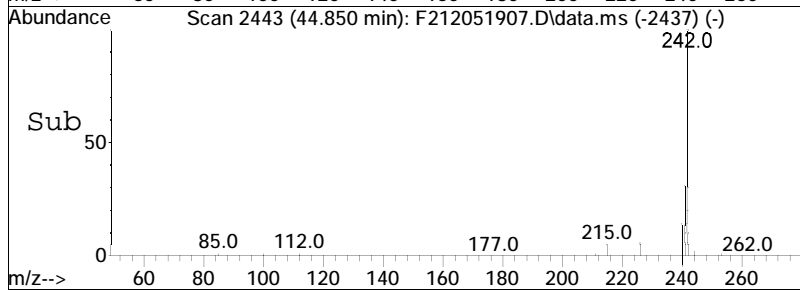
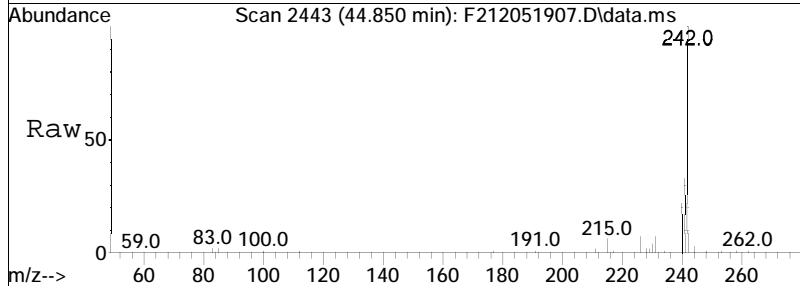
Tgt Ion: 228 Resp: 4182623
 Ion Ratio Lower Upper
 228 100
 226 28.9 20.3 37.7

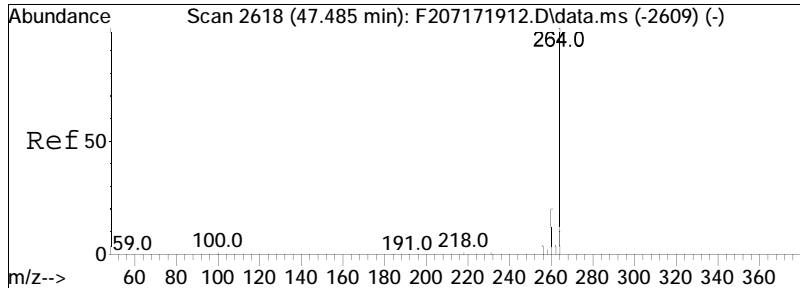




#78
 Cl-Chrysenes
 Concen: 3881.11 ng/mL M5
 RT: 44.850 min Scan# 2443
 Delta R.T. 0.025 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

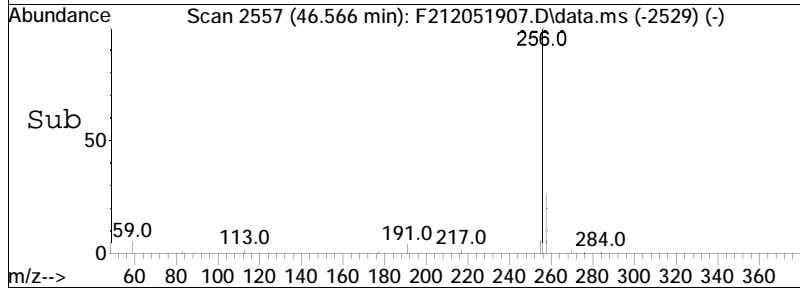
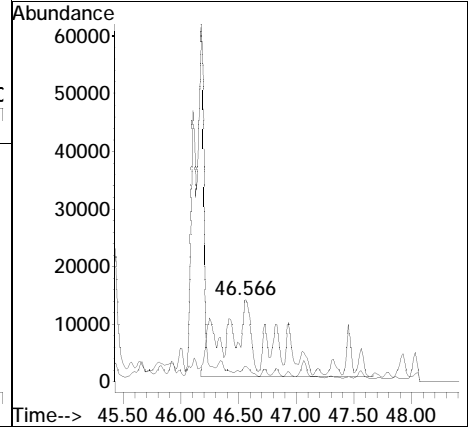
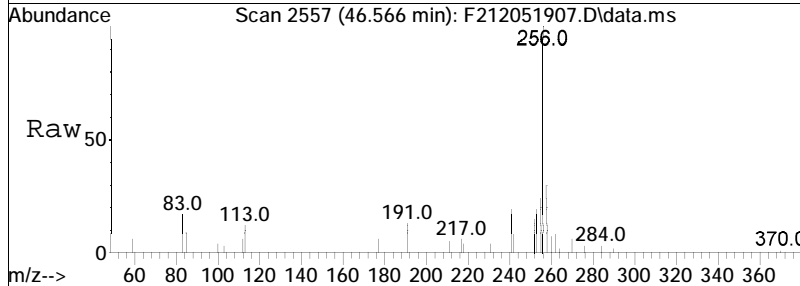
Tgt Ion: 242 Resp: 953205
 Ion Ratio Lower Upper
 242 100
 241 13.9 31.3 58.1#

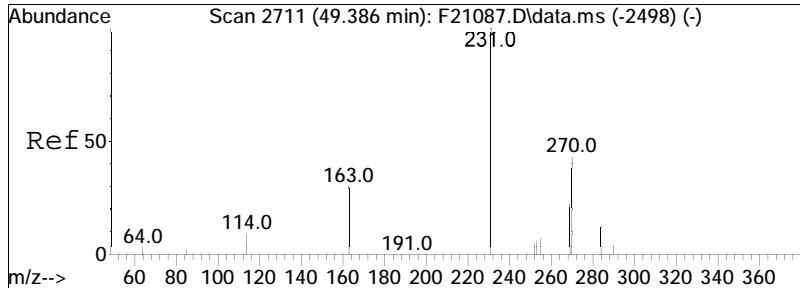




#79
 C2-Chrysenes
 Concen: 1528.28 ng/mL M5
 RT: 46.566 min Scan# 2557
 Delta R.T. -0.346 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

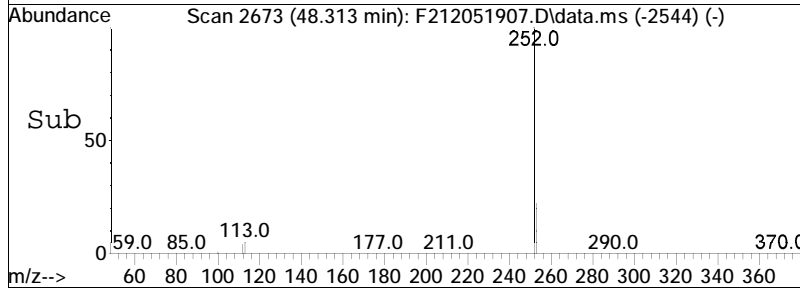
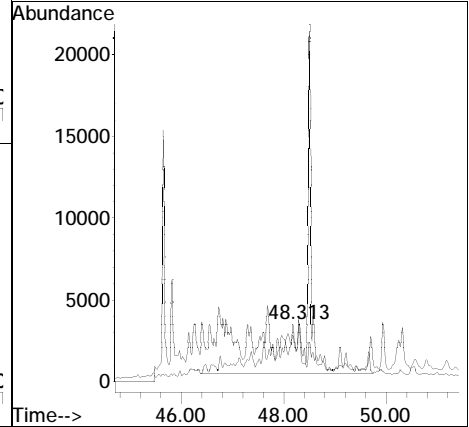
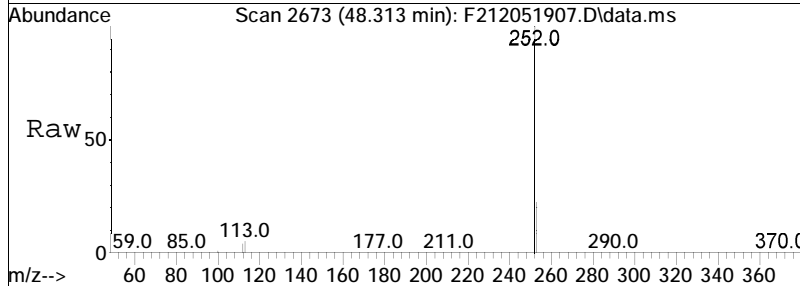
Tgt Ion	Ratio	Lower	Upper
256	100		
241	0.6	25.6	47.4#

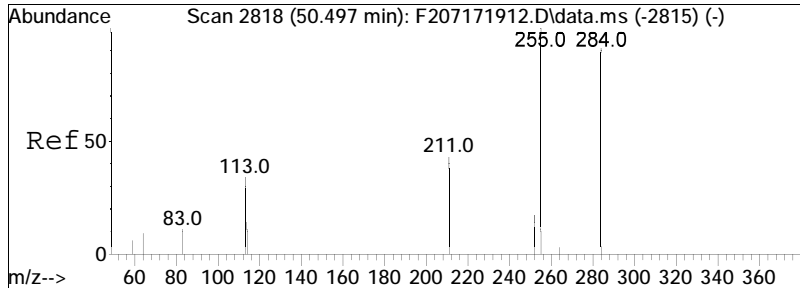




#81
 C3-Chrysenes
 Concen: 708.77 ng/mL M5
 RT: 48.313 min Scan# 2673
 Delta R.T. -1.359 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

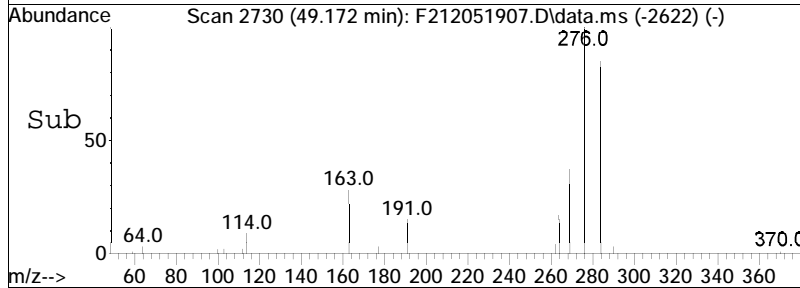
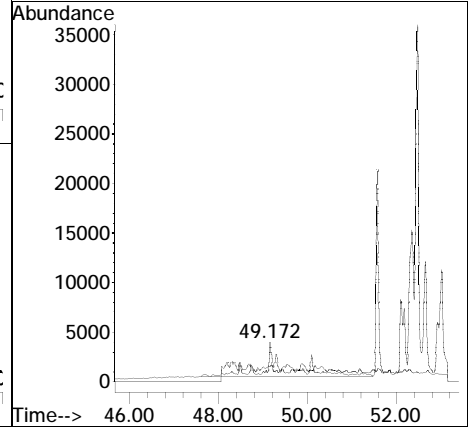
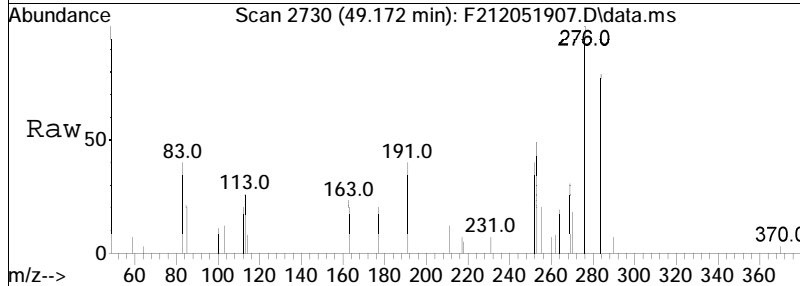
Tgt Ion	Ratio	Lower	Upper
270	100		
255	1.3	38.4	71.4#

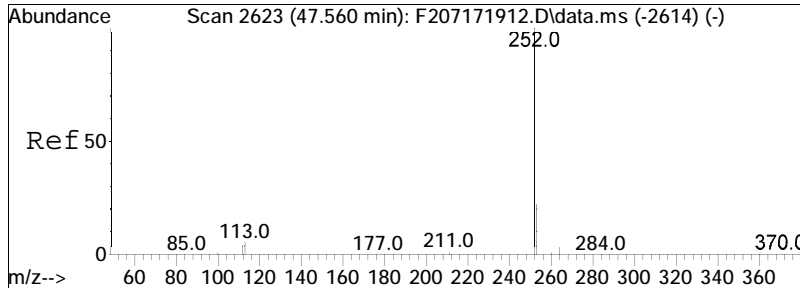




#82
 C4-Chrysenes
 Concen: 417.12 ng/mL M5
 RT: 49.172 min Scan# 2730
 Delta R.T. -0.605 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

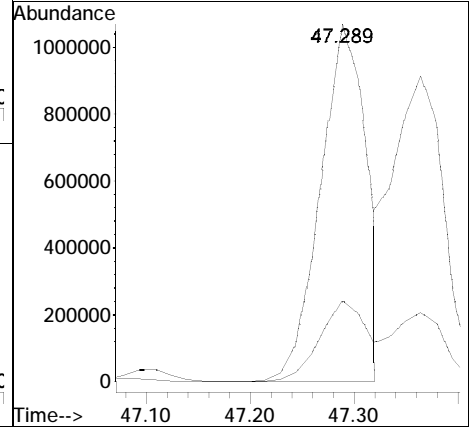
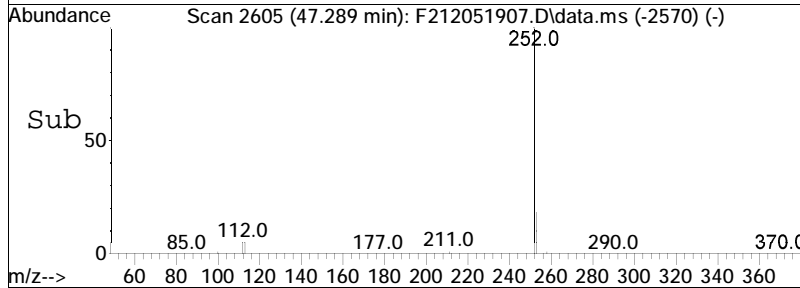
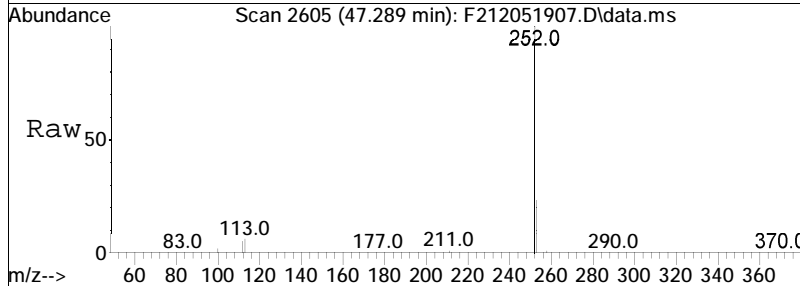
Tgt Ion	Ratio	Lower	Upper
284	100		
269	0.0	57.2	106.2#

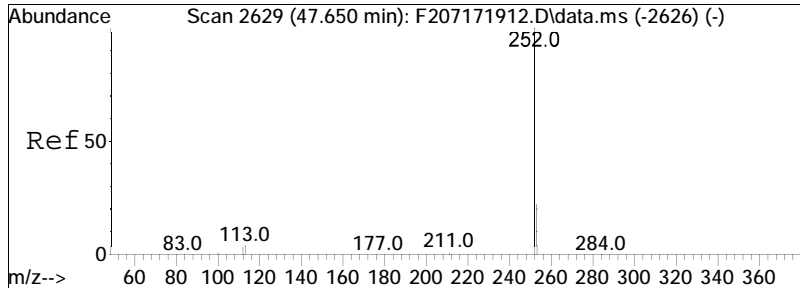




#84
 Benzo[b]fluoranthene
 Concen: 11430.22 ng/mL
 RT: 47.289 min Scan# 2605
 Delta R.T. 0.032 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

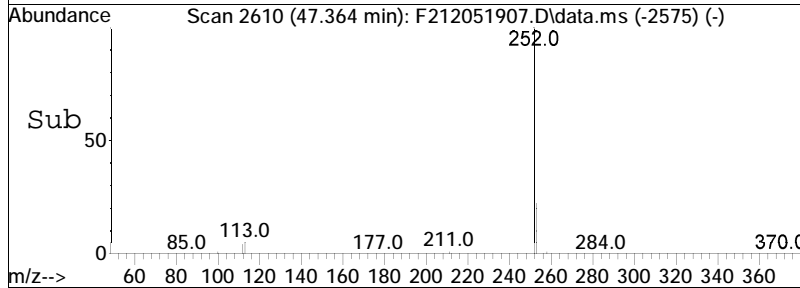
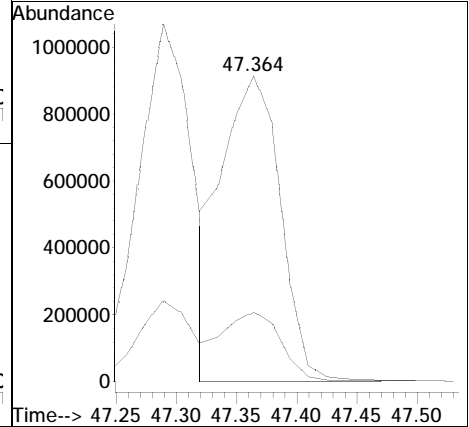
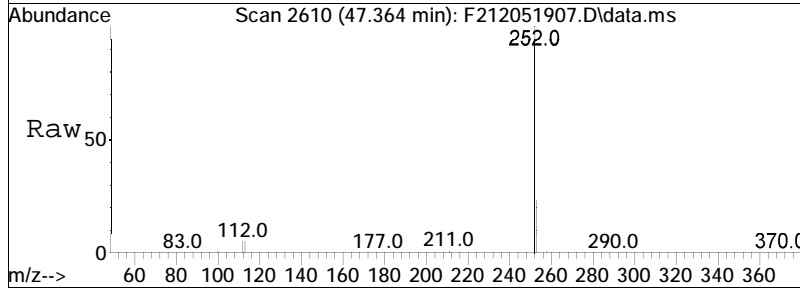
Tgt Ion: 252 Resp: 3338338
 Ion Ratio Lower Upper
 252 100
 253 22.6 16.4 30.4

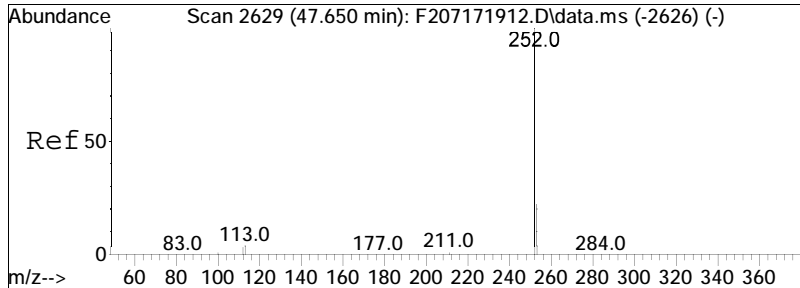




#85
 Benzo[j]+[k]fluoranthene
 Concen: 10548.72 ng/mL M6
 RT: 47.364 min Scan# 2610
 Delta R.T. 0.032 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

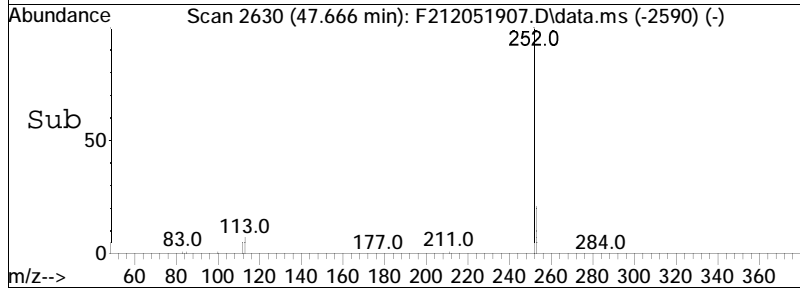
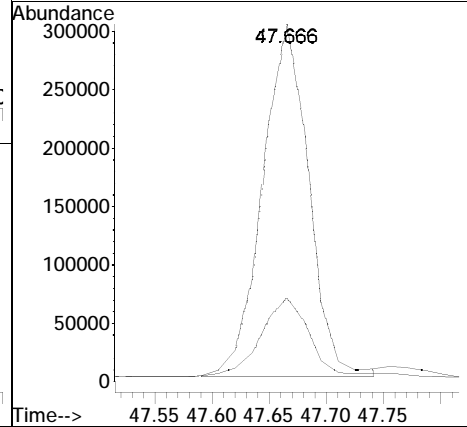
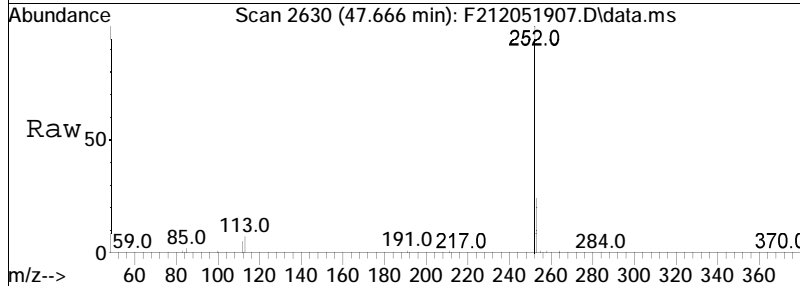
Tgt Ion: 252 Resp: 3099400
 Ion Ratio Lower Upper
 252 100
 253 18.6 16.4 30.4

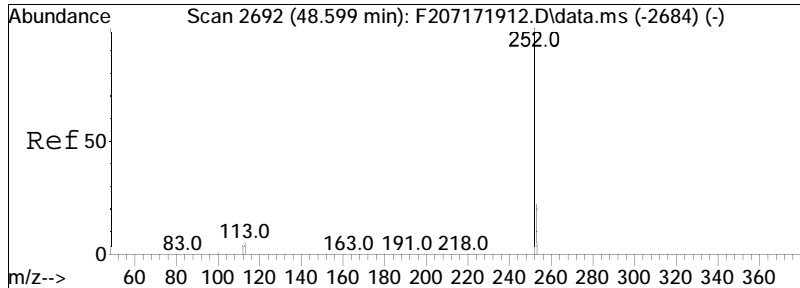




#86
 Benzo[a]fluoranthene
 Concen: 2873.58 ng/mL M3
 RT: 47.666 min Scan# 2630
 Delta R.T. 0.102 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

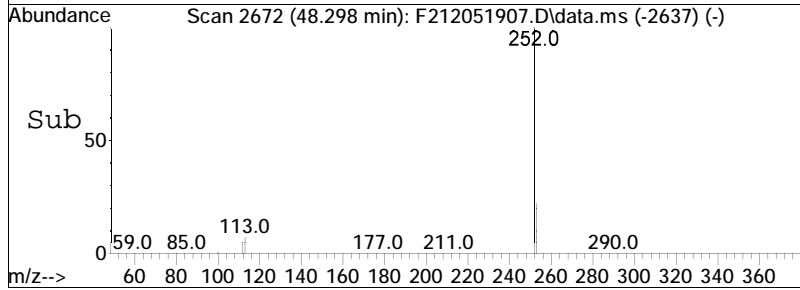
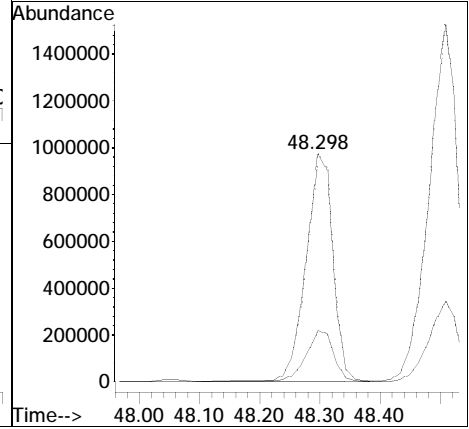
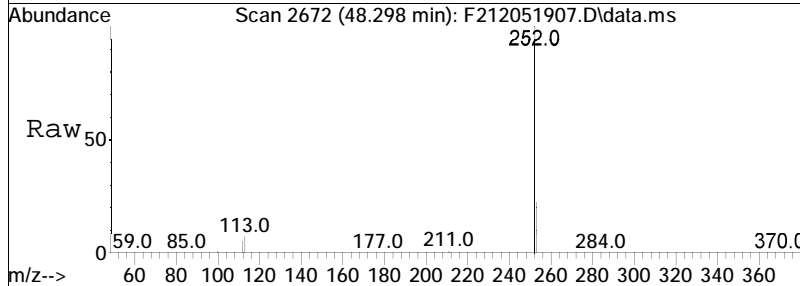
Tgt Ion	Ratio	Lower	Upper
252	100		
253	26.3	96.2	178.8#

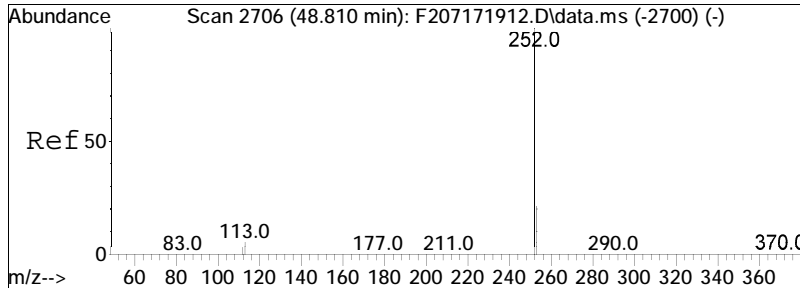




#87
 Benzo[e]pyrene
 Concen: 10735.41 ng/mL
 RT: 48.298 min Scan# 2672
 Delta R.T. 0.021 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

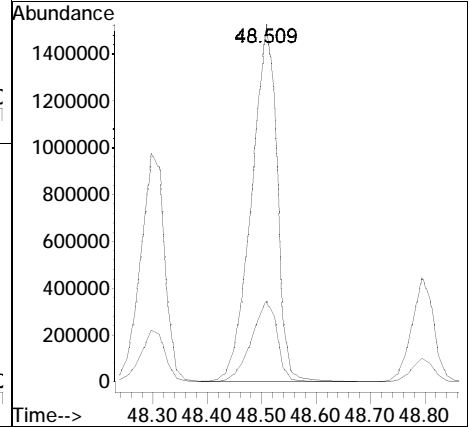
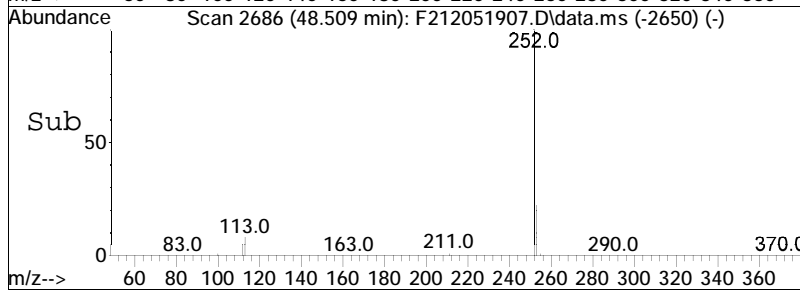
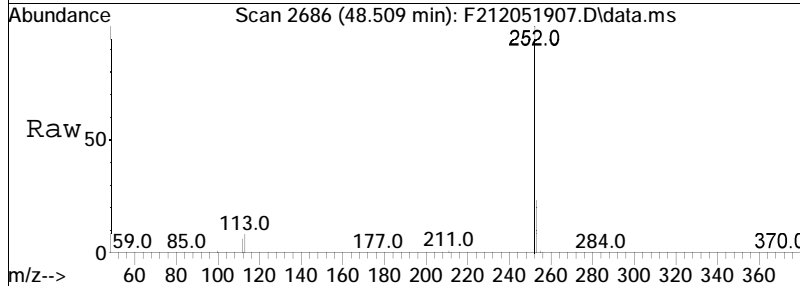
Tgt Ion: 252 Resp: 3011598
 Ion Ratio Lower Upper
 252 100
 253 22.5 16.6 30.8

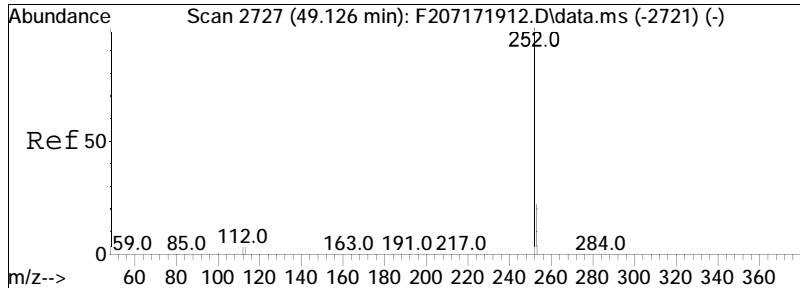




#89
 Benzo[a]pyrene
 Concen: 19354.34 ng/mL
 RT: 48.509 min Scan# 2686
 Delta R.T. 0.037 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

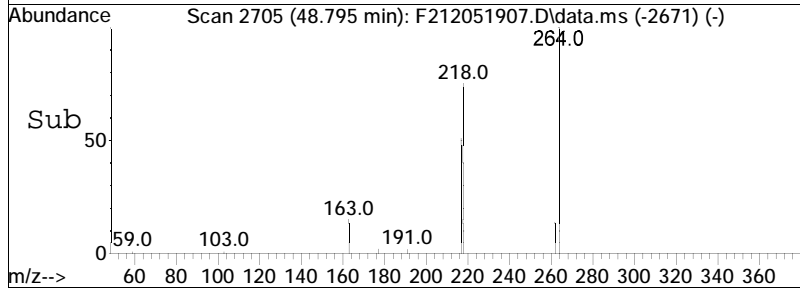
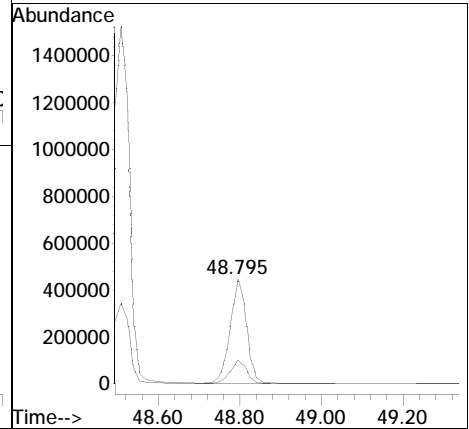
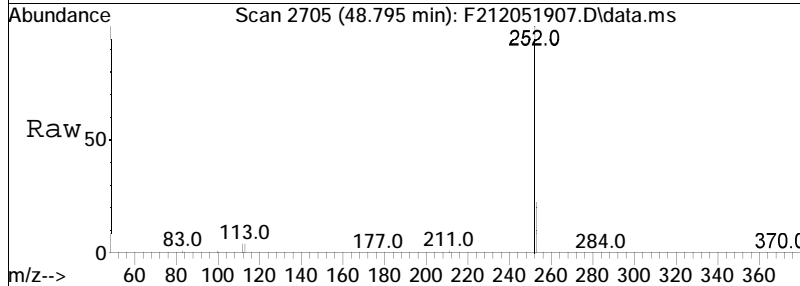
Tgt Ion: 252 Resp: 4970371
 Ion Ratio Lower Upper
 252 100
 253 22.5 16.7 31.1

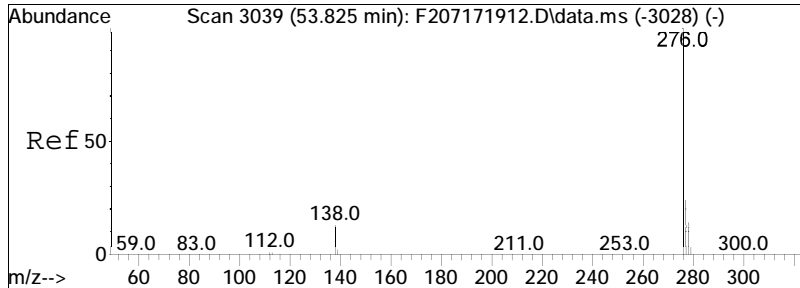




#90
 Perylene
 Concen: 5023.83 ng/mL
 RT: 48.795 min Scan# 2705
 Delta R.T. 0.008 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

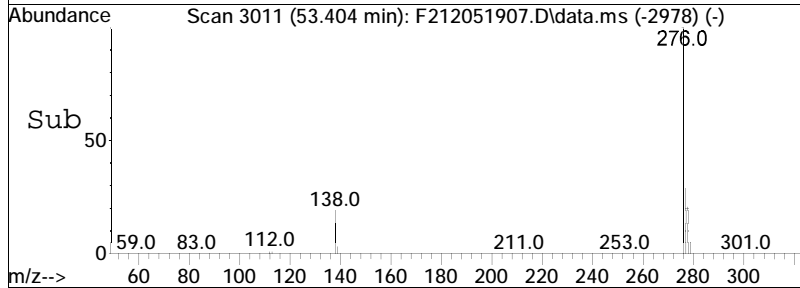
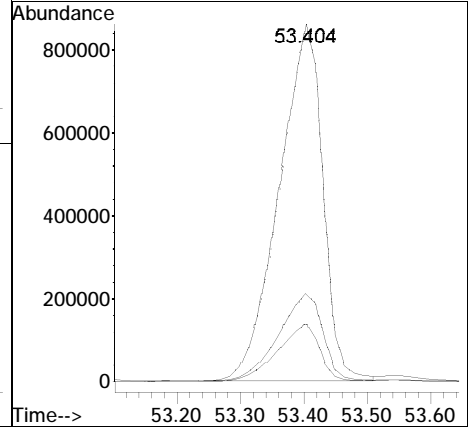
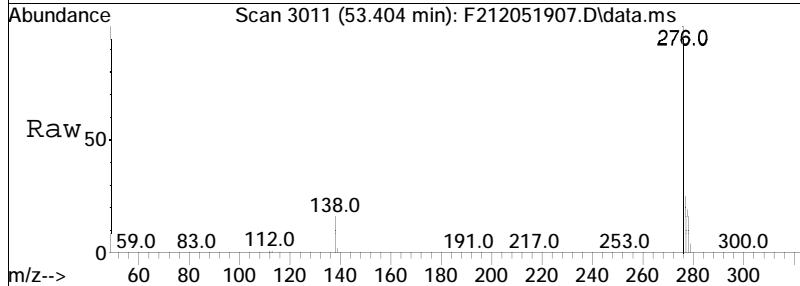
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.6	17.1	31.7

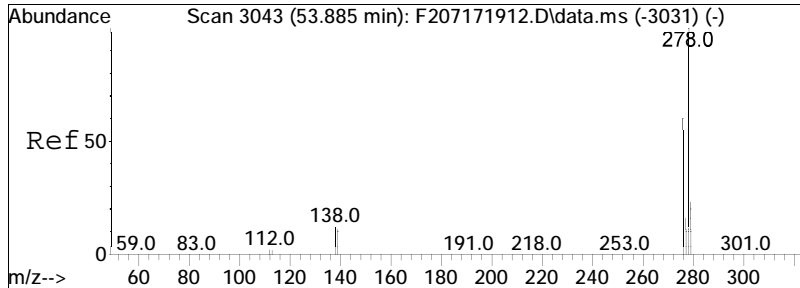




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 13327.95 ng/mL
 RT: 53.404 min Scan# 3011
 Delta R.T. -0.003 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

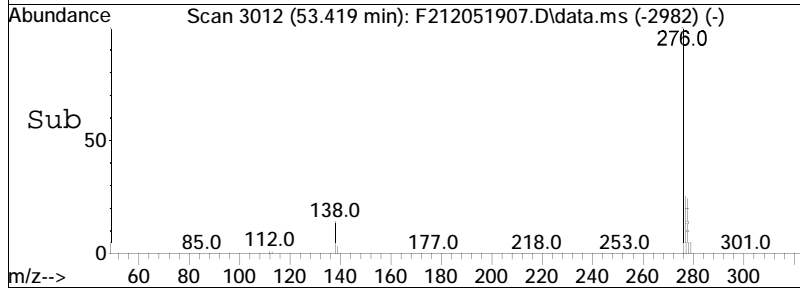
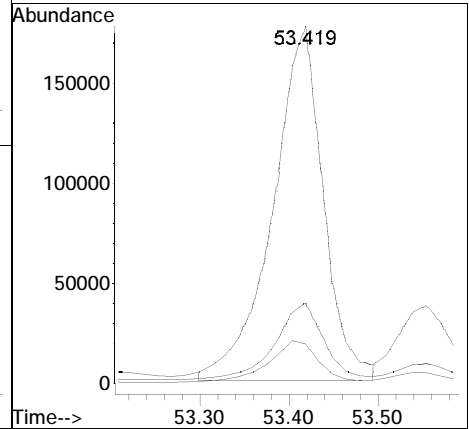
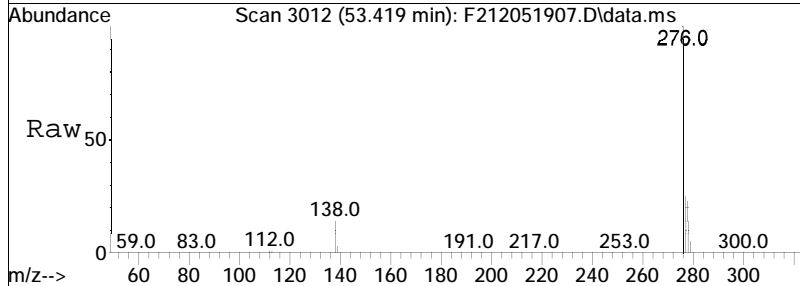
Tgt Ion	Resp	Lower	Upper
276	100		
138	16.0	11.3	20.9
277	25.0	16.8	31.2

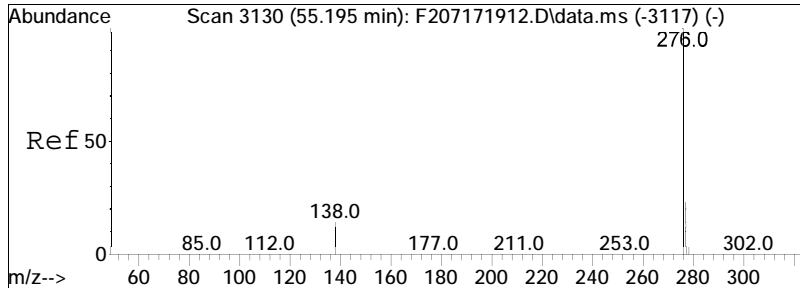




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 2493.59 ng/mL M3
 RT: 53.419 min Scan# 3012
 Delta R.T. -0.048 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

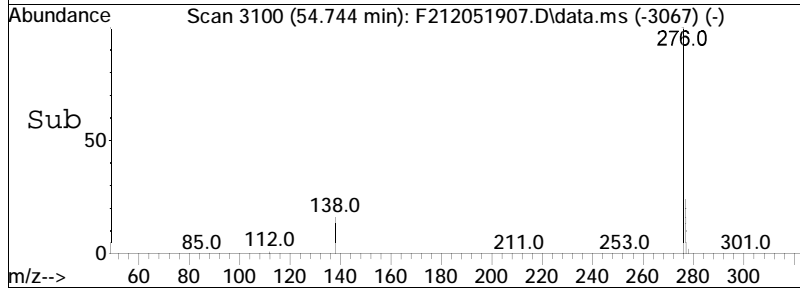
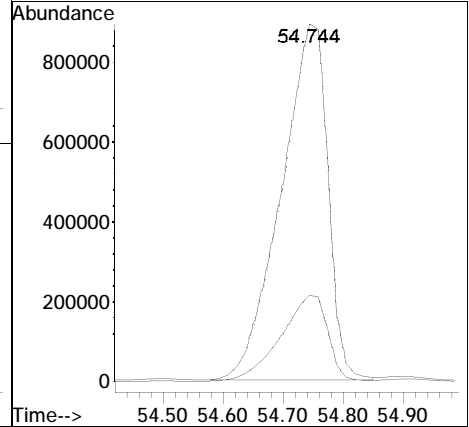
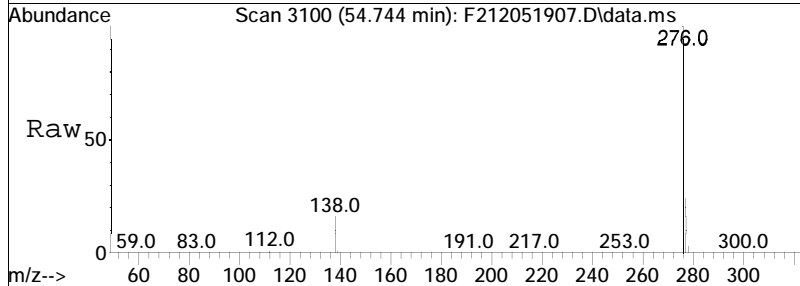
Tgt Ion	Ratio	Lower	Upper
278	100		
139	3.2	9.2	17.2#
279	5.2	16.6	30.8#





#93
 Benzo[g,h,i]perylene
 Concen: 15644.82 ng/mL
 RT: 54.744 min Scan# 3100
 Delta R.T. 0.003 min
 Lab File: F212051907.D
 Acq: 5 Dec 2019 3:50 pm

Tgt Ion: 276 Resp: 4777594
 Ion Ratio Lower Upper
 276 100
 277 24.3 16.5 30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051909.D
 Acq On : 5 Dec 2019 6:44 pm
 Operator : PAH2:MJS
 Sample : L1954309-04d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 10 15:22:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	61616M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	106386	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.828	136	25089	110.456	ng/mL	-0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	11.05%#	
40) Phenanthrene-d10	32.669	188	20093	100.608	ng/mL	0.06
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	10.06%#	
83) Benzo[b]fluoranthene-d12	47.184	264	24347	116.866	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	11.69%#	
88) Benzo[a]pyrene-d12	48.388	264	16232	100.807	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	10.08%#	
Target Compounds						
2) trans-Decalin	16.471	138	1467	30.884	ng/mL	100
3) cis-Decalin	17.705	138	505M3	13.785	ng/mL	
4) C1-Decalins	18.413	152	8841M5	186.127	ng/mL	
5) C2-Decalins	19.738	166	17786M5	374.444	ng/mL	
6) C3-Decalins	22.207	180	14614M5	307.665	ng/mL	
7) C4-Decalins	24.480	194	13001M5	273.707	ng/mL	
9) Naphthalene	19.933	128	32695706	129468.130	ng/mL	100
10) C1-Naphthalenes	22.598	142	5200307M5	20592.124	ng/mL	
11) C2-Naphthalenes	25.428	156	2220366M5	8792.183	ng/mL	
12) C3-Naphthalenes	27.762	170	877904M5	3476.316	ng/mL	
13) C4-Naphthalenes	30.532	184	319626M5	1265.652	ng/mL	
14) 2-Methylnaphthalene	22.598	142	3283570	19708.030	ng/mL	100
15) 1-Methylnaphthalene	23.019	142	1911775	11946.066	ng/mL	100
16) Benzothiophene	20.114	134	1271878	6460.944	ng/mL	100
17) C1-Benzo(b)thiophenes	22.447	148	370134M5	1880.224	ng/mL	
18) C2-Benzo(b)thiophenes	25.142	162	293765M5	1492.281	ng/mL	
19) C3-Benzo(b)thiophenes	27.250	176	166038M5	843.447	ng/mL	
20) C4-Benzo(b)thiophenes	28.861	190	80747M5	410.182	ng/mL	
21) Biphenyl	24.465	154	1373939	6775.496	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.097	156	607071	4071.889	ng/mL	100
23) Dibenzofuran	27.551	168	374295	1736.205	ng/mL	100
24) Acenaphthylene	26.181	152	1401410	5635.396	ng/mL	100
25) Acenaphthene	26.919	153	3332699	21461.525	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.469	170	74018M3	543.492	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051909.D
 Acq On : 5 Dec 2019 6:44 pm
 Operator : PAH2:MJS
 Sample : L1954309-04d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 10 15:22:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.936	166	2029707M4	11539.836	ng/mL	
28) C1-Fluorenes	31.164	180	374396M5	2128.617	ng/mL	
29) C2-Fluorenes	33.347	194	224649M5	1277.235	ng/mL	
30) C3-Fluorenes	36.012	208	146831M5	834.803	ng/mL	
31) Dibenzothiophene	32.263	184	2348720	9859.304	ng/mL	96
32) 4-Methyldibenzothiophene(	34.024	198	147764	620.274	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.340	198	175068	734.889	ng/mL	100
34) 1-Methyldibenzothiophene(	34.792	198	50666	212.682	ng/mL	100
36) C1-Dibenzothiophenes	34.024	198	461570M5	1937.548	ng/mL	
36) C1-Dibenzothiophenes BS	34.024	198	461570M5	1937.548	ng/mL	
37) C2-Dibenzothiophenes	36.087	212	276122M5	1159.087	ng/mL	
38) C3-Dibenzothiophenes	37.532	226	143760M5	603.466	ng/mL	
39) C4-Dibenzothiophenes	39.219	240	56672M5	237.894	ng/mL	
41) Phenanthrene	32.805	178	19554458	77165.985	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.717	192	609856	2406.619	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.822	192	754808M3	2978.630	ng/mL	
44) 2-Methylanthracene(2MA)	34.973	192	230482M3	909.530	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.168	192	443952M3	1751.928	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.822	192	2402715M5	9481.616	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.990	206	856112M5	3378.397	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.990	206	856112M5	3378.397	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.827	220	302451M5	1193.535	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.010	234	93184M5	367.724	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	32.955	178	2646177	12249.181	ng/mL	99
54) Carbazole	33.603	167	573708	2838.694	ng/mL	96
55) 1-Methylphenanthrene	35.259	192	362052	1907.829	ng/mL	98
56) Fluoranthene	37.577	202	11078125M4	38331.670	ng/mL	
57) Benzo(b)fluorene	40.062	216	354962M3	1952.244	ng/mL	
58) 7H-Benzo(c)fluorene	40.092	216	88988M3	489.422	ng/mL	
59) Pyrene	38.466	202	13226502M3	44073.938	ng/mL	
60) 2-Methylpyrene	40.212	216	306026M3	1019.753	ng/mL	
61) 4-Methylpyrene	40.589	216	267000	889.709	ng/mL	82
62) 1-Methylpyrene	40.694	216	319596	1064.972	ng/mL	71
63) C1-Fluoranthenes/Pyrenes	39.806	216	2444449M5	8145.502	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.552	230	634573M5	2114.552	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.750	244	263374M5	877.627	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.985	258	138174M5	460.430	ng/mL	
67) Naphthobenzothiophene-2,1	42.275	234	571527	2226.543	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051909.D
 Acq On : 5 Dec 2019 6:44 pm
 Operator : PAH2:MJS
 Sample : L1954309-04d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 10 15:22:01 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.621	234	119865M3	466.968	ng/mL	
69) Naphthobenzothiophene-2,3	42.922	234	194776M3	758.804	ng/mL	
70) C1-Naphthobenzothiophenes	43.675	248	231870M5	903.314	ng/ml	
71) C2-Naphthobenzothiophenes	45.181	262	121751M5	474.315	ng/ml	
72) C3-Naphthobenzothiophenes	47.078	276	97923M5	381.486	ng/ml	
73) C4-Naphthobenzothiophenes	48.388	290	29449M5	114.727	ng/mL	
75) Benz[a]anthracene	43.223	228	2677462M3	11019.155	ng/mL	
76) Chrysene	43.389	228	3282626	13270.088	ng/mL	99
78) C1-Chrysenes	44.849	242	772903M5	3124.477	ng/mL	
79) C2-Chrysenes	46.551	256	335460M5	1356.104	ng/mL	
79) C2-Chrysenes BS	46.551	256	332514M5	1344.195	ng/mL	
81) C3-Chrysenes	48.178	270	169650M5	685.814	ng/mL	
82) C4-Chrysenes	49.172	284	99829M5	403.561	ng/mL	
84) Benzo[b]fluoranthene	47.289	252	2667521	9068.058	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.349	252	2163467	7310.627	ng/mL	98
86) Benzo[a]fluoranthene	47.666	252	583586M3	1972.010	ng/mL	
87) Benzo[e]pyrene	48.298	252	2324434	8226.610	ng/mL	99
89) Benzo[a]pyrene	48.494	252	3727593	14411.204	ng/mL	97
90) Perylene	48.795	252	967802	3829.970	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.388	276	3025845	9833.306	ng/mL	99
92) Dibenz[ah]+[ac]anthracene	53.404	278	484089M4	1724.138	ng/mL	
93) Benzo[g,h,i]perylene	54.729	276	3628544	11797.118	ng/mL	99

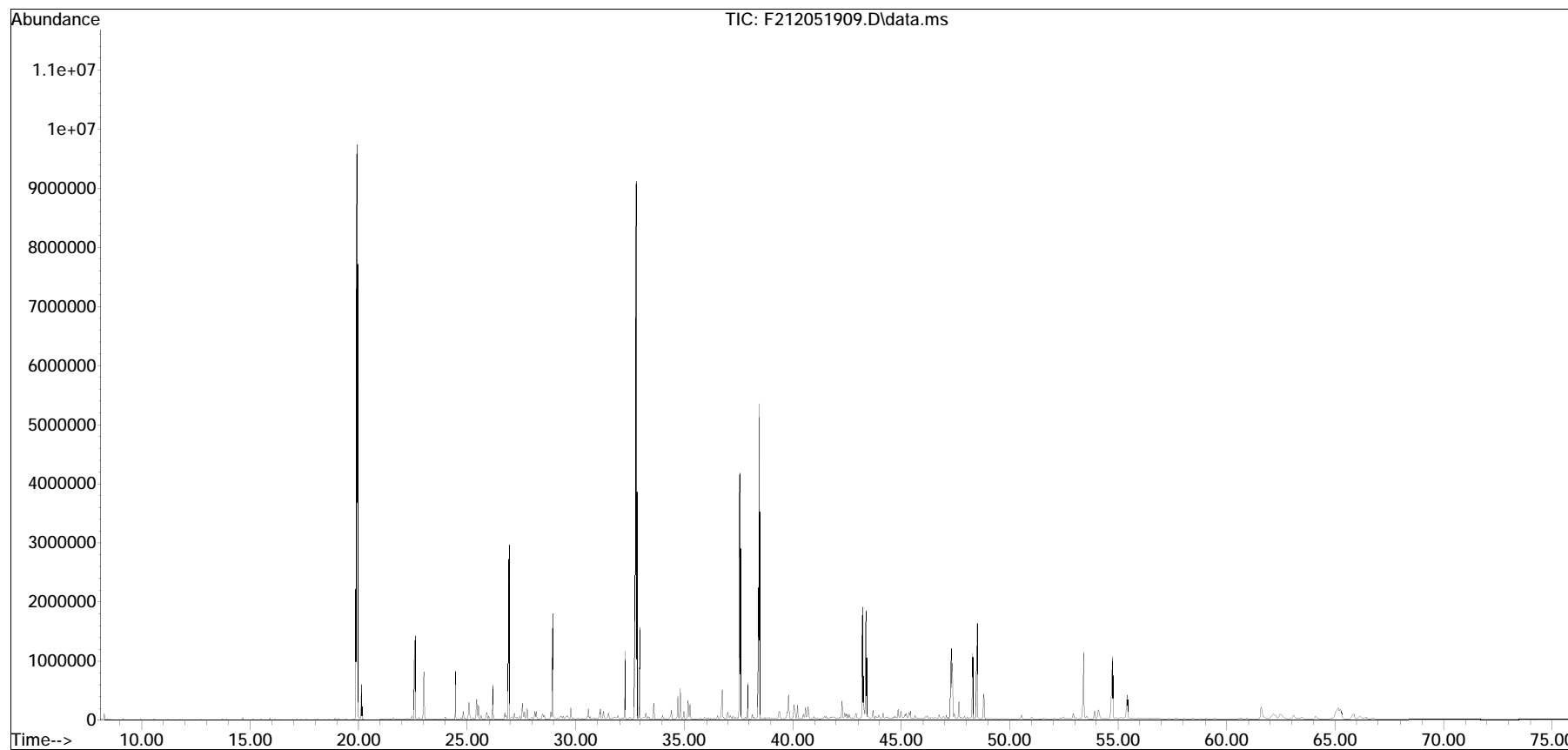
(#) = qualifier out of range (m) = manual integration (+) = signals summed

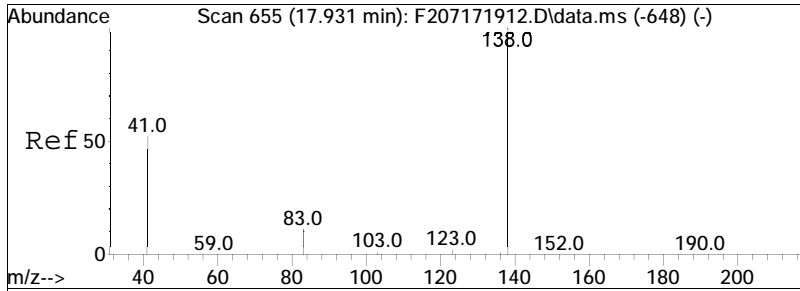
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051909.D
Acq On : 5 Dec 2019 6:44 pm
Operator : PAH2:MJS
Sample : L1954309-04d,32,4
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 9 Sample Multiplier: 1

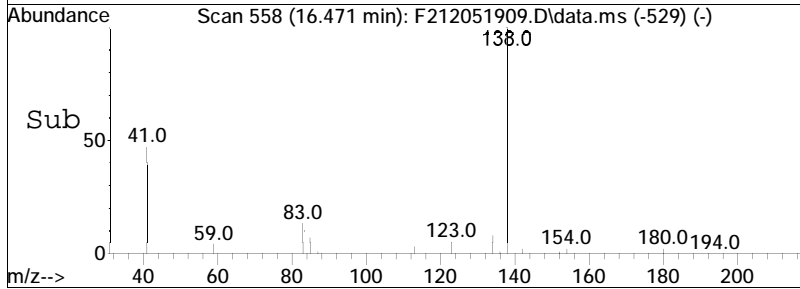
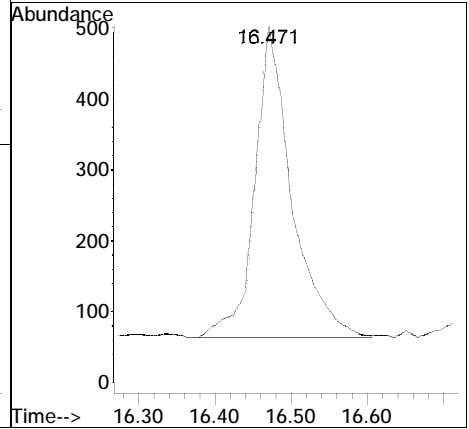
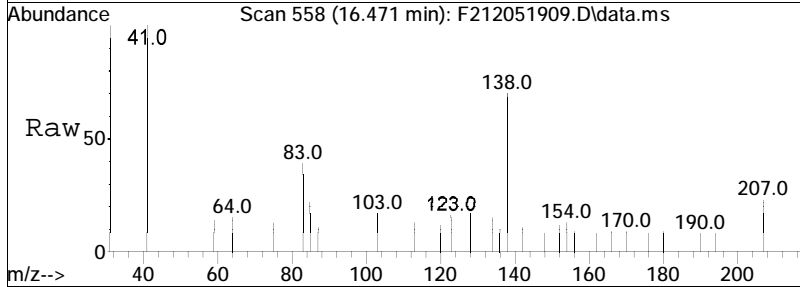
Quant Time: Dec 10 15:22:01 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

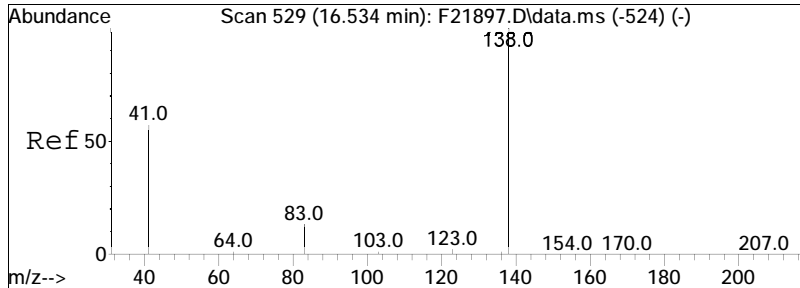
Sub List : ALKPAH - POI+MP+BcF



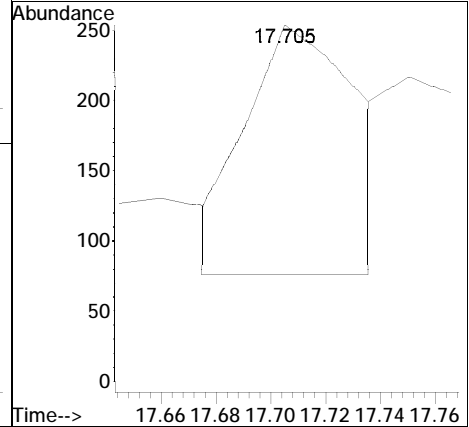
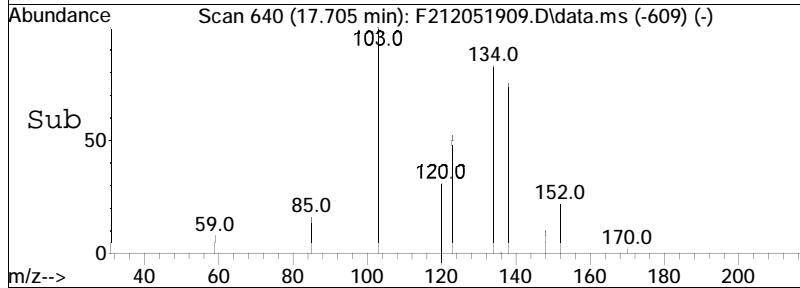
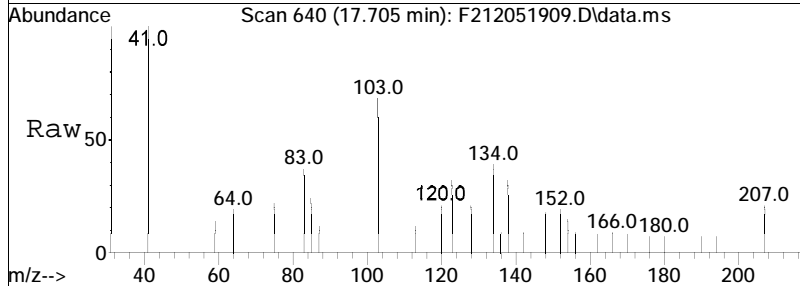


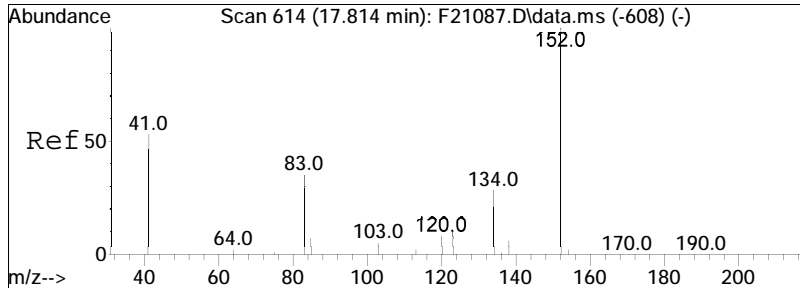
#2
 trans-Decalin
 Concen: 30.88 ng/mL
 RT: 16.471 min Scan# 558
 Delta R.T. -0.060 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:138 Resp: 1467



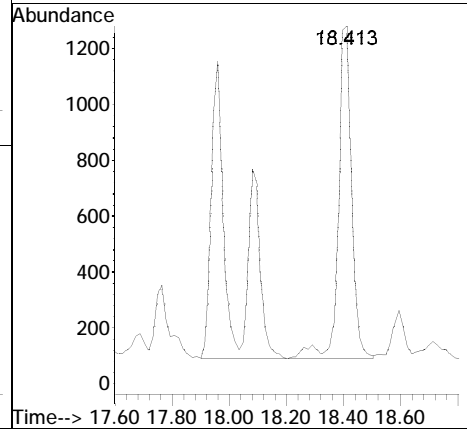
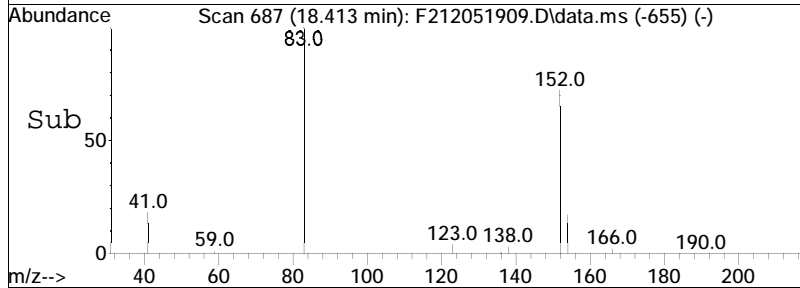
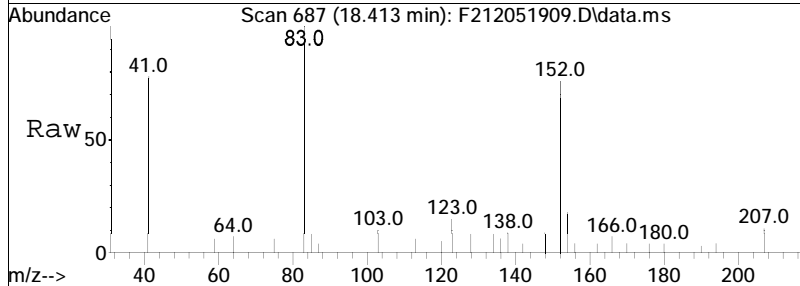


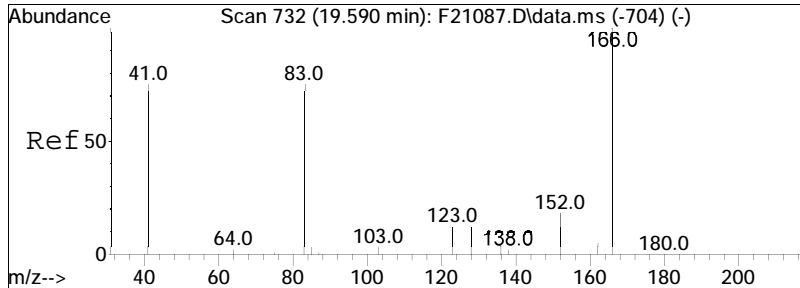
#3
 cis-Decalin
 Concen: 13.78 ng/mL M3
 RT: 17.705 min Scan# 640
 Delta R.T. -0.036 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:138 Resp: 505



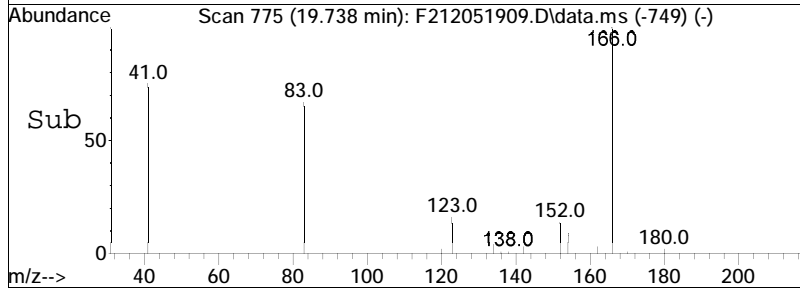
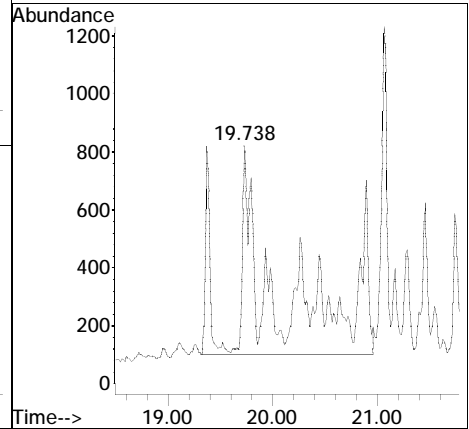
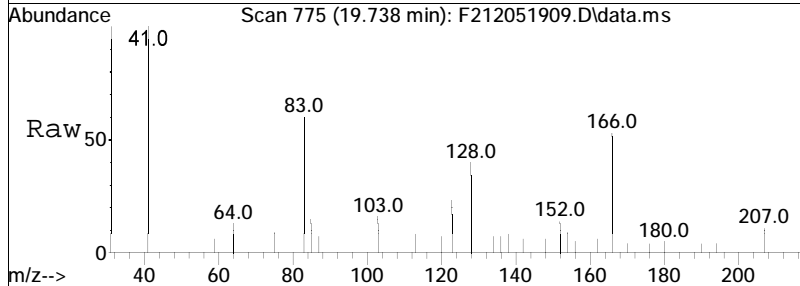


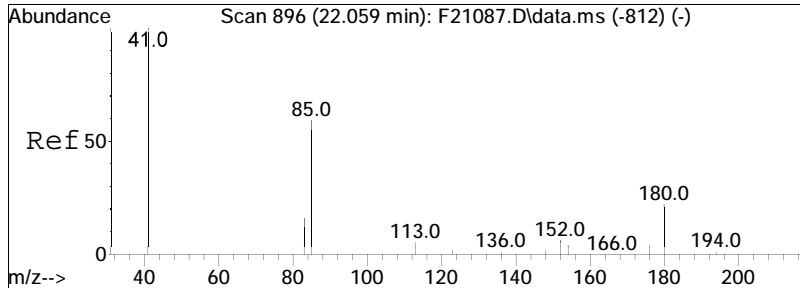
#4
 Cl-Decalins
 Concen: 186.13 ng/mL M5
 RT: 18.413 min Scan# 687
 Delta R.T. -0.046 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:152 Resp: 8841



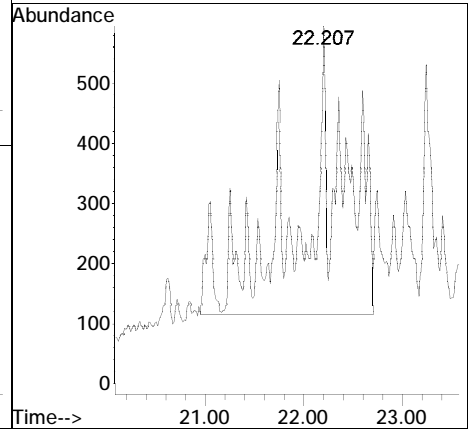
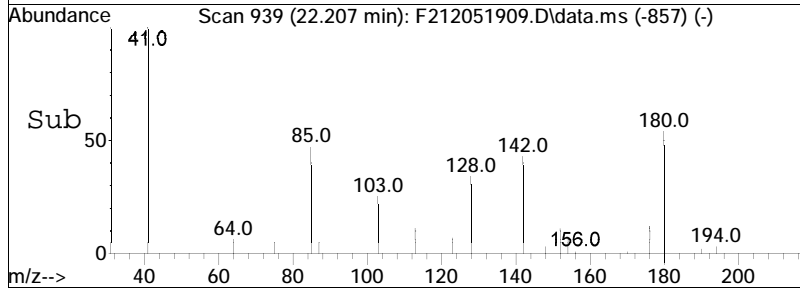
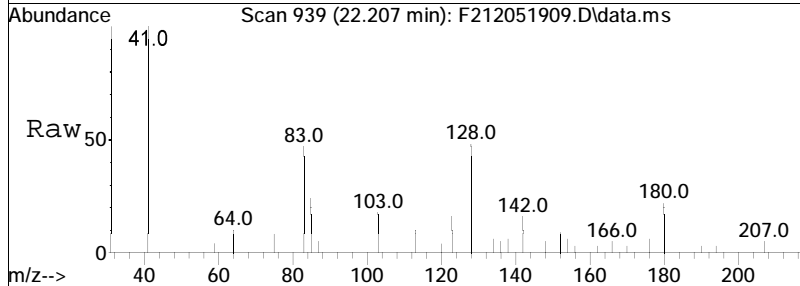


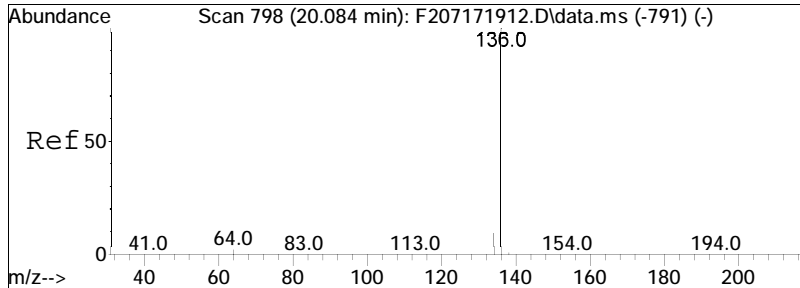
#5
 C2-Decalins
 Concen: 374.44 ng/mL M5
 RT: 19.738 min Scan# 775
 Delta R.T. -0.036 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:166 Resp: 17786



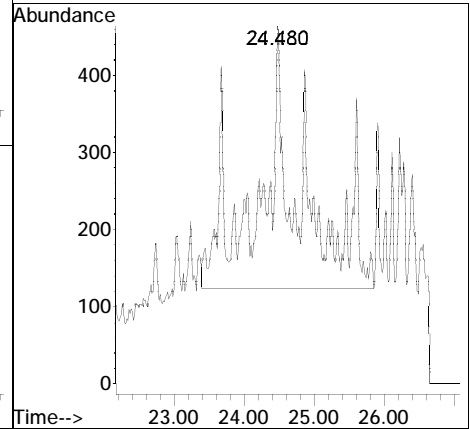
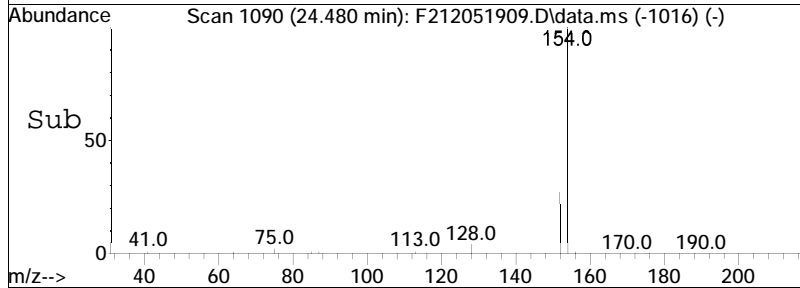
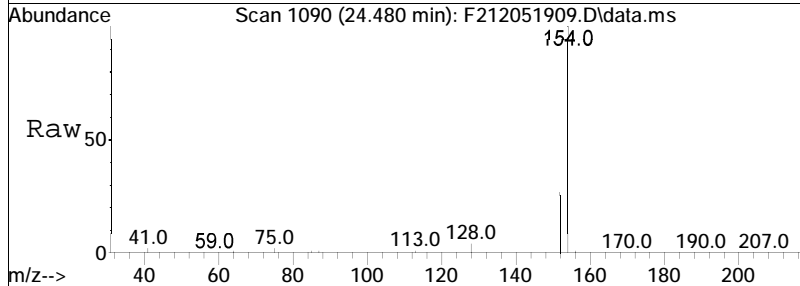


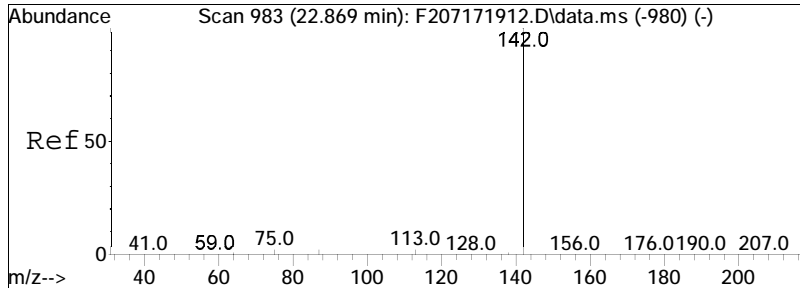
#6
 C3-Decalins
 Concen: 307.66 ng/mL M5
 RT: 22.207 min Scan# 939
 Delta R.T. -0.046 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:180 Resp: 14614



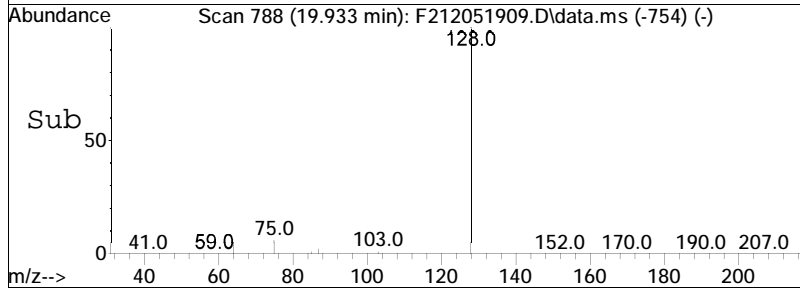
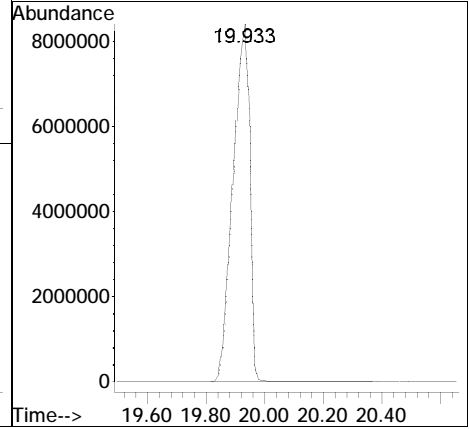
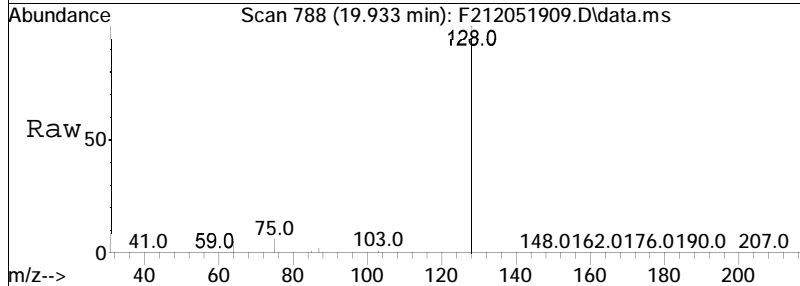


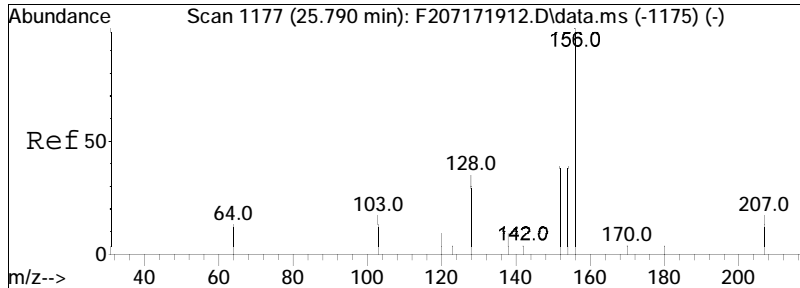
#7
 C4-Decalins
 Concen: 273.71 ng/mL M5
 RT: 24.480 min Scan# 1090
 Delta R.T. -1.126 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:194 Resp: 13001



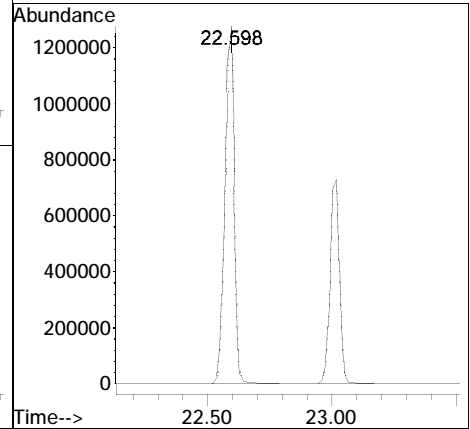
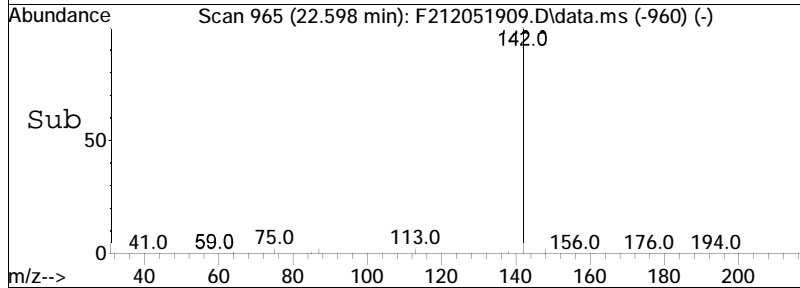
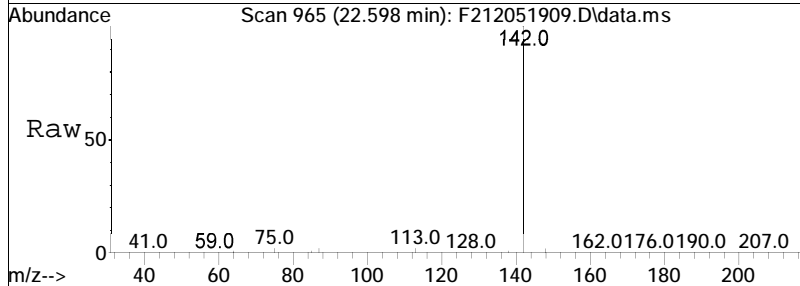


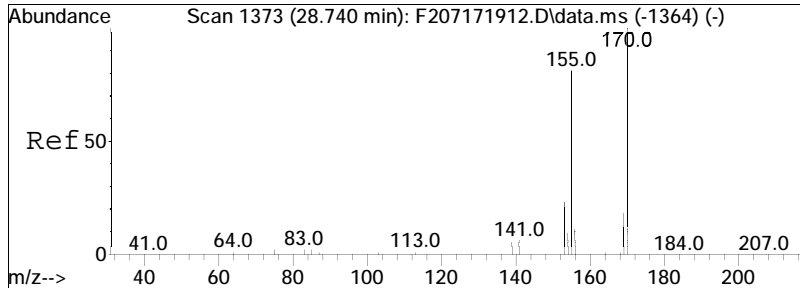
#9
 Naphthalene
 Concen: 129468.13 ng/mL
 RT: 19.933 min Scan# 788
 Delta R.T. 0.010 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:128 Resp:32695706



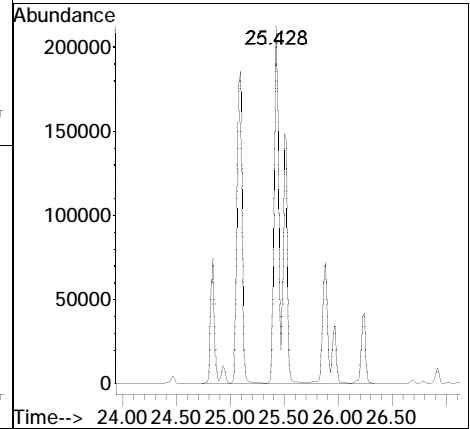
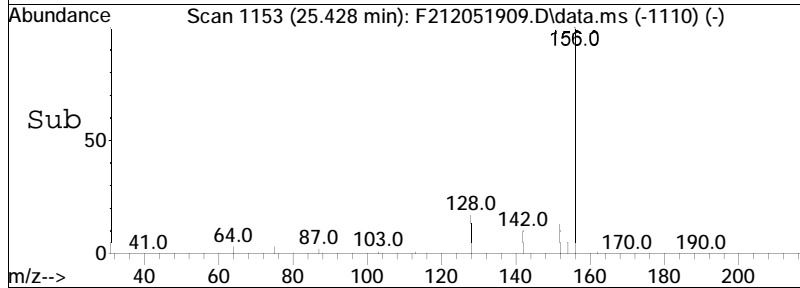
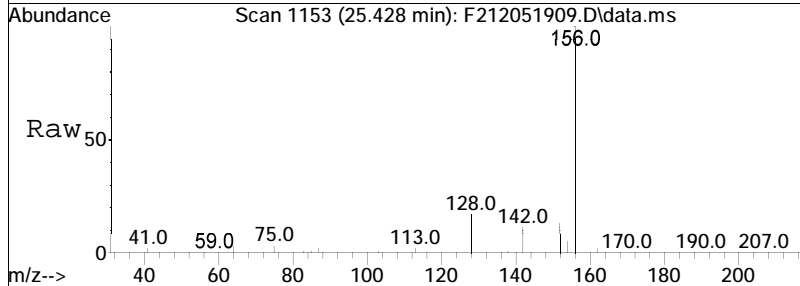


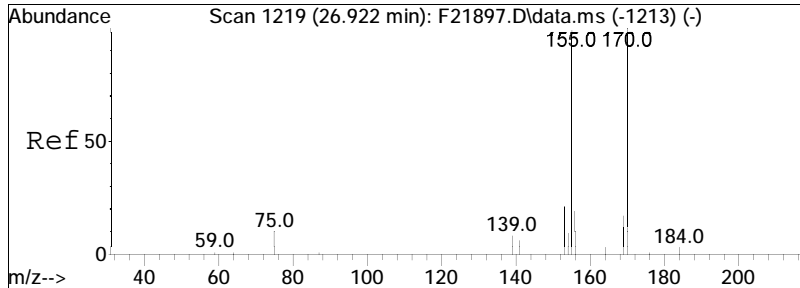
#10
 Cl-Naphthalenes
 Concen: 20592.12 ng/mL M5
 RT: 22.598 min Scan# 965
 Delta R.T. -0.006 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:142 Resp: 5200307





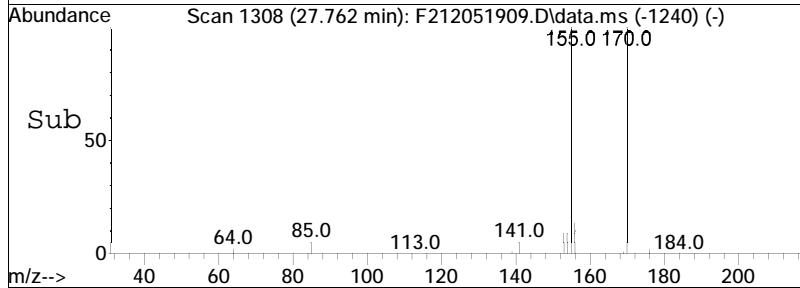
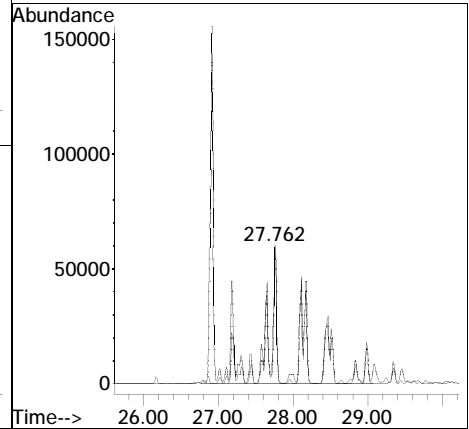
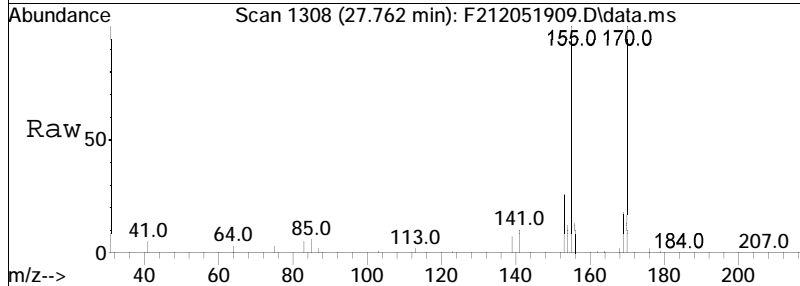
#11
 C2-Naphthalenes
 Concen: 8792.18 ng/mL M5
 RT: 25.428 min Scan# 1153
 Delta R.T. -0.014 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:156 Resp: 2220366

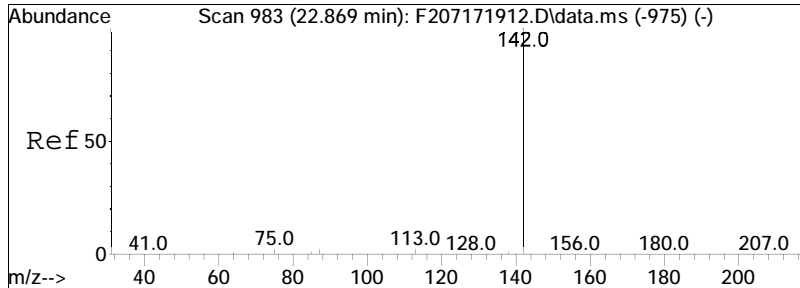




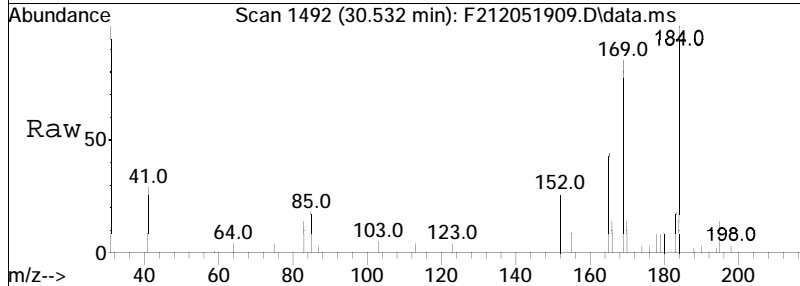
#12
 C3-Naphthalenes
 Concen: 3476.32 ng/mL M5
 RT: 27.762 min Scan# 1308
 Delta R.T. 0.010 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

Tgt Ion	Resp	Lower	Upper
170	100		
155	17.0	66.8	124.0#

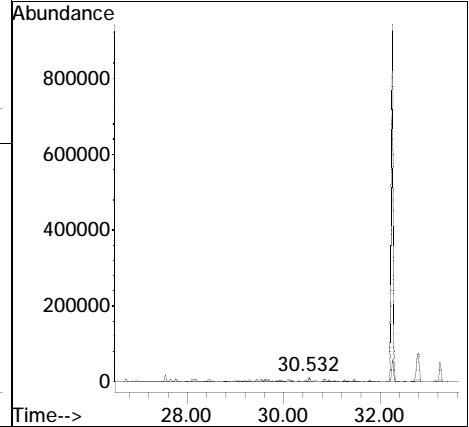
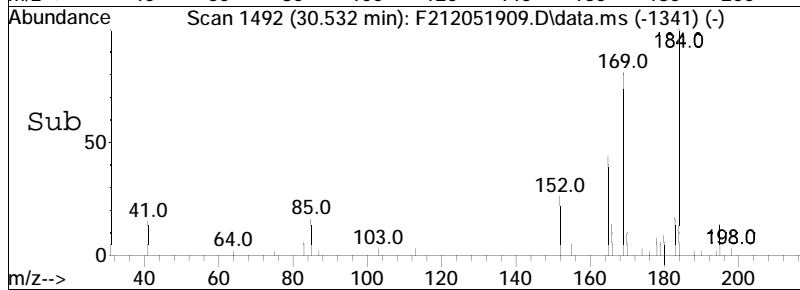


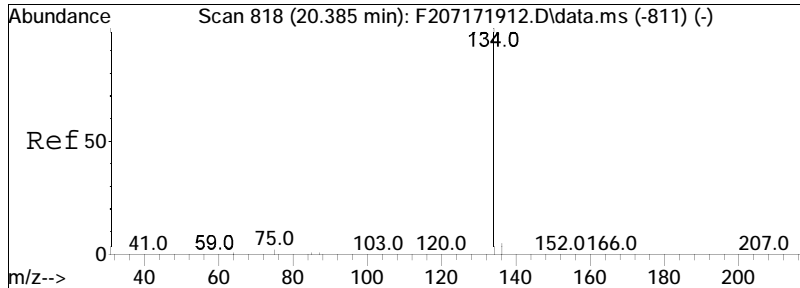


#13
 C4-Naphthalenes
 Concen: 1265.65 ng/mL M5
 RT: 30.532 min Scan# 1492
 Delta R.T. 0.037 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

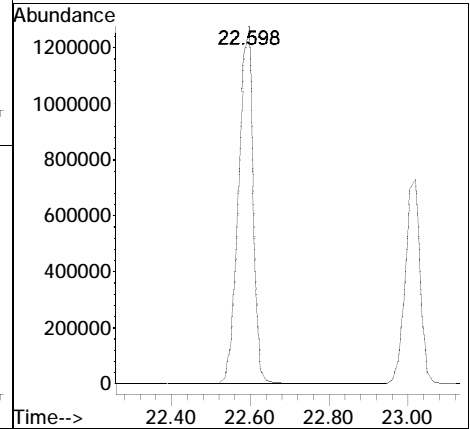
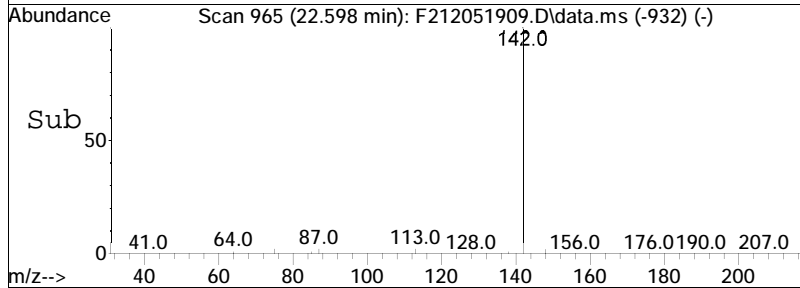
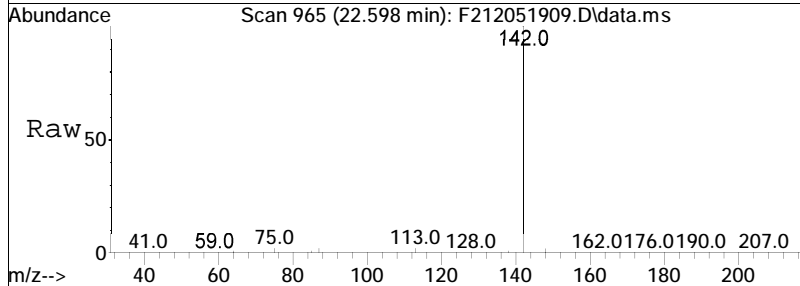


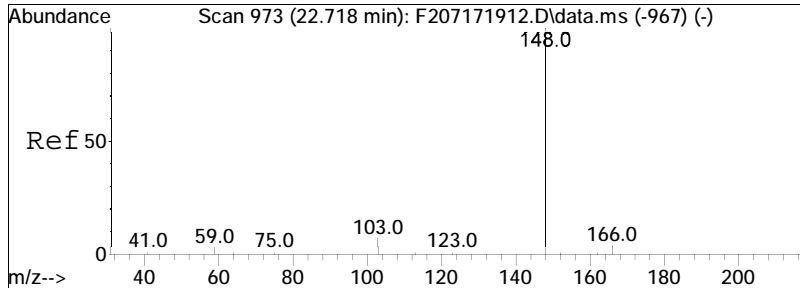
Tgt Ion	Ratio	Lower	Upper
184	100		
169	9.6	65.7	121.9#
183	2.0	22.5	41.9#



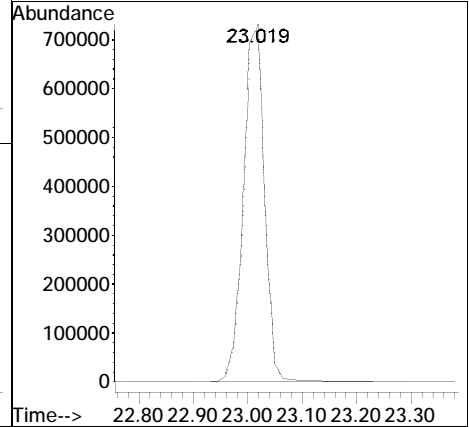
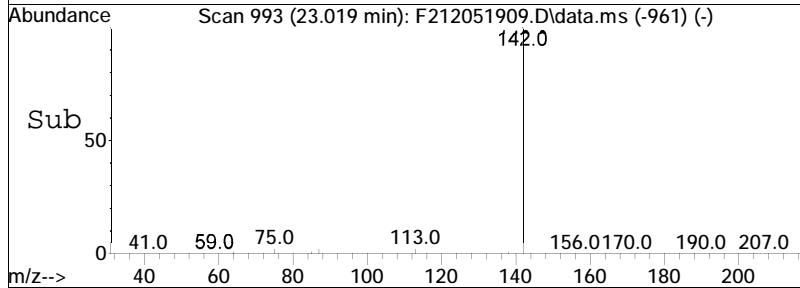
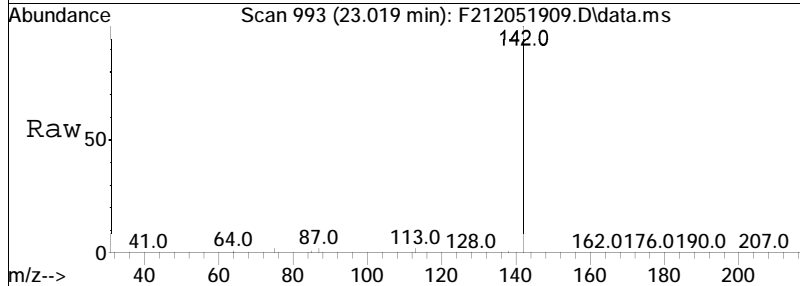


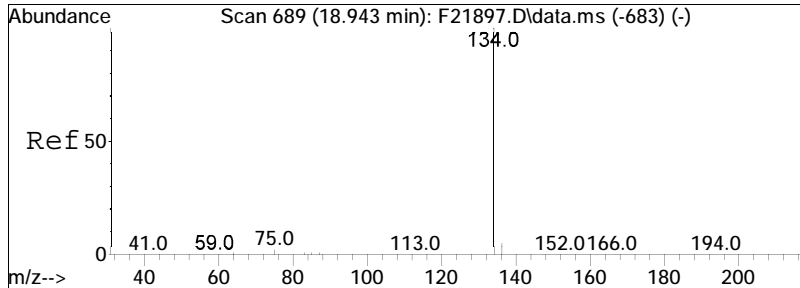
#14
 2-Methylnaphthalene
 Concen: 19708.03 ng/mL
 RT: 22.598 min Scan# 965
 Delta R.T. -0.001 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:142 Resp: 3283570



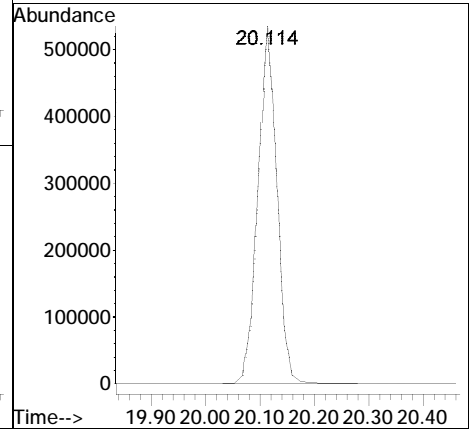
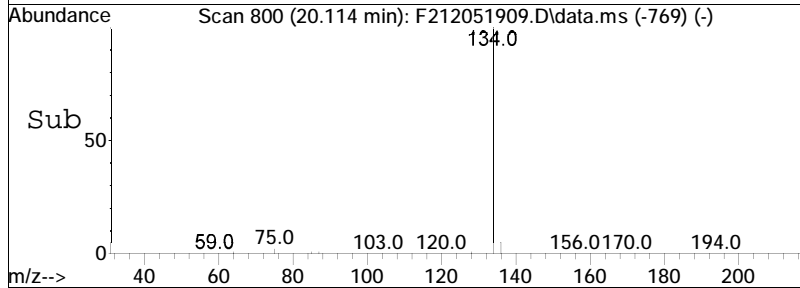
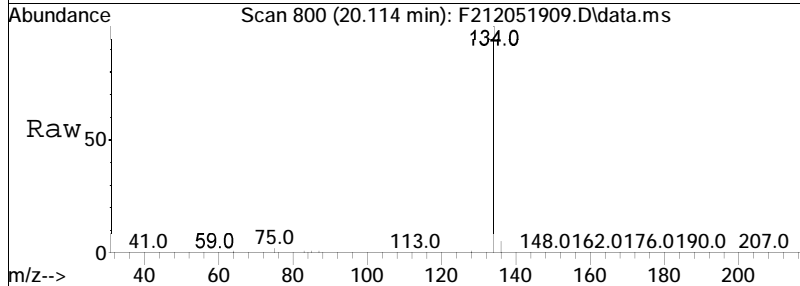


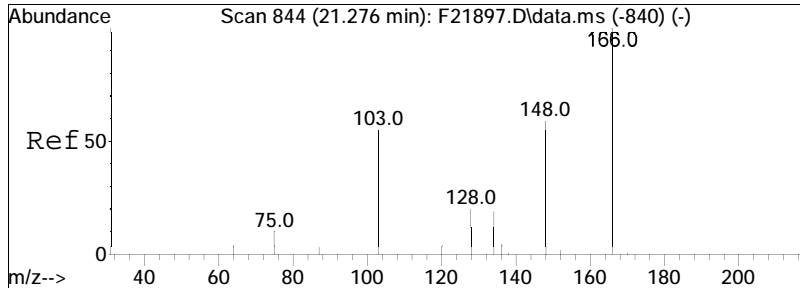
#15
 1-Methylnaphthalene
 Concen: 11946.07 ng/mL
 RT: 23.019 min Scan# 993
 Delta R.T. -0.012 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:142 Resp: 1911775



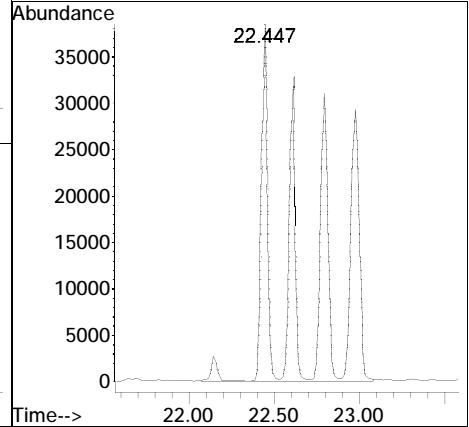
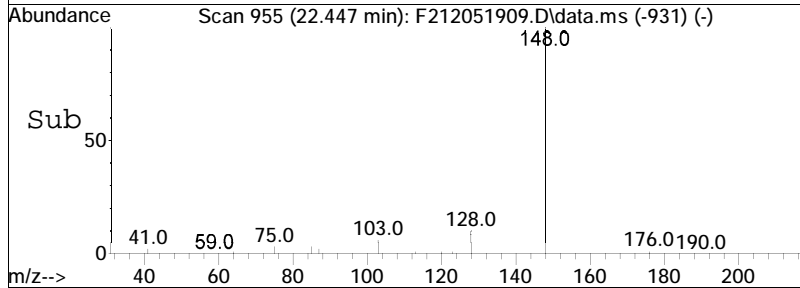
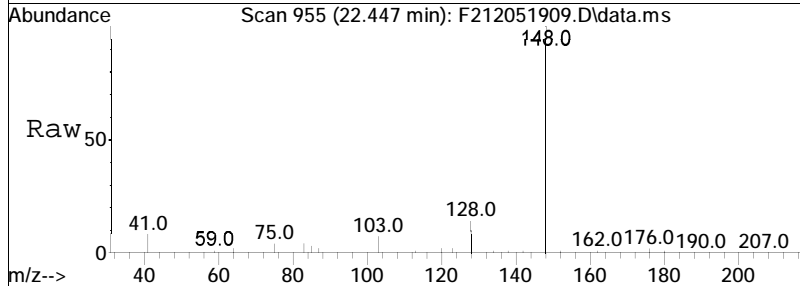


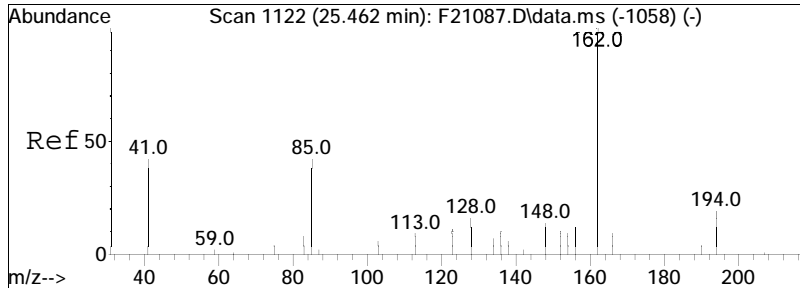
#16
 Benzothiophene
 Concen: 6460.94 ng/mL
 RT: 20.114 min Scan# 800
 Delta R.T. -0.034 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:134 Resp: 1271878



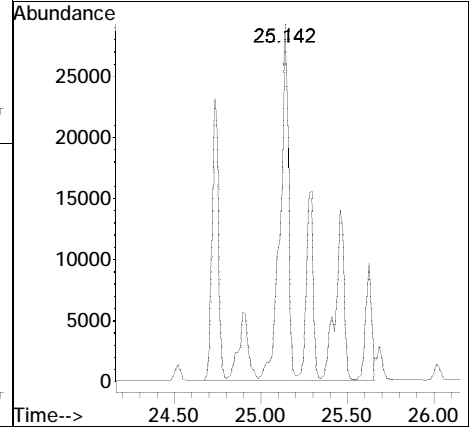
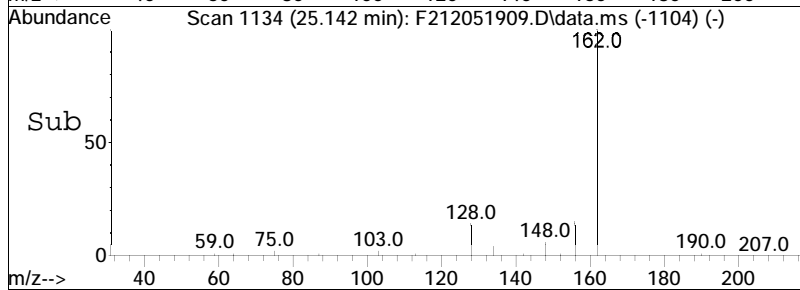
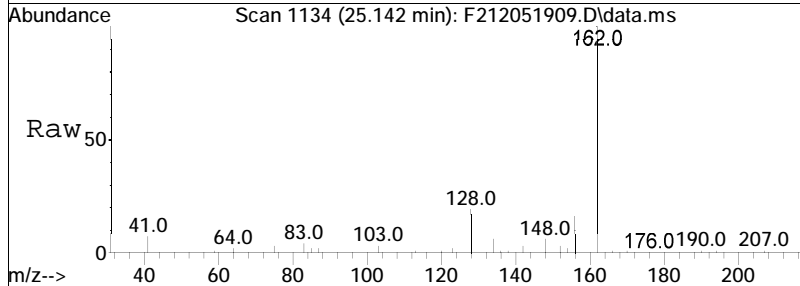


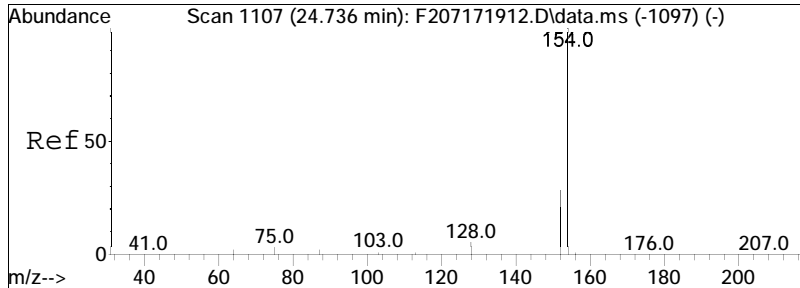
#17
 Cl-Benzo(b)thiophenes
 Concen: 1880.22 ng/mL M5
 RT: 22.447 min Scan# 955
 Delta R.T. 0.269 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:148 Resp: 370134



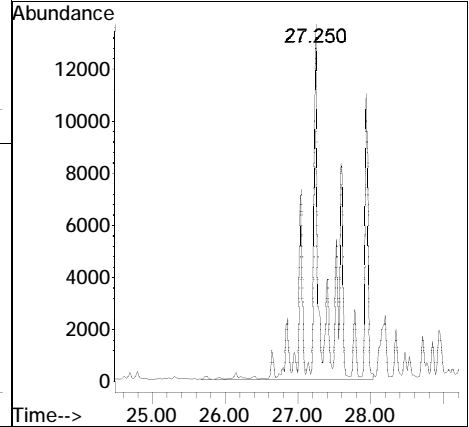
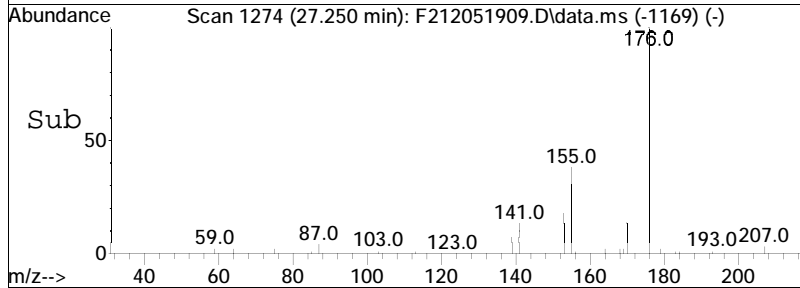
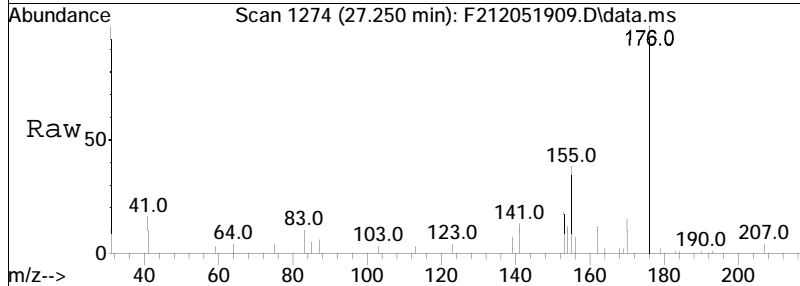


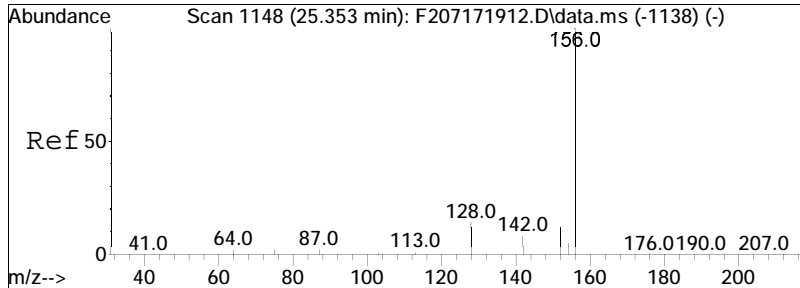
#18
 C2-Benzo(b)thiophenes
 Concen: 1492.28 ng/mL M5
 RT: 25.142 min Scan# 1134
 Delta R.T. -0.493 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:162 Resp: 293765



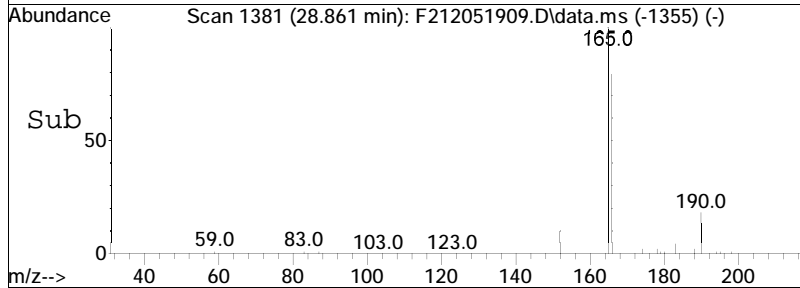
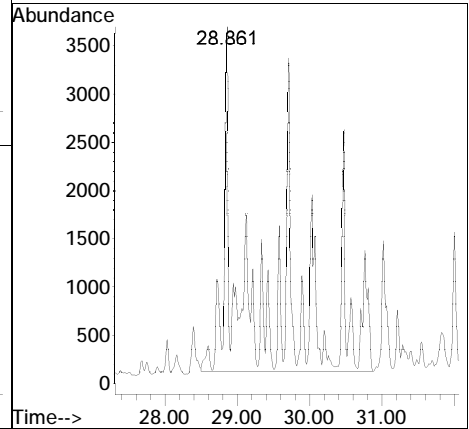
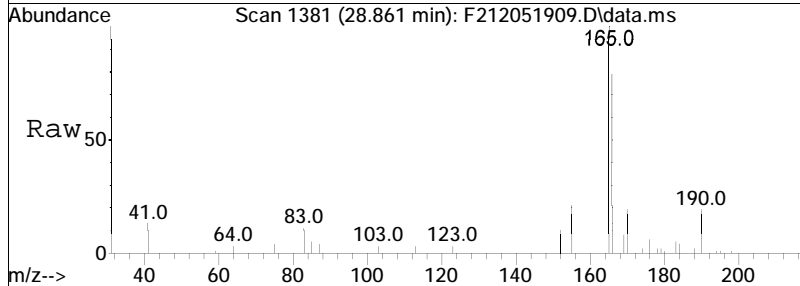


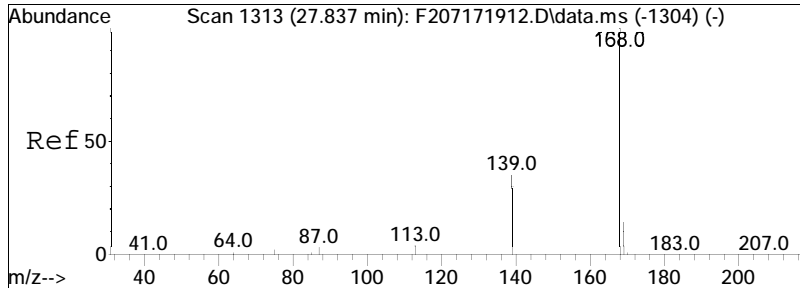
#19
 C3-Benzo(b)thiophenes
 Concen: 843.45 ng/mL M5
 RT: 27.250 min Scan# 1274
 Delta R.T. -0.338 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:176 Resp: 166038



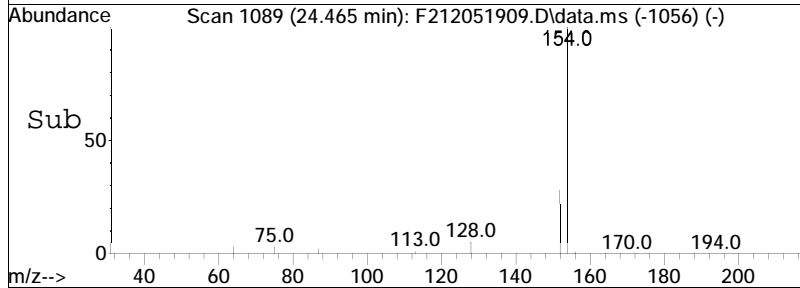
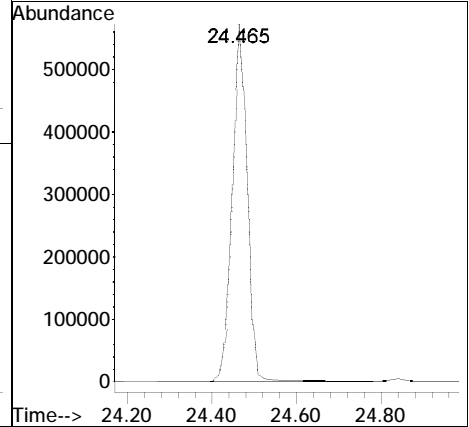
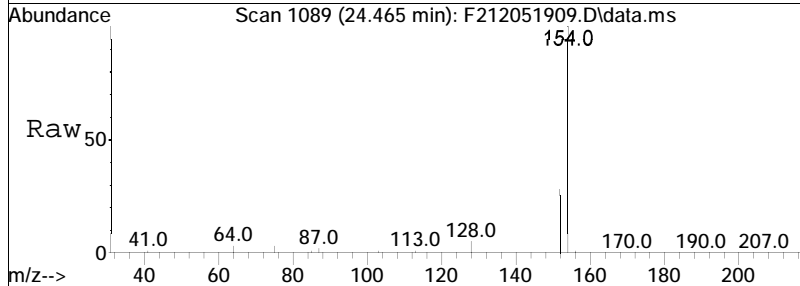


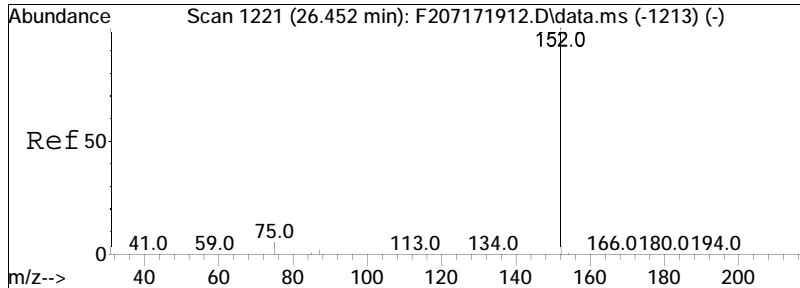
#20
 C4-Benzo(b)thiophenes
 Concen: 410.18 ng/mL M5
 RT: 28.861 min Scan# 1381
 Delta R.T. -0.456 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:190 Resp: 80747



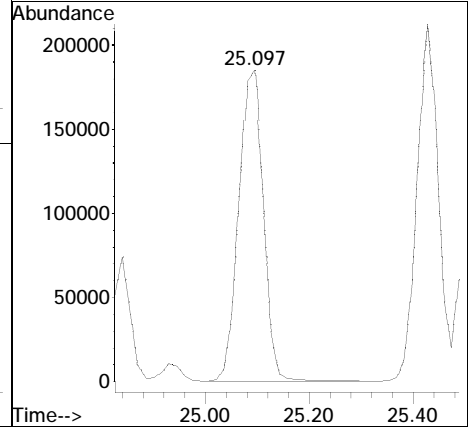
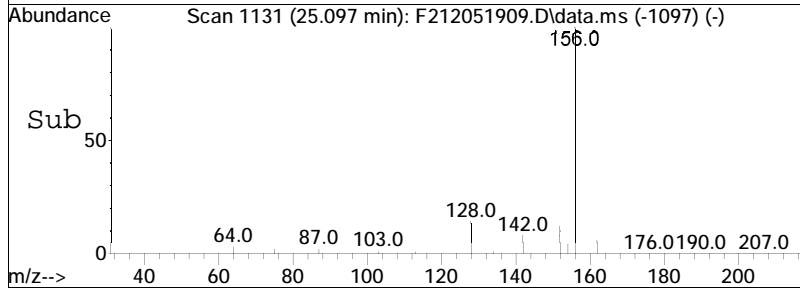
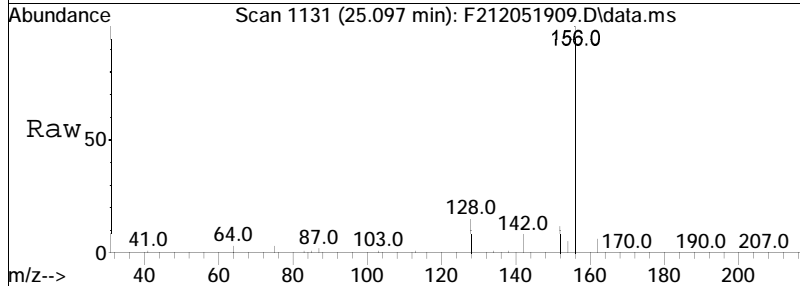


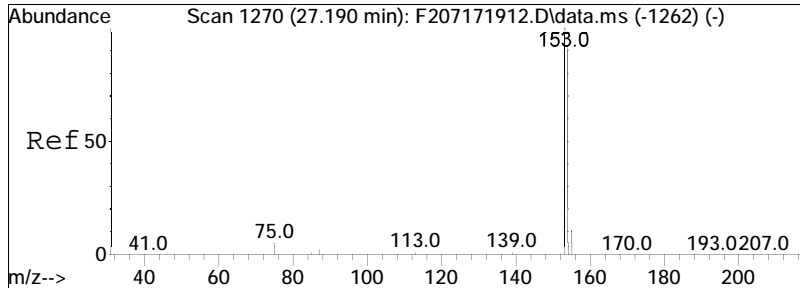
#21
 Biphenyl
 Concen: 6775.50 ng/mL
 RT: 24.465 min Scan# 1089
 Delta R.T. -0.002 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:154 Resp: 1373939





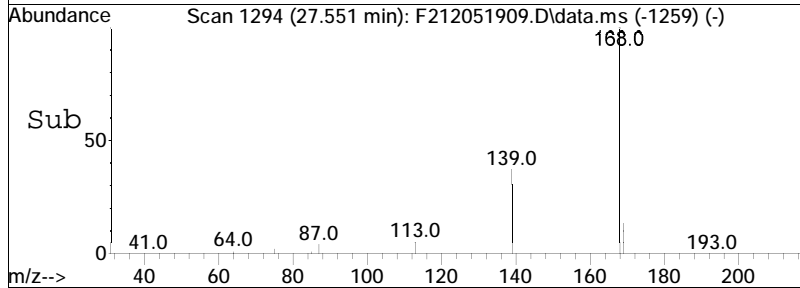
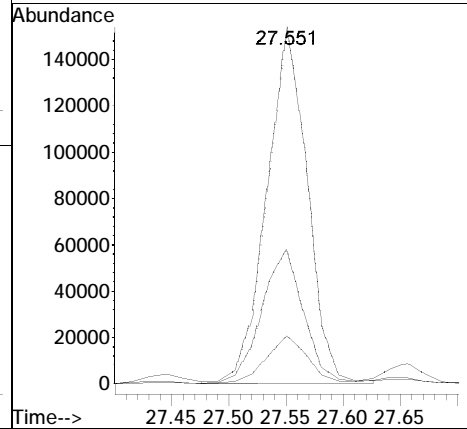
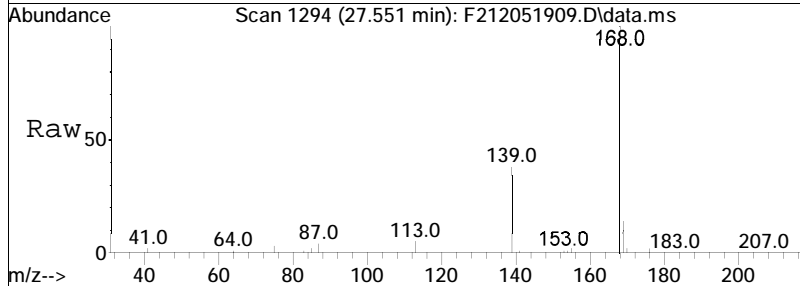
#22
 2,6-Dimethylnaphthalene
 Concen: 4071.89 ng/mL
 RT: 25.097 min Scan# 1131
 Delta R.T. 0.018 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:156 Resp: 607071

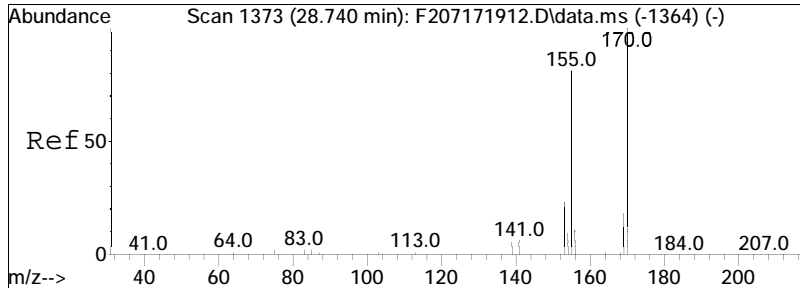




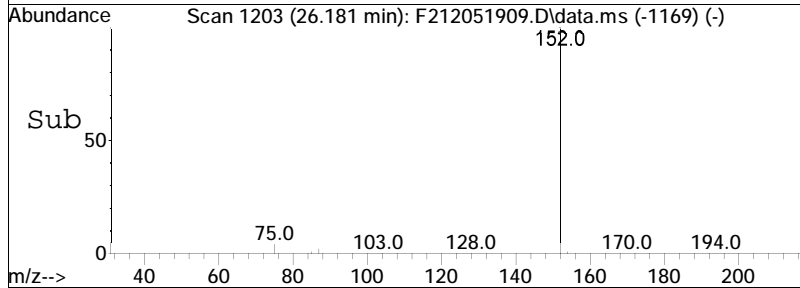
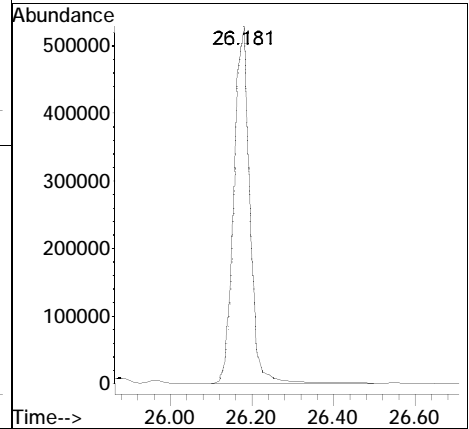
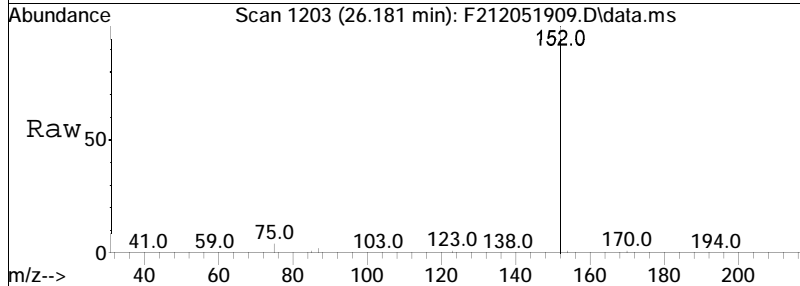
#23
 Dibenzofuran
 Concen: 1736.21 ng/mL
 RT: 27.551 min Scan# 1294
 Delta R.T. 0.020 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

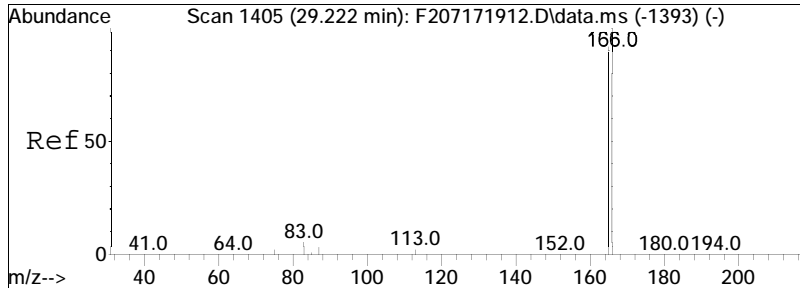
Tgt Ion	Ratio	Lower	Upper
168	100		
139	38.9	27.2	50.4
169	14.0	9.5	17.7





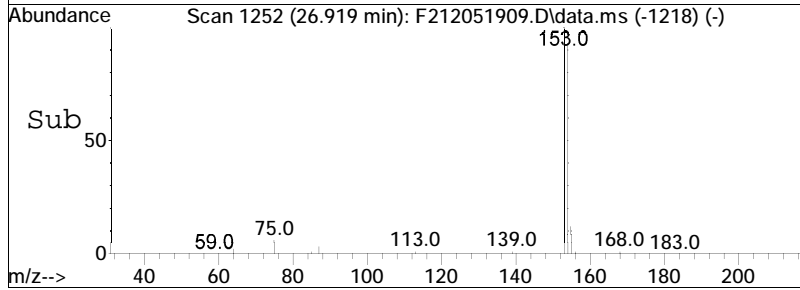
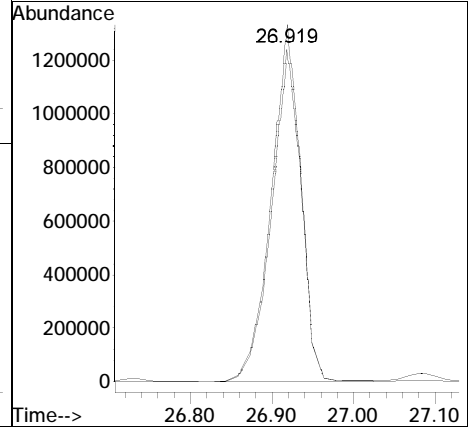
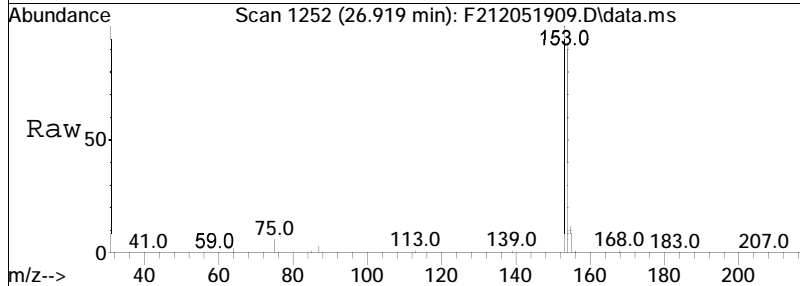
#24
 Acenaphthylene
 Concen: 5635.40 ng/mL
 RT: 26.181 min Scan# 1203
 Delta R.T. 0.010 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:152 Resp: 1401410

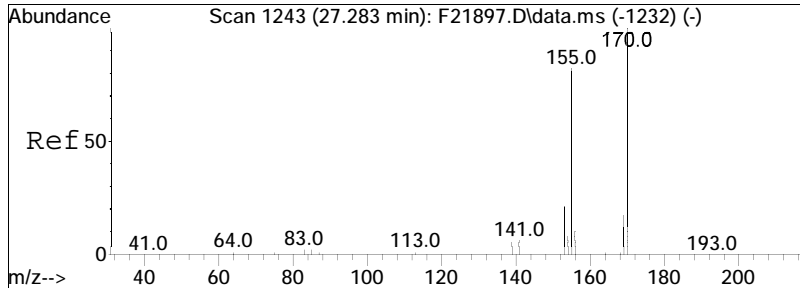




#25
 Acenaphthene
 Concen: 21461.53 ng/mL
 RT: 26.919 min Scan# 1252
 Delta R.T. 0.016 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

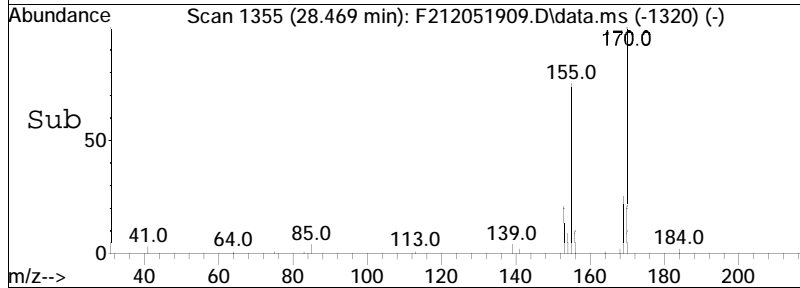
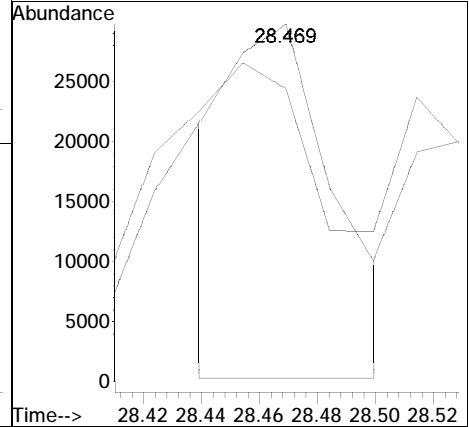
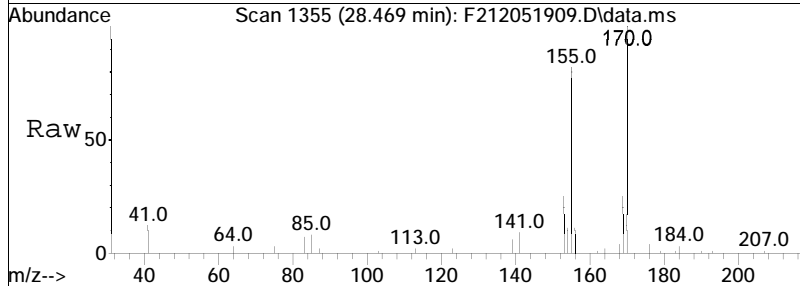
Tgt Ion: 153 Resp: 3332699
 Ion Ratio Lower Upper
 153 100
 154 93.1 66.5 123.5

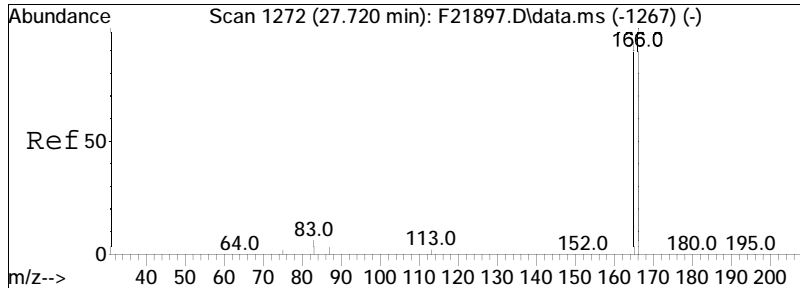




#26
 2,3,5-Trimethylnaphthalene
 Concen: 543.49 ng/mL M3
 RT: 28.469 min Scan# 1355
 Delta R.T. 0.027 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

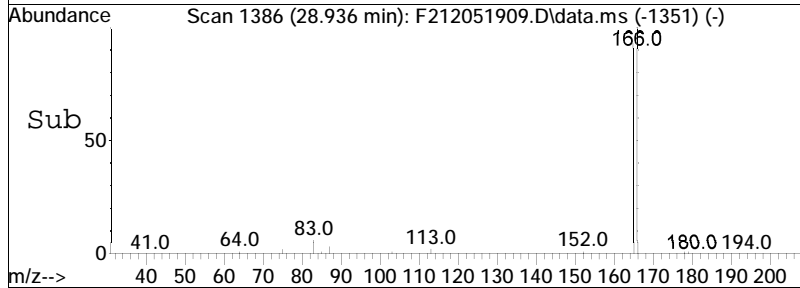
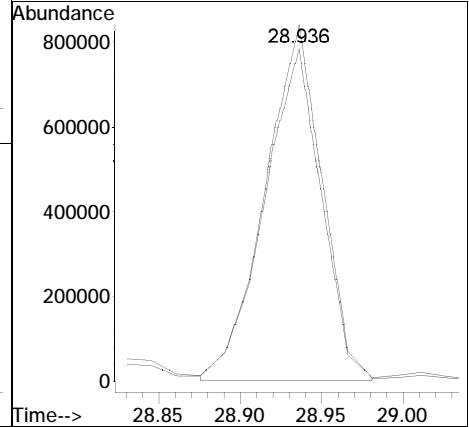
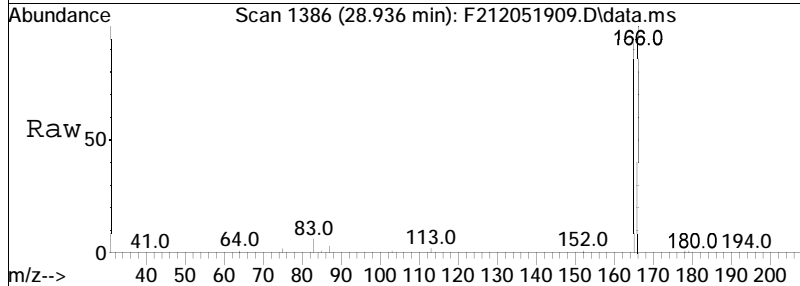
Tgt Ion:170 Resp: 74018
 Ion Ratio Lower Upper
 170 100
 155 153.8 59.1 109.7#

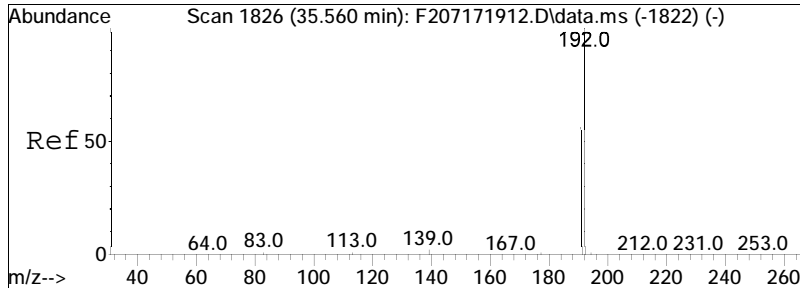




#27
 Fluorene
 Concen: 11539.84 ng/mL M4
 RT: 28.936 min Scan# 1386
 Delta R.T. 0.030 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

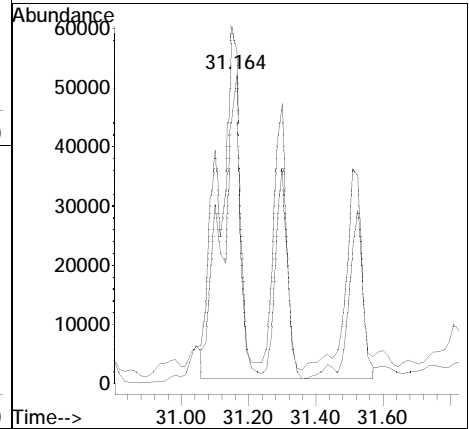
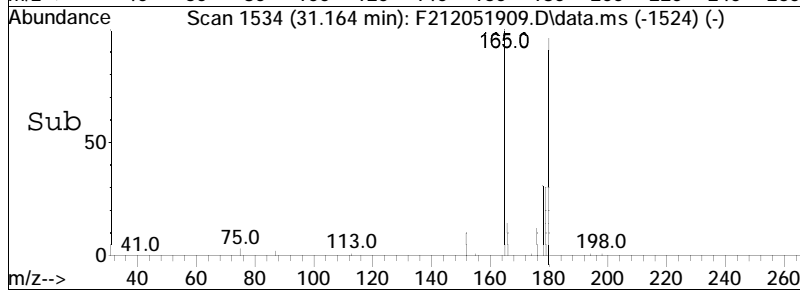
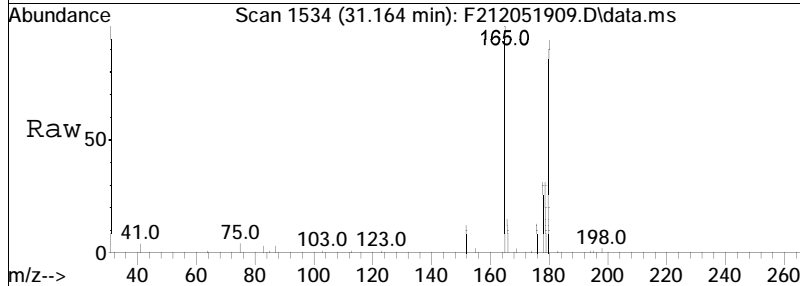
Tgt Ion: 166 Resp: 2029707
 Ion Ratio Lower Upper
 166 100
 165 91.3 63.9 118.7

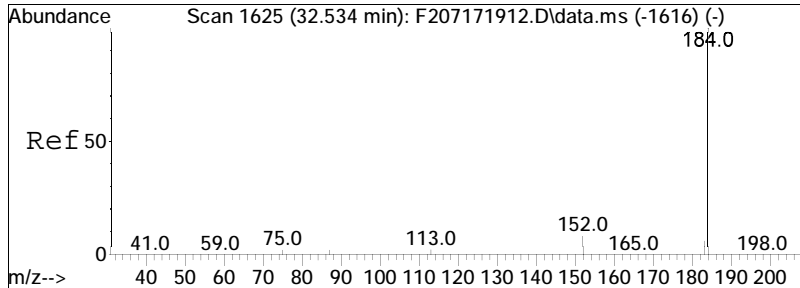




#28
 Cl-Fluorenes
 Concen: 2128.62 ng/mL M5
 RT: 31.164 min Scan# 1534
 Delta R.T. -0.090 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

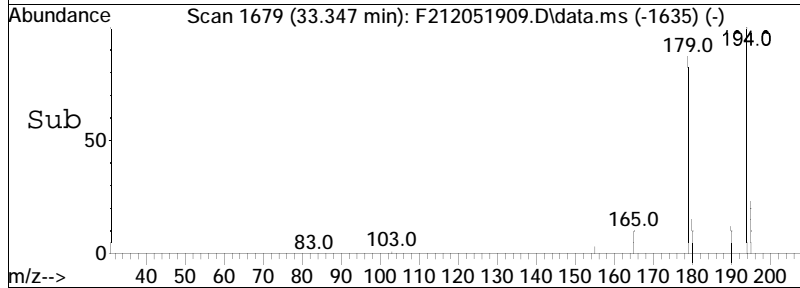
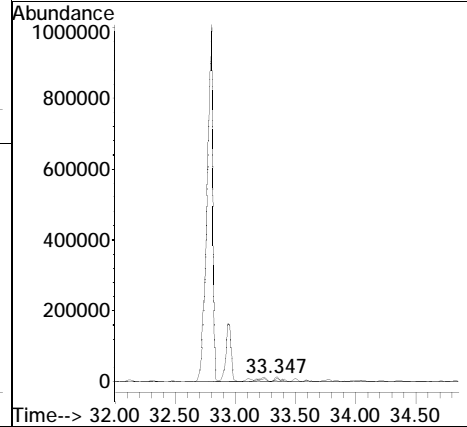
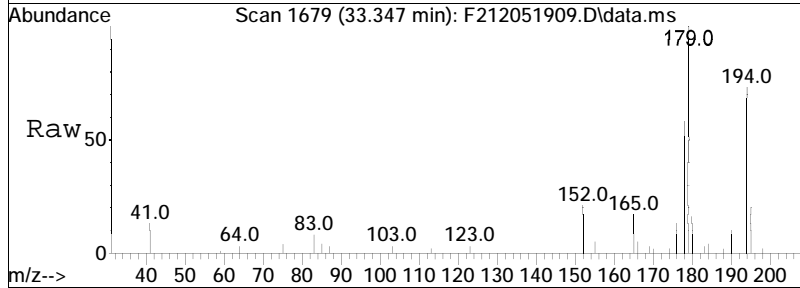
Tgt Ion	Ratio	Lower	Upper
180	100		
165	30.7	97.6	181.2#

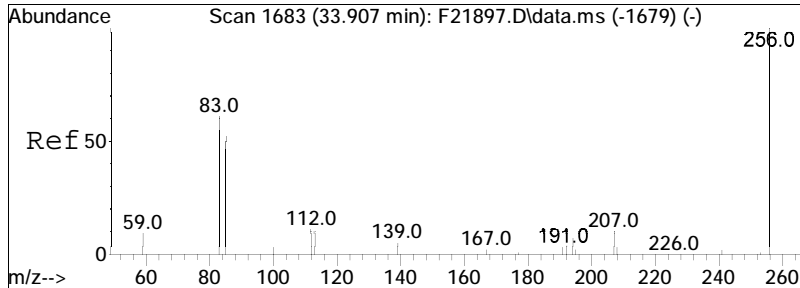




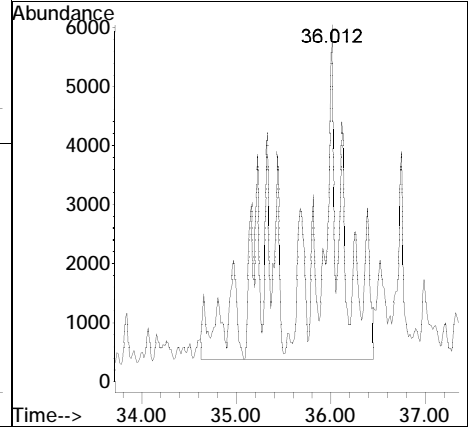
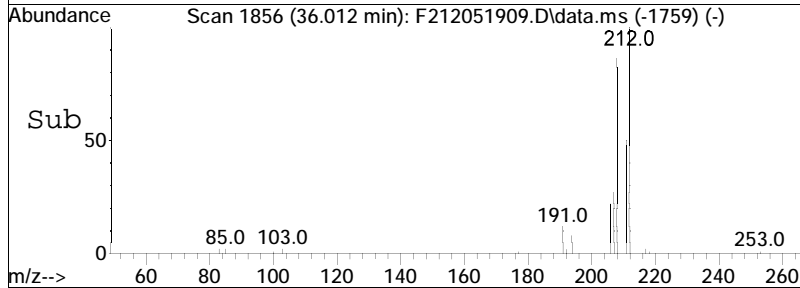
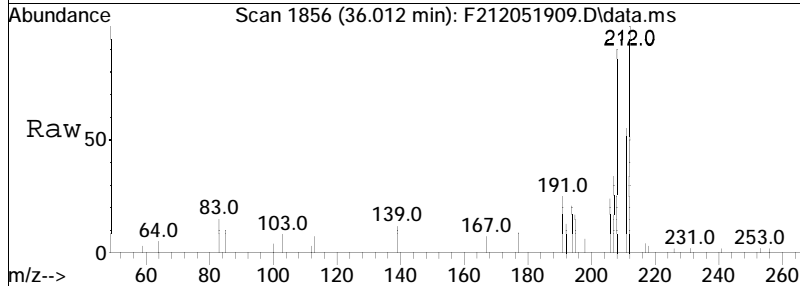
#29
 C2-Fluorenes
 Concen: 1277.23 ng/mL M5
 RT: 33.347 min Scan# 1679
 Delta R.T. -0.087 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

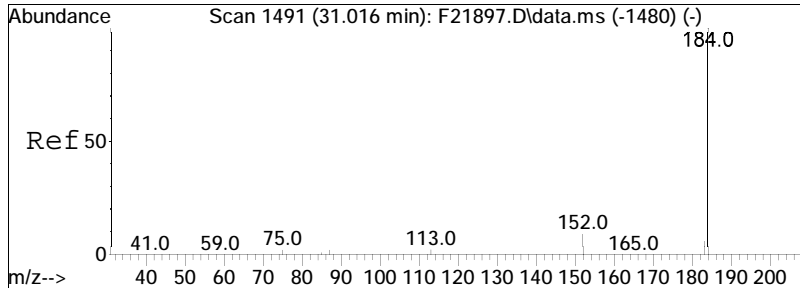
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.3	25.7	47.7#





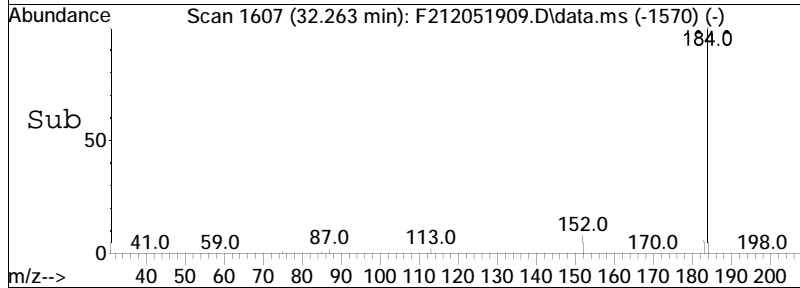
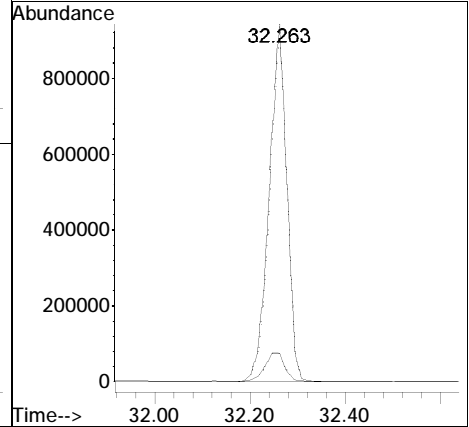
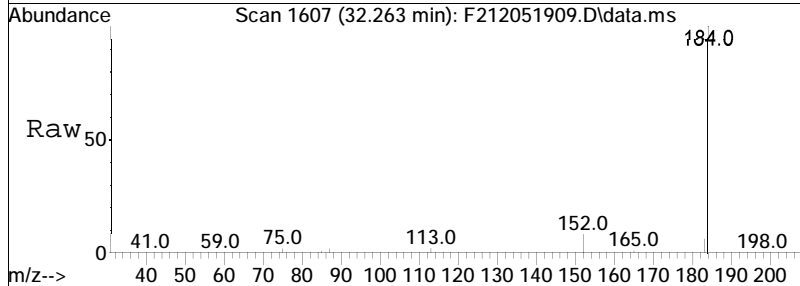
#30
 C3-Fluorenes
 Concen: 834.80 ng/mL M5
 RT: 36.012 min Scan# 1856
 Delta R.T. 0.763 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:208 Resp: 146831

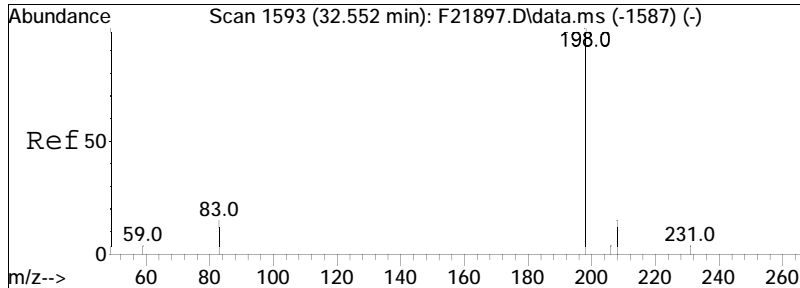




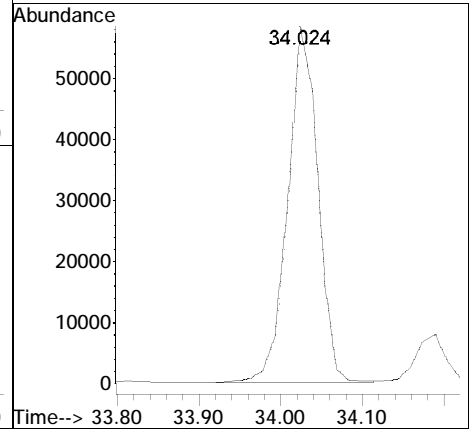
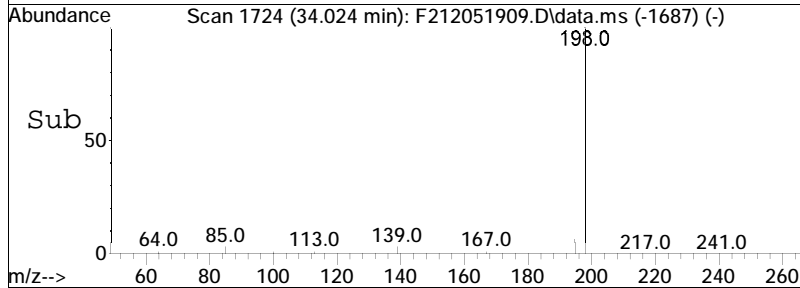
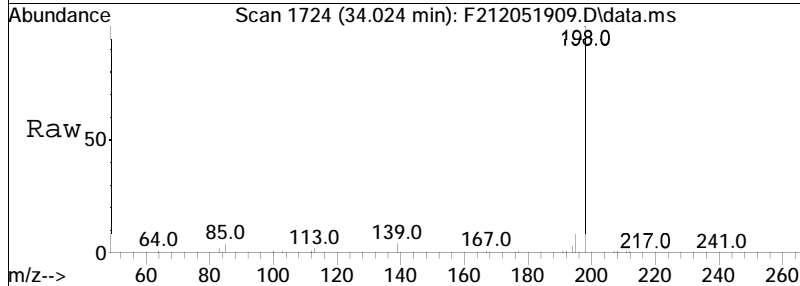
#31
 Dibenzothiophene
 Concen: 9859.30 ng/mL
 RT: 32.263 min Scan# 1607
 Delta R.T. 0.055 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

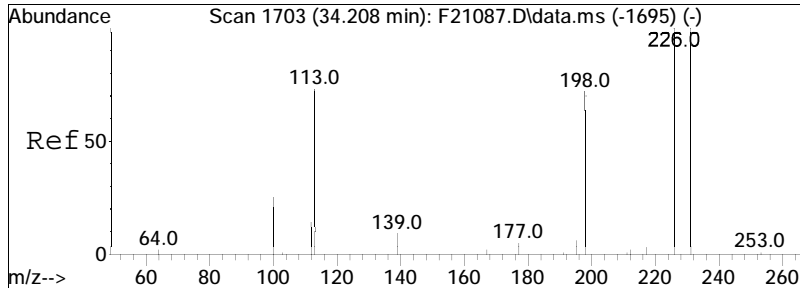
Tgt Ion: 184 Resp: 2348720
 Ion Ratio Lower Upper
 184 100
 152 9.4 5.7 10.5



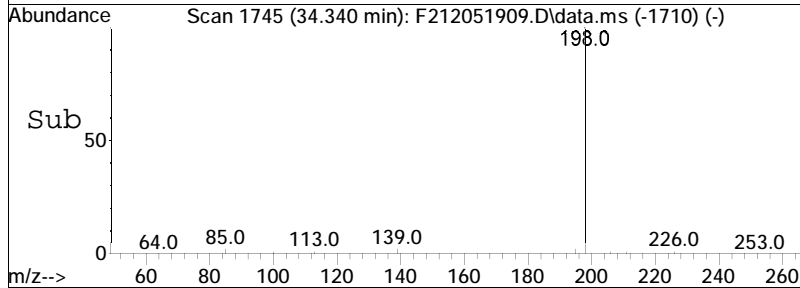
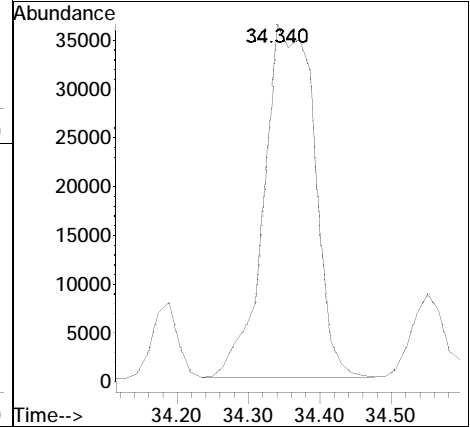
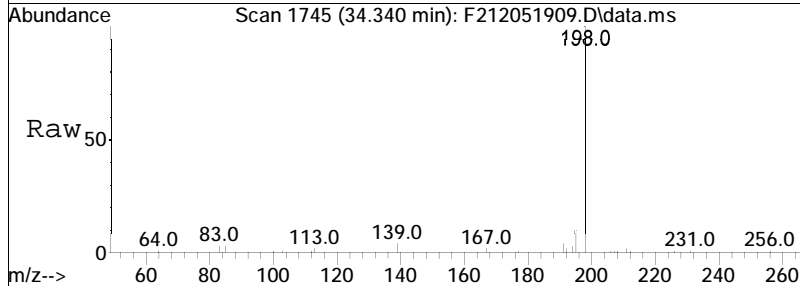


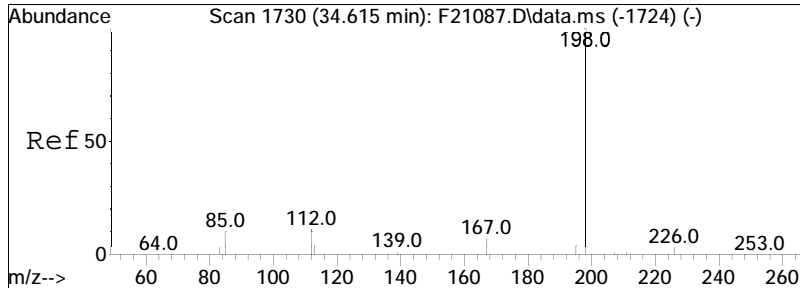
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 620.27 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:198 Resp: 147764



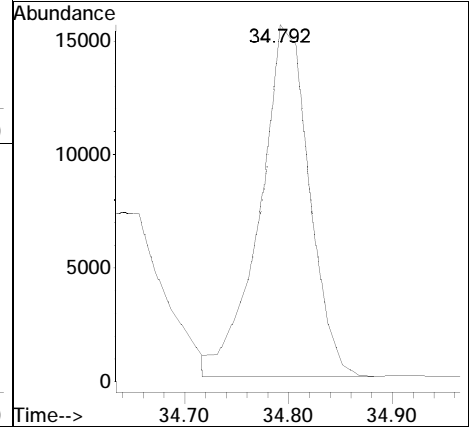
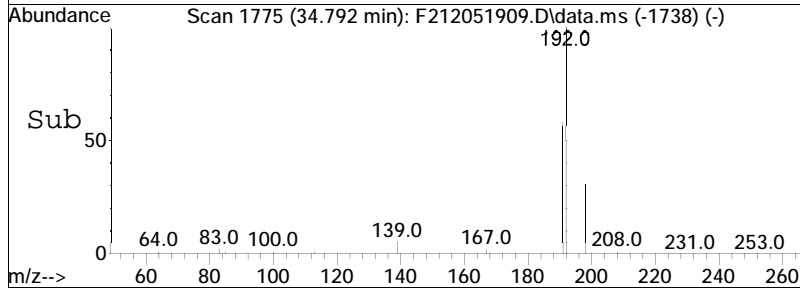
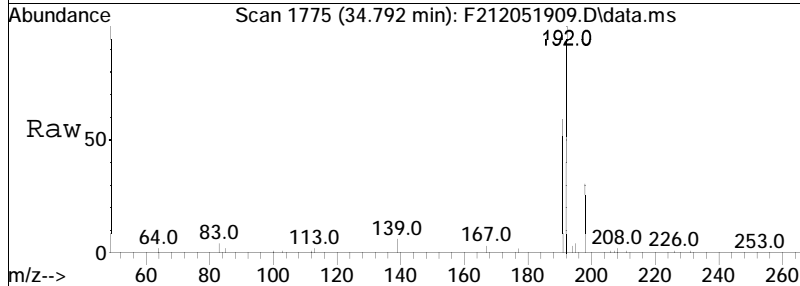


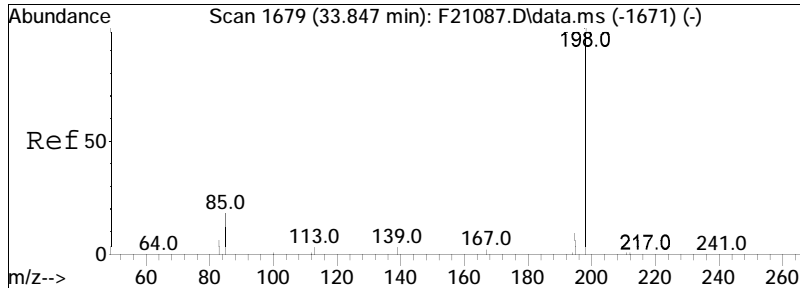
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 734.89 ng/mL
 RT: 34.340 min Scan# 1745
 Delta R.T. 0.025 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:198 Resp: 175068



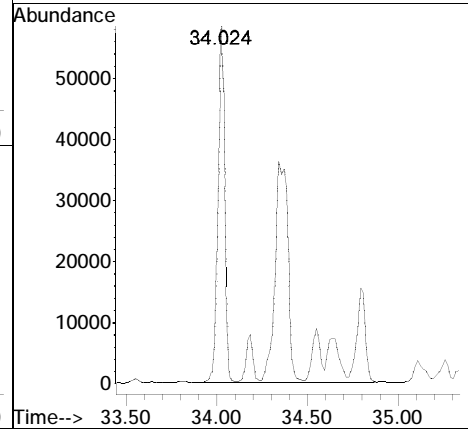
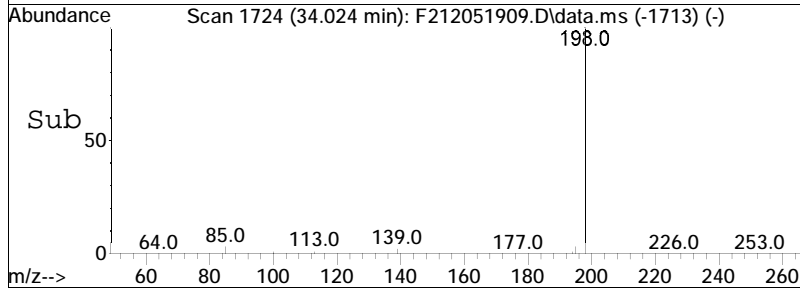
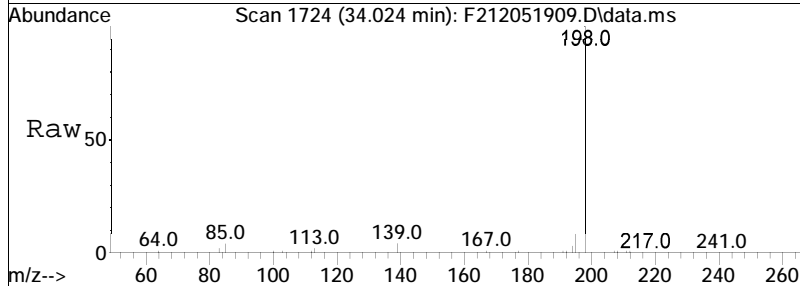


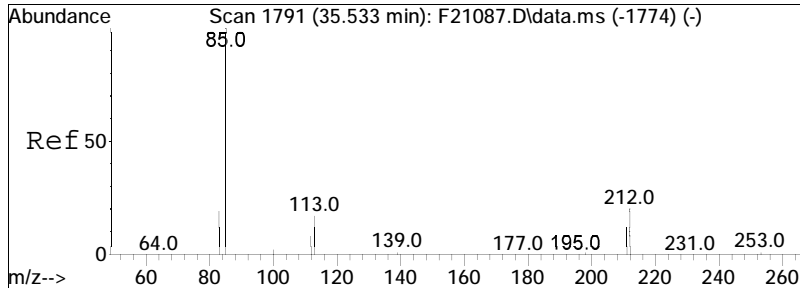
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 212.68 ng/mL
 RT: 34.792 min Scan# 1775
 Delta R.T. 0.058 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:198 Resp: 50666



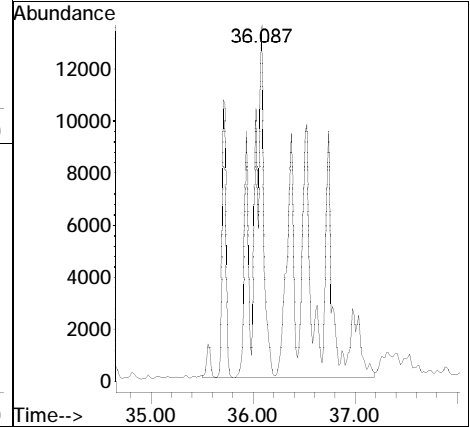
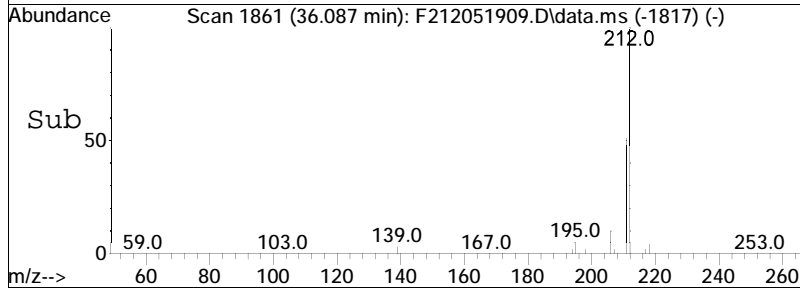
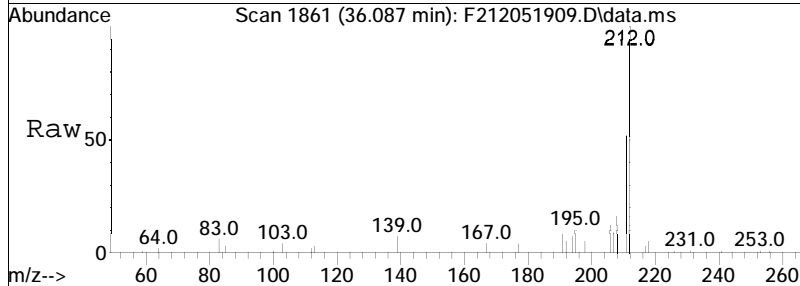


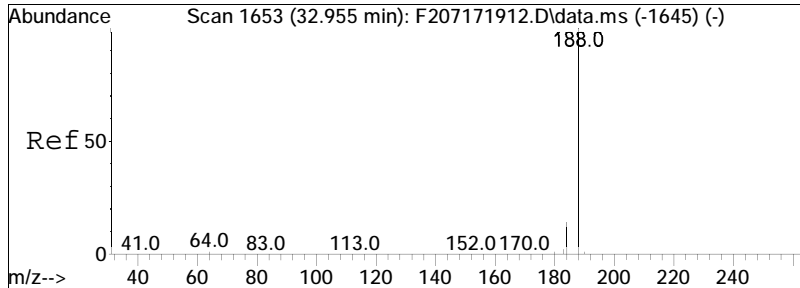
#36
 Cl-Dibenzothiophenes
 Concen: 1937.55 ng/mL M5
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:198 Resp: 461570





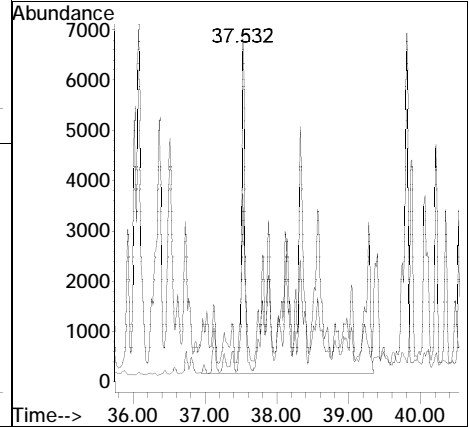
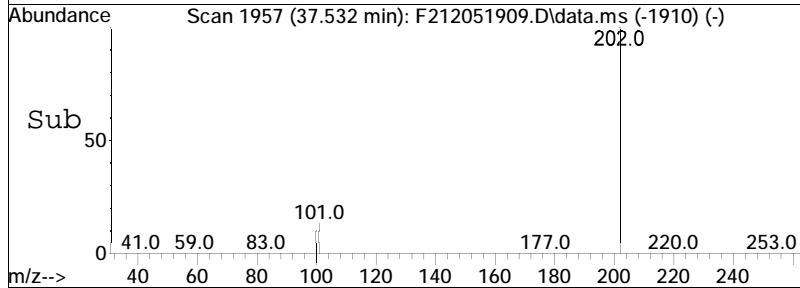
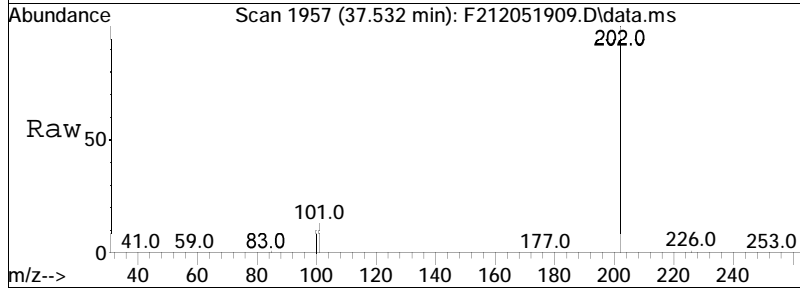
#37
 C2-Dibenzothiophenes
 Concen: 1159.09 ng/mL M5
 RT: 36.087 min Scan# 1861
 Delta R.T. 0.441 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:212 Resp: 276122

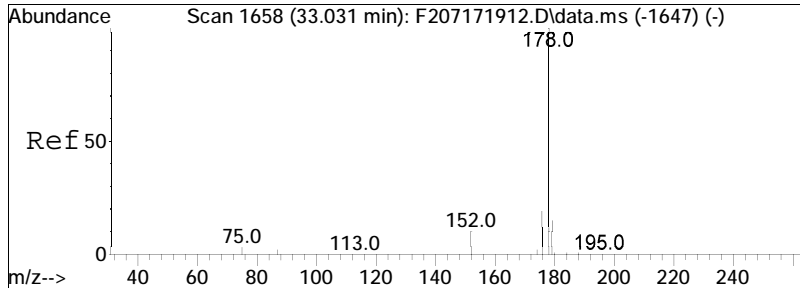




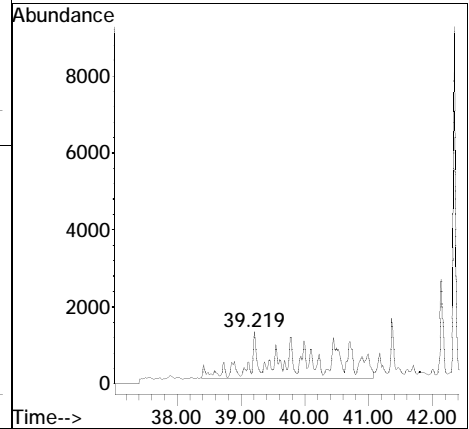
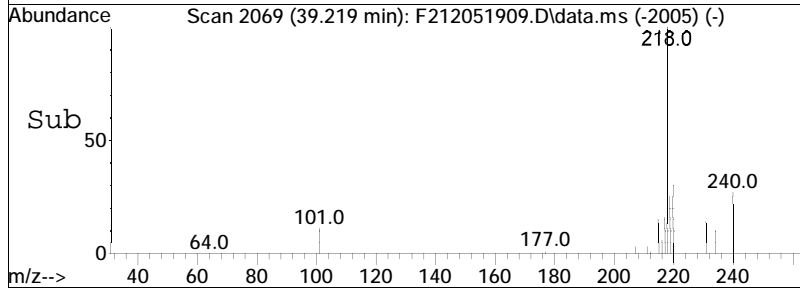
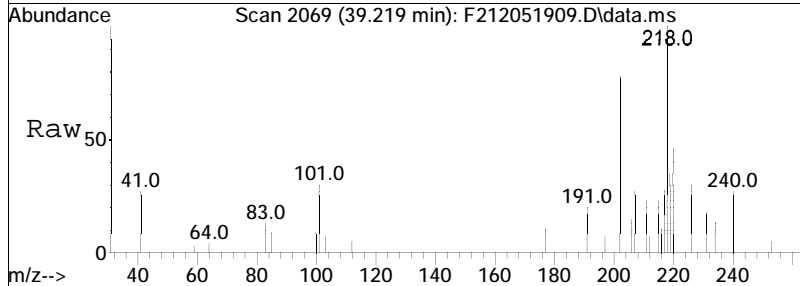
#38
 C3-Dibenzothiophenes
 Concen: 603.47 ng/mL M5
 RT: 37.532 min Scan# 1957
 Delta R.T. 0.093 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

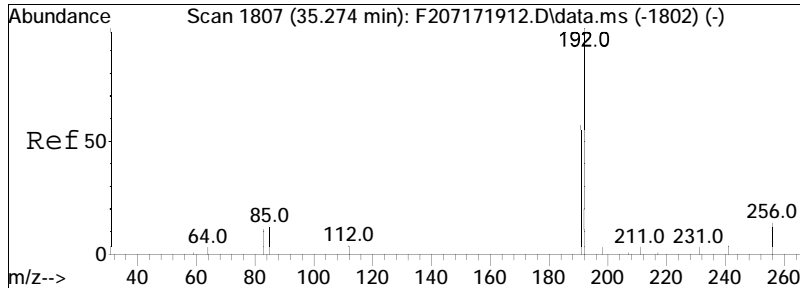
Tgt Ion: 226 Resp: 143760
 Ion Ratio Lower Upper
 226 100
 211 9.1 38.6 71.6#





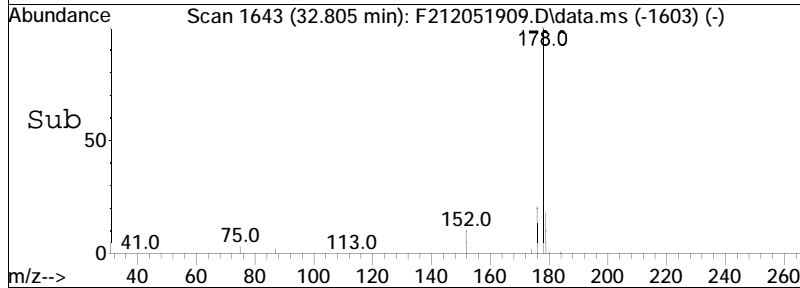
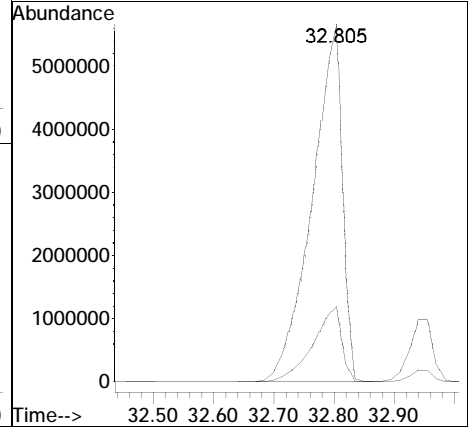
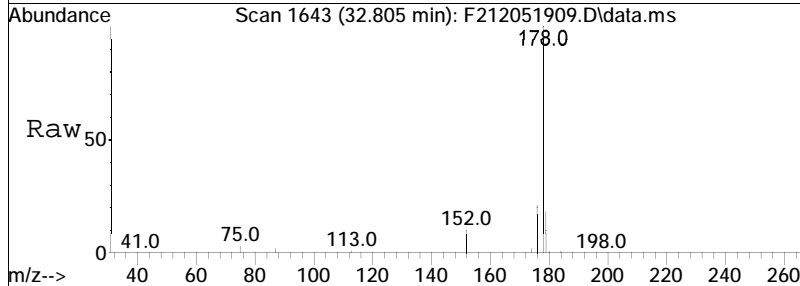
#39
 C4-Dibenzothiophenes
 Concen: 237.89 ng/mL M5
 RT: 39.219 min Scan# 2069
 Delta R.T. 0.105 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion: 240 Resp: 56672

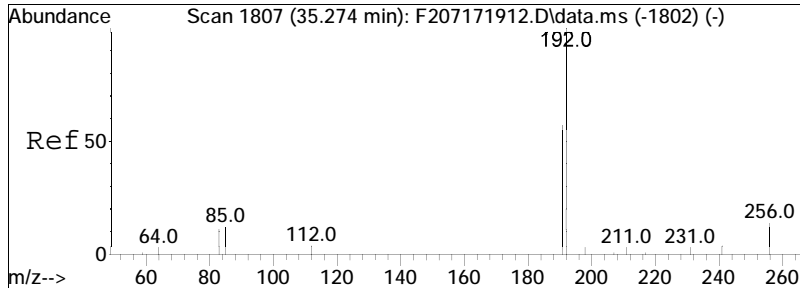




#41
 Phenanthrene
 Concen: 77165.98 ng/mL
 RT: 32.805 min Scan# 1643
 Delta R.T. 0.103 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

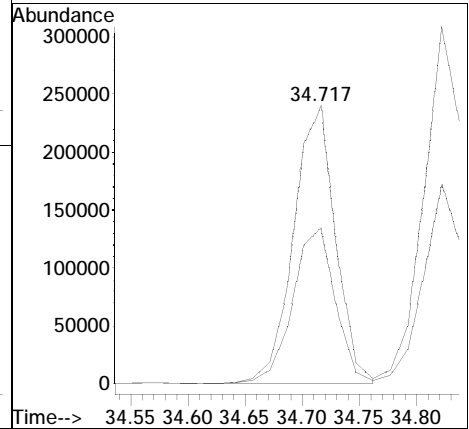
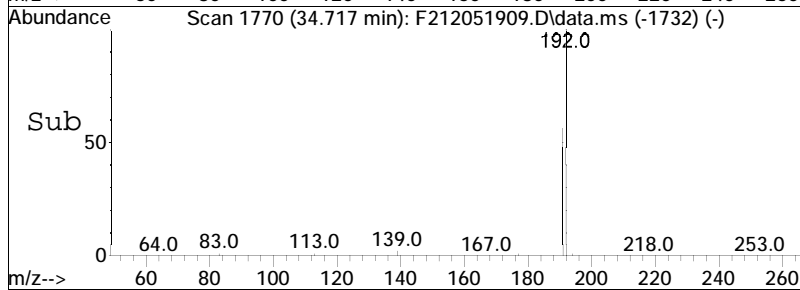
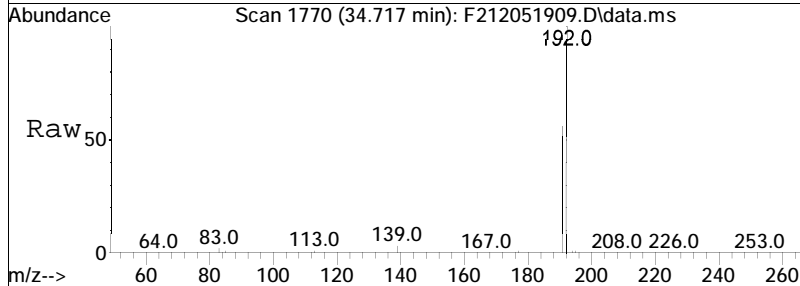
Tgt Ion: 178 Resp: 19554458
 Ion Ratio Lower Upper
 178 100
 176 20.2 13.0 24.1

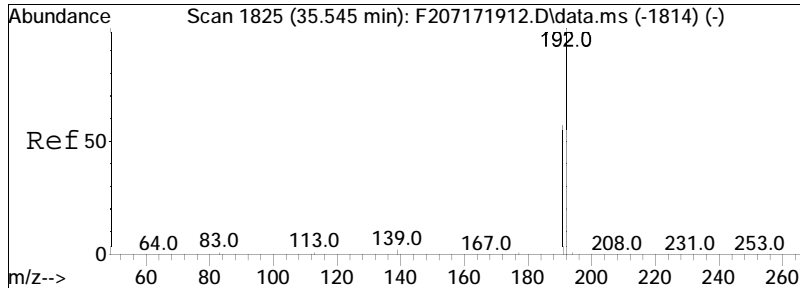




#42
 3-Methylphenanthrene (3MP)
 Concen: 2406.62 ng/mL
 RT: 34.717 min Scan# 1770
 Delta R.T. 0.072 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

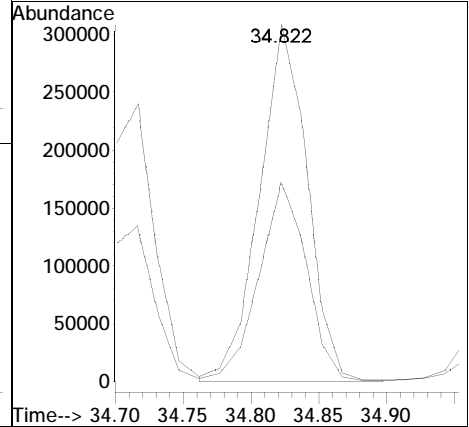
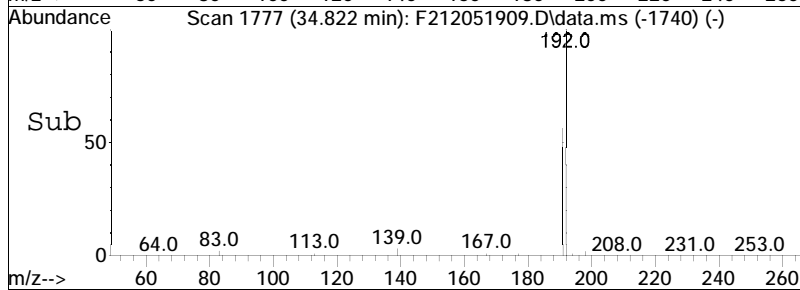
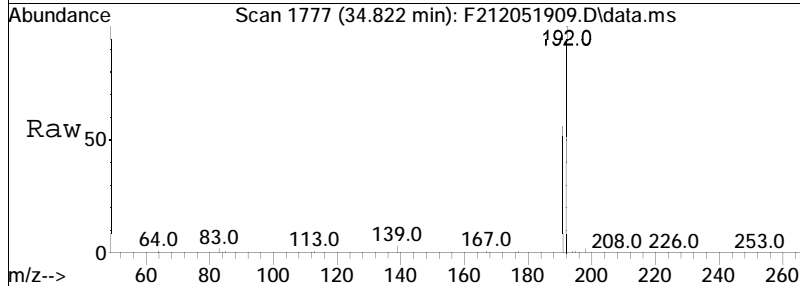
Tgt Ion: 192 Resp: 609856
 Ion Ratio Lower Upper
 192 100
 191 56.8 42.1 78.1

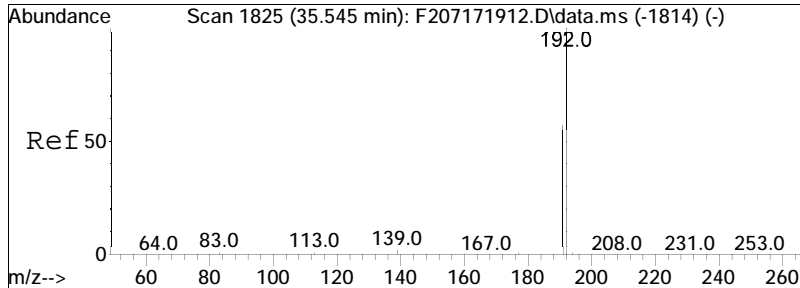




#43
 2-Methylphenanthrene (2MP)
 Concen: 2978.63 ng/mL M3
 RT: 34.822 min Scan# 1777
 Delta R.T. 0.058 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

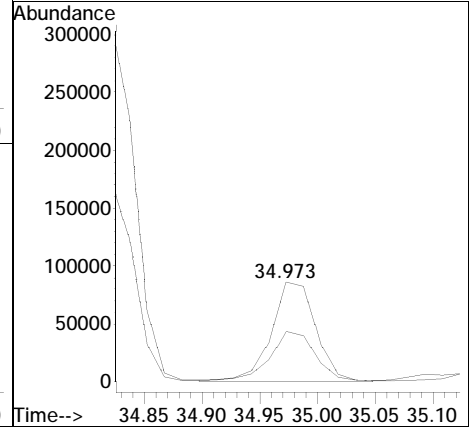
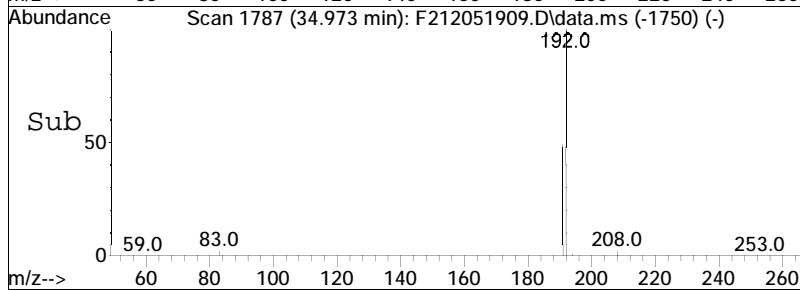
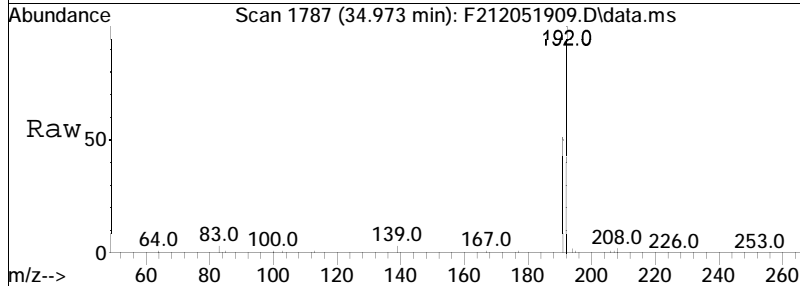
Tgt Ion	Resp	Lower	Upper
192	100		
191	45.9	40.5	75.3

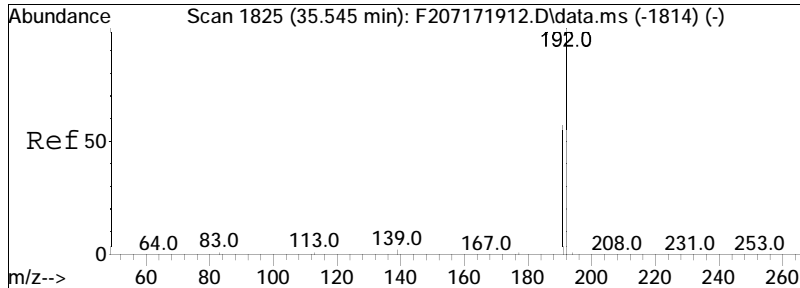




#44
 2-Methylantracene(2MA)
 Concen: 909.53 ng/mL M3
 RT: 34.973 min Scan# 1787
 Delta R.T. 0.059 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

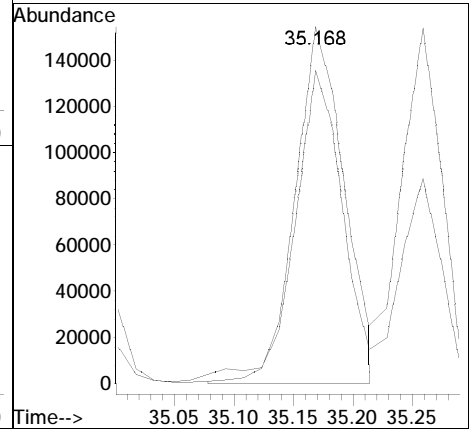
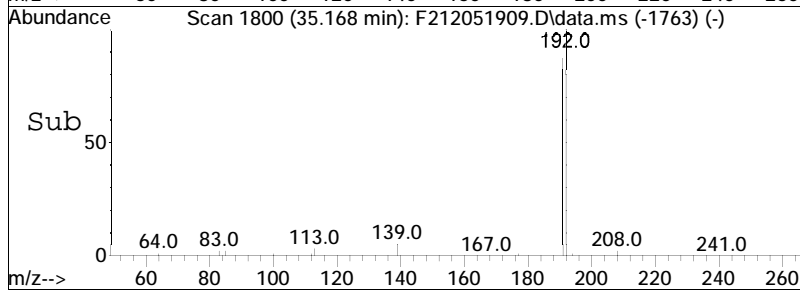
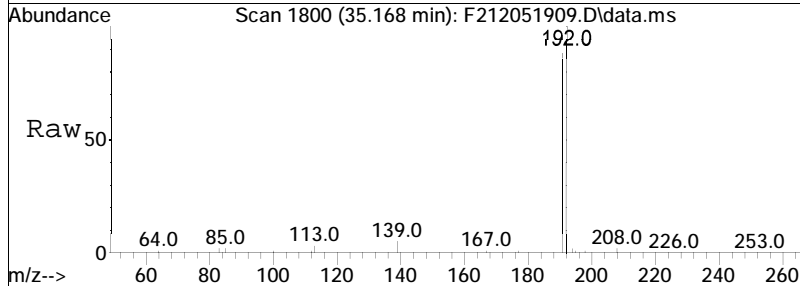
Tgt Ion	Resp	Lower	Upper
192	100		
191	164.5	85.2	158.2#

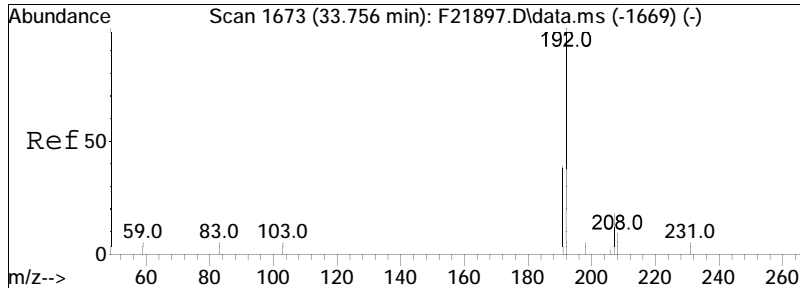




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 1751.93 ng/mL M3
 RT: 35.168 min Scan# 1800
 Delta R.T. 0.061 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

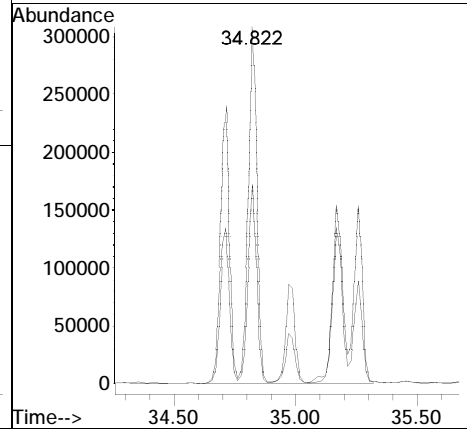
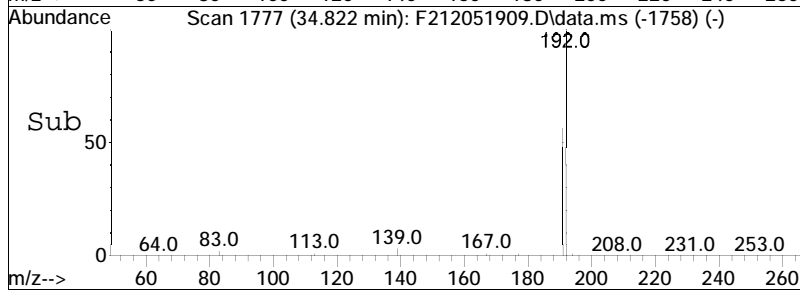
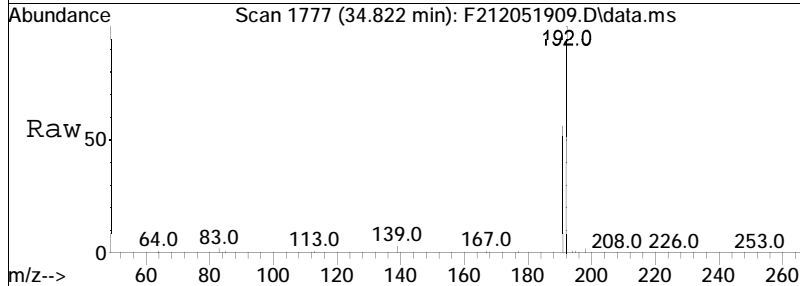
Tgt Ion	Resp	Lower	Upper
192	100		
191	25.4	39.7	73.7#

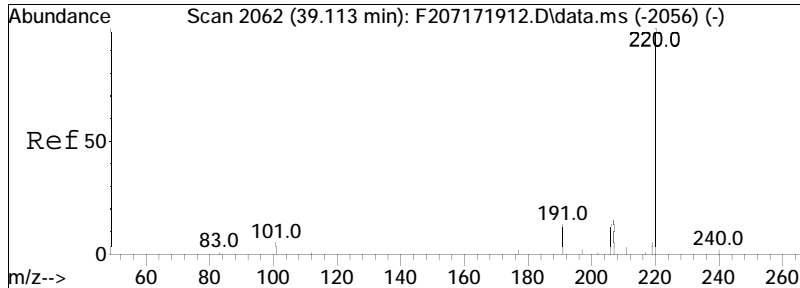




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 9481.62 ng/mL M5
 RT: 34.822 min Scan# 1777
 Delta R.T. -0.286 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

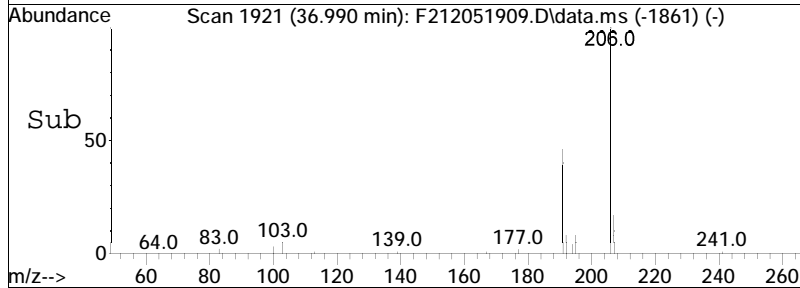
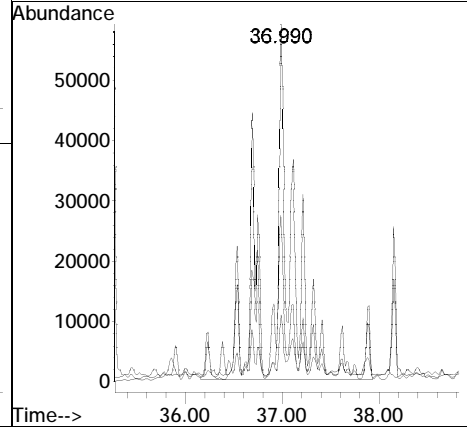
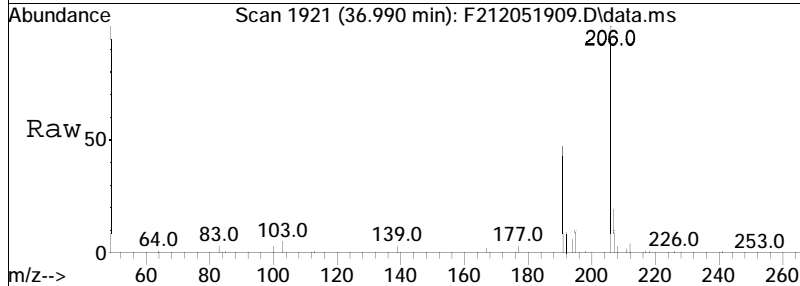
Tgt Ion: 192 Resp: 2402715
 Ion Ratio Lower Upper
 192 100
 191 4.7 39.7 73.7#

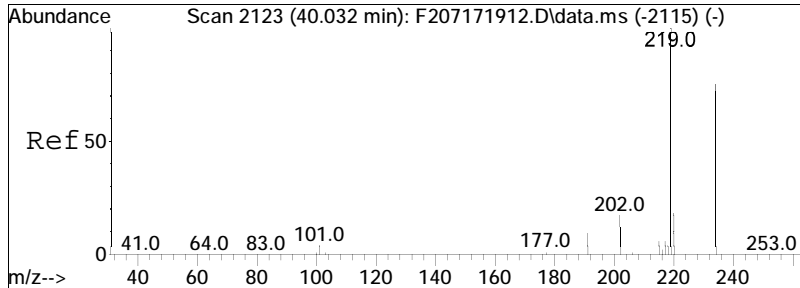




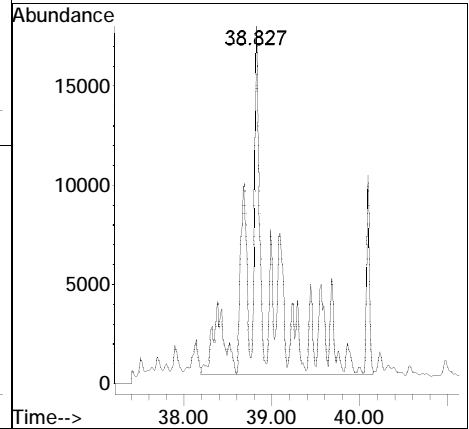
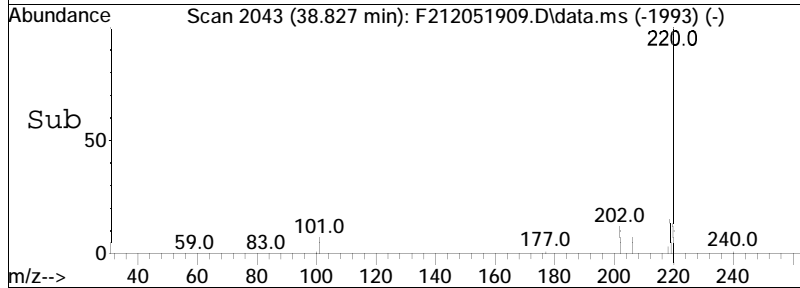
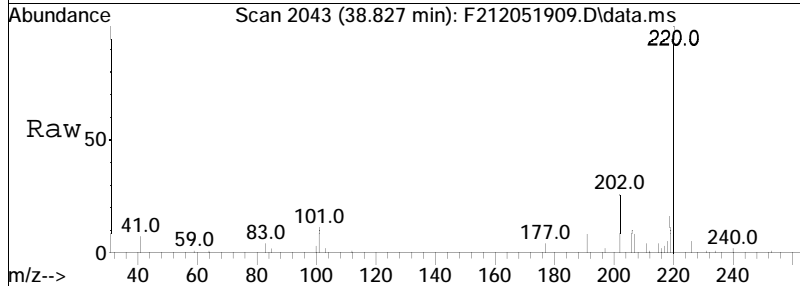
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 3378.40 ng/mL M5
 RT: 36.990 min Scan# 1921
 Delta R.T. 0.089 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

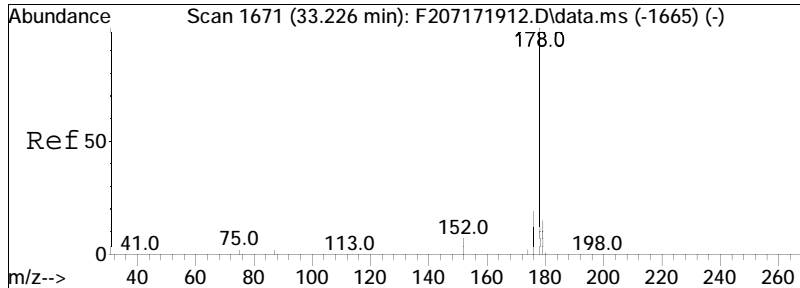
Tgt Ion	Ratio	Lower	Upper
206	100		
191	12.3	33.9	62.9#
207	3.9	13.9	25.7#





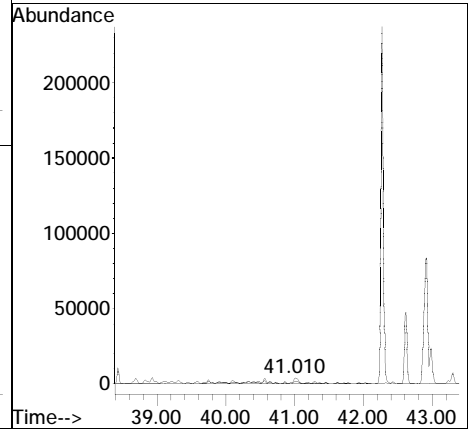
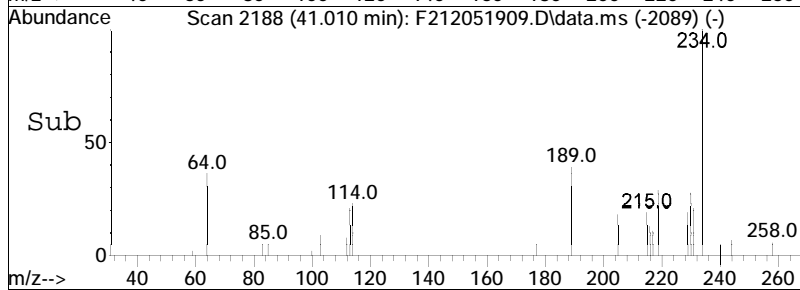
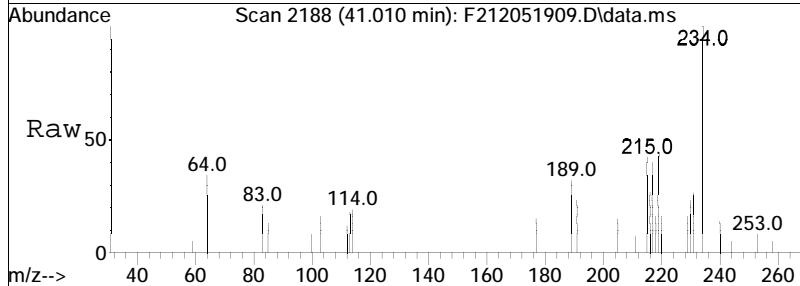
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1193.53 ng/mL M5
 RT: 38.827 min Scan# 2043
 Delta R.T. 0.087 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:220 Resp: 302451

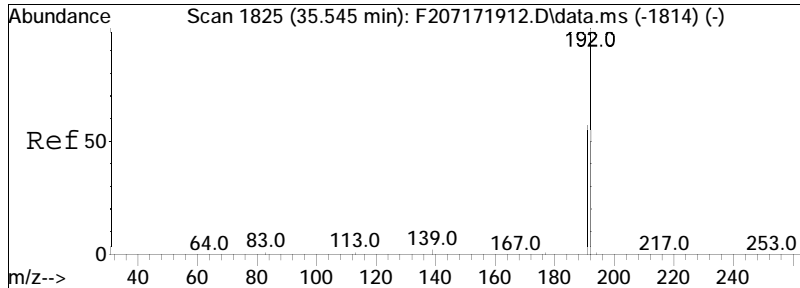




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 367.72 ng/mL M5
 RT: 41.010 min Scan# 2188
 Delta R.T. 0.118 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

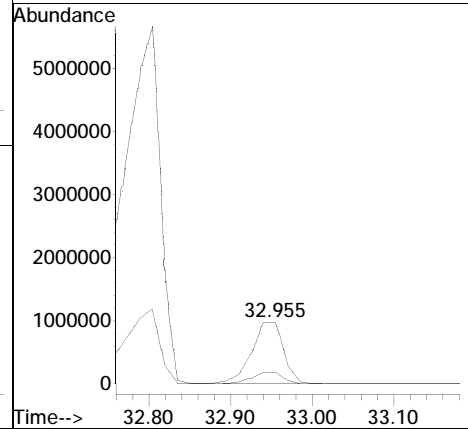
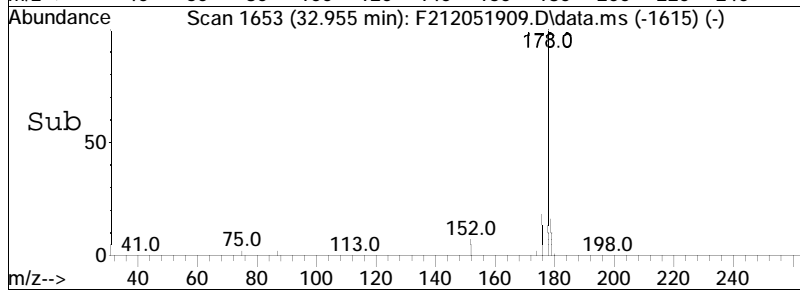
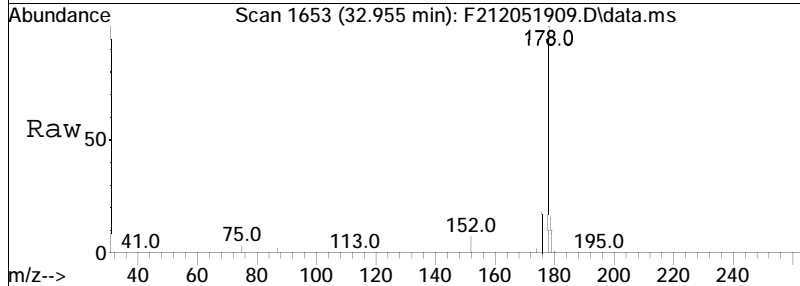
Tgt Ion: 234 Resp: 93184
 Ion Ratio Lower Upper
 234 100
 219 1.7 39.5 73.3#

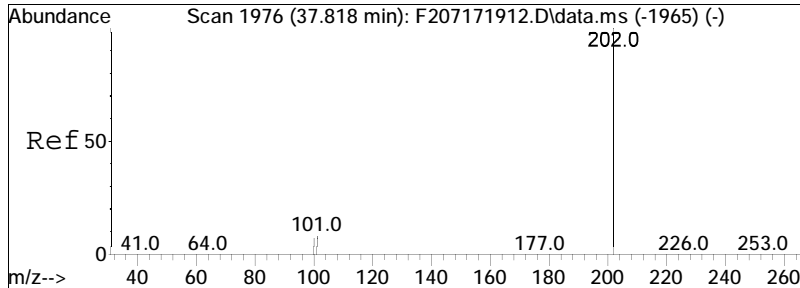




#53
 Anthracene
 Concen: 12249.18 ng/mL
 RT: 32.955 min Scan# 1653
 Delta R.T. 0.074 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

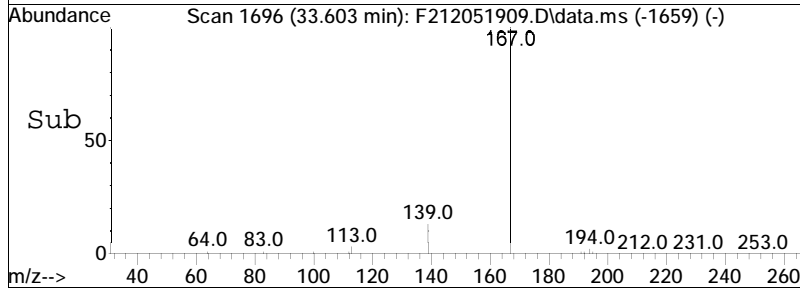
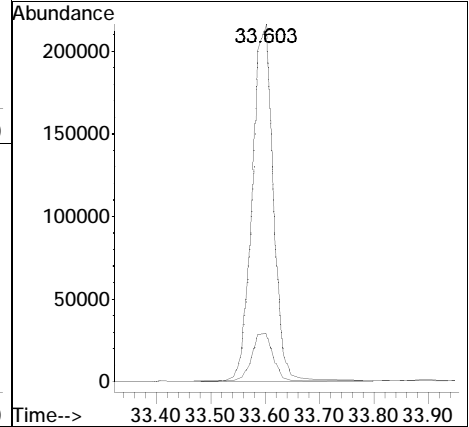
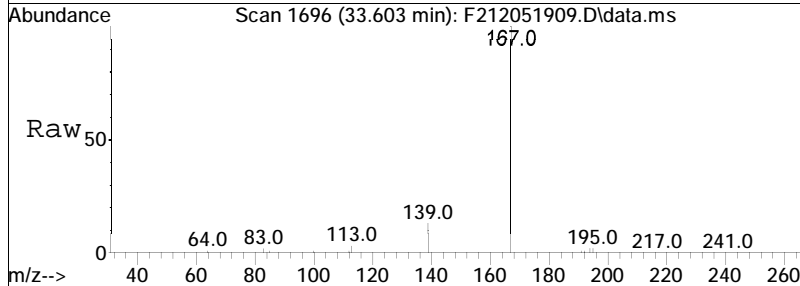
Tgt Ion:178 Resp: 2646177
 Ion Ratio Lower Upper
 178 100
 176 18.5 12.5 23.3

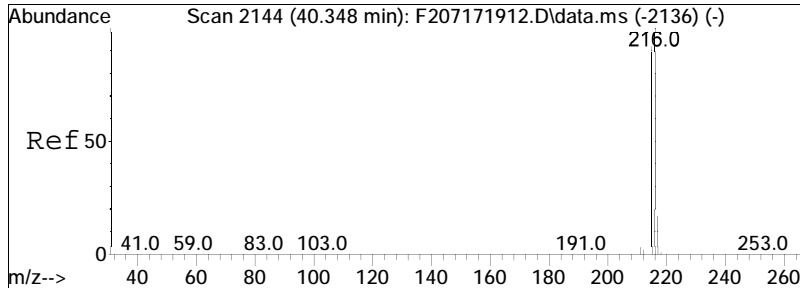




#54
 Carbazole
 Concen: 2838.69 ng/mL
 RT: 33.603 min Scan# 1696
 Delta R.T. 0.064 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

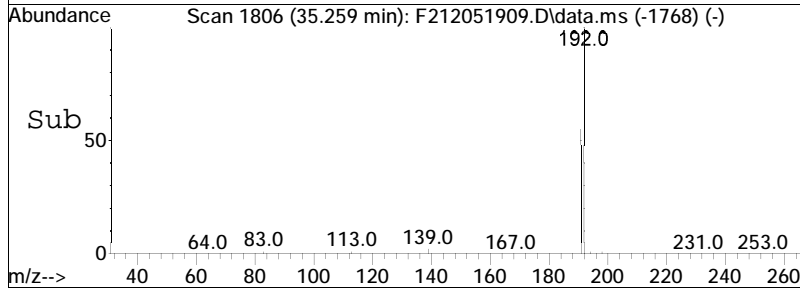
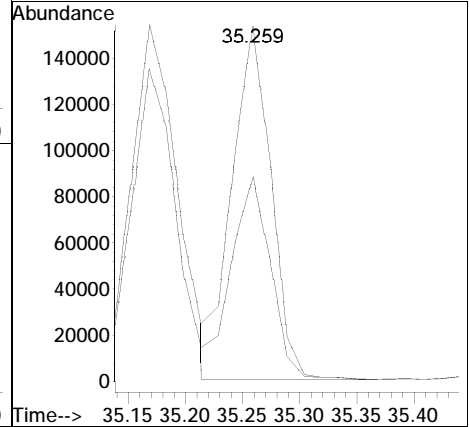
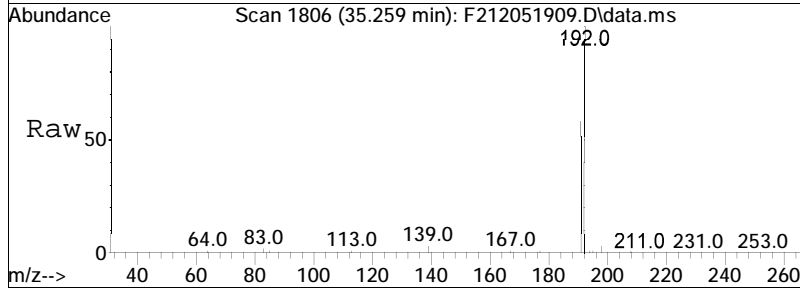
Tgt Ion: 167 Resp: 573708
 Ion Ratio Lower Upper
 167 100
 139 14.1 8.7 16.1

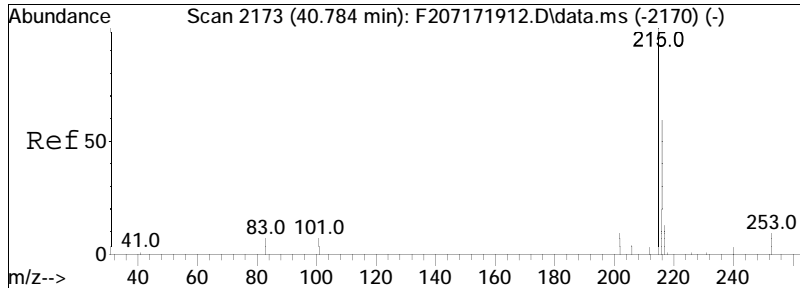




#55
 1-Methylphenanthrene
 Concen: 1907.83 ng/mL
 RT: 35.259 min Scan# 1806
 Delta R.T. 0.076 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

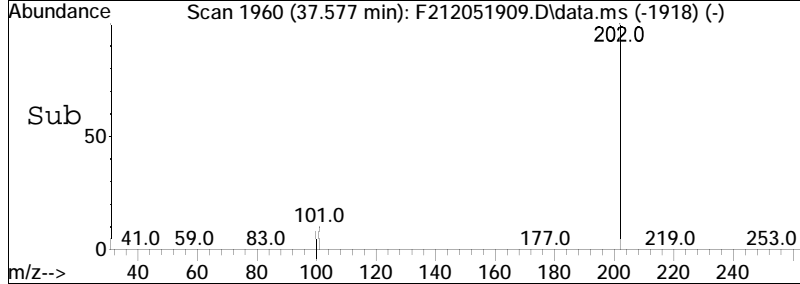
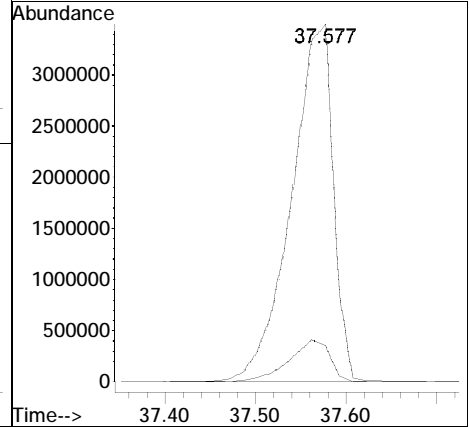
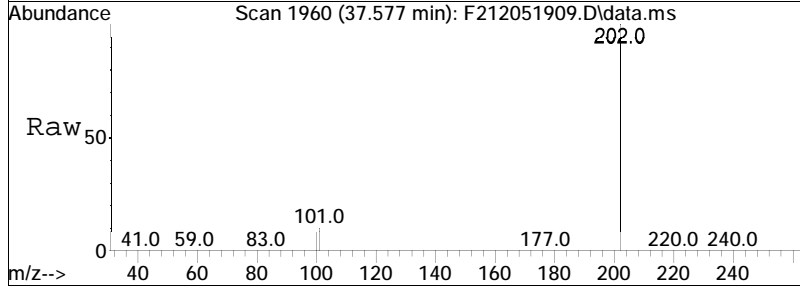
Tgt Ion: 192 Resp: 362052
 Ion Ratio Lower Upper
 192 100
 191 57.8 39.3 73.1

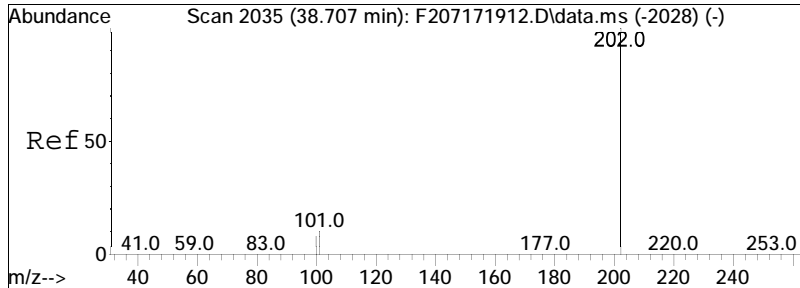




#56
 Fluoranthene
 Concen: 38331.67 ng/mL M4
 RT: 37.577 min Scan# 1960
 Delta R.T. 0.138 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

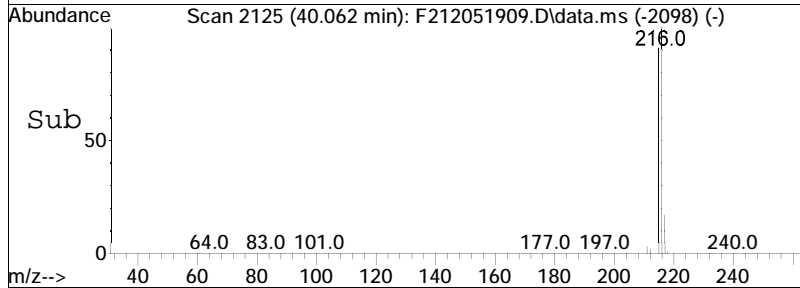
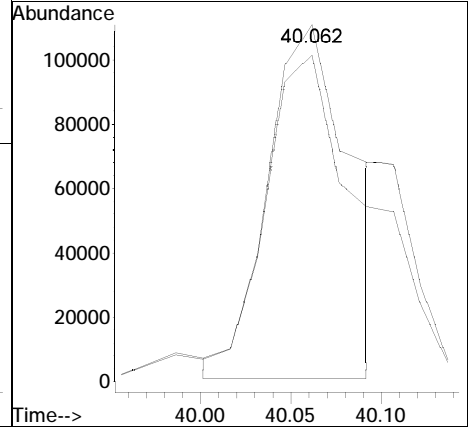
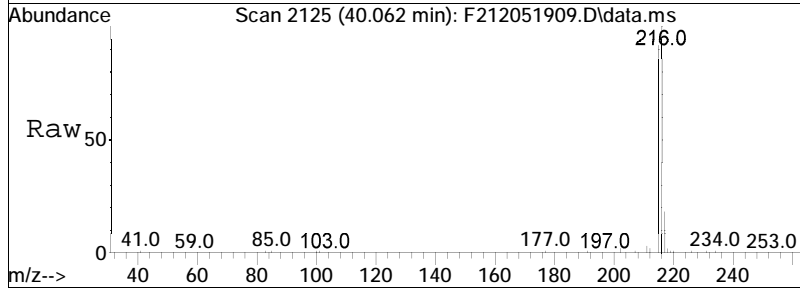
Tgt Ion: 202 Resp: 11078125
 Ion Ratio Lower Upper
 202 100
 101 11.7 8.0 14.8

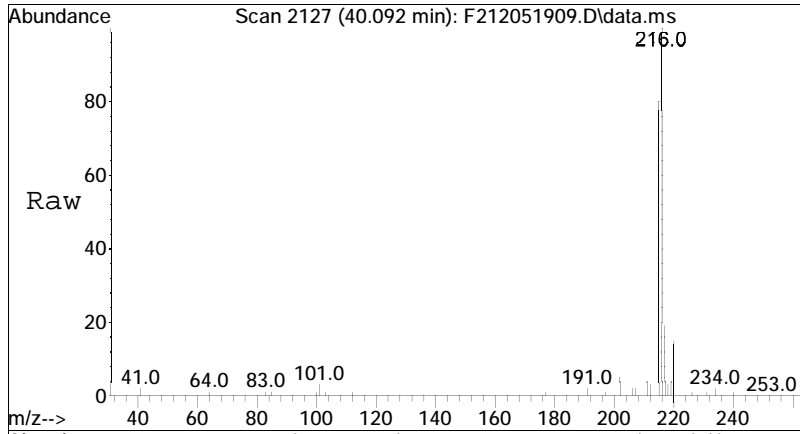




#57
 Benzo(b)fluorene
 Concen: 1952.24 ng/mL M3
 RT: 40.062 min Scan# 2125
 Delta R.T. 0.111 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

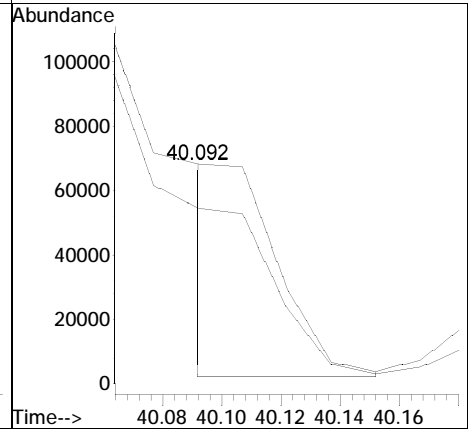
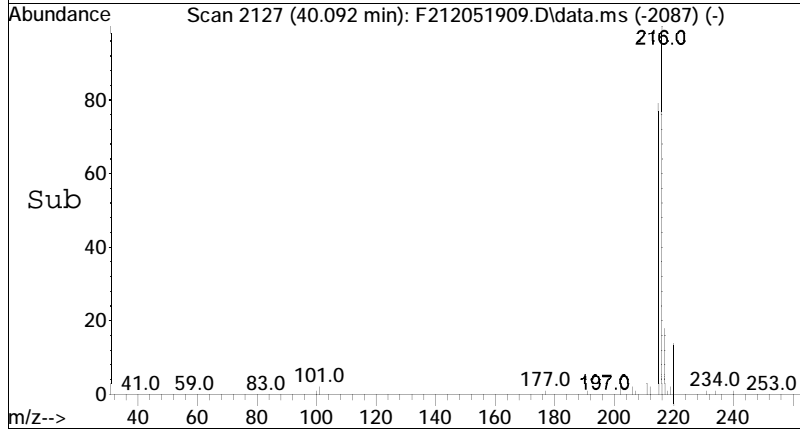
Tgt Ion	Resp	Lower	Upper
216	354962		
215	114.9	63.9	118.7

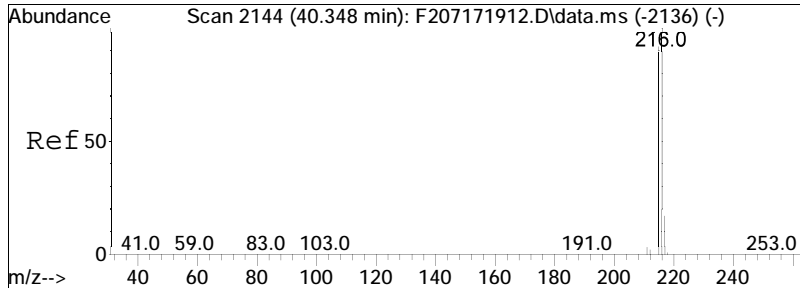




#58
 7H-Benzo(c)fluorene
 Concen: 489.42 ng/mL M3
 RT: 40.092 min Scan# 2127
 Delta R.T. 0.096 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

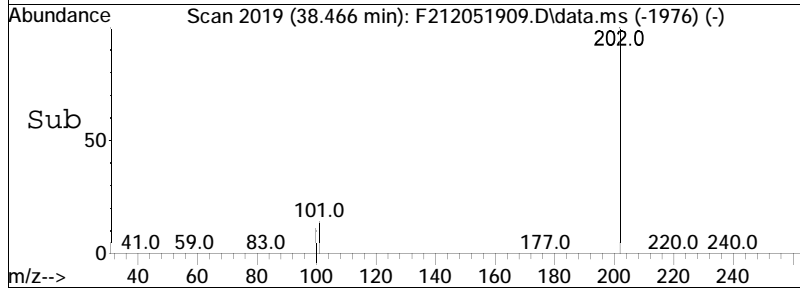
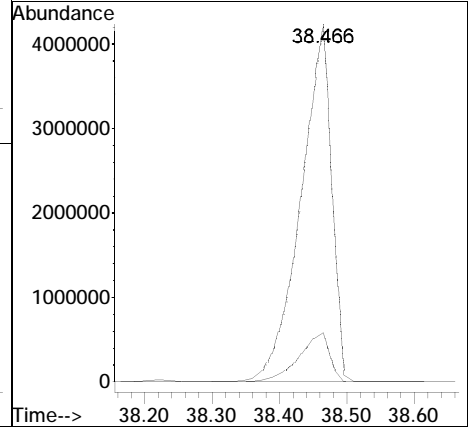
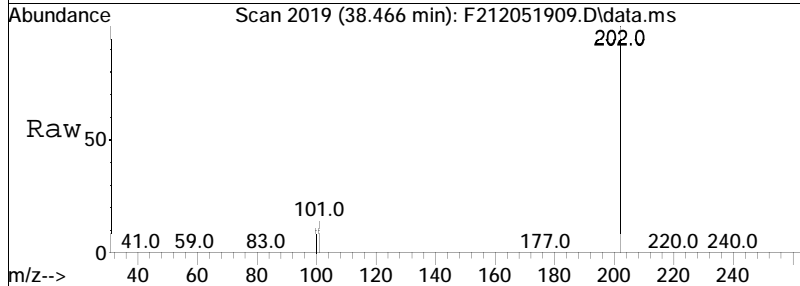
Tgt Ion	Resp	Lower	Upper
216	100		
215	1.5	102.3	189.9#

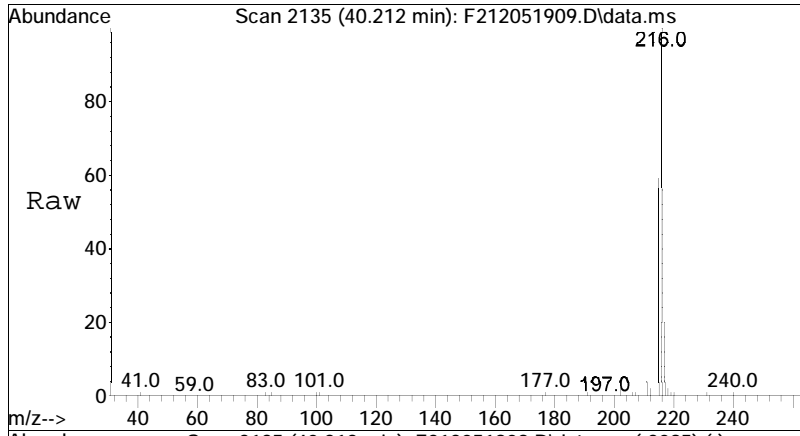




#59
 Pyrene
 Concen: 44073.94 ng/mL M3
 RT: 38.466 min Scan# 2019
 Delta R.T. 0.144 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

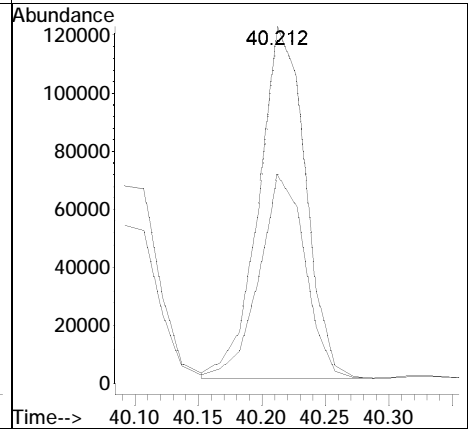
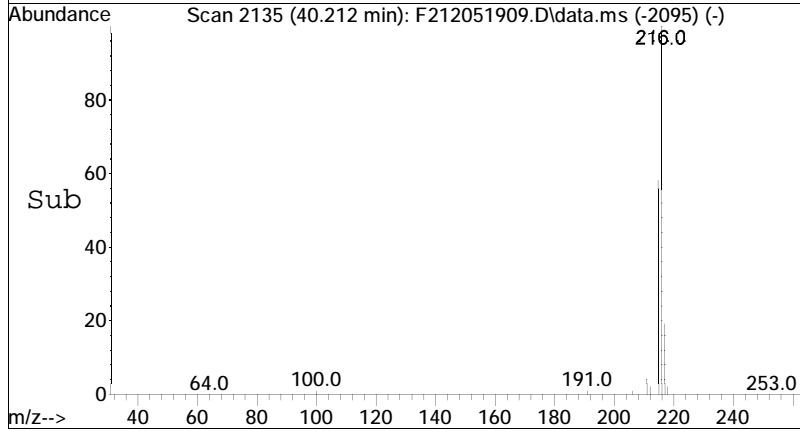
Tgt Ion: 202 Resp: 13226502
 Ion Ratio Lower Upper
 202 100
 101 0.0 9.0 16.8#

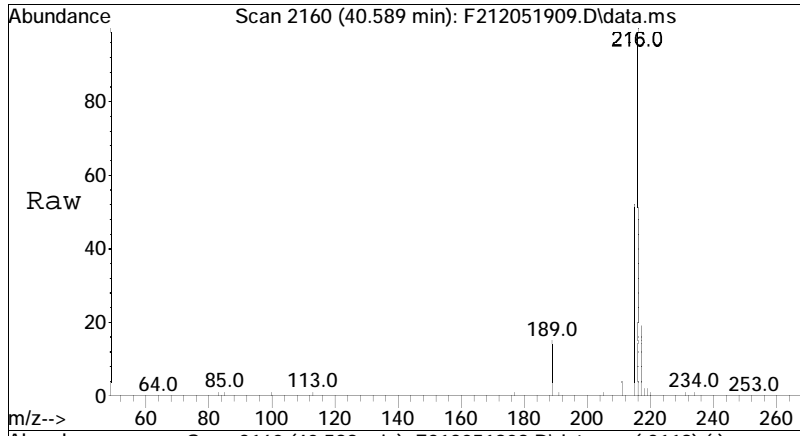




#60
 2-Methylpyrene
 Concen: 1019.75 ng/mL M3
 RT: 40.212 min Scan# 2135
 Delta R.T. 0.097 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

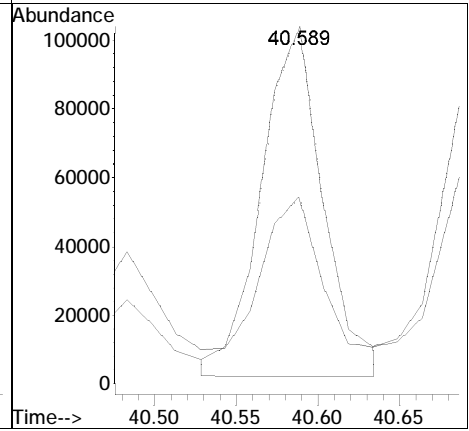
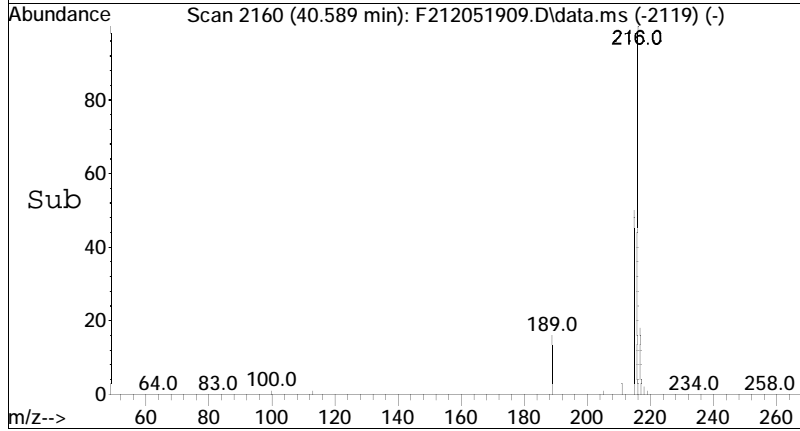
Tgt Ion	Resp	Lower	Upper
216	100		
215	133.2	73.1	135.7

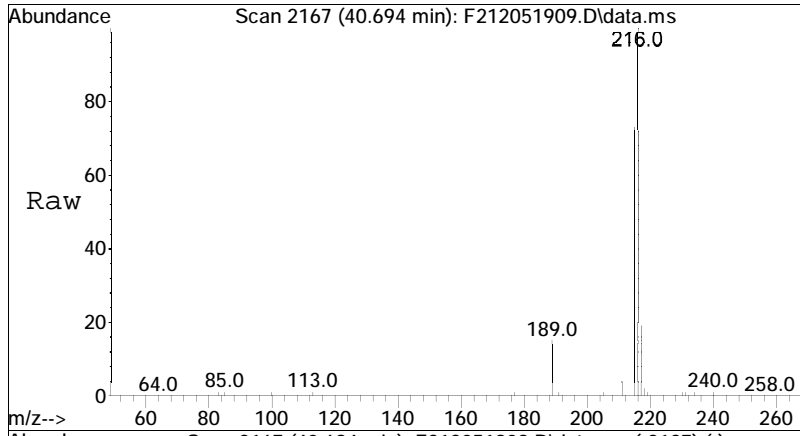




#61
 4-Methylpyrene
 Concen: 889.71 ng/mL
 RT: 40.589 min Scan# 2160
 Delta R.T. 0.115 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

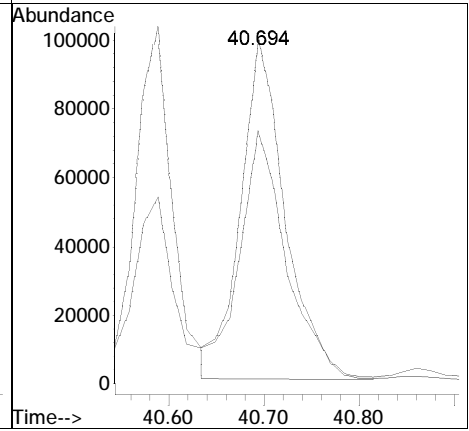
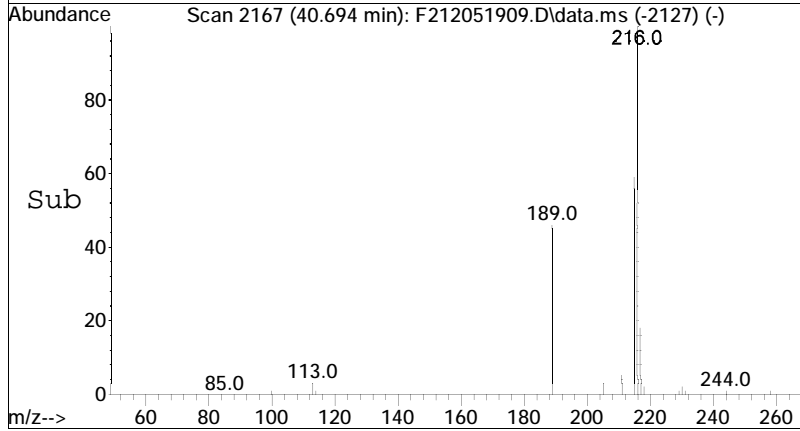
Tgt Ion	Resp	Lower	Upper
216	100		
215	56.1	49.5	91.9

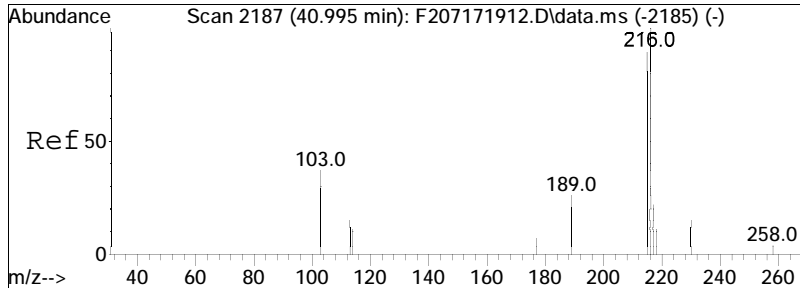




#62
 1-Methylpyrene
 Concen: 1064.97 ng/mL
 RT: 40.694 min Scan# 2167
 Delta R.T. 0.101 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

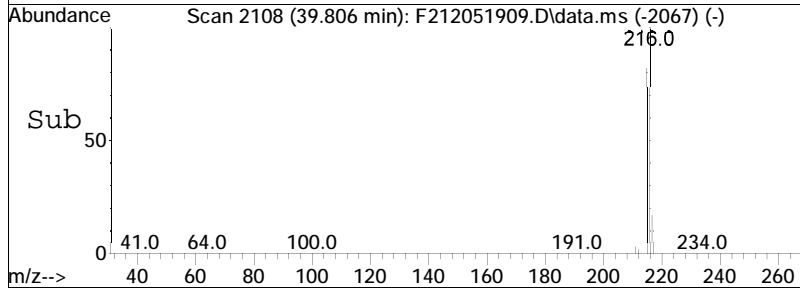
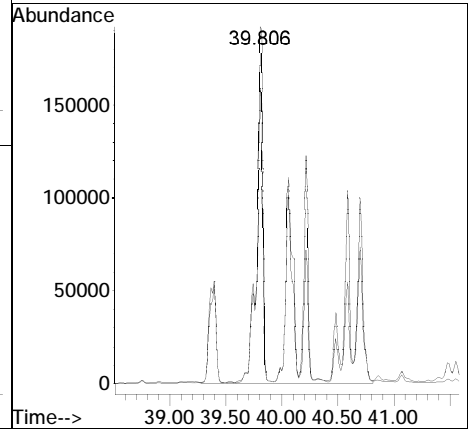
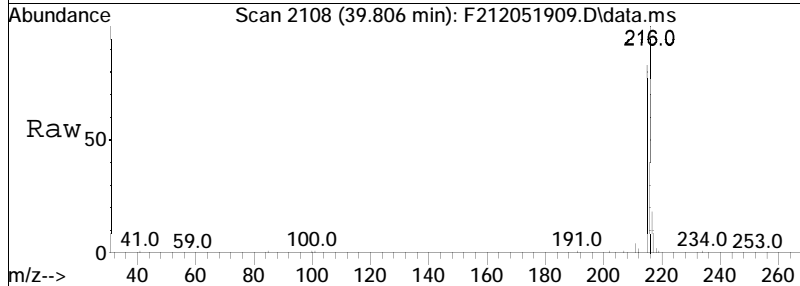
Tgt Ion	Resp	Lower	Upper
216	100		
215	75.6	73.7	136.9

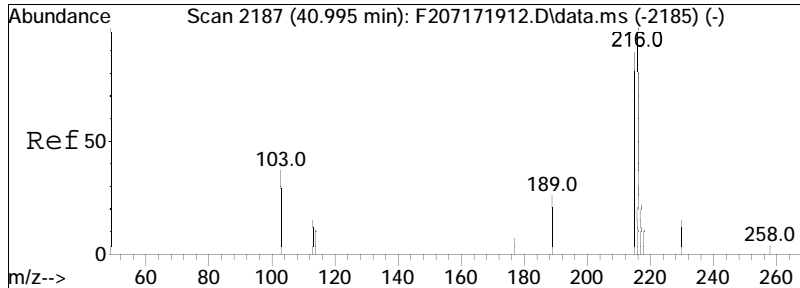




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 8145.50 ng/mL M5
 RT: 39.806 min Scan# 2108
 Delta R.T. 0.094 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

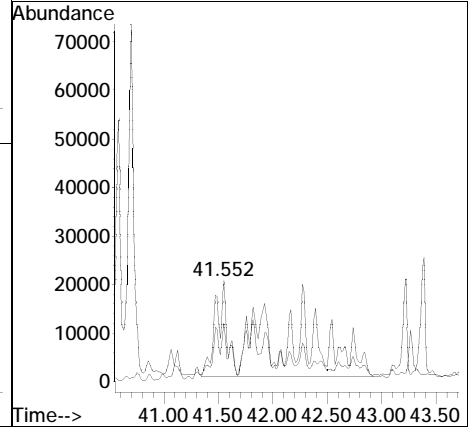
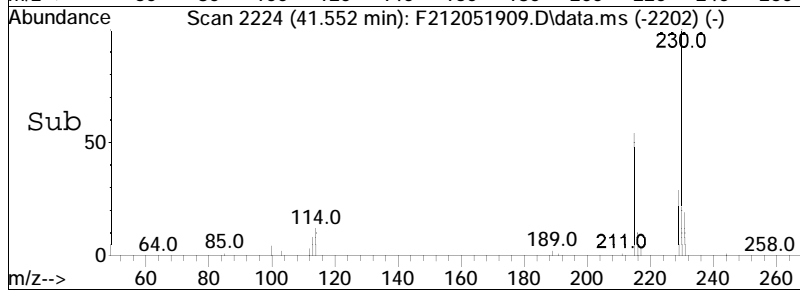
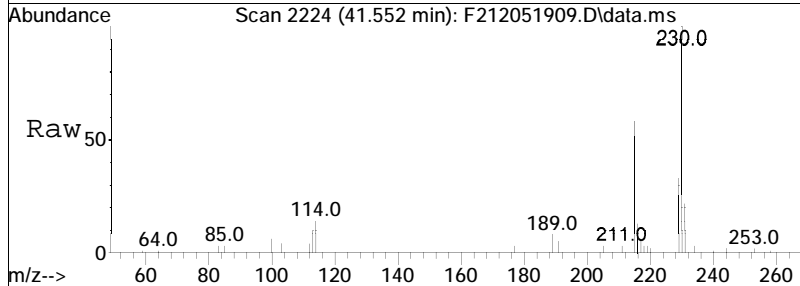
Tgt Ion: 216 Resp: 2444449
 Ion Ratio Lower Upper
 216 100
 215 24.9 66.0 122.6#

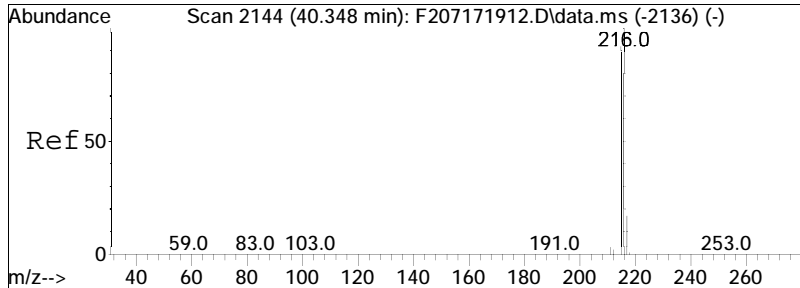




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 2114.55 ng/mL M5
 RT: 41.552 min Scan# 2224
 Delta R.T. 0.047 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

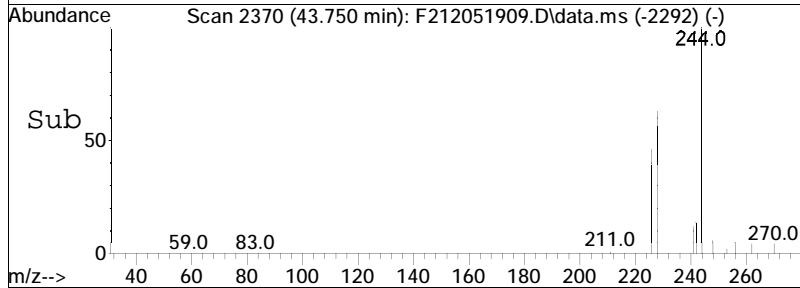
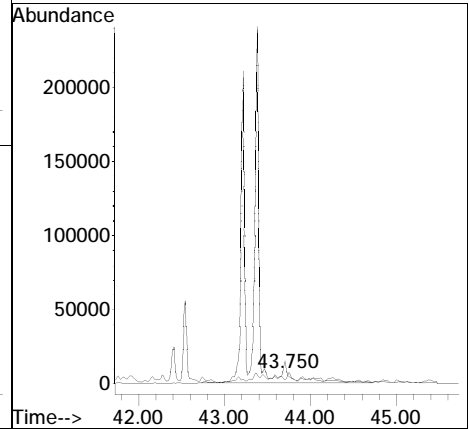
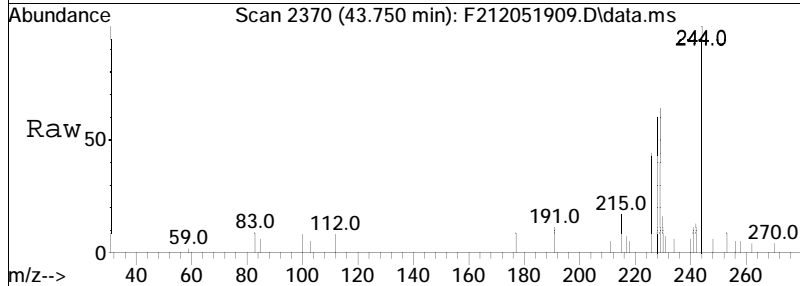
Tgt Ion: 230 Resp: 634573
 Ion Ratio Lower Upper
 230 100
 215 2.5 74.8 138.8#

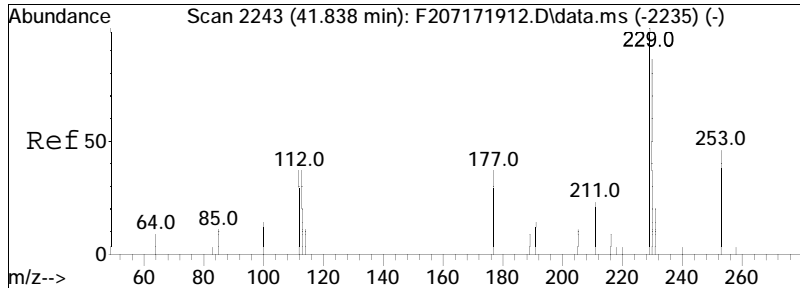




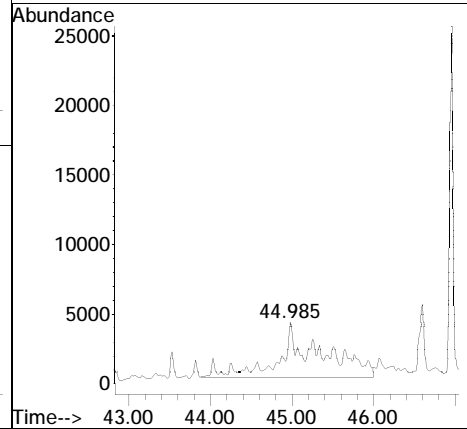
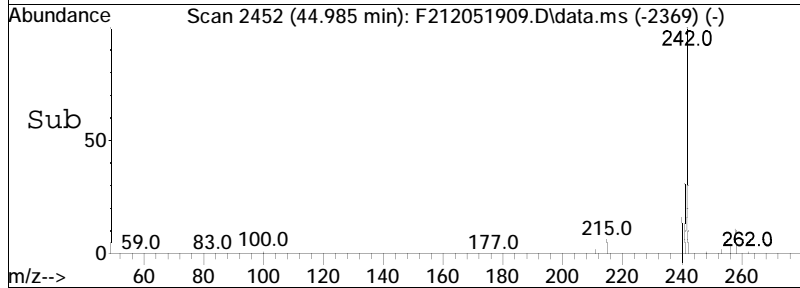
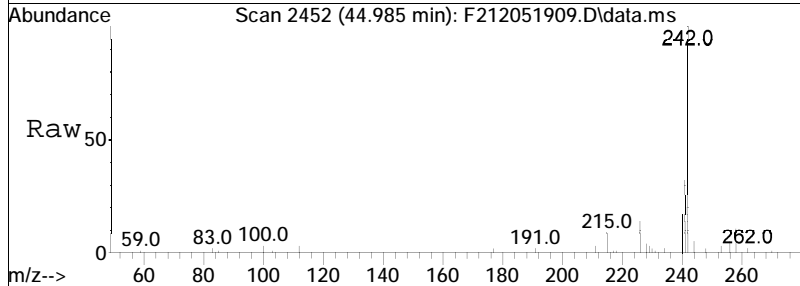
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 877.63 ng/mL M5
 RT: 43.750 min Scan# 2370
 Delta R.T. 0.242 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

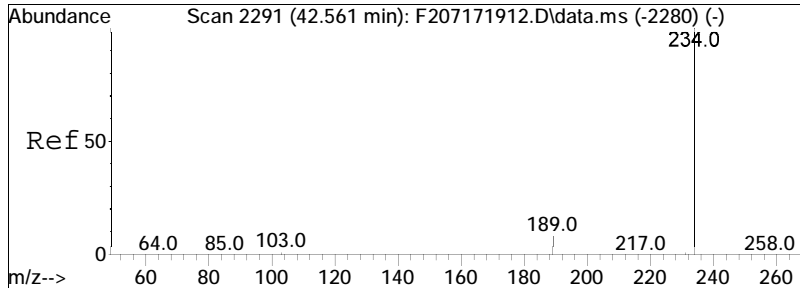
Tgt Ion	Resp	Lower	Upper
244	100		
229	3.7	62.0	115.2#





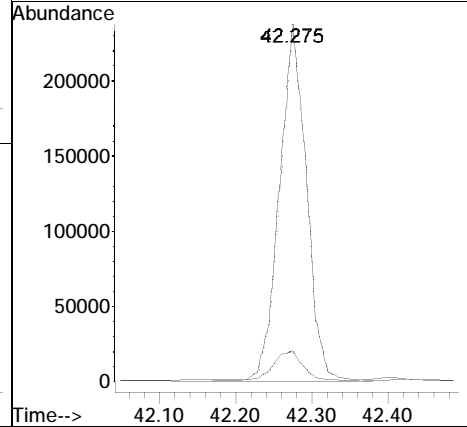
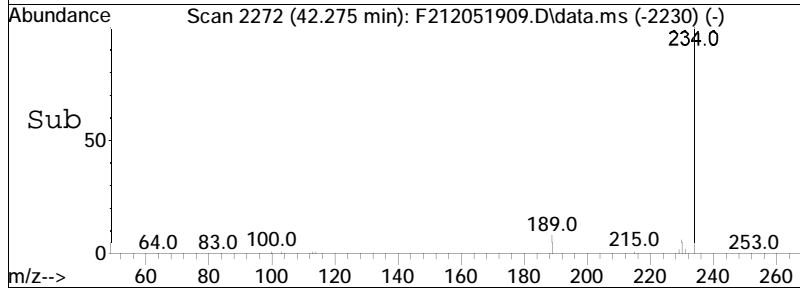
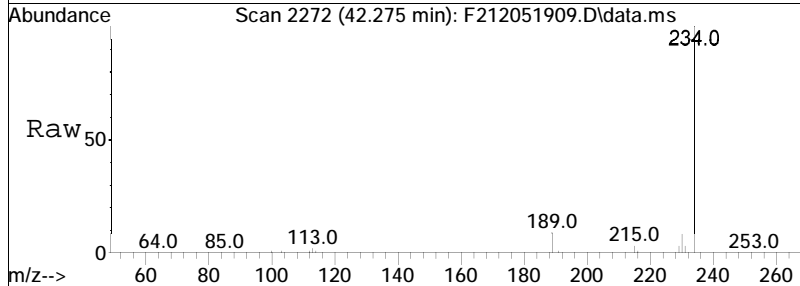
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 460.43 ng/mL M5
 RT: 44.985 min Scan# 2452
 Delta R.T. 0.132 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:258 Resp: 138174

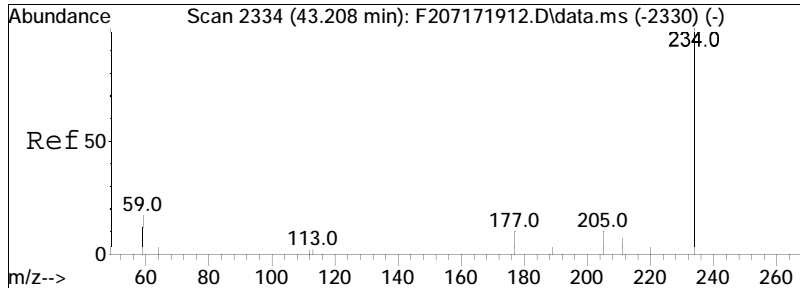




#67
 Naphthobenzothiophene-2,1-D
 Concen: 2226.54 ng/mL
 RT: 42.275 min Scan# 2272
 Delta R.T. 0.127 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

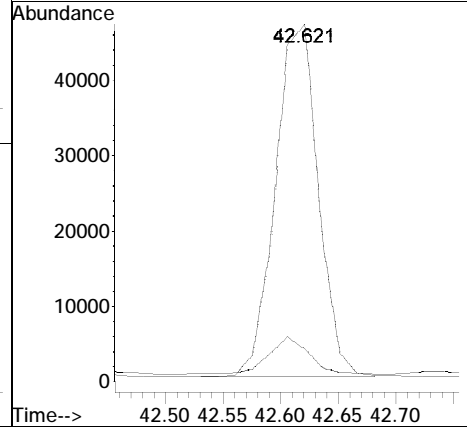
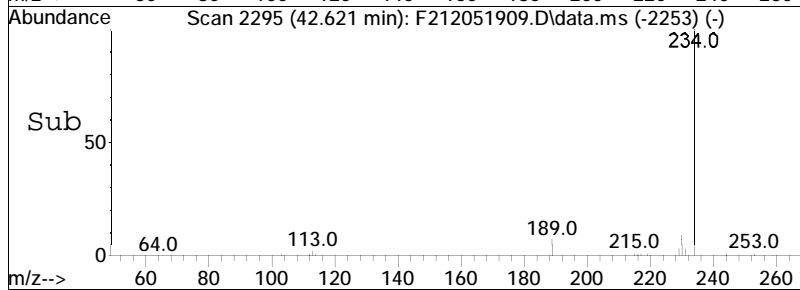
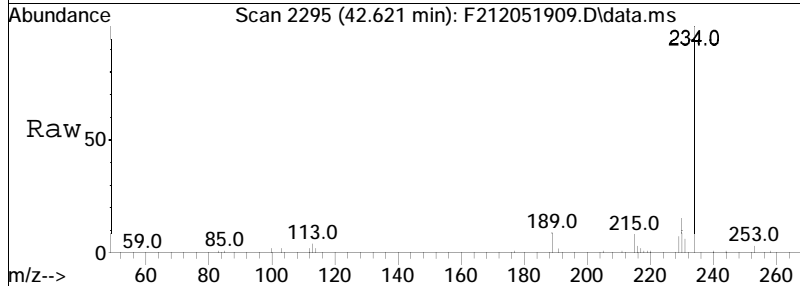
Tgt Ion	Resp	Lower	Upper
234	100		
189	8.8	5.5	10.3

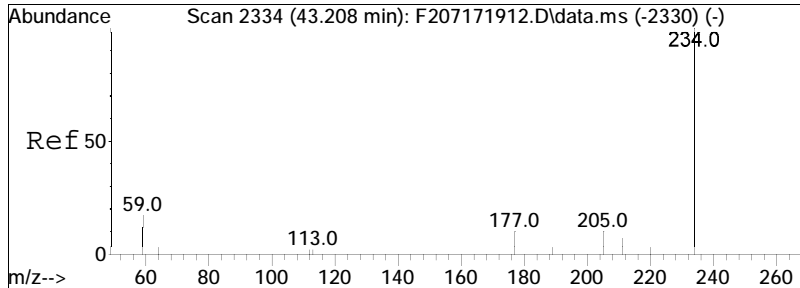




#68
 Naphthobenzothiophene-1,2-D
 Concen: 466.97 ng/mL M3
 RT: 42.621 min Scan# 2295
 Delta R.T. 0.130 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

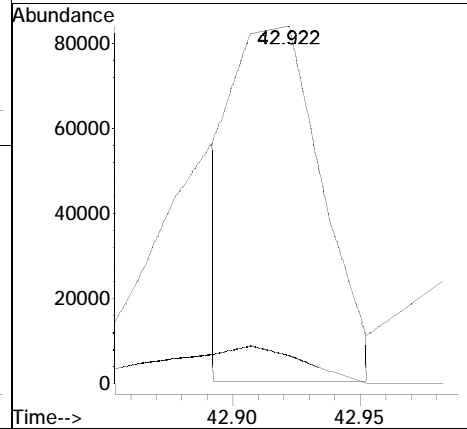
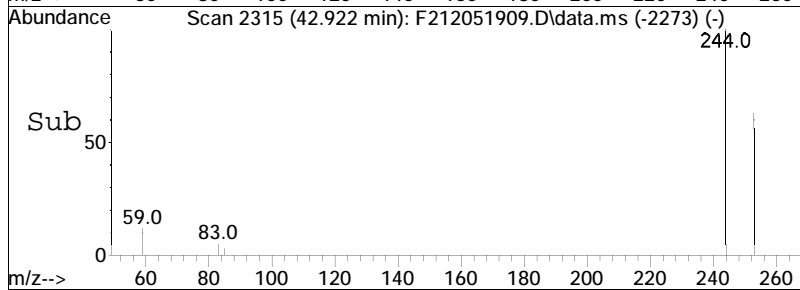
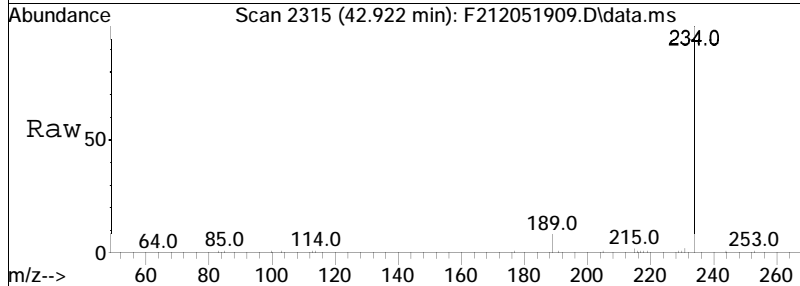
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	56.7	105.3#

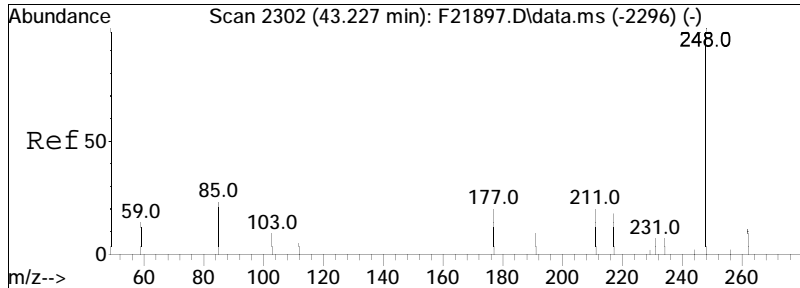




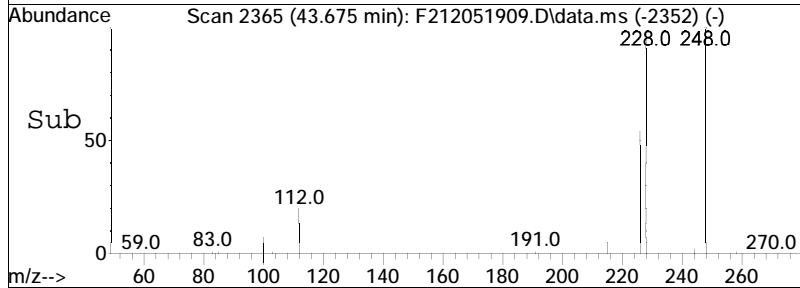
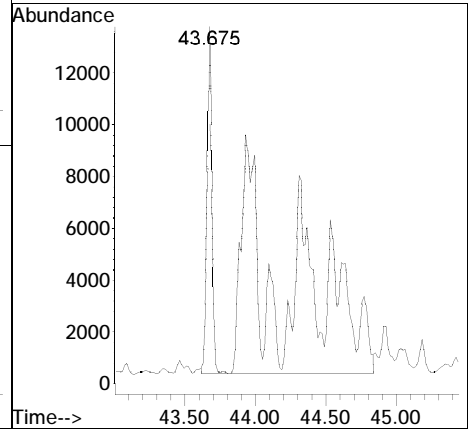
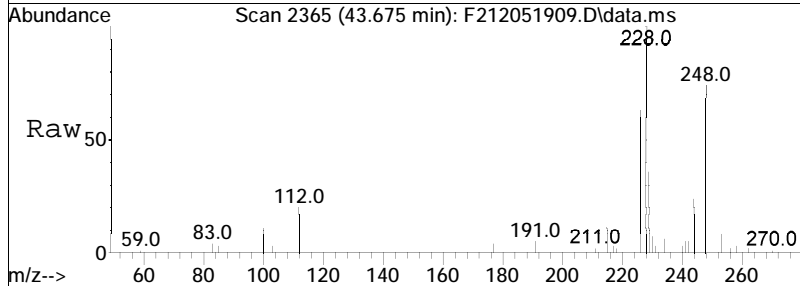
#69
 Naphthobenzothiophene-2,3-D
 Concen: 758.80 ng/mL M3
 RT: 42.922 min Scan# 2315
 Delta R.T. 0.132 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

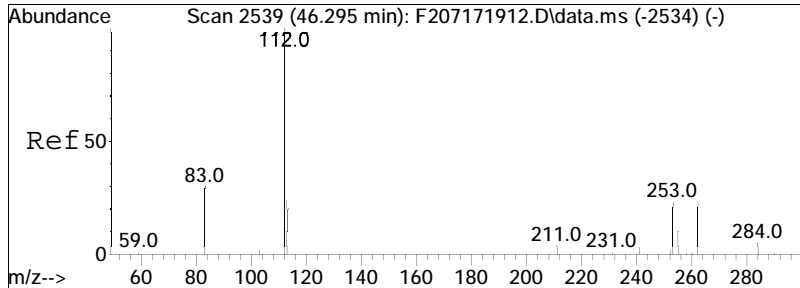
Tgt Ion: 234 Resp: 194776
 Ion Ratio Lower Upper
 234 100
 189 18.4 0.0 0.0#



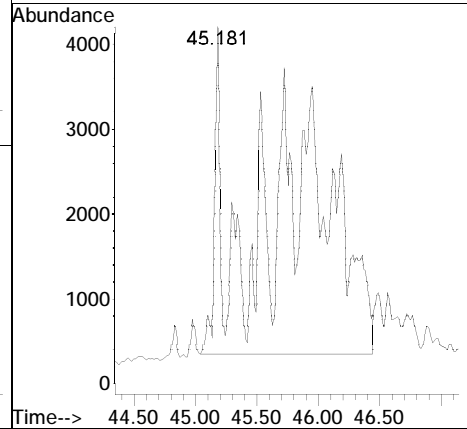
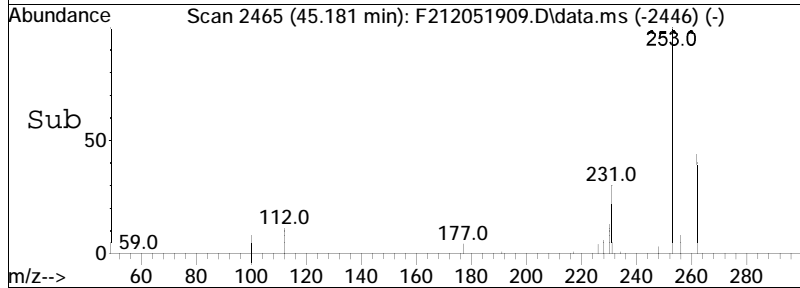
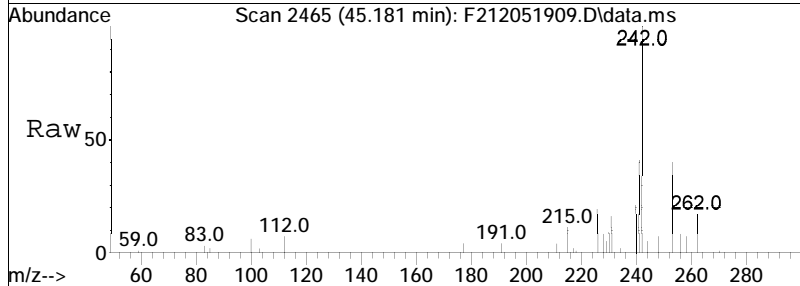


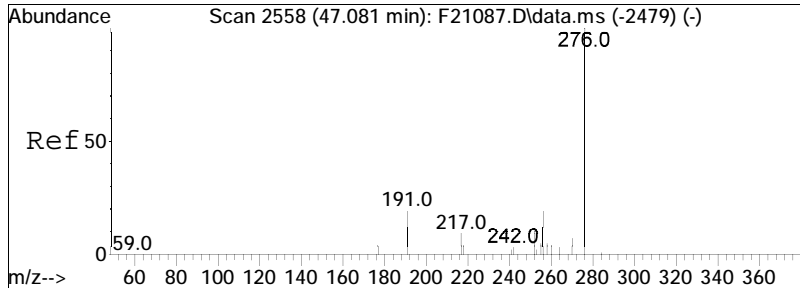
#70
 Cl-Naphthobenzothiophenes
 Concen: 903.31 ng/ml M5
 RT: 43.675 min Scan# 2365
 Delta R.T. -0.550 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion:248 Resp: 231870



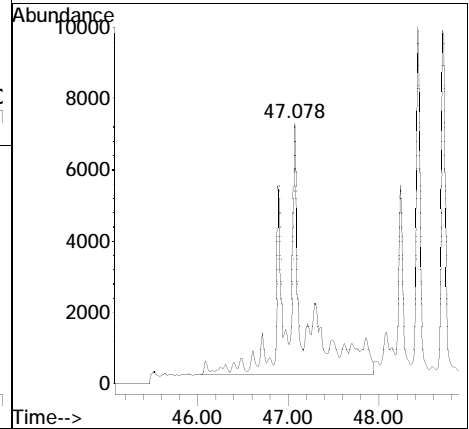
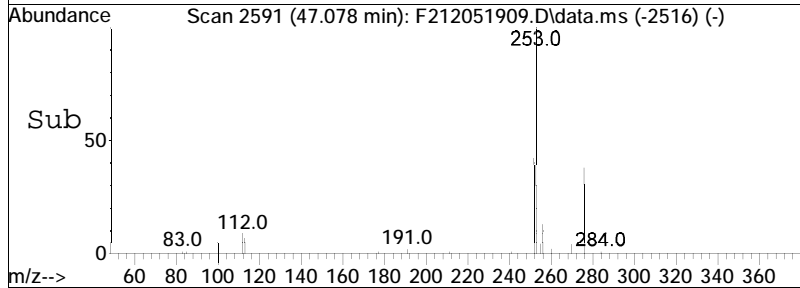
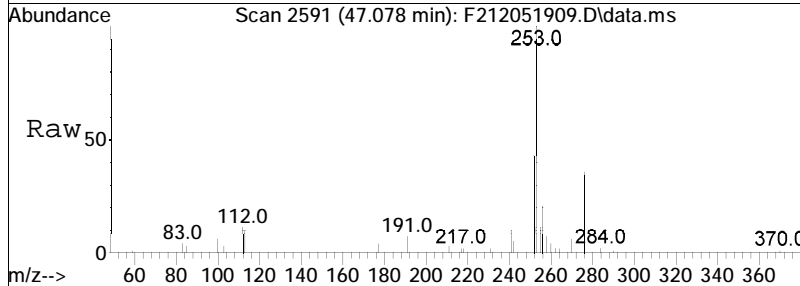


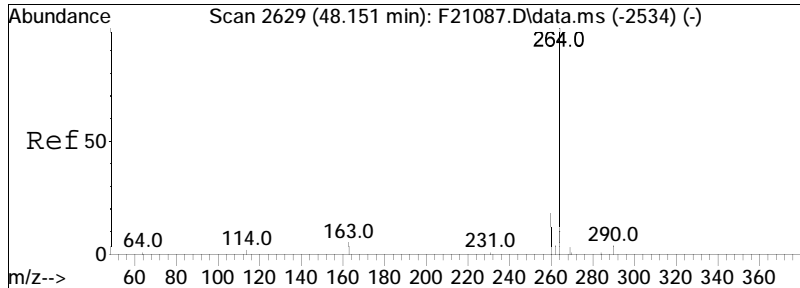
#71
 C2-Naphthobenzothiophenes
 Concen: 474.32 ng/ml M5
 RT: 45.181 min Scan# 2465
 Delta R.T. -0.360 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion: 262 Resp: 121751



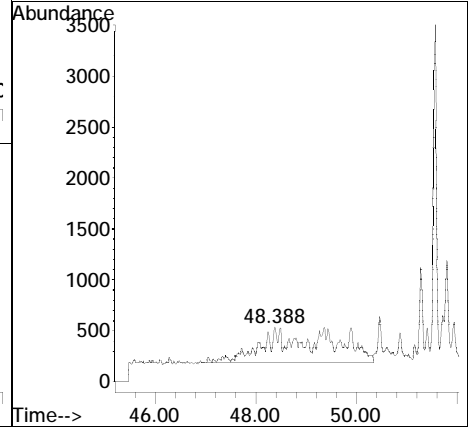
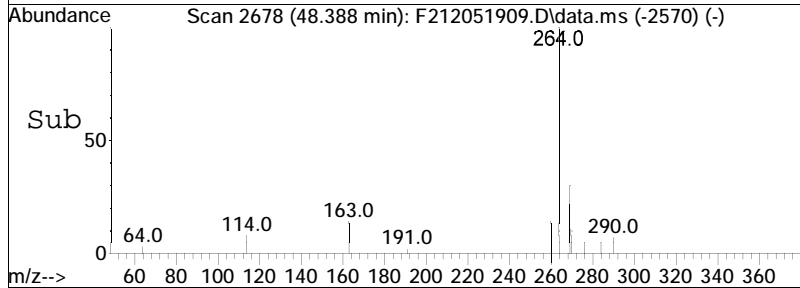
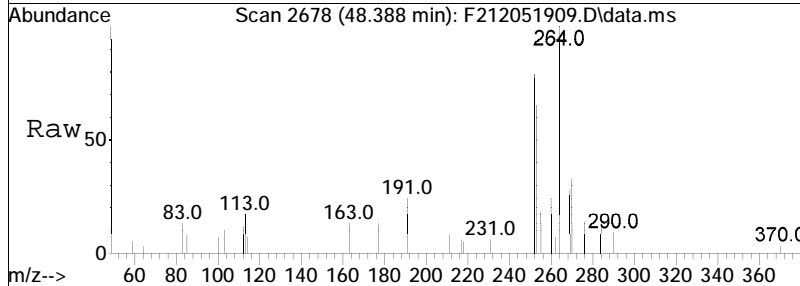


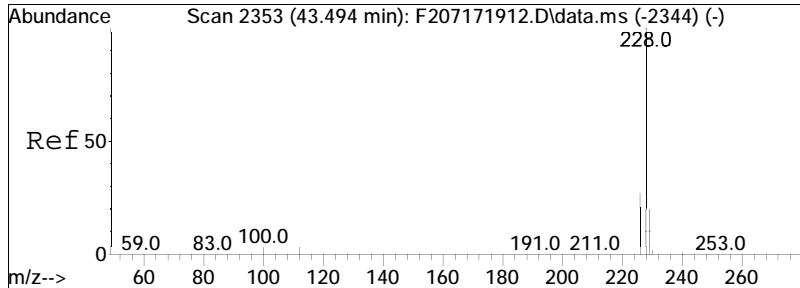
#72
 C3-Naphthobenzothiophenes
 Concen: 381.49 ng/ml M5
 RT: 47.078 min Scan# 2591
 Delta R.T. -0.062 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion: 276 Resp: 97923





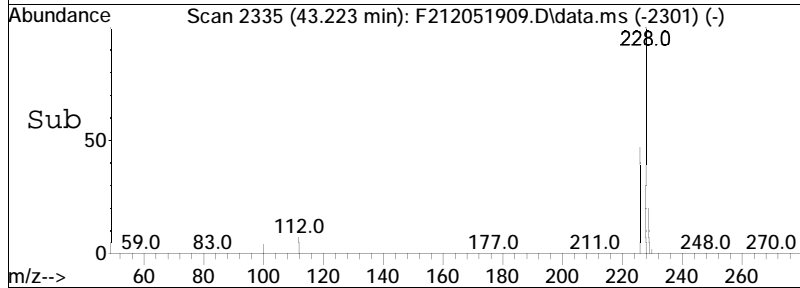
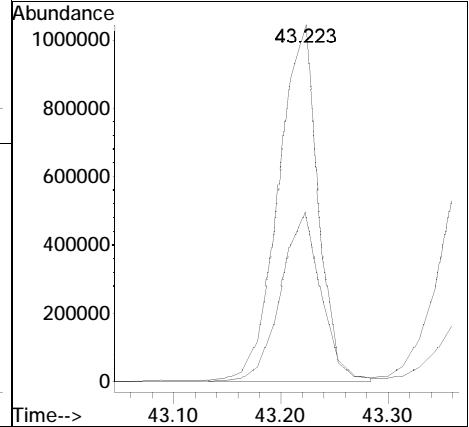
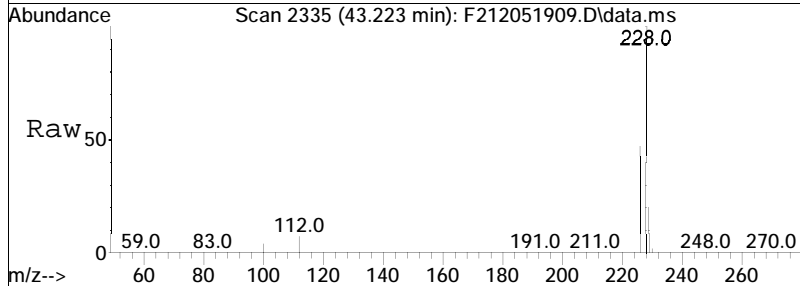
#73
 C4-Naphthobenzothiophenes
 Concen: 114.73 ng/mL M5
 RT: 48.388 min Scan# 2678
 Delta R.T. 0.142 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm
 Tgt Ion: 290 Resp: 29449

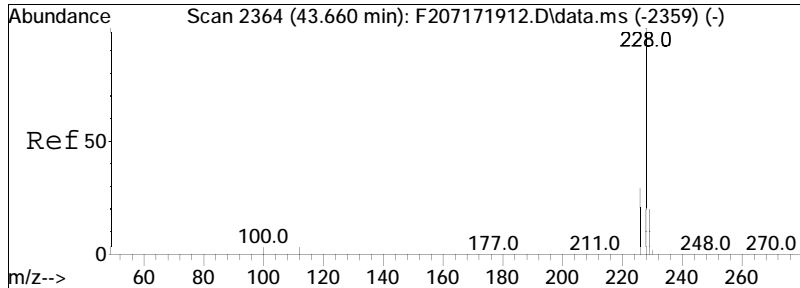




#75
 Benz[a]anthracene
 Concen: 11019.15 ng/mL M3
 RT: 43.223 min Scan# 2335
 Delta R.T. 0.015 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

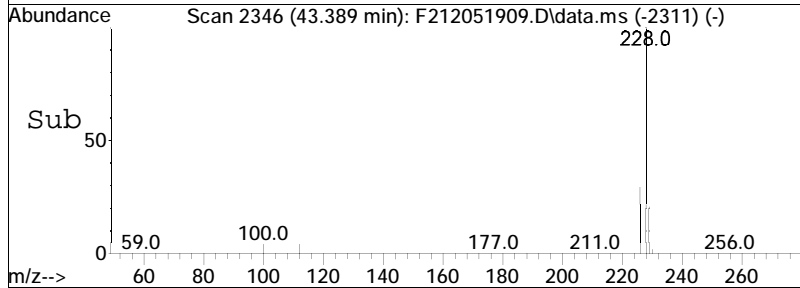
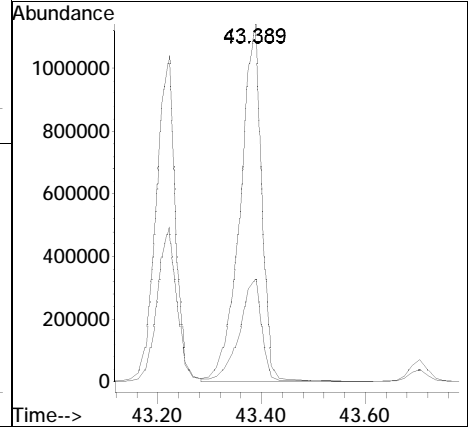
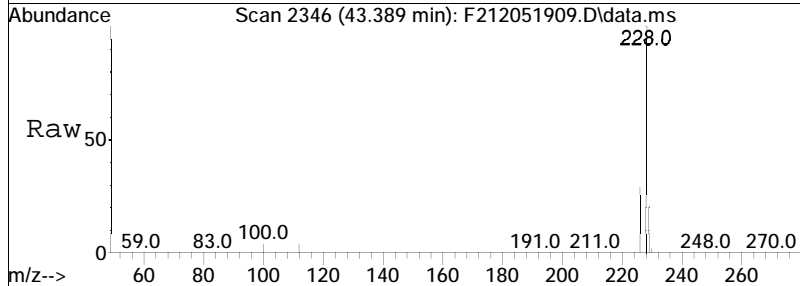
Tgt Ion: 228 Resp: 2677462
 Ion Ratio Lower Upper
 228 100
 226 35.2 18.2 33.8#

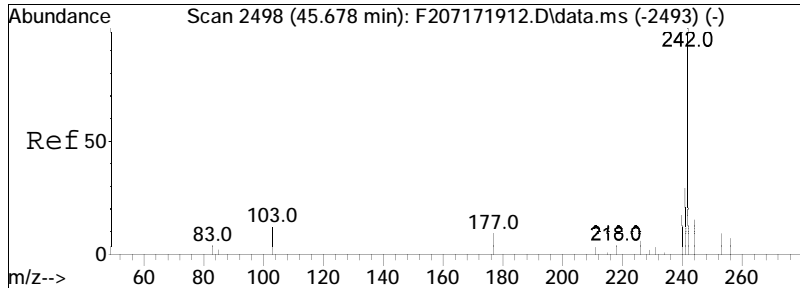




#76
 Chrysene
 Concen: 13270.09 ng/mL
 RT: 43.389 min Scan# 2346
 Delta R.T. 0.030 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

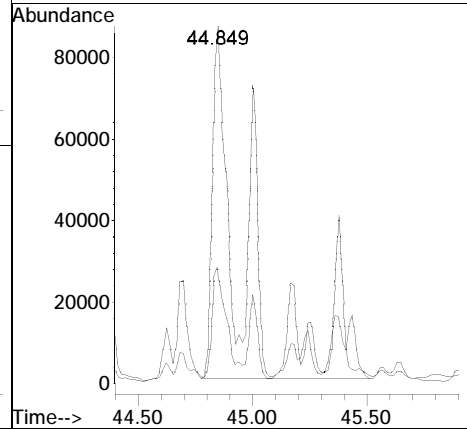
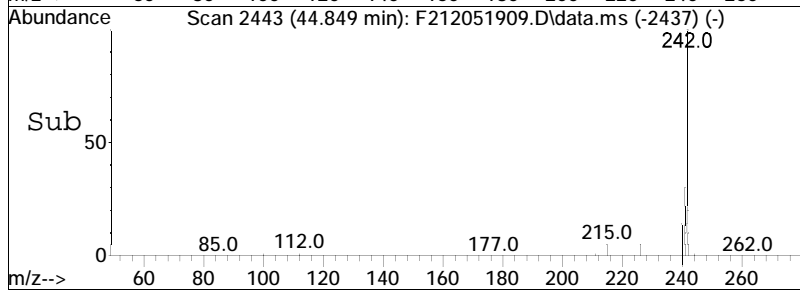
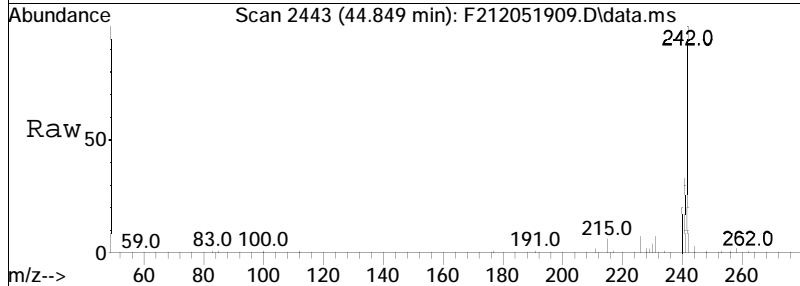
Tgt Ion: 228 Resp: 3282626
 Ion Ratio Lower Upper
 228 100
 226 28.7 20.3 37.7

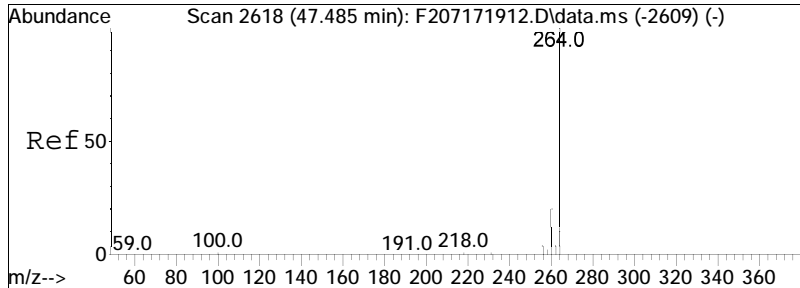




#78
 C1-Chrysenes
 Concen: 3124.48 ng/mL M5
 RT: 44.849 min Scan# 2443
 Delta R.T. 0.025 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

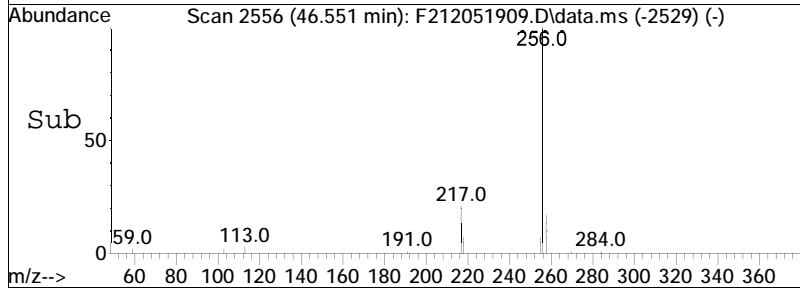
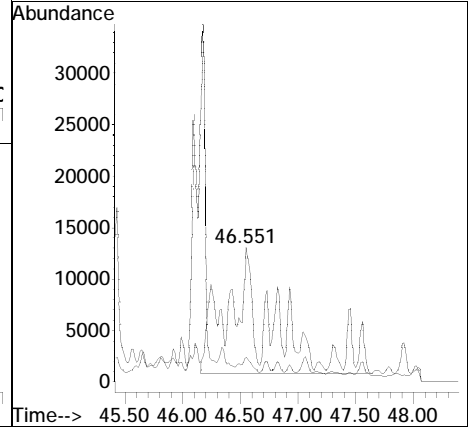
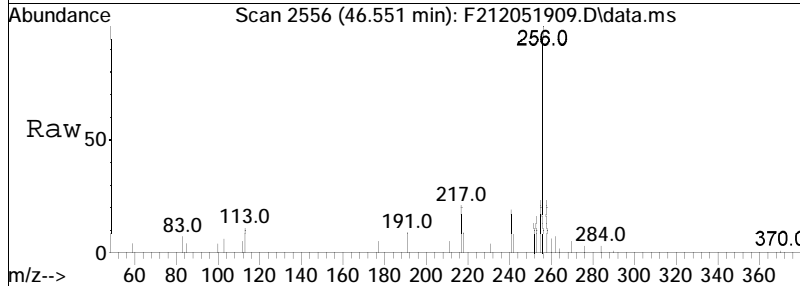
Tgt Ion: 242 Resp: 772903
 Ion Ratio Lower Upper
 242 100
 241 14.9 31.3 58.1#

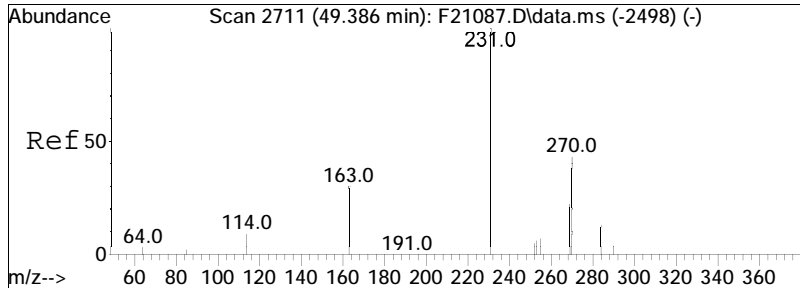




#79
 C2-Chrysenes
 Concen: 1356.10 ng/mL M5
 RT: 46.551 min Scan# 2556
 Delta R.T. -0.361 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

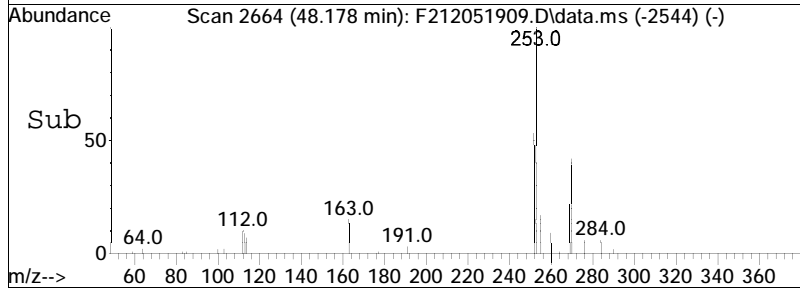
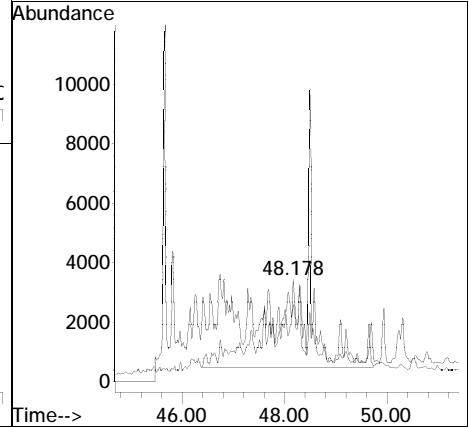
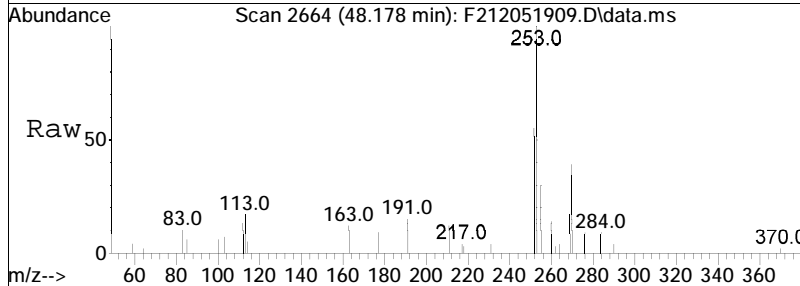
Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.6	25.6	47.4#

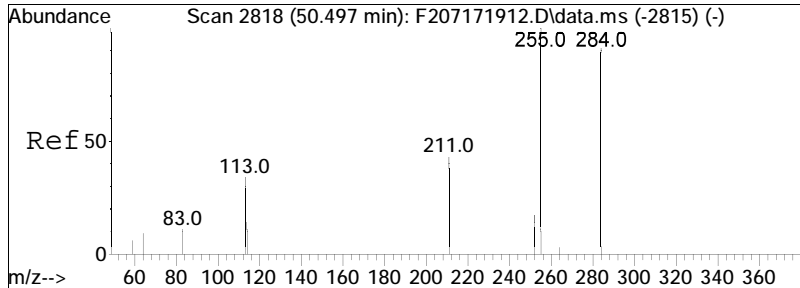




#81
 C3-Chrysenes
 Concen: 685.81 ng/mL M5
 RT: 48.178 min Scan# 2664
 Delta R.T. -1.495 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

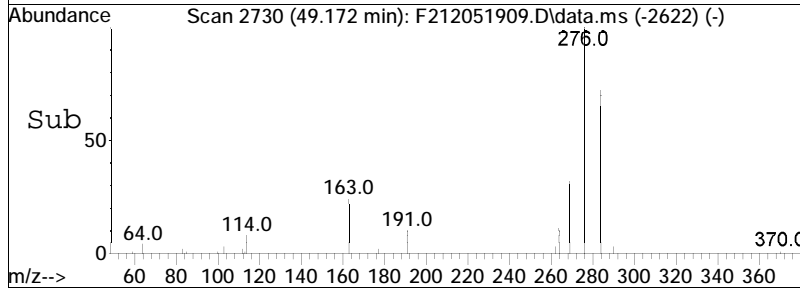
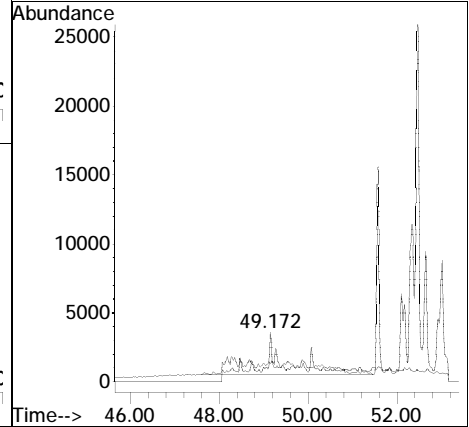
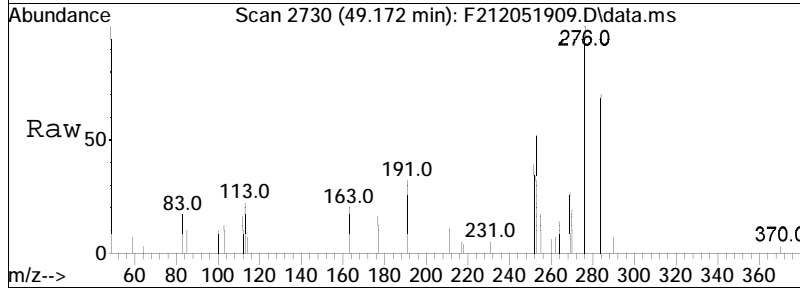
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.1	38.4	71.4#

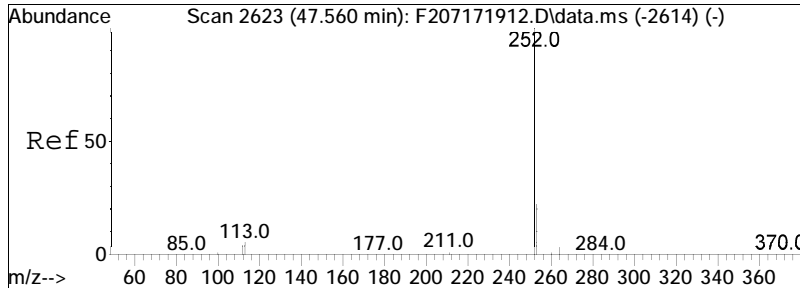




#82
 C4-Chrysenes
 Concen: 403.56 ng/mL M5
 RT: 49.172 min Scan# 2730
 Delta R.T. -0.606 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

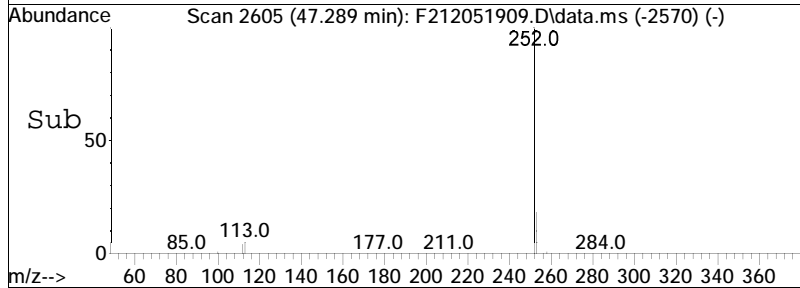
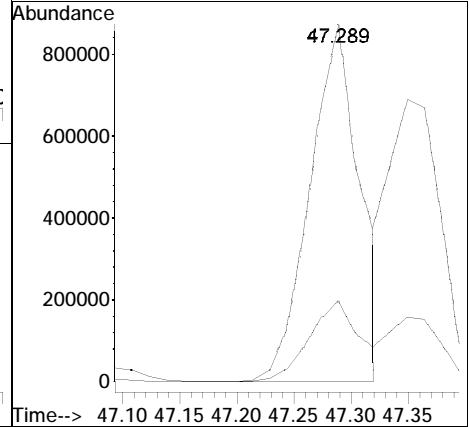
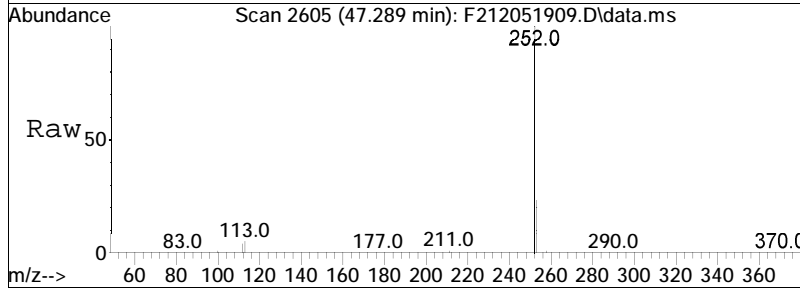
Tgt Ion	Ratio	Lower	Upper
284	100		
269	0.0	57.2	106.2#

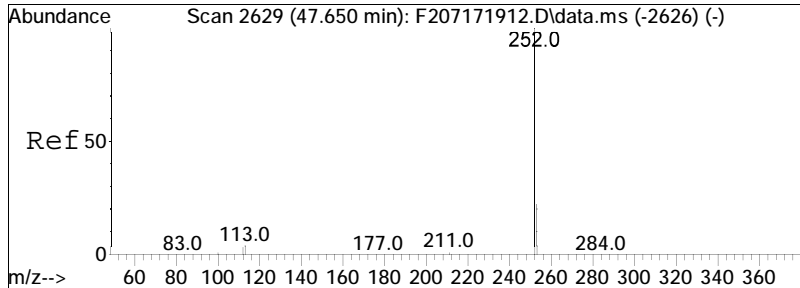




#84
 Benzo[b]fluoranthene
 Concen: 9068.06 ng/mL
 RT: 47.289 min Scan# 2605
 Delta R.T. 0.032 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

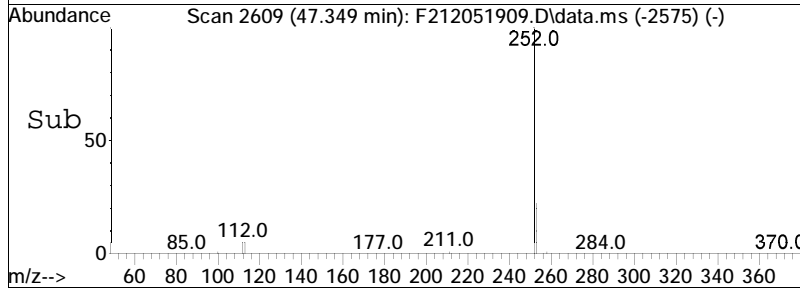
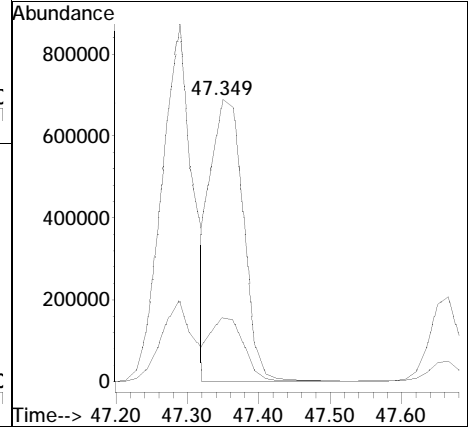
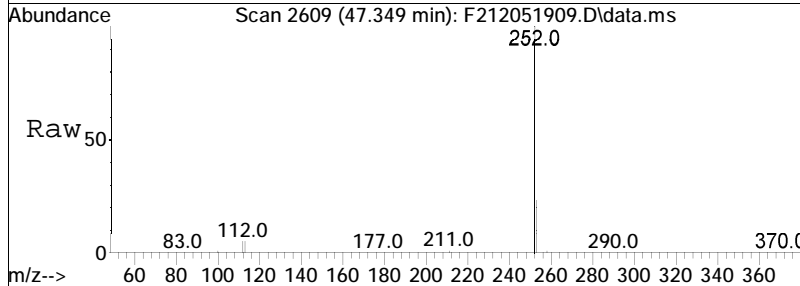
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.6	16.4	30.4

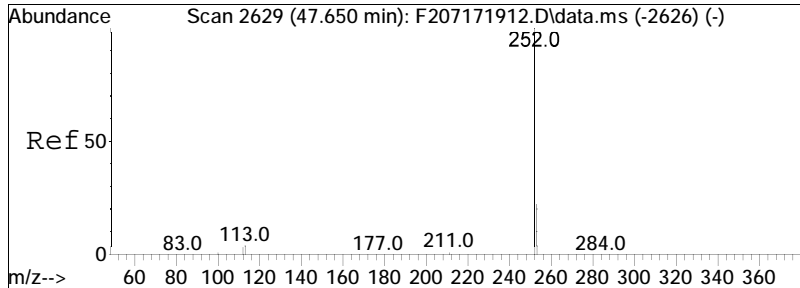




#85
 Benzo[j]+[k]fluoranthene
 Concen: 7310.63 ng/mL
 RT: 47.349 min Scan# 2609
 Delta R.T. 0.017 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

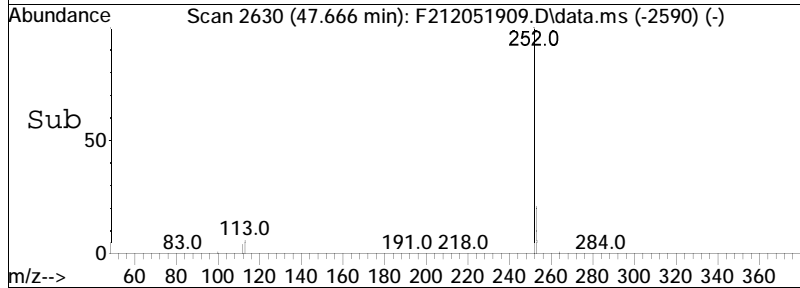
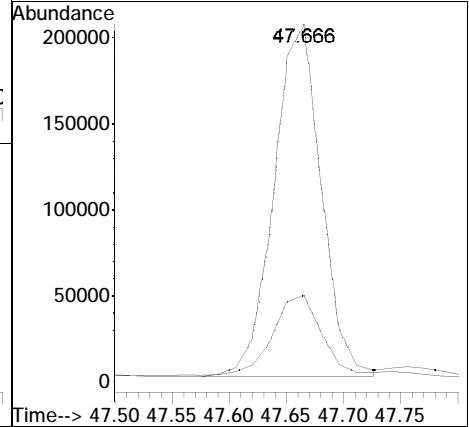
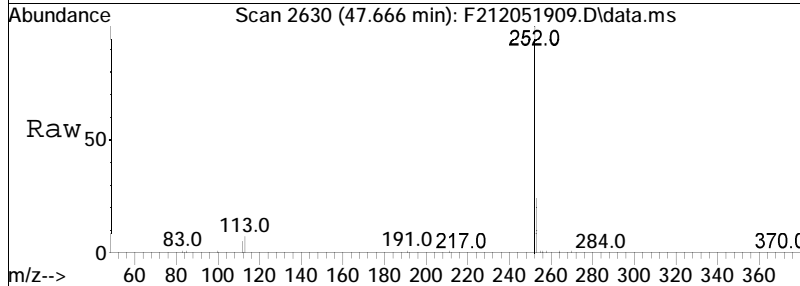
Tgt Ion: 252 Resp: 2163467
 Ion Ratio Lower Upper
 252 100
 253 22.5 16.4 30.4

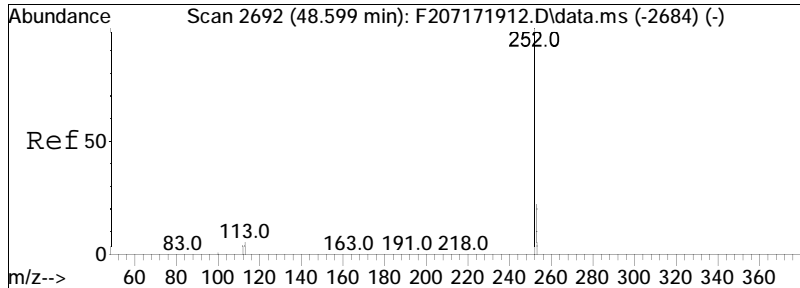




#86
 Benzo[a]fluoranthene
 Concen: 1972.01 ng/mL M3
 RT: 47.666 min Scan# 2630
 Delta R.T. 0.102 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

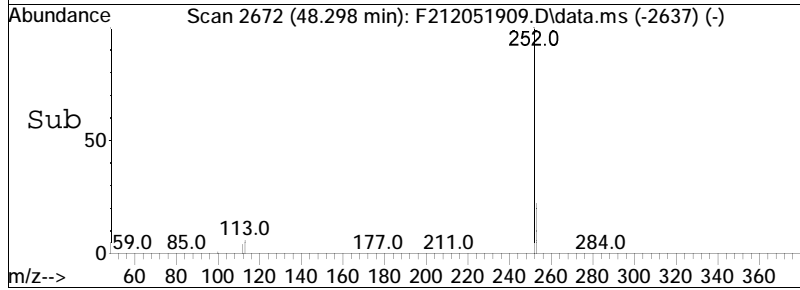
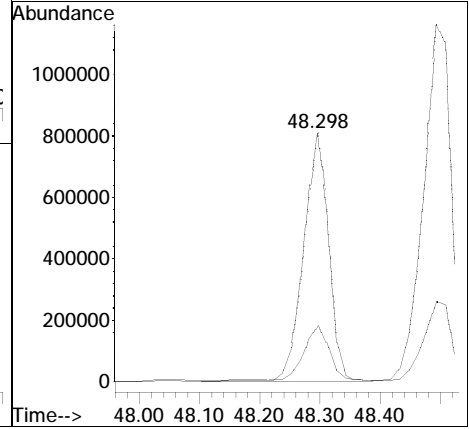
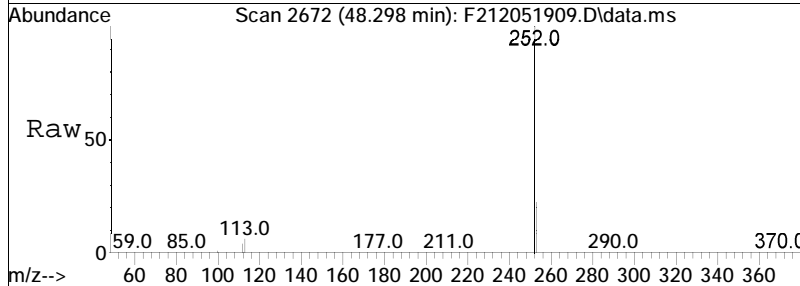
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.6	96.2	178.8#

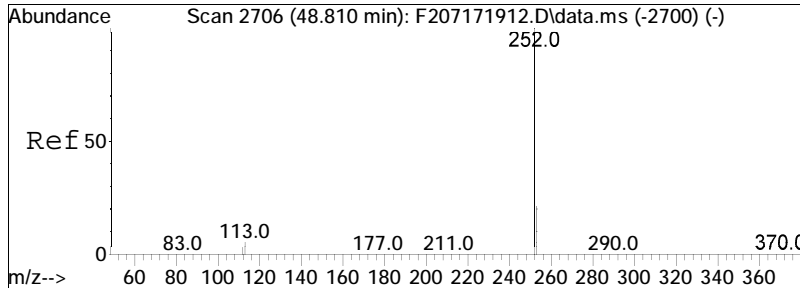




#87
 Benzo[e]pyrene
 Concen: 8226.61 ng/mL
 RT: 48.298 min Scan# 2672
 Delta R.T. 0.021 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

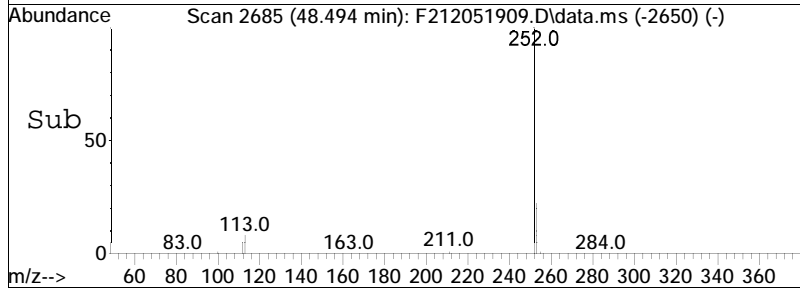
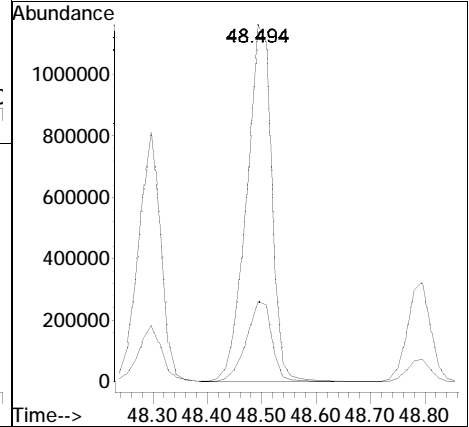
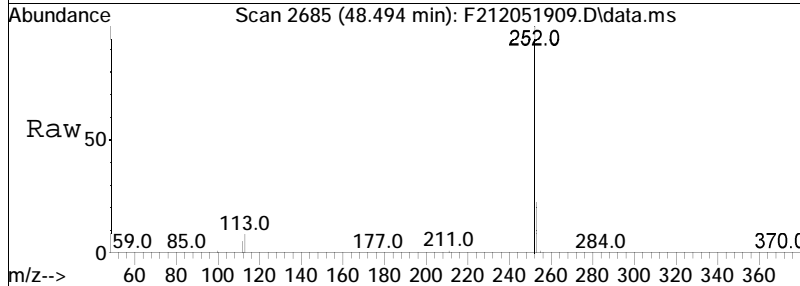
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.0	16.6	30.8

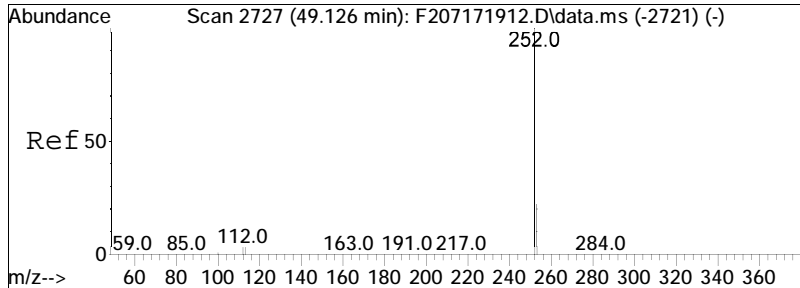




#89
 Benzo[a]pyrene
 Concen: 14411.20 ng/mL
 RT: 48.494 min Scan# 2685
 Delta R.T. 0.022 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

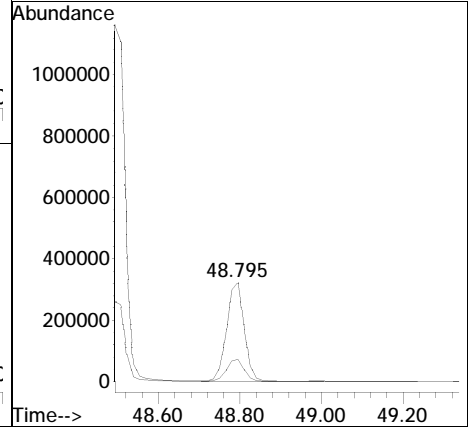
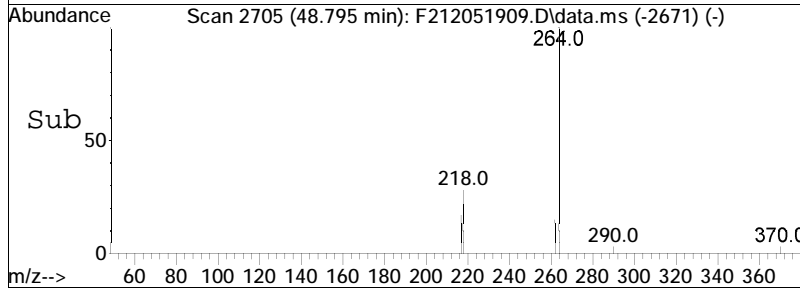
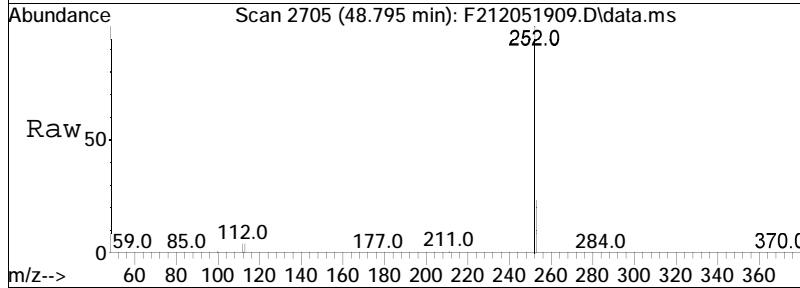
Tgt Ion: 252 Resp: 3727593
 Ion Ratio Lower Upper
 252 100
 253 22.5 16.7 31.1

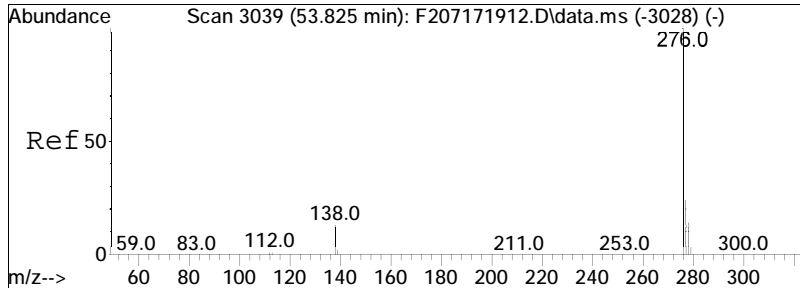




#90
 Perylene
 Concen: 3829.97 ng/mL
 RT: 48.795 min Scan# 2705
 Delta R.T. 0.008 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

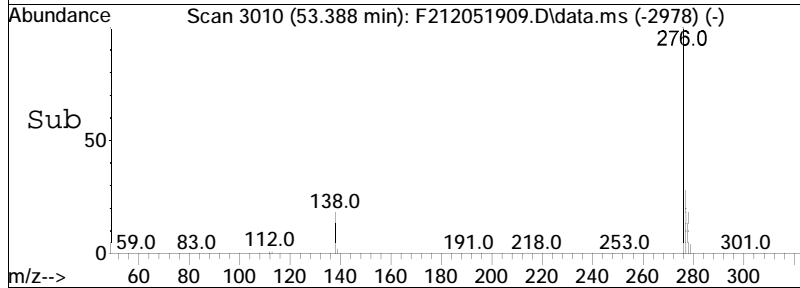
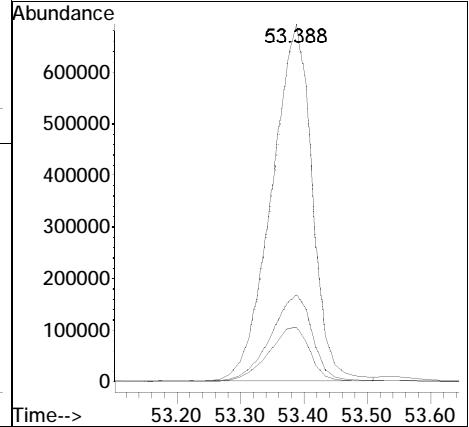
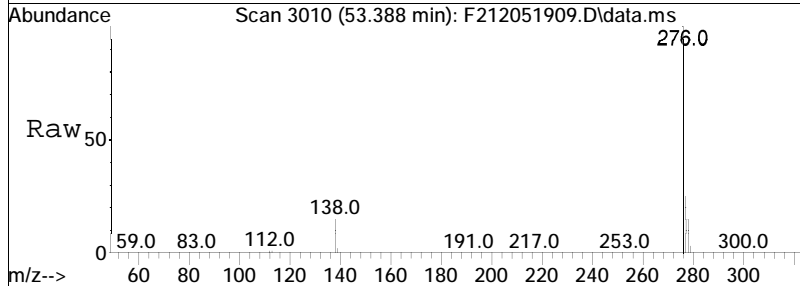
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.8	17.1	31.7

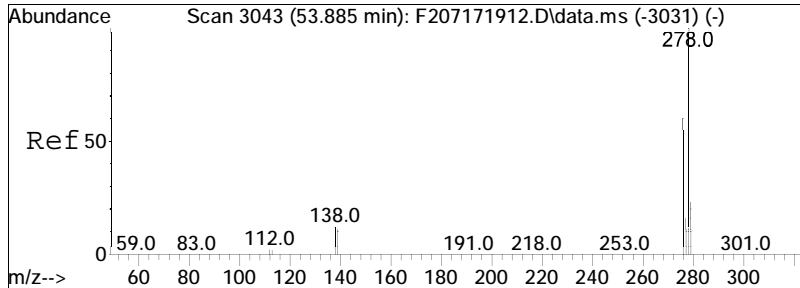




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 9833.31 ng/mL
 RT: 53.388 min Scan# 3010
 Delta R.T. -0.018 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

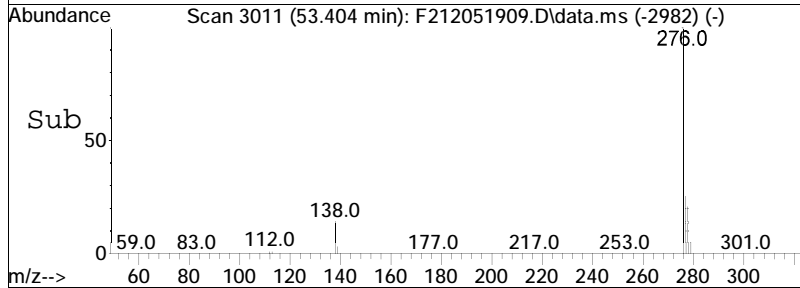
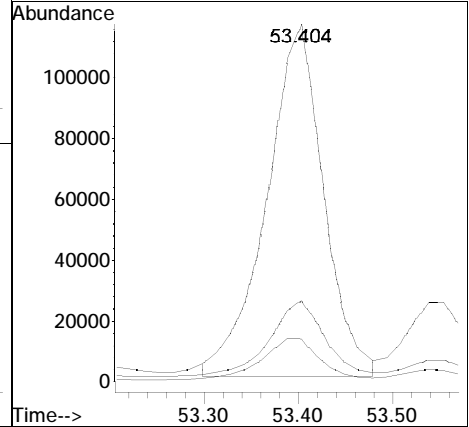
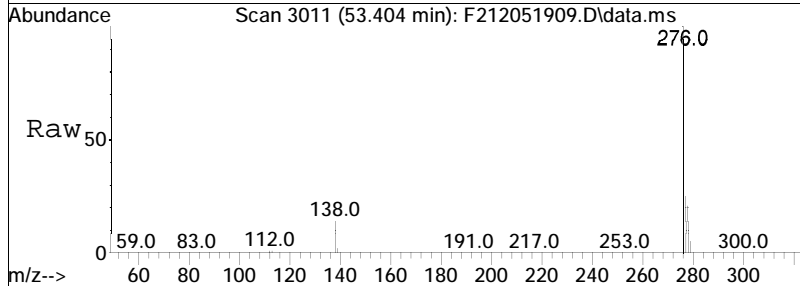
Tgt Ion	Resp	Lower	Upper
276	100		
138	16.1	11.3	20.9
277	25.0	16.8	31.2

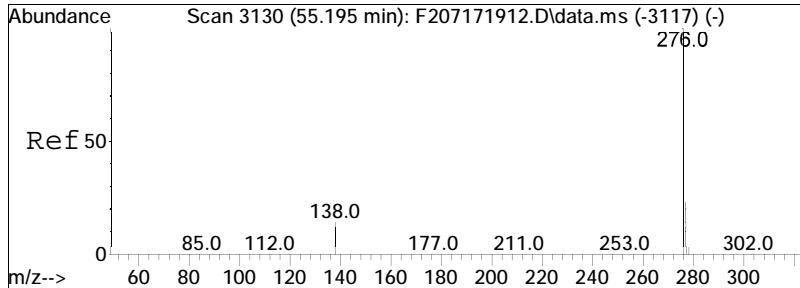




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 1724.14 ng/mL M4
 RT: 53.404 min Scan# 3011
 Delta R.T. -0.063 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

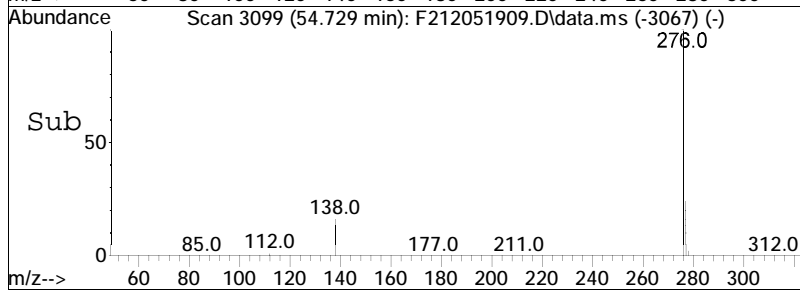
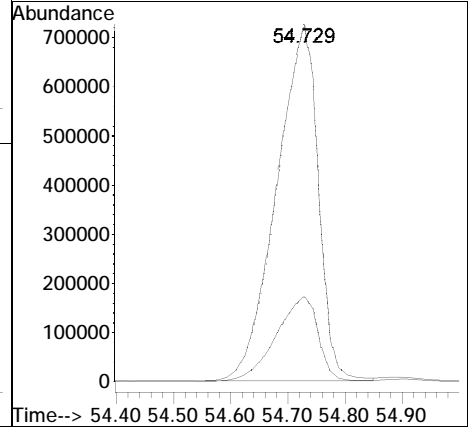
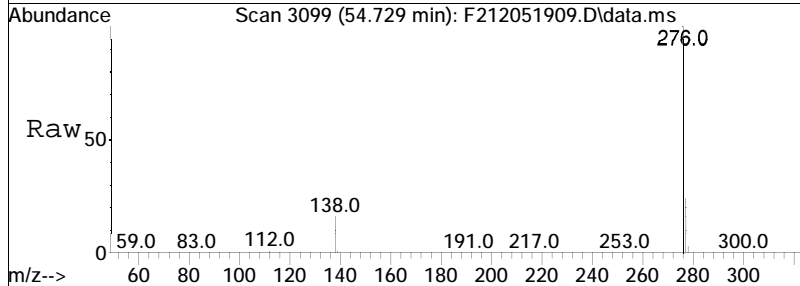
Tgt Ion	Resp	Lower	Upper
278	100		
139	13.4	9.2	17.2
279	24.2	16.6	30.8





#93
 Benzo[g,h,i]perylene
 Concen: 11797.12 ng/mL
 RT: 54.729 min Scan# 3099
 Delta R.T. -0.013 min
 Lab File: F212051909.D
 Acq: 5 Dec 2019 6:44 pm

Tgt Ion: 276 Resp: 3628544
 Ion Ratio Lower Upper
 276 100
 277 24.1 16.5 30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051910.D
 Acq On : 5 Dec 2019 8:12 pm
 Operator : PAH2:MJS
 Sample : L1954309-04d2,32,40
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 10 15:53:56 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 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	26.783	164	70374M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	116965	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	2833	10.920	ng/mL	-0.04
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1.09%#	
40) Phenanthrene-d10	32.654	188	2756	12.082	ng/mL	0.04
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1.21%#	
83) Benzo[b]fluoranthene-d12	47.184	264	3006	13.124	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1.31%#	
88) Benzo[a]pyrene-d12	48.373	264	2010	11.354	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1.14%#	
128) 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	19.888	128	4476069	15518.516	ng/mL	100
25) Acenaphthene	26.903	153	431838	2434.819	ng/mL	98
41) Phenanthrene	32.759	178	2630521	9088.729	ng/mL	99
56) Fluoranthene	37.532	202	1414815M4	4286.200	ng/mL	
59) Pyrene	38.420	202	1716372	5007.599	ng/mL	98

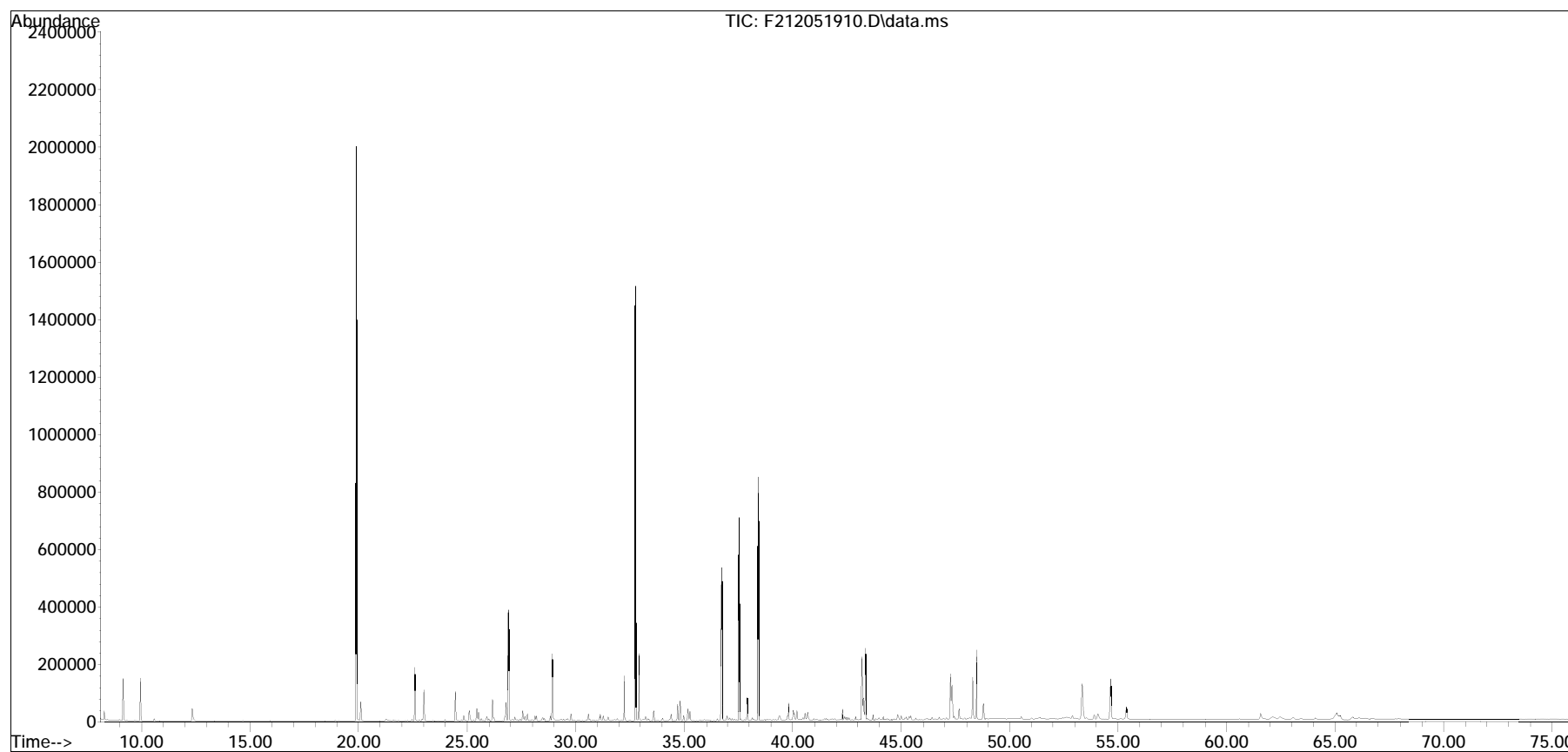
(#) = qualifier out of range (m) = manual integration (+) = signals summed

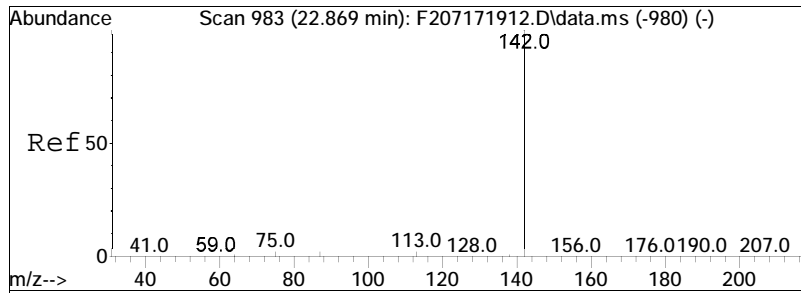
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051910.D
Acq On : 5 Dec 2019 8:12 pm
Operator : PAH2:MJS
Sample : L1954309-04d2,32,40
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 10 15:53:56 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

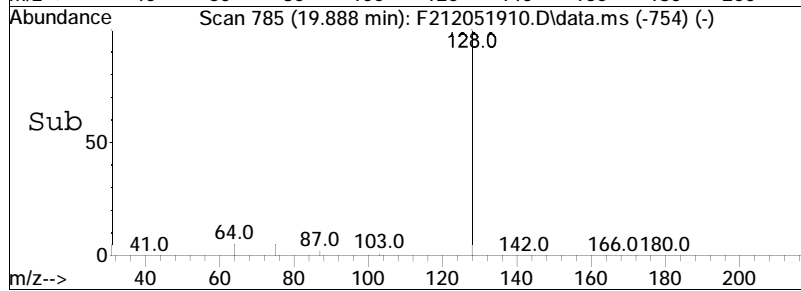
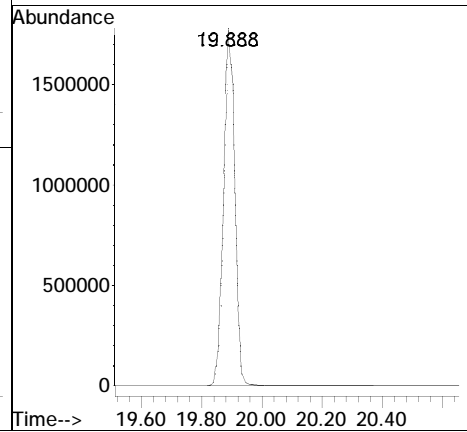
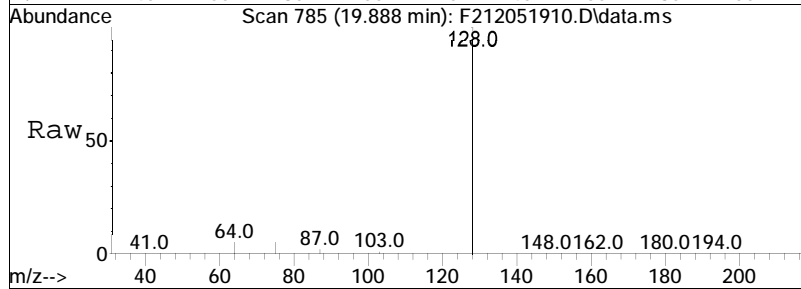
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

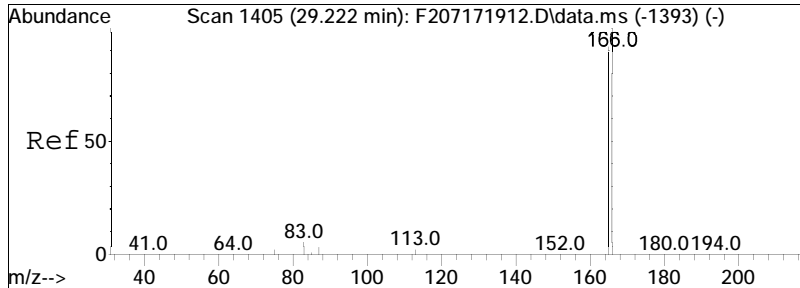




#9
 Naphthalene
 Concen: 15518.52 ng/mL
 RT: 19.888 min Scan# 785
 Delta R.T. -0.035 min
 Lab File: F212051910.D
 Acq: 5 Dec 2019 8:12 pm

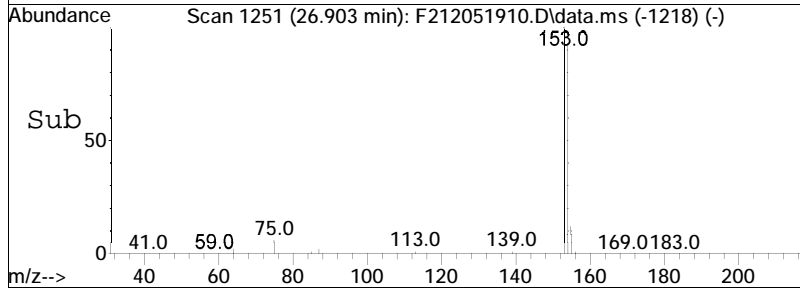
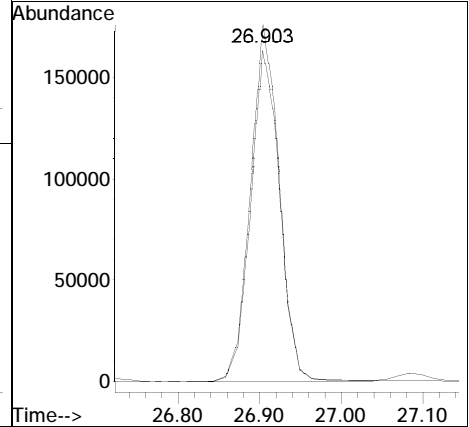
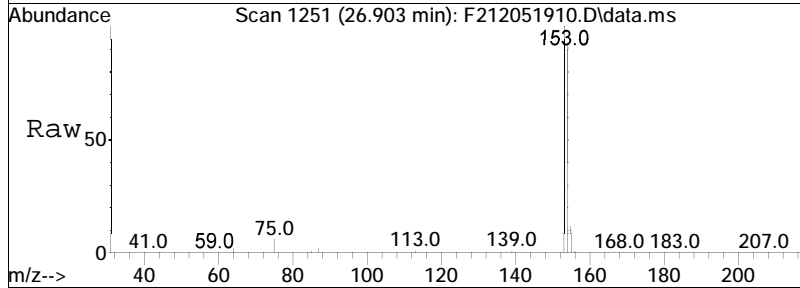
Tgt Ion:128 Resp: 4476069

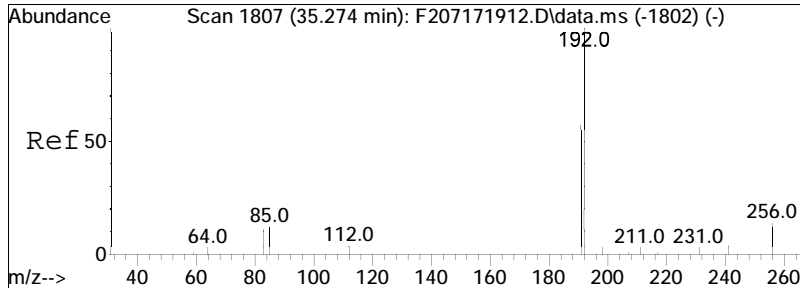




#25
 Acenaphthene
 Concen: 2434.82 ng/mL
 RT: 26.903 min Scan# 1251
 Delta R.T. 0.001 min
 Lab File: F212051910.D
 Acq: 5 Dec 2019 8:12 pm

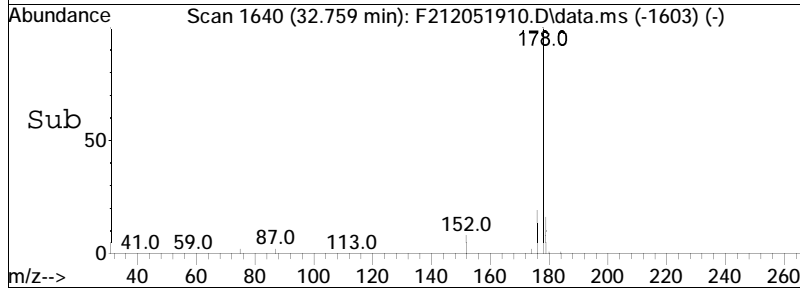
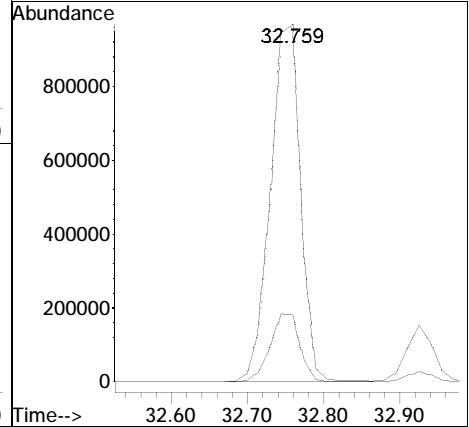
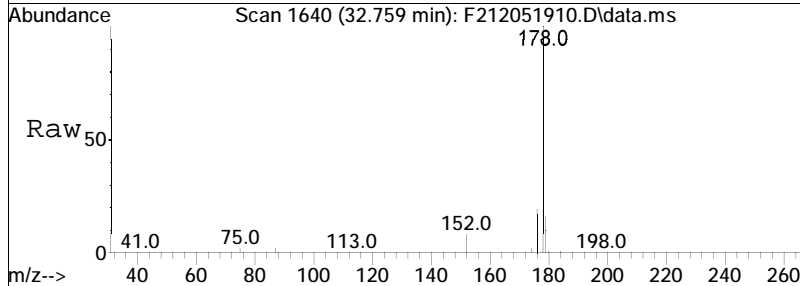
Tgt Ion: 153 Resp: 431838
 Ion Ratio Lower Upper
 153 100
 154 93.1 66.5 123.5

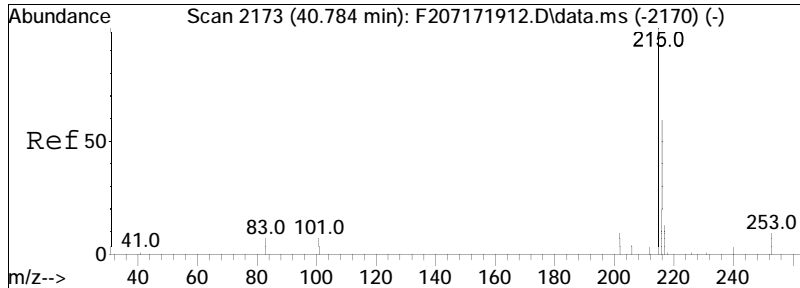




#41
 Phenanthrene
 Concen: 9088.73 ng/mL
 RT: 32.759 min Scan# 1640
 Delta R.T. 0.058 min
 Lab File: F212051910.D
 Acq: 5 Dec 2019 8:12 pm

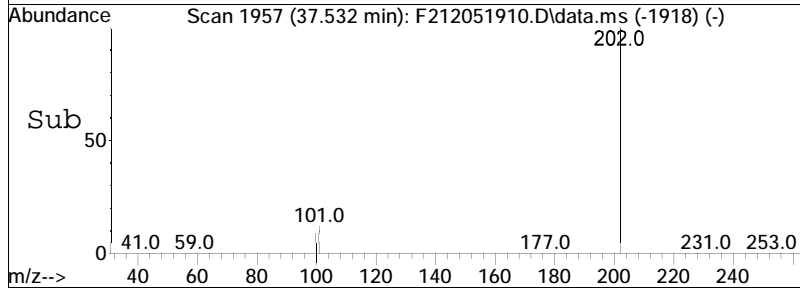
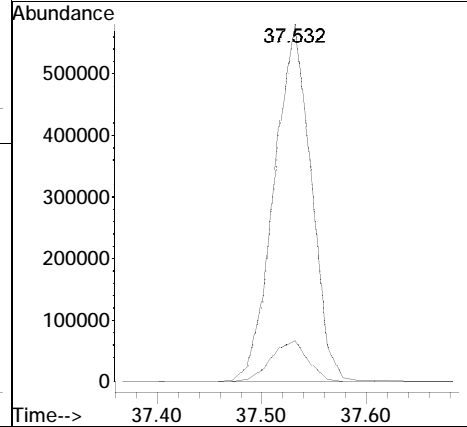
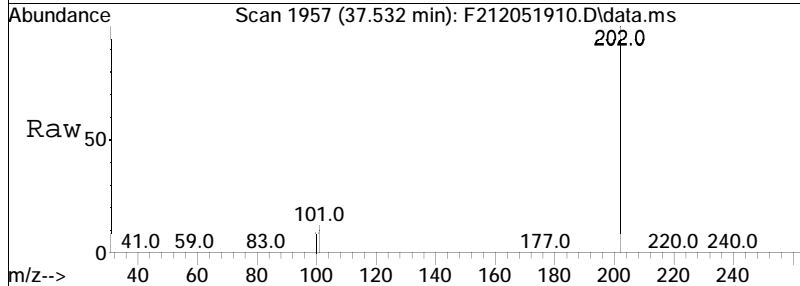
Tgt Ion: 178 Resp: 2630521
 Ion Ratio Lower Upper
 178 100
 176 18.9 13.0 24.1

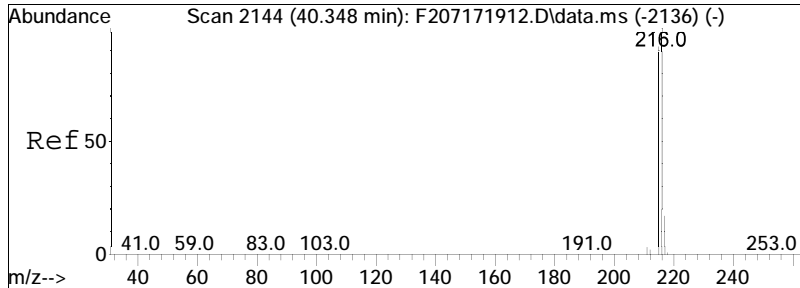




#56
 Fluoranthene
 Concen: 4286.20 ng/mL M4
 RT: 37.532 min Scan# 1957
 Delta R.T. 0.093 min
 Lab File: F212051910.D
 Acq: 5 Dec 2019 8:12 pm

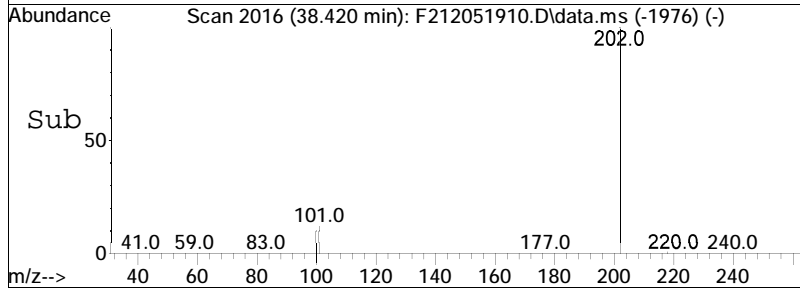
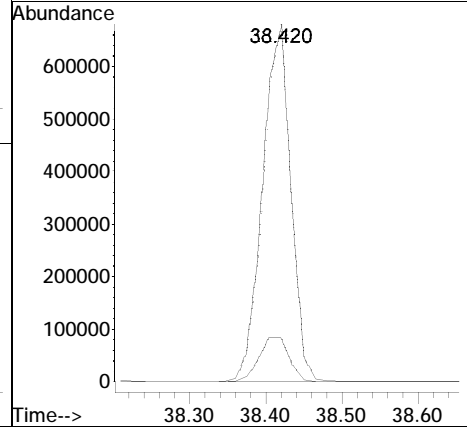
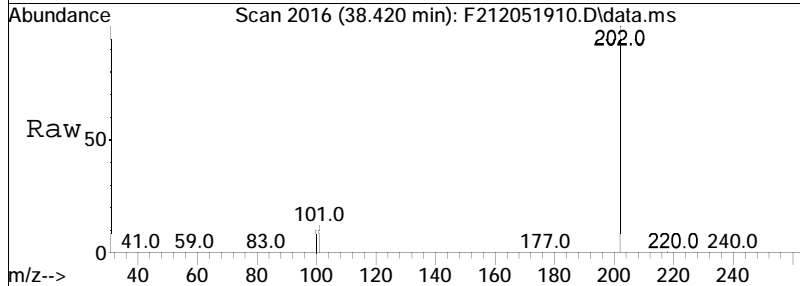
Tgt Ion: 202 Resp: 1414815
 Ion Ratio Lower Upper
 202 100
 101 11.9 8.0 14.8





#59
 Pyrene
 Concen: 5007.60 ng/mL
 RT: 38.420 min Scan# 2016
 Delta R.T. 0.099 min
 Lab File: F212051910.D
 Acq: 5 Dec 2019 8:12 pm

Tgt Ion: 202 Resp: 1716372
 Ion Ratio Lower Upper
 202 100
 101 13.6 9.0 16.8



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051911.D
 Acq On : 5 Dec 2019 9:39 pm
 Operator : PAH2:MJS
 Sample : L1954309-03d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 10 15:27:17 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	60414M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	102199	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	40698	182.740	ng/mL	-0.04
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	18.27%#	
40) Phenanthrene-d10	32.669	188	31843	162.614	ng/mL	0.06
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	16.26%#	
83) Benzo[b]fluoranthene-d12	47.184	264	39382	196.778	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	19.68%#	
88) Benzo[a]pyrene-d12	48.389	264	24603	159.053	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	15.91%#	
Target Compounds						
2) trans-Decalin	16.471	138	2844	61.065	ng/mL	100
3) cis-Decalin	17.690	138	477	13.280	ng/mL	100
4) C1-Decalins	18.398	152	11021M5	236.639	ng/mL	
5) C2-Decalins	19.738	166	21691M5	465.741	ng/mL	
6) C3-Decalins	22.207	180	16860M5	362.012	ng/mL	
7) C4-Decalins	24.480	194	17455M5	374.787	ng/mL	
9) Naphthalene	19.888	128	3295803	13310.345	ng/mL	100
10) C1-Naphthalenes	22.583	142	5219962M5	21081.204	ng/mL	
11) C2-Naphthalenes	25.428	156	4516513M5	18240.273	ng/mL	
12) C3-Naphthalenes	27.762	170	2633968M5	10637.475	ng/mL	
13) C4-Naphthalenes	30.532	184	1019787M5	4118.485	ng/mL	
14) 2-Methylnaphthalene	22.583	142	3314617	20290.194	ng/mL	100
15) 1-Methylnaphthalene	23.020	142	1901597	12118.881	ng/mL	100
16) Benzothiophene	20.114	134	194533	1007.859	ng/mL	100
17) C1-Benzo(b)thiophenes	22.448	148	406861M5	2107.912	ng/mL	
18) C2-Benzo(b)thiophenes	25.142	162	510943M5	2647.152	ng/mL	
19) C3-Benzo(b)thiophenes	27.250	176	354536M5	1836.821	ng/mL	
20) C4-Benzo(b)thiophenes	29.704	190	185558M5	961.360	ng/mL	
21) Biphenyl	24.465	154	397042	1996.945	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.082	156	1320141	9030.933	ng/mL	100
23) Dibenzofuran	27.551	168	247374	1170.300	ng/mL	94
24) Acenaphthylene	26.181	152	225311M3	924.054	ng/mL	
25) Acenaphthene	26.919	153	2255769	14815.456	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.469	170	200825M3	1503.937	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051911.D
 Acq On : 5 Dec 2019 9:39 pm
 Operator : PAH2:MJS
 Sample : L1954309-03d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 10 15:27:17 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.936	166	1366415	7923.277	ng/mL	96
28) C1-Fluorenes	31.164	180	732555M5	4247.784	ng/mL	
29) C2-Fluorenes	33.347	194	726203M5	4210.952	ng/mL	
30) C3-Fluorenes	35.334	208	507861M5	2944.876	ng/mL	
31) Dibenzothiophene	32.263	184	1586437	6791.938	ng/mL#	93
32) 4-Methyldibenzothiophene(	34.024	198	368140	1576.101	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.356	198	437542	1873.228	ng/mL	100
34) 1-Methyldibenzothiophene(	34.807	198	113000	483.782	ng/mL	100
36) C1-Dibenzothiophenes	34.024	198	1101844M5	4717.273	ng/mL	
36) C1-Dibenzothiophenes BS	34.024	198	1101844M5	4717.273	ng/mL	
37) C2-Dibenzothiophenes	36.087	212	987332M5	4227.018	ng/mL	
38) C3-Dibenzothiophenes	37.532	226	553339M5	2368.984	ng/mL	
39) C4-Dibenzothiophenes	39.219	240	215004M5	920.487	ng/mL	
41) Phenanthrene	32.790	178	13768533	55414.536	ng/mL	97
42) 3-Methylphenanthrene(3MP)	34.717	192	1713426	6896.066	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.837	192	2171280M3	8738.801	ng/mL	
44) 2-Methylanthracene(2MA)	34.988	192	485214	1952.852	ng/mL#	36
45) 9/4-Methylphenanthrene(9M	35.169	192	1011130	4069.518	ng/mL	88
47) C1-Phenanthrenes/Anthrace	34.837	192	6137668M5	24702.416	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.704	206	3807779M5	15325.257	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.704	206	3807779M5	15325.257	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.827	220	1555105M5	6258.867	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.040	234	501214M5	2017.248	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	32.940	178	2164393	10218.336	ng/mL	99
54) Carbazole	33.603	167	617967	3118.522	ng/mL	96
55) 1-Methylphenanthrene	35.259	192	752624M3	4044.850	ng/mL	
56) Fluoranthene	37.562	202	6040033M4	21315.067	ng/mL	
57) Benzo(b)fluorene	40.062	216	327459M3	1836.813	ng/mL	
58) 7H-Benzo(c)fluorene	40.107	216	103055M3	578.066	ng/mL	
59) Pyrene	38.451	202	8277493M3	28131.416	ng/mL	
60) 2-Methylpyrene	40.227	216	554262M3	1883.683	ng/mL	
61) 4-Methylpyrene	40.589	216	455398	1547.690	ng/mL	76
62) 1-Methylpyrene	40.694	216	450860	1532.267	ng/mL	72
63) C1-Fluoranthenes/Pyrenes	39.821	216	3253327M5	11056.572	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.290	230	1509886M5	5131.412	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.751	244	802904M5	2728.704	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.000	258	395758M5	1345.001	ng/mL	
67) Naphthobenzothiophene-2,1	42.275	234	426305	1693.833	ng/mL	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051911.D
 Acq On : 5 Dec 2019 9:39 pm
 Operator : PAH2:MJS
 Sample : L1954309-03d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 10 15:27:17 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.621	234	98923M3	393.050	ng/mL	
69) Naphthobenzothiophene-2,3	42.922	234	138642M3	550.865	ng/mL	
70) C1-Naphthobenzothiophenes	43.675	248	389783M5	1548.721	ng/ml	
71) C2-Naphthobenzothiophenes	45.181	262	298722M5	1186.909	ng/ml	
72) C3-Naphthobenzothiophenes	47.304	276	190761M5	757.949	ng/ml	
73) C4-Naphthobenzothiophenes	48.389	290	75181M5	298.716	ng/mL	
75) Benz[a]anthracene	43.209	228	1848090M3	7917.461	ng/mL	
76) Chrysene	43.374	228	2215830	9324.524	ng/mL	100
78) C1-Chrysenes	44.850	242	1268968M5	5339.995	ng/mL	
79) C2-Chrysenes	46.551	256	864085M5	3636.191	ng/mL	
79) C2-Chrysenes BS	46.551	256	858391M5	3612.230	ng/mL	
81) C3-Chrysenes	48.163	270	470105M5	1978.268	ng/mL	
82) C4-Chrysenes	49.172	284	190474M5	801.541	ng/mL	
84) Benzo[b]fluoranthene	47.274	252	1331841	4712.992	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.349	252	1342610	4722.718	ng/mL	97
86) Benzo[a]fluoranthene	47.651	252	378055M3	1329.833	ng/mL	
87) Benzo[e]pyrene	48.283	252	1336882	4925.322	ng/mL	97
89) Benzo[a]pyrene	48.479	252	2149321	8649.896	ng/mL	98
90) Perylene	48.780	252	531770	2190.637	ng/mL	96
91) Indeno[1,2,3-cd]pyrene	53.374	276	1667762	5641.892	ng/mL	99
92) Dibenz[ah]+[ac]anthracene	53.389	278	293469M3	1088.045	ng/mL	
93) Benzo[g,h,i]perylene	54.699	276	2052345	6945.951	ng/mL	99

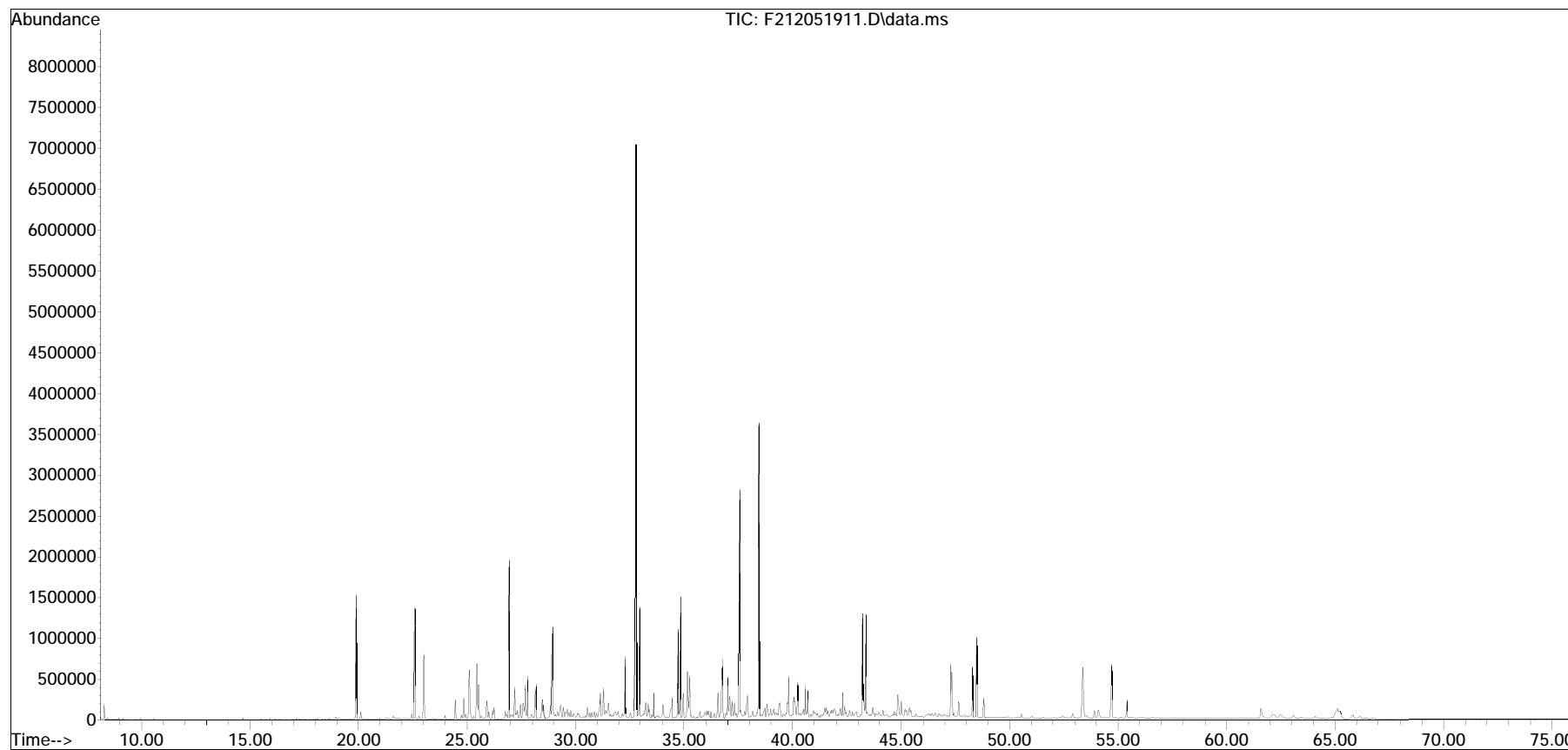
(#) = qualifier out of range (m) = manual integration (+) = signals summed

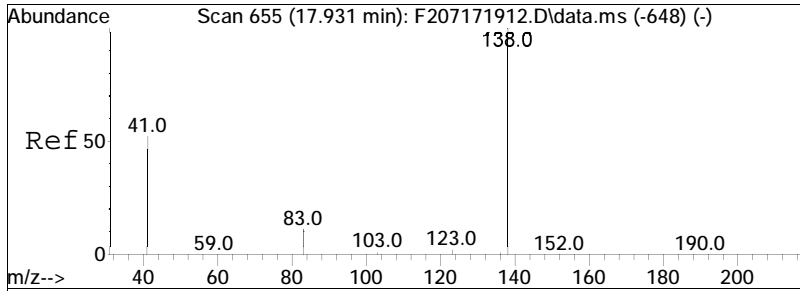
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051911.D
Acq On : 5 Dec 2019 9:39 pm
Operator : PAH2:MJS
Sample : L1954309-03d,32,4
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 11 Sample Multiplier: 1

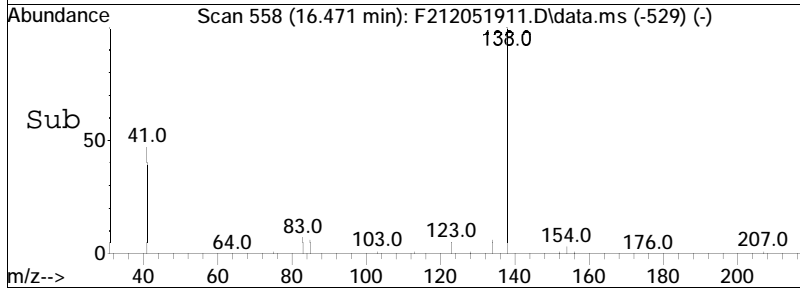
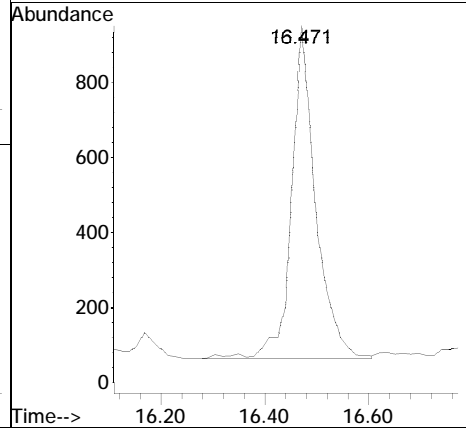
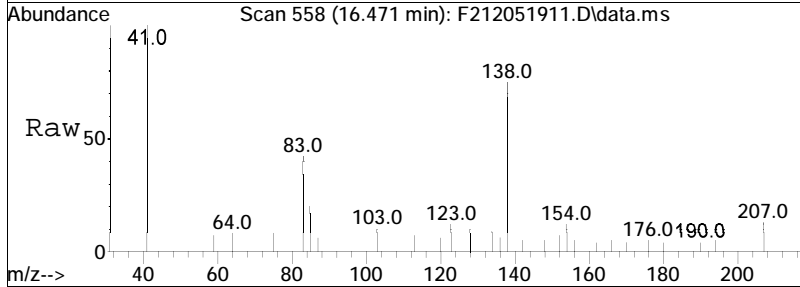
Quant Time: Dec 10 15:27:17 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

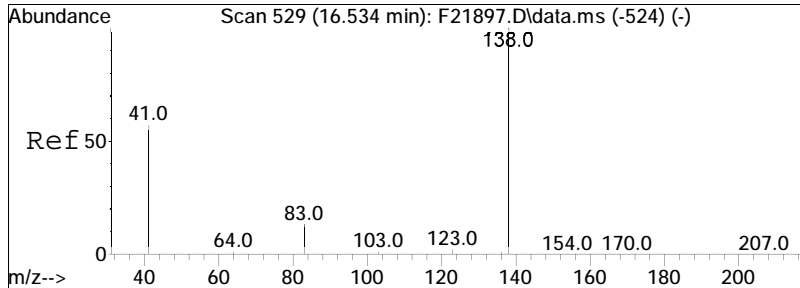
Sub List : ALKPAH - POI+MP+BcF



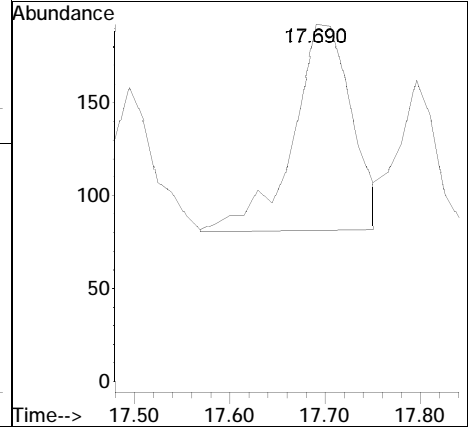
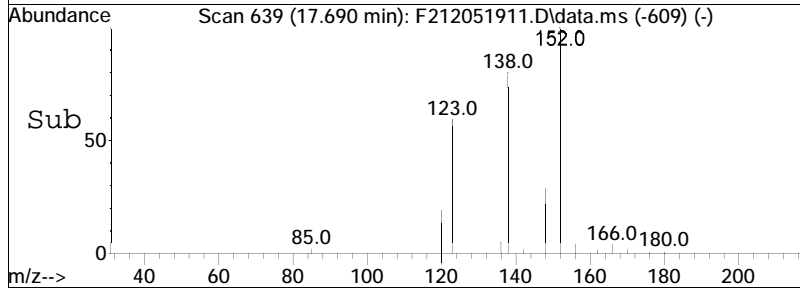
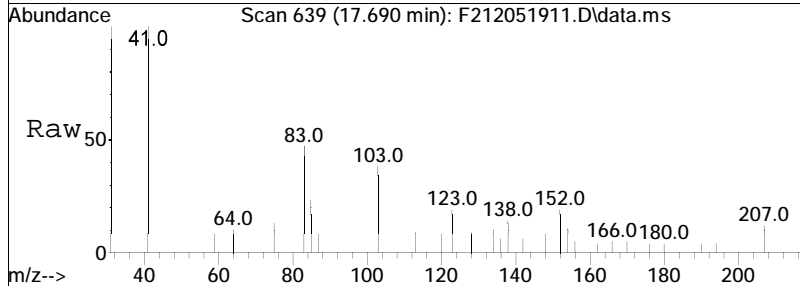


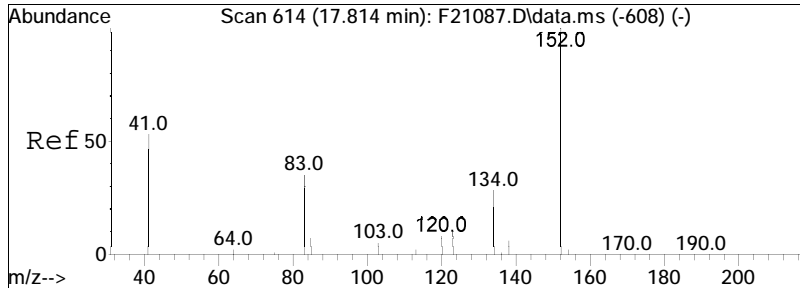
#2
 trans-Decalin
 Concen: 61.07 ng/mL
 RT: 16.471 min Scan# 558
 Delta R.T. -0.060 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:138 Resp: 2844



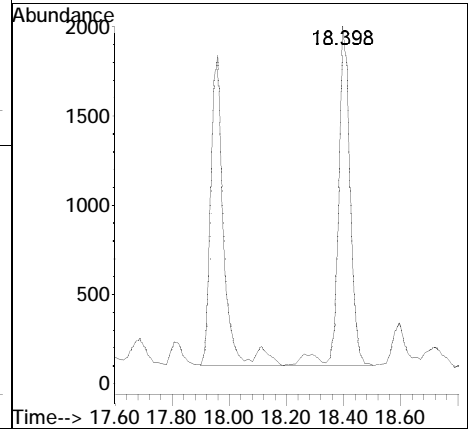
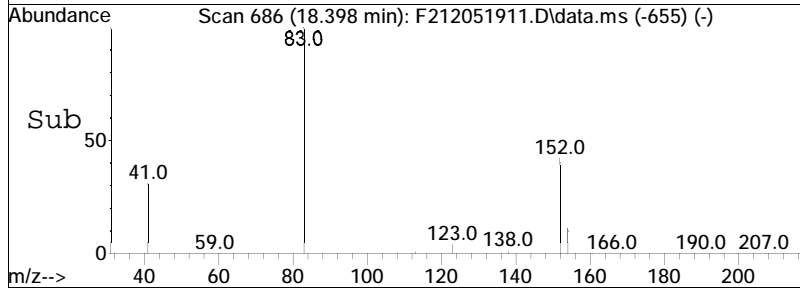
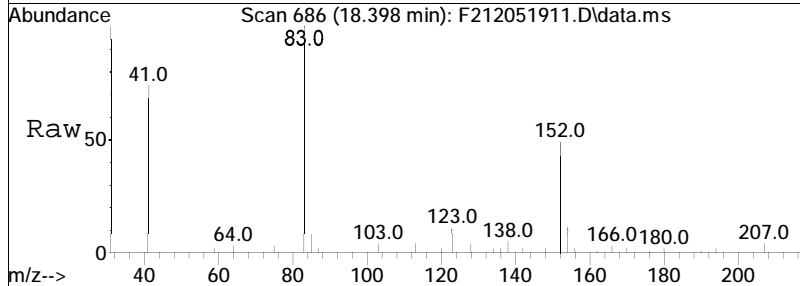


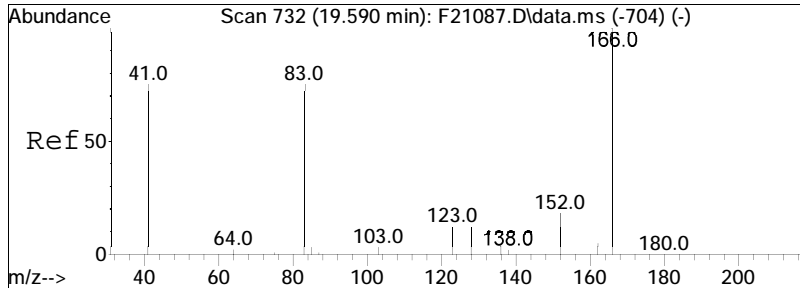
#3
 cis-Decalin
 Concen: 13.28 ng/mL
 RT: 17.690 min Scan# 639
 Delta R.T. -0.051 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:138 Resp: 477



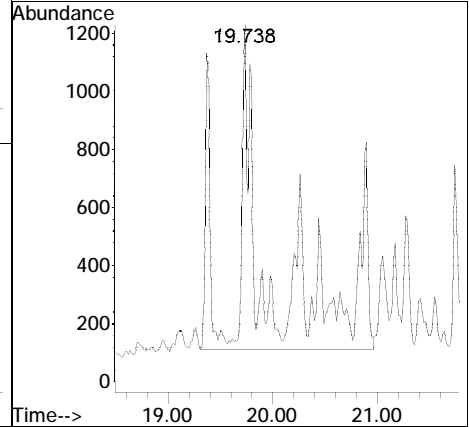
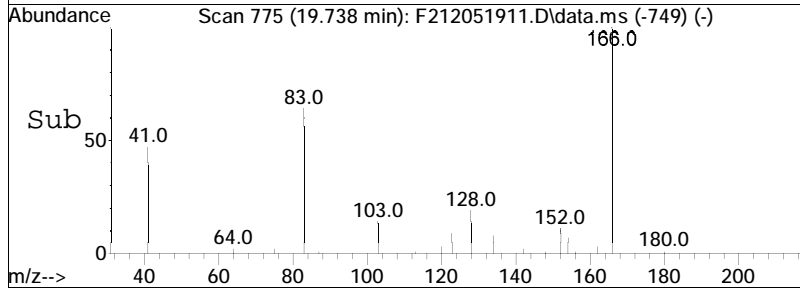
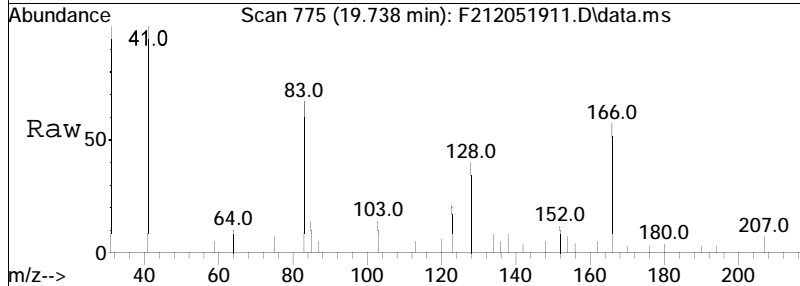


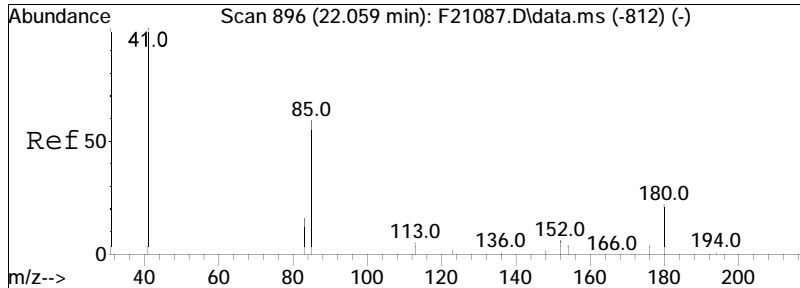
#4
 C1-Decalins
 Concen: 236.64 ng/mL M5
 RT: 18.398 min Scan# 686
 Delta R.T. -0.061 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:152 Resp: 11021



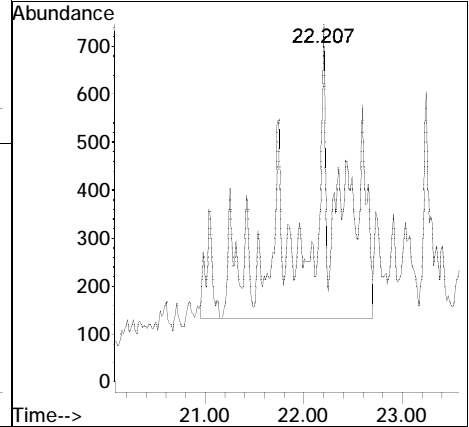
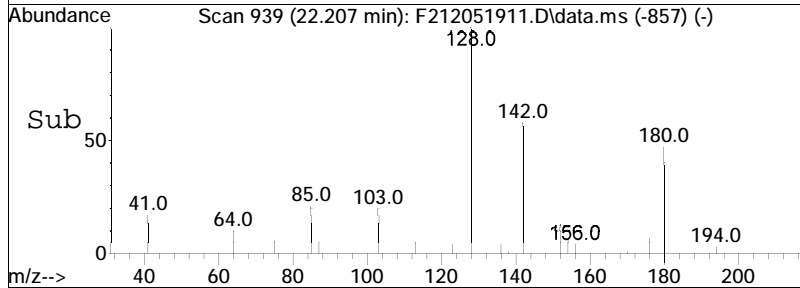
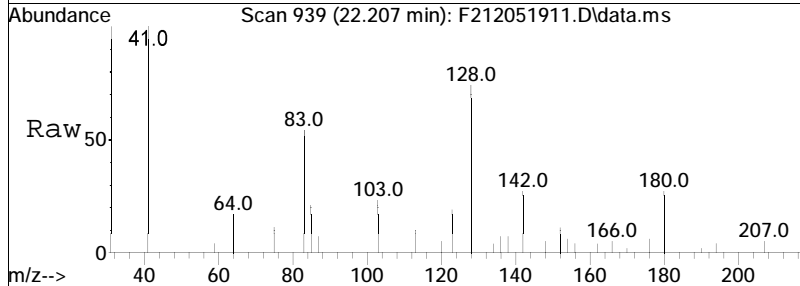


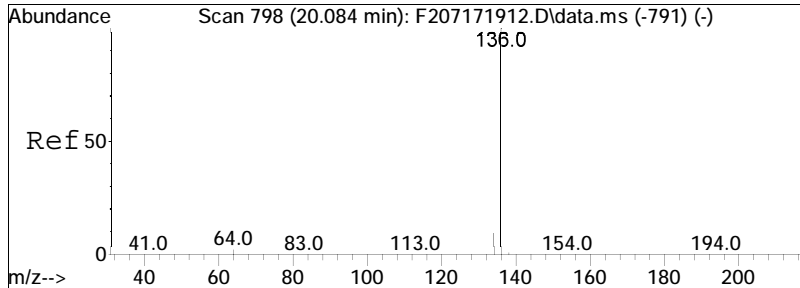
#5
 C2-Decalins
 Concen: 465.74 ng/mL M5
 RT: 19.738 min Scan# 775
 Delta R.T. -0.036 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:166 Resp: 21691



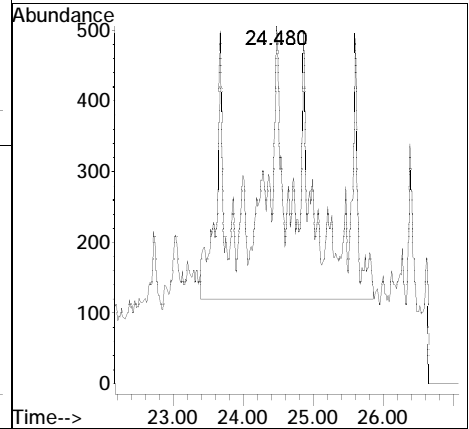
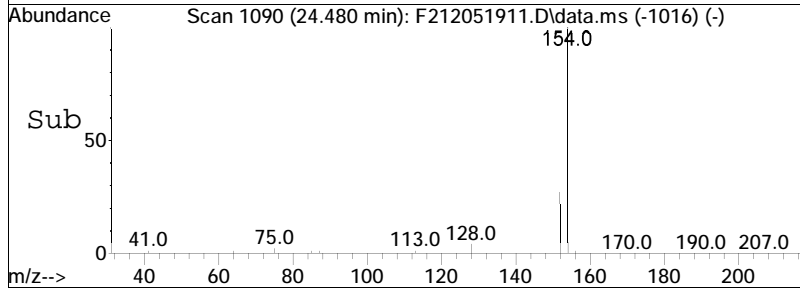
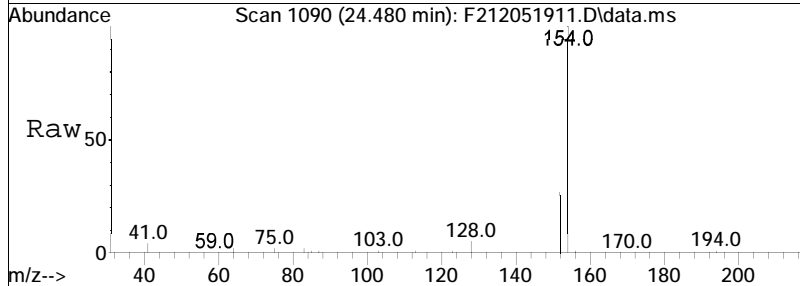


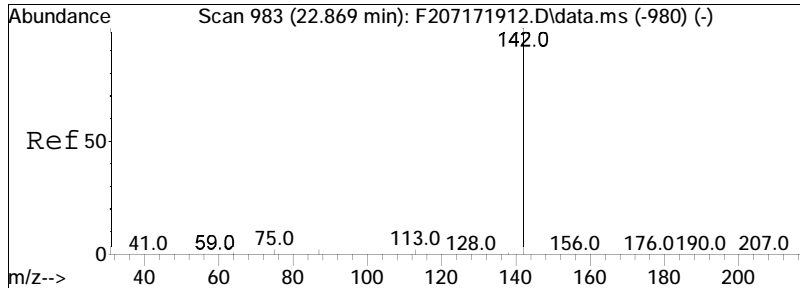
#6
 C3-Decalins
 Concen: 362.01 ng/mL M5
 RT: 22.207 min Scan# 939
 Delta R.T. -0.046 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:180 Resp: 16860



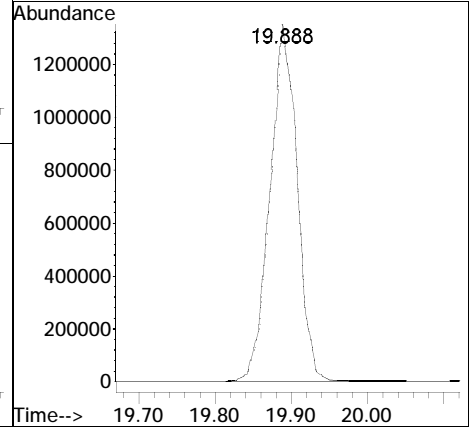
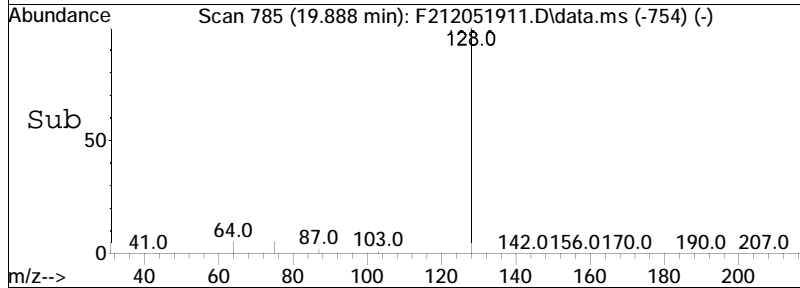
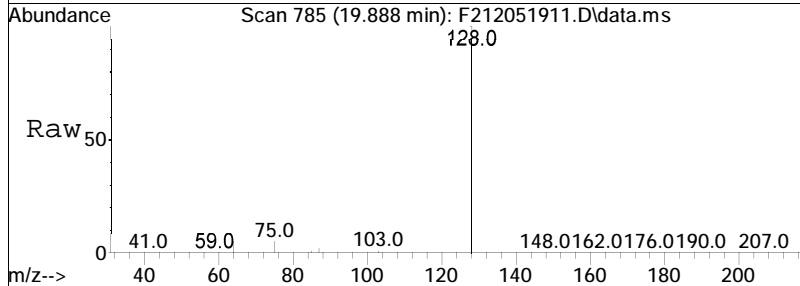


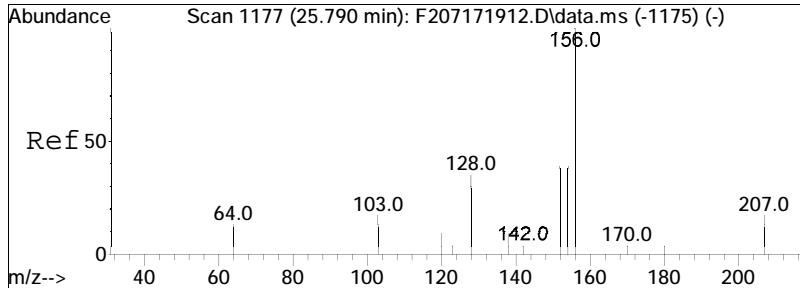
#7
 C4-Decalins
 Concen: 374.79 ng/mL M5
 RT: 24.480 min Scan# 1090
 Delta R.T. -1.126 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:194 Resp: 17455



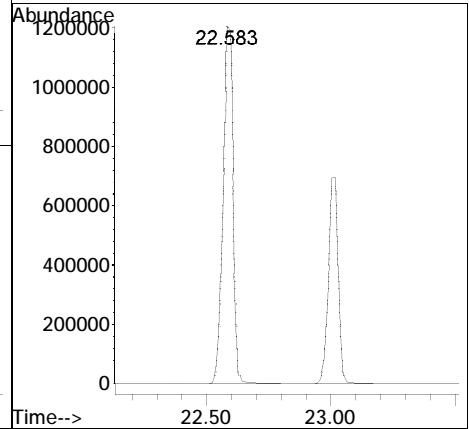
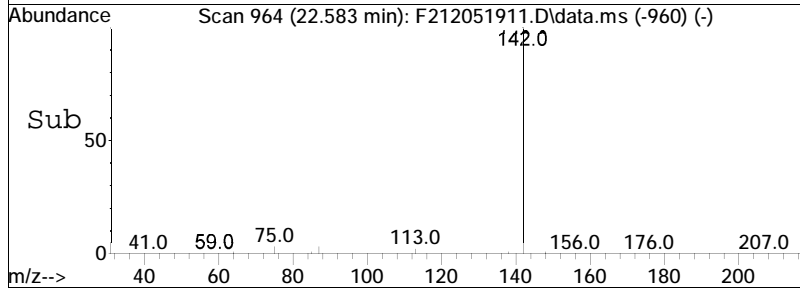
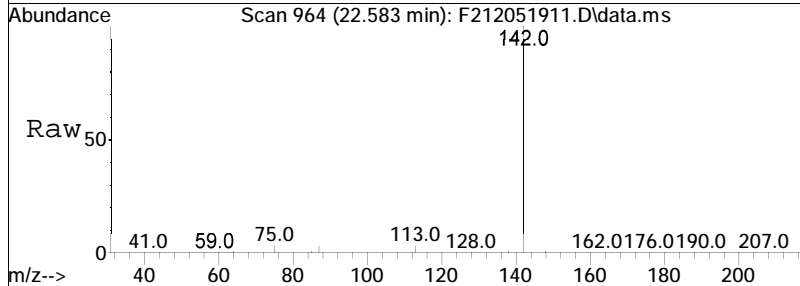


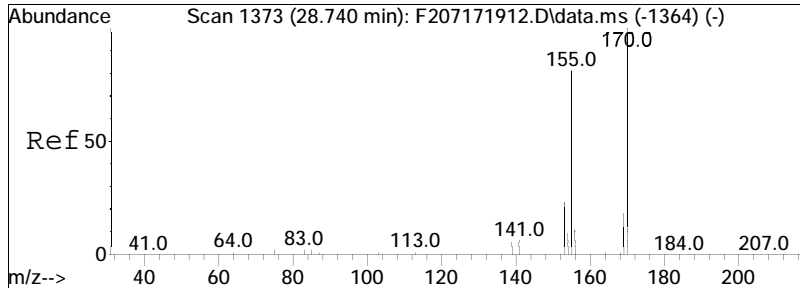
#9
 Naphthalene
 Concen: 13310.34 ng/mL
 RT: 19.888 min Scan# 785
 Delta R.T. -0.035 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:128 Resp: 3295803



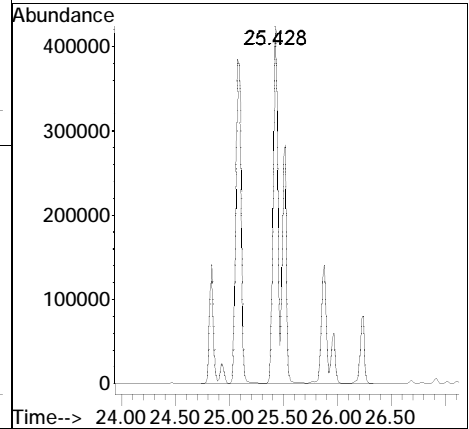
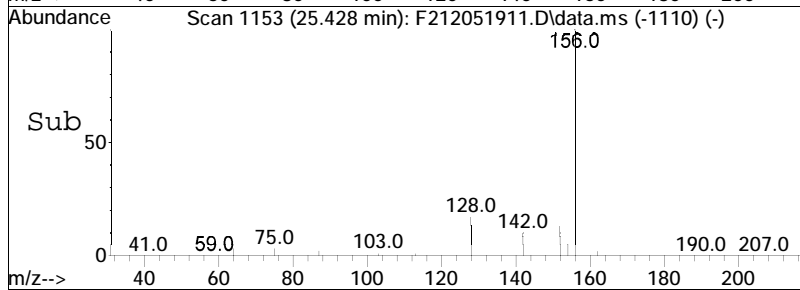
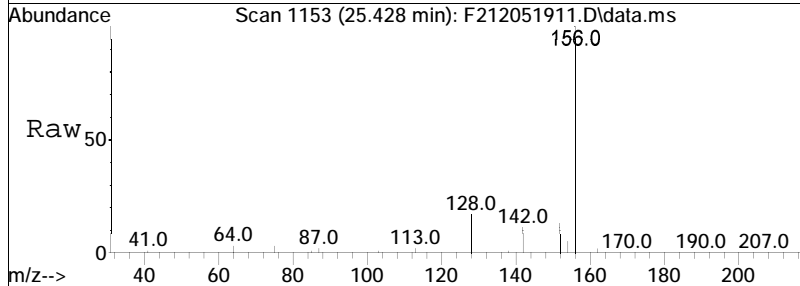


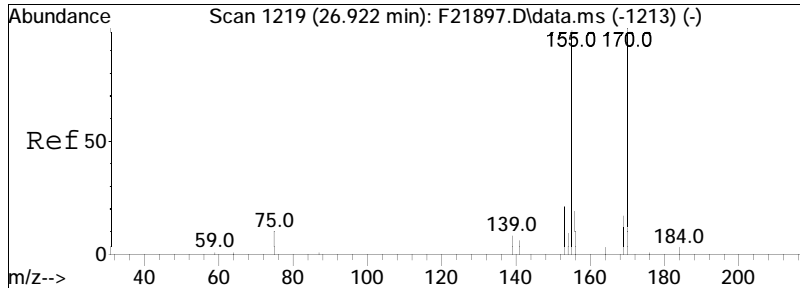
#10
 Cl-Naphthalenes
 Concen: 21081.20 ng/mL M5
 RT: 22.583 min Scan# 964
 Delta R.T. -0.021 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:142 Resp: 5219962





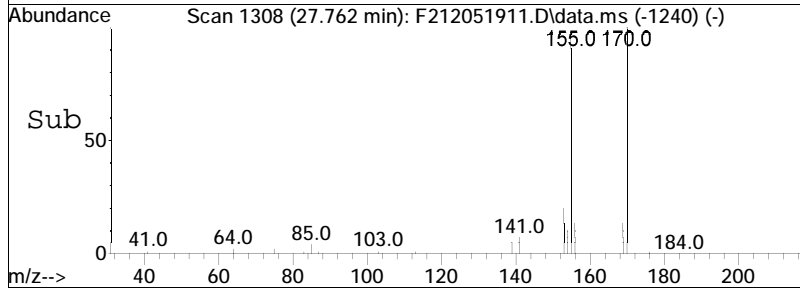
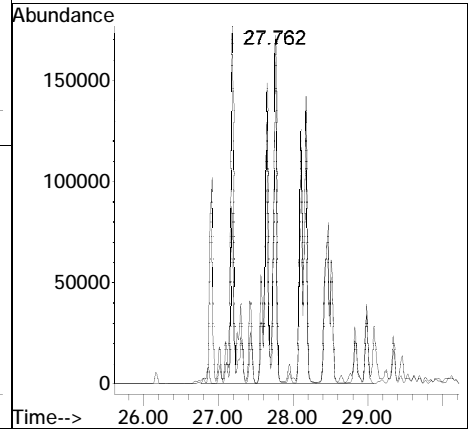
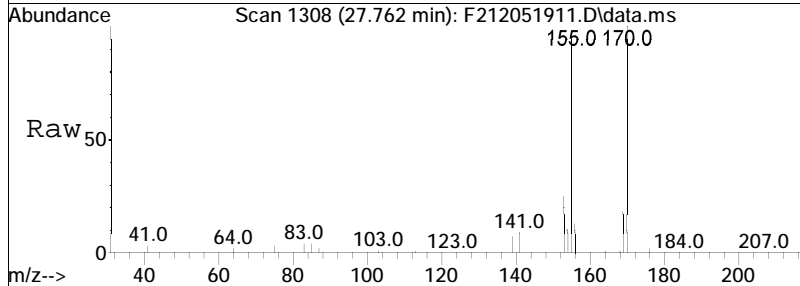
#11
 C2-Naphthalenes
 Concen: 18240.27 ng/mL M5
 RT: 25.428 min Scan# 1153
 Delta R.T. -0.014 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:156 Resp: 4516513

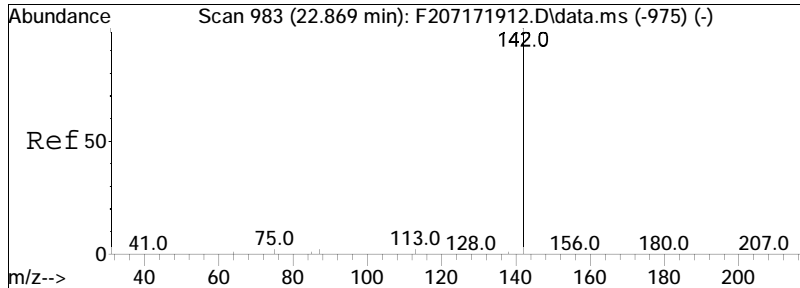




#12
 C3-Naphthalenes
 Concen: 10637.48 ng/mL M5
 RT: 27.762 min Scan# 1308
 Delta R.T. 0.010 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

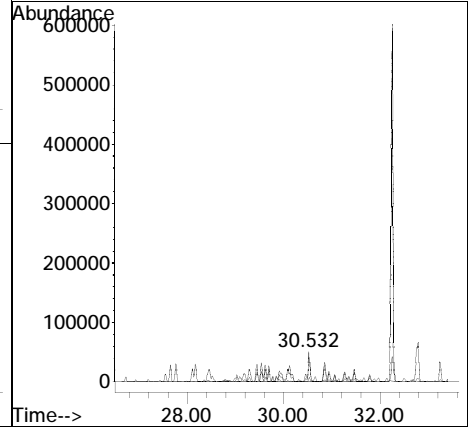
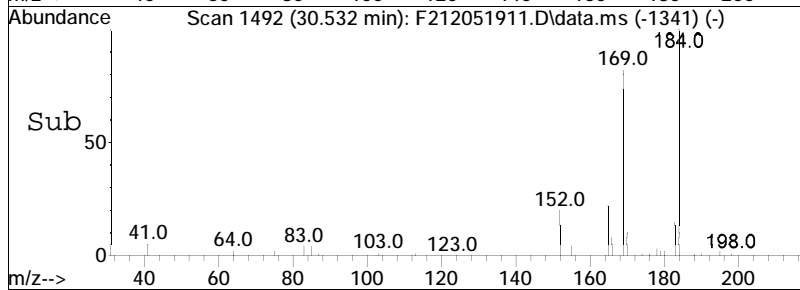
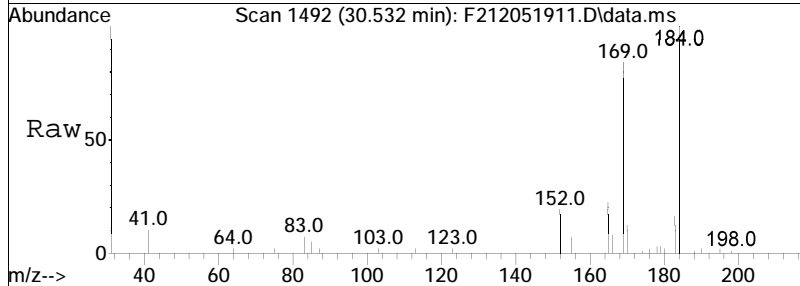
Tgt Ion: 170 Resp: 2633968
 Ion Ratio Lower Upper
 170 100
 155 16.3 66.8 124.0#

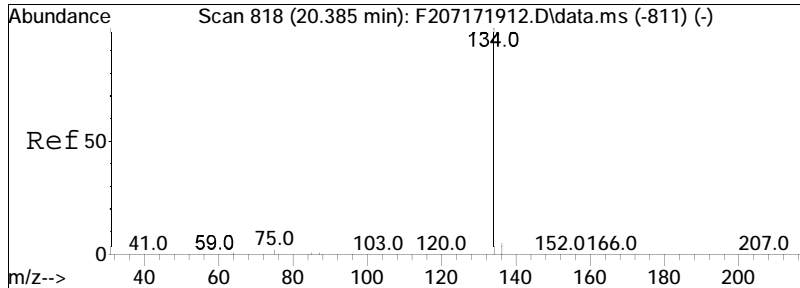




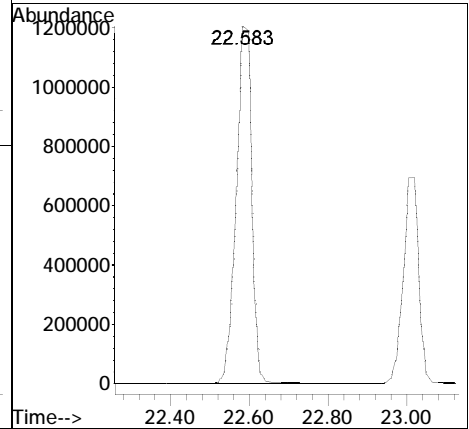
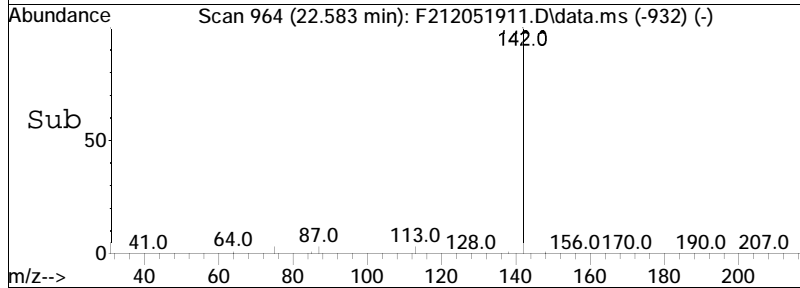
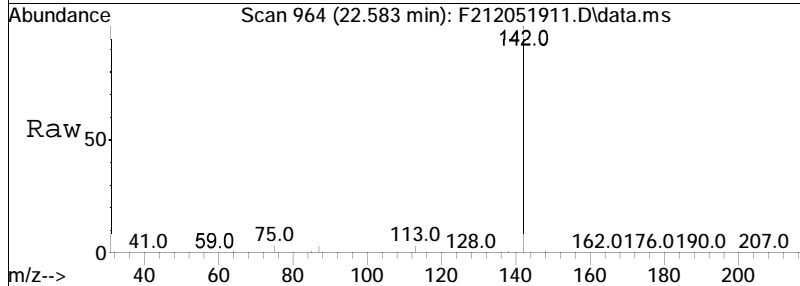
#13
 C4-Naphthalenes
 Concen: 4118.49 ng/mL M5
 RT: 30.532 min Scan# 1492
 Delta R.T. 0.038 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

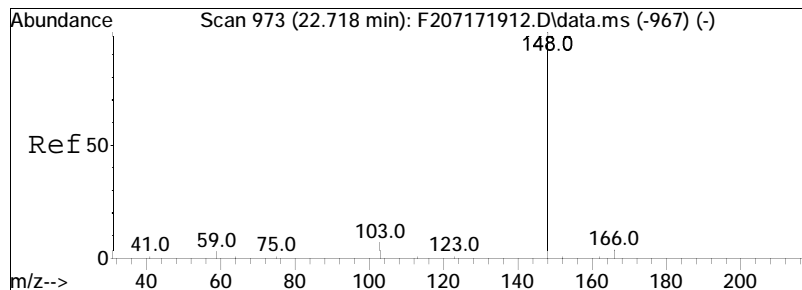
Tgt Ion	Resp	Lower	Upper
184	1019787		
184	100		
169	2.8	65.7	121.9#
183	0.7	22.5	41.9#



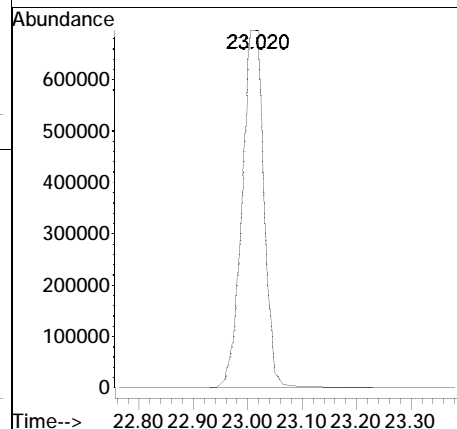
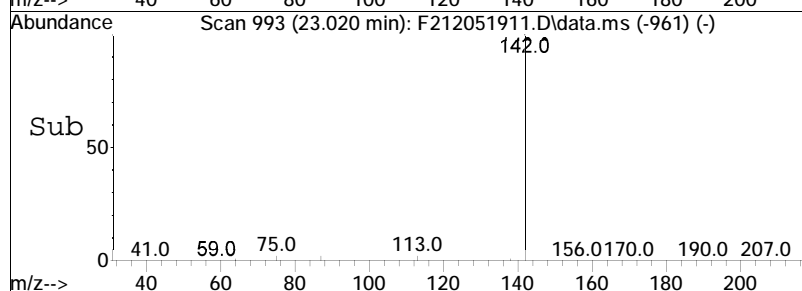
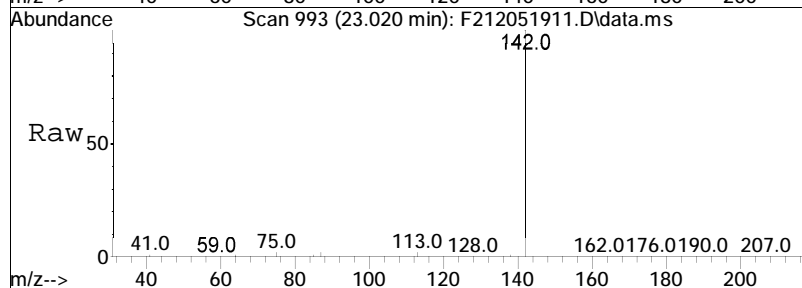


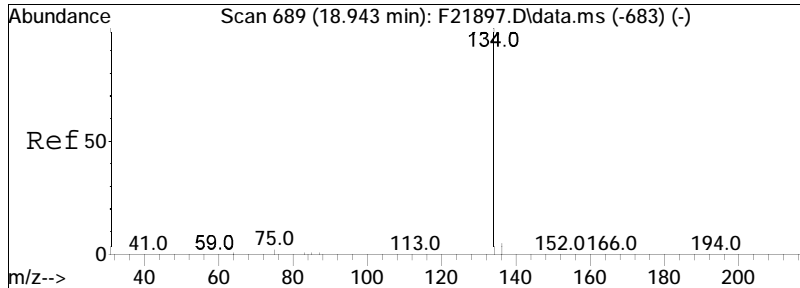
#14
 2-Methylnaphthalene
 Concen: 20290.19 ng/mL
 RT: 22.583 min Scan# 964
 Delta R.T. -0.016 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:142 Resp: 3314617



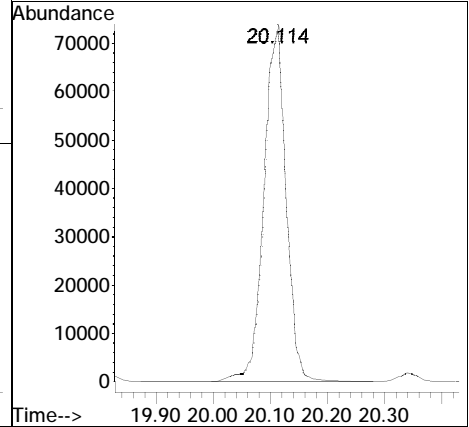
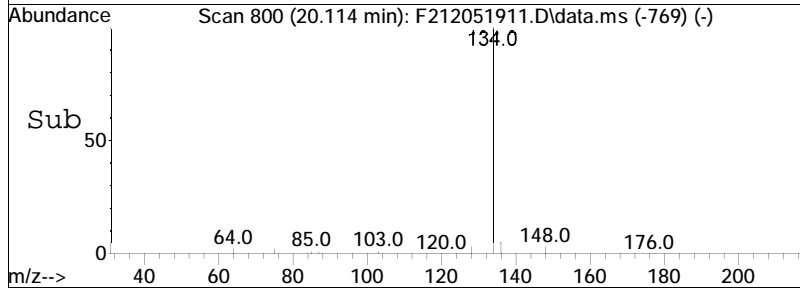
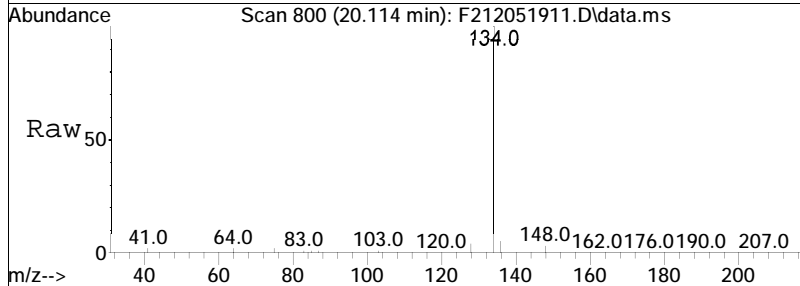


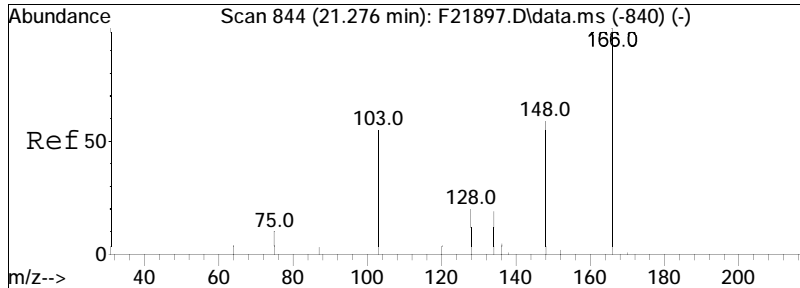
#15
 1-Methylnaphthalene
 Concen: 12118.88 ng/mL
 RT: 23.020 min Scan# 993
 Delta R.T. -0.012 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:142 Resp: 1901597



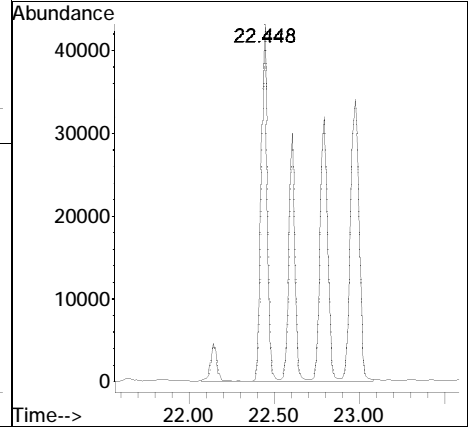
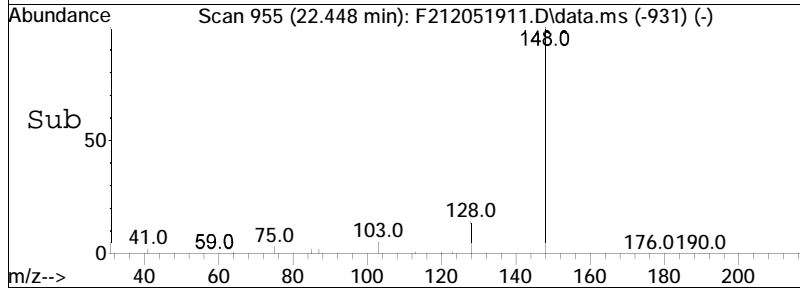
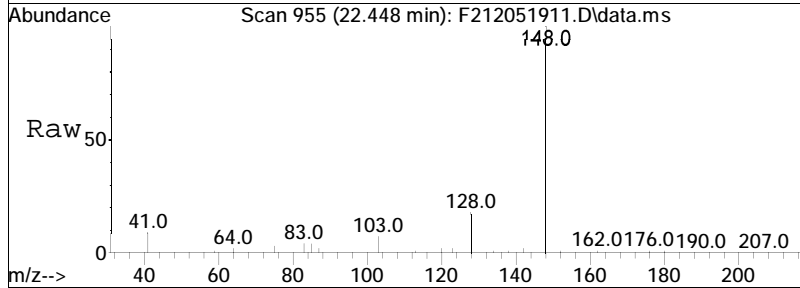


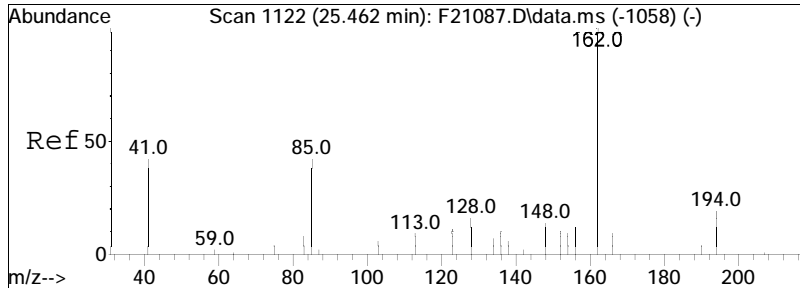
#16
 Benzothiophene
 Concen: 1007.86 ng/mL
 RT: 20.114 min Scan# 800
 Delta R.T. -0.033 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:134 Resp: 194533



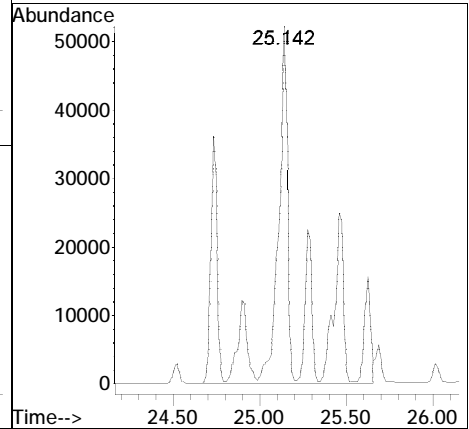
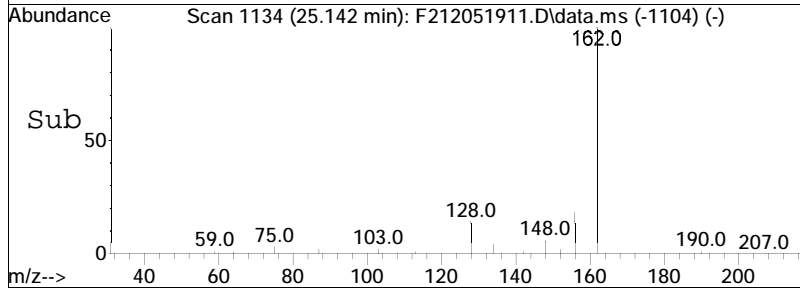
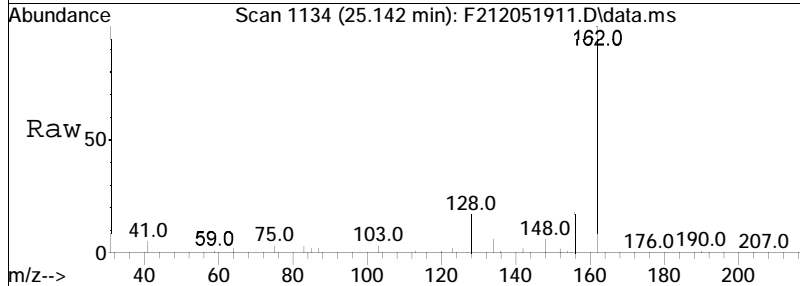


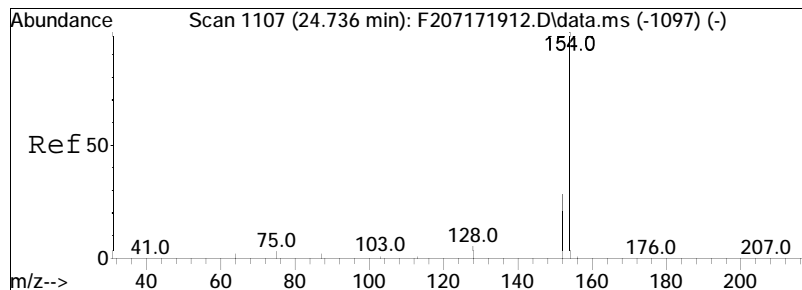
#17
 Cl-Benzo(b)thiophenes
 Concen: 2107.91 ng/mL M5
 RT: 22.448 min Scan# 955
 Delta R.T. 0.270 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:148 Resp: 406861



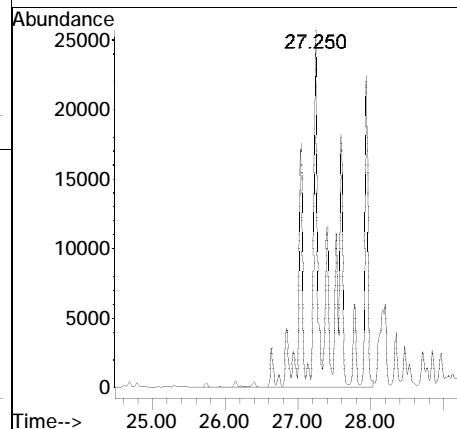
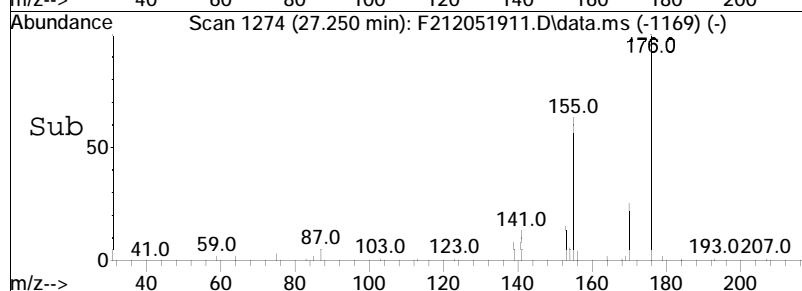
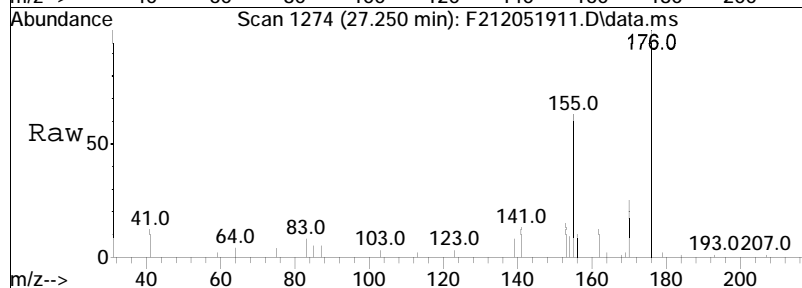


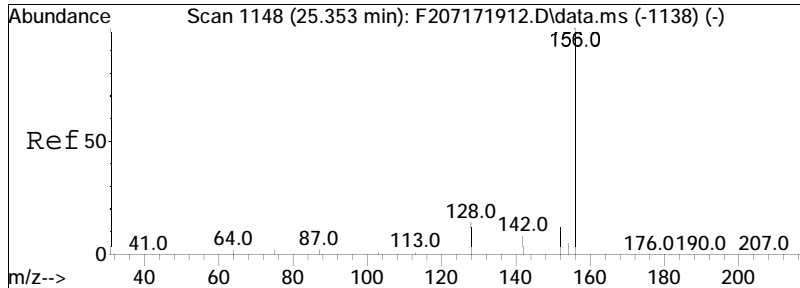
#18
 C2-Benzo(b)thiophenes
 Concen: 2647.15 ng/mL M5
 RT: 25.142 min Scan# 1134
 Delta R.T. -0.493 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:162 Resp: 510943



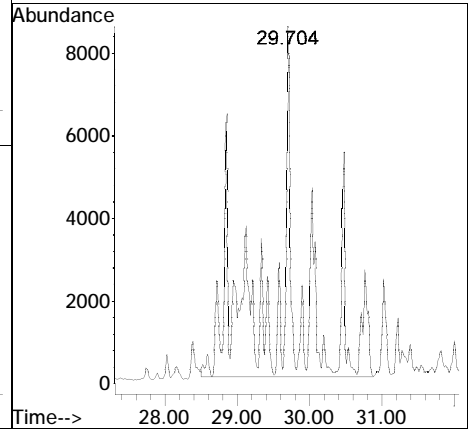
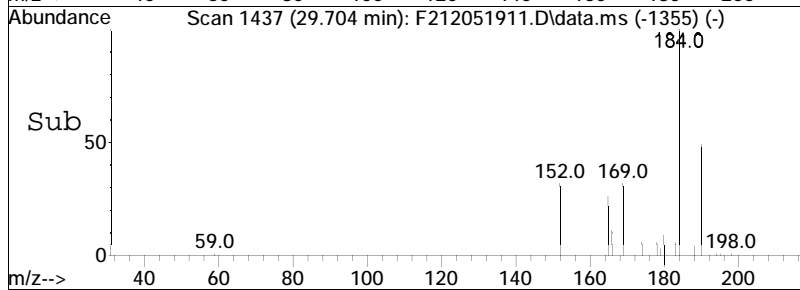
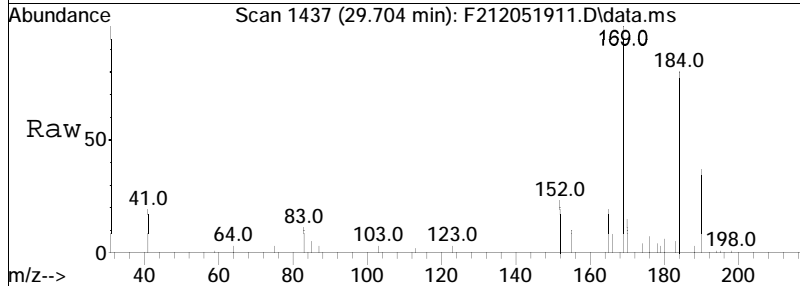


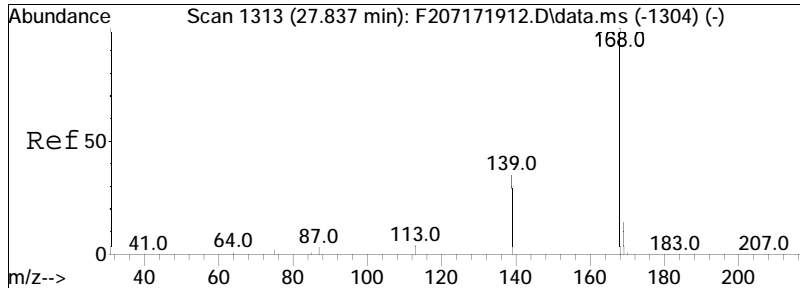
#19
 C3-Benzo(b)thiophenes
 Concen: 1836.82 ng/mL M5
 RT: 27.250 min Scan# 1274
 Delta R.T. -0.338 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:176 Resp: 354536



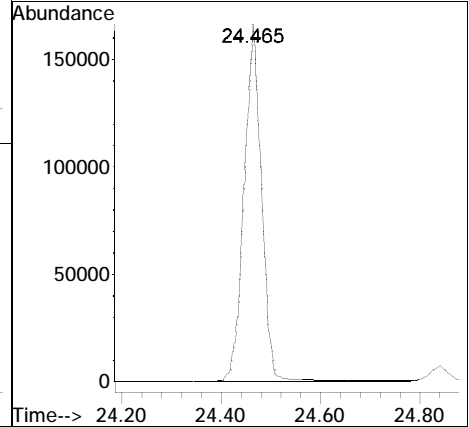
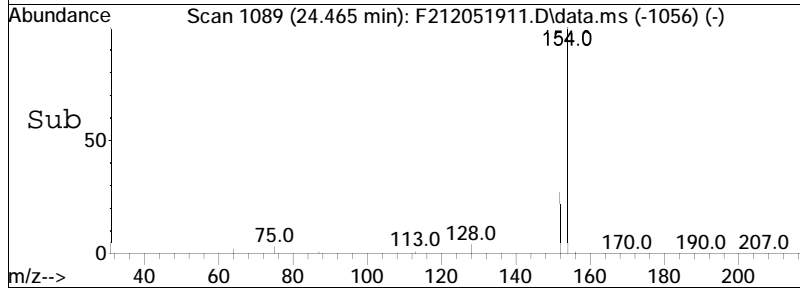
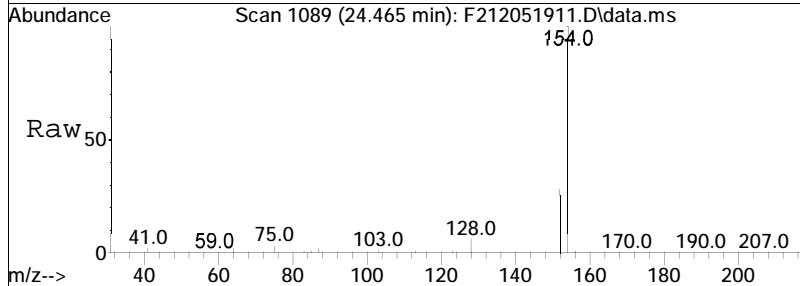


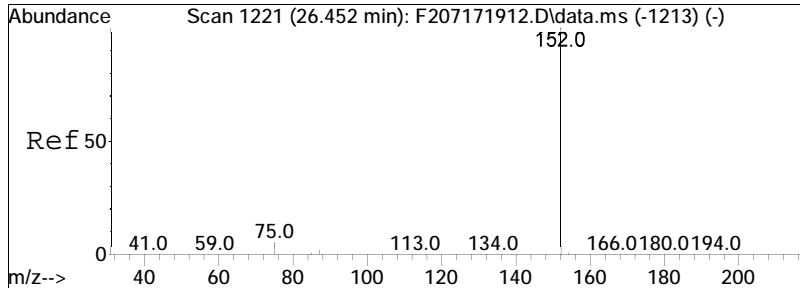
#20
 C4-Benzo(b)thiophenes
 Concen: 961.36 ng/mL M5
 RT: 29.704 min Scan# 1437
 Delta R.T. 0.387 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:190 Resp: 185558



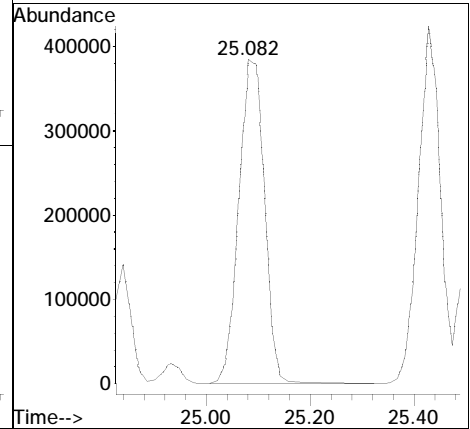
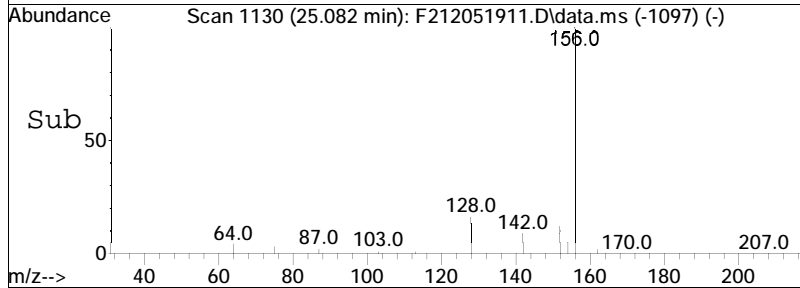
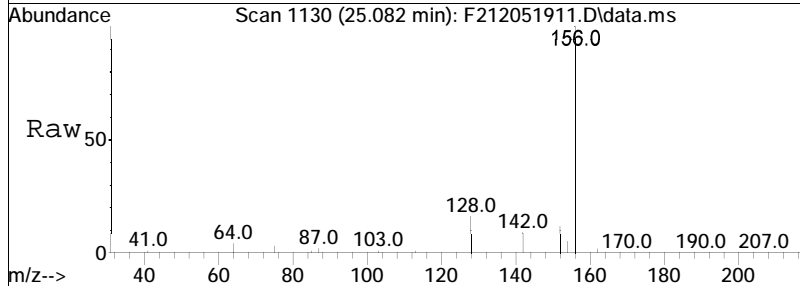


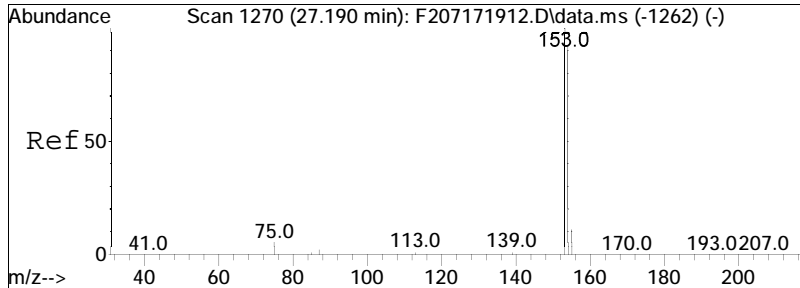
#21
 Biphenyl
 Concen: 1996.94 ng/mL
 RT: 24.465 min Scan# 1089
 Delta R.T. -0.002 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:154 Resp: 397042





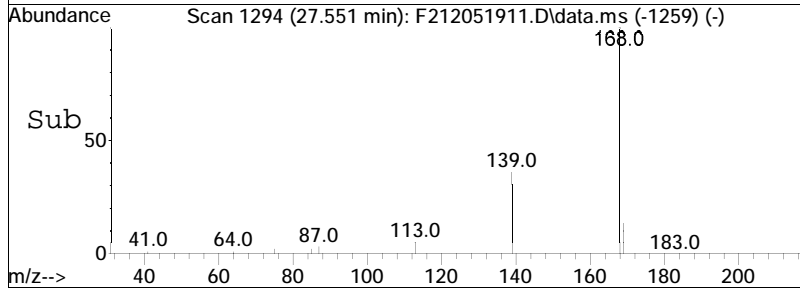
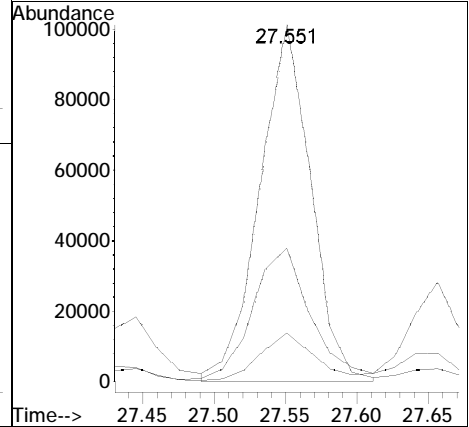
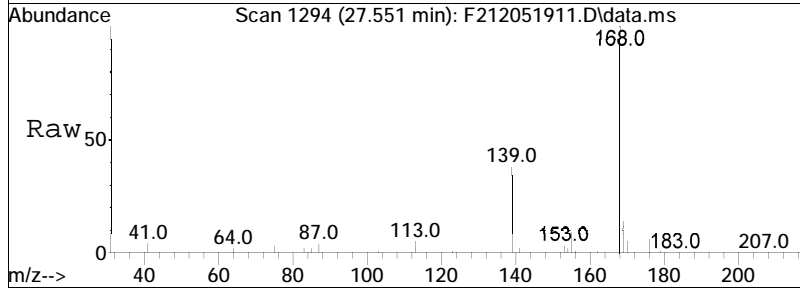
#22
 2,6-Dimethylnaphthalene
 Concen: 9030.93 ng/mL
 RT: 25.082 min Scan# 1130
 Delta R.T. 0.003 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:156 Resp: 1320141

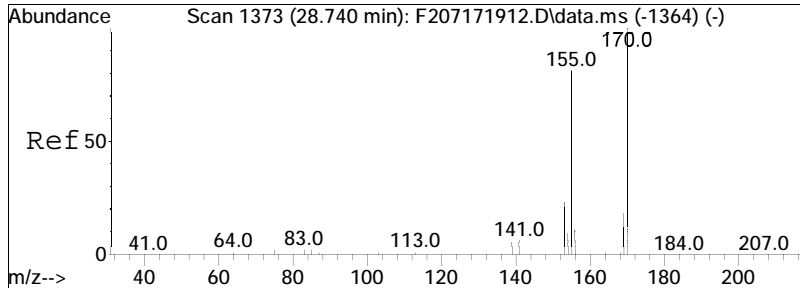




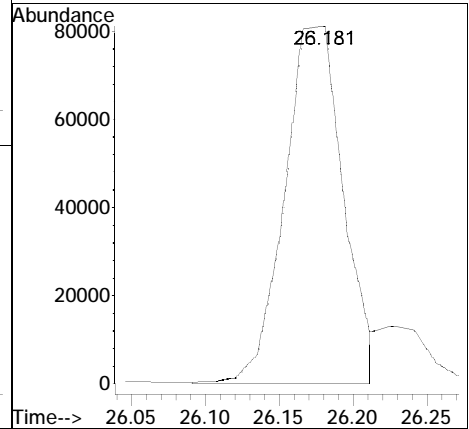
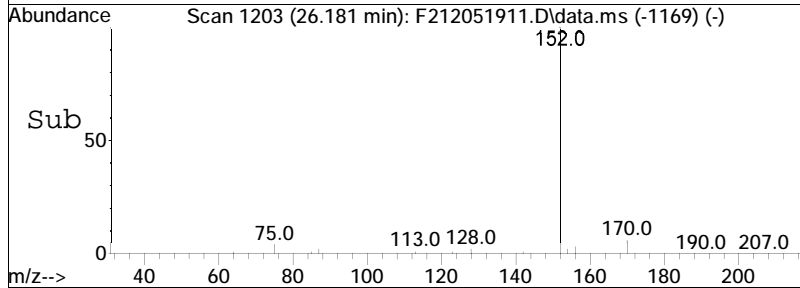
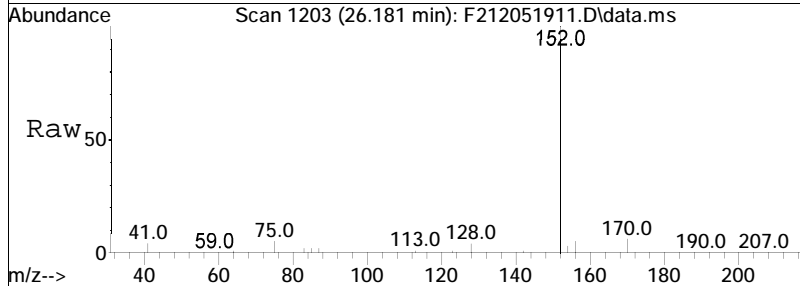
#23
 Dibenzofuran
 Concen: 1170.30 ng/mL
 RT: 27.551 min Scan# 1294
 Delta R.T. 0.020 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

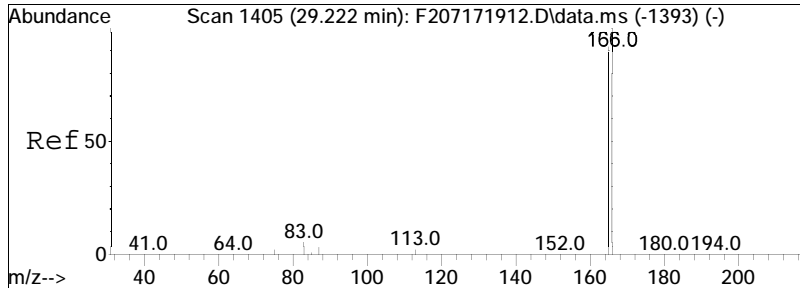
Tgt Ion	Ratio	Lower	Upper
168	100		
139	42.9	27.2	50.4
169	14.5	9.5	17.7





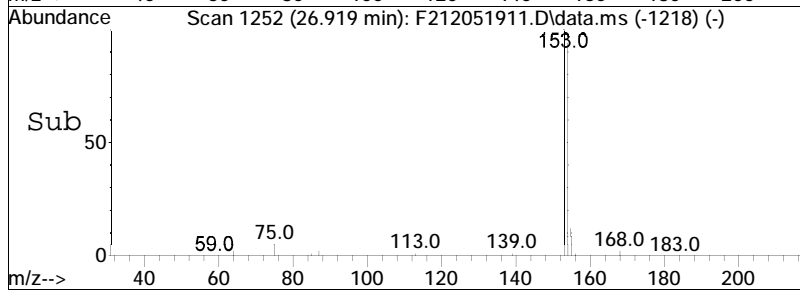
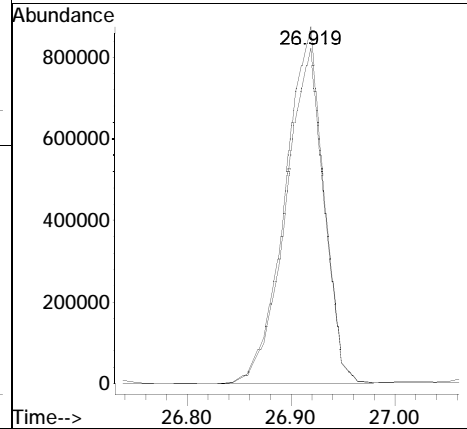
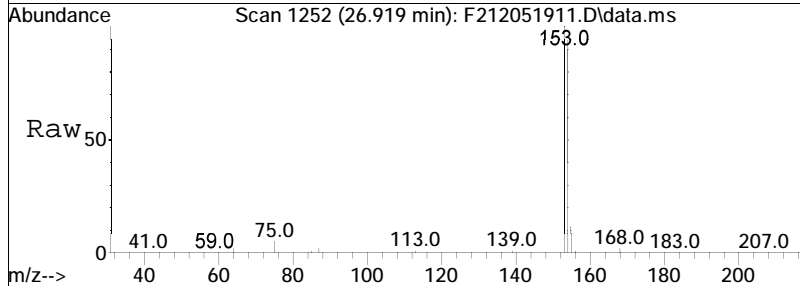
#24
 Acenaphthylene
 Concen: 924.05 ng/mL M3
 RT: 26.181 min Scan# 1203
 Delta R.T. 0.011 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:152 Resp: 225311

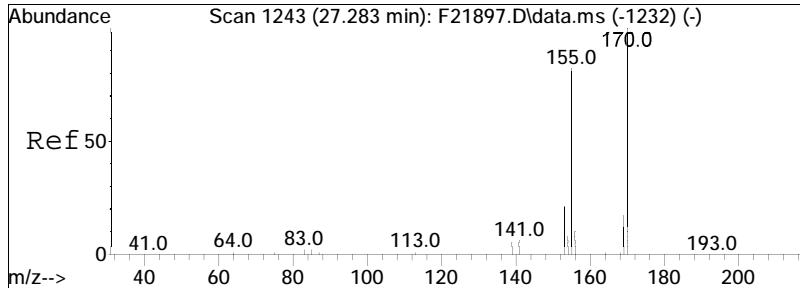




#25
 Acenaphthene
 Concen: 14815.46 ng/mL
 RT: 26.919 min Scan# 1252
 Delta R.T. 0.016 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

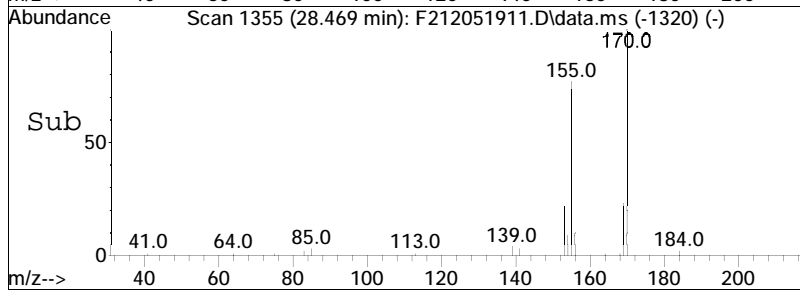
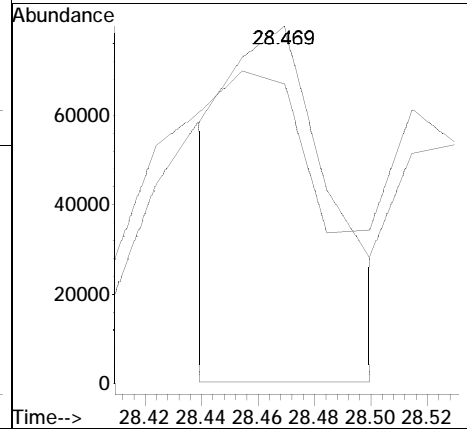
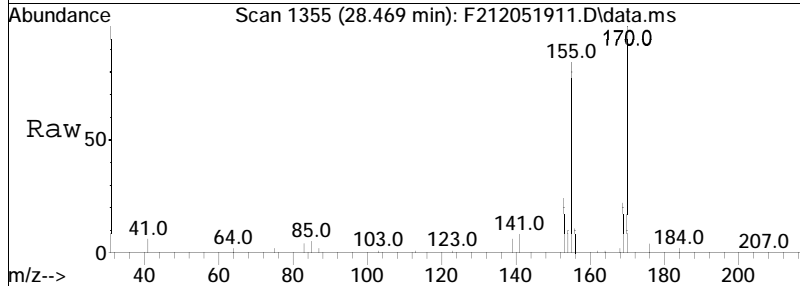
Tgt Ion: 153 Resp: 2255769
 Ion Ratio Lower Upper
 153 100
 154 93.0 66.5 123.5

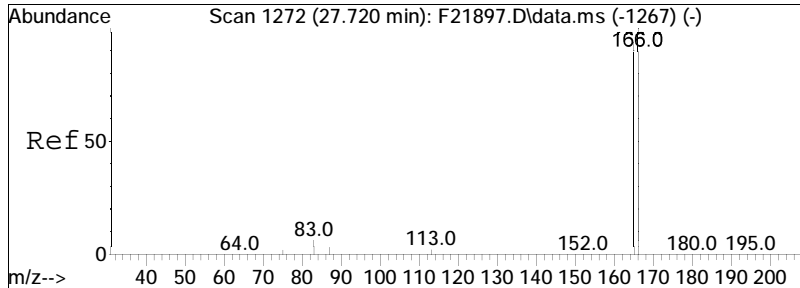




#26
 2,3,5-Trimethylnaphthalene
 Concen: 1503.94 ng/mL M3
 RT: 28.469 min Scan# 1355
 Delta R.T. 0.027 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

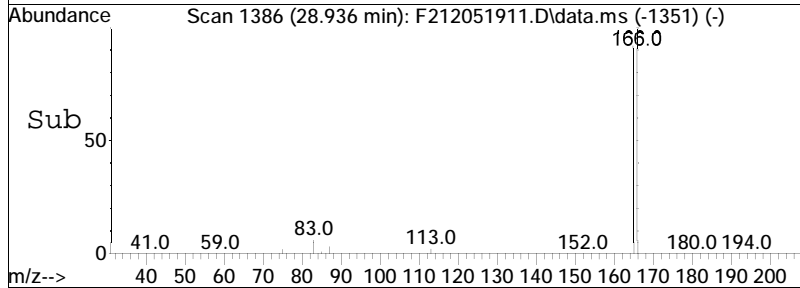
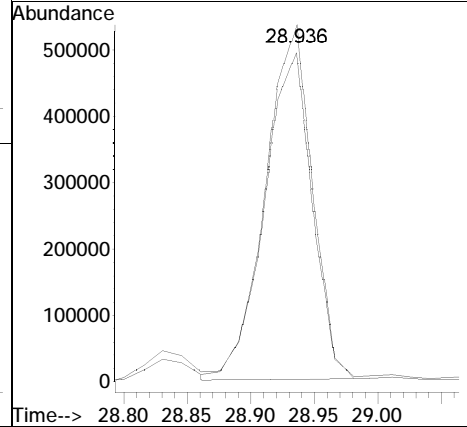
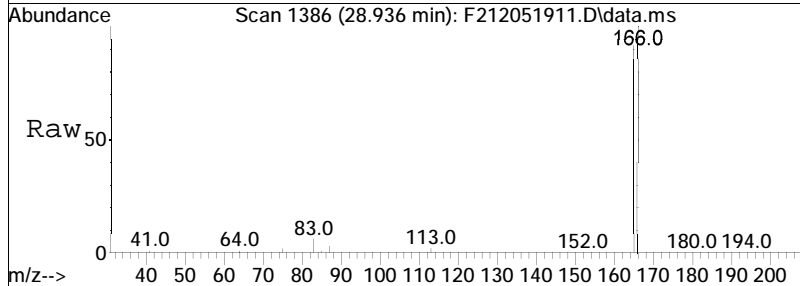
Tgt Ion	Resp	Lower	Upper
170	100		
155	141.8	59.1	109.7#

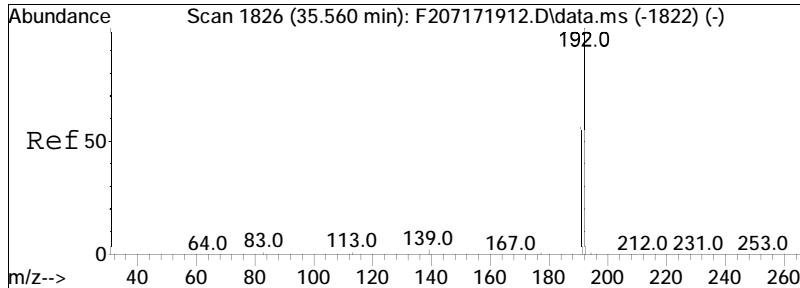




#27
 Fluorene
 Concen: 7923.28 ng/mL
 RT: 28.936 min Scan# 1386
 Delta R.T. 0.031 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

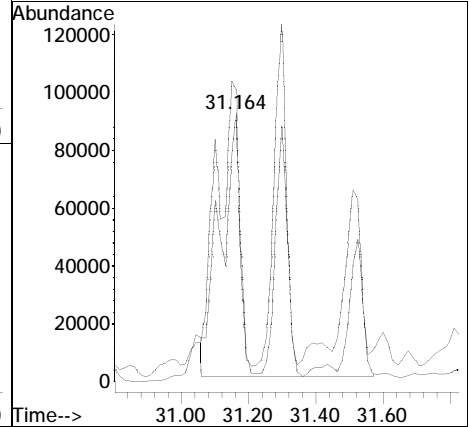
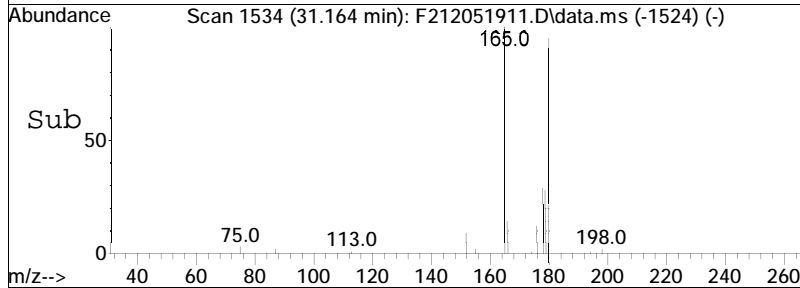
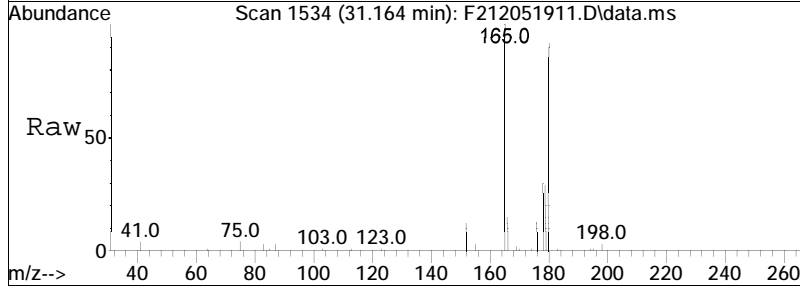
Tgt Ion	Resp	Lower	Upper
166	100		
165	95.0	63.9	118.7

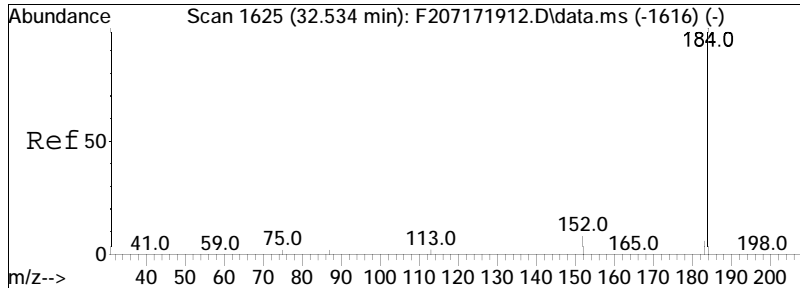




#28
 Cl-Fluorenes
 Concen: 4247.78 ng/mL M5
 RT: 31.164 min Scan# 1534
 Delta R.T. -0.090 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

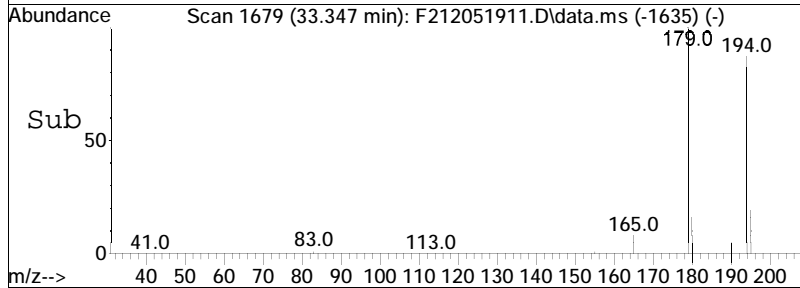
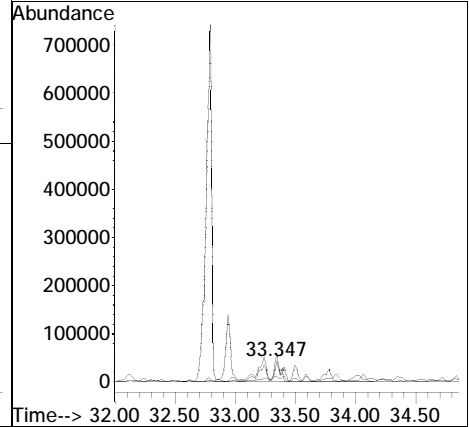
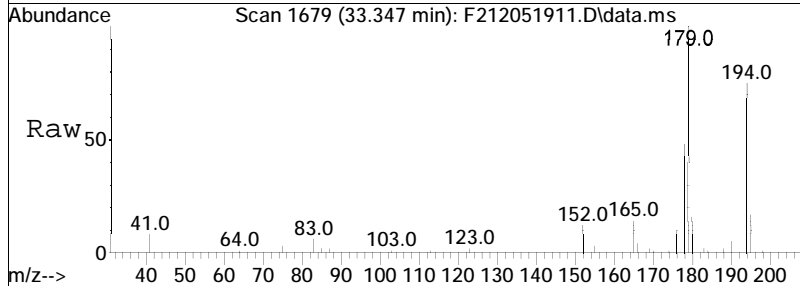
Tgt Ion	Ratio	Lower	Upper
180	100		
165	40.8	97.6	181.2#

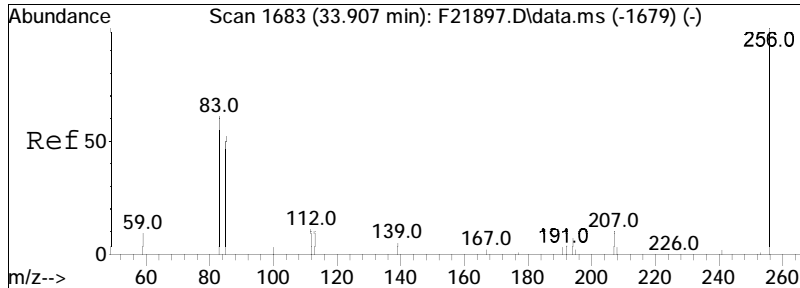




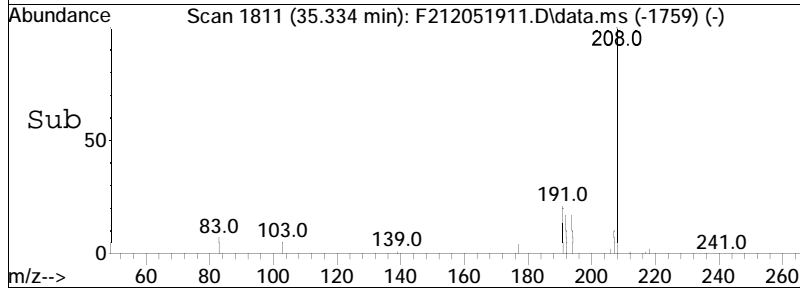
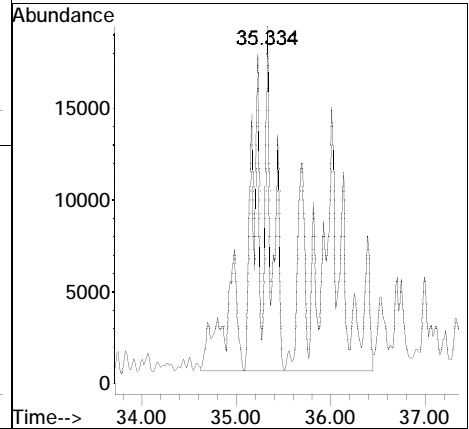
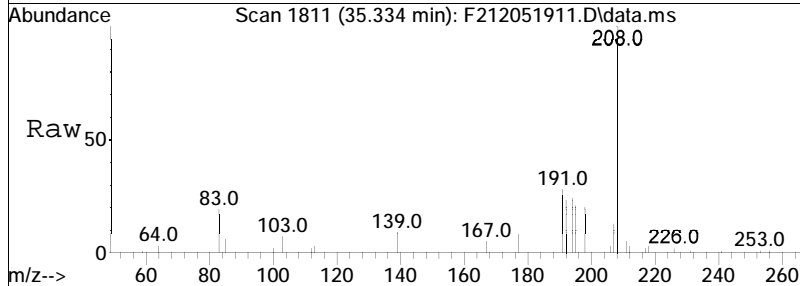
#29
 C2-Fluorenes
 Concen: 4210.95 ng/mL M5
 RT: 33.347 min Scan# 1679
 Delta R.T. -0.087 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

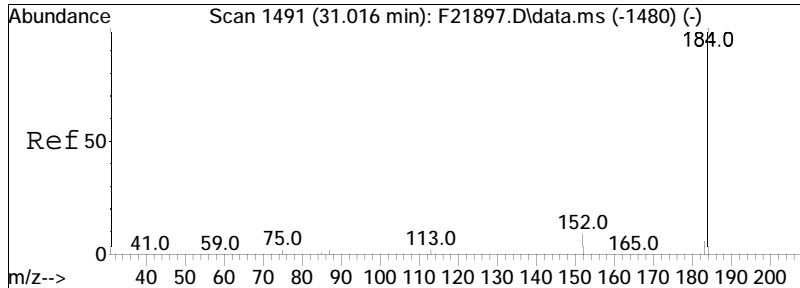
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.8	25.7	47.7#





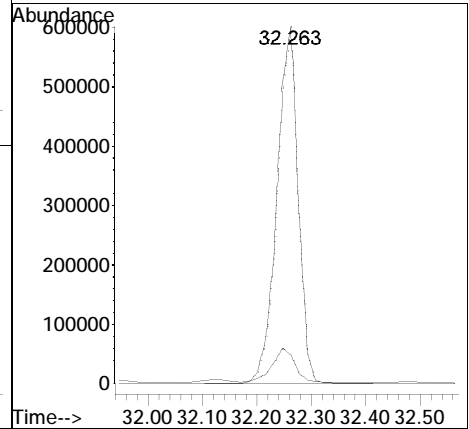
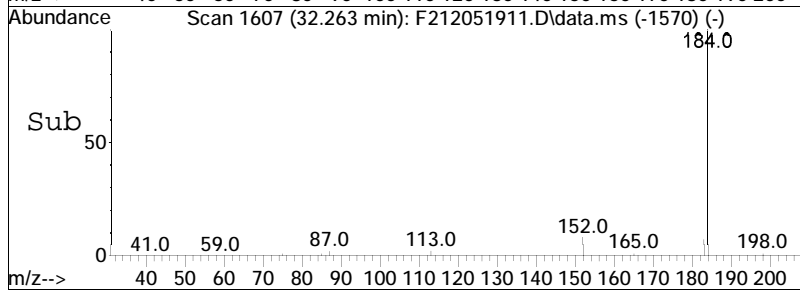
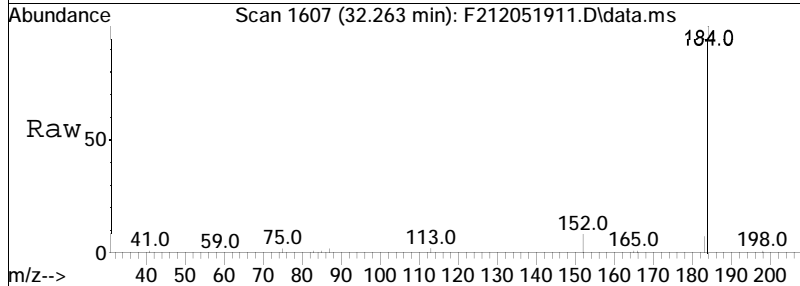
#30
 C3-Fluorenes
 Concen: 2944.88 ng/mL M5
 RT: 35.334 min Scan# 1811
 Delta R.T. 0.086 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:208 Resp: 507861

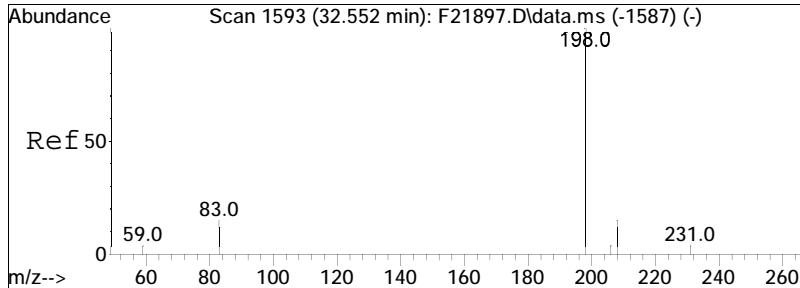




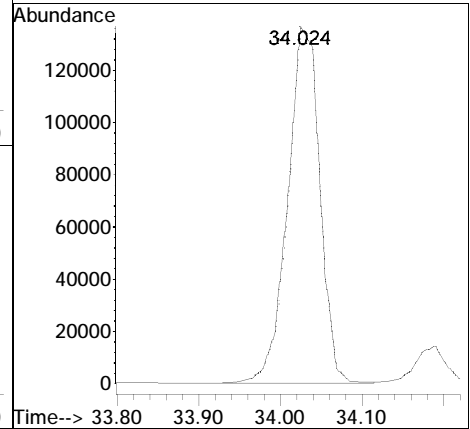
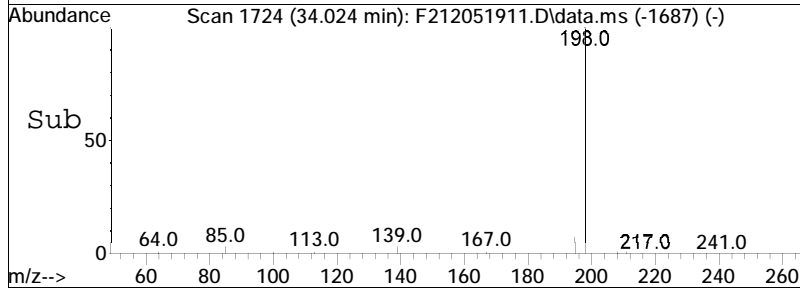
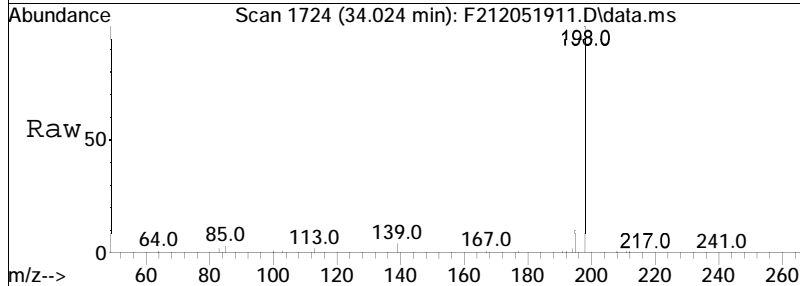
#31
 Dibenzothiophene
 Concen: 6791.94 ng/mL
 RT: 32.263 min Scan# 1607
 Delta R.T. 0.055 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

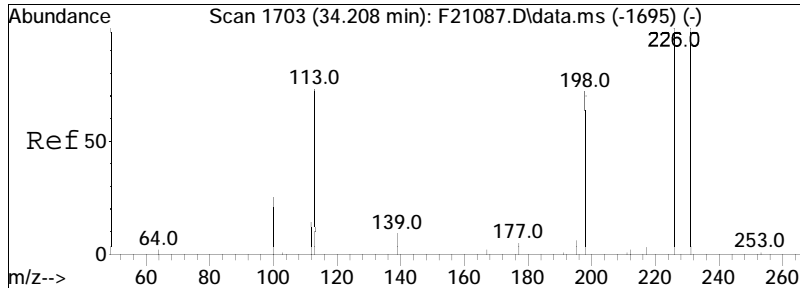
Tgt Ion: 184 Resp: 1586437
 Ion Ratio Lower Upper
 184 100
 152 10.8 5.7 10.5#



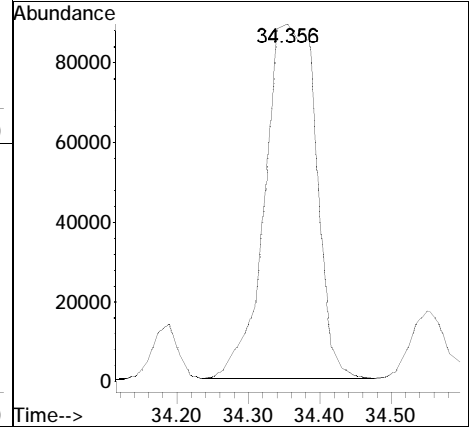
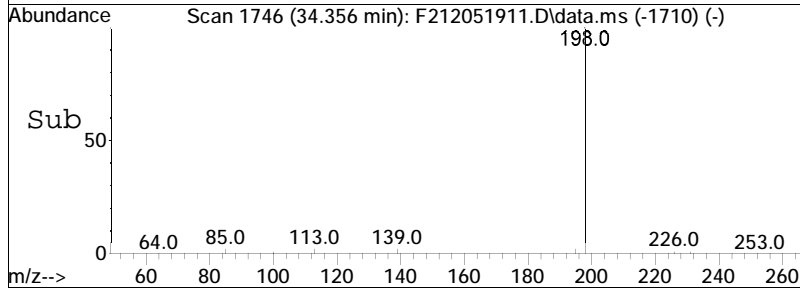
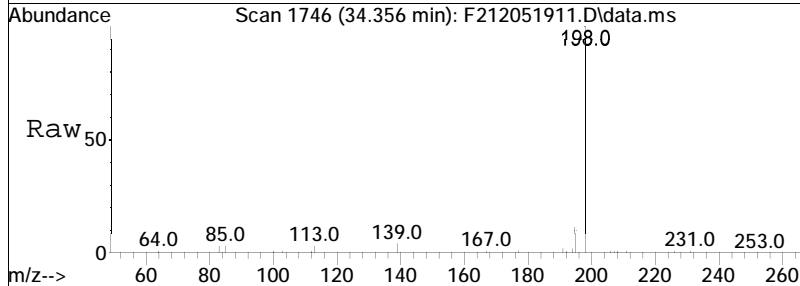


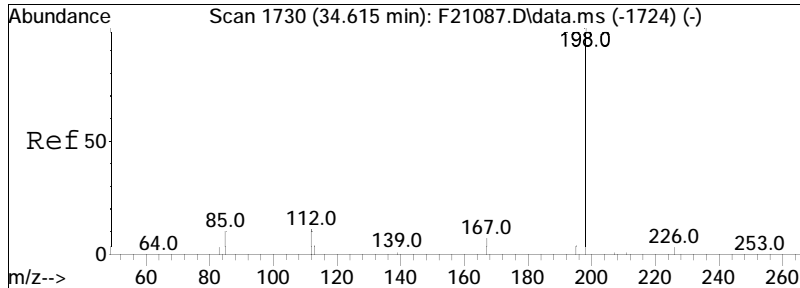
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 1576.10 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:198 Resp: 368140



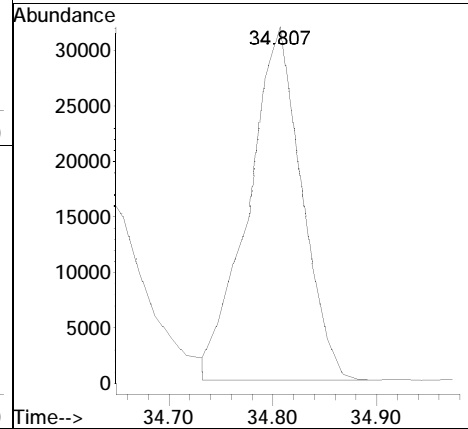
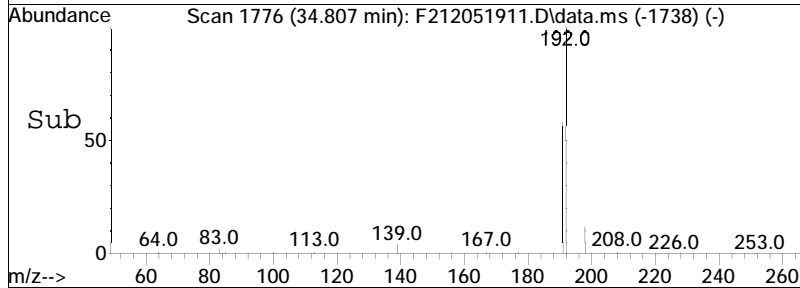
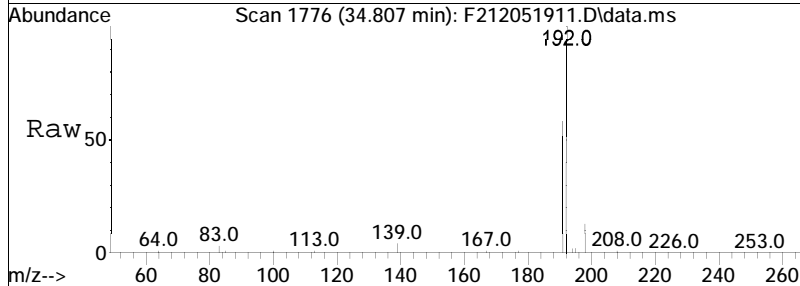


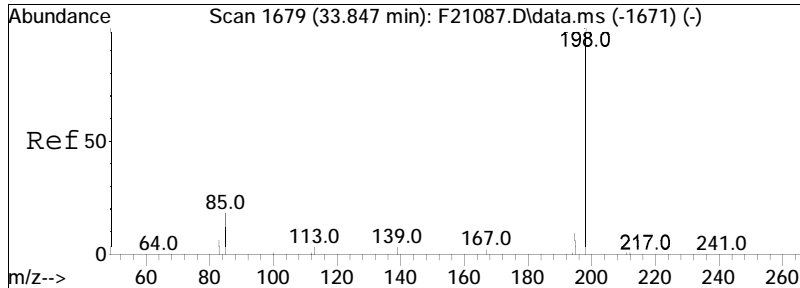
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 1873.23 ng/mL
 RT: 34.356 min Scan# 1746
 Delta R.T. 0.040 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:198 Resp: 437542



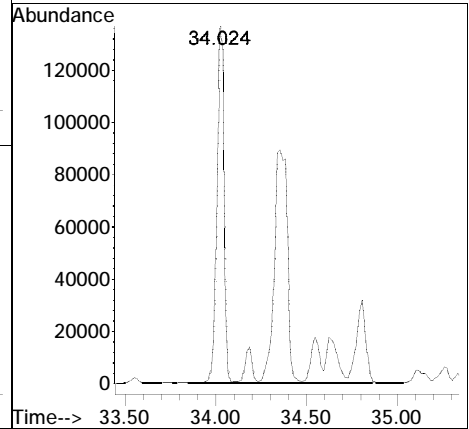
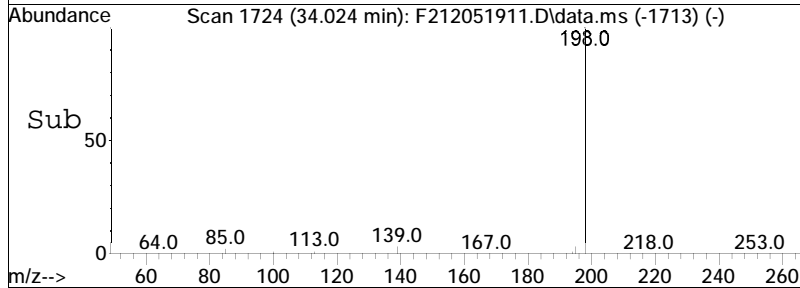
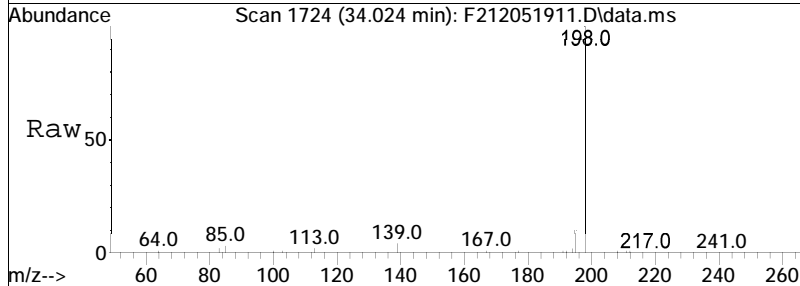


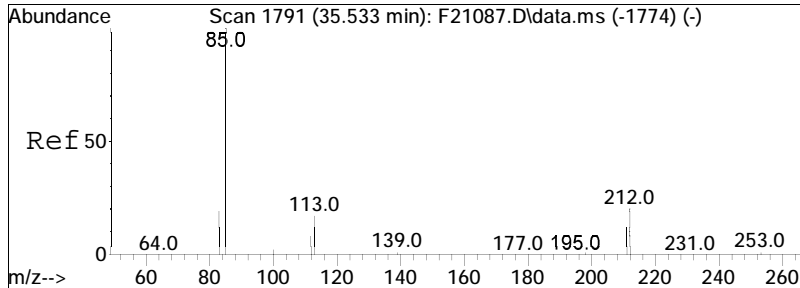
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 483.78 ng/mL
 RT: 34.807 min Scan# 1776
 Delta R.T. 0.073 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:198 Resp: 113000



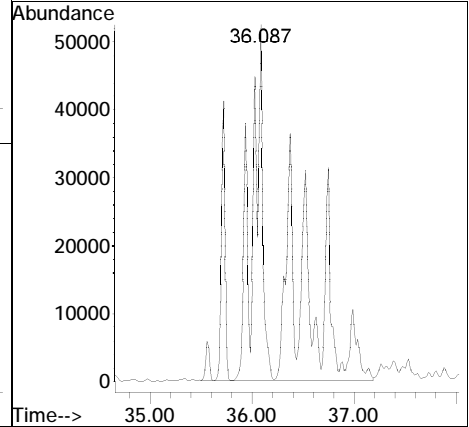
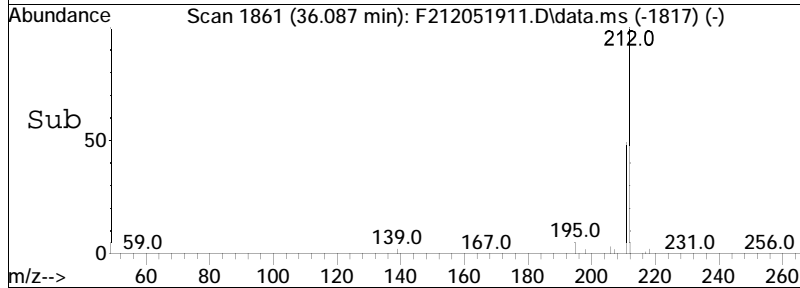
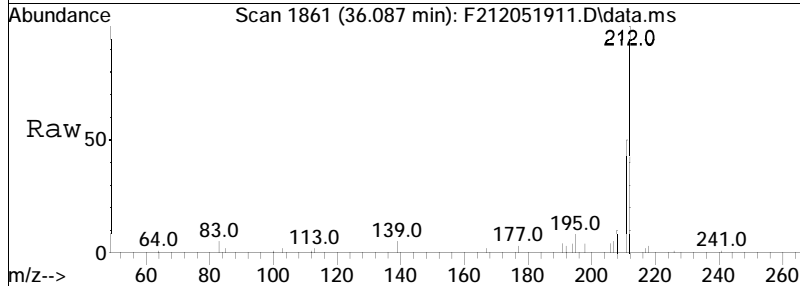


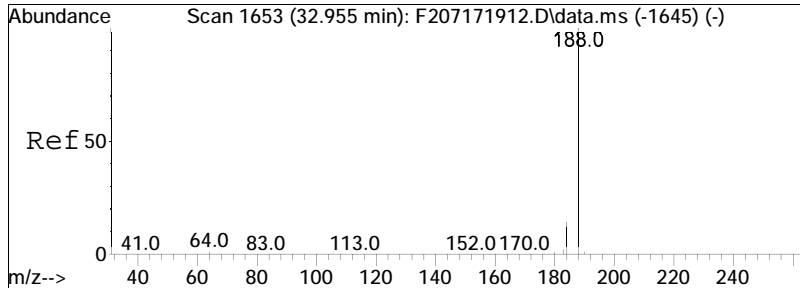
#36
 Cl-Dibenzothiophenes
 Concen: 4717.27 ng/mL M5
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:198 Resp: 1101844





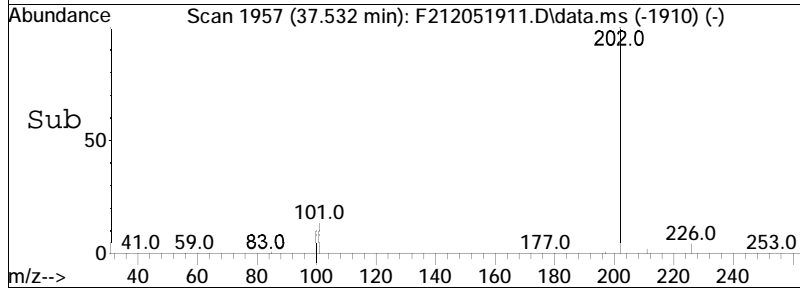
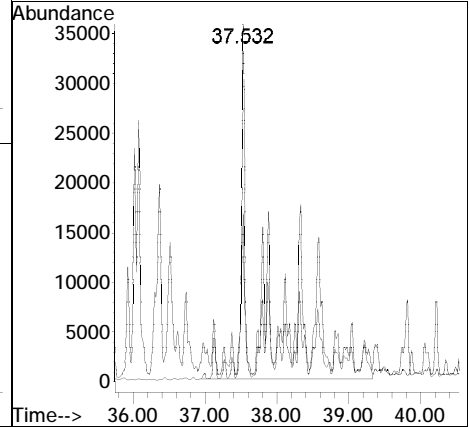
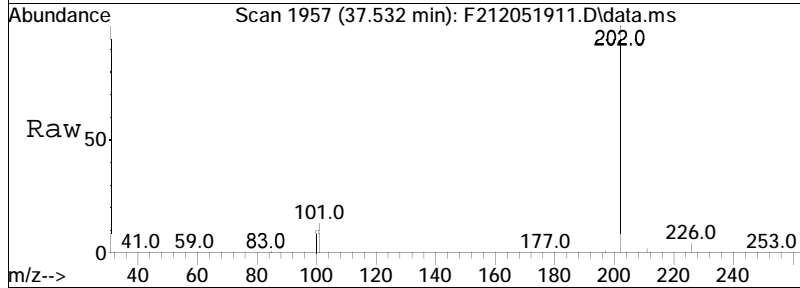
#37
 C2-Dibenzothiophenes
 Concen: 4227.02 ng/mL M5
 RT: 36.087 min Scan# 1861
 Delta R.T. 0.441 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:212 Resp: 987332

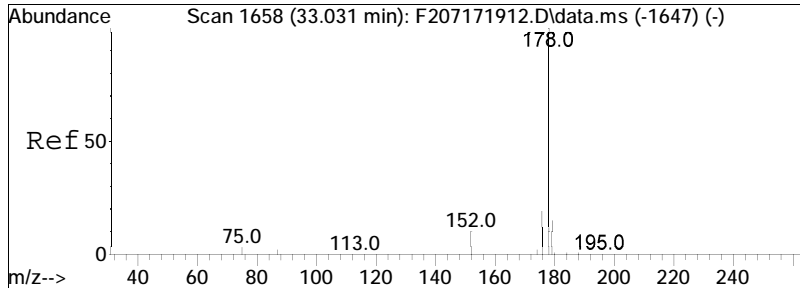




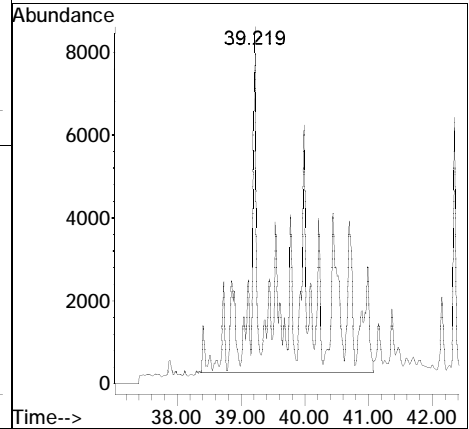
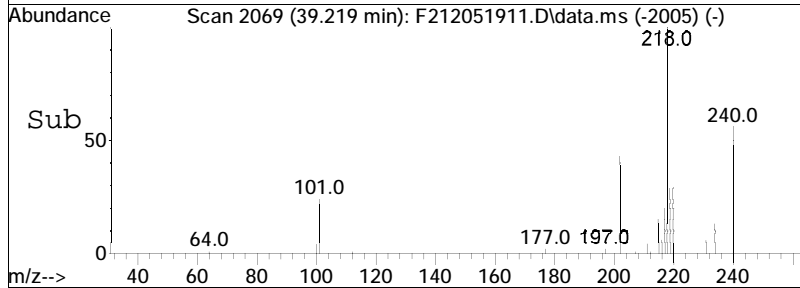
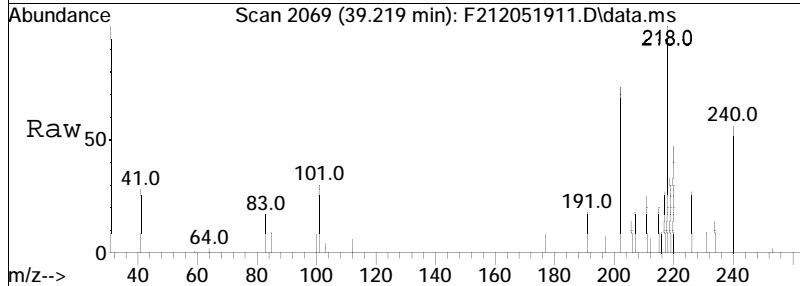
#38
 C3-Dibenzothiophenes
 Concen: 2368.98 ng/mL M5
 RT: 37.532 min Scan# 1957
 Delta R.T. 0.093 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

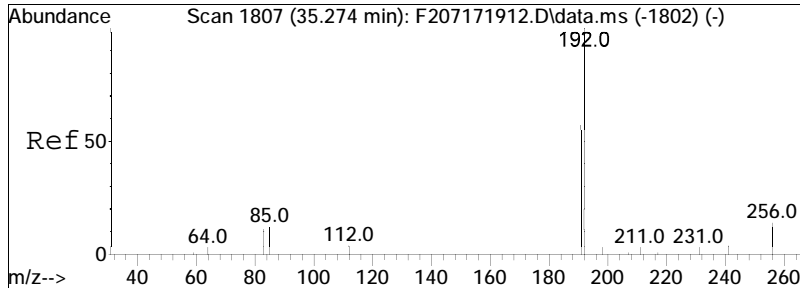
Tgt Ion: 226 Resp: 553339
 Ion Ratio Lower Upper
 226 100
 211 10.7 38.6 71.6#





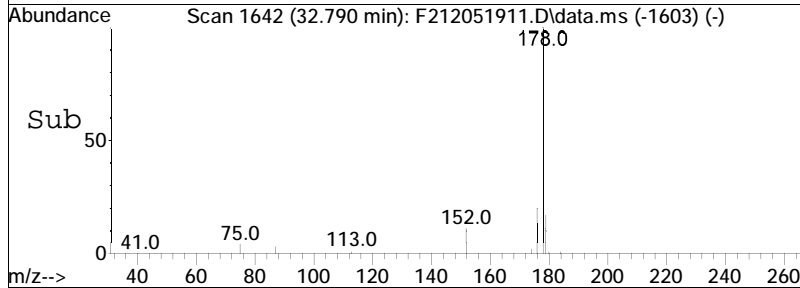
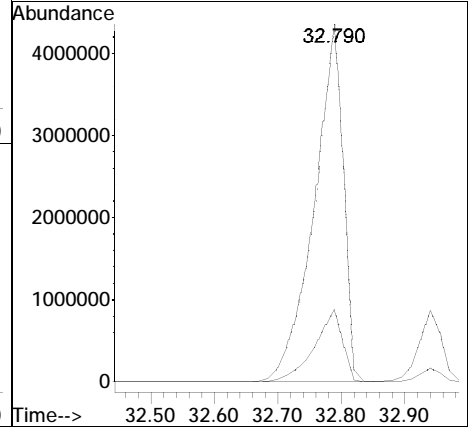
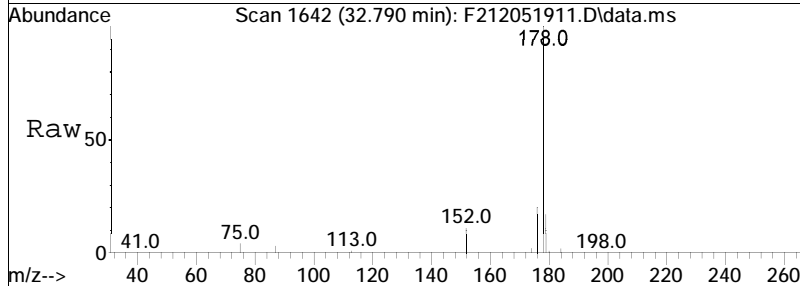
#39
 C4-Dibenzothiophenes
 Concen: 920.49 ng/mL M5
 RT: 39.219 min Scan# 2069
 Delta R.T. 0.105 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:240 Resp: 215004

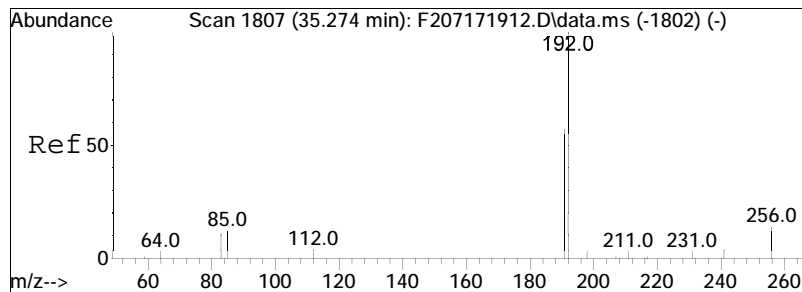




#41
 Phenanthrene
 Concen: 55414.54 ng/mL
 RT: 32.790 min Scan# 1642
 Delta R.T. 0.088 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

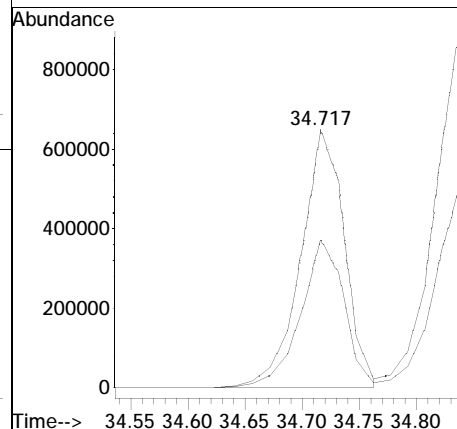
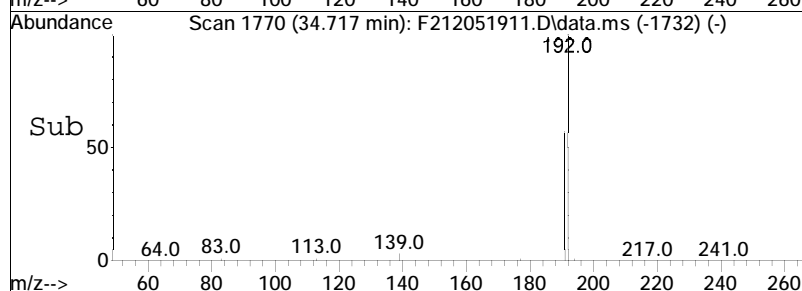
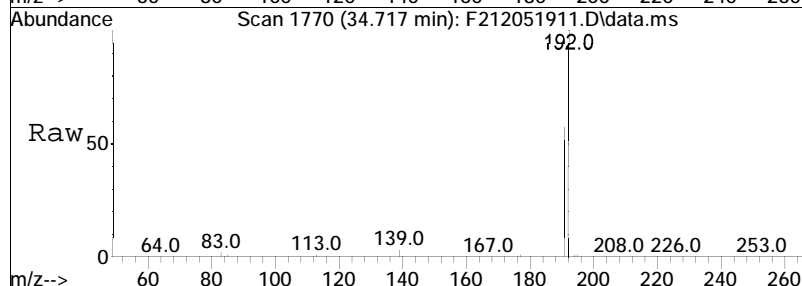
Tgt Ion: 178 Resp: 13768533
 Ion Ratio Lower Upper
 178 100
 176 19.6 13.0 24.1

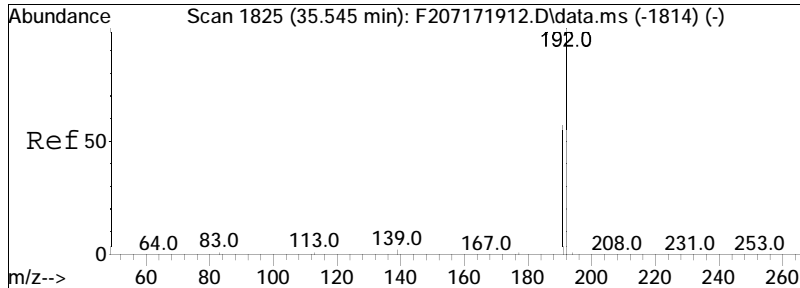




#42
 3-Methylphenanthrene (3MP)
 Concen: 6896.07 ng/mL
 RT: 34.717 min Scan# 1770
 Delta R.T. 0.072 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

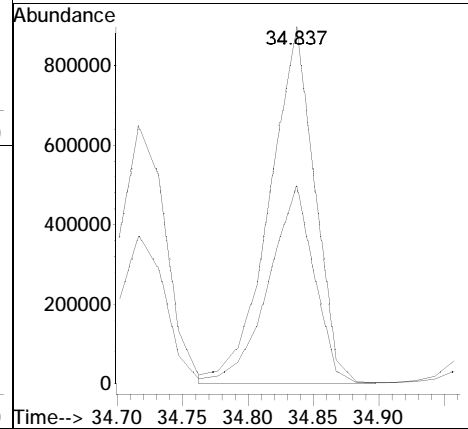
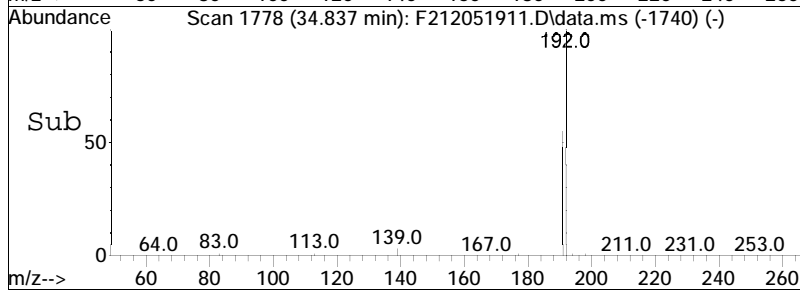
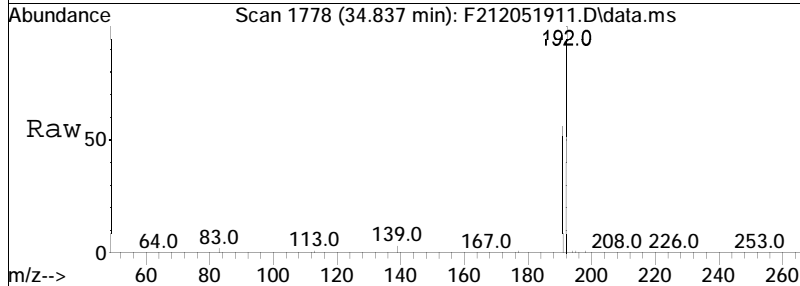
Tgt Ion: 192 Resp: 1713426
 Ion Ratio Lower Upper
 192 100
 191 56.8 42.1 78.1

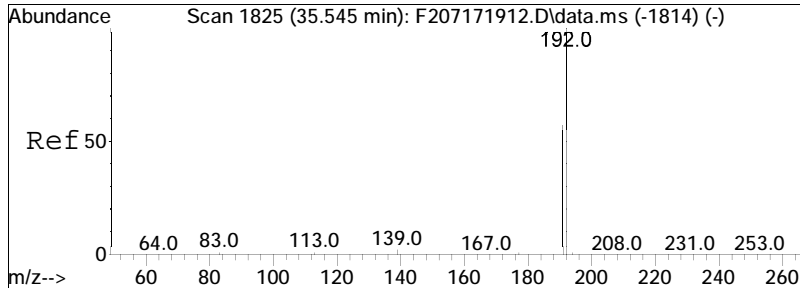




#43
 2-Methylphenanthrene (2MP)
 Concen: 8738.80 ng/mL M3
 RT: 34.837 min Scan# 1778
 Delta R.T. 0.073 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

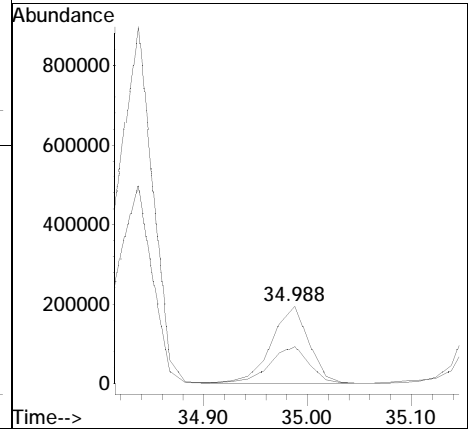
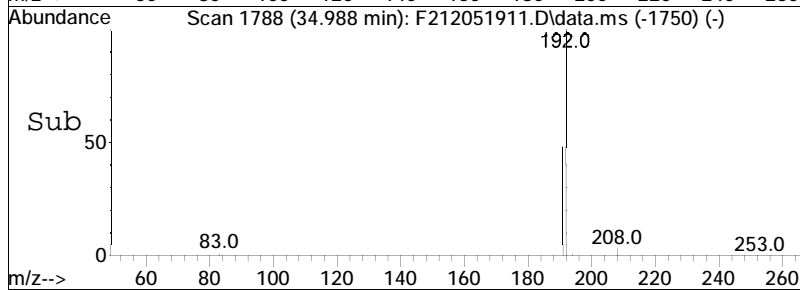
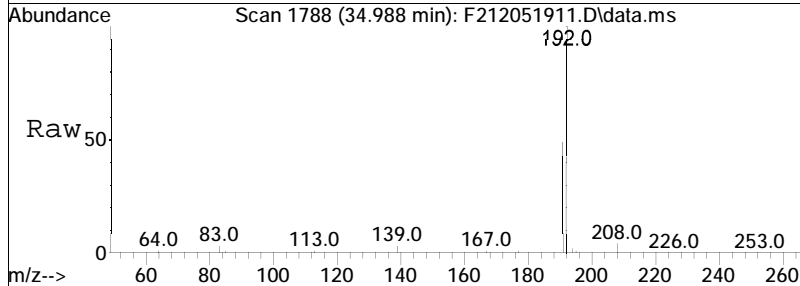
Tgt Ion: 192 Resp: 2171280
 Ion Ratio Lower Upper
 192 100
 191 44.9 40.5 75.3

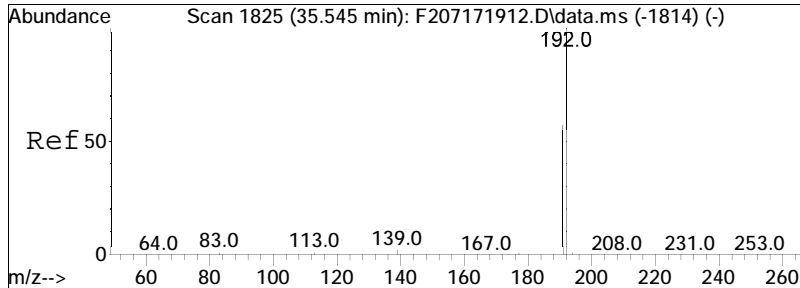




#44
 2-Methylantracene(2MA)
 Concen: 1952.85 ng/mL
 RT: 34.988 min Scan# 1788
 Delta R.T. 0.074 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

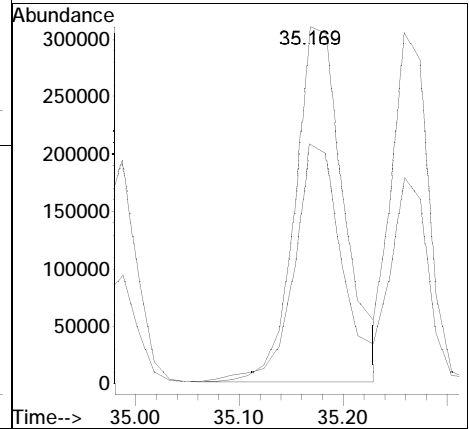
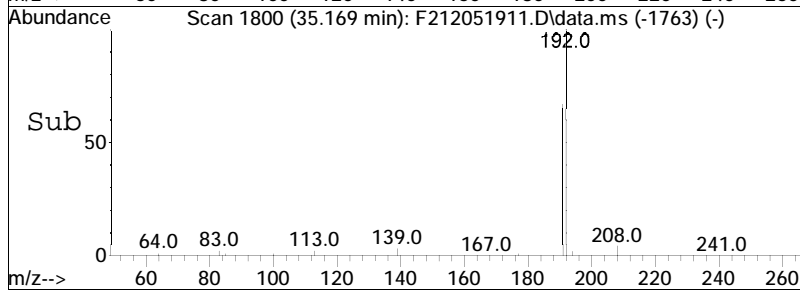
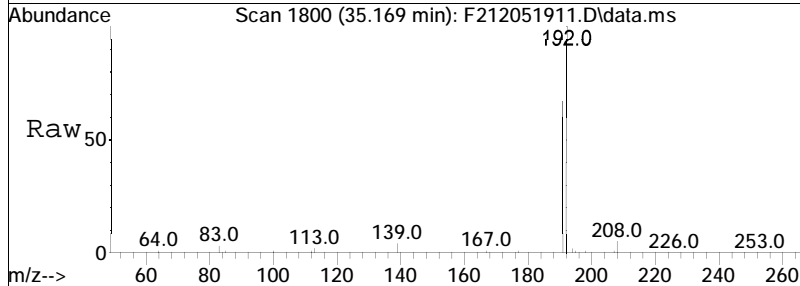
Tgt Ion	Resp	Lower	Upper
192	100		
191	49.6	85.2	158.2#

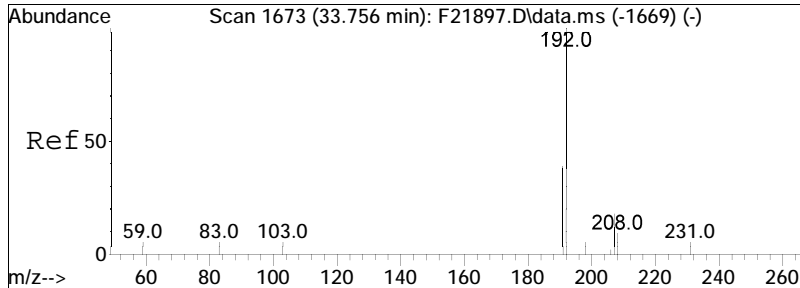




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 4069.52 ng/mL
 RT: 35.169 min Scan# 1800
 Delta R.T. 0.061 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

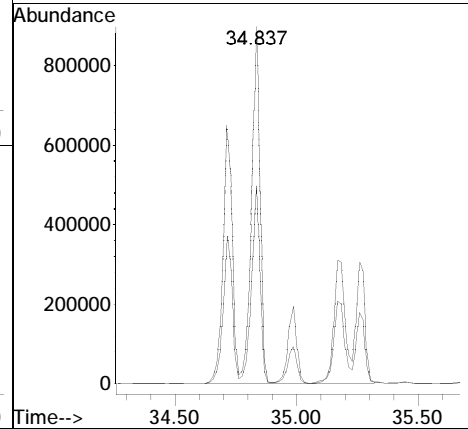
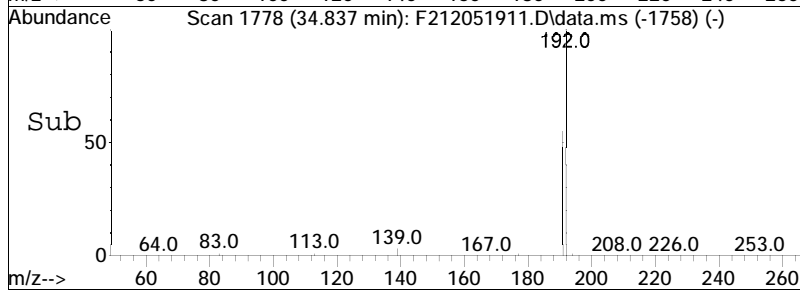
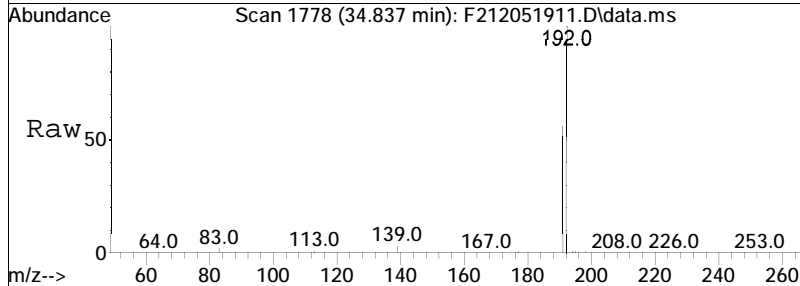
Tgt Ion:192 Resp: 1011130
 Ion Ratio Lower Upper
 192 100
 191 65.8 39.7 73.7

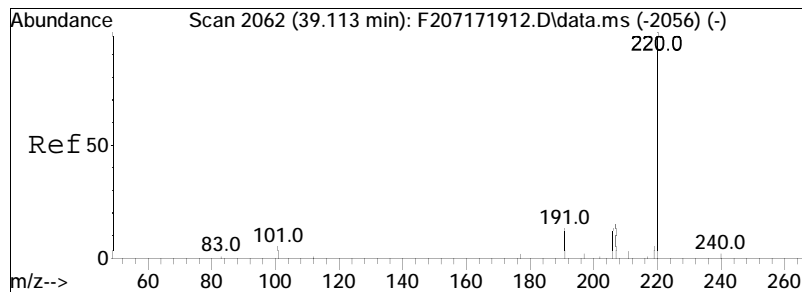




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 24702.42 ng/mL M5
 RT: 34.837 min Scan# 1778
 Delta R.T. -0.270 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

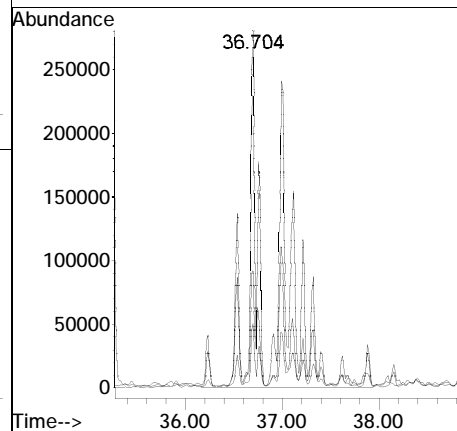
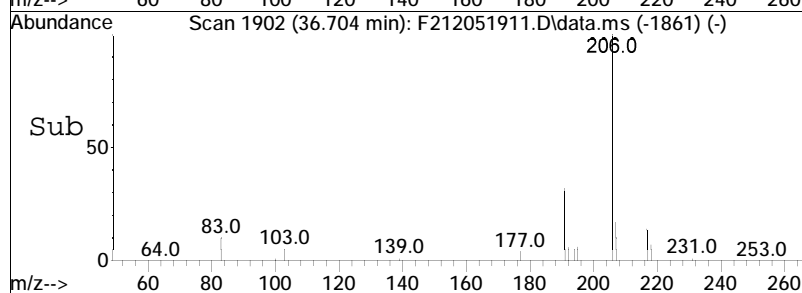
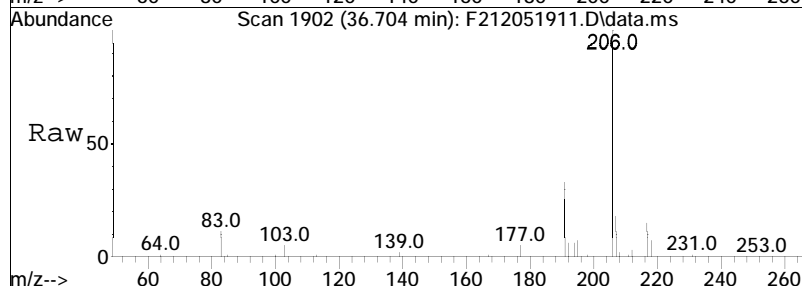
Tgt Ion: 192 Resp: 6137668
 Ion Ratio Lower Upper
 192 100
 191 9.8 39.7 73.7#

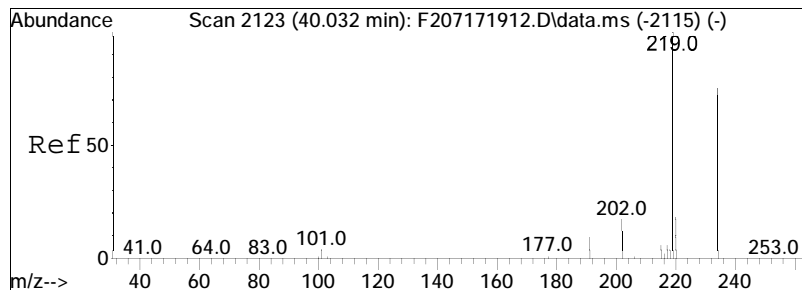




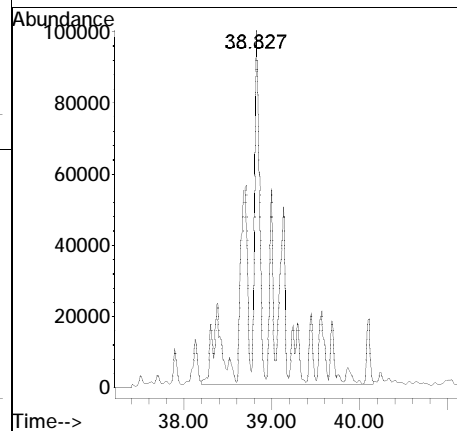
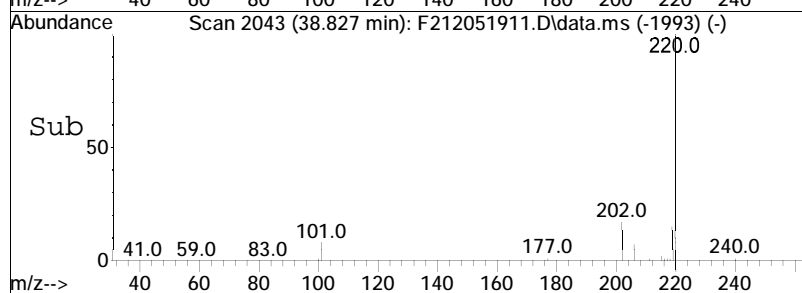
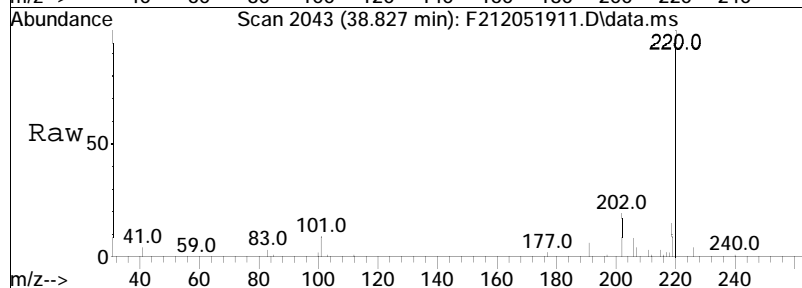
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 15325.26 ng/mL M5
 RT: 36.704 min Scan# 1902
 Delta R.T. -0.197 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

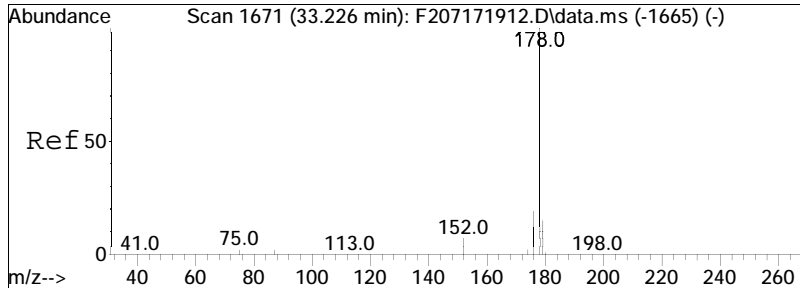
Tgt Ion	Resp	Lower	Upper
206	100		
191	10.4	33.9	62.9#
207	3.7	13.9	25.7#



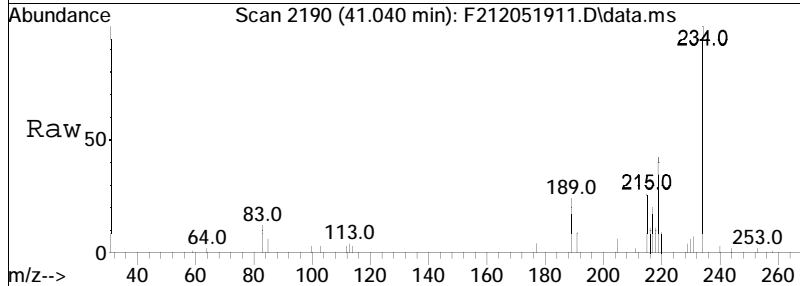


#50
 C3-Phenanthrenes/Anthracenes
 Concen: 6258.87 ng/mL M5
 RT: 38.827 min Scan# 2043
 Delta R.T. 0.087 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:220 Resp: 1555105

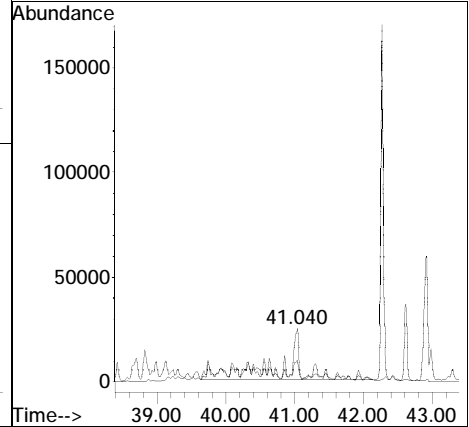
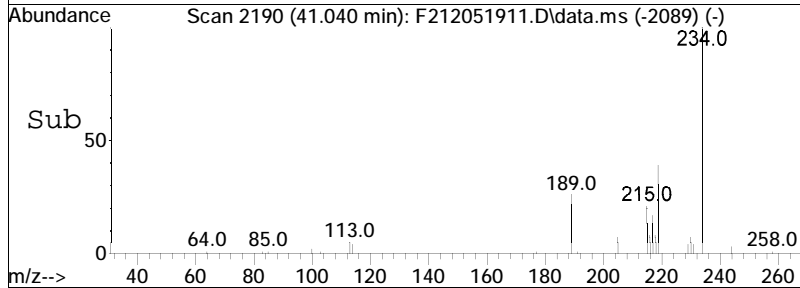


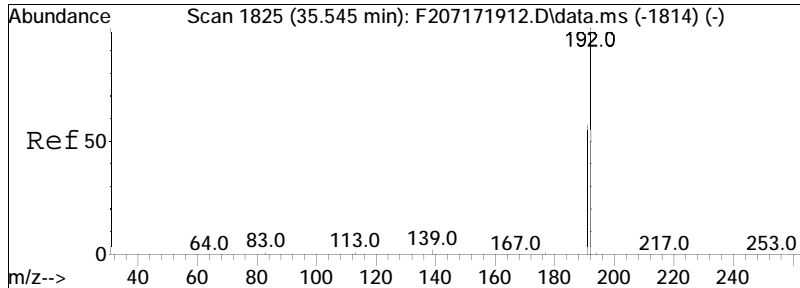


#51
 C4-Phenanthrenes/Anthracenes
 Concen: 2017.25 ng/mL M5
 RT: 41.040 min Scan# 2190
 Delta R.T. 0.148 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm



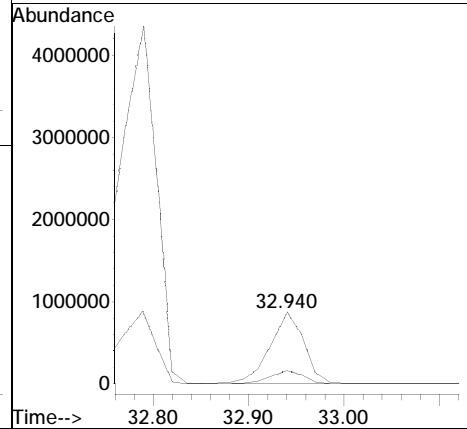
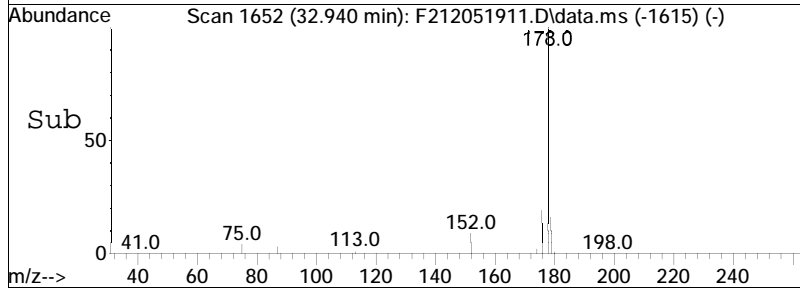
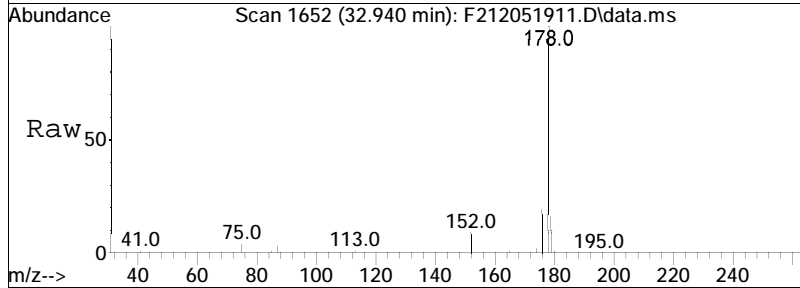
Tgt Ion	Resp	Lower	Upper
234	100		
219	1.6	39.5	73.3#

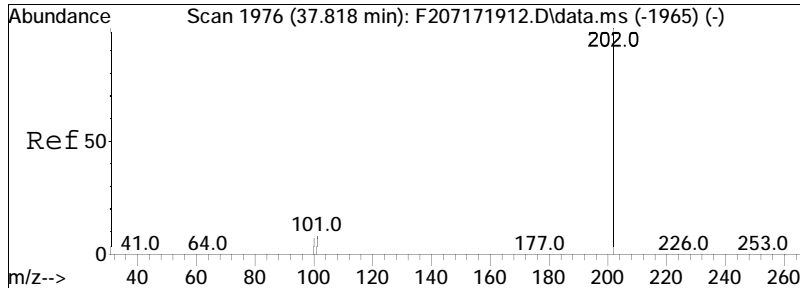




#53
 Anthracene
 Concen: 10218.34 ng/mL
 RT: 32.940 min Scan# 1652
 Delta R.T. 0.060 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

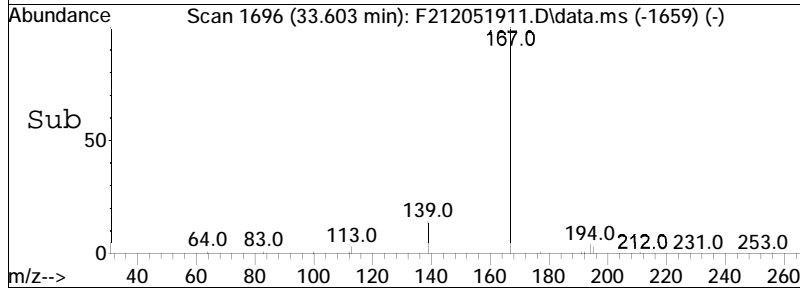
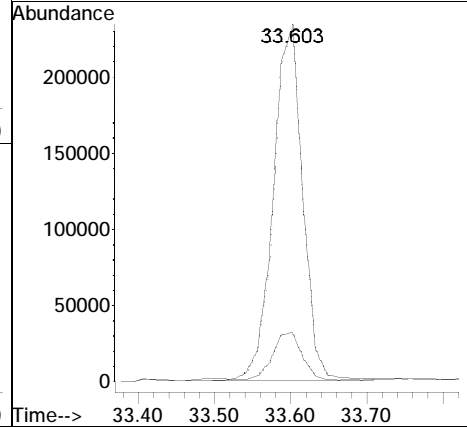
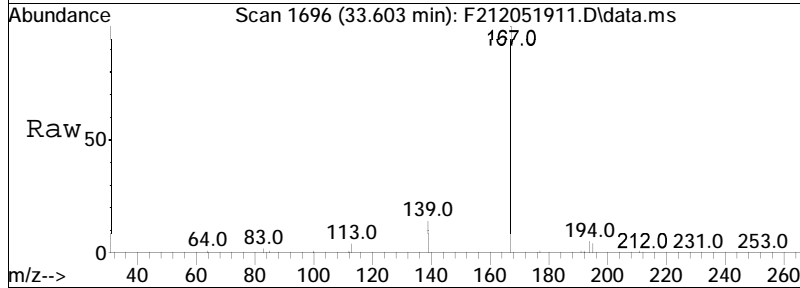
Tgt Ion:178 Resp: 2164393
 Ion Ratio Lower Upper
 178 100
 176 18.5 12.5 23.3

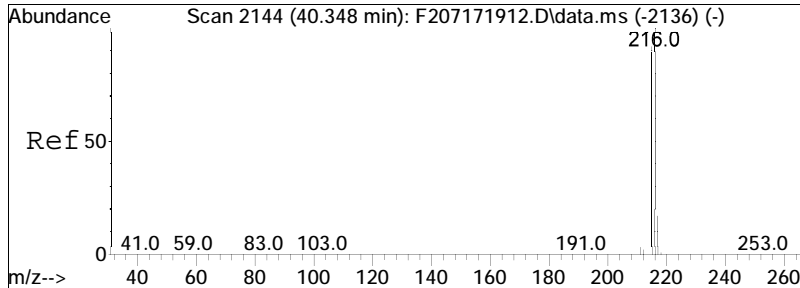




#54
 Carbazole
 Concen: 3118.52 ng/mL
 RT: 33.603 min Scan# 1696
 Delta R.T. 0.064 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

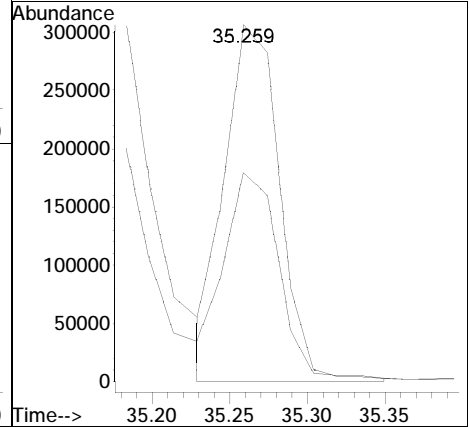
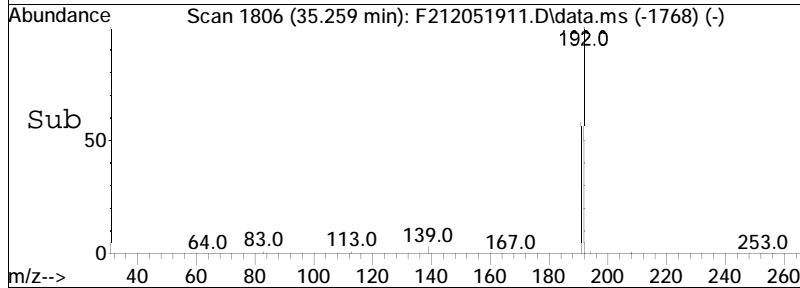
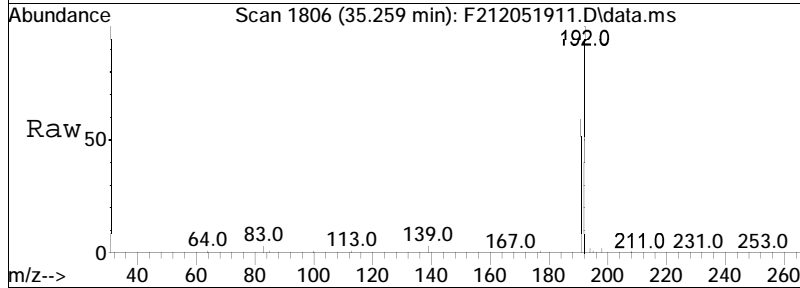
Tgt Ion	Resp	Lower	Upper
167	100		
139	13.9	8.7	16.1

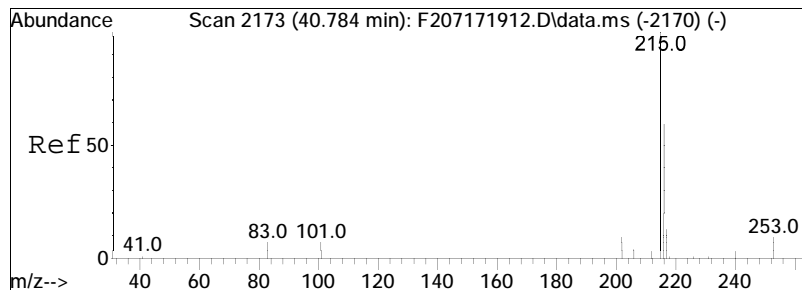




#55
 1-Methylphenanthrene
 Concen: 4044.85 ng/mL M3
 RT: 35.259 min Scan# 1806
 Delta R.T. 0.076 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

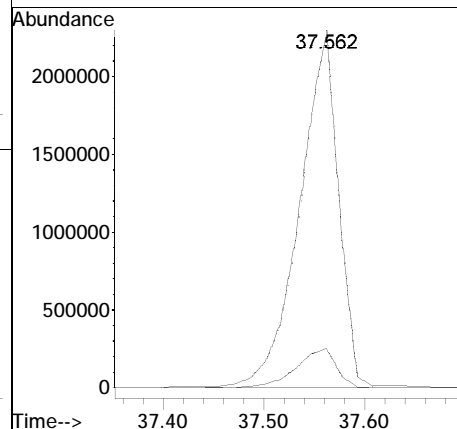
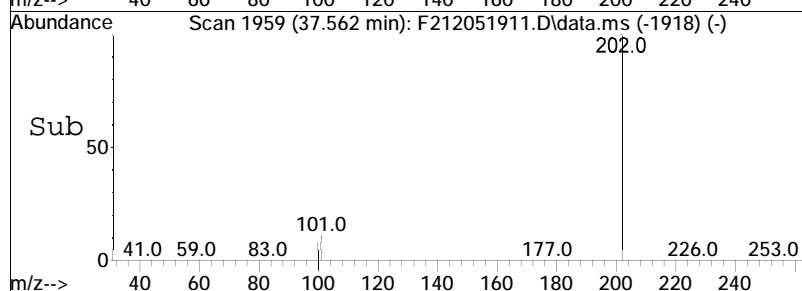
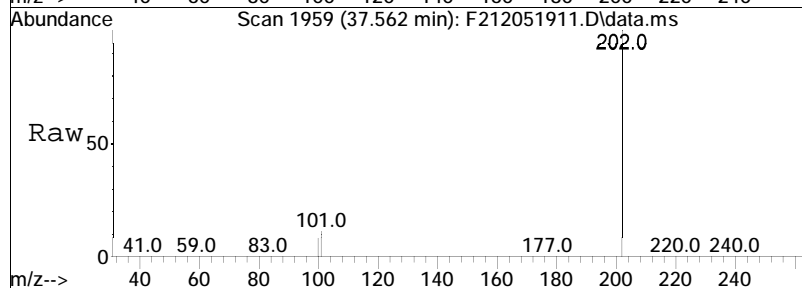
Tgt Ion	Resp	Lower	Upper
192	752624		
191	88.4	39.3	73.1#

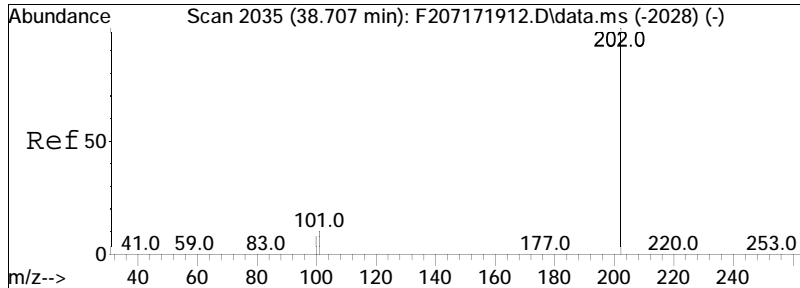




#56
 Fluoranthene
 Concen: 21315.07 ng/mL M4
 RT: 37.562 min Scan# 1959
 Delta R.T. 0.123 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

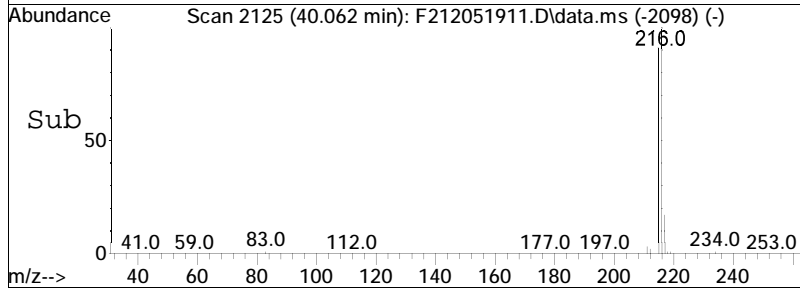
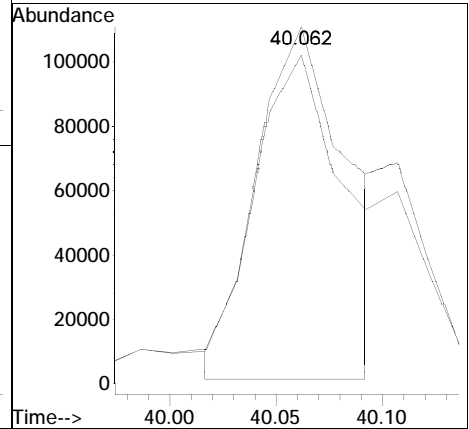
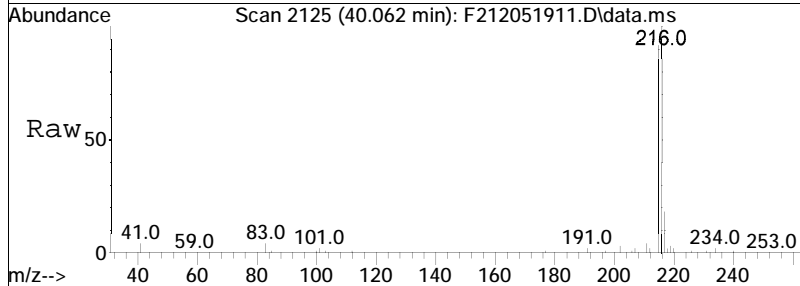
Tgt Ion: 202 Resp: 6040033
 Ion Ratio Lower Upper
 202 100
 101 11.8 8.0 14.8

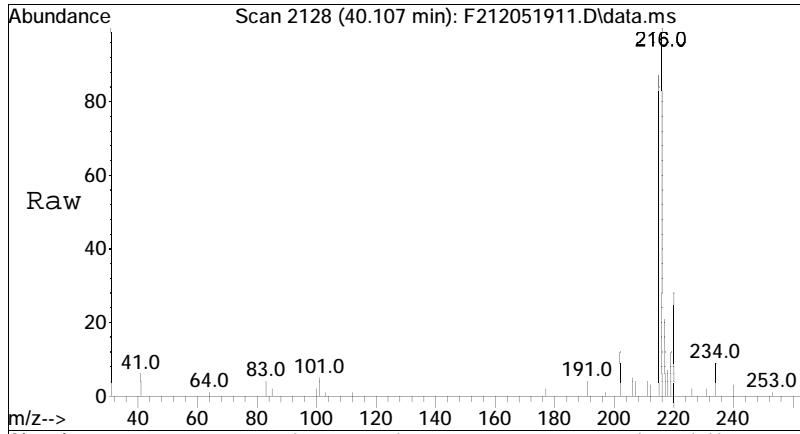




#57
 Benzo(b)fluorene
 Concen: 1836.81 ng/mL M3
 RT: 40.062 min Scan# 2125
 Delta R.T. 0.111 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

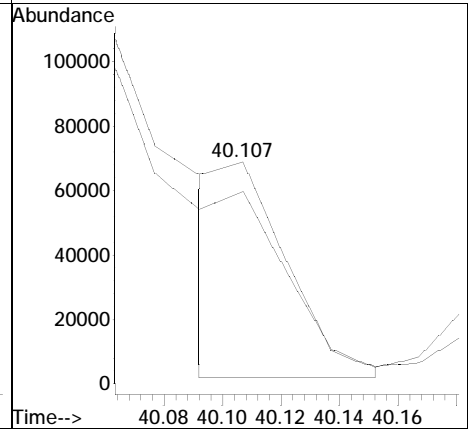
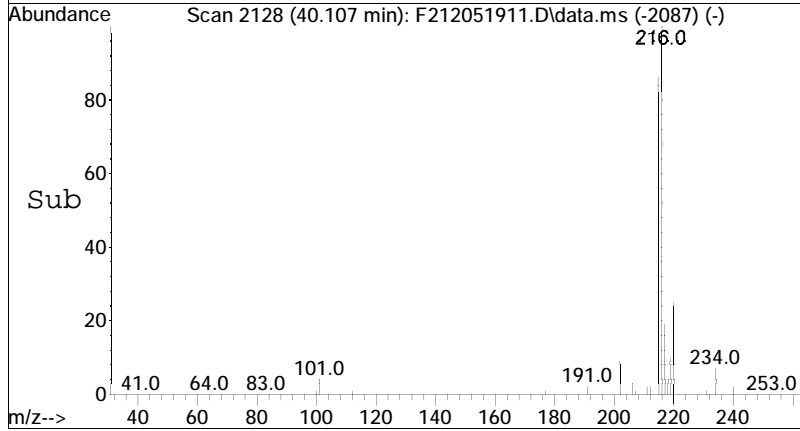
Tgt Ion	Resp	Lower	Upper
216	100		
215	128.0	63.9	118.7#

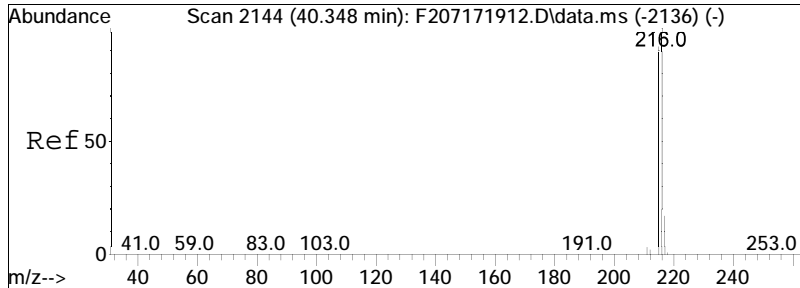




#58
 7H-Benzo(c)fluorene
 Concen: 578.07 ng/mL M3
 RT: 40.107 min Scan# 2128
 Delta R.T. 0.112 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

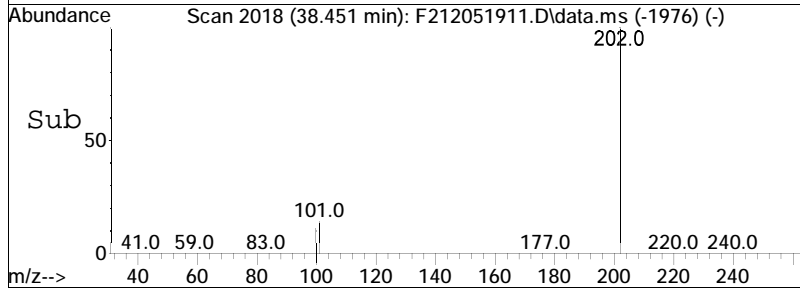
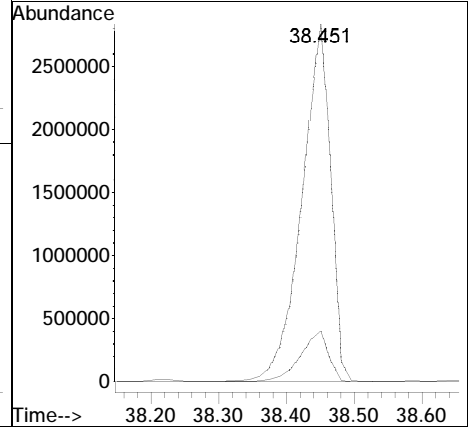
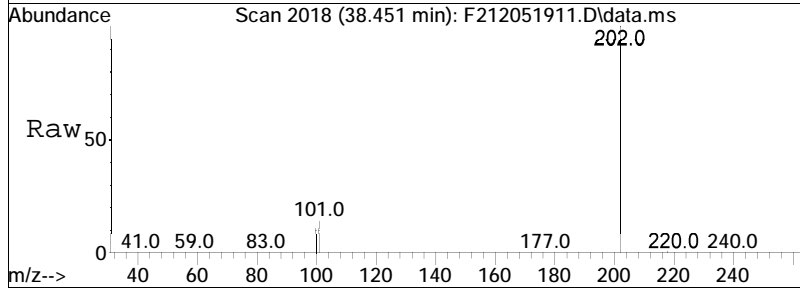
Tgt Ion	Resp	Lower	Upper
216	100		
215	2.9	102.3	189.9#

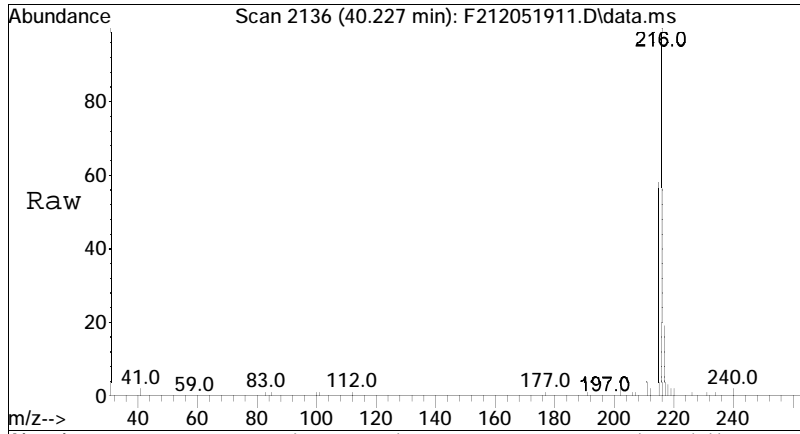




#59
 Pyrene
 Concen: 28131.42 ng/mL M3
 RT: 38.451 min Scan# 2018
 Delta R.T. 0.129 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

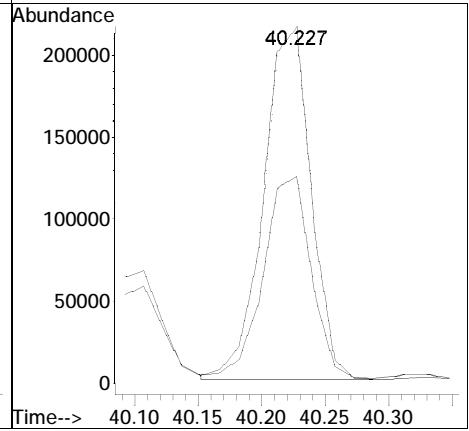
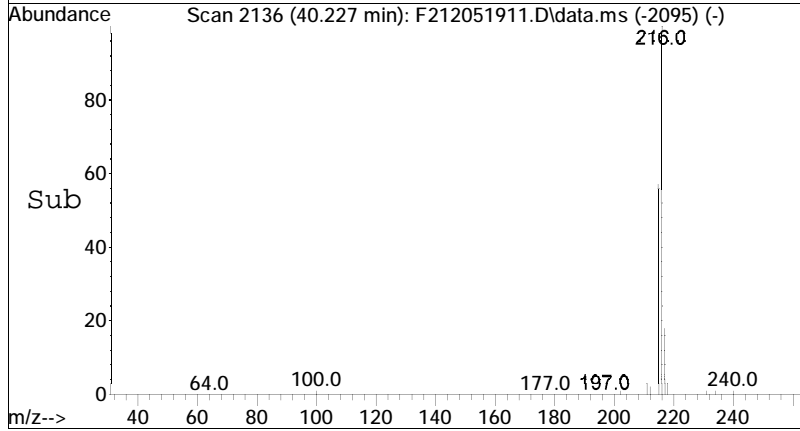
Tgt Ion: 202 Resp: 8277493
 Ion Ratio Lower Upper
 202 100
 101 0.1 9.0 16.8#

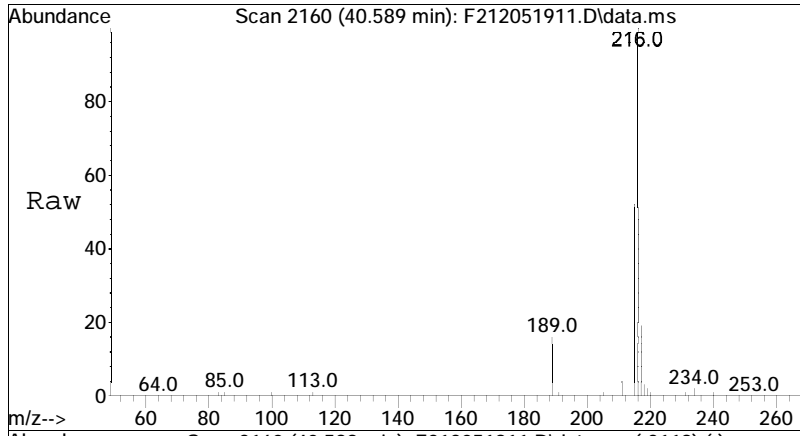




#60
 2-Methylpyrene
 Concen: 1883.68 ng/mL M3
 RT: 40.227 min Scan# 2136
 Delta R.T. 0.112 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

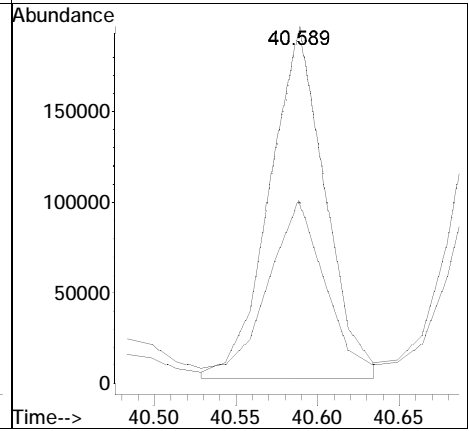
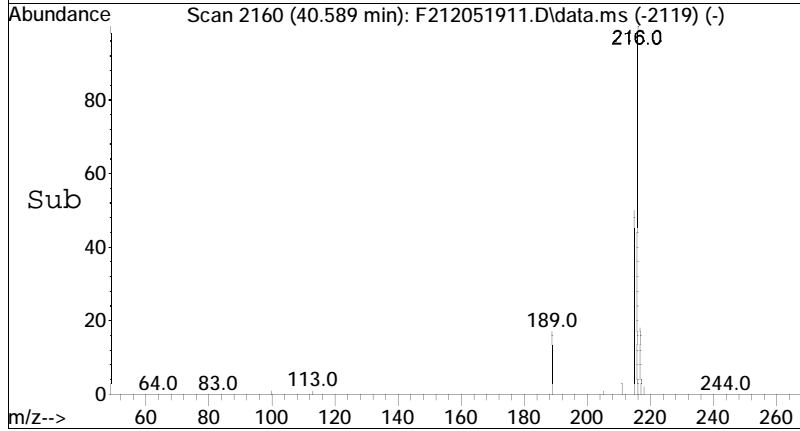
Tgt Ion	Resp	Lower	Upper
216	100		
215	75.6	73.1	135.7

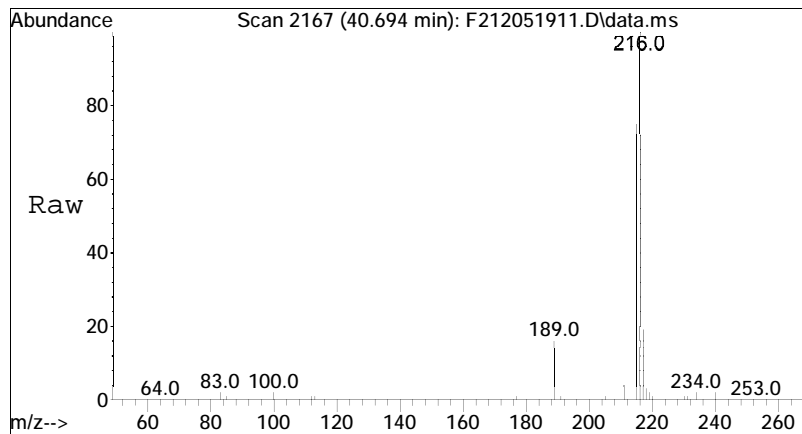




#61
 4-Methylpyrene
 Concen: 1547.69 ng/mL
 RT: 40.589 min Scan# 2160
 Delta R.T. 0.115 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

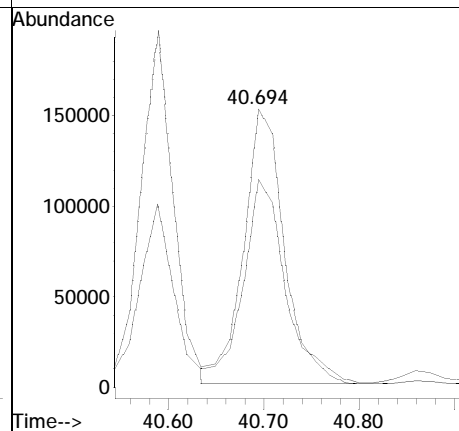
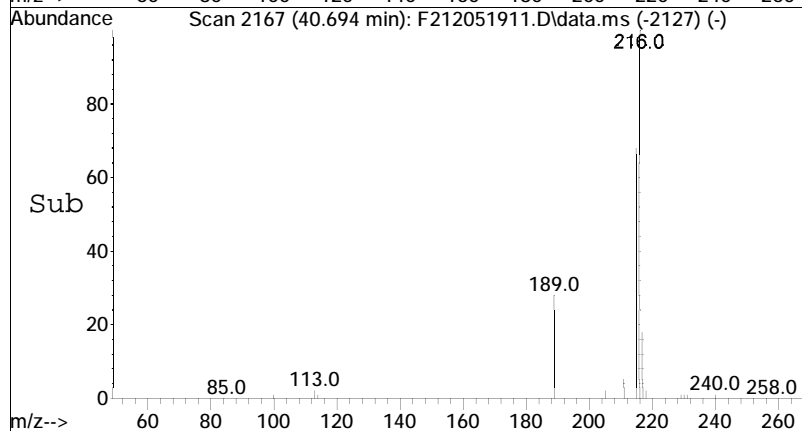
Tgt Ion	Resp	Lower	Upper
216	100		
215	51.3	49.5	91.9

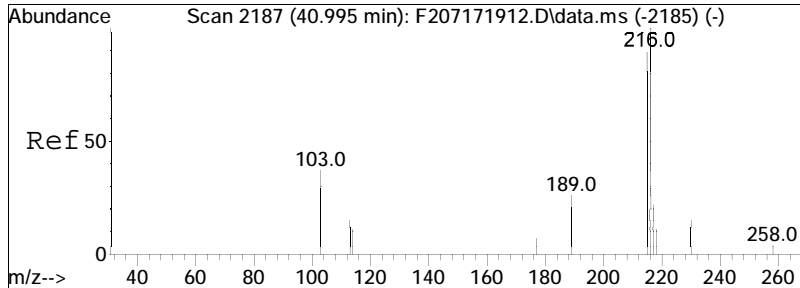




#62
 1-Methylpyrene
 Concen: 1532.27 ng/mL
 RT: 40.694 min Scan# 2167
 Delta R.T. 0.101 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

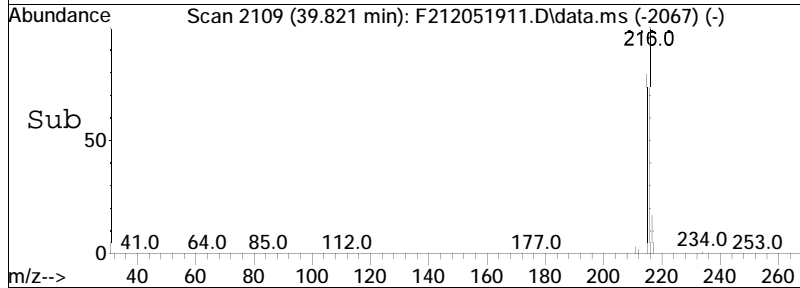
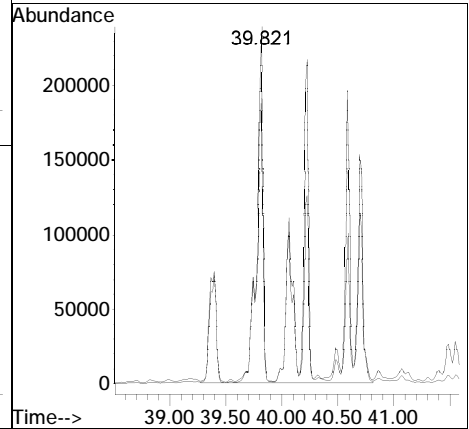
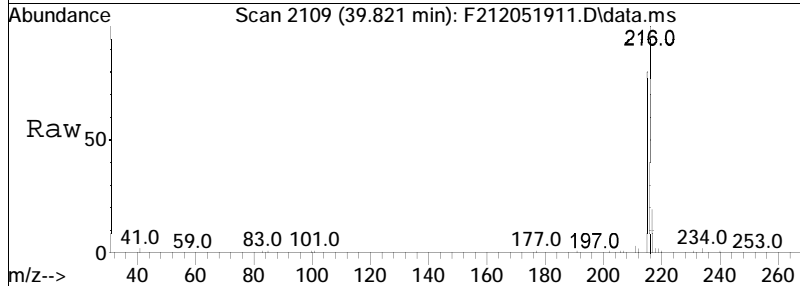
Tgt Ion	Resp	Lower	Upper
216	100		
215	76.2	73.7	136.9

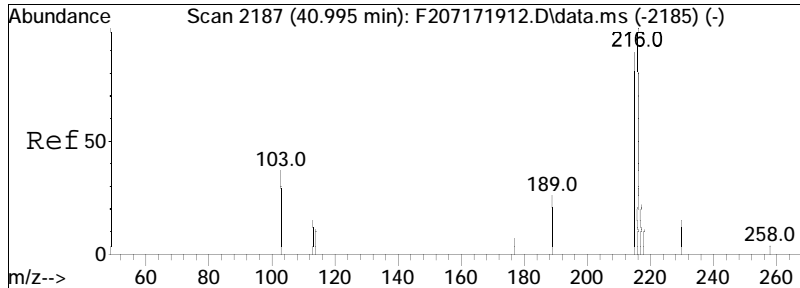




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 11056.57 ng/mL M5
 RT: 39.821 min Scan# 2109
 Delta R.T. 0.109 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

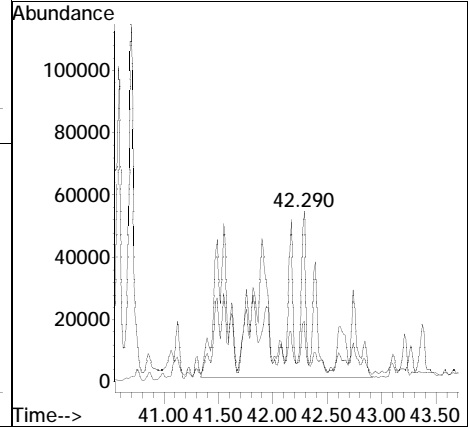
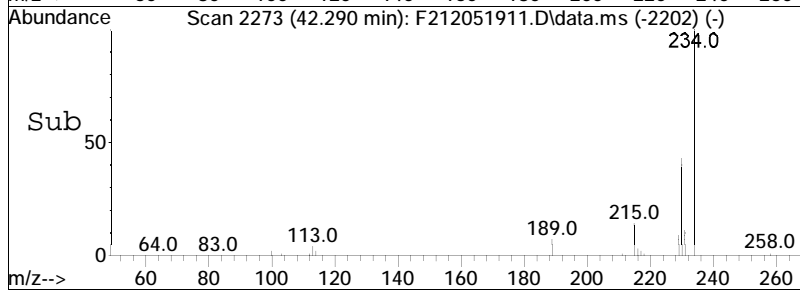
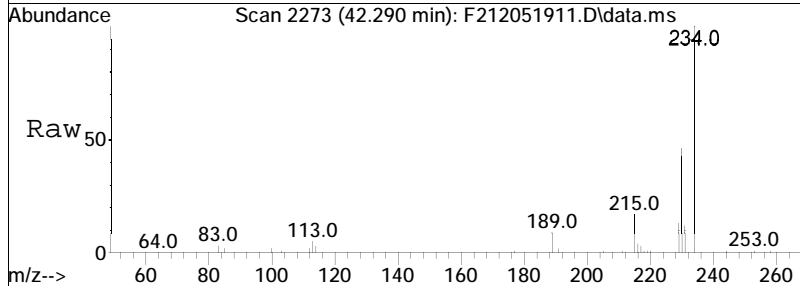
Tgt Ion: 216 Resp: 3253327
 Ion Ratio Lower Upper
 216 100
 215 23.1 66.0 122.6#

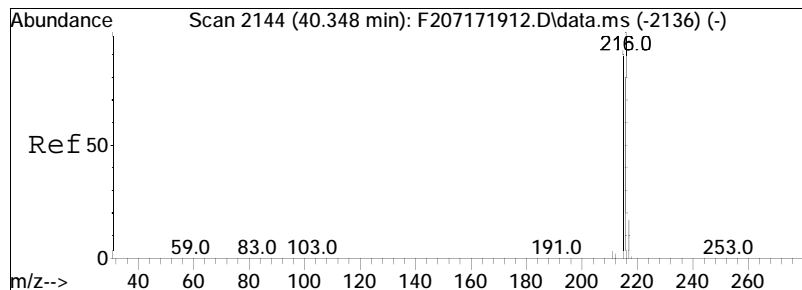




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 5131.41 ng/mL M5
 RT: 42.290 min Scan# 2273
 Delta R.T. 0.785 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

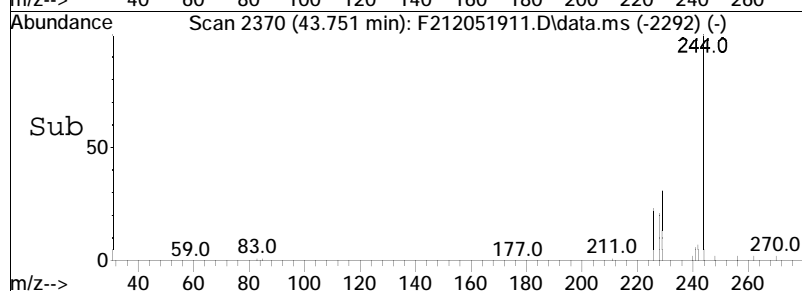
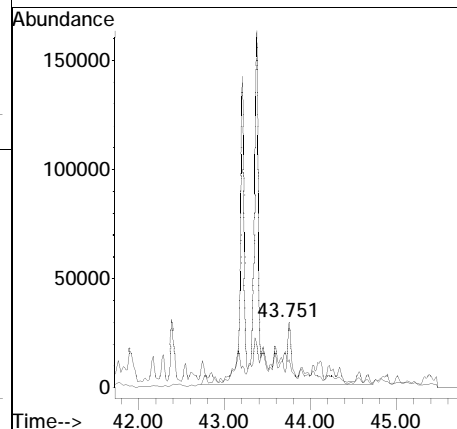
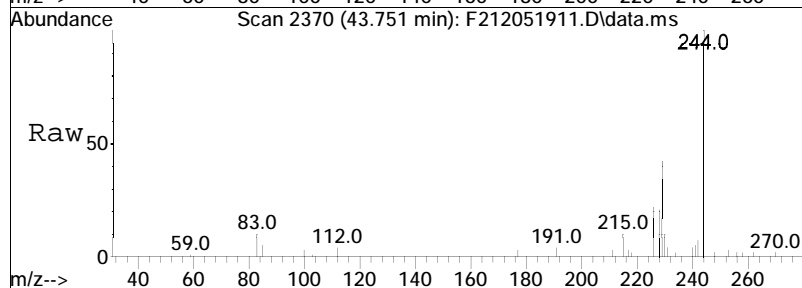
Tgt Ion: 230 Resp: 1509886
 Ion Ratio Lower Upper
 230 100
 215 3.0 74.8 138.8#

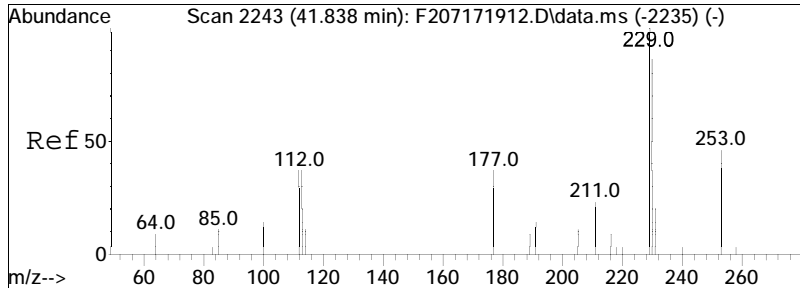




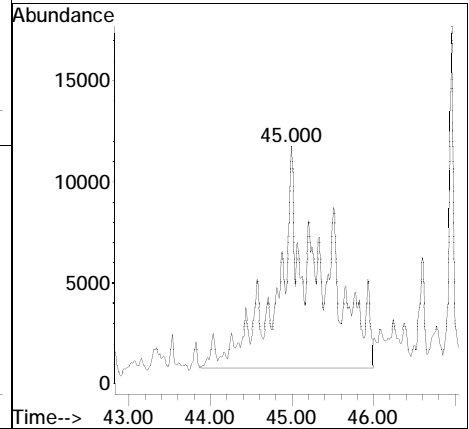
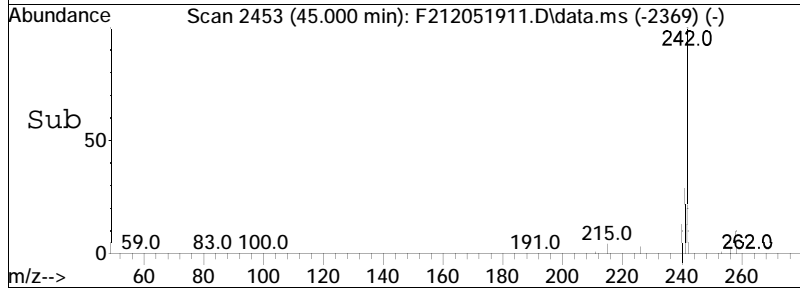
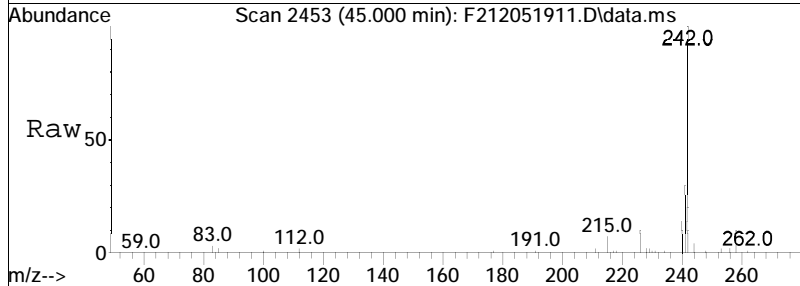
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 2728.70 ng/mL M5
 RT: 43.751 min Scan# 2370
 Delta R.T. 0.243 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

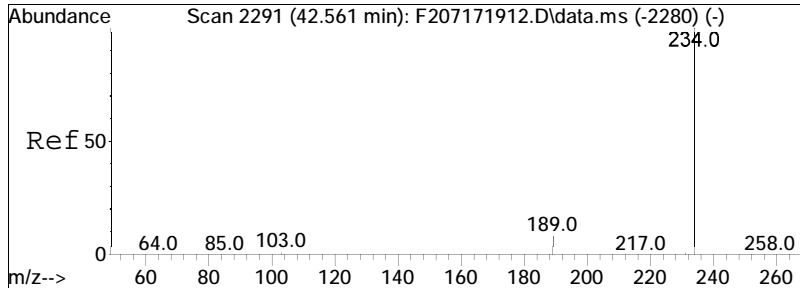
Tgt Ion	Resp	Lower	Upper
244	100		
229	3.0	62.0	115.2#





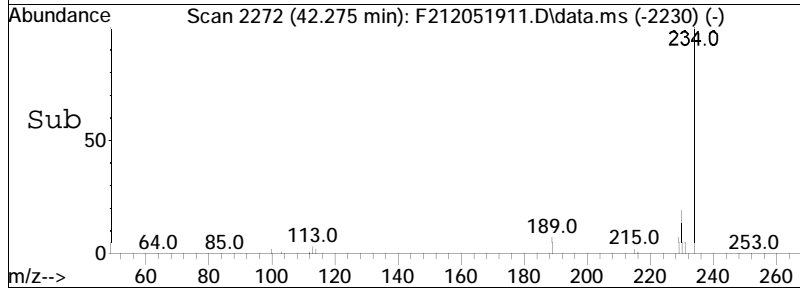
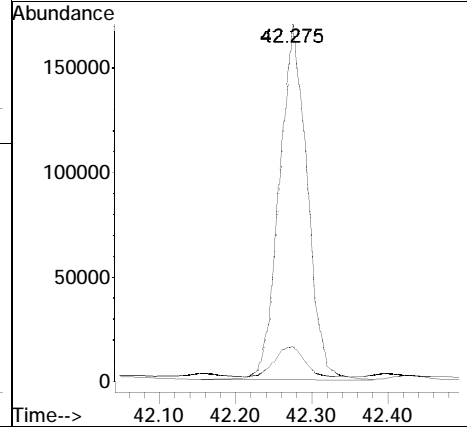
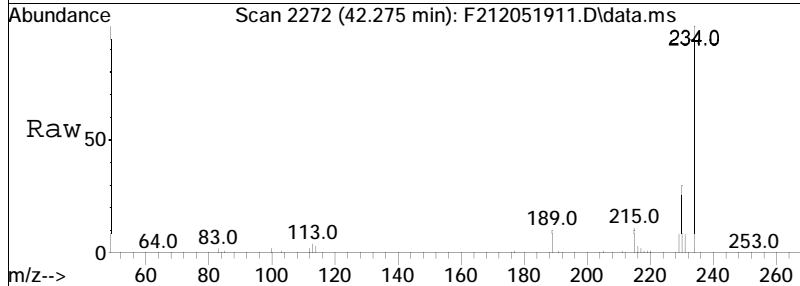
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 1345.00 ng/mL M5
 RT: 45.000 min Scan# 2453
 Delta R.T. 0.147 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion:258 Resp: 395758

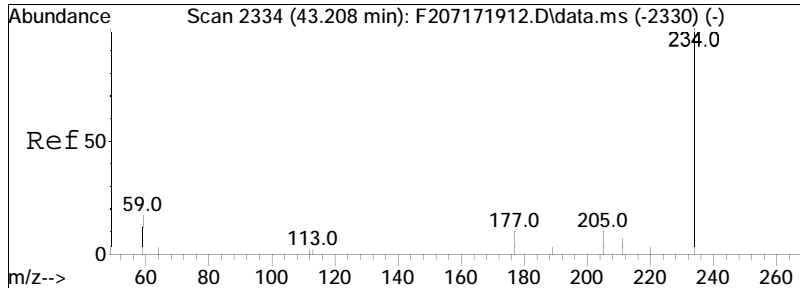




#67
 Naphthobenzothiophene-2,1-D
 Concen: 1693.83 ng/mL
 RT: 42.275 min Scan# 2272
 Delta R.T. 0.127 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

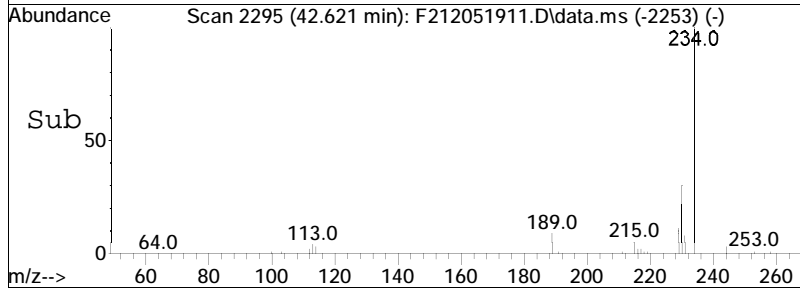
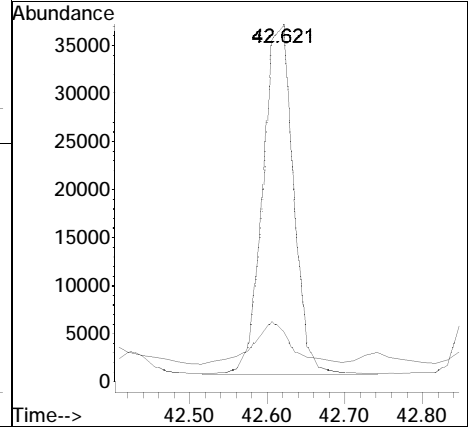
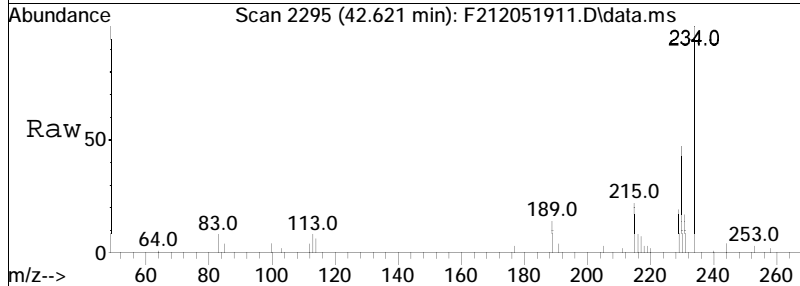
Tgt Ion	Resp	Lower	Upper
234	100		
189	9.9	5.5	10.3

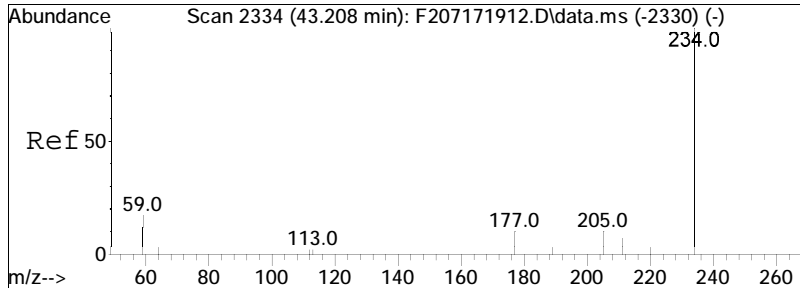




#68
 Naphthobenzothiophene-1,2-D
 Concen: 393.05 ng/mL M3
 RT: 42.621 min Scan# 2295
 Delta R.T. 0.130 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

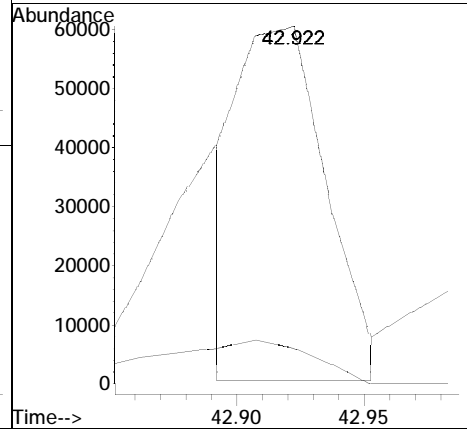
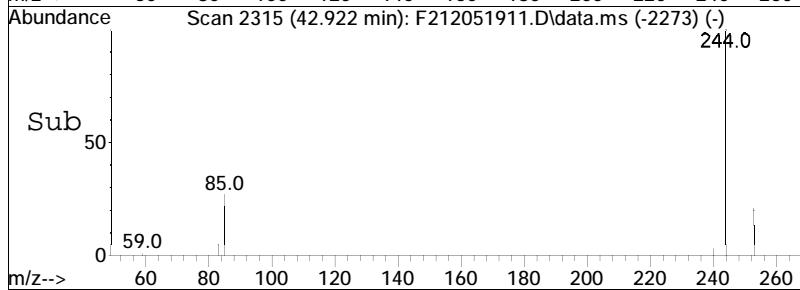
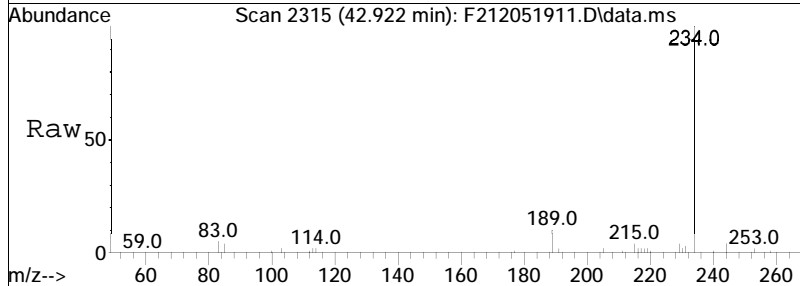
Tgt Ion	Resp	Lower	Upper
234	100		
189	0.0	56.7	105.3#

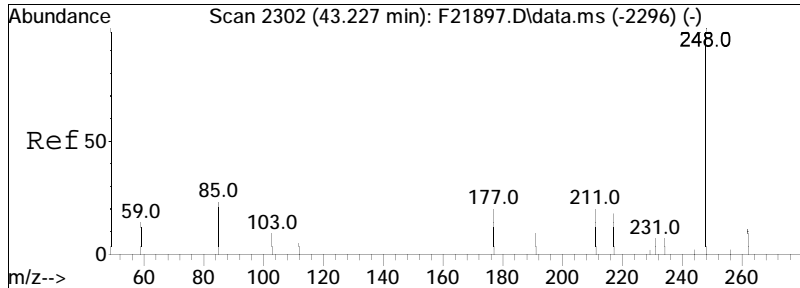




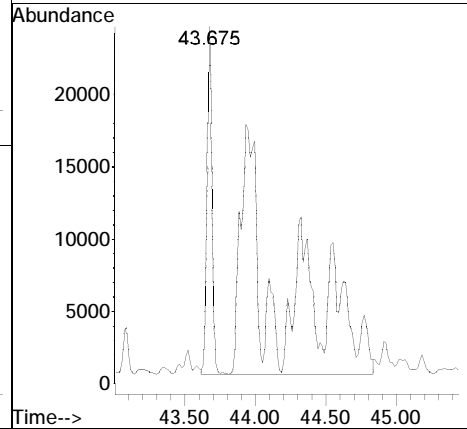
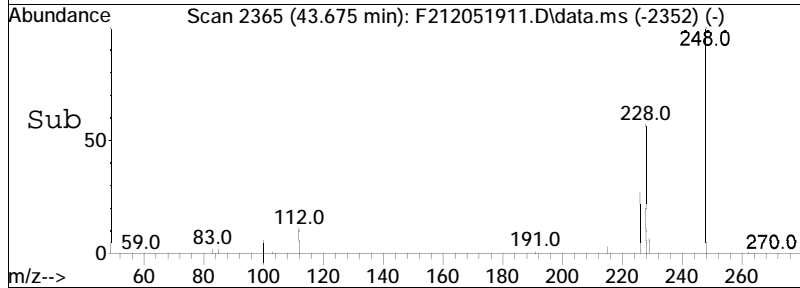
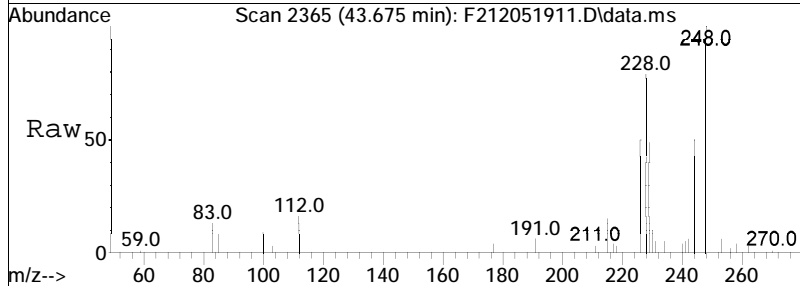
#69
 Naphthobenzothiophene-2,3-D
 Concen: 550.86 ng/mL M3
 RT: 42.922 min Scan# 2315
 Delta R.T. 0.132 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

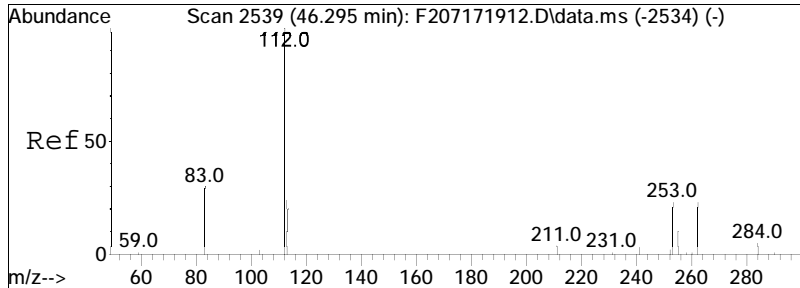
Tgt Ion: 234 Resp: 138642
 Ion Ratio Lower Upper
 234 100
 189 24.6 0.0 0.0#



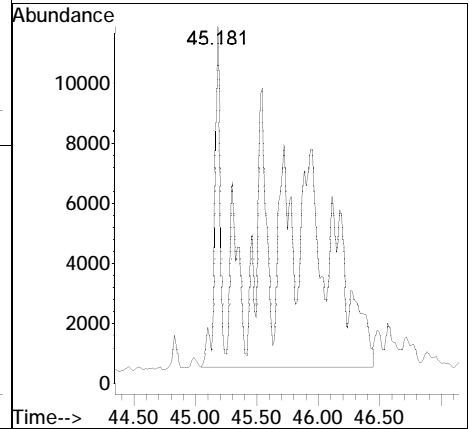
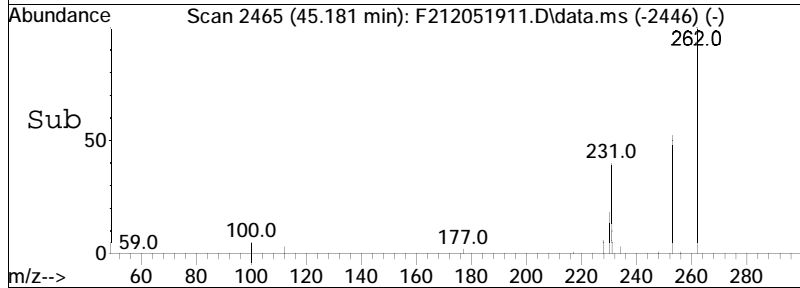
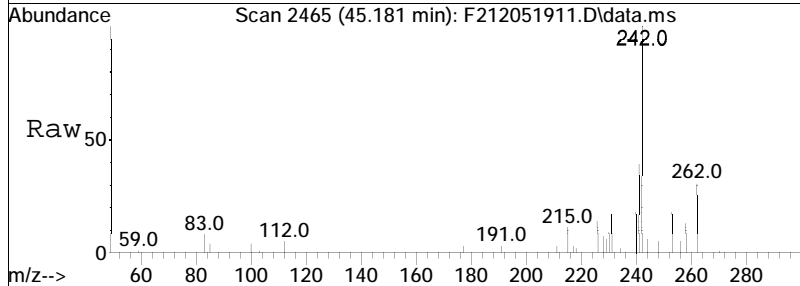


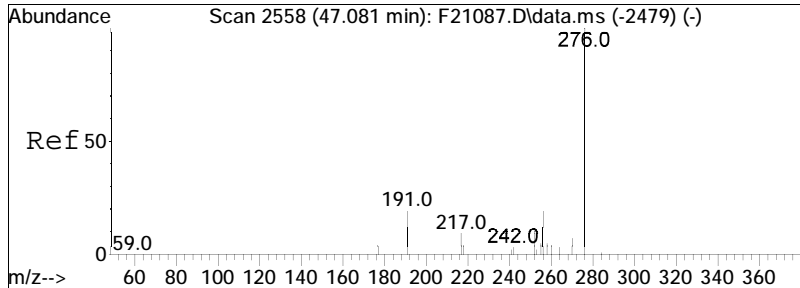
#70
 Cl-Naphthobenzothiophenes
 Concen: 1548.72 ng/ml M5
 RT: 43.675 min Scan# 2365
 Delta R.T. -0.550 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion: 248 Resp: 389783



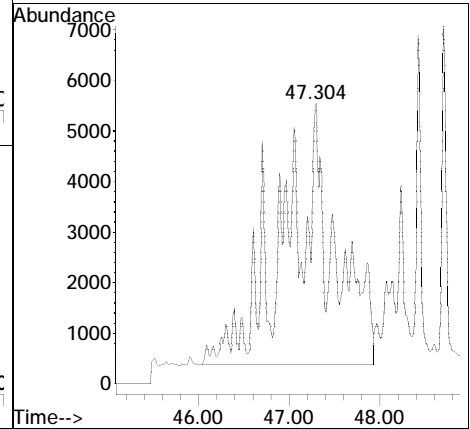
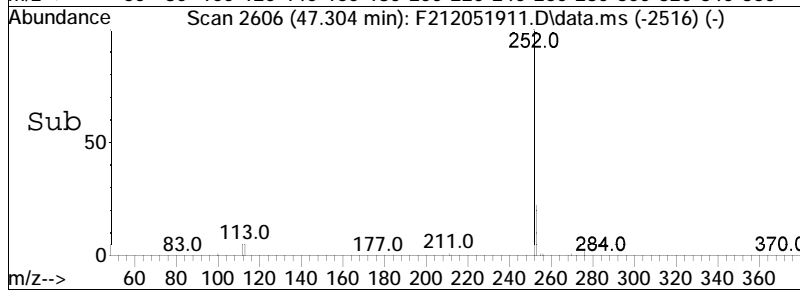
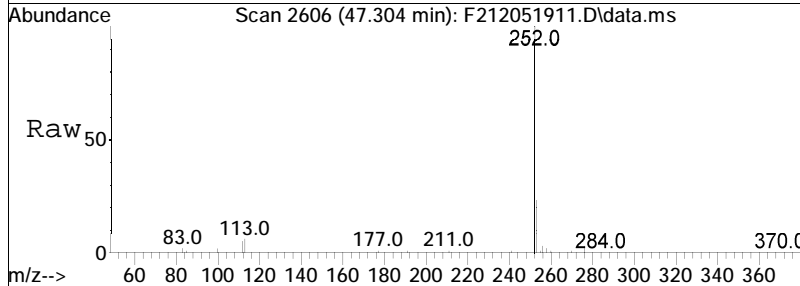


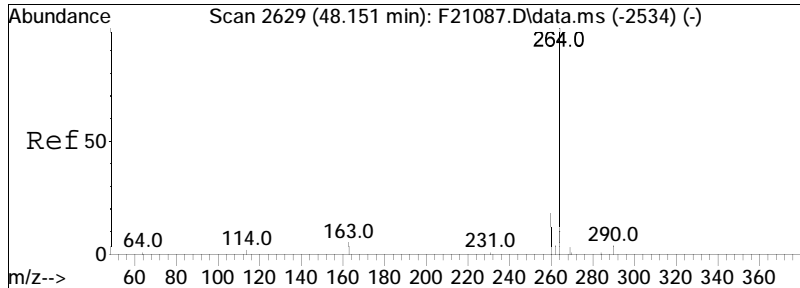
#71
 C2-Naphthobenzothiophenes
 Concen: 1186.91 ng/ml M5
 RT: 45.181 min Scan# 2465
 Delta R.T. -0.360 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion: 262 Resp: 298722



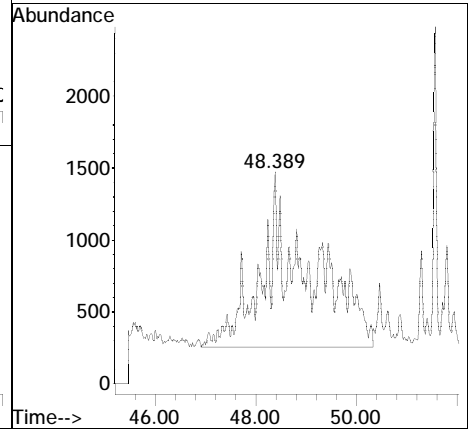
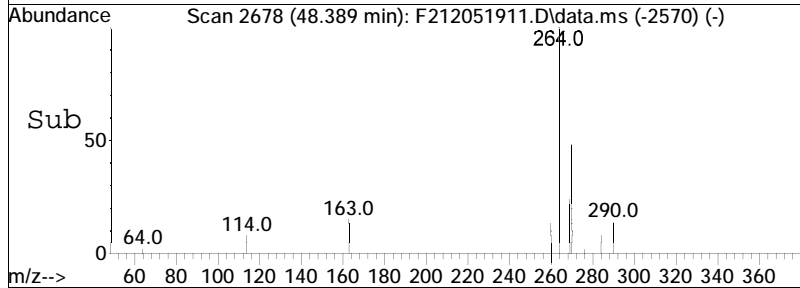
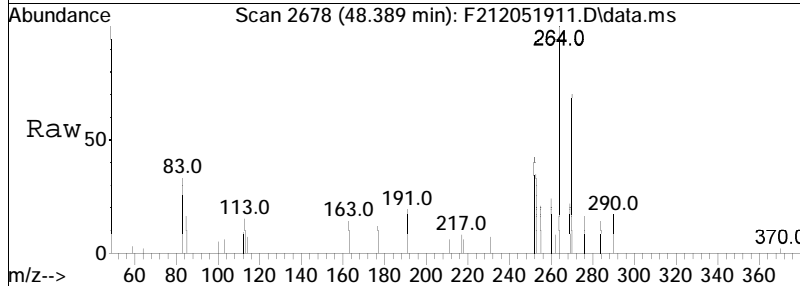


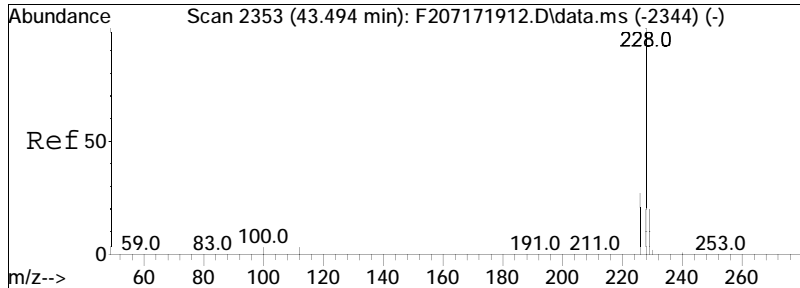
#72
 C3-Naphthobenzothiophenes
 Concen: 757.95 ng/ml M5
 RT: 47.304 min Scan# 2606
 Delta R.T. 0.164 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm
 Tgt Ion: 276 Resp: 190761





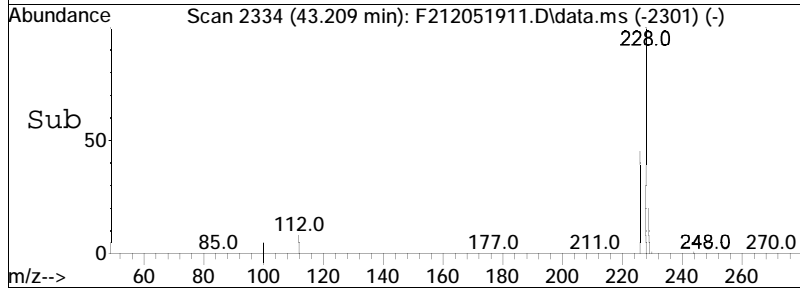
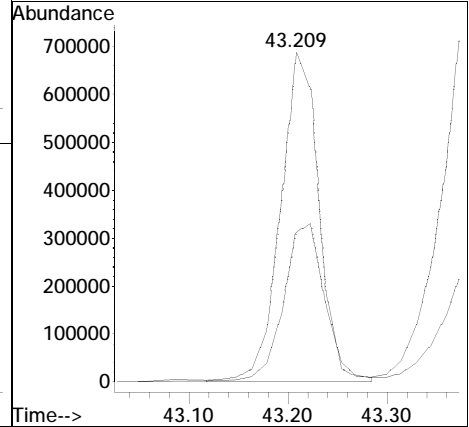
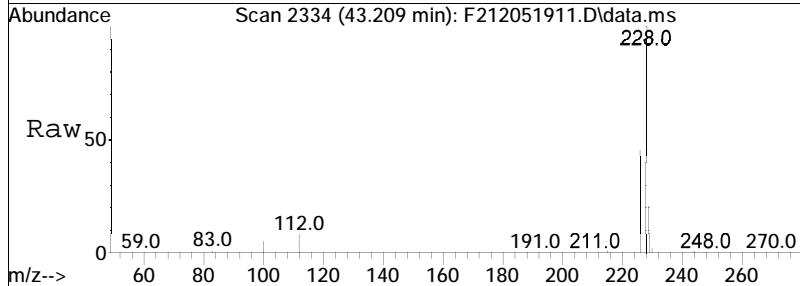
#73
C4-Naphthobenzothiophenes
Concen: 298.72 ng/mL M5
RT: 48.389 min Scan# 2678
Delta R.T. 0.142 min
Lab File: F212051911.D
Acq: 5 Dec 2019 9:39 pm
Tgt Ion: 290 Resp: 75181

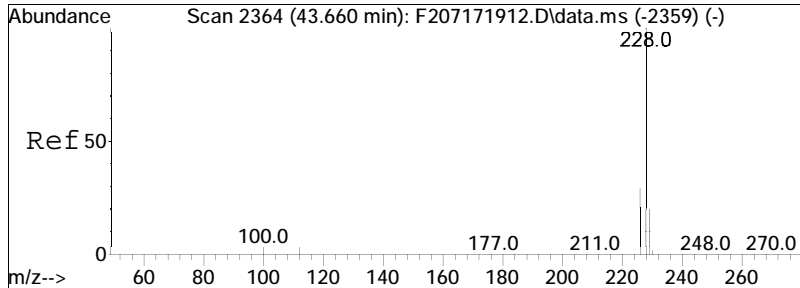




#75
 Benz[a]anthracene
 Concen: 7917.46 ng/mL M3
 RT: 43.209 min Scan# 2334
 Delta R.T. -0.000 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

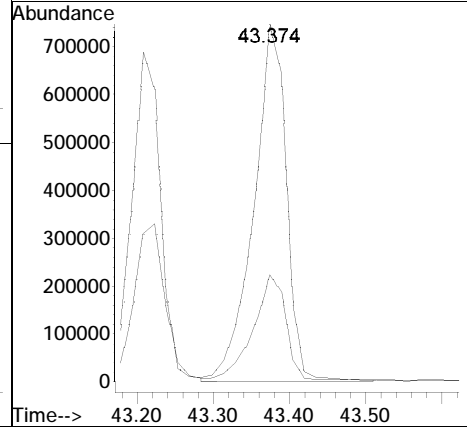
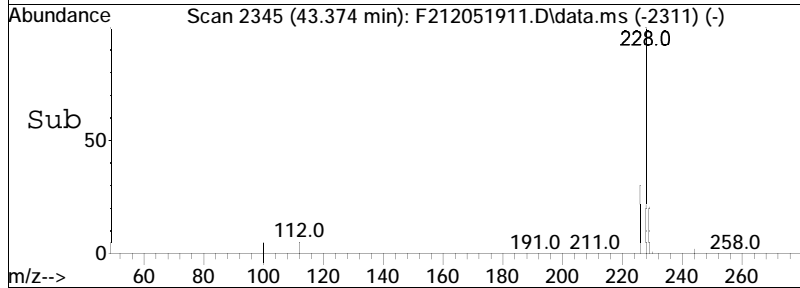
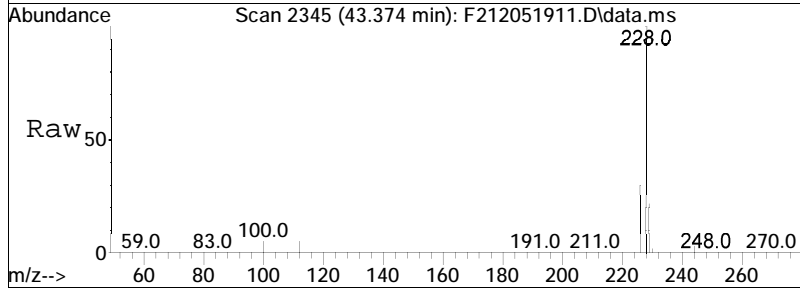
Tgt Ion: 228 Resp: 1848090
 Ion Ratio Lower Upper
 228 100
 226 34.8 18.2 33.8#

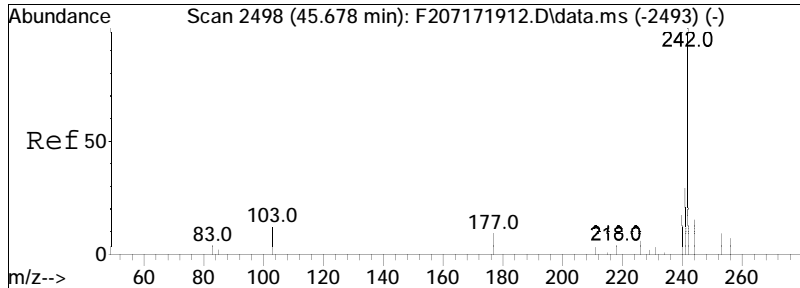




#76
 Chrysene
 Concen: 9324.52 ng/mL
 RT: 43.374 min Scan# 2345
 Delta R.T. 0.015 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

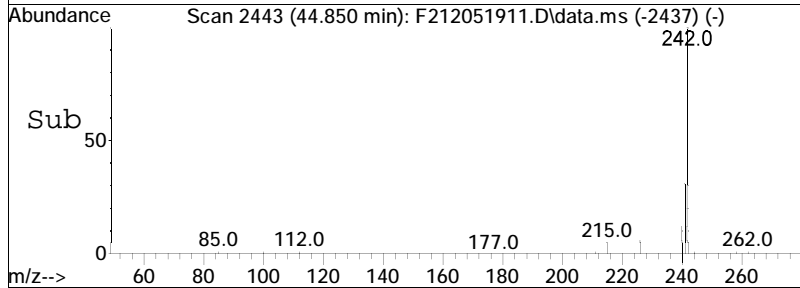
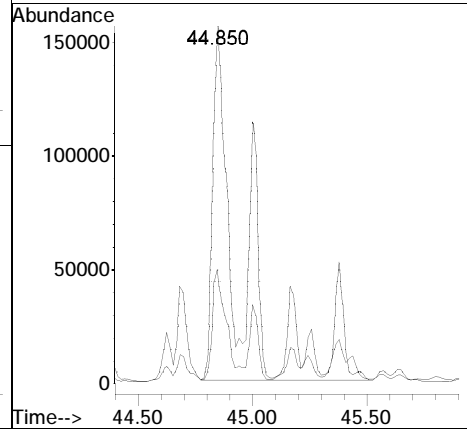
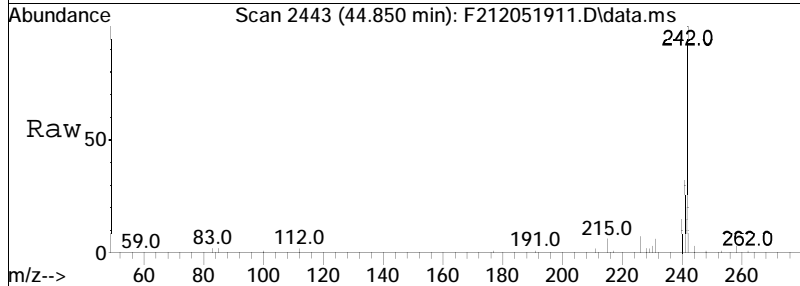
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.0	20.3	37.7

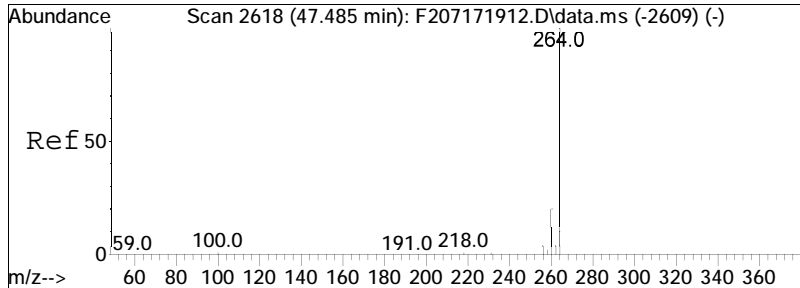




#78
 C1-Chrysenes
 Concen: 5340.00 ng/mL M5
 RT: 44.850 min Scan# 2443
 Delta R.T. 0.025 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

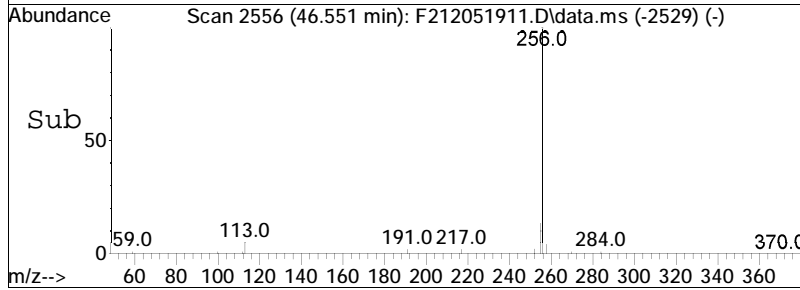
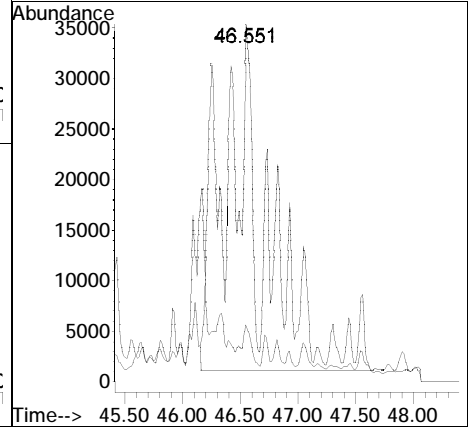
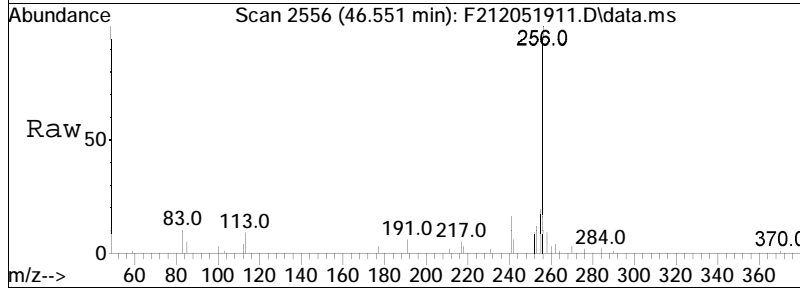
Tgt Ion: 242 Resp: 1268968
 Ion Ratio Lower Upper
 242 100
 241 3.6 31.3 58.1#

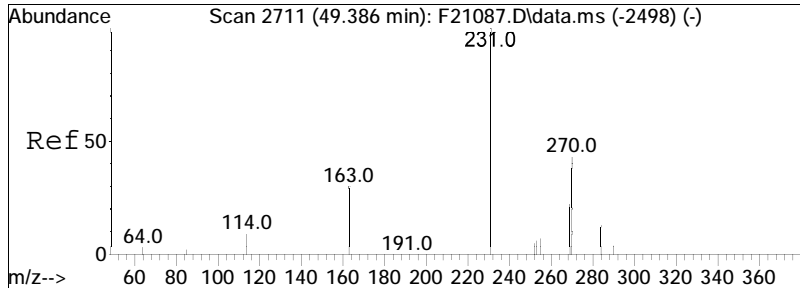




#79
 C2-Chrysenes
 Concen: 3636.19 ng/mL M5
 RT: 46.551 min Scan# 2556
 Delta R.T. -0.361 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

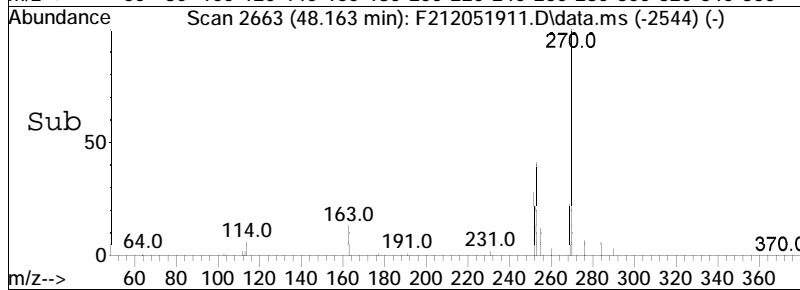
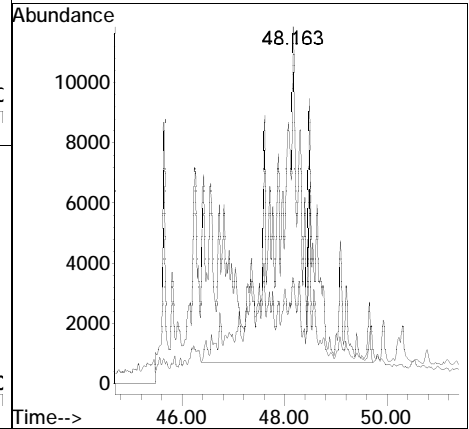
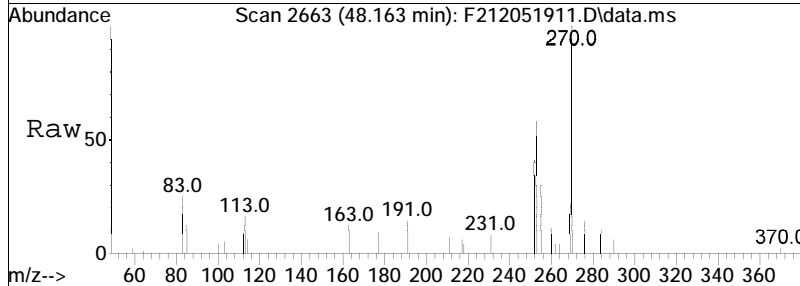
Tgt Ion	Ratio	Lower	Upper
256	100		
241	0.6	25.6	47.4#

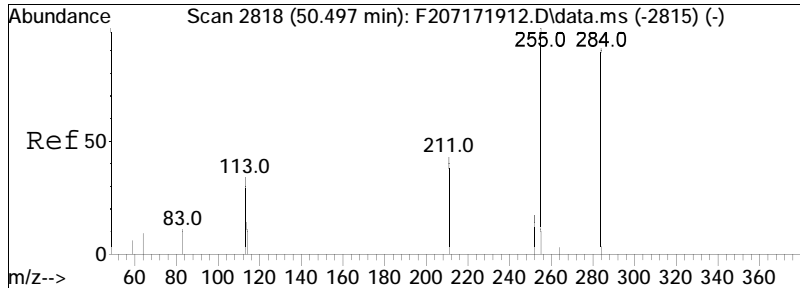




#81
 C3-Chrysenes
 Concen: 1978.27 ng/mL M5
 RT: 48.163 min Scan# 2663
 Delta R.T. -1.509 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

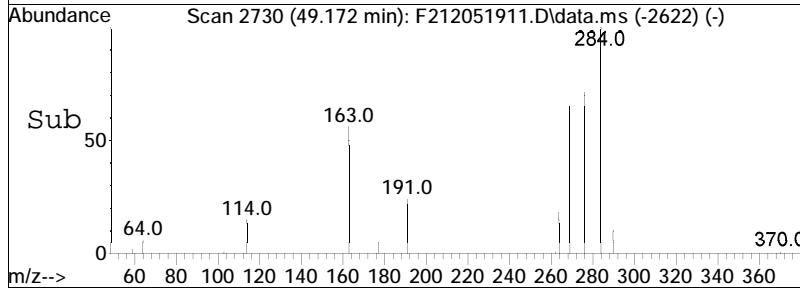
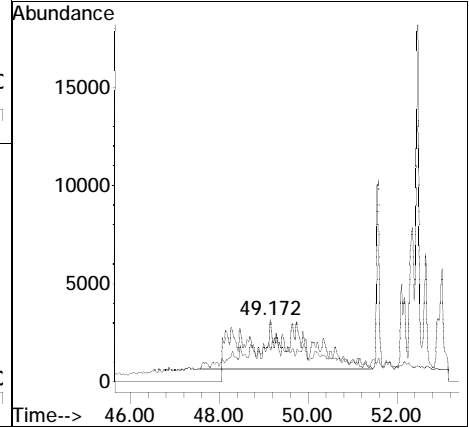
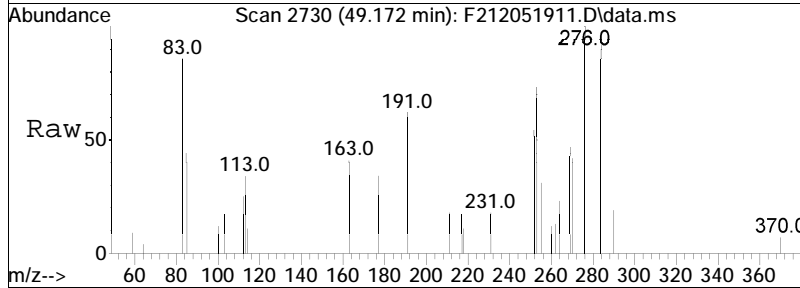
Tgt Ion	Ratio	Lower	Upper
270	100		
255	0.3	38.4	71.4#

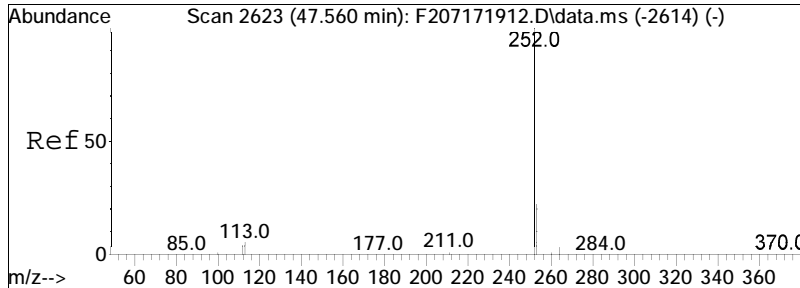




#82
 C4-Chrysenes
 Concen: 801.54 ng/mL M5
 RT: 49.172 min Scan# 2730
 Delta R.T. -0.605 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

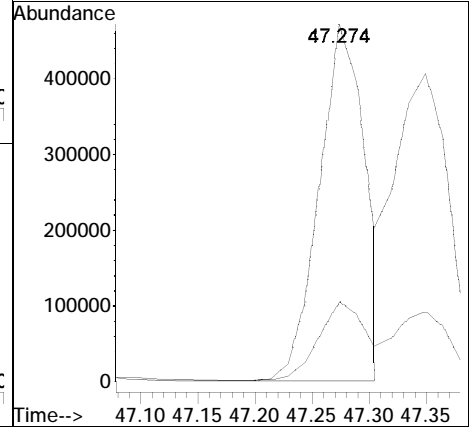
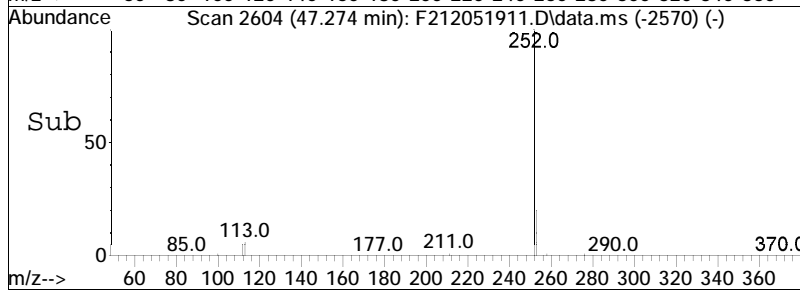
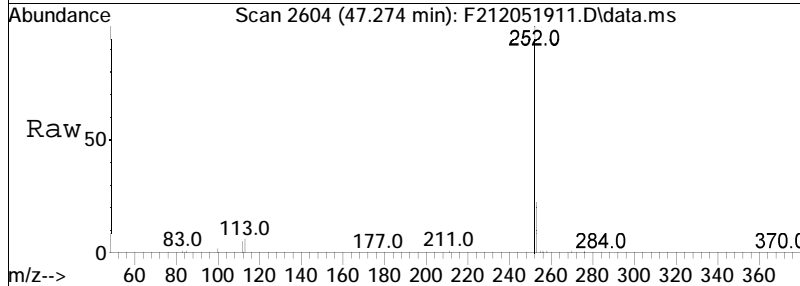
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	57.2	106.2#

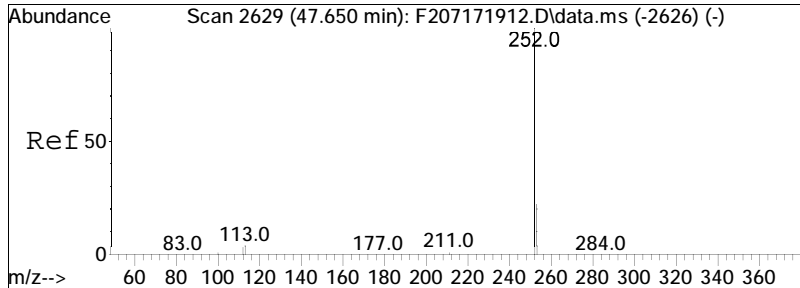




#84
 Benzo[b]fluoranthene
 Concen: 4712.99 ng/mL
 RT: 47.274 min Scan# 2604
 Delta R.T. 0.017 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

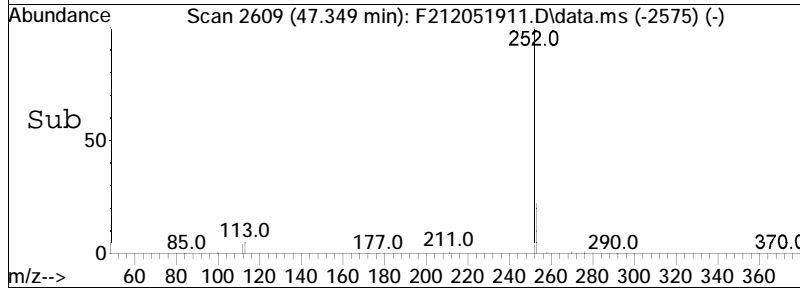
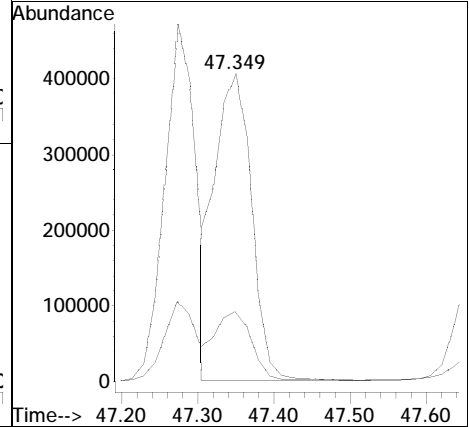
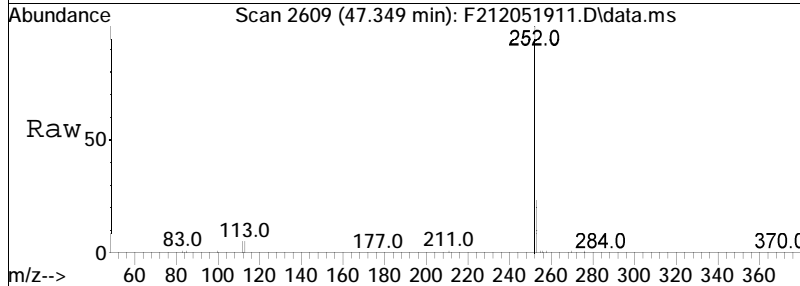
Tgt Ion: 252 Resp: 1331841
 Ion Ratio Lower Upper
 252 100
 253 22.3 16.4 30.4

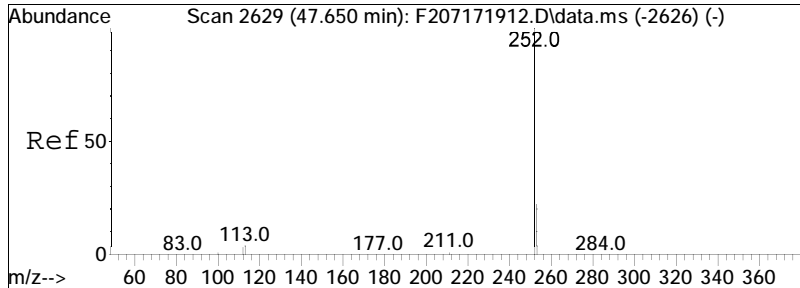




#85
 Benzo[j]+[k]fluoranthene
 Concen: 4722.72 ng/mL
 RT: 47.349 min Scan# 2609
 Delta R.T. 0.017 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

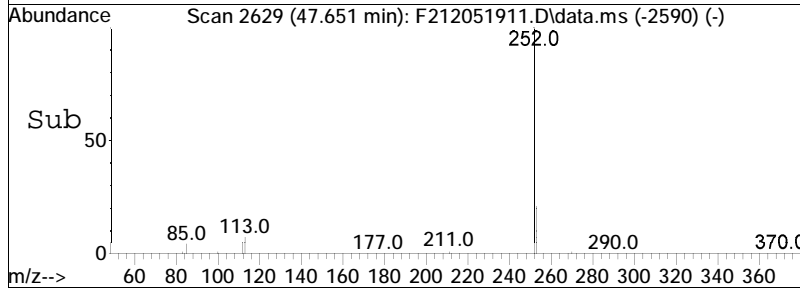
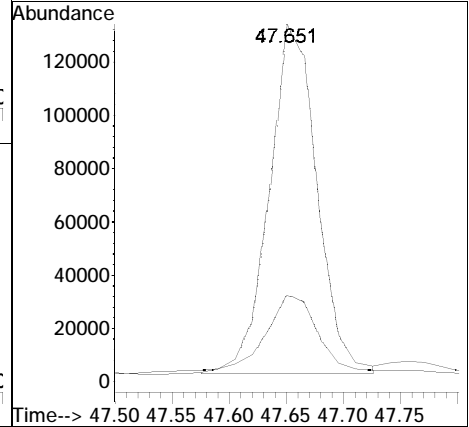
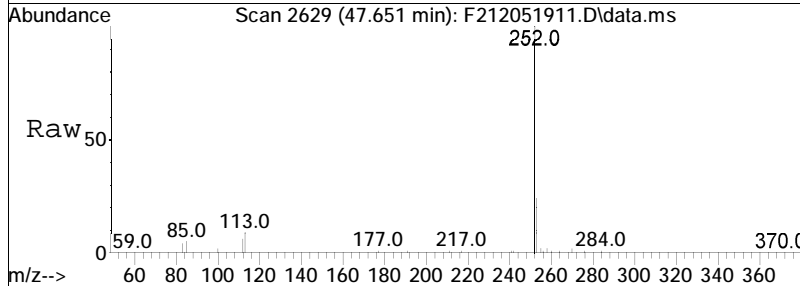
Tgt Ion: 252 Resp: 1342610
 Ion Ratio Lower Upper
 252 100
 253 21.8 16.4 30.4

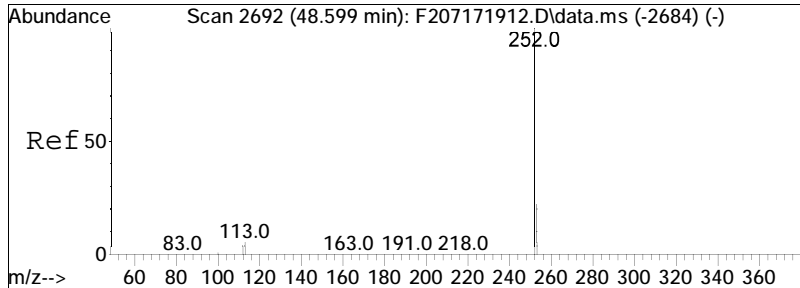




#86
 Benzo[a]fluoranthene
 Concen: 1329.83 ng/mL M3
 RT: 47.651 min Scan# 2629
 Delta R.T. 0.087 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

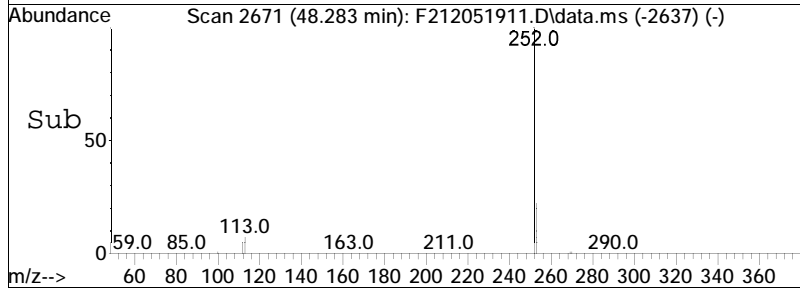
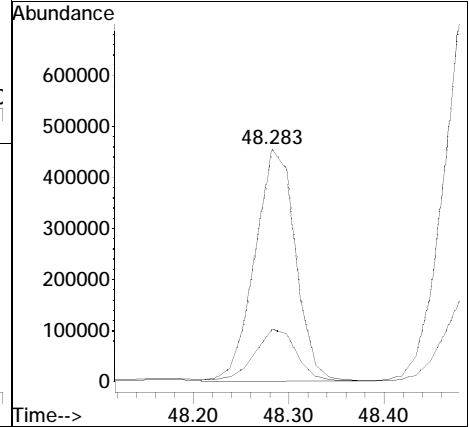
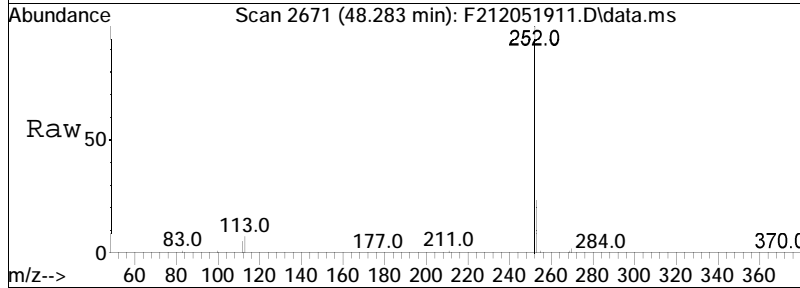
Tgt Ion	Ratio	Lower	Upper
252	100		
253	29.2	96.2	178.8#

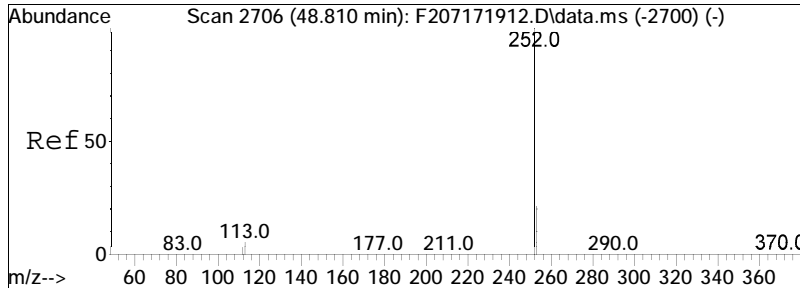




#87
 Benzo[e]pyrene
 Concen: 4925.32 ng/mL
 RT: 48.283 min Scan# 2671
 Delta R.T. 0.006 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

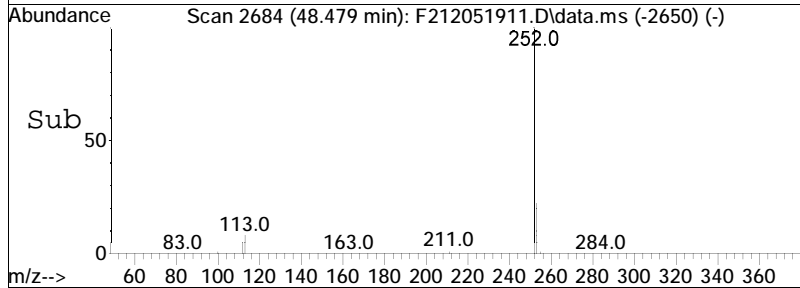
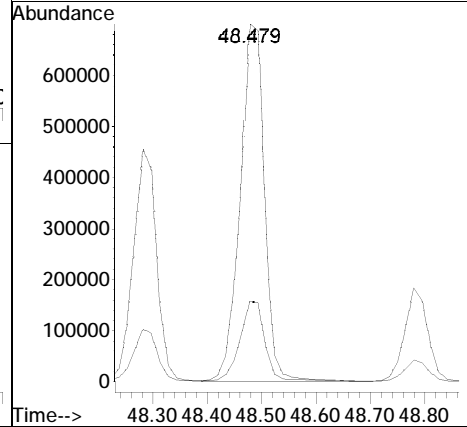
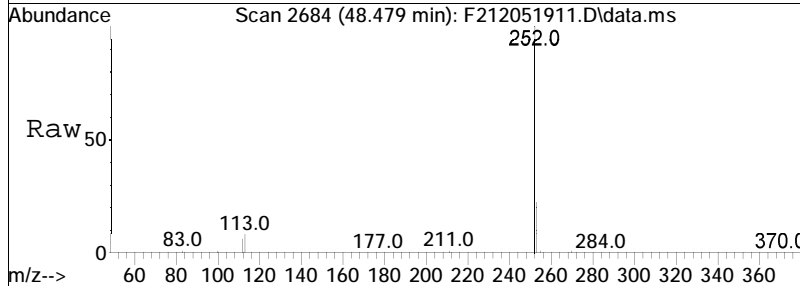
Tgt Ion: 252 Resp: 1336882
 Ion Ratio Lower Upper
 252 100
 253 22.4 16.6 30.8

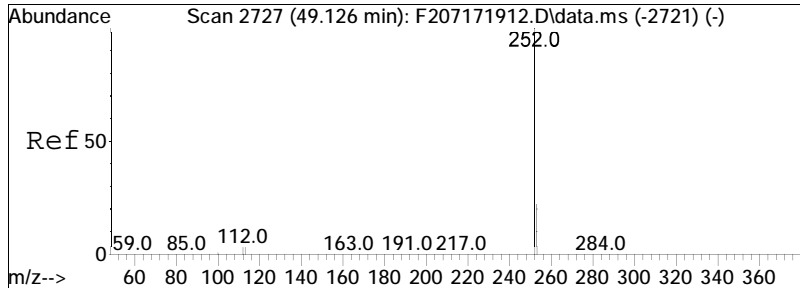




#89
 Benzo[a]pyrene
 Concen: 8649.90 ng/mL
 RT: 48.479 min Scan# 2684
 Delta R.T. 0.007 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

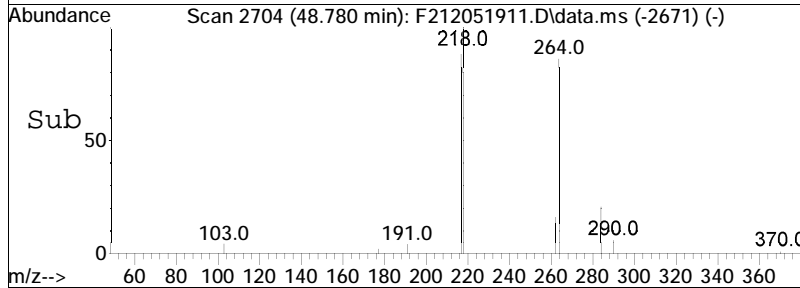
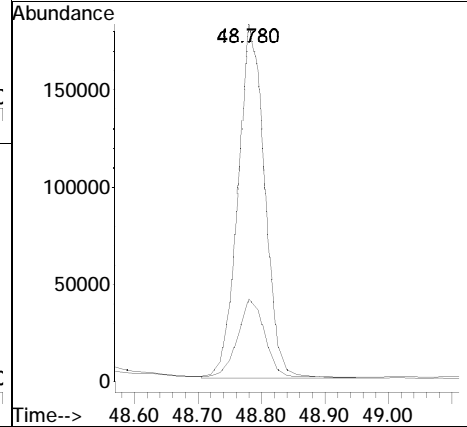
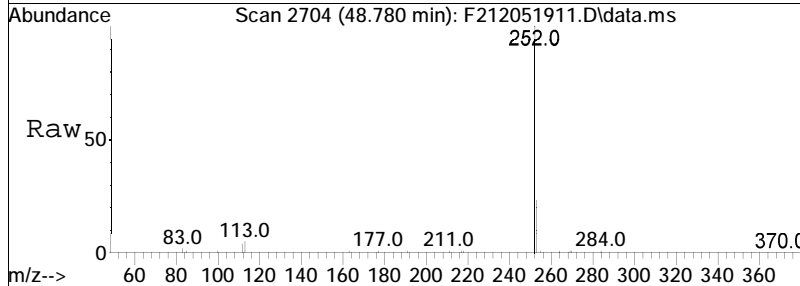
Tgt Ion: 252 Resp: 2149321
 Ion Ratio Lower Upper
 252 100
 253 22.7 16.7 31.1

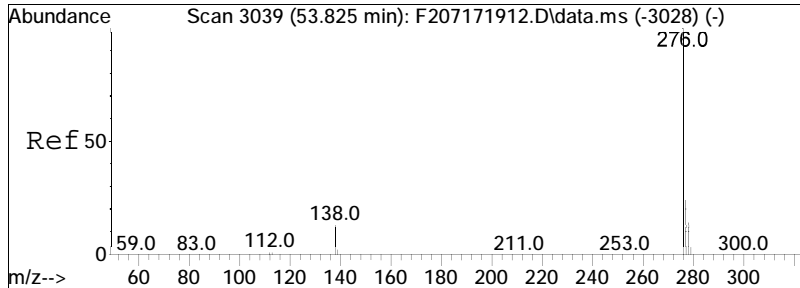




#90
 Perylene
 Concen: 2190.64 ng/mL
 RT: 48.780 min Scan# 2704
 Delta R.T. -0.007 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

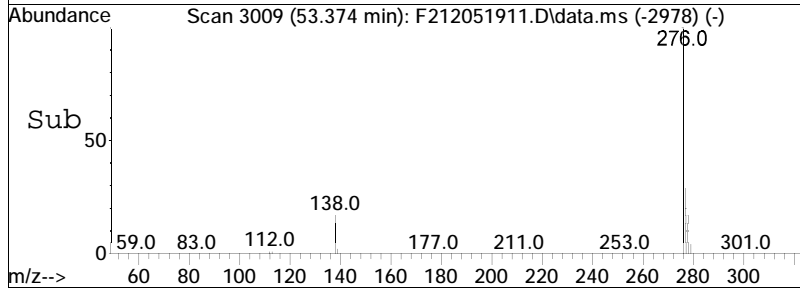
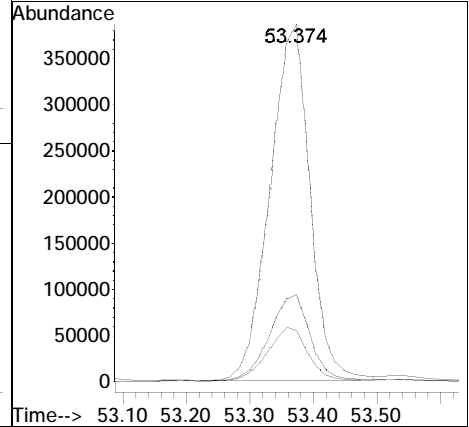
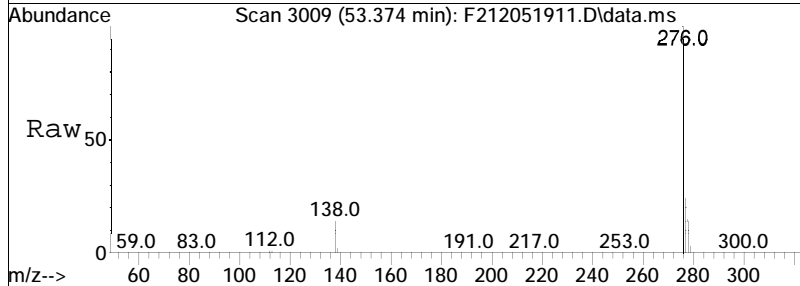
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.4	17.1	31.7

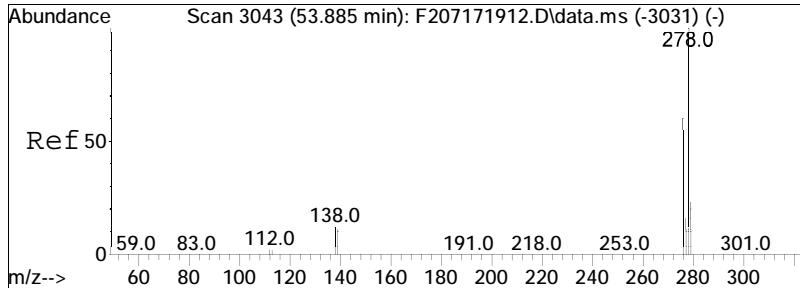




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 5641.89 ng/mL
 RT: 53.374 min Scan# 3009
 Delta R.T. -0.033 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

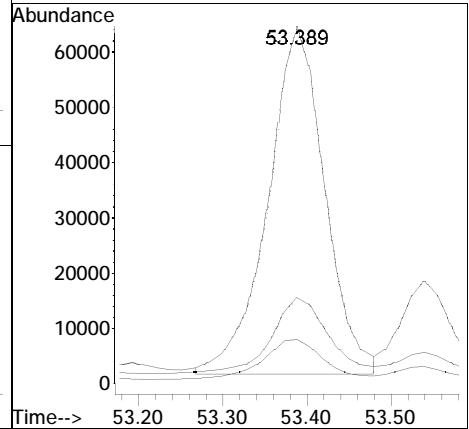
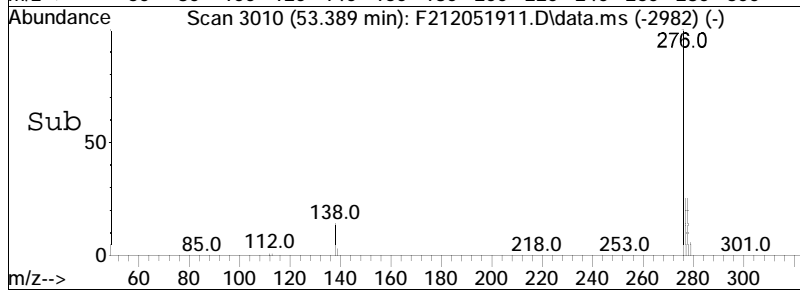
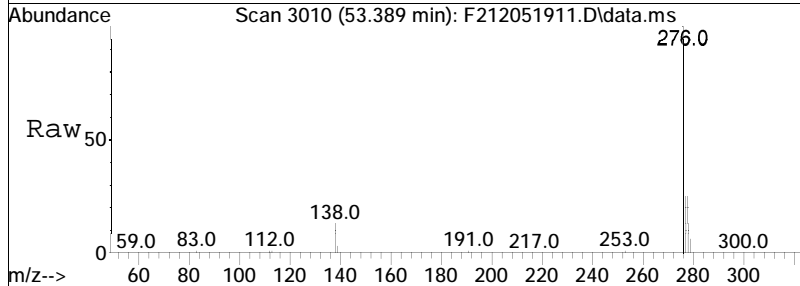
Tgt Ion	Ratio	Lower	Upper
276	100		
138	16.1	11.3	20.9
277	24.9	16.8	31.2

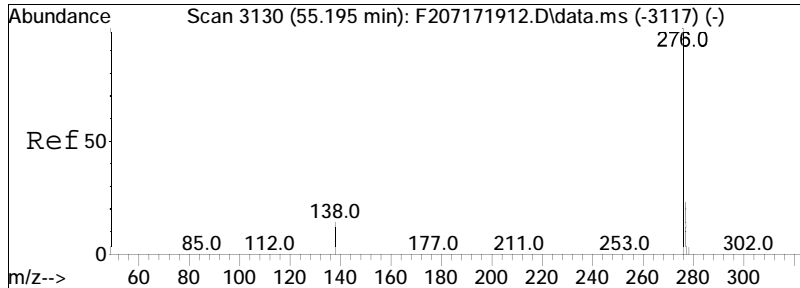




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 1088.05 ng/mL M3
 RT: 53.389 min Scan# 3010
 Delta R.T. -0.078 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

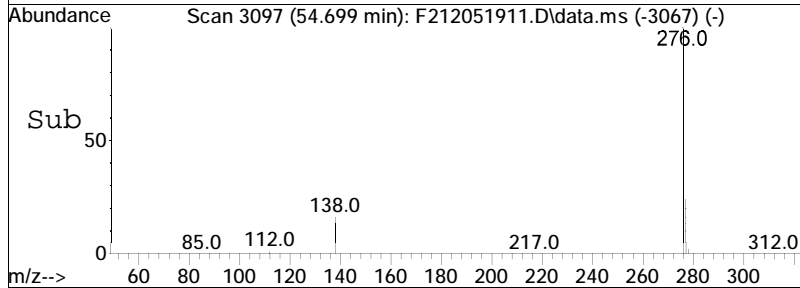
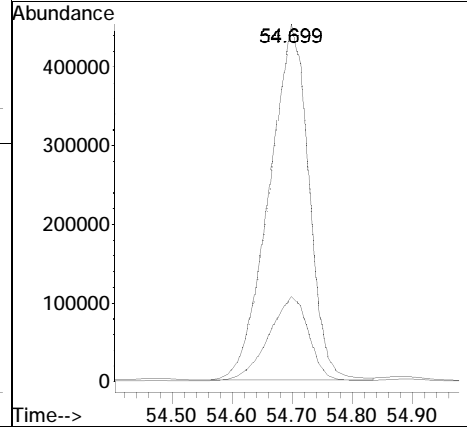
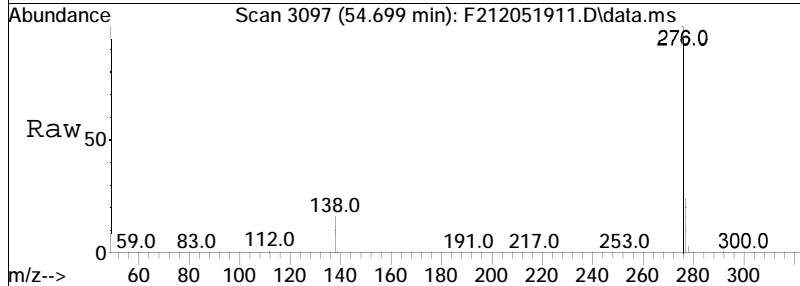
Tgt Ion	Ratio	Lower	Upper
278	100		
139	3.6	9.2	17.2#
279	6.2	16.6	30.8#





#93
 Benzo[g,h,i]perylene
 Concen: 6945.95 ng/mL
 RT: 54.699 min Scan# 3097
 Delta R.T. -0.043 min
 Lab File: F212051911.D
 Acq: 5 Dec 2019 9:39 pm

Tgt Ion	Resp	Lower	Upper
276	100		
277	24.1	16.5	30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051913.D
 Acq On : 6 Dec 2019 12:34 am
 Operator : PAH2:MJS
 Sample : L1954309-02d,32,10
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 10 15:58:57 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAHSTD - ALKPAH Standard List

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	67681M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	105375	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	24151	96.798	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.68%#
40) Phenanthrene-d10	32.654	188	22518	102.647	ng/mL	0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	10.26%#
83) Benzo[b]fluoranthene-d12	47.169	264	23928	115.956	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	11.60%#
88) Benzo[a]pyrene-d12	48.373	264	15650	98.125	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.81%#
Target Compounds						
41) Phenanthrene	32.744	178	2112770	7590.302	ng/mL	99
52) Retene	39.745	234	296842	3115.276	ng/mL	91
56) Fluoranthene	37.532	202	1149179M4	3619.978	ng/mL	
59) Pyrene	38.420	202	1444874	4383.223	ng/mL	97

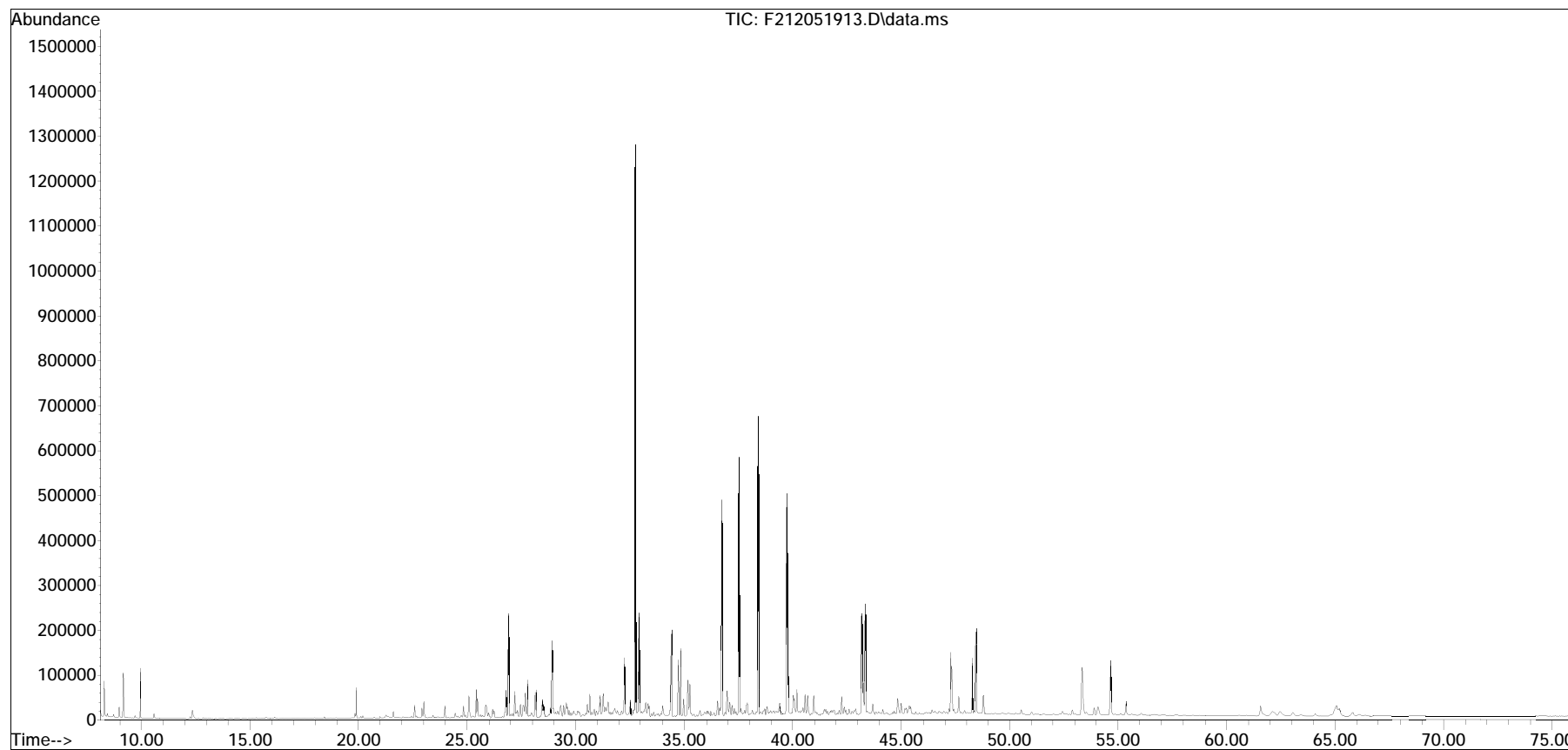
(#) = qualifier out of range (m) = manual integration (+) = signals summed

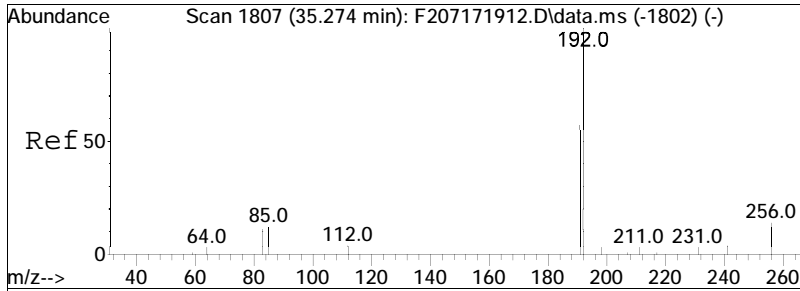
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051913.D
Acq On : 6 Dec 2019 12:34 am
Operator : PAH2:MJS
Sample : L1954309-02d,32,10
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 10 15:58:57 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

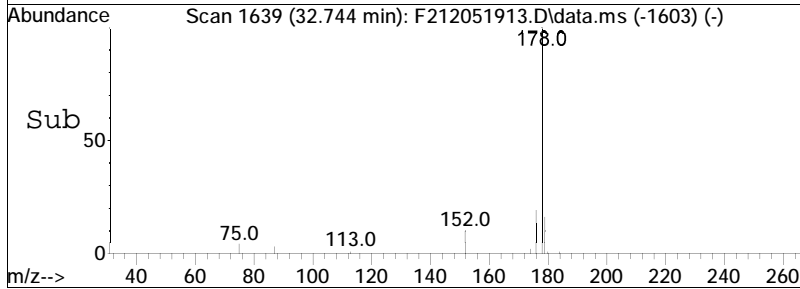
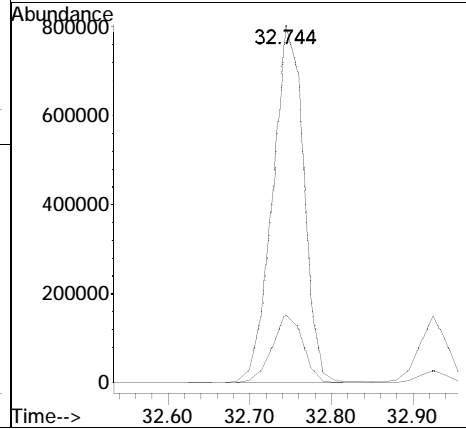
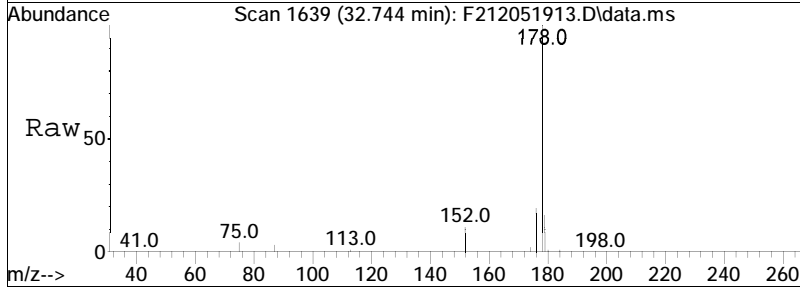
Sub List : ALKPAHSTD - ALKPAH Standard List

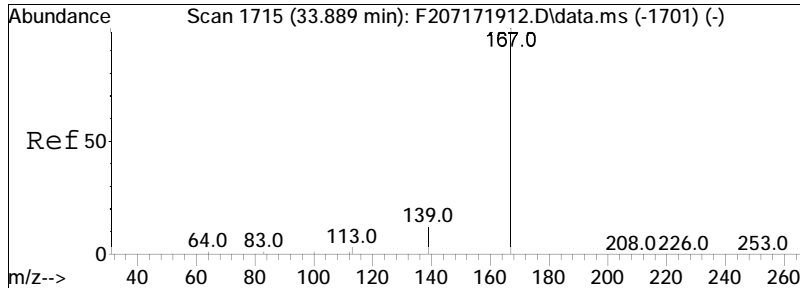




#41
 Phenanthrene
 Concen: 7590.30 ng/mL
 RT: 32.744 min Scan# 1639
 Delta R.T. 0.043 min
 Lab File: F212051913.D
 Acq: 6 Dec 2019 12:34 am

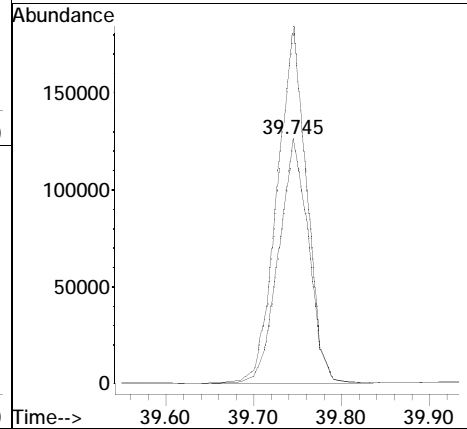
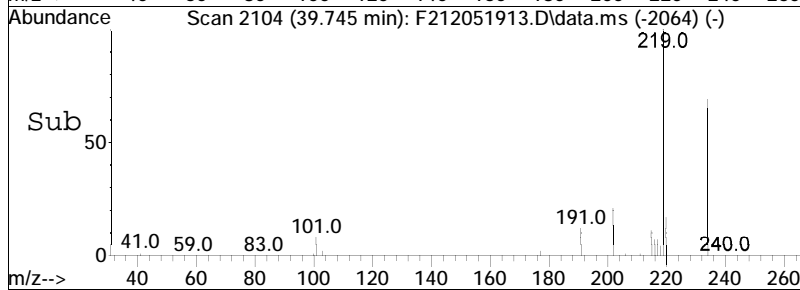
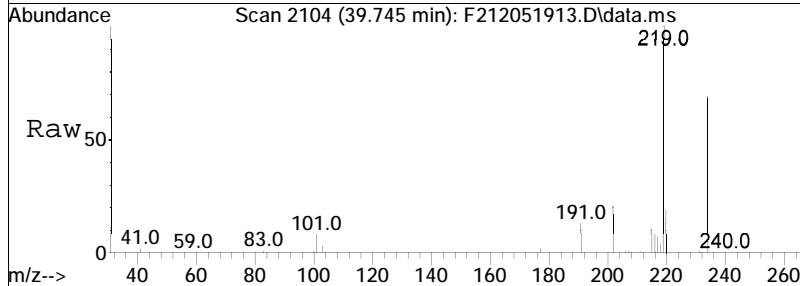
Tgt Ion: 178 Resp: 2112770
 Ion Ratio Lower Upper
 178 100
 176 18.9 13.0 24.1

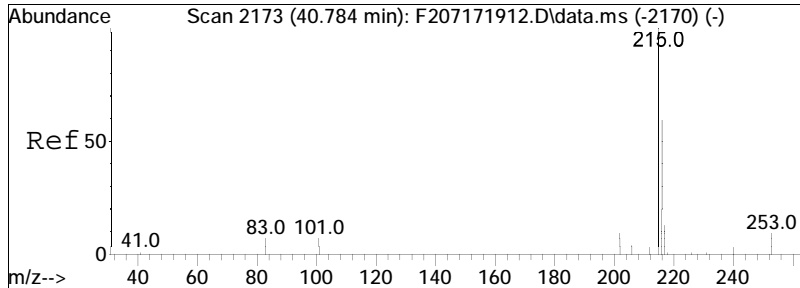




#52
 Retene
 Concen: 3115.28 ng/mL
 RT: 39.745 min Scan# 2104
 Delta R.T. 0.109 min
 Lab File: F212051913.D
 Acq: 6 Dec 2019 12:34 am

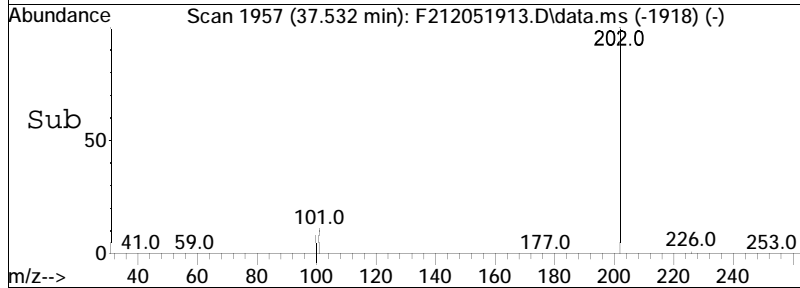
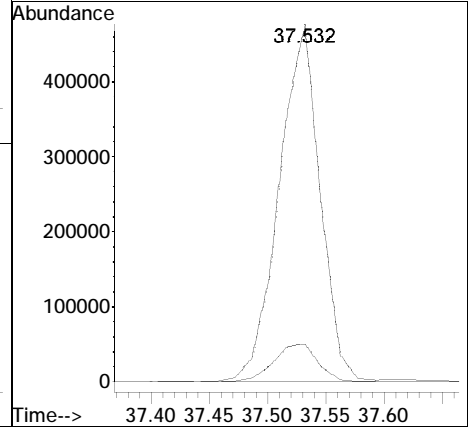
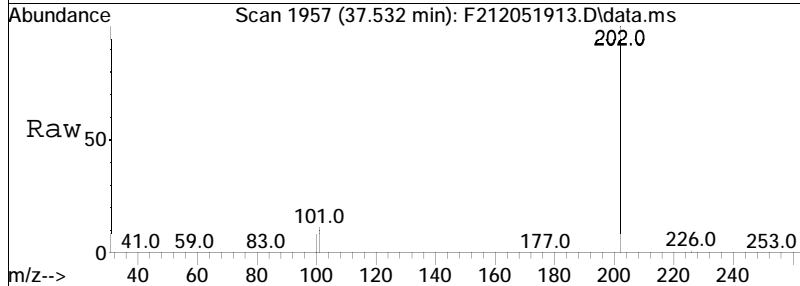
Tgt Ion	Resp	Lower	Upper
234	296842		
234	100		
219	143.3	108.2	201.0

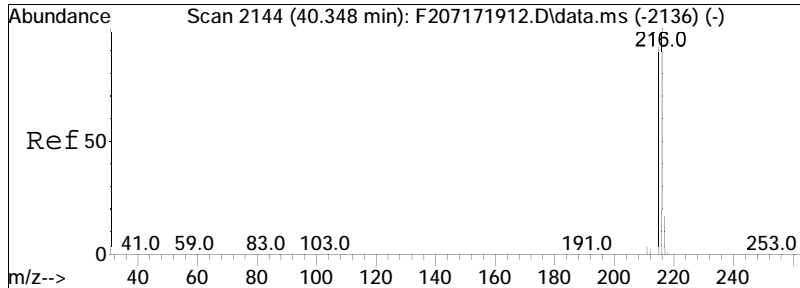




#56
 Fluoranthene
 Concen: 3619.98 ng/mL M4
 RT: 37.532 min Scan# 1957
 Delta R.T. 0.093 min
 Lab File: F212051913.D
 Acq: 6 Dec 2019 12:34 am

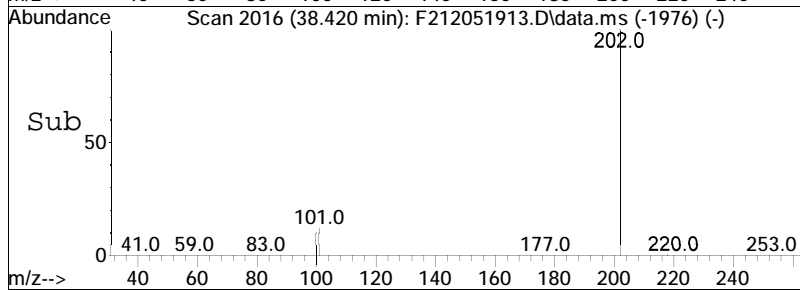
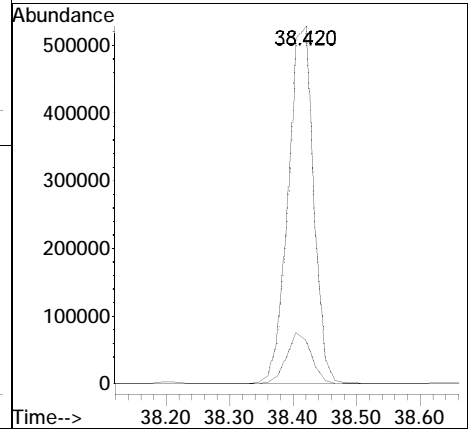
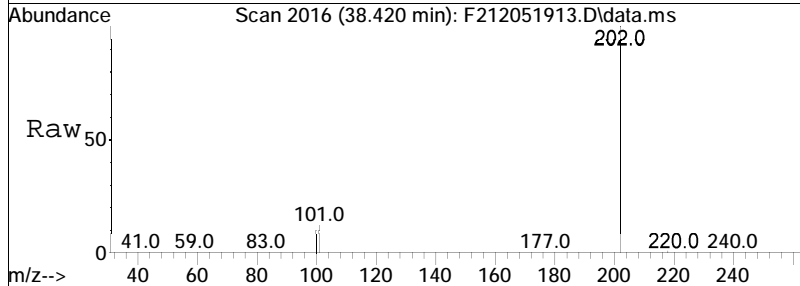
Tgt Ion: 202 Resp: 1149179
 Ion Ratio Lower Upper
 202 100
 101 11.7 8.0 14.8





#59
 Pyrene
 Concen: 4383.22 ng/mL
 RT: 38.420 min Scan# 2016
 Delta R.T. 0.099 min
 Lab File: F212051913.D
 Acq: 6 Dec 2019 12:34 am

Tgt Ion: 202 Resp: 1444874
 Ion Ratio Lower Upper
 202 100
 101 14.2 9.0 16.8



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051914.D
 Acq On : 6 Dec 2019 2:00 am
 Operator : PAH2:MJS
 Sample : L1954309-01d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 10 15:36:33 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	65216M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.269	240	103380	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	44827	186.459	ng/mL	-0.04
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	18.65%#	
40) Phenanthrene-d10	32.669	188	37041	175.231	ng/mL	0.06
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	17.52%#	
83) Benzo[b]fluoranthene-d12	47.184	264	42183	208.366	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	20.84%#	
88) Benzo[a]pyrene-d12	48.373	264	27608	176.441	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	17.64%#	
Target Compounds						
2) trans-Decalin	16.471	138	5527	109.935	ng/mL	100
3) cis-Decalin	17.690	138	386	9.955	ng/mL	100
4) C1-Decalins	18.398	152	15405M5	306.415	ng/mL	
5) C2-Decalins	19.738	166	21117M5	420.030	ng/mL	
6) C3-Decalins	22.207	180	16300M5	324.217	ng/mL	
7) C4-Decalins	25.594	194	17691M5	351.885	ng/mL	
9) Naphthalene	19.888	128	909867	3403.999	ng/mL	100
10) C1-Naphthalenes	22.583	142	3758293M5	14060.544	ng/mL	
11) C2-Naphthalenes	25.428	156	2141333M5	8011.166	ng/mL	
12) C3-Naphthalenes	27.762	170	1026052M5	3838.671	ng/mL	
13) C4-Naphthalenes	30.532	184	396700M5	1484.136	ng/mL	
14) 2-Methylnaphthalene	22.583	142	2463809	13971.509	ng/mL	100
15) 1-Methylnaphthalene	23.005	142	1288846	7609.016	ng/mL	100
16) Benzothiophene	20.114	134	75245	361.133	ng/mL	100
17) C1-Benzo(b)thiophenes	22.448	148	231136M5	1109.322	ng/mL	
18) C2-Benzo(b)thiophenes	25.142	162	245352M5	1177.550	ng/mL	
19) C3-Benzo(b)thiophenes	27.250	176	174246M5	836.282	ng/mL	
20) C4-Benzo(b)thiophenes	28.846	190	95643M5	459.032	ng/mL	
21) Biphenyl	24.465	154	75363	351.133	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.082	156	590006	3738.972	ng/mL	100
23) Dibenzofuran	27.551	168	214188	938.689	ng/mL	98
24) Acenaphthylene	26.166	152	159504M3	605.997	ng/mL	
25) Acenaphthene	26.919	153	1858530	11307.677	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.454	170	78597M3	545.257	ng/mL	

Quantitation Report (QT Reviewed)

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 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 10 15:36:33 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	28.921	166	1234580	6631.700	ng/mL	98
28) C1-Fluorenes	31.149	180	284723M5	1529.425	ng/mL	
29) C2-Fluorenes	33.347	194	192477M5	1033.914	ng/mL	
30) C3-Fluorenes	36.012	208	145417M5	781.126	ng/mL	
31) Dibenzothiophene	32.248	184	1139774	4520.361	ng/mL	95
32) 4-Methyldibenzothiophene(	34.024	198	106040	420.556	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.340	198	126341	501.070	ng/mL	100
34) 1-Methyldibenzothiophene(	34.792	198	35687	141.535	ng/mL	100
36) C1-Dibenzothiophenes	34.024	198	327713M5	1299.715	ng/mL	
36) C1-Dibenzothiophenes BS	34.024	198	327713M5	1299.715	ng/mL	
37) C2-Dibenzothiophenes	36.072	212	238268M5	944.974	ng/mL	
38) C3-Dibenzothiophenes	37.532	226	136574M5	541.655	ng/mL	
39) C4-Dibenzothiophenes	39.219	240	57493M5	228.018	ng/mL	
41) Phenanthrene	32.775	178	10876526	40551.756	ng/mL	98
42) 3-Methylphenanthrene(3MP)	34.702	192	452073	1685.497	ng/mL	96
43) 2-Methylphenanthrene(2MP)	34.822	192	561172	2092.259	ng/mL	97
44) 2-Methylanthracene(2MA)	34.973	192	144609	539.156	ng/mL#	37
45) 9/4-Methylphenanthrene(9M	35.169	192	328889M3	1226.221	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.822	192	1760953M5	6565.491	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.990	206	753178M5	2808.129	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.990	206	753178M5	2808.129	ng/mL	
50) C3-Phenanthrenes/Anthrace	38.827	220	307963M5	1148.201	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.746	234	188454M5	702.627	ng/mL	
52) Retene	39.746	234	99379	1082.377	ng/mL	90
53) Anthracene	32.940	178	1480915	6476.758	ng/mL	99
54) Carbazole	33.588	167	196210	917.251	ng/mL	96
55) 1-Methylphenanthrene	35.259	192	262575	1307.258	ng/mL	97
56) Fluoranthene	37.547	202	5800767M4	18963.402	ng/mL	
57) Benzo(b)fluorene	40.047	216	192082M3	998.109	ng/mL	
58) 7H-Benzo(c)fluorene	40.092	216	86934M3	451.732	ng/mL	
59) Pyrene	38.451	202	7423496M3	23371.397	ng/mL	
60) 2-Methylpyrene	40.212	216	197806M3	622.753	ng/mL	
61) 4-Methylpyrene	40.574	216	167105	526.097	ng/mL	80
62) 1-Methylpyrene	40.694	216	191510	602.931	ng/mL	72
63) C1-Fluoranthenes/Pyrenes	39.806	216	1505509M5	4739.795	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.275	230	412244M5	1297.868	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.751	244	176679M5	556.239	ng/mL	
66) C4-Fluoranthenes/Pyrenes	44.985	258	103305M5	325.235	ng/mL	
67) Naphthobenzothiophene-2,1	42.275	234	263742	970.763	ng/mL	98

Quantitation Report (QT Reviewed)

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 Data File : F212051914.D
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 Operator : PAH2:MJS
 Sample : L1954309-01d,32,4
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 10 15:36:33 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.606	234	57703M3	212.389	ng/mL	
69) Naphthobenzothiophene-2,3	42.907	234	107672M3	396.311	ng/mL	
70) C1-Naphthobenzothiophenes	43.675	248	138463M5	509.645	ng/ml	
71) C2-Naphthobenzothiophenes	45.181	262	87787M5	323.120	ng/ml	
72) C3-Naphthobenzothiophenes	47.063	276	71343M5	262.594	ng/ml	
73) C4-Naphthobenzothiophenes	48.373	290	24263M5	89.306	ng/mL	
75) Benz[a]anthracene	43.209	228	1430715M3	6059.350	ng/mL	
76) Chrysene	43.374	228	1716879	7142.332	ng/mL	100
78) C1-Chrysenes	44.850	242	489417M5	2036.008	ng/mL	
79) C2-Chrysenes	46.551	256	233323M5	970.639	ng/mL	
79) C2-Chrysenes BS	46.551	256	230527M5	959.008	ng/mL	
81) C3-Chrysenes	48.163	270	126721M5	527.168	ng/mL	
82) C4-Chrysenes	49.172	284	66391M5	276.191	ng/mL	
84) Benzo[b]fluoranthene	47.274	252	1363025	4768.241	ng/mL	98
85) Benzo[j]+[k]fluoranthene	47.349	252	1228471	4271.862	ng/mL	96
86) Benzo[a]fluoranthene	47.651	252	336563M3	1170.358	ng/mL	
87) Benzo[e]pyrene	48.283	252	1272861	4635.885	ng/mL	97
89) Benzo[a]pyrene	48.479	252	2022175	8045.230	ng/mL	97
90) Perylene	48.780	252	528332	2151.611	ng/mL	94
91) Indeno[1,2,3-cd]pyrene	53.374	276	1688265	5646.008	ng/mL	99
92) Dibenz[ah]+[ac]anthracene	53.389	278	265978M3	974.856	ng/mL	
93) Benzo[g,h,i]perylene	54.699	276	2117412	7084.299	ng/mL	99

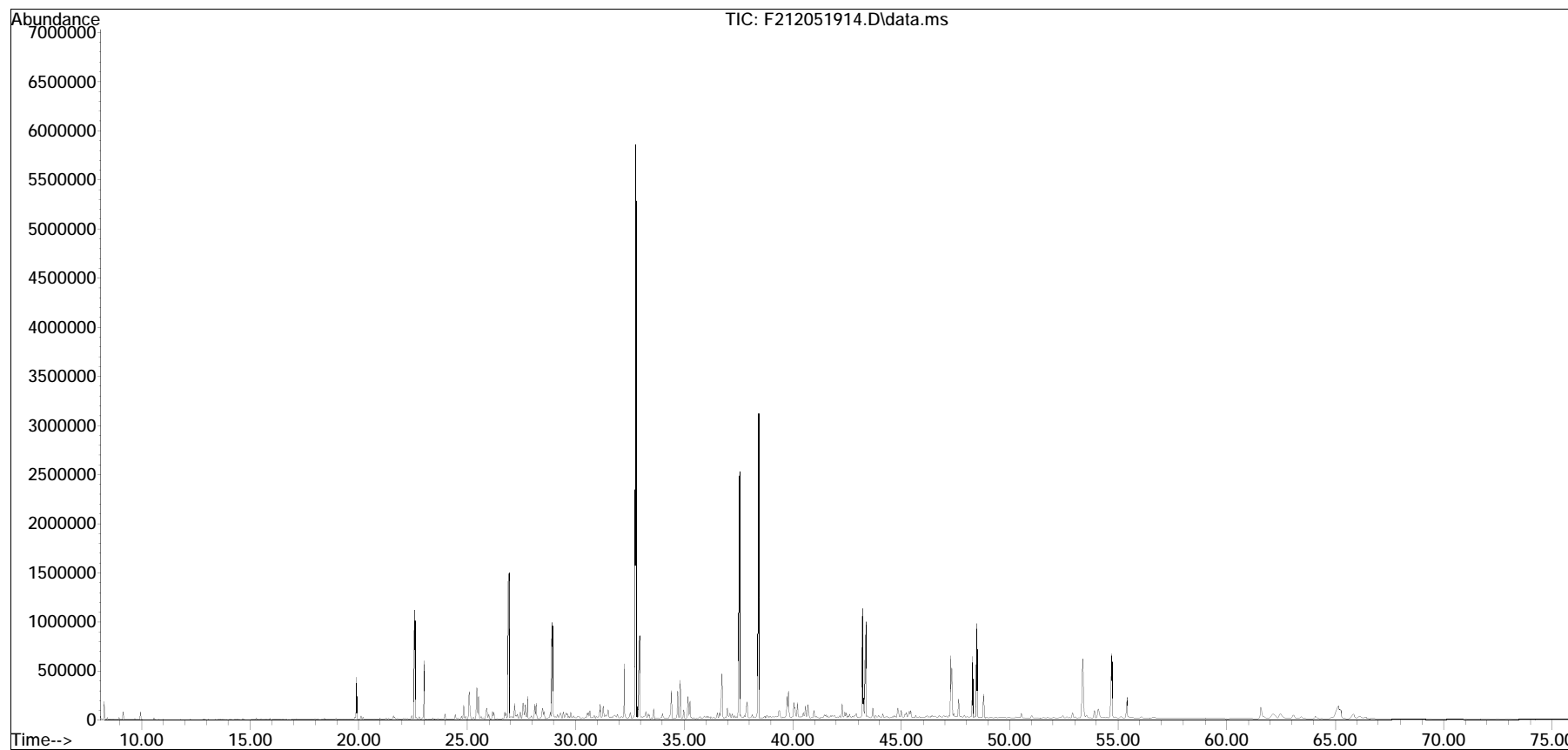
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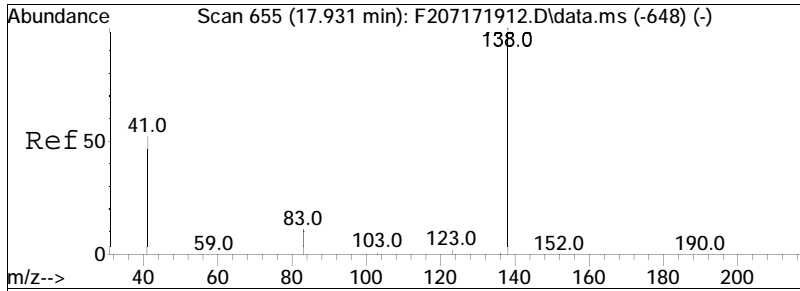
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051914.D
Acq On : 6 Dec 2019 2:00 am
Operator : PAH2:MJS
Sample : L1954309-01d,32,4
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 14 Sample Multiplier: 1

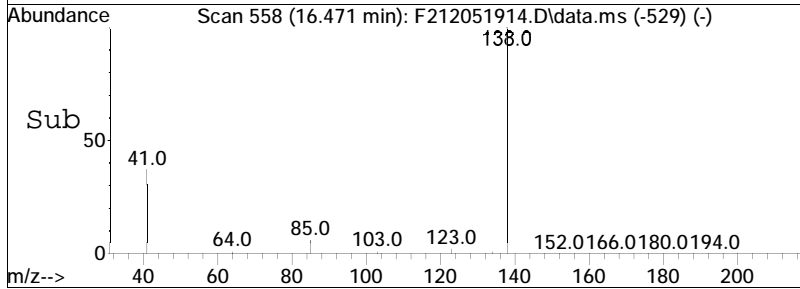
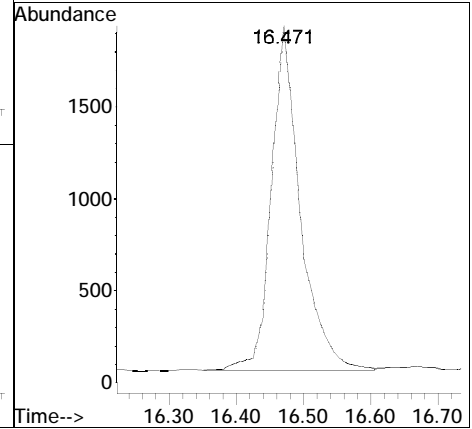
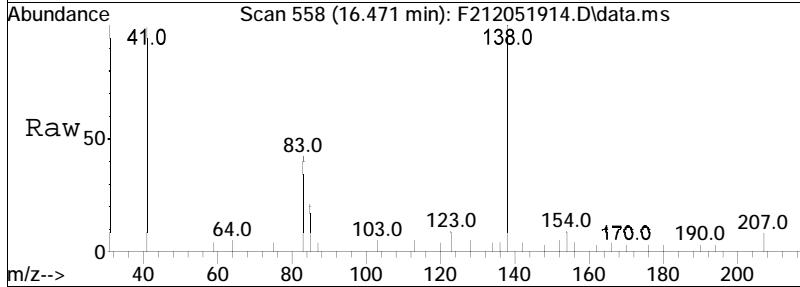
Quant Time: Dec 10 15:36:33 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

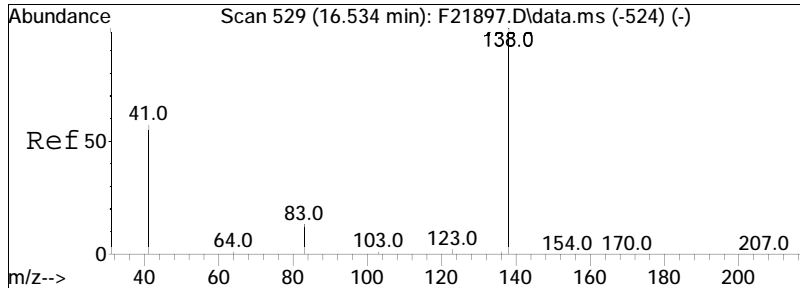
Sub List : ALKPAH - POI+MP+BcF



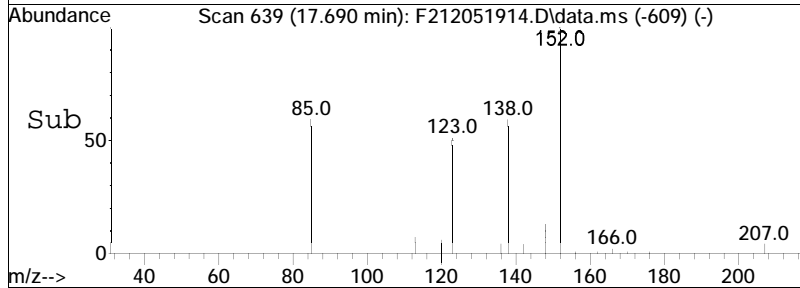
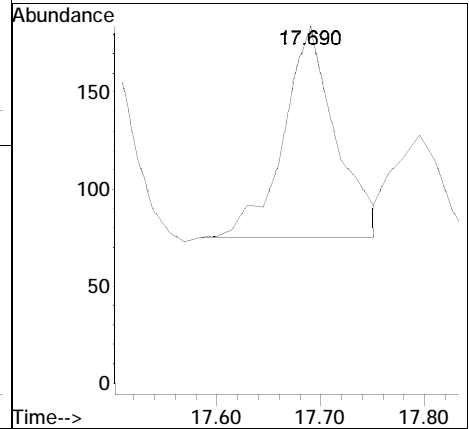
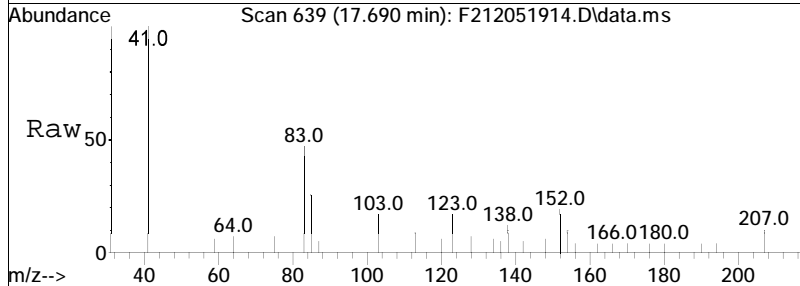


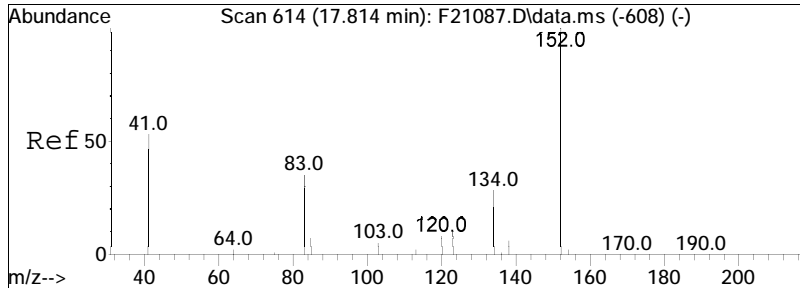
#2
 trans-Decalin
 Concen: 109.94 ng/mL
 RT: 16.471 min Scan# 558
 Delta R.T. -0.060 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:138 Resp: 5527



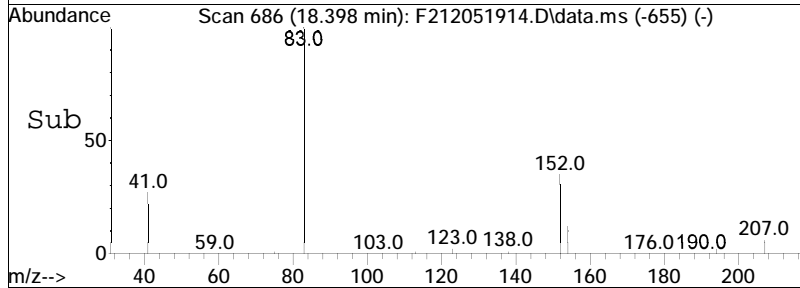
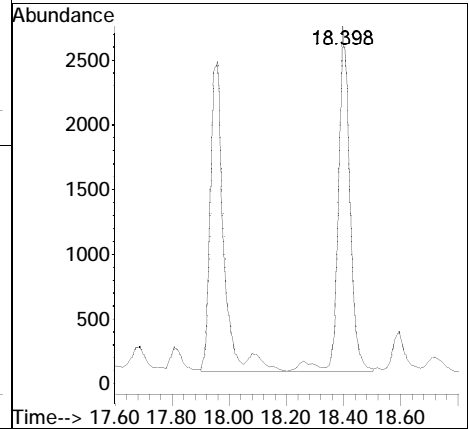
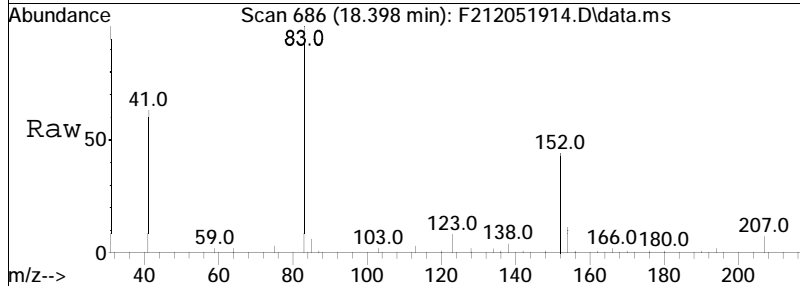


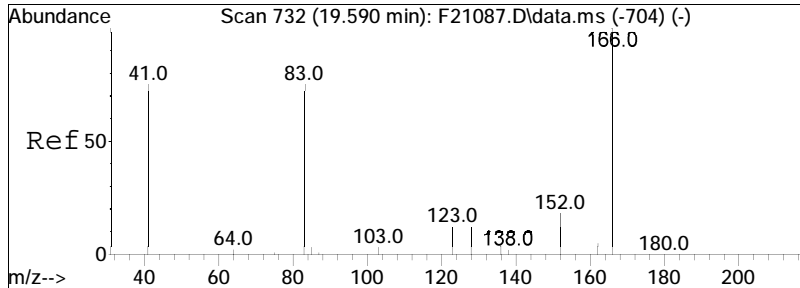
#3
 cis-Decalin
 Concen: 9.95 ng/mL
 RT: 17.690 min Scan# 639
 Delta R.T. -0.051 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:138 Resp: 386



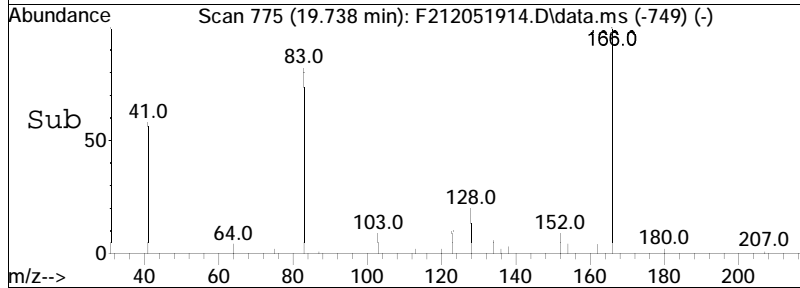
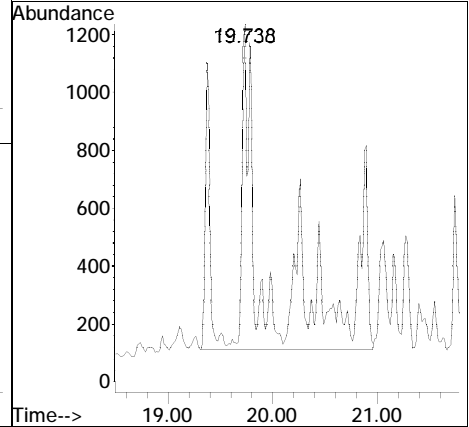
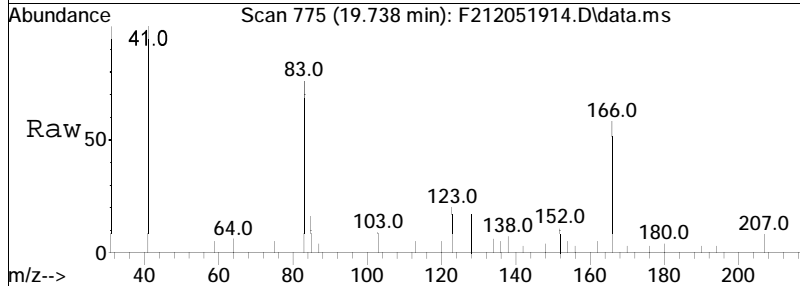


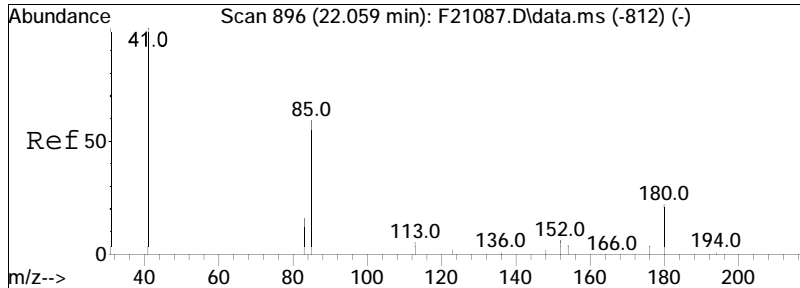
#4
 C1-Decalins
 Concen: 306.41 ng/mL M5
 RT: 18.398 min Scan# 686
 Delta R.T. -0.061 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:152 Resp: 15405



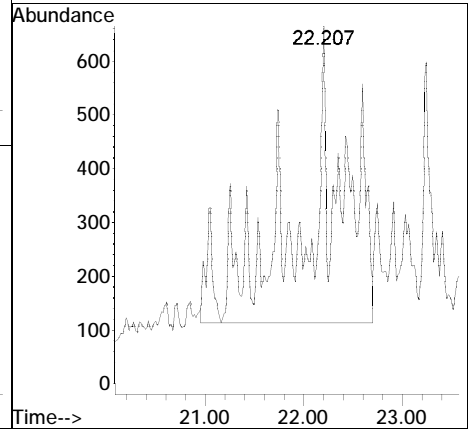
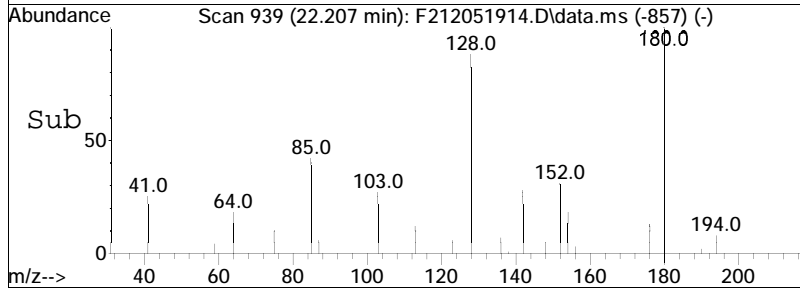
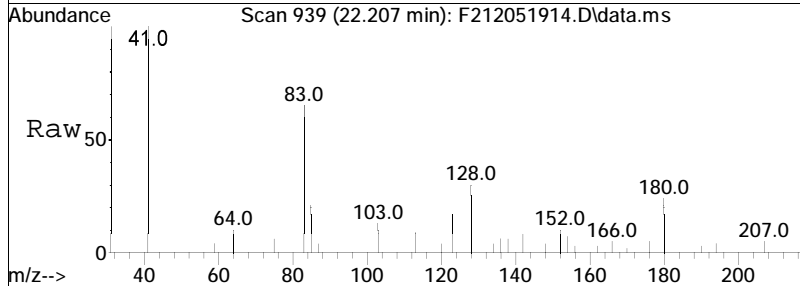


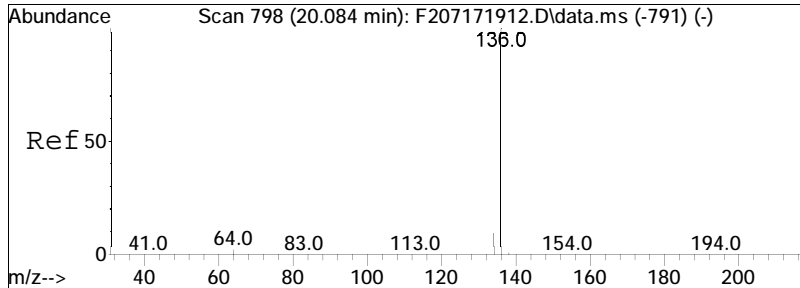
#5
 C2-Decalins
 Concen: 420.03 ng/mL M5
 RT: 19.738 min Scan# 775
 Delta R.T. -0.036 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:166 Resp: 21117





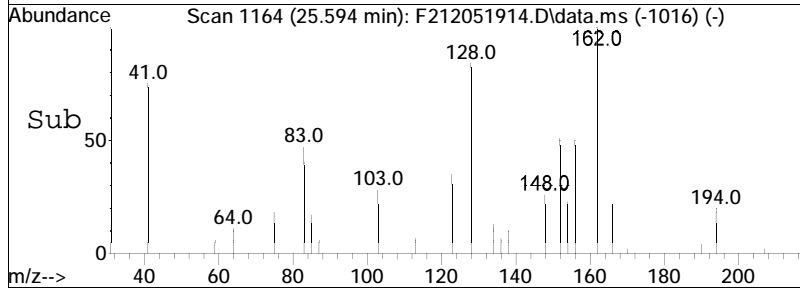
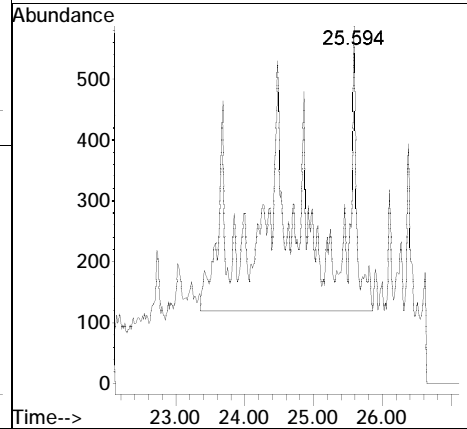
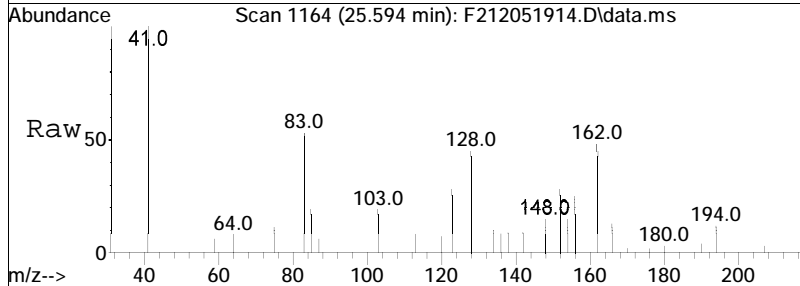
#6
 C3-Decalins
 Concen: 324.22 ng/mL M5
 RT: 22.207 min Scan# 939
 Delta R.T. -0.046 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:180 Resp: 16300

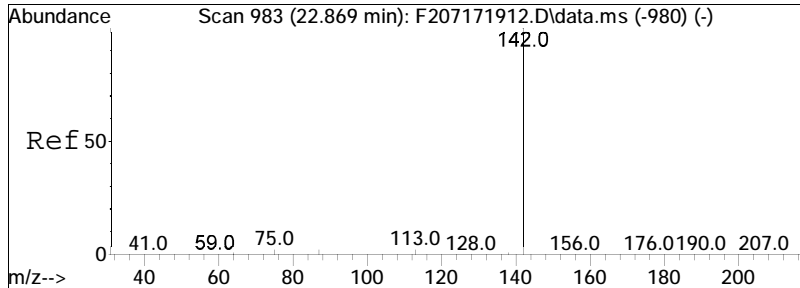




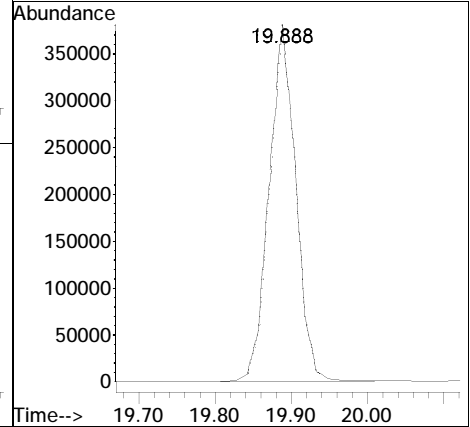
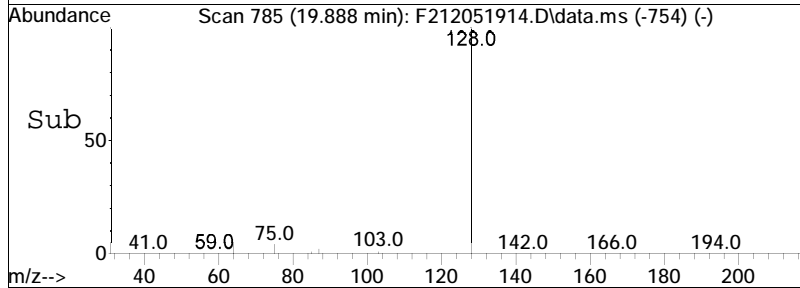
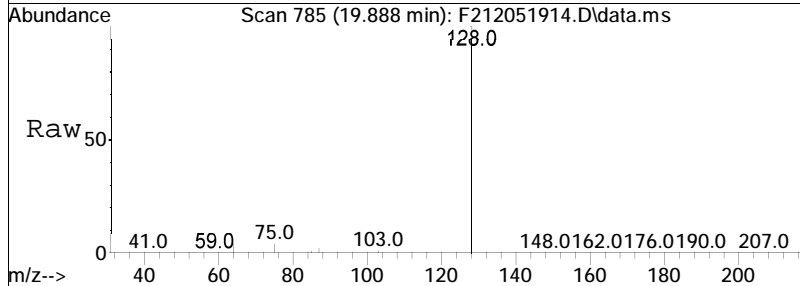
#7
 C4-Decalins
 Concen: 351.88 ng/mL M5
 RT: 25.594 min Scan# 1164
 Delta R.T. -0.012 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

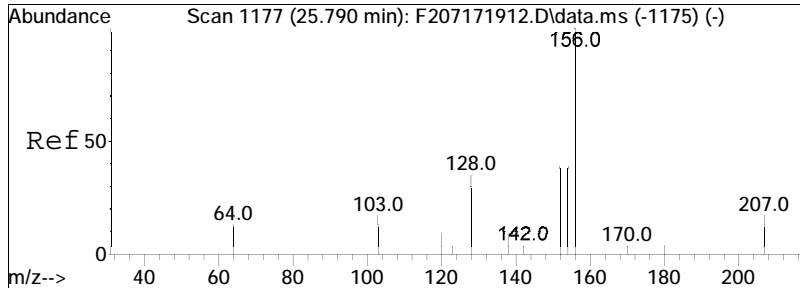
Tgt Ion:194 Resp: 17691



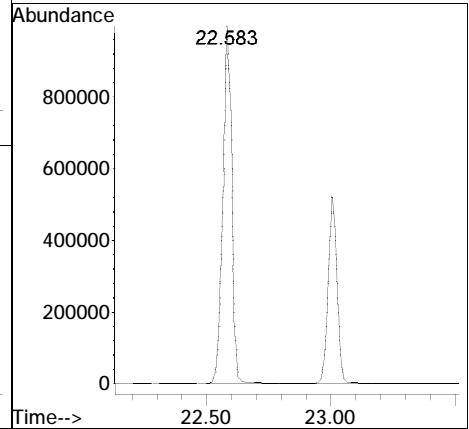
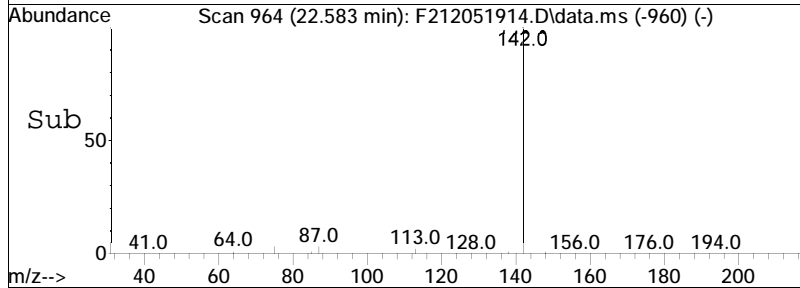
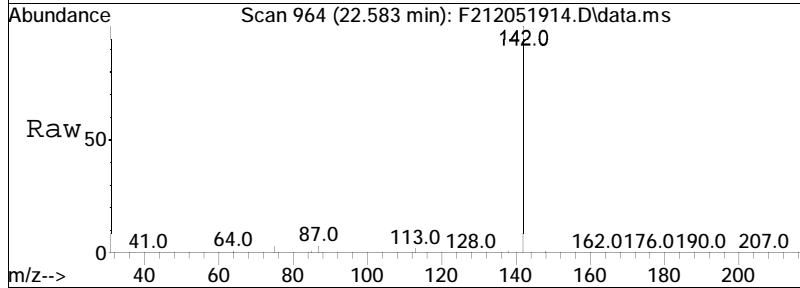


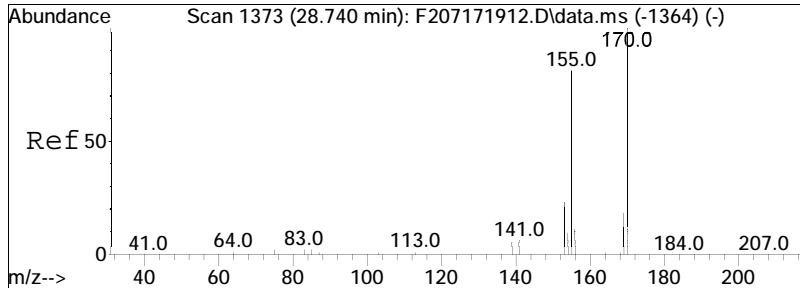
#9
 Naphthalene
 Concen: 3404.00 ng/mL
 RT: 19.888 min Scan# 785
 Delta R.T. -0.035 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:128 Resp: 909867



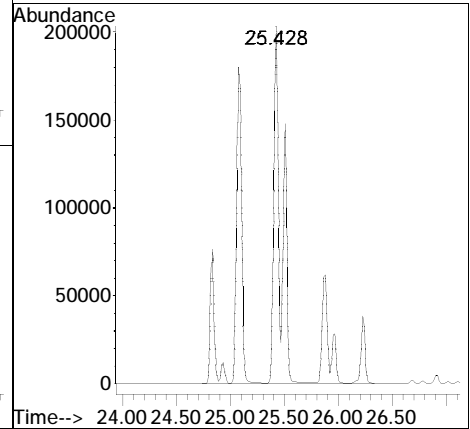
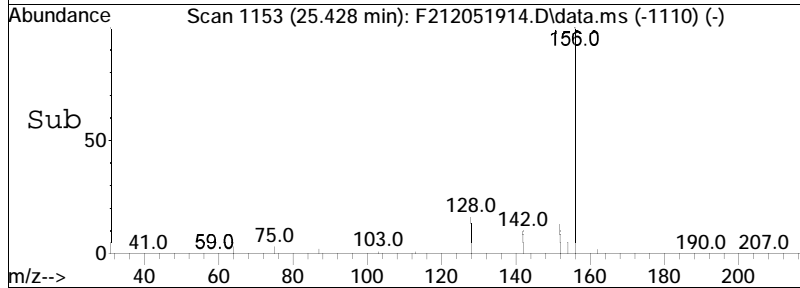
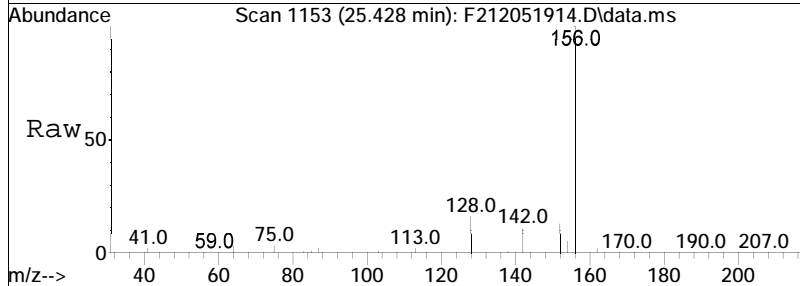


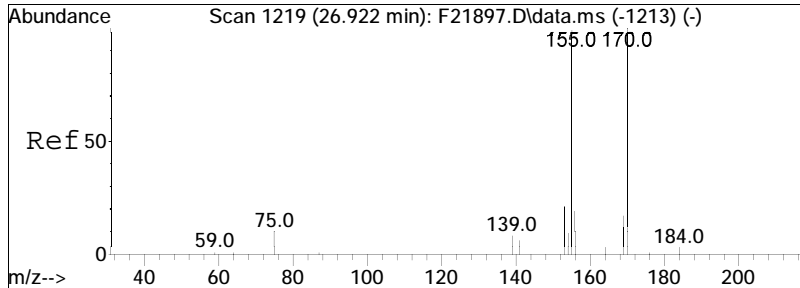
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 Cl-Naphthalenes
 Concen: 14060.54 ng/mL M5
 RT: 22.583 min Scan# 964
 Delta R.T. -0.021 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:142 Resp: 3758293





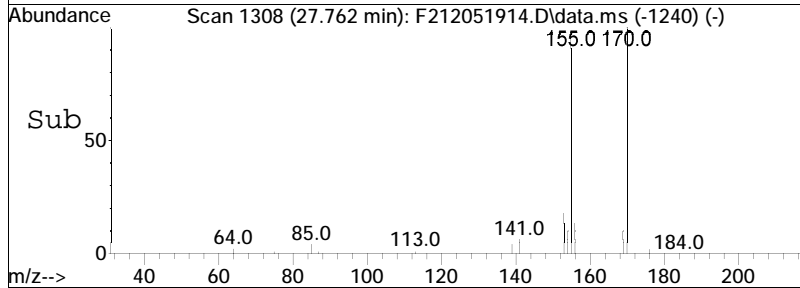
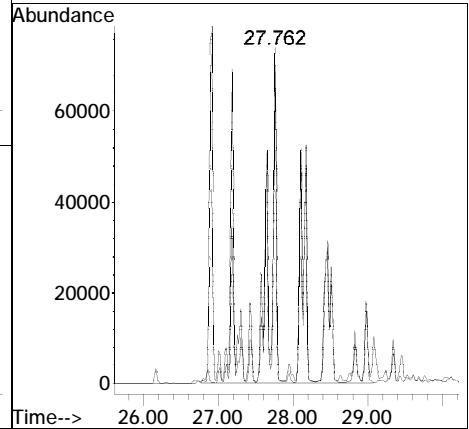
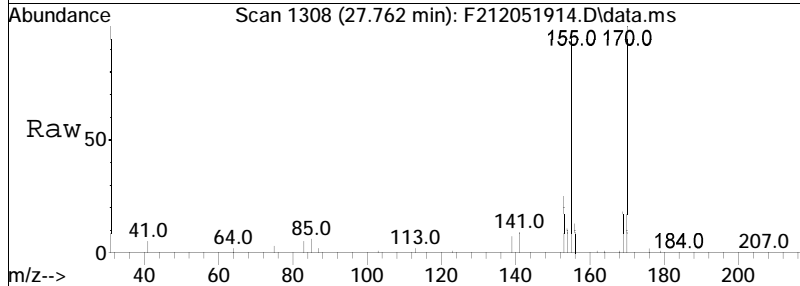
#11
 C2-Naphthalenes
 Concen: 8011.17 ng/mL M5
 RT: 25.428 min Scan# 1153
 Delta R.T. -0.014 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:156 Resp: 2141333

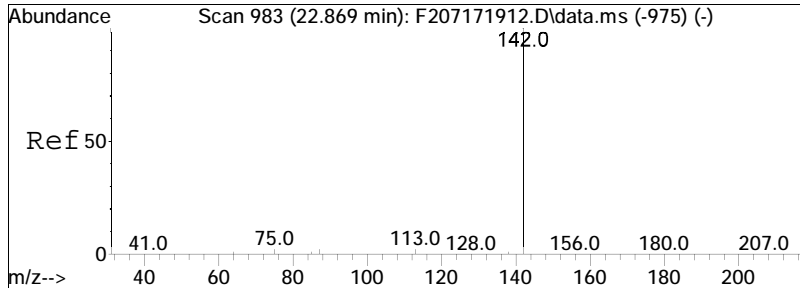




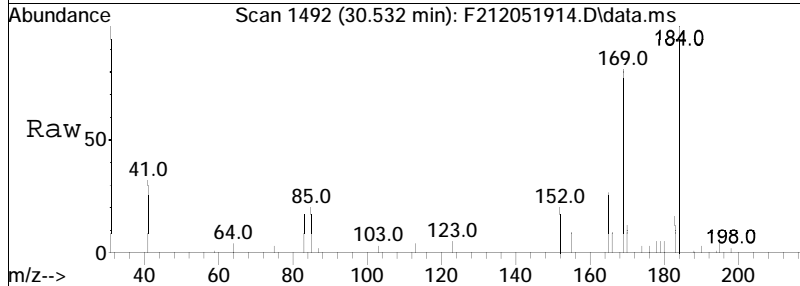
#12
 C3-Naphthalenes
 Concen: 3838.67 ng/mL M5
 RT: 27.762 min Scan# 1308
 Delta R.T. 0.010 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

Tgt Ion:170 Resp: 1026052
 Ion Ratio Lower Upper
 170 100
 155 16.8 66.8 124.0#

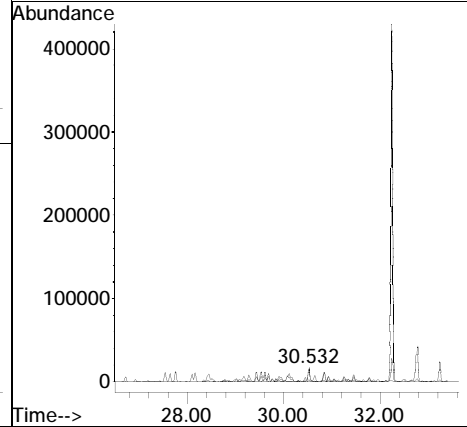
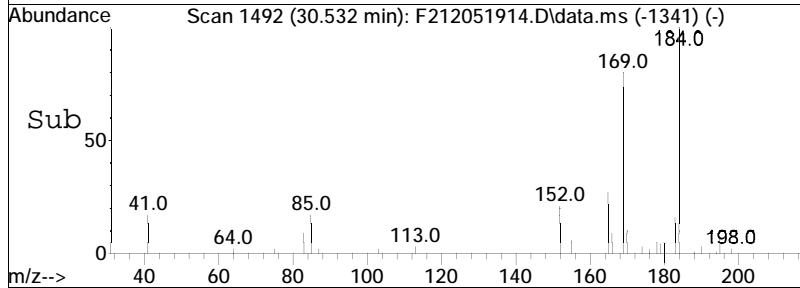


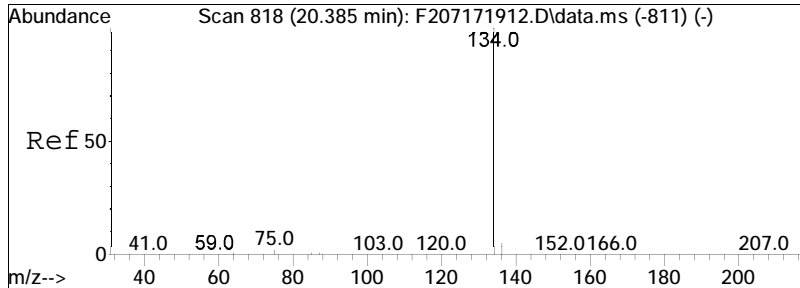


#13
 C4-Naphthalenes
 Concen: 1484.14 ng/mL M5
 RT: 30.532 min Scan# 1492
 Delta R.T. 0.038 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

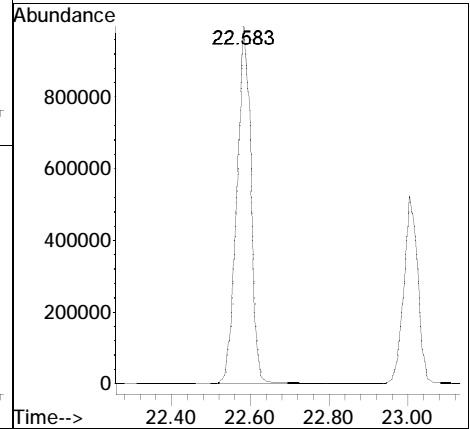
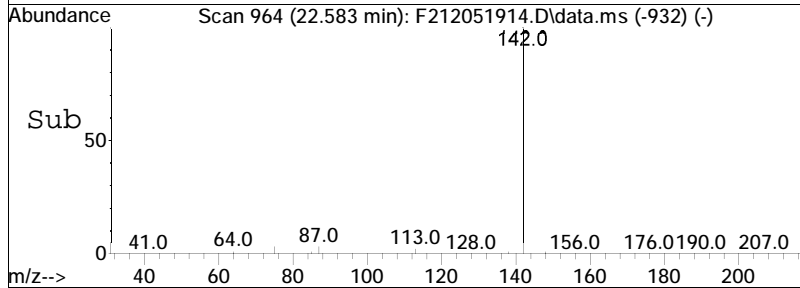
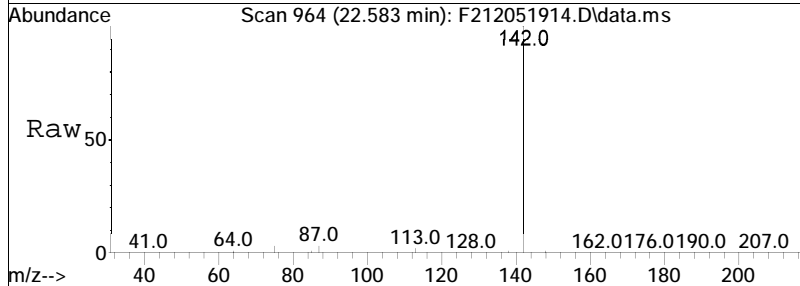


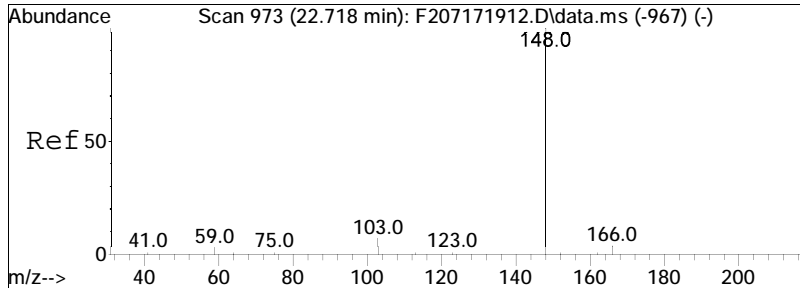
Tgt Ion	Ratio	Lower	Upper
184	100		
169	2.1	65.7	121.9#
183	0.8	22.5	41.9#



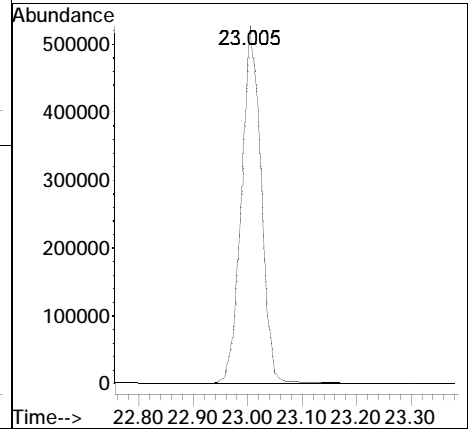
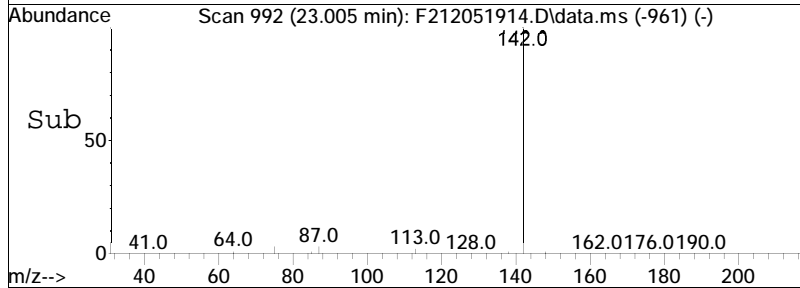
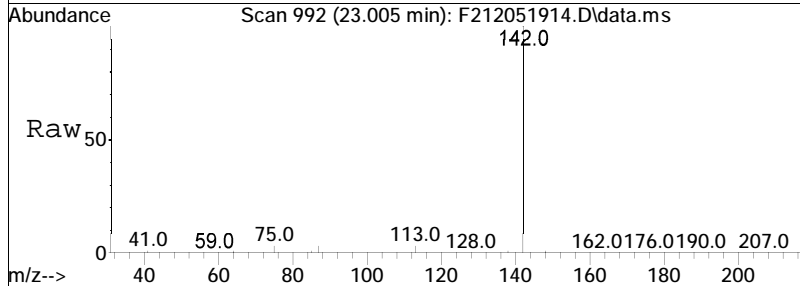


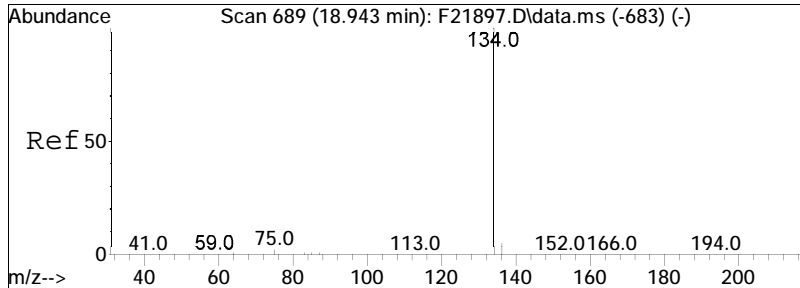
#14
 2-Methylnaphthalene
 Concen: 13971.51 ng/mL
 RT: 22.583 min Scan# 964
 Delta R.T. -0.016 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:142 Resp: 2463809



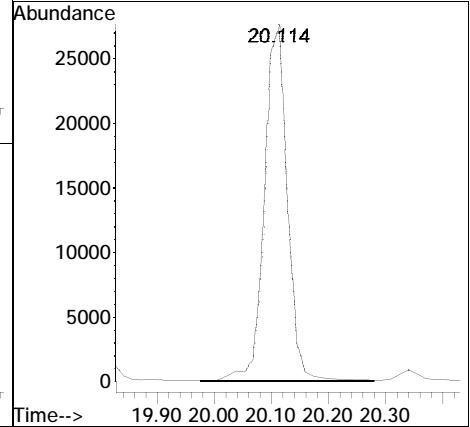
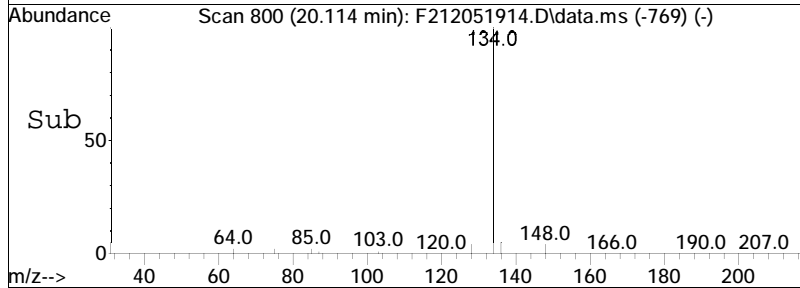
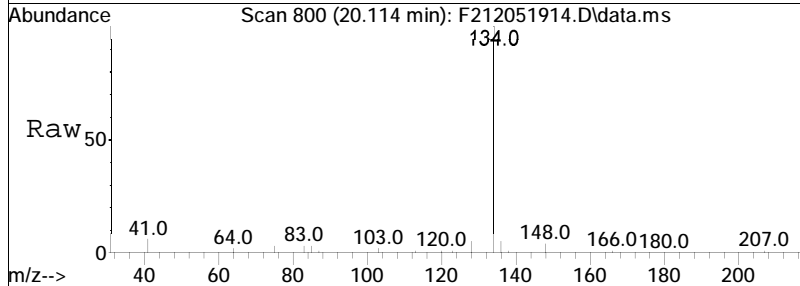


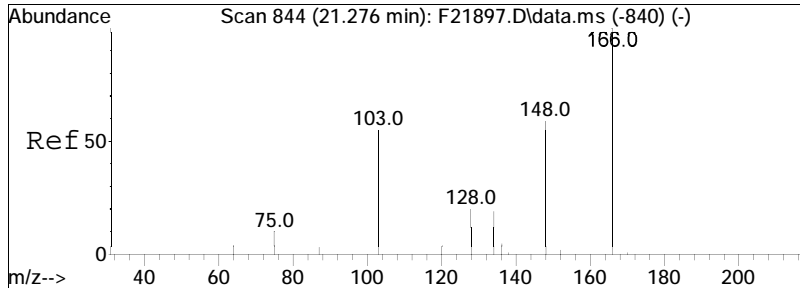
#15
 1-Methylnaphthalene
 Concen: 7609.02 ng/mL
 RT: 23.005 min Scan# 992
 Delta R.T. -0.027 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:142 Resp: 1288846



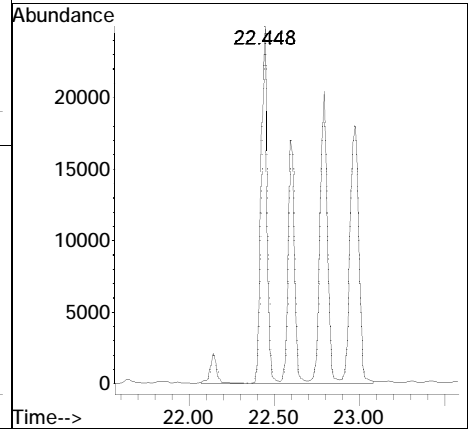
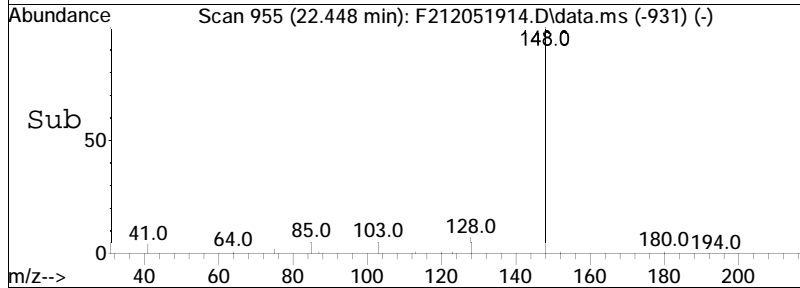
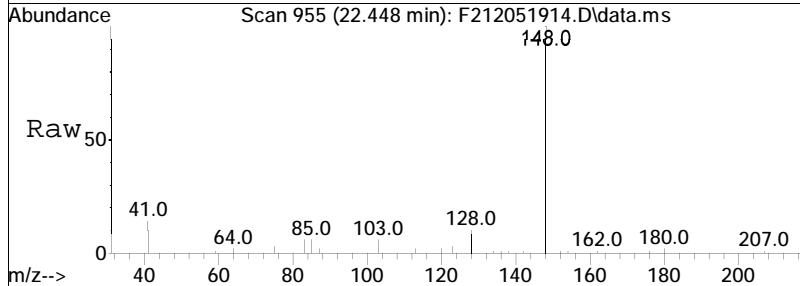


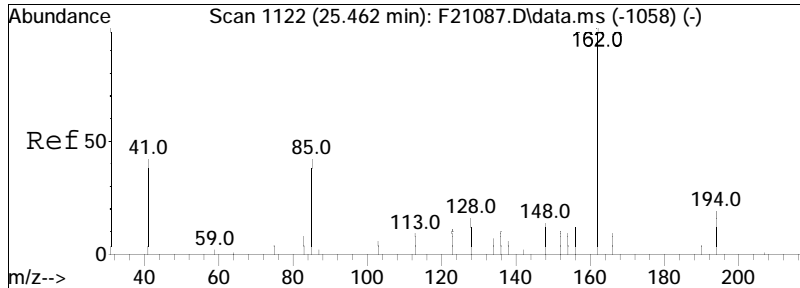
#16
 Benzothiophene
 Concen: 361.13 ng/mL
 RT: 20.114 min Scan# 800
 Delta R.T. -0.033 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:134 Resp: 75245



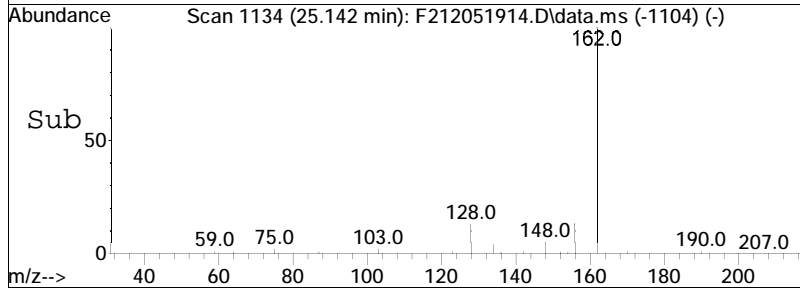
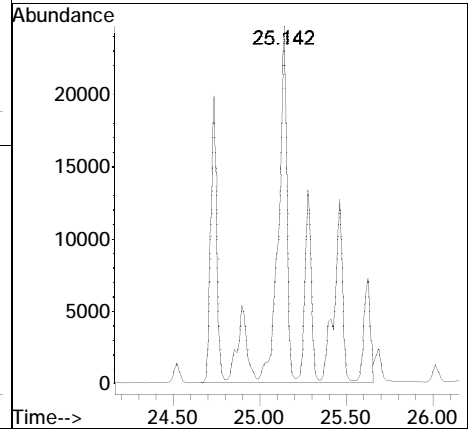
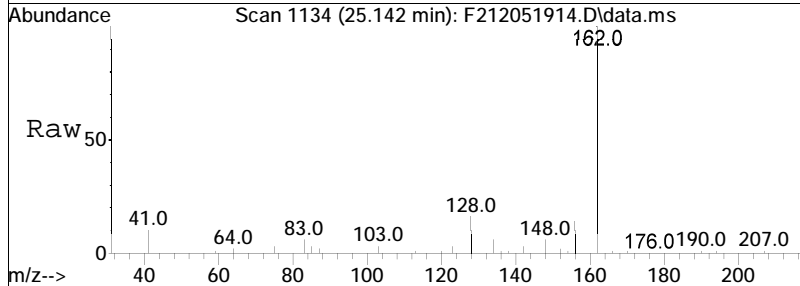


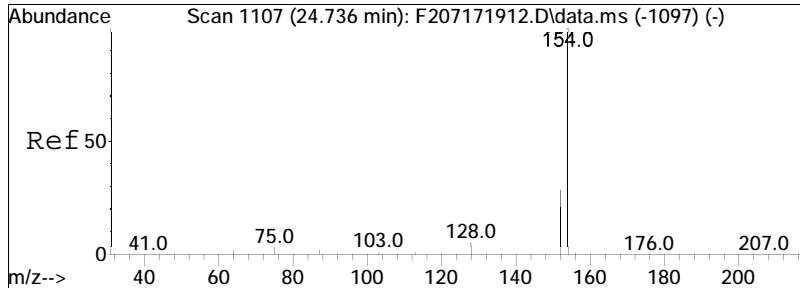
#17
 Cl-Benzo(b)thiophenes
 Concen: 1109.32 ng/mL M5
 RT: 22.448 min Scan# 955
 Delta R.T. 0.270 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:148 Resp: 231136



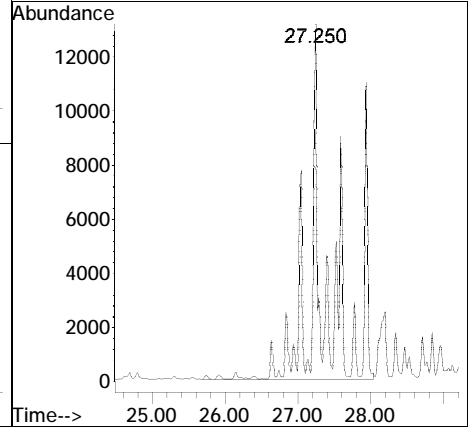
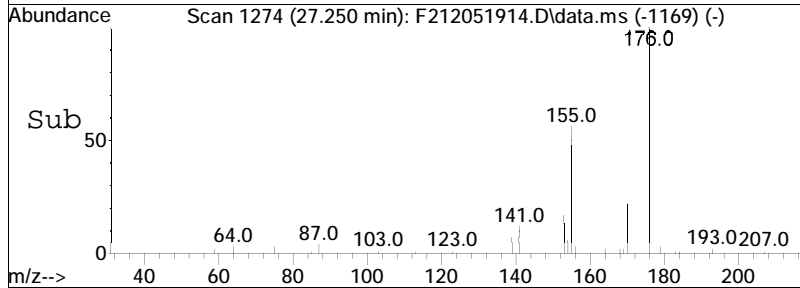
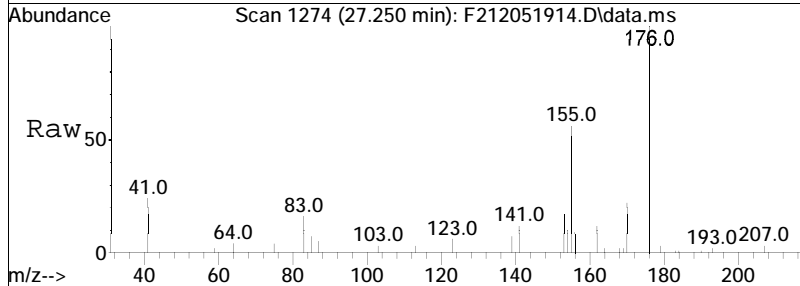


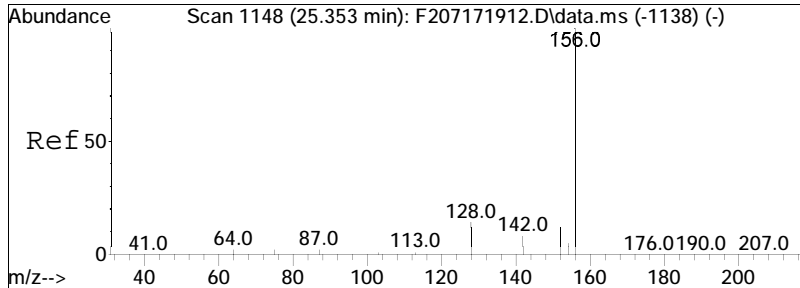
#18
 C2-Benzo(b)thiophenes
 Concen: 1177.55 ng/mL M5
 RT: 25.142 min Scan# 1134
 Delta R.T. -0.493 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:162 Resp: 245352



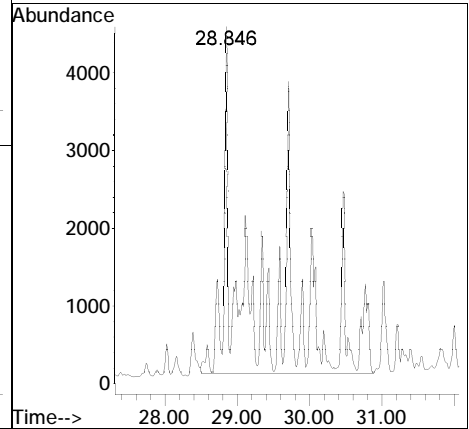
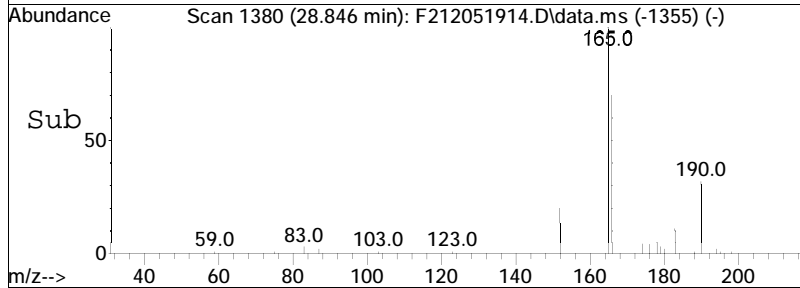
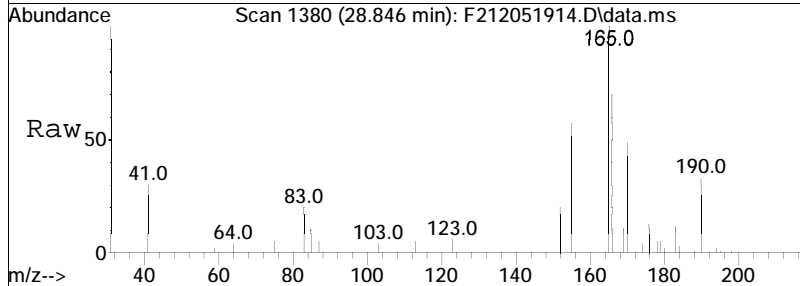


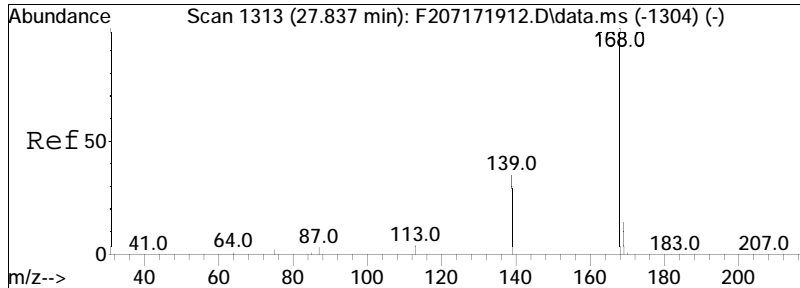
#19
 C3-Benzo(b)thiophenes
 Concen: 836.28 ng/mL M5
 RT: 27.250 min Scan# 1274
 Delta R.T. -0.338 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:176 Resp: 174246



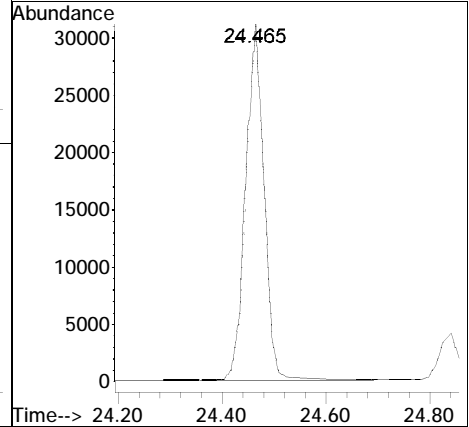
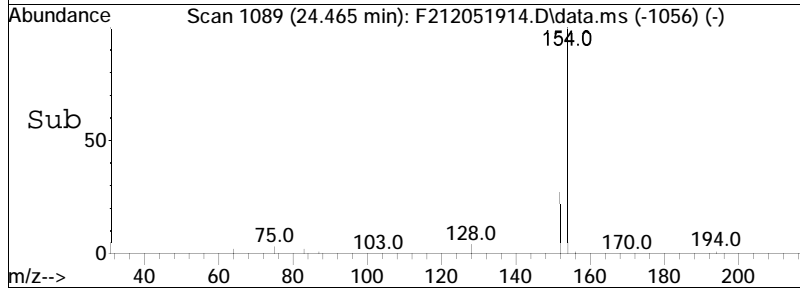
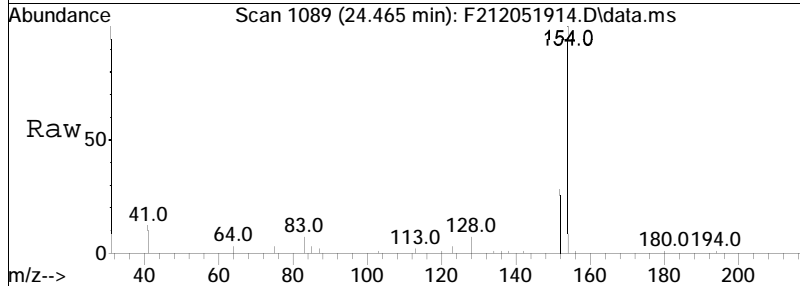


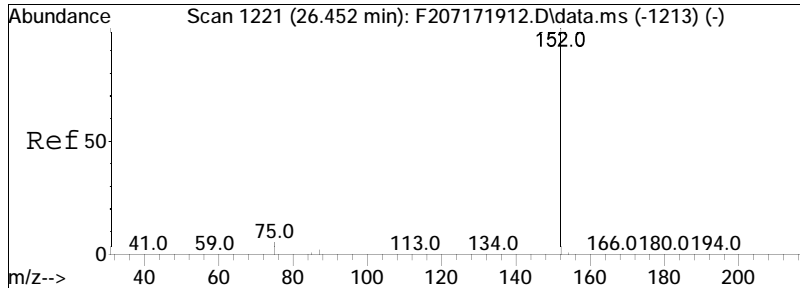
#20
 C4-Benzo(b)thiophenes
 Concen: 459.03 ng/mL M5
 RT: 28.846 min Scan# 1380
 Delta R.T. -0.471 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:190 Resp: 95643



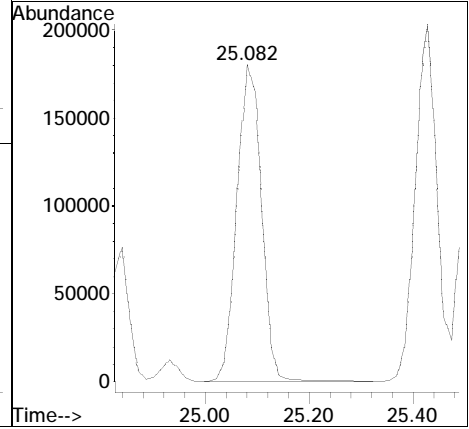
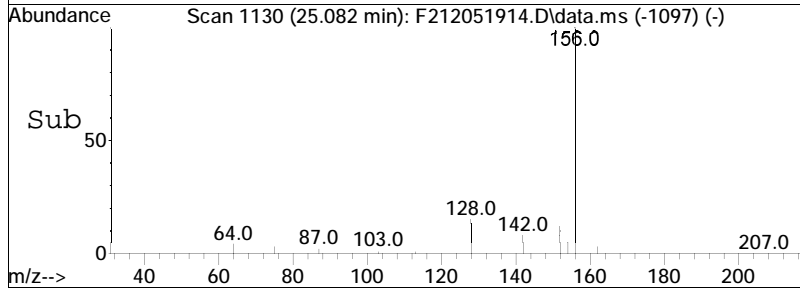
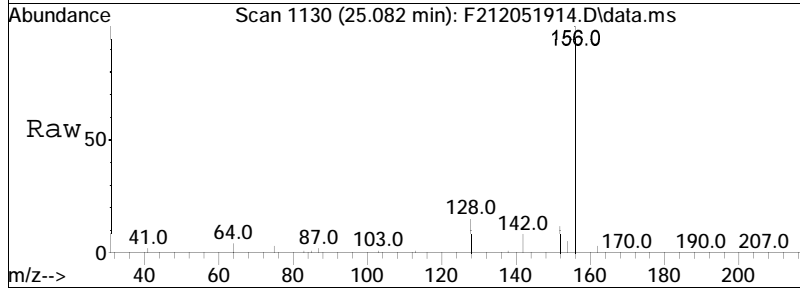


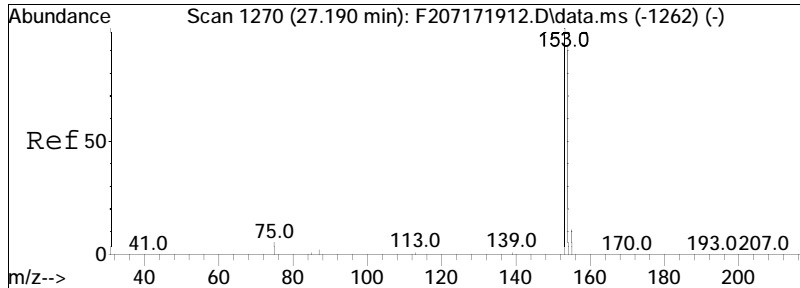
#21
 Biphenyl
 Concen: 351.13 ng/mL
 RT: 24.465 min Scan# 1089
 Delta R.T. -0.002 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:154 Resp: 75363





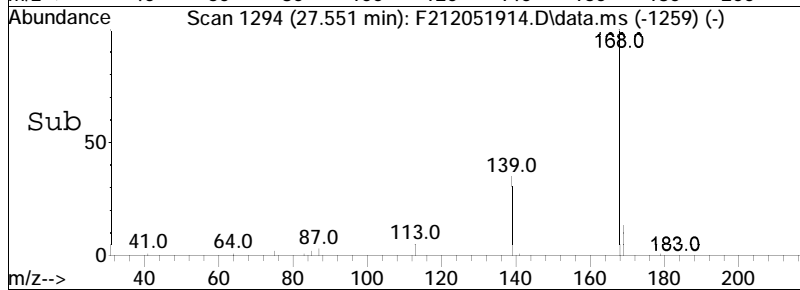
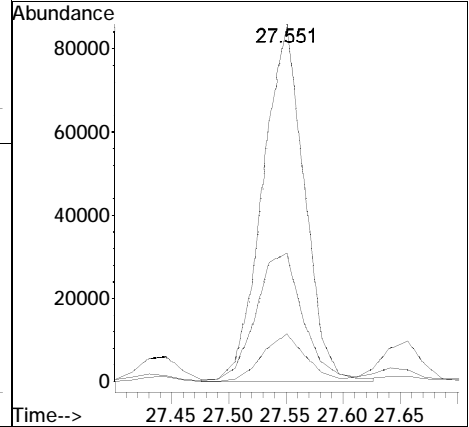
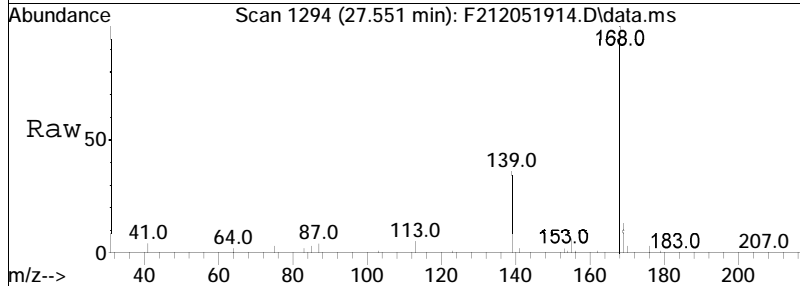
#22
 2,6-Dimethylnaphthalene
 Concen: 3738.97 ng/mL
 RT: 25.082 min Scan# 1130
 Delta R.T. 0.003 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:156 Resp: 590006

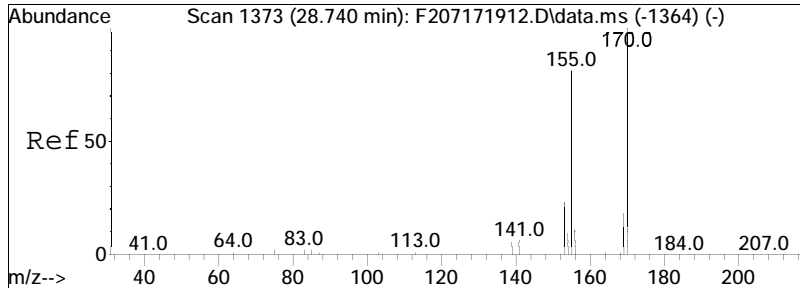




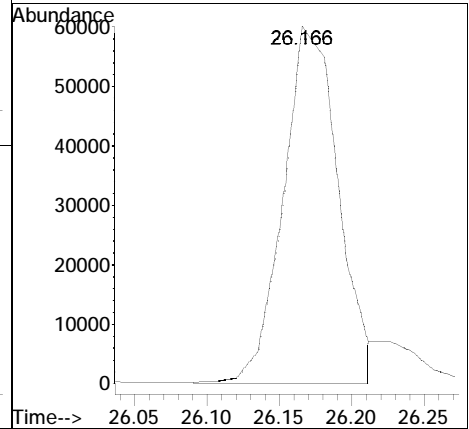
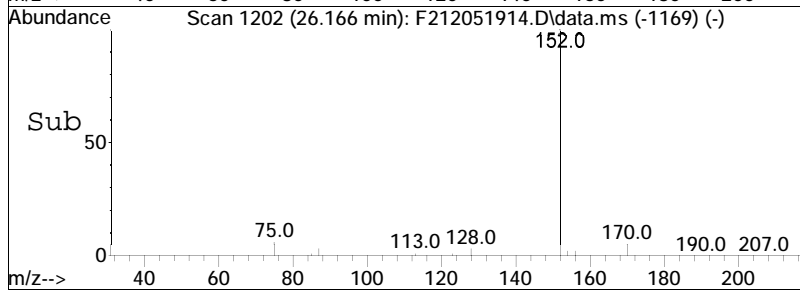
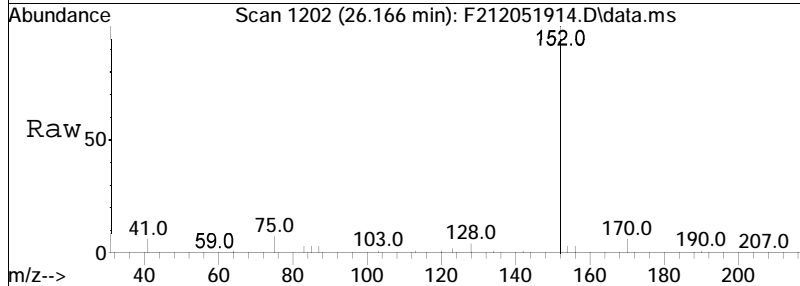
#23
 Dibenzofuran
 Concen: 938.69 ng/mL
 RT: 27.551 min Scan# 1294
 Delta R.T. 0.020 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

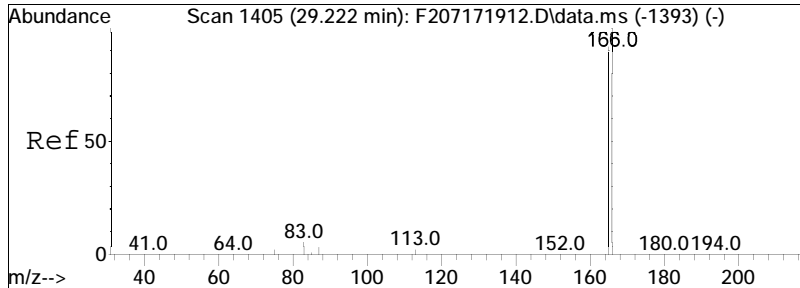
Tgt Ion	Ratio	Lower	Upper
168	100		
139	40.1	27.2	50.4
169	13.9	9.5	17.7





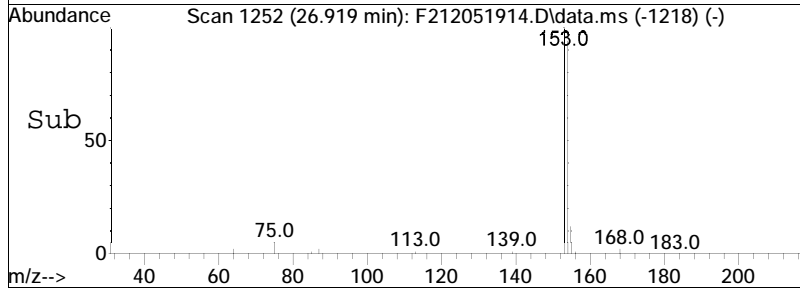
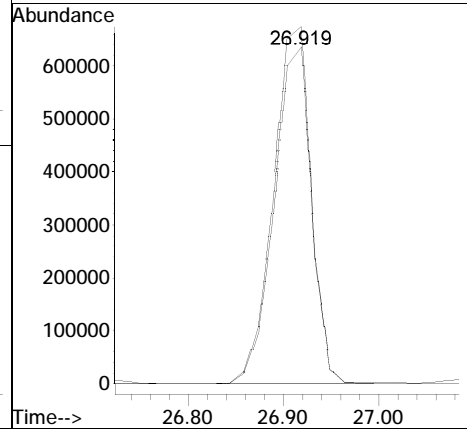
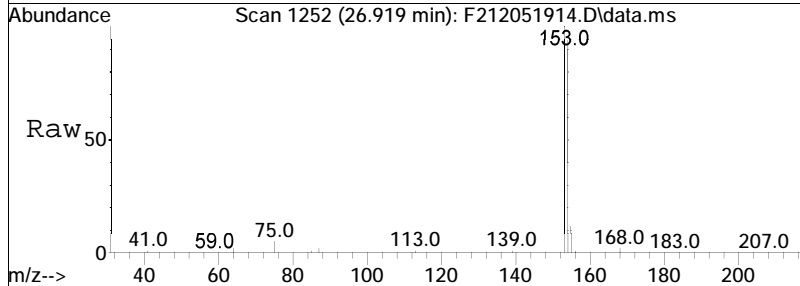
#24
 Acenaphthylene
 Concen: 606.00 ng/mL M3
 RT: 26.166 min Scan# 1202
 Delta R.T. -0.005 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:152 Resp: 159504

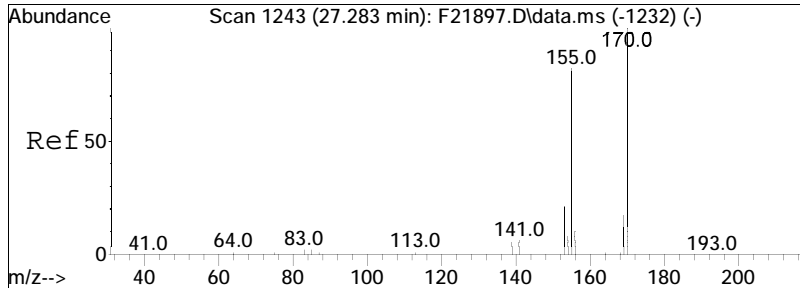




#25
 Acenaphthene
 Concen: 11307.68 ng/mL
 RT: 26.919 min Scan# 1252
 Delta R.T. 0.016 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

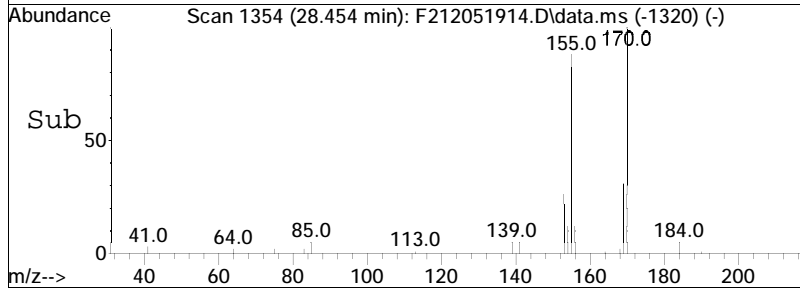
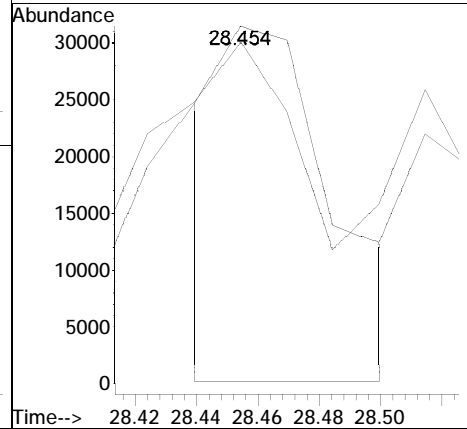
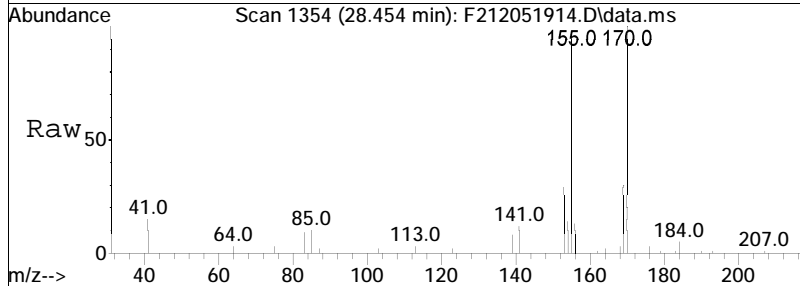
Tgt Ion: 153 Resp: 1858530
 Ion Ratio Lower Upper
 153 100
 154 93.2 66.5 123.5

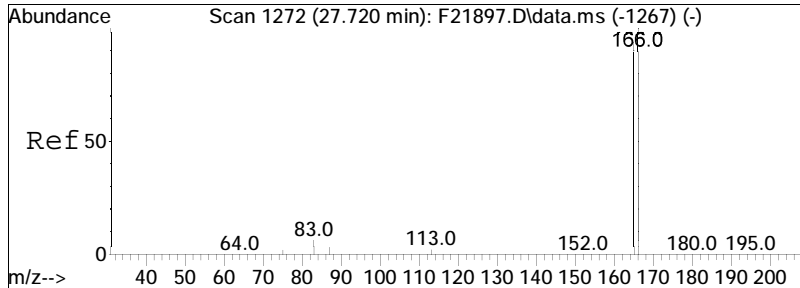




#26
 2,3,5-Trimethylnaphthalene
 Concen: 545.26 ng/mL M3
 RT: 28.454 min Scan# 1354
 Delta R.T. 0.012 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

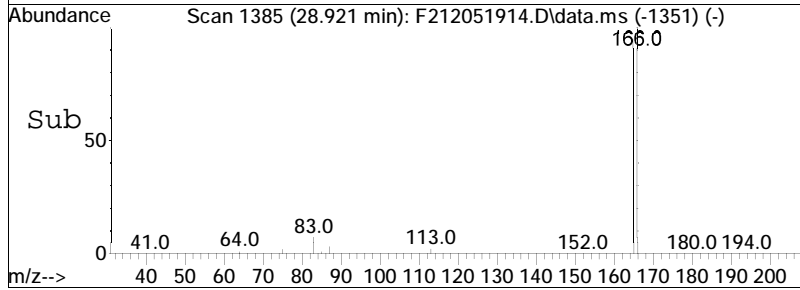
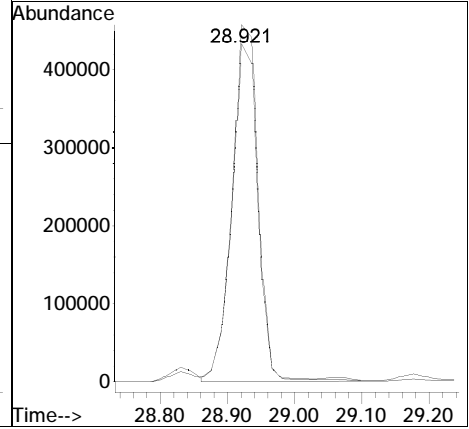
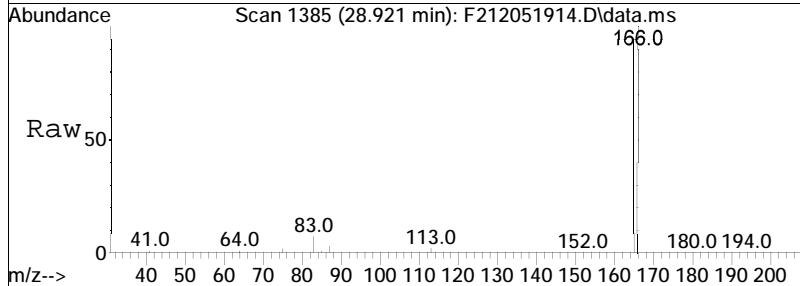
Tgt Ion: 170 Resp: 78597
 Ion Ratio Lower Upper
 170 100
 155 145.9 59.1 109.7#

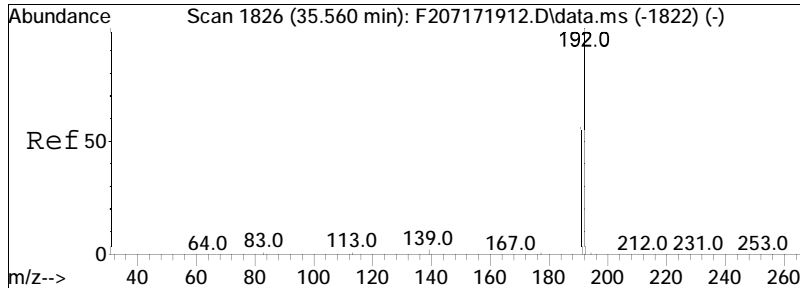




#27
 Fluorene
 Concen: 6631.70 ng/mL
 RT: 28.921 min Scan# 1385
 Delta R.T. 0.015 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

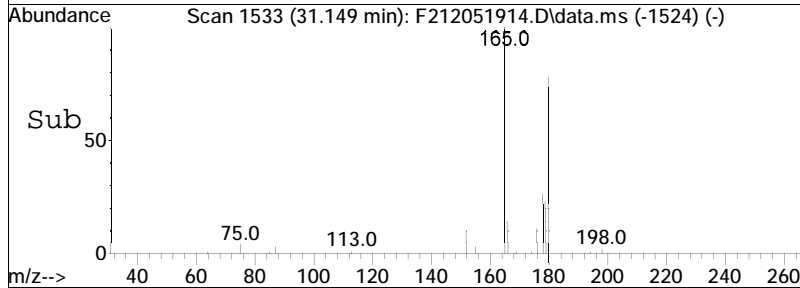
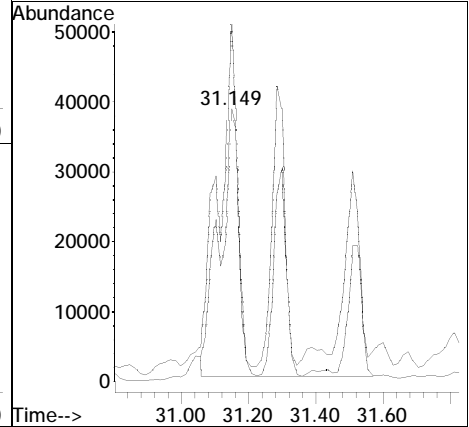
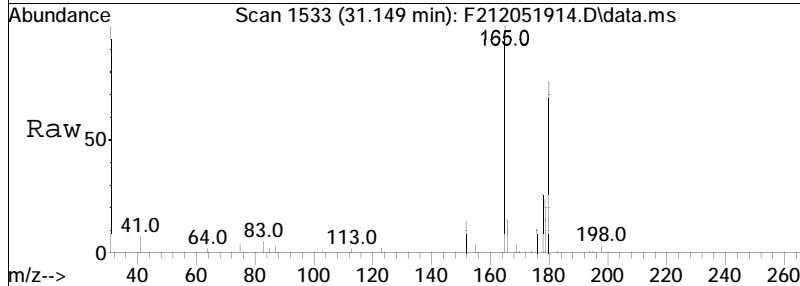
Tgt Ion	Resp	Lower	Upper
166	100		
165	92.8	63.9	118.7

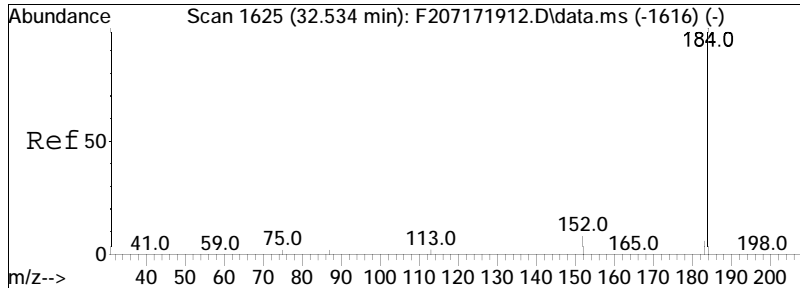




#28
 Cl-Fluorenes
 Concen: 1529.43 ng/mL M5
 RT: 31.149 min Scan# 1533
 Delta R.T. -0.105 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

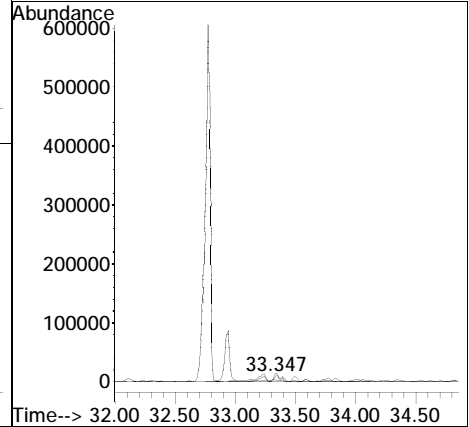
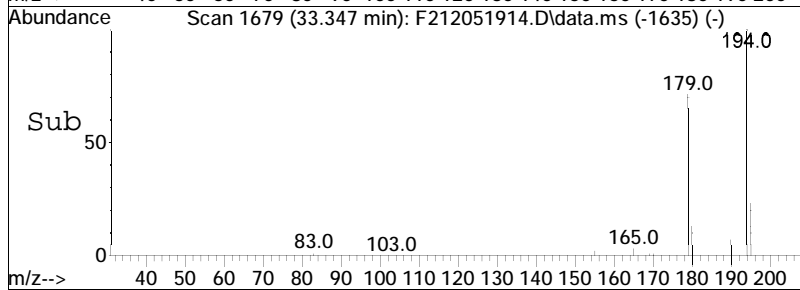
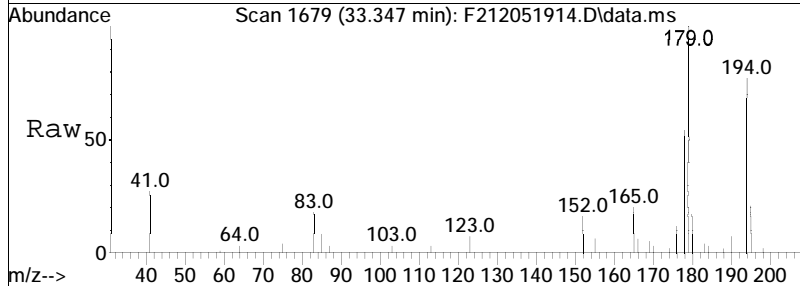
Tgt Ion	Ratio	Lower	Upper
180	100		
165	36.8	97.6	181.2#

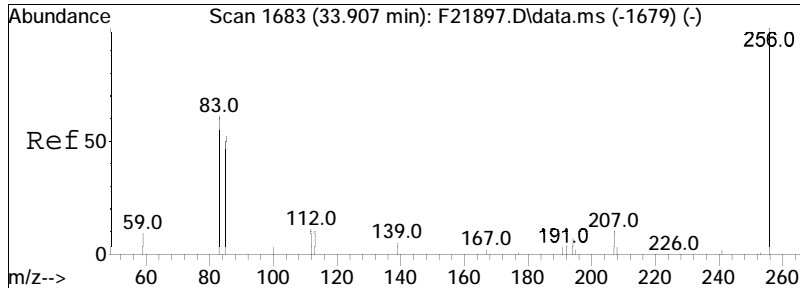




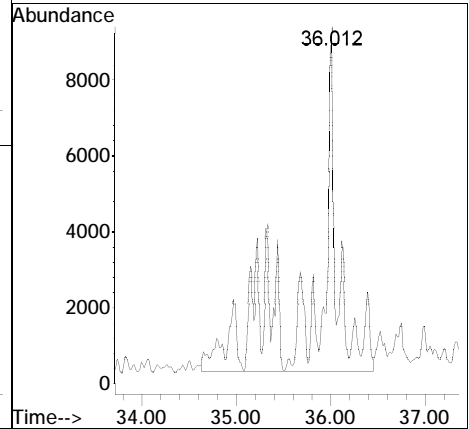
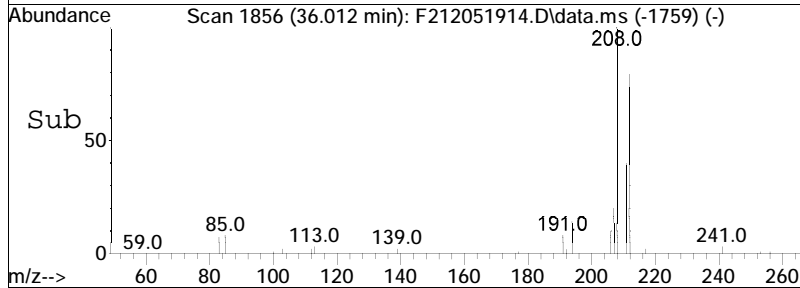
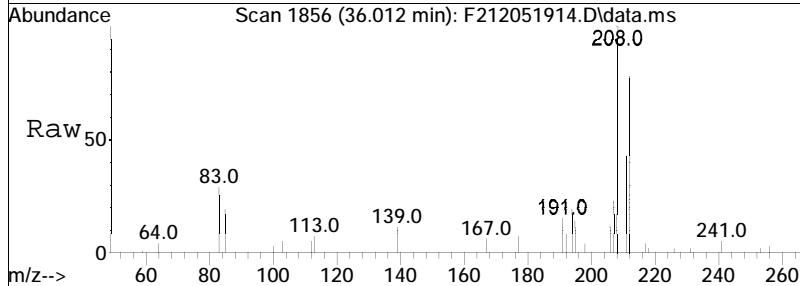
#29
 C2-Fluorenes
 Concen: 1033.91 ng/mL M5
 RT: 33.347 min Scan# 1679
 Delta R.T. -0.087 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

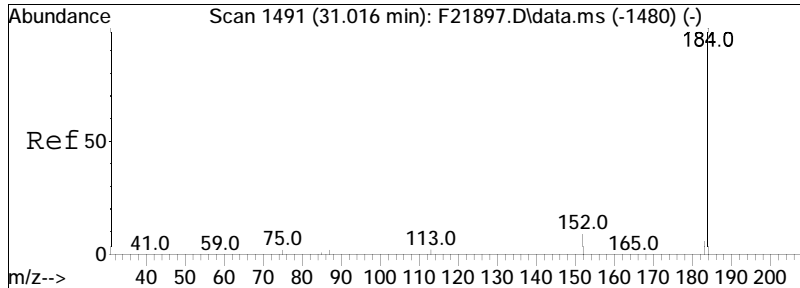
Tgt Ion	Resp	Lower	Upper
194	192477		
Ion Ratio			
194	100		
179	0.0	0.0	0.0
195	3.8	25.7	47.7#





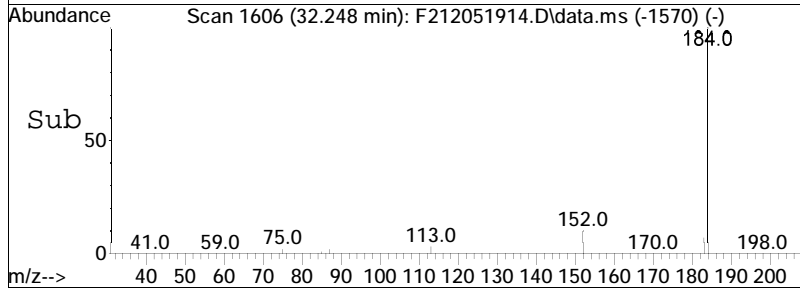
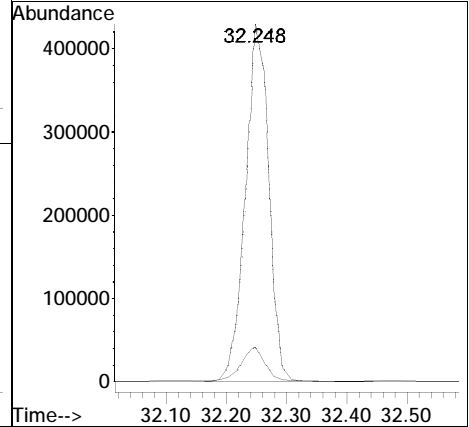
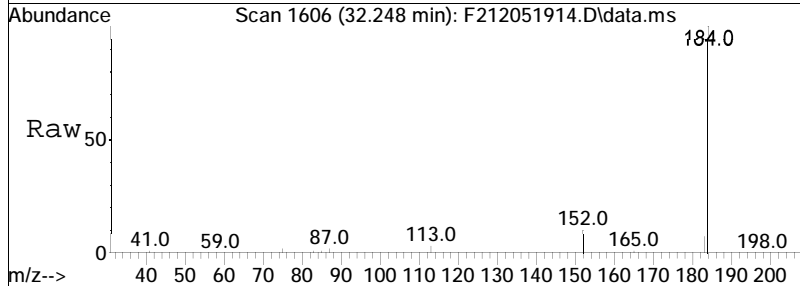
#30
 C3-Fluorenes
 Concen: 781.13 ng/mL M5
 RT: 36.012 min Scan# 1856
 Delta R.T. 0.763 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion: 208 Resp: 145417

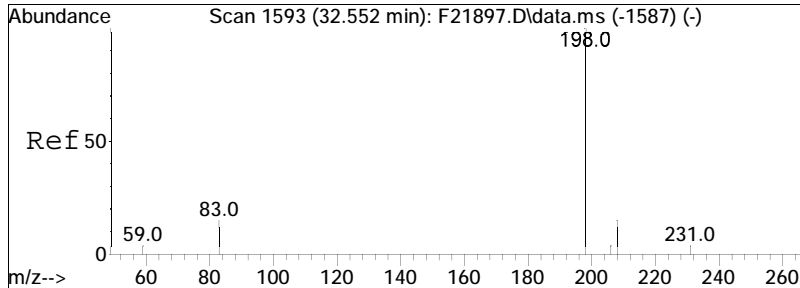




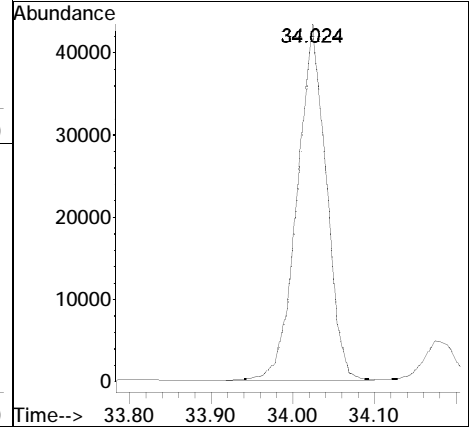
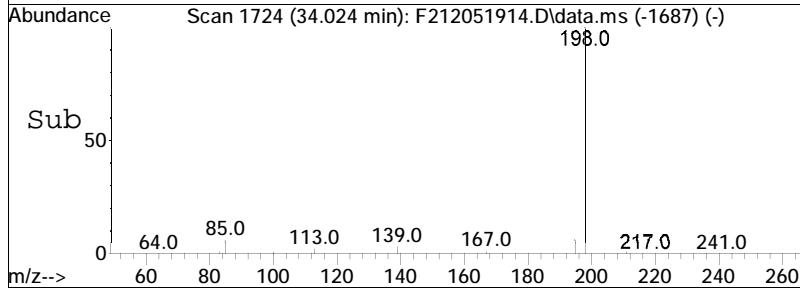
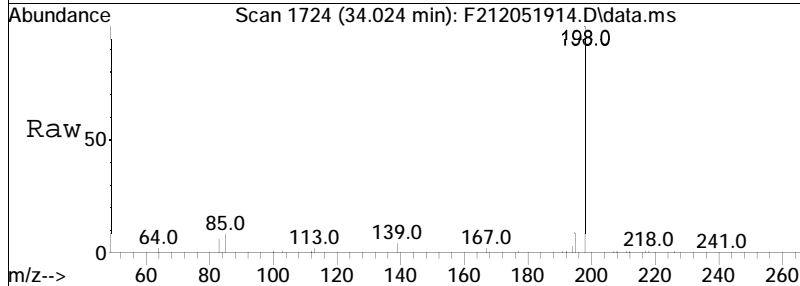
#31
 Dibenzothiophene
 Concen: 4520.36 ng/mL
 RT: 32.248 min Scan# 1606
 Delta R.T. 0.040 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

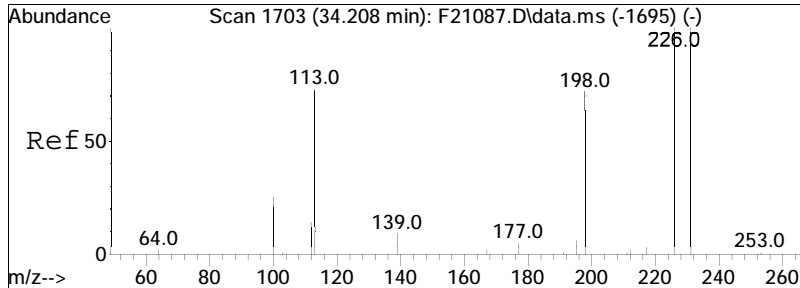
Tgt Ion: 184 Resp: 1139774
 Ion Ratio Lower Upper
 184 100
 152 9.8 5.7 10.5



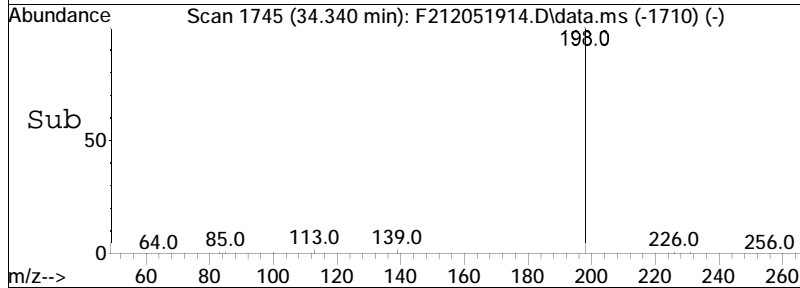
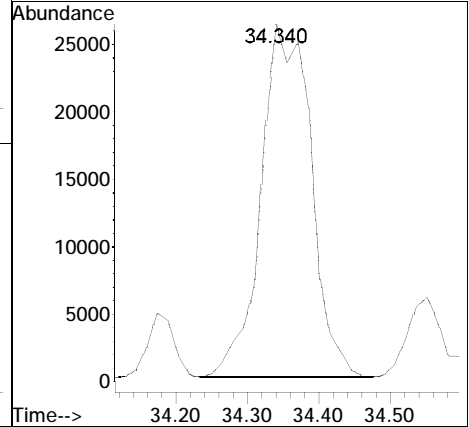
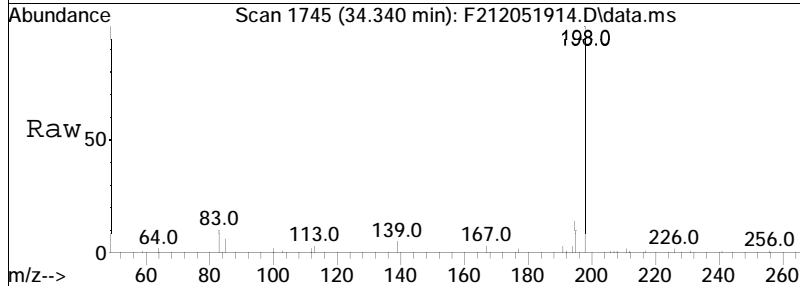


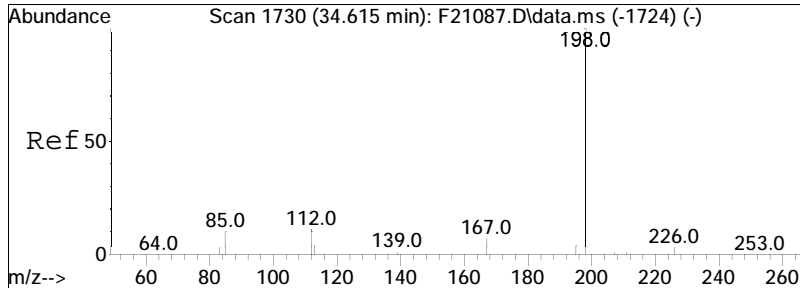
#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 420.56 ng/mL
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion: 198 Resp: 106040



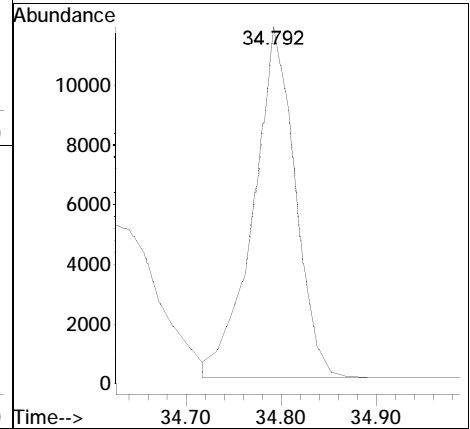
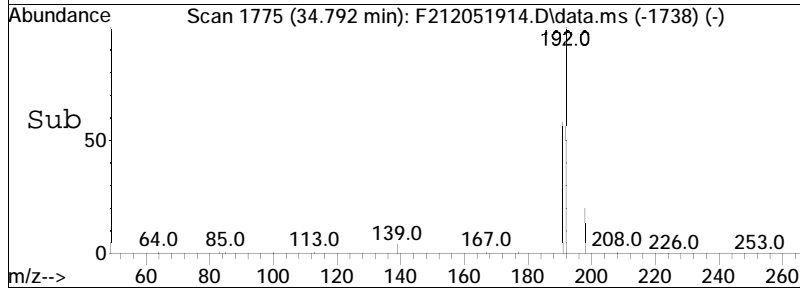
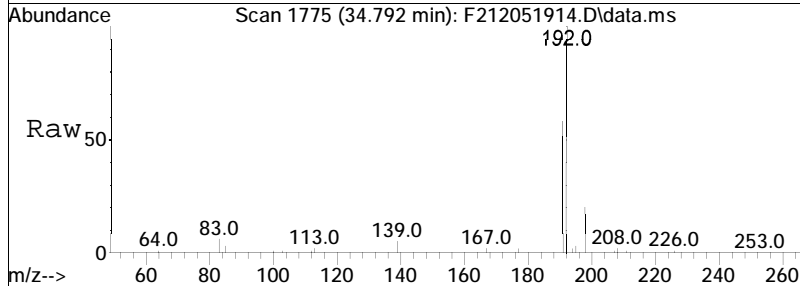


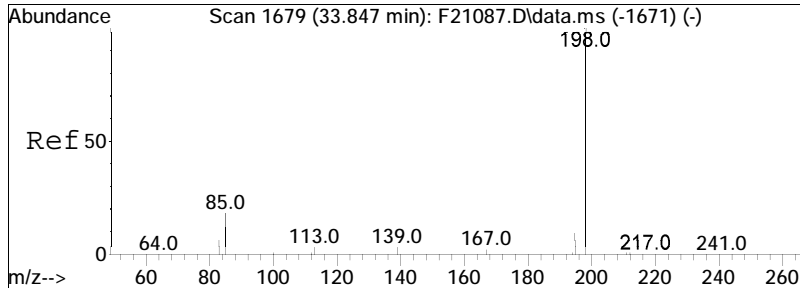
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 501.07 ng/mL
 RT: 34.340 min Scan# 1745
 Delta R.T. 0.025 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:198 Resp: 126341



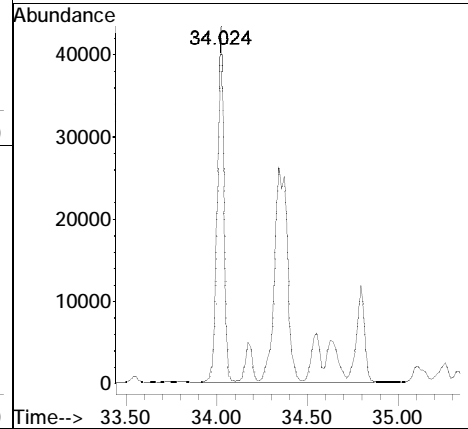
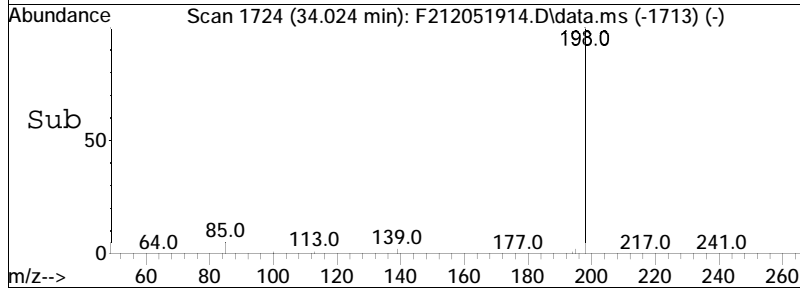
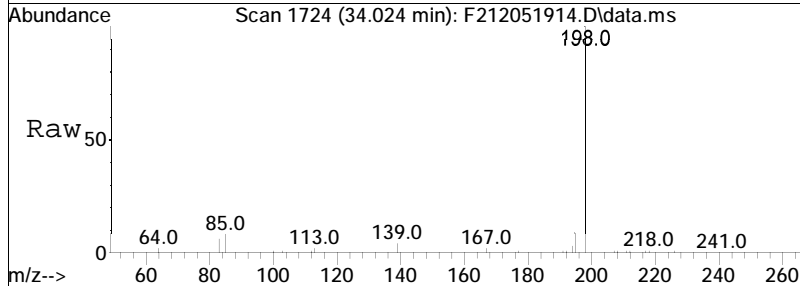


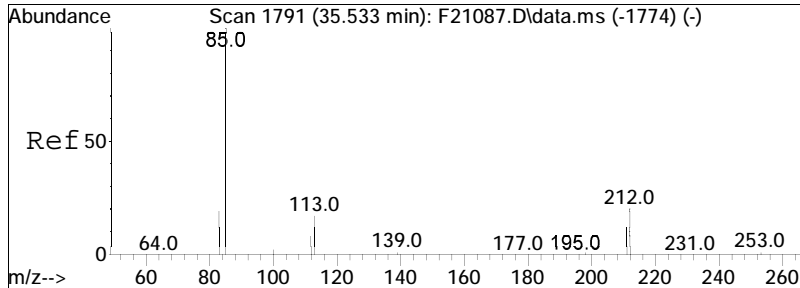
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 141.54 ng/mL
 RT: 34.792 min Scan# 1775
 Delta R.T. 0.058 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:198 Resp: 35687



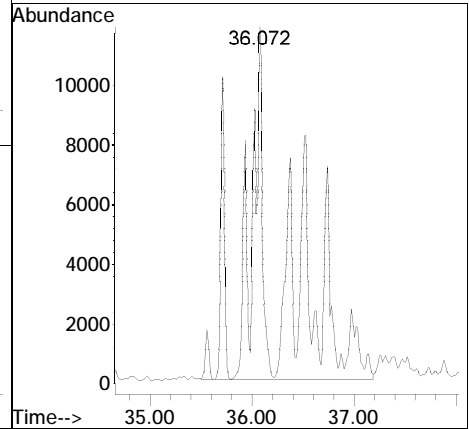
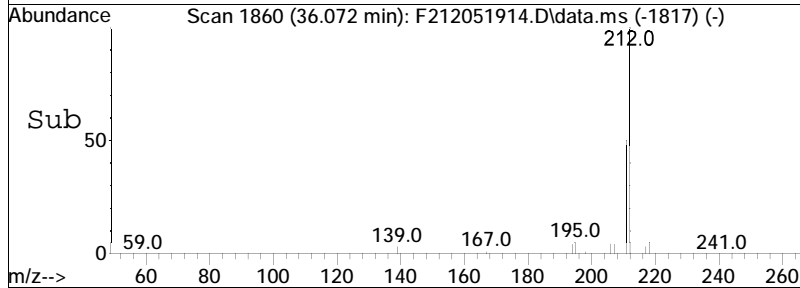
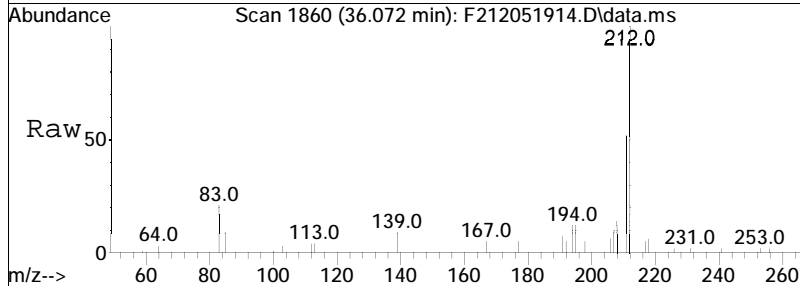


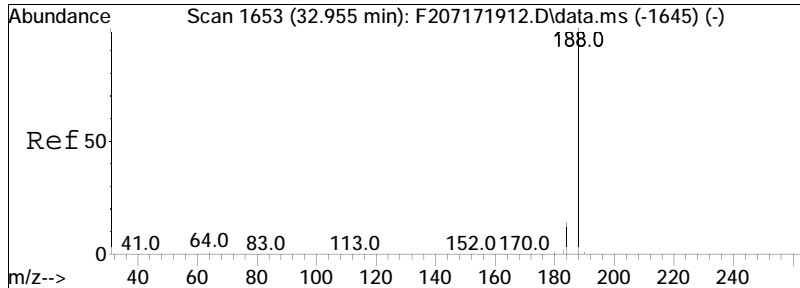
#36
 Cl-Dibenzothiophenes
 Concen: 1299.71 ng/mL M5
 RT: 34.024 min Scan# 1724
 Delta R.T. 0.052 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:198 Resp: 327713





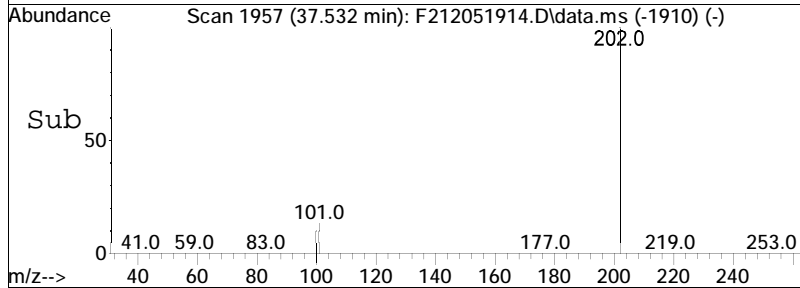
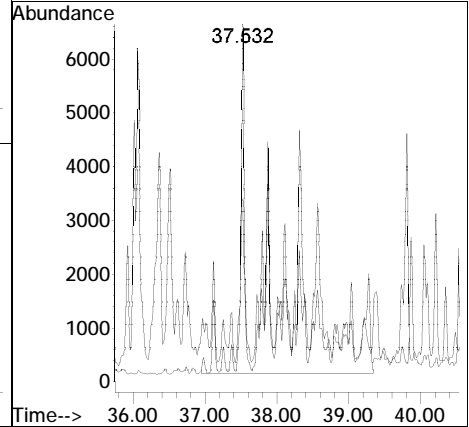
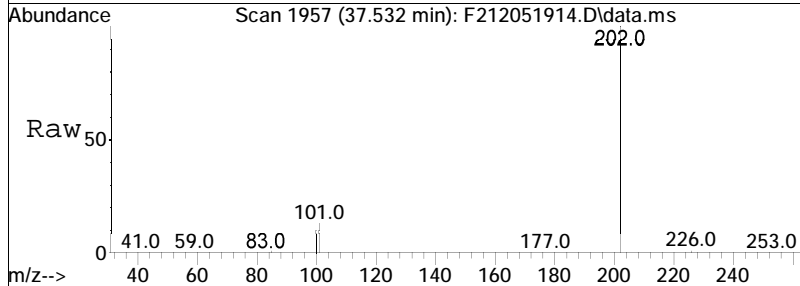
#37
 C2-Dibenzothiophenes
 Concen: 944.97 ng/mL M5
 RT: 36.072 min Scan# 1860
 Delta R.T. 0.426 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:212 Resp: 238268

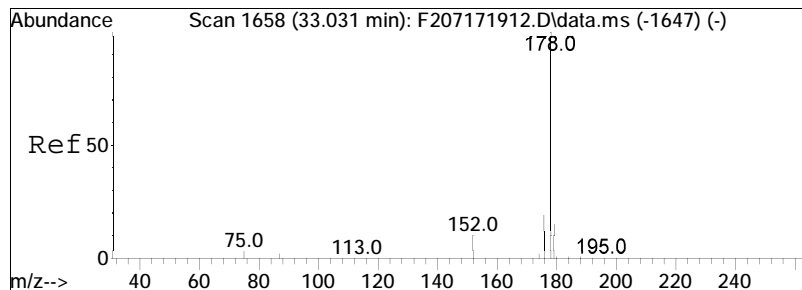




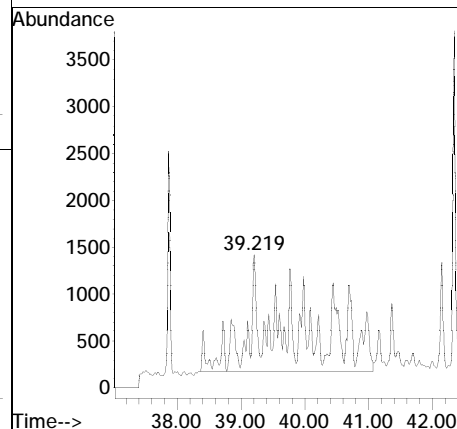
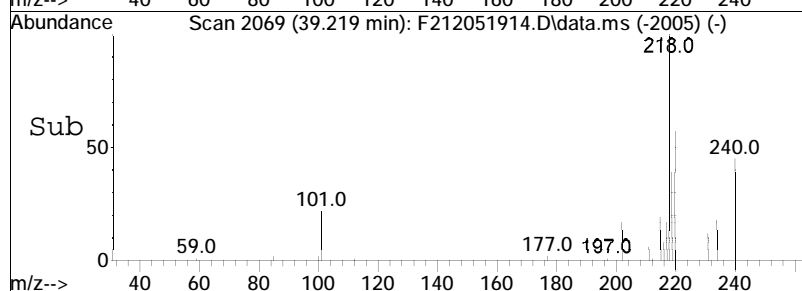
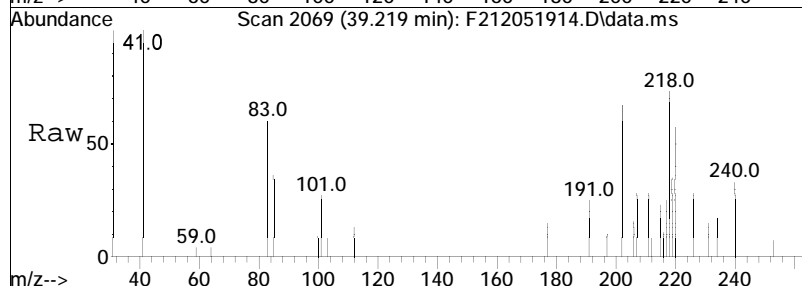
#38
 C3-Dibenzothiophenes
 Concen: 541.65 ng/mL M5
 RT: 37.532 min Scan# 1957
 Delta R.T. 0.093 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

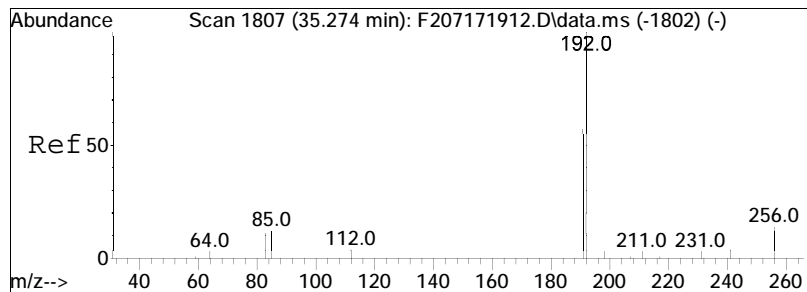
Tgt Ion: 226 Resp: 136574
 Ion Ratio Lower Upper
 226 100
 211 10.0 38.6 71.6#





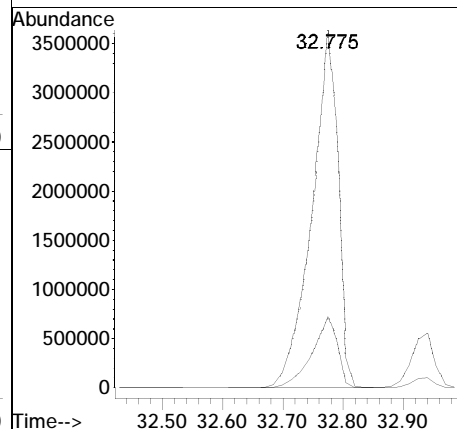
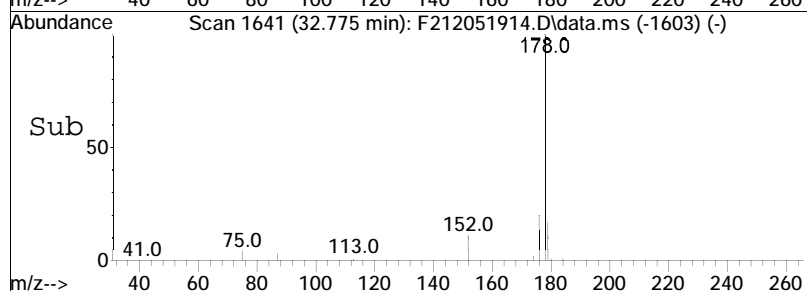
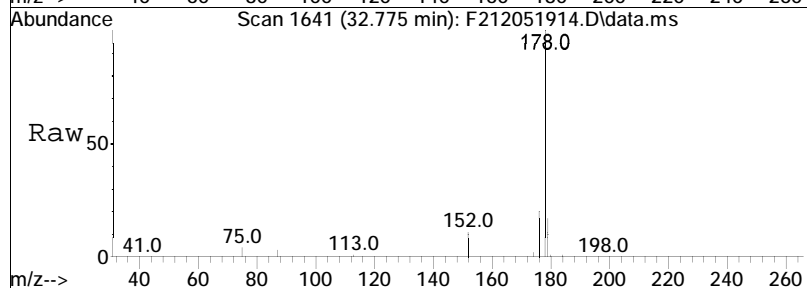
#39
 C4-Dibenzothiophenes
 Concen: 228.02 ng/mL M5
 RT: 39.219 min Scan# 2069
 Delta R.T. 0.105 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion: 240 Resp: 57493

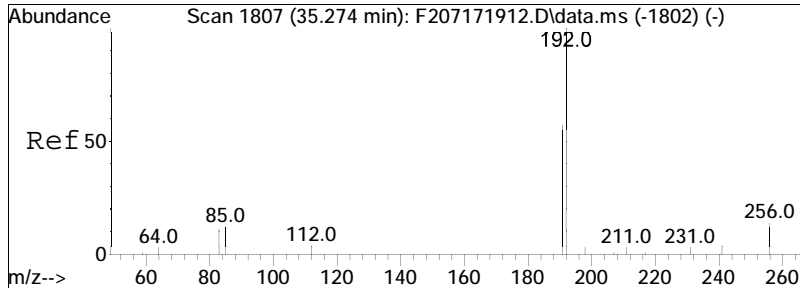




#41
 Phenanthrene
 Concen: 40551.76 ng/mL
 RT: 32.775 min Scan# 1641
 Delta R.T. 0.073 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

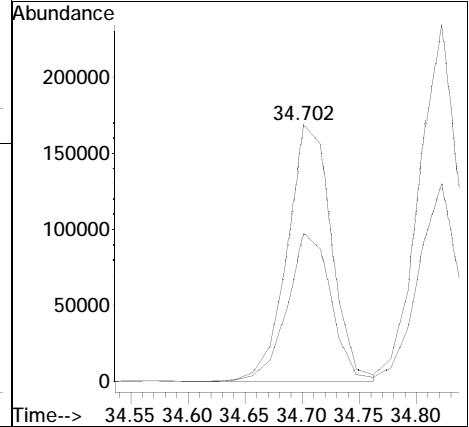
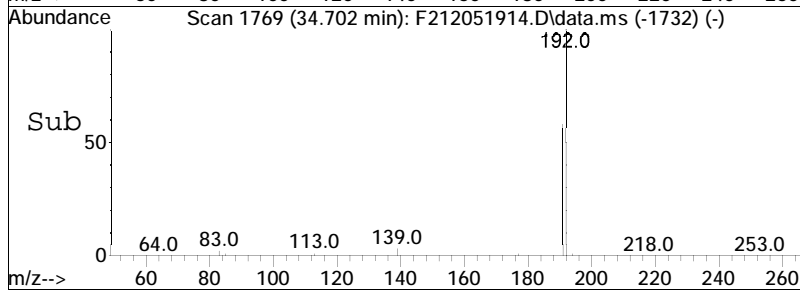
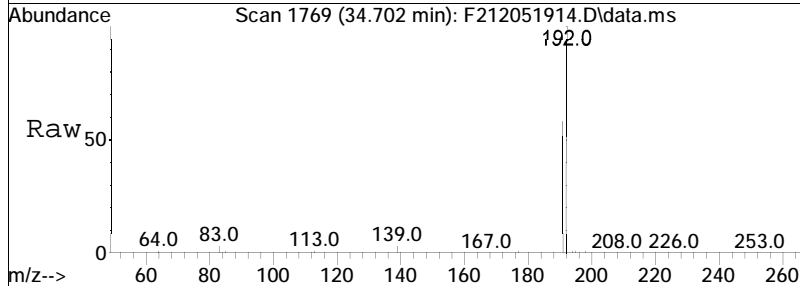
Tgt Ion:178 Resp:10876526
 Ion Ratio Lower Upper
 178 100
 176 19.5 13.0 24.1

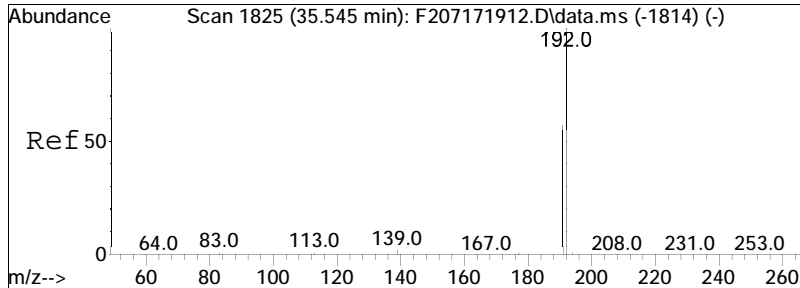




#42
 3-Methylphenanthrene (3MP)
 Concen: 1685.50 ng/mL
 RT: 34.702 min Scan# 1769
 Delta R.T. 0.057 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

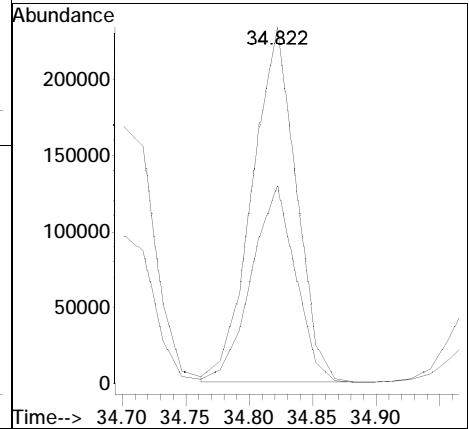
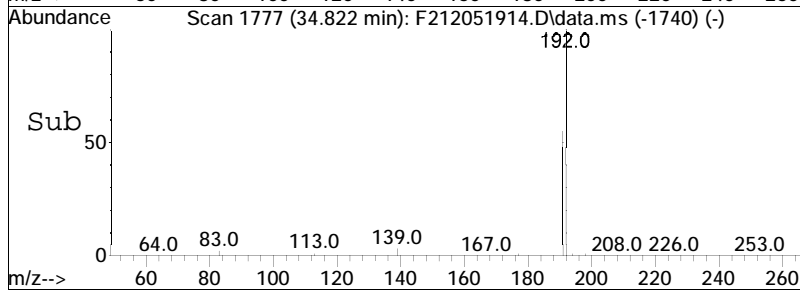
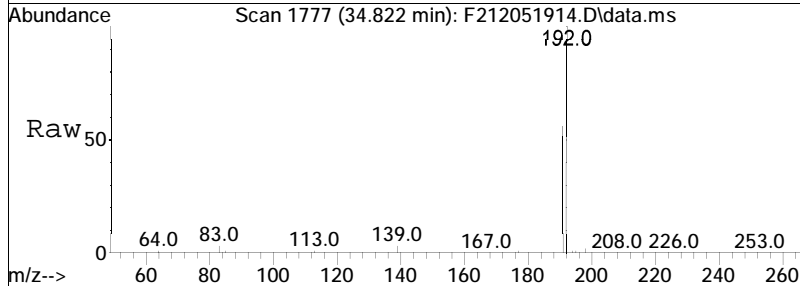
Tgt Ion: 192 Resp: 452073
 Ion Ratio Lower Upper
 192 100
 191 56.9 42.1 78.1

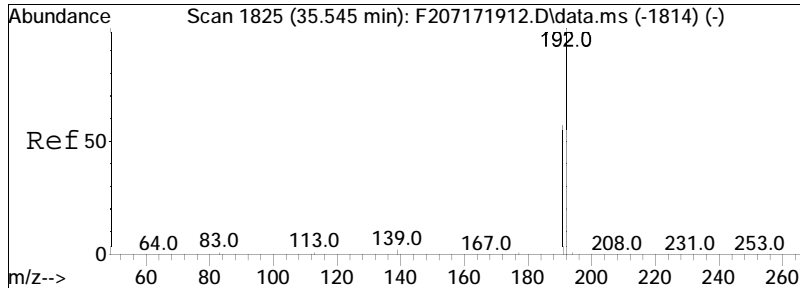




#43
 2-Methylphenanthrene (2MP)
 Concen: 2092.26 ng/mL
 RT: 34.822 min Scan# 1777
 Delta R.T. 0.058 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

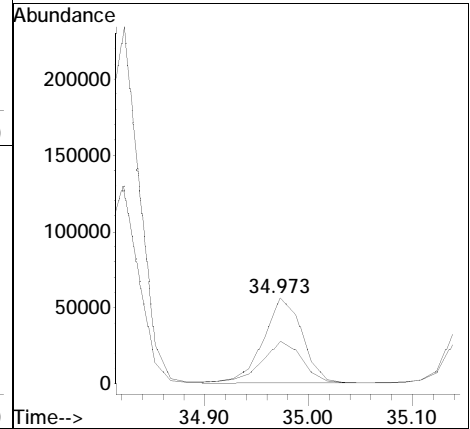
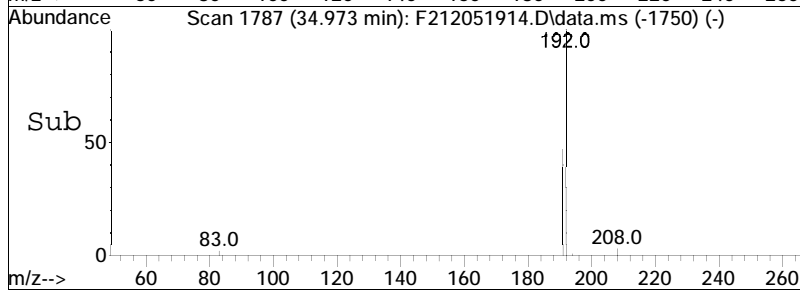
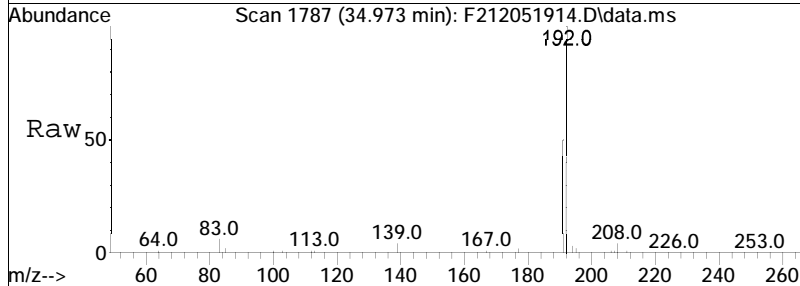
Tgt Ion	Resp	Lower	Upper
192	100		
191	55.5	40.5	75.3

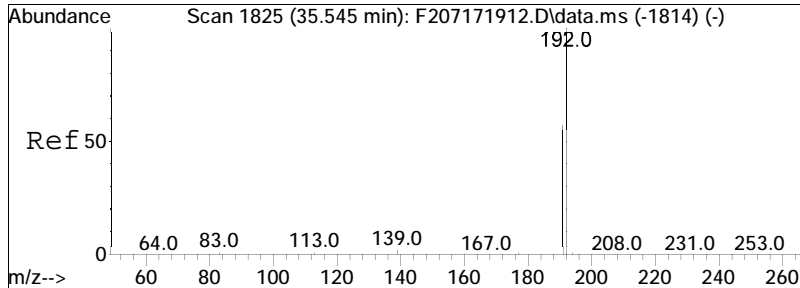




#44
 2-Methylantracene(2MA)
 Concen: 539.16 ng/mL
 RT: 34.973 min Scan# 1787
 Delta R.T. 0.059 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

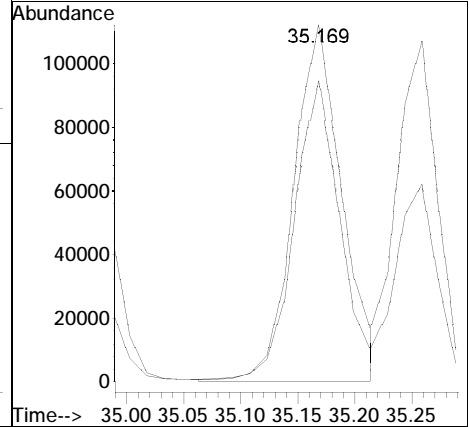
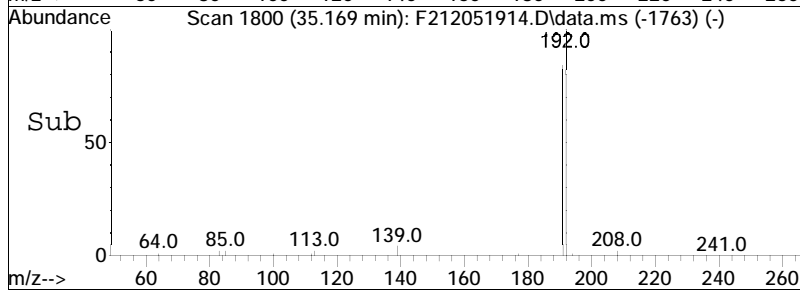
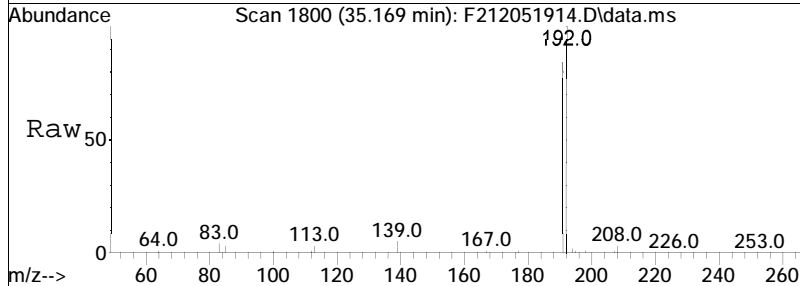
Tgt Ion	Resp	Lower	Upper
192	144609		
191	50.7	85.2	158.2#

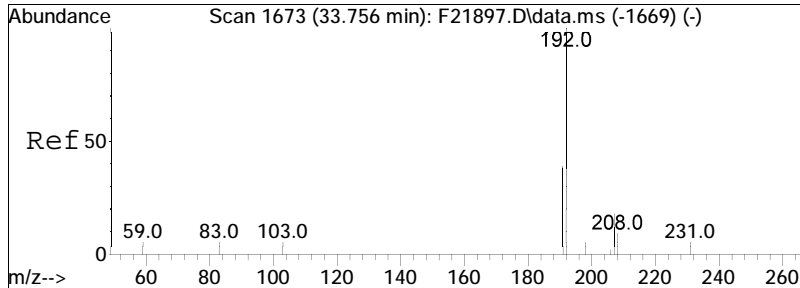




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 1226.22 ng/mL M3
 RT: 35.169 min Scan# 1800
 Delta R.T. 0.061 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

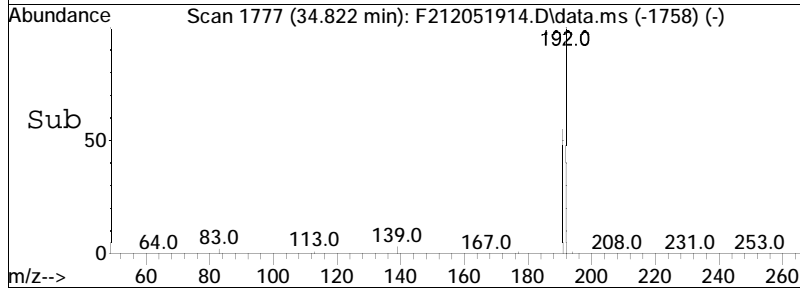
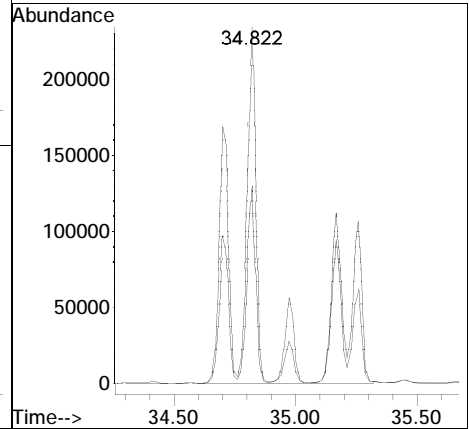
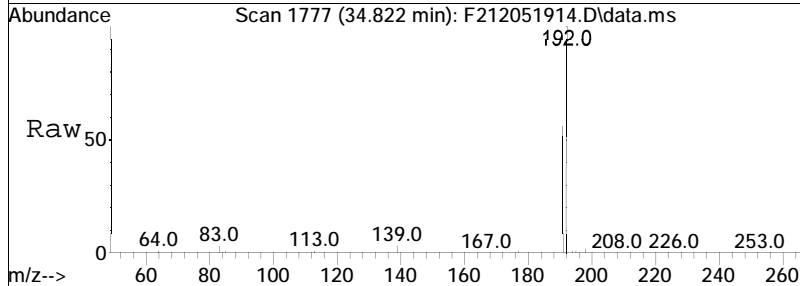
Tgt Ion	Resp	Lower	Upper
192	328889		
191	22.2	39.7	73.7#

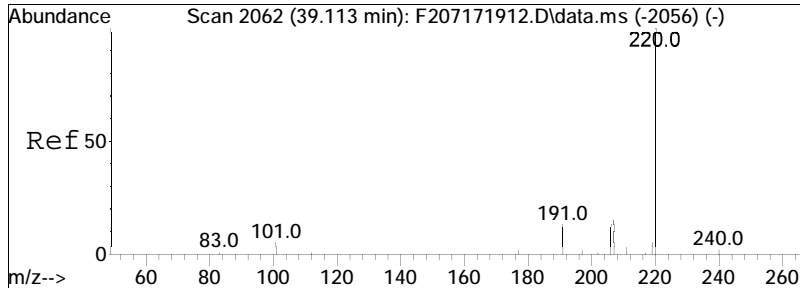




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 6565.49 ng/mL M5
 RT: 34.822 min Scan# 1777
 Delta R.T. -0.285 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

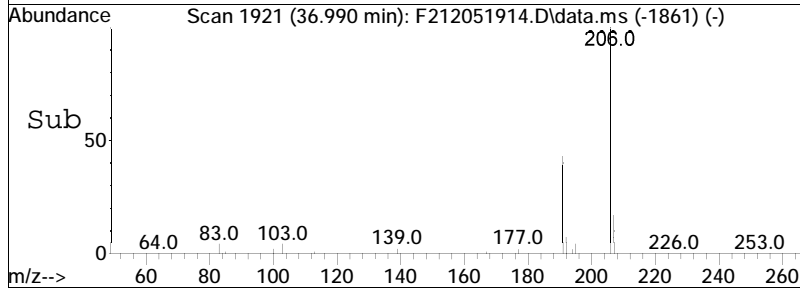
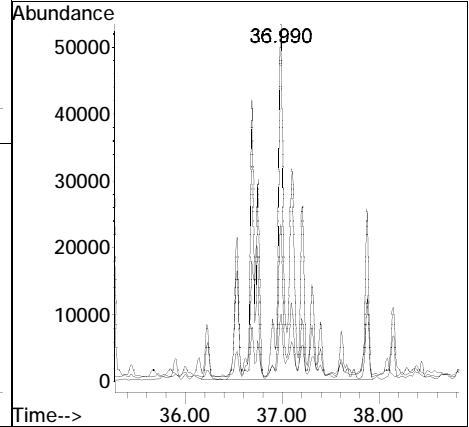
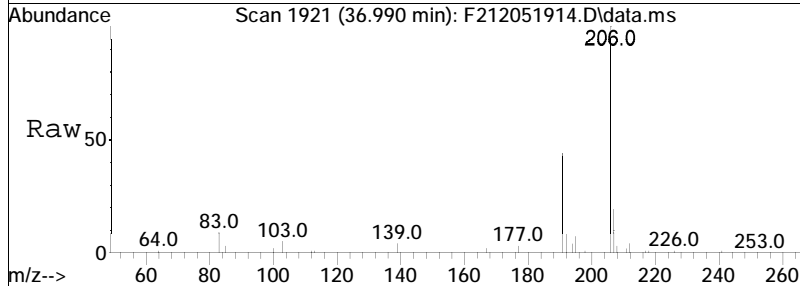
Tgt Ion: 192 Resp: 1760953
 Ion Ratio Lower Upper
 192 100
 191 4.2 39.7 73.7#

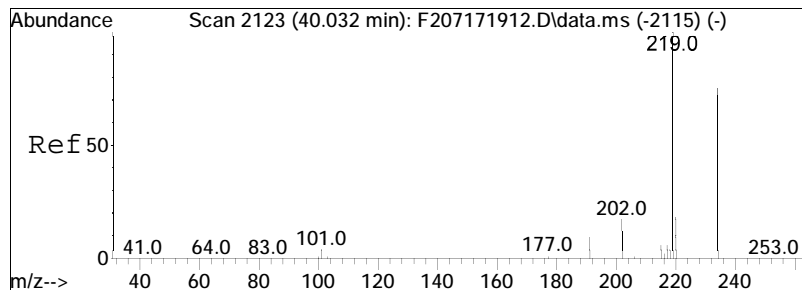




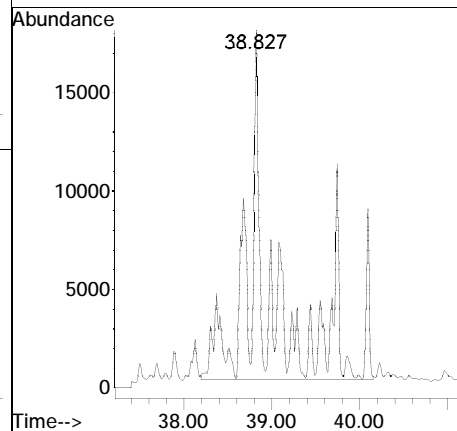
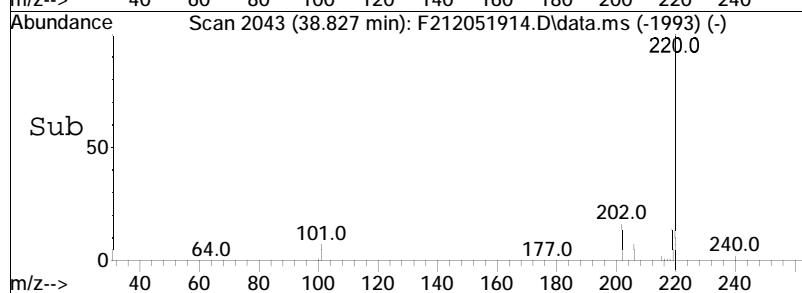
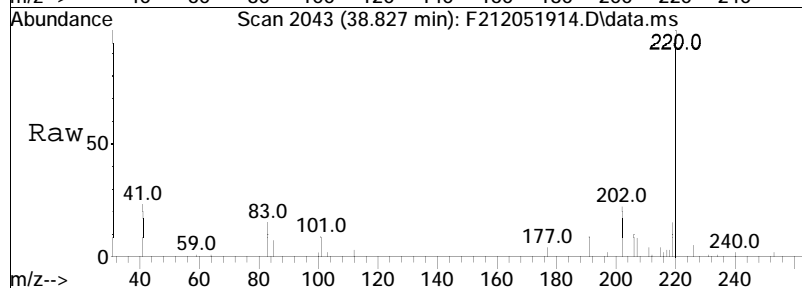
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 2808.13 ng/mL M5
 RT: 36.990 min Scan# 1921
 Delta R.T. 0.089 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

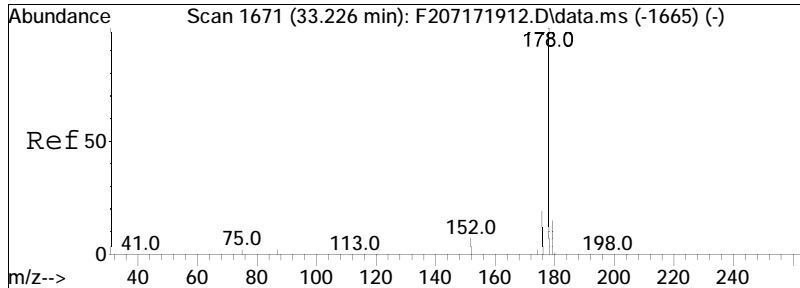
Tgt Ion	Ratio	Lower	Upper
206	100		
191	10.8	33.9	62.9#
207	3.8	13.9	25.7#





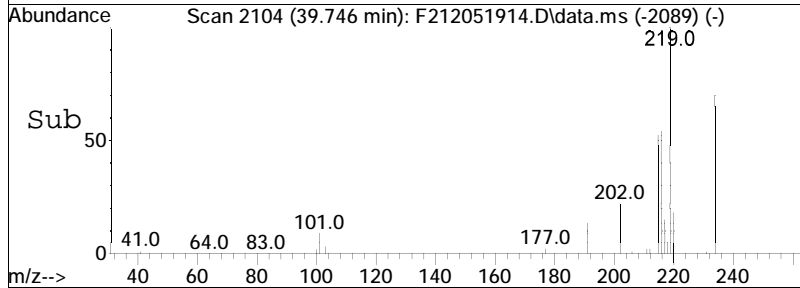
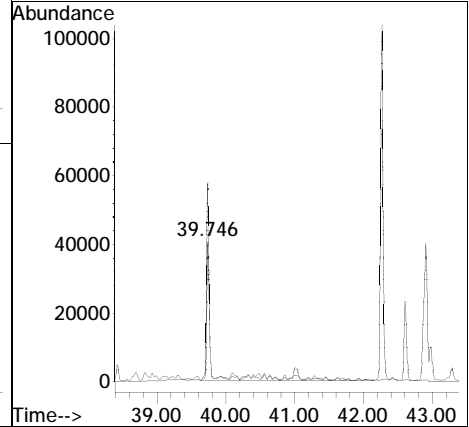
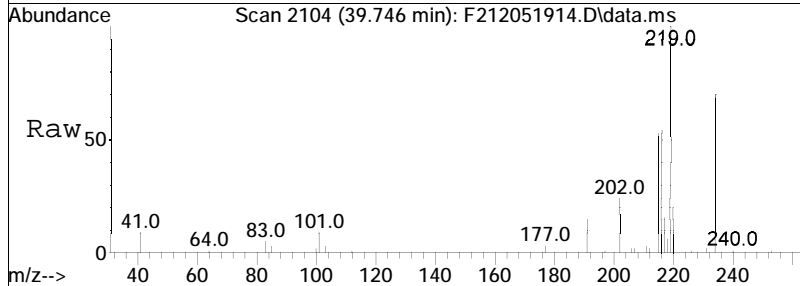
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1148.20 ng/mL M5
 RT: 38.827 min Scan# 2043
 Delta R.T. 0.087 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:220 Resp: 307963

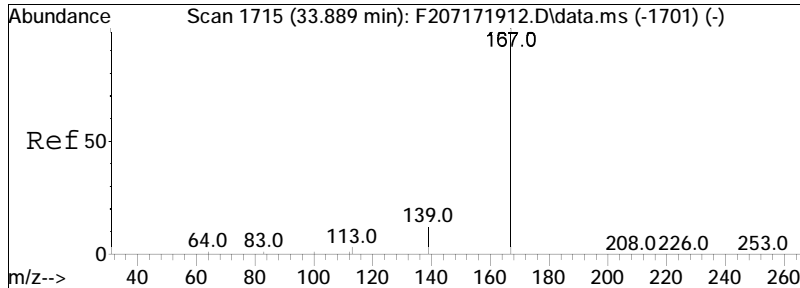




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 702.63 ng/mL M5
 RT: 39.746 min Scan# 2104
 Delta R.T. -1.147 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

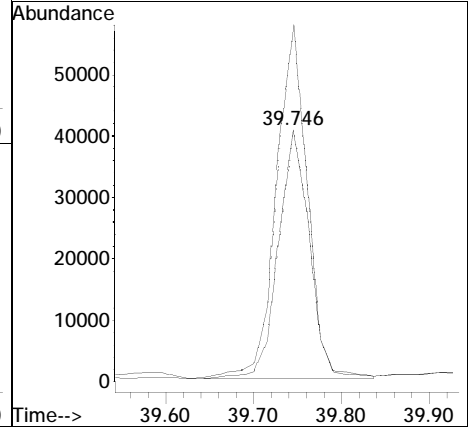
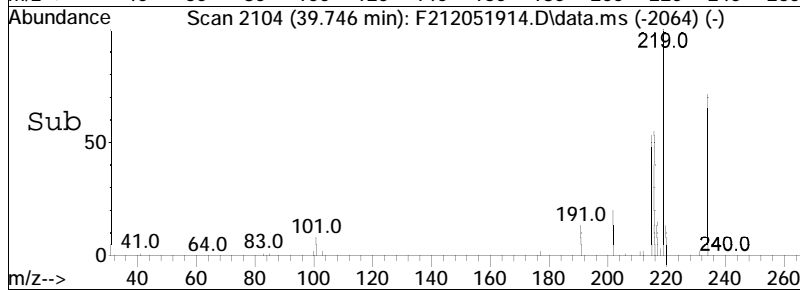
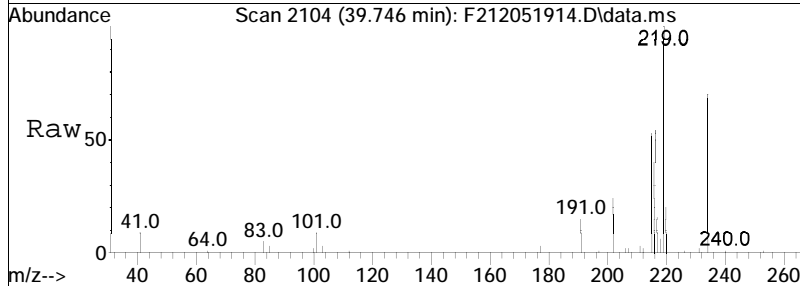
Tgt Ion: 234 Resp: 188454
 Ion Ratio Lower Upper
 234 100
 219 1.3 39.5 73.3#

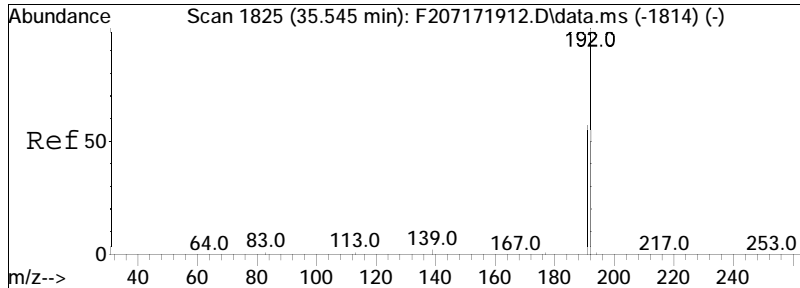




#52
 Retene
 Concen: 1082.38 ng/mL
 RT: 39.746 min Scan# 2104
 Delta R.T. 0.109 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

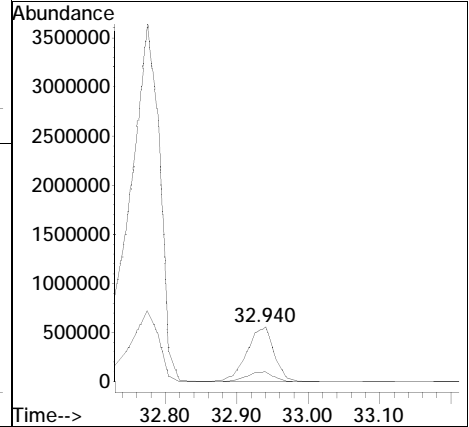
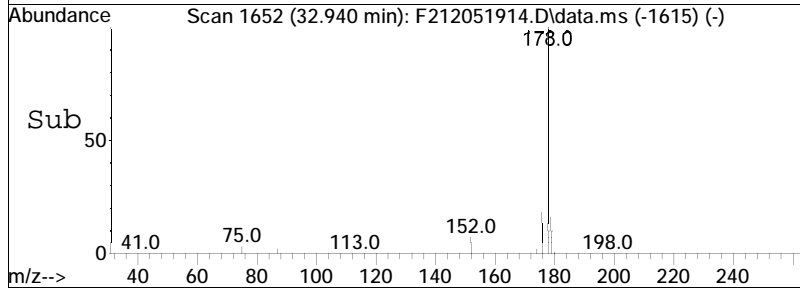
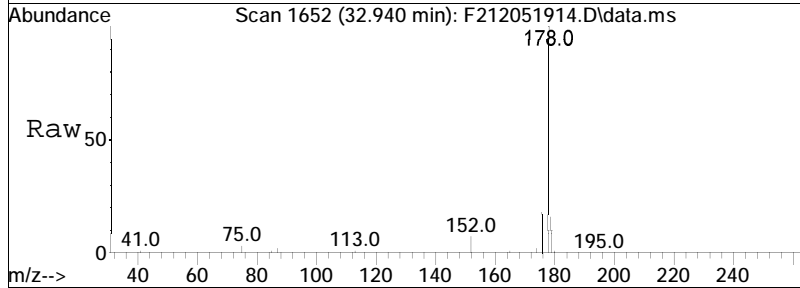
Tgt Ion	Resp	Ion Ratio	Lower	Upper
234	99379	100		
219	141.1	108.2	108.2	201.0

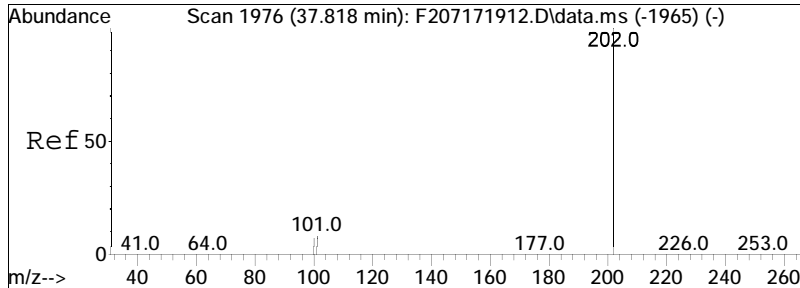




#53
 Anthracene
 Concen: 6476.76 ng/mL
 RT: 32.940 min Scan# 1652
 Delta R.T. 0.060 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

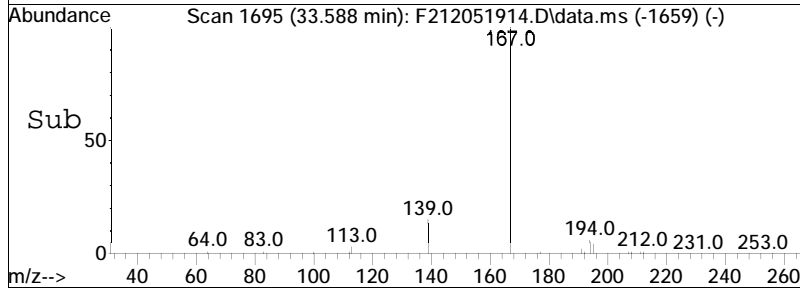
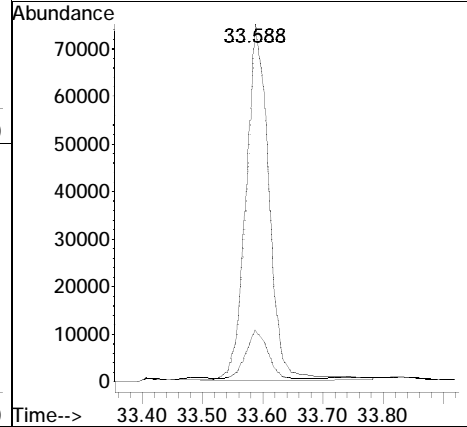
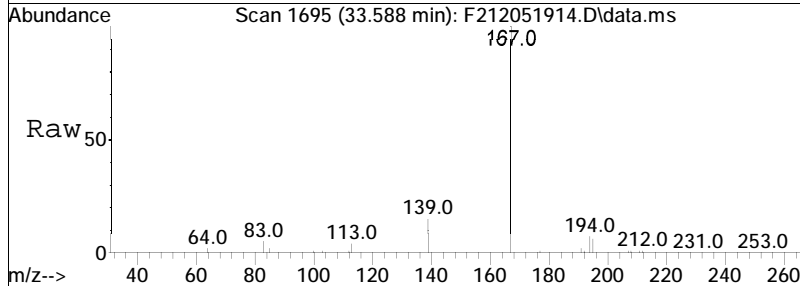
Tgt Ion:178 Resp: 1480915
 Ion Ratio Lower Upper
 178 100
 176 18.4 12.5 23.3

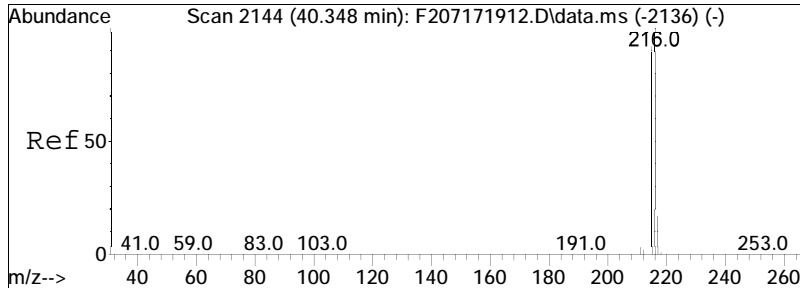




#54
 Carbazole
 Concen: 917.25 ng/mL
 RT: 33.588 min Scan# 1695
 Delta R.T. 0.049 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

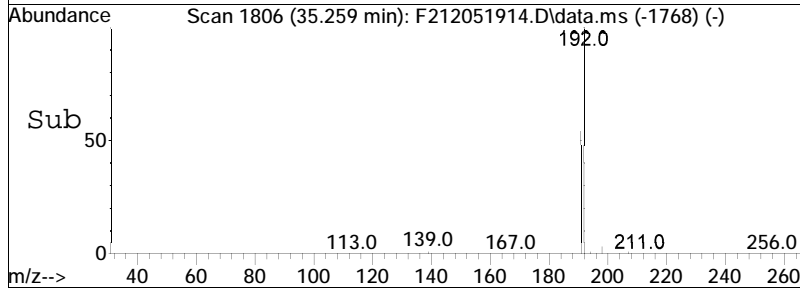
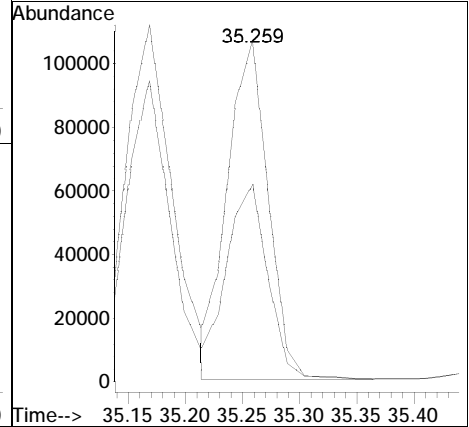
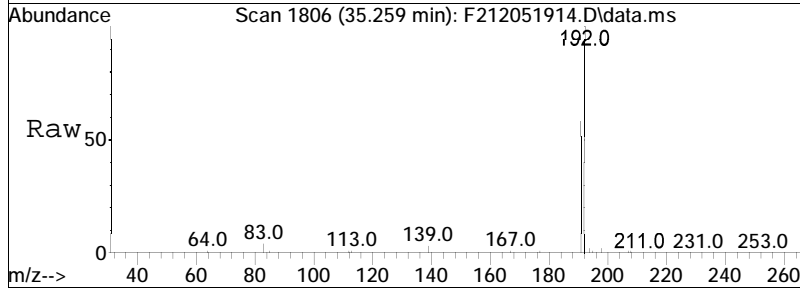
Tgt Ion: 167 Resp: 196210
 Ion Ratio Lower Upper
 167 100
 139 14.0 8.7 16.1

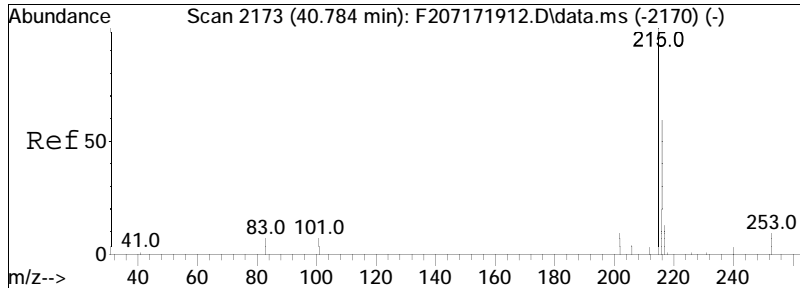




#55
 1-Methylphenanthrene
 Concen: 1307.26 ng/mL
 RT: 35.259 min Scan# 1806
 Delta R.T. 0.076 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

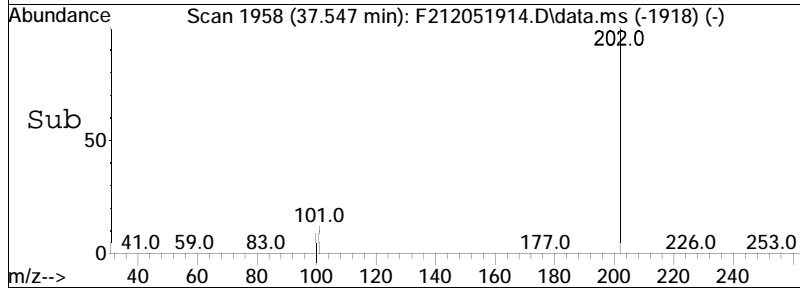
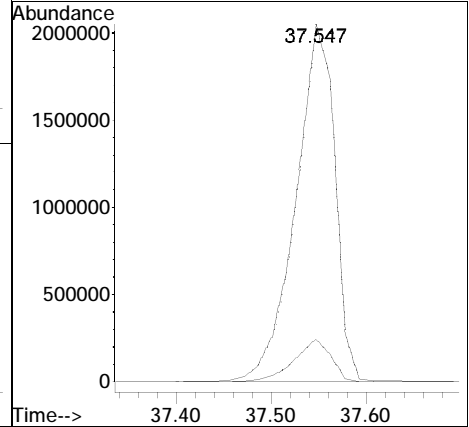
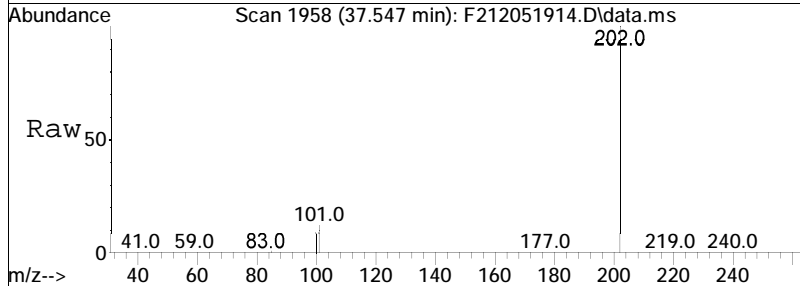
Tgt Ion	Resp	Lower	Upper
192	262575		
191	58.4	39.3	73.1

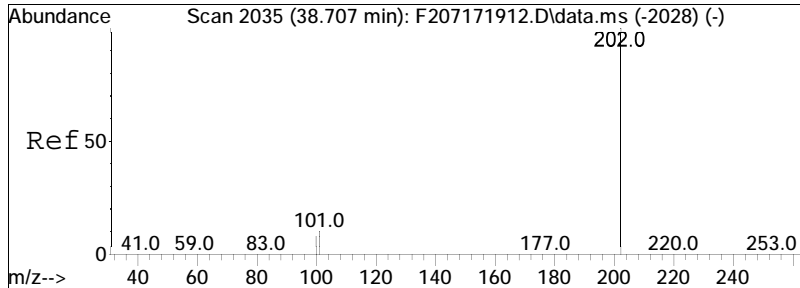




#56
 Fluoranthene
 Concen: 18963.40 ng/mL M4
 RT: 37.547 min Scan# 1958
 Delta R.T. 0.108 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

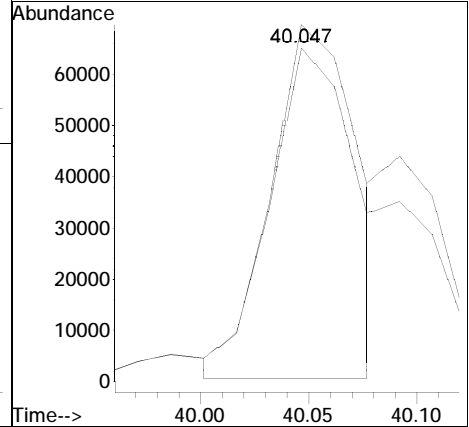
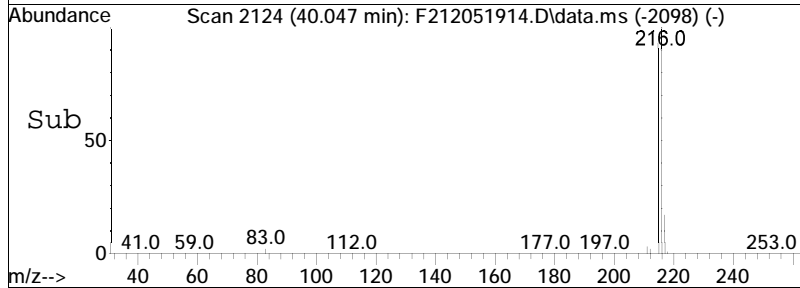
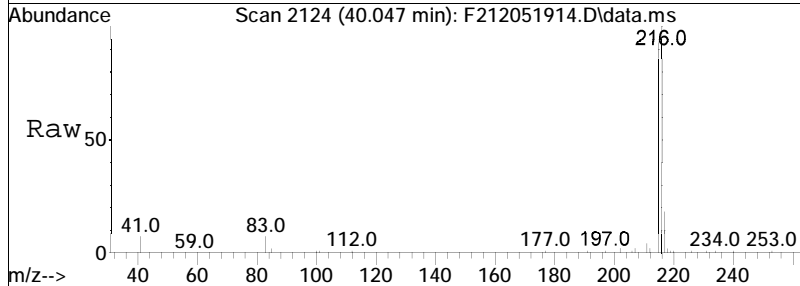
Tgt Ion: 202 Resp: 5800767
 Ion Ratio Lower Upper
 202 100
 101 11.6 8.0 14.8

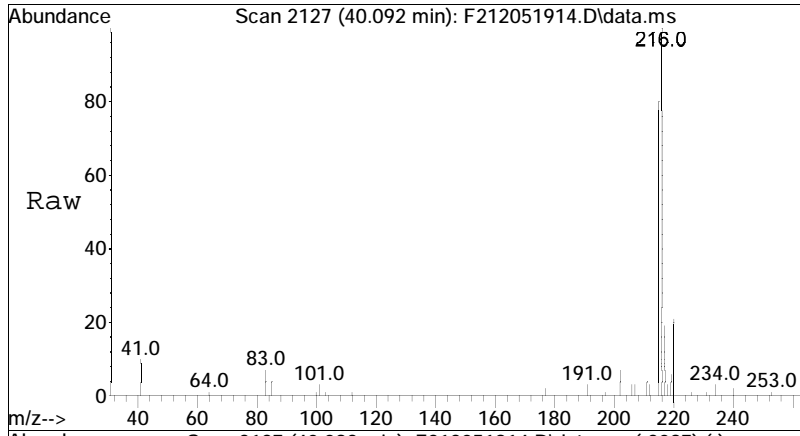




#57
 Benzo(b)fluorene
 Concen: 998.11 ng/mL M3
 RT: 40.047 min Scan# 2124
 Delta R.T. 0.096 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

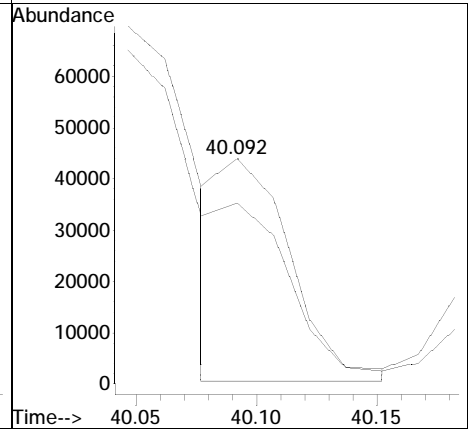
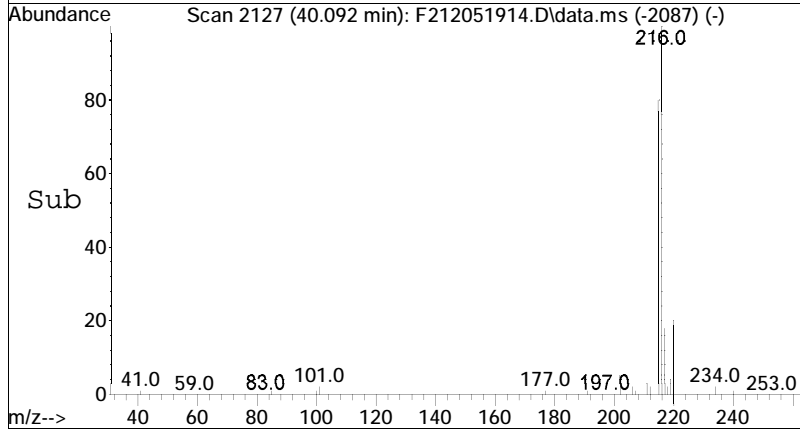
Tgt Ion	Resp	Lower	Upper
216	100		
215	133.2	63.9	118.7#

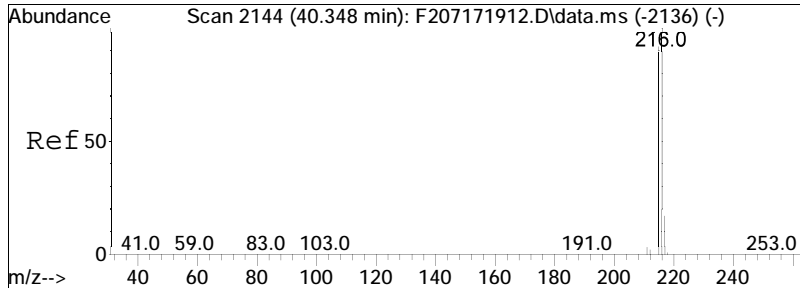




#58
 7H-Benzo(c)fluorene
 Concen: 451.73 ng/mL M3
 RT: 40.092 min Scan# 2127
 Delta R.T. 0.096 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

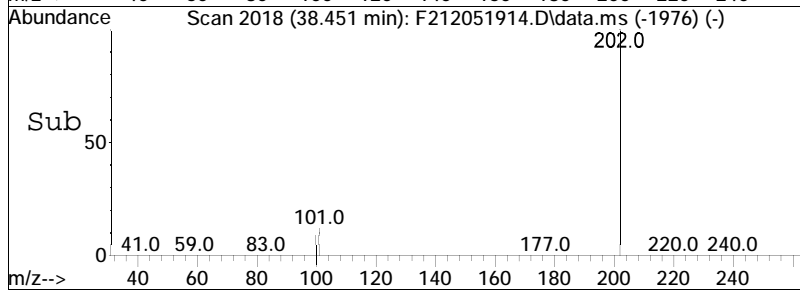
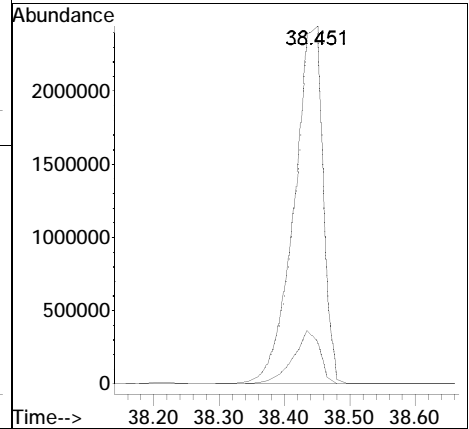
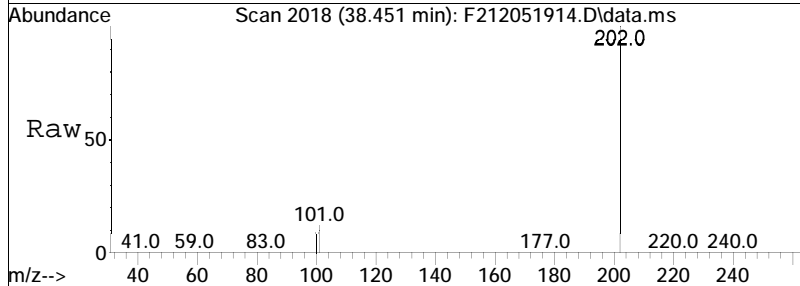
Tgt Ion	Resp	Lower	Upper
216	100		
215	1.0	102.3	189.9#

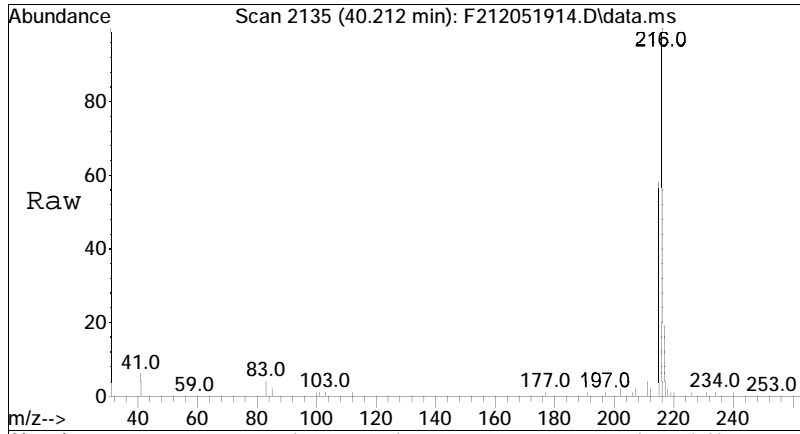




#59
 Pyrene
 Concen: 23371.40 ng/mL M3
 RT: 38.451 min Scan# 2018
 Delta R.T. 0.129 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

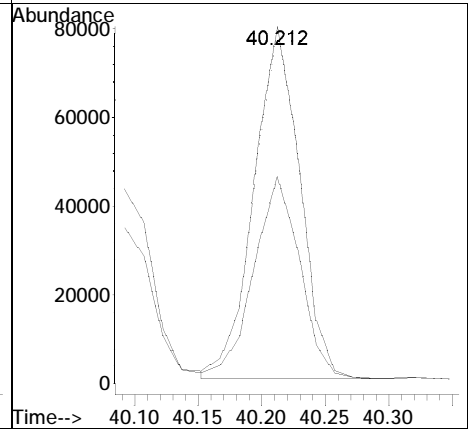
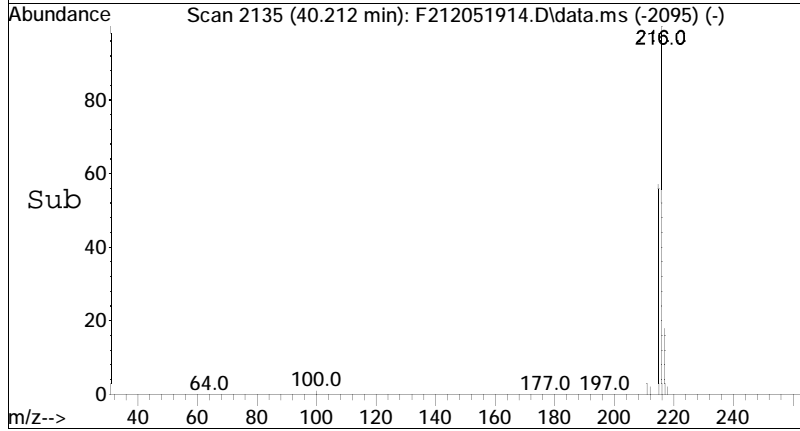
Tgt Ion: 202 Resp: 7423496
 Ion Ratio Lower Upper
 202 100
 101 0.0 9.0 16.8#

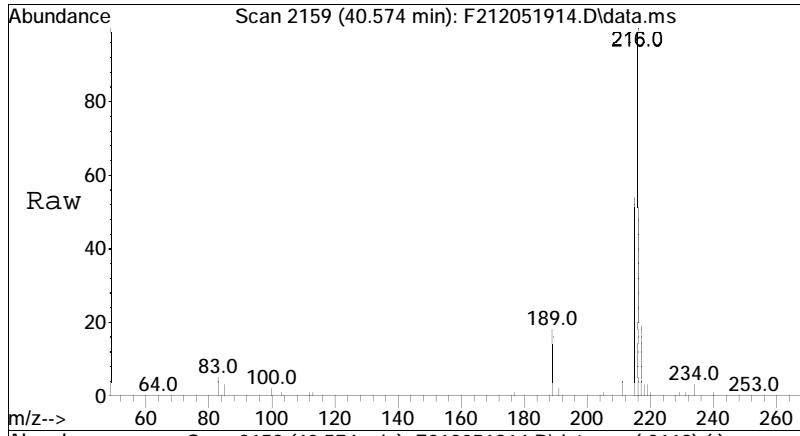




#60
 2-Methylpyrene
 Concen: 622.75 ng/mL M3
 RT: 40.212 min Scan# 2135
 Delta R.T. 0.097 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

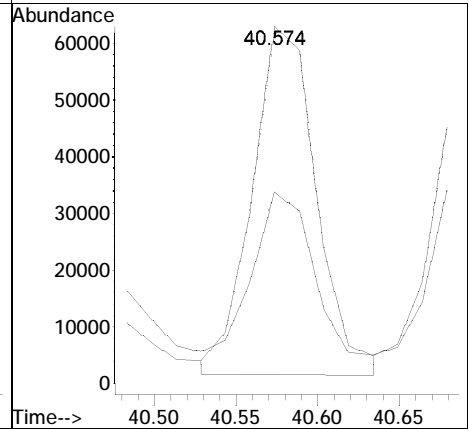
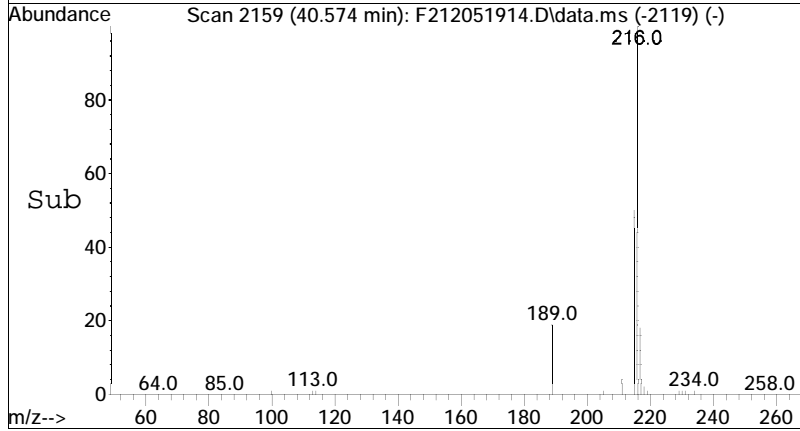
Tgt Ion	Resp	Lower	Upper
216	100		
215	129.3	73.1	135.7

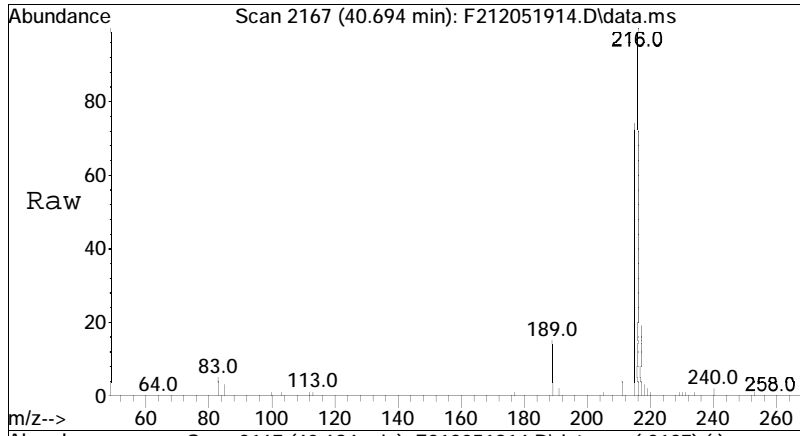




#61
 4-Methylpyrene
 Concen: 526.10 ng/mL
 RT: 40.574 min Scan# 2159
 Delta R.T. 0.100 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

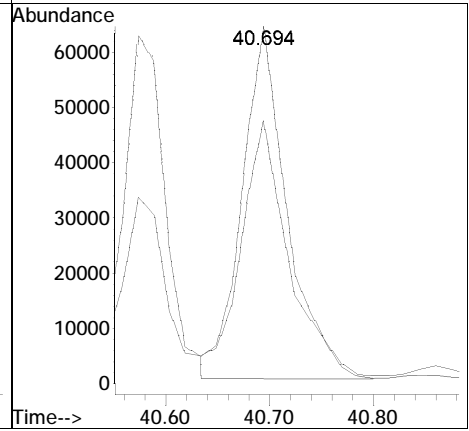
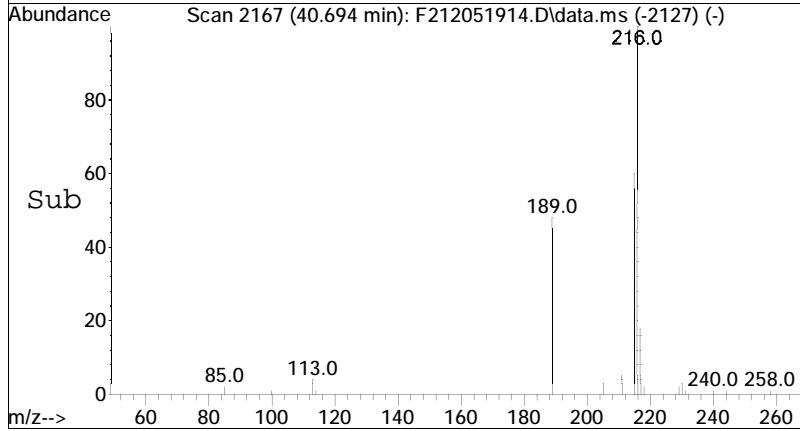
Tgt Ion	Resp	Lower	Upper
216	100		
215	54.1	49.5	91.9

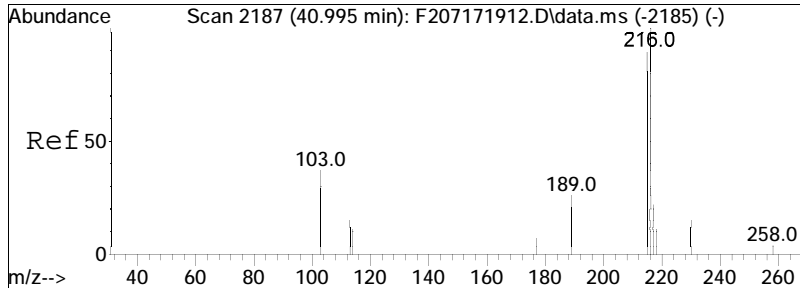




#62
 1-Methylpyrene
 Concen: 602.93 ng/mL
 RT: 40.694 min Scan# 2167
 Delta R.T. 0.101 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

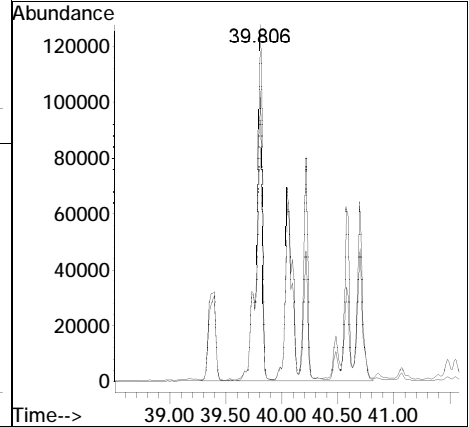
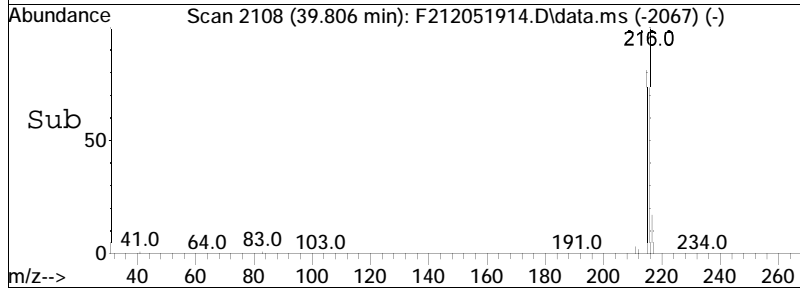
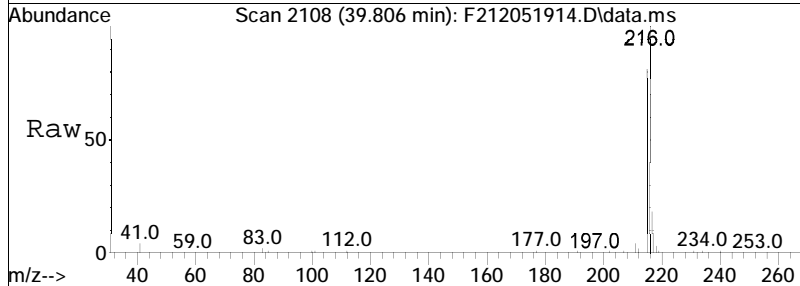
Tgt Ion	Resp	Lower	Upper
216	100		
215	76.2	73.7	136.9

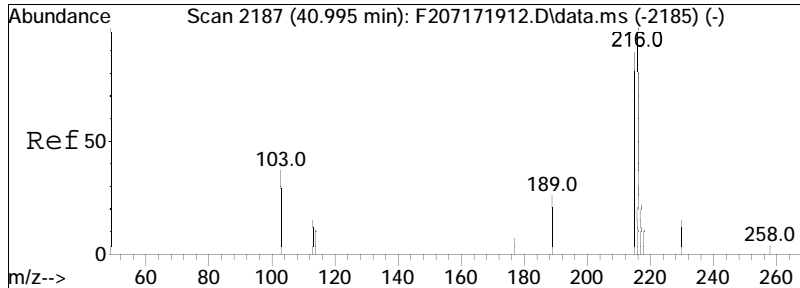




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 4739.79 ng/mL M5
 RT: 39.806 min Scan# 2108
 Delta R.T. 0.094 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

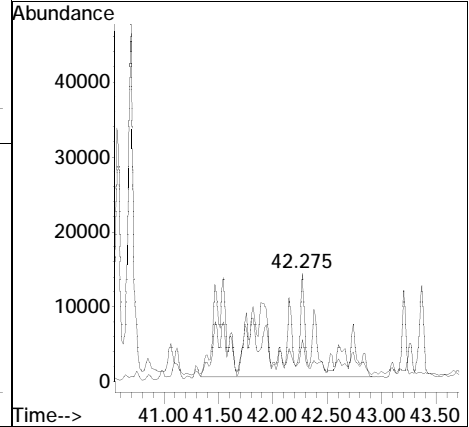
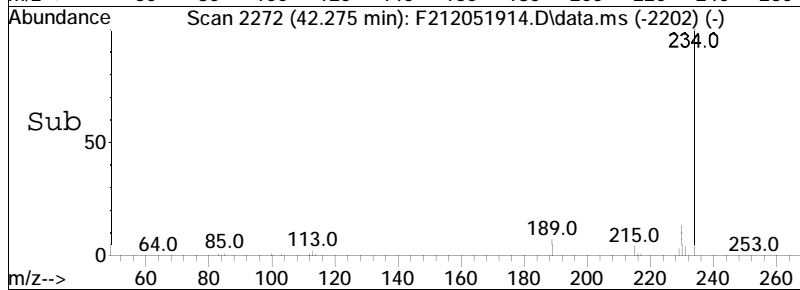
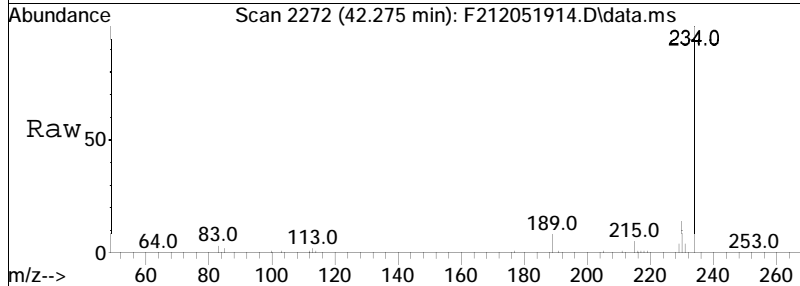
Tgt Ion: 216 Resp: 1505509
 Ion Ratio Lower Upper
 216 100
 215 25.4 66.0 122.6#

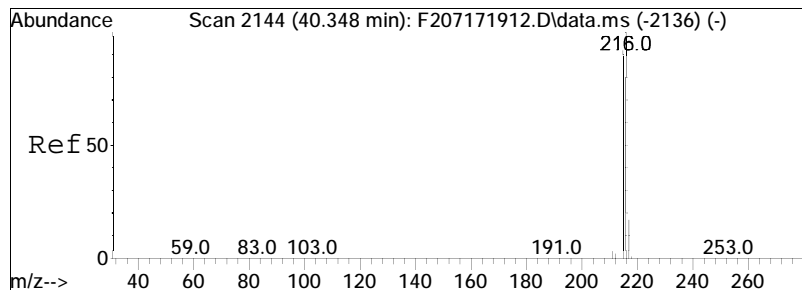




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 1297.87 ng/mL M5
 RT: 42.275 min Scan# 2272
 Delta R.T. 0.770 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

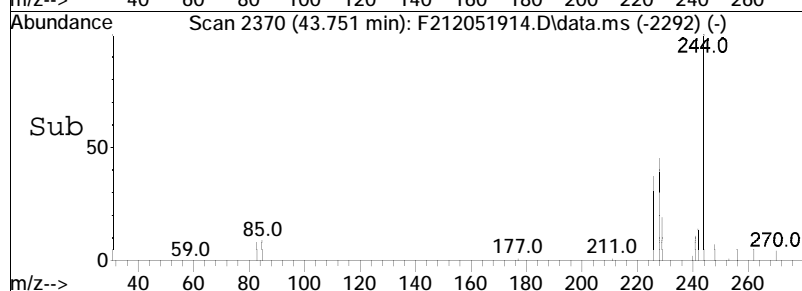
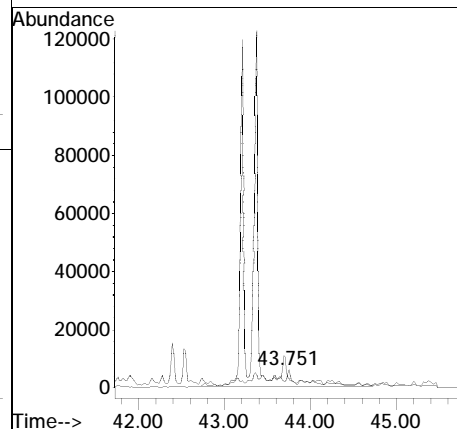
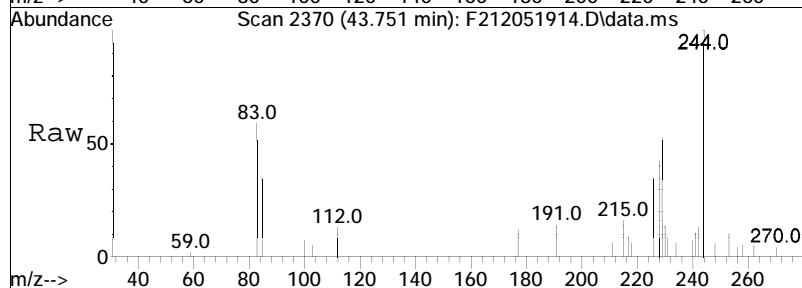
Tgt Ion	Resp	Lower	Upper
230	100		
215	3.3	74.8	138.8#

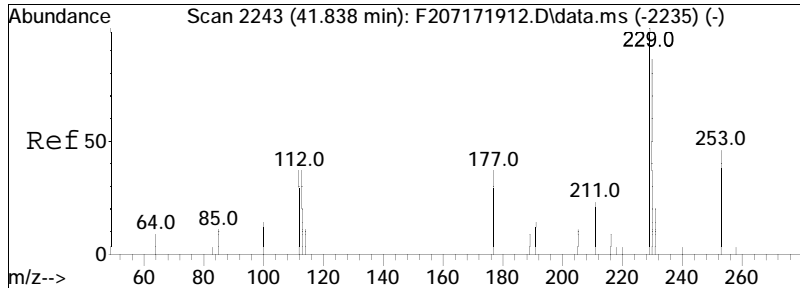




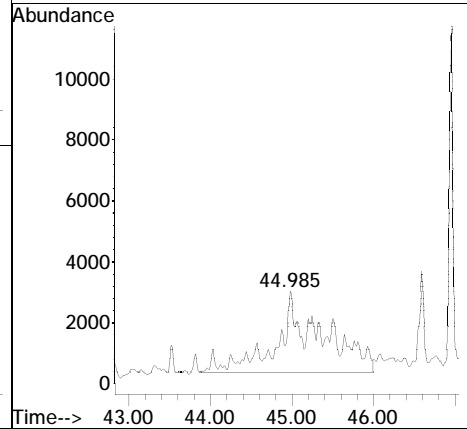
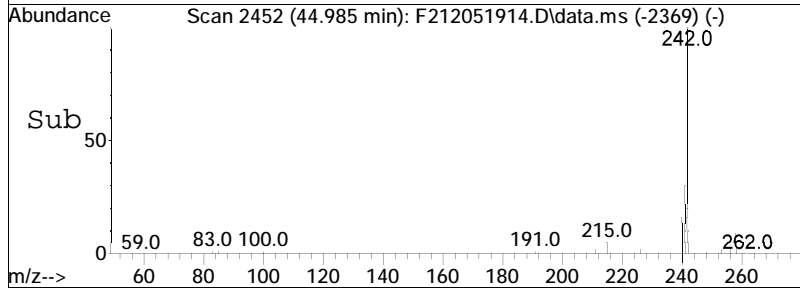
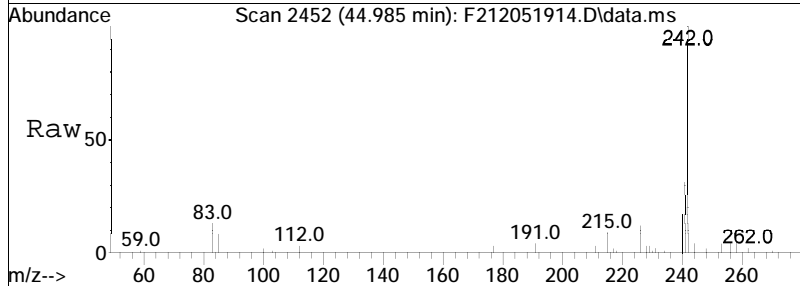
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 556.24 ng/mL M5
 RT: 43.751 min Scan# 2370
 Delta R.T. 0.243 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

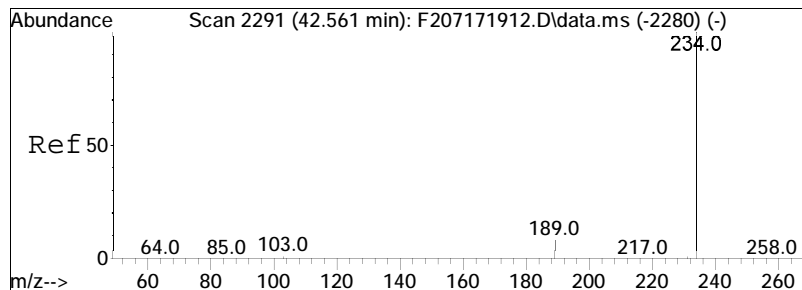
Tgt Ion	Resp	Lower	Upper
244	100		
229	2.7	62.0	115.2#





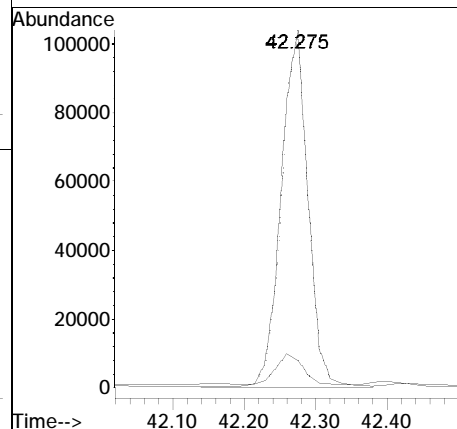
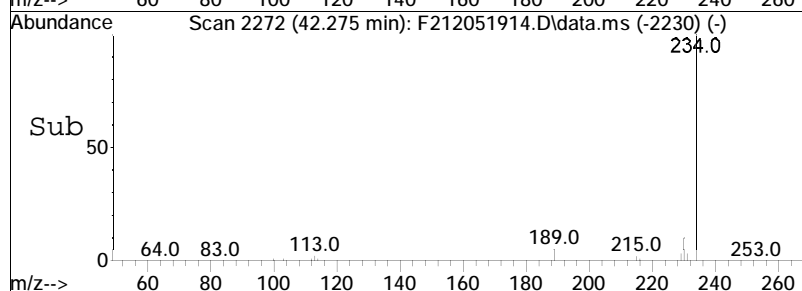
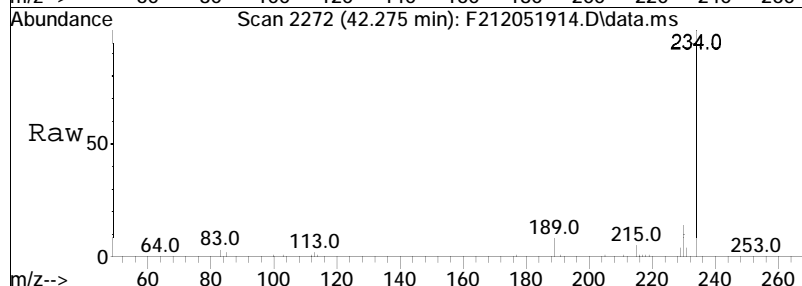
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 325.24 ng/mL M5
 RT: 44.985 min Scan# 2452
 Delta R.T. 0.132 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:258 Resp: 103305

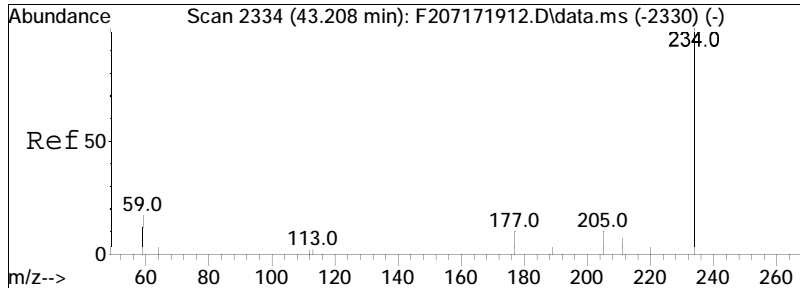




#67
 Naphthobenzothiophene-2,1-D
 Concen: 970.76 ng/mL
 RT: 42.275 min Scan# 2272
 Delta R.T. 0.127 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

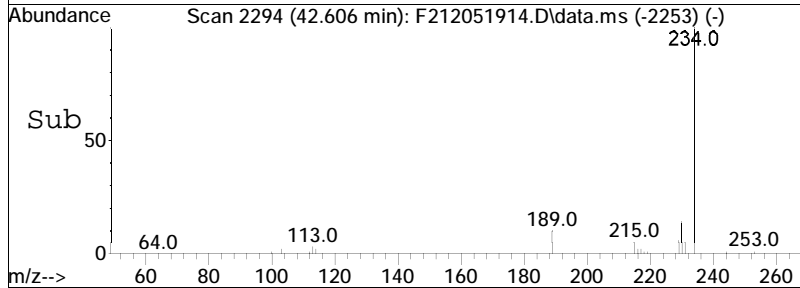
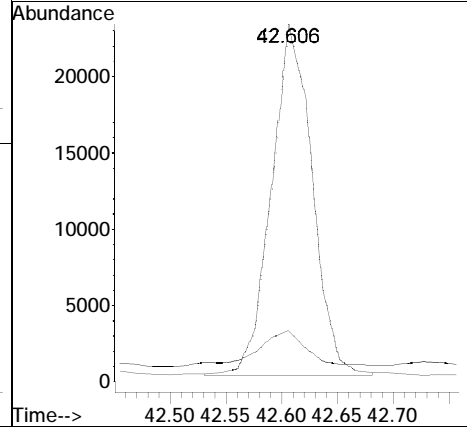
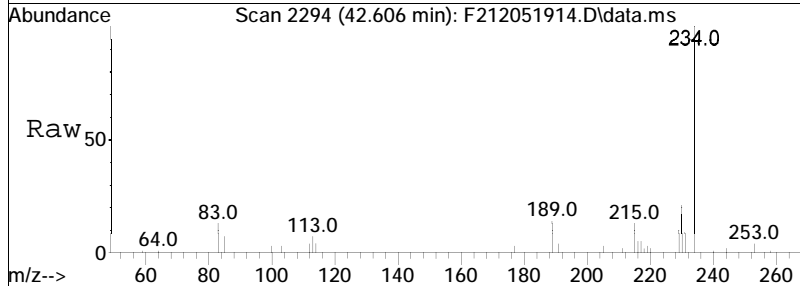
Tgt Ion	Resp	Lower	Upper
234	100		
189	8.8	5.5	10.3

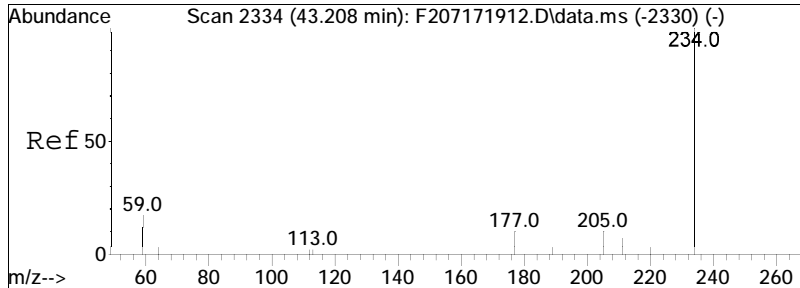




#68
 Naphthobenzothiophene-1,2-D
 Concen: 212.39 ng/mL M3
 RT: 42.606 min Scan# 2294
 Delta R.T. 0.115 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

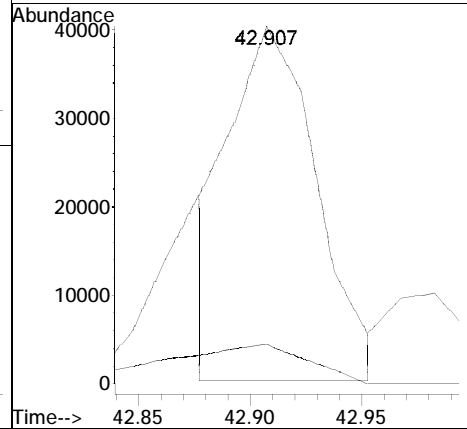
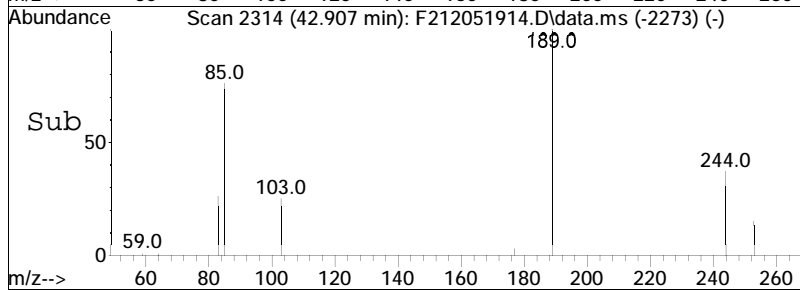
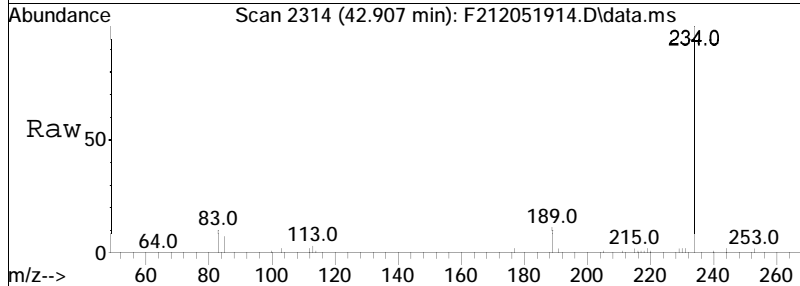
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	56.7	105.3#

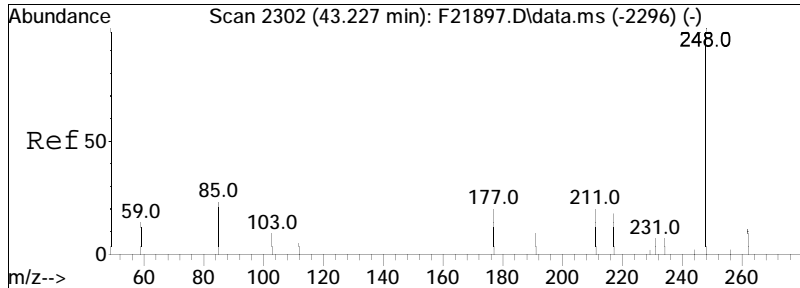




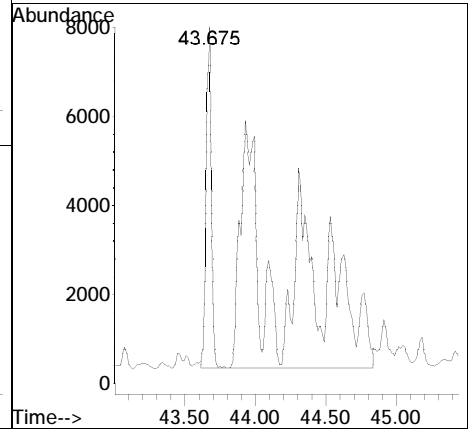
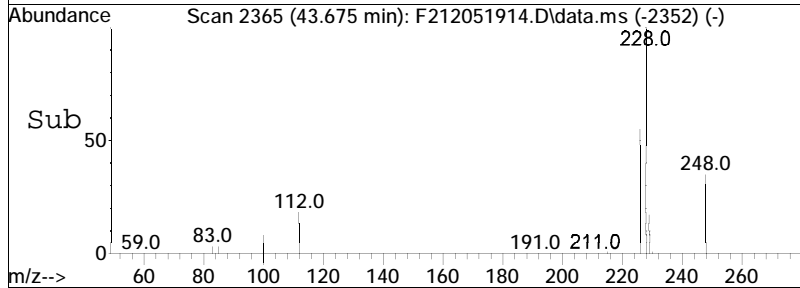
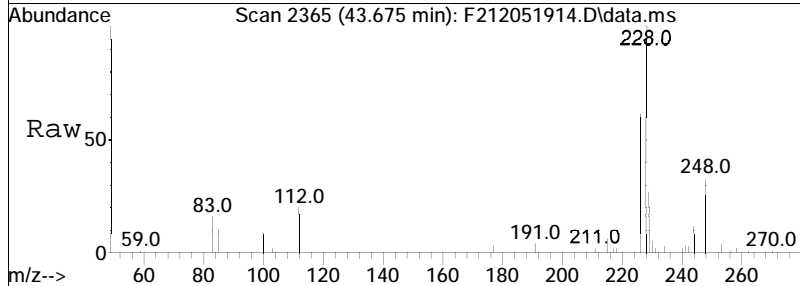
#69
 Naphthobenzothiophene-2,3-D
 Concen: 396.31 ng/mL M3
 RT: 42.907 min Scan# 2314
 Delta R.T. 0.117 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

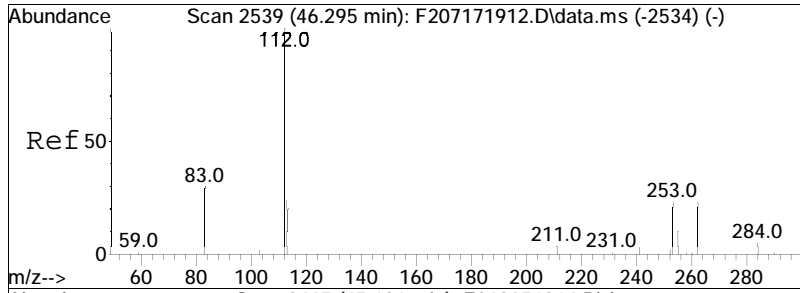
Tgt Ion: 234 Resp: 107672
 Ion Ratio Lower Upper
 234 100
 189 19.5 0.0 0.0#



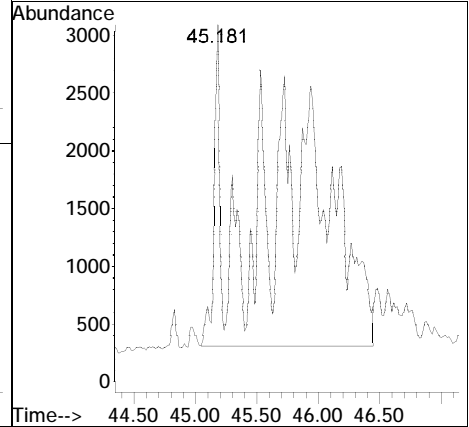
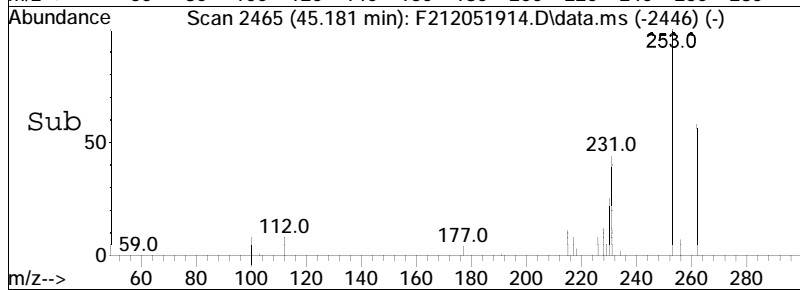
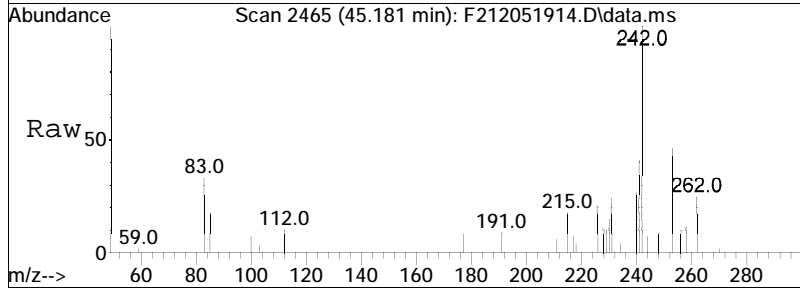


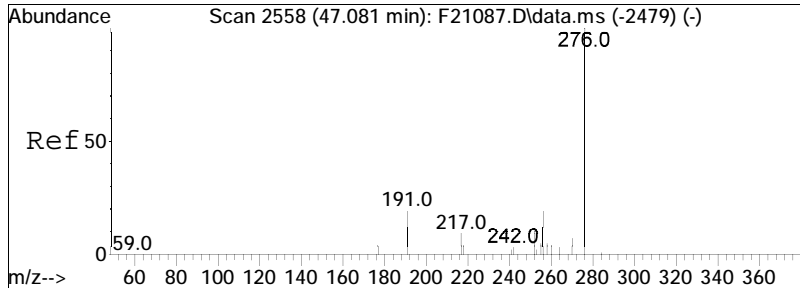
#70
 C1-Naphthobenzothiophenes
 Concen: 509.64 ng/ml M5
 RT: 43.675 min Scan# 2365
 Delta R.T. -0.550 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion:248 Resp: 138463



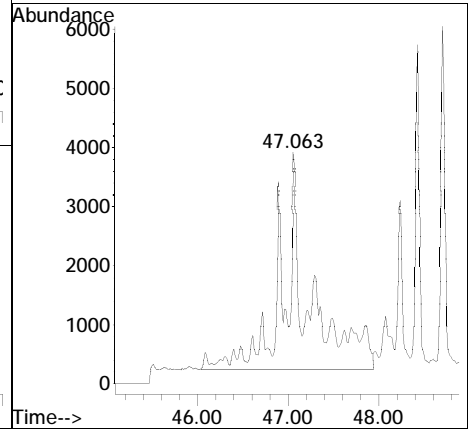
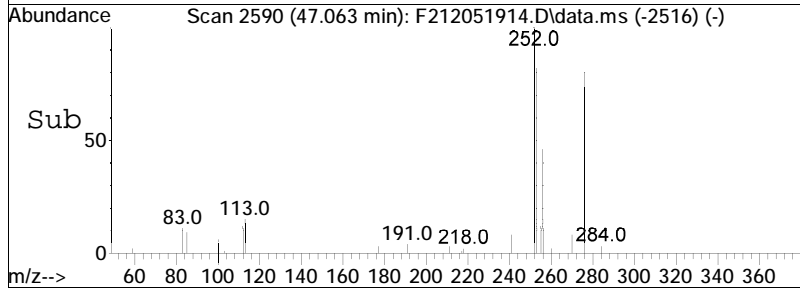
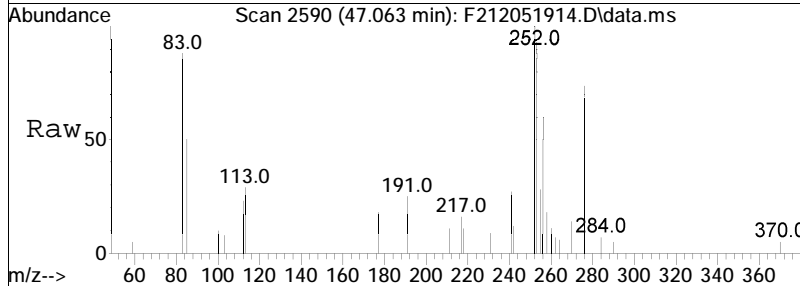


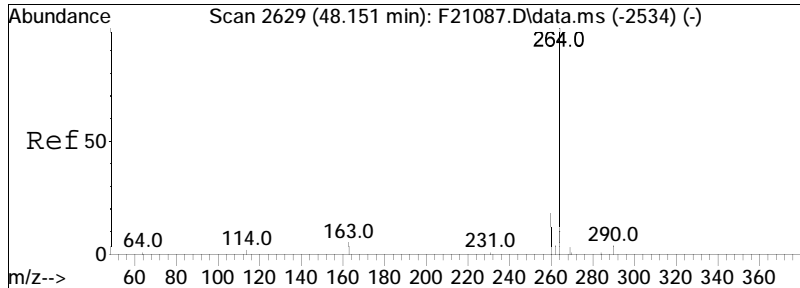
#71
 C2-Naphthobenzothiophenes
 Concen: 323.12 ng/ml M5
 RT: 45.181 min Scan# 2465
 Delta R.T. -0.360 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion: 262 Resp: 87787



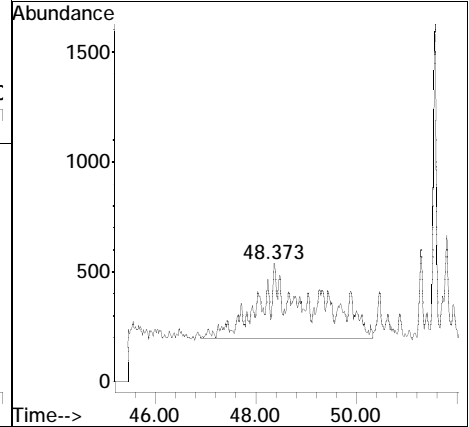
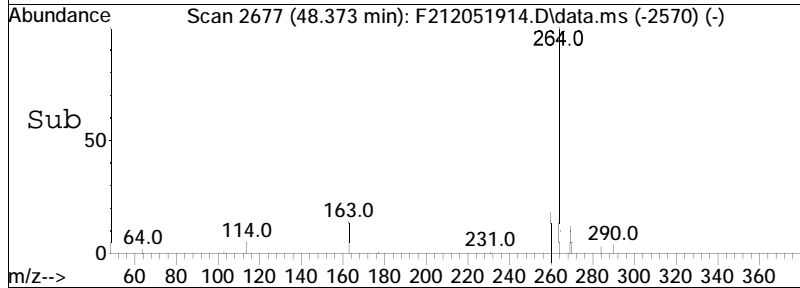
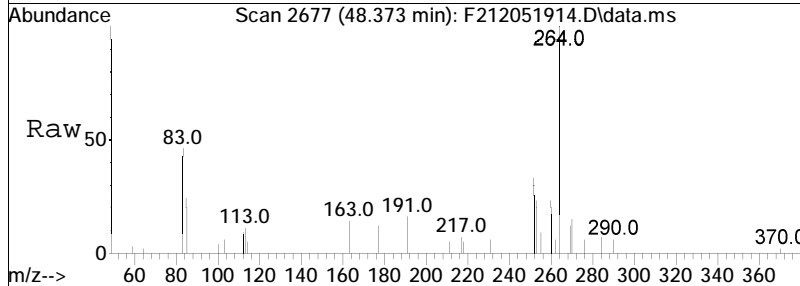


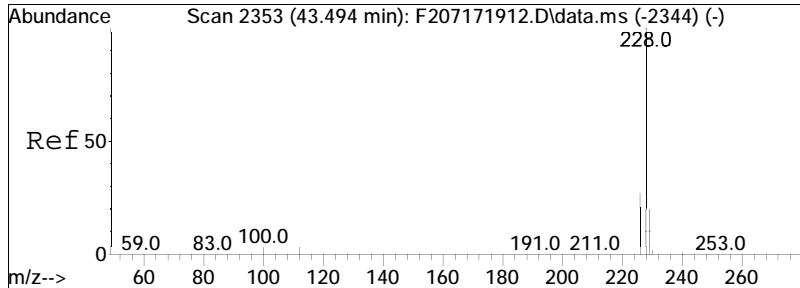
#72
 C3-Naphthobenzothiophenes
 Concen: 262.59 ng/ml M5
 RT: 47.063 min Scan# 2590
 Delta R.T. -0.077 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion: 276 Resp: 71343





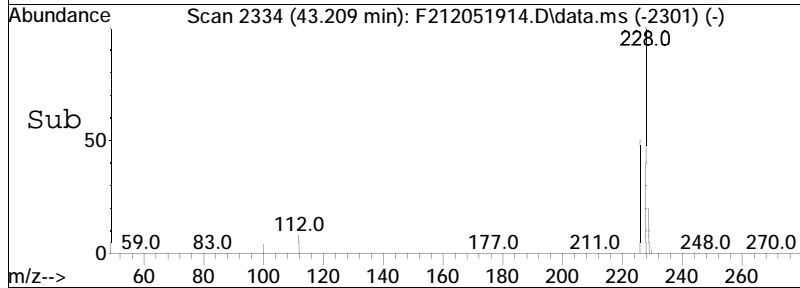
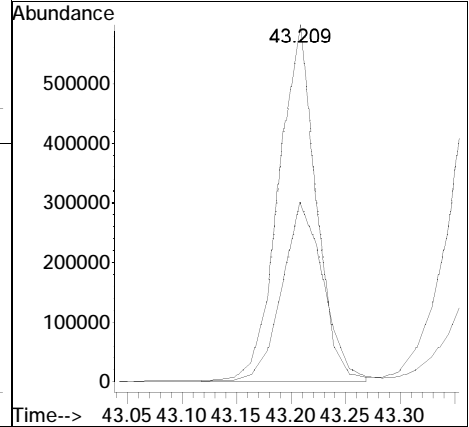
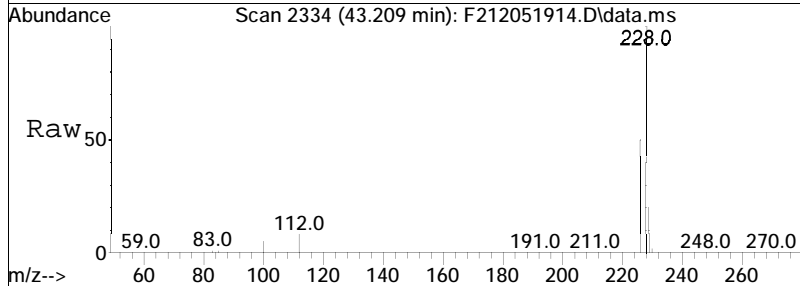
#73
 C4-Naphthobenzothiophenes
 Concen: 89.31 ng/mL M5
 RT: 48.373 min Scan# 2677
 Delta R.T. 0.127 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am
 Tgt Ion: 290 Resp: 24263

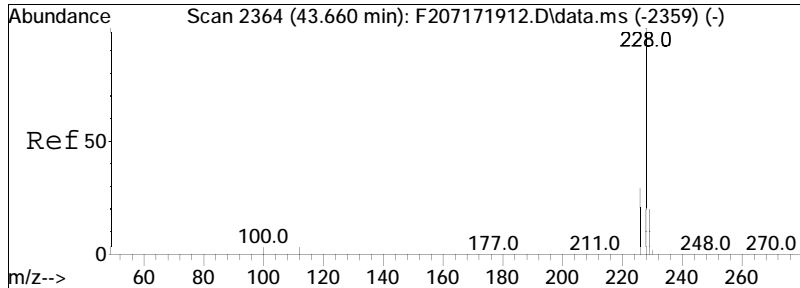




#75
 Benz[a]anthracene
 Concen: 6059.35 ng/mL M3
 RT: 43.209 min Scan# 2334
 Delta R.T. -0.000 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

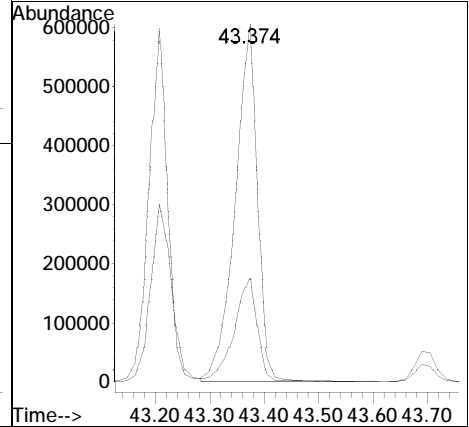
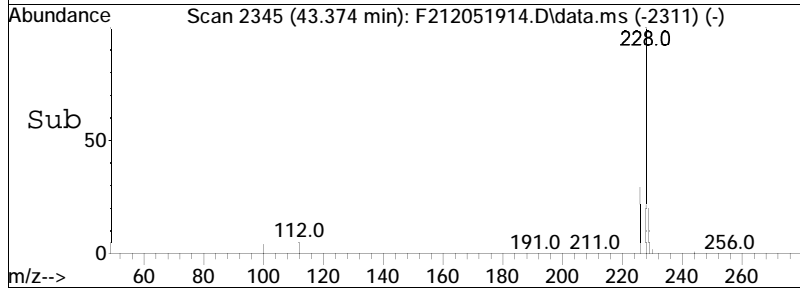
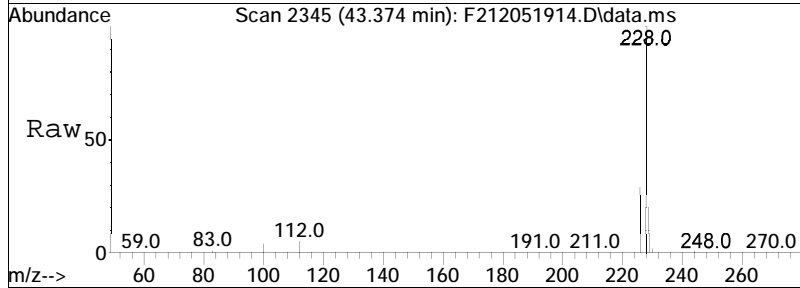
Tgt Ion: 228 Resp: 1430715
 Ion Ratio Lower Upper
 228 100
 226 34.9 18.2 33.8#

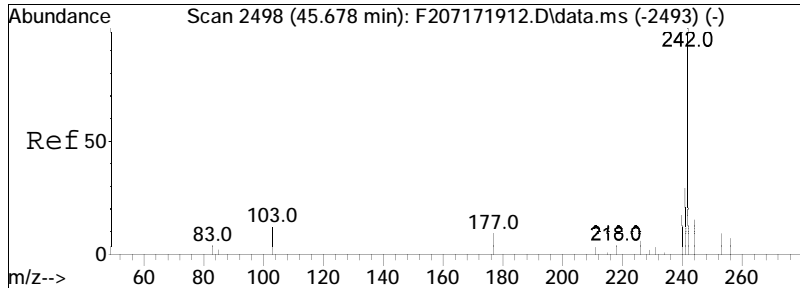




#76
 Chrysene
 Concen: 7142.33 ng/mL
 RT: 43.374 min Scan# 2345
 Delta R.T. 0.015 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

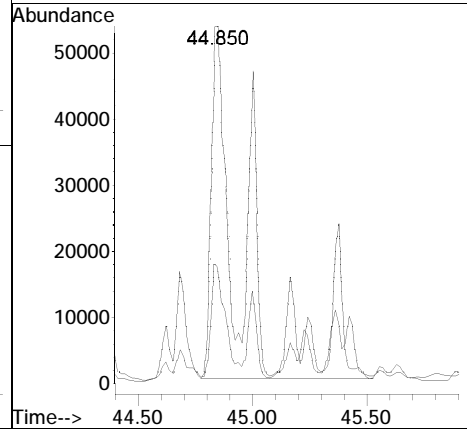
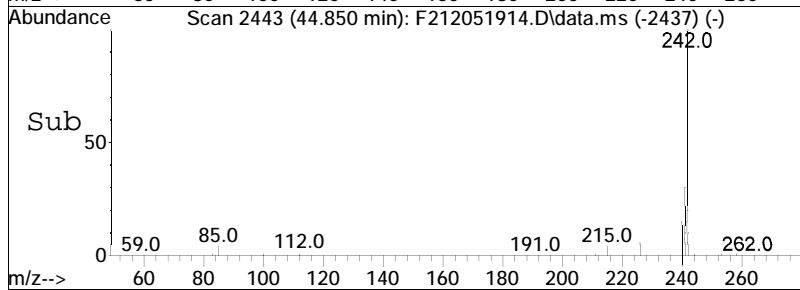
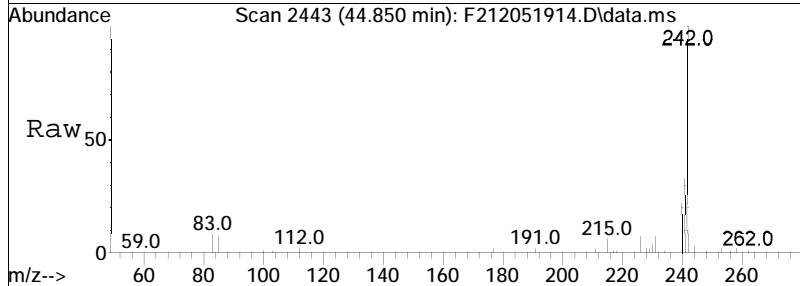
Tgt Ion: 228 Resp: 1716879
 Ion Ratio Lower Upper
 228 100
 226 29.1 20.3 37.7

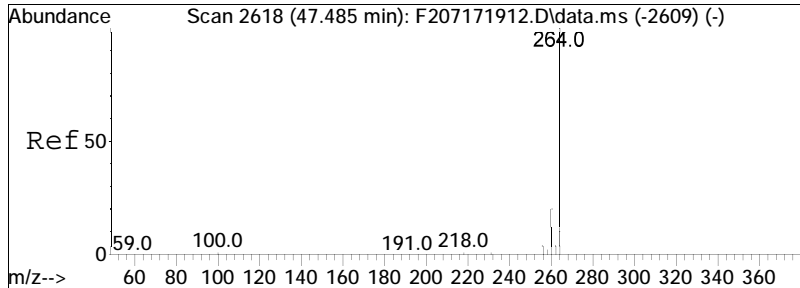




#78
 C1-Chrysenes
 Concen: 2036.01 ng/mL M5
 RT: 44.850 min Scan# 2443
 Delta R.T. 0.025 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

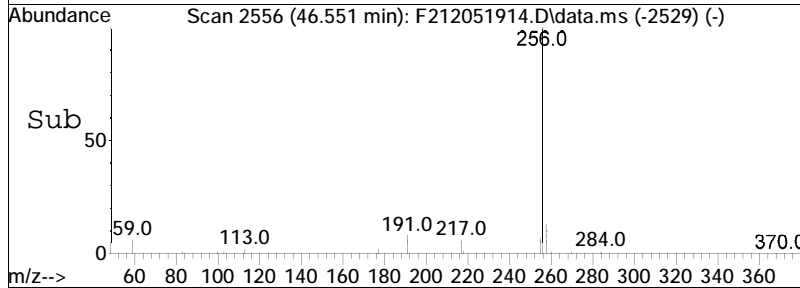
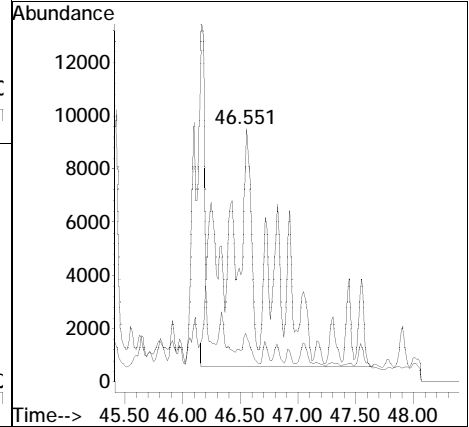
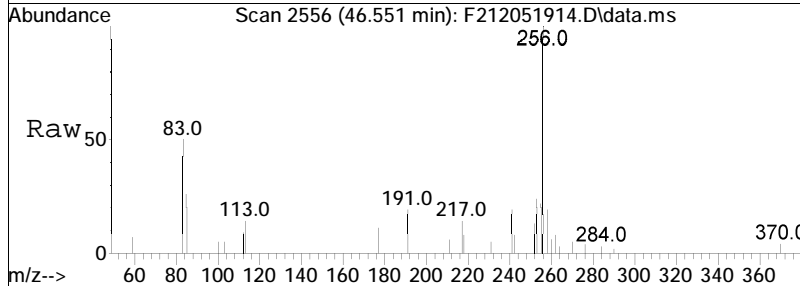
Tgt Ion: 242 Resp: 489417
 Ion Ratio Lower Upper
 242 100
 241 14.7 31.3 58.1#

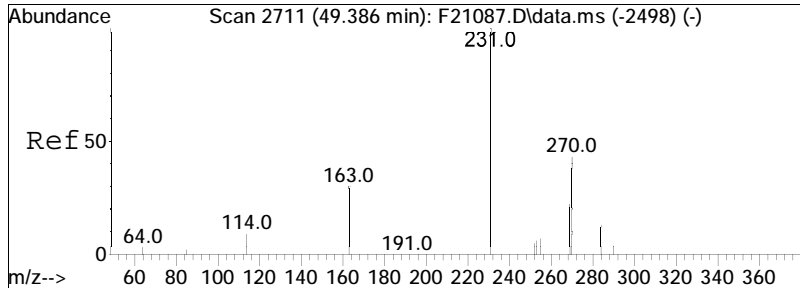




#79
 C2-Chrysenes
 Concen: 970.64 ng/mL M5
 RT: 46.551 min Scan# 2556
 Delta R.T. -0.361 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

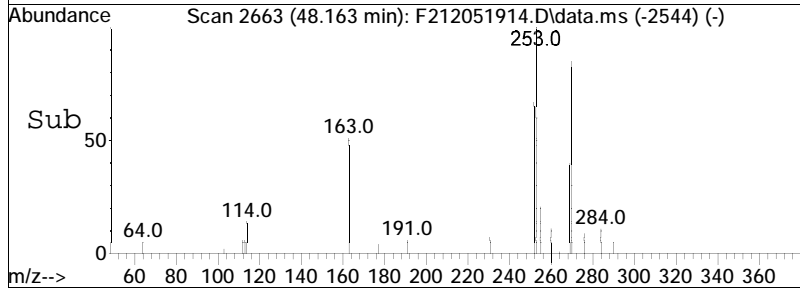
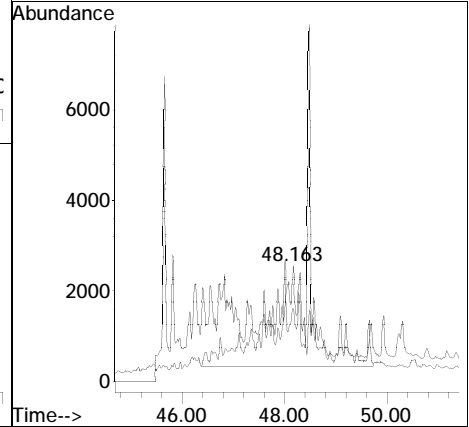
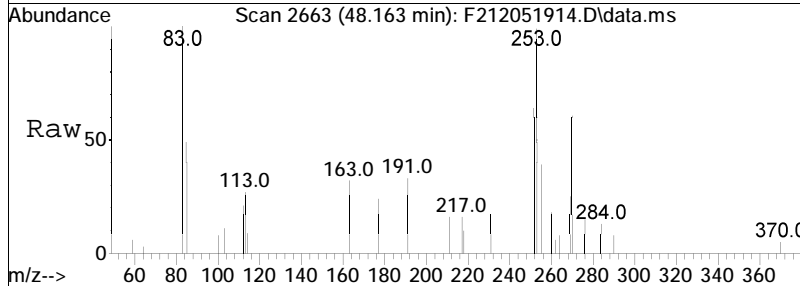
Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.0	25.6	47.4#

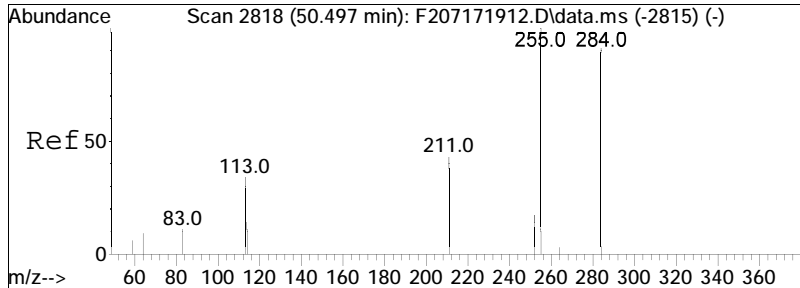




#81
 C3-Chrysenes
 Concen: 527.17 ng/mL M5
 RT: 48.163 min Scan# 2663
 Delta R.T. -1.509 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

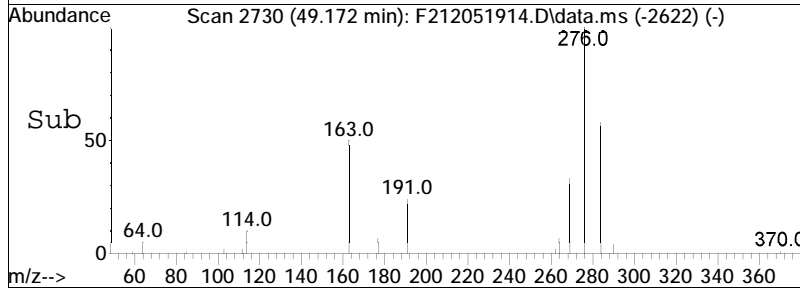
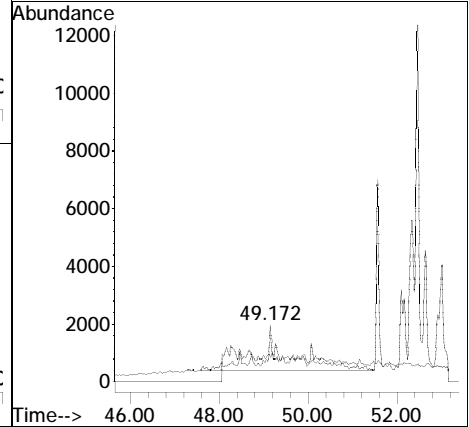
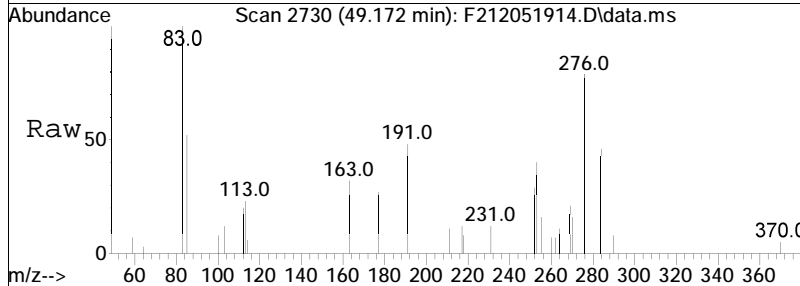
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.0	38.4	71.4#

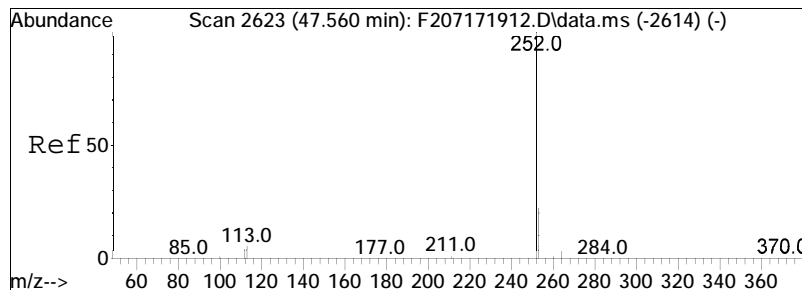




#82
 C4-Chrysenes
 Concen: 276.19 ng/mL M5
 RT: 49.172 min Scan# 2730
 Delta R.T. -0.605 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

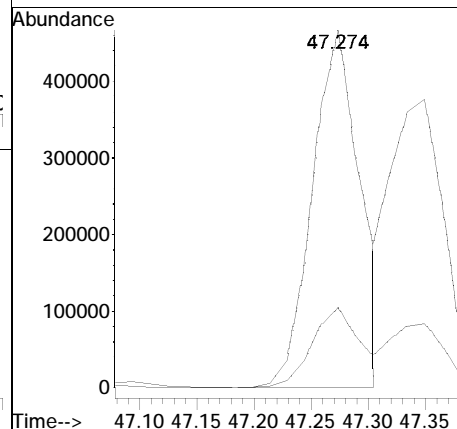
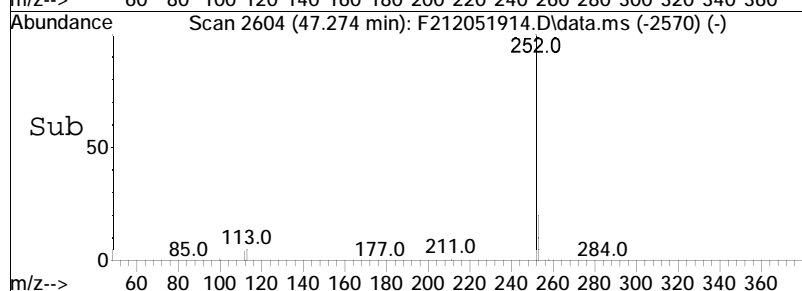
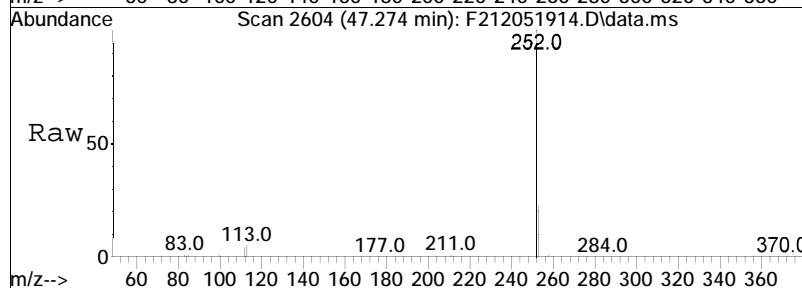
Tgt Ion: 284 Resp: 66391
 Ion Ratio Lower Upper
 284 100
 269 0.0 57.2 106.2#

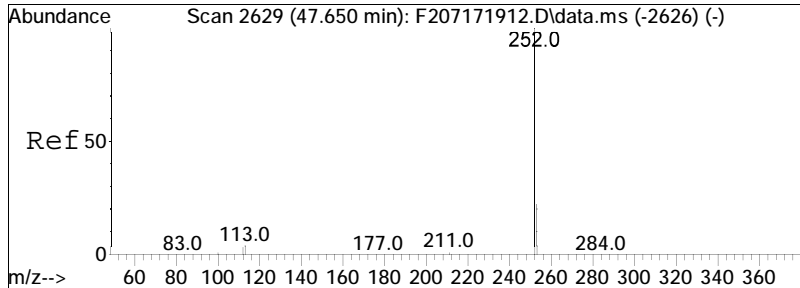




#84
 Benzo[b]fluoranthene
 Concen: 4768.24 ng/mL
 RT: 47.274 min Scan# 2604
 Delta R.T. 0.017 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

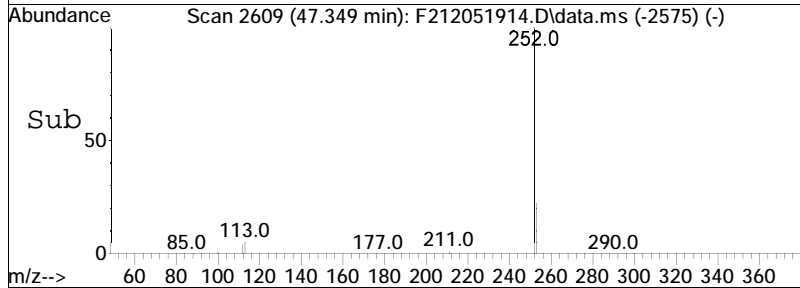
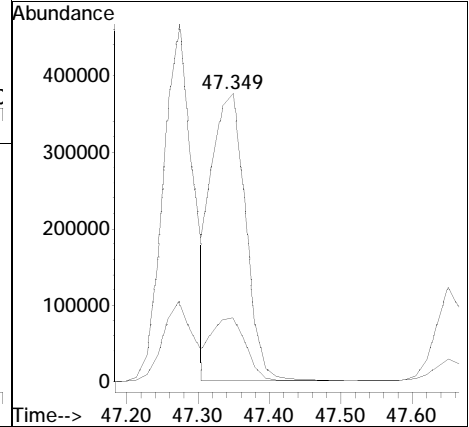
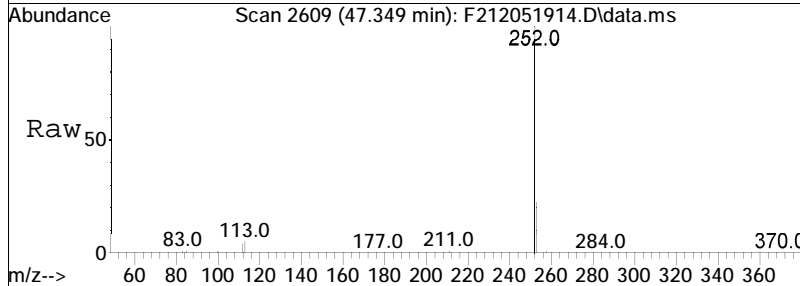
Tgt Ion: 252 Resp: 1363025
 Ion Ratio Lower Upper
 252 100
 253 22.2 16.4 30.4

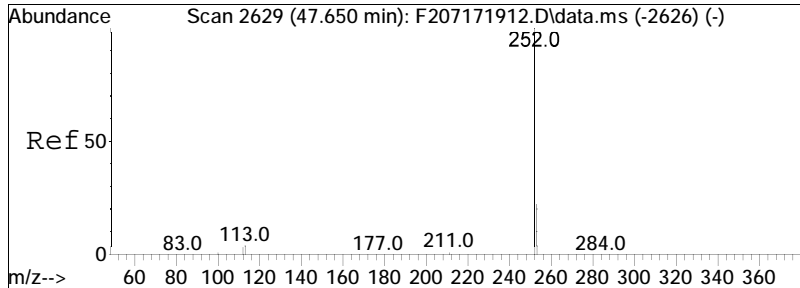




#85
 Benzo[j]+[k]fluoranthene
 Concen: 4271.86 ng/mL
 RT: 47.349 min Scan# 2609
 Delta R.T. 0.017 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

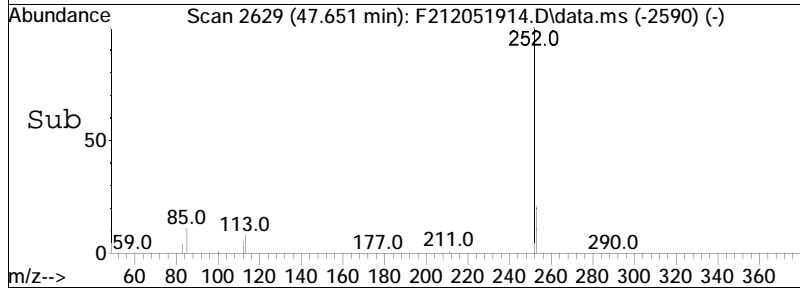
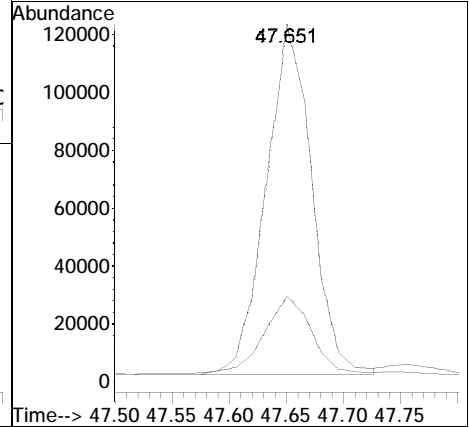
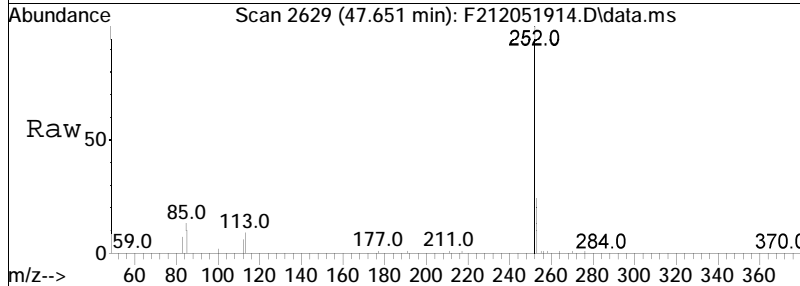
Tgt Ion: 252 Resp: 1228471
 Ion Ratio Lower Upper
 252 100
 253 21.6 16.4 30.4

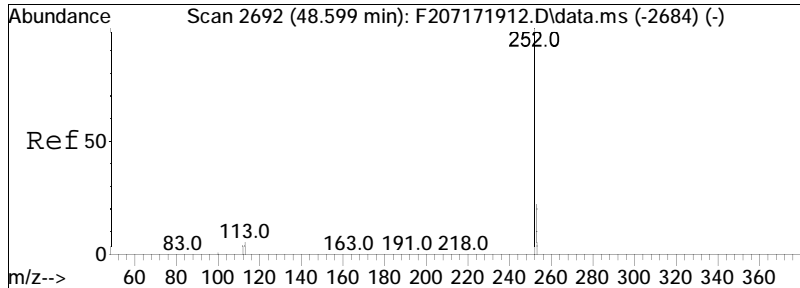




#86
 Benzo[a]fluoranthene
 Concen: 1170.36 ng/mL M3
 RT: 47.651 min Scan# 2629
 Delta R.T. 0.087 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

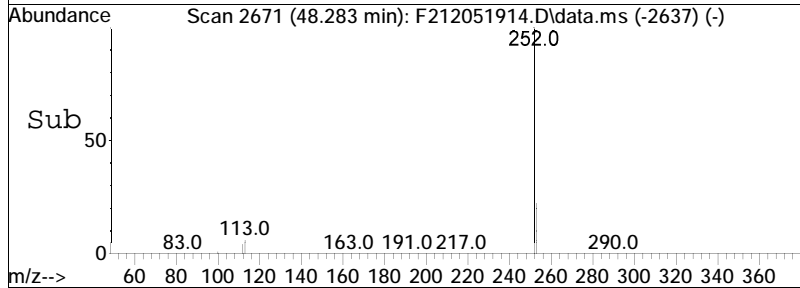
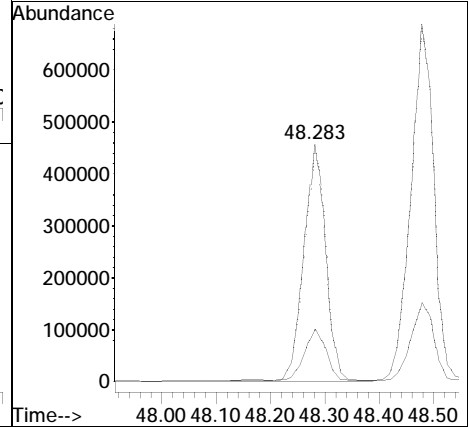
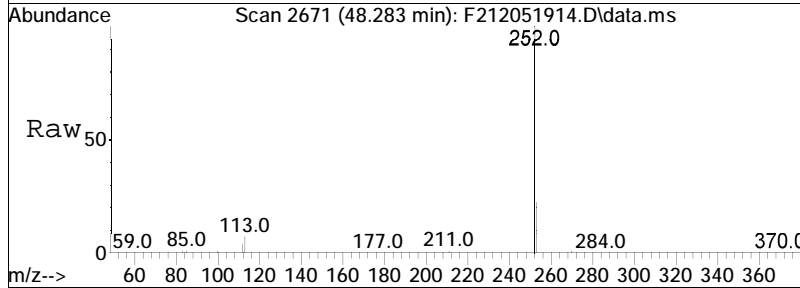
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.1	96.2	178.8#

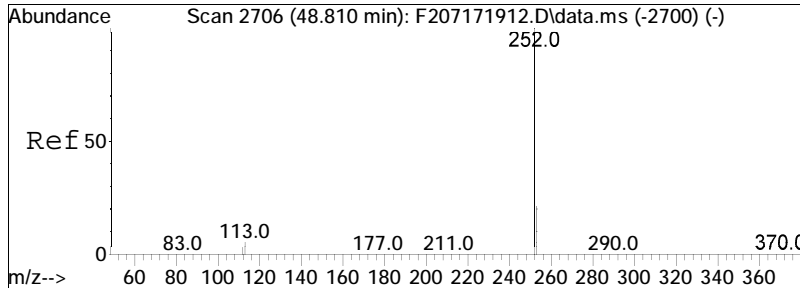




#87
 Benzo[e]pyrene
 Concen: 4635.88 ng/mL
 RT: 48.283 min Scan# 2671
 Delta R.T. 0.006 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

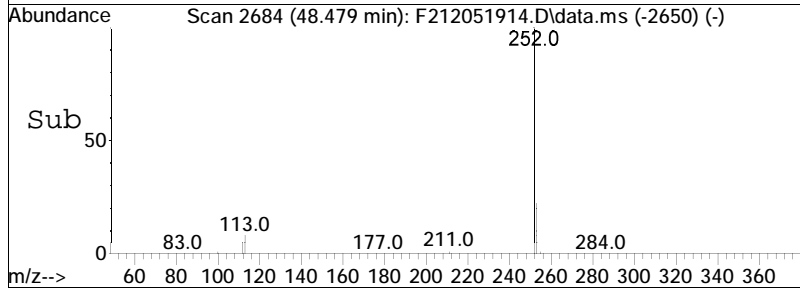
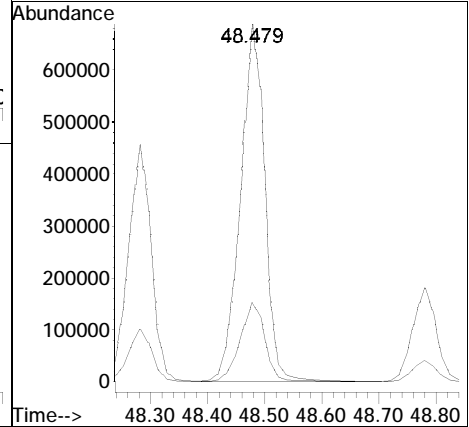
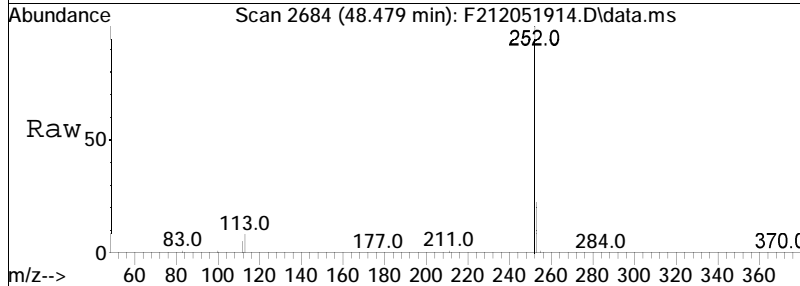
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	16.6	30.8

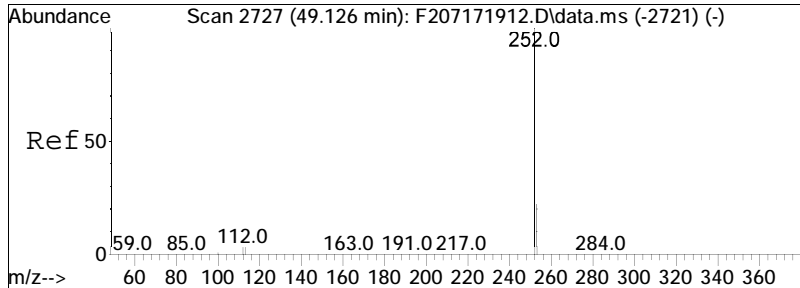




#89
 Benzo[a]pyrene
 Concen: 8045.23 ng/mL
 RT: 48.479 min Scan# 2684
 Delta R.T. 0.007 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

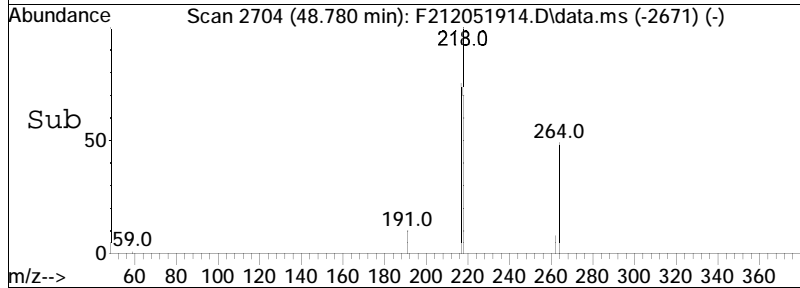
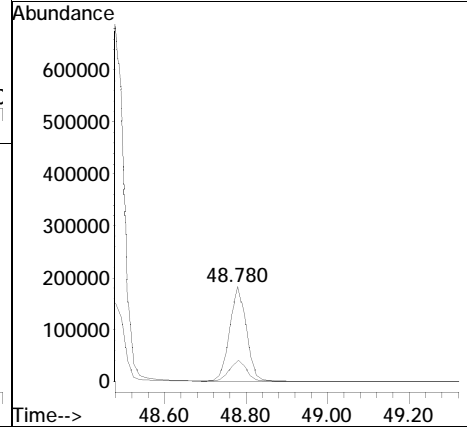
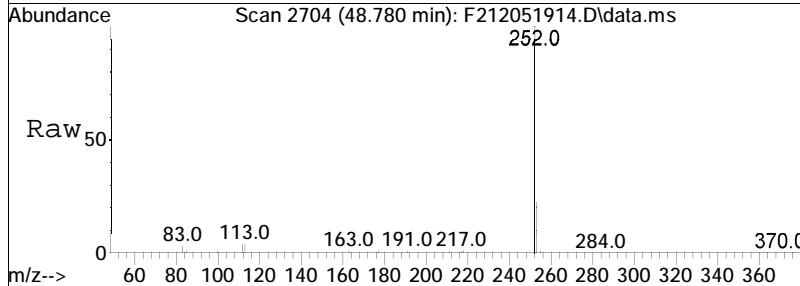
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.3	16.7	31.1

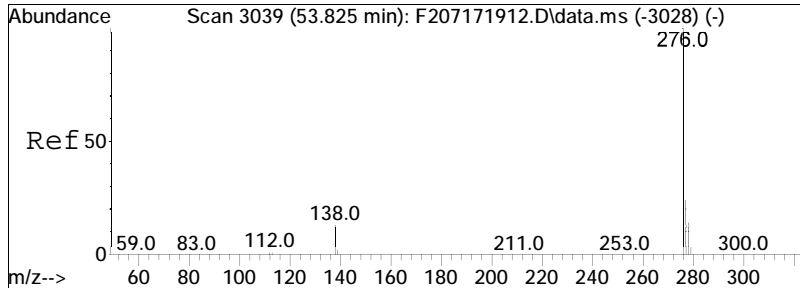




#90
 Perylene
 Concen: 2151.61 ng/mL
 RT: 48.780 min Scan# 2704
 Delta R.T. -0.007 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

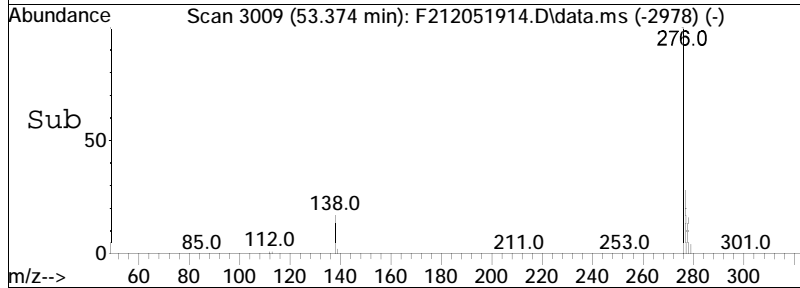
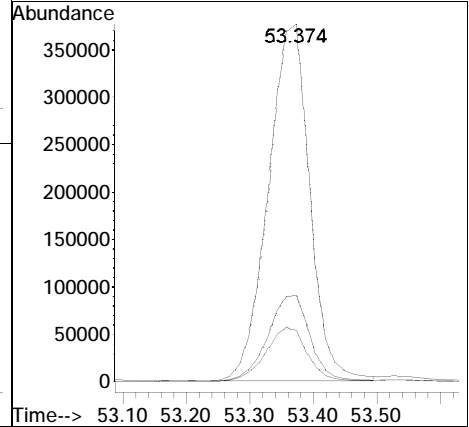
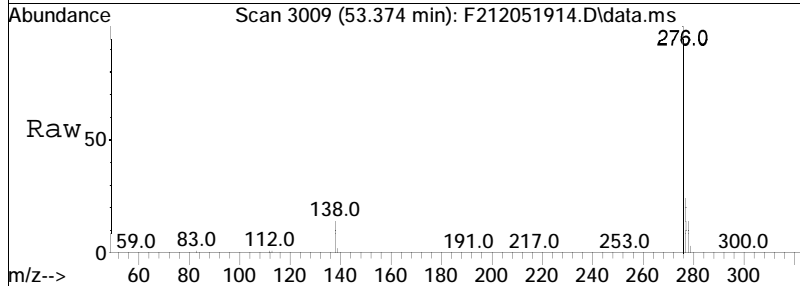
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.4	17.1	31.7

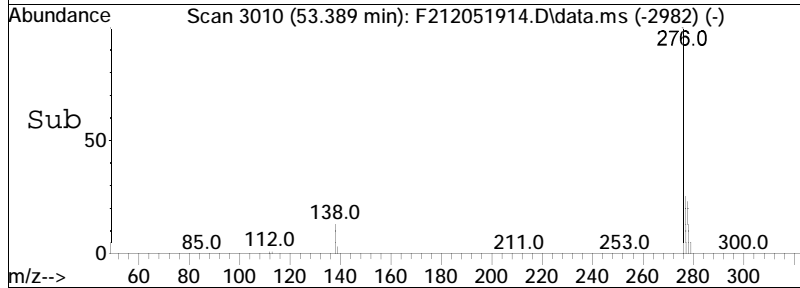
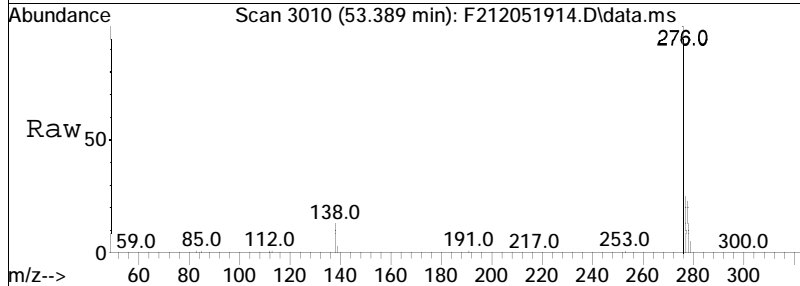
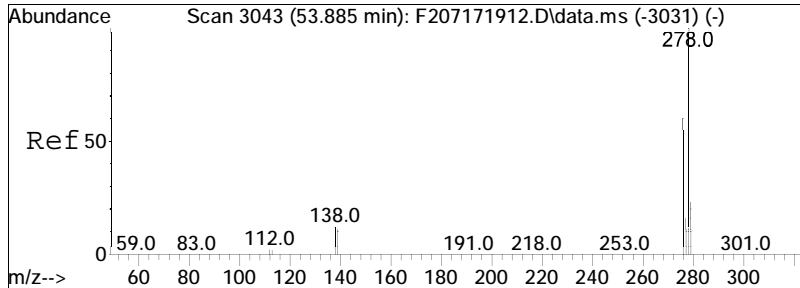




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 5646.01 ng/mL
 RT: 53.374 min Scan# 3009
 Delta R.T. -0.033 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

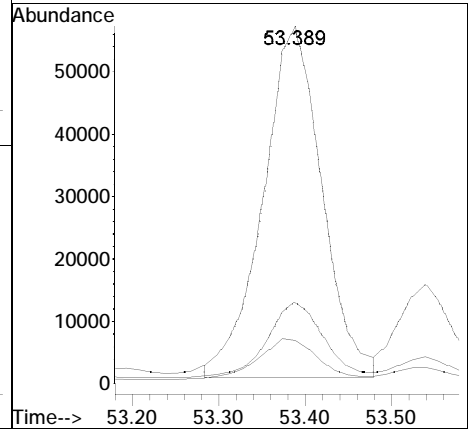
Tgt Ion	Ratio	Lower	Upper
276	100		
138	15.7	11.3	20.9
277	24.7	16.8	31.2

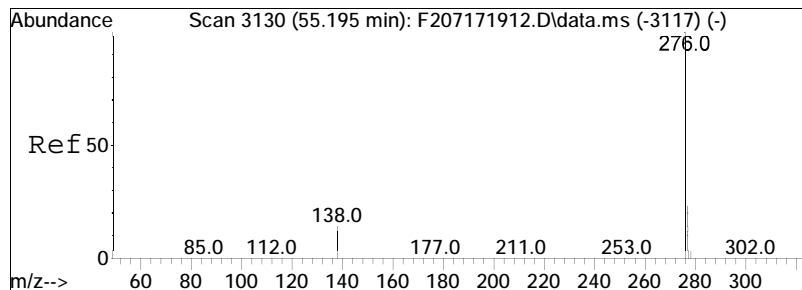




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 974.86 ng/mL M3
 RT: 53.389 min Scan# 3010
 Delta R.T. -0.078 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

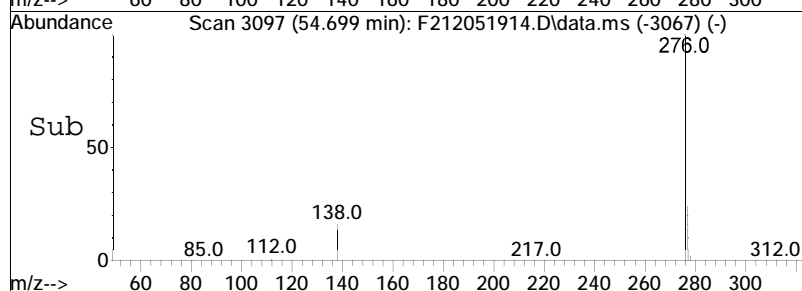
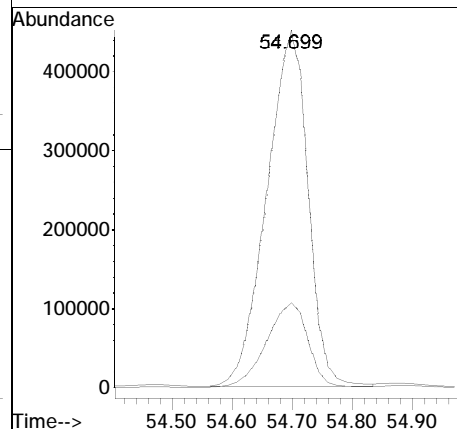
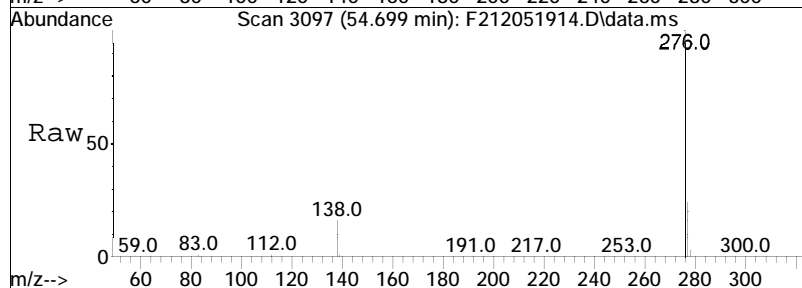
Tgt Ion	Ratio	Lower	Upper
278	100		
139	3.8	9.2	17.2#
279	5.9	16.6	30.8#





#93
 Benzo[g,h,i]perylene
 Concen: 7084.30 ng/mL
 RT: 54.699 min Scan# 3097
 Delta R.T. -0.043 min
 Lab File: F212051914.D
 Acq: 6 Dec 2019 2:00 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	23.9	16.5	30.7



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051915.D
 Acq On : 6 Dec 2019 3:27 am
 Operator : PAH2:MJS
 Sample : L1954309-01d2,32,40
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 10 16:00:35 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:23:33 2019
 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	26.783	164	69912M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.254	240	115264	500.000	ng/mL	-0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	4866	18.881	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.89%#
40) Phenanthrene-d10	32.654	188	4802	21.191	ng/mL	0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.12%#
83) Benzo[b]fluoranthene-d12	47.169	264	5256	23.286	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.33%#
88) Benzo[a]pyrene-d12	48.373	264	3435	19.689	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.97%#
128) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#
Target Compounds						
41) Phenanthrene	32.745	178	1401386	4873.934	ng/mL	99
59) Pyrene	38.405	202	953631	2800.651	ng/mL	97

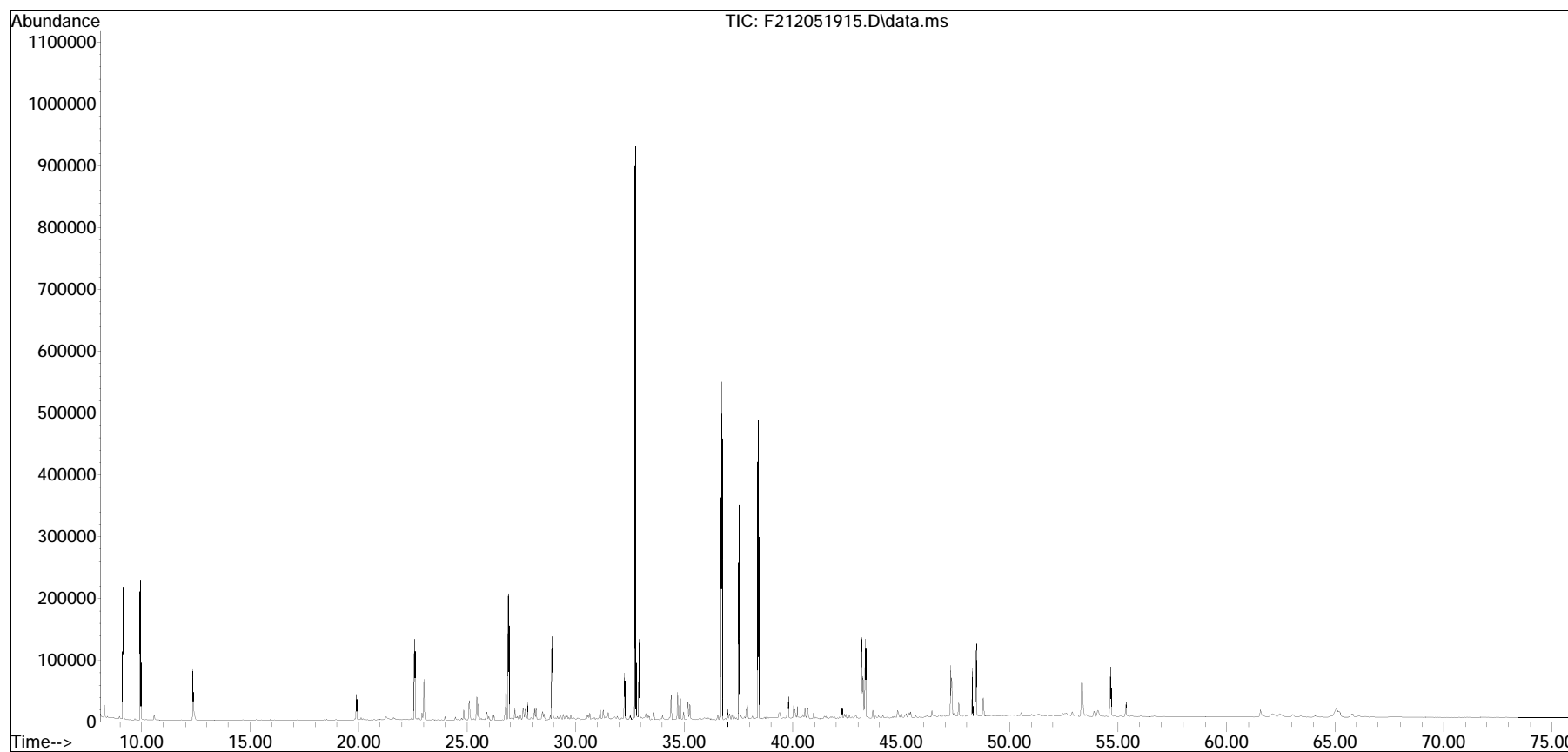
(#) = qualifier out of range (m) = manual integration (+) = signals summed

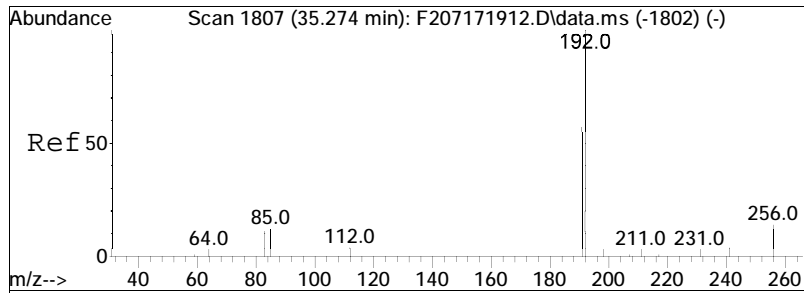
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\
Data File : F212051915.D
Acq On : 6 Dec 2019 3:27 am
Operator : PAH2:MJS
Sample : L1954309-01d2,32,40
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 10 16:00:35 2019
Quant Method : O:\Forensics\Data\PAH2\2019\dEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:23:33 2019
Response via : Initial Calibration

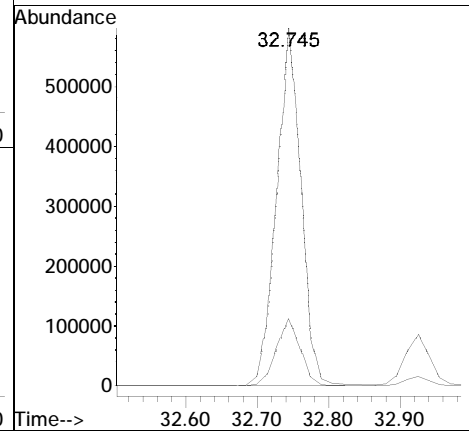
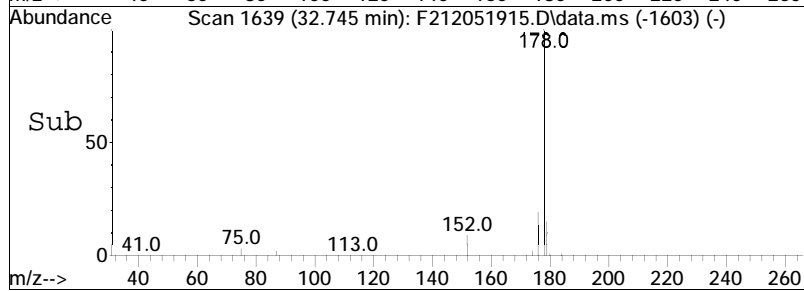
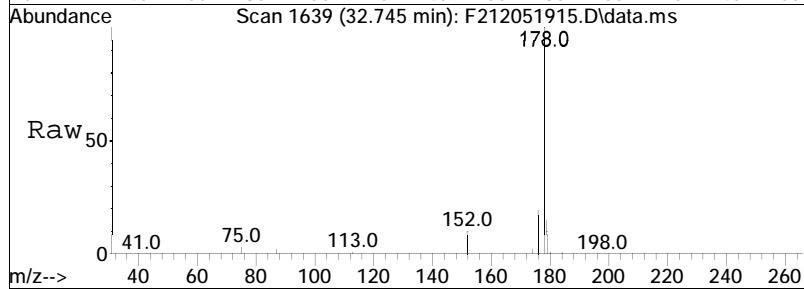
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

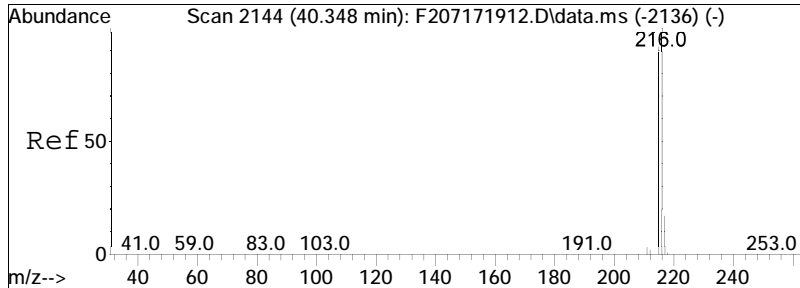




#41
 Phenanthrene
 Concen: 4873.93 ng/mL
 RT: 32.745 min Scan# 1639
 Delta R.T. 0.043 min
 Lab File: F212051915.D
 Acq: 6 Dec 2019 3:27 am

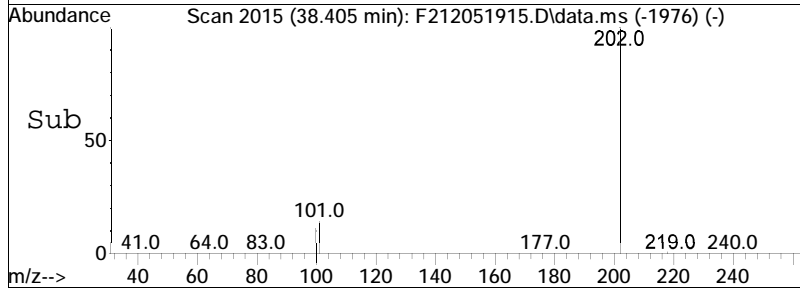
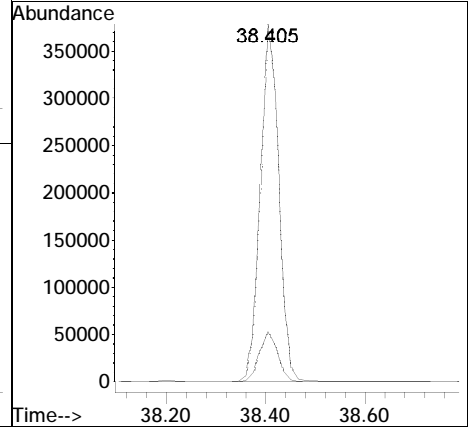
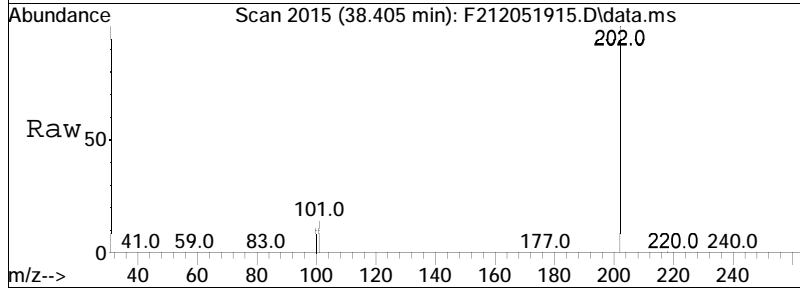
Tgt Ion: 178 Resp: 1401386
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.0 24.1





#59
 Pyrene
 Concen: 2800.65 ng/mL
 RT: 38.405 min Scan# 2015
 Delta R.T. 0.084 min
 Lab File: F212051915.D
 Acq: 6 Dec 2019 3:27 am

Tgt Ion: 202 Resp: 953631
 Ion Ratio Lower Upper
 202 100
 101 14.2 9.0 16.8



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051918.D
 Acq On : 6 Dec 2019 8:35 am
 Operator : PAH2:MJS
 Sample : WG1316430-6
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 06 10:01:12 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	116	0.00
2 A1	trans-Decalin	0.385	0.387	-0.5	127	0.00
3 t	cis-Decalin	0.297	0.297	0.0	126	0.00
8 s	Naphthalene-d8	1.843	1.808	1.9	117	0.00
9 A1	Naphthalene	2.049	1.958	4.4	115	0.00
14 t	2-Methylnaphthalene	1.352	1.291	4.5	114	0.00
15 t	1-Methylnaphthalene	1.299	1.240	4.5	114	-0.02
16 A1	Benzothiophene	1.597	1.480	7.3	110	0.00
21 t	Biphenyl	1.646	1.569	4.7	110	0.00
22 t	2,6-Dimethylnaphthalene	1.210	1.169	3.4	114	0.00
23 t	Dibenzofuran	1.749	1.674	4.3	109	0.00
24 t	Acenaphthylene	2.018	1.941	3.8	113	-0.02
25 t	Acenaphthene	1.260	1.219	3.3	112	0.00
26 t	2,3,5-Trimethylnaphthalene	1.105	1.071	3.1	112	0.00
27 A1	Fluorene	1.427	1.373	3.8	109	-0.02
31 A1	Dibenzothiophene	1.933	1.774	8.2	104	0.00
40 s	Phenanthrene-d10	1.621	1.577	2.7	109	0.00
41 A1	Phenanthrene	2.056	1.984	3.5	106	0.00
52 t	Retene	0.704	0.646	8.2	105	0.00
53 t	Anthracene	1.753	1.860	-6.1	112	0.00
54 t	Carbazole	1.640	1.718	-4.8	116	-0.02
55 t	1-Methylphenanthrene	1.540	1.460	5.2	106	0.00
56 A1	Fluoranthene	2.345	2.158	8.0	104	-0.02
57 A1	Benzo(b)fluorene	1.475	1.395	5.4	109	0.00
59 A1	Pyrene	2.435	2.251	7.6	105	-0.02
67 A1	Naphthobenzothiophene-2,1-D	2.083	1.834	12.0	101	-0.02
74 i	Chrysene-d12	1.000	1.000	0.0	104	-0.02
75 t	Benz[a]anthracene	1.142	1.147	-0.4	105	-0.02
76 A1	Chrysene	1.163	1.159	0.3	102	0.00
77 A2	Chrysene/Triphenylene	1.163	1.159	0.3	102	0.00
83 s	Benzo[b]fluoranthene-d12	0.979	0.933	4.7	101	-0.02
84 t	Benzo[b]fluoranthene	1.383	1.368	1.1	105	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.317	5.3	94	-0.02
87 t	Benzo[e]pyrene	1.328	1.265	4.7	98	0.00
88 s	Benzo[a]pyrene-d12	0.757	0.745	1.6	102	0.00
89 t	Benzo[a]pyrene	1.216	1.216	0.0	100	-0.02
90 t	Perylene	1.188	1.202	-1.2	99	-0.02
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.416	2.1	106	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051918.D
 Acq On : 6 Dec 2019 8:35 am
 Operator : PAH2:MJS
 Sample : WG1316430-6
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 06 10:01:12 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.284	2.7	103	-0.02
93 t Benzo[g,h,i]perylene	1.446	1.349	6.7	99	-0.02
94 A1 Hopane (T19)	0.249	0.222	10.8	95	0.00
128 SA1 5B(H)Cholane - Surr	0.166	0.163	1.8	103	-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	0.97	0.70 - 1.30
Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.18	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051918.D
 Acq On : 6 Dec 2019 8:35 am
 Operator : PAH2:MJS
 Sample : WG1316430-6
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 06 10:01:12 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	26.783	164	79920M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.254	240	138750	500.000	ng/mL	-0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	144465	490.349	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.03%#		
40) Phenanthrene-d10	32.654	188	126035	486.540	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.65%#		
83) Benzo[b]fluoranthene-d12	47.169	264	129386	476.190	ng/mL	-0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.62%#		
88) Benzo[a]pyrene-d12	48.373	264	103316	491.967	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.20%#		
128) 5B(H)Cholane - Surr	43.871	217	22656	490.658	ng/ml	-0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.07%#		
Target Compounds						
2) trans-Decalin	16.471	138	15453	250.819	ng/mL	100
3) cis-Decalin	17.690	138	11873	249.869	ng/mL	100
9) Naphthalene	19.888	128	156452	477.630	ng/mL	100
14) 2-Methylnaphthalene	22.583	142	103144	477.286	ng/mL	100
15) 1-Methylnaphthalene	23.004	142	99072	477.284	ng/mL	100
16) Benzothiophene	20.114	134	118243	463.089	ng/mL	100
21) Biphenyl	24.465	154	125378	476.687	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.082	156	93414	483.066	ng/mL	100
23) Dibenzofuran	27.551	168	133800	478.499	ng/mL	97
24) Acenaphthylene	26.166	152	155113	480.890	ng/mL	100
25) Acenaphthene	26.904	153	97448	483.811	ng/mL	97
26) 2,3,5-Trimethylnaphthalen	28.469	170	85602	484.594	ng/mL	96
27) Fluorene	28.921	166	109727M4	480.970	ng/mL	
31) Dibenzothiophene	32.248	184	141801	458.915	ng/mL	98
41) Phenanthrene	32.745	178	158545	482.359	ng/mL	100
52) Retene	39.745	234	51608	458.669	ng/mL	96
53) Anthracene	32.925	178	148617	530.389	ng/mL	100
54) Carbazole	33.588	167	137263	523.624	ng/mL	96
55) 1-Methylphenanthrene	35.259	192	116671	473.990	ng/mL	99
56) Fluoranthene	37.517	202	172475M4	460.104	ng/mL	
57) Benzo(b)fluorene	40.047	216	111473	472.672	ng/mL	99
59) Pyrene	38.405	202	179922	462.231	ng/mL	98
67) Naphthobenzothiophene-2,1	42.260	234	146592	440.294	ng/mL	99
75) Benz[a]anthracene	43.193	228	159197	502.356	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051918.D
 Acq On : 6 Dec 2019 8:35 am
 Operator : PAH2:MJS
 Sample : WG1316430-6
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 06 10:01:12 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.359	228	160778	498.345	ng/mL	100
77) Chrysene/Triphenylene	43.359	228	160778	498.345	ng/mL	100
84) Benzo[b]fluoranthene	47.259	252	189780	494.662	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.334	252	182733	473.449	ng/mL	96
87) Benzo[e]pyrene	48.268	252	175554	476.394	ng/mL	96
89) Benzo[a]pyrene	48.449	252	168702	500.085	ng/mL	95
90) Perylene	48.765	252	166778	506.057	ng/mL	94
91) Indeno[1,2,3-cd]pyrene	53.328	276	196502M3	489.634	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.388	278	178106M4	486.381	ng/mL	
93) Benzo[g,h,i]perylene	54.653	276	187208	466.680	ng/mL	100
94) Hopane (T19)	52.425	191	30745	445.029	ng/mL#	88

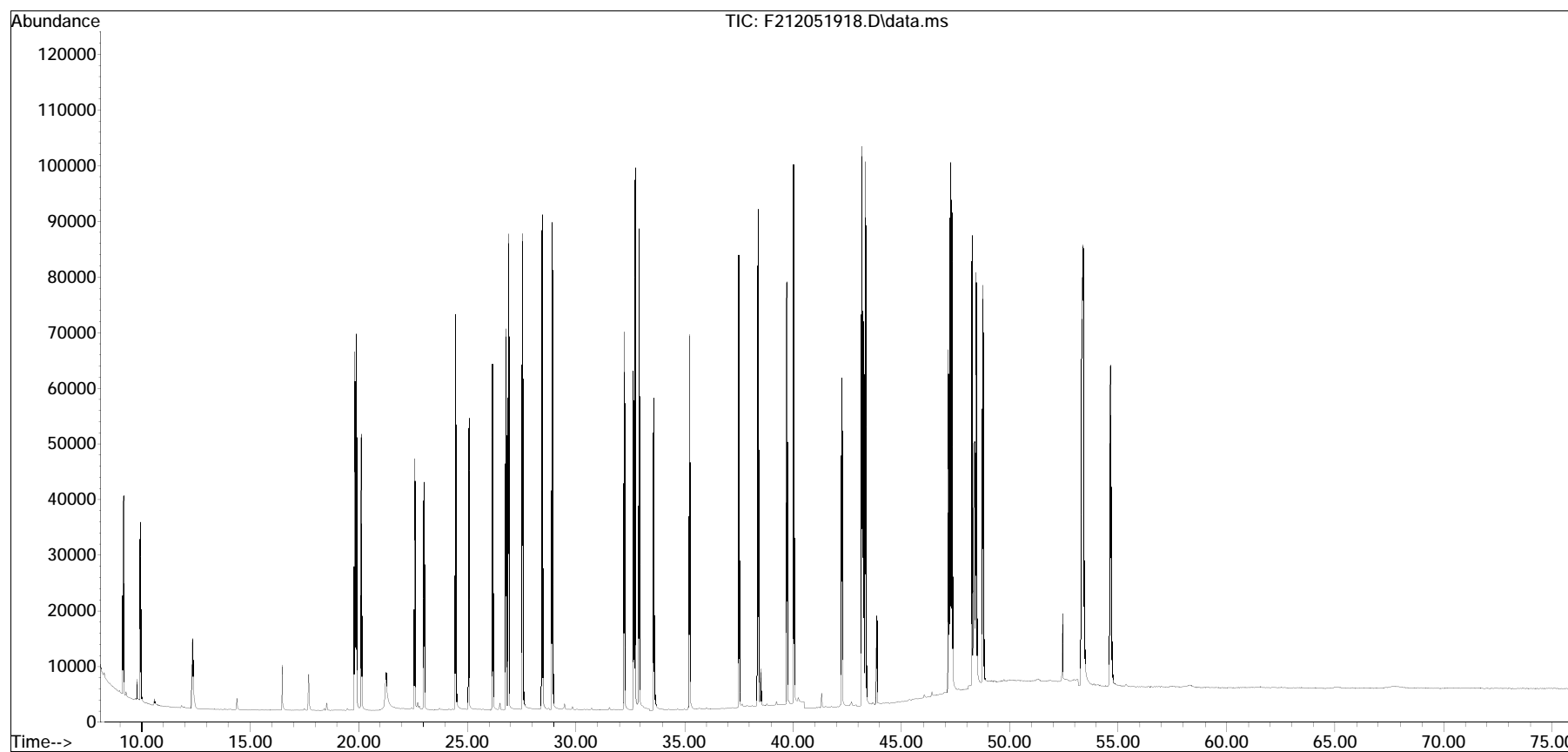
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051918.D
Acq On : 6 Dec 2019 8:35 am
Operator : PAH2:MJS
Sample : WG1316430-6
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 06 10:01:12 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051921.D
 Acq On : 6 Dec 2019 1:58 pm
 Operator : PAH2:MJS
 Sample : WG1316430-7
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 10 16:07:41 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	0.385	0.391	-1.6	96	0.00
3 t	cis-Decalin	0.297	0.299	-0.7	95	0.00
8 s	Naphthalene-d8	1.843	1.802	2.2	88	0.00
9 A1	Naphthalene	2.049	1.953	4.7	86	0.00
14 t	2-Methylnaphthalene	1.352	1.278	5.5	84	0.00
15 t	1-Methylnaphthalene	1.299	1.231	5.2	85	-0.02
16 A1	Benzothiophene	1.597	1.479	7.4	82	0.00
21 t	Biphenyl	1.646	1.569	4.7	82	0.00
22 t	2,6-Dimethylnaphthalene	1.210	1.150	5.0	84	0.00
23 t	Dibenzofuran	1.749	1.675	4.2	81	0.00
24 t	Acenaphthylene	2.018	1.929	4.4	84	-0.02
25 t	Acenaphthene	1.260	1.226	2.7	84	0.00
26 t	2,3,5-Trimethylnaphthalene	1.105	1.056	4.4	83	0.00
27 A1	Fluorene	1.427	1.354	5.1	80	-0.02
31 A1	Dibenzothiophene	1.933	1.759	9.0	77	0.00
40 s	Phenanthrene-d10	1.621	1.566	3.4	81	0.00
41 A1	Phenanthrene	2.056	1.968	4.3	79	0.00
52 t	Retene	0.704	0.624	11.4	76	0.00
53 t	Anthracene	1.753	1.852	-5.6	83	0.00
54 t	Carbazole	1.640	1.670	-1.8	85	-0.02
55 t	1-Methylphenanthrene	1.540	1.448	6.0	79	-0.02
56 A1	Fluoranthene	2.345	2.144	8.6	77	-0.02
57 A1	Benzo(b)fluorene	1.475	1.379	6.5	80	0.00
59 A1	Pyrene	2.435	2.192	10.0	77	-0.02
67 A1	Napthhobenzothiophene-2,1-D	2.083	1.841	11.6	76	-0.02
74 i	Chrysene-d12	1.000	1.000	0.0	78	-0.02
75 t	Benz[a]anthracene	1.142	1.133	0.8	77	-0.02
76 A1	Chrysene	1.163	1.169	-0.5	77	0.00
77 A2	Chrysene/Triphenylene	1.163	1.169	-0.5	77	0.00
83 s	Benzo[b]fluoranthene-d12	0.979	0.931	4.9	76	-0.02
84 t	Benzo[b]fluoranthene	1.383	1.376	0.5	79	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.391	1.316	5.4	70	-0.02
87 t	Benzo[e]pyrene	1.328	1.271	4.3	74	0.00
88 s	Benzo[a]pyrene-d12	0.757	0.738	2.5	76	0.00
89 t	Benzo[a]pyrene	1.216	1.214	0.2	74	-0.02
90 t	Perylene	1.188	1.208	-1.7	75	-0.02
91 t	Indeno[1,2,3-cd]pyrene	1.446	1.428	1.2	80	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051921.D
 Acq On : 6 Dec 2019 1:58 pm
 Operator : PAH2:MJS
 Sample : WG1316430-7
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 10 16:07:41 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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)
92 t Dibenz[ah]+[ac]anthracene	1.320	1.292	2.1	78	-0.02
93 t Benzo[g,h,i]perylene	1.446	1.359	6.0	74	-0.03
94 A1 Hopane (T19)	0.249	0.219	12.0	70	-0.02
128 SA1 5B(H)Cholane - Surr	0.166	0.160	3.6	75	-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	0.98	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.20	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051921.D
 Acq On : 6 Dec 2019 1:58 pm
 Operator : PAH2:MJS
 Sample : WG1316430-7
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 10 16:07:41 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 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	26.783	164	59868M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.254	240	103673	500.000	ng/mL	-0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	107866	488.751	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.88%#
40) Phenanthrene-d10	32.654	188	93769	483.223	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.32%#
83) Benzo[b]fluoranthene-d12	47.169	264	96549	475.563	ng/mL	-0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.56%#
88) Benzo[a]pyrene-d12	48.373	264	76543	487.800	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.78%#
128) 5B(H)Cholane - Surr	43.871	217	16549	479.661	ng/ml	-0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.97%#
Target Compounds						
2) trans-Decalin	16.471	138	11697	253.444	ng/mL	100
3) cis-Decalin	17.690	138	8945	251.300	ng/mL	100
9) Naphthalene	19.888	128	116902	476.423	ng/mL	100
14) 2-Methylnaphthalene	22.583	142	76509	472.616	ng/mL	100
15) 1-Methylnaphthalene	23.004	142	73689	473.903	ng/mL	100
16) Benzothiophene	20.114	134	88551	462.959	ng/mL	100
21) Biphenyl	24.465	154	93941	476.790	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.082	156	68858	475.346	ng/mL	100
23) Dibenzofuran	27.551	168	100287	478.774	ng/mL	98
24) Acenaphthylene	26.166	152	115468	477.881	ng/mL	100
25) Acenaphthene	26.904	153	73422	486.619	ng/mL	96
26) 2,3,5-Trimethylnaphthalen	28.469	170	63244	477.941	ng/mL	96
27) Fluorene	28.921	166	81082M4	474.449	ng/mL	
31) Dibenzothiophene	32.248	184	105330	455.057	ng/mL	97
41) Phenanthrene	32.745	178	117814	478.493	ng/mL	100
52) Retene	39.745	234	37359	443.239	ng/mL	95
53) Anthracene	32.925	178	110874	528.222	ng/mL	100
54) Carbazole	33.588	167	99962	509.051	ng/mL	98
55) 1-Methylphenanthrene	35.244	192	86687	470.133	ng/mL	99
56) Fluoranthene	37.517	202	128370M4	457.145	ng/mL	
57) Benzo(b)fluorene	40.047	216	82544	467.236	ng/mL	99
59) Pyrene	38.405	202	131217	450.014	ng/mL	98
67) Naphthobenzothiophene-2,1	42.260	234	110226	441.954	ng/mL	99
75) Benz[a]anthracene	43.193	228	117462	496.068	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051921.D
 Acq On : 6 Dec 2019 1:58 pm
 Operator : PAH2:MJS
 Sample : WG1316430-7
 Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 10 16:07:41 2019
 Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.359	228	121224	502.875	ng/mL	99
77) Chrysene/Triphenylene	43.359	228	121224	502.875	ng/mL	99
84) Benzo[b]fluoranthene	47.259	252	142681	497.727	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.334	252	136433	473.089	ng/mL	97
87) Benzo[e]pyrene	48.268	252	131776	478.585	ng/mL	96
89) Benzo[a]pyrene	48.449	252	125843	499.252	ng/mL	96
90) Perylene	48.765	252	125258	508.666	ng/mL	95
91) Indeno[1,2,3-cd]pyrene	53.328	276	148013M3	493.596	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.388	278	133931	489.493	ng/mL	99
93) Benzo[g,h,i]perylene	54.638	276	140912	470.122	ng/mL	99
94) Hopane (T19)	52.410	191	22714	440.022	ng/mL#	88

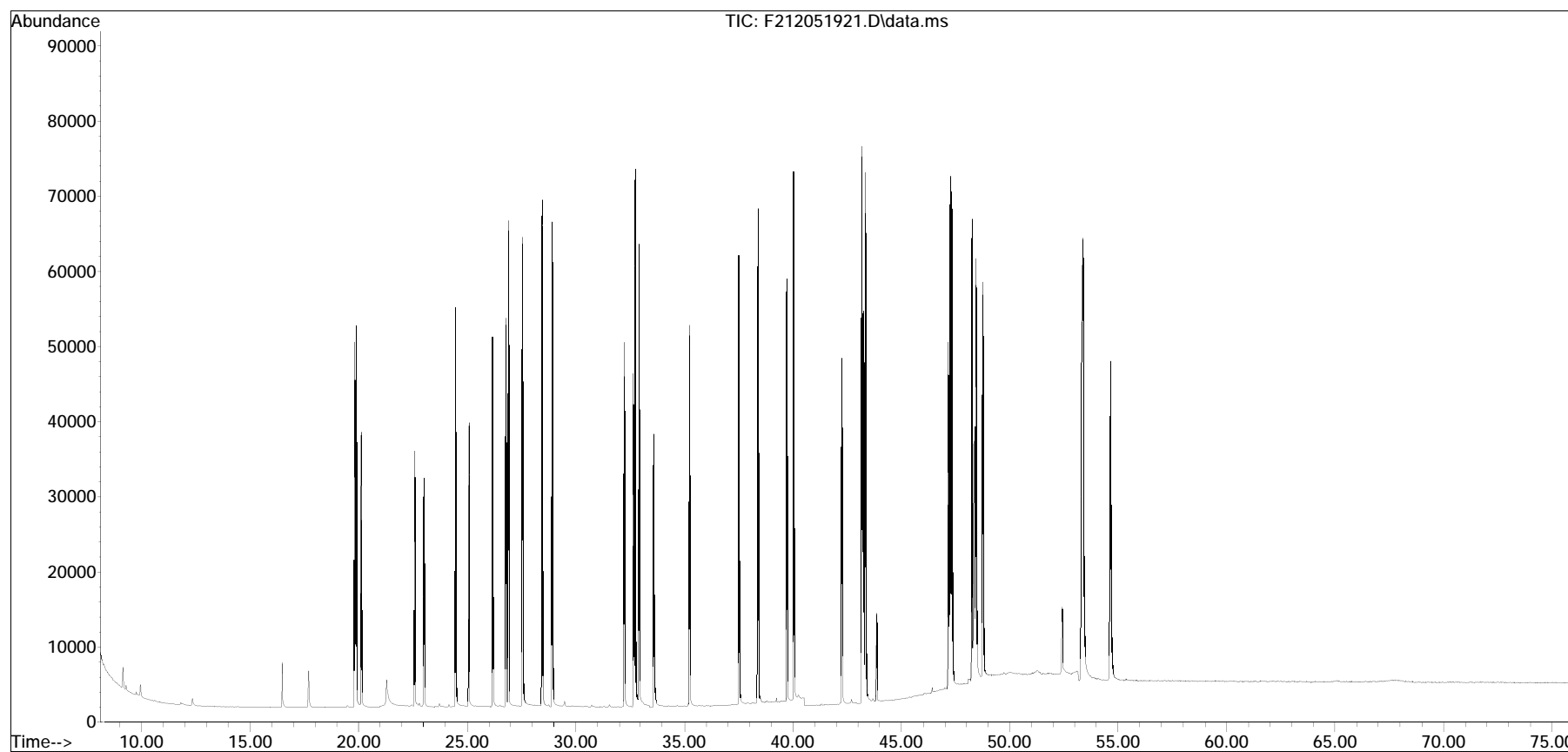
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051921.D
Acq On : 6 Dec 2019 1:58 pm
Operator : PAH2:MJS
Sample : WG1316430-7
Misc : WG1316430,FRBB74 500NG/ML,ICAL16207
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 10 16:07:41 2019
Quant Method : O:\FORENSICS\DATA\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051919.D
 Acq On : 6 Dec 2019 11:03 am
 Operator : PAH2:MJS
 Sample : L1954309-03D2,32,40
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 10 16:03:18 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH_EMAP34+2MN+1MN - EMAP34+2MN+1MN

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	58972M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.254	240	85970	500.000	ng/mL	-0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	3758	17.287	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.73%#		
40) Phenanthrene-d10	32.654	188	3691	19.310	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.93%#		
83) Benzo[b]fluoranthene-d12	47.169	264	3832	22.762	ng/mL	-0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.28%#		
88) Benzo[a]pyrene-d12	48.373	264	2658	20.427	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.04%#		
Target Compounds						
10) C1-Naphthalenes	22.583	142	508039M5	2101.923	ng/mL	Qvalue
14) 2-Methylnaphthalene	22.583	142	317512	1991.153	ng/mL	100
41) Phenanthrene	32.745	178	1584565	6533.379	ng/mL	99
56) Fluoranthene	37.517	202	678359M4	2452.442	ng/mL	
59) Pyrene	38.405	202	900947	3136.778	ng/mL	97

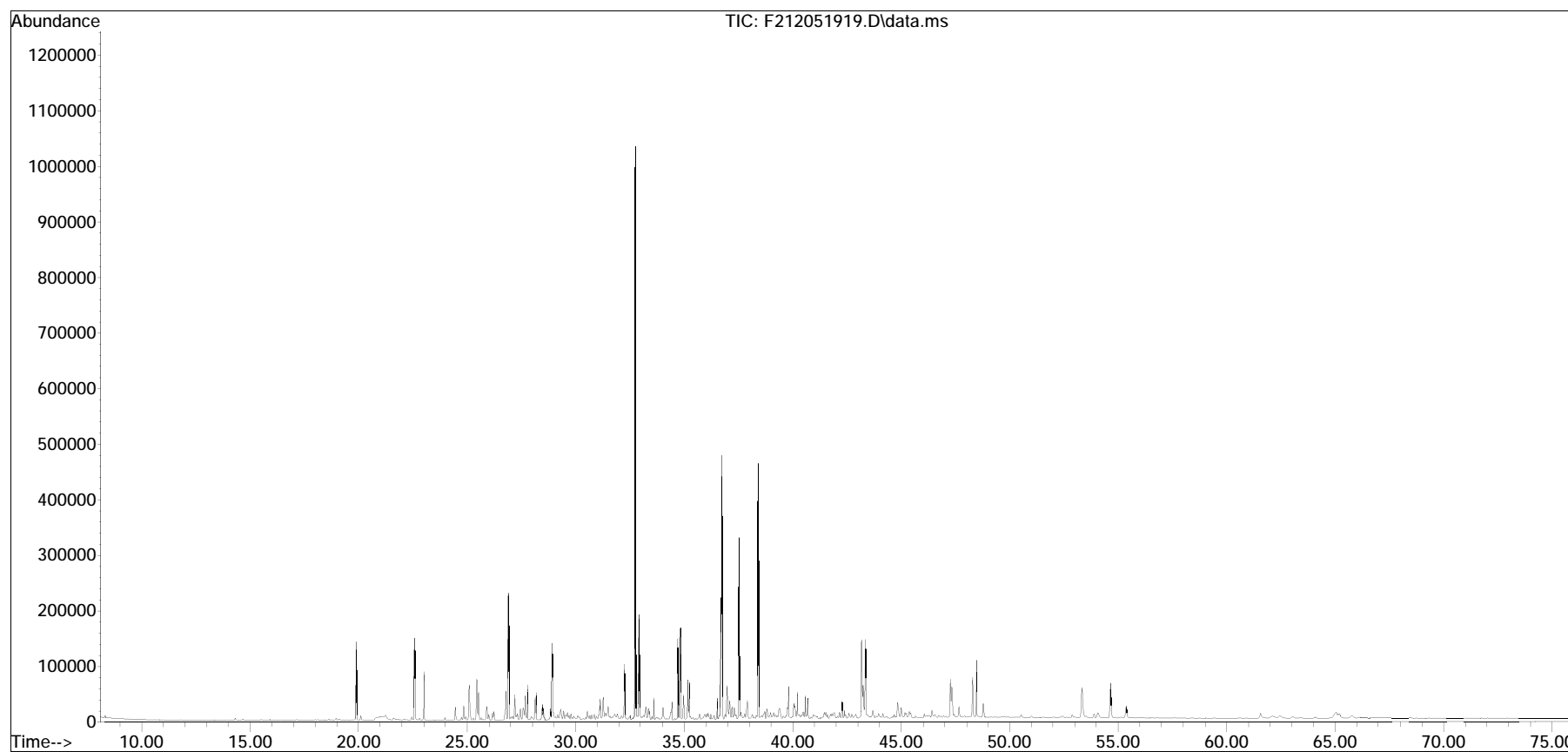
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

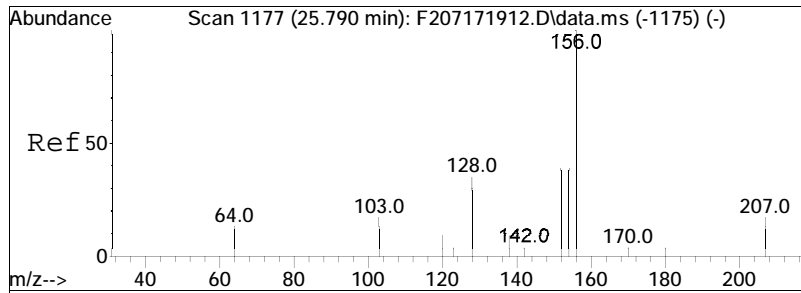
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051919.D
Acq On : 6 Dec 2019 11:03 am
Operator : PAH2:MJS
Sample : L1954309-03D2,32,40
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 19 Sample Multiplier: 1

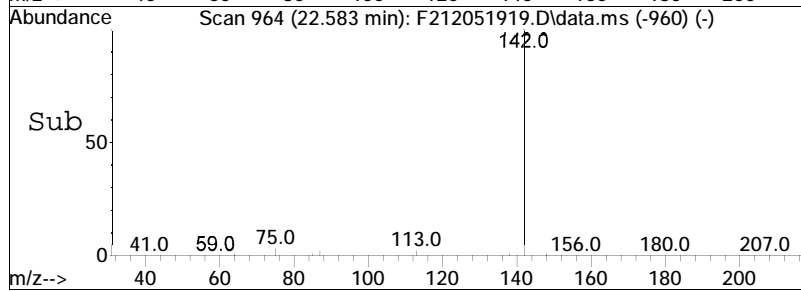
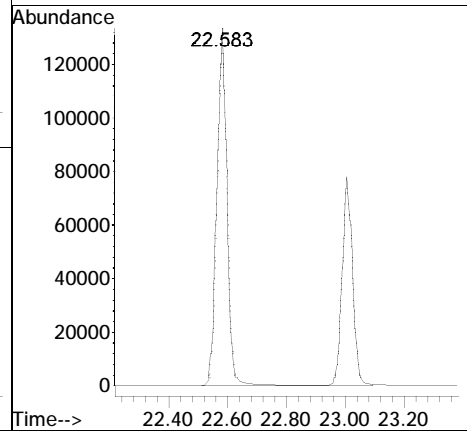
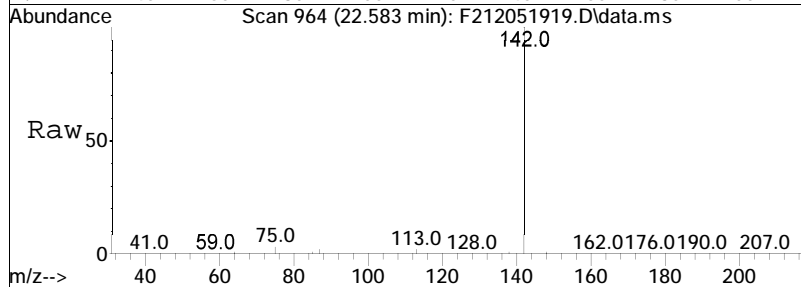
Quant Time: Dec 10 16:03:18 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

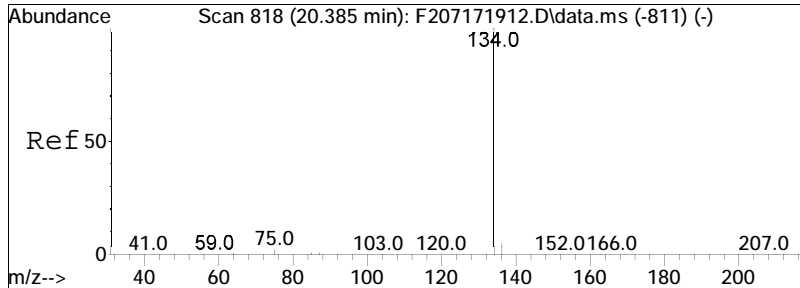
Sub List : ALKPAH_EMAP34+2MN+1MN - EMAP34+2MN+1MN



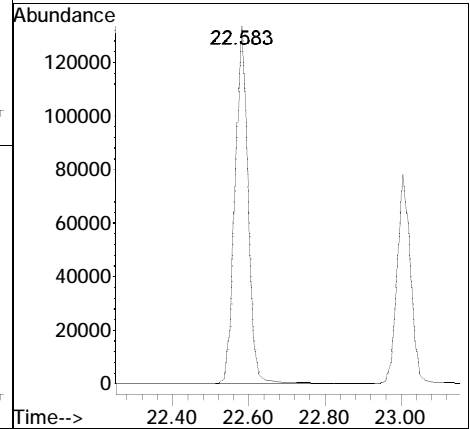
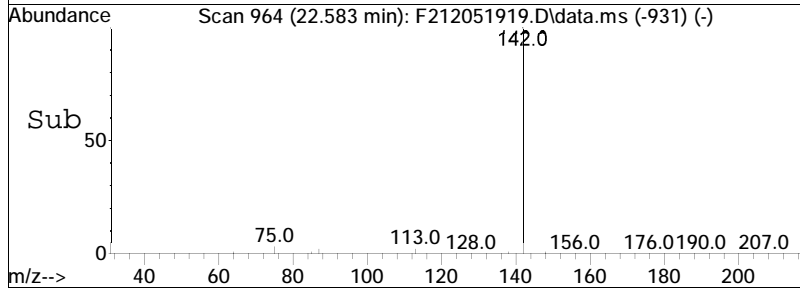
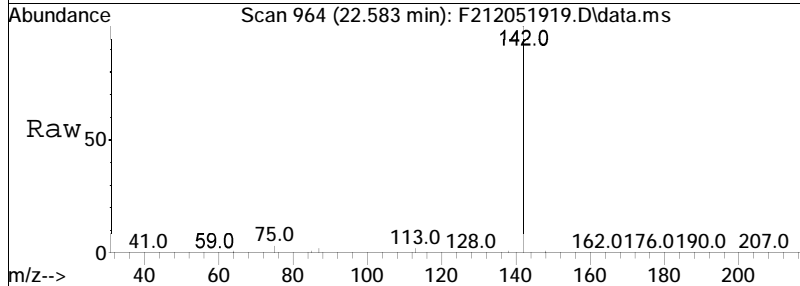


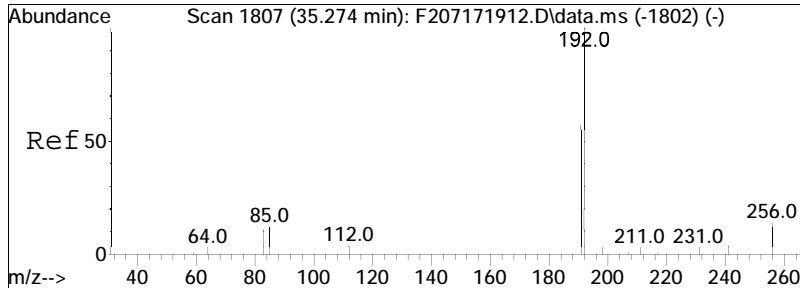
#10
 Cl-Naphthalenes
 Concen: 2101.92 ng/mL M5
 RT: 22.583 min Scan# 964
 Delta R.T. -0.021 min
 Lab File: F212051919.D
 Acq: 6 Dec 2019 11:03 am
 Tgt Ion:142 Resp: 508039





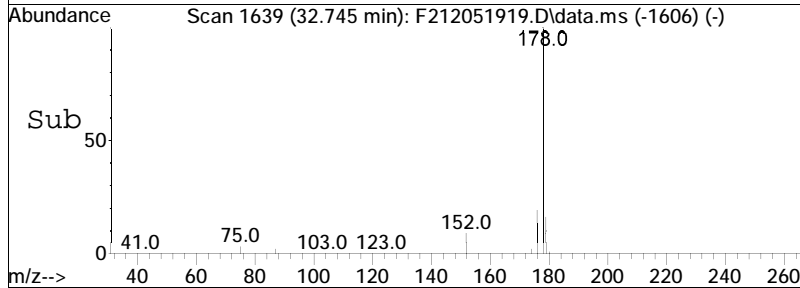
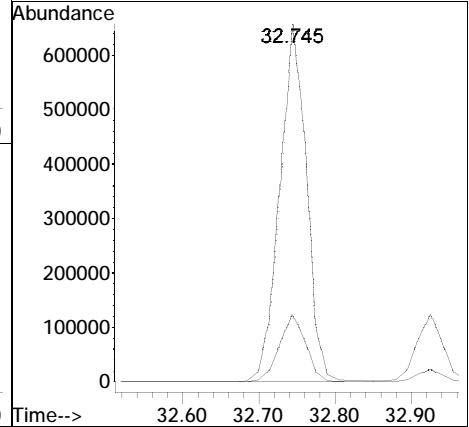
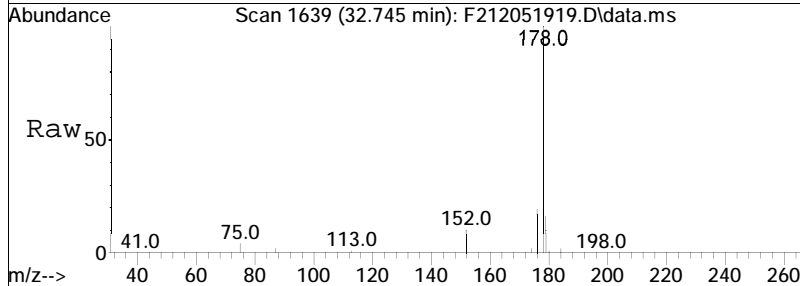
#14
 2-Methylnaphthalene
 Concen: 1991.15 ng/mL
 RT: 22.583 min Scan# 964
 Delta R.T. -0.000 min
 Lab File: F212051919.D
 Acq: 6 Dec 2019 11:03 am
 Tgt Ion:142 Resp: 317512

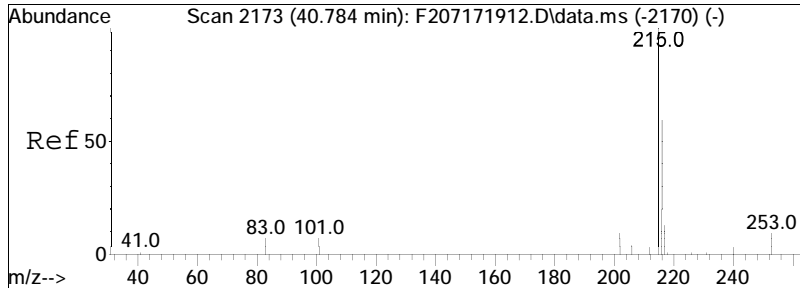




#41
 Phenanthrene
 Concen: 6533.38 ng/mL
 RT: 32.745 min Scan# 1639
 Delta R.T. -0.000 min
 Lab File: F212051919.D
 Acq: 6 Dec 2019 11:03 am

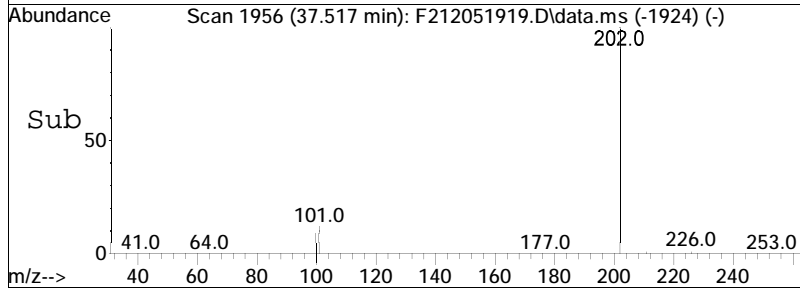
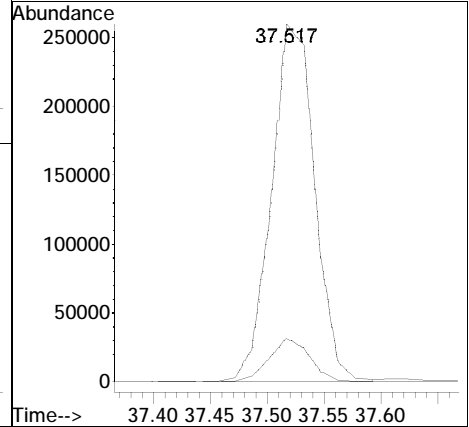
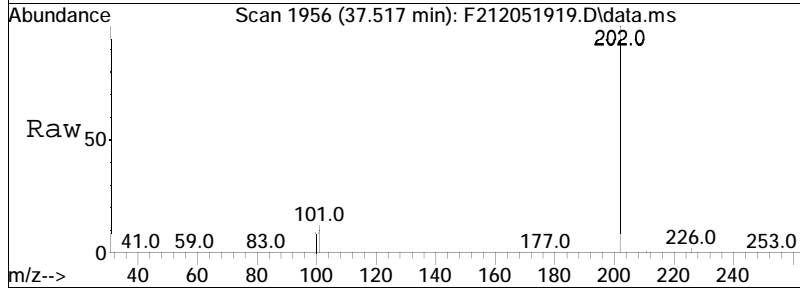
Tgt Ion: 178 Resp: 1584565
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.0 24.1

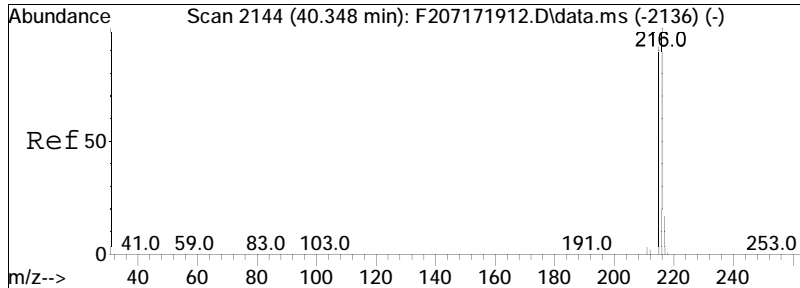




#56
 Fluoranthene
 Concen: 2452.44 ng/mL M4
 RT: 37.517 min Scan# 1956
 Delta R.T. -0.015 min
 Lab File: F212051919.D
 Acq: 6 Dec 2019 11:03 am

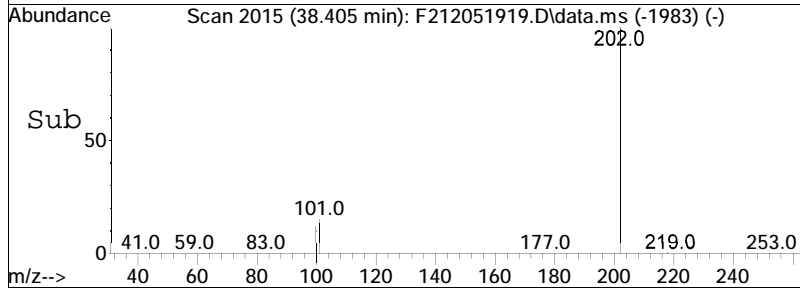
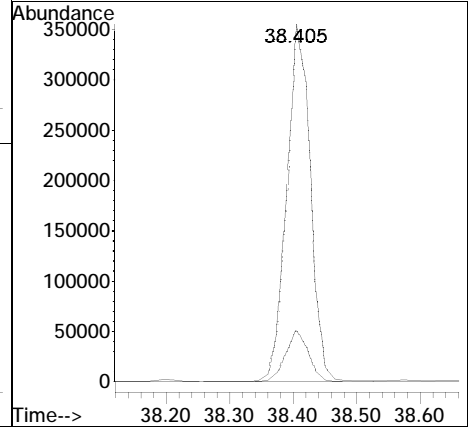
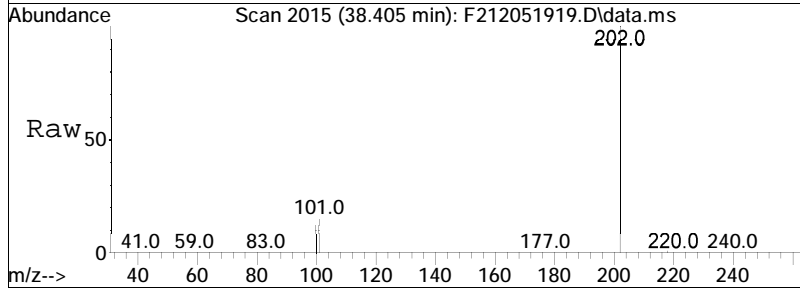
Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.8	8.0	14.8





#59
 Pyrene
 Concen: 3136.78 ng/mL
 RT: 38.405 min Scan# 2015
 Delta R.T. -0.015 min
 Lab File: F212051919.D
 Acq: 6 Dec 2019 11:03 am

Tgt Ion: 202 Resp: 900947
 Ion Ratio Lower Upper
 202 100
 101 14.0 9.0 16.8



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
 Data File : F212051920.D
 Acq On : 6 Dec 2019 12:30 pm
 Operator : PAH2:MJS
 Sample : L1954309-05D2,32,40
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 10 16:04:55 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Dec 06 08:32:26 2019
 Response via : Initial Calibration

Sub List : ALKPAH_EMAP34+2MN+1MN - EMAP34+2MN+1MN

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

Internal Standards						
1) Acenaphthene-d10	26.783	164	56625M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.254	240	87779	500.000	ng/mL	-0.02
System Monitoring Compounds						
8) Naphthalene-d8	19.813	136	4087	19.579	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	1.96%#	
40) Phenanthrene-d10	32.654	188	3946	21.500	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	2.15%#	
83) Benzo[b]fluoranthene-d12	47.169	264	4165	24.230	ng/mL	-0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	2.42%#	
88) Benzo[a]pyrene-d12	48.373	264	2924	22.008	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	2.20%#	
Target Compounds						
9) Naphthalene	19.888	128	2389505	10295.925	ng/mL	100
10) C1-Naphthalenes	22.583	142	685537M5	2953.849	ng/mL	
14) 2-Methylnaphthalene	22.583	142	451349	2947.778	ng/mL	100
25) Acenaphthene	26.904	153	328673	2303.105	ng/mL	98
41) Phenanthrene	32.745	178	2121162	9108.340	ng/mL	99
56) Fluoranthene	37.517	202	1208073	4548.518	ng/mL	99
59) Pyrene	38.406	202	1488962	5398.906	ng/mL	96

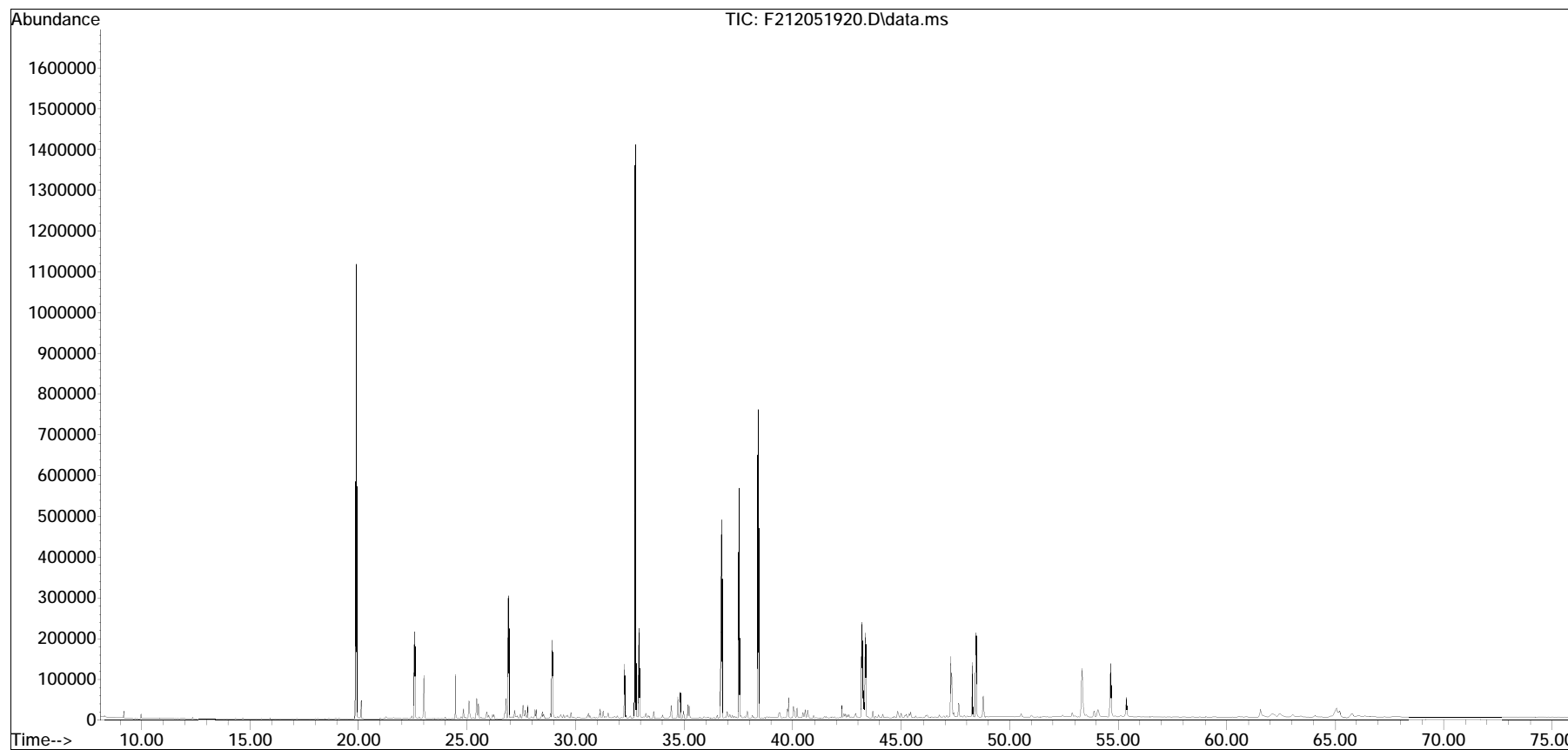
(#) = qualifier out of range (m) = manual integration (+) = signals summed

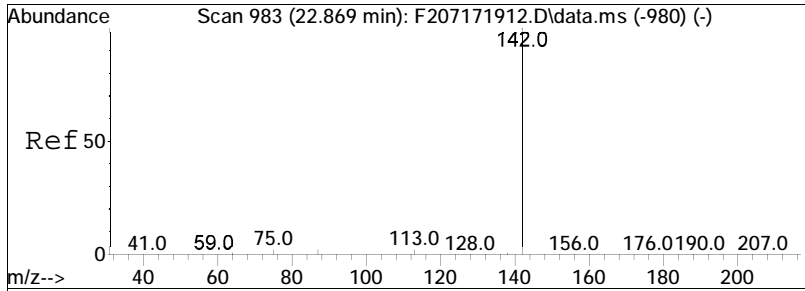
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\
Data File : F212051920.D
Acq On : 6 Dec 2019 12:30 pm
Operator : PAH2:MJS
Sample : L1954309-05D2,32,40
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 10 16:04:55 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC05\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Dec 06 08:32:26 2019
Response via : Initial Calibration

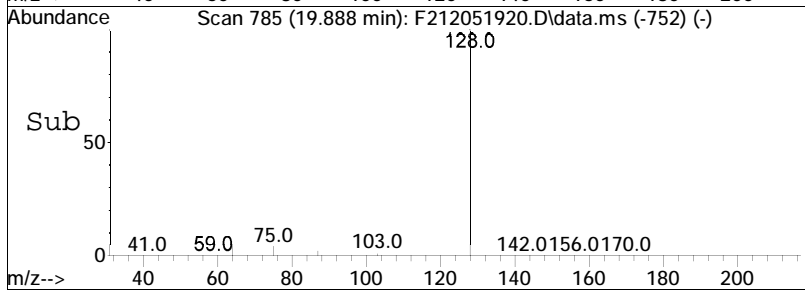
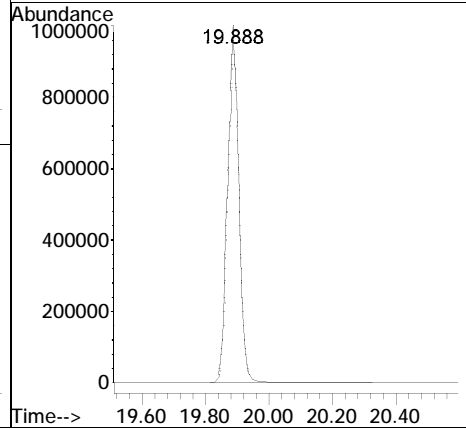
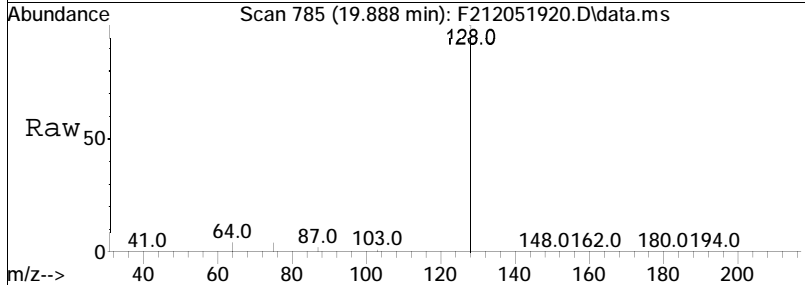
Sub List : ALKPAH_EMAP34+2MN+1MN - EMAP34+2MN+1MN

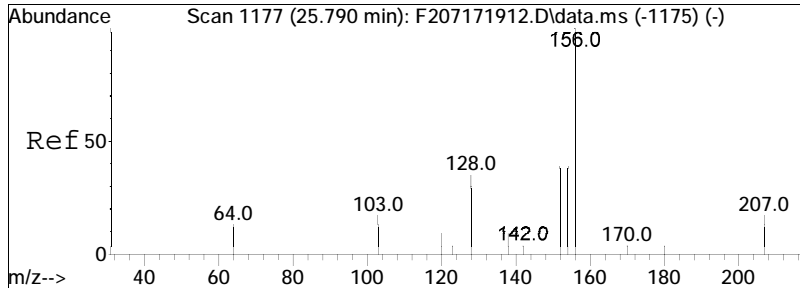




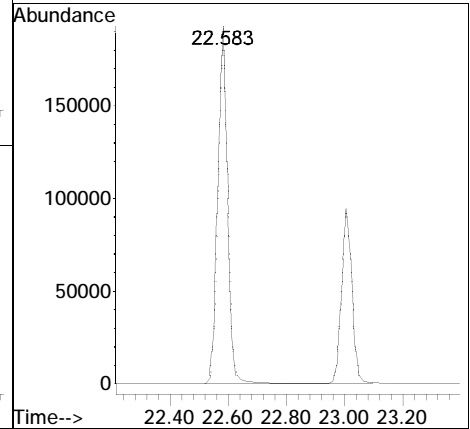
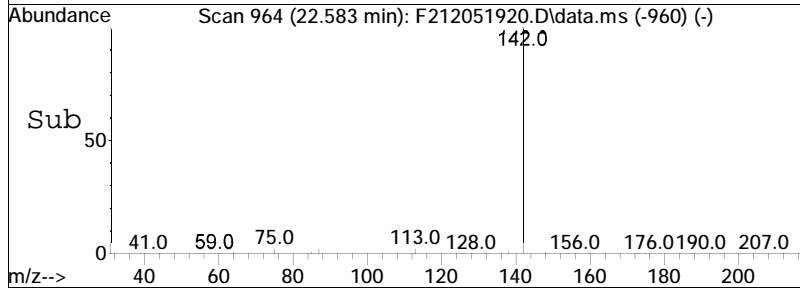
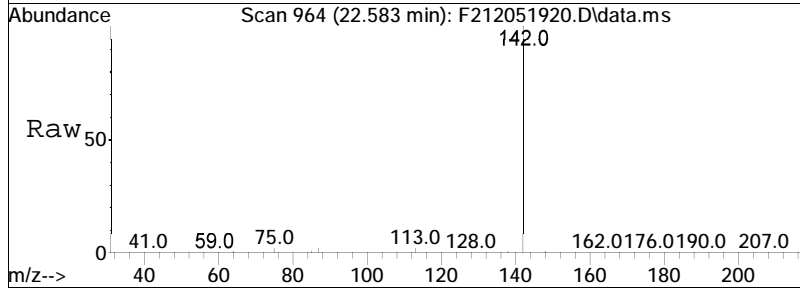
#9
 Naphthalene
 Concen: 10295.93 ng/mL
 RT: 19.888 min Scan# 785
 Delta R.T. 0.000 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm

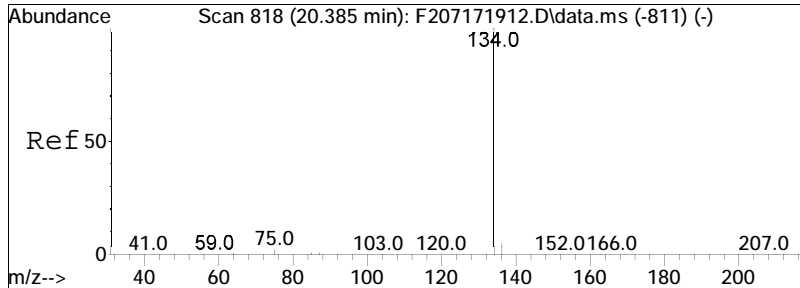
Tgt Ion:128 Resp: 2389505



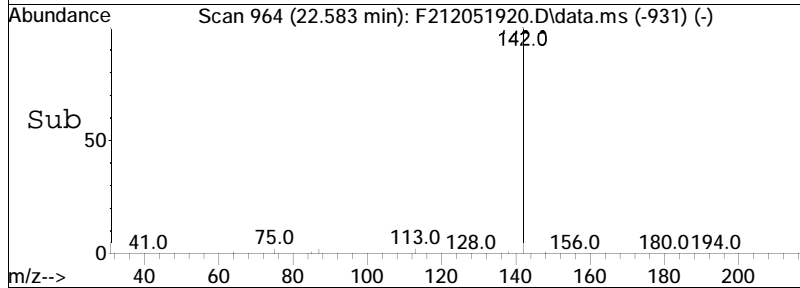
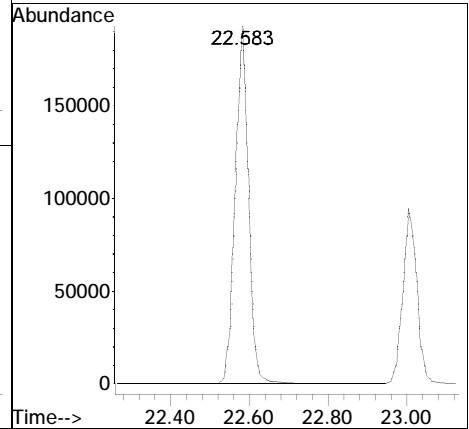
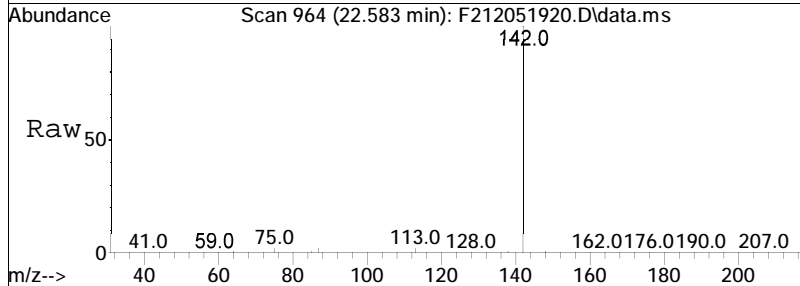


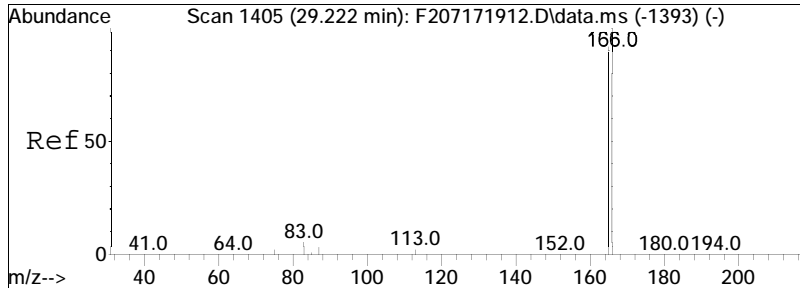
#10
 Cl-Naphthalenes
 Concen: 2953.85 ng/mL M5
 RT: 22.583 min Scan# 964
 Delta R.T. -0.021 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm
 Tgt Ion:142 Resp: 685537





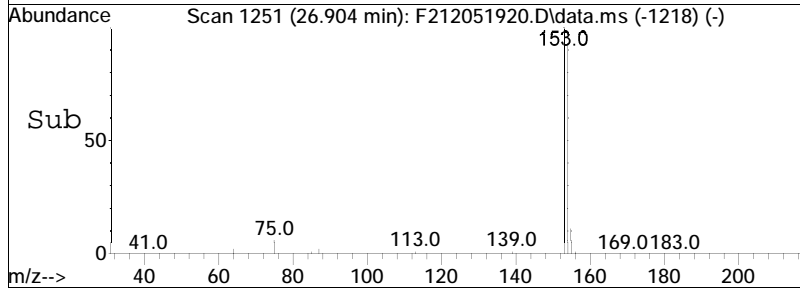
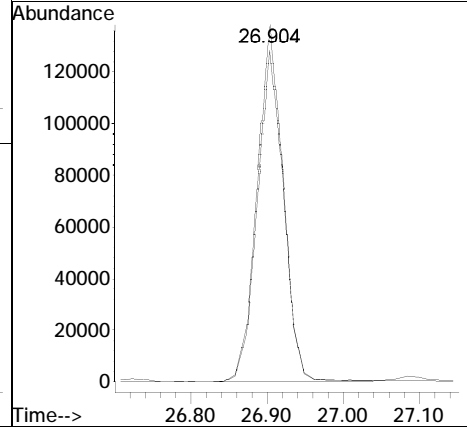
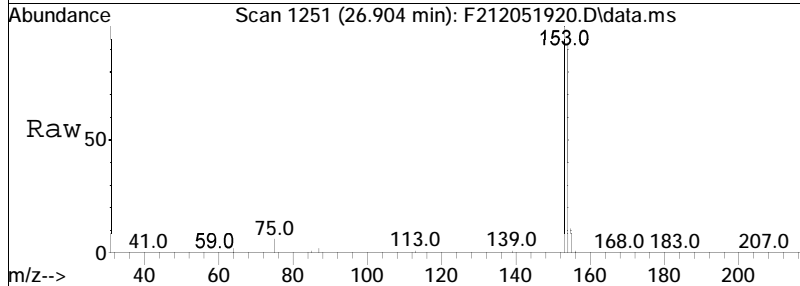
#14
 2-Methylnaphthalene
 Concen: 2947.78 ng/mL
 RT: 22.583 min Scan# 964
 Delta R.T. -0.000 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm
 Tgt Ion:142 Resp: 451349

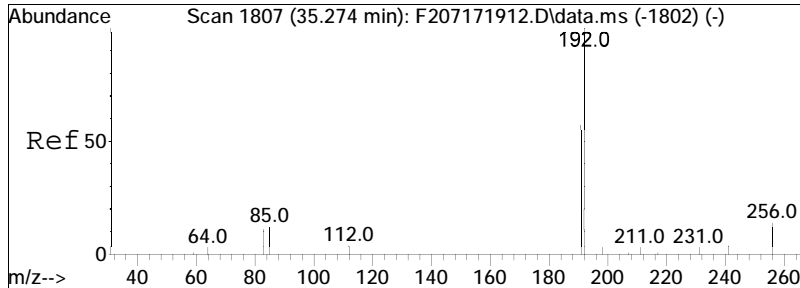




#25
 Acenaphthene
 Concen: 2303.11 ng/mL
 RT: 26.904 min Scan# 1251
 Delta R.T. -0.000 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm

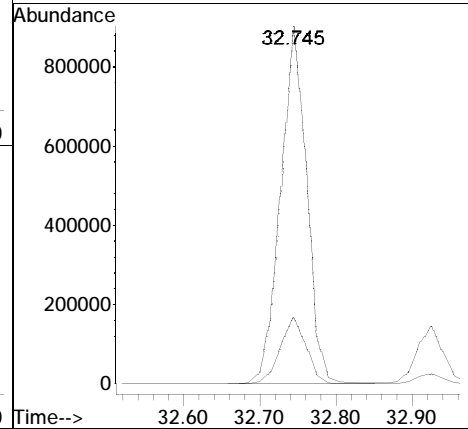
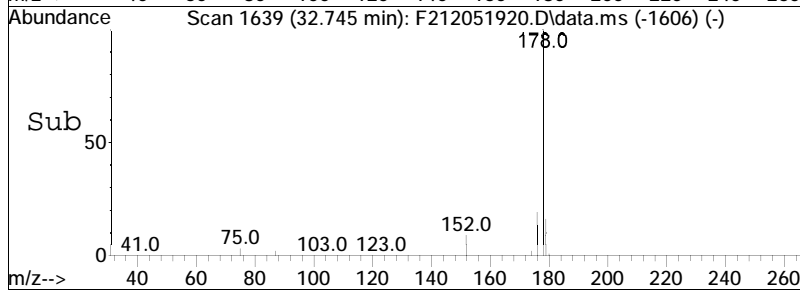
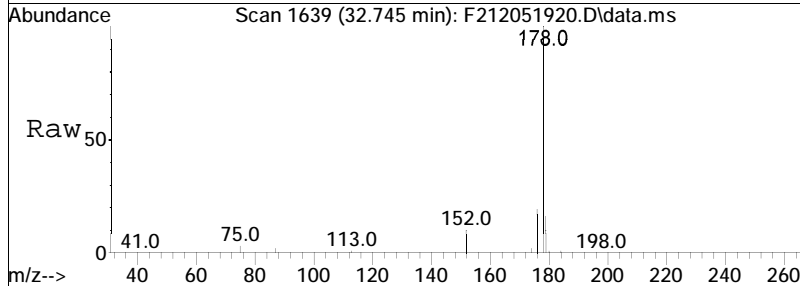
Tgt Ion	Resp	Lower	Upper
153	328673		
153	100		
154	92.9	66.5	123.5

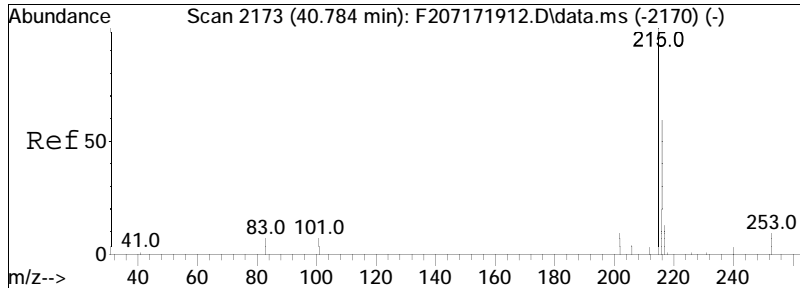




#41
 Phenanthrene
 Concen: 9108.34 ng/mL
 RT: 32.745 min Scan# 1639
 Delta R.T. -0.000 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm

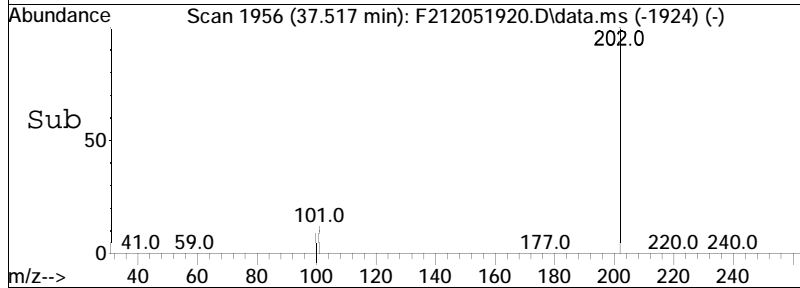
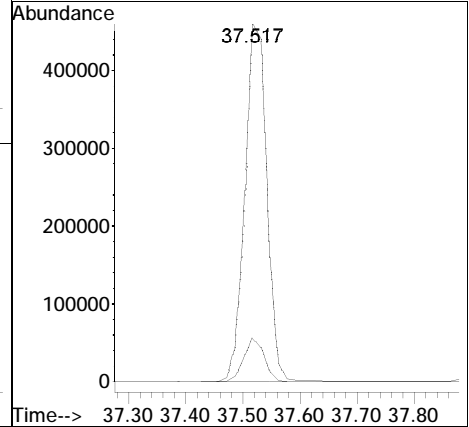
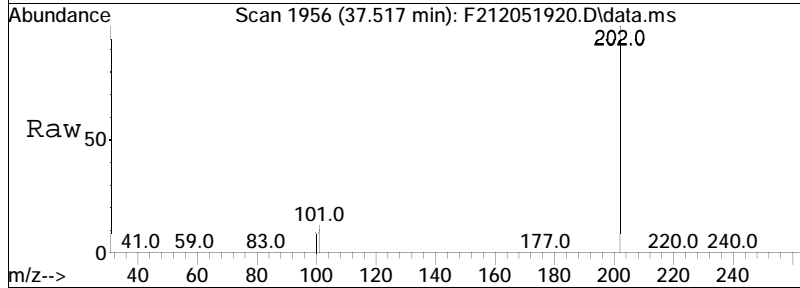
Tgt Ion: 178 Resp: 2121162
 Ion Ratio Lower Upper
 178 100
 176 18.8 13.0 24.1

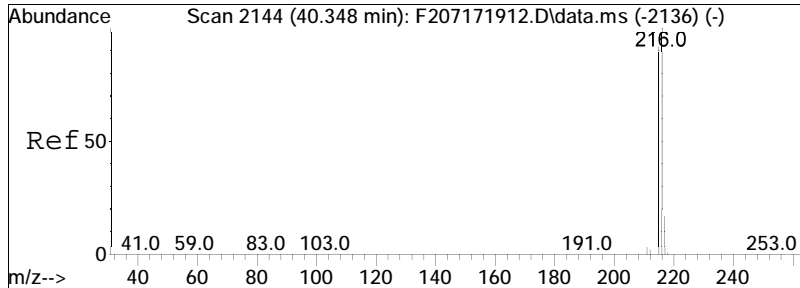




#56
 Fluoranthene
 Concen: 4548.52 ng/mL
 RT: 37.517 min Scan# 1956
 Delta R.T. -0.015 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm

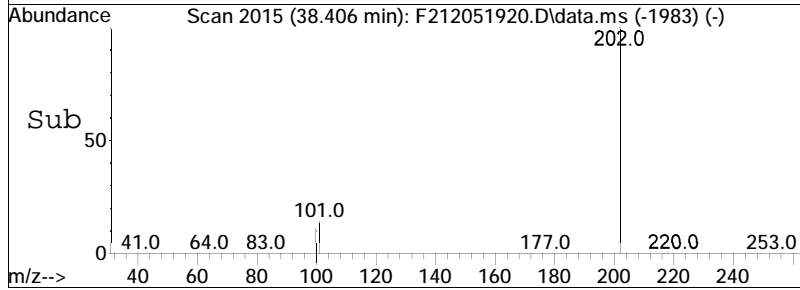
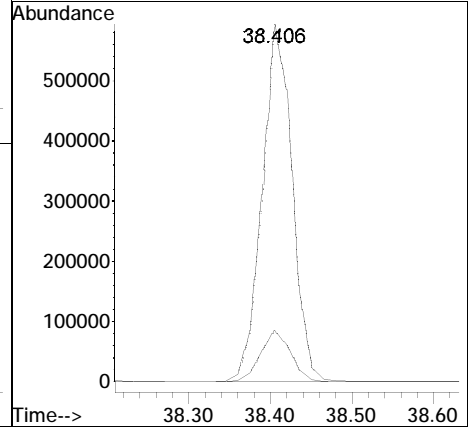
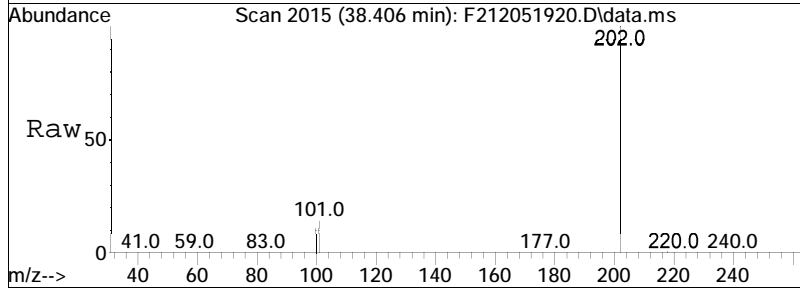
Tgt Ion: 202 Resp: 1208073
 Ion Ratio Lower Upper
 202 100
 101 11.7 8.0 14.8





#59
 Pyrene
 Concen: 5398.91 ng/mL
 RT: 38.406 min Scan# 2015
 Delta R.T. -0.015 min
 Lab File: F212051920.D
 Acq: 6 Dec 2019 12:30 pm

Tgt Ion: 202 Resp: 1488962
 Ion Ratio Lower Upper
 202 100
 101 14.6 9.0 16.8



Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011922.D
 Acq On : 3 Dec 2019 2:47 pm
 Operator : PAH2:MJS
 Sample : WG1312512-1
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 05 16:17:51 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards							
1) Acenaphthene-d10	26.979	164	67070	500.000	ng/mL	0.05	
74) Chrysene-d12	43.510	240	111219	500.000	ng/mL	0.09	
System Monitoring Compounds							
8) Naphthalene-d8	20.039	136	75075	303.644	ng/mL	0.08	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	30.36%#		
40) Phenanthrene-d10	32.835	188	87254	401.365	ng/mL	0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	40.14%#		
83) Benzo[b]fluoranthene-d12	47.410	264	105509	484.436	ng/mL	0.08	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	48.44%#		
88) Benzo[a]pyrene-d12	48.675	264	64363	382.348	ng/mL	0.12	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	38.23%#		
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	0.000		0		N.D.		
10) C1-Naphthalenes	0.000		0		N.D.		
11) C2-Naphthalenes	0.000		0		N.D.		
12) C3-Naphthalenes	0.000		0		N.D.		
13) C4-Naphthalenes	0.000		0		N.D.		
14) 2-Methylnaphthalene	0.000		0		N.D.		
15) 1-Methylnaphthalene	0.000		0		N.D.		
16) Benzothiophene	0.000		0		N.D.	d	
17) C1-Benzo(b)thiophenes	0.000		0		N.D.	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	0.000		0		N.D.		
22) 2,6-Dimethylnaphthalene	0.000		0		N.D.		
23) Dibenzofuran	0.000		0		N.D.		
24) Acenaphthylene	0.000		0		N.D.		
25) Acenaphthene	0.000		0		N.D.	d	
26) 2,3,5-Trimethylnaphthalen	0.000		0		N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011922.D
 Acq On : 3 Dec 2019 2:47 pm
 Operator : PAH2:MJS
 Sample : WG1312512-1
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 05 16:17:51 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	0.000		0		N.D.	d
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	0.000		0		N.D.	d
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	32.940	178	555M4	2.012	ng/mL	
42) 3-Methylphenanthrene(3MP)	0.000		0		N.D.	d
43) 2-Methylphenanthrene(2MP)	0.000		0		N.D.	
44) 2-Methylanthracene(2MA)	0.000		0		N.D.	
45) 9/4-Methylphenanthrene(9M	0.000		0		N.D.	
47) C1-Phenanthrenes/Anthrace	0.000		0		N.D.	
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	0.000		0		N.D.	d
54) Carbazole	0.000		0		N.D.	d
55) 1-Methylphenanthrene	0.000		0		N.D.	
56) Fluoranthene	37.773	202	307	0.976	ng/mL#	70
57) Benzo(b)fluorene	0.000		0		N.D.	
58) 7H-Benzo(c)fluorene	0.000		0		N.D.	
59) Pyrene	38.646	202	411	1.258	ng/mL#	66
60) 2-Methylpyrene	0.000		0		N.D.	d
61) 4-Methylpyrene	0.000		0		N.D.	d
62) 1-Methylpyrene	0.000		0		N.D.	d
63) C1-Fluoranthenes/Pyrenes	0.000		0		N.D.	d
64) C2-Fluoranthenes/Pyrenes	0.000		0		N.D.	
65) C3-Fluoranthenes/Pyrenes	0.000		0		N.D.	d
66) C4-Fluoranthenes/Pyrenes	0.000		0		N.D.	
67) Naphthobenzothiophene-2,1	42.531	234	119	0.426	ng/mL#	78

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011922.D
 Acq On : 3 Dec 2019 2:47 pm
 Operator : PAH2:MJS
 Sample : WG1312512-1
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 05 16:17:51 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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.	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	0.000		0	N.D.	d	
76) Chrysene	43.600	228	539	2.084	ng/mL#	84
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	47.500	252	309M4	1.005	ng/mL	
85) Benzo[j]+[k]fluoranthene	47.605	252	263	0.850	ng/mL#	39
86) Benzo[a]fluoranthene	0.000		0	N.D.	d	
87) Benzo[e]pyrene	48.554	252	259	0.877	ng/mL#	52
89) Benzo[a]pyrene	0.000		0	N.D.	d	
90) Perylene	0.000		0	N.D.	d	
91) Indeno[1,2,3-cd]pyrene	53.991	276	235	0.731	ng/mL#	56
92) Dibenz[ah]+[ac]anthracene	0.000		0	N.D.		
93) Benzo[g,h,i]perylene	55.301	276	392M1	1.219	ng/mL	

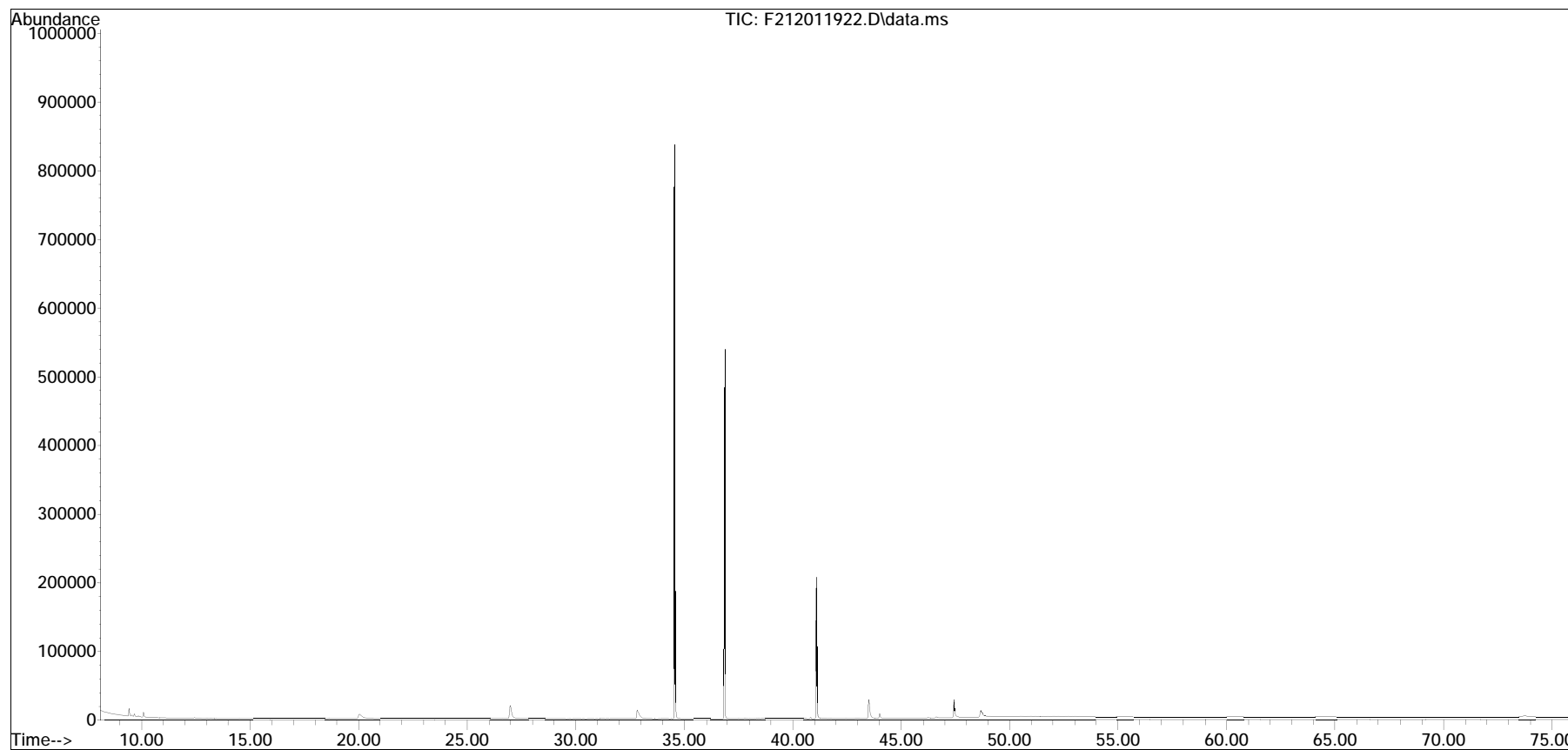
(#) = qualifier out of range (m) = manual integration (+) = signals summed

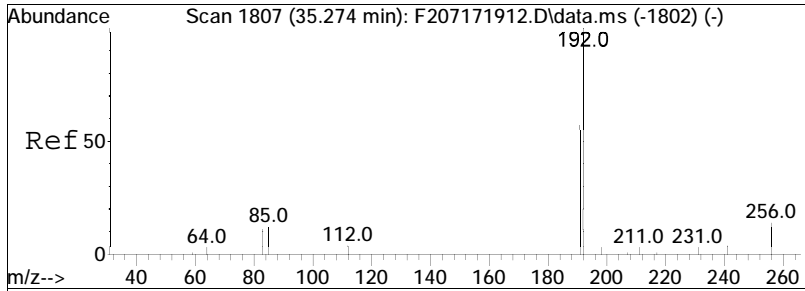
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011922.D
Acq On : 3 Dec 2019 2:47 pm
Operator : PAH2:MJS
Sample : WG1312512-1
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 05 16:17:51 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

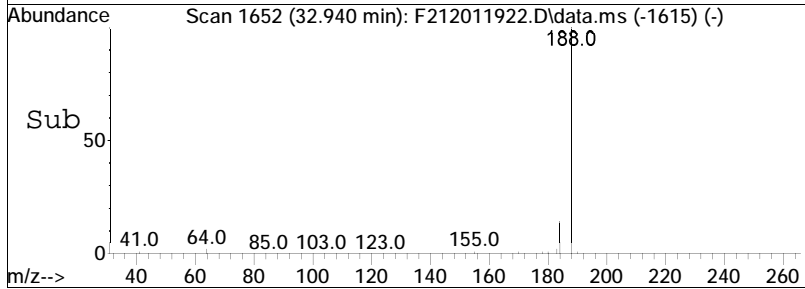
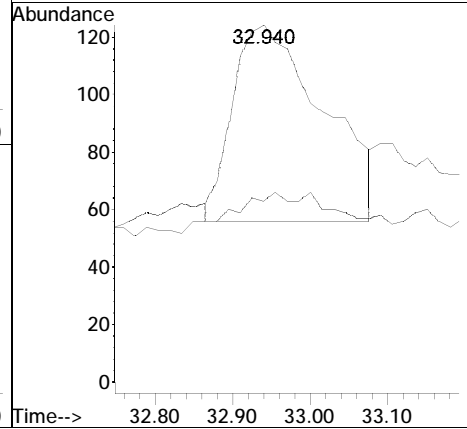
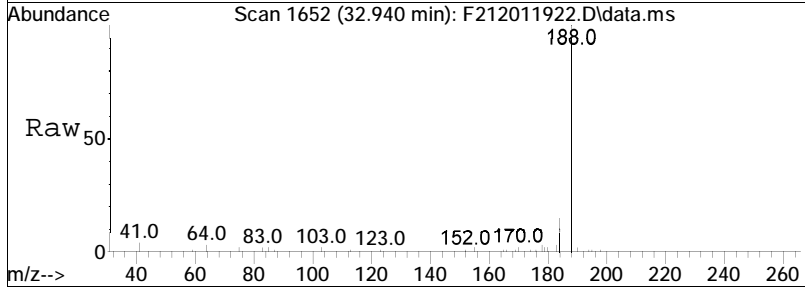
Sub List : ALKPAH - POI+MP+BcF

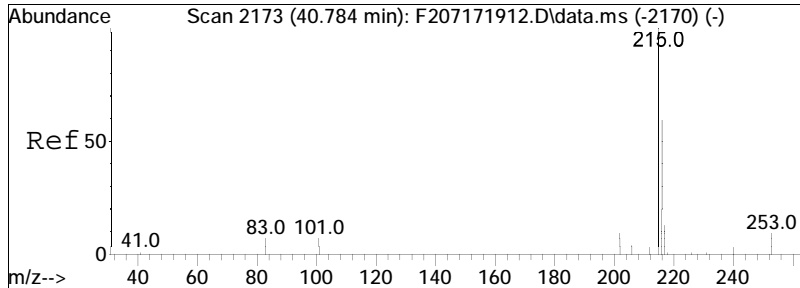




#41
 Phenanthrene
 Concen: 2.01 ng/mL M4
 RT: 32.940 min Scan# 1652
 Delta R.T. 0.055 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

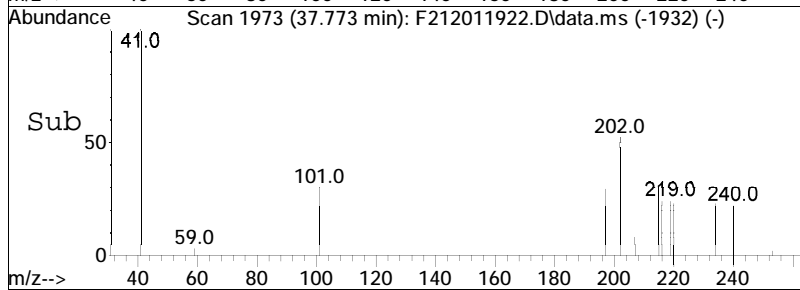
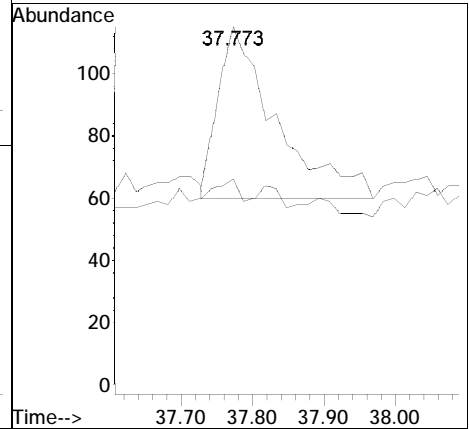
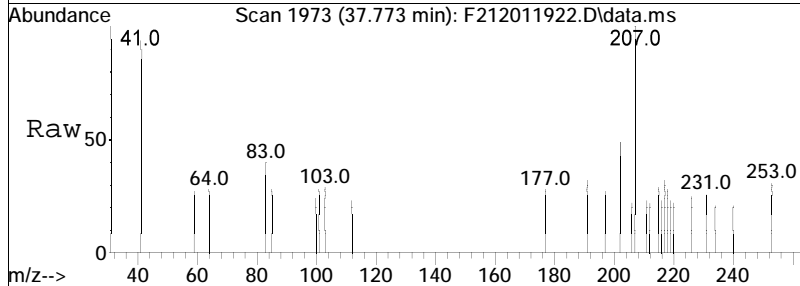
Tgt Ion: 178 Resp: 555
 Ion Ratio Lower Upper
 178 100
 176 23.1 13.0 24.1

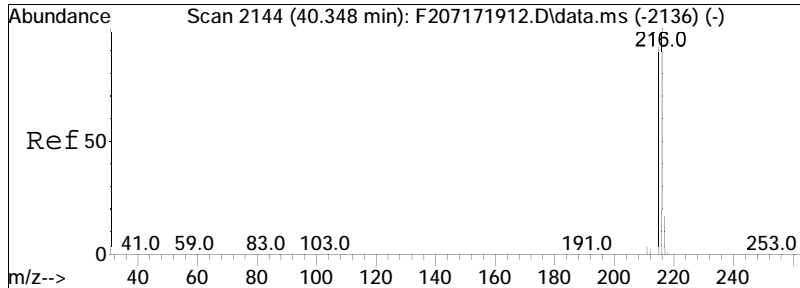




#56
 Fluoranthene
 Concen: 0.98 ng/mL
 RT: 37.773 min Scan# 1973
 Delta R.T. 0.123 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

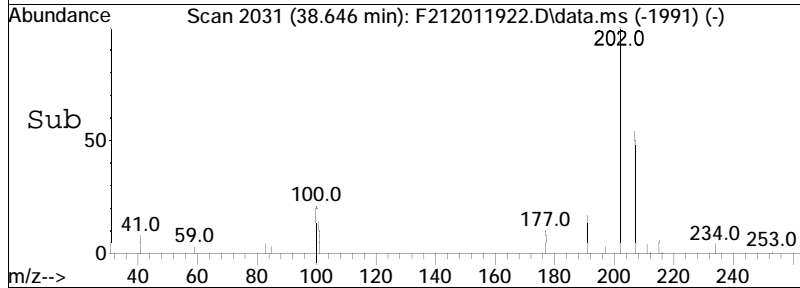
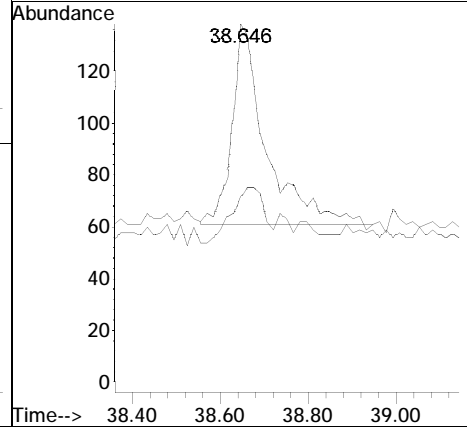
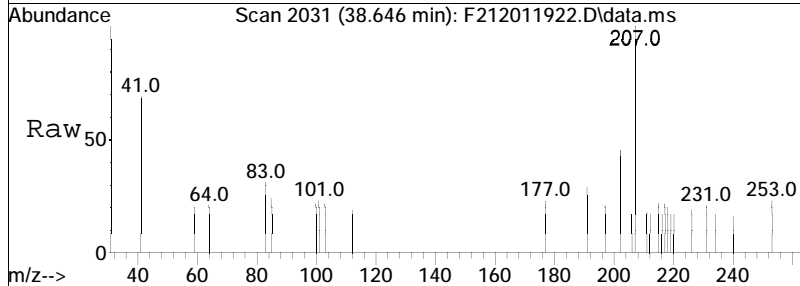
Tgt Ion: 202 Resp: 307
 Ion Ratio Lower Upper
 202 100
 101 0.0 8.0 14.8#

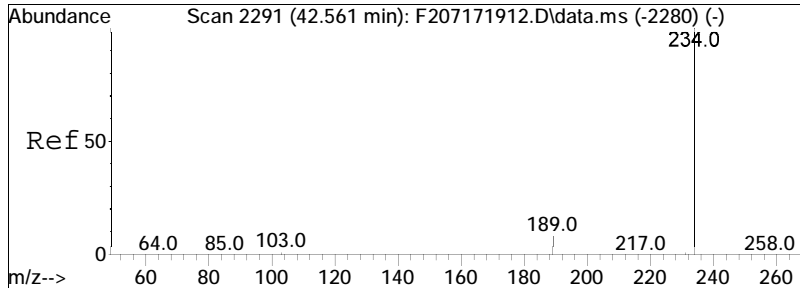




#59
 Pyrene
 Concen: 1.26 ng/mL
 RT: 38.646 min Scan# 2031
 Delta R.T. 0.110 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

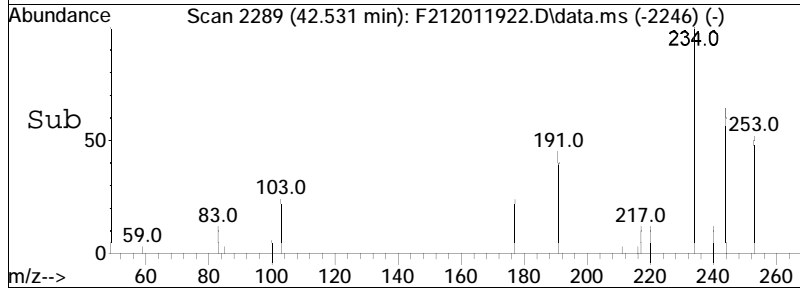
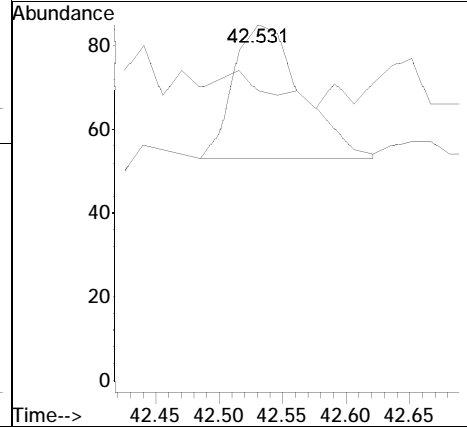
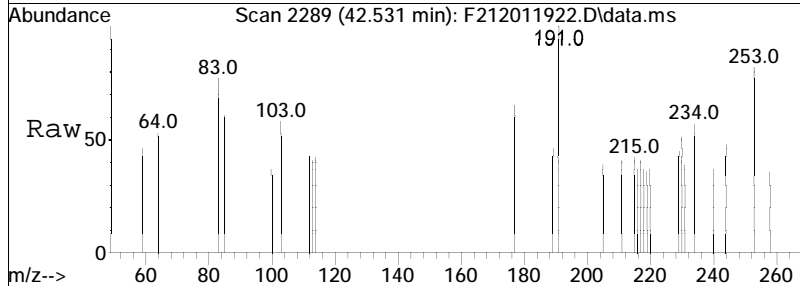
Tgt Ion: 202 Resp: 411
 Ion Ratio Lower Upper
 202 100
 101 26.3 9.0 16.8#

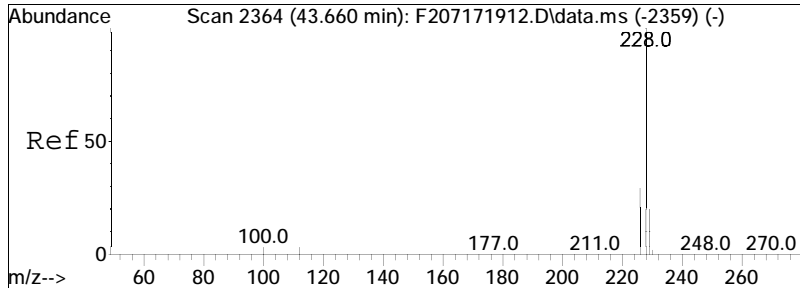




#67
 Naphthobenzothiophene-2,1-D
 Concen: 0.43 ng/mL
 RT: 42.531 min Scan# 2289
 Delta R.T. 0.146 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

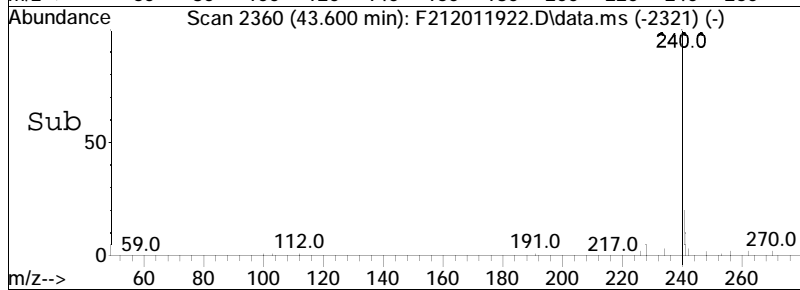
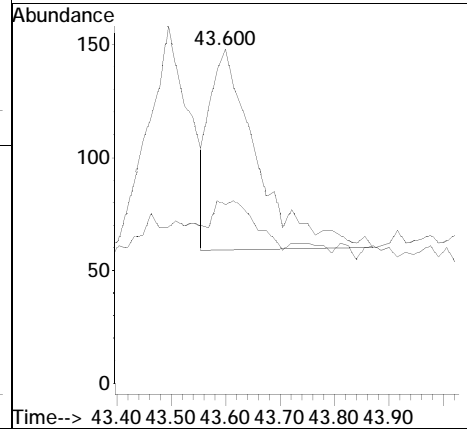
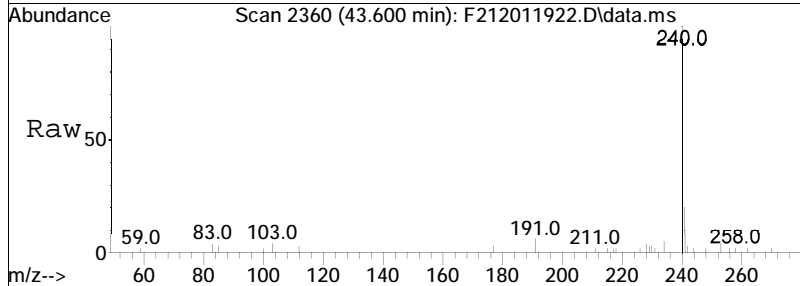
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	5.5	10.3#

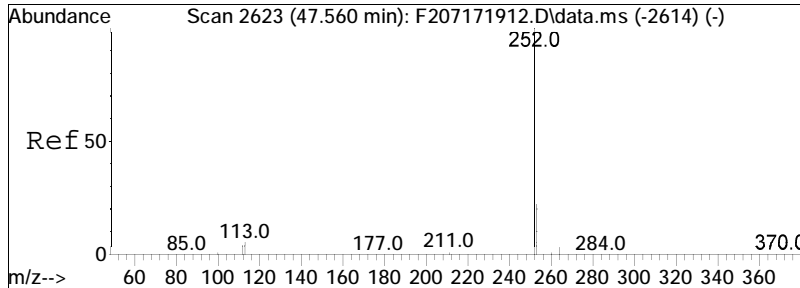




#76
 Chrysene
 Concen: 2.08 ng/mL
 RT: 43.600 min Scan# 2360
 Delta R.T. 0.090 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

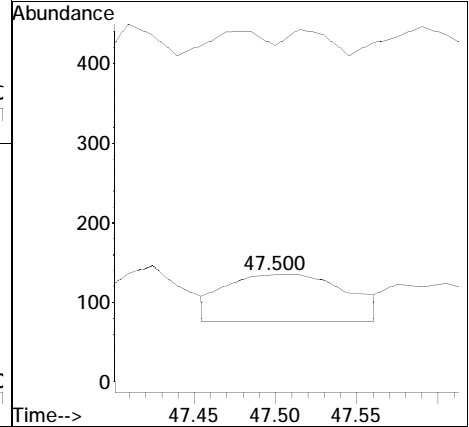
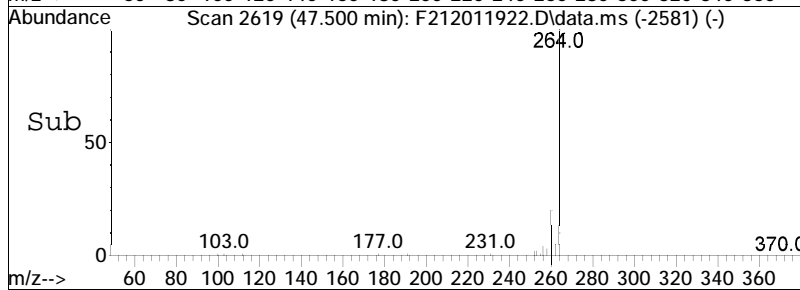
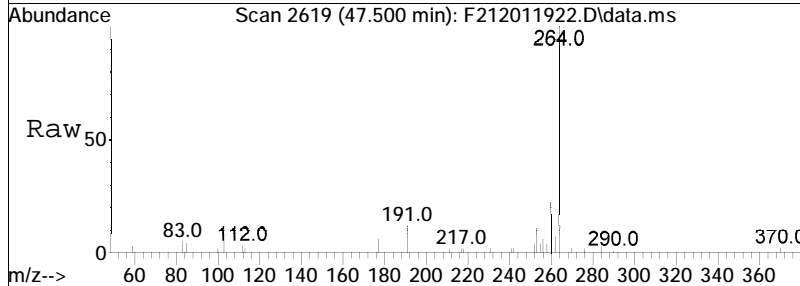
Tgt Ion: 228 Resp: 539
 Ion Ratio Lower Upper
 228 100
 226 20.2 20.3 37.7#

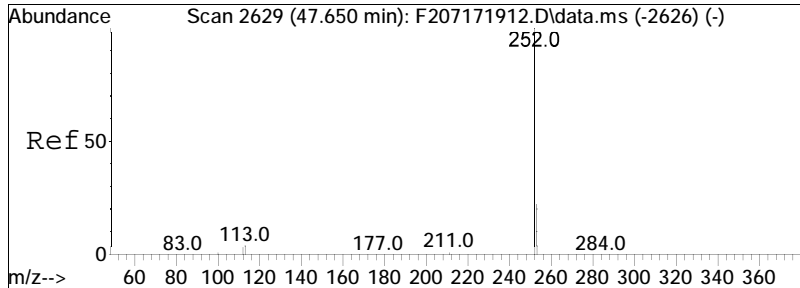




#84
 Benzo[b]fluoranthene
 Concen: 1.00 ng/mL M4
 RT: 47.500 min Scan# 2619
 Delta R.T. 0.078 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

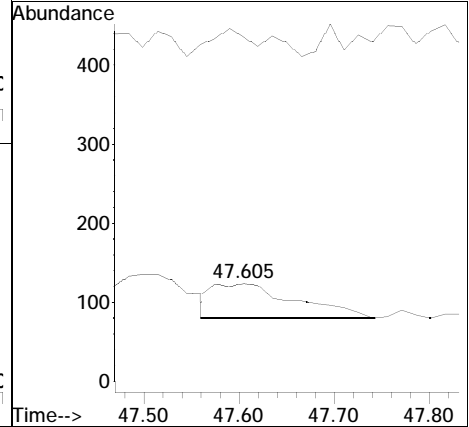
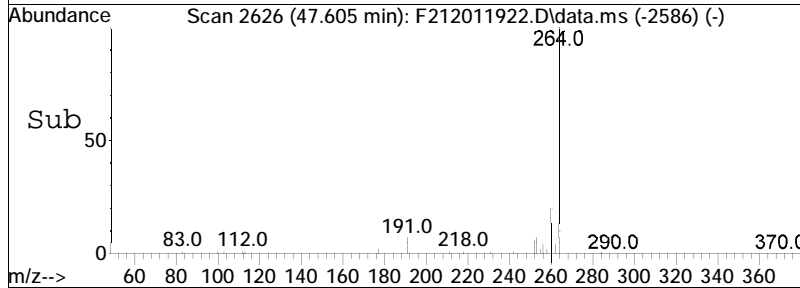
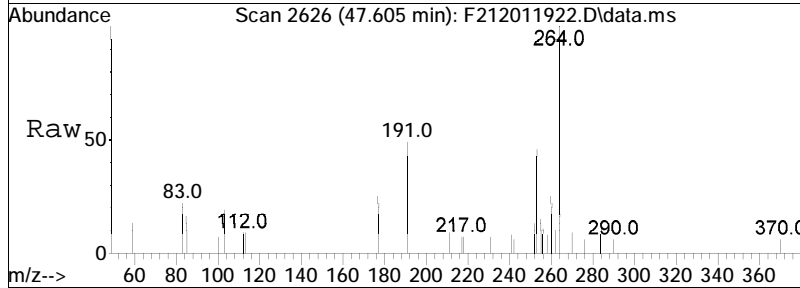
Tgt Ion	Resp	Lower	Upper
252	100		
253	0.0	16.4	30.4#

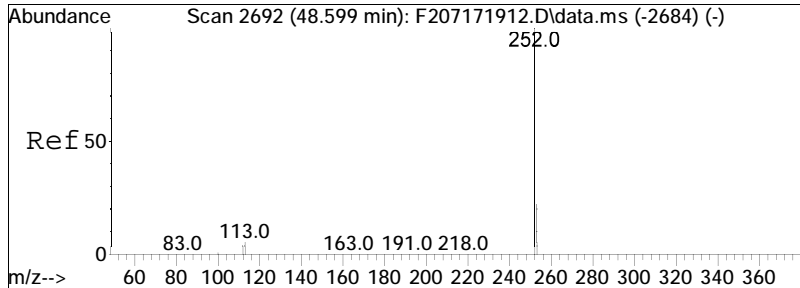




#85
 Benzo[j]+[k]fluoranthene
 Concen: 0.85 ng/mL
 RT: 47.605 min Scan# 2626
 Delta R.T. 0.108 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

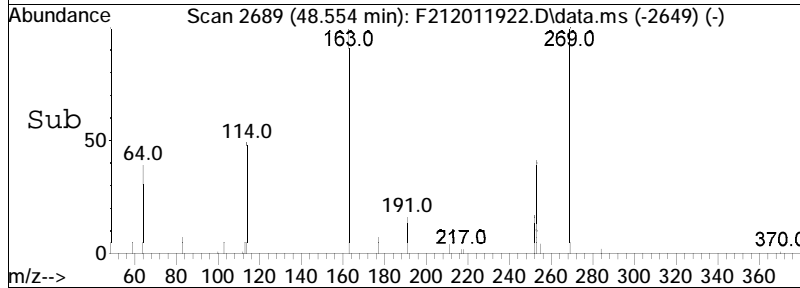
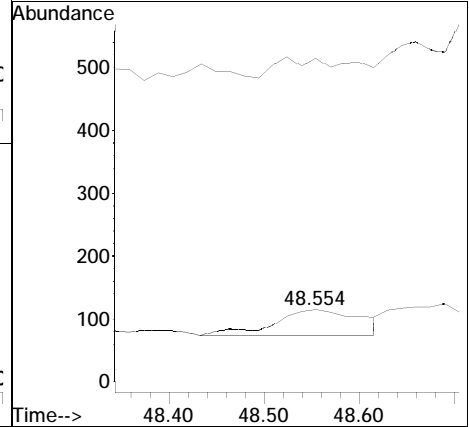
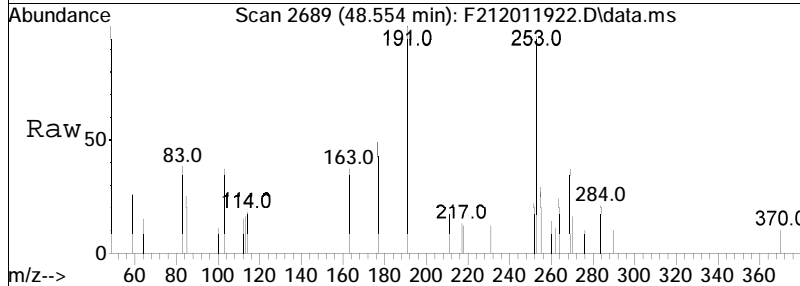
Tgt Ion	Resp	Lower	Upper
252	100		
253	53.2	16.4	30.4#

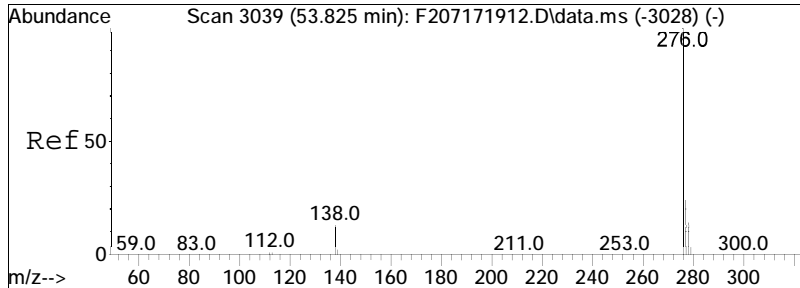




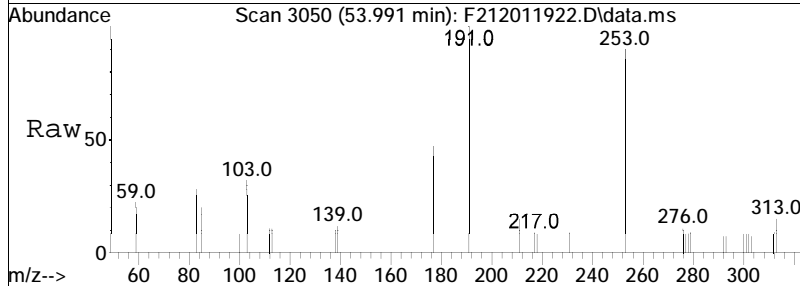
#87
 Benzo[e]pyrene
 Concen: 0.88 ng/mL
 RT: 48.554 min Scan# 2689
 Delta R.T. 0.109 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

Tgt Ion	Resp	Lower	Upper
252	100		
253	0.0	16.6	30.8#

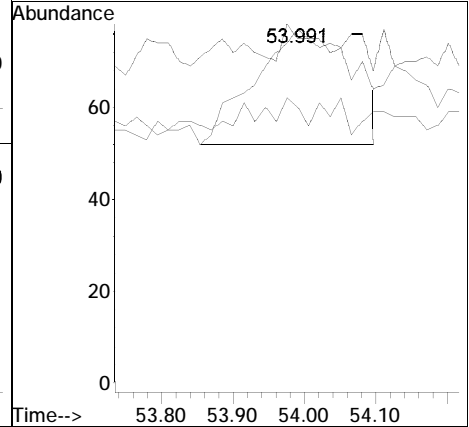
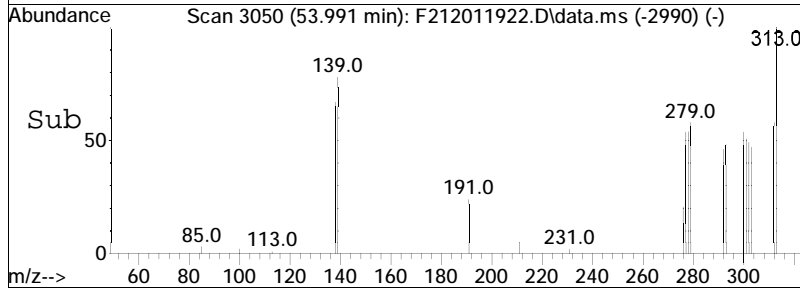


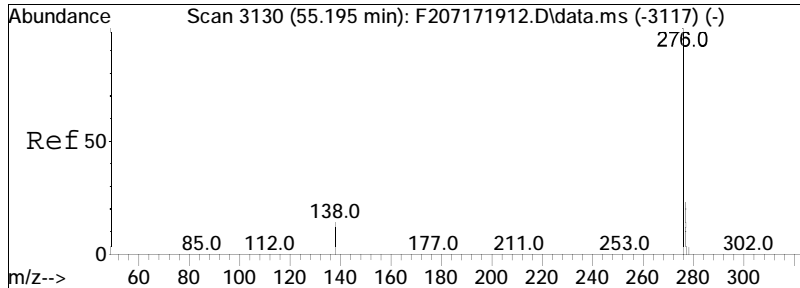


#91
 Indeno[1,2,3-cd]pyrene
 Concen: 0.73 ng/mL
 RT: 53.991 min Scan# 3050
 Delta R.T. 0.398 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm



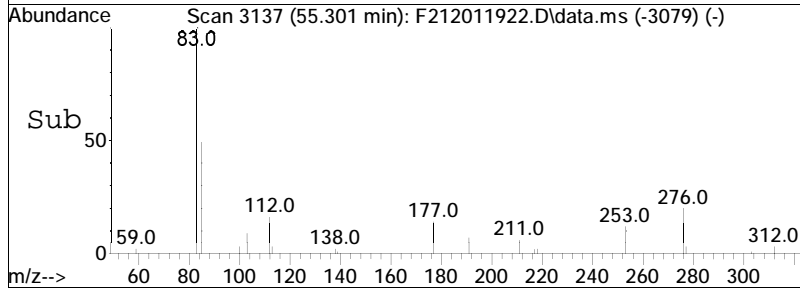
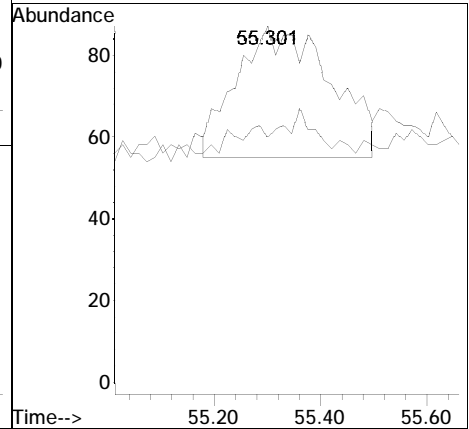
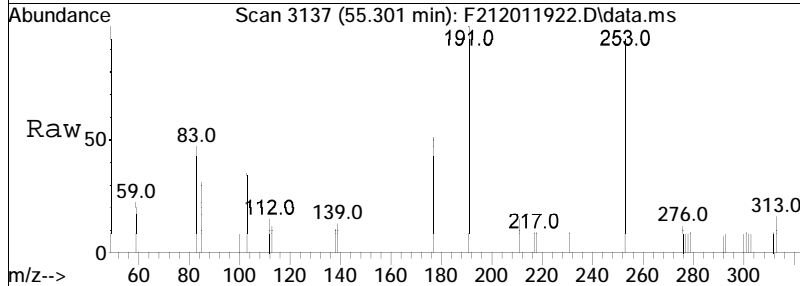
Tgt Ion	Resp	Lower	Upper
276	100		
138	0.0	11.3	20.9#
277	0.0	16.8	31.2#





#93
 Benzo[g,h,i]perylene
 Concen: 1.22 ng/mL M1
 RT: 55.301 min Scan# 3137
 Delta R.T. 0.369 min
 Lab File: F212011922.D
 Acq: 3 Dec 2019 2:47 pm

Tgt Ion	Resp	Lower	Upper
276	100		
277	0.0	16.5	30.7#



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011923.D
 Acq On : 3 Dec 2019 4:16 pm
 Operator : PAH2:MJS
 Sample : WG1312512-2
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 05 16:19:29 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	26.934	164	68391M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.449	240	116086	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.948	136	106794	423.590	ng/mL	-0.01
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	42.36%#	
40) Phenanthrene-d10	32.820	188	100070	451.427	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	45.14%#	
83) Benzo[b]fluoranthene-d12	47.364	264	114344	502.990	ng/mL	0.03
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	50.30%	
88) Benzo[a]pyrene-d12	48.599	264	74259	422.640	ng/mL	0.05
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	42.26%#	
128) 5B(H)Cholane - Surr	44.022	217	16520M4	427.620	ng/ml	-0.03
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	42.76%#	
Target Compounds						
9) Naphthalene	20.024	128	117957	420.814	ng/mL	100
14) 2-Methylnaphthalene	22.749	142	75125	406.234	ng/mL	100
24) Acenaphthylene	26.332	152	107080M4	387.938	ng/mL	
25) Acenaphthene	27.054	153	73579	426.887	ng/mL	97
27) Fluorene	29.087	166	82870	424.481	ng/mL	98
41) Phenanthrene	32.895	178	122166	434.335	ng/mL	99
53) Anthracene	33.091	178	118369	493.652	ng/mL	99
56) Fluoranthene	37.698	202	120652M4	376.115	ng/mL	
59) Pyrene	38.586	202	124818	374.722	ng/mL	98
75) Benz[a]anthracene	43.389	228	109687	413.699	ng/mL	100
76) Chrysene	43.540	228	125604	465.329	ng/mL	99
84) Benzo[b]fluoranthene	47.455	252	130437	406.361	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.545	252	162919	504.523	ng/mL	97
89) Benzo[a]pyrene	48.690	252	126524	448.280	ng/mL	97
91) Indeno[1,2,3-cd]pyrene	53.690	276	132399M3	394.314	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.750	278	126156	411.774	ng/mL	99
93) Benzo[g,h,i]perylene	55.030	276	140591	418.896	ng/mL	100

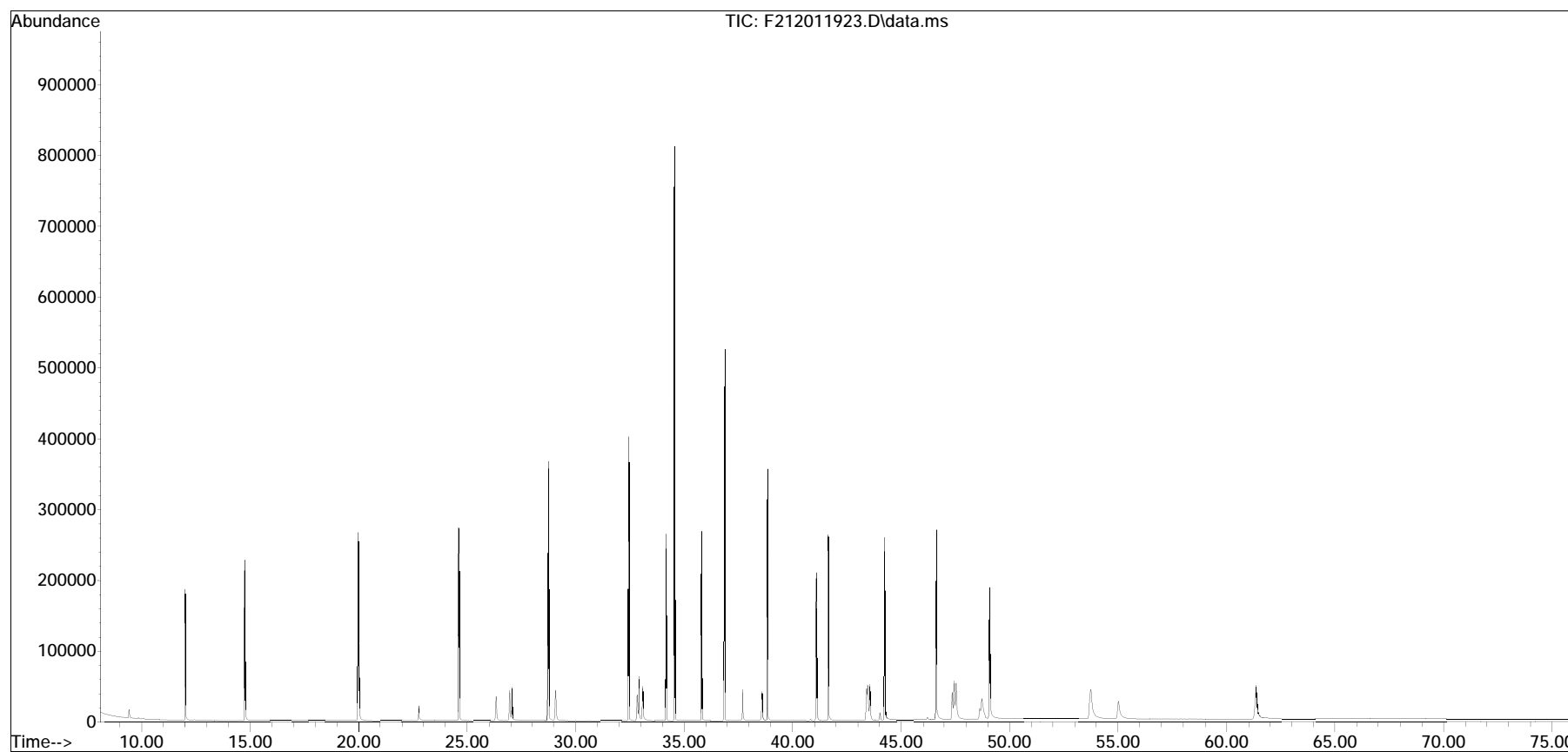
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

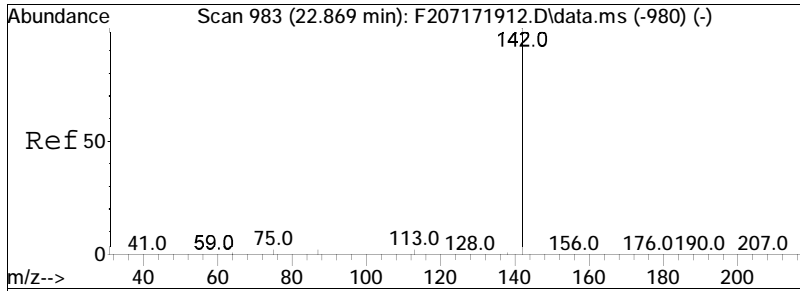
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011923.D
Acq On : 3 Dec 2019 4:16 pm
Operator : PAH2:MJS
Sample : WG1312512-2
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 05 16:19:29 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

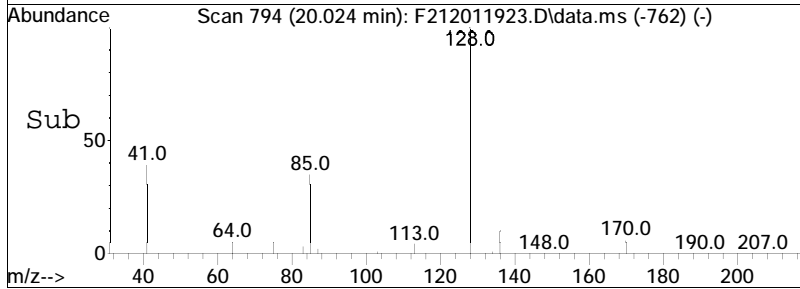
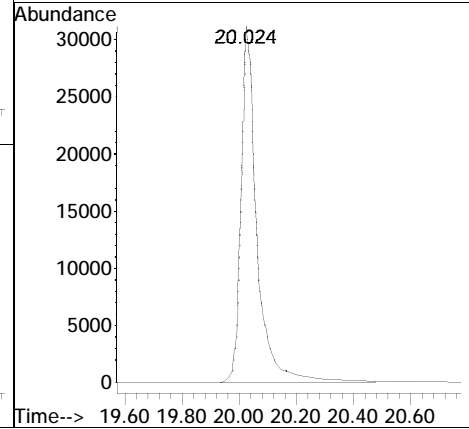
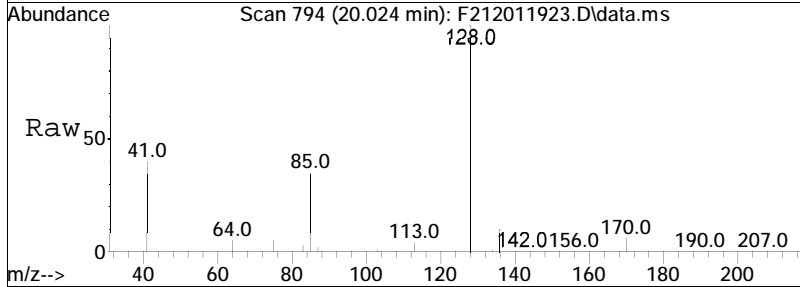
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

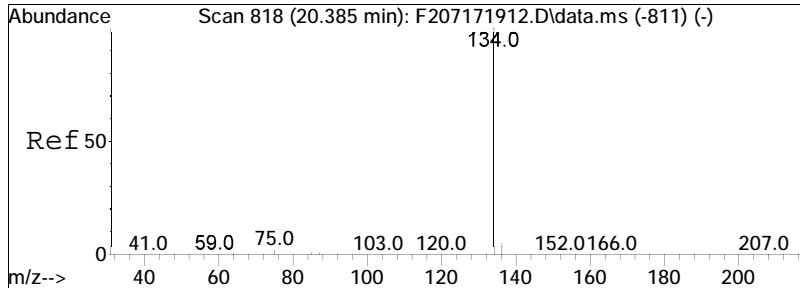




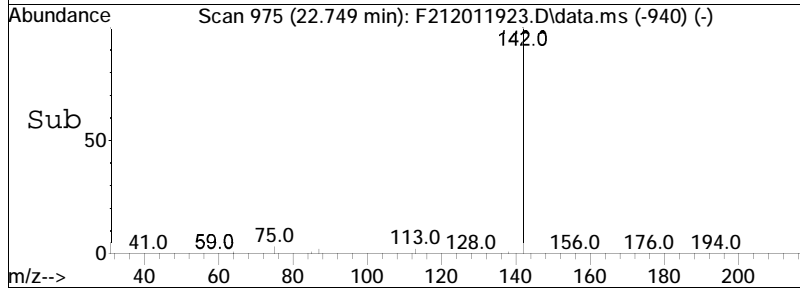
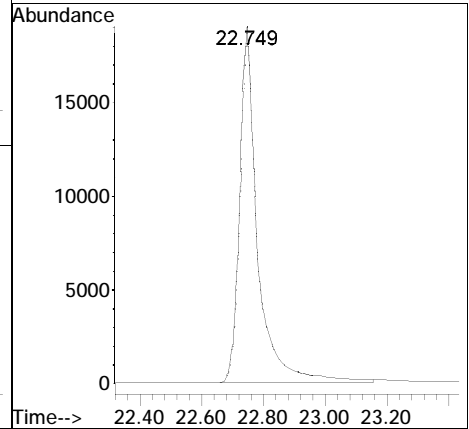
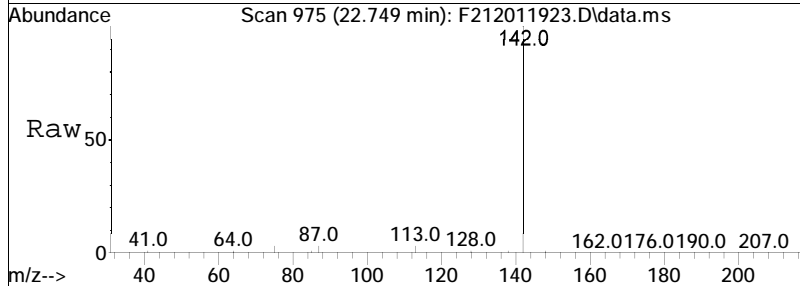
#9
 Naphthalene
 Concen: 420.81 ng/mL
 RT: 20.024 min Scan# 794
 Delta R.T. -0.012 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

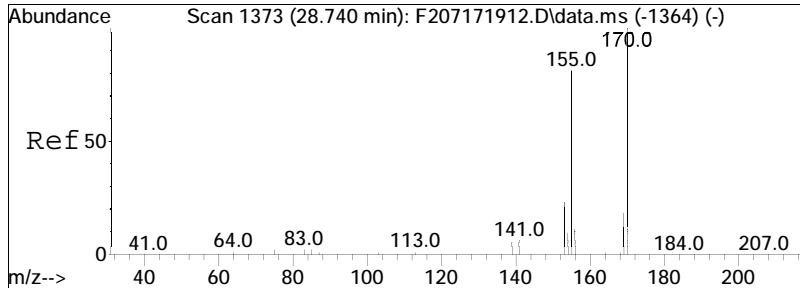
Tgt Ion:128 Resp: 117957



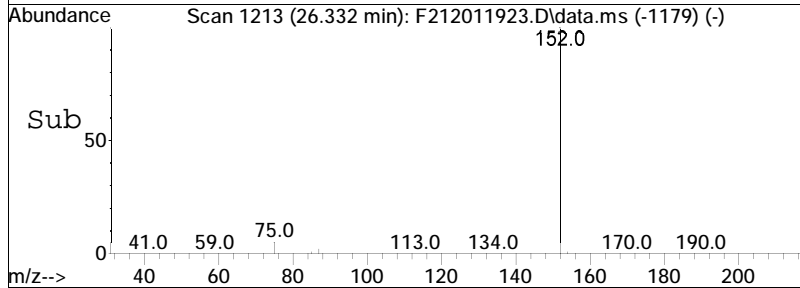
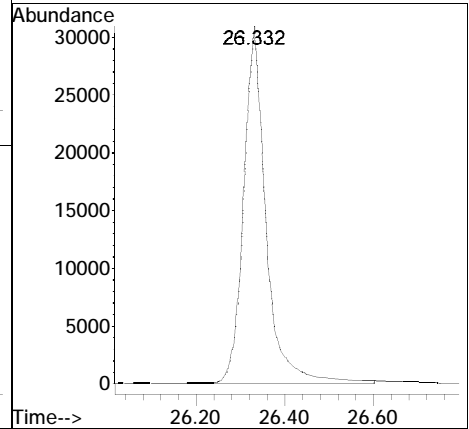
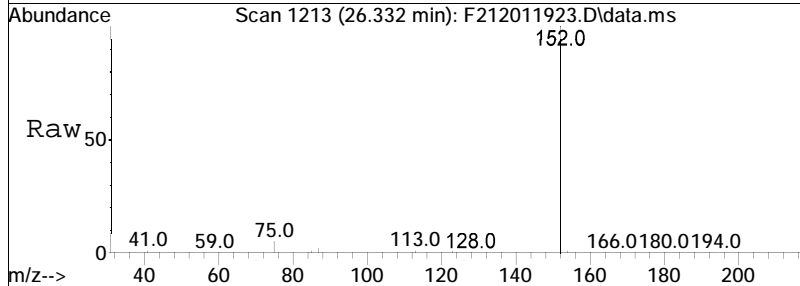


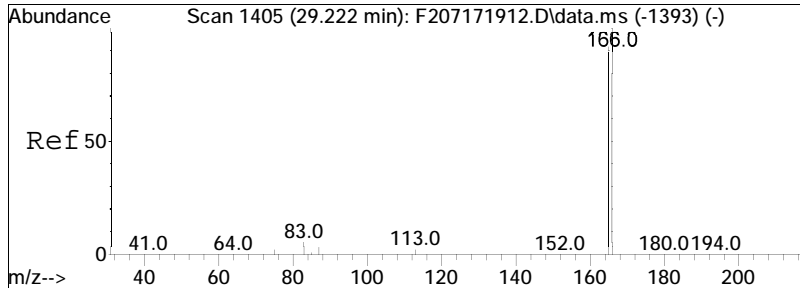
#14
 2-Methylnaphthalene
 Concen: 406.23 ng/mL
 RT: 22.749 min Scan# 975
 Delta R.T. 0.023 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm
 Tgt Ion:142 Resp: 75125





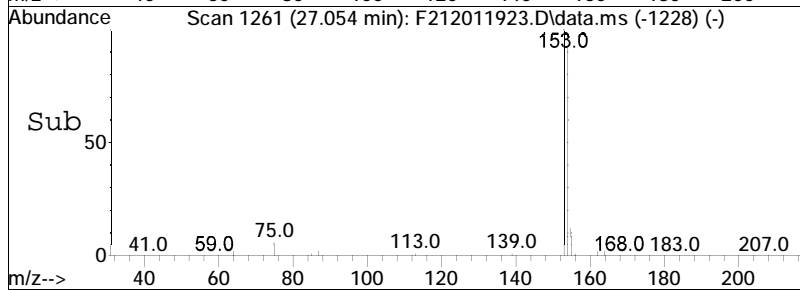
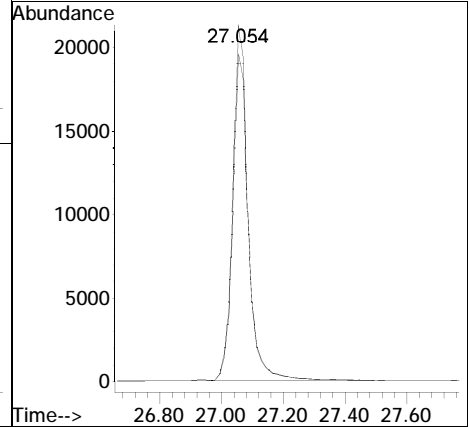
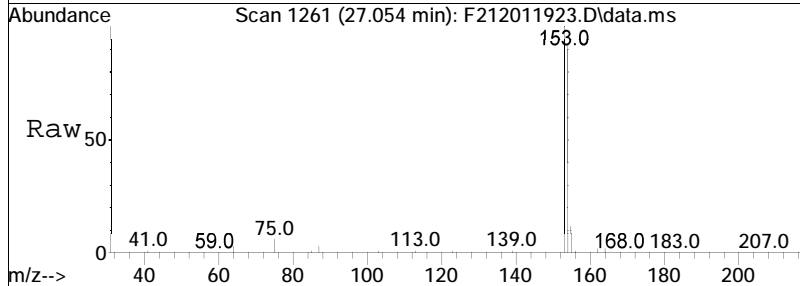
#24
 Acenaphthylene
 Concen: 387.94 ng/mL M4
 RT: 26.332 min Scan# 1213
 Delta R.T. 0.014 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm
 Tgt Ion:152 Resp: 107080

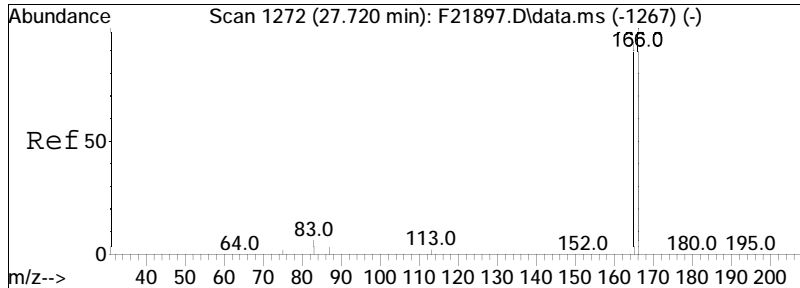




#25
 Acenaphthene
 Concen: 426.89 ng/mL
 RT: 27.054 min Scan# 1261
 Delta R.T. 0.000 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

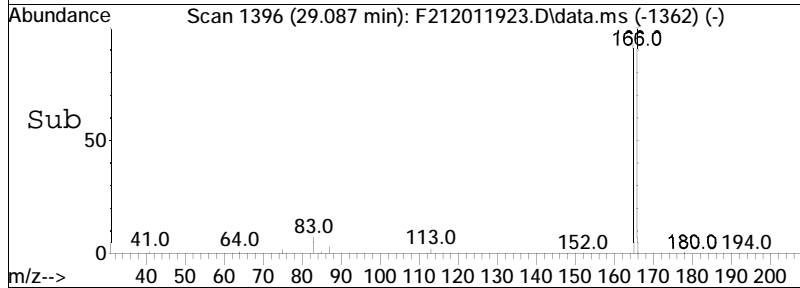
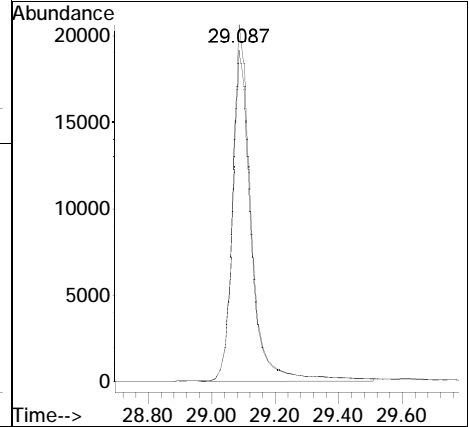
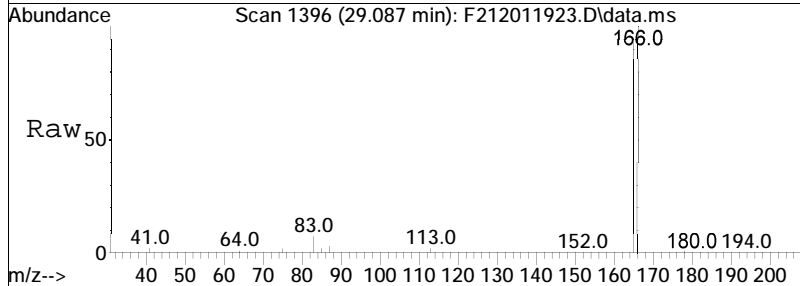
Tgt Ion: 153 Resp: 73579
 Ion Ratio Lower Upper
 153 100
 154 92.2 66.5 123.5

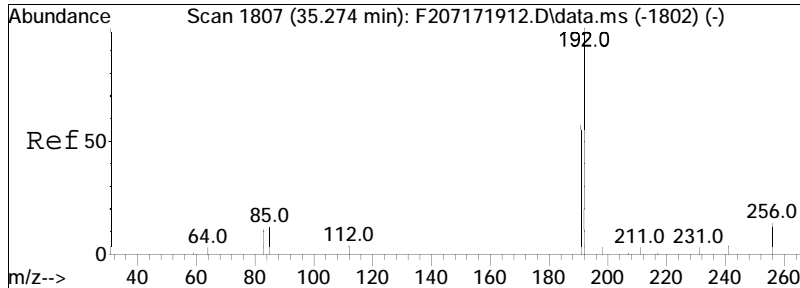




#27
 Fluorene
 Concen: 424.48 ng/mL
 RT: 29.087 min Scan# 1396
 Delta R.T. 0.019 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

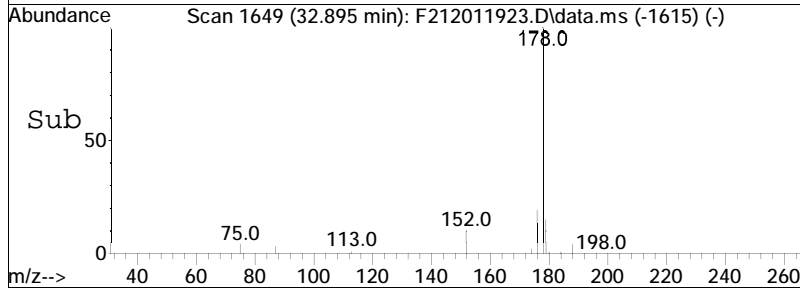
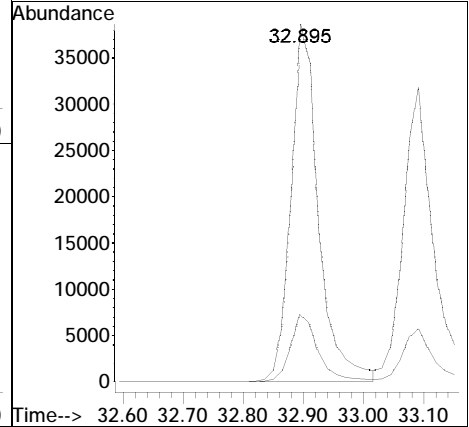
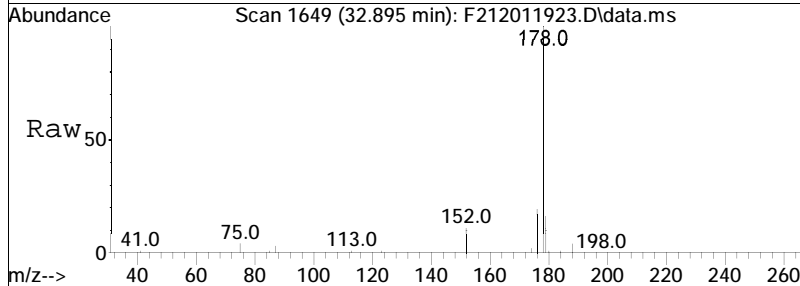
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.1	63.9	118.7

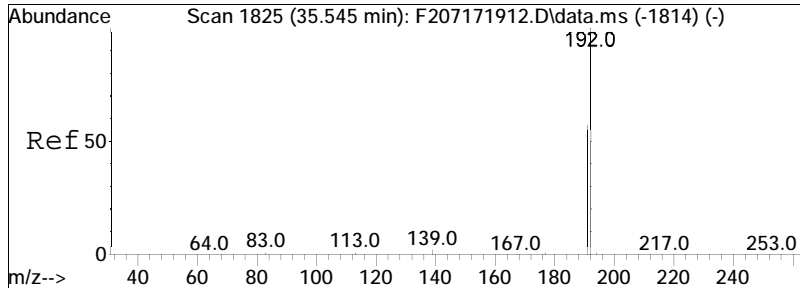




#41
 Phenanthrene
 Concen: 434.34 ng/mL
 RT: 32.895 min Scan# 1649
 Delta R.T. 0.010 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

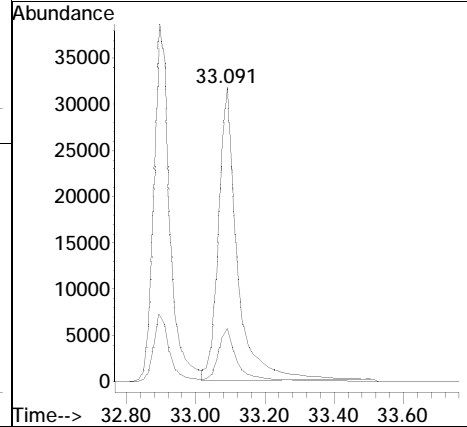
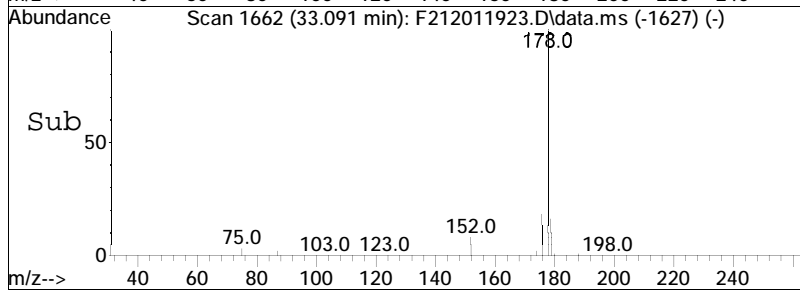
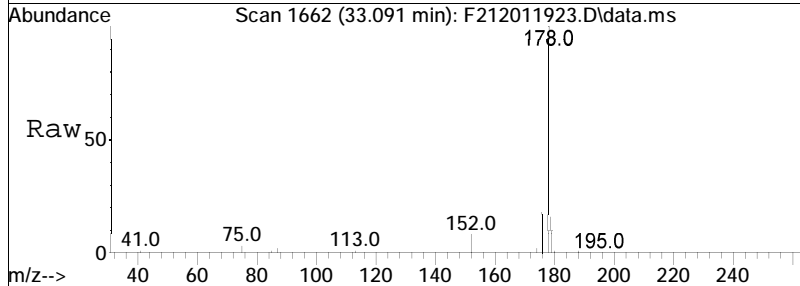
Tgt Ion: 178 Resp: 122166
 Ion Ratio Lower Upper
 178 100
 176 18.8 13.0 24.1

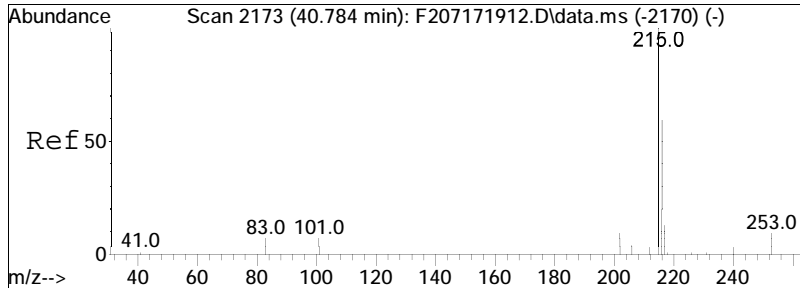




#53
 Anthracene
 Concen: 493.65 ng/mL
 RT: 33.091 min Scan# 1662
 Delta R.T. 0.025 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

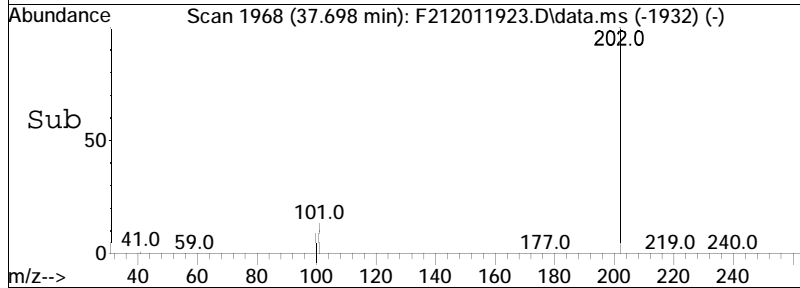
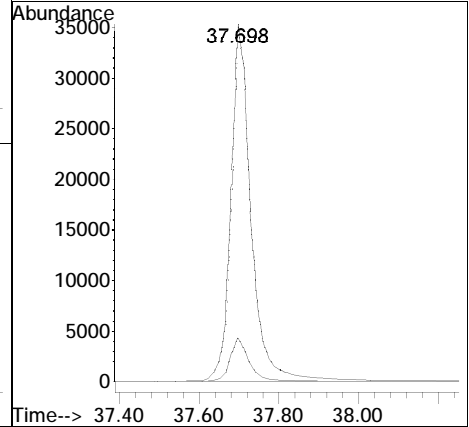
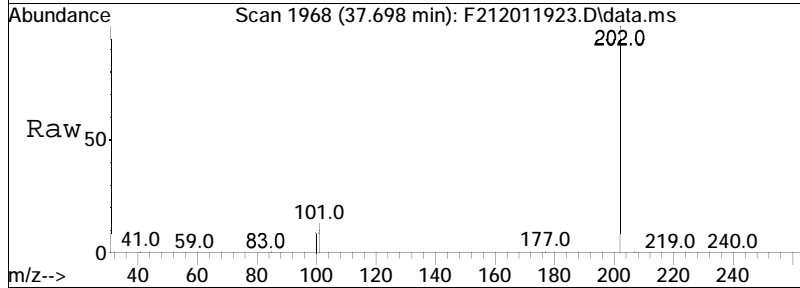
Tgt Ion: 178 Resp: 118369
 Ion Ratio Lower Upper
 178 100
 176 18.2 12.5 23.3

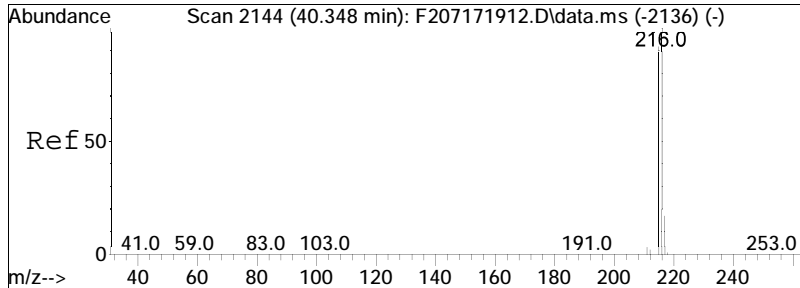




#56
 Fluoranthene
 Concen: 376.11 ng/mL M4
 RT: 37.698 min Scan# 1968
 Delta R.T. 0.048 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

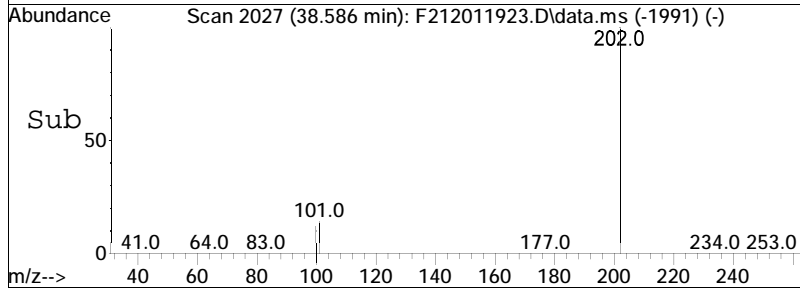
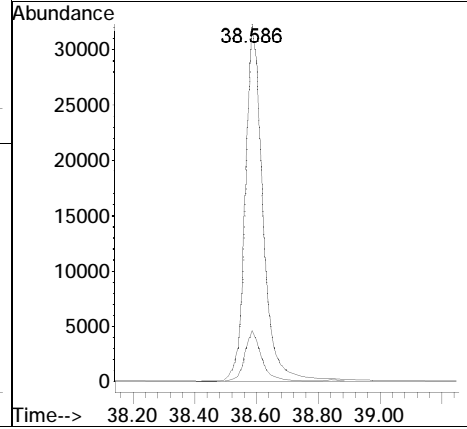
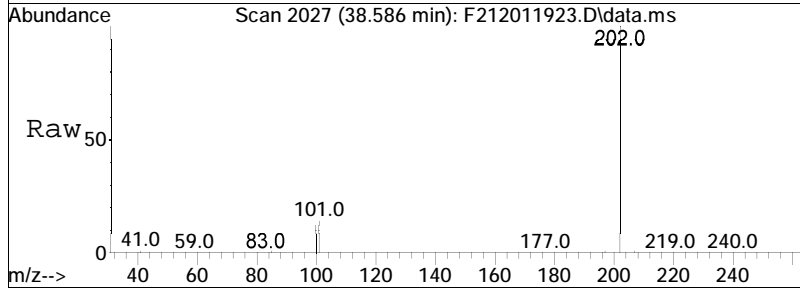
Tgt Ion: 202 Resp: 120652
 Ion Ratio Lower Upper
 202 100
 101 12.2 8.0 14.8

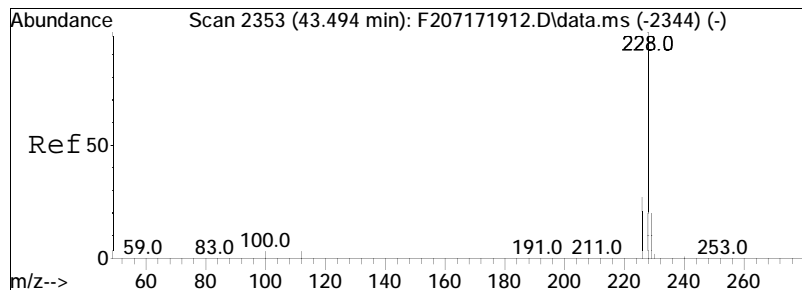




#59
 Pyrene
 Concen: 374.72 ng/mL
 RT: 38.586 min Scan# 2027
 Delta R.T. 0.050 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

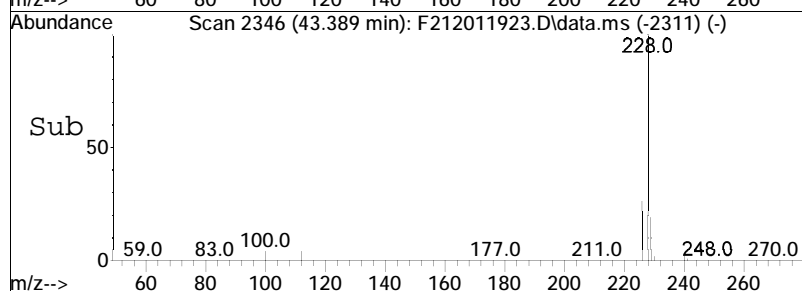
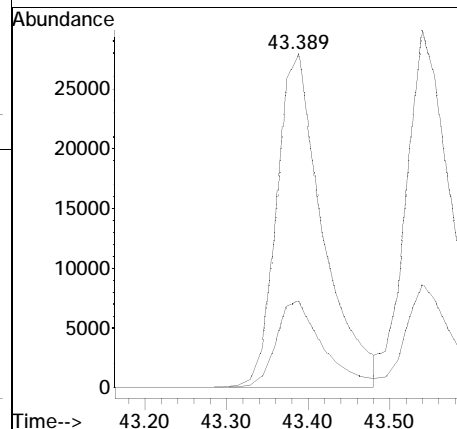
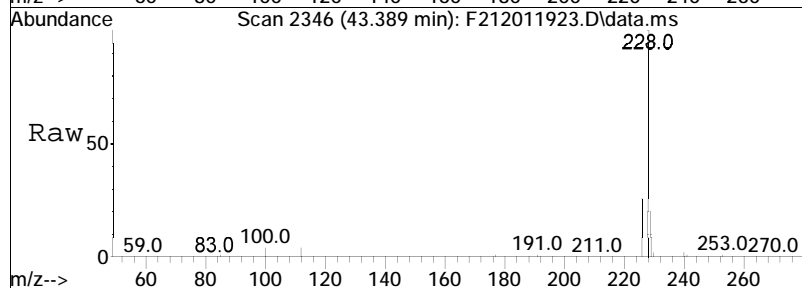
Tgt Ion: 202 Resp: 124818
 Ion Ratio Lower Upper
 202 100
 101 13.7 9.0 16.8

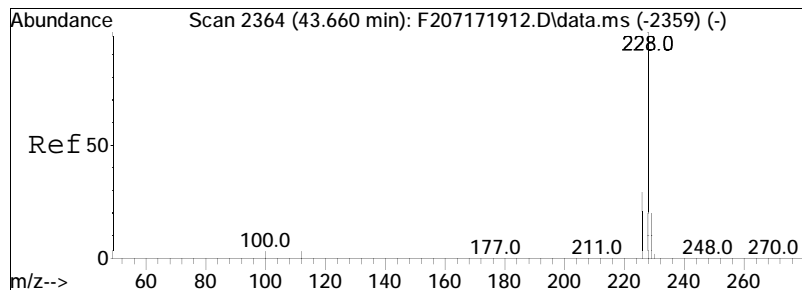




#75
 Benz[a]anthracene
 Concen: 413.70 ng/mL
 RT: 43.389 min Scan# 2346
 Delta R.T. 0.030 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

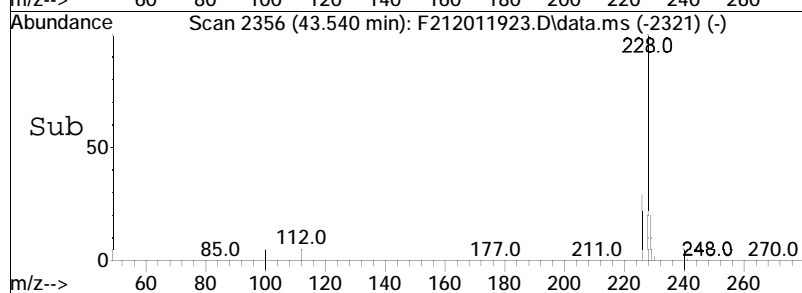
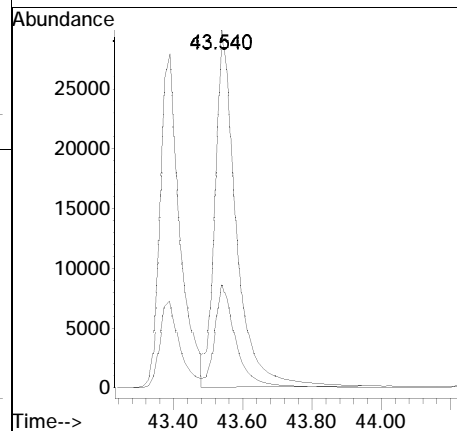
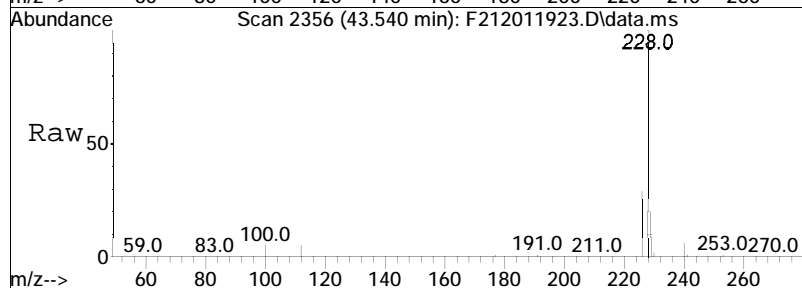
Tgt Ion	Resp	Lower	Upper
228	109687		
226	26.1	18.2	33.8

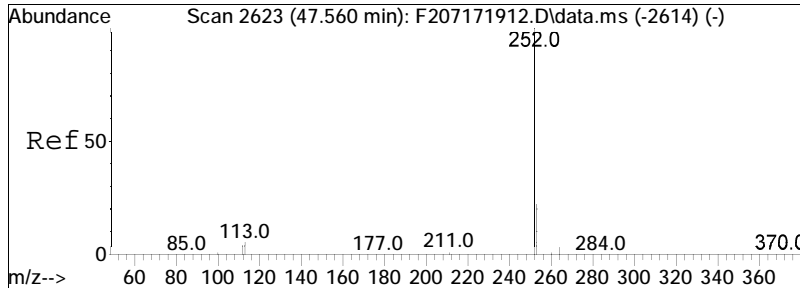




#76
 Chrysene
 Concen: 465.33 ng/mL
 RT: 43.540 min Scan# 2356
 Delta R.T. 0.030 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

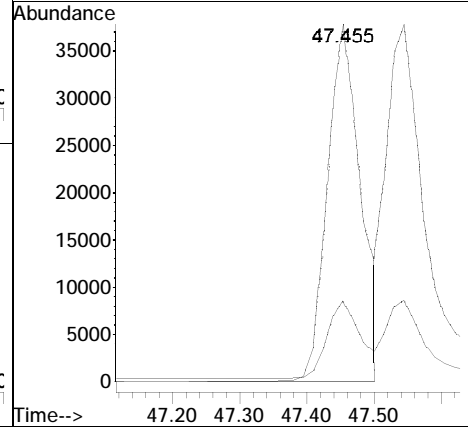
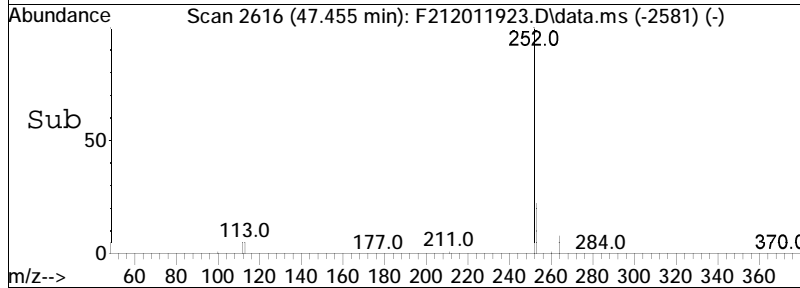
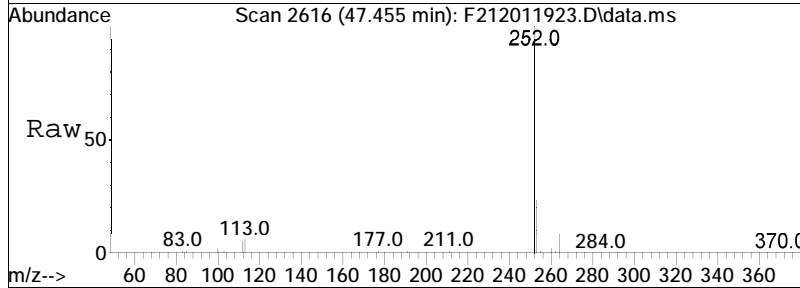
Tgt Ion	Resp	Lower	Upper
228	100		
226	28.6	20.3	37.7

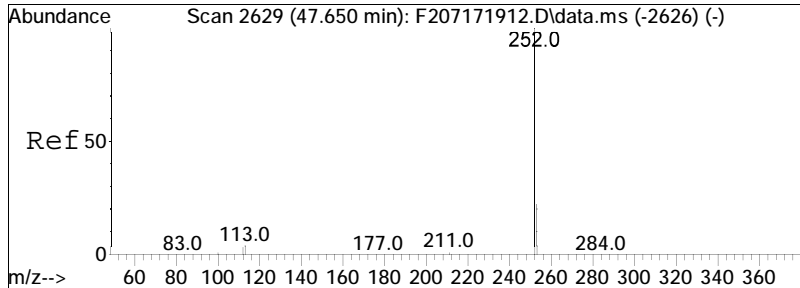




#84
 Benzo[b]fluoranthene
 Concen: 406.36 ng/mL
 RT: 47.455 min Scan# 2616
 Delta R.T. 0.033 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

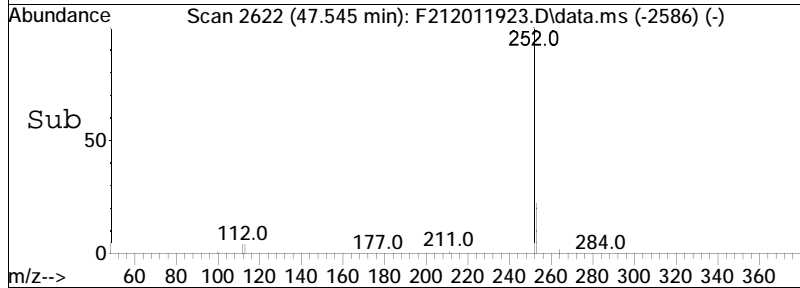
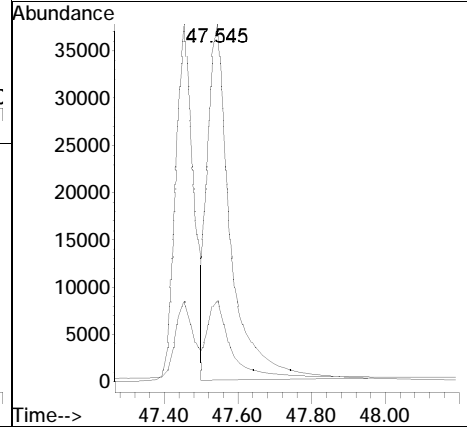
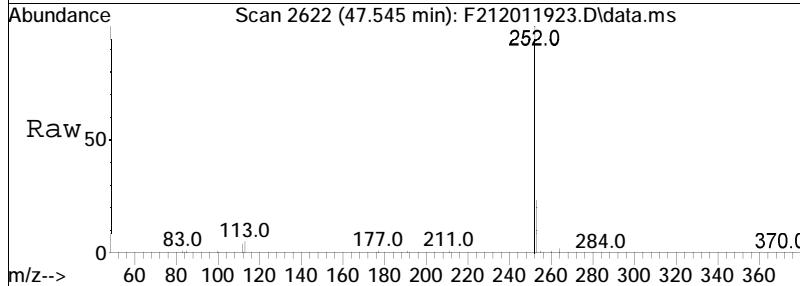
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	16.4	30.4

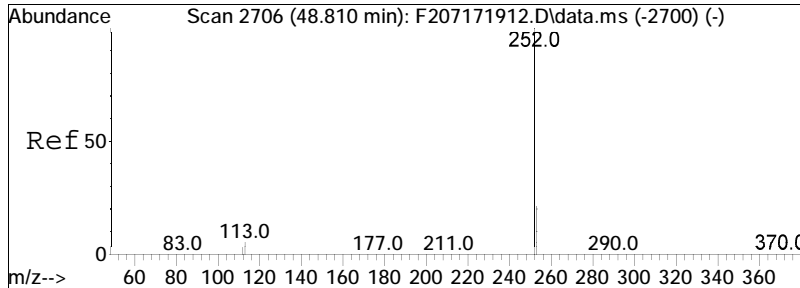




#85
 Benzo[j]+[k]fluoranthene
 Concen: 504.52 ng/mL
 RT: 47.545 min Scan# 2622
 Delta R.T. 0.048 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

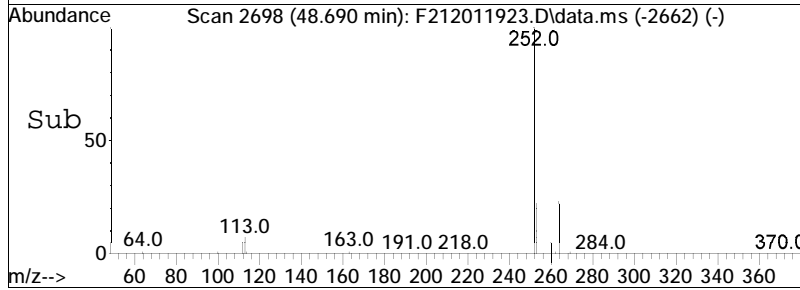
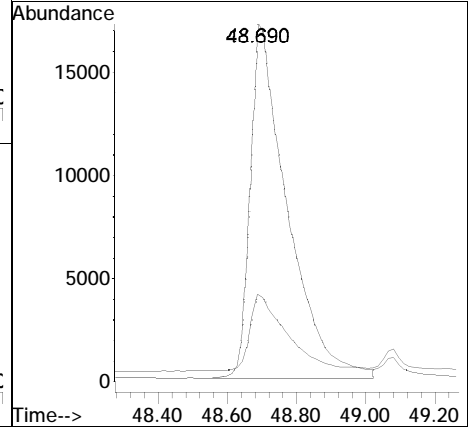
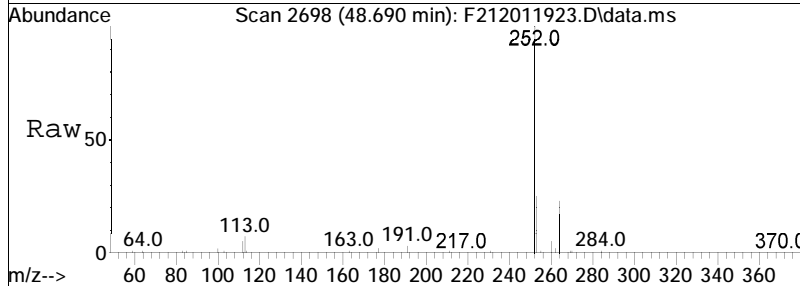
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	16.4	30.4

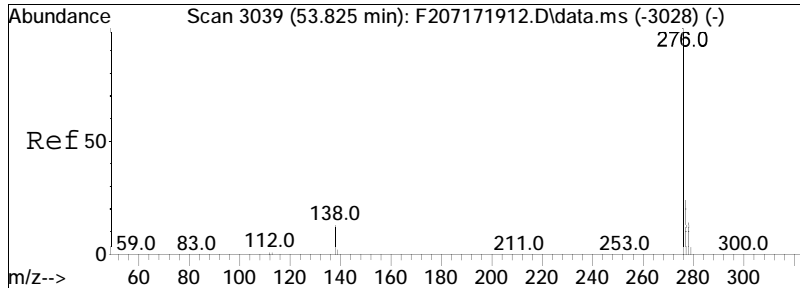




#89
 Benzo[a]pyrene
 Concen: 448.28 ng/mL
 RT: 48.690 min Scan# 2698
 Delta R.T. 0.049 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

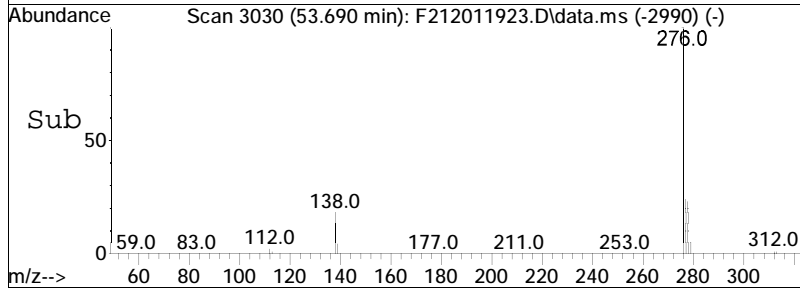
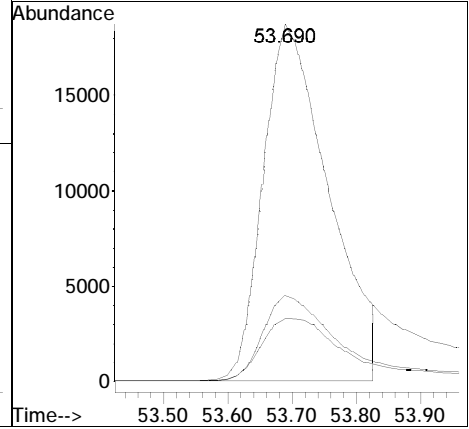
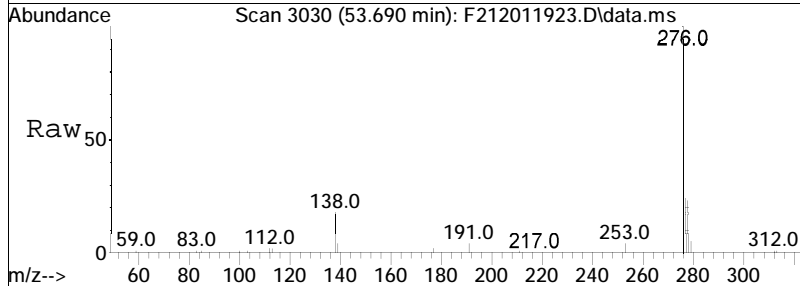
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	16.7	31.1

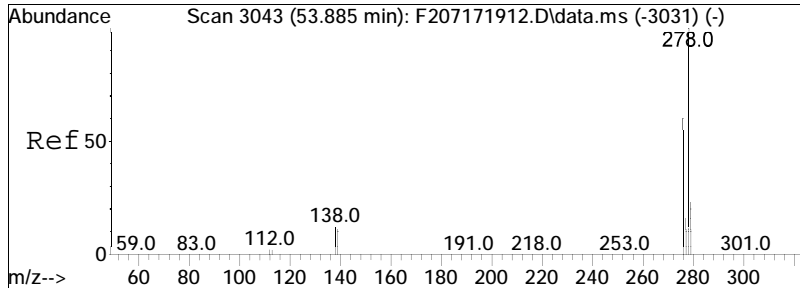




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 394.31 ng/mL M3
 RT: 53.690 min Scan# 3030
 Delta R.T. 0.097 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

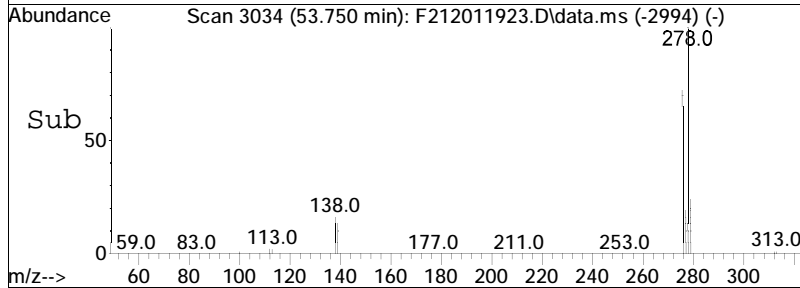
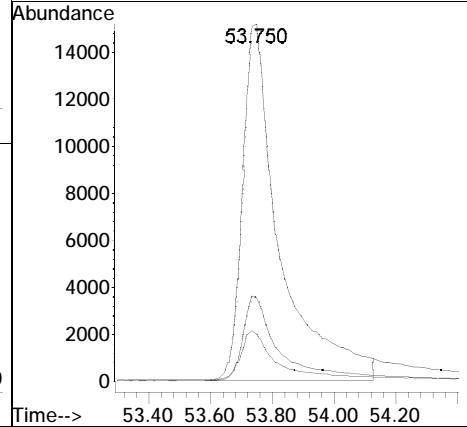
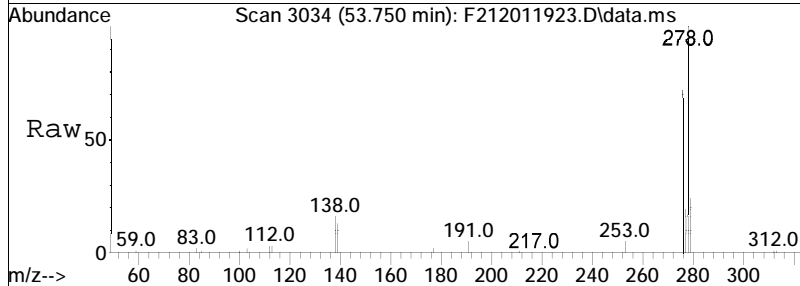
Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.1	11.3	20.9#
277	30.0	16.8	31.2

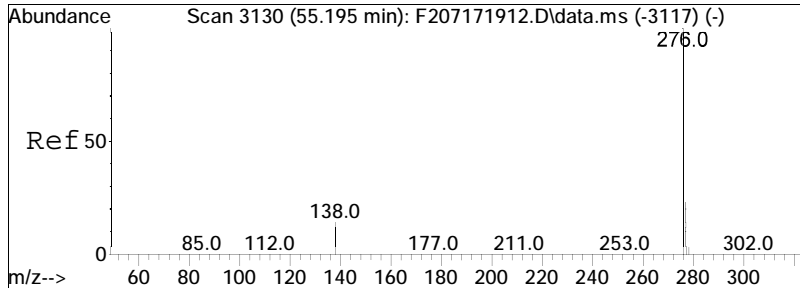




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 411.77 ng/mL
 RT: 53.750 min Scan# 3034
 Delta R.T. 0.097 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

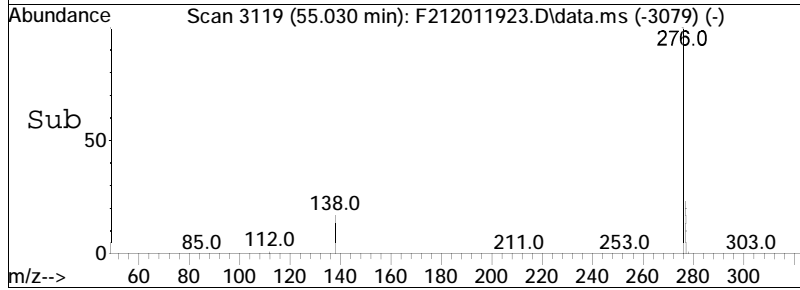
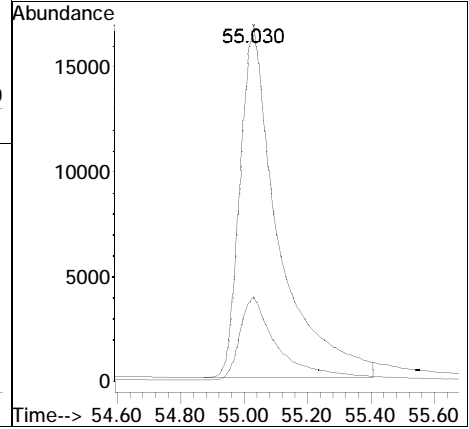
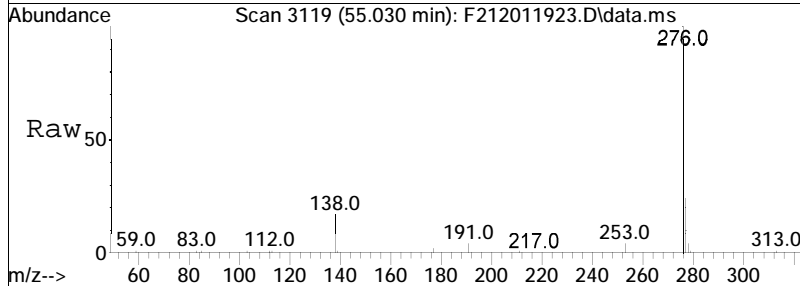
Tgt Ion	Ratio	Lower	Upper
278	100		
139	13.2	9.2	17.2
279	23.1	16.6	30.8





#93
 Benzo[g,h,i]perylene
 Concen: 418.90 ng/mL
 RT: 55.030 min Scan# 3119
 Delta R.T. 0.098 min
 Lab File: F212011923.D
 Acq: 3 Dec 2019 4:16 pm

Tgt Ion: 276 Resp: 140591
 Ion Ratio Lower Upper
 276 100
 277 23.6 16.5 30.7



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
 Data File : F212011924.D
 Acq On : 3 Dec 2019 5:44 pm
 Operator : PAH2:MJS
 Sample : WG1312512-3
 Misc : WG1316430,WG1312512,ICAL16207
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 05 16:20:57 2019
 Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Tue Nov 26 09:28:17 2019
 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	26.934	164	61768M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.449	240	106428	500.000	ng/mL	0.03
System Monitoring Compounds						
8) Naphthalene-d8	19.963	136	86037	377.850	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	37.79%#
40) Phenanthrene-d10	32.820	188	87340	436.247	ng/mL	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	43.62%#
83) Benzo[b]fluoranthene-d12	47.364	264	101501	487.013	ng/mL	0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.70%#
88) Benzo[a]pyrene-d12	48.614	264	62787	389.776	ng/mL	0.06
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	38.98%#
128) 5B(H)Cholane - Surr	44.021	217	14810	418.145	ng/ml	-0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	41.81%#
Target Compounds						
9) Naphthalene	20.039	128	97996	387.089	ng/mL	100
14) 2-Methylnaphthalene	22.749	142	61567	368.617	ng/mL	100
24) Acenaphthylene	26.332	152	89104M4	357.426	ng/mL	
25) Acenaphthene	27.069	153	64420	413.824	ng/mL	97
27) Fluorene	29.102	166	73428	416.445	ng/mL	97
41) Phenanthrene	32.895	178	113504	446.808	ng/mL	100
53) Anthracene	33.091	178	107607	496.888	ng/mL	100
56) Fluoranthene	37.713	202	110873M4	382.690	ng/mL	
59) Pyrene	38.601	202	114387	380.227	ng/mL	98
75) Benz[a]anthracene	43.389	228	101536	417.709	ng/mL	99
76) Chrysene	43.540	228	114433	462.415	ng/mL	100
84) Benzo[b]fluoranthene	47.455	252	112952	383.821	ng/mL	97
85) Benzo[j]+[k]fluoranthene	47.545	252	152006	513.445	ng/mL	96
89) Benzo[a]pyrene	48.705	252	110371	426.536	ng/mL	97
91) Indeno[1,2,3-cd]pyrene	53.705	276	114622M3	372.348	ng/mL	
92) Dibenz[ah]+[ac]anthracene	53.750	278	108443	386.080	ng/mL	99
93) Benzo[g,h,i]perylene	55.030	276	125055	406.418	ng/mL	100

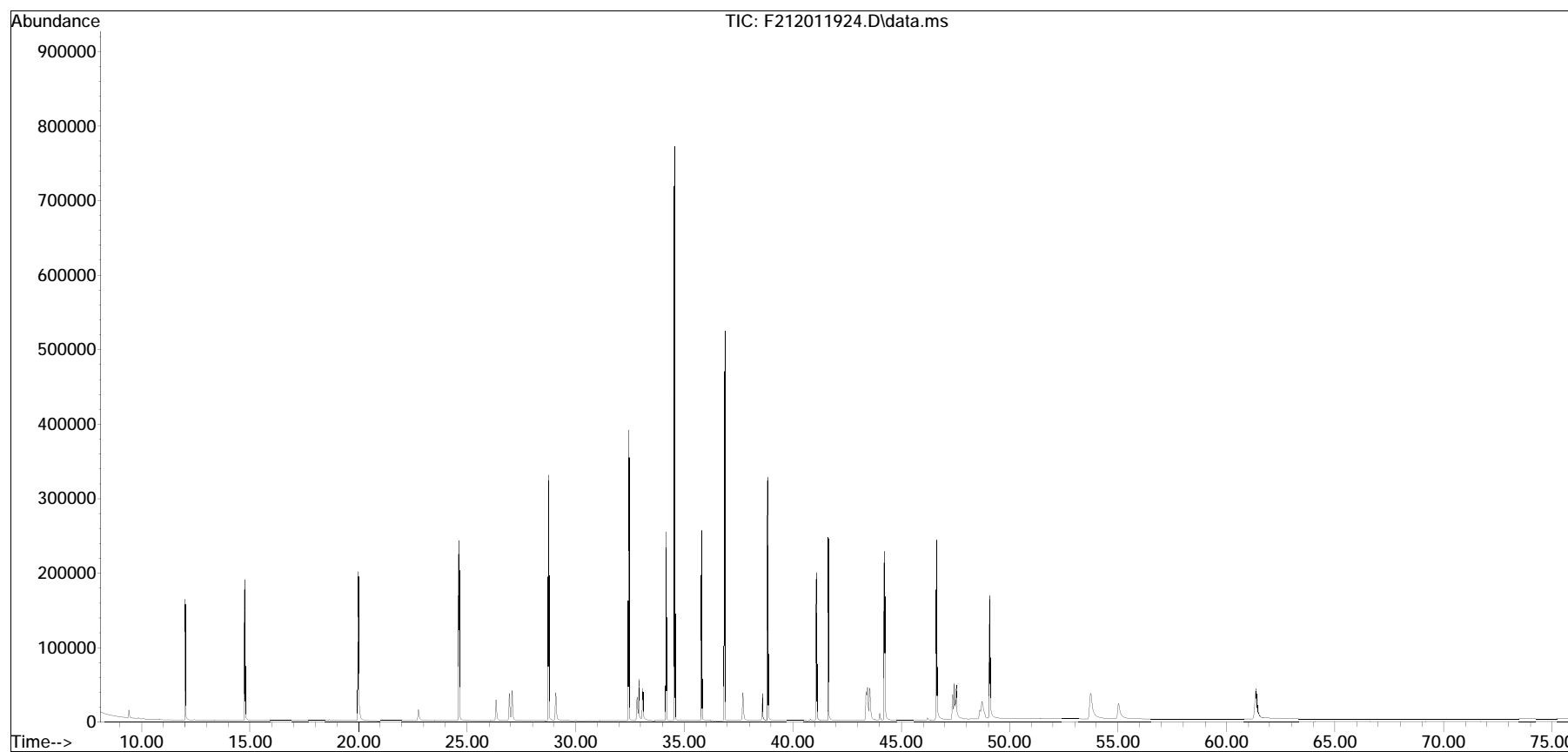
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

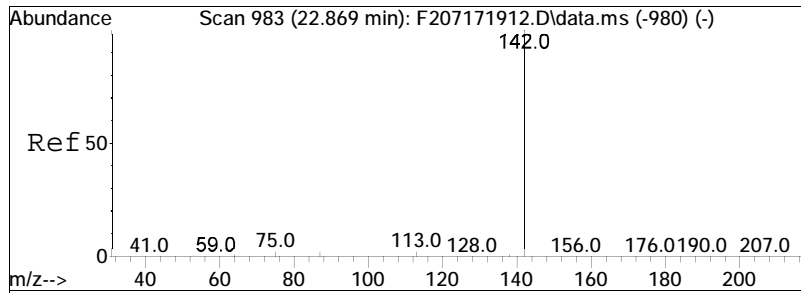
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\
Data File : F212011924.D
Acq On : 3 Dec 2019 5:44 pm
Operator : PAH2:MJS
Sample : WG1312512-3
Misc : WG1316430,WG1312512,ICAL16207
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 05 16:20:57 2019
Quant Method : O:\Forensics\Data\PAH2\2019\DEC19\DEC01\PAH2100819.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Tue Nov 26 09:28:17 2019
Response via : Initial Calibration

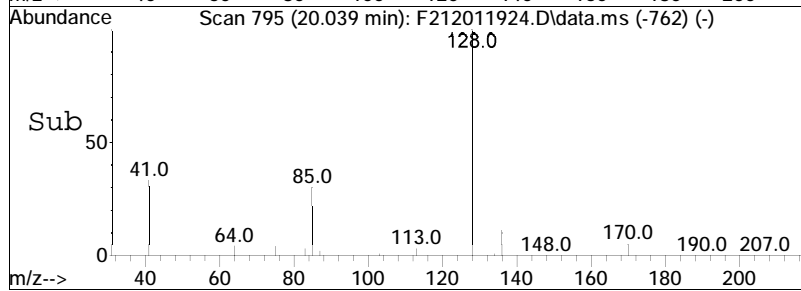
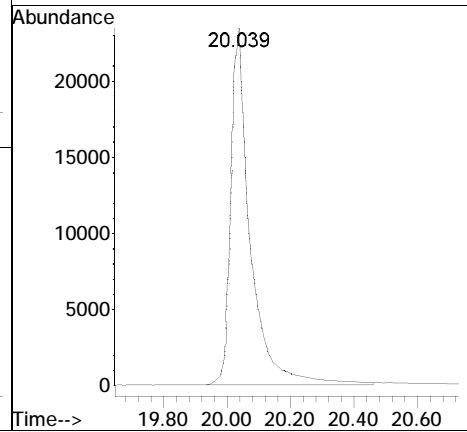
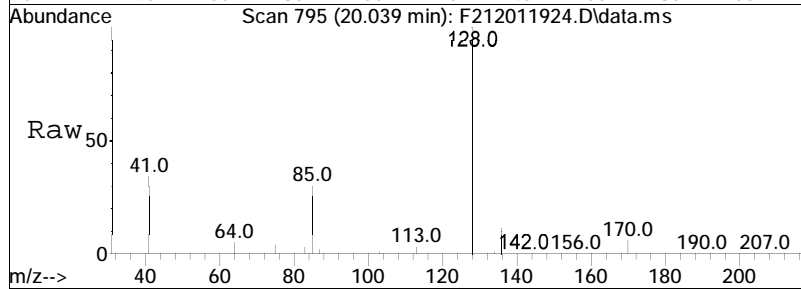
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

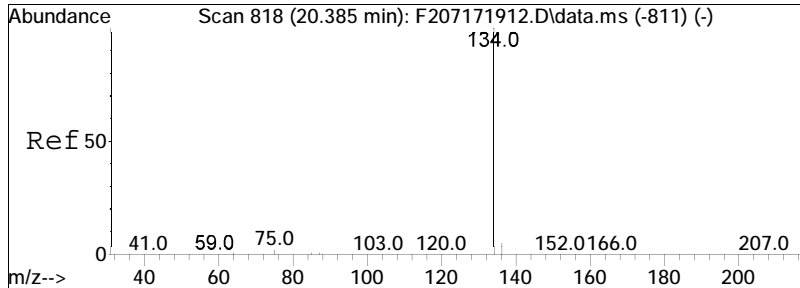




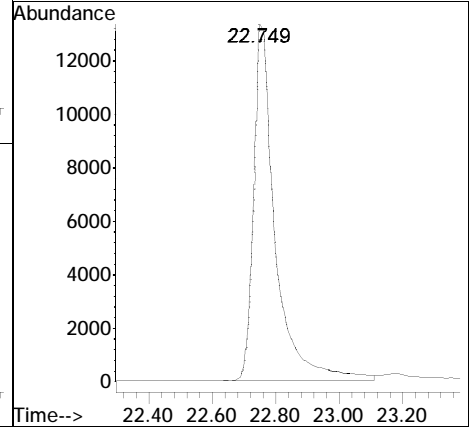
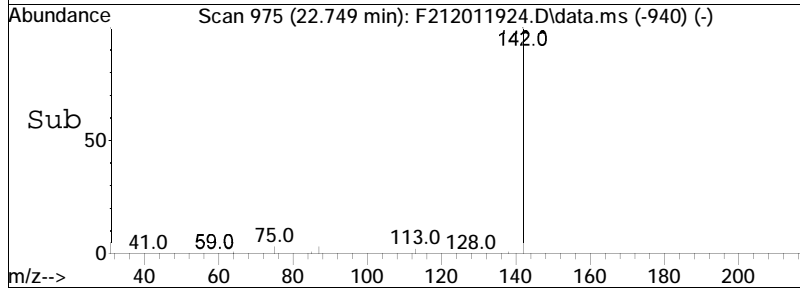
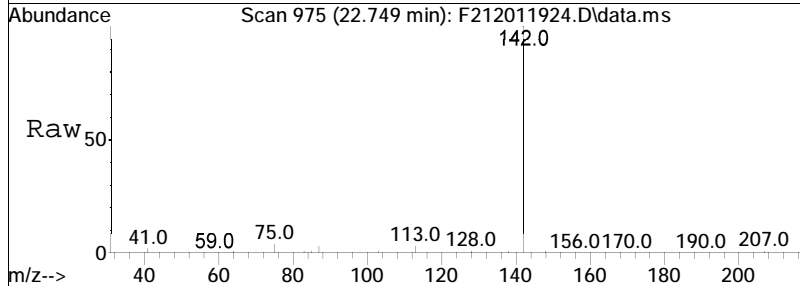
#9
 Naphthalene
 Concen: 387.09 ng/mL
 RT: 20.039 min Scan# 795
 Delta R.T. 0.003 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

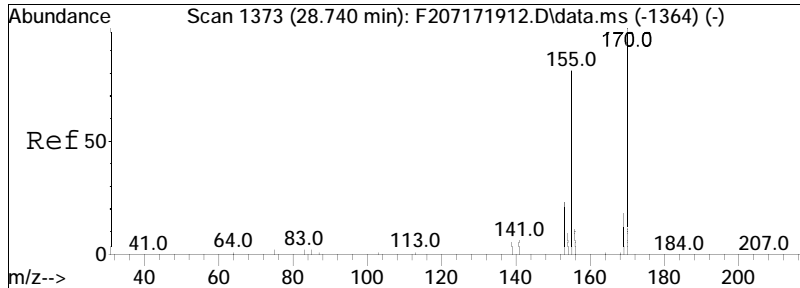
Tgt Ion:128 Resp: 97996



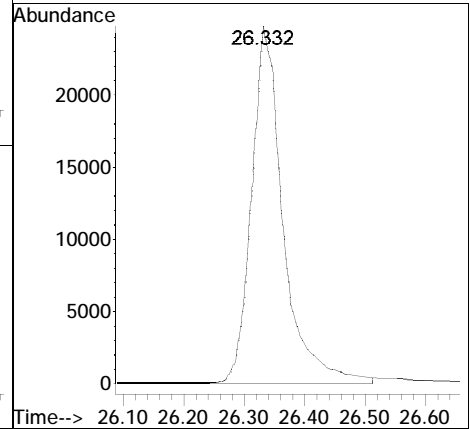
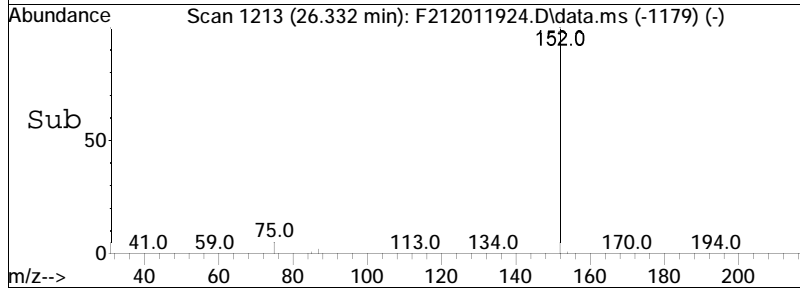
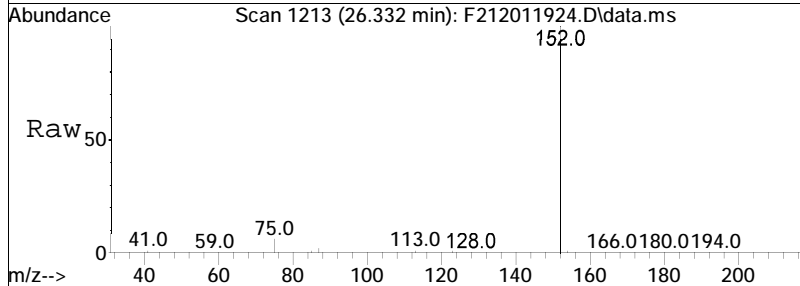


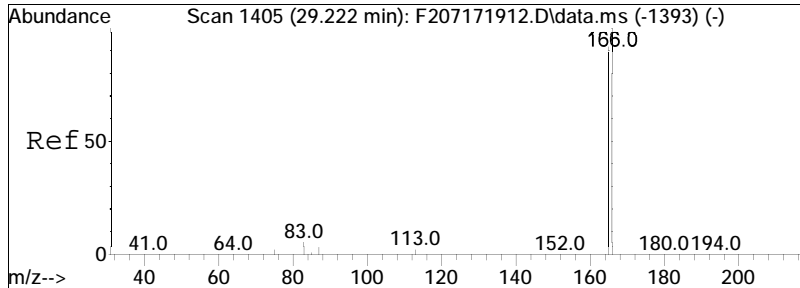
#14
 2-Methylnaphthalene
 Concen: 368.62 ng/mL
 RT: 22.749 min Scan# 975
 Delta R.T. 0.023 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm
 Tgt Ion:142 Resp: 61567





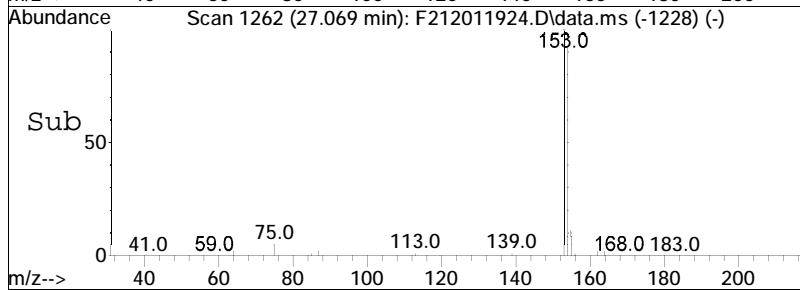
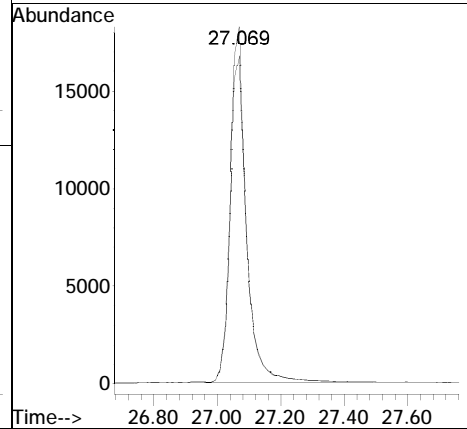
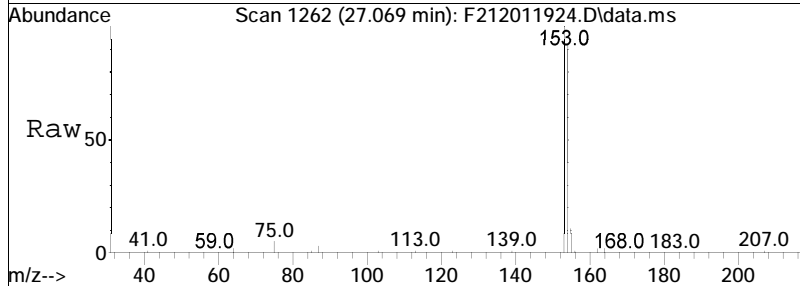
#24
 Acenaphthylene
 Concen: 357.43 ng/mL M4
 RT: 26.332 min Scan# 1213
 Delta R.T. 0.014 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm
 Tgt Ion:152 Resp: 89104

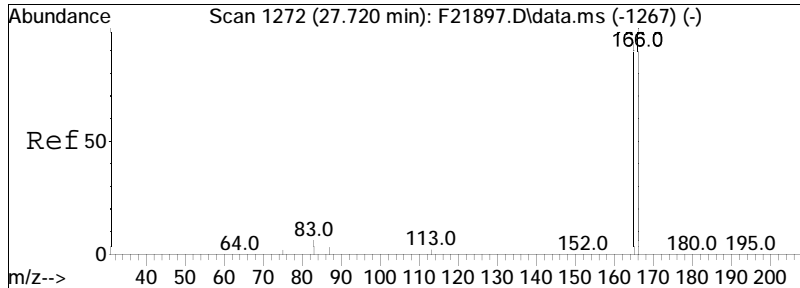




#25
 Acenaphthene
 Concen: 413.82 ng/mL
 RT: 27.069 min Scan# 1262
 Delta R.T. 0.015 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

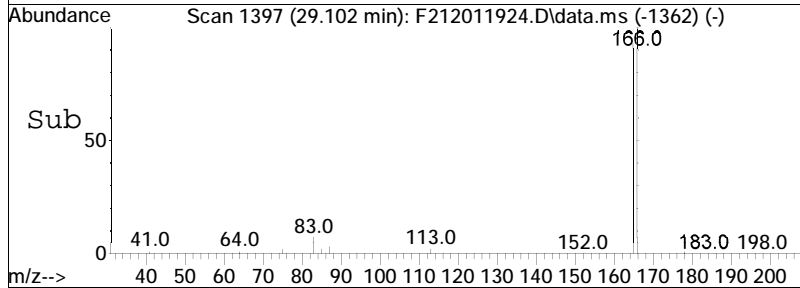
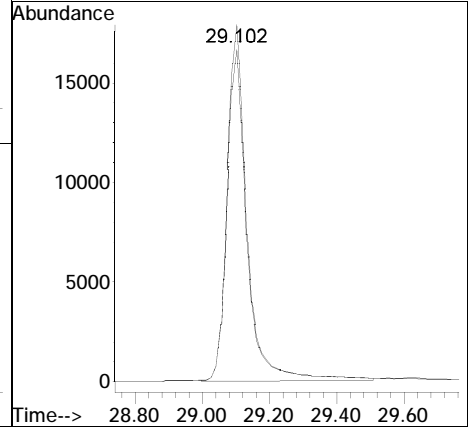
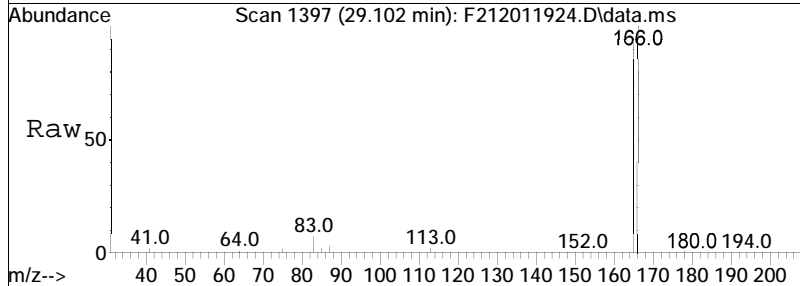
Tgt Ion: 153 Resp: 64420
 Ion Ratio Lower Upper
 153 100
 154 92.3 66.5 123.5

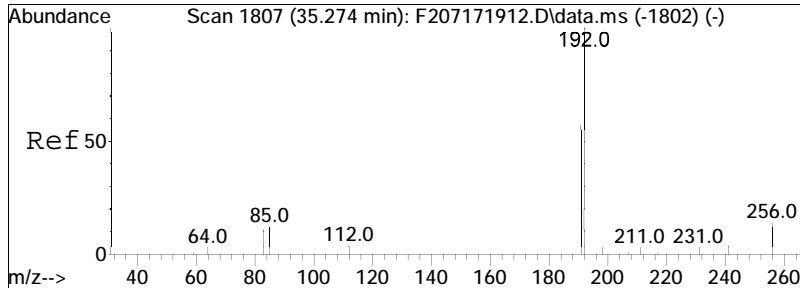




#27
 Fluorene
 Concen: 416.45 ng/mL
 RT: 29.102 min Scan# 1397
 Delta R.T. 0.034 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

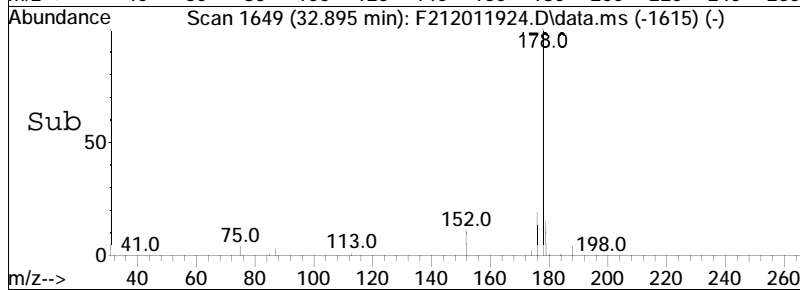
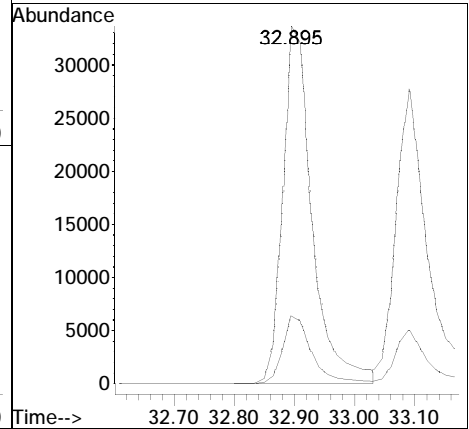
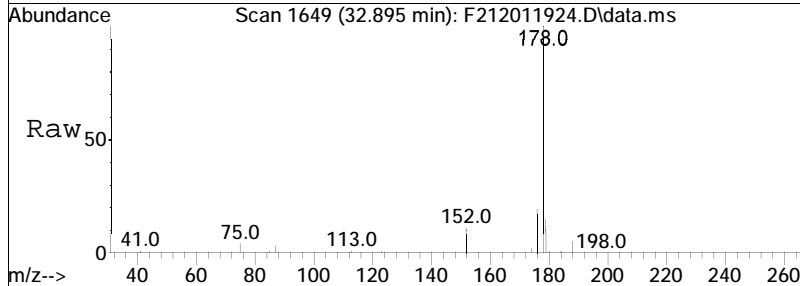
Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.8	63.9	118.7

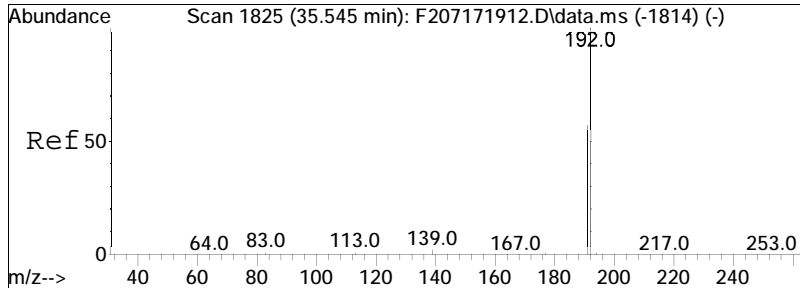




#41
 Phenanthrene
 Concen: 446.81 ng/mL
 RT: 32.895 min Scan# 1649
 Delta R.T. 0.010 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

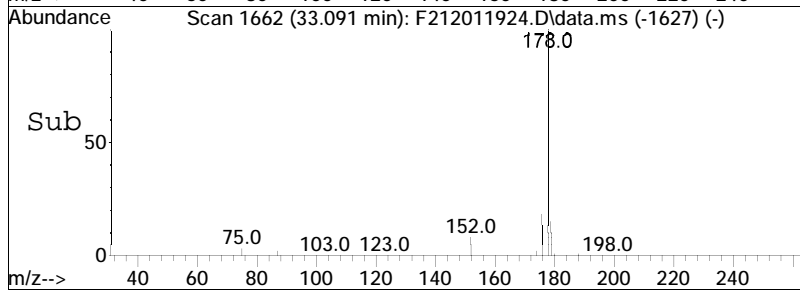
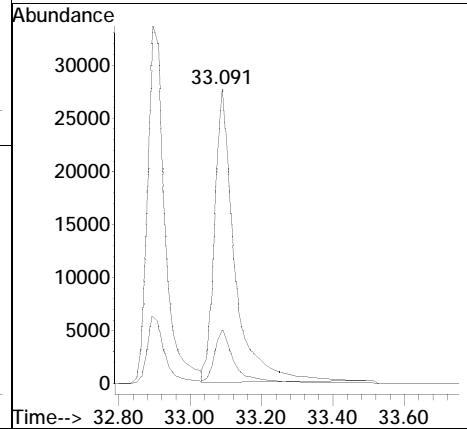
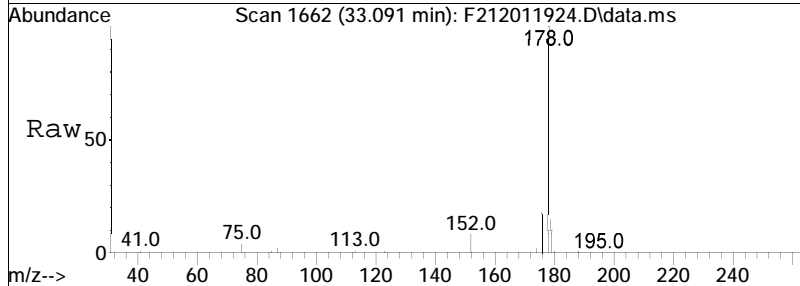
Tgt Ion: 178 Resp: 113504
 Ion Ratio Lower Upper
 178 100
 176 18.7 13.0 24.1

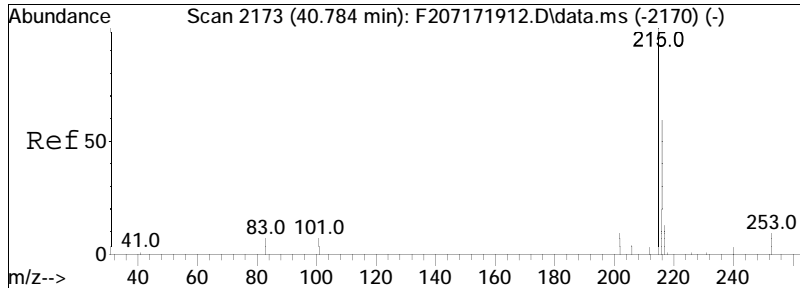




#53
 Anthracene
 Concen: 496.89 ng/mL
 RT: 33.091 min Scan# 1662
 Delta R.T. 0.025 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

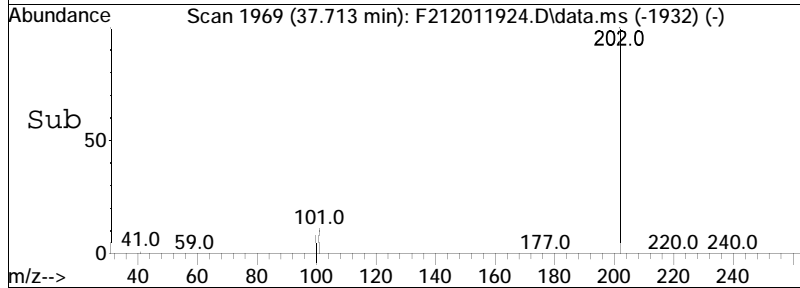
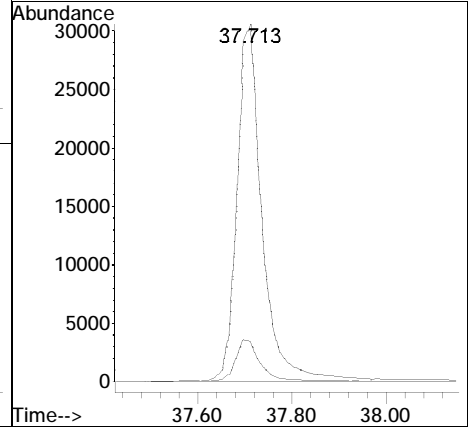
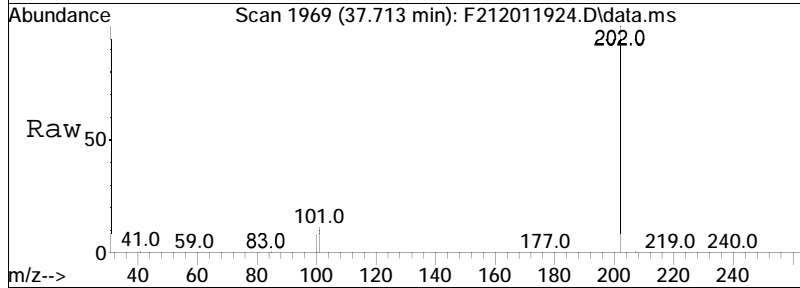
Tgt Ion: 178 Resp: 107607
 Ion Ratio Lower Upper
 178 100
 176 18.1 12.5 23.3

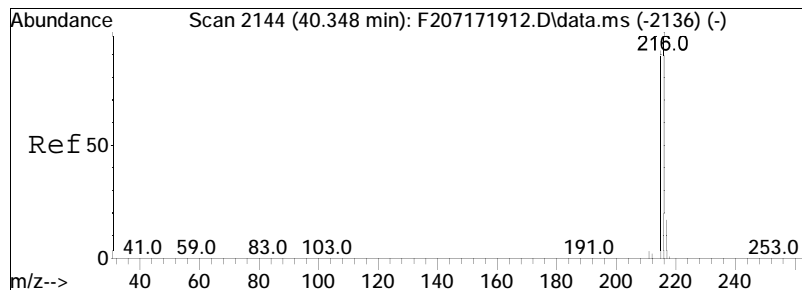




#56
 Fluoranthene
 Concen: 382.69 ng/mL M4
 RT: 37.713 min Scan# 1969
 Delta R.T. 0.063 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

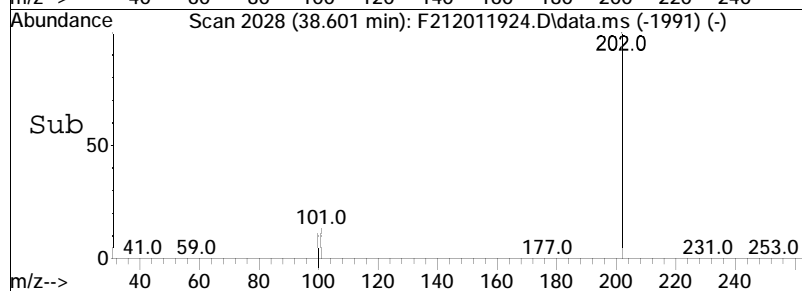
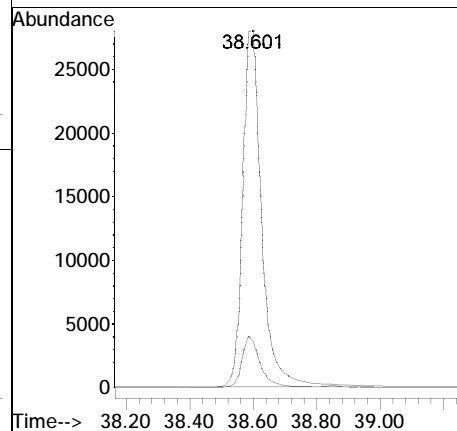
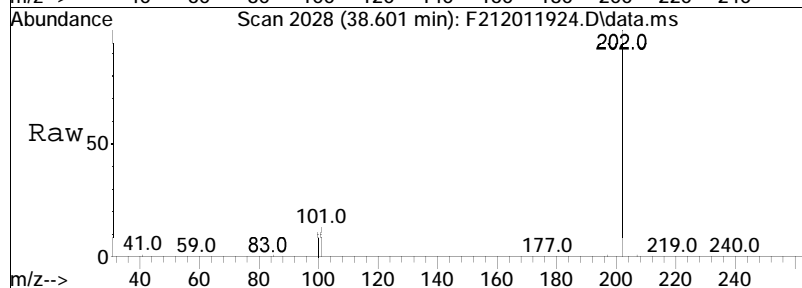
Tgt Ion: 202 Resp: 110873
 Ion Ratio Lower Upper
 202 100
 101 12.0 8.0 14.8

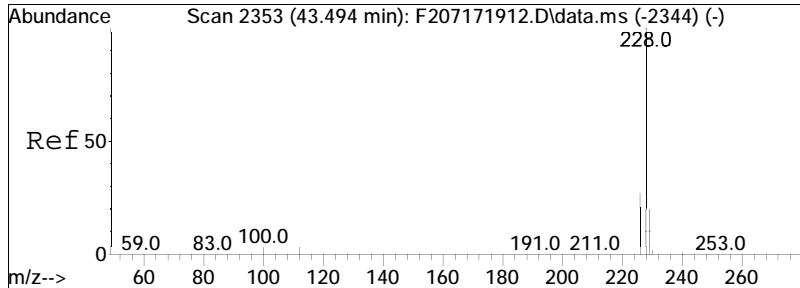




#59
 Pyrene
 Concen: 380.23 ng/mL
 RT: 38.601 min Scan# 2028
 Delta R.T. 0.065 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

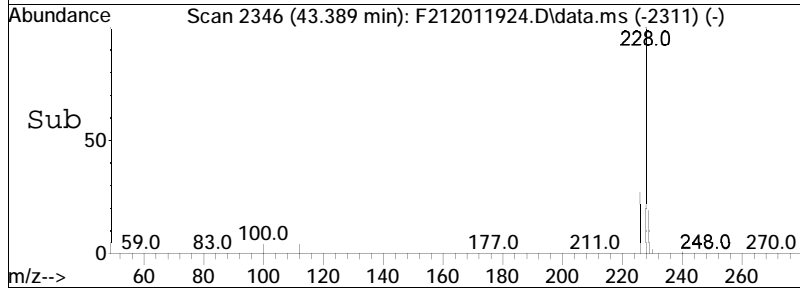
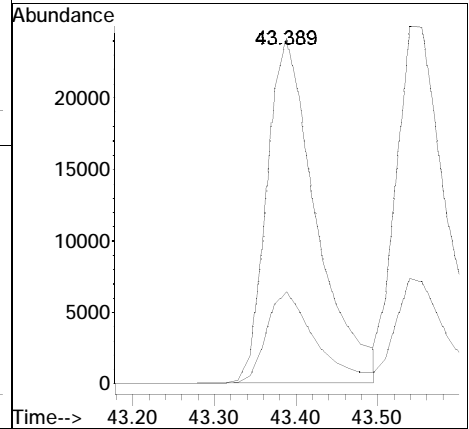
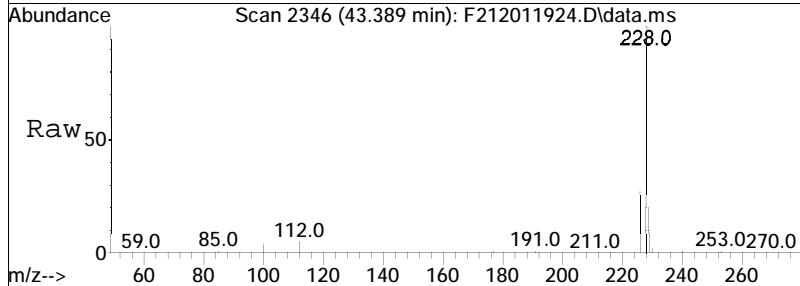
Tgt Ion: 202 Resp: 114387
 Ion Ratio Lower Upper
 202 100
 101 13.8 9.0 16.8

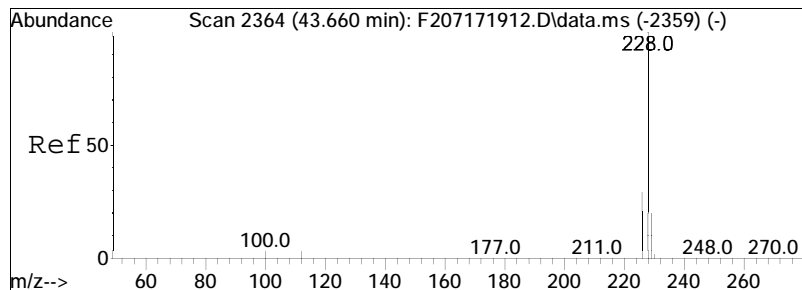




#75
 Benz[a]anthracene
 Concen: 417.71 ng/mL
 RT: 43.389 min Scan# 2346
 Delta R.T. 0.030 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

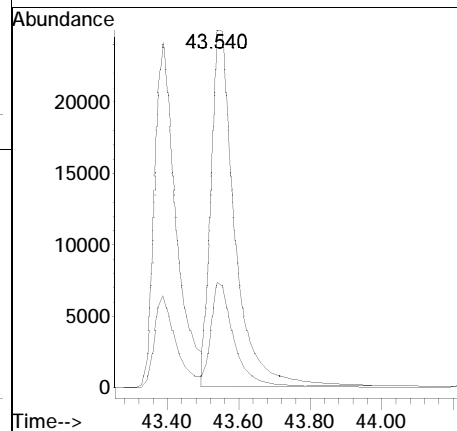
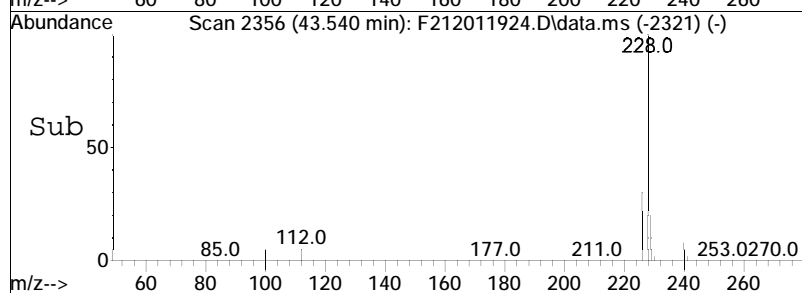
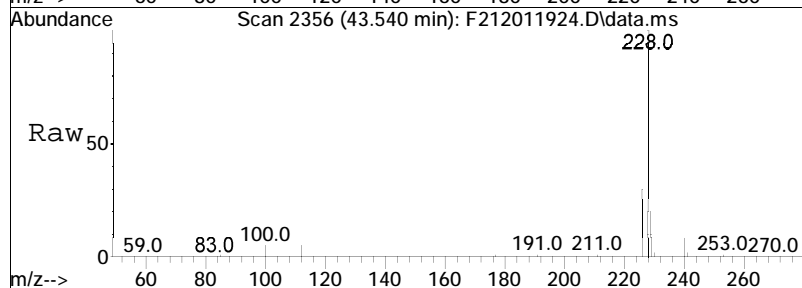
Tgt Ion	Resp	Lower	Upper
228	101536		
226	26.3	18.2	33.8

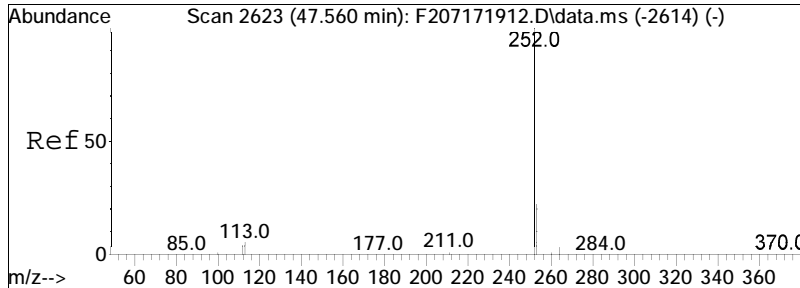




#76
 Chrysene
 Concen: 462.42 ng/mL
 RT: 43.540 min Scan# 2356
 Delta R.T. 0.030 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

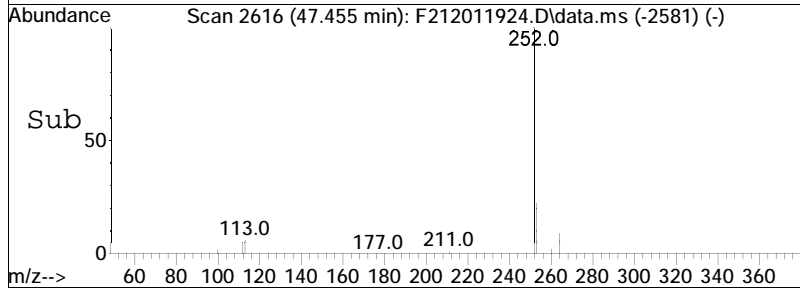
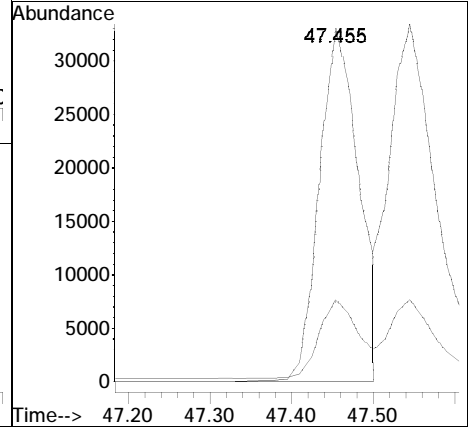
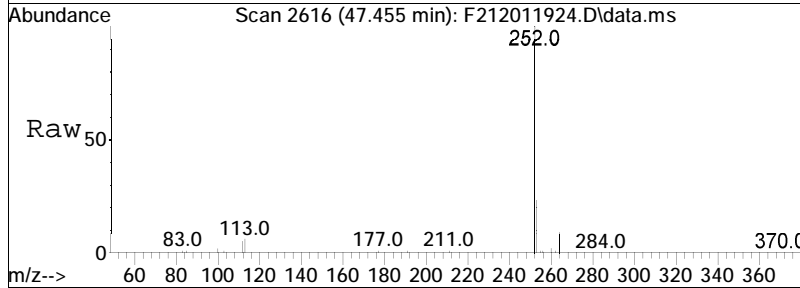
Tgt Ion	Resp	Lower	Upper
228	100		
226	28.8	20.3	37.7

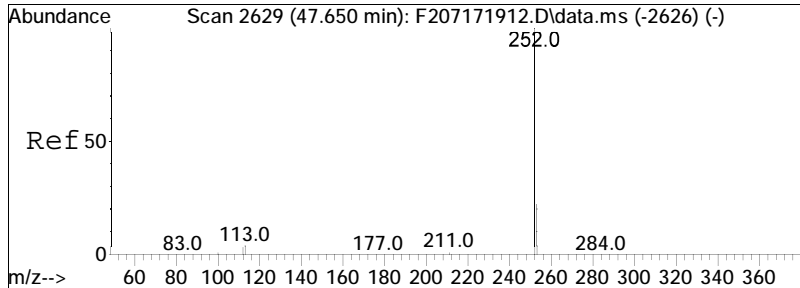




#84
 Benzo[b]fluoranthene
 Concen: 383.82 ng/mL
 RT: 47.455 min Scan# 2616
 Delta R.T. 0.033 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

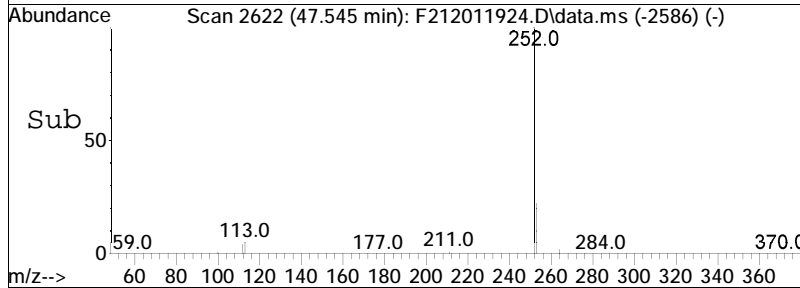
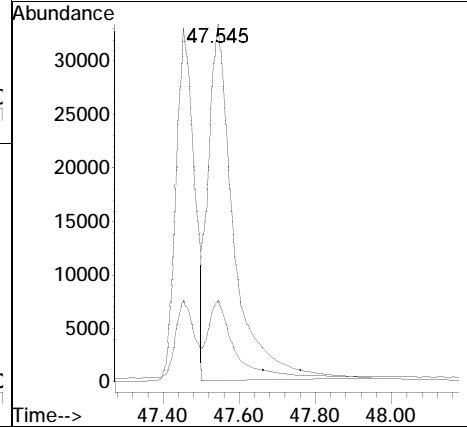
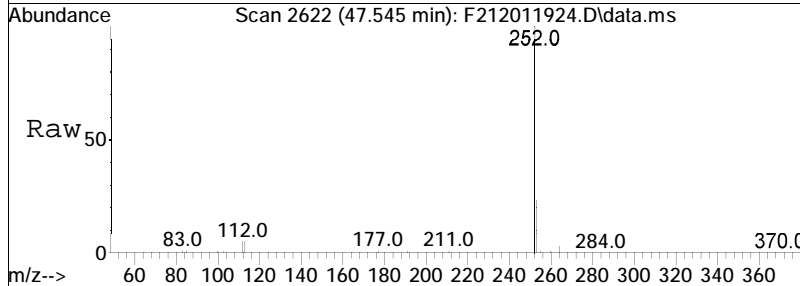
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.8	16.4	30.4

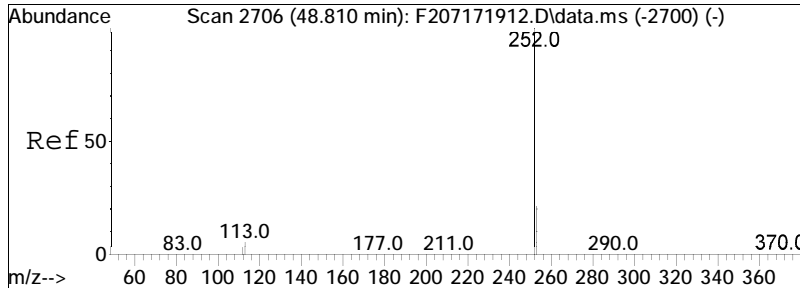




#85
 Benzo[j]+[k]fluoranthene
 Concen: 513.44 ng/mL
 RT: 47.545 min Scan# 2622
 Delta R.T. 0.048 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

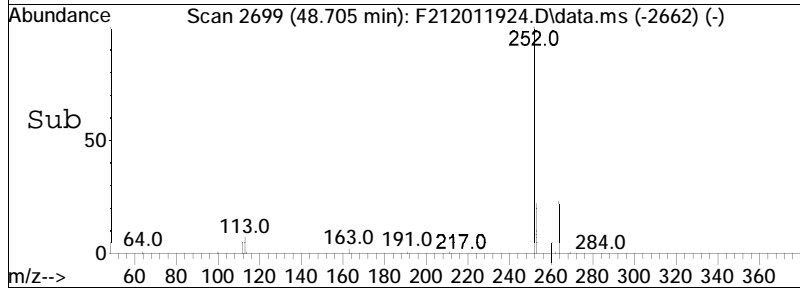
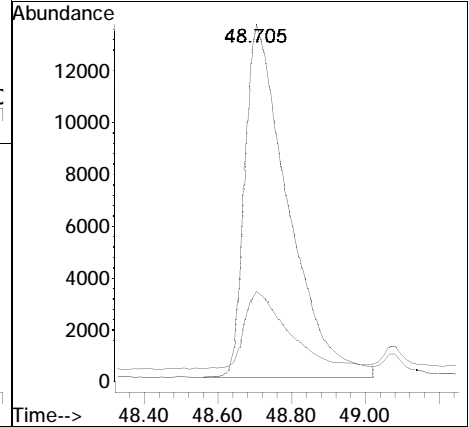
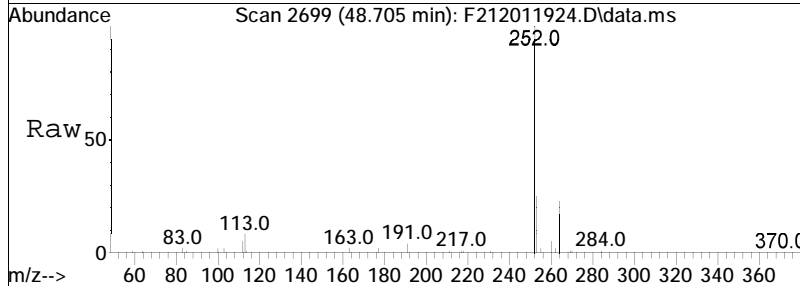
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.3	16.4	30.4

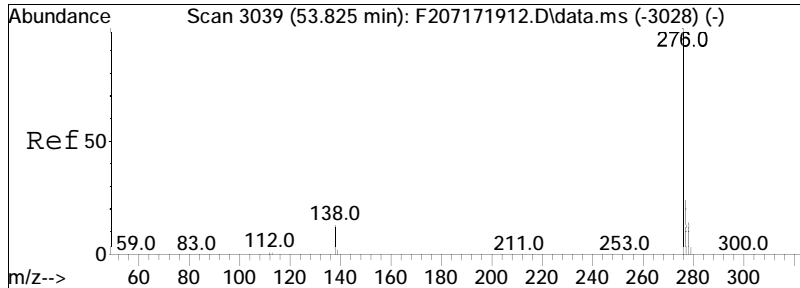




#89
 Benzo[a]pyrene
 Concen: 426.54 ng/mL
 RT: 48.705 min Scan# 2699
 Delta R.T. 0.064 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

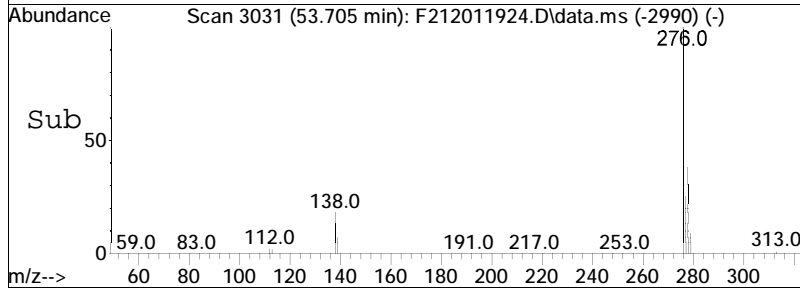
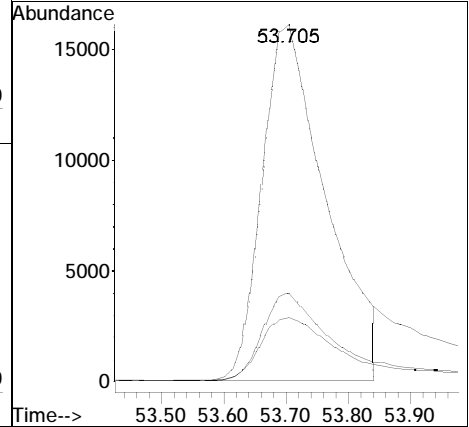
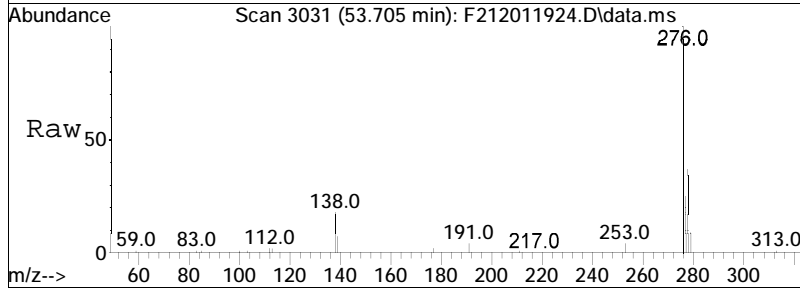
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.5	16.7	31.1

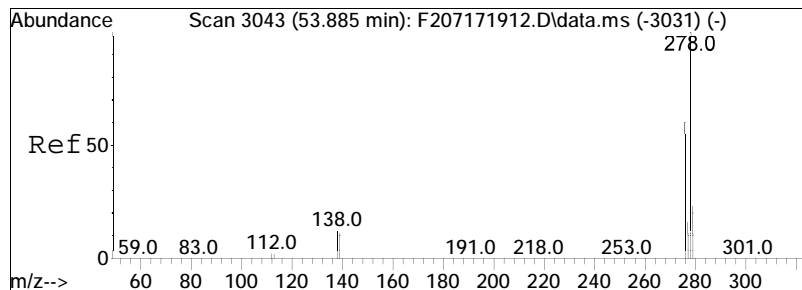




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 372.35 ng/mL M3
 RT: 53.705 min Scan# 3031
 Delta R.T. 0.112 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

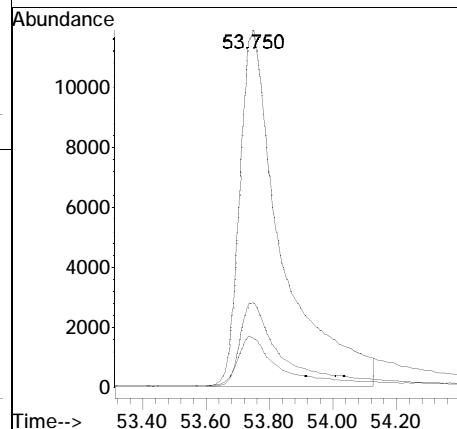
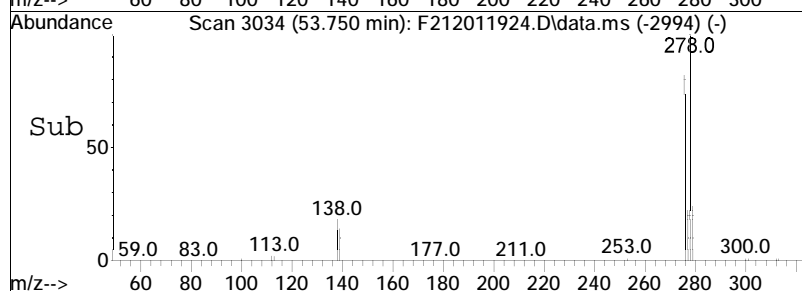
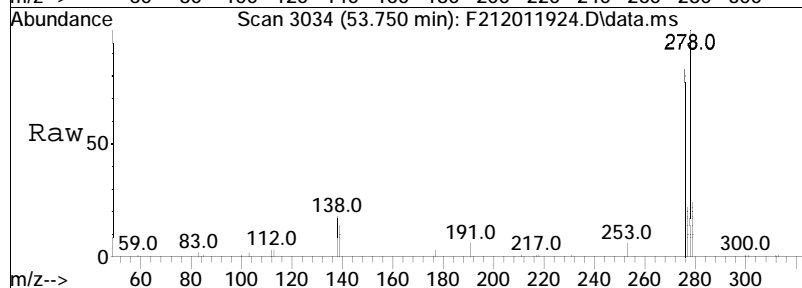
Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.3	11.3	20.9#
277	30.3	16.8	31.2

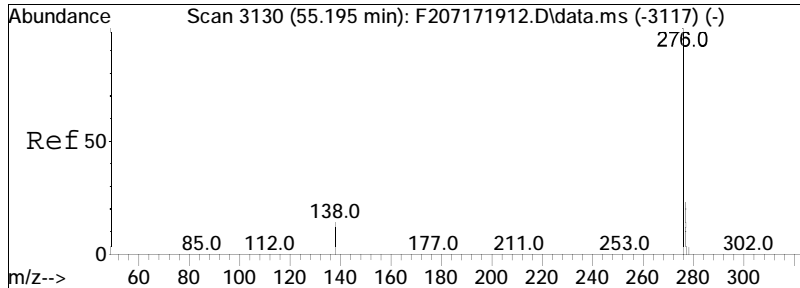




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 386.08 ng/mL
 RT: 53.750 min Scan# 3034
 Delta R.T. 0.097 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

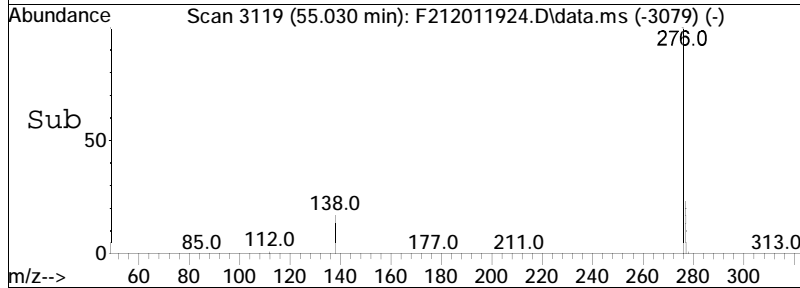
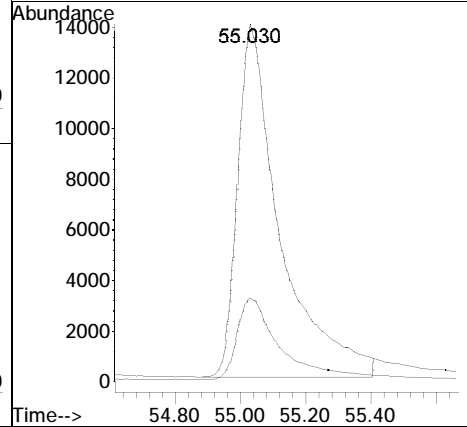
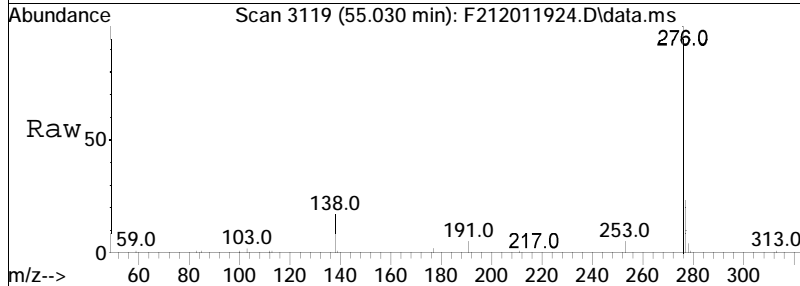
Tgt Ion	Resp	Lower	Upper
278	108443		
139	13.5	9.2	17.2
279	23.1	16.6	30.8





#93
 Benzo[g,h,i]perylene
 Concen: 406.42 ng/mL
 RT: 55.030 min Scan# 3119
 Delta R.T. 0.098 min
 Lab File: F212011924.D
 Acq: 3 Dec 2019 5:44 pm

Tgt Ion: 276 Resp: 125055
 Ion Ratio Lower Upper
 276 100
 277 23.6 16.5 30.7



Sample Preparation

Workgroup: WG1312512

<p>Prep Method: ALPHA OP-013 Solvent Type: DCM Lot #: DX536-US Surrogate Type: A2-PAH/SHC Lot #: FRBB96 Spike Type: A2-PAH/SHC Lot #: FRBB73 Spike Verify by: N/A Lims Spikelot: A2-PAH/SHC Additional Reagents/Std</p> <table border="1"> <tr> <td>Na2SO4</td> <td>0000235304</td> </tr> <tr> <td>BIOMARKER</td> <td>FRBB26</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Na2SO4	0000235304	BIOMARKER	FRBB26			<p>Conc.Method: S-EVAP Solvent Type: DCM Lot #: DX536-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Glass Wool</td> <td>01119999</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR112619B</td> </tr> <tr> <td>Na2SO4</td> <td>0000235304</td> </tr> </table>	Glass Wool	01119999	Granulated Copper	OWR112619B	Na2SO4	0000235304	<p>Cleanup 1 Cleanup Method 1: EPA 3611B Cleanup Method 2: Solvent Type: DCM Lot #: DX536-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Alumina</td> <td>85</td> </tr> <tr> <td>Glass Wool</td> <td>01119999</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR112619A</td> </tr> <tr> <td>RIS</td> <td>FRBB76</td> </tr> <tr> <td>Na2SO4</td> <td>0000235304</td> </tr> </table>	Alumina	85	Glass Wool	01119999	Granulated Copper	OWR112619A	RIS	FRBB76	Na2SO4	0000235304
Na2SO4	0000235304																							
BIOMARKER	FRBB26																							
Glass Wool	01119999																							
Granulated Copper	OWR112619B																							
Na2SO4	0000235304																							
Alumina	85																							
Glass Wool	01119999																							
Granulated Copper	OWR112619A																							
RIS	FRBB76																							
Na2SO4	0000235304																							

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
L1954309-01 SOIL	11/22/19 12:48	Lauren Batalon	15.15	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-02 SOIL	11/22/19 12:48	Lauren Batalon	15.42	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-03 SOIL	11/22/19 12:48	Lauren Batalon	15.88	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-04 SOIL	11/22/19 12:48	Lauren Batalon	2.46	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-05 SOIL	11/22/19 12:48	Lauren Batalon	5.02	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-06 SOIL	11/22/19 12:48	Lauren Batalon	30.31	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3

Workgroup: WG1312512

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
L1954309-07 SOIL	11/22/19 12:48	Lauren Batalon	20.77	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-08 SOIL	11/22/19 12:48	Lauren Batalon	15.51	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1955791-01 SOIL	11/22/19 12:48	Lauren Batalon	30.01	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1955791-02 SOIL	11/22/19 12:48	Lauren Batalon	30.67	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1955791-03 SOIL	11/22/19 12:48	Lauren Batalon	30.31	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
WG1312512- 1 BLANK	11/22/19 12:48	Lauren Batalon	30	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
QC SHARED WITH WG1312511 11/22/19 LB										
WG1312512- 2 LCS	11/22/19 12:48	Lauren Batalon	30	BAL-7	0.1	0.1	11/26/19 09:00	Sean Morris	4	SEVAP 3
WG1312512- 3 LCSD	11/22/19 12:48	Lauren Batalon	30	BAL-7	0.1	0.1	11/26/19 09:00	Sean Morris	4	SEVAP 3



ORGANIC ELN REPORT

Workgroup: WG1312512

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
L1954309-01 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-02 SOIL	11/26/19 13:00	1	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-03 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-04 SOIL	11/26/19 13:00	.4	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-05 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-06 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-07 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-08 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1955791-01 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1955791-02 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1955791-03 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
WG1312512-1 BLANK	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1	All samples spiked with 100uL RIS SM 11/26/19					

Workgroup: WG1312512

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
WG1312512- 2 LCS	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
WG1312512- 3 LCSD	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						

Supporting Documentation

Saturated Hydrocarbon Analysis

Initial Calibration

Response Factor Report FID17

Method Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Method File : HC17040319F.M
 Title : FID Forensics
 Last Update : Mon Apr 15 16:31:42 2019
 Response Via : Initial Calibration

Calibration Files

1 =F1704031914.d 10 =F1704031916.d 50 =F1704031918.d 100 =F1704031920.d 200 =F1704031922.d
 500 =F1704031924.d

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.848	0.842	0.833	0.847	0.821		0.838	1.34
3) t n-Nonane (C9)	0.908	0.889	0.908	0.896	0.874		0.895	1.58
4) t n-Decane (C10)	0.902	0.911	0.940	0.917	0.897		0.914	1.82
5) t n-Undecane (C11)	0.911	0.921	0.950	0.925	0.909		0.923	1.77
6) t n-Dodecane (C12)	0.919	0.926	0.956	0.930	0.917		0.929	1.66
7) t n-Tridecane (...)	0.910	0.927	0.957	0.930	0.919		0.928	1.89
8) t 1380	0.928	0.938	0.968	0.939	0.929		0.940	1.71
9) t n-Tetradecane...	0.928	0.938	0.968	0.939	0.929		0.940	1.71
10) t 1470	0.925	0.939	0.968	0.938	0.929		0.940	1.79
11) t n-Pentadecane...	0.925	0.939	0.968	0.938	0.929		0.940	1.79
12) t n-Hexadecane ...	0.931	0.943	0.974	0.944	0.934		0.945	1.78
13) t 1650	0.925	0.939	0.971	0.946	0.959		0.948	1.86
14) t n-Heptadecane...	0.925	0.939	0.971	0.946	0.959		0.948	1.86
15) t Pristane	0.954	0.957	0.985	0.949	0.914		0.952	2.66
16) t n-Octadecane ...	0.941	0.951	0.982	0.950	0.943		0.953	1.72
17) t Phytane	0.856	0.863	0.890	0.870	0.859		0.868	1.53
18) t n-Nonadecane ...	0.939	0.949	0.978	0.947	0.936		0.950	1.76
19) s ortho-terphenyl	1.085	1.059	1.098	1.076	1.063	1.089	1.078	1.41
20) t n-Eicosane (C20)	0.944	0.951	0.979	0.947	0.939		0.952	1.63
21) t n-Heneicosane...	0.963	0.969	0.992	0.960	0.952		0.967	1.60
22) t n-Docosane (C22)	0.961	0.965	0.992	0.960	0.951		0.966	1.61
23) t n-Tricosane (...)	0.973	0.970	0.998	0.966	0.955		0.972	1.63
24) s d50-Tetracosane	0.869	0.846	0.877	0.857	0.849	0.880	0.863	1.68
25) t n-Tetracosane...	0.979	0.974	1.003	0.966	0.956		0.976	1.78
26) t n-Pentacosane...	0.968	0.965	0.994	0.958	0.947		0.966	1.78
27) t n-Hexacosane ...	0.974	0.972	1.002	0.965	0.955		0.973	1.79
28) t n-Heptacosane...	0.953	0.946	0.975	0.938	0.928		0.948	1.87
29) t n-Octacosane ...	0.978	0.984	1.015	0.974	0.965		0.983	1.96
30) t n-Nonacosane ...	0.979	0.977	1.006	0.967	0.959		0.978	1.83
31) t n-Triacontane...	0.971	0.965	0.994	0.955	0.949		0.967	1.78

Response Factor Report FID17

Method Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Method File : HC17040319F.M
 Title : FID Forensics
 Last Update : Mon Apr 15 16:31:42 2019
 Response Via : Initial Calibration

Calibration Files

1 =F1704031914.d 10 =F1704031916.d 50 =F1704031918.d 100 =F1704031920.d 200 =F1704031922.d
 500 =F1704031924.d

	Compound	1	10	50	100	200	500	Avg	%RSD
32) t	n-Hentriacont...	0.981	0.970	0.998	0.959	0.955		0.973	1.78
33) t	n-Dotriaconta...	0.969	0.957	0.985	0.946	0.945		0.960	1.74
34) t	n-Tritriacont...	0.958	0.946	0.974	0.936	0.937		0.950	1.66
35) t	n-tetratriaco...	0.990	0.981	1.008	0.970	0.974		0.985	1.52
36) t	n-Pentatriaco...	0.961	0.947	0.973	0.938	0.943		0.952	1.51
37) t	n-Hexatriacon...	1.007	1.002	1.031	0.995	1.003		1.008	1.37
38) t	n-Heptatriaco...	0.968	0.942	0.969	0.936	0.946		0.952	1.61
39) t	n-Octatriacon...	1.016	1.019	1.049	1.013	1.027		1.025	1.40
40) t	n-Nonatriacon...	0.974	0.965	0.993	0.960	0.978		0.974	1.33
41) t	n-Tetracontan...	0.974	0.965	0.993	0.960	0.978		0.974	1.33
42) h	C9-C44 Total ...	0.952	0.952	0.980	0.948	0.942		0.955	1.55
43) h	C9-C40 Total ...	0.952	0.952	0.980	0.948	0.942		0.955	1.55
44) h	C10-C28 DRO	0.952	0.952	0.980	0.948	0.942		0.955	1.55
45) h	C28-C40 ORO	0.952	0.952	0.980	0.948	0.942		0.955	1.55
46) h	Total Resolve...	0.952	0.952	0.980	0.948	0.942		0.955	1.55

 (#) = Out of Range

rfupdate

RSF Update Summary Report

Method Path.....: O:\Forensics\Data\FID17\2019\APR\APR03\
Method File.....: HC17040319F.M
Method Title.....: FID Forensics
Last Update.....: Mon Apr 15 16:01:38 2019

Generating Average Response Factor For: C9-C44 Total Petroleum Hydrocarbons

No	Compound	Level	Conc	Response
1	n-Nonane (C9)	1	1.00000	1241959.085
2	n-Decane (C10)	1	1.00000	1234055.103
3	n-Undecane (C11)	1	1.00000	1245627.244
4	n-Dodecane (C12)	1	1.00000	1257488.608
5	n-Tridecane (C13)	1	1.00000	1244198.181
6	n-Tetradecane (C14)	1	1.00000	1269405.604
7	n-Pentadecane (C15)	1	1.00000	1264623.876
8	n-Hexadecane (C16)	1	1.00000	1273963.384
9	n-Heptadecane (C17)	1	1.00000	1265530.899
10	Pristane	1	1.00000	1305252.865
11	n-Octadecane (C18)	1	1.00000	1287012.598
12	Phytane	1	1.00000	1171038.108
13	n-Nonadecane (C19)	1	1.00000	1284795.096
14	n-Eicosane (C20)	1	1.00000	1290533.416
15	n-Heneicosane (C21)	1	1.00000	1316666.082
16	n-Docosane (C22)	1	1.00000	1314605.071
17	n-Tricosane (C23)	1	1.00000	1330395.509
18	n-Tetracosane (C24)	1	1.00000	1339135.178
19	n-Pentacosane (C25)	1	1.00000	1323508.990
20	n-Hexacosane (C26)	1	1.00000	1331854.119
21	n-Heptacosane (C27)	1	1.00000	1303305.407
22	n-Octacosane (C28)	1	1.00000	1337184.153
23	n-Nonacosane (C29)	1	1.00000	1338944.726
24	n-Triacontane (C30)	1	1.00000	1327865.057
25	n-Hentriacontane (C31)	1	1.00000	1341967.093
26	n-Dotriacontane (C32)	1	1.00000	1325638.057
27	n-Tritriacontane (C33)	1	1.00000	1310319.643
28	n-tetratriacontane (C34)	1	1.00000	1354303.228
29	n-Pentatriacontane (C35)	1	1.00000	1313844.192
30	n-Hexatriacontane (C36)	1	1.00000	1377456.582
31	n-Heptatriacontane (C37)	1	1.00000	1323494.765
32	n-Octatriacontane (C38)	1	1.00000	1389643.889
33	n-Tetracontane (C40)	1	1.00000	1331932.435
Avg RSF For: C9-C44 Total Petroleum			1.00000	1302046.916
1	n-Nonane (C9)	2	10.00000	12305337.867
2	n-Decane (C10)	2	10.00000	12612128.640
3	n-Undecane (C11)	2	10.00000	12752842.282
4	n-Dodecane (C12)	2	10.00000	12824409.075
5	n-Tridecane (C13)	2	10.00000	12832120.516
6	n-Tetradecane (C14)	2	10.00000	12984756.175
7	n-Pentadecane (C15)	2	10.00000	12997587.116
8	n-Hexadecane (C16)	2	10.00000	13061184.785
9	n-Heptadecane (C17)	2	10.00000	12995508.310

		rfupdate		
10	Pristane	2	10.00000	13246986.722
11	n-Octadecane (C18)	2	10.00000	13163778.489
12	Phytane	2	10.00000	11947510.807
13	n-Nonadecane (C19)	2	10.00000	13137596.306
14	n-Eicosane (C20)	2	10.00000	13172767.910
15	n-Heneicosane (C21)	2	10.00000	13415061.602
16	n-Docosane (C22)	2	10.00000	13359184.097
17	n-Tricosane (C23)	2	10.00000	13428899.978
18	n-Tetracosane (C24)	2	10.00000	13478956.523
19	n-Pentacosane (C25)	2	10.00000	13354664.999
20	n-Hexacosane (C26)	2	10.00000	13459394.290
21	n-Heptacosane (C27)	2	10.00000	13102551.938
22	n-Octacosane (C28)	2	10.00000	13620295.360
23	n-Nonacosane (C29)	2	10.00000	13527830.103
24	n-Triacontane (C30)	2	10.00000	13359508.663
25	n-Hentriacontane (C31)	2	10.00000	13426271.216
26	n-Dotriacontane (C32)	2	10.00000	13245142.495
27	n-Tritriacontane (C33)	2	10.00000	13104083.544
28	n-tetratriacontane (C34)	2	10.00000	13579140.474
29	n-Pentatriacontane (C35)	2	10.00000	13106871.563
30	n-Hexatriacontane (C36)	2	10.00000	13877527.909
31	n-Heptatriacontane (C37)	2	10.00000	13038804.370
32	n-Octatriacontane (C38)	2	10.00000	14107250.210
33	n-Tetracontane (C40)	2	10.00000	13364963.528

Avg RSF For: C9-C44 Total Petroleum			10.00000	13181542.966

1	n-Nonane (C9)	3	50.00000	62807551.297
2	n-Decane (C10)	3	50.00000	65052740.575
3	n-Undecane (C11)	3	50.00000	65719798.019
4	n-Dodecane (C12)	3	50.00000	66125273.117
5	n-Tridecane (C13)	3	50.00000	66195051.266
6	n-Tetradecane (C14)	3	50.00000	66955191.828
7	n-Pentadecane (C15)	3	50.00000	66958765.227
8	n-Hexadecane (C16)	3	50.00000	67398252.813
9	n-Heptadecane (C17)	3	50.00000	67187614.203
10	Pristane	3	50.00000	68195797.750
11	n-Octadecane (C18)	3	50.00000	67924577.375
12	Phytane	3	50.00000	61560470.697
13	n-Nonadecane (C19)	3	50.00000	67706703.920
14	n-Eicosane (C20)	3	50.00000	67716990.394
15	n-Heneicosane (C21)	3	50.00000	68681480.816
16	n-Docosane (C22)	3	50.00000	68651010.373
17	n-Tricosane (C23)	3	50.00000	69045578.237
18	n-Tetracosane (C24)	3	50.00000	69379054.821
19	n-Pentacosane (C25)	3	50.00000	68759070.307
20	n-Hexacosane (C26)	3	50.00000	69310498.107
21	n-Heptacosane (C27)	3	50.00000	67466786.214
22	n-Octacosane (C28)	3	50.00000	70254927.859
23	n-Nonacosane (C29)	3	50.00000	69636507.581
24	n-Triacontane (C30)	3	50.00000	68759317.154
25	n-Hentriacontane (C31)	3	50.00000	69060320.317
26	n-Dotriacontane (C32)	3	50.00000	68154708.735
27	n-Tritriacontane (C33)	3	50.00000	67377259.407
28	n-tetratriacontane (C34)	3	50.00000	69732668.132
29	n-Pentatriacontane (C35)	3	50.00000	67327091.235
30	n-Hexatriacontane (C36)	3	50.00000	71364197.490
31	n-Heptatriacontane (C37)	3	50.00000	67059585.076
32	n-Octatriacontane (C38)	3	50.00000	72569395.182
33	n-Tetracontane (C40)	3	50.00000	68746792.535

Avg RSF For: C9-C44 Total Petroleum			50.00000	67843667.517

rfupdate

1	n-Nonane (C9)	4	100.00000	119834512.277
2	n-Decane (C10)	4	100.00000	122683382.485
3	n-Undecane (C11)	4	100.00000	123716744.383
4	n-Dodecane (C12)	4	100.00000	124383036.738
5	n-Tridecane (C13)	4	100.00000	124391406.825
6	n-Tetradecane (C14)	4	100.00000	125607556.926
7	n-Pentadecane (C15)	4	100.00000	125545636.412
8	n-Hexadecane (C16)	4	100.00000	126305422.304
9	n-Heptadecane (C17)	4	100.00000	126622131.094
10	Pristane	4	100.00000	126957497.305
11	n-Octadecane (C18)	4	100.00000	127177323.926
12	Phytane	4	100.00000	116391636.995
13	n-Nonadecane (C19)	4	100.00000	126661828.254
14	n-Eicosane (C20)	4	100.00000	126692804.324
15	n-Heneicosane (C21)	4	100.00000	128416588.920
16	n-Docosane (C22)	4	100.00000	128449776.716
17	n-Tricosane (C23)	4	100.00000	129200280.577
18	n-Tetracosane (C24)	4	100.00000	129319096.504
19	n-Pentacosane (C25)	4	100.00000	128142263.540
20	n-Hexacosane (C26)	4	100.00000	129130962.049
21	n-Heptacosane (C27)	4	100.00000	125511346.502
22	n-Octacosane (C28)	4	100.00000	130344316.121
23	n-Nonacosane (C29)	4	100.00000	129355870.606
24	n-Triacontane (C30)	4	100.00000	127754546.989
25	n-Hentriacontane (C31)	4	100.00000	128337984.712
26	n-Dotriacontane (C32)	4	100.00000	126626194.037
27	n-Tritriacontane (C33)	4	100.00000	125240190.228
28	n-tetratriacontane (C34)	4	100.00000	129851530.189
29	n-Pentatriacontane (C35)	4	100.00000	125466794.718
30	n-Hexatriacontane (C36)	4	100.00000	133137145.464
31	n-Heptatriacontane (C37)	4	100.00000	125213538.980
32	n-Octatriacontane (C38)	4	100.00000	135520411.691
33	n-Tetracontane (C40)	4	100.00000	128452306.348

Avg RSF For: C9-C44 Total Petroleum			100.00000	126861880.762
1	n-Nonane (C9)	5	200.00000	245778612.877
2	n-Decane (C10)	5	200.00000	252288168.164
3	n-Undecane (C11)	5	200.00000	255528993.160
4	n-Dodecane (C12)	5	200.00000	257703452.538
5	n-Tridecane (C13)	5	200.00000	258332302.287
6	n-Tetradecane (C14)	5	200.00000	261067959.157
7	n-Pentadecane (C15)	5	200.00000	261081956.368
8	n-Hexadecane (C16)	5	200.00000	262660275.556
9	n-Heptadecane (C17)	5	200.00000	269585676.285
10	Pristane	5	200.00000	257064320.444
11	n-Octadecane (C18)	5	200.00000	265066888.488
12	Phytane	5	200.00000	241580906.682
13	n-Nonadecane (C19)	5	200.00000	263241237.290
14	n-Eicosane (C20)	5	200.00000	264014642.937
15	n-Heneicosane (C21)	5	200.00000	267586912.878
16	n-Docosane (C22)	5	200.00000	267368377.111
17	n-Tricosane (C23)	5	200.00000	268382457.915
18	n-Tetracosane (C24)	5	200.00000	268829695.761
19	n-Pentacosane (C25)	5	200.00000	266324860.203
20	n-Hexacosane (C26)	5	200.00000	268354623.844
21	n-Heptacosane (C27)	5	200.00000	260866582.352
22	n-Octacosane (C28)	5	200.00000	271181052.049
23	n-Nonacosane (C29)	5	200.00000	269617396.302
24	n-Triacontane (C30)	5	200.00000	266884695.212

		rfupdate	
25	n-Hentriacontane (C31)	5	200.00000 268625566.589
26	n-Dotriacontane (C32)	5	200.00000 265703383.486
27	n-Tritriacontane (C33)	5	200.00000 263472349.494
28	n-tetratriacontane (C34)	5	200.00000 273753004.715
29	n-Pentatriacontane (C35)	5	200.00000 265153414.004
30	n-Hexatriacontane (C36)	5	200.00000 282085113.356
31	n-Heptatriacontane (C37)	5	200.00000 266042497.185
32	n-Octatriacontane (C38)	5	200.00000 288788417.713
33	n-Tetracontane (C40)	5	200.00000 275042644.958

Avg RSF For: C9-C44 Total Petroleum		200.00000	264819952.647

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
44	C10-C28 DRO	42	C9-C44 Total Petroleum Hydrocarbons
45	C28-C40 ORO	42	C9-C44 Total Petroleum Hydrocarbons
46	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\FID17\2019\APR\APR03\
 Data File : F1704031914.d
 Signal(s) : FID1A.CH
 Acq On : 03 Apr 2019 11:29 pm
 Operator : FID17:WR
 Sample : I1704031901F
 Misc : WG1226965,FRBA83,1ug/ml
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:33:49 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:25:31 2019
 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	31.236	68382884	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.196	1484378	0.989	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	1.98%#	
24) s d50-Tetracosane	35.838	1189079	0.992	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	1.98%#	
Target Compounds				
2) t n-Octane (C8)	5.571	1160297	1.019	ug/mL M4
3) t n-Nonane (C9)	7.766	1241959	1.001	ug/mL M4
4) t n-Decane (C10)	10.251	1234055	0.960	ug/mL M4
5) t n-Undecane (C11)	12.763	1245627	0.959	ug/mL M4
6) t n-Dodecane (C12)	15.190	1257489	0.962	ug/mL M4
7) t n-Tridecane (C13)	17.497	1244198	0.951	ug/mL M4
9) t n-Tetradecane (C14)	19.680	1269406	0.959	ug/mL M4
11) t n-Pentadecane (C15)	21.743	1264624	0.956	ug/mL M4
12) t n-Hexadecane (C16)	23.699	1273963	0.956	ug/mL M4
14) t n-Heptadecane (C17)	25.555	1265531	0.953	ug/mL M4
15) t Pristane	25.664	1305253	0.968	ug/mL M4
16) t n-Octadecane (C18)	27.320	1287013	0.959	ug/mL M4
17) t Phytane	27.482	1171038	0.963	ug/mL M4
18) t n-Nonadecane (C19)	29.006	1284795	0.960	ug/mL M4
20) t n-Eicosane (C20)	30.610	1290533	0.964	ug/mL M4
21) t n-Heneicosane (C21)	32.144	1316666	0.970	ug/mL M4
22) t n-Docosane (C22)	33.615	1314605	0.969	ug/mL M4
23) t n-Tricosane (C23)	35.027	1330396	0.975	ug/mL M4
25) t n-Tetracosane (C24)	36.380	1339135	0.977	ug/mL M4
26) t n-Pentacosane (C25)	37.686	1323509	0.974	ug/mL M4
27) t n-Hexacosane (C26)	38.941	1331854	0.972	ug/mL M4
28) t n-Heptacosane (C27)	40.152	1303305	0.977	ug/mL M4
29) t n-Octacosane (C28)	41.320	1337184	0.963	ug/mL M4
30) t n-Nonacosane (C29)	42.447	1338945	0.973	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031914.d
 Signal(s) : FID1A.CH
 Acq On : 03 Apr 2019 11:29 pm
 Operator : FID17:WR
 Sample : I1704031901F
 Misc : WG1226965,FRBA83,1ug/ml
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:33:49 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:25:31 2019
 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)	43.542	1327865	0.977 ug/mL M4
32) t n-Hentriacontane (C31)	44.600	1341967	0.983 ug/mL M4
33) t n-Dotriacontane (C32)	45.622	1325638	0.984 ug/mL M4
34) t n-Tritriacontane (C33)	46.616	1310320	0.984 ug/mL M4
35) t n-tetratriacontane (C34)	47.621	1354303	0.983 ug/mL M4
36) t n-Pentatriacontane (C35)	48.744	1313844	0.987 ug/mL M4
37) t n-Hexatriacontane (C36)	50.025	1377457	0.977 ug/mL M4
38) t n-Heptatriacontane (C37)	51.505	1323495	0.999 ug/mL M4
39) t n-Octatriacontane (C38)	53.228	1389644	0.969 ug/mL M4
41) t n-Tetracontane (C40)	57.641	1331932	0.980 ug/mL M4

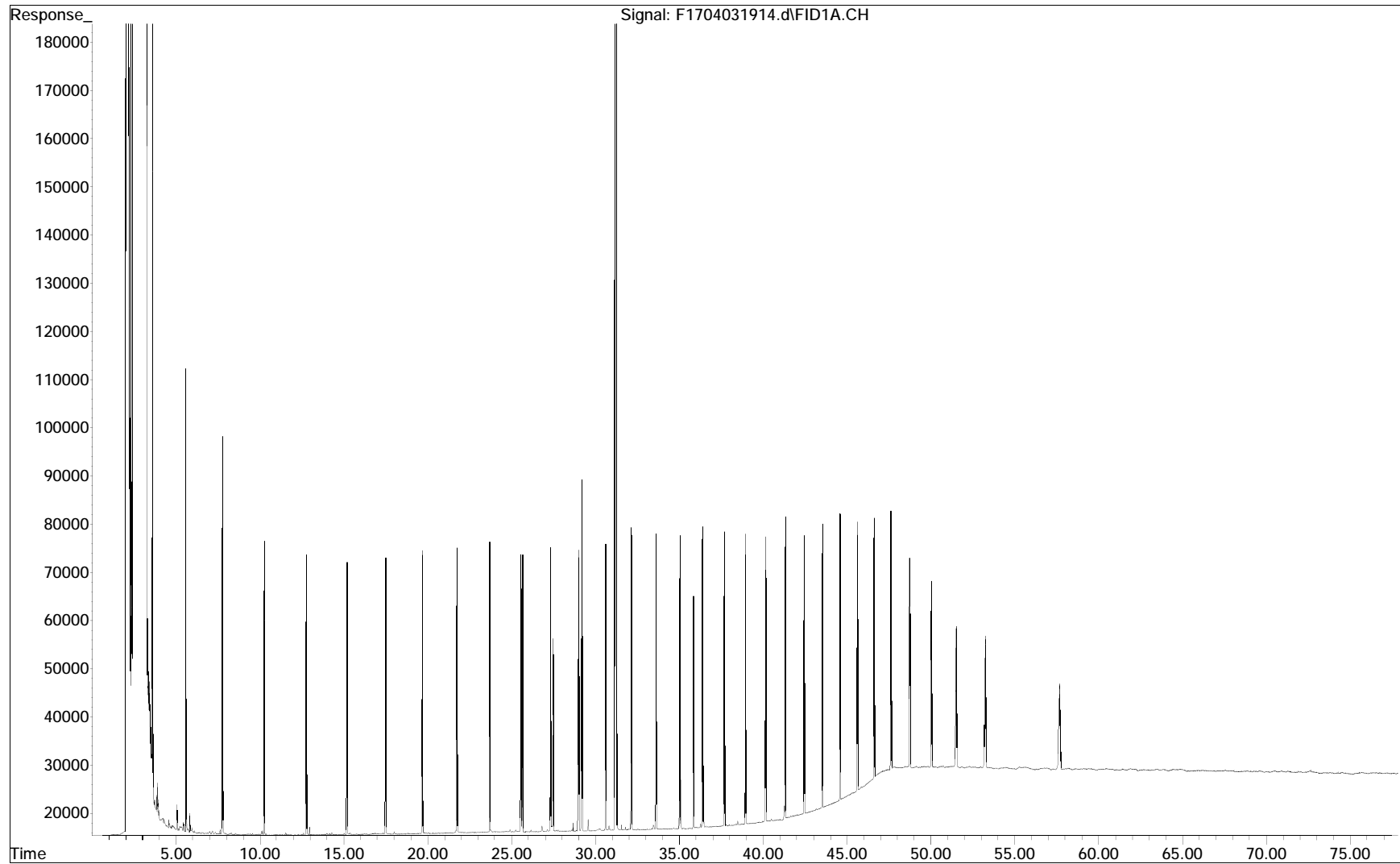
SemiQuant Compounds - Not Calibrated on this Instrument

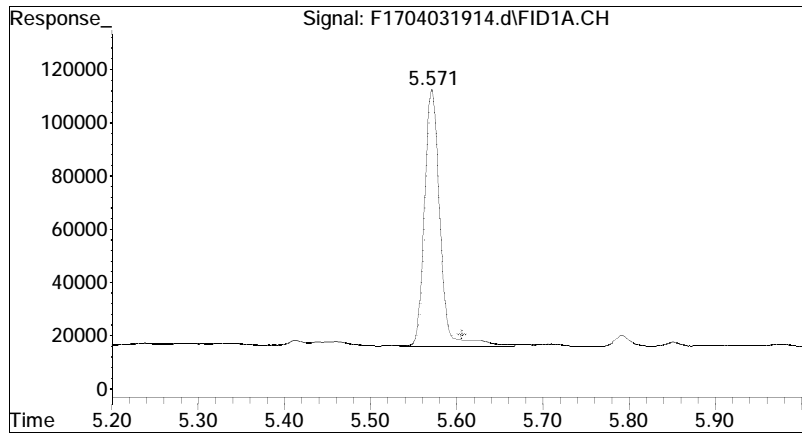
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

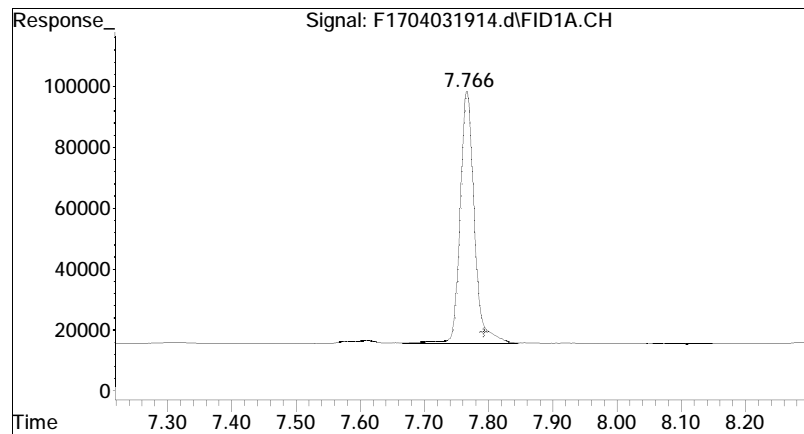
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031914.d
Operator : FID17:WR
Acquired : 03 Apr 2019 11:29 pm using AcqMethod FID17.M
Sample Name: I1704031901F
Instrument: FID17
Misc Info : WG1226965,FRBA83,1ug/ml
Vial Number: 7
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M





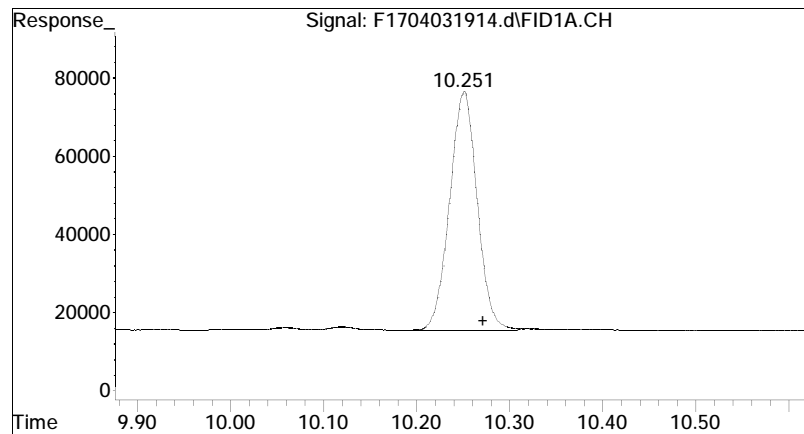
#2 n-Octane (C8)

R.T.: 5.571 min
Delta R.T.: -0.035 min
Response: 1160297
Conc: 1.02 ug/mL M4

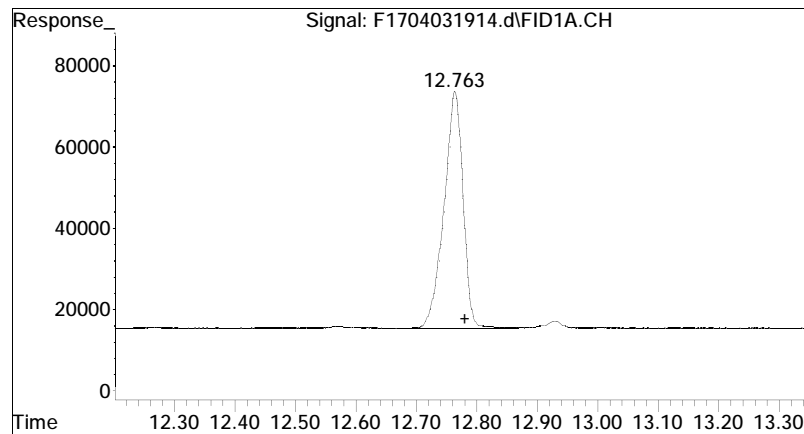


#3 n-Nonane (C9)

R.T.: 7.766 min
Delta R.T.: -0.027 min
Response: 1241959
Conc: 1.00 ug/mL M4

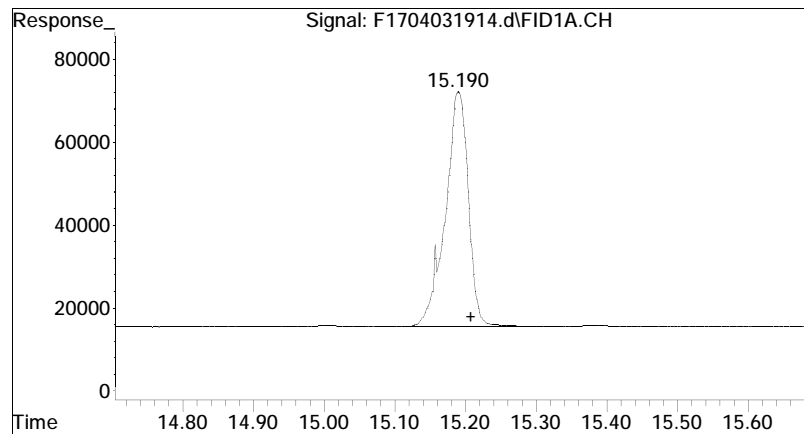


#4 n-Decane (C10)
R.T.: 10.251 min
Delta R.T.: -0.021 min
Response: 1234055
Conc: 0.96 ug/mL M4



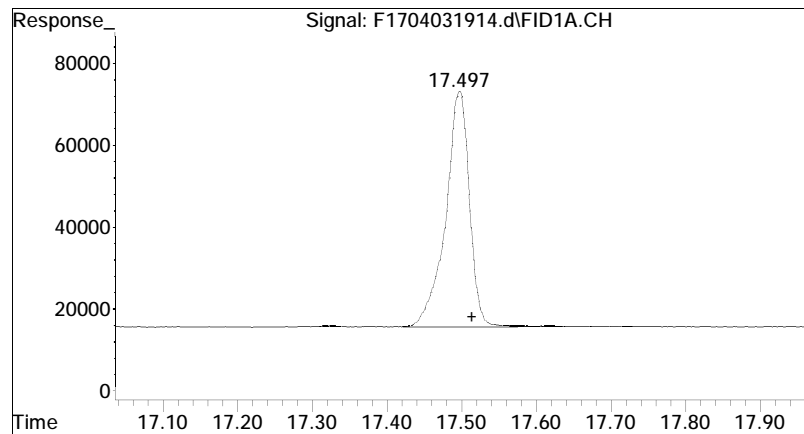
#5 n-Undecane (C11)

R.T.: 12.763 min
Delta R.T.: -0.018 min
Response: 1245627
Conc: 0.96 ug/mL M4



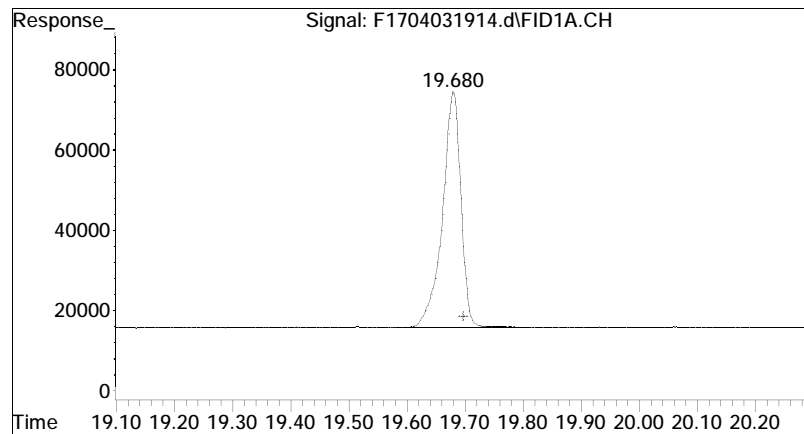
#6 n-Dodecane (C12)

R.T.: 15.190 min
Delta R.T.: -0.018 min
Response: 1257489
Conc: 0.96 ug/mL M4



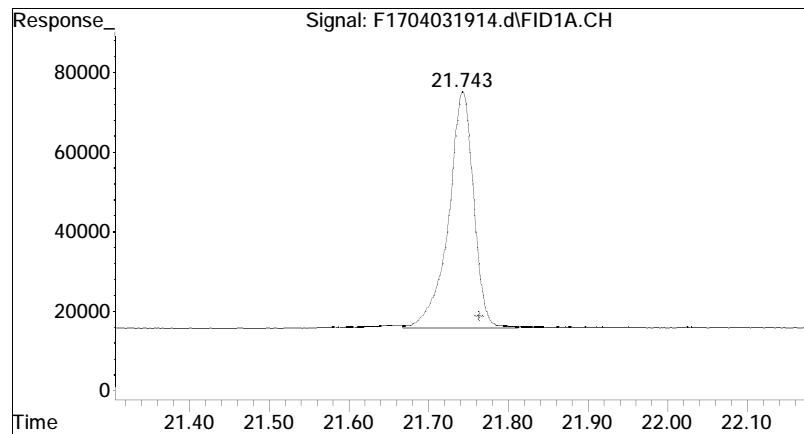
#7 n-Tridecane (C13)

R.T.: 17.497 min
Delta R.T.: -0.017 min
Response: 1244198
Conc: 0.95 ug/mL M4



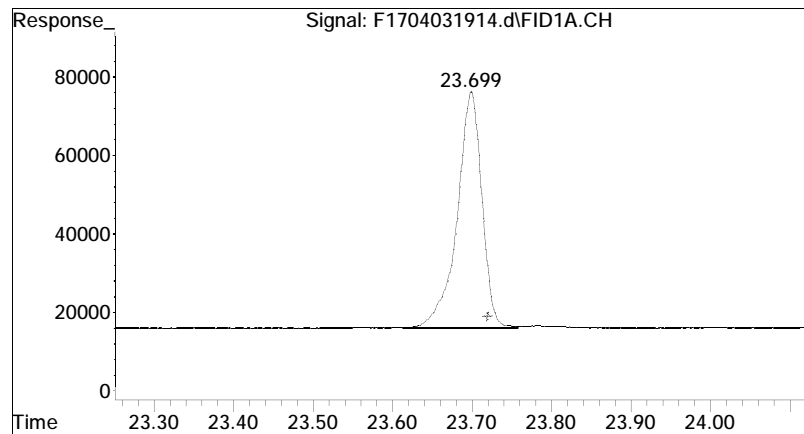
#9 n-Tetradecane (C14)

R.T.: 19.680 min
Delta R.T.: -0.018 min
Response: 1269406
Conc: 0.96 ug/mL M4



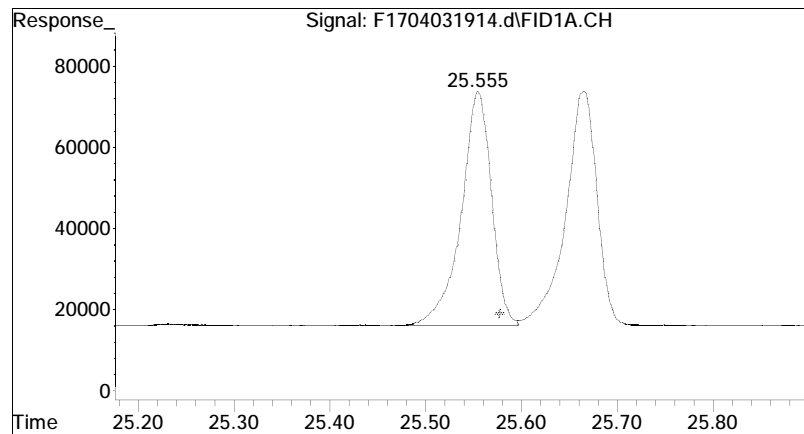
#11 n-Pentadecane (C15)

R.T.: 21.743 min
Delta R.T.: -0.020 min
Response: 1264624
Conc: 0.96 ug/mL M4



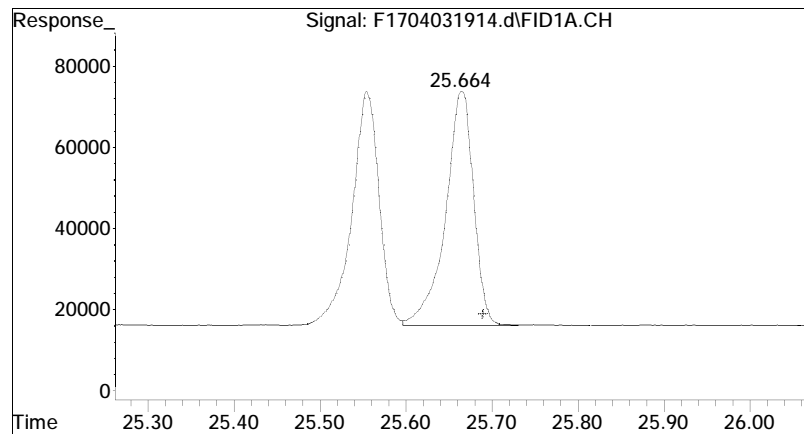
#12 n-Hexadecane (C16)

R.T.: 23.699 min
Delta R.T.: -0.021 min
Response: 1273963
Conc: 0.96 ug/mL M4



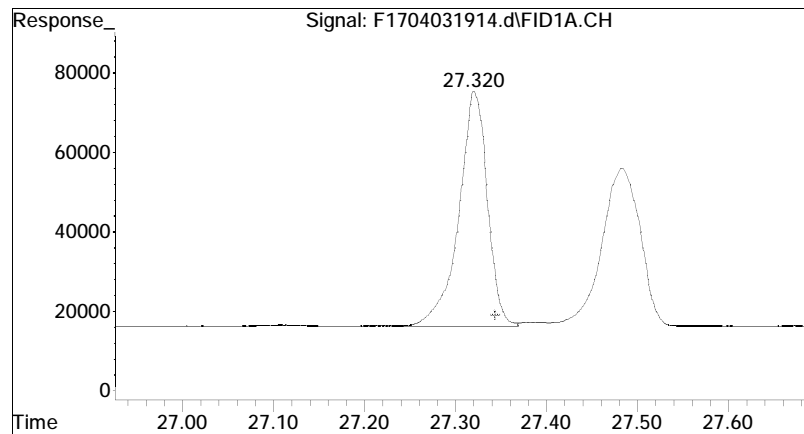
#14 n-Heptadecane (C17)

R.T.: 25.555 min
Delta R.T.: -0.023 min
Response: 1265531
Conc: 0.95 ug/mL M4

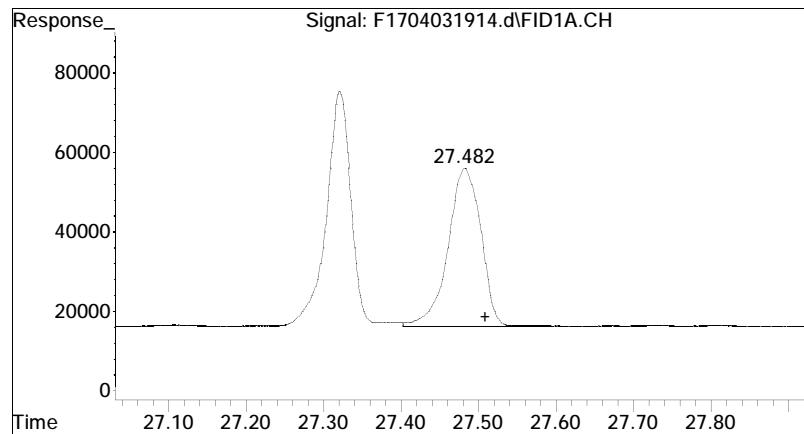


#15 Pristane

R.T.: 25.664 min
Delta R.T.: -0.025 min
Response: 1305253
Conc: 0.97 ug/mL M4

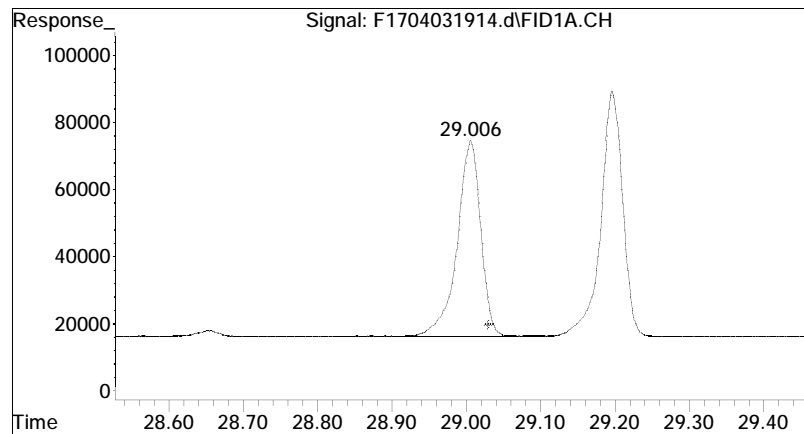


#16 n-Octadecane (C18)
R.T.: 27.320 min
Delta R.T.: -0.024 min
Response: 1287013
Conc: 0.96 ug/mL M4

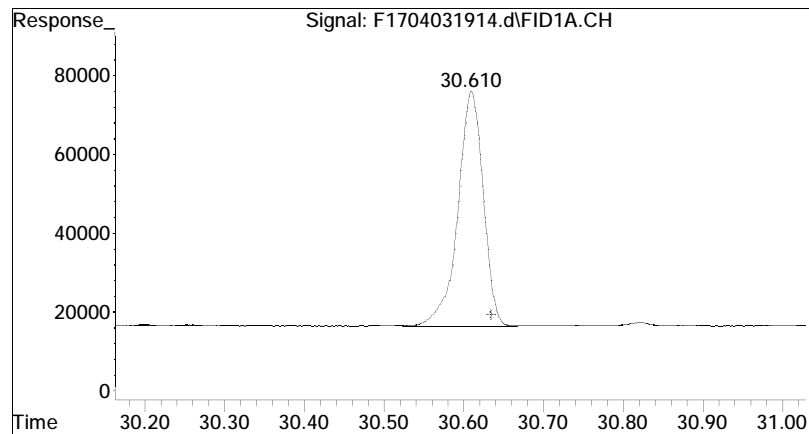


#17 Phytane

R.T.: 27.482 min
Delta R.T.: -0.027 min
Response: 1171038
Conc: 0.96 ug/mL M4

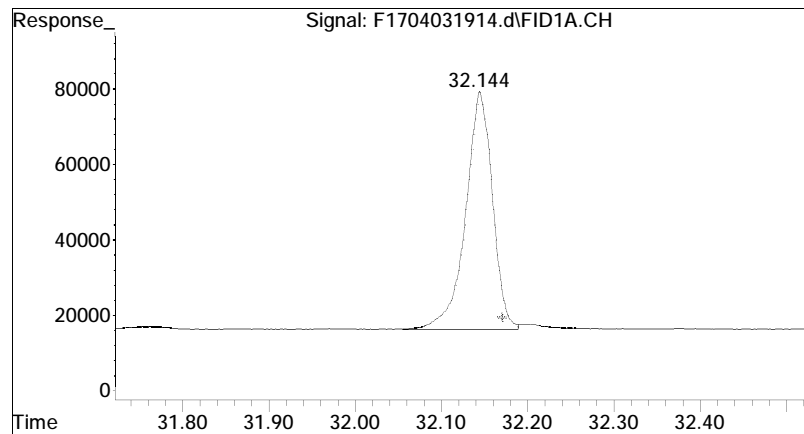


#18 n-Nonadecane (C19)
R.T.: 29.006 min
Delta R.T.: -0.024 min
Response: 1284795
Conc: 0.96 ug/mL M4



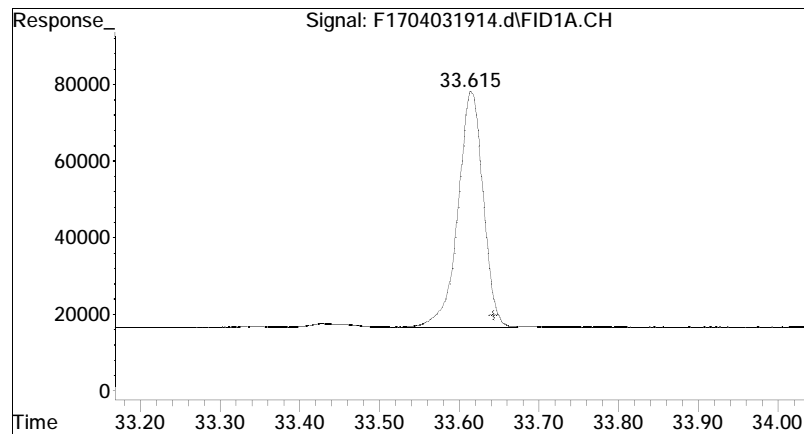
#20 n-Eicosane (C20)

R.T.: 30.610 min
Delta R.T.: -0.025 min
Response: 1290533
Conc: 0.96 ug/mL M4



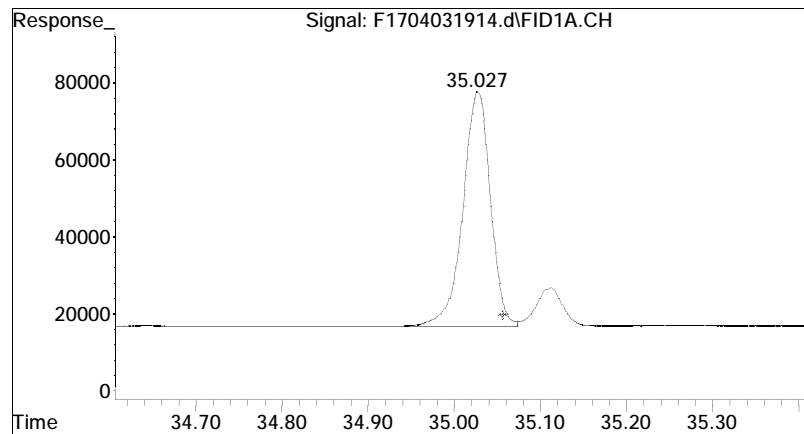
#21 n-Heneicosane (C21)

R.T.: 32.144 min
Delta R.T.: -0.027 min
Response: 1316666
Conc: 0.97 ug/mL M4



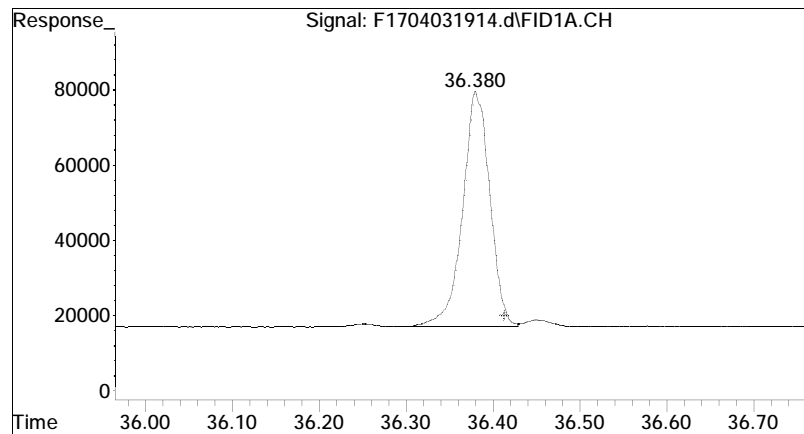
#22 n-Docosane (C22)

R.T.: 33.615 min
Delta R.T.: -0.029 min
Response: 1314605
Conc: 0.97 ug/mL M4



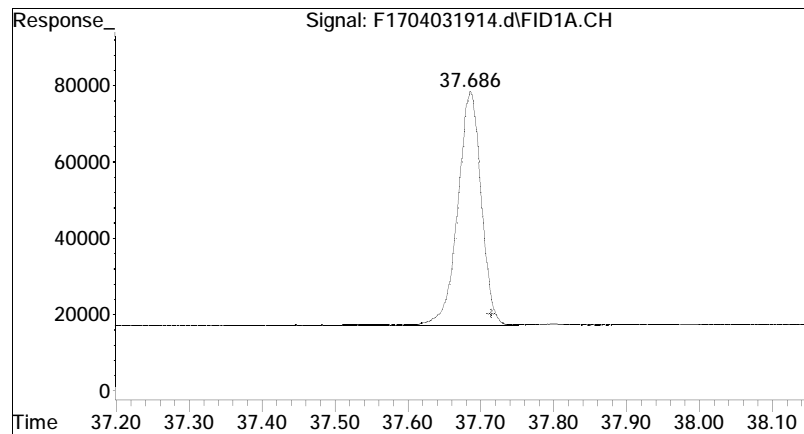
#23 n-Tricosane (C23)

R.T.: 35.027 min
Delta R.T.: -0.030 min
Response: 1330396
Conc: 0.97 ug/mL M4



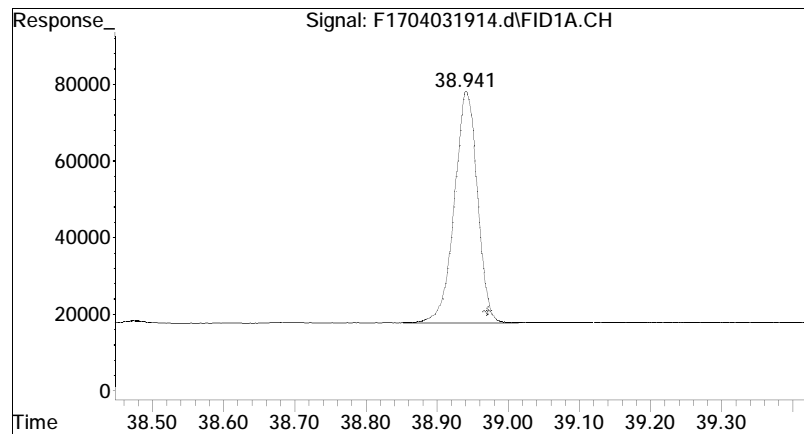
#25 n-Tetracosane (C24)

R.T.: 36.380 min
Delta R.T.: -0.033 min
Response: 1339135
Conc: 0.98 ug/mL M4



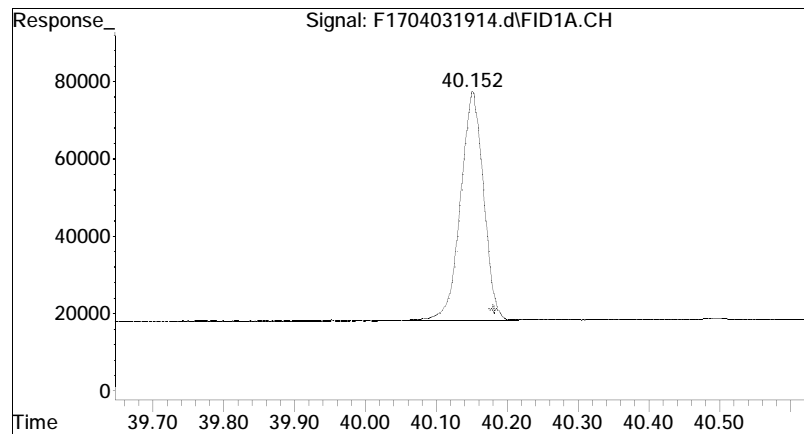
#26 n-Pentacosane (C25)

R.T.: 37.686 min
Delta R.T.: -0.029 min
Response: 1323509
Conc: 0.97 ug/mL M4



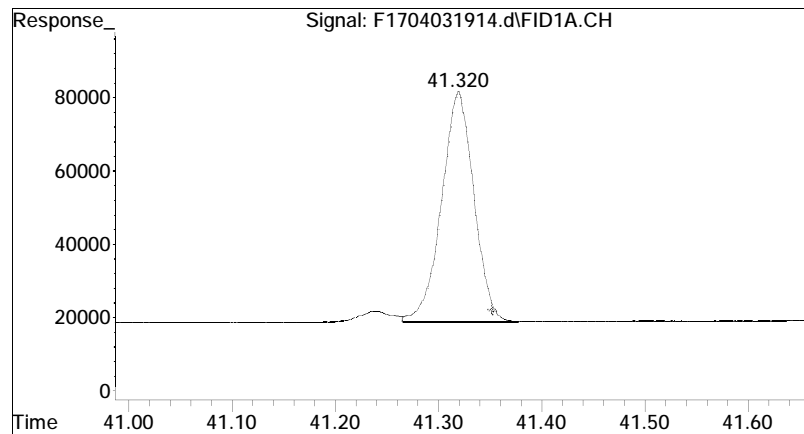
#27 n-Hexacosane (C26)

R.T.: 38.941 min
Delta R.T.: -0.031 min
Response: 1331854
Conc: 0.97 ug/mL M4



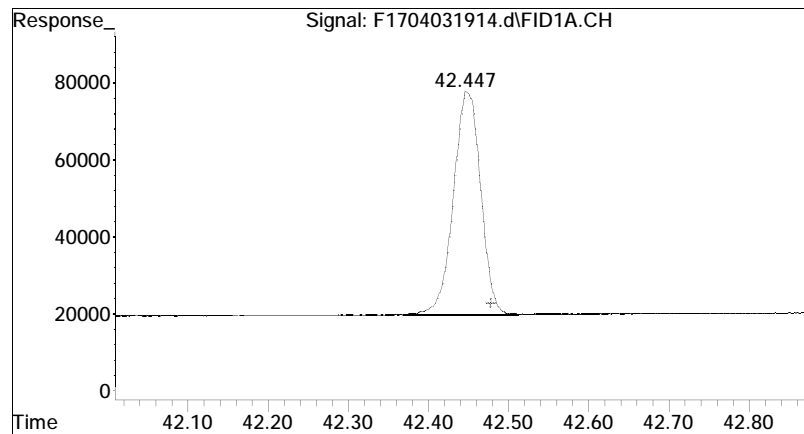
#28 n-Heptacosane (C27)

R.T.: 40.152 min
Delta R.T.: -0.030 min
Response: 1303305
Conc: 0.98 ug/mL M4



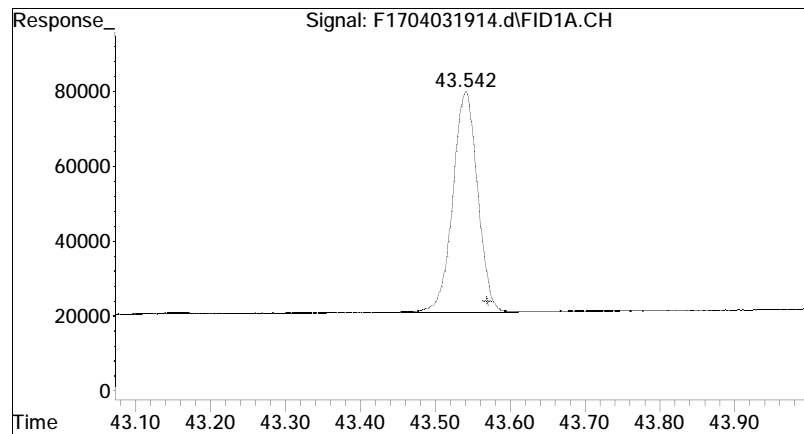
#29 n-Octacosane (C28)

R.T.: 41.320 min
Delta R.T.: -0.033 min
Response: 1337184
Conc: 0.96 ug/mL M4



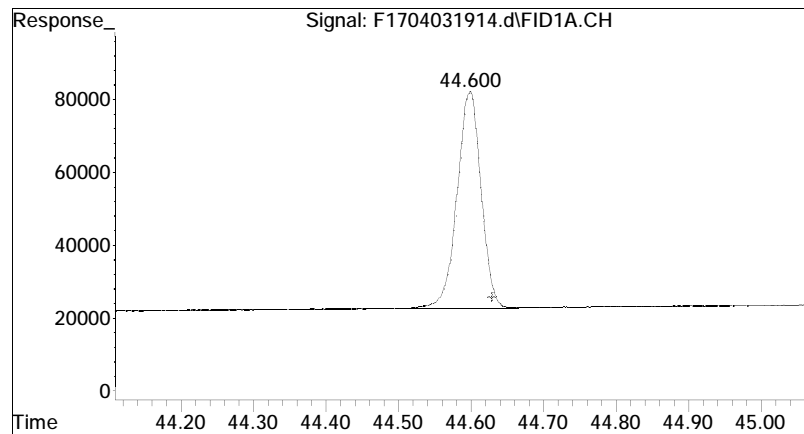
#30 n-Nonacosane (C29)

R.T.: 42.447 min
Delta R.T.: -0.031 min
Response: 1338945
Conc: 0.97 ug/mL M4



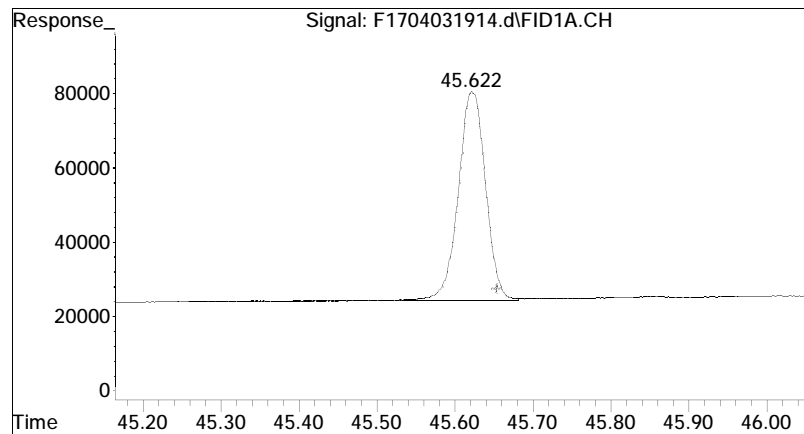
#31 n-Triacontane (C30)

R.T.: 43.542 min
Delta R.T.: -0.028 min
Response: 1327865
Conc: 0.98 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.600 min
Delta R.T.: -0.030 min
Response: 1341967
Conc: 0.98 ug/mL M4



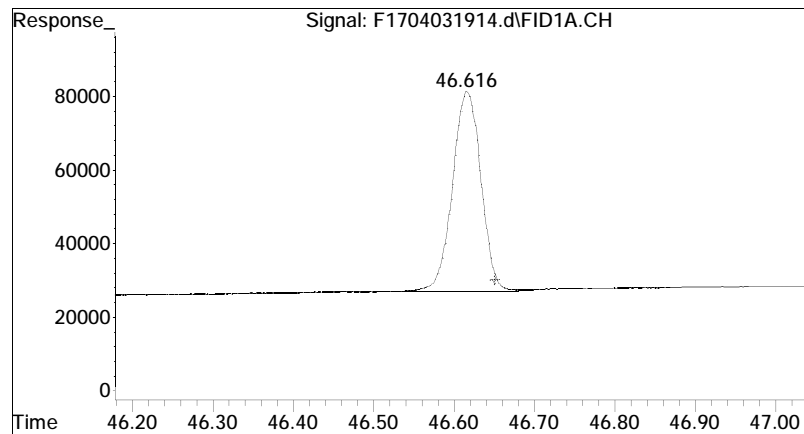
#33 n-Dotriacontane (C32)

R.T.: 45.622 min

Delta R.T.: -0.032 min

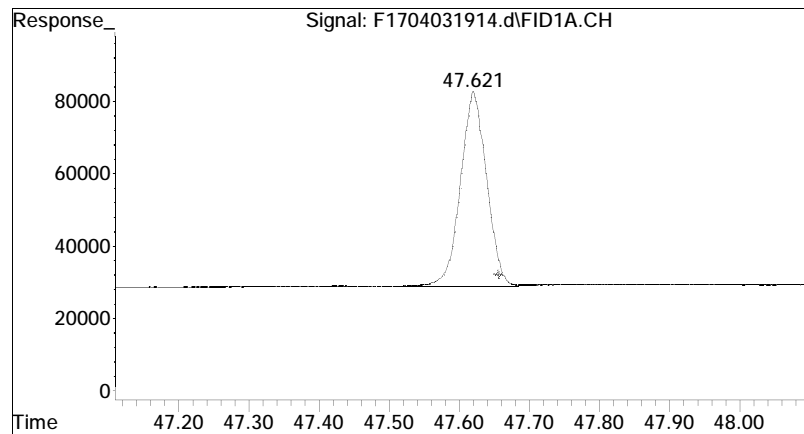
Response: 1325638

Conc: 0.98 ug/mL M4



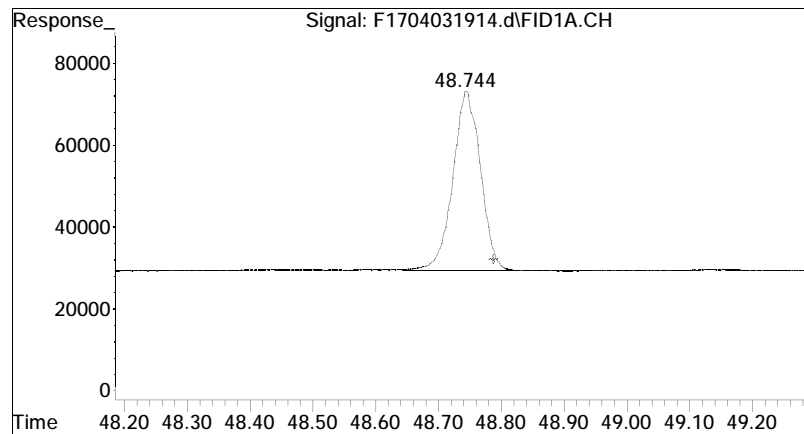
#34 n-Tritriacontane (C33)

R.T.: 46.616 min
Delta R.T.: -0.035 min
Response: 1310320
Conc: 0.98 ug/mL M4



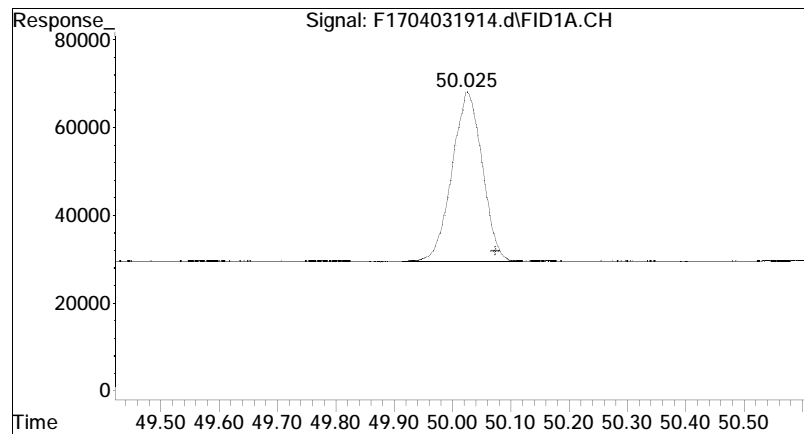
#35 n-tetratriacontane (C34)

R.T.: 47.621 min
Delta R.T.: -0.036 min
Response: 1354303
Conc: 0.98 ug/mL M4



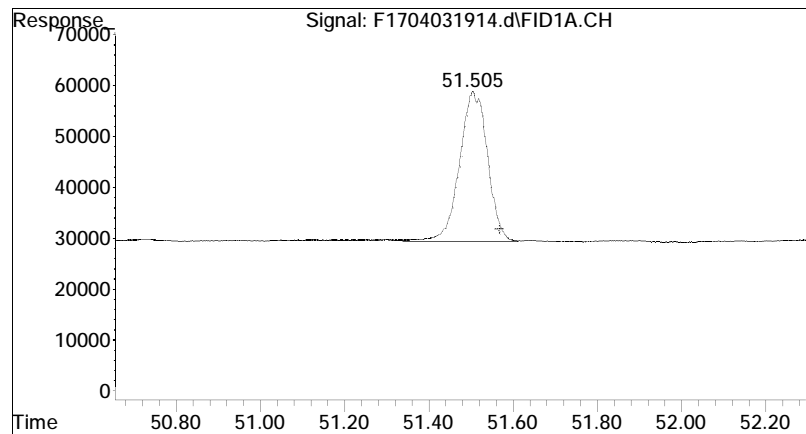
#36 n-Pentatriacontane (C35)

R.T.: 48.744 min
Delta R.T.: -0.044 min
Response: 1313844
Conc: 0.99 ug/mL M4



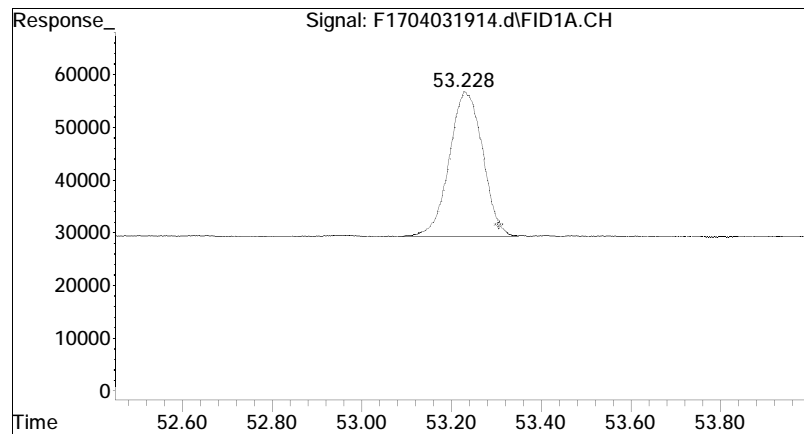
#37 n-Hexatriacontane (C36)

R.T.: 50.025 min
Delta R.T.: -0.049 min
Response: 1377457
Conc: 0.98 ug/mL M4



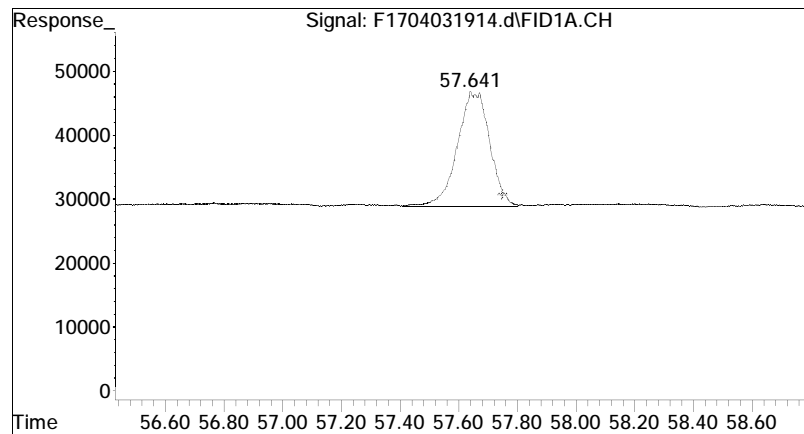
#38 n-Heptatriacontane (C37)

R.T.: 51.505 min
Delta R.T.: -0.062 min
Response: 1323495
Conc: 1.00 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 53.228 min
Delta R.T.: -0.078 min
Response: 1389644
Conc: 0.97 ug/mL M4



#41 n-Tetracontane (C40)

R.T.: 57.641 min

Delta R.T.: -0.109 min

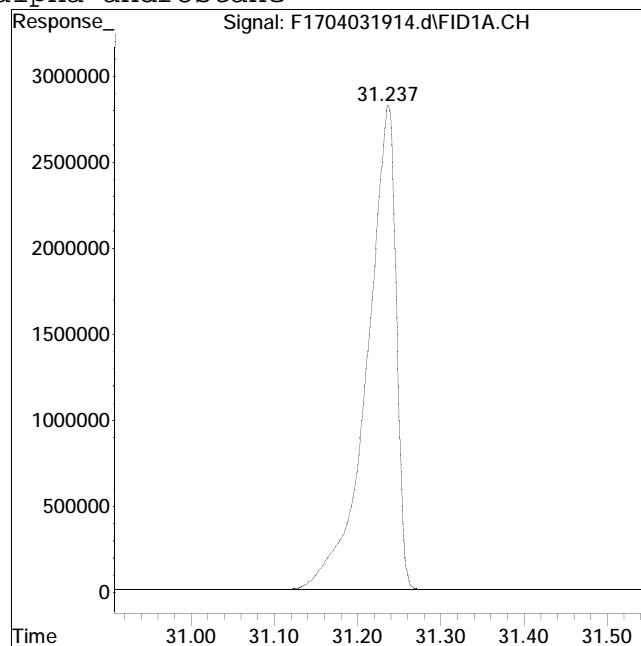
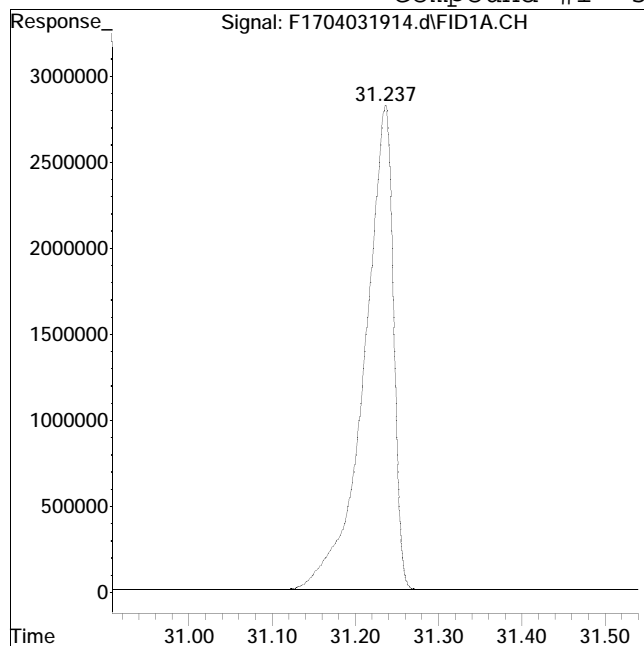
Response: 1331932

Conc: 0.98 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 68331052

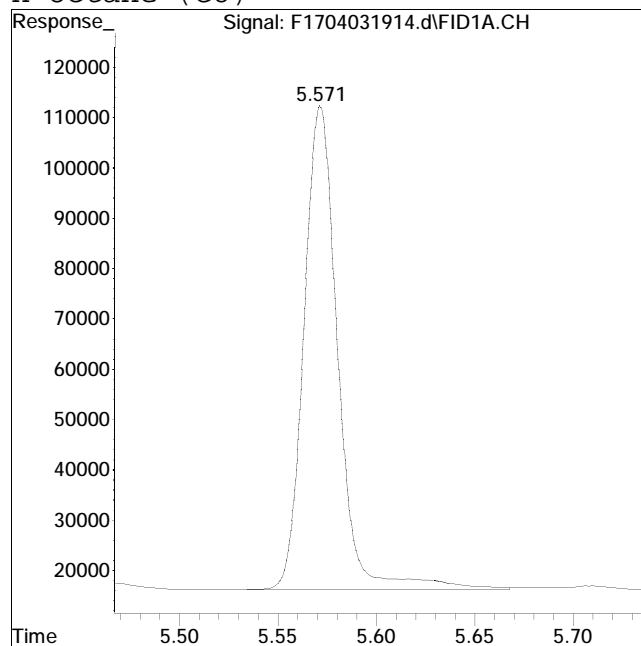
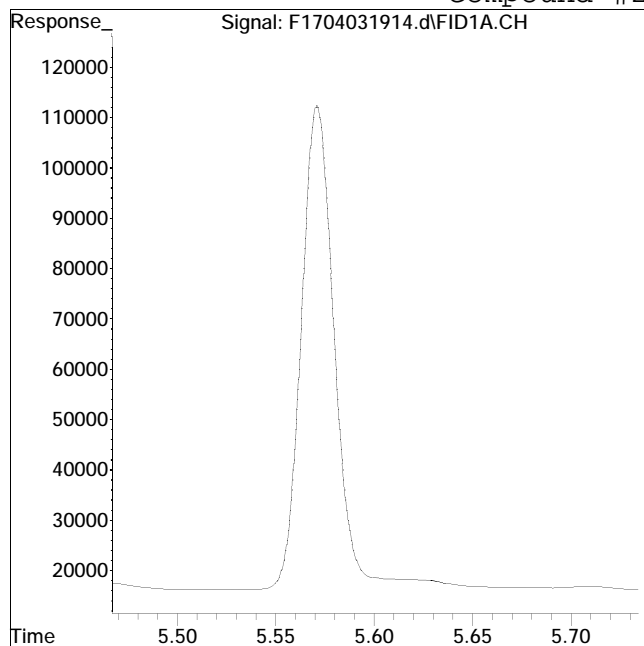
Manual Peak Response = 68382884 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #2: n-Octane (C8)



Original Peak Response = 0

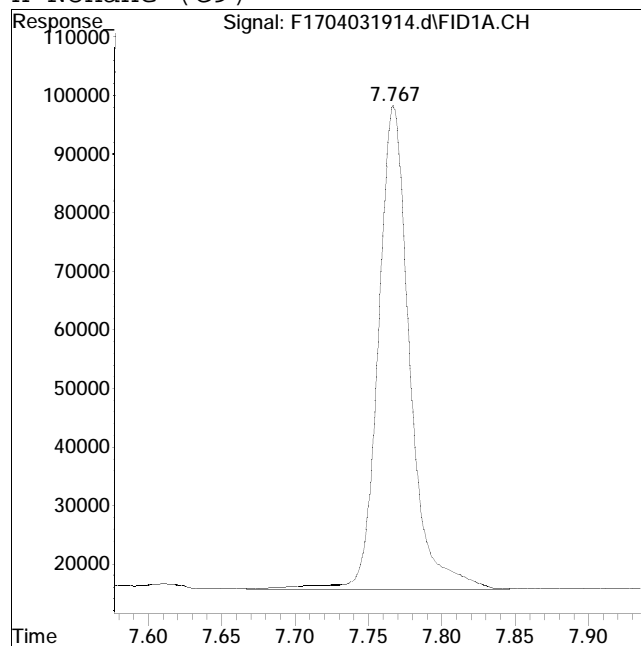
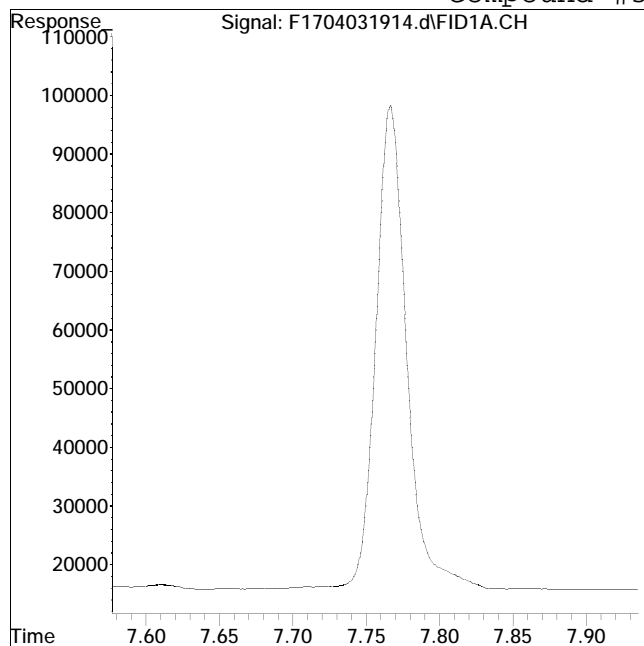
Manual Peak Response = 1160297 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 0

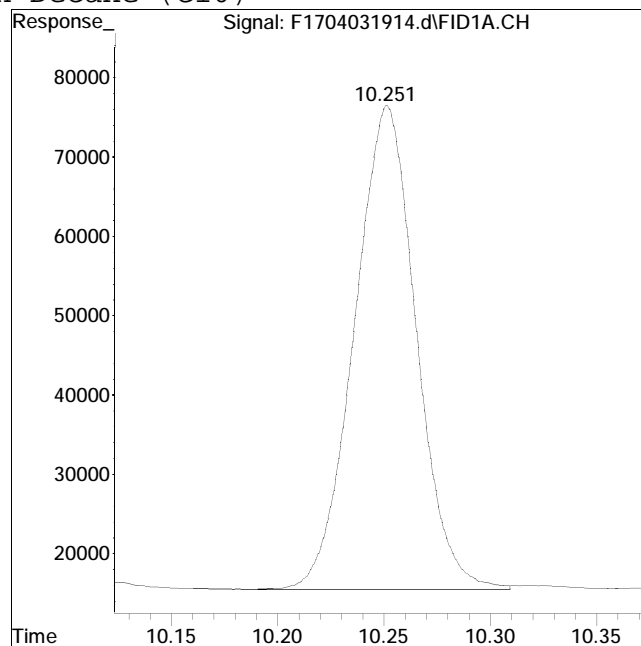
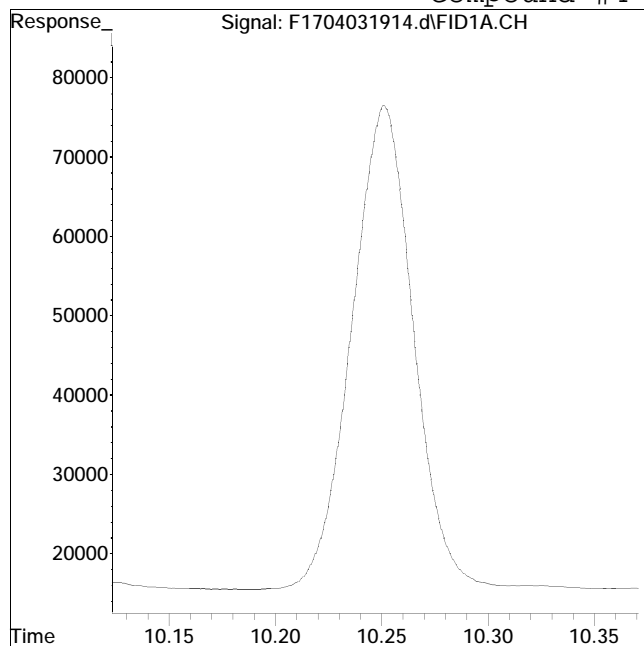
Manual Peak Response = 1241959 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #4: n-Decane (C10)



Original Peak Response = 0

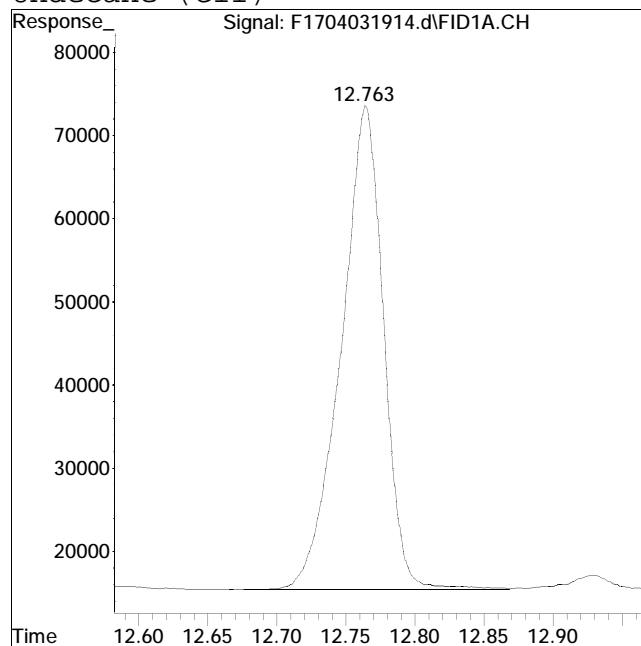
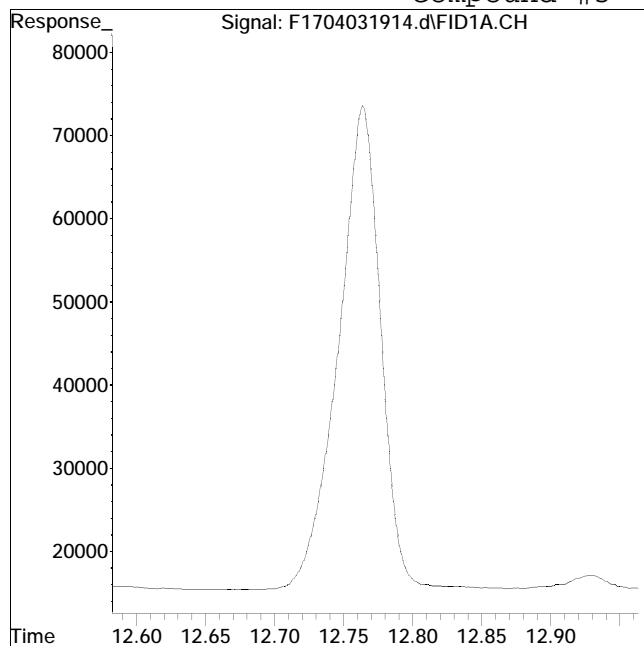
Manual Peak Response = 1234055 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 0

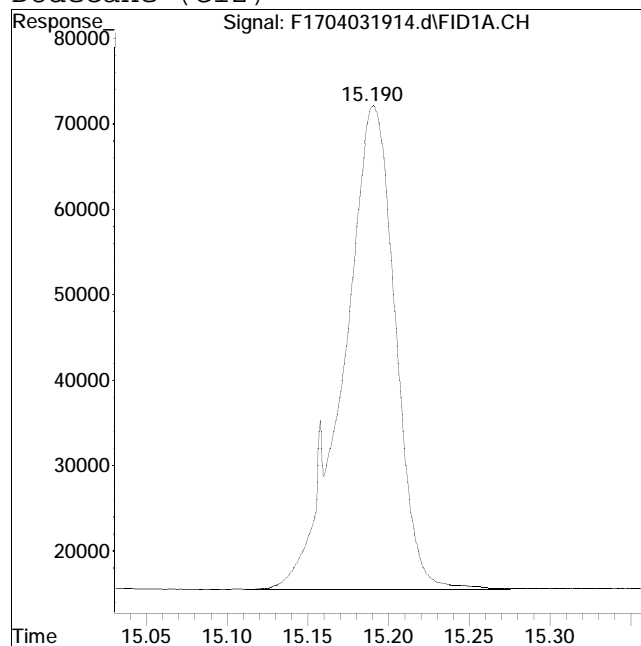
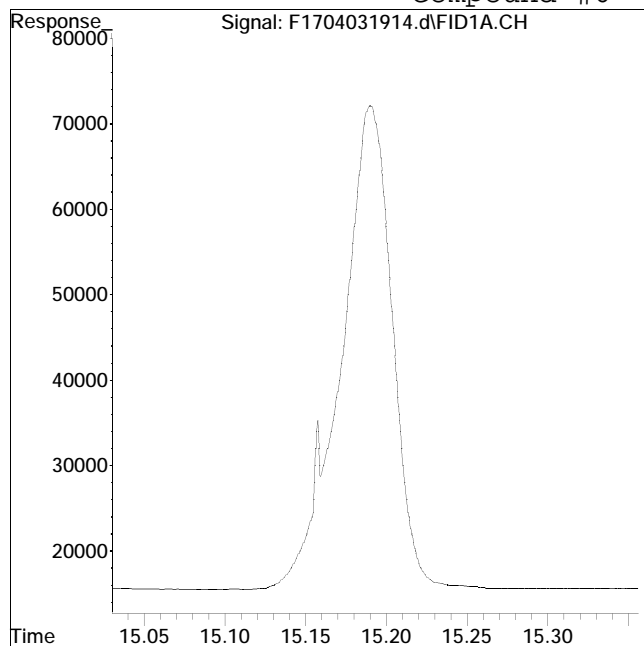
Manual Peak Response = 1245627 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 0

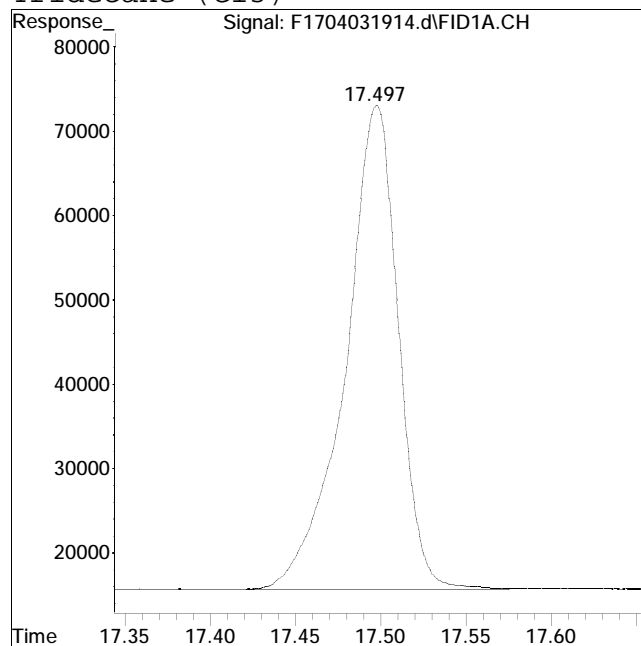
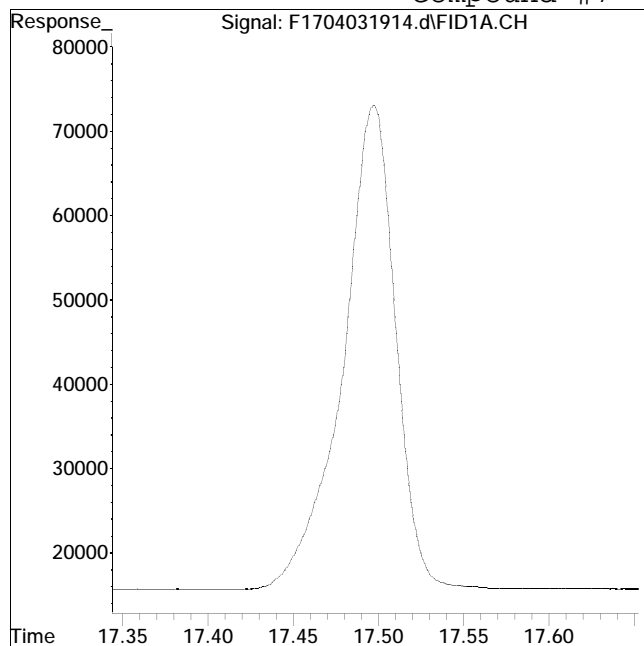
Manual Peak Response = 1257489 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 0

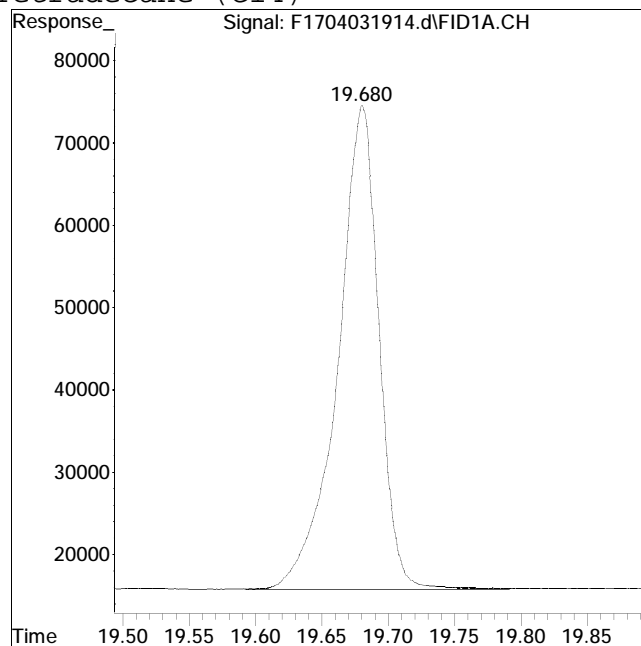
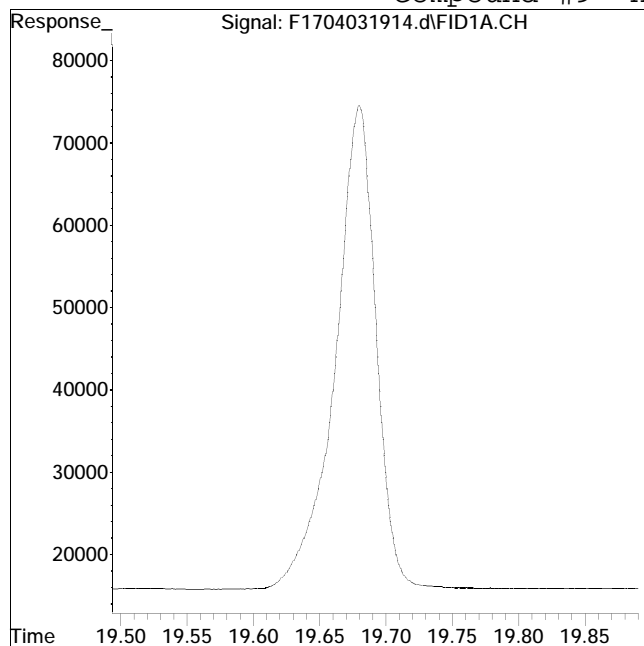
Manual Peak Response = 1244198 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 0

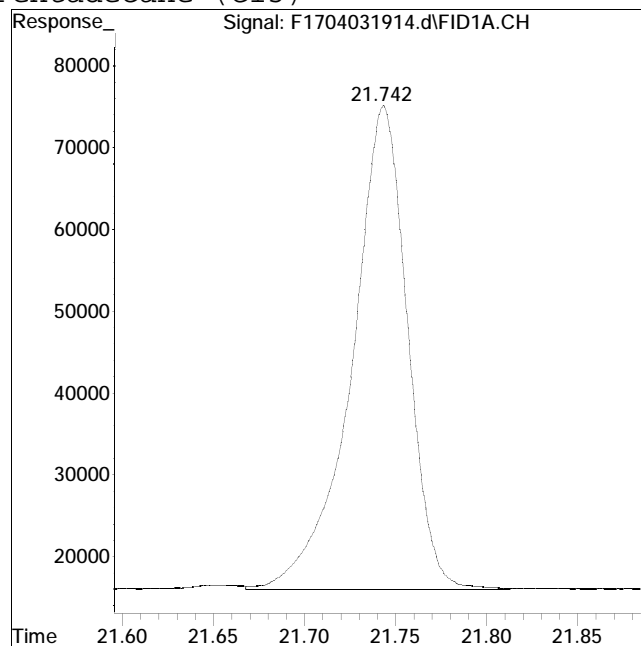
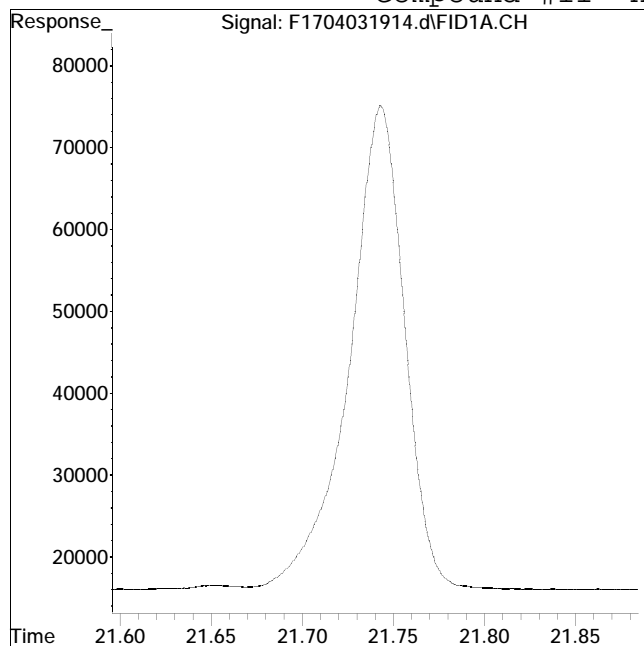
Manual Peak Response = 1269406 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 0

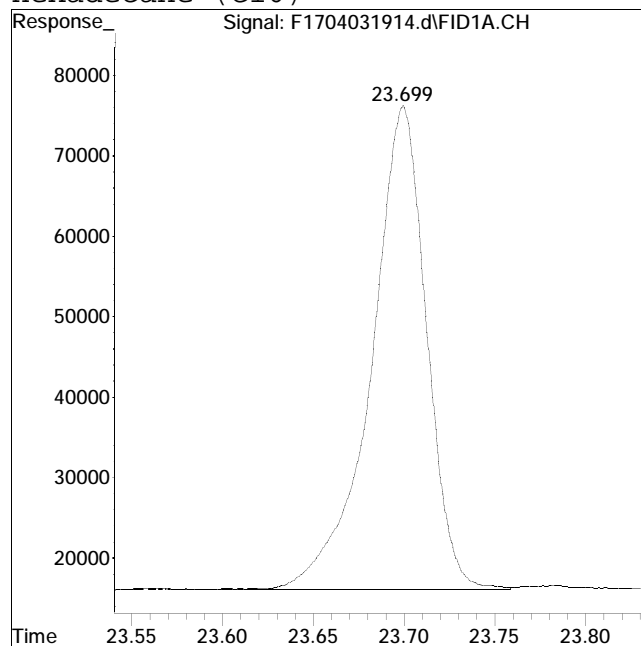
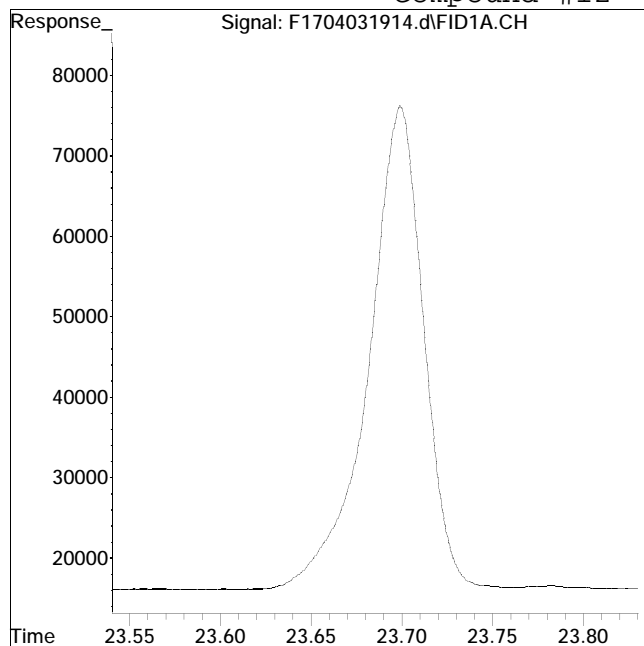
Manual Peak Response = 1264624 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 0

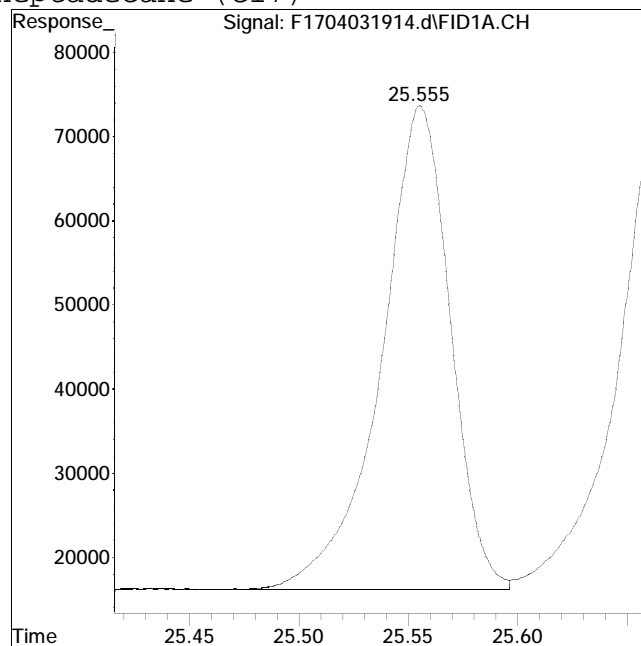
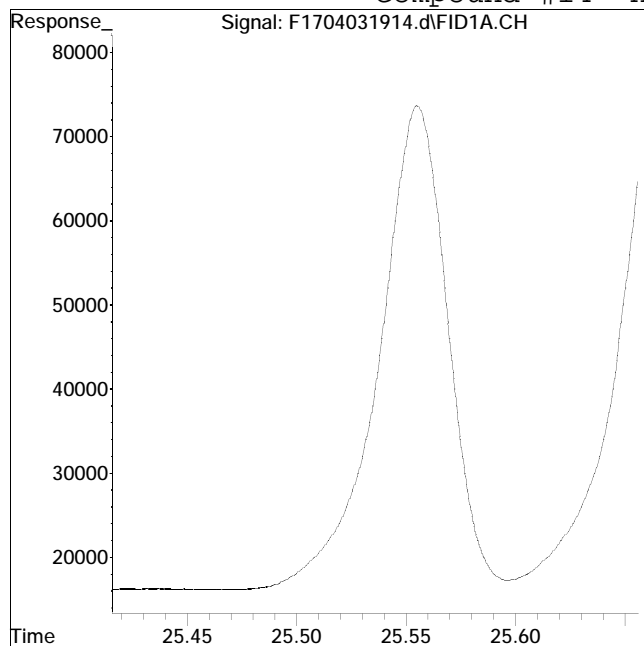
Manual Peak Response = 1273963 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 0

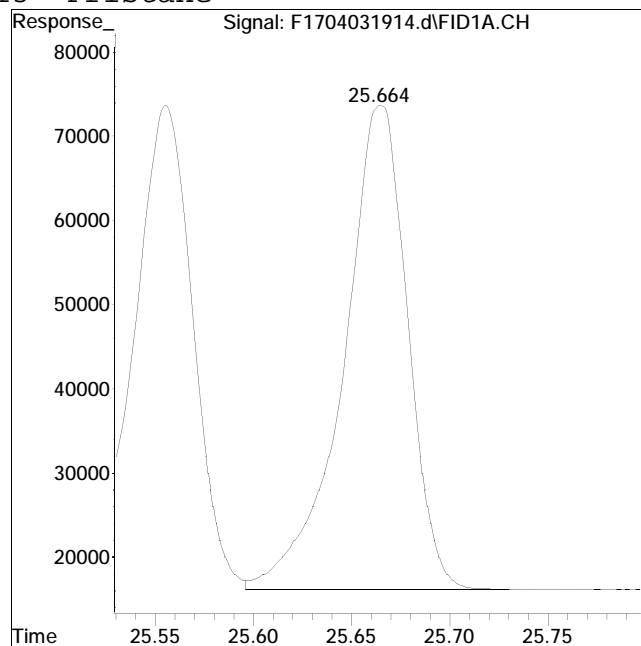
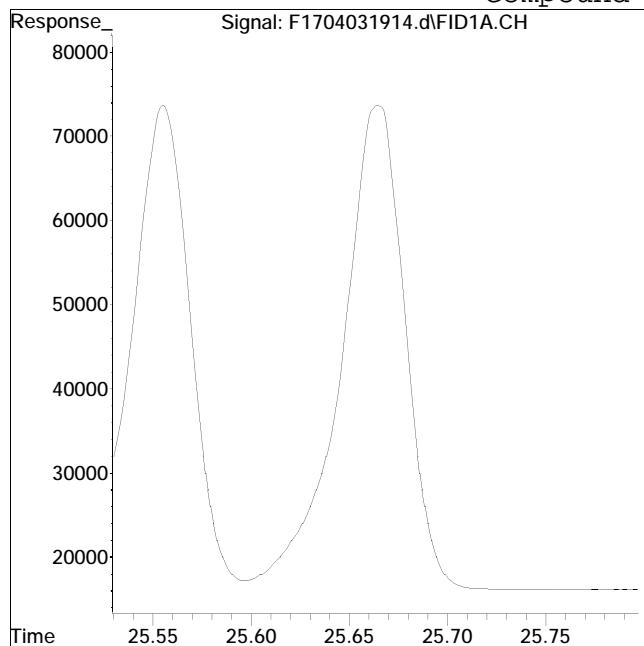
Manual Peak Response = 1265531 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #15: Pristane



Original Peak Response = 0

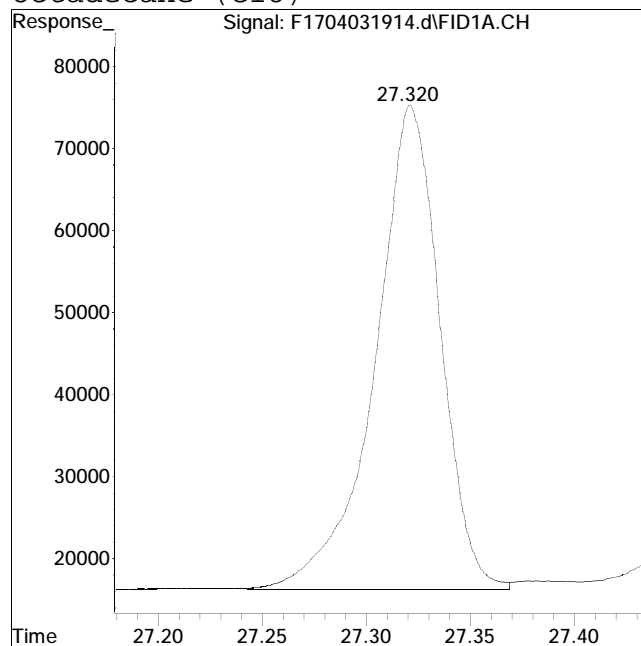
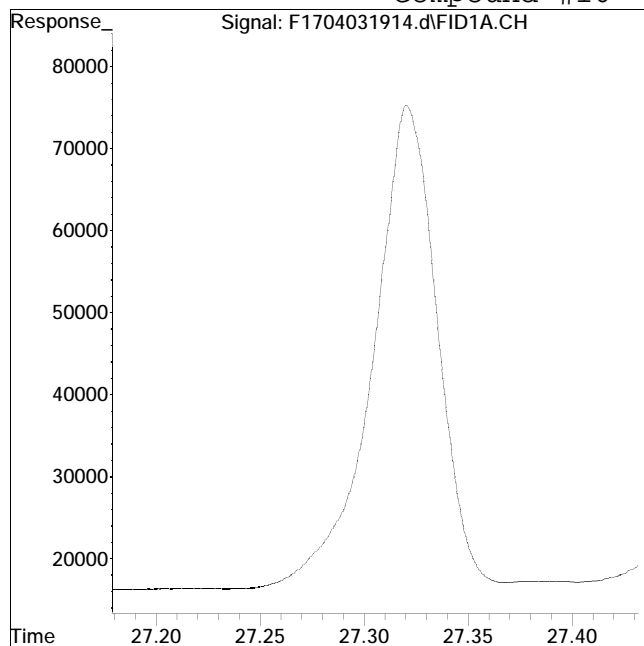
Manual Peak Response = 1305253 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 0

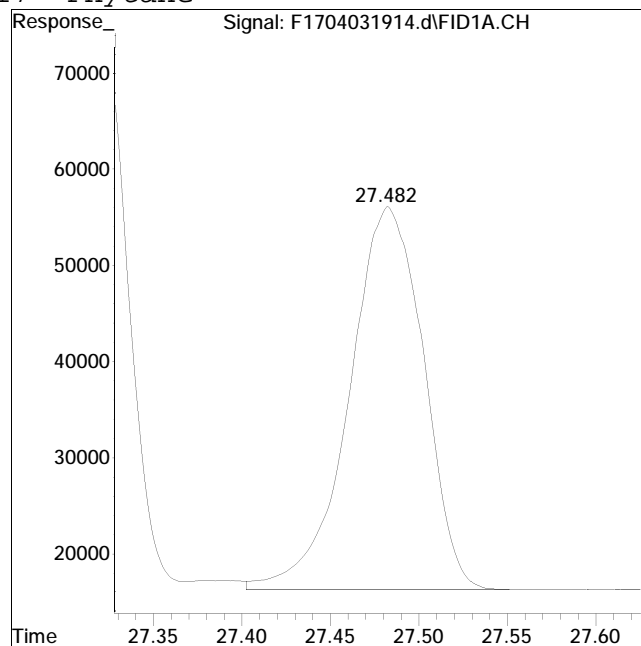
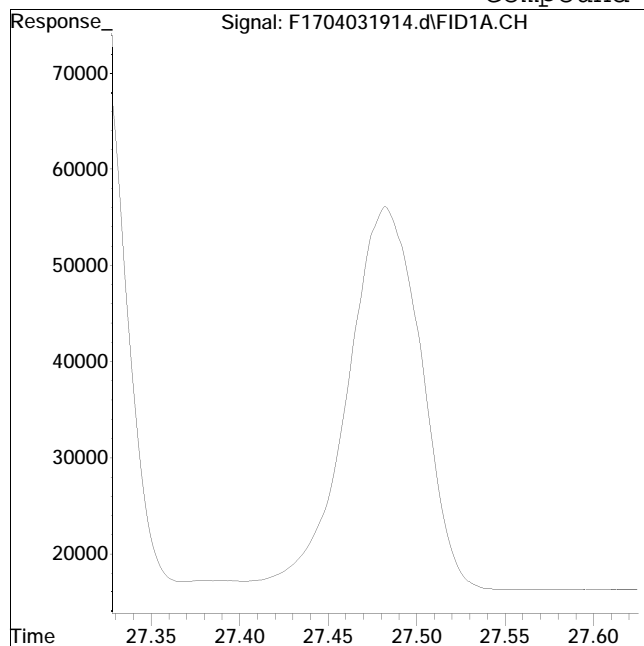
Manual Peak Response = 1287013 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #17: Phytane



Original Peak Response = 0

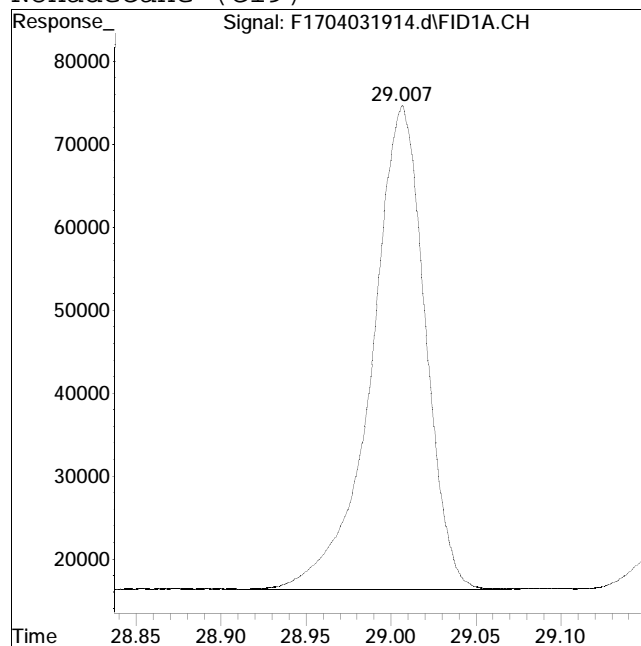
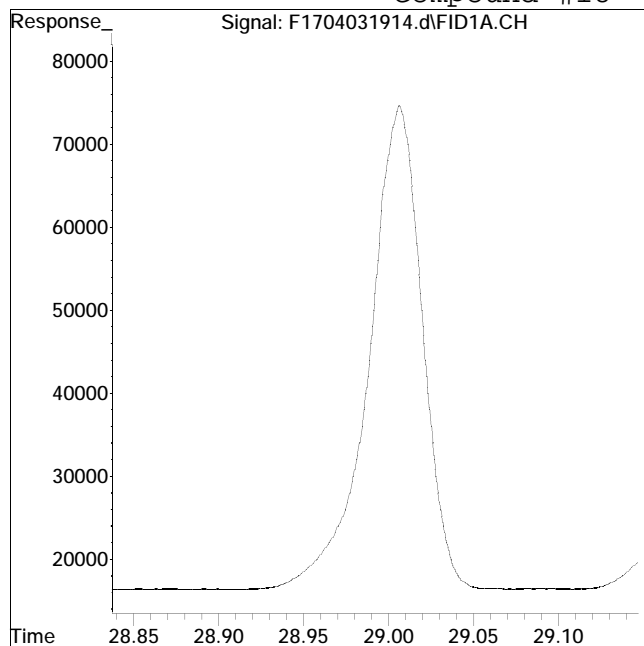
Manual Peak Response = 1171038 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 0

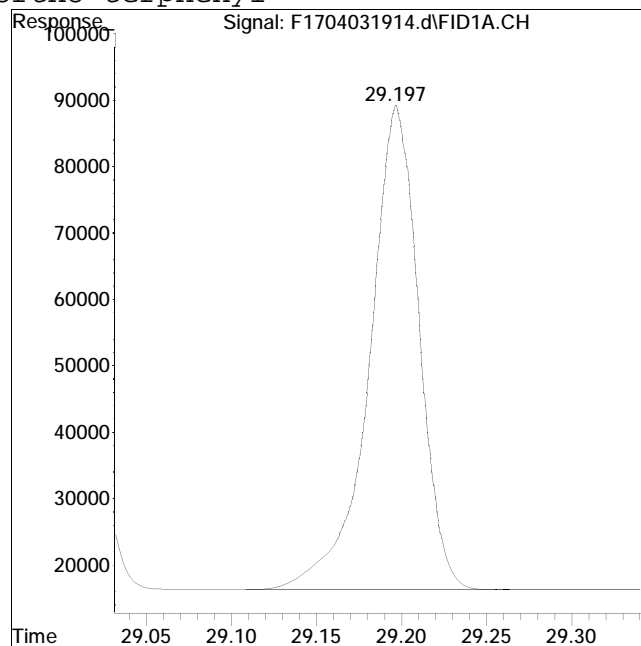
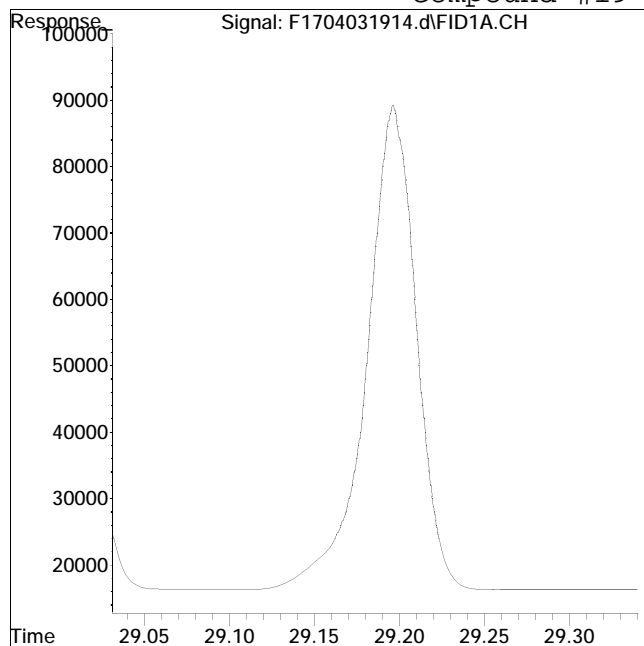
Manual Peak Response = 1284795 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #19: ortho-terphenyl



Original Peak Response = 0

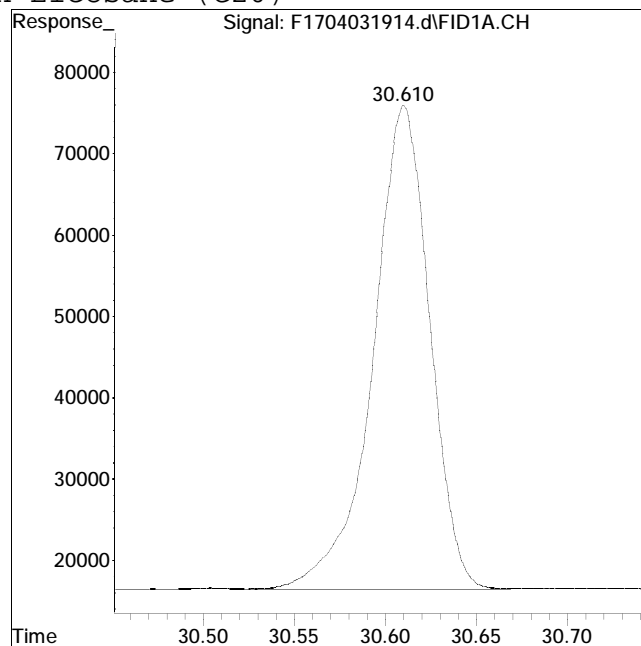
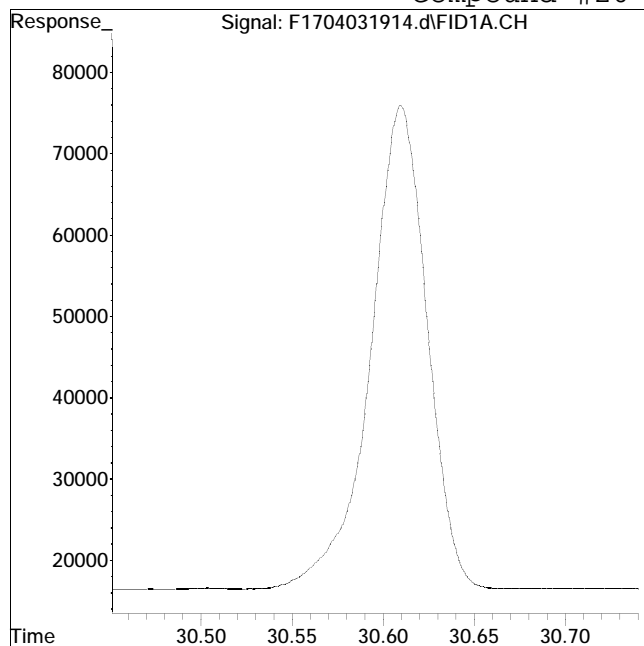
Manual Peak Response = 1484378 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 0

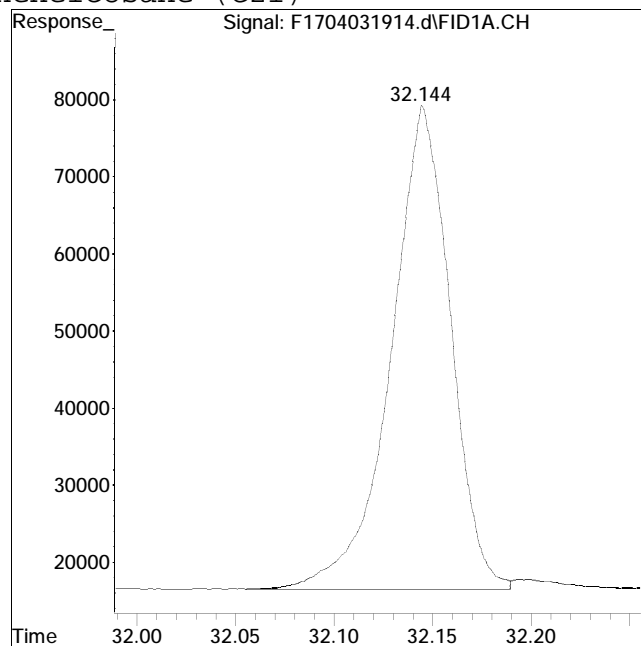
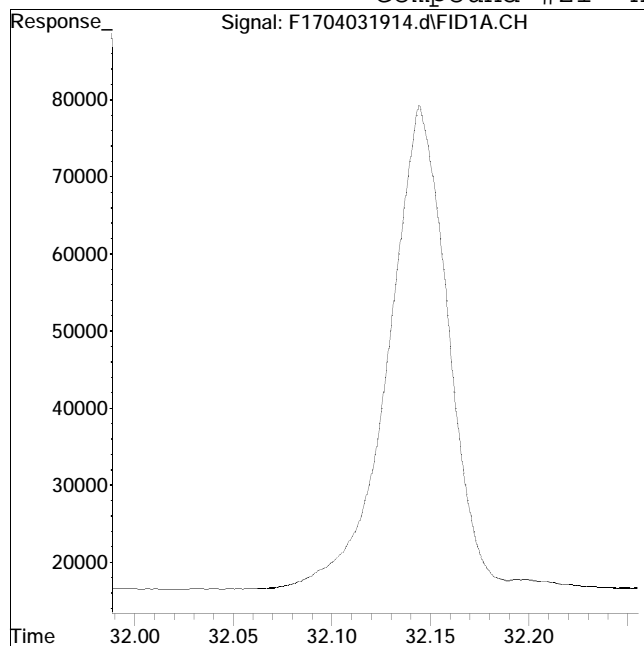
Manual Peak Response = 1290533 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 0

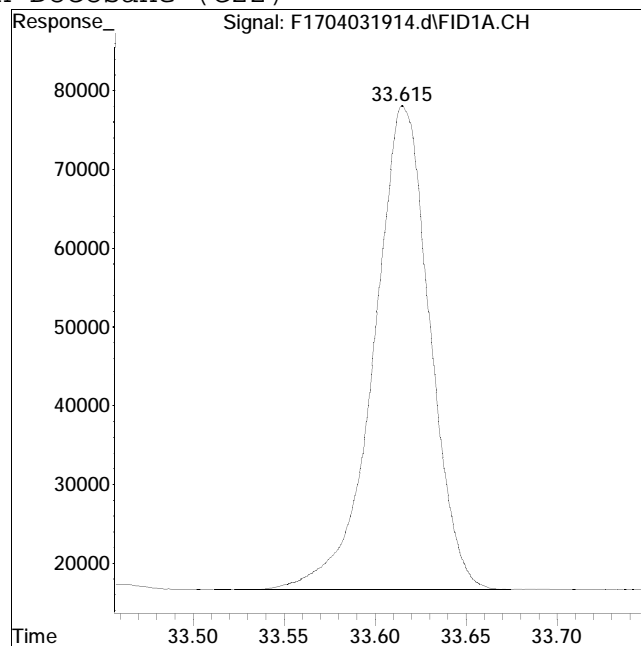
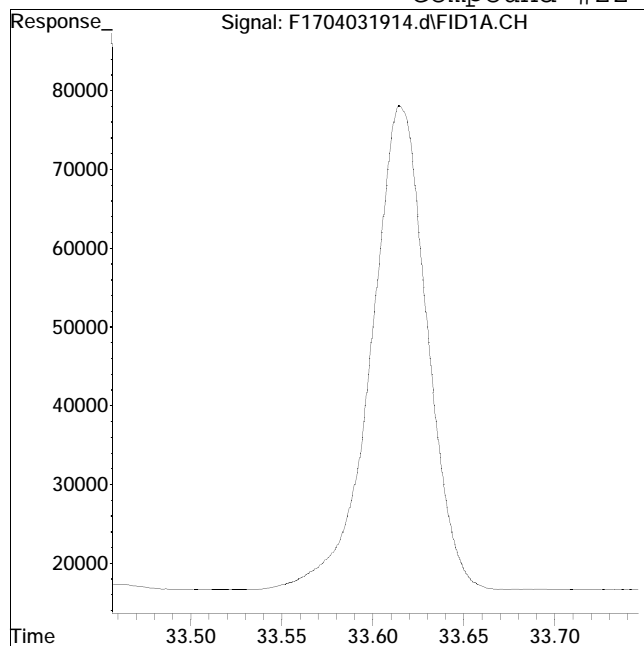
Manual Peak Response = 1316666 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 0

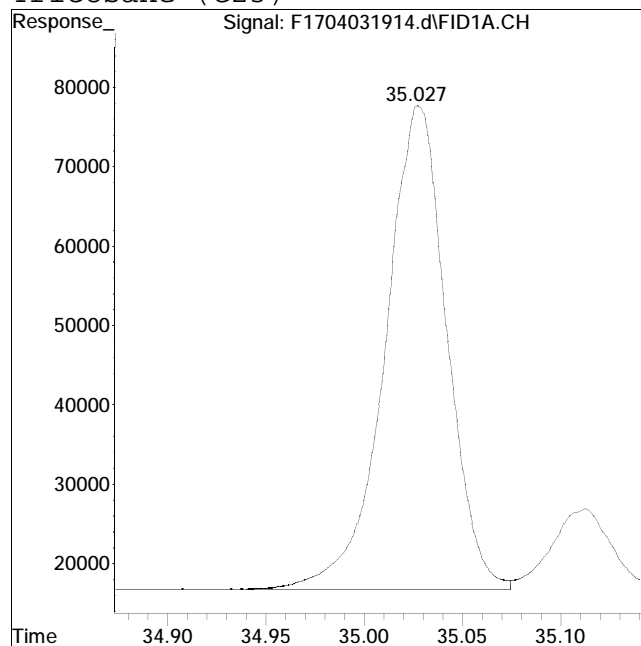
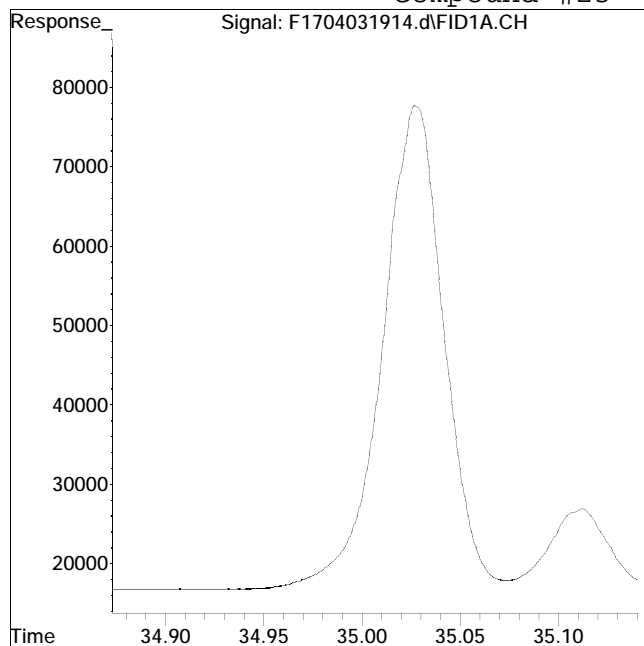
Manual Peak Response = 1314605 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 0

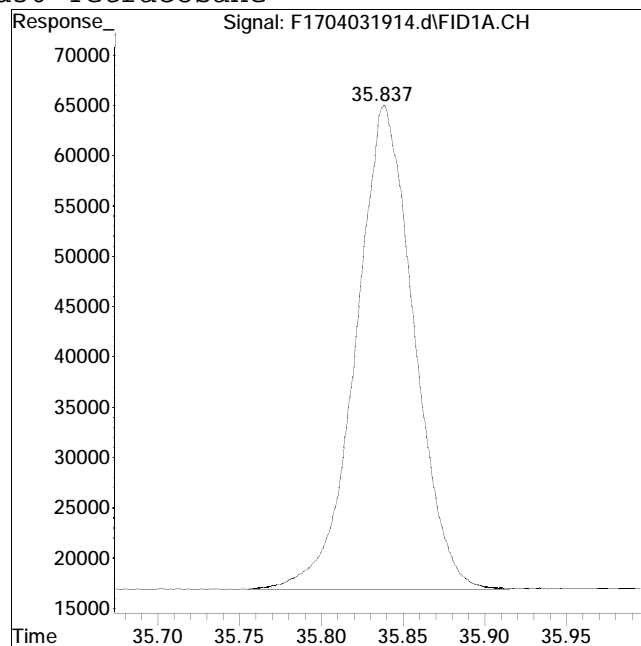
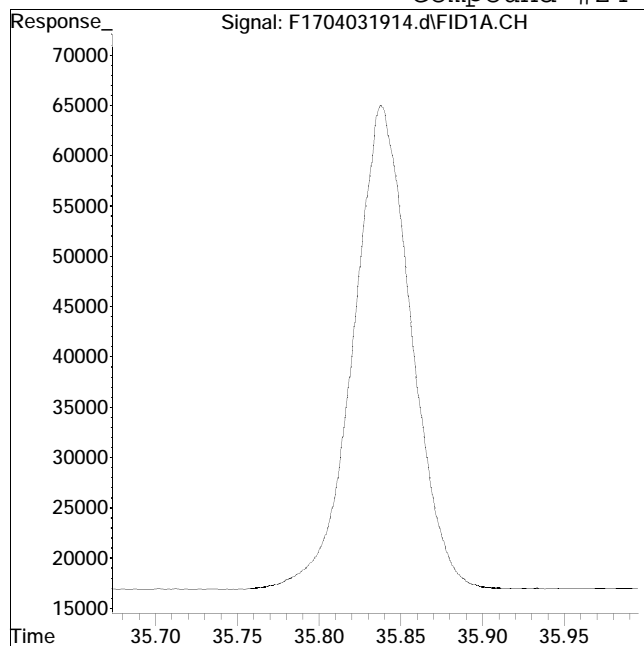
Manual Peak Response = 1330396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #24: d50-Tetracosane



Original Peak Response = 0

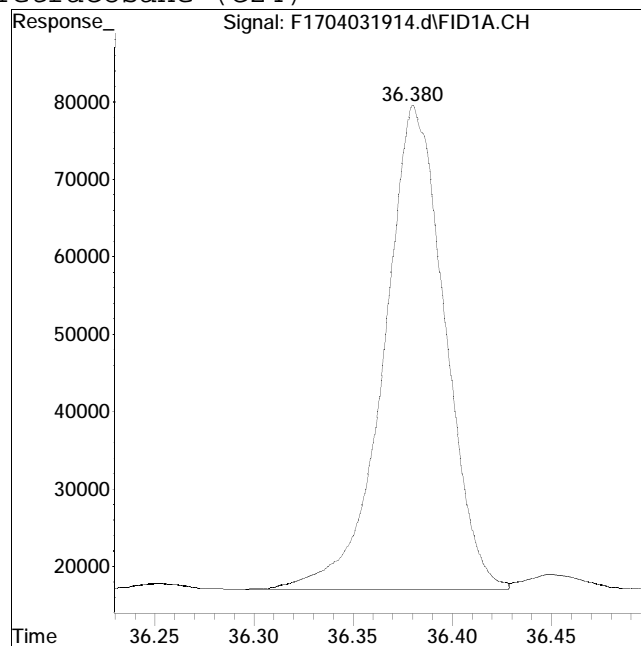
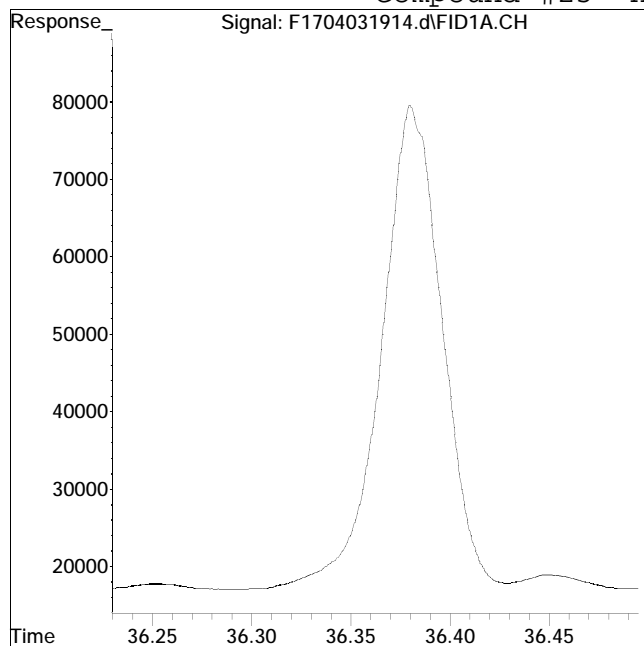
Manual Peak Response = 1189079 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 0

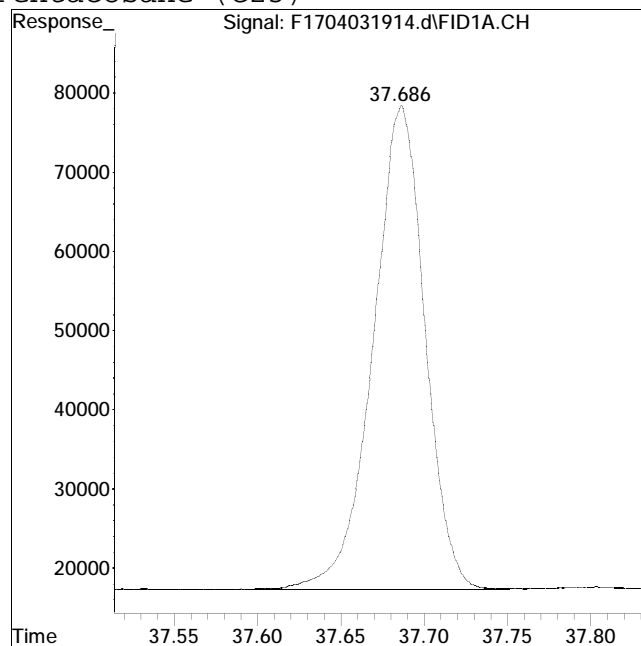
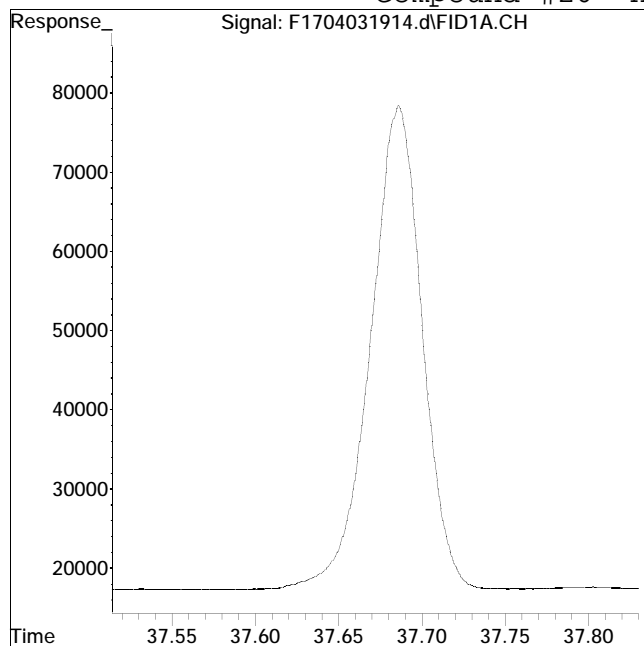
Manual Peak Response = 1339135 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 0

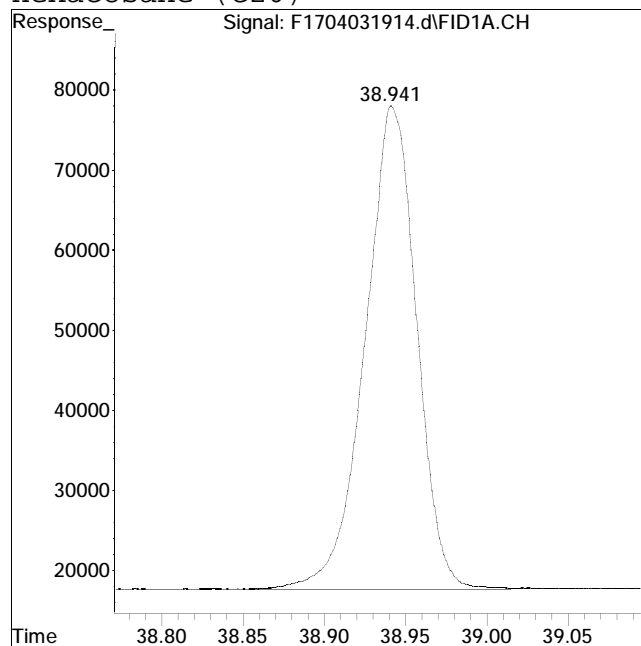
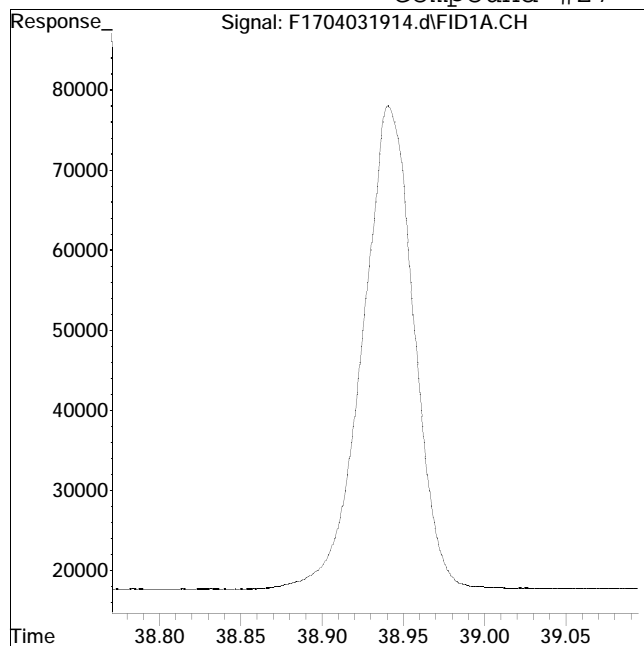
Manual Peak Response = 1323509 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 0

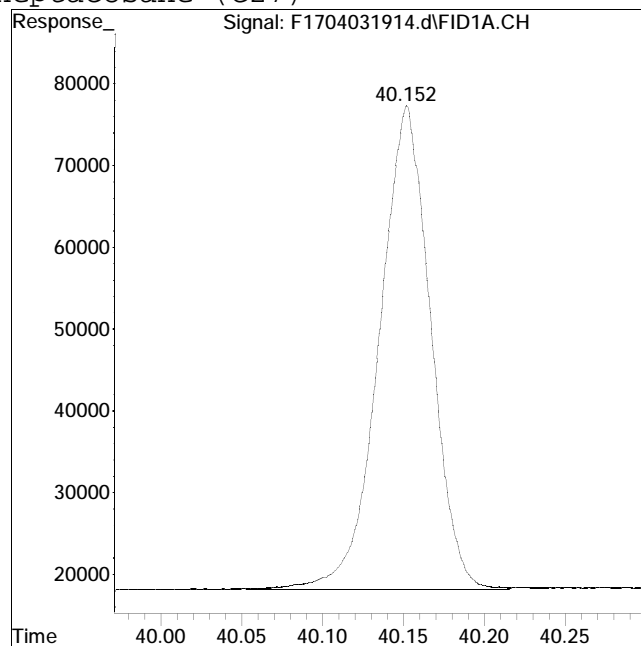
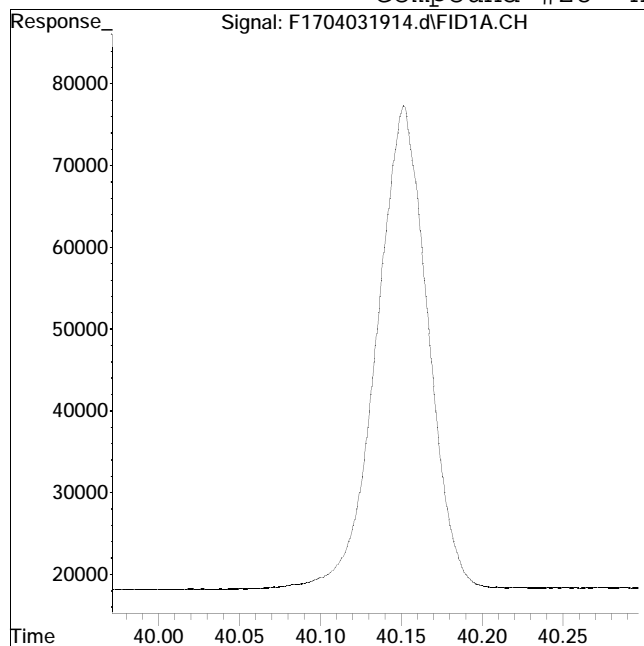
Manual Peak Response = 1331854 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 0

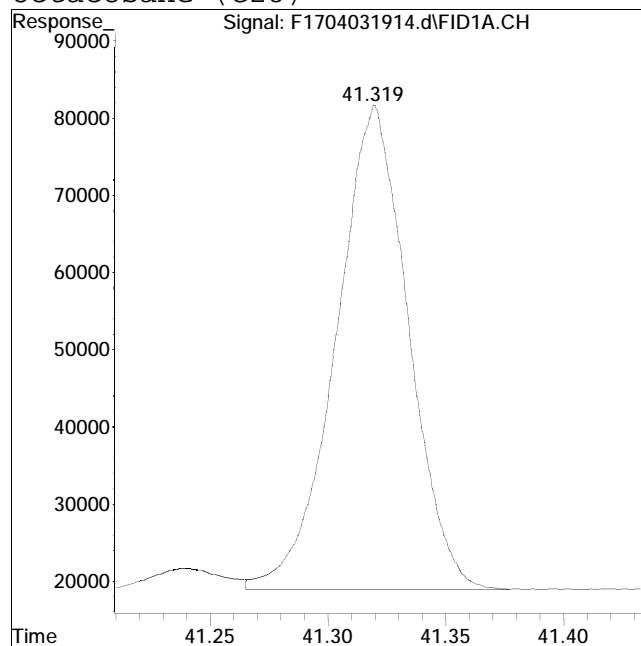
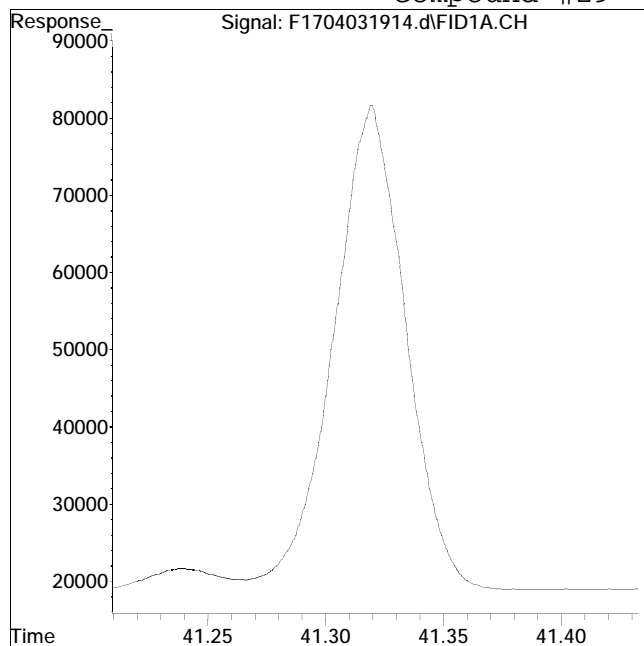
Manual Peak Response = 1303305 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 0

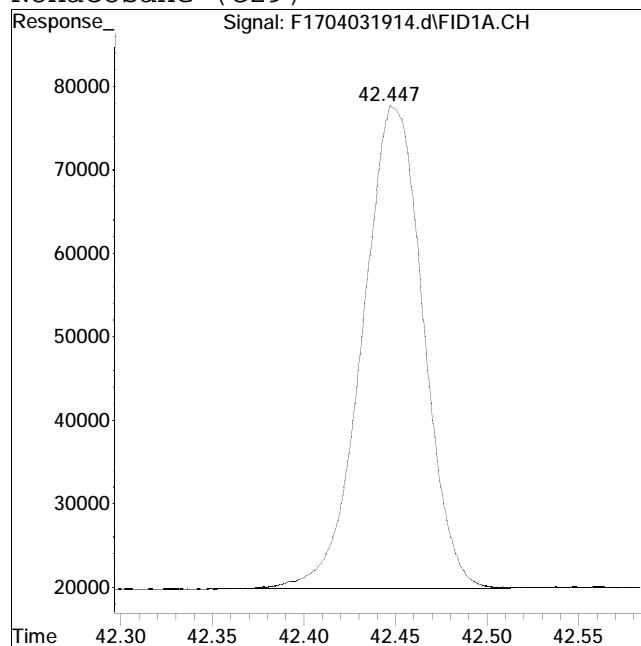
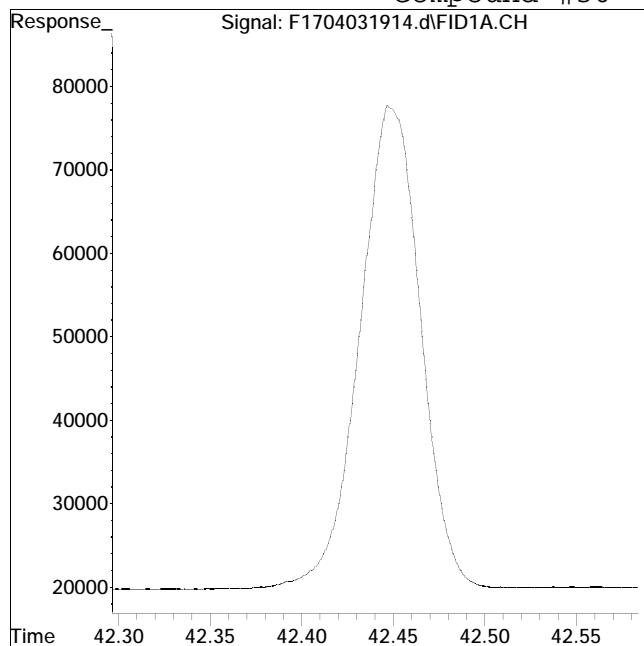
Manual Peak Response = 1337184 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 0

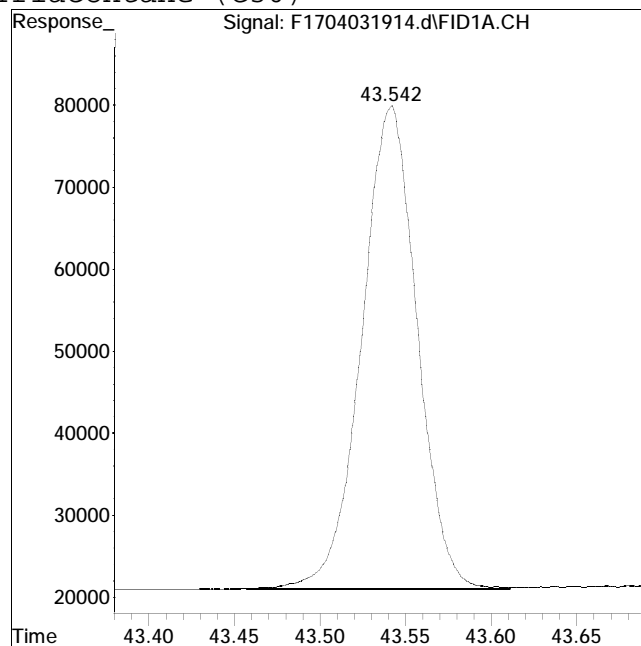
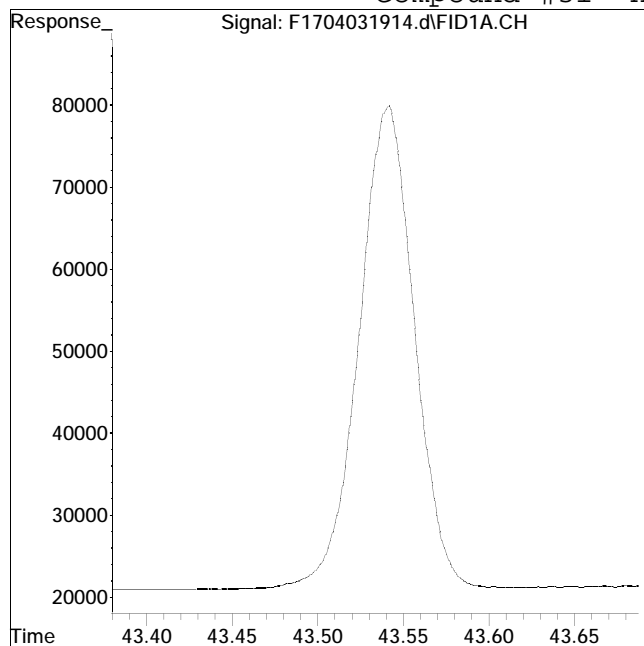
Manual Peak Response = 1338945 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 0

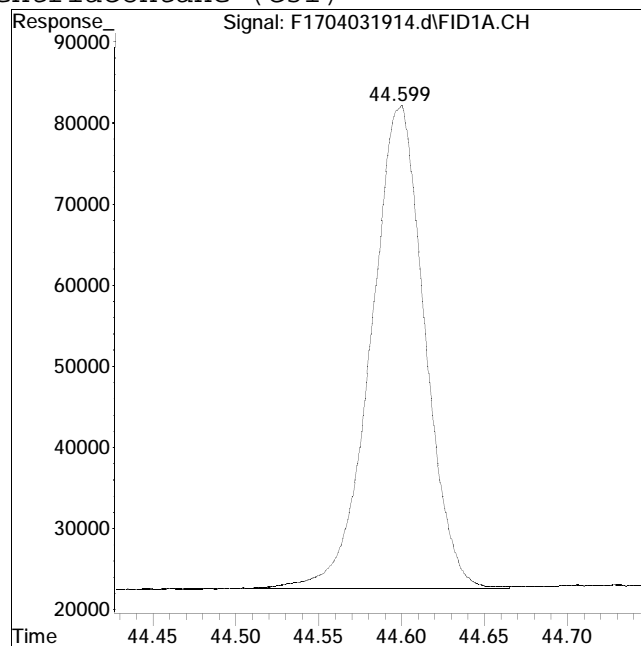
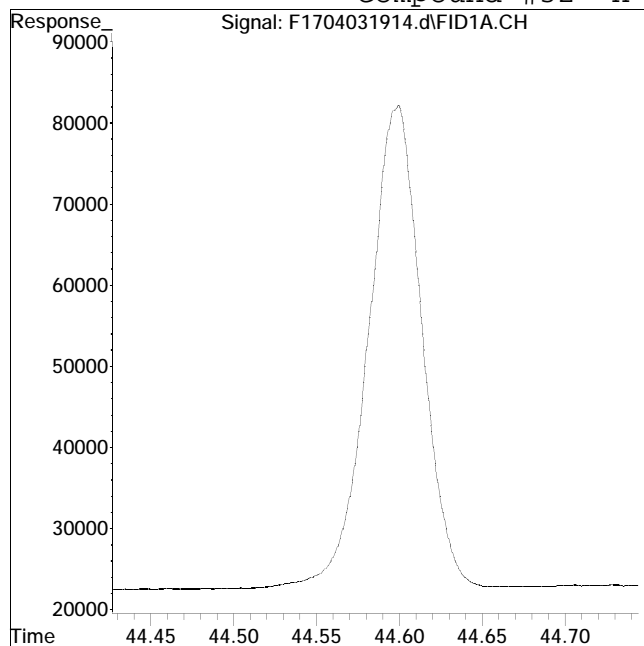
Manual Peak Response = 1327865 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 0

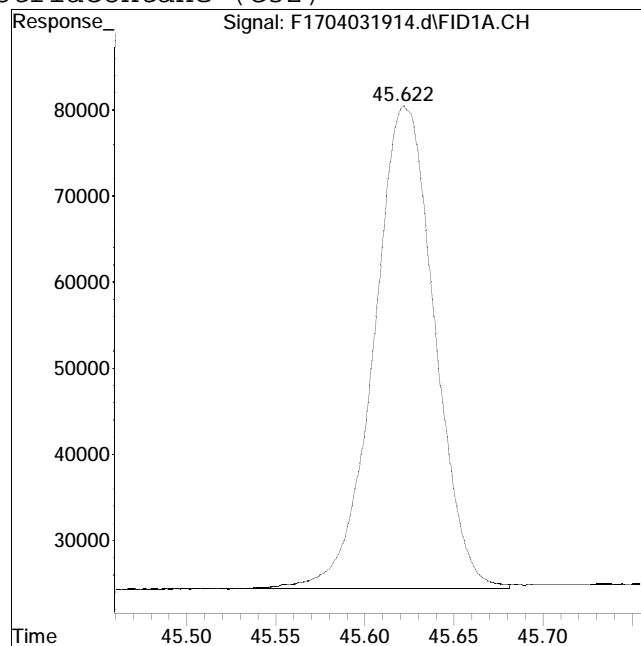
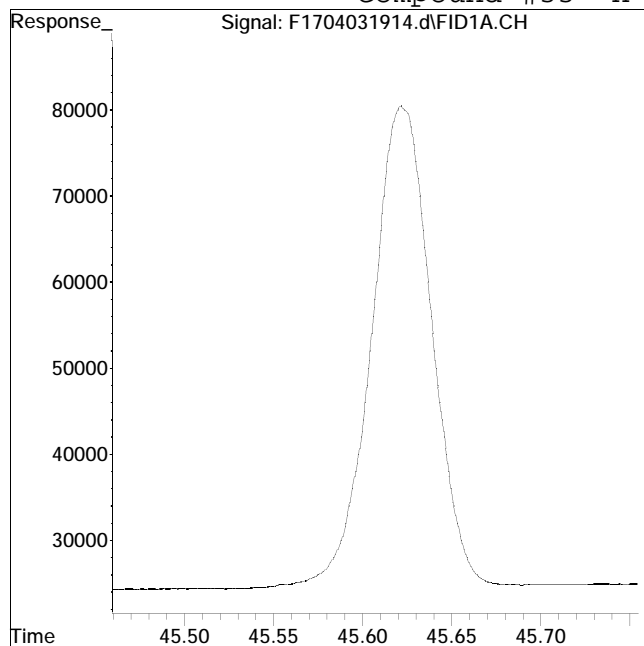
Manual Peak Response = 1341967 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 0

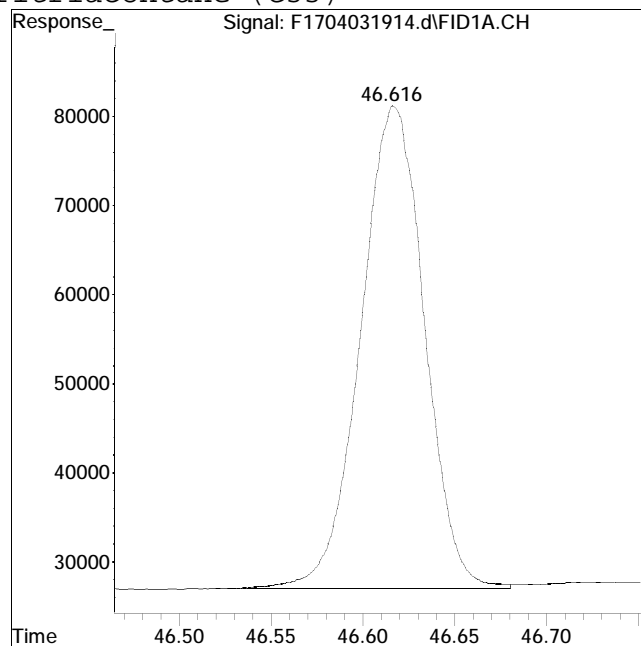
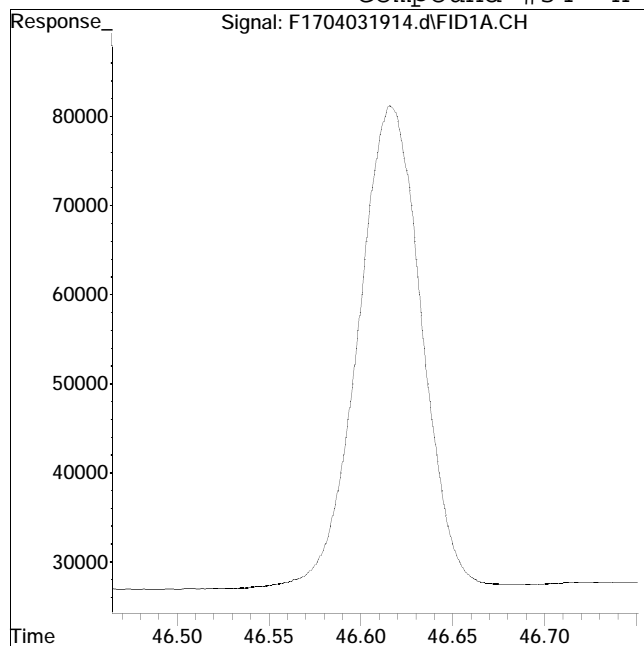
Manual Peak Response = 1325638 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 0

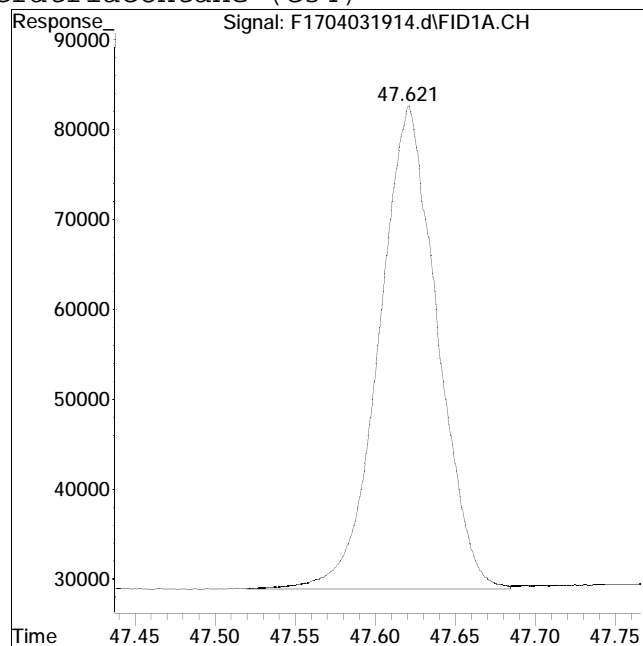
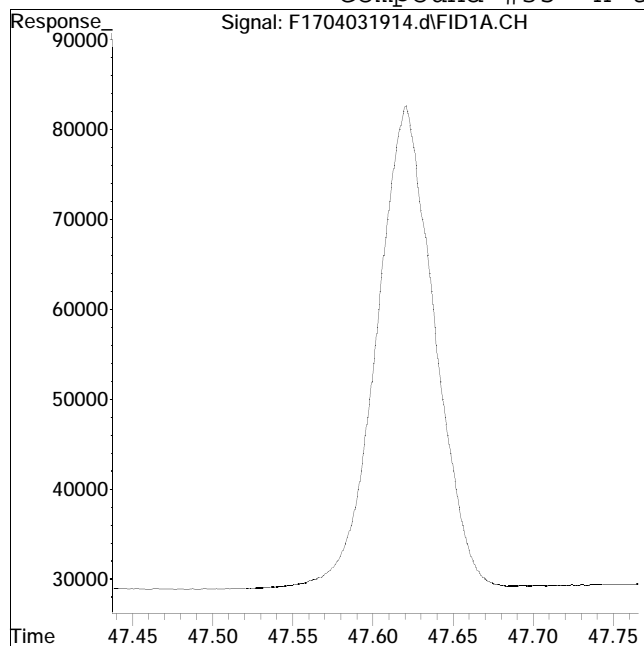
Manual Peak Response = 1310320 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 0

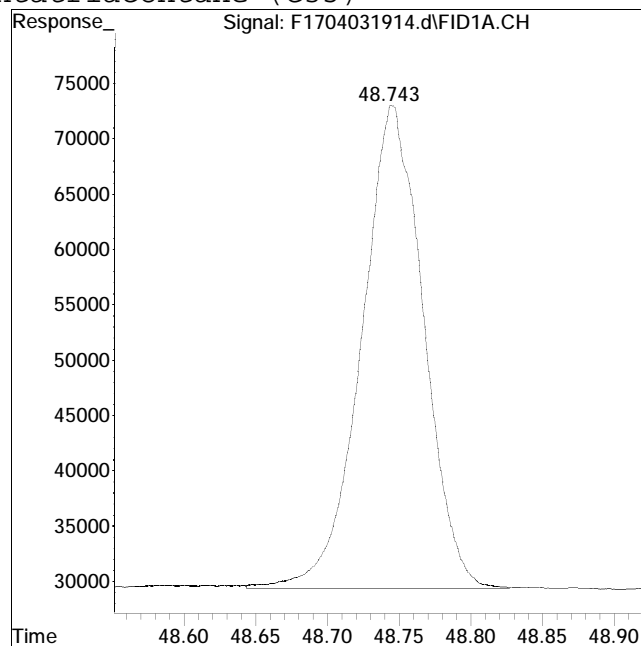
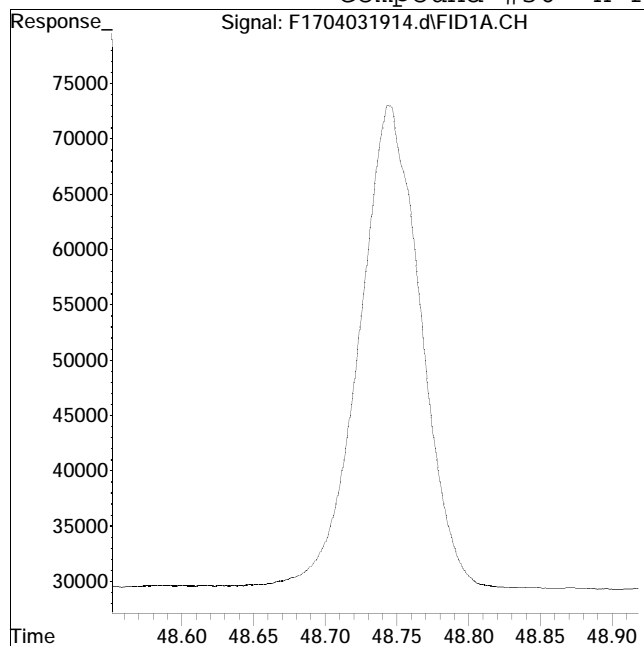
Manual Peak Response = 1354303 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 0

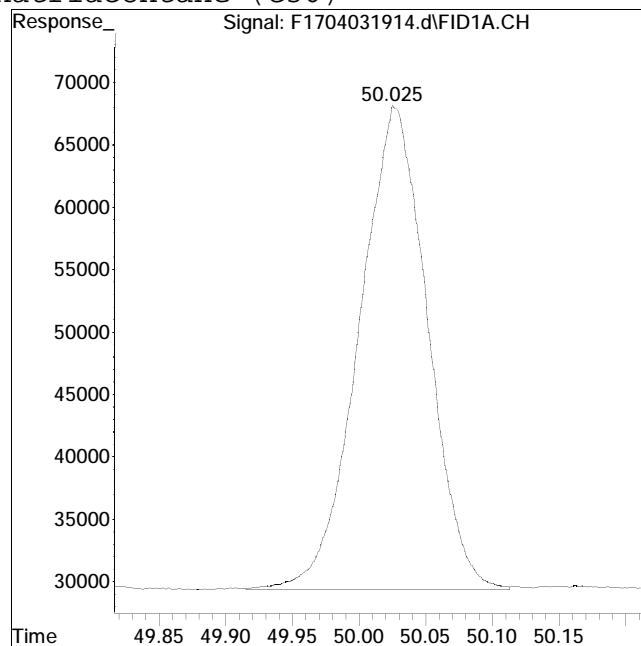
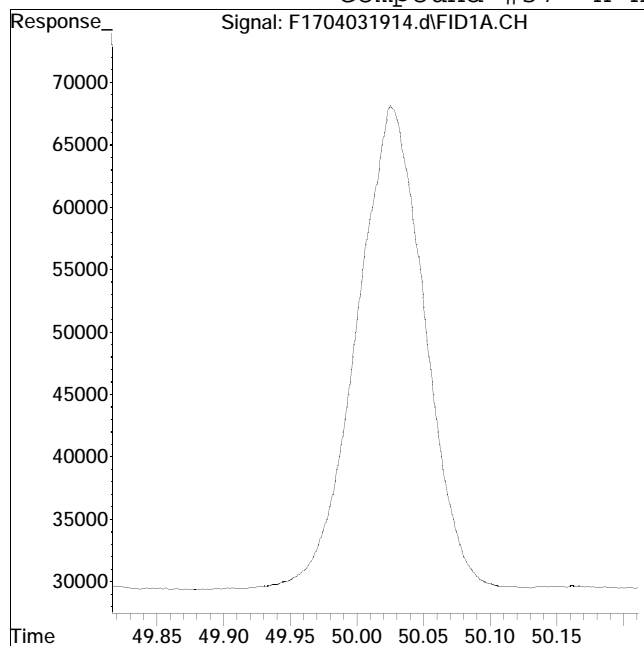
Manual Peak Response = 1313844 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 0

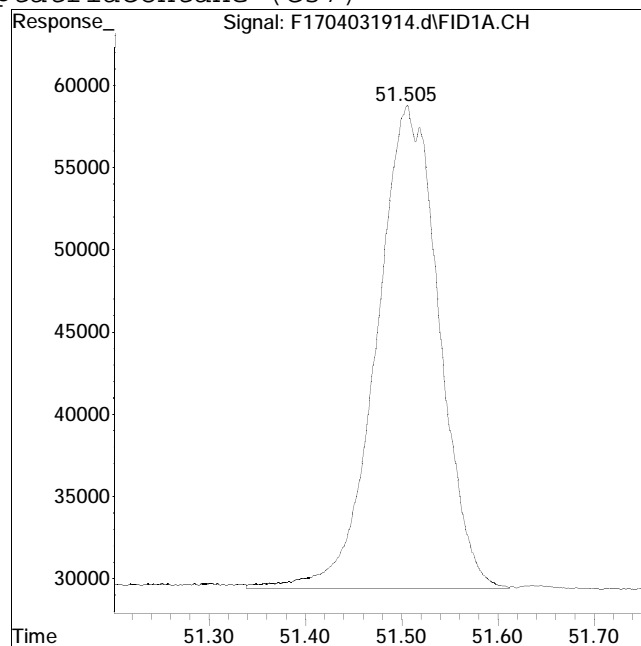
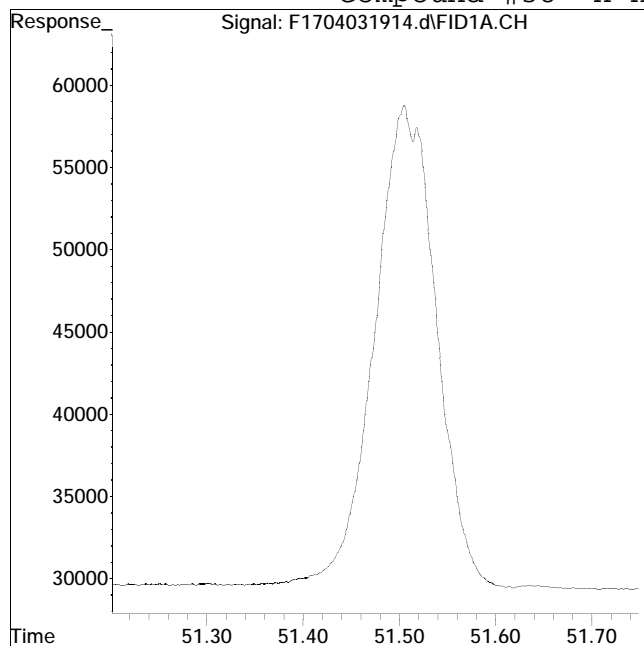
Manual Peak Response = 1377457 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 0

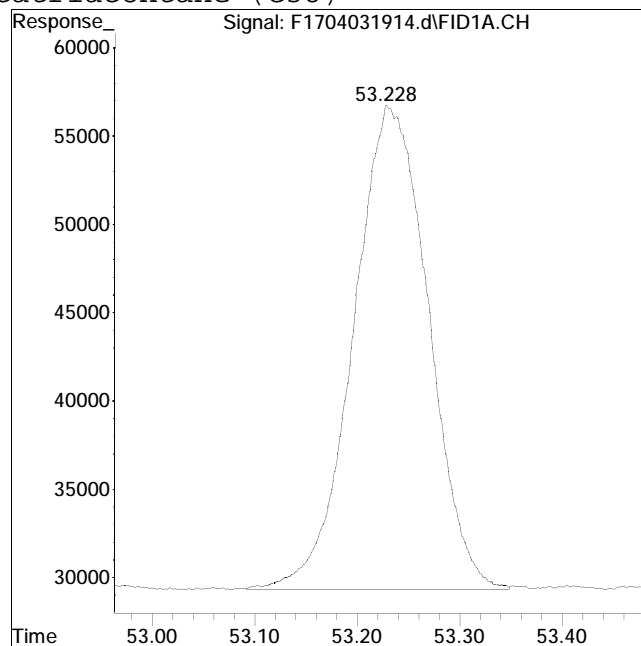
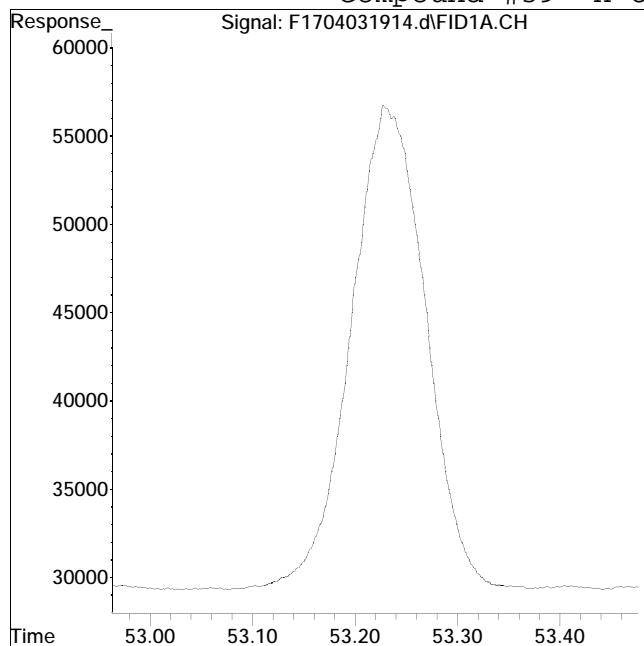
Manual Peak Response = 1323495 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

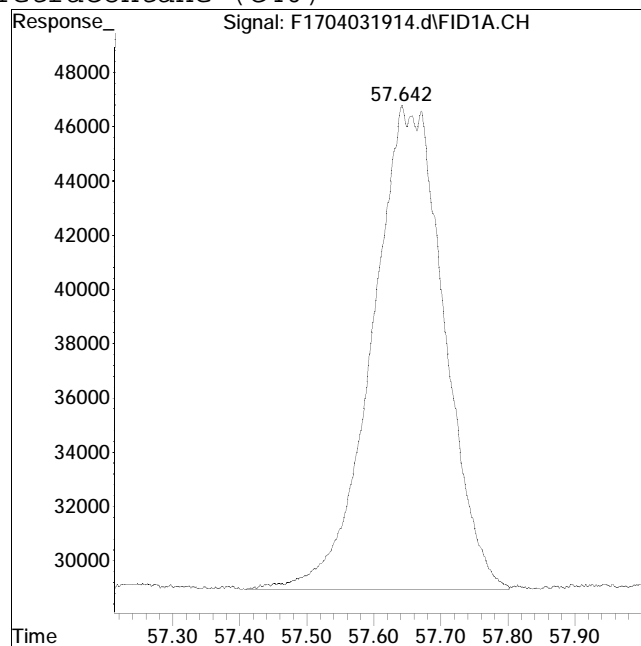
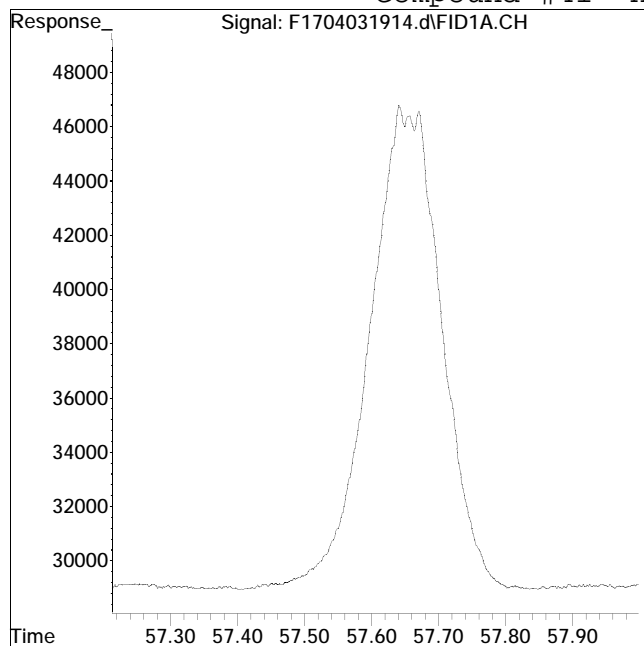
Manual Peak Response = 1389644 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031914.d Operator : FID17:WR
Date Inj'd : 4/3/2019 11:29 pm Instrument : FID17
Sample : I1704031901F Quant Date : 4/15/2019 3:25 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 1331932 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031916.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 12:57 am
 Operator : FID17:WR
 Sample : I1704031902F
 Misc : WG1226965,FRBA84,10ug/ml
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:41:05 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:34:00 2019
 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	31.237	69225645	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.201	14662044	9.703	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	19.41%#	
24) s d50-Tetracosane	35.841	11714234	9.691	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	19.38%#	
Target Compounds				
2) t n-Octane (C8)	5.576	11651208	10.013	ug/mL M4
3) t n-Nonane (C9)	7.770	12305338	9.790	ug/mL M4
4) t n-Decane (C10)	10.254	12612129	9.889	ug/mL M4
5) t n-Undecane (C11)	12.766	12752842	9.902	ug/mL M4
6) t n-Dodecane (C12)	15.194	12824409	9.880	ug/mL M4
7) t n-Tridecane (C13)	17.500	12832121	9.933	ug/mL M4
9) t n-Tetradecane (C14)	19.681	12984756	9.895	ug/mL M4
11) t n-Pentadecane (C15)	21.747	12997587	9.923	ug/mL M4
12) t n-Hexadecane (C16)	23.703	13061185	9.902	ug/mL M4
14) t n-Heptadecane (C17)	25.559	12995508	9.900	ug/mL M4
15) t Pristane	25.668	13246987	9.865	ug/mL M4
16) t n-Octadecane (C18)	27.324	13163778	9.891	ug/mL M4
17) t Phytane	27.486	11947511	9.886	ug/mL M4
18) t n-Nonadecane (C19)	29.010	13137596	9.896	ug/mL M4
20) t n-Eicosane (C20)	30.614	13172768	9.900	ug/mL M4
21) t n-Heneicosane (C21)	32.150	13415062	9.912	ug/mL M4
22) t n-Docosane (C22)	33.619	13359184	9.880	ug/mL M4
23) t n-Tricosane (C23)	35.031	13428900	9.845	ug/mL M4
25) t n-Tetracosane (C24)	36.385	13478957	9.826	ug/mL M4
26) t n-Pentacosane (C25)	37.690	13354665	9.836	ug/mL M4
27) t n-Hexacosane (C26)	38.947	13459394	9.843	ug/mL M4
28) t n-Heptacosane (C27)	40.155	13102552	9.818	ug/mL M4
29) t n-Octacosane (C28)	41.322	13620295	9.873	ug/mL M4
30) t n-Nonacosane (C29)	42.454	13527830	9.843	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031916.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 12:57 am
 Operator : FID17:WR
 Sample : I1704031902F
 Misc : WG1226965,FRBA84,10ug/ml
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:41:05 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:34:00 2019
 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)	43.546	13359509	9.824 ug/mL M4
32) t n-Hentriacontane (C31)	44.602	13426271	9.800 ug/mL M4
33) t n-Dotriacontane (C32)	45.628	13245142	9.791 ug/mL M4
34) t n-Tritriacontane (C33)	46.620	13104084	9.799 ug/mL M4
35) t n-tetratriacontane (C34)	47.621	13579140	9.818 ug/mL M4
36) t n-Pentatriacontane (C35)	48.752	13106872	9.792 ug/mL M4
37) t n-Hexatriacontane (C36)	50.031	13877528	9.835 ug/mL M4
38) t n-Heptatriacontane (C37)	51.513	13038804	9.725 ug/mL M4
39) t n-Octatriacontane (C38)	53.235	14107250	9.870 ug/mL M4
41) t n-Tetracontane (C40)	57.667	13364964	9.814 ug/mL M4

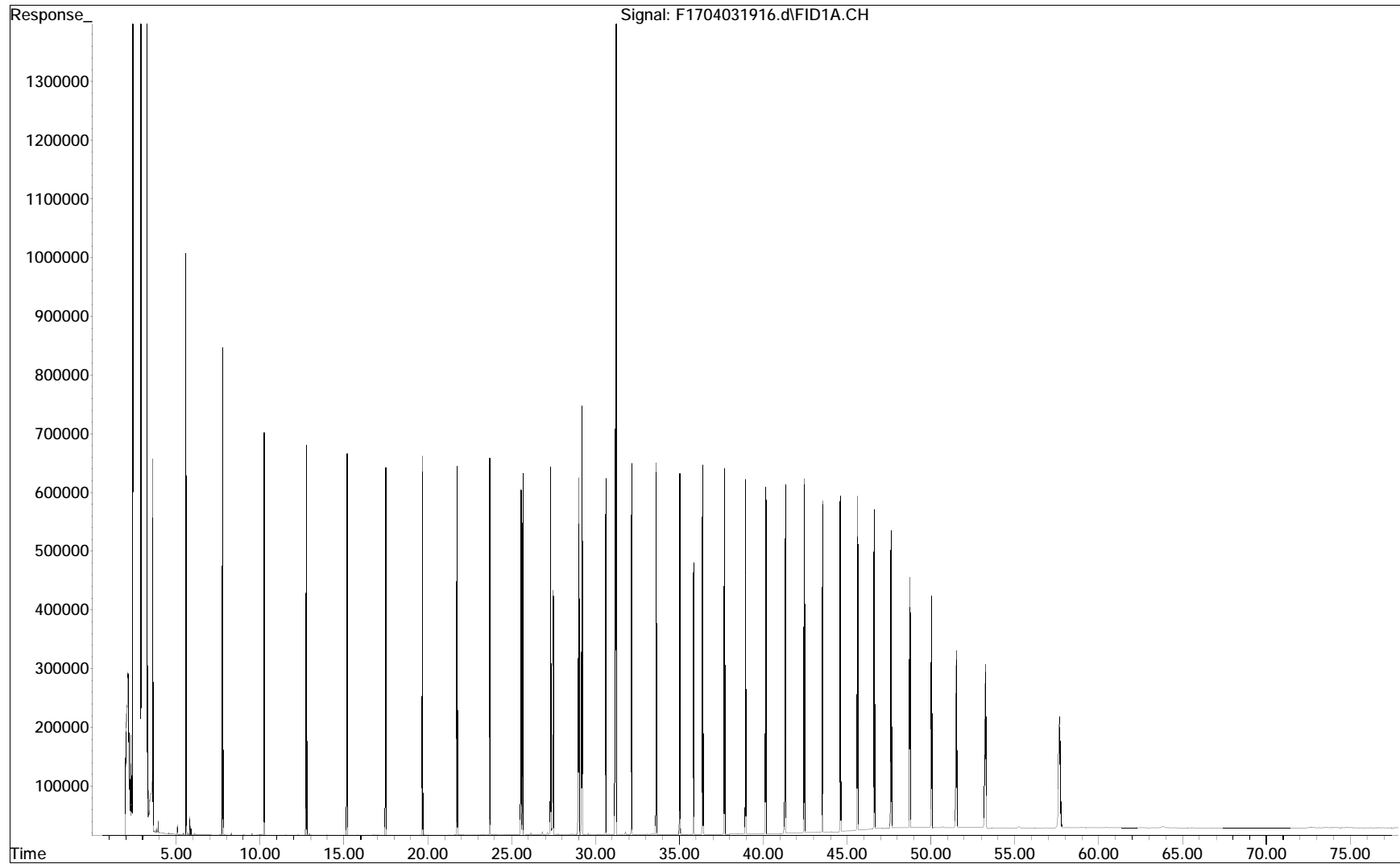
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

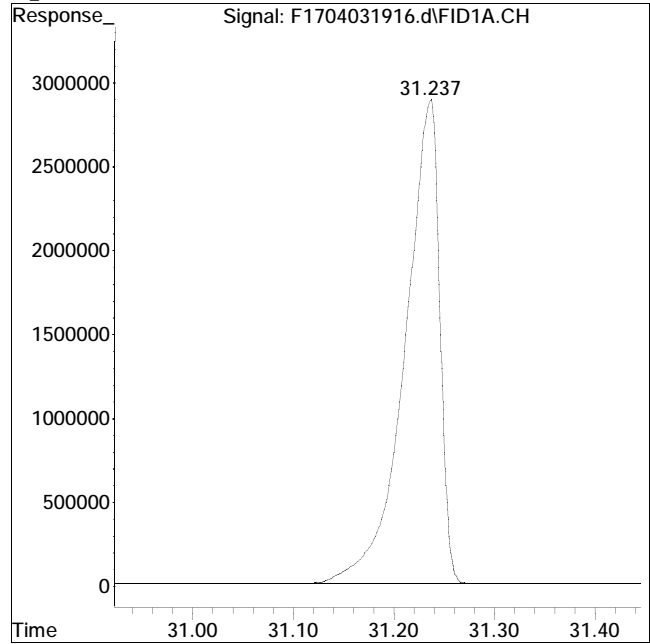
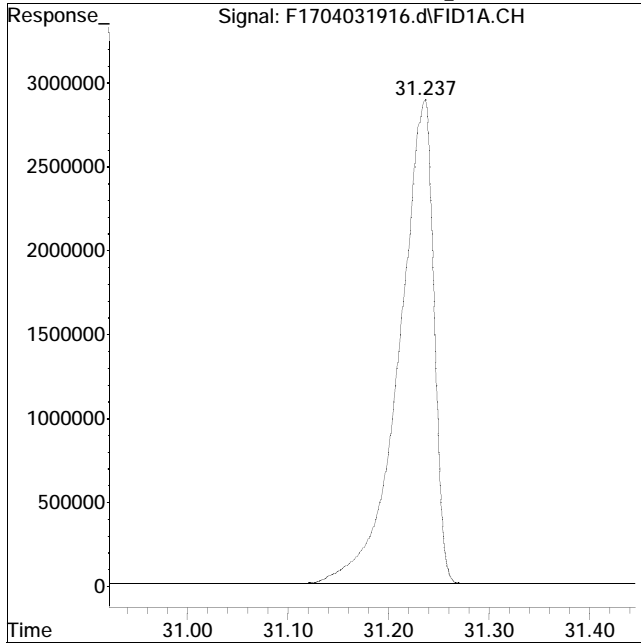
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031916.d
Operator : FID17:WR
Acquired : 04 Apr 2019 12:57 am using AcqMethod FID17.M
Sample Name: I1704031902F
Instrument: FID17
Misc Info : WG1226965,FRBA84,10ug/ml
Vial Number: 8
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 69194107

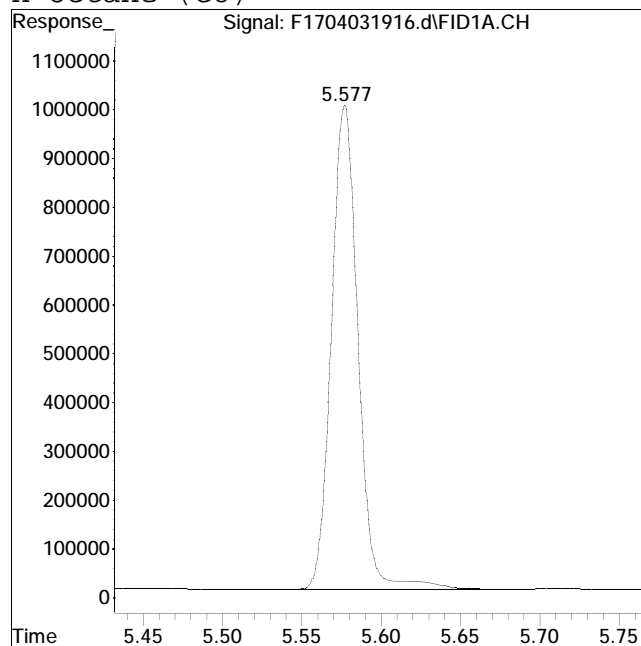
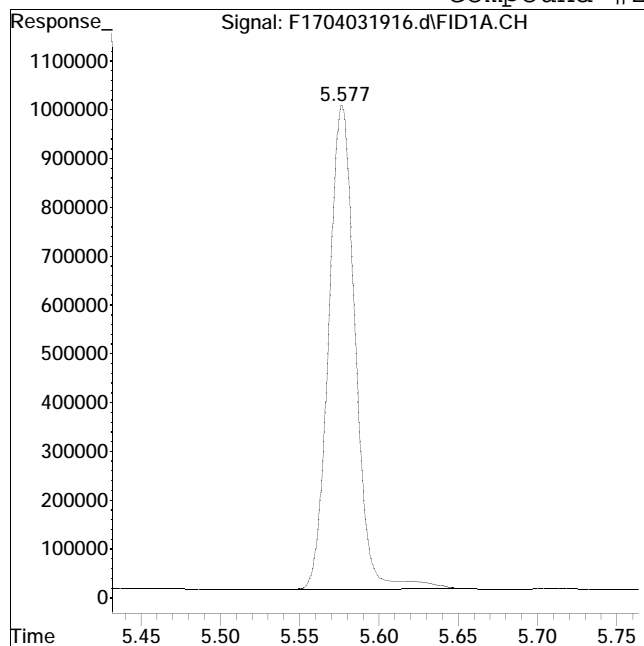
Manual Peak Response = 69225645 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #2: n-Octane (C8)



Original Peak Response = 11564794

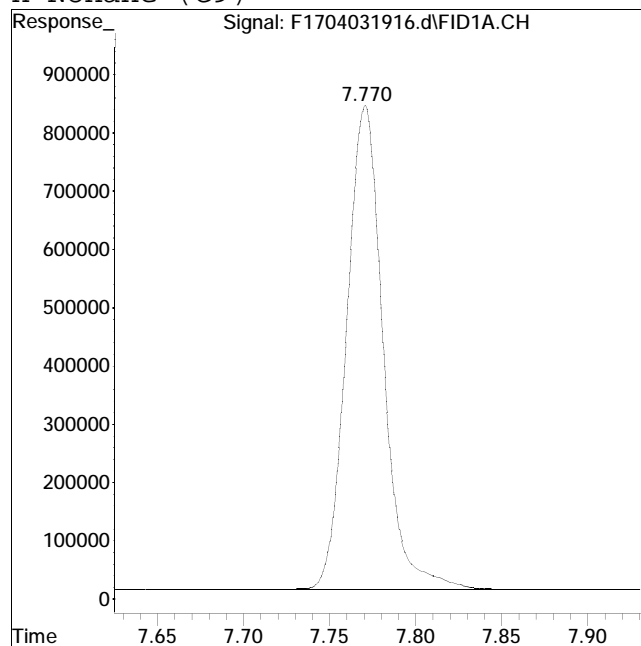
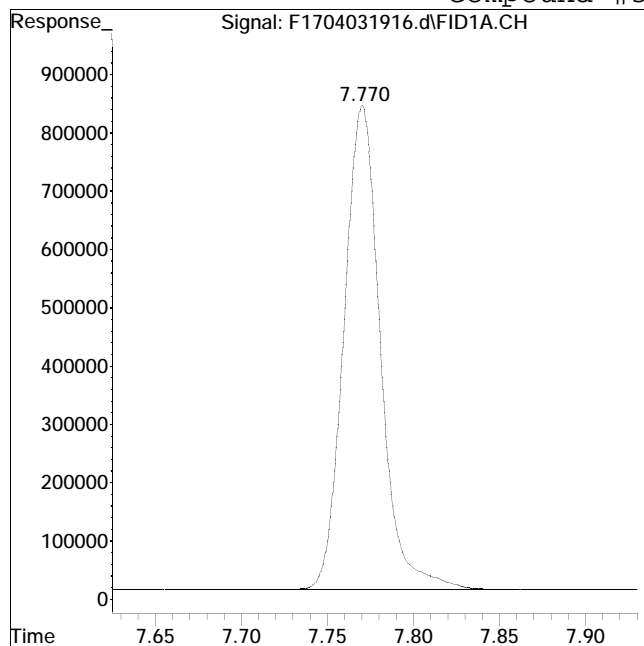
Manual Peak Response = 11651208 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 12243689

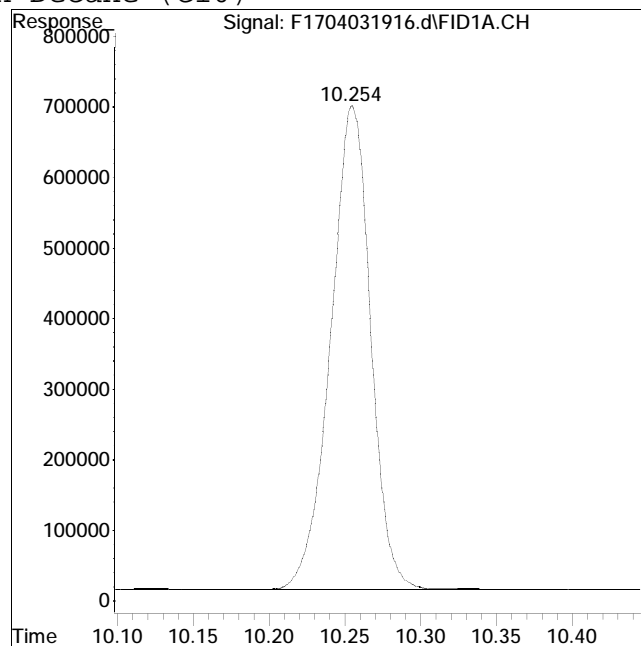
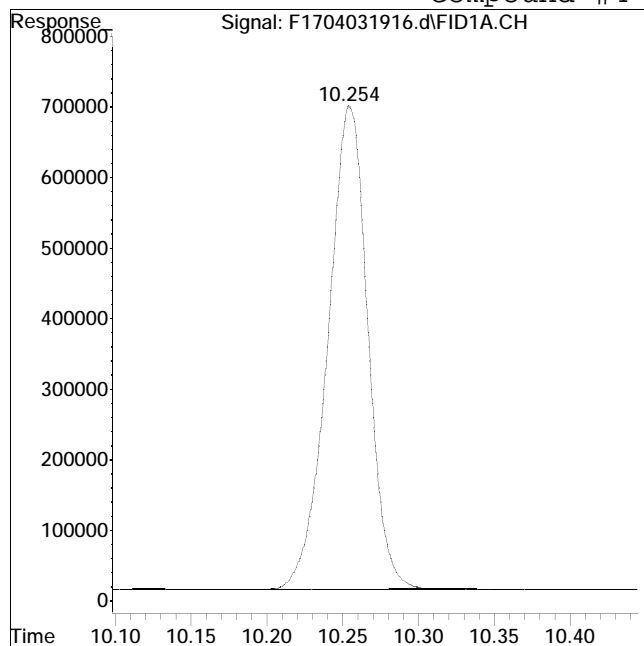
Manual Peak Response = 12305338 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #4: n-Decane (C10)



Original Peak Response = 12543033

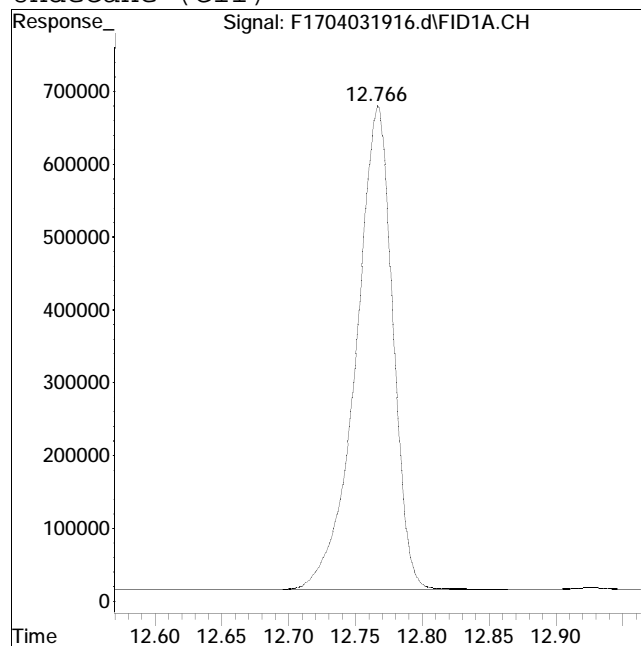
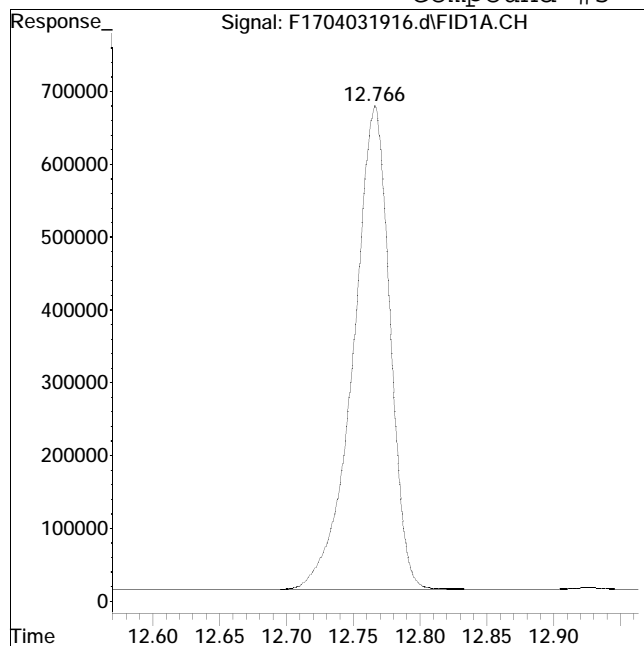
Manual Peak Response = 12612129 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 12703822

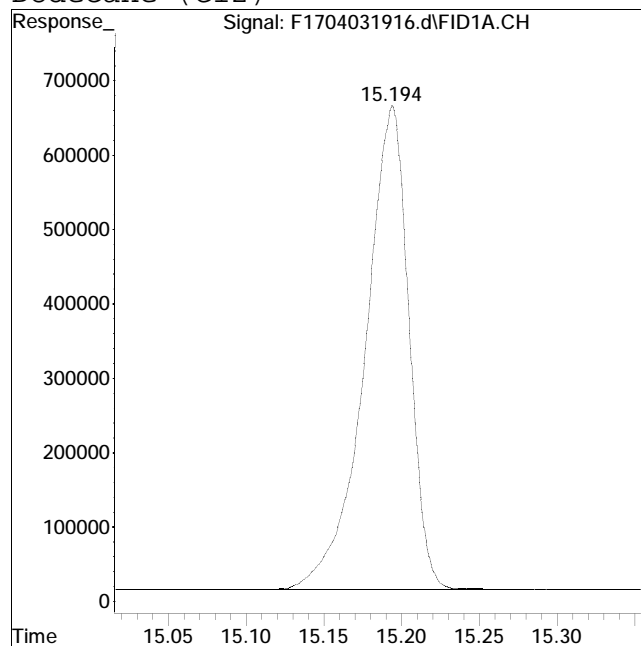
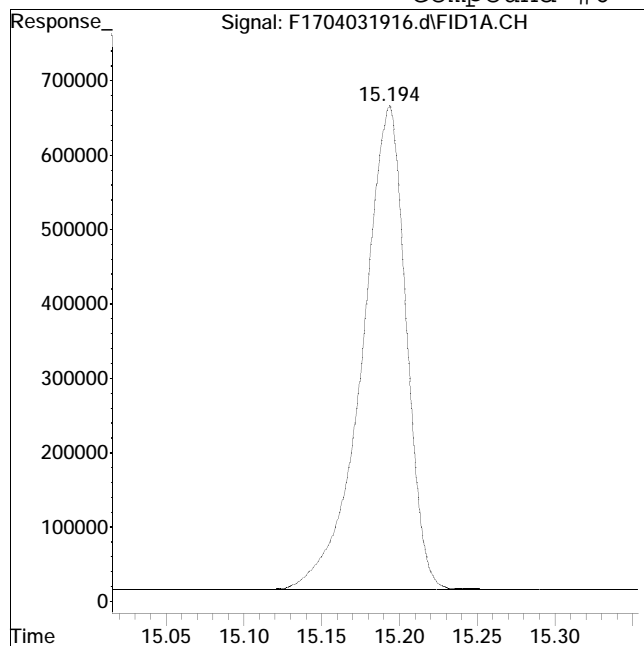
Manual Peak Response = 12752842 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 12796587

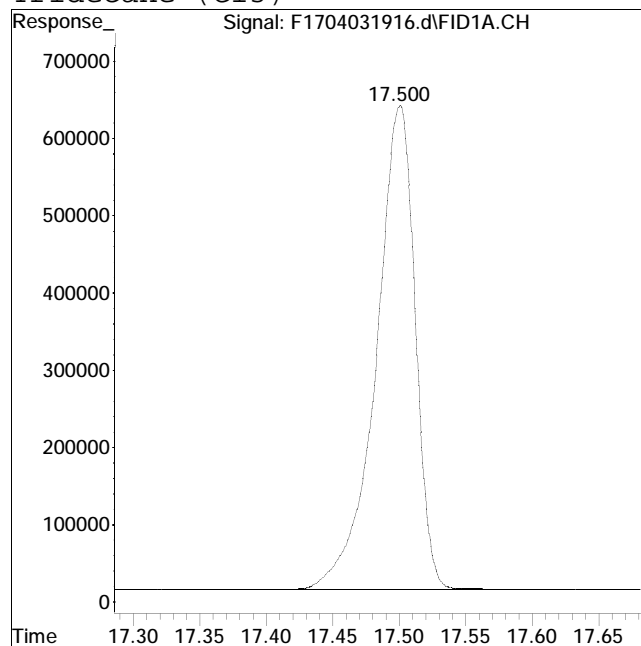
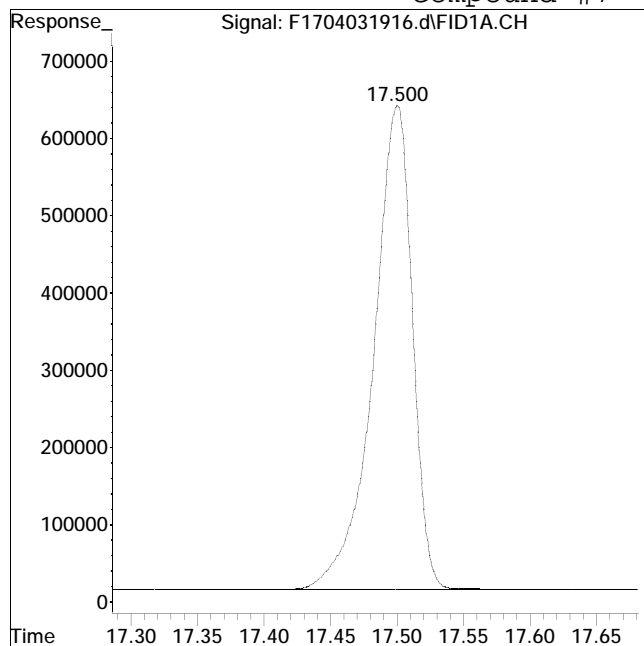
Manual Peak Response = 12824409 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 12796930

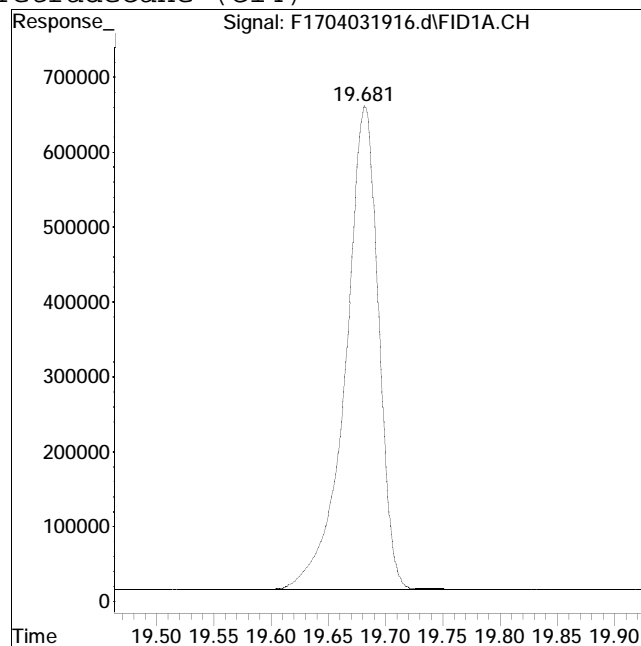
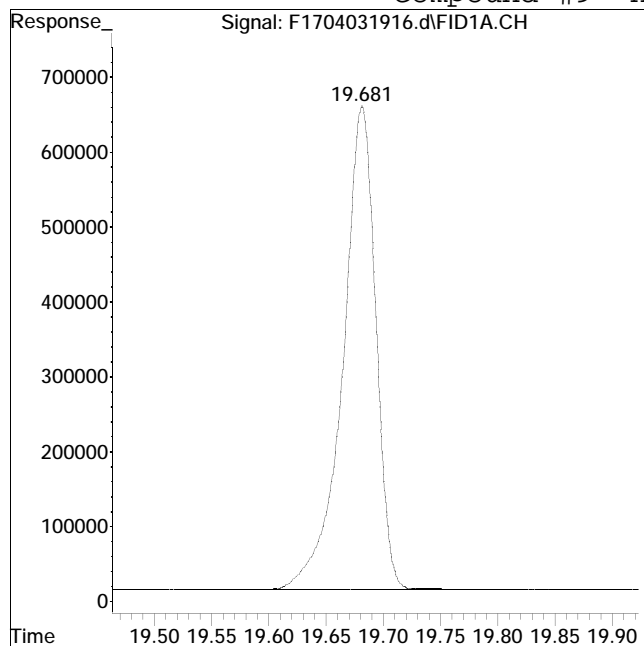
Manual Peak Response = 12832121 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 12932294

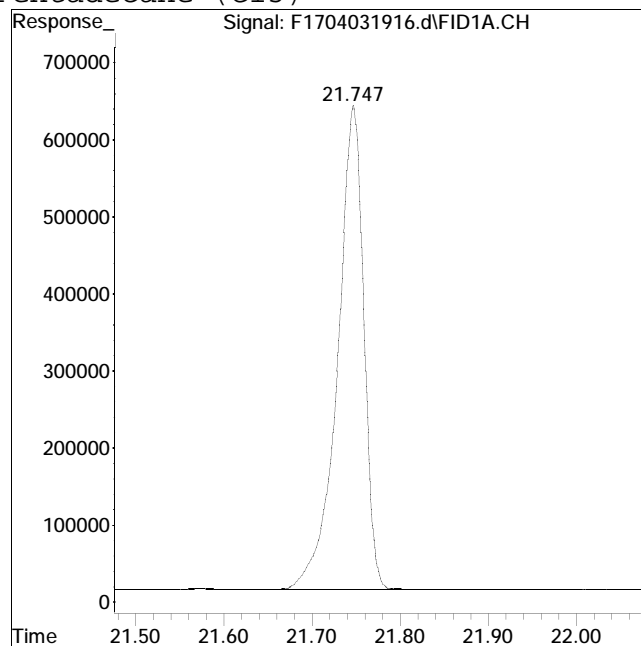
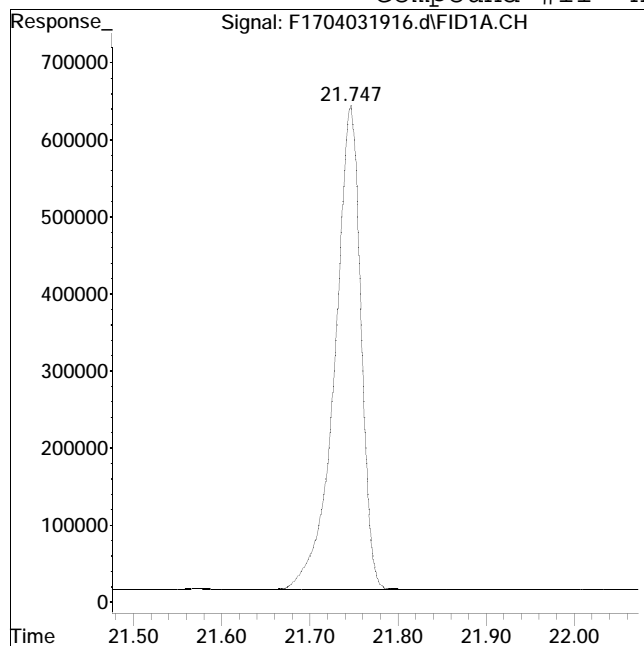
Manual Peak Response = 12984756 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 12930107

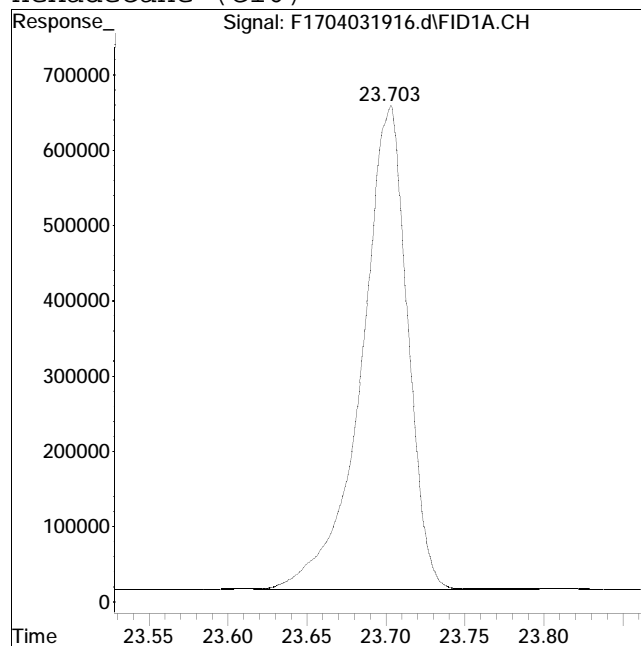
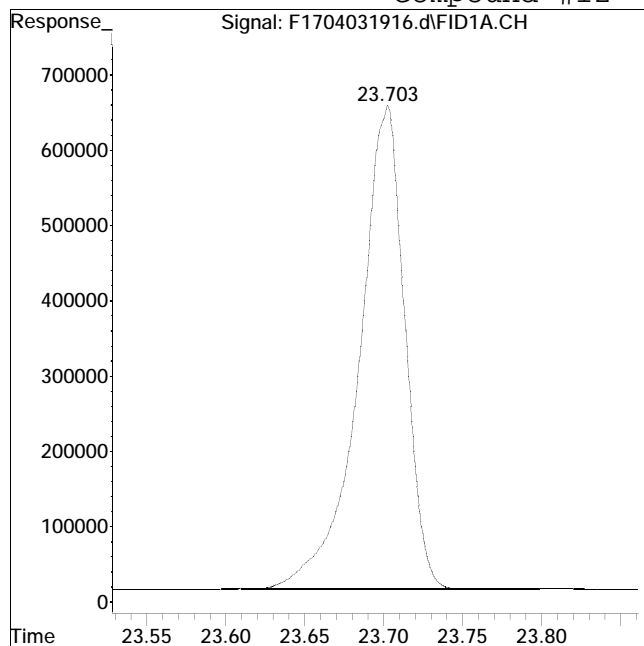
Manual Peak Response = 12997587 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 12968560

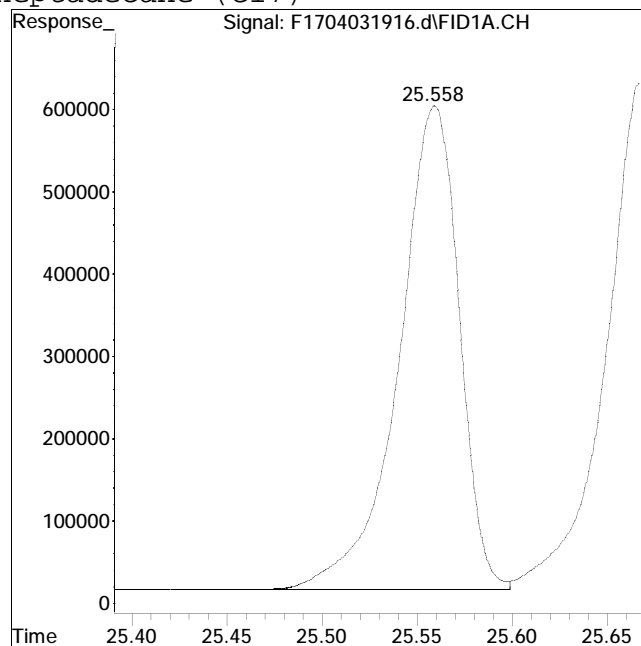
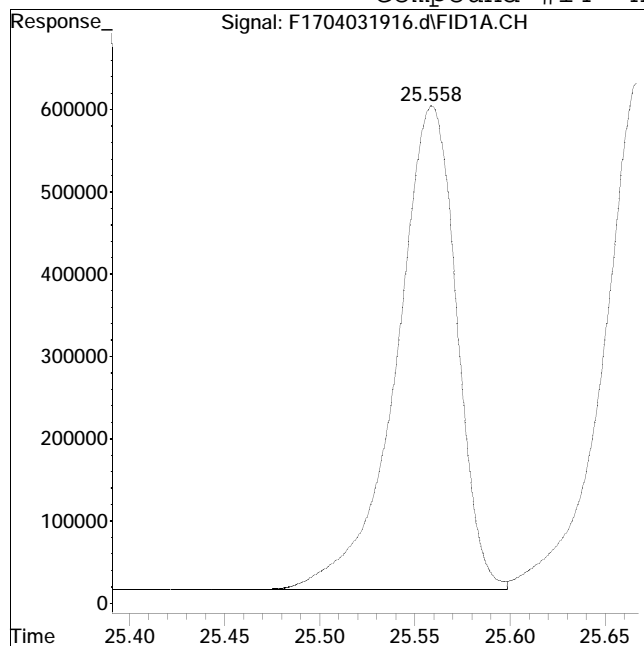
Manual Peak Response = 13061185 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 12981928

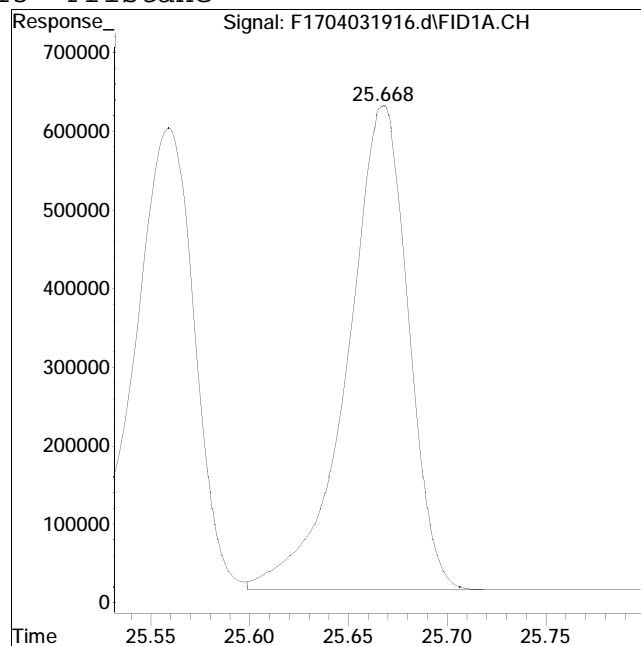
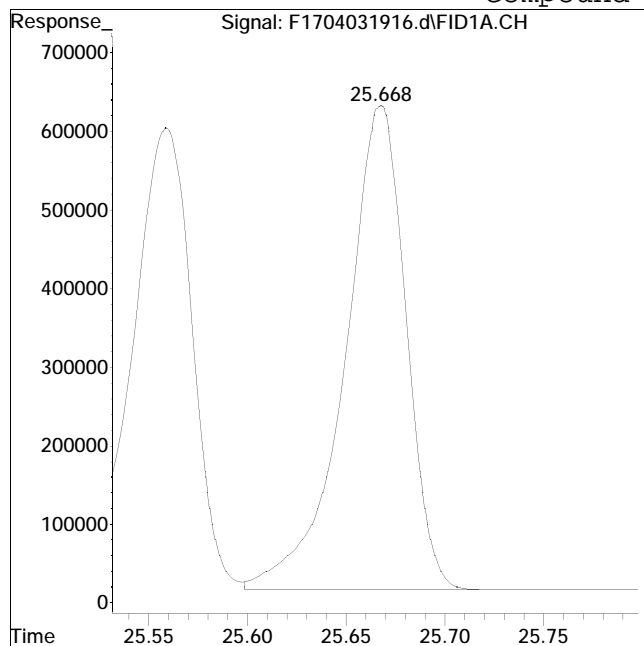
Manual Peak Response = 12995508 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #15: Pristane



Original Peak Response = 13232910

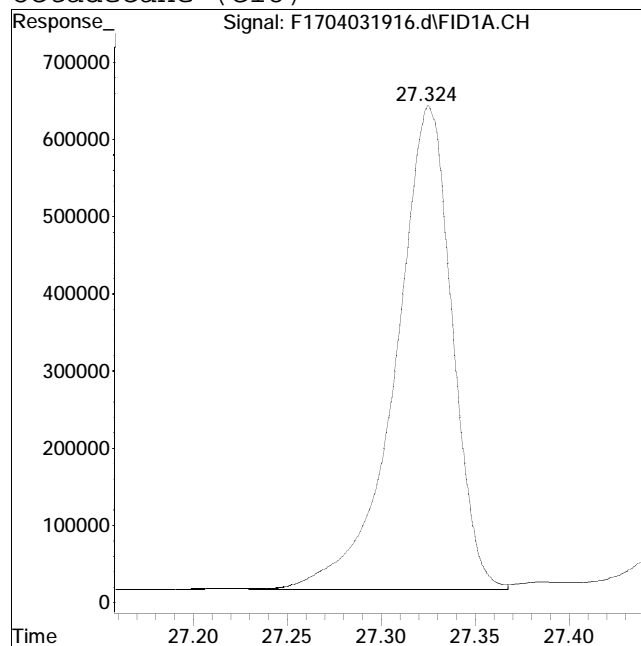
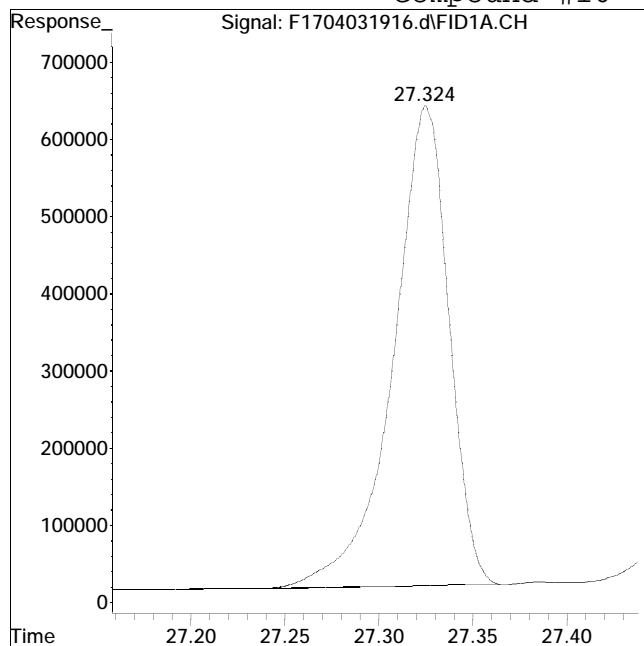
Manual Peak Response = 13246987 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 12808474

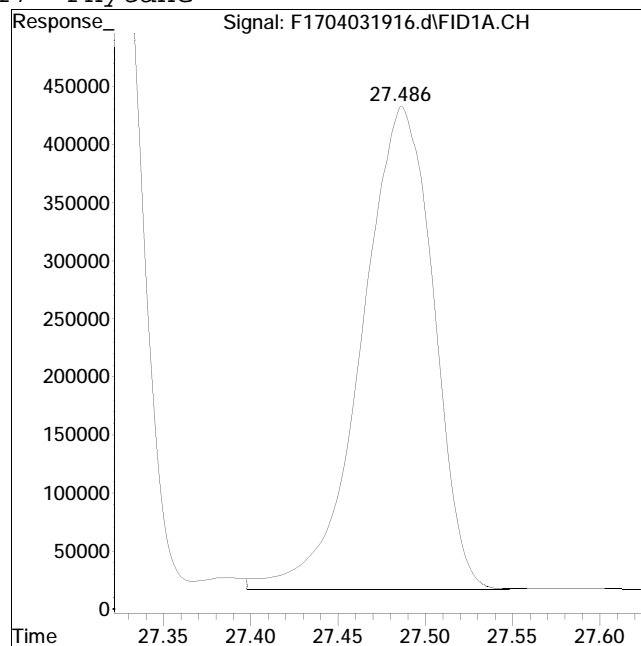
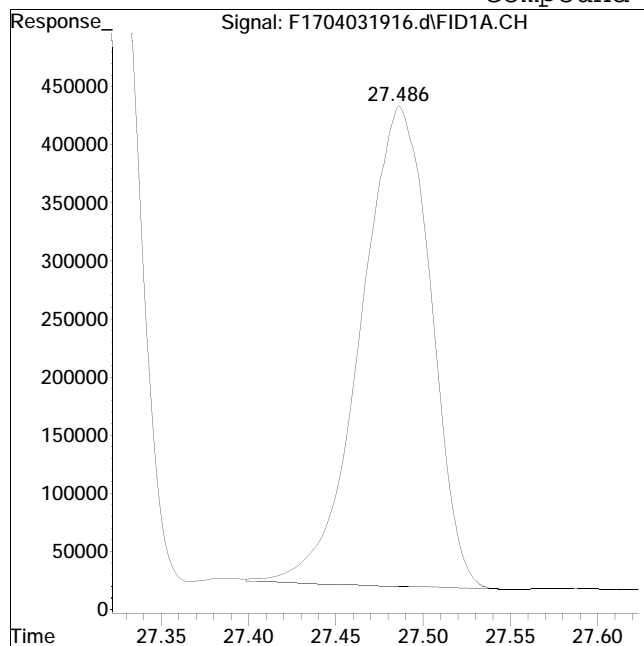
Manual Peak Response = 13163778 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #17: Phytane



Original Peak Response = 11581504

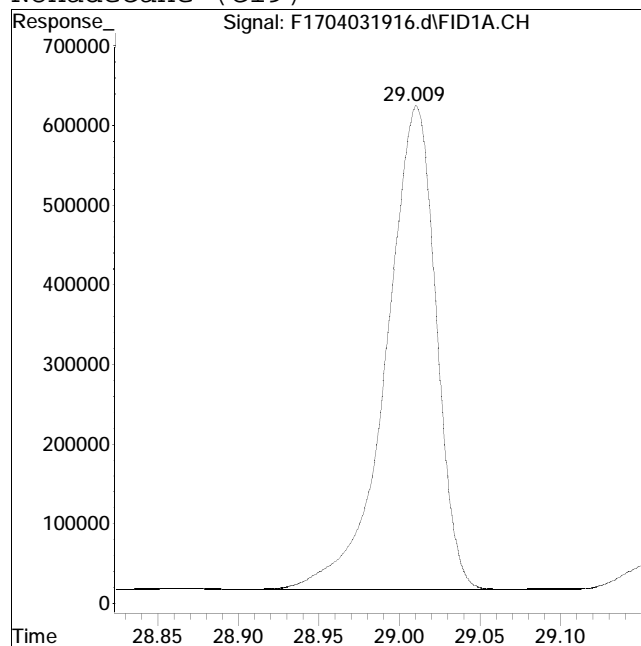
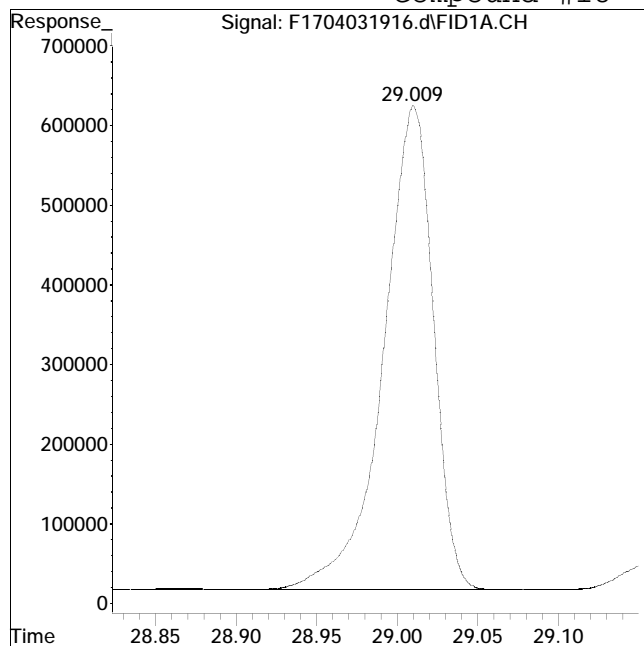
Manual Peak Response = 11947511 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 13086097

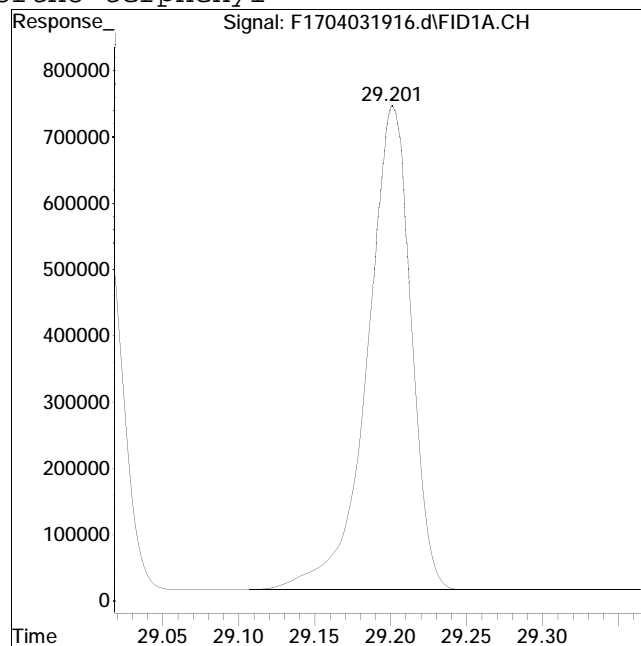
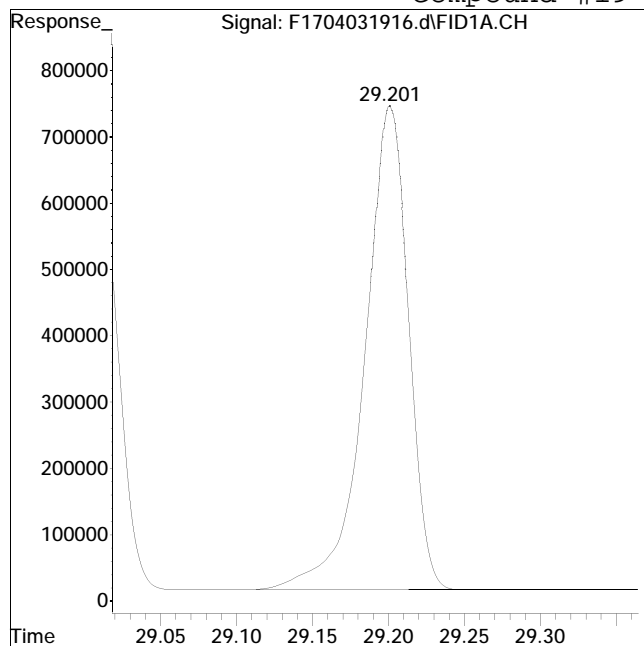
Manual Peak Response = 13137596 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #19: ortho-terphenyl



Original Peak Response = 14612783

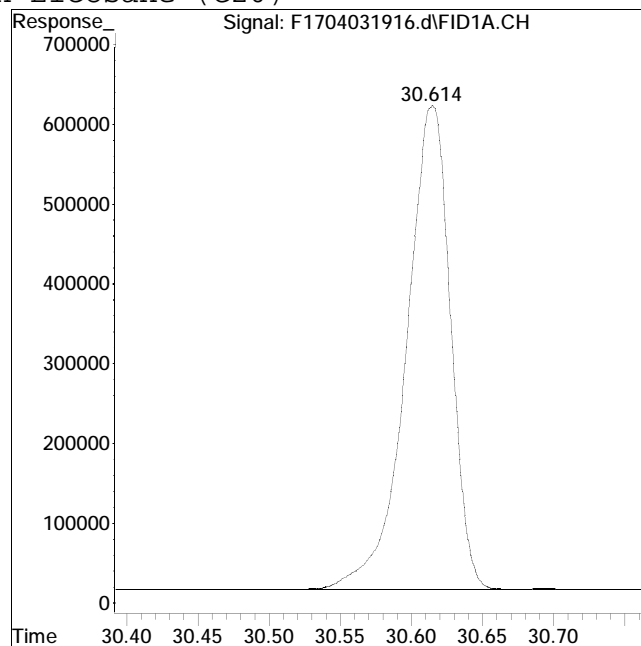
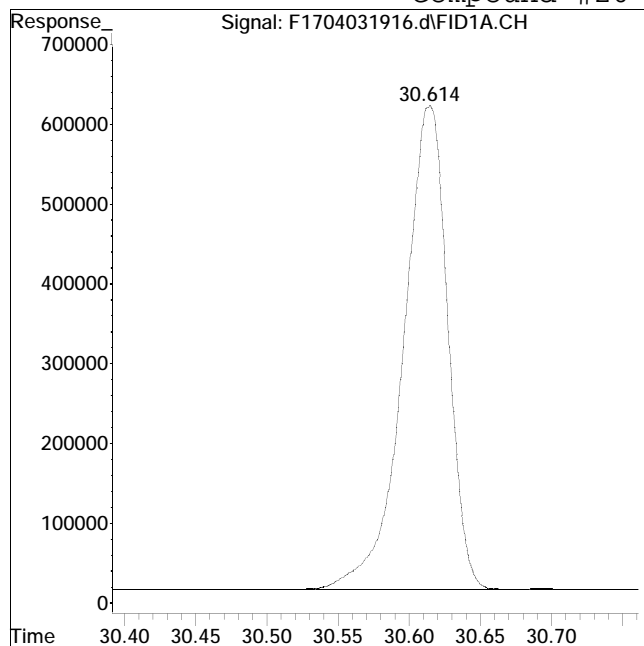
Manual Peak Response = 14662044 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 13127255

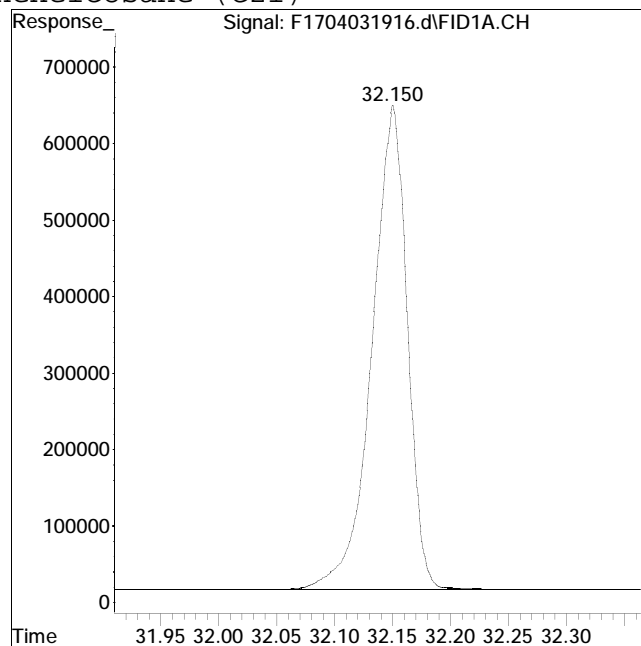
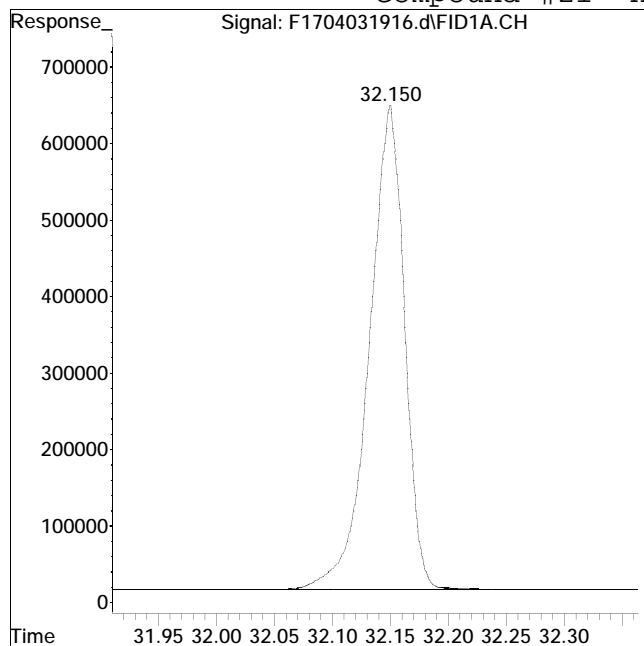
Manual Peak Response = 13172768 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 13356872

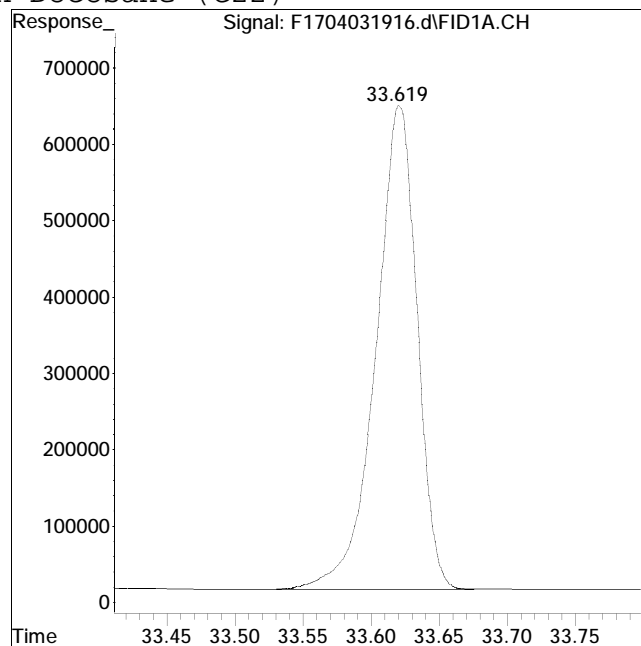
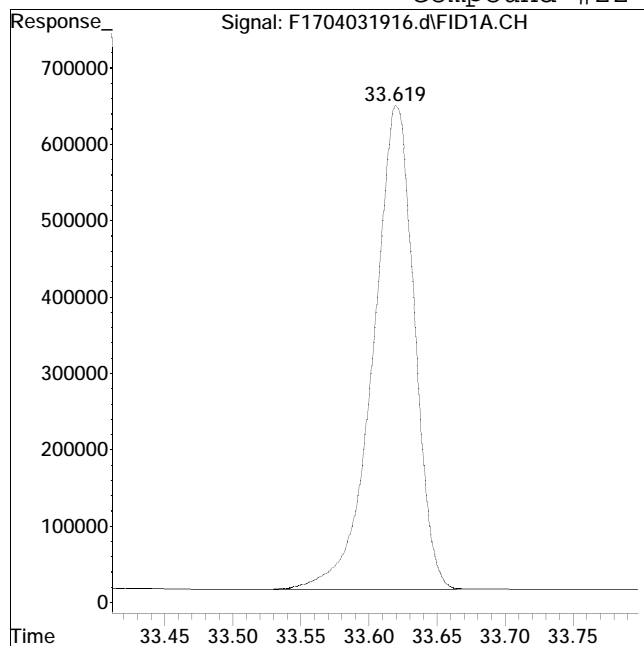
Manual Peak Response = 13415062 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 13338508

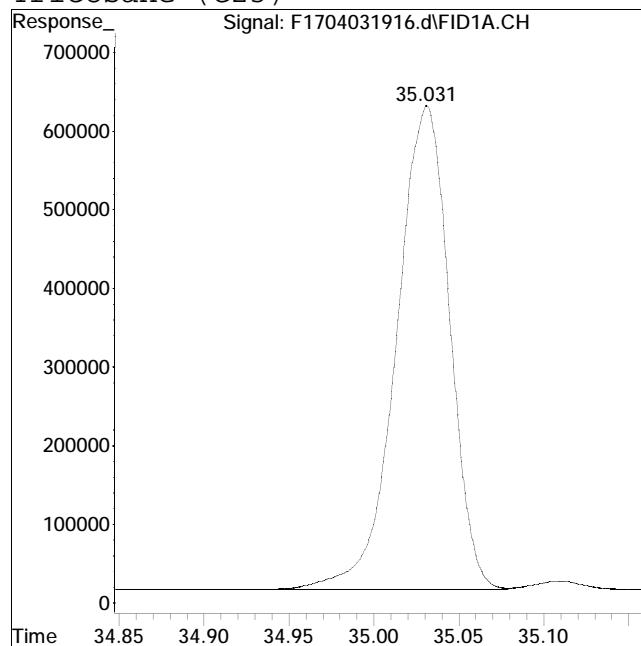
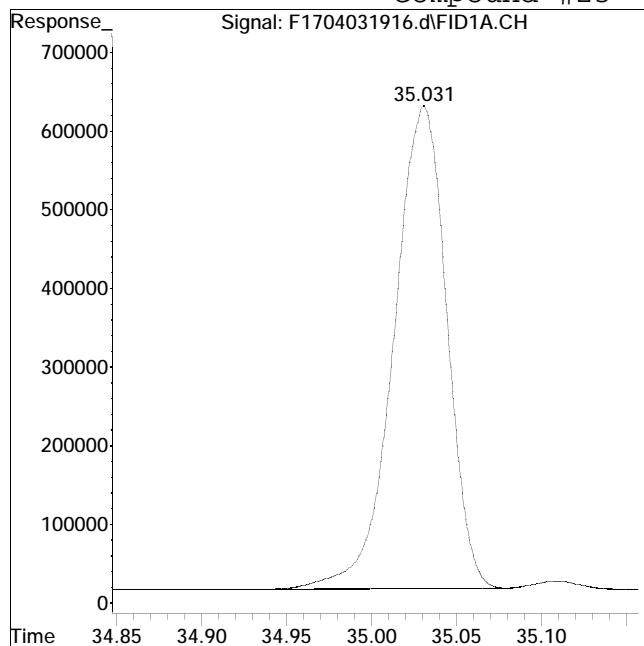
Manual Peak Response = 13359184 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 13324746

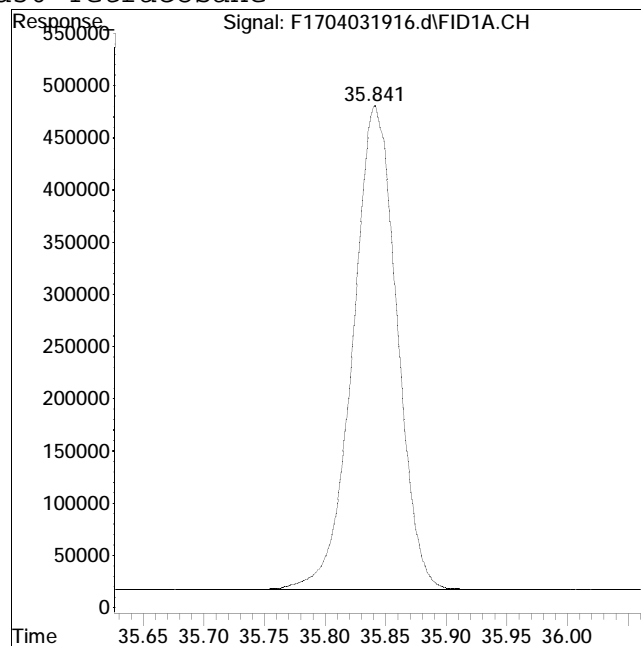
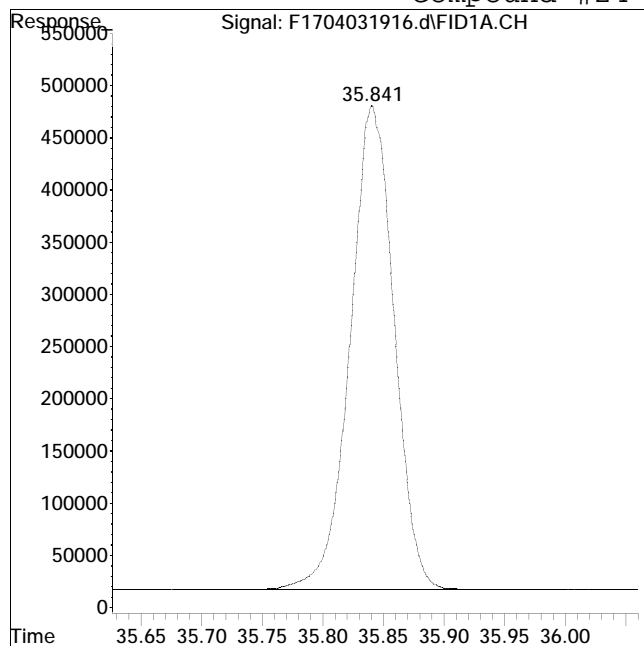
Manual Peak Response = 13428900 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #24: d50-Tetracosane



Original Peak Response = 11691637

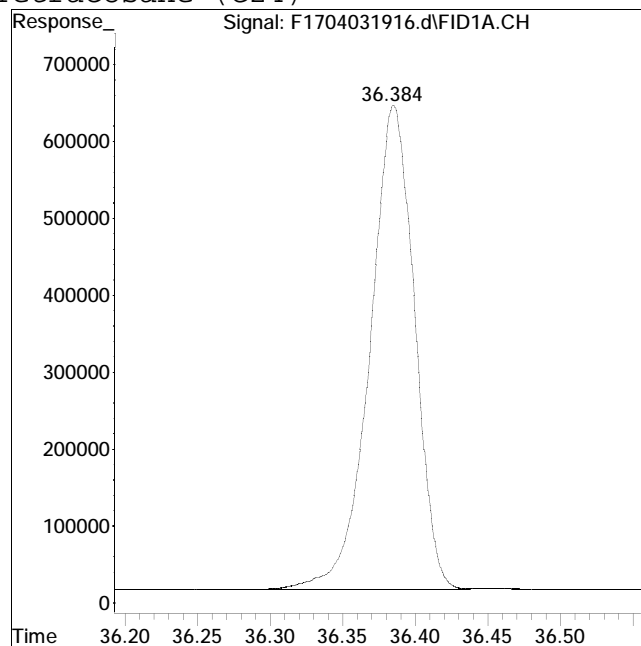
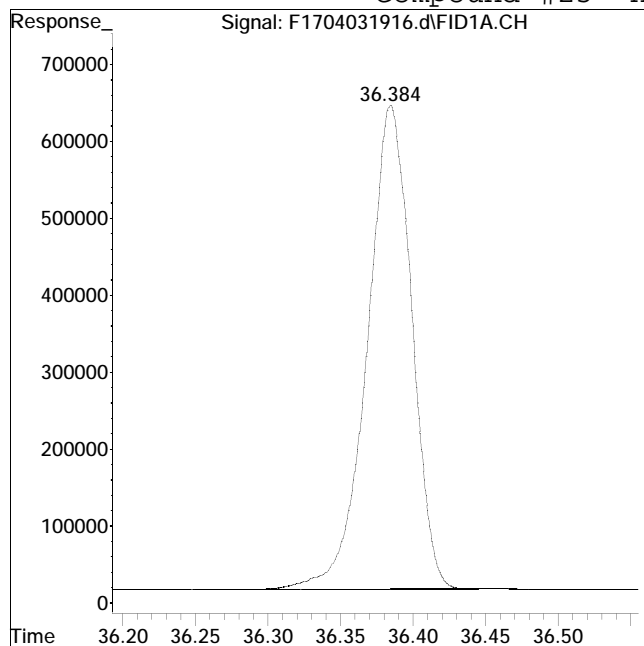
Manual Peak Response = 11714234 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 13431014

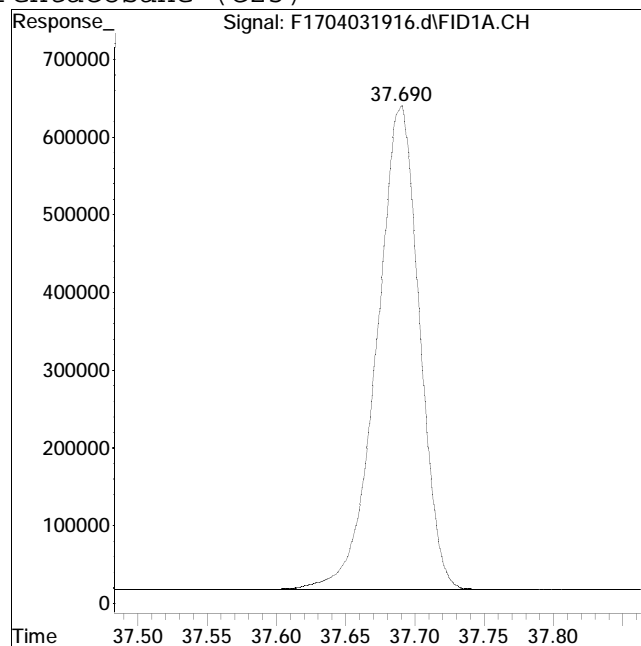
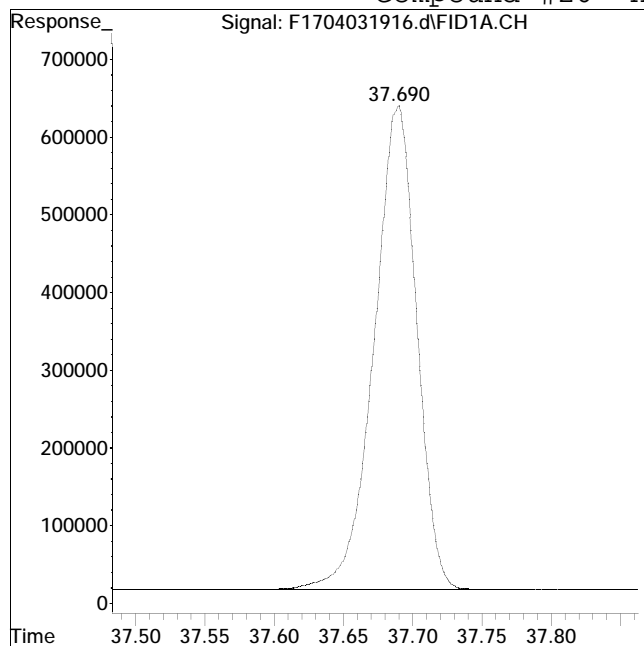
Manual Peak Response = 13478957 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 13333633

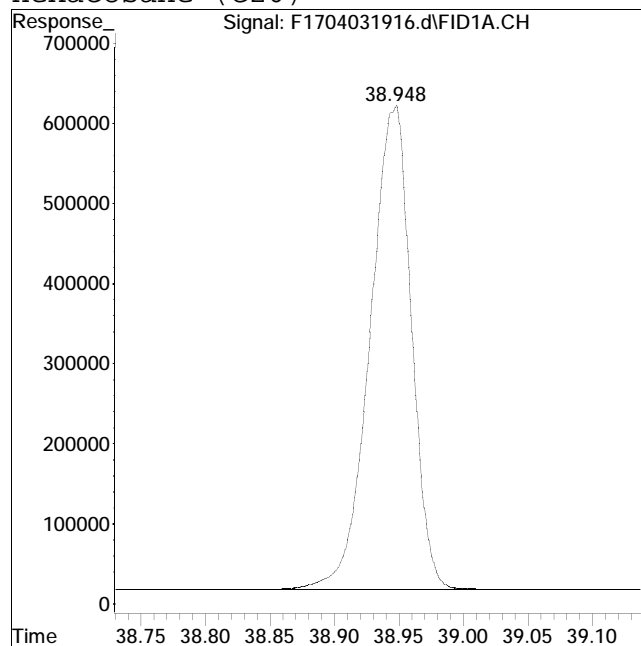
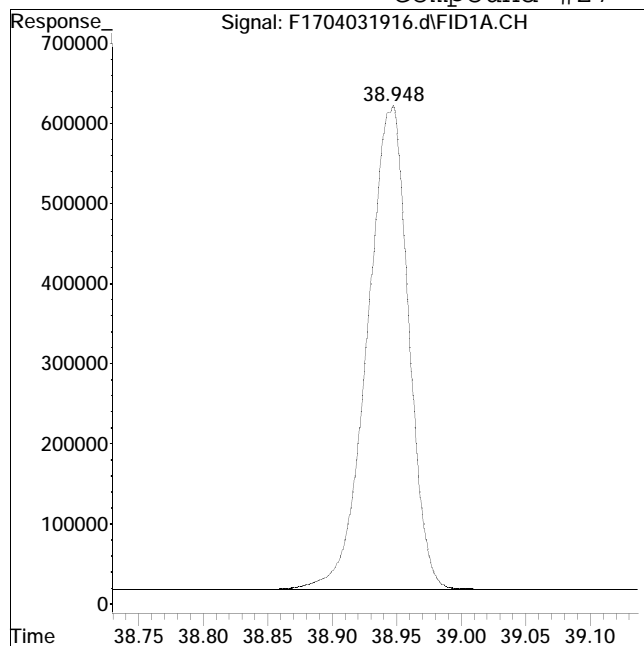
Manual Peak Response = 13354665 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 13437274

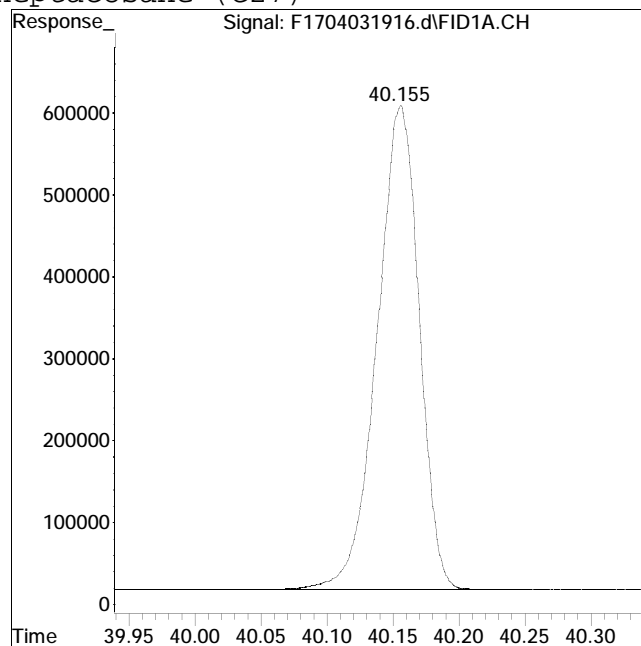
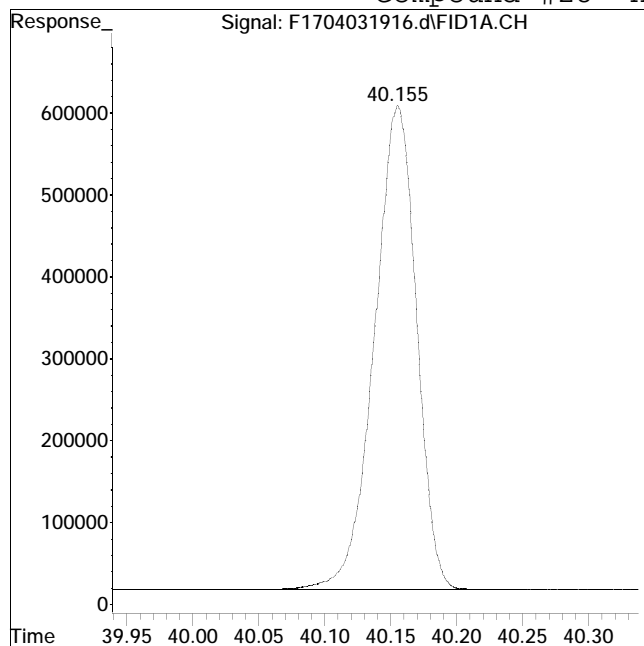
Manual Peak Response = 13459394 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 13068070

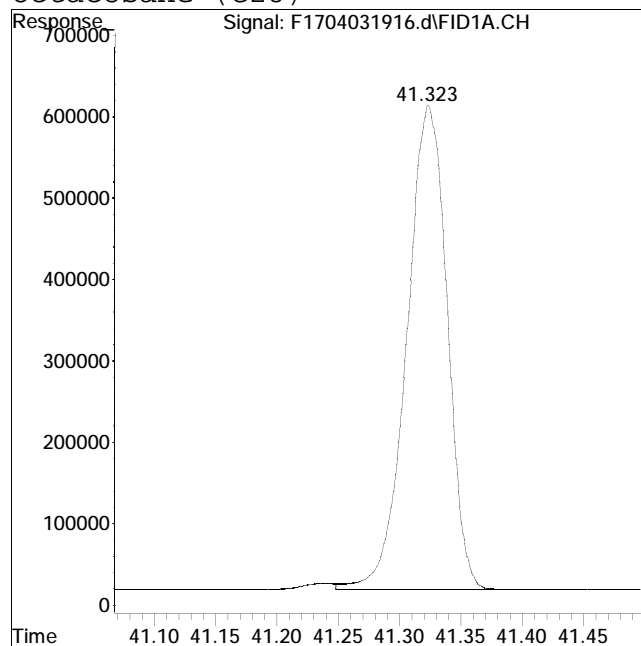
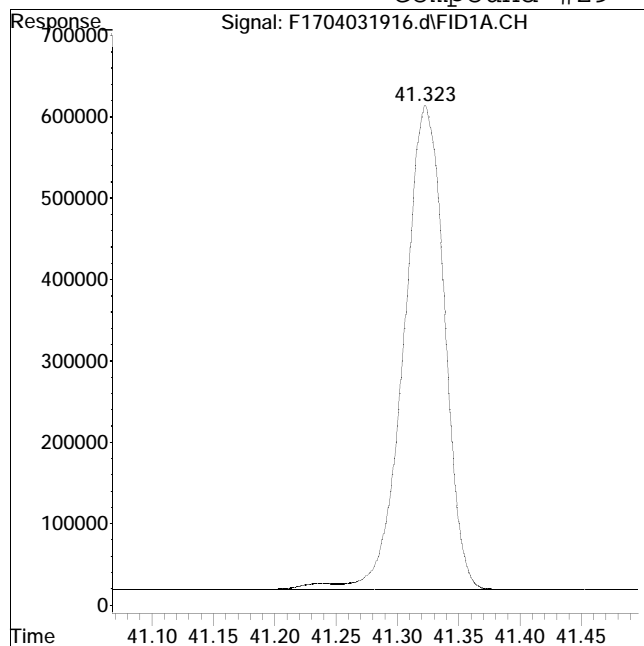
Manual Peak Response = 13102552 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 13728023

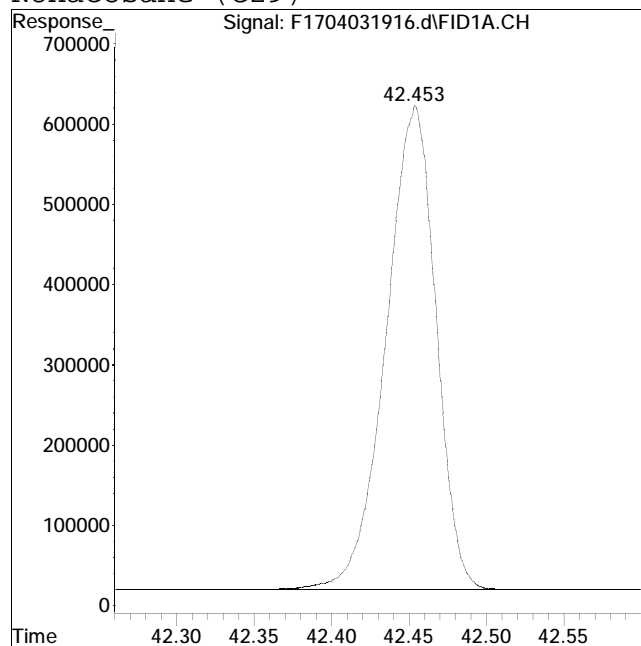
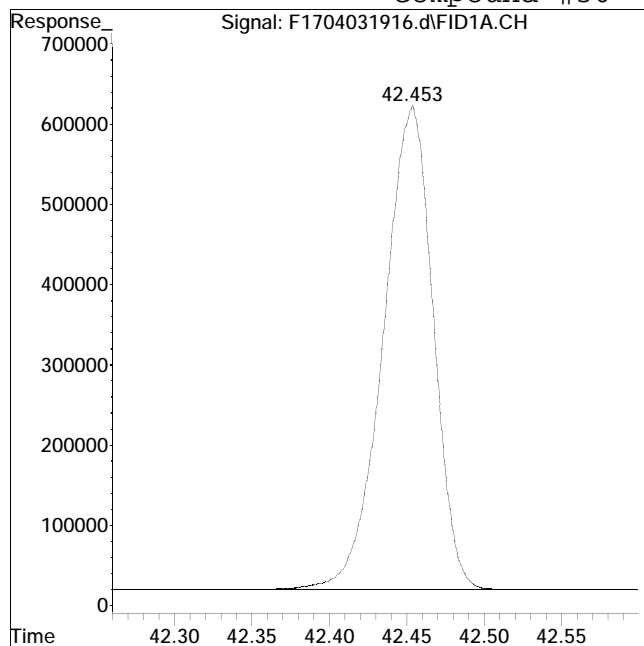
Manual Peak Response = 13620295 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 13501910

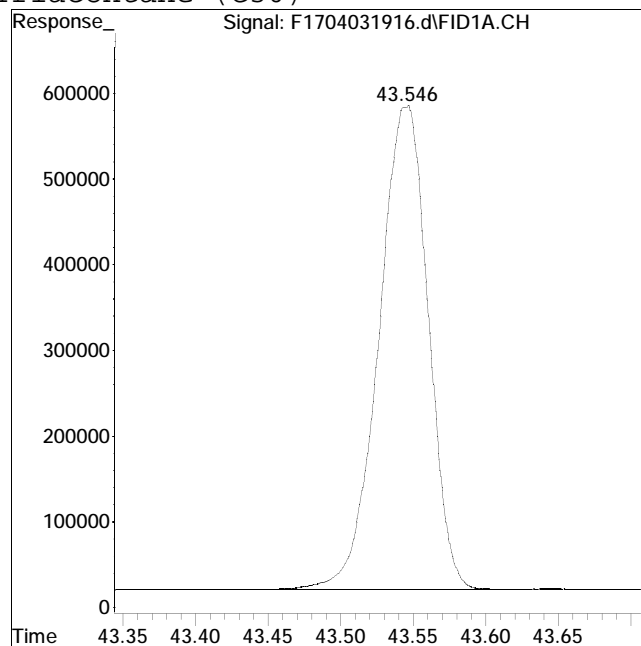
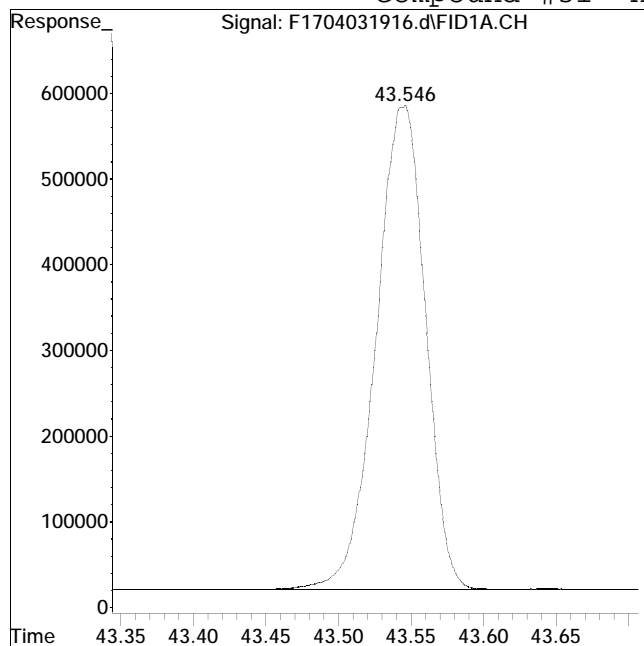
Manual Peak Response = 13527830 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 13339782

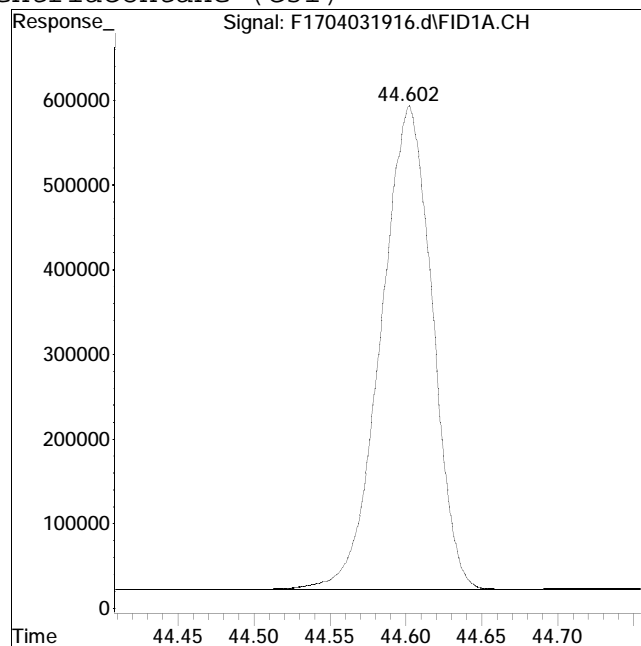
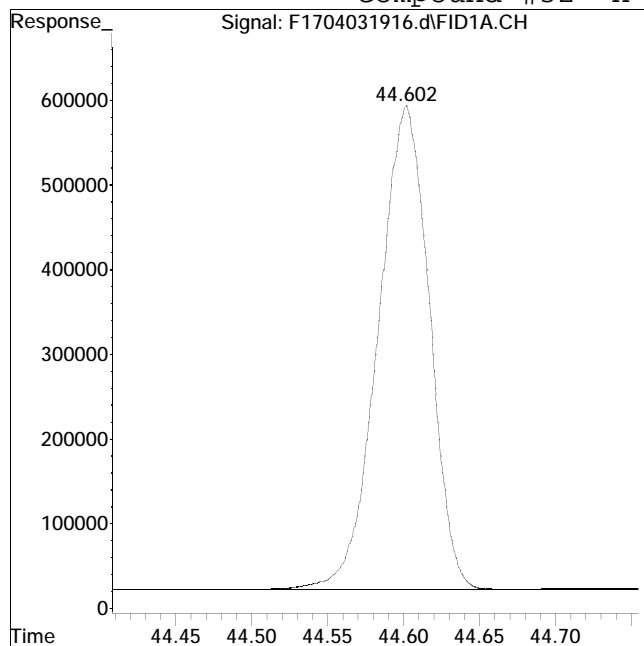
Manual Peak Response = 13359509 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 13402969

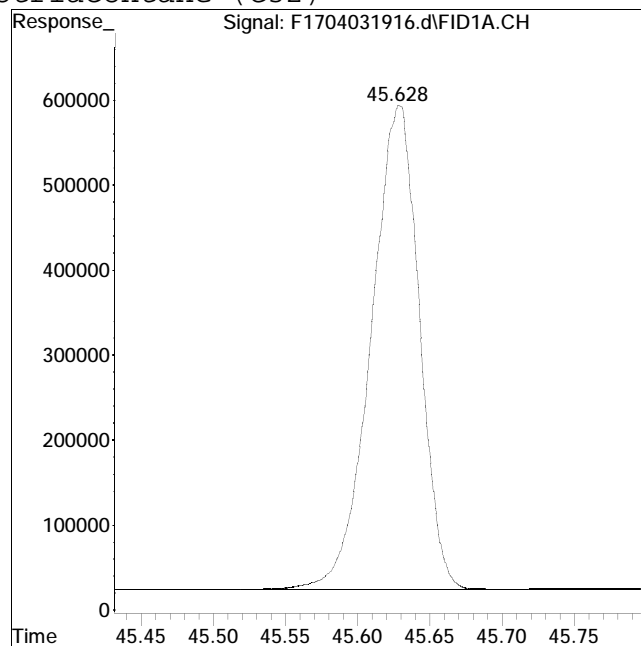
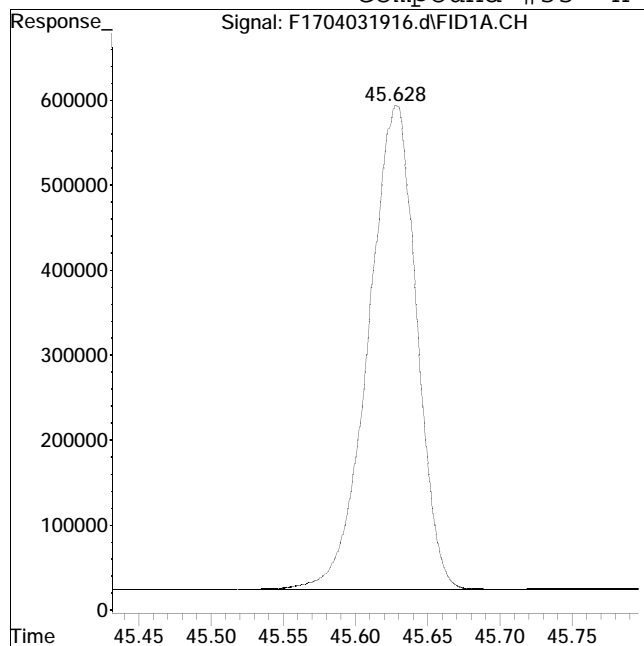
Manual Peak Response = 13426271 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 13202772

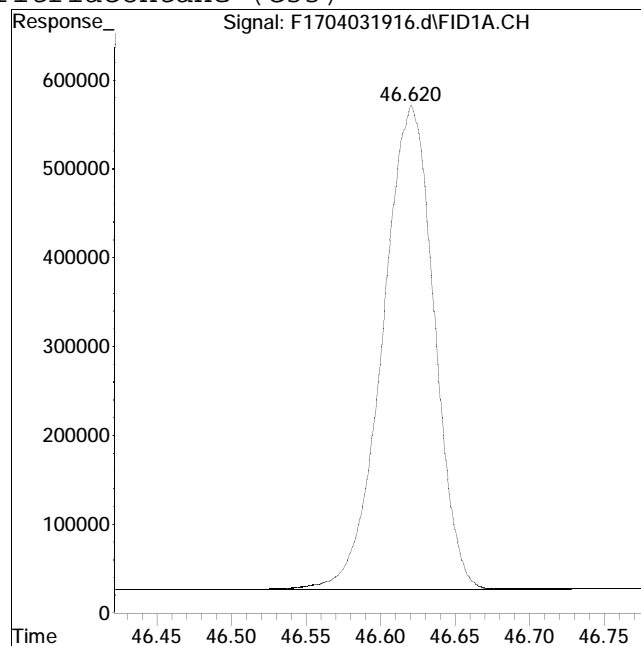
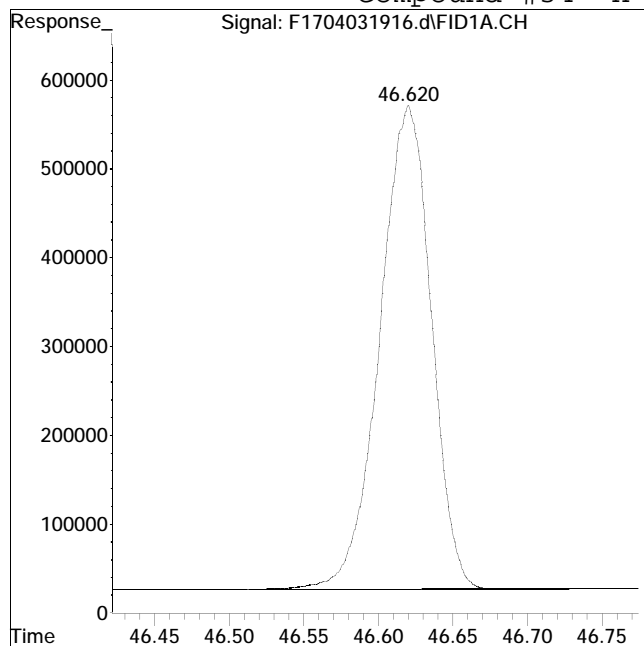
Manual Peak Response = 13245142 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 13056426

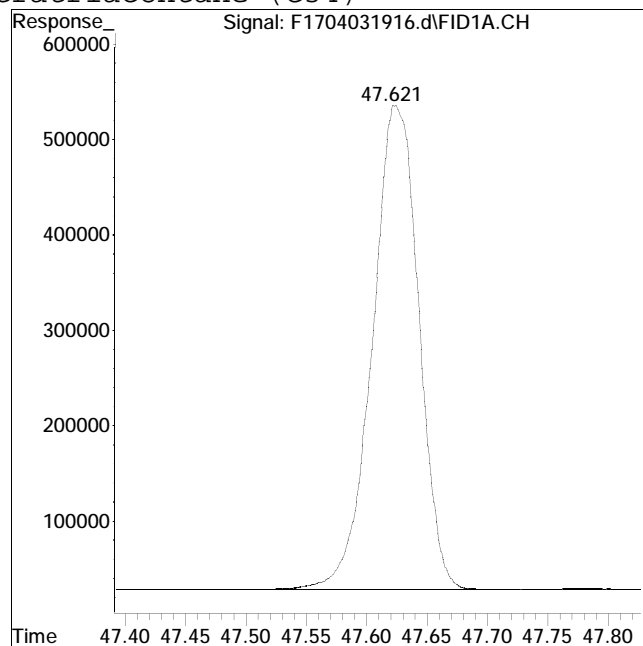
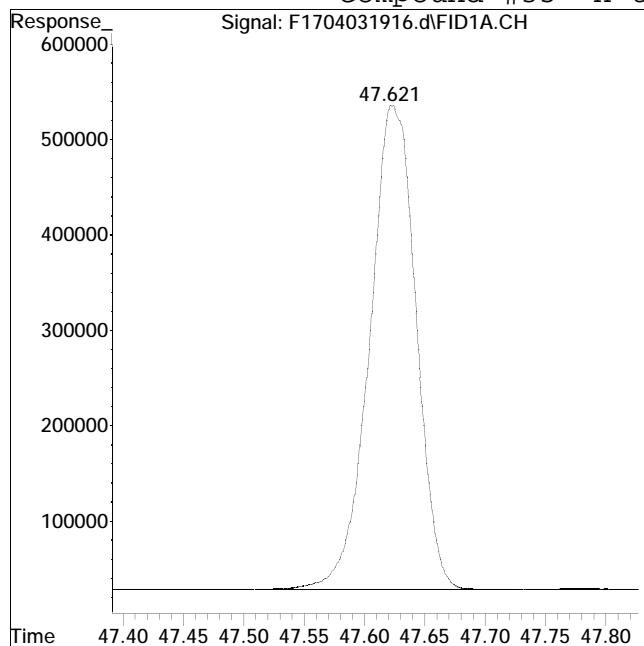
Manual Peak Response = 13104084 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 13531254

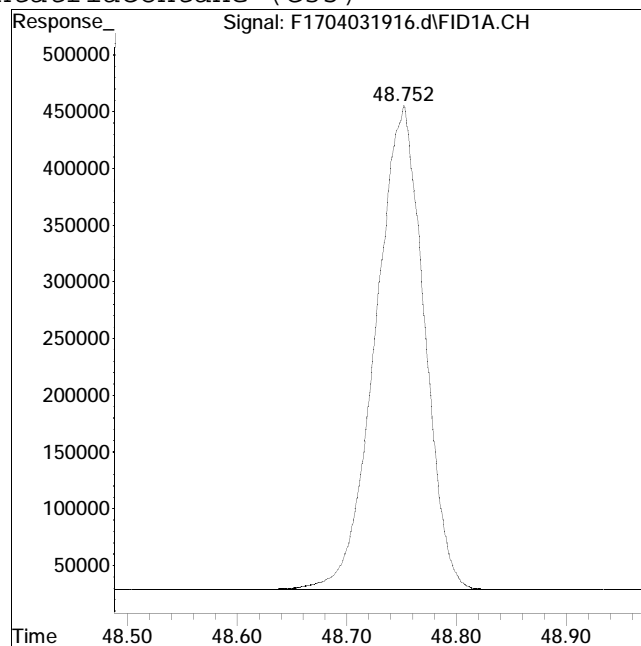
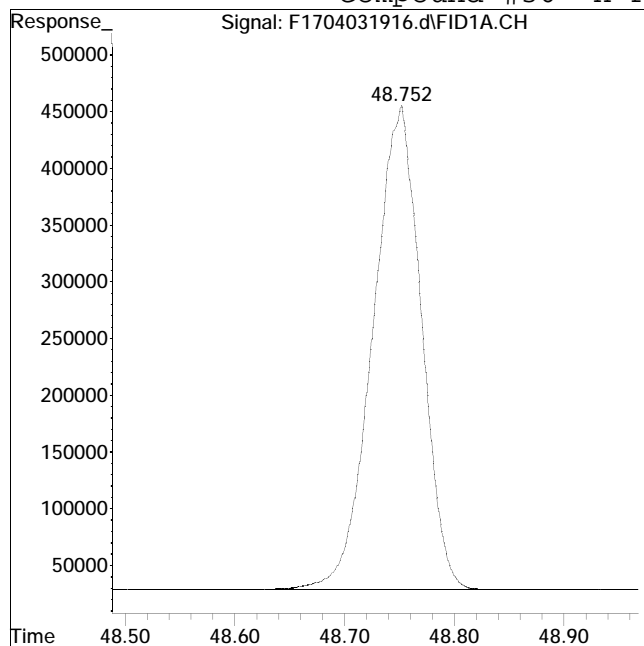
Manual Peak Response = 13579140 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 13064776

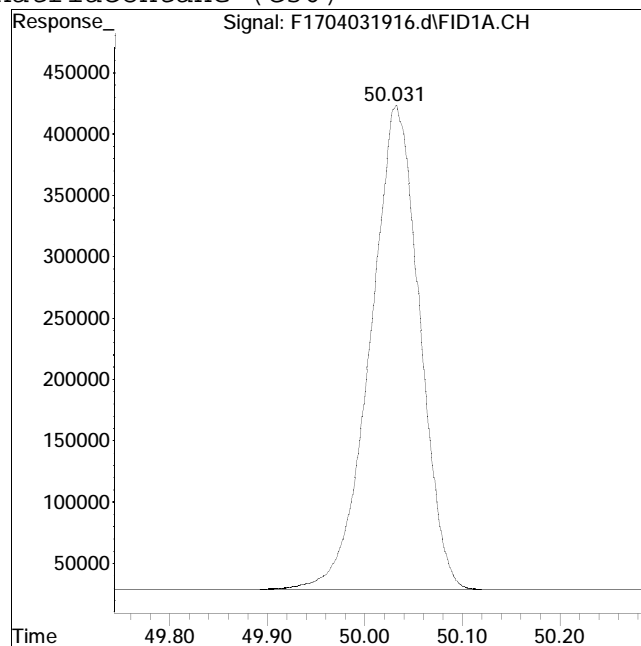
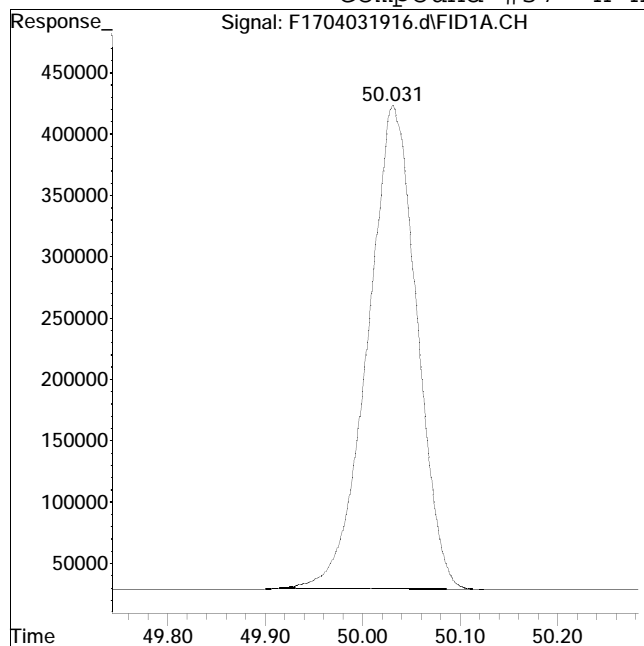
Manual Peak Response = 13106872 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 13747016

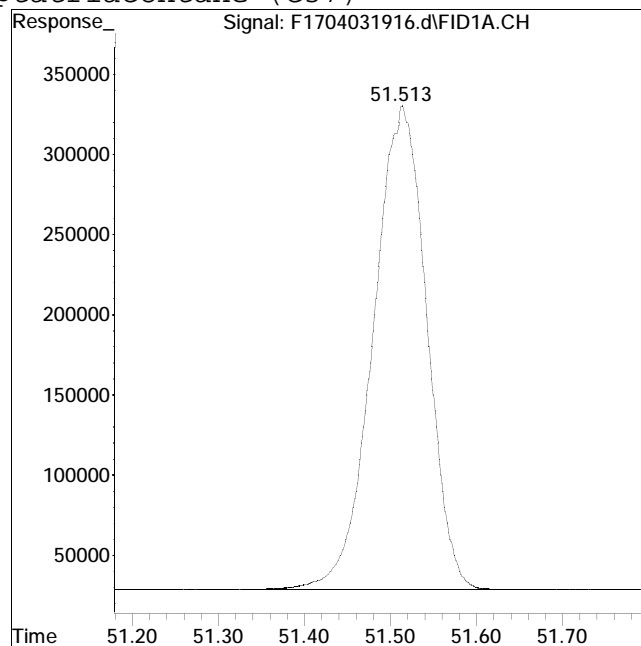
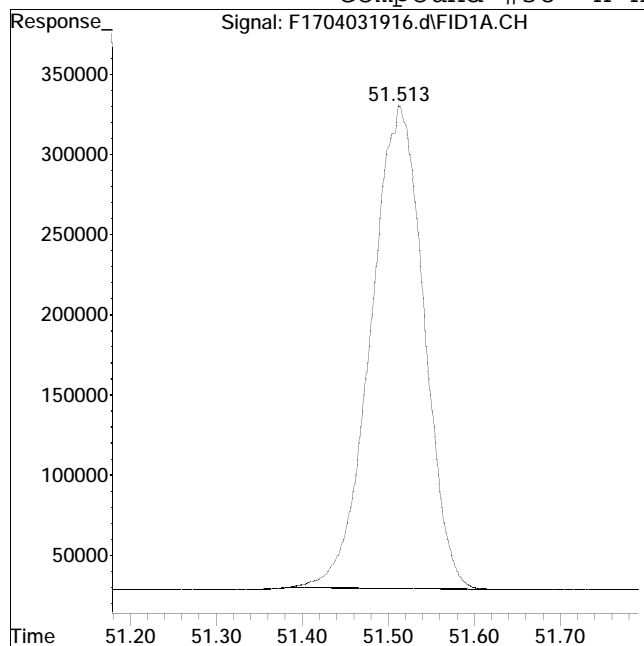
Manual Peak Response = 13877528 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 12893322

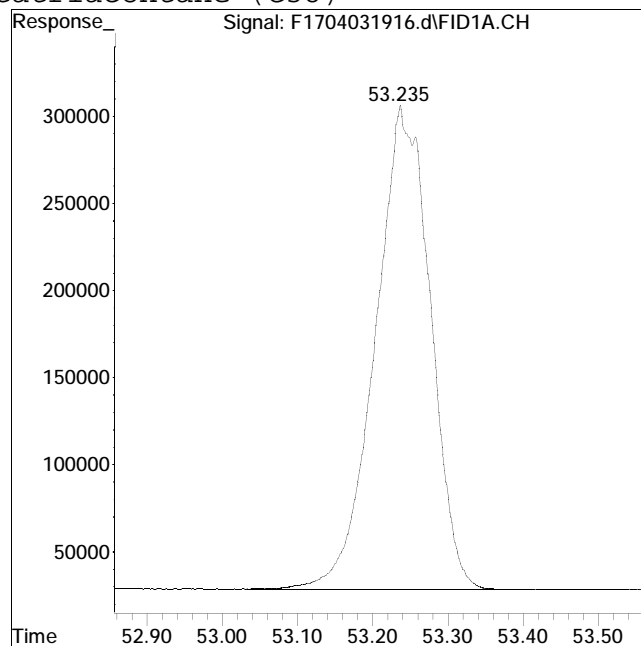
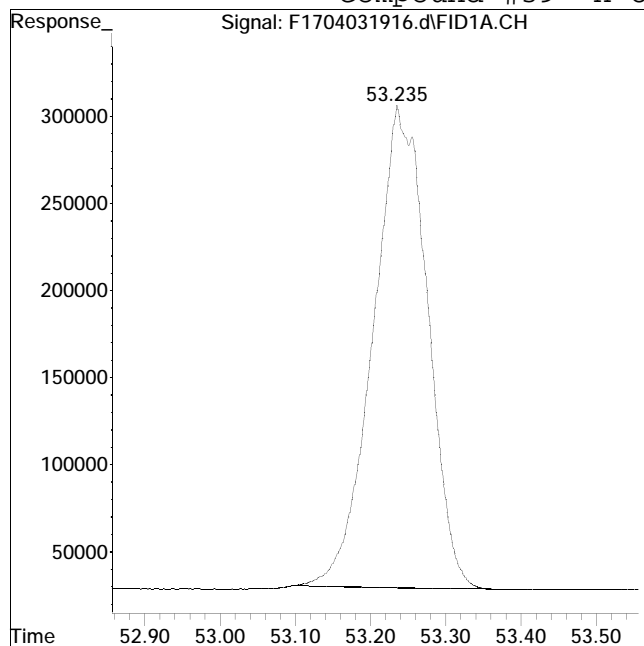
Manual Peak Response = 13038804 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 13880760

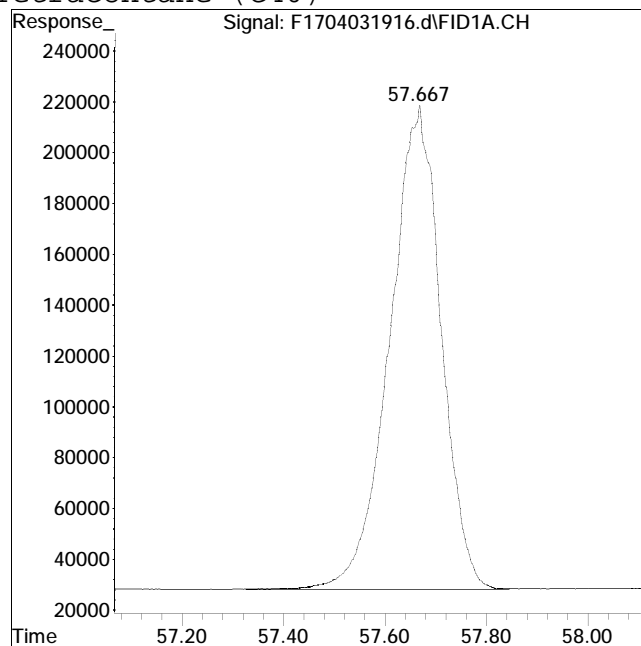
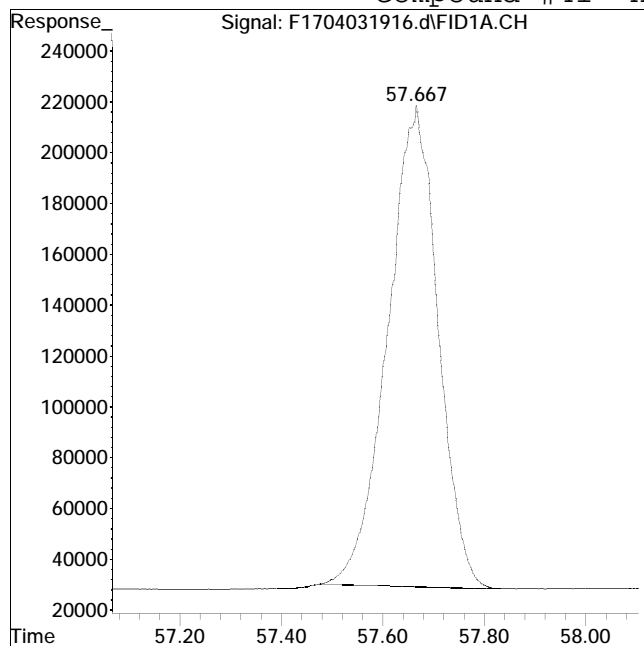
Manual Peak Response = 14107250 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031916.d Operator : FID17:WR
Date Inj'd : 4/4/2019 12:57 am Instrument : FID17
Sample : I1704031902F Quant Date : 4/15/2019 3:34 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 13057288

Manual Peak Response = 13364964 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031918.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 2:26 am
 Operator : FID17:WR
 Sample : I1704031903F
 Misc : WG1226965,FRBA88,50ug/ml
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:47:13 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:41:23 2019
 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	31.236	69203330	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.227	75957134	50.784	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	101.57%	
24) s d50-Tetracosane	35.864	60667208	50.729	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	101.46%	
Target Compounds				
2) t n-Octane (C8)	5.606	57613595	49.507	ug/mL M4
3) t n-Nonane (C9)	7.793	62807551	50.338	ug/mL M4
4) t n-Decane (C10)	10.272	65052741	51.213	ug/mL M4
5) t n-Undecane (C11)	12.781	65719798	51.212	ug/mL M4
6) t n-Dodecane (C12)	15.208	66125273	51.166	ug/mL M4
7) t n-Tridecane (C13)	17.514	66195051	51.369	ug/mL M4
9) t n-Tetradecane (C14)	19.698	66955192	51.218	ug/mL M4
11) t n-Pentadecane (C15)	21.763	66958765	51.266	ug/mL M4
12) t n-Hexadecane (C16)	23.720	67398253	51.281	ug/mL M4
14) t n-Heptadecane (C17)	25.578	67187614	51.372	ug/mL M4
15) t Pristane	25.689	68195798	51.031	ug/mL M4
16) t n-Octadecane (C18)	27.344	67924577	51.239	ug/mL M4
17) t Phytane	27.509	61560471	51.149	ug/mL M4
18) t n-Nonadecane (C19)	29.031	67706704	51.194	ug/mL M4
20) t n-Eicosane (C20)	30.634	67716990	51.079	ug/mL M4
21) t n-Heneicosane (C21)	32.171	68681481	50.911	ug/mL M4
22) t n-Docosane (C22)	33.643	68651010	50.993	ug/mL M4
23) t n-Tricosane (C23)	35.057	69045578	50.897	ug/mL M4
25) t n-Tetracosane (C24)	36.413	69379055	50.886	ug/mL M4
26) t n-Pentacosane (C25)	37.715	68759070	50.938	ug/mL M4
27) t n-Hexacosane (C26)	38.972	69310498	50.969	ug/mL M4
28) t n-Heptacosane (C27)	40.181	67466786	50.879	ug/mL M4
29) t n-Octacosane (C28)	41.352	70254928	51.158	ug/mL M4
30) t n-Nonacosane (C29)	42.478	69636508	50.952	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031918.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 2:26 am
 Operator : FID17:WR
 Sample : I1704031903F
 Misc : WG1226965,FRBA88,50ug/ml
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:47:13 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:41:23 2019
 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)	43.570	68759317	50.876 ug/mL M4
32) t n-Hentriacontane (C31)	44.629	69060320	50.761 ug/mL M4
33) t n-Dotriacontane (C32)	45.653	68154709	50.752 ug/mL M4
34) t n-Tritriacontane (C33)	46.651	67377259	50.741 ug/mL M4
35) t n-tetratriacontane (C34)	47.656	69732668	50.743 ug/mL M4
36) t n-Pentatriacontane (C35)	48.788	67327091	50.667 ug/mL M4
37) t n-Hexatriacontane (C36)	50.074	71364197	50.871 ug/mL M4
38) t n-Heptatriacontane (C37)	51.567	67059585	50.496 ug/mL M4
39) t n-Octatriacontane (C38)	53.306	72569395	51.010 ug/mL M4
41) t n-Tetracontane (C40)	57.750	68746793	50.812 ug/mL M4

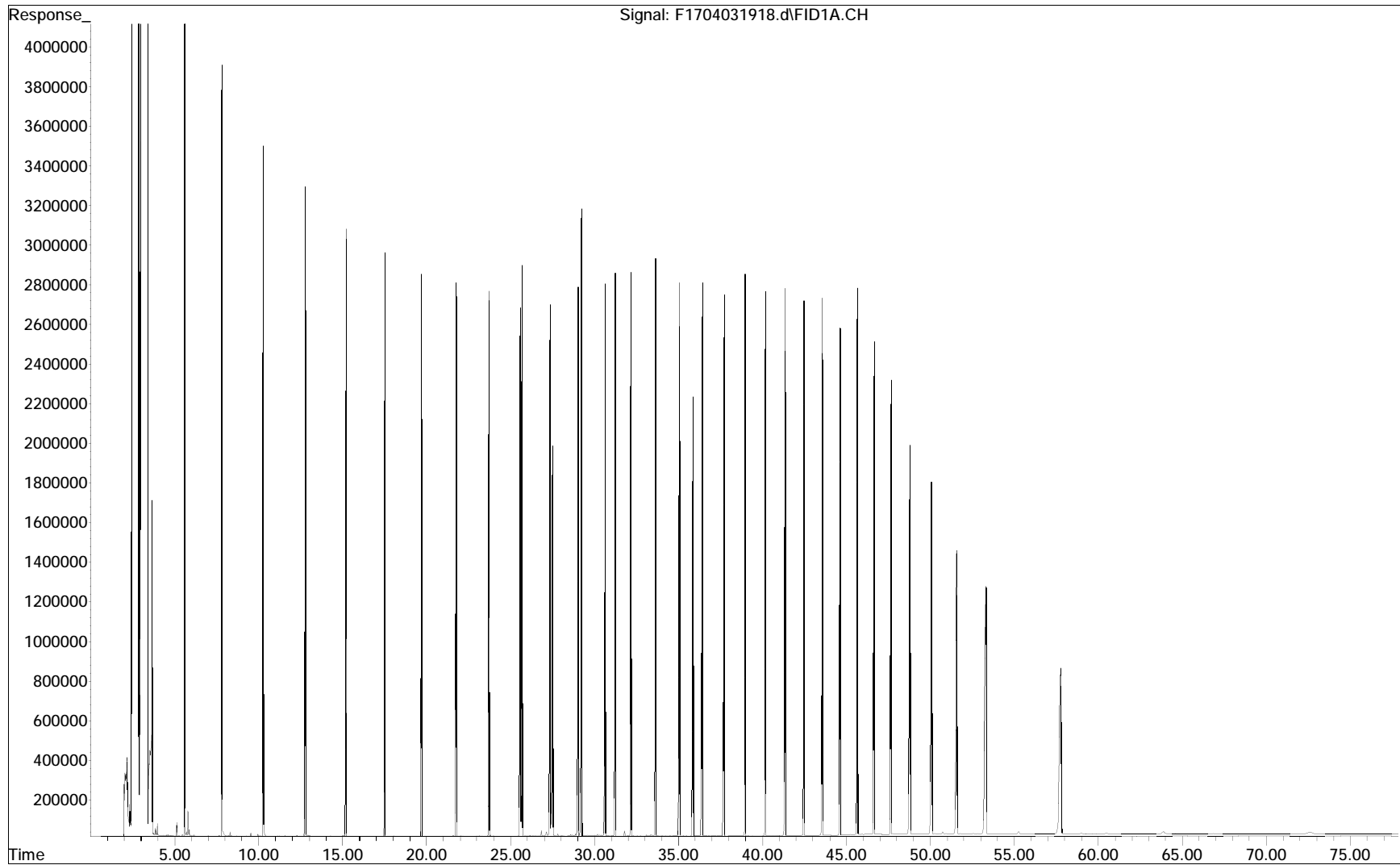
SemiQuant Compounds - Not Calibrated on this Instrument

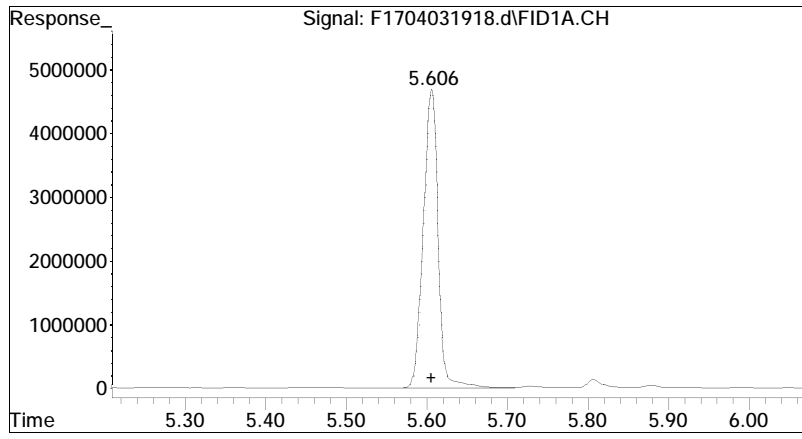
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

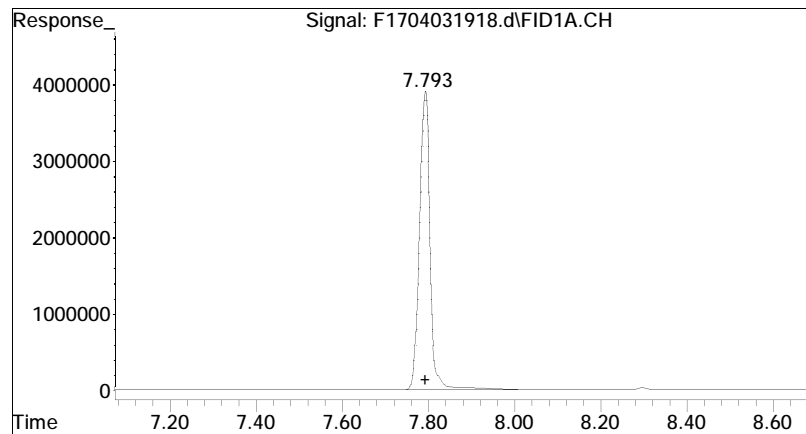
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031918.d
Operator : FID17:WR
Acquired : 04 Apr 2019 2:26 am using AcqMethod FID17.M
Sample Name: I1704031903F
Instrument: FID17
Misc Info : WG1226965,FRBA88,50ug/ml
Vial Number: 9
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M





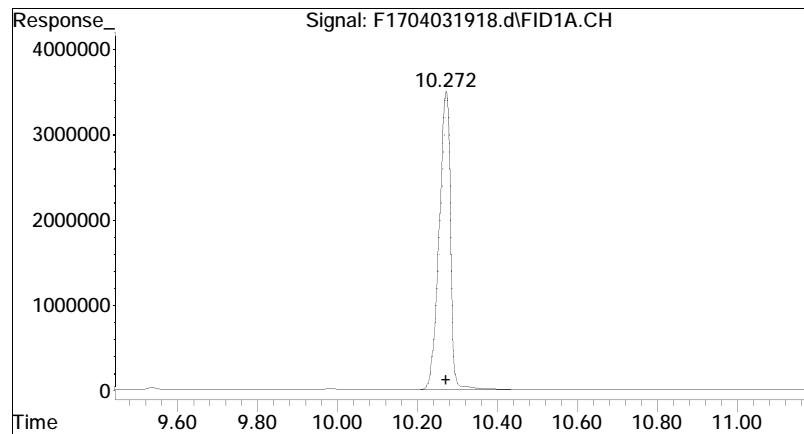
#2 n-Octane (C8)

R.T.: 5.606 min
Delta R.T.: 0.000 min
Response: 57613595
Conc: 49.51 ug/mL M4



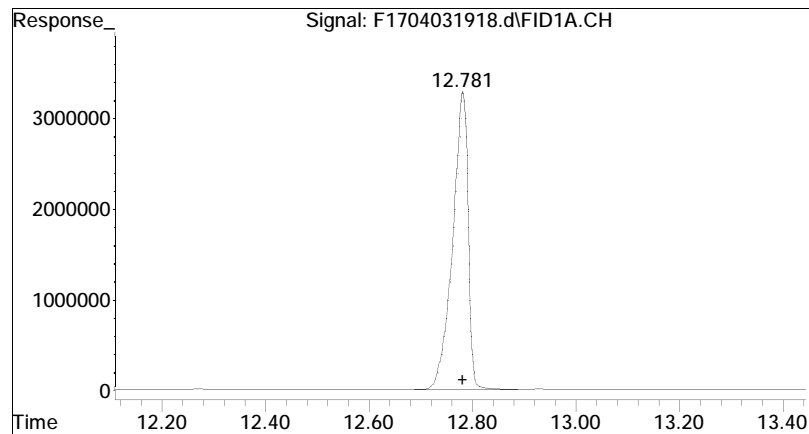
#3 n-Nonane (C9)

R.T.: 7.793 min
Delta R.T.: 0.000 min
Response: 62807551
Conc: 50.34 ug/mL M4



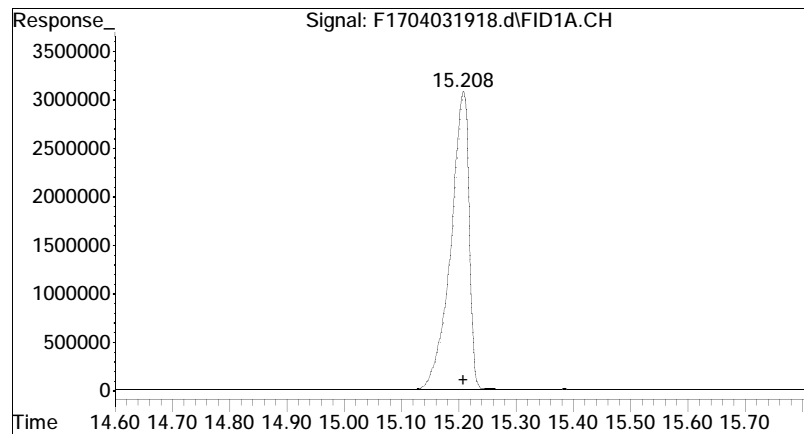
#4 n-Decane (C10)

R.T.: 10.272 min
Delta R.T.: 0.000 min
Response: 65052741
Conc: 51.21 ug/mL M4



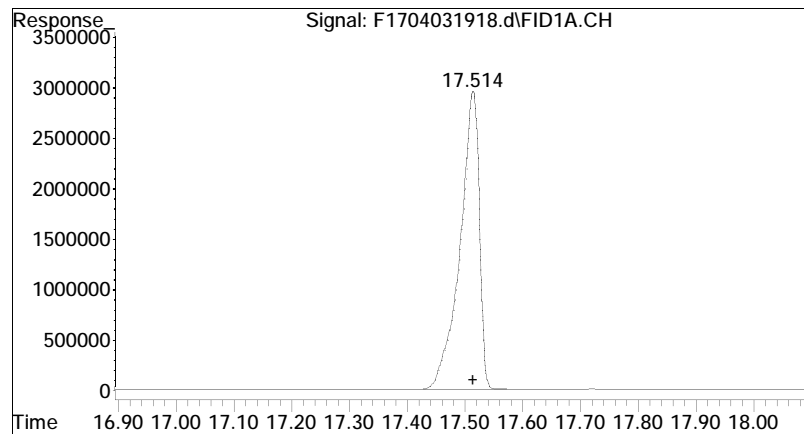
#5 n-Undecane (C11)

R.T.: 12.781 min
Delta R.T.: 0.000 min
Response: 65719798
Conc: 51.21 ug/mL M4



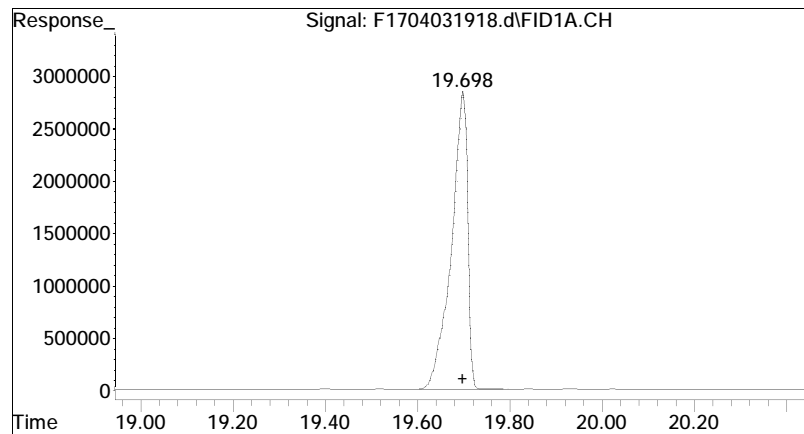
#6 n-Dodecane (C12)

R.T.: 15.208 min
Delta R.T.: 0.000 min
Response: 66125273
Conc: 51.17 ug/mL M4



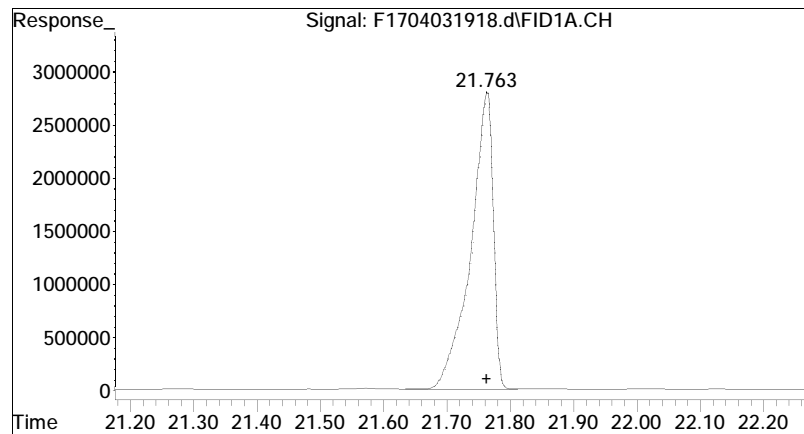
#7 n-Tridecane (C13)

R.T.: 17.514 min
Delta R.T.: 0.000 min
Response: 66195051
Conc: 51.37 ug/mL M4



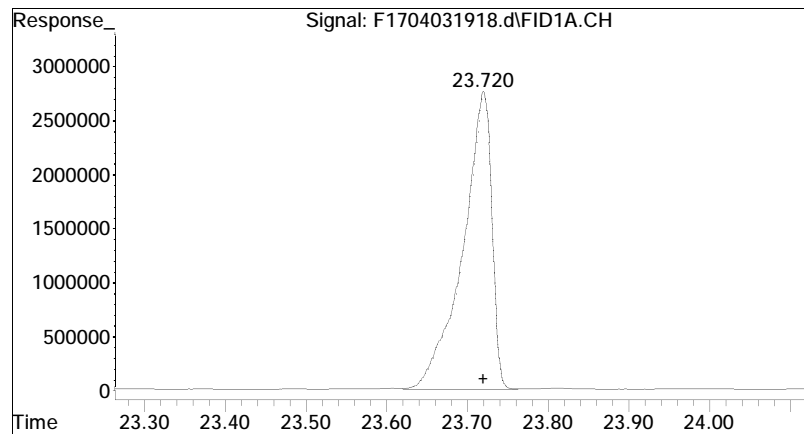
#9 n-Tetradecane (C14)

R.T.: 19.698 min
Delta R.T.: 0.000 min
Response: 66955192
Conc: 51.22 ug/mL M4



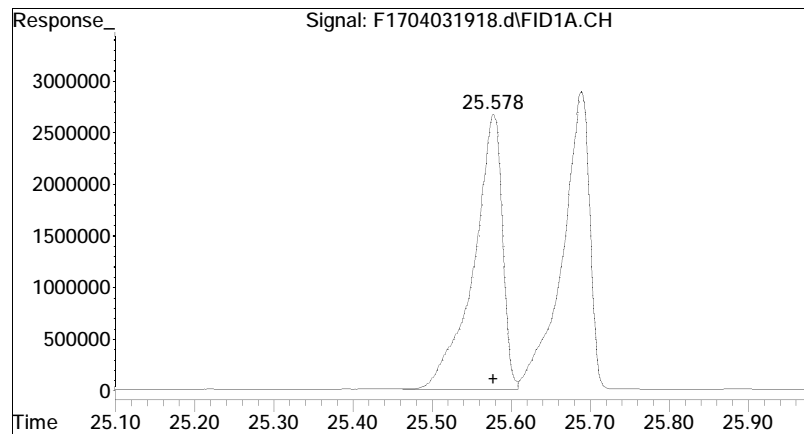
#11 n-Pentadecane (C15)

R.T.: 21.763 min
Delta R.T.: 0.000 min
Response: 66958765
Conc: 51.27 ug/mL M4



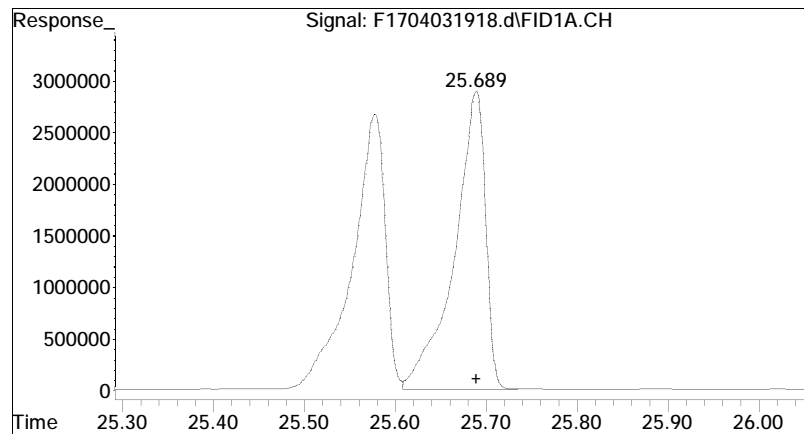
#12 n-Hexadecane (C16)

R.T.: 23.720 min
Delta R.T.: 0.000 min
Response: 67398253
Conc: 51.28 ug/mL M4



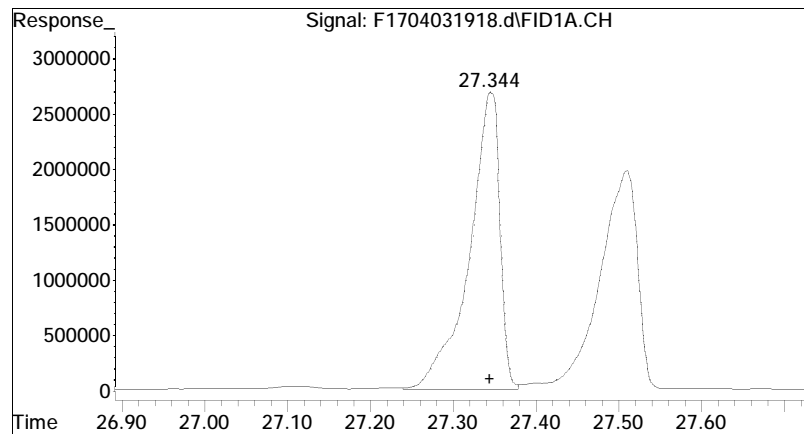
#14 n-Heptadecane (C17)

R.T.: 25.578 min
Delta R.T.: 0.000 min
Response: 67187614
Conc: 51.37 ug/mL M4



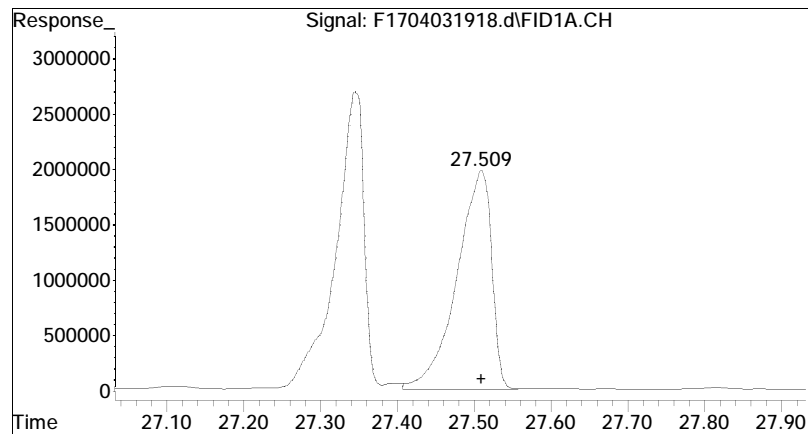
#15 Pristane

R.T.: 25.689 min
Delta R.T.: 0.000 min
Response: 68195798
Conc: 51.03 ug/mL M4



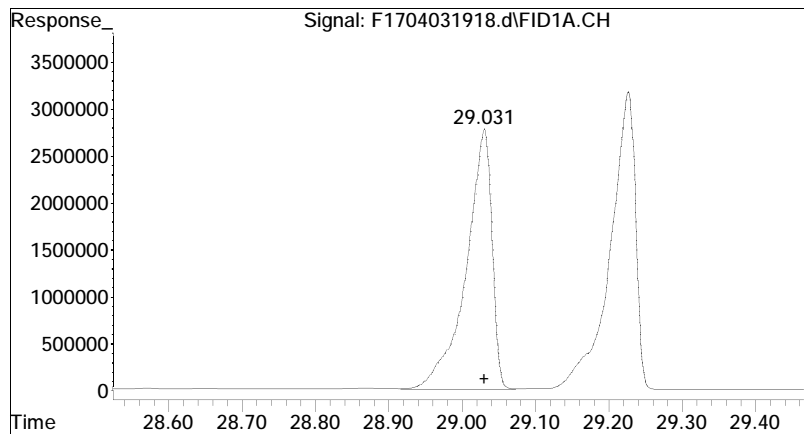
#16 n-Octadecane (C18)

R.T.: 27.344 min
Delta R.T.: 0.000 min
Response: 67924577
Conc: 51.24 ug/mL M4

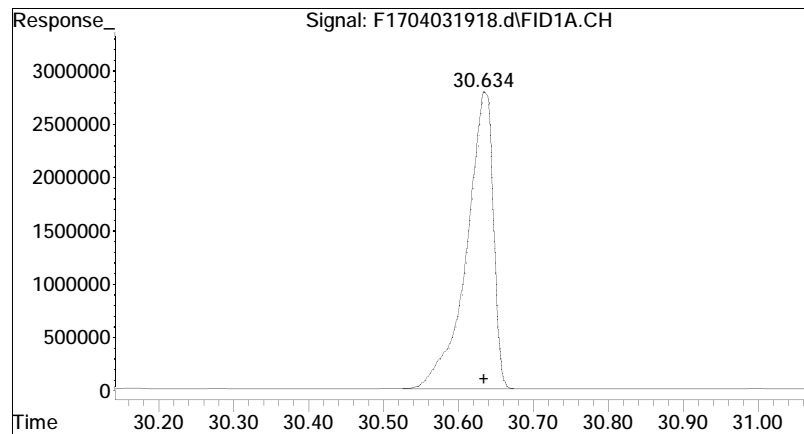


#17 Phytane

R.T.: 27.509 min
Delta R.T.: 0.000 min
Response: 61560471
Conc: 51.15 ug/mL M4

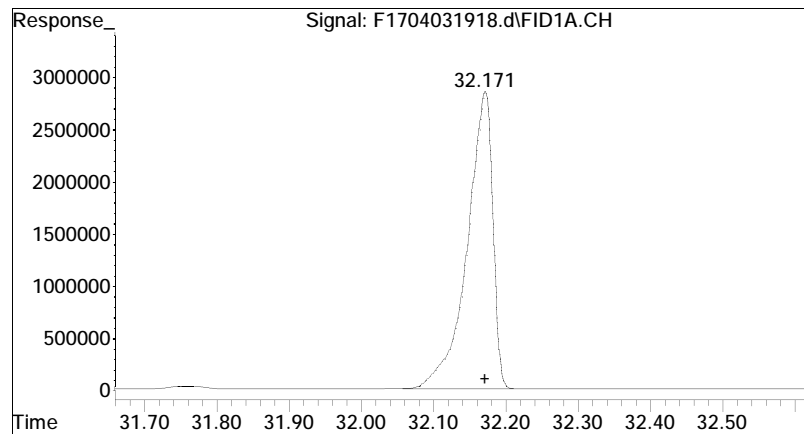


#18 n-Nonadecane (C19)
R.T.: 29.031 min
Delta R.T.: 0.000 min
Response: 67706704
Conc: 51.19 ug/mL M4



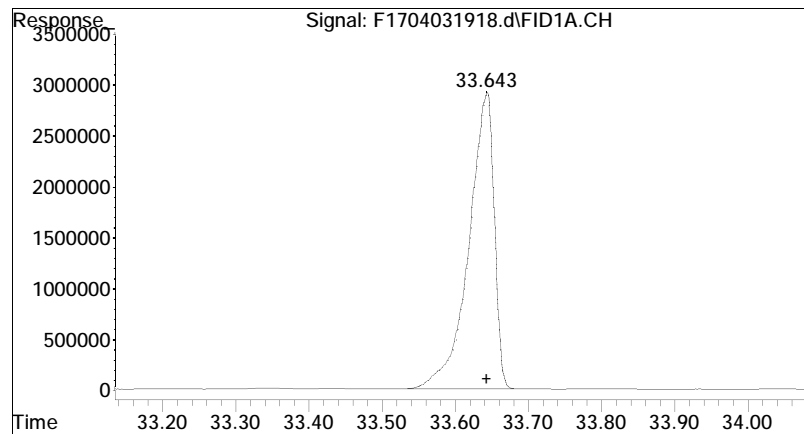
#20 n-Eicosane (C20)

R.T.: 30.634 min
Delta R.T.: 0.000 min
Response: 67716990
Conc: 51.08 ug/mL M4



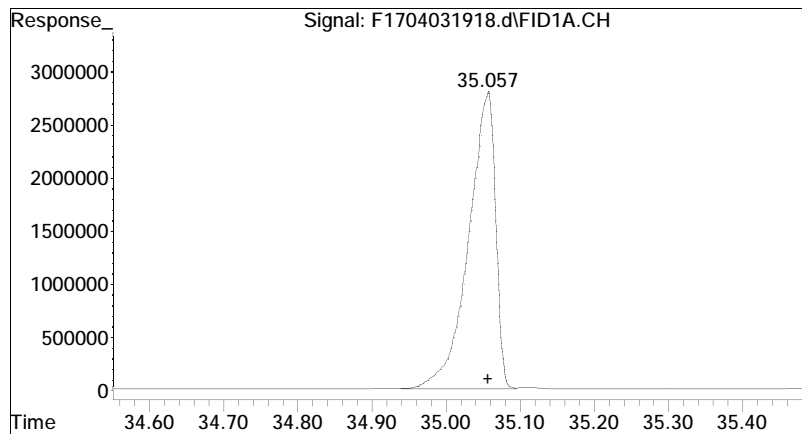
#21 n-Heneicosane (C21)

R.T.: 32.171 min
Delta R.T.: 0.000 min
Response: 68681481
Conc: 50.91 ug/mL M4



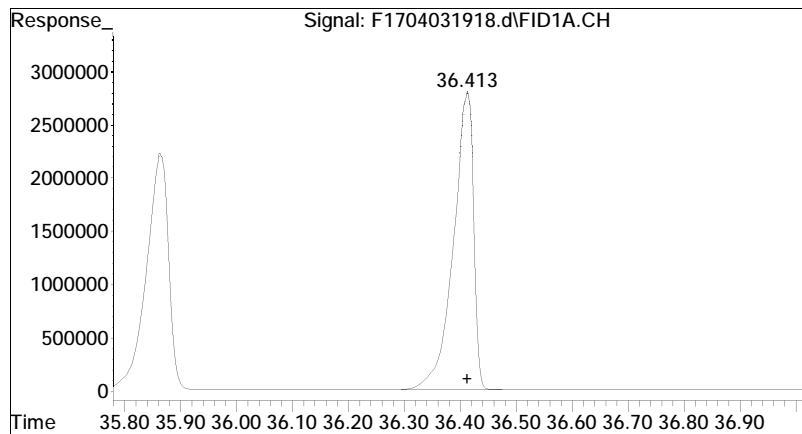
#22 n-Docosane (C22)

R.T.: 33.643 min
Delta R.T.: 0.000 min
Response: 68651010
Conc: 50.99 ug/mL M4



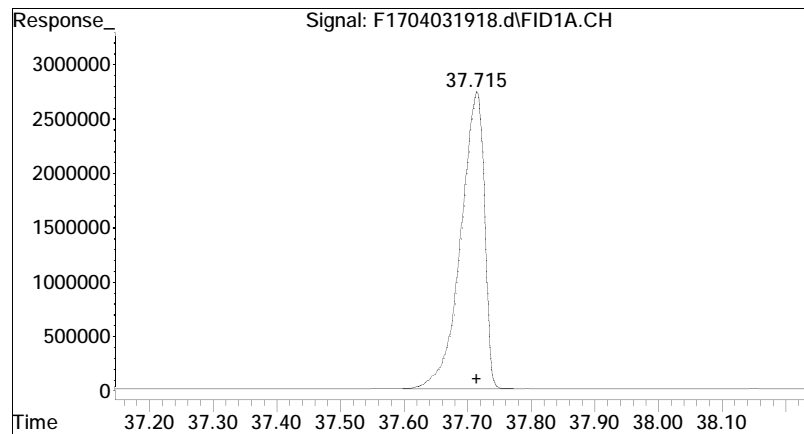
#23 n-Tricosane (C23)

R.T.: 35.057 min
Delta R.T.: 0.000 min
Response: 69045578
Conc: 50.90 ug/mL M4



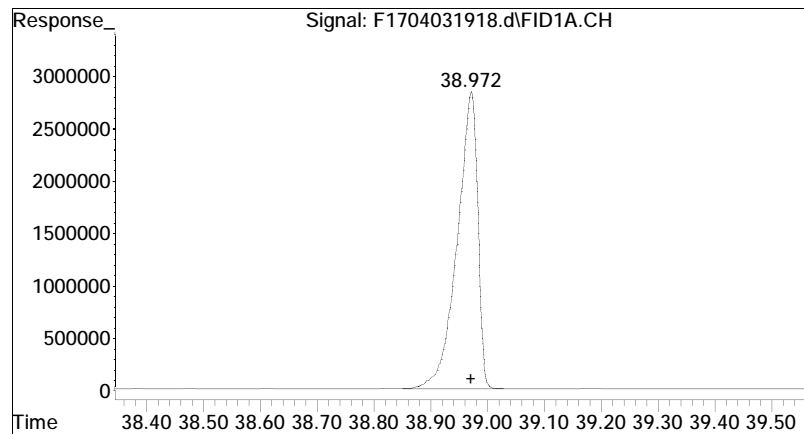
#25 n-Tetracosane (C24)

R.T.: 36.413 min
Delta R.T.: 0.000 min
Response: 69379055
Conc: 50.89 ug/mL M4



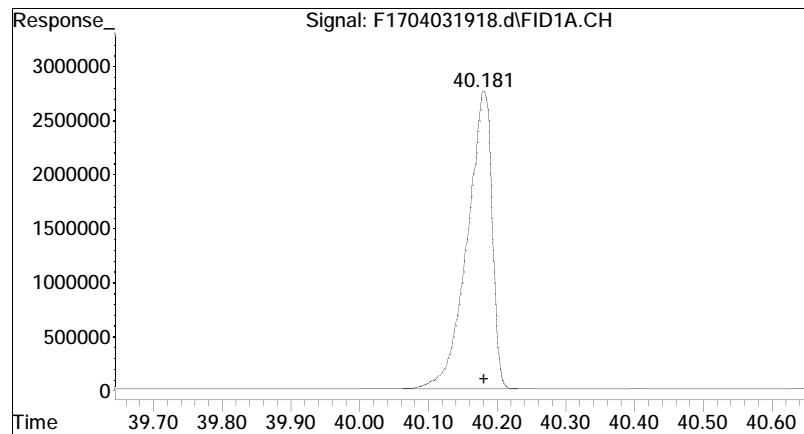
#26 n-Pentacosane (C25)

R.T.: 37.715 min
Delta R.T.: 0.000 min
Response: 68759070
Conc: 50.94 ug/mL M4



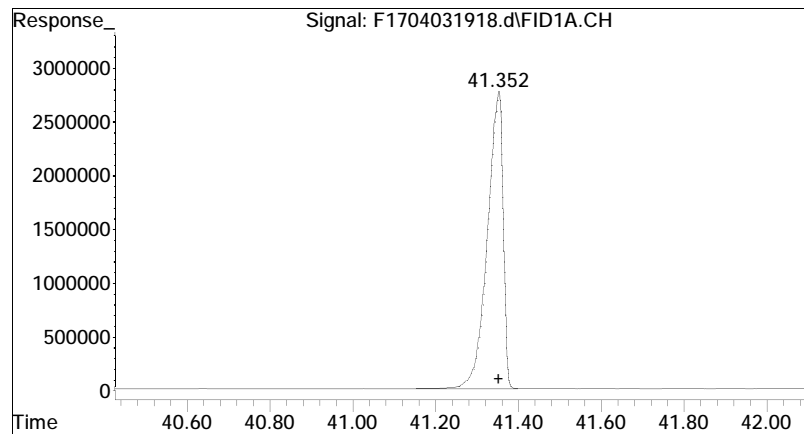
#27 n-Hexacosane (C26)

R.T.: 38.972 min
Delta R.T.: 0.000 min
Response: 69310498
Conc: 50.97 ug/mL M4



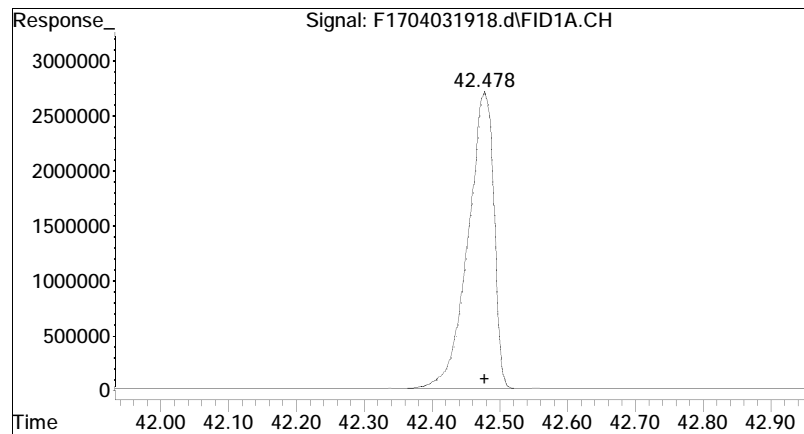
#28 n-Heptacosane (C27)

R.T.: 40.181 min
Delta R.T.: 0.000 min
Response: 67466786
Conc: 50.88 ug/mL M4



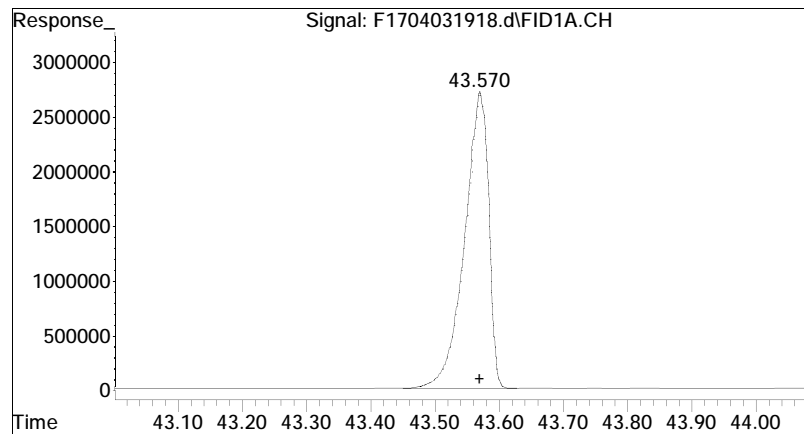
#29 n-Octacosane (C28)

R.T.: 41.352 min
Delta R.T.: 0.000 min
Response: 70254928
Conc: 51.16 ug/mL M4



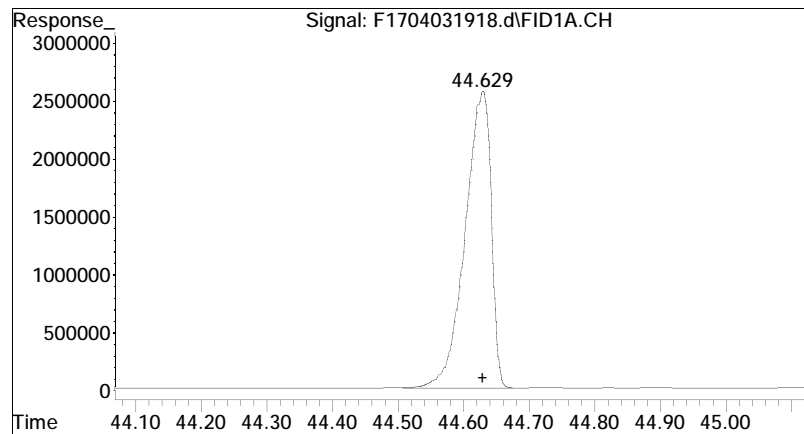
#30 n-Nonacosane (C29)

R.T.: 42.478 min
Delta R.T.: 0.000 min
Response: 69636508
Conc: 50.95 ug/mL M4



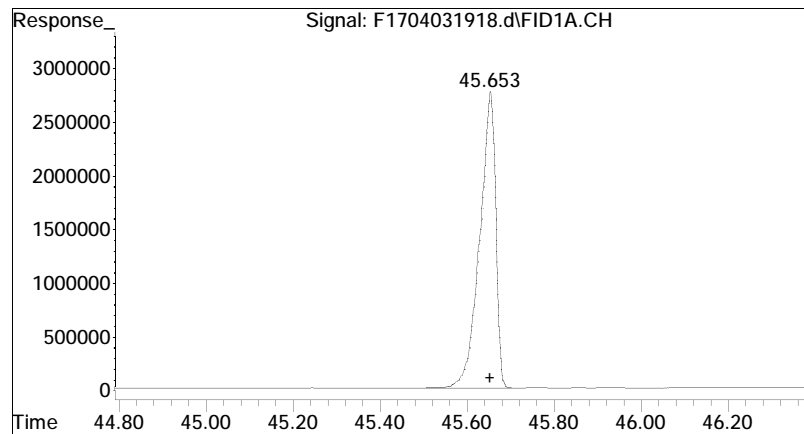
#31 n-Triacontane (C30)

R.T.: 43.570 min
Delta R.T.: 0.000 min
Response: 68759317
Conc: 50.88 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.629 min
Delta R.T.: 0.000 min
Response: 69060320
Conc: 50.76 ug/mL M4



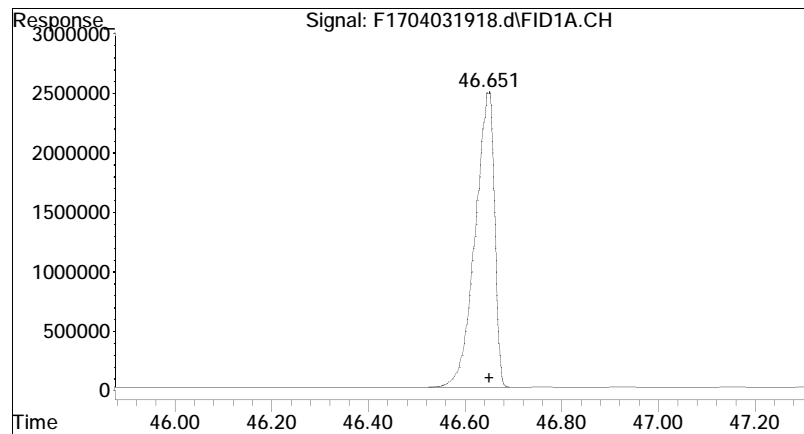
#33 n-Dotriacontane (C32)

R.T.: 45.653 min

Delta R.T.: 0.000 min

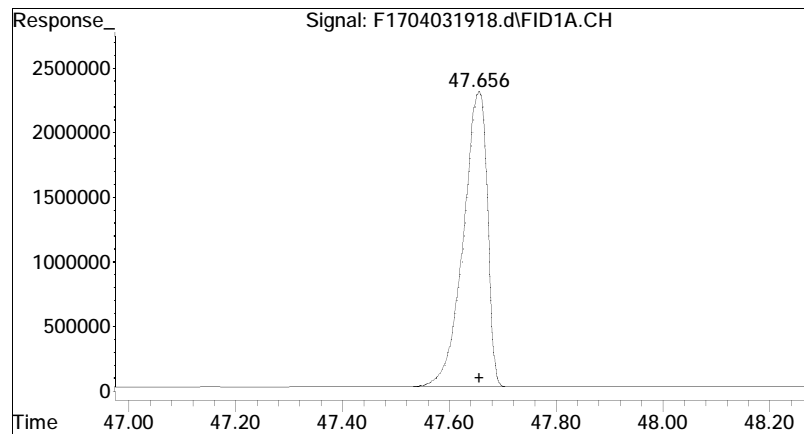
Response: 68154709

Conc: 50.75 ug/mL M4



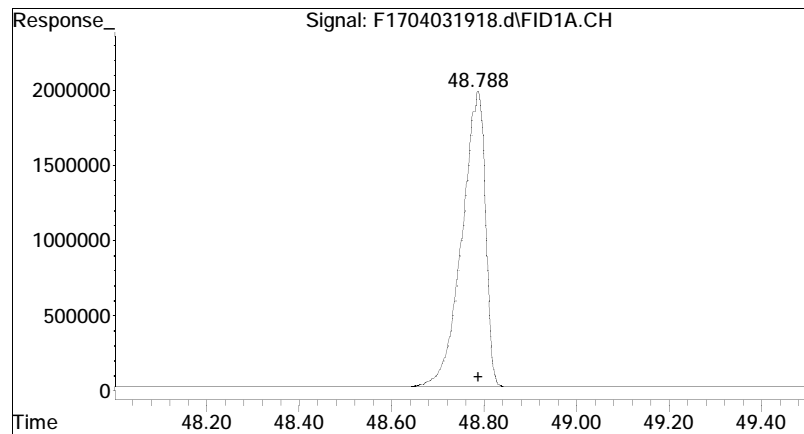
#34 n-Tritriacontane (C33)

R.T.: 46.651 min
Delta R.T.: 0.000 min
Response: 67377259
Conc: 50.74 ug/mL M4



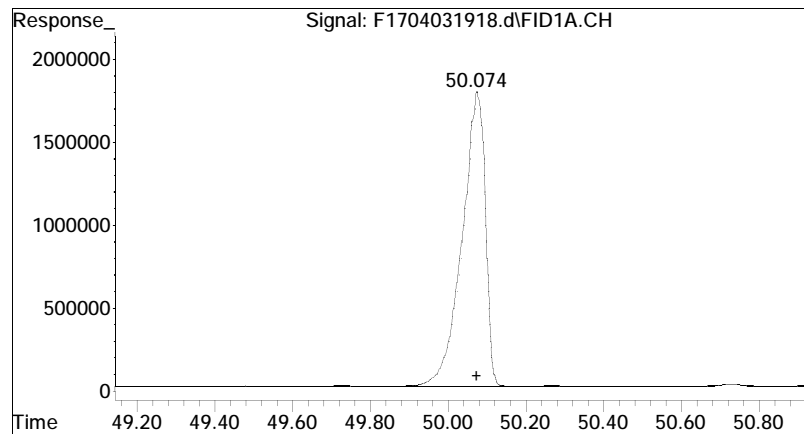
#35 n-tetratriacontane (C34)

R.T.: 47.656 min
Delta R.T.: 0.000 min
Response: 69732668
Conc: 50.74 ug/mL M4



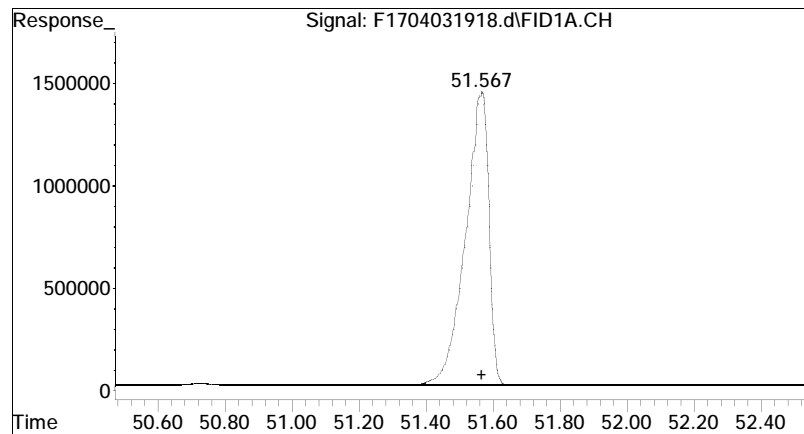
#36 n-Pentatriacontane (C35)

R.T.: 48.788 min
Delta R.T.: 0.000 min
Response: 67327091
Conc: 50.67 ug/mL M4



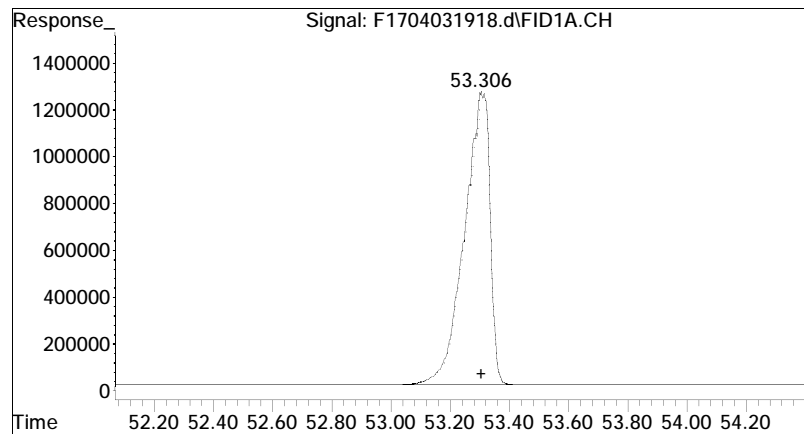
#37 n-Hexatriacontane (C36)

R.T.: 50.074 min
Delta R.T.: 0.000 min
Response: 71364197
Conc: 50.87 ug/mL M4



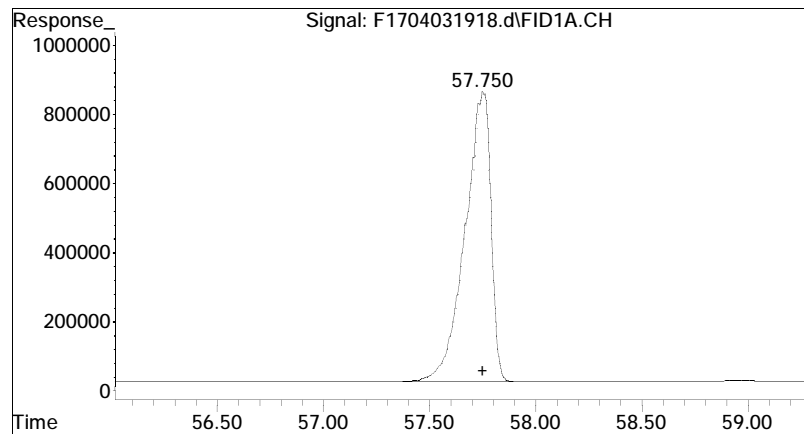
#38 n-Heptatriacontane (C37)

R.T.: 51.567 min
Delta R.T.: 0.000 min
Response: 67059585
Conc: 50.50 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 53.306 min
Delta R.T.: 0.000 min
Response: 72569395
Conc: 51.01 ug/mL M4



#41 n-Tetracontane (C40)

R.T.: 57.750 min

Delta R.T.: 0.000 min

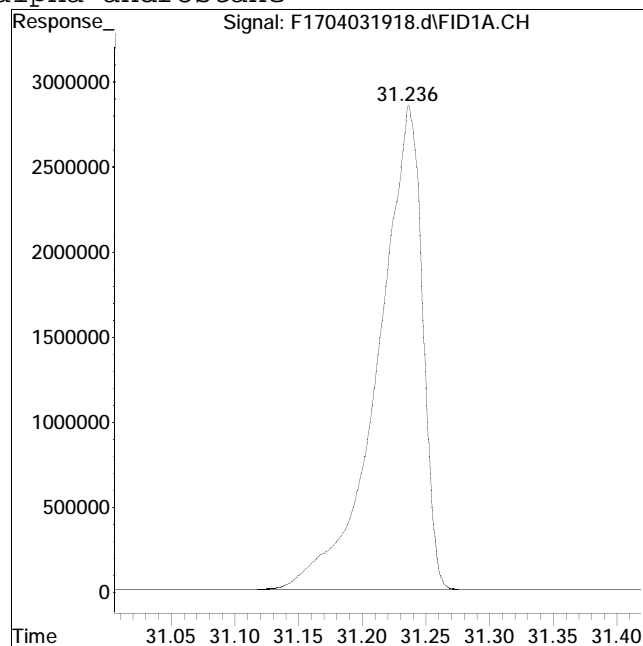
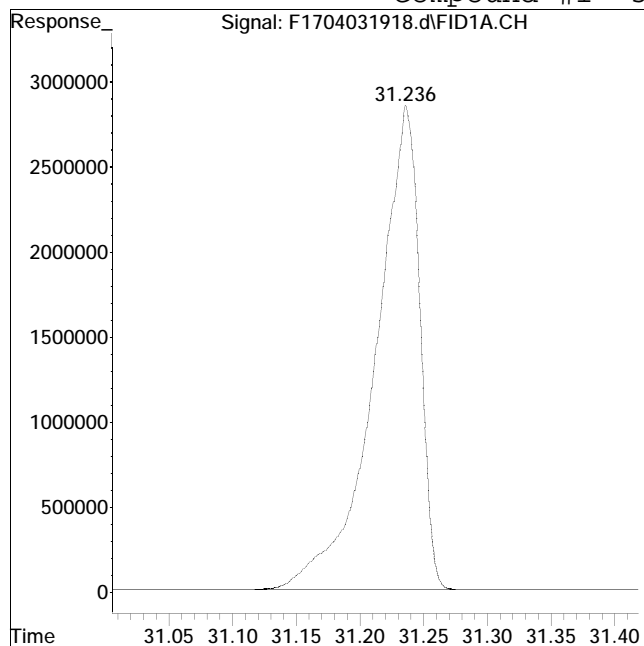
Response: 68746793

Conc: 50.81 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 69102604

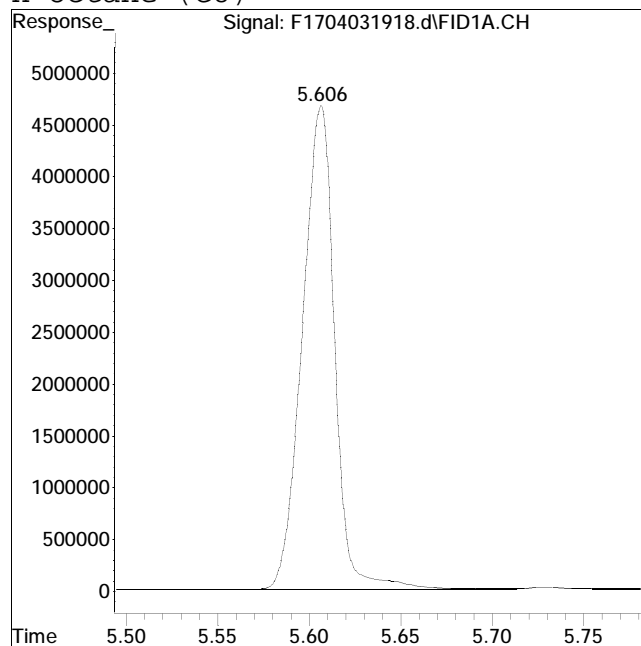
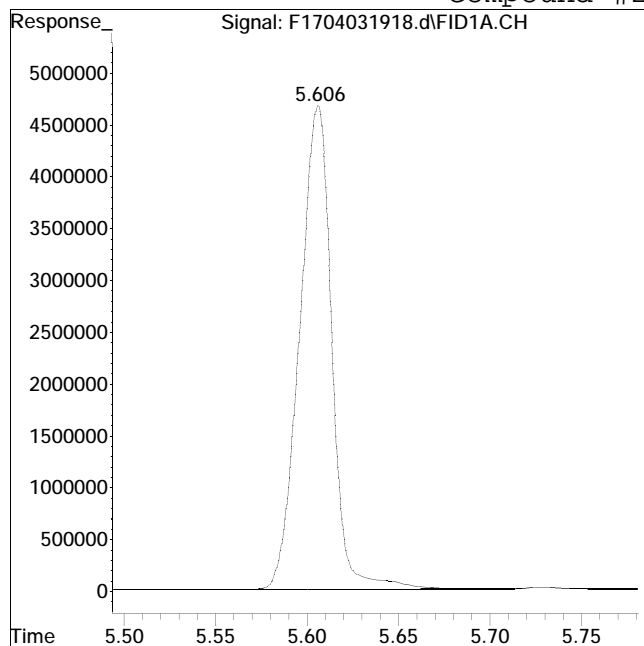
Manual Peak Response = 69203330 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #2: n-Octane (C8)



Original Peak Response = 57215374

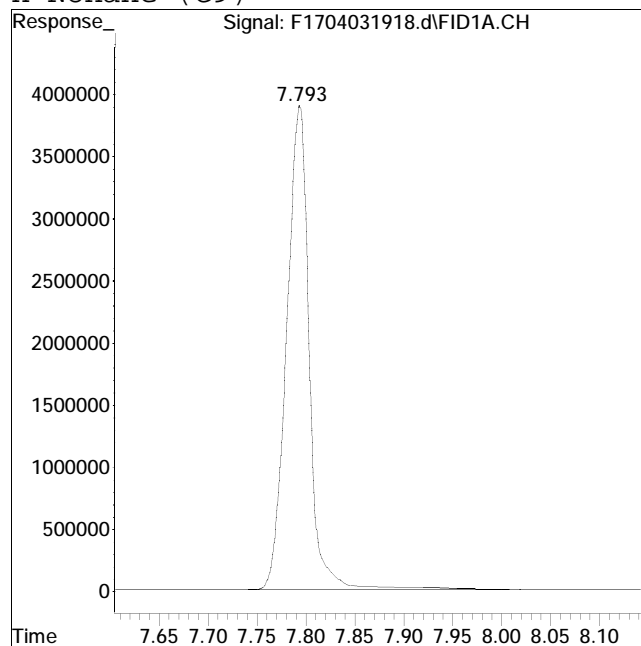
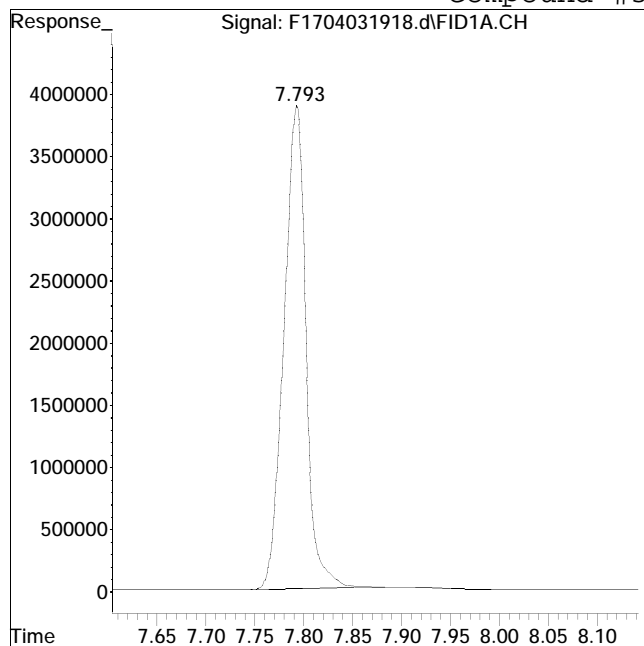
Manual Peak Response = 57613595 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 60809355

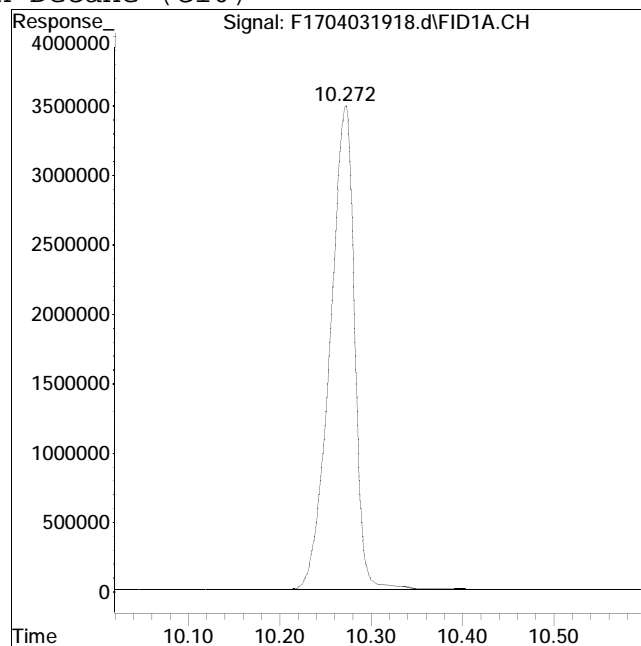
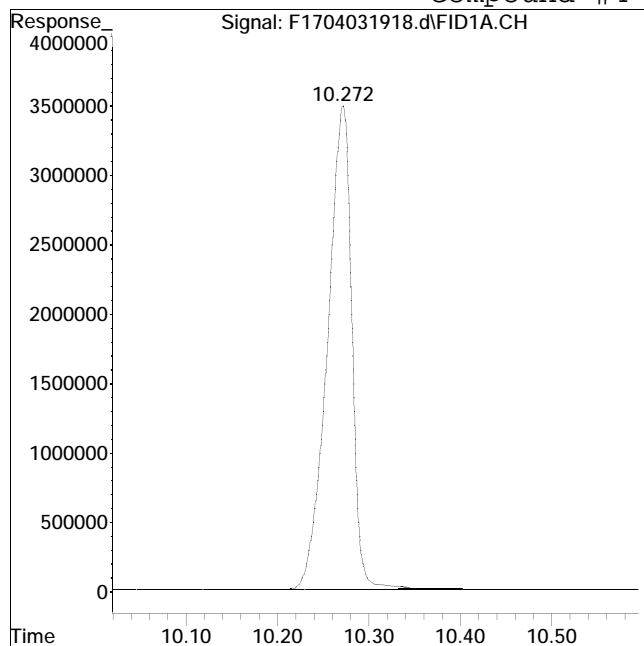
Manual Peak Response = 62807551 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #4: n-Decane (C10)



Original Peak Response = 64581452

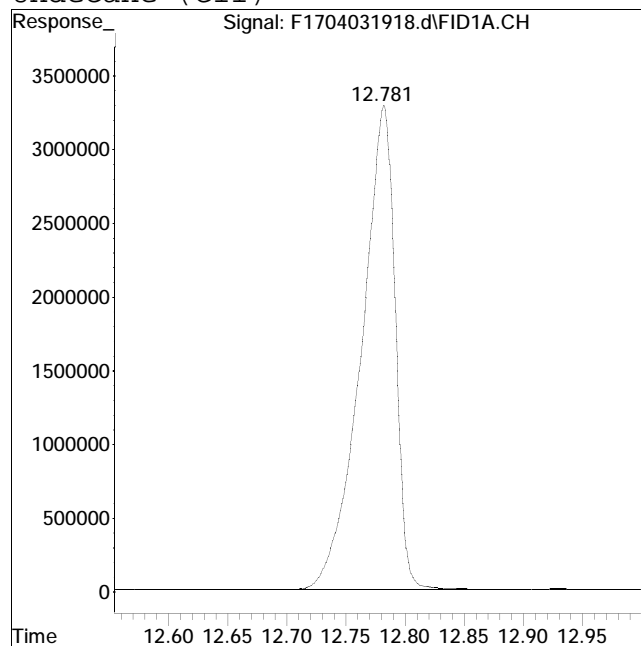
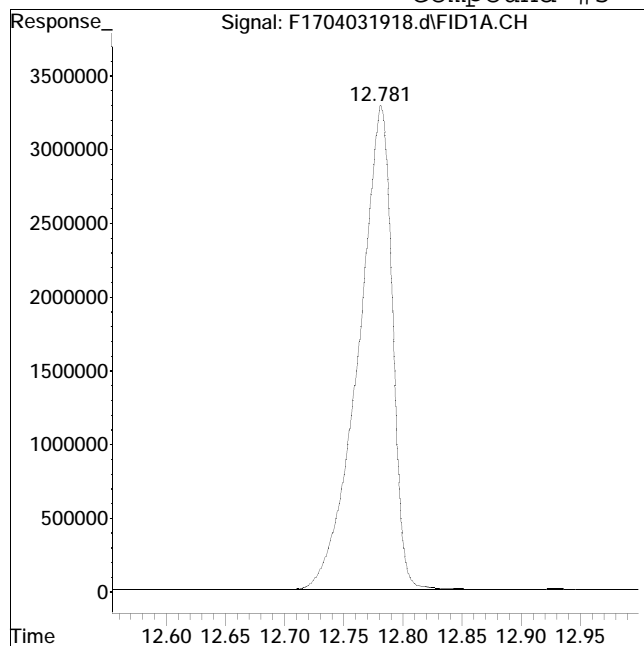
Manual Peak Response = 65052741 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 65614369

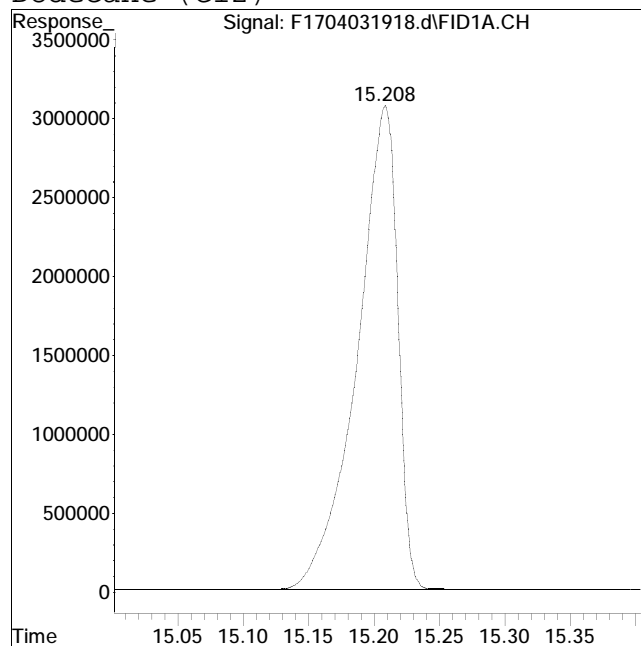
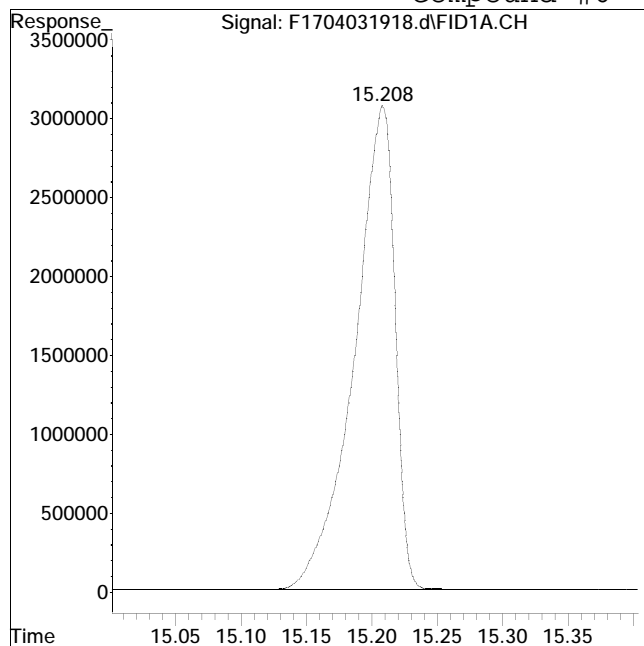
Manual Peak Response = 65719798 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 66026463

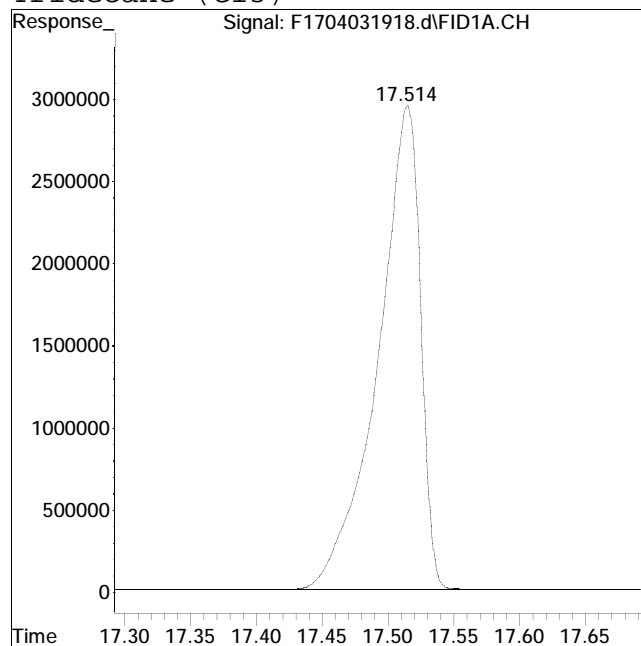
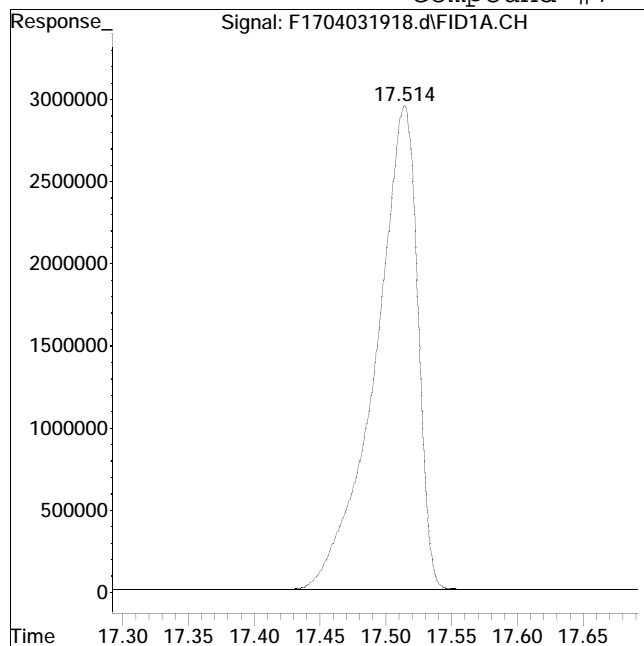
Manual Peak Response = 66125273 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 66112114

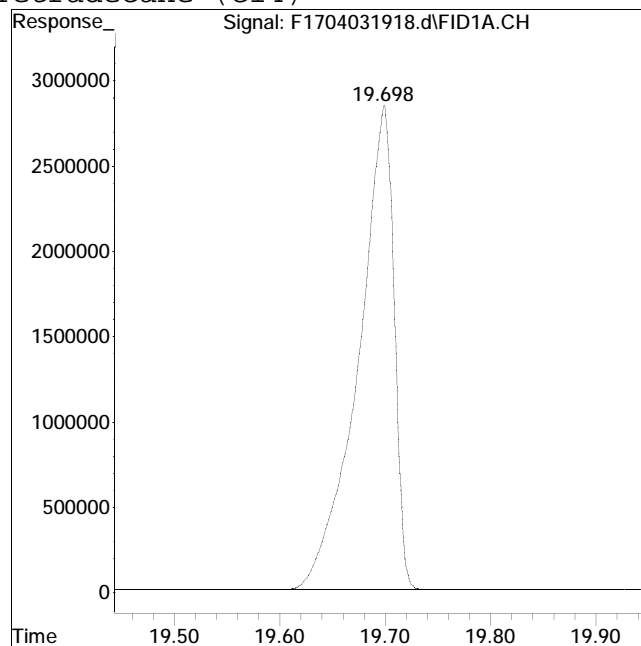
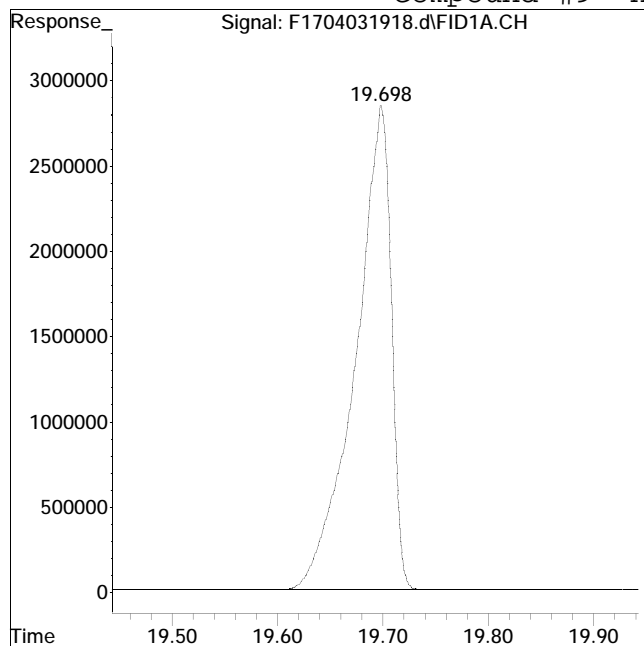
Manual Peak Response = 66195051 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 66858504

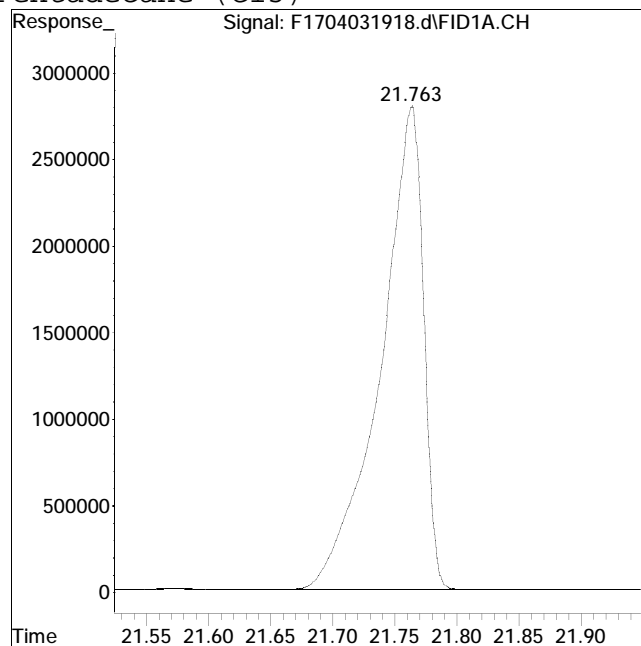
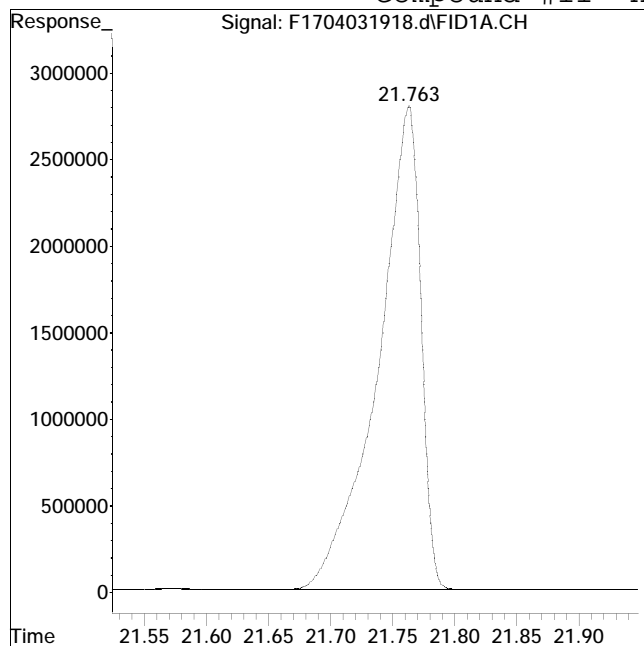
Manual Peak Response = 66955192 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 66857650

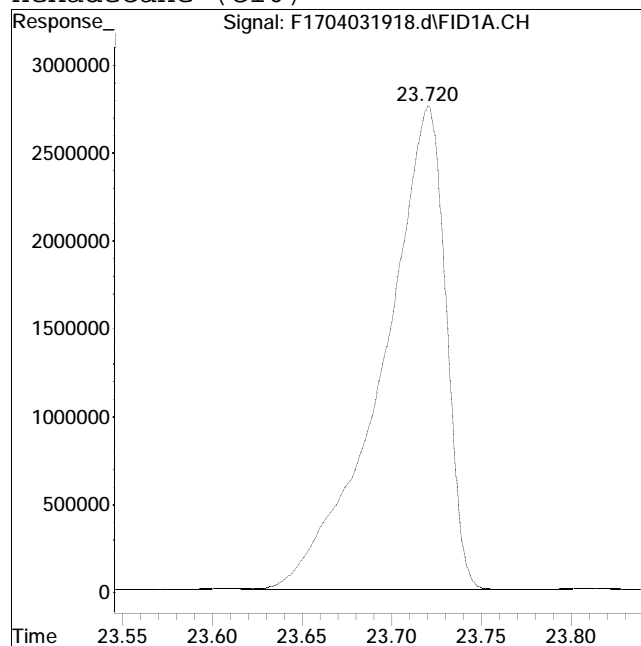
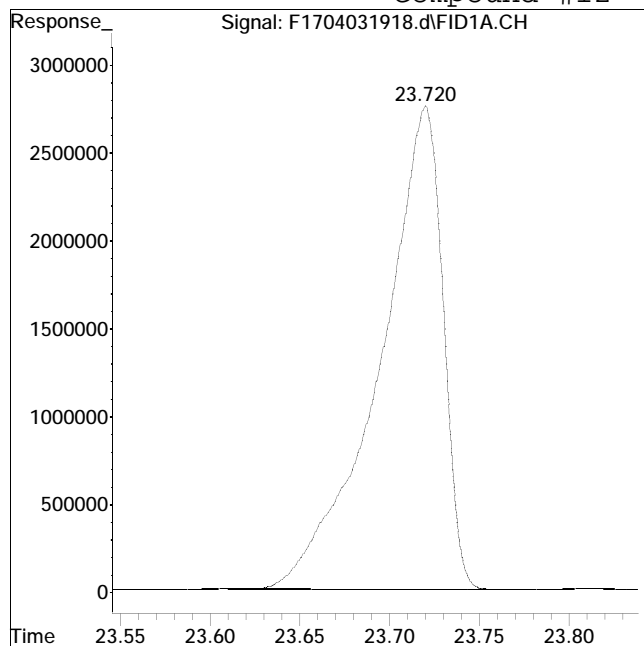
Manual Peak Response = 66958765 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 67107487

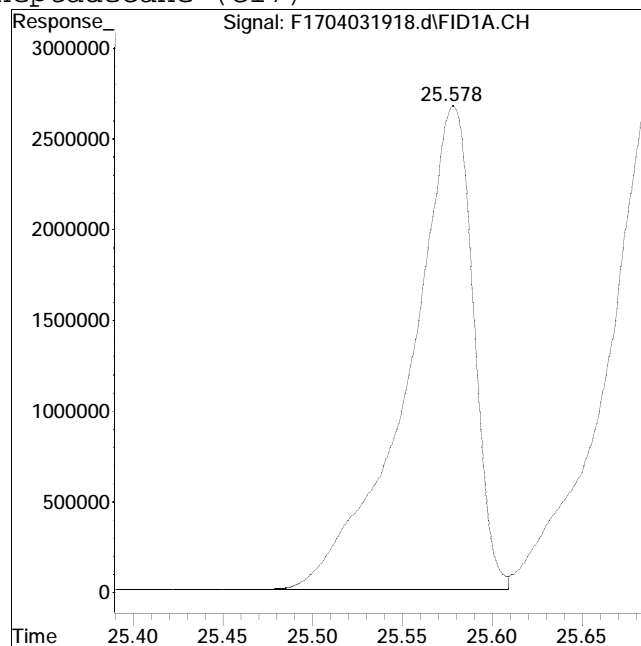
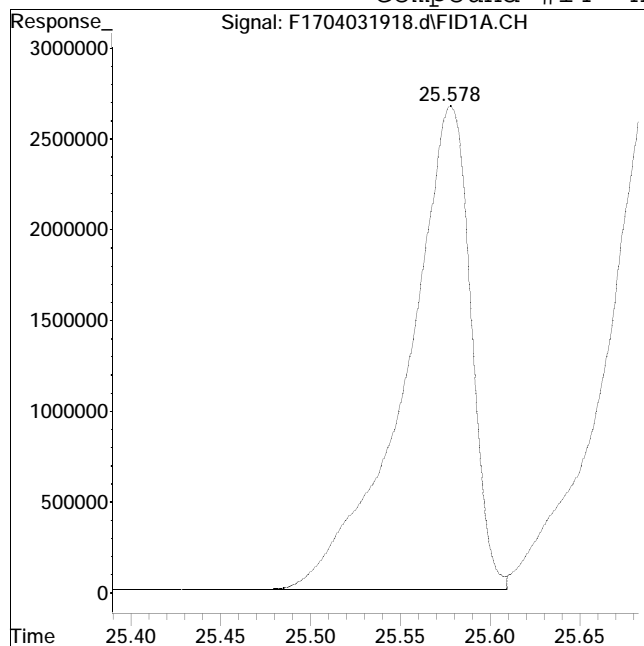
Manual Peak Response = 67398253 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 67122674

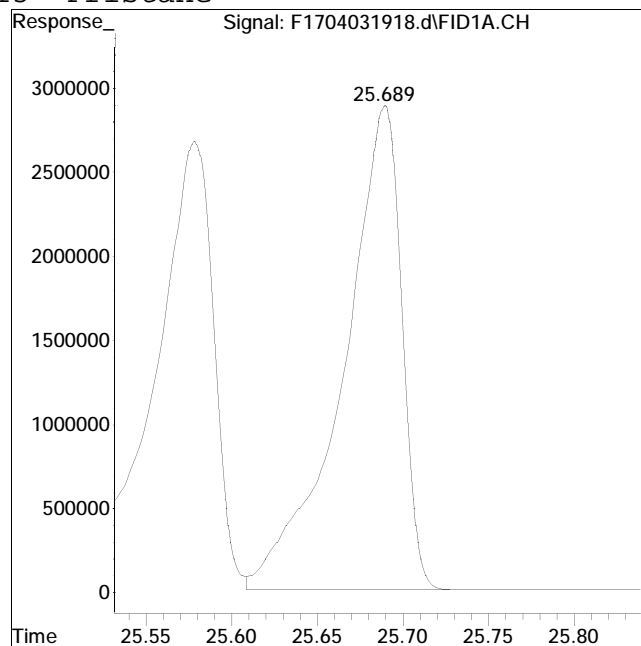
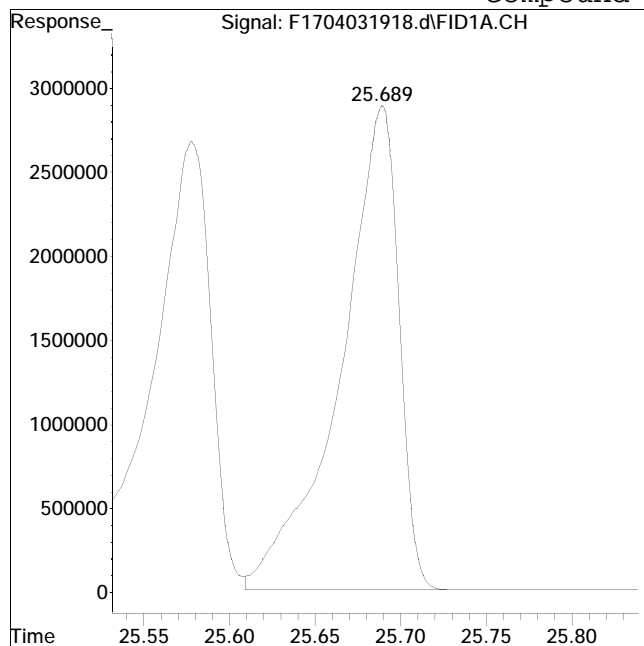
Manual Peak Response = 67187614 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #15: Pristane



Original Peak Response = 68156948

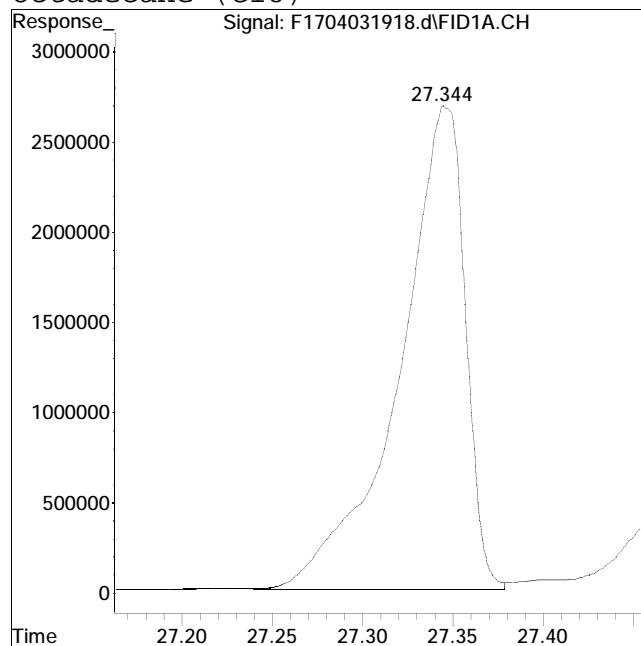
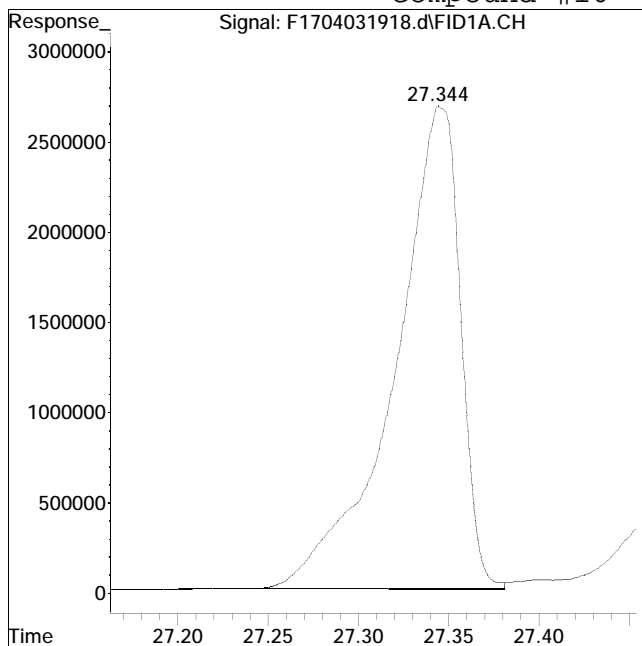
Manual Peak Response = 68195798 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 67540921

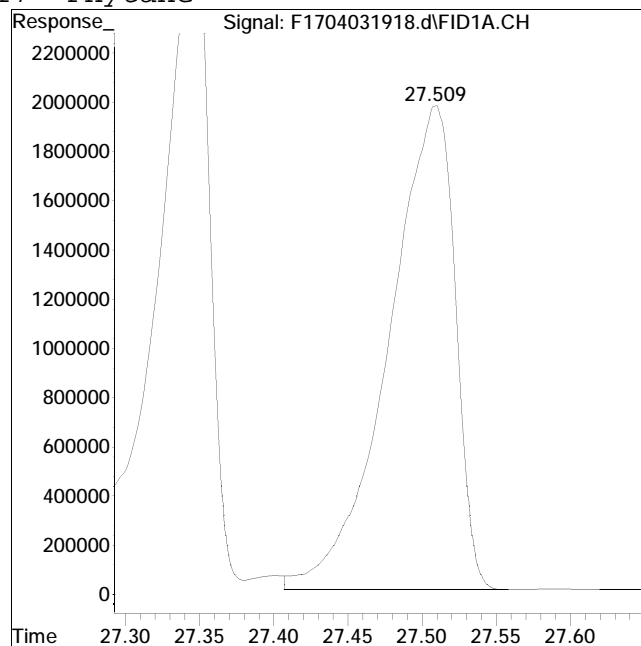
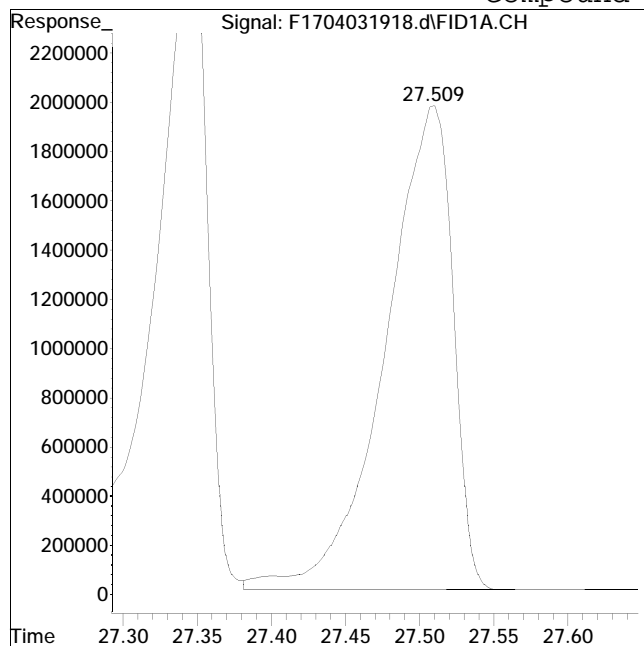
Manual Peak Response = 67924577 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #17: Phytane



Original Peak Response = 61903903

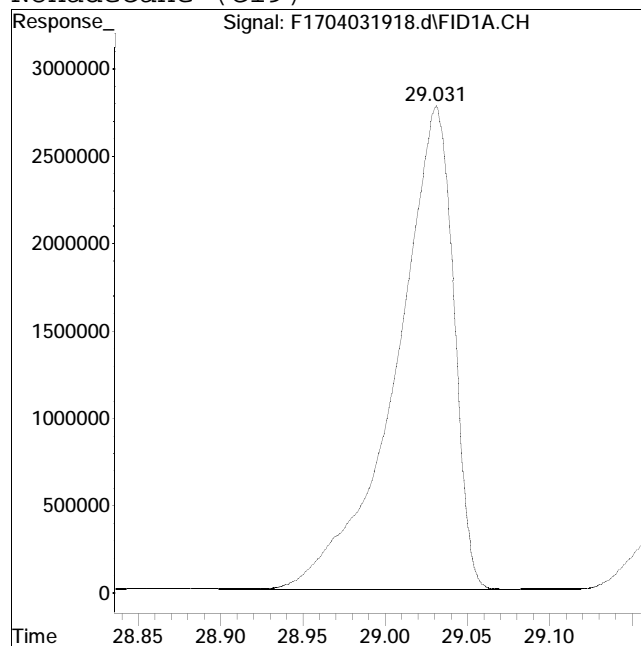
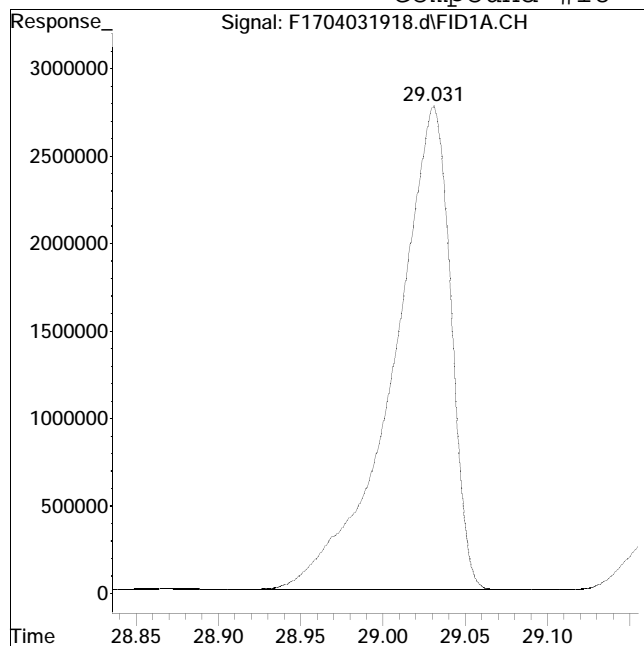
Manual Peak Response = 61560471 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 67387435

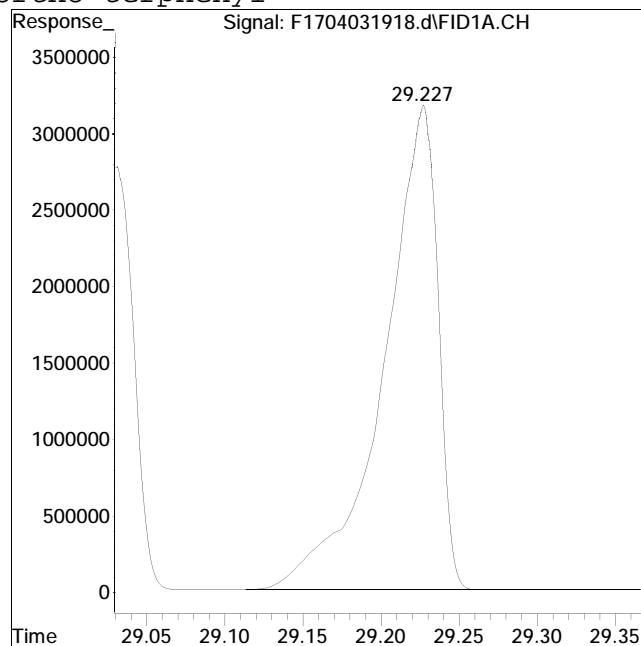
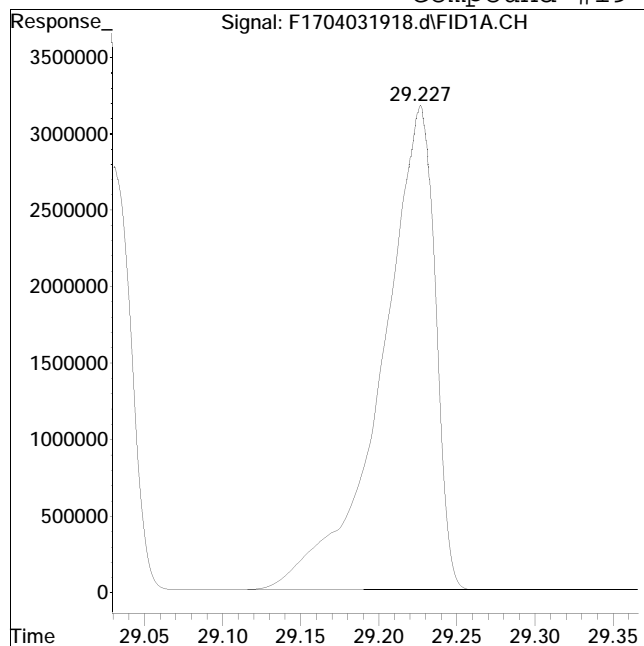
Manual Peak Response = 67706704 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #19: ortho-terphenyl



Original Peak Response = 75727056

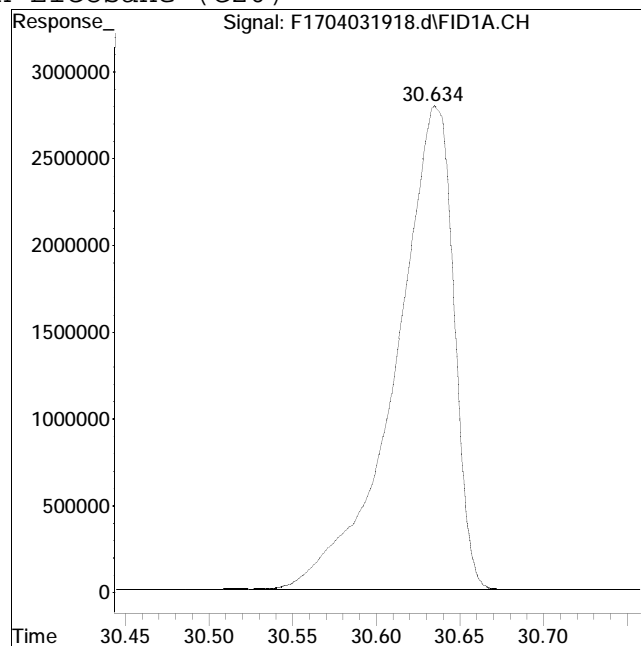
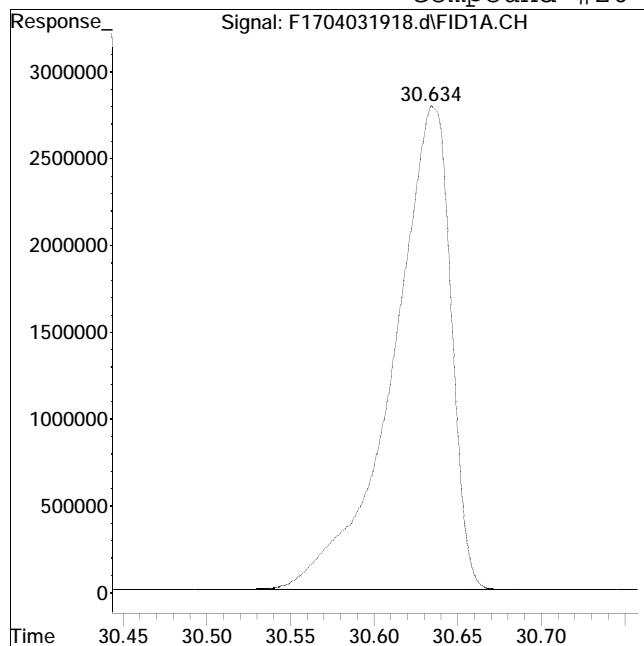
Manual Peak Response = 75957134 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 67473542

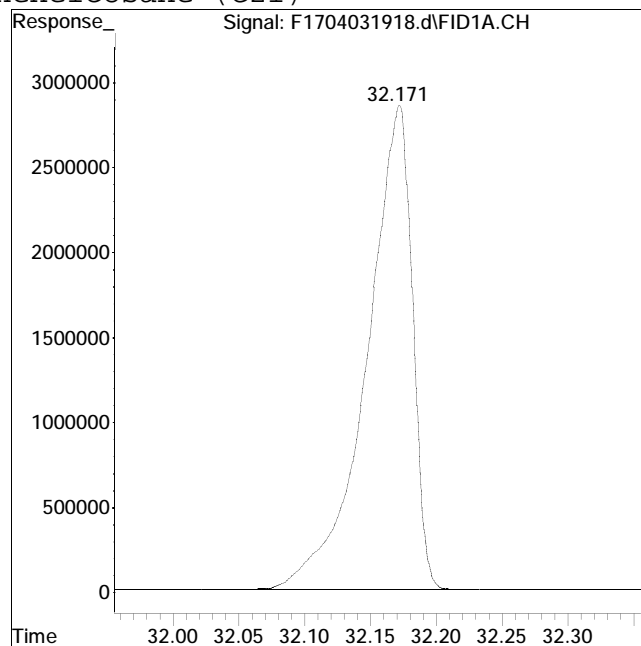
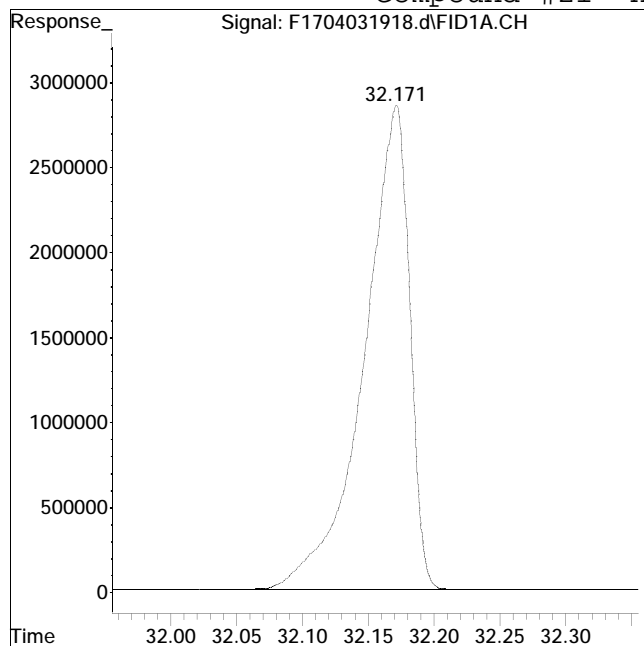
Manual Peak Response = 67716990 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 68538523

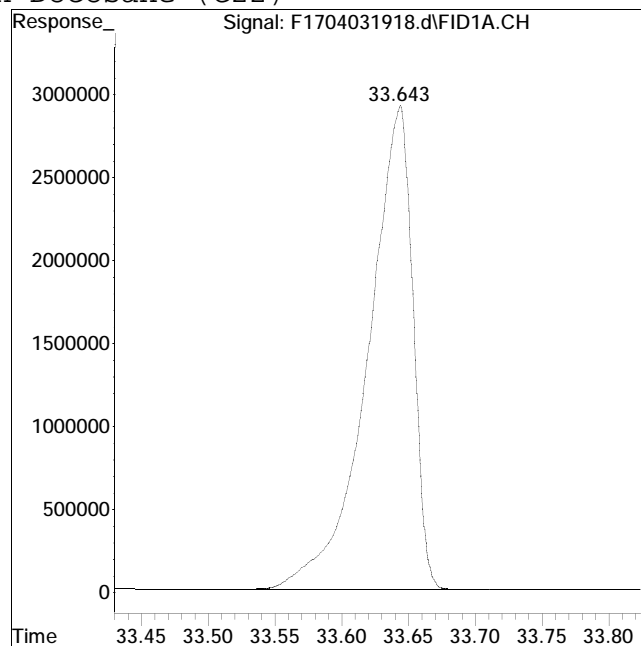
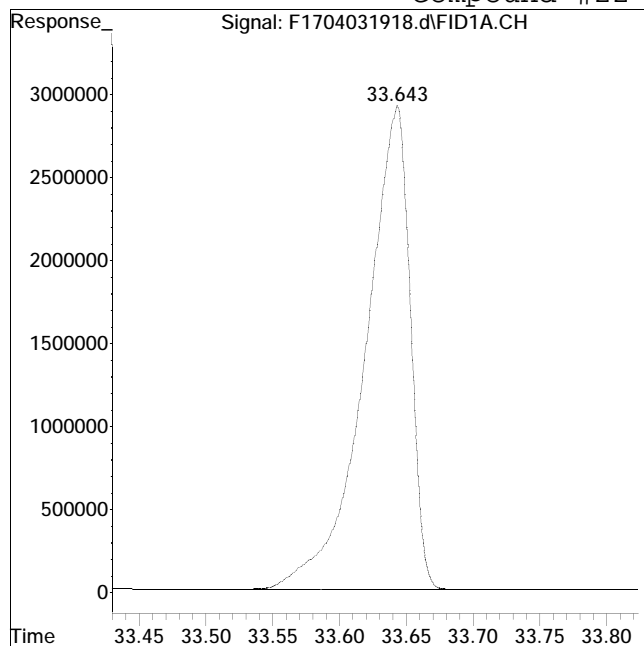
Manual Peak Response = 68681481 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 68553166

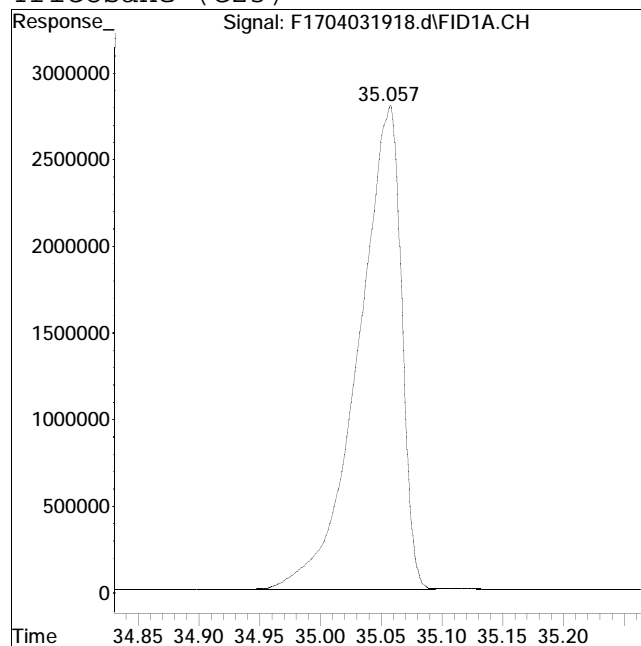
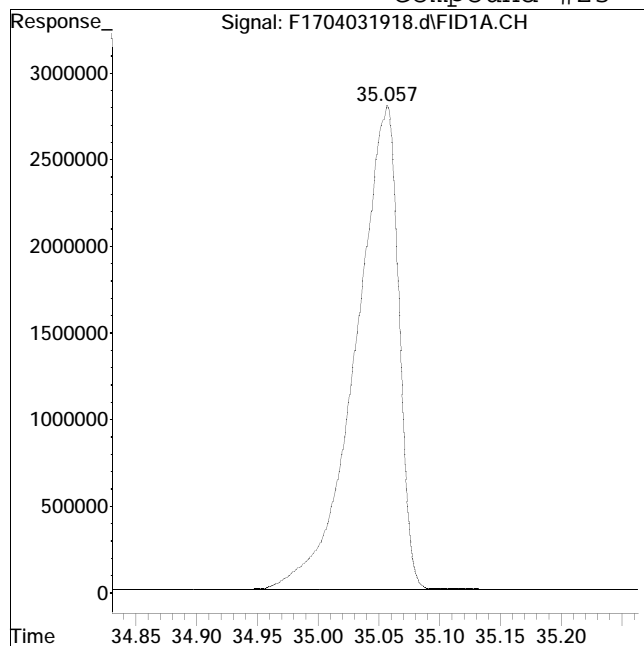
Manual Peak Response = 68651010 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 69086215

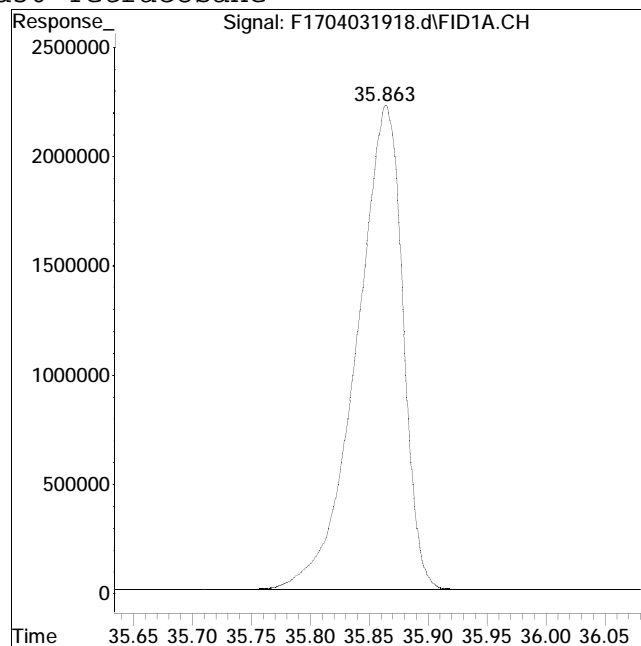
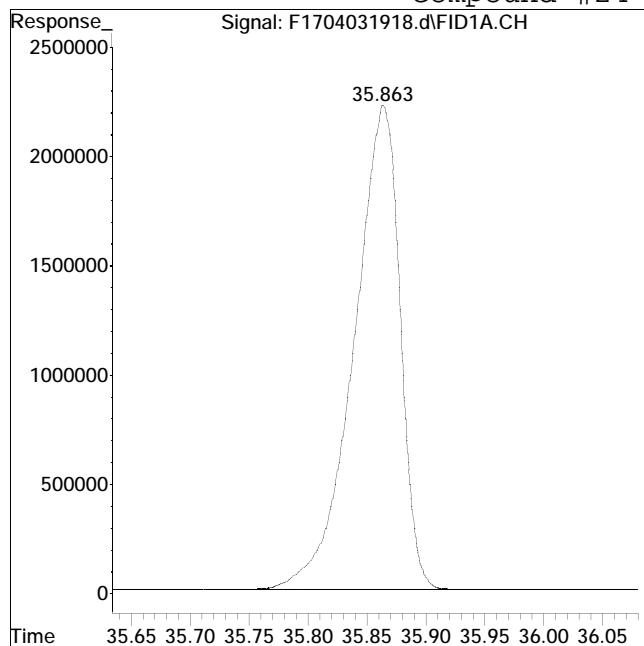
Manual Peak Response = 69045578 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #24: d50-Tetracosane



Original Peak Response = 60542477

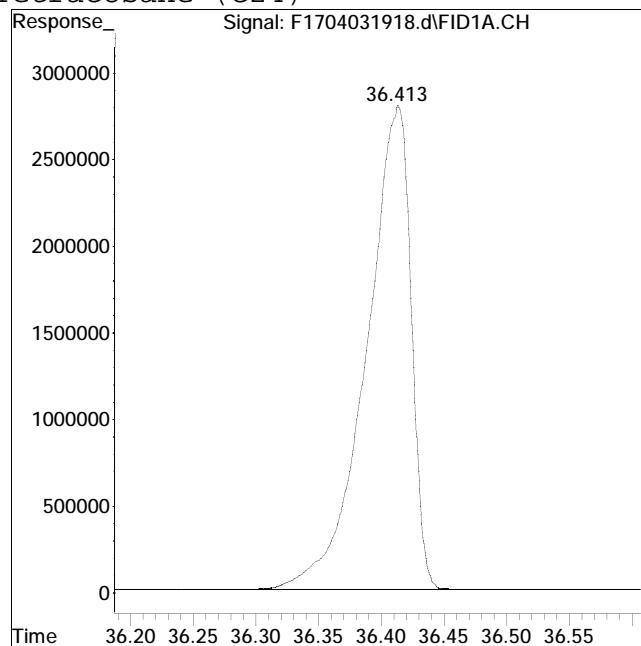
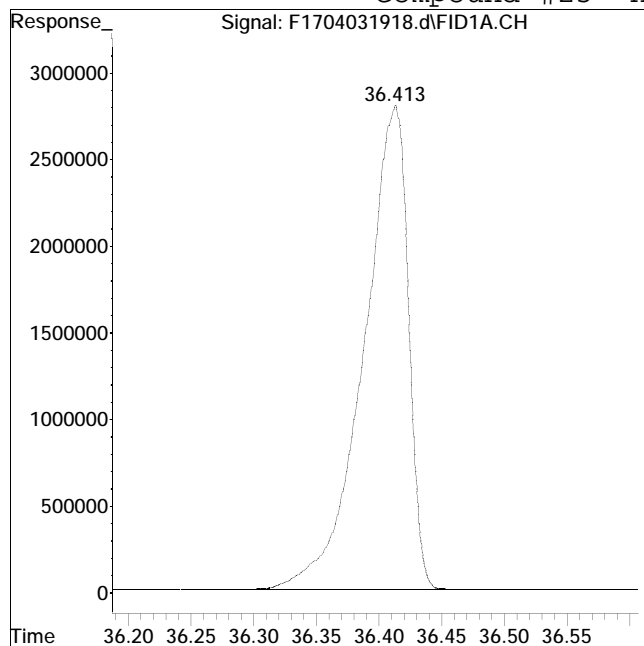
Manual Peak Response = 60667208 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 69198625

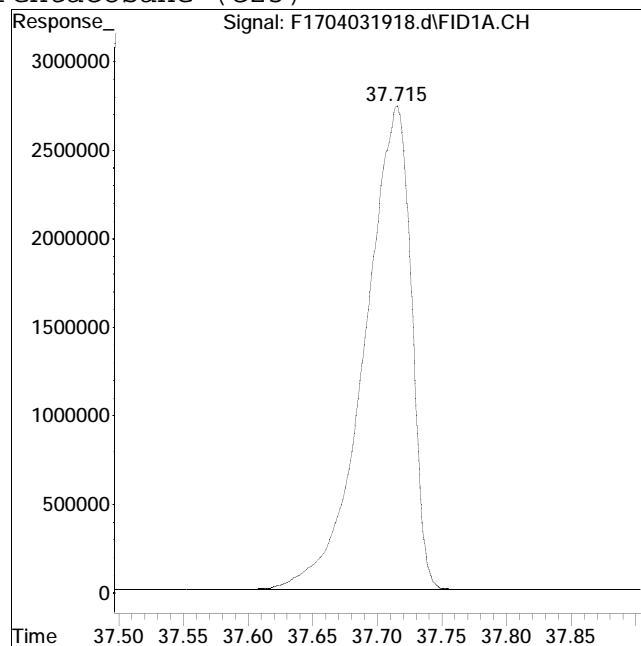
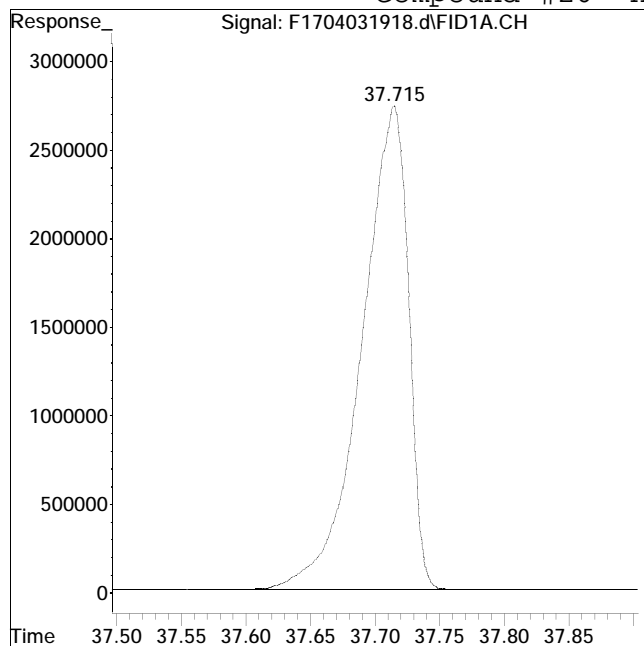
Manual Peak Response = 69379055 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 68568387

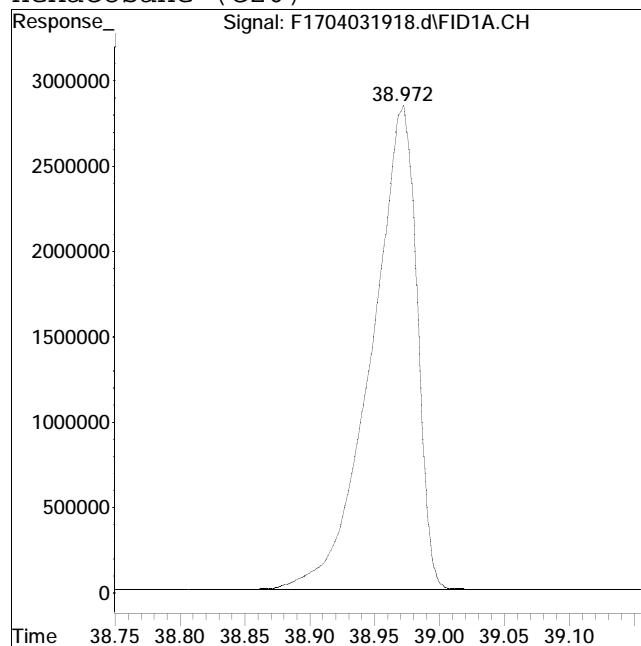
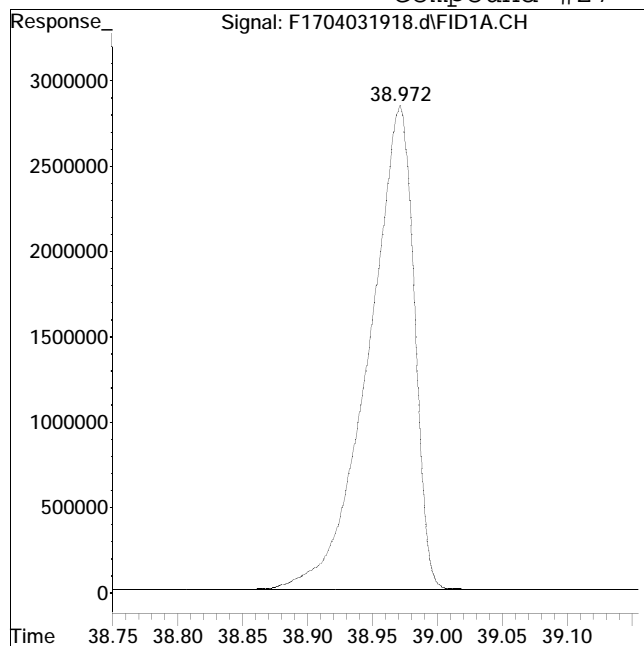
Manual Peak Response = 68759070 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 69144973

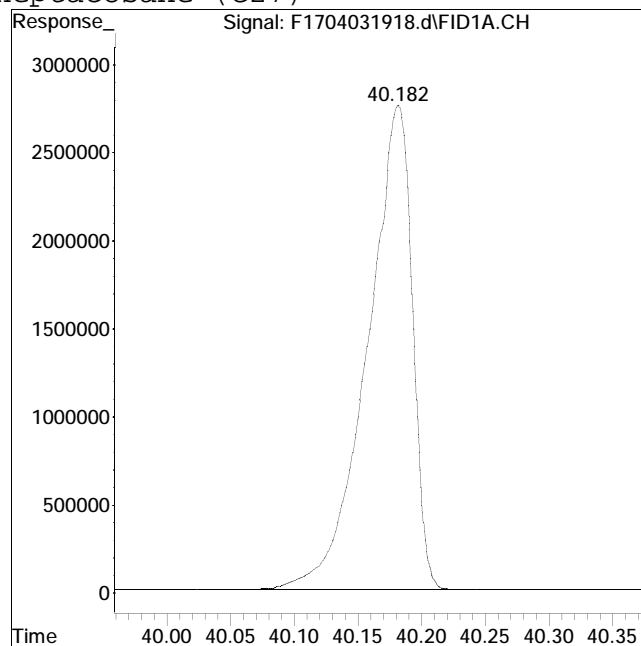
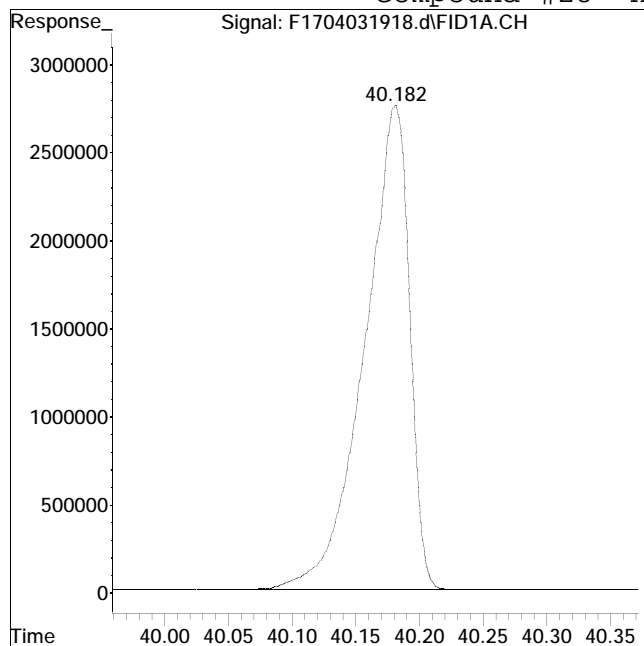
Manual Peak Response = 69310498 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 67357759

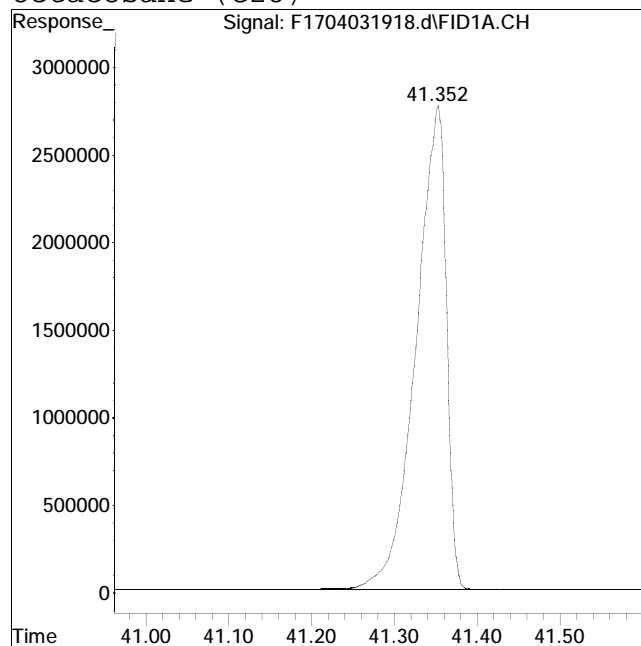
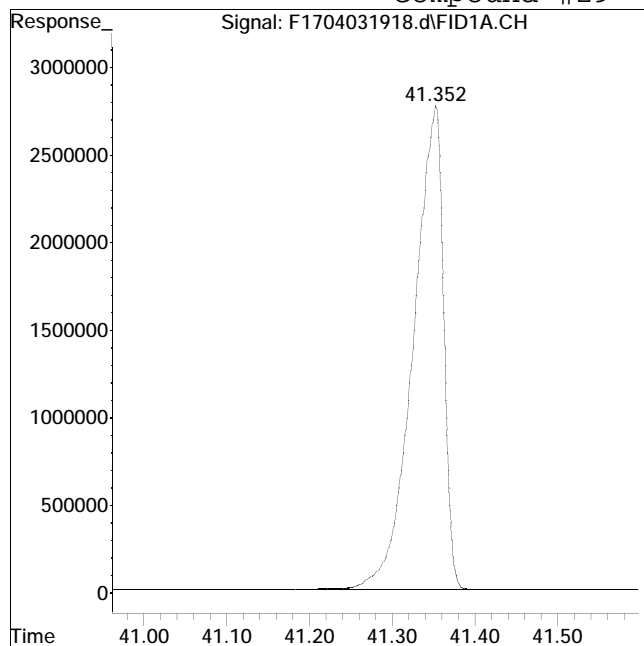
Manual Peak Response = 67466786 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 69954759

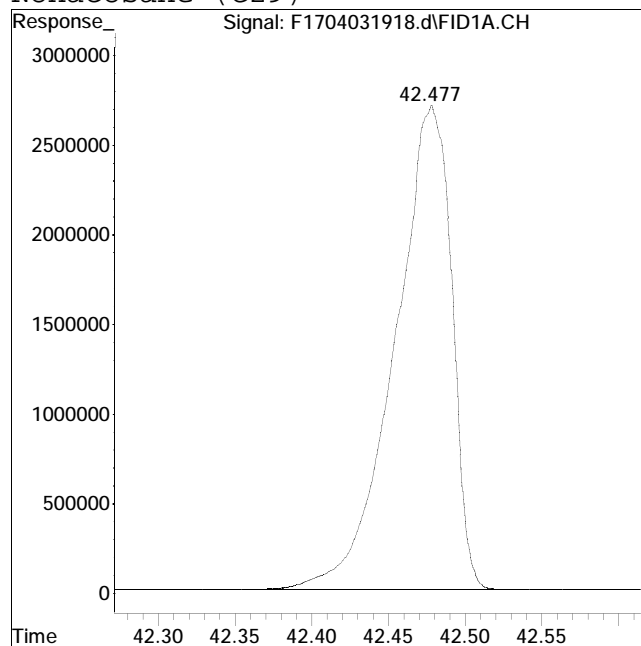
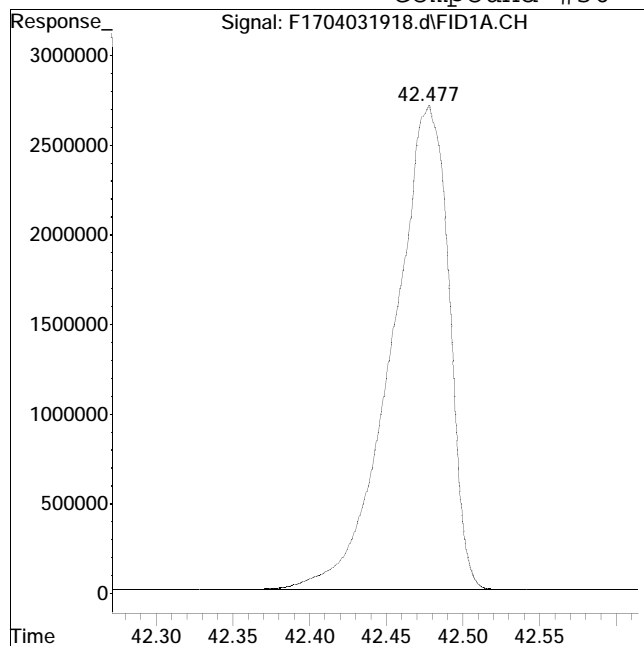
Manual Peak Response = 70254928 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 69511535

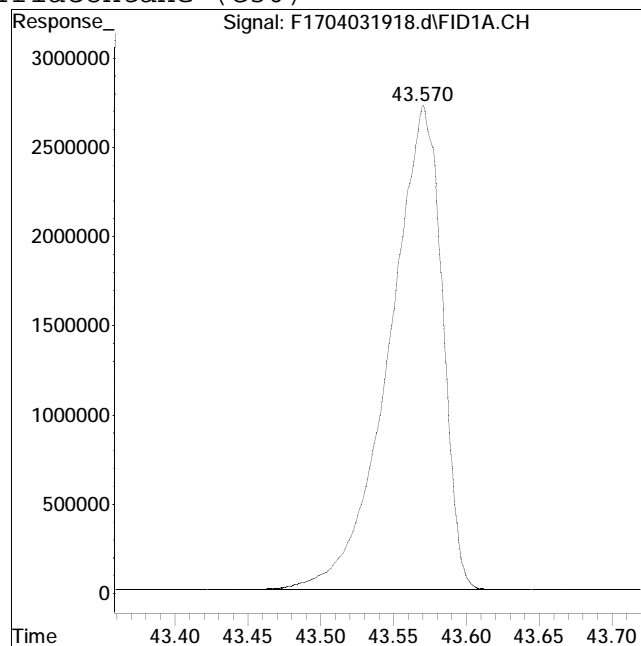
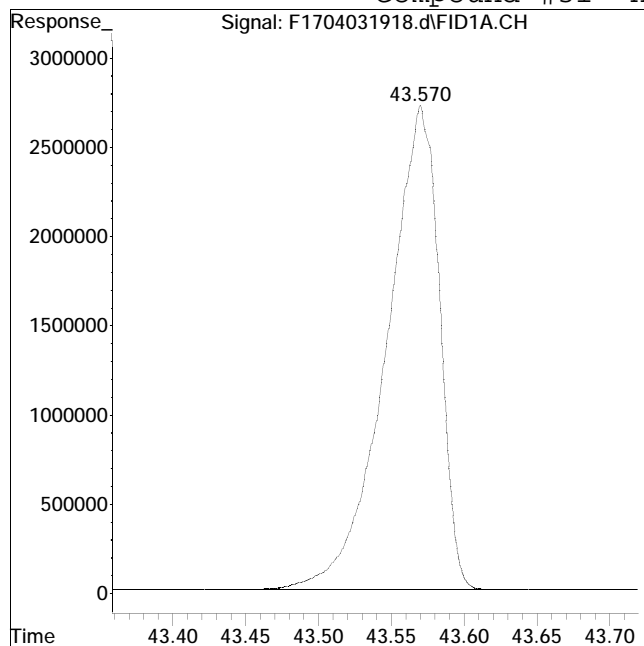
Manual Peak Response = 69636508 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 68645654

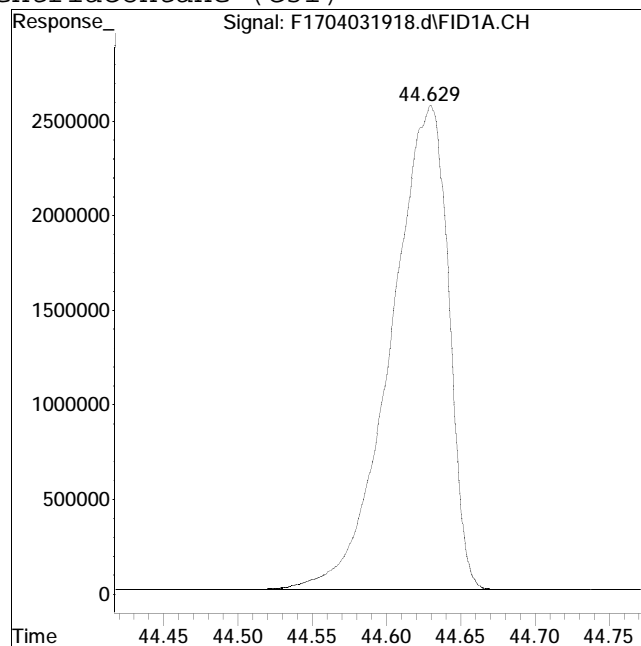
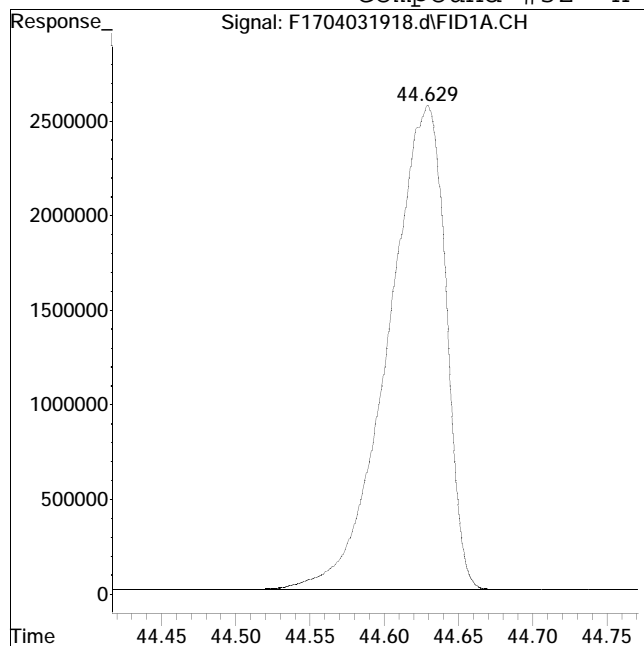
Manual Peak Response = 68759317 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 68984885

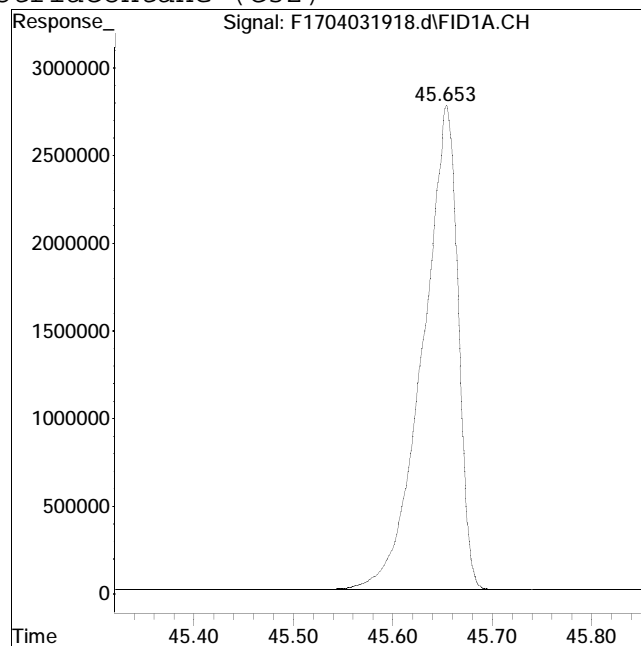
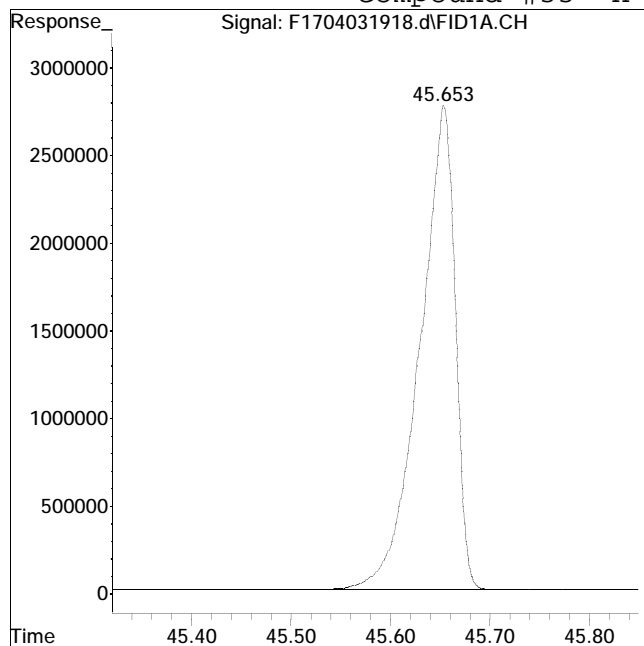
Manual Peak Response = 69060320 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 68041386

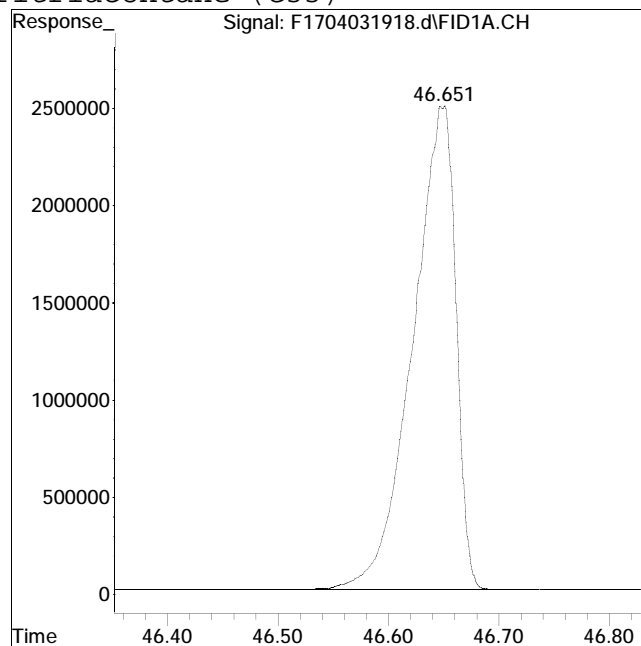
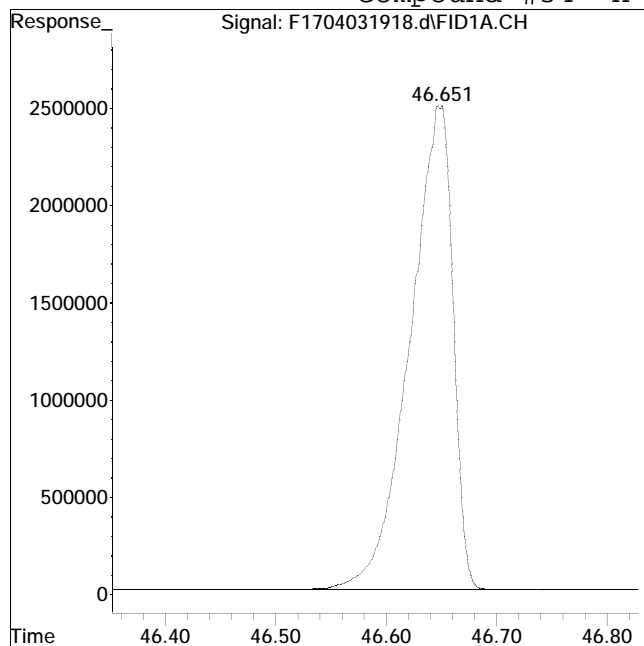
Manual Peak Response = 68154709 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 67291720

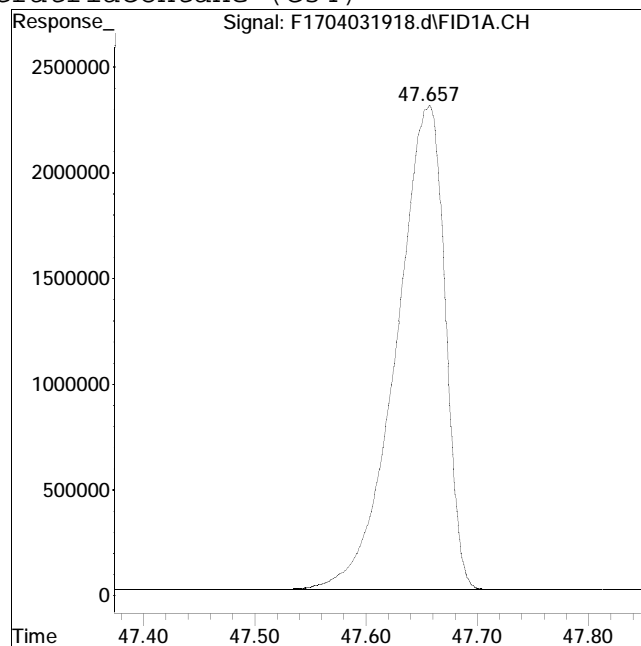
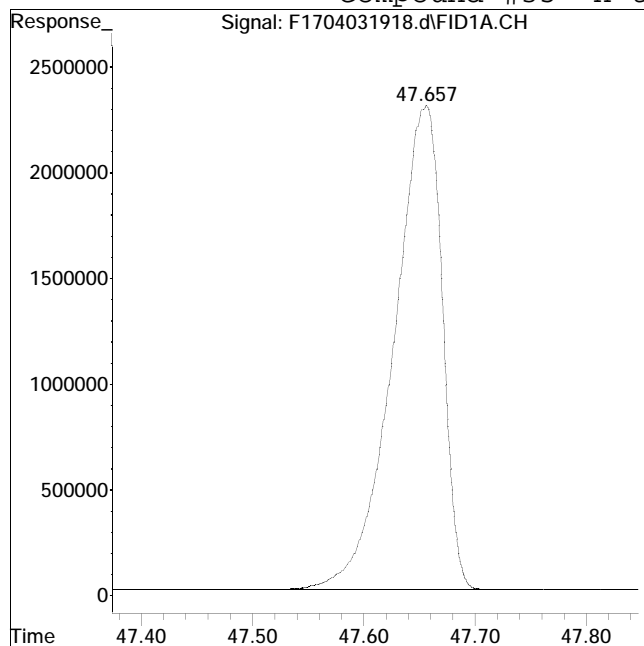
Manual Peak Response = 67377259 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 69691306

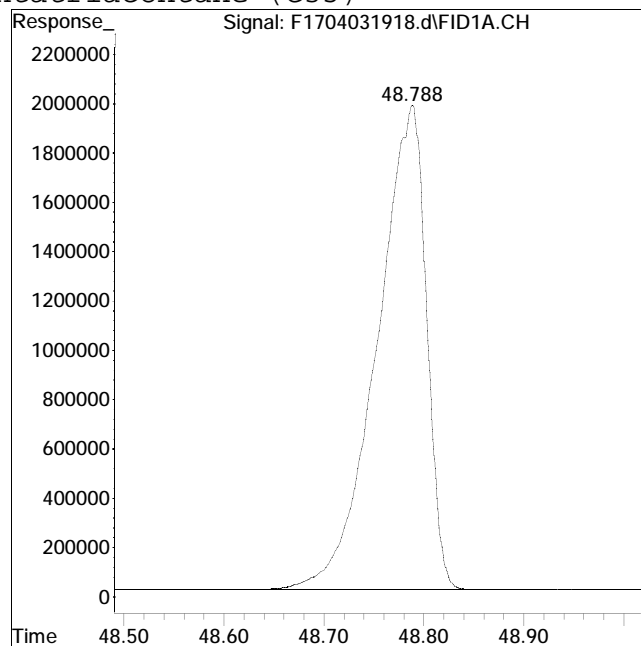
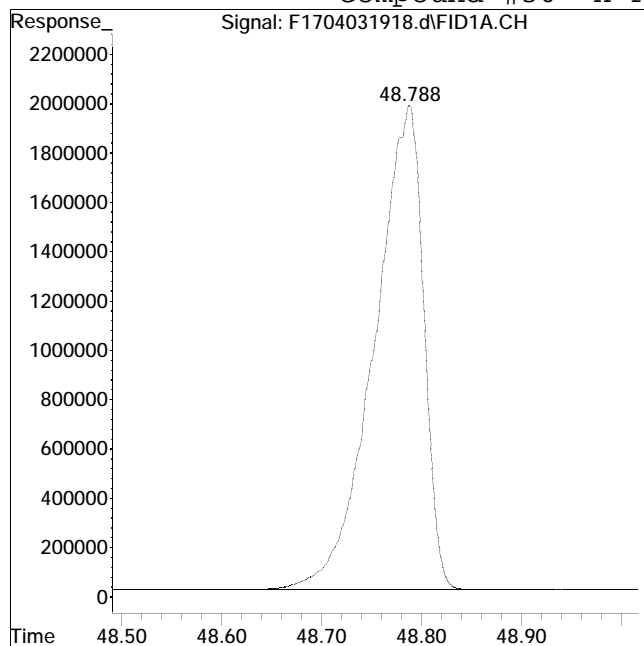
Manual Peak Response = 69732668 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 67276327

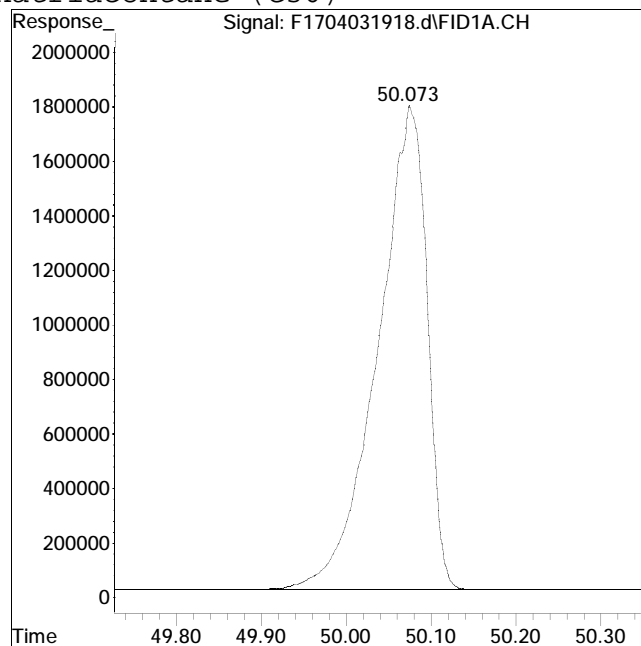
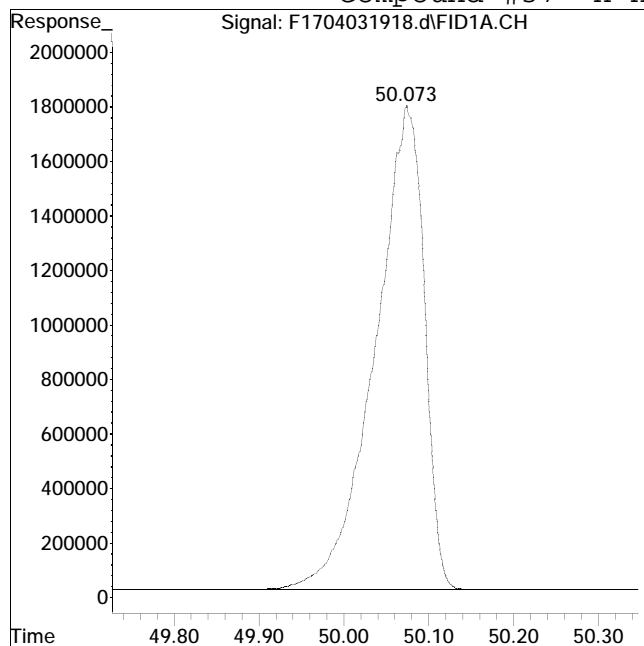
Manual Peak Response = 67327091 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 71297678

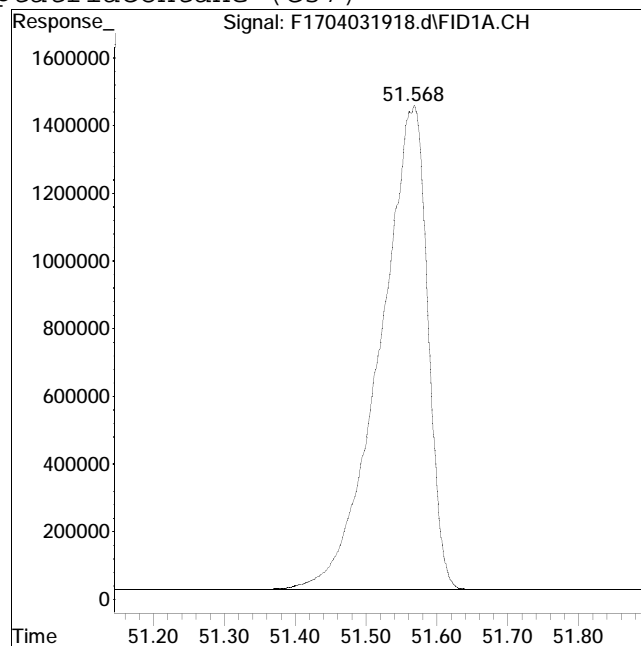
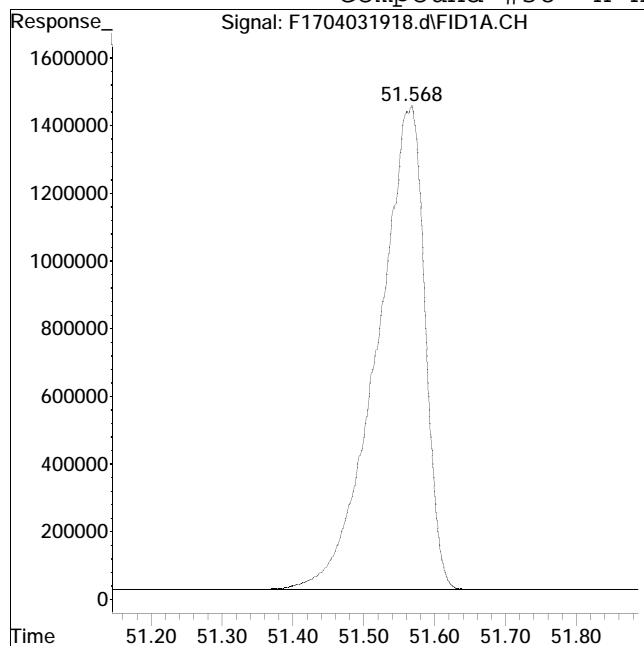
Manual Peak Response = 71364197 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 66956683

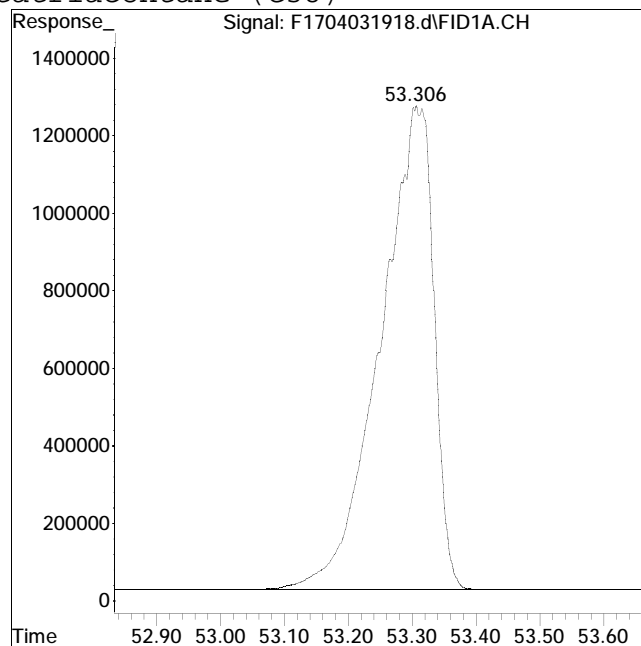
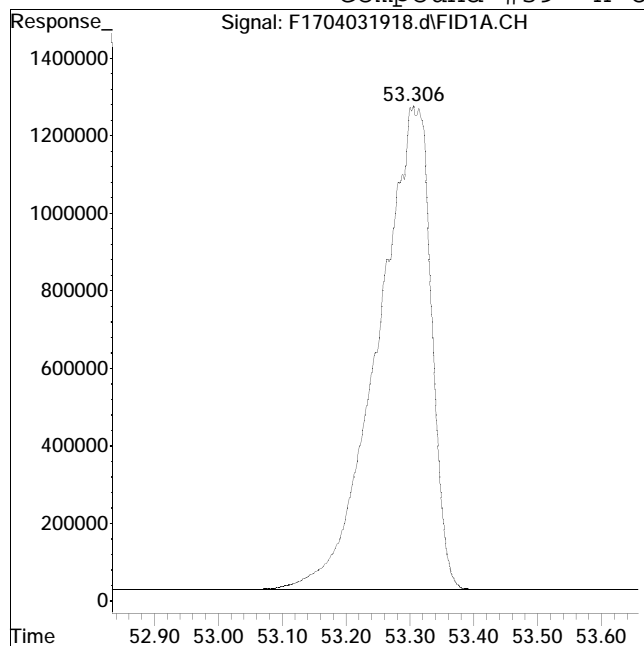
Manual Peak Response = 67059585 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 72455169

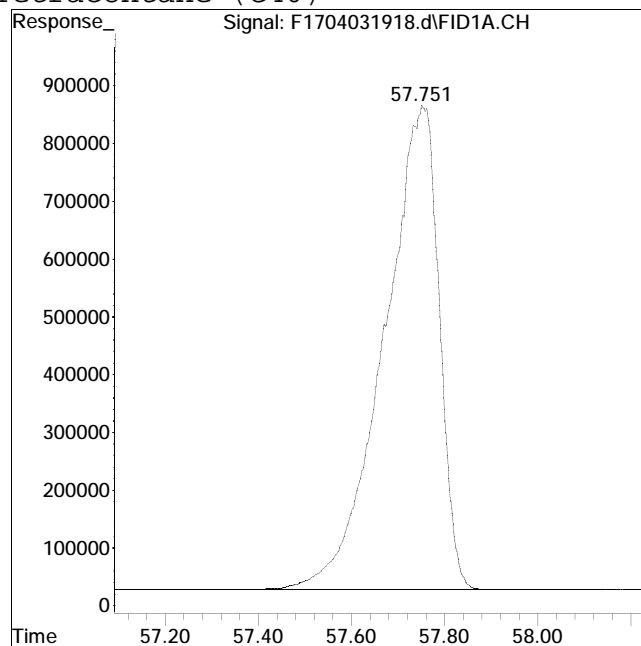
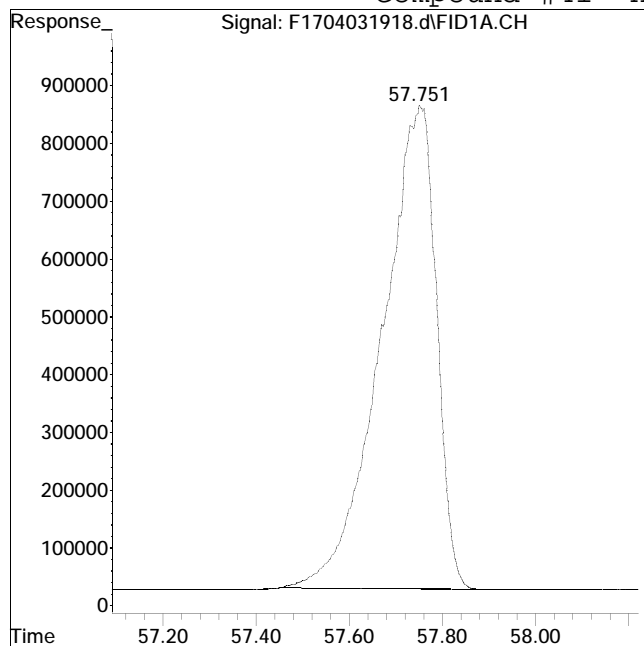
Manual Peak Response = 72569395 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031918.d Operator : FID17:WR
Date Inj'd : 4/4/2019 2:26 am Instrument : FID17
Sample : I1704031903F Quant Date : 4/15/2019 3:47 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 68074767

Manual Peak Response = 68746793 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031920.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 3:54 am
 Operator : FID17:WR
 Sample : I1704031904F
 Misc : WG1226965,FRBA85,100ug/ml
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:52:46 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:41:23 2019
 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	31.237	66903235	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.244	143916602	99.529	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	199.06%#	
24) s d50-Tetracosane	35.881	114632359	99.149	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	198.30%#	
Target Compounds				
2) t n-Octane (C8)	5.636	113291908	100.698	ug/mL M4
3) t n-Nonane (C9)	7.817	119834512	99.345	ug/mL M4
4) t n-Decane (C10)	10.287	122683382	99.903	ug/mL M4
5) t n-Undecane (C11)	12.795	123716744	99.721	ug/mL M4
6) t n-Dodecane (C12)	15.219	124383037	99.553	ug/mL M4
7) t n-Tridecane (C13)	17.528	124391407	99.850	ug/mL M4
9) t n-Tetradecane (C14)	19.712	125607557	99.388	ug/mL M4
11) t n-Pentadecane (C15)	21.778	125545636	99.427	ug/mL M4
12) t n-Hexadecane (C16)	23.734	126305422	99.405	ug/mL M4
14) t n-Heptadecane (C17)	25.595	126622131	100.144	ug/mL M4
15) t Pristane	25.706	126957497	98.268	ug/mL M4
16) t n-Octadecane (C18)	27.362	127177324	99.235	ug/mL M4
17) t Phytane	27.526	116391637	100.031	ug/mL M4
18) t n-Nonadecane (C19)	29.049	126661828	99.063	ug/mL M4
20) t n-Eicosane (C20)	30.651	126692804	98.850	ug/mL M4
21) t n-Heneicosane (C21)	32.184	128416589	98.463	ug/mL M4
22) t n-Docosane (C22)	33.662	128449777	98.690	ug/mL M4
23) t n-Tricosane (C23)	35.074	129200281	98.514	ug/mL M4
25) t n-Tetracosane (C24)	36.433	129319097	98.110	ug/mL M4
26) t n-Pentacosane (C25)	37.735	128142264	98.193	ug/mL M4
27) t n-Hexacosane (C26)	38.991	129130962	98.224	ug/mL M4
28) t n-Heptacosane (C27)	40.197	125511347	97.906	ug/mL M4
29) t n-Octacosane (C28)	41.369	130344316	98.176	ug/mL M4
30) t n-Nonacosane (C29)	42.498	129355871	97.903	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031920.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 3:54 am
 Operator : FID17:WR
 Sample : I1704031904F
 Misc : WG1226965,FRBA85,100ug/ml
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:52:46 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:41:23 2019
 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)	43.594	127754547	97.778 ug/mL M4
32) t n-Hentriacontane (C31)	44.649	128337985	97.575 ug/mL M4
33) t n-Dotriacontane (C32)	45.671	126626194	97.534 ug/mL M4
34) t n-Tritriacontane (C33)	46.667	125240190	97.560 ug/mL M4
35) t n-tetratriacontane (C34)	47.678	129851530	97.739 ug/mL M4
36) t n-Pentatriacontane (C35)	48.811	125466795	97.667 ug/mL M4
37) t n-Hexatriacontane (C36)	50.111	133137145	98.167 ug/mL M4
38) t n-Heptatriacontane (C37)	51.603	125213539	97.528 ug/mL M4
39) t n-Octatriacontane (C38)	53.356	135520412	98.534 ug/mL M4
41) t n-Tetracontane (C40)	57.805	128452306	98.205 ug/mL M4

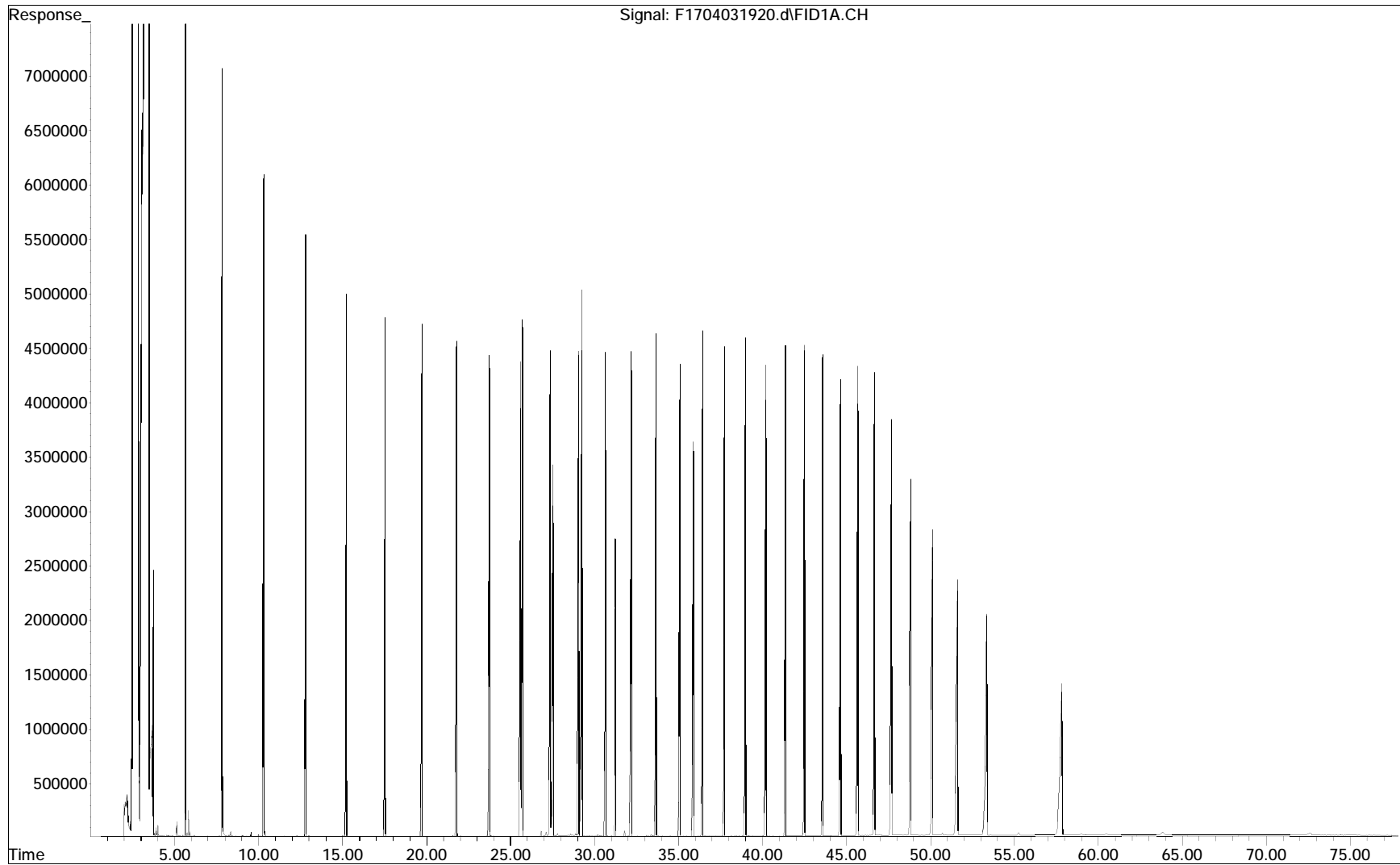
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

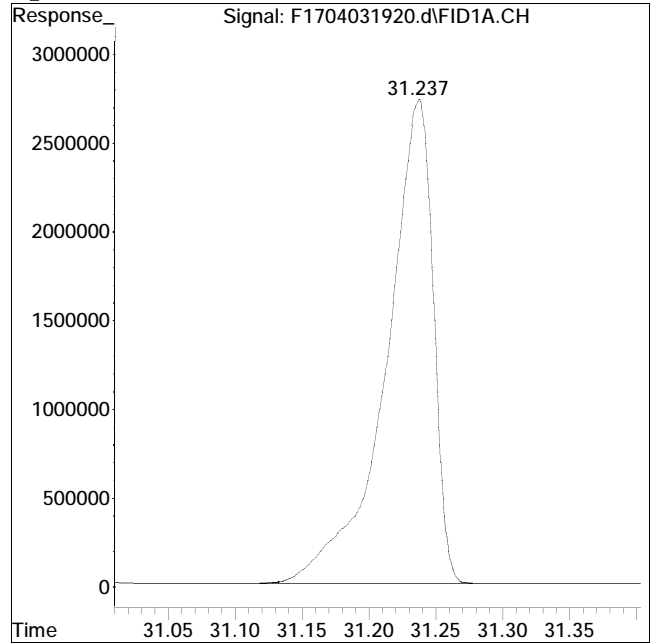
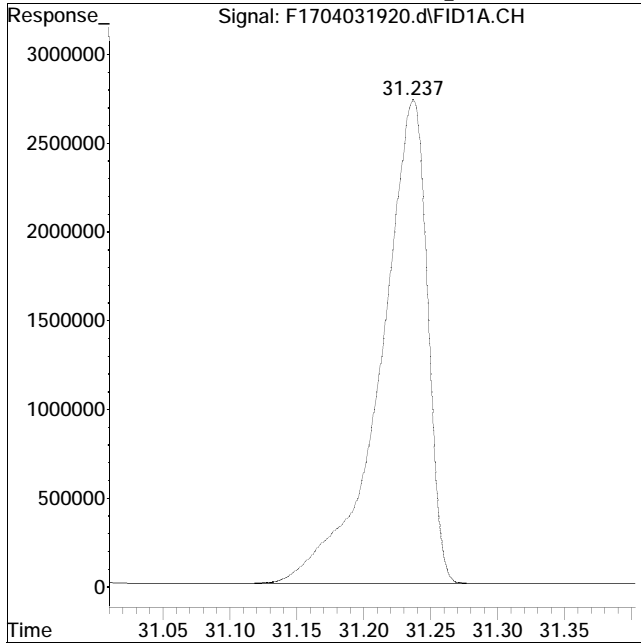
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031920.d
Operator : FID17:WR
Acquired : 04 Apr 2019 3:54 am using AcqMethod FID17.M
Sample Name: I1704031904F
Instrument: FID17
Misc Info : WG1226965,FRBA85,100ug/ml
Vial Number: 10
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 66809871

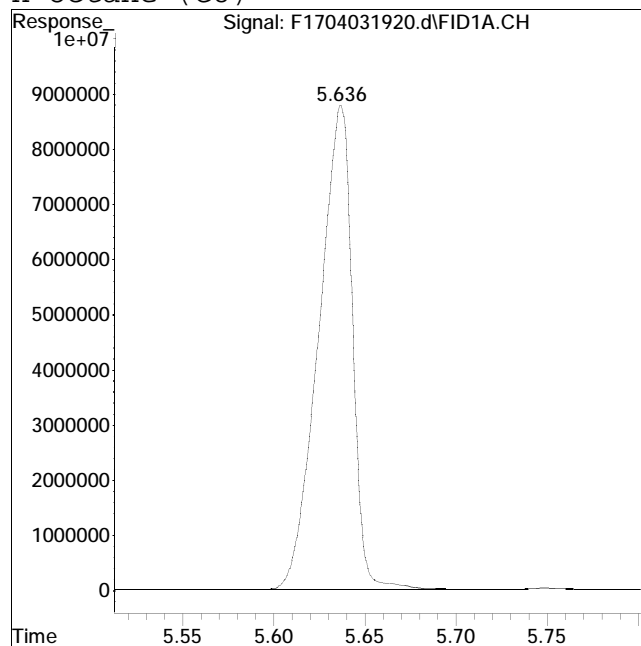
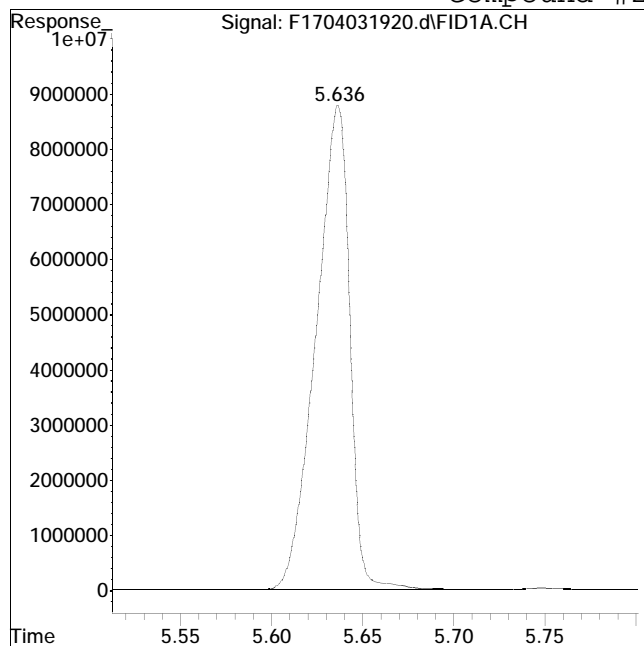
Manual Peak Response = 66903235 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #2: n-Octane (C8)



Original Peak Response = 113046679

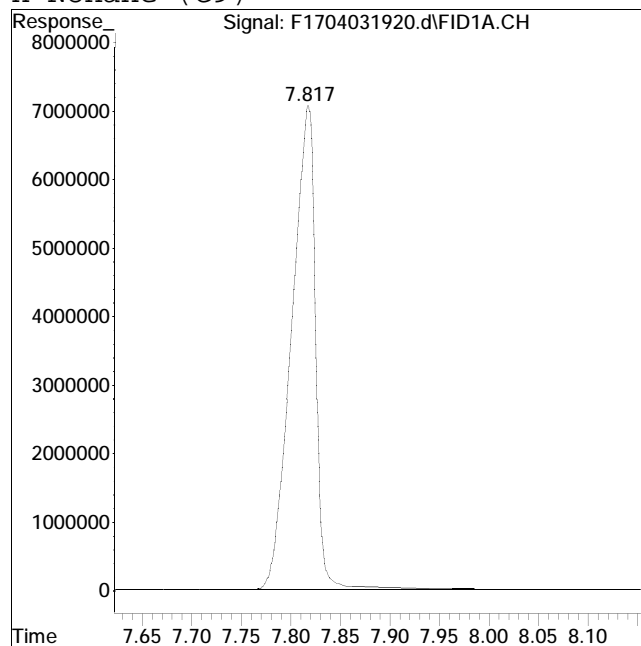
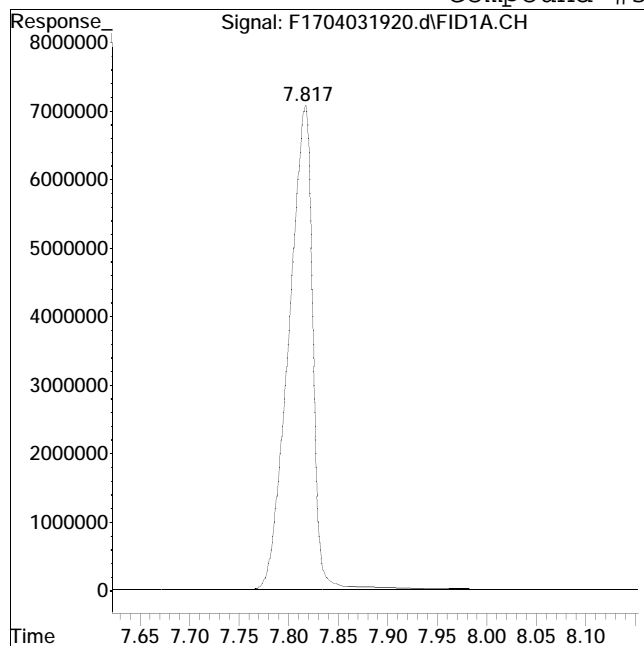
Manual Peak Response = 113291908 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 118840826

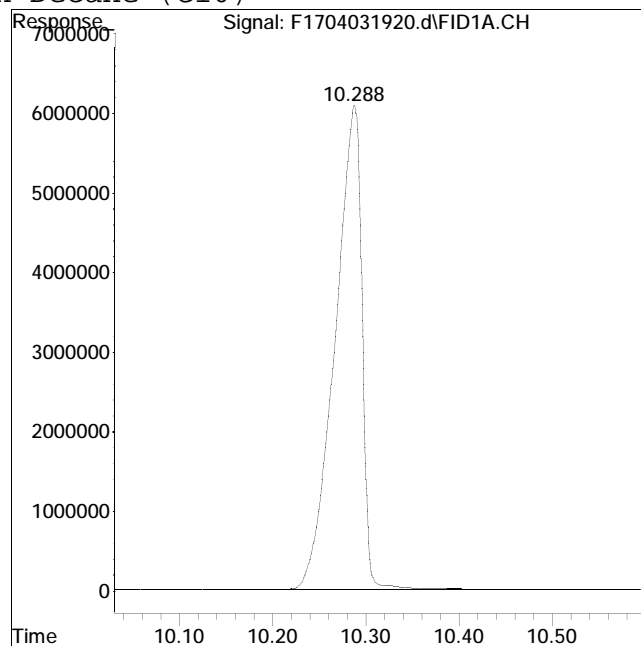
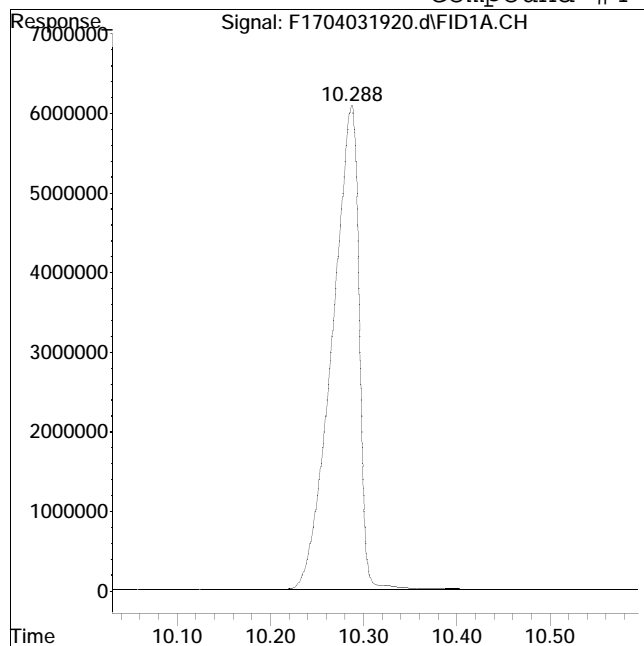
Manual Peak Response = 119834512 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #4: n-Decane (C10)



Original Peak Response = 122337921

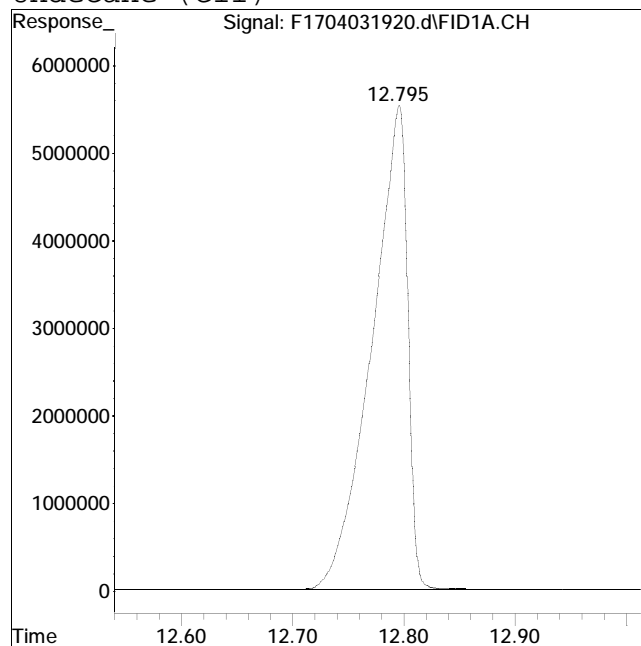
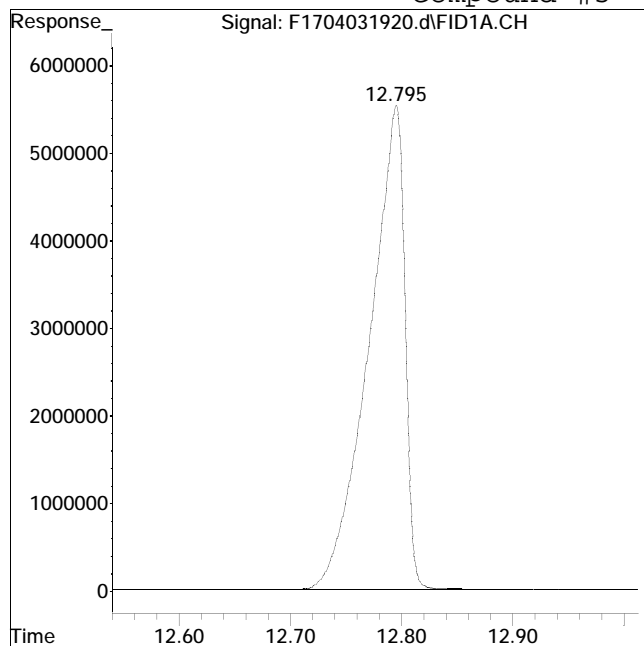
Manual Peak Response = 122683382 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 123587319

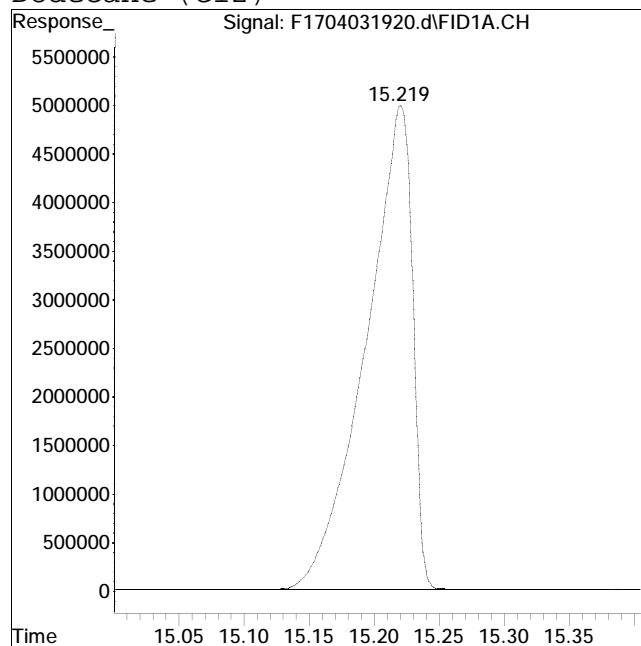
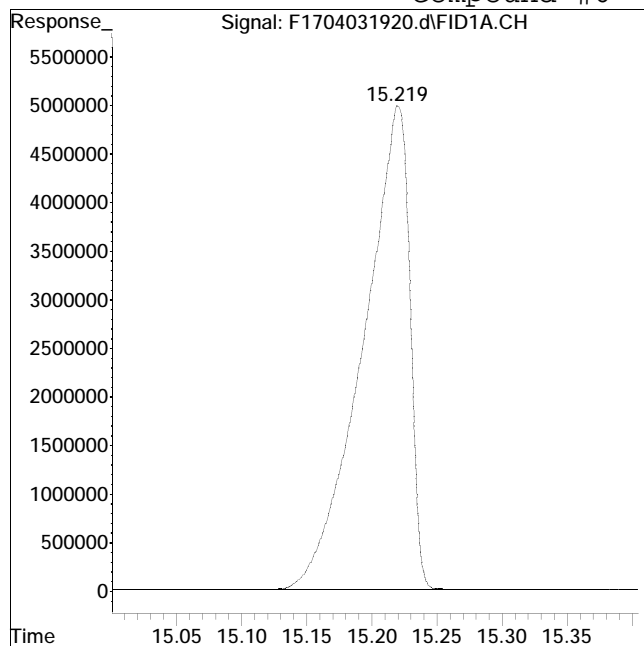
Manual Peak Response = 123716744 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 124277503

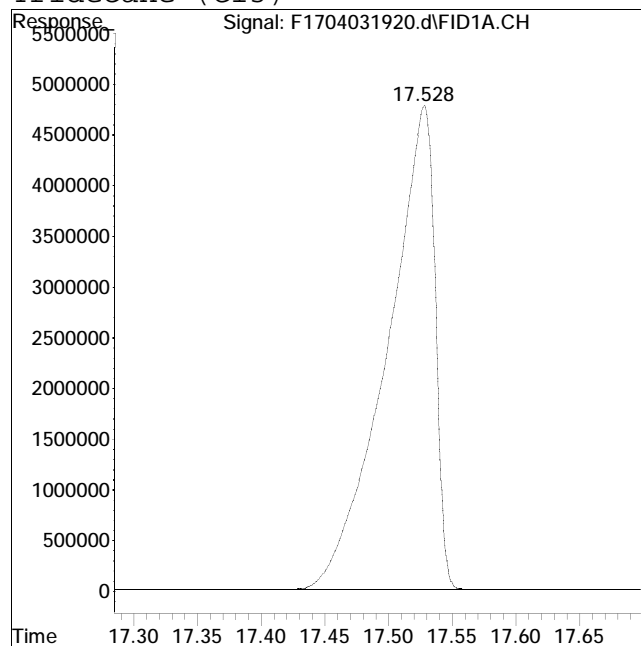
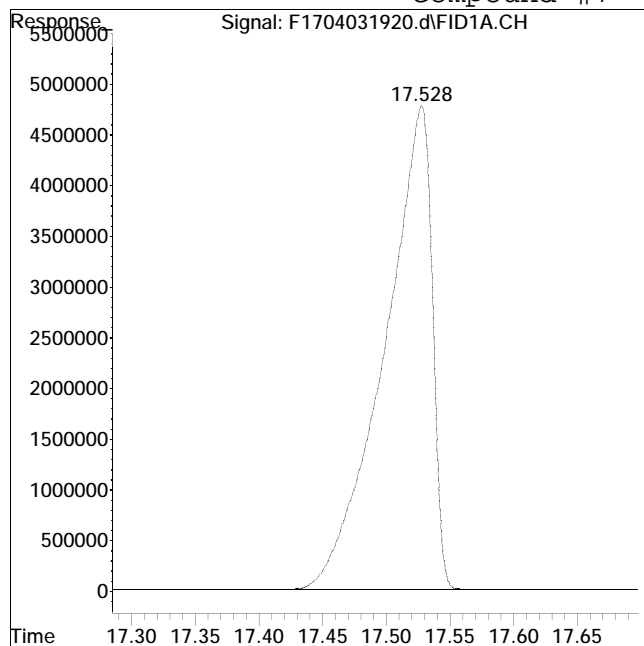
Manual Peak Response = 124383037 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 124252382

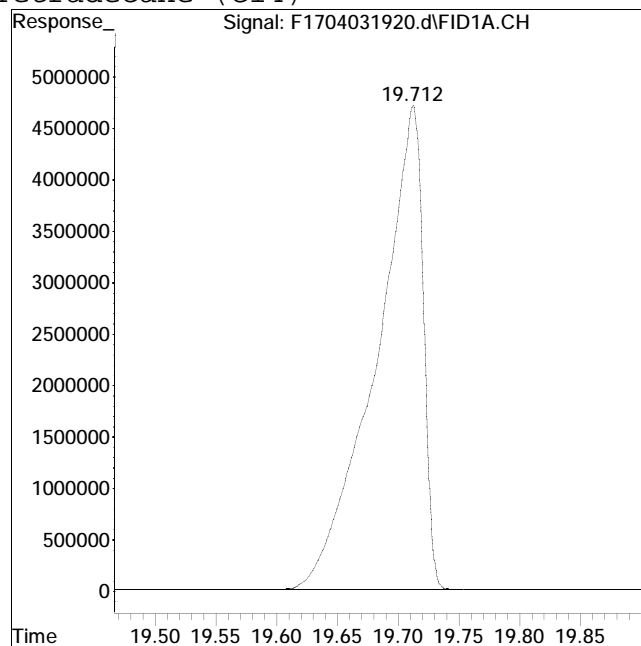
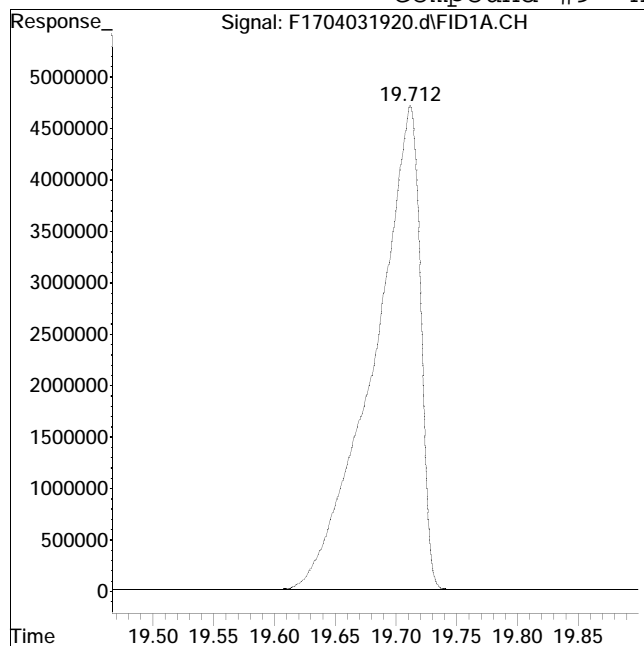
Manual Peak Response = 124391407 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 125569292

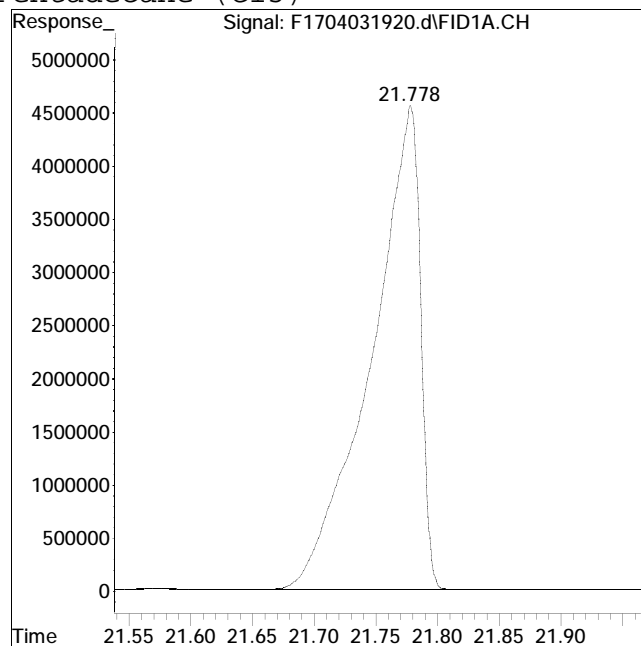
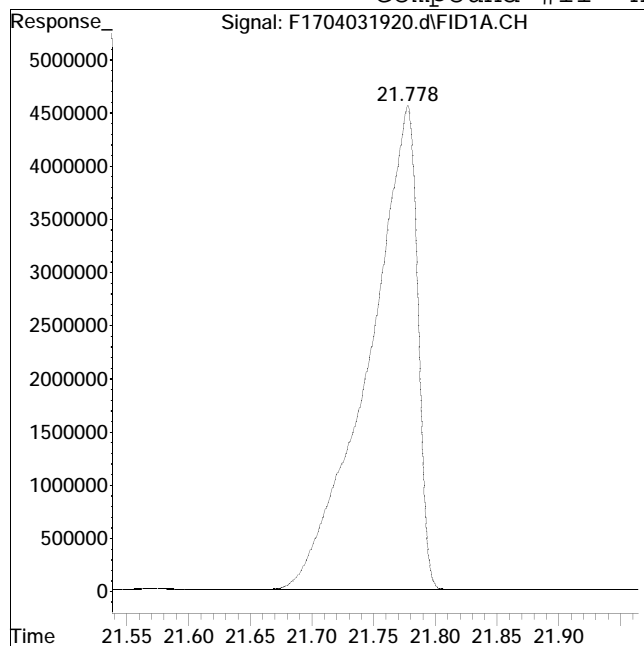
Manual Peak Response = 125607557 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 125458402

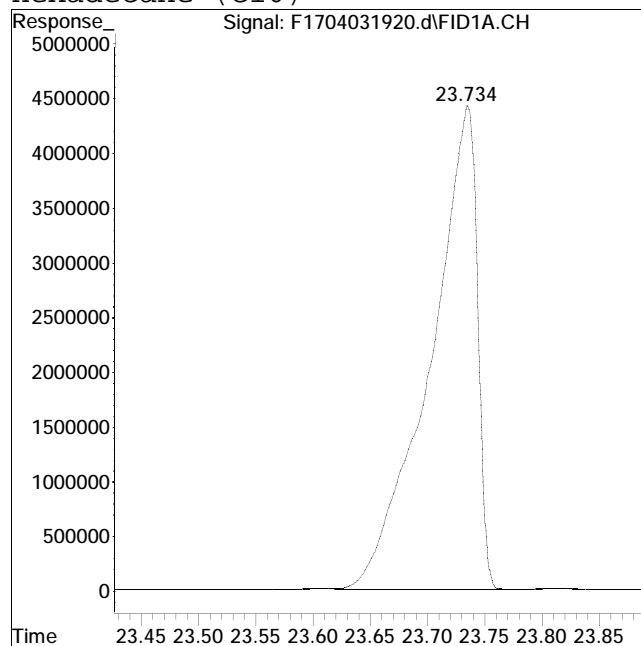
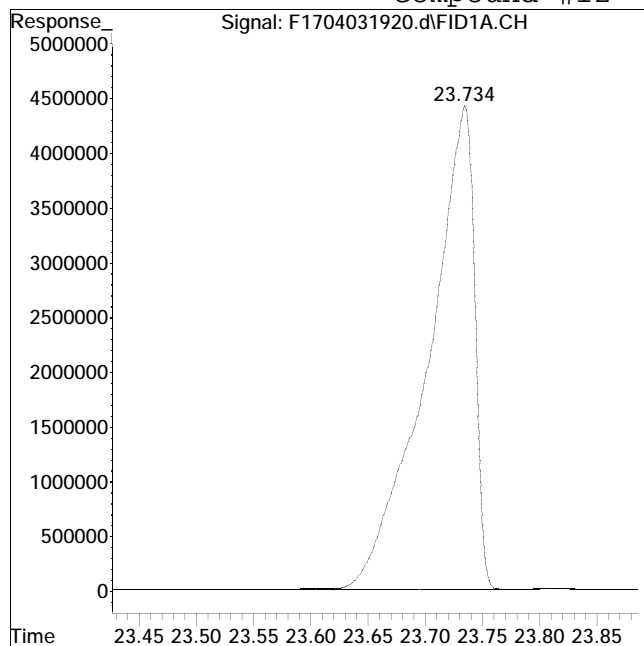
Manual Peak Response = 125545636 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 126238325

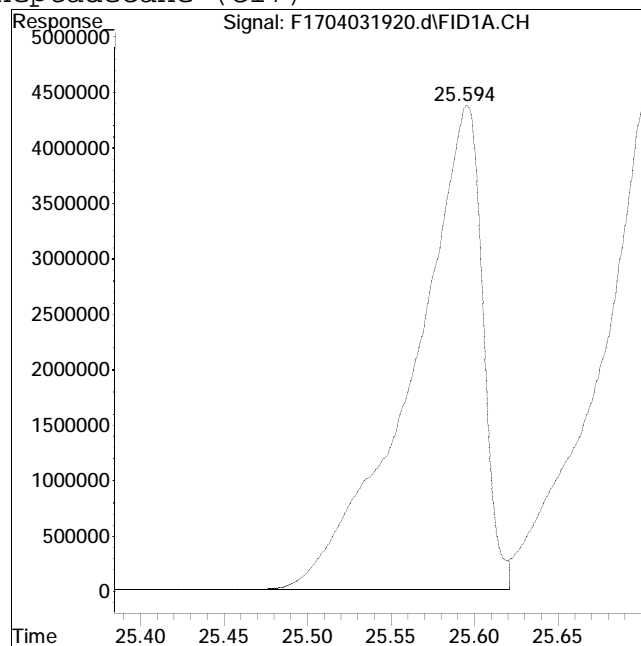
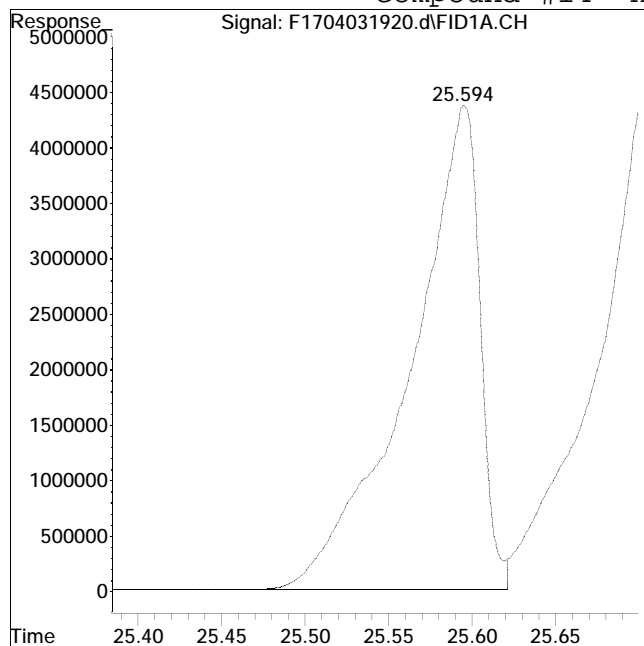
Manual Peak Response = 126305422 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 126410485

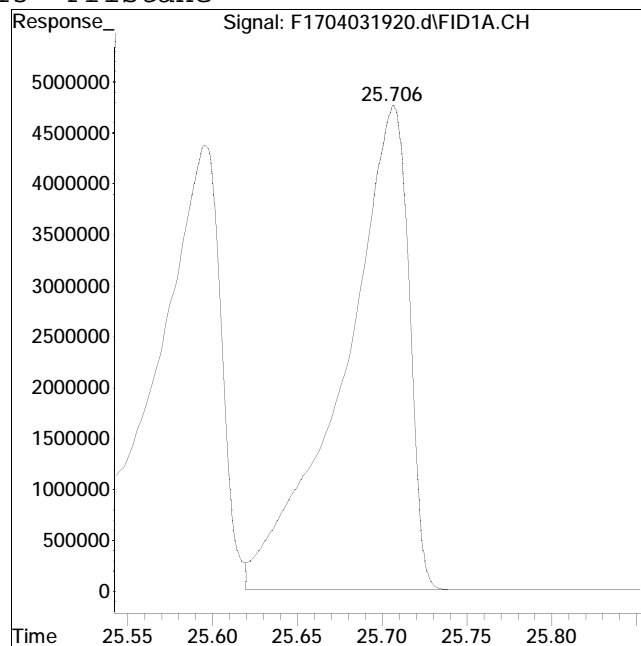
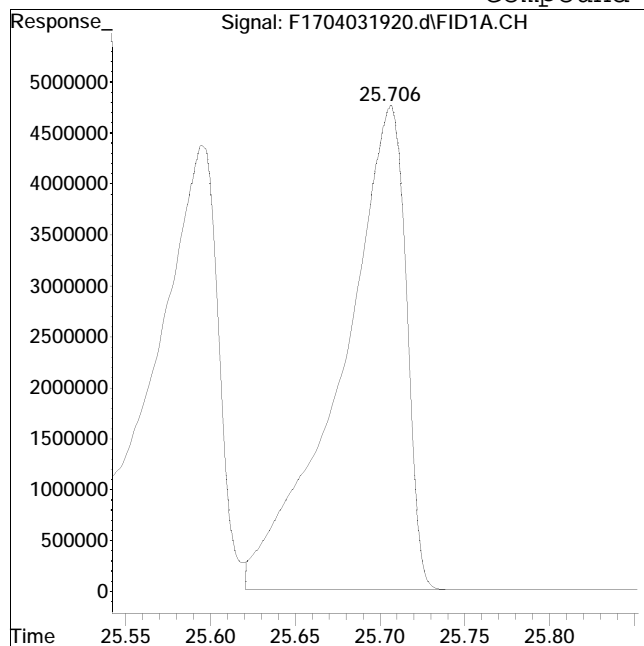
Manual Peak Response = 126622131 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #15: Pristane



Original Peak Response = 126748429

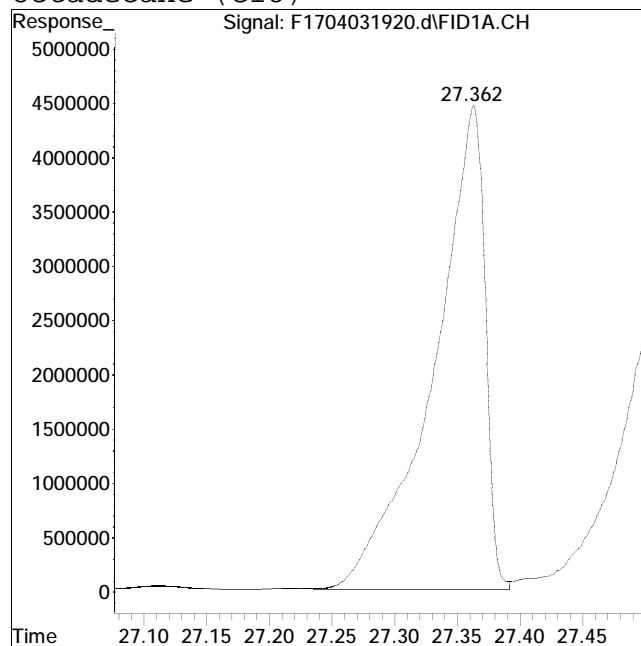
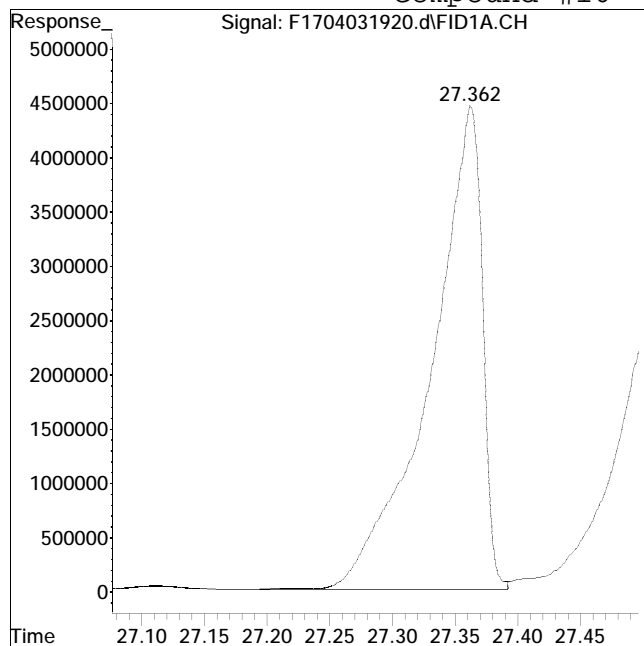
Manual Peak Response = 126957497 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 127248916

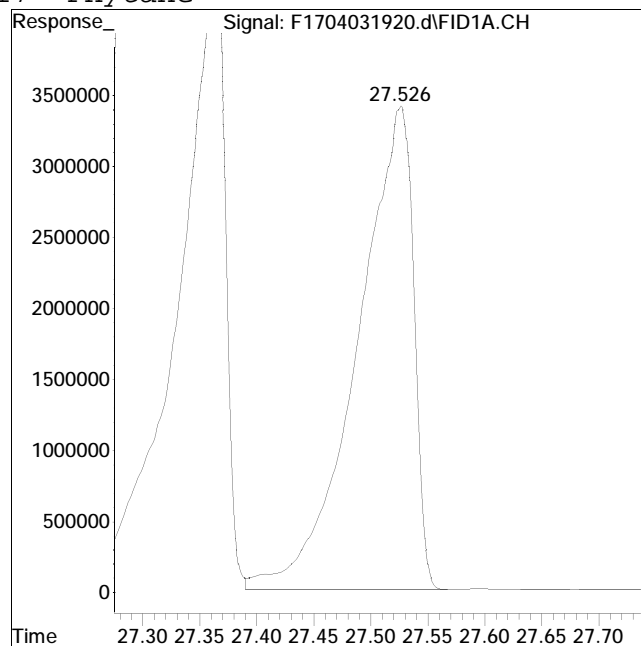
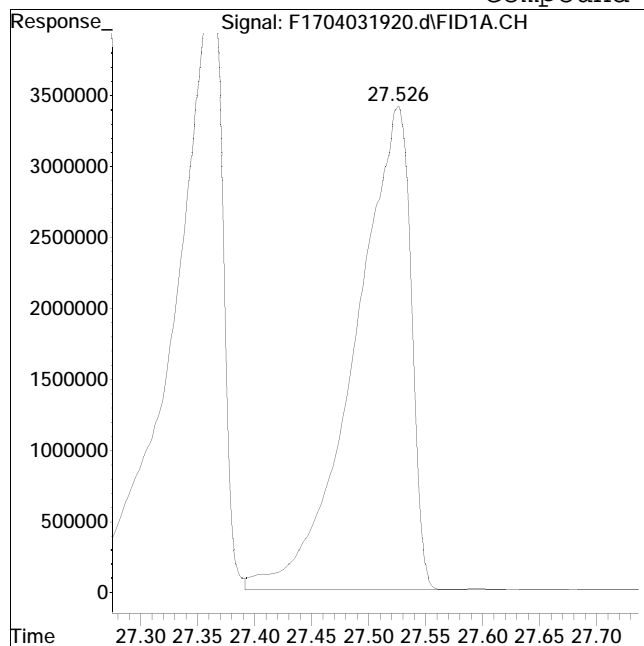
Manual Peak Response = 127177324 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #17: Phytane



Original Peak Response = 116162944

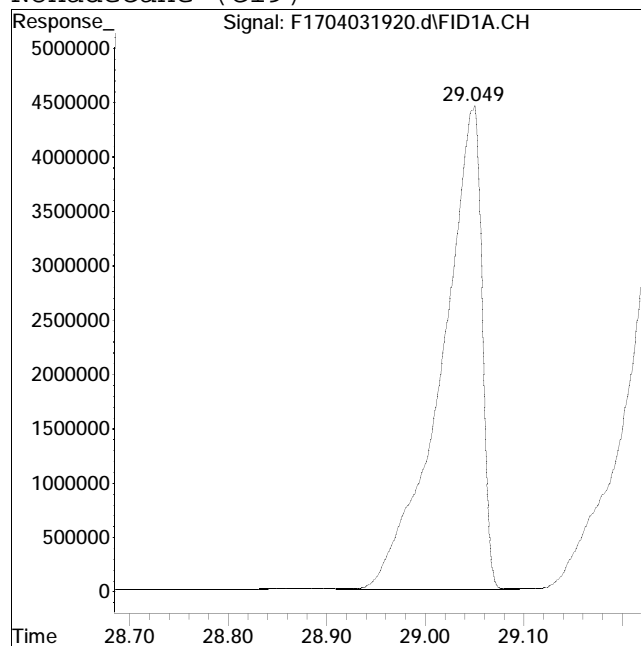
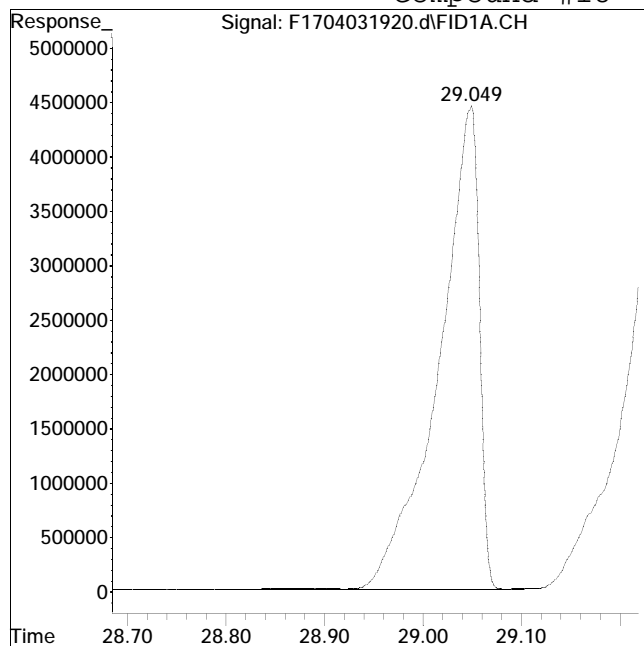
Manual Peak Response = 116391637 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 126820080

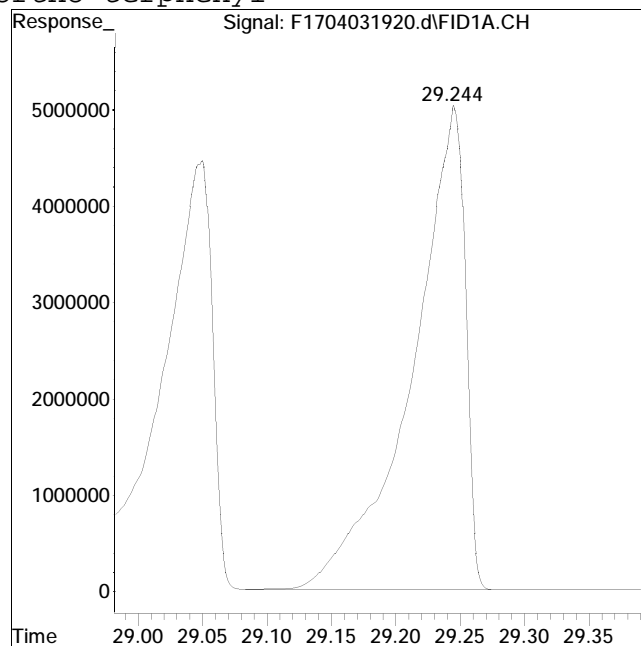
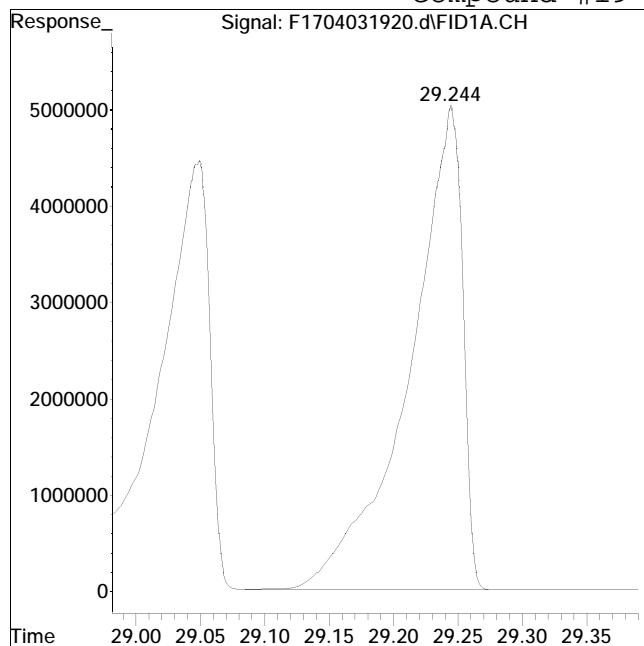
Manual Peak Response = 126661828 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #19: ortho-terphenyl



Original Peak Response = 143769278

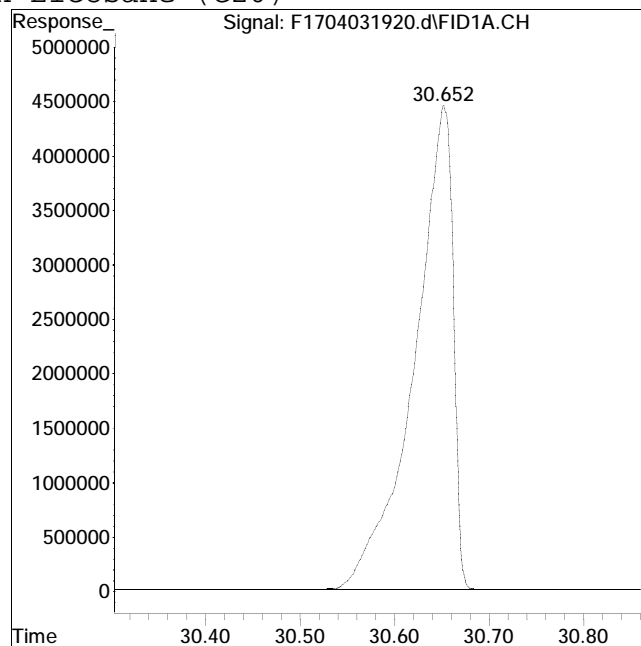
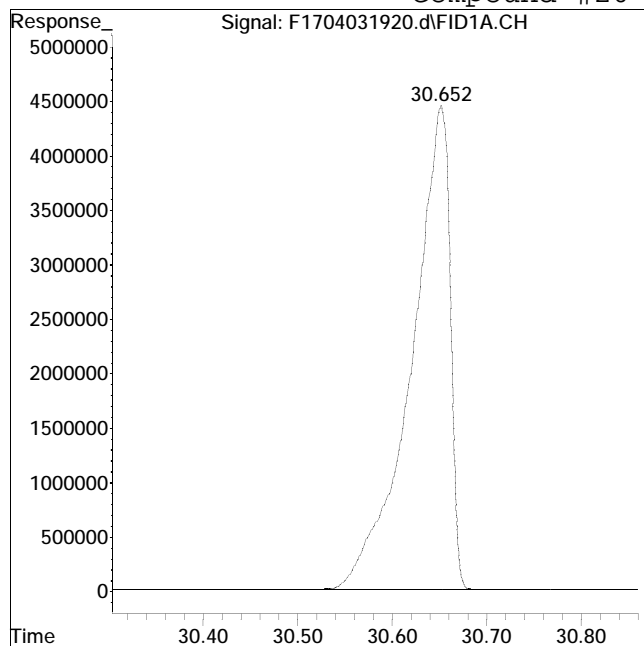
Manual Peak Response = 143916602 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 126379439

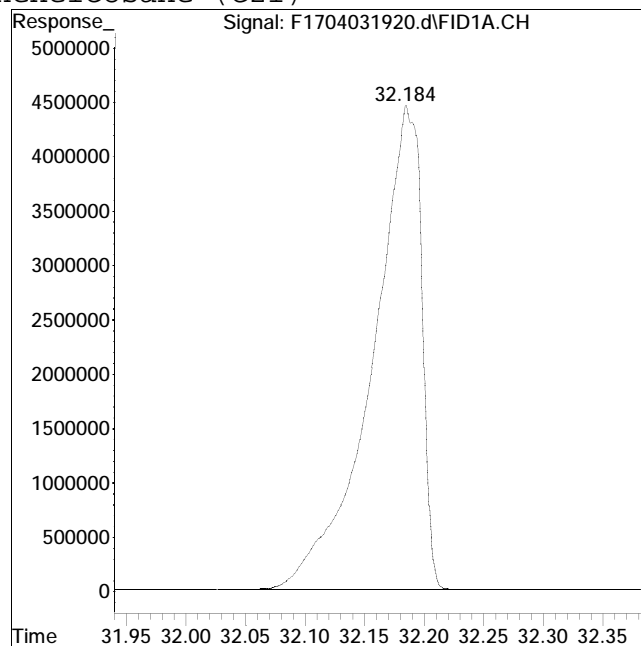
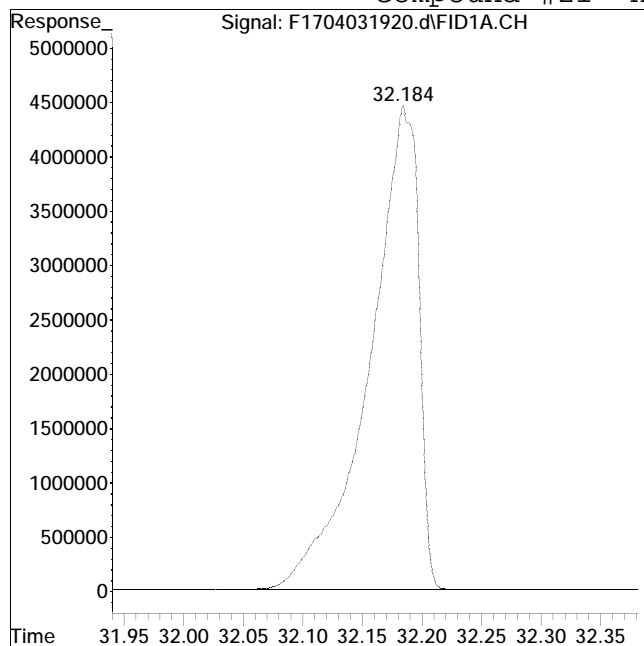
Manual Peak Response = 126692804 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 128214169

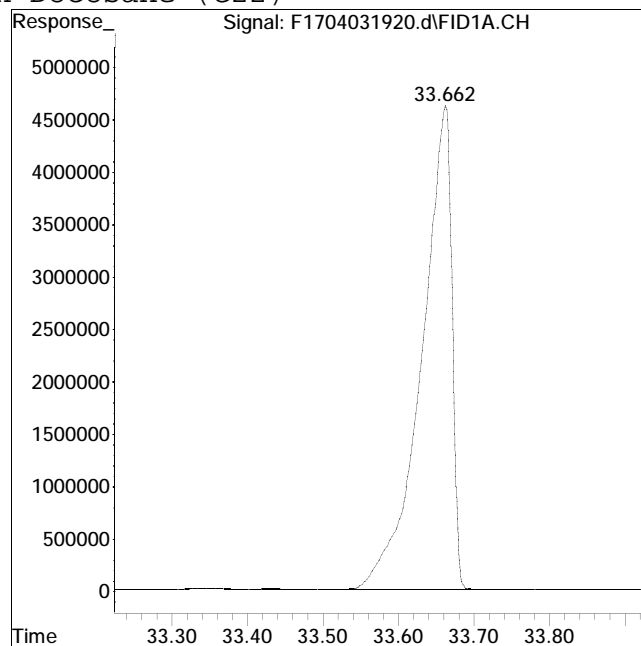
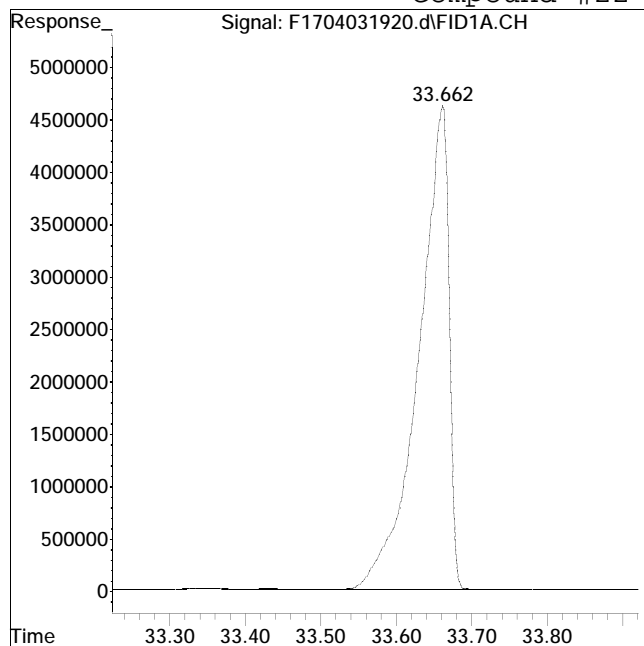
Manual Peak Response = 128416589 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 128427456

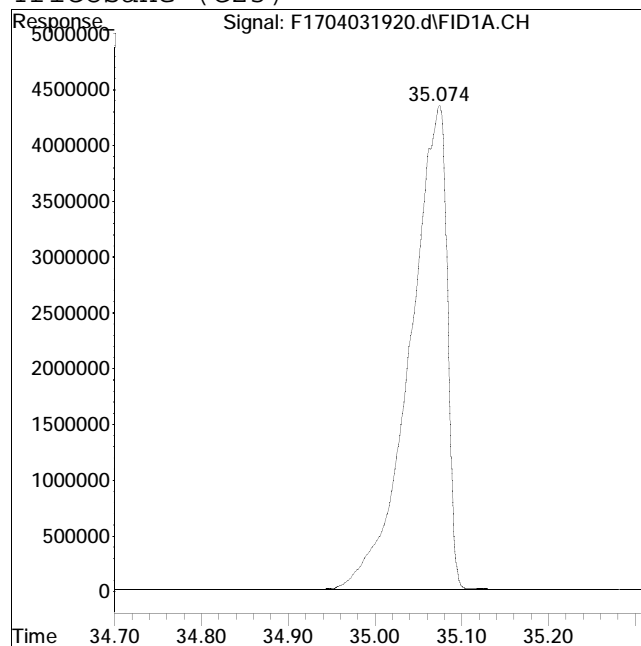
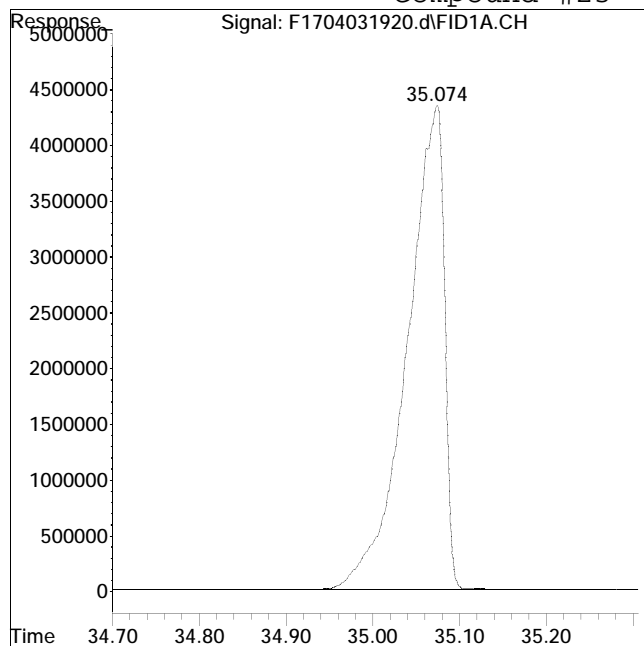
Manual Peak Response = 128449777 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 128947118

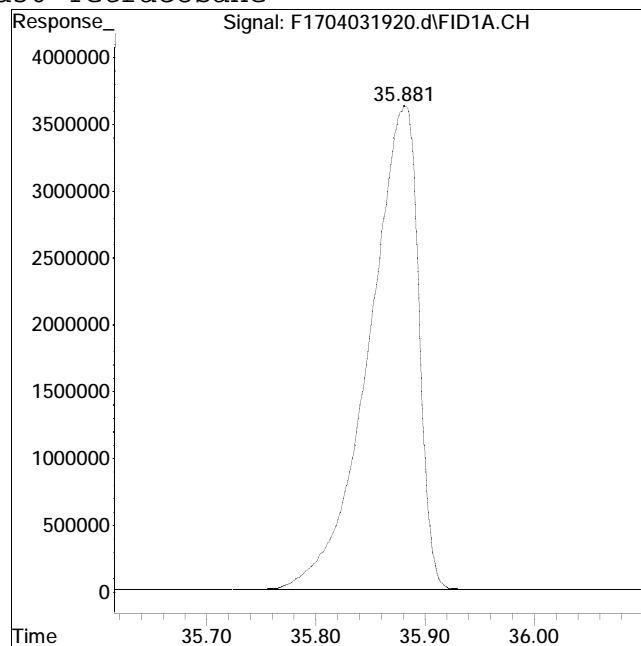
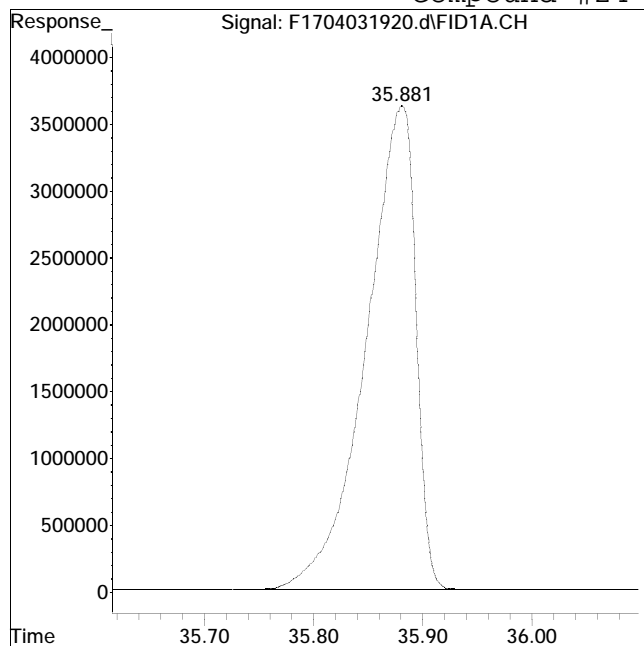
Manual Peak Response = 129200281 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #24: d50-Tetracosane



Original Peak Response = 114441609

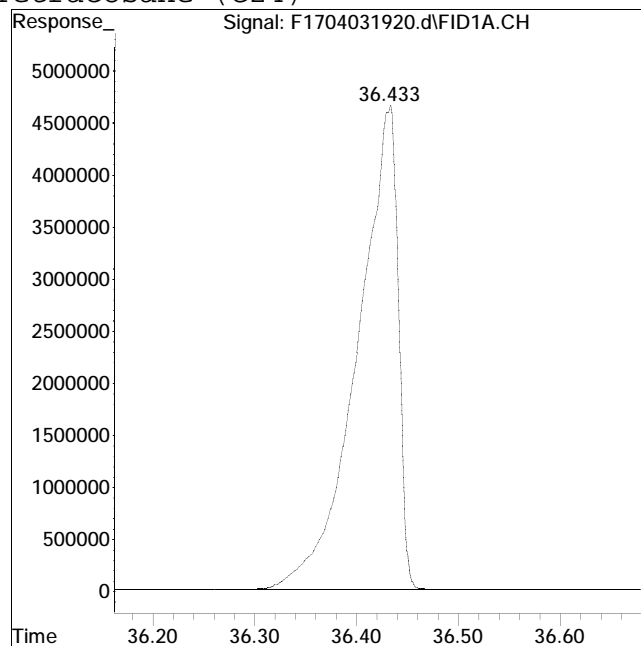
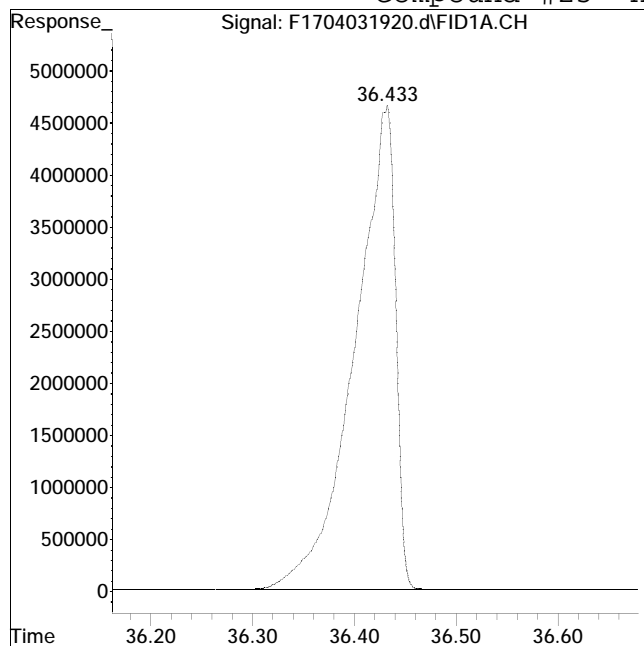
Manual Peak Response = 114632359 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 129058458

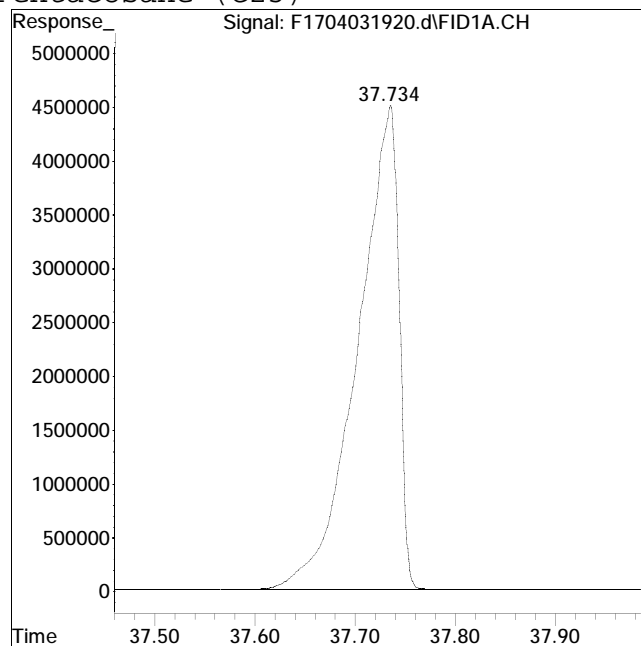
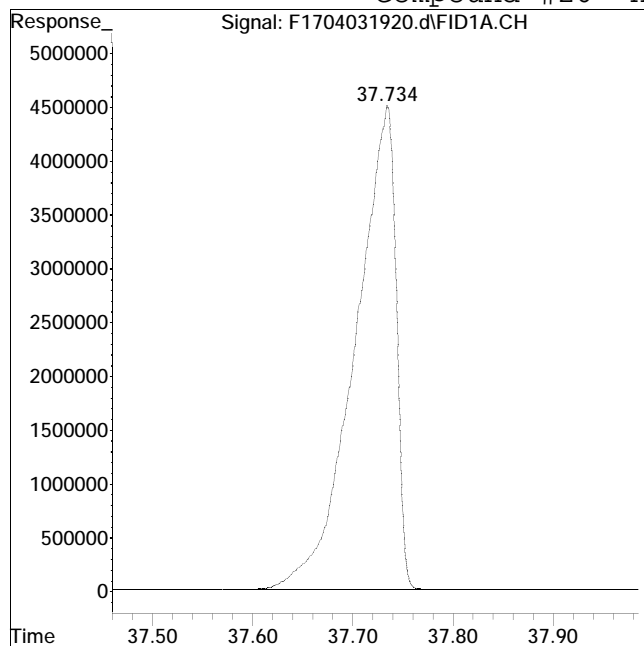
Manual Peak Response = 129319097 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 127905992

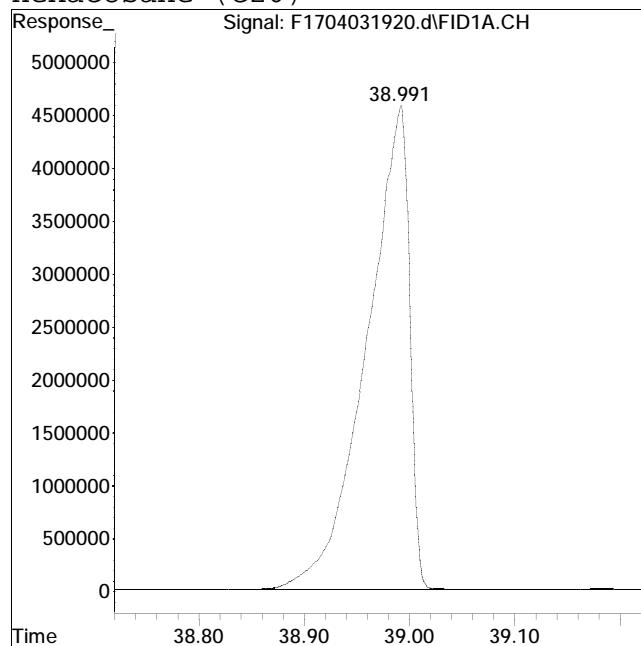
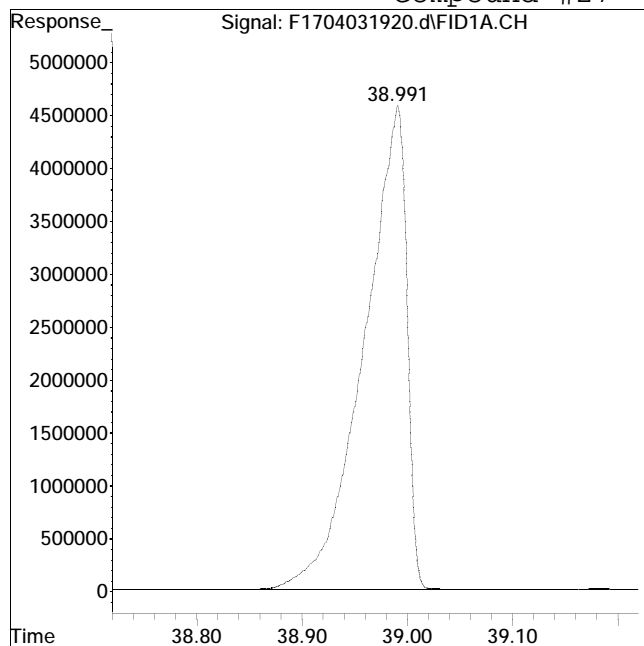
Manual Peak Response = 128142264 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 128869370

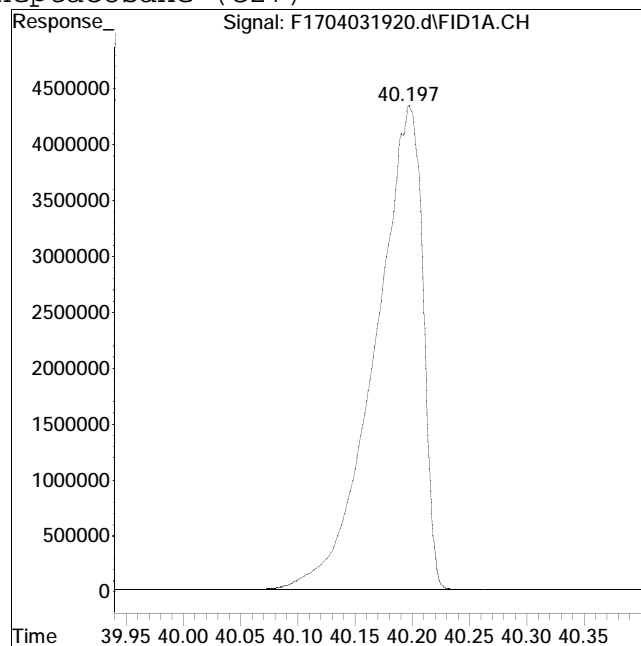
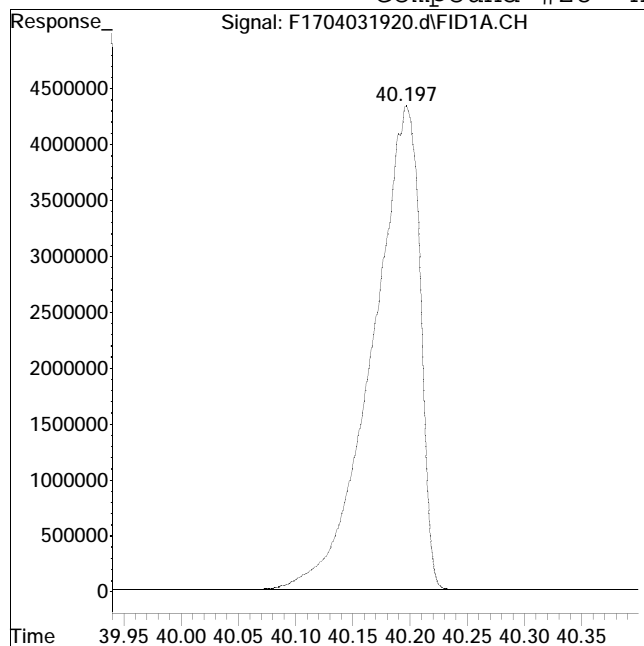
Manual Peak Response = 129130962 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 125386062

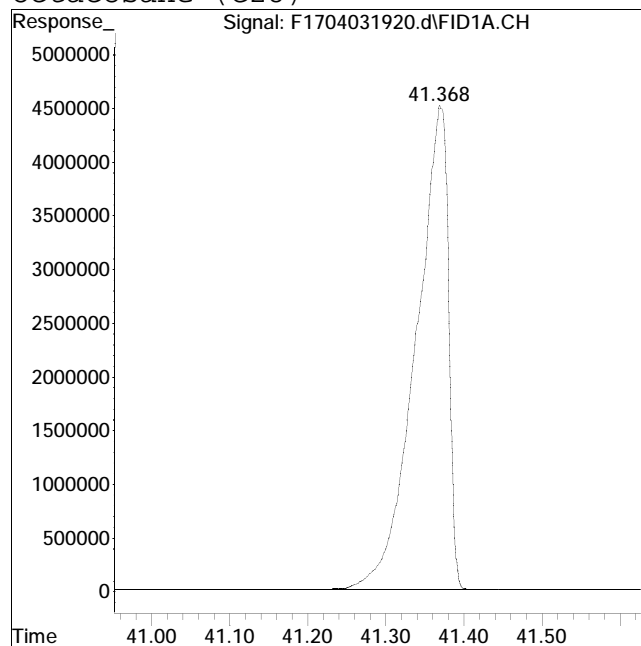
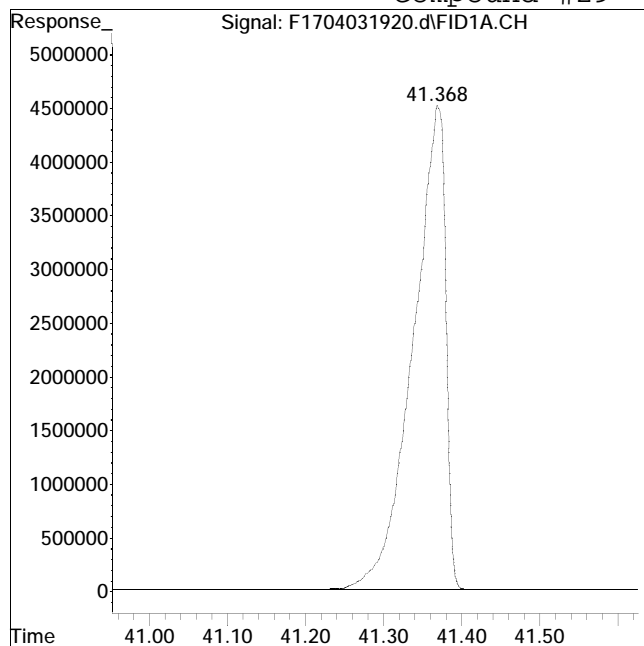
Manual Peak Response = 125511347 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 130144258

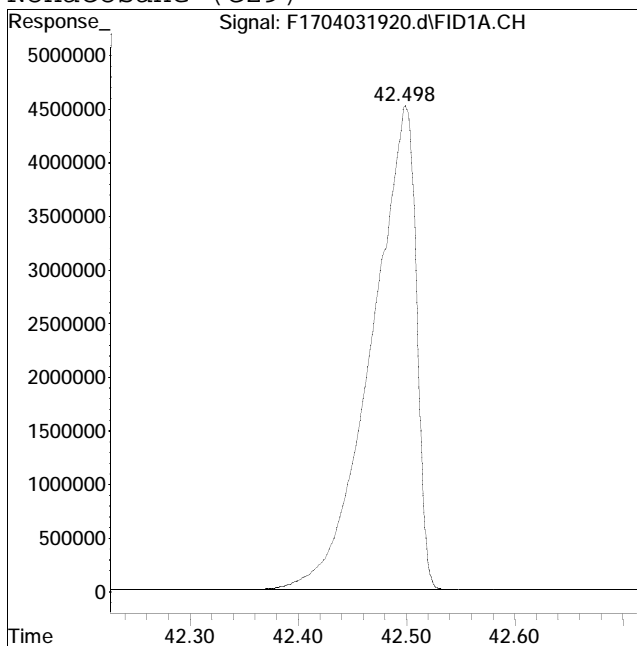
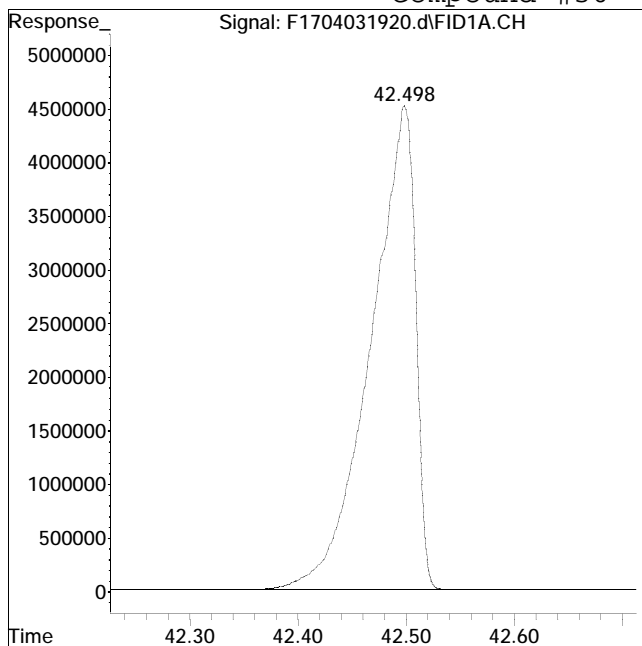
Manual Peak Response = 130344316 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 129229817

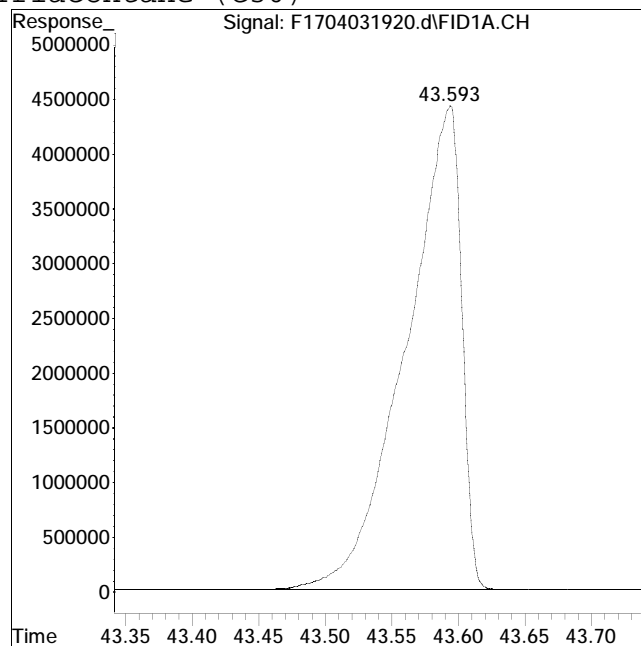
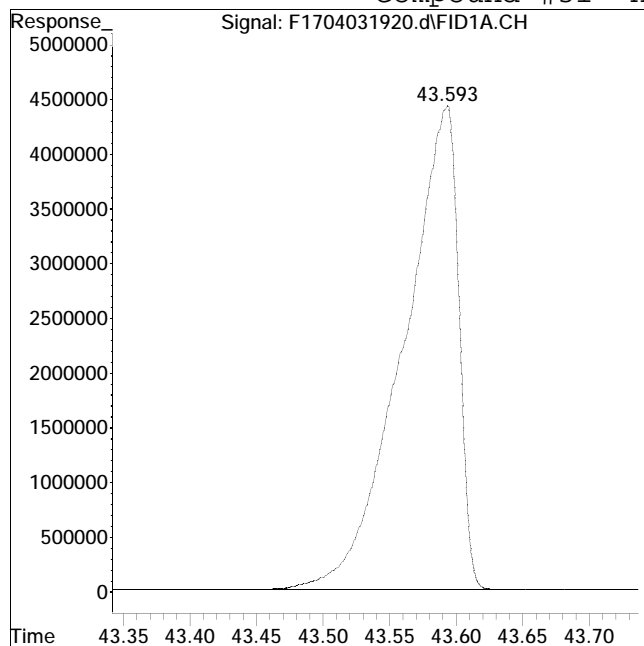
Manual Peak Response = 129355871 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 127602454

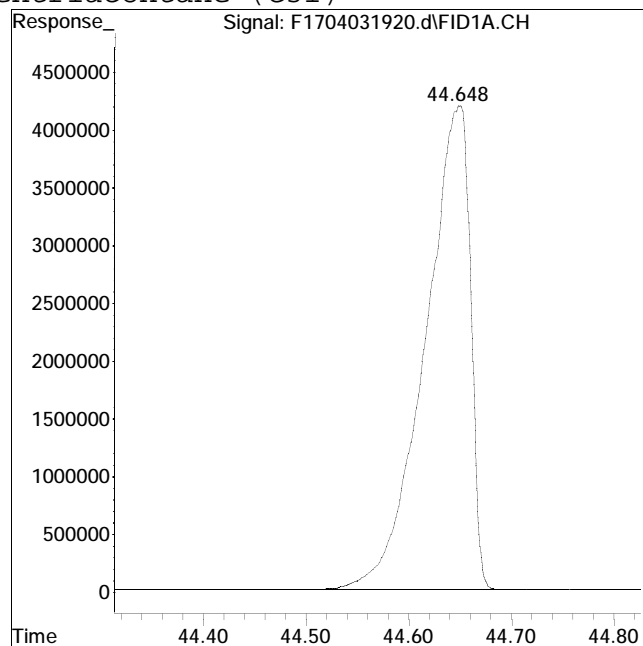
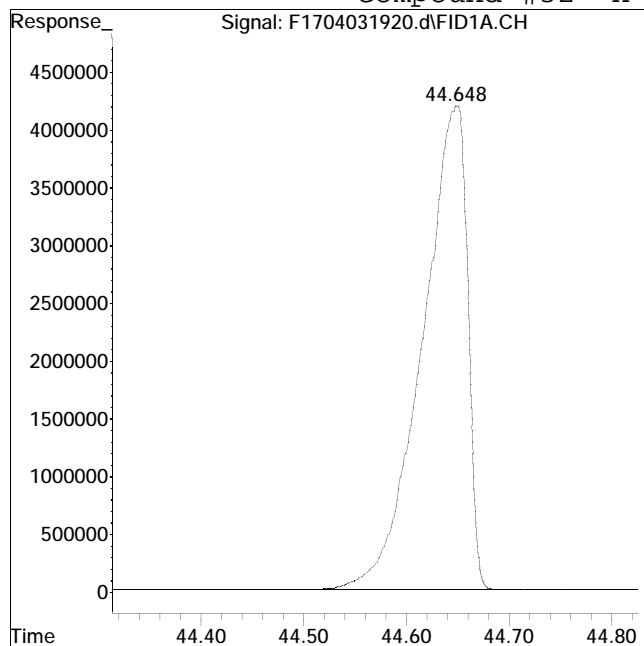
Manual Peak Response = 127754547 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 128243244

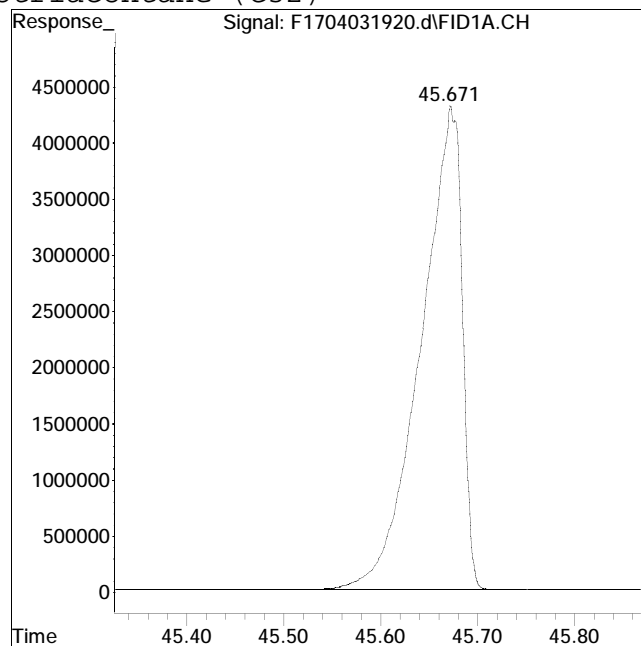
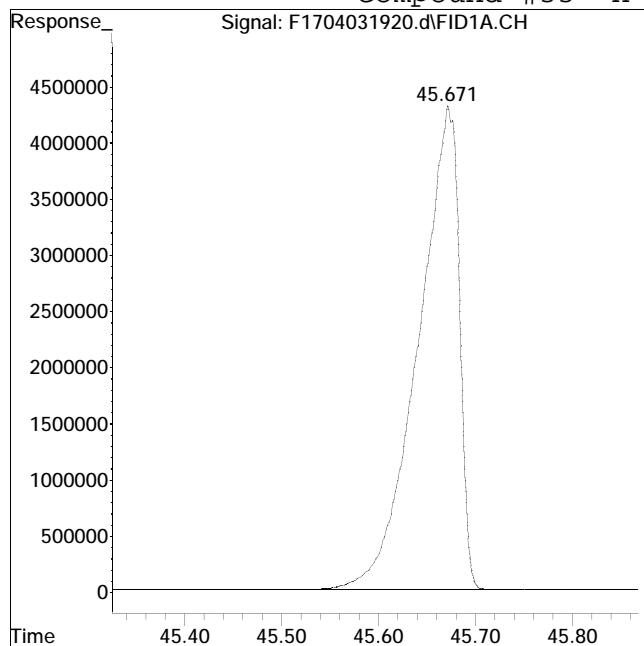
Manual Peak Response = 128337985 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 126513834

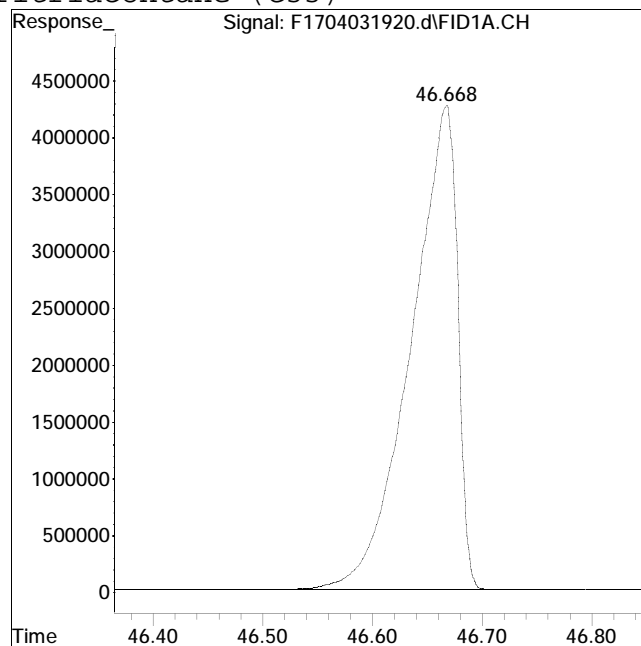
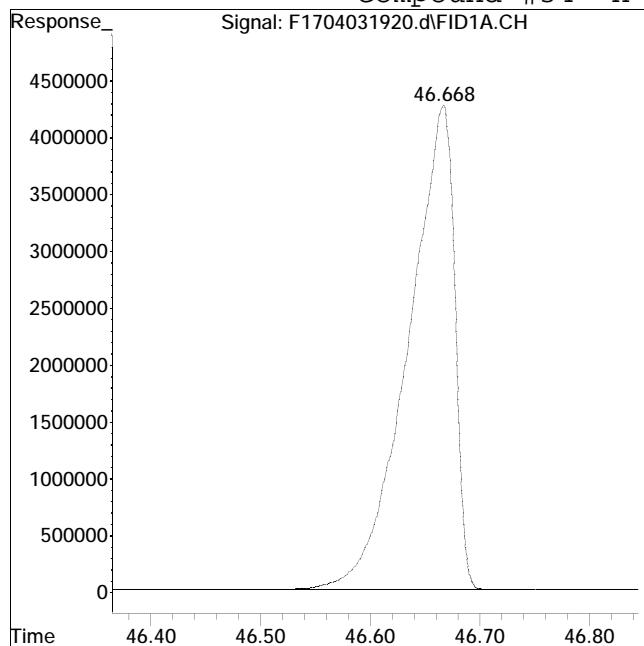
Manual Peak Response = 126626194 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 125168376

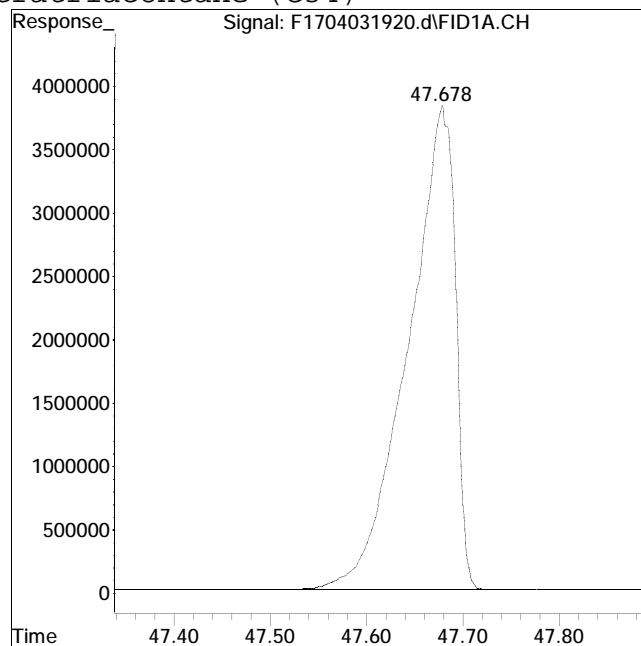
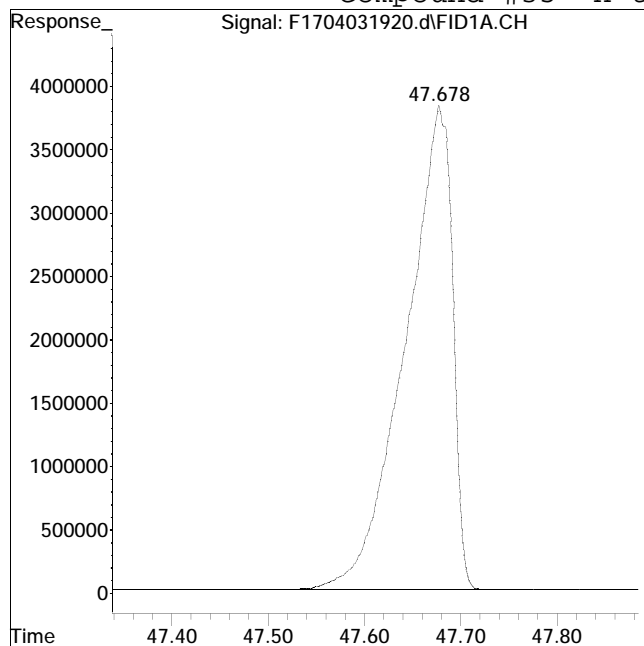
Manual Peak Response = 125240190 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 129813246

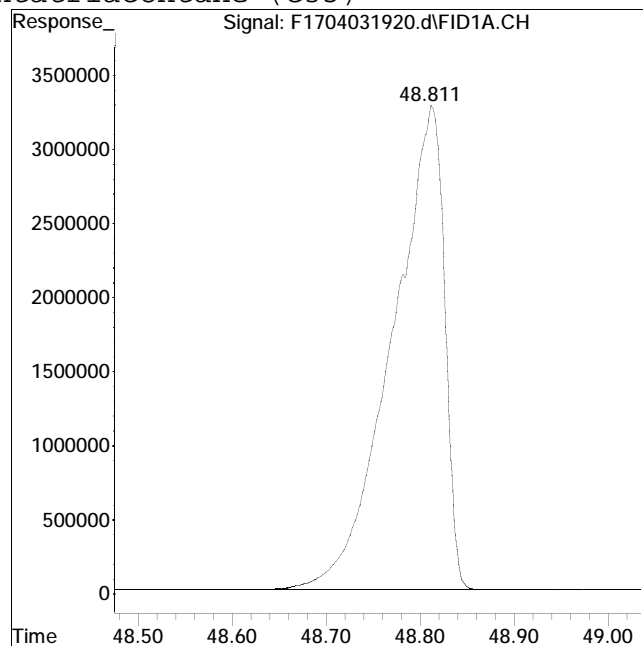
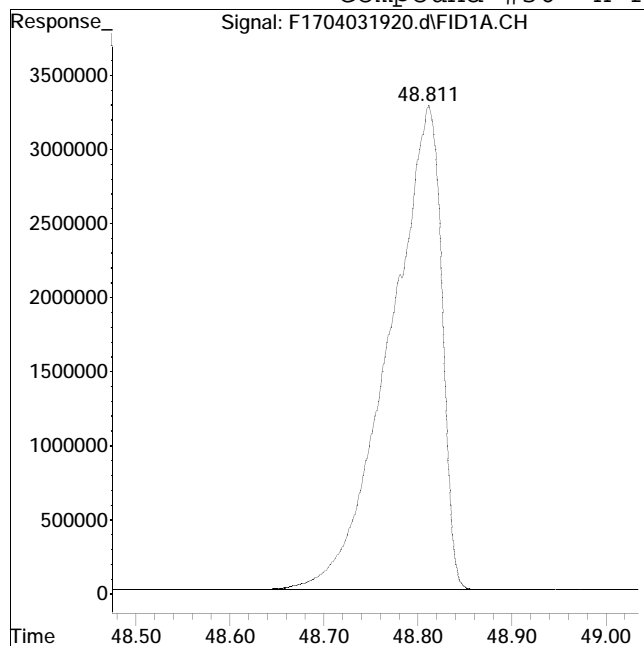
Manual Peak Response = 129851530 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 125449882

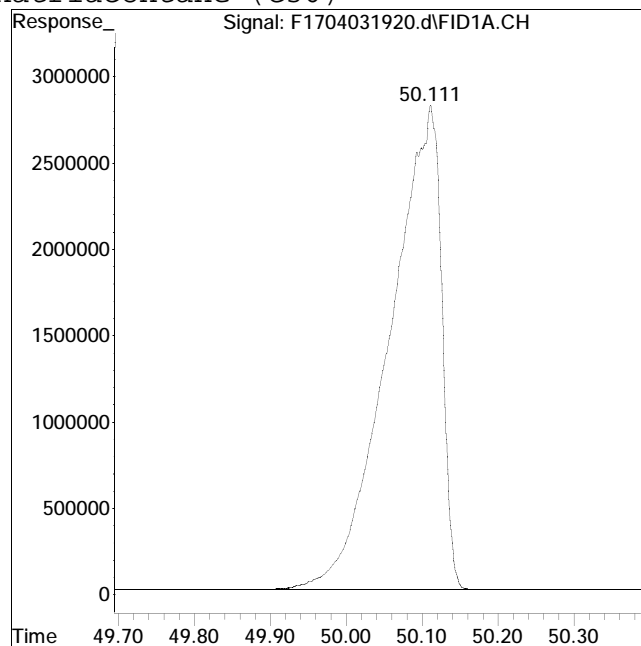
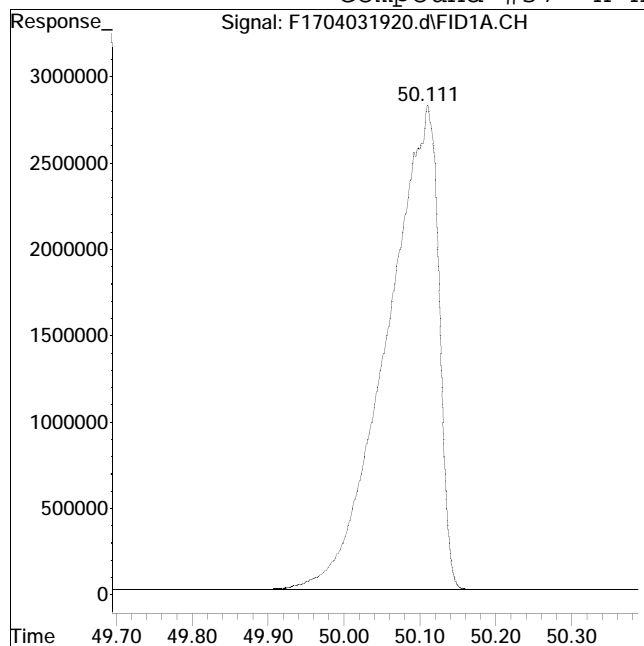
Manual Peak Response = 125466795 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 133115988

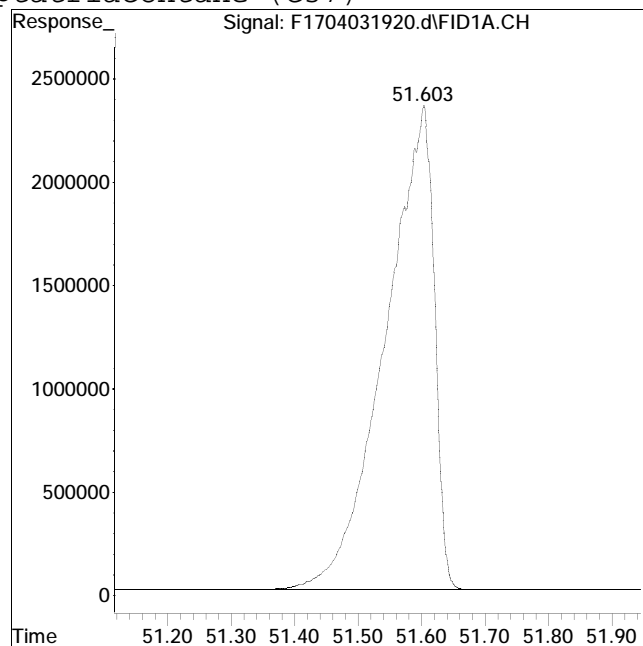
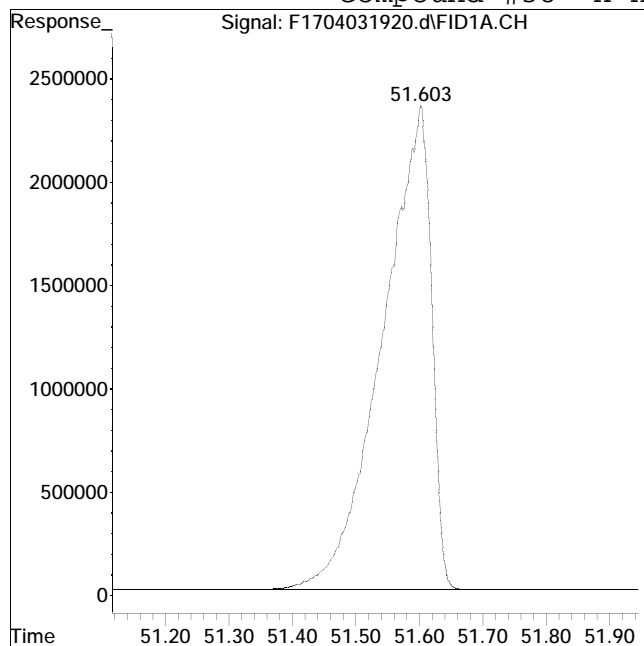
Manual Peak Response = 133137145 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 125141731

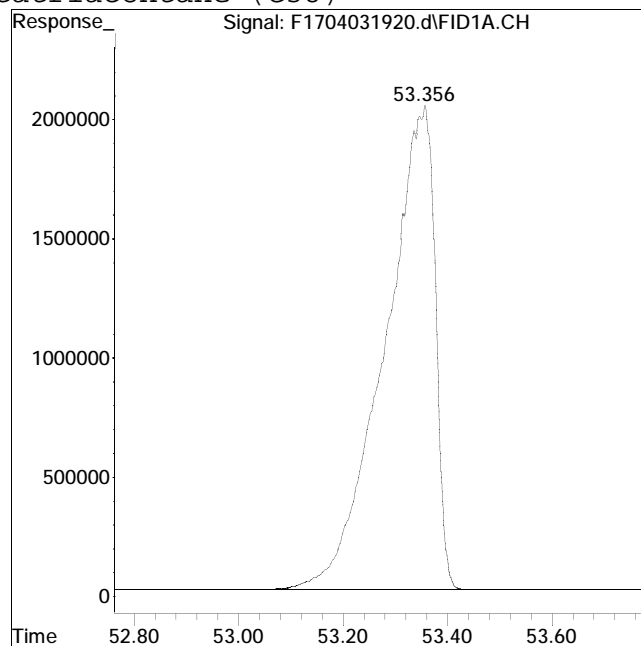
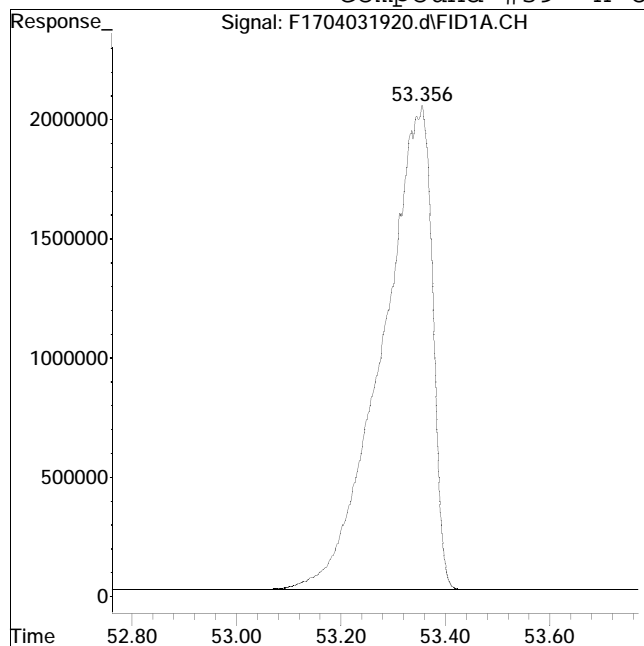
Manual Peak Response = 125213539 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 135422506

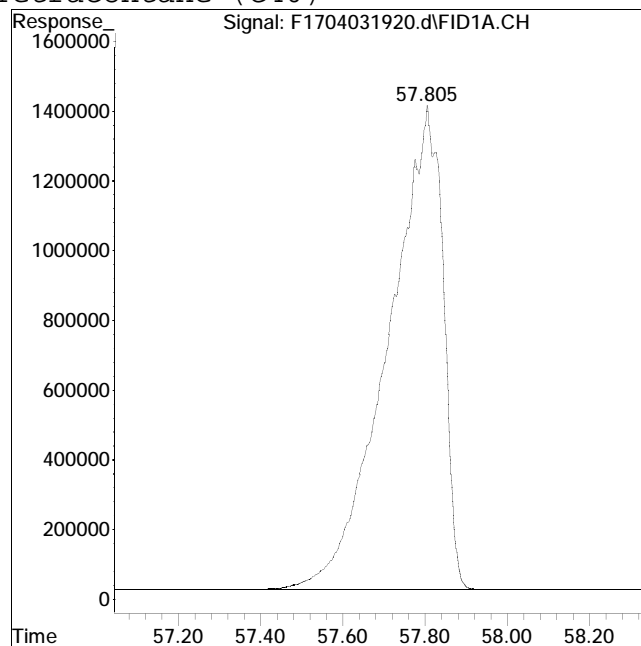
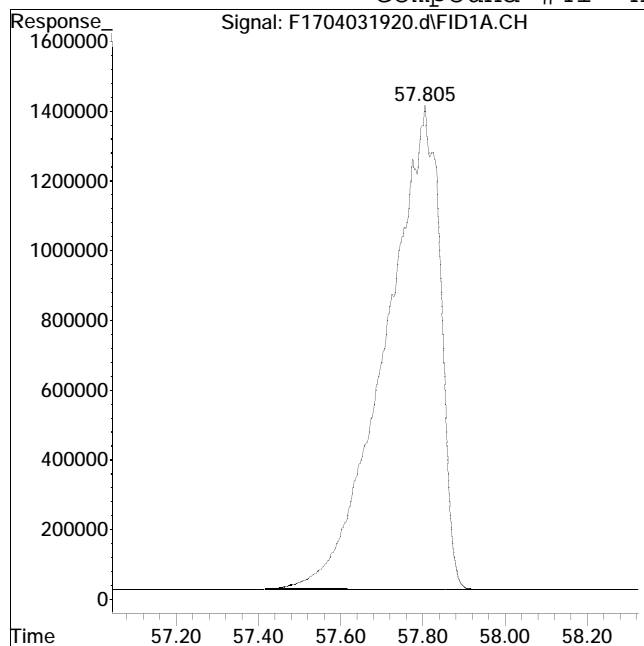
Manual Peak Response = 135520412 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031920.d Operator : FID17:WR
Date Inj'd : 4/4/2019 3:54 am Instrument : FID17
Sample : I1704031904F Quant Date : 4/15/2019 3:47 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 127989795

Manual Peak Response = 128452306 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031922.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 5:23 am
 Operator : FID17:WR
 Sample : I1704031905F
 Misc : WG1226965,FRBA86,200ug/ml
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:59:05 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:53:03 2019
 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	31.246	70284271	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.278	298808193	196.939	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	393.88%#	
24) s d50-Tetracosane	35.907	238599866	196.863	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	393.73%#	
Target Compounds				
2) t n-Octane (C8)	5.708f	230869353	194.993	ug/mL M4
3) t n-Nonane (C9)	7.867	245778613	194.271	ug/mL M4
4) t n-Decane (C10)	10.318	252288168	195.607	ug/mL M4
5) t n-Undecane (C11)	12.818	255528993	196.196	ug/mL M4
6) t n-Dodecane (C12)	15.242	257703453	196.557	ug/mL M4
7) t n-Tridecane (C13)	17.549	258332302	197.465	ug/mL M4
9) t n-Tetradecane (C14)	19.732	261067959	196.936	ug/mL M4
11) t n-Pentadecane (C15)	21.798	261081956	197.102	ug/mL M4
12) t n-Hexadecane (C16)	23.757	262660276	197.067	ug/mL M4
14) t n-Heptadecane (C17)	25.626	269585676	202.883	ug/mL M4
15) t Pristane	25.736	257064320	190.226	ug/mL M4
16) t n-Octadecane (C18)	27.391	265066888	197.257	ug/mL M4
17) t Phytane	27.555	241580907	197.620	ug/mL M4
18) t n-Nonadecane (C19)	29.077	263241237	196.438	ug/mL M4
20) t n-Eicosane (C20)	30.680	264014643	196.648	ug/mL M4
21) t n-Heneicosane (C21)	32.218	267586913	196.054	ug/mL M4
22) t n-Docosane (C22)	33.687	267368377	196.184	ug/mL M4
23) t n-Tricosane (C23)	35.101	268382458	195.522	ug/mL M4
25) t n-Tetracosane (C24)	36.465	268829696	195.063	ug/mL M4
26) t n-Pentacosane (C25)	37.768	266324860	195.144	ug/mL M4
27) t n-Hexacosane (C26)	39.020	268354624	195.173	ug/mL M4
28) t n-Heptacosane (C27)	40.233	260866582	194.721	ug/mL M4
29) t n-Octacosane (C28)	41.404	271181052	195.320	ug/mL M4
30) t n-Nonacosane (C29)	42.537	269617396	195.267	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031922.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 5:23 am
 Operator : FID17:WR
 Sample : I1704031905F
 Misc : WG1226965,FRBA86,200ug/ml
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 15:59:05 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:53:03 2019
 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)	43.624	266884695	195.522	ug/mL M4
32) t n-Hentriacontane (C31)	44.688	268625567	195.597	ug/mL M4
33) t n-Dotriacontane (C32)	45.709	265703383	196.022	ug/mL M4
34) t n-Tritriacontane (C33)	46.708	263472349	196.567	ug/mL M4
35) t n-tetratriacontane (C34)	47.726	273753005	197.256	ug/mL M4
36) t n-Pentatriacontane (C35)	48.868	265153414	197.627	ug/mL M4
37) t n-Hexatriacontane (C36)	50.169	282085113	198.898	ug/mL M4
38) t n-Heptatriacontane (C37)	51.681	266042497	198.477	ug/mL M4
39) t n-Octatriacontane (C38)	53.444	288788418	200.606	ug/mL M4
41) t n-Tetracontane (C40)	57.935	275042645	201.064	ug/mL M4

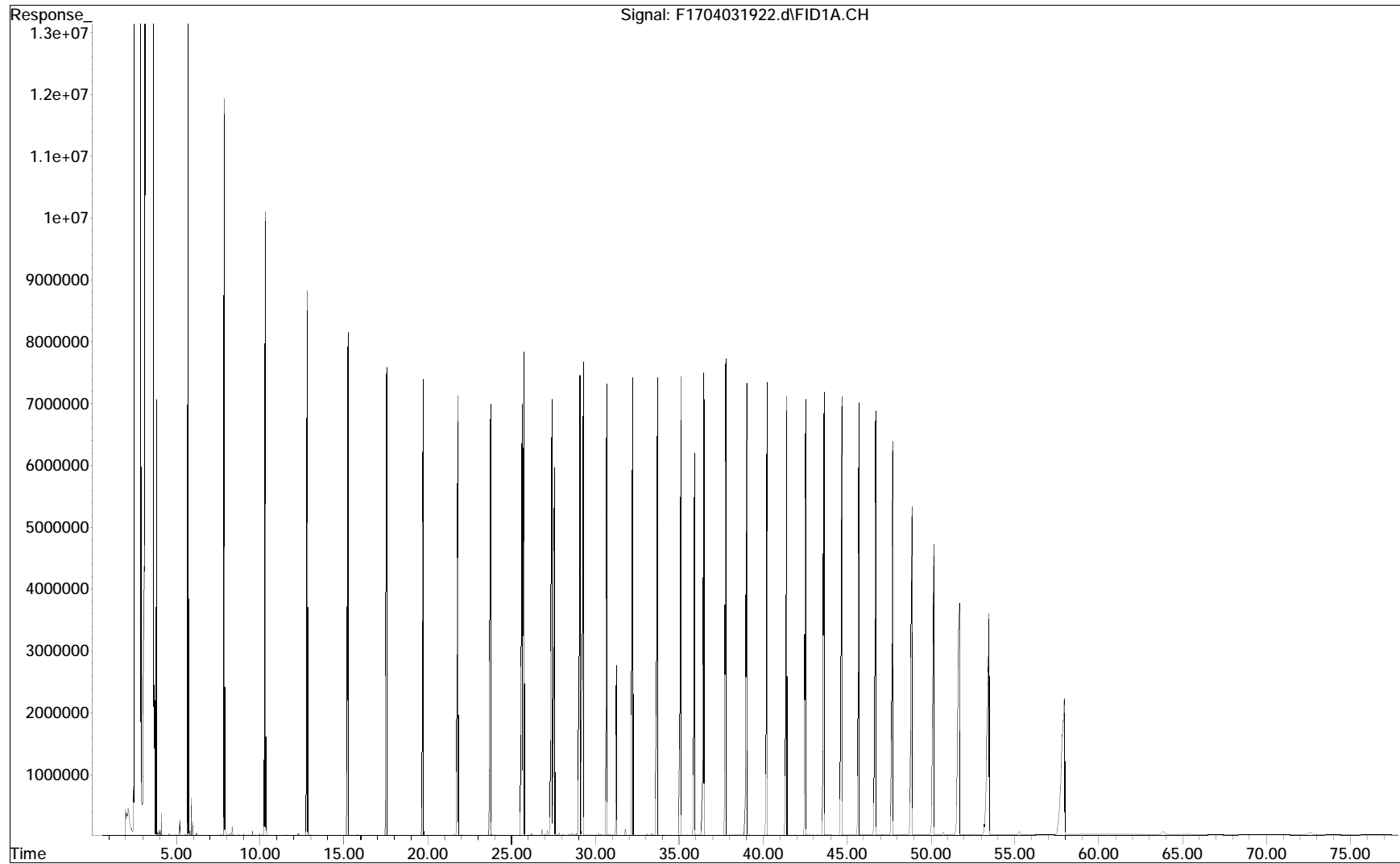
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

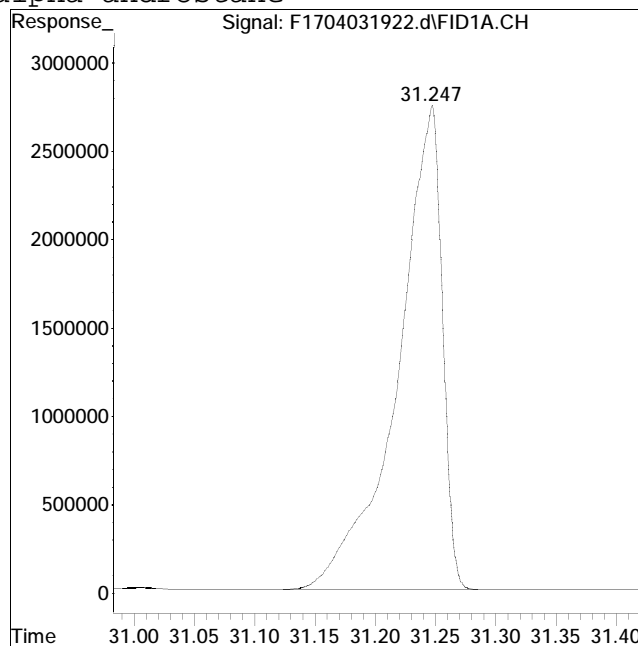
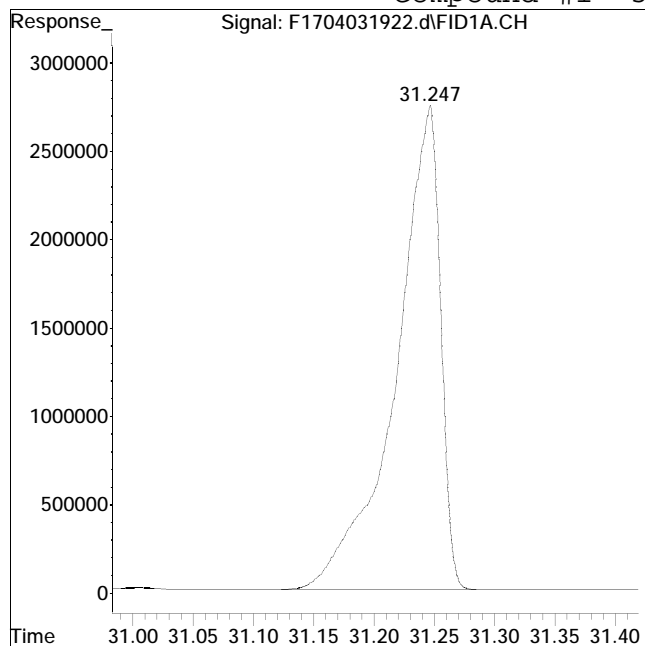
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031922.d
Operator : FID17:WR
Acquired : 04 Apr 2019 5:23 am using AcqMethod FID17.M
Sample Name: I1704031905F
Instrument: FID17
Misc Info : WG1226965,FRBA86,200ug/ml
Vial Number: 11
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 70254118

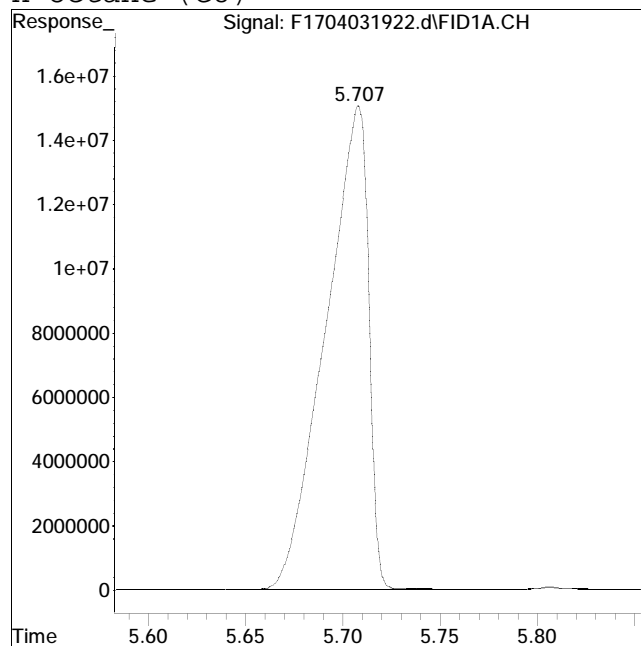
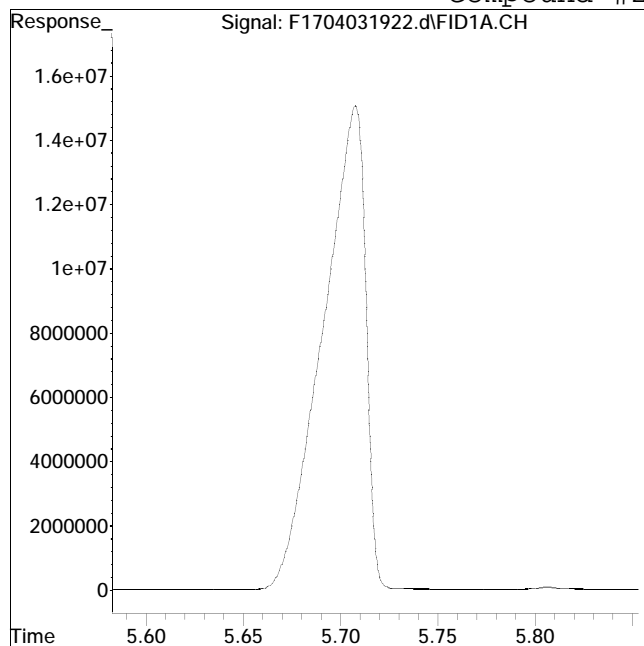
Manual Peak Response = 70284271 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #2: n-Octane (C8)



Original Peak Response = 0

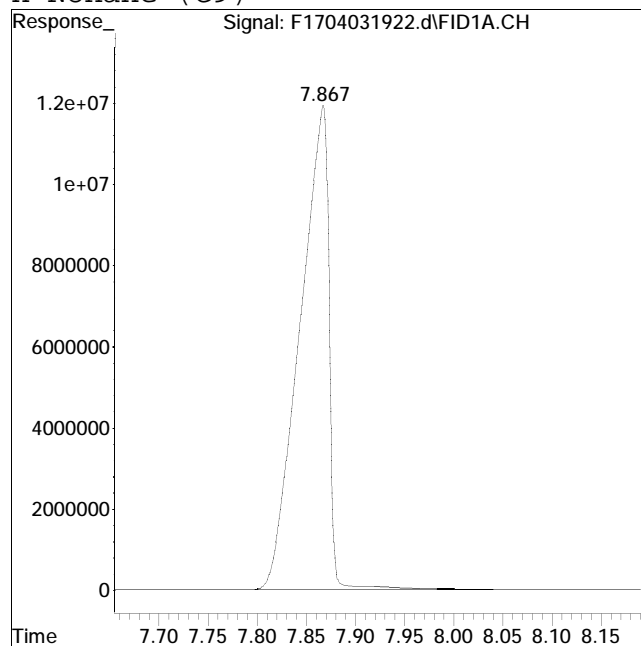
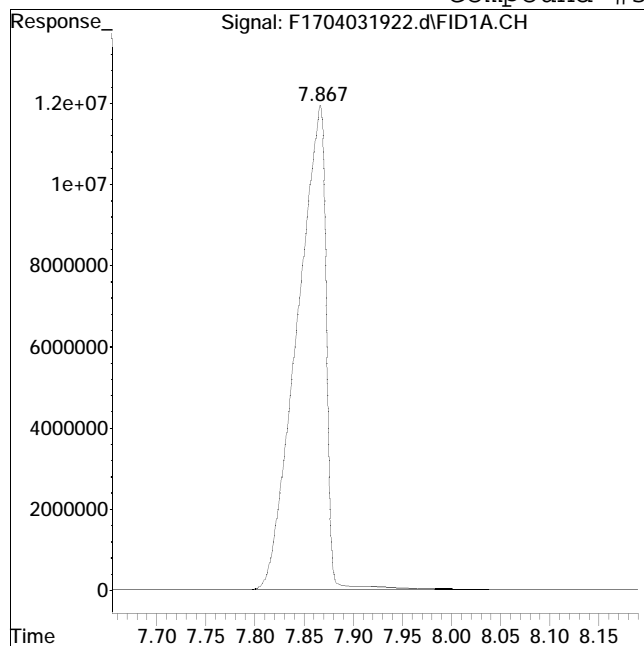
Manual Peak Response = 230869353 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 245146672

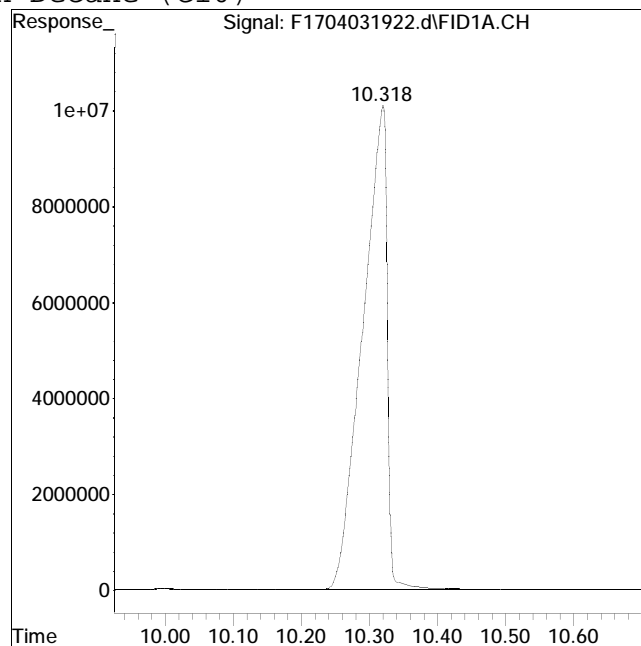
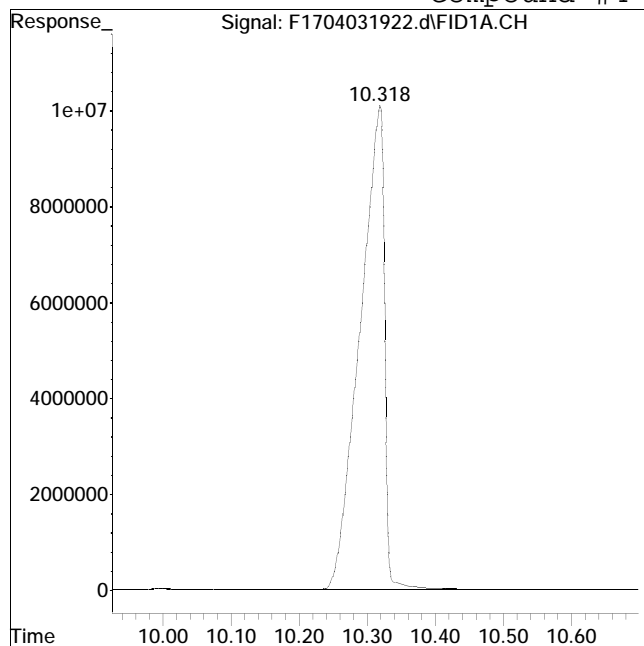
Manual Peak Response = 245778613 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #4: n-Decane (C10)



Original Peak Response = 252244253

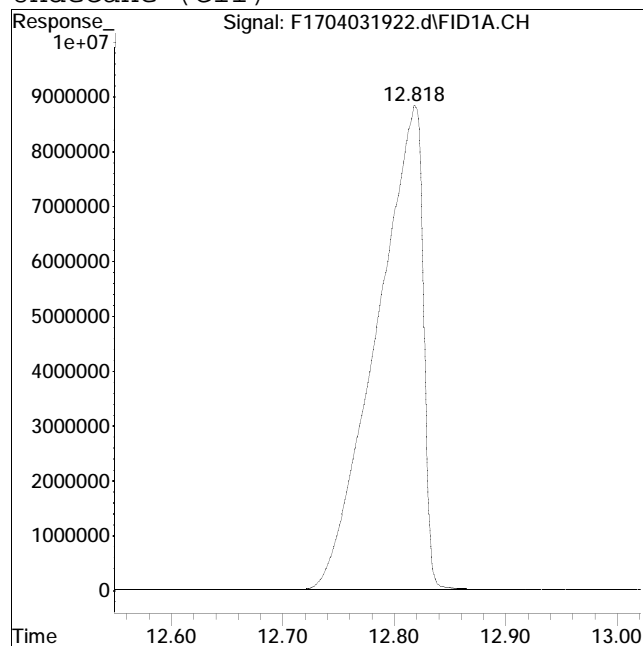
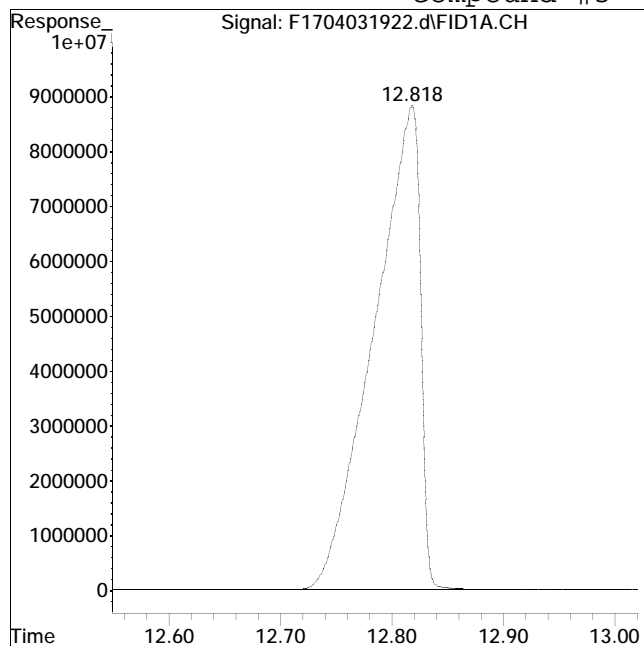
Manual Peak Response = 252288168 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 255235848

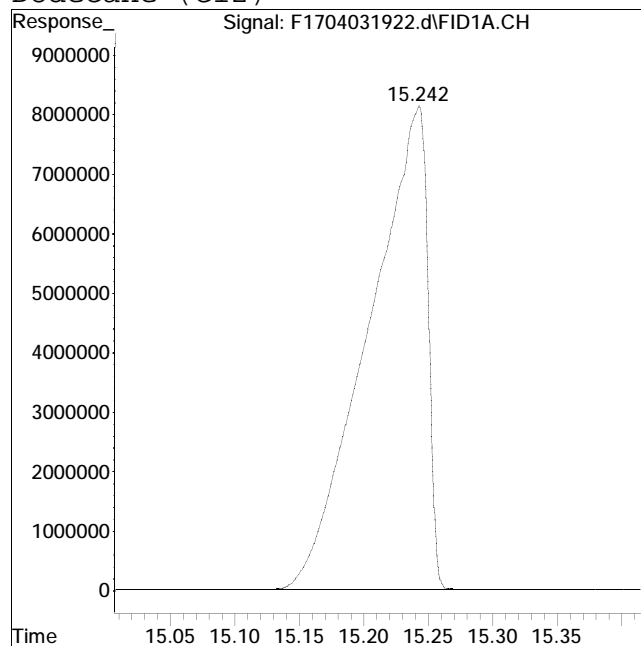
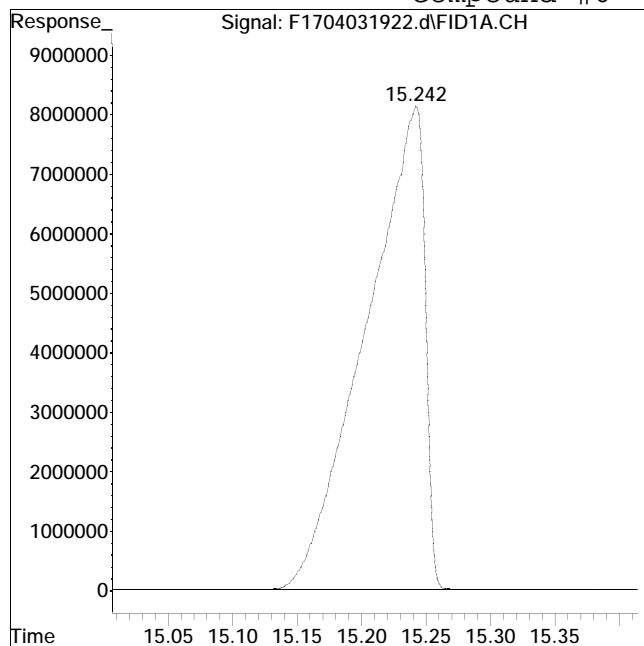
Manual Peak Response = 255528993 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 257585675

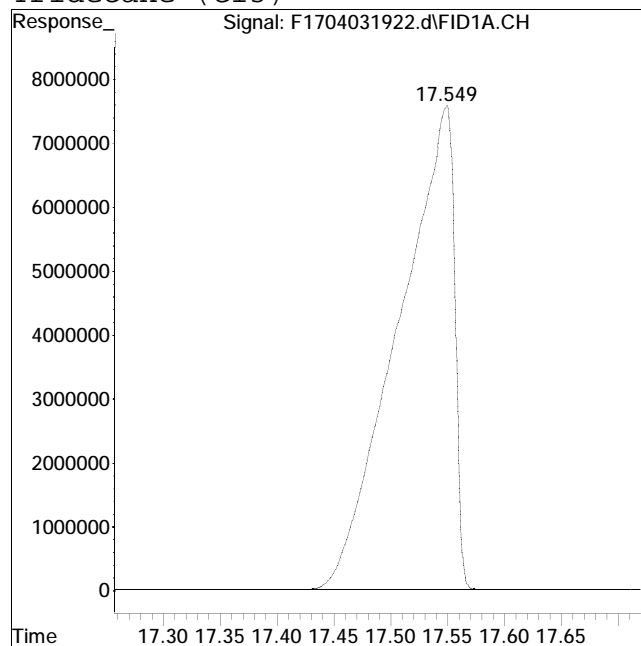
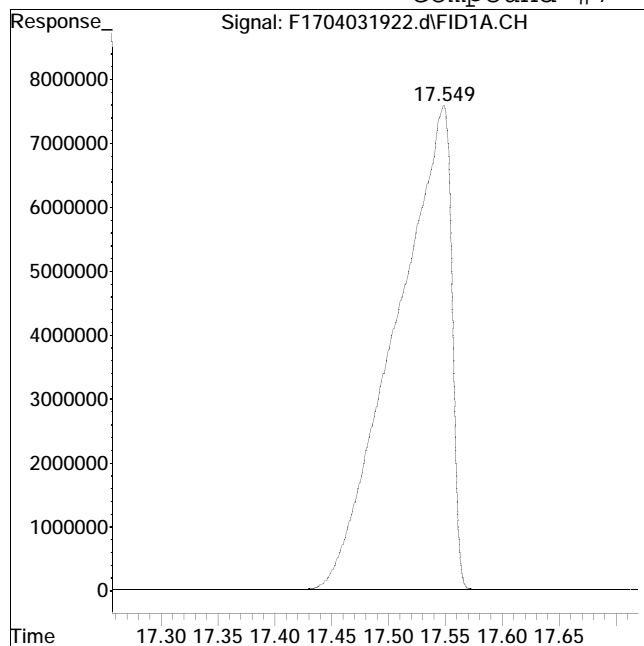
Manual Peak Response = 257703453 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 258036018

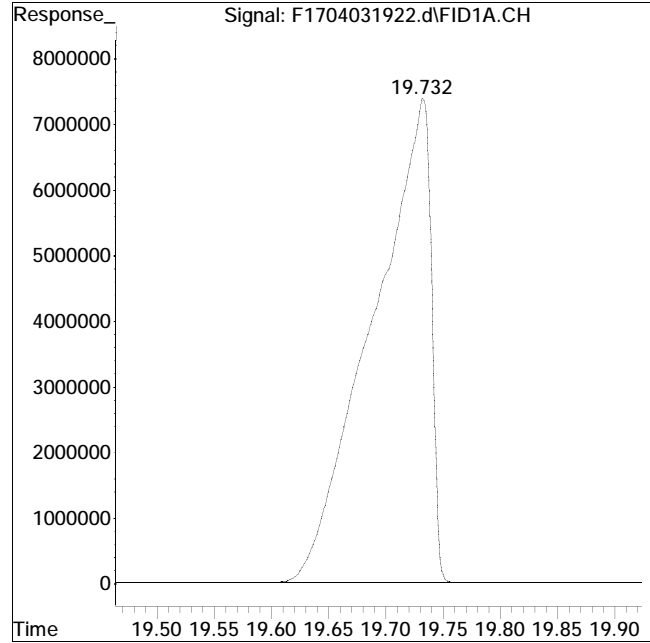
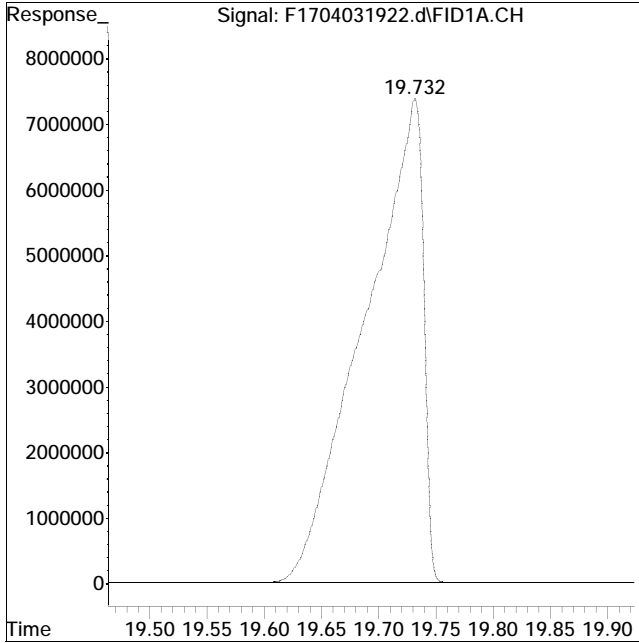
Manual Peak Response = 258332302 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 260999175

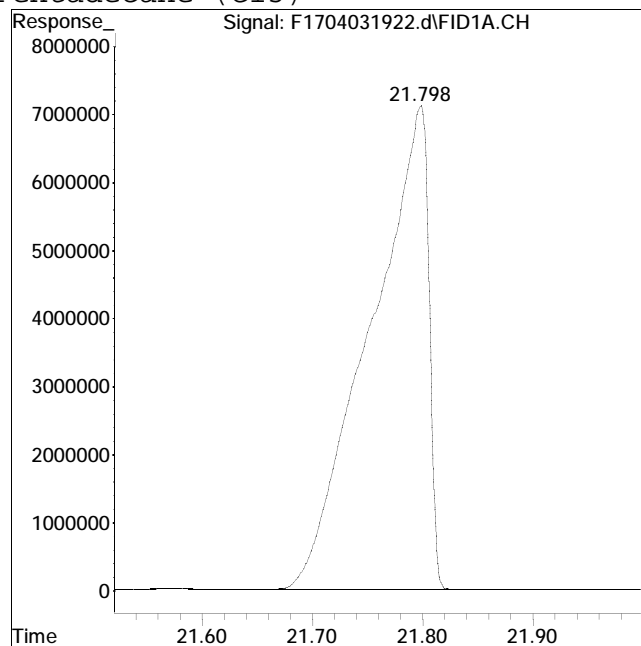
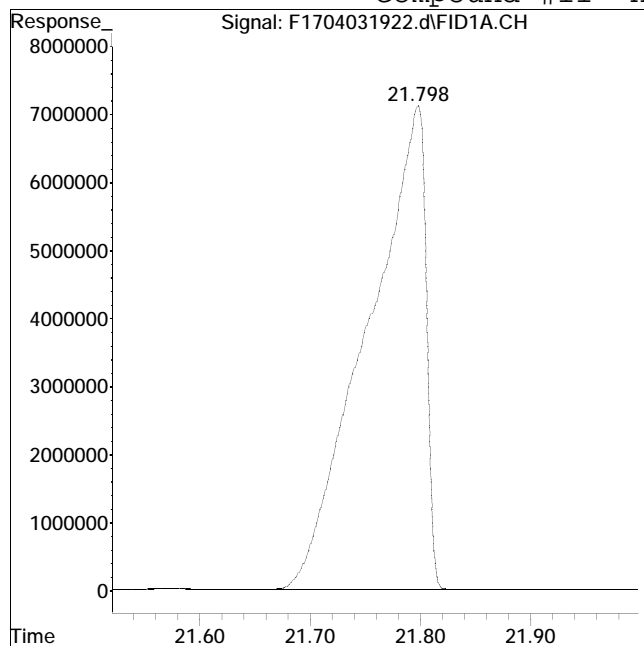
Manual Peak Response = 261067959 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 260858496

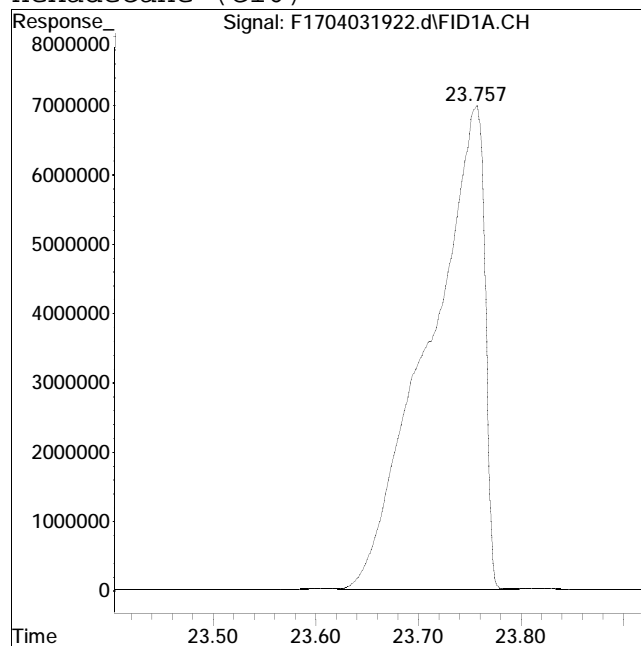
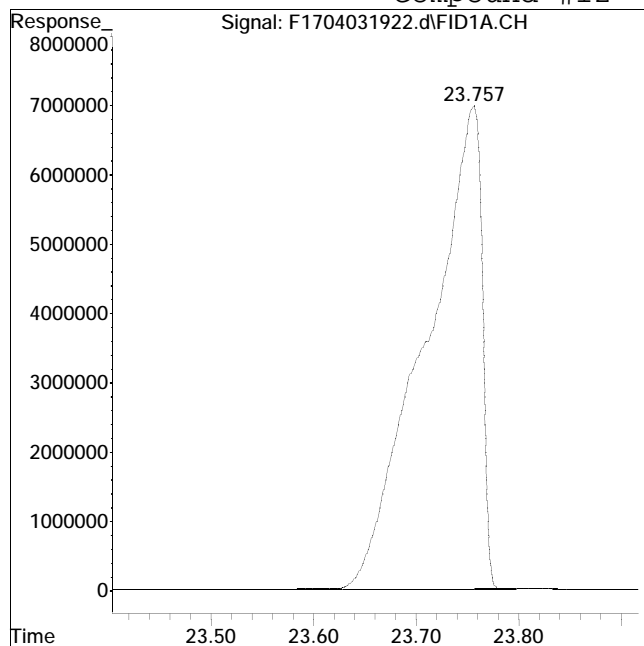
Manual Peak Response = 261081956 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 262381111

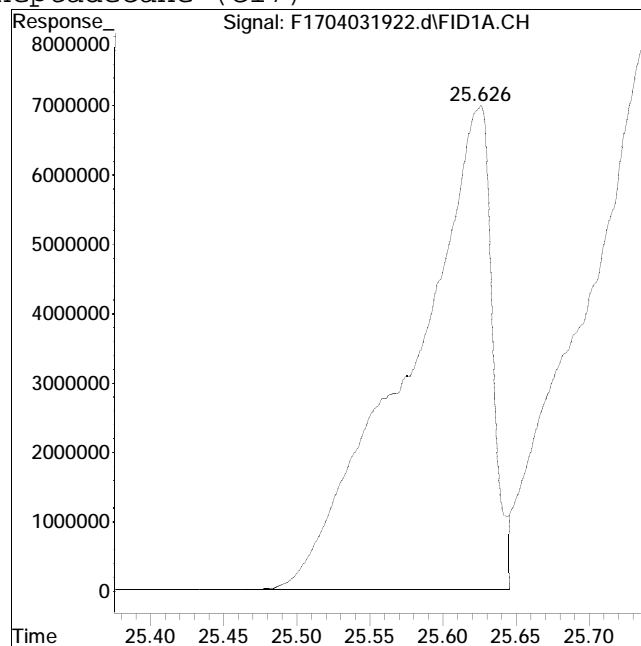
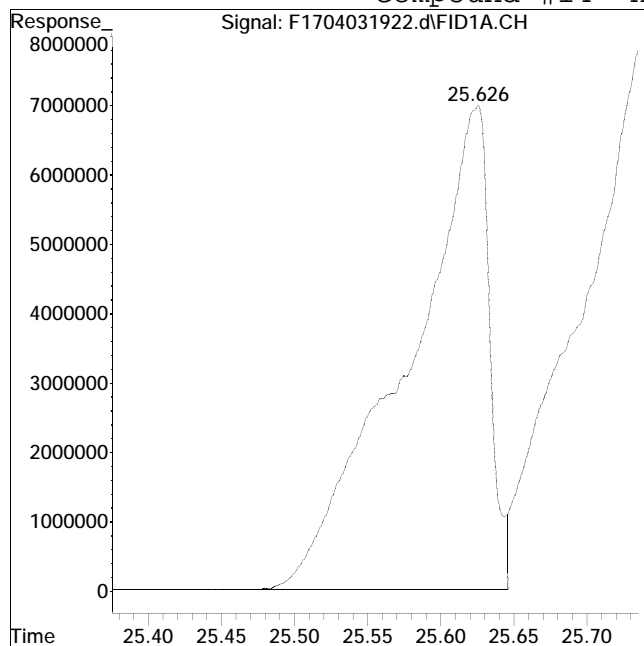
Manual Peak Response = 262660276 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 268860773

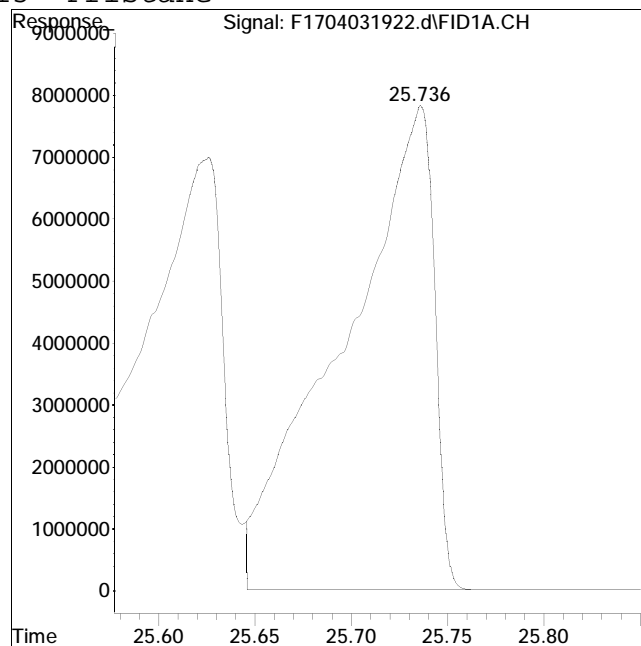
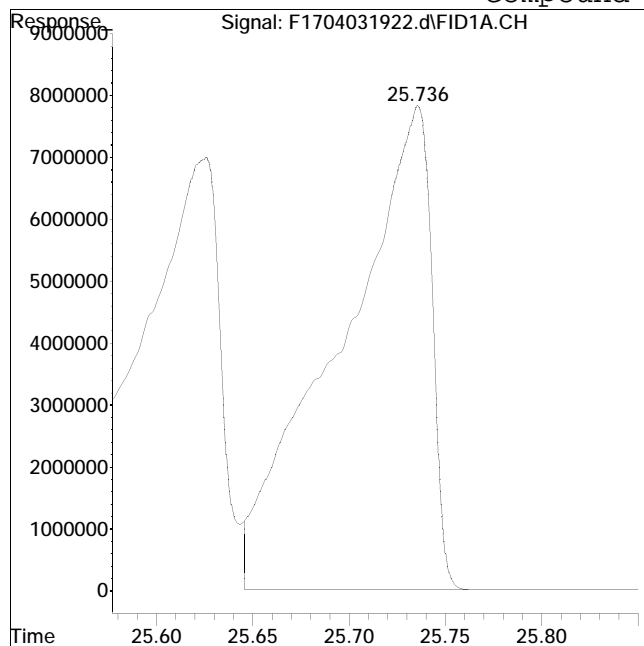
Manual Peak Response = 269585676 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #15: Pristane



Original Peak Response = 257331203

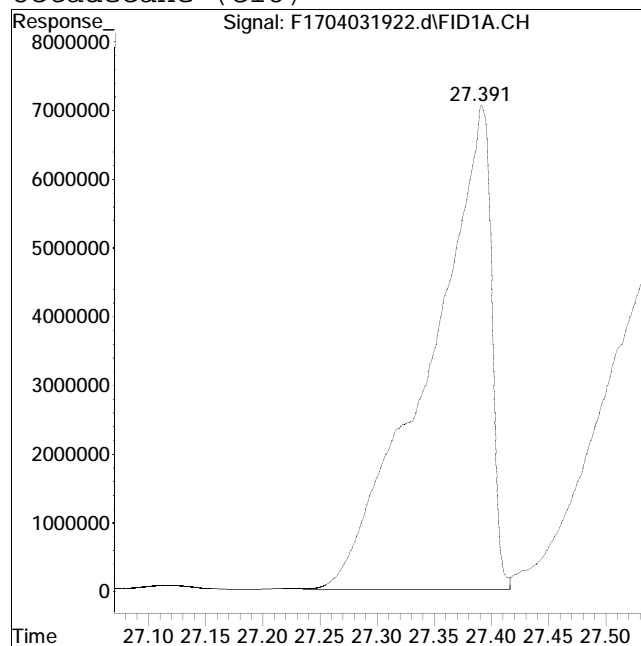
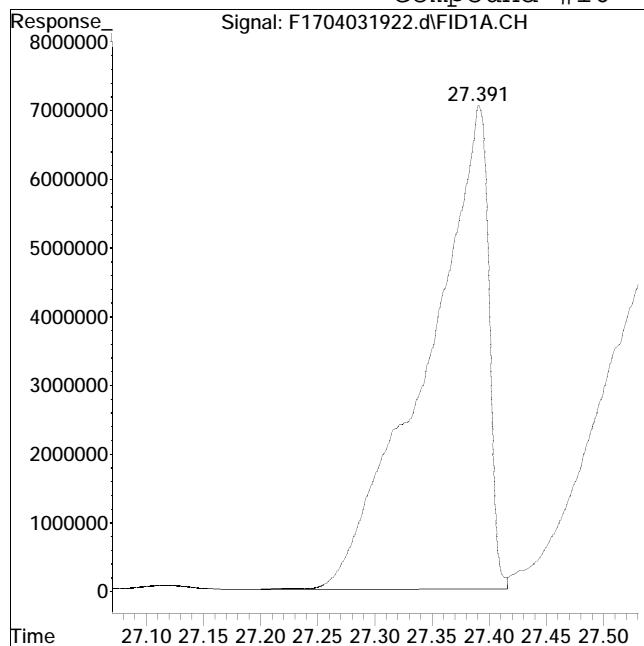
Manual Peak Response = 257064320 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 264747341

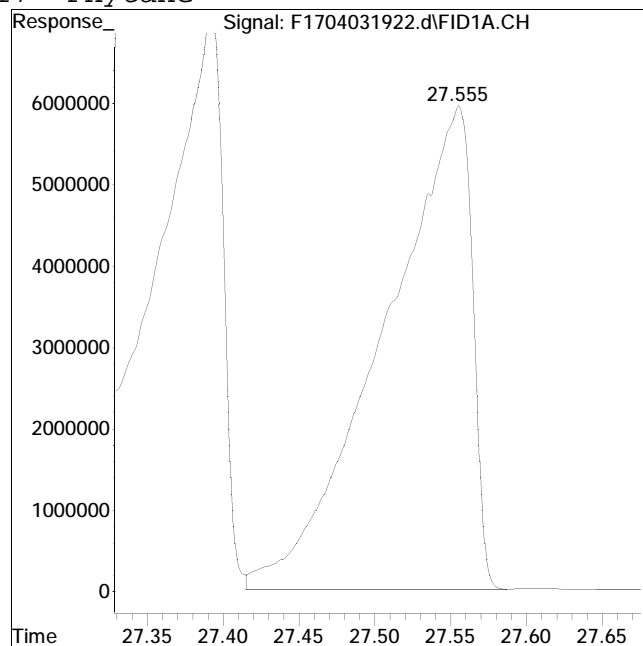
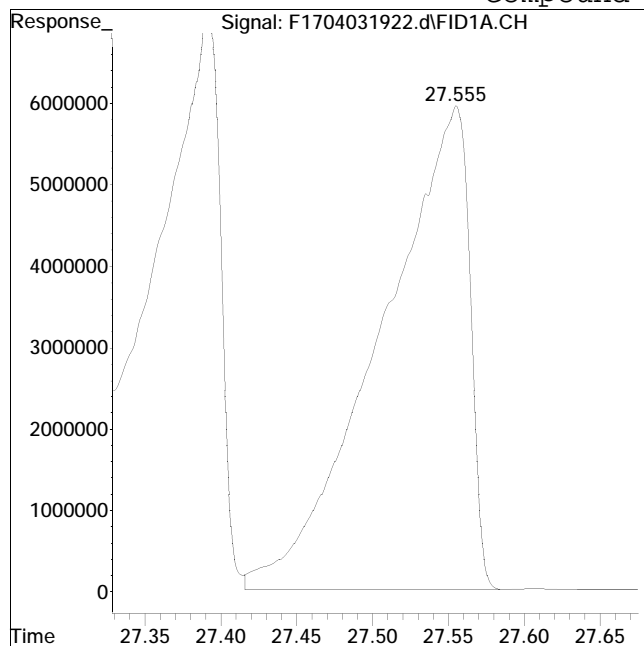
Manual Peak Response = 265066888 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #17: Phytane



Original Peak Response = 240101666

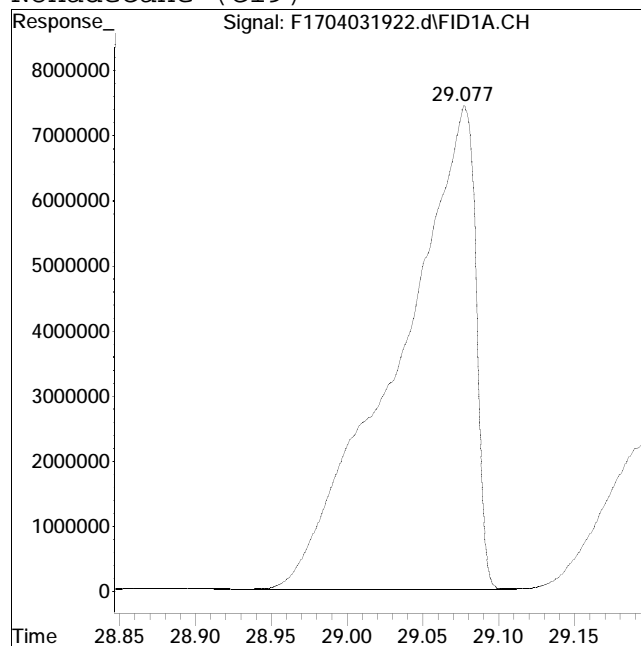
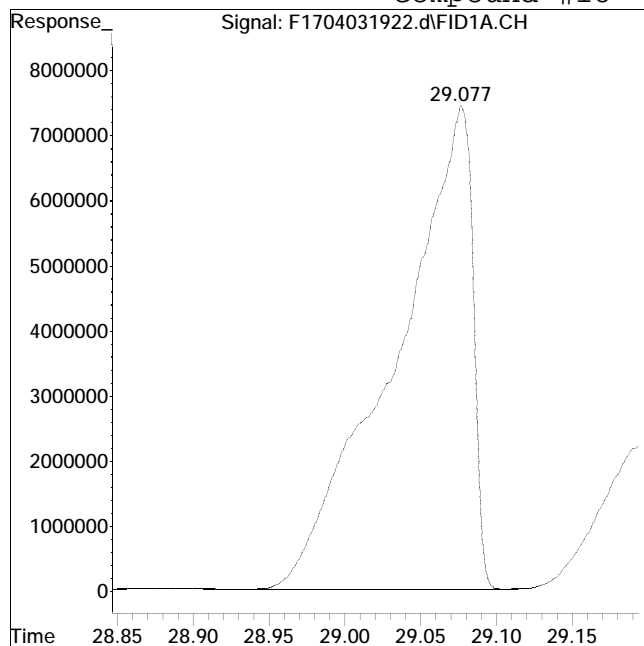
Manual Peak Response = 241580907 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 262665279

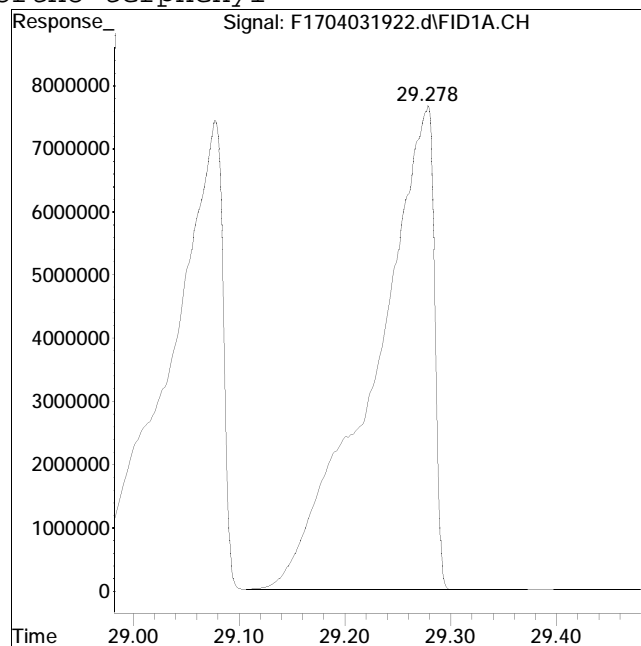
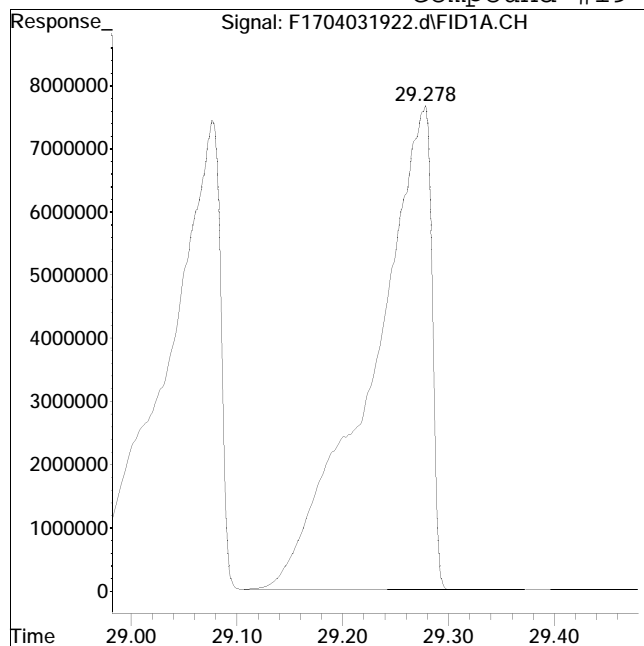
Manual Peak Response = 263241237 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #19: ortho-terphenyl



Original Peak Response = 298256736

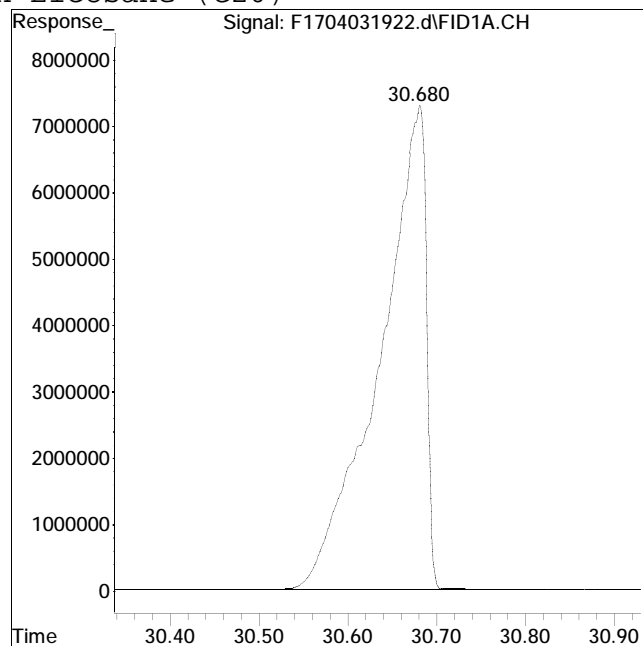
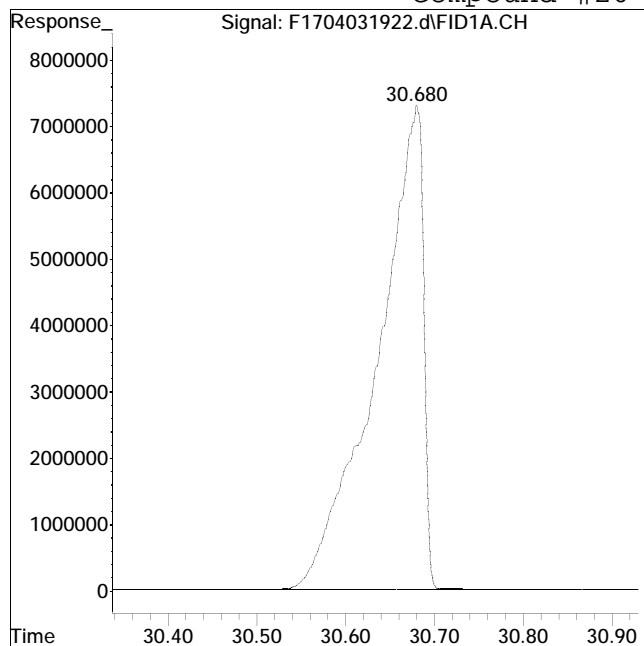
Manual Peak Response = 298808193 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 263355315

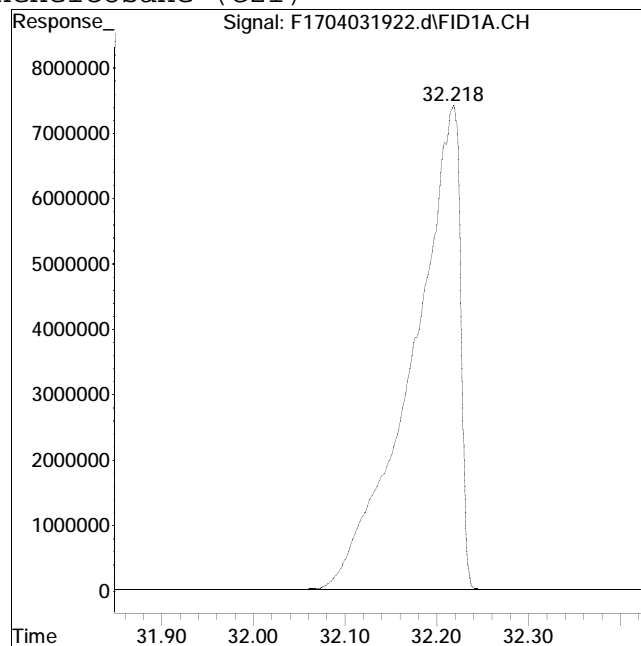
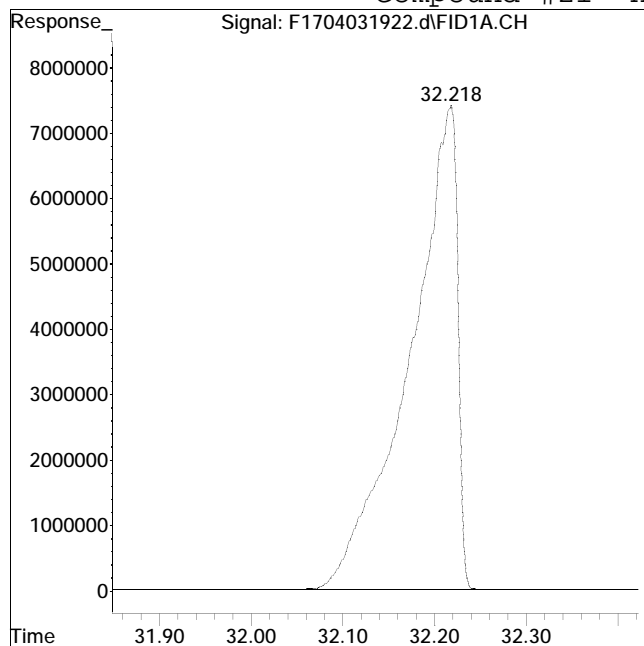
Manual Peak Response = 264014643 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 267289816

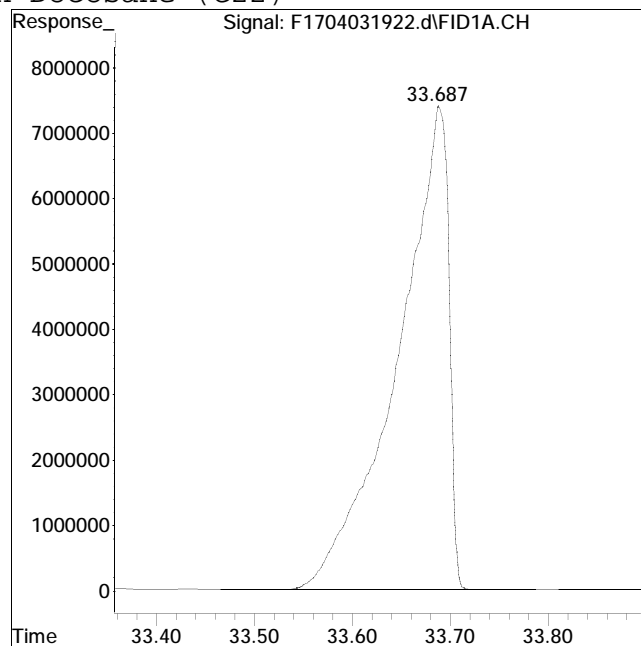
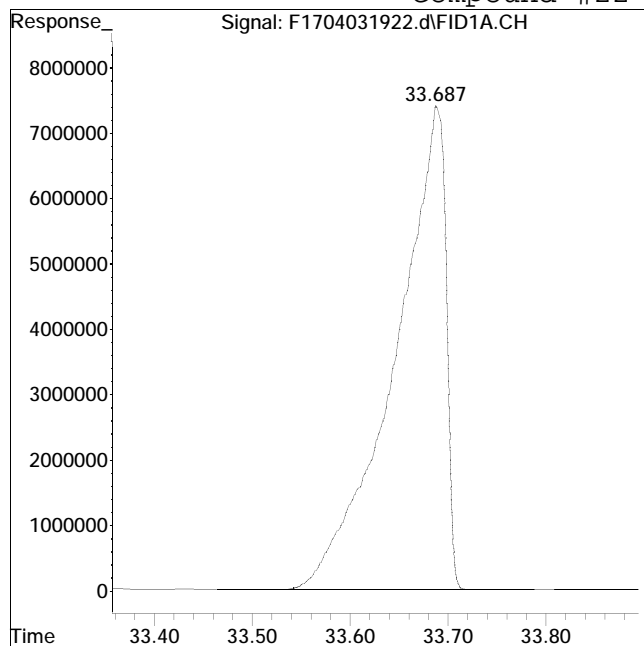
Manual Peak Response = 267586913 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 267197556

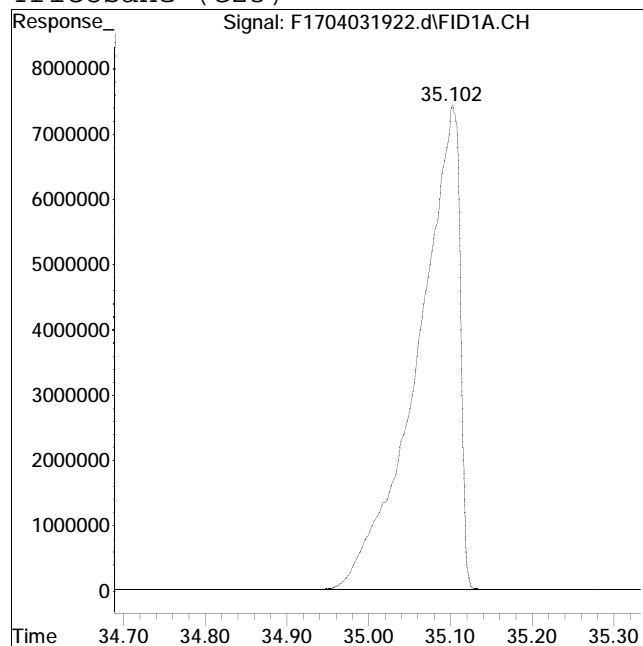
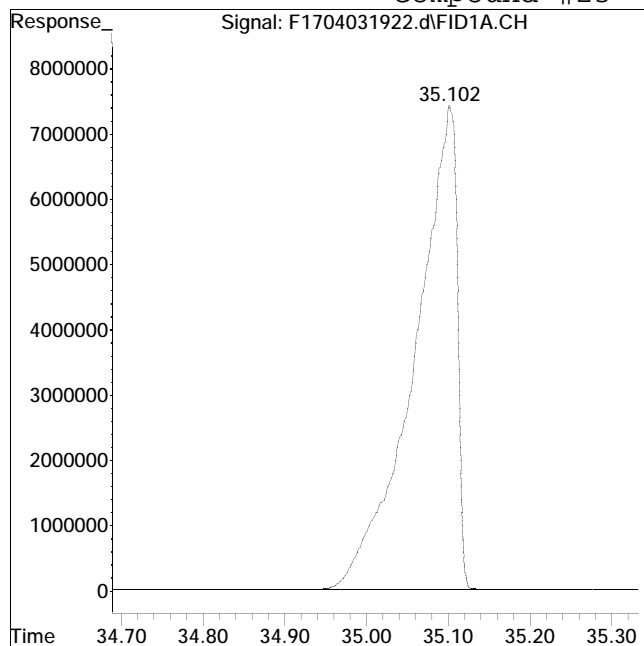
Manual Peak Response = 267368377 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 268137227

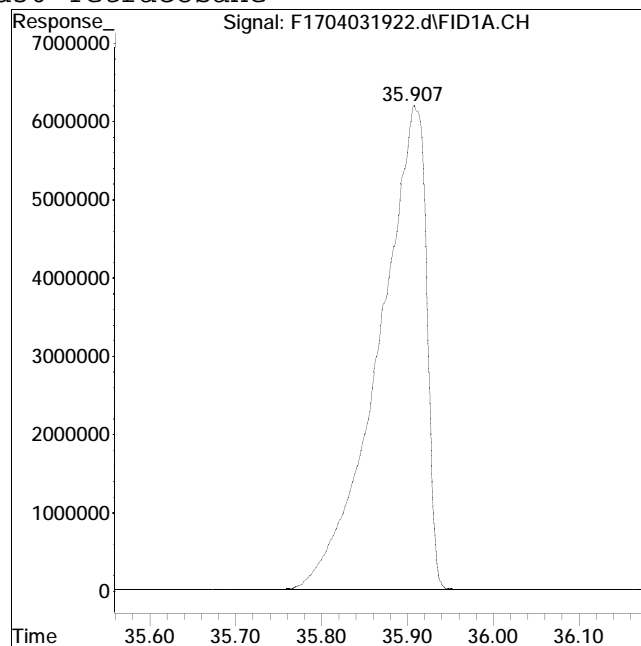
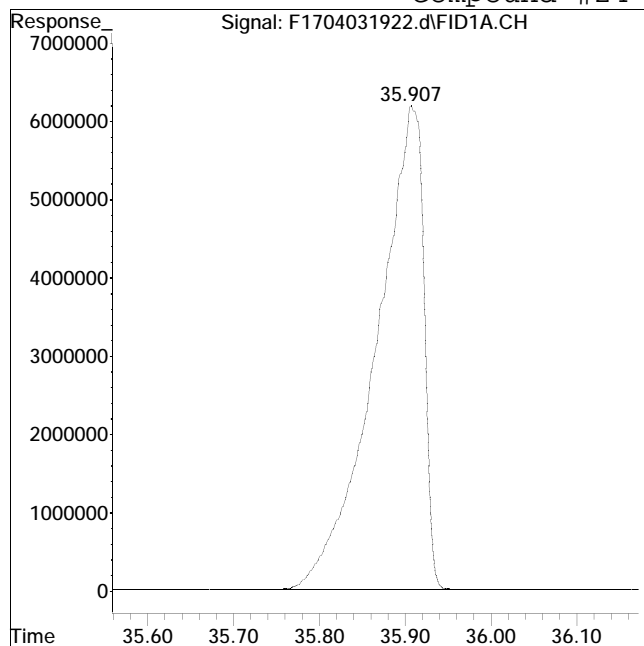
Manual Peak Response = 268382458 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #24: d50-Tetracosane



Original Peak Response = 238419470

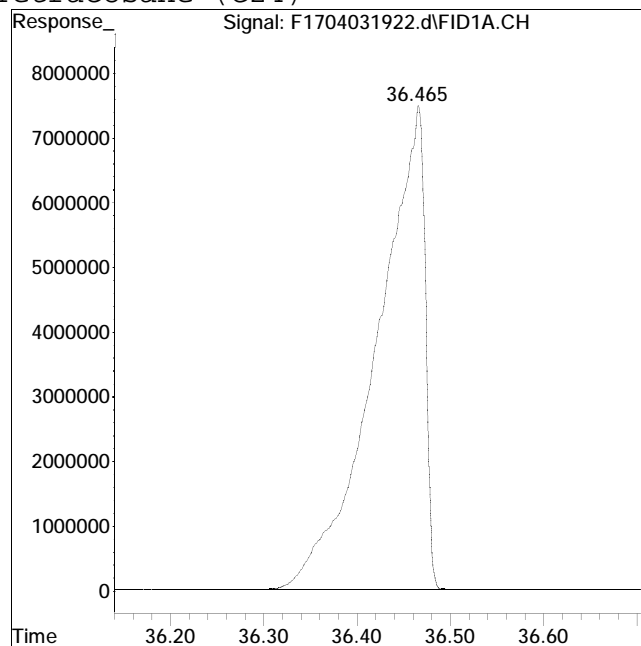
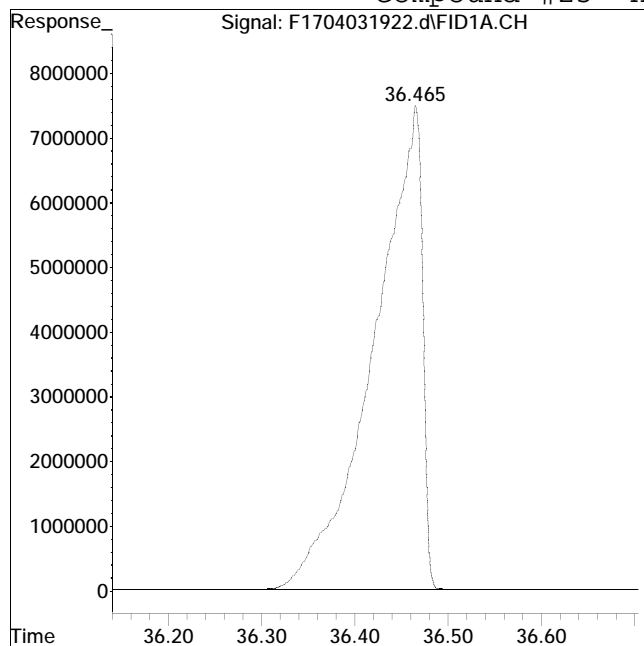
Manual Peak Response = 238599866 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 268542164

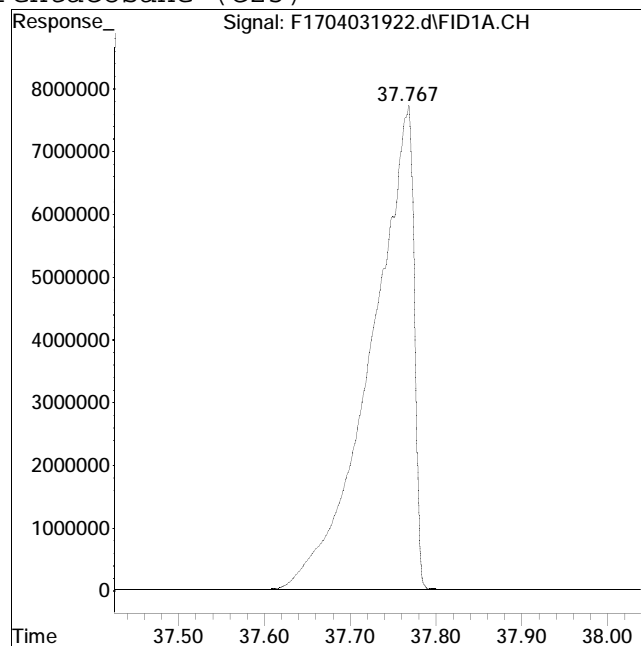
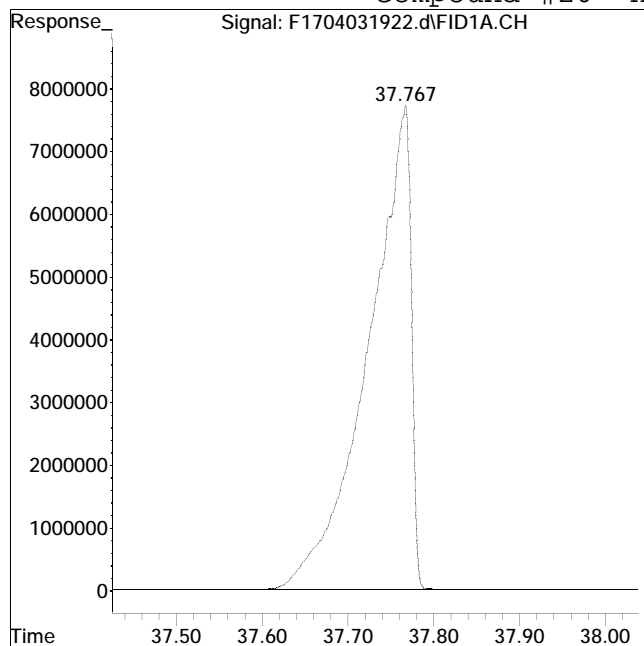
Manual Peak Response = 268829696 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 266072334

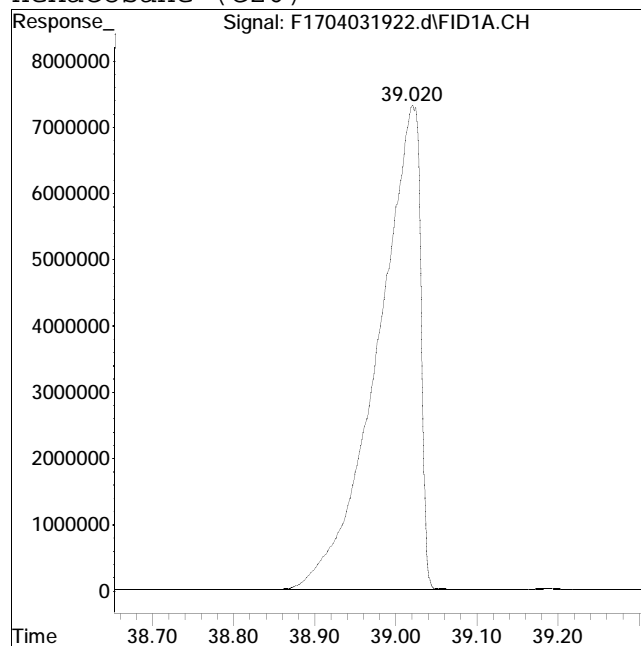
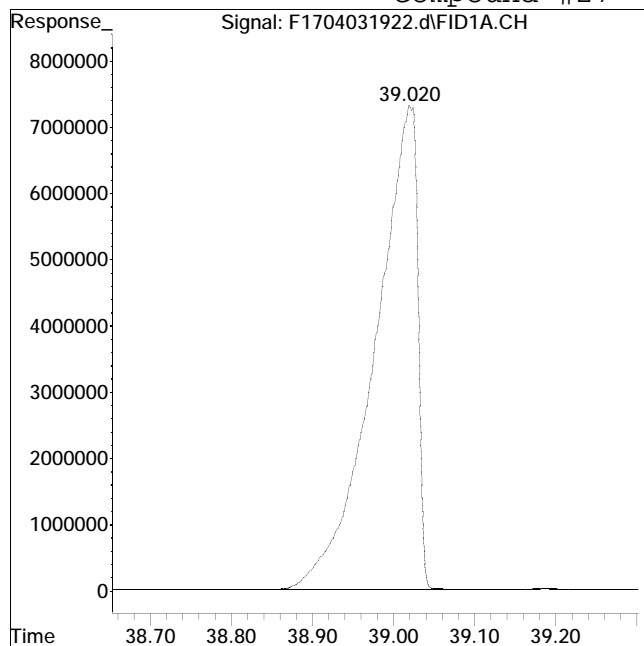
Manual Peak Response = 266324860 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 268049041

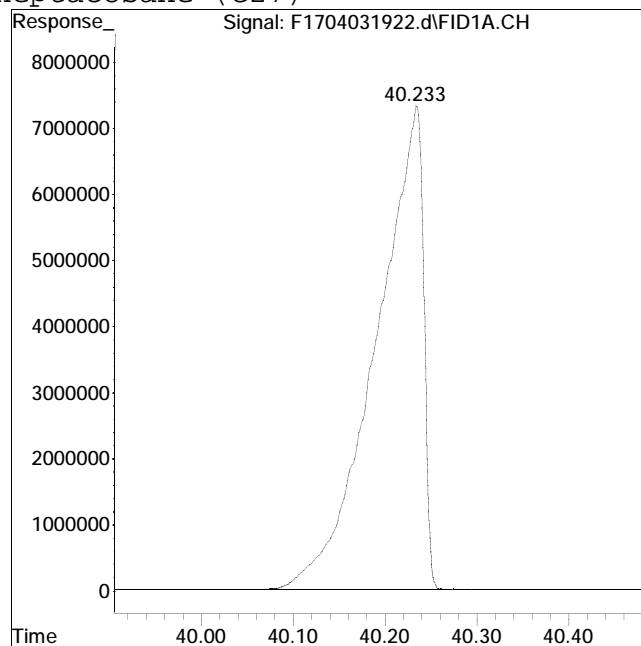
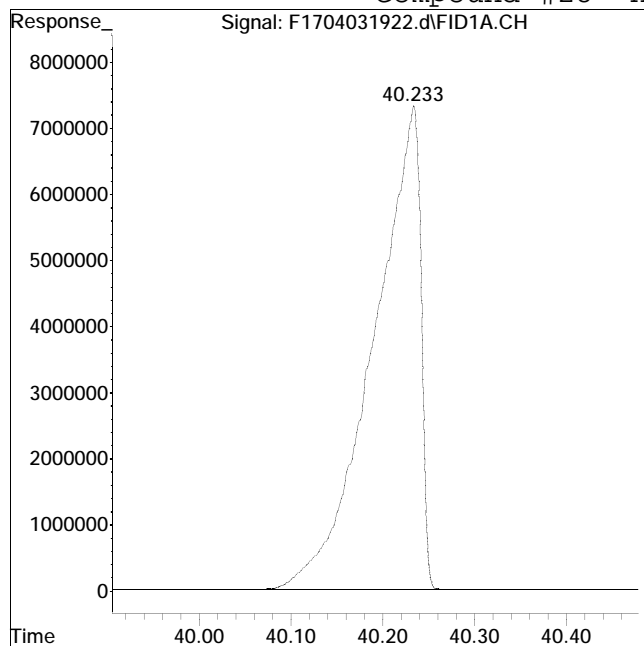
Manual Peak Response = 268354624 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 260742893

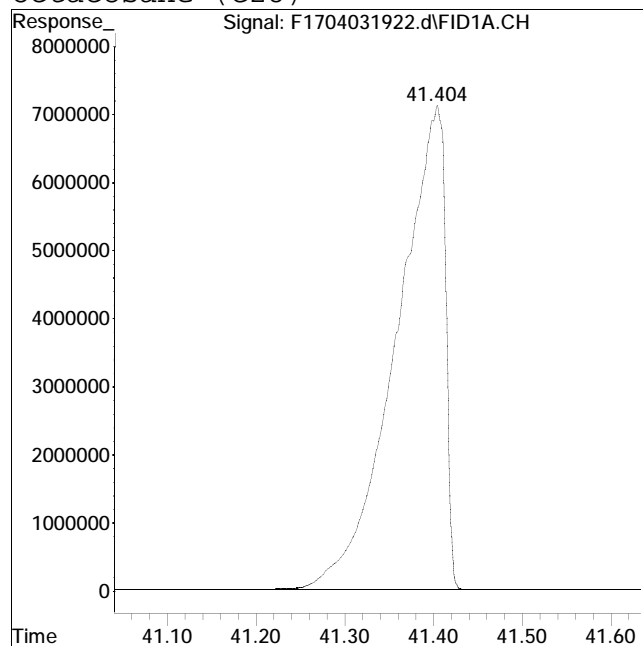
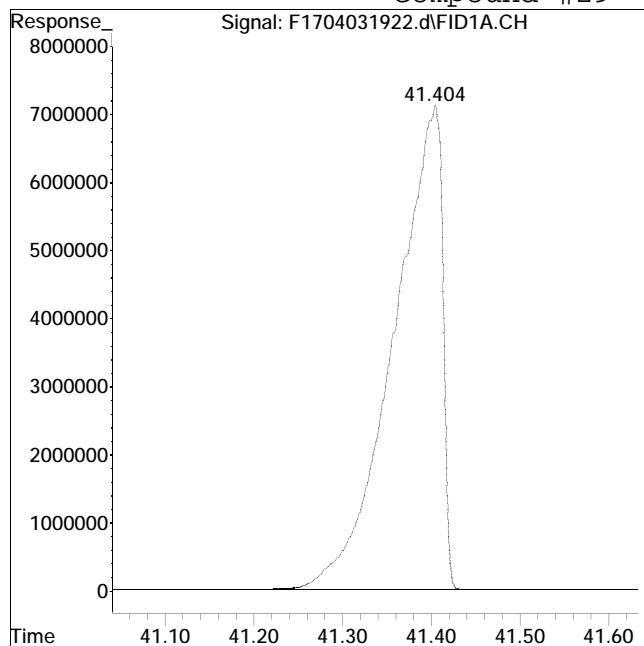
Manual Peak Response = 260866582 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 270901774

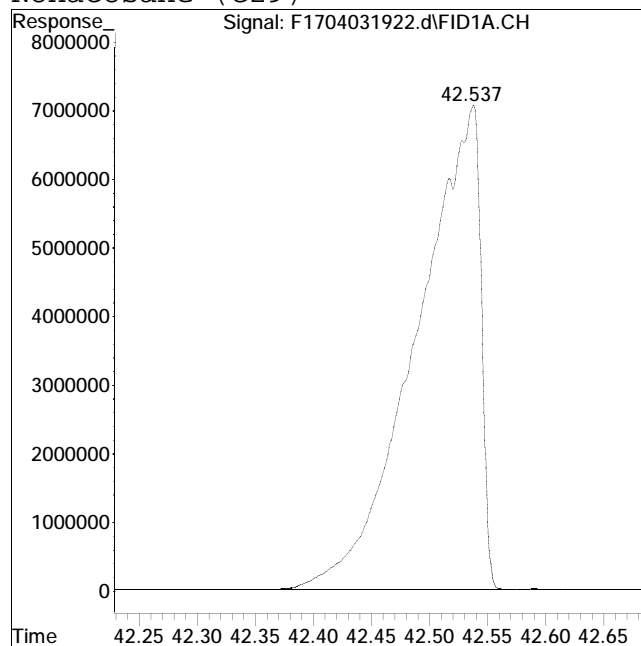
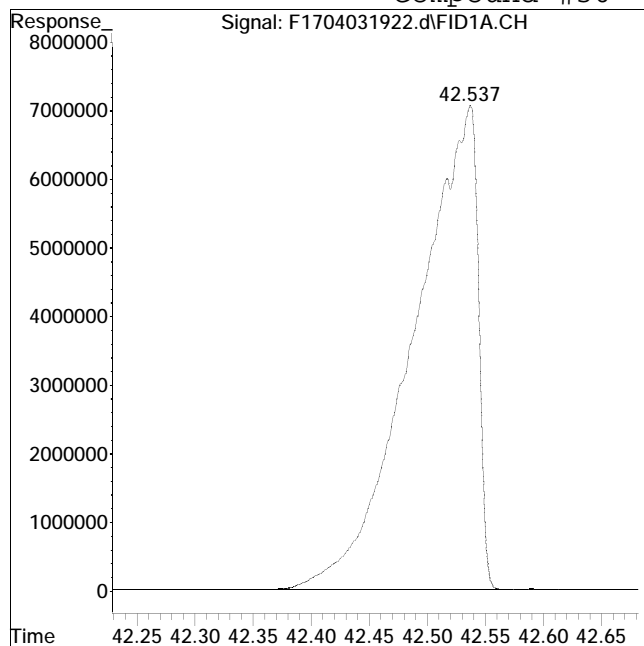
Manual Peak Response = 271181052 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 269340935

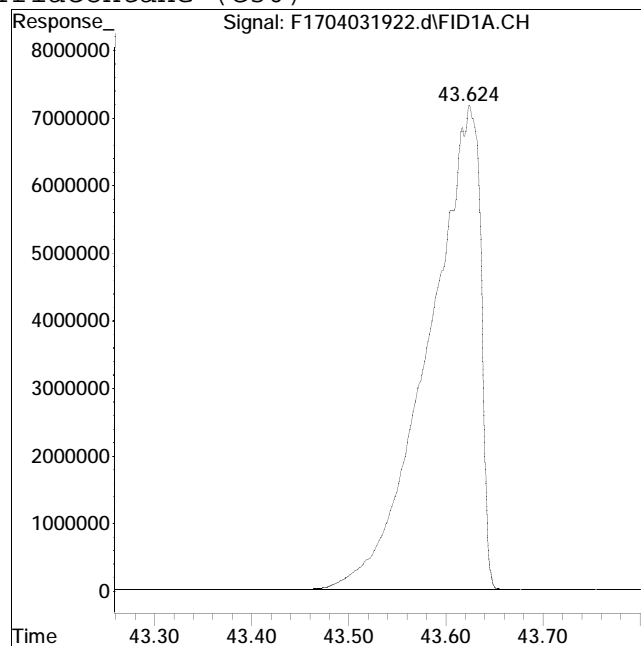
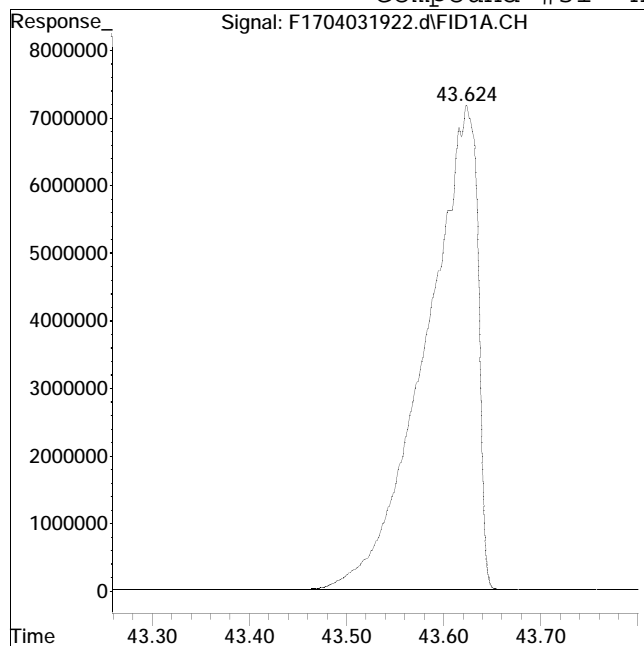
Manual Peak Response = 269617396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 266600236

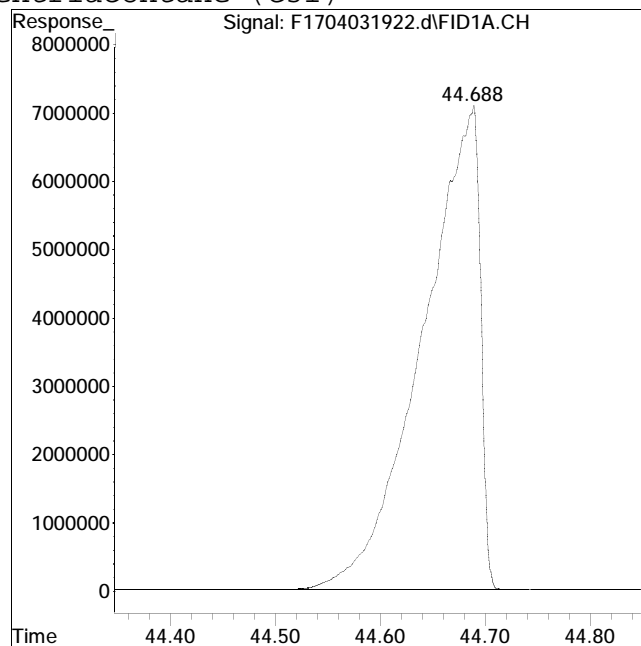
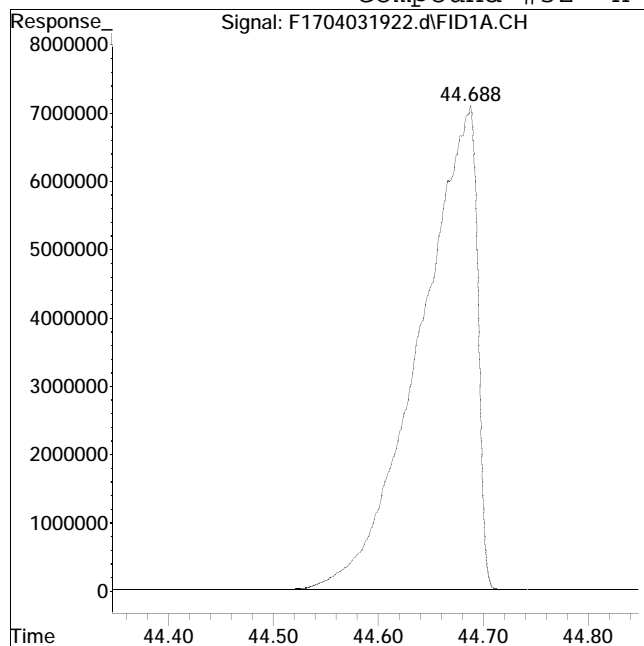
Manual Peak Response = 266884695 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 268500095

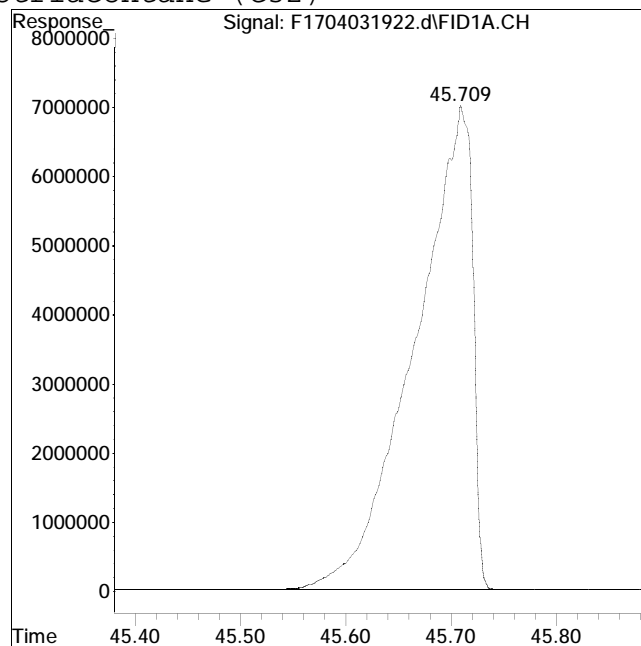
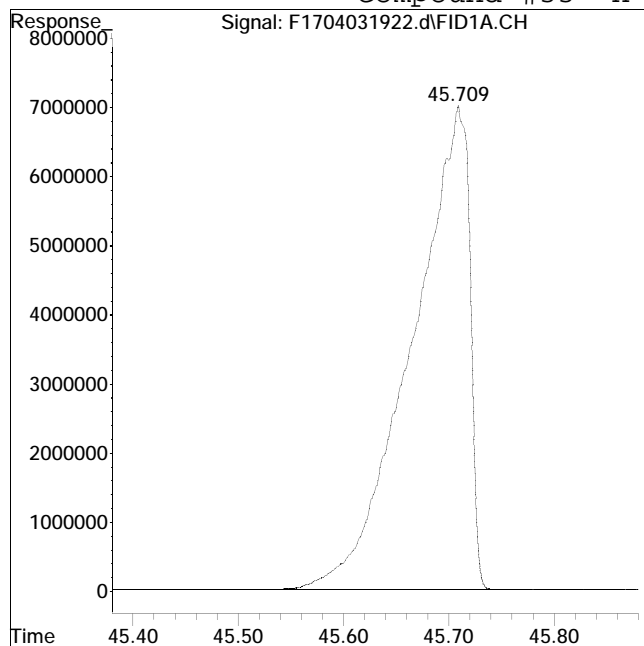
Manual Peak Response = 268625567 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 265500653

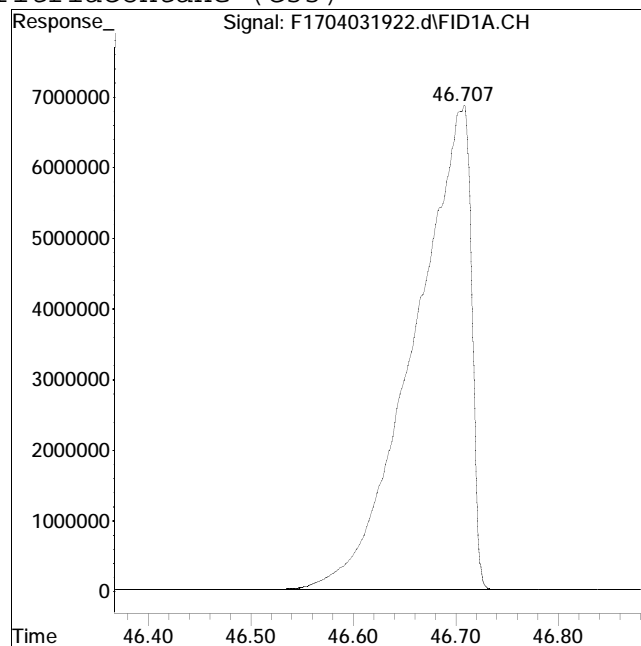
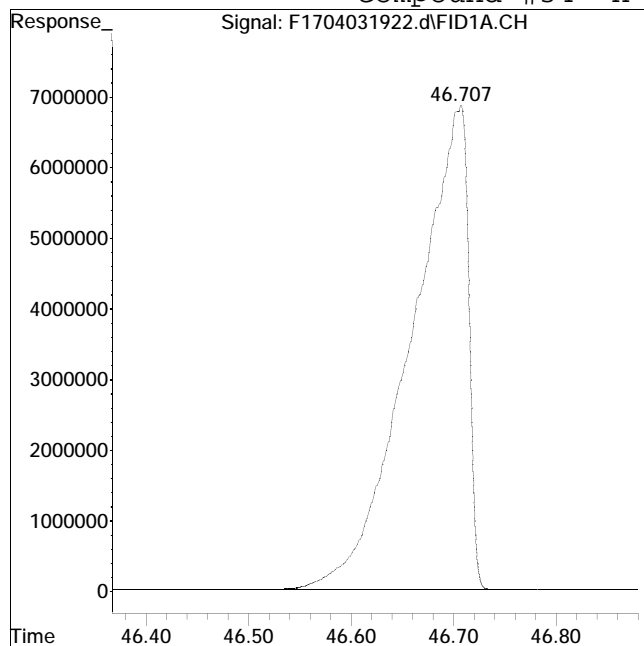
Manual Peak Response = 265703383 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 263322302

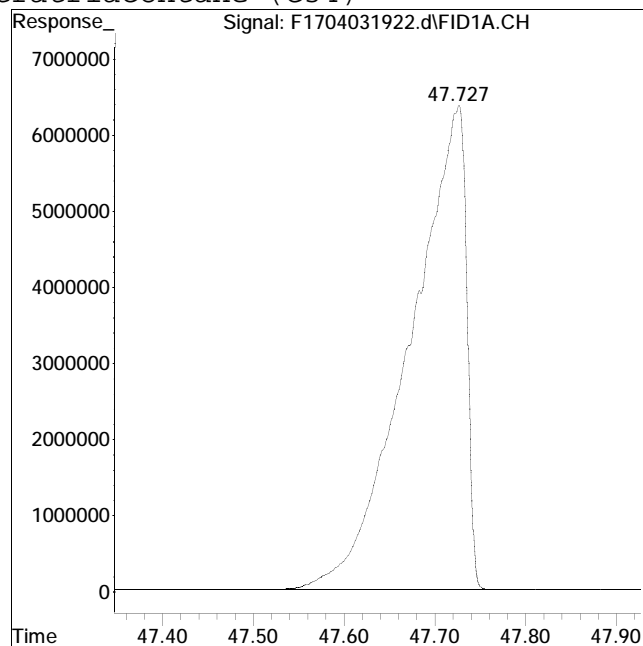
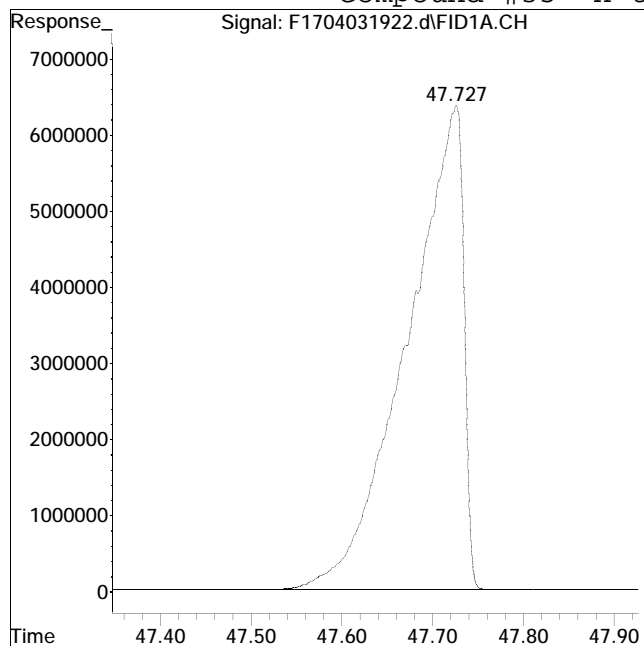
Manual Peak Response = 263472349 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 273645752

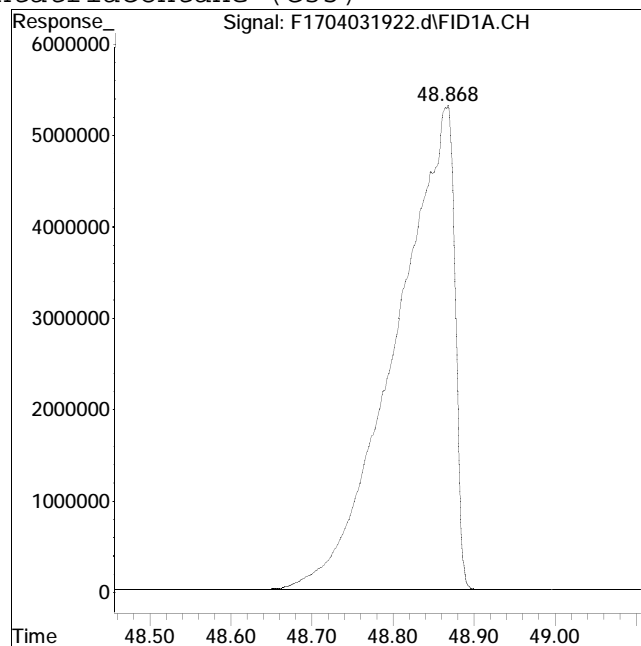
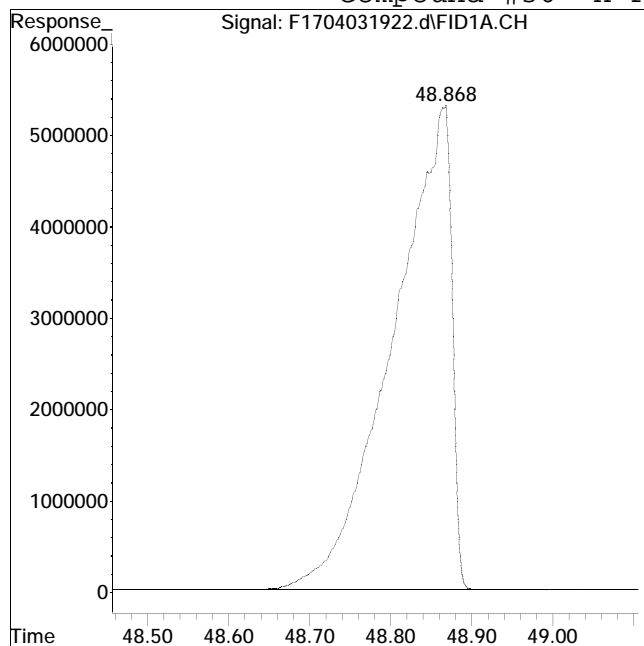
Manual Peak Response = 273753005 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 265088189

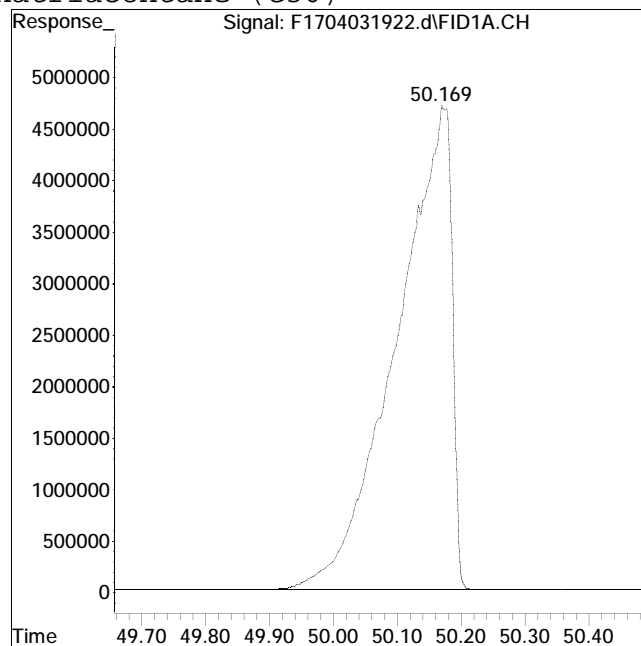
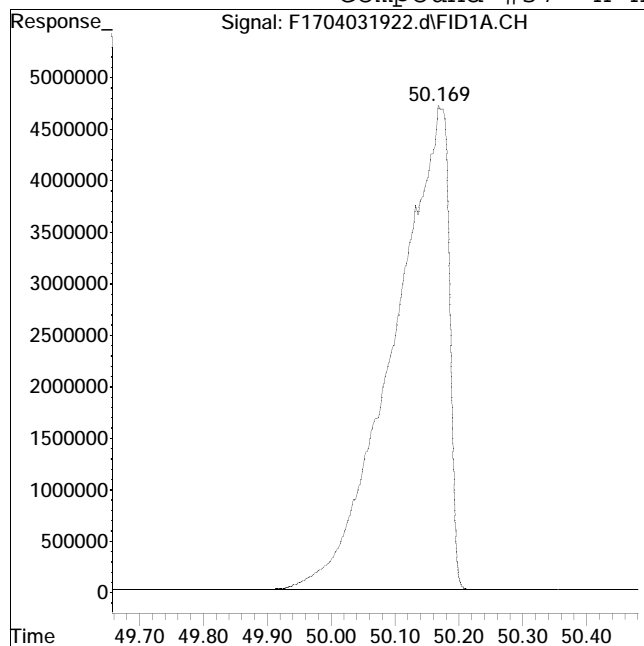
Manual Peak Response = 265153414 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 281996907

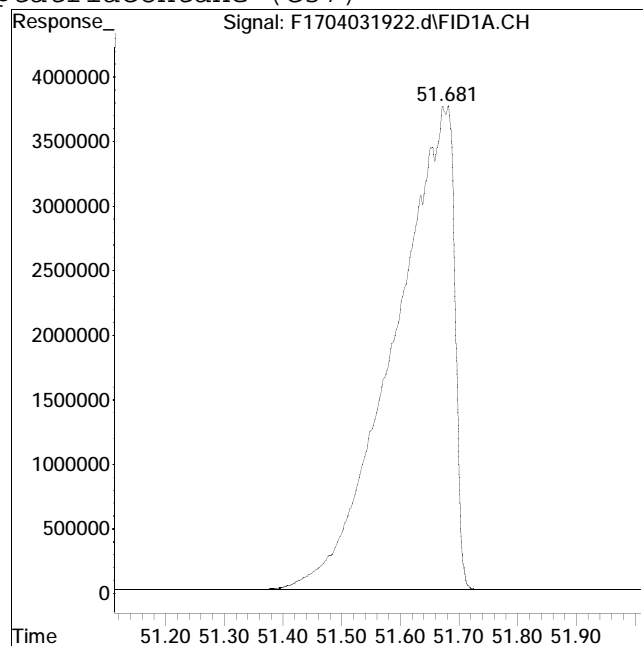
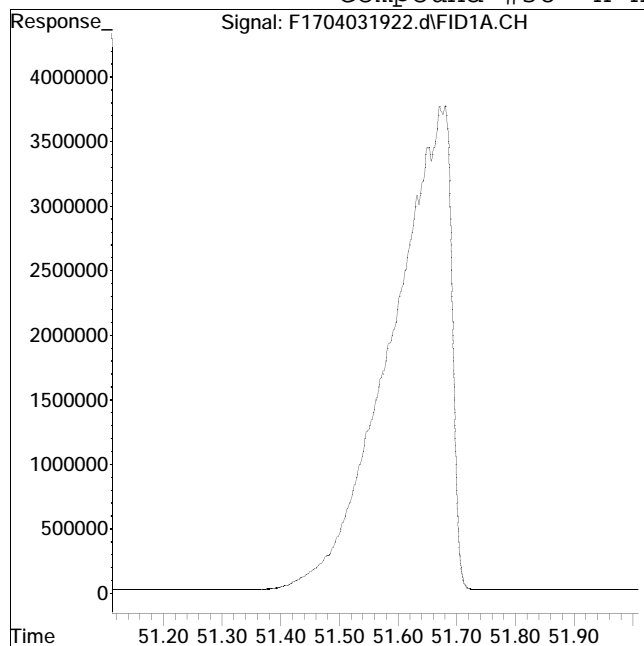
Manual Peak Response = 282085113 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 0

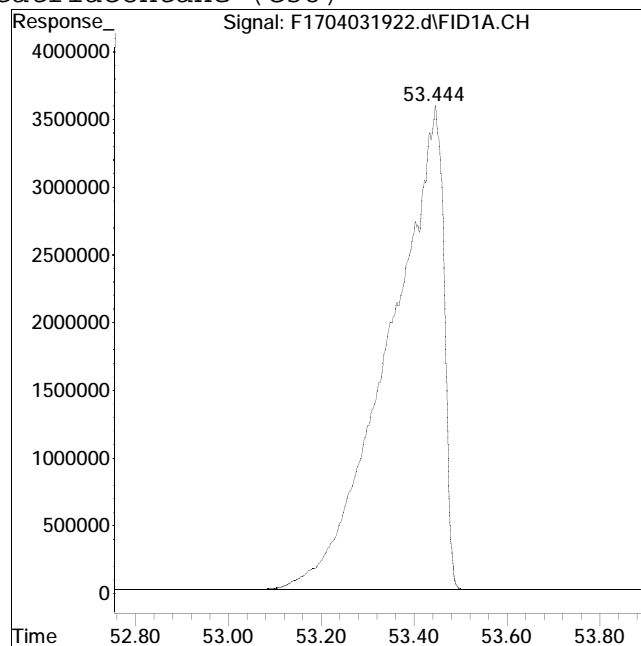
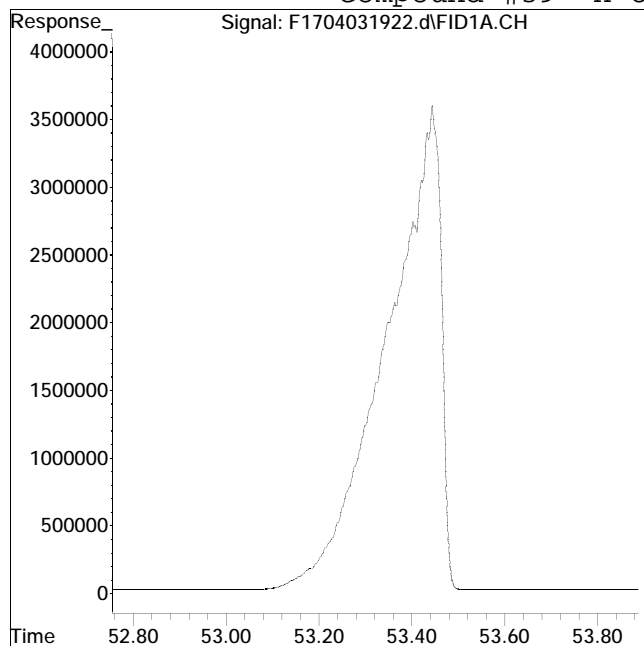
Manual Peak Response = 266042497 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

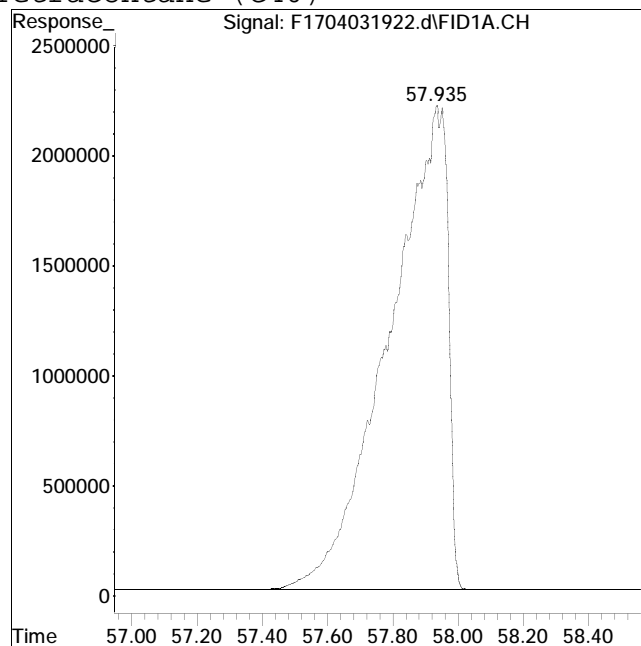
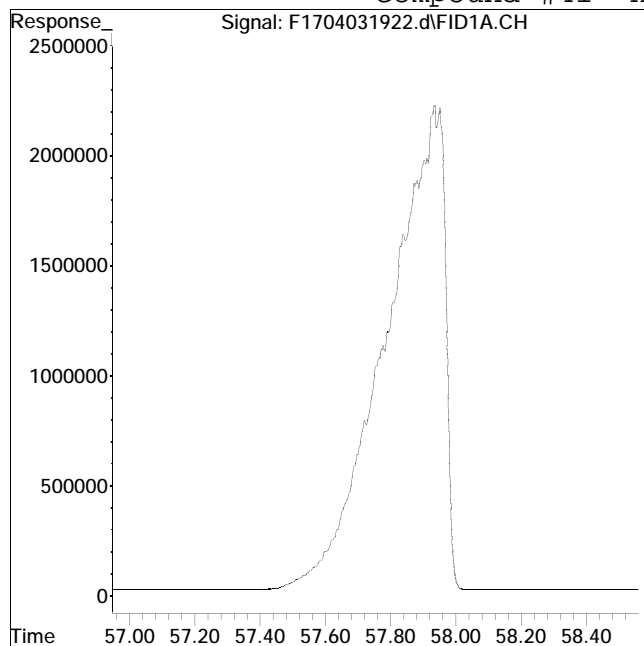
Manual Peak Response = 288788418 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031922.d Operator : FID17:WR
Date Inj'd : 4/4/2019 5:23 am Instrument : FID17
Sample : I1704031905F Quant Date : 4/15/2019 3:53 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 275042645 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031924.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 6:51 am
 Operator : FID17:WR
 Sample : I1704031906F
 Misc : WG1226965,FRBA87,500ug/ml
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:01:28 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:59:27 2019
 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	31.237	70131742	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.325	763919308	506.130	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery = 1012.26%#		
24) s d50-Tetracosane	35.959	617117838	511.883	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery = 1023.77%#		
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL
7) t n-Tridecane (C13)	0.000	0	N.D.	ug/mL
9) t n-Tetradecane (C14)	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
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)	0.000	0	N.D.	ug/mL
17) t Phytane	0.000	0	N.D.	ug/mL
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
25) t n-Tetracosane (C24)	0.000	0	N.D.	ug/mL
26) t n-Pentacosane (C25)	0.000	0	N.D.	ug/mL
27) t n-Hexacosane (C26)	0.000	0	N.D.	ug/mL
28) t n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031924.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 6:51 am
 Operator : FID17:WR
 Sample : I1704031906F
 Misc : WG1226965,FRBA87,500ug/ml
 ALS Vial : 12 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:01:28 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 15:59:27 2019
 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
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL

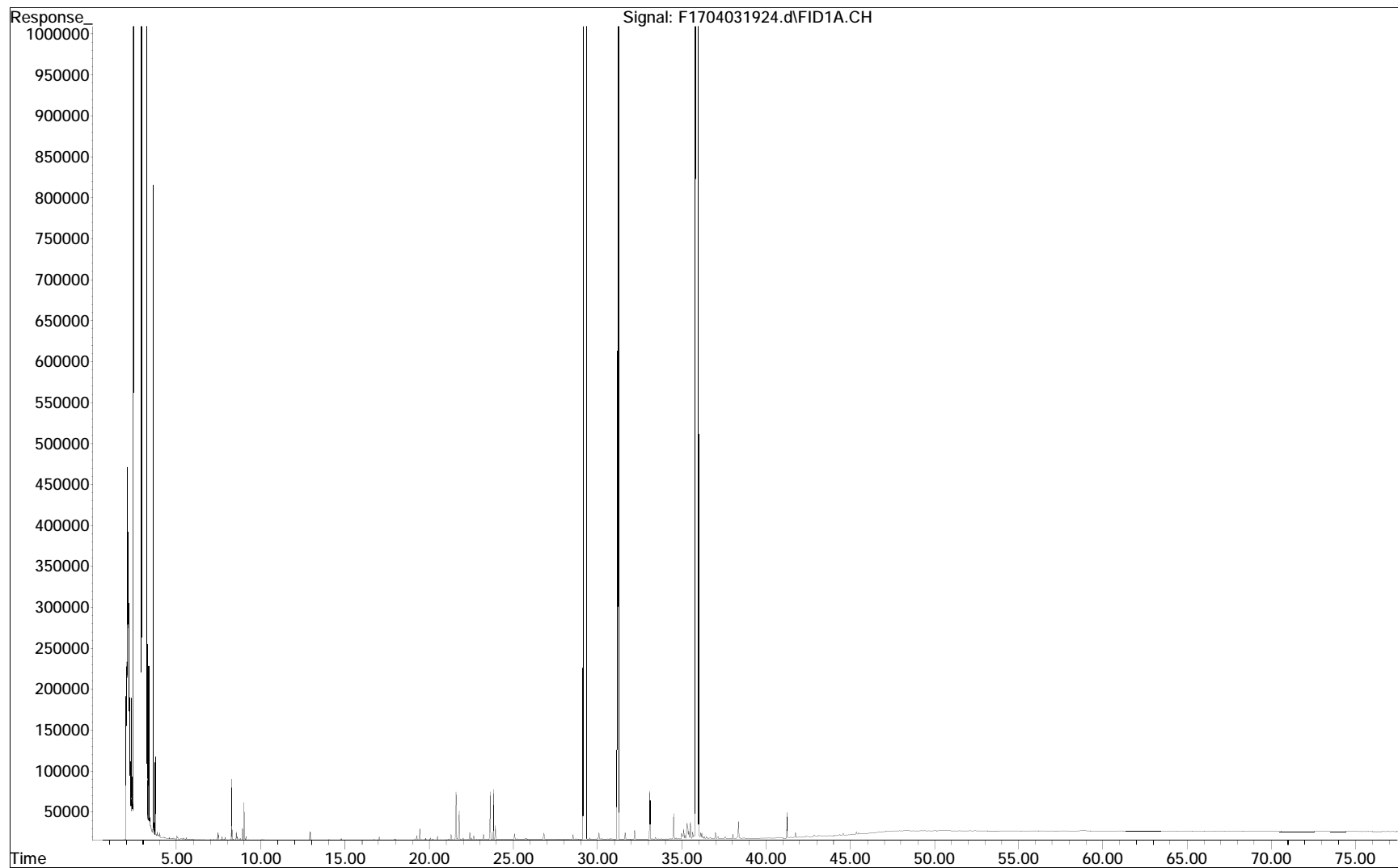
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

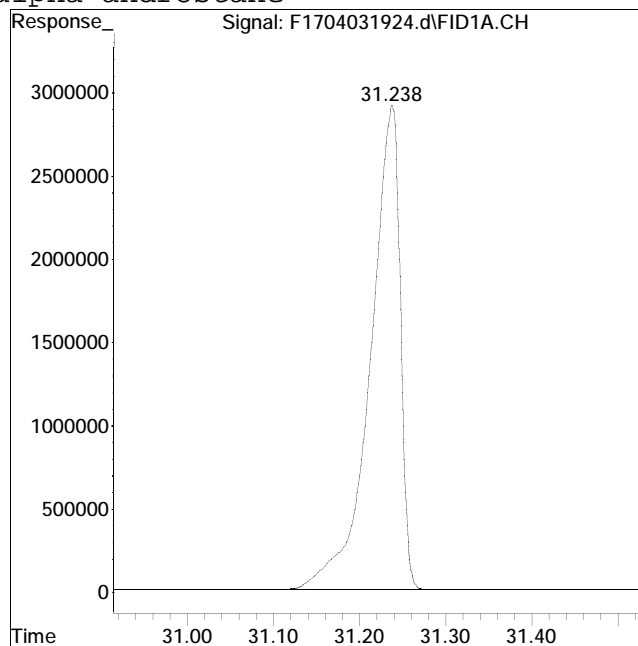
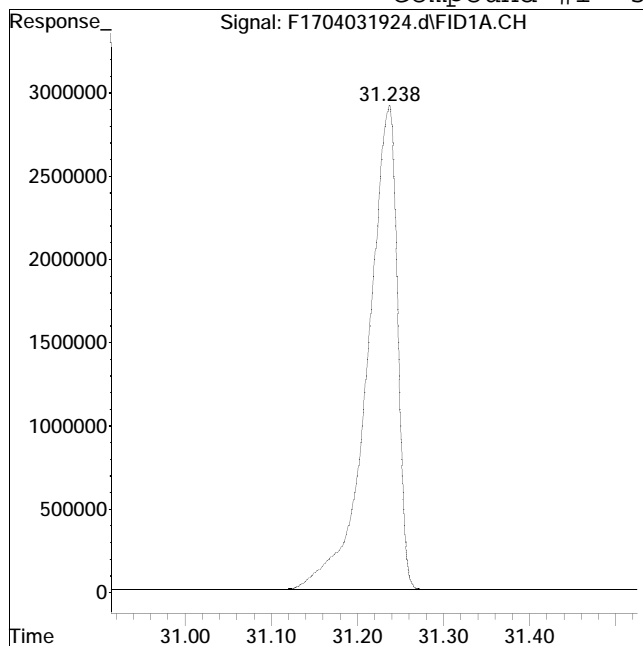
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031924.d
Operator : FID17:WR
Acquired : 04 Apr 2019 6:51 am using AcqMethod FID17.M
Sample Name: I1704031906F
Instrument: FID17
Misc Info : WG1226965,FRBA87,500ug/ml
Vial Number: 12
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031924.d Operator : FID17:WR
Date Inj'd : 4/4/2019 6:51 am Instrument : FID17
Sample : I1704031906F Quant Date : 4/15/2019 3:59 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 70092405

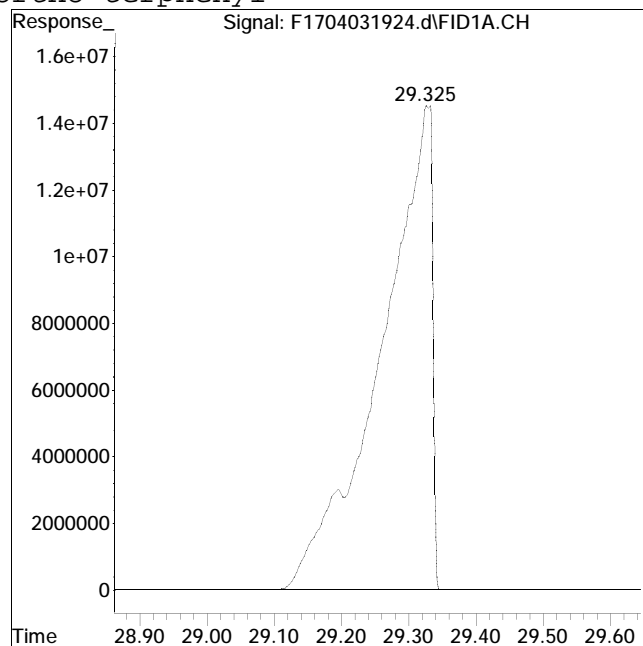
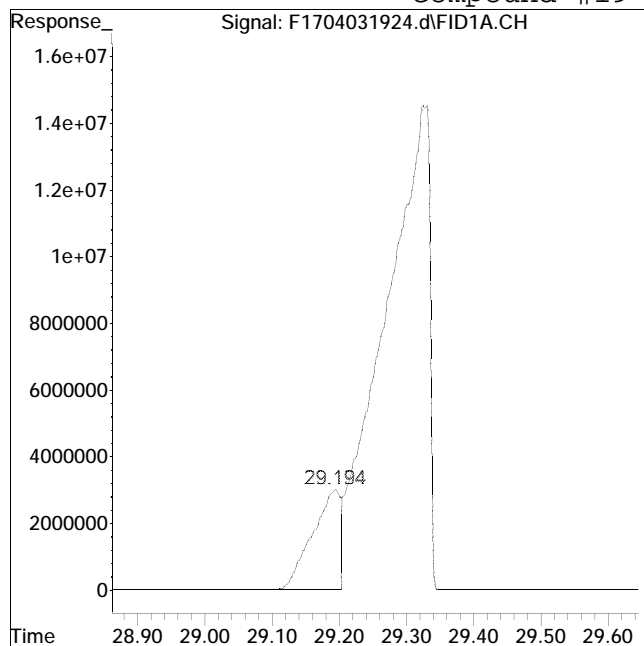
Manual Peak Response = 70131742 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031924.d Operator : FID17:WR
Date Inj'd : 4/4/2019 6:51 am Instrument : FID17
Sample : I1704031906F Quant Date : 4/15/2019 3:59 pm

Compound #19: ortho-terphenyl



Original Peak Response = 85321814

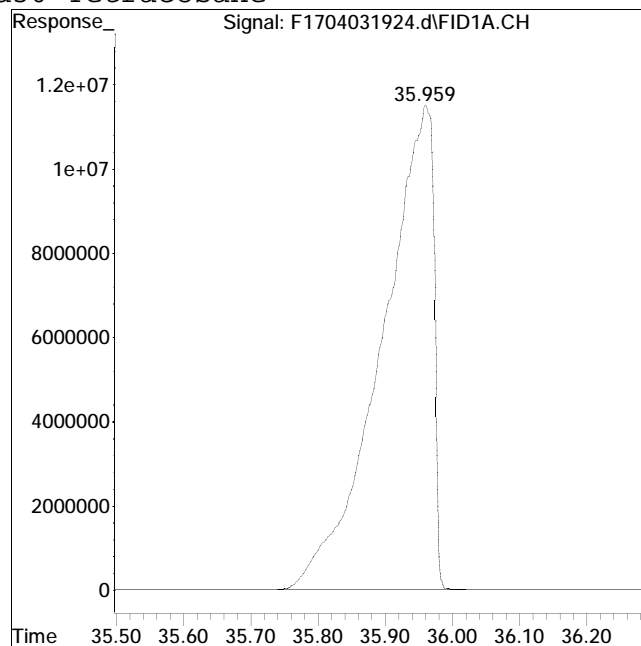
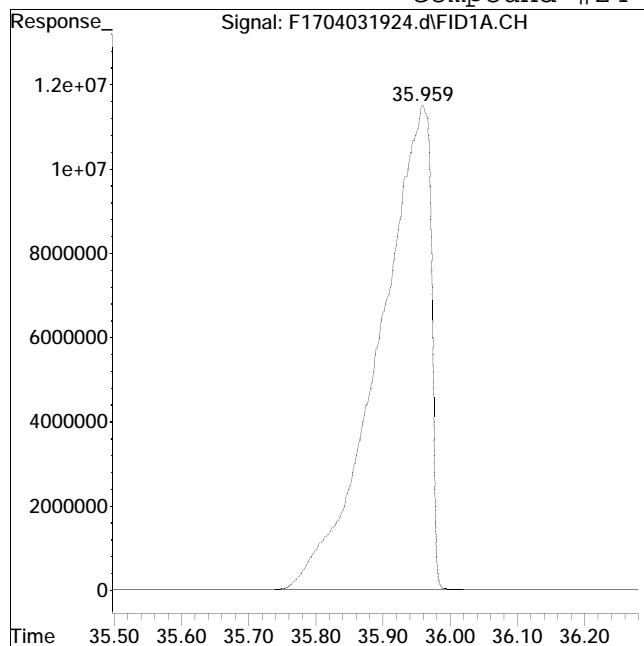
Manual Peak Response = 763919308 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031924.d Operator : FID17:WR
Date Inj'd : 4/4/2019 6:51 am Instrument : FID17
Sample : I1704031906F Quant Date : 4/15/2019 3:59 pm

Compound #24: d50-Tetracosane



Original Peak Response = 616565313

Manual Peak Response = 617117838 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031928.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 9:48 am
 Operator : FID17:WR
 Sample : CQ1704031901F
 Misc : WG1226965,FRBA71,50ug/ml
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:08:11 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:01:38 2019
 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	93	0.00
2 t	n-Octane (C8)	0.838	0.829	1.1	92	0.00
3 t	n-Nonane (C9)	0.895	0.876	2.1	89	0.00
4 t	n-Decane (C10)	0.914	0.921	-0.8	91	0.00
5 t	n-Undecane (C11)	0.923	0.933	-1.1	91	0.00
6 t	n-Dodecane (C12)	0.929	0.957	-3.0	93	0.00
7 t	n-Tridecane (C13)	0.928	0.945	-1.8	91	0.00
9 t	n-Tetradecane (C14)	0.940	0.967	-2.9	93	0.00
11 t	n-Pentadecane (C15)	0.940	0.974	-3.6	93	0.00
12 t	n-Hexadecane (C16)	0.945	0.989	-4.7	94	0.00
14 t	n-Heptadecane (C17)	0.948	0.962	-1.5	92	0.00
15 t	Pristane	0.952	0.986	-3.6	93	0.00
16 t	n-Octadecane (C18)	0.953	0.976	-2.4	92	0.00
17 t	Phytane	0.868	0.890	-2.5	93	0.00
18 t	n-Nonadecane (C19)	0.950	0.995	-4.7	94	0.00
19 s	ortho-terphenyl	1.078	1.078	0.0	91	0.00
20 t	n-Eicosane (C20)	0.952	1.004	-5.5	95	0.00
21 t	n-Heneicosane (C21)	0.967	1.007	-4.1	94	0.00
22 t	n-Docosane (C22)	0.966	1.037	-7.3	97	0.00
23 t	n-Tricosane (C23)	0.972	0.986	-1.4	91	0.00
24 s	d50-Tetracosane	0.863	0.855	0.9	90	0.00
25 t	n-Tetracosane (C24)	0.976	1.010	-3.5	93	0.00
26 t	n-Pentacosane (C25)	0.966	1.001	-3.6	93	0.00
27 t	n-Hexacosane (C26)	0.973	1.028	-5.7	95	0.00
28 t	n-Heptacosane (C27)	0.948	0.991	-4.5	94	0.00
29 t	n-Octacosane (C28)	0.983	1.025	-4.3	93	0.00
30 t	n-Nonacosane (C29)	0.978	1.016	-3.9	93	0.00
31 t	n-Triacontane (C30)	0.967	1.022	-5.7	95	0.00
32 t	n-Hentriacontane (C31)	0.973	1.005	-3.3	93	0.00
33 t	n-Dotriacontane (C32)	0.960	1.008	-5.0	95	0.00
34 t	n-Tritriacontane (C33)	0.950	1.008	-6.1	96	-0.01
35 t	n-tetratriacontane (C34)	0.985	1.027	-4.3	94	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031928.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 9:48 am
 Operator : FID17:WR
 Sample : CQ1704031901F
 Misc : WG1226965,FRBA71,50ug/ml
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:08:11 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:01:38 2019
 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)	0.952	0.999	-4.9	95	-0.01
37 t	n-Hexatriacontane (C36)	1.008	1.065	-5.7	96	-0.02
38 t	n-Heptatriacontane (C37)	0.952	1.015	-6.6	97	-0.02
39 t	n-Octatriacontane (C38)	1.025	1.054	-2.8	93	-0.01
41 t	n-Tetracontane (C40)	0.974	0.959	1.5	89	-0.04

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)	1.06	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031928.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 9:48 am
 Operator : FID17:WR
 Sample : CQ1704031901F
 Misc : WG1226965,FRBA71,50ug/ml
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:08:11 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:01:38 2019
 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	31.232	64079741	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.223	69058514	49.973	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	99.95%	
24) s d50-Tetracosane	35.855	54791172	49.544	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	99.09%	
Target Compounds				
2) t n-Octane (C8)	5.603	53149205	49.484	ug/mL M4
3) t n-Nonane (C9)	7.792	56151524	48.962	ug/mL M4
4) t n-Decane (C10)	10.271	59020342	50.413	ug/mL M4
5) t n-Undecane (C11)	12.781	59766965	50.525	ug/mL M4
6) t n-Dodecane (C12)	15.208	61315757	51.472	ug/mL M4
7) t n-Tridecane (C13)	17.514	60533676	50.880	ug/mL M4
9) t n-Tetradecane (C14)	19.696	61952351	51.416	ug/mL M4
11) t n-Pentadecane (C15)	21.760	62431029	51.846	ug/mL M4
12) t n-Hexadecane (C16)	23.719	63401694	52.328	ug/mL M4
14) t n-Heptadecane (C17)	25.576	61676426	50.764	ug/mL M4
15) t Pristane	25.687	63210075	51.810	ug/mL M4
16) t n-Octadecane (C18)	27.343	62568236	51.211	ug/mL M4
17) t Phytane	27.508	57016254	51.279	ug/mL M4
18) t n-Nonadecane (C19)	29.028	63772296	52.383	ug/mL M4
20) t n-Eicosane (C20)	30.633	64304361	52.711	ug/mL M4
21) t n-Heneicosane (C21)	32.168	64508994	52.046	ug/mL M4
22) t n-Docosane (C22)	33.637	66438464	53.675	ug/mL M4
23) t n-Tricosane (C23)	35.049	63167953	50.702	ug/mL M4
25) t n-Tetracosane (C24)	36.407	64742128	51.781	ug/mL M4
26) t n-Pentacosane (C25)	37.707	64153267	51.810	ug/mL M4
27) t n-Hexacosane (C26)	38.963	65901797	52.826	ug/mL M4
28) t n-Heptacosane (C27)	40.175	63491177	52.257	ug/mL M4
29) t n-Octacosane (C28)	41.342	65686082	52.136	ug/mL M4
30) t n-Nonacosane (C29)	42.471	65107848	51.965	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031928.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 9:48 am
 Operator : FID17:WR
 Sample : CQ1704031901F
 Misc : WG1226965,FRBA71,50ug/ml
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:08:11 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:01:38 2019
 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)	43.566	65458814	52.836 ug/mL M4
32) t n-Hentriacontane (C31)	44.621	64399223	51.659 ug/mL M4
33) t n-Dotriacontane (C32)	45.645	64586490	52.471 ug/mL M4
34) t n-Tritriacontane (C33)	46.637	64614392	53.056 ug/mL M4
35) t n-tetratriacontane (C34)	47.649	65841333	52.180 ug/mL M4
36) t n-Pentatriacontane (C35)	48.774	64044511	52.481 ug/mL M4
37) t n-Hexatriacontane (C36)	50.058	68219542	52.817 ug/mL M4
38) t n-Heptatriacontane (C37)	51.547	65065753	53.323 ug/mL M4
39) t n-Octatriacontane (C38)	53.291	67533468	51.423 ug/mL M4
41) t n-Tetracontane (C40)	57.709	61435817	49.207 ug/mL M4

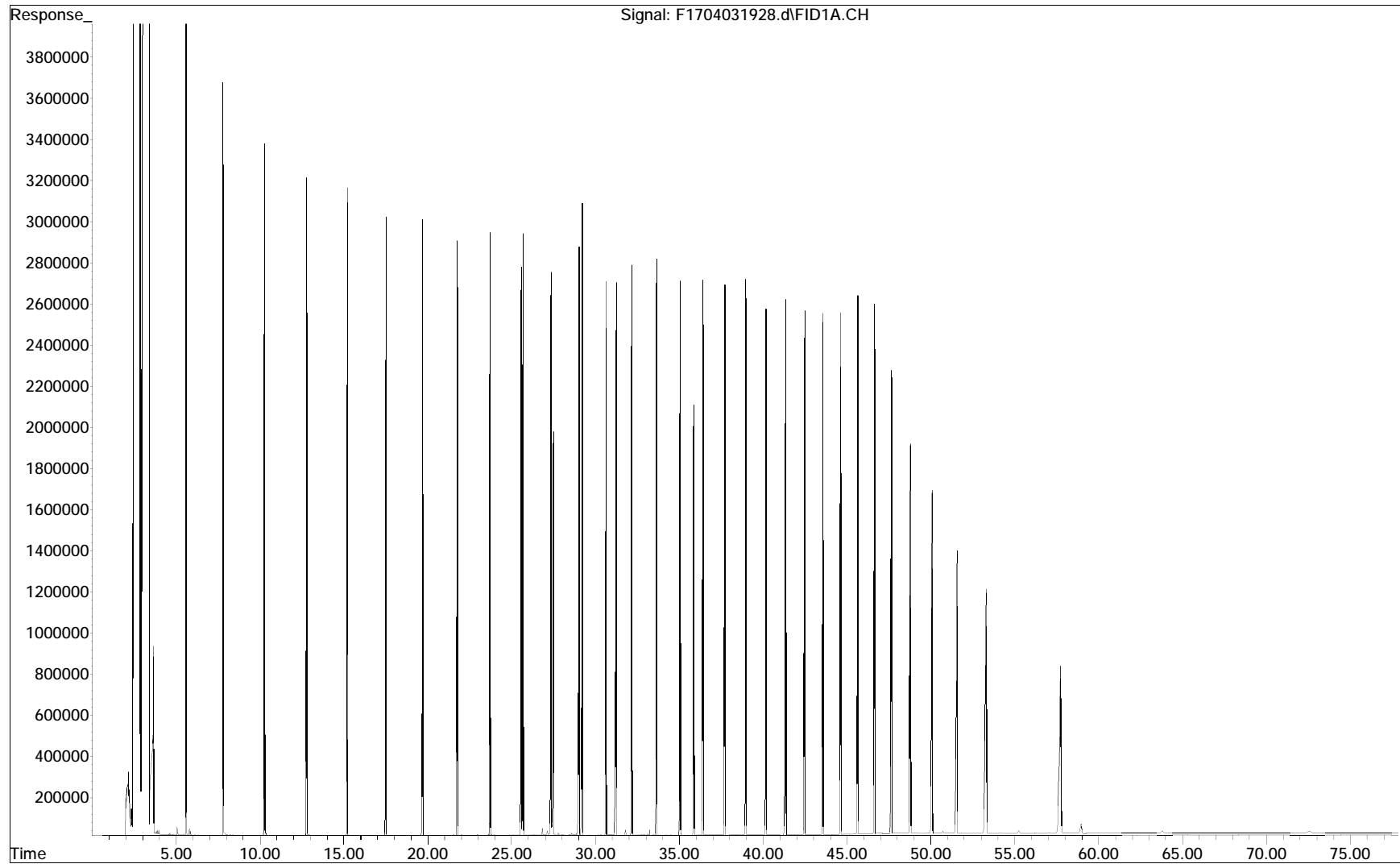
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

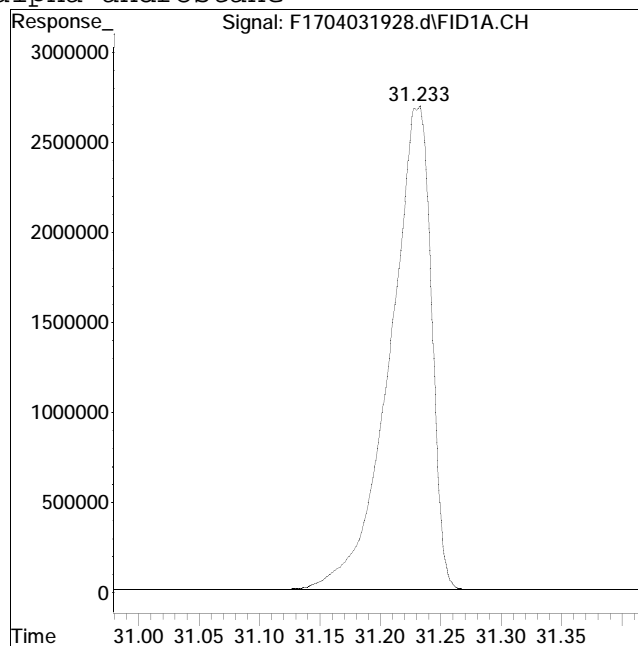
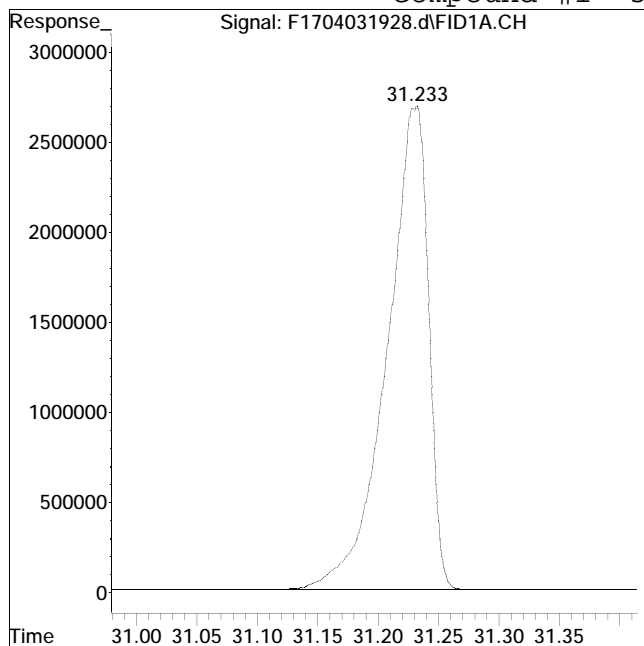
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031928.d
Operator : FID17:WR
Acquired : 04 Apr 2019 9:48 am using AcqMethod FID17.M
Sample Name: CQ1704031901F
Instrument: FID17
Misc Info : WG1226965,FRBA71,50ug/ml
Vial Number: 14
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 64050007

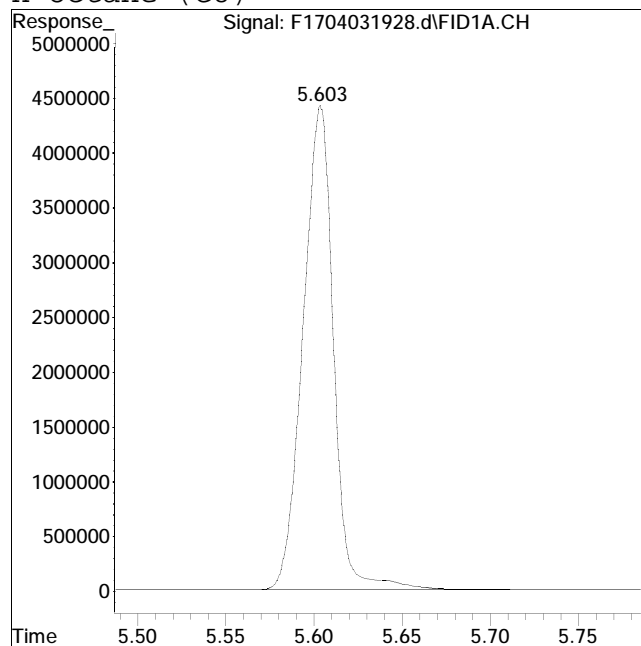
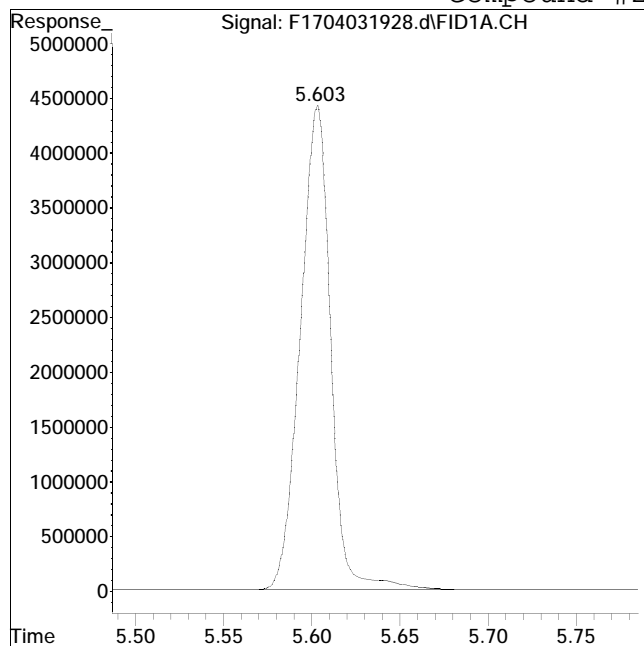
Manual Peak Response = 64079741 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #2: n-Octane (C8)



Original Peak Response = 52973539

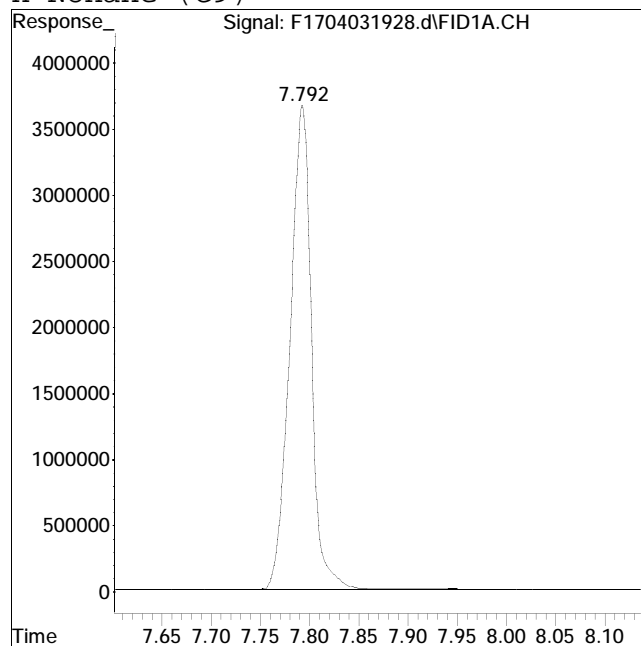
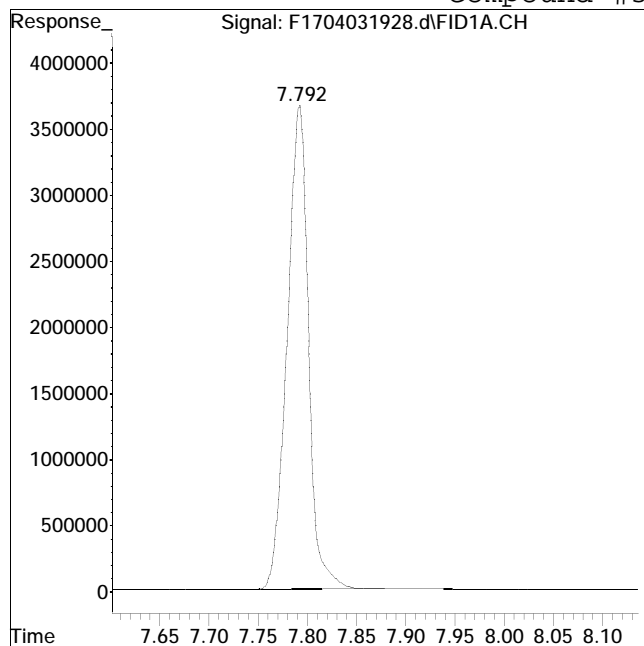
Manual Peak Response = 53149205 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 55117716

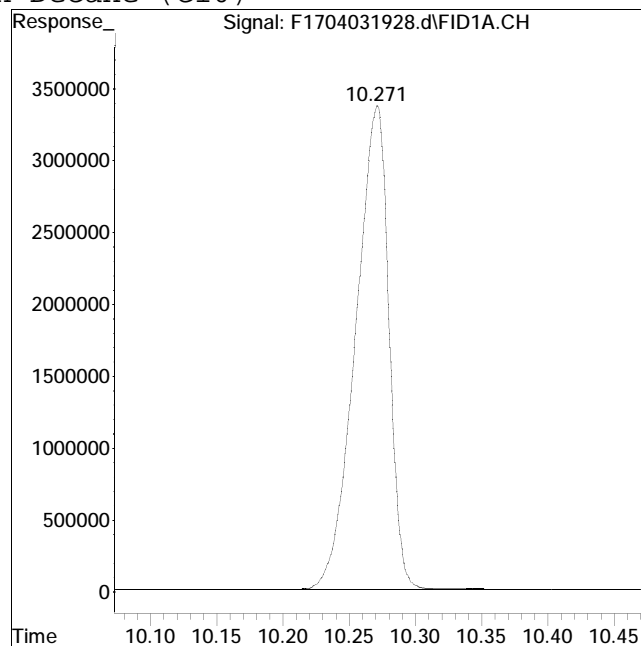
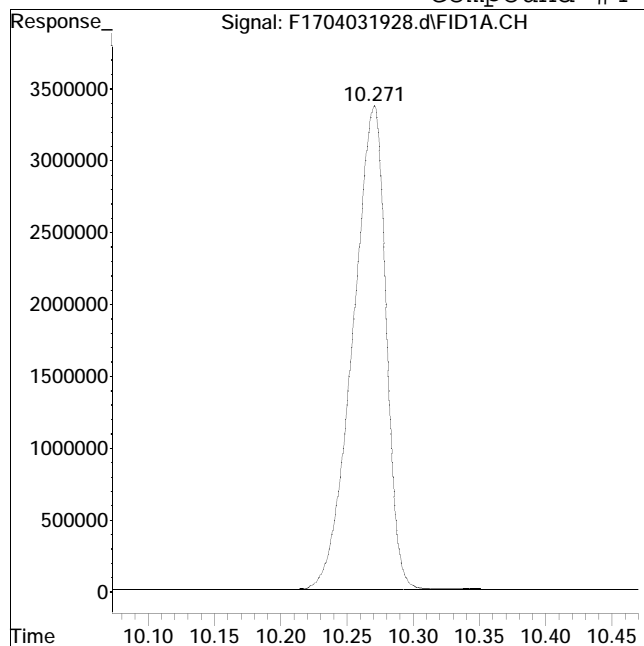
Manual Peak Response = 56151524 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #4: n-Decane (C10)



Original Peak Response = 58816354

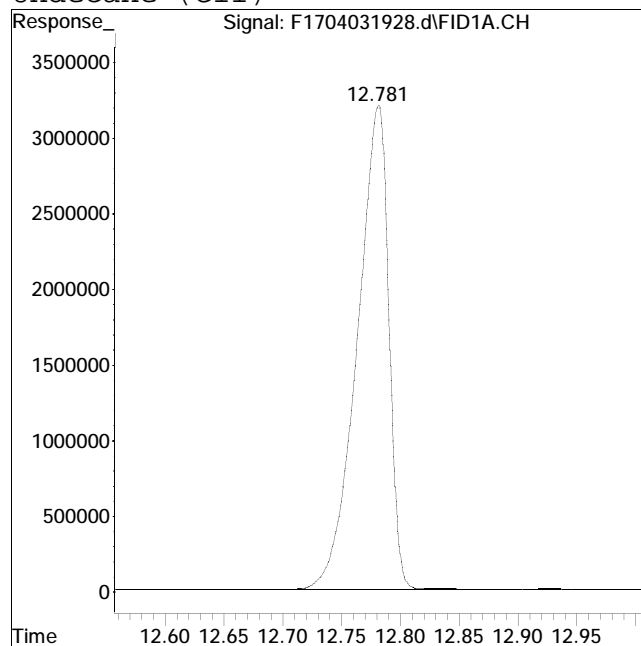
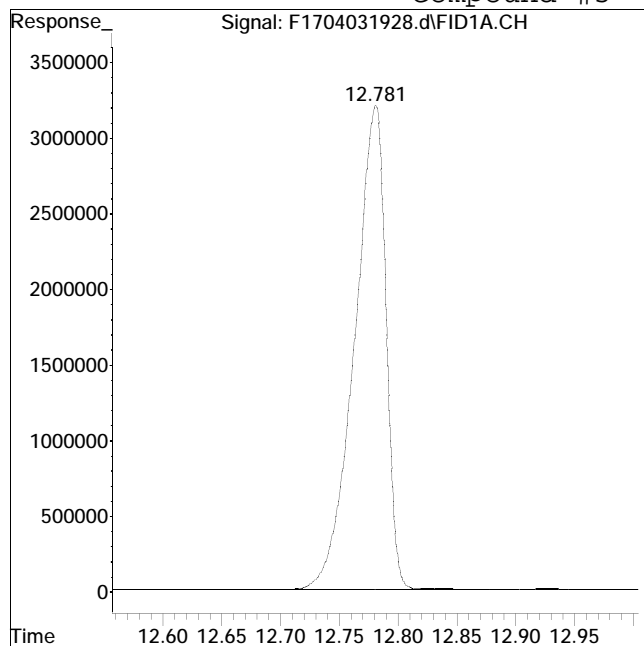
Manual Peak Response = 59020342 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 59535210

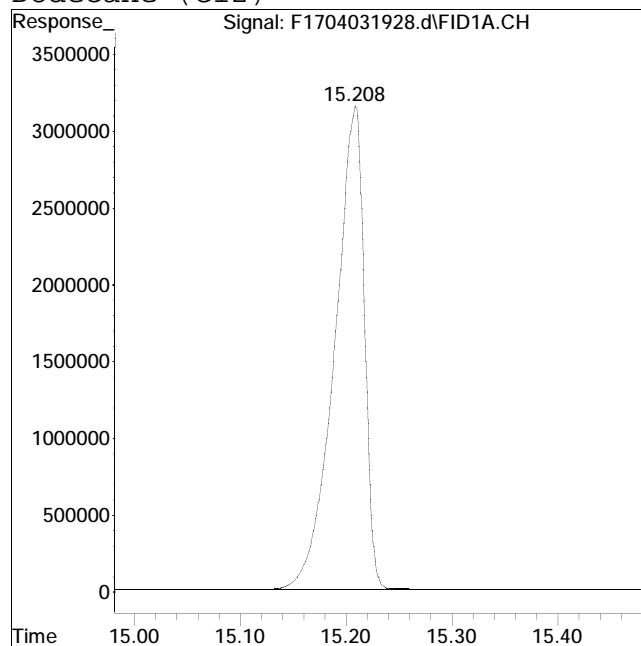
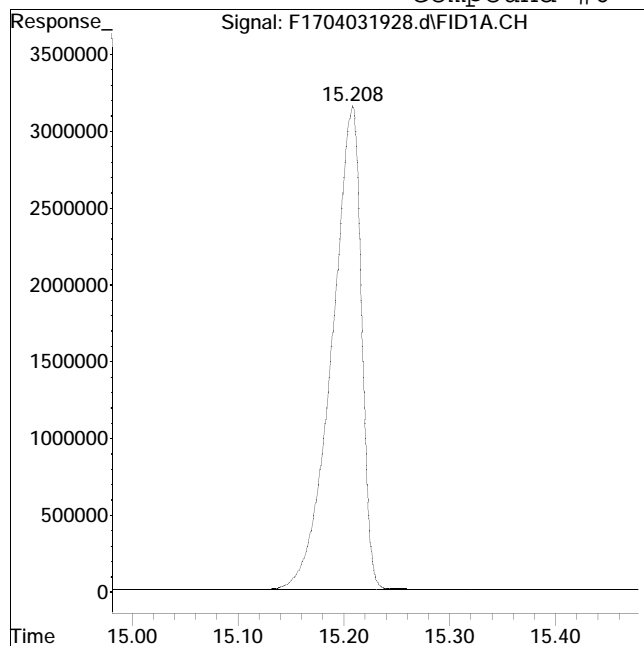
Manual Peak Response = 59766965 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 61103849

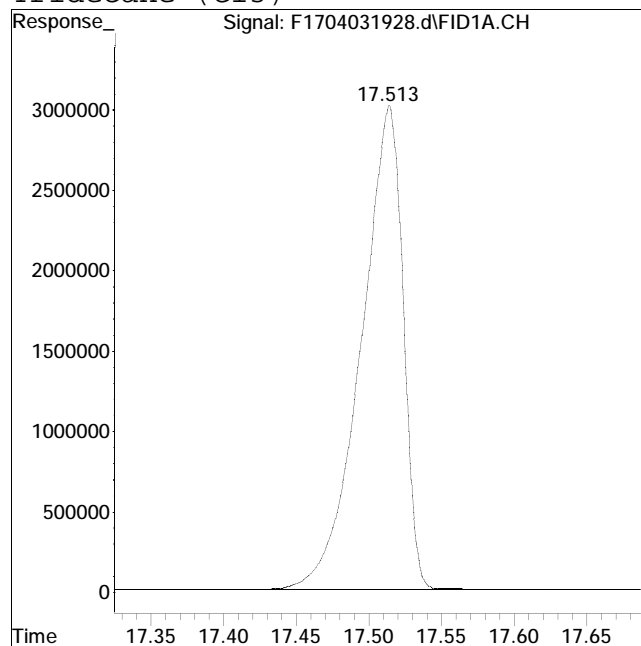
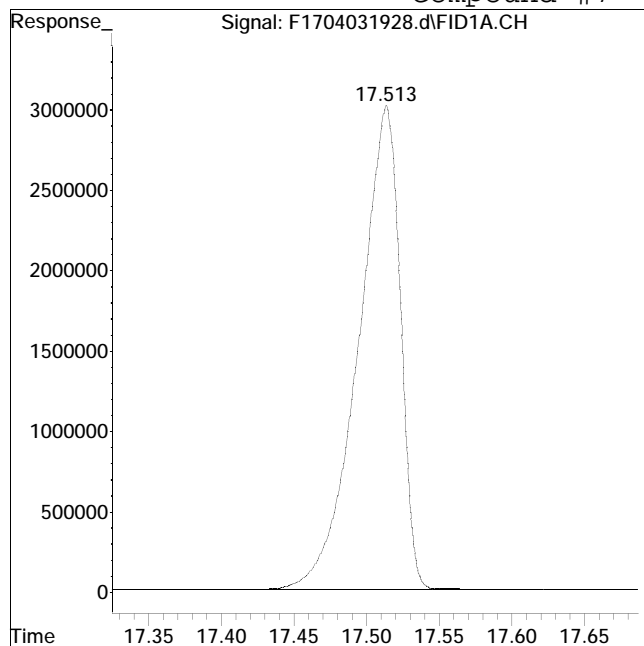
Manual Peak Response = 61315757 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 60389418

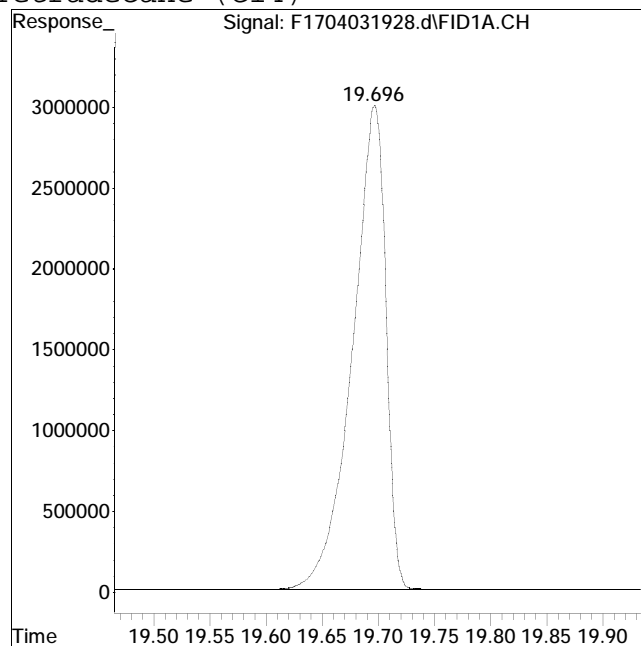
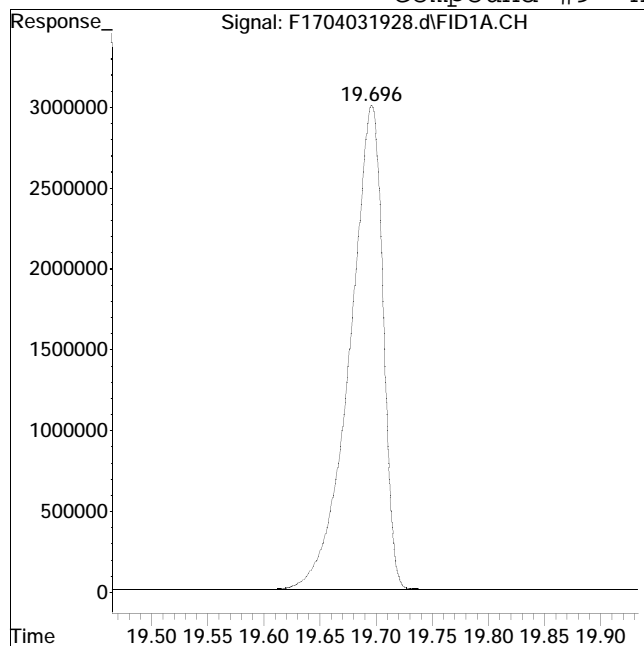
Manual Peak Response = 60533676 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 61830713

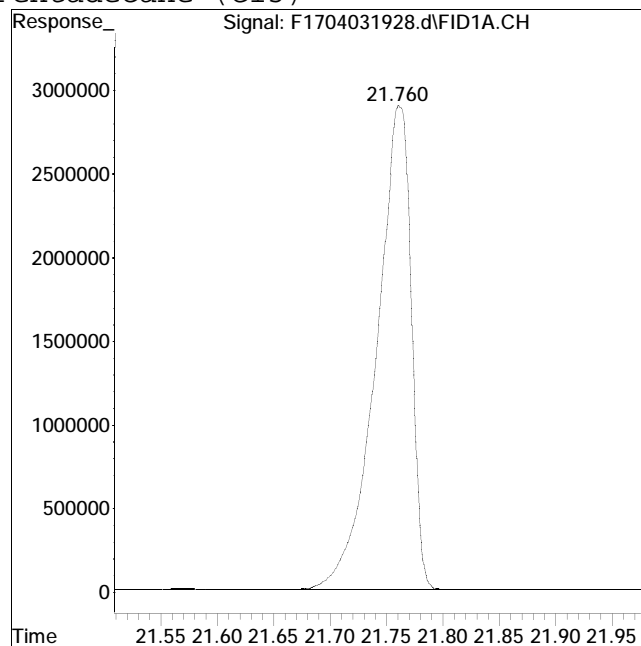
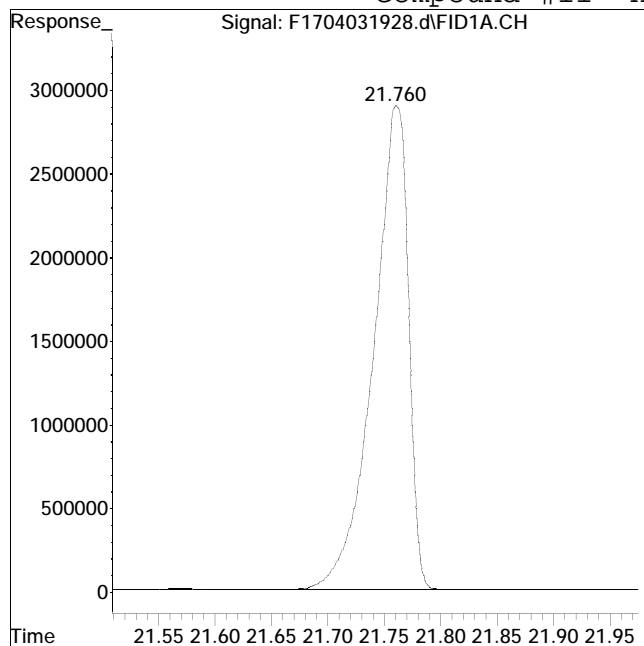
Manual Peak Response = 61952351 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 62342810

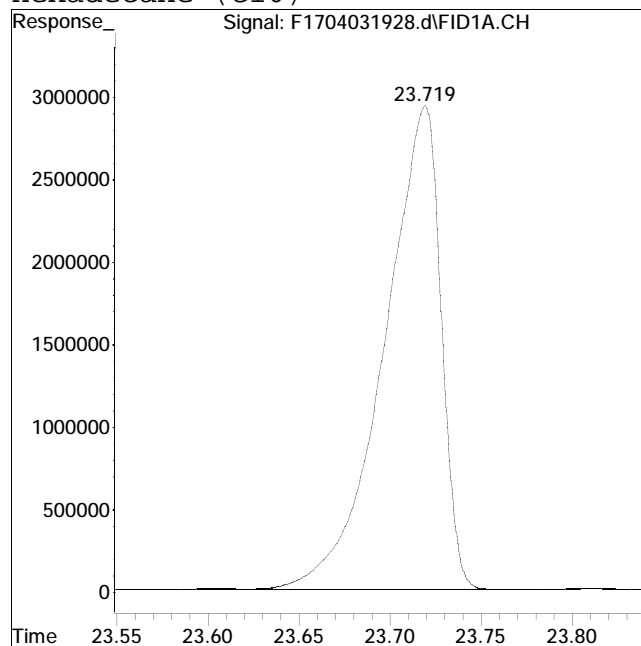
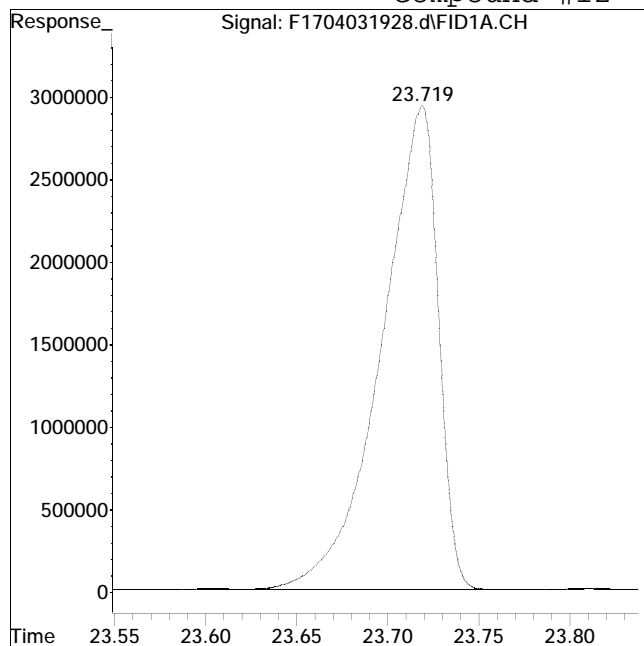
Manual Peak Response = 62431029 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 63210549

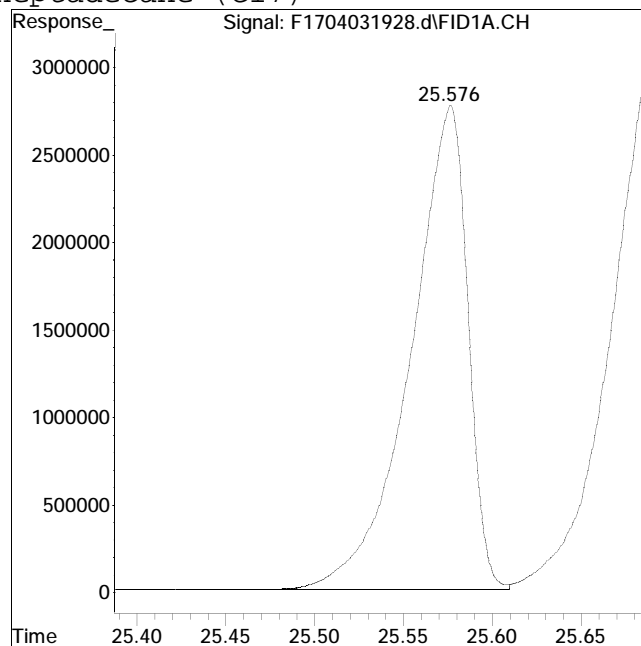
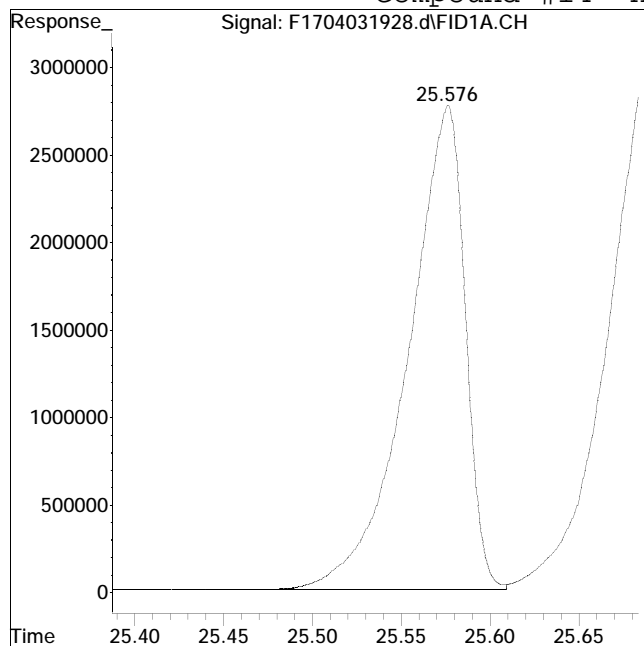
Manual Peak Response = 63401694 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 61650205

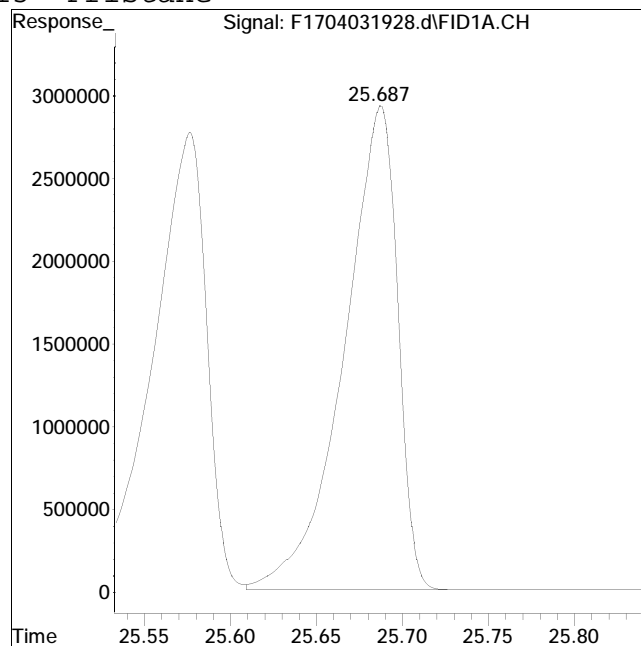
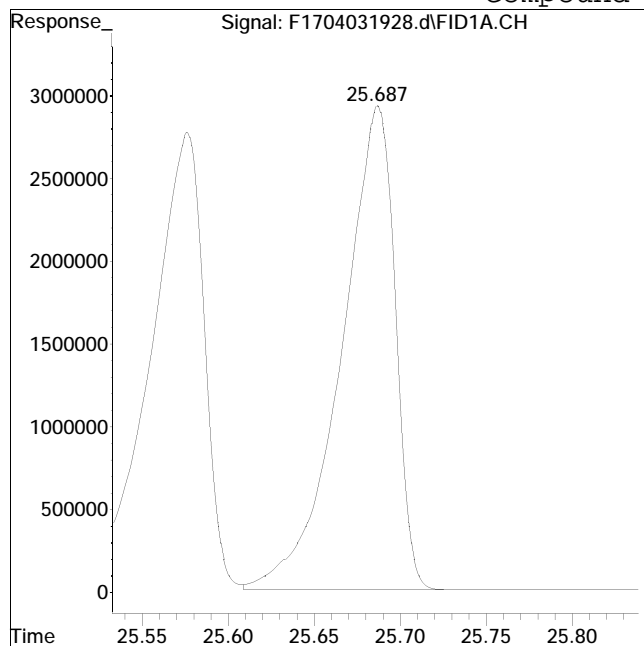
Manual Peak Response = 61676426 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #15: Pristane



Original Peak Response = 63157032

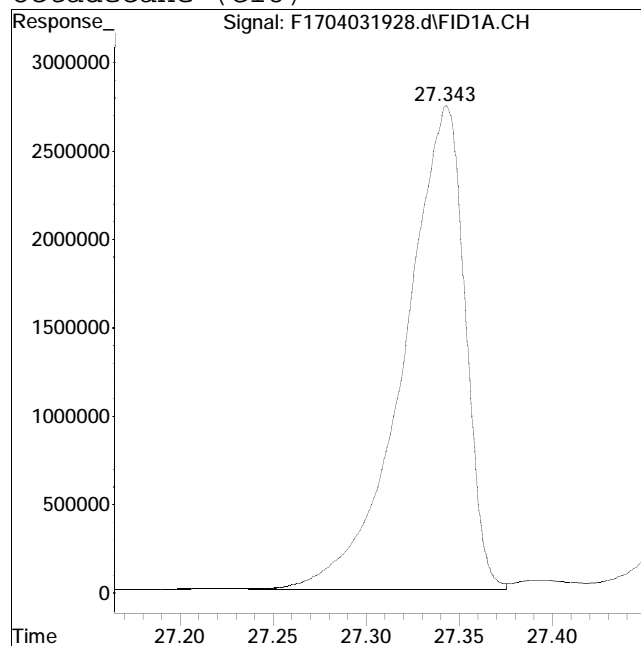
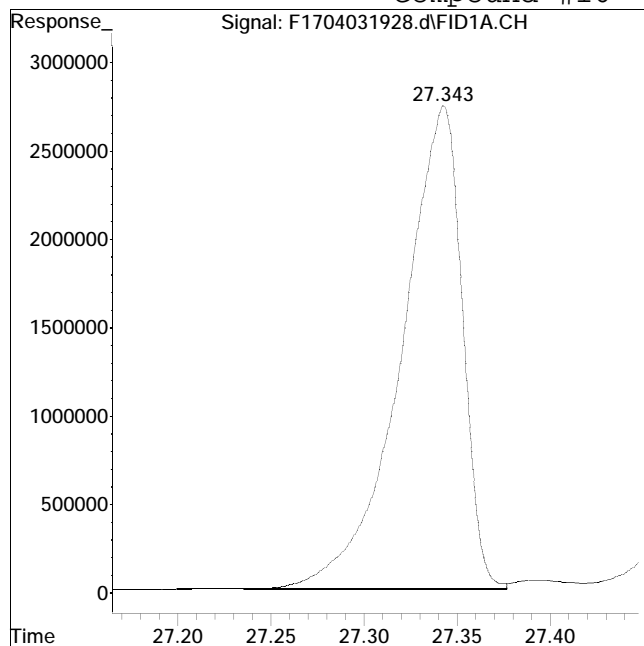
Manual Peak Response = 63210075 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 62218171

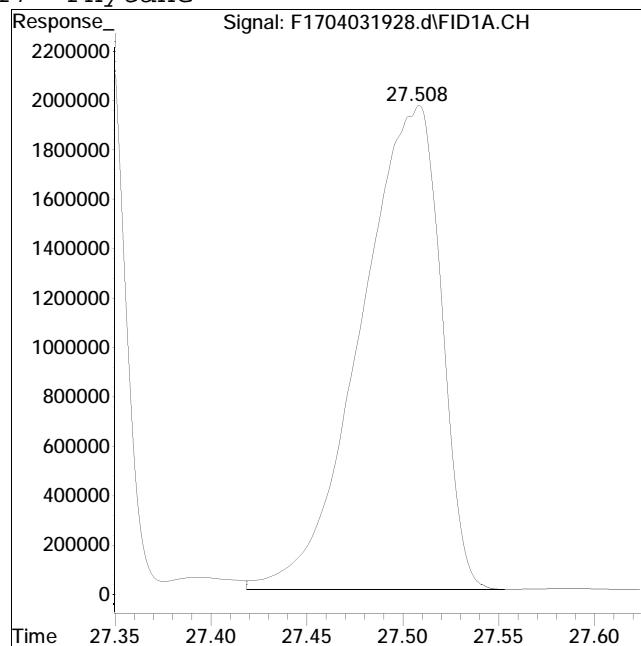
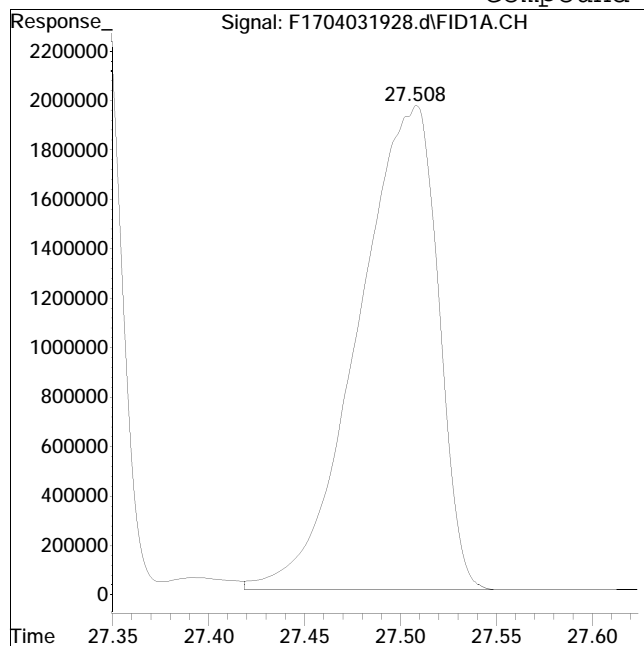
Manual Peak Response = 62568236 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #17: Phytane



Original Peak Response = 56731340

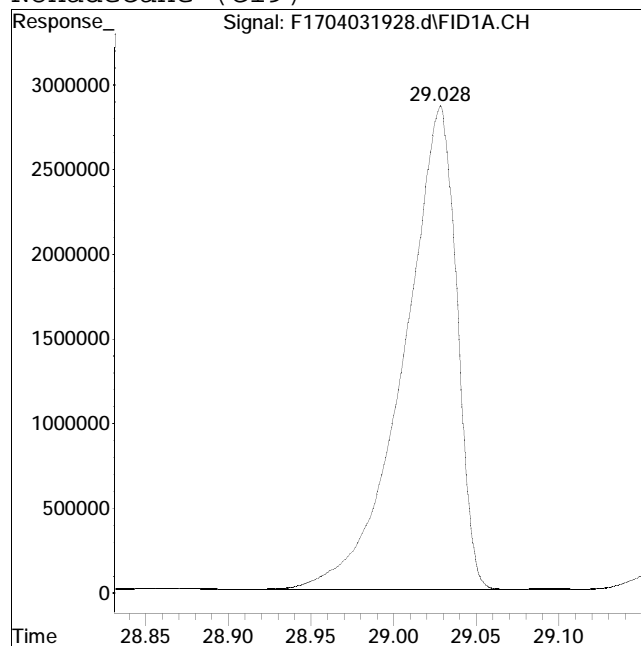
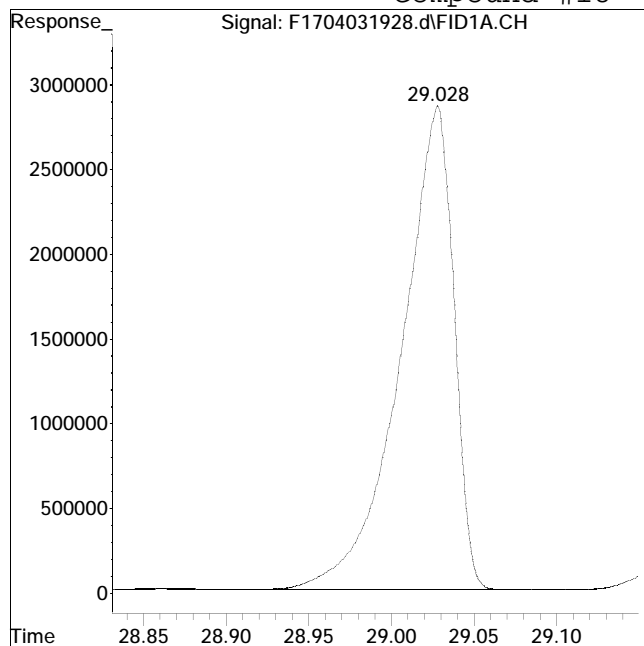
Manual Peak Response = 57016254 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 63559914

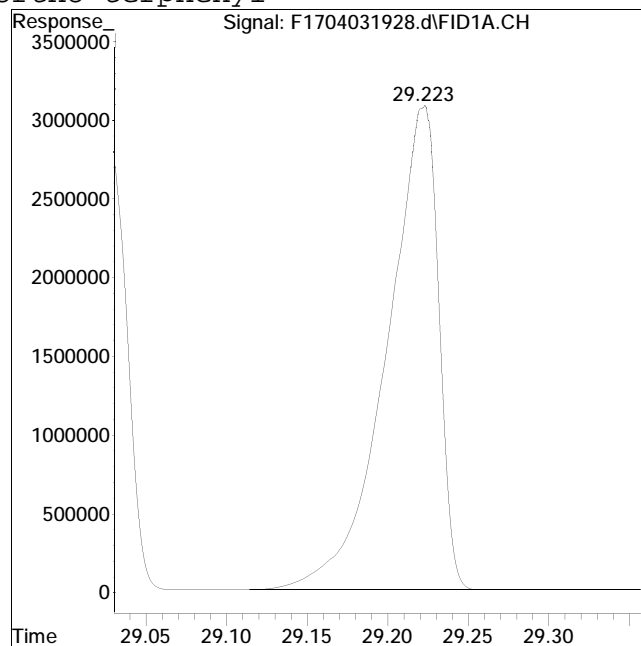
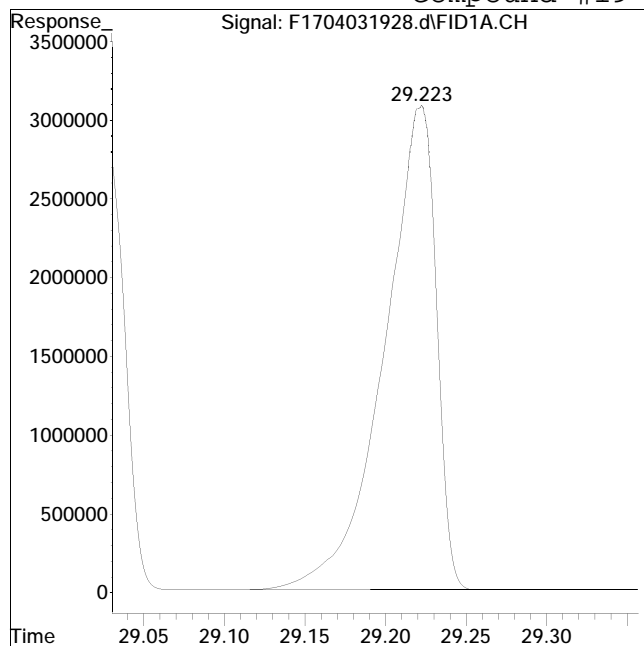
Manual Peak Response = 63772296 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #19: ortho-terphenyl



Original Peak Response = 68891869

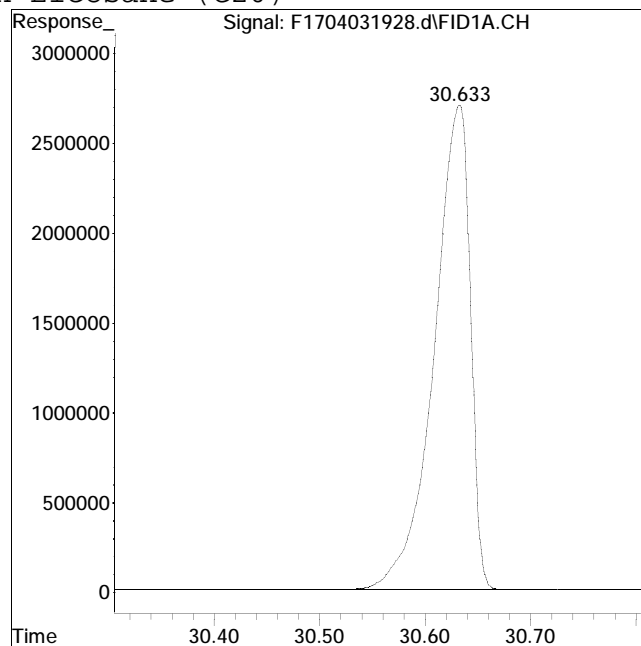
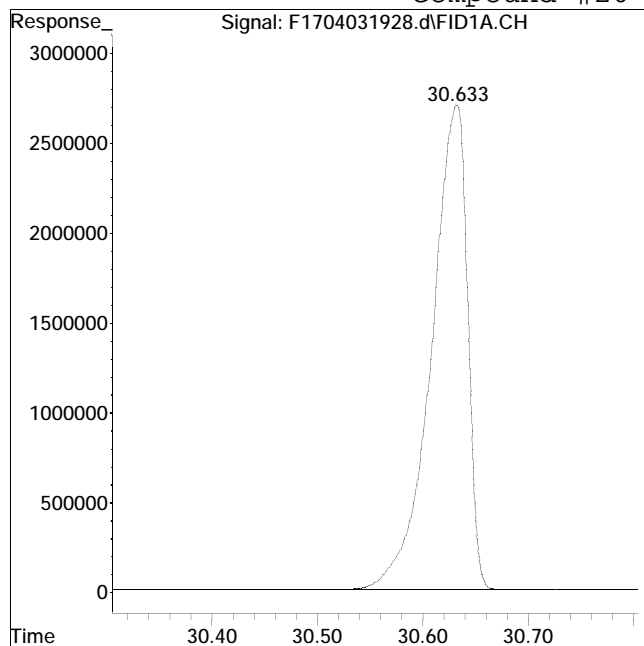
Manual Peak Response = 69058514 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 64203296

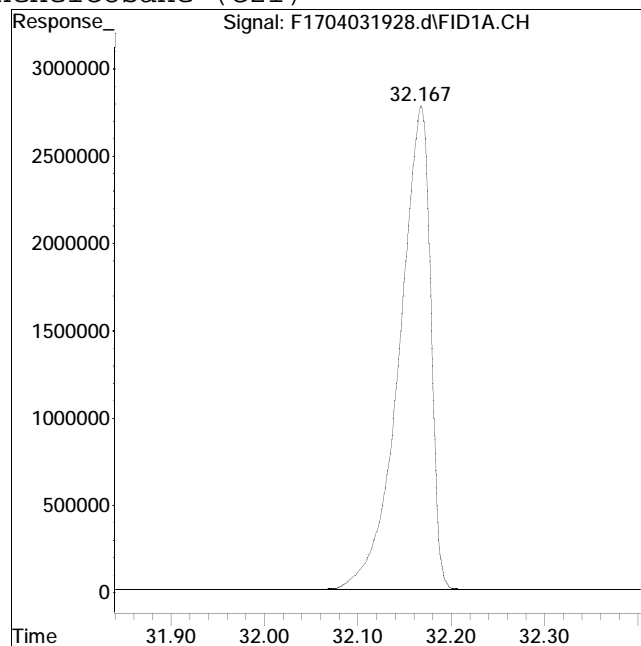
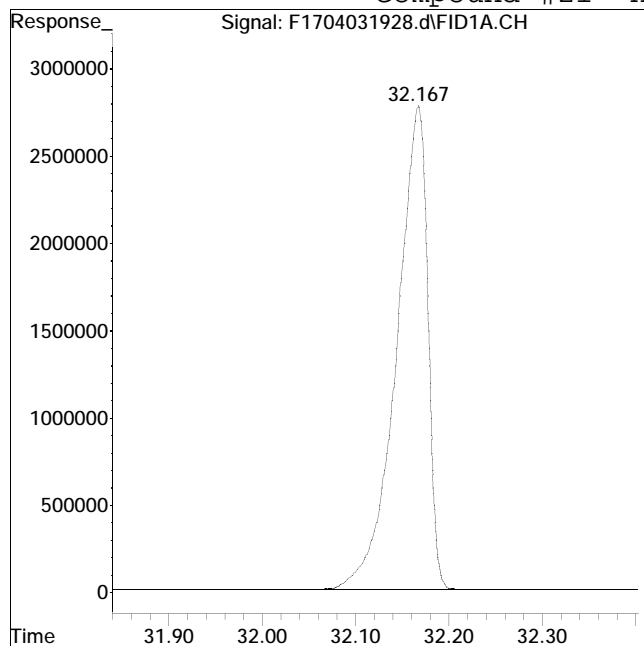
Manual Peak Response = 64304361 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 64459706

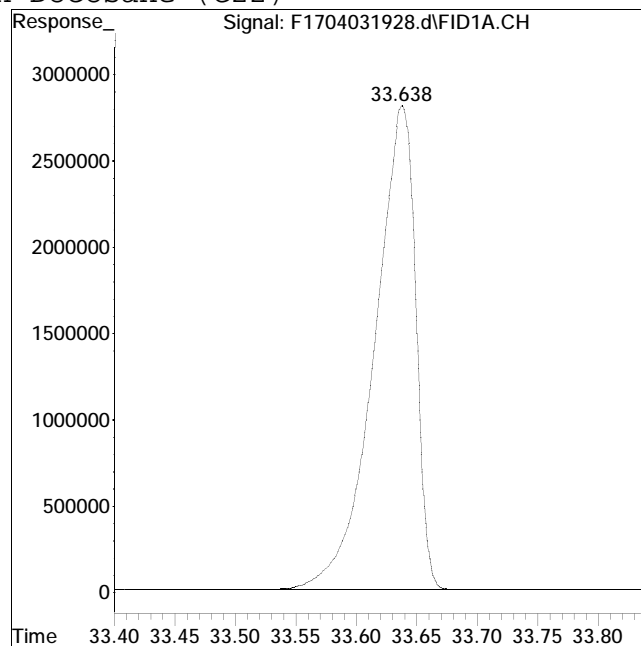
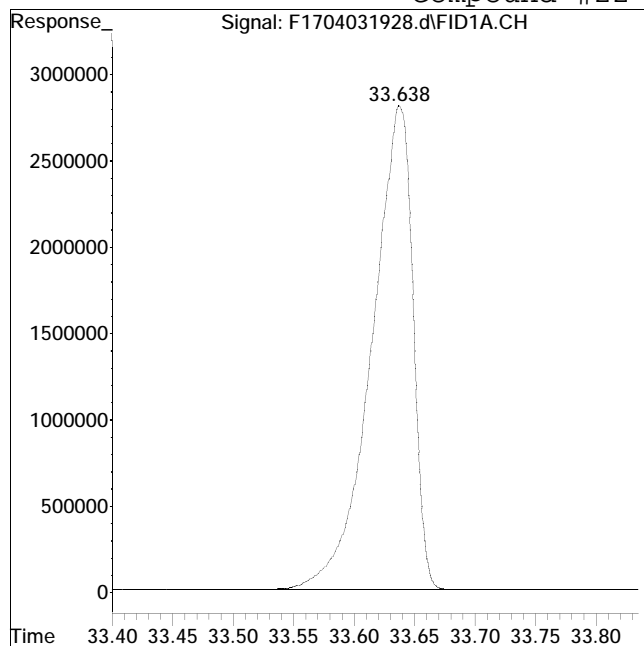
Manual Peak Response = 64508994 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 66386423

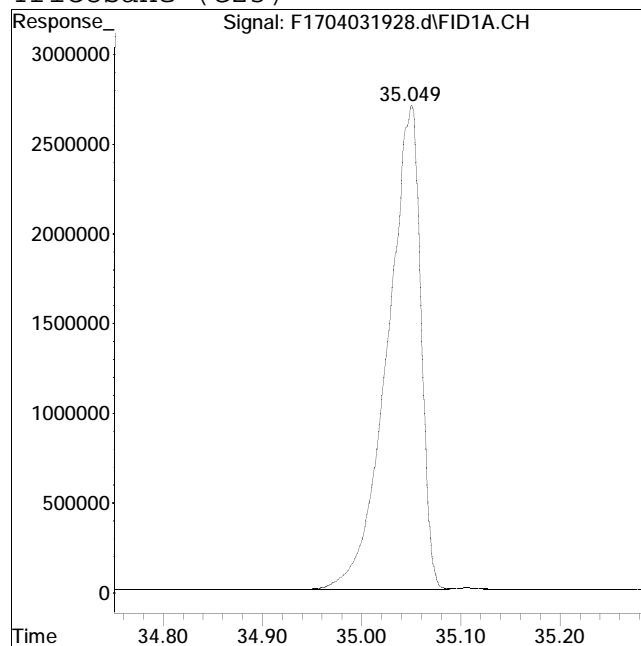
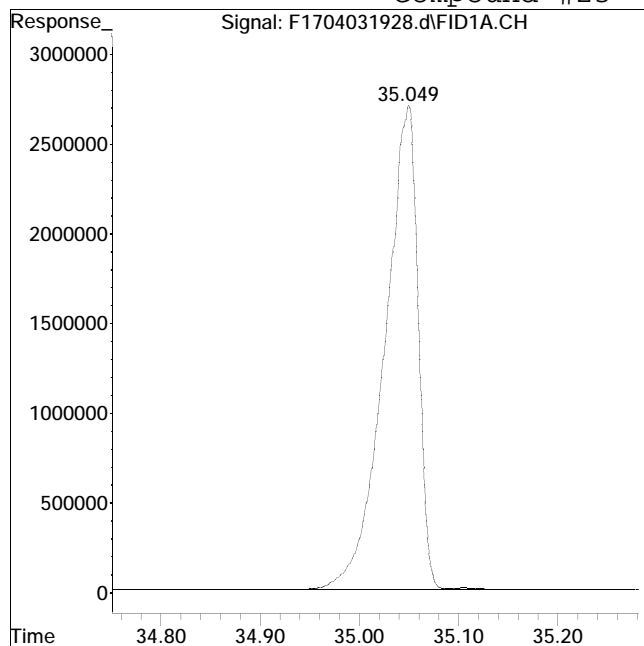
Manual Peak Response = 66438464 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 63315336

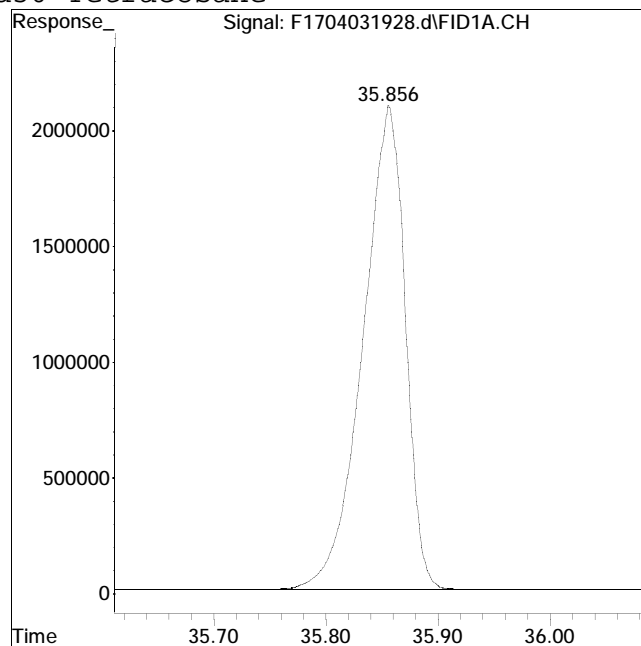
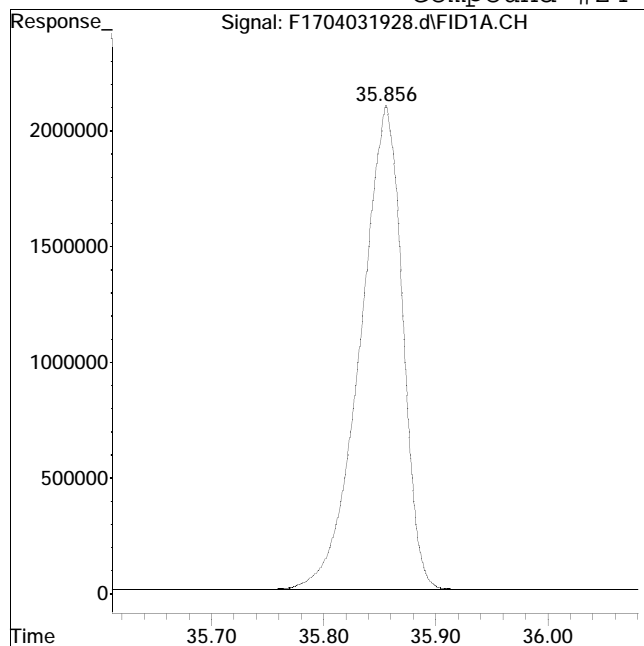
Manual Peak Response = 63167953 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #24: d50-Tetracosane



Original Peak Response = 54752634

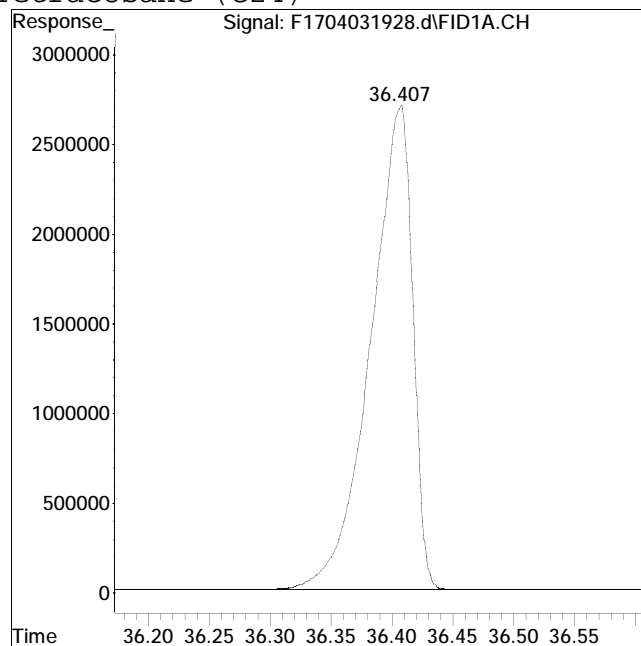
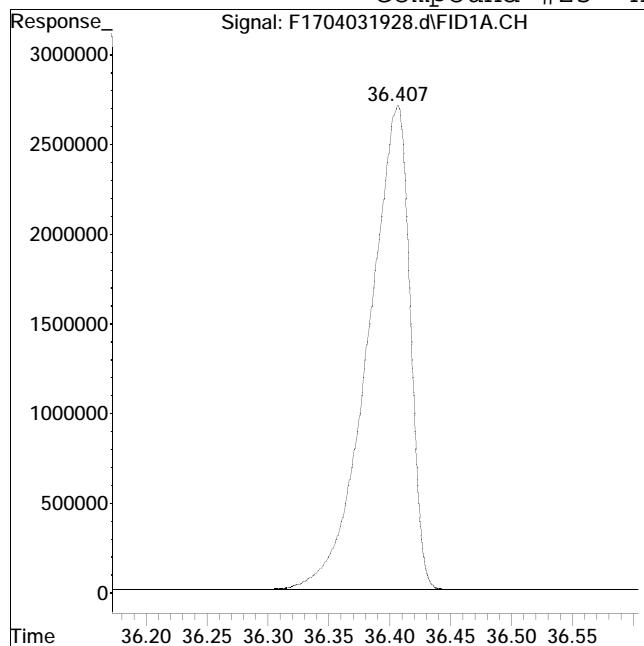
Manual Peak Response = 54791172 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 64710161

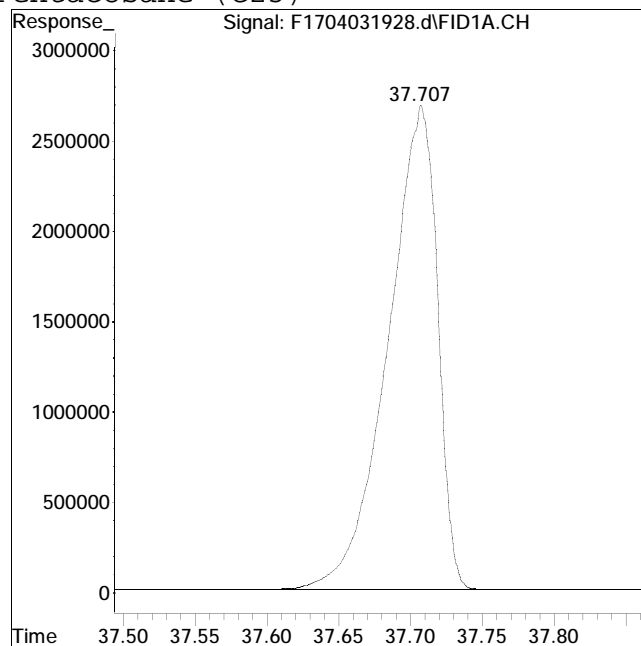
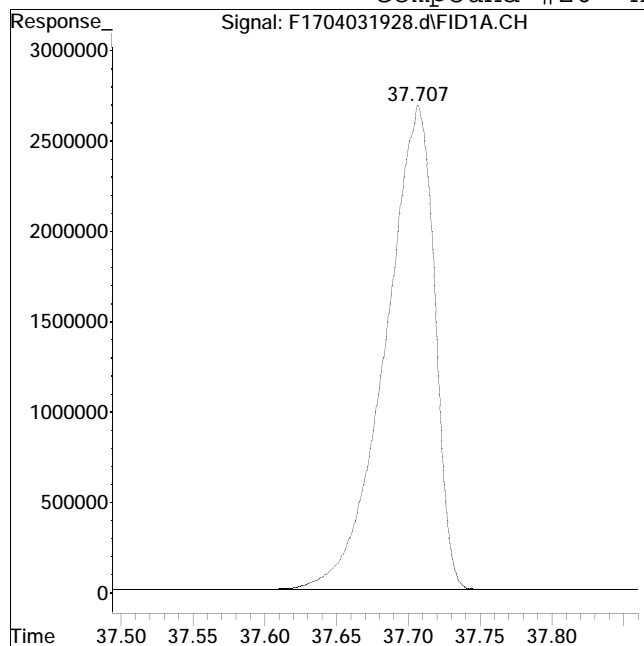
Manual Peak Response = 64742128 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 64118423

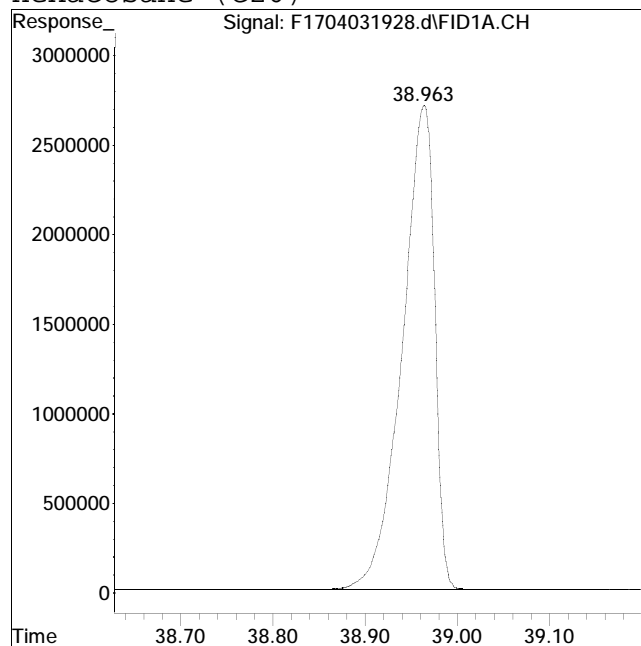
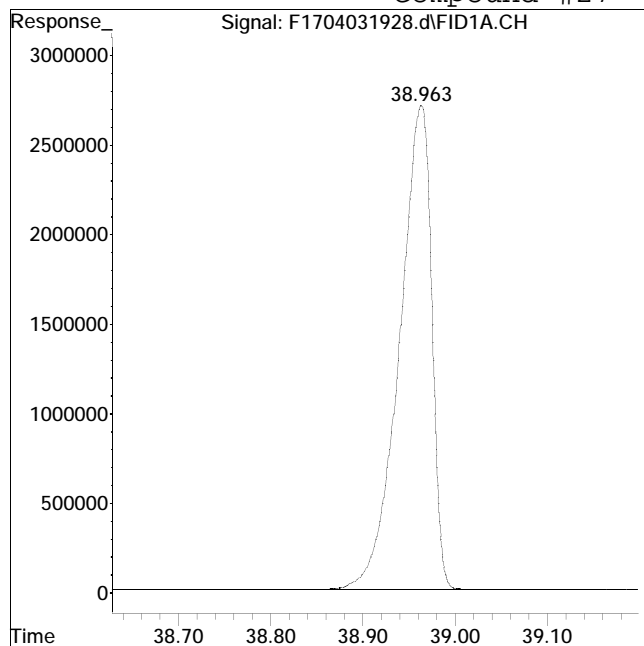
Manual Peak Response = 64153267 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 65859968

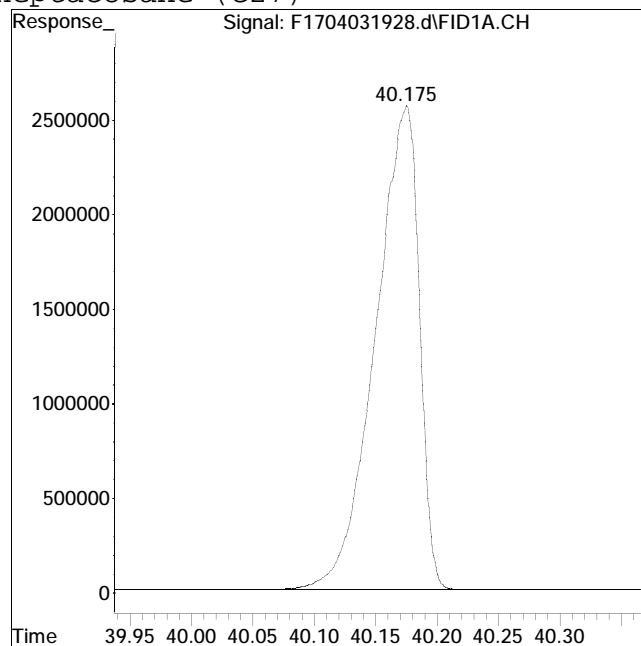
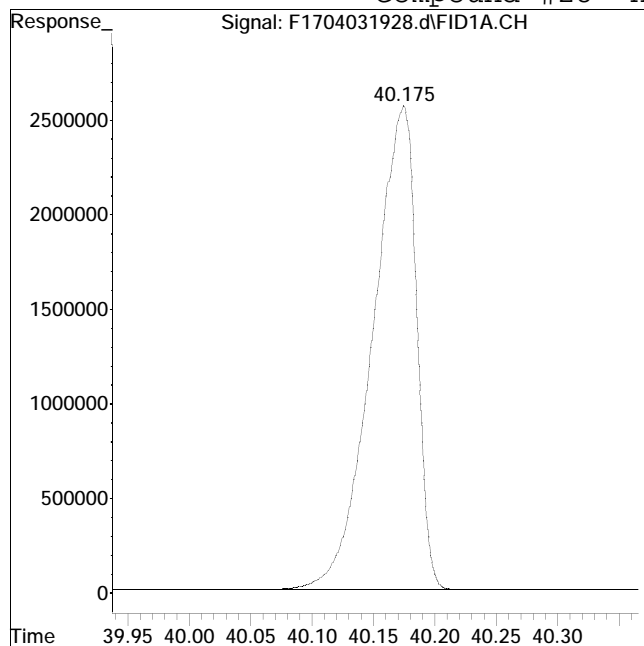
Manual Peak Response = 65901797 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 63471673

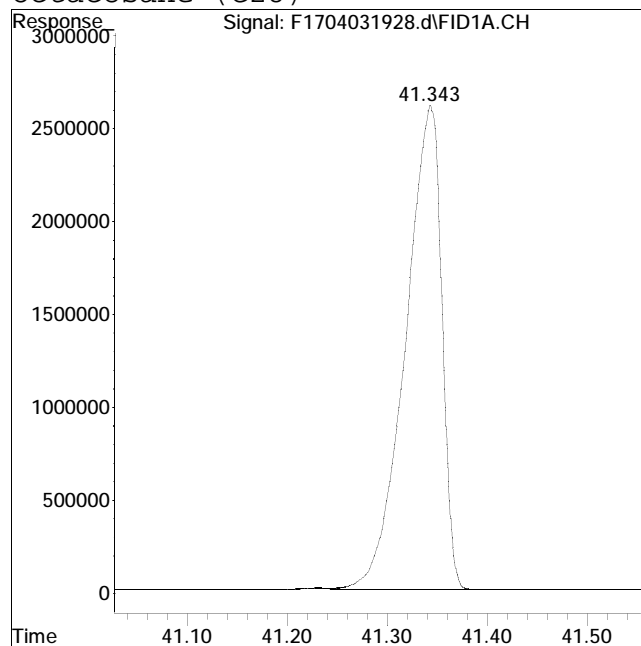
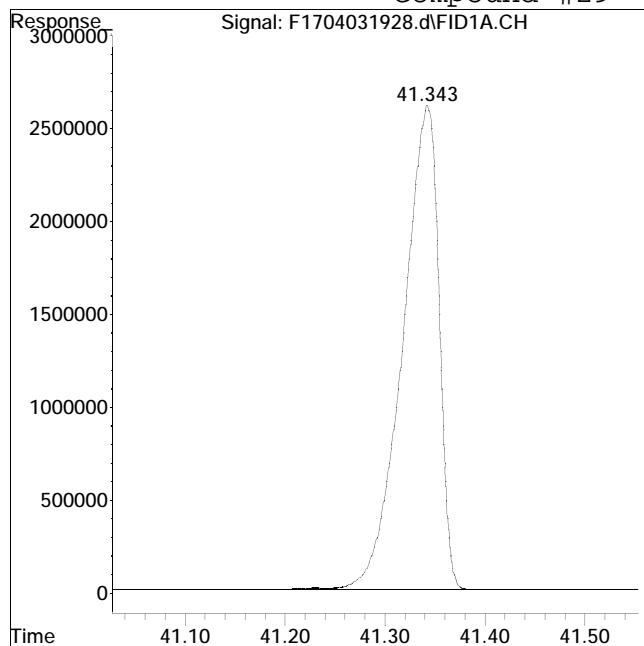
Manual Peak Response = 63491177 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 65845785

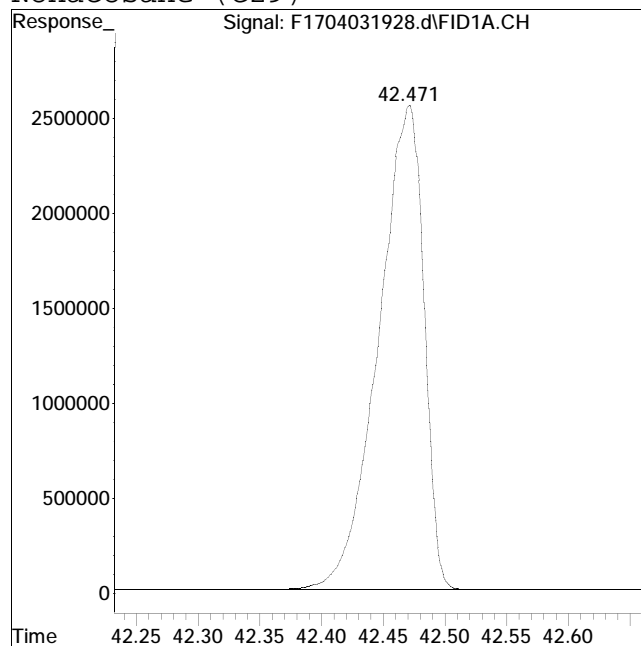
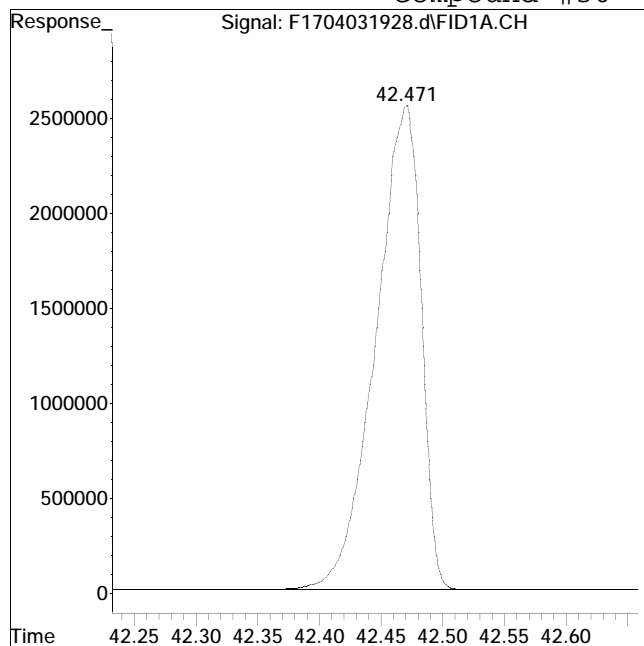
Manual Peak Response = 65686082 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 65095022

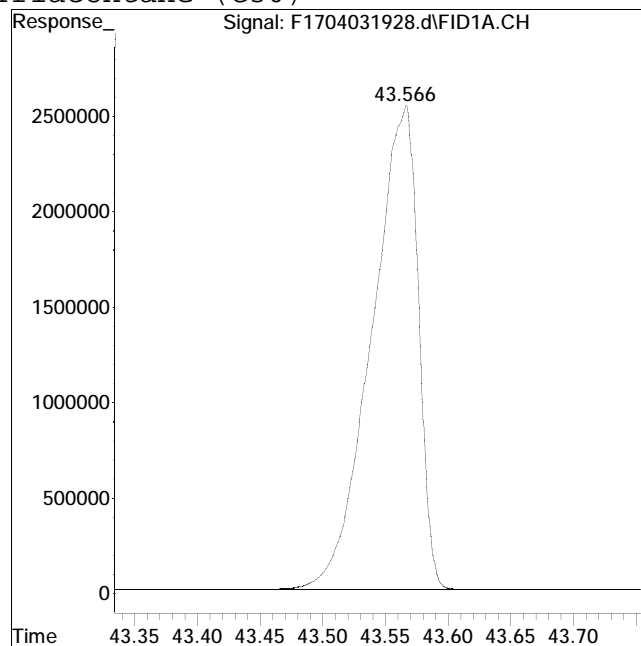
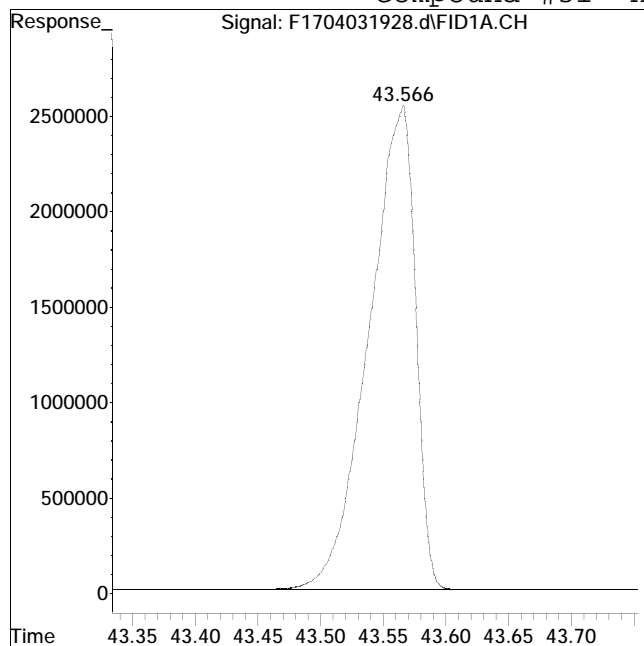
Manual Peak Response = 65107848 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 65437271

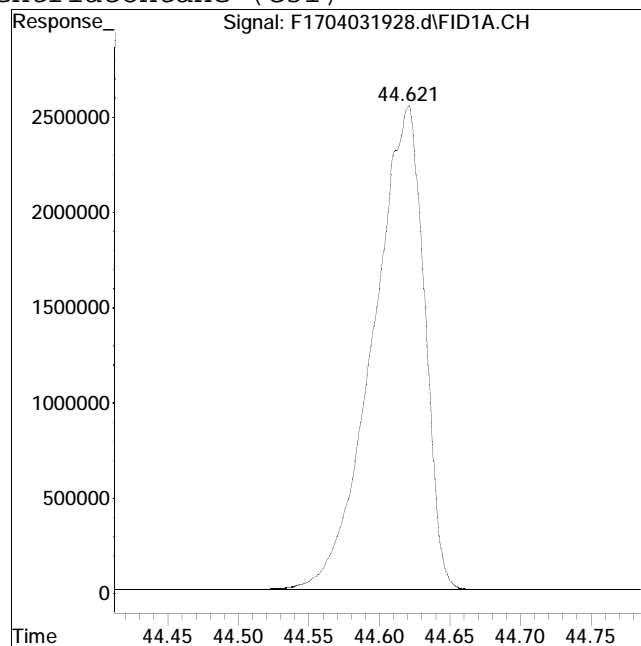
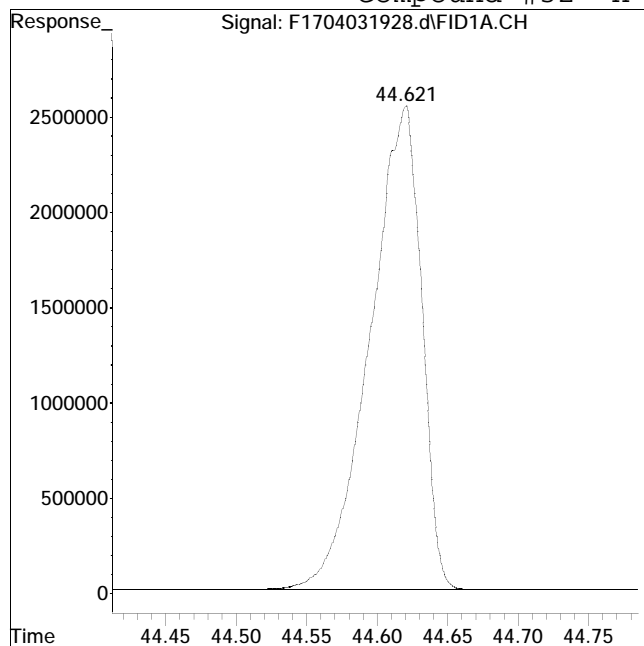
Manual Peak Response = 65458814 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 64337373

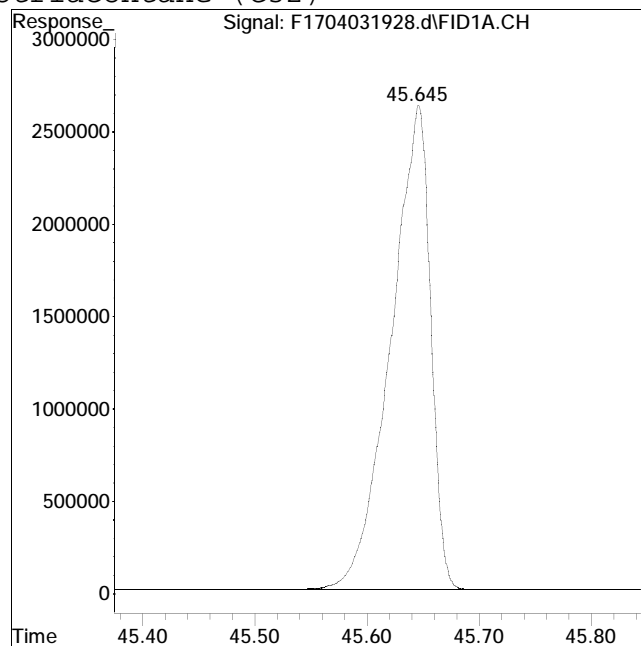
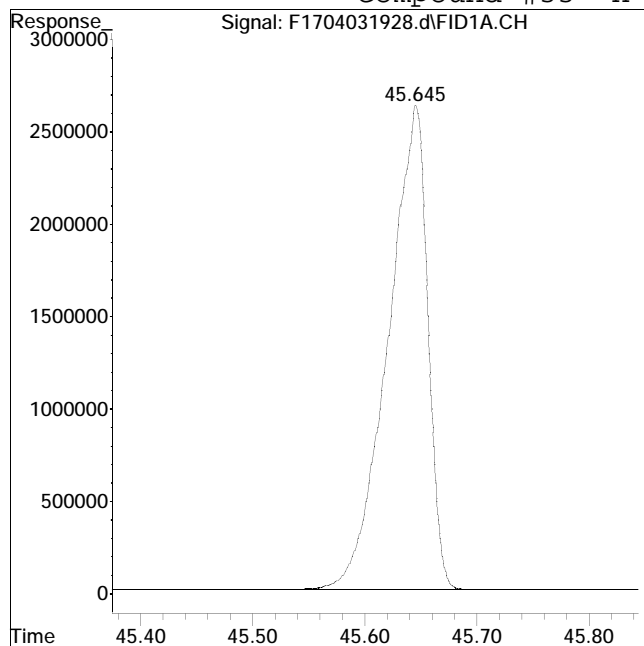
Manual Peak Response = 64399223 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 64554701

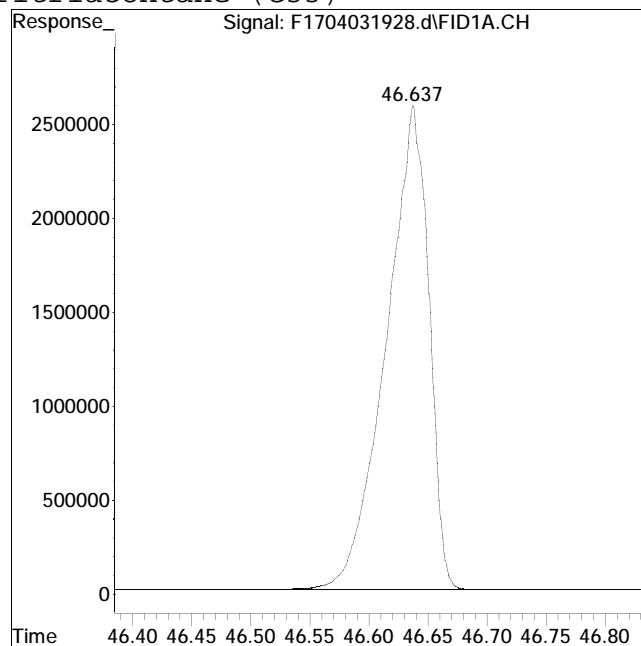
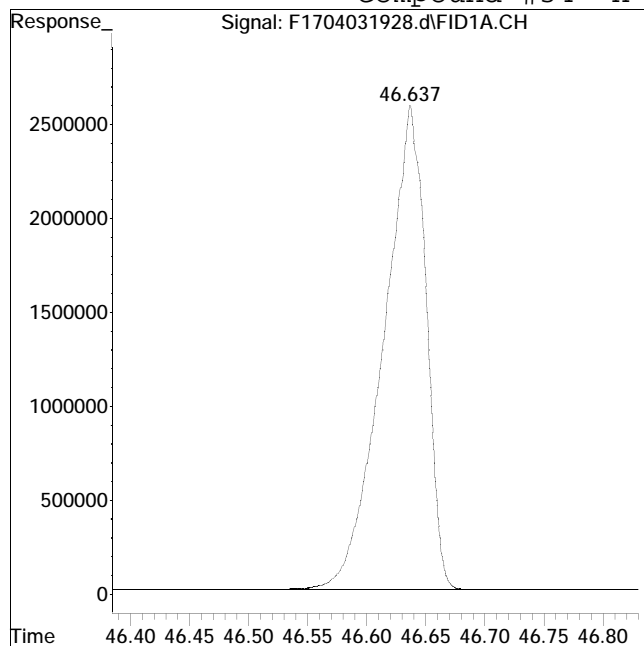
Manual Peak Response = 64586490 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 64565792

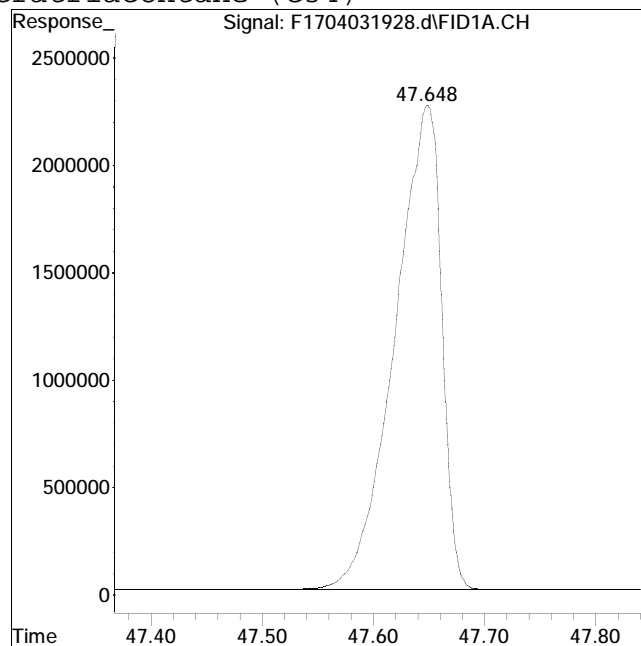
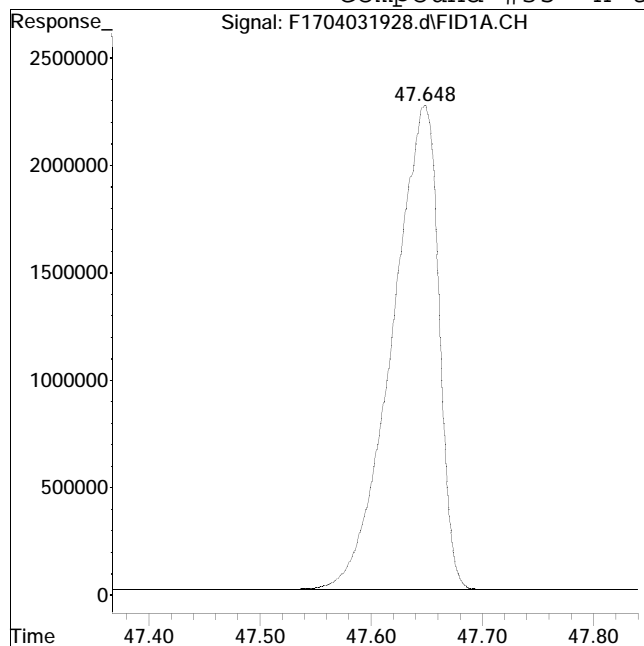
Manual Peak Response = 64614392 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 65817994

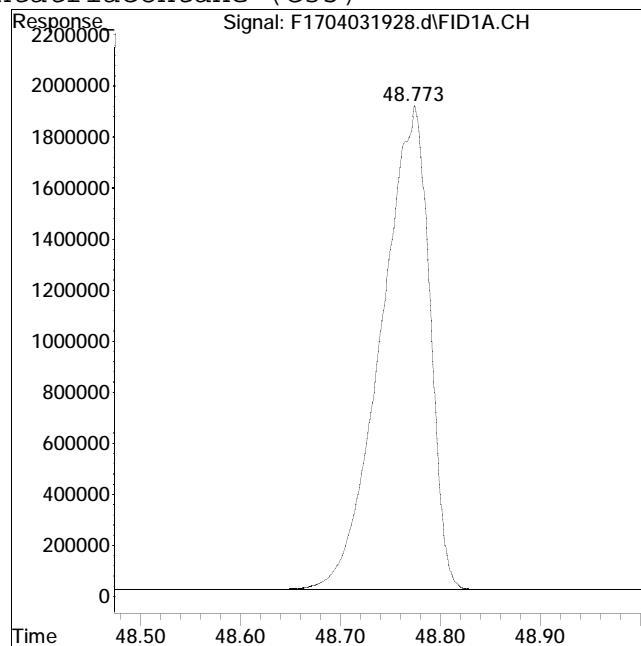
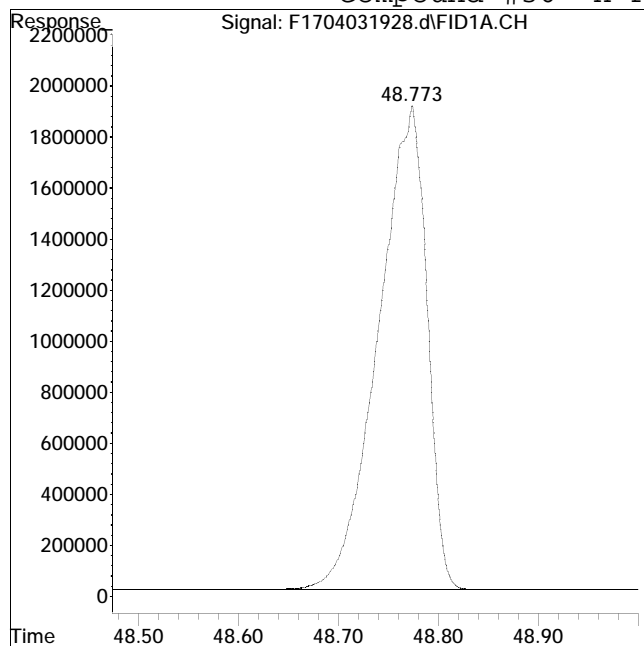
Manual Peak Response = 65841333 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 64032593

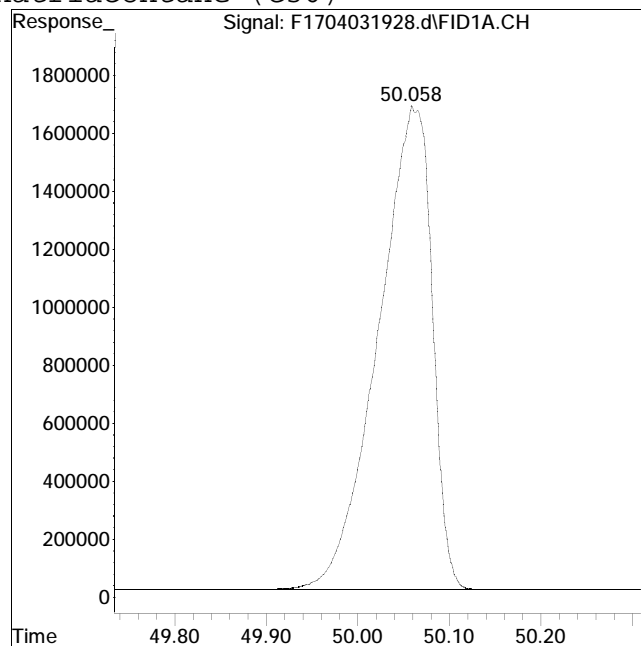
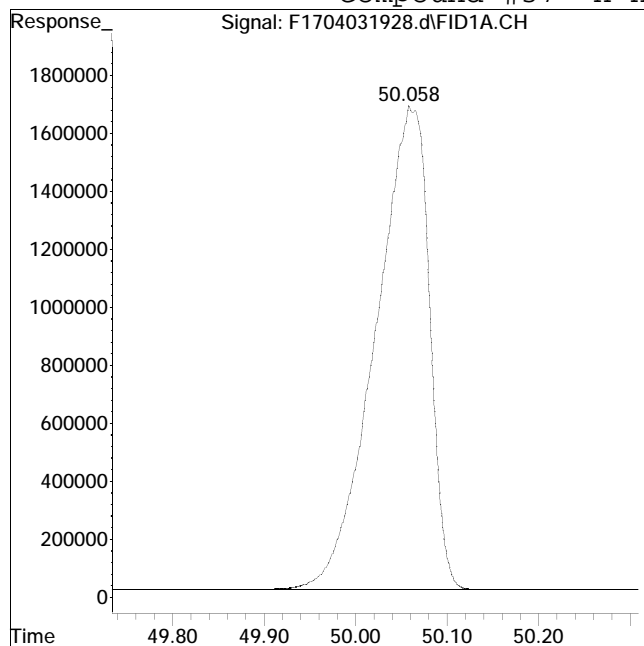
Manual Peak Response = 64044511 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 68182880

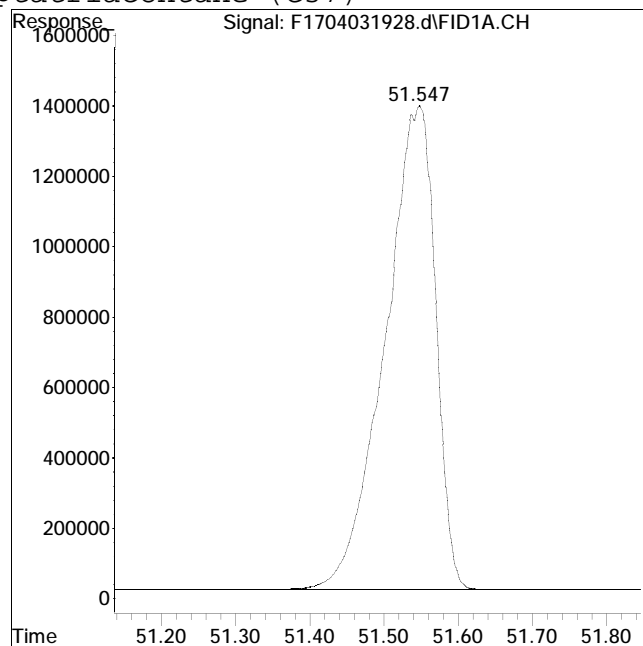
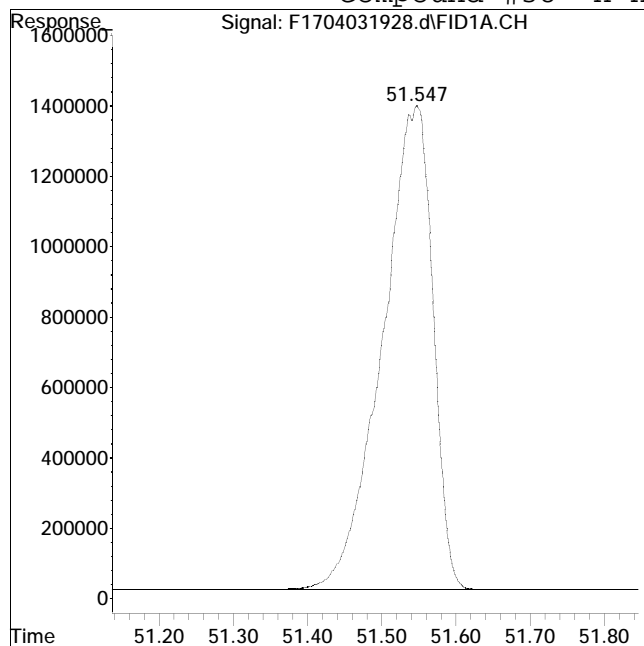
Manual Peak Response = 68219542 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 64978552

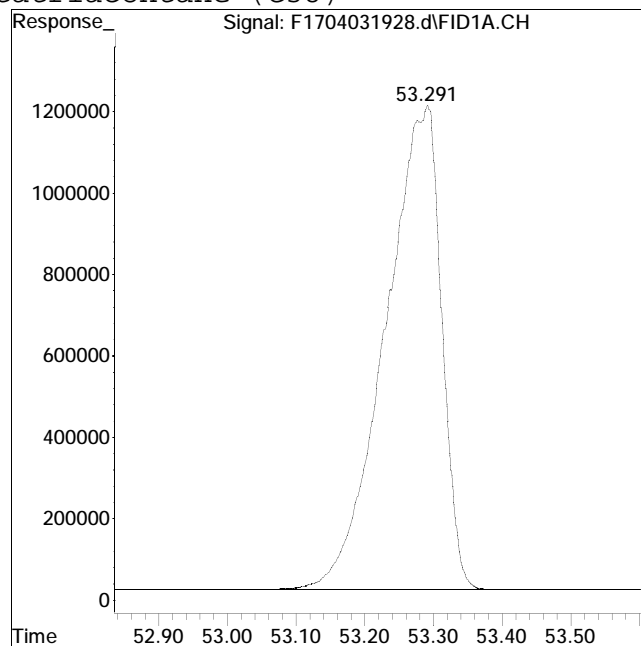
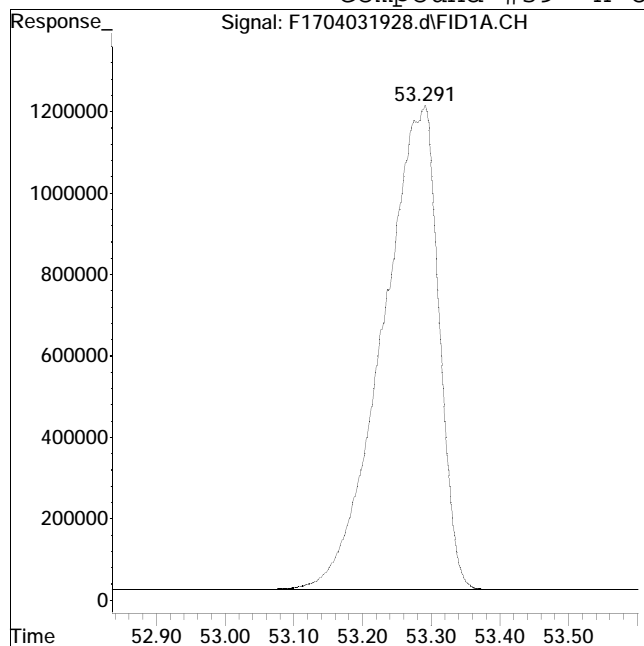
Manual Peak Response = 65065753 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 67453522

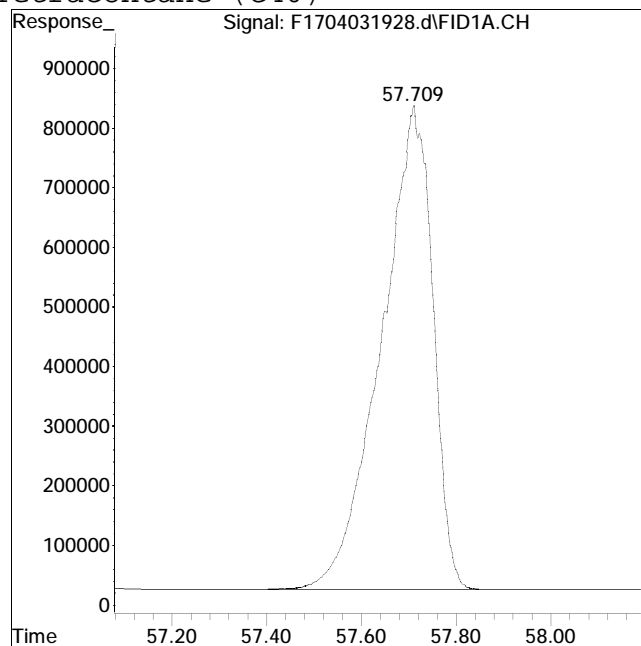
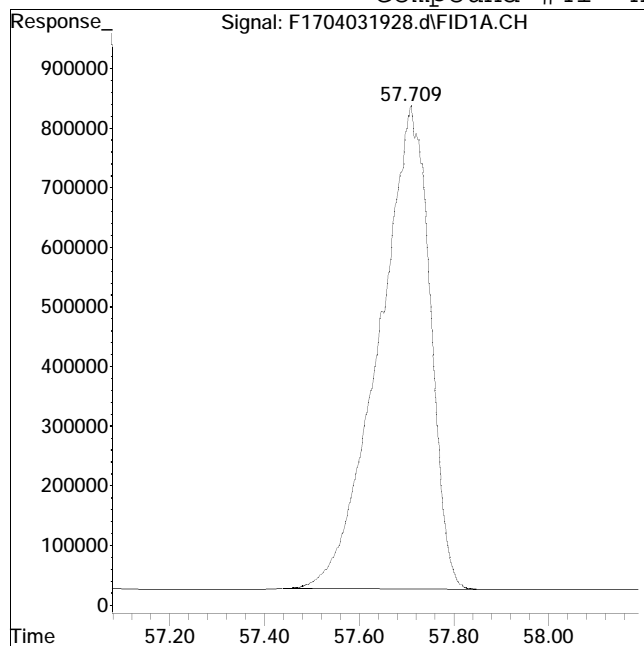
Manual Peak Response = 67533468 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031928.d Operator : FID17:WR
Date Inj'd : 4/4/2019 9:48 am Instrument : FID17
Sample : CQ1704031901F Quant Date : 4/15/2019 4:02 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 61148355

Manual Peak Response = 61435817 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031930.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 11:17 am
 Operator : FID17:WR
 Sample : WG1226965-1, 0.10148
 Misc : WG1226965,FRBB01,0.10148ug/ml
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 17 10:57:47 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:30:14 2019
 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 : IB1704031901F
 Blank File : F1704031910.d

Sub List : SHC - SHC

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.239	73310900	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.227	79497079	50.283	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	100.57%	
24) s d50-Tetracosane	35.866	61970425	48.980	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	97.96%	
Target Compounds				
2) t n-Octane (C8)	5.570	108217250	88.068	ug/mL M4
3) t n-Nonane (C9)	7.777	81582208	62.179	ug/mL M4
4) t n-Decane (C10)	10.265	68377012	51.050	ug/mL M4
5) t n-Undecane (C11)	12.779	62694543	46.326	ug/mL M4
6) t n-Dodecane (C12)	15.207	59144276	43.398	ug/mL M4
7) t n-Tridecane (C13)	17.513	54261853	39.865	ug/mL M4
8) t 1380	19.186	13004200	9.434	ug/mL M4
9) t n-Tetradecane (C14)	19.695	50267232	36.465	ug/mL M4
10) t 1470	20.979	18492079	13.423	ug/mL M4
11) t n-Pentadecane (C15)	21.760	57187632	41.511	ug/mL M4
12) t n-Hexadecane (C16)	23.714	46279982	33.387	ug/mL M4
13) t 1650	24.615	15821268	11.382	ug/mL M4
14) t n-Heptadecane (C17)	25.571	40143659	28.881	ug/mL M4
15) t Pristane	25.666	29653564	21.245	ug/mL M4
16) t n-Octadecane (C18)	27.336	35370588	25.305	ug/mL M4
17) t Phytane	27.494	18005430	14.155	ug/mL M4
18) t n-Nonadecane (C19)	29.022	33995406	24.408	ug/mL M4
20) t n-Eicosane (C20)	30.625	36657167	26.264	ug/mL M4
21) t n-Heneicosane (C21)	32.161	30354902	21.407	ug/mL M4
22) t n-Docosane (C22)	33.632	28549979	20.161	ug/mL M4
23) t n-Tricosane (C23)	35.042	25524573	17.908	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031930.d
 Signal(s) : FID1A.CH
 Acq On : 04 Apr 2019 11:17 am
 Operator : FID17:WR
 Sample : WG1226965-1, 0.10148
 Misc : WG1226965,FRBB01,0.10148ug/ml
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 17 10:57:47 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:30:14 2019
 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 : IB1704031901F
 Blank File : F1704031910.d

Sub List : SHC - SHC

Compound		R.T.	Response	Conc	Units
25) t	n-Tetracosane (C24)	36.399	23903784	16.711	ug/mL M4
26) t	n-Pentacosane (C25)	37.700	24064084	16.987	ug/mL M4
27) t	n-Hexacosane (C26)	38.956	20097772	14.082	ug/mL M4
28) t	n-Heptacosane (C27)	40.163	15675717	11.277	ug/mL M4
29) t	n-Octacosane (C28)	41.330	11226823	7.789	ug/mL M4
30) t	n-Nonacosane (C29)	42.459	10859636	7.576	ug/mL M4
31) t	n-Triacontane (C30)	43.550	8917118	6.291	ug/mL M4
32) t	n-Hentriacontane (C31)	44.607	7232893	5.071	ug/mL M4
33) t	n-Dotriacontane (C32)	45.627	7646538	5.430	ug/mL M4
34) t	n-Tritriacontane (C33)	46.621	4411435	3.166	ug/mL M4
35) t	n-tetratriacontane (C34)	47.625	4301108	2.979	ug/mL M4
36) t	n-Pentatriacontane (C35)	48.747	3814056	2.732	ug/mL M4
37) t	n-Hexatriacontane (C36)	50.027	2474732	1.675	ug/mL M4
38) t	n-Heptatriacontane (C37)	51.502	2230183	1.598	ug/mL M4
39) t	n-Octatriacontane (C38)	53.251	1965482	1.308	ug/mL M4
40) t	n-Nonatriacontane (C39)	55.261	1245173	0.872	ug/mL M4
41) t	n-Tetracontane (C40)	57.646	1184421	0.829	ug/mL M4
42) h	C9-C44 Total Petroleu...	40.163	8149377945	5820.591	ug/mL m
42) h	C9-C44 Total Petroleu BS	40.163	7782558580	5558.595	ug/mLm
46) h	Total Resolved Hydroc...	38.937	2809345876	2006.540	ug/mL m

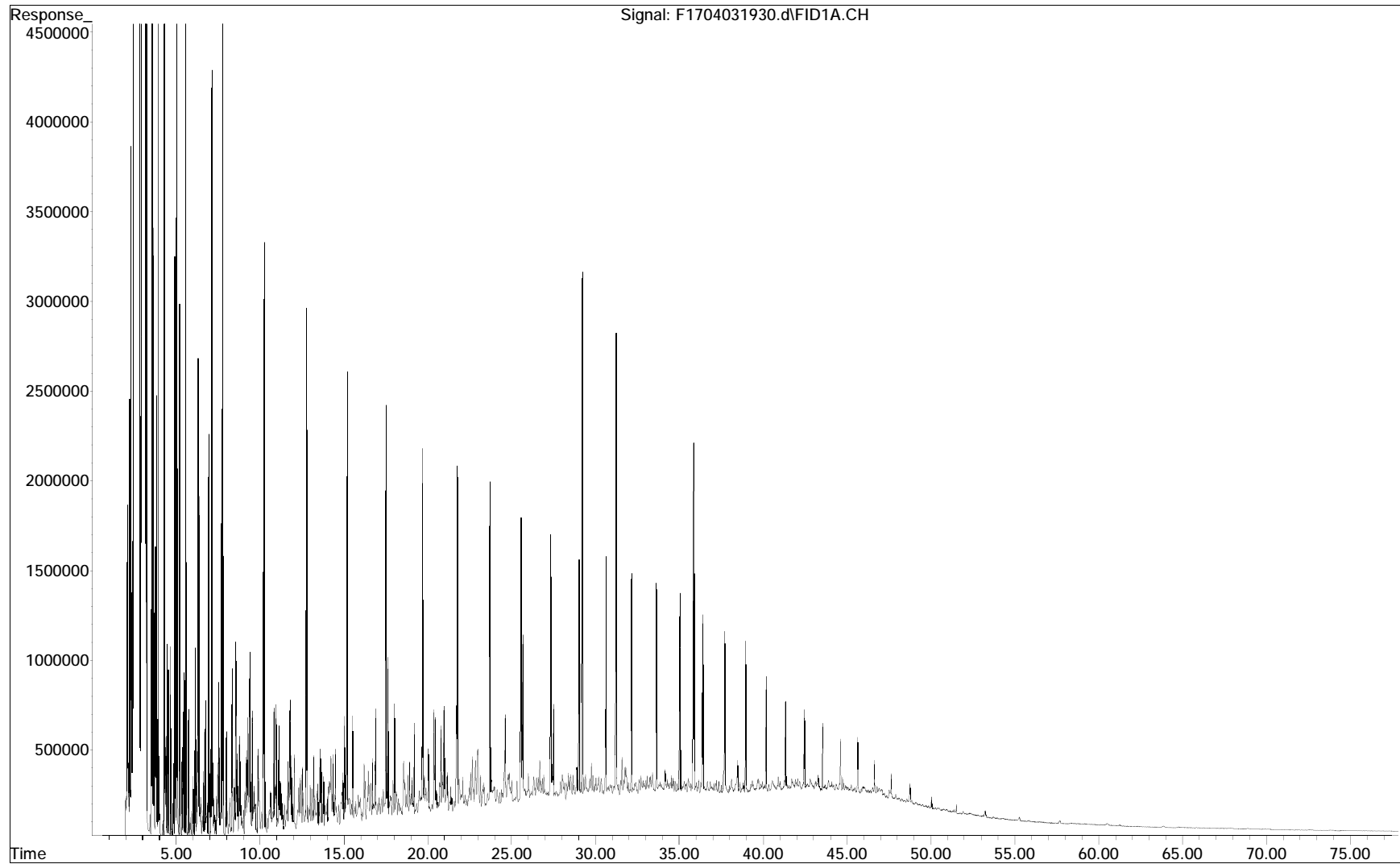
SemiQuant Compounds - Not Calibrated on this Instrument

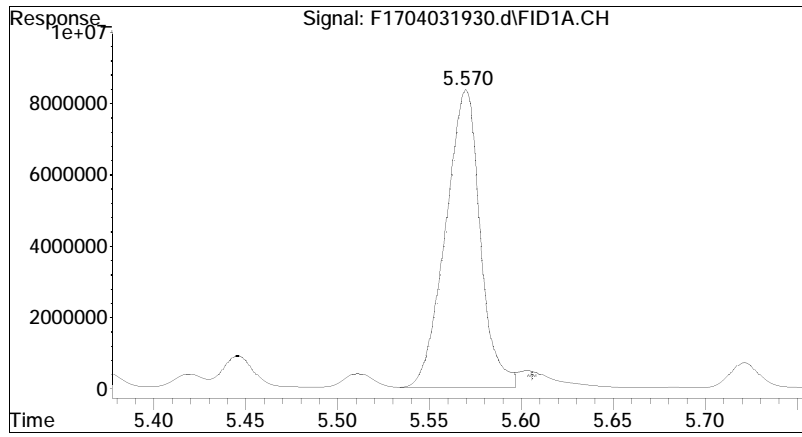
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

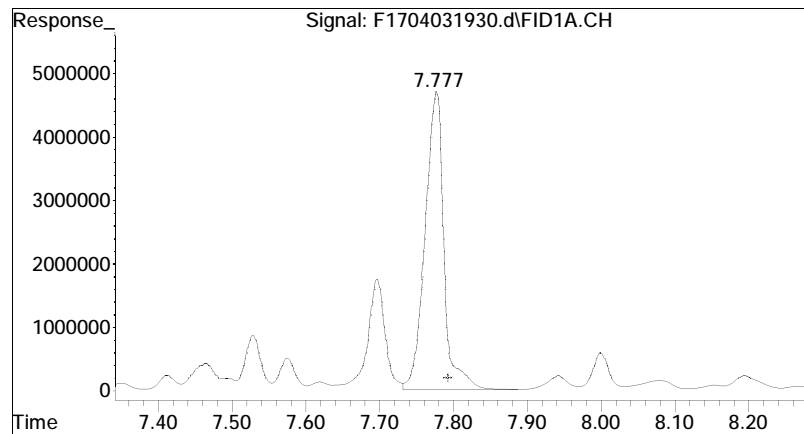
File : O:\Forensics\Data\FID17\2019\APR\APR03\F1704031930.d
Operator : FID17:WR
Acquired : 04 Apr 2019 11:17 am using AcqMethod FID17.M
Sample Name: WG1226965-1, 0.10148
Instrument: FID17
Misc Info : WG1226965,FRBB01,0.10148ug/ml
Vial Number: 15
CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



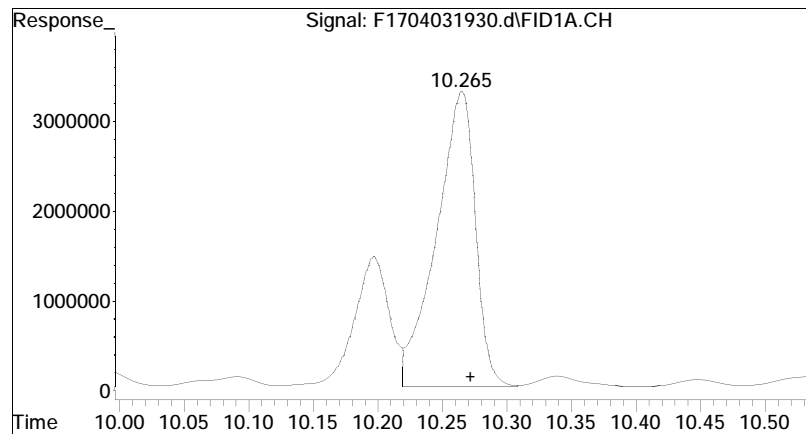


#2 n-Octane (C8)

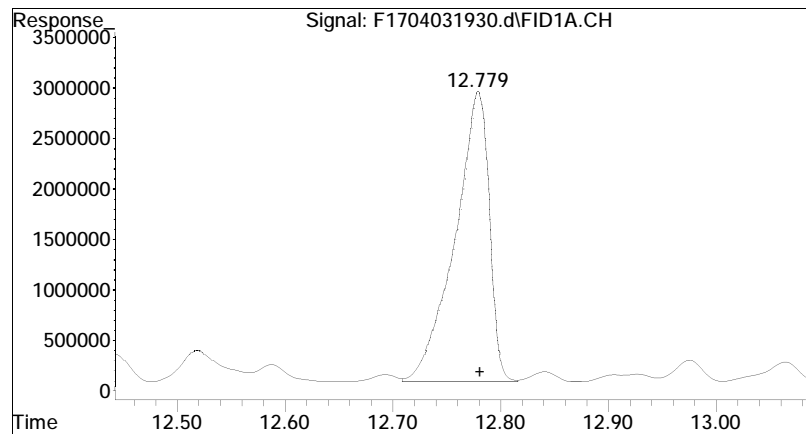
R.T.: 5.570 min
Delta R.T.: -0.036 min
Response: 108217250
Conc: 88.07 ug/mL M4



#3 n-Nonane (C9)
R.T.: 7.777 min
Delta R.T.: -0.016 min
Response: 81582208
Conc: 62.18 ug/mL M4

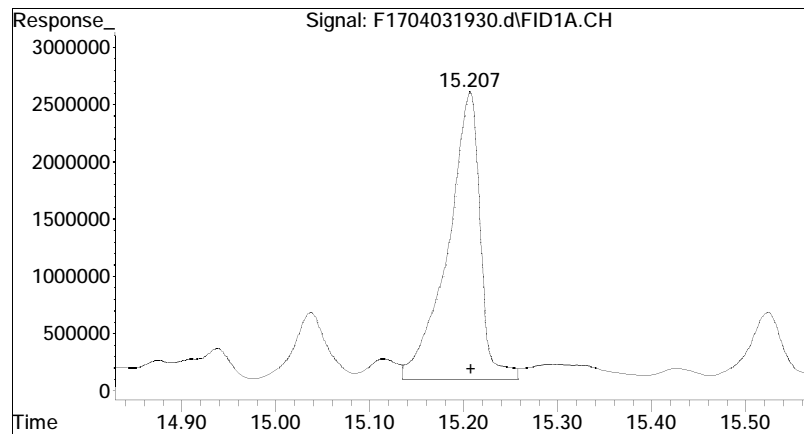


#4 n-Decane (C10)
R.T.: 10.265 min
Delta R.T.: -0.007 min
Response: 68377012
Conc: 51.05 ug/mL M4



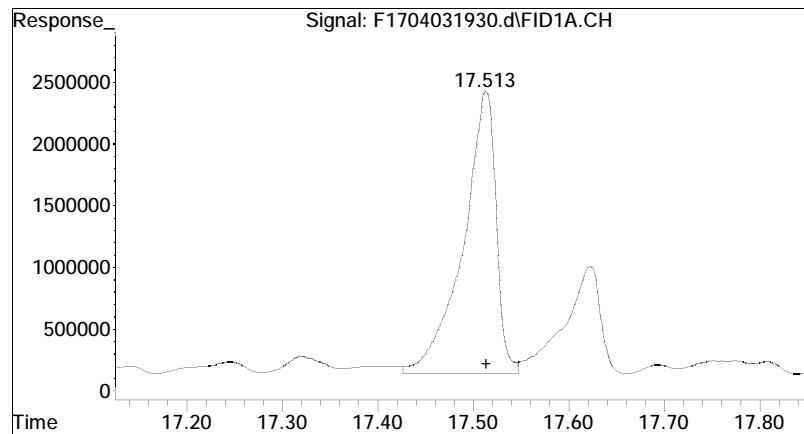
#5 n-Undecane (C11)

R.T.: 12.779 min
Delta R.T.: -0.002 min
Response: 62694543
Conc: 46.33 ug/mL M4



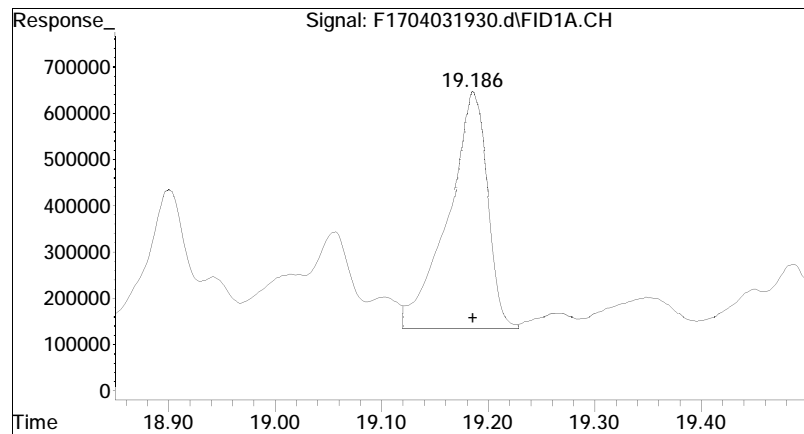
#6 n-Dodecane (C12)

R.T.: 15.207 min
Delta R.T.: -0.001 min
Response: 59144276
Conc: 43.40 ug/mL M4



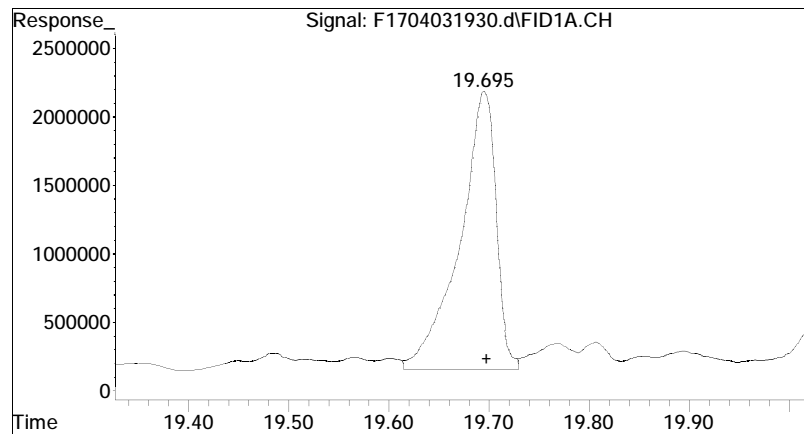
#7 n-Tridecane (C13)

R.T.: 17.513 min
Delta R.T.: -0.001 min
Response: 54261853
Conc: 39.87 ug/mL M4

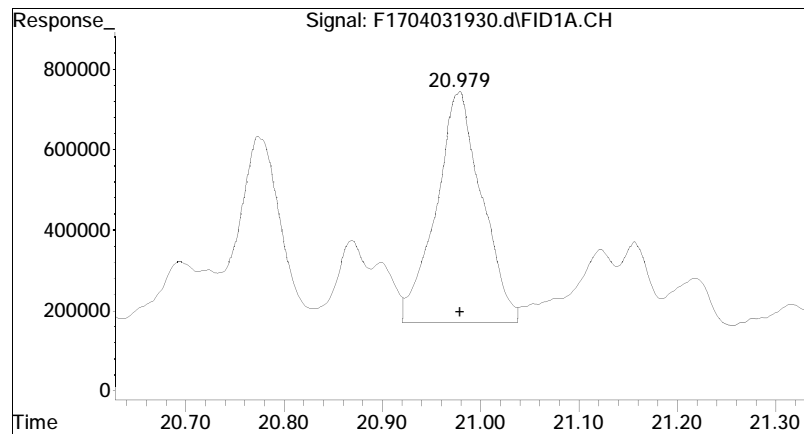


#8 1380

R.T.: 19.186 min
Delta R.T.: 0.000 min
Response: 13004200
Conc: 9.43 ug/mL M4

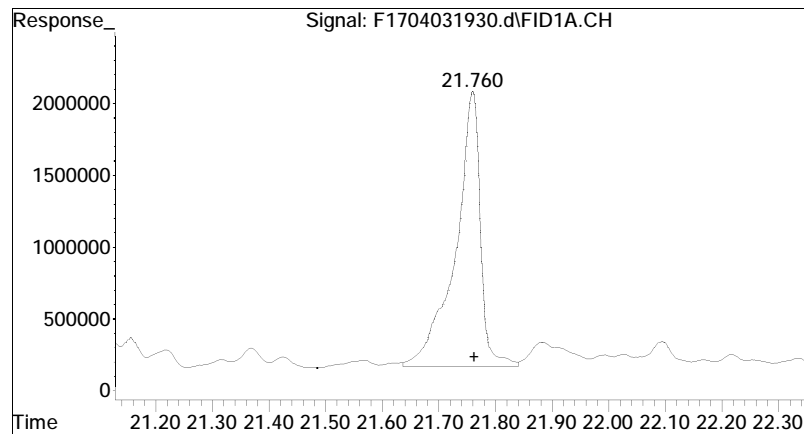


#9 n-Tetradecane (C14)
R.T.: 19.695 min
Delta R.T.: -0.003 min
Response: 50267232
Conc: 36.47 ug/mL M4



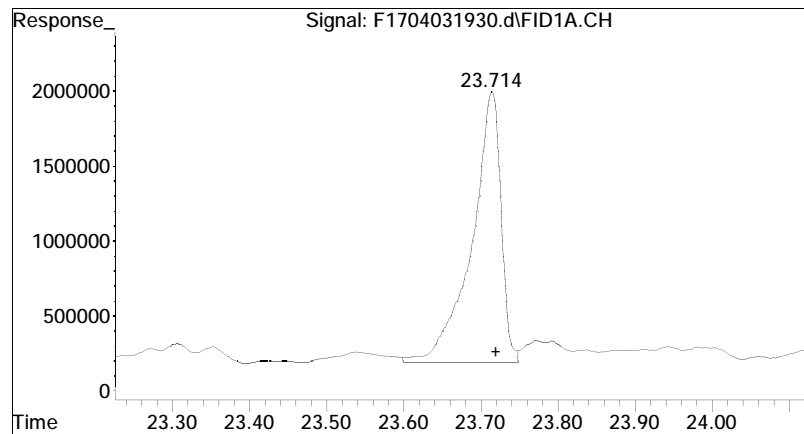
#10 1470

R.T.: 20.979 min
Delta R.T.: 0.000 min
Response: 18492079
Conc: 13.42 ug/mL M4



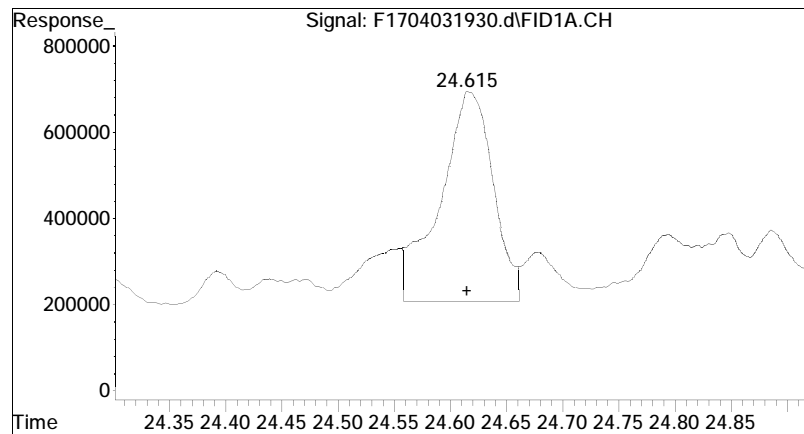
#11 n-Pentadecane (C15)

R.T.: 21.760 min
Delta R.T.: -0.003 min
Response: 57187632
Conc: 41.51 ug/mL M4



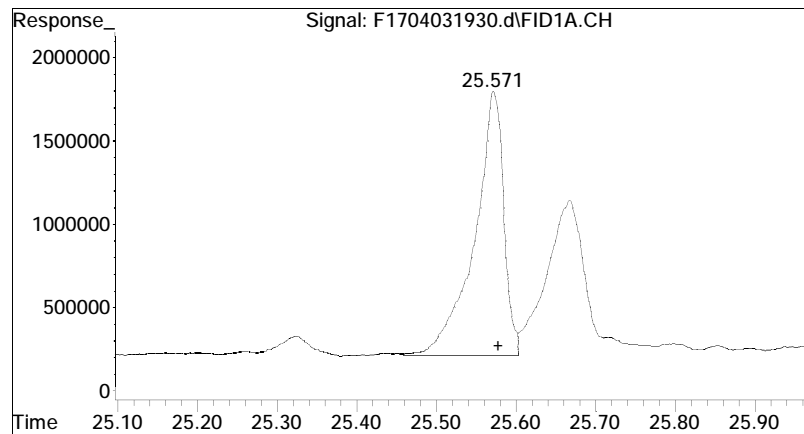
#12 n-Hexadecane (C16)

R.T.: 23.714 min
Delta R.T.: -0.006 min
Response: 46279982
Conc: 33.39 ug/mL M4



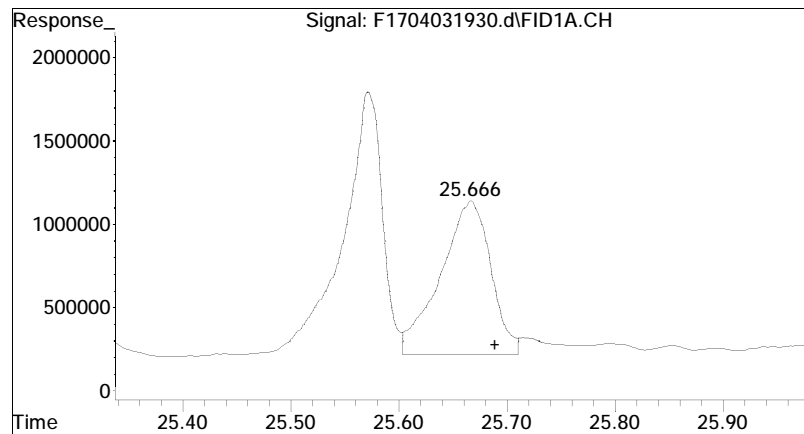
#13 1650

R.T.: 24.615 min
Delta R.T.: 0.000 min
Response: 15821268
Conc: 11.38 ug/mL M4



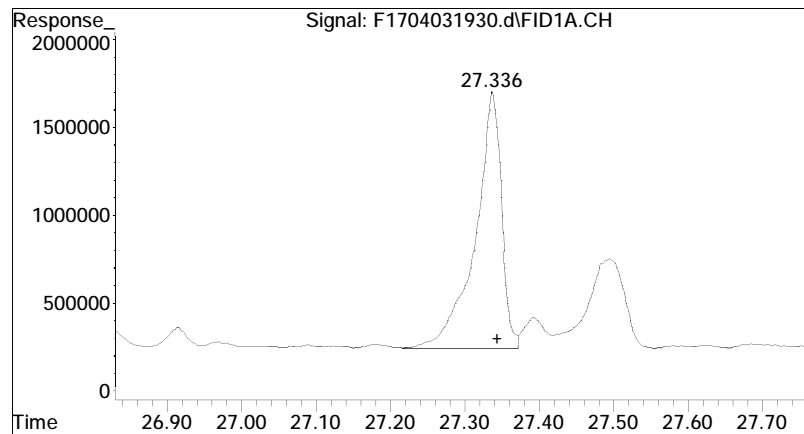
#14 n-Heptadecane (C17)

R.T.: 25.571 min
Delta R.T.: -0.007 min
Response: 40143659
Conc: 28.88 ug/mL M4



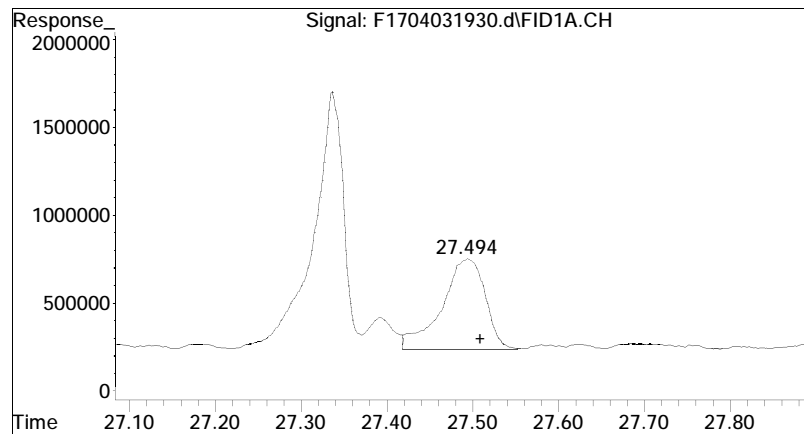
#15 Pristane

R.T.: 25.666 min
Delta R.T.: -0.023 min
Response: 29653564
Conc: 21.25 ug/mL M4



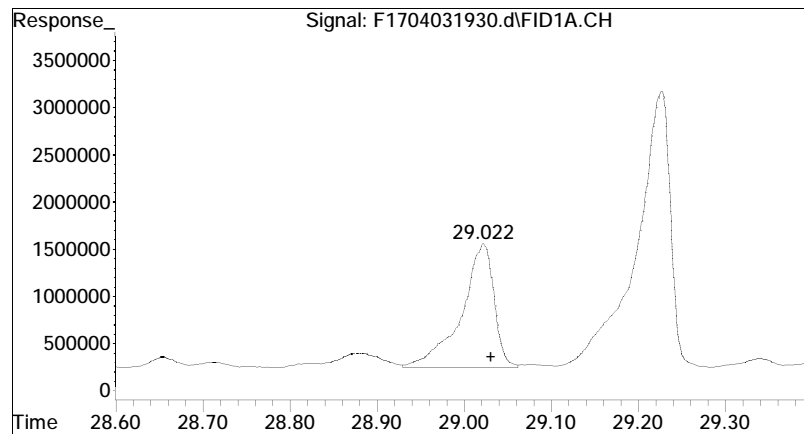
#16 n-Octadecane (C18)

R.T.: 27.336 min
Delta R.T.: -0.008 min
Response: 35370588
Conc: 25.30 ug/mL M4

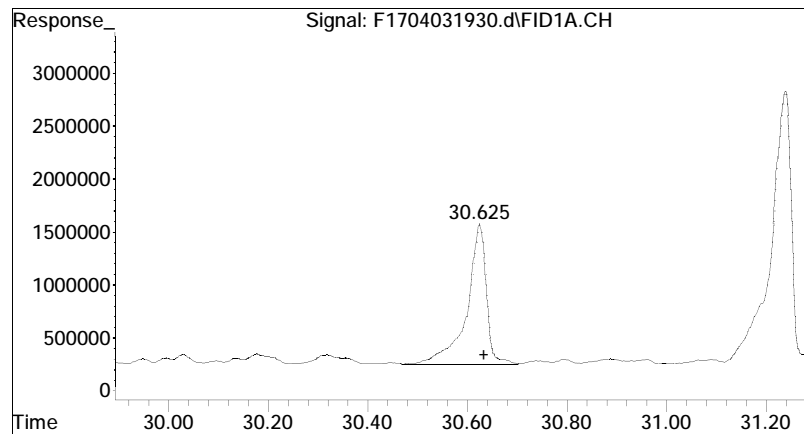


#17 Phytane

R.T.: 27.494 min
Delta R.T.: -0.015 min
Response: 18005430
Conc: 14.15 ug/mL M4

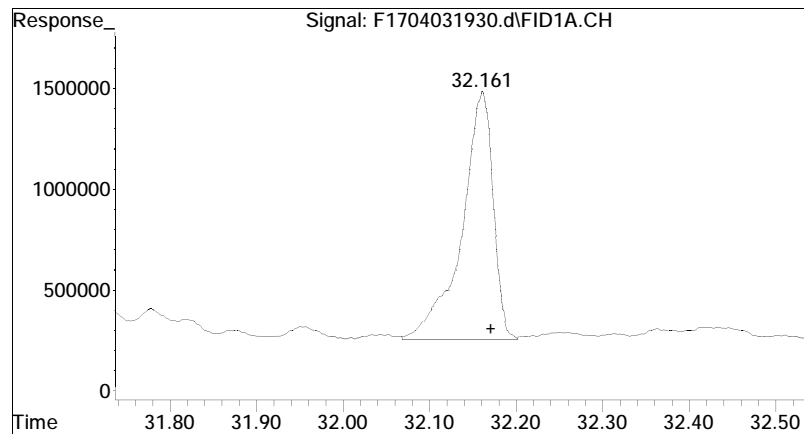


#18 n-Nonadecane (C19)
R.T.: 29.022 min
Delta R.T.: -0.009 min
Response: 33995406
Conc: 24.41 ug/mL M4



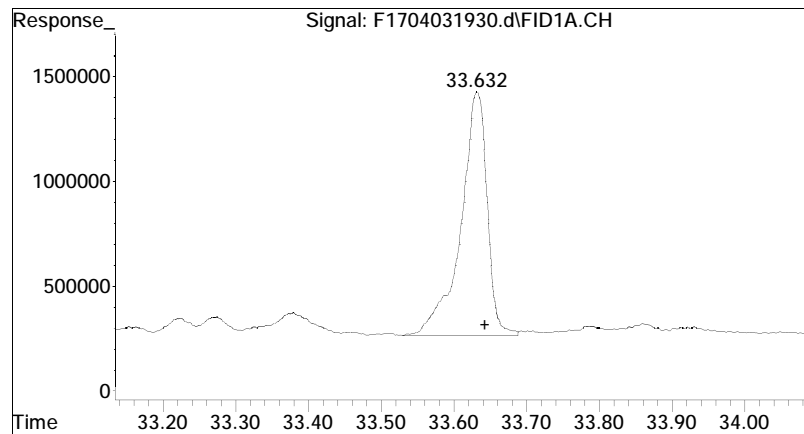
#20 n-Eicosane (C20)

R.T.: 30.625 min
Delta R.T.: -0.009 min
Response: 36657167
Conc: 26.26 ug/mL M4



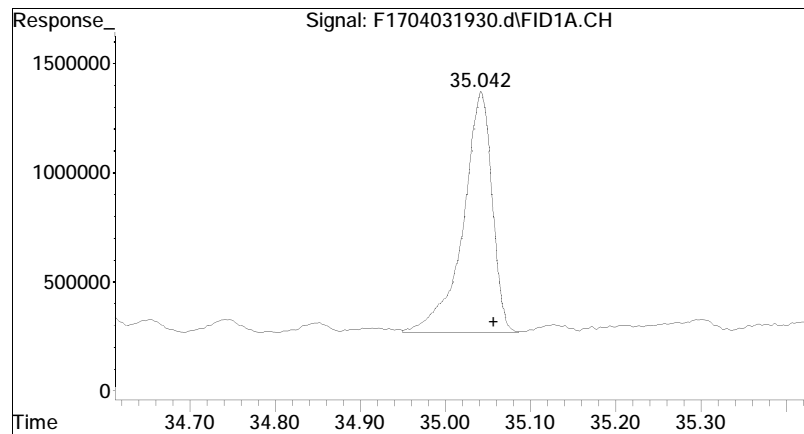
#21 n-Heneicosane (C21)

R.T.: 32.161 min
Delta R.T.: -0.010 min
Response: 30354902
Conc: 21.41 ug/mL M4

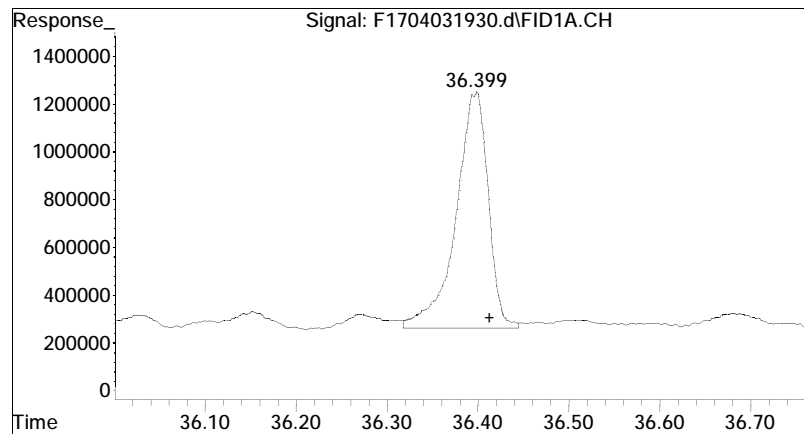


#22 n-Docosane (C22)

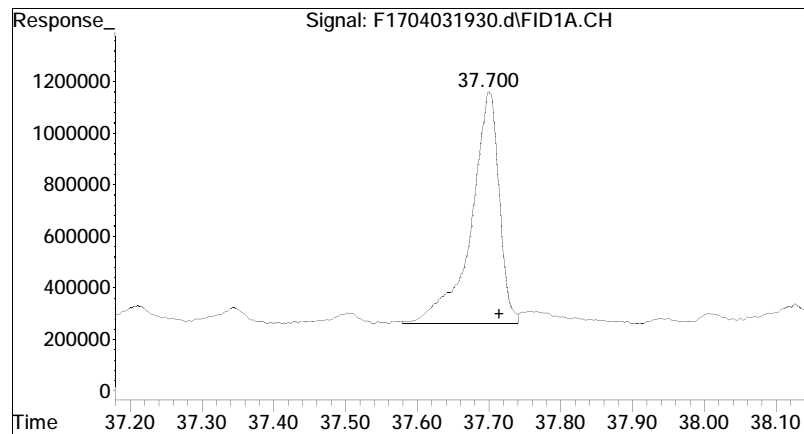
R.T.: 33.632 min
Delta R.T.: -0.011 min
Response: 28549979
Conc: 20.16 ug/mL M4



#23 n-Tricosane (C23)
R.T.: 35.042 min
Delta R.T.: -0.015 min
Response: 25524573
Conc: 17.91 ug/mL M4

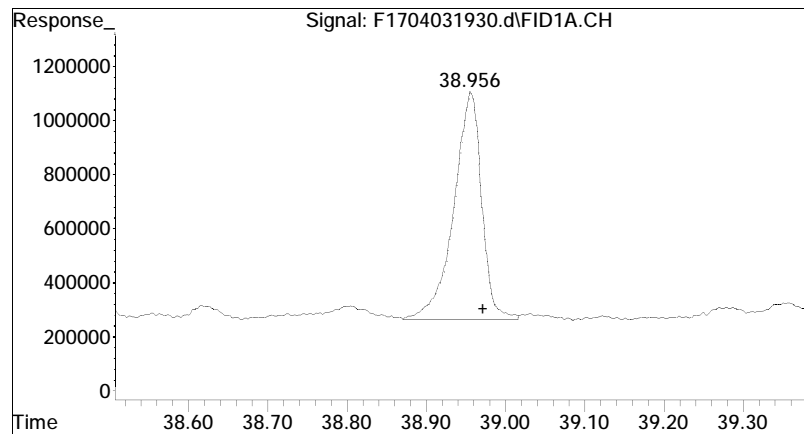


#25 n-Tetracosane (C24)
R.T.: 36.399 min
Delta R.T.: -0.014 min
Response: 23903784
Conc: 16.71 ug/mL M4



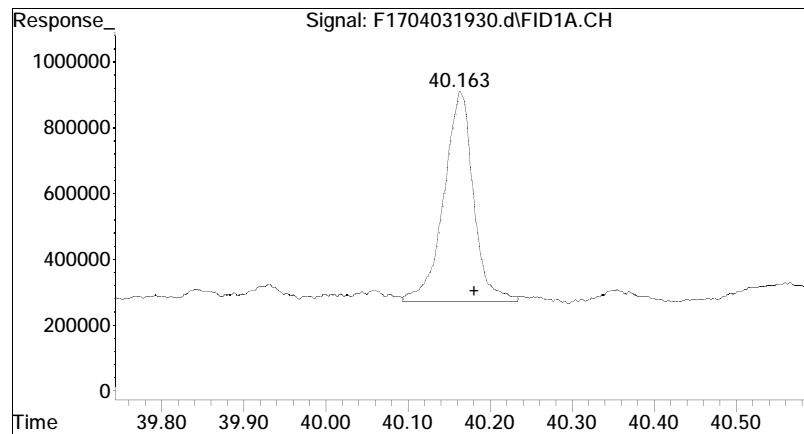
#26 n-Pentacosane (C25)

R.T.: 37.700 min
Delta R.T.: -0.015 min
Response: 24064084
Conc: 16.99 ug/mL M4



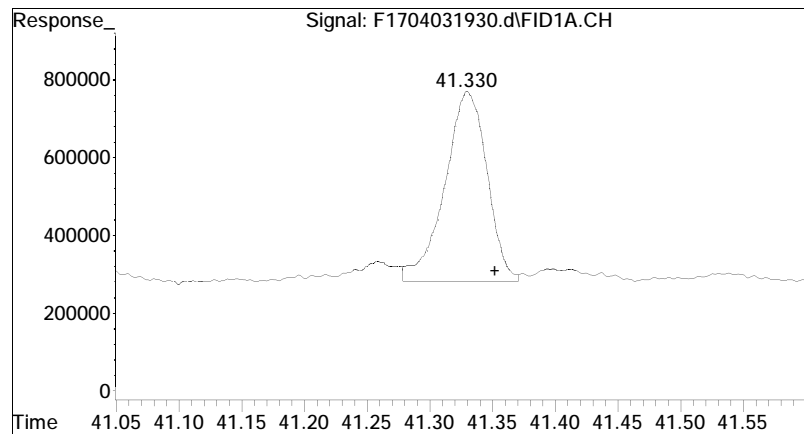
#27 n-Hexacosane (C26)

R.T.: 38.956 min
Delta R.T.: -0.016 min
Response: 20097772
Conc: 14.08 ug/mL M4

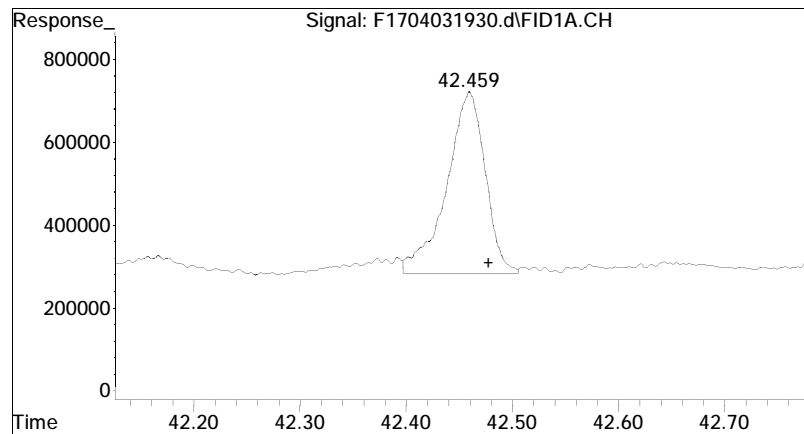


#28 n-Heptacosane (C27)

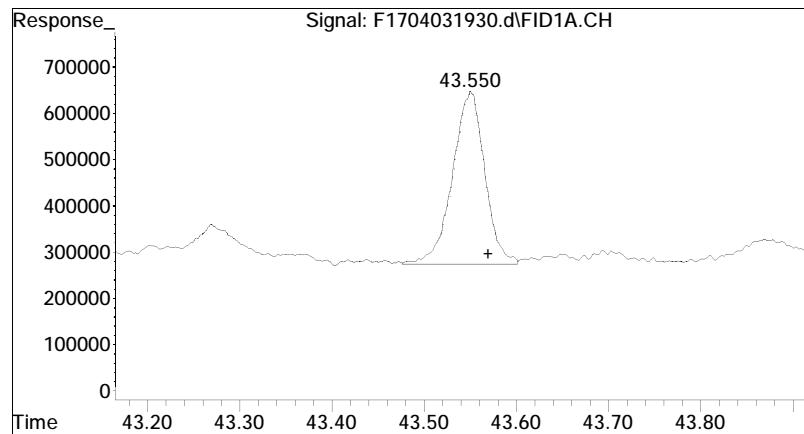
R.T.: 40.163 min
Delta R.T.: -0.018 min
Response: 15675717
Conc: 11.28 ug/mL M4



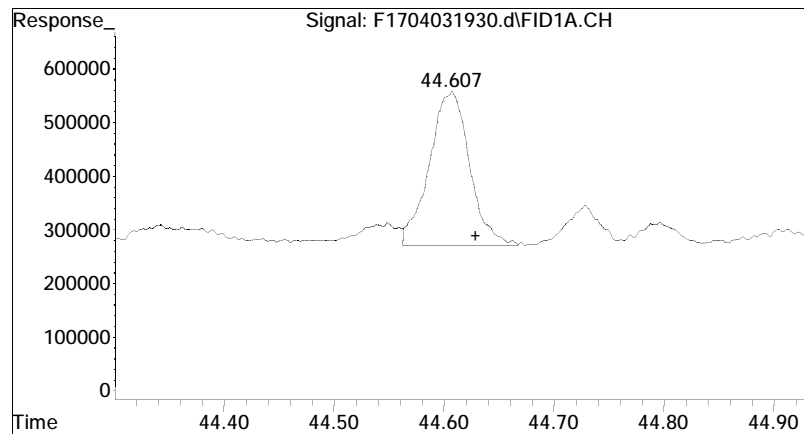
#29 n-Octacosane (C28)
R.T.: 41.330 min
Delta R.T.: -0.022 min
Response: 11226823
Conc: 7.79 ug/mL M4



#30 n-Nonacosane (C29)
R.T.: 42.459 min
Delta R.T.: -0.019 min
Response: 10859636
Conc: 7.58 ug/mL M4

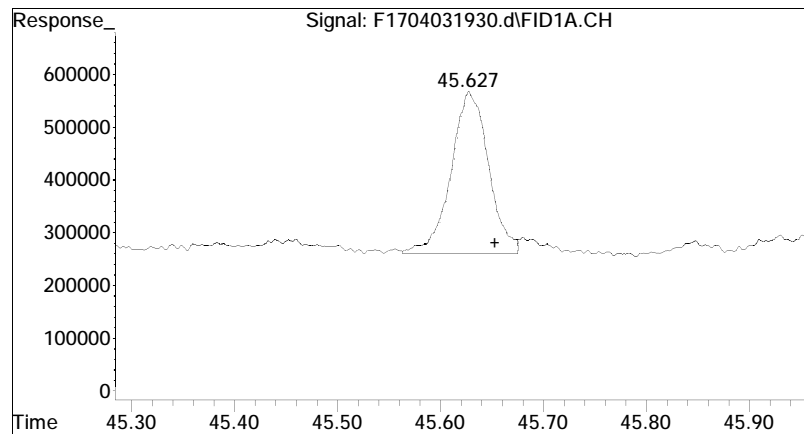


#31 n-Triacontane (C30)
R.T.: 43.550 min
Delta R.T.: -0.020 min
Response: 8917118
Conc: 6.29 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.607 min
Delta R.T.: -0.022 min
Response: 7232893
Conc: 5.07 ug/mL M4



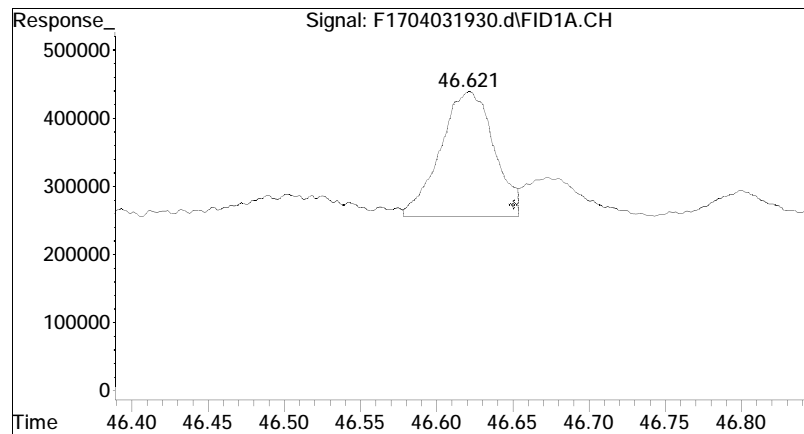
#33 n-Dotriacontane (C32)

R.T.: 45.627 min

Delta R.T.: -0.026 min

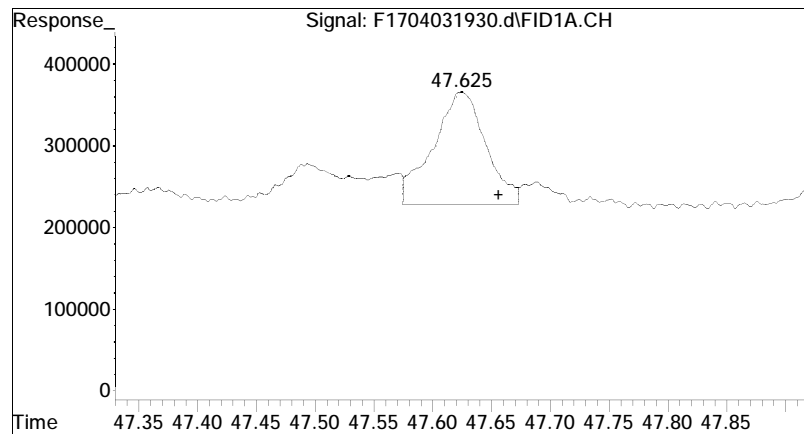
Response: 7646538

Conc: 5.43 ug/mL M4



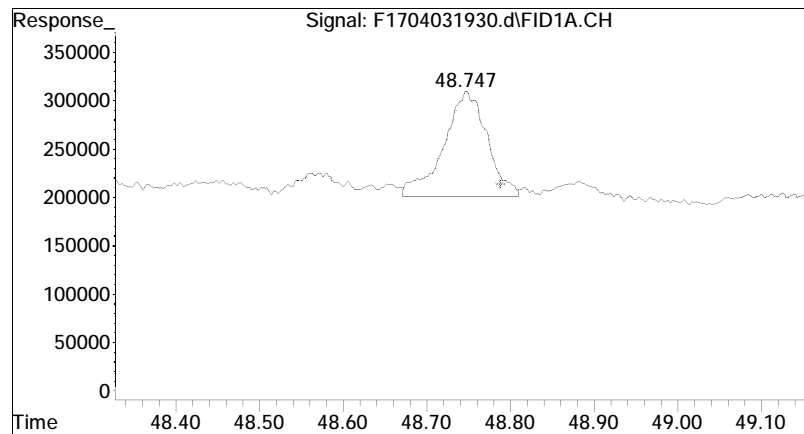
#34 n-Tritriacontane (C33)

R.T.: 46.621 min
Delta R.T.: -0.030 min
Response: 4411435
Conc: 3.17 ug/mL M4



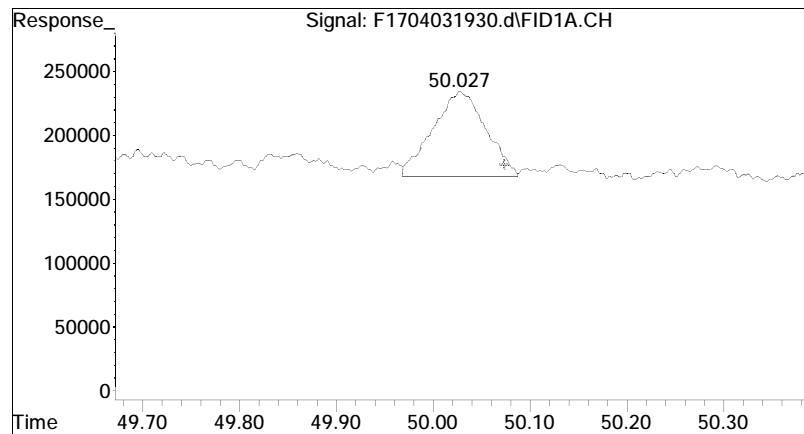
#35 n-tetratriacontane (C34)

R.T.: 47.625 min
Delta R.T.: -0.031 min
Response: 4301108
Conc: 2.98 ug/mL M4



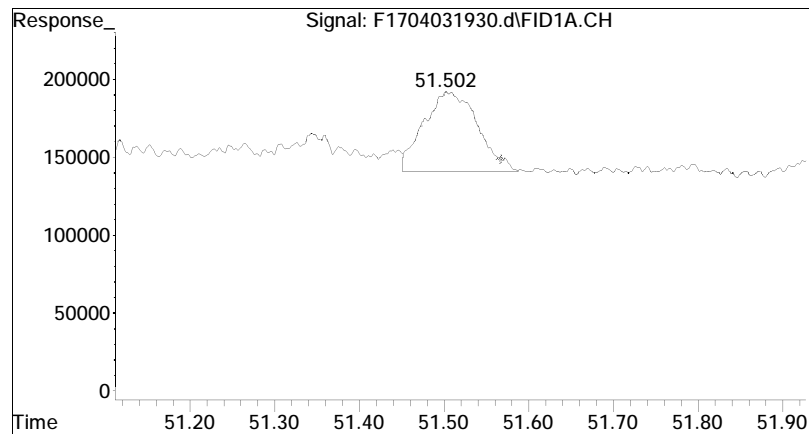
#36 n-Pentatriacontane (C35)

R.T.: 48.747 min
Delta R.T.: -0.041 min
Response: 3814056
Conc: 2.73 ug/mL M4



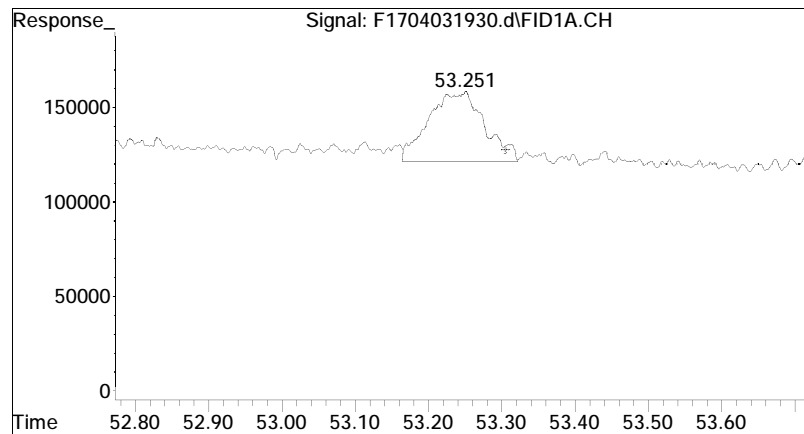
#37 n-Hexatriacontane (C36)

R.T.: 50.027 min
Delta R.T.: -0.046 min
Response: 2474732
Conc: 1.67 ug/mL M4



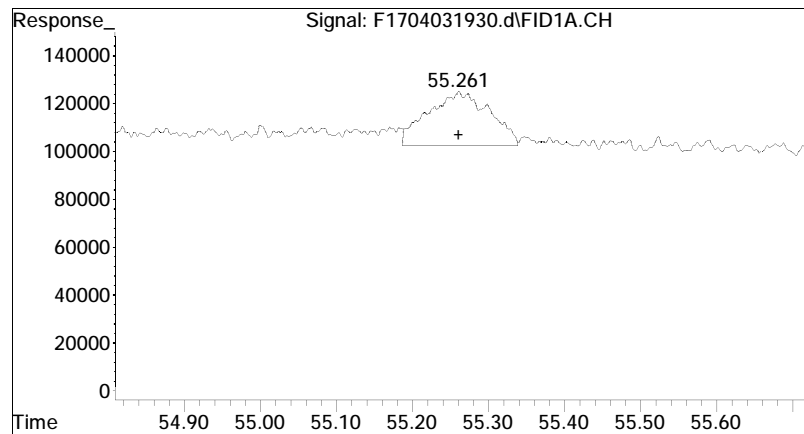
#38 n-Heptatriacontane (C37)

R.T.: 51.502 min
Delta R.T.: -0.065 min
Response: 2230183
Conc: 1.60 ug/mL M4



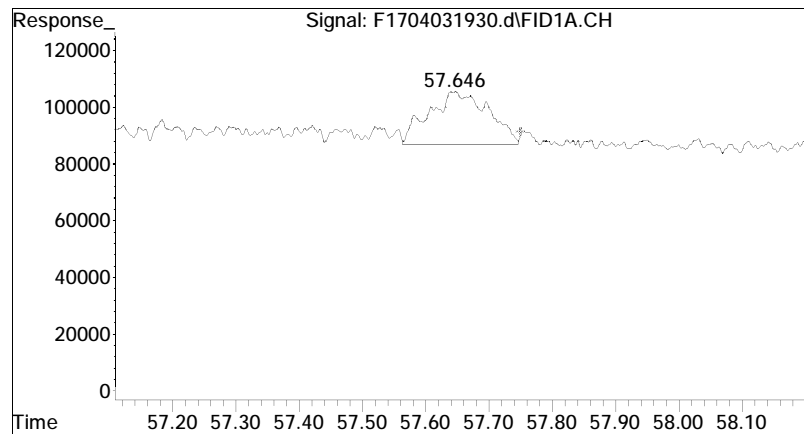
#39 n-Octatriacontane (C38)

R.T.: 53.251 min
Delta R.T.: -0.055 min
Response: 1965482
Conc: 1.31 ug/mL M4



#40 n-Nonatriacontane (C39)

R.T.: 55.261 min
Delta R.T.: 0.000 min
Response: 1245173
Conc: 0.87 ug/mL M4



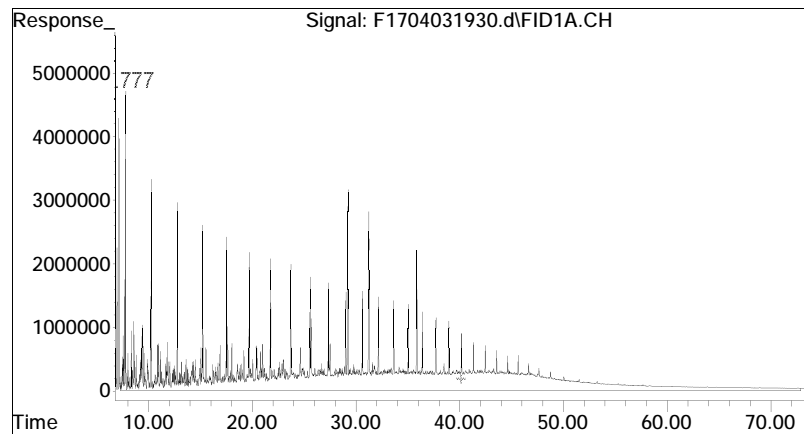
#41 n-Tetracontane (C40)

R.T.: 57.646 min

Delta R.T.: -0.104 min

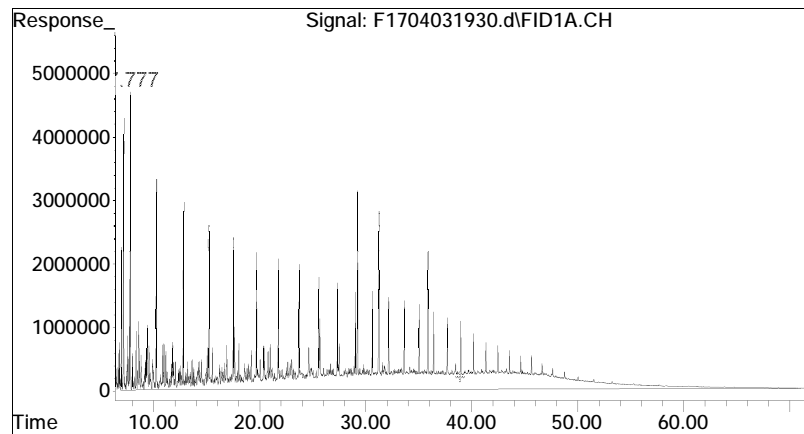
Response: 1184421

Conc: 0.83 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.163 min
Delta R.T.: 0.000 min
Response: 8149377945
Conc: 5820.59 ug/mL m



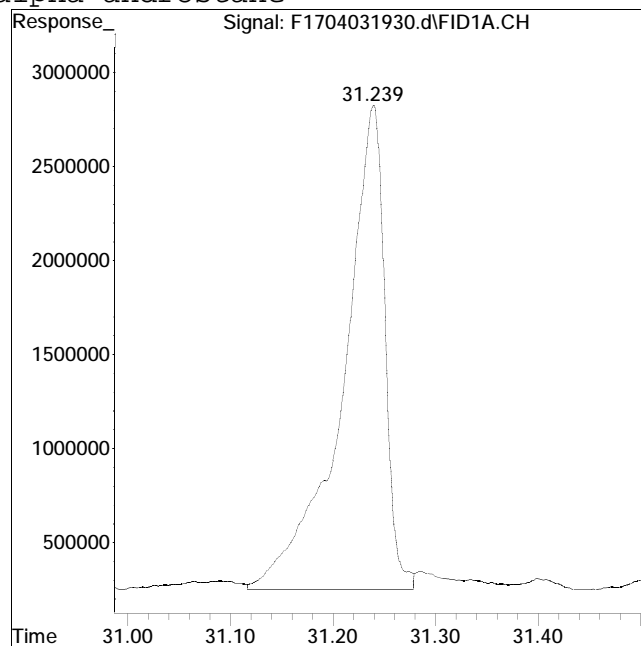
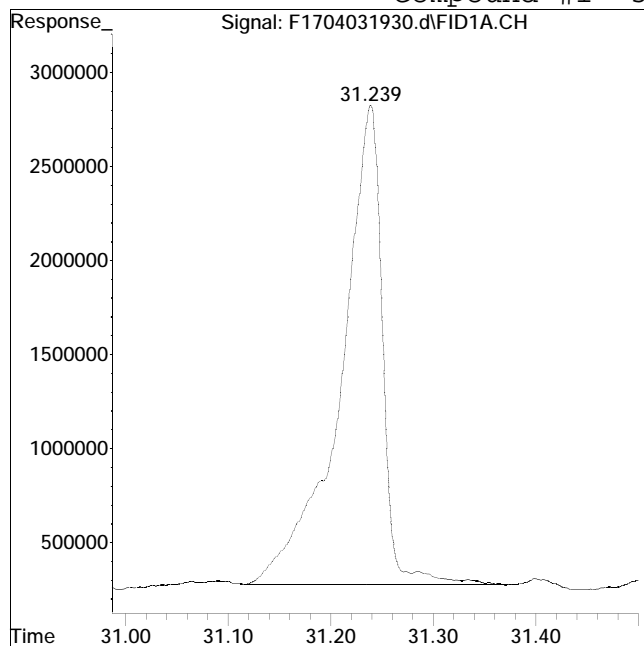
#46 Total Resolved Hydrocarbo

R.T.: 38.937 min
Delta R.T.: 0.000 min
Response: 2809345876
Conc: 2006.54 ug/mL m

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #1: 5-alpha-androstane



Original Peak Response = 72620068

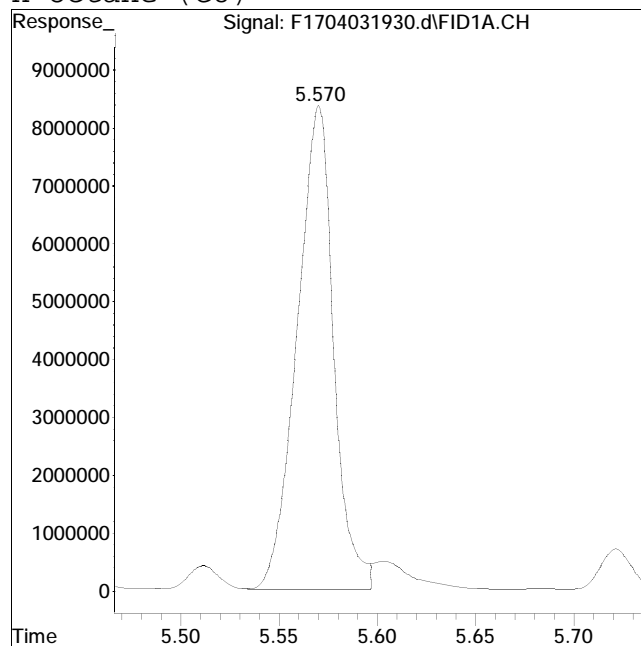
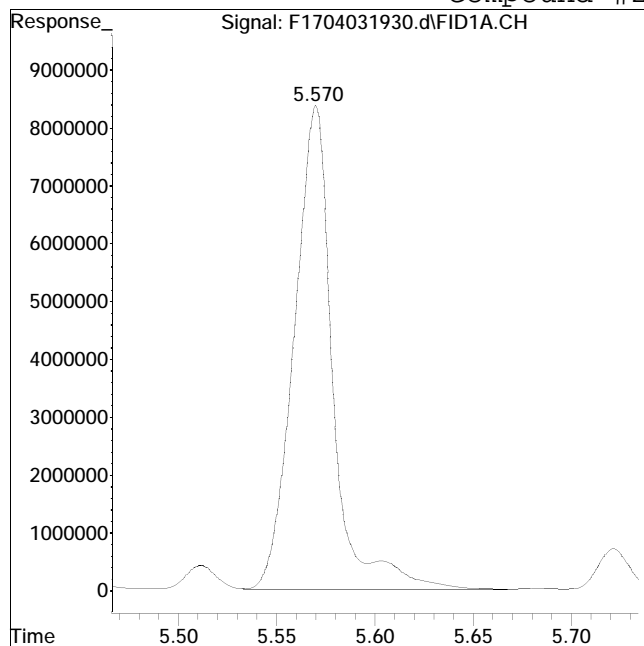
Manual Peak Response = 73310900 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #2: n-Octane (C8)



Original Peak Response = 115579482

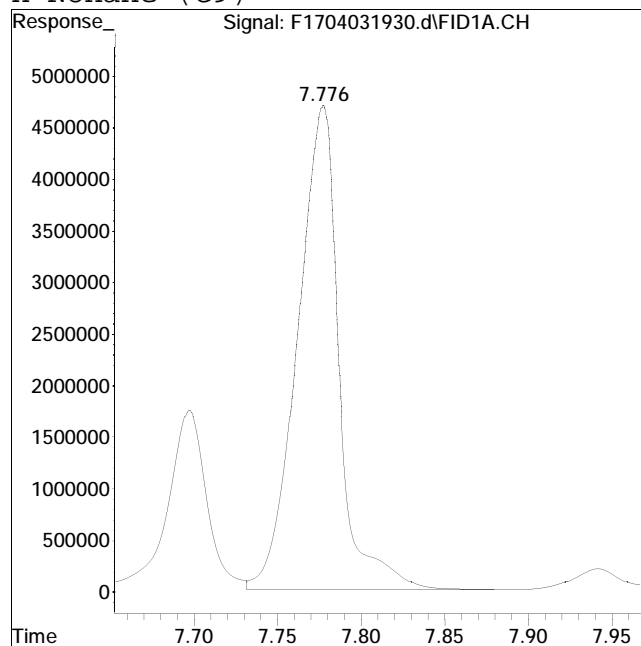
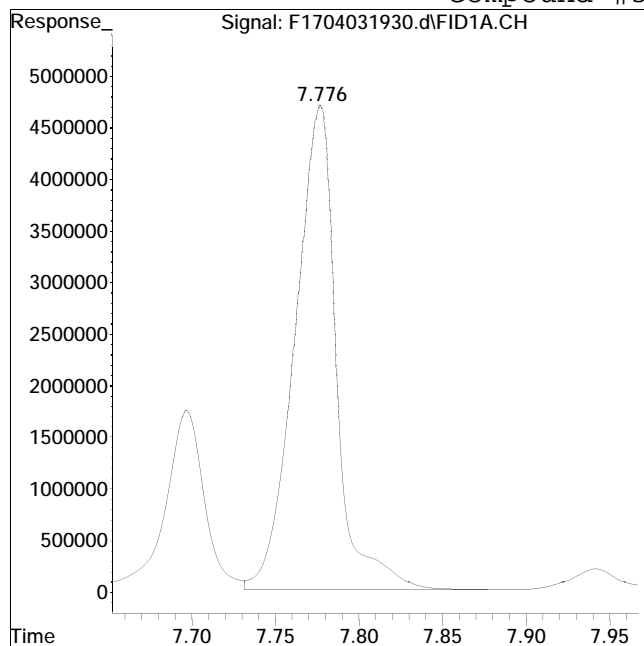
Manual Peak Response = 108217250 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #3: n-Nonane (C9)



Original Peak Response = 81520830

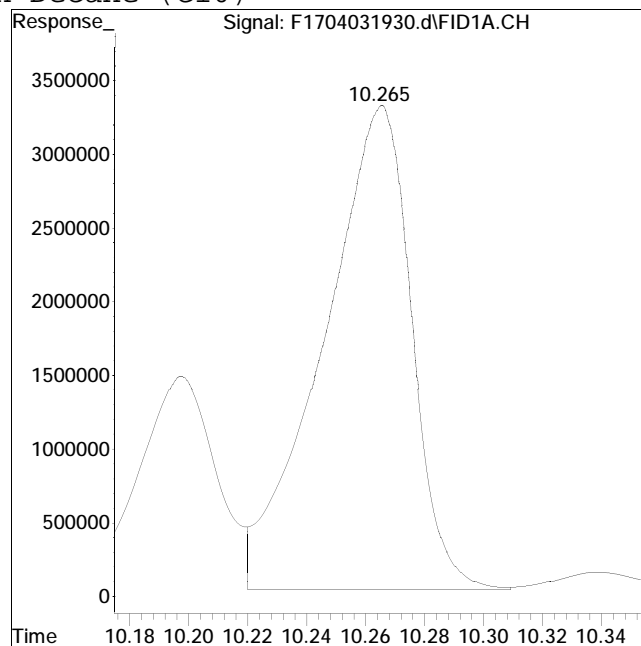
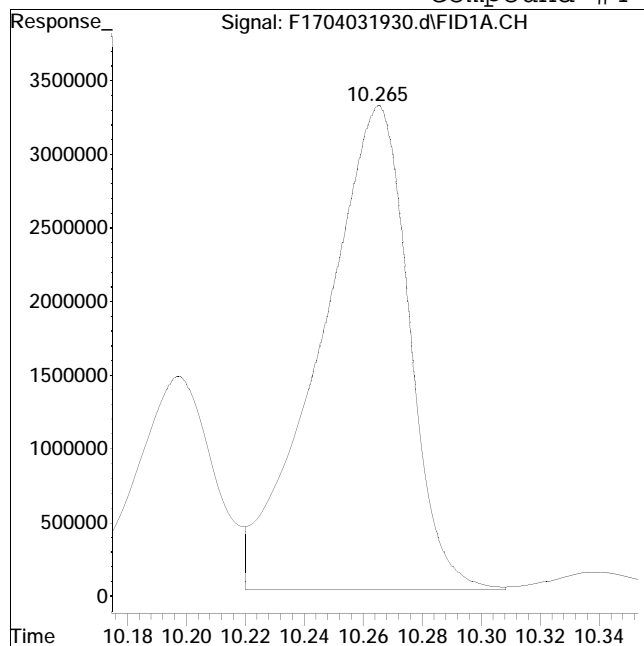
Manual Peak Response = 81582208 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #4: n-Decane (C10)



Original Peak Response = 68393026

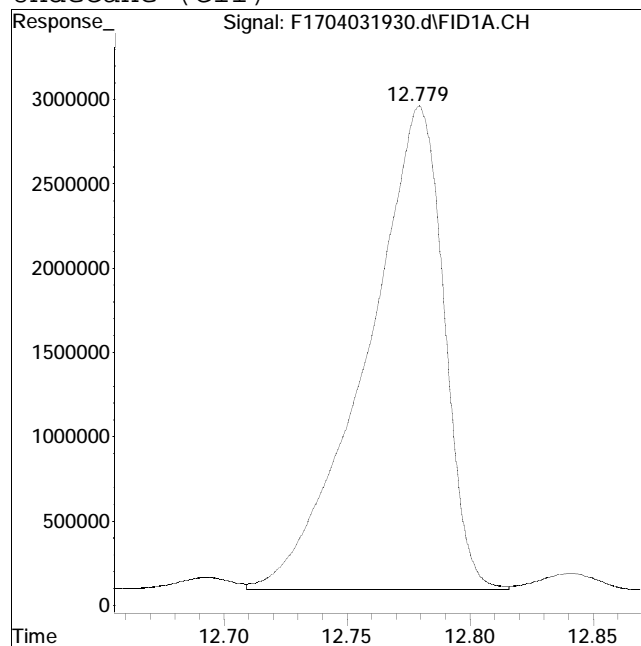
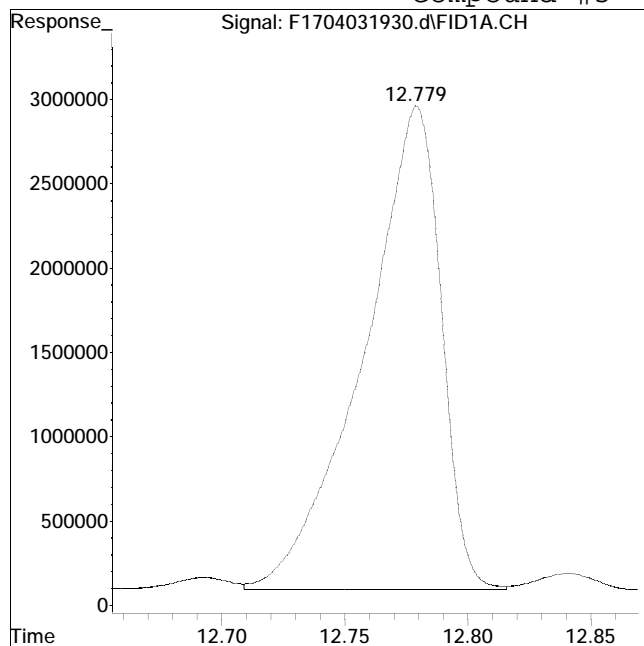
Manual Peak Response = 68377012 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #5: n-Undecane (C11)



Original Peak Response = 62479224

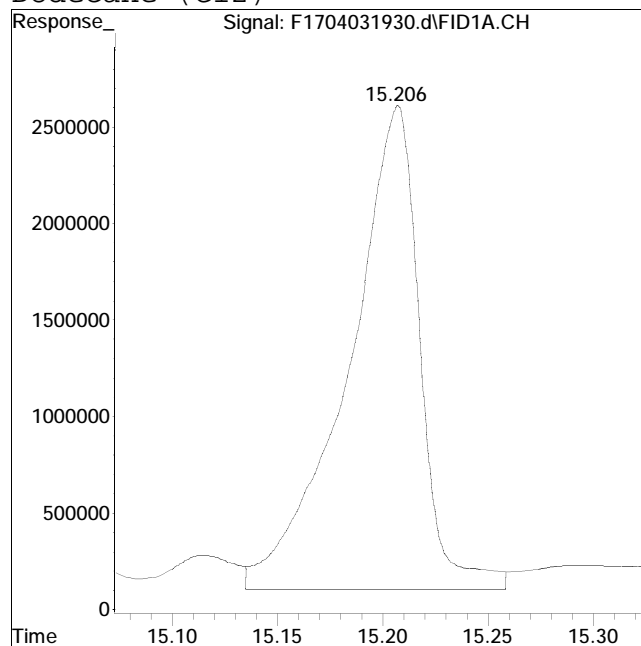
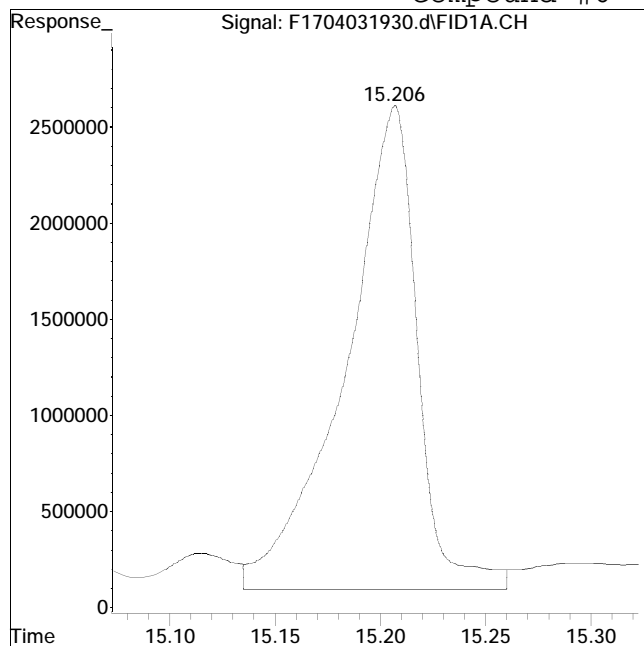
Manual Peak Response = 62694543 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #6: n-Dodecane (C12)



Original Peak Response = 59986257

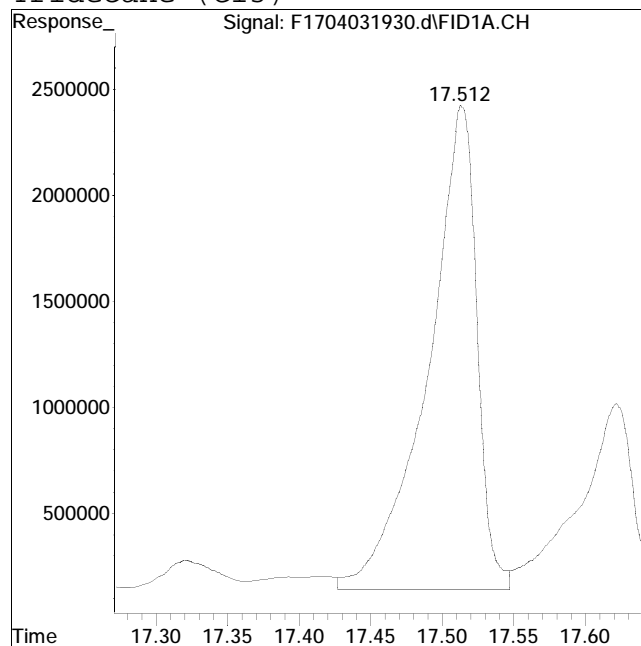
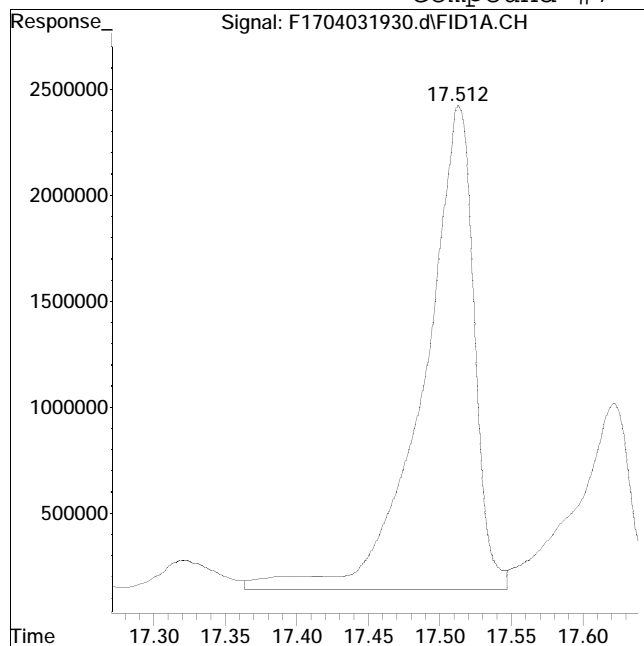
Manual Peak Response = 59144276 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #7: n-Tridecane (C13)



Original Peak Response = 56544705

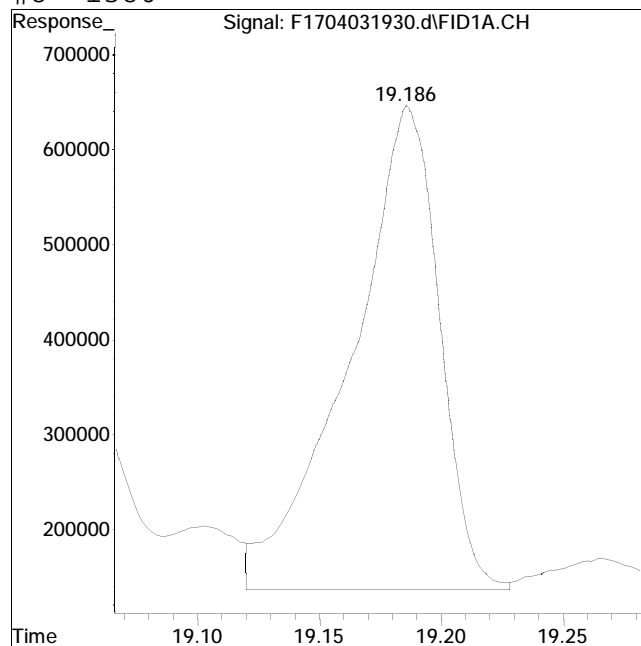
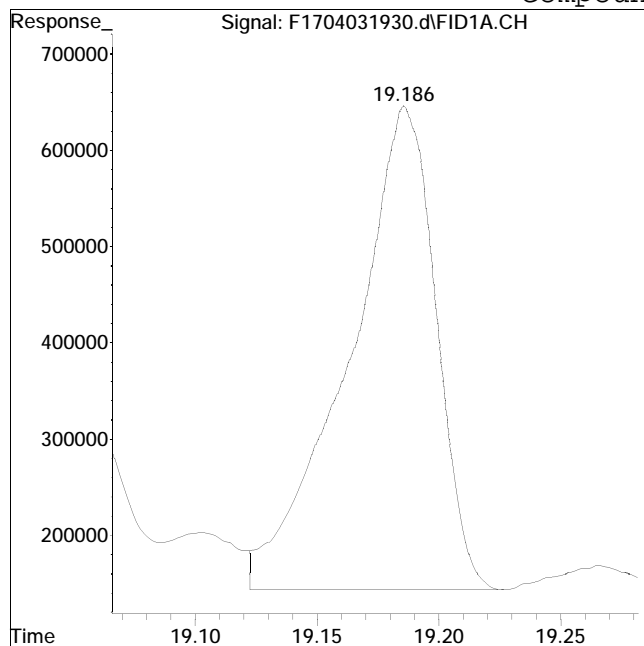
Manual Peak Response = 54261853 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #8: 1380



Original Peak Response = 12464881

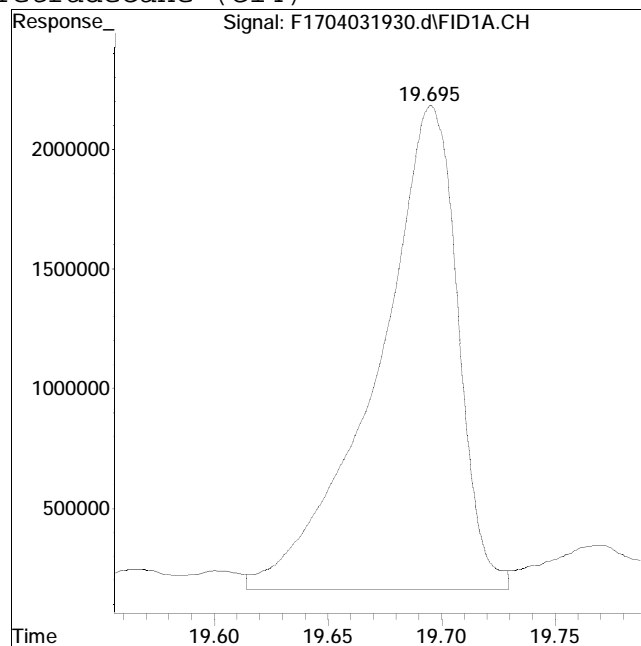
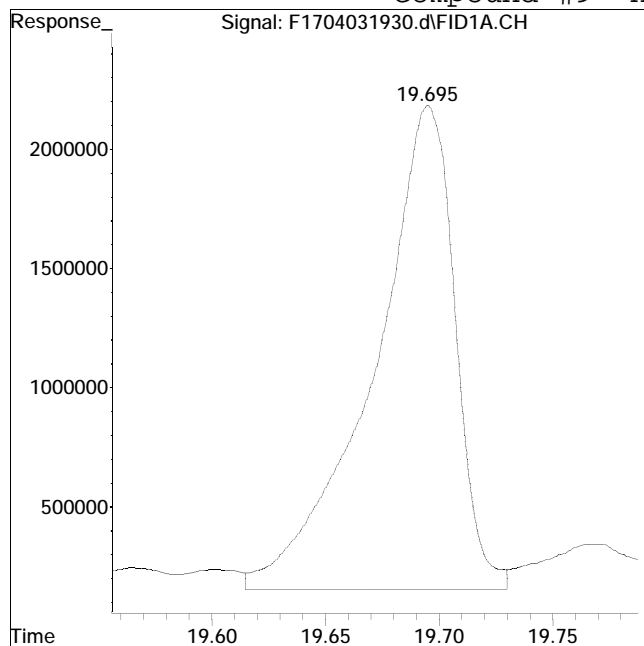
Manual Peak Response = 13004200 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #9: n-Tetradecane (C14)



Original Peak Response = 50627420

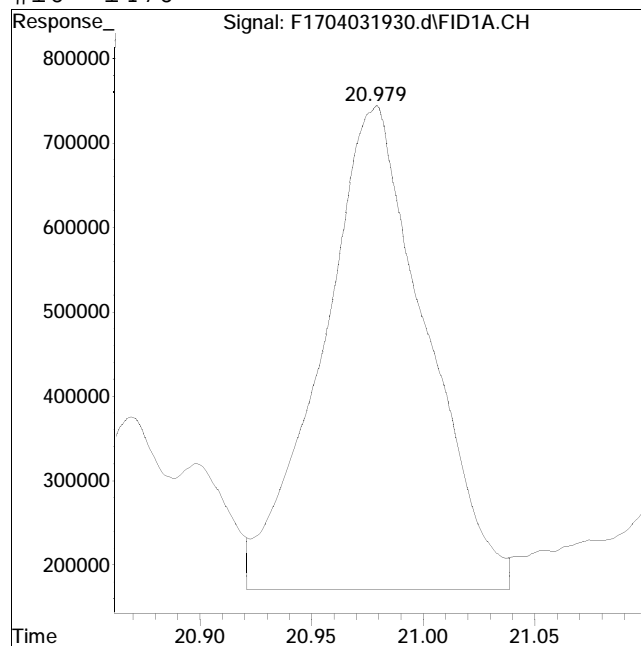
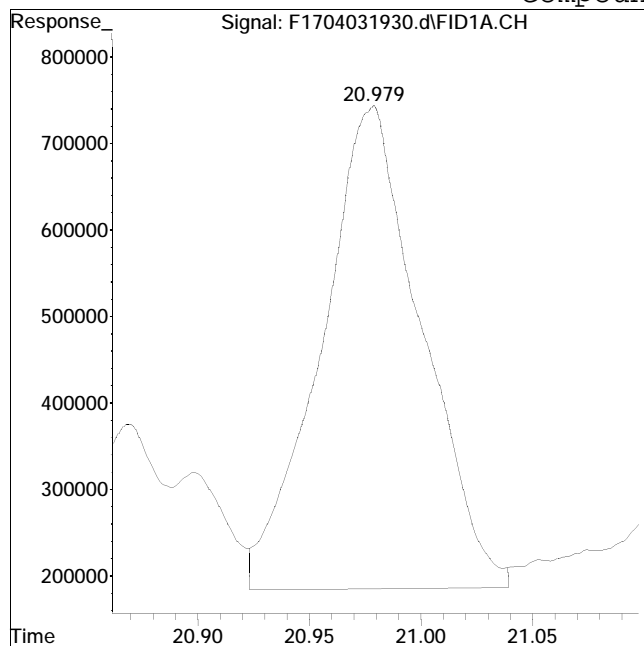
Manual Peak Response = 50267232 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #10: 1470



Original Peak Response = 17487362

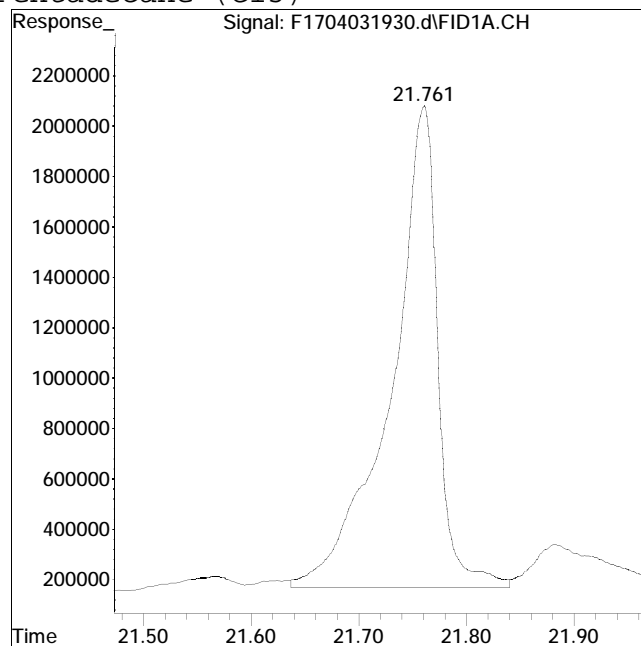
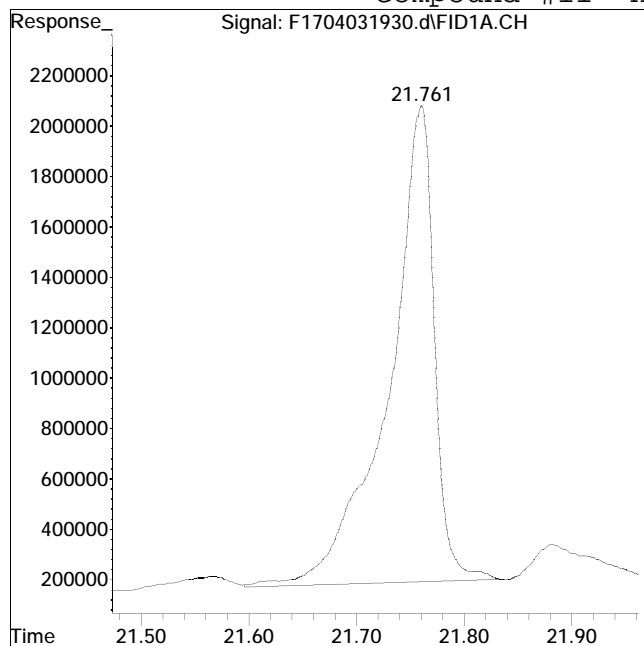
Manual Peak Response = 18492079 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #11: n-Pentadecane (C15)



Original Peak Response = 55408663

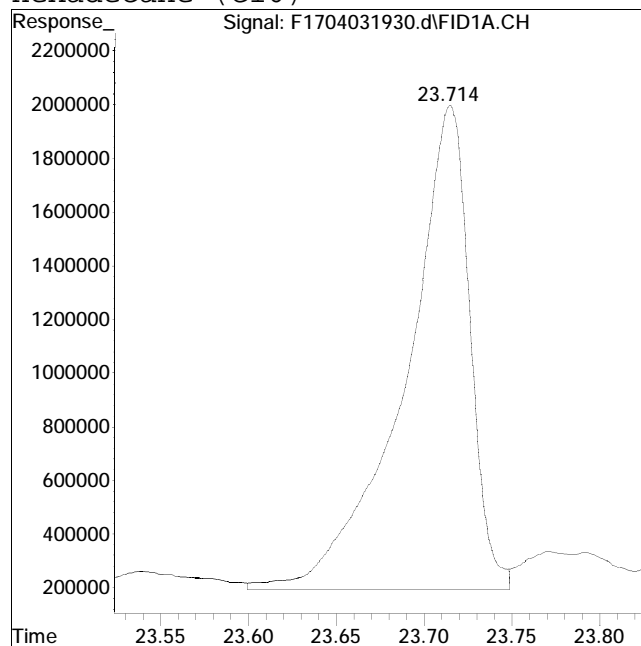
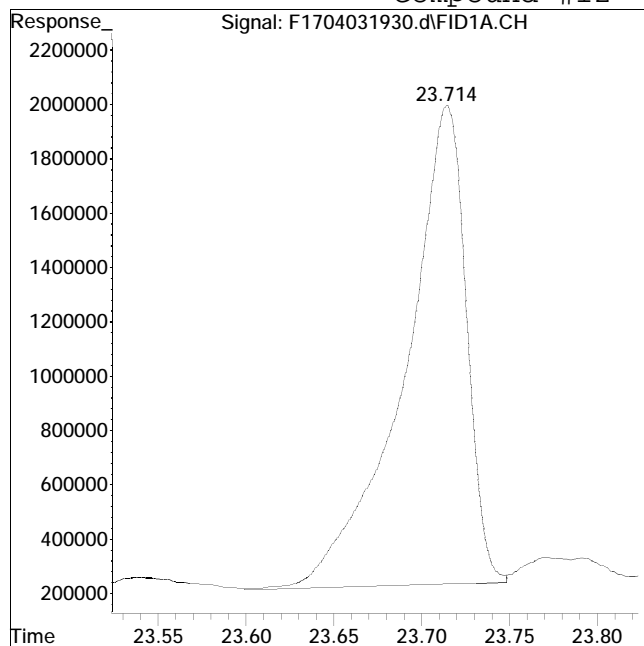
Manual Peak Response = 57187632 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #12: n-Hexadecane (C16)



Original Peak Response = 43215639

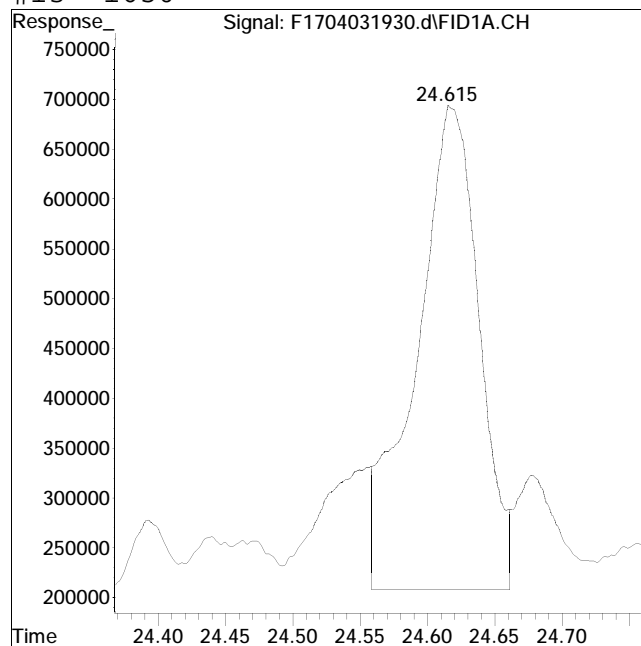
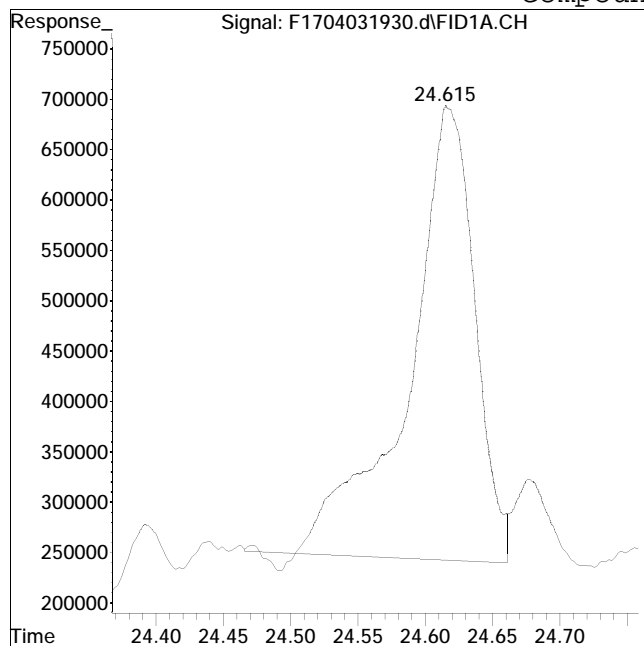
Manual Peak Response = 46279982 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #13: 1650



Original Peak Response = 15325189

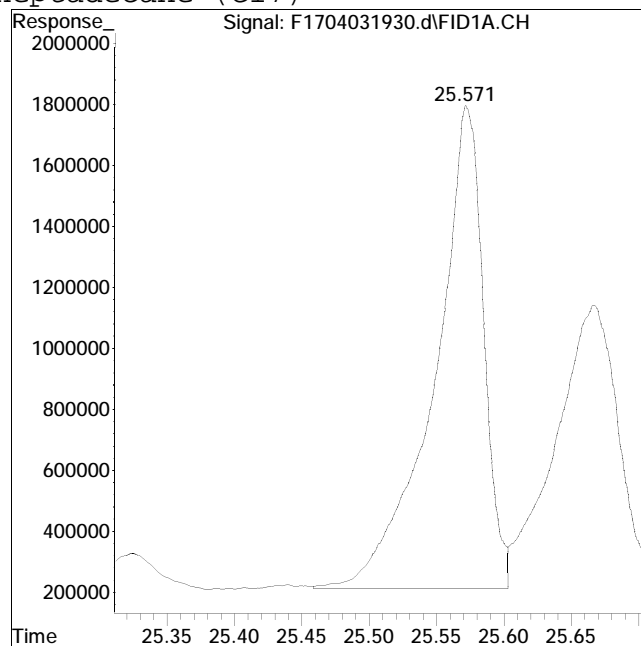
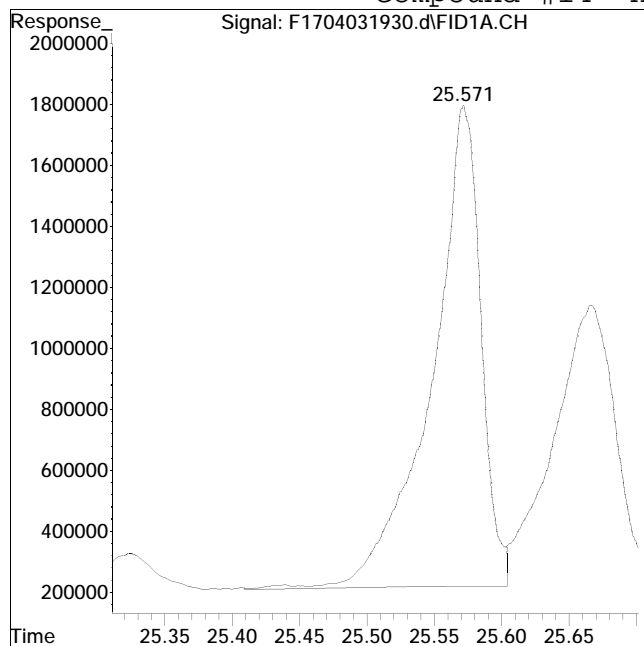
Manual Peak Response = 15821268 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #14: n-Heptadecane (C17)



Original Peak Response = 39942992

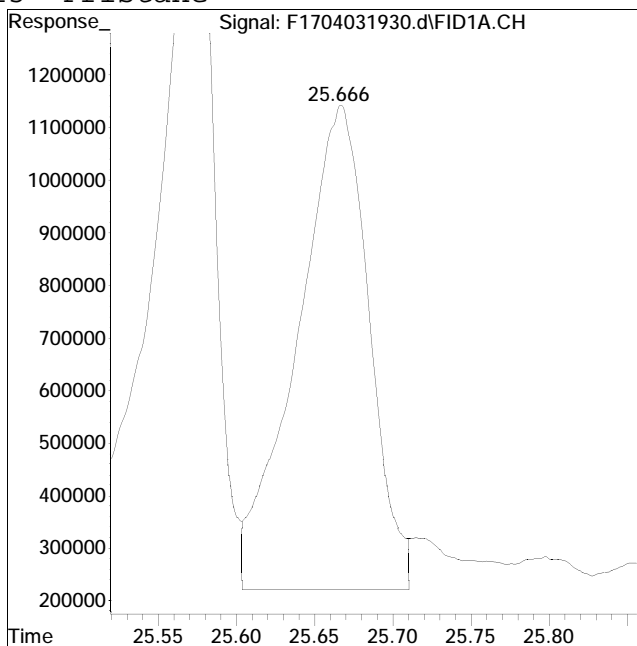
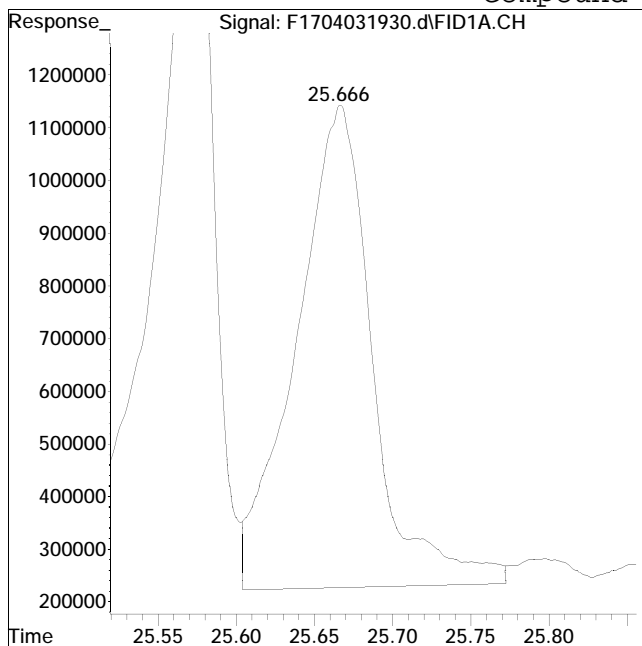
Manual Peak Response = 40143659 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #15: Pristane



Original Peak Response = 31329265

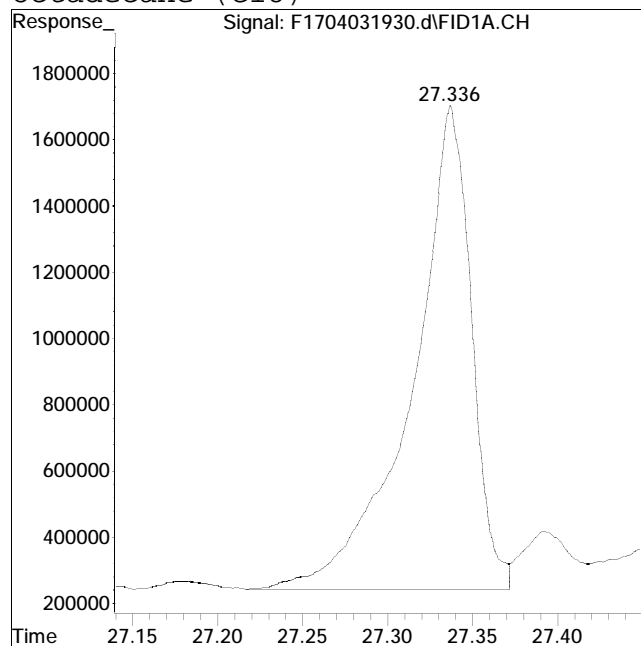
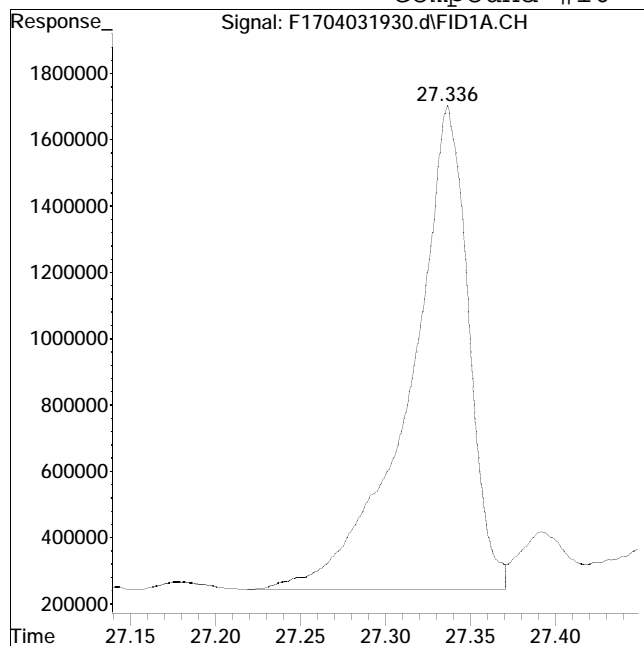
Manual Peak Response = 29653564 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #16: n-Octadecane (C18)



Original Peak Response = 35046586

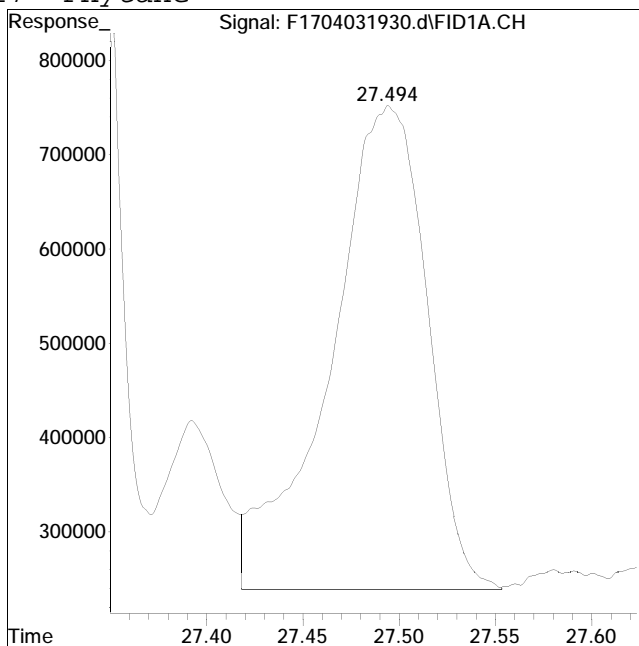
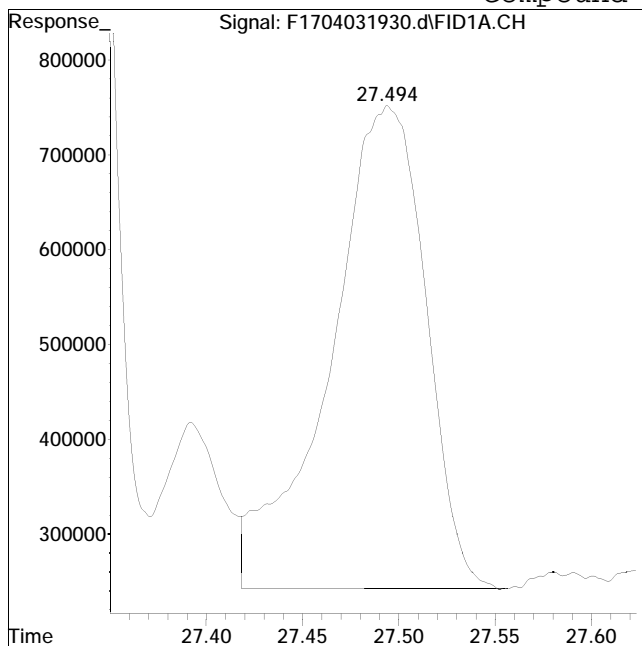
Manual Peak Response = 35370588 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #17: Phytane



Original Peak Response = 17713880

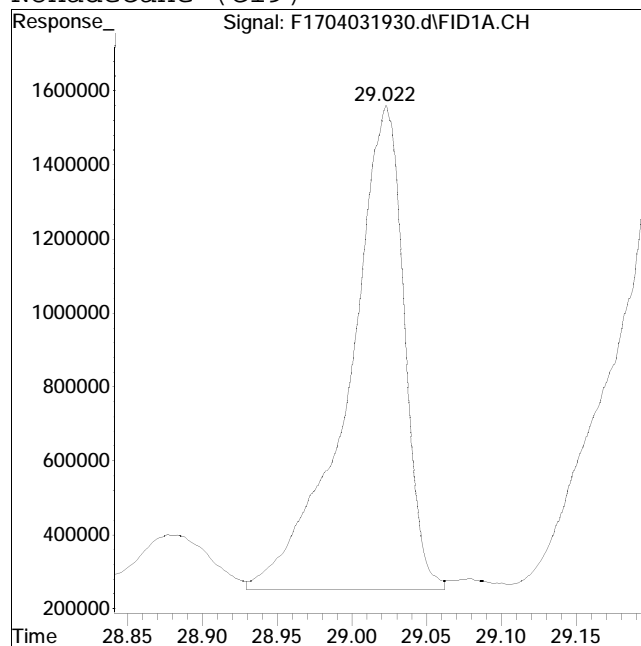
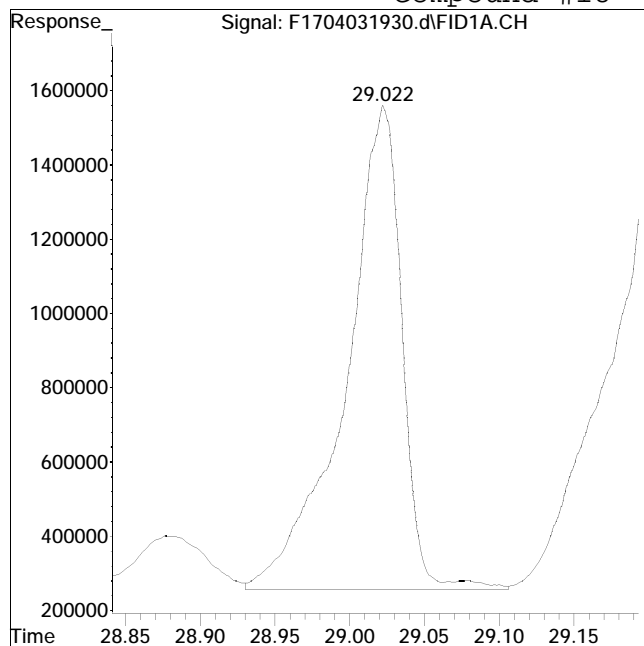
Manual Peak Response = 18005430 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #18: n-Nonadecane (C19)



Original Peak Response = 34054638

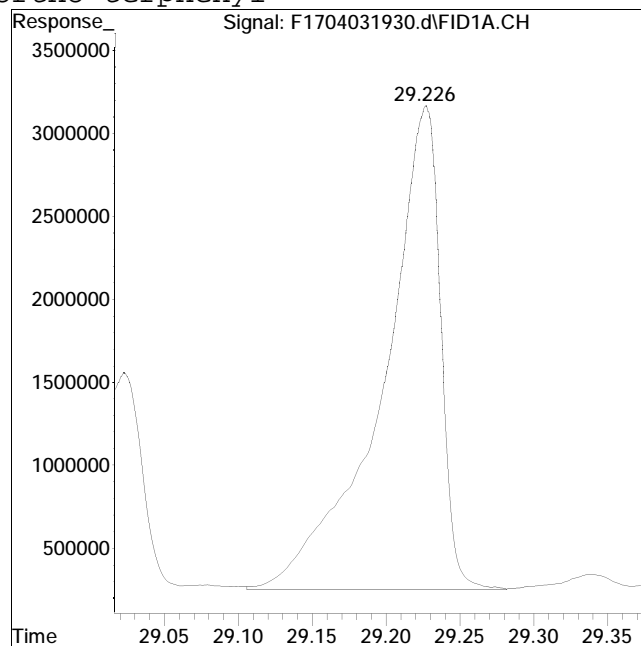
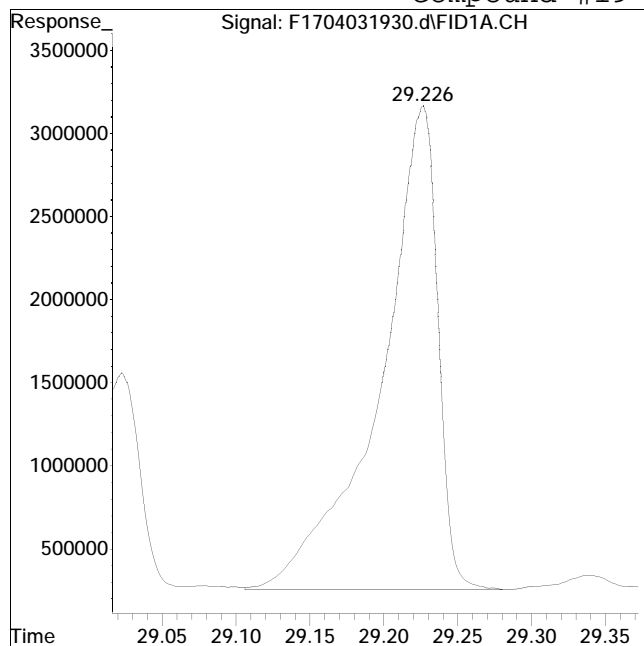
Manual Peak Response = 33995406 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #19: ortho-terphenyl



Original Peak Response = 78826261

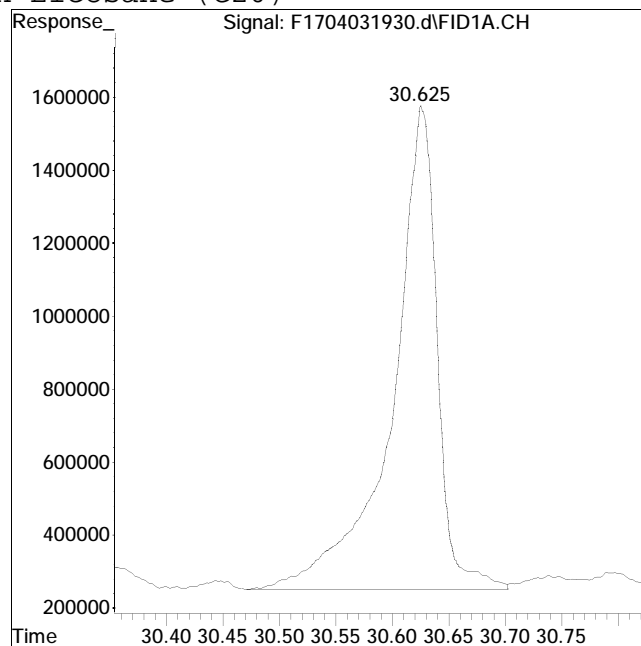
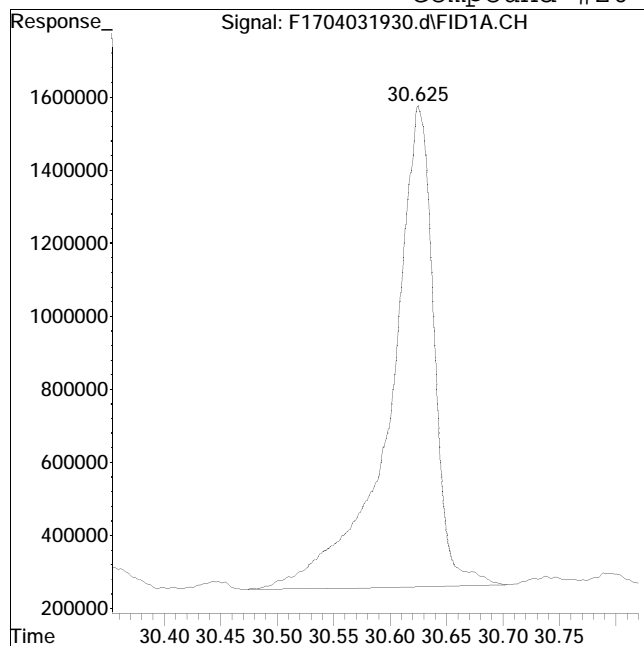
Manual Peak Response = 79497079 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #20: n-Eicosane (C20)



Original Peak Response = 35400003

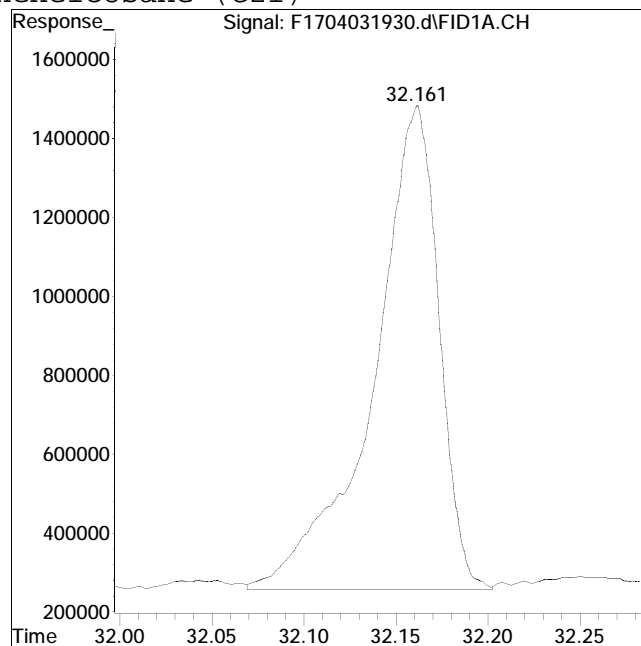
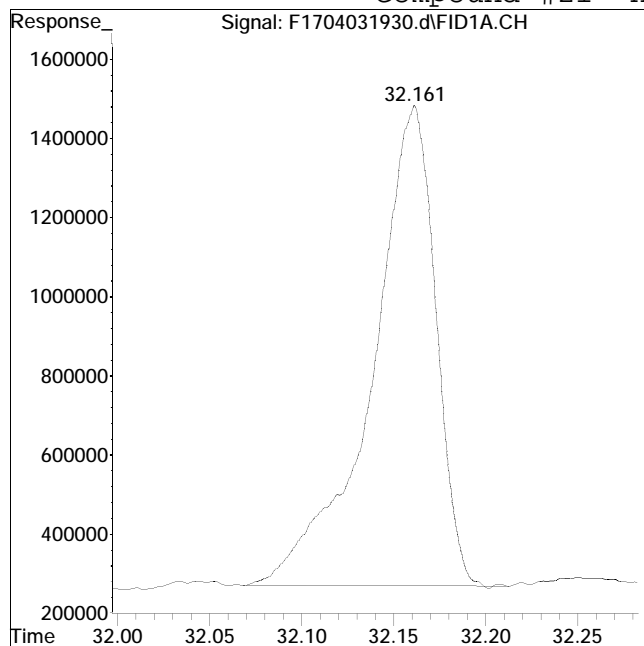
Manual Peak Response = 36657167 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #21: n-Heneicosane (C21)



Original Peak Response = 29341153

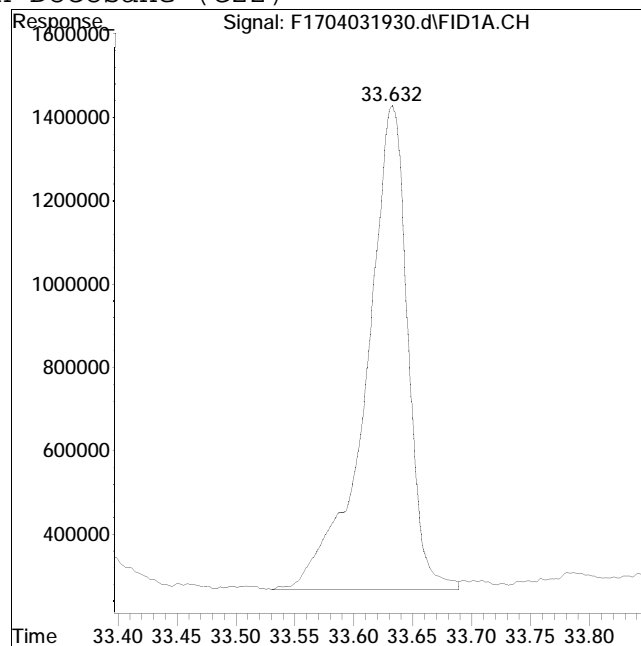
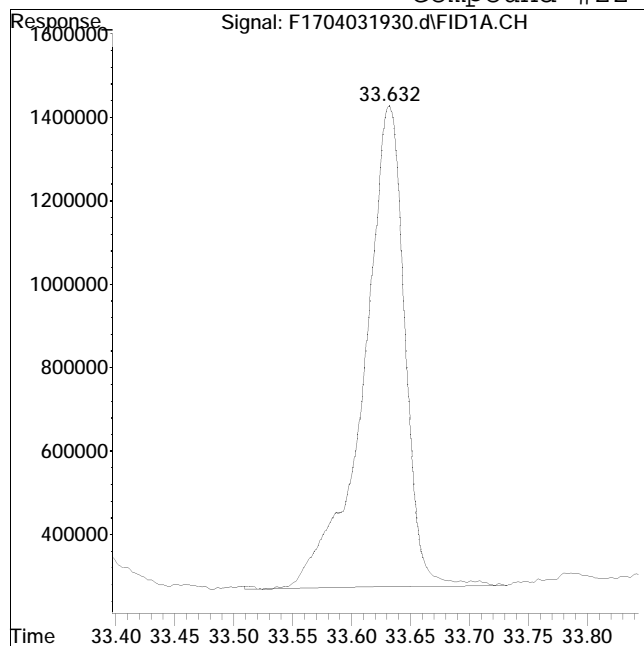
Manual Peak Response = 30354902 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #22: n-Docosane (C22)



Original Peak Response = 28064565

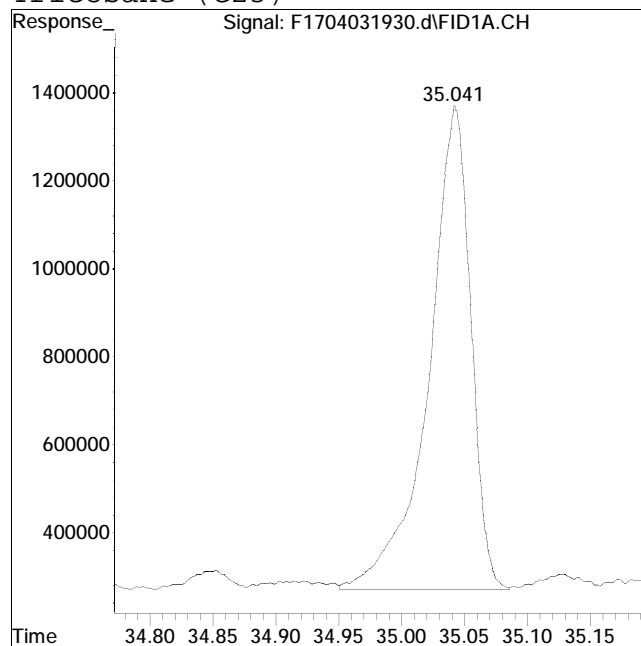
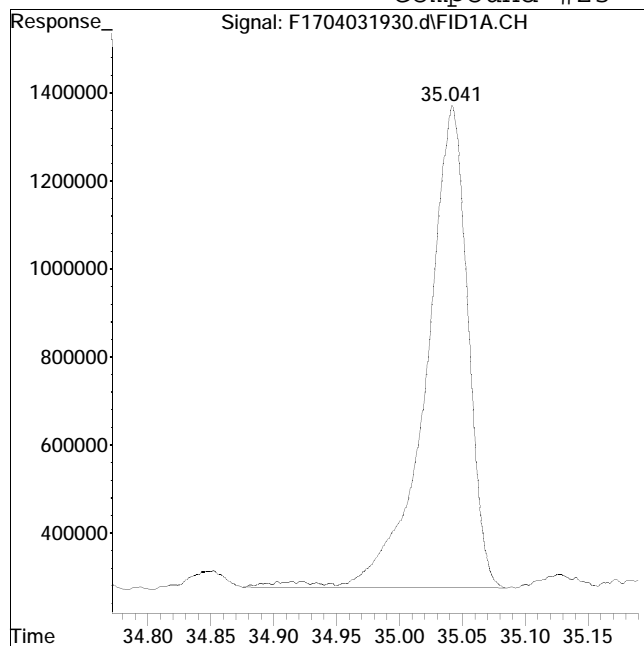
Manual Peak Response = 28549979 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #23: n-Tricosane (C23)



Original Peak Response = 25456384

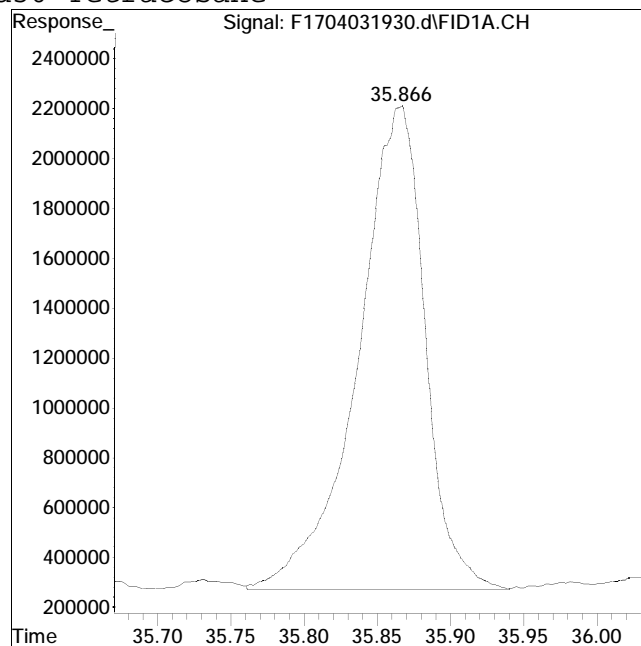
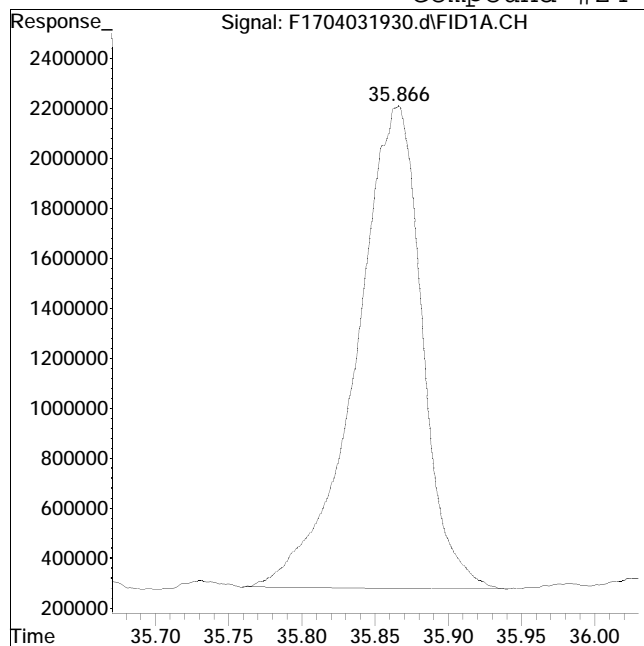
Manual Peak Response = 25524573 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #24: d50-Tetracosane



Original Peak Response = 60505425

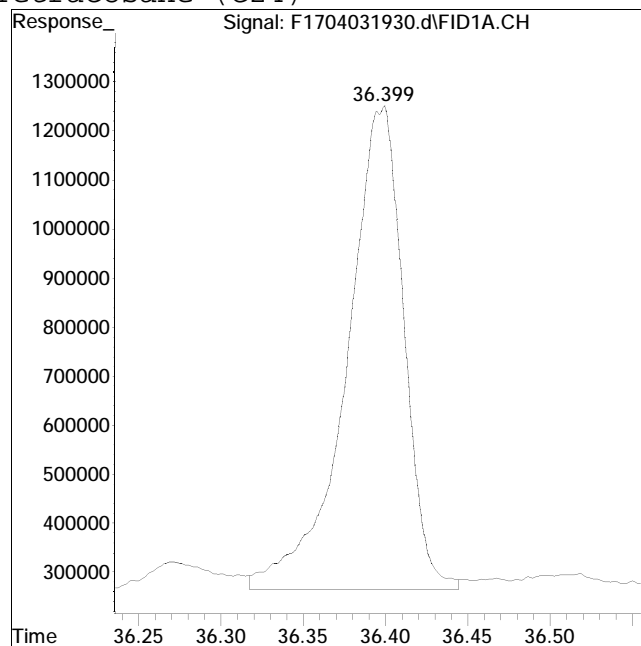
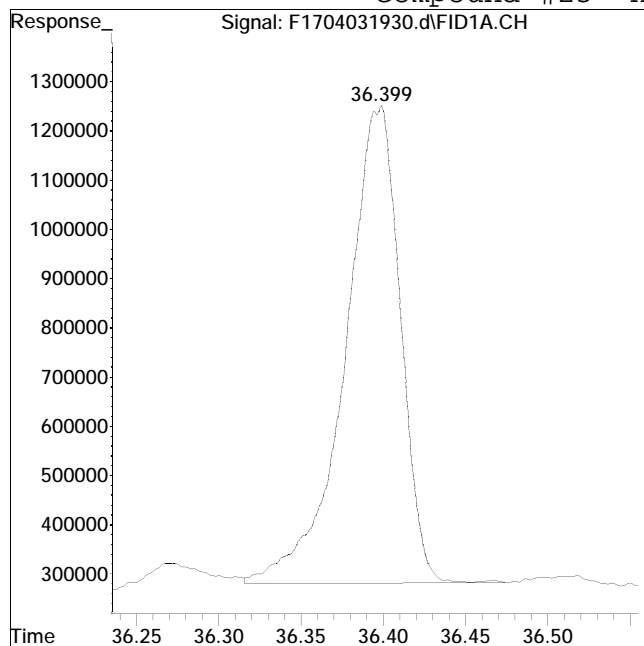
Manual Peak Response = 61970425 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #25: n-Tetracosane (C24)



Original Peak Response = 22657811

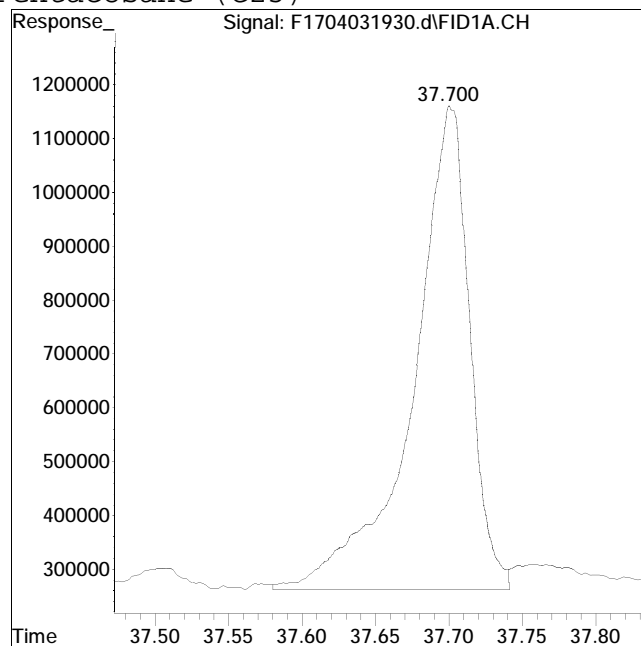
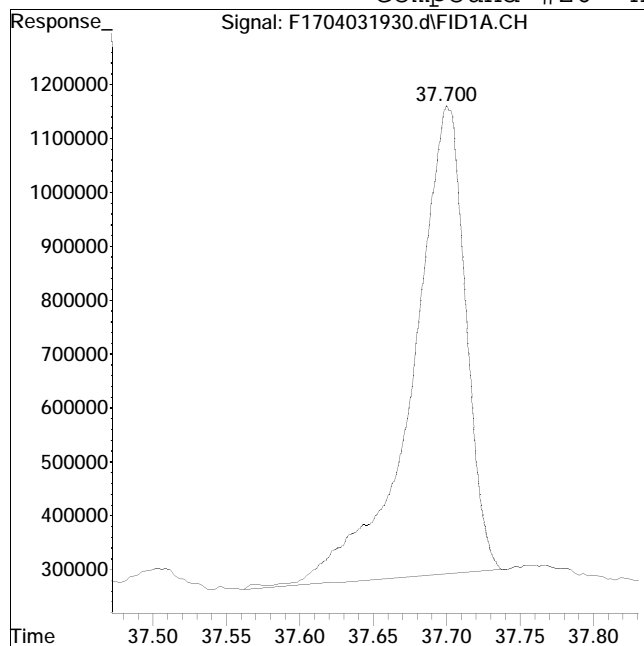
Manual Peak Response = 23903784 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #26: n-Pentacosane (C25)



Original Peak Response = 21972475

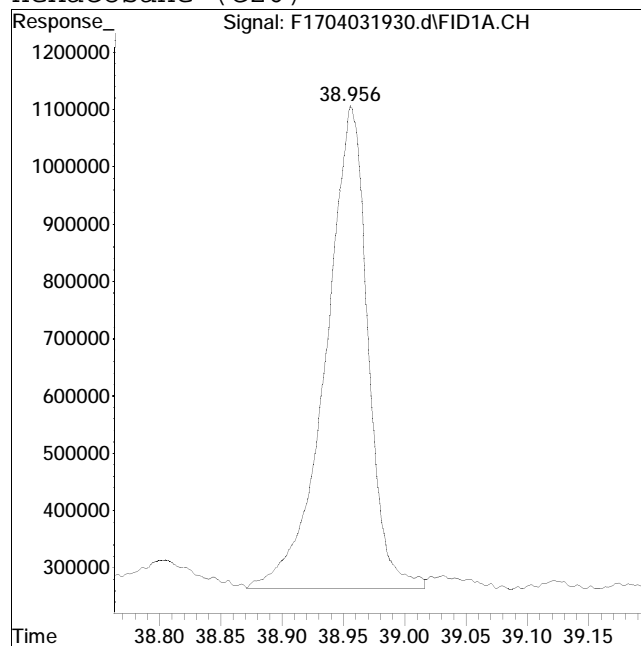
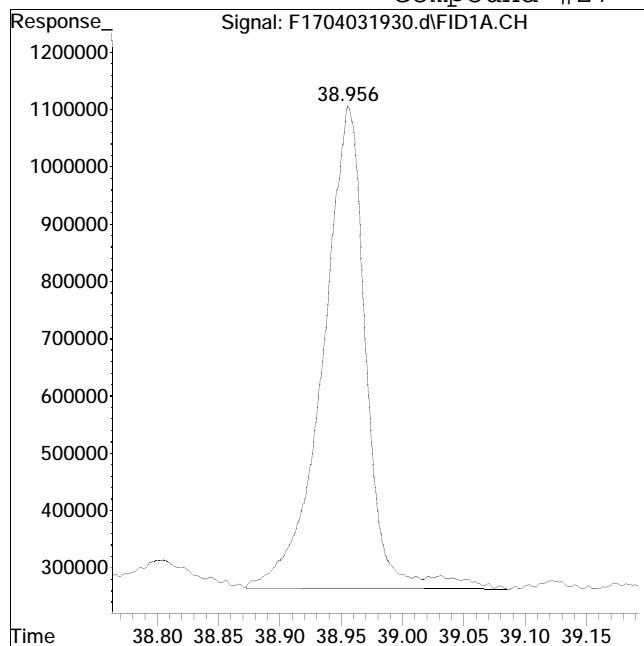
Manual Peak Response = 24064084 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #27: n-Hexacosane (C26)



Original Peak Response = 20688036

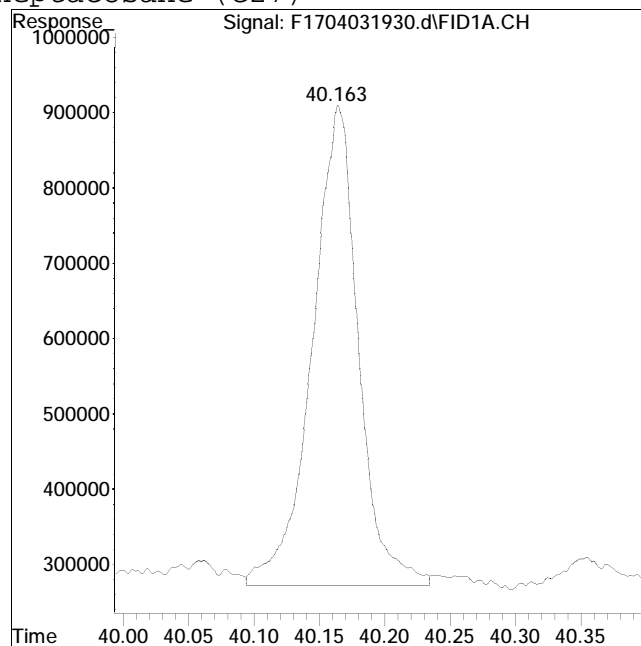
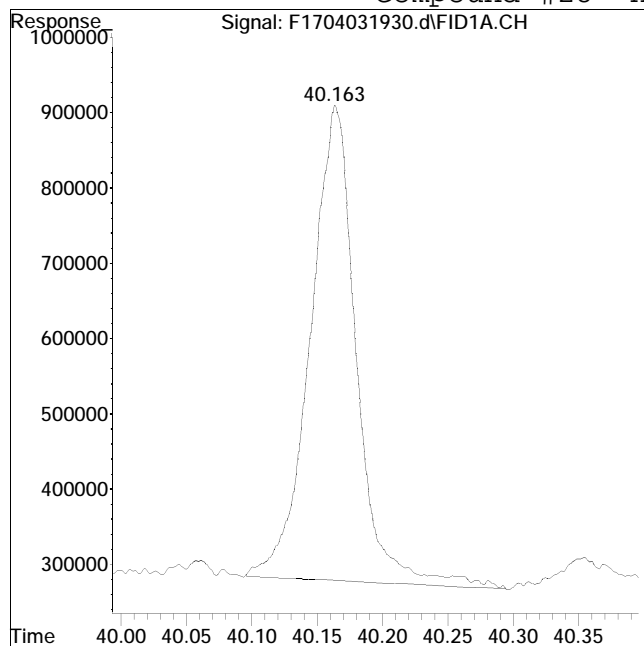
Manual Peak Response = 20097772 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #28: n-Heptacosane (C27)



Original Peak Response = 15480407

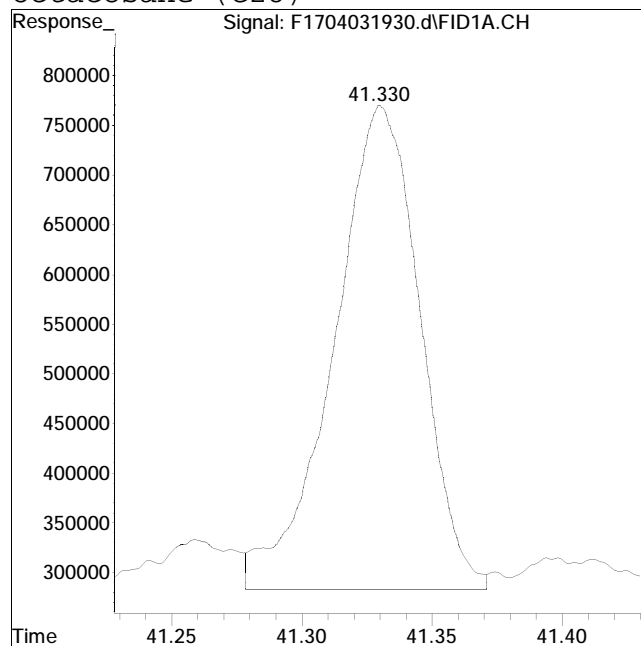
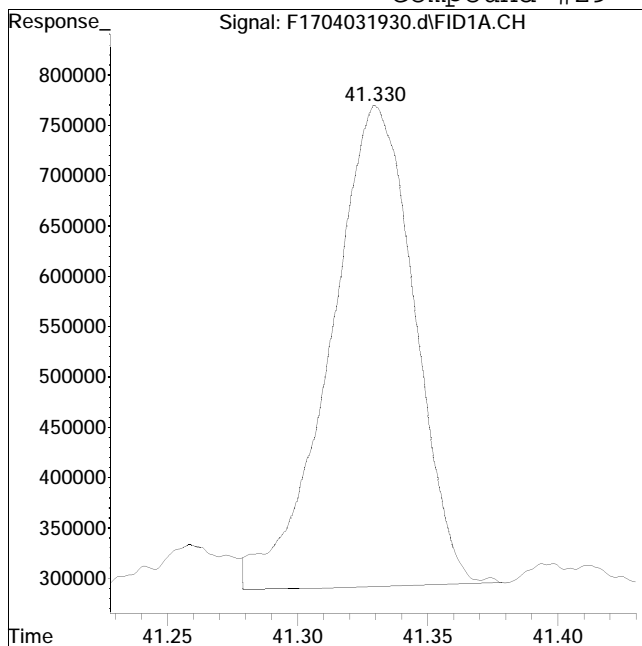
Manual Peak Response = 15675717 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #29: n-Octacosane (C28)



Original Peak Response = 10763357

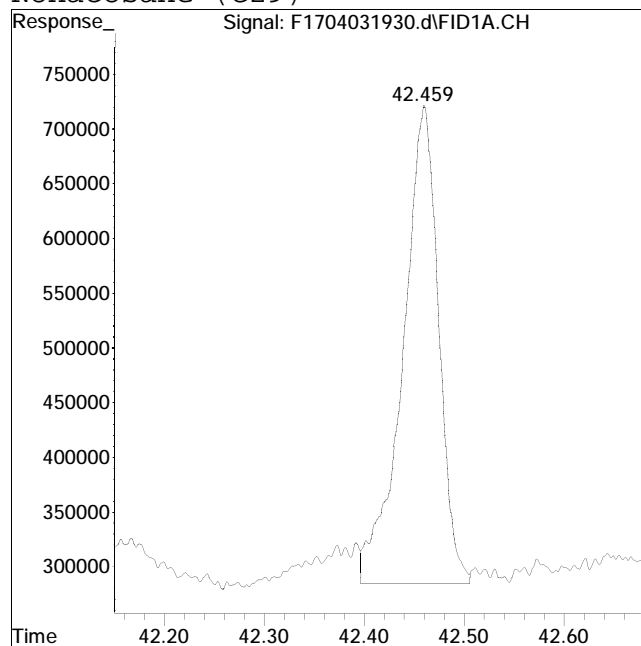
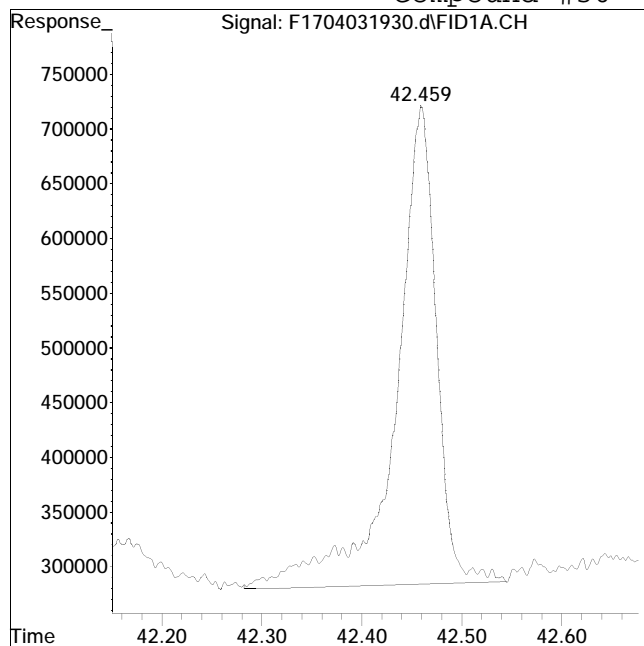
Manual Peak Response = 11226823 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #30: n-Nonacosane (C29)



Original Peak Response = 12449141

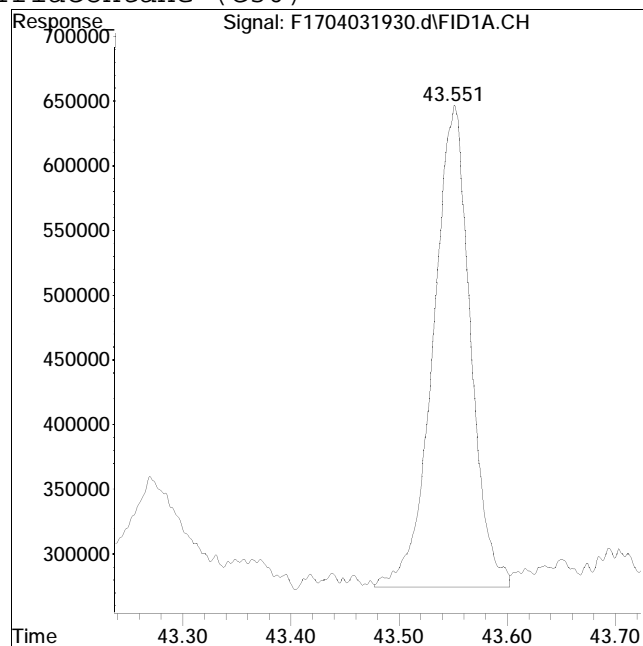
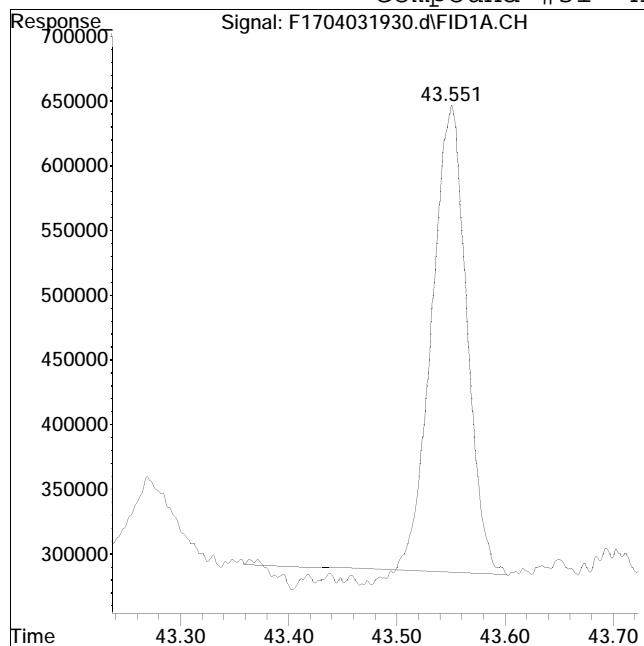
Manual Peak Response = 10859636 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #31: n-Triacontane (C30)



Original Peak Response = 7473657

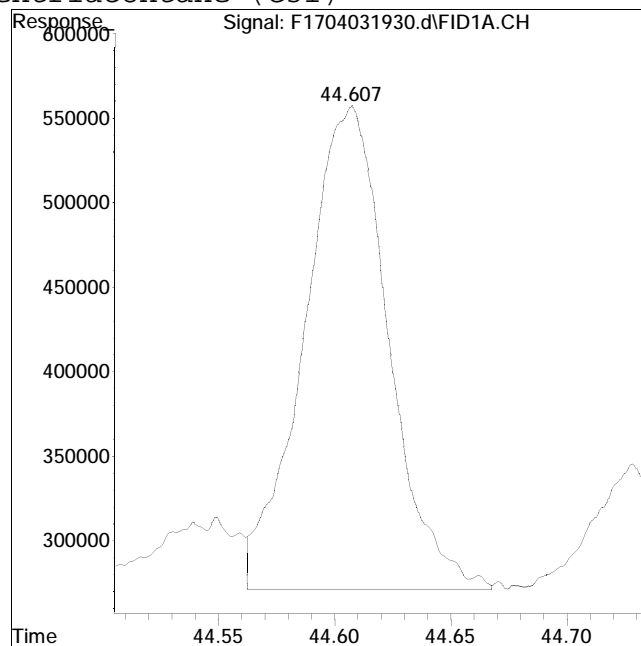
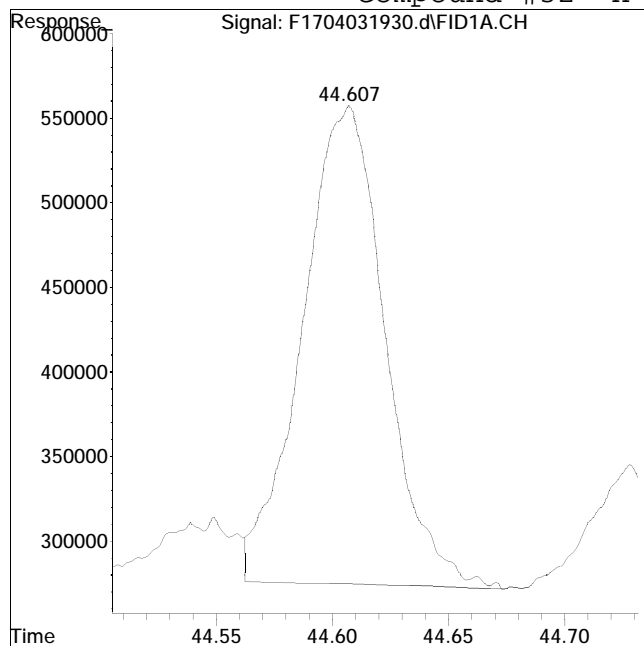
Manual Peak Response = 8917118 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2019Method : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 7043083

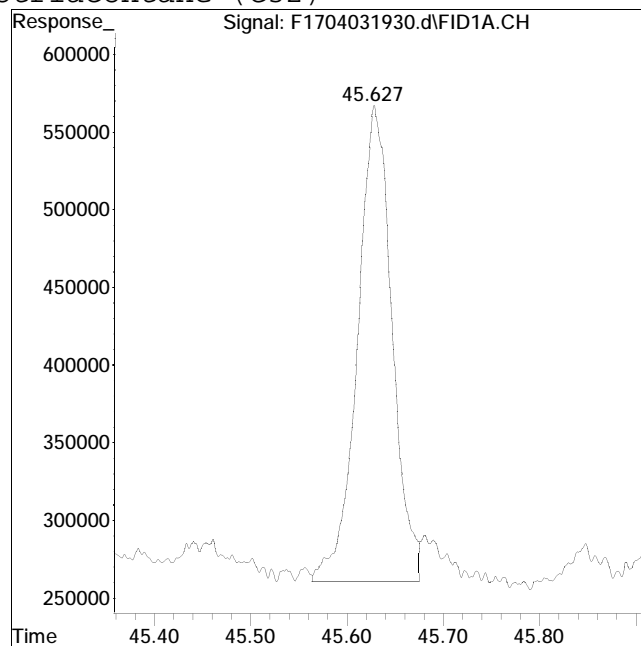
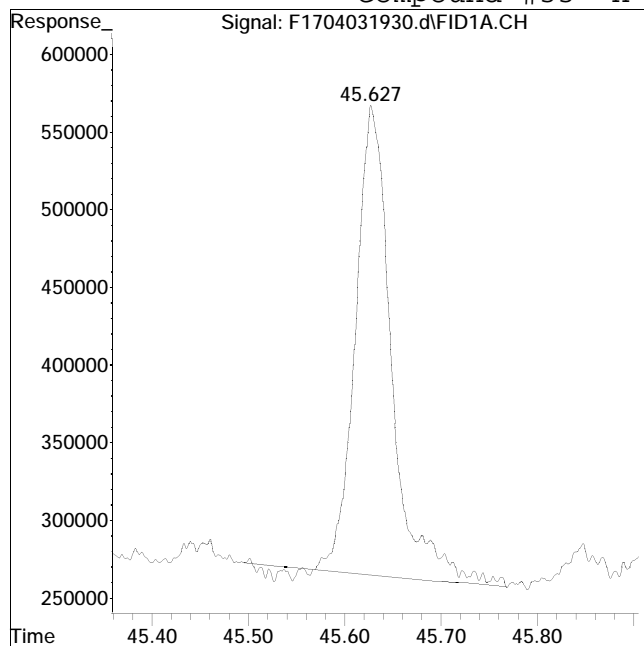
Manual Peak Response = 7232893 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 7849761

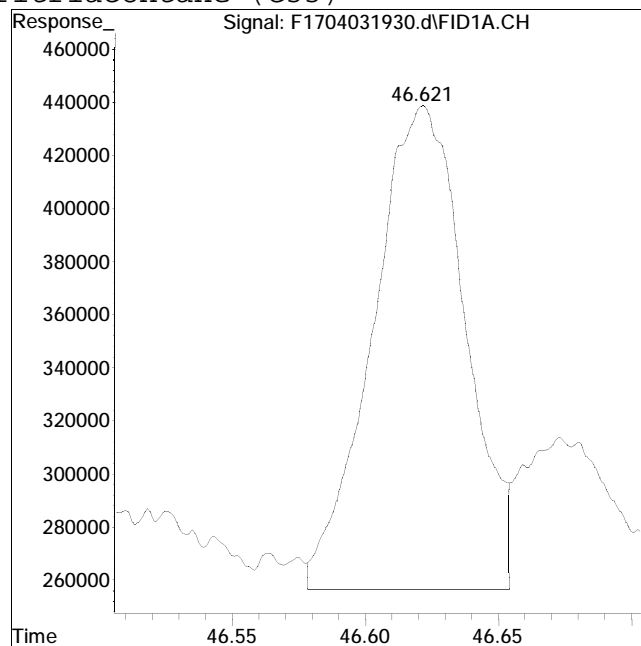
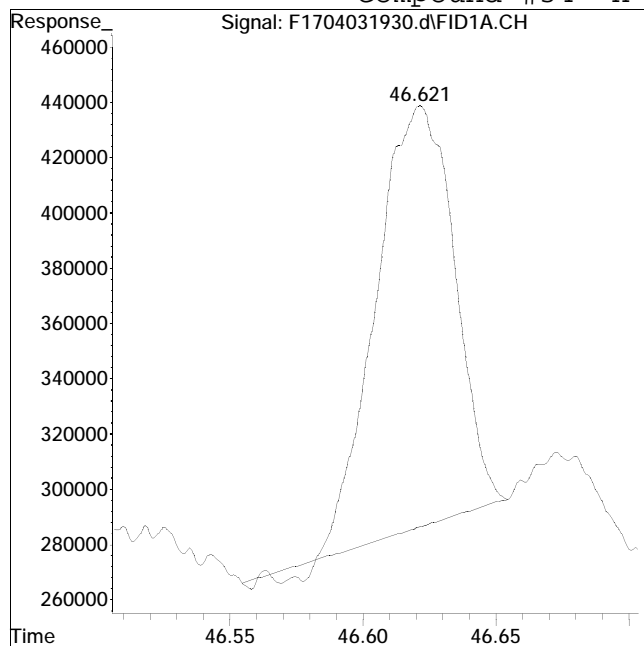
Manual Peak Response = 7646538 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 3090472

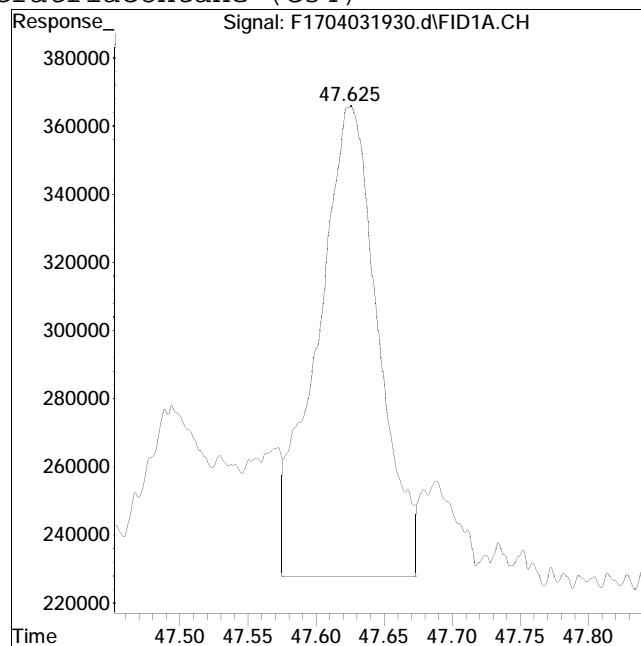
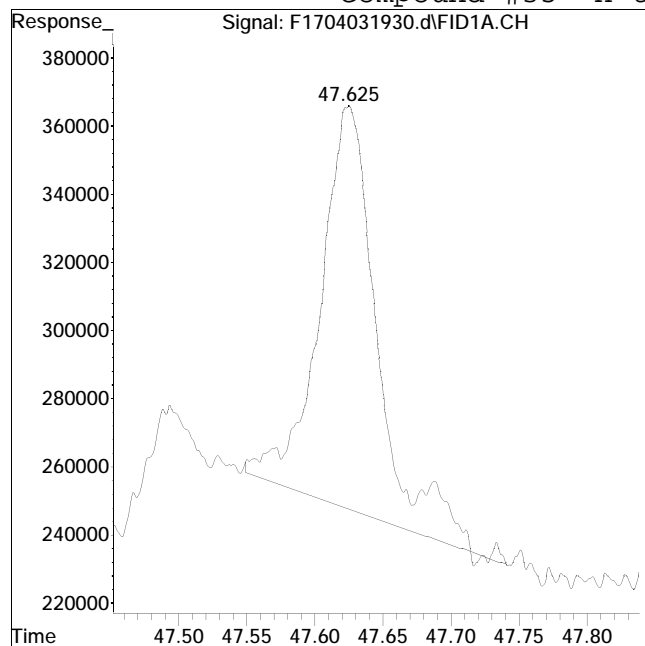
Manual Peak Response = 4411435 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 3499019

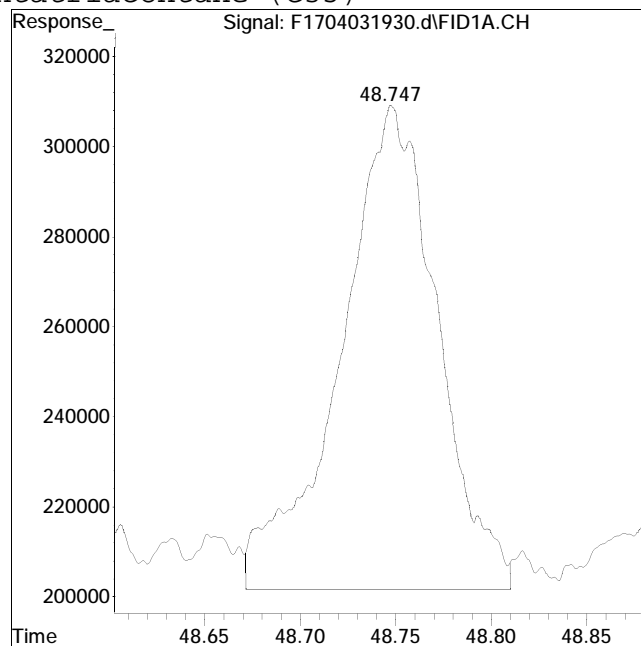
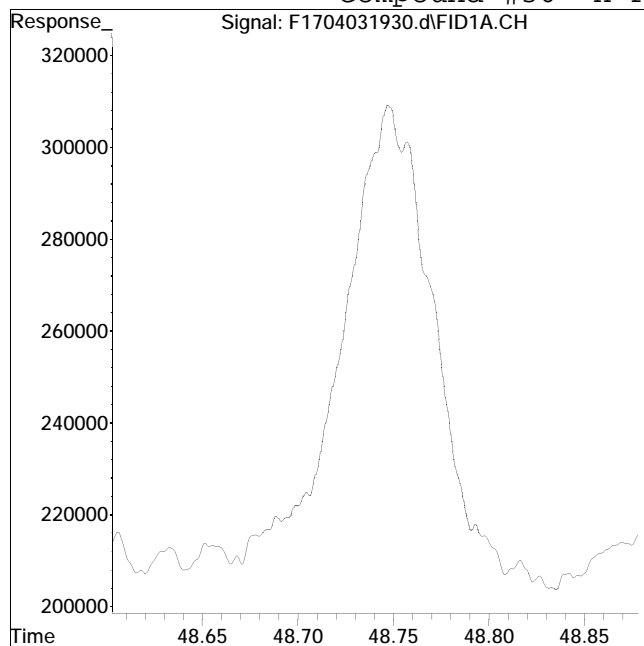
Manual Peak Response = 4301108 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 0

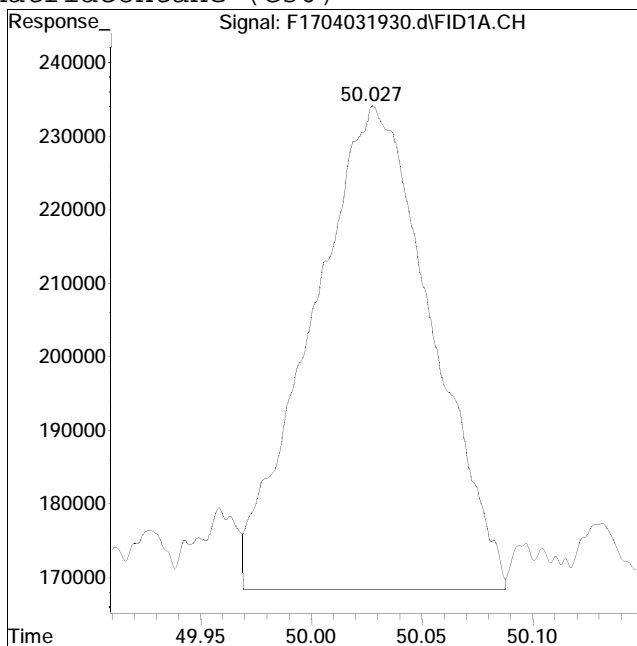
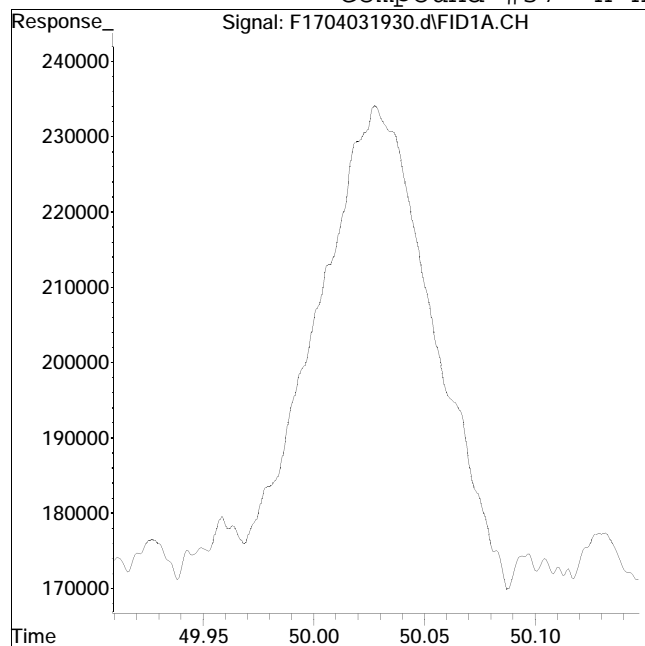
Manual Peak Response = 3814056 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 0

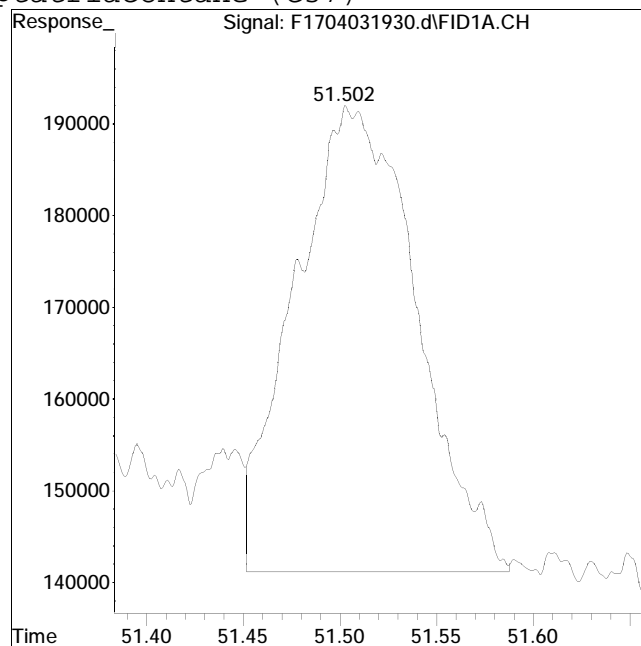
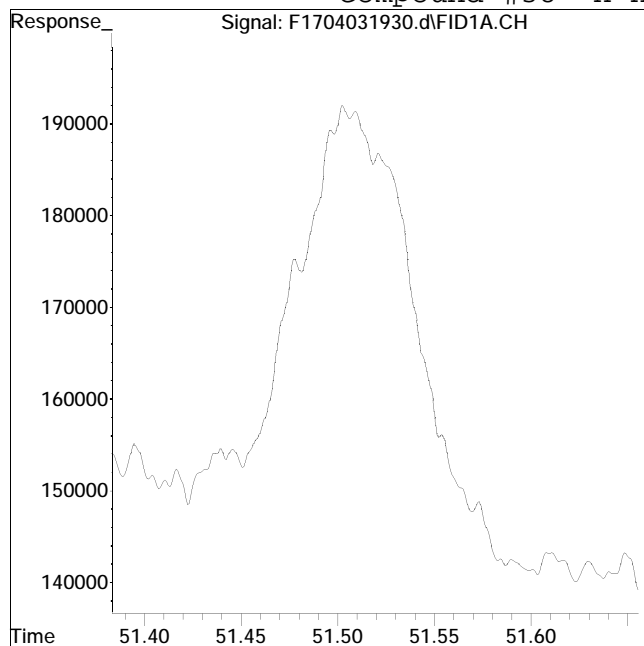
Manual Peak Response = 2474732 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 0

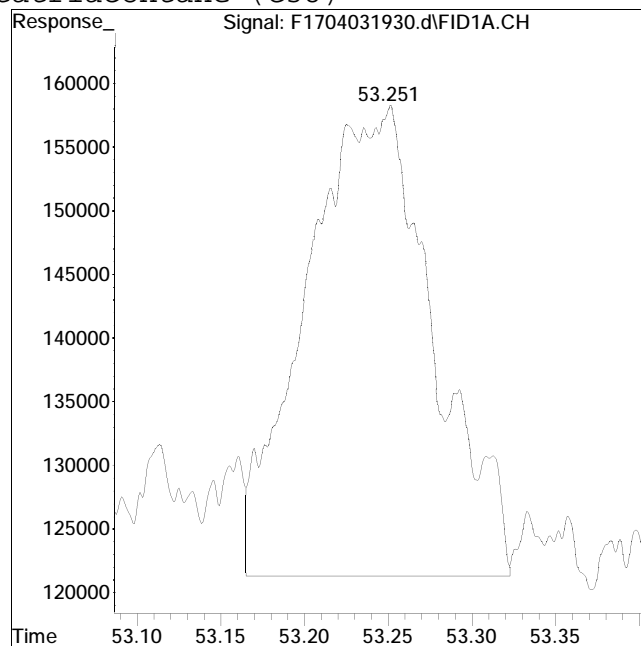
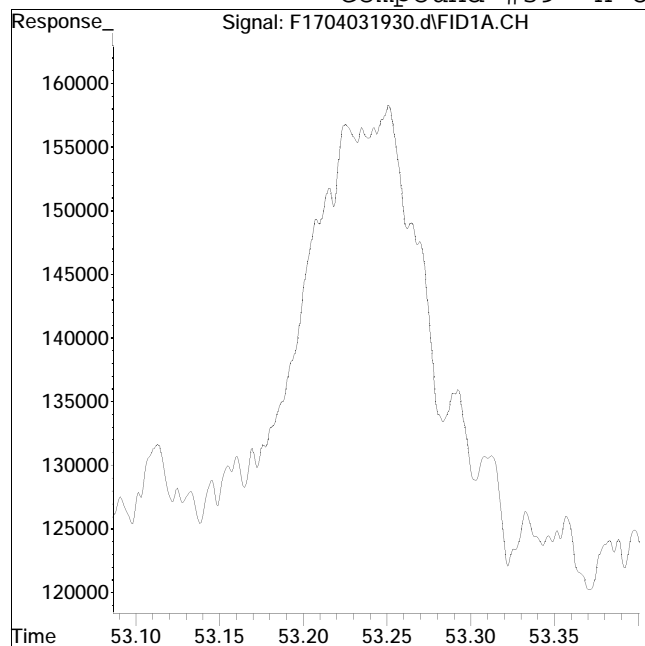
Manual Peak Response = 2230183 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

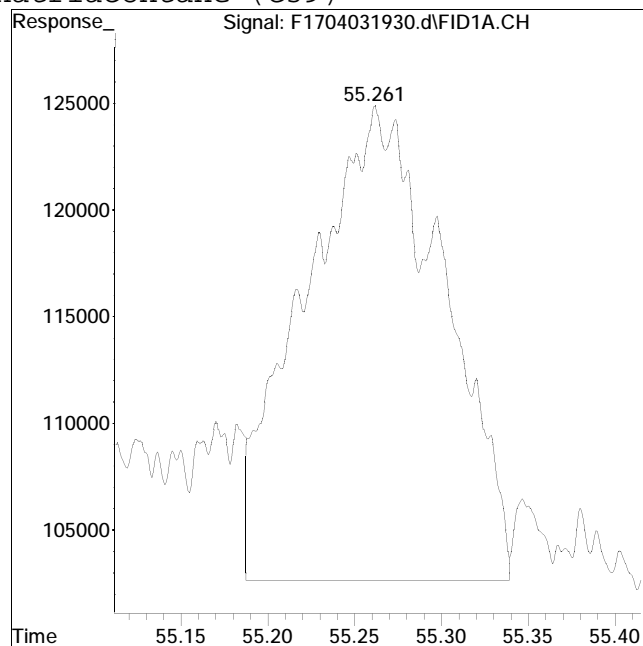
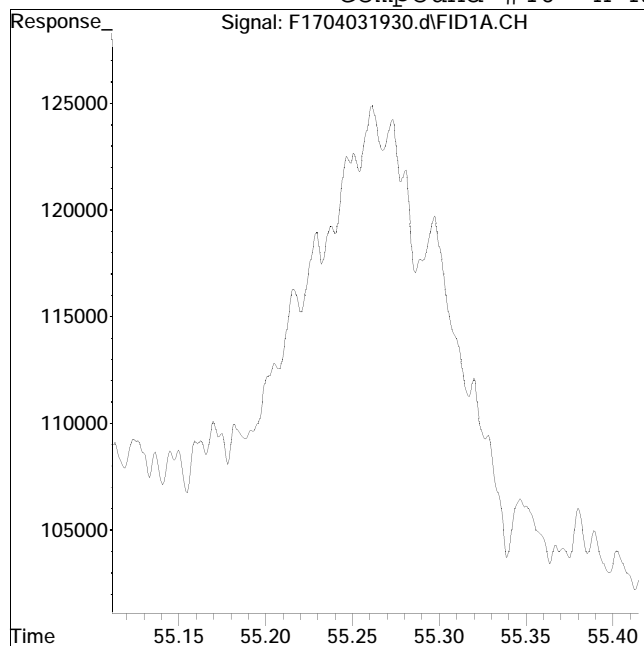
Manual Peak Response = 1965482 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #40: n-Nonatriacontane (C39)



Original Peak Response = 0

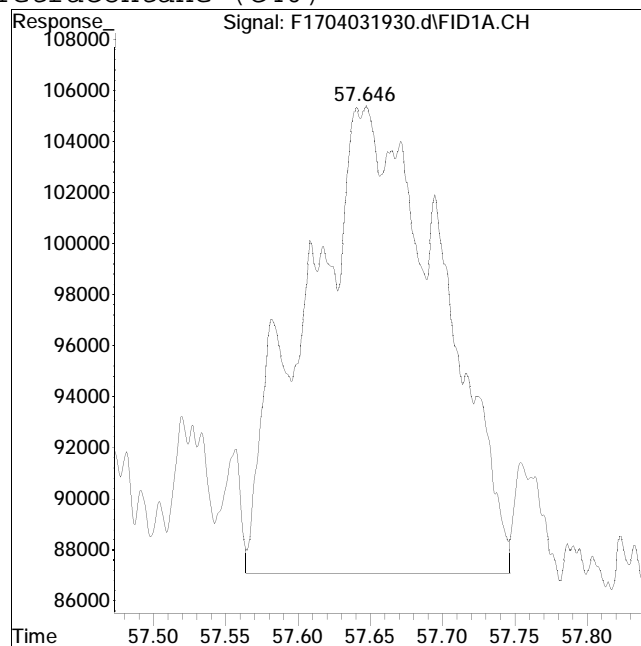
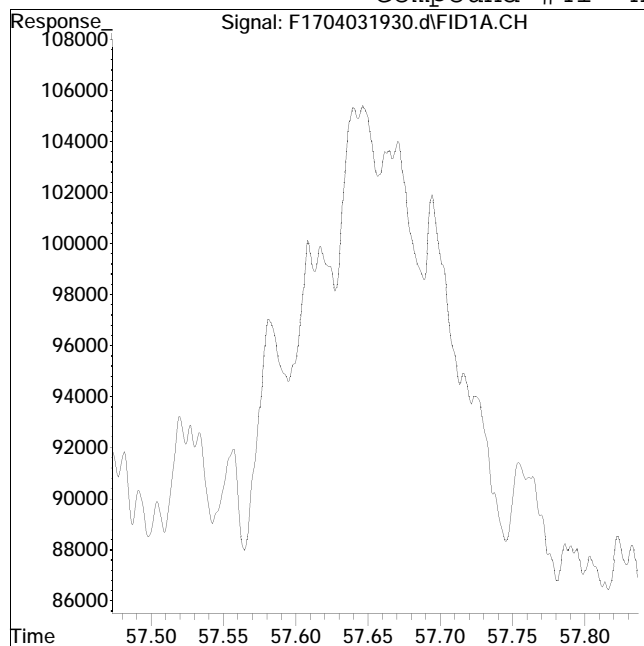
Manual Peak Response = 1245173 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

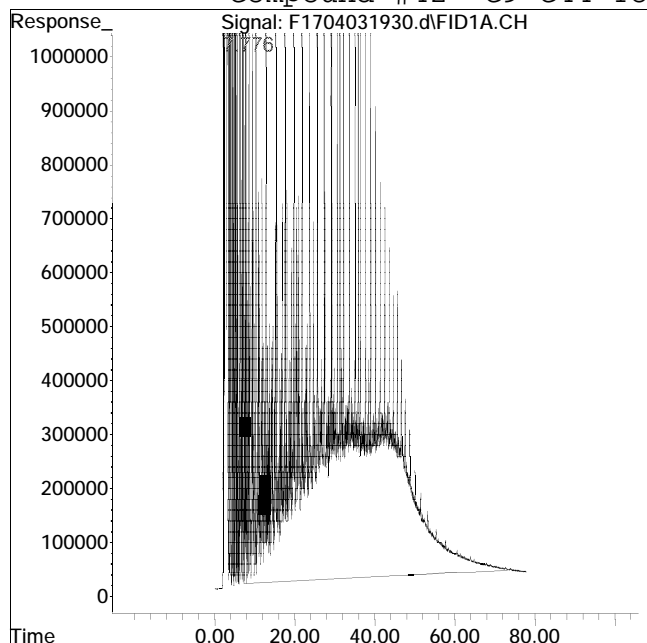
Manual Peak Response = 1184421 M4

M4 = Poor automated baseline construction.

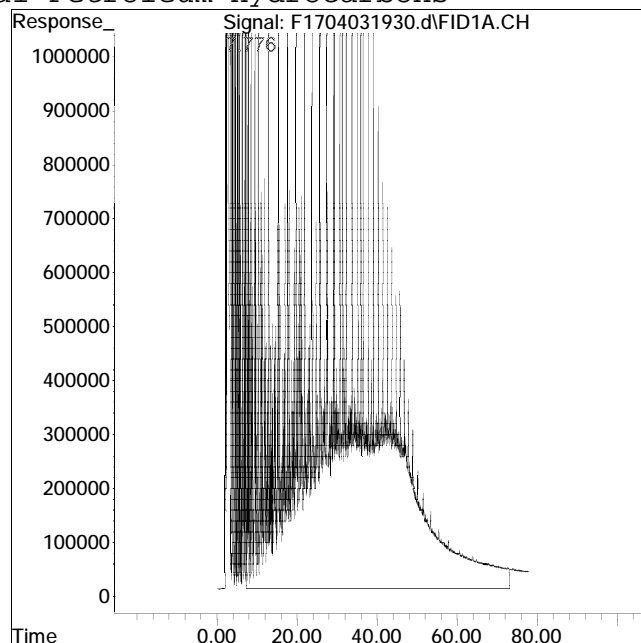
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #42: C9-C44 Total Petroleum Hydrocarbons



Original Peak Response = 7264045690

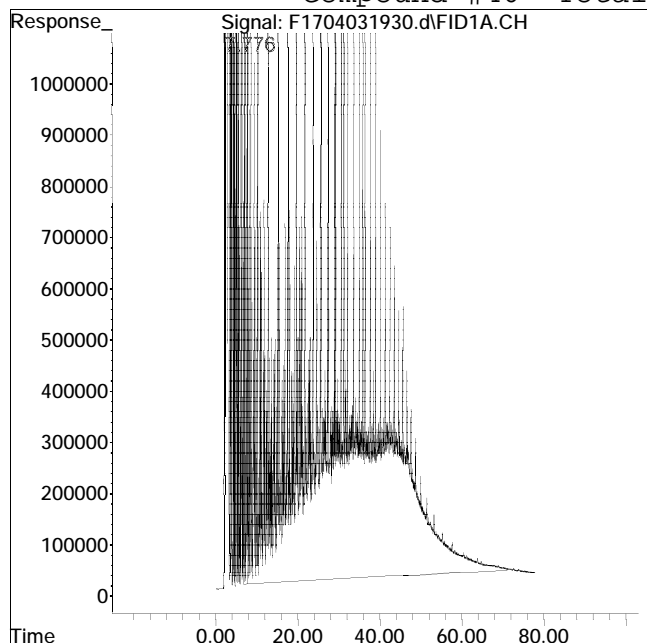


Manual Peak Response = 8149377945 m

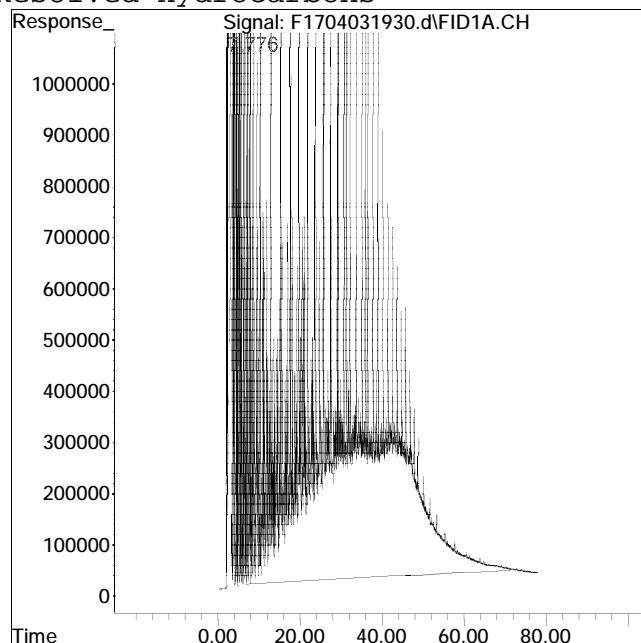
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\201QMethod : HC17040319F.M
Data File : F1704031930.d Operator : FID17:WR
Date Inj'd : 4/4/2019 11:17 am Instrument : FID17
Sample : WG1226965-1, 0.10148 Quant Date : 4/17/2019 10:57 am

Compound #46: Total Resolved Hydrocarbons



Original Peak Response = 2811481694



Manual Peak Response = 2809345876 m

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03\
 Data File : F1704031910.d
 Signal(s) : FID1A.CH
 Acq On : 03 Apr 2019 8:31 pm
 Operator : FID17:WR
 Sample : IB1704031901F
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 15 16:28:59 2019
 Quant Method : O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Mon Apr 15 16:01:38 2019
 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 : TPH - TPH

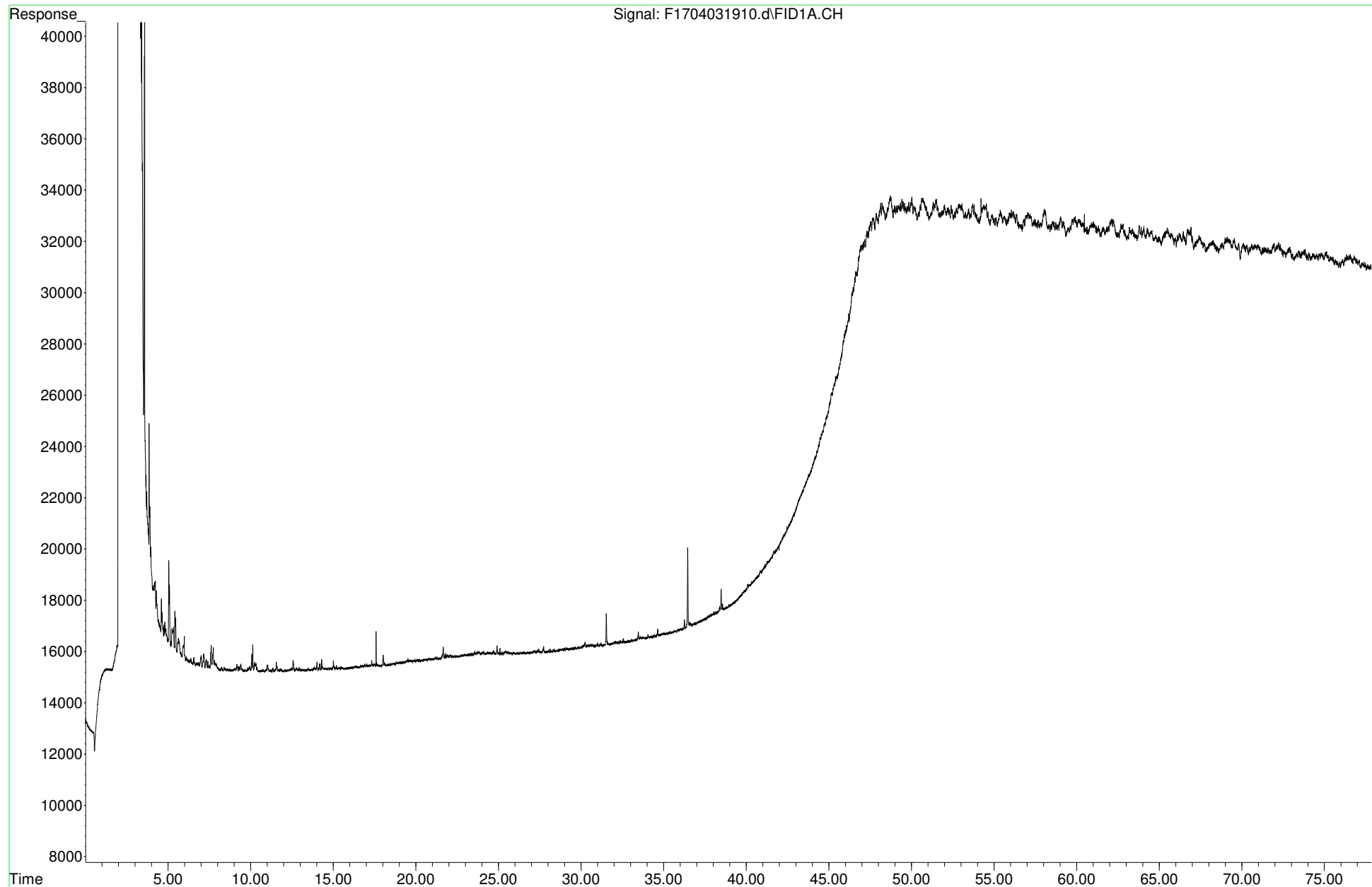
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.209	4206	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	40.163	366819365	71807.114 ug/mL M5
46) h Total Resolved Hydroc...	38.937	5600728	2004.899 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

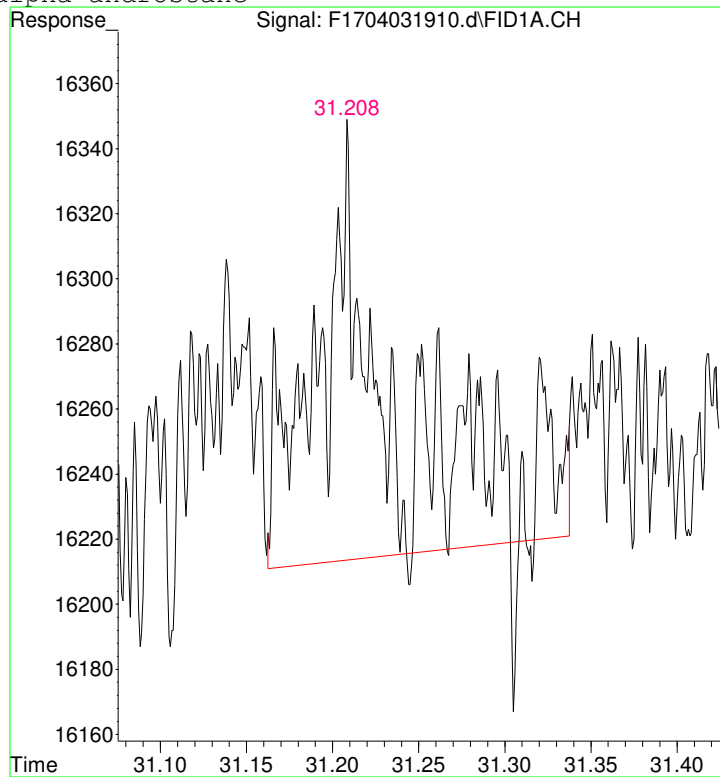
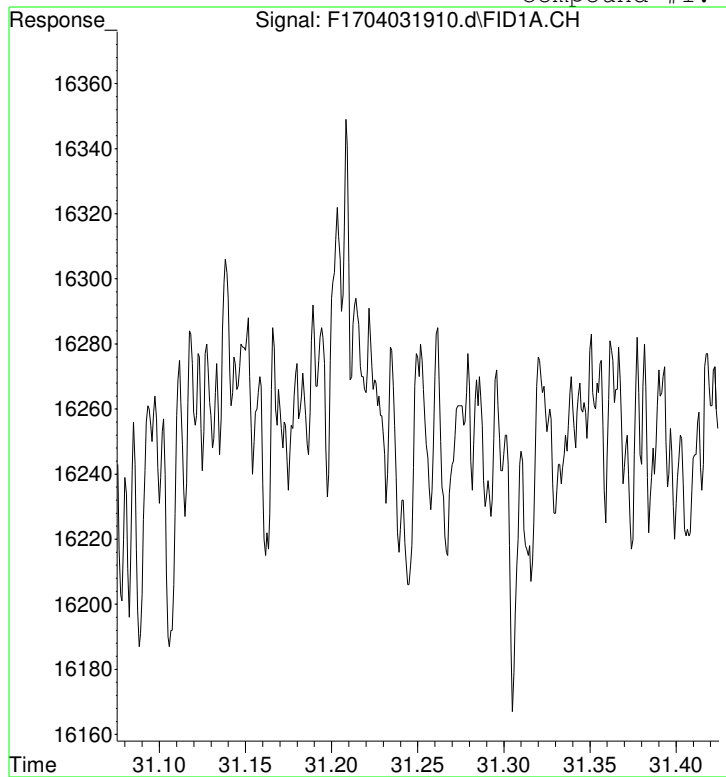
(m)=manual int.

File :O:\Forensics\Data\FID17\2019\APR\APR03\F1704031910.d
 Operator : FID17:WR
 Acquired : 03 Apr 2019 8:31 pm using AcqMethod FID17.M
 Sample Name: IB1704031901F
 Instrument: FID17
 Misc Info :
 Vial Number: 5
 CurrentMeth: O:\Forensics\Data\FID17\2019\APR\APR03\HC17040319F.M



Data Path : O:\Forensics\Data\FID17\2019\APR\APR03QMethod : HC17040319F.M
Data File : F1704031910.d Operator : FID17:WR
Date Inj'd : 4/3/2019 8:31 pm Instrument : FID17
Sample : IB1704031901F Quant Date : 4/15/2019 4:28 pm

Compound #1: 5-alpha-androstane

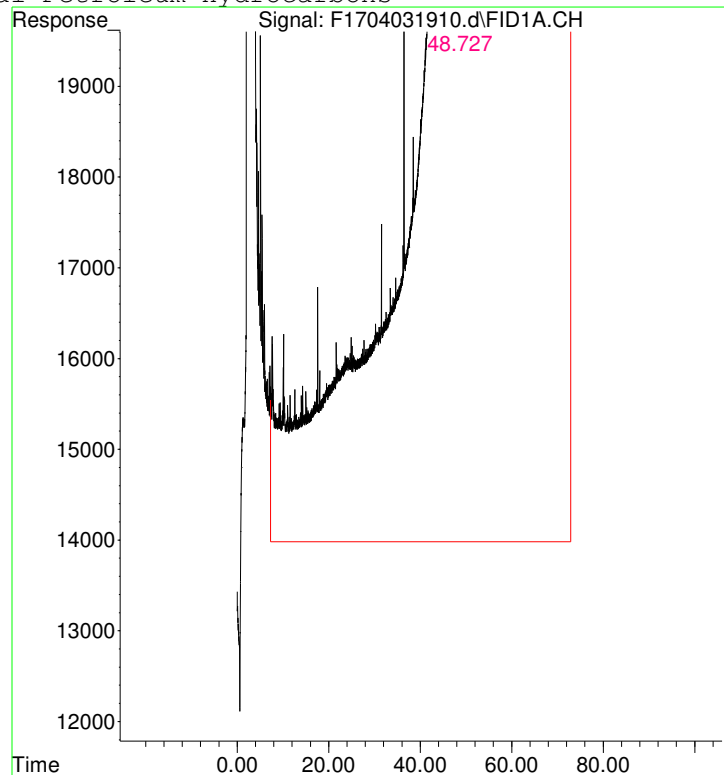
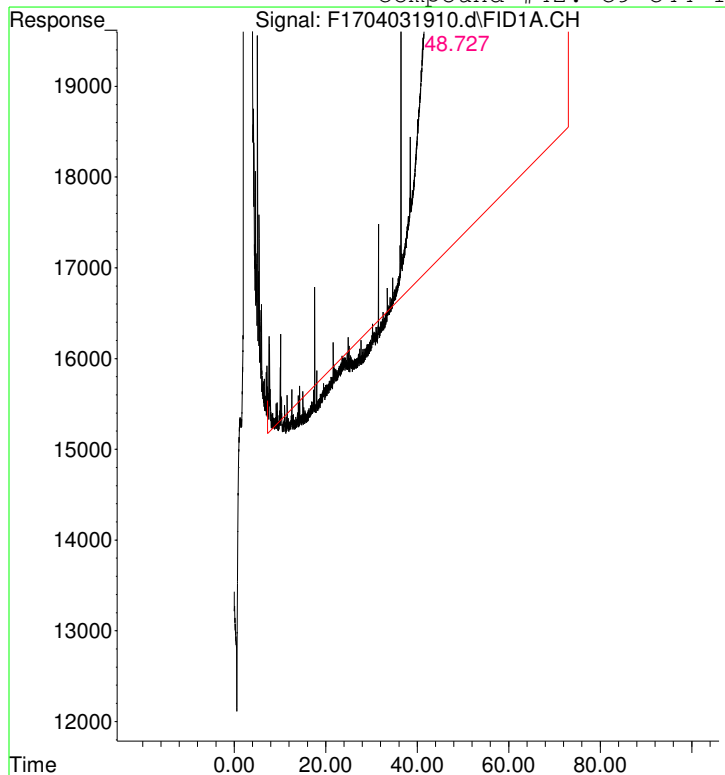


Original Peak Response = 0
M4 = Poor automated baseline construction.

Manual Peak Response = 4206 M4

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03QMethod : HC17040319F.M
Data File : F1704031910.d Operator : FID17:WR
Date Inj'd : 4/3/2019 8:31 pm Instrument : FID17
Sample : IB1704031901F Quant Date : 4/15/2019 4:28 pm

Compound #42: C9-C44 Total Petroleum Hydrocarbons



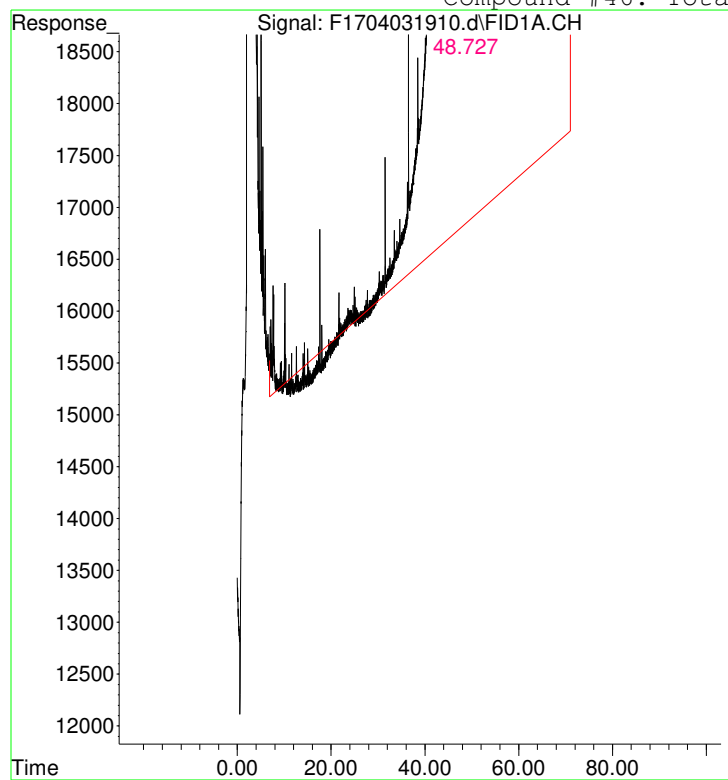
Original Peak Response = 257268650

Manual Peak Response = 366819365 M5

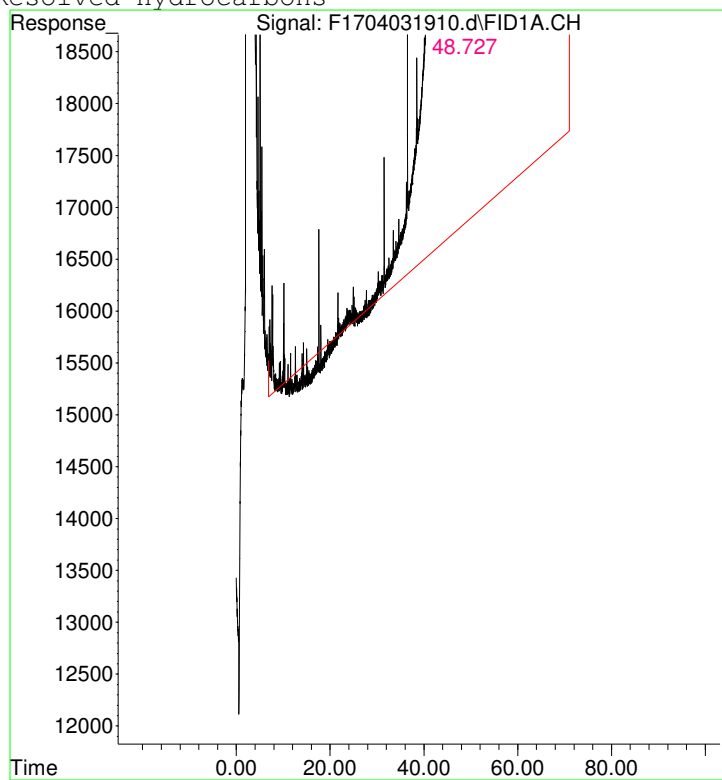
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Data Path : O:\Forensics\Data\FID17\2019\APR\APR03QMethod : HC17040319F.M
Data File : F1704031910.d Operator : FID17:WR
Date Inj'd : 4/3/2019 8:31 pm Instrument : FID17
Sample : IB1704031901F Quant Date : 4/15/2019 4:28 pm

Compound #46: Total Resolved Hydrocarbons



Original Peak Response = 5600728



Manual Peak Response = 5600728 m

Response Factor Report FID6

Method Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Method File : HC6110519F.M
 Title : FID Forensics
 Last Update : Tue Nov 12 16:35:44 2019
 Response Via : Initial Calibration

Calibration Files

1 =F611051922.D 10 =F611051924.D 50 =F611051926.D 100 =F611051928.D 200 =F611051930.D
 500 =F611051932.D

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.802	0.781	0.769	0.761	0.798		0.782	2.24
3) t n-Nonane (C9)	0.832	0.821	0.810	0.808	0.832		0.820	1.39
4) t n-Decane (C10)	0.857	0.852	0.844	0.847	0.862		0.852	0.86
5) t n-Undecane (C11)	0.863	0.870	0.865	0.867	0.880		0.869	0.78
6) t n-Dodecane (C12)	0.883	0.890	0.882	0.883	0.896		0.887	0.66
7) t n-Tridecane (...)	0.903	0.901	0.893	0.893	0.904		0.899	0.58
8) t 1380	0.927	0.919	0.911	0.910	0.921		0.918	0.80
9) t n-Tetradecane...	0.927	0.919	0.911	0.910	0.921		0.918	0.80
10) t 1470	0.931	0.925	0.917	0.914	0.925		0.922	0.76
11) t n-Pentadecane...	0.931	0.925	0.917	0.914	0.925		0.922	0.76
12) t n-Hexadecane ...	0.956	0.940	0.928	0.925	0.935		0.937	1.29
13) t 1650	0.940	0.935	0.926	0.925	0.948		0.935	1.04
14) t n-Heptadecane...	0.940	0.935	0.926	0.925	0.948		0.935	1.04
15) t Pristane	0.971	0.958	0.945	0.940	0.938		0.951	1.47
16) T n-Octadecane ...	0.955	0.953	0.942	0.937	0.950		0.947	0.82
17) t Phytane	0.863	0.858	0.849	0.845	0.857		0.854	0.87
18) t n-Nonadecane ...	0.957	0.954	0.941	0.931	0.942		0.945	1.14
19) s ortho-terphenyl	1.039	1.064	1.055	1.029	1.048	1.024	1.043	1.49
20) t n-Eicosane (C20)	0.963	0.959	0.942	0.932	0.947		0.949	1.37
21) t n-Heneicosane...	0.979	0.974	0.956	0.946	0.958		0.962	1.43
22) t n-Docosane (C22)	0.982	0.975	0.955	0.946	0.957		0.963	1.55
23) t n-Tricosane (...)	0.986	0.980	0.959	0.950	0.961		0.967	1.57
24) s d50-Tetracosane	0.819	0.837	0.823	0.801	0.815	0.806	0.817	1.58
25) t n-Tetracosane...	0.992	0.984	0.961	0.955	0.961		0.971	1.66
26) t n-Pentacosane...	0.985	0.975	0.951	0.943	0.951		0.961	1.88
27) t n-Hexacosane ...	0.988	0.981	0.959	0.951	0.958		0.967	1.67
28) t n-Heptacosane...	0.960	0.954	0.932	0.925	0.932		0.941	1.62
29) t n-Octacosane ...	0.998	0.991	0.969	0.962	0.971		0.978	1.57
30) t n-Nonacosane ...	0.996	0.987	0.963	0.958	0.966		0.974	1.71
31) t n-Triacontane...	0.990	0.977	0.954	0.949	0.958		0.966	1.80

Response Factor Report FID6

Method Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Method File : HC6110519F.M
 Title : FID Forensics
 Last Update : Tue Nov 12 16:35:44 2019
 Response Via : Initial Calibration

Calibration Files

1 =F611051922.D 10 =F611051924.D 50 =F611051926.D 100 =F611051928.D 200 =F611051930.D
 500 =F611051932.D

	Compound	1	10	50	100	200	500	Avg	%RSD
32) t	n-Hentriacont...	0.996	0.984	0.961	0.956	0.966		0.973	1.75
33) t	n-Dotriaconta...	0.983	0.972	0.951	0.947	0.956		0.962	1.57
34) t	n-Tritriaconta...	0.980	0.964	0.942	0.939	0.947		0.954	1.78
35) t	n-tetatriaico...	1.007	0.998	0.976	0.973	0.982		0.987	1.50
36) t	n-Pentatriaico...	0.968	0.964	0.942	0.939	0.947		0.952	1.38
37) t	n-Hexatriacon...	1.030	1.022	0.997	0.994	1.002		1.009	1.58
38) t	n-Heptatriaico...	0.967	0.959	0.934	0.932	0.938		0.946	1.68
39) t	n-Octatriacon...	1.051	1.032	1.007	1.004	1.010		1.021	1.96
40) t	n-Nonatriacon...	0.979	0.966	0.941	0.938	0.943		0.953	1.92
41) t	n-Tetracontan...	0.979	0.966	0.941	0.938	0.943		0.953	1.92
42) h	C9-C44 Total ...	0.958	0.951	0.933	0.929	0.939		0.942	1.28
43) h	C10-C25 DRO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
44) h	C25-C44 ORO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
45) h	C9-C40 Total ...	0.958	0.951	0.933	0.929	0.939		0.942	1.28
46) h	C10-C28 DRO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
47) h	C8-C40 Total ...	0.958	0.951	0.933	0.929	0.939		0.942	1.28
48) h	C28-C40 ORO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
49) h	Total Resolve...	0.958	0.951	0.933	0.929	0.939		0.942	1.28

 (#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051922.D
 Signal(s) : FID1A.CH
 Acq On : 05 Nov 2019 11:44 pm
 Operator : FID6:MA
 Sample : I611051901F
 Misc : WG1307766,FRBB86,1ug/ml
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 15:59:06 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:09 2019
 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	31.533	49330102	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.474	1025183	0.969	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	1.94%#	
24) s d50-Tetracosane	36.136	808118	0.937	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	1.87%#	
Target Compounds				
2) t n-Octane (C8)	5.727	791115	0.984	ug/mL M4
3) t n-Nonane (C9)	7.958	820486	0.981	ug/mL M4
4) t n-Decane (C10)	10.463	845155	0.989	ug/mL M4
5) t n-Undecane (C11)	12.986	851828	0.978	ug/mL M4
6) t n-Dodecane (C12)	15.422	871459	0.980	ug/mL M4
7) t n-Tridecane (C13)	17.734	891359	0.989	ug/mL M4
9) t n-Tetradecane (C14)	19.922	914857	0.993	ug/mL M4
11) t n-Pentadecane (C15)	21.992	918918	0.989	ug/mL M4
12) t n-Hexadecane (C16)	23.953	943108	1.006	ug/mL M4
14) t n-Heptadecane (C17)	25.815	927688	0.990	ug/mL M4
15) t Pristane	25.924	958344	1.000	ug/mL M4
16) T n-Octadecane (C18)	27.585	942240	0.989	ug/mL M4
17) t Phytane	27.750	851252	0.988	ug/mL M4
18) t n-Nonadecane (C19)	29.276	944584	0.989	ug/mL M4
20) t n-Eicosane (C20)	30.886	950515	0.990	ug/mL M4
21) t n-Heneicosane (C21)	32.427	965566	0.986	ug/mL M4
22) t n-Docosane (C22)	33.903	968593	0.986	ug/mL M4
23) t n-Tricosane (C23)	35.321	972585	0.985	ug/mL M4
25) t n-Tetracosane (C24)	36.681	978504	0.980	ug/mL M4
26) t n-Pentacosane (C25)	37.993	972214	0.983	ug/mL M4
27) t n-Hexacosane (C26)	39.253	974627	0.974	ug/mL M4
28) t n-Heptacosane (C27)	40.470	947366	0.966	ug/mL M4
29) t n-Octacosane (C28)	41.645	984696	0.966	ug/mL M4
30) t n-Nonacosane (C29)	42.781	983146	0.967	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051922.D
 Signal(s) : FID1A.CH
 Acq On : 05 Nov 2019 11:44 pm
 Operator : FID6:MA
 Sample : I611051901F
 Misc : WG1307766,FRBB86,1ug/ml
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 15:59:06 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:09 2019
 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)	43.880	977080	0.968 ug/mL M4
32) t n-Hentriacontane (C31)	44.942	983140	0.963 ug/mL M4
33) t n-Dotriacontane (C32)	45.975	969720	0.961 ug/mL M4
34) t n-Tritriacontane (C33)	46.975	966436	0.964 ug/mL M4
35) t n-tetratriacontane (C34)	48.031	993679	0.953 ug/mL M4
36) t n-Pentatriacontane (C35)	49.225	954900	0.945 ug/mL M4
37) t n-Hexatriacontane (C36)	50.587	1016078	0.951 ug/mL M4
38) t n-Heptatriacontane (C37)	52.168	953952	0.953 ug/mL M4
39) t n-Octatriacontane (C38)	54.006	1036962	0.958 ug/mL M4
41) t n-Tetracontane (C40)	58.746	966011	0.942 ug/mL M4

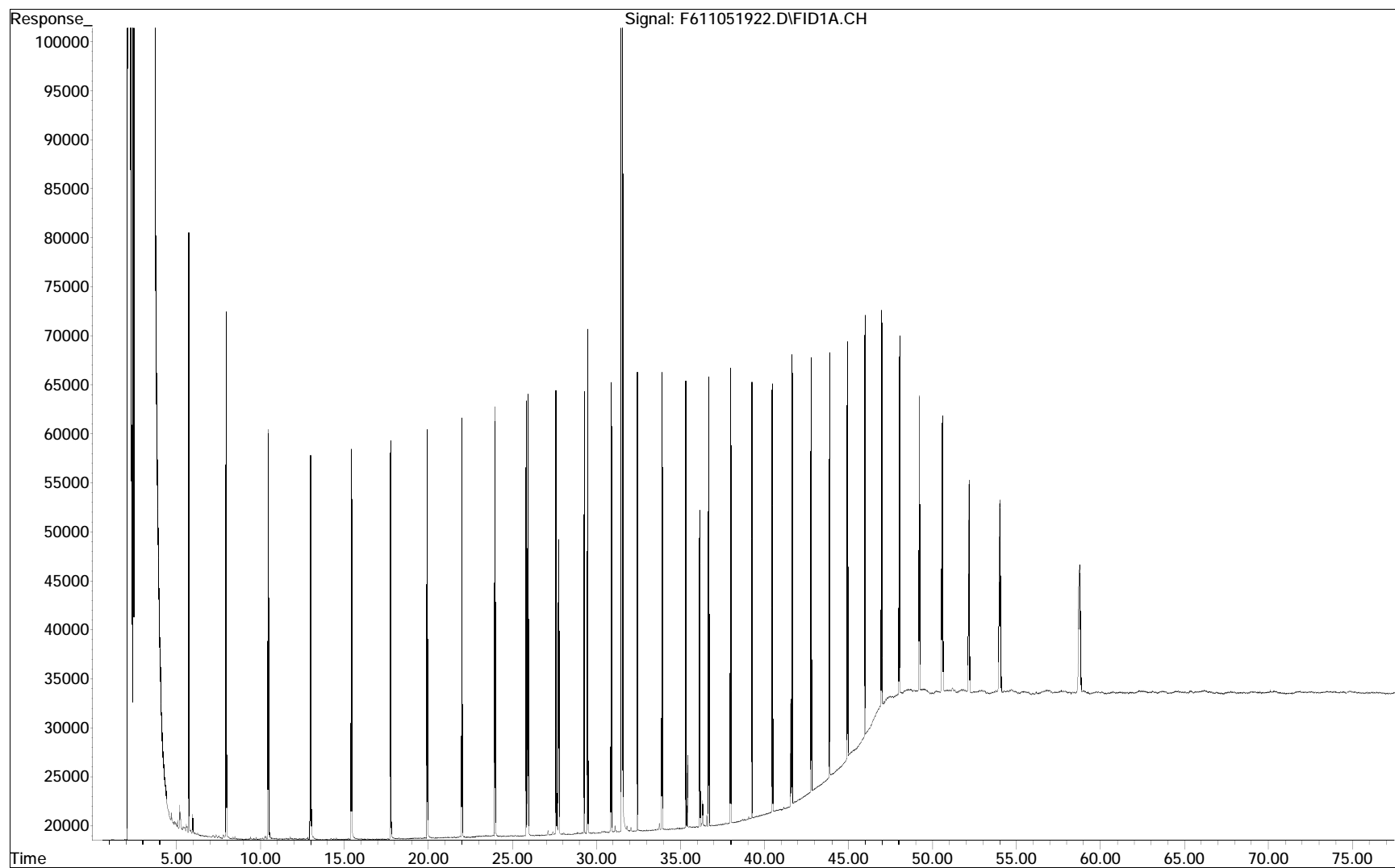
SemiQuant Compounds - Not Calibrated on this Instrument

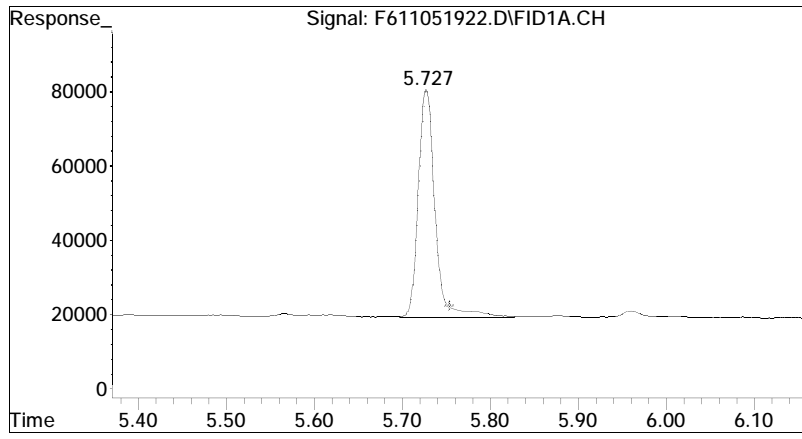
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

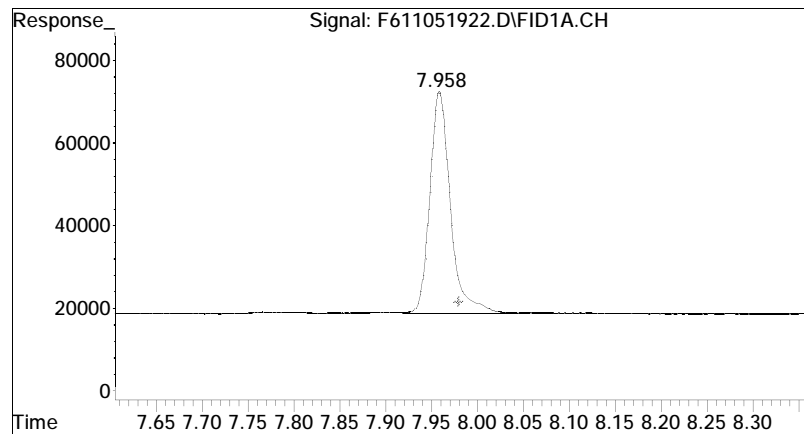
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051922.D
Operator : FID6:MA
Acquired : 05 Nov 2019 11:44 pm using AcqMethod FID6A.M
Sample Name: I611051901F
Instrument: FID6
Misc Info : WG1307766,FRBB86,1ug/ml
Vial Number: 6
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M





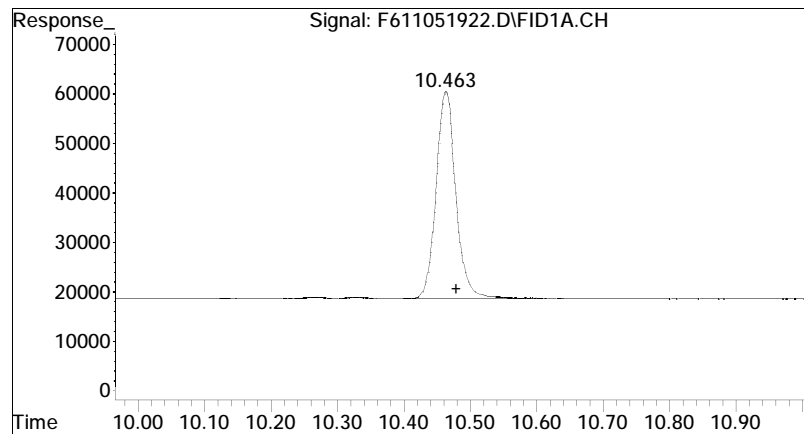
#2 n-Octane (C8)

R.T.: 5.727 min
Delta R.T.: -0.027 min
Response: 791115
Conc: 0.98 ug/mL M4



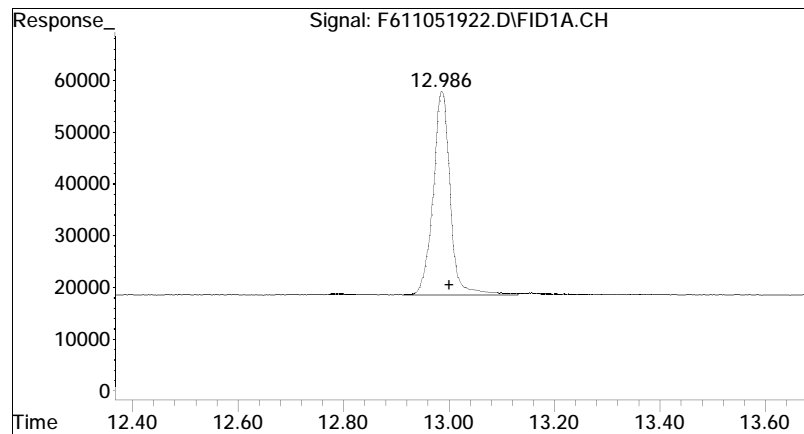
#3 n-Nonane (C9)

R.T.: 7.958 min
Delta R.T.: -0.021 min
Response: 820486
Conc: 0.98 ug/mL M4



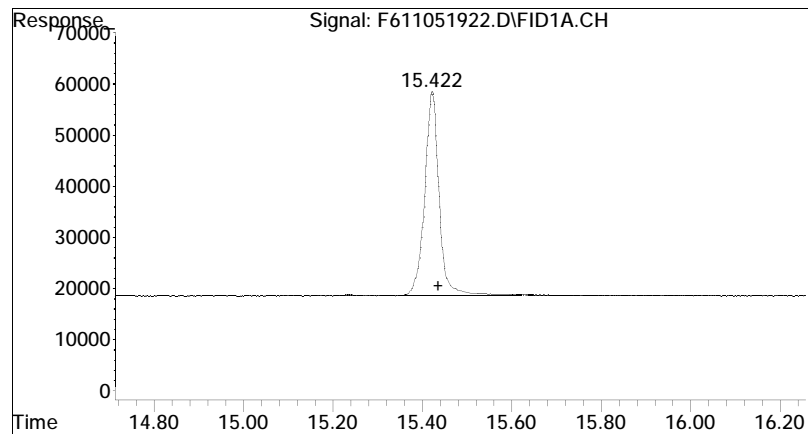
#4 n-Decane (C10)

R.T.: 10.463 min
Delta R.T.: -0.016 min
Response: 845155
Conc: 0.99 ug/mL M4



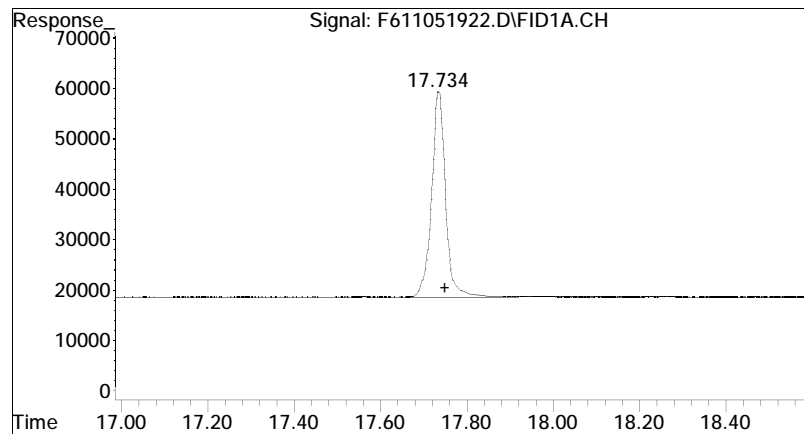
#5 n-Undecane (C11)

R.T.: 12.986 min
Delta R.T.: -0.015 min
Response: 851828
Conc: 0.98 ug/mL M4



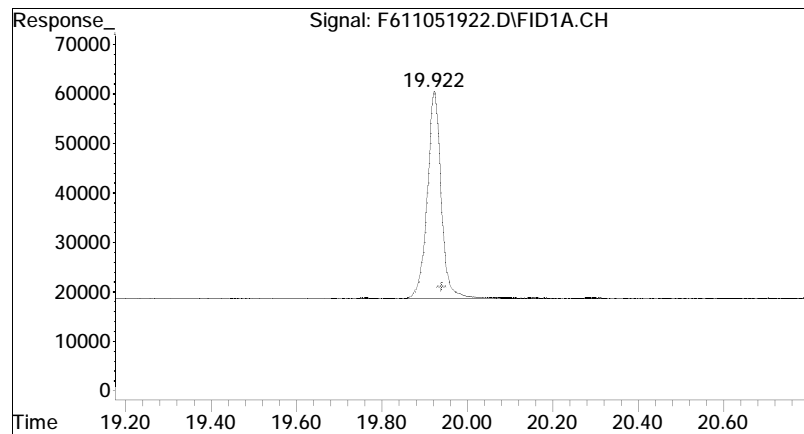
#6 n-Dodecane (C12)

R.T.: 15.422 min
Delta R.T.: -0.015 min
Response: 871459
Conc: 0.98 ug/mL M4



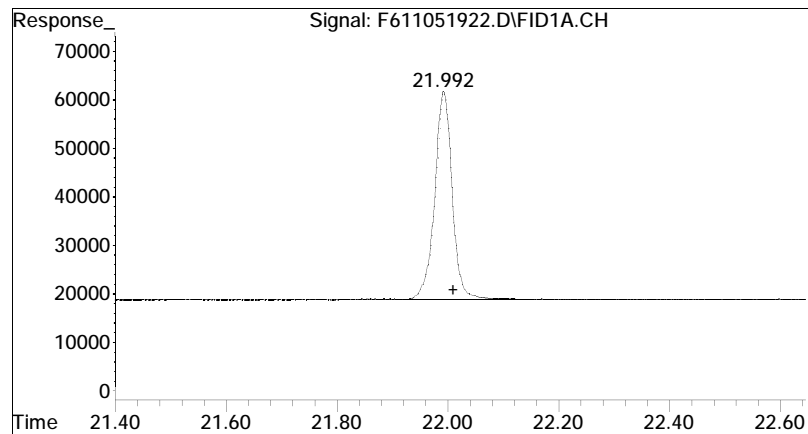
#7 n-Tridecane (C13)

R.T.: 17.734 min
Delta R.T.: -0.015 min
Response: 891359
Conc: 0.99 ug/mL M4

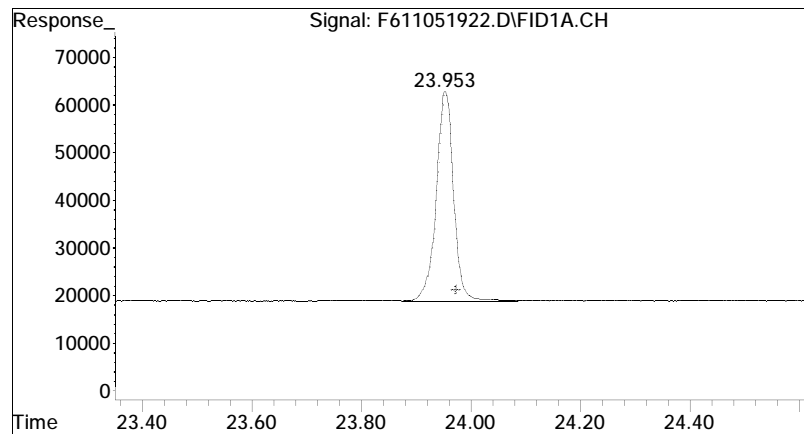


#9 n-Tetradecane (C14)

R.T.: 19.922 min
Delta R.T.: -0.018 min
Response: 914857
Conc: 0.99 ug/mL M4

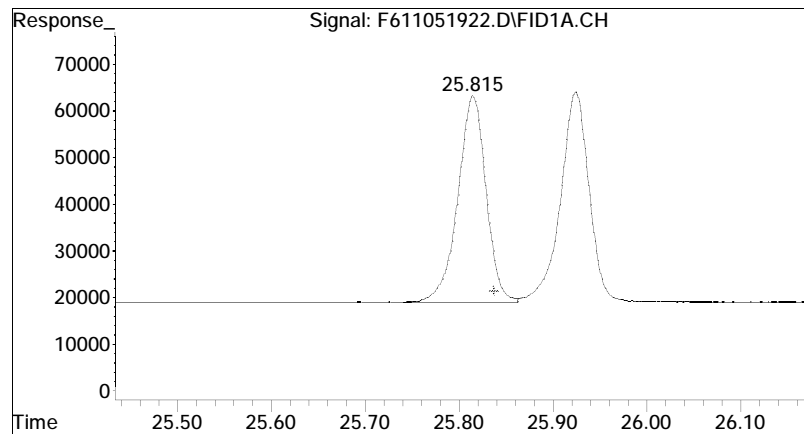


#11 n-Pentadecane (C15)
R.T.: 21.992 min
Delta R.T.: -0.018 min
Response: 918918
Conc: 0.99 ug/mL M4



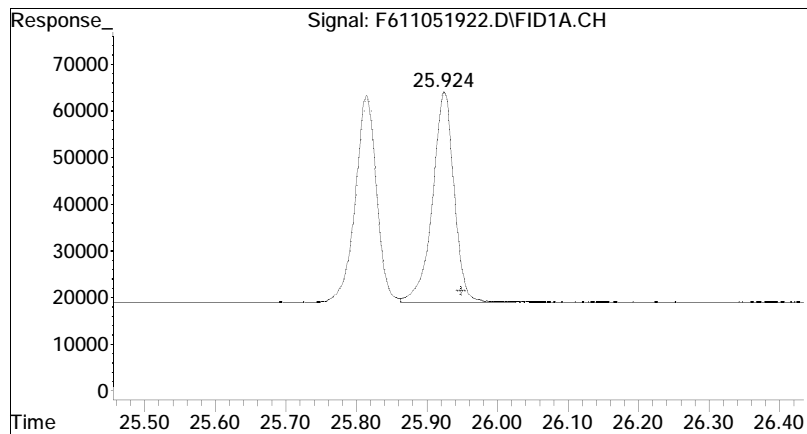
#12 n-Hexadecane (C16)

R.T.: 23.953 min
Delta R.T.: -0.020 min
Response: 943108
Conc: 1.01 ug/mL M4



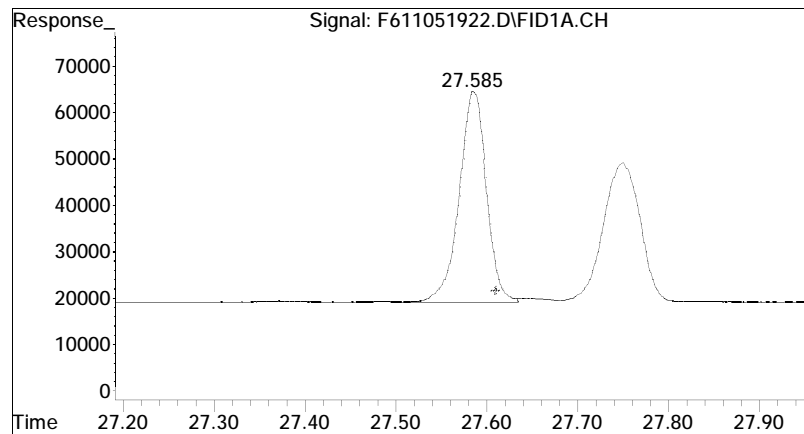
#14 n-Heptadecane (C17)

R.T.: 25.815 min
Delta R.T.: -0.023 min
Response: 927688
Conc: 0.99 ug/mL M4



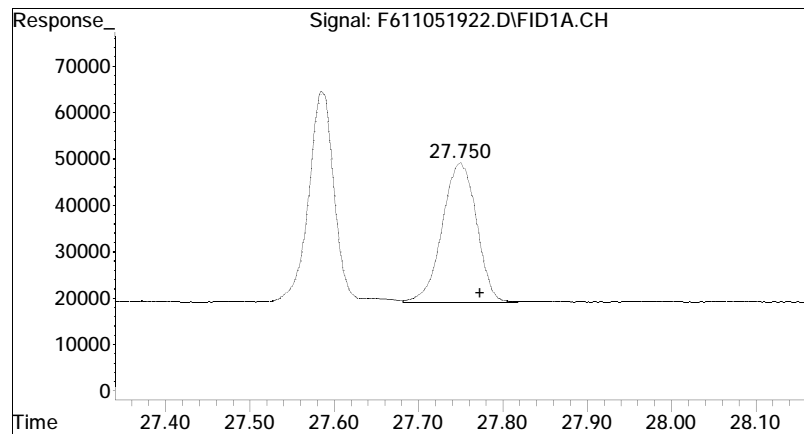
#15 Pristane

R.T.: 25.924 min
Delta R.T.: -0.024 min
Response: 958344
Conc: 1.00 ug/mL M4



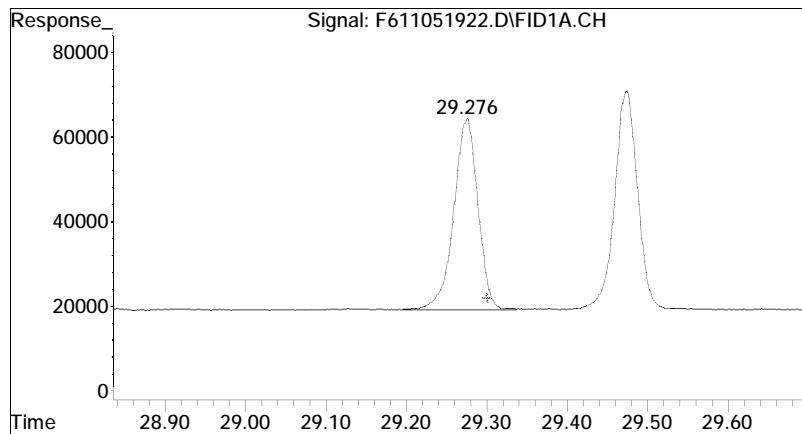
#16 n-Octadecane (C18)

R.T.: 27.585 min
Delta R.T.: -0.026 min
Response: 942240
Conc: 0.99 ug/mL M4



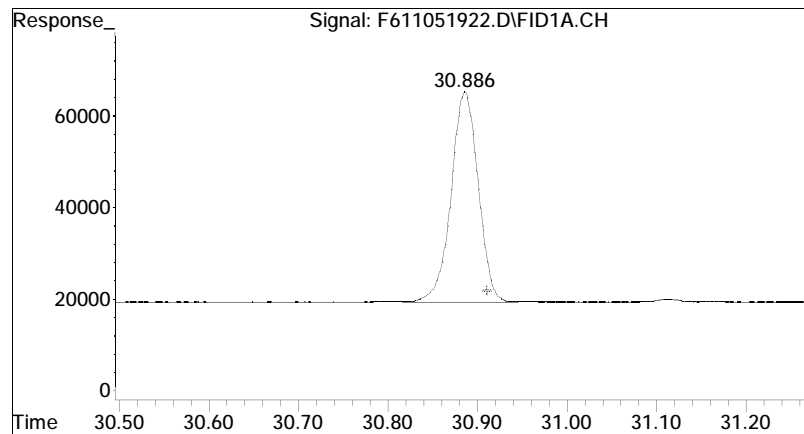
#17 Phytane

R.T.: 27.750 min
Delta R.T.: -0.023 min
Response: 851252
Conc: 0.99 ug/mL M4



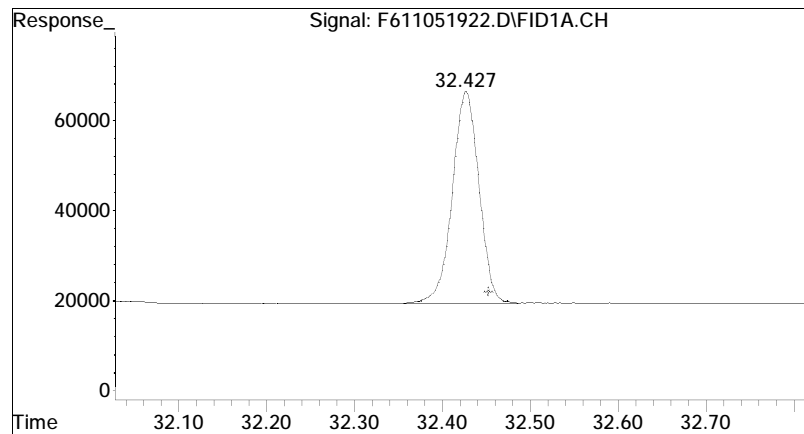
#18 n-Nonadecane (C19)

R.T.: 29.276 min
Delta R.T.: -0.025 min
Response: 944584
Conc: 0.99 ug/mL M4



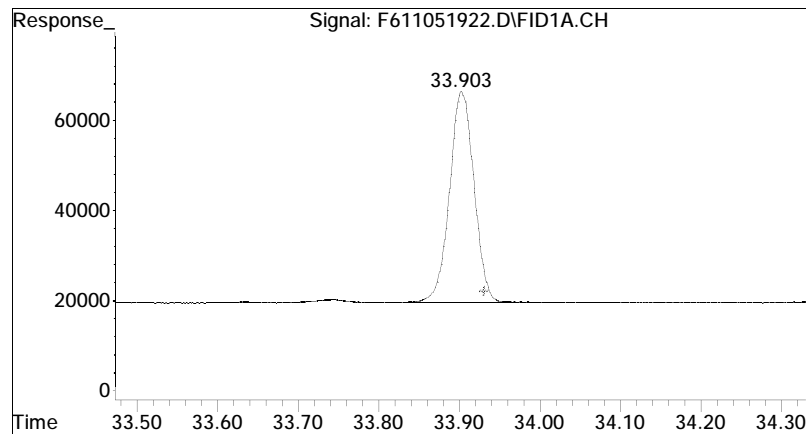
#20 n-Eicosane (C20)

R.T.: 30.886 min
Delta R.T.: -0.025 min
Response: 950515
Conc: 0.99 ug/mL M4



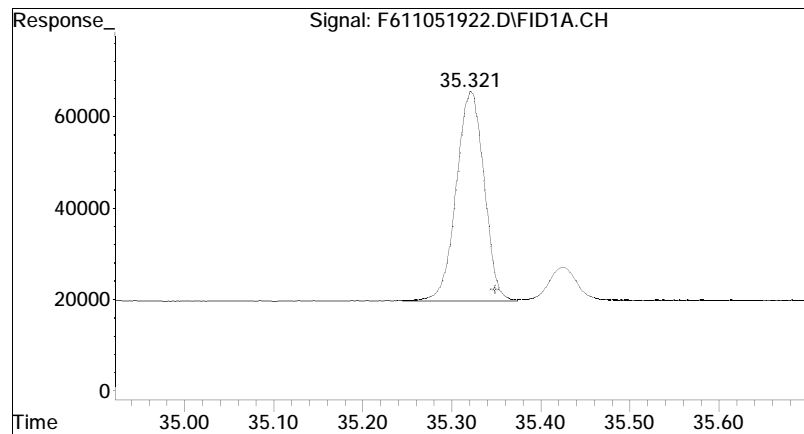
#21 n-Heneicosane (C21)

R.T.: 32.427 min
Delta R.T.: -0.025 min
Response: 965566
Conc: 0.99 ug/mL M4



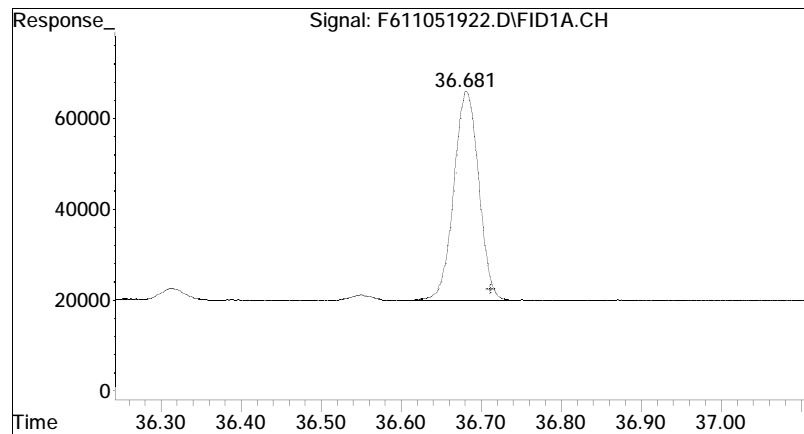
#22 n-Docosane (C22)

R.T.: 33.903 min
Delta R.T.: -0.028 min
Response: 968593
Conc: 0.99 ug/mL M4



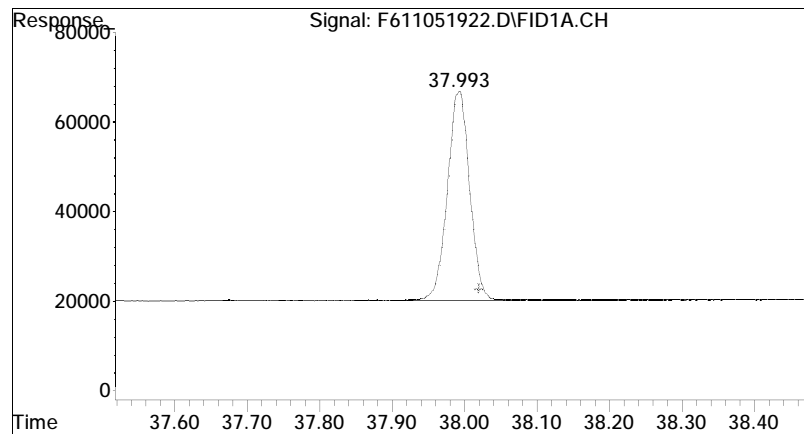
#23 n-Tricosane (C23)

R.T.: 35.321 min
Delta R.T.: -0.028 min
Response: 972585
Conc: 0.98 ug/mL M4



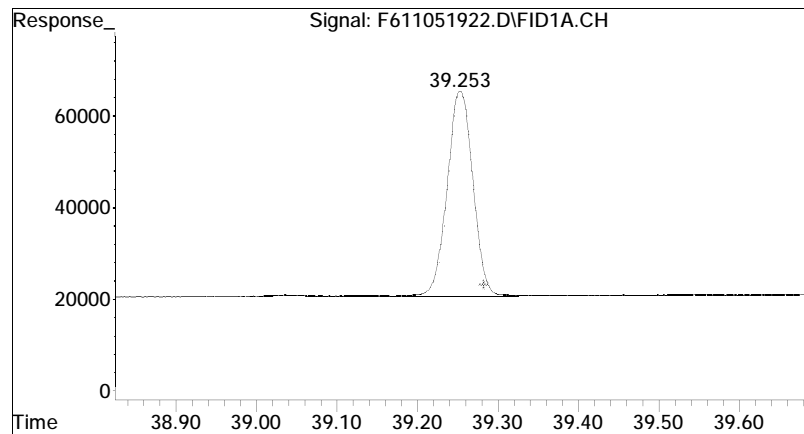
#25 n-Tetracosane (C24)

R.T.: 36.681 min
Delta R.T.: -0.031 min
Response: 978504
Conc: 0.98 ug/mL M4



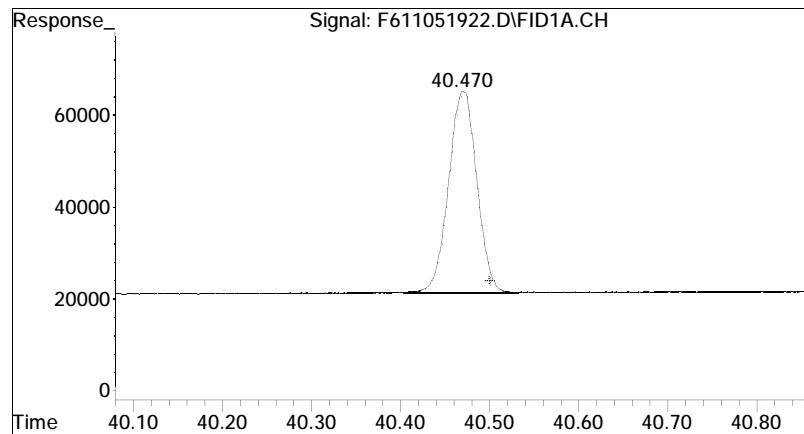
#26 n-Pentacosane (C25)

R.T.: 37.993 min
Delta R.T.: -0.026 min
Response: 972214
Conc: 0.98 ug/mL M4



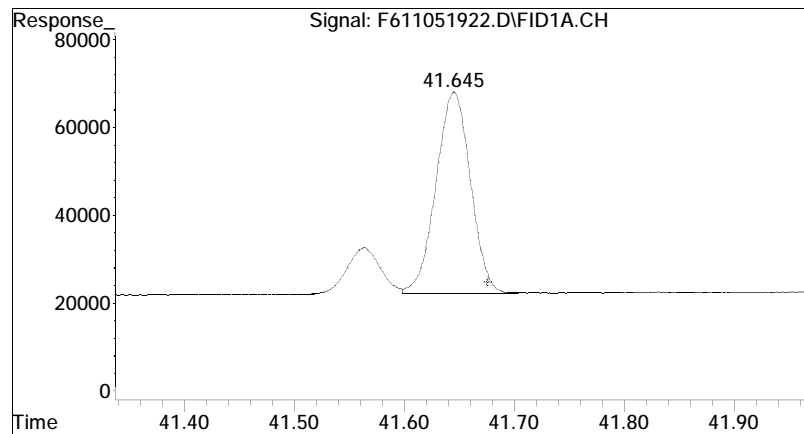
#27 n-Hexacosane (C26)

R.T.: 39.253 min
Delta R.T.: -0.029 min
Response: 974627
Conc: 0.97 ug/mL M4

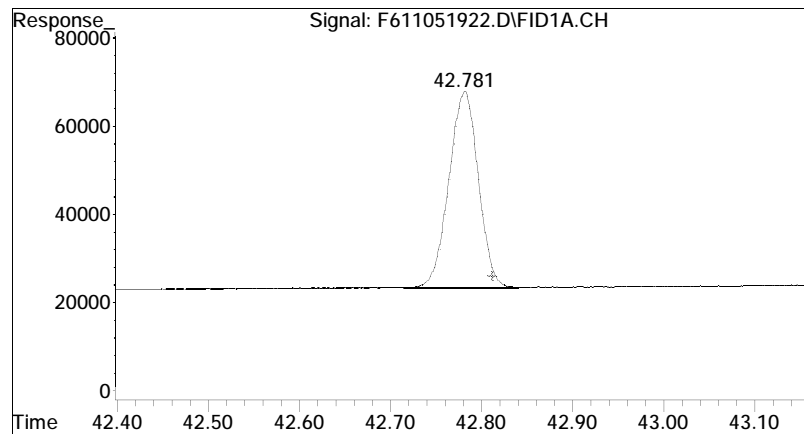


#28 n-Heptacosane (C27)

R.T.: 40.470 min
Delta R.T.: -0.031 min
Response: 947366
Conc: 0.97 ug/mL M4

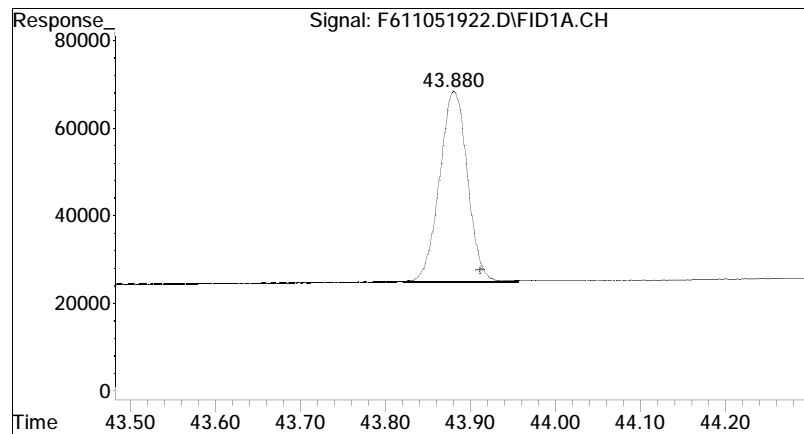


#29 n-Octacosane (C28)
R.T.: 41.645 min
Delta R.T.: -0.031 min
Response: 984696
Conc: 0.97 ug/mL M4



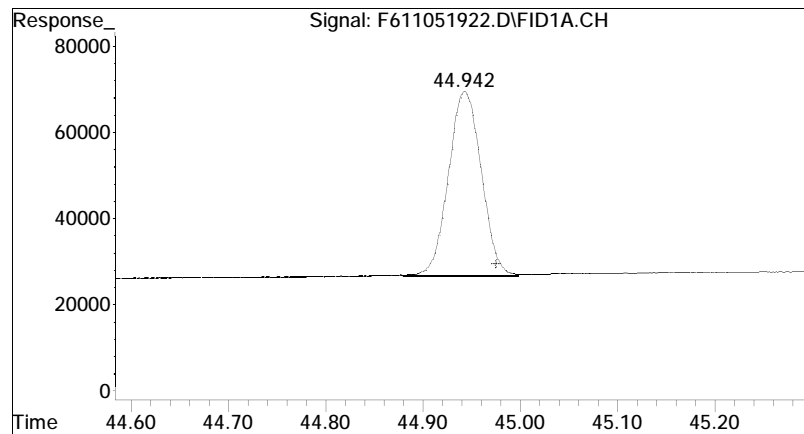
#30 n-Nonacosane (C29)

R.T.: 42.781 min
Delta R.T.: -0.031 min
Response: 983146
Conc: 0.97 ug/mL M4



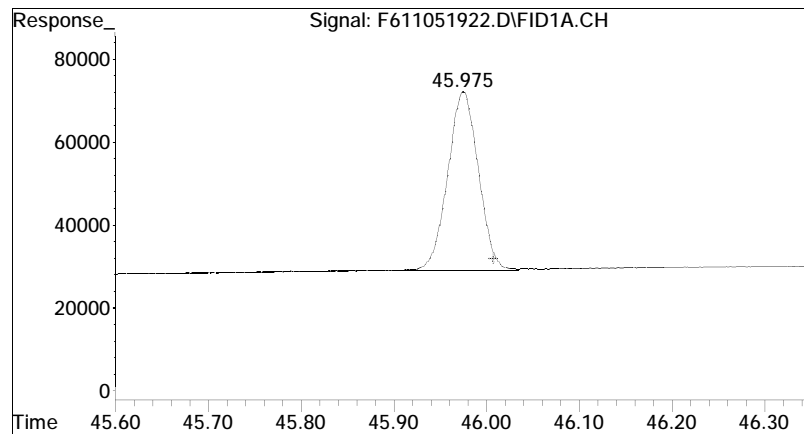
#31 n-Triacontane (C30)

R.T.: 43.880 min
Delta R.T.: -0.031 min
Response: 977080
Conc: 0.97 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.942 min
Delta R.T.: -0.033 min
Response: 983140
Conc: 0.96 ug/mL M4



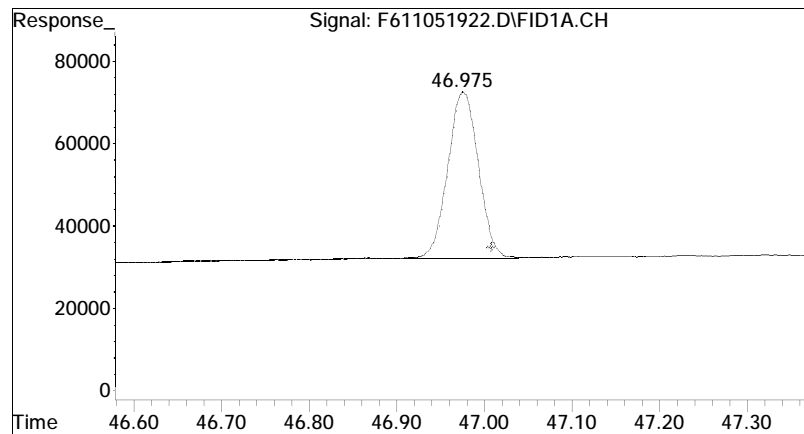
#33 n-Dotriacontane (C32)

R.T.: 45.975 min

Delta R.T.: -0.033 min

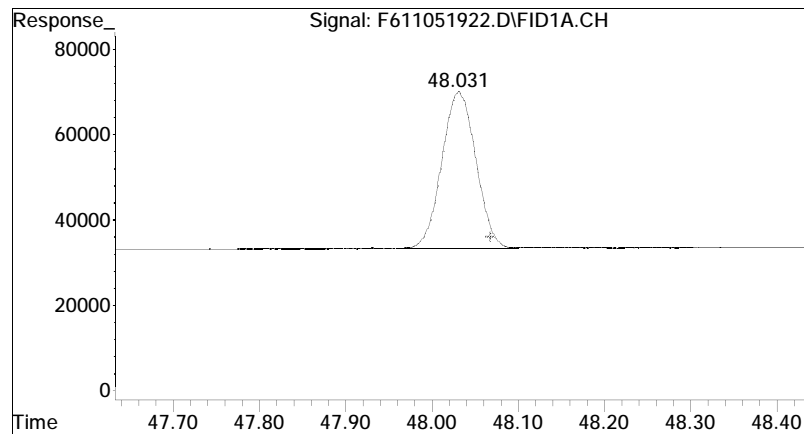
Response: 969720

Conc: 0.96 ug/mL M4



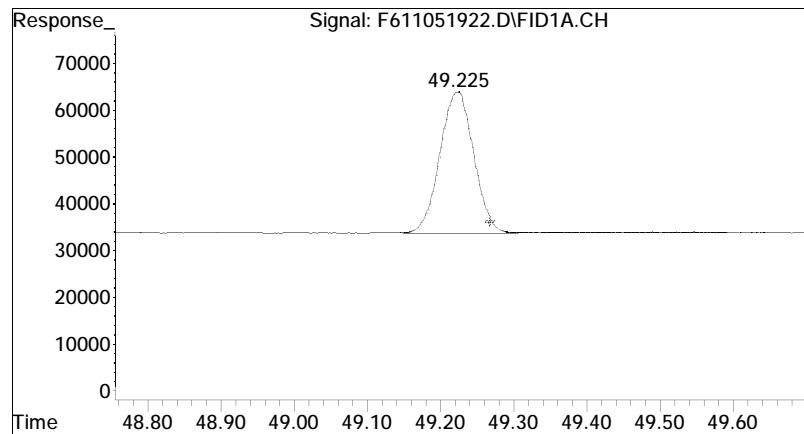
#34 n-Tritriacontane (C33)

R.T.: 46.975 min
Delta R.T.: -0.033 min
Response: 966436
Conc: 0.96 ug/mL M4



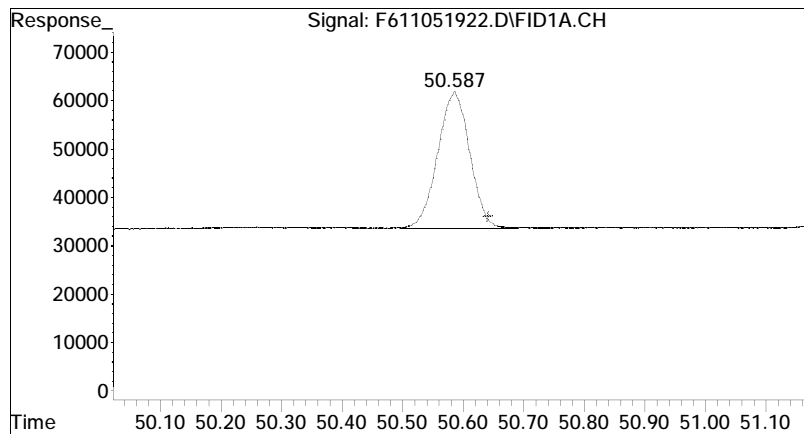
#35 n-tetratriacontane (C34)

R.T.: 48.031 min
Delta R.T.: -0.037 min
Response: 993679
Conc: 0.95 ug/mL M4



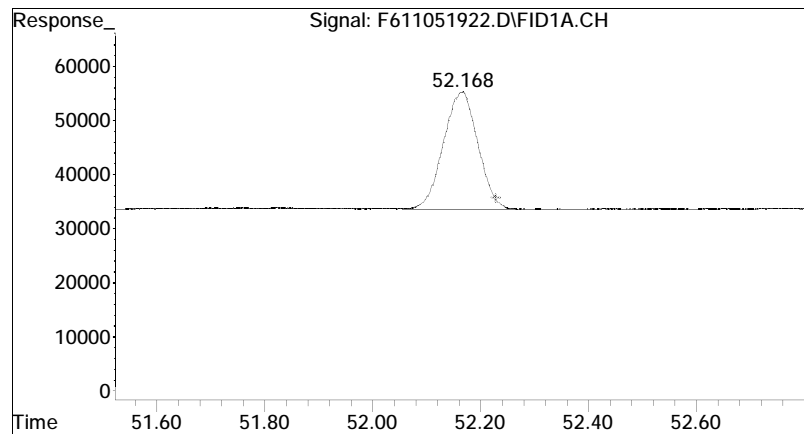
#36 n-Pentatriacontane (C35)

R.T.: 49.225 min
Delta R.T.: -0.042 min
Response: 954900
Conc: 0.94 ug/mL M4



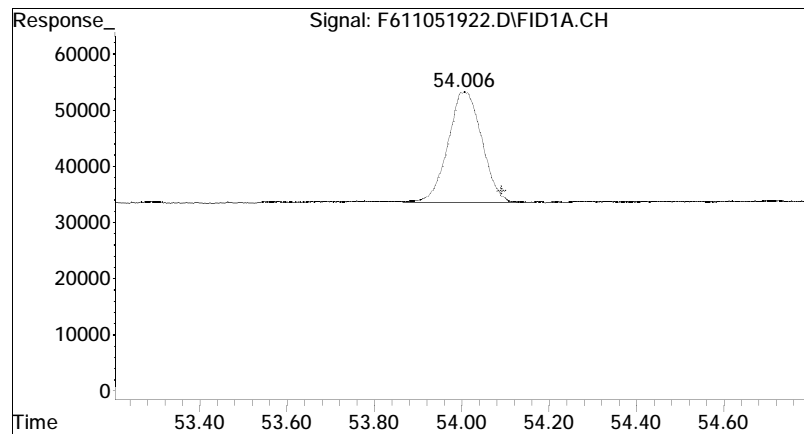
#37 n-Hexatriacontane (C36)

R.T.: 50.587 min
Delta R.T.: -0.054 min
Response: 1016078
Conc: 0.95 ug/mL M4



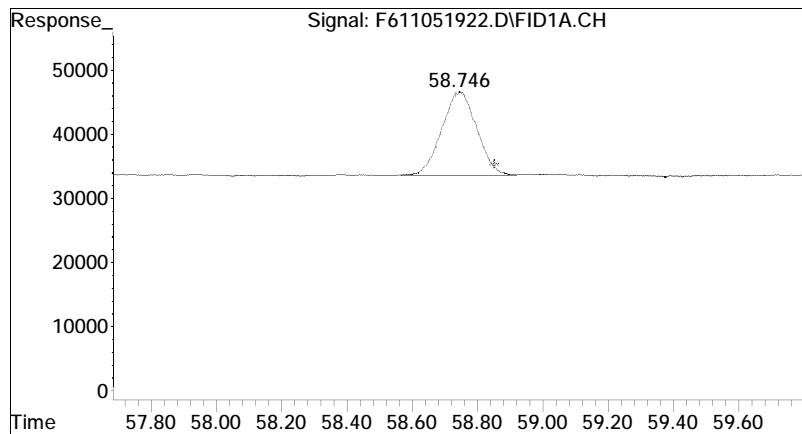
#38 n-Heptatriacontane (C37)

R.T.: 52.168 min
Delta R.T.: -0.060 min
Response: 953952
Conc: 0.95 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 54.006 min
Delta R.T.: -0.085 min
Response: 1036962
Conc: 0.96 ug/mL M4



#41 n-Tetracontane (C40)

R.T.: 58.746 min

Delta R.T.: -0.105 min

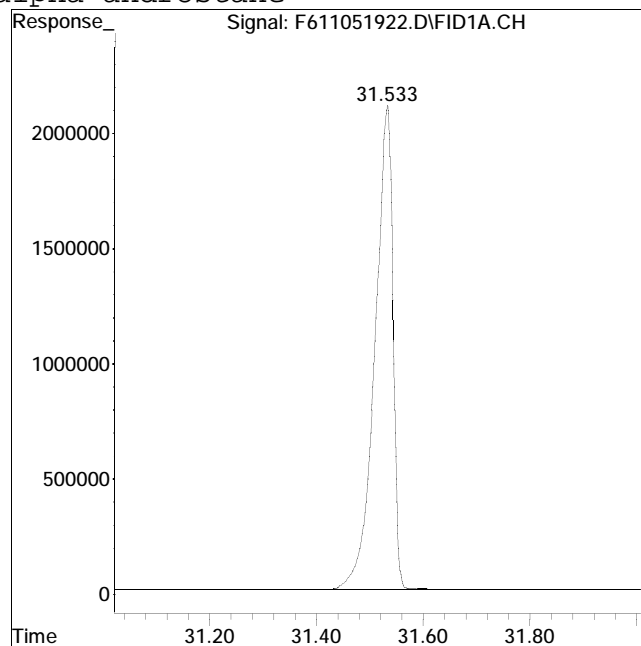
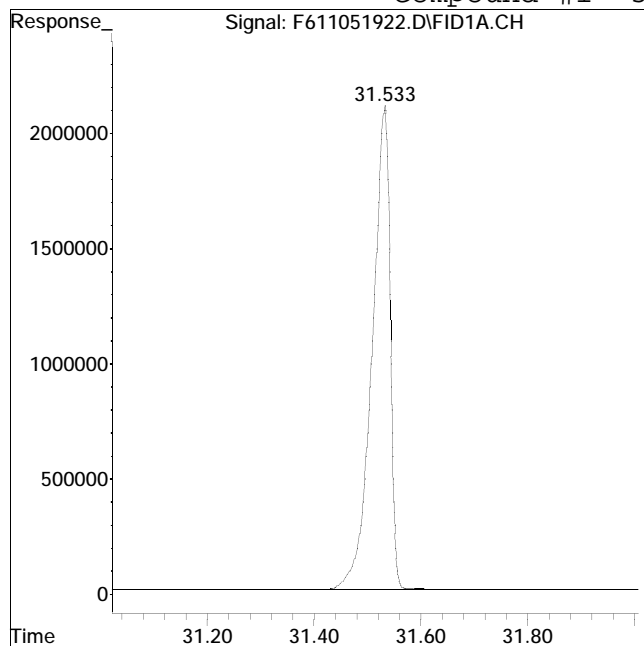
Response: 966011

Conc: 0.94 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 49316346

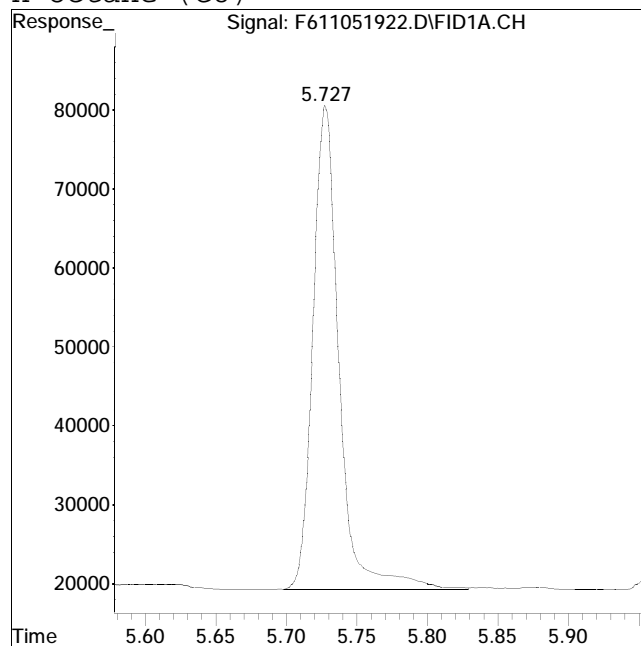
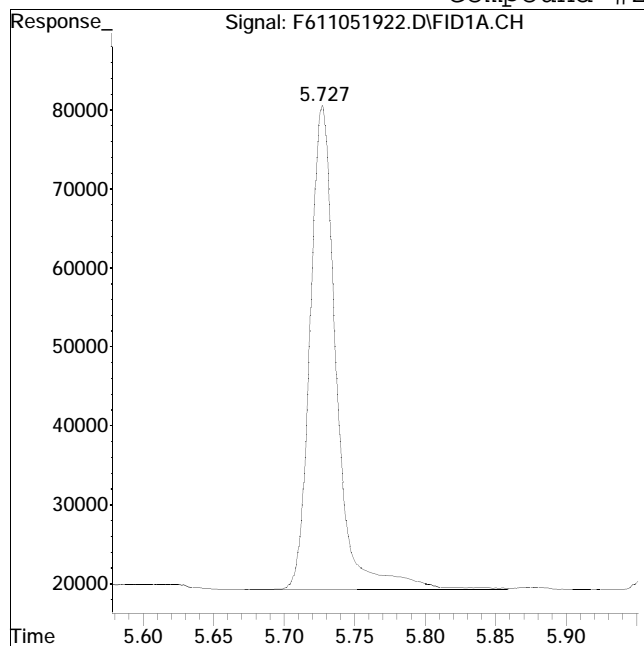
Manual Peak Response = 49330102 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #2: n-Octane (C8)



Original Peak Response = 797000

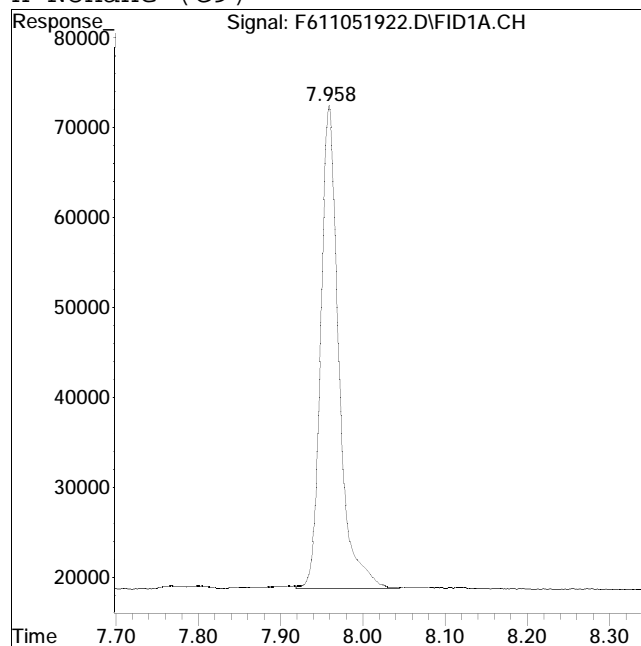
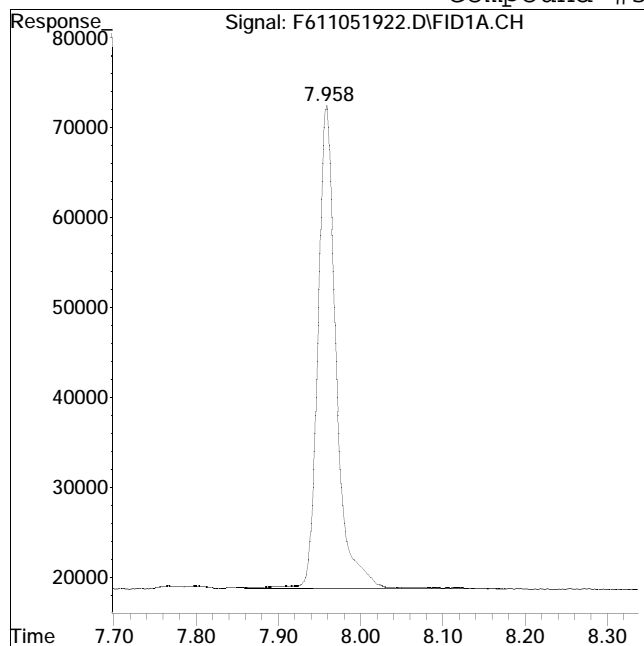
Manual Peak Response = 791115 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 833485

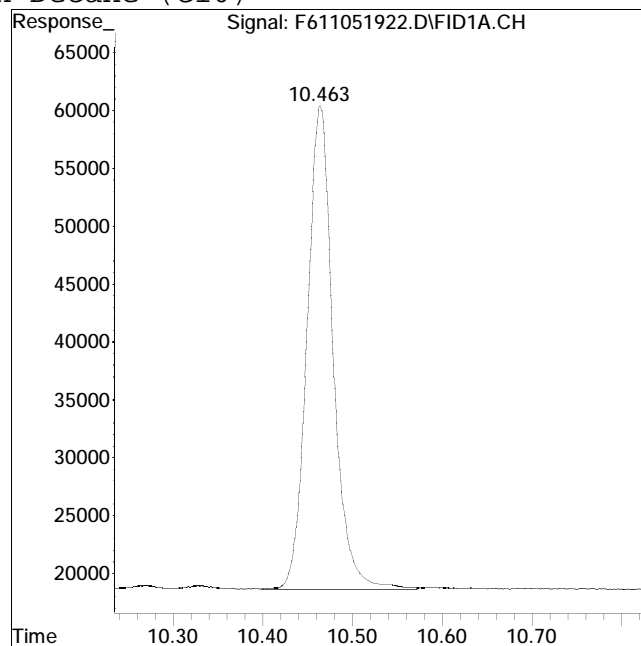
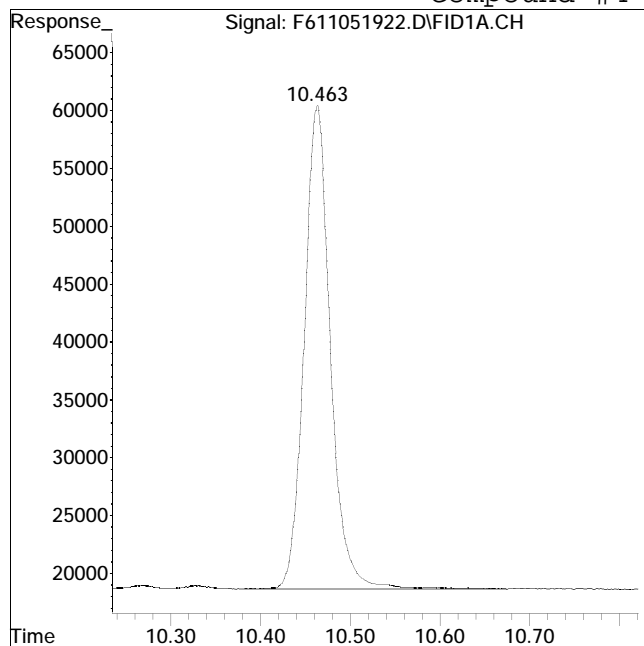
Manual Peak Response = 820486 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #4: n-Decane (C10)



Original Peak Response = 846966

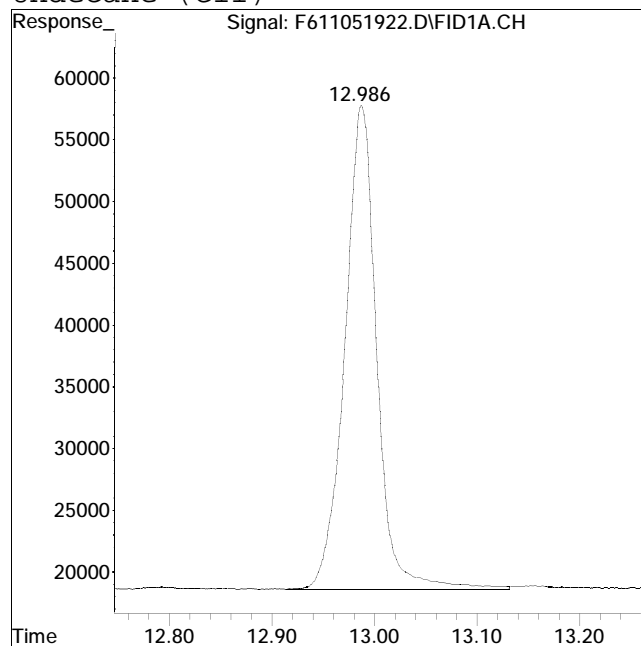
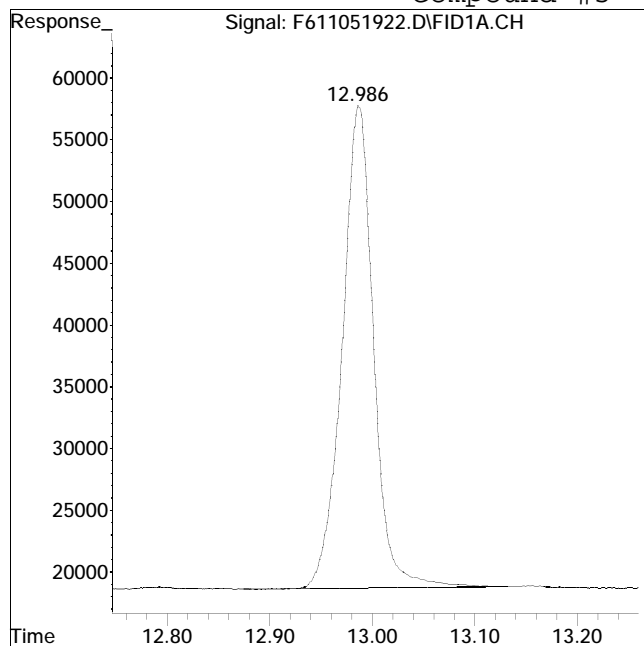
Manual Peak Response = 845155 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 831268

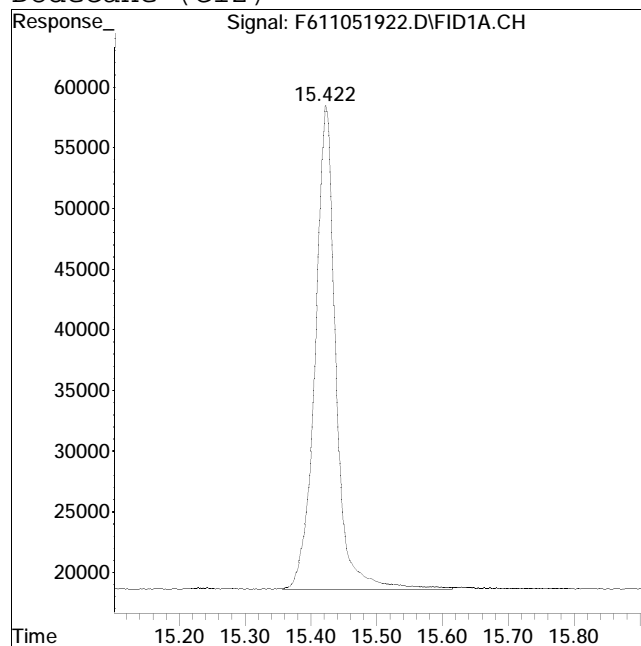
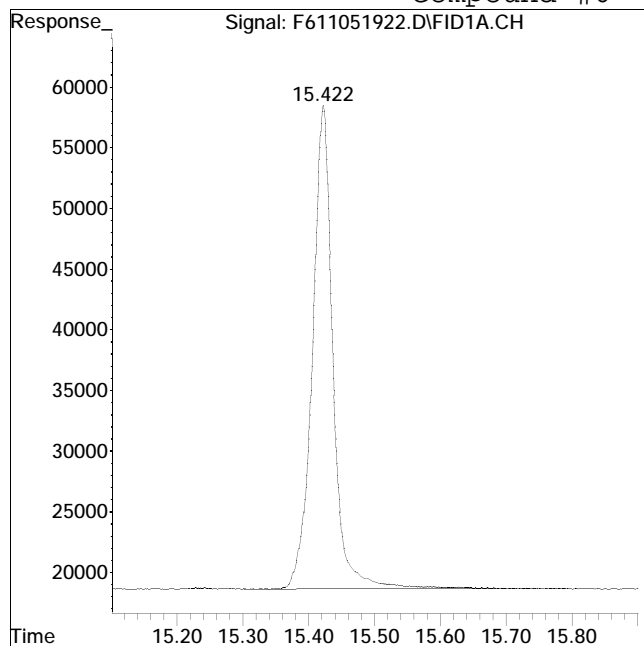
Manual Peak Response = 851828 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 869439

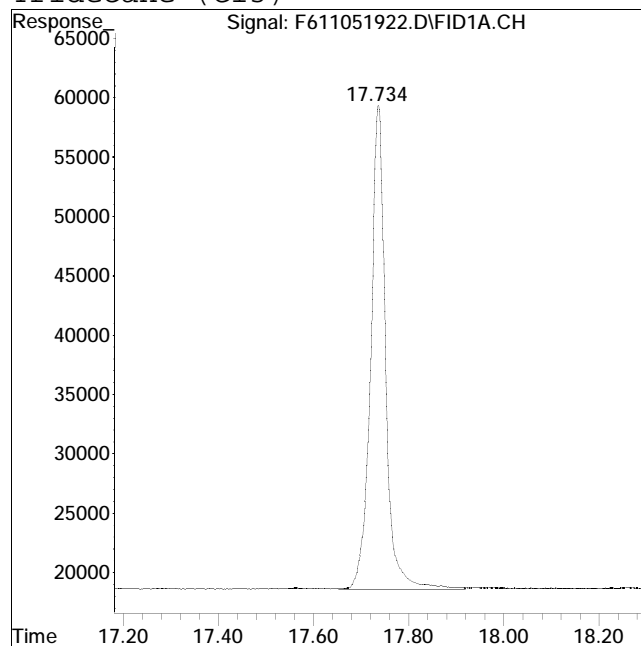
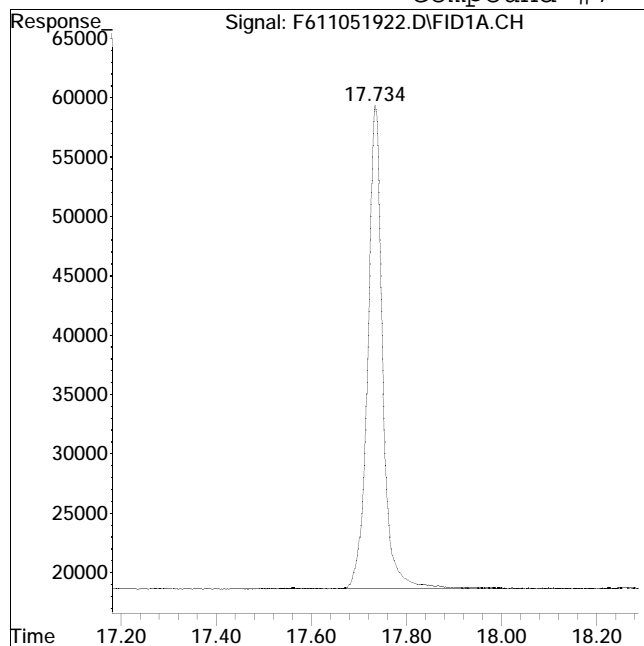
Manual Peak Response = 871459 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 892127

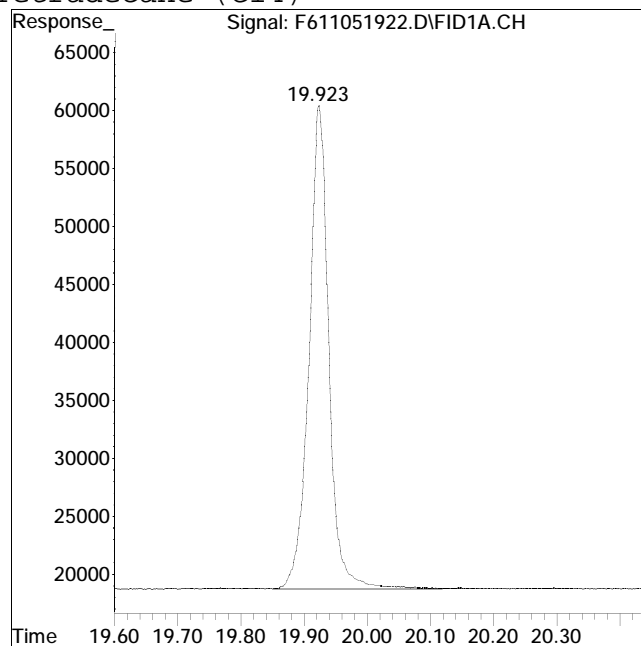
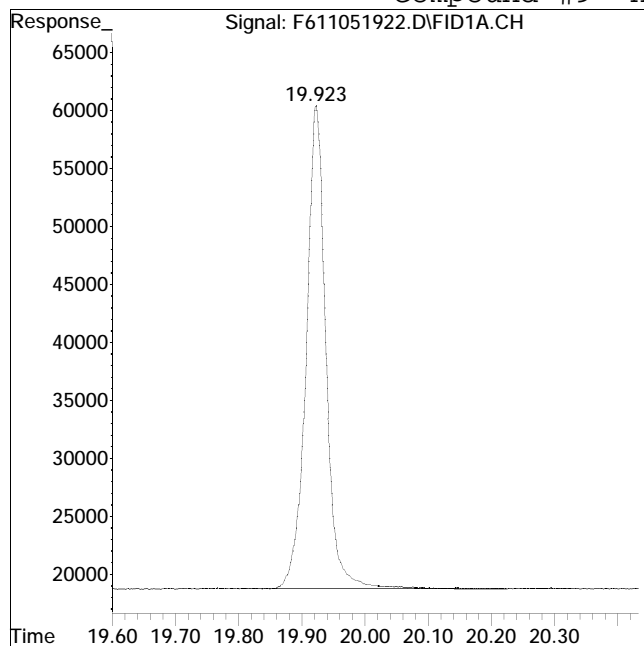
Manual Peak Response = 891359 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 914654

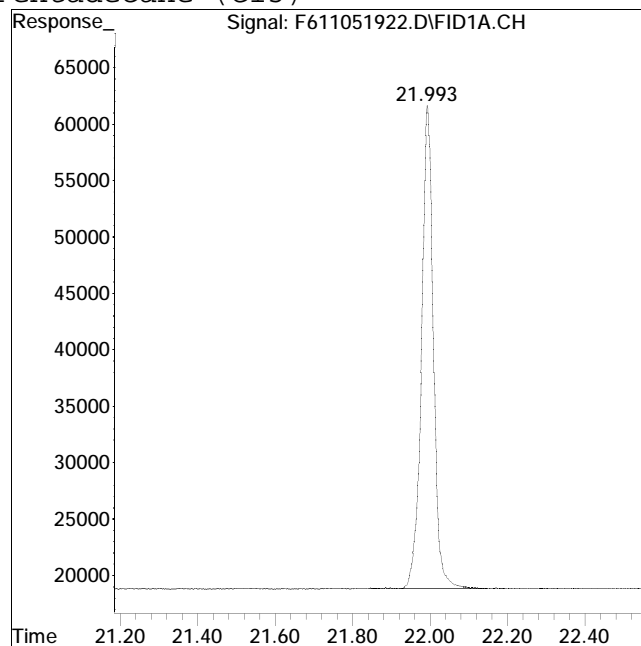
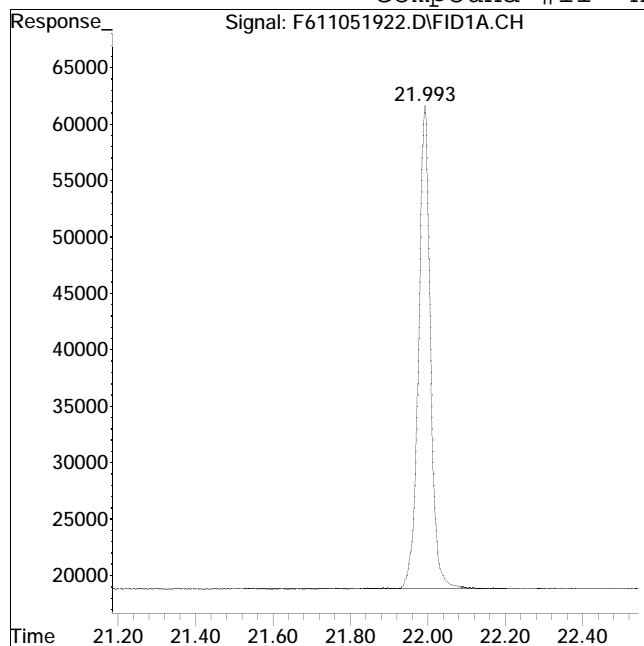
Manual Peak Response = 914857 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 915105

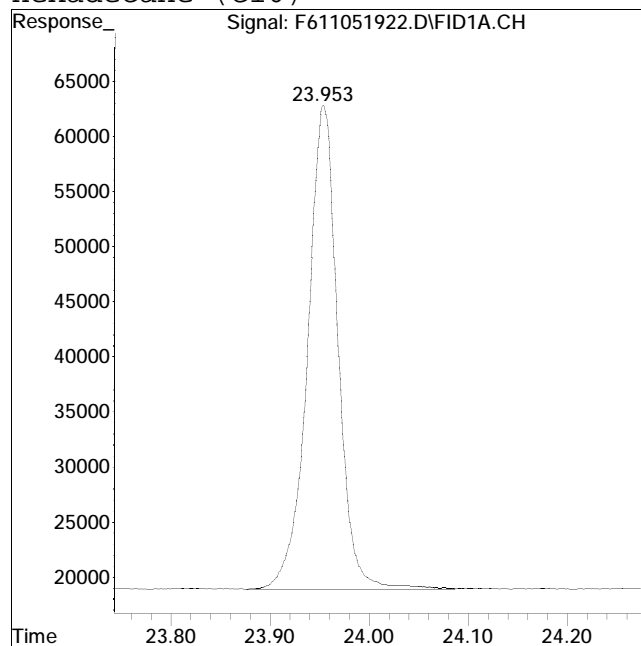
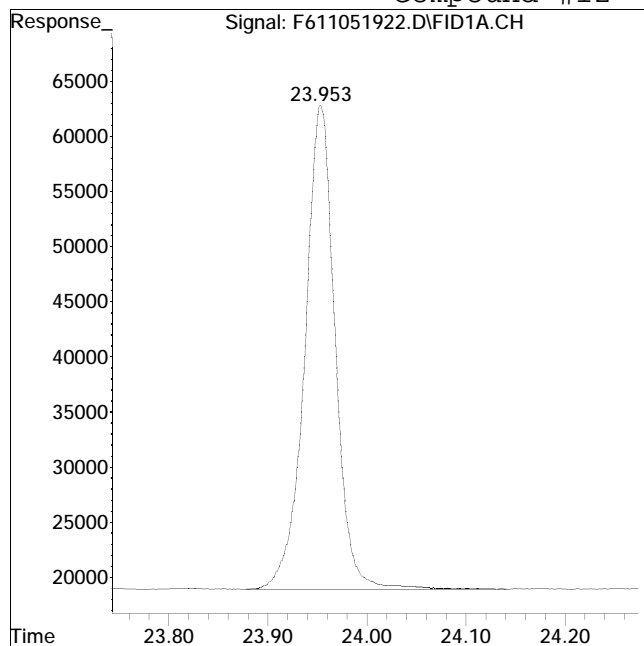
Manual Peak Response = 918918 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 939648

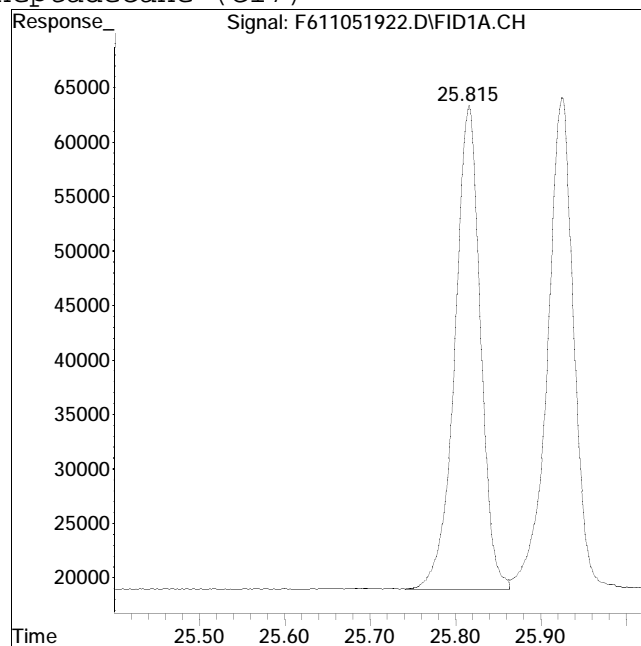
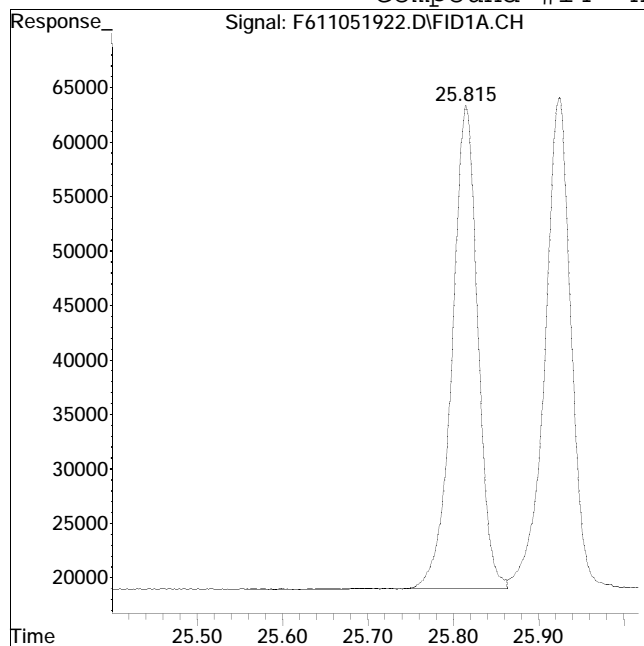
Manual Peak Response = 943108 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 925945

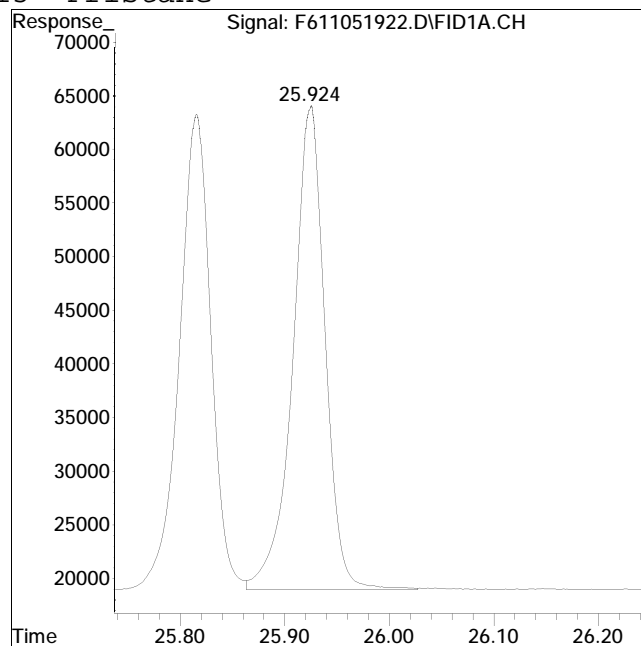
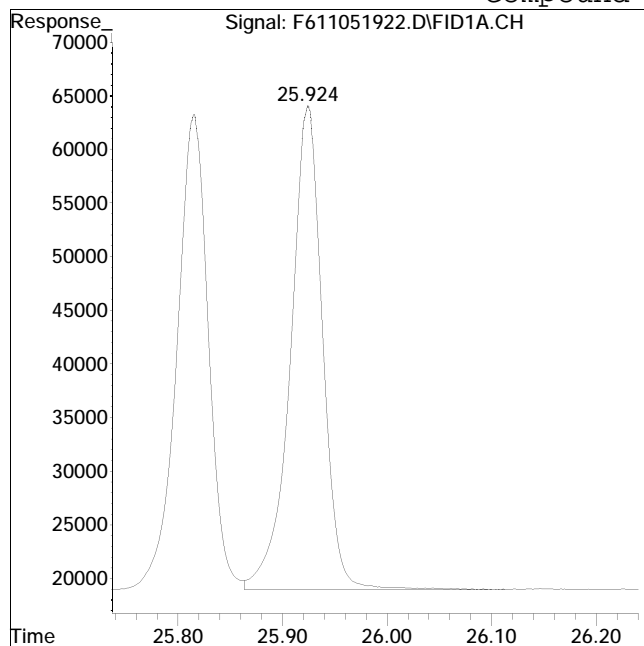
Manual Peak Response = 927688 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #15: Pristane



Original Peak Response = 961824

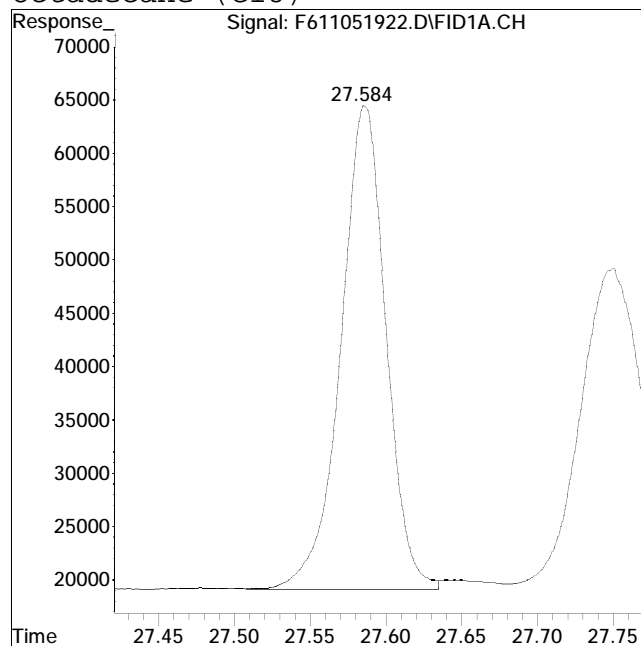
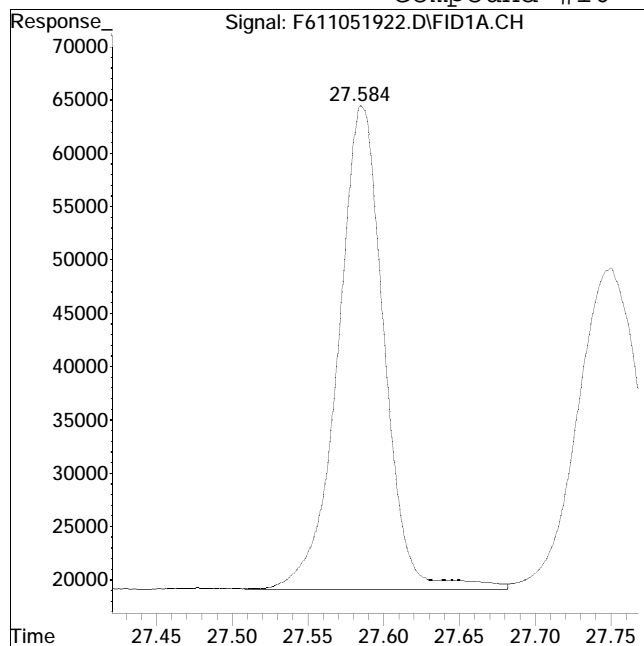
Manual Peak Response = 958344 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 962275

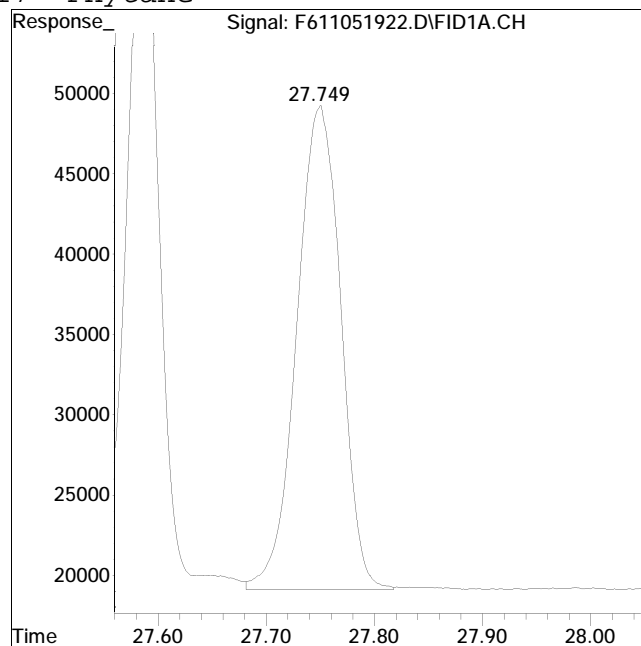
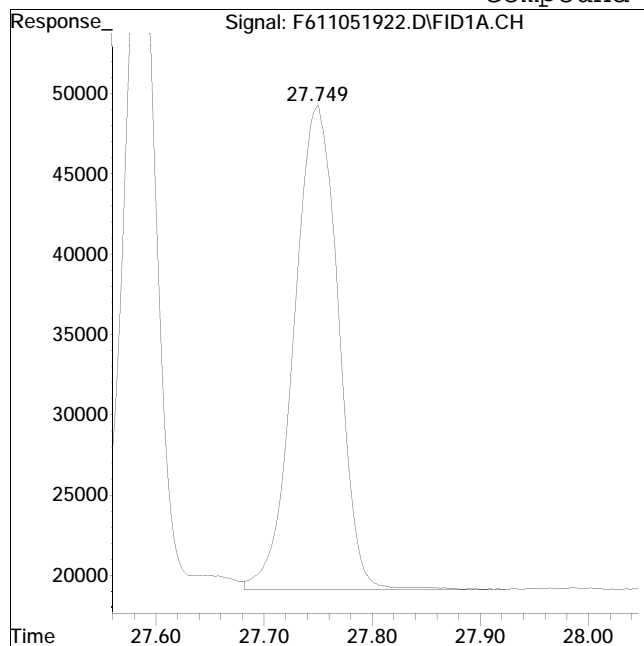
Manual Peak Response = 942240 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #17: Phytane



Original Peak Response = 856374

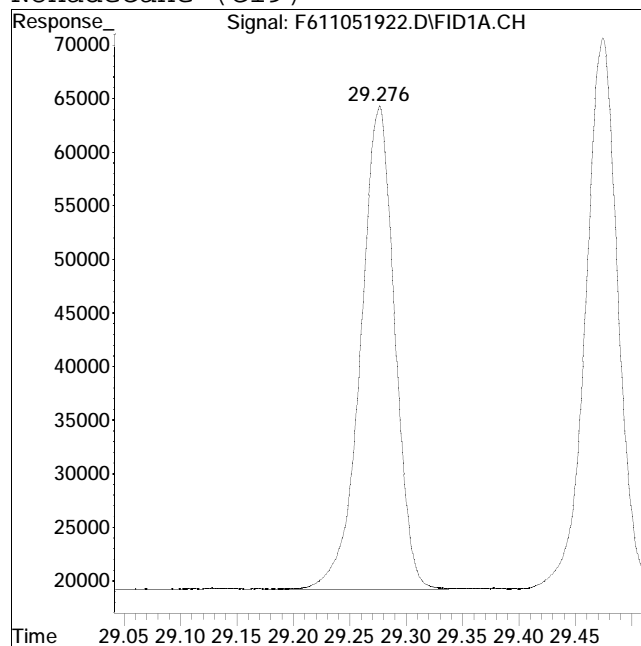
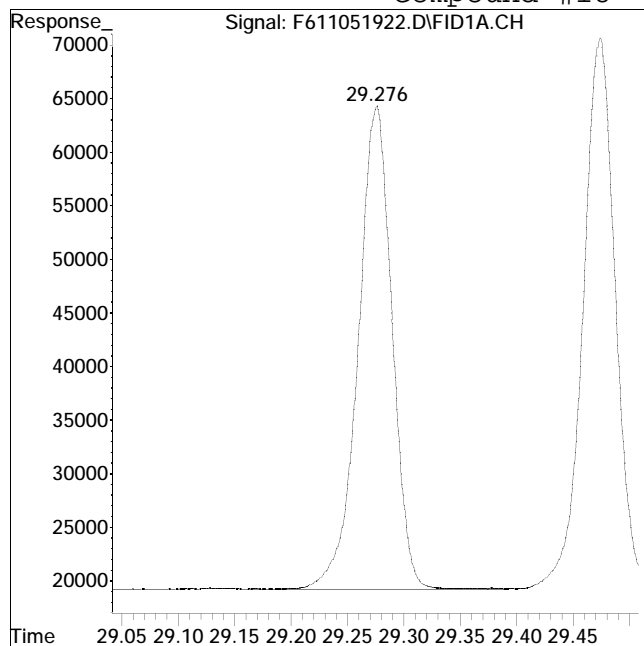
Manual Peak Response = 851252 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 946445

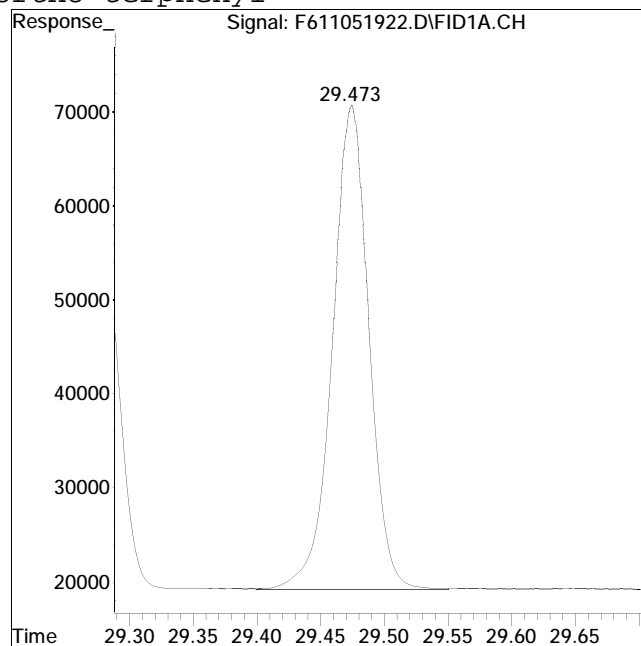
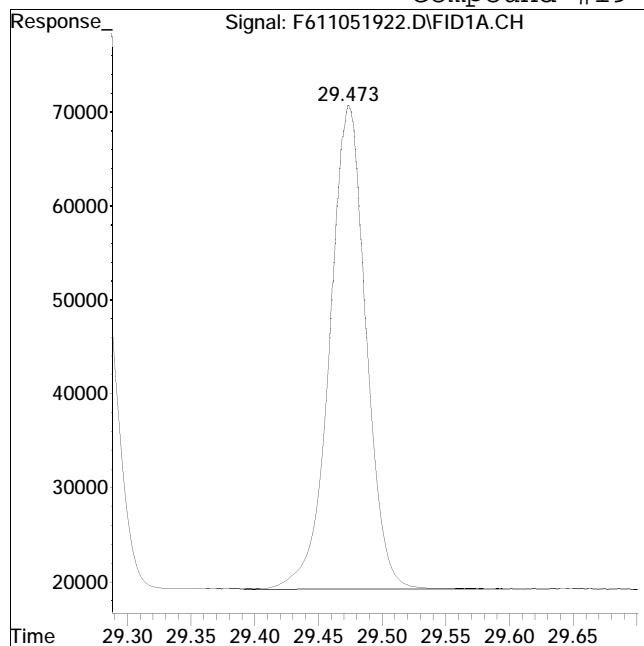
Manual Peak Response = 944584 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #19: ortho-terphenyl



Original Peak Response = 1024493

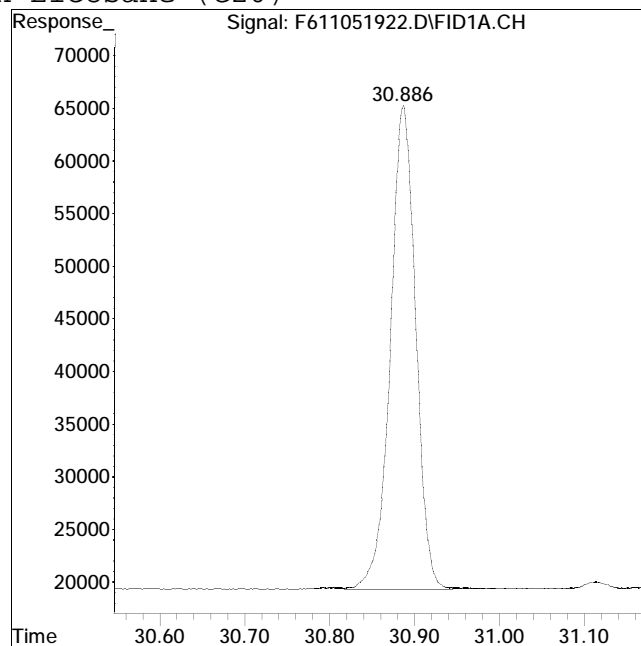
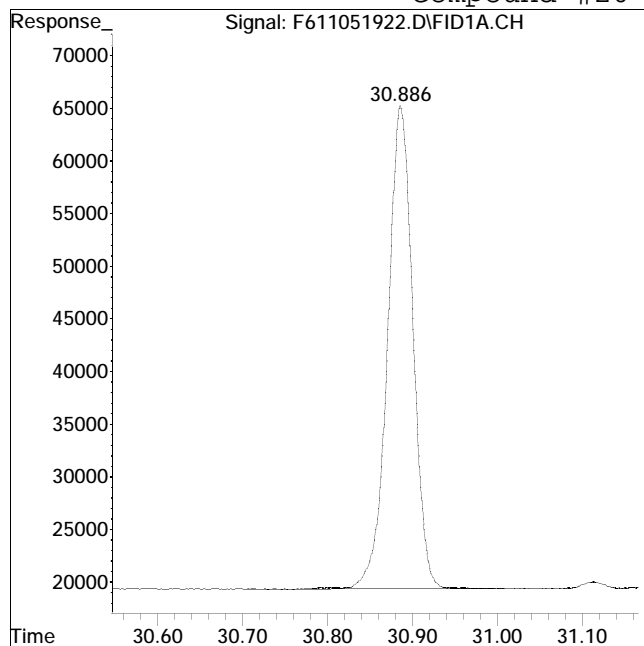
Manual Peak Response = 1025183 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 953642

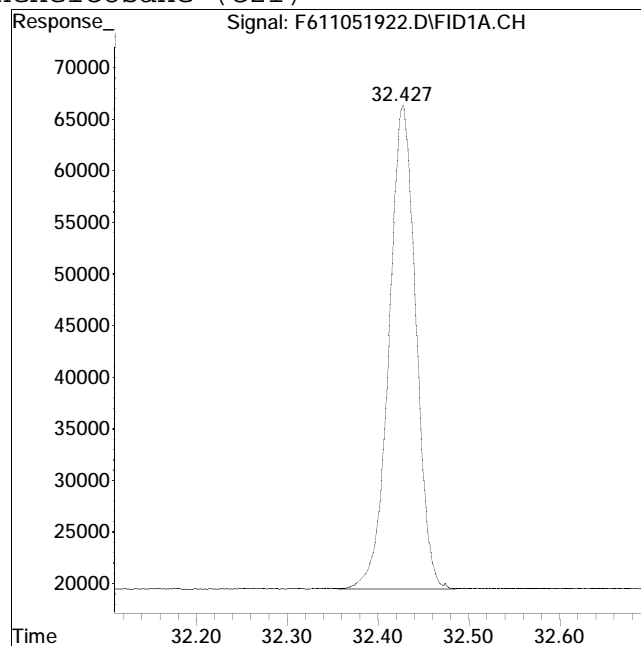
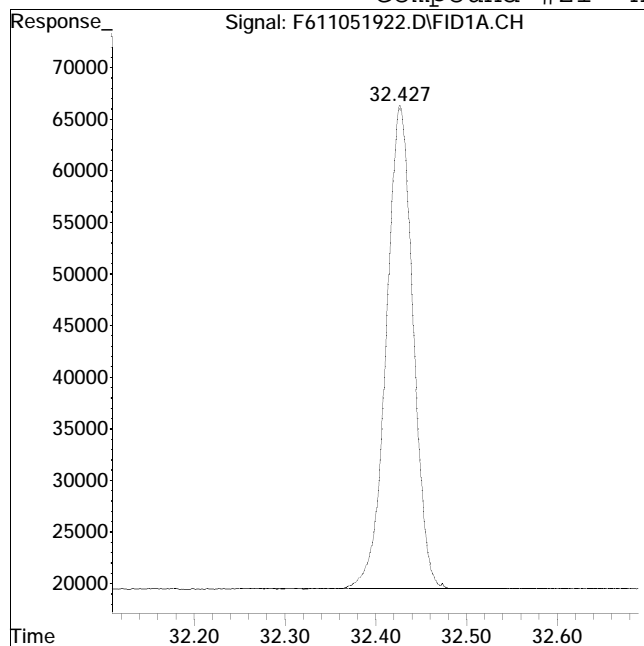
Manual Peak Response = 950515 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 961926

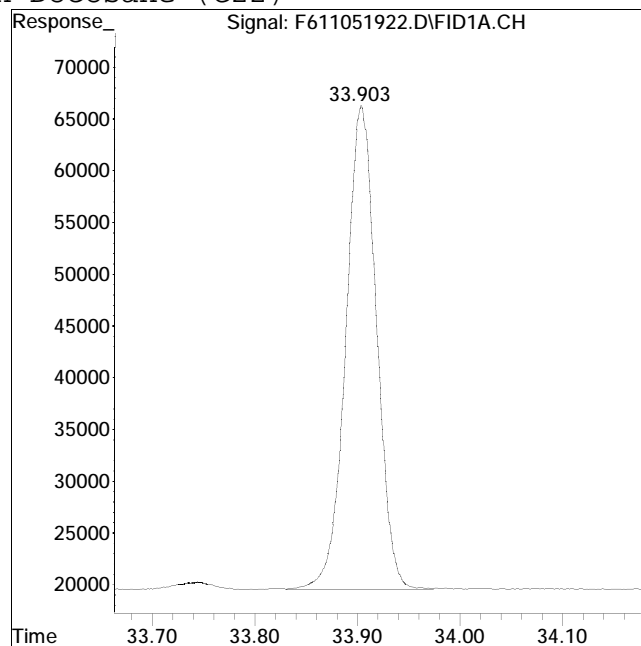
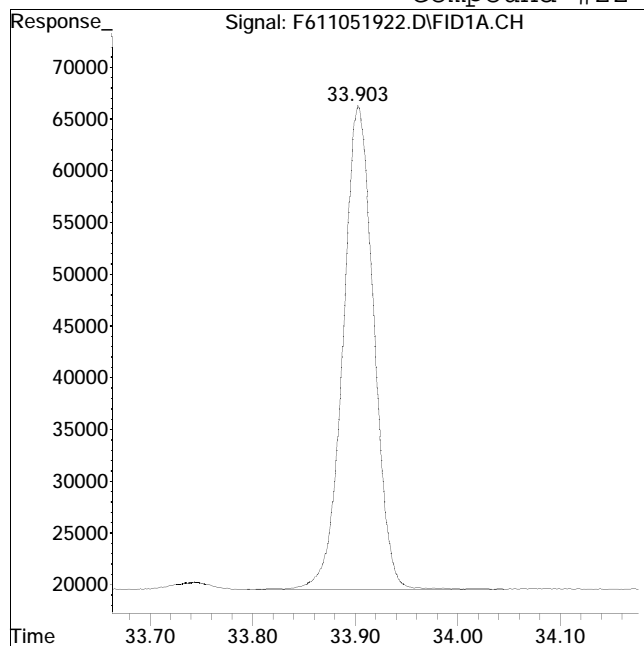
Manual Peak Response = 965566 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 971397

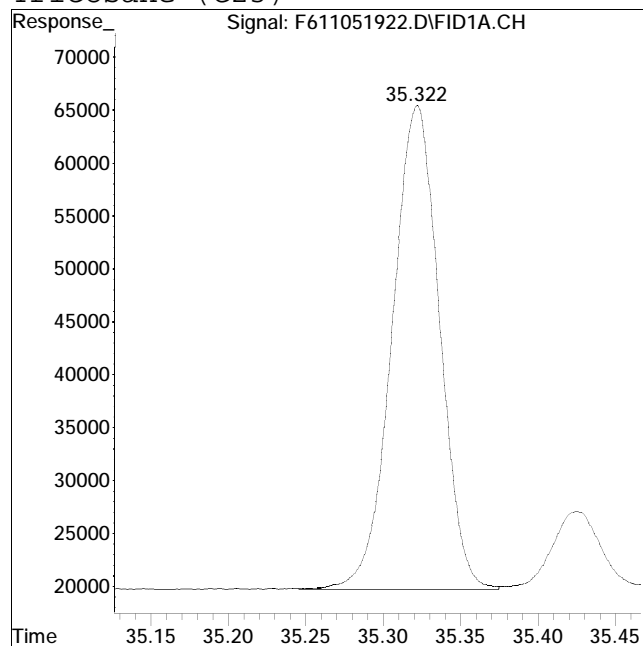
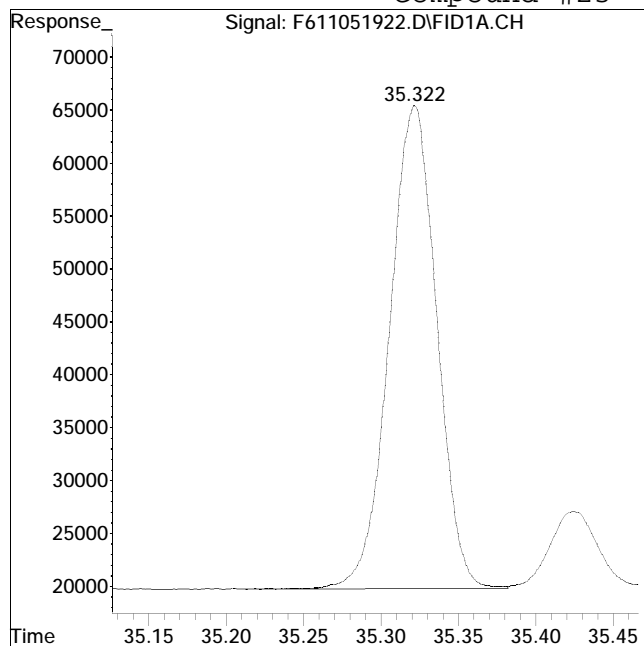
Manual Peak Response = 968593 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 970904

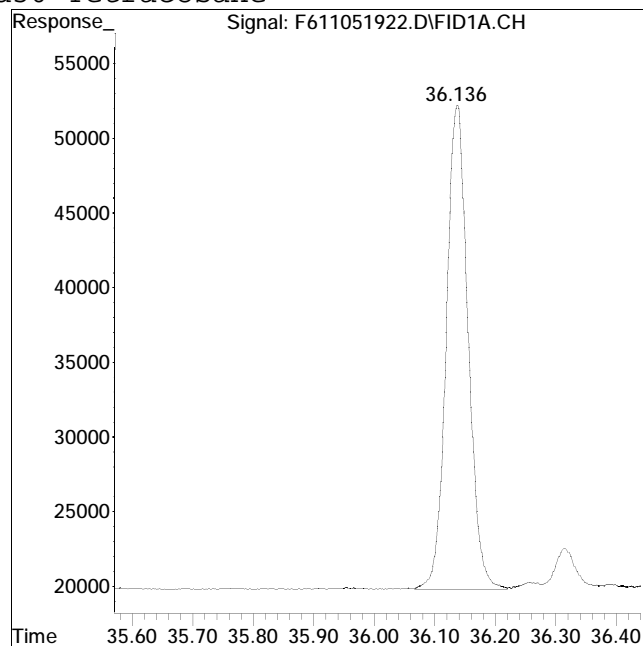
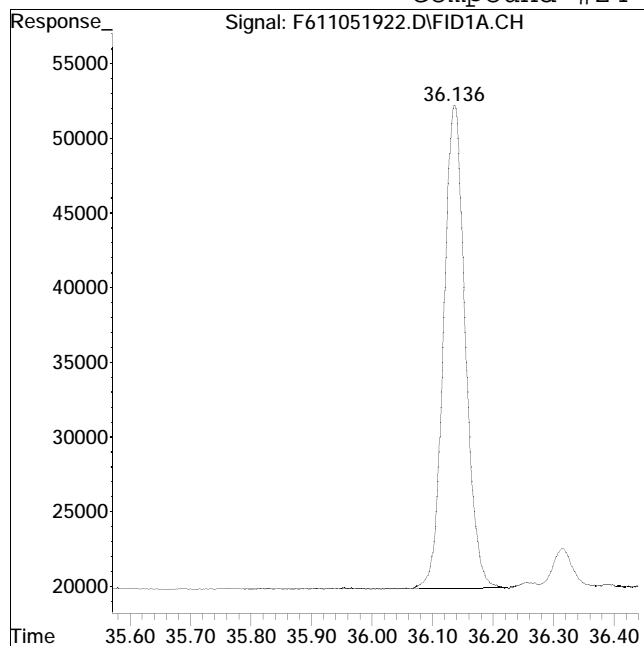
Manual Peak Response = 972585 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #24: d50-Tetracosane



Original Peak Response = 796827

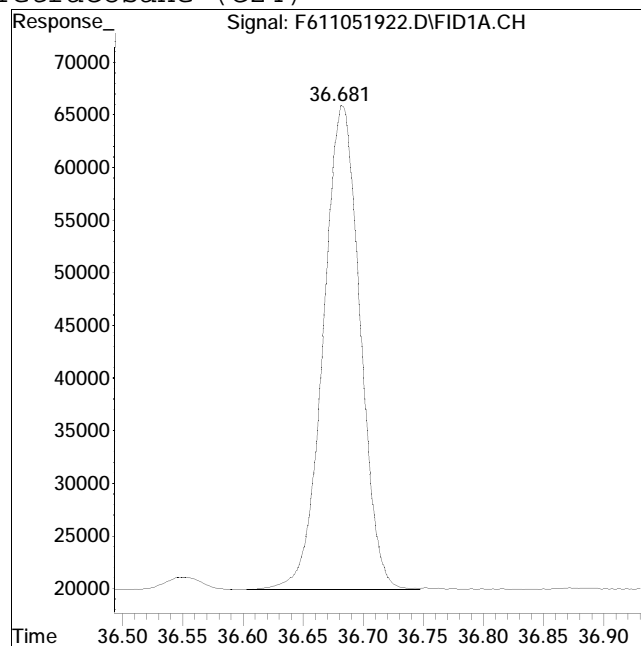
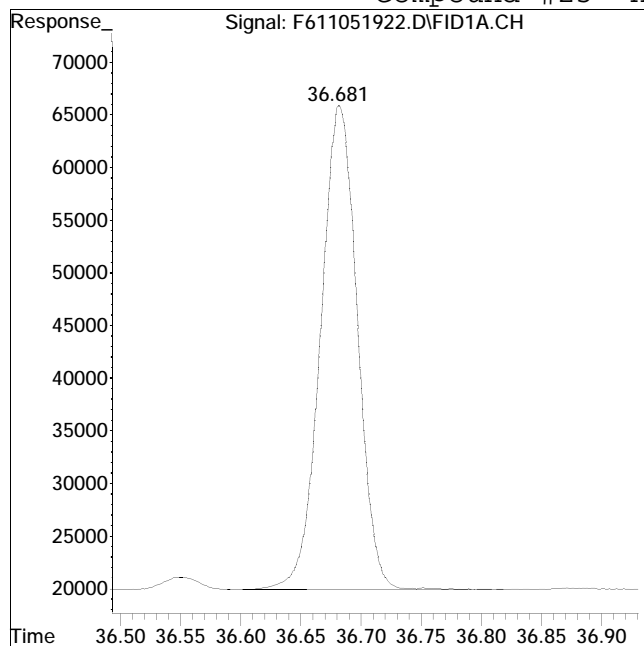
Manual Peak Response = 808118 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 976894

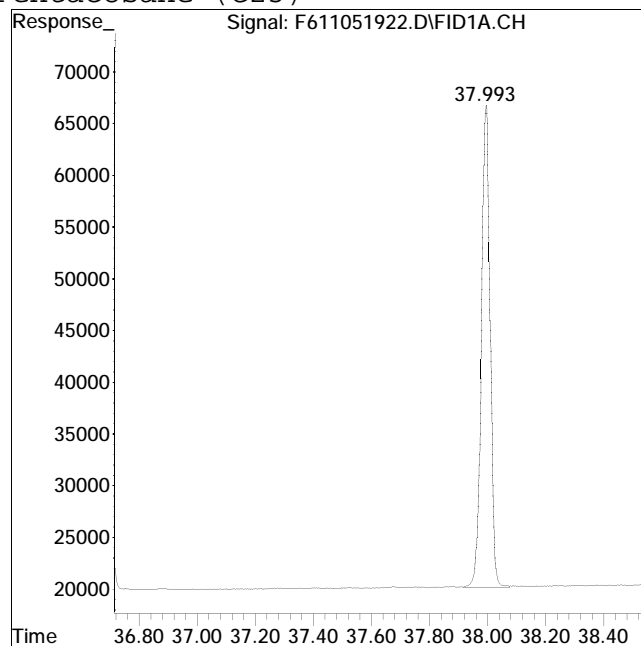
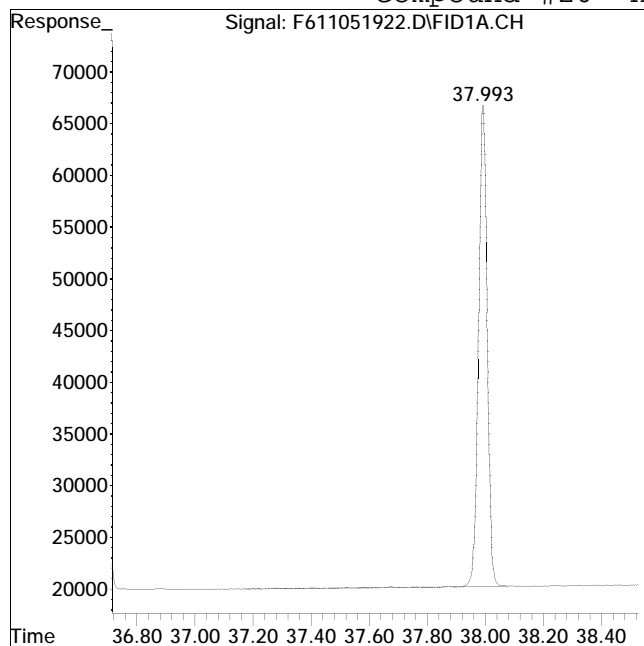
Manual Peak Response = 978504 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 962221

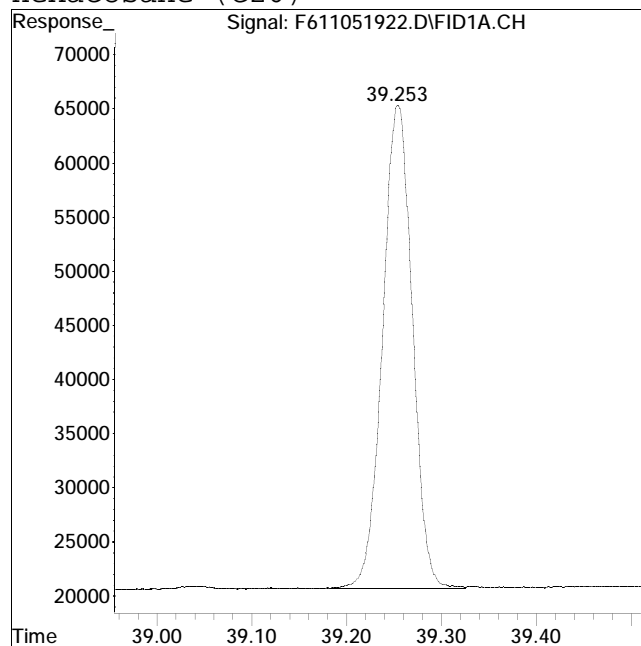
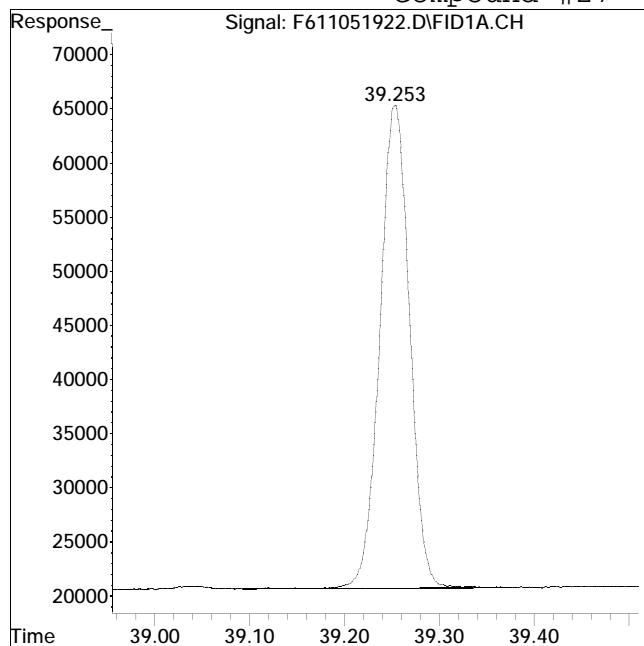
Manual Peak Response = 972214 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 972718

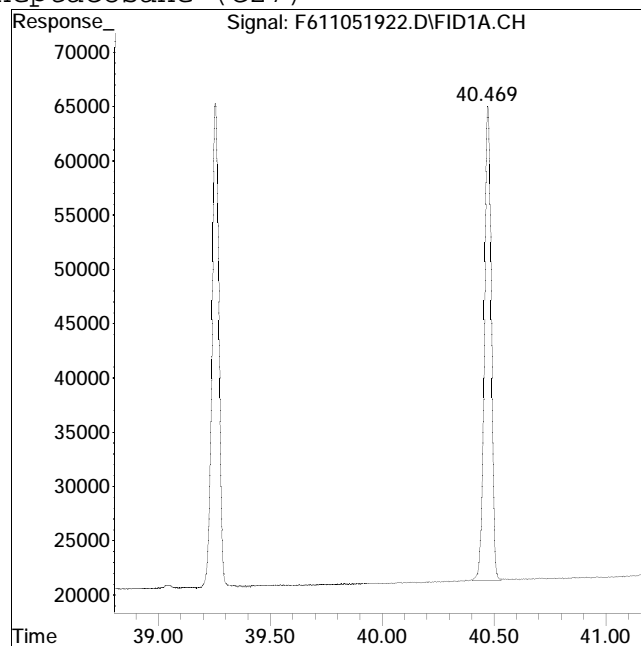
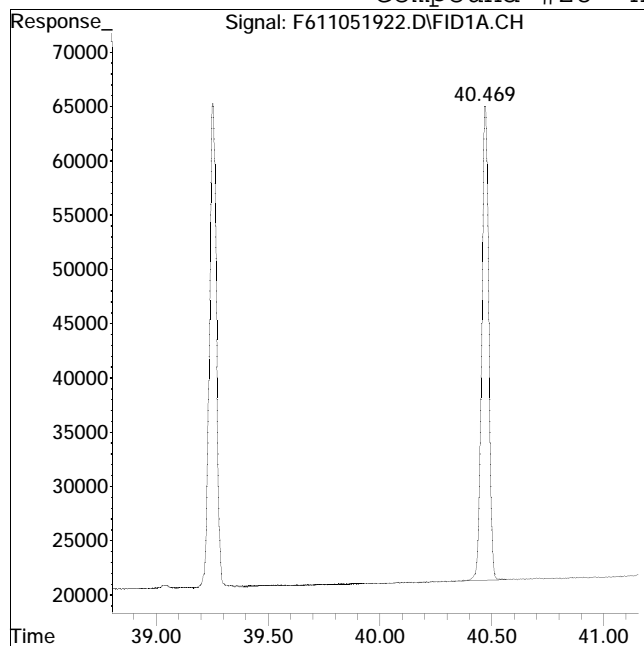
Manual Peak Response = 974627 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 951185

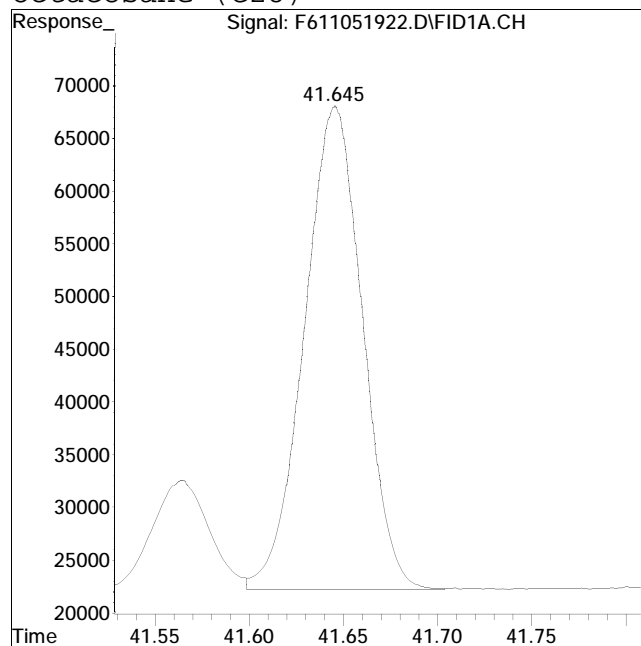
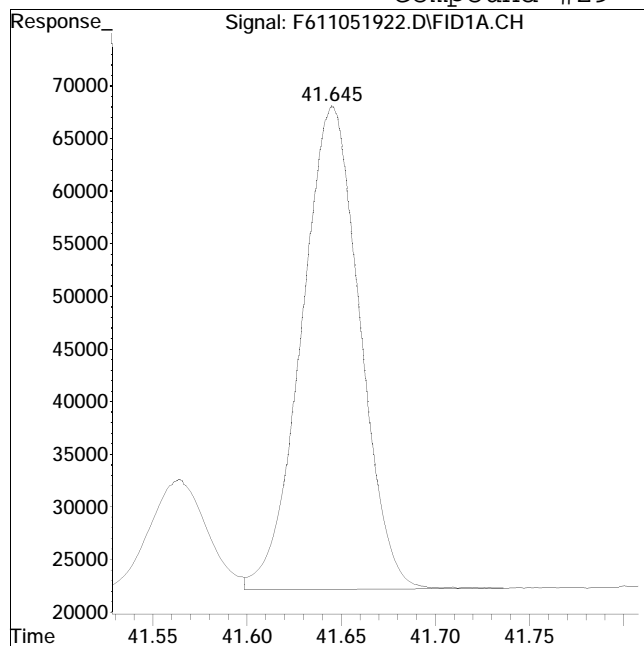
Manual Peak Response = 947366 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 987580

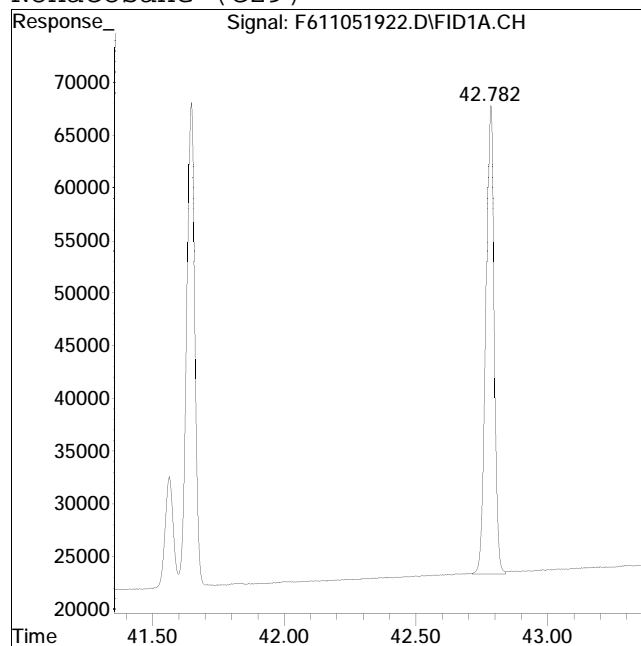
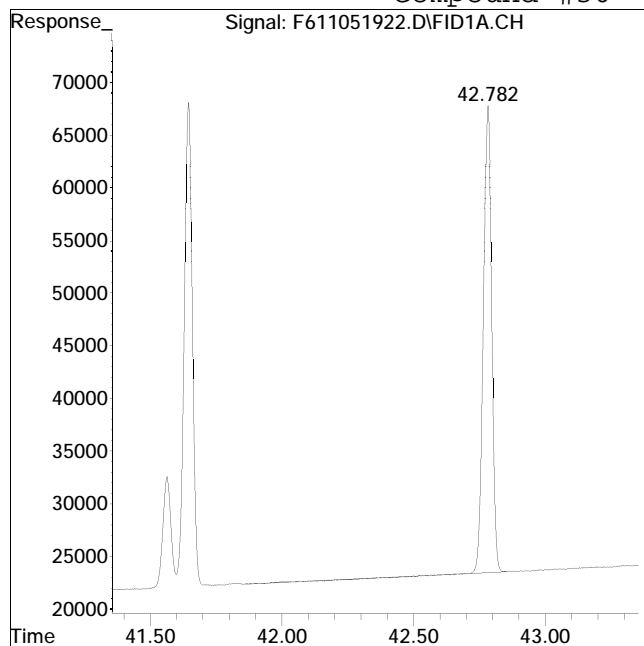
Manual Peak Response = 984696 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 969880

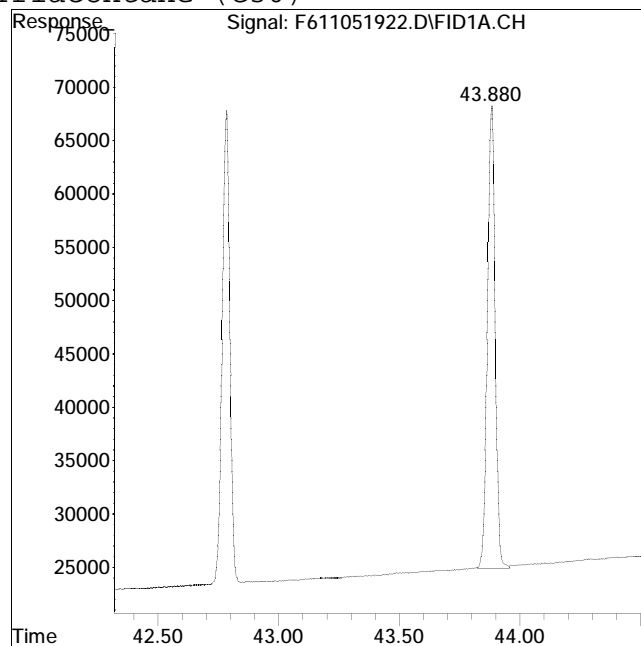
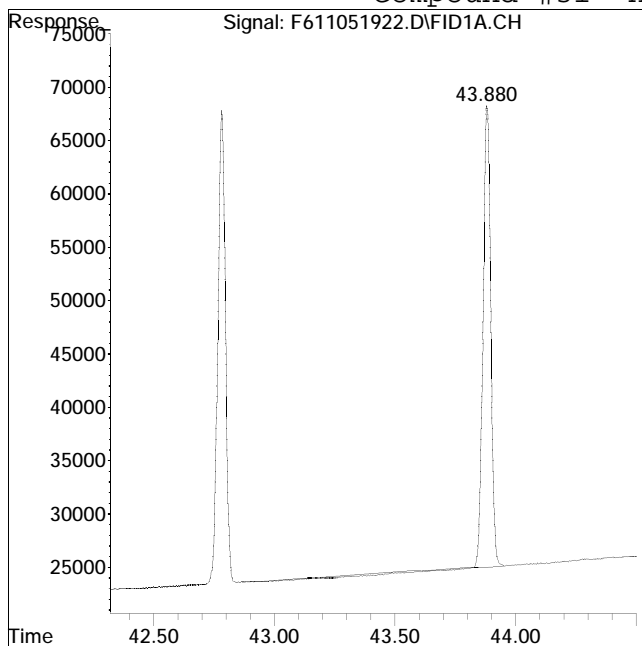
Manual Peak Response = 983146 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 908624

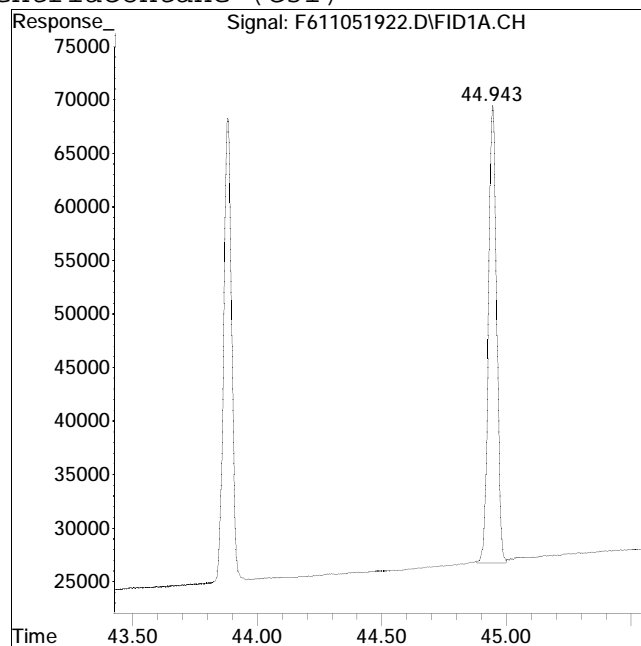
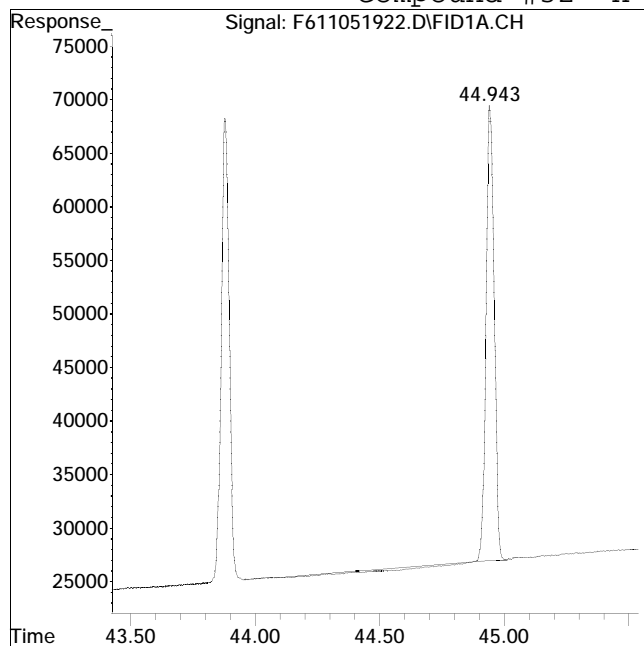
Manual Peak Response = 977080 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 910027

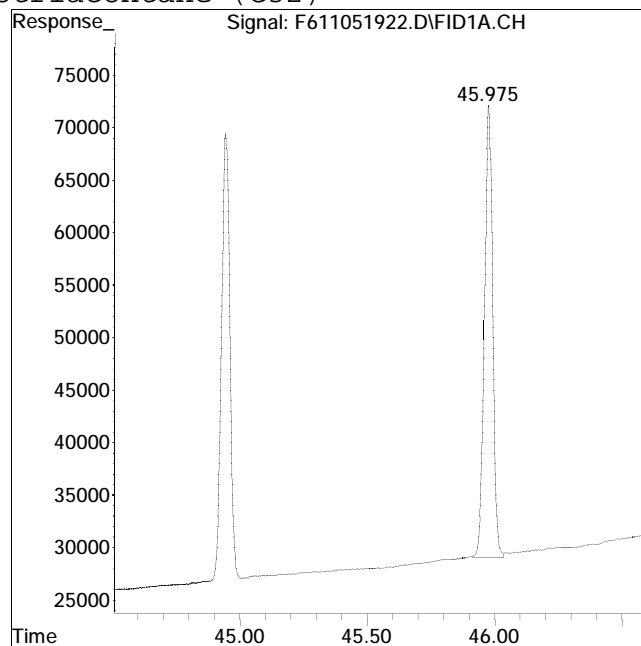
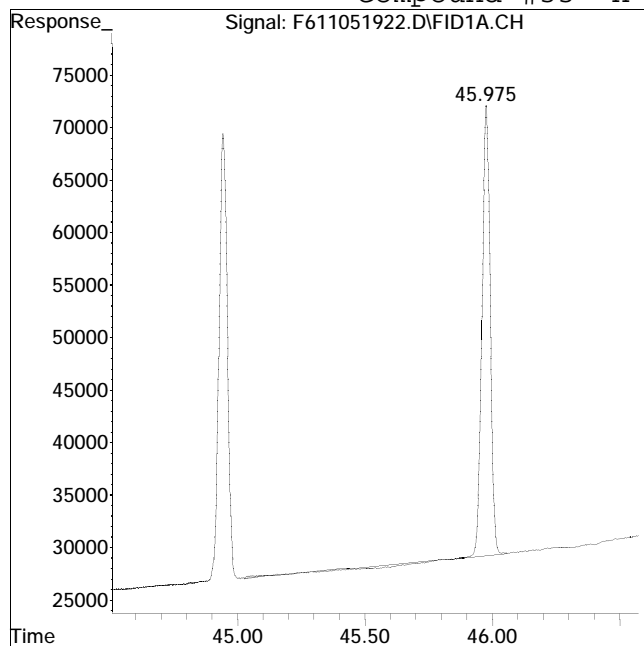
Manual Peak Response = 983140 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 928861

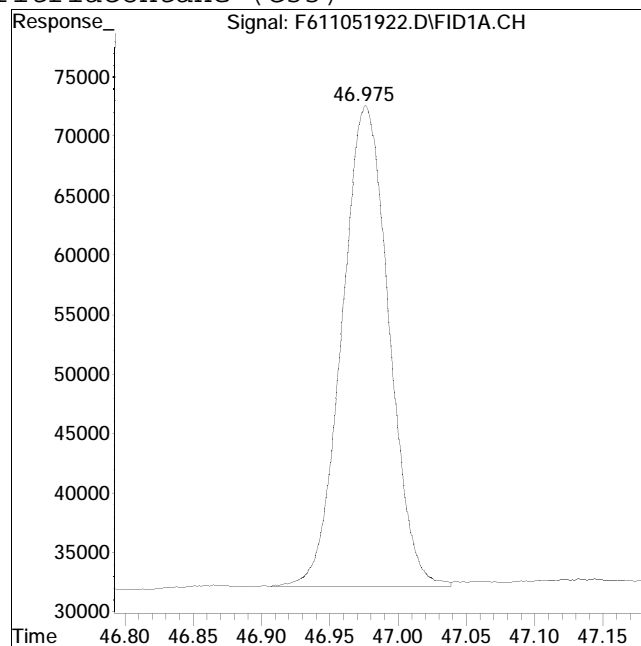
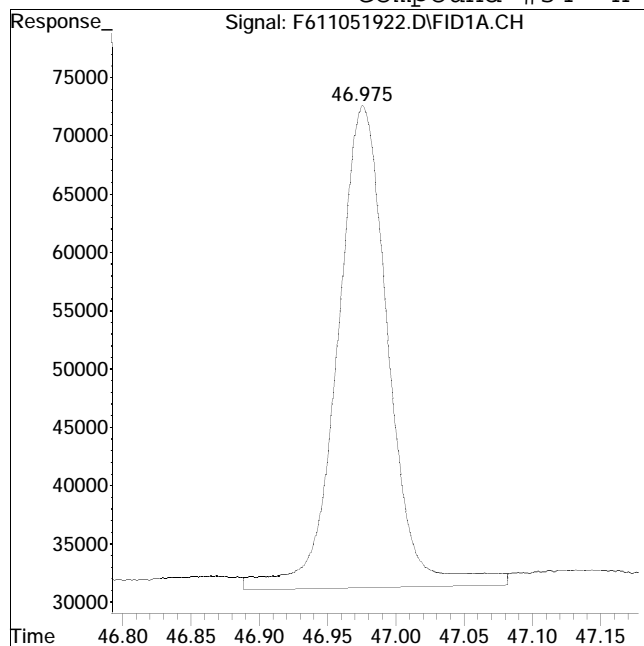
Manual Peak Response = 969720 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 1075299

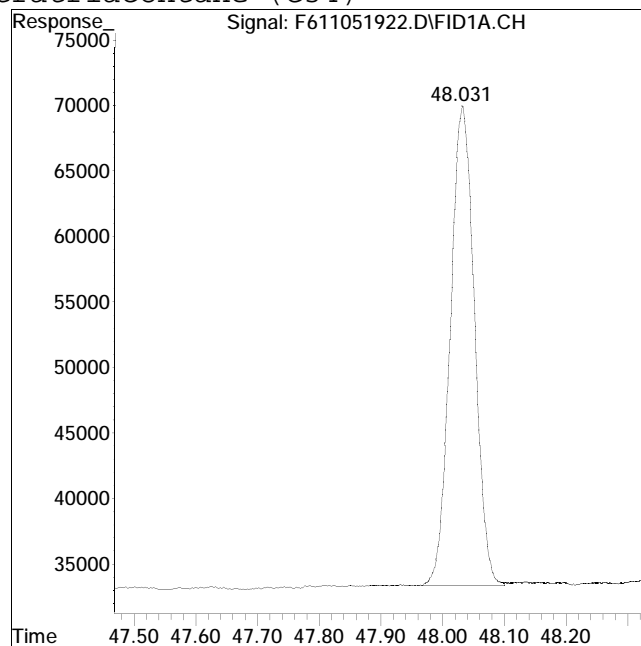
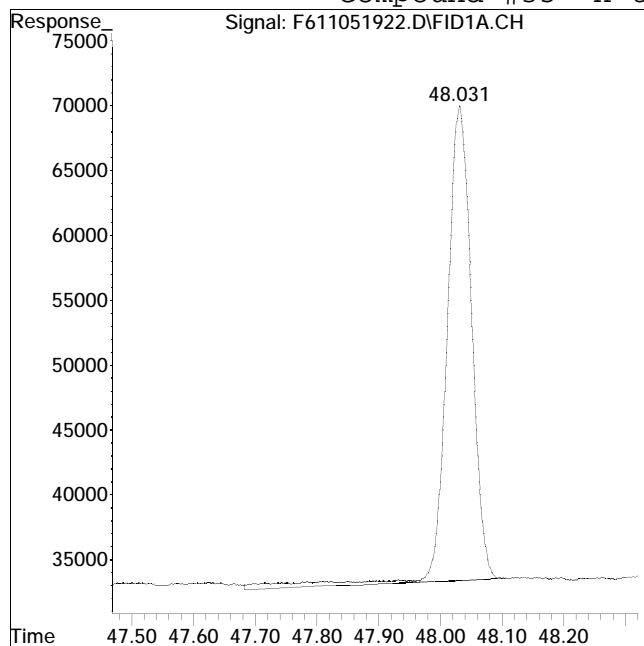
Manual Peak Response = 966436 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 1037469

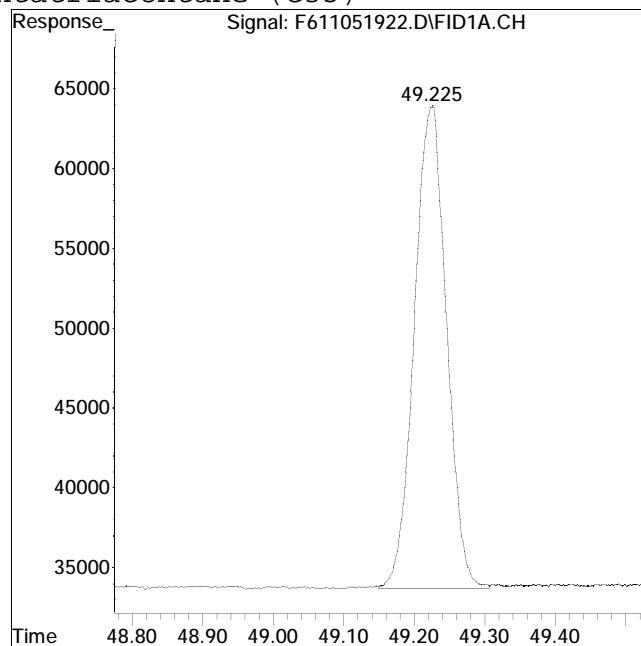
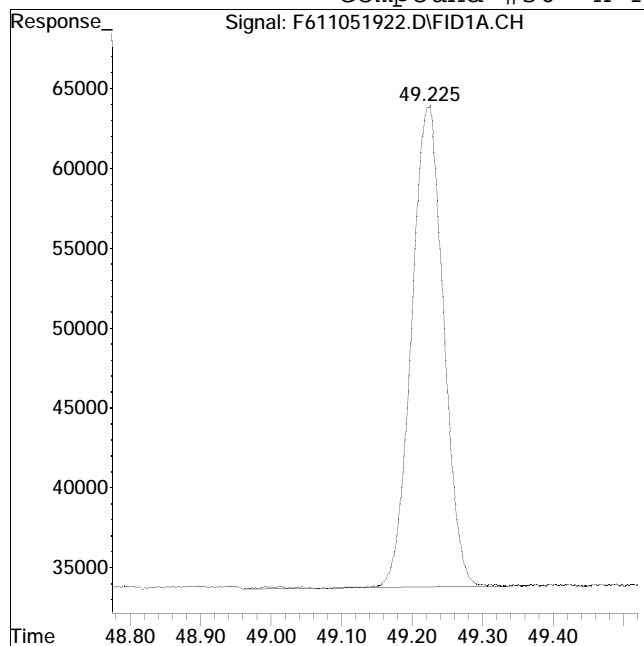
Manual Peak Response = 993679 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 953924

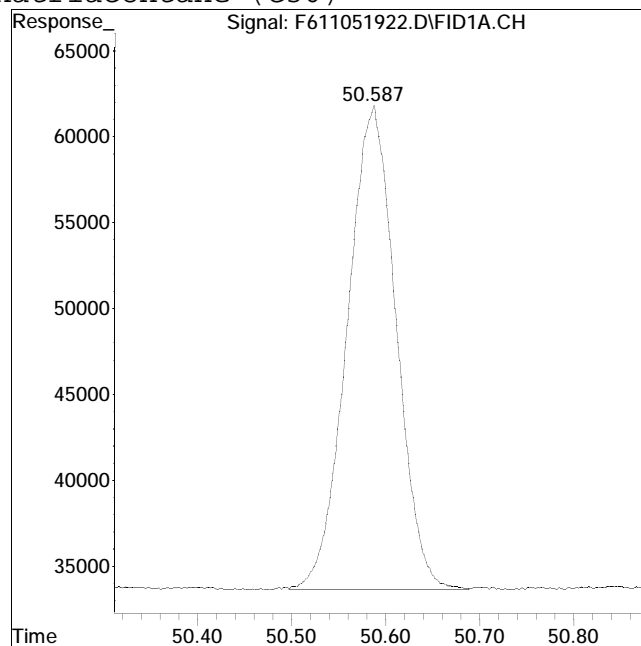
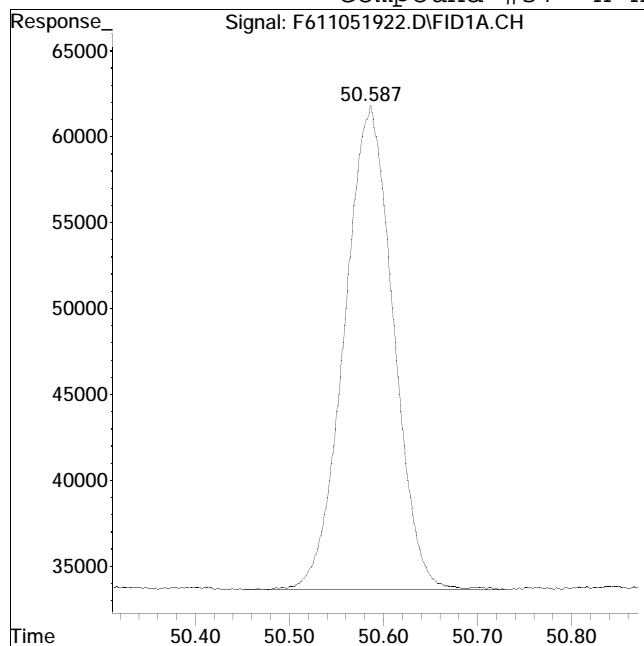
Manual Peak Response = 954900 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 1014570

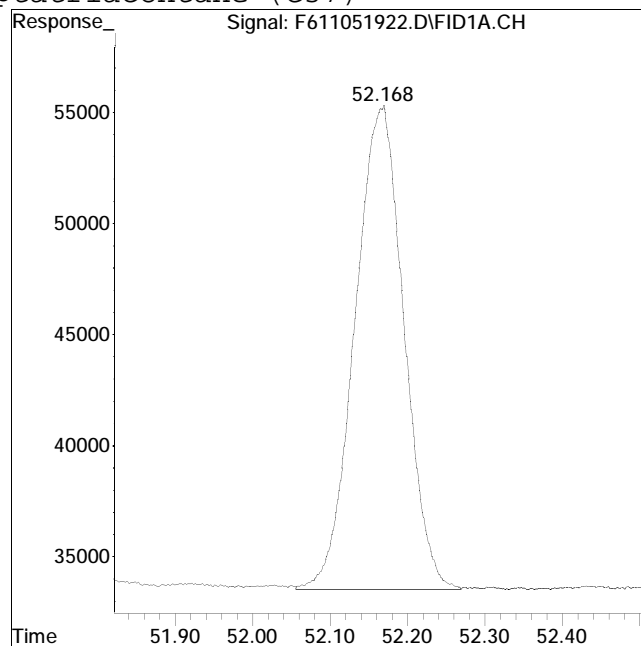
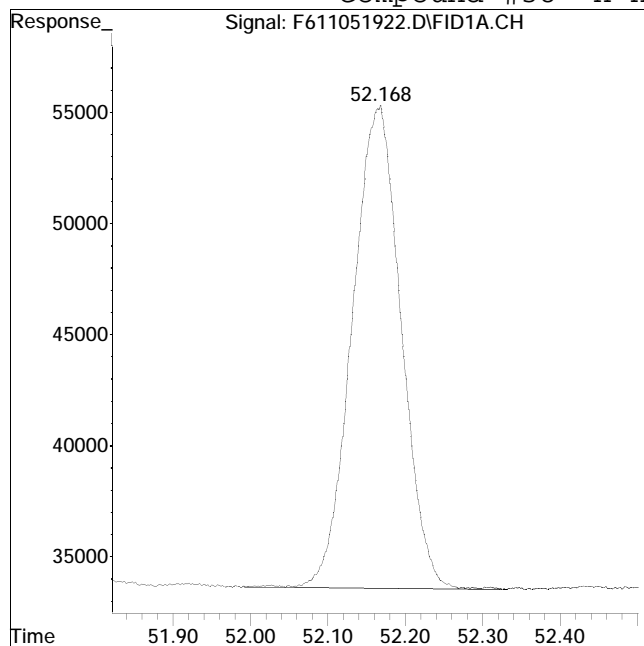
Manual Peak Response = 1016078 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 953543

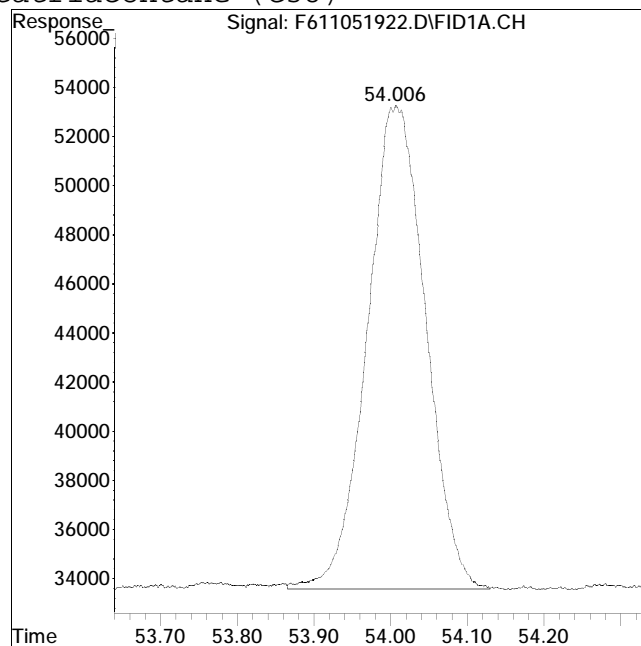
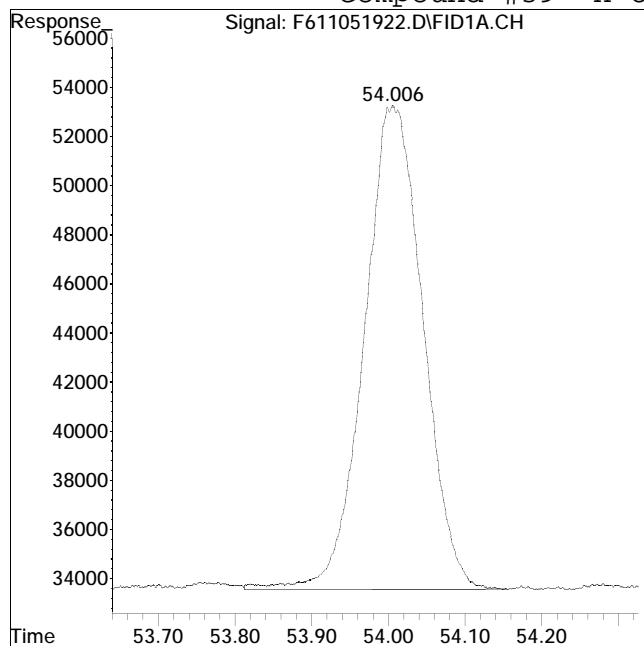
Manual Peak Response = 953952 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 1045177

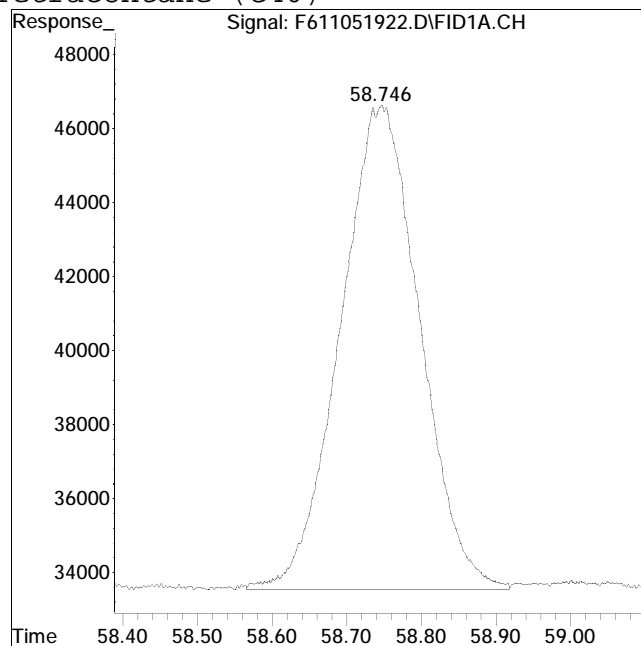
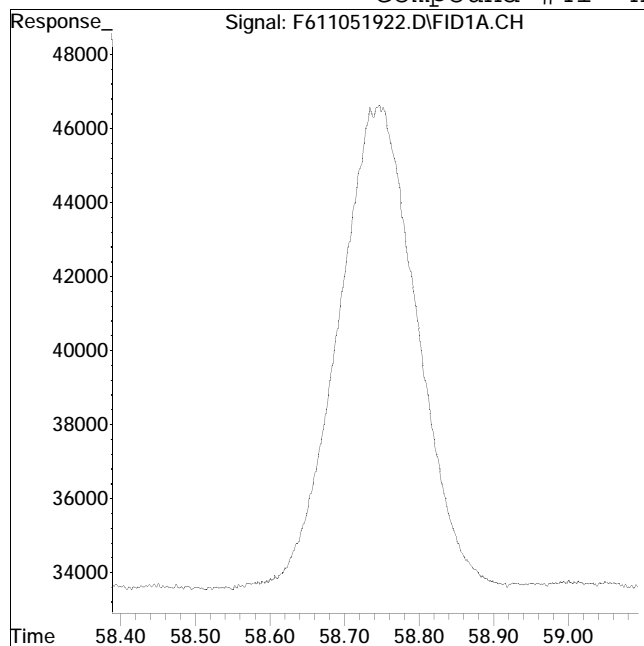
Manual Peak Response = 1036962 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051922.D Operator : FID6:MA
Date Inj'd : 11/5/2019 11:44 pm Instrument : FID6
Sample : I611051901F Quant Date : 11/7/2019 3:50 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 966011 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051924.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 1:12 am
 Operator : FID6:MA
 Sample : I611051902F
 Misc : WG1307766,FRBB87,10ug/ml
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:05:35 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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	31.533	49623479	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.477	10562603	9.921	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	19.84%#	
24) s d50-Tetracosane	36.139	8309925	9.581	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	19.16%#	
Target Compounds				
2) t n-Octane (C8)	5.726	7751527	9.583	ug/mL M4
3) t n-Nonane (C9)	7.959	8146487	9.679	ug/mL M4
4) t n-Decane (C10)	10.463	8455437	9.836	ug/mL M4
5) t n-Undecane (C11)	12.987	8630956	9.847	ug/mL M4
6) t n-Dodecane (C12)	15.422	8830799	9.869	ug/mL M4
7) t n-Tridecane (C13)	17.736	8938398	9.863	ug/mL M4
9) t n-Tetradecane (C14)	19.924	9120157	9.843	ug/mL M4
11) t n-Pentadecane (C15)	21.994	9185154	9.831	ug/mL M4
12) t n-Hexadecane (C16)	23.955	9329471	9.889	ug/mL M4
14) t n-Heptadecane (C17)	25.817	9275842	9.837	ug/mL M4
15) t Pristane	25.926	9510960	9.870	ug/mL M4
16) T n-Octadecane (C18)	27.589	9457977	9.870	ug/mL M4
17) t Phytane	27.750	8518459	9.832	ug/mL M4
18) t n-Nonadecane (C19)	29.279	9466303	9.852	ug/mL M4
20) t n-Eicosane (C20)	30.891	9520950	9.853	ug/mL M4
21) t n-Heneicosane (C21)	32.431	9671476	9.820	ug/mL M4
22) t n-Docosane (C22)	33.907	9679268	9.798	ug/mL M4
23) t n-Tricosane (C23)	35.326	9729972	9.792	ug/mL M4
25) t n-Tetracosane (C24)	36.686	9762121	9.723	ug/mL M4
26) t n-Pentacosane (C25)	37.997	9671791	9.719	ug/mL M4
27) t n-Hexacosane (C26)	39.258	9740151	9.672	ug/mL M4
28) t n-Heptacosane (C27)	40.474	9470494	9.595	ug/mL M4
29) t n-Octacosane (C28)	41.649	9832546	9.588	ug/mL M4
30) t n-Nonacosane (C29)	42.787	9796845	9.575	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051924.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 1:12 am
 Operator : FID6:MA
 Sample : I611051902F
 Misc : WG1307766,FRBB87,10ug/ml
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:05:35 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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)	43.885	9699851	9.550 ug/mL M4
32) t n-Hentriacontane (C31)	44.947	9764140	9.506 ug/mL M4
33) t n-Dotriacontane (C32)	45.981	9646459	9.500 ug/mL M4
34) t n-Tritriacontane (C33)	46.982	9566411	9.488 ug/mL M4
35) t n-tetratriacontane (C34)	48.038	9906674	9.449 ug/mL M4
36) t n-Pentatriacontane (C35)	49.232	9569294	9.411 ug/mL M4
37) t n-Hexatriacontane (C36)	50.595	10140841	9.438 ug/mL M4
38) t n-Heptatriacontane (C37)	52.170	9521170	9.455 ug/mL M4
39) t n-Octatriacontane (C38)	54.021	10244550	9.409 ug/mL M4
41) t n-Tetracontane (C40)	58.759	9591933	9.298 ug/mL M4

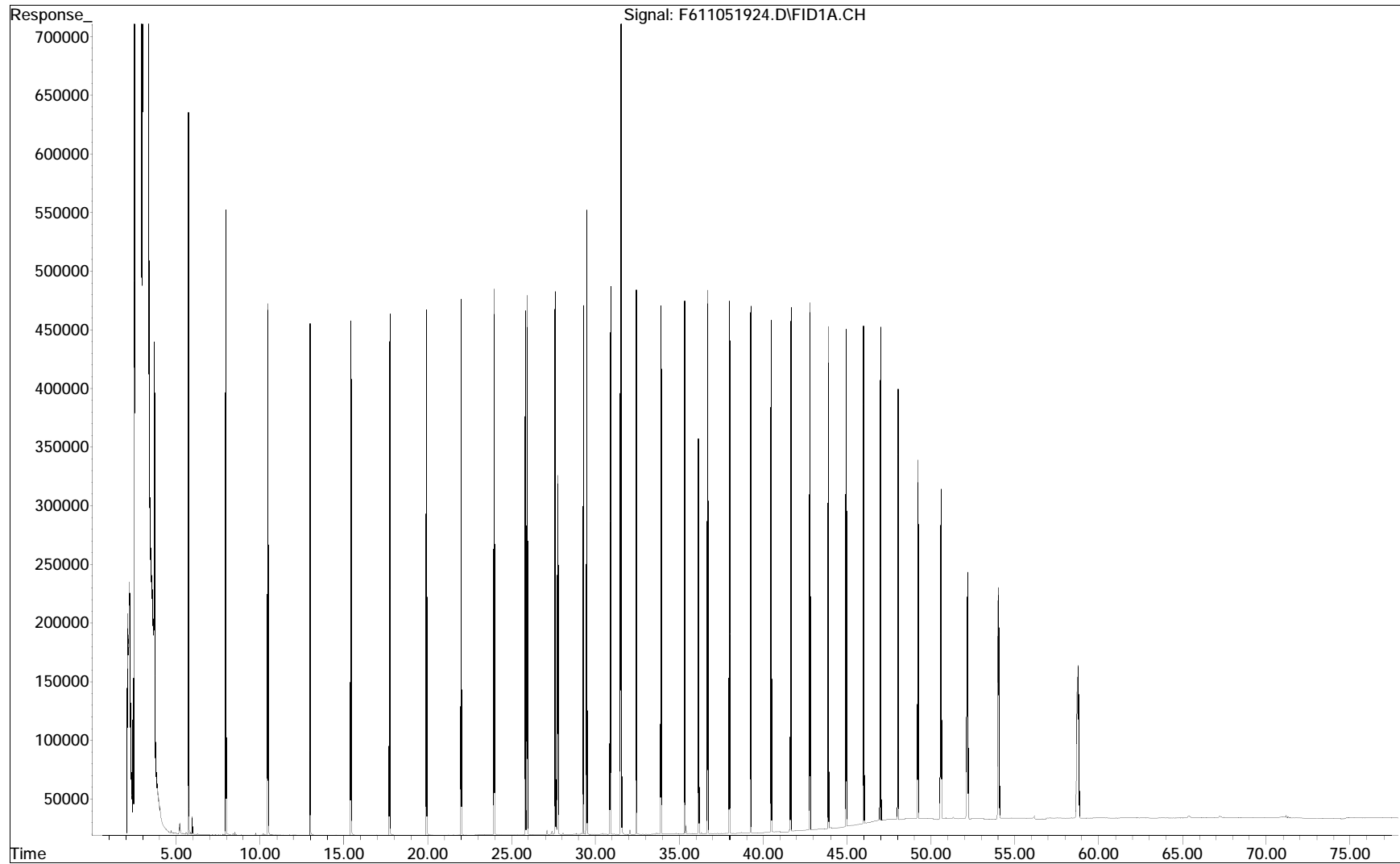
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

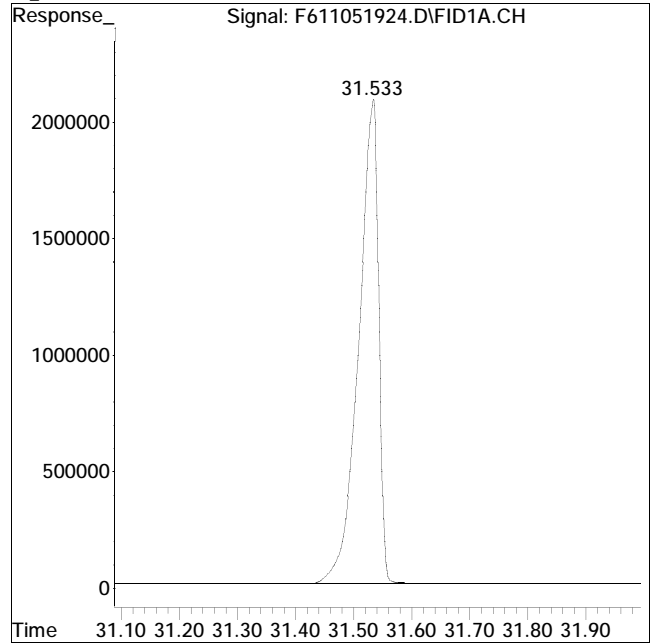
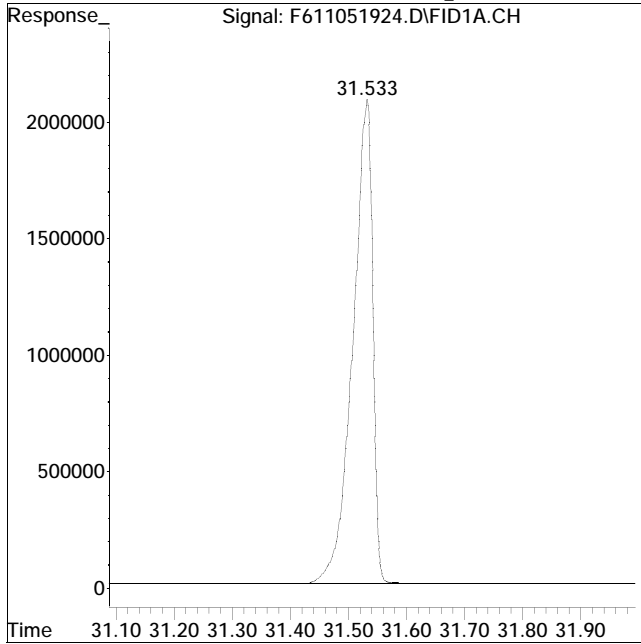
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051924.D
Operator : FID6:MA
Acquired : 06 Nov 2019 1:12 am using AcqMethod FID6A.M
Sample Name: I611051902F
Instrument: FID6
Misc Info : WG1307766,FRBB87,10ug/ml
Vial Number: 7
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 49626555

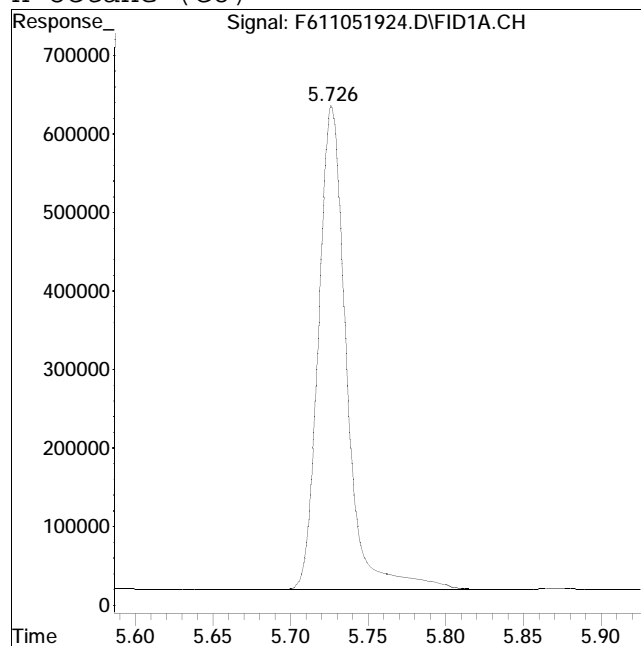
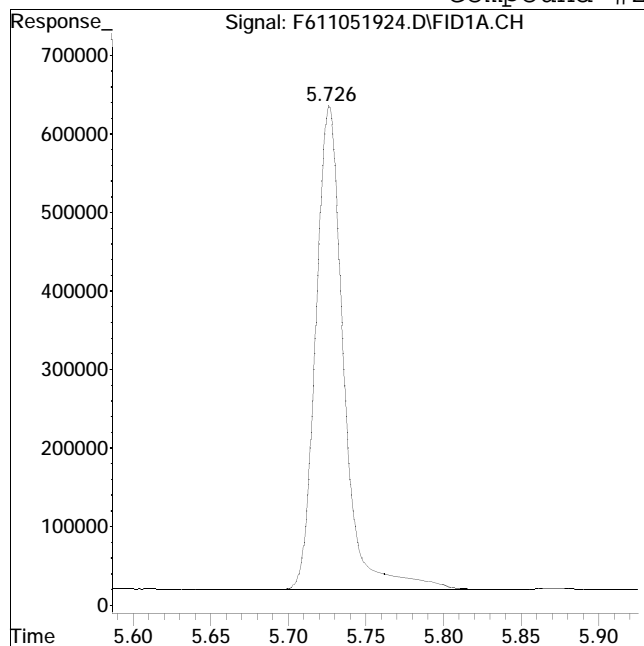
Manual Peak Response = 49623479 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #2: n-Octane (C8)



Original Peak Response = 7760276

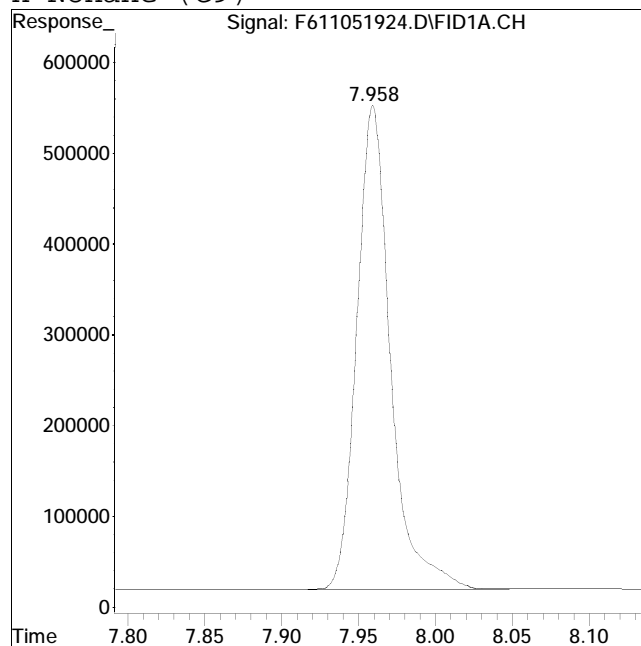
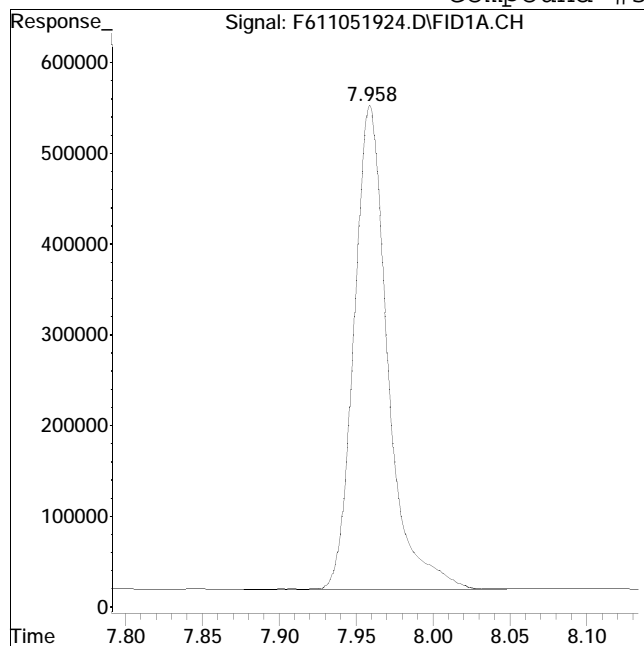
Manual Peak Response = 7751527 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 8190473

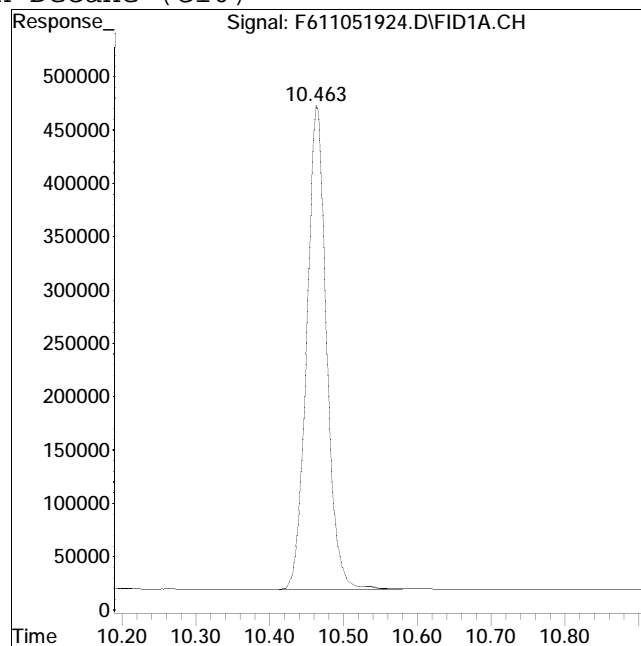
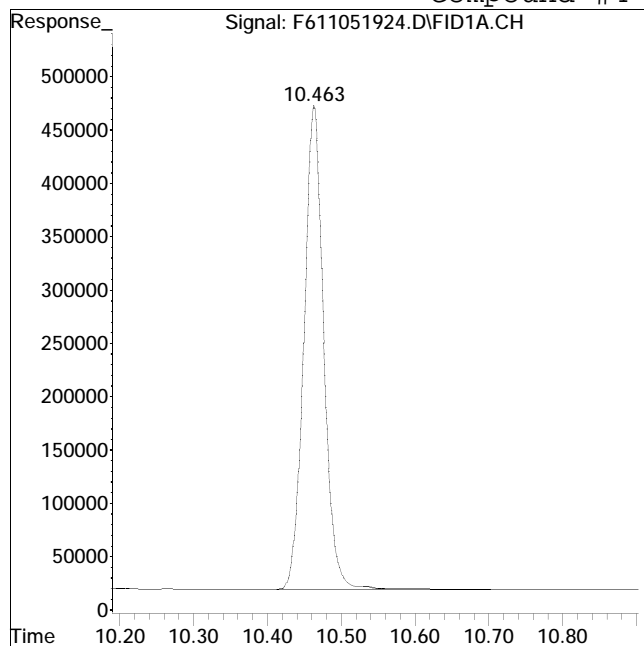
Manual Peak Response = 8146487 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #4: n-Decane (C10)



Original Peak Response = 8475361

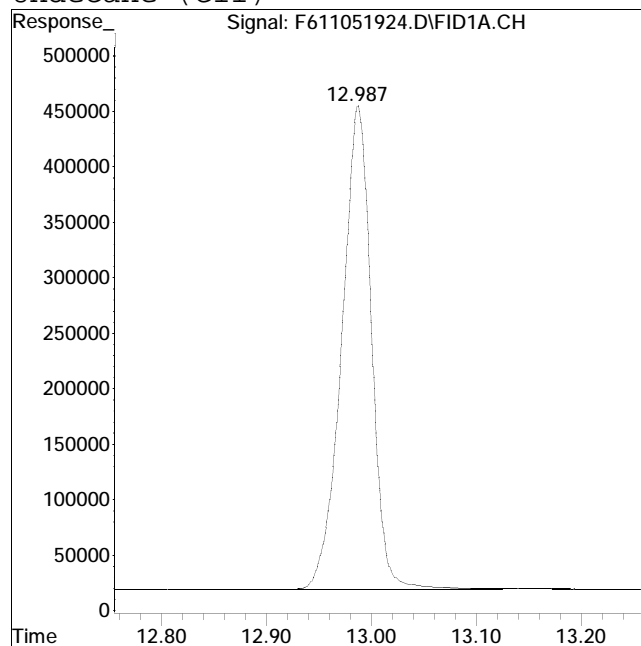
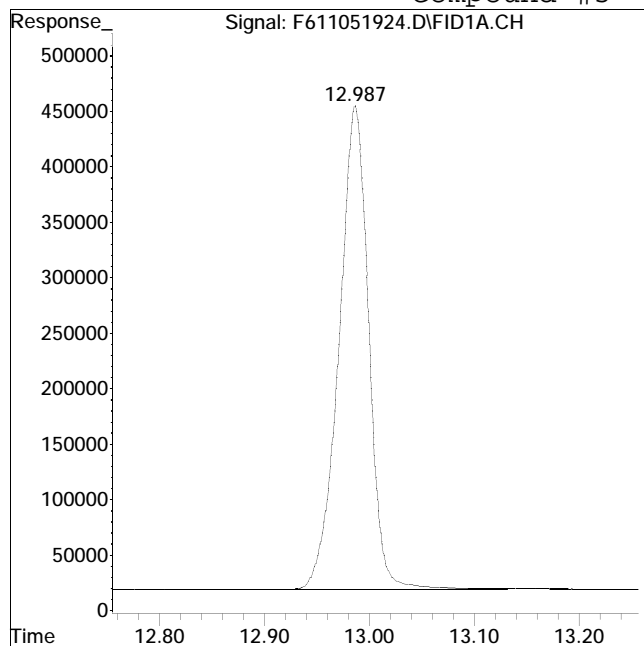
Manual Peak Response = 8455437 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 8629170

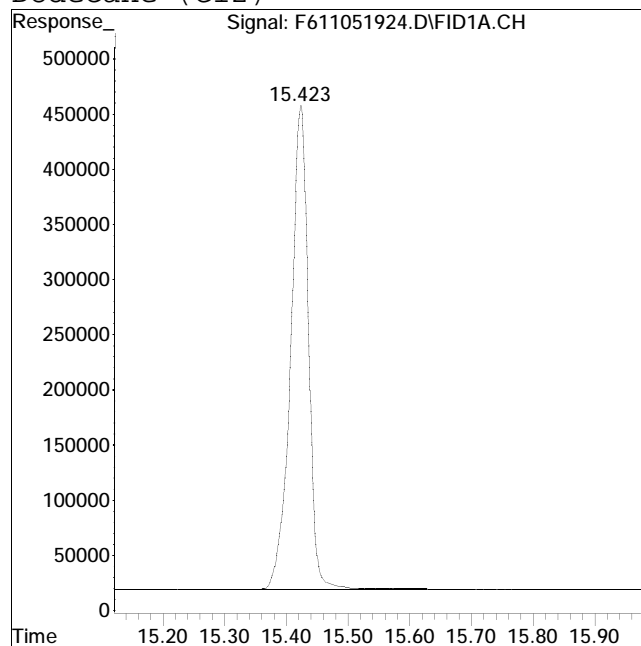
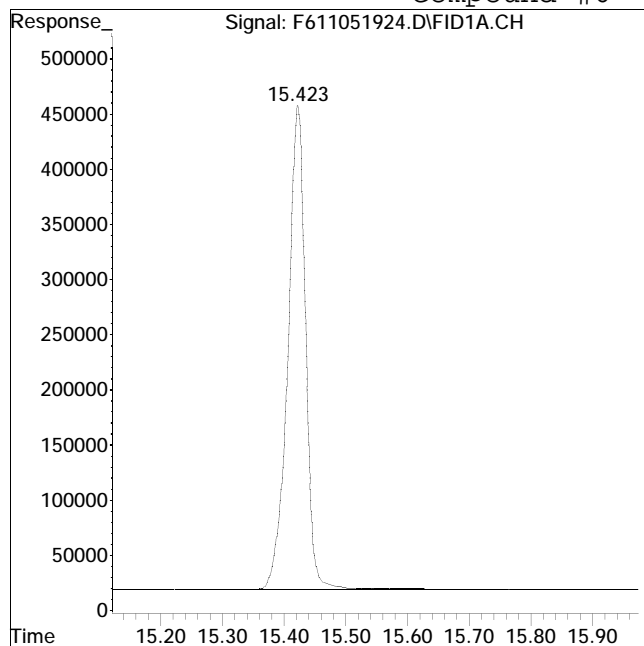
Manual Peak Response = 8630956 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 8832482

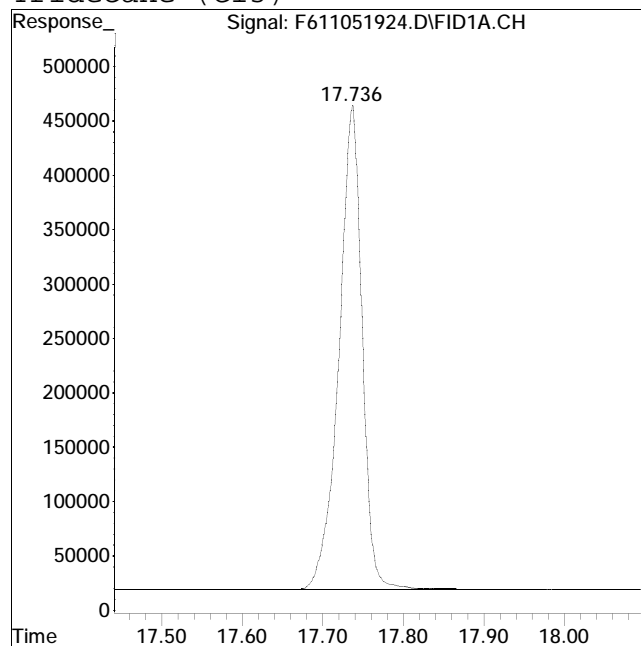
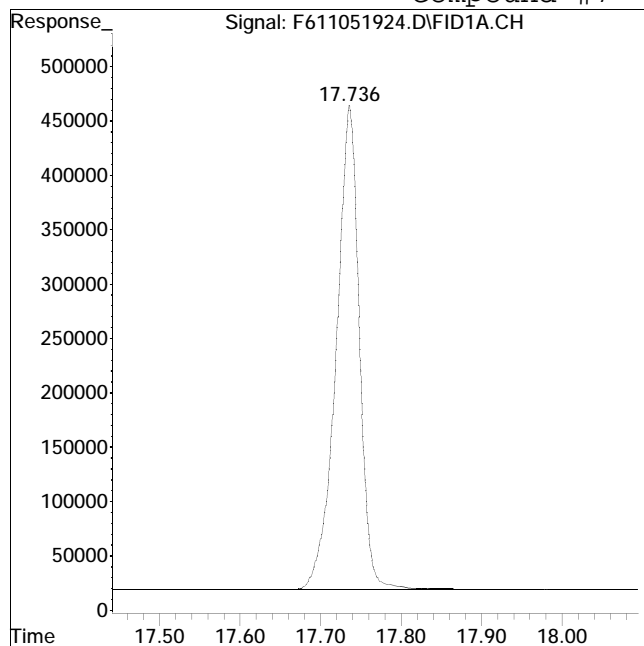
Manual Peak Response = 8830799 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 8921719

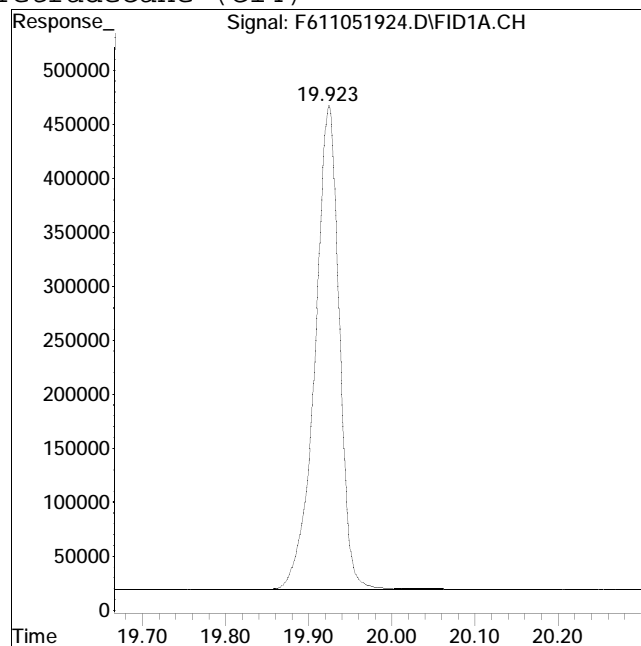
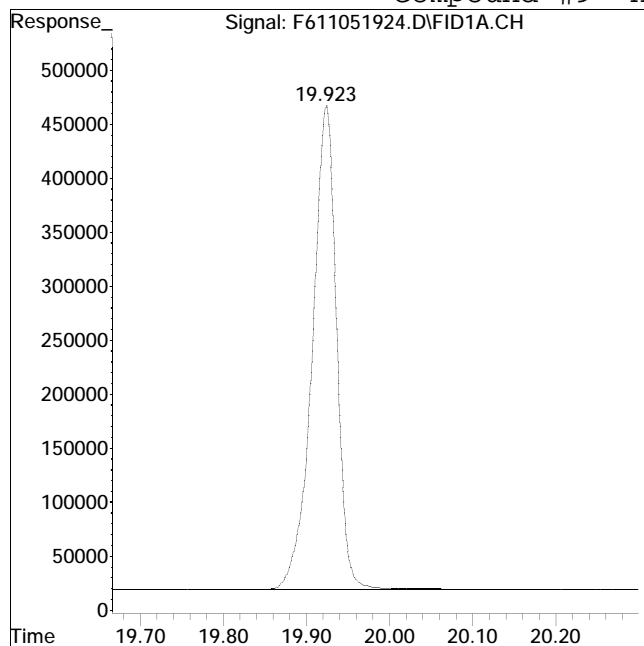
Manual Peak Response = 8938398 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 9120247

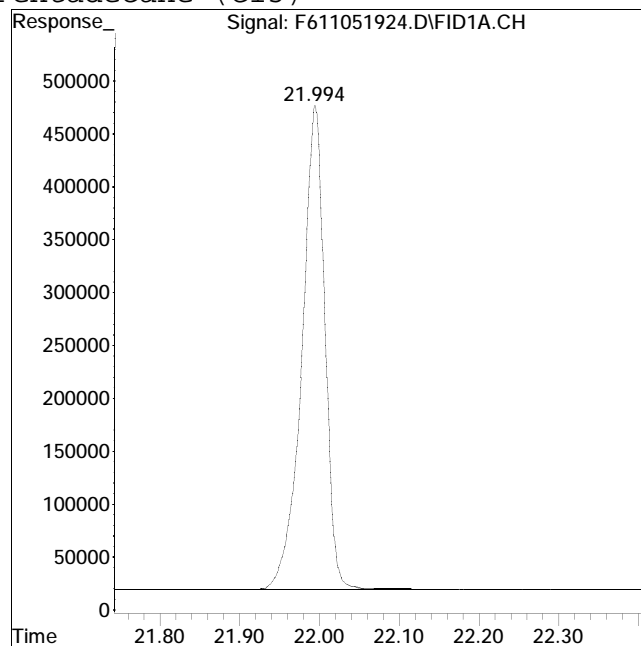
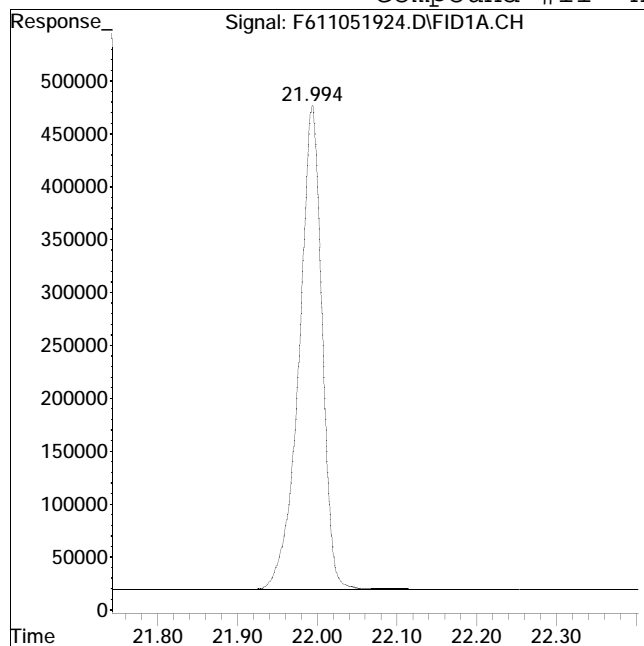
Manual Peak Response = 9120157 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 9186309

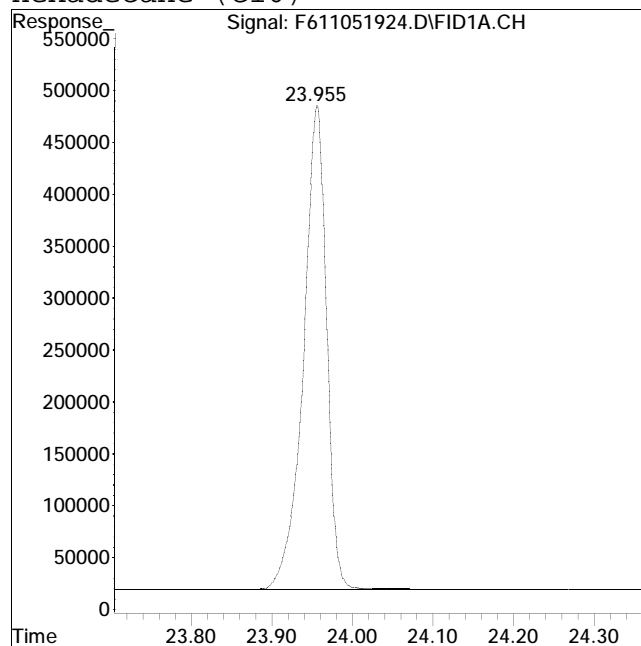
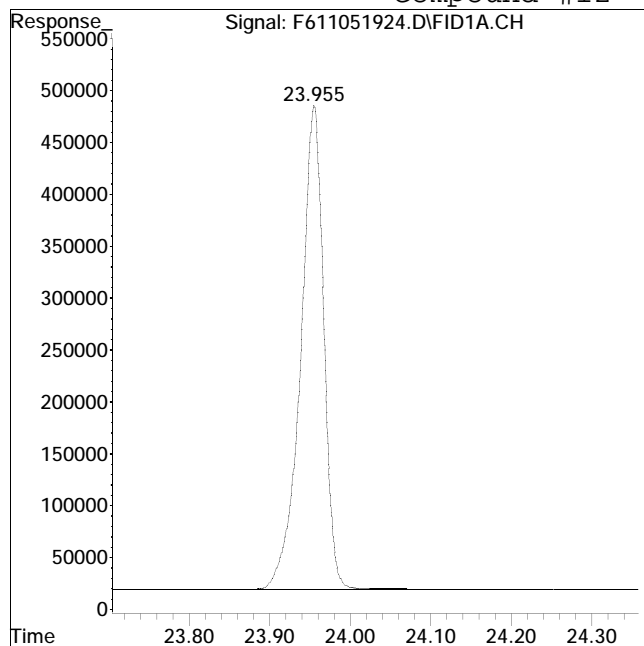
Manual Peak Response = 9185154 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 9322814

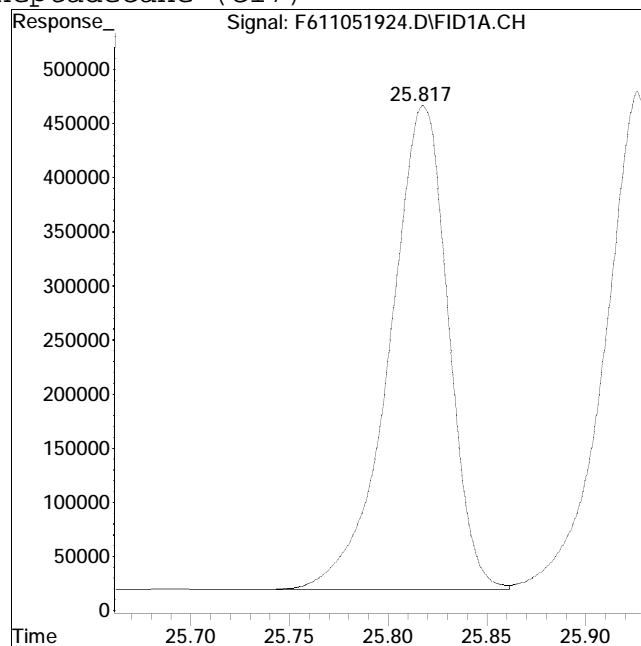
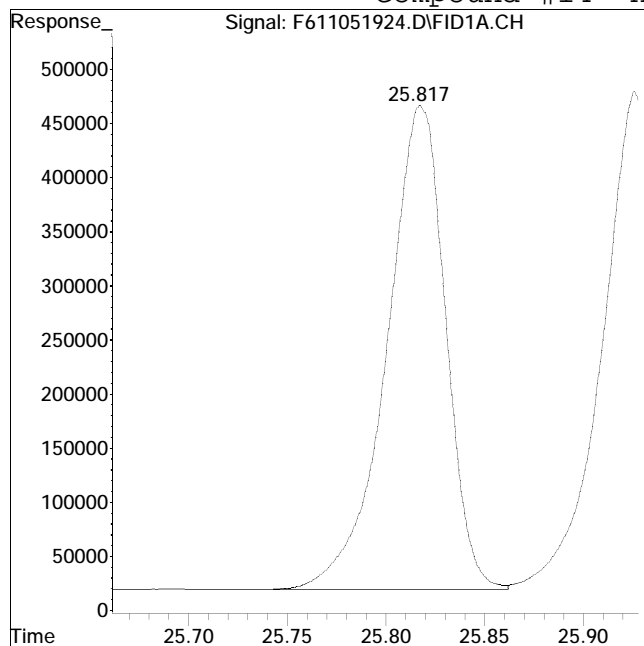
Manual Peak Response = 9329471 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 9275461

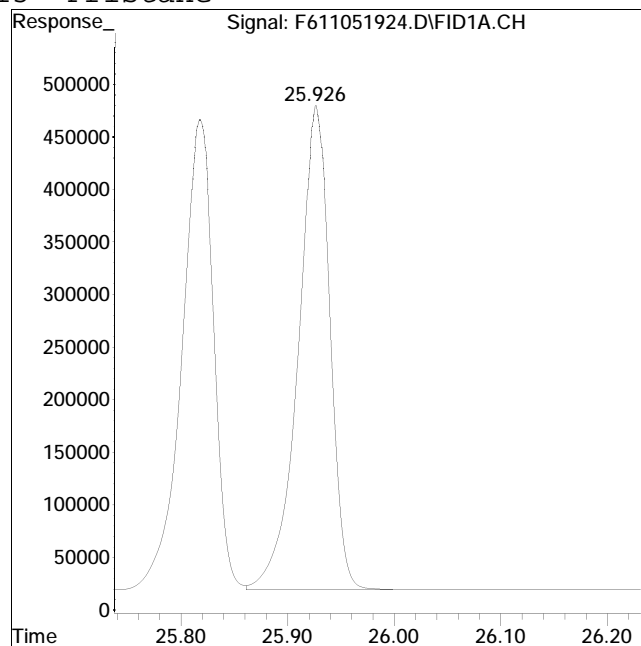
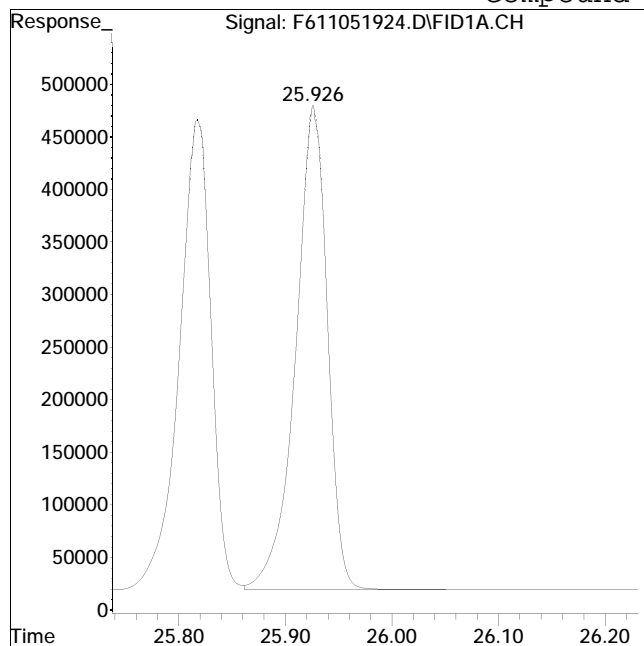
Manual Peak Response = 9275842 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #15: Pristane



Original Peak Response = 9528929

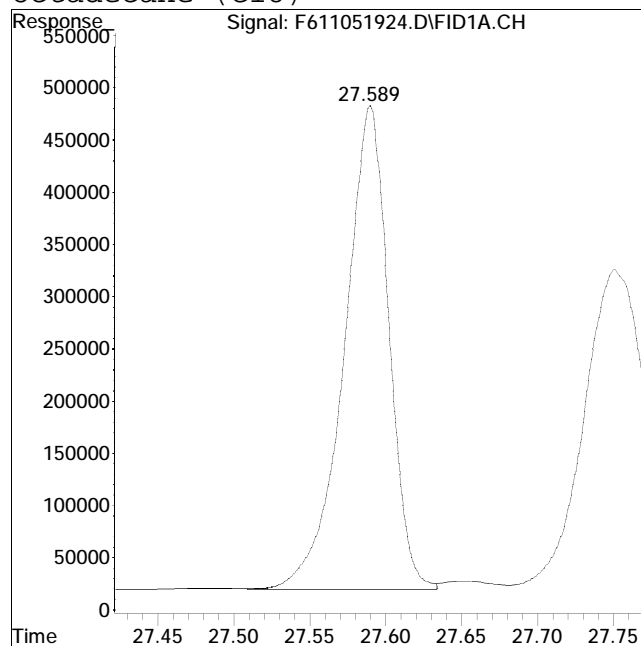
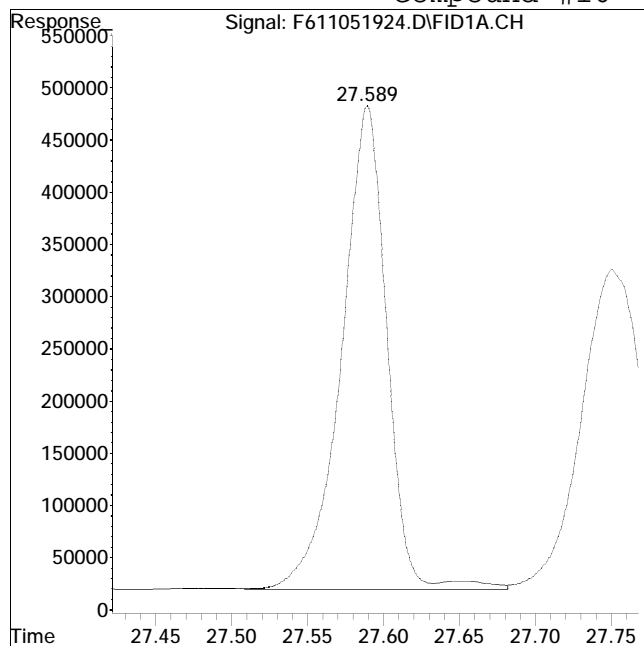
Manual Peak Response = 9510960 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 9659844

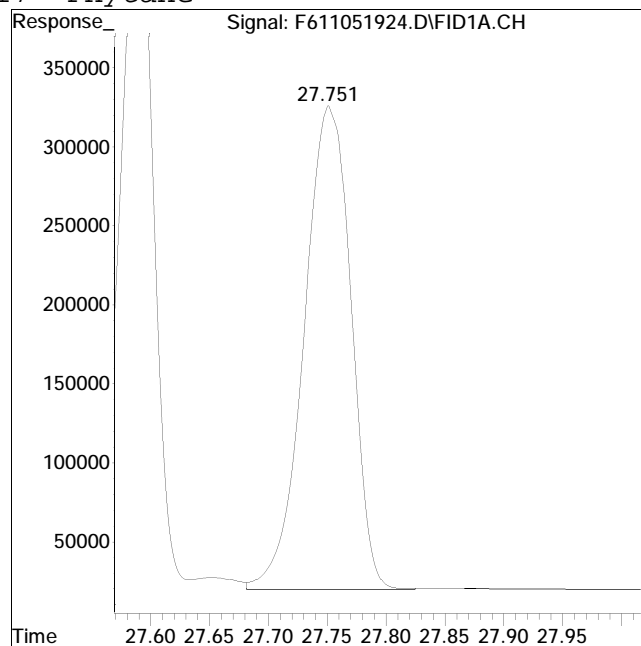
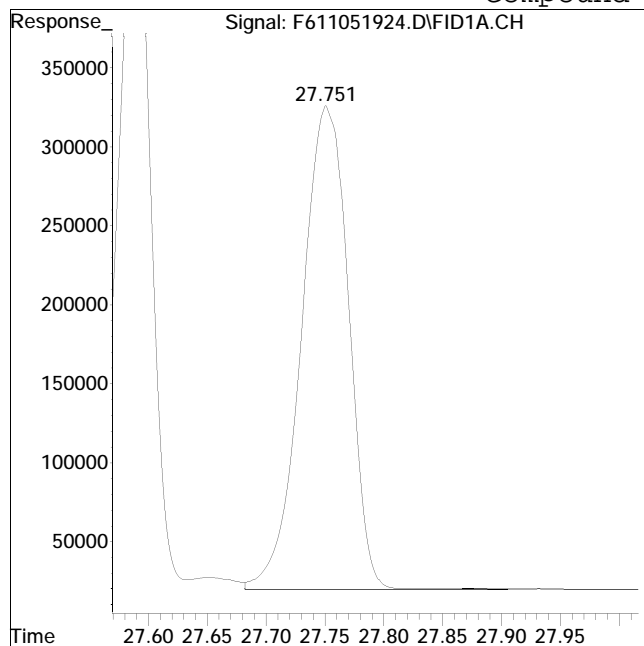
Manual Peak Response = 9457977 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #17: Phytane



Original Peak Response = 8567258

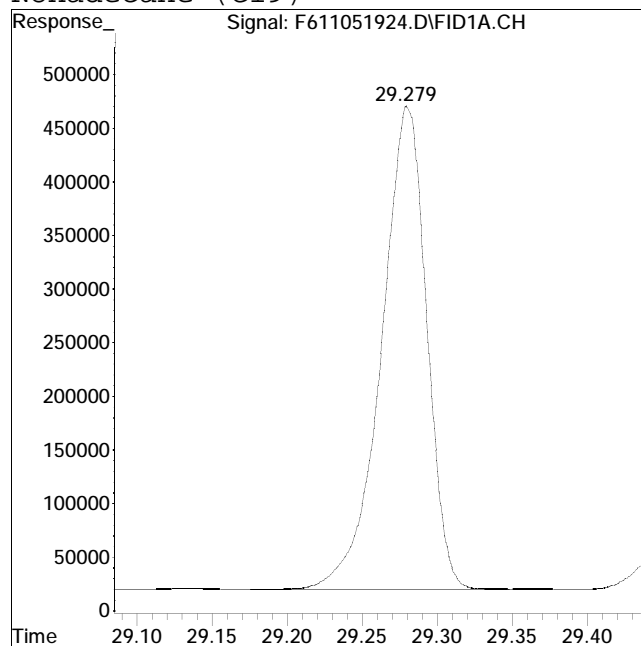
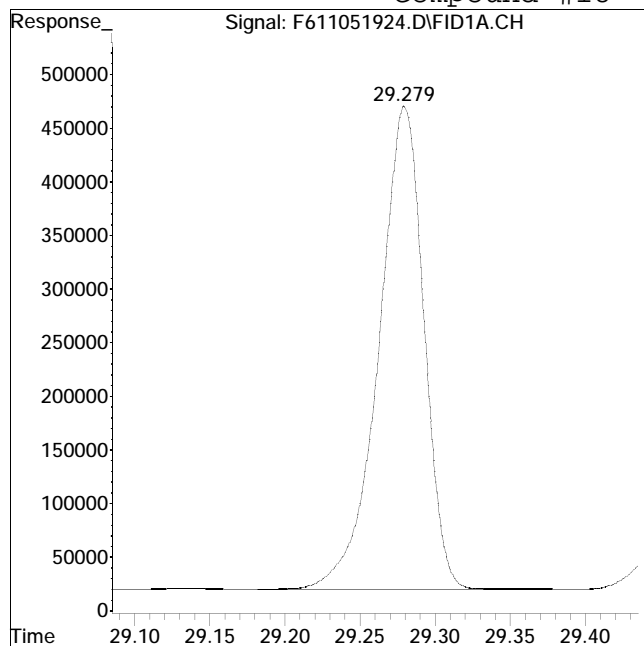
Manual Peak Response = 8518459 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 9473431

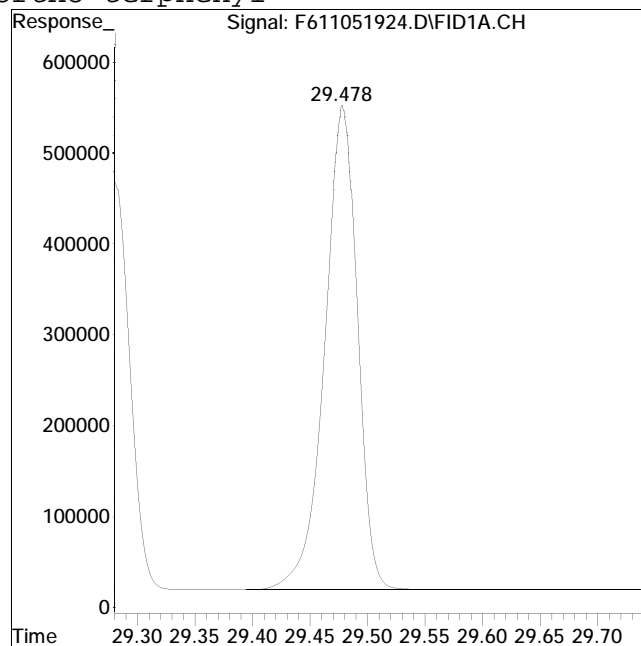
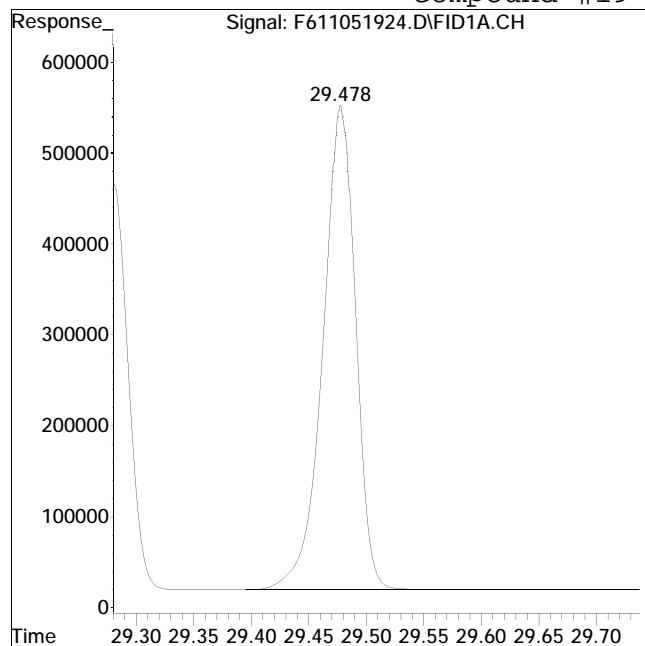
Manual Peak Response = 9466303 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #19: ortho-terphenyl



Original Peak Response = 10557437

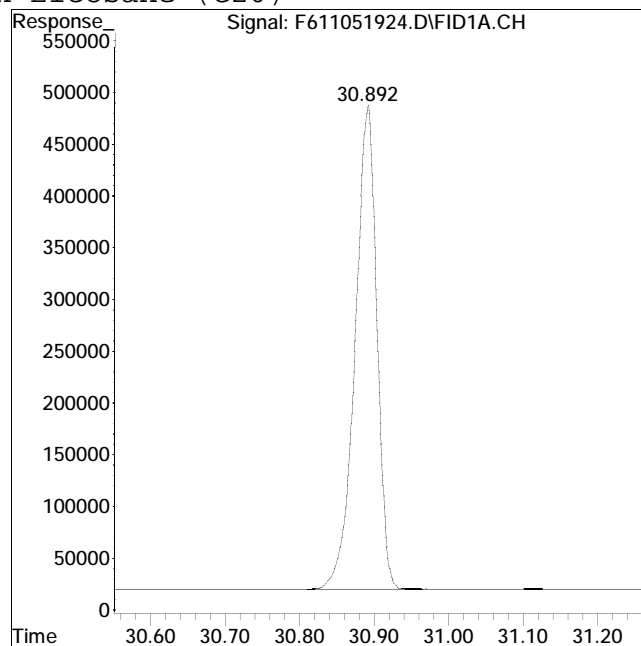
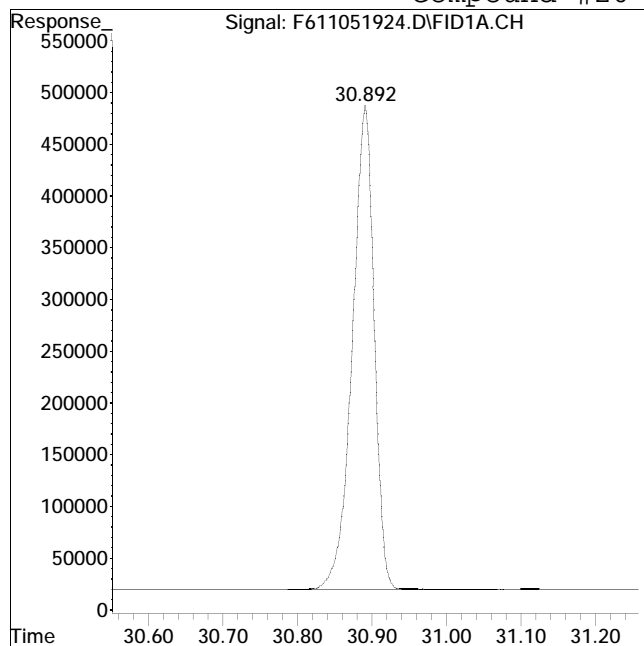
Manual Peak Response = 10562603 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 9531241

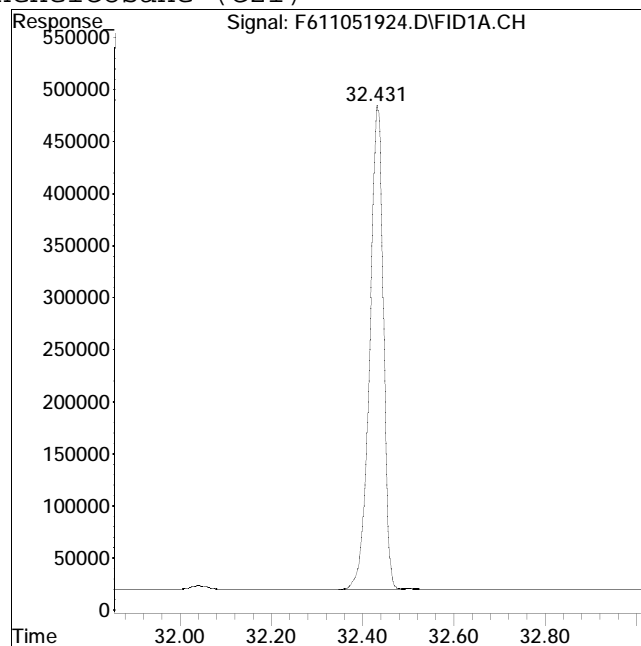
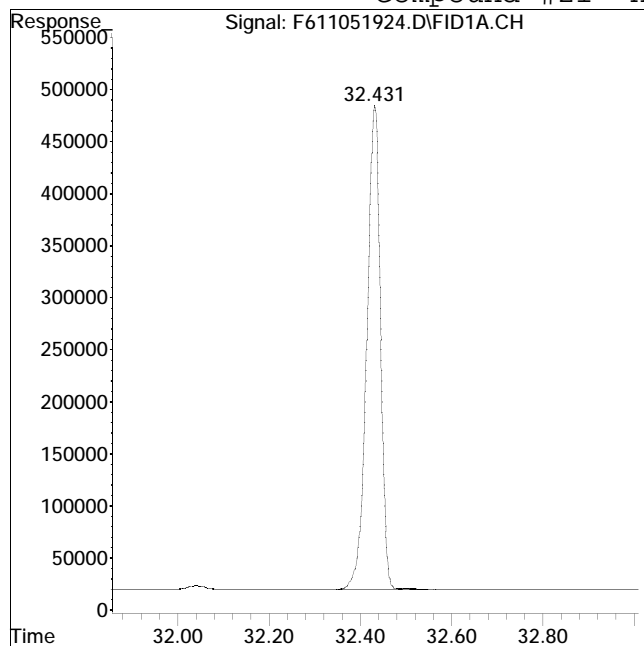
Manual Peak Response = 9520950 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 9698938

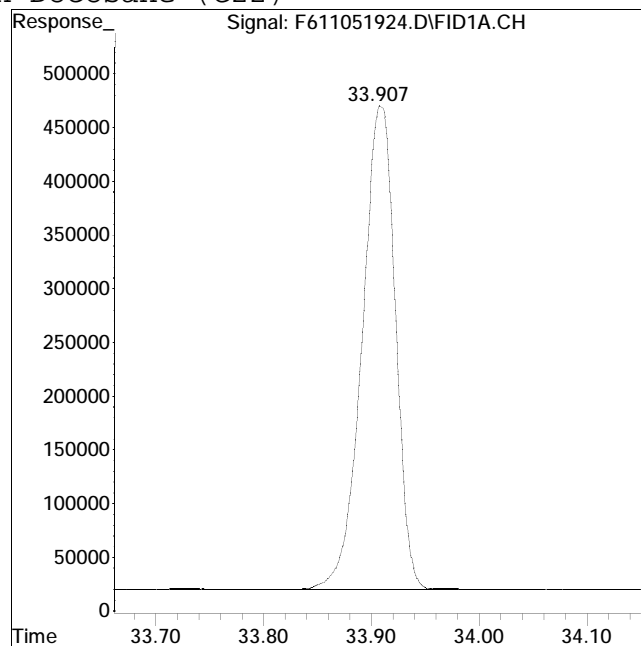
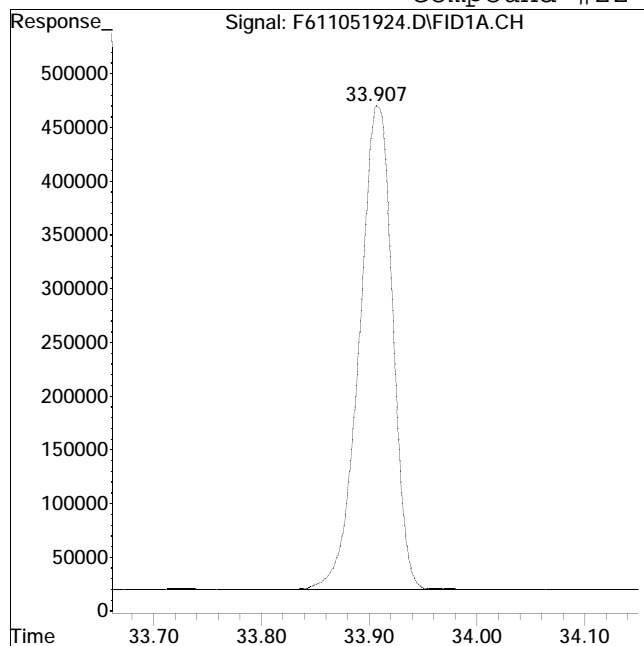
Manual Peak Response = 9671476 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 9684213

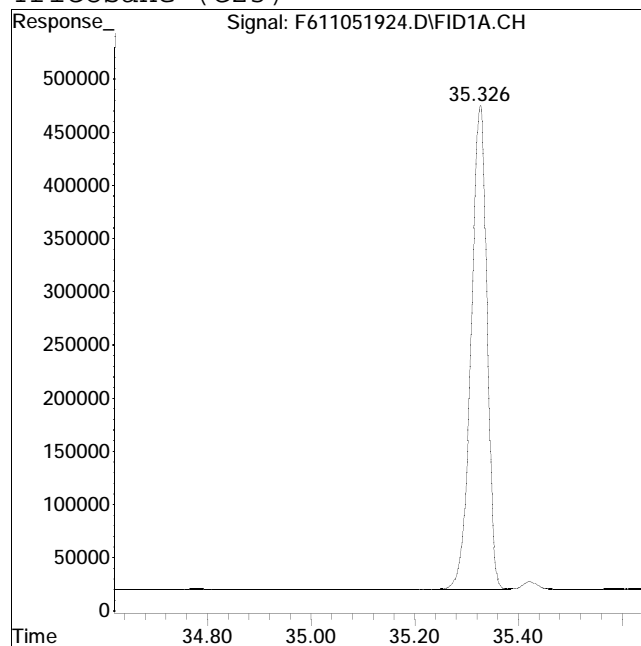
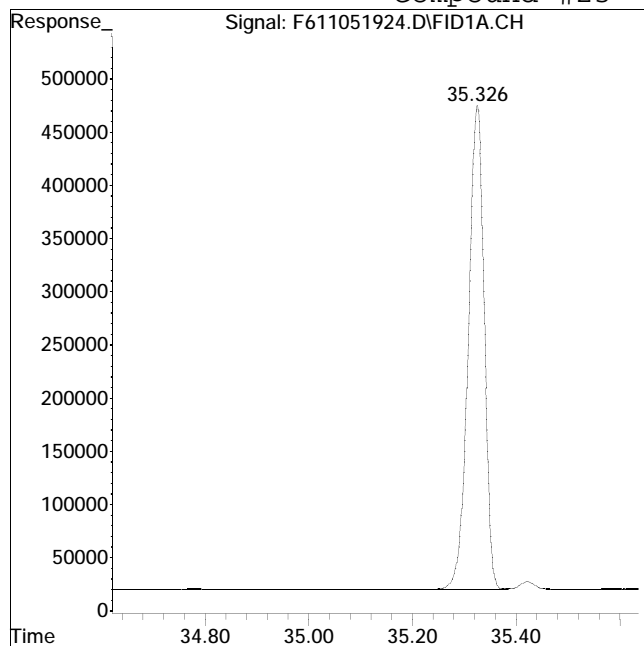
Manual Peak Response = 9679268 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 9692374

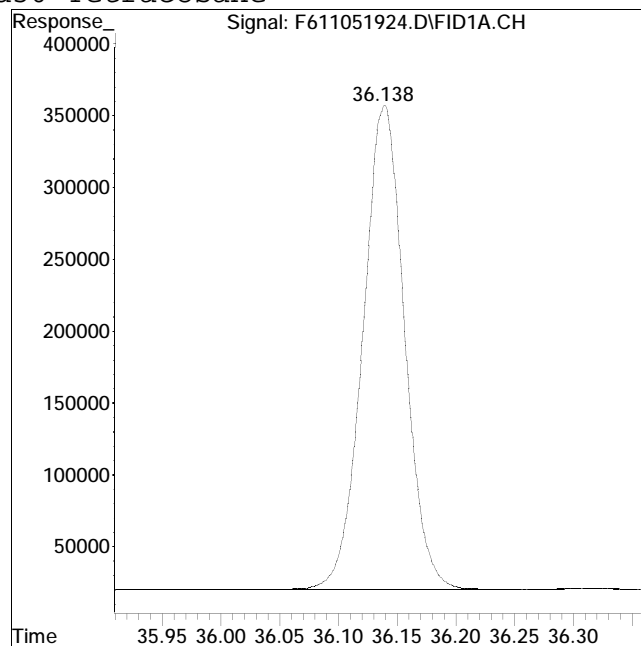
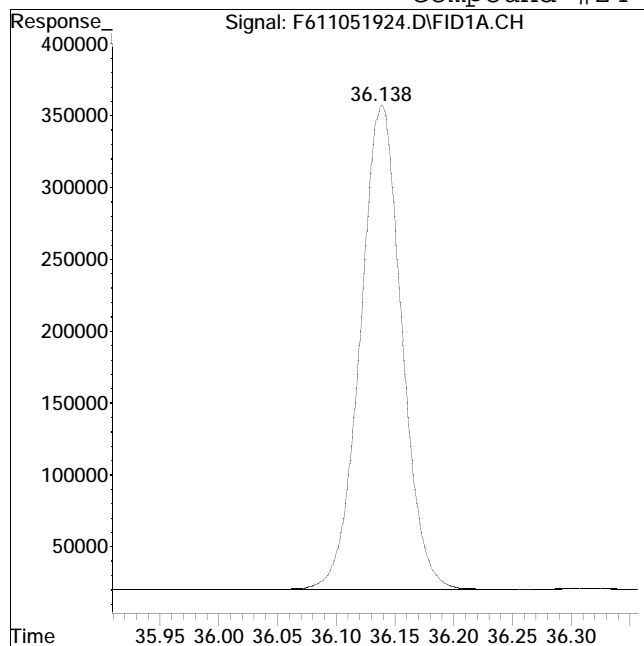
Manual Peak Response = 9729972 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #24: d50-Tetracosane



Original Peak Response = 8301990

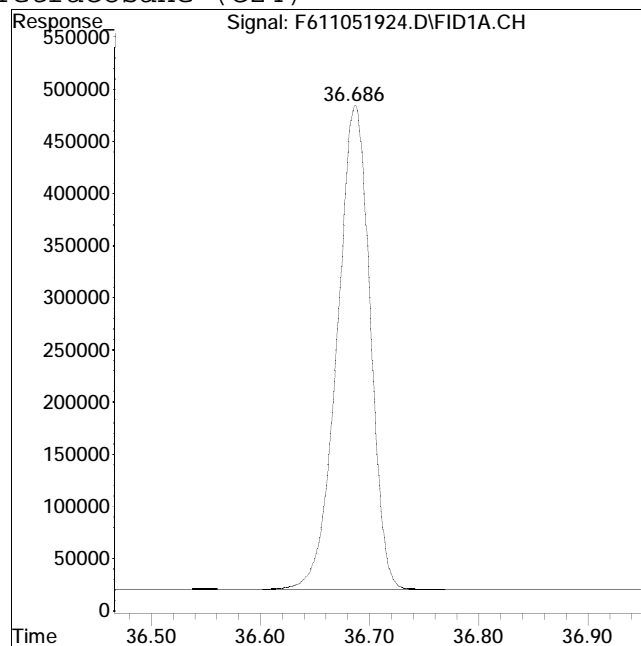
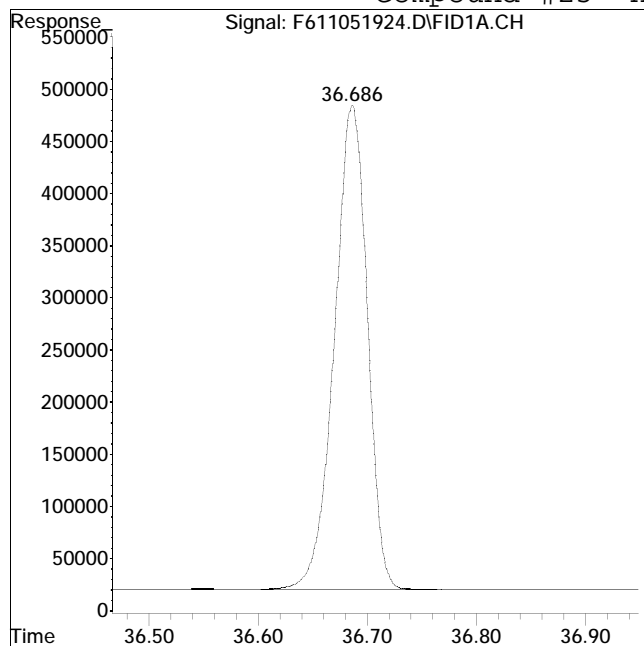
Manual Peak Response = 8309925 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 9757053

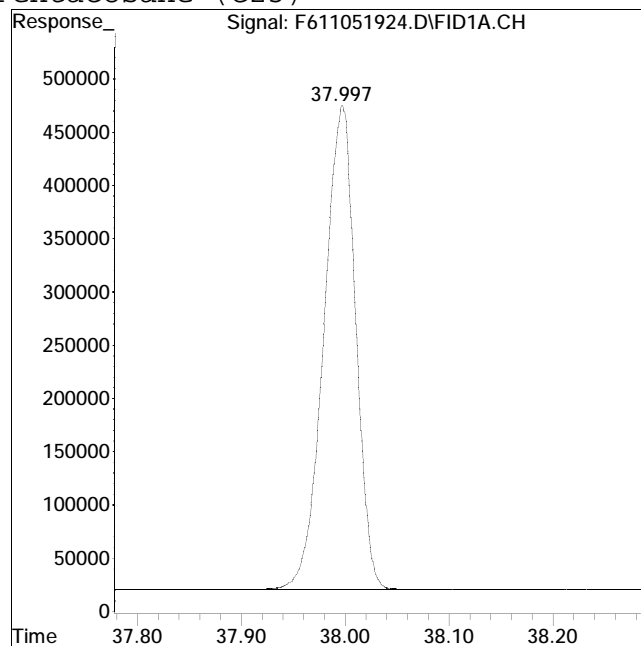
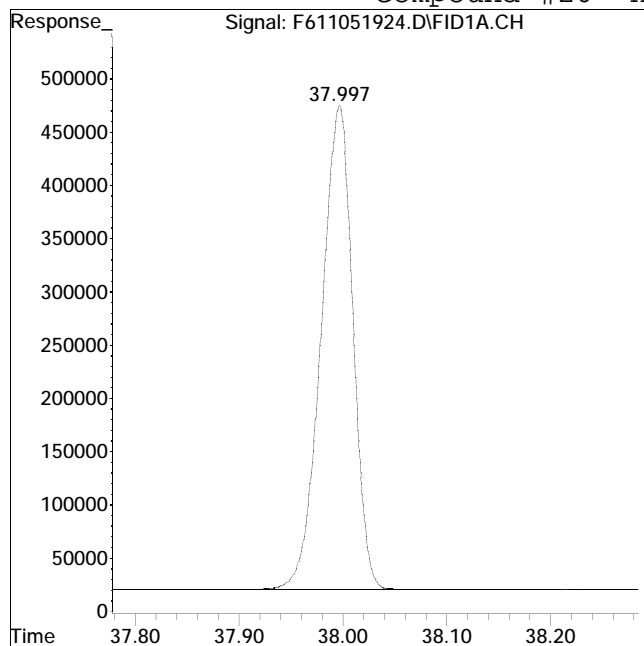
Manual Peak Response = 9762121 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 9672603

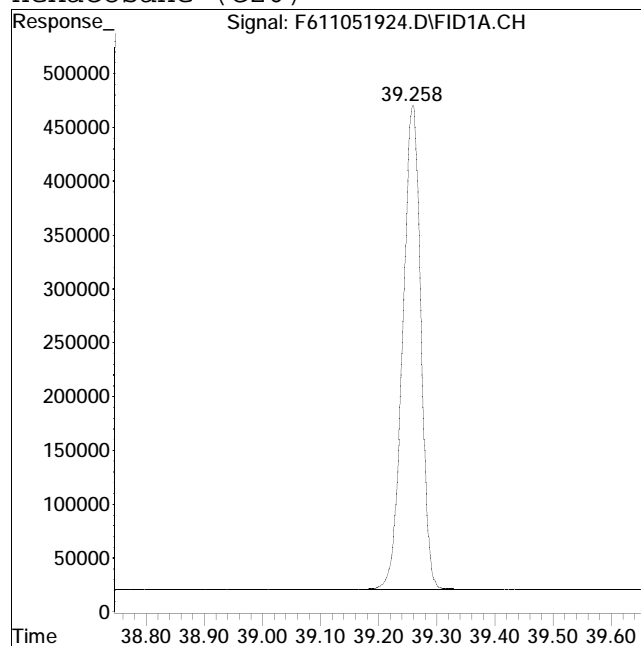
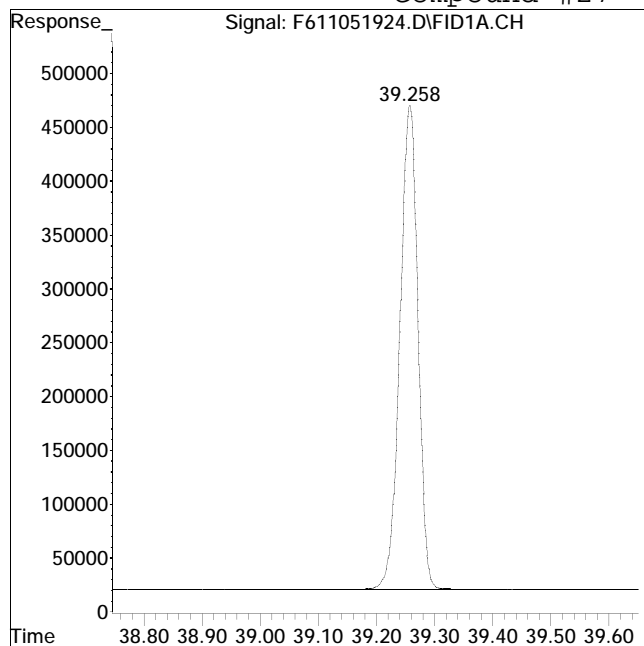
Manual Peak Response = 9671791 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 9754262

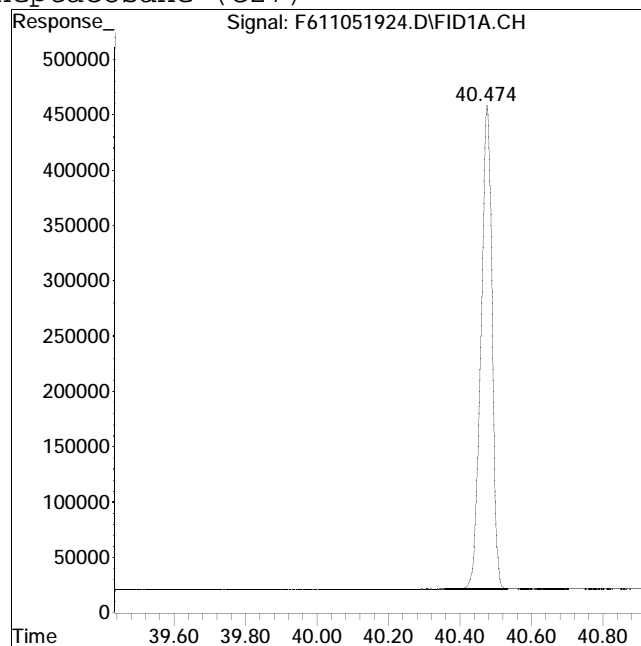
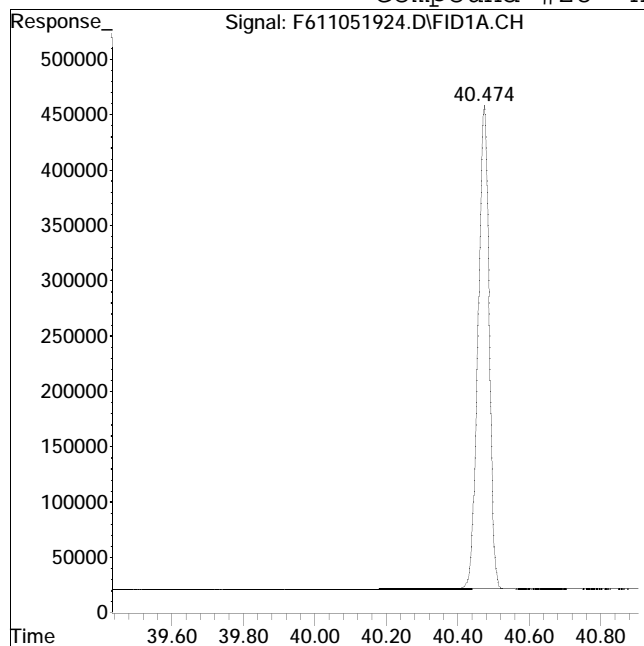
Manual Peak Response = 9740151 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 9416122

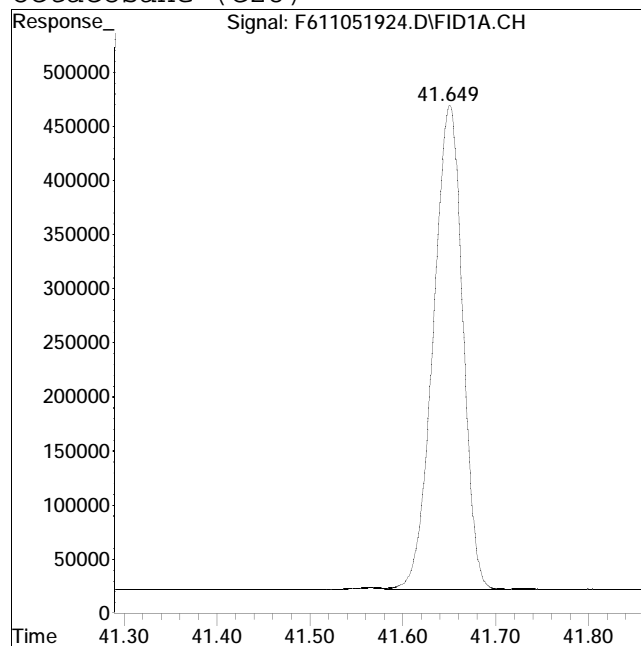
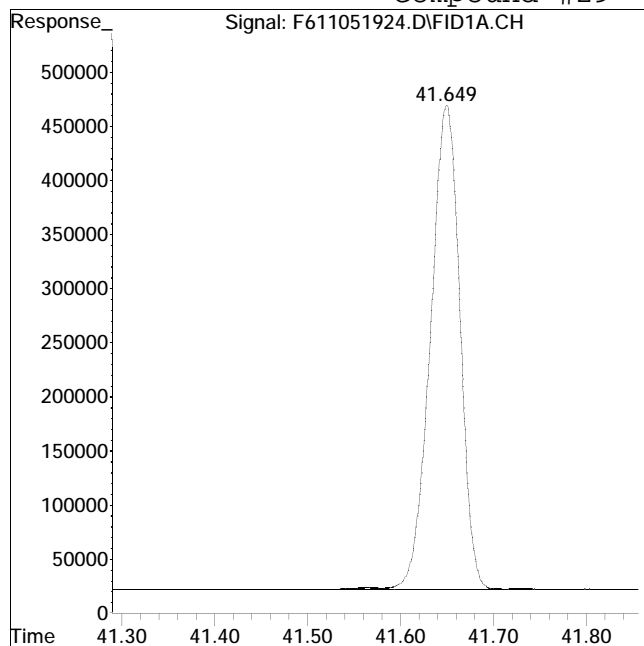
Manual Peak Response = 9470494 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 9870783

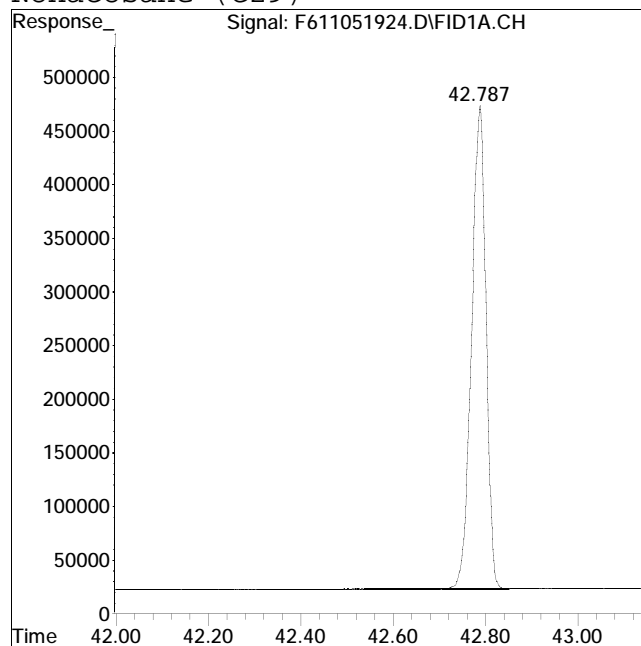
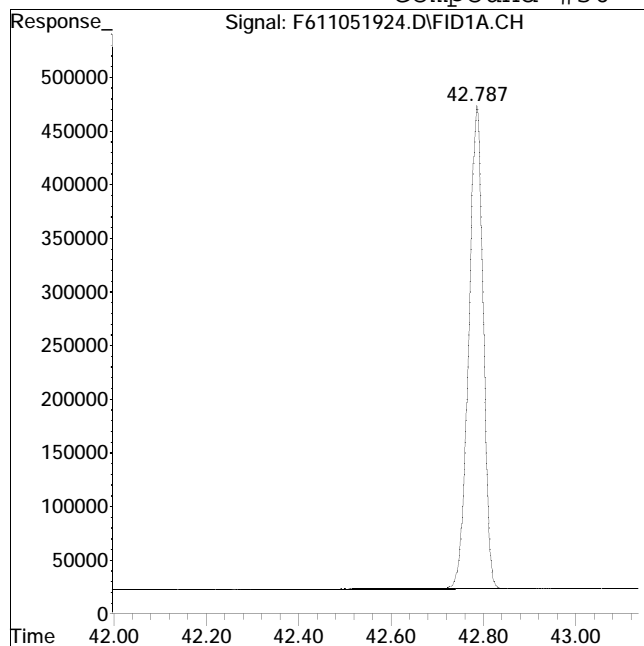
Manual Peak Response = 9832546 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 9786206

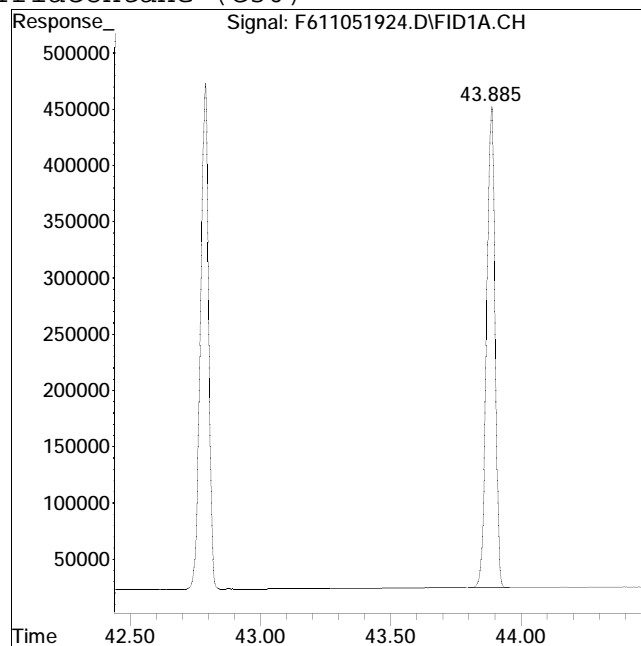
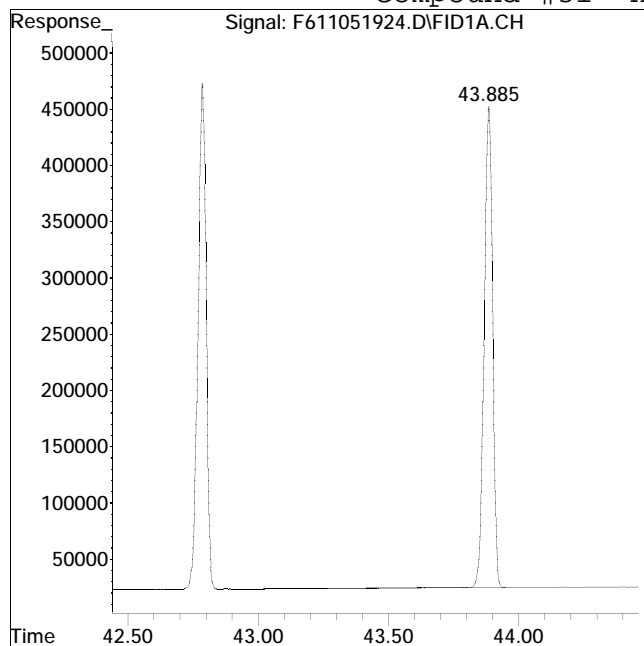
Manual Peak Response = 9796845 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 9662252

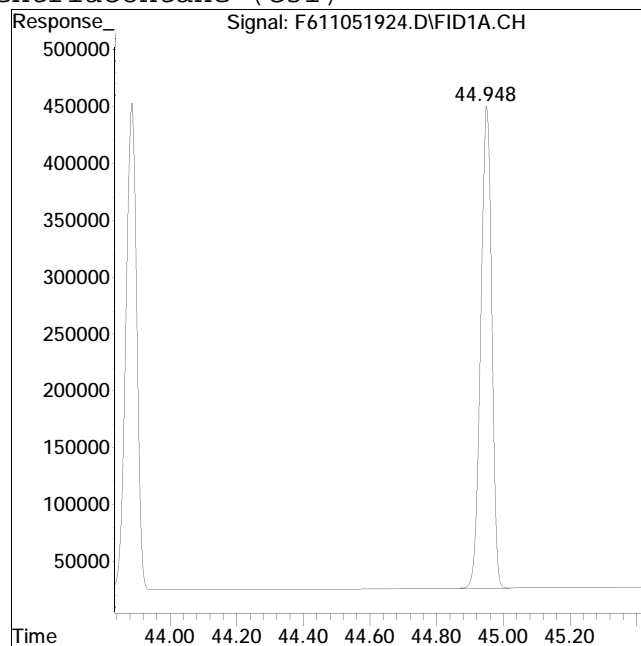
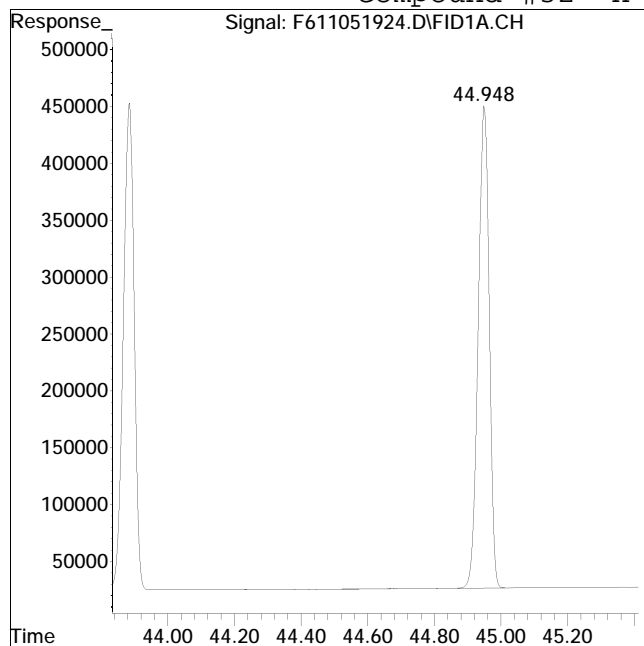
Manual Peak Response = 9699851 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 9742150

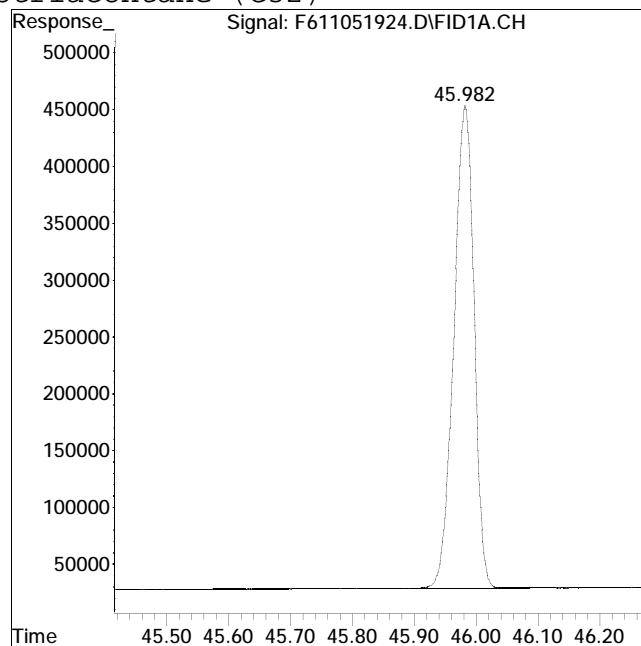
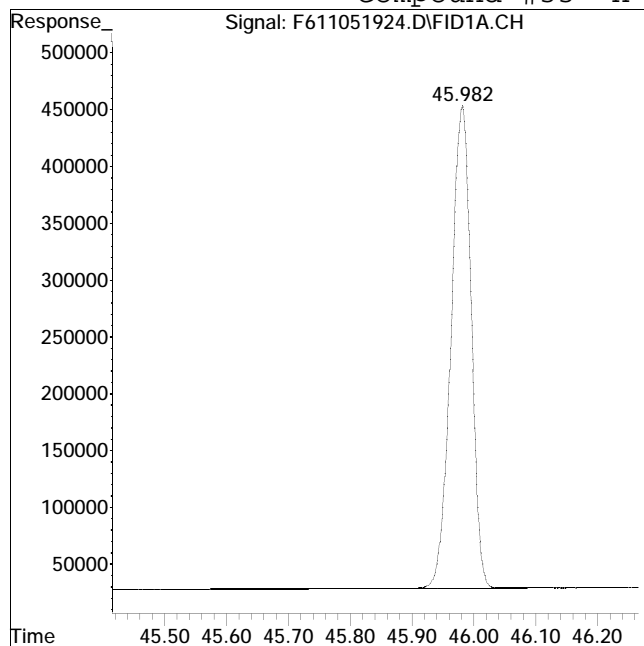
Manual Peak Response = 9764140 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 9645010

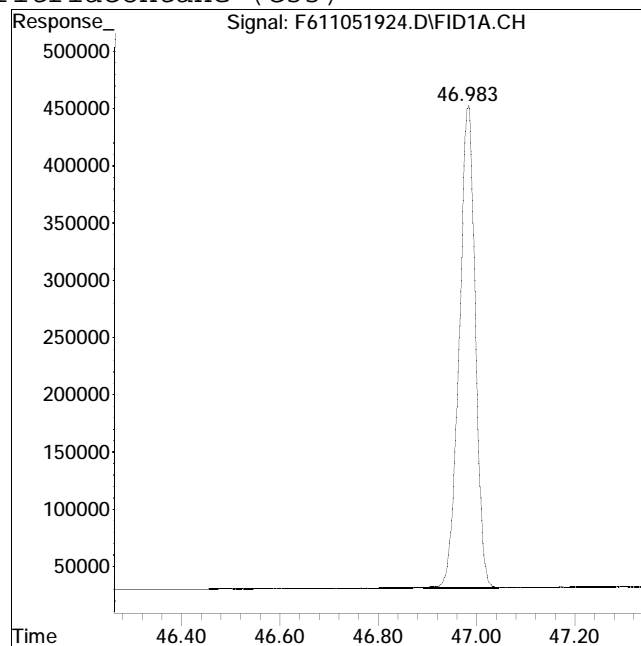
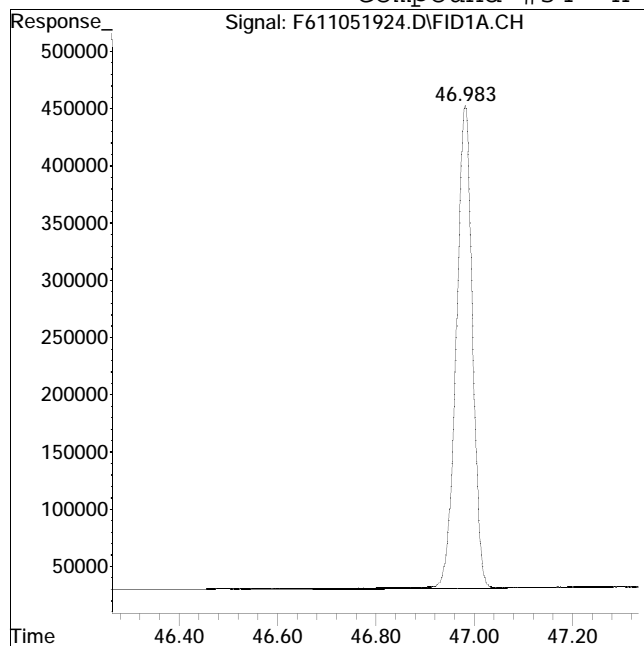
Manual Peak Response = 9646459 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 9797310

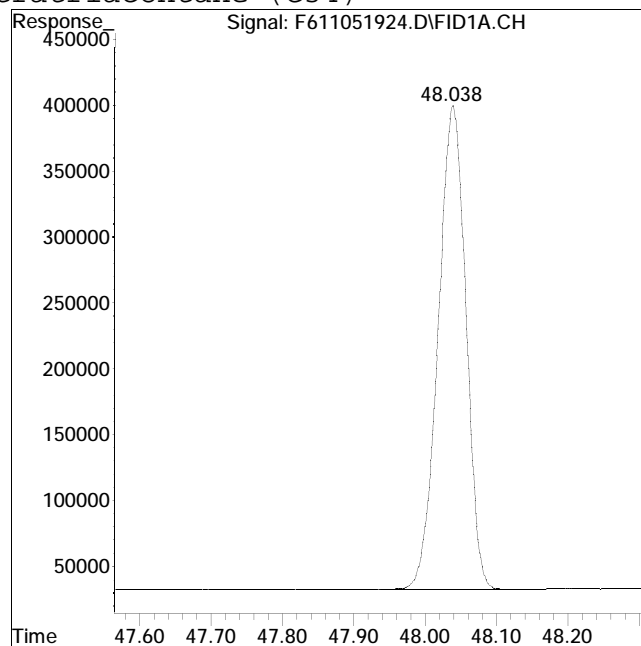
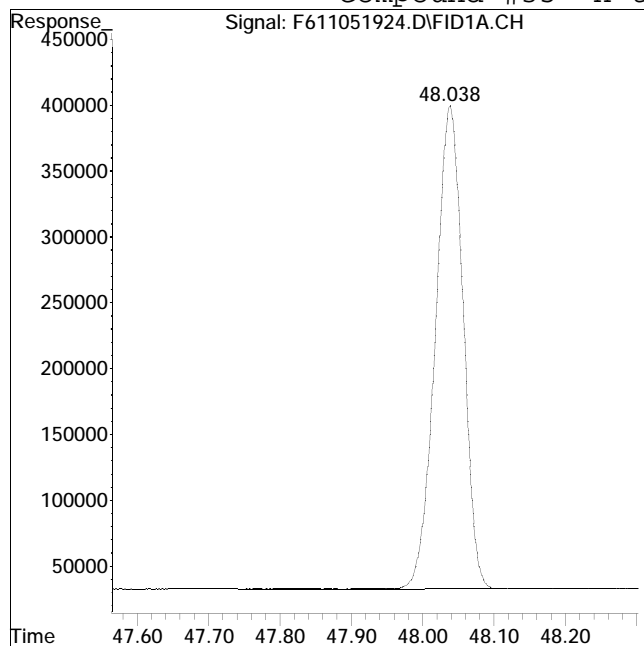
Manual Peak Response = 9566411 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 9947161

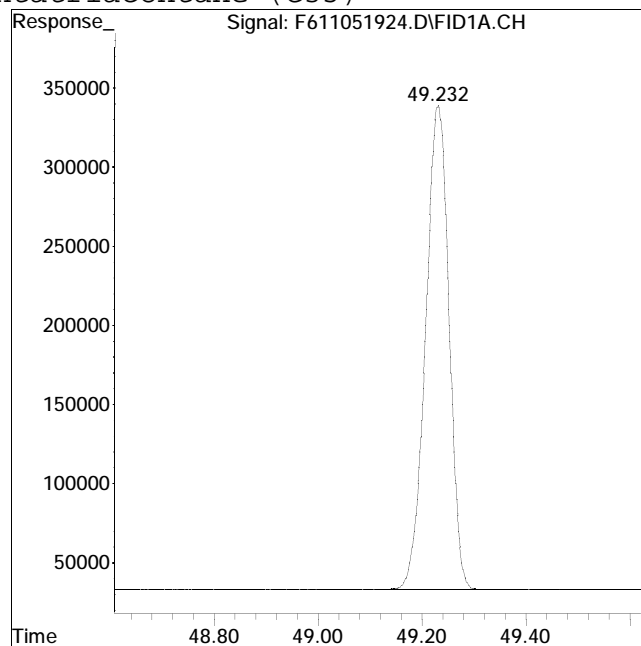
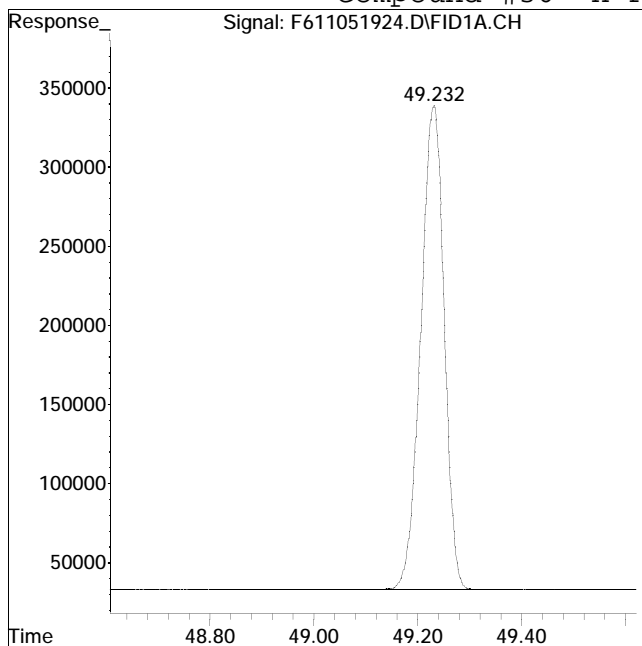
Manual Peak Response = 9906674 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 9579104

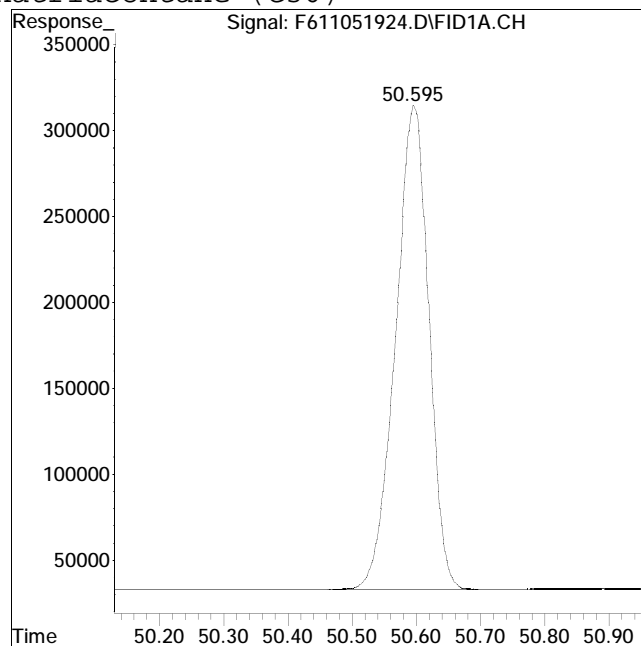
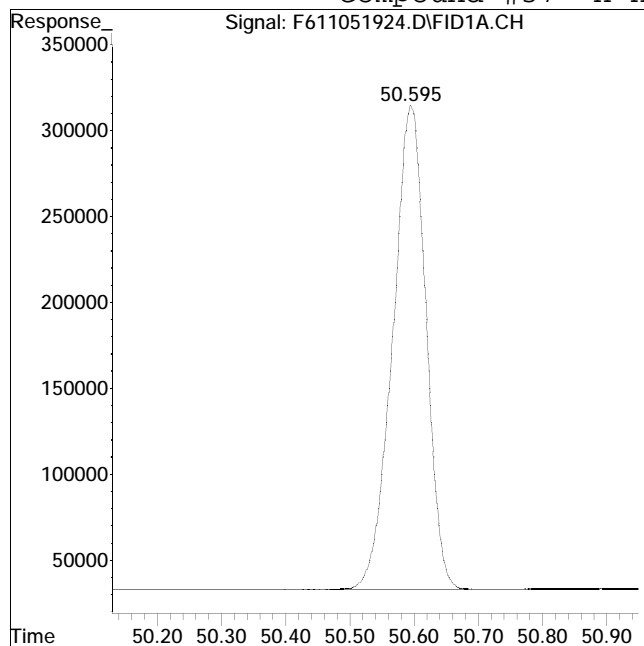
Manual Peak Response = 9569294 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 10129719

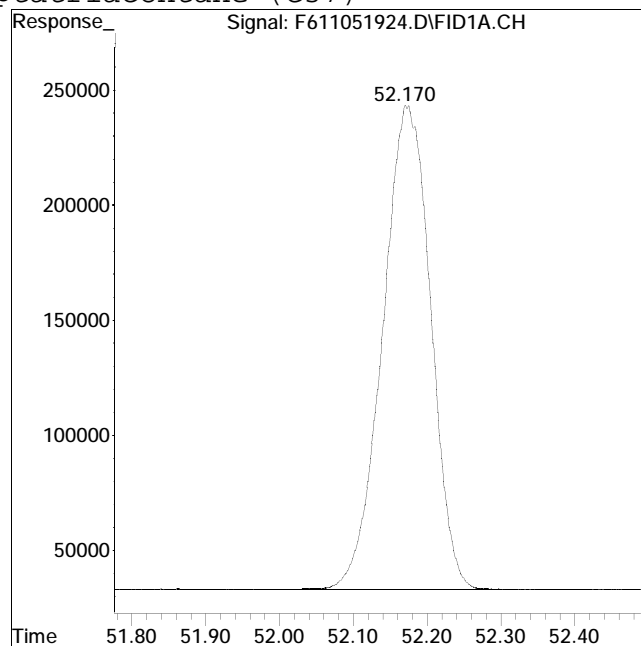
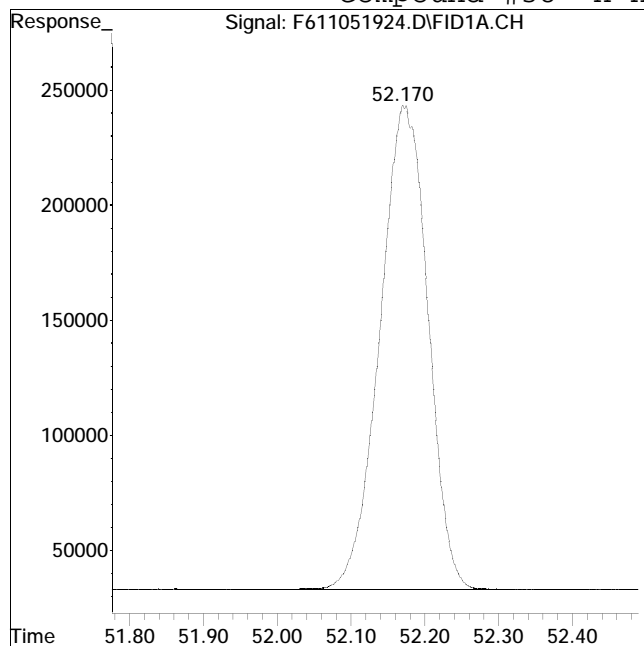
Manual Peak Response = 10140841 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 9509070

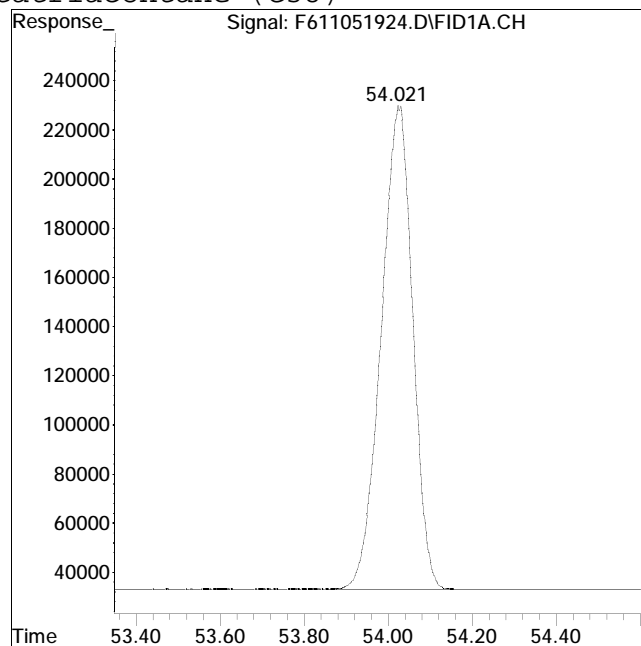
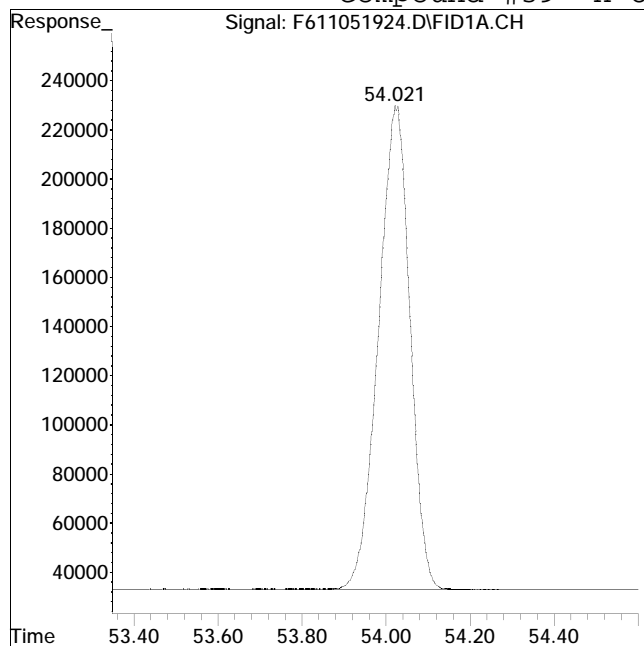
Manual Peak Response = 9521170 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 10265319

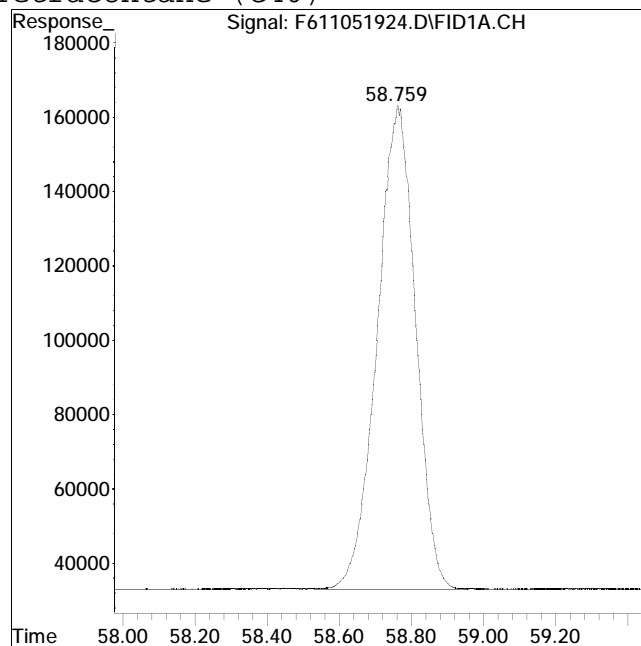
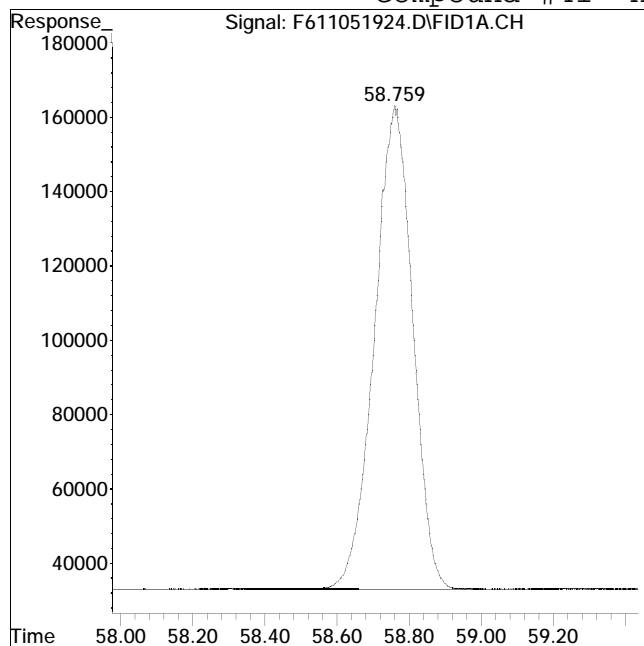
Manual Peak Response = 10244550 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051924.D Operator : FID6:MA
Date Inj'd : 11/6/2019 1:12 am Instrument : FID6
Sample : I611051902F Quant Date : 11/7/2019 3:50 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 9602841

Manual Peak Response = 9591933 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051926.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 2:40 am
 Operator : FID6:MA
 Sample : I611051903F
 Misc : WG1307766,FRBB88,50ug/ml
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 15:47:56 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 13:46:35 2019
 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	31.533	50235882	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.503	53002721	49.178	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	98.36%	
24) s d50-Tetracosane	36.159	41344277	47.089	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	94.18%	
Target Compounds				
2) t n-Octane (C8)	5.754	38655137	47.206	ug/mL M4
3) t n-Nonane (C9)	7.979	40698040	47.764	ug/mL M4
4) t n-Decane (C10)	10.479	42389854	48.708	ug/mL M4
5) t n-Undecane (C11)	13.001	43453015	48.970	ug/mL M4
6) t n-Dodecane (C12)	15.436	44319853	48.928	ug/mL M4
7) t n-Tridecane (C13)	17.750	44881917	48.920	ug/mL M4
9) t n-Tetradecane (C14)	19.941	45759618	48.782	ug/mL M4
11) t n-Pentadecane (C15)	22.010	46041430	48.676	ug/mL M4
12) t n-Hexadecane (C16)	23.973	46640043	48.835	ug/mL M4
14) t n-Heptadecane (C17)	25.838	46529233	48.743	ug/mL M4
15) t Pristane	25.949	47472501	48.666	ug/mL M4
16) T n-Octadecane (C18)	27.610	47340411	48.802	ug/mL M4
17) t Phytane	27.773	42625261	48.600	ug/mL M4
18) t n-Nonadecane (C19)	29.301	47258673	48.585	ug/mL M4
20) t n-Eicosane (C20)	30.911	47307680	48.362	ug/mL M4
21) t n-Heneicosane (C21)	32.452	48002289	48.147	ug/mL M4
22) t n-Docosane (C22)	33.930	47972327	47.969	ug/mL M4
23) t n-Tricosane (C23)	35.349	48181461	47.896	ug/mL M4
25) t n-Tetracosane (C24)	36.712	48299013	47.520	ug/mL M4
26) t n-Pentacosane (C25)	38.020	47754744	47.404	ug/mL M4
27) t n-Hexacosane (C26)	39.282	48151369	47.234	ug/mL M4
28) t n-Heptacosane (C27)	40.500	46835231	46.874	ug/mL M4
29) t n-Octacosane (C28)	41.676	48675039	46.887	ug/mL M4
30) t n-Nonacosane (C29)	42.812	48382428	46.708	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051926.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 2:40 am
 Operator : FID6:MA
 Sample : I611051903F
 Misc : WG1307766,FRBB88,50ug/ml
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 15:47:56 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 13:46:35 2019
 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)	43.911	47919991	46.607 ug/mL M4
32) t n-Hentriacontane (C31)	44.975	48253217	46.404 ug/mL M4
33) t n-Dotriacontane (C32)	46.007	47773127	46.473 ug/mL M4
34) t n-Tritriacontane (C33)	47.008	47345454	46.386 ug/mL M4
35) t n-tetratriacontane (C34)	48.068	49027537	46.192 ug/mL M4
36) t n-Pentatriacontane (C35)	49.268	47324013	45.972 ug/mL M4
37) t n-Hexatriacontane (C36)	50.641	50088868	46.048 ug/mL M4
38) t n-Heptatriacontane (C37)	52.228	46944813	46.049 ug/mL M4
39) t n-Octatriacontane (C38)	54.090	50603623	45.910 ug/mL M4
41) t n-Tetracontane (C40)	58.852	47279809	45.274 ug/mL M4

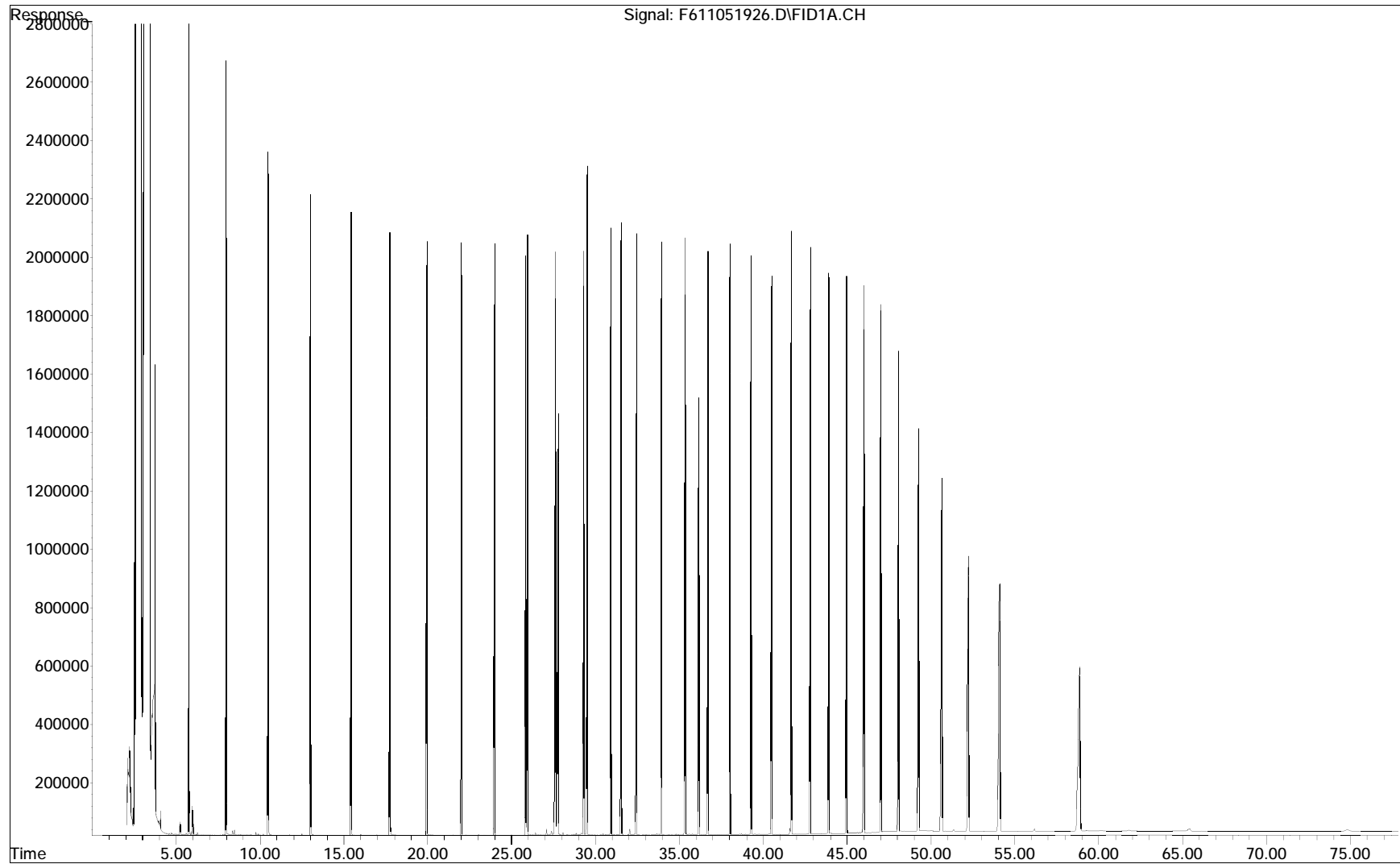
SemiQuant Compounds - Not Calibrated on this Instrument

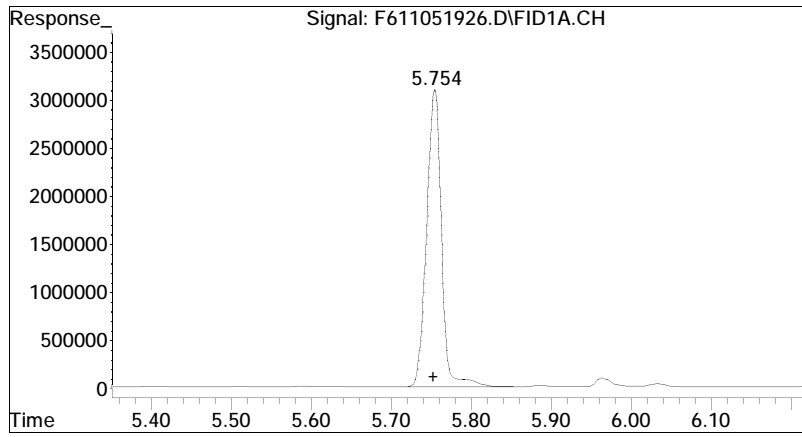
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

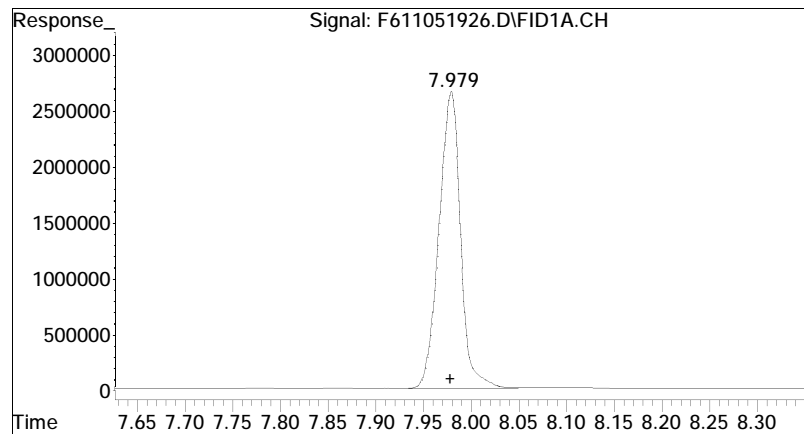
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051926.D
Operator : FID6:MA
Acquired : 06 Nov 2019 2:40 am using AcqMethod FID6A.M
Sample Name: I611051903F
Instrument: FID6
Misc Info : WG1307766,FRBB88,50ug/ml
Vial Number: 8
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M





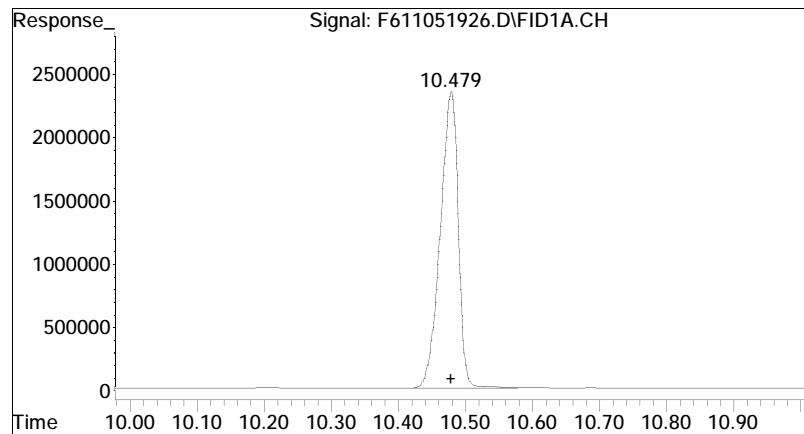
#2 n-Octane (C8)

R.T.: 5.754 min
Delta R.T.: 0.002 min
Response: 38655137
Conc: 47.21 ug/mL M4



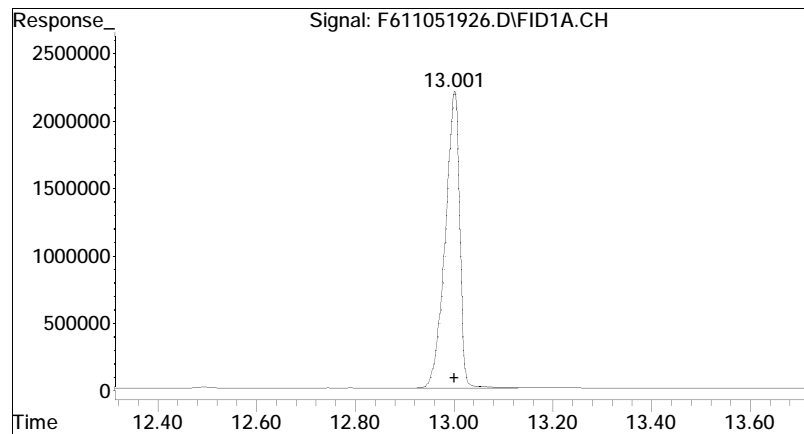
#3 n-Nonane (C9)

R.T.: 7.979 min
Delta R.T.: 0.000 min
Response: 40698040
Conc: 47.76 ug/mL M4



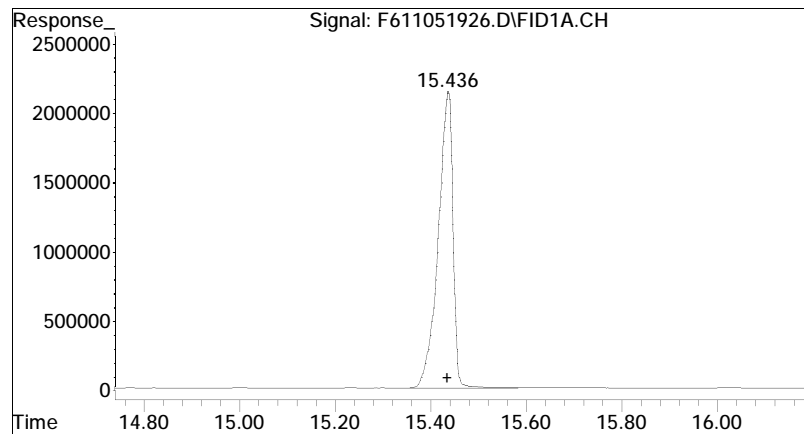
#4 n-Decane (C10)

R.T.: 10.479 min
Delta R.T.: 0.000 min
Response: 42389854
Conc: 48.71 ug/mL M4



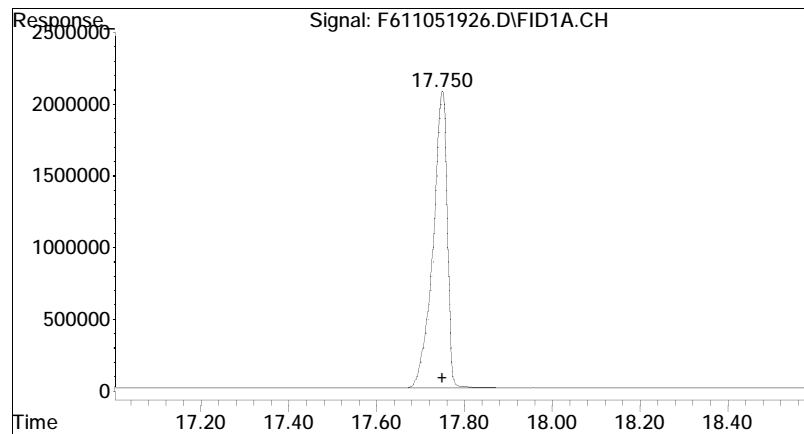
#5 n-Undecane (C11)

R.T.: 13.001 min
Delta R.T.: 0.000 min
Response: 43453015
Conc: 48.97 ug/mL M4



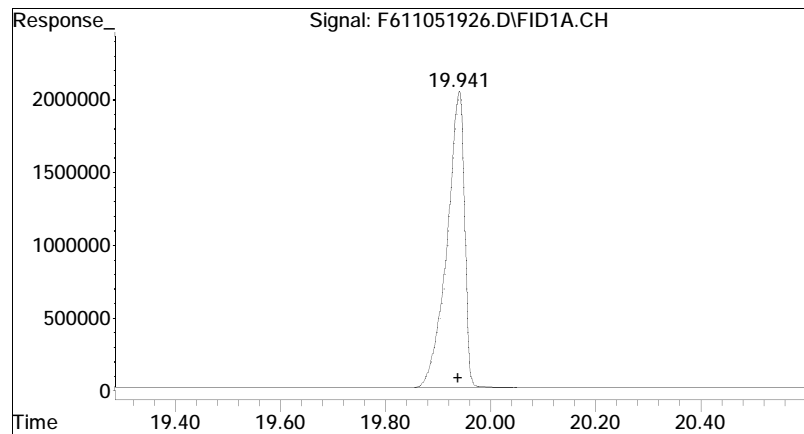
#6 n-Dodecane (C12)

R.T.: 15.436 min
Delta R.T.: 0.000 min
Response: 44319853
Conc: 48.93 ug/mL M4



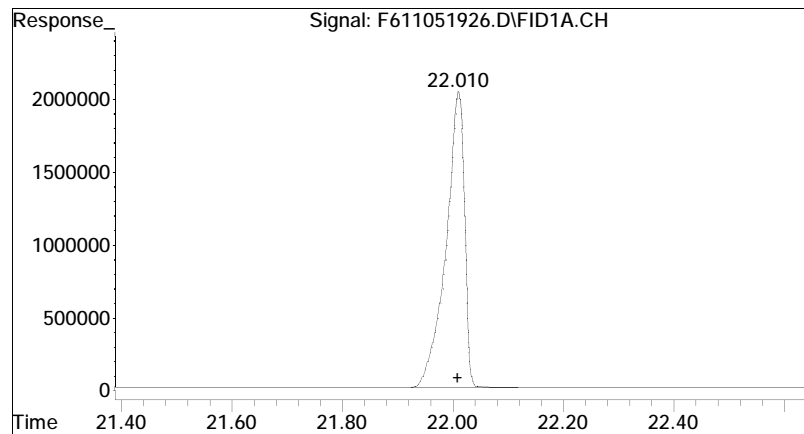
#7 n-Tridecane (C13)

R.T.: 17.750 min
Delta R.T.: 0.000 min
Response: 44881917
Conc: 48.92 ug/mL M4



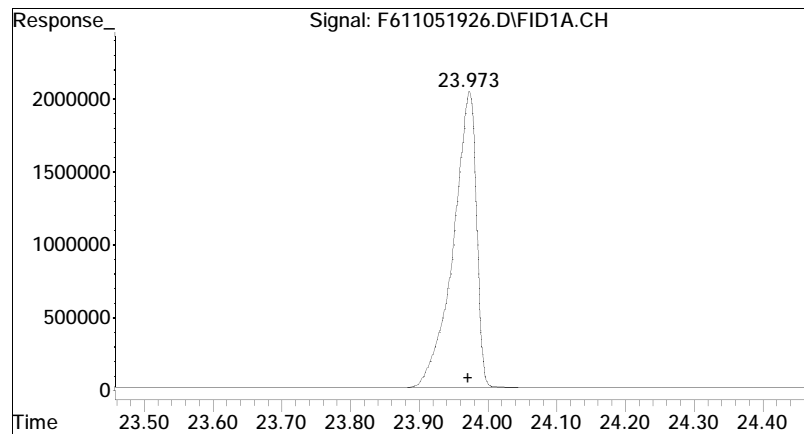
#9 n-Tetradecane (C14)

R.T.: 19.941 min
Delta R.T.: 0.002 min
Response: 45759618
Conc: 48.78 ug/mL M4



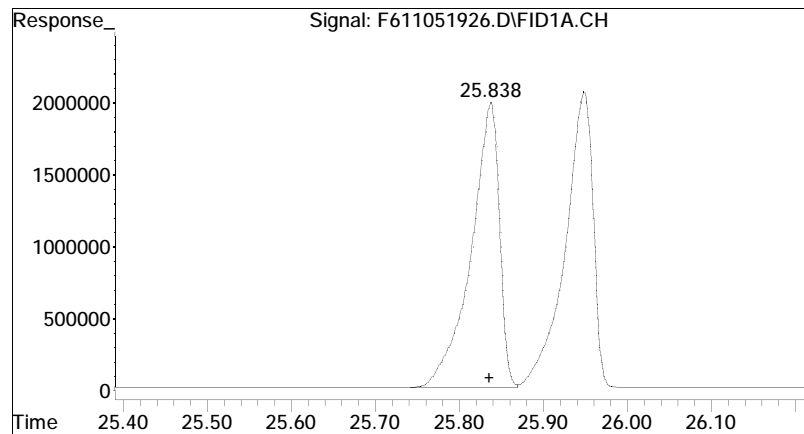
#11 n-Pentadecane (C15)

R.T.: 22.010 min
Delta R.T.: 0.001 min
Response: 46041430
Conc: 48.68 ug/mL M4



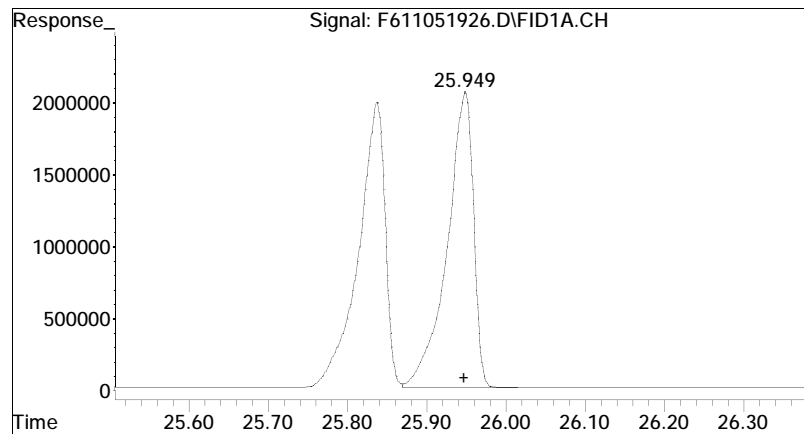
#12 n-Hexadecane (C16)

R.T.: 23.973 min
Delta R.T.: 0.001 min
Response: 46640043
Conc: 48.83 ug/mL M4



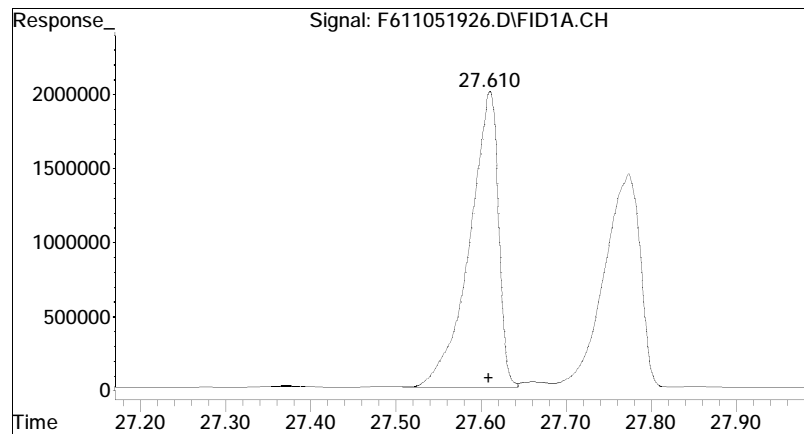
#14 n-Heptadecane (C17)

R.T.: 25.838 min
Delta R.T.: 0.002 min
Response: 46529233
Conc: 48.74 ug/mL M4



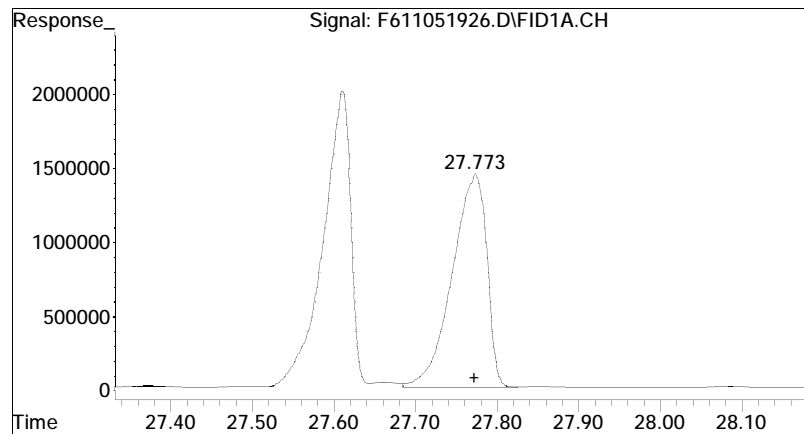
#15 Pristane

R.T.: 25.949 min
Delta R.T.: 0.002 min
Response: 47472501
Conc: 48.67 ug/mL M4



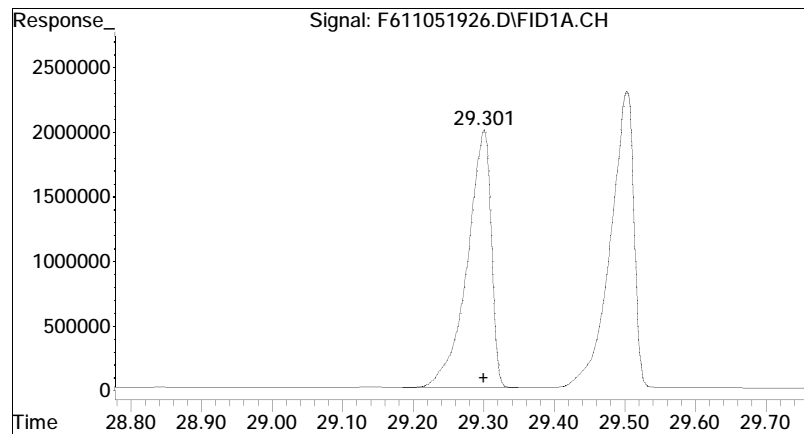
#16 n-Octadecane (C18)

R.T.: 27.610 min
Delta R.T.: 0.000 min
Response: 47340411
Conc: 48.80 ug/mL M4

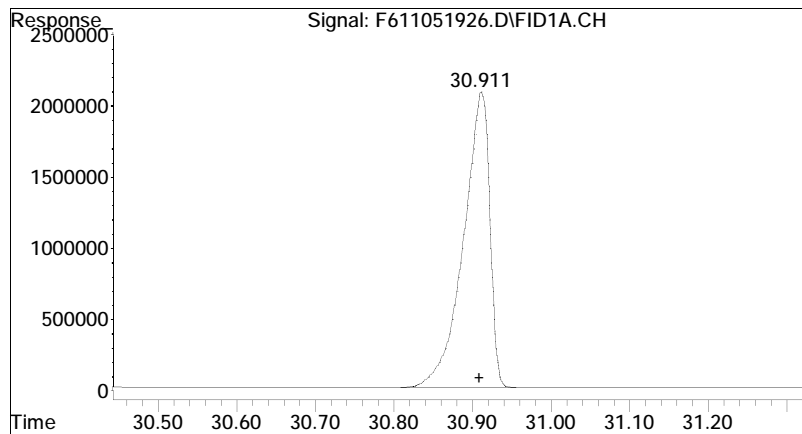


#17 Phytane

R.T.: 27.773 min
Delta R.T.: 0.000 min
Response: 42625261
Conc: 48.60 ug/mL M4

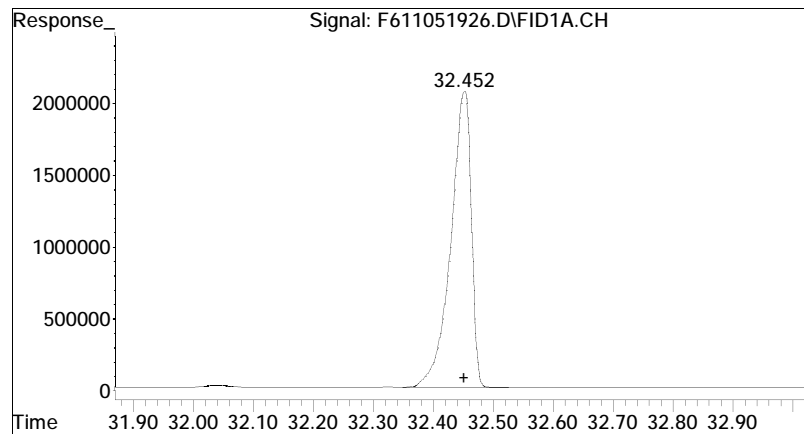


#18 n-Nonadecane (C19)
R.T.: 29.301 min
Delta R.T.: 0.001 min
Response: 47258673
Conc: 48.58 ug/mL M4



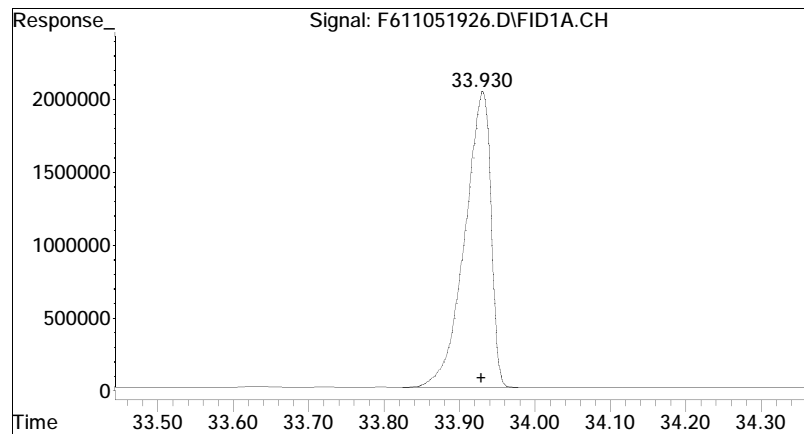
#20 n-Eicosane (C20)

R.T.: 30.911 min
Delta R.T.: 0.002 min
Response: 47307680
Conc: 48.36 ug/mL M4



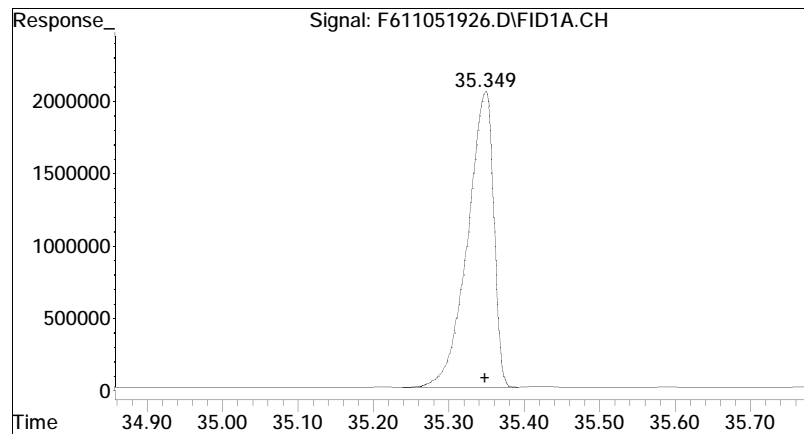
#21 n-Heneicosane (C21)

R.T.: 32.452 min
Delta R.T.: 0.000 min
Response: 48002289
Conc: 48.15 ug/mL M4



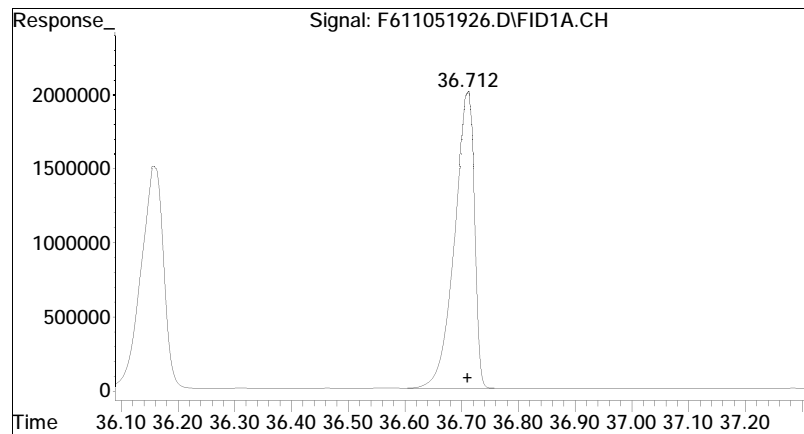
#22 n-Docosane (C22)

R.T.: 33.930 min
Delta R.T.: 0.001 min
Response: 47972327
Conc: 47.97 ug/mL M4



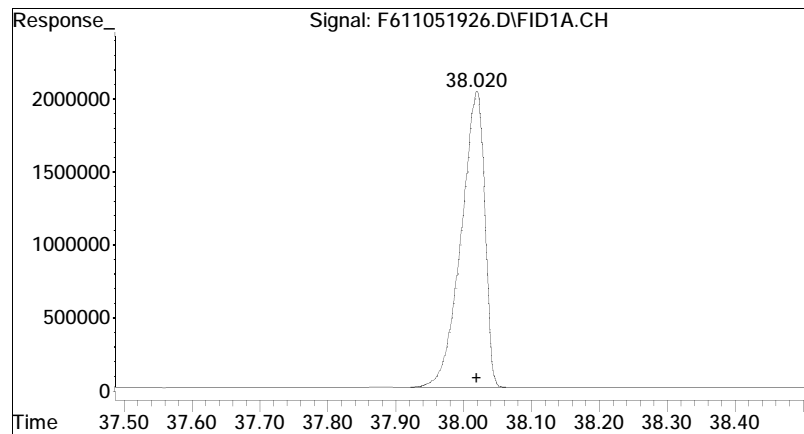
#23 n-Tricosane (C23)

R.T.: 35.349 min
Delta R.T.: 0.001 min
Response: 48181461
Conc: 47.90 ug/mL M4



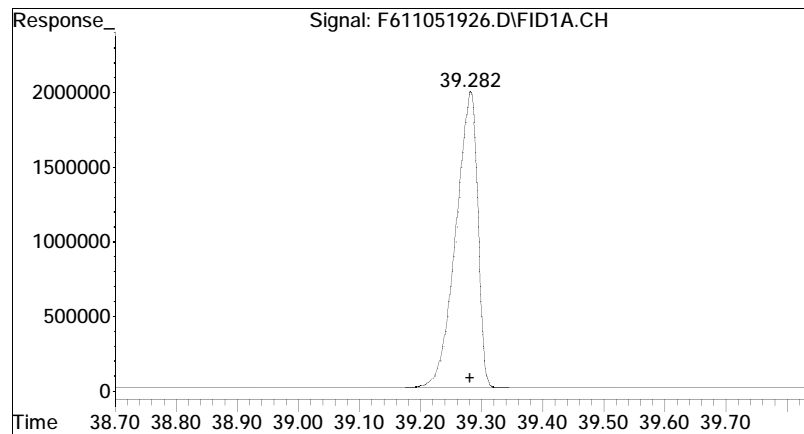
#25 n-Tetracosane (C24)

R.T.: 36.712 min
Delta R.T.: 0.000 min
Response: 48299013
Conc: 47.52 ug/mL M4



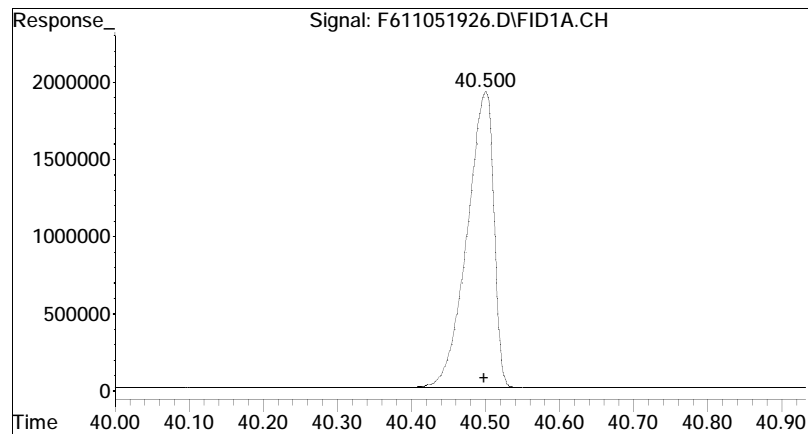
#26 n-Pentacosane (C25)

R.T.: 38.020 min
Delta R.T.: 0.000 min
Response: 47754744
Conc: 47.40 ug/mL M4

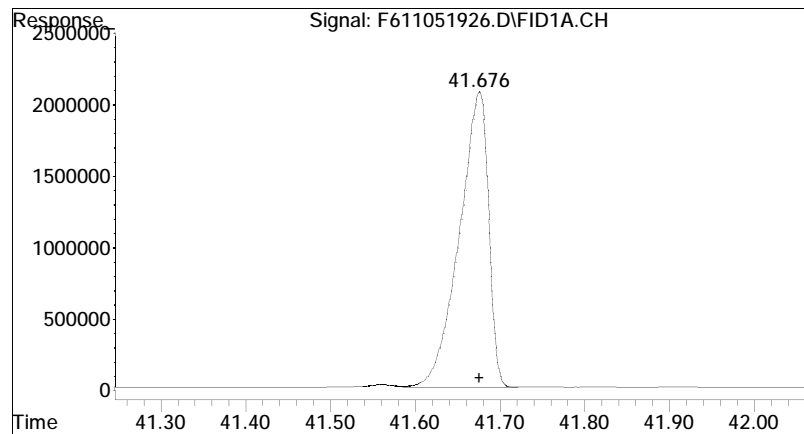


#27 n-Hexacosane (C26)

R.T.: 39.282 min
Delta R.T.: 0.000 min
Response: 48151369
Conc: 47.23 ug/mL M4

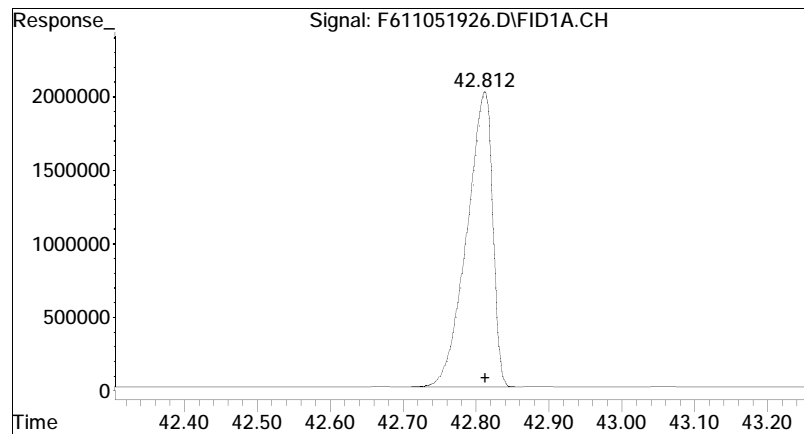


#28 n-Heptacosane (C27)
R.T.: 40.500 min
Delta R.T.: 0.002 min
Response: 46835231
Conc: 46.87 ug/mL M4



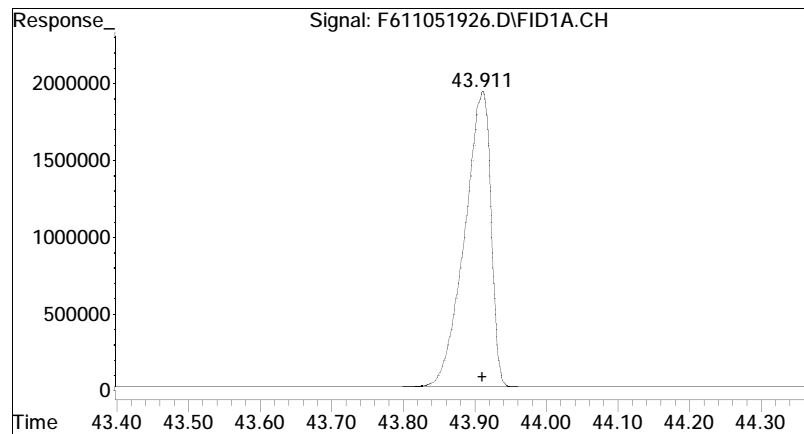
#29 n-Octacosane (C28)

R.T.: 41.676 min
Delta R.T.: 0.000 min
Response: 48675039
Conc: 46.89 ug/mL M4



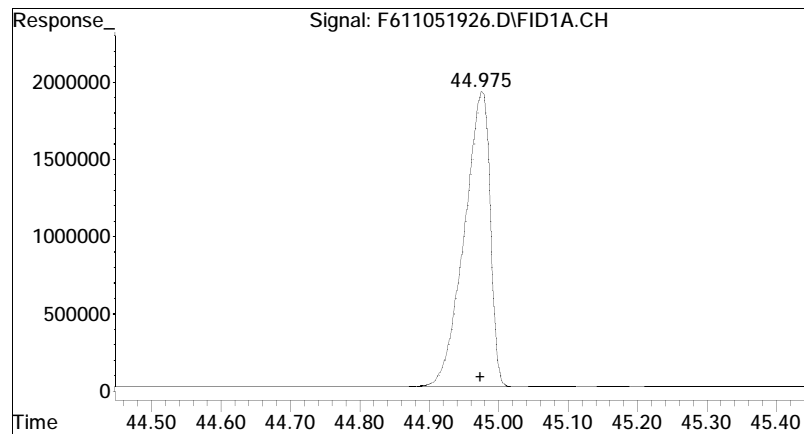
#30 n-Nonacosane (C29)

R.T.: 42.812 min
Delta R.T.: -0.001 min
Response: 48382428
Conc: 46.71 ug/mL M4



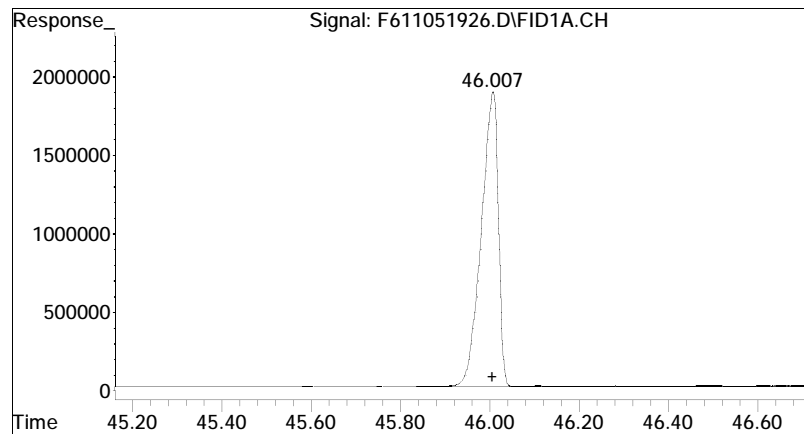
#31 n-Triacontane (C30)

R.T.: 43.911 min
Delta R.T.: 0.000 min
Response: 47919991
Conc: 46.61 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.975 min
Delta R.T.: 0.001 min
Response: 48253217
Conc: 46.40 ug/mL M4



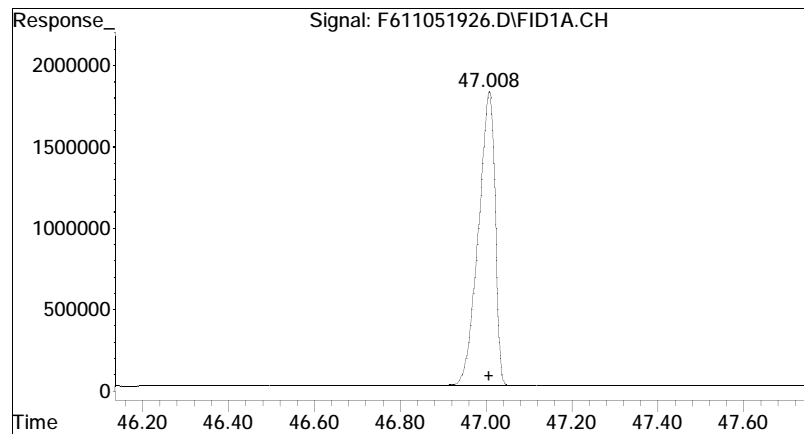
#33 n-Dotriacontane (C32)

R.T.: 46.007 min

Delta R.T.: 0.001 min

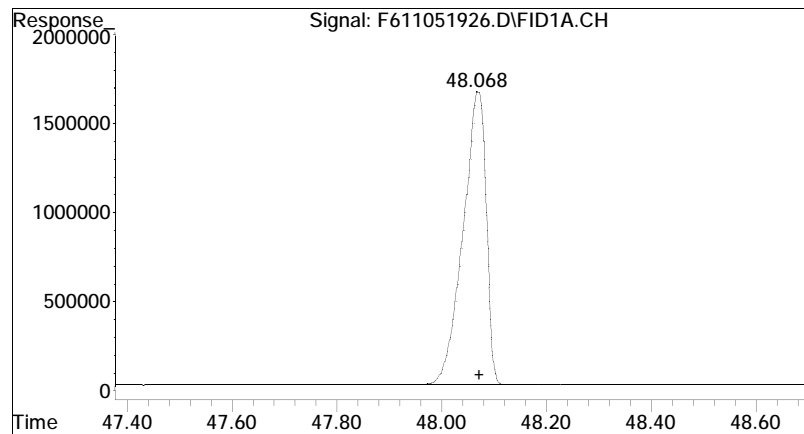
Response: 47773127

Conc: 46.47 ug/mL M4



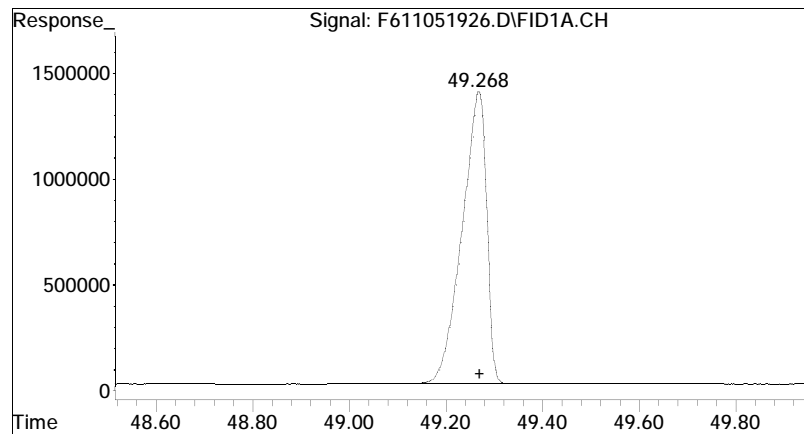
#34 n-Tritriacontane (C33)

R.T.: 47.008 min
Delta R.T.: 0.000 min
Response: 47345454
Conc: 46.39 ug/mL M4



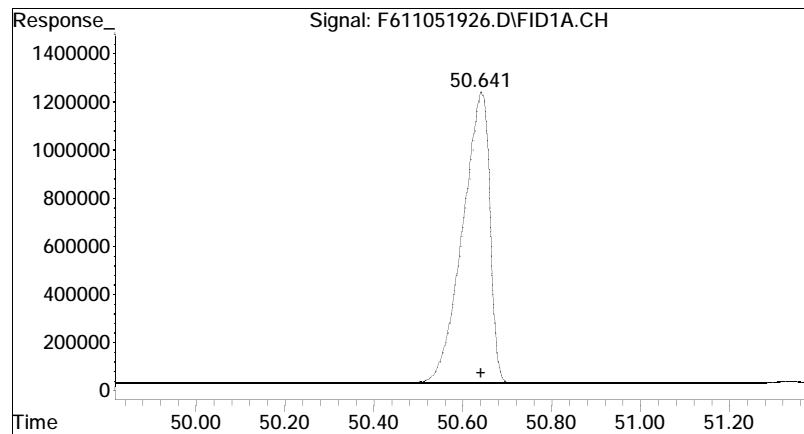
#35 n-tetratriacontane (C34)

R.T.: 48.068 min
Delta R.T.: -0.004 min
Response: 49027537
Conc: 46.19 ug/mL M4



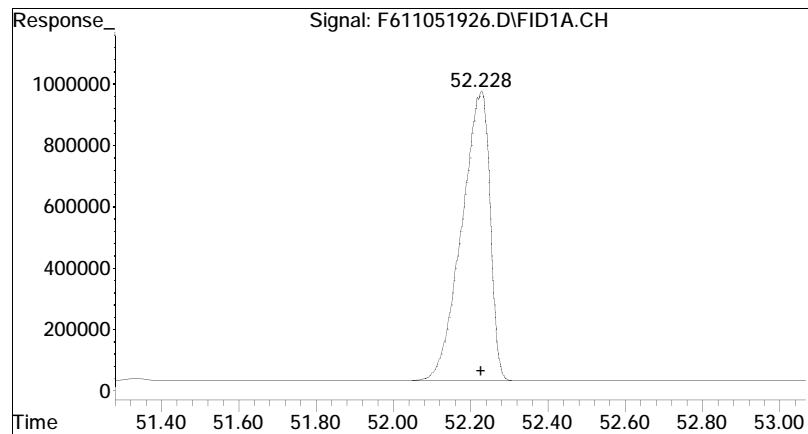
#36 n-Pentatriacontane (C35)

R.T.: 49.268 min
Delta R.T.: -0.003 min
Response: 47324013
Conc: 45.97 ug/mL M4



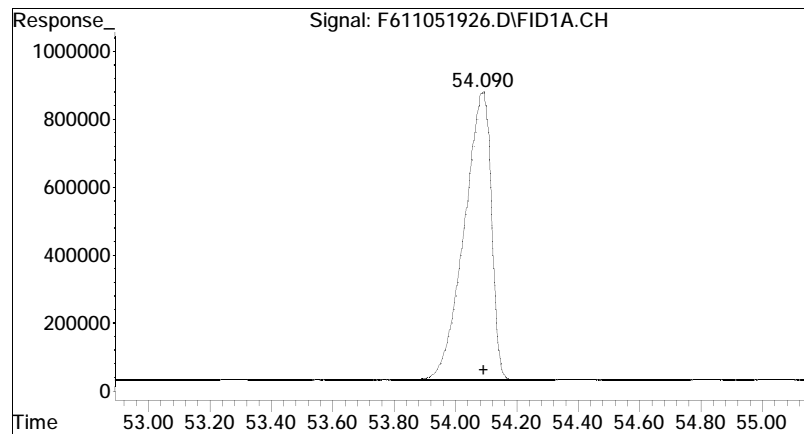
#37 n-Hexatriacontane (C36)

R.T.: 50.641 min
Delta R.T.: 0.000 min
Response: 50088868
Conc: 46.05 ug/mL M4



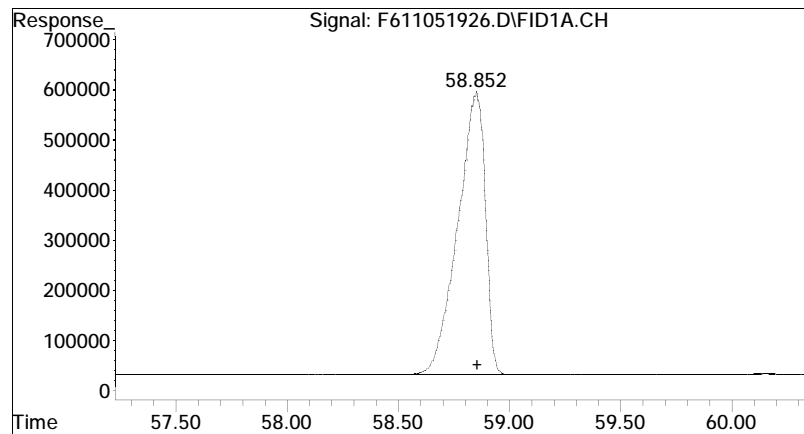
#38 n-Heptatriacontane (C37)

R.T.: 52.228 min
Delta R.T.: 0.000 min
Response: 46944813
Conc: 46.05 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 54.090 min
Delta R.T.: -0.003 min
Response: 50603623
Conc: 45.91 ug/mL M4



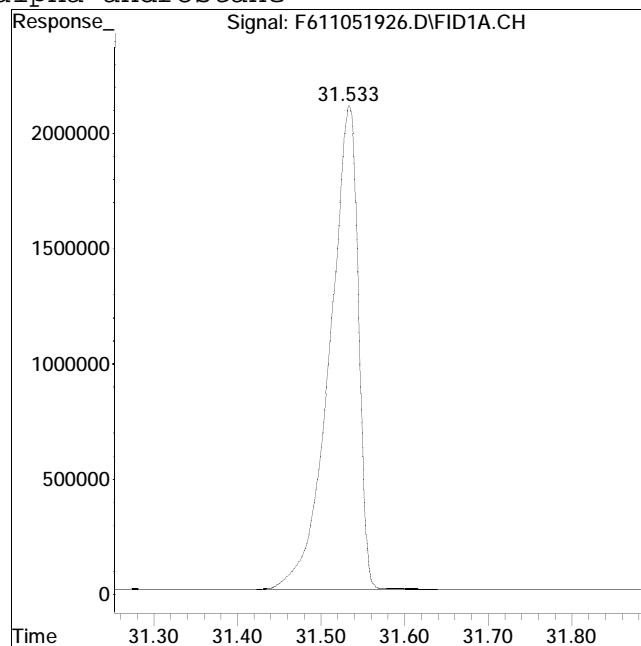
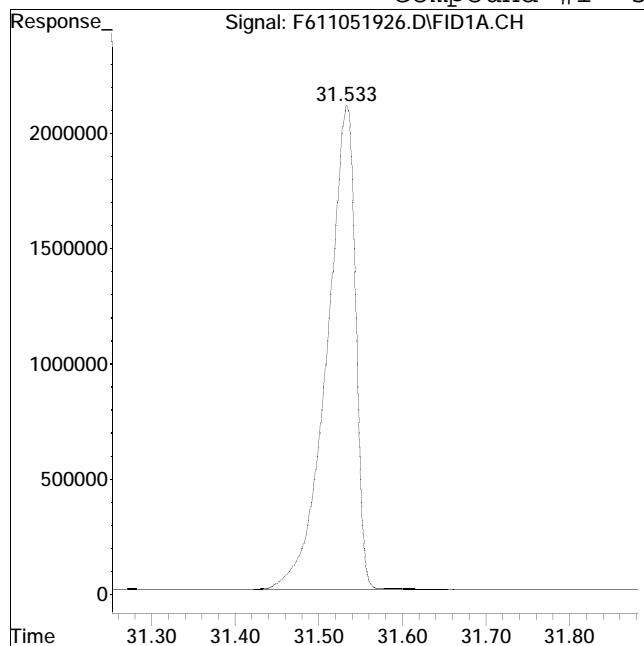
#41 n-Tetracontane (C40)

R.T.: 58.852 min
Delta R.T.: -0.004 min
Response: 47279809
Conc: 45.27 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 50303301

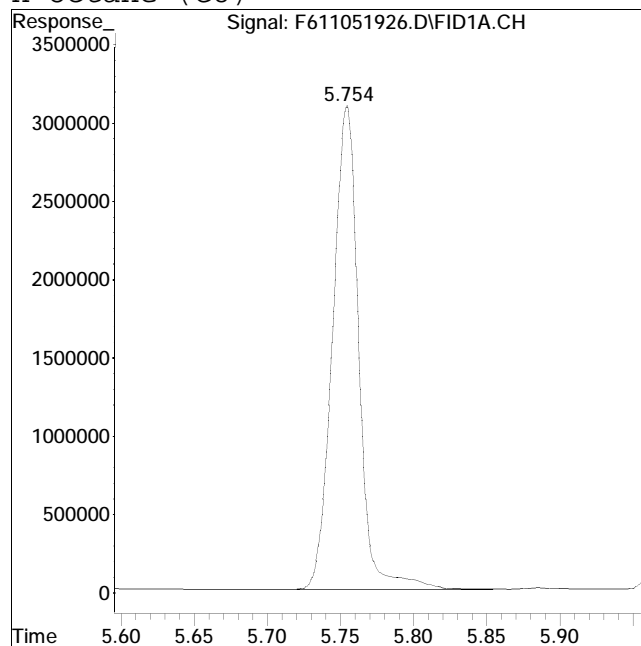
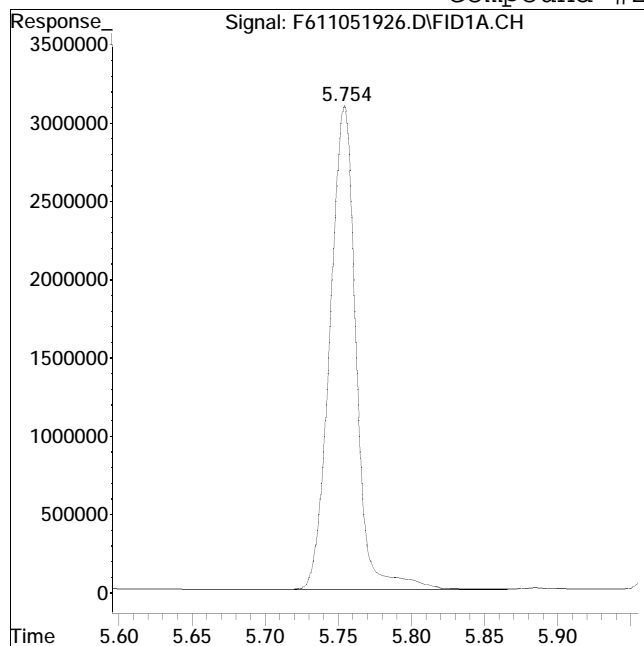
Manual Peak Response = 50235882 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #2: n-Octane (C8)



Original Peak Response = 38677883

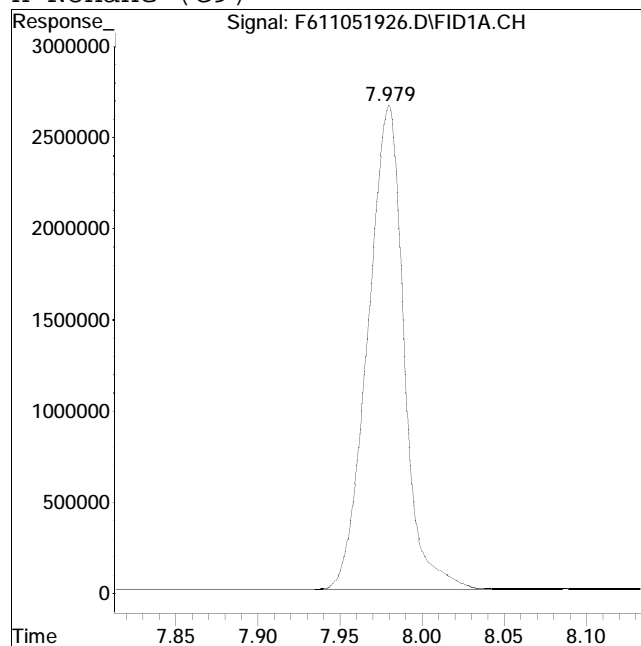
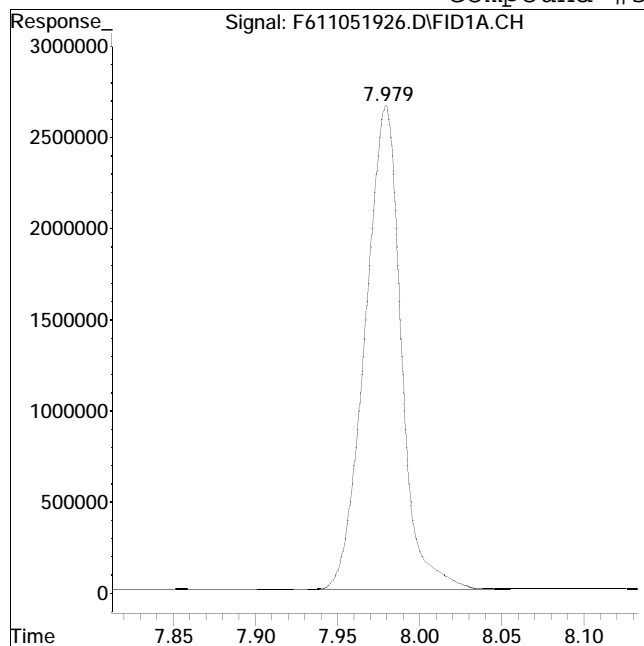
Manual Peak Response = 38655137 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 40810250

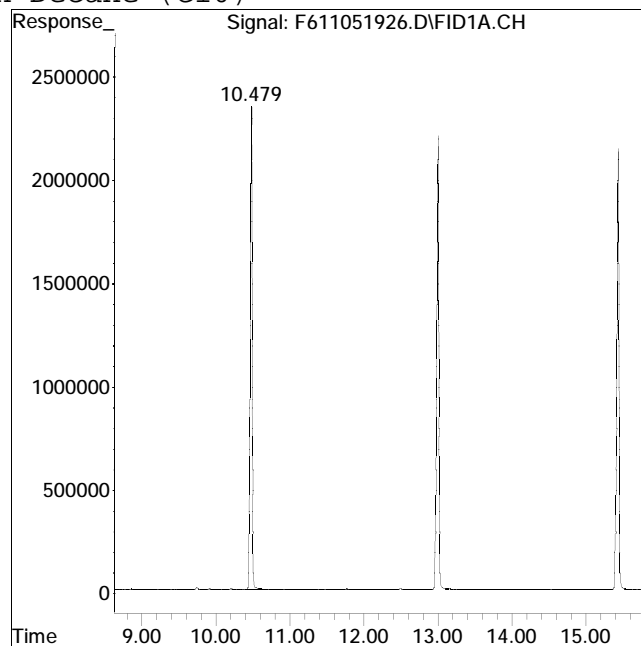
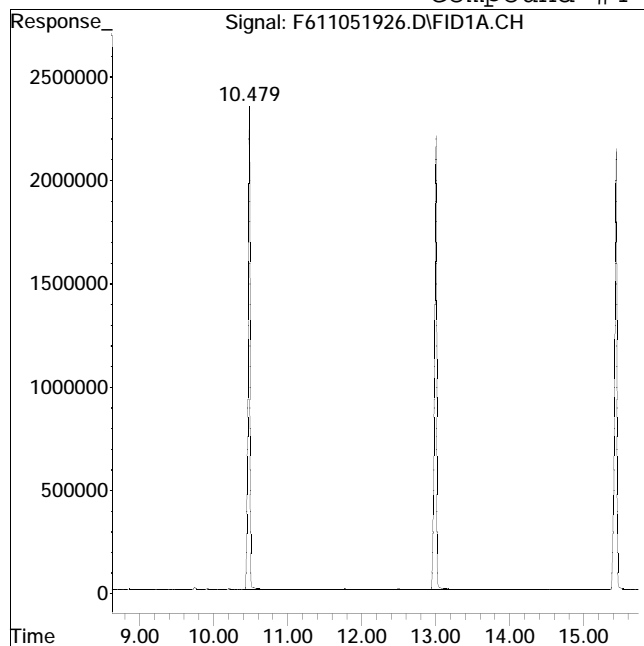
Manual Peak Response = 40698040 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #4: n-Decane (C10)



Original Peak Response = 41999470

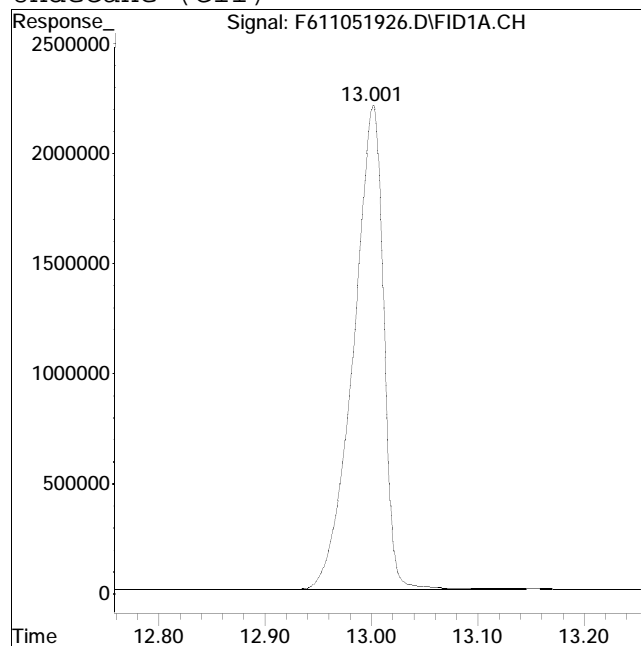
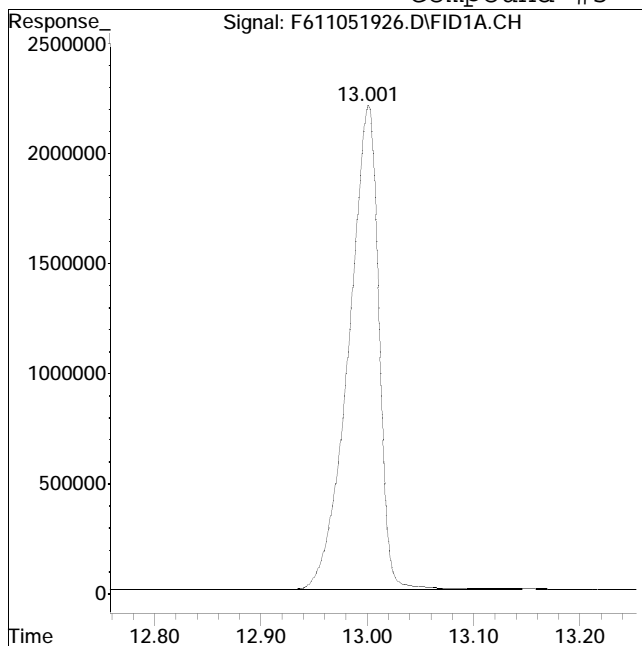
Manual Peak Response = 42389854 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 43434233

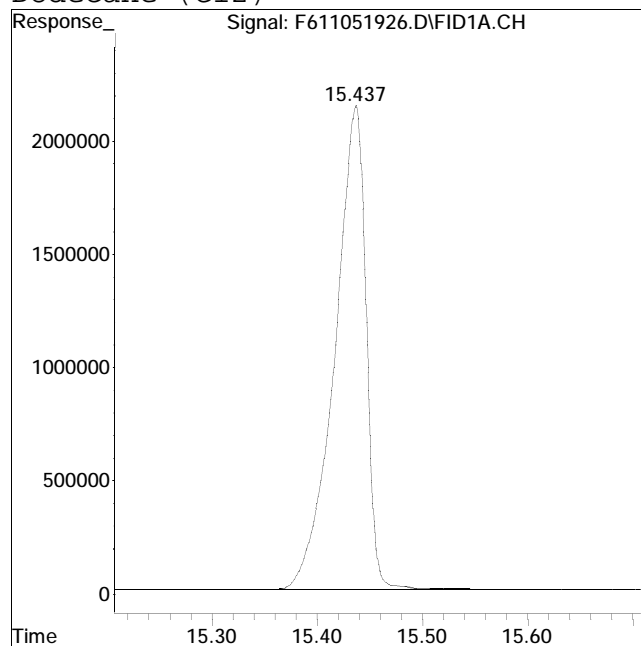
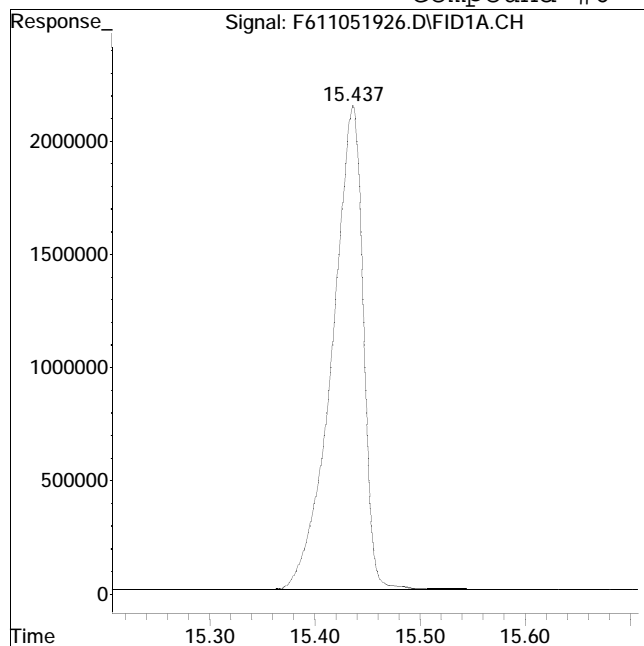
Manual Peak Response = 43453015 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 44285744

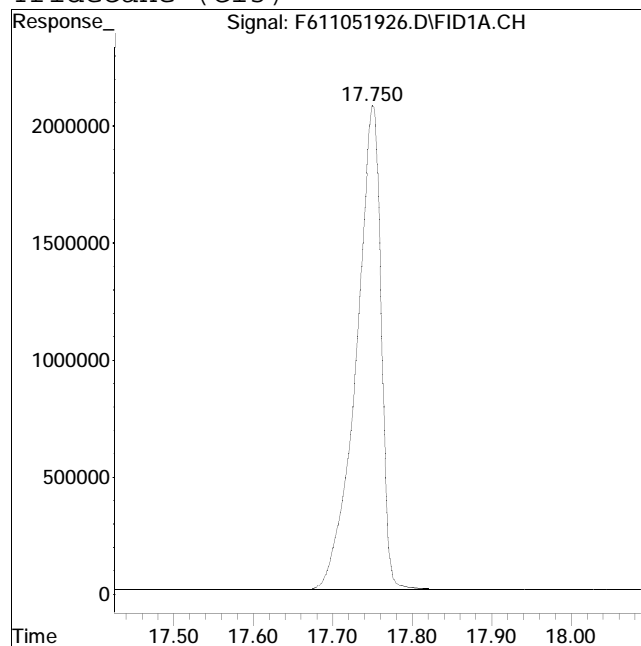
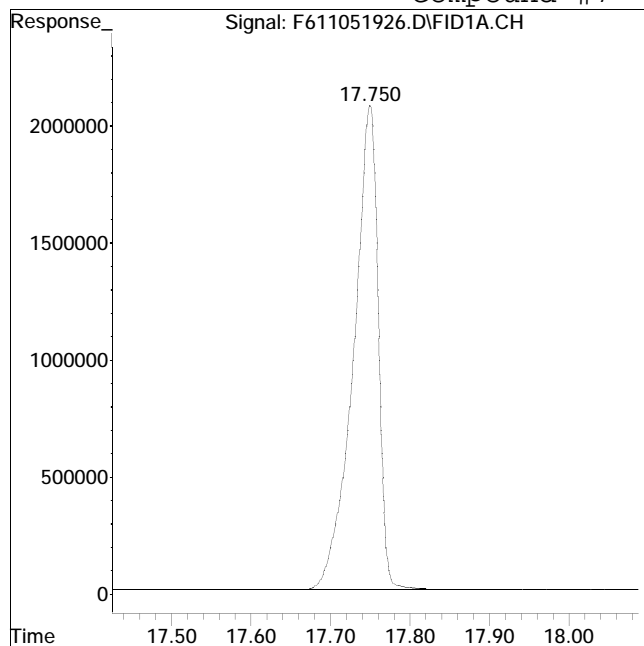
Manual Peak Response = 44319853 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 44882320

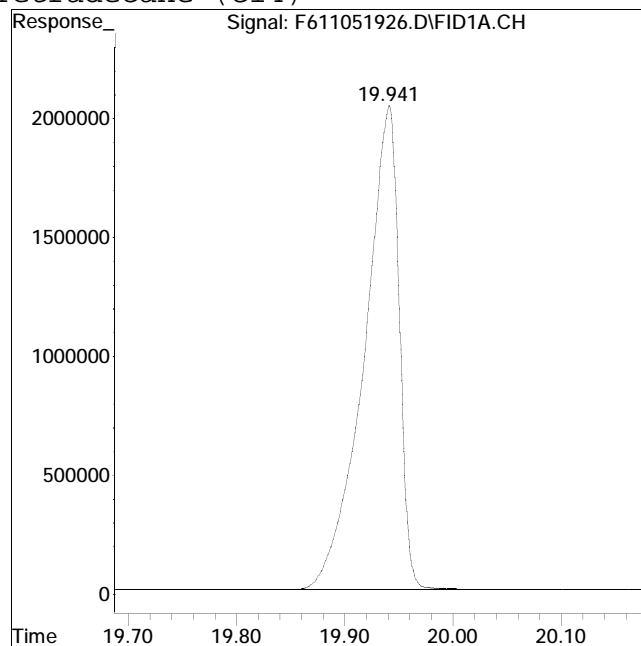
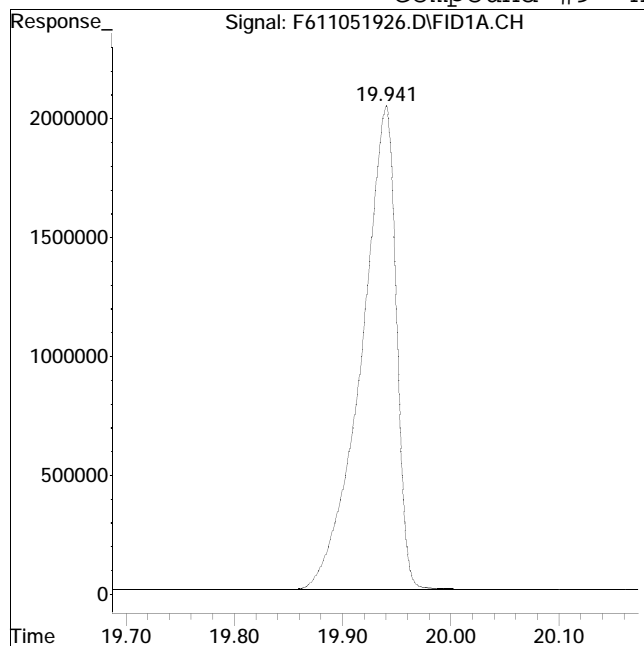
Manual Peak Response = 44881917 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 45735407

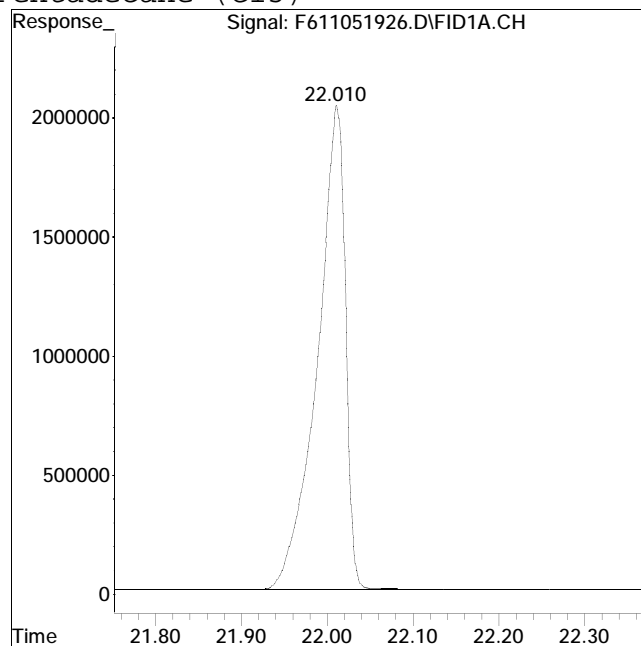
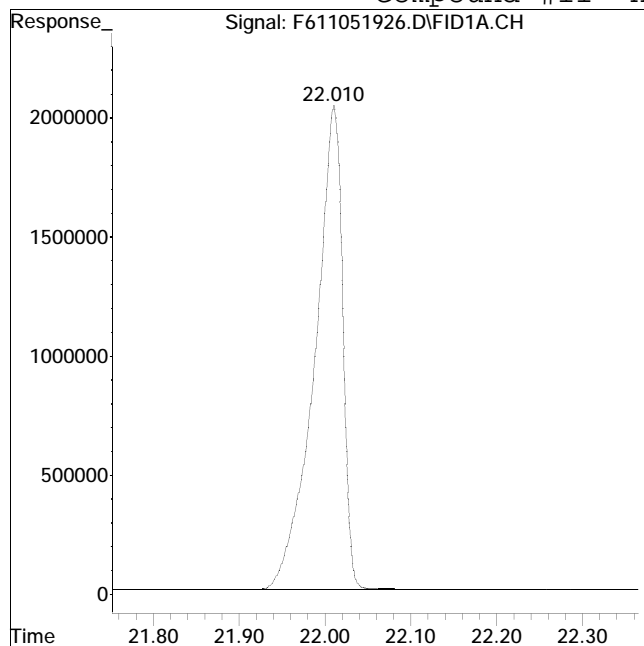
Manual Peak Response = 45759618 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 46055993

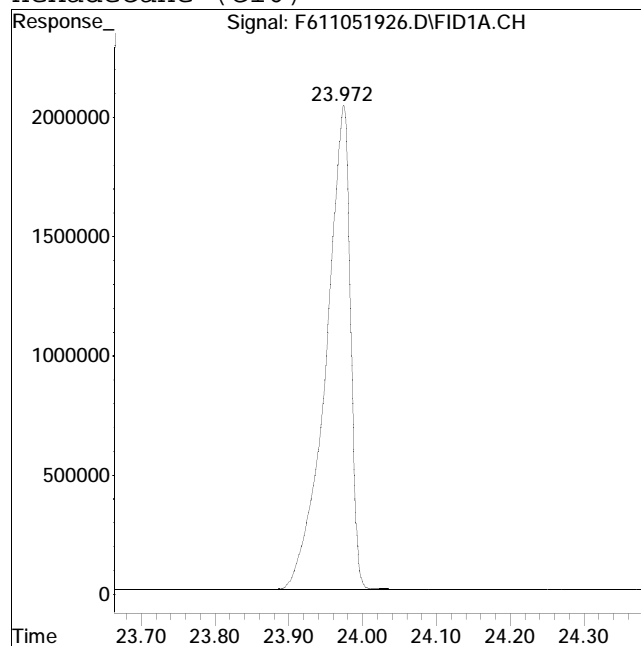
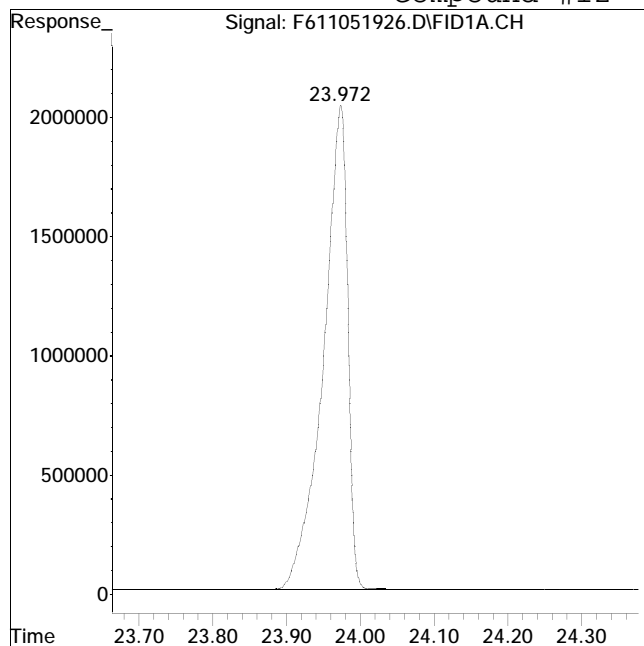
Manual Peak Response = 46041430 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 46722728

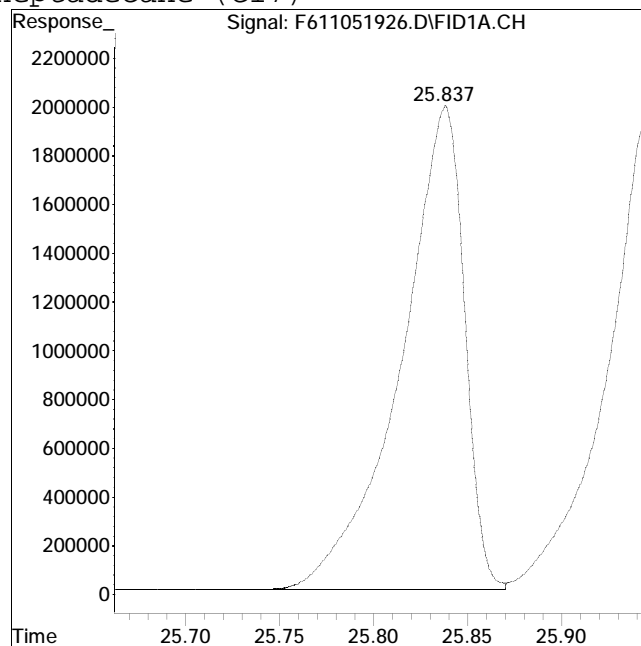
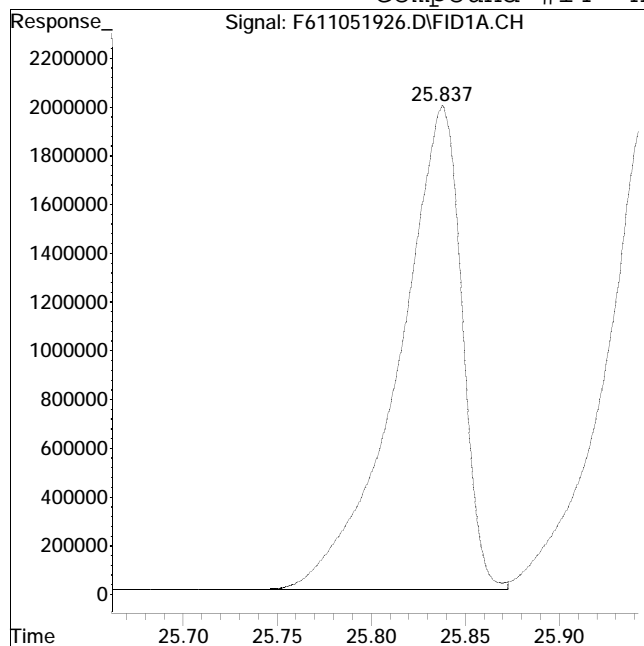
Manual Peak Response = 46640043 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 46581315

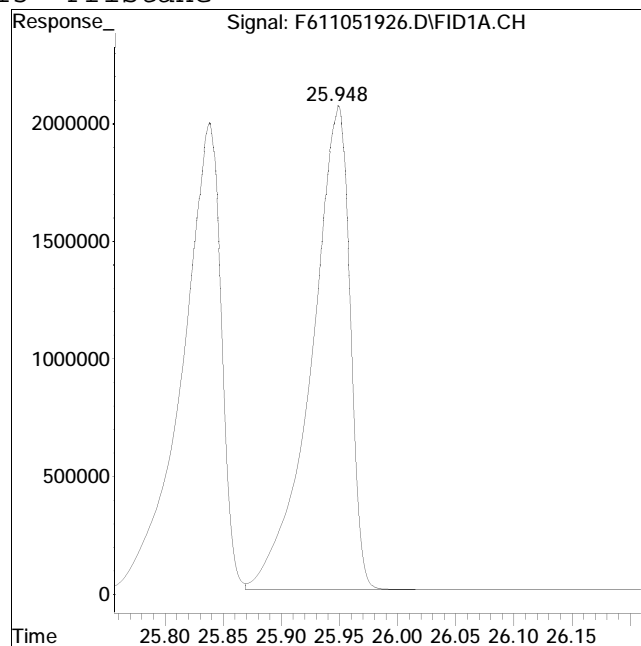
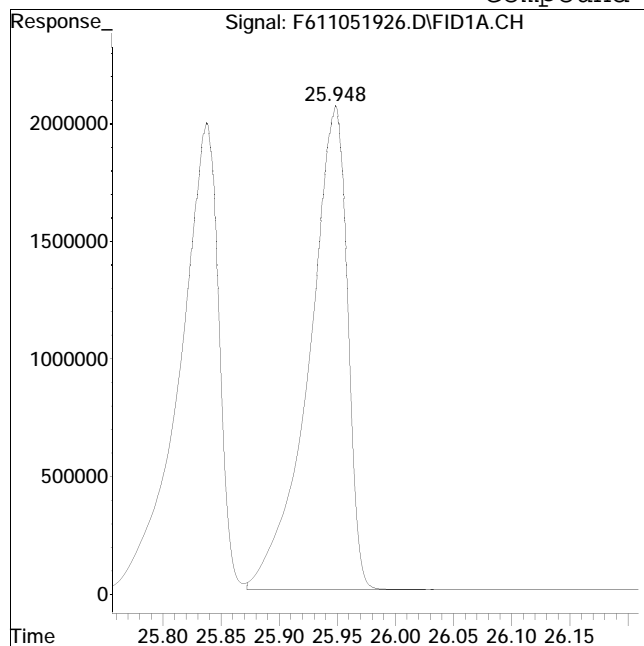
Manual Peak Response = 46529233 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #15: Pristane



Original Peak Response = 47475396

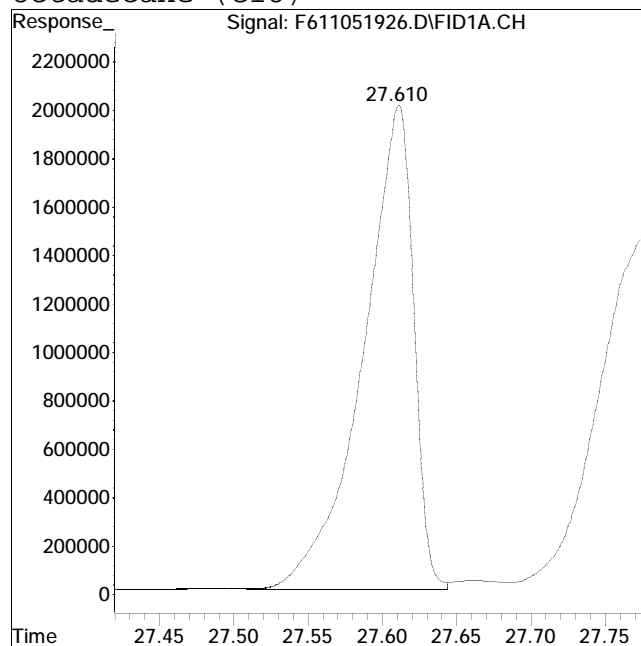
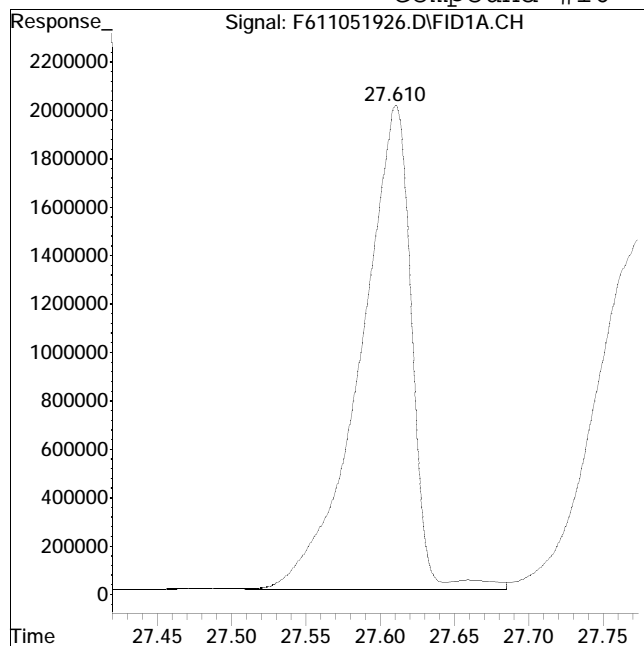
Manual Peak Response = 47472501 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 48290712

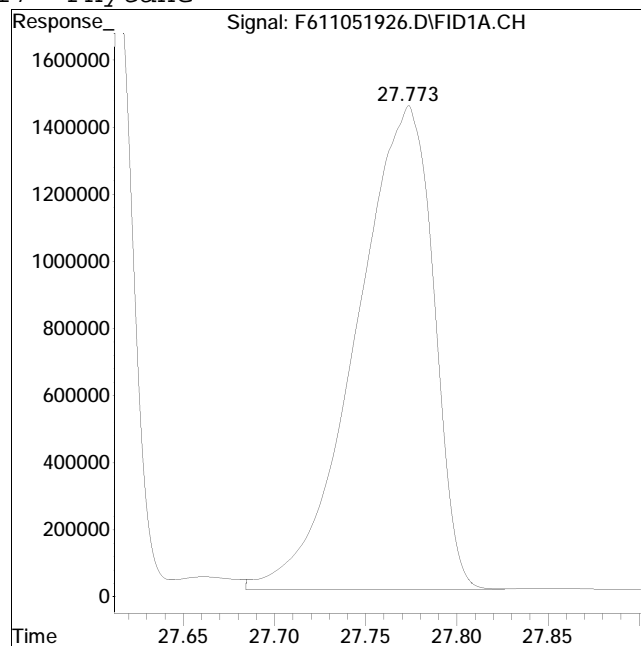
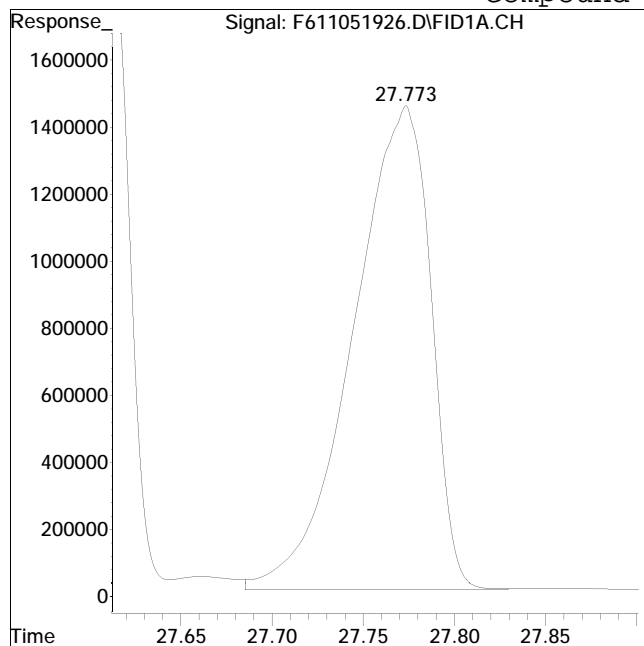
Manual Peak Response = 47340411 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #17: Phytane



Original Peak Response = 42700548

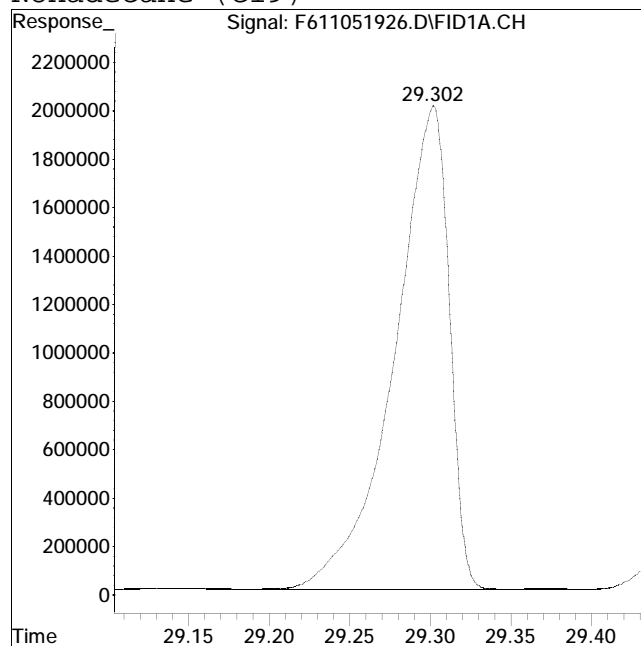
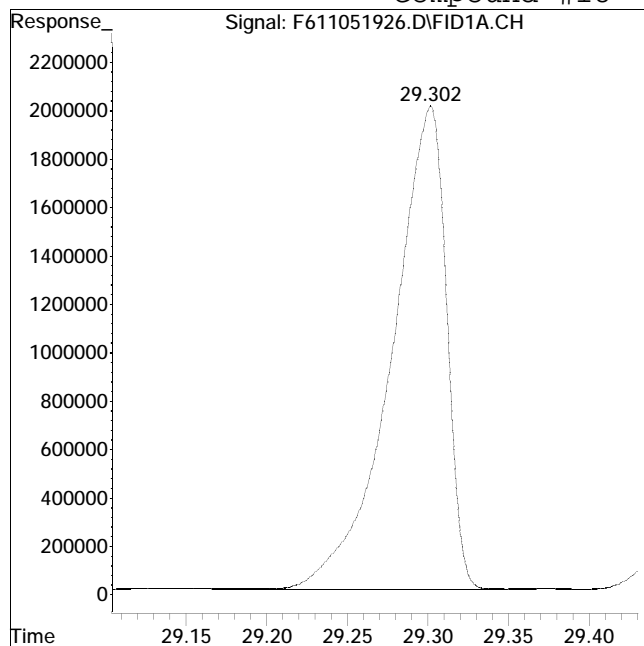
Manual Peak Response = 42625261 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 47287991

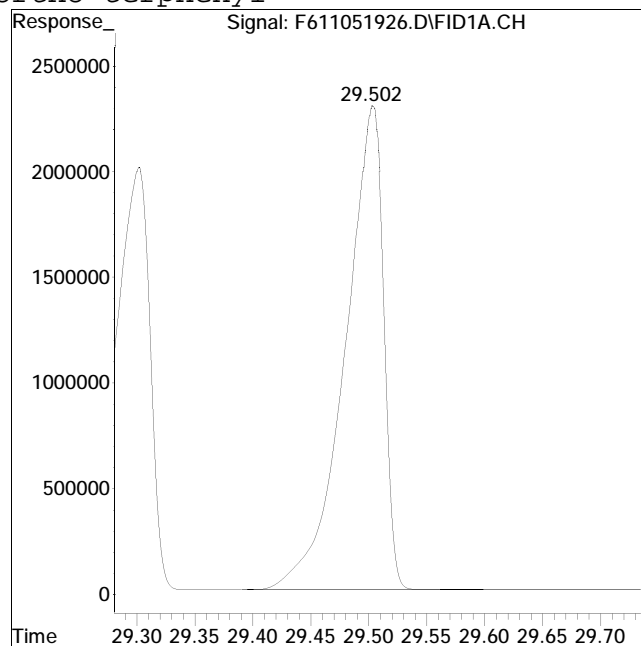
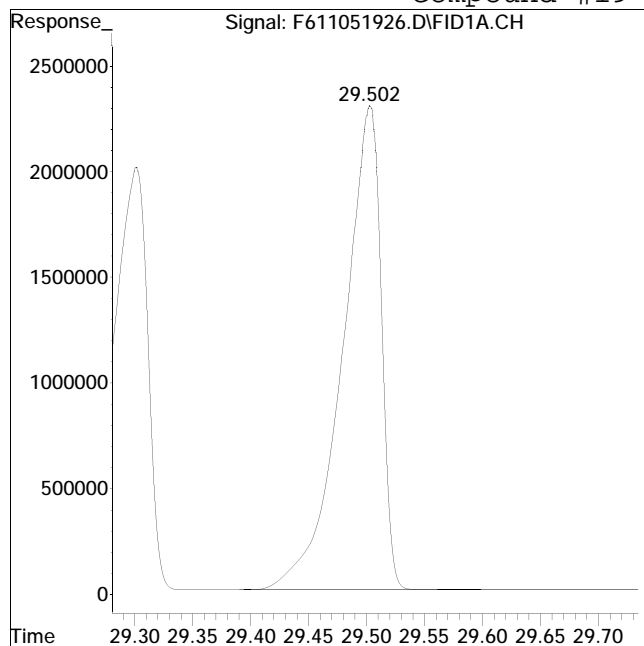
Manual Peak Response = 47258673 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #19: ortho-terphenyl



Original Peak Response = 52980796

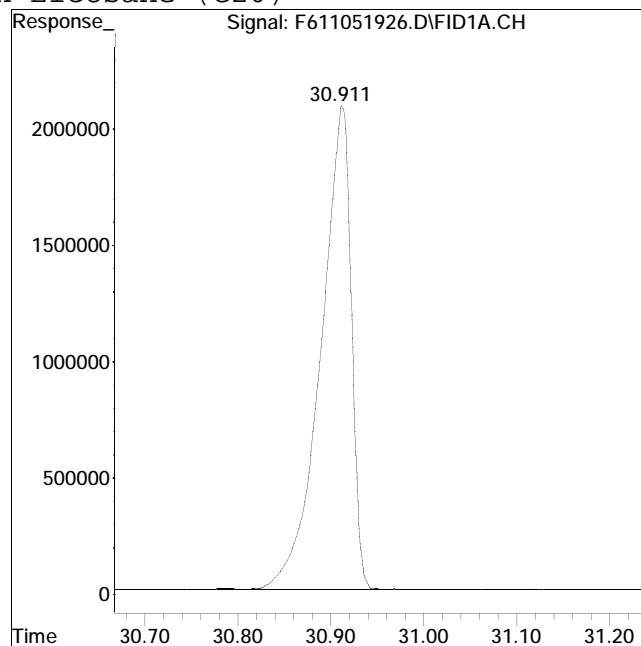
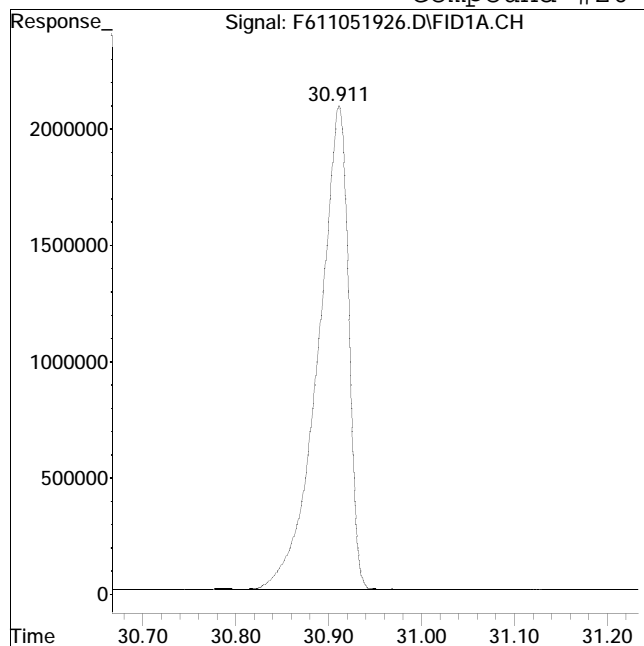
Manual Peak Response = 53002721 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 47401683

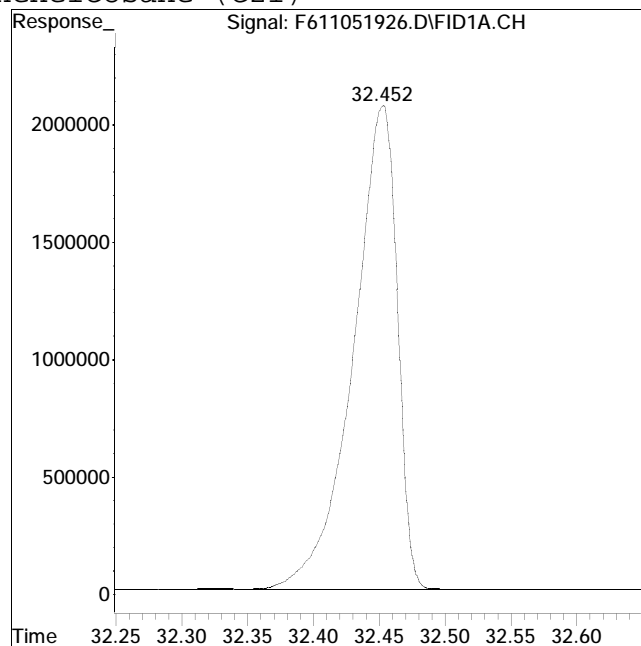
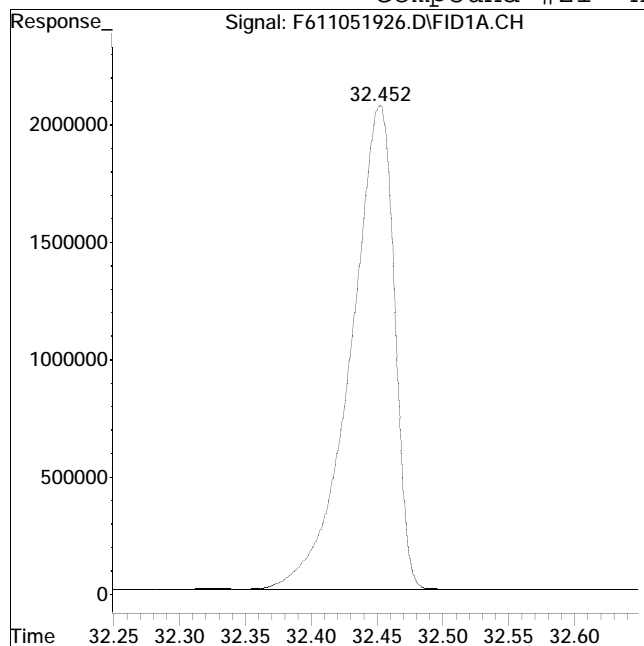
Manual Peak Response = 47307680 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 47975829

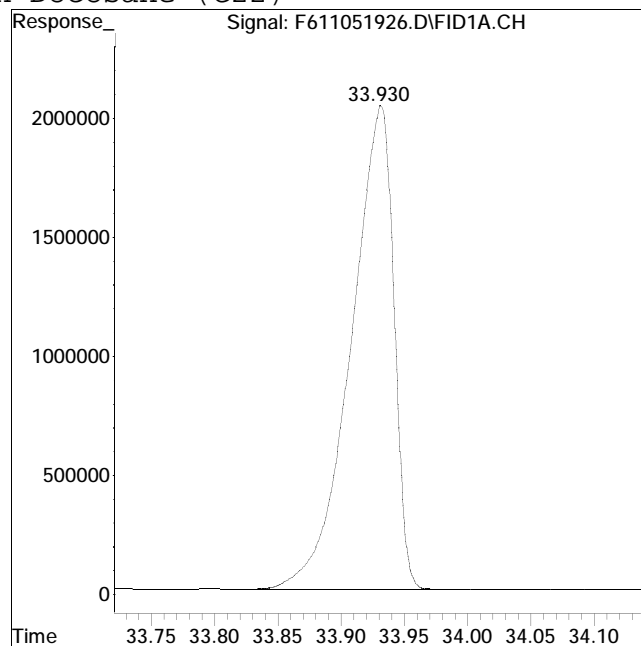
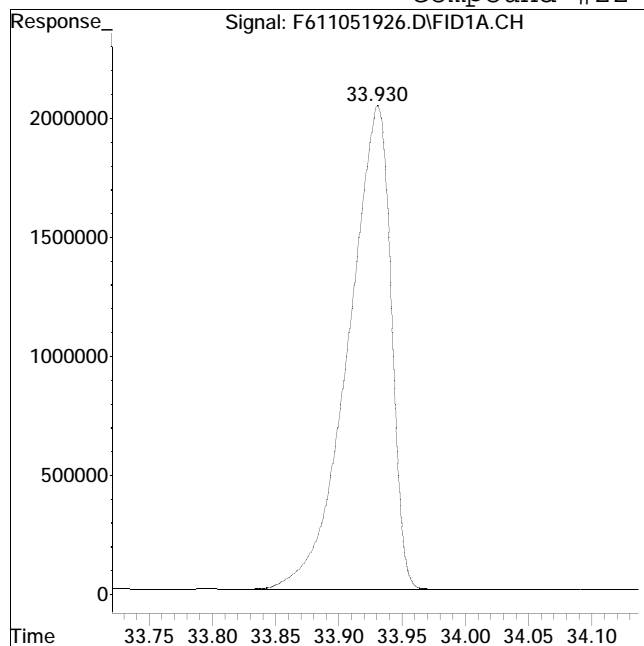
Manual Peak Response = 48002289 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 48005032

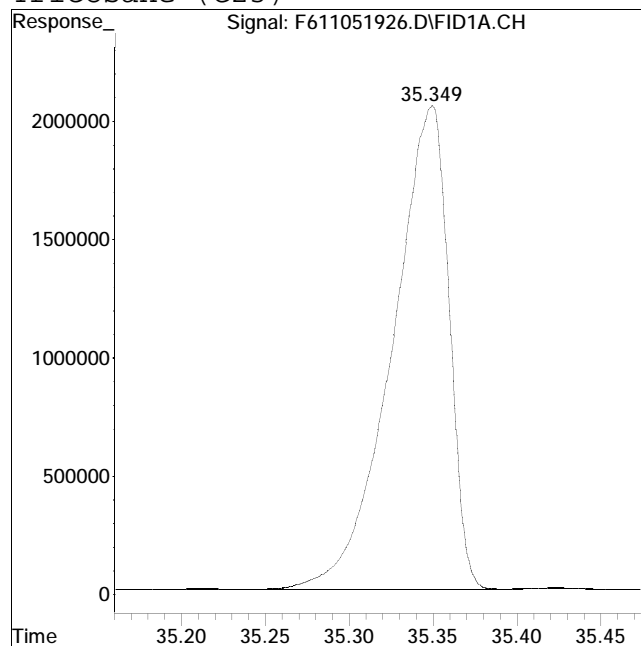
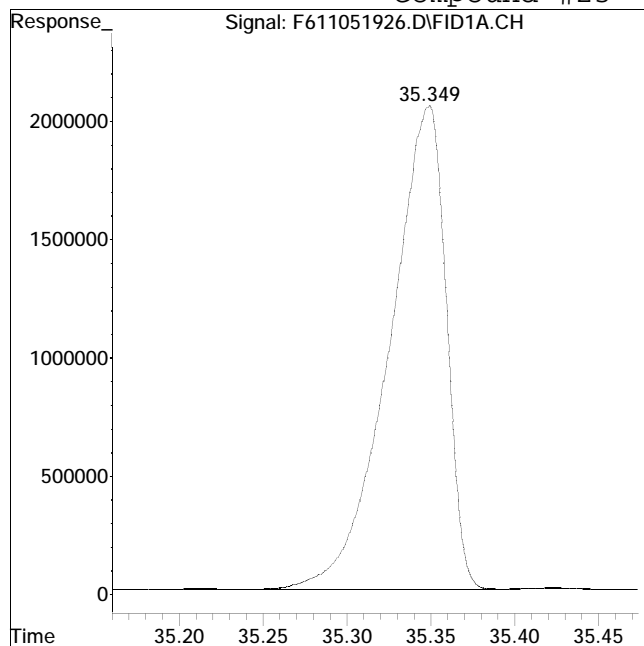
Manual Peak Response = 47972327 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 48189547

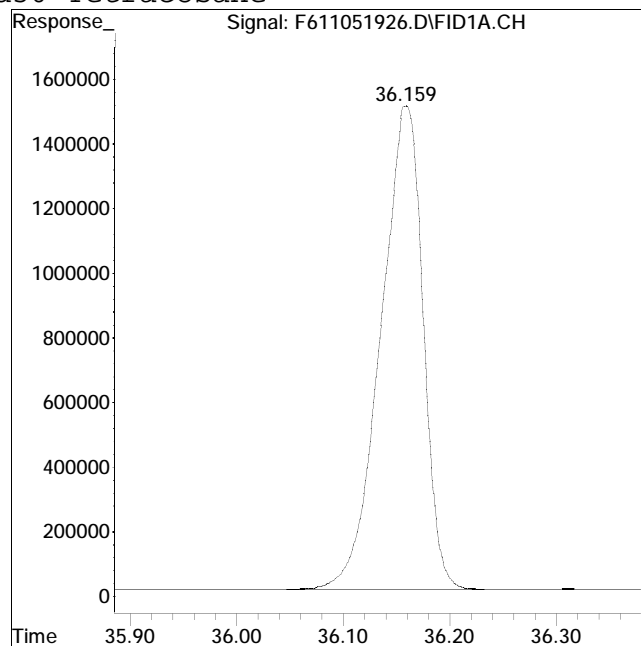
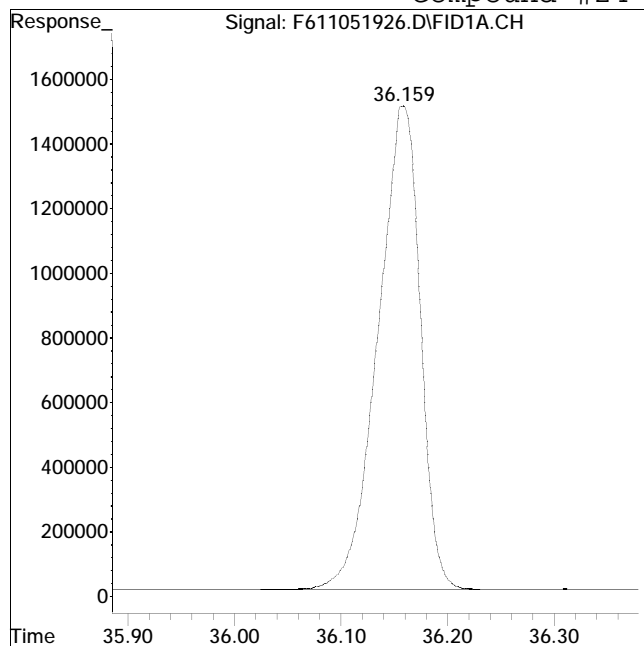
Manual Peak Response = 48181461 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #24: d50-Tetracosane



Original Peak Response = 41288852

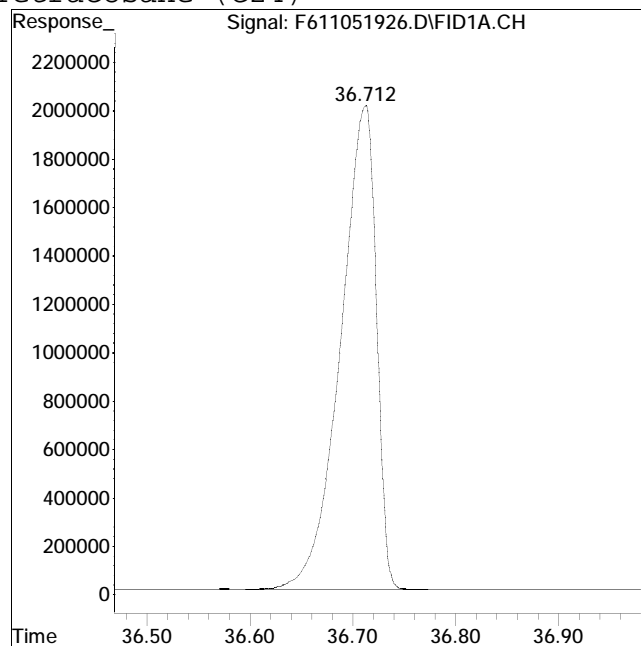
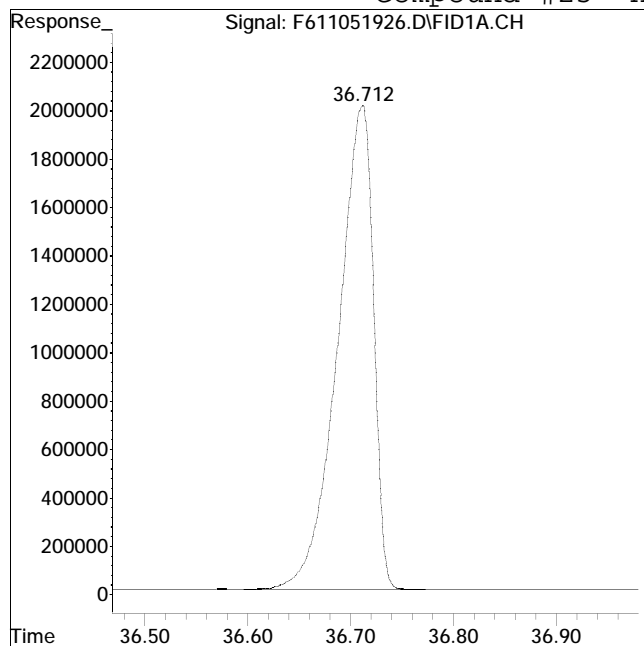
Manual Peak Response = 41344277 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 48290833

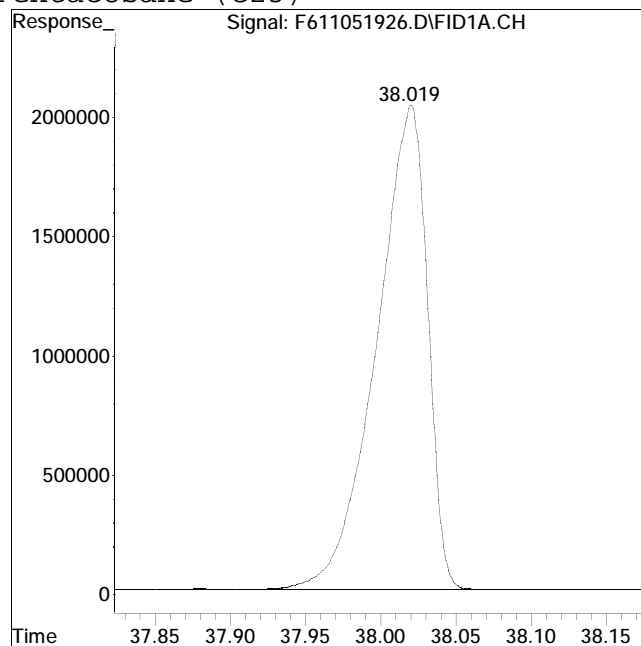
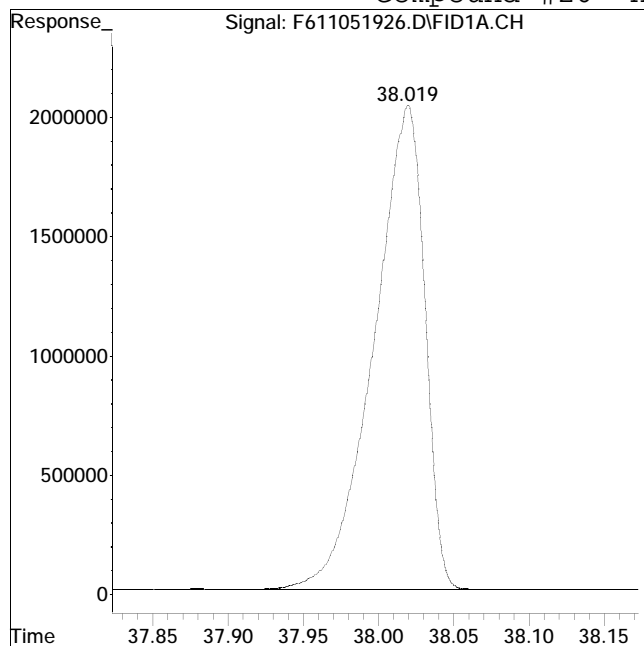
Manual Peak Response = 48299013 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 47718502

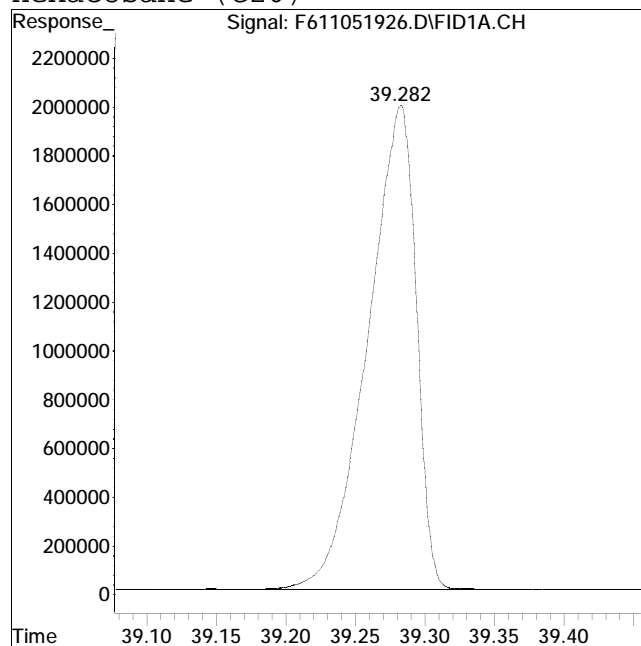
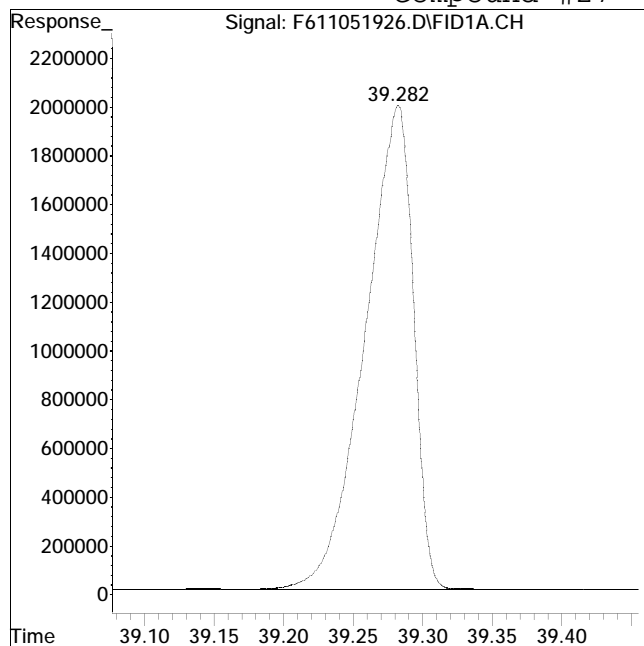
Manual Peak Response = 47754744 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 48193487

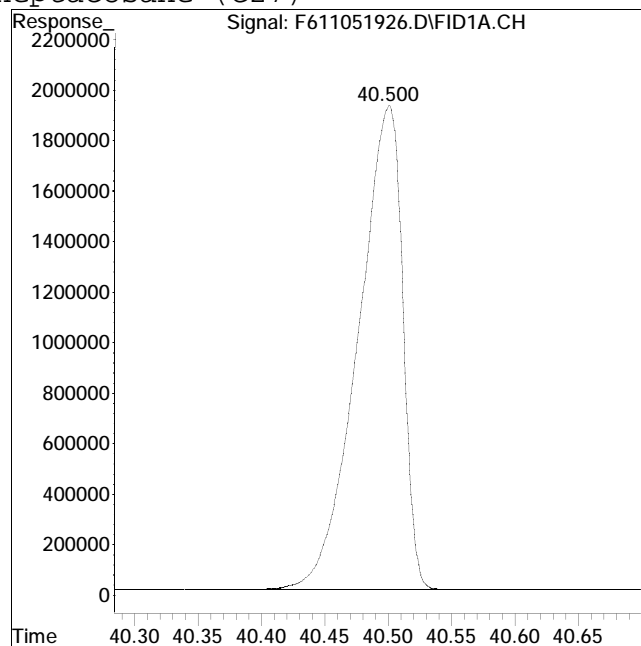
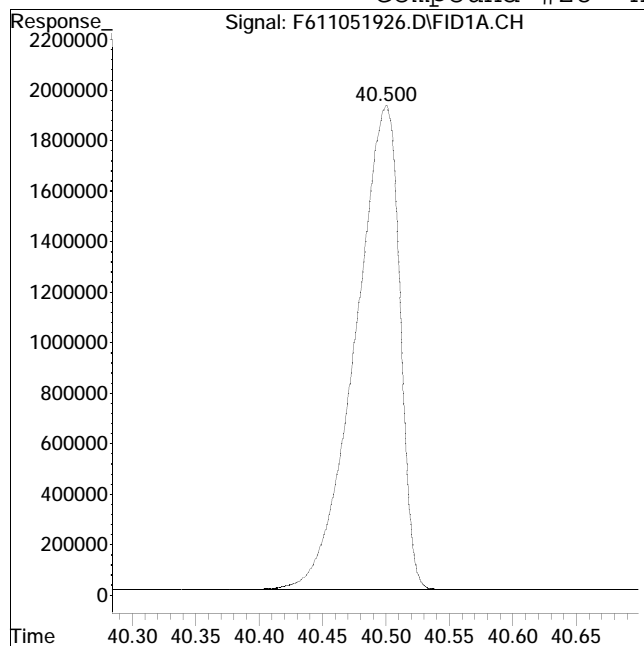
Manual Peak Response = 48151369 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 46868305

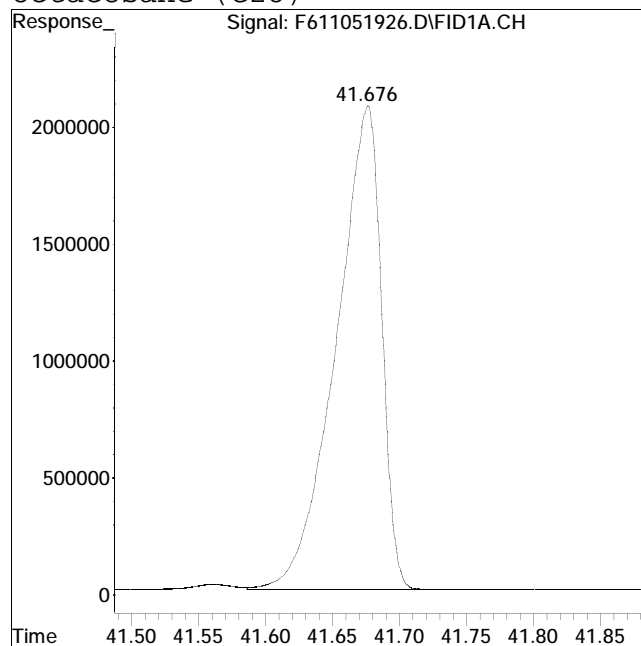
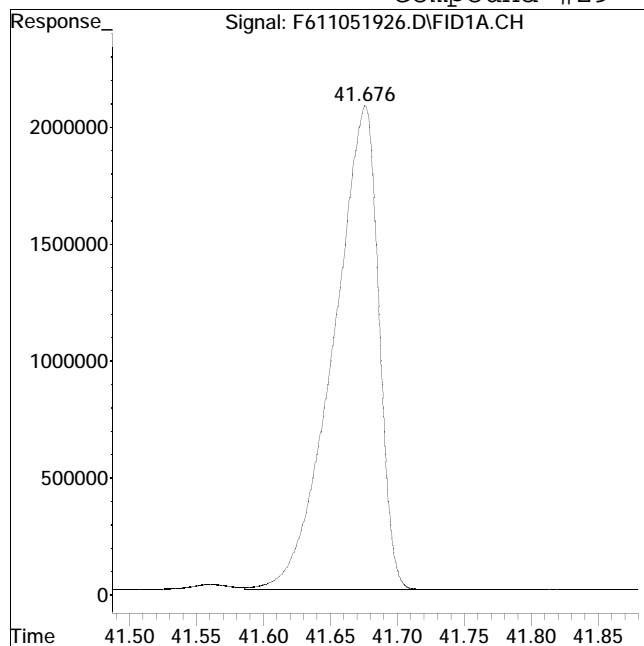
Manual Peak Response = 46835231 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 48687735

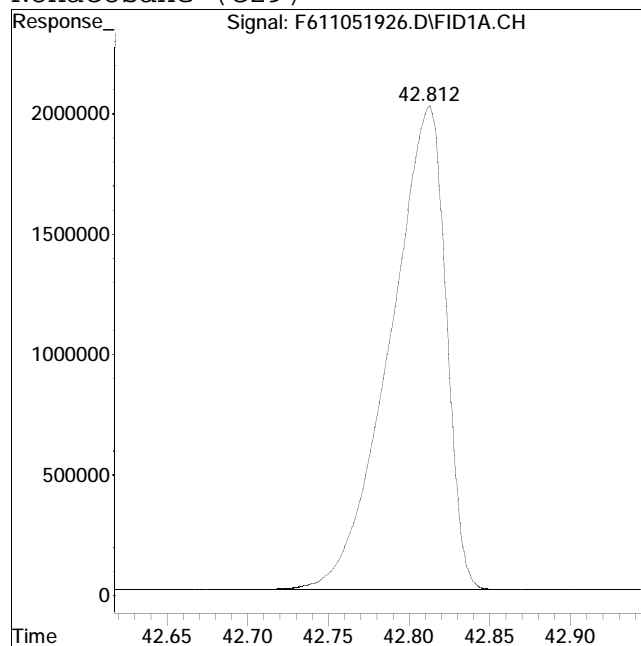
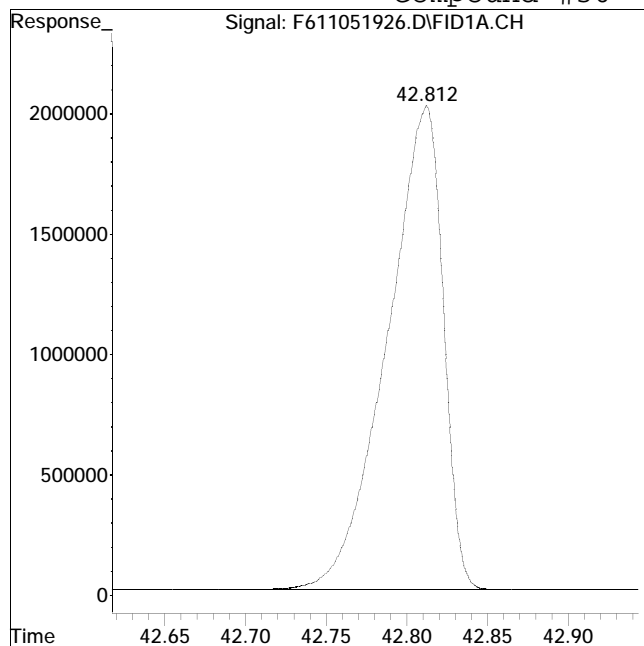
Manual Peak Response = 48675039 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 48409704

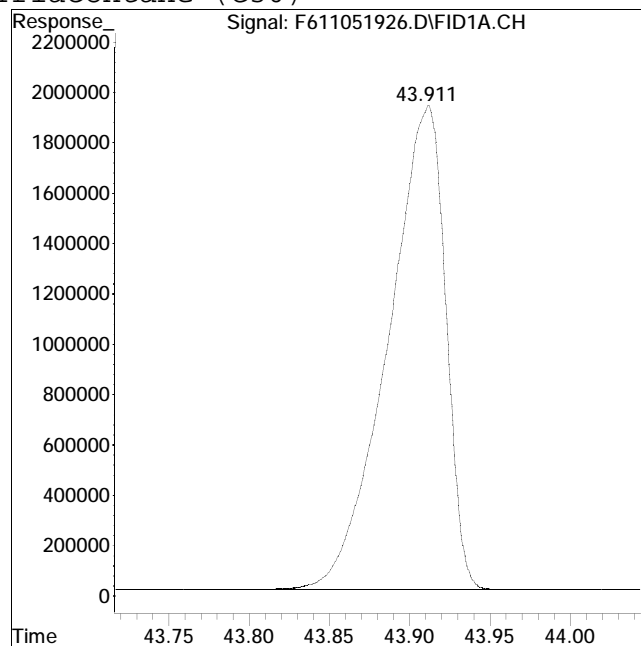
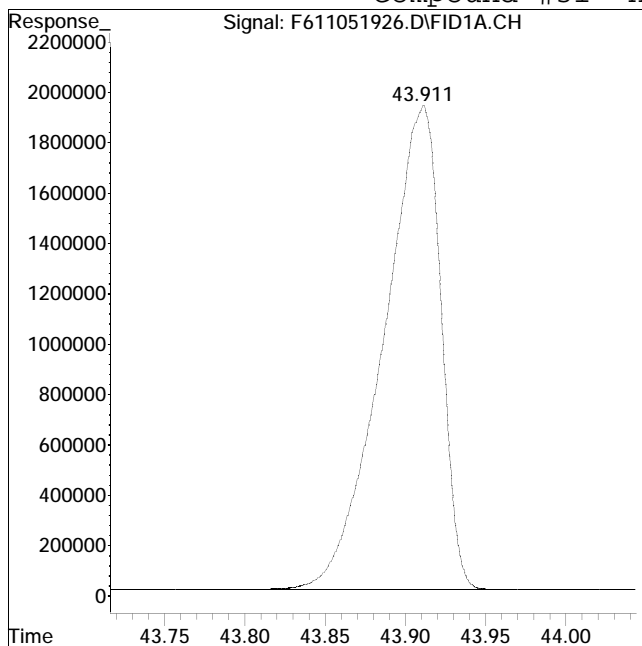
Manual Peak Response = 48382428 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 47928295

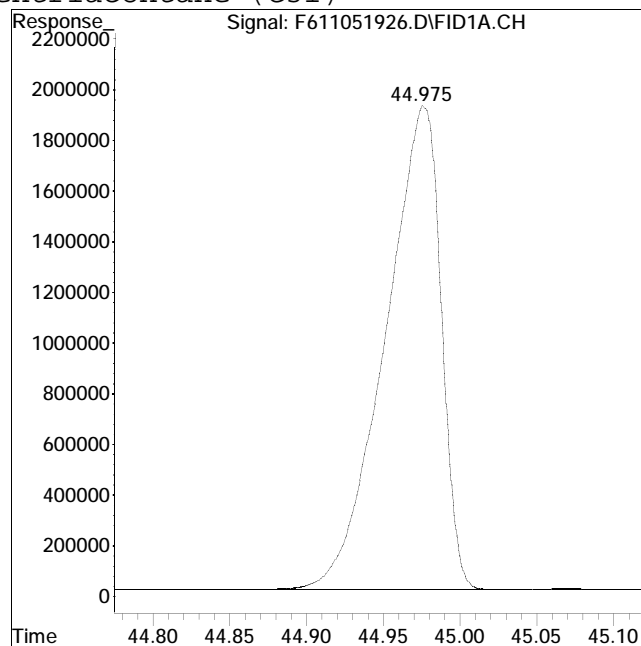
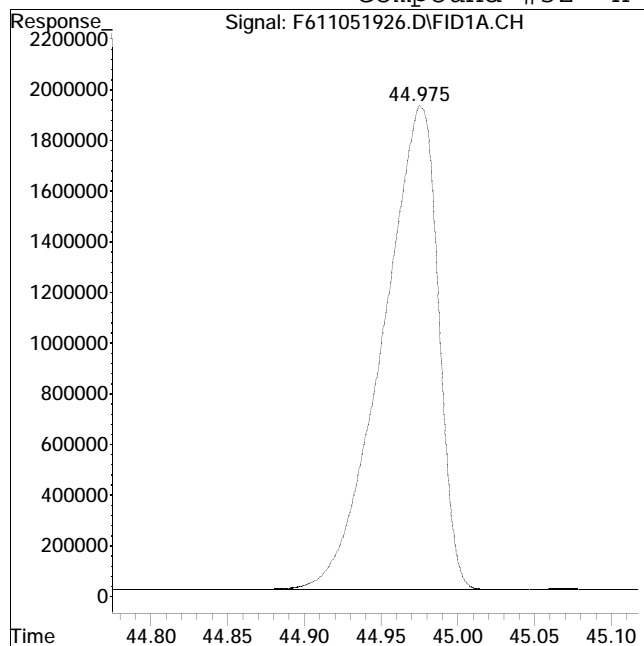
Manual Peak Response = 47919991 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 48237125

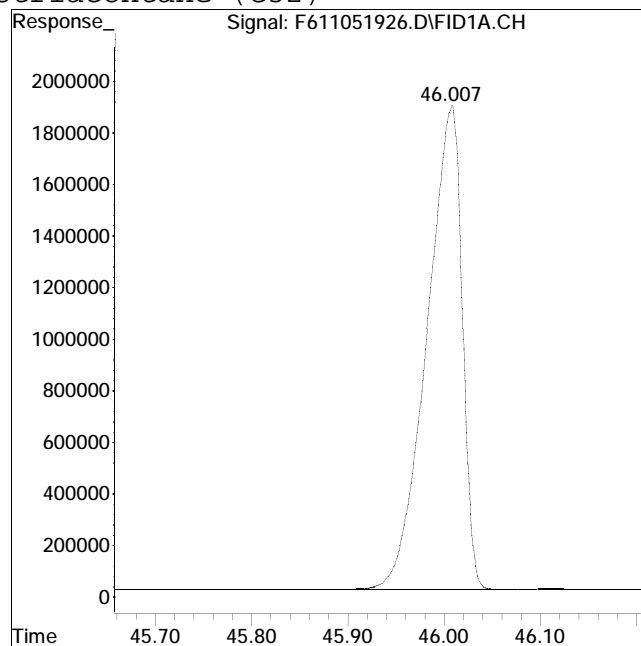
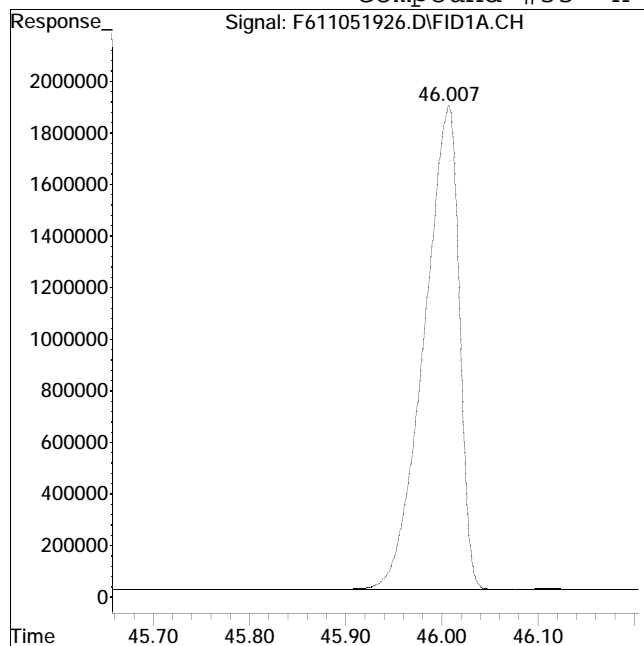
Manual Peak Response = 48253217 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 47709104

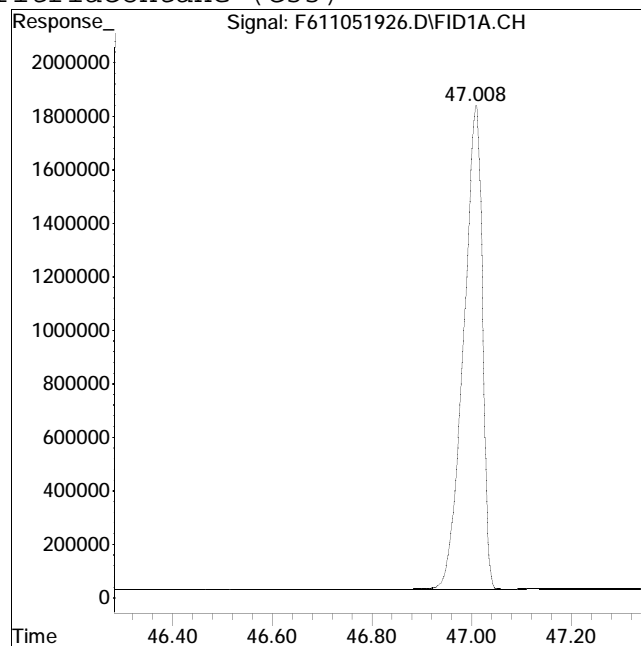
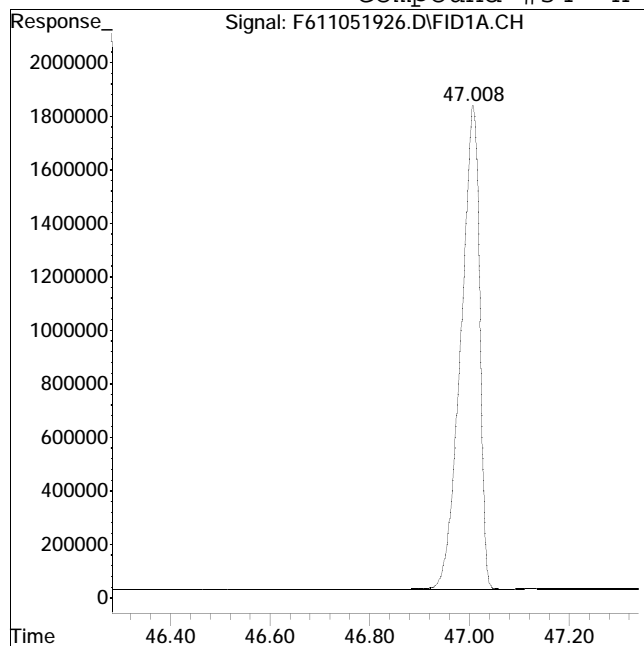
Manual Peak Response = 47773127 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 47368114

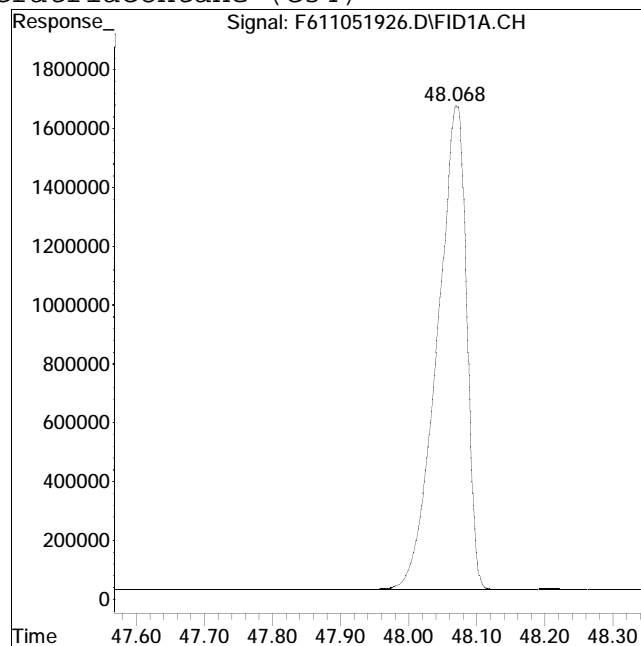
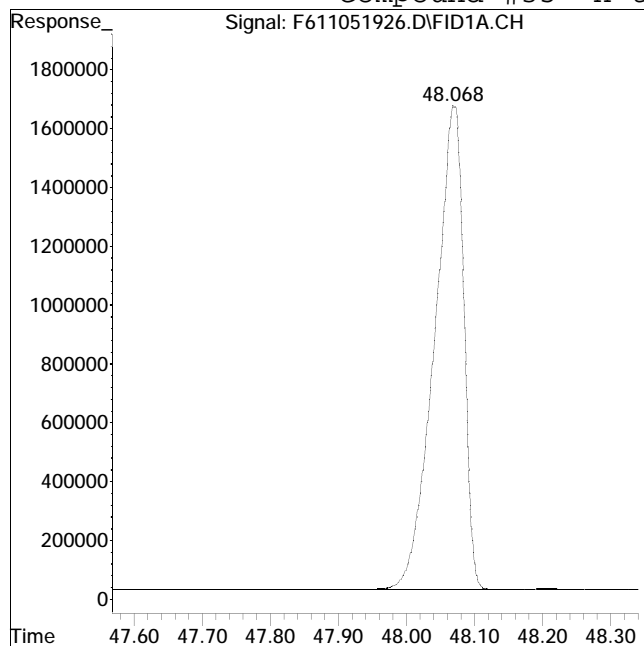
Manual Peak Response = 47345454 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 49014763

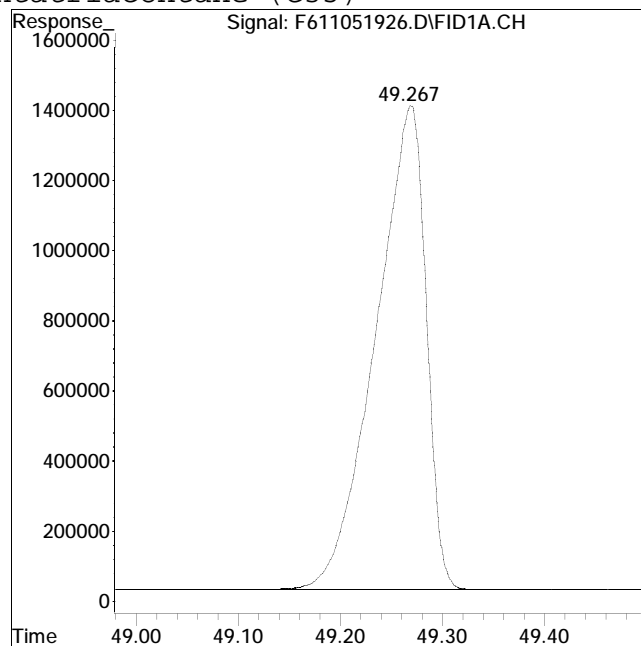
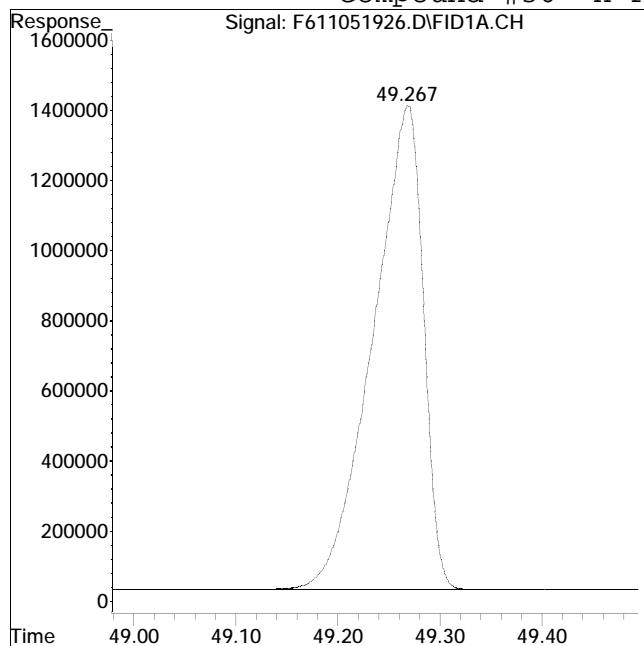
Manual Peak Response = 49027537 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 47343035

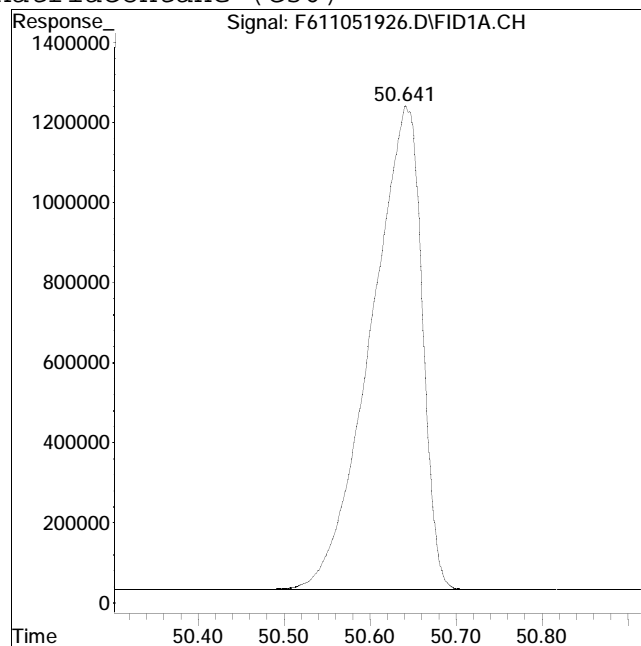
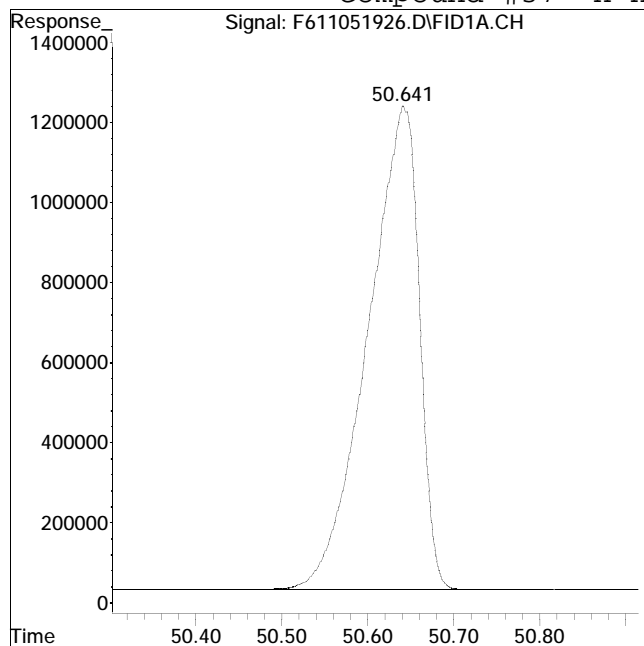
Manual Peak Response = 47324013 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 50076971

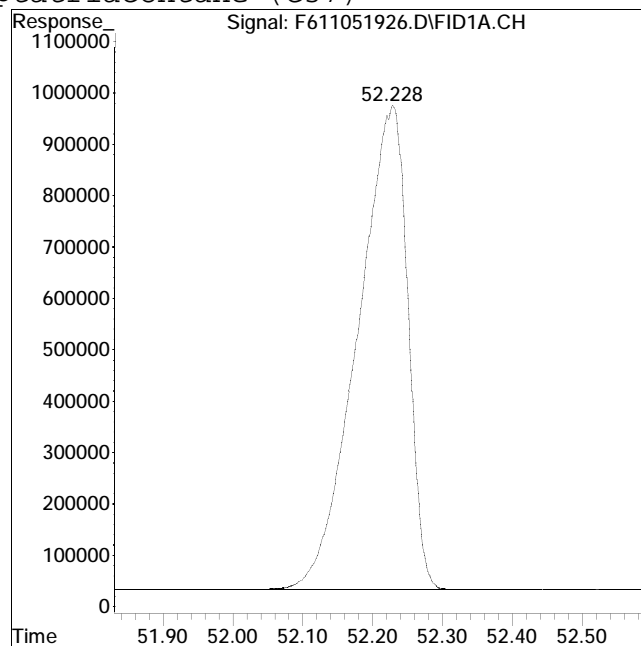
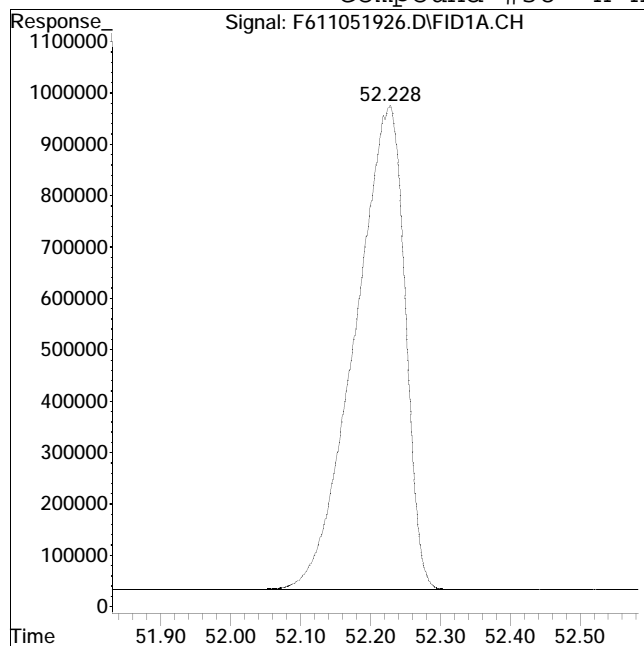
Manual Peak Response = 50088868 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 46949666

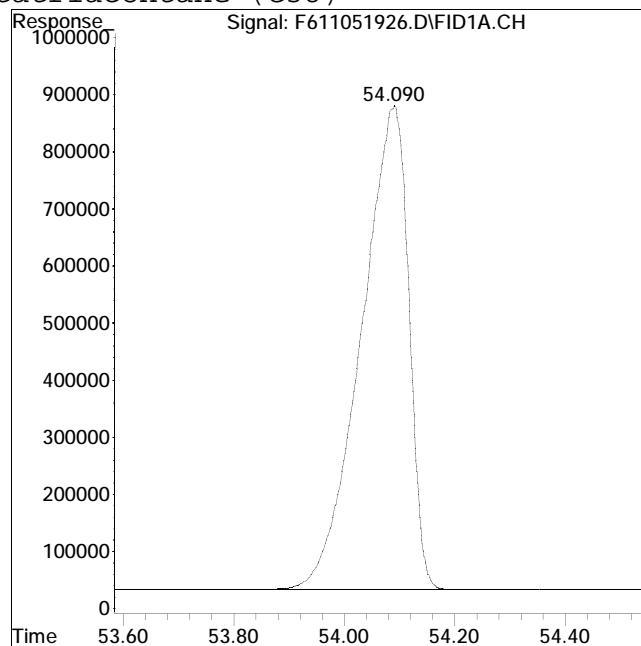
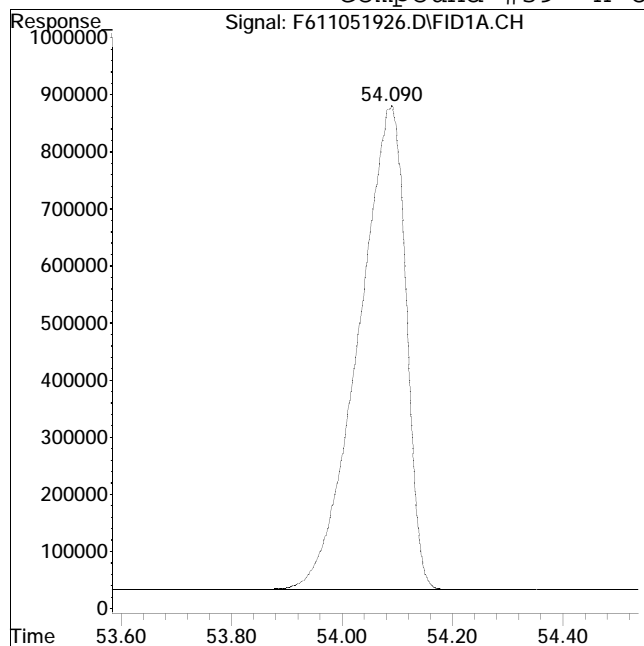
Manual Peak Response = 46944813 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 50613949

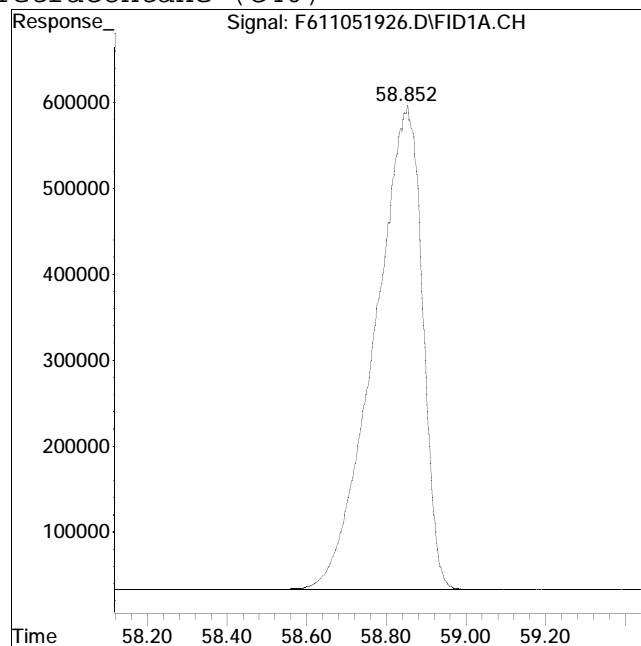
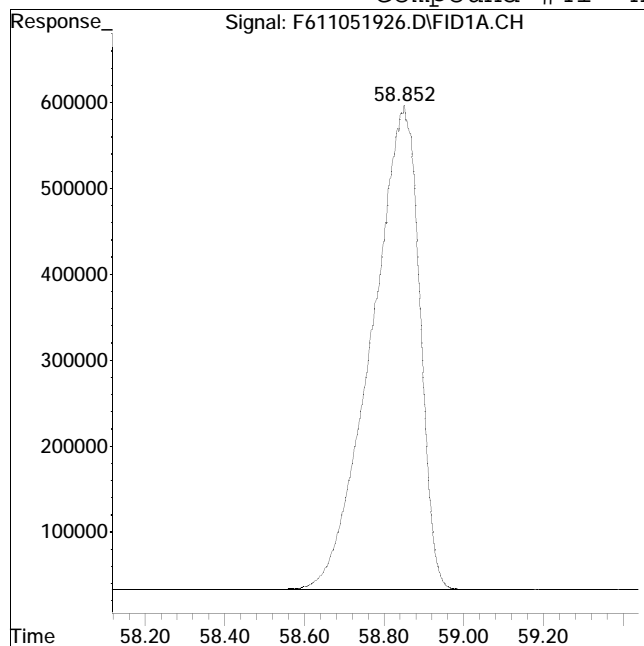
Manual Peak Response = 50603623 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051926.D Operator : FID6:MA
Date Inj'd : 11/6/2019 2:40 am Instrument : FID6
Sample : I611051903F Quant Date : 11/7/2019 3:39 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 47258677

Manual Peak Response = 47279809 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051928.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 4:08 am
 Operator : FID6:MA
 Sample : I611051904F
 Misc : WG1307766,FRBB89,100ug/ml
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:11:19 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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	31.535	49979896	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.524	102832858	95.901	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	191.80%#	
24) s d50-Tetracosane	36.179	80093802	91.690	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	183.38%#	
Target Compounds				
2) t n-Octane (C8)	5.786	76104236	93.415	ug/mL M4
3) t n-Nonane (C9)	8.003	80757595	95.264	ug/mL M4
4) t n-Decane (C10)	10.497	84699559	97.822	ug/mL M4
5) t n-Undecane (C11)	13.016	86616334	98.114	ug/mL M4
6) t n-Dodecane (C12)	15.451	88252333	97.927	ug/mL M4
7) t n-Tridecane (C13)	17.763	89287840	97.820	ug/mL M4
9) t n-Tetradecane (C14)	19.954	90934609	97.438	ug/mL M4
11) t n-Pentadecane (C15)	22.025	91384012	97.108	ug/mL M4
12) t n-Hexadecane (C16)	23.988	92485832	97.334	ug/mL M4
14) t n-Heptadecane (C17)	25.855	92450076	97.344	ug/mL M4
15) t Pristane	25.968	93979130	96.835	ug/mL M4
16) T n-Octadecane (C18)	27.627	93616484	97.001	ug/mL M4
17) t Phytane	27.794	84421313	96.747	ug/mL M4
18) t n-Nonadecane (C19)	29.320	93026829	96.127	ug/mL M4
20) t n-Eicosane (C20)	30.930	93133970	95.698	ug/mL M4
21) t n-Heneicosane (C21)	32.473	94513249	95.283	ug/mL M4
22) t n-Docosane (C22)	33.951	94560547	95.038	ug/mL M4
23) t n-Tricosane (C23)	35.369	94955418	94.877	ug/mL M4
25) t n-Tetracosane (C24)	36.733	95449195	94.391	ug/mL M4
26) t n-Pentacosane (C25)	38.041	94284367	94.071	ug/mL M4
27) t n-Hexacosane (C26)	39.304	95076334	93.742	ug/mL M4
28) t n-Heptacosane (C27)	40.520	92512017	93.063	ug/mL M4
29) t n-Octacosane (C28)	41.698	96170551	93.112	ug/mL M4
30) t n-Nonacosane (C29)	42.835	95755273	92.915	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051928.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 4:08 am
 Operator : FID6:MA
 Sample : I611051904F
 Misc : WG1307766,FRBB89,100ug/ml
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:11:19 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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)	43.934	94884258	92.757 ug/mL M4
32) t n-Hentriacontane (C31)	45.000	95590551	92.398 ug/mL M4
33) t n-Dotriacontane (C32)	46.030	94682240	92.577 ug/mL M4
34) t n-Tritriacontane (C33)	47.031	93857278	92.425 ug/mL M4
35) t n-tetratriacontane (C34)	48.100	97240183	92.086 ug/mL M4
36) t n-Pentatriacontane (C35)	49.301	93856393	91.642 ug/mL M4
37) t n-Hexatriacontane (C36)	50.678	99361580	91.813 ug/mL M4
38) t n-Heptatriacontane (C37)	52.272	93119940	91.811 ug/mL M4
39) t n-Octatriacontane (C38)	54.145	100405869	91.559 ug/mL M4
41) t n-Tetracontane (C40)	58.931	93747874	90.231 ug/mL M4

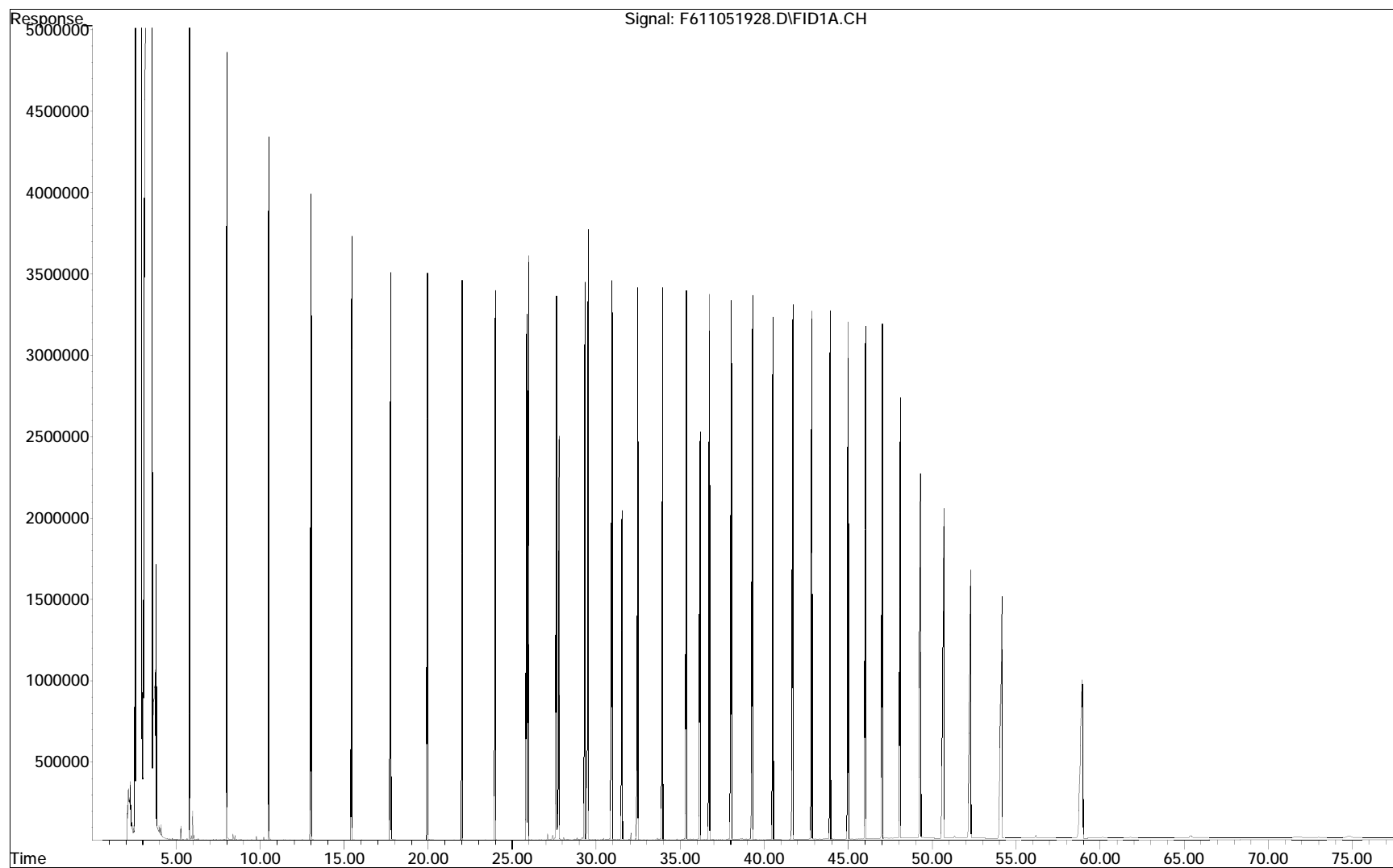
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

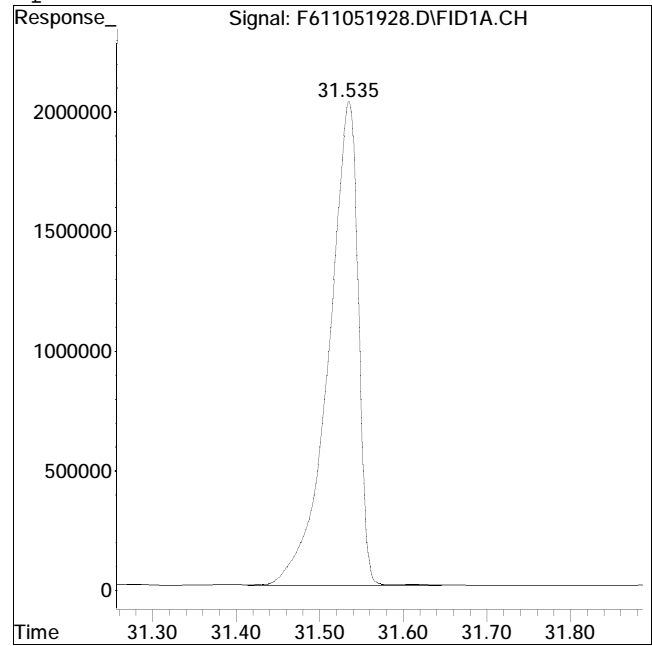
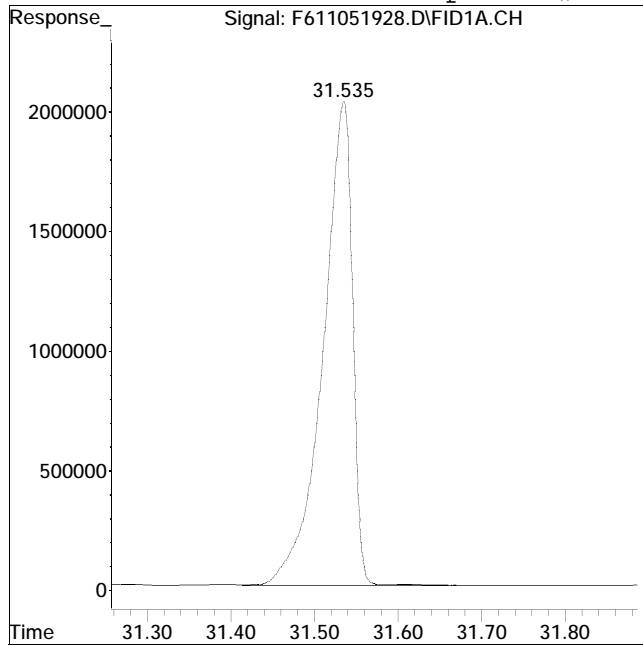
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051928.D
Operator : FID6:MA
Acquired : 06 Nov 2019 4:08 am using AcqMethod FID6A.M
Sample Name: I611051904F
Instrument: FID6
Misc Info : WG1307766,FRBB89,100ug/ml
Vial Number: 9
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 49975007

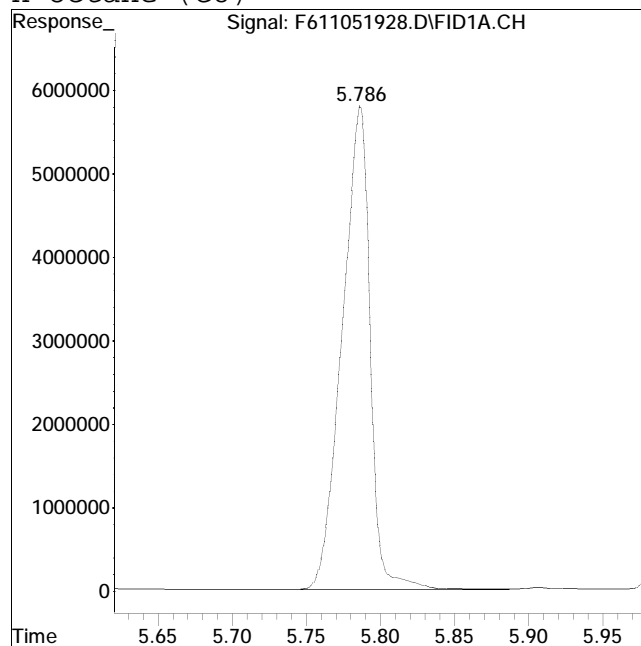
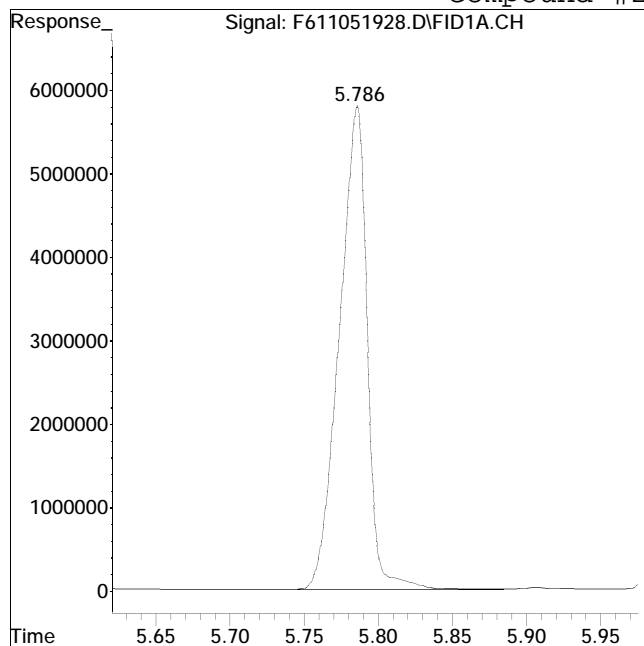
Manual Peak Response = 49979896 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #2: n-Octane (C8)



Original Peak Response = 76098777

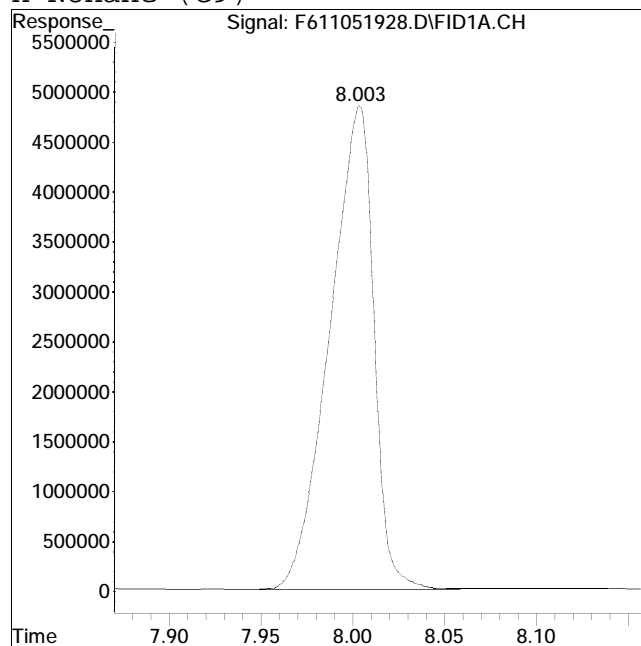
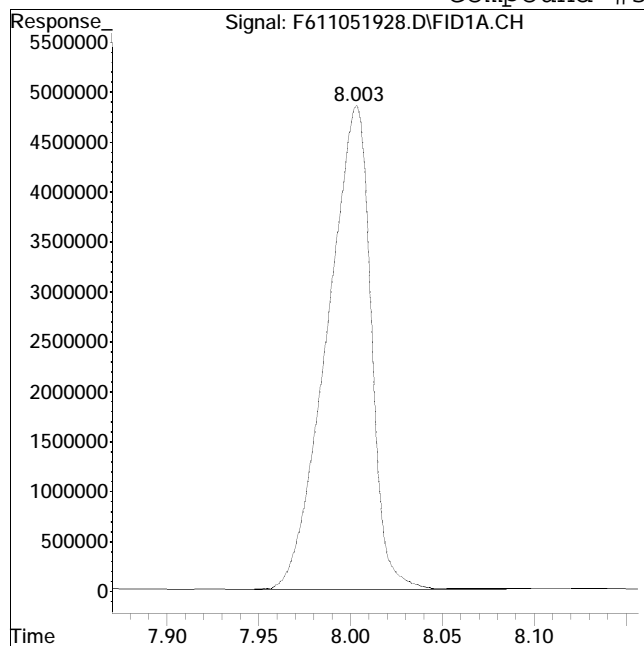
Manual Peak Response = 76104236 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 80969548

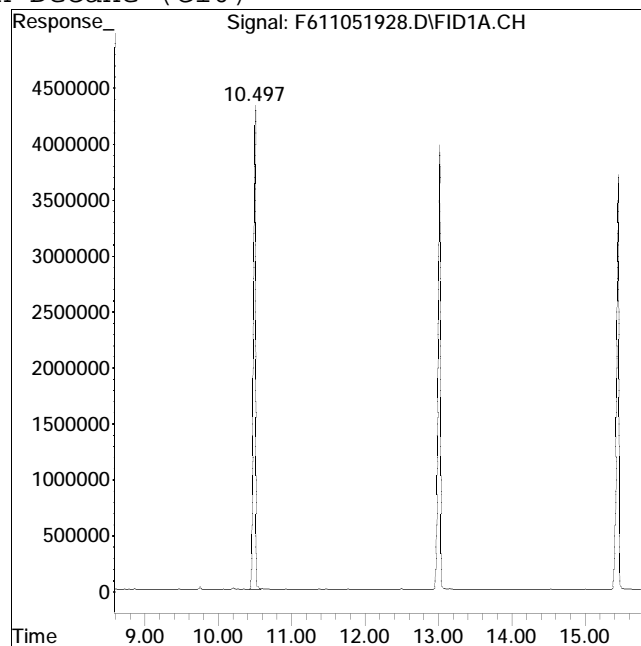
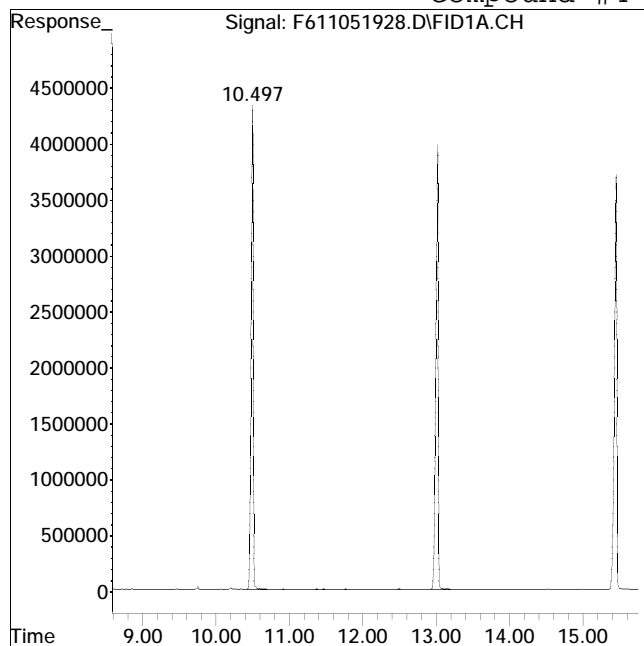
Manual Peak Response = 80757595 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #4: n-Decane (C10)



Original Peak Response = 81854928

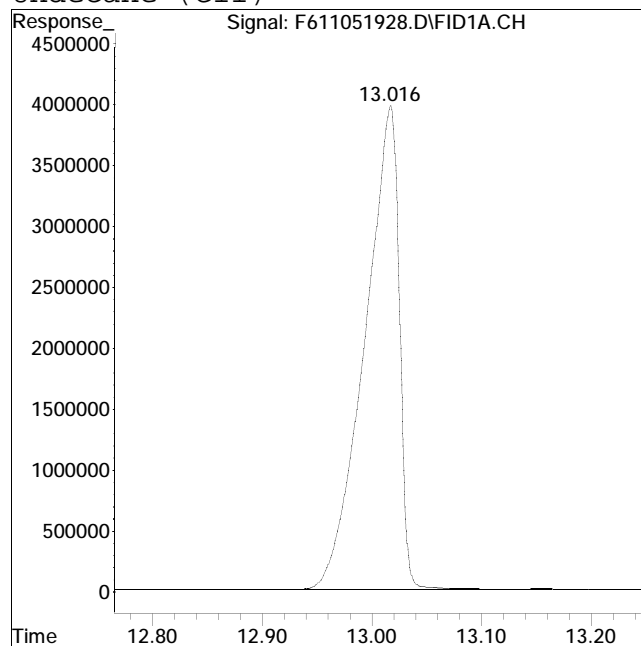
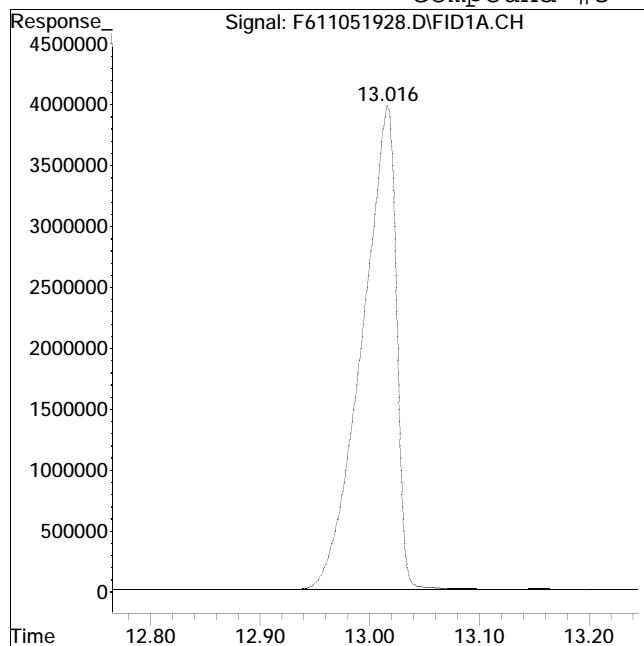
Manual Peak Response = 84699559 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 86621468

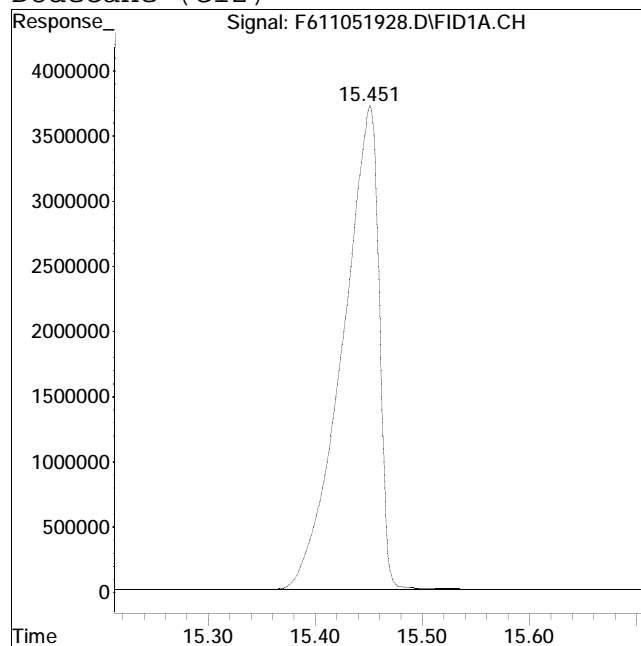
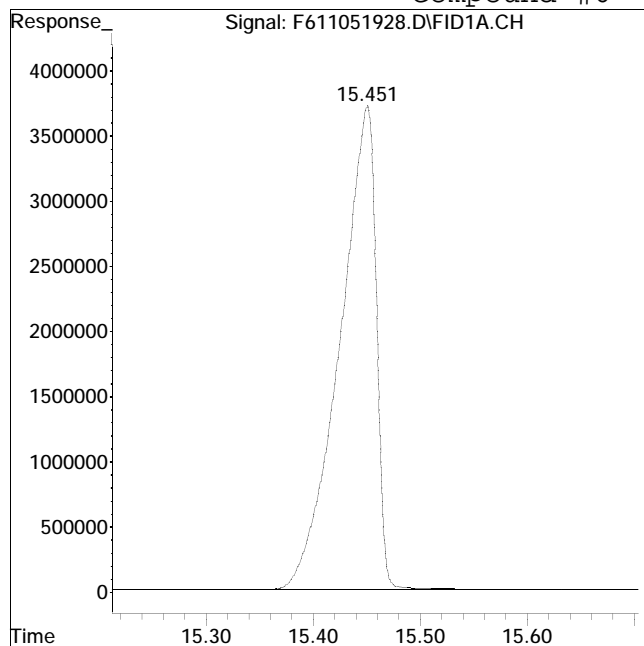
Manual Peak Response = 86616334 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 88243563

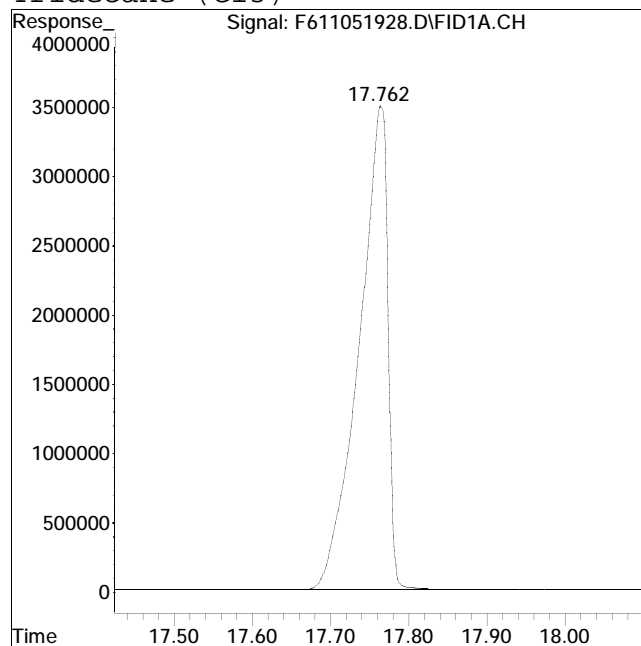
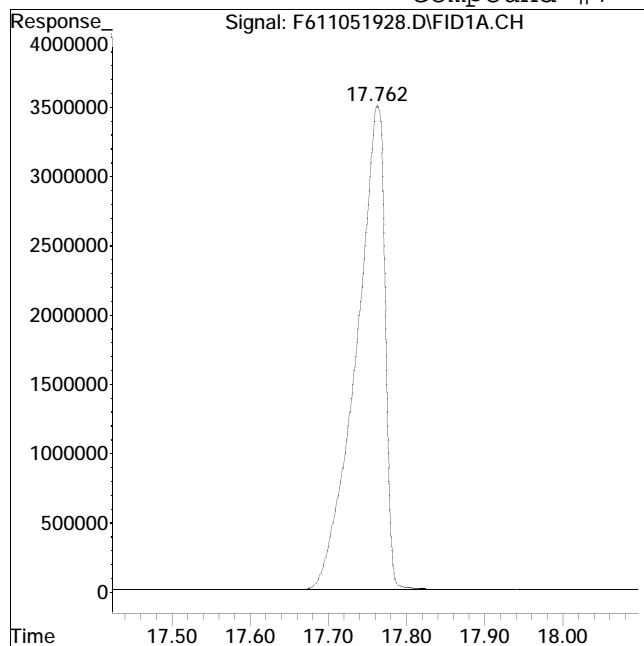
Manual Peak Response = 88252333 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 89244729

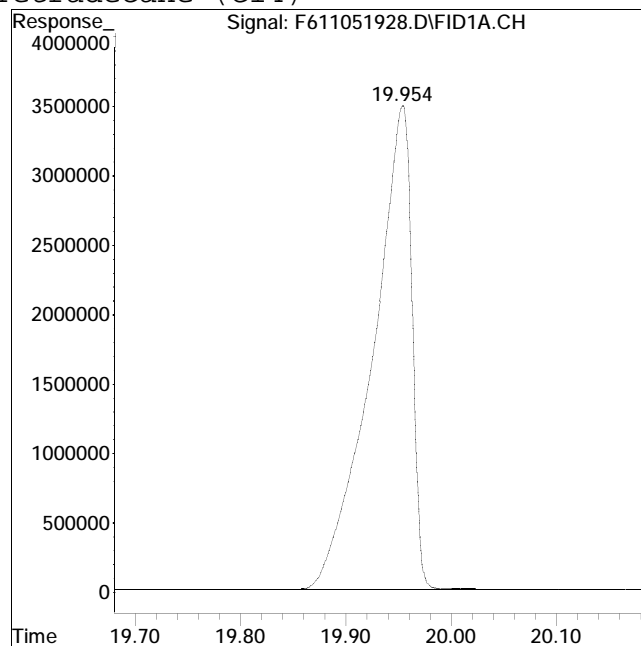
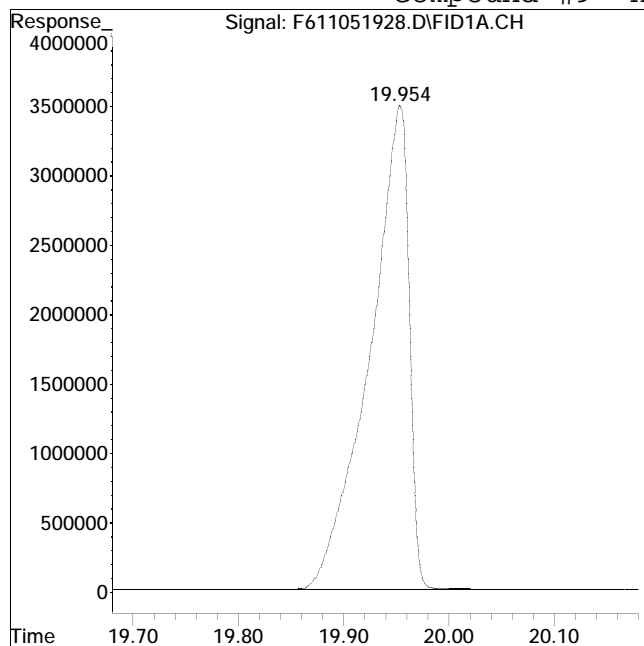
Manual Peak Response = 89287840 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 90729829

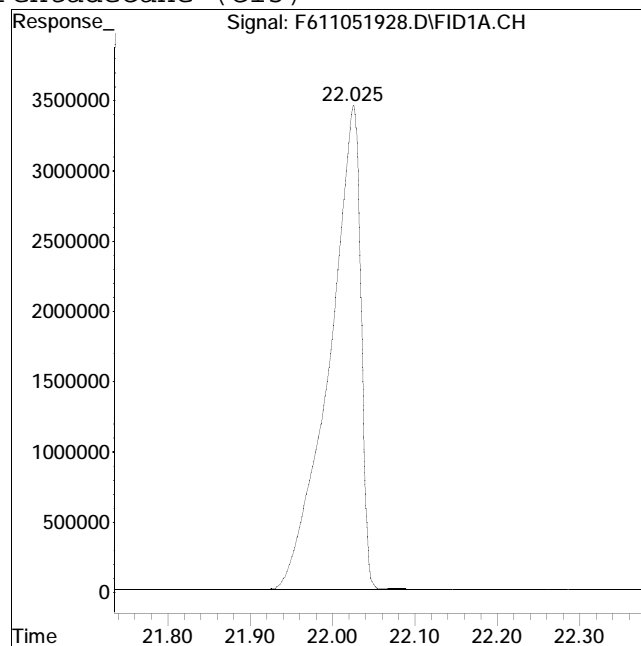
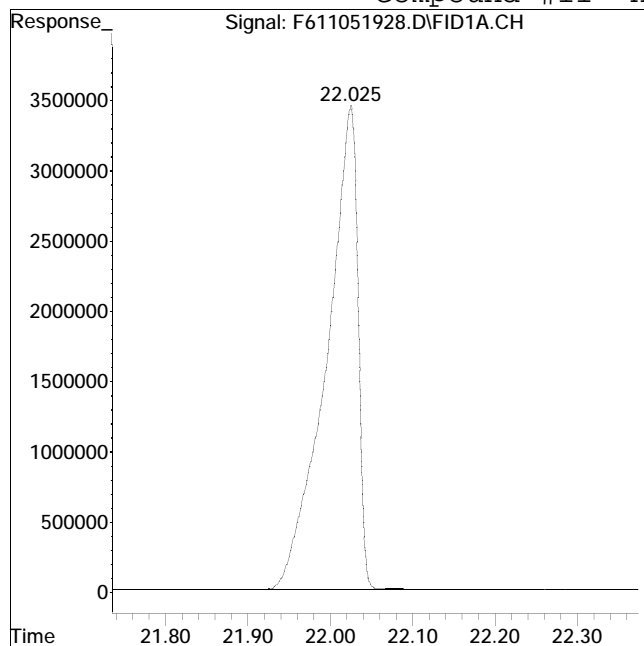
Manual Peak Response = 90934609 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 91425521

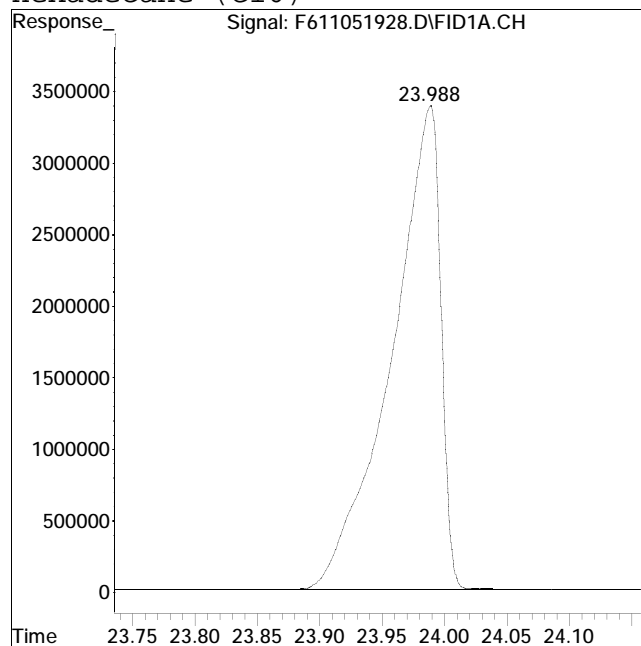
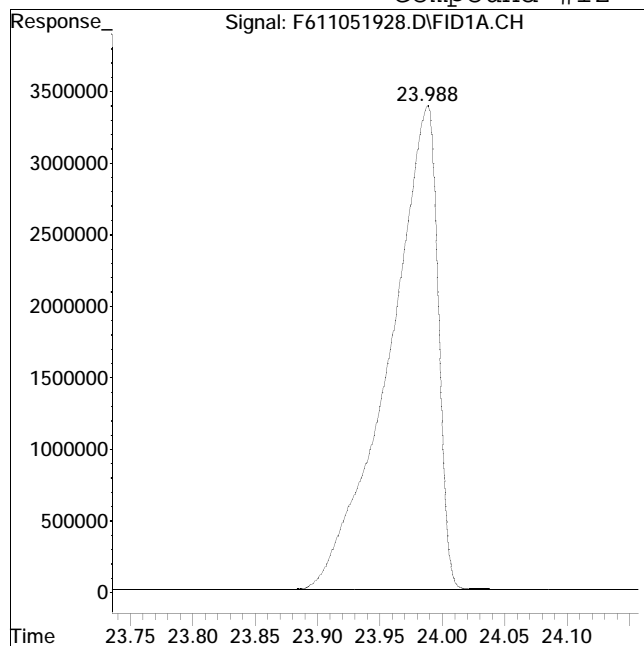
Manual Peak Response = 91384012 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 92244528

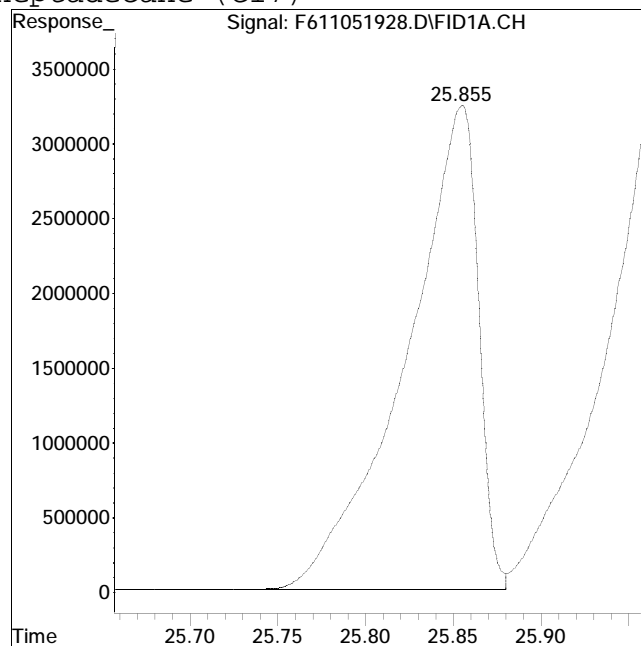
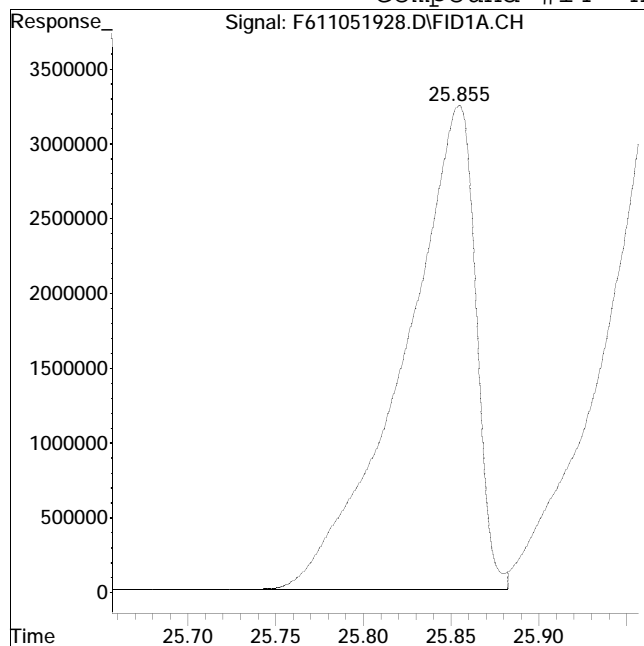
Manual Peak Response = 92485832 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 92511711

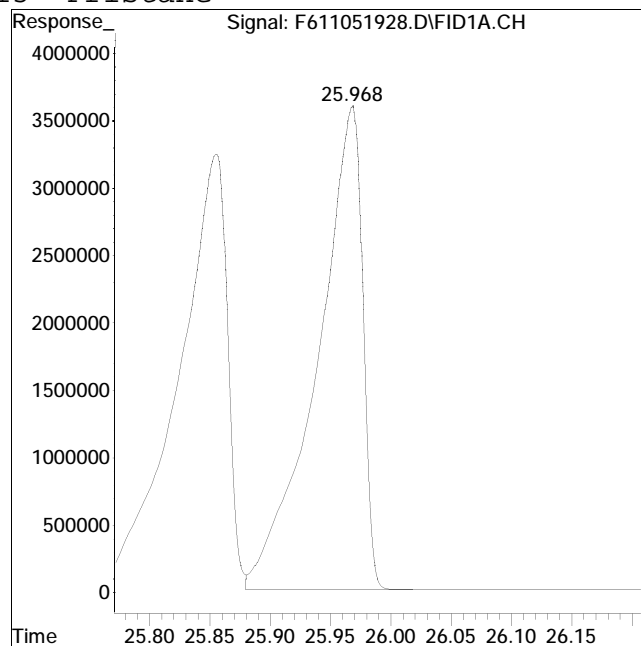
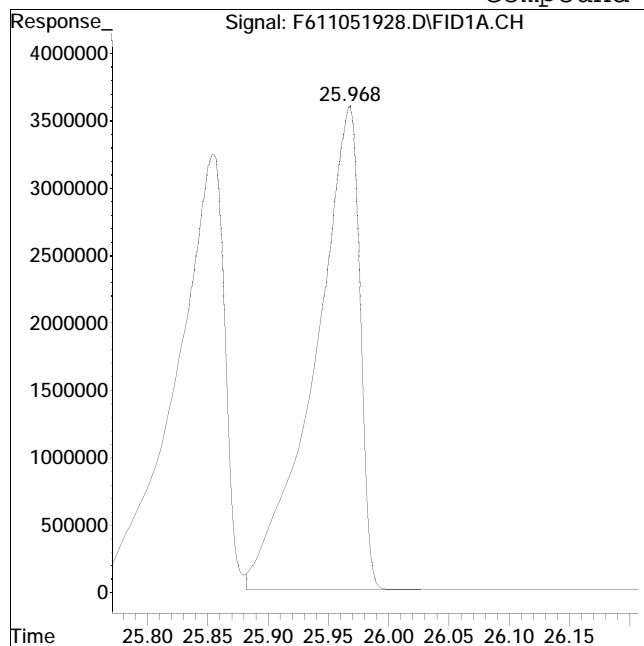
Manual Peak Response = 92450076 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #15: Pristane



Original Peak Response = 93845386

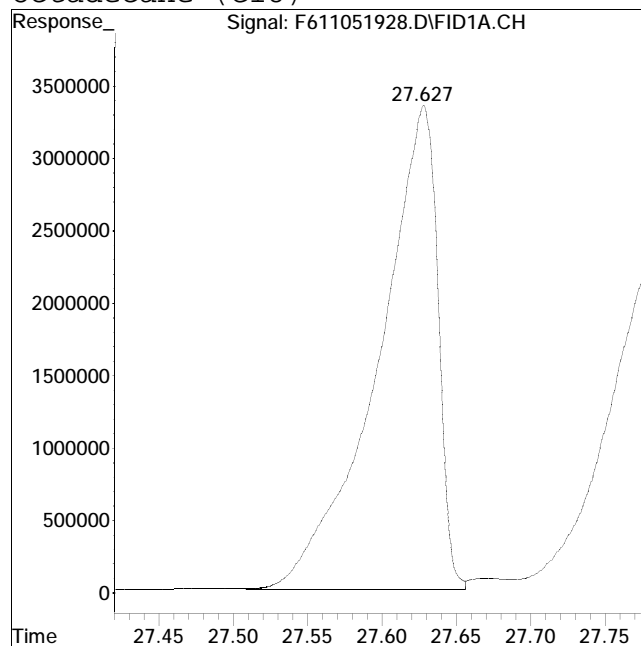
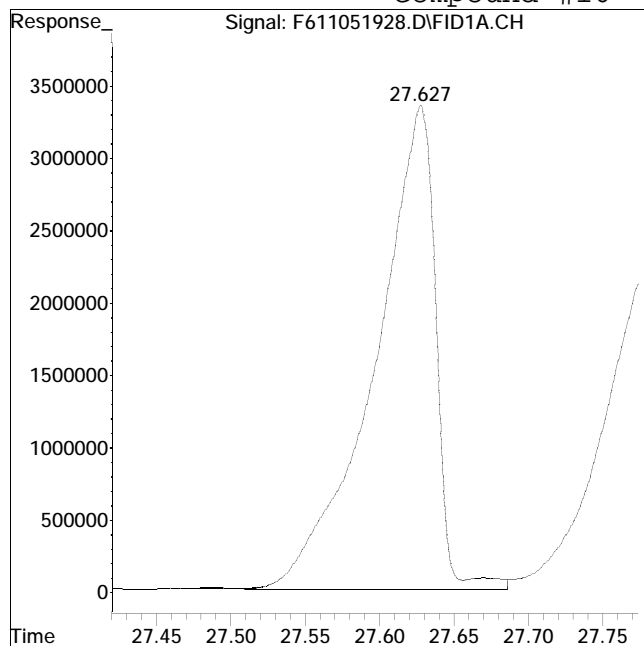
Manual Peak Response = 93979130 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 95127727

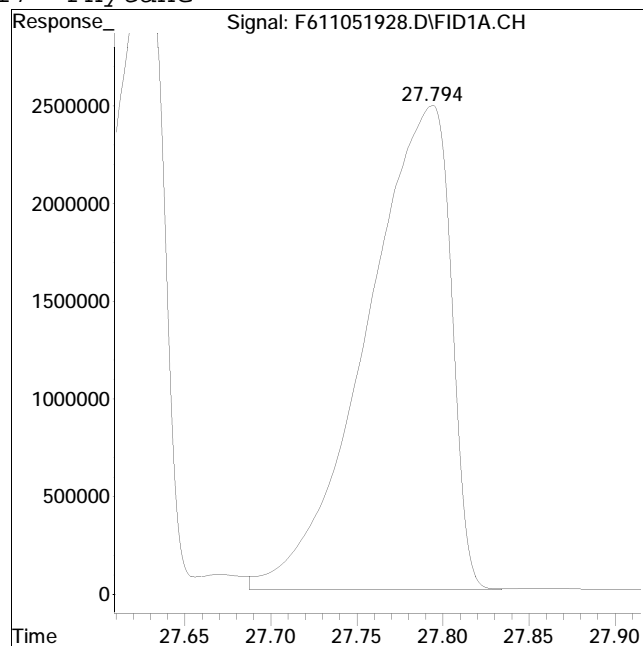
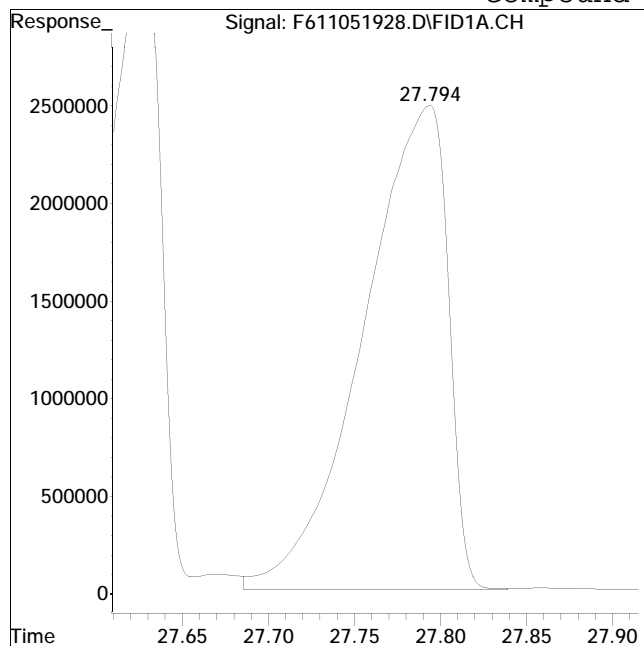
Manual Peak Response = 93616484 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #17: Phytane



Original Peak Response = 84711674

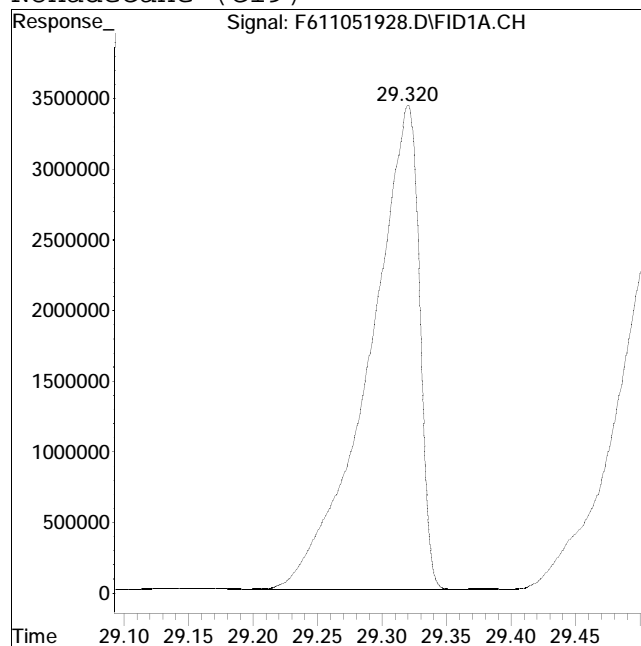
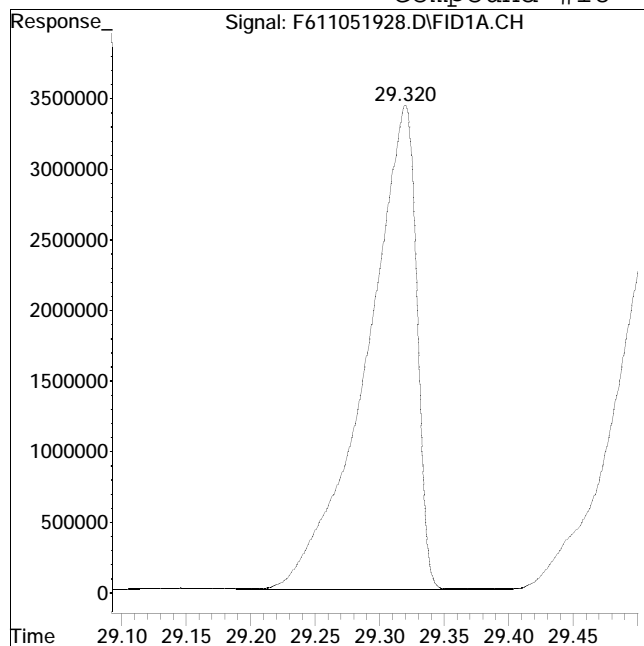
Manual Peak Response = 84421313 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 93327995

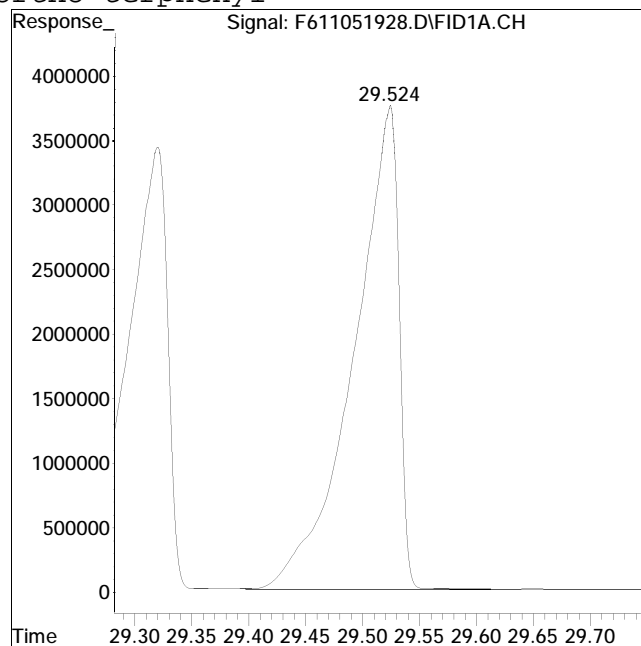
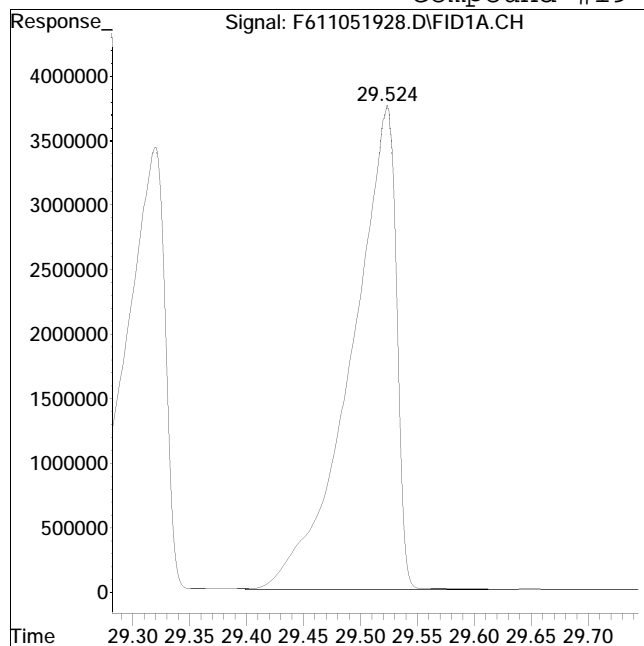
Manual Peak Response = 93026829 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #19: ortho-terphenyl



Original Peak Response = 102734321

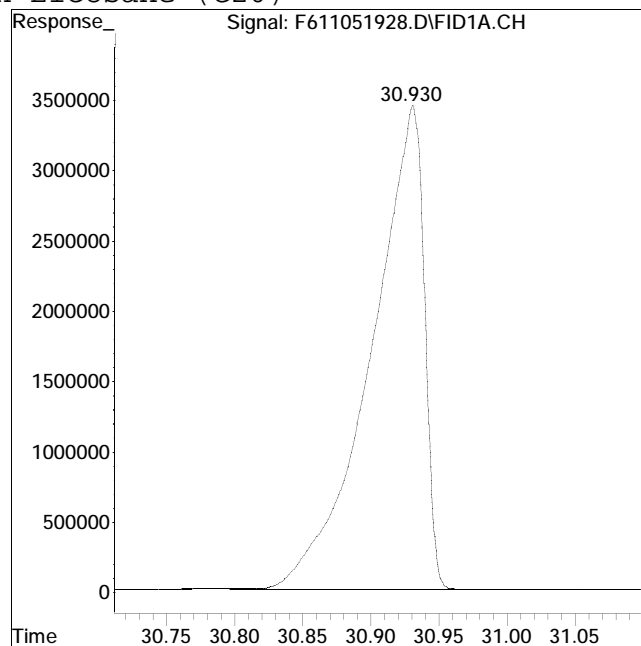
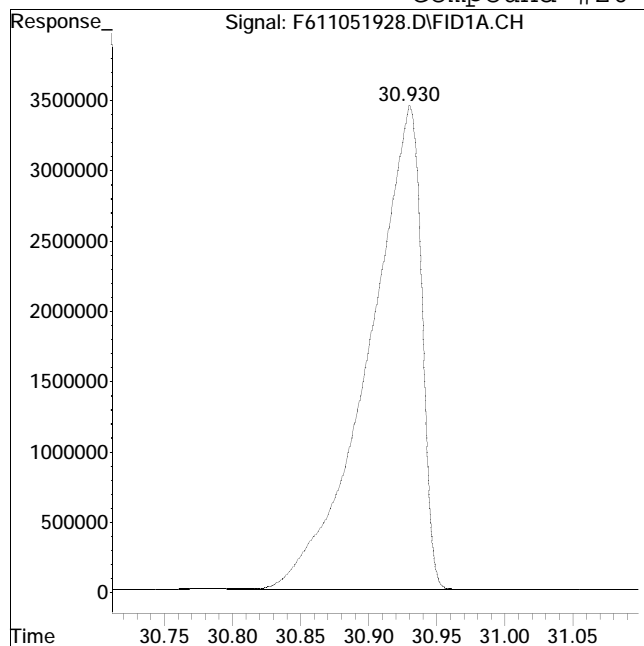
Manual Peak Response = 102832858 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 92998315

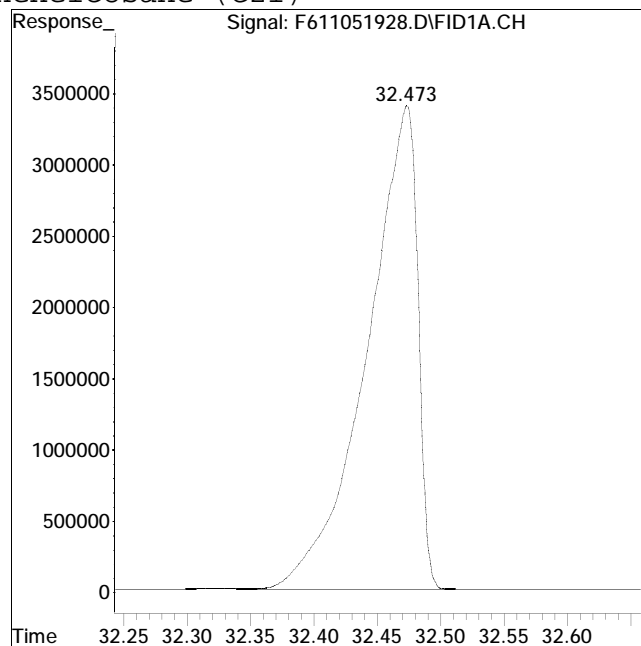
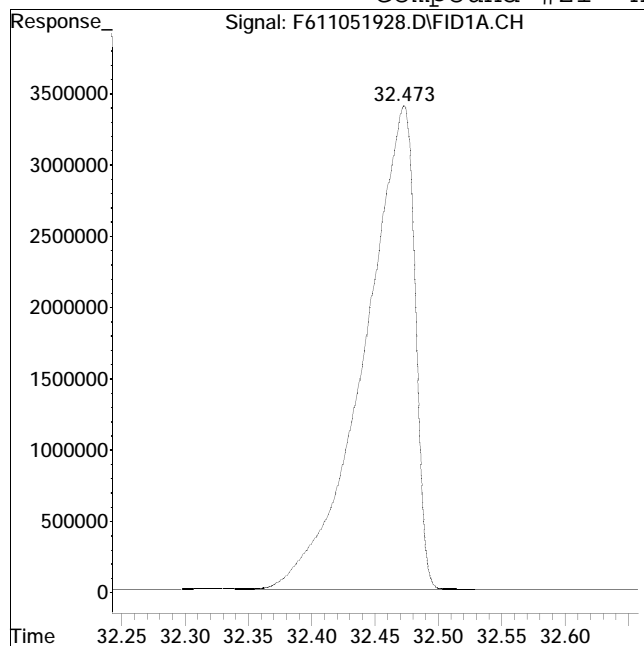
Manual Peak Response = 93133970 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 94562472

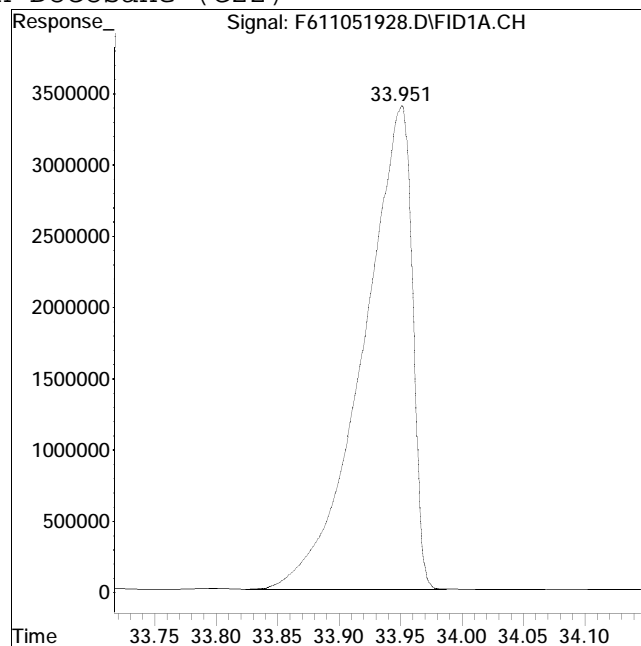
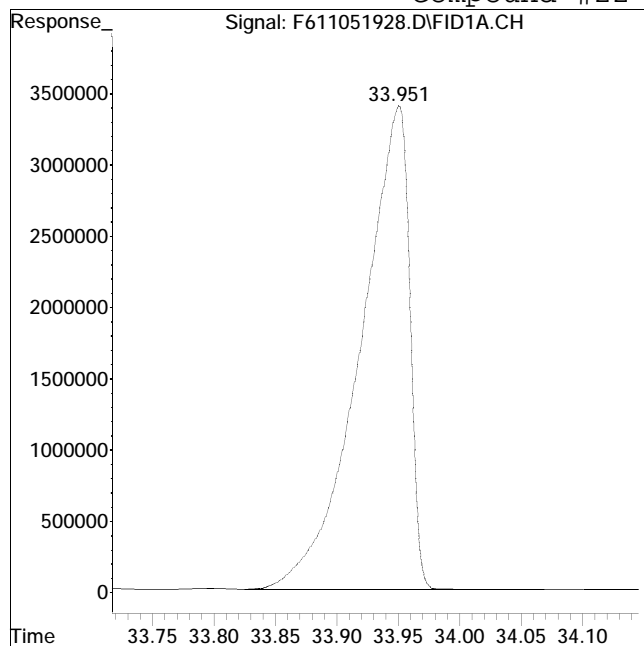
Manual Peak Response = 94513249 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 94601321

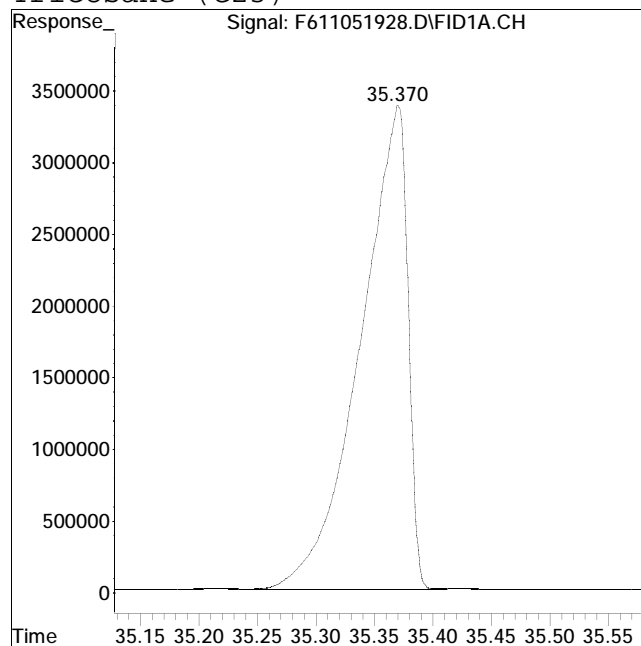
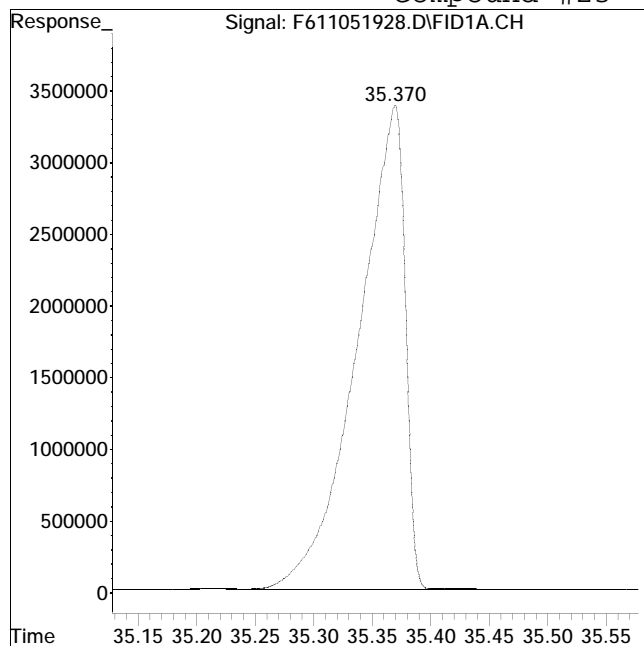
Manual Peak Response = 94560547 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 95123441

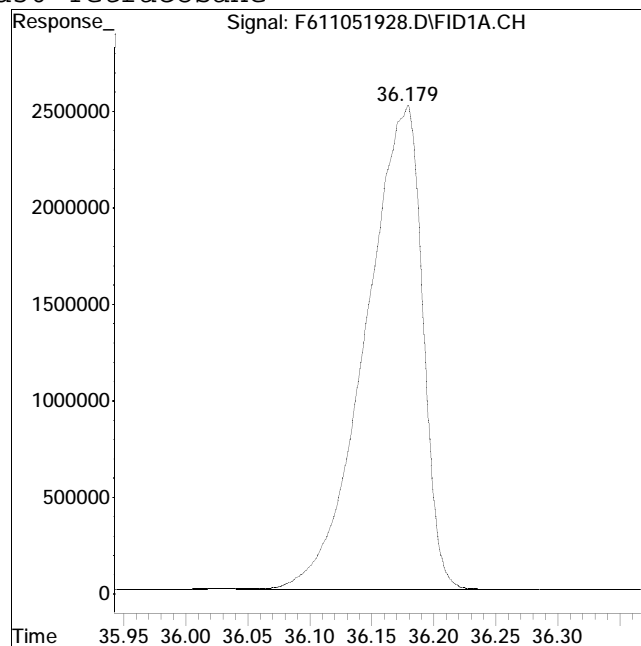
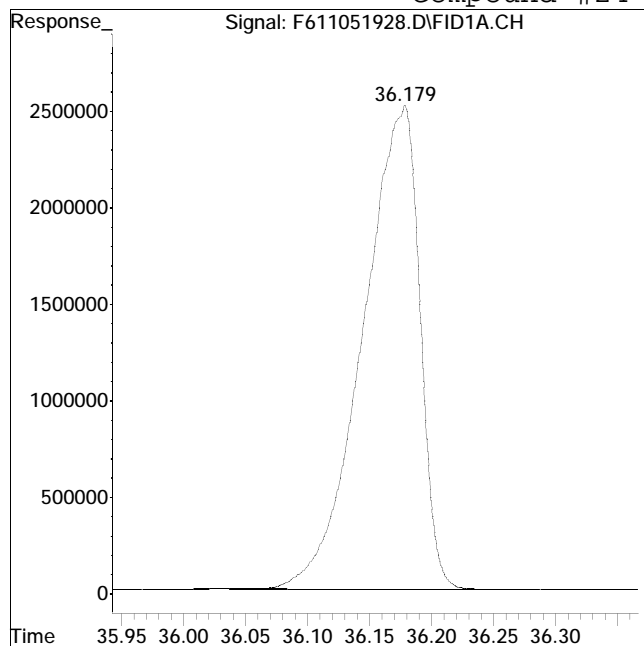
Manual Peak Response = 94955418 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #24: d50-Tetracosane



Original Peak Response = 79827021

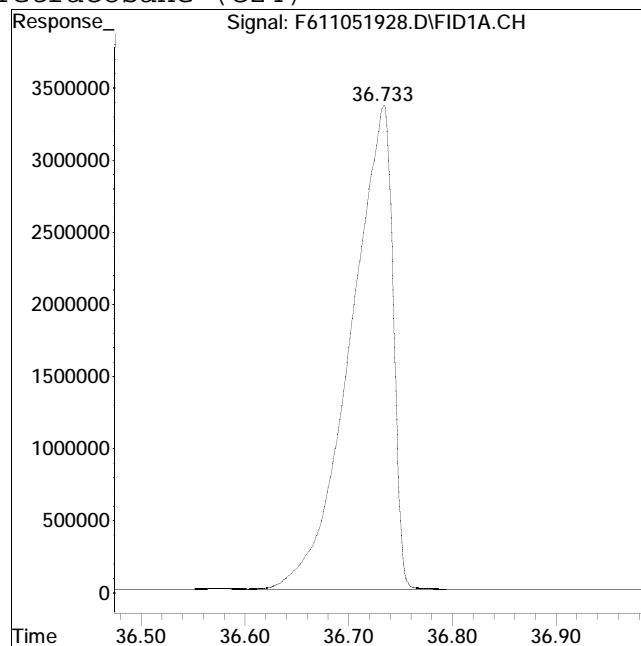
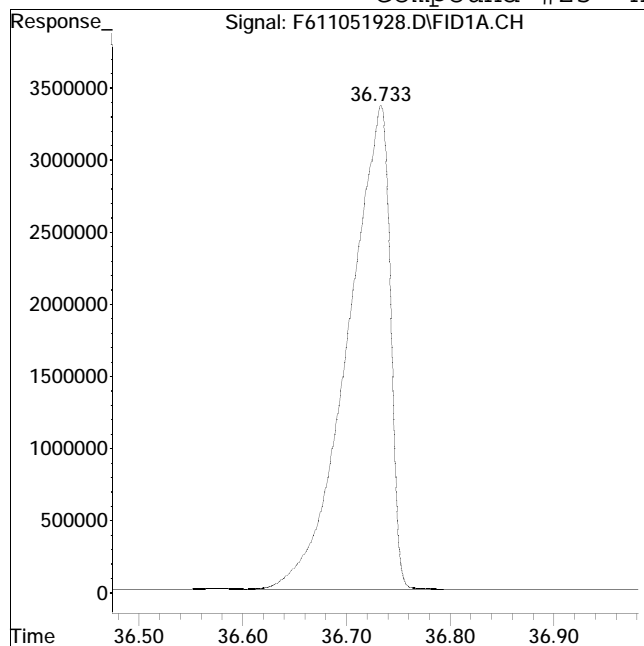
Manual Peak Response = 80093802 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 95433890

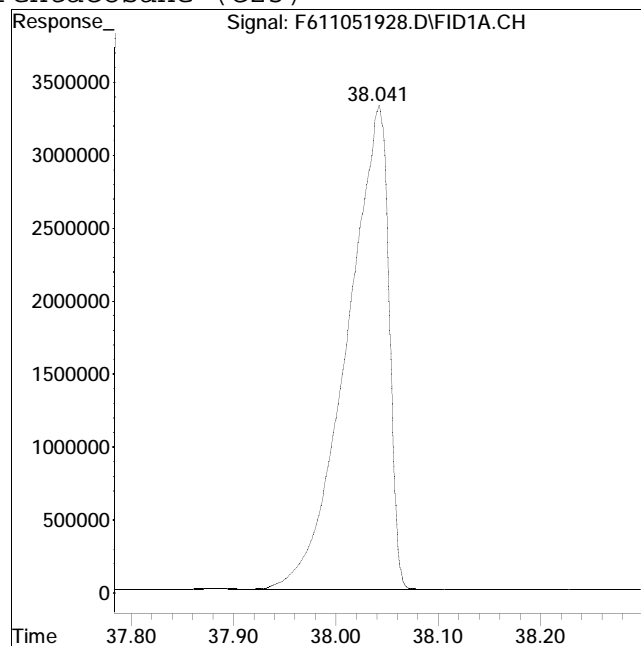
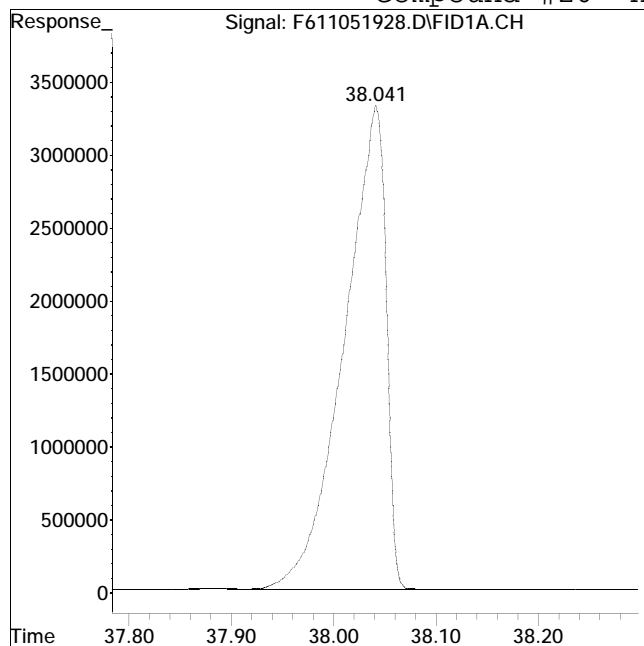
Manual Peak Response = 95449195 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 94379199

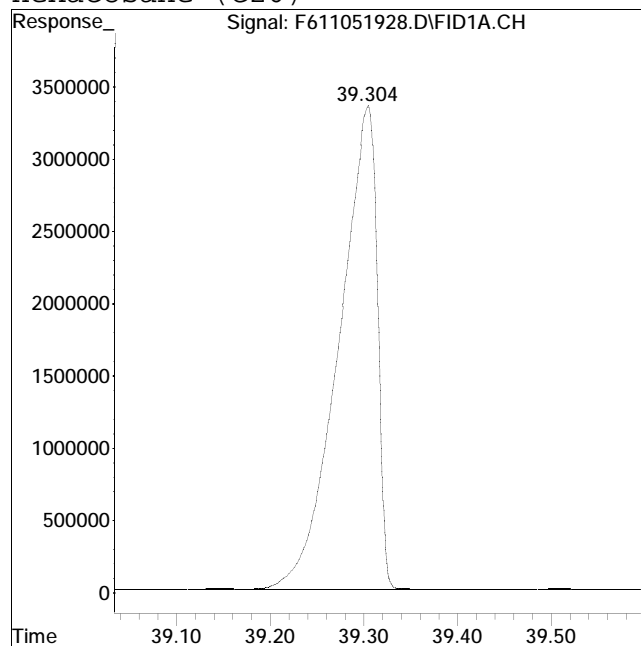
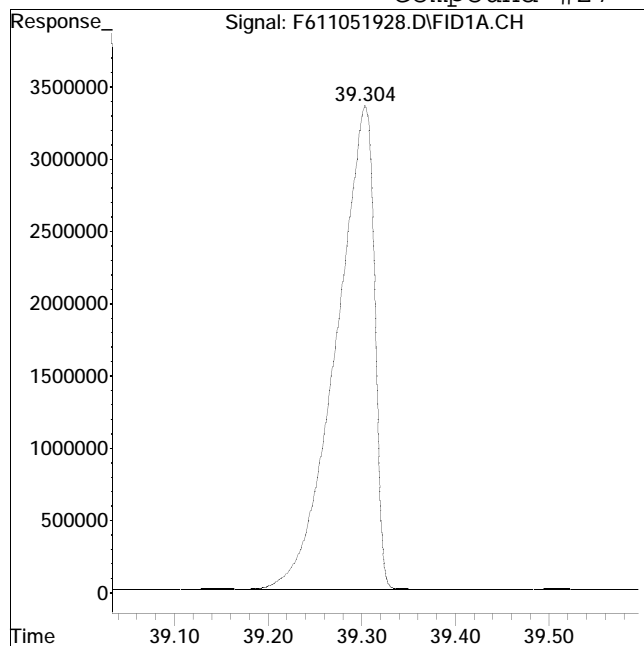
Manual Peak Response = 94284367 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 95166510

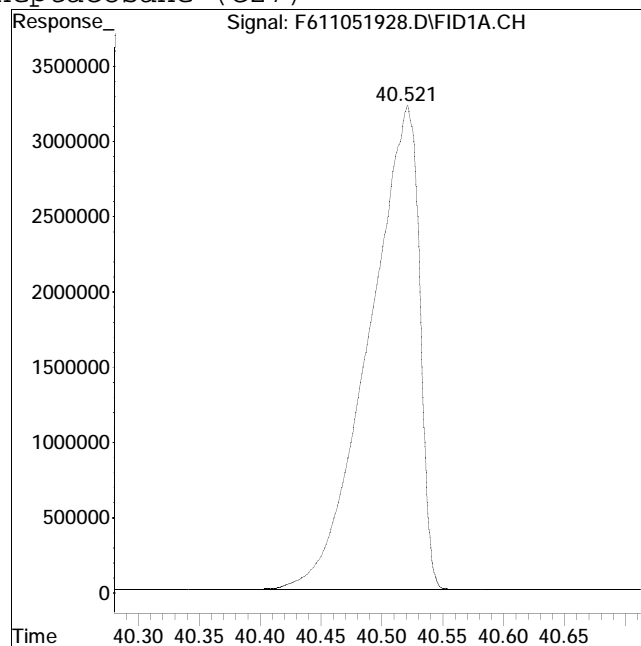
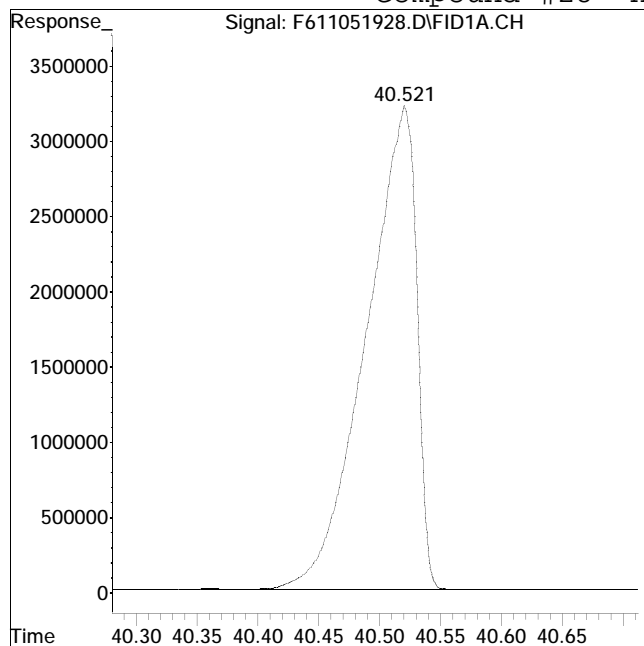
Manual Peak Response = 95076334 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 92626306

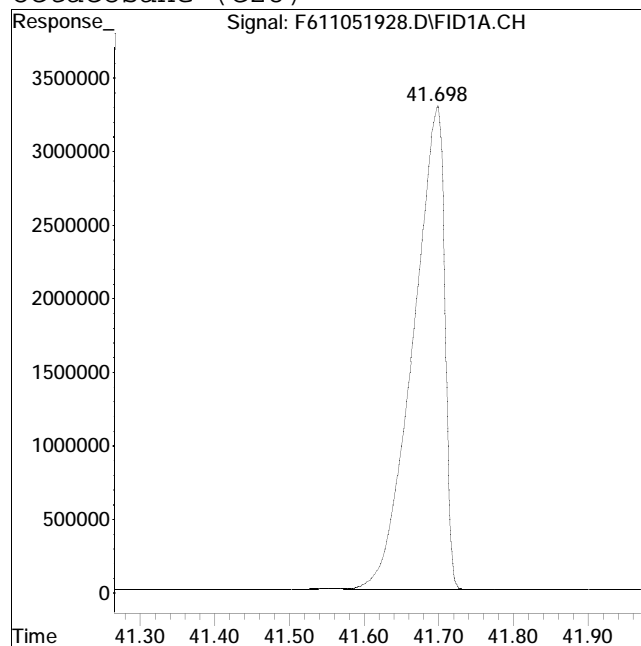
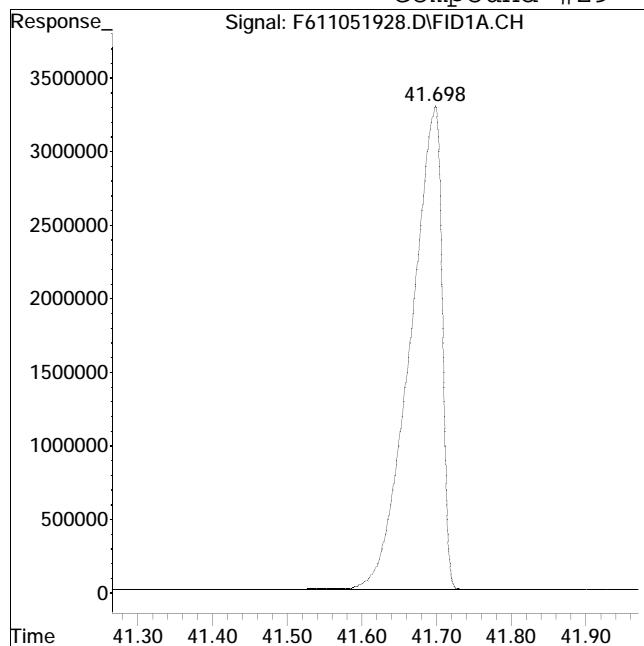
Manual Peak Response = 92512017 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 96513946

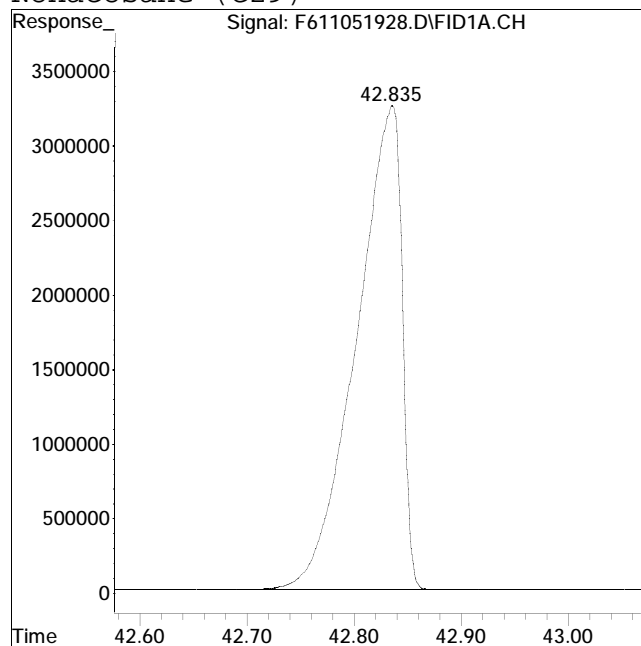
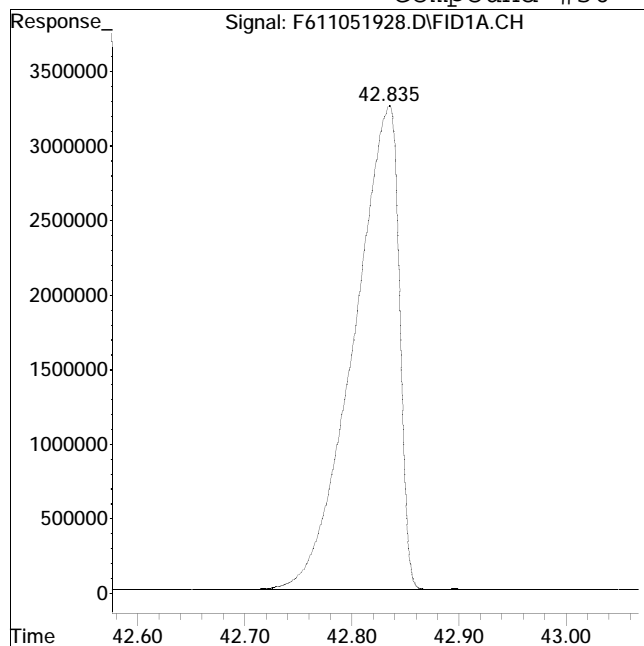
Manual Peak Response = 96170551 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 95868331

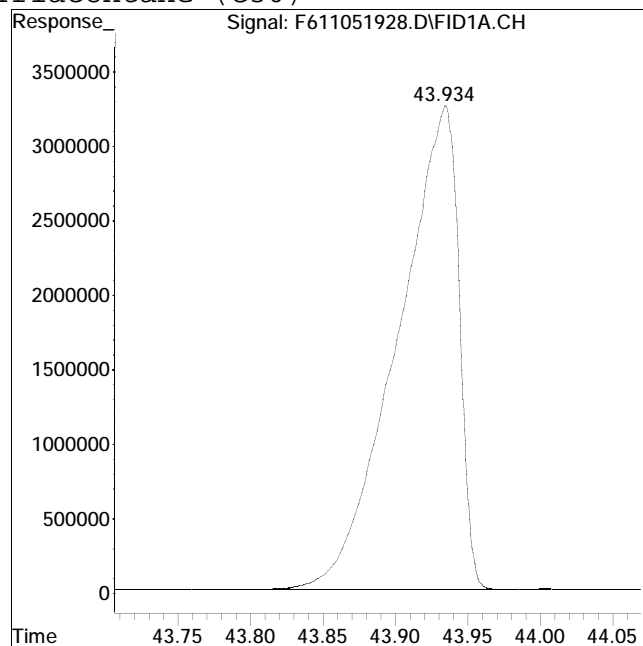
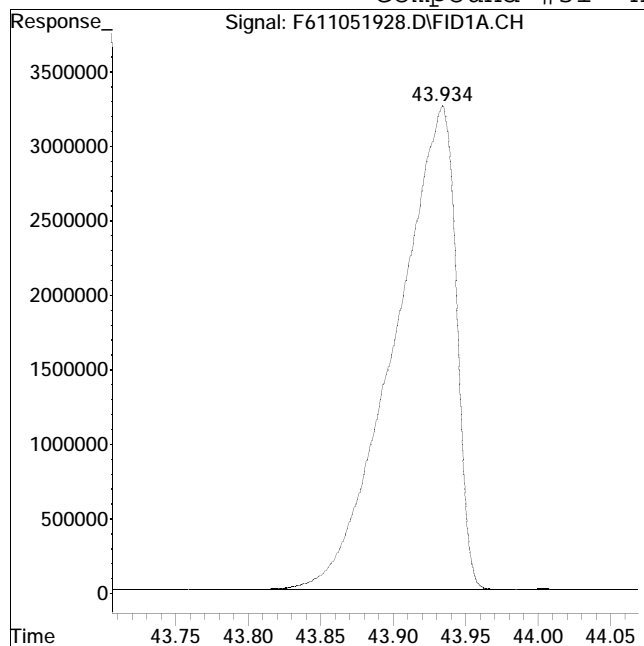
Manual Peak Response = 95755273 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 94853461

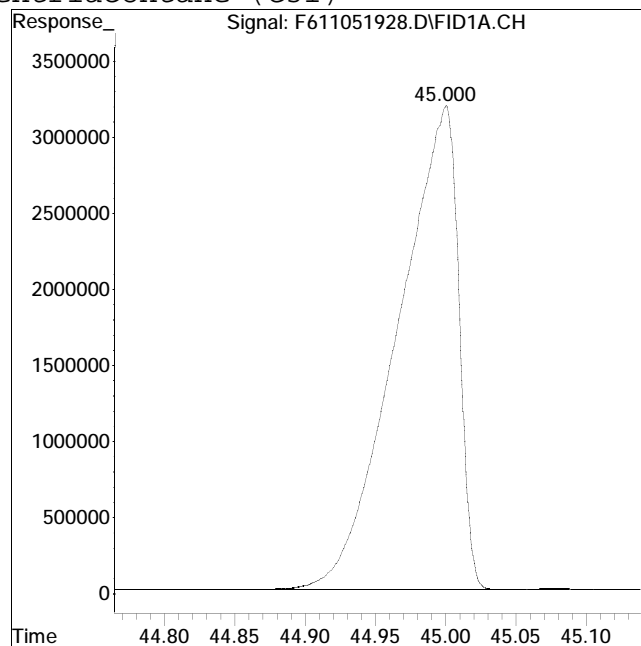
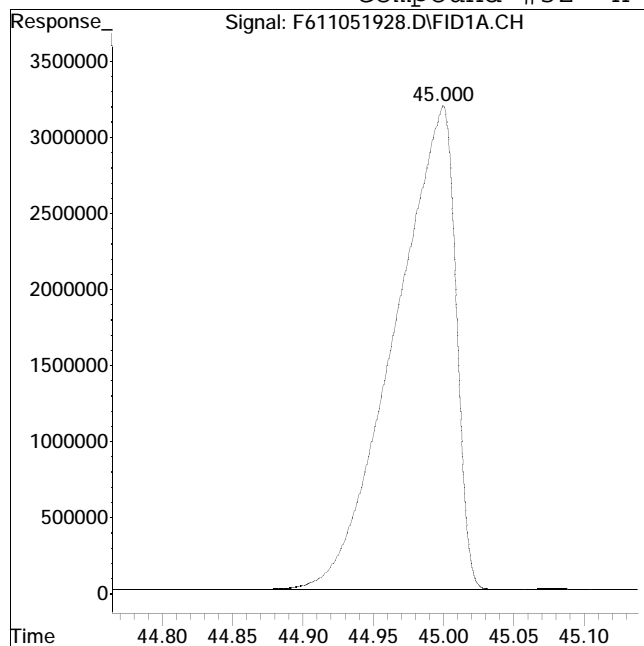
Manual Peak Response = 94884258 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 95590519

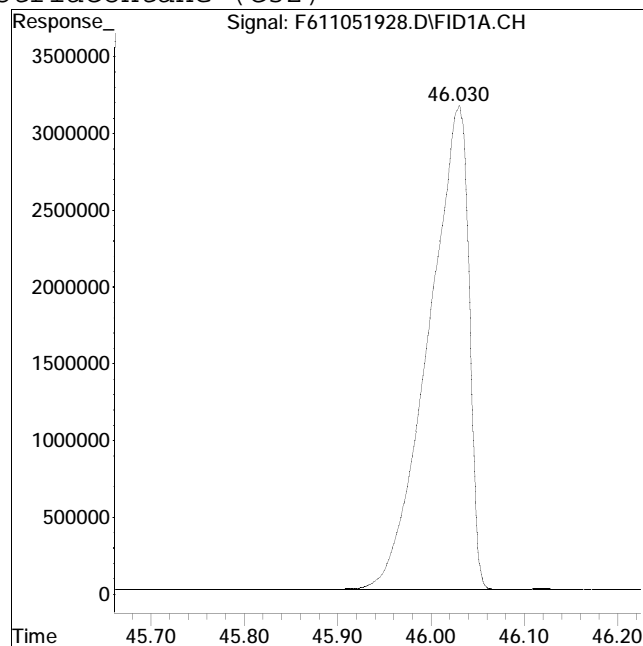
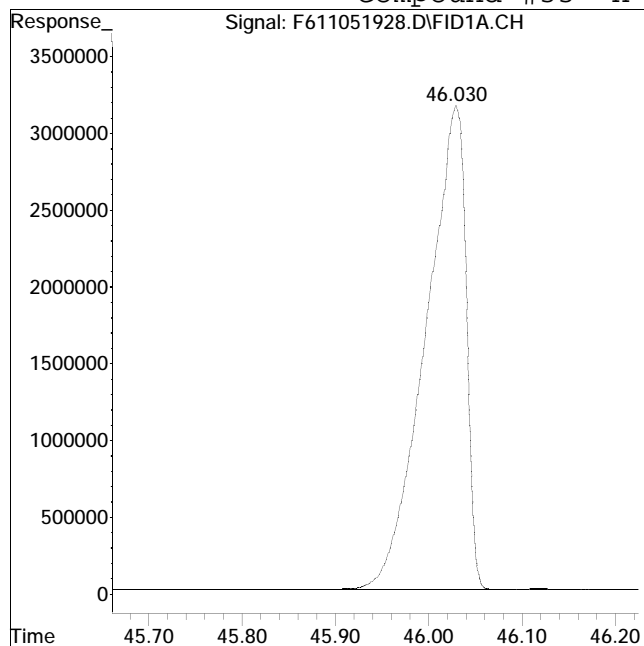
Manual Peak Response = 95590551 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 94677476

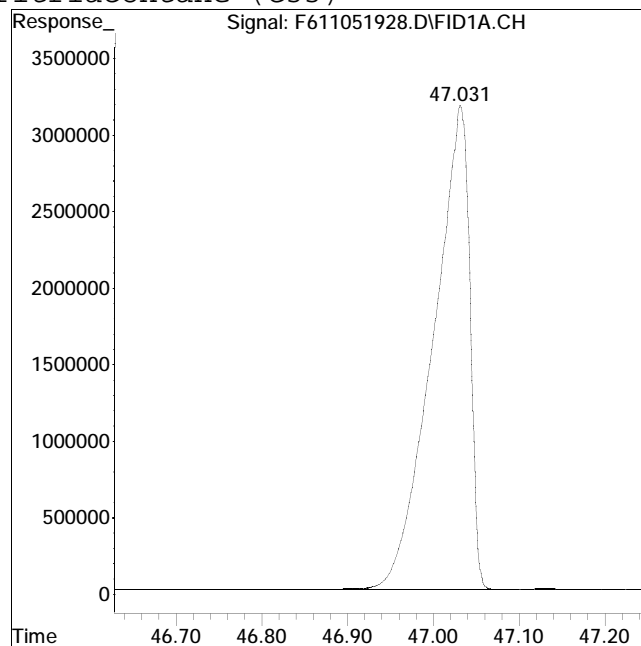
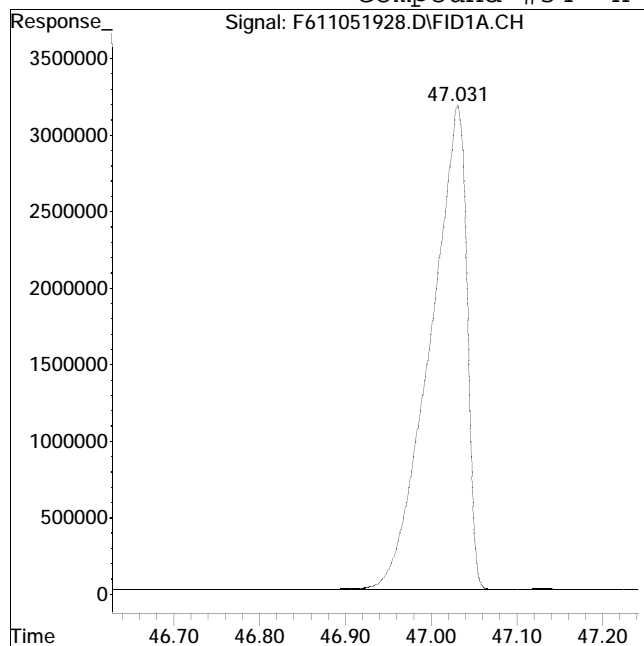
Manual Peak Response = 94682240 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 93846257

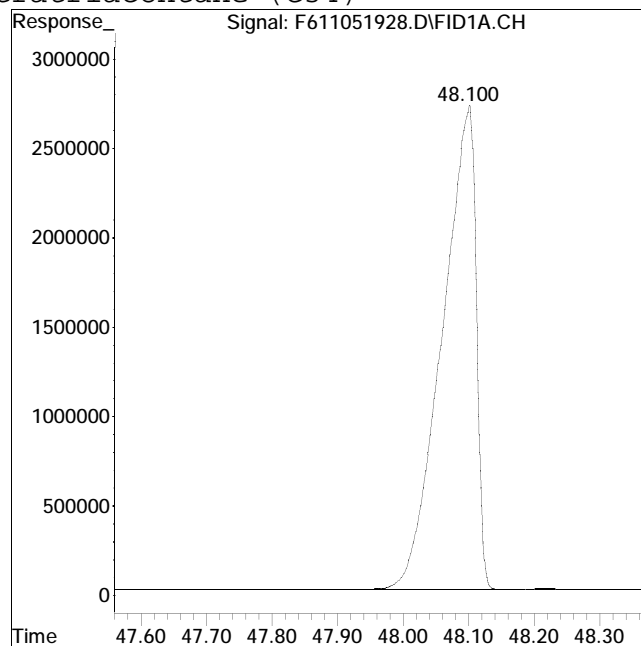
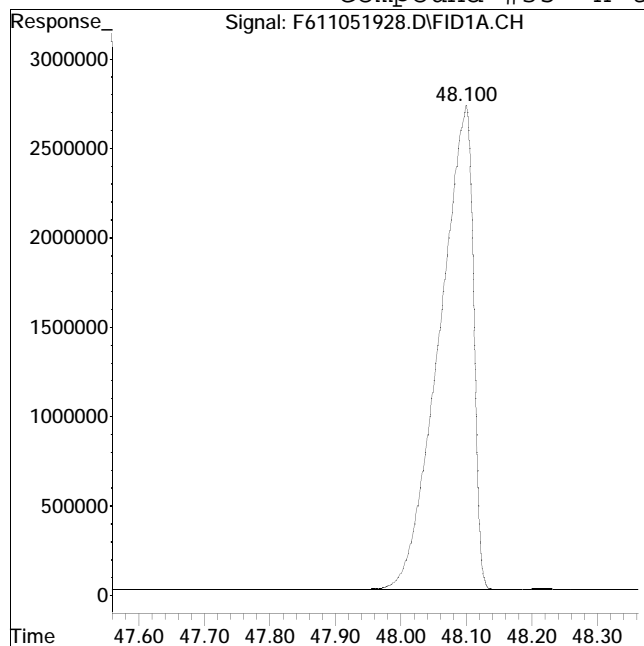
Manual Peak Response = 93857278 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 97252213

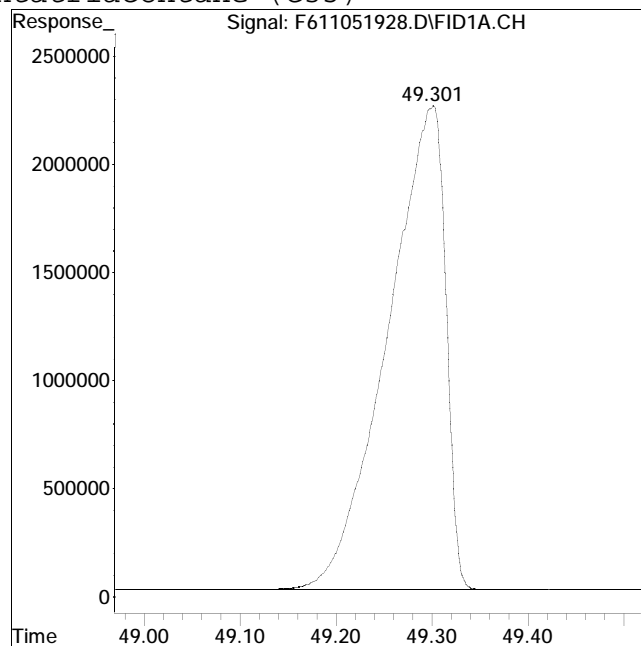
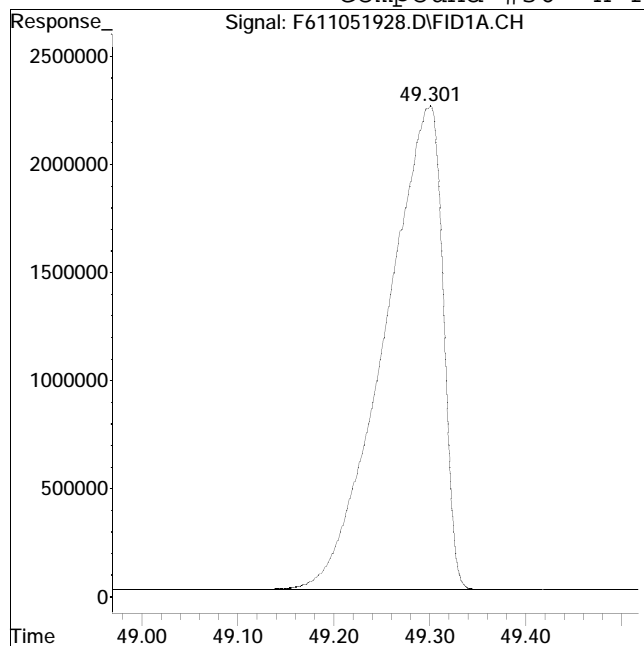
Manual Peak Response = 97240183 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 93886540

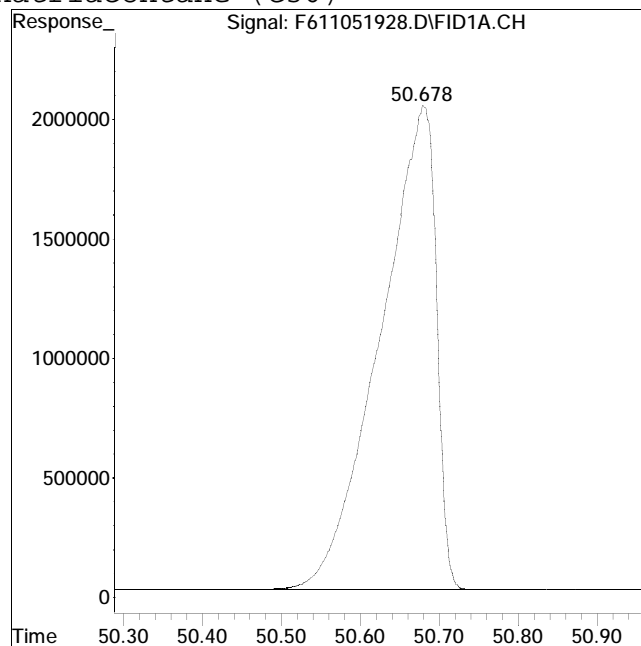
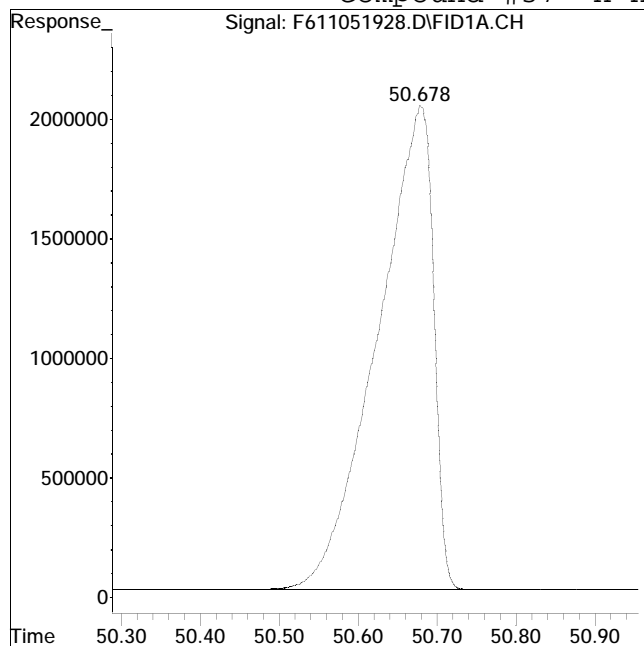
Manual Peak Response = 93856393 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 99375589

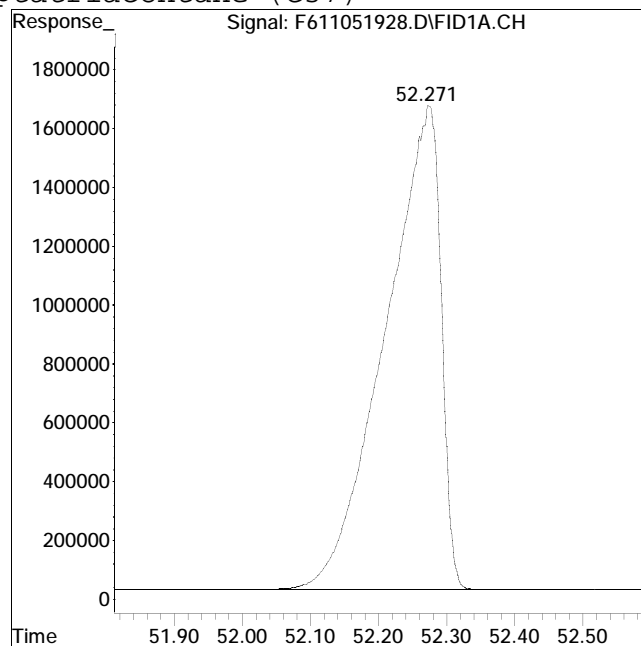
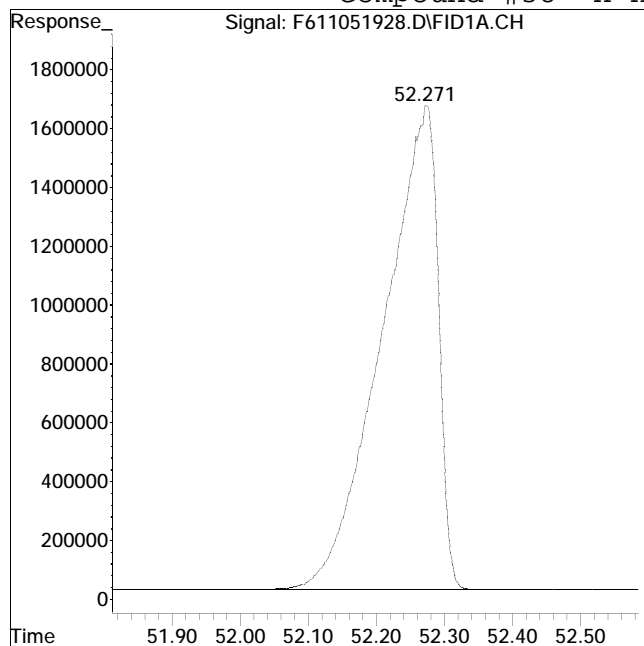
Manual Peak Response = 99361580 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 93104788

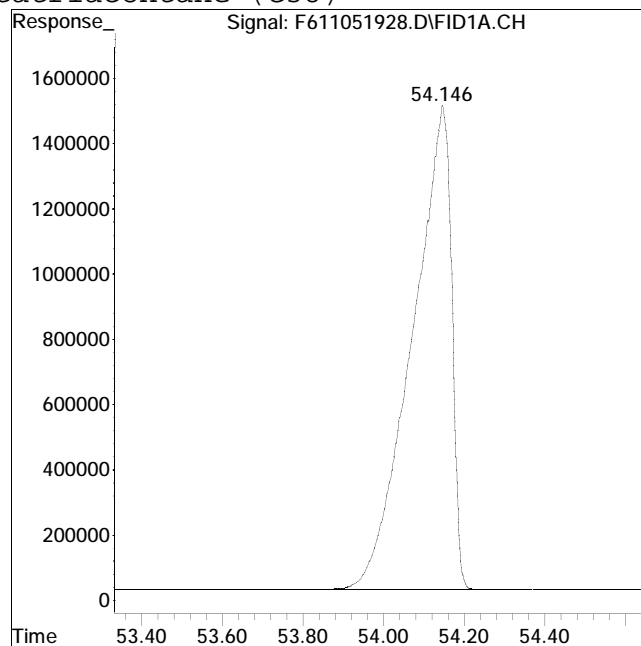
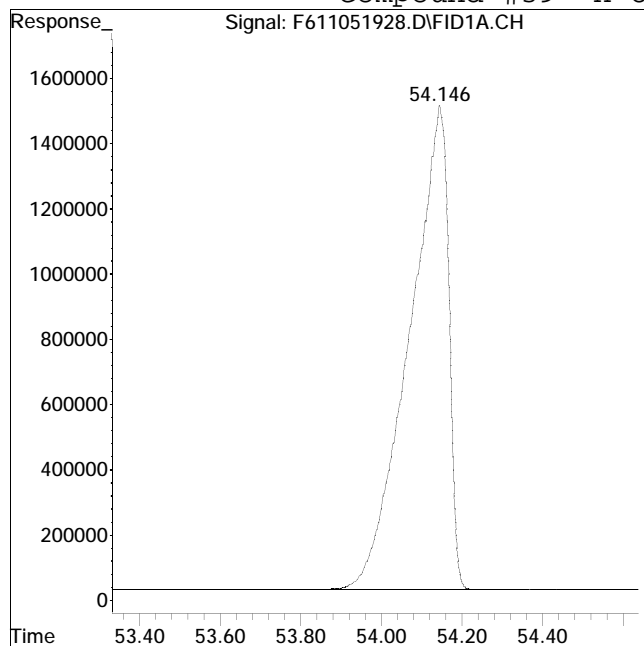
Manual Peak Response = 93119940 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 100429970

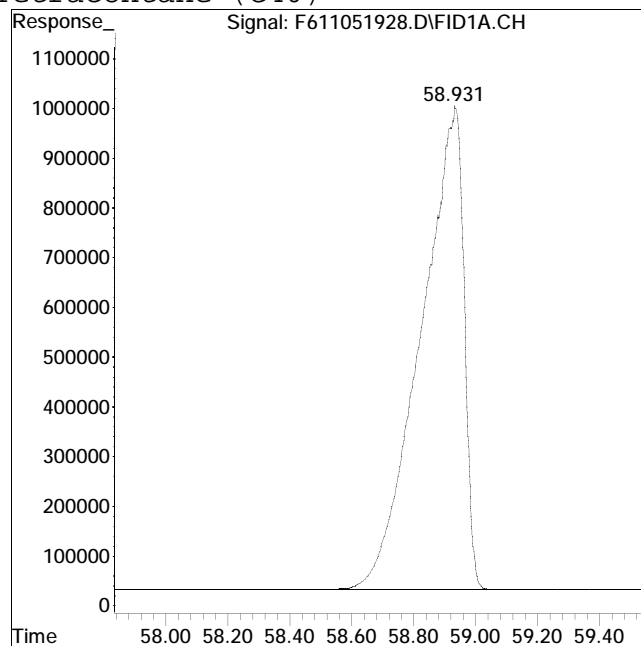
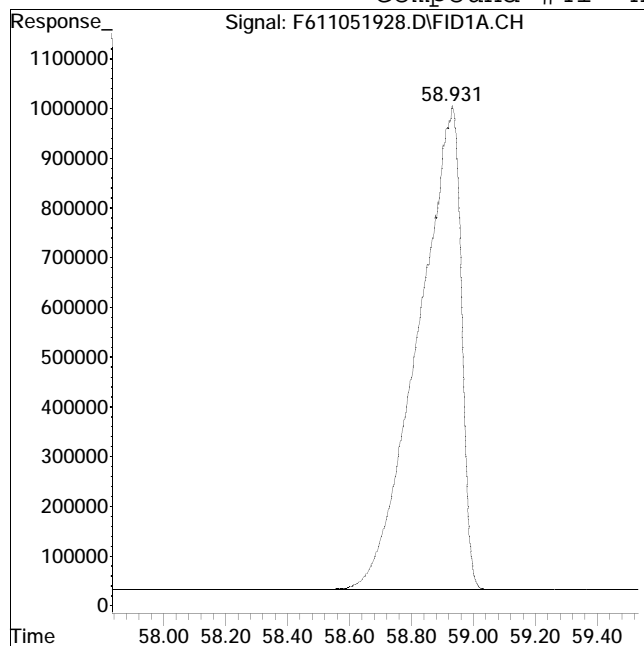
Manual Peak Response = 100405869 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051928.D Operator : FID6:MA
Date Inj'd : 11/6/2019 4:08 am Instrument : FID6
Sample : I611051904F Quant Date : 11/7/2019 3:50 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 93724908

Manual Peak Response = 93747874 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051930.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 5:36 am
 Operator : FID6:MA
 Sample : I611051905F
 Misc : WG1307766,FRBB90,200ug/ml
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:22:20 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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	31.535	46898622	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.549	196642226	195.434	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	390.87%#	
24) s d50-Tetracosane	36.194	152817833	186.436	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	372.87%#	
Target Compounds				
2) t n-Octane (C8)	5.851	149677511	195.795	ug/mL M4
3) t n-Nonane (C9)	8.049	156048274	196.174	ug/mL M4
4) t n-Decane (C10)	10.525	161750410	199.085	ug/mL M4
5) t n-Undecane (C11)	13.037	165164319	199.381	ug/mL M4
6) t n-Dodecane (C12)	15.469	168019138	198.688	ug/mL M4
7) t n-Tridecane (C13)	17.783	169559809	197.968	ug/mL M4
9) t n-Tetradecane (C14)	19.971	172748791	197.264	ug/mL M4
11) t n-Pentadecane (C15)	22.043	173487461	196.466	ug/mL M4
12) t n-Hexadecane (C16)	24.008	175421417	196.746	ug/mL M4
14) t n-Heptadecane (C17)	25.879	177824529	199.540	ug/mL M4
15) t Pristane	25.991	176037087	193.304	ug/mL M4
16) T n-Octadecane (C18)	27.651	178293451	196.878	ug/mL M4
17) t Phytane	27.815	160716143	196.281	ug/mL M4
18) t n-Nonadecane (C19)	29.343	176780263	194.674	ug/mL M4
20) t n-Eicosane (C20)	30.953	177572250	194.448	ug/mL M4
21) t n-Heneicosane (C21)	32.493	179759130	193.130	ug/mL M4
22) t n-Docosane (C22)	33.973	179469170	192.226	ug/mL M4
23) t n-Tricosane (C23)	35.393	180237317	191.921	ug/mL M4
25) t n-Tetracosane (C24)	36.761	180299629	190.016	ug/mL M4
26) t n-Pentacosane (C25)	38.070	178436663	189.731	ug/mL M4
27) t n-Hexacosane (C26)	39.331	179768827	188.891	ug/mL M4
28) t n-Heptacosane (C27)	40.550	174926140	187.530	ug/mL M4
29) t n-Octacosane (C28)	41.727	182203660	187.998	ug/mL M4
30) t n-Nonacosane (C29)	42.862	181273456	187.453	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051930.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 5:36 am
 Operator : FID6:MA
 Sample : I611051905F
 Misc : WG1307766,FRBB90,200ug/ml
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:22:20 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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)	43.965	179769430	187.285 ug/mL M4
32) t n-Hentriacontane (C31)	45.027	181202721	186.658 ug/mL M4
33) t n-Dotriacontane (C32)	46.060	179351253	186.885 ug/mL M4
34) t n-Tritriacontane (C33)	47.061	177701955	186.488 ug/mL M4
35) t n-tetratriacontane (C34)	48.135	184200732	185.897 ug/mL M4
36) t n-Pentatriacontane (C35)	49.341	177655436	184.861 ug/mL M4
37) t n-Hexatriacontane (C36)	50.728	187921612	185.053 ug/mL M4
38) t n-Heptatriacontane (C37)	52.329	176002759	184.930 ug/mL M4
39) t n-Octatriacontane (C38)	54.225	189532175	184.187 ug/mL M4
41) t n-Tetracontane (C40)	59.026	176859356	181.408 ug/mL M4

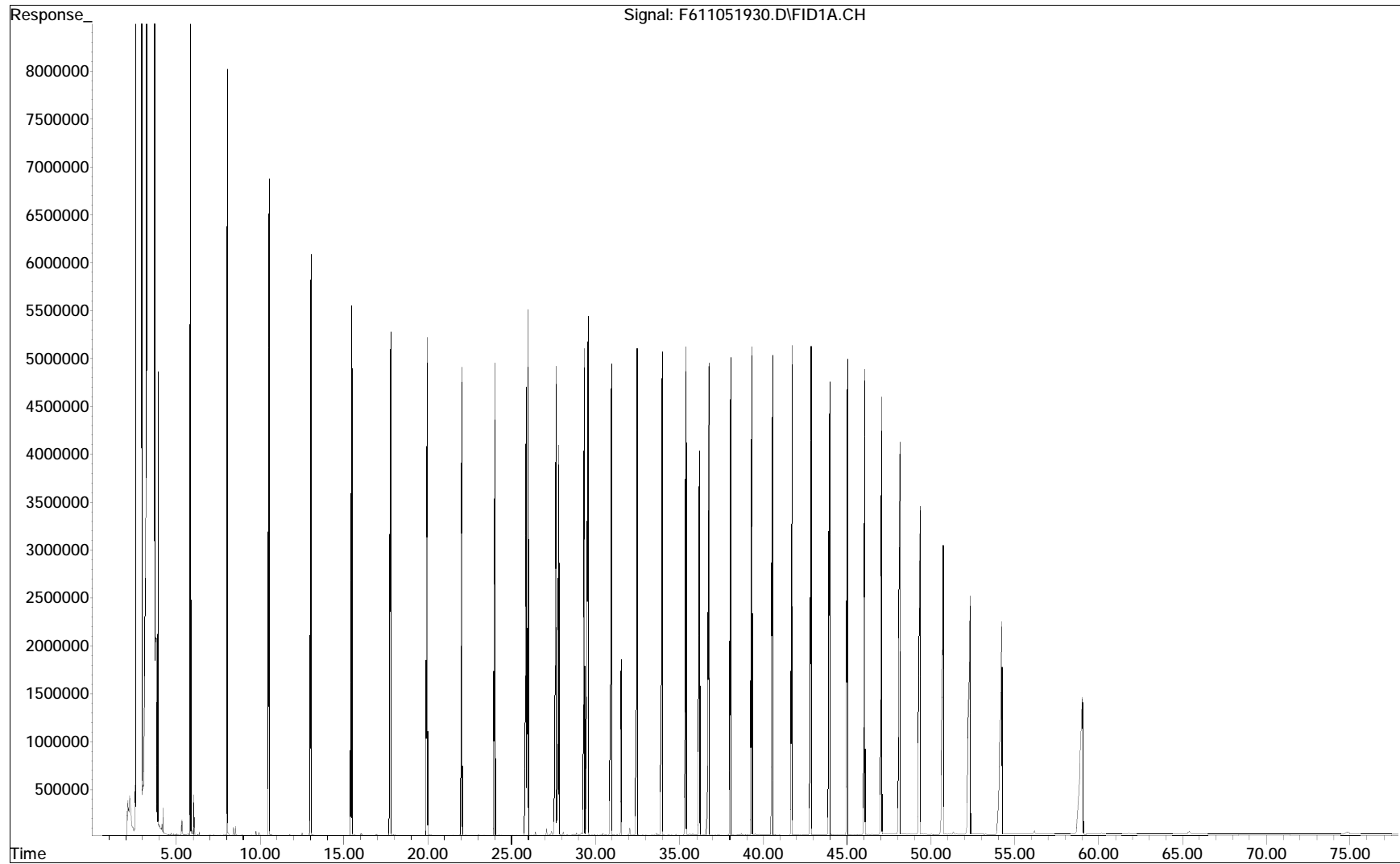
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

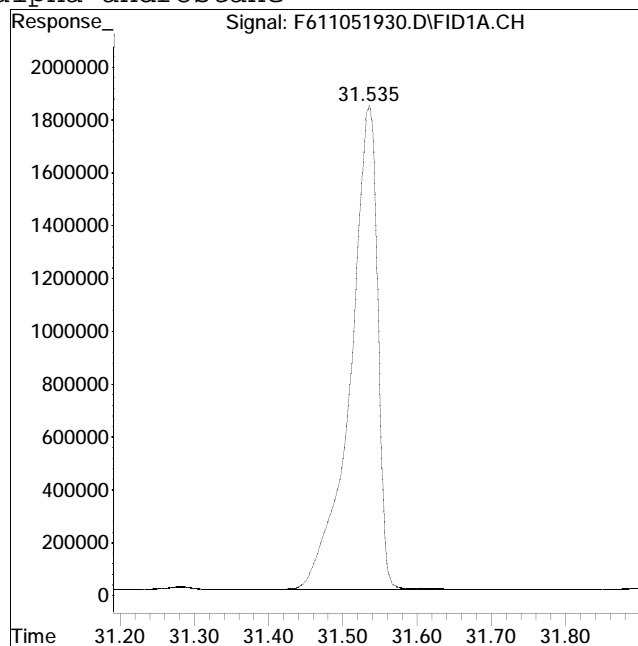
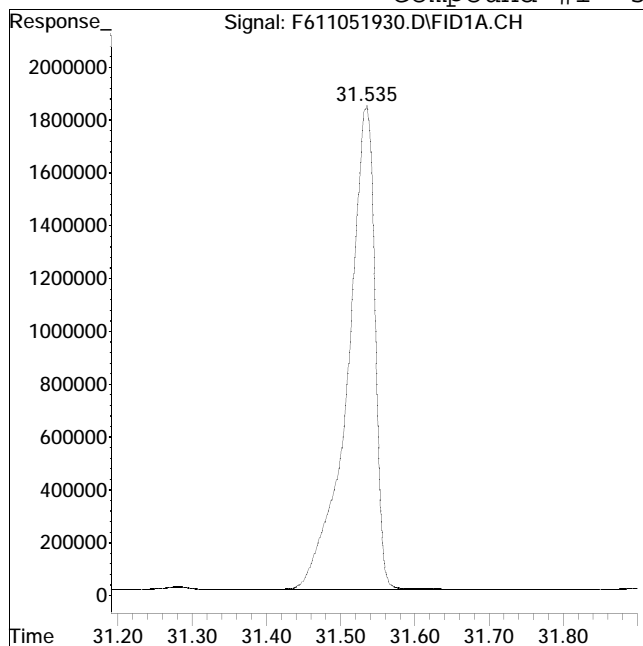
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051930.D
Operator : FID6:MA
Acquired : 06 Nov 2019 5:36 am using AcqMethod FID6A.M
Sample Name: I611051905F
Instrument: FID6
Misc Info : WG1307766,FRBB90,200ug/ml
Vial Number: 10
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 46910132

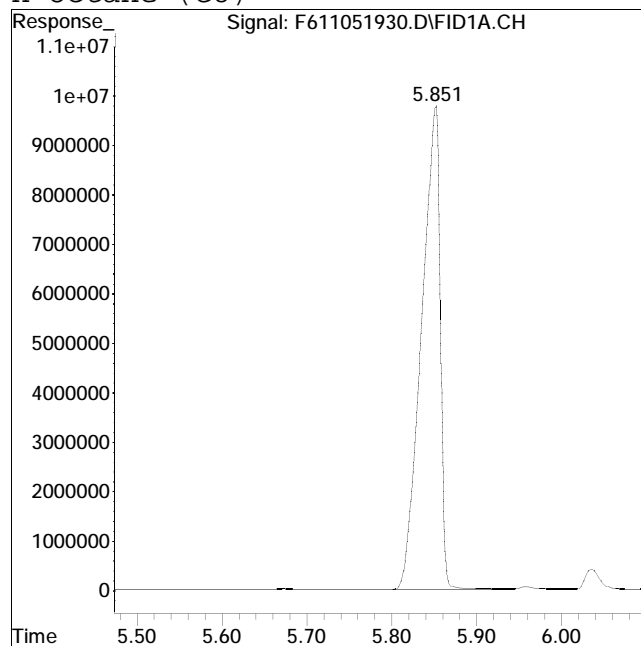
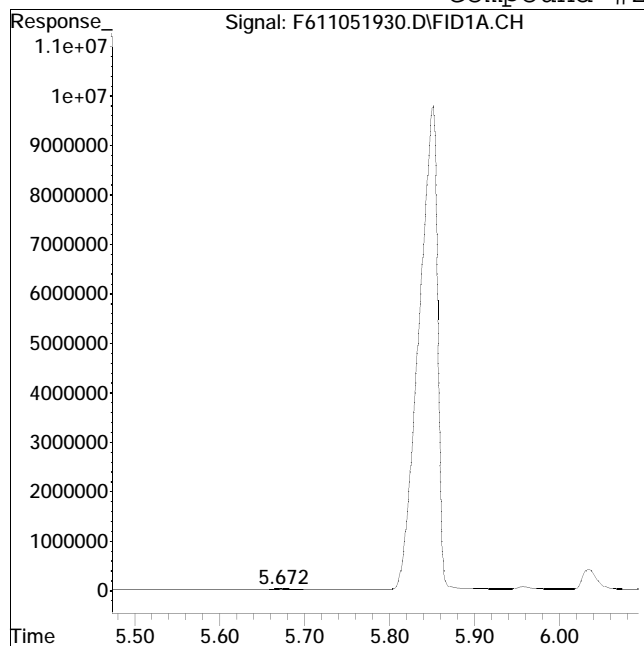
Manual Peak Response = 46898622 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #2: n-Octane (C8)



Original Peak Response = 368827

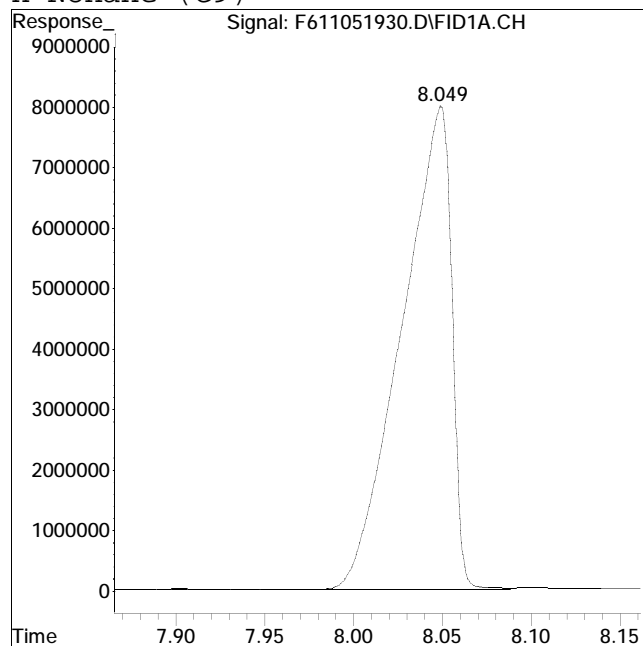
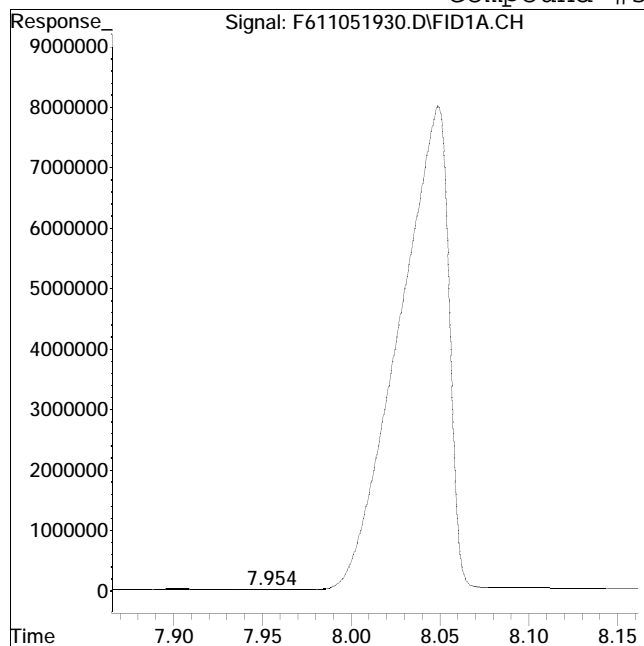
Manual Peak Response = 149677511 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 112565

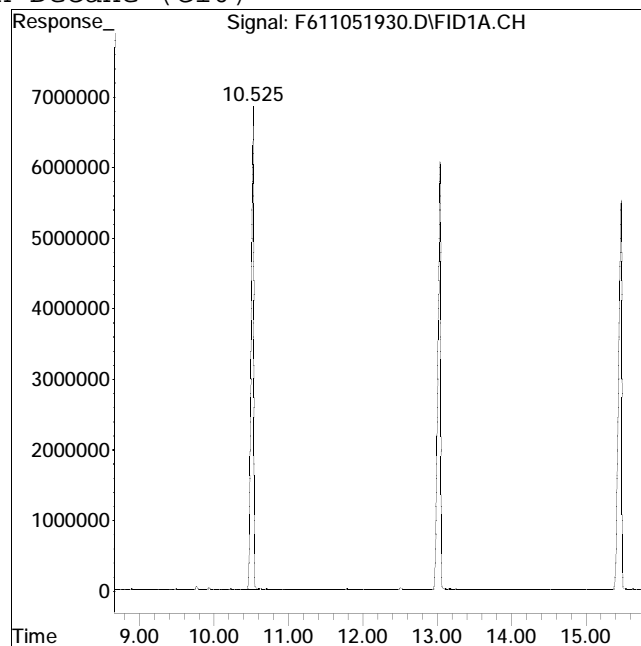
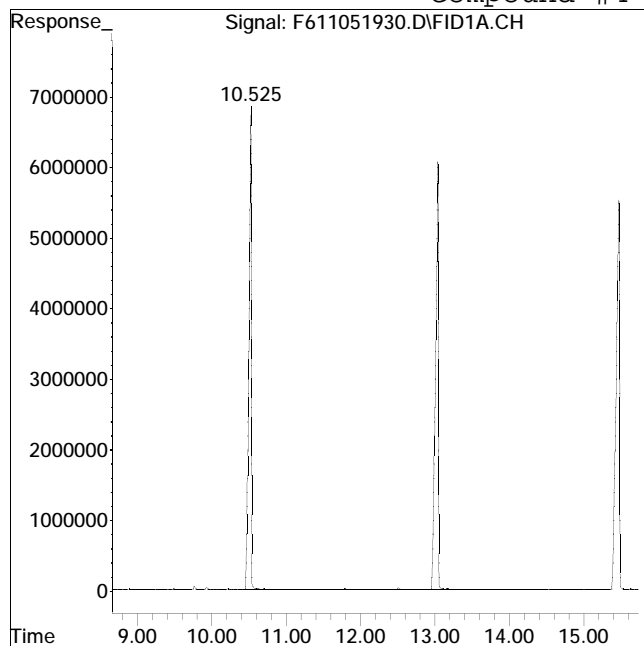
Manual Peak Response = 156048274 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #4: n-Decane (C10)



Original Peak Response = 157738429

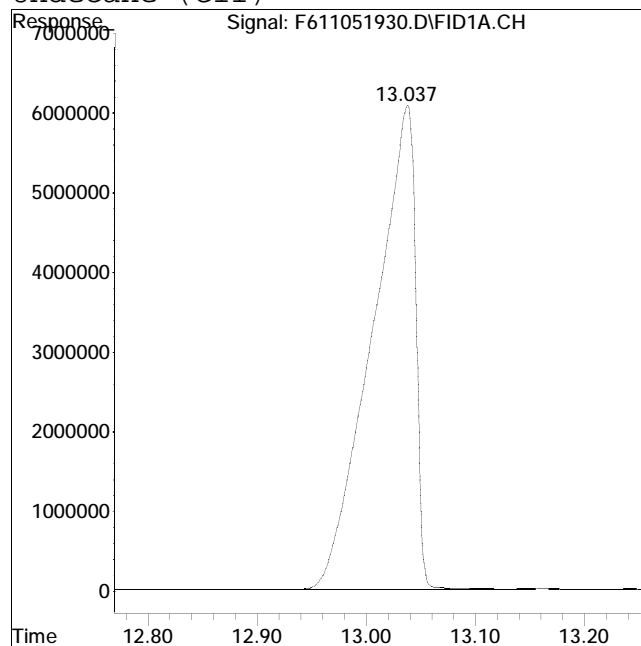
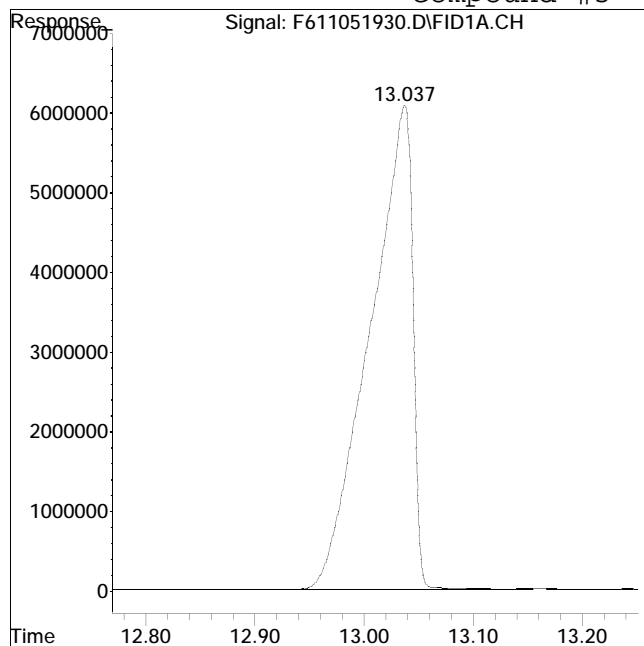
Manual Peak Response = 161750410 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 165142839

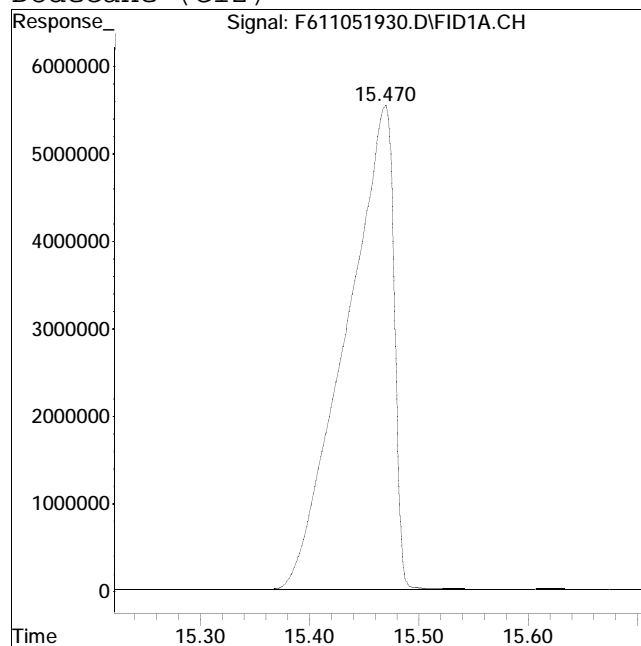
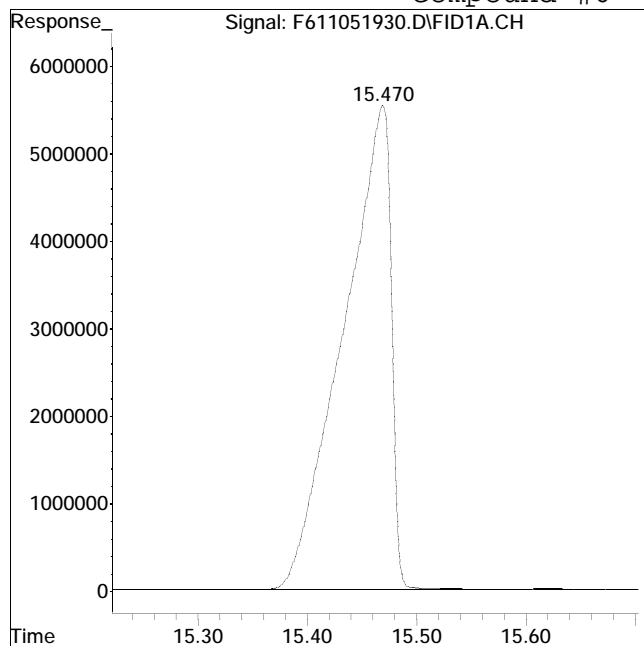
Manual Peak Response = 165164319 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 168008814

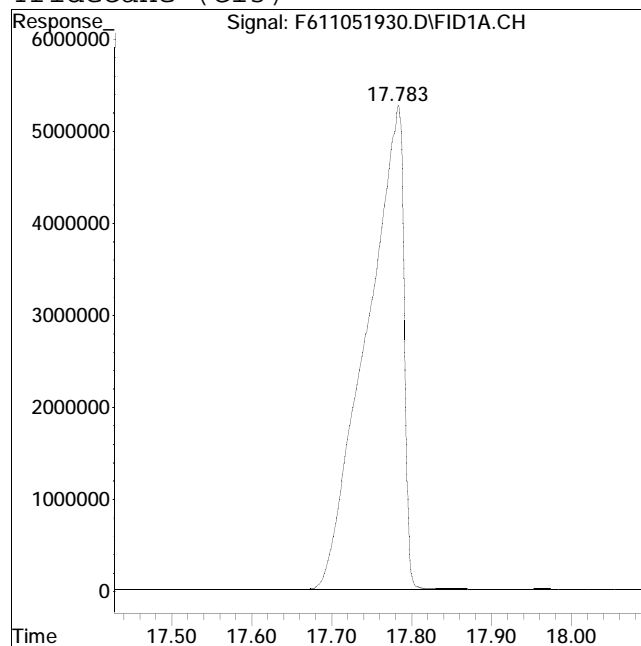
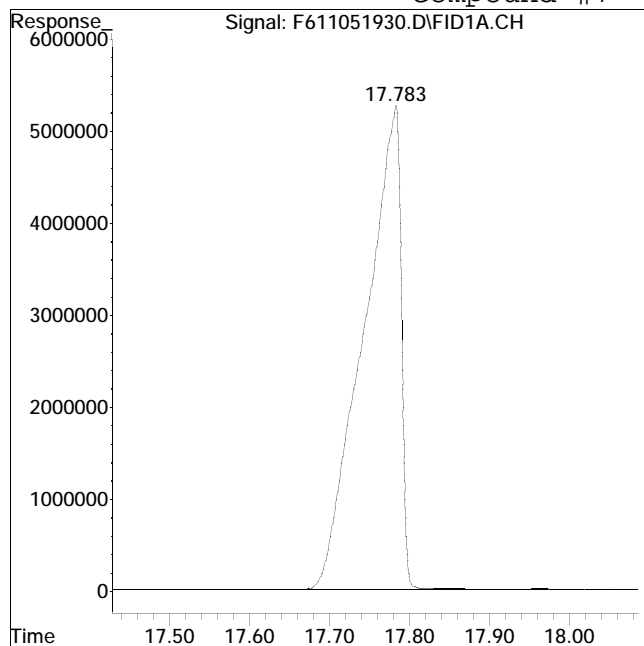
Manual Peak Response = 168019138 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 169648367

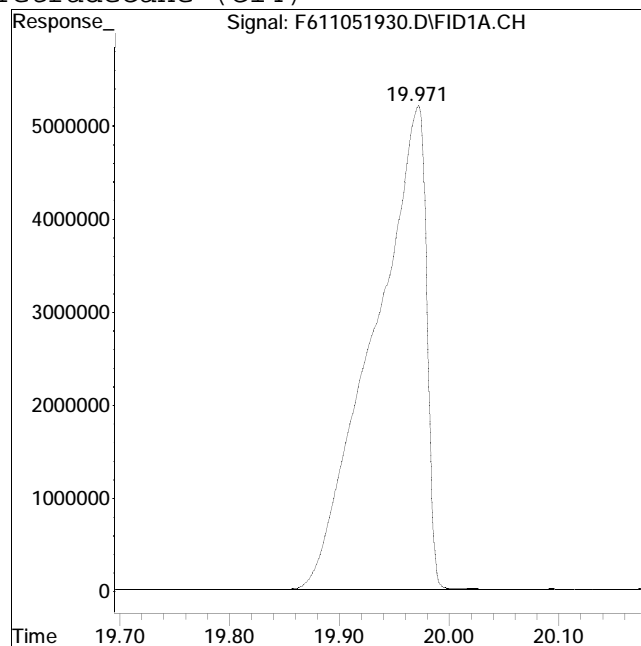
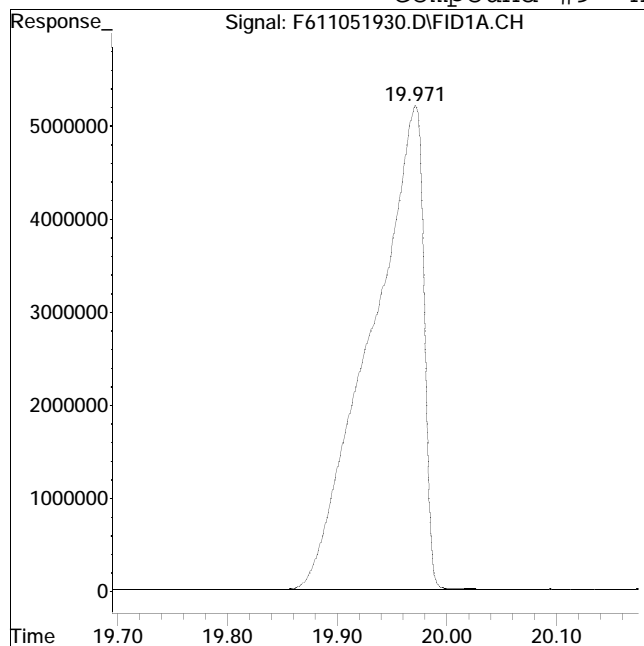
Manual Peak Response = 169559809 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 172450999

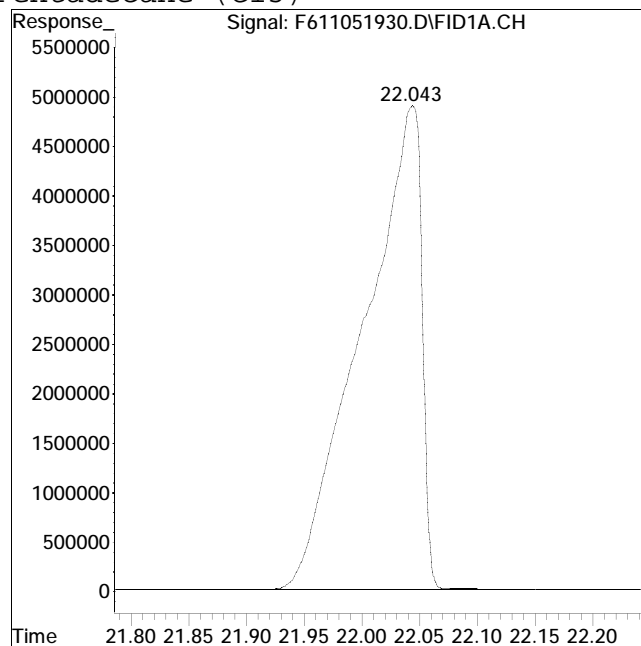
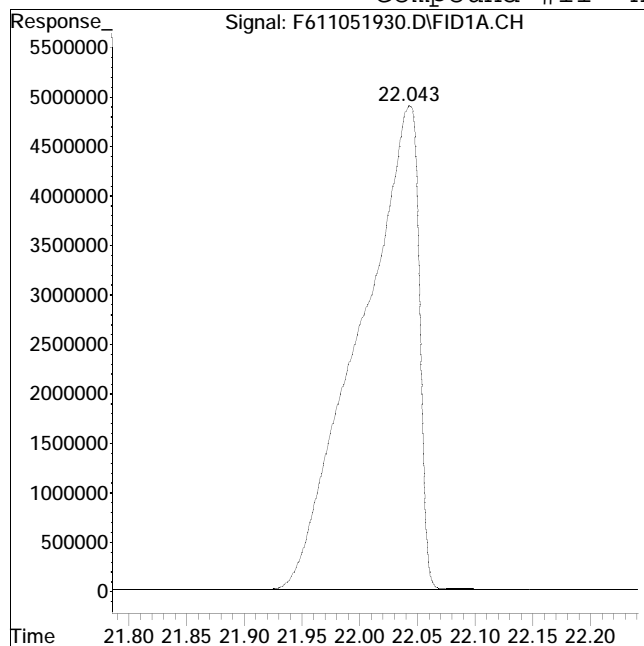
Manual Peak Response = 172748791 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 173262106

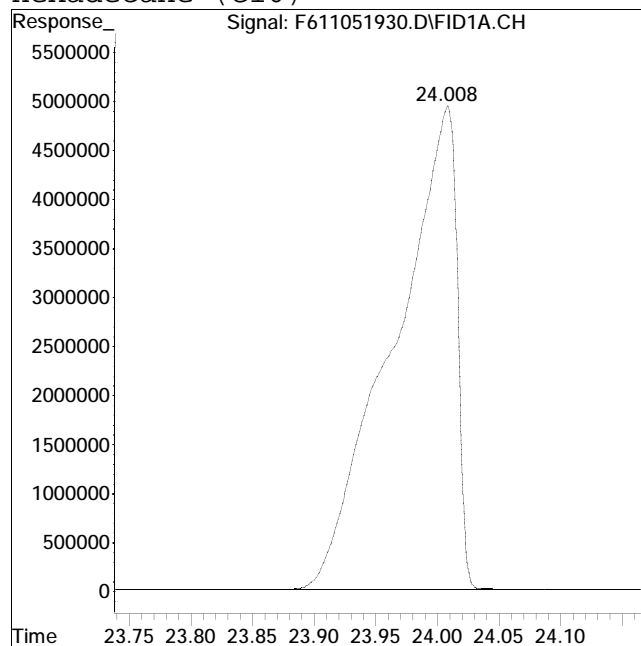
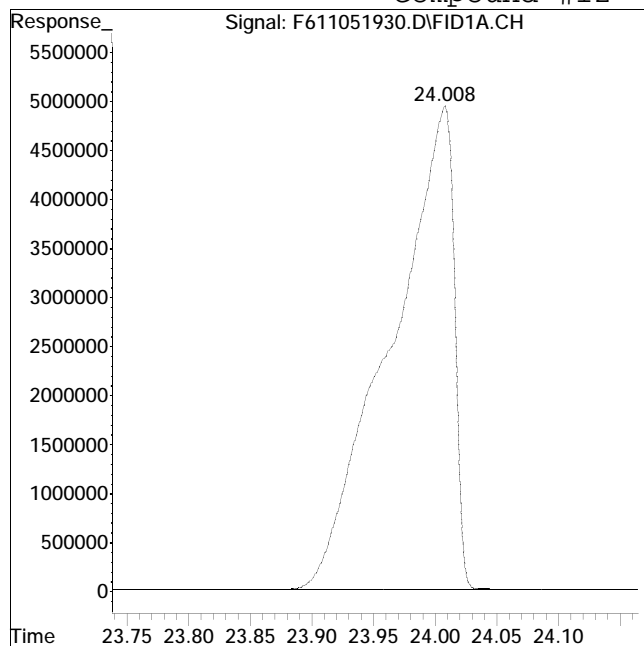
Manual Peak Response = 173487461 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 175107793

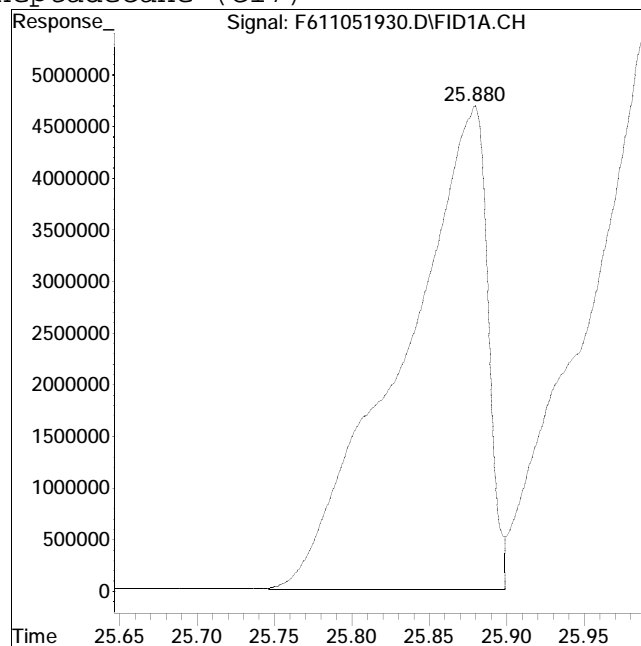
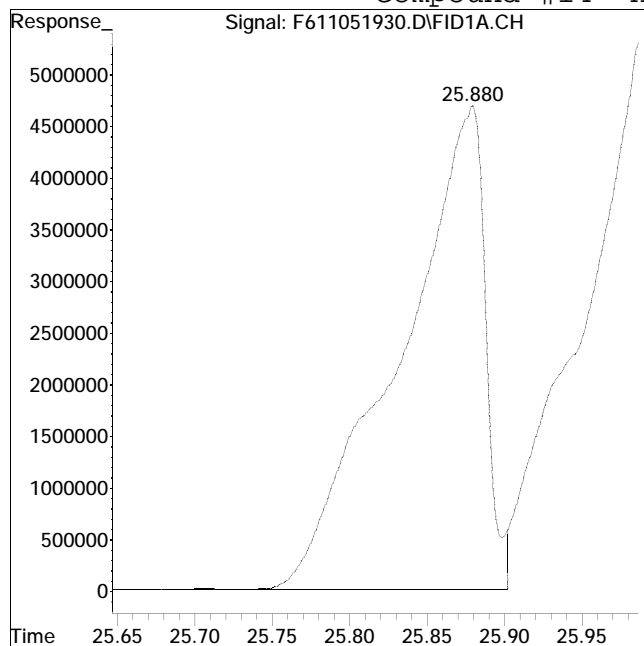
Manual Peak Response = 175421417 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 177806059

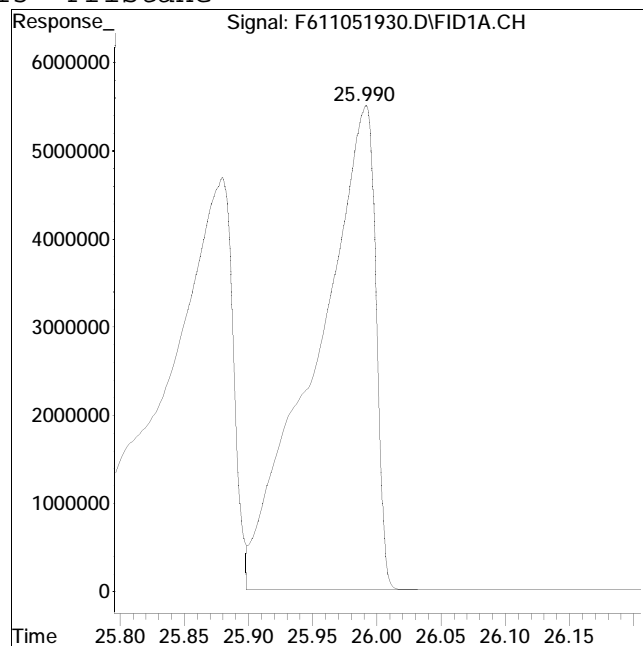
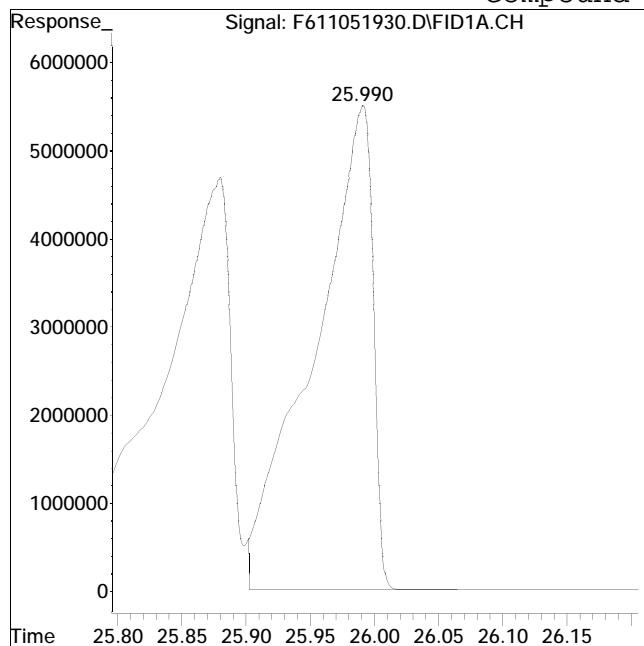
Manual Peak Response = 177824529 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #15: Pristane



Original Peak Response = 175171390

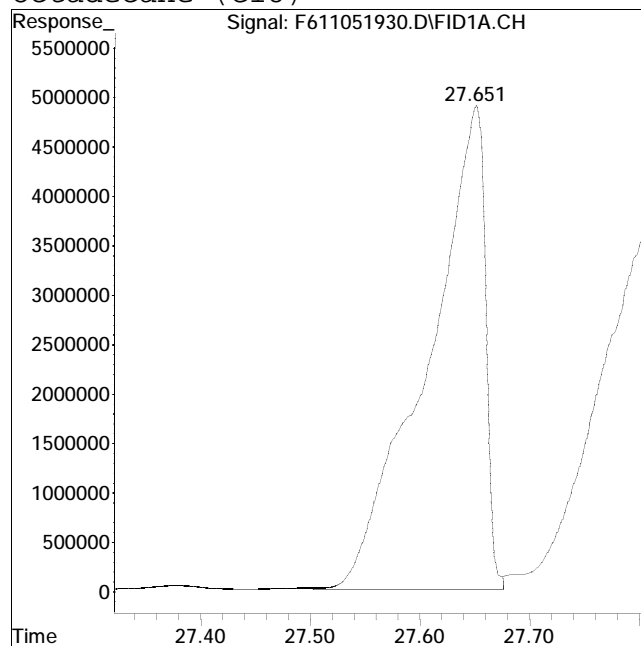
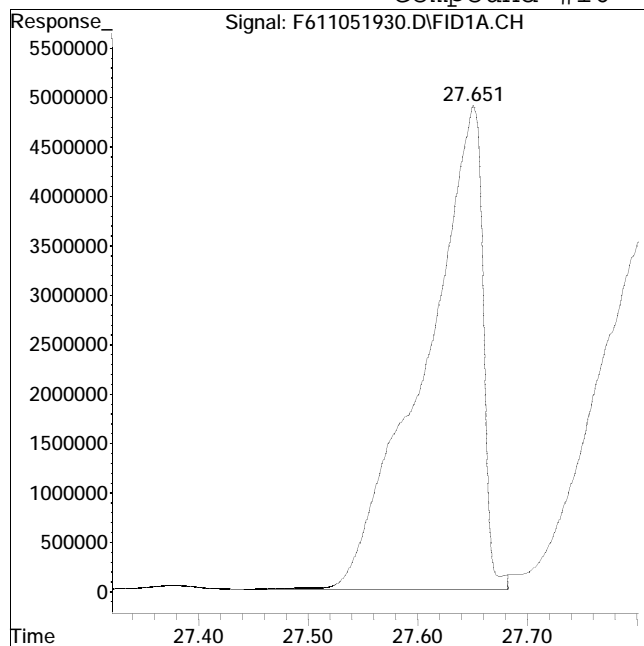
Manual Peak Response = 176037087 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 179255310

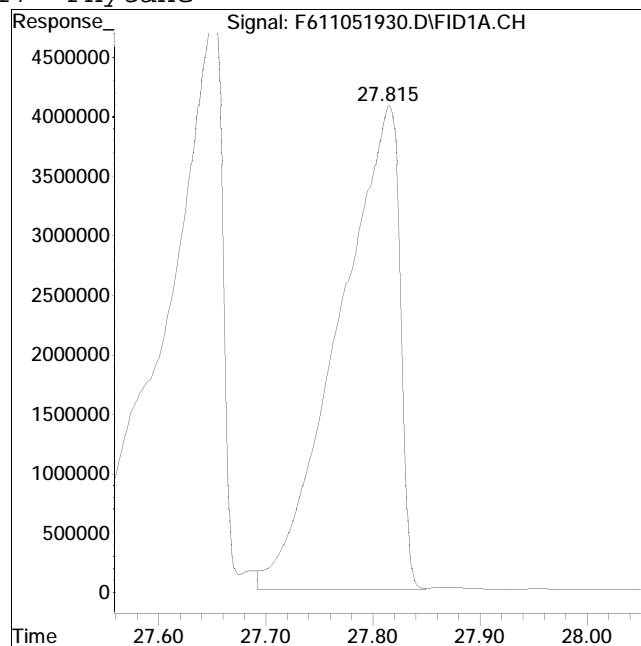
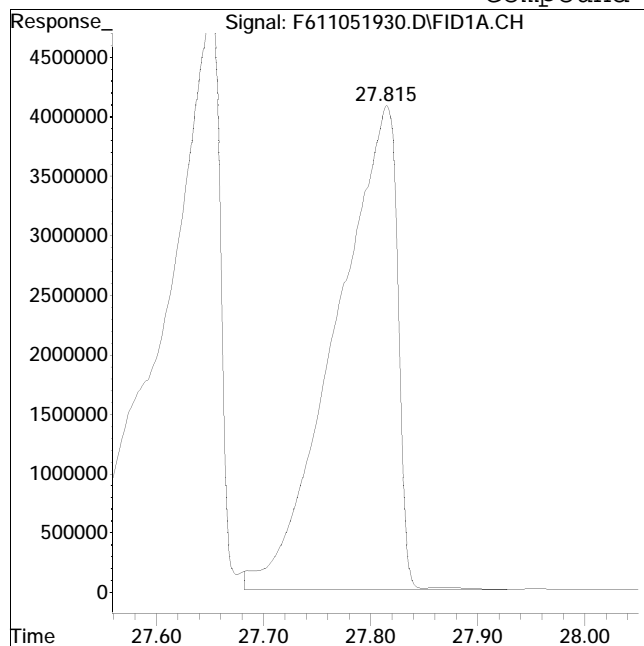
Manual Peak Response = 178293451 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #17: Phytane



Original Peak Response = 162394800

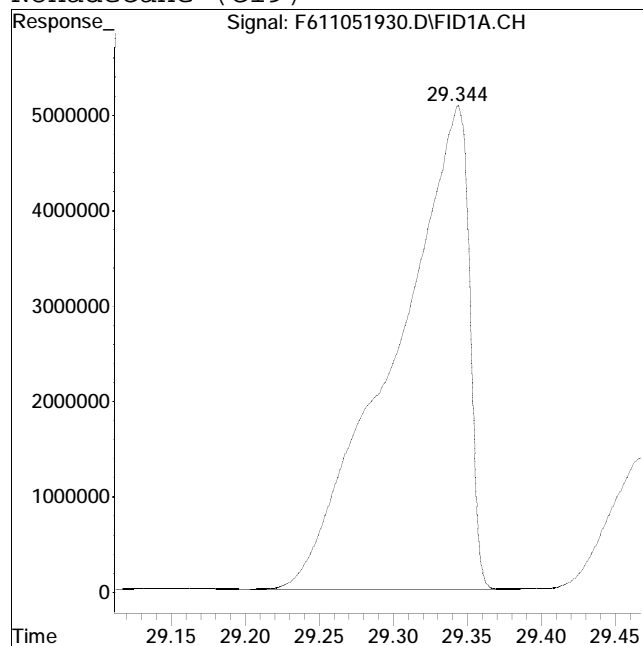
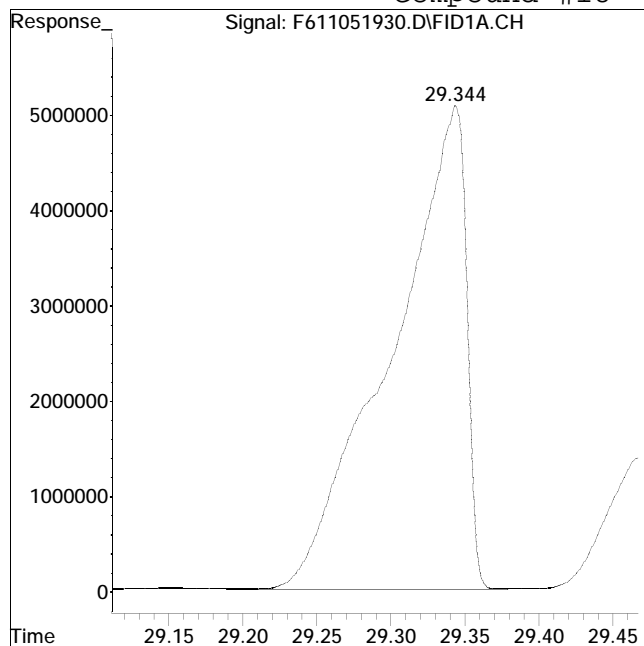
Manual Peak Response = 160716143 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 176977480

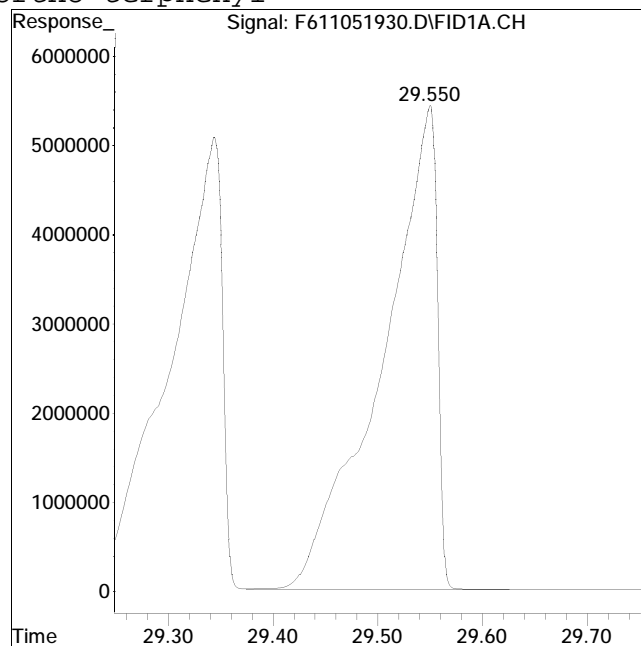
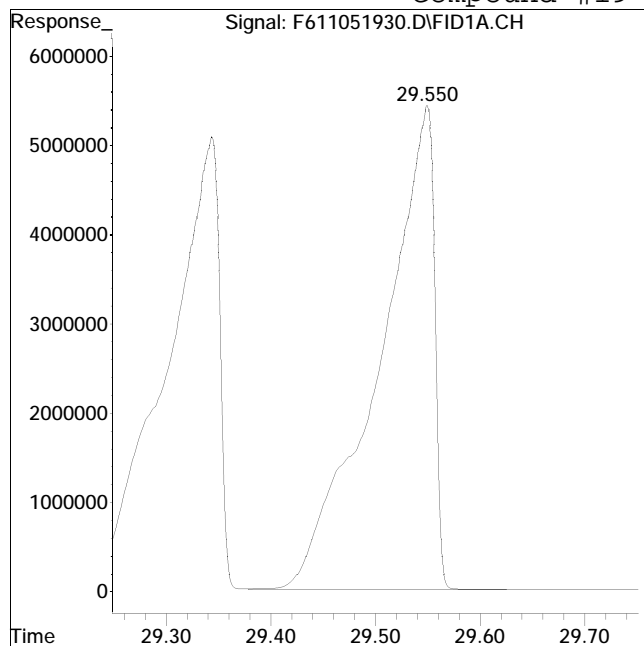
Manual Peak Response = 176780263 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #19: ortho-terphenyl



Original Peak Response = 196346474

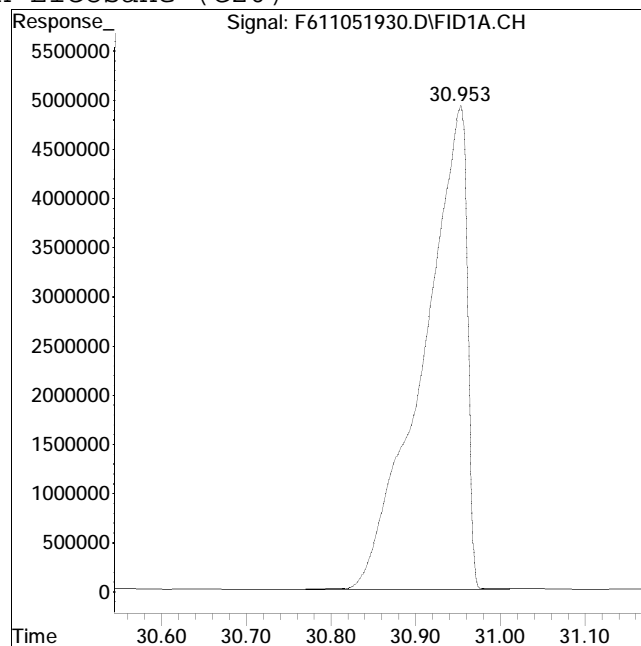
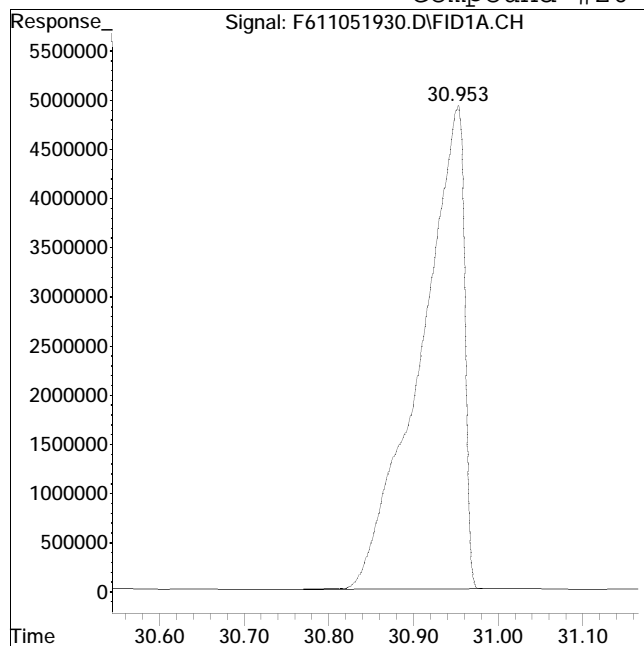
Manual Peak Response = 196642226 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 176893064

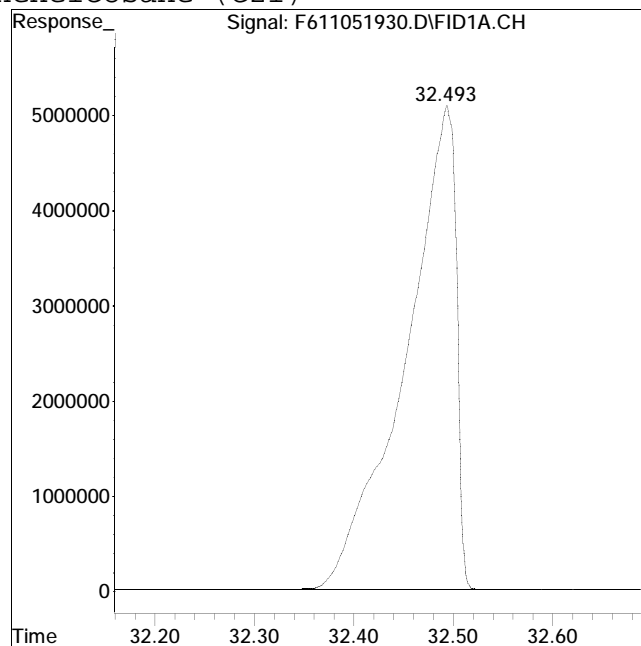
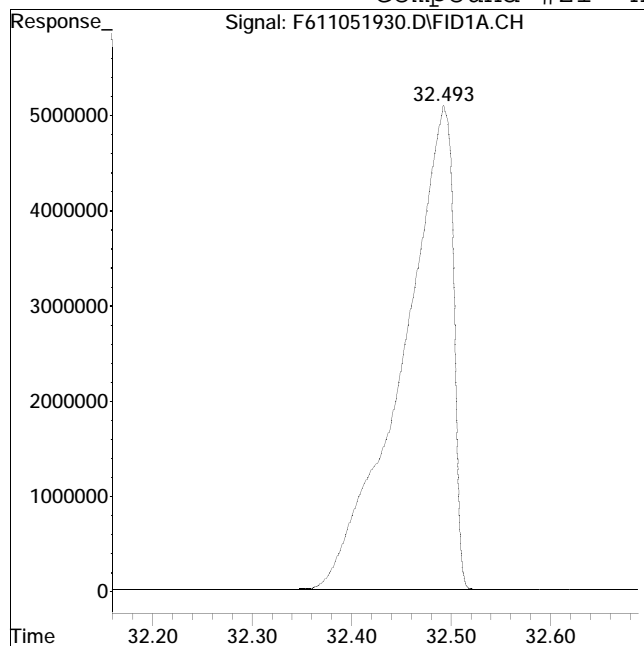
Manual Peak Response = 177572250 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 179714898

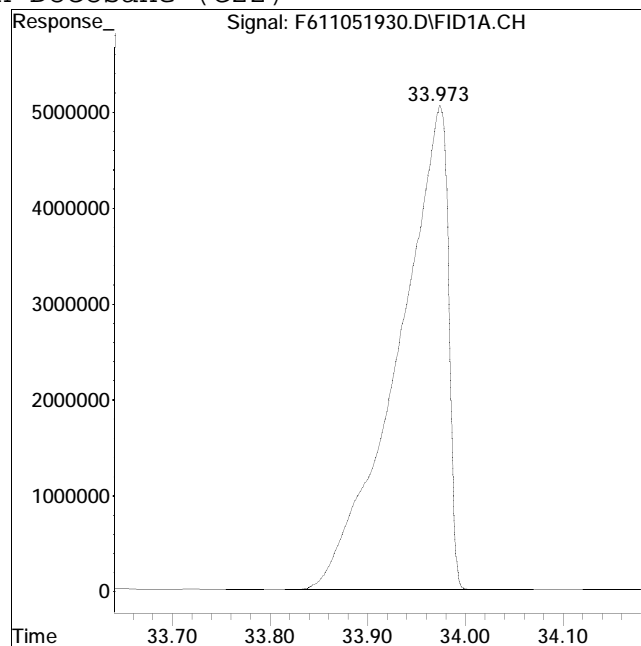
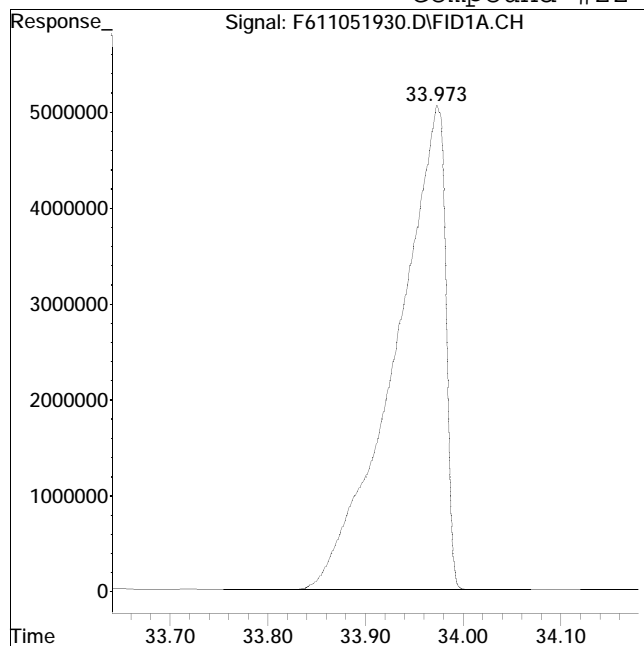
Manual Peak Response = 179759130 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 179507203

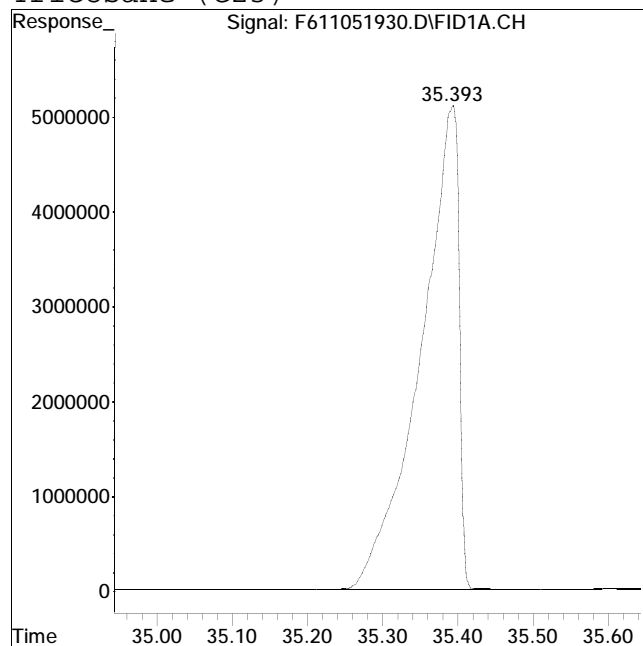
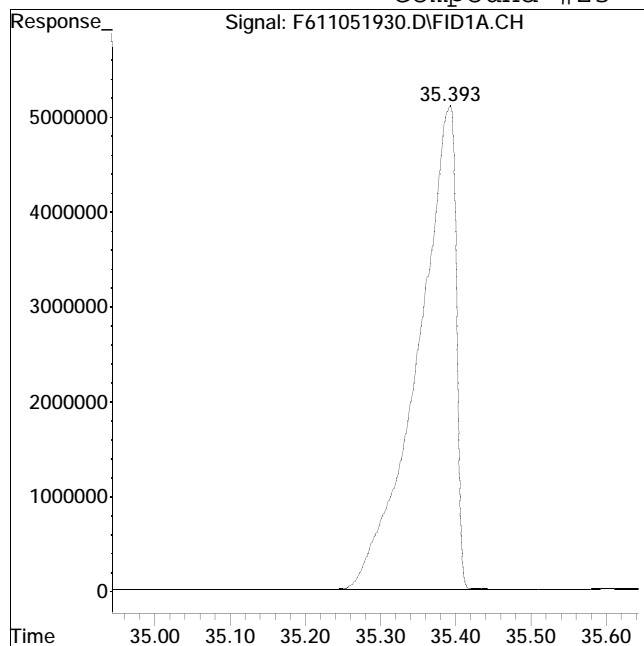
Manual Peak Response = 179469170 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 180288116

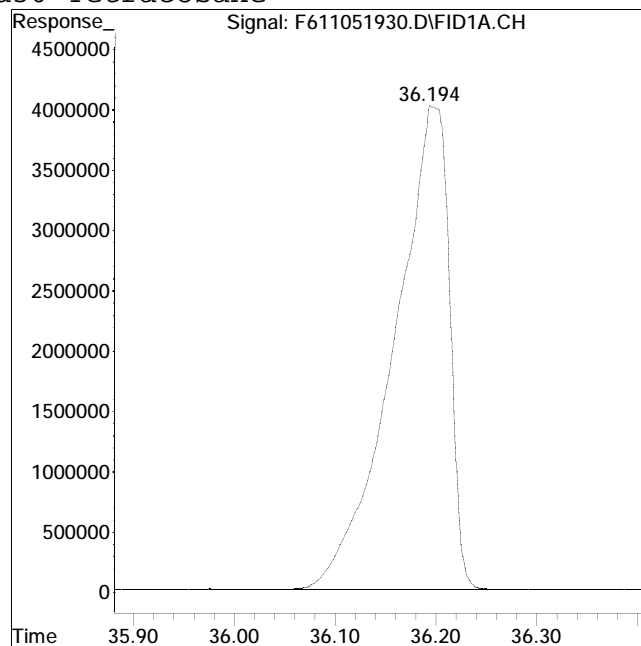
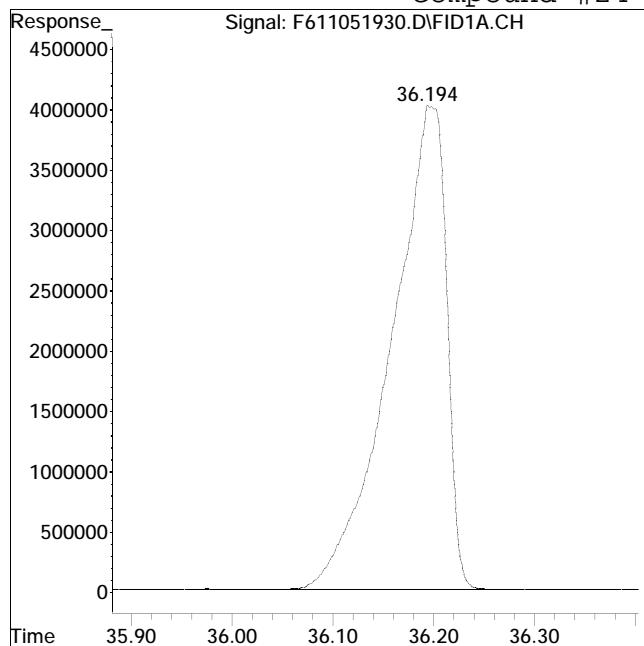
Manual Peak Response = 180237317 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #24: d50-Tetracosane



Original Peak Response = 152794734

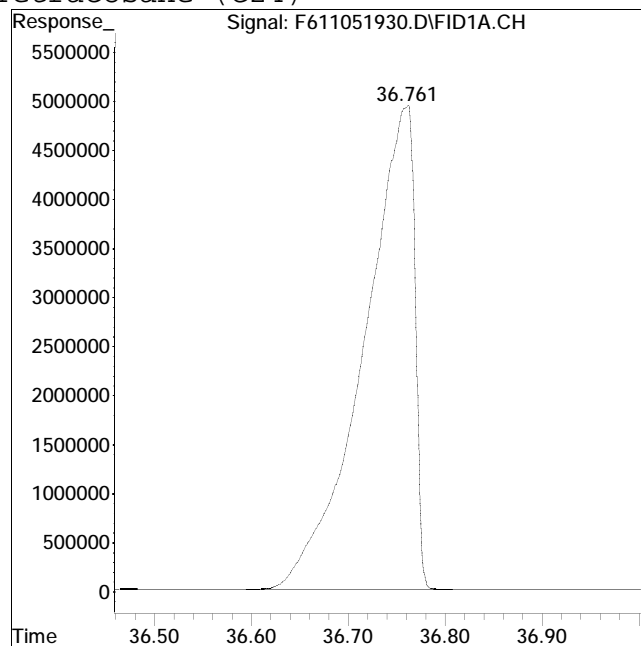
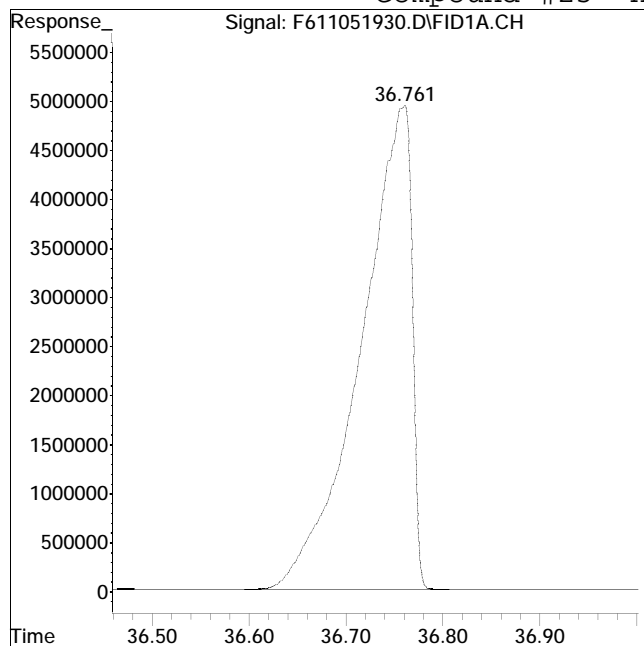
Manual Peak Response = 152817833 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 180240067

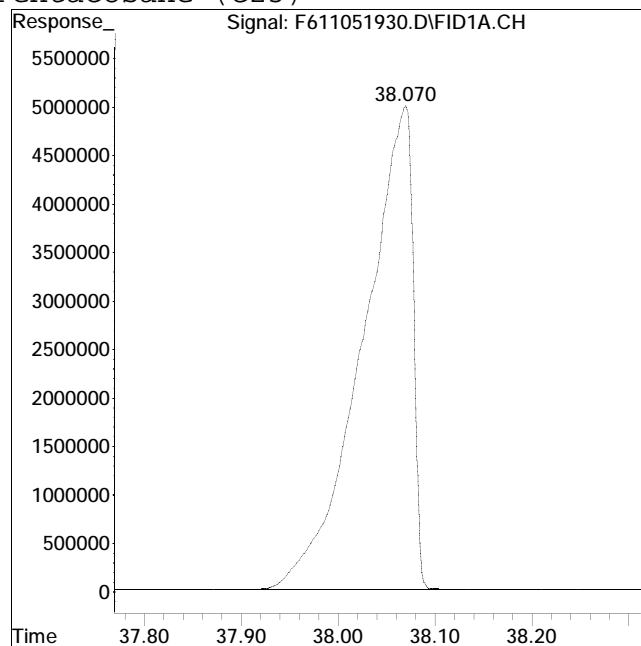
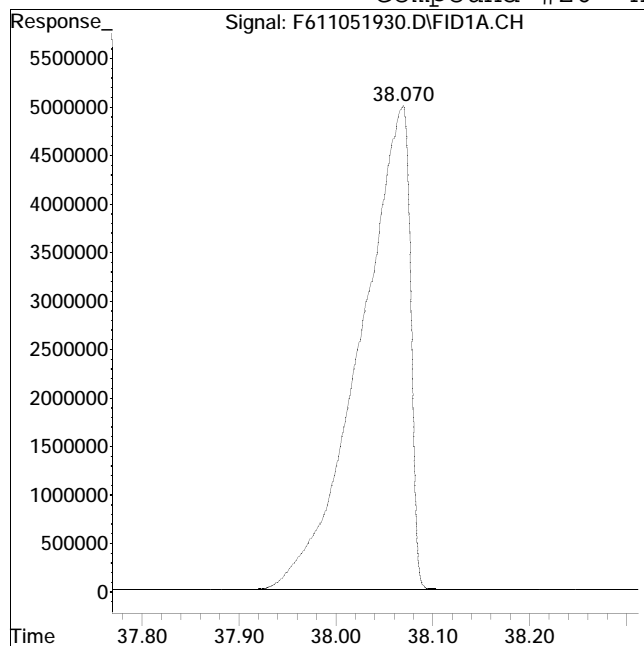
Manual Peak Response = 180299629 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 178448823

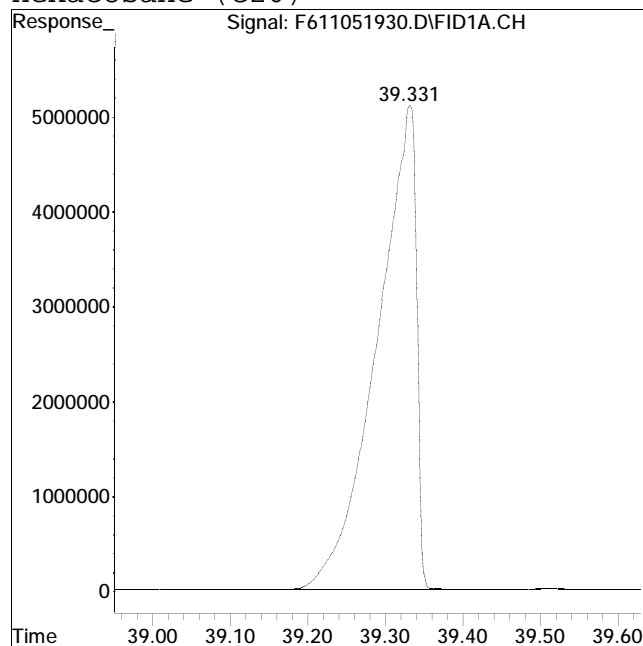
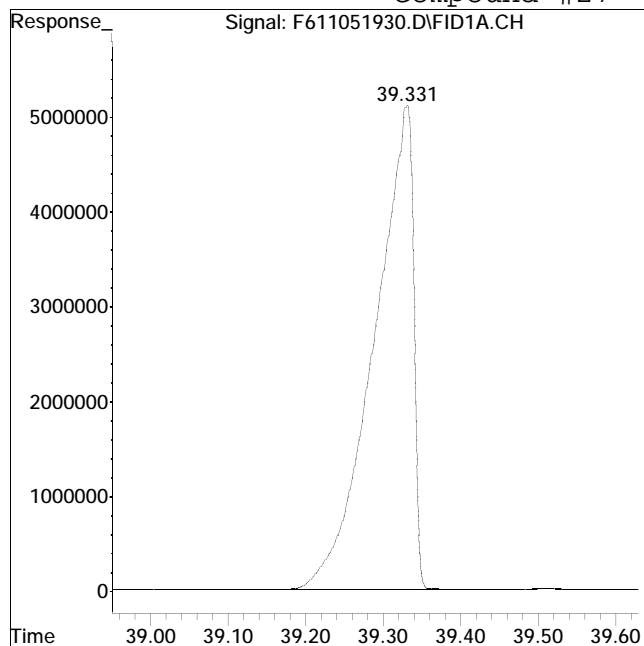
Manual Peak Response = 178436663 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 179907272

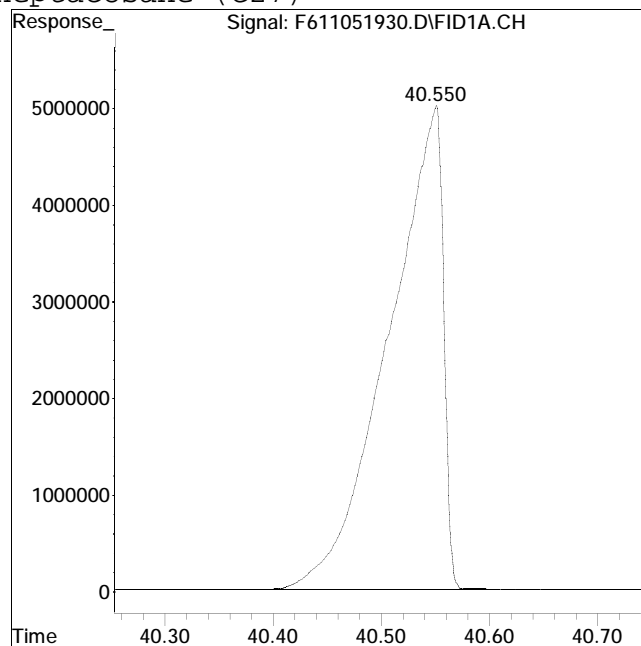
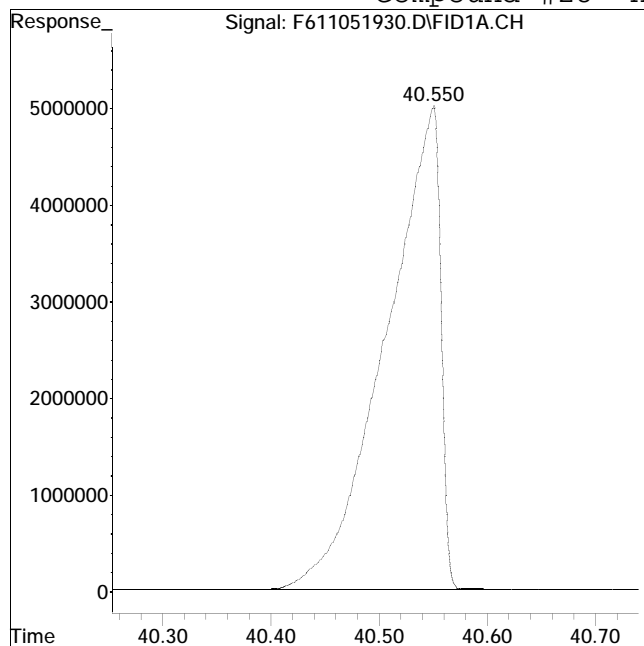
Manual Peak Response = 179768827 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 175058324

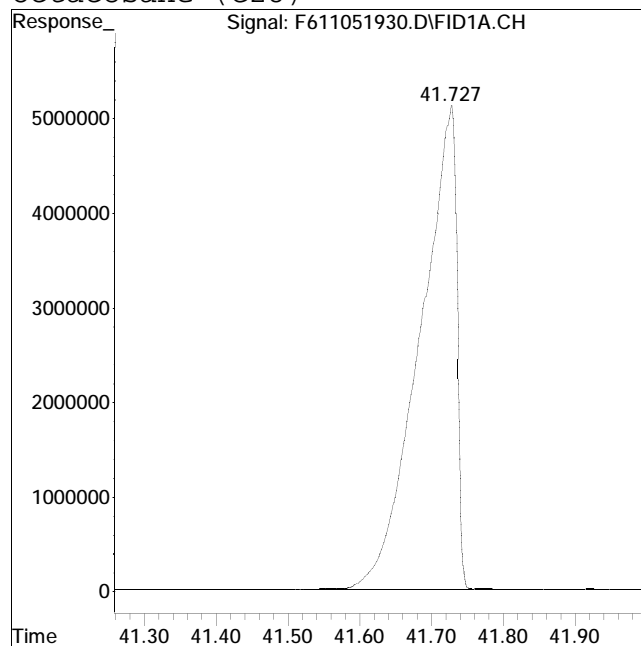
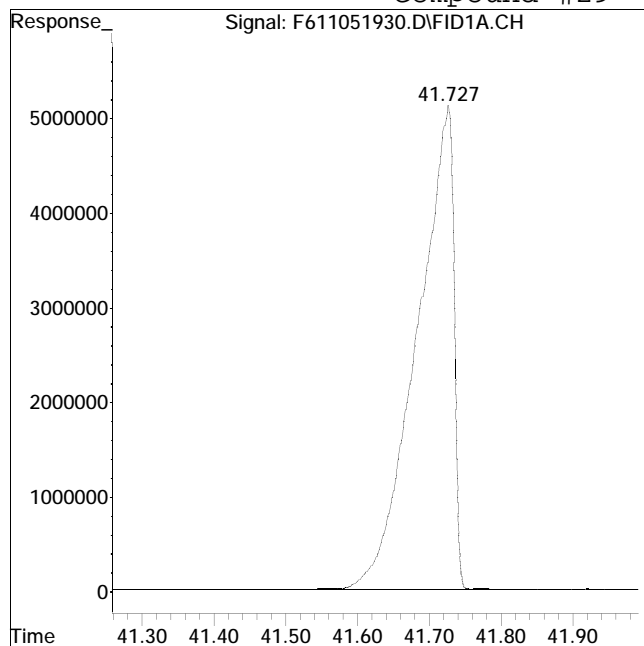
Manual Peak Response = 174926140 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 182299687

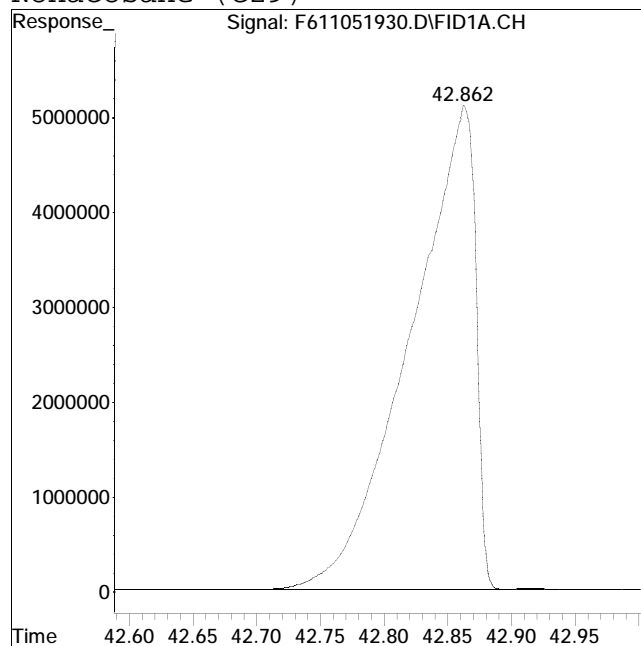
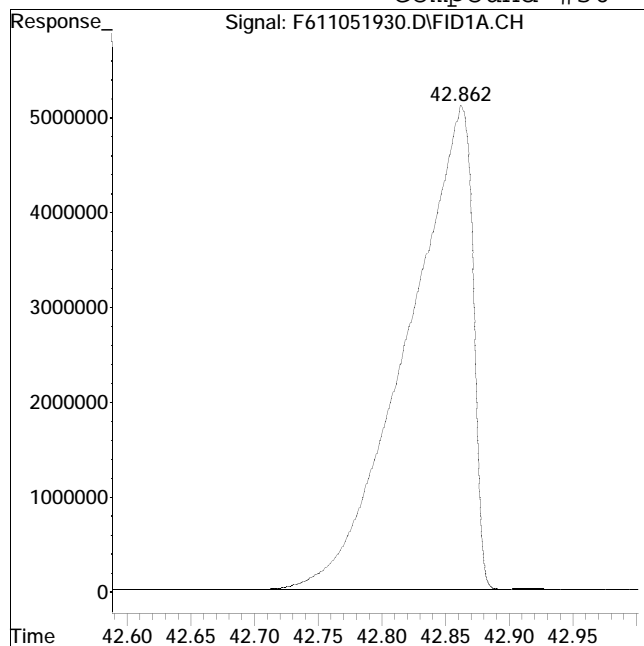
Manual Peak Response = 182203660 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 181316430

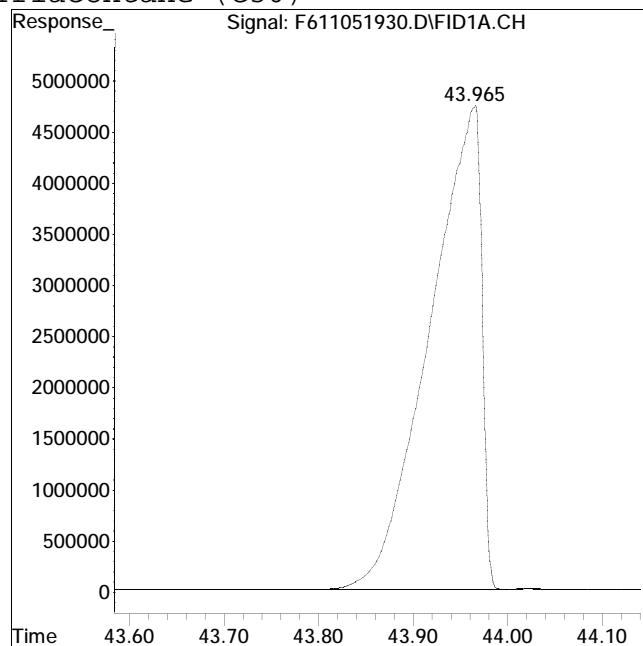
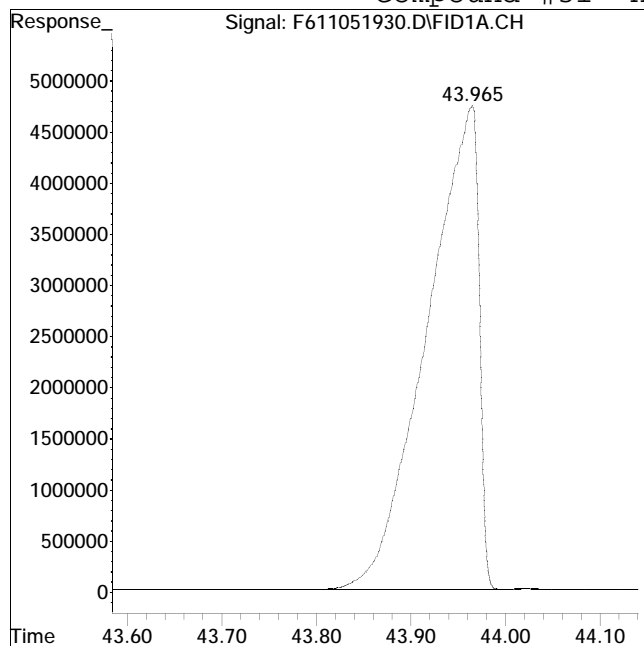
Manual Peak Response = 181273456 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 179624252

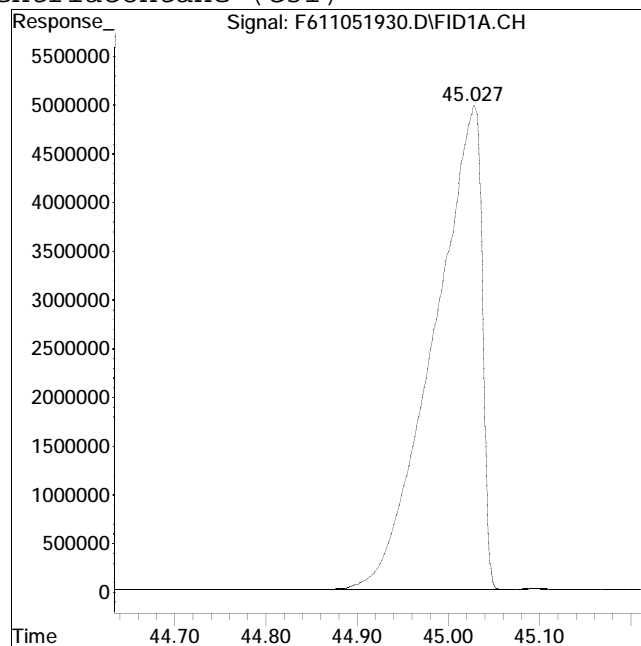
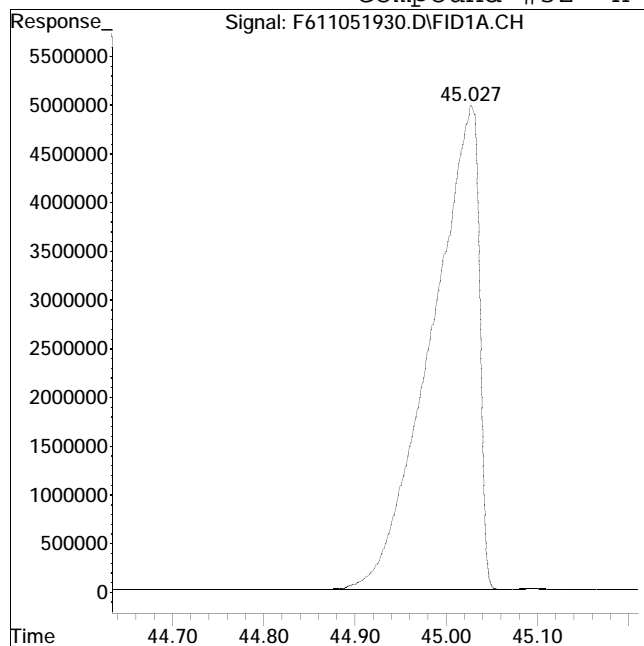
Manual Peak Response = 179769430 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 181212533

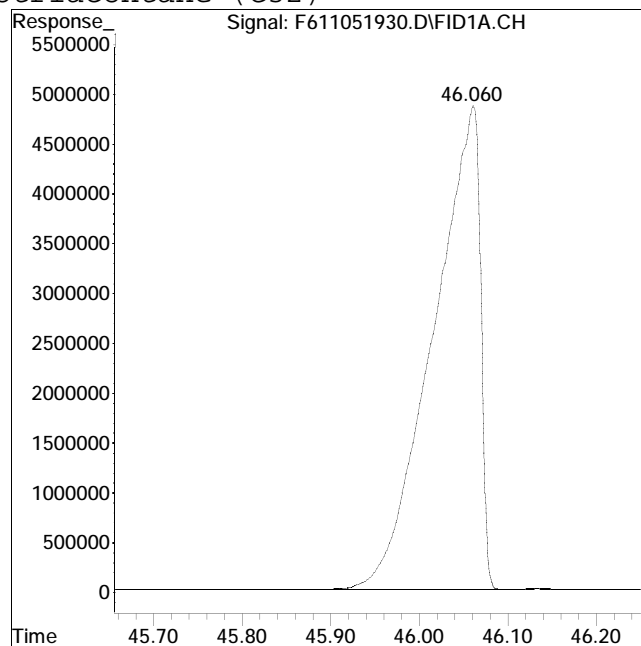
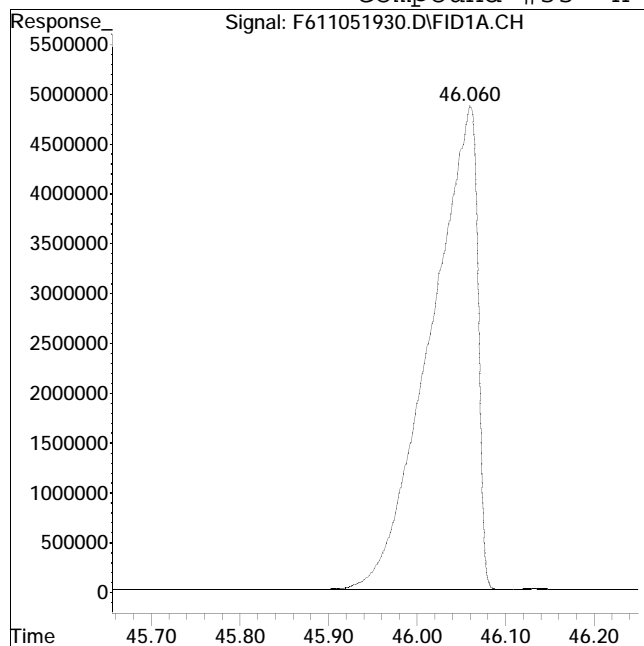
Manual Peak Response = 181202721 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 179187960

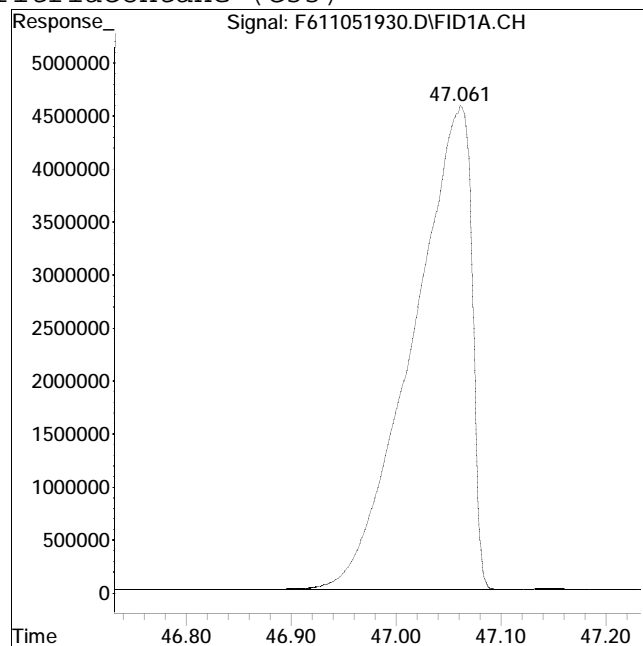
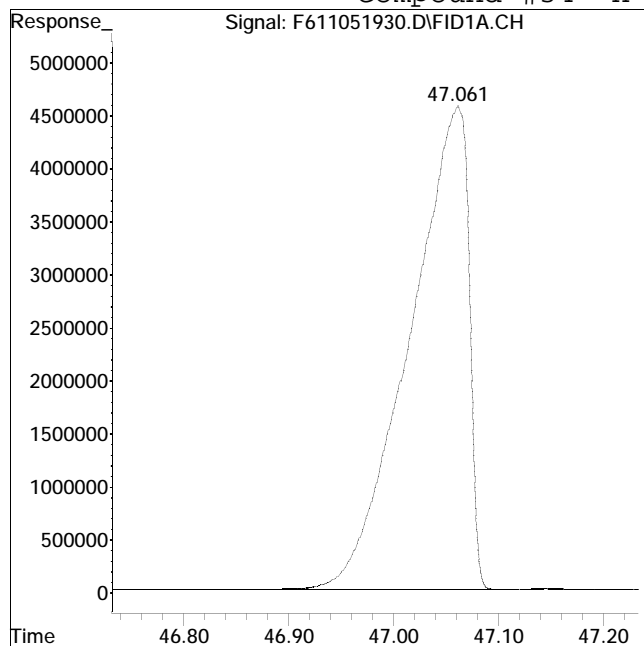
Manual Peak Response = 179351253 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 177717291

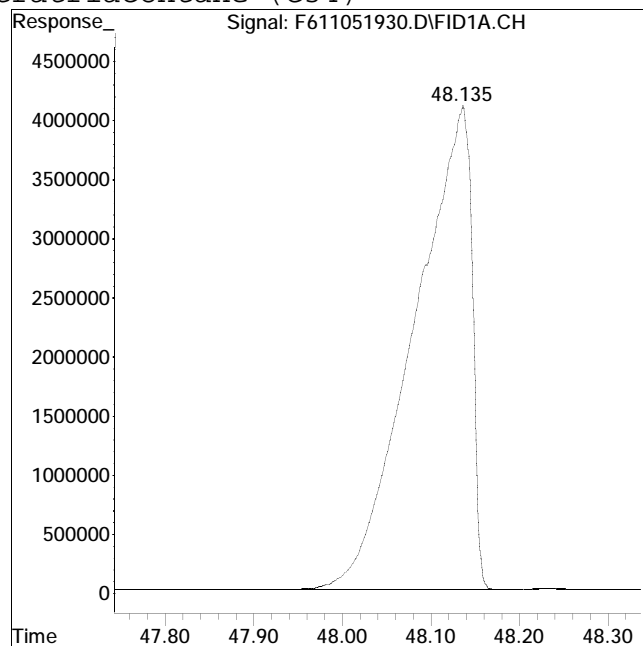
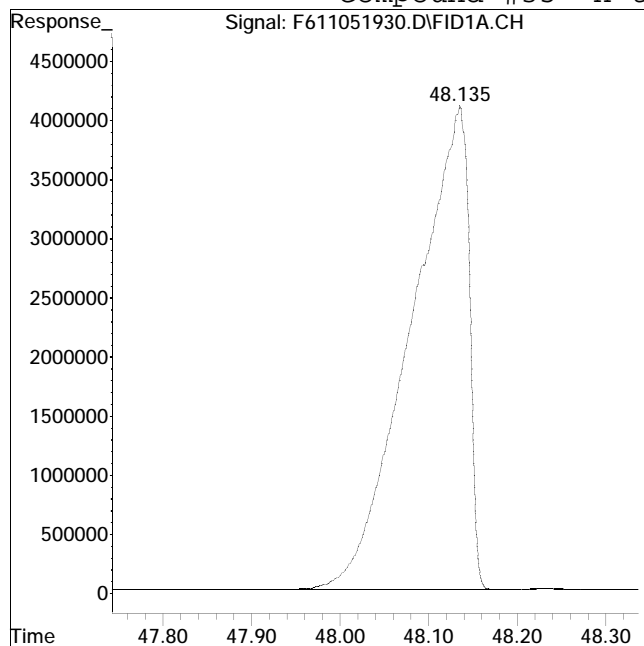
Manual Peak Response = 177701955 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 184084174

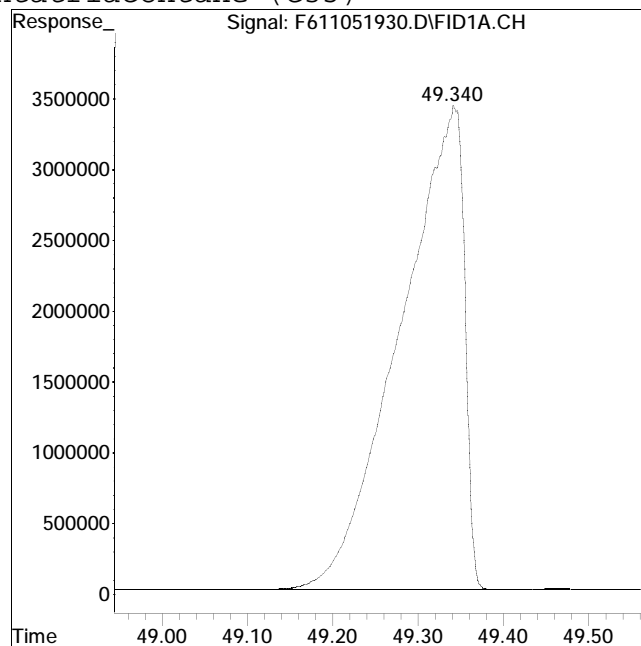
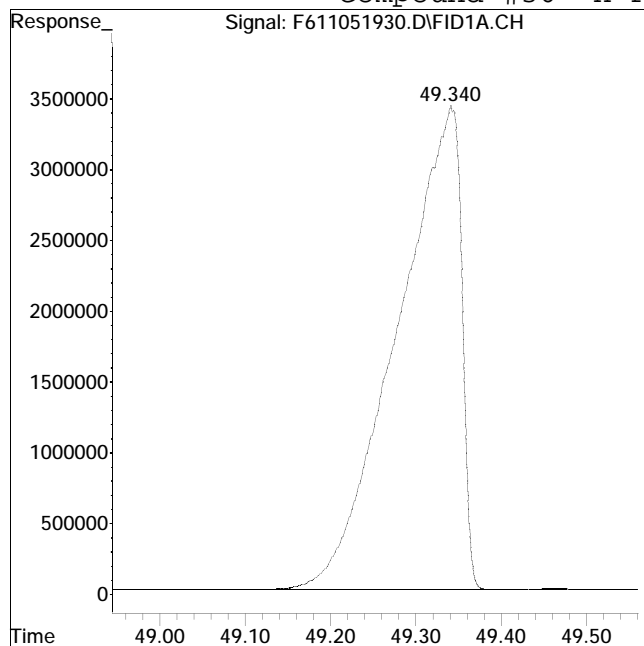
Manual Peak Response = 184200732 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 177654938

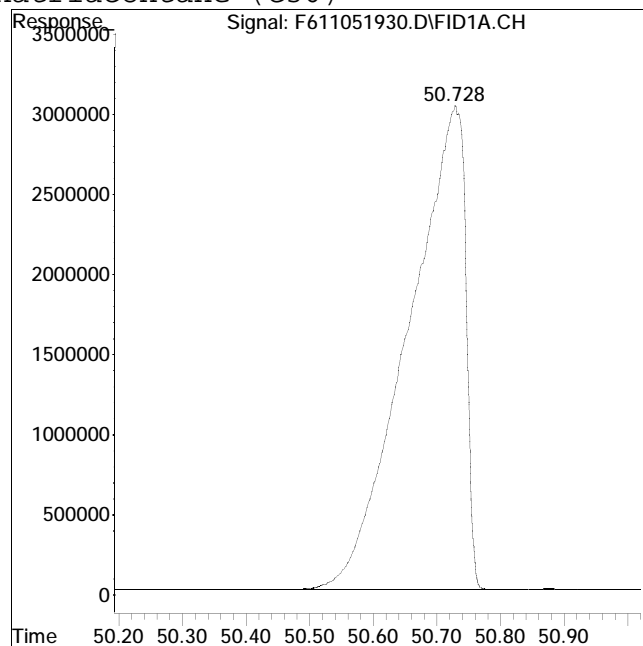
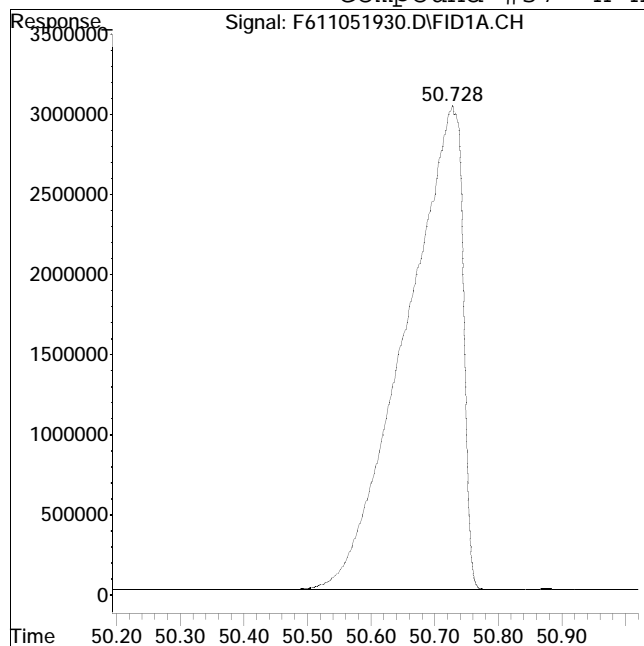
Manual Peak Response = 177655436 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 187889356

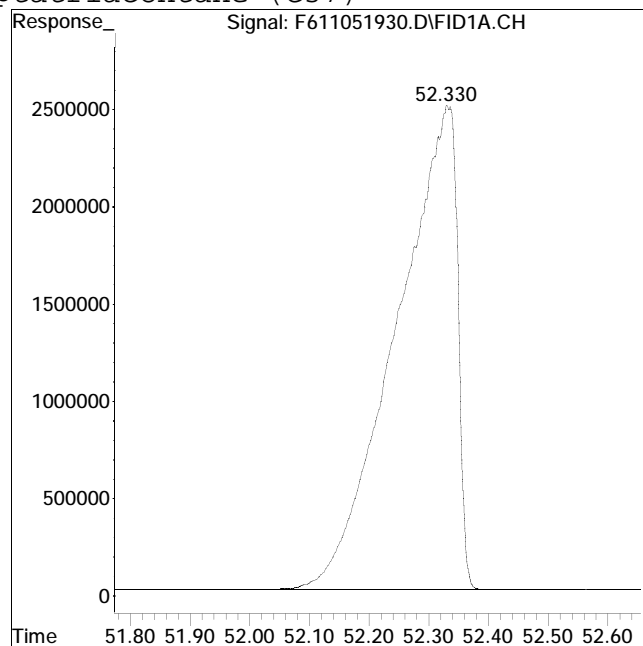
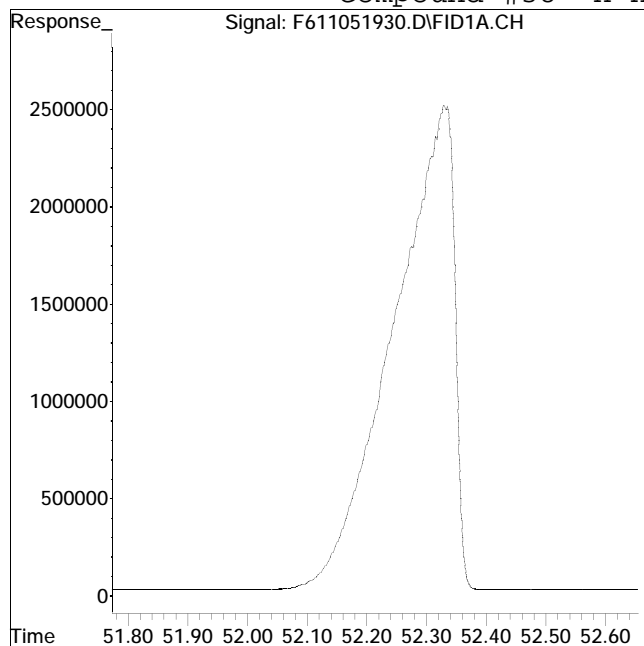
Manual Peak Response = 187921612 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 0

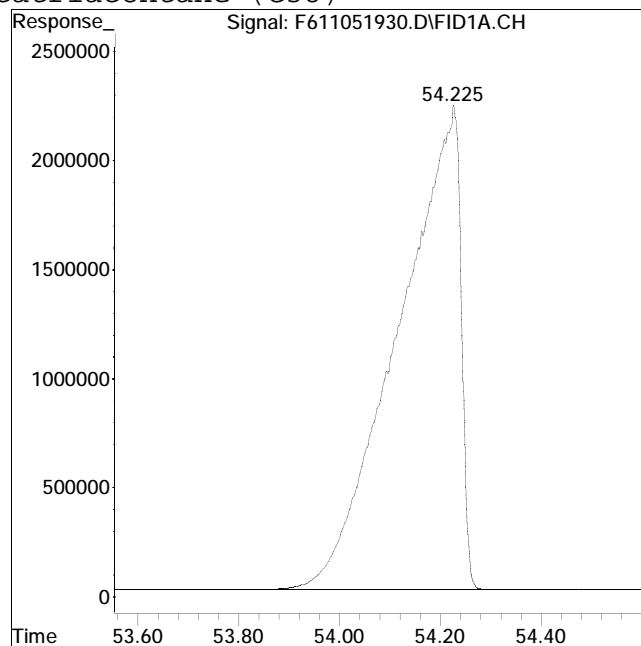
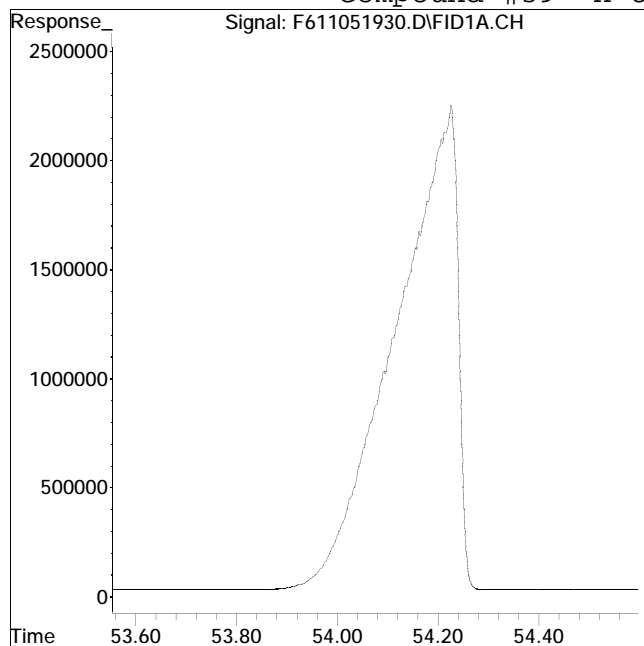
Manual Peak Response = 176002759 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

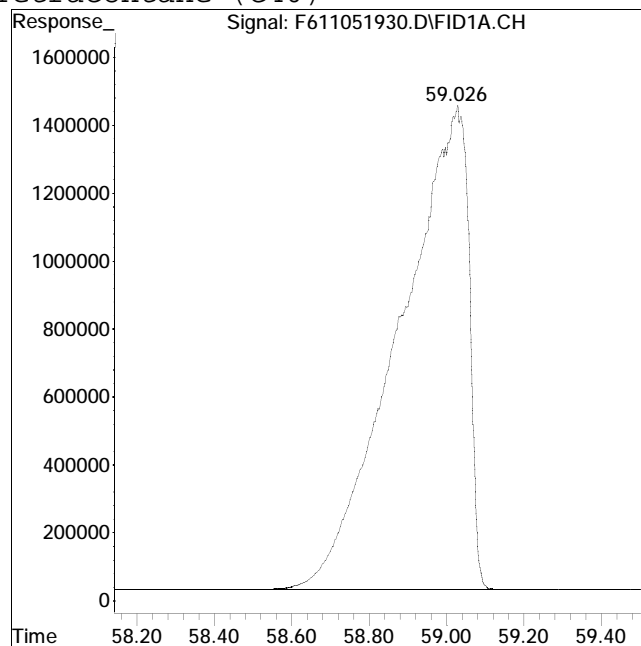
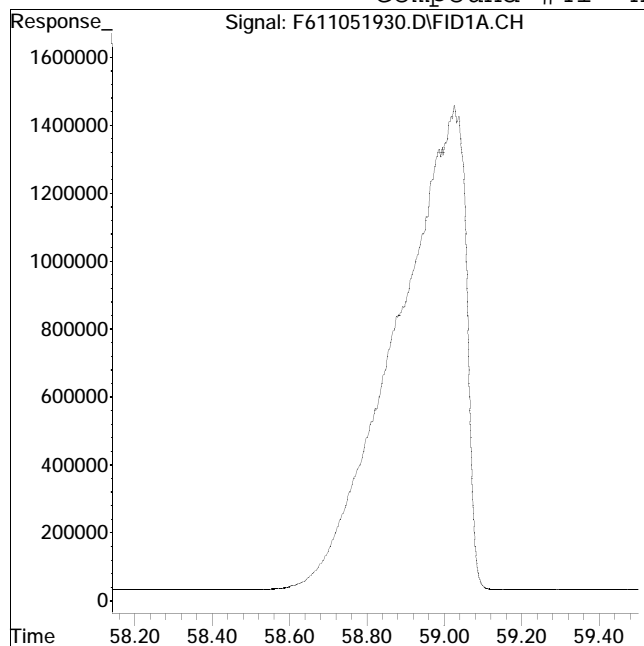
Manual Peak Response = 189532175 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051930.D Operator : FID6:MA
Date Inj'd : 11/6/2019 5:36 am Instrument : FID6
Sample : I611051905F Quant Date : 11/7/2019 3:50 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 176859356 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051932.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 7:04 am
 Operator : FID6:MA
 Sample : I611051906F
 Misc : WG1307766,FRBB91,500ug/ml
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:23:44 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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	31.531	50701635	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.602	519092120	477.207	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	954.41%#	
24) s d50-Tetracosane	36.249	408491553	460.975	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	921.95%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL
7) t n-Tridecane (C13)	0.000	0	N.D.	ug/mL
9) t n-Tetradecane (C14)	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
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)	0.000	0	N.D.	ug/mL
17) t Phytane	0.000	0	N.D.	ug/mL
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
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
27) t n-Hexacosane (C26)	0.000	0	N.D.	ug/mL
28) t n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051932.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 7:04 am
 Operator : FID6:MA
 Sample : I611051906F
 Misc : WG1307766,FRBB91,500ug/ml
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 07 16:23:44 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Nov 07 15:48:11 2019
 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
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
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
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL

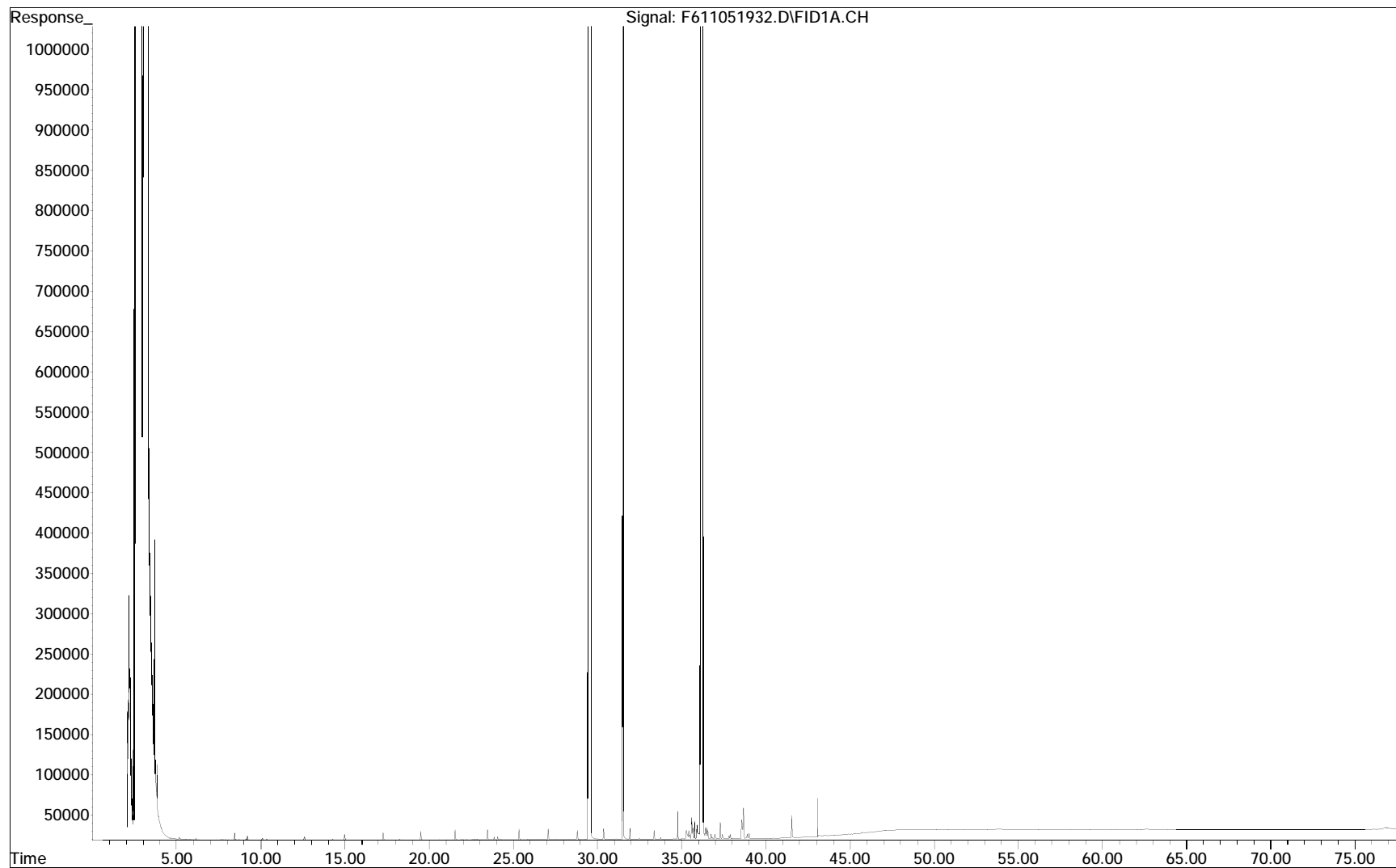
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

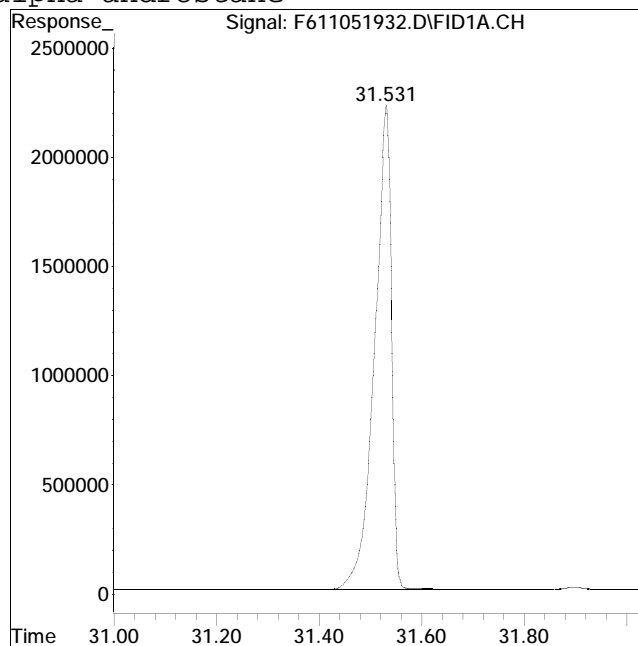
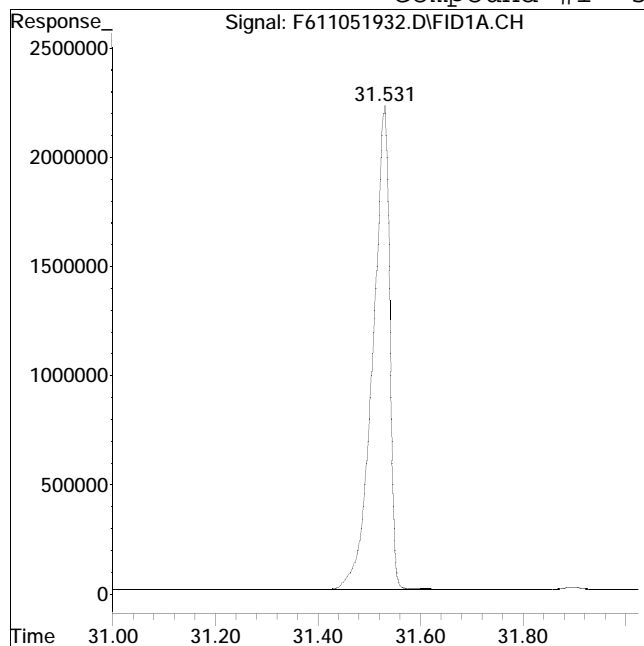
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051932.D
Operator : FID6:MA
Acquired : 06 Nov 2019 7:04 am using AcqMethod FID6A.M
Sample Name: I611051906F
Instrument: FID6
Misc Info : WG1307766,FRBB91,500ug/ml
Vial Number: 11
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051932.D Operator : FID6:MA
Date Inj'd : 11/6/2019 7:04 am Instrument : FID6
Sample : I611051906F Quant Date : 11/7/2019 3:50 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 50725156

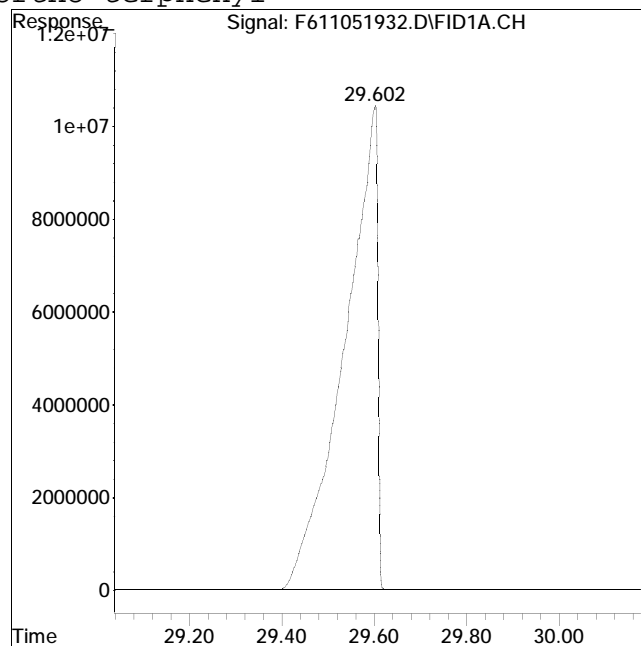
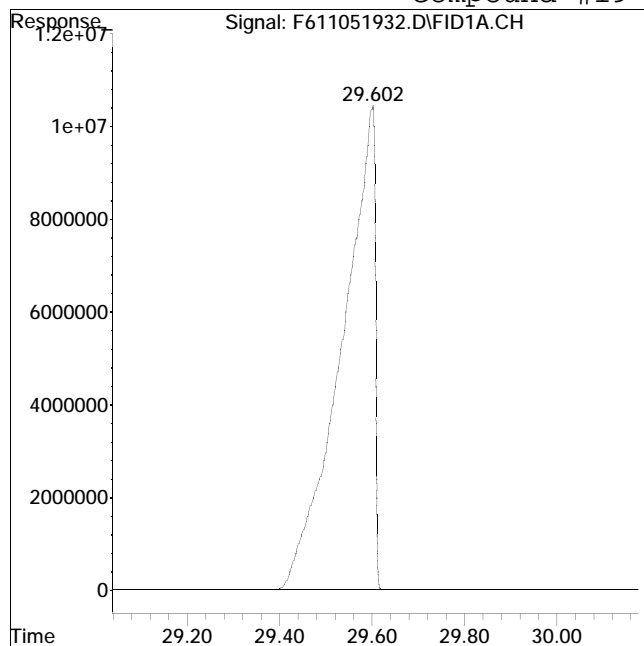
Manual Peak Response = 50701635 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051932.D Operator : FID6:MA
Date Inj'd : 11/6/2019 7:04 am Instrument : FID6
Sample : I611051906F Quant Date : 11/7/2019 3:50 pm

Compound #19: ortho-terphenyl



Original Peak Response = 519098453

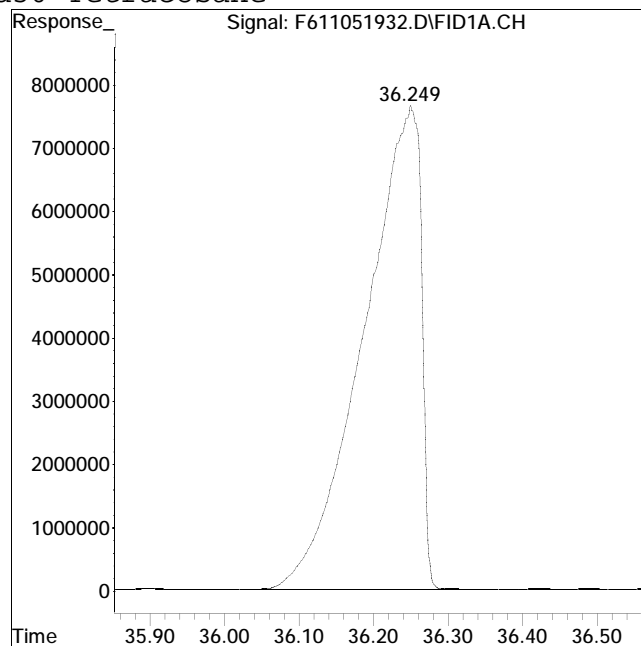
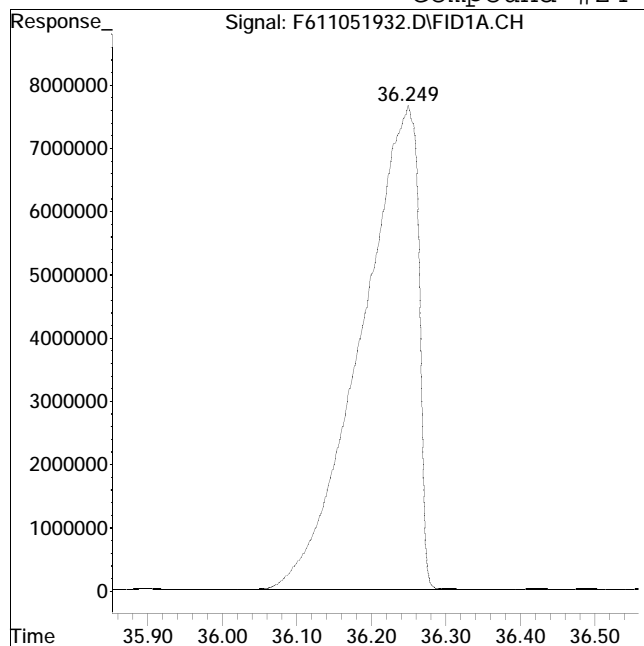
Manual Peak Response = 519092120 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051932.D Operator : FID6:MA
Date Inj'd : 11/6/2019 7:04 am Instrument : FID6
Sample : I611051906F Quant Date : 11/7/2019 3:50 pm

Compound #24: d50-Tetracosane



Original Peak Response = 408241104

Manual Peak Response = 408491553 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051936.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 11:02 am
 Operator : FID6:MA
 Sample : CQ611051901F
 Misc : WG1307766,FRBB86,1ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 12 16:44:28 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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	105	0.00
2 t	n-Octane (C8)	0.782	0.706	9.7	96	0.00
3 t	n-Nonane (C9)	0.820	0.743	9.4	96	0.00
4 t	n-Decane (C10)	0.852	0.785	7.9	98	0.00
5 t	n-Undecane (C11)	0.869	0.795	8.5	97	0.00
6 t	n-Dodecane (C12)	0.887	0.820	7.6	98	0.00
7 t	n-Tridecane (C13)	0.899	0.816	9.2	96	0.00
9 t	n-Tetradecane (C14)	0.918	0.838	8.7	97	0.00
11 t	n-Pentadecane (C15)	0.922	0.849	7.9	97	0.00
12 t	n-Hexadecane (C16)	0.937	0.866	7.6	98	0.00
14 t	n-Heptadecane (C17)	0.935	0.842	9.9	96	0.00
15 t	Pristane	0.951	0.867	8.8	96	0.00
16 T	n-Octadecane (C18)	0.947	0.856	9.6	95	0.00
17 t	Phytane	0.854	0.781	8.5	97	0.00
18 t	n-Nonadecane (C19)	0.945	0.874	7.5	98	0.00
19 s	ortho-terphenyl	1.043	0.981	5.9	98	0.00
20 t	n-Eicosane (C20)	0.949	0.881	7.2	98	0.00
21 t	n-Heneicosane (C21)	0.962	0.882	8.3	97	0.00
22 t	n-Docosane (C22)	0.963	0.908	5.7	100	0.00
23 t	n-Tricosane (C23)	0.967	0.863	10.8	95	0.00
24 s	d50-Tetracosane	0.817	0.768	6.0	98	0.00
25 t	n-Tetracosane (C24)	0.971	0.882	9.2	96	0.00
26 t	n-Pentacosane (C25)	0.961	0.873	9.2	96	0.00
27 t	n-Hexacosane (C26)	0.967	0.894	7.5	98	0.00
28 t	n-Heptacosane (C27)	0.941	0.861	8.5	97	0.00
29 t	n-Octacosane (C28)	0.978	0.889	9.1	96	0.00
30 t	n-Nonacosane (C29)	0.974	0.881	9.5	96	0.00
31 t	n-Triacontane (C30)	0.966	0.886	8.3	98	0.00
32 t	n-Hentriacontane (C31)	0.973	0.872	10.4	95	0.00
33 t	n-Dotriacontane (C32)	0.962	0.874	9.1	97	0.00
34 t	n-Tritriacontane (C33)	0.954	0.873	8.5	97	0.00
35 t	n-tetratriacontane (C34)	0.987	0.887	10.1	96	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051936.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 11:02 am
 Operator : FID6:MA
 Sample : CQ611051901F
 Misc : WG1307766,FRBB86,1ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 12 16:44:28 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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)	0.952	0.859	9.8	96	0.00
37 t	n-Hexatriacontane (C36)	1.009	0.910	9.8	96	0.00
38 t	n-Heptatriacontane (C37)	0.946	0.863	8.8	97	0.00
39 t	n-Octatriacontane (C38)	1.021	0.890	12.8	93	-0.01
41 t	n-Tetracontane (C40)	0.953	0.796	16.5	89	-0.02

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)	1.03	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051936.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 11:02 am
 Operator : FID6:MA
 Sample : CQ611051901F
 Misc : WG1307766,FRBB86,1ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 12 16:44:28 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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	31.534	52793067	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.502	51765794	46.996	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	93.99%	
24) s d50-Tetracosane	36.160	40546939	47.013	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	94.03%	
Target Compounds				
2) t n-Octane (C8)	5.755	37278112	45.130	ug/mL M4
3) t n-Nonane (C9)	7.978	39245639	45.303	ug/mL M4
4) t n-Decane (C10)	10.479	41420193	46.022	ug/mL M4
5) t n-Undecane (C11)	13.001	41967194	45.739	ug/mL M4
6) t n-Dodecane (C12)	15.437	43312966	46.260	ug/mL M4
7) t n-Tridecane (C13)	17.749	43072901	45.381	ug/mL M4
9) t n-Tetradecane (C14)	19.939	44249084	45.674	ug/mL M4
11) t n-Pentadecane (C15)	22.009	44820627	46.017	ug/mL M4
12) t n-Hexadecane (C16)	23.971	45708518	46.204	ug/mL M4
14) t n-Heptadecane (C17)	25.837	44468890	45.055	ug/mL M4
15) t Pristane	25.948	45750694	45.580	ug/mL M4
16) T n-Octadecane (C18)	27.609	45204971	45.187	ug/mL M4
17) t Phytane	27.773	41256160	45.744	ug/mL M4
18) t n-Nonadecane (C19)	29.301	46126308	46.229	ug/mL M4
20) t n-Eicosane (C20)	30.911	46518283	46.447	ug/mL M4
21) t n-Heneicosane (C21)	32.452	46539027	45.795	ug/mL M4
22) t n-Docosane (C22)	33.931	47941147	47.153	ug/mL M4
23) t n-Tricosane (C23)	35.348	45540316	44.594	ug/mL M4
25) t n-Tetracosane (C24)	36.710	46576244	45.450	ug/mL M4
26) t n-Pentacosane (C25)	38.019	46077204	45.411	ug/mL M4
27) t n-Hexacosane (C26)	39.284	47222278	46.229	ug/mL M4
28) t n-Heptacosane (C27)	40.498	45441267	45.738	ug/mL M4
29) t n-Octacosane (C28)	41.675	46938382	45.445	ug/mL M4
30) t n-Nonacosane (C29)	42.810	46510116	45.216	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051936.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 11:02 am
 Operator : FID6:MA
 Sample : CQ611051901F
 Misc : WG1307766,FRBB86,1ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 12 16:44:28 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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)	43.908	46776766	45.870 ug/mL M4
32) t n-Hentriacontane (C31)	44.973	46018251	44.811 ug/mL M4
33) t n-Dotriacontane (C32)	46.005	46131719	45.426 ug/mL M4
34) t n-Tritriacontane (C33)	47.007	46093365	45.739 ug/mL M4
35) t n-tetratriacontane (C34)	48.067	46831302	44.929 ug/mL M4
36) t n-Pentatriacontane (C35)	49.264	45372170	45.138 ug/mL M4
37) t n-Hexatriacontane (C36)	50.635	48063143	45.119 ug/mL M4
38) t n-Heptatriacontane (C37)	52.224	45555803	45.603 ug/mL M4
39) t n-Octatriacontane (C38)	54.080	46993423	43.588 ug/mL M4
41) t n-Tetracontane (C40)	58.832	42021316	41.740 ug/mL M4

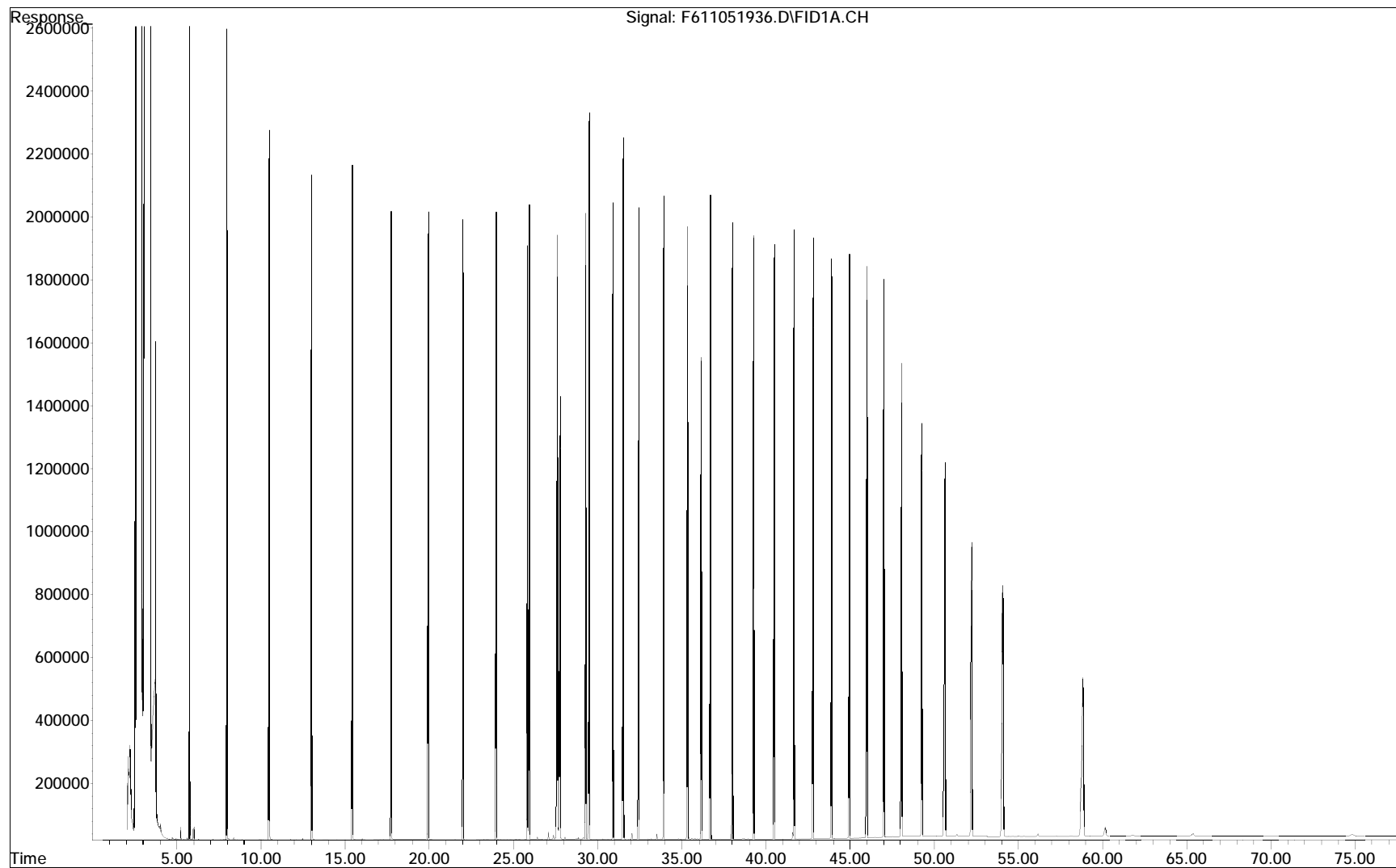
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

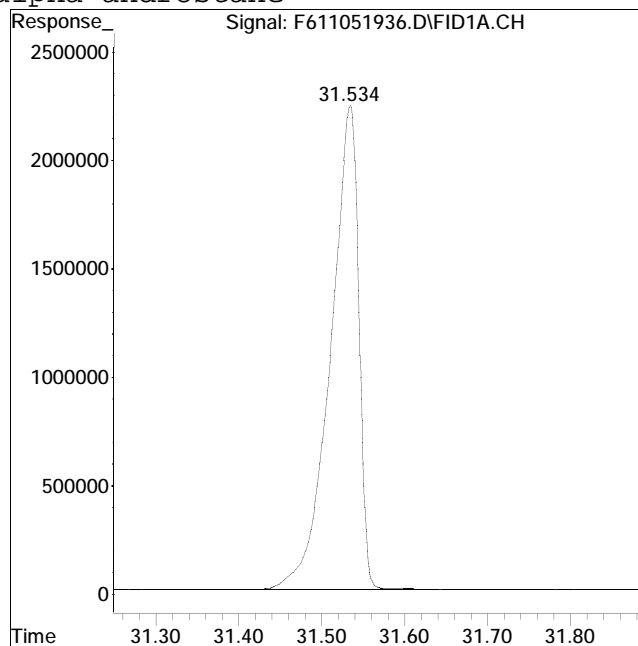
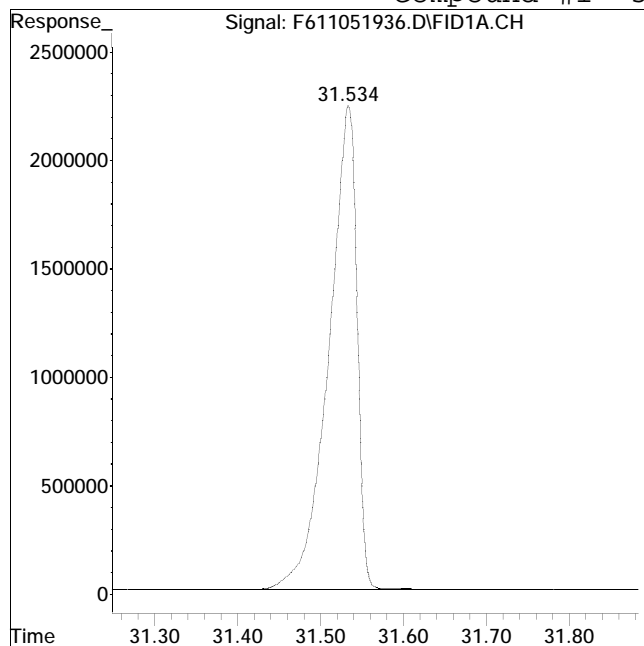
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051936.D
Operator : FID6:MA
Acquired : 06 Nov 2019 11:02 am using AcqMethod FID6A.M
Sample Name: CQ611051901F
Instrument: FID6
Misc Info : WG1307766,FRBB86,1ug/ml
Vial Number: 13
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 52822506

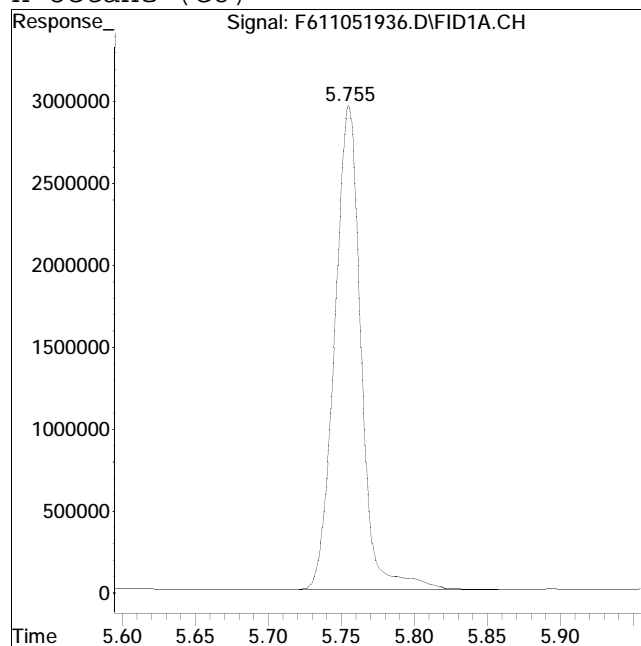
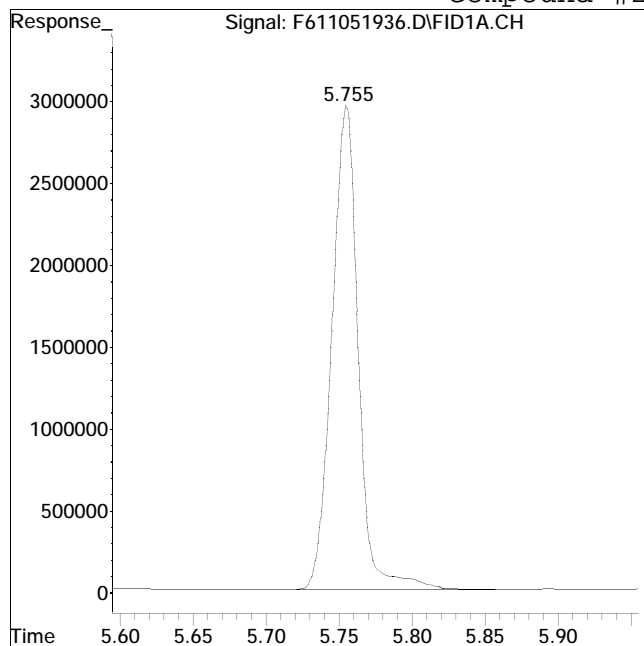
Manual Peak Response = 52793067 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #2: n-Octane (C8)



Original Peak Response = 37284761

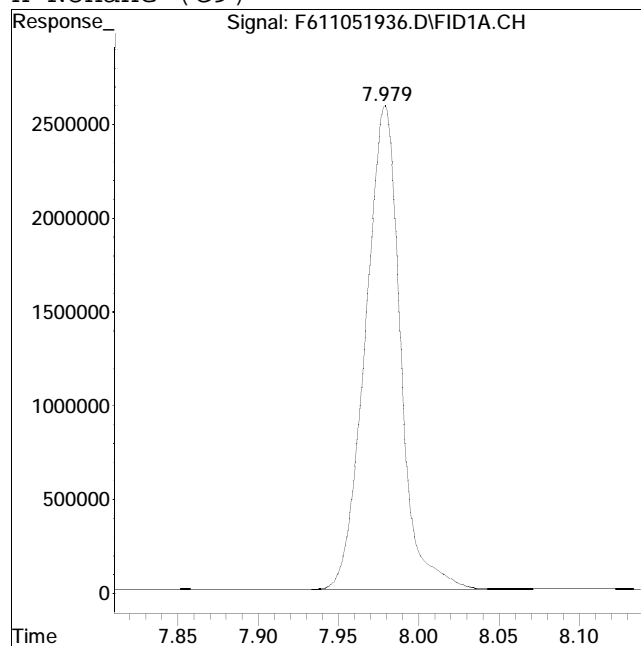
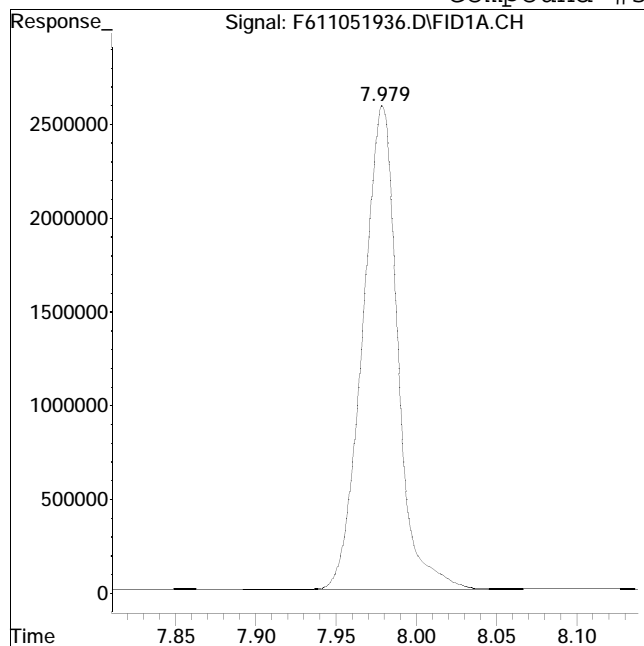
Manual Peak Response = 37278112 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 39328309

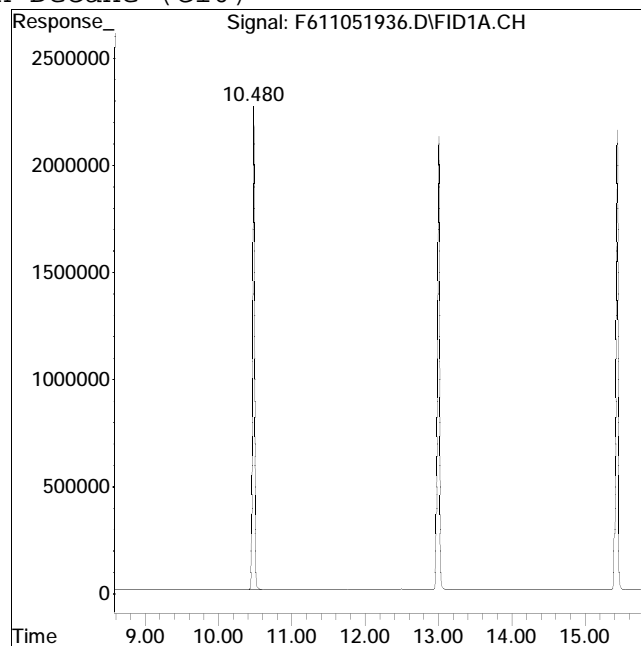
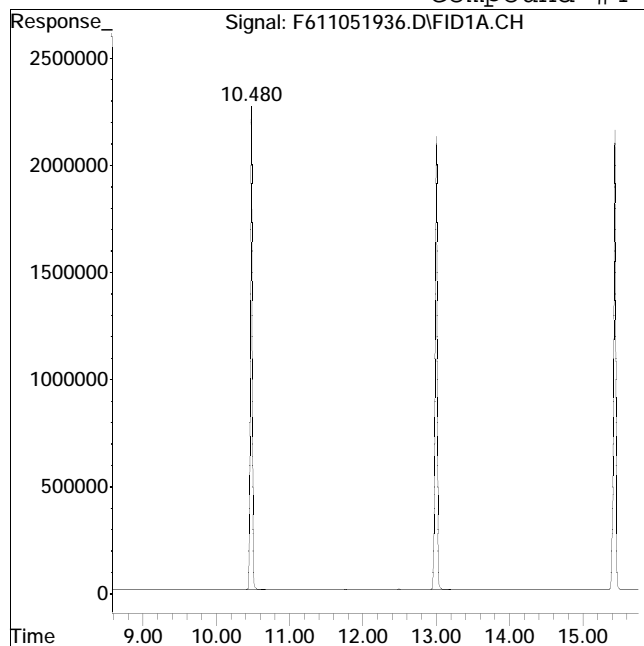
Manual Peak Response = 39245639 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #4: n-Decane (C10)



Original Peak Response = 40824107

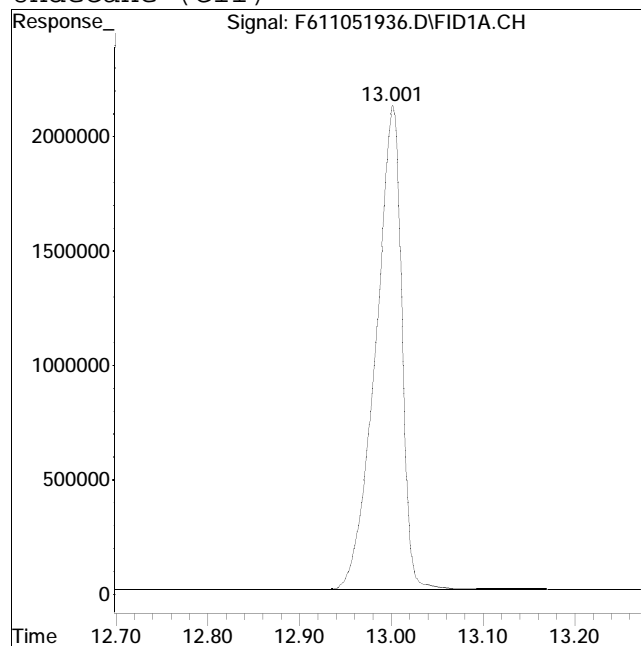
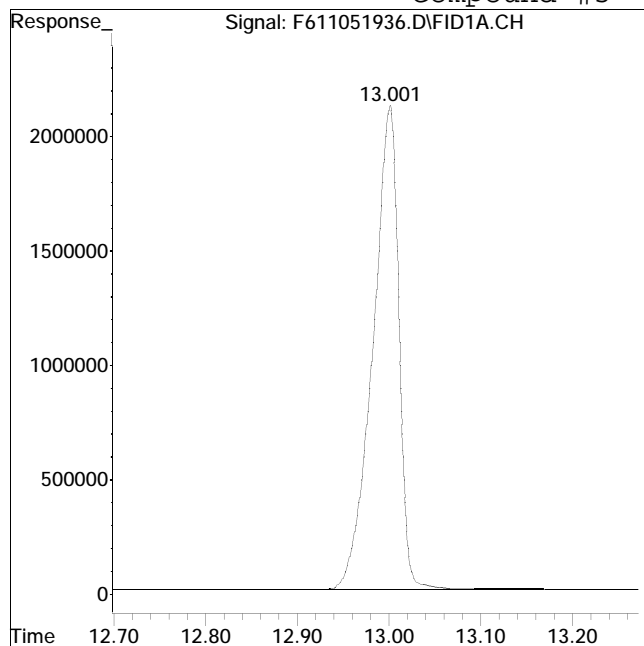
Manual Peak Response = 41420193 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 41964464

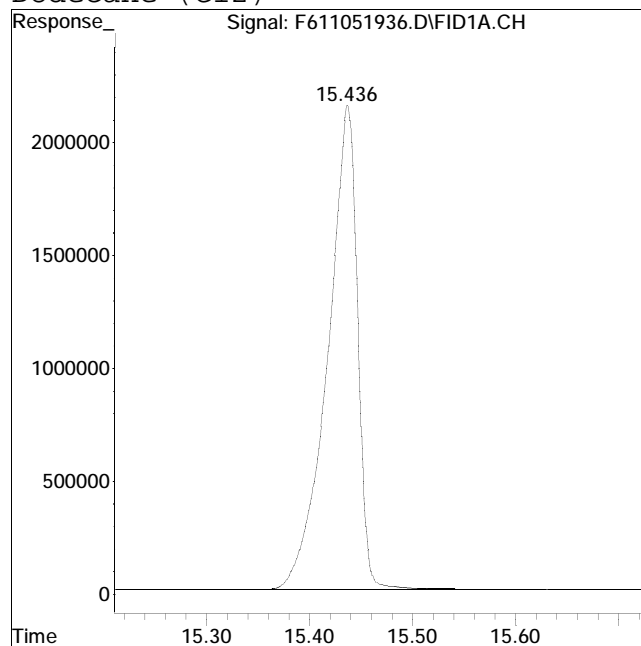
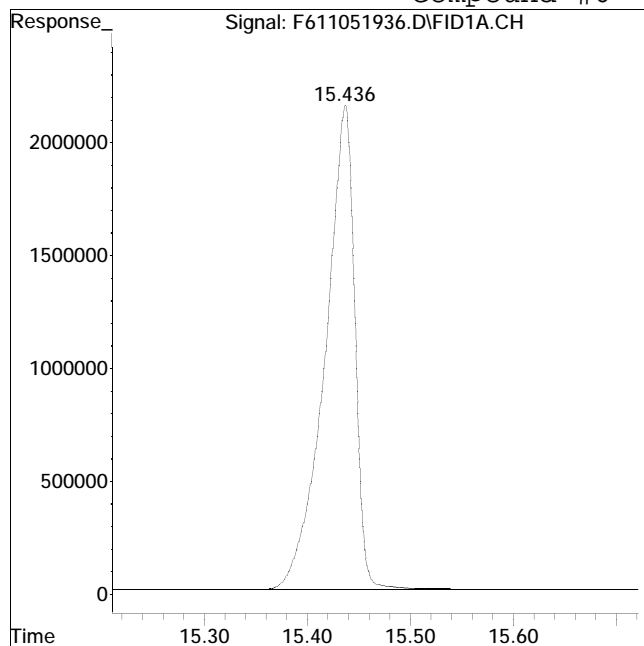
Manual Peak Response = 41967194 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 43281250

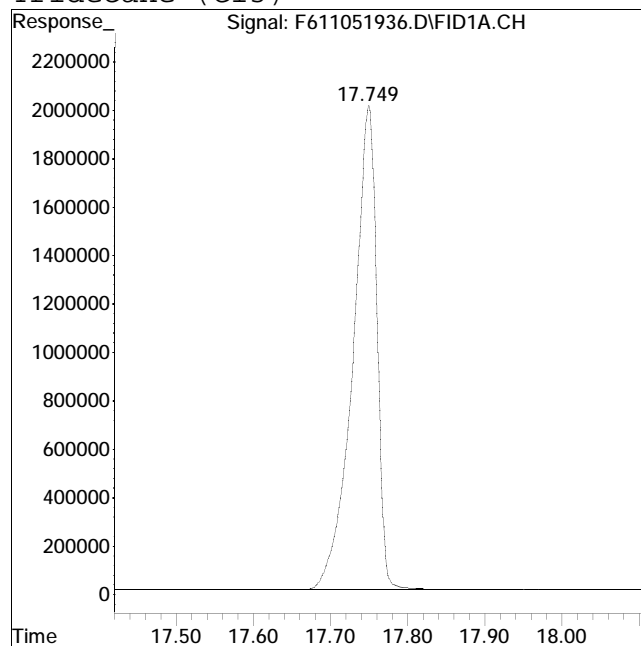
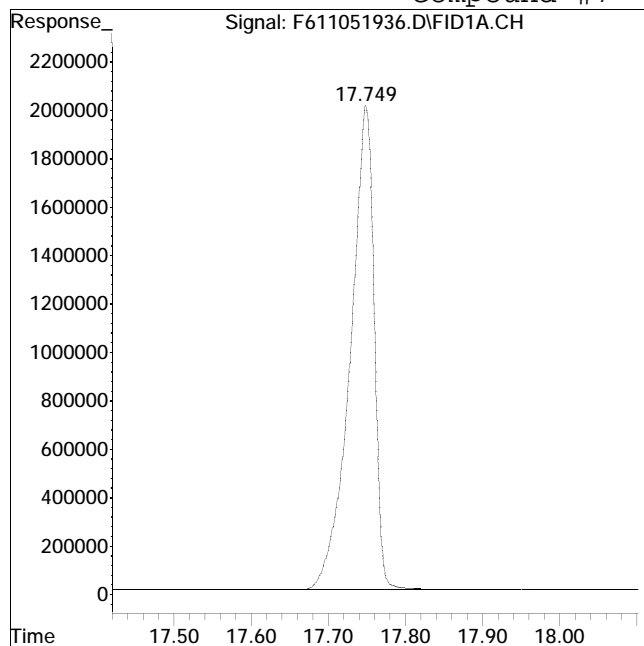
Manual Peak Response = 43312966 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 43065105

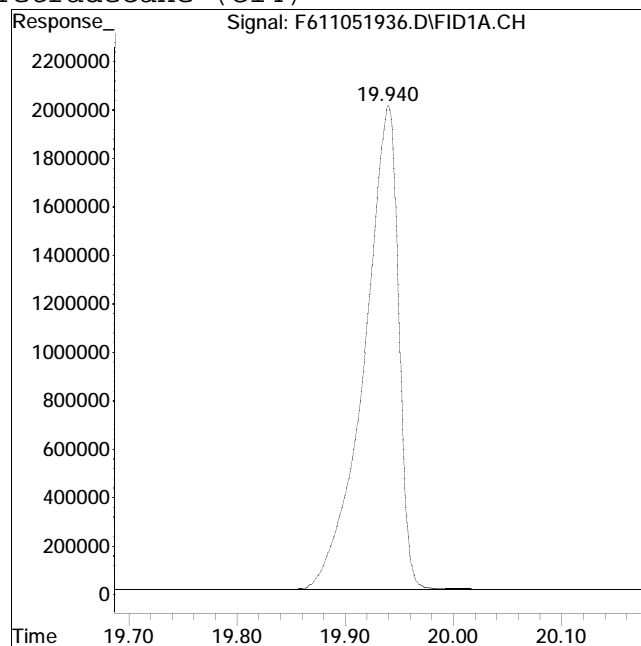
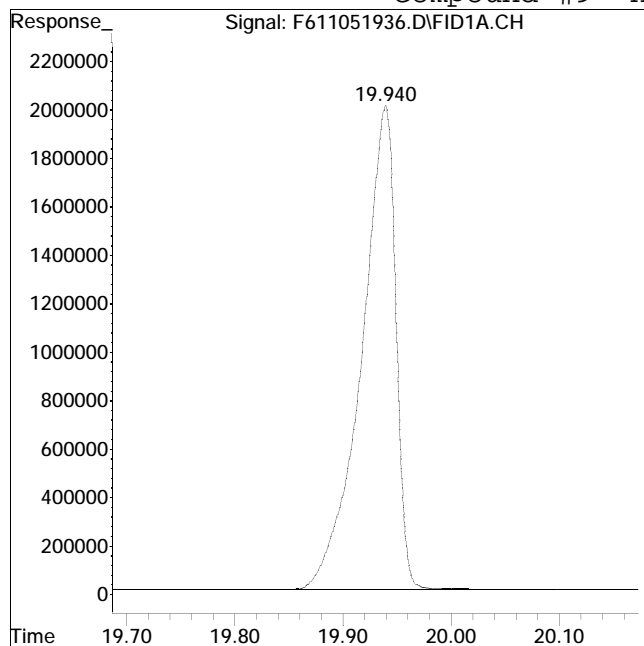
Manual Peak Response = 43072901 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 44129432

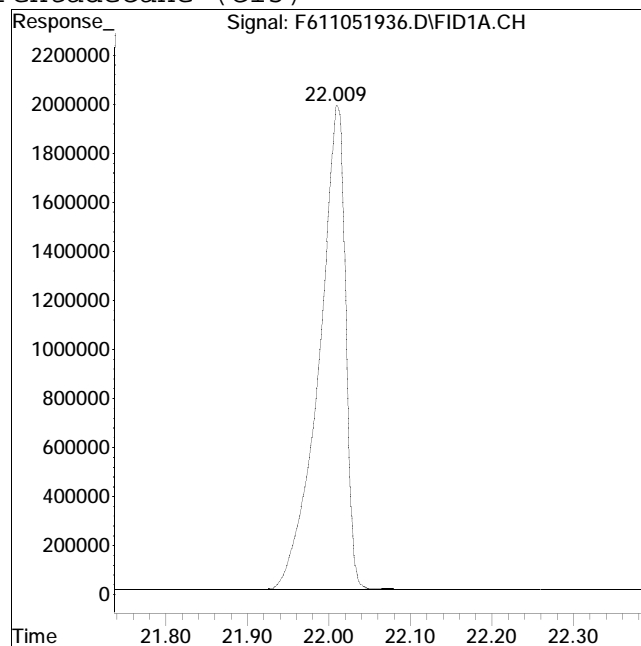
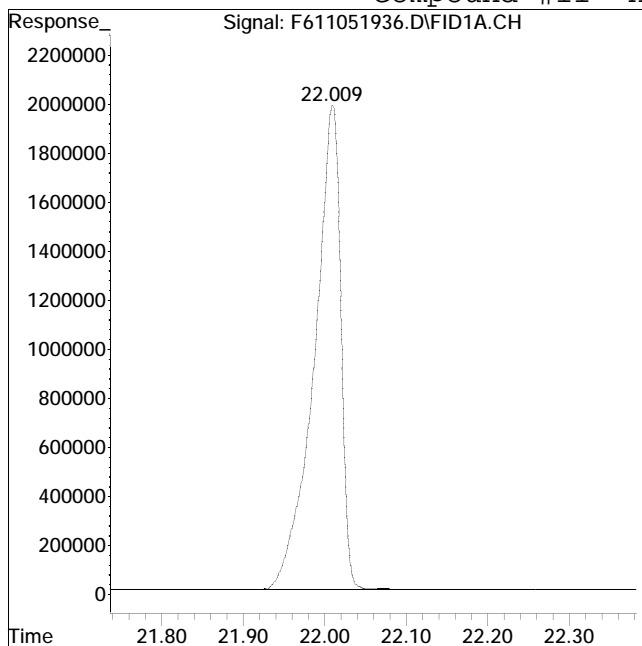
Manual Peak Response = 44249084 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 44785438

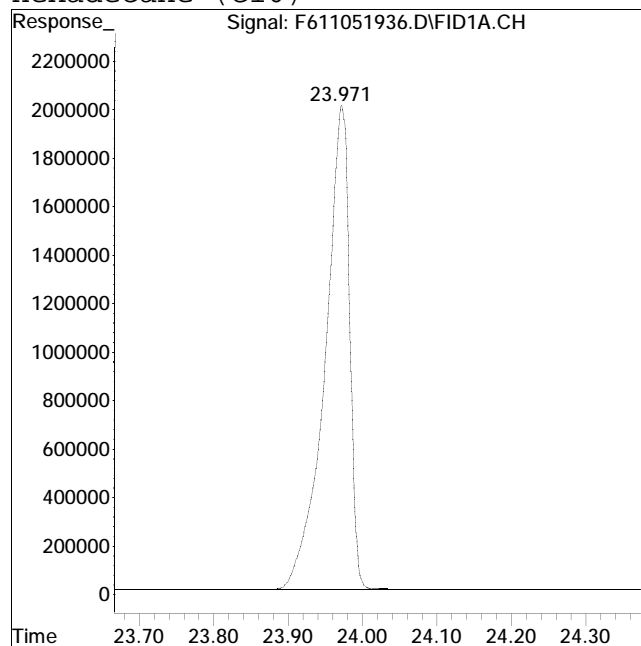
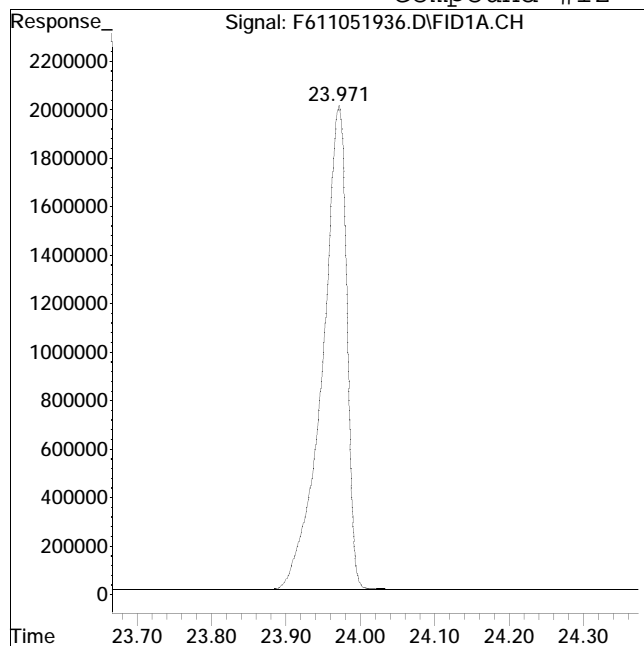
Manual Peak Response = 44820627 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 45745939

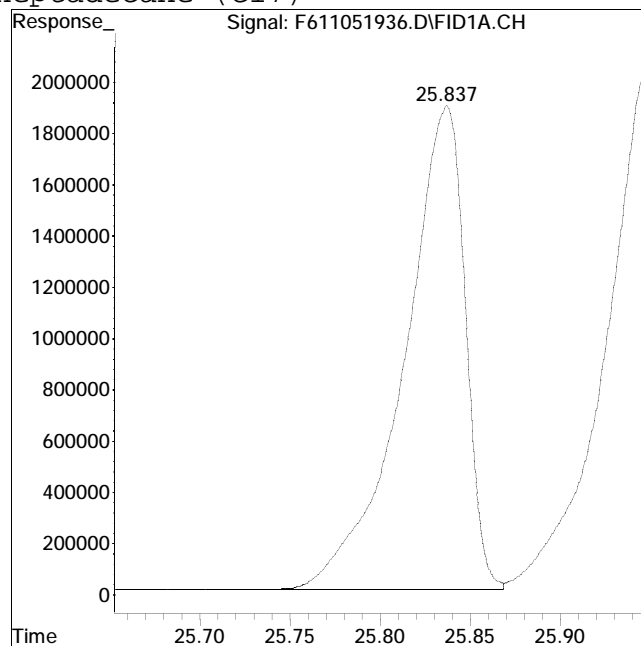
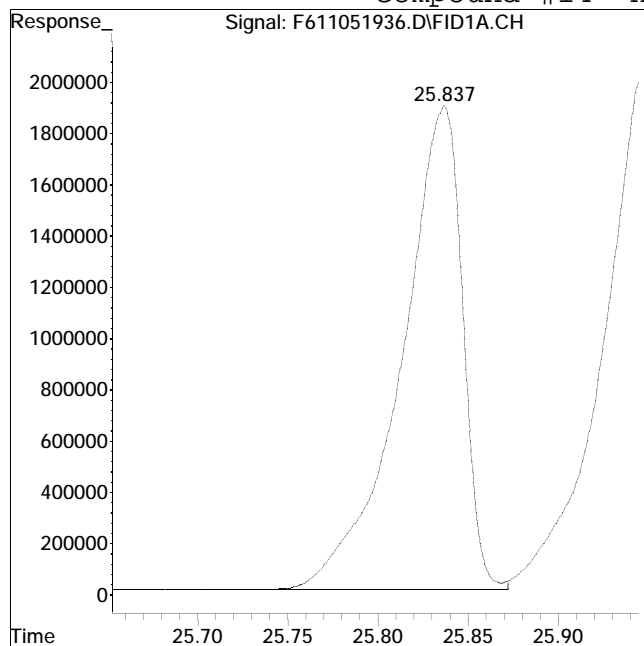
Manual Peak Response = 45708518 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 44530016

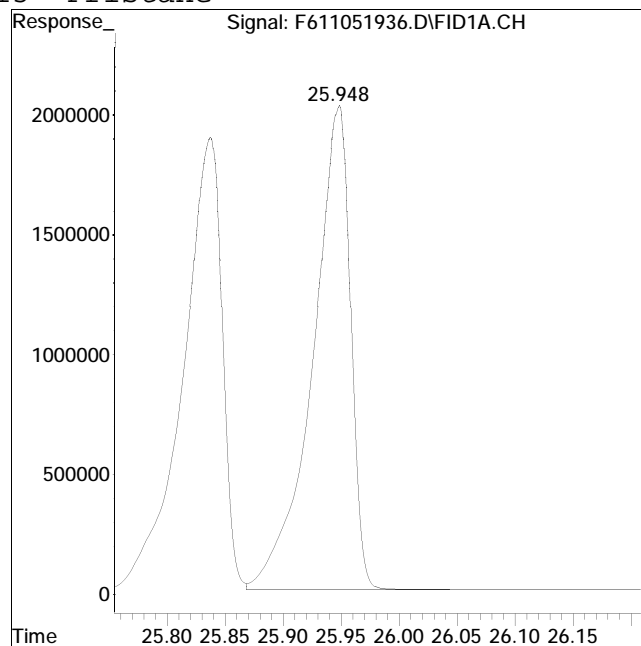
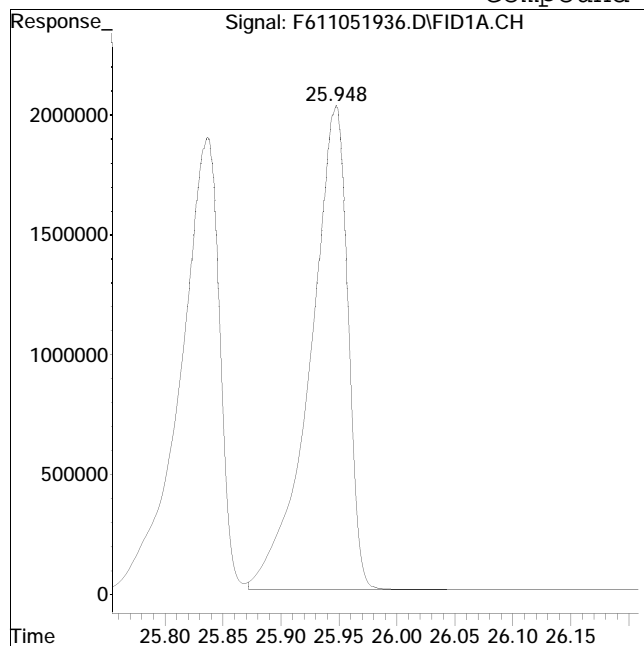
Manual Peak Response = 44468890 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #15: Pristane



Original Peak Response = 45662637

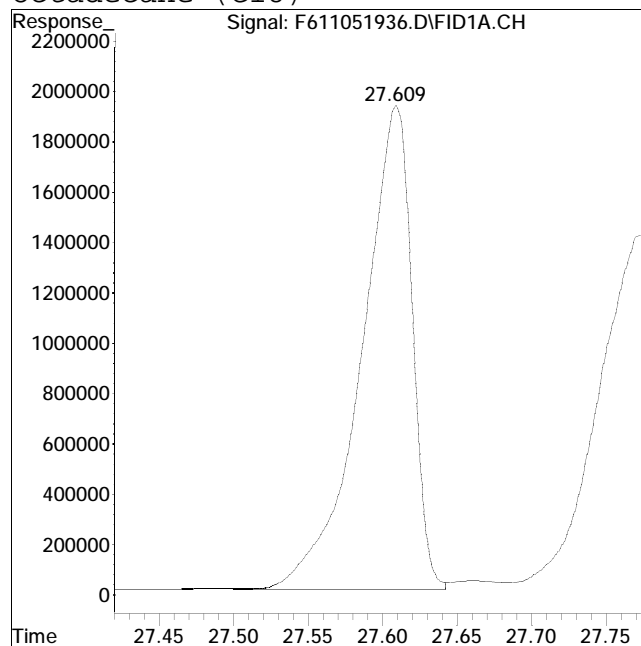
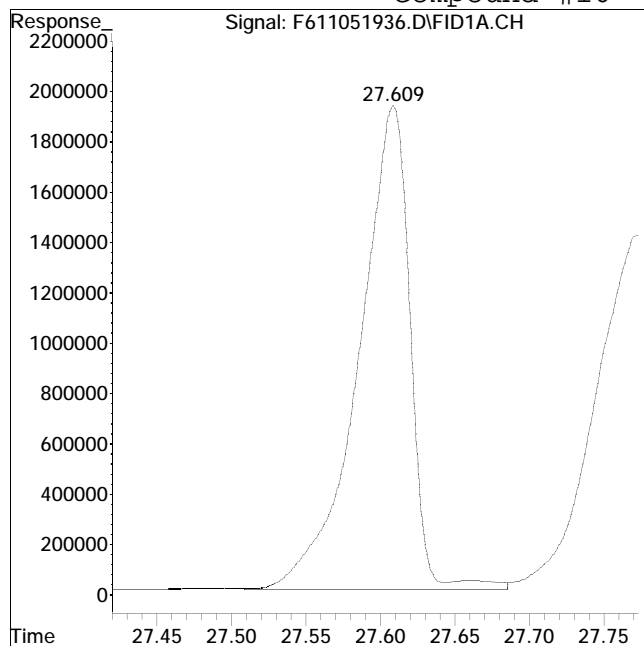
Manual Peak Response = 45750694 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 46171272

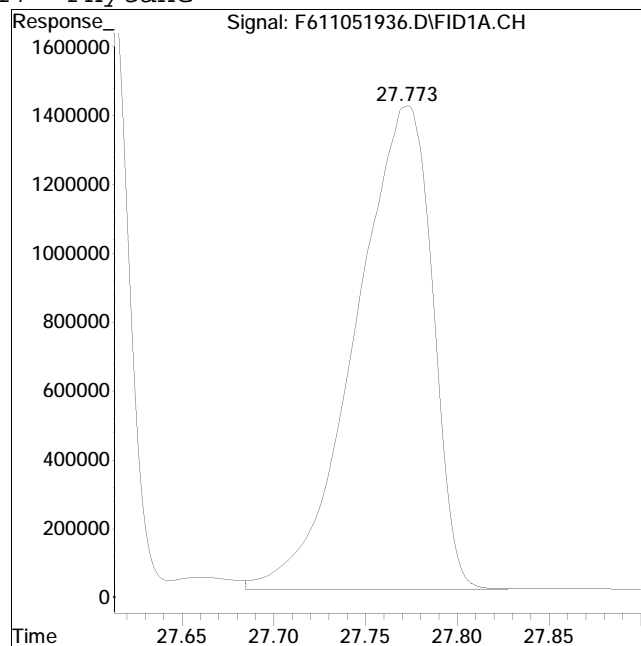
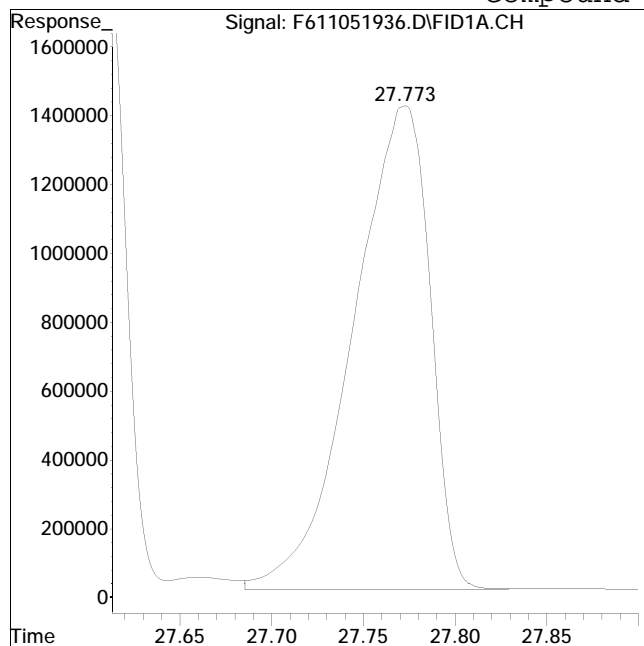
Manual Peak Response = 45204971 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #17: Phytane



Original Peak Response = 41243060

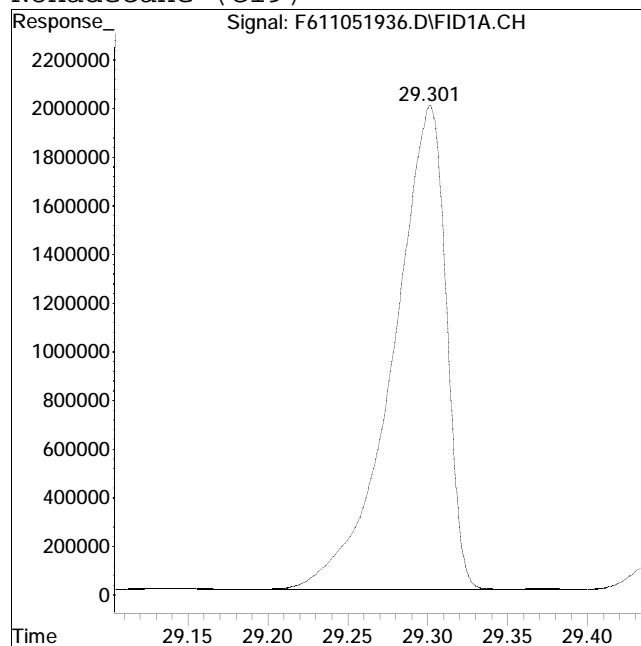
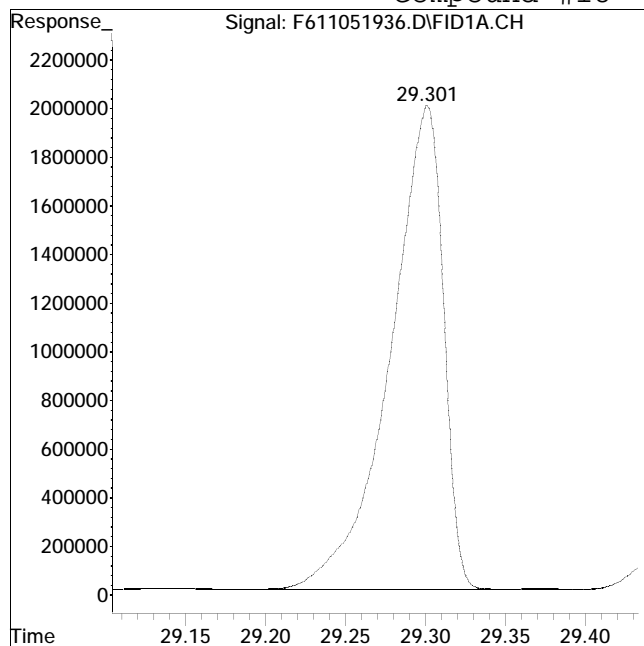
Manual Peak Response = 41256160 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 46130910

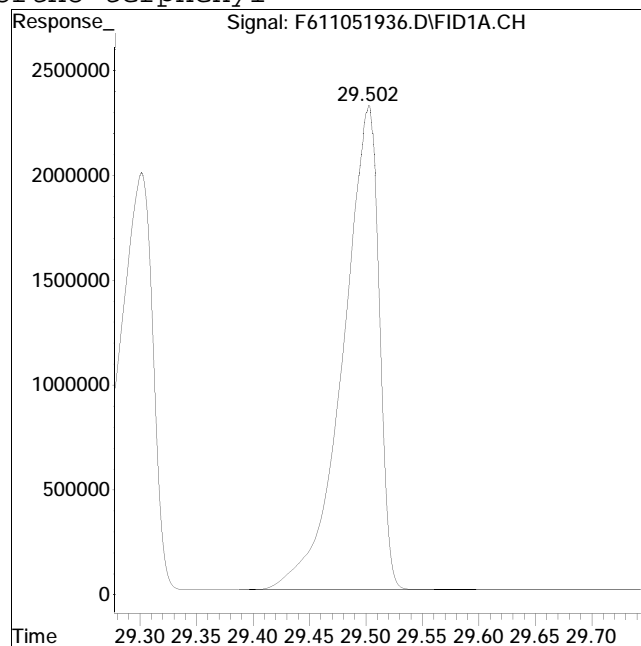
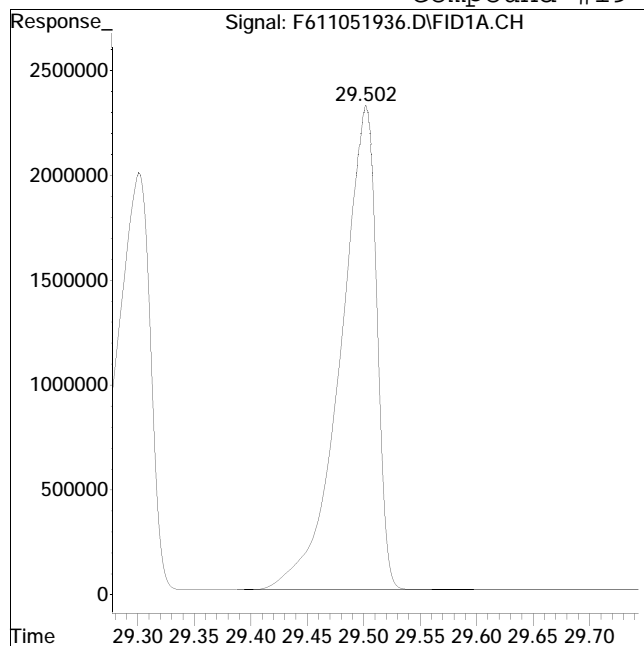
Manual Peak Response = 46126308 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #19: ortho-terphenyl



Original Peak Response = 51682615

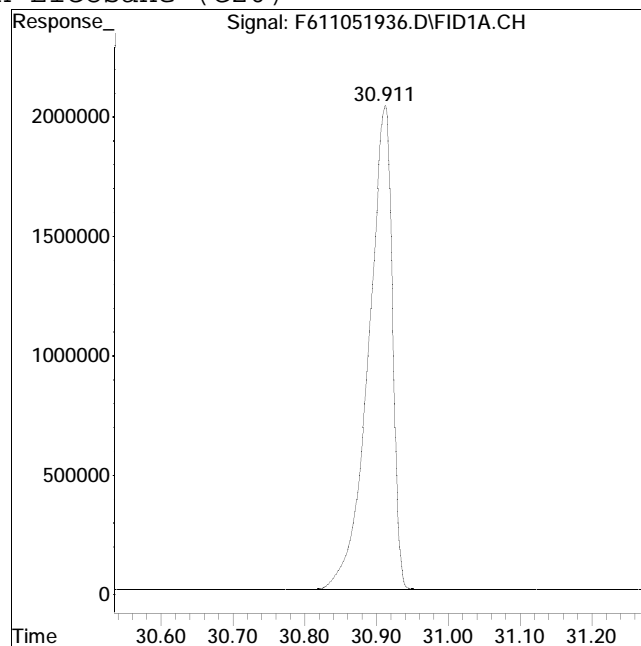
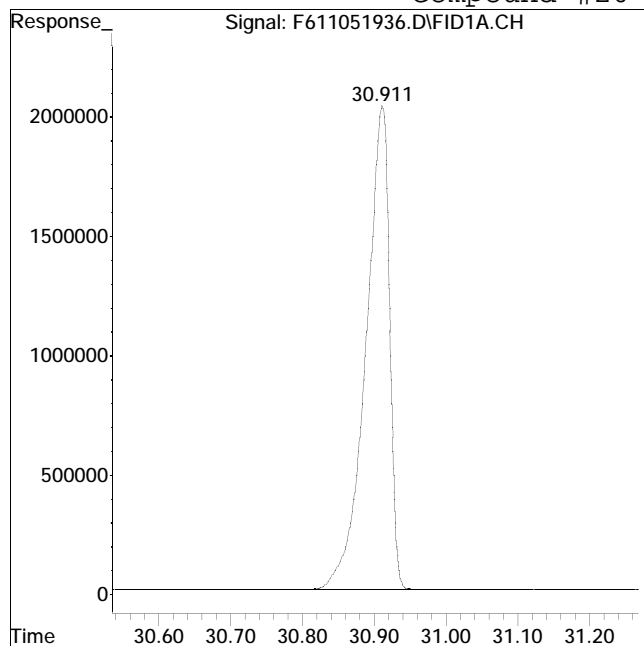
Manual Peak Response = 51765794 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 46585917

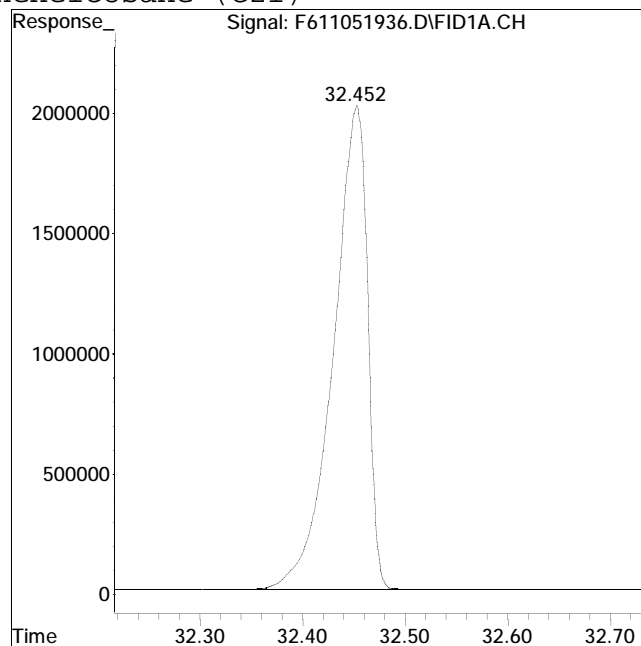
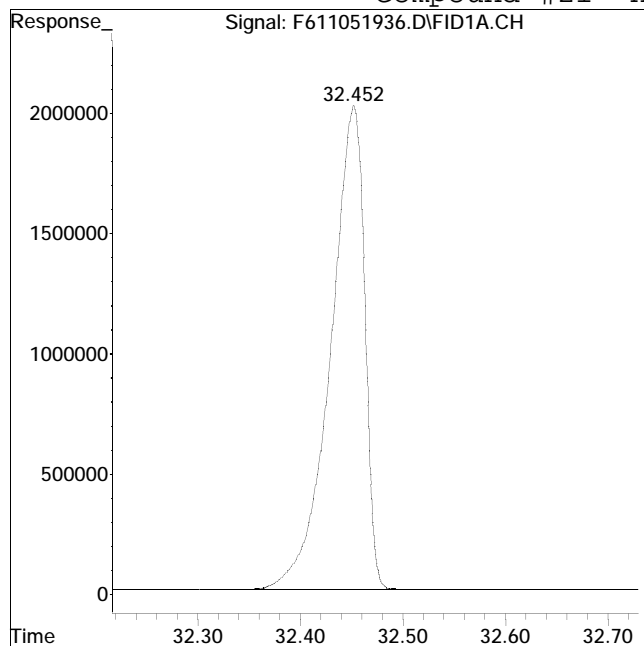
Manual Peak Response = 46518283 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 46563090

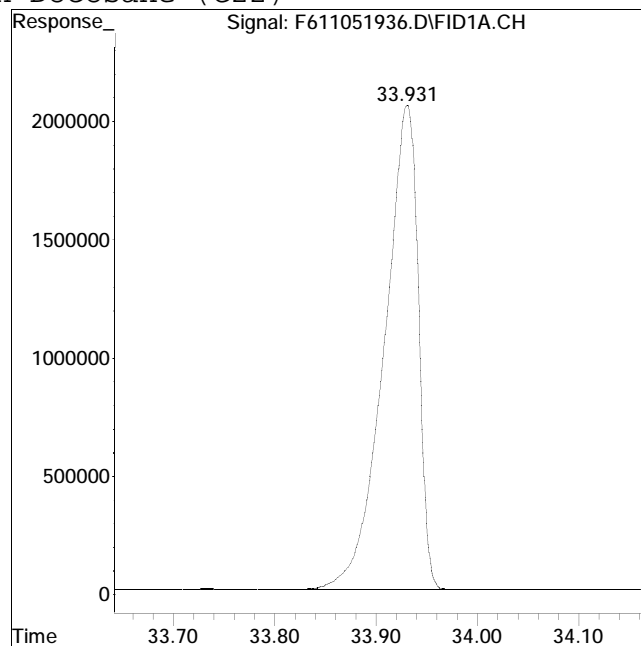
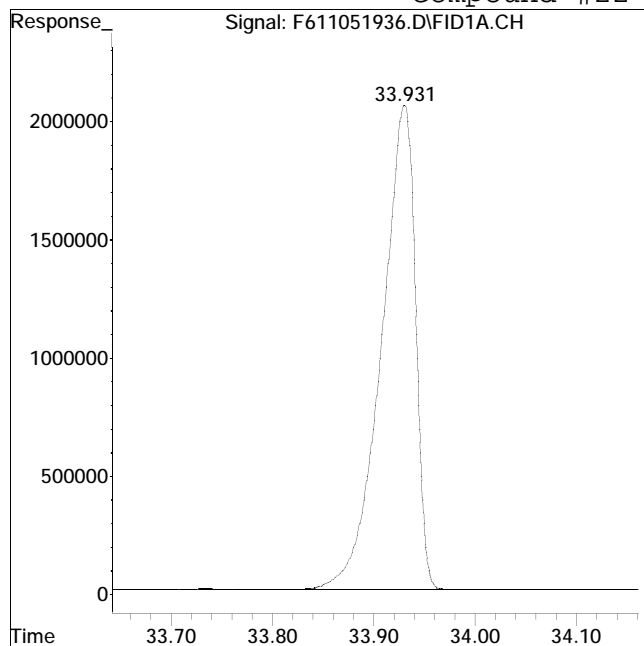
Manual Peak Response = 46539027 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 47978311

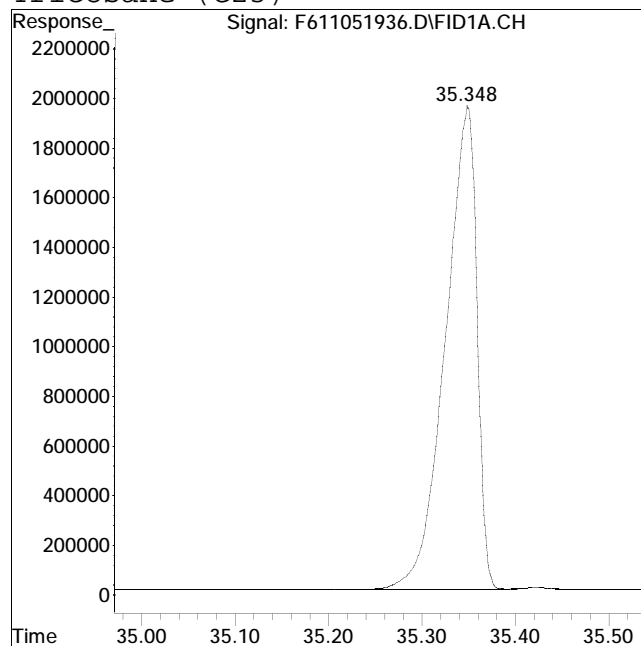
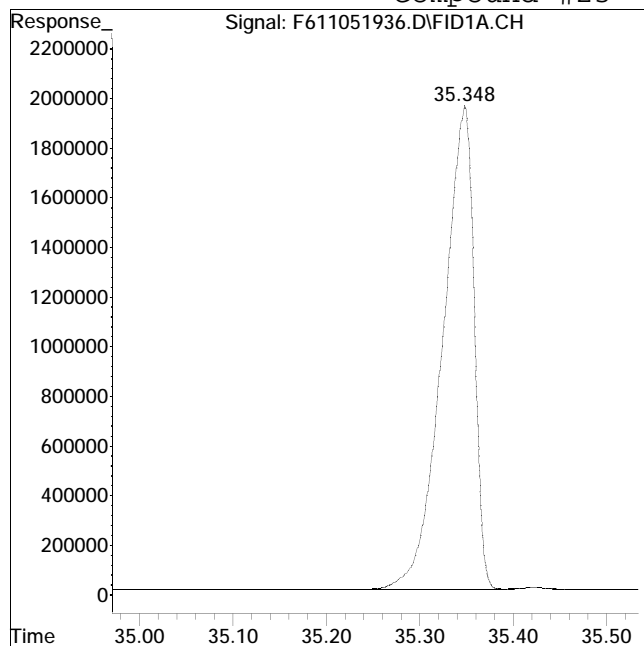
Manual Peak Response = 47941147 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 45567205

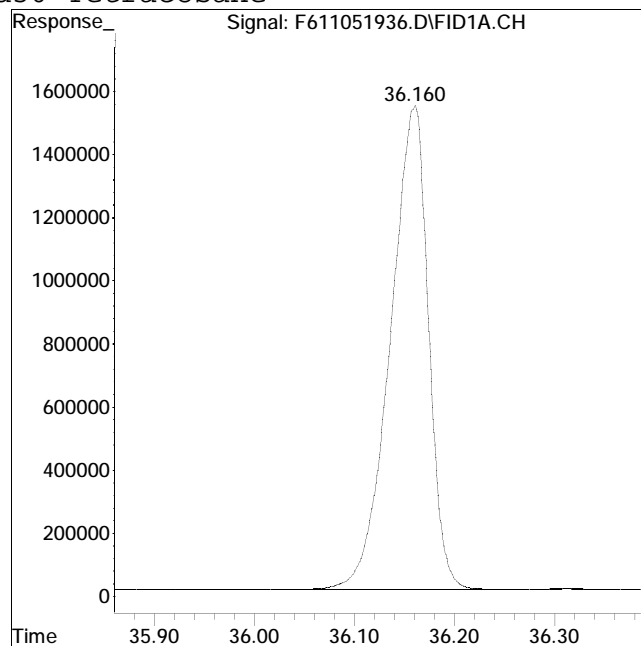
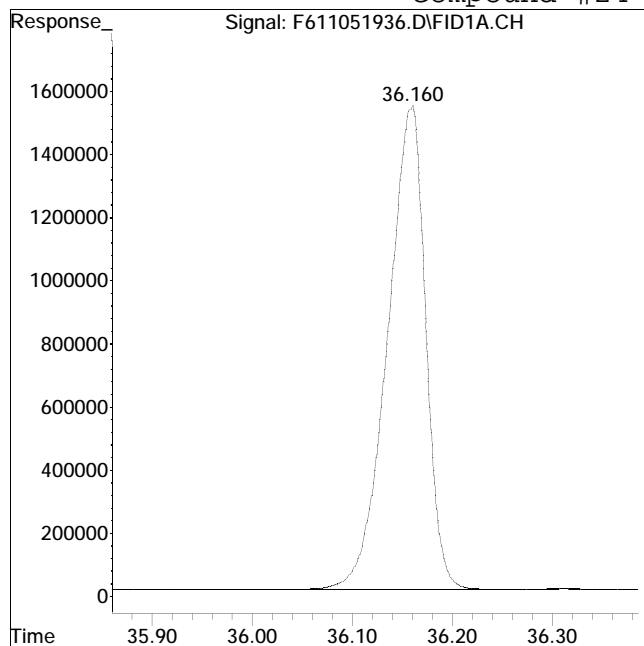
Manual Peak Response = 45540316 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #24: d50-Tetracosane



Original Peak Response = 40564386

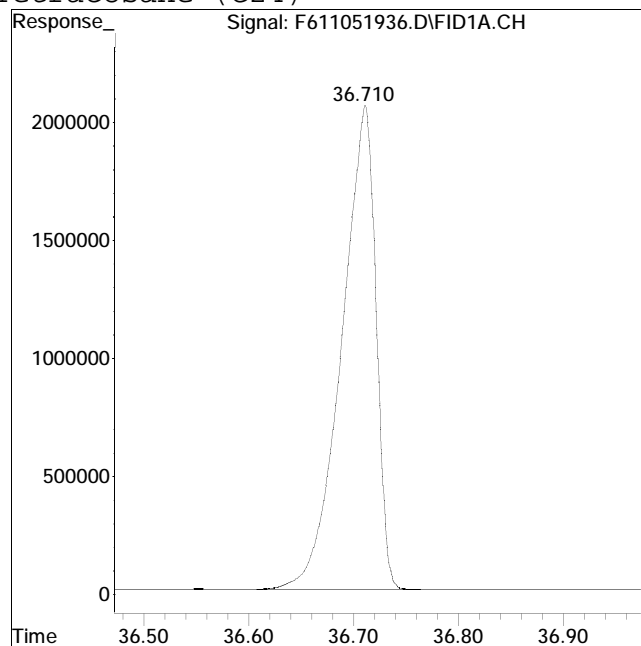
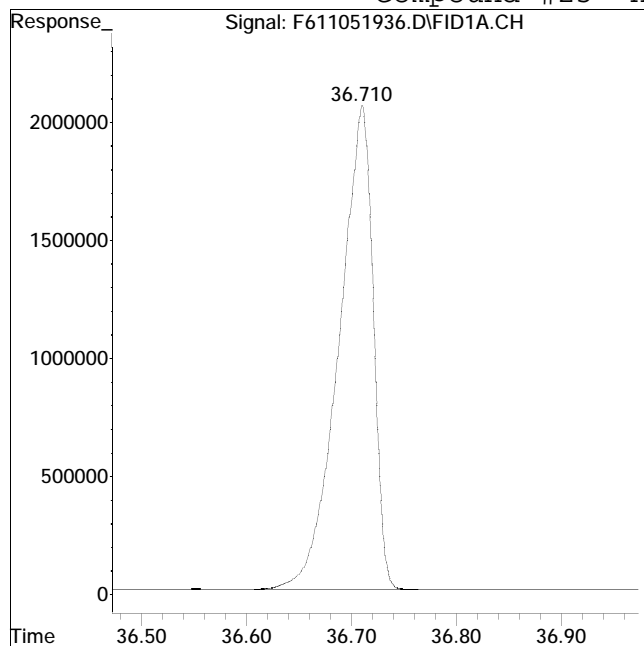
Manual Peak Response = 40546939 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 46569793

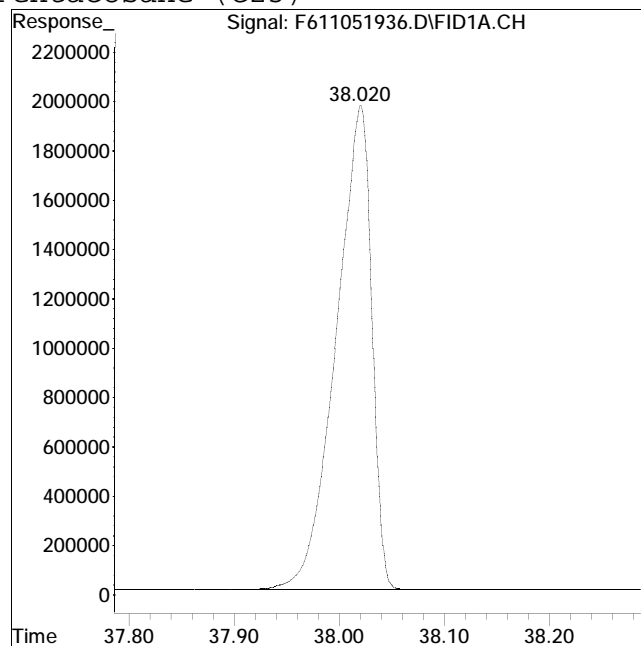
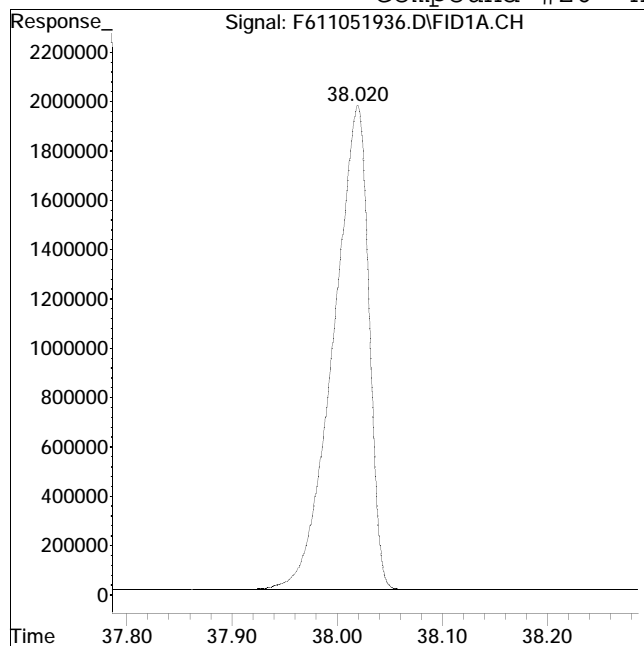
Manual Peak Response = 46576244 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 46086153

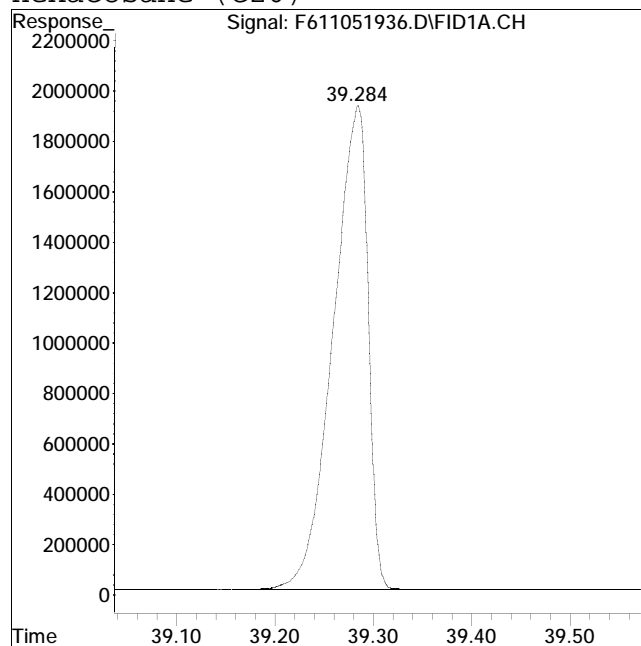
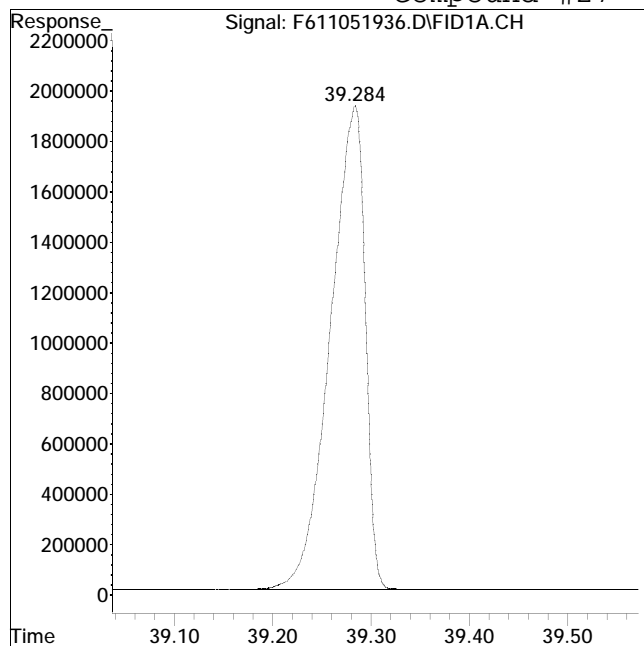
Manual Peak Response = 46077204 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 47228268

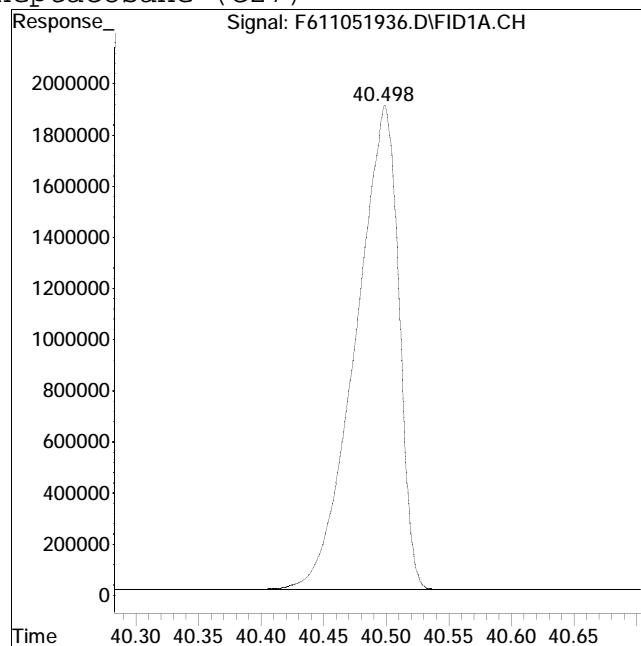
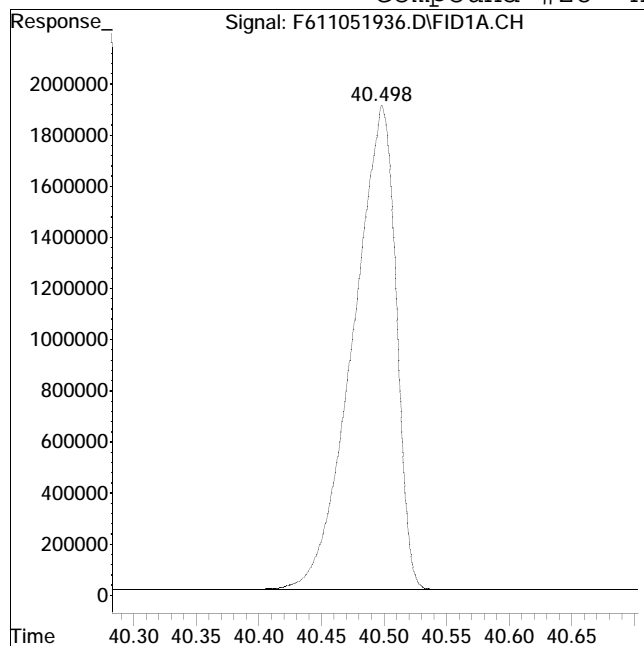
Manual Peak Response = 47222278 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 45430533

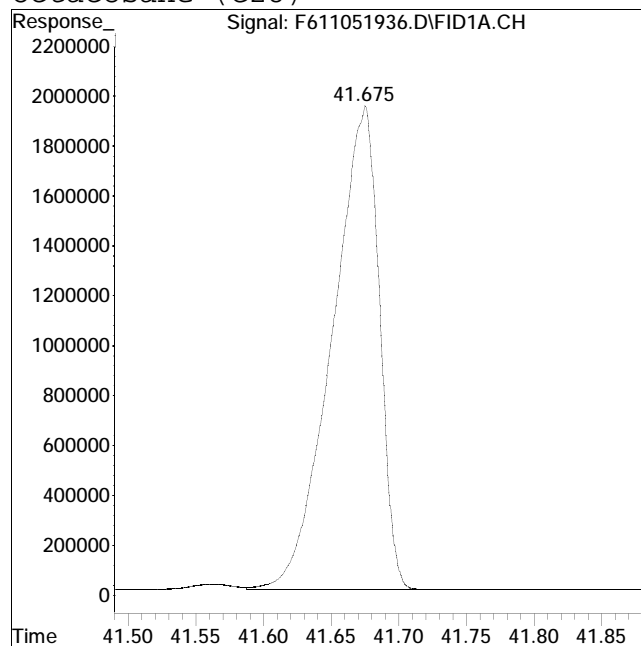
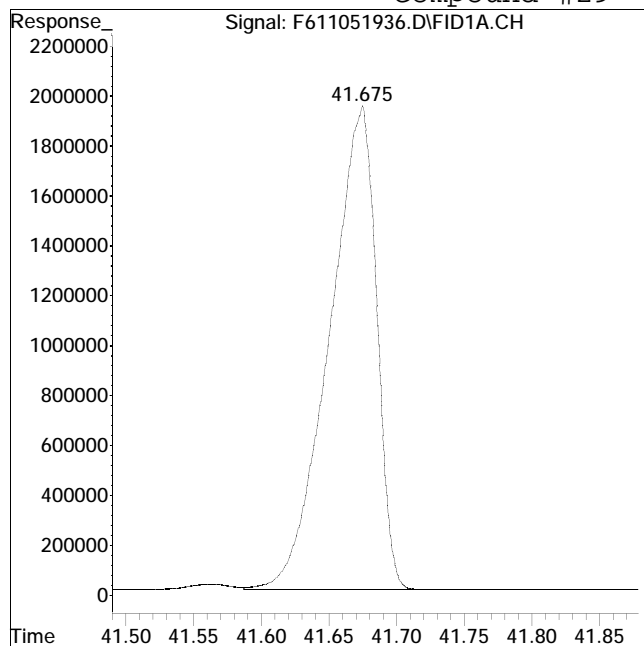
Manual Peak Response = 45441267 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 46926064

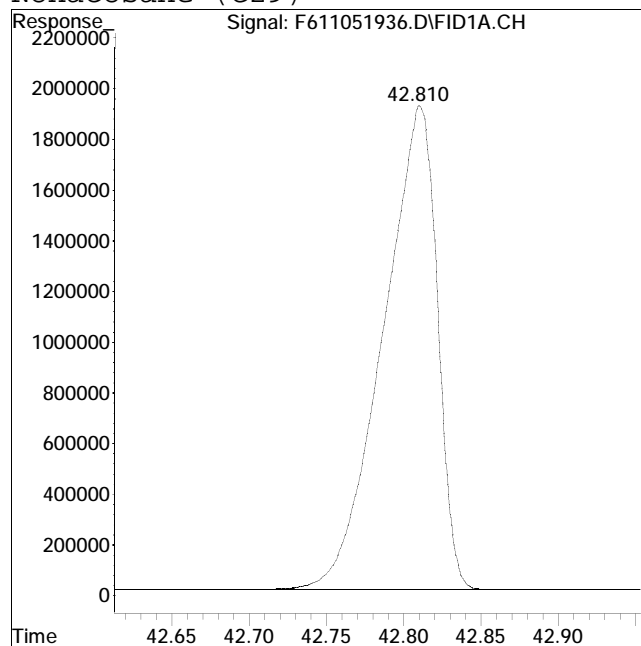
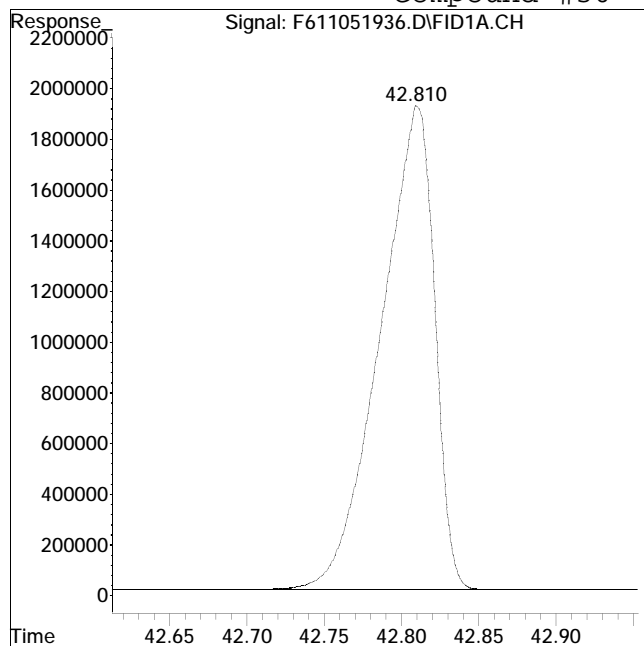
Manual Peak Response = 46938382 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 46511211

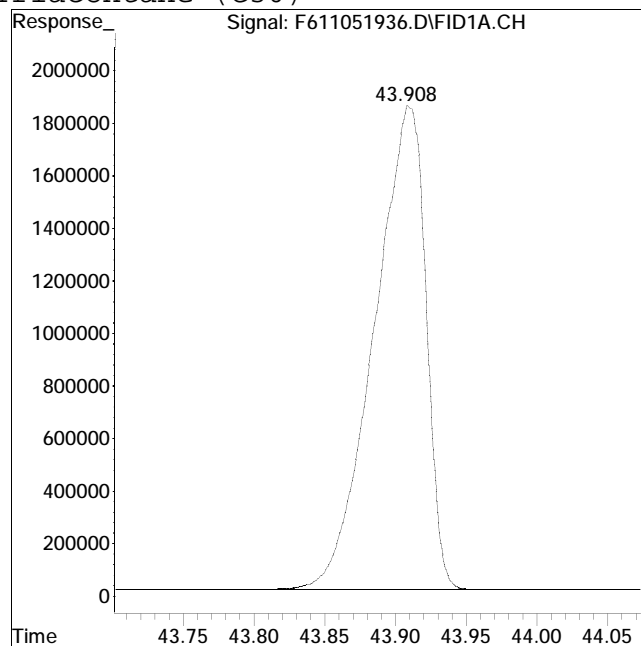
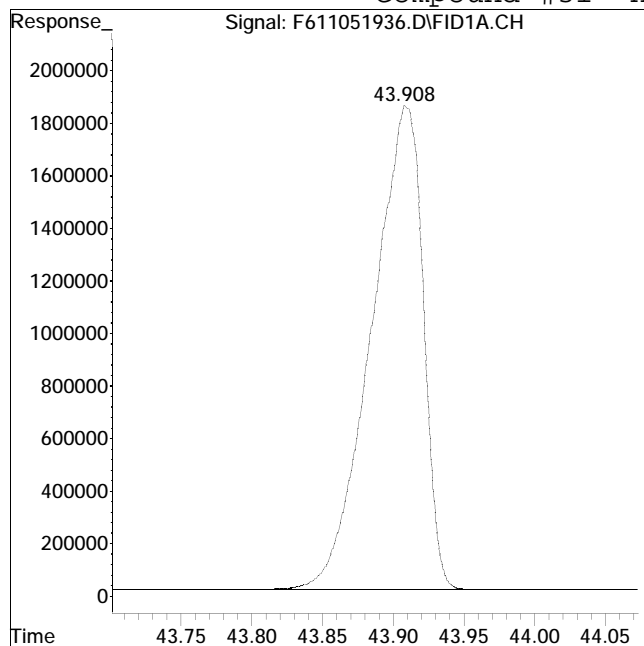
Manual Peak Response = 46510116 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 46766538

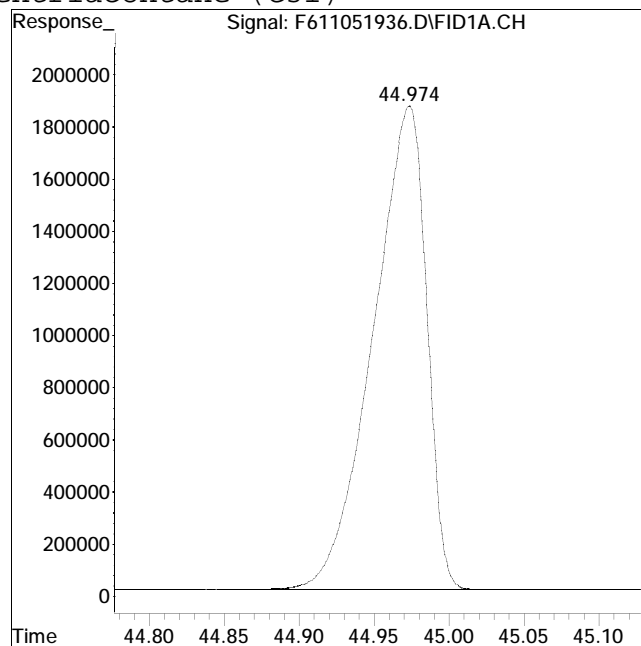
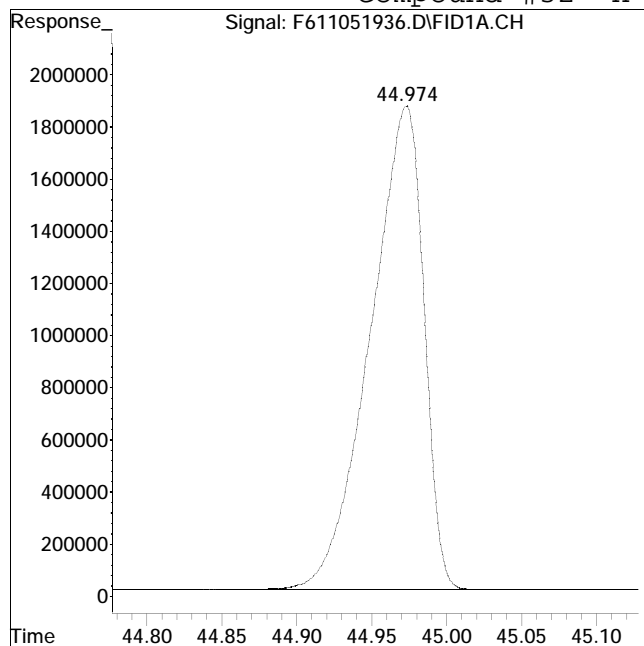
Manual Peak Response = 46776766 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 46000130

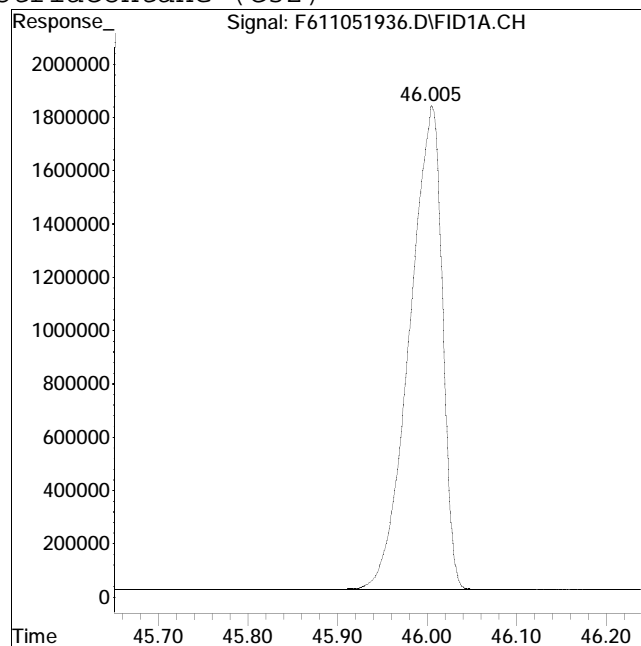
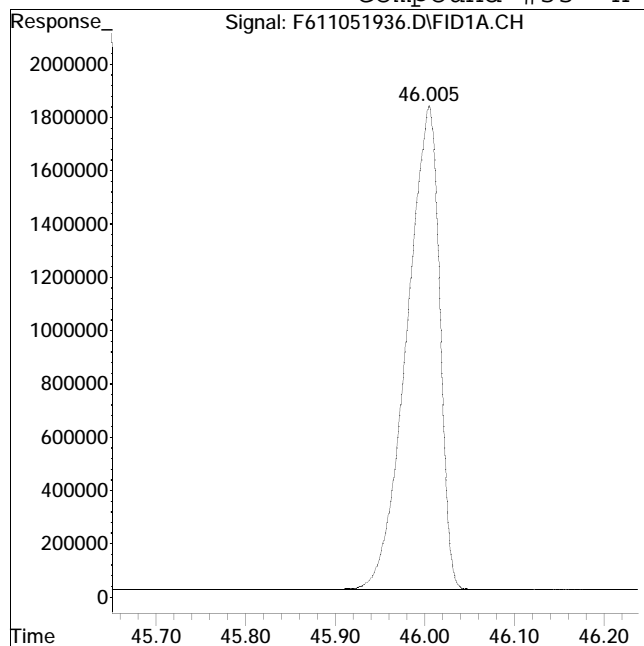
Manual Peak Response = 46018251 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 46161880

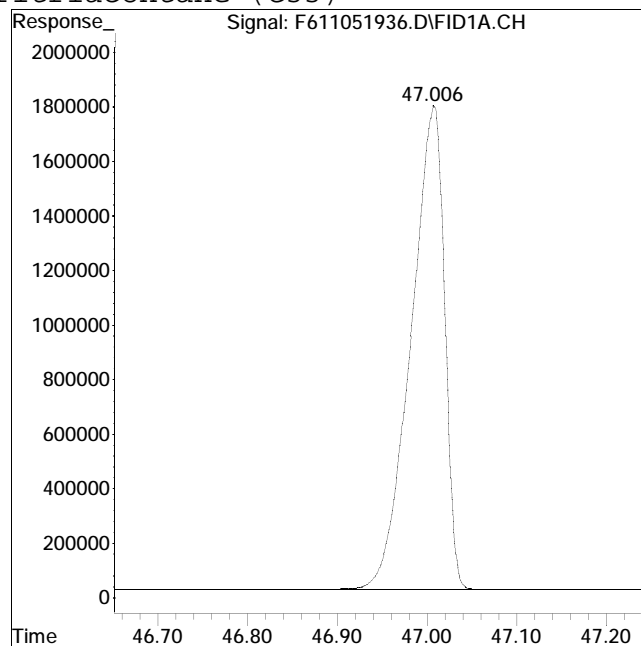
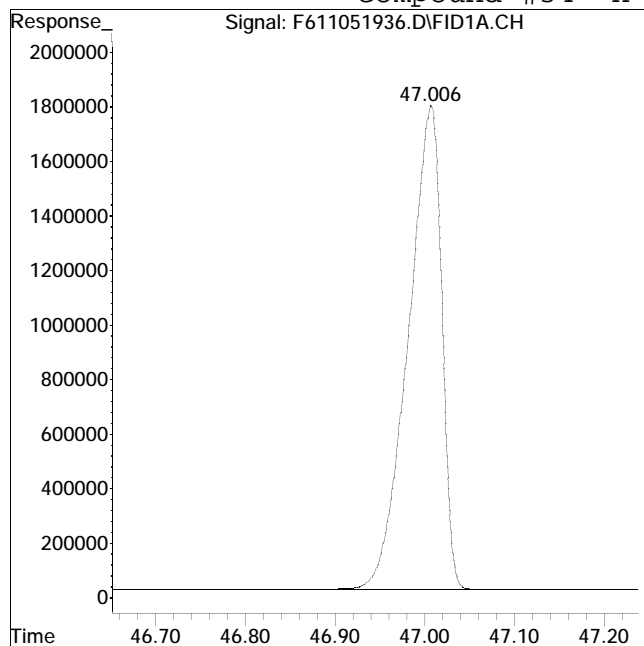
Manual Peak Response = 46131719 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 46116606

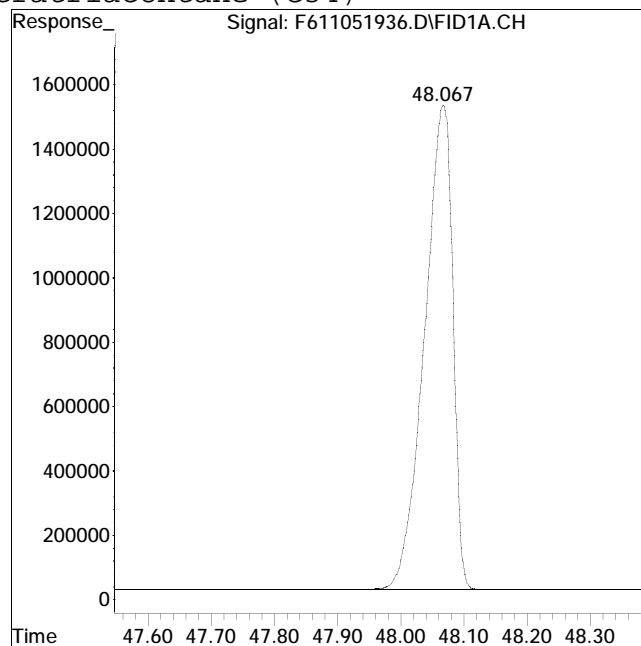
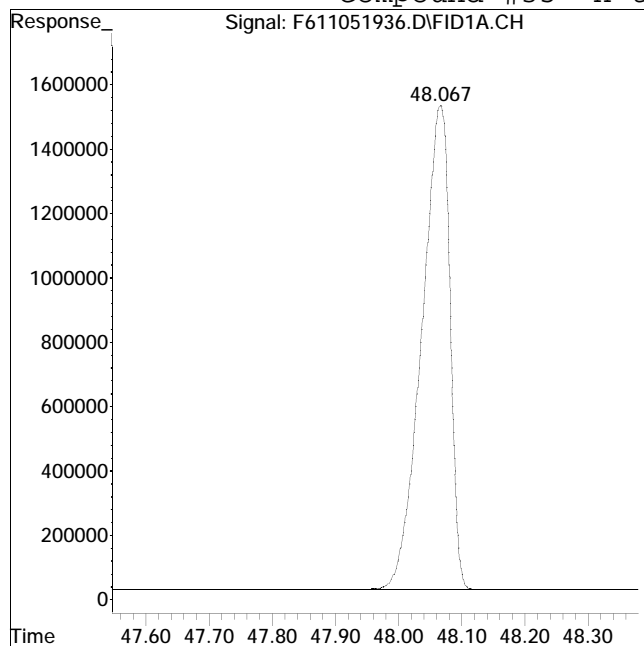
Manual Peak Response = 46093365 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 46827981

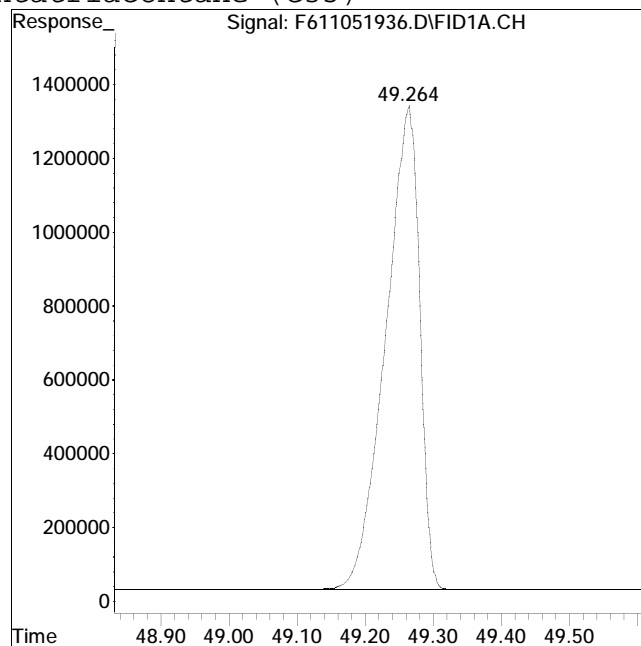
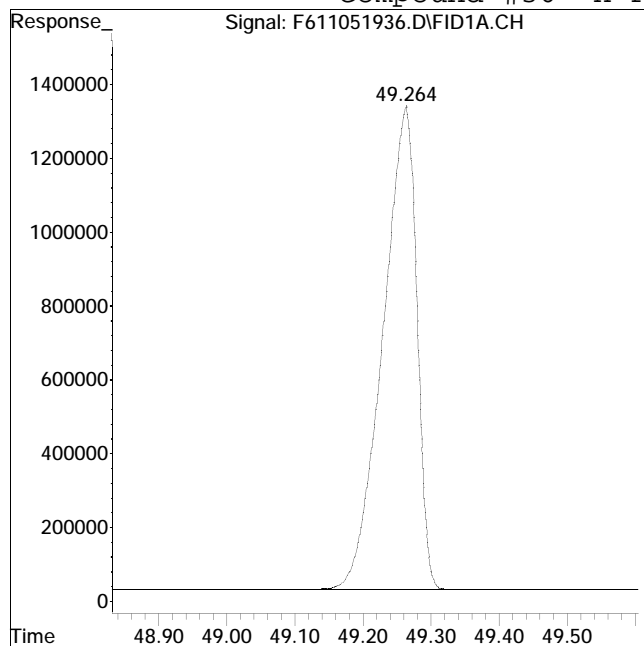
Manual Peak Response = 46831302 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 45374077

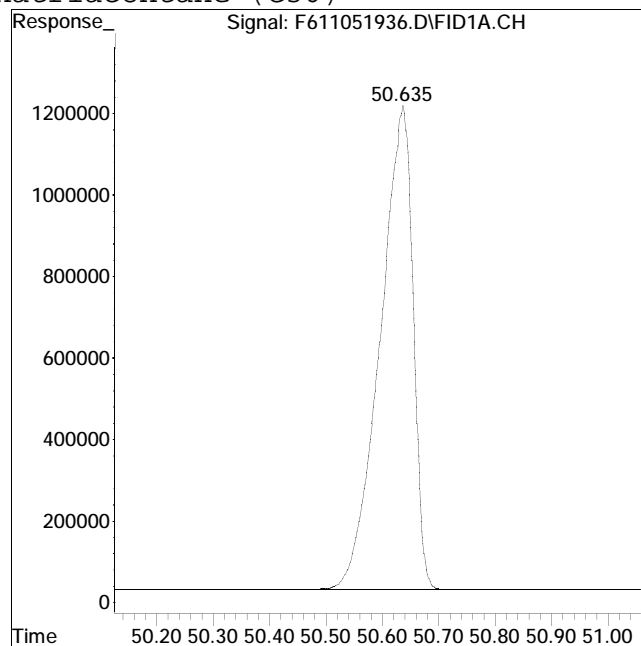
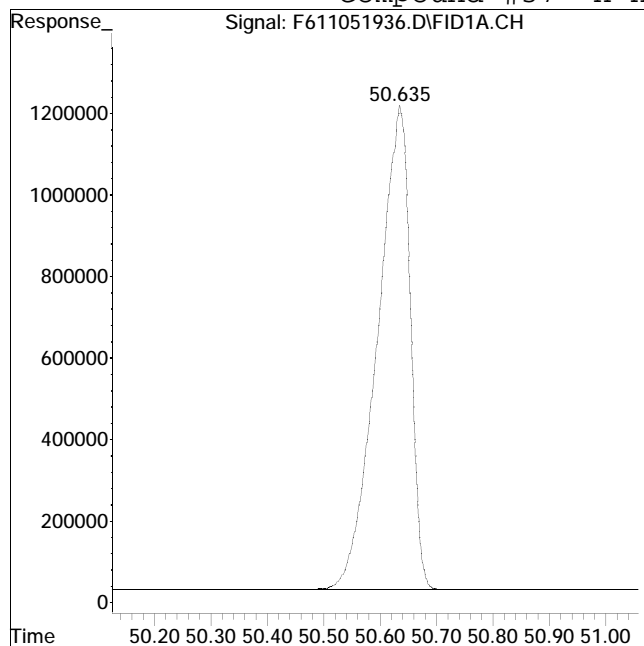
Manual Peak Response = 45372170 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 48073288

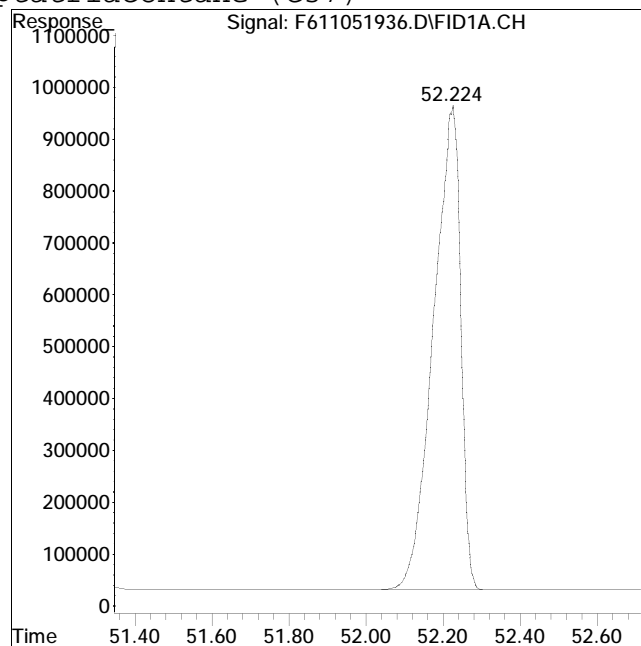
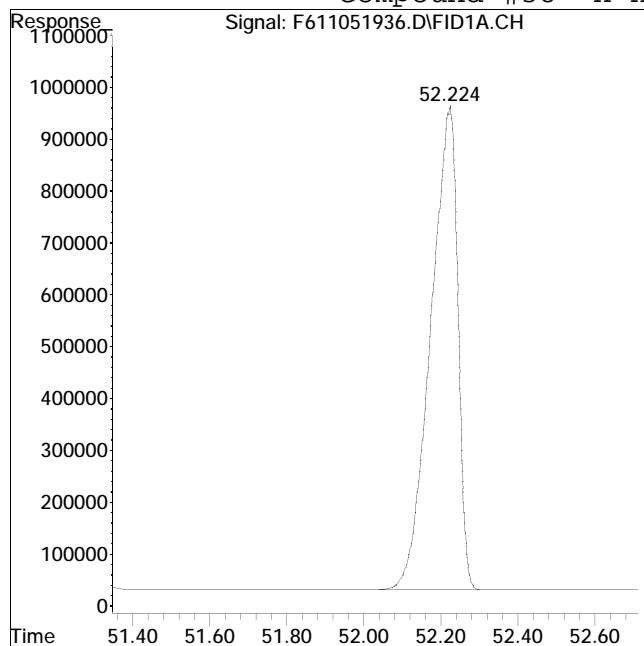
Manual Peak Response = 48063143 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 45570047

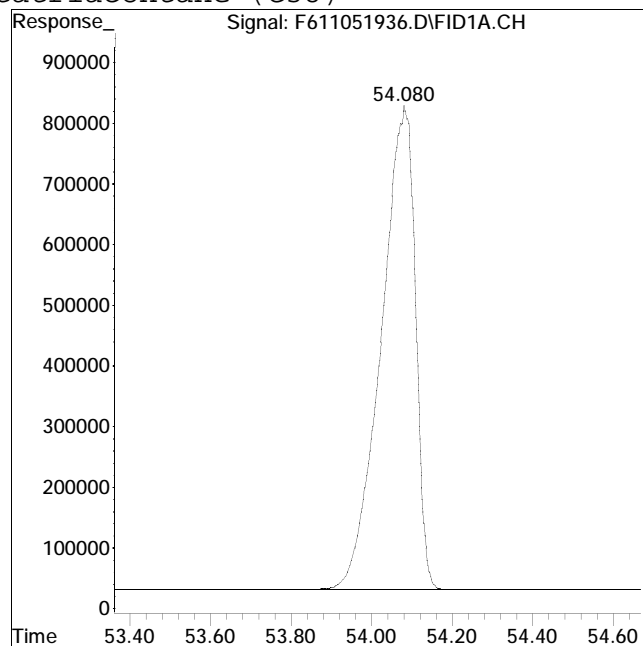
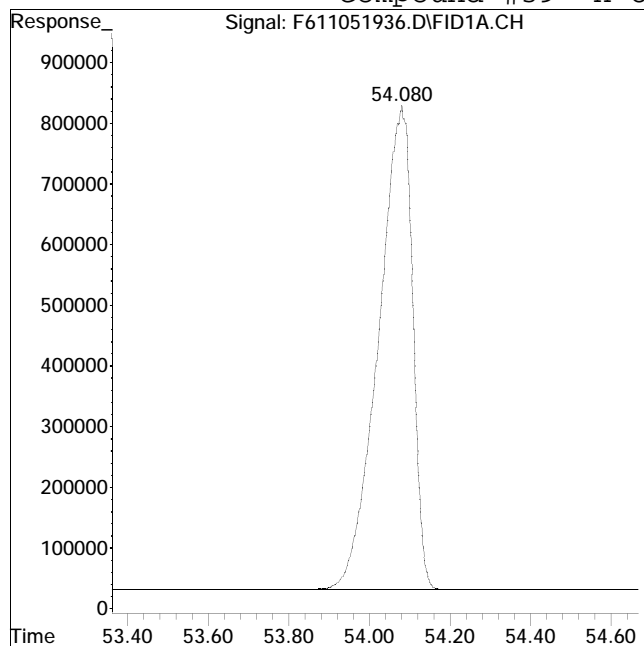
Manual Peak Response = 45555803 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 47003348

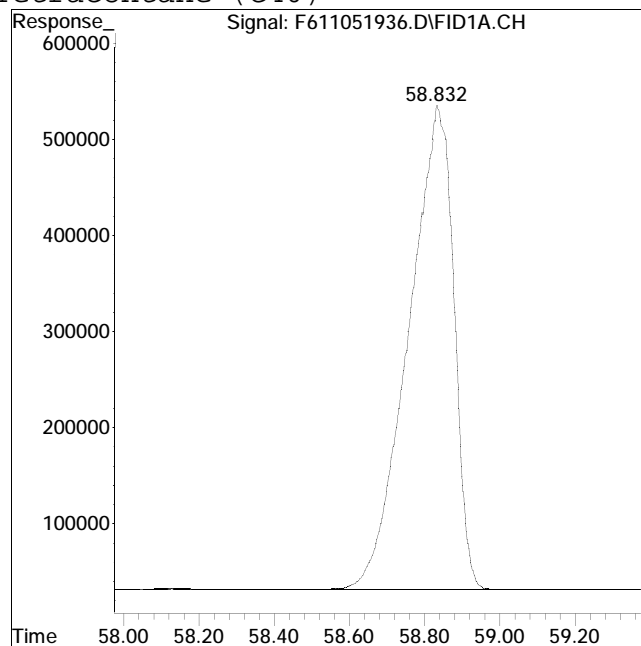
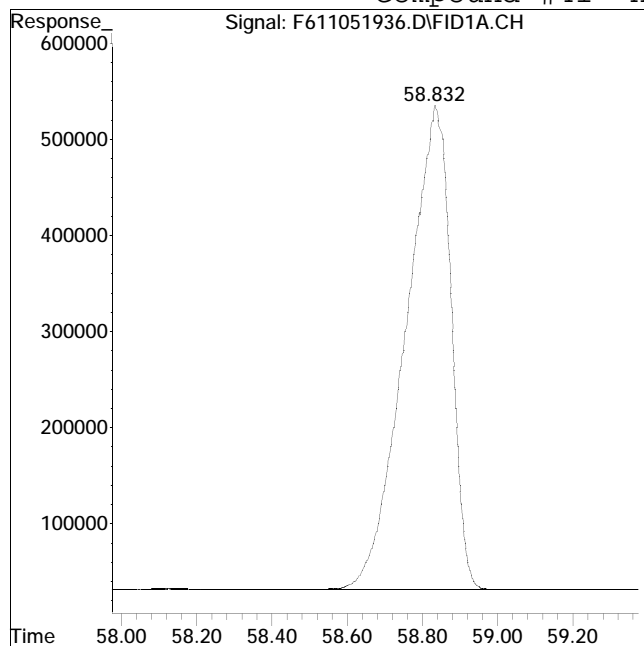
Manual Peak Response = 46993423 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051936.D Operator : FID6:MA
Date Inj'd : 11/6/2019 11:02 am Instrument : FID6
Sample : CQ611051901F Quant Date : 11/12/2019 4:38 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 42017330

Manual Peak Response = 42021316 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051938.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 12:30 pm
 Operator : FID6:MA
 Sample : WG1307766-1,0.10280
 Misc : WG1307766,FRBB40,10.28ug/ml
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 20 15:23:19 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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 : IB611051901F
 Blank File : F611051920.D

Sub List : SHC - SHC

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.538	57706354	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.506	57678559	47.906	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	95.81%	
24) s d50-Tetracosane	36.168	44425630	47.125	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	94.25%	
Target Compounds				
2) t n-Octane (C8)	5.731	77794623	86.161	ug/mL M4
3) t n-Nonane (C9)	7.970	59168086	62.485	ug/mL M4
4) t n-Decane (C10)	10.477	49986916	50.811	ug/mL M4
5) t n-Undecane (C11)	13.002	45794673	45.661	ug/mL M4
6) t n-Dodecane (C12)	15.437	41865463	40.907	ug/mL M4
7) t n-Tridecane (C13)	17.750	39371787	37.950	ug/mL M4
8) t 1380	19.429	9472904	8.946	ug/mL M4
9) t n-Tetradecane (C14)	19.940	35941640	33.941	ug/mL M4
10) t 1470	21.224	14286172	13.419	ug/mL M4
11) t n-Pentadecane (C15)	22.010	43771761	41.113	ug/mL M4
12) t n-Hexadecane (C16)	23.971	34642847	32.037	ug/mL M4
13) t 1650	24.875	11035084	10.228	ug/mL M4
14) t n-Heptadecane (C17)	25.836	30634261	28.395	ug/mL M4
15) t Pristane	25.930	23286987	21.225	ug/mL M4
16) T n-Octadecane (C18)	27.605	26564111	24.293	ug/mL M4
17) t Phytane	27.763	13169162	13.358	ug/mL M4
18) t n-Nonadecane (C19)	29.295	25959290	23.802	ug/mL M4
20) t n-Eicosane (C20)	30.906	26261063	23.988	ug/mL M4
21) t n-Heneicosane (C21)	32.446	22761645	20.491	ug/mL M4
22) t n-Docosane (C22)	33.923	21503716	19.349	ug/mL M4
23) t n-Tricosane (C23)	35.339	19331086	17.318	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051938.D
 Signal(s) : FID1A.CH
 Acq On : 06 Nov 2019 12:30 pm
 Operator : FID6:MA
 Sample : WG1307766-1,0.10280
 Misc : WG1307766,FRBB40,10.28ug/ml
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 20 15:23:19 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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 : IB611051901F
 Blank File : F611051920.D

Sub List : SHC - SHC

Compound	R.T.	Response	Conc	Units
25) t n-Tetracosane (C24)	36.700	18242459	16.286	ug/mL M4
26) t n-Pentacosane (C25)	38.008	18099958	16.319	ug/mL M4
27) t n-Hexacosane (C26)	39.269	15114724	13.537	ug/mL M4
28) t n-Heptacosane (C27)	40.486	12041979	11.089	ug/mL M4
29) t n-Octacosane (C28)	41.660	8547618	7.571	ug/mL M4
30) t n-Nonacosane (C29)	42.796	8609664	7.658	ug/mL M4
31) t n-Triacontane (C30)	43.891	7000534	6.280	ug/mL M4
32) t n-Hentriacontane (C31)	44.954	5907591	5.263	ug/mL M4
33) t n-Dotriacontane (C32)	45.990	6281459	5.659	ug/mL M4
34) t n-Tritriacontane (C33)	46.983	3384845	3.073	ug/mL M4
35) t n-tetratriacontane (C34)	48.038	3132379	2.749	ug/mL M4
36) t n-Pentatriacontane (C35)	49.232	2917124	2.655	ug/mL M4
37) t n-Hexatriacontane (C36)	50.600	1822192	1.565	ug/mL M4
38) t n-Heptatriacontane (C37)	52.173	1737904	1.592	ug/mL M4
39) t n-Octatriacontane (C38)	54.035	1361382	1.155	ug/mL M4
40) t n-Nonatriacontane (C39)	56.196	959972	0.872	ug/mL M4
41) t n-Tetracontane (C40)	58.768	815126	0.741	ug/mL M4
42) h C9-C44 Total Petroleu...	41.423	6213814303	5714.109	ug/mL m
42) h C9-C44 Total Petroleu BS	41.423	5838550802	5369.024	ug/mLm
49) h Total Resolved Hydroc...	37.081	2109615501	1939.964	ug/mL m

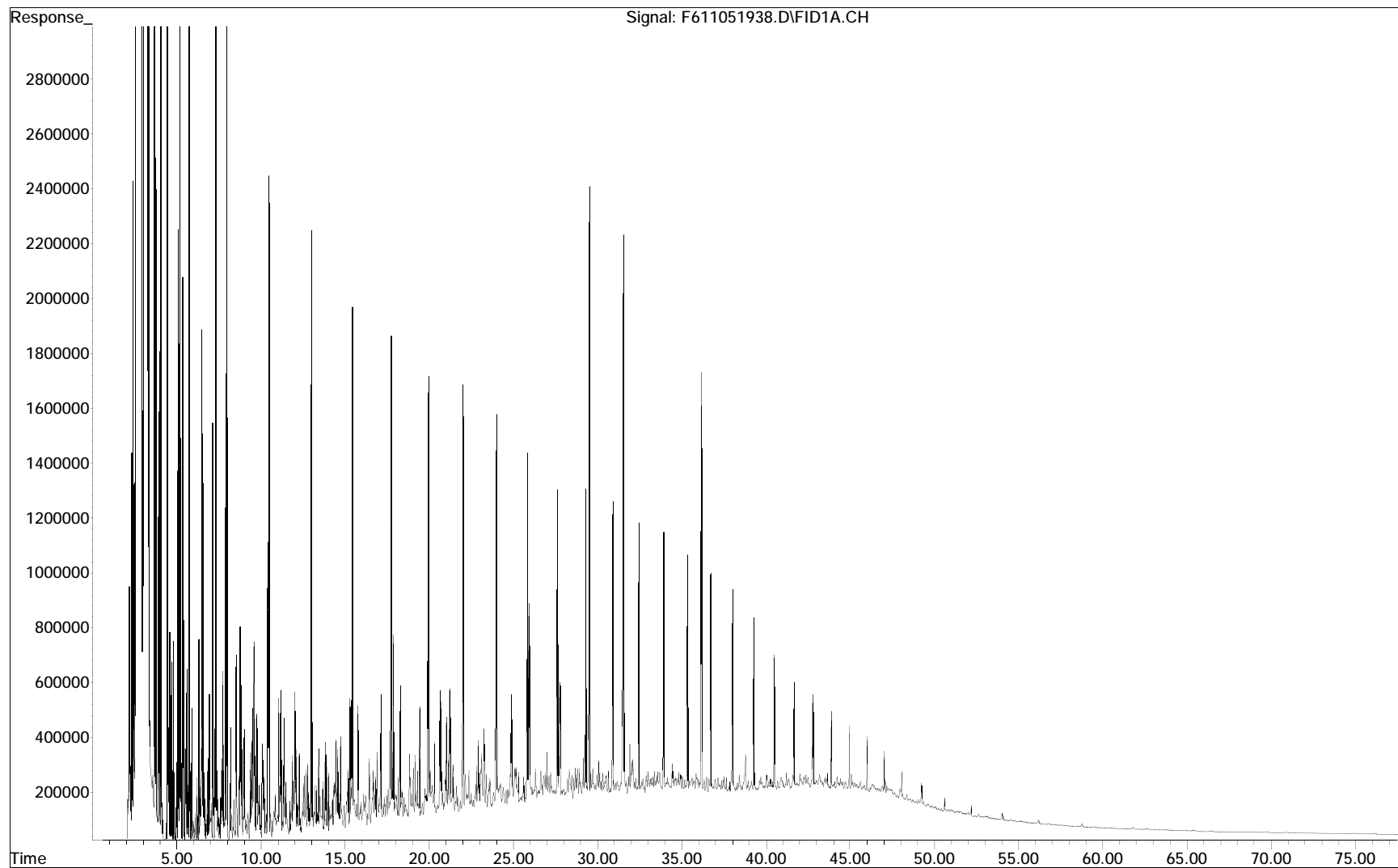
SemiQuant Compounds - Not Calibrated on this Instrument

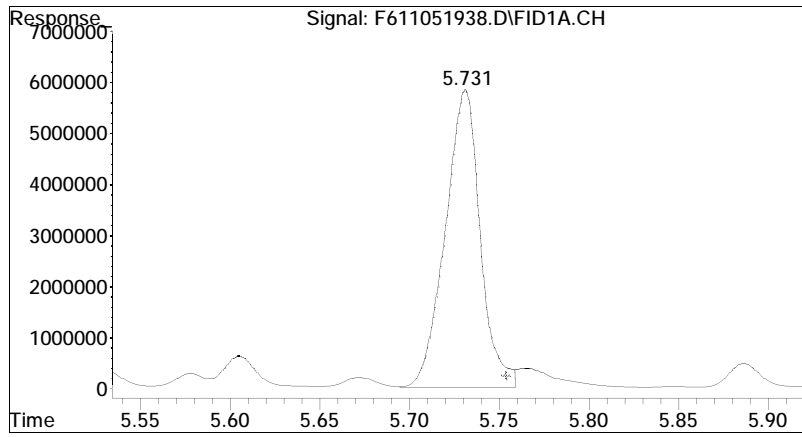
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

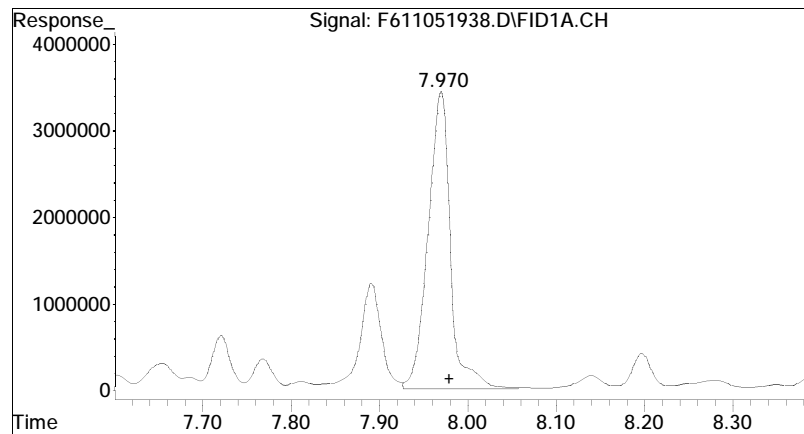
File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051938.D
Operator : FID6:MA
Acquired : 06 Nov 2019 12:30 pm using AcqMethod FID6A.M
Sample Name: WG1307766-1,0.10280
Instrument: FID6
Misc Info : WG1307766,FRBB40,10.28ug/ml
Vial Number: 14
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



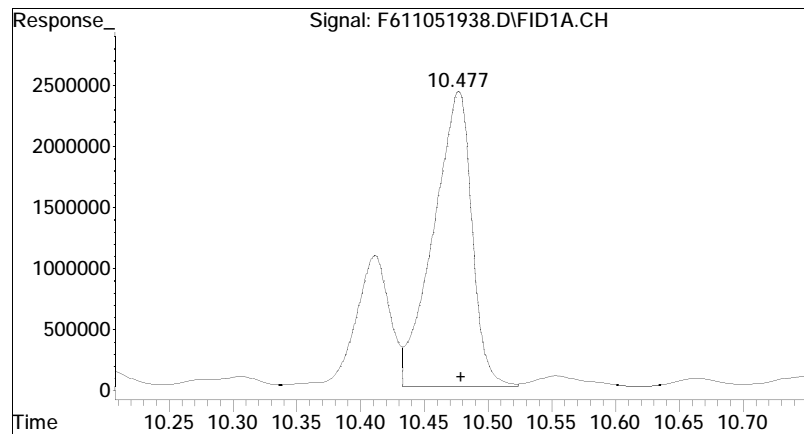


#2 n-Octane (C8)

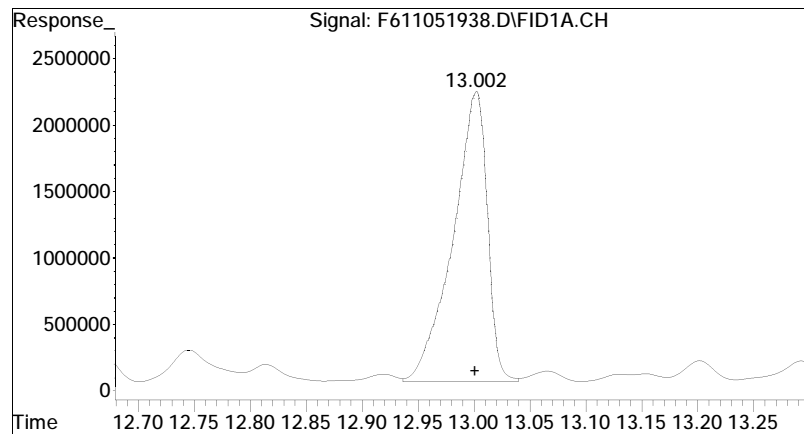
R.T.: 5.731 min
Delta R.T.: -0.023 min
Response: 77794623
Conc: 86.16 ug/mL M4



#3 n-Nonane (C9)
R.T.: 7.970 min
Delta R.T.: -0.009 min
Response: 59168086
Conc: 62.48 ug/mL M4

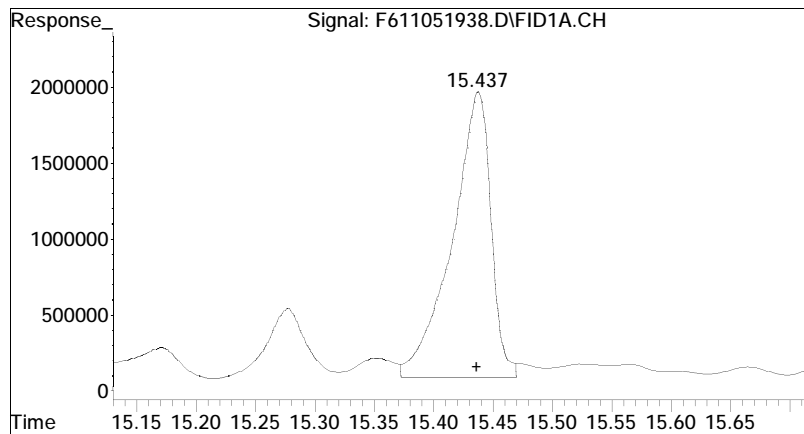


#4 n-Decane (C10)
R.T.: 10.477 min
Delta R.T.: -0.002 min
Response: 49986916
Conc: 50.81 ug/mL M4

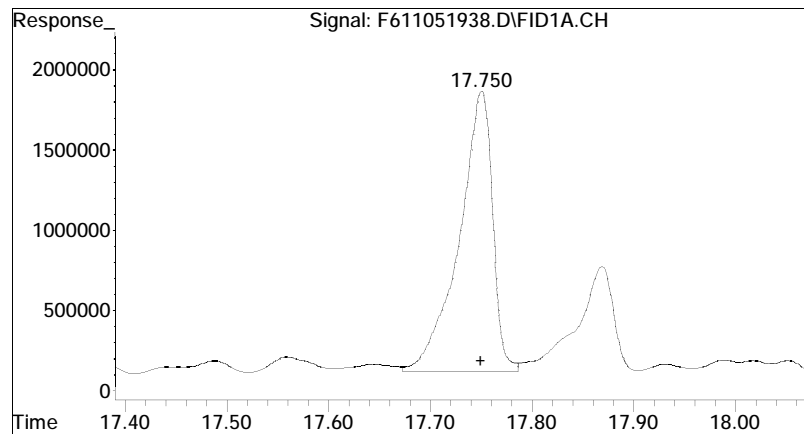


#5 n-Undecane (C11)

R.T.: 13.002 min
Delta R.T.: 0.001 min
Response: 45794673
Conc: 45.66 ug/mL M4

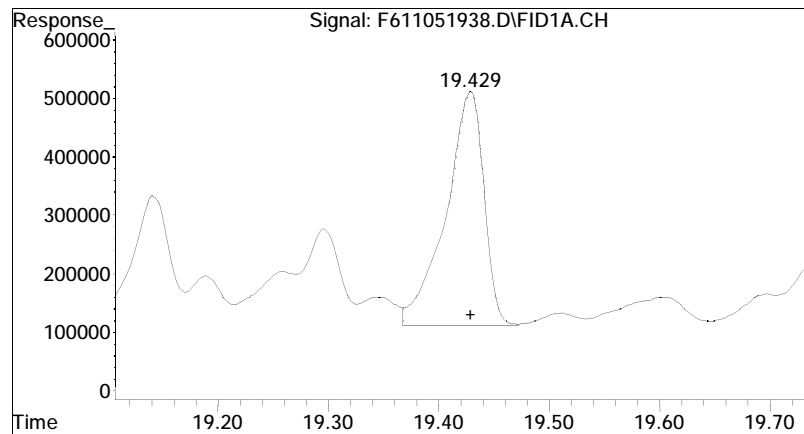


#6 n-Dodecane (C12)
R.T.: 15.437 min
Delta R.T.: 0.000 min
Response: 41865463
Conc: 40.91 ug/mL M4



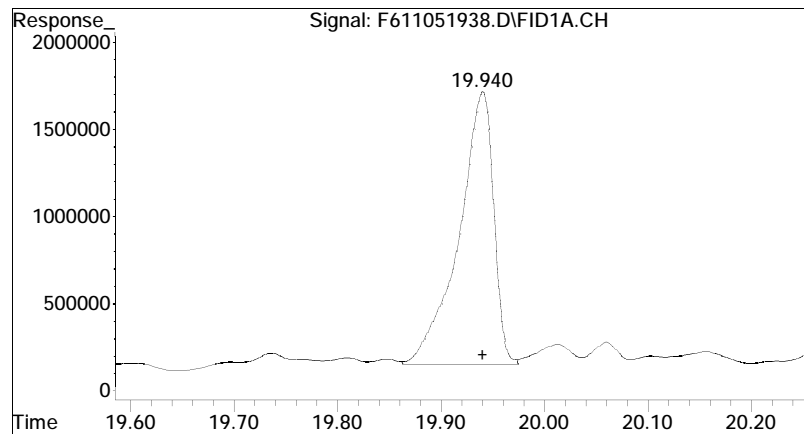
#7 n-Tridecane (C13)

R.T.: 17.750 min
Delta R.T.: 0.000 min
Response: 39371787
Conc: 37.95 ug/mL M4



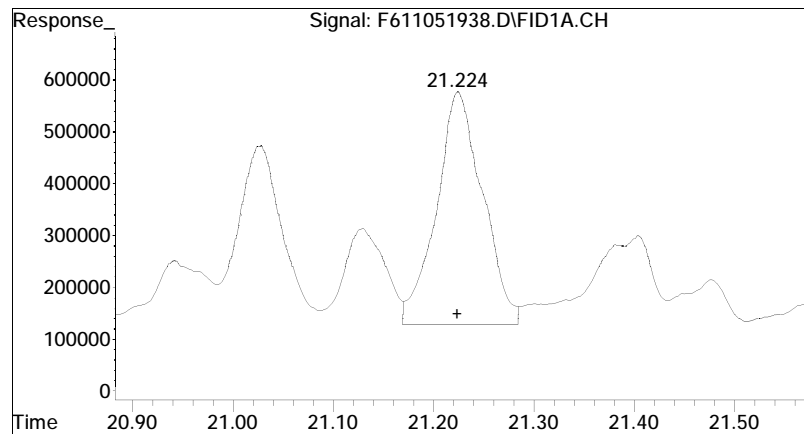
#8 1380

R.T.: 19.429 min
Delta R.T.: 0.000 min
Response: 9472904
Conc: 8.95 ug/mL M4



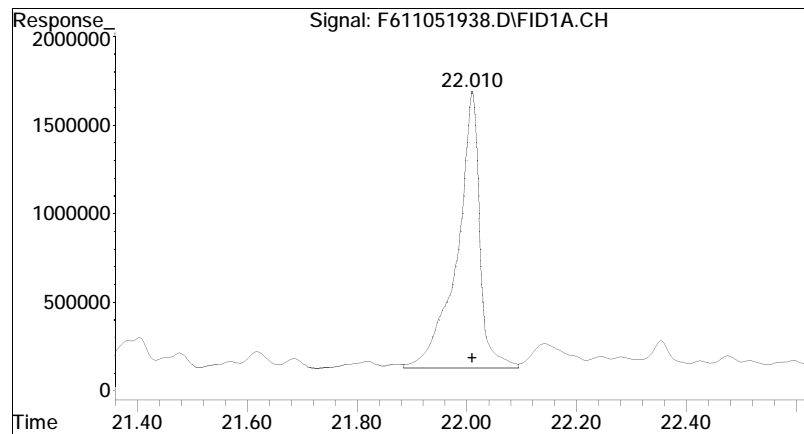
#9 n-Tetradecane (C14)

R.T.: 19.940 min
Delta R.T.: 0.000 min
Response: 35941640
Conc: 33.94 ug/mL M4



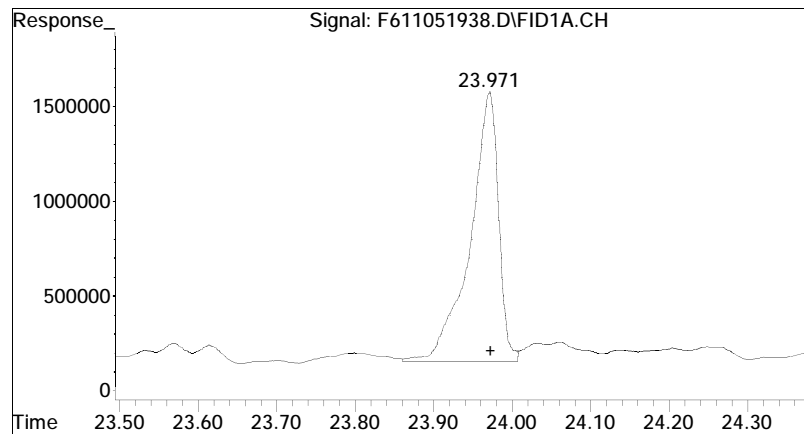
#10 1470

R.T.: 21.224 min
Delta R.T.: 0.000 min
Response: 14286172
Conc: 13.42 ug/mL M4

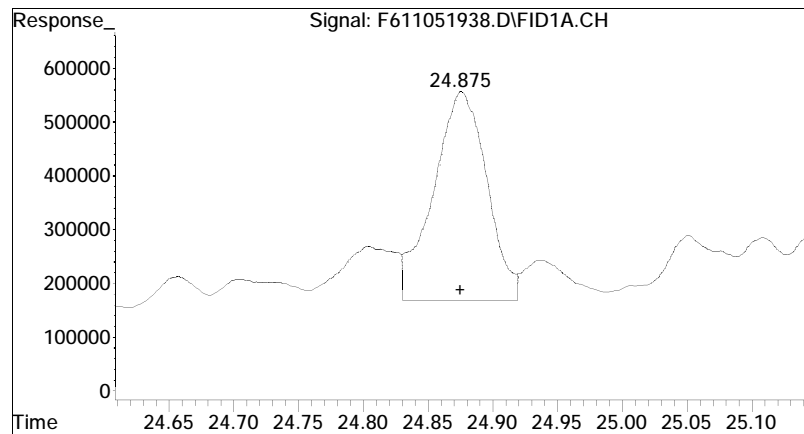


#11 n-Pentadecane (C15)

R.T.: 22.010 min
Delta R.T.: 0.000 min
Response: 43771761
Conc: 41.11 ug/mL M4

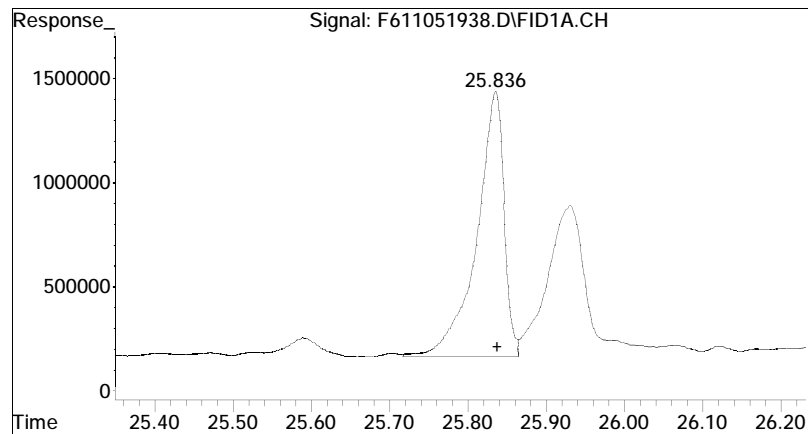


#12 n-Hexadecane (C16)
R.T.: 23.971 min
Delta R.T.: -0.001 min
Response: 34642847
Conc: 32.04 ug/mL M4



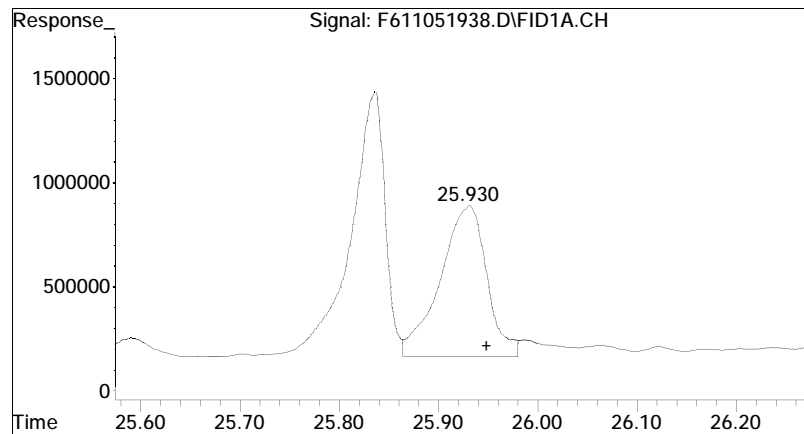
#13 1650

R.T.: 24.875 min
Delta R.T.: 0.000 min
Response: 11035084
Conc: 10.23 ug/mL M4



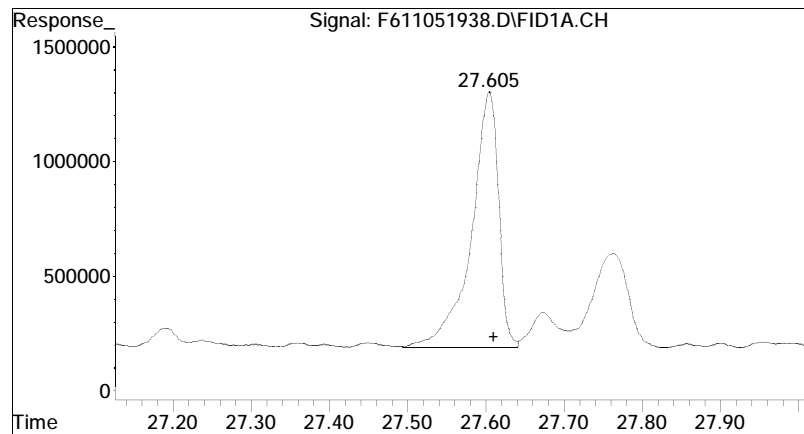
#14 n-Heptadecane (C17)

R.T.: 25.836 min
Delta R.T.: -0.002 min
Response: 30634261
Conc: 28.40 ug/mL M4

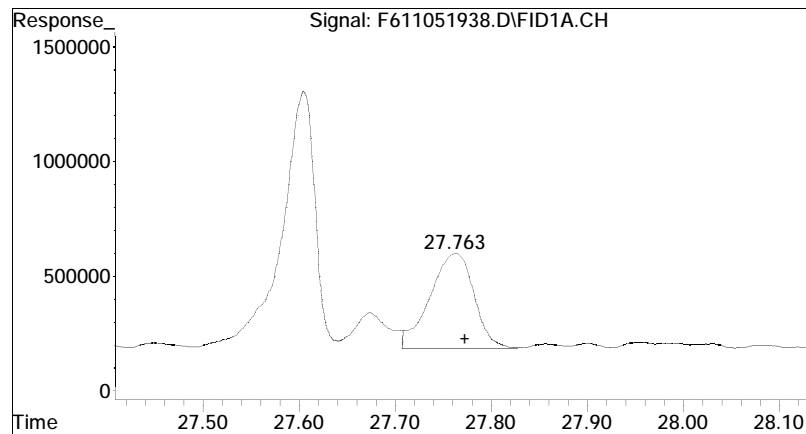


#15 Pristane

R.T.: 25.930 min
Delta R.T.: -0.018 min
Response: 23286987
Conc: 21.22 ug/mL M4

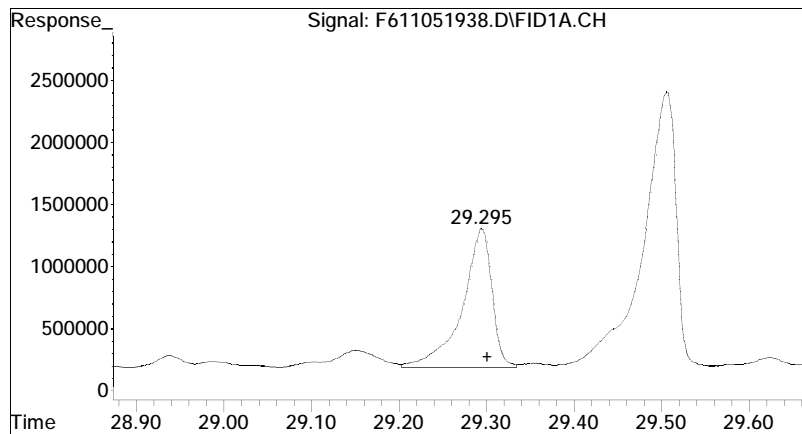


#16 n-Octadecane (C18)
R.T.: 27.605 min
Delta R.T.: -0.006 min
Response: 26564111
Conc: 24.29 ug/mL M4



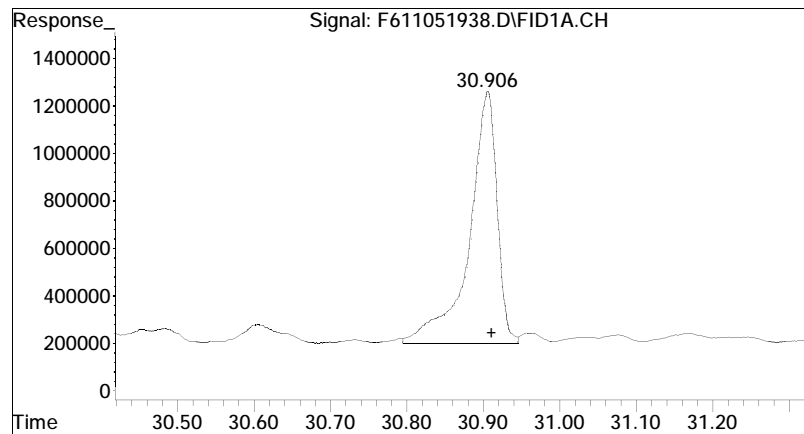
#17 Phytane

R.T.: 27.763 min
Delta R.T.: -0.010 min
Response: 13169162
Conc: 13.36 ug/mL M4



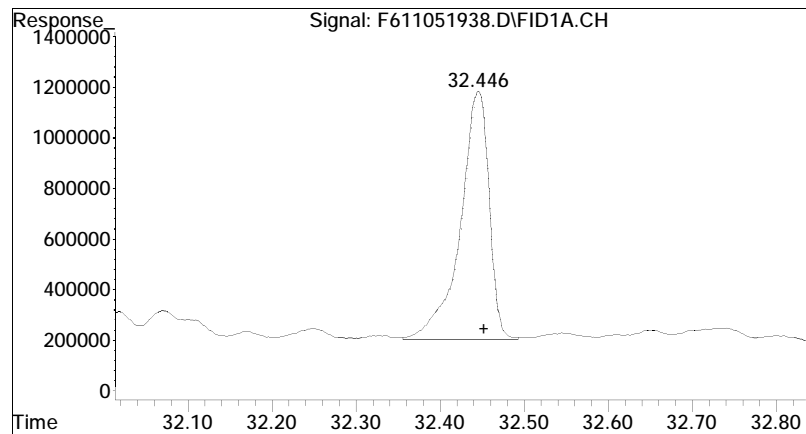
#18 n-Nonadecane (C19)

R.T.: 29.295 min
Delta R.T.: -0.007 min
Response: 25959290
Conc: 23.80 ug/mL M4

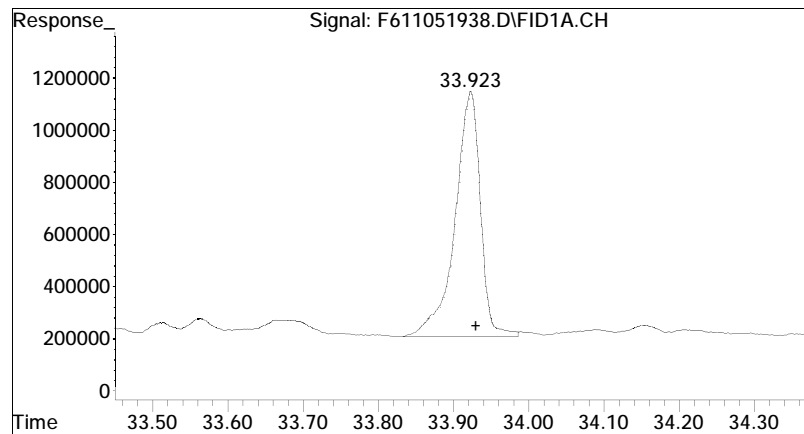


#20 n-Eicosane (C20)

R.T.: 30.906 min
Delta R.T.: -0.005 min
Response: 26261063
Conc: 23.99 ug/mL M4

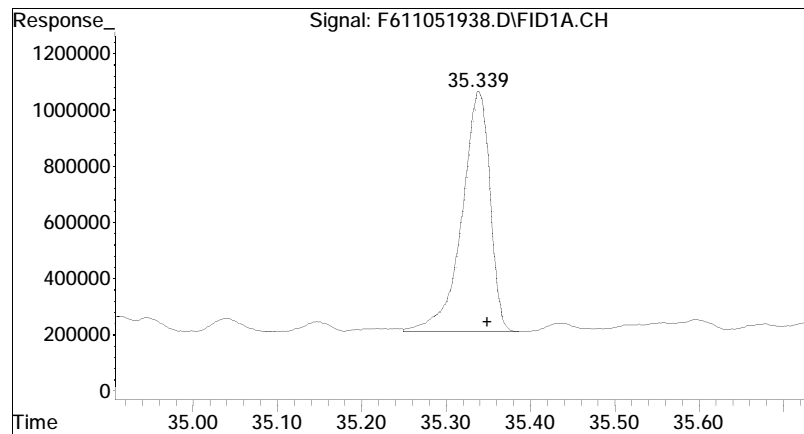


#21 n-Heneicosane (C21)
R.T.: 32.446 min
Delta R.T.: -0.006 min
Response: 22761645
Conc: 20.49 ug/mL M4

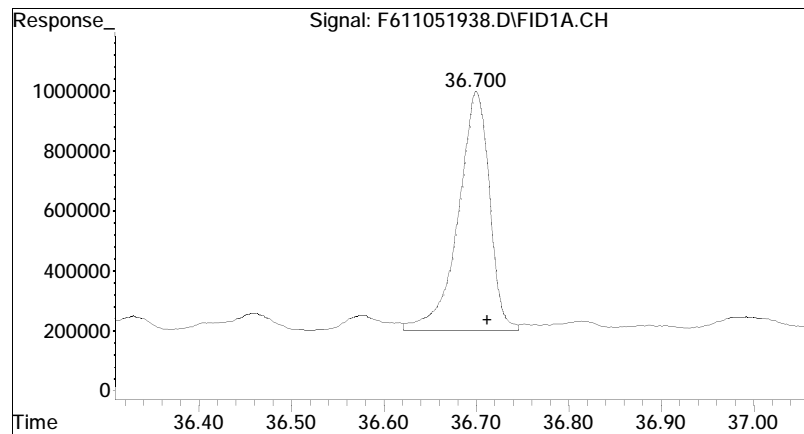


#22 n-Docosane (C22)

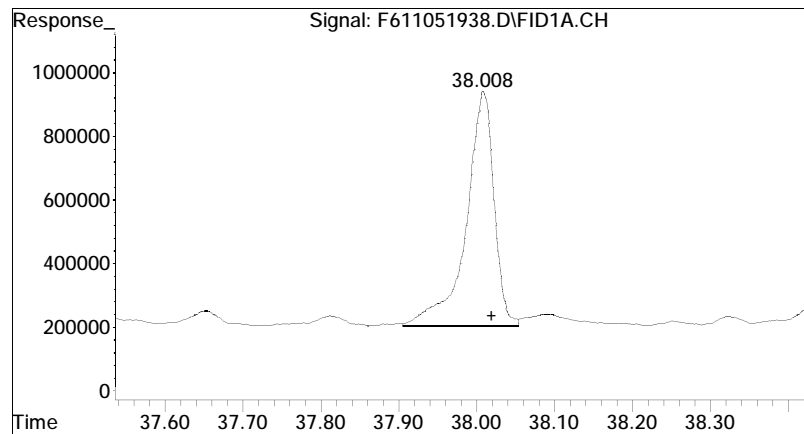
R.T.: 33.923 min
Delta R.T.: -0.007 min
Response: 21503716
Conc: 19.35 ug/mL M4



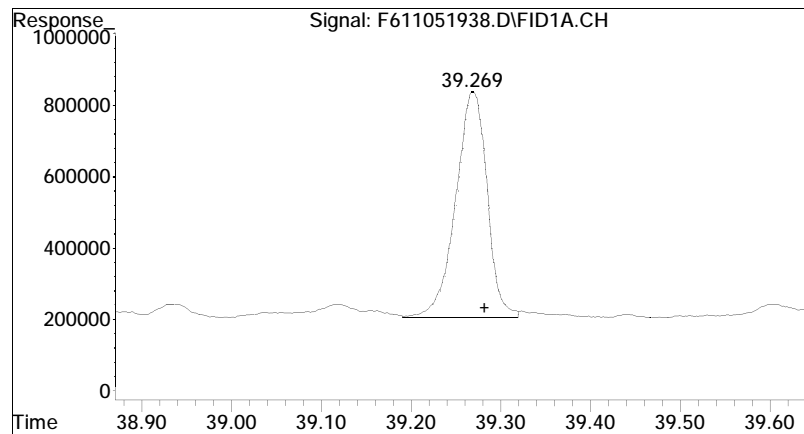
#23 n-Tricosane (C23)
R.T.: 35.339 min
Delta R.T.: -0.010 min
Response: 19331086
Conc: 17.32 ug/mL M4



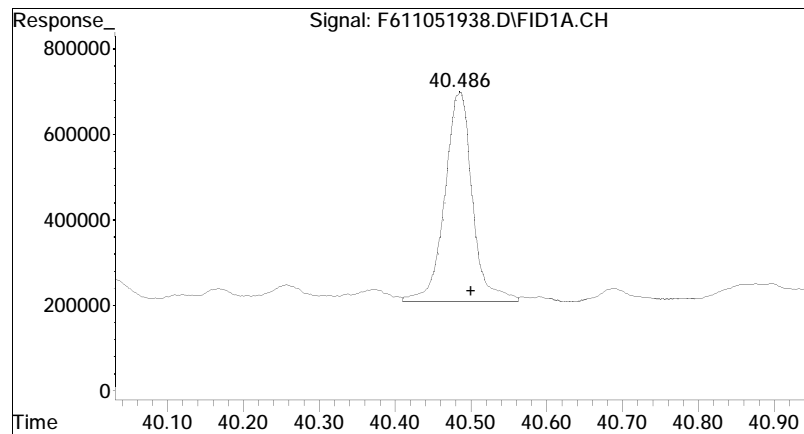
#25 n-Tetracosane (C24)
R.T.: 36.700 min
Delta R.T.: -0.012 min
Response: 18242459
Conc: 16.29 ug/mL M4



#26 n-Pentacosane (C25)
R.T.: 38.008 min
Delta R.T.: -0.012 min
Response: 18099958
Conc: 16.32 ug/mL M4

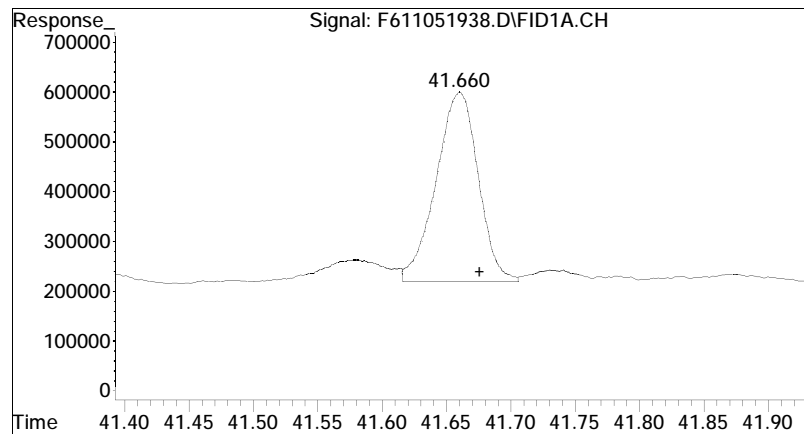


#27 n-Hexacosane (C26)
R.T.: 39.269 min
Delta R.T.: -0.014 min
Response: 15114724
Conc: 13.54 ug/mL M4

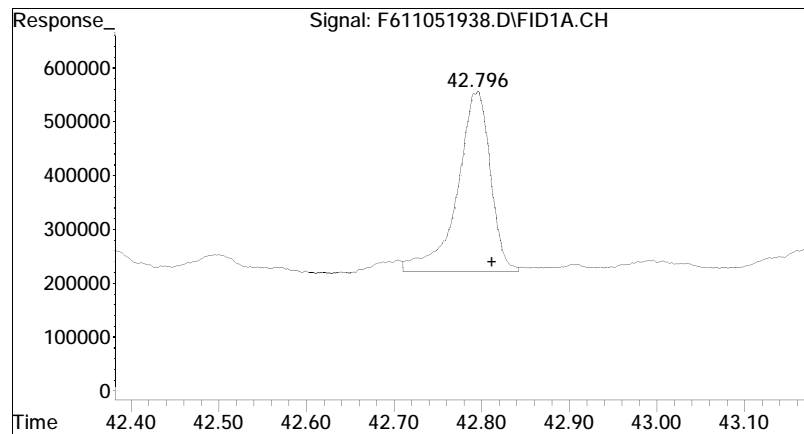


#28 n-Heptacosane (C27)

R.T.: 40.486 min
Delta R.T.: -0.014 min
Response: 12041979
Conc: 11.09 ug/mL M4

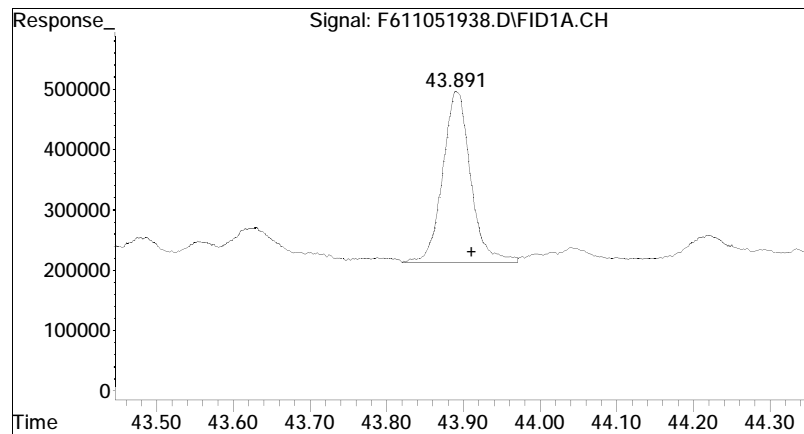


#29 n-Octacosane (C28)
R.T.: 41.660 min
Delta R.T.: -0.016 min
Response: 8547618
Conc: 7.57 ug/mL M4



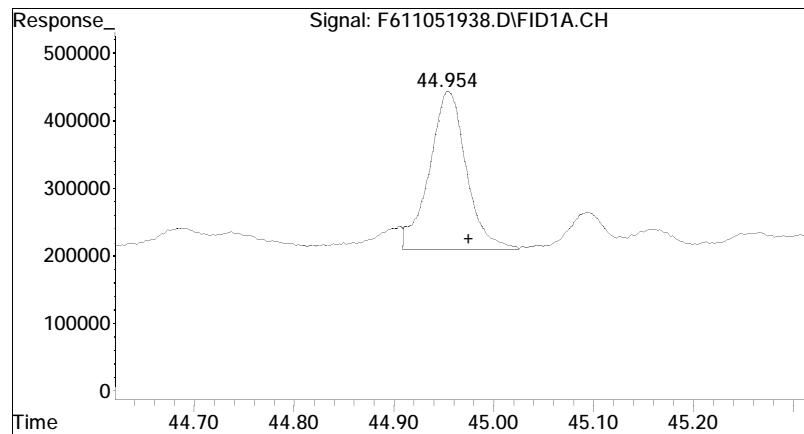
#30 n-Nonacosane (C29)

R.T.: 42.796 min
Delta R.T.: -0.016 min
Response: 8609664
Conc: 7.66 ug/mL M4



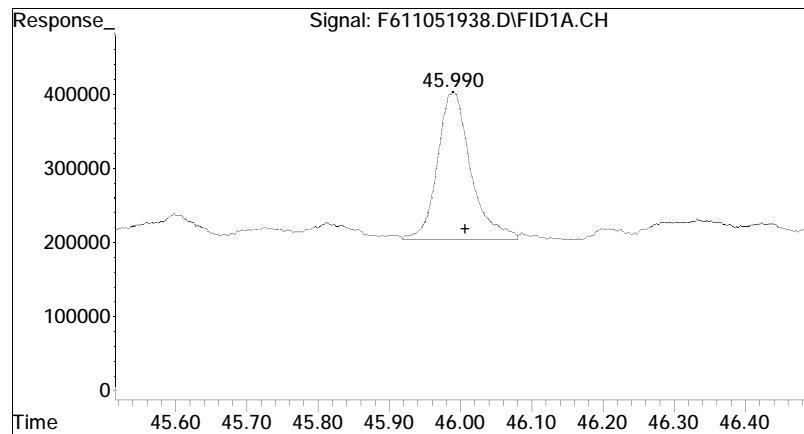
#31 n-Triacontane (C30)

R.T.: 43.891 min
Delta R.T.: -0.020 min
Response: 7000534
Conc: 6.28 ug/mL M4



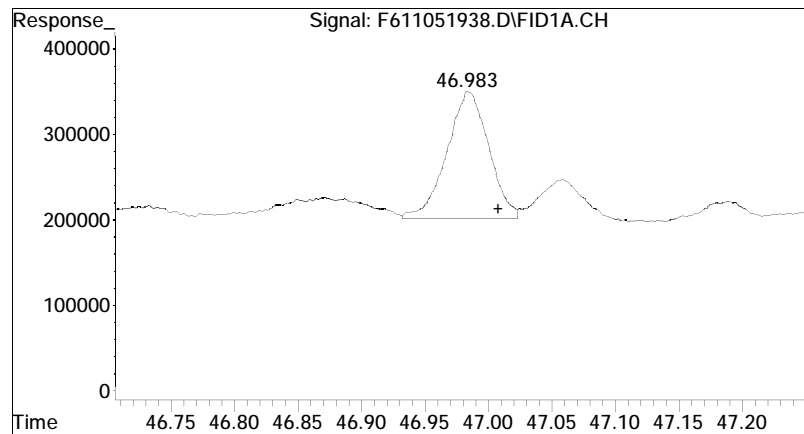
#32 n-Hentriacontane (C31)

R.T.: 44.954 min
Delta R.T.: -0.021 min
Response: 5907591
Conc: 5.26 ug/mL M4



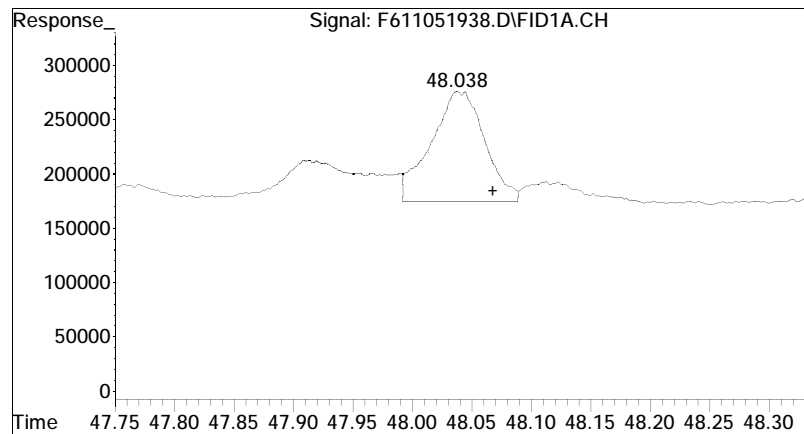
#33 n-Dotriacontane (C32)

R.T.: 45.990 min
Delta R.T.: -0.017 min
Response: 6281459
Conc: 5.66 ug/mL M4



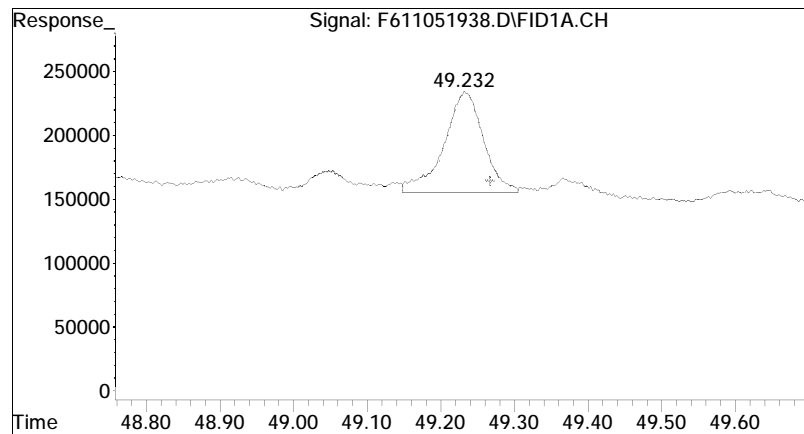
#34 n-Tritriacontane (C33)

R.T.: 46.983 min
Delta R.T.: -0.025 min
Response: 3384845
Conc: 3.07 ug/mL M4



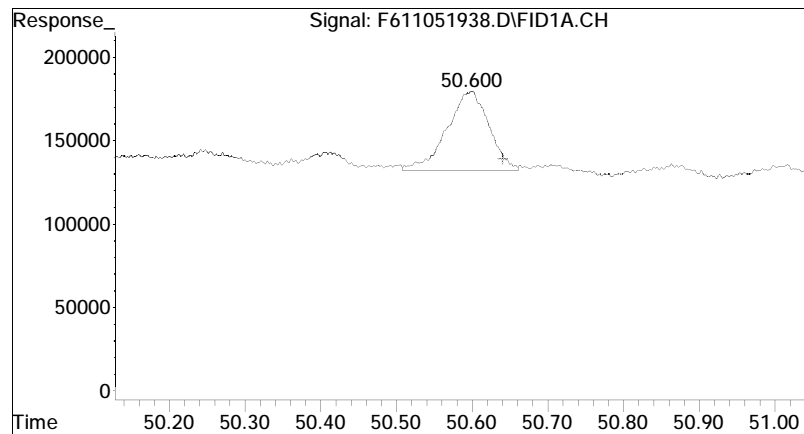
#35 n-tetratriacontane (C34)

R.T.: 48.038 min
Delta R.T.: -0.030 min
Response: 3132379
Conc: 2.75 ug/mL M4



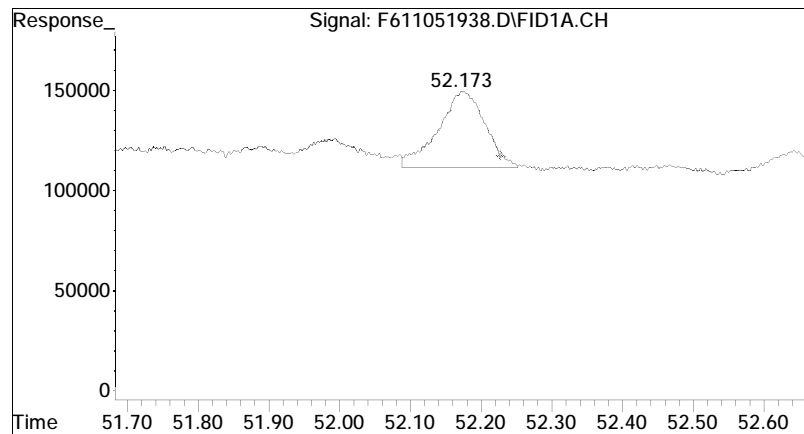
#36 n-Pentatriacontane (C35)

R.T.: 49.232 min
Delta R.T.: -0.035 min
Response: 2917124
Conc: 2.65 ug/mL M4



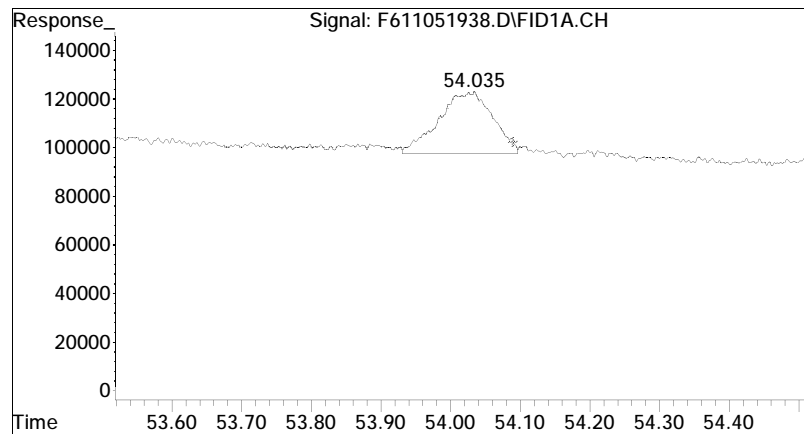
#37 n-Hexatriacontane (C36)

R.T.: 50.600 min
Delta R.T.: -0.041 min
Response: 1822192
Conc: 1.56 ug/mL M4



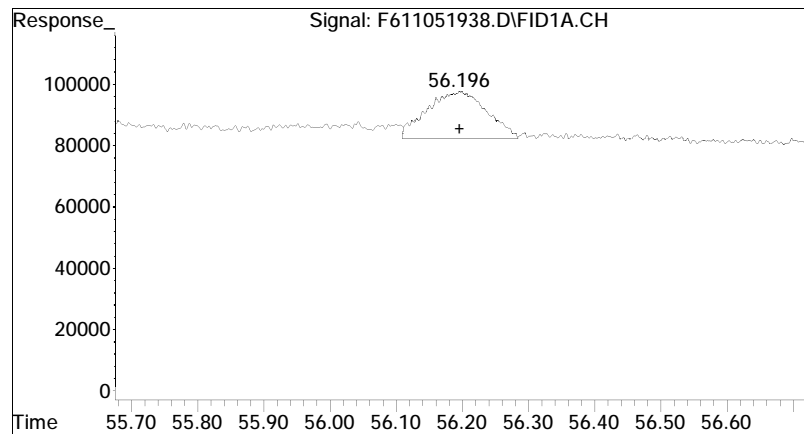
#38 n-Heptatriacontane (C37)

R.T.: 52.173 min
Delta R.T.: -0.055 min
Response: 1737904
Conc: 1.59 ug/mL M4



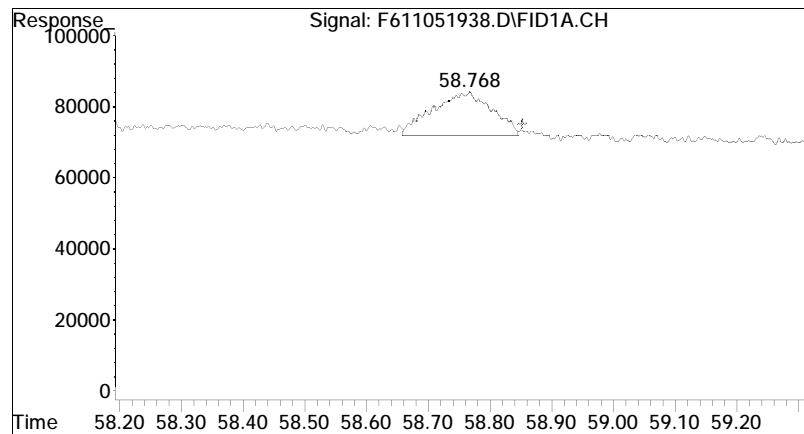
#39 n-Octatriacontane (C38)

R.T.: 54.035 min
Delta R.T.: -0.056 min
Response: 1361382
Conc: 1.16 ug/mL M4



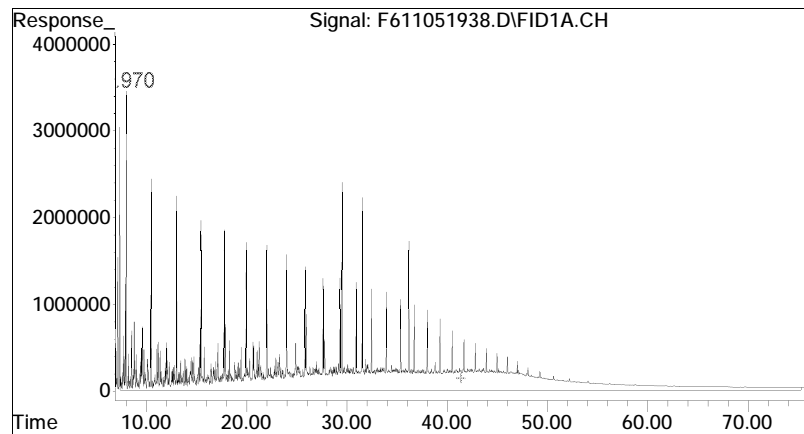
#40 n-Nonatriacontane (C39)

R.T.: 56.196 min
Delta R.T.: 0.000 min
Response: 959972
Conc: 0.87 ug/mL M4



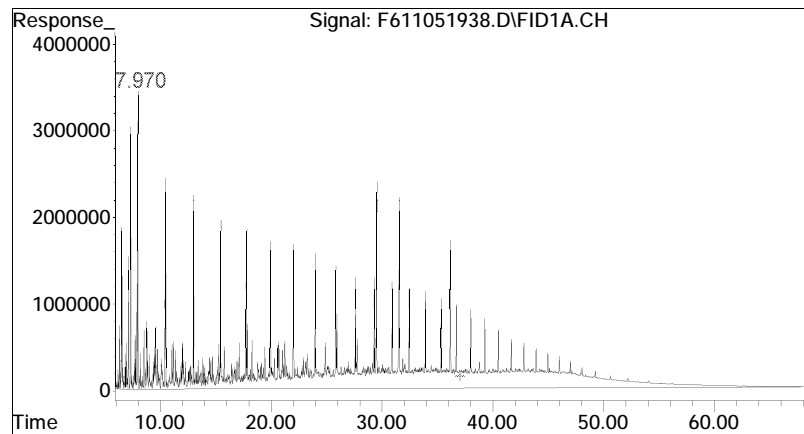
#41 n-Tetracontane (C40)

R.T.: 58.768 min
Delta R.T.: -0.084 min
Response: 815126
Conc: 0.74 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 41.423 min
Delta R.T.: 0.000 min
Response: 6213814303
Conc: 5714.11 ug/mL m



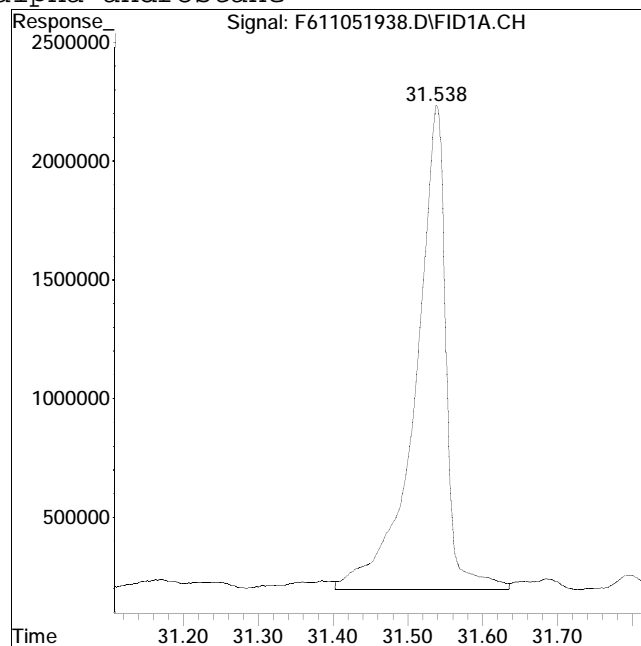
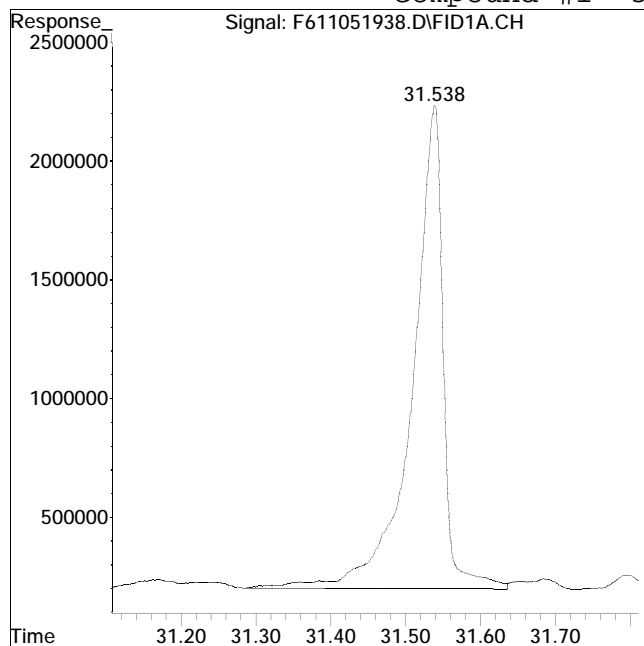
#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 2109615501
Conc: 1939.96 ug/mL m

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 58568630

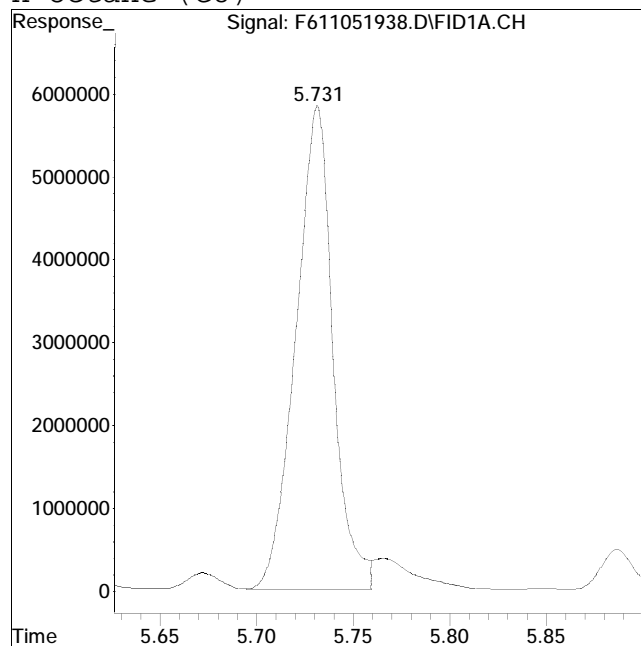
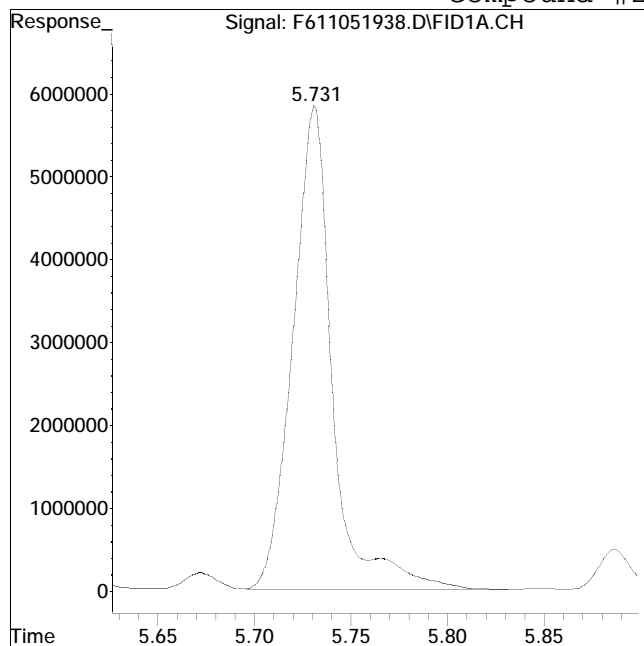
Manual Peak Response = 57706354 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #2: n-Octane (C8)



Original Peak Response = 83877526

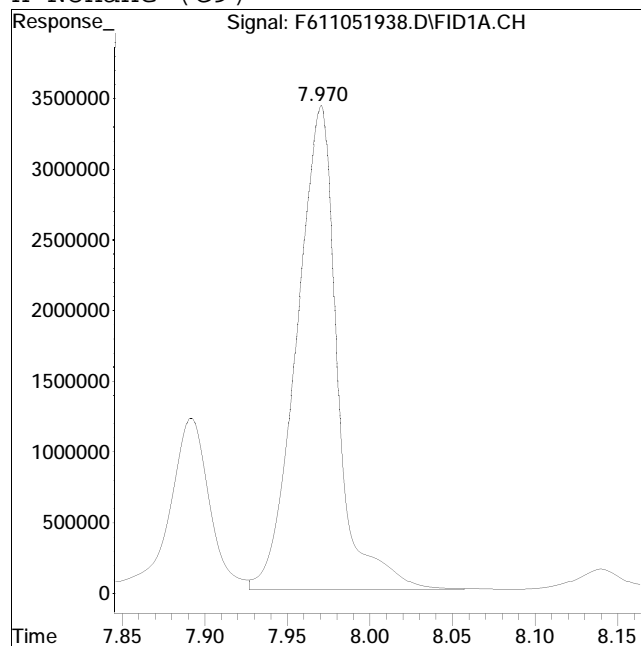
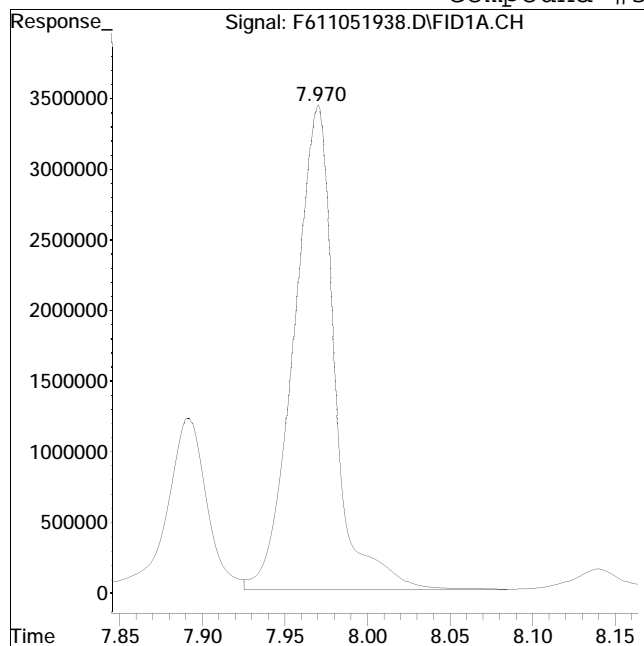
Manual Peak Response = 77794623 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 59484198

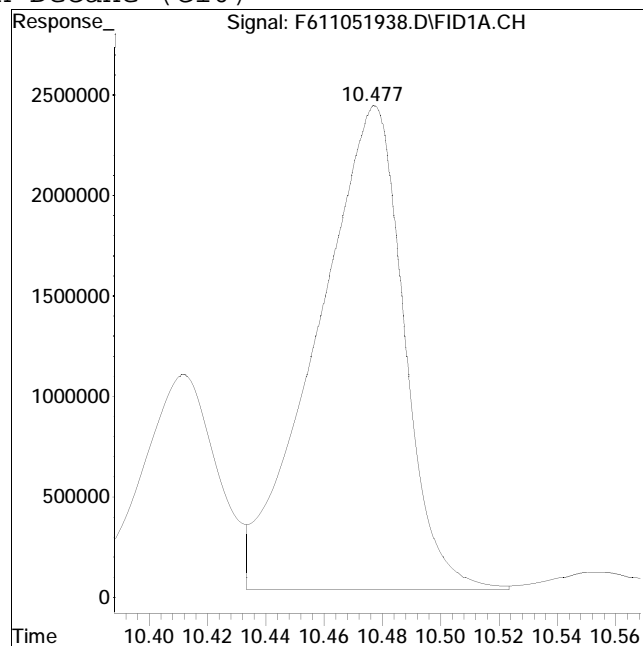
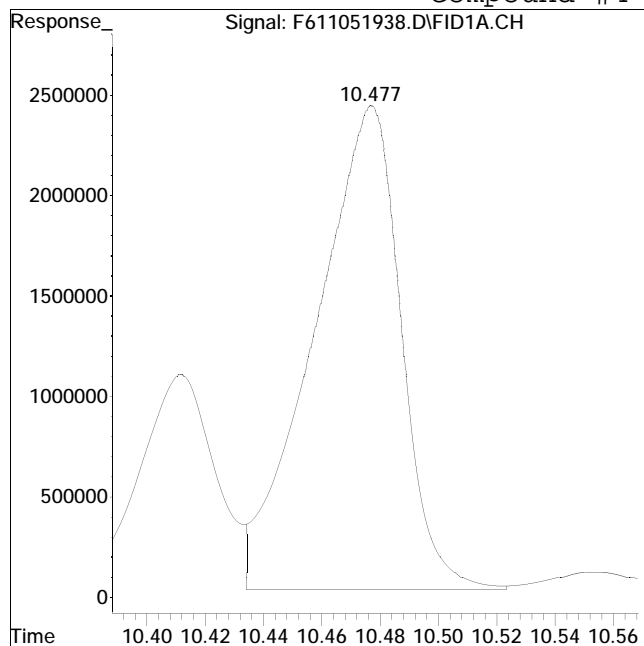
Manual Peak Response = 59168086 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #4: n-Decane (C10)



Original Peak Response = 49839436

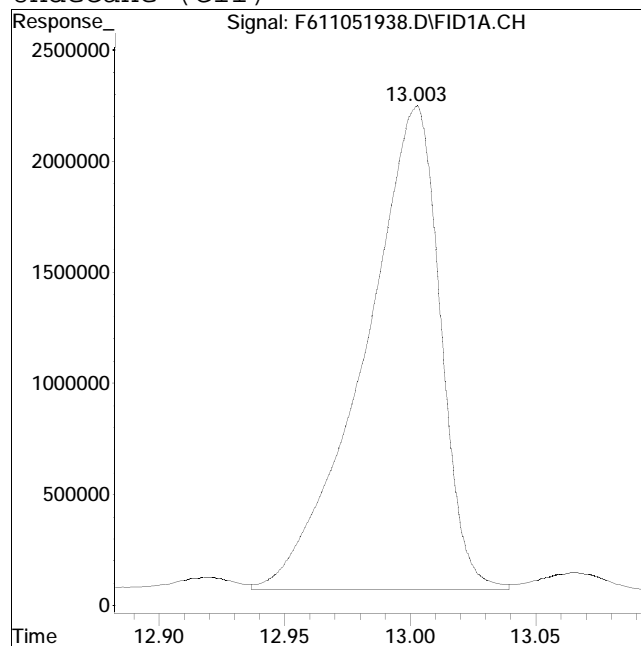
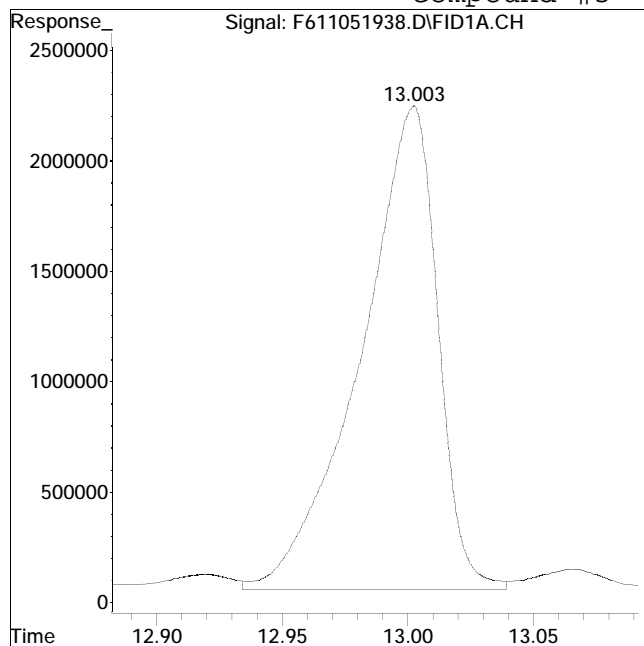
Manual Peak Response = 49986916 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 46623808

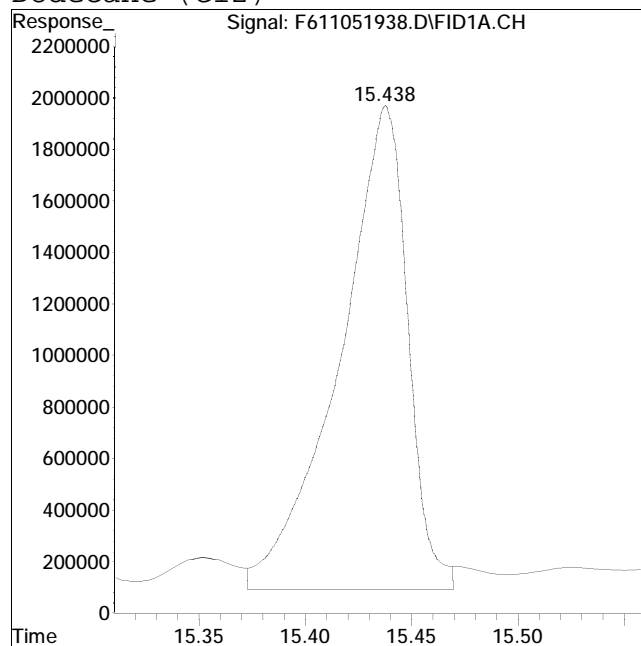
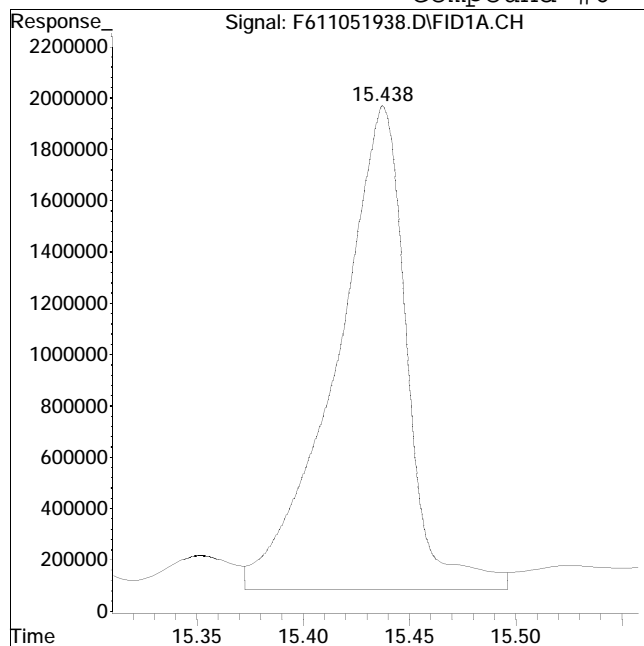
Manual Peak Response = 45794673 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 43647464

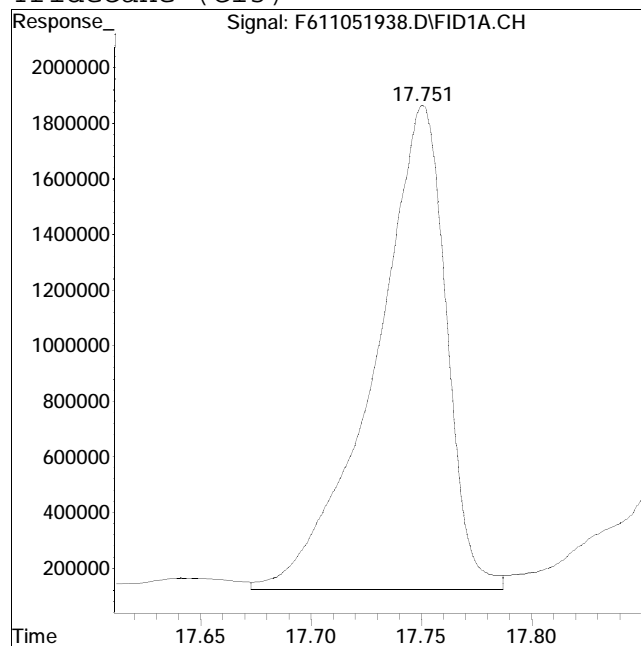
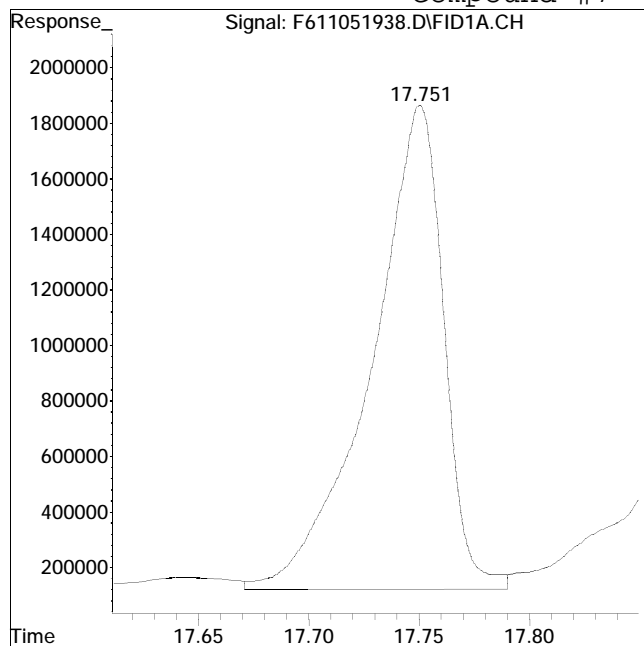
Manual Peak Response = 41865463 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 39558296

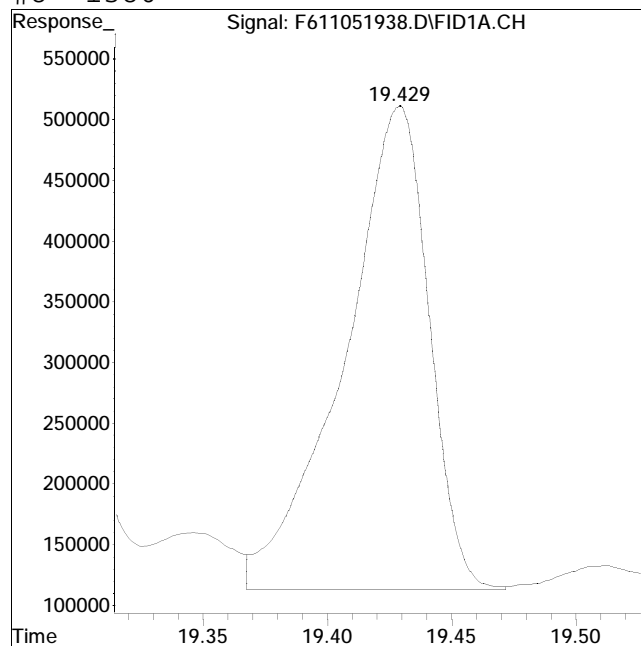
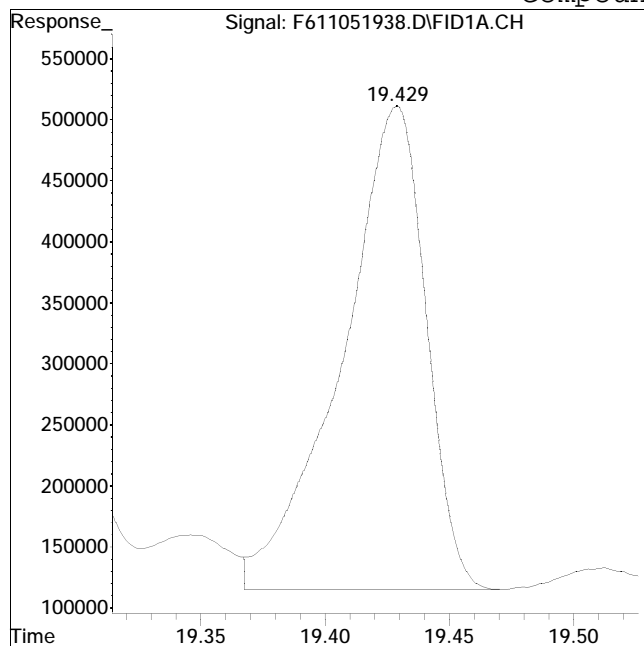
Manual Peak Response = 39371787 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #8: 1380



Original Peak Response = 9348944

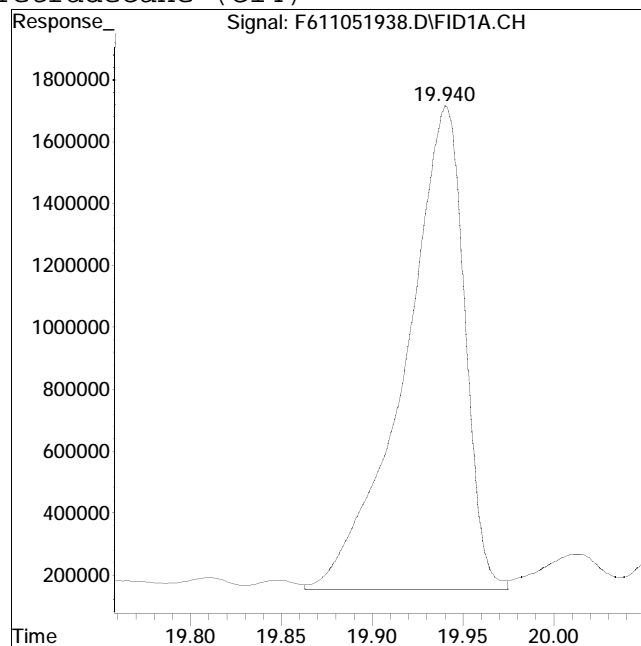
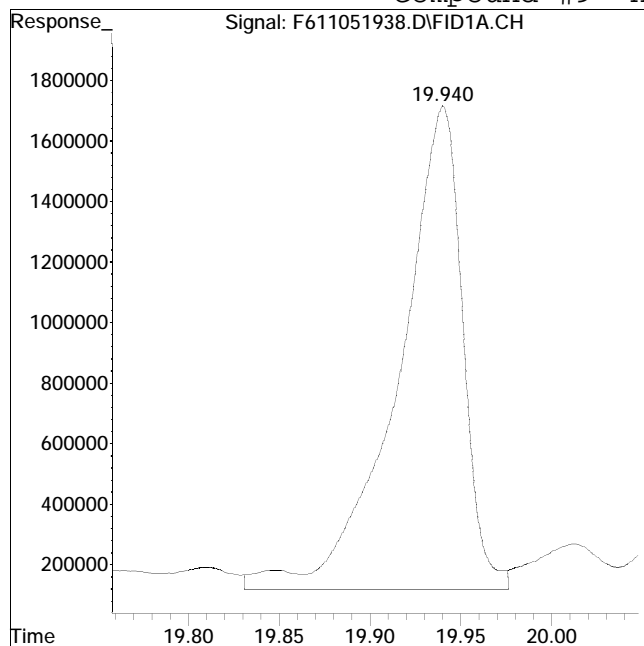
Manual Peak Response = 9472904 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 39385475

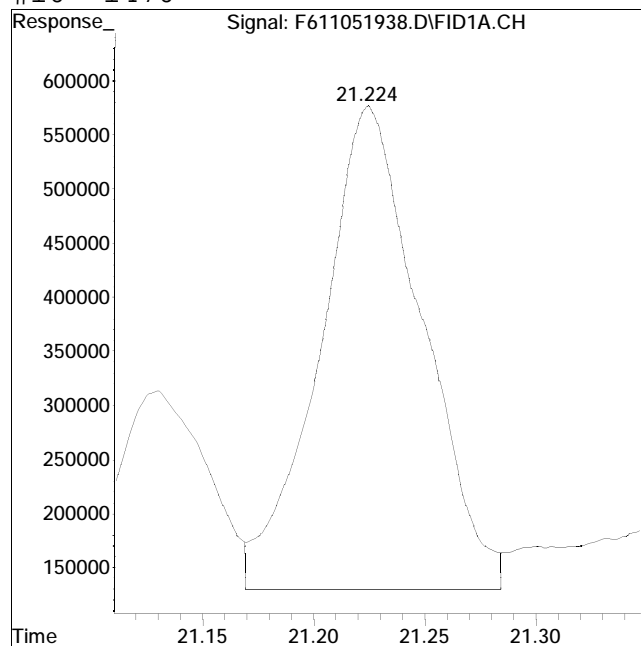
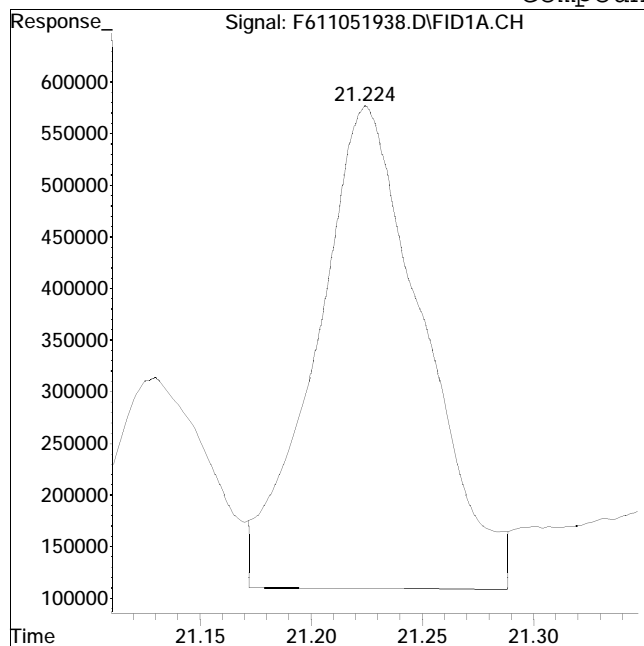
Manual Peak Response = 35941640 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #10: 1470



Original Peak Response = 15730899

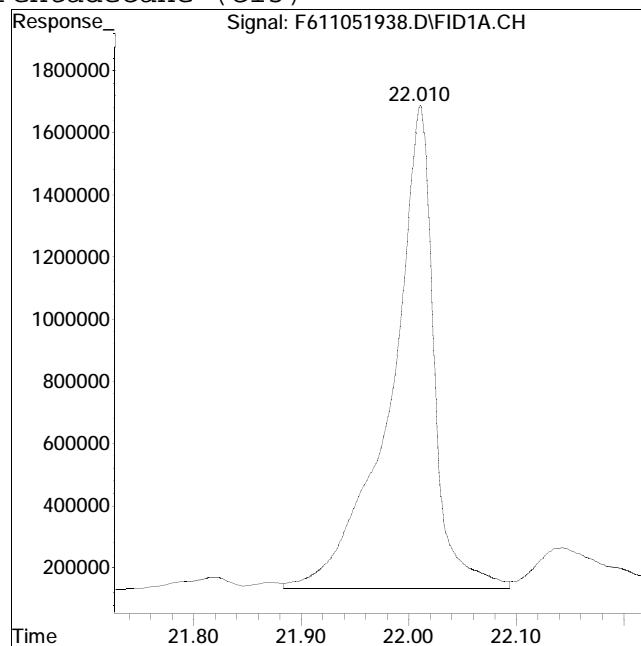
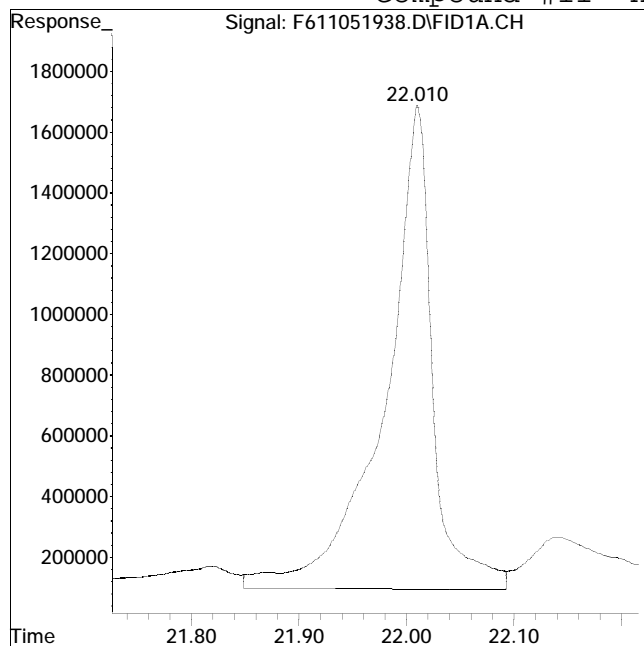
Manual Peak Response = 14286172 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 49404899

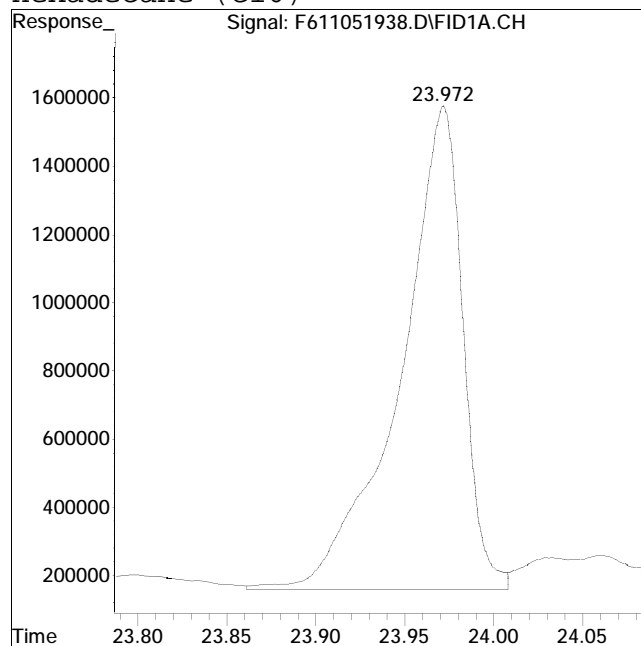
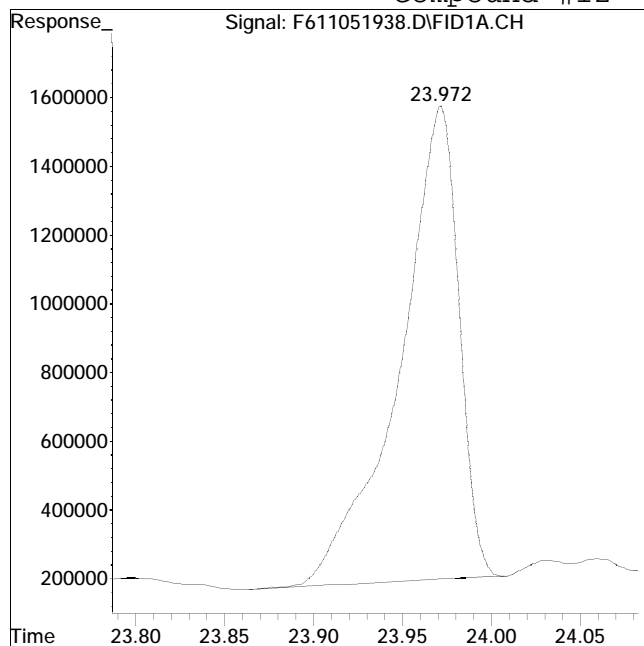
Manual Peak Response = 43771761 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 31929478

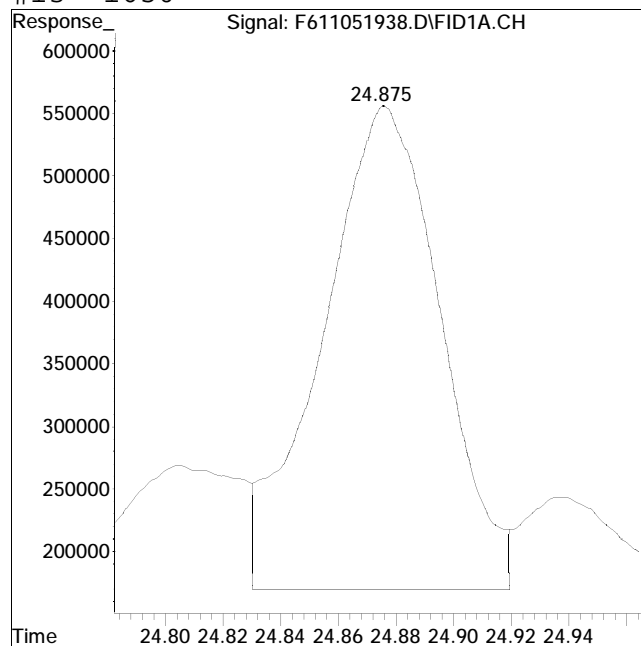
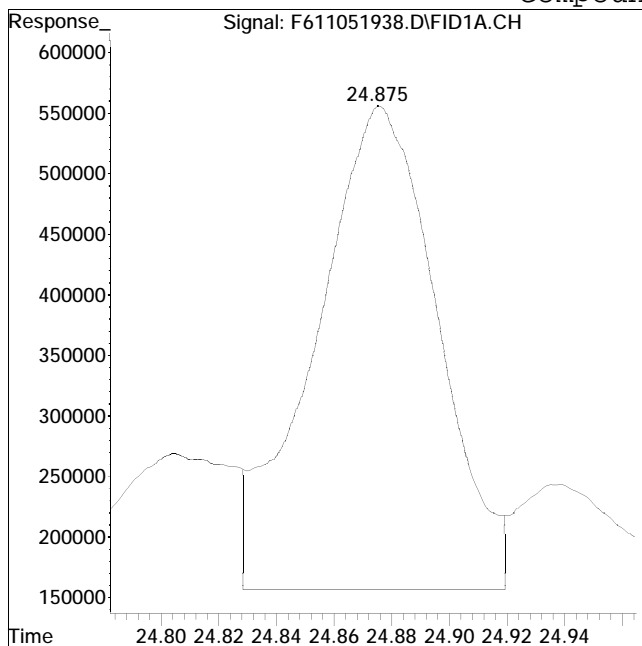
Manual Peak Response = 34642847 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #13: 1650



Original Peak Response = 11826971

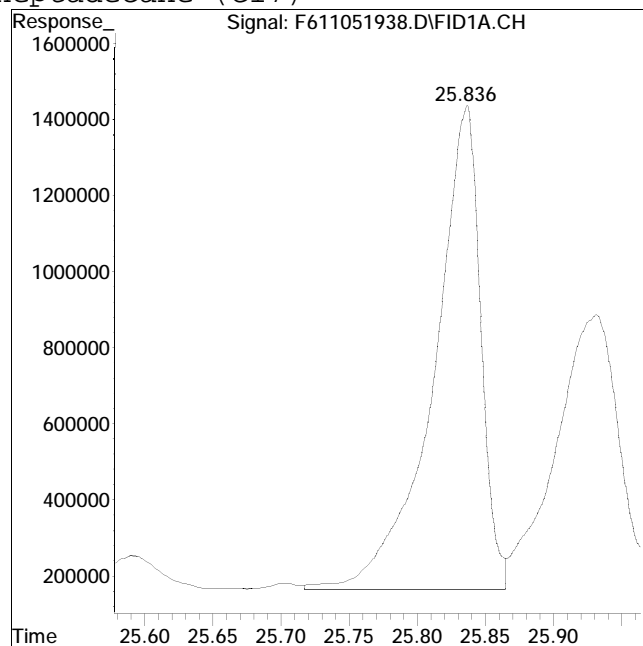
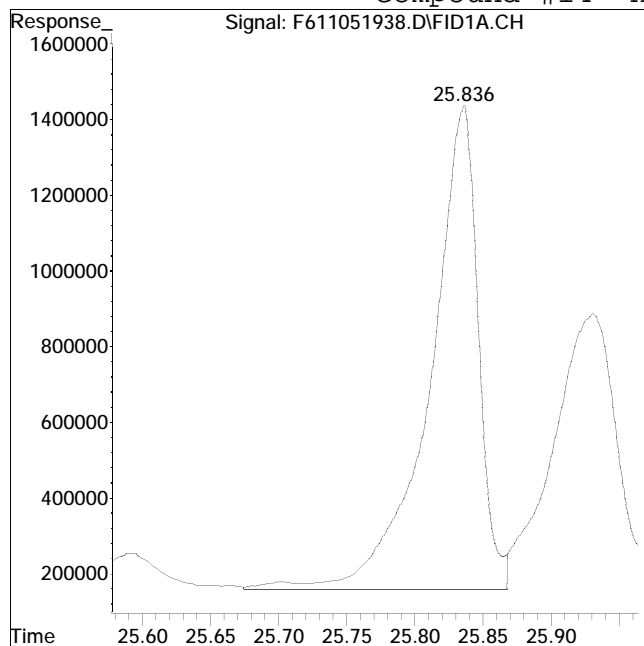
Manual Peak Response = 11035084 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 31779550

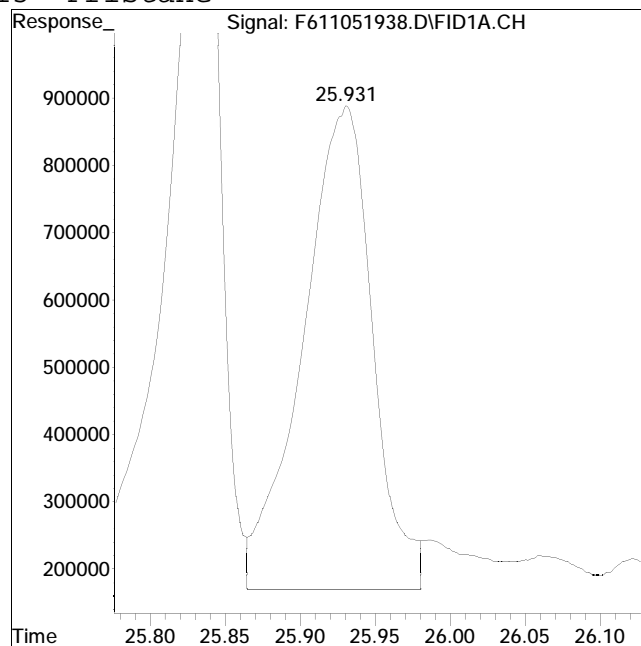
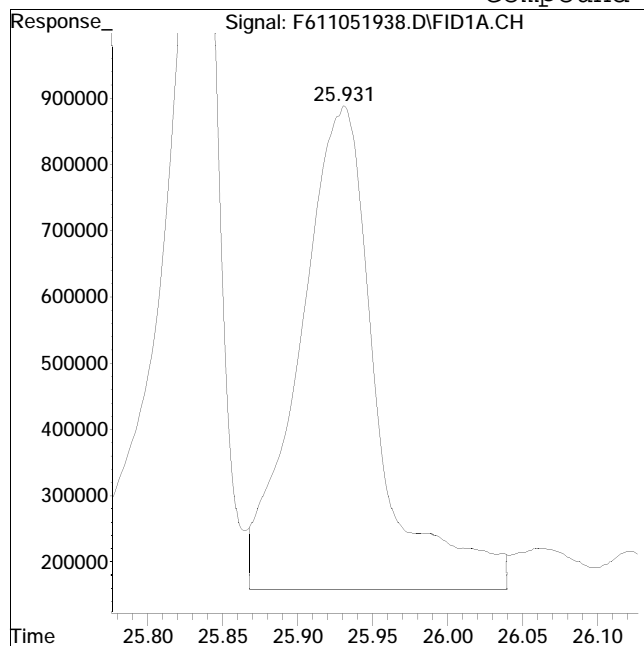
Manual Peak Response = 30634261 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #15: Pristane



Original Peak Response = 26303077

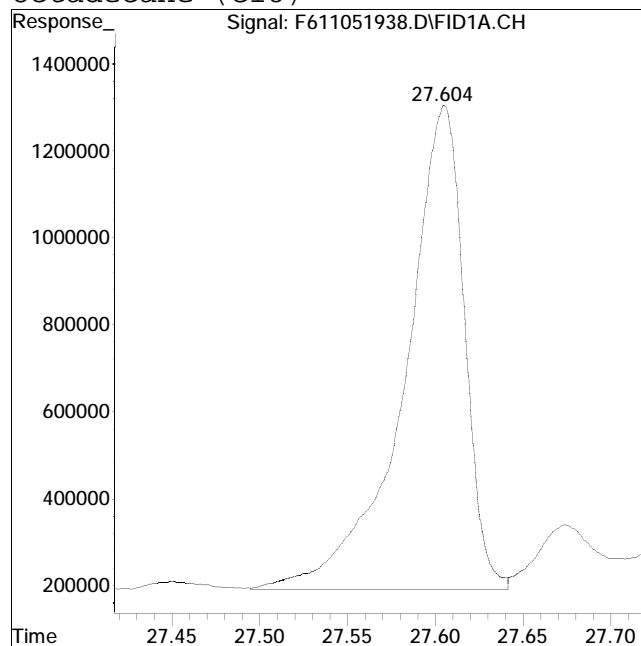
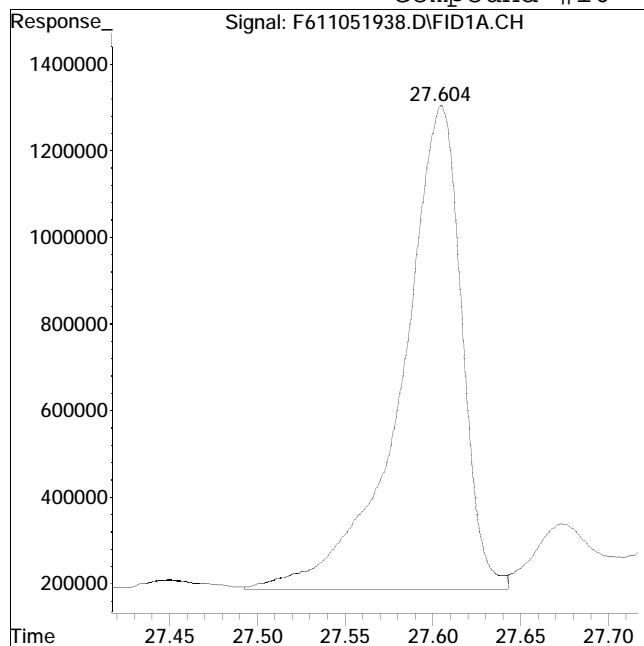
Manual Peak Response = 23286987 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 26877502

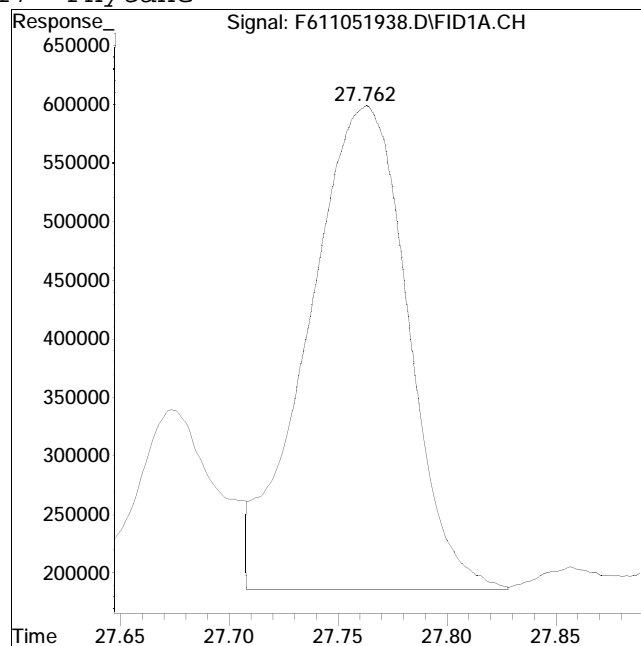
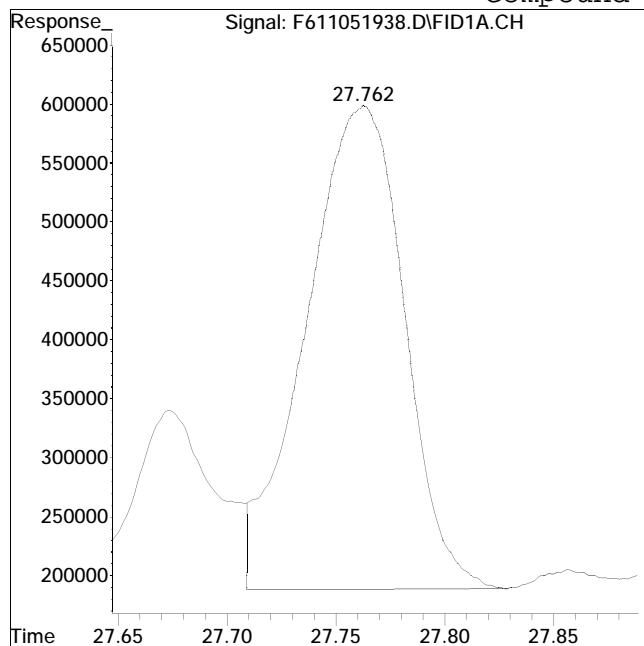
Manual Peak Response = 26564111 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #17: Phytane



Original Peak Response = 12957572

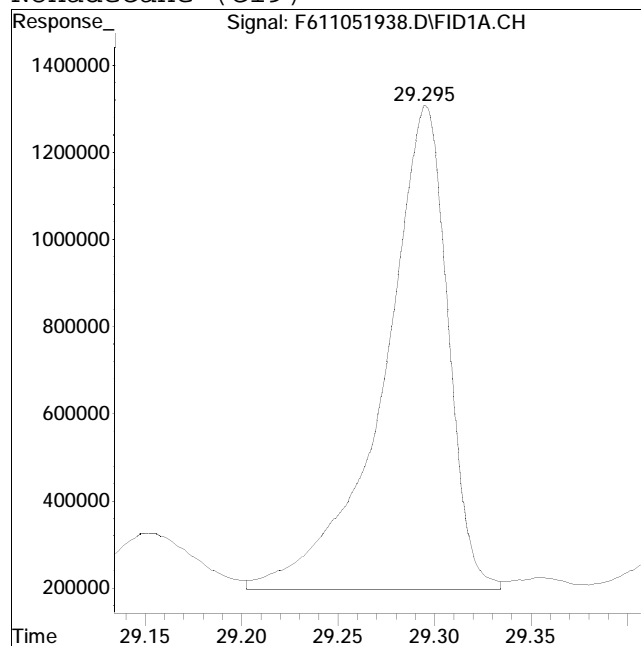
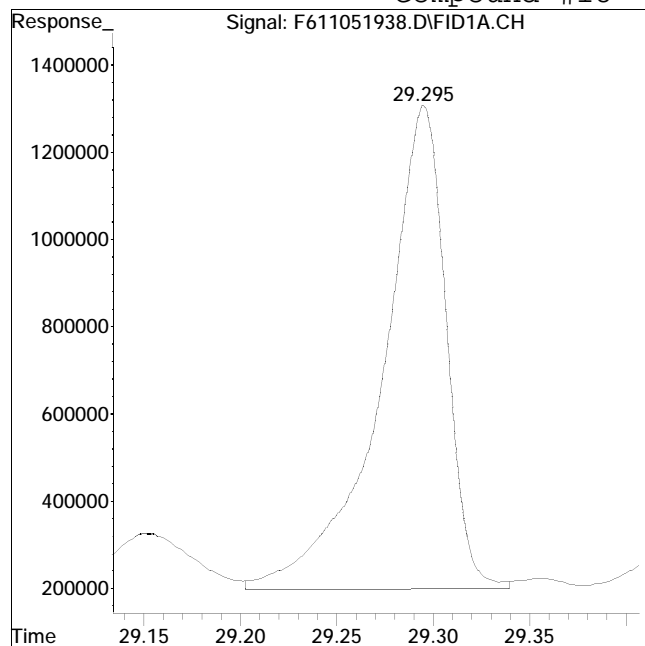
Manual Peak Response = 13169162 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 25833003

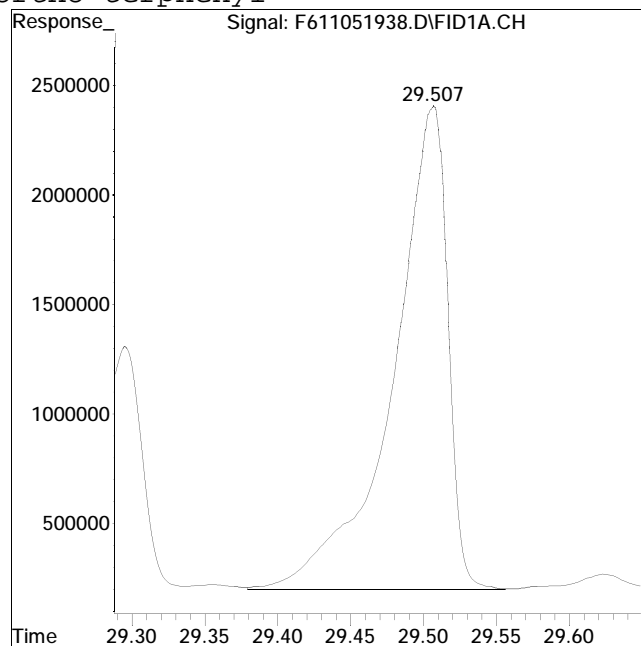
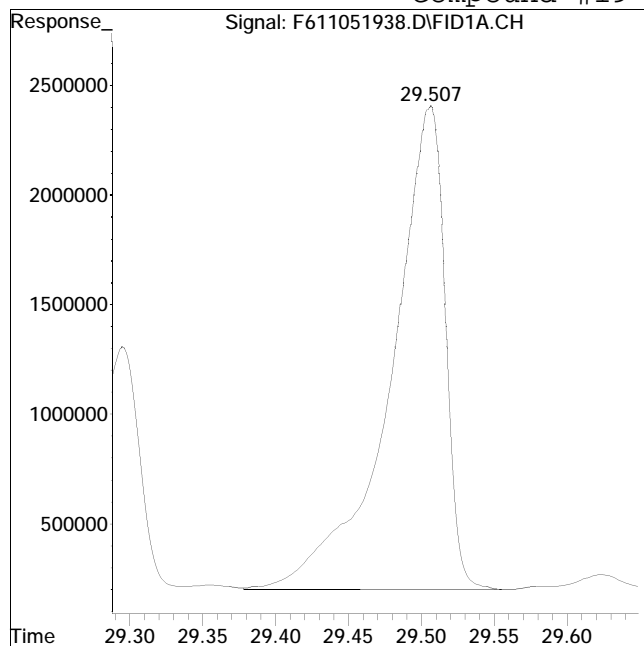
Manual Peak Response = 25959290 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #19: ortho-terphenyl



Original Peak Response = 57363832

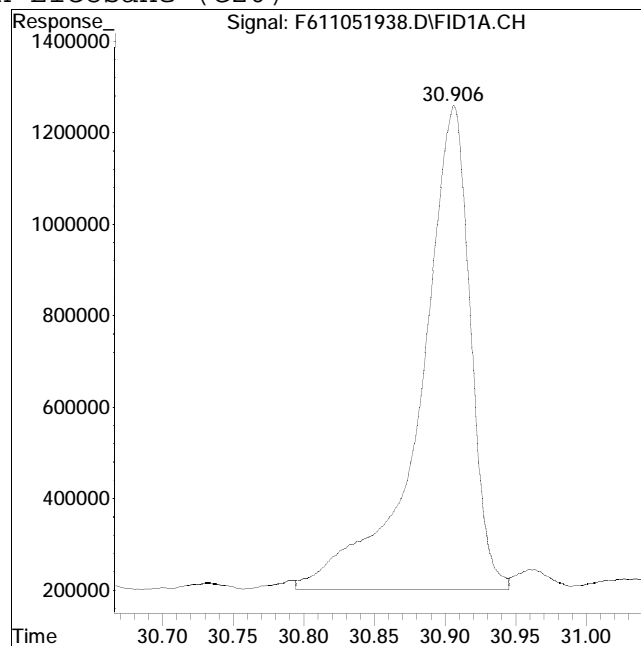
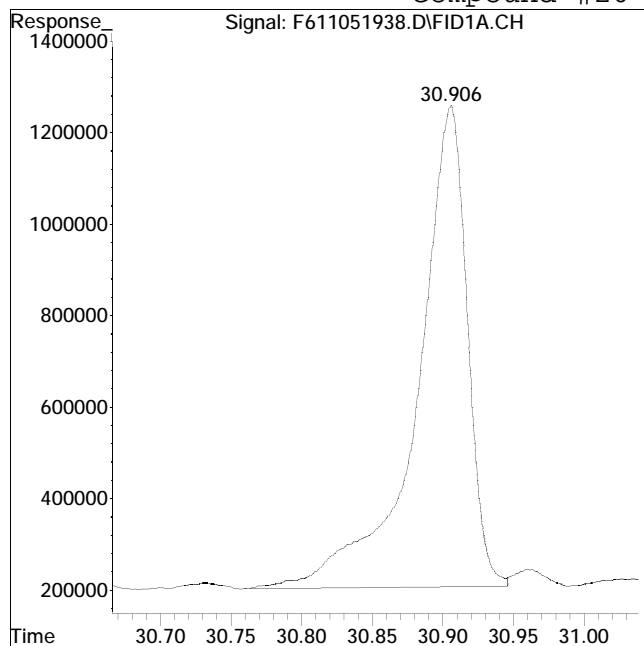
Manual Peak Response = 57678559 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 26058321

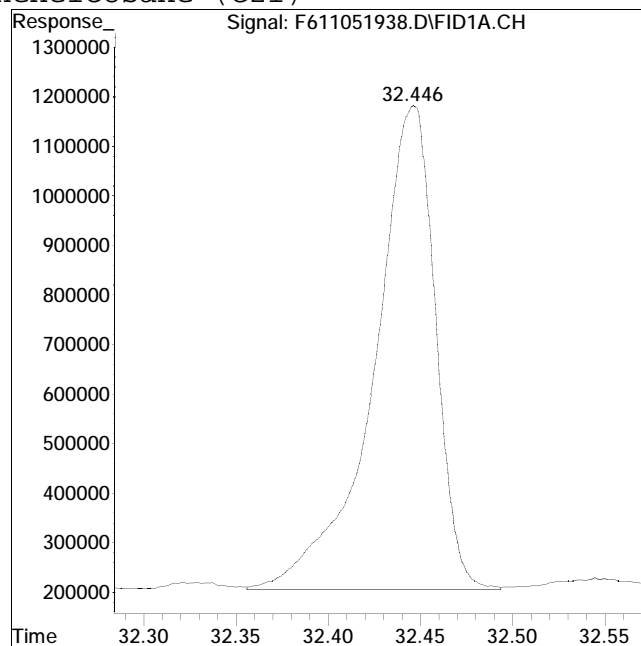
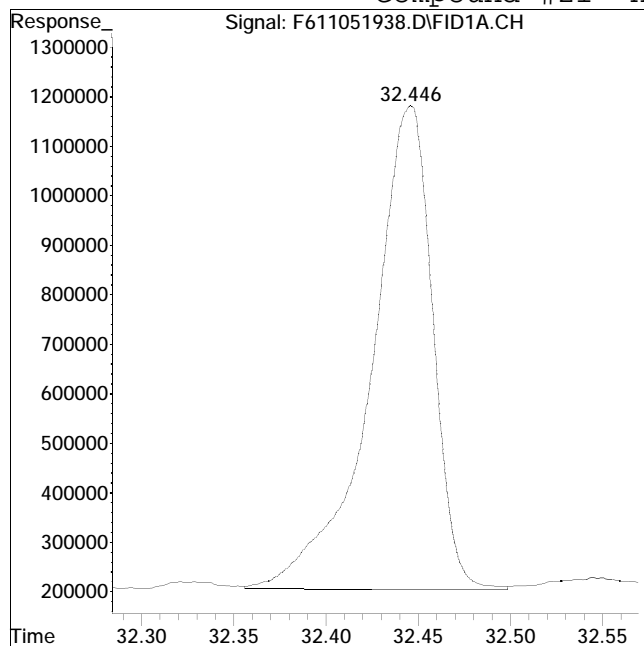
Manual Peak Response = 26261063 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 22769843

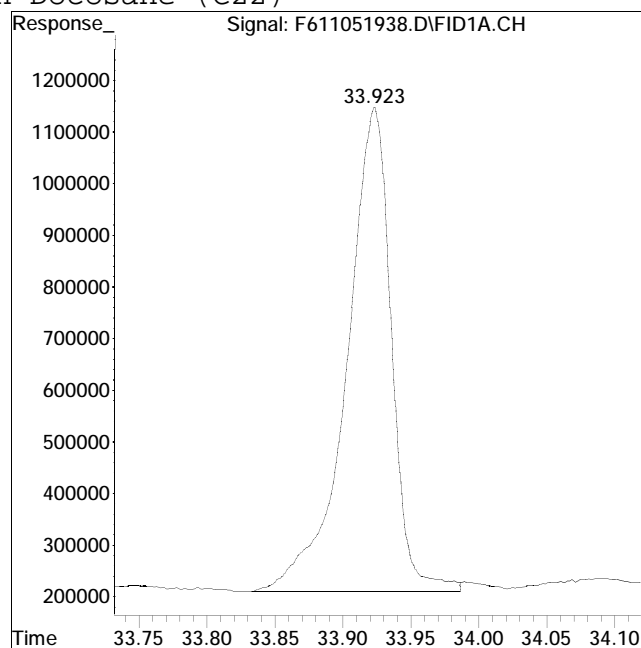
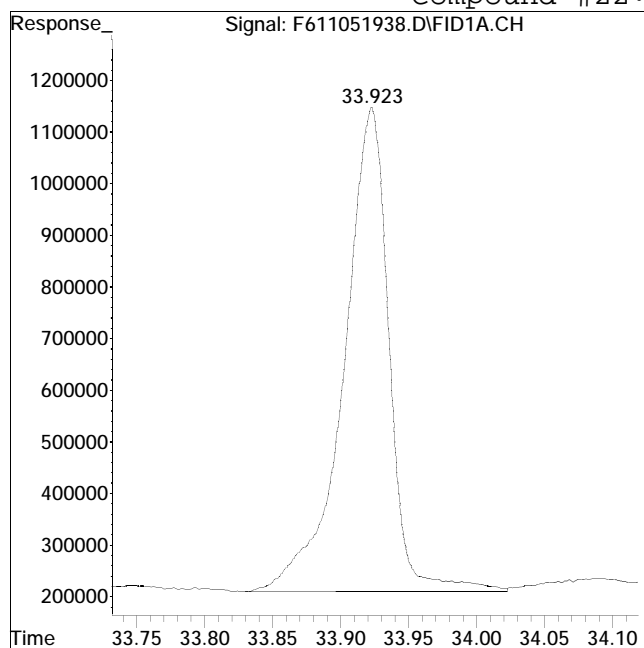
Manual Peak Response = 22761645 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 21763334

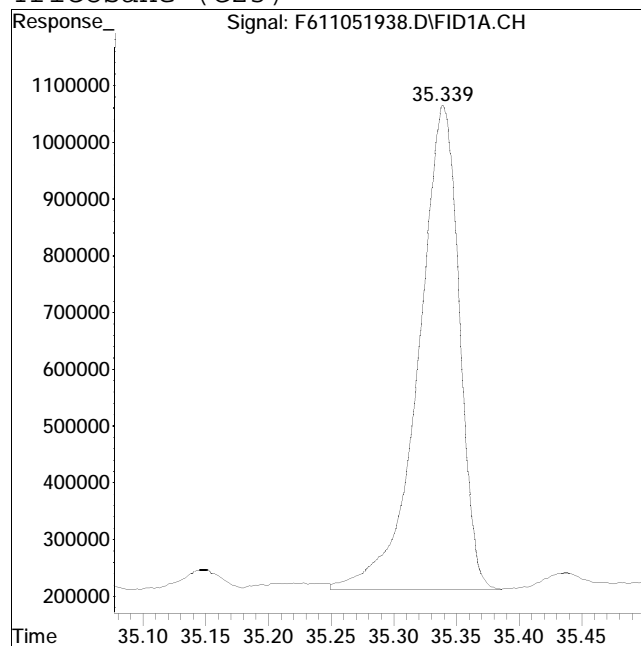
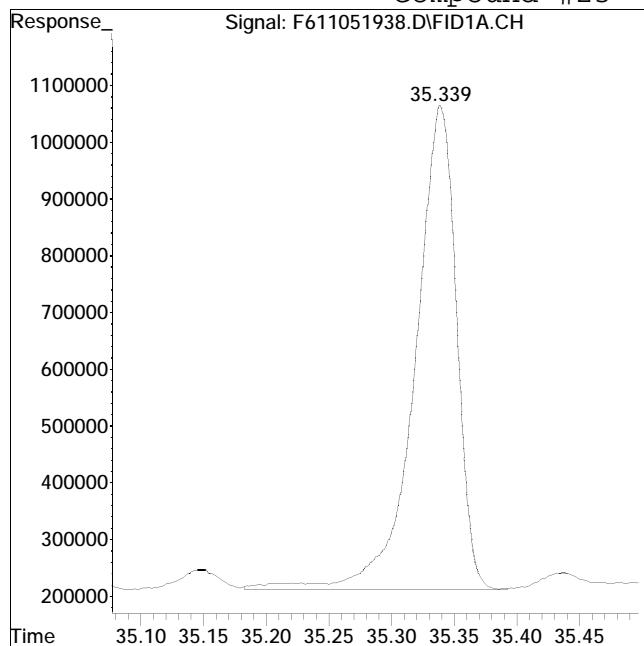
Manual Peak Response = 21503716 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 19679763

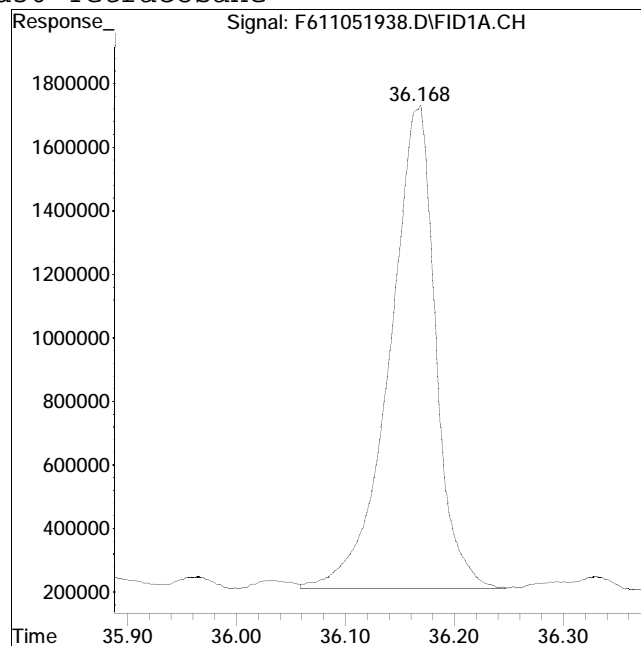
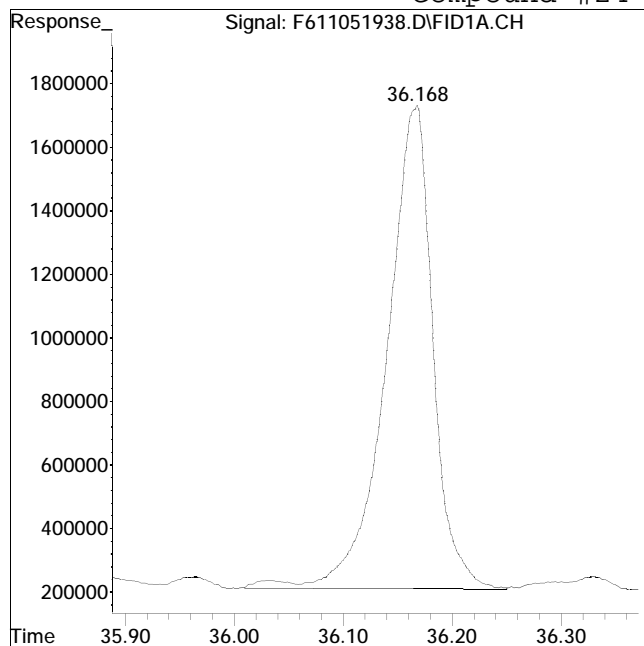
Manual Peak Response = 19331086 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #24: d50-Tetracosane



Original Peak Response = 44986757

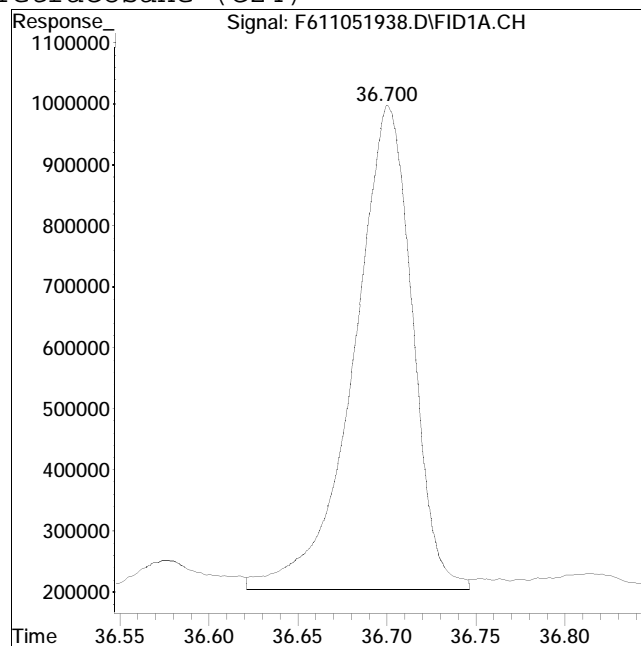
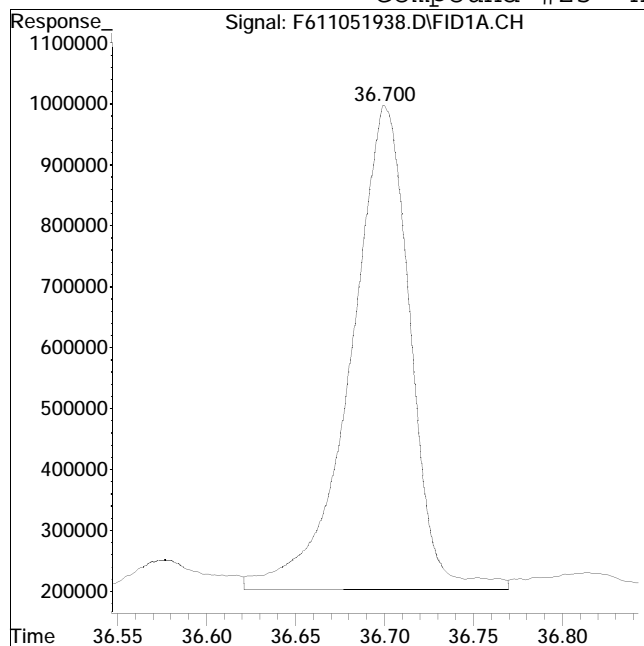
Manual Peak Response = 44425630 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 18558982

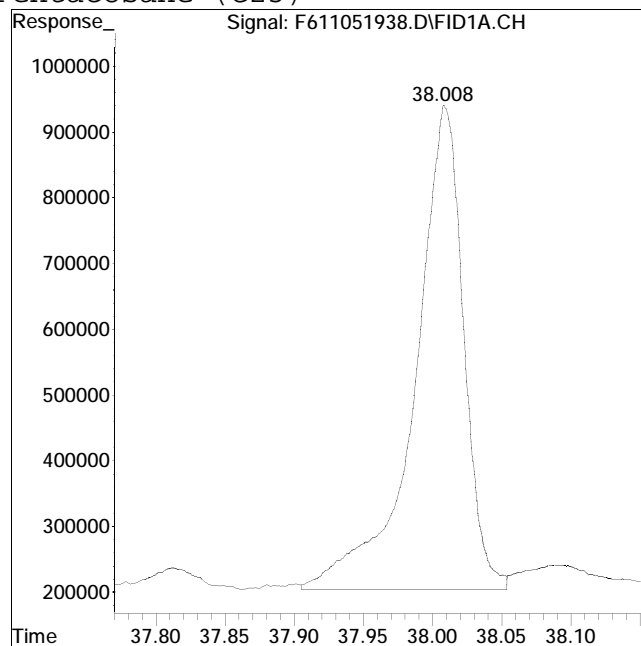
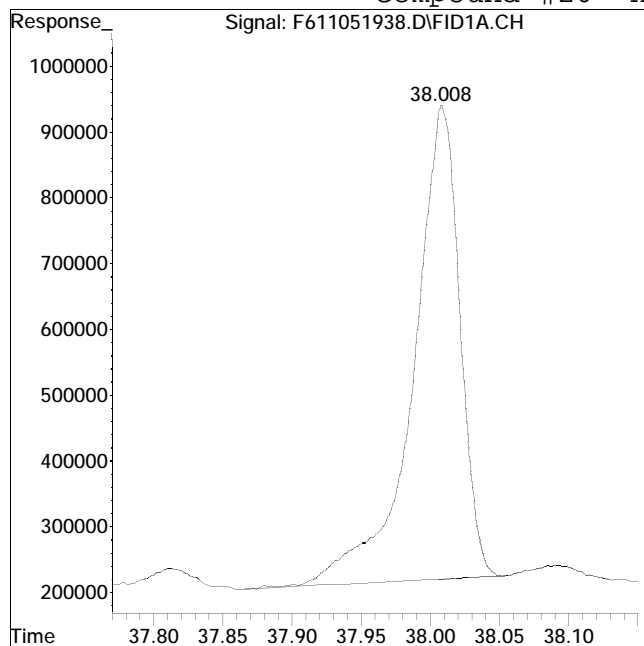
Manual Peak Response = 18242459 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 16880444

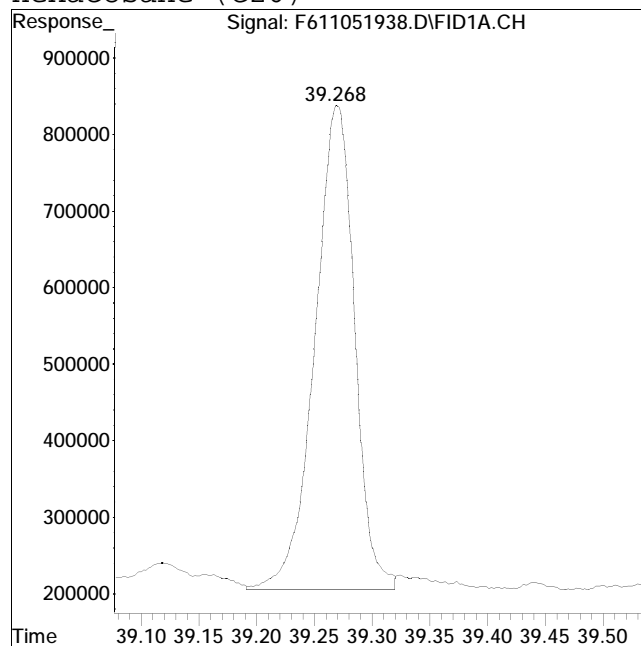
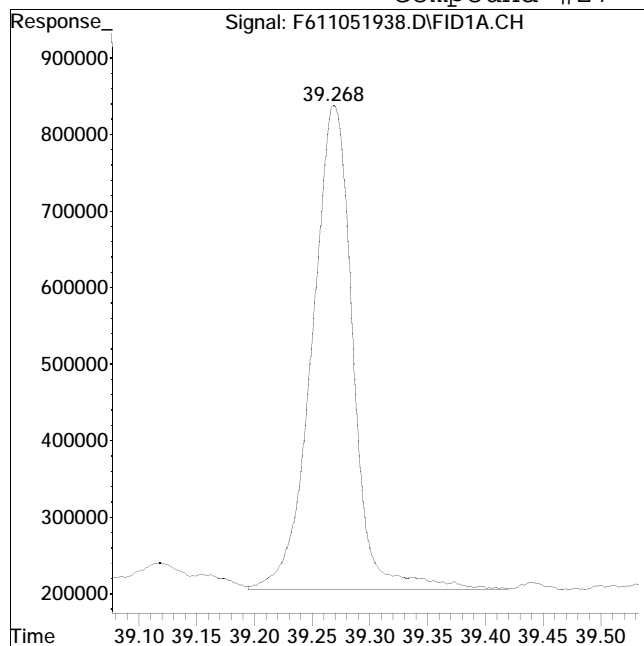
Manual Peak Response = 18099958 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 15540526

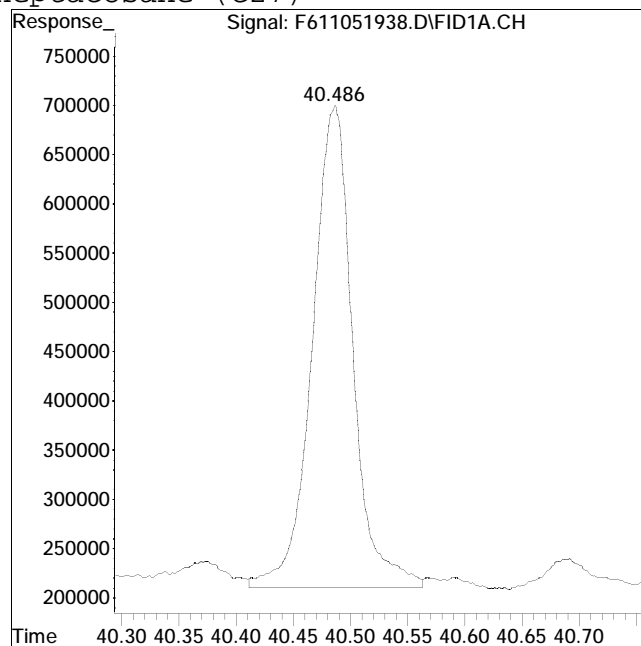
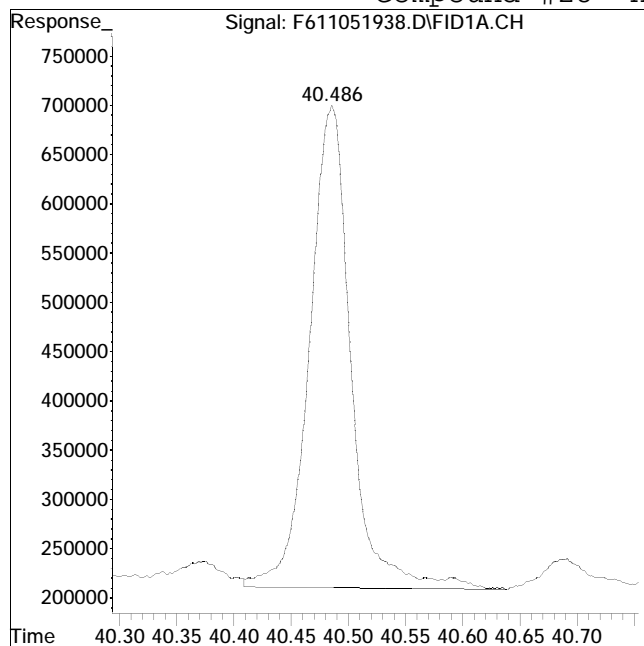
Manual Peak Response = 15114724 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 12344594

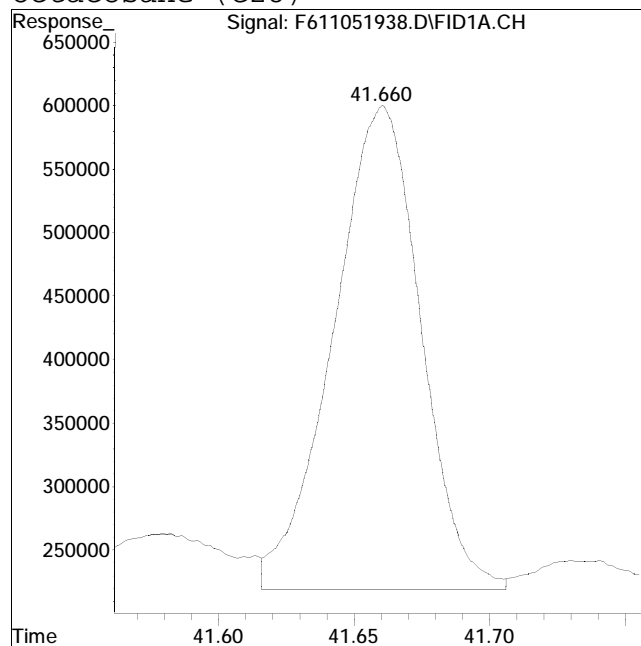
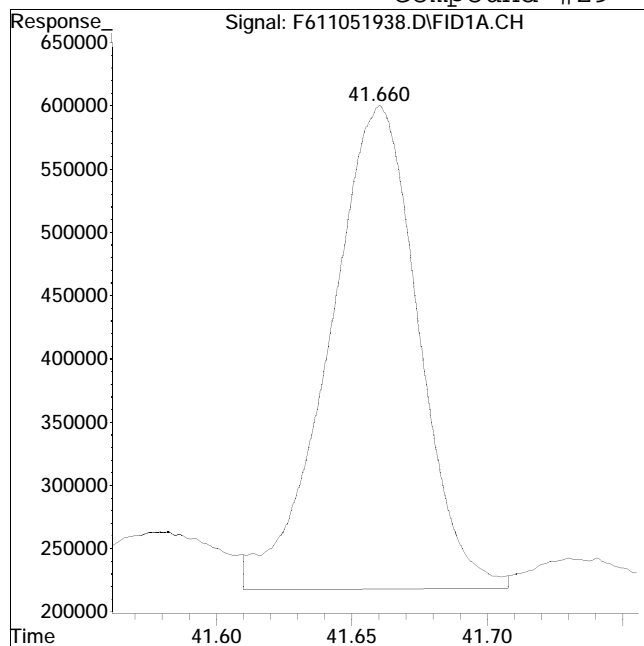
Manual Peak Response = 12041979 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 8720277

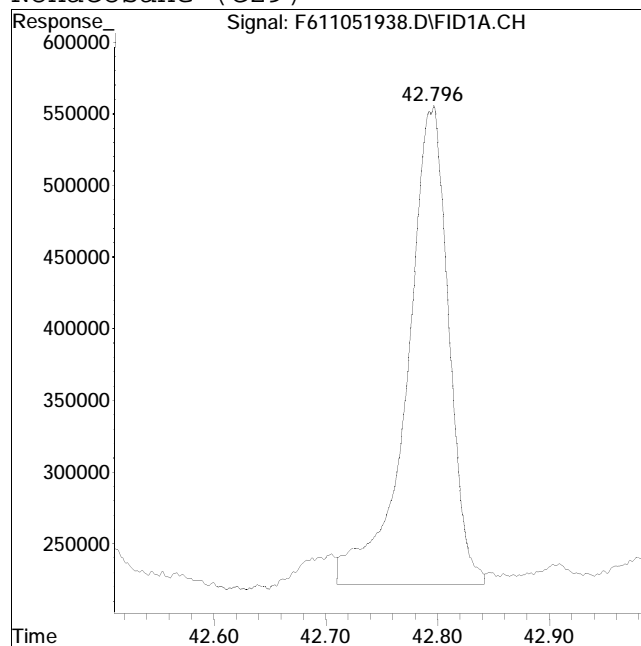
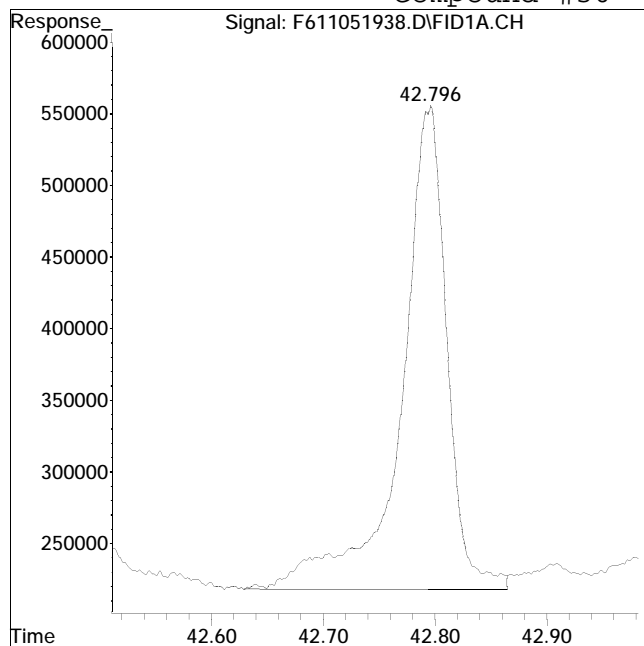
Manual Peak Response = 8547618 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 9660877

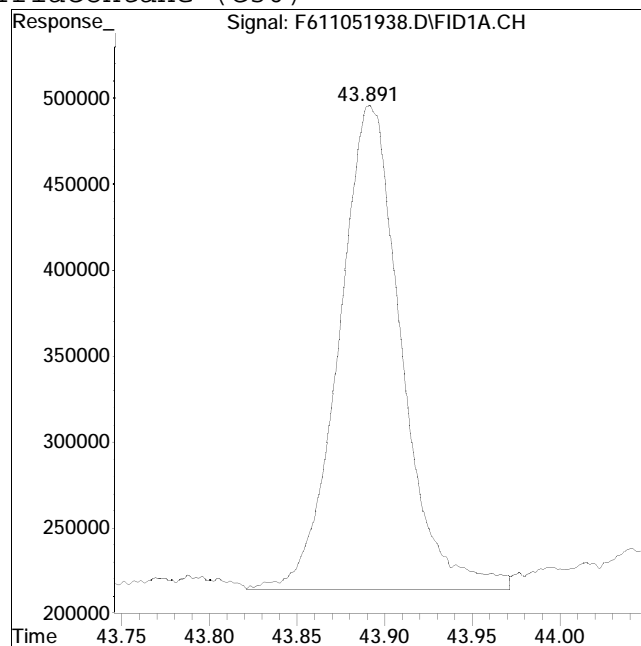
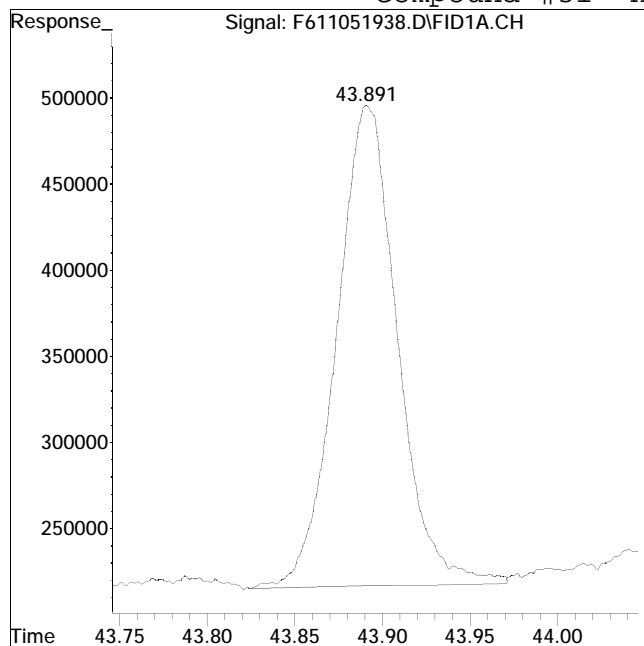
Manual Peak Response = 8609664 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 6753781

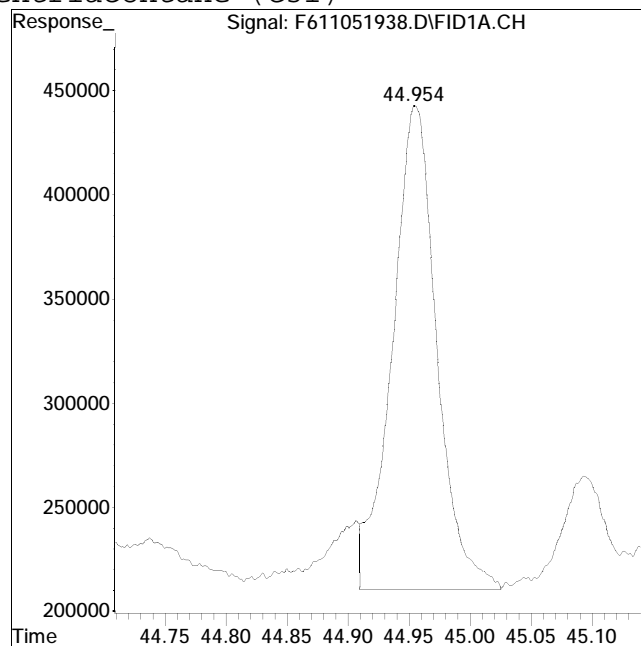
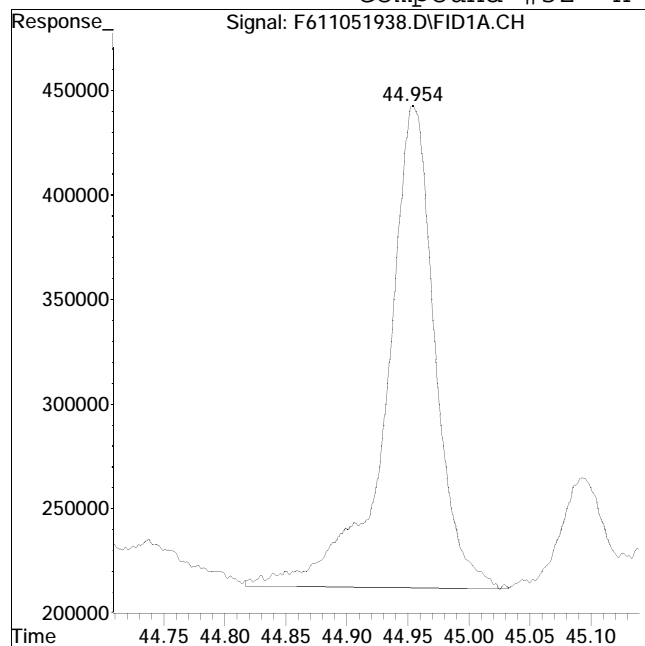
Manual Peak Response = 7000534 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 6428190

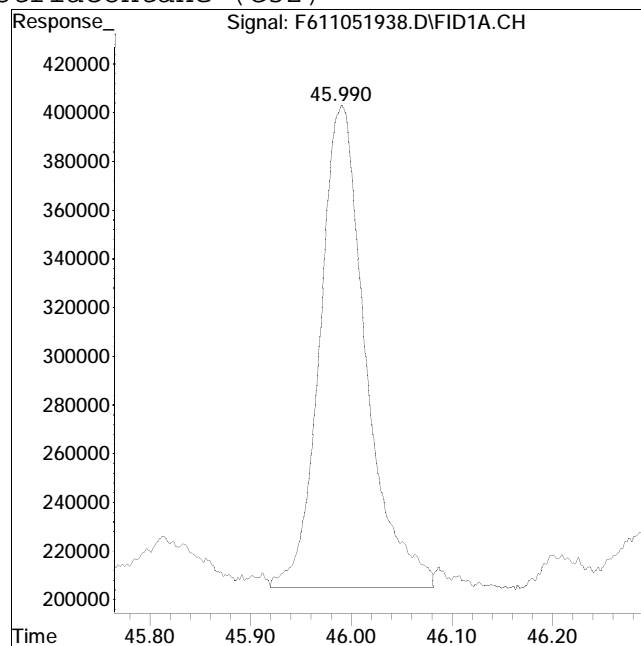
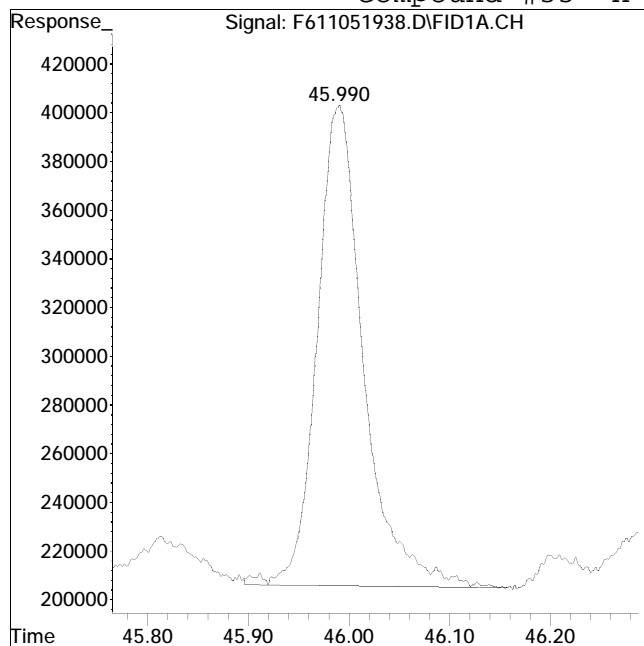
Manual Peak Response = 5907591 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 6366448

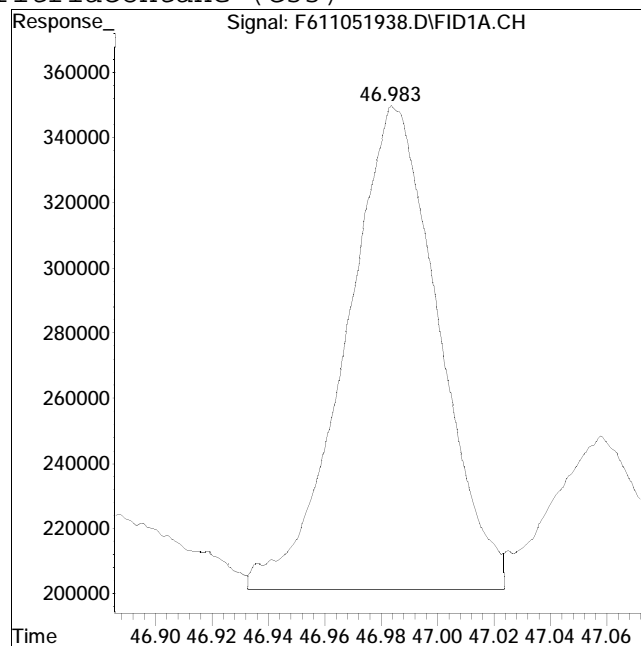
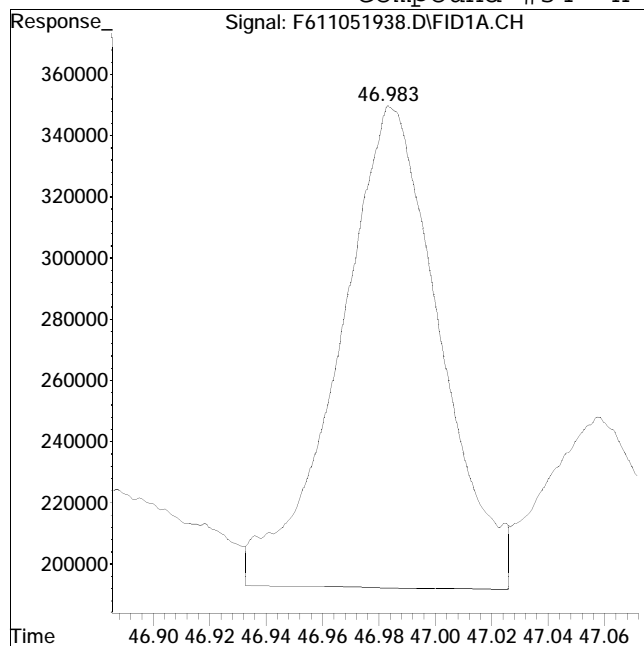
Manual Peak Response = 6281459 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 3898900

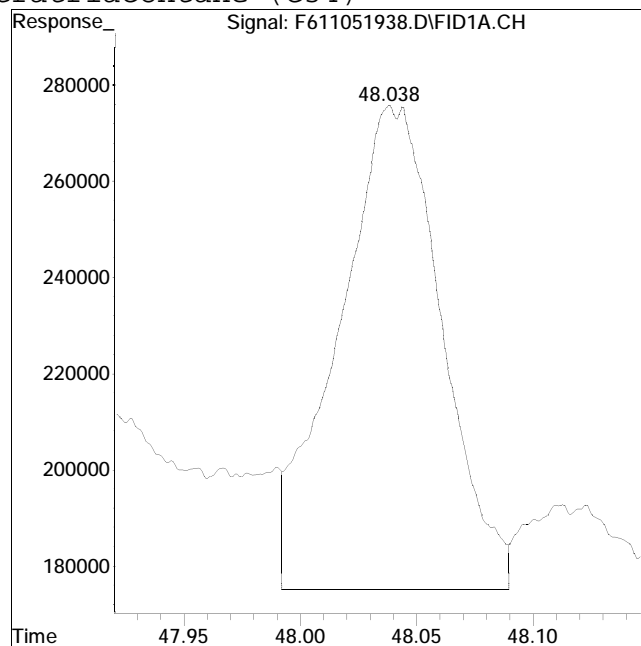
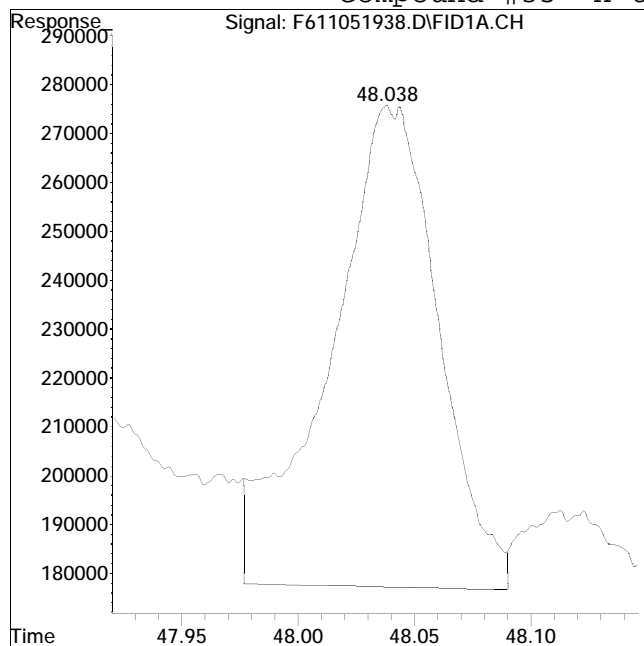
Manual Peak Response = 3384845 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 3217904

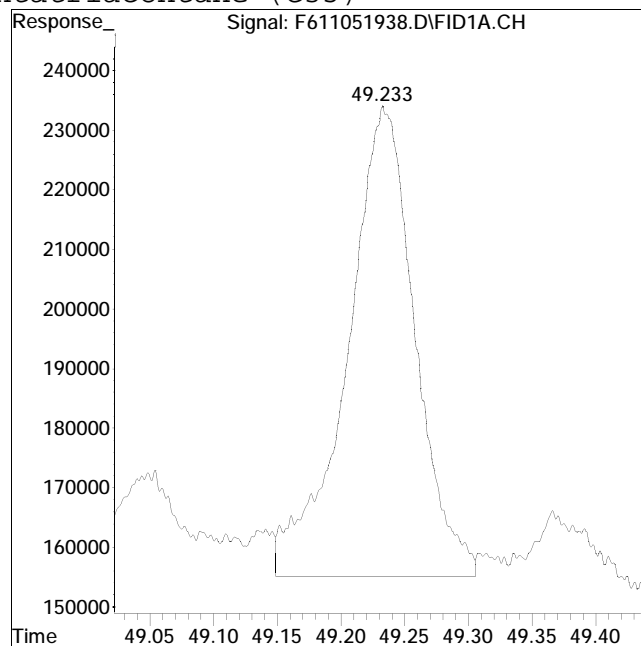
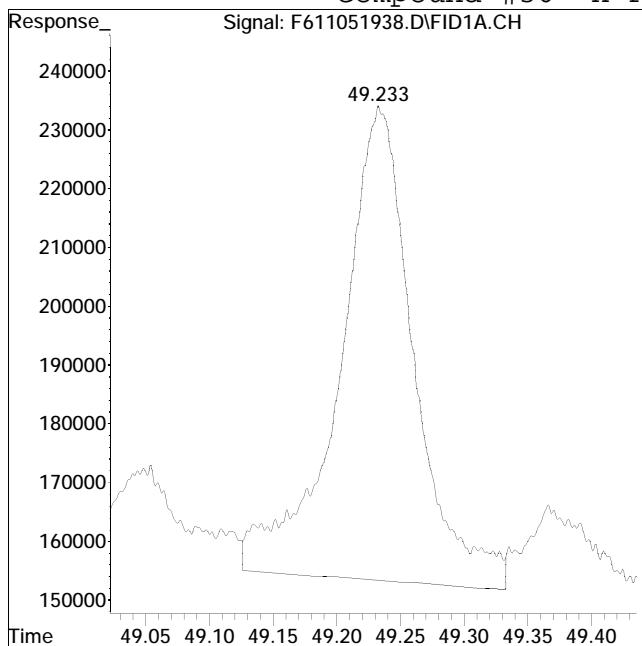
Manual Peak Response = 3132379 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 3283742

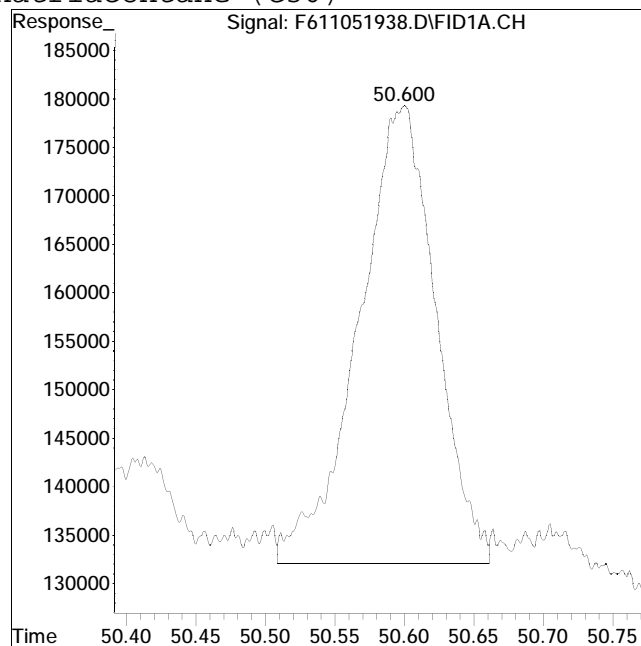
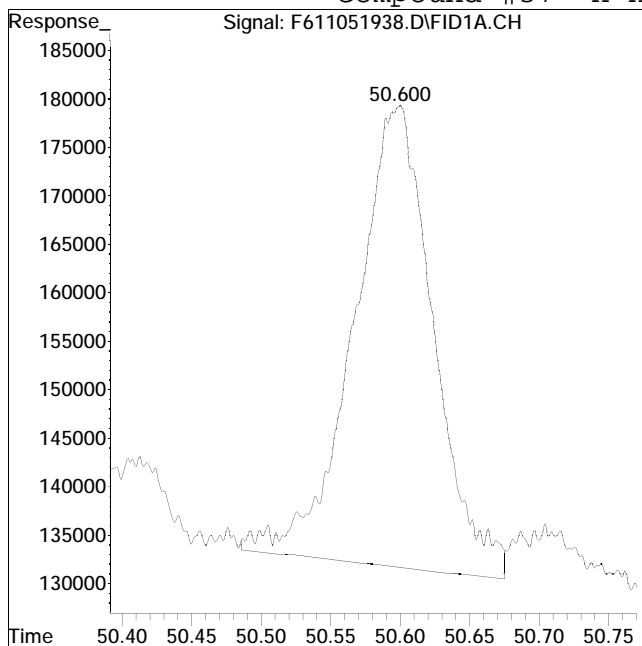
Manual Peak Response = 2917124 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 1889106

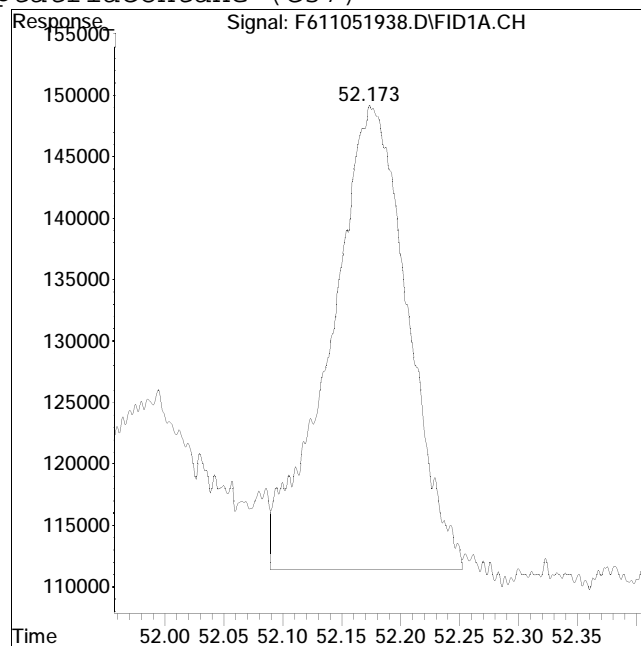
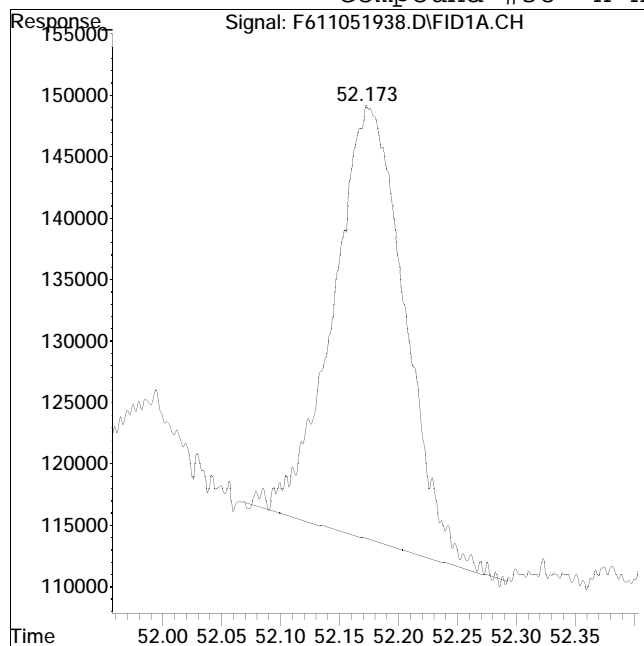
Manual Peak Response = 1822192 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 1508554

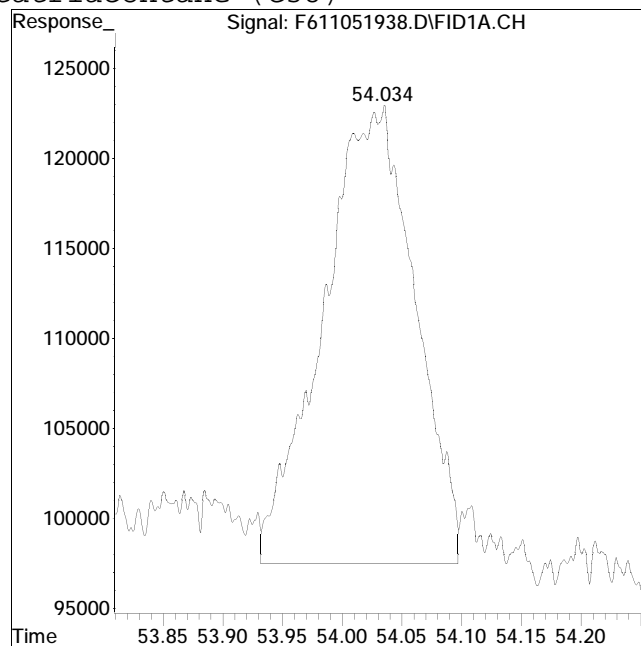
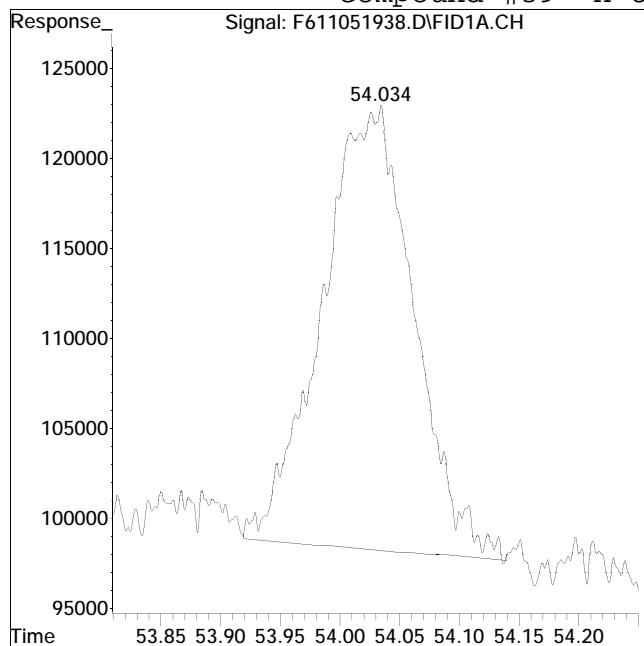
Manual Peak Response = 1737904 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 1320335

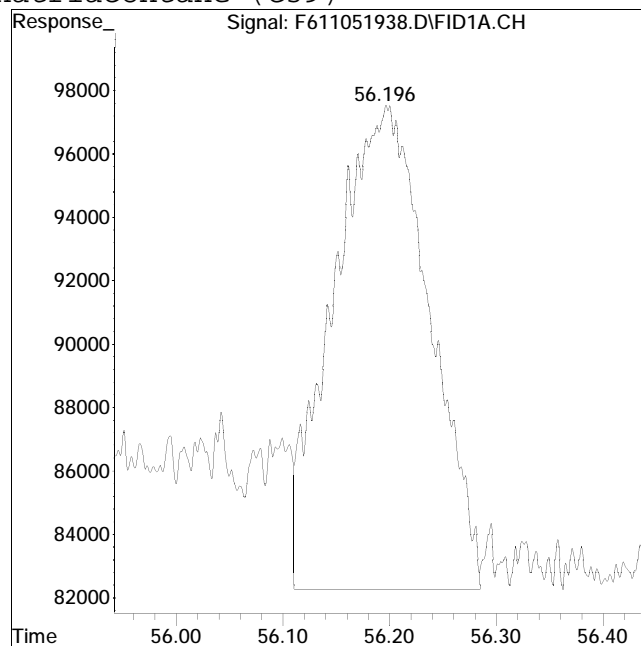
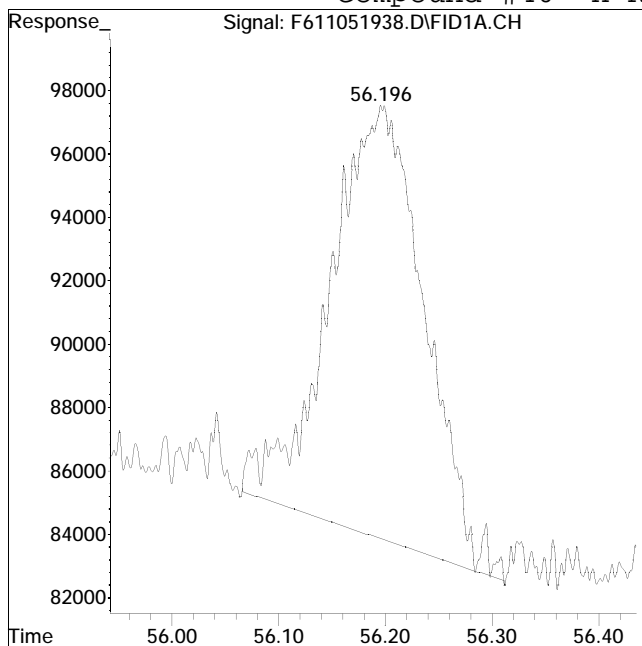
Manual Peak Response = 1361382 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #40: n-Nonatriacontane (C39)



Original Peak Response = 842989

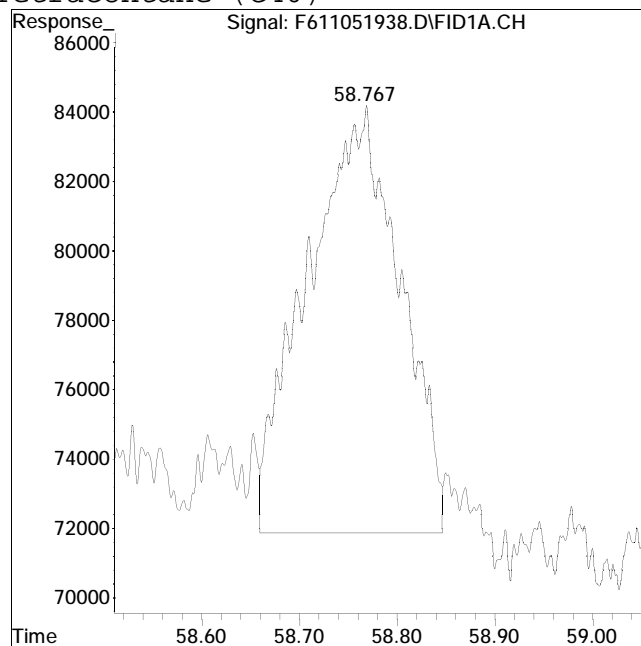
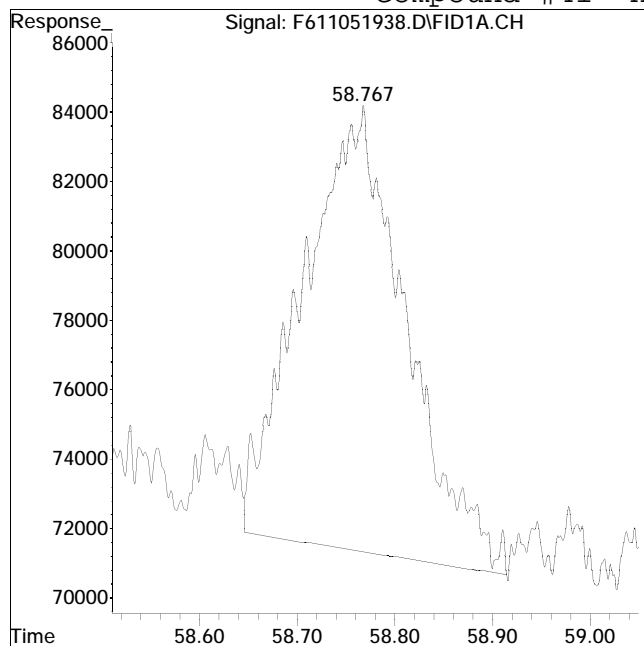
Manual Peak Response = 959972 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 946283

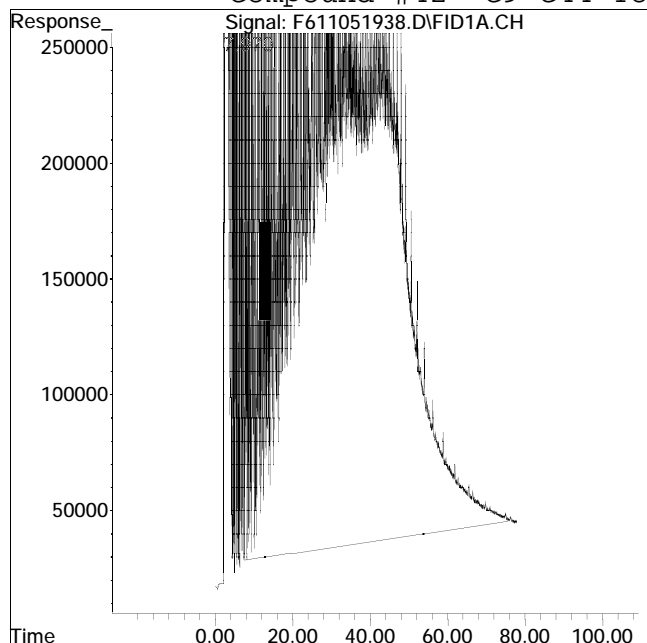
Manual Peak Response = 815126 M4

M4 = Poor automated baseline construction.

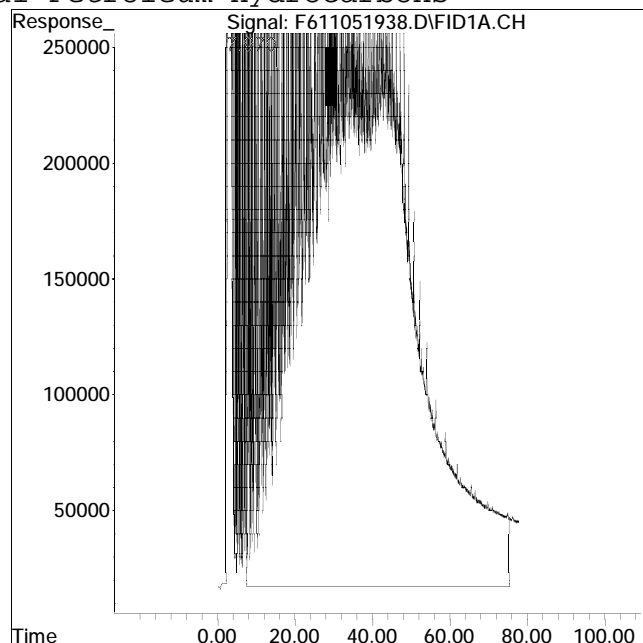
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #42: C9-C44 Total Petroleum Hydrocarbons



Original Peak Response = 5401765632

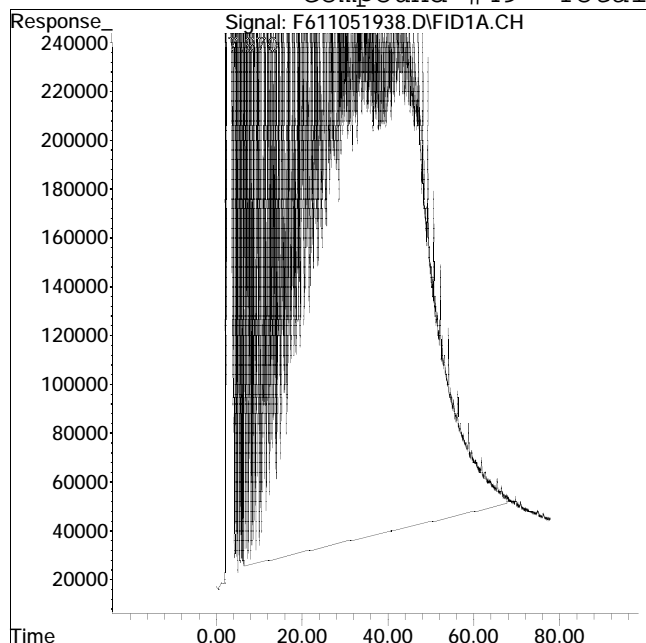


Manual Peak Response = 6213814303 m

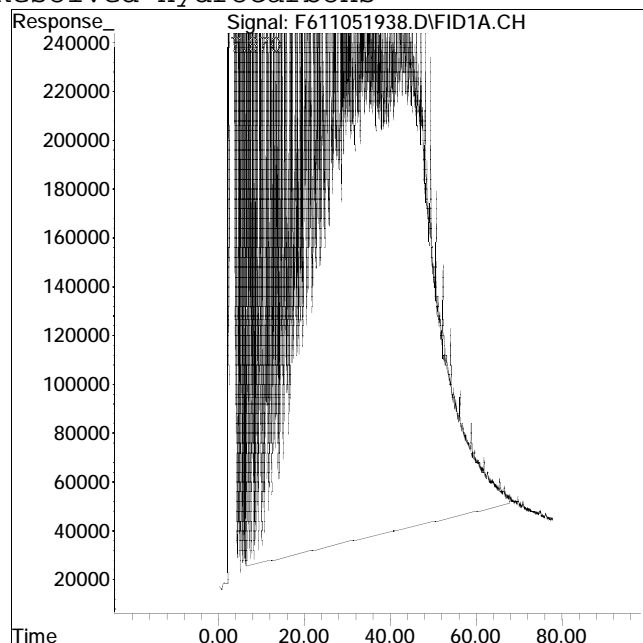
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2019QMethod : HC6110519F.M
Data File : F611051938.D Operator : FID6:MA
Date Inj'd : 11/6/2019 12:30 pm Instrument : FID6
Sample : WG1307766-1,0.10280 Quant Date : 11/12/2019 4:38 pm

Compound #49: Total Resolved Hydrocarbons



Original Peak Response = 2109369101



Manual Peak Response = 2109615501 m

rfupdate

RSF Update Summary Report

Method Path.....: O:\Forensics\Data\FID6\2019\NOV\NOV05\
Method File.....: HC6110519F.M
Method Title.....: FID Forensics
Last Update.....: Thu Nov 07 16:53:28 2019

Generating Average Response Factor For: C9-C44 Total Petroleum Hydroca

No	Compound	Level	Conc	Response
1	n-Nonane (C9)	1	1.00000	820485.710
2	n-Decane (C10)	1	1.00000	845154.660
3	n-Undecane (C11)	1	1.00000	851828.466
4	n-Dodecane (C12)	1	1.00000	871458.818
5	n-Tridecane (C13)	1	1.00000	891359.127
6	n-Tetradecane (C14)	1	1.00000	914857.155
7	n-Pentadecane (C15)	1	1.00000	918917.553
8	n-Hexadecane (C16)	1	1.00000	943107.875
9	n-Heptadecane (C17)	1	1.00000	927687.781
10	Pristane	1	1.00000	958344.135
11	n-Octadecane (C18)	1	1.00000	942240.159
12	Phytane	1	1.00000	851252.035
13	n-Nonadecane (C19)	1	1.00000	944584.224
14	n-Eicosane (C20)	1	1.00000	950514.941
15	n-Heneicosane (C21)	1	1.00000	965565.533
16	n-Docosane (C22)	1	1.00000	968593.448
17	n-Tricosane (C23)	1	1.00000	972584.538
18	n-Tetracosane (C24)	1	1.00000	978504.441
19	n-Pentacosane (C25)	1	1.00000	972214.070
20	n-Hexacosane (C26)	1	1.00000	974626.558
21	n-Heptacosane (C27)	1	1.00000	947366.061
22	n-Octacosane (C28)	1	1.00000	984695.945
23	n-Nonacosane (C29)	1	1.00000	983146.431
24	n-Triacontane (C30)	1	1.00000	977079.644
25	n-Hentriacontane (C31)	1	1.00000	983139.640
26	n-Dotriacontane (C32)	1	1.00000	969719.933
27	n-Tritriacontane (C33)	1	1.00000	966436.498
28	n-tetratriacontane (C34)	1	1.00000	993678.887
29	n-Pentatriacontane (C35)	1	1.00000	954900.158
30	n-Hexatriacontane (C36)	1	1.00000	1016077.698
31	n-Heptatriacontane (C37)	1	1.00000	953952.097
32	n-Octatriacontane (C38)	1	1.00000	1036962.256
33	n-Tetracontane (C40)	1	1.00000	966011.047

Avg RSF For: C9-C44 Total Petroleum 1.00000 945365.076

1	n-Nonane (C9)	2	10.00000	8146487.181
2	n-Decane (C10)	2	10.00000	8455436.819
3	n-Undecane (C11)	2	10.00000	8630956.071
4	n-Dodecane (C12)	2	10.00000	8830799.398
5	n-Tridecane (C13)	2	10.00000	8938398.393
6	n-Tetradecane (C14)	2	10.00000	9120157.294
7	n-Pentadecane (C15)	2	10.00000	9185154.071
8	n-Hexadecane (C16)	2	10.00000	9329470.667
9	n-Heptadecane (C17)	2	10.00000	9275842.408
10	Pristane	2	10.00000	9510959.752
11	n-Octadecane (C18)	2	10.00000	9457977.043

		rfupdate		
12	Phytane	2	10.00000	8518458.948
13	n-Nonadecane (C19)	2	10.00000	9466303.242
14	n-Eicosane (C20)	2	10.00000	9520950.104
15	n-Heneicosane (C21)	2	10.00000	9671476.257
16	n-Docosane (C22)	2	10.00000	9679267.711
17	n-Tricosane (C23)	2	10.00000	9729971.718
18	n-Tetracosane (C24)	2	10.00000	9762121.106
19	n-Pentacosane (C25)	2	10.00000	9671791.467
20	n-Hexacosane (C26)	2	10.00000	9740150.539
21	n-Heptacosane (C27)	2	10.00000	9470493.831
22	n-Octacosane (C28)	2	10.00000	9832545.873
23	n-Nonacosane (C29)	2	10.00000	9796844.991
24	n-Triacontane (C30)	2	10.00000	9699851.122
25	n-Hentriacontane (C31)	2	10.00000	9764140.323
26	n-Dotriacontane (C32)	2	10.00000	9646459.281
27	n-Tritriacontane (C33)	2	10.00000	9566410.962
28	n-tetratriacontane (C34)	2	10.00000	9906674.125
29	n-Pentatriacontane (C35)	2	10.00000	9569293.762
30	n-Hexatriacontane (C36)	2	10.00000	10140841.062
31	n-Heptatriacontane (C37)	2	10.00000	9521169.890
32	n-Octatriacontane (C38)	2	10.00000	10244549.780
33	n-Tetracontane (C40)	2	10.00000	9591932.770

Avg RSF For: C9-C44 Total Petroleum			10.00000	9436161.756
1	n-Nonane (C9)	3	50.00000	40698039.901
2	n-Decane (C10)	3	50.00000	42389853.593
3	n-Undecane (C11)	3	50.00000	43453014.781
4	n-Dodecane (C12)	3	50.00000	44319852.650
5	n-Tridecane (C13)	3	50.00000	44881917.138
6	n-Tetradecane (C14)	3	50.00000	45759618.470
7	n-Pentadecane (C15)	3	50.00000	46041429.600
8	n-Hexadecane (C16)	3	50.00000	46640042.677
9	n-Heptadecane (C17)	3	50.00000	46529233.235
10	Pristane	3	50.00000	47472501.259
11	n-Octadecane (C18)	3	50.00000	47340410.971
12	Phytane	3	50.00000	42625260.659
13	n-Nonadecane (C19)	3	50.00000	47258673.357
14	n-Eicosane (C20)	3	50.00000	47307680.292
15	n-Heneicosane (C21)	3	50.00000	48002288.794
16	n-Docosane (C22)	3	50.00000	47972326.736
17	n-Tricosane (C23)	3	50.00000	48181460.651
18	n-Tetracosane (C24)	3	50.00000	48299013.081
19	n-Pentacosane (C25)	3	50.00000	47754743.560
20	n-Hexacosane (C26)	3	50.00000	48151369.424
21	n-Heptacosane (C27)	3	50.00000	46835231.042
22	n-Octacosane (C28)	3	50.00000	48675039.280
23	n-Nonacosane (C29)	3	50.00000	48382427.799
24	n-Triacontane (C30)	3	50.00000	47919991.261
25	n-Hentriacontane (C31)	3	50.00000	48253216.854
26	n-Dotriacontane (C32)	3	50.00000	47773127.328
27	n-Tritriacontane (C33)	3	50.00000	47345454.221
28	n-tetratriacontane (C34)	3	50.00000	49027536.525
29	n-Pentatriacontane (C35)	3	50.00000	47324012.503
30	n-Hexatriacontane (C36)	3	50.00000	50088868.358
31	n-Heptatriacontane (C37)	3	50.00000	46944812.656
32	n-Octatriacontane (C38)	3	50.00000	50603623.117
33	n-Tetracontane (C40)	3	50.00000	47279809.102

Avg RSF For: C9-C44 Total Petroleum			50.00000	46894905.481

		rfupdate		
1	n-Nonane (C9)	4	100.00000	80757595.341
2	n-Decane (C10)	4	100.00000	84699559.265
3	n-Undecane (C11)	4	100.00000	86616334.112
4	n-Dodecane (C12)	4	100.00000	88252333.192
5	n-Tridecane (C13)	4	100.00000	89287839.810
6	n-Tetradecane (C14)	4	100.00000	90934609.239
7	n-Pentadecane (C15)	4	100.00000	91384011.681
8	n-Hexadecane (C16)	4	100.00000	92485832.206
9	n-Heptadecane (C17)	4	100.00000	92450076.219
10	Pristane	4	100.00000	93979130.397
11	n-Octadecane (C18)	4	100.00000	93616483.824
12	Phytane	4	100.00000	84421313.456
13	n-Nonadecane (C19)	4	100.00000	93026828.698
14	n-Eicosane (C20)	4	100.00000	93133970.101
15	n-Heneicosane (C21)	4	100.00000	94513249.316
16	n-Docosane (C22)	4	100.00000	94560547.316
17	n-Tricosane (C23)	4	100.00000	94955418.188
18	n-Tetracosane (C24)	4	100.00000	95449194.802
19	n-Pentacosane (C25)	4	100.00000	94284367.465
20	n-Hexacosane (C26)	4	100.00000	95076334.087
21	n-Heptacosane (C27)	4	100.00000	92512017.182
22	n-Octacosane (C28)	4	100.00000	96170551.180
23	n-Nonacosane (C29)	4	100.00000	95755272.506
24	n-Triacontane (C30)	4	100.00000	94884257.520
25	n-Hentriacontane (C31)	4	100.00000	95590551.332
26	n-Dotriacontane (C32)	4	100.00000	94682239.549
27	n-Tritriacontane (C33)	4	100.00000	93857277.726
28	n-tetratriacontane (C34)	4	100.00000	97240182.953
29	n-Pentatriacontane (C35)	4	100.00000	93856393.328
30	n-Hexatriacontane (C36)	4	100.00000	99361580.314
31	n-Heptatriacontane (C37)	4	100.00000	93119939.961
32	n-Octatriacontane (C38)	4	100.00000	100405868.723
33	n-Tetracontane (C40)	4	100.00000	93747874.495

Avg RSF For: C9-C44 Total Petroleum			100.00000	92880879.863

1	n-Nonane (C9)	5	200.00000	156048273.585
2	n-Decane (C10)	5	200.00000	161750409.854
3	n-Undecane (C11)	5	200.00000	165164319.055
4	n-Dodecane (C12)	5	200.00000	168019137.939
5	n-Tridecane (C13)	5	200.00000	169559809.456
6	n-Tetradecane (C14)	5	200.00000	172748790.868
7	n-Pentadecane (C15)	5	200.00000	173487460.948
8	n-Hexadecane (C16)	5	200.00000	175421416.934
9	n-Heptadecane (C17)	5	200.00000	177824529.060
10	Pristane	5	200.00000	176037087.177
11	n-Octadecane (C18)	5	200.00000	178293451.385
12	Phytane	5	200.00000	160716143.039
13	n-Nonadecane (C19)	5	200.00000	176780263.374
14	n-Eicosane (C20)	5	200.00000	177572250.274
15	n-Heneicosane (C21)	5	200.00000	179759130.039
16	n-Docosane (C22)	5	200.00000	179469170.020
17	n-Tricosane (C23)	5	200.00000	180237316.866
18	n-Tetracosane (C24)	5	200.00000	180299629.061
19	n-Pentacosane (C25)	5	200.00000	178436663.019
20	n-Hexacosane (C26)	5	200.00000	179768826.561
21	n-Heptacosane (C27)	5	200.00000	174926140.084
22	n-Octacosane (C28)	5	200.00000	182203660.142
23	n-Nonacosane (C29)	5	200.00000	181273456.352
24	n-Triacontane (C30)	5	200.00000	179769430.026
25	n-Hentriacontane (C31)	5	200.00000	181202721.452
26	n-Dotriacontane (C32)	5	200.00000	179351252.718

		rfupdate	
27	n-Tritriacontane (C33)	5	200.00000 177701954.649
28	n-tetratriacontane (C34)	5	200.00000 184200732.335
29	n-Pentatriacontane (C35)	5	200.00000 177655435.914
30	n-Hexatriacontane (C36)	5	200.00000 187921611.764
31	n-Heptatriacontane (C37)	5	200.00000 176002759.202
32	n-Octatriacontane (C38)	5	200.00000 189532175.212
33	n-Tetracontane (C40)	5	200.00000 176859355.966

Avg RSF For: C9-C44 Total Petroleum		200.00000	176242265.586

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	C10-C25 DRO	42	C9-C44 Total Petroleum Hydr
44	C25-C44 ORO	42	C9-C44 Total Petroleum Hydr
45	C9-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydr
46	C10-C28 DRO	42	C9-C44 Total Petroleum Hydr
47	C8-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydr
48	C28-C40 ORO	42	C9-C44 Total Petroleum Hydr
49	Total Resolved Hydrocarbons	42	C9-C44 Total Petroleum Hydr

Abacus Response Factor Update Macro Ver. 1.0

Data Path : O:\Forensics\Data\FID6\2019\NOV\NOV05\
 Data File : F611051920.D
 Signal(s) : FID1A.CH
 Acq On : 05 Nov 2019 10:16 pm
 Operator : FID6:MA
 Sample : IB611051901F
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Nov 20 15:18:45 2019
 Quant Method : O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Tue Nov 12 16:34:02 2019
 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 : TPH - TPH

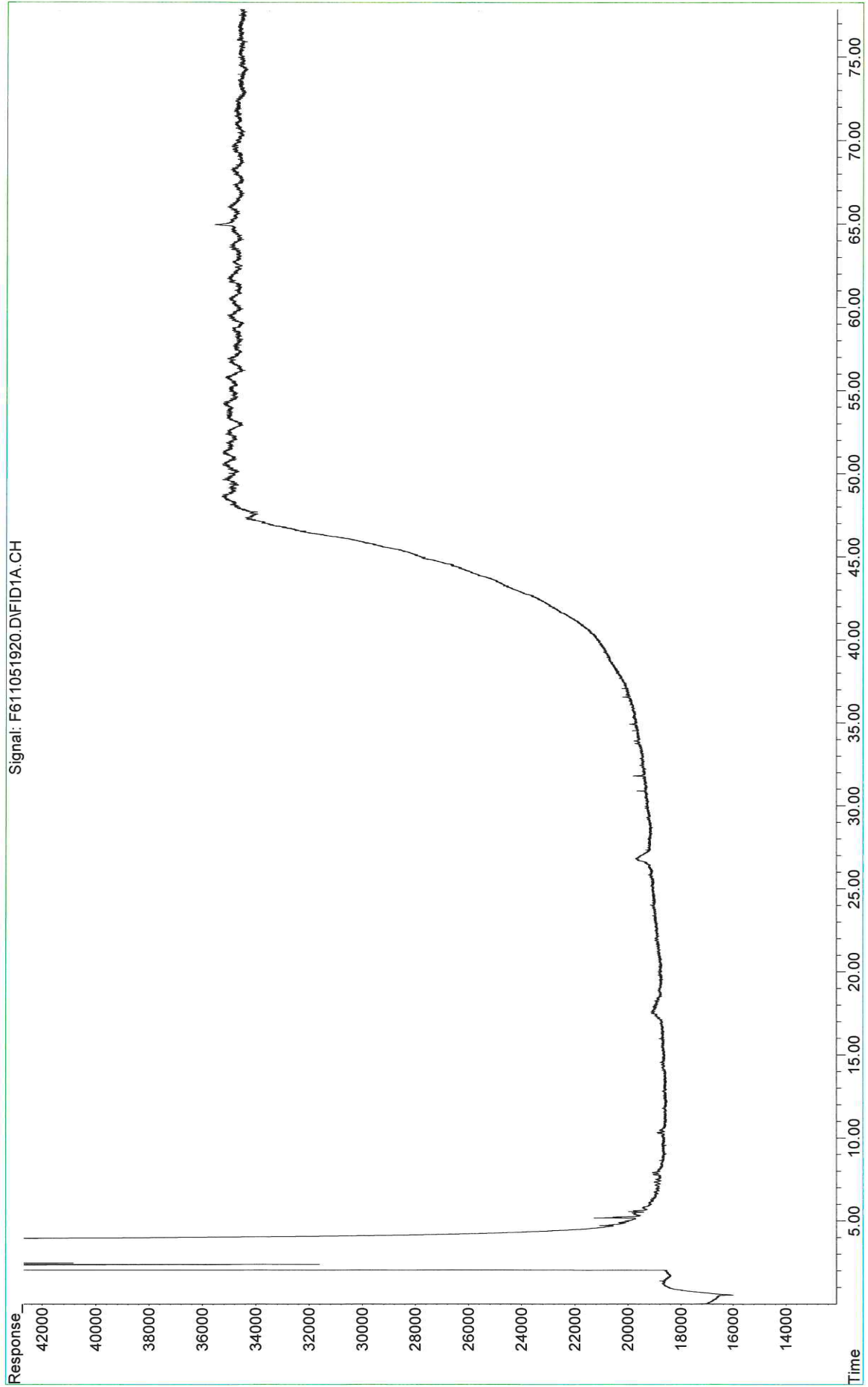
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.633	9934	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	41.423	375263501	2004539.450 ug/mL M5
49) h Total Resolved Hydroc...	37.081	2621647	14004.014 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID6\2019\NOV\NOV05\F611051920.D
Operator : FID6:MA
Acquired : 05 Nov 2019 10:16 pm using AcqMethod FID6A.M
Sample Name: IB611051901F
Instrument: FID6
Misc Info :
Vial Number: 5
CurrentMeth: O:\Forensics\Data\FID6\2019\NOV\NOV05\HC6110519F.M



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Dec 13 2019, 05:07 pm

Work Group: WG1312512 for Department: 2 Organic Preparation

Created: 22-NOV-19 Due: Operator: LB'

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1954309-01	PDI-090SC-B-06-08-191012	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1026	1213	S0	Glass-A.120
L1954309-01	PDI-090SC-B-06-08-191012	S A2-SHC	SOIL	DONE	U	1026	1213	S0	Glass-A.120
L1954309-02	PDI-084SC-B-06-08-191002	S A2-SHC	SOIL	DONE	U	1016	1213	S0	Glass-A.120
L1954309-02	PDI-084SC-B-06-08-191002	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1016	1213	S0	Glass-A.120
L1954309-03	PDI-079SC-B-06-08-191014	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1954309-03	PDI-079SC-B-06-08-191014	S A2-SHC	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1954309-04	PDI-071SC-B-06-08-191001	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1015	1213	S0	Glass-A.120
L1954309-04	PDI-071SC-B-06-08-191001	S A2-SHC	SOIL	DONE	U	1015	1213	S0	Glass-A.120
L1954309-05	PDI-066SC-B-06-08-191011	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1025	1213	S0	Glass-A.120
L1954309-05	PDI-066SC-B-06-08-191011	S A2-SHC	SOIL	DONE	U	1025	1213	S0	Glass-A.120
L1954309-06	PDI-059SC-B-06-08-191016	S A2-SHC	SOIL	DONE	U	1030	1213	S0	Glass-A.120
L1954309-06	PDI-059SC-B-06-08-191016	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1030	1213	S0	Glass-A.120
L1954309-07	PDI-049SC-B-06-08-191015	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1029	1213	S0	Glass-A.120
L1954309-07	PDI-049SC-B-06-08-191015	S A2-SHC	SOIL	DONE	U	1029	1213	S0	Glass-A.120
L1954309-08	PDI-1079SC-B-06-08-191014	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1954309-08	PDI-1079SC-B-06-08-191014	S A2-SHC	SOIL	DONE	U	1028	1213	S0	Glass-A.120
L1955791-01	MW-003-191120-SO-A06	S A2-SHC	SOIL	DONE	U	1204	1206	S0	Glass-A.120
L1955791-02	MW-003-191120-SO-B08	S A2-SHC	SOIL	DONE	U	1204	1206	S0	Glass-A.120
L1955791-03	DUP-01-191120	S A2-SHC	SOIL	DONE	U	1204	1206	S0	Glass-A.120
WG1312512-1	Laboratory Method Bl	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U				
WG1312512-1	Laboratory Method Bl	S A2-SHC	SOIL	DONE	U				
WG1312512-2	Laboratory Control S	S A2-SHC	SOIL	DONE	U				
WG1312512-2	Laboratory Control S	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U				
WG1312512-3	LCS Duplicate	S A2-ALKPAH/BIOMARKER	SOIL	DONE	U				
WG1312512-3	LCS Duplicate	S A2-SHC	SOIL	DONE	U				

Comments:

WG1312512-3 WG1312512-2

Sequence Logs

Analysis log File

Total Files Reported in Log : 16

Log Generated From Directory: O:\Forensics\Data\FID17\2019\APR\APR03\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F1704031902.d	FID17.M	LL		4/3/2019 12:09 pm
2	F1704031904.d	FID17.M	ANS		4/3/2019 4:04 pm
3	F1704031906.d	FID17.M	CCV		4/3/2019 5:33 pm
4	F1704031908.d	FID17.M	DCM		4/3/2019 7:02 pm
5	F1704031910.d	FID17.M	IB1704031901F		4/3/2019 8:31 pm
6	F1704031912.d	FID17.M	LL		4/3/2019 10:00 pm
7	F1704031914.d	FID17.M	I1704031901F	WG1226965,FRBA83,..	4/3/2019 11:29 pm
8	F1704031916.d	FID17.M	I1704031902F	WG1226965,FRBA84,..	4/4/2019 12:57 am
9	F1704031918.d	FID17.M	I1704031903F	WG1226965,FRBA88,..	4/4/2019 2:26 am
10	F1704031920.d	FID17.M	I1704031904F	WG1226965,FRBA85,..	4/4/2019 3:54 am
11	F1704031922.d	FID17.M	I1704031905F	WG1226965,FRBA86,..	4/4/2019 5:23 am
12	F1704031924.d	FID17.M	I1704031906F	WG1226965,FRBA87,..	4/4/2019 6:51 am
13	F1704031926.d	FID17.M	DCM		4/4/2019 8:19 am
14	F1704031928.d	FID17.M	CQ1704031901F	WG1226965,FRBA71,..	4/4/2019 9:48 am
15	F1704031930.d	FID17.M	WG1226965-1, 0.10148	WG1226965,FRBB01,..	4/4/2019 11:17 am
16	F1704031932.d	FID17.M	DCM		4/4/2019 12:47 pm

Analysis log File

Total Files Reported in Log : 21

Log Generated From Directory: O:\Forensics\Data\FID6\2019\NOV\NOV05\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F611051902.D	FID6A.M	LL		11/5/2019 9:04 am
2	F611051904.D	FID6A.M	ANS		11/5/2019 10:31 am
3	F611051906.D	FID6A.M	CCV		11/5/2019 11:59 am
4	F611051908.D	FID6A.M	DCM		11/5/2019 1:27 pm
5	F611051910.D	FID6A.M	DCM		11/5/2019 2:55 pm
6	F611051912.D	FID6A.M	LL		11/5/2019 4:24 pm
7	F611051914.D	FID6A.M	ANS		11/5/2019 5:52 pm
8	F611051916.D	FID6A.M	CCV		11/5/2019 7:19 pm
9	F611051918.D	FID6A.M	DCM		11/5/2019 8:47 pm
10	F611051920.D	FID6A.M	IB611051901F		11/5/2019 10:16 pm
11	F611051922.D	FID6A.M	I611051901F	WG1307766,FRBB86,..	11/5/2019 11:44 pm
12	F611051924.D	FID6A.M	I611051902F	WG1307766,FRBB87,..	11/6/2019 1:12 am
13	F611051926.D	FID6A.M	I611051903F	WG1307766,FRBB88,..	11/6/2019 2:40 am
14	F611051928.D	FID6A.M	I611051904F	WG1307766,FRBB89,..	11/6/2019 4:08 am
15	F611051930.D	FID6A.M	I611051905F	WG1307766,FRBB90,..	11/6/2019 5:36 am
16	F611051932.D	FID6A.M	I611051906F	WG1307766,FRBB91,..	11/6/2019 7:04 am
17	F611051934.D	FID6A.M	DCM		11/6/2019 8:32 am
18	F611051936.D	FID6A.M	CQ611051901F	WG1307766,FRBB86,..	11/6/2019 11:02 am
19	F611051938.D	FID6A.M	WG1307766-1,0.10280	WG1307766,FRBB40,..	11/6/2019 12:30 pm
20	F611051940.D	FID6A.M	DCM		11/6/2019 1:58 pm
21	F611051942.D	FID6A.M	DCM		11/6/2019 3:26 pm

Printed: 11/20/19

Page: 1

Analysis log File

Total Files Reported in Log : 41

Log Generated From Directory: O:\Forensics\Data\FID6\2019\DEC\DEC02\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F612021902.D	FID6A.M	LL		12/2/2019	12:57 pm
2	F612021904.D	FID6A.M	ANS		12/2/2019	2:26 pm
3	F612021906.D	FID6A.M	WG1315720-1	WG1315720,FRBB72,..	12/2/2019	3:54 pm
4	F612021908.D	FID6A.M	DCM		12/2/2019	5:22 pm
5	F612021910.D	FID6A.M	IB612021901F		12/2/2019	6:51 pm
6	F612021912.D	FID6A.M	WG1312512-1	WG1315720,WG13125..	12/2/2019	8:19 pm
7	F612021914.D	FID6A.M	WG1314522-1	WG1315720,WG13145..	12/2/2019	9:48 pm
8	F612021916.D	FID6A.M	WG1312512-2	WG1315720,WG13125..	12/2/2019	11:17 pm
9	F612021918.D	FID6A.M	WG1312512-3	WG1315720,WG13125..	12/3/2019	12:45 am
10	F612021920.D	FID6A.M	WG1314522-2	WG1315720,WG13145..	12/3/2019	2:14 am
11	F612021922.D	FID6A.M	WG1314522-3	WG1315720,WG13145..	12/3/2019	3:42 am
12	F612021924.D	FID6A.M	DCM		12/3/2019	5:11 am
13	F612021926.D	FID6A.M	L1956552-03	WG1315720,WG13145..	12/3/2019	6:40 am
14	F612021928.D	FID6A.M	L1956552-04	WG1315720,WG13145..	12/3/2019	8:08 am
15	F612021930.D	FID6A.M	L1956513-01	WG1315720,WG13145..	12/3/2019	9:37 am
16	F612021932.D	FID6A.M	L1956707-01	WG1315720,WG13145..	12/3/2019	11:05 am
17	F612021934.D	FID6A.M	L1956707-02	WG1315720,WG13145..	12/3/2019	12:33 pm
18	F612021936.D	FID6A.M	WG1315720-2	WG1315720,FRBB72,..	12/3/2019	2:02 pm
19	F612021938.D	FID6A.M	CM		12/3/2019	3:30 pm
20	F612021940.D	FID6A.M	IB612021902F		12/3/2019	4:59 pm
21	F612021942.D	FID6A.M	L1956707-03	WG1315720,WG13145..	12/3/2019	6:27 pm
22	F612021944.D	FID6A.M	L1956707-04	WG1315720,WG13145..	12/3/2019	7:56 pm
23	F612021946.D	FID6A.M	L1956707-05	WG1315720,WG13145..	12/3/2019	9:24 pm
24	F612021948.D	FID6A.M	L1956707-06	WG1315720,WG13145..	12/3/2019	10:52 pm
25	F612021950.D	FID6A.M	L1954309-01		12/4/2019	12:21 am
26	F612021952.D	FID6A.M	L1954309-02		12/4/2019	1:49 am
27	F612021954.D	FID6A.M	L1954309-03		12/4/2019	3:17 am
28	F612021956.D	FID6A.M	L1954309-04		12/4/2019	4:46 am
29	F612021958.D	FID6A.M	L1954309-05		12/4/2019	6:14 am
30	F612021960.D	FID6A.M	L1954309-06	WG1315720,WG13125..	12/4/2019	7:42 am
31	F612021962.D	FID6A.M	L1954309-07	WG1315720,WG13125..	12/4/2019	9:11 am
32	F612021964.D	FID6A.M	WG1315720-3	WG1315720,FRBB72,..	12/4/2019	10:39 am
33	F612021966.D	FID6A.M	DCM		12/4/2019	12:08 pm
34	F612021968.D	FID6A.M	IB		12/4/2019	2:18 pm
35	F612021970.D	FID6A.M	L1954309-08		12/4/2019	3:46 pm
36	F612021972.D	FID6A.M	L1955791-01	WG1315720,WG13125..	12/4/2019	5:15 pm
37	F612021974.D	FID6A.M	L1955791-02	WG1315720,WG13125..	12/4/2019	6:43 pm
38	F612021976.D	FID6A.M	L1955791-03	WG1315720,WG13125..	12/4/2019	8:12 pm
39	F612021978.D	FID6A.M	WG1315720-4	WG1315720,FRBB72,..	12/4/2019	9:40 pm
40	F612021980.D	FID6A.M	DCM		12/4/2019	11:09 pm
41	F612021982.D	FID6A.M	IB		12/5/2019	12:37 am

Printed: 12/13/19

Page: 1

Analysis log File

Total Files Reported in Log : 58

Log Generated From Directory: O:\Forensics\Data\FID17\2019\DEC\DEC09\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F17120919002.d	FID17.M	LL		12/9/2019 12:34 pm
2	F17120919004.d	FID17.M	ANS		12/9/2019 2:02 pm
3	F17120919006.d	FID17.M	WG1318856-1	WG1318856,FRBB72,..	12/9/2019 3:30 pm
4	F17120919008.d	FID17.M	DCM		12/9/2019 4:59 pm
5	F17120919010.d	FID17.M	IB1712091901F		12/9/2019 6:27 pm
6	F17120919012.d	FID17.M	WG1317656-1	WG1318856,WG13176..	12/9/2019 7:55 pm
7	F17120919014.d	FID17.M	WG1317656-2	WG1318856,WG13176..	12/9/2019 9:23 pm
8	F17120919016.d	FID17.M	WG1317656-3	WG1318856,WG13176..	12/9/2019 10:52 pm
9	F17120919018.d	FID17.M	DCM		12/10/2019 12:20 a
10	F17120919020.d	FID17.M	L1958234-01	WG1318856,WG13176..	12/10/2019 1:48 a
11	F17120919022.d	FID17.M	WG1317656-5	WG1318856,WG13176..	12/10/2019 3:15 a
12	F17120919024.d	FID17.M	L1958234-02	WG1318856,WG13176..	12/10/2019 4:43 a
13	F17120919026.d	FID17.M	L1958234-03	WG1318856,WG13176..	12/10/2019 6:11 a
14	F17120919028.d	FID17.M	L1958234-04	WG1318856,WG13176..	12/10/2019 7:38 a
15	F17120919030.d	FID17.M	L1958234-05	WG1318856,WG13176..	12/10/2019 9:06 a
16	F17120919032.d	FID17.M	L1958234-06	WG1318856,WG13176..	12/10/2019 10:34 a
17	F17120919034.d	FID17.M	L1958234-07	WG1318856,WG13176..	12/10/2019 12:02 p
18	F17120919036.d	FID17.M	WG1319042-1	WG1319042,FRBB72,..	12/10/2019 1:30 p
19	F17120919038.d	FID17.M	DCM		12/10/2019 2:58 p
20	F17120919040.d	FID17.M	IB1712091902F		12/10/2019 4:27 p
21	F17120919042.d	FID17.M	WG1318402-1	WG1319042,WG13184..	12/10/2019 5:55 p
22	F17120919044.d	FID17.M	WG1318402-2	WG1319042,WG13184..	12/10/2019 7:23 p
23	F17120919046.d	FID17.M	WG1318402-3	WG1319042,WG13184..	12/10/2019 8:51 p
24	F17120919048.d	FID17.M	DCM		12/10/2019 10:19 p
25	F17120919050.d	FID17.M	L1958590-01	WG1319042,WG13184..	12/10/2019 11:46 p
26	F17120919052.d	FID17.M	WG1318402-4	WG1319042,WG13184..	12/11/2019 1:14 a
27	F17120919054.d	FID17.M	L1958590-02	WG1319042,WG13184..	12/11/2019 2:42 a
28	F17120919056.d	FID17.M	L1958590-03	WG1319042,WG13184..	12/11/2019 4:10 a
29	F17120919058.d	FID17.M	L1958590-04	WG1319042,WG13184..	12/11/2019 5:37 a
30	F17120919060.d	FID17.M	L1958590-05	WG1319042,WG13184..	12/11/2019 7:05 a
31	F17120919062.d	FID17.M	L1958590-06	WG1319042,WG13184..	12/11/2019 8:33 a
32	F17120919064.d	FID17.M	L1958590-07	WG1319042,WG13184..	12/11/2019 10:01 a
33	F17120919066.d	FID17.M	WG1319042-2	WG1319042,FRBB72,..	12/11/2019 11:28 a
34	F17120919068.d	FID17.M	DCM		12/11/2019 12:56 p
35	F17120919070.d	FID17.M	IB1712091903F		12/11/2019 2:24 p
36	F17120919072.d	FID17.M	ALUMINA LOT 95	12/10/19	12/11/2019 3:52 p
37	F17120919074.d	FID17.M	WG1318877-1		12/11/2019 5:20 p
38	F17120919076.d	FID17.M	WG1318877-2		12/11/2019 6:48 p
39	F17120919078.d	FID17.M	WG1318877-3		12/11/2019 8:15 p
40	F17120919080.d	FID17.M	DCM		12/11/2019 9:43 p
41	F17120919082.d	FID17.M	L1958850-01		12/11/2019 11:11 p
42	F17120919084.d	FID17.M	WG1318877-5		12/12/2019 12:38 a
43	F17120919086.d	FID17.M	L1958850-02		12/12/2019 2:05 a
44	F17120919088.d	FID17.M	L1958850-03		12/12/2019 3:33 a
45	F17120919090.d	FID17.M	L1958850-04		12/12/2019 5:00 a
46	F17120919092.d	FID17.M	L1958850-05		12/12/2019 6:27 a
47	F17120919094.d	FID17.M	L1958850-06		12/12/2019 7:54 a
48	F17120919096.d	FID17.M	WG1315720-5	WG1315720,FRBB72,..	12/12/2019 9:21 a
49	F17120919098.d	FID17.M	DCM		12/12/2019 10:49 a

Printed: 12/13/19

Page: 1

Analysis log File

Total Files Reported in Log : 58

Log Generated From Directory: O:\Forensics\Data\FID17\2019\DEC\DEC09\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
50	F17120919100.d	FID17.M	IB1712091904F		12/12/2019 12:16 p
51	F17120919102.d	FID17.M	L1954309-01D,42,10	WG1315720,WG13125..	12/12/2019 1:44 p
52	F17120919104.d	FID17.M	L1954309-02D,42,10	WG1315720,WG13125..	12/12/2019 3:11 p
53	F17120919106.d	FID17.M	L1954309-03D,42,10	WG1315720,WG13125..	12/12/2019 4:39 p
54	F17120919108.d	FID17.M	L1954309-04D,42,10	WG1315720,WG13125..	12/12/2019 6:07 p
55	F17120919110.d	FID17.M	L1954309-05D,42,10	WG1315720,WG13125..	12/12/2019 7:35 p
56	F17120919112.d	FID17.M	WG1315720-6	WG1315720,FRBB72,..	12/12/2019 9:02 p
57	F17120919114.d	FID17.M	DCM		12/12/2019 10:29 p
58	F17120919116.d	FID17.M	IB		12/12/2019 11:57 p

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919096.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:21 am
 Operator : FID17:WR
 Sample : WG1315720-5
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 48 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 10:27:36 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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	88	-0.03
2 t	n-Octane (C8)	0.838	0.772	7.9	82	-0.02
3 t	n-Nonane (C9)	0.895	0.833	6.9	81	-0.02
4 t	n-Decane (C10)	0.914	0.868	5.0	82	-0.02
5 t	n-Undecane (C11)	0.923	0.894	3.1	83	-0.03
6 t	n-Dodecane (C12)	0.929	0.911	1.9	84	-0.03
7 t	n-Tridecane (C13)	0.928	0.922	0.6	85	-0.03
9 t	n-Tetradecane (C14)	0.940	0.942	-0.2	86	-0.03
11 t	n-Pentadecane (C15)	0.940	0.948	-0.9	87	-0.03
12 t	n-Hexadecane (C16)	0.945	0.961	-1.7	87	-0.03
14 t	n-Heptadecane (C17)	0.948	0.955	-0.7	87	-0.03
15 t	Pristane	0.952	0.976	-2.5	88	-0.03
16 t	n-Octadecane (C18)	0.953	0.975	-2.3	88	-0.03
17 t	Phytane	0.868	0.874	-0.7	87	-0.03
18 t	n-Nonadecane (C19)	0.950	0.973	-2.4	88	-0.03
19 s	ortho-terphenyl	1.078	1.088	-0.9	88	-0.03
20 t	n-Eicosane (C20)	0.952	0.973	-2.2	88	-0.03
21 t	n-Heneicosane (C21)	0.967	0.986	-2.0	88	-0.03
22 t	n-Docosane (C22)	0.966	0.984	-1.9	88	-0.03
23 t	n-Tricosane (C23)	0.972	0.991	-2.0	88	-0.03
24 s	d50-Tetracosane	0.863	0.846	2.0	85	-0.04
25 t	n-Tetracosane (C24)	0.976	0.987	-1.1	87	-0.04
26 t	n-Pentacosane (C25)	0.966	0.977	-1.1	87	-0.04
27 t	n-Hexacosane (C26)	0.973	0.982	-0.9	87	-0.04
28 t	n-Heptacosane (C27)	0.948	0.956	-0.8	87	-0.04
29 t	n-Octacosane (C28)	0.983	1.003	-2.0	87	-0.04
30 t	n-Nonacosane (C29)	0.978	0.990	-1.2	87	-0.04
31 t	n-Triacontane (C30)	0.967	0.981	-1.4	87	-0.04
32 t	n-Hentriacontane (C31)	0.973	0.988	-1.5	88	-0.04
33 t	n-Dotriacontane (C32)	0.960	0.977	-1.8	88	-0.04
34 t	n-Tritriacontane (C33)	0.950	0.970	-2.1	88	-0.05
35 t	n-tetratriacontane (C34)	0.985	1.001	-1.6	88	-0.05

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919096.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:21 am
 Operator : FID17:WR
 Sample : WG1315720-5
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 48 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 10:27:36 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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)	0.952	0.965	-1.4	88	-0.05
37 t	n-Hexatriacontane (C36)	1.008	1.021	-1.3	88	-0.06
38 t	n-Heptatriacontane (C37)	0.952	0.955	-0.3	87	-0.07
39 t	n-Octatriacontane (C38)	1.025	1.029	-0.4	87	-0.08
41 t	n-Tetracontane (C40)	0.974	0.965	0.9	86	-0.10

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)	1.05	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919096.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:21 am
 Operator : FID17:WR
 Sample : WG1315720-5
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 48 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 10:27:36 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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	29.949	61240409	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	27.987	66621184	50.445	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	100.89%	
24) s d50-Tetracosane	34.707	51799678	49.011	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	98.02%	
Target Compounds				
2) t n-Octane (C8)	4.762	47288102	46.069	ug/mL M4
3) t n-Nonane (C9)	6.828	51002496	46.534	ug/mL M4
4) t n-Decane (C10)	9.230	53175117	47.526	ug/mL M4
5) t n-Undecane (C11)	11.704	54758918	48.437	ug/mL M4
6) t n-Dodecane (C12)	14.111	55765534	48.984	ug/mL M4
7) t n-Tridecane (C13)	16.406	56442027	49.640	ug/mL M4
9) t n-Tetradecane (C14)	18.577	57668699	50.080	ug/mL M4
11) t n-Pentadecane (C15)	20.638	58058306	50.450	ug/mL M4
12) t n-Hexadecane (C16)	22.588	58861508	50.833	ug/mL M4
14) t n-Heptadecane (C17)	24.443	58513883	50.394	ug/mL M4
15) t Pristane	24.547	59793135	51.282	ug/mL M4
16) t n-Octadecane (C18)	26.205	59680835	51.112	ug/mL M4
17) t Phytane	26.362	53537529	50.383	ug/mL M4
18) t n-Nonadecane (C19)	27.885	59607680	51.232	ug/mL M4
20) t n-Eicosane (C20)	29.487	59585727	51.107	ug/mL M4
21) t n-Heneicosane (C21)	31.022	60361741	50.958	ug/mL M4
22) t n-Docosane (C22)	32.489	60276828	50.955	ug/mL M4
23) t n-Tricosane (C23)	33.901	60697839	50.978	ug/mL M4
25) t n-Tetracosane (C24)	35.254	60469948	50.607	ug/mL M4
26) t n-Pentacosane (C25)	36.559	59812306	50.544	ug/mL M4
27) t n-Hexacosane (C26)	37.812	60129144	50.433	ug/mL M4
28) t n-Heptacosane (C27)	39.026	58567639	50.439	ug/mL M4
29) t n-Octacosane (C28)	40.194	61405948	50.998	ug/mL M4
30) t n-Nonacosane (C29)	41.324	60610645	50.619	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919096.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:21 am
 Operator : FID17:WR
 Sample : WG1315720-5
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 48 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 10:27:36 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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)	42.418	60061554	50.727 ug/mL M4
32) t n-Hentriacontane (C31)	43.474	60479379	50.764 ug/mL M4
33) t n-Dotriacontane (C32)	44.504	59822238	50.854 ug/mL M4
34) t n-Tritriacontane (C33)	45.495	59377833	51.017 ug/mL M4
35) t n-tetratriacontane (C34)	46.464	61331337	50.859 ug/mL M4
36) t n-Pentatriacontane (C35)	47.423	59075072	50.653 ug/mL M4
37) t n-Hexatriacontane (C36)	48.503	62500475	50.633 ug/mL M4
38) t n-Heptatriacontane (C37)	49.725	58509934	50.173 ug/mL M4
39) t n-Octatriacontane (C38)	51.156	62992133	50.189 ug/mL M4
41) t n-Tetracontane (C40)	54.764	59090192	49.523 ug/mL M4

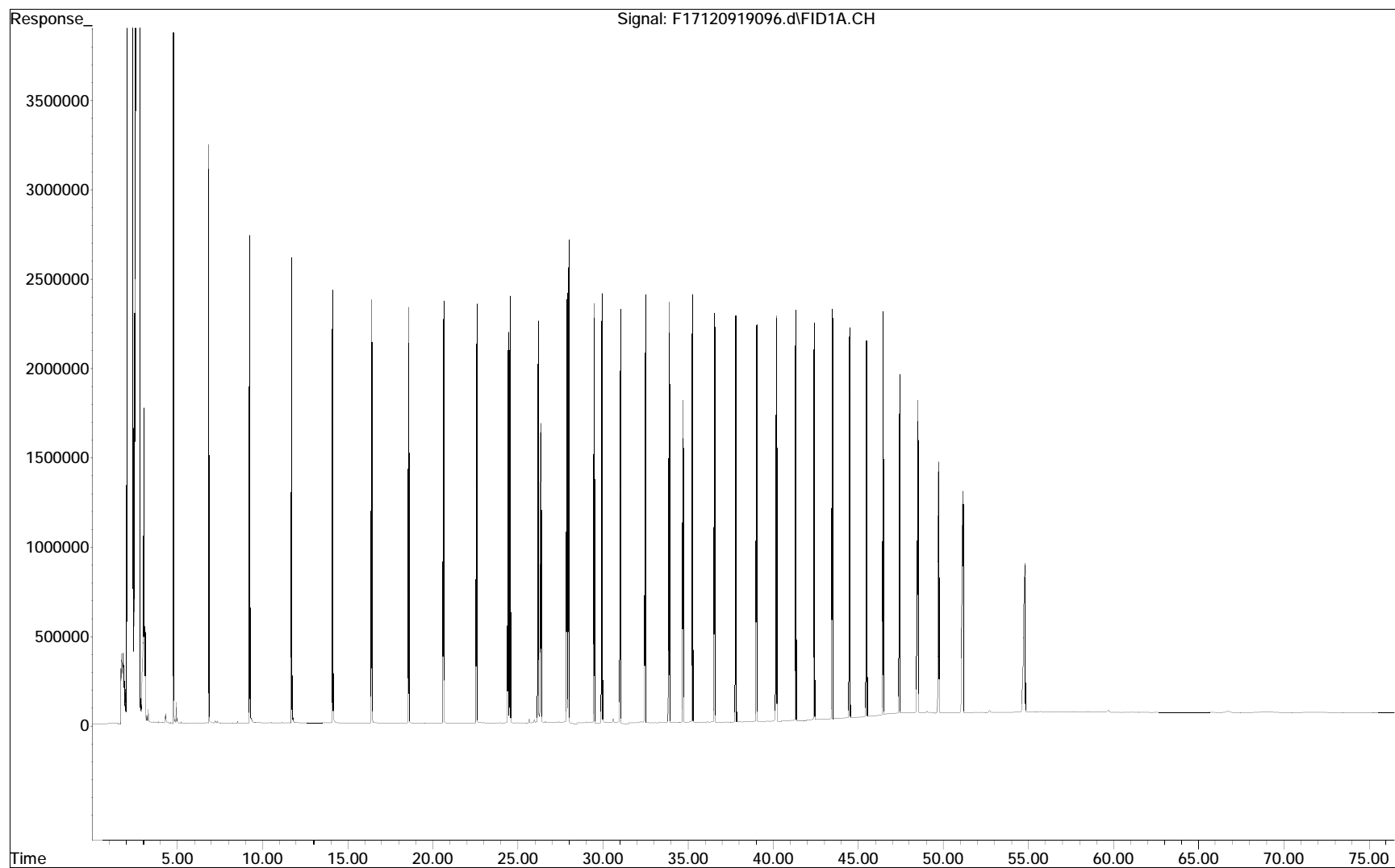
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919096.d
Operator : FID17:WR
Acquired : 12 Dec 2019 9:21 am using AcqMethod FID17.M
Sample Name: WG1315720-5
Instrument: FID17
Misc Info : WG1315720,FRBB72,ICAL15688
Vial Number: 48
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919112.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:02 pm
 Operator : FID17:WR
 Sample : WG1315720-6
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:24:54 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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	86	-0.04
2 t	n-Octane (C8)	0.838	0.799	4.7	82	-0.02
3 t	n-Nonane (C9)	0.895	0.842	5.9	80	-0.03
4 t	n-Decane (C10)	0.914	0.877	4.0	80	-0.03
5 t	n-Undecane (C11)	0.923	0.894	3.1	81	-0.03
6 t	n-Dodecane (C12)	0.929	0.914	1.6	82	-0.04
7 t	n-Tridecane (C13)	0.928	0.925	0.3	83	-0.04
9 t	n-Tetradecane (C14)	0.940	0.941	-0.1	83	-0.04
11 t	n-Pentadecane (C15)	0.940	0.947	-0.7	84	-0.04
12 t	n-Hexadecane (C16)	0.945	0.960	-1.6	85	-0.04
14 t	n-Heptadecane (C17)	0.948	0.953	-0.5	84	-0.04
15 t	Pristane	0.952	0.977	-2.6	85	-0.04
16 t	n-Octadecane (C18)	0.953	0.985	-3.4	86	-0.04
17 t	Phytane	0.868	0.879	-1.3	85	-0.04
18 t	n-Nonadecane (C19)	0.950	0.973	-2.4	85	-0.04
19 s	ortho-terphenyl	1.078	1.084	-0.6	85	-0.04
20 t	n-Eicosane (C20)	0.952	0.973	-2.2	85	-0.05
21 t	n-Heneicosane (C21)	0.967	0.988	-2.2	85	-0.05
22 t	n-Docosane (C22)	0.966	0.986	-2.1	85	-0.05
23 t	n-Tricosane (C23)	0.972	0.991	-2.0	85	-0.05
24 s	d50-Tetracosane	0.863	0.847	1.9	83	-0.05
25 t	n-Tetracosane (C24)	0.976	0.990	-1.4	85	-0.05
26 t	n-Pentacosane (C25)	0.966	0.978	-1.2	84	-0.05
27 t	n-Hexacosane (C26)	0.973	0.983	-1.0	84	-0.05
28 t	n-Heptacosane (C27)	0.948	0.957	-0.9	84	-0.05
29 t	n-Octacosane (C28)	0.983	0.993	-1.0	84	-0.05
30 t	n-Nonacosane (C29)	0.978	0.988	-1.0	84	-0.06
31 t	n-Triacontane (C30)	0.967	0.978	-1.1	84	-0.06
32 t	n-Hentriacontane (C31)	0.973	0.984	-1.1	85	-0.06
33 t	n-Dotriacontane (C32)	0.960	0.973	-1.4	85	-0.07
34 t	n-Tritriacontane (C33)	0.950	0.964	-1.5	85	-0.06
35 t	n-tetratriacontane (C34)	0.985	0.997	-1.2	85	-0.07

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919112.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:02 pm
 Operator : FID17:WR
 Sample : WG1315720-6
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:24:54 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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)	0.952	0.962	-1.1	85	-0.07
37 t	n-Hexatriacontane (C36)	1.008	1.017	-0.9	85	-0.08
38 t	n-Heptatriacontane (C37)	0.952	0.953	-0.1	84	-0.09
39 t	n-Octatriacontane (C38)	1.025	1.028	-0.3	84	-0.12
41 t	n-Tetracontane (C40)	0.974	0.963	1.1	83	-0.16

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)	1.05	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919112.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:02 pm
 Operator : FID17:WR
 Sample : WG1315720-6
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:18:47 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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	29.934	59345594	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	27.974	64319193	50.257	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	100.51%	
24) s d50-Tetracosane	34.697	50260391	49.072	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	98.14%	
Target Compounds				
2) t n-Octane (C8)	4.761	47391016	47.643	ug/mL M4
3) t n-Nonane (C9)	6.824	49954773	47.033	ug/mL M4
4) t n-Decane (C10)	9.223	52022990	47.981	ug/mL M4
5) t n-Undecane (C11)	11.696	53083061	48.454	ug/mL M4
6) t n-Dodecane (C12)	14.102	54263563	49.186	ug/mL M4
7) t n-Tridecane (C13)	16.397	54896520	49.823	ug/mL M4
9) t n-Tetradecane (C14)	18.570	55822048	50.024	ug/mL M4
11) t n-Pentadecane (C15)	20.627	56179989	50.376	ug/mL M4
12) t n-Hexadecane (C16)	22.577	56971381	50.772	ug/mL M4
14) t n-Heptadecane (C17)	24.431	56530491	50.240	ug/mL M4
15) t Pristane	24.538	58003691	51.336	ug/mL M4
16) t n-Octadecane (C18)	26.193	58459151	51.664	ug/mL M4
17) t Phytane	26.350	52146575	50.641	ug/mL M4
18) t n-Nonadecane (C19)	27.871	57716763	51.191	ug/mL M4
20) t n-Eicosane (C20)	29.473	57752696	51.117	ug/mL M4
21) t n-Heneicosane (C21)	31.006	58610400	51.059	ug/mL M4
22) t n-Docosane (C22)	32.477	58486558	51.020	ug/mL M4
23) t n-Tricosane (C23)	33.884	58836996	50.993	ug/mL M4
25) t n-Tetracosane (C24)	35.240	58753054	50.740	ug/mL M4
26) t n-Pentacosane (C25)	36.541	58056327	50.626	ug/mL M4
27) t n-Hexacosane (C26)	37.798	58353007	50.506	ug/mL M4
28) t n-Heptacosane (C27)	39.009	56785911	50.466	ug/mL M4
29) t n-Octacosane (C28)	40.178	58955899	50.527	ug/mL M4
30) t n-Nonacosane (C29)	41.307	58611073	50.511	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919112.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 9:02 pm
 Operator : FID17:WR
 Sample : WG1315720-6
 Misc : WG1315720,FRBB72,ICAL15688
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:18:47 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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)	42.401	58014026	50.562 ug/mL M4
32) t n-Hentriacontane (C31)	43.455	58380380	50.567 ug/mL M4
33) t n-Dotriacontane (C32)	44.483	57739021	50.650 ug/mL M4
34) t n-Tritriacontane (C33)	45.476	57223097	50.735 ug/mL M4
35) t n-tetratriacontane (C34)	46.446	59185045	50.646 ug/mL M4
36) t n-Pentatriacontane (C35)	47.404	57077407	50.503 ug/mL M4
37) t n-Hexatriacontane (C36)	48.478	60367392	50.466 ug/mL M4
38) t n-Heptatriacontane (C37)	49.699	56557472	50.047 ug/mL M4
39) t n-Octatriacontane (C38)	51.119	60994632	50.149 ug/mL M4
41) t n-Tetracontane (C40)	54.709	57171874	49.445 ug/mL M4

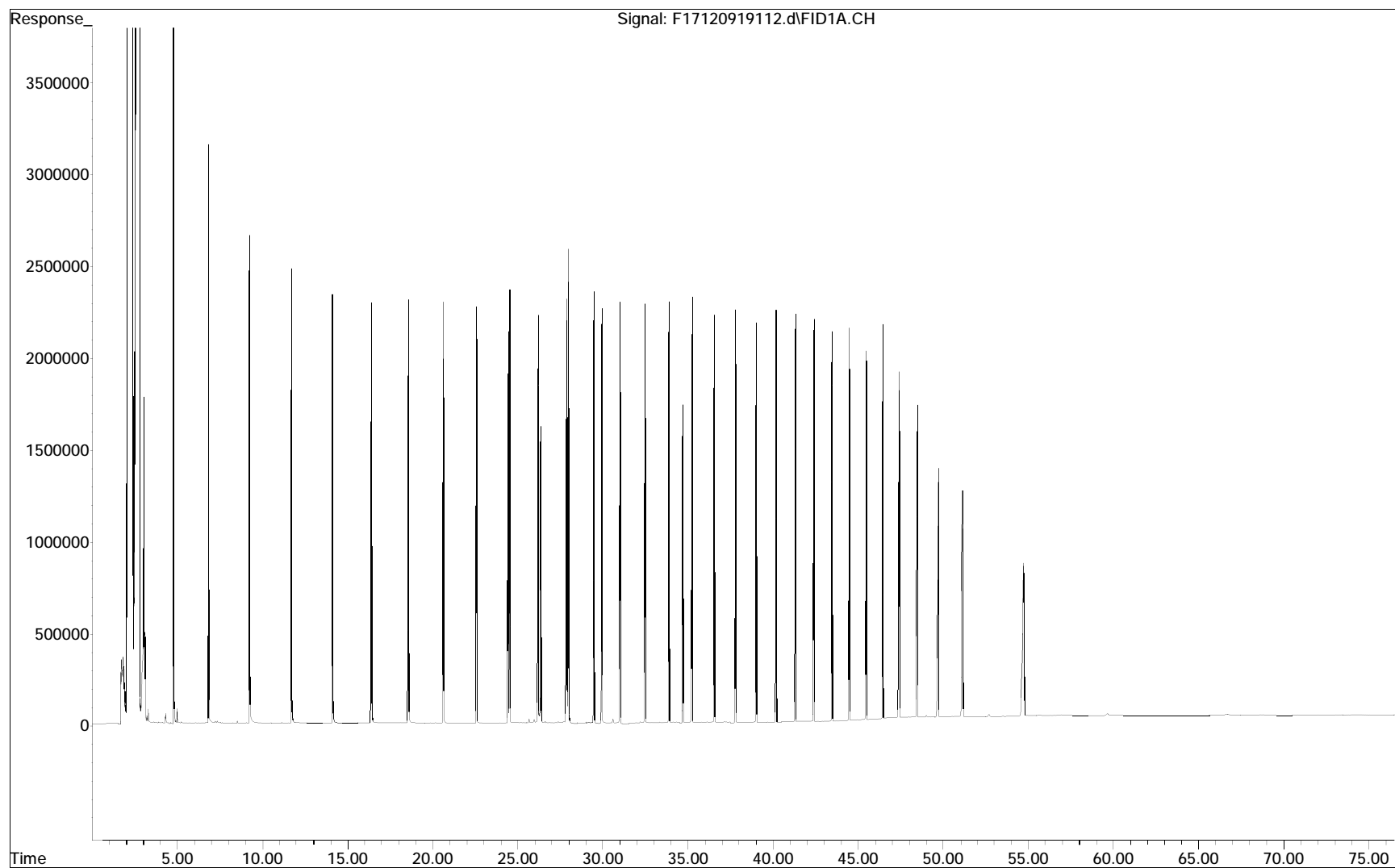
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919112.d
Operator : FID17:WR
Acquired : 12 Dec 2019 9:02 pm using AcqMethod FID17.M
Sample Name: WG1315720-6
Instrument: FID17
Misc Info : WG1315720,FRBB72,ICAL15688
Vial Number: 6
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919102.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 1:44 pm
 Operator : FID17:WR
 Sample : L1954309-01D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 1 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:17:59 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	29.936	61368009	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	27.953	4862891	3.674	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	7.35%#	
24) s d50-Tetracosane	34.677	4023722	3.799	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	7.60%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	6.825	25515	0.023	ug/mL M4
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	11.719	21221	0.019	ug/mL M4
6) t n-Dodecane (C12)	14.109	252192	0.221	ug/mL M4
7) t n-Tridecane (C13)	16.438	5669675G	4.976	ug/mL M4
8) t 1380	18.053	504341	0.437	ug/mL M4
9) t n-Tetradecane (C14)	18.622	853550	0.740	ug/mL M4
10) t 1470	19.831	1020002	0.884	ug/mL M4
11) t n-Pentadecane (C15)	0.000	0	N.D.	ug/mL
12) t n-Hexadecane (C16)	0.000	0	N.D.	ug/mL
13) t 1650	23.472	785839	0.675	ug/mL M4
14) t n-Heptadecane (C17)	24.420	226080	0.194	ug/mL M4
15) t Pristane	24.503	1145470	0.980	ug/mL M4
16) t n-Octadecane (C18)	26.144	22677782G	19.381	ug/mL M4
17) t Phytane	26.321	5109100G	4.798	ug/mL M4
18) t n-Nonadecane (C19)	27.849	58765	0.050	ug/mL M4
20) t n-Eicosane (C20)	29.435	363881	0.311	ug/mL M4
21) t n-Heneicosane (C21)	30.988	170806	0.144	ug/mL M4
22) t n-Docosane (C22)	32.461	154566	0.130	ug/mL M4
23) t n-Tricosane (C23)	33.858	731471	0.613	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919102.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 1:44 pm
 Operator : FID17:WR
 Sample : L1954309-01D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 1 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:17:59 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units
25) t n-Tetracosane (C24)	35.222	88996	0.074	ug/mL M4
26) t n-Pentacosane (C25)	36.511	5018584G	4.232	ug/mL M4
27) t n-Hexacosane (C26)	37.778	222036	0.186	ug/mL M4
28) t n-Heptacosane (C27)	38.984	723415	0.622	ug/mL M4
29) t n-Octacosane (C28)	40.150	286328	0.237	ug/mL M4
30) t n-Nonacosane (C29)	41.339	233739	0.195	ug/mL M4
31) t n-Triacontane (C30)	42.378	257854	0.217	ug/mL M4
32) t n-Hentriacontane (C31)	43.439	405361	0.340	ug/mL M4
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t n-Tritriacontane (C33)	45.533	294163	0.252	ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	47.472	474618	0.406	ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	49.763	158204	0.135	ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d
42) h C9-C44 Total Petroleu...	36.918	1285669365	1096.979	ug/mL m
42) h C9-C44 Total Petroleu BS	36.918	447667653	381.966	ug/mLm
43) h C9-C40 Total Petroleu...	30.823	957864604	817.284	ug/ml m
43) h C9-C40 Total Petroleu BS	30.823	452670367	386.235	ug/mlm
44) h C10-C28 DRO	24.733	410271878	350.059	ug/mL m
44) h C10-C28 DRO BS	24.733	339492661	289.667	ug/mLm
45) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
45) h C28-C40 ORO BS	0.000	-354901141	N.D.	ug/mLd
46) h Total Resolved Hydroc...	38.937	214374508	182.912	ug/mL m

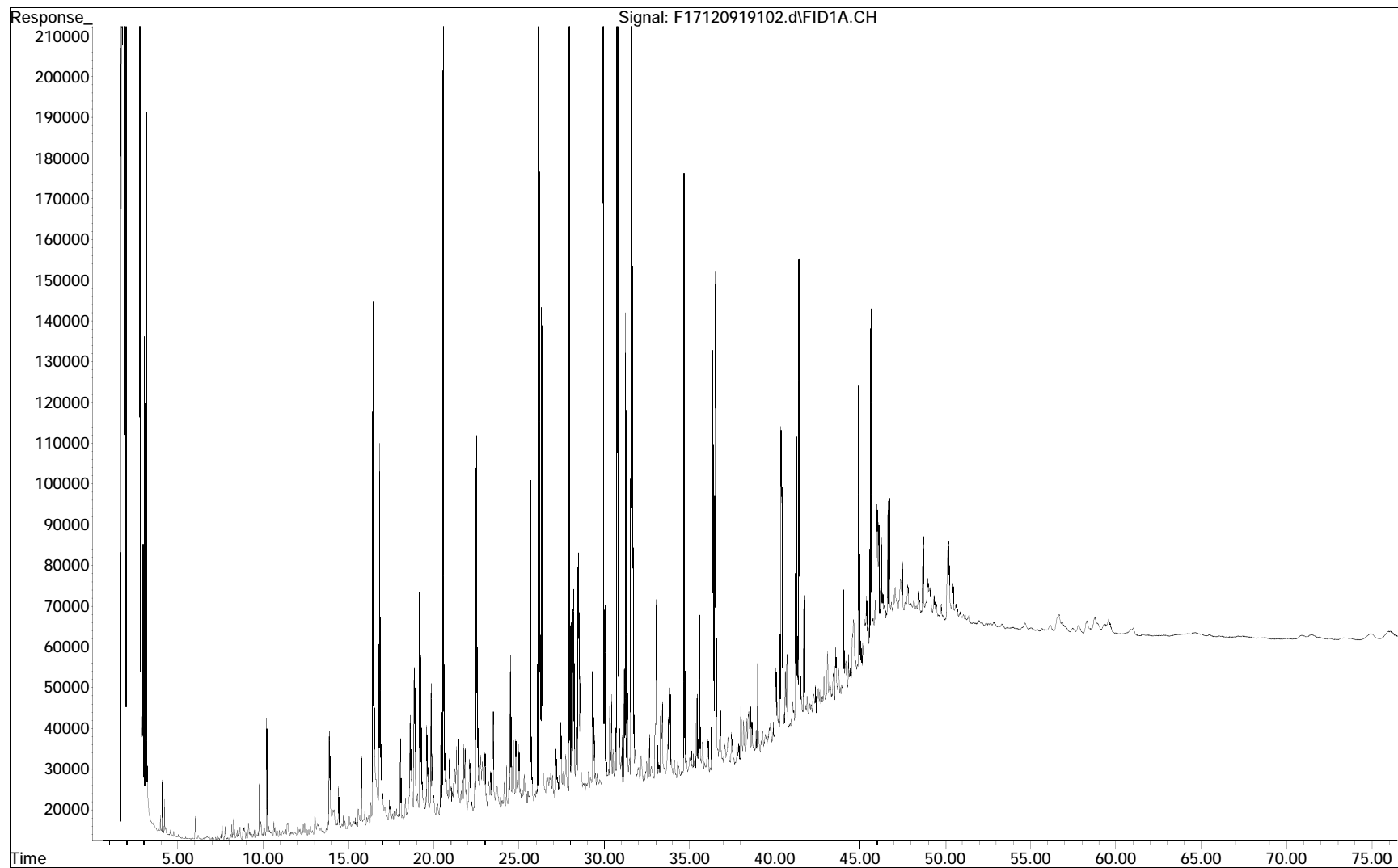
SemiQuant Compounds - Not Calibrated on this Instrument

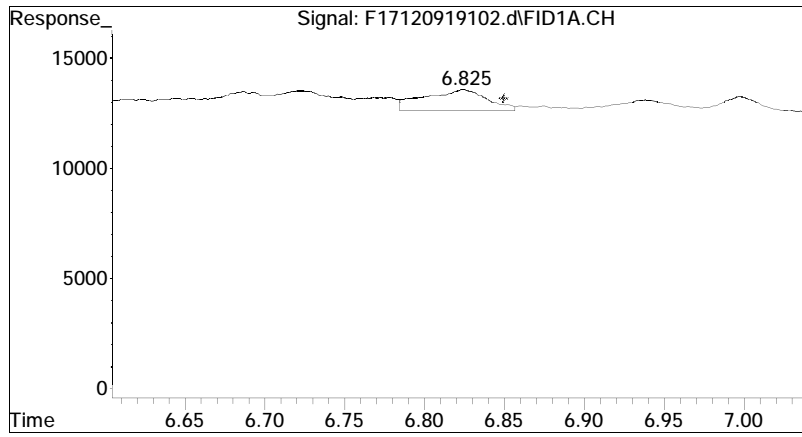
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

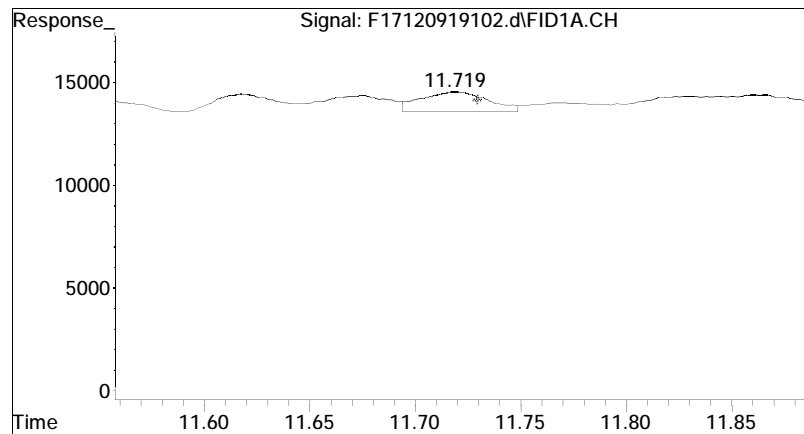
File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919102.d
Operator : FID17:WR
Acquired : 12 Dec 2019 1:44 pm using AcqMethod FID17.M
Sample Name: L1954309-01D,42,10
Instrument: FID17
Misc Info : WG1315720,WG1312512,ICAL15688
Vial Number: 1
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M





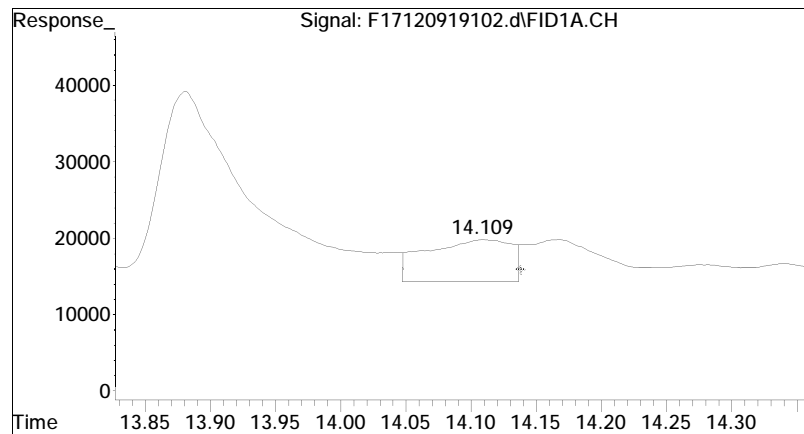
#3 n-Nonane (C9)

R.T.: 6.825 min
Delta R.T.: -0.025 min
Response: 25515
Conc: 0.02 ug/mL M4



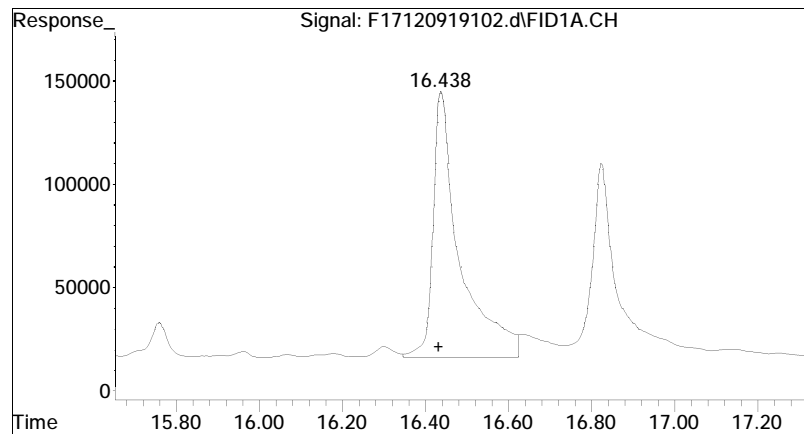
#5 n-Undecane (C11)

R.T.: 11.719 min
Delta R.T.: -0.011 min
Response: 21221
Conc: 0.02 ug/mL M4



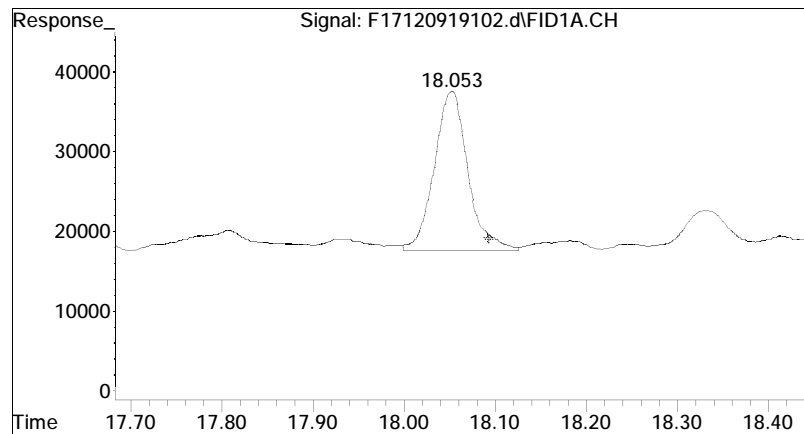
#6 n-Dodecane (C12)

R.T.: 14.109 min
Delta R.T.: -0.029 min
Response: 252192
Conc: 0.22 ug/mL M4



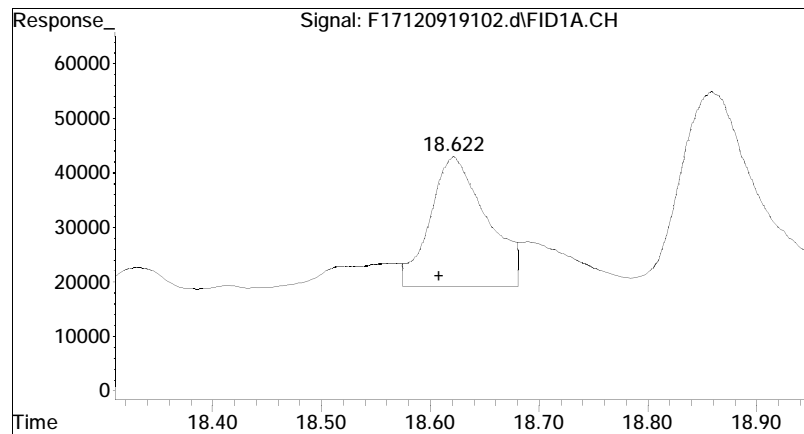
#7 n-Tridecane (C13)

R.T.: 16.438 min
Delta R.T.: 0.005 min
Response: 5669675
Conc: 4.98 ug/mL M4



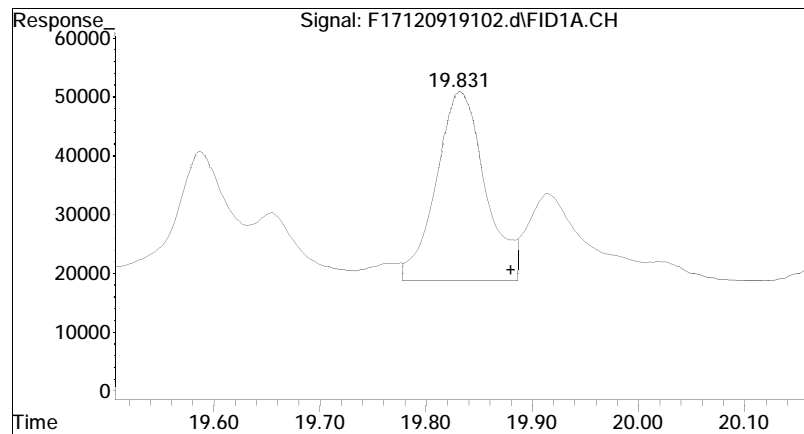
#8 1380

R.T.: 18.053 min
Delta R.T.: -0.040 min
Response: 504341
Conc: 0.44 ug/mL M4



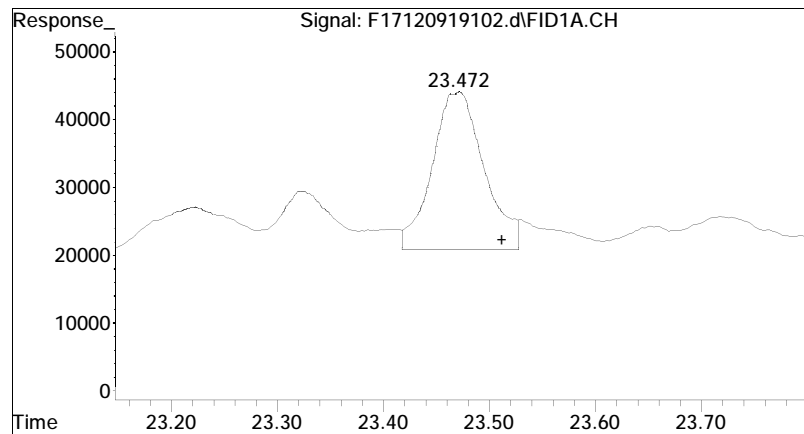
#9 n-Tetradecane (C14)

R.T.: 18.622 min
Delta R.T.: 0.014 min
Response: 853550
Conc: 0.74 ug/mL M4



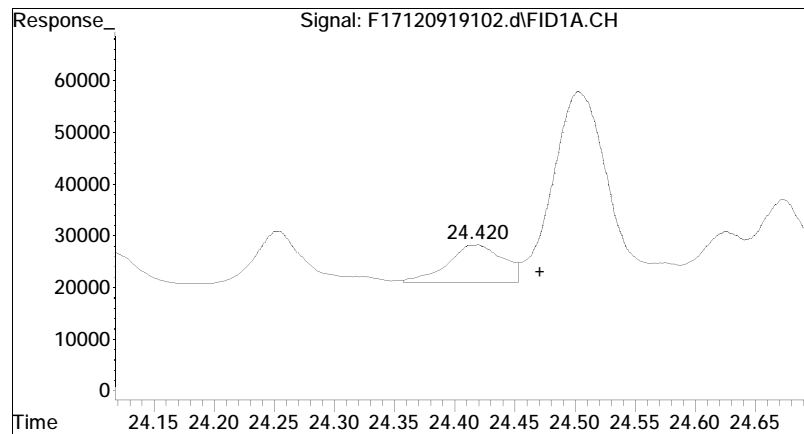
#10 1470

R.T.: 19.831 min
Delta R.T.: -0.049 min
Response: 1020002
Conc: 0.88 ug/mL M4



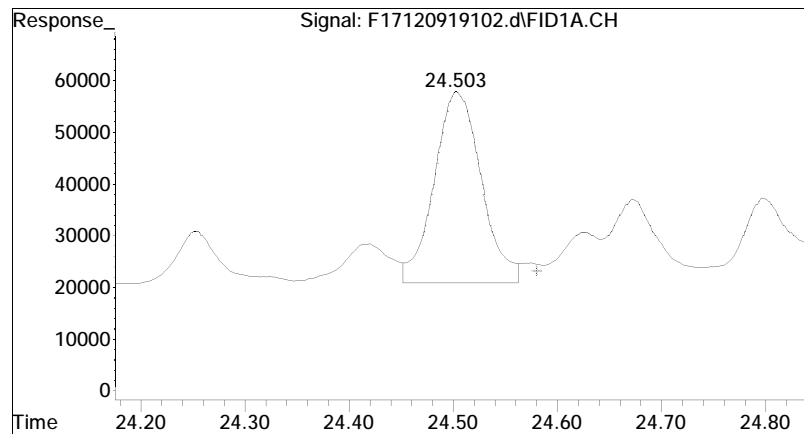
#13 1650

R.T.: 23.472 min
Delta R.T.: -0.040 min
Response: 785839
Conc: 0.68 ug/mL M4



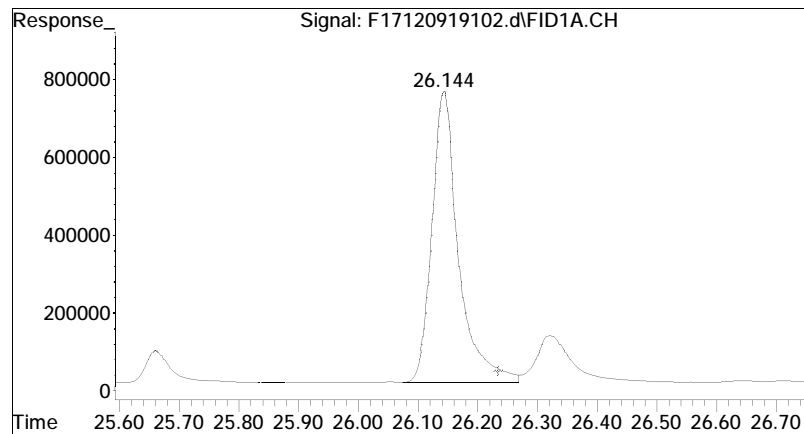
#14 n-Heptadecane (C17)

R.T.: 24.420 min
Delta R.T.: -0.051 min
Response: 226080
Conc: 0.19 ug/mL M4



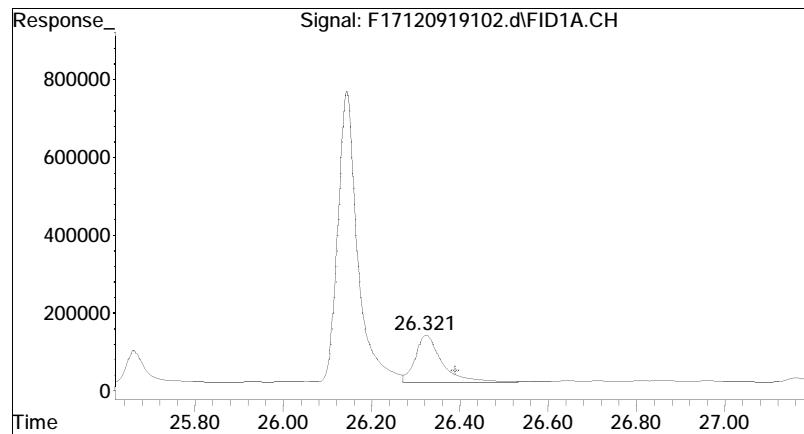
#15 Pristane

R.T.: 24.503 min
Delta R.T.: -0.078 min
Response: 1145470
Conc: 0.98 ug/mL M4



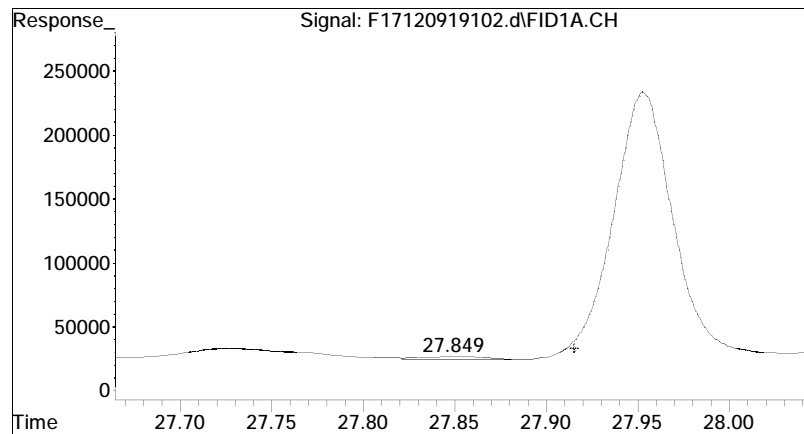
#16 n-Octadecane (C18)

R.T.: 26.144 min
Delta R.T.: -0.091 min
Response: 22677782
Conc: 19.38 ug/mL M4



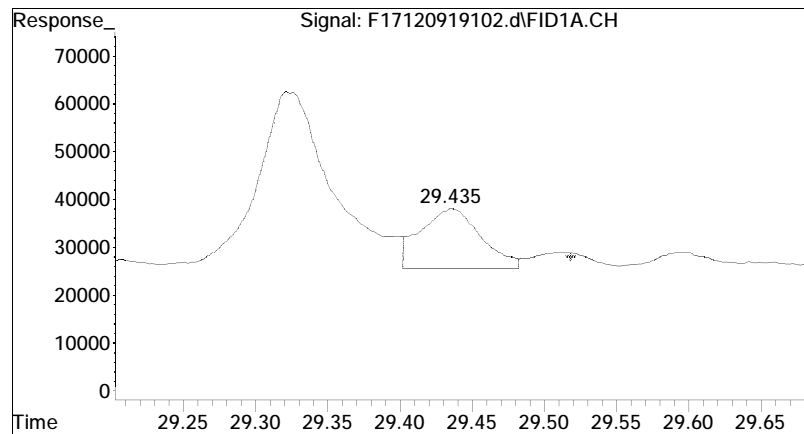
#17 Phytane

R.T.: 26.321 min
Delta R.T.: -0.068 min
Response: 5109100
Conc: 4.80 ug/mL M4



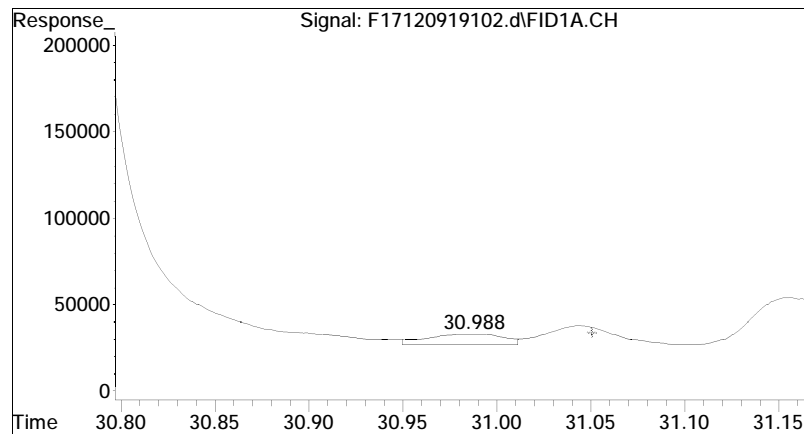
#18 n-Nonadecane (C19)

R.T.: 27.849 min
Delta R.T.: -0.066 min
Response: 58765
Conc: 0.05 ug/mL M4



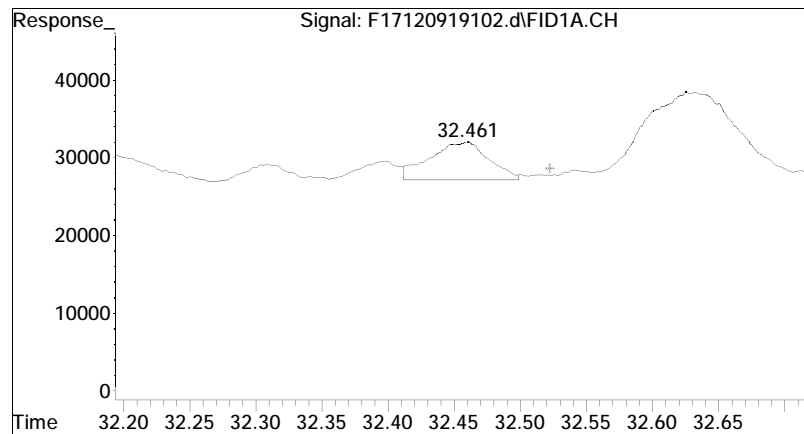
#20 n-Eicosane (C20)

R.T.: 29.435 min
Delta R.T.: -0.083 min
Response: 363881
Conc: 0.31 ug/mL M4



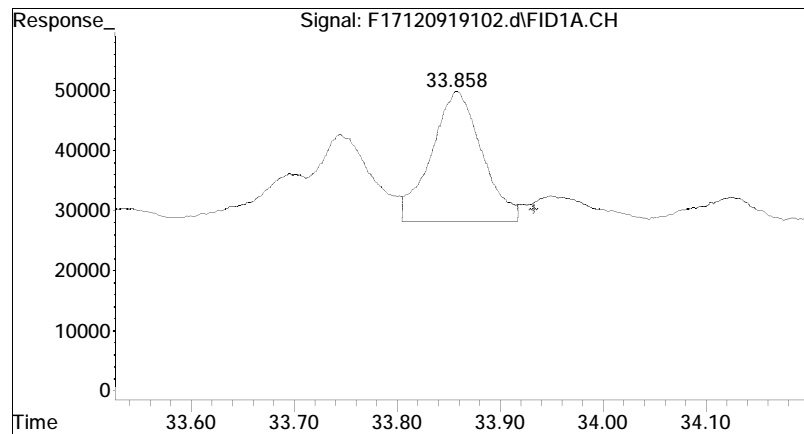
#21 n-Heneicosane (C21)

R.T.: 30.988 min
Delta R.T.: -0.063 min
Response: 170806
Conc: 0.14 ug/mL M4



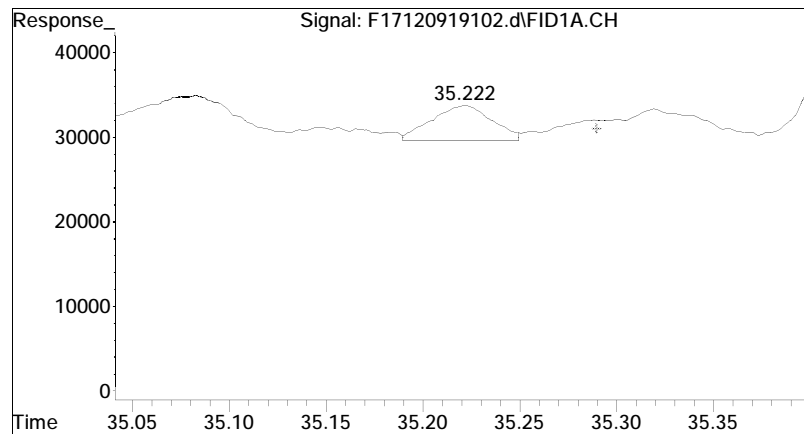
#22 n-Docosane (C22)

R.T.: 32.461 min
Delta R.T.: -0.062 min
Response: 154566
Conc: 0.13 ug/mL M4



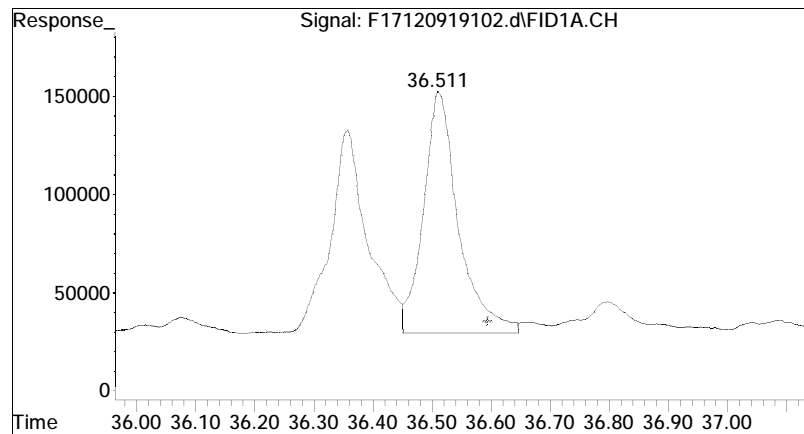
#23 n-Tricosane (C23)

R.T.: 33.858 min
Delta R.T.: -0.075 min
Response: 731471
Conc: 0.61 ug/mL M4



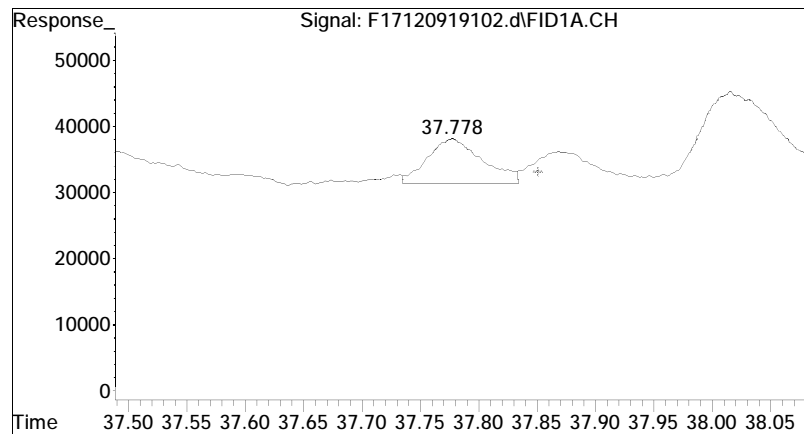
#25 n-Tetracosane (C24)

R.T.: 35.222 min
Delta R.T.: -0.068 min
Response: 88996
Conc: 0.07 ug/mL M4



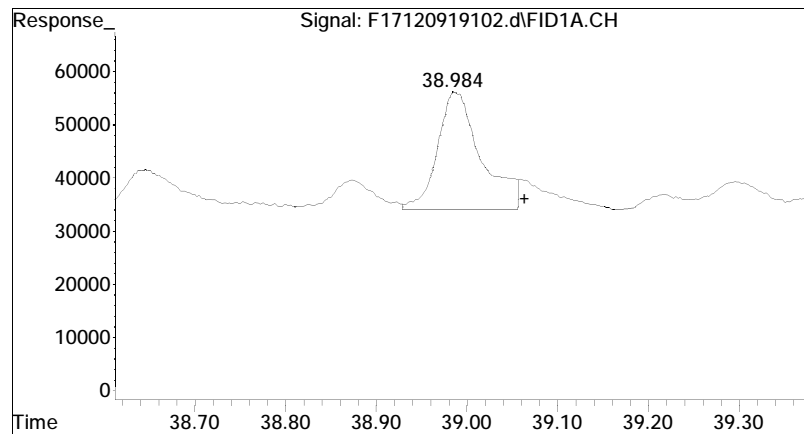
#26 n-Pentacosane (C25)

R.T.: 36.511 min
Delta R.T.: -0.084 min
Response: 5018584
Conc: 4.23 ug/mL M4



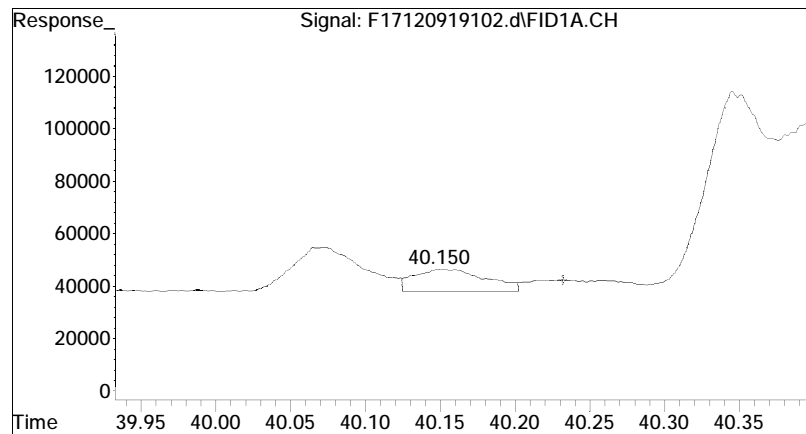
#27 n-Hexacosane (C26)

R.T.: 37.778 min
Delta R.T.: -0.073 min
Response: 222036
Conc: 0.19 ug/mL M4

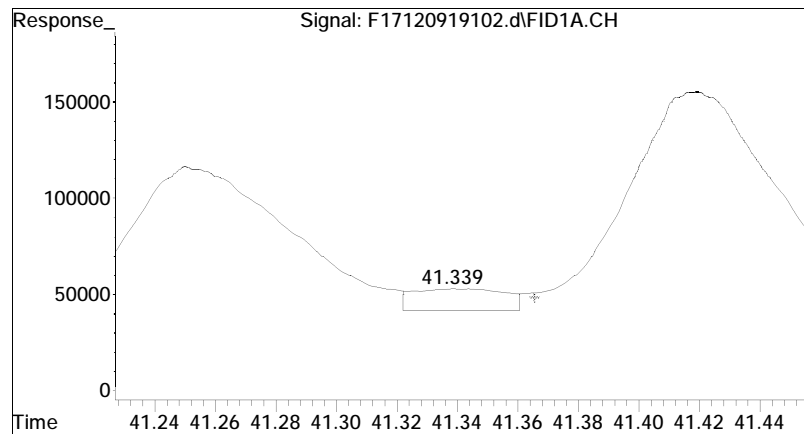


#28 n-Heptacosane (C27)

R.T.: 38.984 min
Delta R.T.: -0.079 min
Response: 723415
Conc: 0.62 ug/mL M4

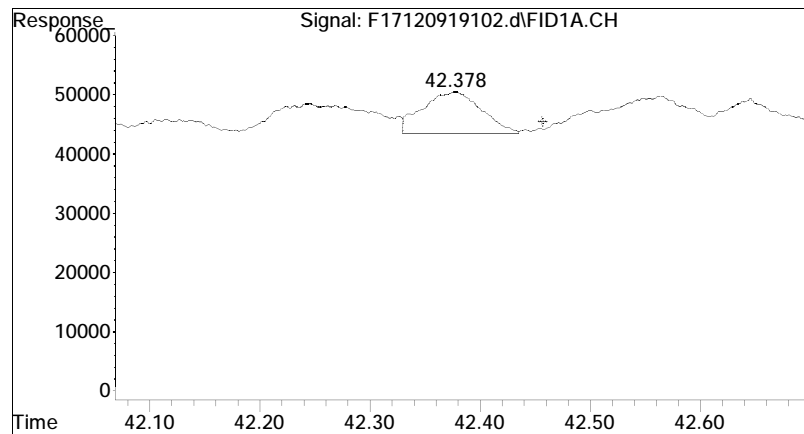


#29 n-Octacosane (C28)
R.T.: 40.150 min
Delta R.T.: -0.083 min
Response: 286328
Conc: 0.24 ug/mL M4



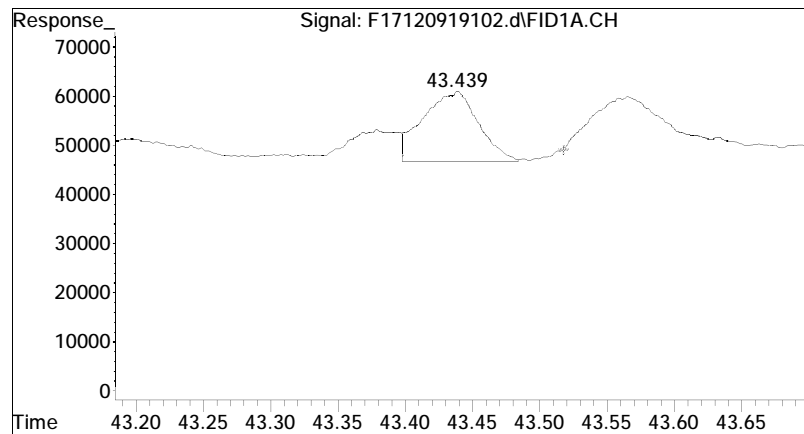
#30 n-Nonacosane (C29)

R.T.: 41.339 min
Delta R.T.: -0.027 min
Response: 233739
Conc: 0.19 ug/mL M4



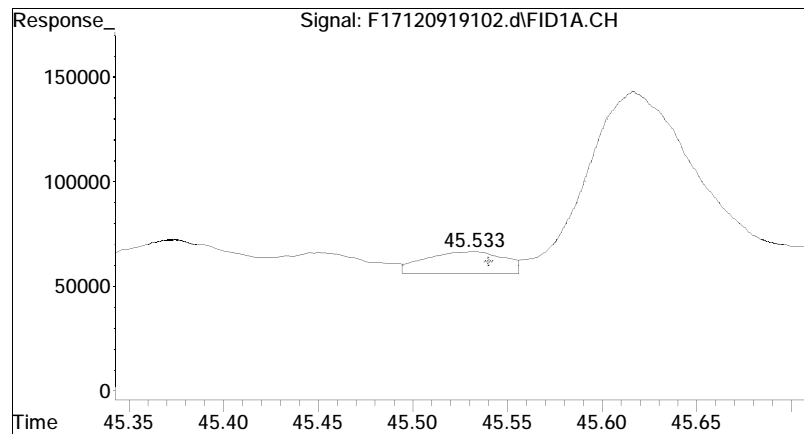
#31 n-Triacontane (C30)

R.T.: 42.378 min
Delta R.T.: -0.079 min
Response: 257854
Conc: 0.22 ug/mL M4



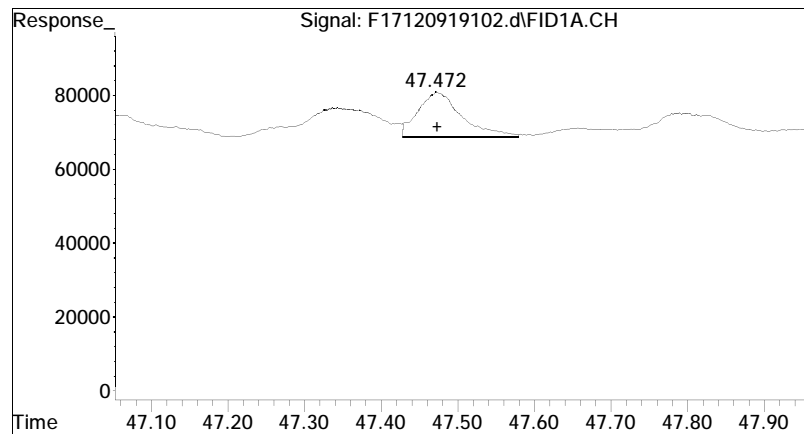
#32 n-Hentriacontane (C31)

R.T.: 43.439 min
Delta R.T.: -0.079 min
Response: 405361
Conc: 0.34 ug/mL M4



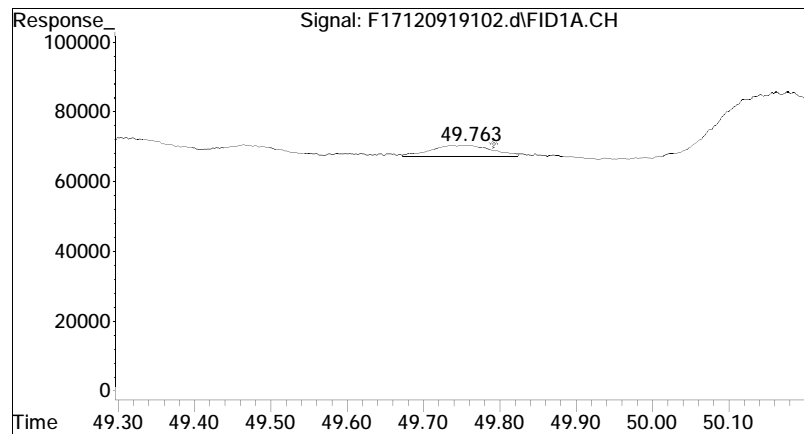
#34 n-Tritriacontane (C33)

R.T.: 45.533 min
Delta R.T.: -0.007 min
Response: 294163
Conc: 0.25 ug/mL M4



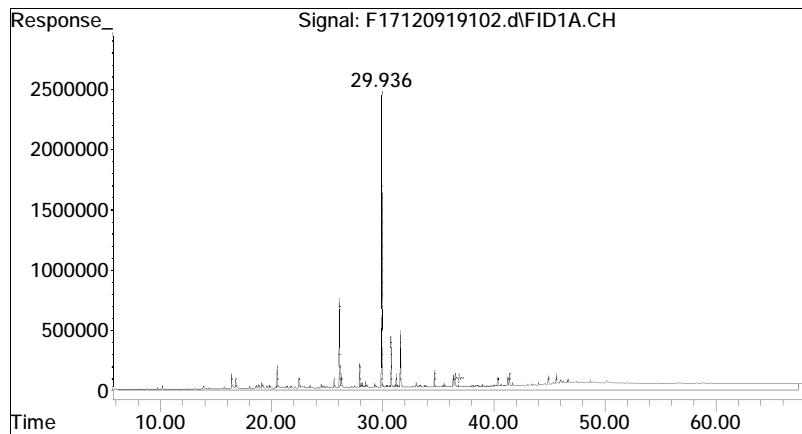
#36 n-Pentatriacontane (C35)

R.T.: 47.472 min
Delta R.T.: -0.002 min
Response: 474618
Conc: 0.41 ug/mL M4



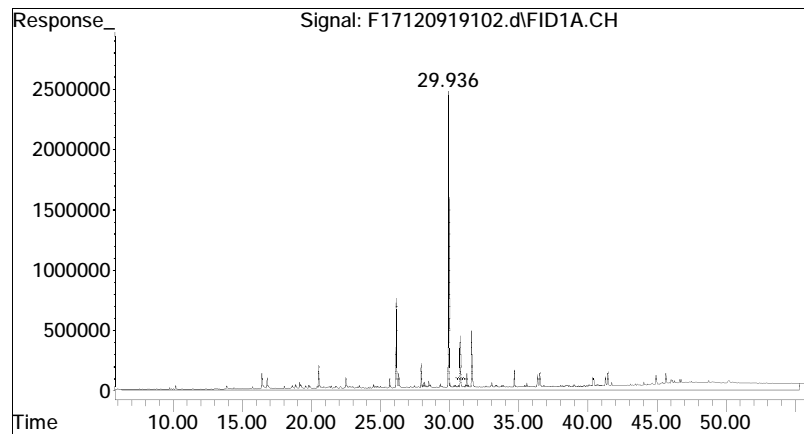
#38 n-Heptatriacontane (C37)

R.T.: 49.763 min
Delta R.T.: -0.029 min
Response: 158204
Conc: 0.14 ug/mL M4



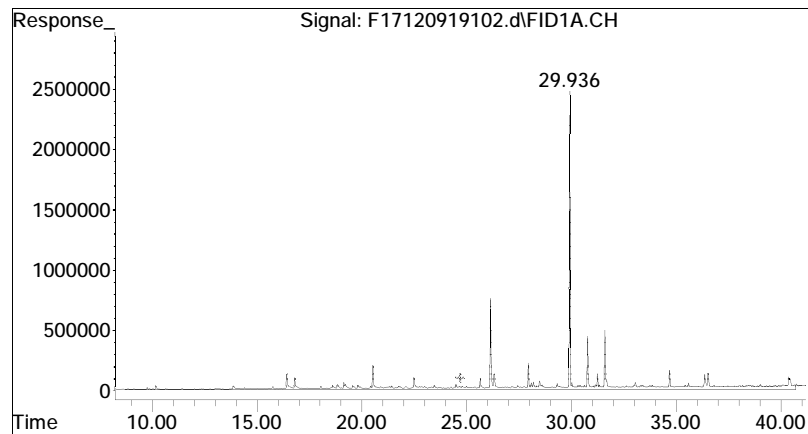
#42 C9-C44 Total Petroleum Hy

R.T.: 36.918 min
Delta R.T.: 0.000 min
Response: 1285669365
Conc: 1096.98 ug/mL m



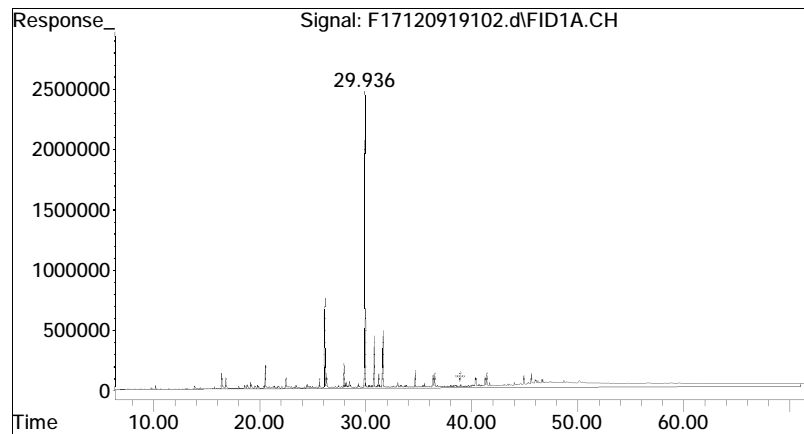
#43 C9-C40 Total Petroleum Hy

R.T.: 30.823 min
Delta R.T.: 0.000 min
Response: 957864604
Conc: 817.28 ug/ml m



#44 C10-C28 DRO

R.T.: 24.733 min
Delta R.T.: 0.000 min
Response: 410271878
Conc: 350.06 ug/mL m



#46 Total Resolved Hydrocarbo

R.T.: 38.937 min
Delta R.T.: 0.000 min
Response: 214374508
Conc: 182.91 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919104.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 3:11 pm
 Operator : FID17:WR
 Sample : L1954309-02D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 2 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:03:30 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	29.937	62357307	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	27.954	6626500	4.928	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	9.86%#	
24) s d50-Tetracosane	34.676	5398981	5.017	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	10.03%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	6.825	29229	0.026	ug/mL M4
4) t n-Decane (C10)	9.257	34292	0.030	ug/mL M4
5) t n-Undecane (C11)	11.719	22950	0.020	ug/mL M4
6) t n-Dodecane (C12)	14.111	75548	0.065	ug/mL M4
7) t n-Tridecane (C13)	16.395	66298	0.057	ug/mL M4
8) t 1380	18.049	575511	0.491	ug/mL M4
9) t n-Tetradecane (C14)	18.559	38976	0.033	ug/mL M4
10) t 1470	19.833	768927	0.656	ug/mL M4
11) t n-Pentadecane (C15)	0.000	0	N.D.	ug/mL
12) t n-Hexadecane (C16)	22.562	472726	0.401	ug/mL M4
13) t 1650	23.465	1074752	0.909	ug/mL M4
14) t n-Heptadecane (C17)	24.417	203081	0.172	ug/mL M4
15) t Pristane	24.503	1502158	1.265	ug/mL M4
16) t n-Octadecane (C18)	26.141	9848302G	8.283	ug/mL M4
17) t Phytane	26.323	3307174G	3.057	ug/mL M4
18) t n-Nonadecane (C19)	27.842	50041	0.042	ug/mL M4
20) t n-Eicosane (C20)	29.433	337709	0.284	ug/mL M4
21) t n-Heneicosane (C21)	30.982	217208	0.180	ug/mL M4
22) t n-Docosane (C22)	32.446	92069	0.076	ug/mL M4
23) t n-Tricosane (C23)	33.853	501900	0.414	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919104.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 3:11 pm
 Operator : FID17:WR
 Sample : L1954309-02D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 2 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:03:30 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.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)	36.514	3373273G	2.799 ug/mL M4
27) t n-Hexacosane (C26)	37.766	302050	0.249 ug/mL M4
28) t n-Heptacosane (C27)	38.986	1018772	0.862 ug/mL M4
29) t n-Octacosane (C28)	40.148	455250	0.371 ug/mL M4
30) t n-Nonacosane (C29)	41.341	314013	0.258 ug/mL M4
31) t n-Triacontane (C30)	42.382	152875	0.127 ug/mL M4
32) t n-Hentriacontane (C31)	43.432	304890	0.251 ug/mL M4
33) t n-Dotriacontane (C32)	0.000	0	N.D. ug/mL
34) t n-Tritriacontane (C33)	45.452	195415	0.165 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL
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
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL d
42) h C9-C44 Total Petroleu...	36.918	1188473305	997.960 ug/mL m
42) h C9-C44 Total Petroleu BS	36.918	350471593	294.291 ug/mLm
43) h C9-C40 Total Petroleu...	30.823	877571785	736.896 ug/ml m
43) h C9-C40 Total Petroleu BS	30.823	372377548	312.685 ug/mlm
44) h C10-C28 DRO	24.733	364954165	306.452 ug/mL m
44) h C10-C28 DRO BS	24.733	294174948	247.019 ug/mLm
45) h C28-C40 ORO	0.000	0	N.D. ug/mL d
45) h C28-C40 ORO BS	0.000	-354901141	N.D. ug/mLd
46) h Total Resolved Hydroc...	38.937	135137807	113.475 ug/mL m

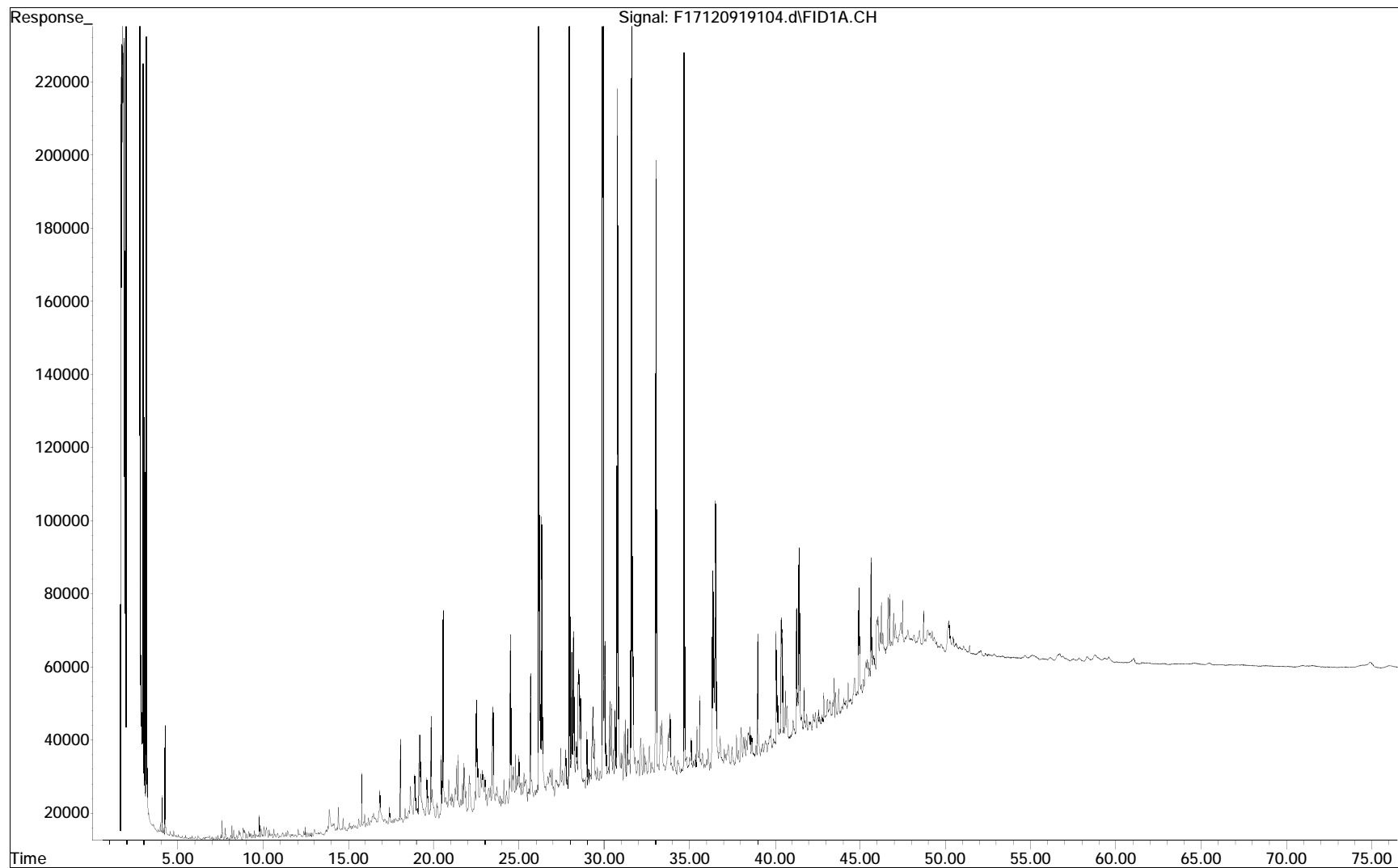
SemiQuant Compounds - Not Calibrated on this Instrument

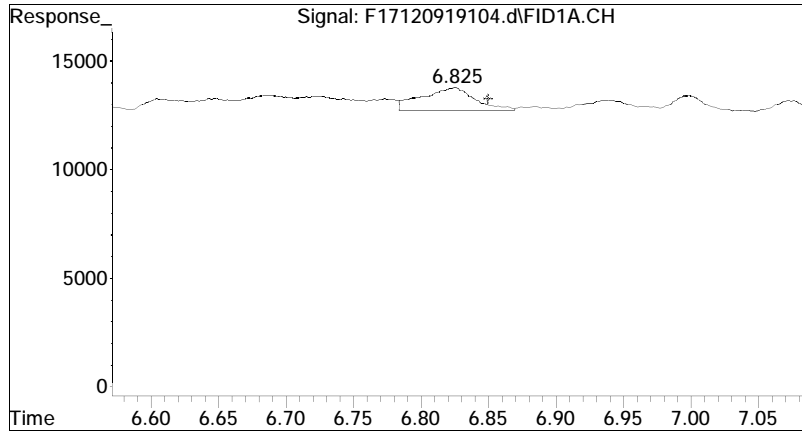
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

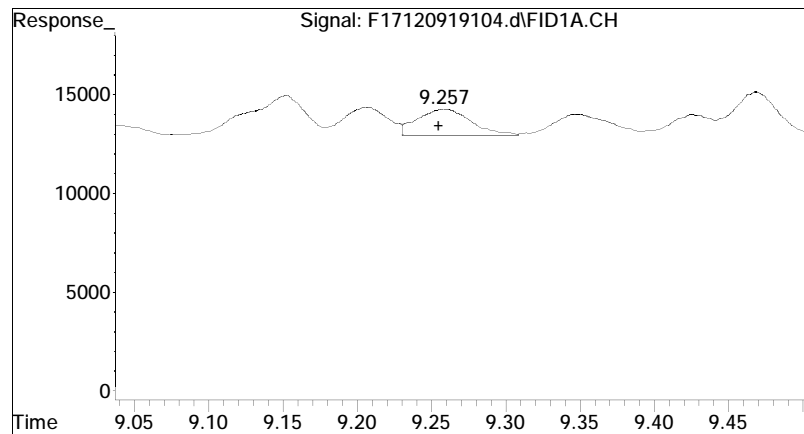
File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919104.d
Operator : FID17:WR
Acquired : 12 Dec 2019 3:11 pm using AcqMethod FID17.M
Sample Name: L1954309-02D,42,10
Instrument: FID17
Misc Info : WG1315720,WG1312512,ICAL15688
Vial Number: 2
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M





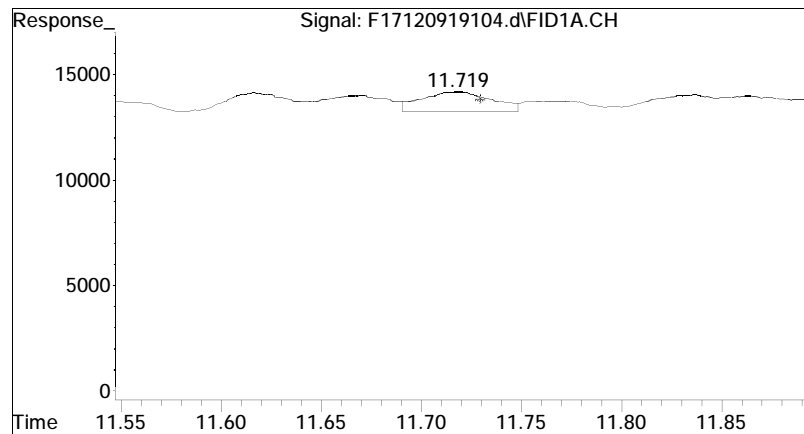
#3 n-Nonane (C9)

R.T.: 6.825 min
Delta R.T.: -0.024 min
Response: 29229
Conc: 0.03 ug/mL M4



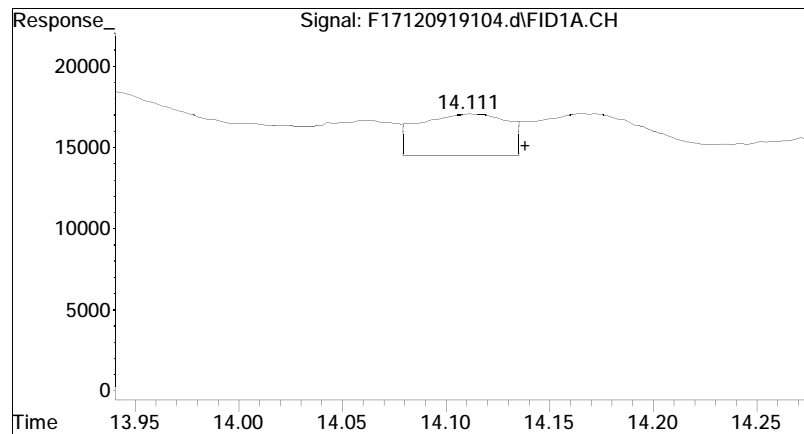
#4 n-Decane (C10)

R.T.: 9.257 min
Delta R.T.: 0.002 min
Response: 34292
Conc: 0.03 ug/mL M4



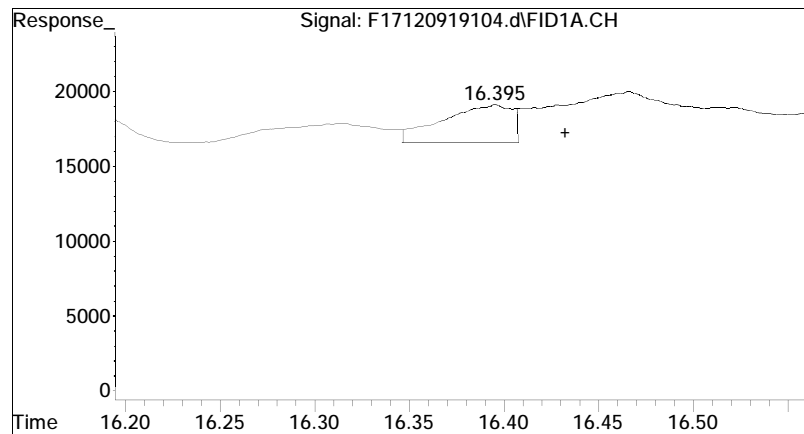
#5 n-Undecane (C11)

R.T.: 11.719 min
Delta R.T.: -0.011 min
Response: 22950
Conc: 0.02 ug/mL M4



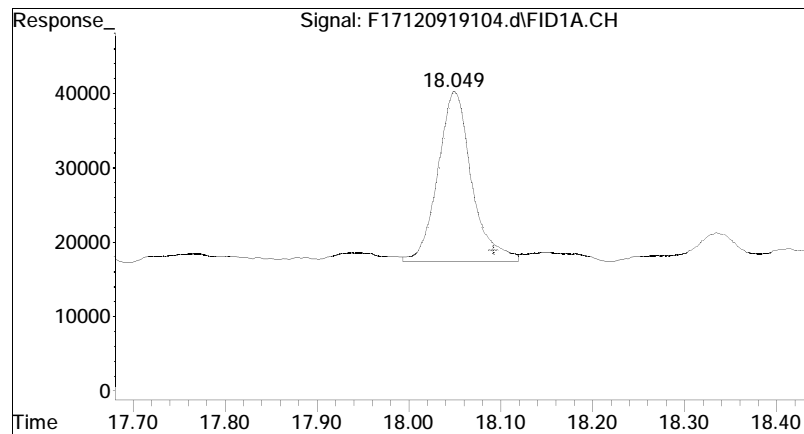
#6 n-Dodecane (C12)

R.T.: 14.111 min
Delta R.T.: -0.027 min
Response: 75548
Conc: 0.07 ug/mL M4



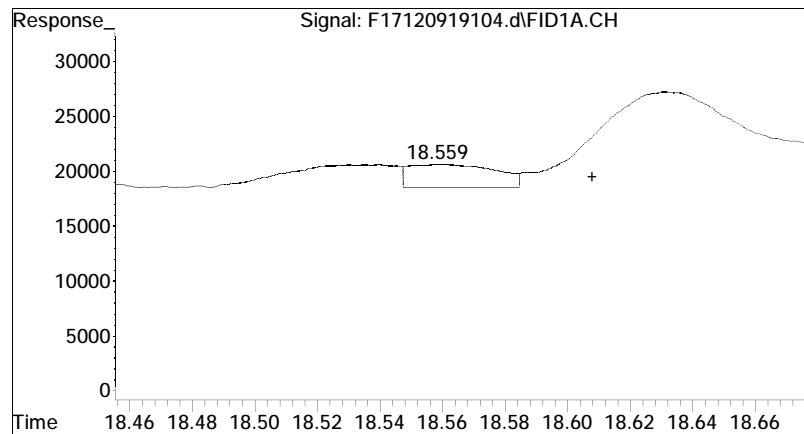
#7 n-Tridecane (C13)

R.T.: 16.395 min
Delta R.T.: -0.037 min
Response: 66298
Conc: 0.06 ug/mL M4

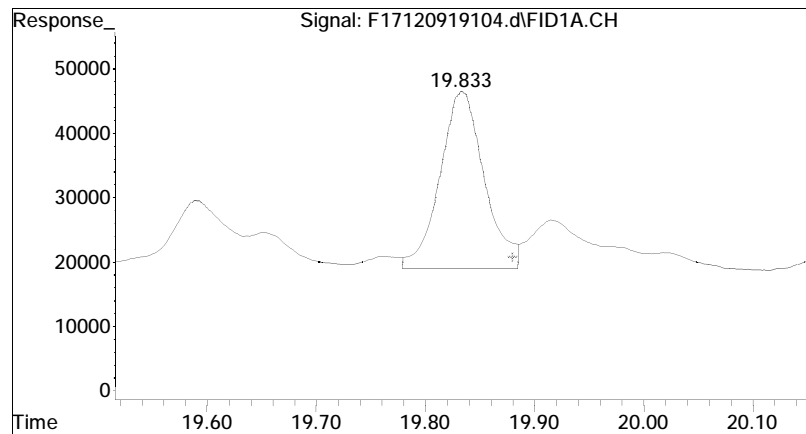


#8 1380

R.T.: 18.049 min
Delta R.T.: -0.044 min
Response: 575511
Conc: 0.49 ug/mL M4

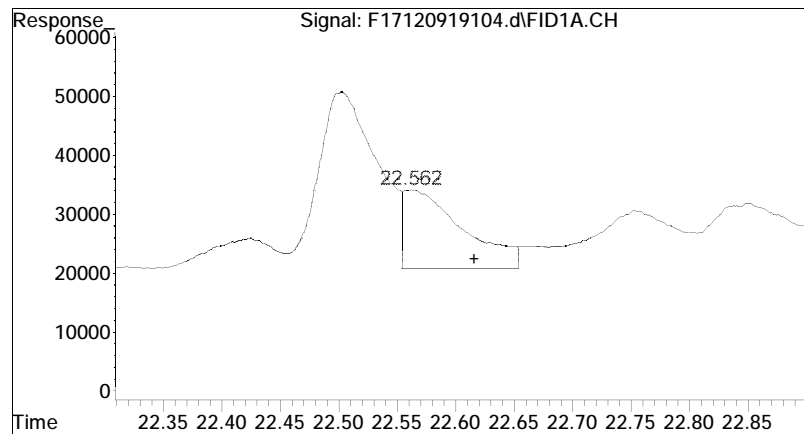


#9 n-Tetradecane (C14)
R.T.: 18.559 min
Delta R.T.: -0.050 min
Response: 38976
Conc: 0.03 ug/mL M4

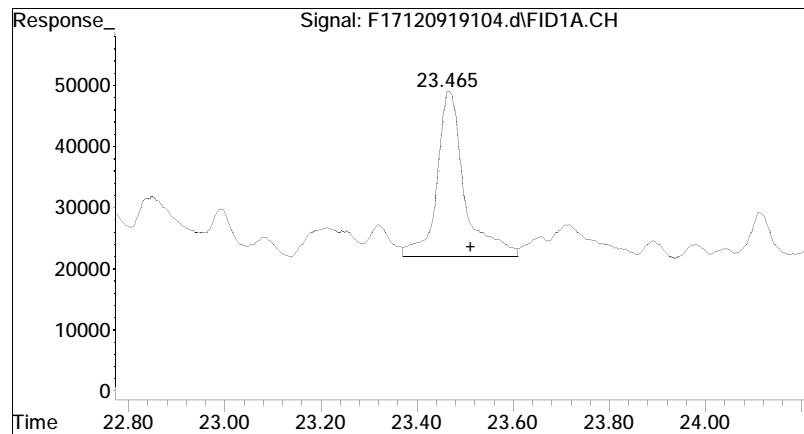


#10 1470

R.T.: 19.833 min
Delta R.T.: -0.047 min
Response: 768927
Conc: 0.66 ug/mL M4

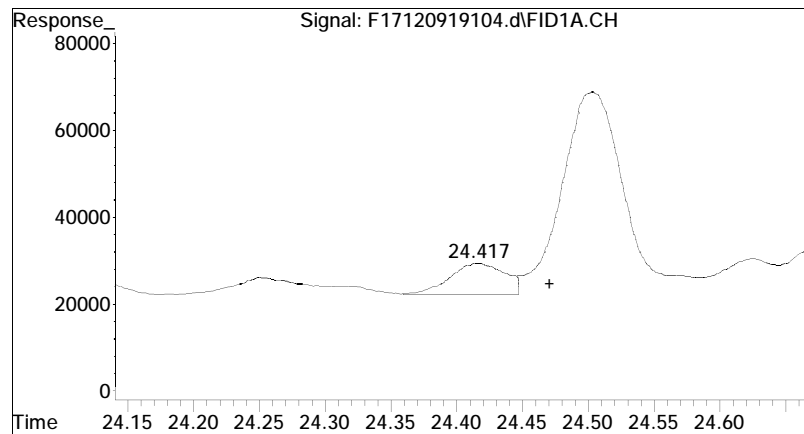


#12 n-Hexadecane (C16)
R.T.: 22.562 min
Delta R.T.: -0.054 min
Response: 472726
Conc: 0.40 ug/mL M4



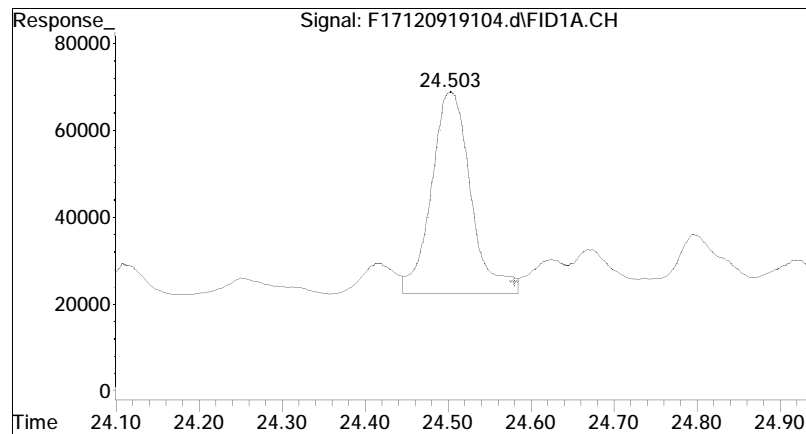
#13 1650

R.T.: 23.465 min
Delta R.T.: -0.047 min
Response: 1074752
Conc: 0.91 ug/mL M4



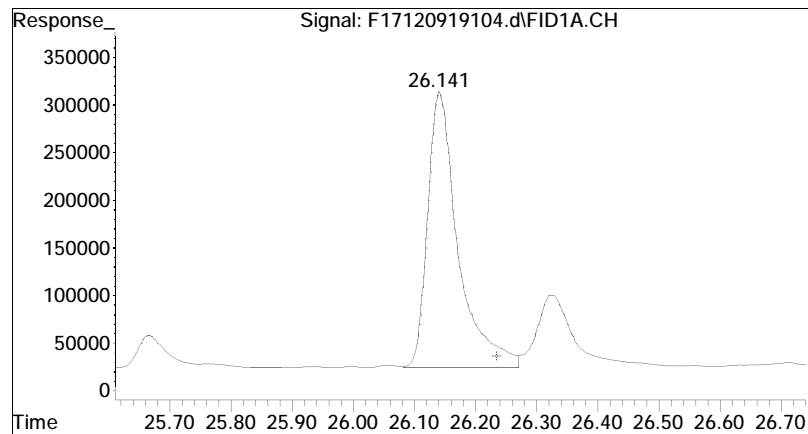
#14 n-Heptadecane (C17)

R.T.: 24.417 min
Delta R.T.: -0.054 min
Response: 203081
Conc: 0.17 ug/mL M4



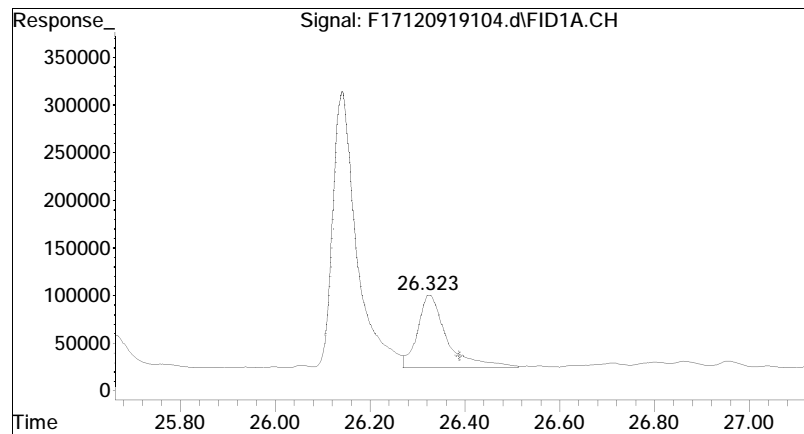
#15 Pristane

R.T.: 24.503 min
Delta R.T.: -0.077 min
Response: 1502158
Conc: 1.27 ug/mL M4



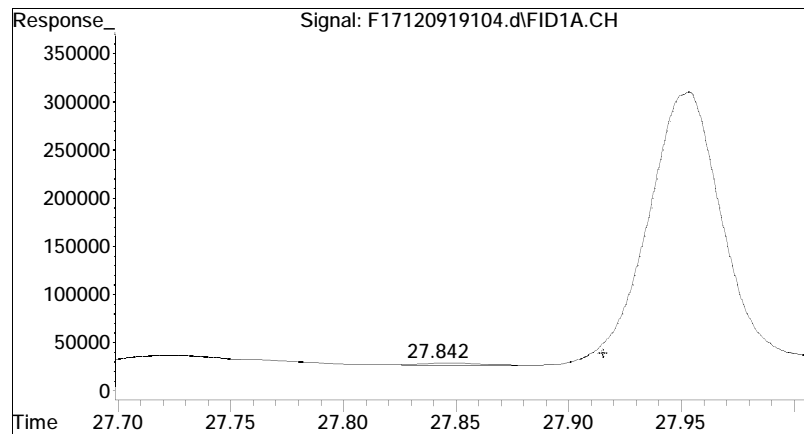
#16 n-Octadecane (C18)

R.T.: 26.141 min
Delta R.T.: -0.094 min
Response: 9848302
Conc: 8.28 ug/mL M4



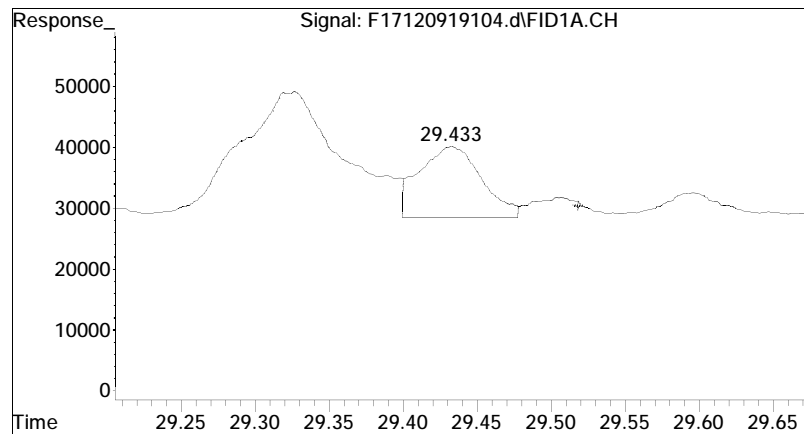
#17 Phytane

R.T.: 26.323 min
Delta R.T.: -0.066 min
Response: 3307174
Conc: 3.06 ug/mL M4



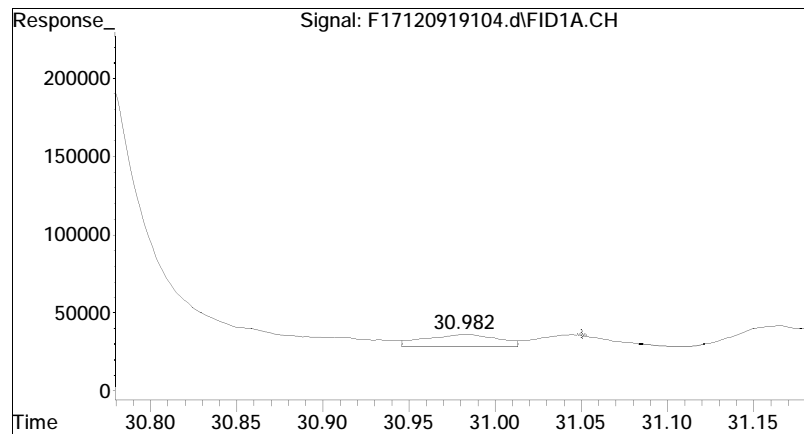
#18 n-Nonadecane (C19)

R.T.: 27.842 min
Delta R.T.: -0.073 min
Response: 50041
Conc: 0.04 ug/mL M4



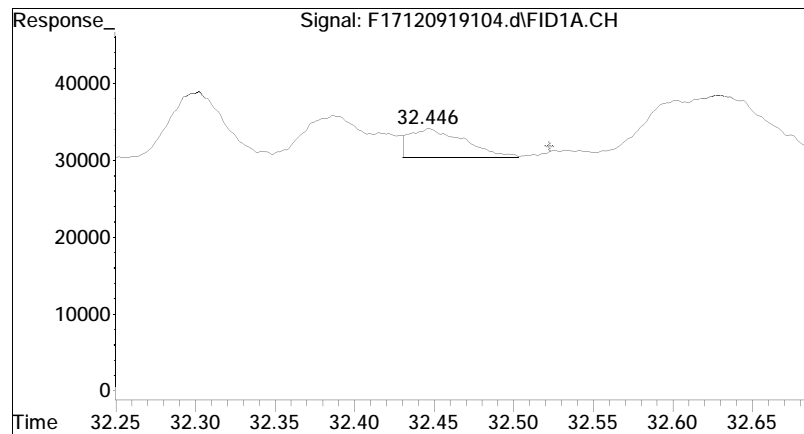
#20 n-Eicosane (C20)

R.T.: 29.433 min
Delta R.T.: -0.086 min
Response: 337709
Conc: 0.28 ug/mL M4



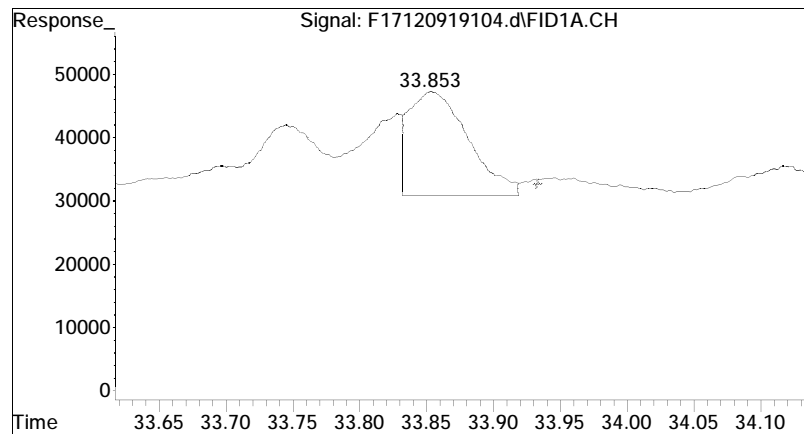
#21 n-Heneicosane (C21)

R.T.: 30.982 min
Delta R.T.: -0.068 min
Response: 217208
Conc: 0.18 ug/mL M4



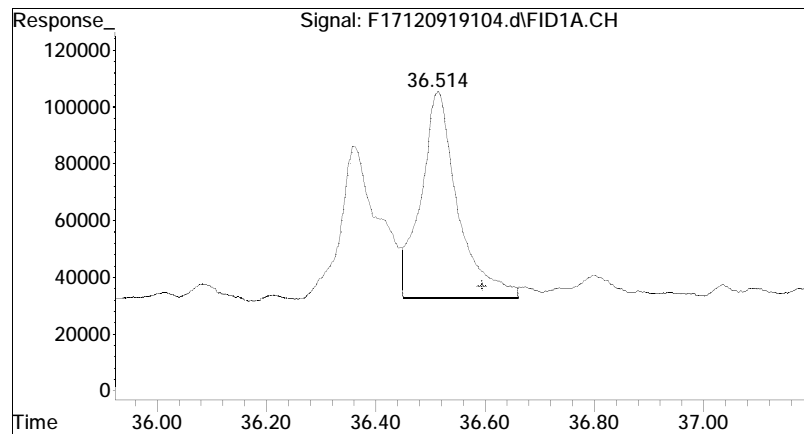
#22 n-Docosane (C22)

R.T.: 32.446 min
Delta R.T.: -0.076 min
Response: 92069
Conc: 0.08 ug/mL M4



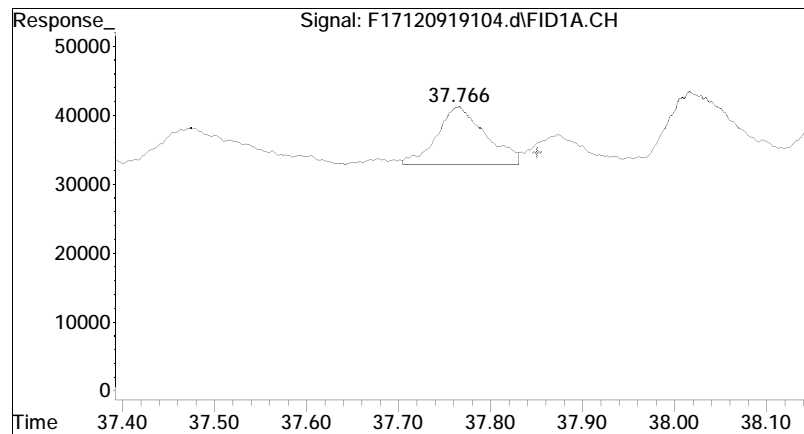
#23 n-Tricosane (C23)

R.T.: 33.853 min
Delta R.T.: -0.080 min
Response: 501900
Conc: 0.41 ug/mL M4



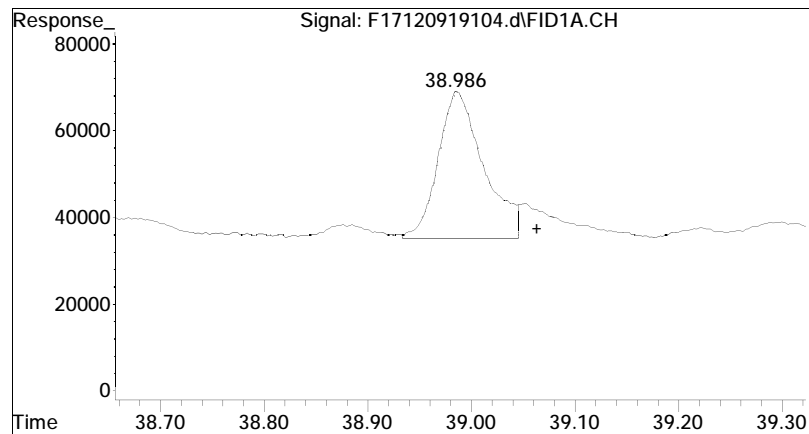
#26 n-Pentacosane (C25)

R.T.: 36.514 min
Delta R.T.: -0.081 min
Response: 3373273
Conc: 2.80 ug/mL M4

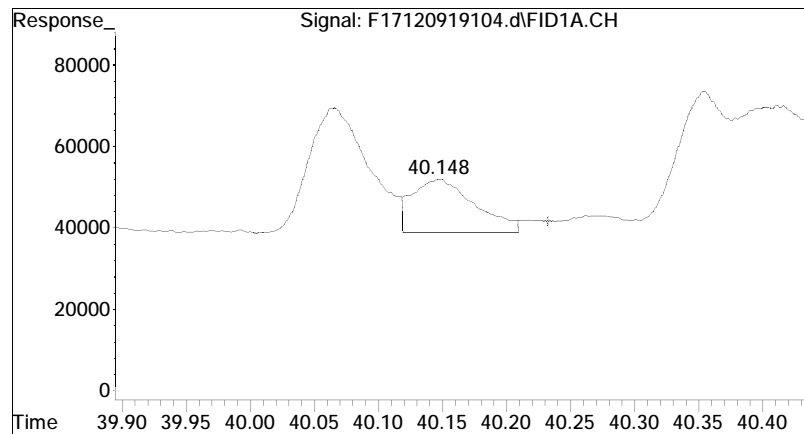


#27 n-Hexacosane (C26)

R.T.: 37.766 min
Delta R.T.: -0.085 min
Response: 302050
Conc: 0.25 ug/mL M4

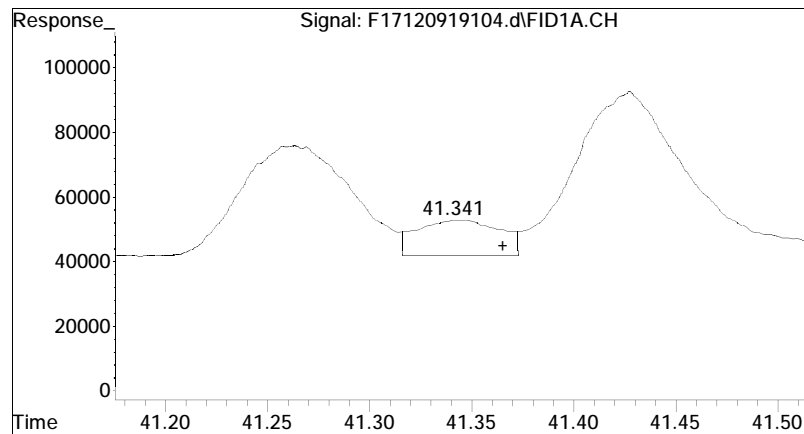


#28 n-Heptacosane (C27)
R.T.: 38.986 min
Delta R.T.: -0.078 min
Response: 1018772
Conc: 0.86 ug/mL M4

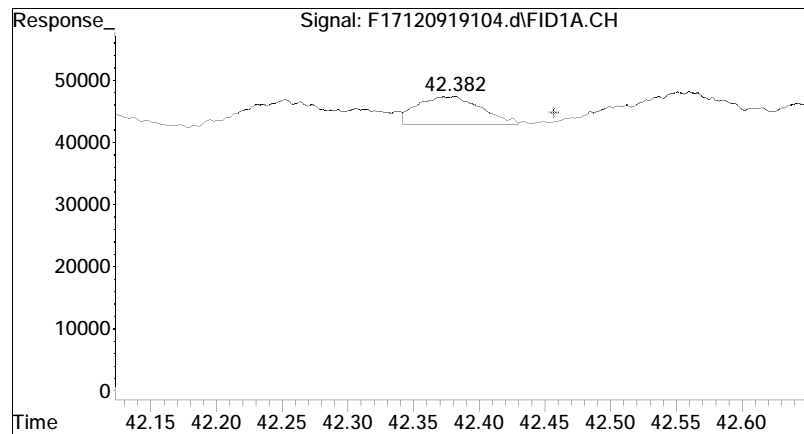


#29 n-Octacosane (C28)

R.T.: 40.148 min
Delta R.T.: -0.085 min
Response: 455250
Conc: 0.37 ug/mL M4

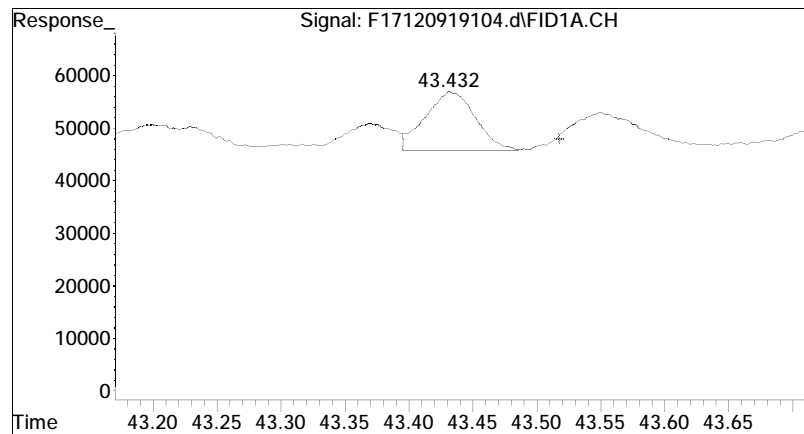


#30 n-Nonacosane (C29)
R.T.: 41.341 min
Delta R.T.: -0.024 min
Response: 314013
Conc: 0.26 ug/mL M4



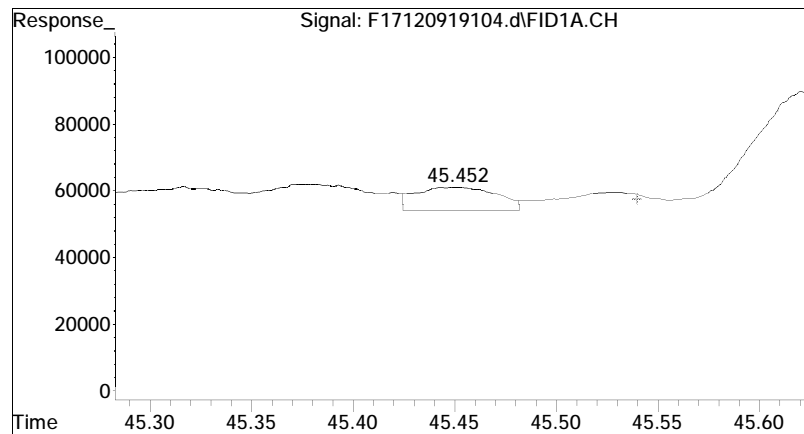
#31 n-Triacontane (C30)

R.T.: 42.382 min
Delta R.T.: -0.075 min
Response: 152875
Conc: 0.13 ug/mL M4



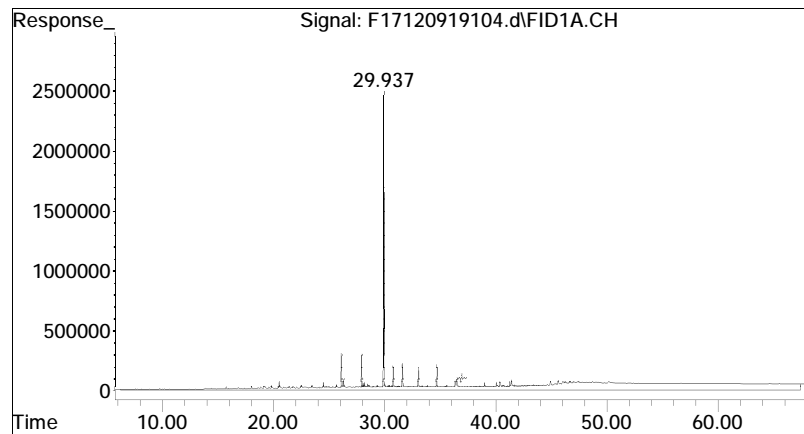
#32 n-Hentriacontane (C31)

R.T.: 43.432 min
Delta R.T.: -0.086 min
Response: 304890
Conc: 0.25 ug/mL M4



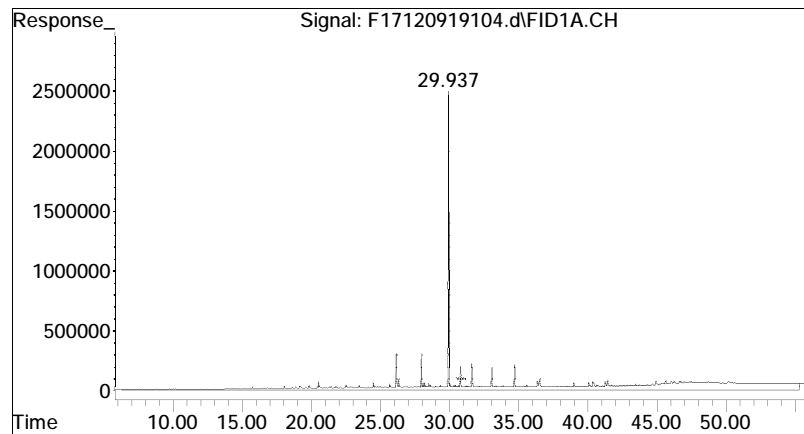
#34 n-Tritriacontane (C33)

R.T.: 45.452 min
Delta R.T.: -0.088 min
Response: 195415
Conc: 0.16 ug/mL M4



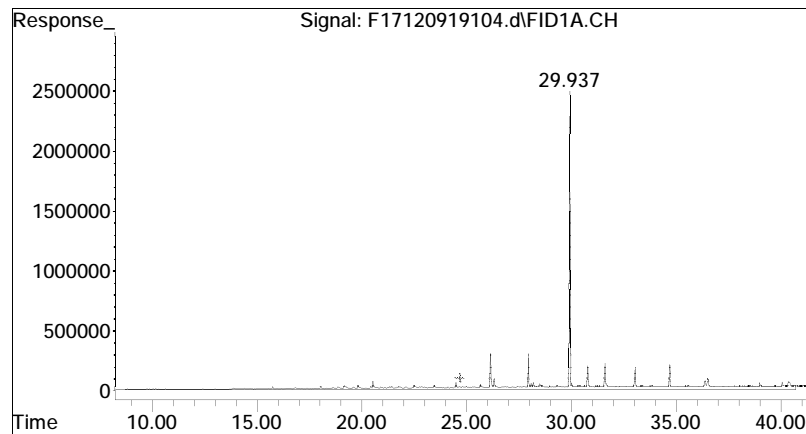
#42 C9-C44 Total Petroleum Hy

R.T.: 36.918 min
Delta R.T.: 0.000 min
Response: 1188473305
Conc: 997.96 ug/mL m



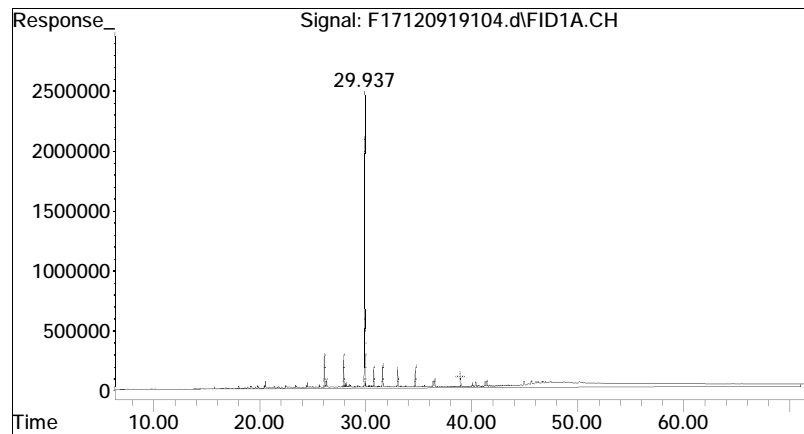
#43 C9-C40 Total Petroleum Hy

R.T.: 30.823 min
Delta R.T.: 0.000 min
Response: 877571785
Conc: 736.90 ug/ml m



#44 C10-C28 DRO

R.T.: 24.733 min
Delta R.T.: 0.000 min
Response: 364954165
Conc: 306.45 ug/mL m



#46 Total Resolved Hydrocarbo

R.T.: 38.937 min
Delta R.T.: 0.000 min
Response: 135137807
Conc: 113.48 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919106.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 4:39 pm
 Operator : FID17:WR
 Sample : L1954309-03D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:03:44 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	29.938	64141455	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	27.952	4907447	3.548	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	7.10%#	
24) s d50-Tetracosane	34.676	4372870	3.950	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	7.90%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	6.802	42064	0.037	ug/mL M4
4) t n-Decane (C10)	9.206	68530	0.058	ug/mL M4
5) t n-Undecane (C11)	11.675	52664	0.044	ug/mL M4
6) t n-Dodecane (C12)	14.092	603428	0.506	ug/mL M4
7) t n-Tridecane (C13)	16.431	8662202G	7.274	ug/mL M4
8) t 1380	18.050	551539	0.457	ug/mL M4
9) t n-Tetradecane (C14)	18.611	1839092	1.525	ug/mL M4
10) t 1470	19.826	933454	0.774	ug/mL M4
11) t n-Pentadecane (C15)	0.000	0	N.D.	ug/mL
12) t n-Hexadecane (C16)	22.560	920465	0.759	ug/mL M4
13) t 1650	23.465	977278	0.804	ug/mL M4
14) t n-Heptadecane (C17)	24.414	463434	0.381	ug/mL M4
15) t Pristane	24.498	1352511	1.108	ug/mL M4
16) t n-Octadecane (C18)	26.146	31908144G	26.091	ug/mL M4
17) t Phytane	26.315	6698914G	6.019	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)	0.000	0	N.D.	ug/mL d
22) t n-Docosane (C22)	0.000	0	N.D.	ug/mL
23) t n-Tricosane (C23)	33.850	1413472	1.133	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919106.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 4:39 pm
 Operator : FID17:WR
 Sample : L1954309-03D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:03:44 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.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)	36.503	6613786G	5.336	ug/mL M4
27) t n-Hexacosane (C26)	37.775	261064	0.209	ug/mL M4
28) t n-Heptacosane (C27)	38.986	433406	0.356	ug/mL M4
29) t n-Octacosane (C28)	40.157	269296	0.214	ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL d
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
34) t n-Tritriacontane (C33)	45.526	240244	0.197	ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	47.463	267080	0.219	ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	49.742	203726	0.167	ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL
42) h C9-C44 Total Petroleu...	36.918	1429582876	1167.029	ug/mL m
42) h C9-C44 Total Petroleu BS	36.918	591581164	482.933	ug/mLm
43) h C9-C40 Total Petroleu...	30.823	1130465877	922.847	ug/ml m
43) h C9-C40 Total Petroleu BS	30.823	625271640	510.436	ug/mlm
44) h C10-C28 DRO	24.733	614023424	501.253	ug/mL m
44) h C10-C28 DRO BS	24.733	543244207	443.473	ug/mLm
45) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
45) h C28-C40 ORO BS	0.000	-354901141	N.D.	ug/mLd
46) h Total Resolved Hydroc...	38.937	349518889	285.327	ug/mL m

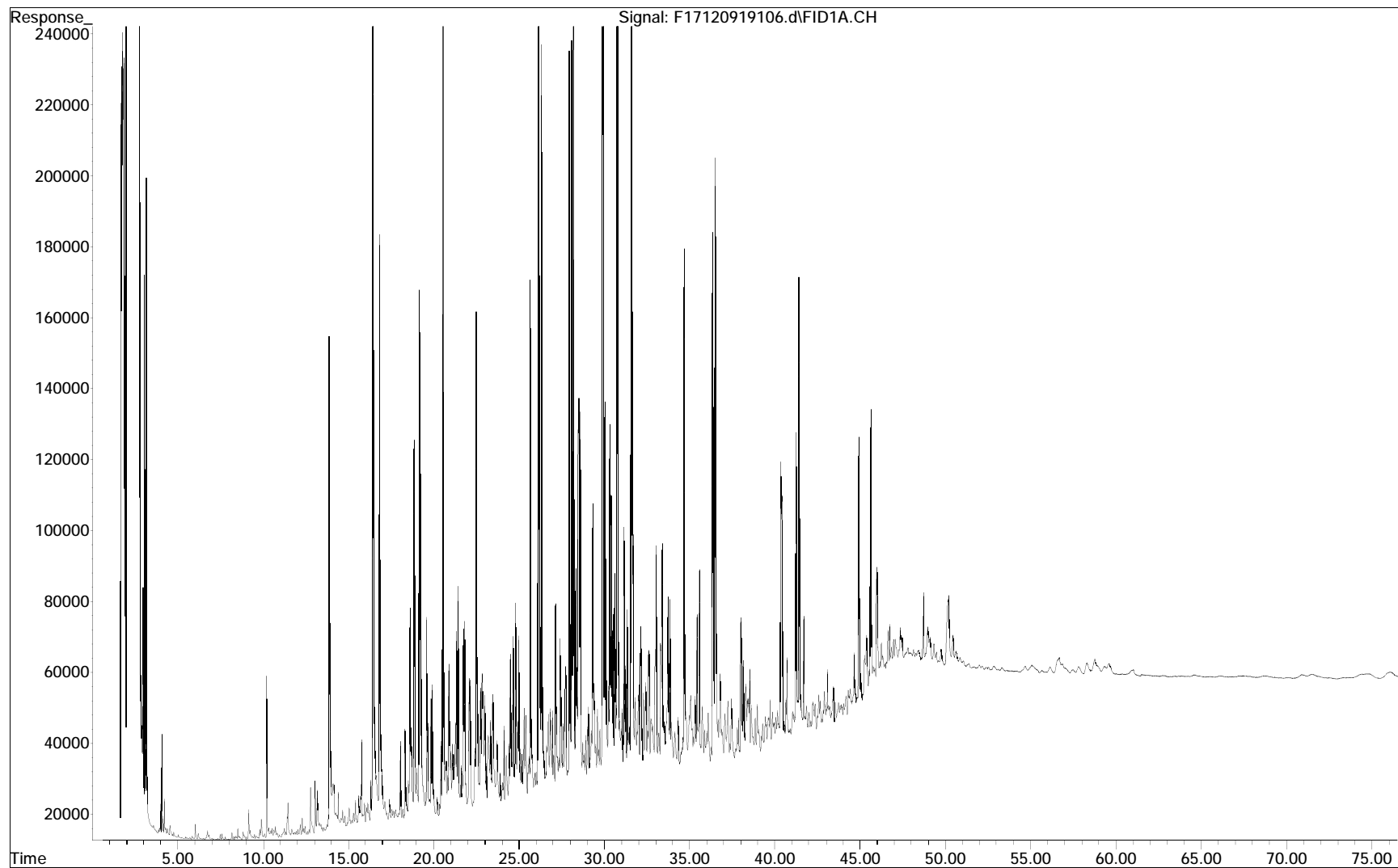
SemiQuant Compounds - Not Calibrated on this Instrument

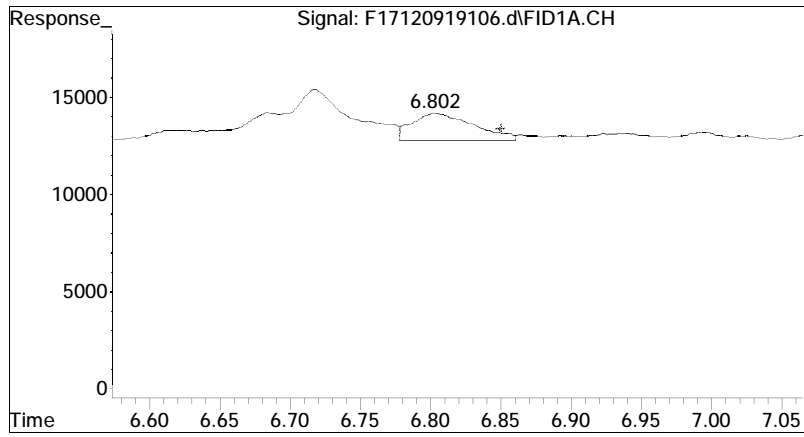
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

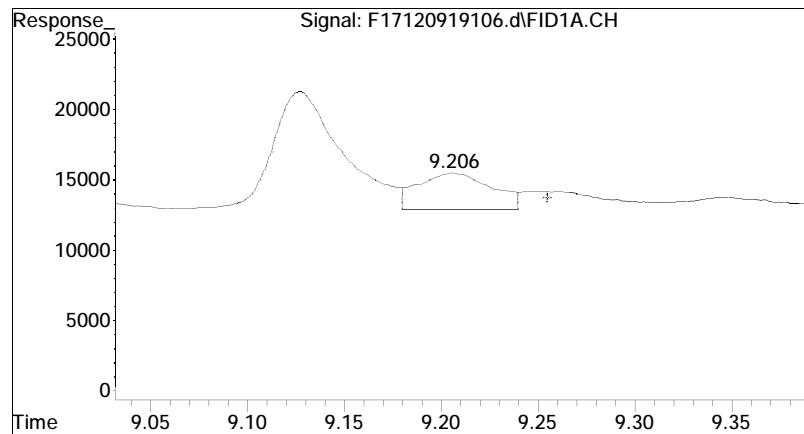
File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919106.d
Operator : FID17:WR
Acquired : 12 Dec 2019 4:39 pm using AcqMethod FID17.M
Sample Name: L1954309-03D,42,10
Instrument: FID17
Misc Info : WG1315720,WG1312512,ICAL15688
Vial Number: 3
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M





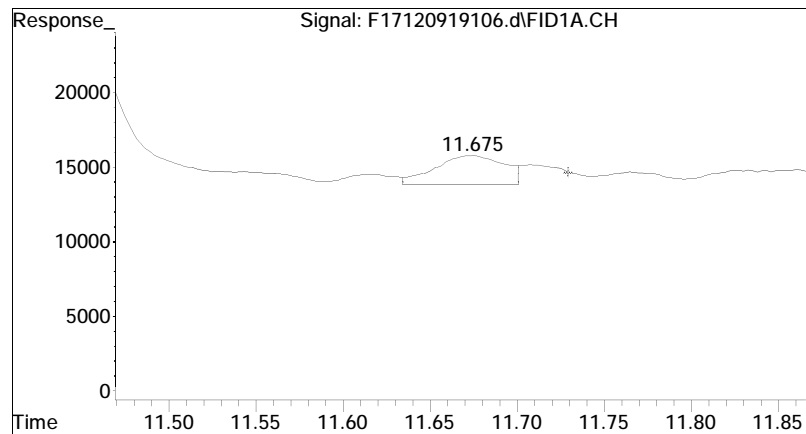
#3 n-Nonane (C9)

R.T.: 6.802 min
Delta R.T.: -0.048 min
Response: 42064
Conc: 0.04 ug/mL M4



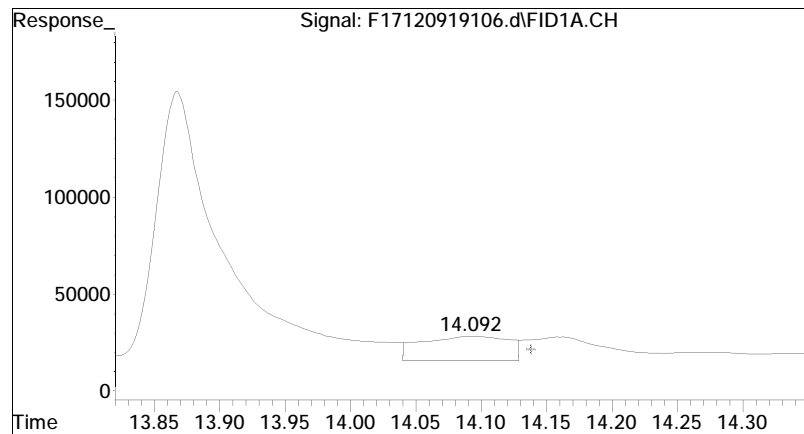
#4 n-Decane (C10)

R.T.: 9.206 min
Delta R.T.: -0.049 min
Response: 68530
Conc: 0.06 ug/mL M4



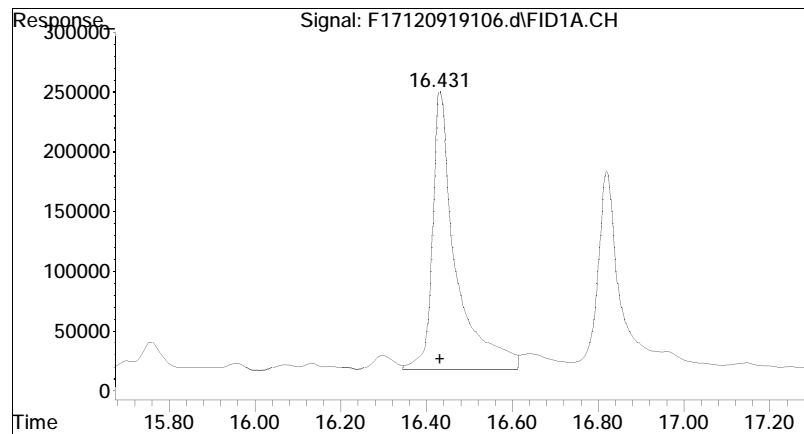
#5 n-Undecane (C11)

R.T.: 11.675 min
Delta R.T.: -0.055 min
Response: 52664
Conc: 0.04 ug/mL M4



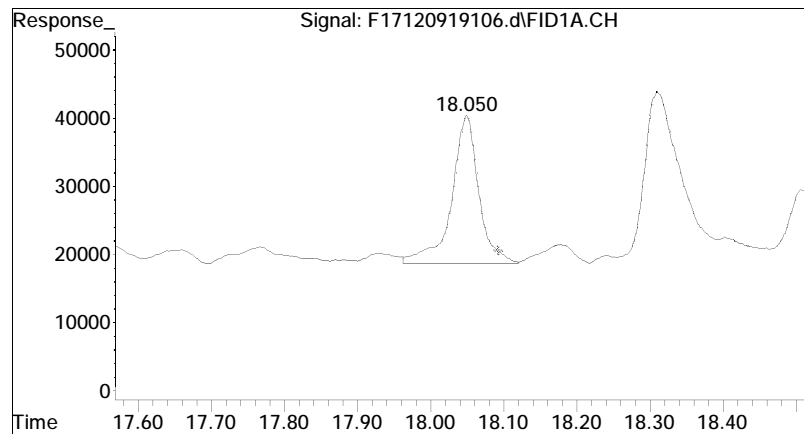
#6 n-Dodecane (C12)

R.T.: 14.092 min
Delta R.T.: -0.046 min
Response: 603428
Conc: 0.51 ug/mL M4



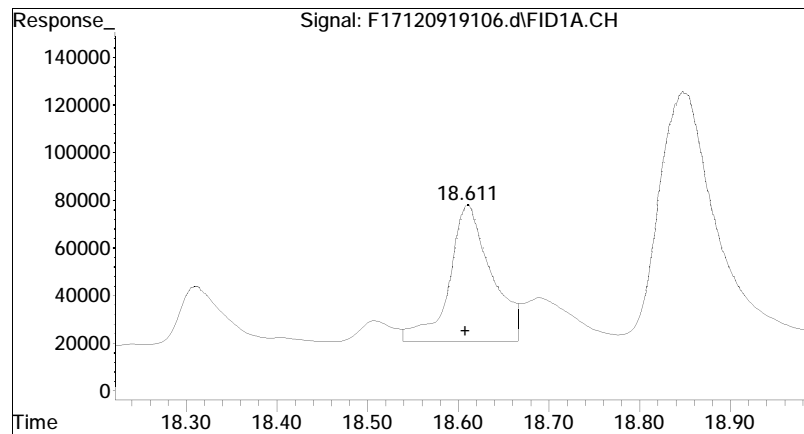
#7 n-Tridecane (C13)

R.T.: 16.431 min
Delta R.T.: -0.001 min
Response: 8662202
Conc: 7.27 ug/mL M4



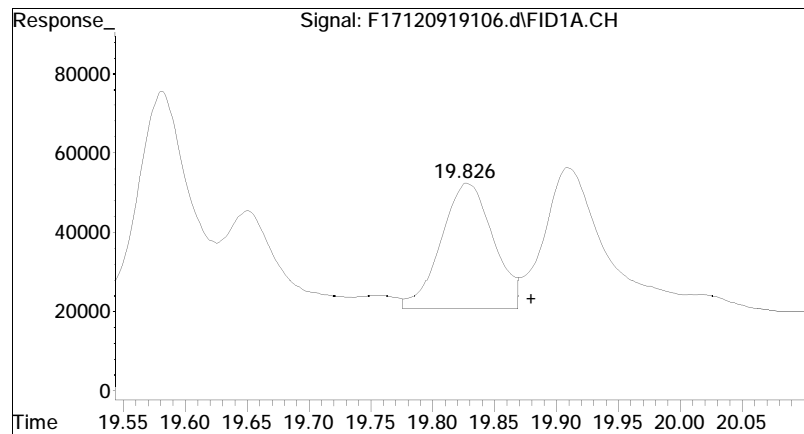
#8 1380

R.T.: 18.050 min
Delta R.T.: -0.043 min
Response: 551539
Conc: 0.46 ug/mL M4



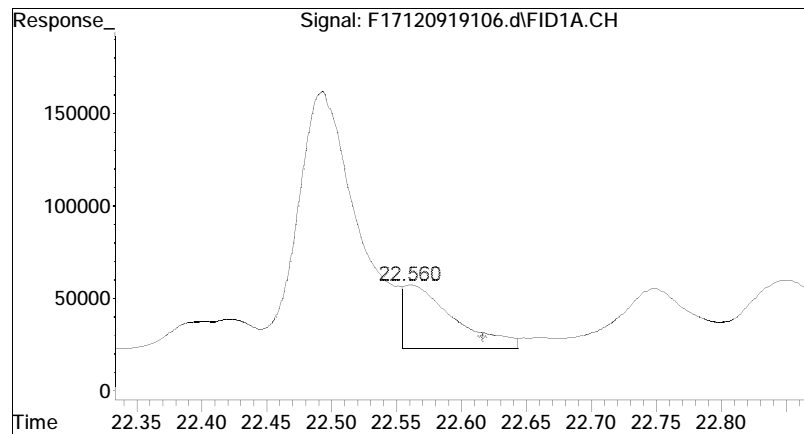
#9 n-Tetradecane (C14)

R.T.: 18.611 min
Delta R.T.: 0.003 min
Response: 1839092
Conc: 1.52 ug/mL M4



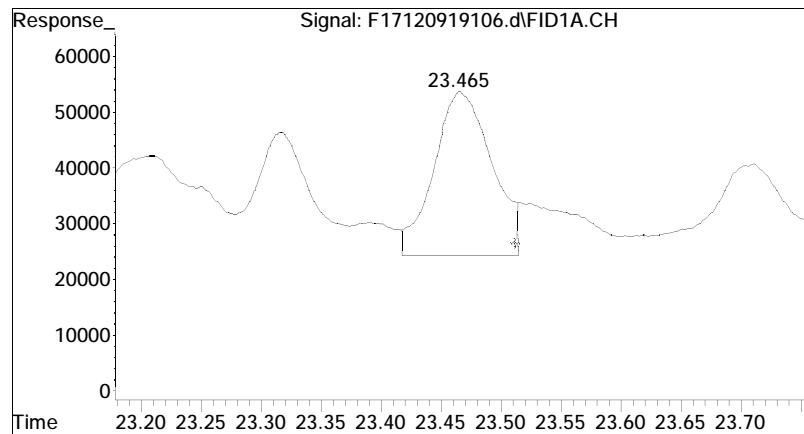
#10 1470

R.T.: 19.826 min
Delta R.T.: -0.054 min
Response: 933454
Conc: 0.77 ug/mL M4



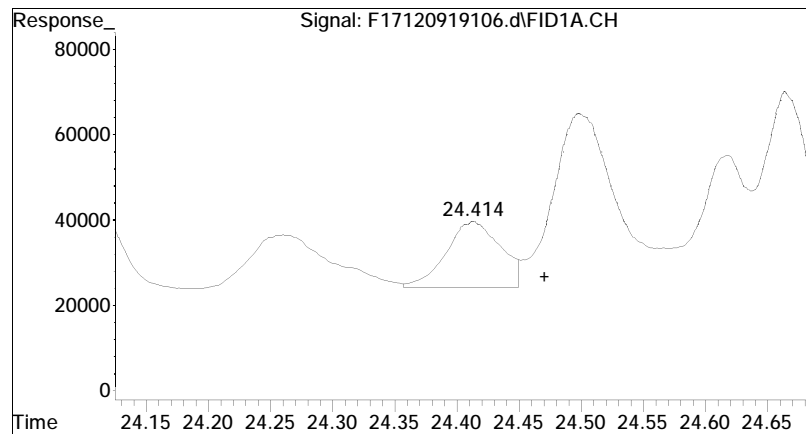
#12 n-Hexadecane (C16)

R.T.: 22.560 min
Delta R.T.: -0.056 min
Response: 920465
Conc: 0.76 ug/mL M4



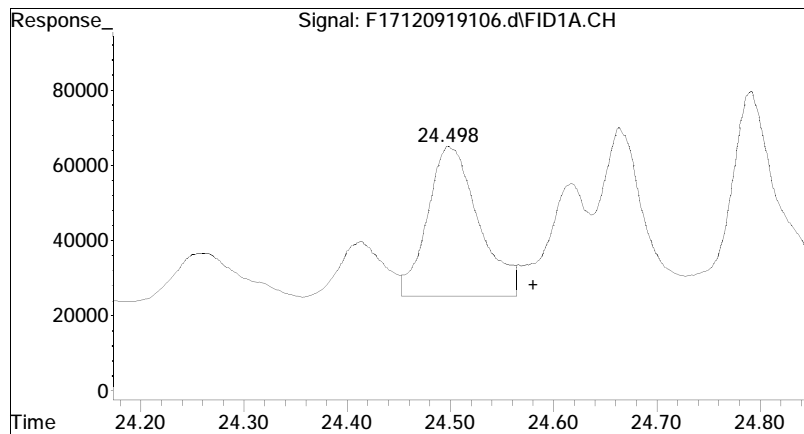
#13 1650

R.T.: 23.465 min
Delta R.T.: -0.047 min
Response: 977278
Conc: 0.80 ug/mL M4



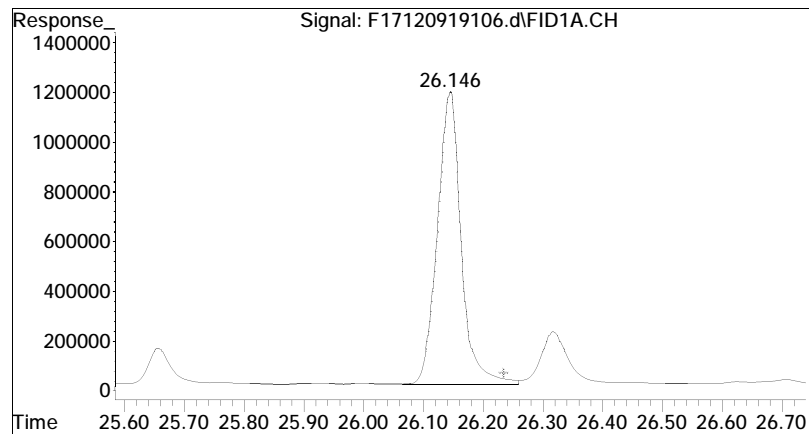
#14 n-Heptadecane (C17)

R.T.: 24.414 min
Delta R.T.: -0.057 min
Response: 463434
Conc: 0.38 ug/mL M4



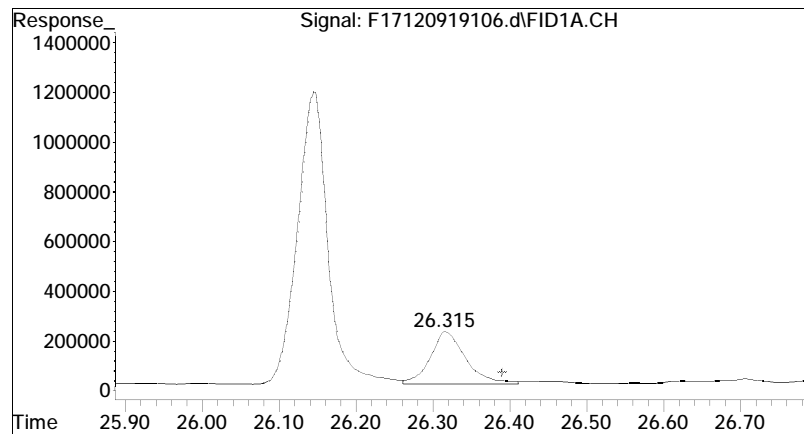
#15 Pristane

R.T.: 24.498 min
Delta R.T.: -0.082 min
Response: 1352511
Conc: 1.11 ug/mL M4



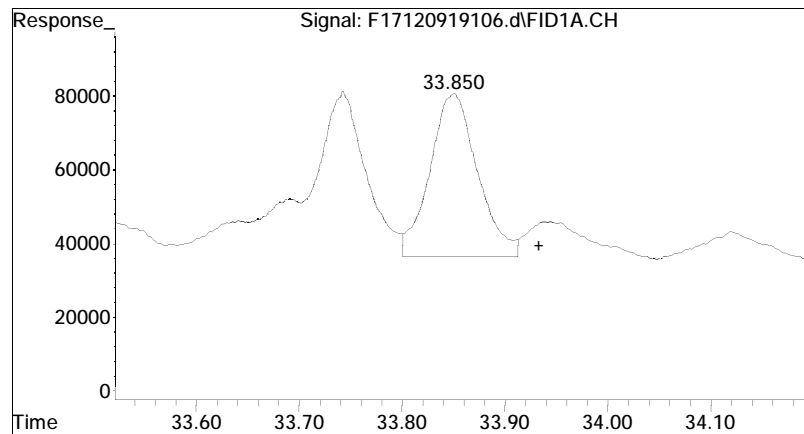
#16 n-Octadecane (C18)

R.T.: 26.146 min
Delta R.T.: -0.089 min
Response: 31908144
Conc: 26.09 ug/mL M4



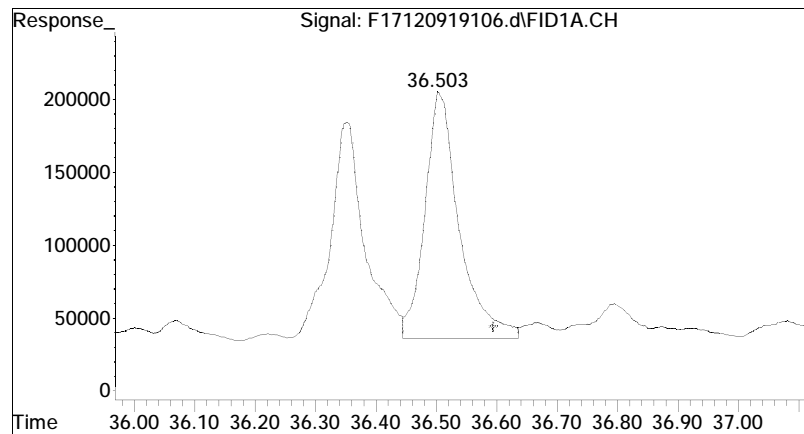
#17 Phytane

R.T.: 26.315 min
Delta R.T.: -0.074 min
Response: 6698914
Conc: 6.02 ug/mL M4



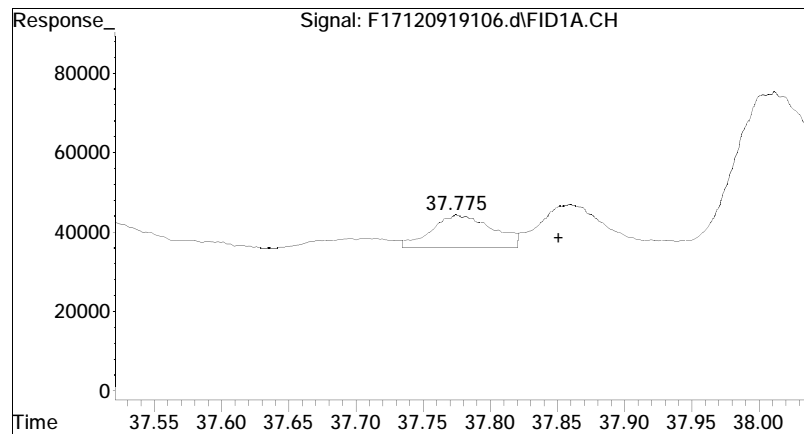
#23 n-Tricosane (C23)

R.T.: 33.850 min
Delta R.T.: -0.083 min
Response: 1413472
Conc: 1.13 ug/mL M4

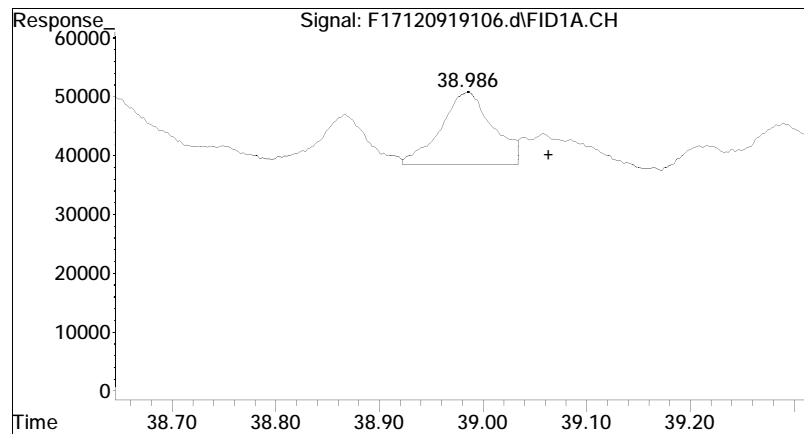


#26 n-Pentacosane (C25)

R.T.: 36.503 min
Delta R.T.: -0.092 min
Response: 6613786
Conc: 5.34 ug/mL M4

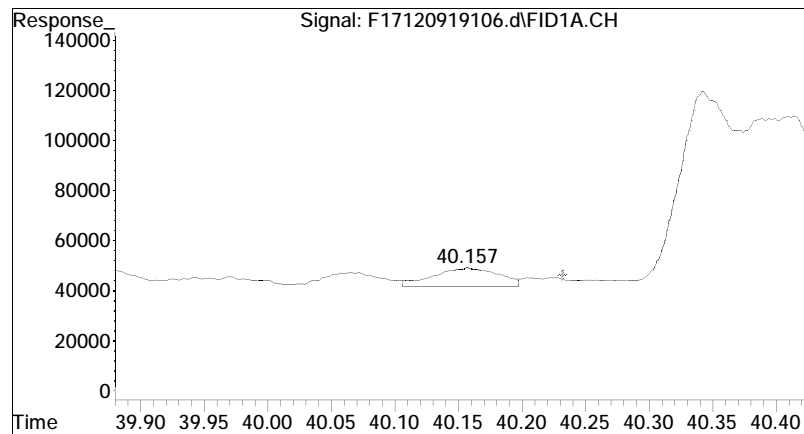


#27 n-Hexacosane (C26)
R.T.: 37.775 min
Delta R.T.: -0.076 min
Response: 261064
Conc: 0.21 ug/mL M4



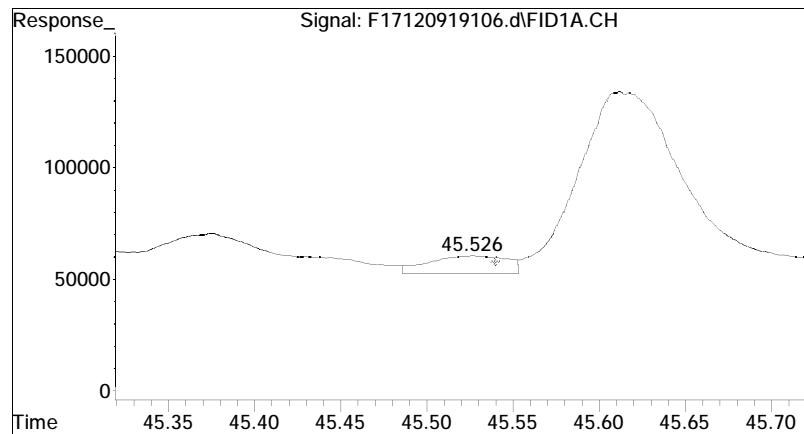
#28 n-Heptacosane (C27)

R.T.: 38.986 min
Delta R.T.: -0.078 min
Response: 433406
Conc: 0.36 ug/mL M4



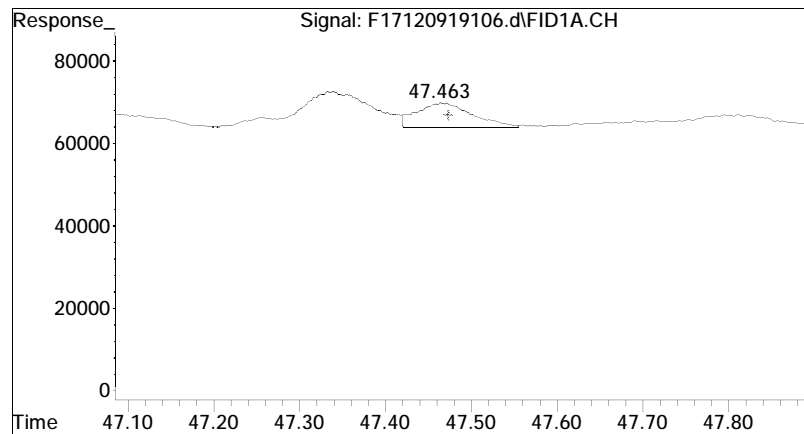
#29 n-Octacosane (C28)

R.T.: 40.157 min
Delta R.T.: -0.075 min
Response: 269296
Conc: 0.21 ug/mL M4



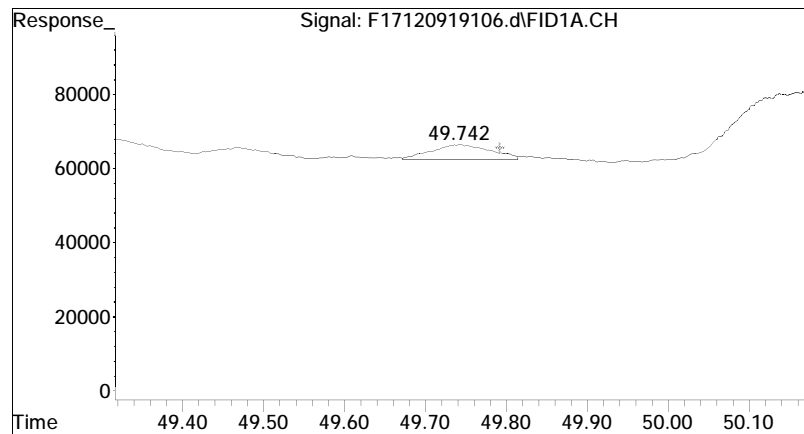
#34 n-Tritriacontane (C33)

R.T.: 45.526 min
Delta R.T.: -0.014 min
Response: 240244
Conc: 0.20 ug/mL M4



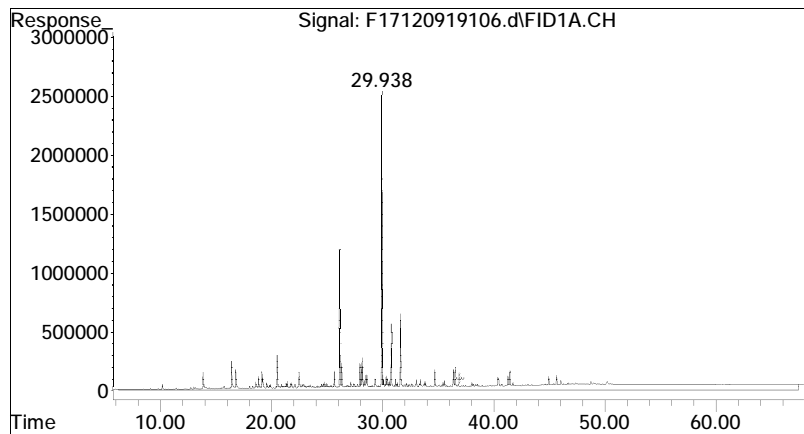
#36 n-Pentatriacontane (C35)

R.T.: 47.463 min
Delta R.T.: -0.011 min
Response: 267080
Conc: 0.22 ug/mL M4



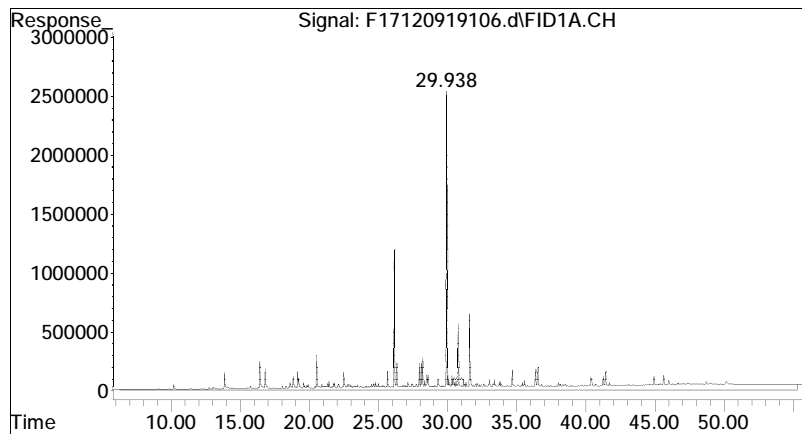
#38 n-Heptatriacontane (C37)

R.T.: 49.742 min
Delta R.T.: -0.050 min
Response: 203726
Conc: 0.17 ug/mL M4



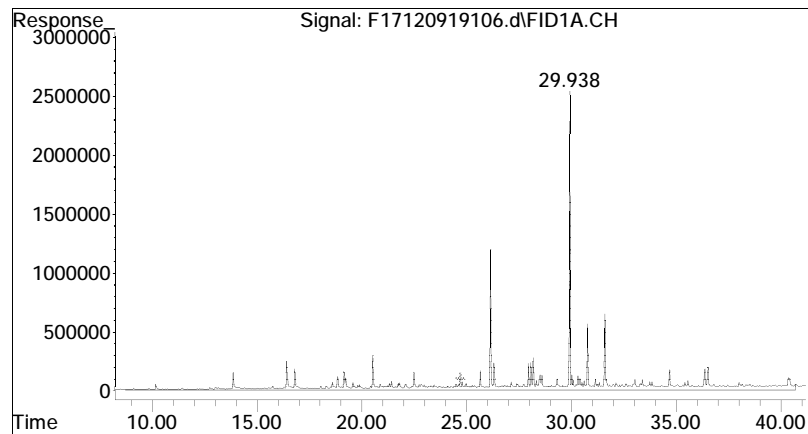
#42 C9-C44 Total Petroleum Hy

R.T.: 36.918 min
Delta R.T.: 0.000 min
Response: 1429582876
Conc: 1167.03 ug/mL m



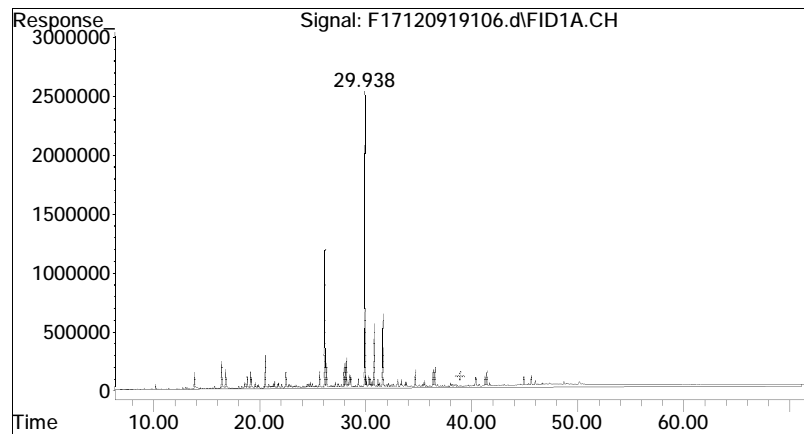
#43 C9-C40 Total Petroleum Hy

R.T.: 30.823 min
Delta R.T.: 0.000 min
Response: 1130465877
Conc: 922.85 ug/ml m



#44 C10-C28 DRO

R.T.: 24.733 min
Delta R.T.: 0.000 min
Response: 614023424
Conc: 501.25 ug/mL m



#46 Total Resolved Hydrocarbo

R.T.: 38.937 min
Delta R.T.: 0.000 min
Response: 349518889
Conc: 285.33 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919108.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 6:07 pm
 Operator : FID17:WR
 Sample : L1954309-04D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 4 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:03:57 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	29.933	62090661	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	27.951	2858925	2.135 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	4.27%#
24) s d50-Tetracosane	34.671	2524858	2.356 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	4.71%#
Target Compounds			
2) t n-Octane (C8)	0.000	0	N.D. ug/mL
3) t n-Nonane (C9)	6.802	43121	0.039 ug/mL M4
4) t n-Decane (C10)	9.205	160958	0.142 ug/mL M4
5) t n-Undecane (C11)	11.681	91007	0.079 ug/mL M4
6) t n-Dodecane (C12)	14.079	6047490	5.239 ug/mL M4
7) t n-Tridecane (C13)	16.436	9467513G	8.213 ug/mL M4
8) t 1380	18.051	456831	0.391 ug/mL M4
9) t n-Tetradecane (C14)	18.563	248449	0.213 ug/mL M4
10) t 1470	19.815	3031955	2.599 ug/mL M4
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
13) t 1650	23.468	765112	0.650 ug/mL M4
14) t n-Heptadecane (C17)	24.411	220126	0.187 ug/mL M4
15) t Pristane	24.499	744835	0.630 ug/mL M4
16) t n-Octadecane (C18)	26.149	44647222G	37.713 ug/mL M4
17) t Phytane	26.319	7967535G	7.395 ug/mL M4
18) t n-Nonadecane (C19)	27.849	45298	0.038 ug/mL M4
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)	32.450	107844	0.090 ug/mL M4
23) t n-Tricosane (C23)	33.851	1008470	0.835 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919108.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 6:07 pm
 Operator : FID17:WR
 Sample : L1954309-04D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 4 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:03:57 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units
25) t n-Tetracosane (C24)	35.280	142748	0.118	ug/mL M4
26) t n-Pentacosane (C25)	36.505	8691439G	7.244	ug/mL M4
27) t n-Hexacosane (C26)	37.779	126951	0.105	ug/mL M4
28) t n-Heptacosane (C27)	39.022	83181	0.071	ug/mL M4
29) t n-Octacosane (C28)	40.218	271446	0.222	ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL d
31) t n-Triacontane (C30)	42.372	414438	0.345	ug/mL M4
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL d
33) t n-Dotriacontane (C32)	44.508	247366	0.207	ug/mL M4
34) t n-Tritriacontane (C33)	45.532	173670	0.147	ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	49.742	467623	0.396	ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d
42) h C9-C44 Total Petroleu...	36.918	1310490835	1105.144	ug/mL m
42) h C9-C44 Total Petroleu BS	36.918	472489123	398.453	ug/mLm
43) h C9-C40 Total Petroleu...	30.823	1023354787	863.001	ug/ml m
43) h C9-C40 Total Petroleu BS	30.823	518160550	436.968	ug/mlm
44) h C10-C28 DRO	24.733	549172633	463.120	ug/mL m
44) h C10-C28 DRO BS	24.733	478393416	403.432	ug/mLm
45) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
45) h C28-C40 ORO BS	0.000	-354901141	N.D.	ug/mLd
46) h Total Resolved Hydroc...	38.937	410953857	346.560	ug/mL m

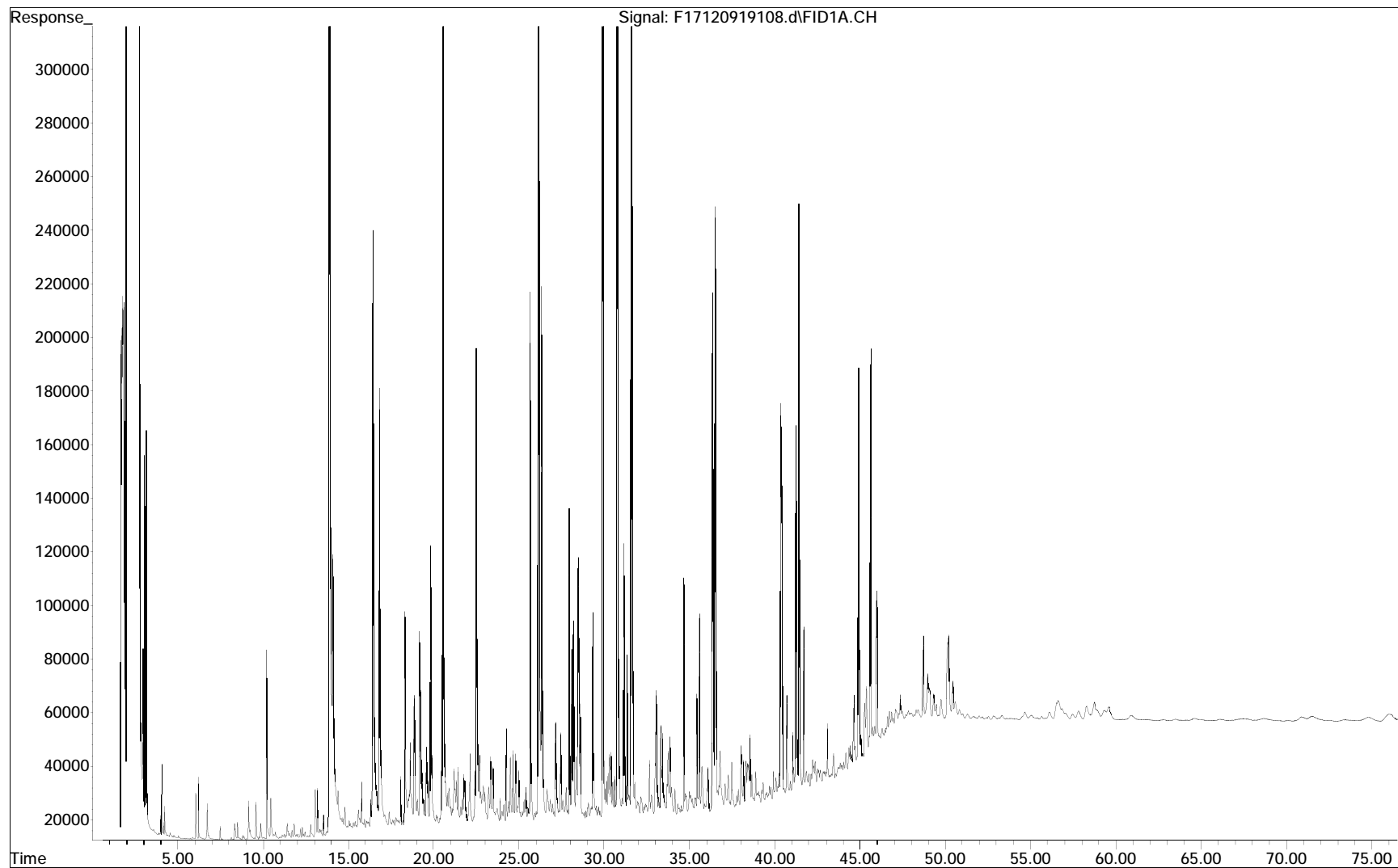
SemiQuant Compounds - Not Calibrated on this Instrument

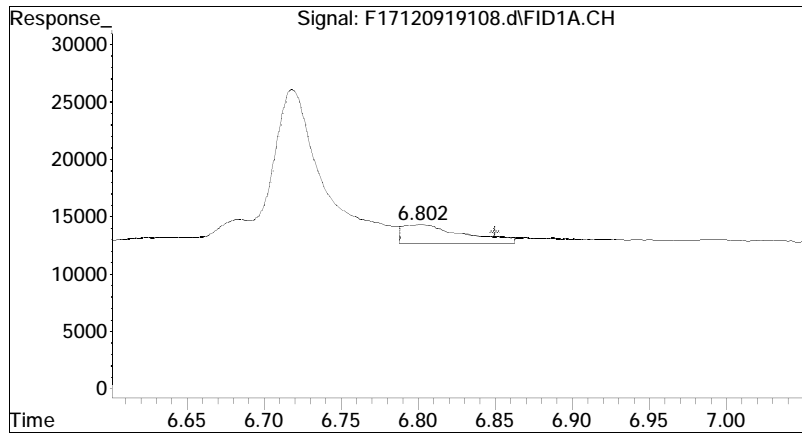
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

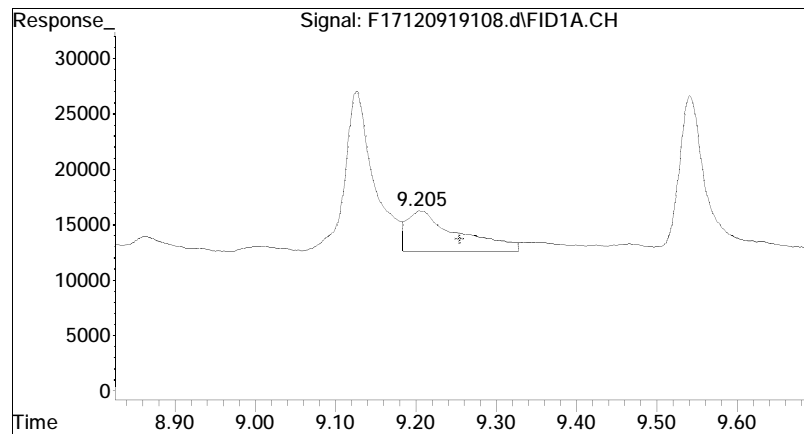
File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919108.d
Operator : FID17:WR
Acquired : 12 Dec 2019 6:07 pm using AcqMethod FID17.M
Sample Name: L1954309-04D,42,10
Instrument: FID17
Misc Info : WG1315720,WG1312512,ICAL15688
Vial Number: 4
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M





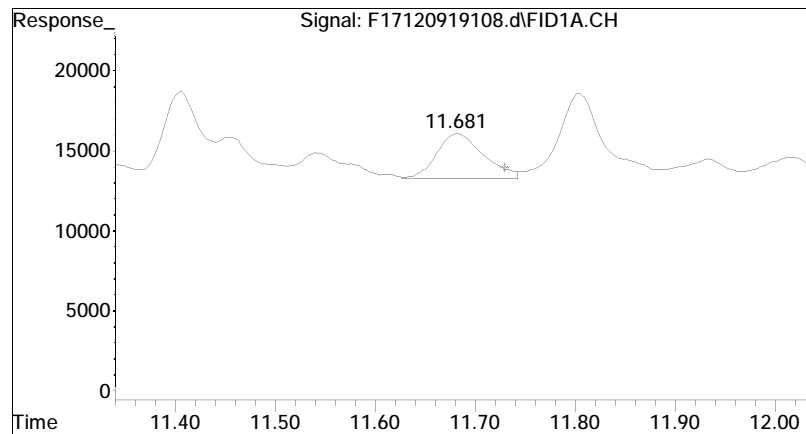
#3 n-Nonane (C9)

R.T.: 6.802 min
Delta R.T.: -0.048 min
Response: 43121
Conc: 0.04 ug/mL M4



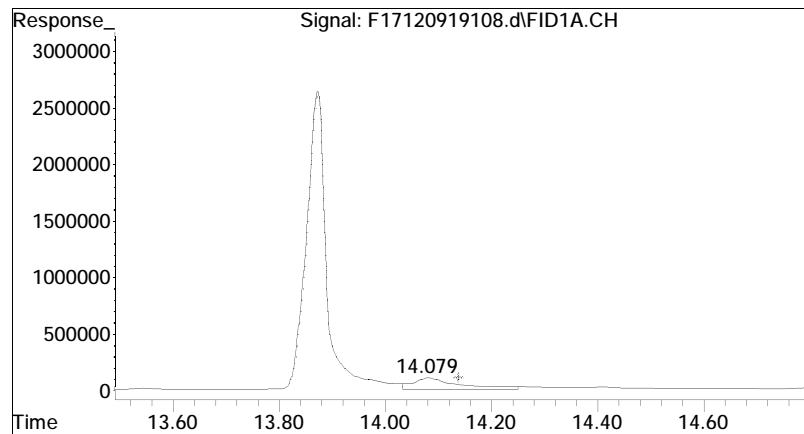
#4 n-Decane (C10)

R.T.: 9.205 min
Delta R.T.: -0.050 min
Response: 160958
Conc: 0.14 ug/mL M4



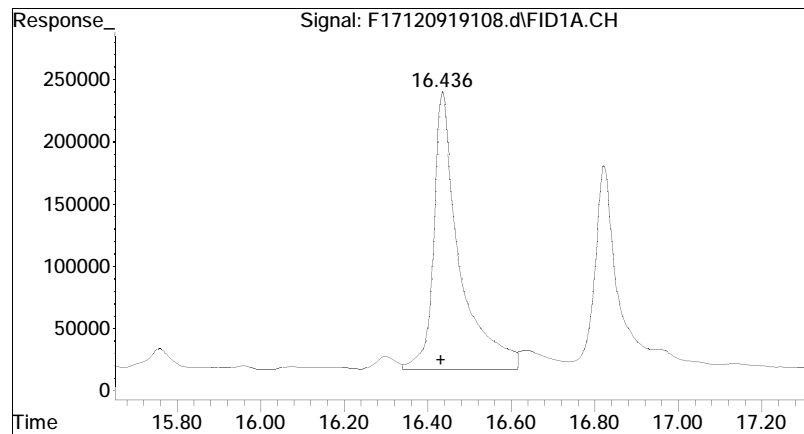
#5 n-Undecane (C11)

R.T.: 11.681 min
Delta R.T.: -0.049 min
Response: 91007
Conc: 0.08 ug/mL M4



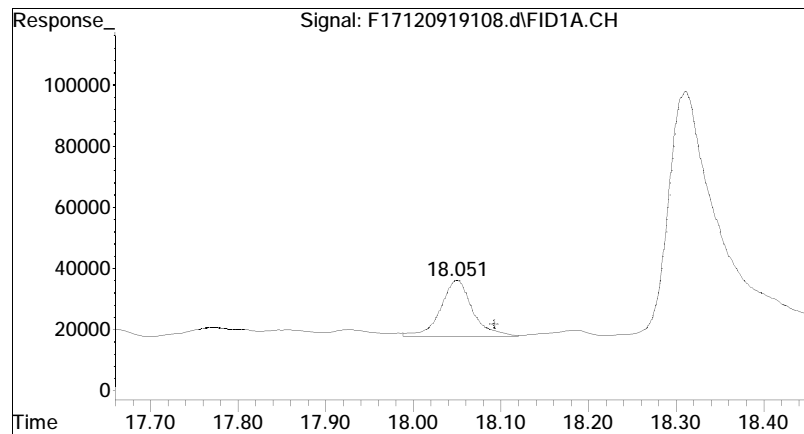
#6 n-Dodecane (C12)

R.T.: 14.079 min
Delta R.T.: -0.059 min
Response: 6047490
Conc: 5.24 ug/mL M4



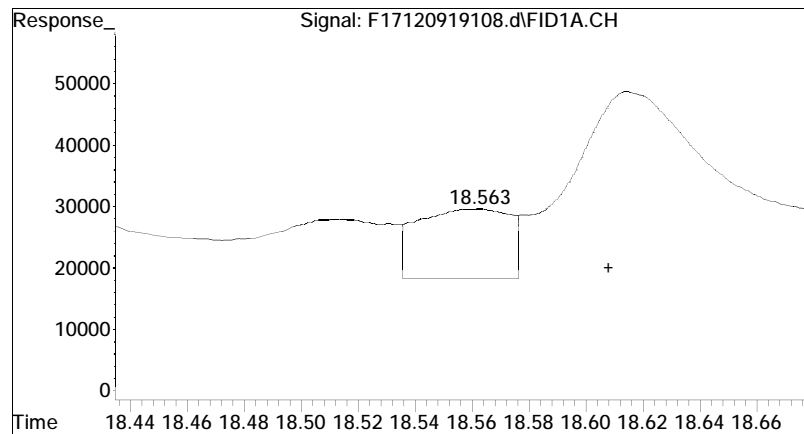
#7 n-Tridecane (C13)

R.T.: 16.436 min
Delta R.T.: 0.003 min
Response: 9467513
Conc: 8.21 ug/mL M4



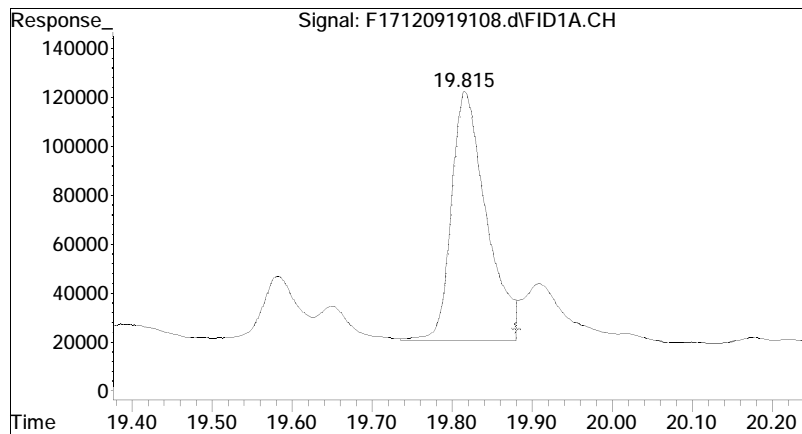
#8 1380

R.T.: 18.051 min
Delta R.T.: -0.042 min
Response: 456831
Conc: 0.39 ug/mL M4



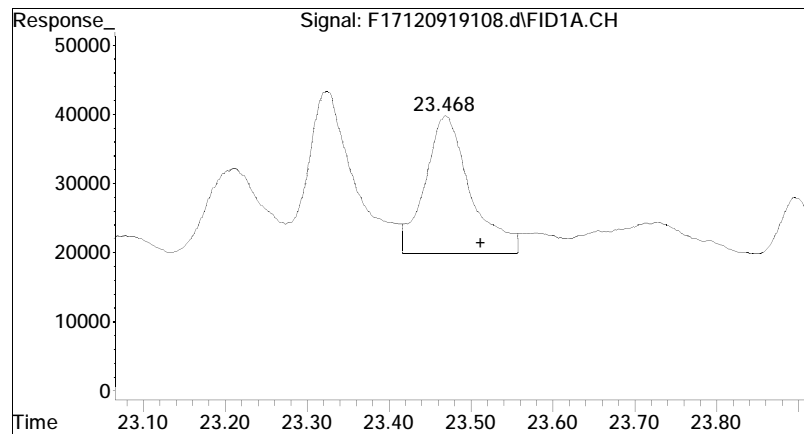
#9 n-Tetradecane (C14)

R.T.: 18.563 min
Delta R.T.: -0.045 min
Response: 248449
Conc: 0.21 ug/mL M4



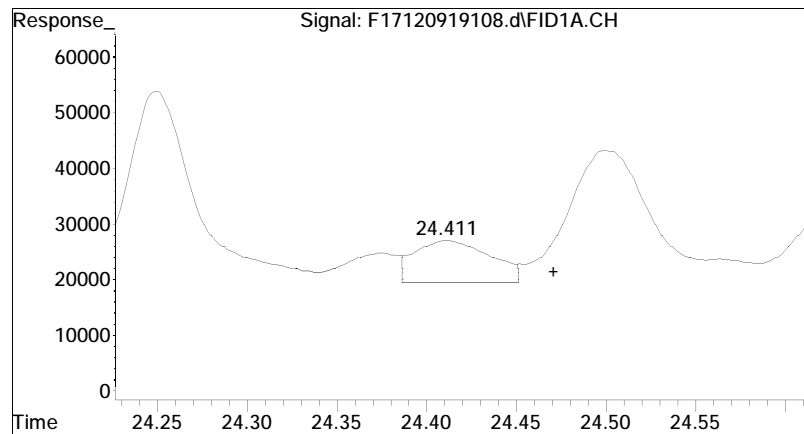
#10 1470

R.T.: 19.815 min
Delta R.T.: -0.065 min
Response: 3031955
Conc: 2.60 ug/mL M4



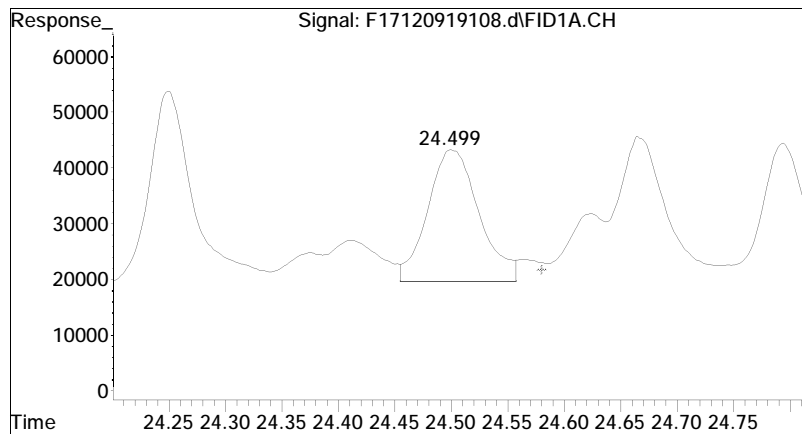
#13 1650

R.T.: 23.468 min
Delta R.T.: -0.044 min
Response: 765112
Conc: 0.65 ug/mL M4



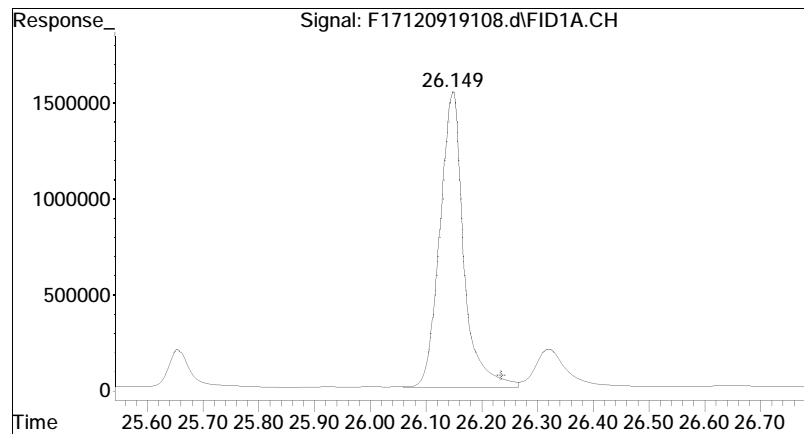
#14 n-Heptadecane (C17)

R.T.: 24.411 min
Delta R.T.: -0.059 min
Response: 220126
Conc: 0.19 ug/mL M4



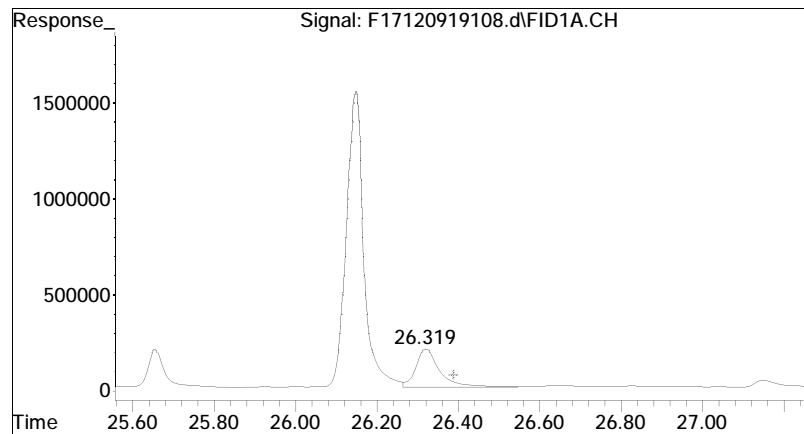
#15 Pristane

R.T.: 24.499 min
Delta R.T.: -0.081 min
Response: 744835
Conc: 0.63 ug/mL M4



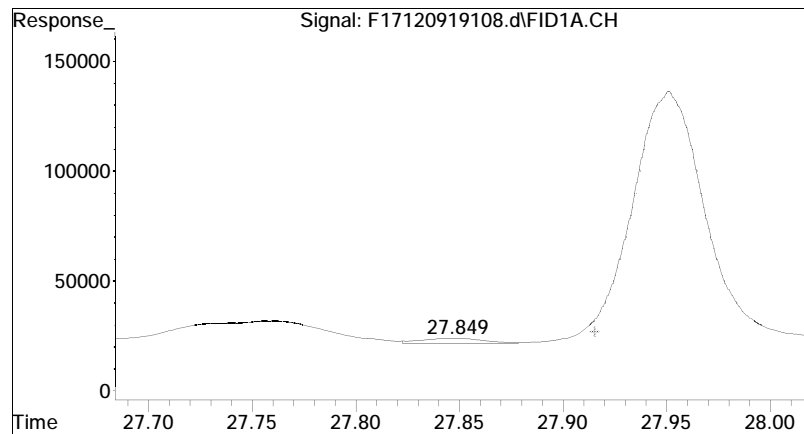
#16 n-Octadecane (C18)

R.T.: 26.149 min
Delta R.T.: -0.086 min
Response: 44647222
Conc: 37.71 ug/mL M4



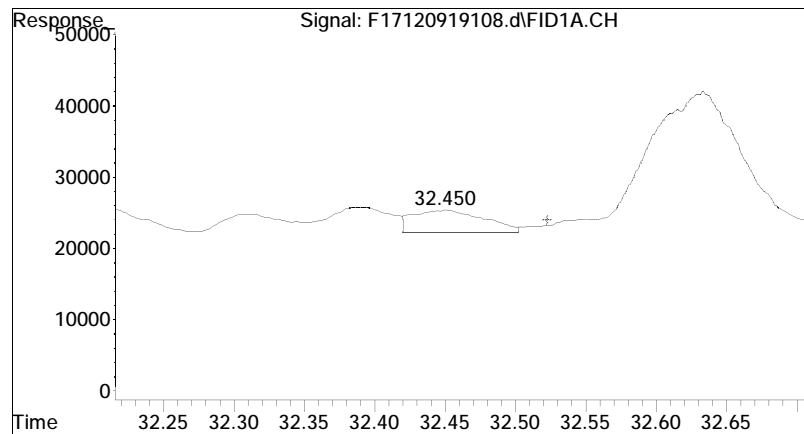
#17 Phytane

R.T.: 26.319 min
Delta R.T.: -0.071 min
Response: 7967535
Conc: 7.40 ug/mL M4



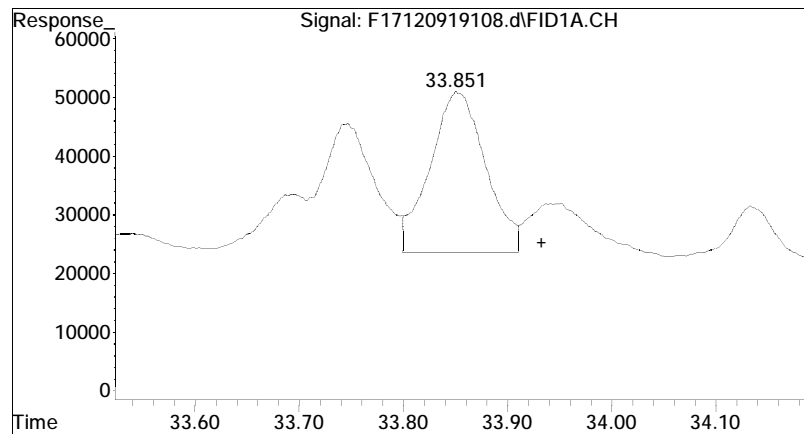
#18 n-Nonadecane (C19)

R.T.: 27.849 min
Delta R.T.: -0.066 min
Response: 45298
Conc: 0.04 ug/mL M4



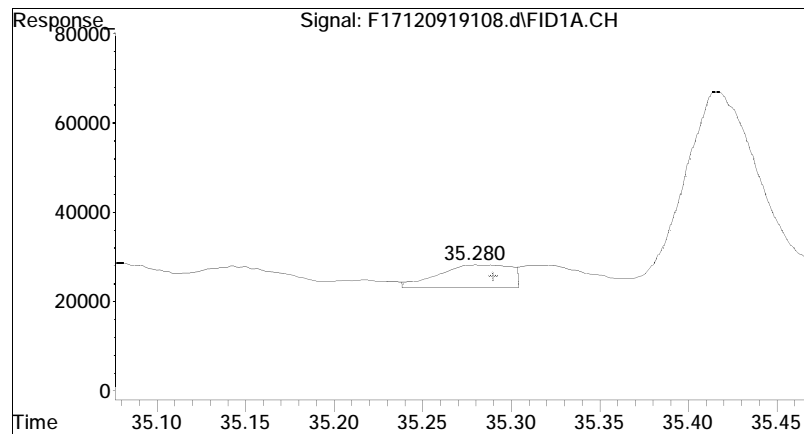
#22 n-Docosane (C22)

R.T.: 32.450 min
Delta R.T.: -0.072 min
Response: 107844
Conc: 0.09 ug/mL M4



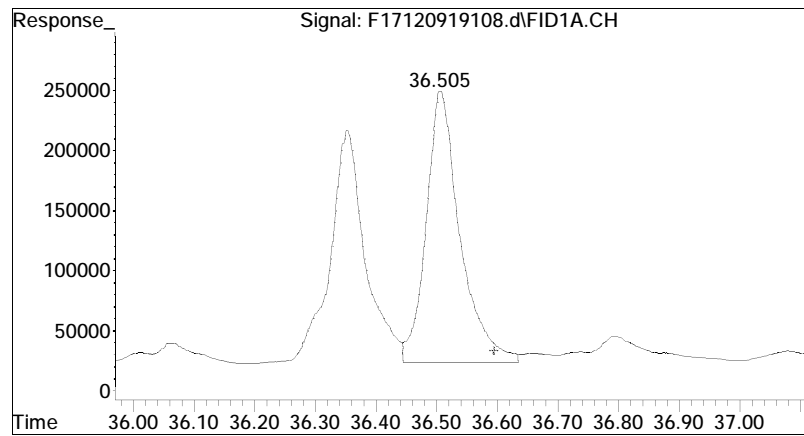
#23 n-Tricosane (C23)

R.T.: 33.851 min
Delta R.T.: -0.082 min
Response: 1008470
Conc: 0.84 ug/mL M4



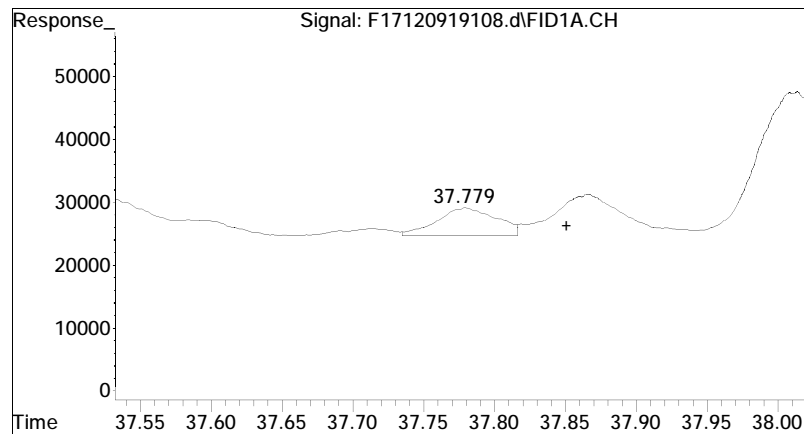
#25 n-Tetracosane (C24)

R.T.: 35.280 min
Delta R.T.: -0.010 min
Response: 142748
Conc: 0.12 ug/mL M4

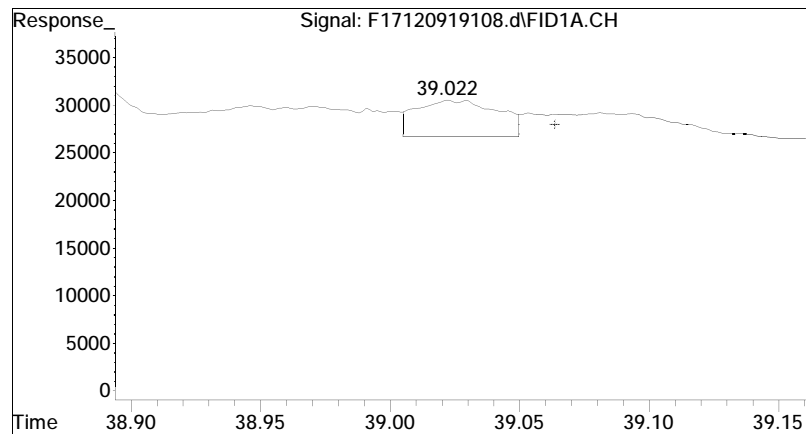


#26 n-Pentacosane (C25)

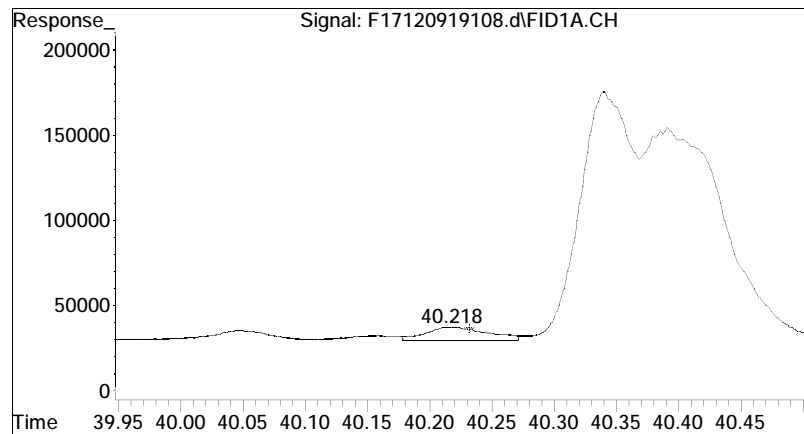
R.T.: 36.505 min
Delta R.T.: -0.090 min
Response: 8691439
Conc: 7.24 ug/mL M4



#27 n-Hexacosane (C26)
R.T.: 37.779 min
Delta R.T.: -0.072 min
Response: 126951
Conc: 0.11 ug/mL M4

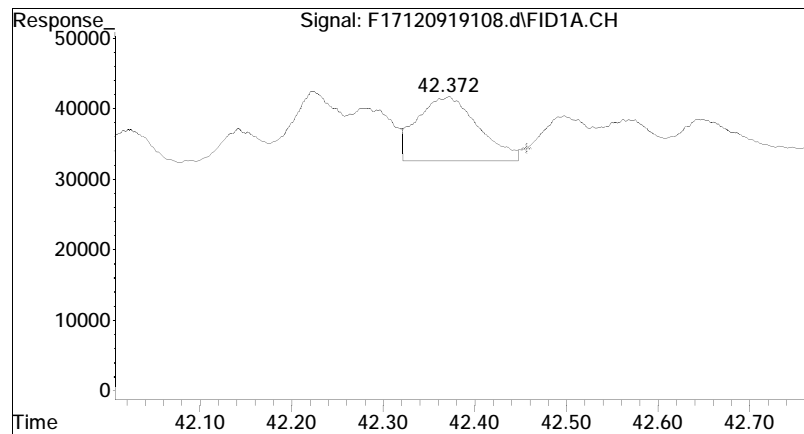


#28 n-Heptacosane (C27)
R.T.: 39.022 min
Delta R.T.: -0.042 min
Response: 83181
Conc: 0.07 ug/mL M4



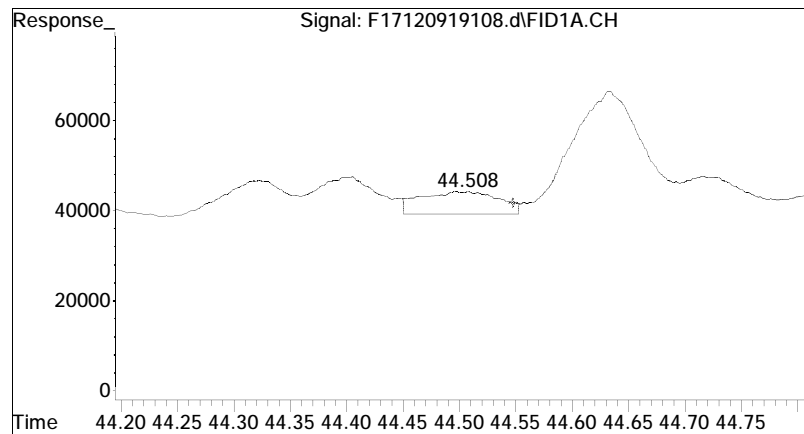
#29 n-Octacosane (C28)

R.T.: 40.218 min
Delta R.T.: -0.014 min
Response: 271446
Conc: 0.22 ug/mL M4



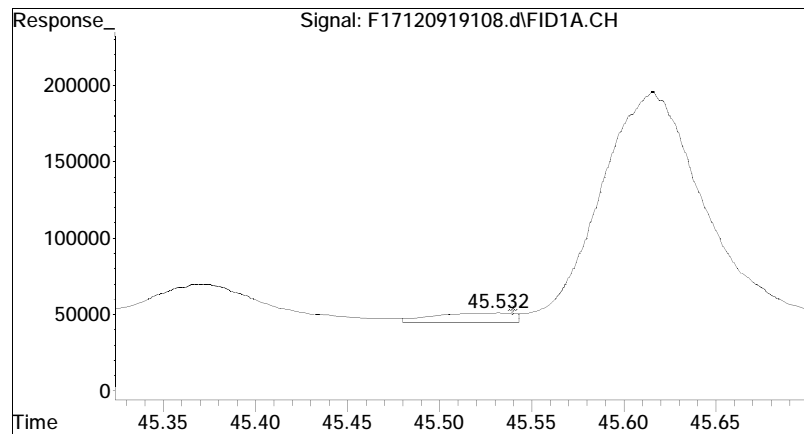
#31 n-Triacontane (C30)

R.T.: 42.372 min
Delta R.T.: -0.085 min
Response: 414438
Conc: 0.35 ug/mL M4



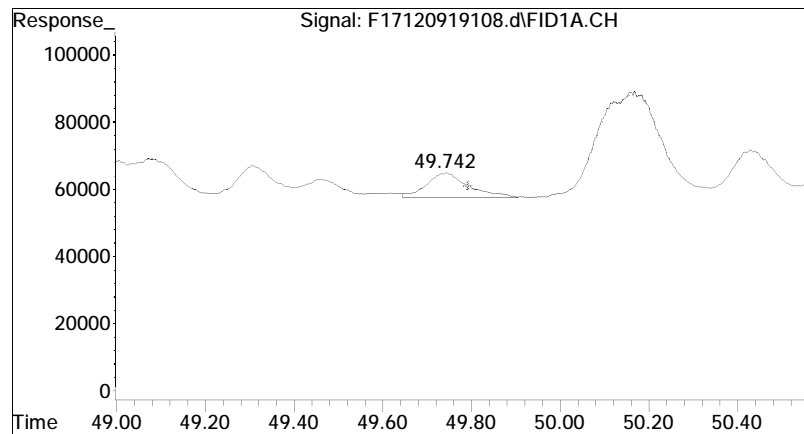
#33 n-Dotriacontane (C32)

R.T.: 44.508 min
Delta R.T.: -0.040 min
Response: 247366
Conc: 0.21 ug/mL M4



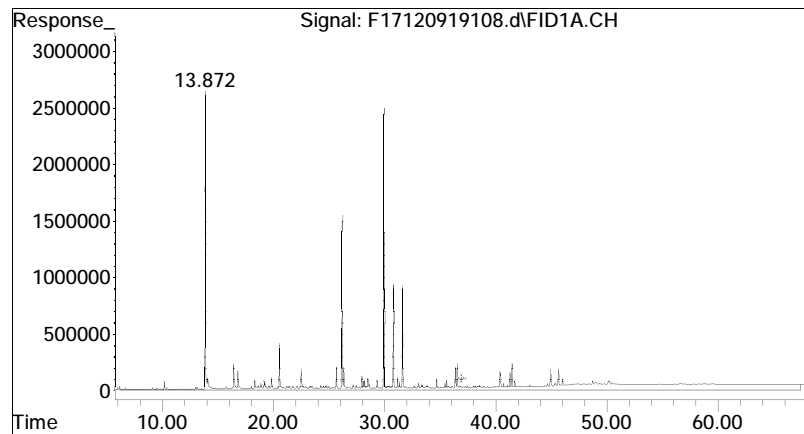
#34 n-Tritriacontane (C33)

R.T.: 45.532 min
Delta R.T.: -0.008 min
Response: 173670
Conc: 0.15 ug/mL M4



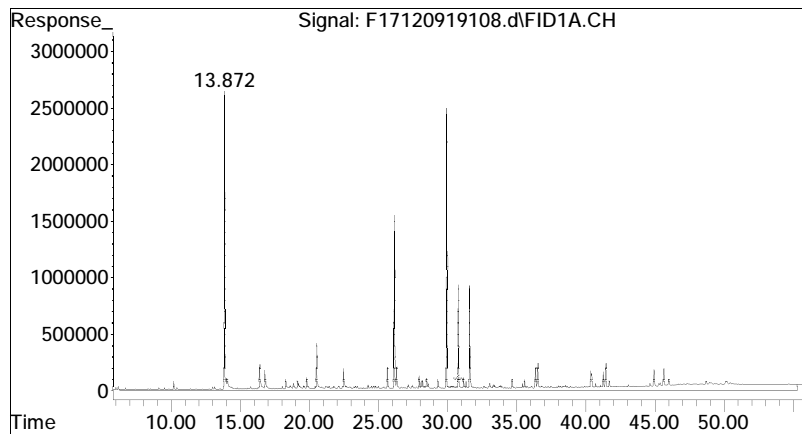
#38 n-Heptatriacontane (C37)

R.T.: 49.742 min
Delta R.T.: -0.051 min
Response: 467623
Conc: 0.40 ug/mL M4



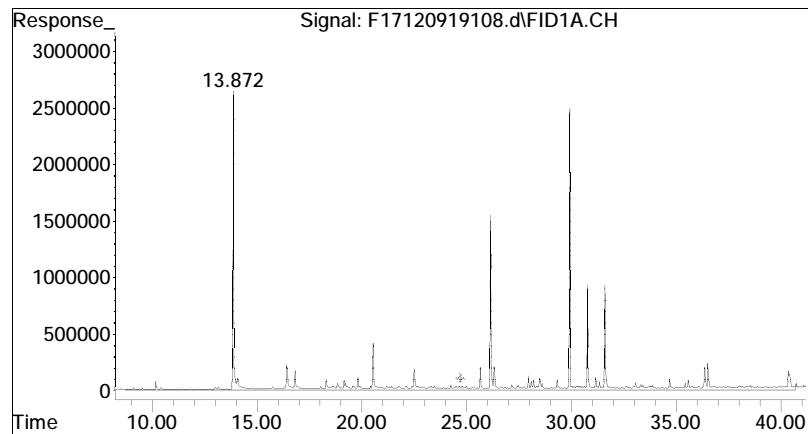
#42 C9-C44 Total Petroleum Hy

R.T.: 36.918 min
Delta R.T.: 0.000 min
Response: 1310490835
Conc: 1105.14 ug/mL m



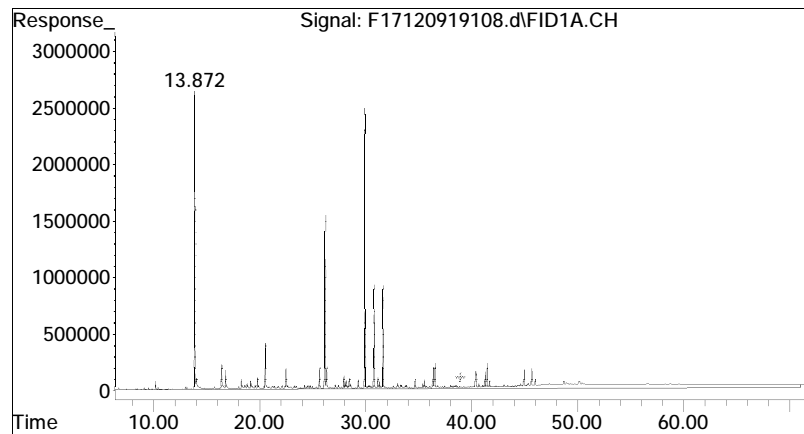
#43 C9-C40 Total Petroleum Hy

R.T.: 30.823 min
Delta R.T.: 0.000 min
Response: 1023354787
Conc: 863.00 ug/ml m



#44 C10-C28 DRO

R.T.: 24.733 min
Delta R.T.: 0.000 min
Response: 549172633
Conc: 463.12 ug/mL m



#46 Total Resolved Hydrocarbo

R.T.: 38.937 min
Delta R.T.: 0.000 min
Response: 410953857
Conc: 346.56 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919110.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 7:35 pm
 Operator : FID17:WR
 Sample : L1954309-05D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:04:11 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	29.931	59562058	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	27.950	4902945	3.817	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	7.63%#	
24) s d50-Tetracosane	34.672	4114039	4.002	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	8.00%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	6.804	30022	0.028	ug/mL M4
4) t n-Decane (C10)	9.205	54128	0.050	ug/mL M4
5) t n-Undecane (C11)	11.676	59476	0.054	ug/mL M4
6) t n-Dodecane (C12)	14.080	4380495	3.956	ug/mL M4
7) t n-Tridecane (C13)	16.431	12357140G	11.174	ug/mL M4
8) t 1380	18.047	468363	0.418	ug/mL M4
9) t n-Tetradecane (C14)	18.612	1810919	1.617	ug/mL M4
10) t 1470	19.825	1530437	1.367	ug/mL M4
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
13) t 1650	23.466	1014669	0.898	ug/mL M4
14) t n-Heptadecane (C17)	24.414	263666	0.233	ug/mL M4
15) t Pristane	24.498	1054540	0.930	ug/mL M4
16) t n-Octadecane (C18)	26.148	41512196G	36.554	ug/mL M4
17) t Phytane	26.316	8373571G	8.102	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)	0.000	0	N.D.	ug/mL d
22) t n-Docosane (C22)	0.000	0	N.D.	ug/mL
23) t n-Tricosane (C23)	33.850	931652	0.805	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919110.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 7:35 pm
 Operator : FID17:WR
 Sample : L1954309-05D,42,10
 Misc : WG1315720,WG1312512,ICAL15688
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 15:04:11 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091904F
 Blank File : F17120919100.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)	36.502	9058809G	7.871 ug/mL M4
27) t n-Hexacosane (C26)	37.776	128289	0.111 ug/mL M4
28) t n-Heptacosane (C27)	38.982	275557	0.244 ug/mL M4
29) t n-Octacosane (C28)	40.218	319749	0.273 ug/mL M4
30) t n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t n-Triacontane (C30)	42.365	367611	0.319 ug/mL M4
32) t n-Hentriacontane (C31)	43.421	502209	0.433 ug/mL M4
33) t n-Dotriacontane (C32)	0.000	0	N.D. ug/mL
34) t n-Tritriacontane (C33)	45.515	231230	0.204 ug/mL M4
35) t n-tetratriacontane (C34)	0.000	0	N.D. ug/mL
36) t n-Pentatriacontane (C35)	47.464	377070	0.332 ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL
38) t n-Heptatriacontane (C37)	49.725	526339	0.464 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL d
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL d
42) h C9-C44 Total Petroleu...	36.918	1327381936	1166.910 ug/mL m
42) h C9-C44 Total Petroleu BS	36.918	489380224	430.217 ug/mLm
43) h C9-C40 Total Petroleu...	30.823	1044660003	918.367 ug/ml m
43) h C9-C40 Total Petroleu BS	30.823	539465766	474.248 ug/mlm
44) h C10-C28 DRO	24.733	558253329	490.764 ug/mL m
44) h C10-C28 DRO BS	24.733	487474112	428.542 ug/mLm
45) h C28-C40 ORO	0.000	0	N.D. ug/mL d
45) h C28-C40 ORO BS	0.000	-354901141	N.D. ug/mLd
46) h Total Resolved Hydroc...	38.937	399612505	351.302 ug/mL m

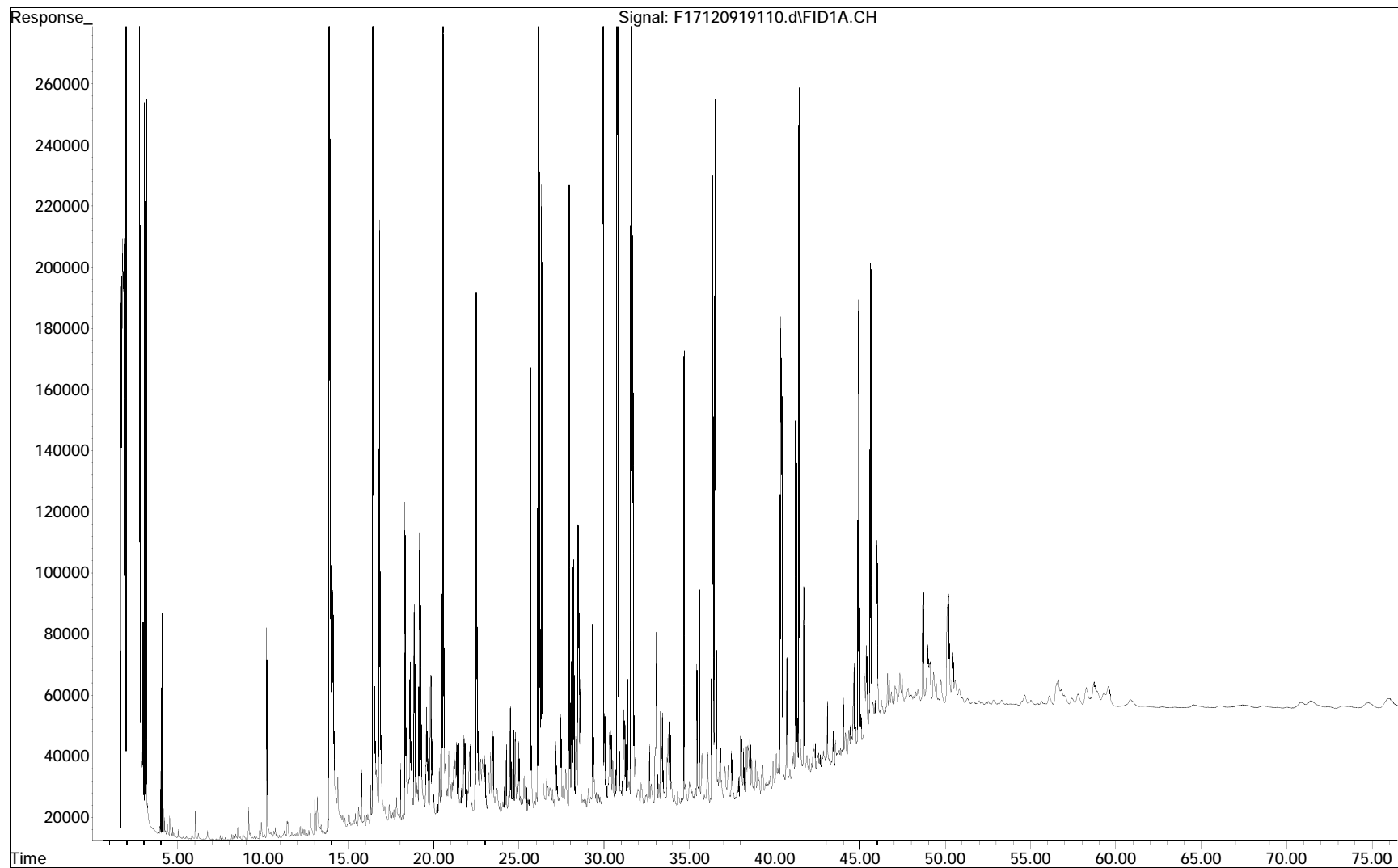
SemiQuant Compounds - Not Calibrated on this Instrument

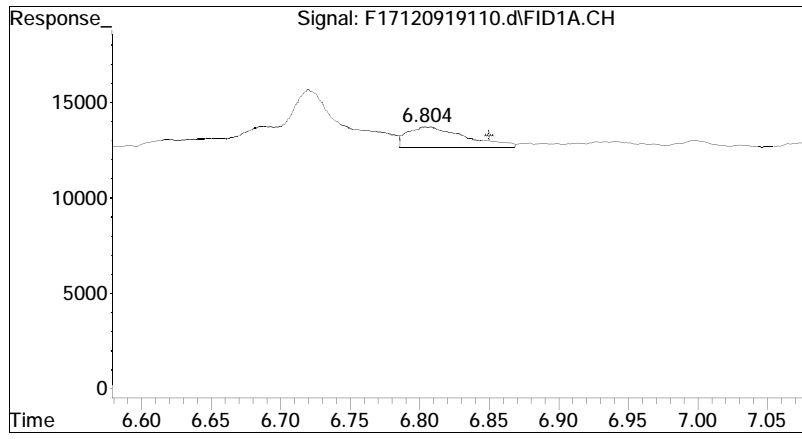
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

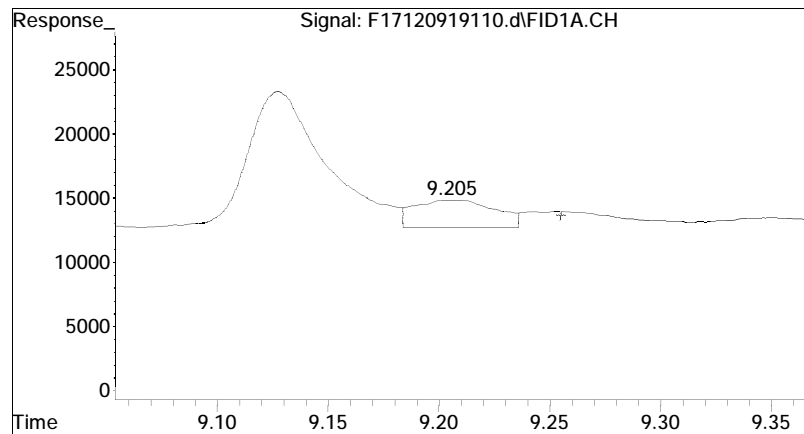
File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919110.d
Operator : FID17:WR
Acquired : 12 Dec 2019 7:35 pm using AcqMethod FID17.M
Sample Name: L1954309-05D,42,10
Instrument: FID17
Misc Info : WG1315720,WG1312512,ICAL15688
Vial Number: 5
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M





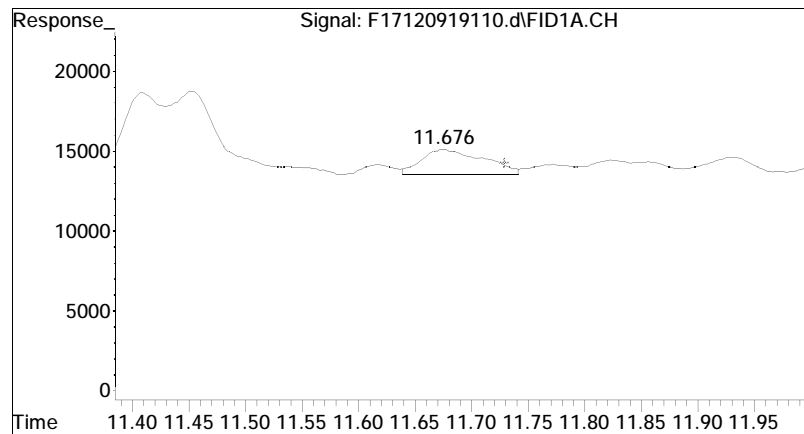
#3 n-Nonane (C9)

R.T.: 6.804 min
Delta R.T.: -0.046 min
Response: 30022
Conc: 0.03 ug/mL M4



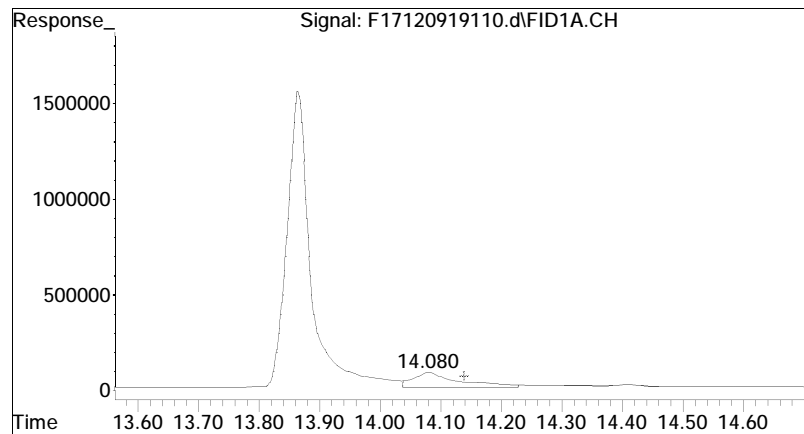
#4 n-Decane (C10)

R.T.: 9.205 min
Delta R.T.: -0.050 min
Response: 54128
Conc: 0.05 ug/mL M4



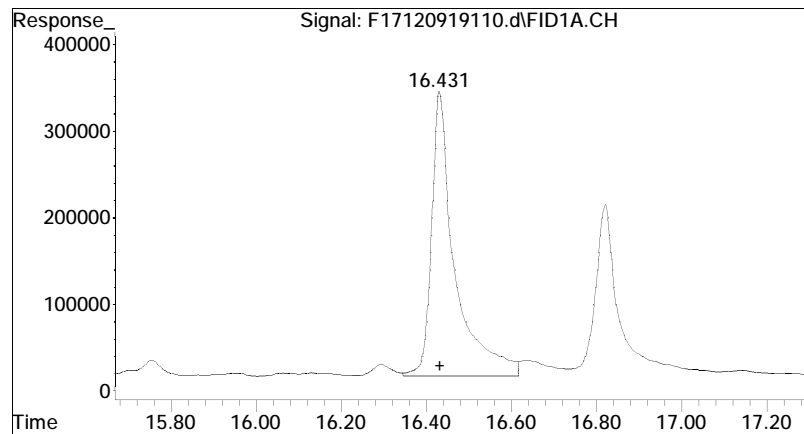
#5 n-Undecane (C11)

R.T.: 11.676 min
Delta R.T.: -0.054 min
Response: 59476
Conc: 0.05 ug/mL M4



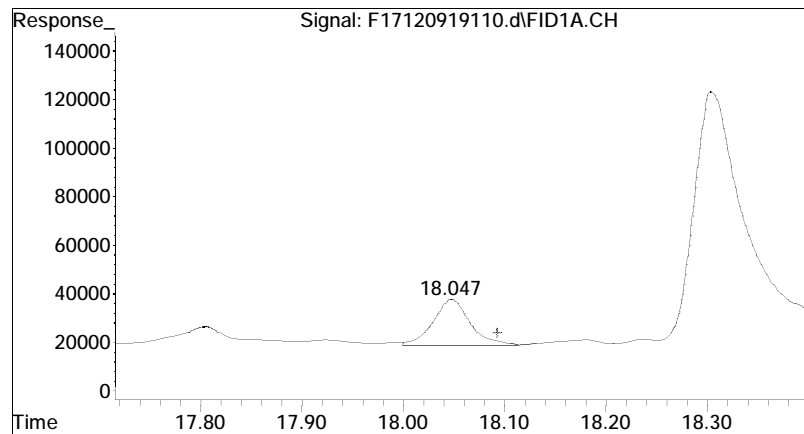
#6 n-Dodecane (C12)

R.T.: 14.080 min
Delta R.T.: -0.058 min
Response: 4380495
Conc: 3.96 ug/mL M4



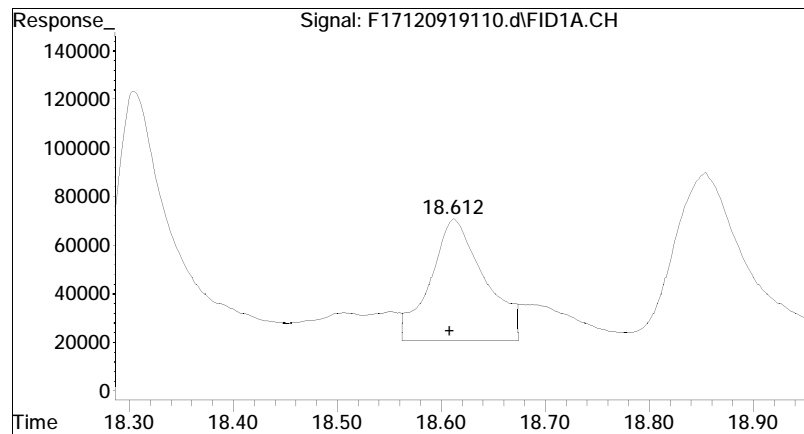
#7 n-Tridecane (C13)

R.T.: 16.431 min
Delta R.T.: -0.001 min
Response: 12357140
Conc: 11.17 ug/mL M4

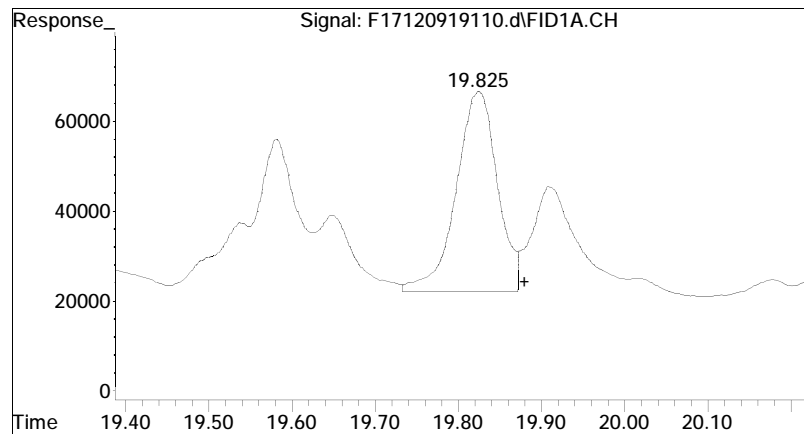


#8 1380

R.T.: 18.047 min
Delta R.T.: -0.046 min
Response: 468363
Conc: 0.42 ug/mL M4

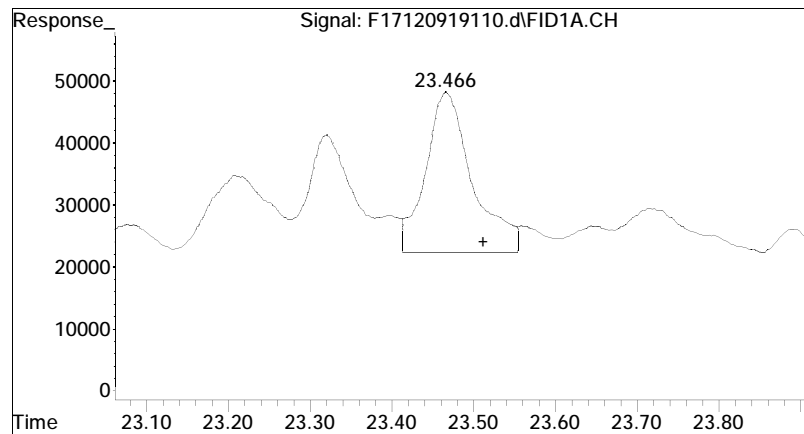


#9 n-Tetradecane (C14)
R.T.: 18.612 min
Delta R.T.: 0.004 min
Response: 1810919
Conc: 1.62 ug/mL M4



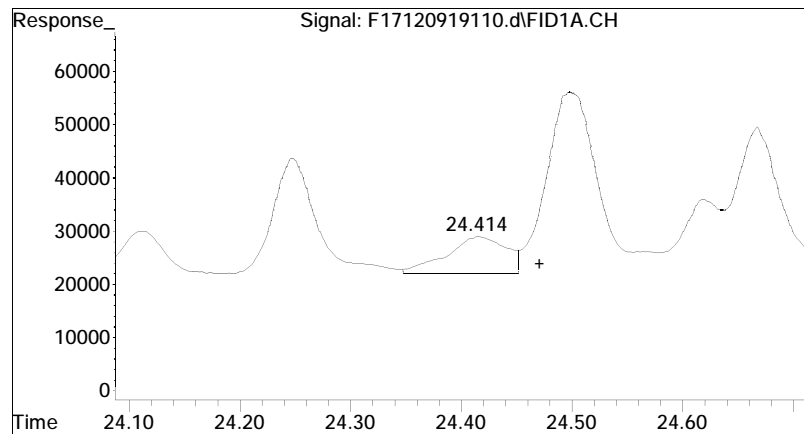
#10 1470

R.T.: 19.825 min
Delta R.T.: -0.055 min
Response: 1530437
Conc: 1.37 ug/mL M4



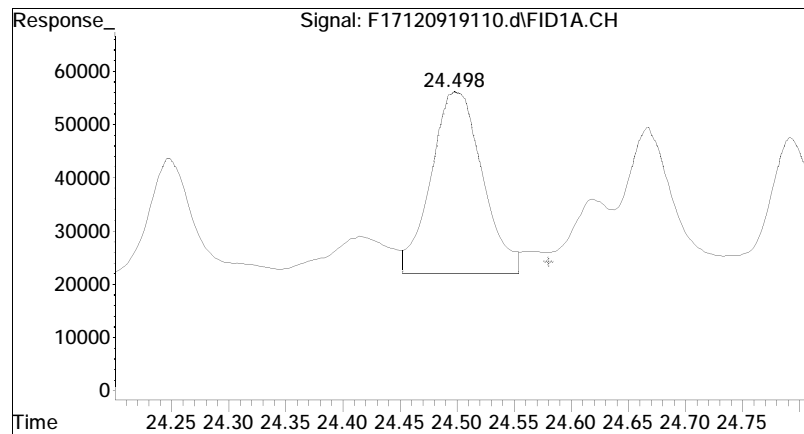
#13 1650

R.T.: 23.466 min
Delta R.T.: -0.046 min
Response: 1014669
Conc: 0.90 ug/mL M4



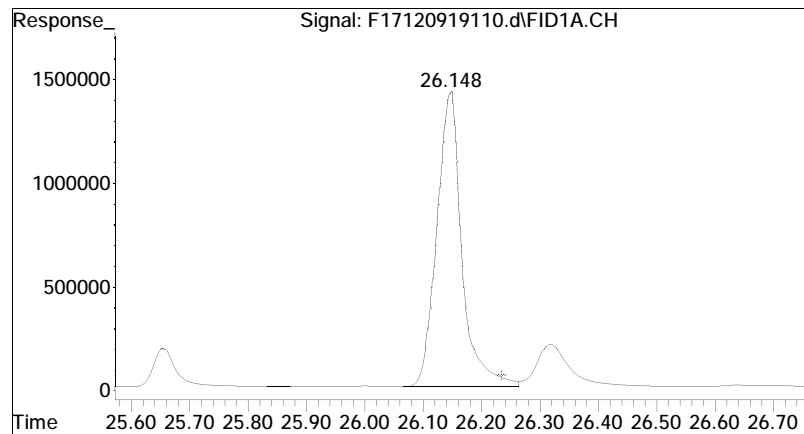
#14 n-Heptadecane (C17)

R.T.: 24.414 min
Delta R.T.: -0.057 min
Response: 263666
Conc: 0.23 ug/mL M4



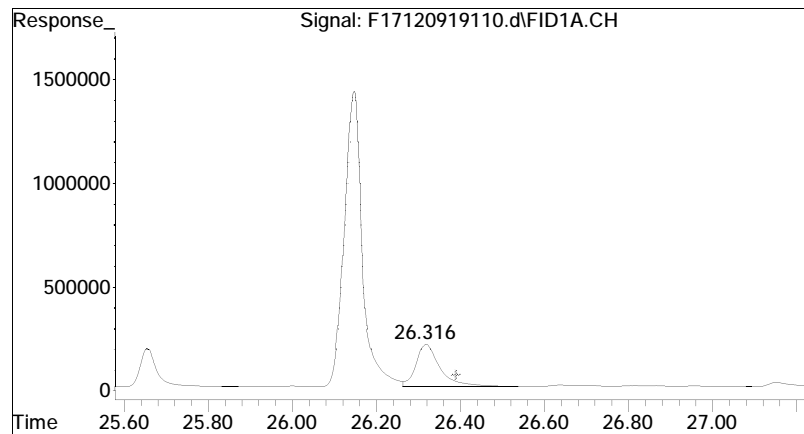
#15 Pristane

R.T.: 24.498 min
Delta R.T.: -0.083 min
Response: 1054540
Conc: 0.93 ug/mL M4



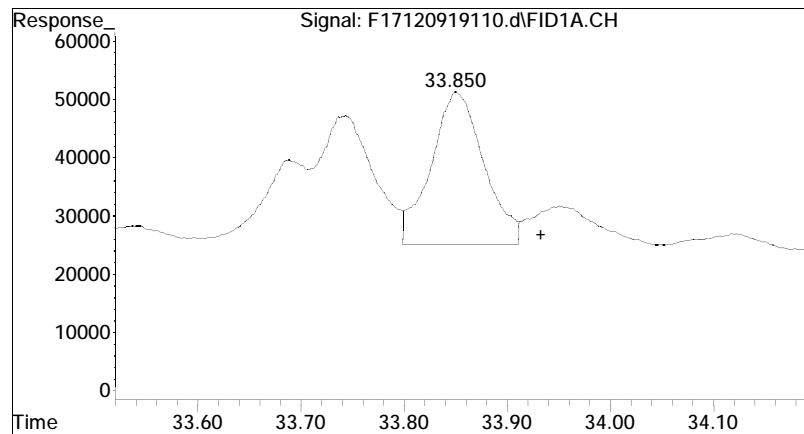
#16 n-Octadecane (C18)

R.T.: 26.148 min
Delta R.T.: -0.086 min
Response: 41512196
Conc: 36.55 ug/mL M4



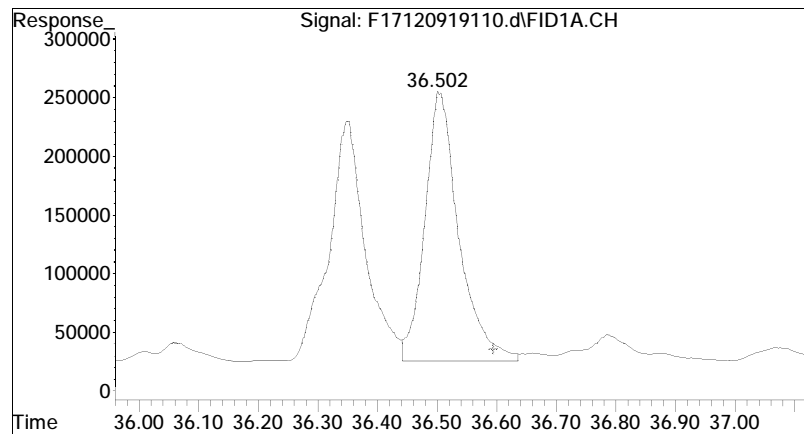
#17 Phytane

R.T.: 26.316 min
Delta R.T.: -0.073 min
Response: 8373571
Conc: 8.10 ug/mL M4



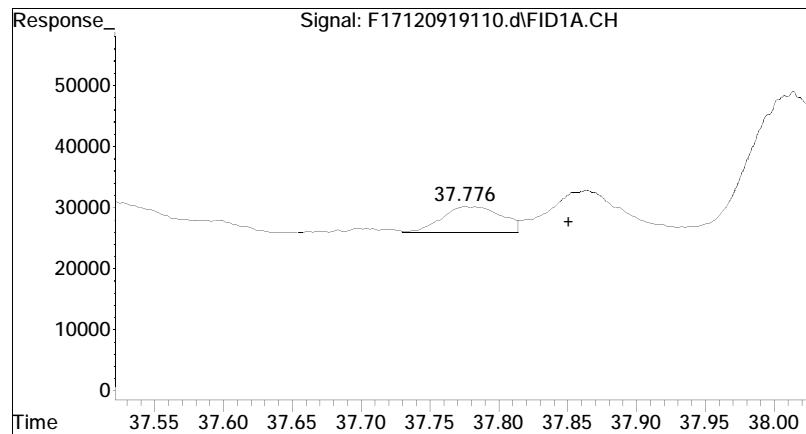
#23 n-Tricosane (C23)

R.T.: 33.850 min
Delta R.T.: -0.083 min
Response: 931652
Conc: 0.80 ug/mL M4

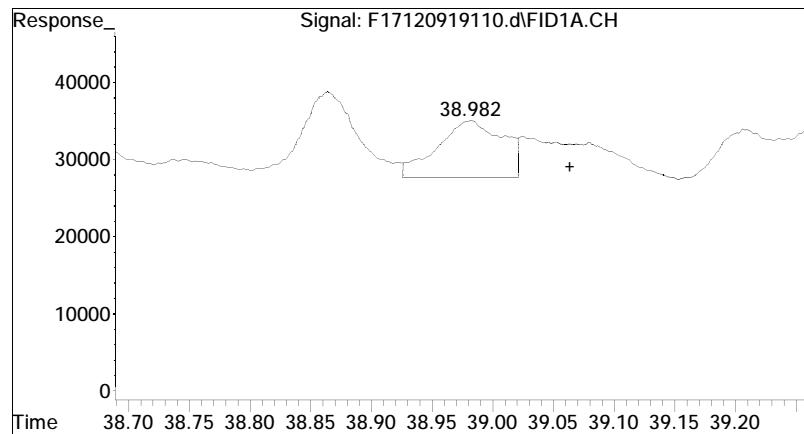


#26 n-Pentacosane (C25)

R.T.: 36.502 min
Delta R.T.: -0.093 min
Response: 9058809
Conc: 7.87 ug/mL M4

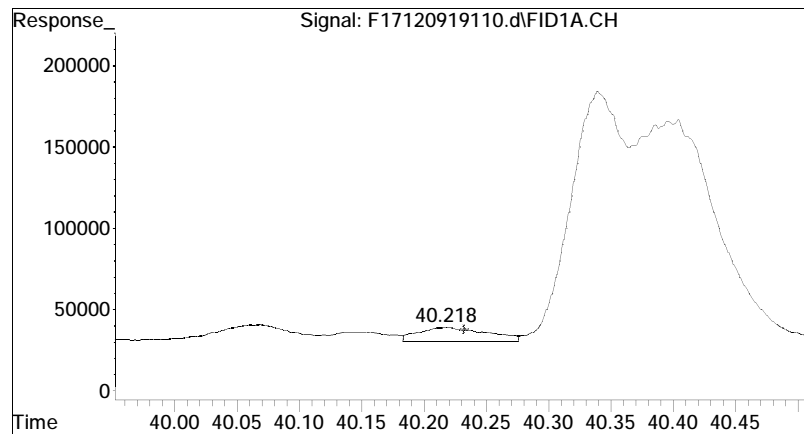


#27 n-Hexacosane (C26)
R.T.: 37.776 min
Delta R.T.: -0.075 min
Response: 128289
Conc: 0.11 ug/mL M4

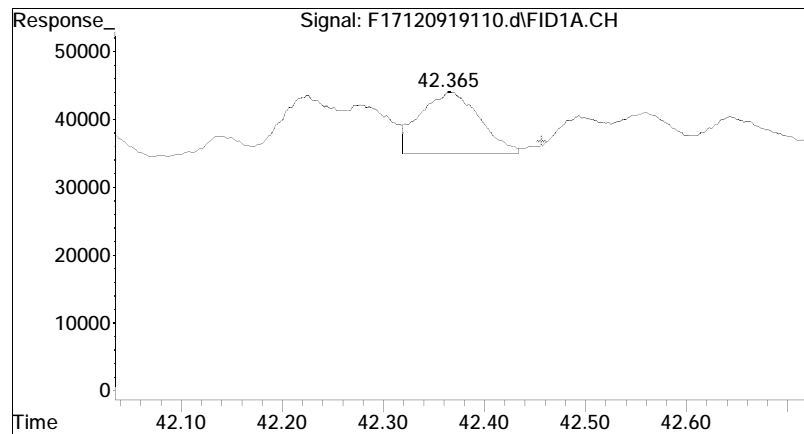


#28 n-Heptacosane (C27)

R.T.: 38.982 min
Delta R.T.: -0.082 min
Response: 275557
Conc: 0.24 ug/mL M4

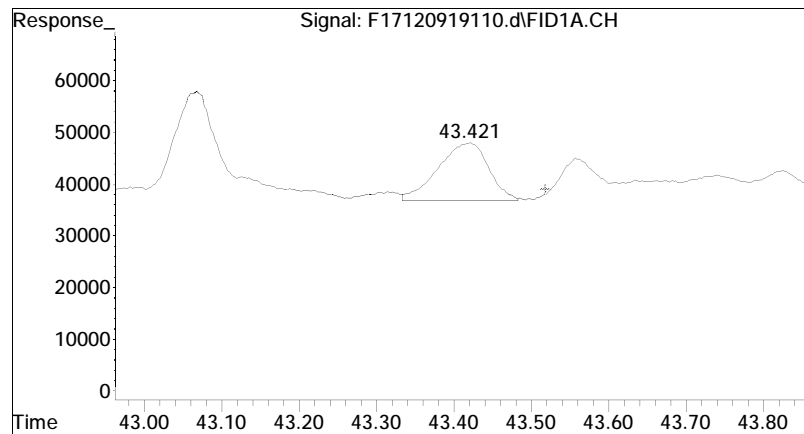


#29 n-Octacosane (C28)
R.T.: 40.218 min
Delta R.T.: -0.014 min
Response: 319749
Conc: 0.27 ug/mL M4



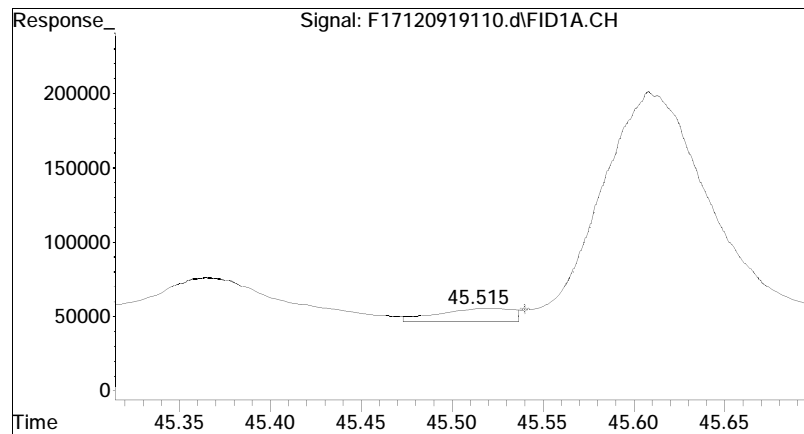
#31 n-Triacontane (C30)

R.T.: 42.365 min
Delta R.T.: -0.092 min
Response: 367611
Conc: 0.32 ug/mL M4



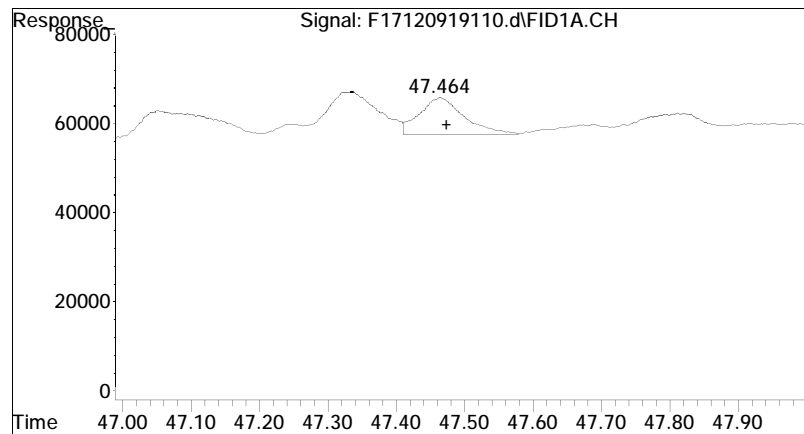
#32 n-Hentriacontane (C31)

R.T.: 43.421 min
Delta R.T.: -0.097 min
Response: 502209
Conc: 0.43 ug/mL M4



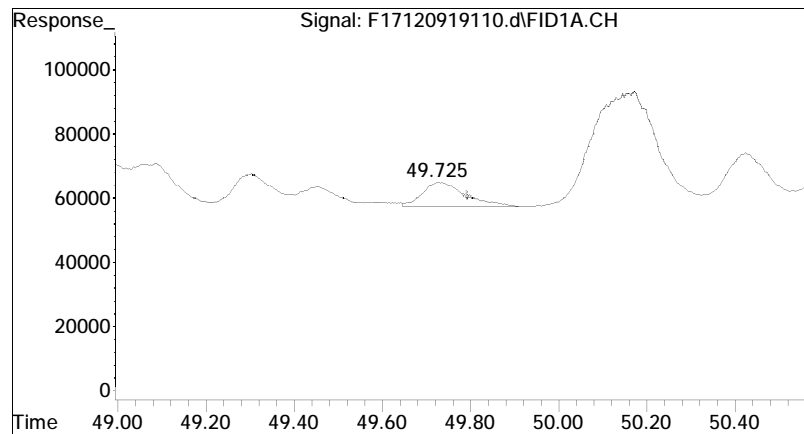
#34 n-Tritriacontane (C33)

R.T.: 45.515 min
Delta R.T.: -0.025 min
Response: 231230
Conc: 0.20 ug/mL M4



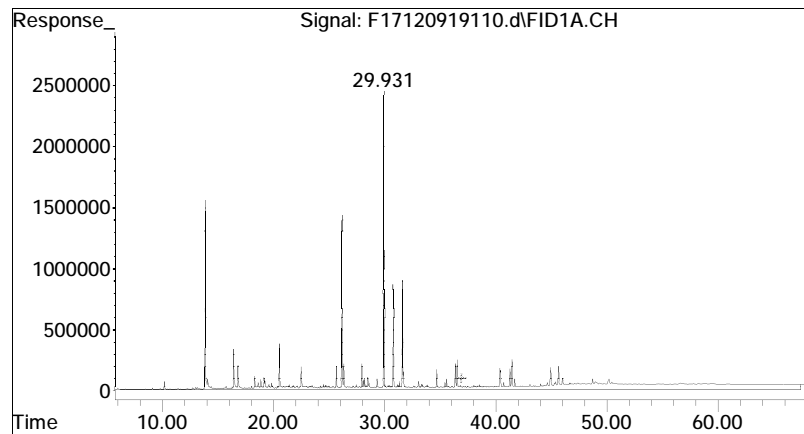
#36 n-Pentatriacontane (C35)

R.T.: 47.464 min
Delta R.T.: -0.010 min
Response: 377070
Conc: 0.33 ug/mL M4



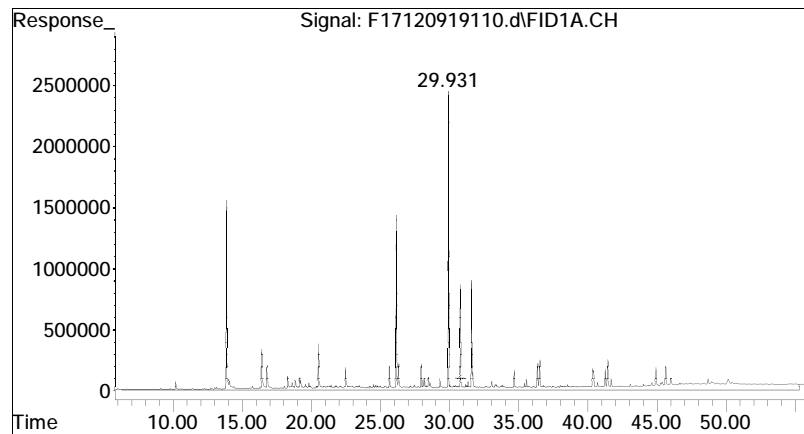
#38 n-Heptatriacontane (C37)

R.T.: 49.725 min
Delta R.T.: -0.067 min
Response: 526339
Conc: 0.46 ug/mL M4



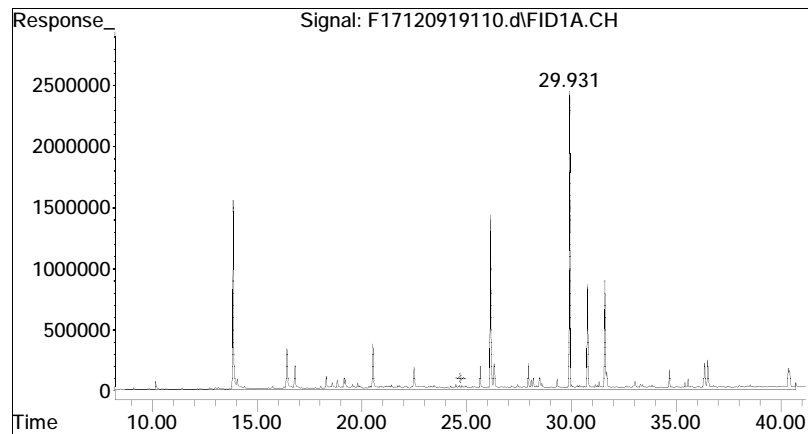
#42 C9-C44 Total Petroleum Hy

R.T.: 36.918 min
Delta R.T.: 0.000 min
Response: 1327381936
Conc: 1166.91 ug/mL m



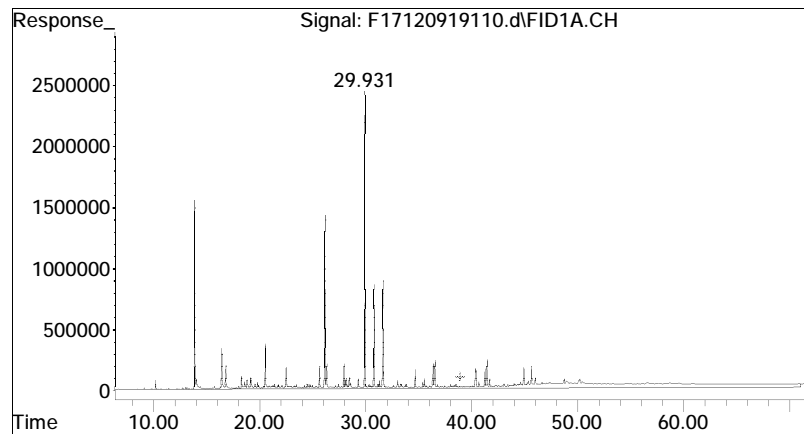
#43 C9-C40 Total Petroleum Hy

R.T.: 30.823 min
Delta R.T.: 0.000 min
Response: 1044660003
Conc: 918.37 ug/ml m



#44 C10-C28 DRO

R.T.: 24.733 min
Delta R.T.: 0.000 min
Response: 558253329
Conc: 490.76 ug/mL m



#46 Total Resolved Hydrocarbo

R.T.: 38.937 min
Delta R.T.: 0.000 min
Response: 399612505
Conc: 351.30 ug/mL m

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021906.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 3:54 pm
 Operator : FID6:WR
 Sample : WG1315720-1
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:11:06 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	72	0.00
2 t	n-Octane (C8)	0.782	0.858	-9.7	80	0.00
3 t	n-Nonane (C9)	0.820	0.896	-9.3	79	0.00
4 t	n-Decane (C10)	0.852	0.918	-7.7	78	0.00
5 t	n-Undecane (C11)	0.869	0.929	-6.9	77	0.00
6 t	n-Dodecane (C12)	0.887	0.941	-6.1	77	0.00
7 t	n-Tridecane (C13)	0.899	0.947	-5.3	76	0.00
9 t	n-Tetradecane (C14)	0.918	0.960	-4.6	76	0.00
11 t	n-Pentadecane (C15)	0.922	0.964	-4.6	75	0.00
12 t	n-Hexadecane (C16)	0.937	0.974	-3.9	75	0.00
14 t	n-Heptadecane (C17)	0.935	0.967	-3.4	75	0.00
15 t	Pristane	0.951	0.998	-4.9	76	0.00
16 T	n-Octadecane (C18)	0.947	0.981	-3.6	75	0.00
17 t	Phytane	0.854	0.889	-4.1	75	0.00
18 t	n-Nonadecane (C19)	0.945	0.983	-4.0	75	0.00
19 s	ortho-terphenyl	1.043	1.081	-3.6	74	0.00
20 t	n-Eicosane (C20)	0.949	0.994	-4.7	76	0.00
21 t	n-Heneicosane (C21)	0.962	1.009	-4.9	76	0.00
22 t	n-Docosane (C22)	0.963	1.013	-5.2	76	0.00
23 t	n-Tricosane (C23)	0.967	1.023	-5.8	76	0.00
24 s	d50-Tetracosane	0.817	0.873	-6.9	76	0.00
25 t	n-Tetracosane (C24)	0.971	1.026	-5.7	77	0.00
26 t	n-Pentacosane (C25)	0.961	1.018	-5.9	77	0.00
27 t	n-Hexacosane (C26)	0.967	1.029	-6.4	77	0.00
28 t	n-Heptacosane (C27)	0.941	1.004	-6.7	77	0.00
29 t	n-Octacosane (C28)	0.978	1.042	-6.5	77	0.00
30 t	n-Nonacosane (C29)	0.974	1.036	-6.4	77	0.00
31 t	n-Triacontane (C30)	0.966	1.021	-5.7	77	0.00
32 t	n-Hentriacontane (C31)	0.973	1.025	-5.3	77	0.00
33 t	n-Dotriacontane (C32)	0.962	1.017	-5.7	77	0.00
34 t	n-Tritriacontane (C33)	0.954	1.016	-6.5	77	0.00
35 t	n-tetratriacontane (C34)	0.987	1.065	-7.9	78	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021906.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 3:54 pm
 Operator : FID6:WR
 Sample : WG1315720-1
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:11:06 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	0.952	1.036	-8.8	79	0.00
37 t	n-Hexatriacontane (C36)	1.009	1.103	-9.3	79	0.00
38 t	n-Heptatriacontane (C37)	0.946	1.035	-9.4	79	0.00
39 t	n-Octatriacontane (C38)	1.021	1.110	-8.7	79	0.00
41 t	n-Tetracontane (C40)	0.953	0.990	-3.9	75	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)	1.11	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021906.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 3:54 pm
 Operator : FID6:WR
 Sample : WG1315720-1
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:11:06 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	31.241	36036439	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.225	38966922	51.827	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.65%	
24) s d50-Tetracosane	35.888	31454882	53.430	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	106.86%	
Target Compounds				
2) t n-Octane (C8)	5.539	30926910	54.851	ug/mL M4
3) t n-Nonane (C9)	7.762	32281107	54.590	ug/mL M4
4) t n-Decane (C10)	10.256	33079053	53.844	ug/mL M4
5) t n-Undecane (C11)	12.773	33461745	53.427	ug/mL M4
6) t n-Dodecane (C12)	15.204	33926008	53.082	ug/mL M4
7) t n-Tridecane (C13)	17.513	34114890	52.656	ug/mL M4
9) t n-Tetradecane (C14)	19.699	34591496	52.309	ug/mL M4
11) t n-Pentadecane (C15)	21.766	34730715	52.238	ug/mL M4
12) t n-Hexadecane (C16)	23.724	35113884	51.999	ug/mL M4
14) t n-Heptadecane (C17)	25.585	34850382	51.728	ug/mL M4
15) t Pristane	25.696	35957847	52.481	ug/mL M4
16) T n-Octadecane (C18)	27.354	35353109	51.772	ug/mL M4
17) t Phytane	27.518	32054356	52.067	ug/mL M4
18) t n-Nonadecane (C19)	29.042	35433277	52.025	ug/mL M4
20) t n-Eicosane (C20)	30.651	35828856	52.408	ug/mL M4
21) t n-Heneicosane (C21)	32.190	36351891	52.403	ug/mL M4
22) t n-Docosane (C22)	33.663	36499474	52.592	ug/mL M4
23) t n-Tricosane (C23)	35.078	36858235	52.875	ug/mL M4
25) t n-Tetracosane (C24)	36.437	36965345	52.844	ug/mL M4
26) t n-Pentacosane (C25)	37.744	36693675	52.979	ug/mL M4
27) t n-Hexacosane (C26)	39.004	37083063	53.184	ug/mL M4
28) t n-Heptacosane (C27)	40.214	36167692	53.332	ug/mL M4
29) t n-Octacosane (C28)	41.390	37563370	53.279	ug/mL M4
30) t n-Nonacosane (C29)	42.525	37324910	53.160	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021906.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 3:54 pm
 Operator : FID6:WR
 Sample : WG1315720-1
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:11:06 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	43.618	36798381	52.864 ug/mL M4
32) t n-Hentriacontane (C31)	44.680	36943242	52.702 ug/mL M4
33) t n-Dotriacontane (C32)	45.711	36653277	52.875 ug/mL M4
34) t n-Tritriacontane (C33)	46.709	36619058	53.234 ug/mL M4
35) t n-tetratriacontane (C34)	47.727	38377762	53.939 ug/mL M4
36) t n-Pentatriacontane (C35)	48.869	37349149	54.434 ug/mL M4
37) t n-Hexatriacontane (C36)	50.176	39736561	54.648 ug/mL M4
38) t n-Heptatriacontane (C37)	51.690	37296712	54.697 ug/mL M4
39) t n-Octatriacontane (C38)	53.458	39990111	54.340 ug/mL M4
41) t n-Tetracontane (C40)	57.968	35667338	51.903 ug/mL M4

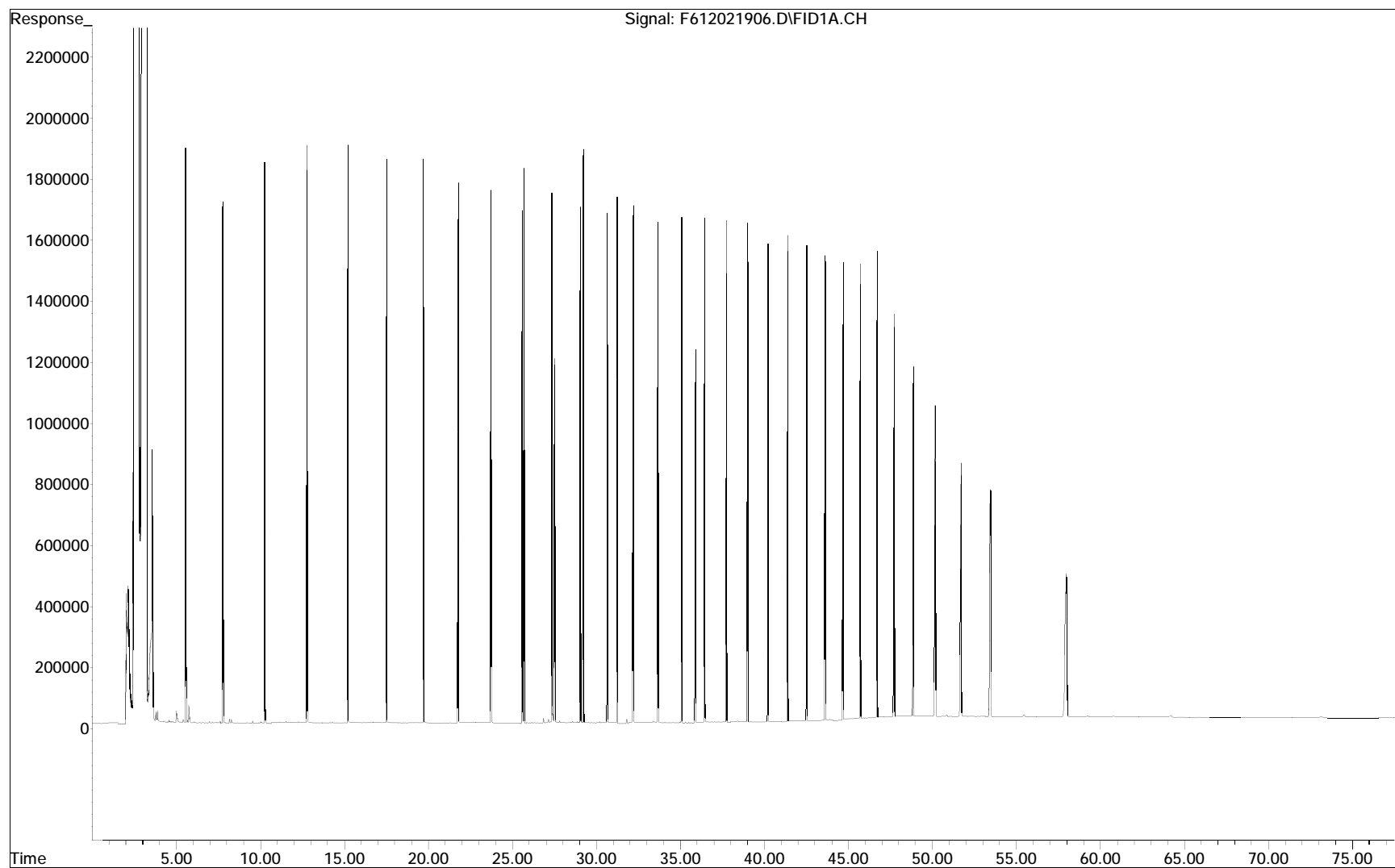
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021906.D
Operator : FID6:WR
Acquired : 02 Dec 2019 3:54 pm using AcqMethod FID6A.M
Sample Name: WG1315720-1
Instrument: FID6
Misc Info : WG1315720,FRBB72,ICAL16308
Vial Number: 3
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021936.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 2:02 pm
 Operator : FID6:WR
 Sample : WG1315720-2
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 18 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:04:01 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	75	0.00
2 t	n-Octane (C8)	0.782	0.821	-5.0	80	0.00
3 t	n-Nonane (C9)	0.820	0.889	-8.4	82	0.00
4 t	n-Decane (C10)	0.852	0.924	-8.5	82	0.00
5 t	n-Undecane (C11)	0.869	0.937	-7.8	81	0.00
6 t	n-Dodecane (C12)	0.887	0.949	-7.0	80	0.00
7 t	n-Tridecane (C13)	0.899	0.954	-6.1	80	0.00
9 t	n-Tetradecane (C14)	0.918	0.968	-5.4	79	0.00
11 t	n-Pentadecane (C15)	0.922	0.969	-5.1	79	0.00
12 t	n-Hexadecane (C16)	0.937	0.979	-4.5	79	0.00
14 t	n-Heptadecane (C17)	0.935	0.970	-3.7	78	0.00
15 t	Pristane	0.951	1.004	-5.6	79	0.00
16 T	n-Octadecane (C18)	0.947	0.984	-3.9	78	0.00
17 t	Phytane	0.854	0.894	-4.7	79	0.00
18 t	n-Nonadecane (C19)	0.945	0.986	-4.3	78	0.00
19 s	ortho-terphenyl	1.043	1.083	-3.8	77	0.00
20 t	n-Eicosane (C20)	0.949	0.996	-5.0	79	0.00
21 t	n-Heneicosane (C21)	0.962	1.010	-5.0	79	0.00
22 t	n-Docosane (C22)	0.963	1.013	-5.2	79	0.00
23 t	n-Tricosane (C23)	0.967	1.022	-5.7	80	0.00
24 s	d50-Tetracosane	0.817	0.871	-6.6	79	0.00
25 t	n-Tetracosane (C24)	0.971	1.024	-5.5	80	0.00
26 t	n-Pentacosane (C25)	0.961	1.015	-5.6	80	0.00
27 t	n-Hexacosane (C26)	0.967	1.022	-5.7	80	0.00
28 t	n-Heptacosane (C27)	0.941	0.994	-5.6	80	0.00
29 t	n-Octacosane (C28)	0.978	1.035	-5.8	80	0.00
30 t	n-Nonacosane (C29)	0.974	1.038	-6.6	81	0.00
31 t	n-Triacontane (C30)	0.966	1.040	-7.7	81	0.00
32 t	n-Hentriacontane (C31)	0.973	1.062	-9.1	83	0.00
33 t	n-Dotriacontane (C32)	0.962	1.069	-11.1	84	0.00
34 t	n-Tritriacontane (C33)	0.954	1.079	-13.1	86	0.00
35 t	n-tetratriacontane (C34)	0.987	1.138	-15.3	87	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021936.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 2:02 pm
 Operator : FID6:WR
 Sample : WG1315720-2
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 18 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:04:01 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	0.952	1.114	-17.0	88	0.00
37 t	n-Hexatriacontane (C36)	1.009	1.193	-18.2	89	0.01
38 t	n-Heptatriacontane (C37)	0.946	1.126	-19.0	90	0.01
39 t	n-Octatriacontane (C38)	1.021	1.217	-19.2	90	0.02
41 t	n-Tetracontane (C40)	0.953	1.069	-12.2	85	0.01

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)	1.20#	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021936.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 2:02 pm
 Operator : FID6:WR
 Sample : WG1315720-2
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 18 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:04:01 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	31.239	37540750	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.224	40640753	51.887	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.77%	
24) s d50-Tetracosane	35.887	32716031	53.346	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	106.69%	
Target Compounds				
2) t n-Octane (C8)	5.546	30803179	52.442	ug/mL M4
3) t n-Nonane (C9)	7.763	33359197	54.153	ug/mL M4
4) t n-Decane (C10)	10.256	34685770	54.197	ug/mL M4
5) t n-Undecane (C11)	12.772	35169261	53.903	ug/mL M4
6) t n-Dodecane (C12)	15.202	35643751	53.535	ug/mL M4
7) t n-Tridecane (C13)	17.513	35796209	53.037	ug/mL M4
9) t n-Tetradecane (C14)	19.698	36356447	52.775	ug/mL M4
11) t n-Pentadecane (C15)	21.766	36392758	52.544	ug/mL M4
12) t n-Hexadecane (C16)	23.724	36770283	52.270	ug/mL M4
14) t n-Heptadecane (C17)	25.585	36420519	51.892	ug/mL M4
15) t Pristane	25.696	37682993	52.795	ug/mL M4
16) T n-Octadecane (C18)	27.355	36948125	51.939	ug/mL M4
17) t Phytane	27.517	33549296	52.312	ug/mL M4
18) t n-Nonadecane (C19)	29.041	37012195	52.166	ug/mL M4
20) t n-Eicosane (C20)	30.647	37377369	52.483	ug/mL M4
21) t n-Heneicosane (C21)	32.186	37898669	52.444	ug/mL M4
22) t n-Docosane (C22)	33.662	38033118	52.606	ug/mL M4
23) t n-Tricosane (C23)	35.078	38348700	52.808	ug/mL M4
25) t n-Tetracosane (C24)	36.438	38439484	52.749	ug/mL M4
26) t n-Pentacosane (C25)	37.744	38089943	52.791	ug/mL M4
27) t n-Hexacosane (C26)	39.002	38352498	52.800	ug/mL M4
28) t n-Heptacosane (C27)	40.216	37318090	52.823	ug/mL M4
29) t n-Octacosane (C28)	41.390	38860834	52.911	ug/mL M4
30) t n-Nonacosane (C29)	42.526	38974298	53.284	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021936.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 2:02 pm
 Operator : FID6:WR
 Sample : WG1315720-2
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 18 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:04:01 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	43.621	39023777	53.815 ug/mL M4
32) t n-Hentriacontane (C31)	44.682	39871800	54.600 ug/mL M4
33) t n-Dotriacontane (C32)	45.712	40133431	55.575 ug/mL M4
34) t n-Tritriacontane (C33)	46.711	40510095	56.531 ug/mL M4
35) t n-tetratriacontane (C34)	47.734	42710084	57.622 ug/mL M4
36) t n-Pentatriacontane (C35)	48.877	41821348	58.509 ug/mL M4
37) t n-Hexatriacontane (C36)	50.189	44776756	59.112 ug/mL M4
38) t n-Heptatriacontane (C37)	51.703	42278984	59.519 ug/mL M4
39) t n-Octatriacontane (C38)	53.477	45682622	59.588 ug/mL M4
41) t n-Tetracontane (C40)	57.982	40131197	56.058 ug/mL M4

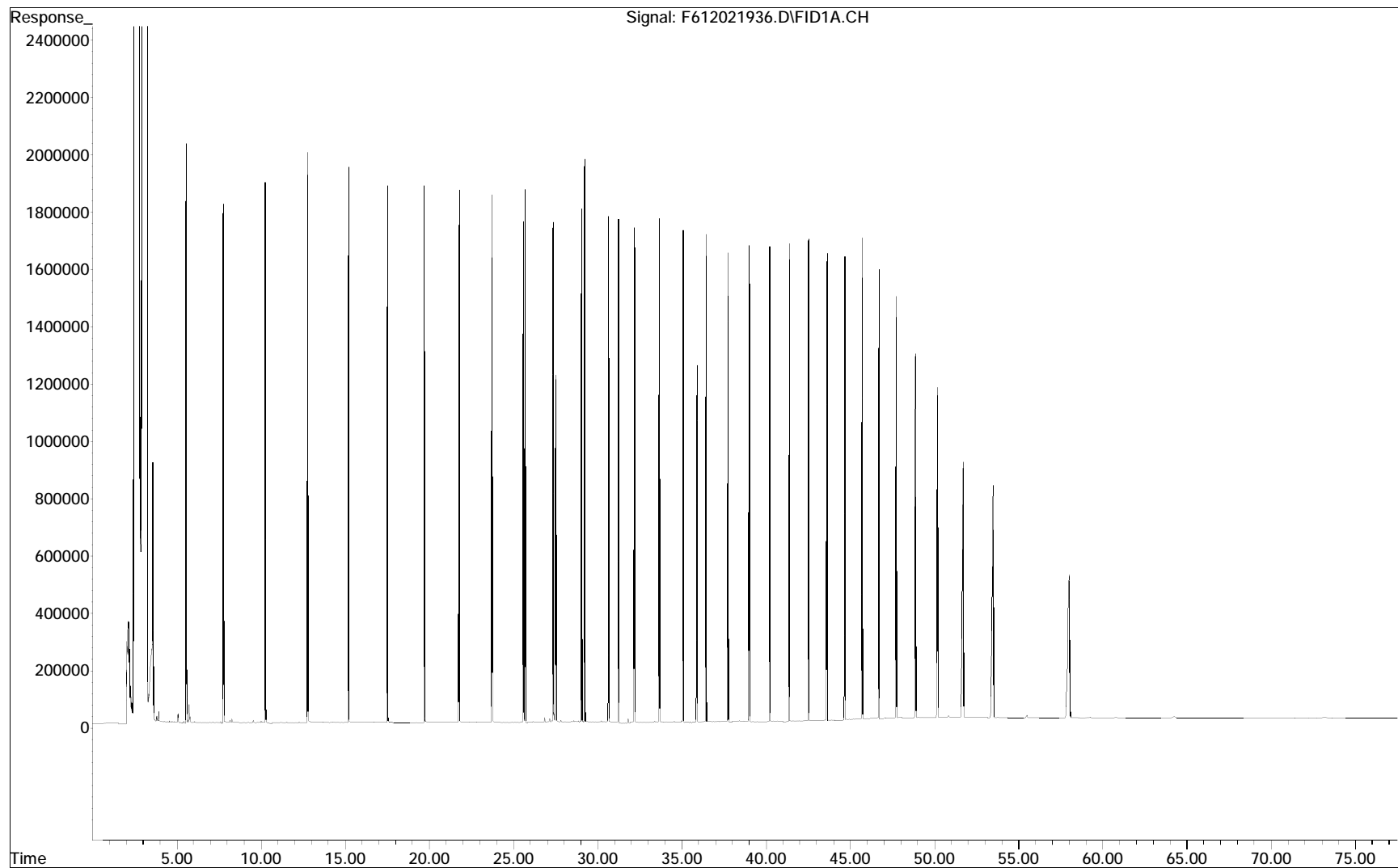
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021936.D
Operator : FID6:WR
Acquired : 03 Dec 2019 2:02 pm using AcqMethod FID6A.M
Sample Name: WG1315720-2
Instrument: FID6
Misc Info : WG1315720,FRBB72,ICAL16308
Vial Number: 18
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021960.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 7:42 am
 Operator : FID6:WR
 Sample : L1954309-06
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 30 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:40 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.241	53924767	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.207	22820473	20.283	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	40.57%#	
24) s d50-Tetracosane	35.874	17467451	19.828	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	39.66%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	7.745	8643	0.010	ug/mL M4
4) t n-Decane (C10)	10.246	7179	0.008	ug/mL M4
5) t n-Undecane (C11)	12.752	8877	0.009	ug/mL M4
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL d
7) t n-Tridecane (C13)	17.471	205088	0.212	ug/mL M4
8) t 1380	19.175	39339	0.040	ug/mL M4
9) t n-Tetradecane (C14)	19.686	72643	0.073	ug/mL M4
10) t 1470	20.967	50245	0.051	ug/mL M4
11) t n-Pentadecane (C15)	21.754	4617672G	4.641	ug/mL M4
12) t n-Hexadecane (C16)	23.707	1515591G	1.500	ug/mL M4
13) t 1650	24.609	45043	0.045	ug/mL M4
14) t n-Heptadecane (C17)	25.556	19322	0.019	ug/mL M4
15) t Pristane	25.653	85834	0.084	ug/mL M4
16) T n-Octadecane (C18)	27.298	374312C	0.366	ug/mL M4
17) t Phytane	0.000	0	N.D.	ug/mL d
18) t n-Nonadecane (C19)	29.014	64708	0.063	ug/mL M4
20) t n-Eicosane (C20)	30.624	57123	0.056	ug/mL M4
21) t n-Heneicosane (C21)	32.158	130712	0.126	ug/mL M4
22) t n-Docosane (C22)	33.634	121246	0.117	ug/mL M4
23) t n-Tricosane (C23)	35.046	445517	0.427	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021960.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 7:42 am
 Operator : FID6:WR
 Sample : L1954309-06
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 30 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:40 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units
25) t n-Tetracosane (C24)	36.408	153514	0.147 ug/mL M4
26) t n-Pentacosane (C25)	37.709	1722604C	1.662 ug/mL M4
27) t n-Hexacosane (C26)	38.966	404606	0.388 ug/mL M4
28) t n-Heptacosane (C27)	40.190	5471479	5.392 ug/mL M4
29) t n-Octacosane (C28)	41.388	622821	0.590 ug/mL M4
30) t n-Nonacosane (C29)	42.495	2511174	2.390 ug/mL M4
31) t n-Triacontane (C30)	43.585	242990	0.233 ug/mL M4
32) t n-Hentriacontane (C31)	44.650	1648881	1.572 ug/mL M4
33) t n-Dotriacontane (C32)	45.676	181039	0.175 ug/mL M4
34) t n-Tritriacontane (C33)	46.674	2394357	2.326 ug/mL M4
35) t n-tetratriacontane (C34)	47.672	327532	0.308 ug/mL M4
36) t n-Pentatriacontane (C35)	48.836	1717944	1.673 ug/mL M4
37) t n-Hexatriacontane (C36)	50.127	117547	0.108 ug/mL M4
38) t n-Heptatriacontane (C37)	51.624	119739	0.117 ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL d
41) t n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h C9-C44 Total Petroleu...	40.477	679601204	668.775 ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	327295007	322.081 ug/mLm
43) h C10-C25 DRO	0.000	0	N.D. ug/mL d
44) h C25-C44 ORO	0.000	0	N.D. ug/mL d
45) h C9-C40 Total Petroleu...	32.826	452885311	445.670 ug/ml m
45) h C9-C40 Total Petroleu BS	32.826	259234007	255.104 ug/mlm
46) h C10-C28 DRO	25.817	140127622	137.895 ug/mL m
46) h C10-C28 DRO BS	25.817	100494478	98.894 ug/mLm
47) h C8-C40 Total Petroleu...	0.000	0	N.D. ug/mL d
48) h C28-C40 ORO	0.000	0	N.D. ug/mL d
48) h C28-C40 ORO BS	0.000	0	N.D. ug/mLd
49) h Total Resolved Hydroc...	37.081	127981670	125.943 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
Data File : F612021960.D
Signal(s) : FID1A.CH
Acq On : 04 Dec 2019 7:42 am
Operator : FID6:WR
Sample : L1954309-06
Misc : WG1315720,WG1312512,ICAL16308
ALS Vial : 30 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Dec 13 14:44:40 2019
Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
Quant Title : FID Forensics
QLast Update : Thu Dec 05 15:01:36 2019
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 : IB612021902F
Blank File : F612021940.D

Sub List : Default - All compounds listed

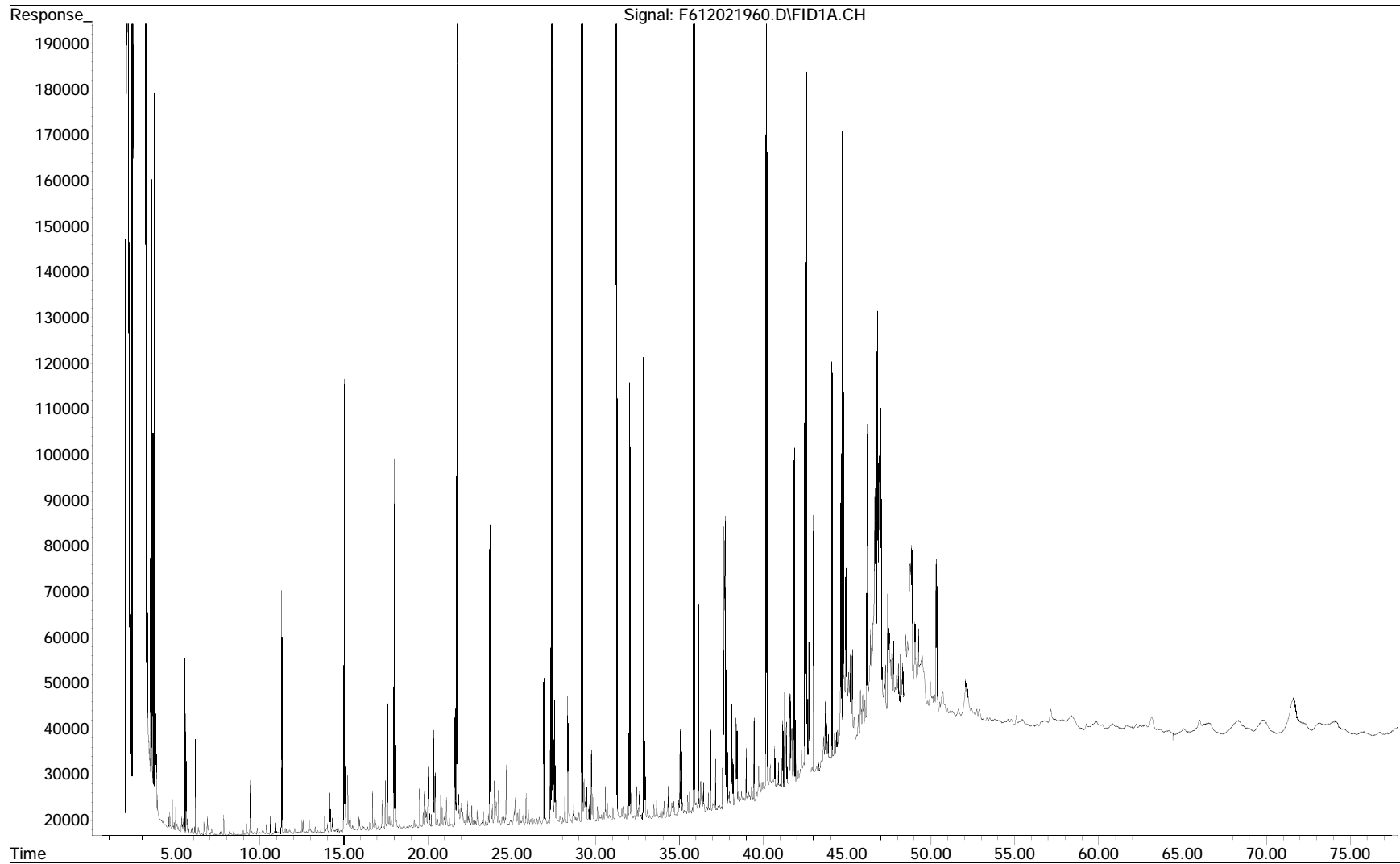
Compound	R.T.	Response	Conc Units
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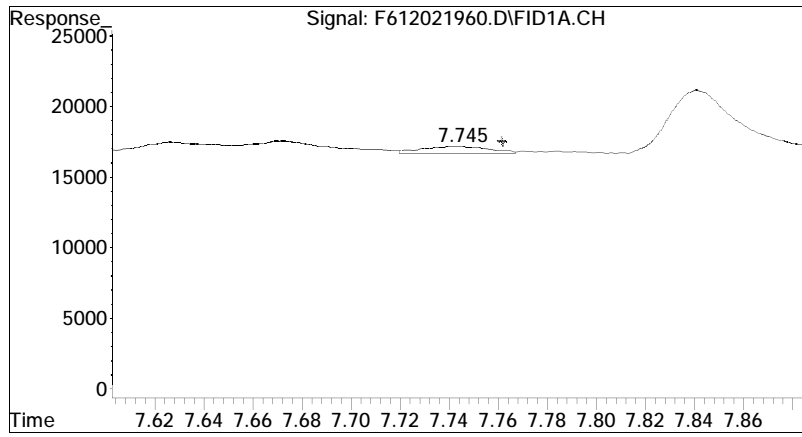
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

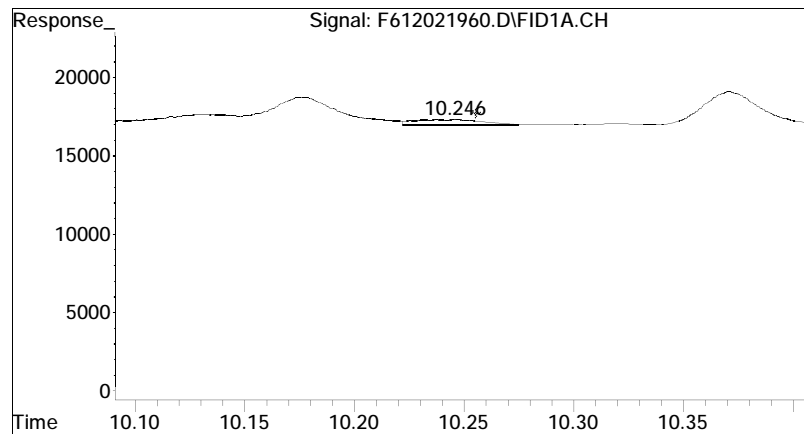
File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021960.D
Operator : FID6:WR
Acquired : 04 Dec 2019 7:42 am using AcqMethod FID6A.M
Sample Name: L1954309-06
Instrument: FID6
Misc Info : WG1315720, WG1312512, ICAL16308
Vial Number: 30
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M





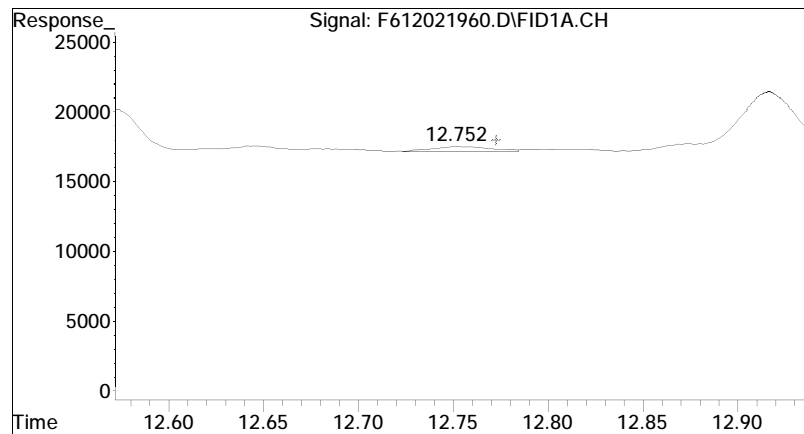
#3 n-Nonane (C9)

R.T.: 7.745 min
Delta R.T.: -0.017 min
Response: 8643
Conc: 0.01 ug/mL M4



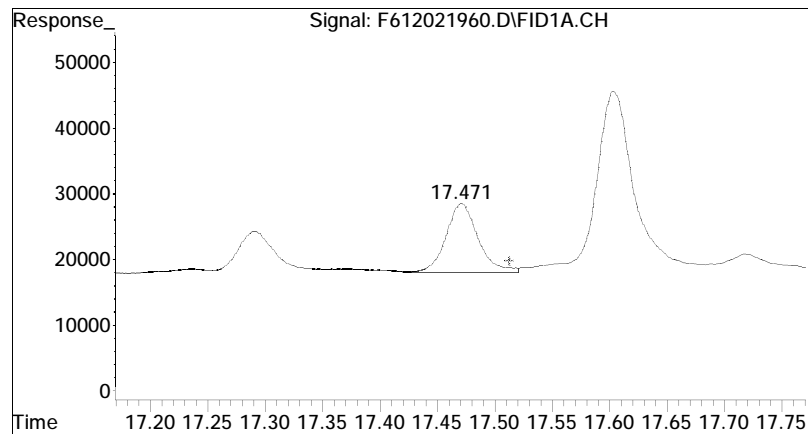
#4 n-Decane (C10)

R.T.: 10.246 min
Delta R.T.: -0.009 min
Response: 7179
Conc: 0.01 ug/mL M4



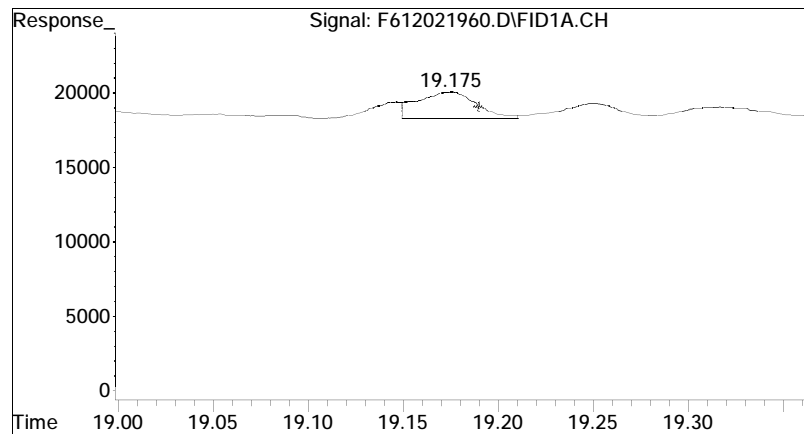
#5 n-Undecane (C11)

R.T.: 12.752 min
Delta R.T.: -0.021 min
Response: 8877
Conc: 0.01 ug/mL M4



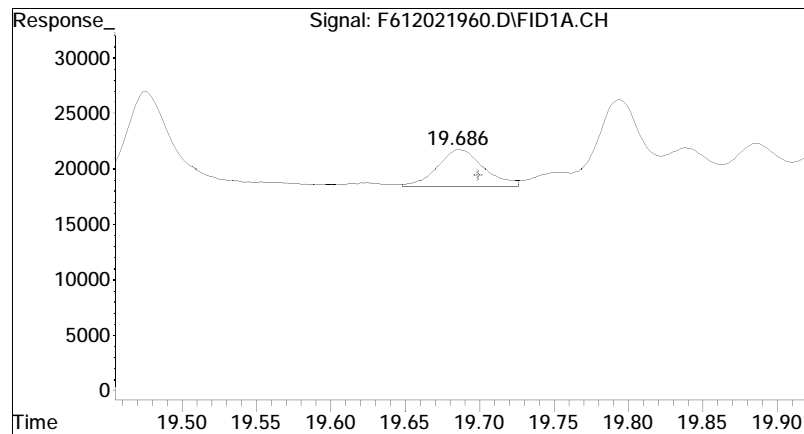
#7 n-Tridecane (C13)

R.T.: 17.471 min
Delta R.T.: -0.042 min
Response: 205088
Conc: 0.21 ug/mL M4



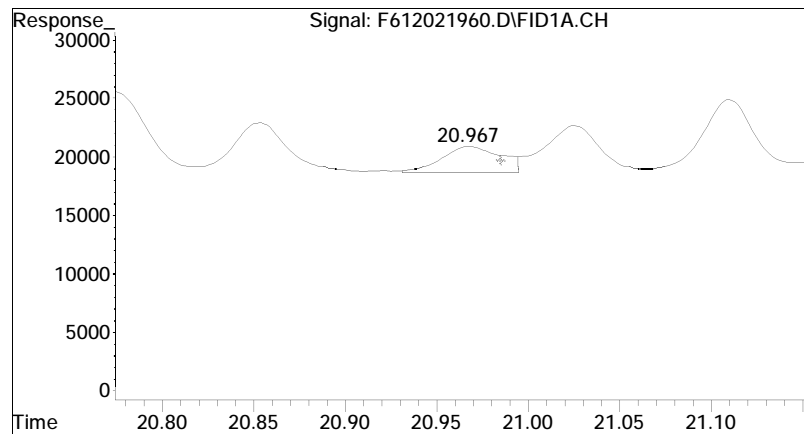
#8 1380

R.T.: 19.175 min
Delta R.T.: -0.015 min
Response: 39339
Conc: 0.04 ug/mL M4



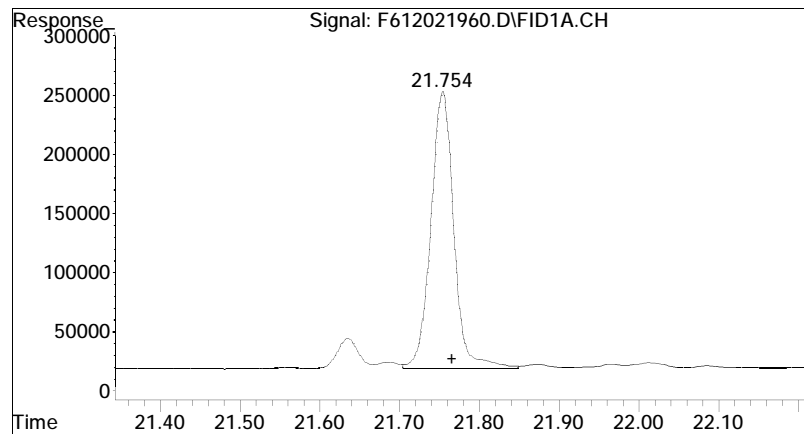
#9 n-Tetradecane (C14)

R.T.: 19.686 min
Delta R.T.: -0.013 min
Response: 72643
Conc: 0.07 ug/mL M4



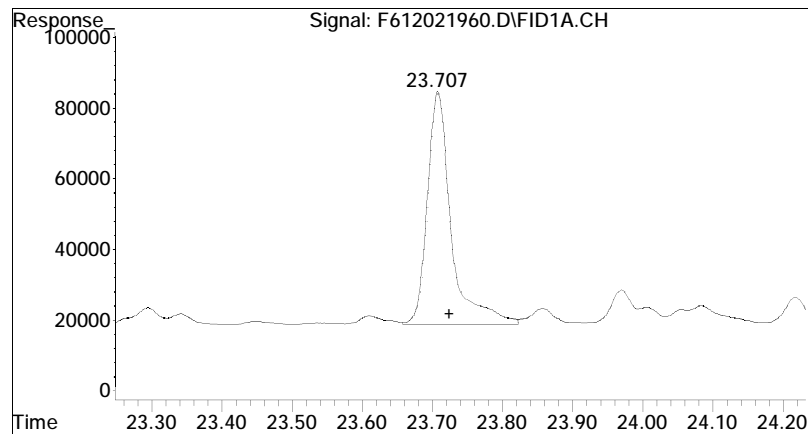
#10 1470

R.T.: 20.967 min
Delta R.T.: -0.018 min
Response: 50245
Conc: 0.05 ug/mL M4

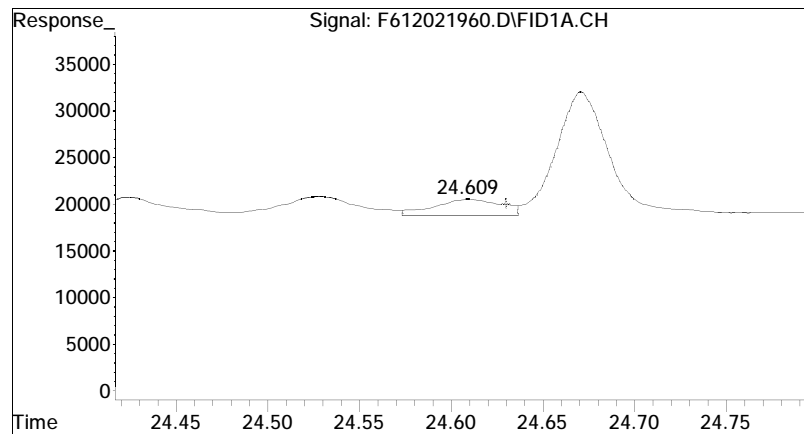


#11 n-Pentadecane (C15)

R.T.: 21.754 min
Delta R.T.: -0.012 min
Response: 4617672
Conc: 4.64 ug/mL M4

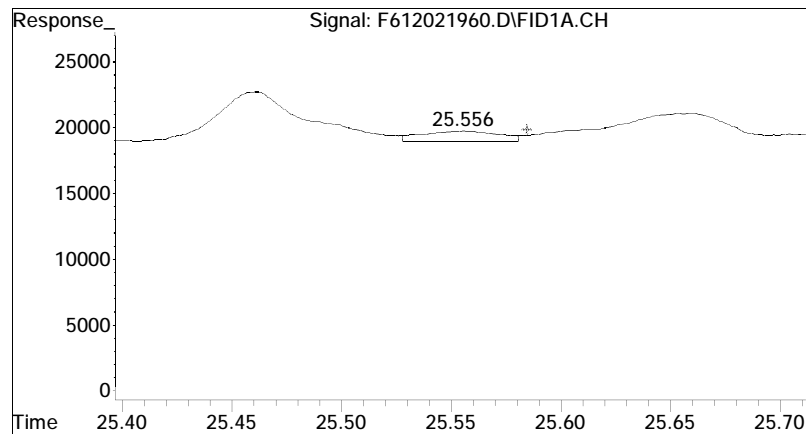


#12 n-Hexadecane (C16)
R.T.: 23.707 min
Delta R.T.: -0.017 min
Response: 1515591
Conc: 1.50 ug/mL M4



#13 1650

R.T.: 24.609 min
Delta R.T.: -0.021 min
Response: 45043
Conc: 0.04 ug/mL M4



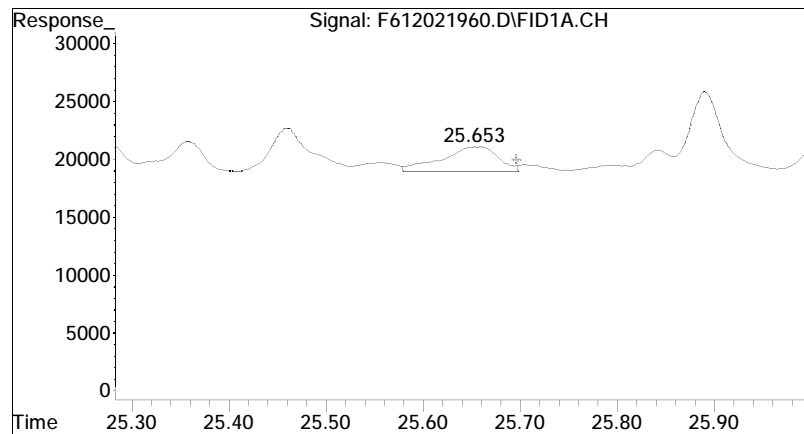
#14 n-Heptadecane (C17)

R.T.: 25.556 min

Delta R.T.: -0.029 min

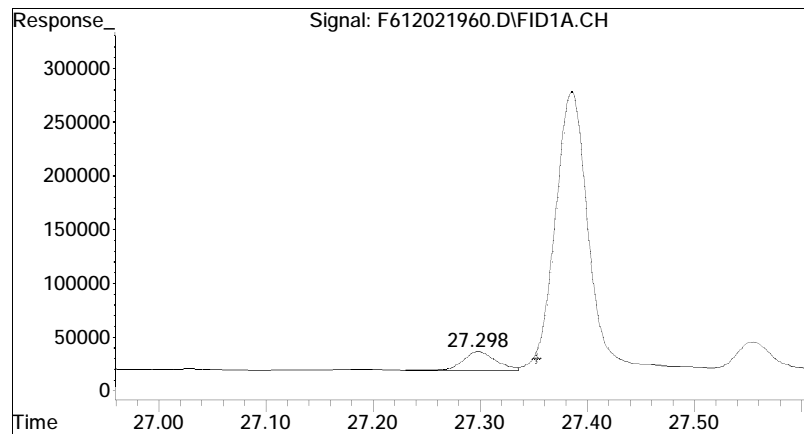
Response: 19322

Conc: 0.02 ug/mL M4



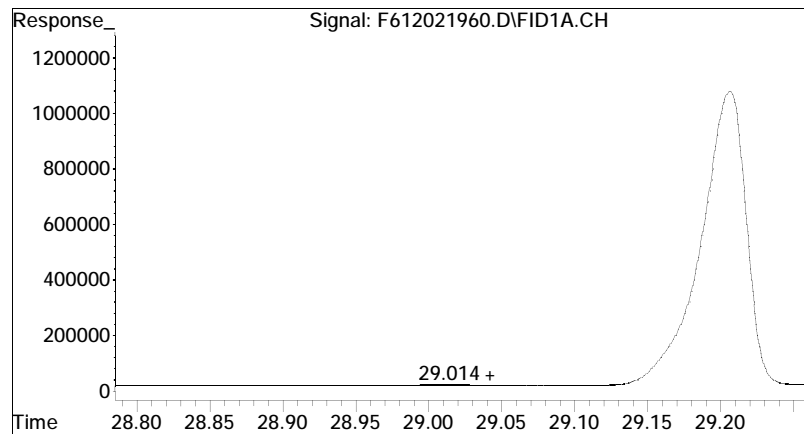
#15 Pristane

R.T.: 25.653 min
Delta R.T.: -0.043 min
Response: 85834
Conc: 0.08 ug/mL M4

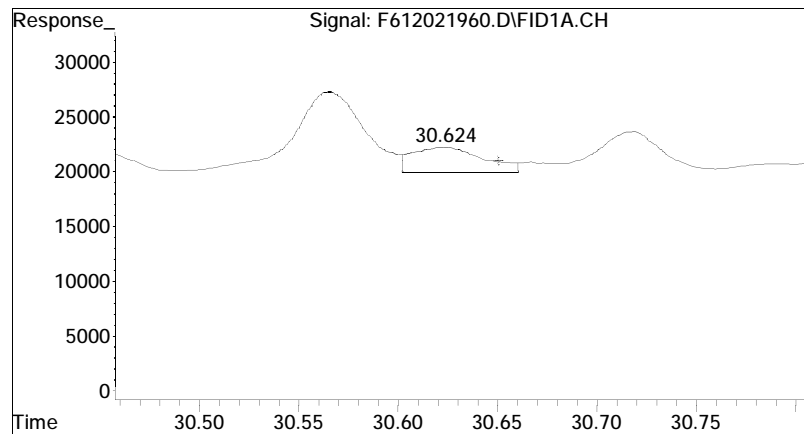


#16 n-Octadecane (C18)

R.T.: 27.298 min
Delta R.T.: -0.055 min
Response: 374312
Conc: 0.37 ug/mL M4

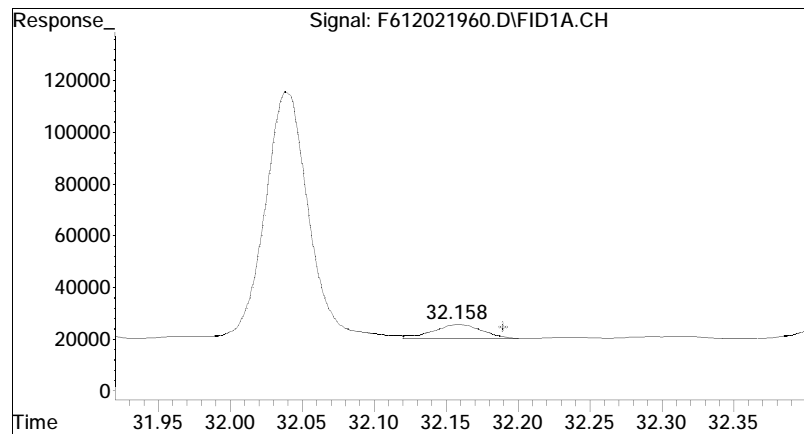


#18 n-Nonadecane (C19)
R.T.: 29.014 min
Delta R.T.: -0.028 min
Response: 64708
Conc: 0.06 ug/mL M4



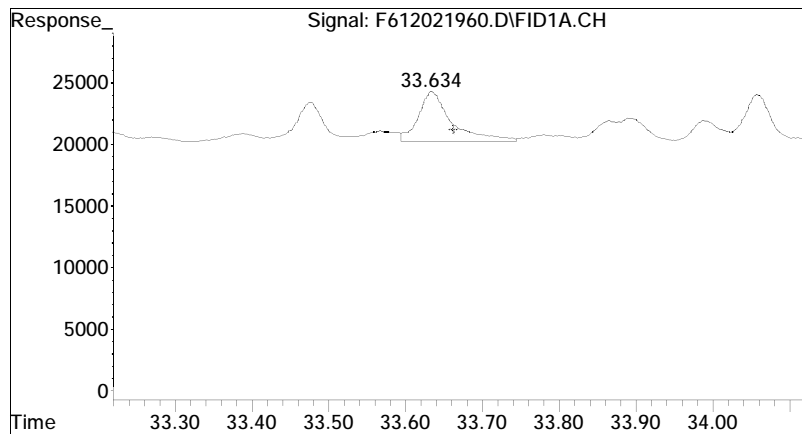
#20 n-Eicosane (C20)

R.T.: 30.624 min
Delta R.T.: -0.027 min
Response: 57123
Conc: 0.06 ug/mL M4



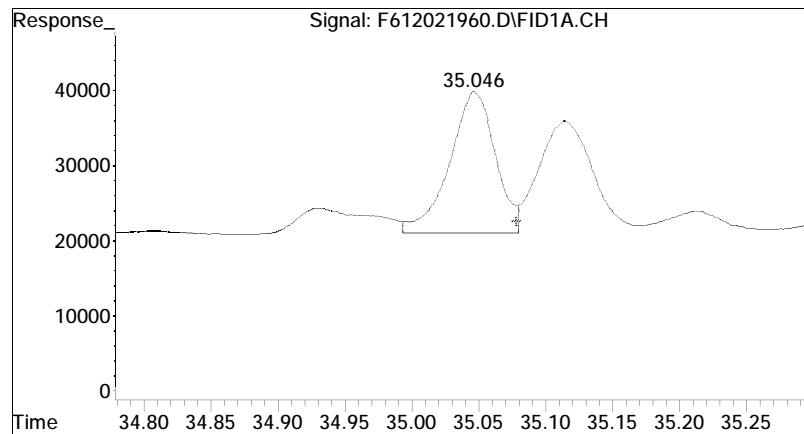
#21 n-Heneicosane (C21)

R.T.: 32.158 min
Delta R.T.: -0.032 min
Response: 130712
Conc: 0.13 ug/mL M4



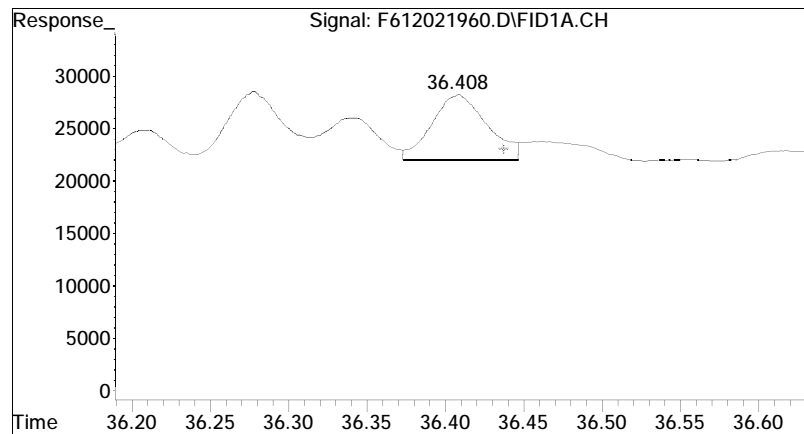
#22 n-Docosane (C22)

R.T.: 33.634 min
Delta R.T.: -0.029 min
Response: 121246
Conc: 0.12 ug/mL M4



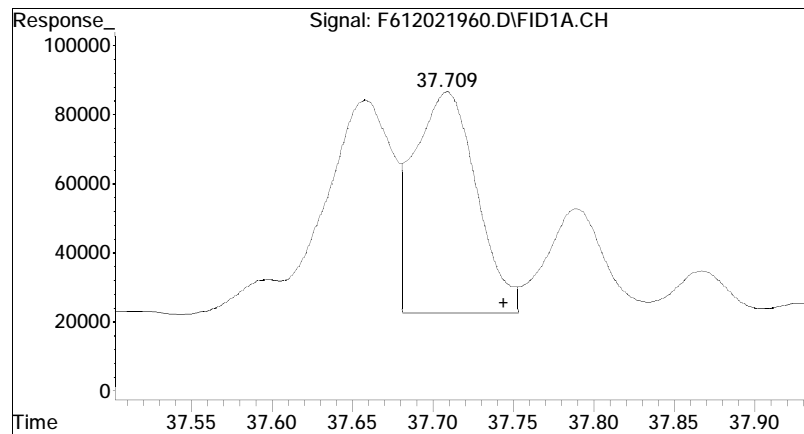
#23 n-Tricosane (C23)

R.T.: 35.046 min
Delta R.T.: -0.032 min
Response: 445517
Conc: 0.43 ug/mL M4



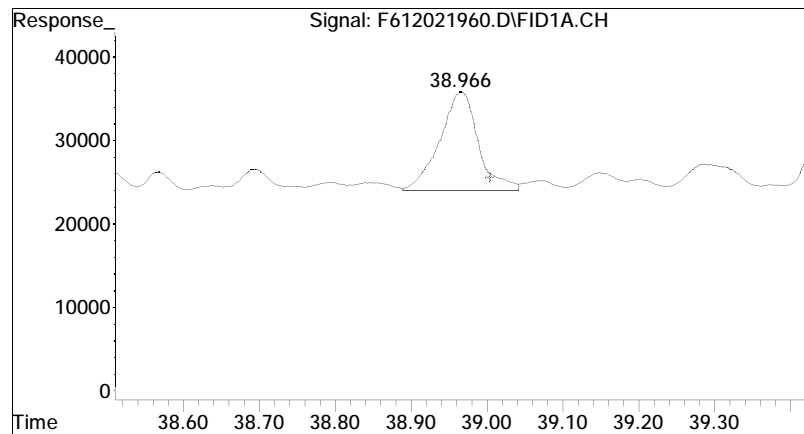
#25 n-Tetracosane (C24)

R.T.: 36.408 min
Delta R.T.: -0.029 min
Response: 153514
Conc: 0.15 ug/mL M4



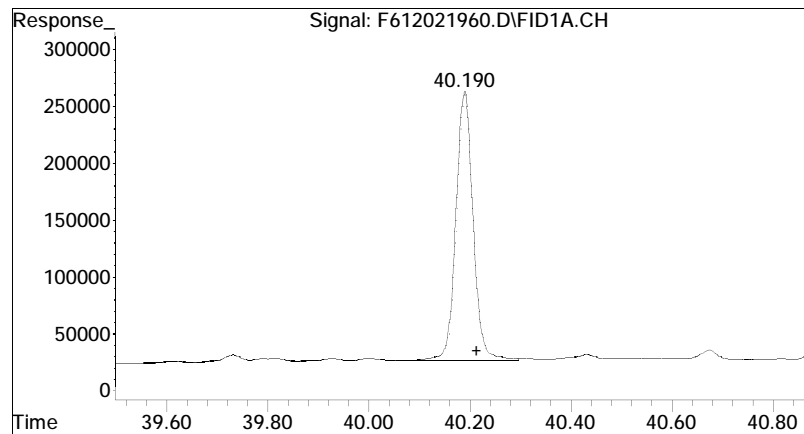
#26 n-Pentacosane (C25)

R.T.: 37.709 min
Delta R.T.: -0.035 min
Response: 1722604
Conc: 1.66 ug/mL M4



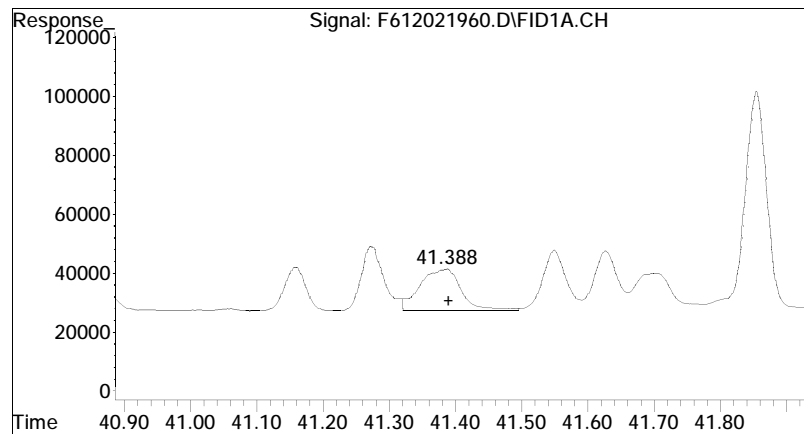
#27 n-Hexacosane (C26)

R.T.: 38.966 min
Delta R.T.: -0.039 min
Response: 404606
Conc: 0.39 ug/mL M4



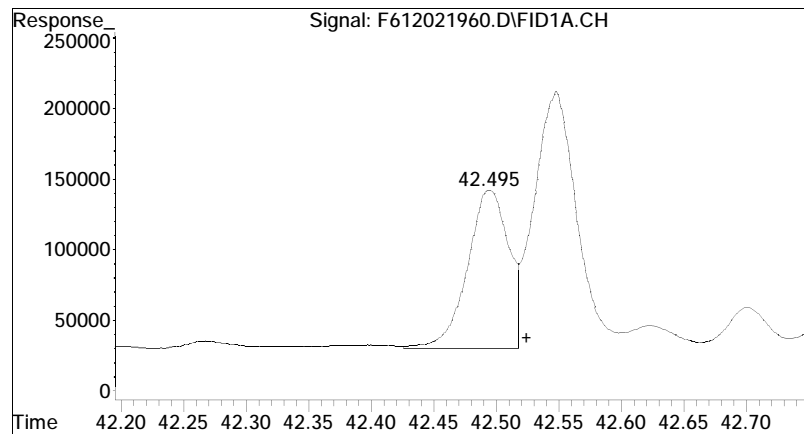
#28 n-Heptacosane (C27)

R.T.: 40.190 min
Delta R.T.: -0.024 min
Response: 5471479
Conc: 5.39 ug/mL M4



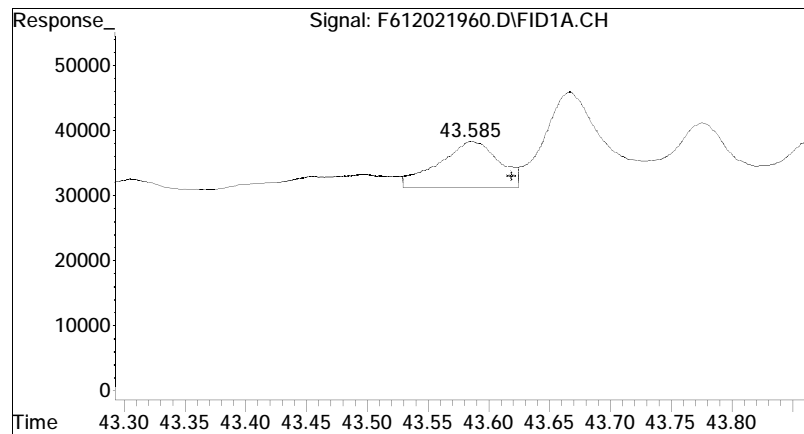
#29 n-Octacosane (C28)

R.T.: 41.388 min
Delta R.T.: -0.002 min
Response: 622821
Conc: 0.59 ug/mL M4



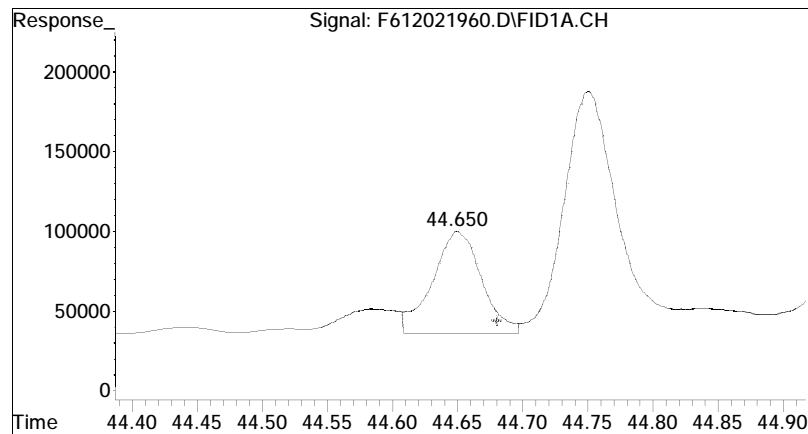
#30 n-Nonacosane (C29)

R.T.: 42.495 min
Delta R.T.: -0.030 min
Response: 2511174
Conc: 2.39 ug/mL M4



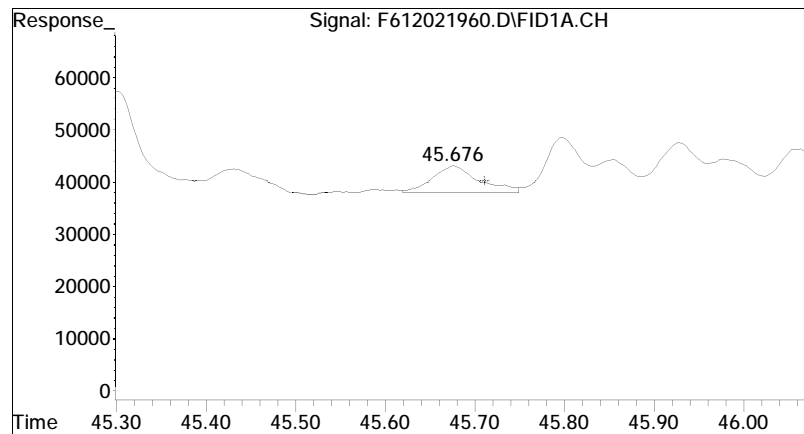
#31 n-Triacontane (C30)

R.T.: 43.585 min
Delta R.T.: -0.033 min
Response: 242990
Conc: 0.23 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.650 min
Delta R.T.: -0.030 min
Response: 1648881
Conc: 1.57 ug/mL M4



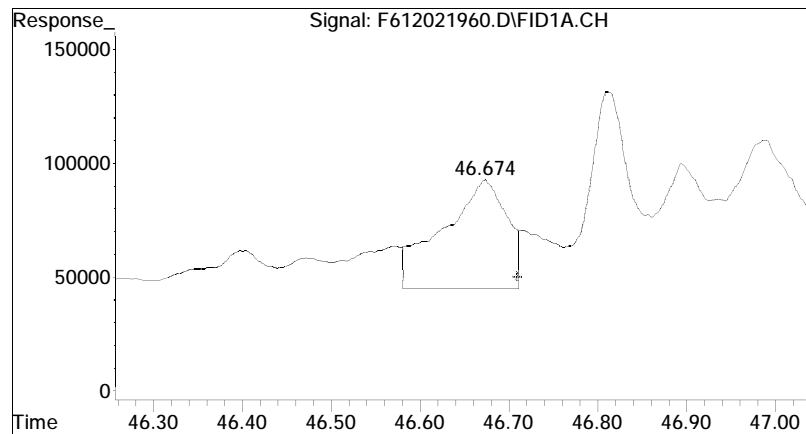
#33 n-Dotriacontane (C32)

R.T.: 45.676 min

Delta R.T.: -0.035 min

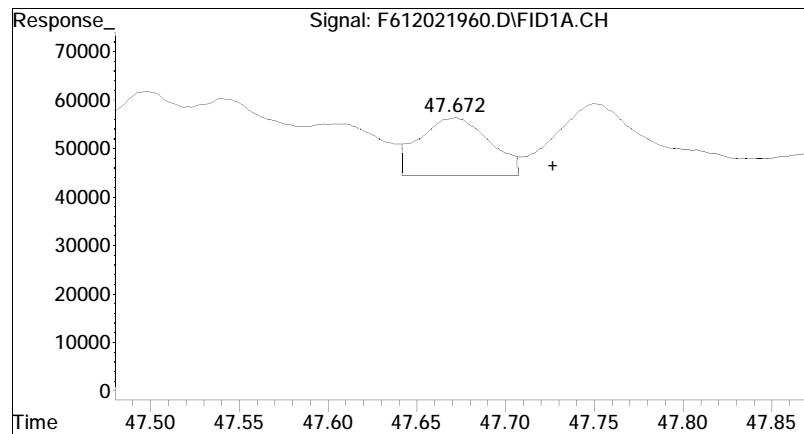
Response: 181039

Conc: 0.17 ug/mL M4



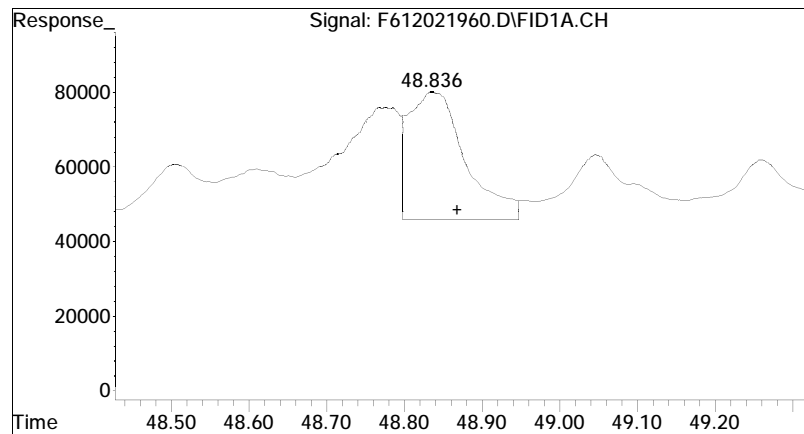
#34 n-Tritriacontane (C33)

R.T.: 46.674 min
Delta R.T.: -0.035 min
Response: 2394357
Conc: 2.33 ug/mL M4



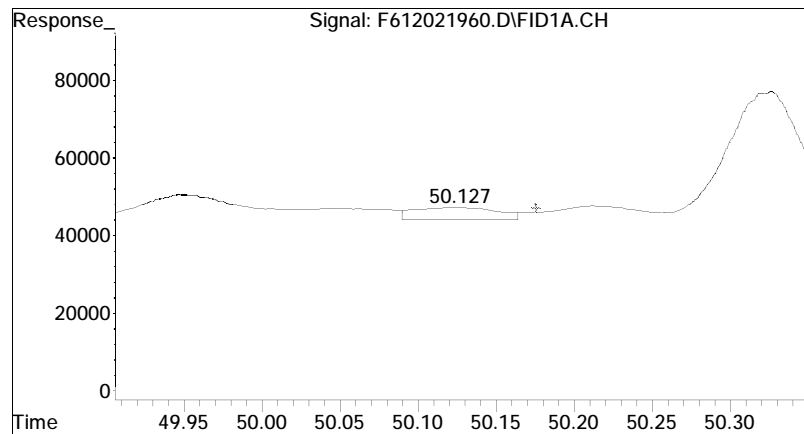
#35 n-tetratriacontane (C34)

R.T.: 47.672 min
Delta R.T.: -0.055 min
Response: 327532
Conc: 0.31 ug/mL M4



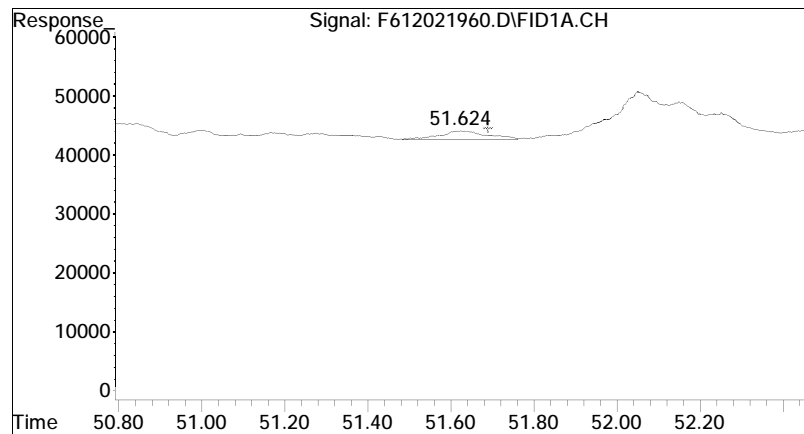
#36 n-Pentatriacontane (C35)

R.T.: 48.836 min
Delta R.T.: -0.033 min
Response: 1717944
Conc: 1.67 ug/mL M4



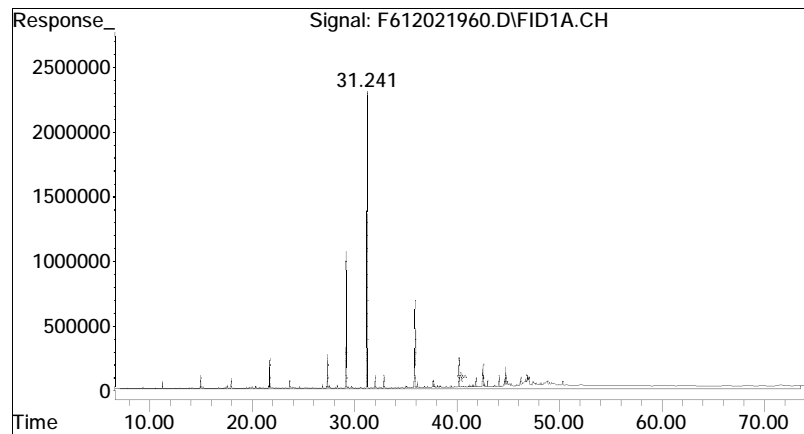
#37 n-Hexatriacontane (C36)

R.T.: 50.127 min
Delta R.T.: -0.049 min
Response: 117547
Conc: 0.11 ug/mL M4



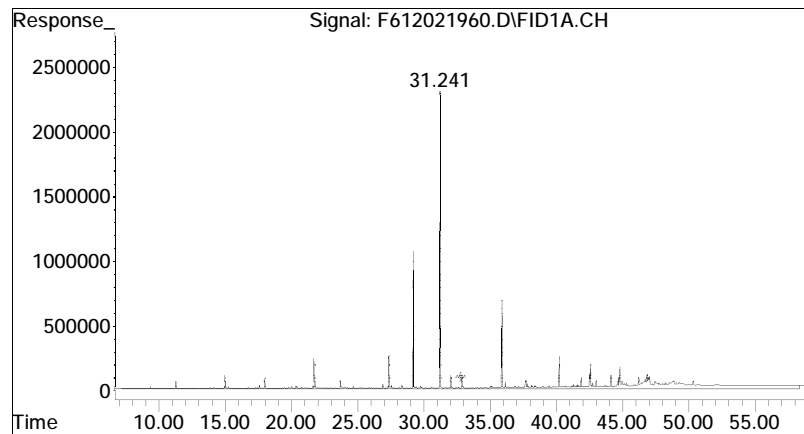
#38 n-Heptatriacontane (C37)

R.T.: 51.624 min
Delta R.T.: -0.066 min
Response: 119739
Conc: 0.12 ug/mL M4



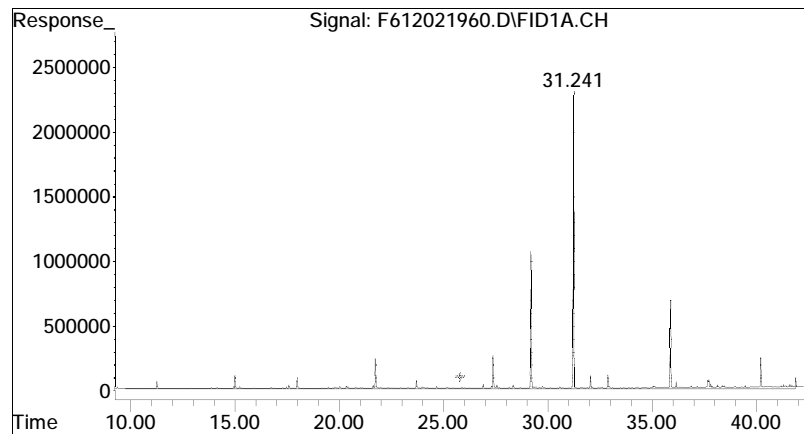
#42 C9-C44 Total Petroleum Hy

R.T.: 40.477 min
Delta R.T.: 0.000 min
Response: 679601204
Conc: 668.77 ug/mL m



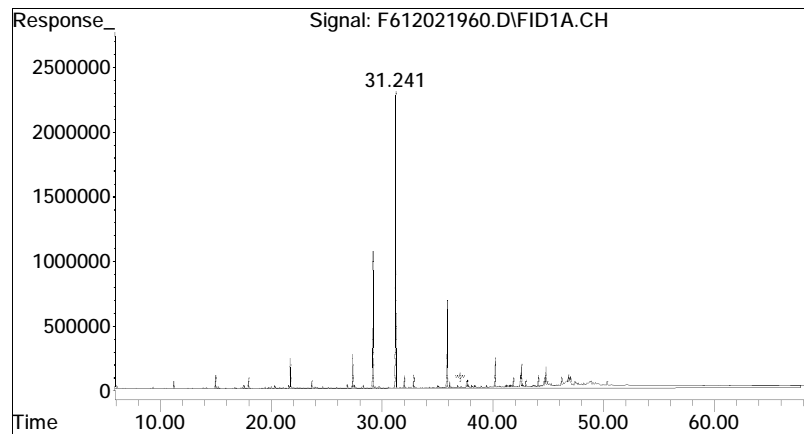
#45 C9-C40 Total Petroleum Hy

R.T.: 32.826 min
Delta R.T.: 0.000 min
Response: 452885311
Conc: 445.67 ug/ml m



#46 C10-C28 DRO

R.T.: 25.817 min
Delta R.T.: 0.000 min
Response: 140127622
Conc: 137.90 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 127981670
Conc: 125.94 ug/mL m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021962.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:11 am
 Operator : FID6:WR
 Sample : L1954309-07
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 31 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:41 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.237	48590399	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.244	107483768	106.021	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	212.04%#	
24) s d50-Tetracosane	35.908	87266171	109.935	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	219.87%#	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	7.743	9011	0.011	ug/mL M4
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL d
5) t n-Undecane (C11)	12.750	46233	0.055	ug/mL M4
6) t n-Dodecane (C12)	15.189	48690	0.056	ug/mL M4
7) t n-Tridecane (C13)	17.475	134516	0.154	ug/mL M4
8) t 1380	19.173	449628	0.504	ug/mL M4
9) t n-Tetradecane (C14)	19.683	154672	0.173	ug/mL M4
10) t 1470	20.965	493435	0.550	ug/mL M4
11) t n-Pentadecane (C15)	21.756	7172276G	8.001	ug/mL M4
12) t n-Hexadecane (C16)	23.708	4318335G	4.743	ug/mL M4
13) t 1650	24.614	503693	0.554	ug/mL M4
14) t n-Heptadecane (C17)	25.548	68134	0.075	ug/mL M4
15) t Pristane	25.656	802700	0.869	ug/mL M4
16) T n-Octadecane (C18)	27.302	1949083C	2.117	ug/mL M4
17) t Phytane	27.482	790707	0.953	ug/mL M4
18) t n-Nonadecane (C19)	29.003	284179	0.309	ug/mL M4
20) t n-Eicosane (C20)	30.622	260197	0.282	ug/mL M4
21) t n-Heneicosane (C21)	32.160	389176	0.416	ug/mL M4
22) t n-Docosane (C22)	33.639	142429	0.152	ug/mL M4
23) t n-Tricosane (C23)	35.023	869447	0.925	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021962.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:11 am
 Operator : FID6:WR
 Sample : L1954309-07
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 31 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:41 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units
25) t n-Tetracosane (C24)	36.406	138760	0.147	ug/mL M4
26) t n-Pentacosane (C25)	37.697	1096425C	1.174	ug/mL M4
27) t n-Hexacosane (C26)	38.970	232939	0.248	ug/mL M4
28) t n-Heptacosane (C27)	40.188	2059618	2.252	ug/mL M4
29) t n-Octacosane (C28)	41.357	357016	0.376	ug/mL M4
30) t n-Nonacosane (C29)	42.490	995869	1.052	ug/mL M4
31) t n-Triacontane (C30)	43.577	566679	0.604	ug/mL M4
32) t n-Hentriacontane (C31)	44.649	698591	0.739	ug/mL M4
33) t n-Dotriacontane (C32)	45.665	742296	0.794	ug/mL M4
34) t n-Tritriacontane (C33)	46.643	1424040	1.535	ug/mL M4
35) t n-tetratriacontane (C34)	47.673	943547	0.984	ug/mL M4
36) t n-Pentatriacontane (C35)	48.837	477391	0.516	ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL d
38) t n-Heptatriacontane (C37)	51.621	413562	0.450	ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL d
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d
42) h C9-C44 Total Petroleu...	40.477	1131048519	1235.221	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	778742322	850.467	ug/mLm
43) h C10-C25 DRO	0.000	0	N.D.	ug/mL d
44) h C25-C44 ORO	0.000	0	N.D.	ug/mL d
45) h C9-C40 Total Petroleu...	30.761	864725717	944.369	ug/ml m
45) h C9-C40 Total Petroleu BS	30.761	671074413	732.882	ug/mlm
46) h C10-C28 DRO	24.519	456321635	498.350	ug/mL m
46) h C10-C28 DRO BS	24.519	416688491	455.067	ug/mLm
47) h C8-C40 Total Petroleu...	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO BS	0.000	0	N.D.	ug/mLd
49) h Total Resolved Hydroc...	37.081	299396881	326.972	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021962.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:11 am
 Operator : FID6:WR
 Sample : L1954309-07
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 31 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:41 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

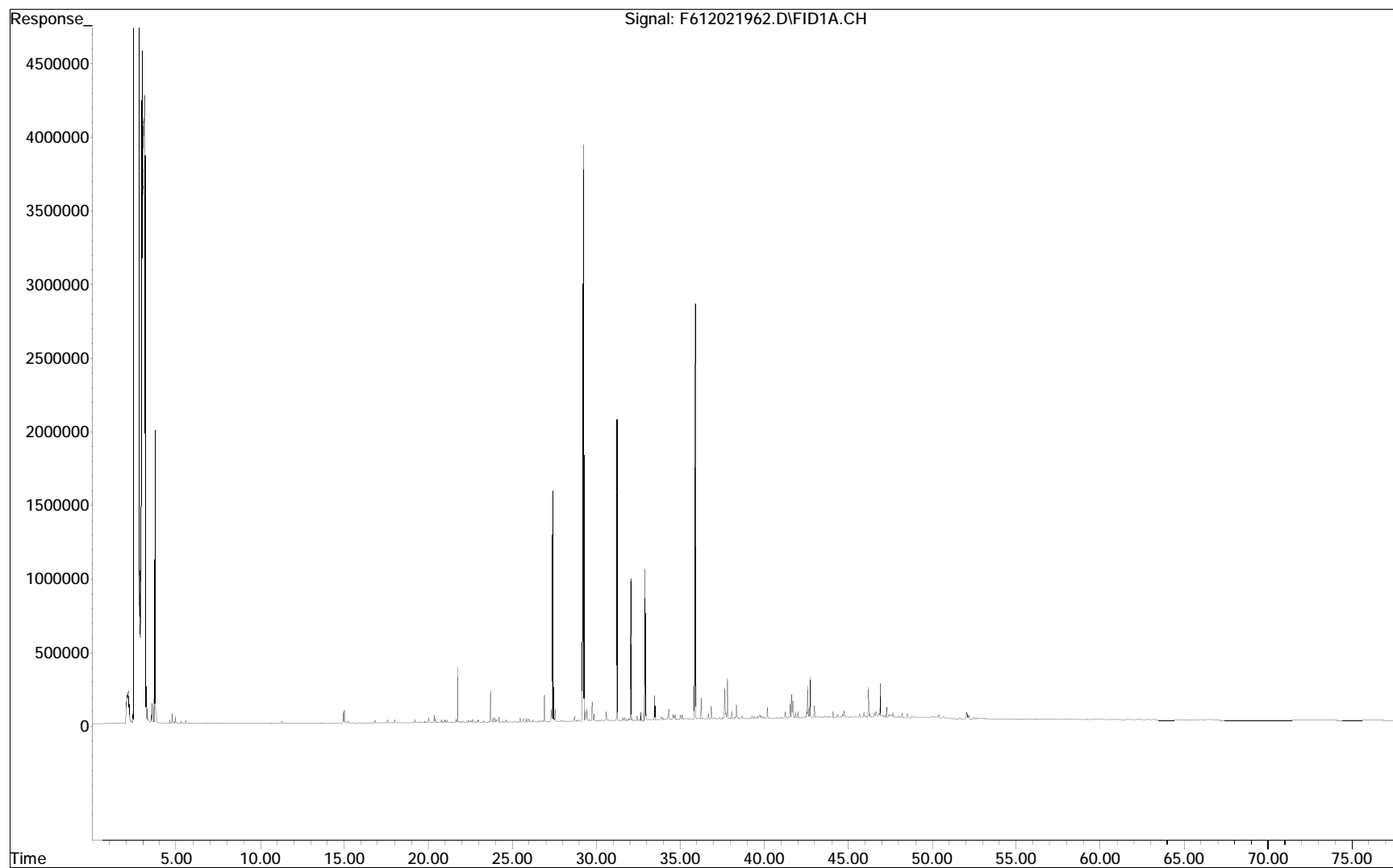
Compound	R.T.	Response	Conc Units
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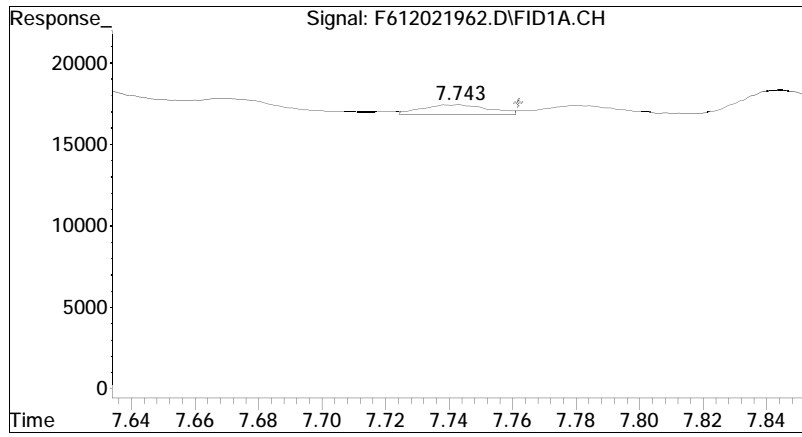
(f)=RT Delta > 1/2 Window

(m)=manual int.

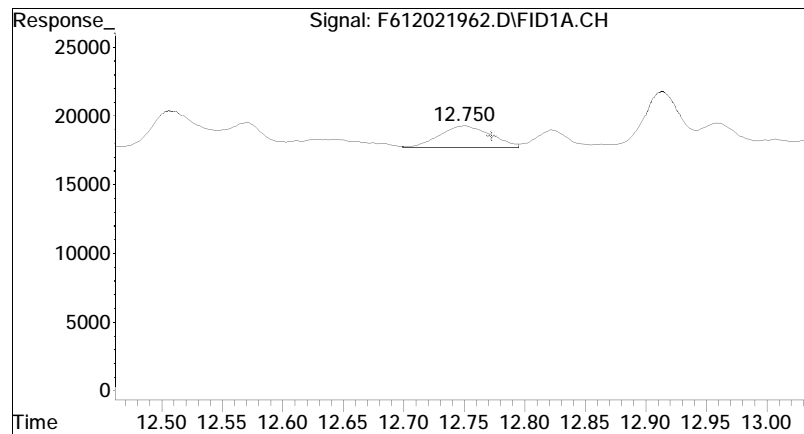
Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021962.D
Operator : FID6:WR
Acquired : 04 Dec 2019 9:11 am using AcqMethod FID6A.M
Sample Name: L1954309-07
Instrument: FID6
Misc Info : WG1315720, WG1312512, ICAL16308
Vial Number: 31
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



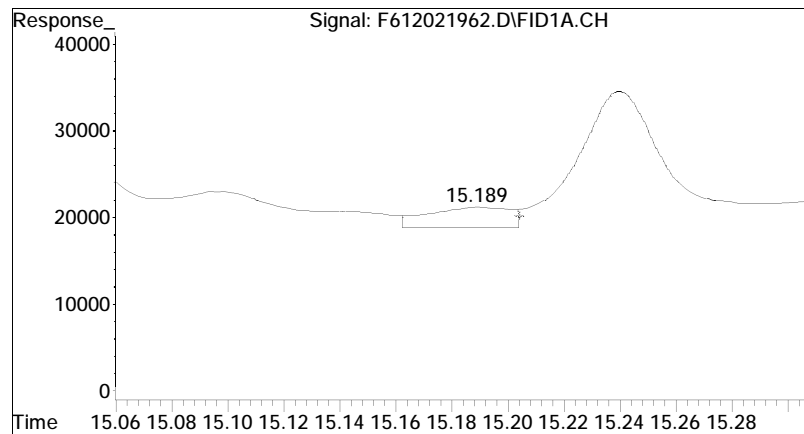


#3 n-Nonane (C9)
R.T.: 7.743 min
Delta R.T.: -0.019 min
Response: 9011
Conc: 0.01 ug/mL M4



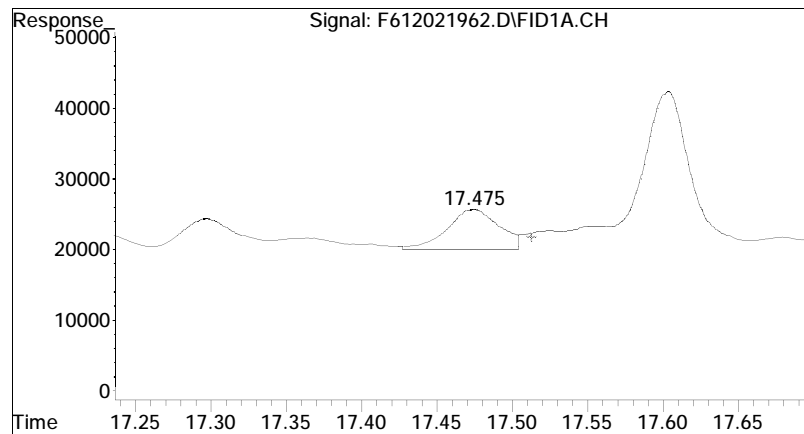
#5 n-Undecane (C11)

R.T.: 12.750 min
Delta R.T.: -0.022 min
Response: 46233
Conc: 0.05 ug/mL M4



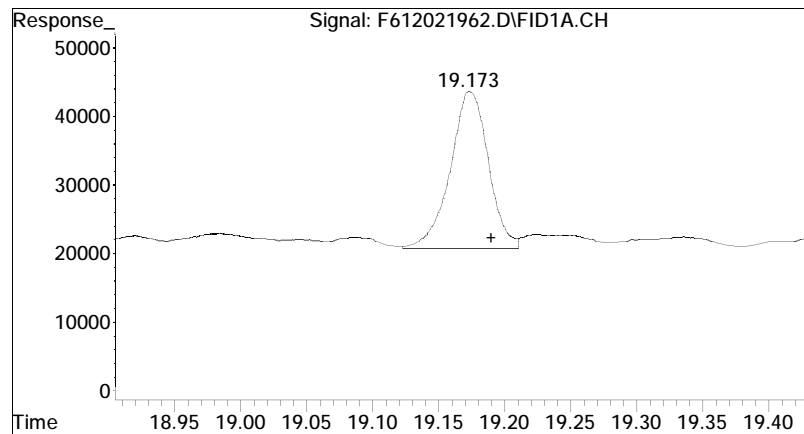
#6 n-Dodecane (C12)

R.T.: 15.189 min
Delta R.T.: -0.015 min
Response: 48690
Conc: 0.06 ug/mL M4



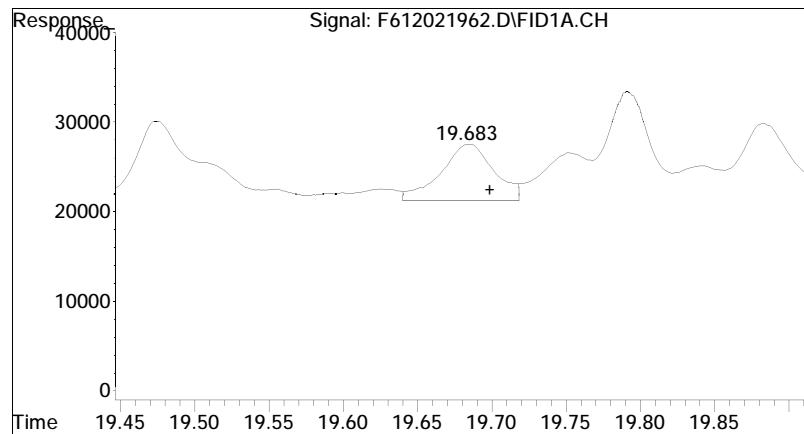
#7 n-Tridecane (C13)

R.T.: 17.475 min
Delta R.T.: -0.038 min
Response: 134516
Conc: 0.15 ug/mL M4



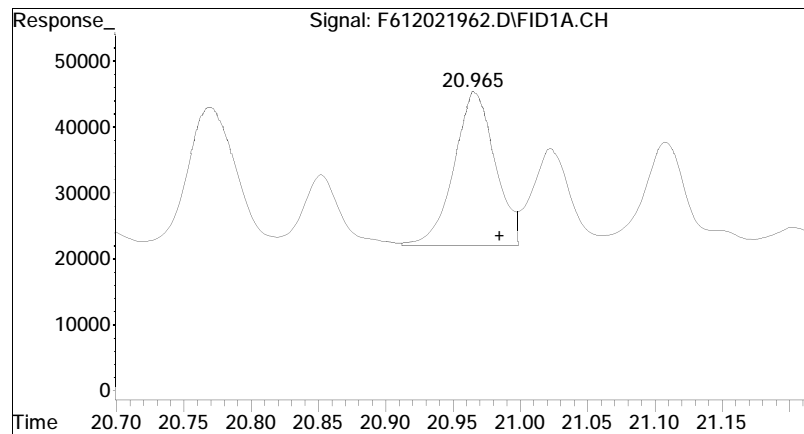
#8 1380

R.T.: 19.173 min
Delta R.T.: -0.017 min
Response: 449628
Conc: 0.50 ug/mL M4



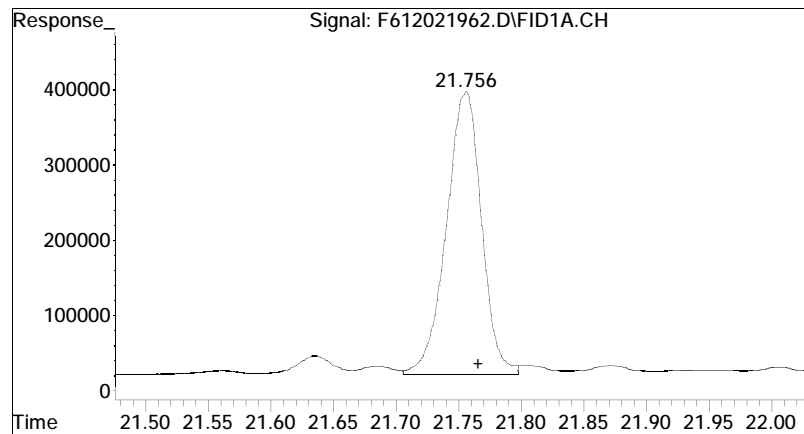
#9 n-Tetradecane (C14)

R.T.: 19.683 min
Delta R.T.: -0.016 min
Response: 154672
Conc: 0.17 ug/mL M4



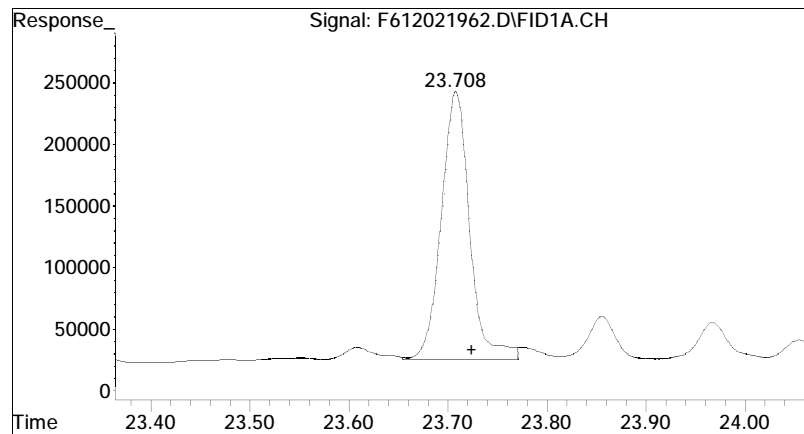
#10 1470

R.T.: 20.965 min
Delta R.T.: -0.020 min
Response: 493435
Conc: 0.55 ug/mL M4

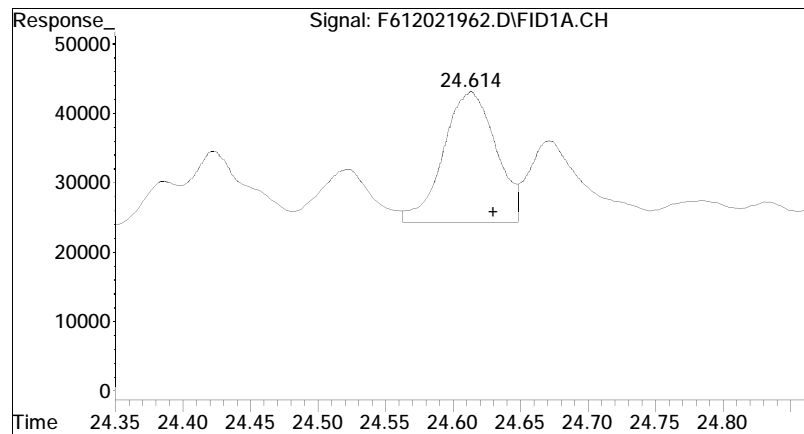


#11 n-Pentadecane (C15)

R.T.: 21.756 min
Delta R.T.: -0.010 min
Response: 7172276
Conc: 8.00 ug/mL M4

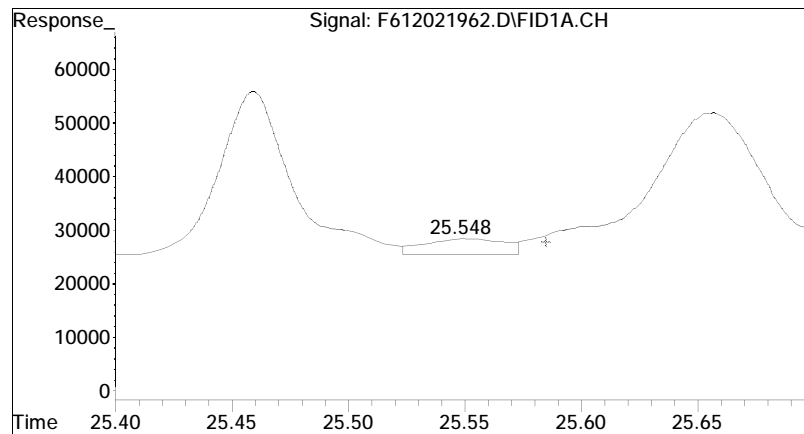


#12 n-Hexadecane (C16)
R.T.: 23.708 min
Delta R.T.: -0.016 min
Response: 4318335
Conc: 4.74 ug/mL M4



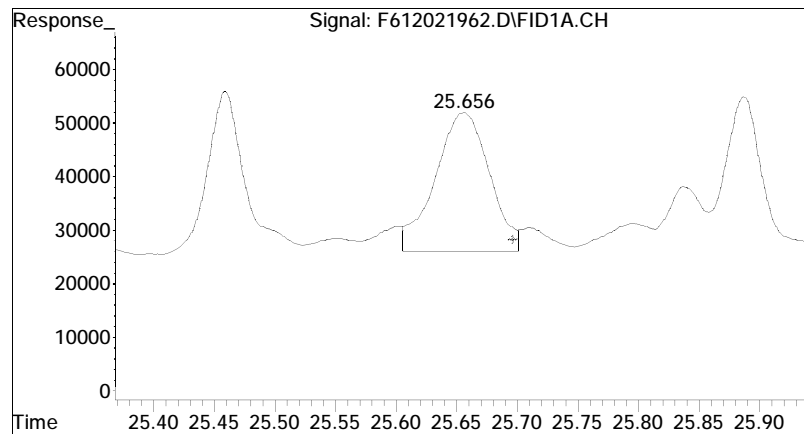
#13 1650

R.T.: 24.614 min
Delta R.T.: -0.016 min
Response: 503693
Conc: 0.55 ug/mL M4



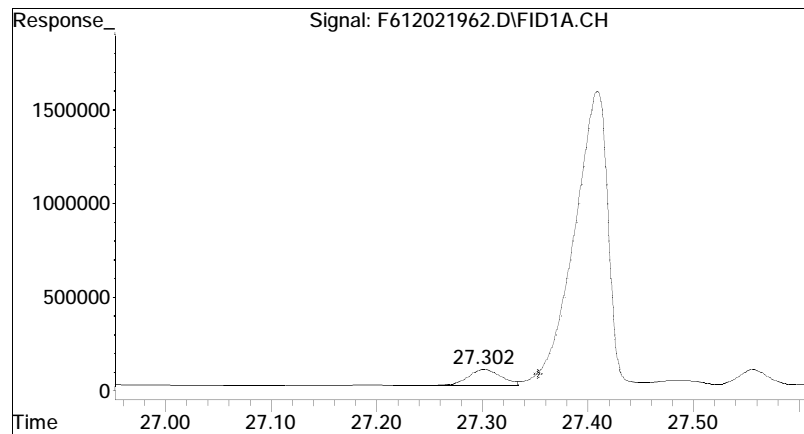
#14 n-Heptadecane (C17)

R.T.: 25.548 min
Delta R.T.: -0.036 min
Response: 68134
Conc: 0.08 ug/mL M4



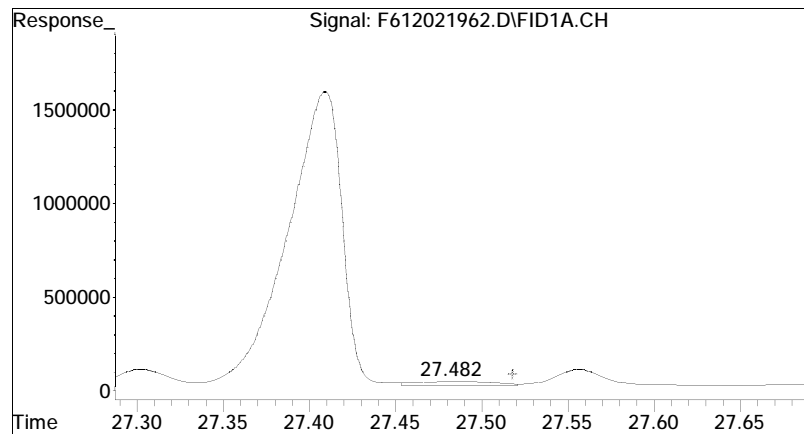
#15 Pristane

R.T.: 25.656 min
Delta R.T.: -0.040 min
Response: 802700
Conc: 0.87 ug/mL M4



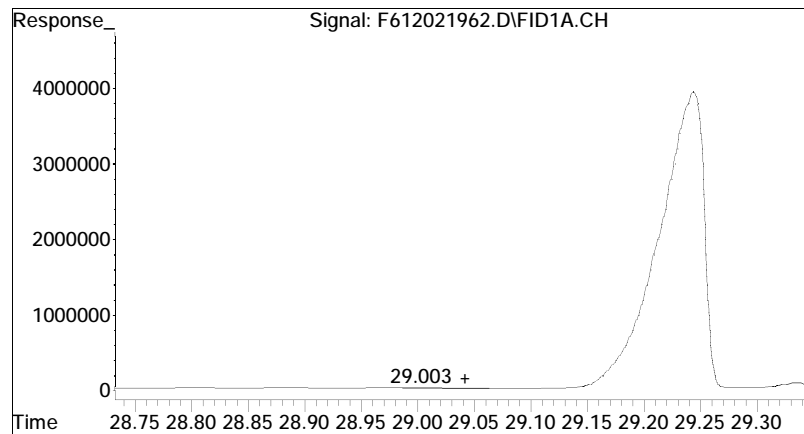
#16 n-Octadecane (C18)

R.T.: 27.302 min
Delta R.T.: -0.052 min
Response: 1949083
Conc: 2.12 ug/mL M4

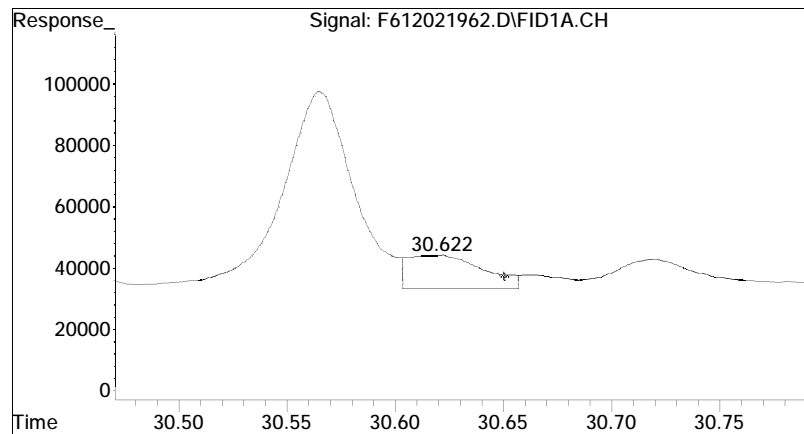


#17 Phytane

R.T.: 27.482 min
Delta R.T.: -0.035 min
Response: 790707
Conc: 0.95 ug/mL M4

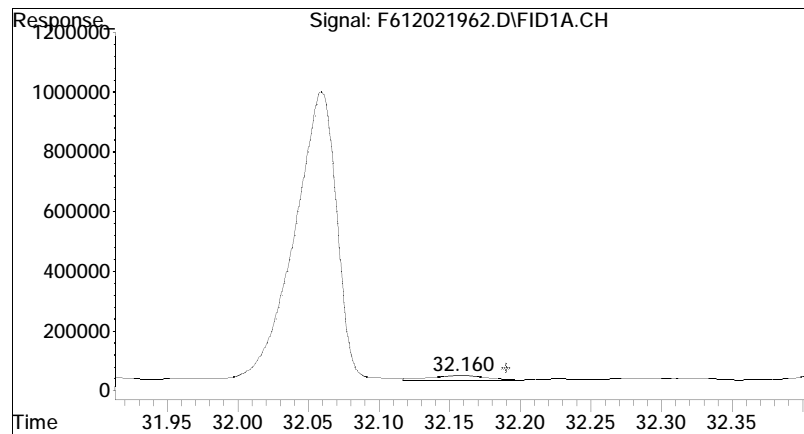


#18 n-Nonadecane (C19)
R.T.: 29.003 min
Delta R.T.: -0.039 min
Response: 284179
Conc: 0.31 ug/mL M4



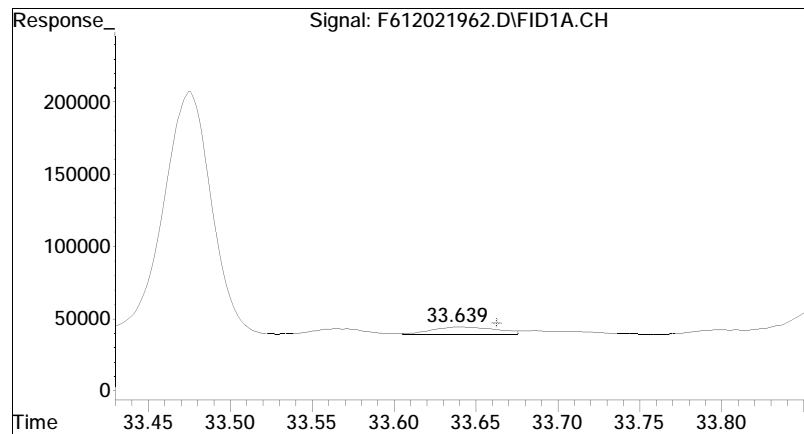
#20 n-Eicosane (C20)

R.T.: 30.622 min
Delta R.T.: -0.029 min
Response: 260197
Conc: 0.28 ug/mL M4



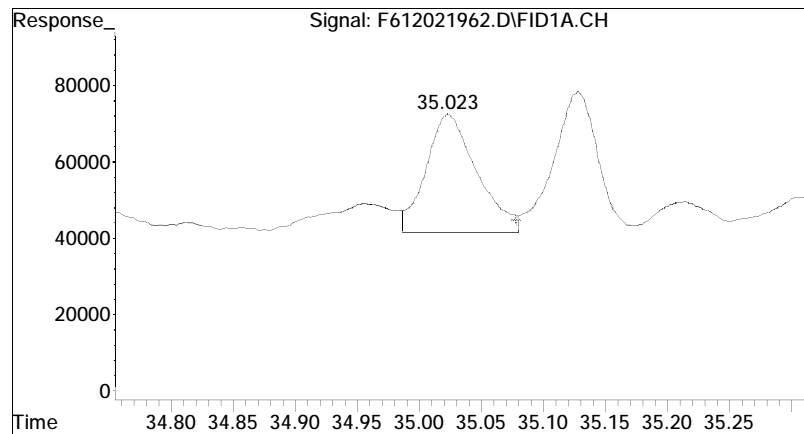
#21 n-Heneicosane (C21)

R.T.: 32.160 min
Delta R.T.: -0.030 min
Response: 389176
Conc: 0.42 ug/mL M4



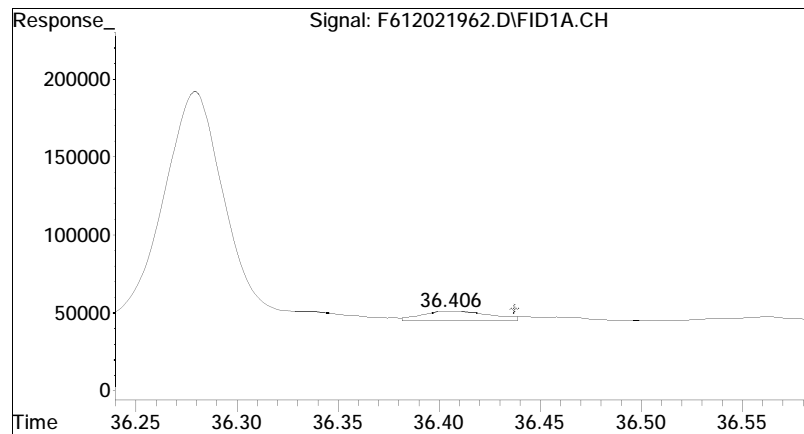
#22 n-Docosane (C22)

R.T.: 33.639 min
Delta R.T.: -0.024 min
Response: 142429
Conc: 0.15 ug/mL M4



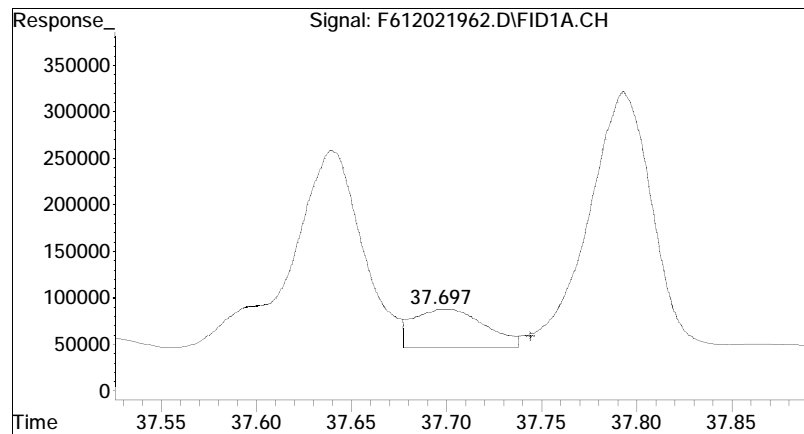
#23 n-Tricosane (C23)

R.T.: 35.023 min
Delta R.T.: -0.055 min
Response: 869447
Conc: 0.93 ug/mL M4



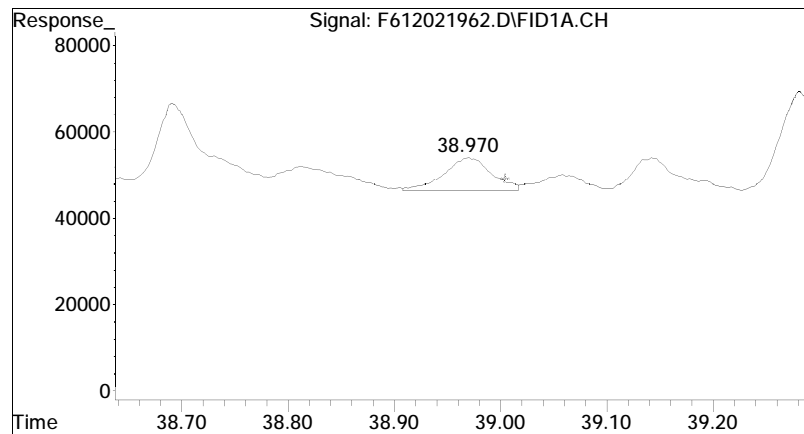
#25 n-Tetracosane (C24)

R.T.: 36.406 min
Delta R.T.: -0.031 min
Response: 138760
Conc: 0.15 ug/mL M4



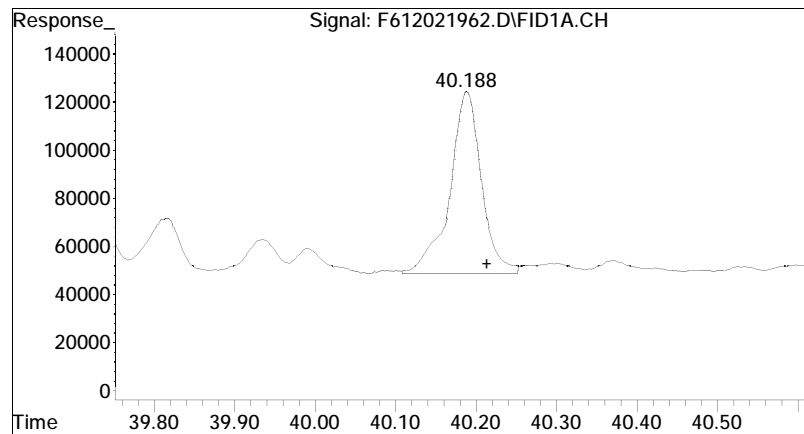
#26 n-Pentacosane (C25)

R.T.: 37.697 min
Delta R.T.: -0.047 min
Response: 1096425
Conc: 1.17 ug/mL M4



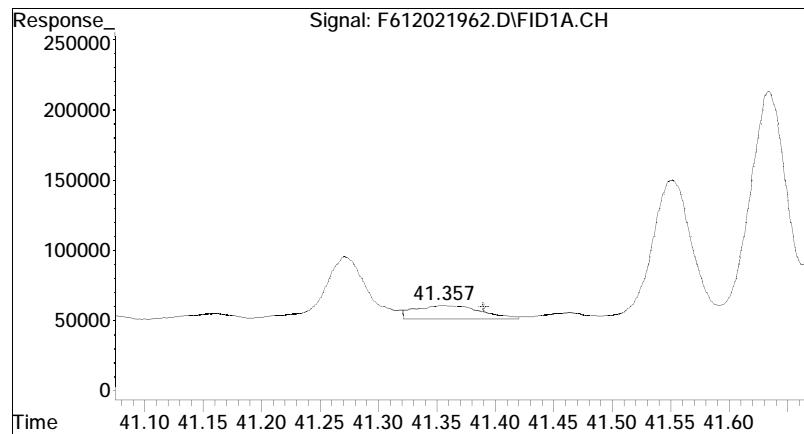
#27 n-Hexacosane (C26)

R.T.: 38.970 min
Delta R.T.: -0.035 min
Response: 232939
Conc: 0.25 ug/mL M4



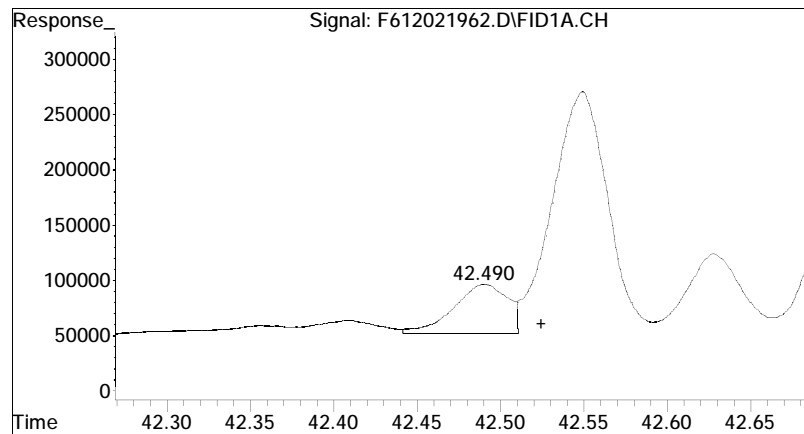
#28 n-Heptacosane (C27)

R.T.: 40.188 min
Delta R.T.: -0.026 min
Response: 2059618
Conc: 2.25 ug/mL M4



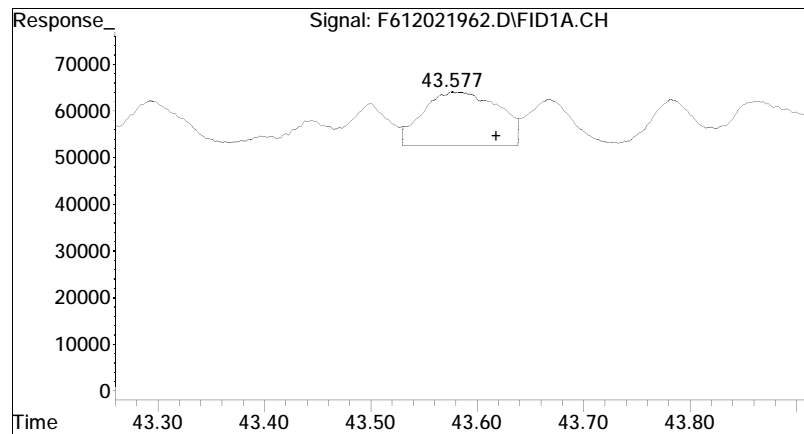
#29 n-Octacosane (C28)

R.T.: 41.357 min
Delta R.T.: -0.034 min
Response: 357016
Conc: 0.38 ug/mL M4



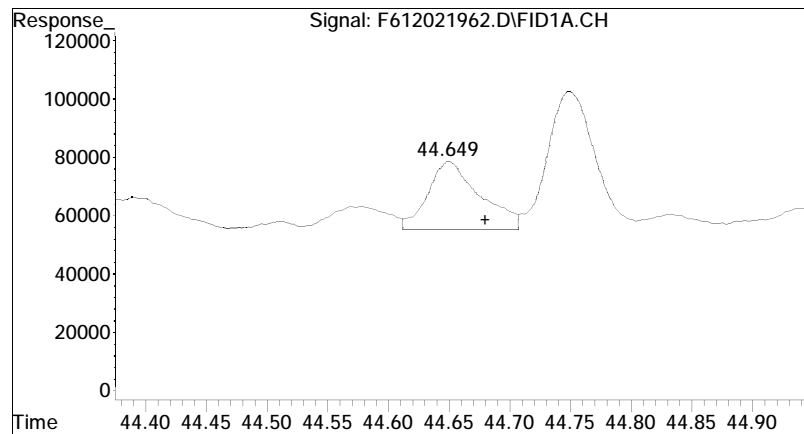
#30 n-Nonacosane (C29)

R.T.: 42.490 min
Delta R.T.: -0.034 min
Response: 995869
Conc: 1.05 ug/mL M4



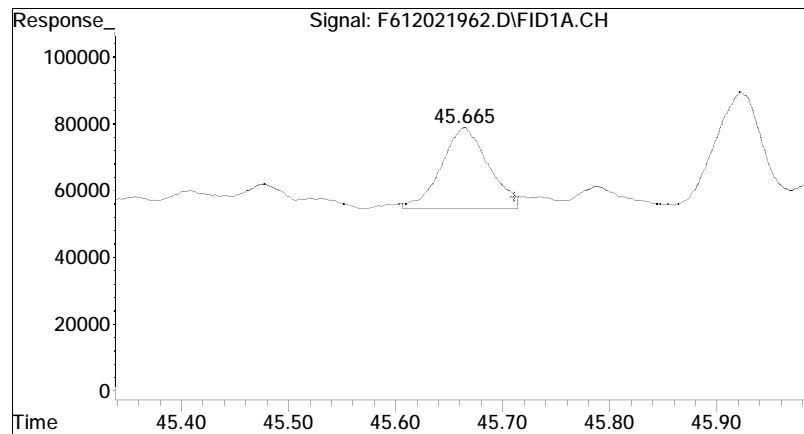
#31 n-Triacontane (C30)

R.T.: 43.577 min
Delta R.T.: -0.041 min
Response: 566679
Conc: 0.60 ug/mL M4



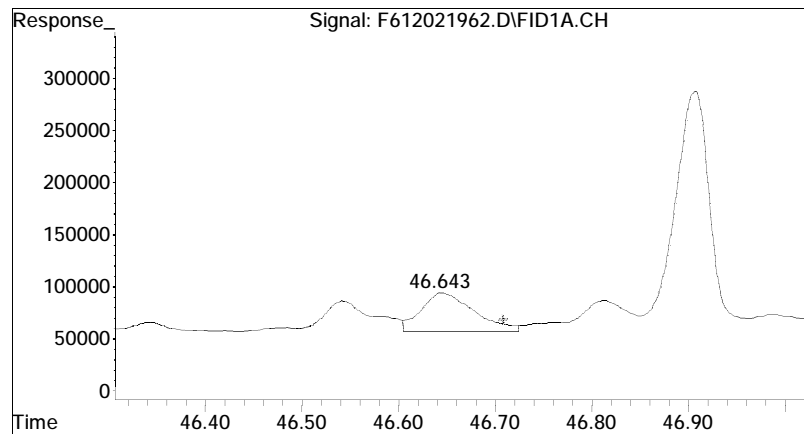
#32 n-Hentriacontane (C31)

R.T.: 44.649 min
Delta R.T.: -0.031 min
Response: 698591
Conc: 0.74 ug/mL M4



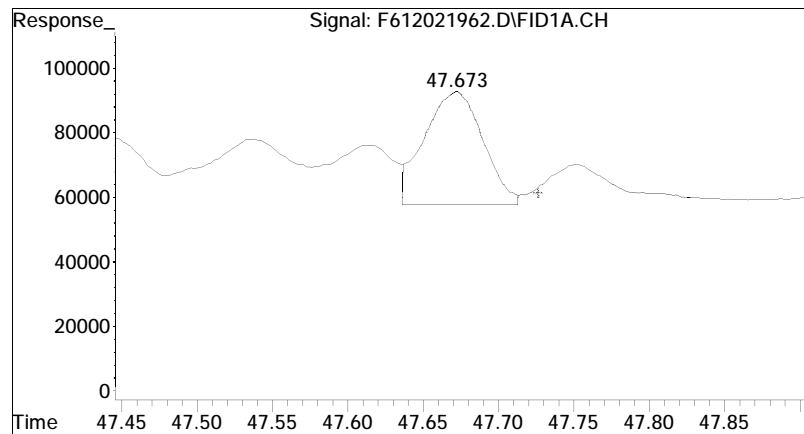
#33 n-Dotriacontane (C32)

R.T.: 45.665 min
Delta R.T.: -0.046 min
Response: 742296
Conc: 0.79 ug/mL M4



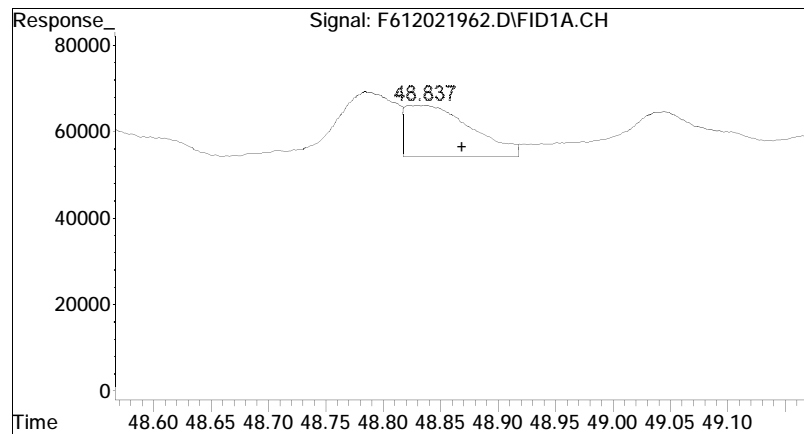
#34 n-Tritriacontane (C33)

R.T.: 46.643 min
Delta R.T.: -0.066 min
Response: 1424040
Conc: 1.54 ug/mL M4



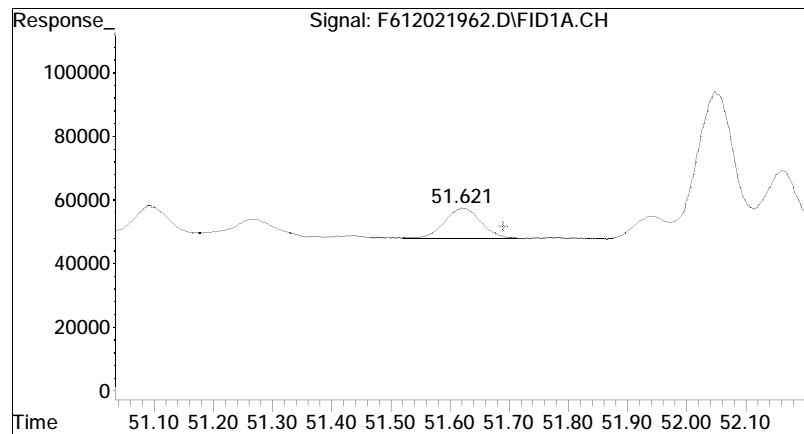
#35 n-tetratriacontane (C34)

R.T.: 47.673 min
Delta R.T.: -0.054 min
Response: 943547
Conc: 0.98 ug/mL M4



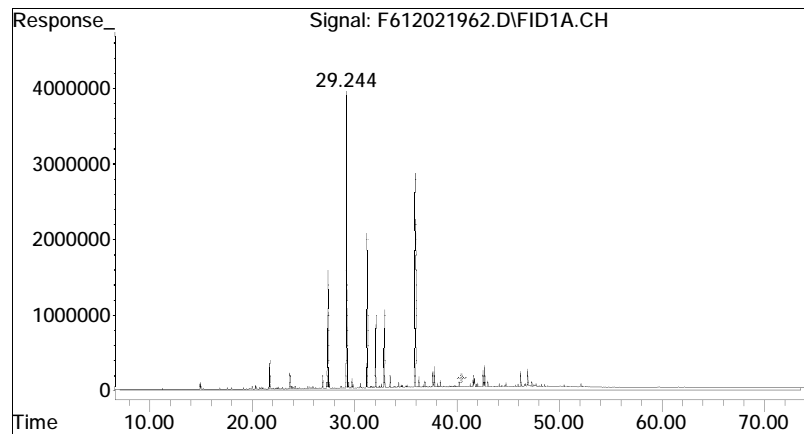
#36 n-Pentatriacontane (C35)

R.T.: 48.837 min
Delta R.T.: -0.032 min
Response: 477391
Conc: 0.52 ug/mL M4



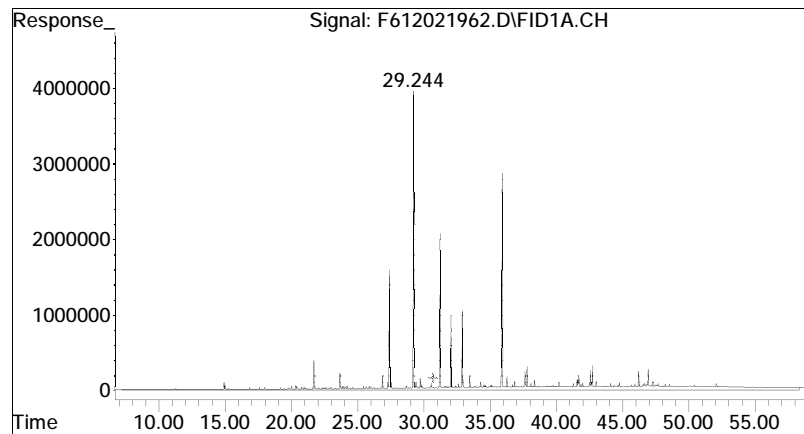
#38 n-Heptatriacontane (C37)

R.T.: 51.621 min
Delta R.T.: -0.069 min
Response: 413562
Conc: 0.45 ug/mL M4



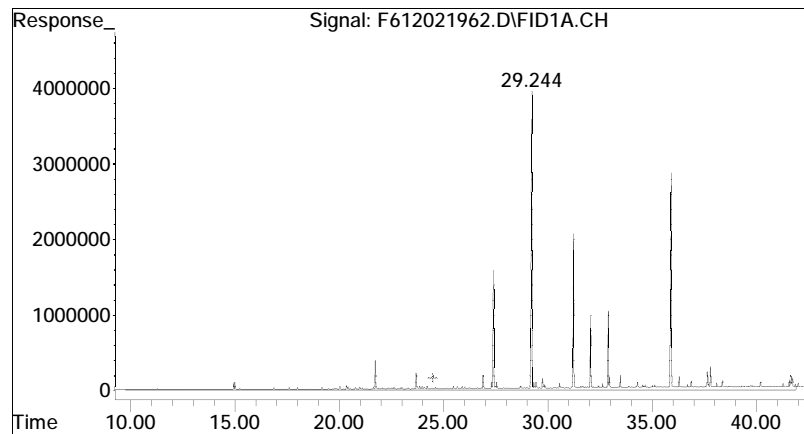
#42 C9-C44 Total Petroleum Hy

R.T.: 40.477 min
Delta R.T.: 0.000 min
Response: 1131048519
Conc: 1235.22 ug/mL m



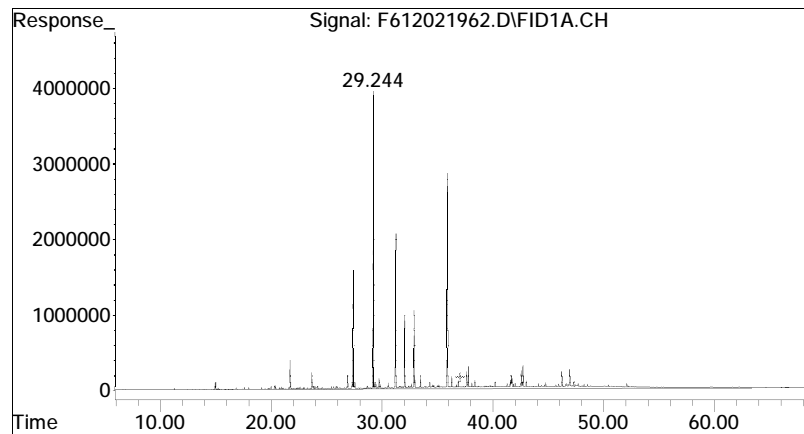
#45 C9-C40 Total Petroleum Hy

R.T.: 30.761 min
Delta R.T.: 0.000 min
Response: 864725717
Conc: 944.37 ug/ml m



#46 C10-C28 DRO

R.T.: 24.519 min
Delta R.T.: 0.000 min
Response: 456321635
Conc: 498.35 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 299396881
Conc: 326.97 ug/mL m

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021964.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 10:39 am
 Operator : FID6:WR
 Sample : WG1315720-3
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:15:56 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	87	0.00
2 t	n-Octane (C8)	0.782	0.692	11.5	78	0.00
3 t	n-Nonane (C9)	0.820	0.825	-0.6	89	0.00
4 t	n-Decane (C10)	0.852	0.893	-4.8	92	0.00
5 t	n-Undecane (C11)	0.869	0.923	-6.2	93	0.00
6 t	n-Dodecane (C12)	0.887	0.941	-6.1	93	0.00
7 t	n-Tridecane (C13)	0.899	0.947	-5.3	92	0.00
9 t	n-Tetradecane (C14)	0.918	0.961	-4.7	92	0.00
11 t	n-Pentadecane (C15)	0.922	0.966	-4.8	92	0.00
12 t	n-Hexadecane (C16)	0.937	0.977	-4.3	92	0.00
14 t	n-Heptadecane (C17)	0.935	0.967	-3.4	91	0.00
15 t	Pristane	0.951	1.001	-5.3	92	0.00
16 T	n-Octadecane (C18)	0.947	0.983	-3.8	91	0.00
17 t	Phytane	0.854	0.892	-4.4	92	0.00
18 t	n-Nonadecane (C19)	0.945	0.984	-4.1	91	0.00
19 s	ortho-terphenyl	1.043	1.088	-4.3	90	0.00
20 t	n-Eicosane (C20)	0.949	0.992	-4.5	92	0.00
21 t	n-Heneicosane (C21)	0.962	1.010	-5.0	92	0.00
22 t	n-Docosane (C22)	0.963	1.013	-5.2	92	0.00
23 t	n-Tricosane (C23)	0.967	1.023	-5.8	93	0.00
24 s	d50-Tetracosane	0.817	0.881	-7.8	93	0.00
25 t	n-Tetracosane (C24)	0.971	1.024	-5.5	93	0.00
26 t	n-Pentacosane (C25)	0.961	1.017	-5.8	93	0.00
27 t	n-Hexacosane (C26)	0.967	1.021	-5.6	93	0.00
28 t	n-Heptacosane (C27)	0.941	0.993	-5.5	93	0.00
29 t	n-Octacosane (C28)	0.978	1.032	-5.5	93	0.00
30 t	n-Nonacosane (C29)	0.974	1.032	-6.0	93	0.00
31 t	n-Triacontane (C30)	0.966	1.029	-6.5	94	0.00
32 t	n-Hentriacontane (C31)	0.973	1.046	-7.5	95	0.00
33 t	n-Dotriacontane (C32)	0.962	1.046	-8.7	96	0.00
34 t	n-Tritriacontane (C33)	0.954	1.047	-9.7	97	0.00
35 t	n-tetratriacontane (C34)	0.987	1.096	-11.0	98	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021964.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 10:39 am
 Operator : FID6:WR
 Sample : WG1315720-3
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:15:56 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	0.952	1.065	-11.9	99	0.00
37 t	n-Hexatriacontane (C36)	1.009	1.132	-12.2	99	0.00
38 t	n-Heptatriacontane (C37)	0.946	1.059	-11.9	99	0.00
39 t	n-Octatriacontane (C38)	1.021	1.132	-10.9	98	0.00
41 t	n-Tetracontane (C40)	0.953	0.956	-0.3	89	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)	1.14	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021964.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 10:39 am
 Operator : FID6:WR
 Sample : WG1315720-3
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:15:56 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	31.236	43809813	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.223	47654889	52.136	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	104.27%	
24) s d50-Tetracosane	35.884	38617791	53.958	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	107.92%	
Target Compounds				
2) t n-Octane (C8)	5.539	30314337	44.225	ug/mL M4
3) t n-Nonane (C9)	7.758	36164780	50.306	ug/mL M4
4) t n-Decane (C10)	10.252	39136155	52.401	ug/mL M4
5) t n-Undecane (C11)	12.769	40437190	53.108	ug/mL M4
6) t n-Dodecane (C12)	15.200	41230652	53.065	ug/mL M4
7) t n-Tridecane (C13)	17.510	41503262	52.694	ug/mL M4
9) t n-Tetradecane (C14)	19.695	42108843	52.378	ug/mL M4
11) t n-Pentadecane (C15)	21.763	42328739	52.369	ug/mL M4
12) t n-Hexadecane (C16)	23.721	42784118	52.116	ug/mL M4
14) t n-Heptadecane (C17)	25.582	42361223	51.720	ug/mL M4
15) t Pristane	25.693	43859688	52.656	ug/mL M4
16) T n-Octadecane (C18)	27.350	43071266	51.883	ug/mL M4
17) t Phytane	27.515	39084280	52.222	ug/mL M4
18) t n-Nonadecane (C19)	29.039	43107080	52.062	ug/mL M4
20) t n-Eicosane (C20)	30.647	43453392	52.283	ug/mL M4
21) t n-Heneicosane (C21)	32.185	44235992	52.454	ug/mL M4
22) t n-Docosane (C22)	33.659	44367174	52.586	ug/mL M4
23) t n-Tricosane (C23)	35.074	44798356	52.862	ug/mL M4
25) t n-Tetracosane (C24)	36.435	44852329	52.742	ug/mL M4
26) t n-Pentacosane (C25)	37.741	44575067	52.939	ug/mL M4
27) t n-Hexacosane (C26)	39.001	44742580	52.783	ug/mL M4
28) t n-Heptacosane (C27)	40.211	43496550	52.758	ug/mL M4
29) t n-Octacosane (C28)	41.384	45193826	52.728	ug/mL M4
30) t n-Nonacosane (C29)	42.520	45222845	52.980	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021964.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 10:39 am
 Operator : FID6:WR
 Sample : WG1315720-3
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 32 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 16:15:56 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	43.616	45066704	53.255 ug/mL M4
32) t n-Hentriacontane (C31)	44.678	45817252	53.764 ug/mL M4
33) t n-Dotriacontane (C32)	45.707	45820827	54.371 ug/mL M4
34) t n-Tritriacontane (C33)	46.708	45862258	54.842 ug/mL M4
35) t n-tetratriacontane (C34)	47.725	48033767	55.532 ug/mL M4
36) t n-Pentatriacontane (C35)	48.867	46671551	55.951 ug/mL M4
37) t n-Hexatriacontane (C36)	50.179	49584806	56.092 ug/mL M4
38) t n-Heptatriacontane (C37)	51.689	46398370	55.971 ug/mL M4
39) t n-Octatriacontane (C38)	53.462	49572495	55.409 ug/mL M4
41) t n-Tetracontane (C40)	57.969	41903546	50.158 ug/mL M4

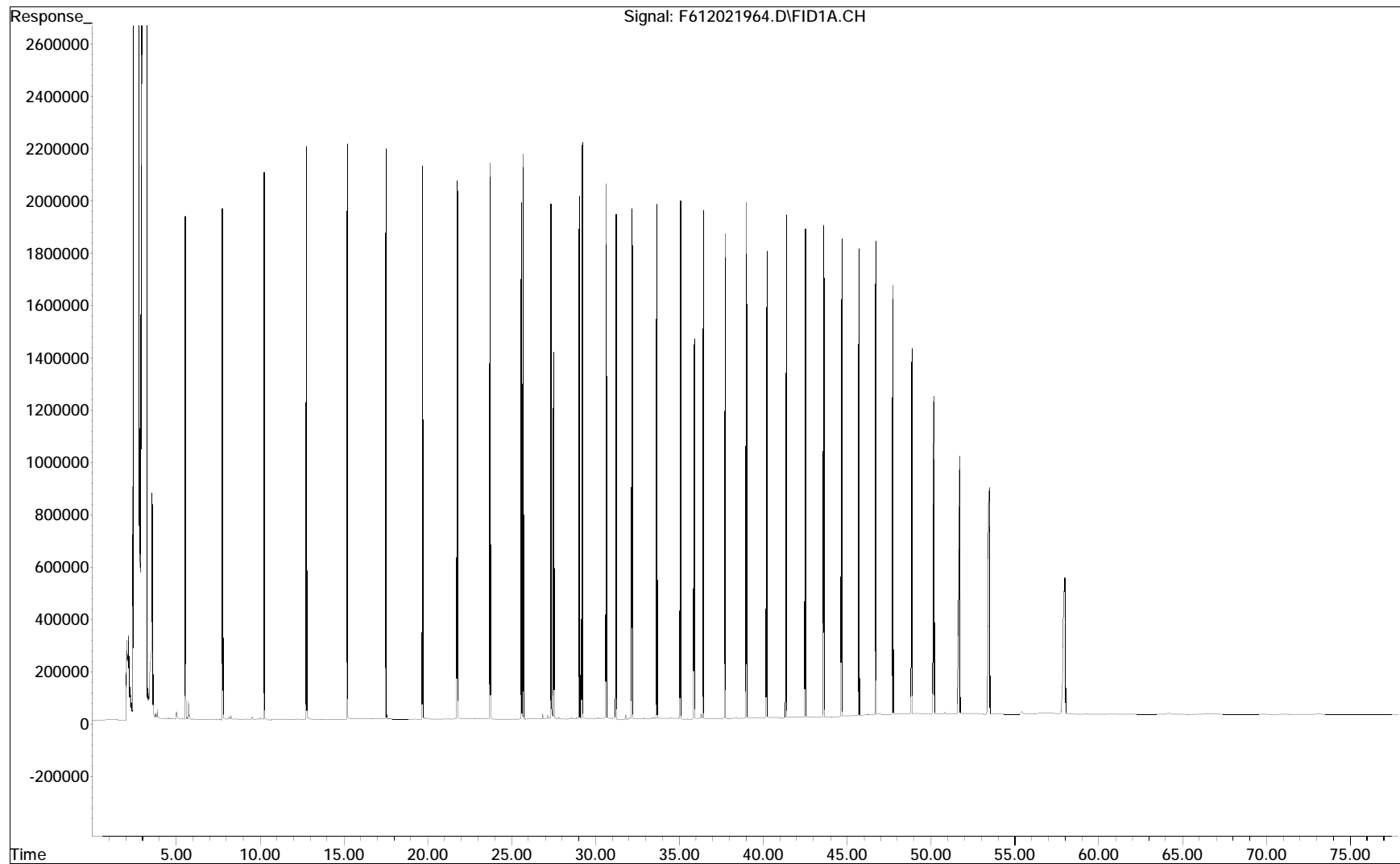
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021964.D
Operator : FID6:WR
Acquired : 04 Dec 2019 10:39 am using AcqMethod FID6A.M
Sample Name: WG1315720-3
Instrument: FID6
Misc Info : WG1315720,FRBB72,ICAL16308
Vial Number: 32
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021978.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:40 pm
 Operator : FID6:WR
 Sample : WG1315720-4
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 39 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 17:26:43 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	85	0.00
2 t	n-Octane (C8)	0.782	0.754	3.6	83	0.00
3 t	n-Nonane (C9)	0.820	0.820	0.0	86	0.00
4 t	n-Decane (C10)	0.852	0.885	-3.9	89	0.00
5 t	n-Undecane (C11)	0.869	0.915	-5.3	90	0.00
6 t	n-Dodecane (C12)	0.887	0.934	-5.3	90	0.00
7 t	n-Tridecane (C13)	0.899	0.941	-4.7	89	0.00
9 t	n-Tetradecane (C14)	0.918	0.954	-3.9	89	0.00
11 t	n-Pentadecane (C15)	0.922	0.957	-3.8	88	0.00
12 t	n-Hexadecane (C16)	0.937	0.967	-3.2	88	0.00
14 t	n-Heptadecane (C17)	0.935	0.957	-2.4	87	0.00
15 t	Pristane	0.951	0.988	-3.9	89	0.00
16 T	n-Octadecane (C18)	0.947	0.970	-2.4	87	0.00
17 t	Phytane	0.854	0.882	-3.3	88	0.00
18 t	n-Nonadecane (C19)	0.945	0.974	-3.1	88	0.00
19 s	ortho-terphenyl	1.043	1.075	-3.1	86	0.00
20 t	n-Eicosane (C20)	0.949	0.982	-3.5	88	0.00
21 t	n-Heneicosane (C21)	0.962	0.997	-3.6	88	0.00
22 t	n-Docosane (C22)	0.963	0.999	-3.7	89	0.00
23 t	n-Tricosane (C23)	0.967	1.008	-4.2	89	0.00
24 s	d50-Tetracosane	0.817	0.864	-5.8	89	0.00
25 t	n-Tetracosane (C24)	0.971	1.009	-3.9	89	0.00
26 t	n-Pentacosane (C25)	0.961	1.002	-4.3	89	0.00
27 t	n-Hexacosane (C26)	0.967	1.008	-4.2	89	0.00
28 t	n-Heptacosane (C27)	0.941	0.981	-4.3	89	0.00
29 t	n-Octacosane (C28)	0.978	1.012	-3.5	88	0.00
30 t	n-Nonacosane (C29)	0.974	1.011	-3.8	89	0.00
31 t	n-Triacontane (C30)	0.966	0.999	-3.4	89	0.00
32 t	n-Hentriacontane (C31)	0.973	1.016	-4.4	90	0.00
33 t	n-Dotriacontane (C32)	0.962	1.013	-5.3	90	0.00
34 t	n-Tritriacontane (C33)	0.954	1.017	-6.6	91	0.00
35 t	n-tetratriacontane (C34)	0.987	1.068	-8.2	93	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021978.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:40 pm
 Operator : FID6:WR
 Sample : WG1315720-4
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 39 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 17:26:43 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	0.952	1.042	-9.5	94	0.00
37 t	n-Hexatriacontane (C36)	1.009	1.110	-10.0	94	0.00
38 t	n-Heptatriacontane (C37)	0.946	1.041	-10.0	94	0.00
39 t	n-Octatriacontane (C38)	1.021	1.121	-9.8	94	0.00
41 t	n-Tetracontane (C40)	0.953	0.977	-2.5	88	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)	1.13	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021978.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:40 pm
 Operator : FID6:WR
 Sample : WG1315720-4
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 39 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 17:26:43 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	31.234	42535505	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.218	45722584	51.520	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.04%	
24) s d50-Tetracosane	35.882	36740472	52.873	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	105.75%	
Target Compounds				
2) t n-Octane (C8)	5.541	32086858	48.213	ug/mL M4
3) t n-Nonane (C9)	7.758	34860871	49.945	ug/mL M4
4) t n-Decane (C10)	10.250	37651757	51.923	ug/mL M4
5) t n-Undecane (C11)	12.767	38913534	52.638	ug/mL M4
6) t n-Dodecane (C12)	15.197	39741198	52.680	ug/mL M4
7) t n-Tridecane (C13)	17.509	40021861	52.335	ug/mL M4
9) t n-Tetradecane (C14)	19.694	40573064	51.980	ug/mL M4
11) t n-Pentadecane (C15)	21.761	40726641	51.897	ug/mL M4
12) t n-Hexadecane (C16)	23.719	41129453	51.601	ug/mL M4
14) t n-Heptadecane (C17)	25.580	40693429	51.172	ug/mL M4
15) t Pristane	25.690	42044981	51.989	ug/mL M4
16) T n-Octadecane (C18)	27.348	41278014	51.212	ug/mL M4
17) t Phytane	27.512	37509198	51.619	ug/mL M4
18) t n-Nonadecane (C19)	29.037	41413735	51.515	ug/mL M4
20) t n-Eicosane (C20)	30.643	41752448	51.742	ug/mL M4
21) t n-Heneicosane (C21)	32.182	42394836	51.777	ug/mL M4
22) t n-Docosane (C22)	33.657	42506382	51.889	ug/mL M4
23) t n-Tricosane (C23)	35.071	42883254	52.118	ug/mL M4
25) t n-Tetracosane (C24)	36.432	42911266	51.971	ug/mL M4
26) t n-Pentacosane (C25)	37.738	42627210	52.142	ug/mL M4
27) t n-Hexacosane (C26)	38.998	42865408	52.084	ug/mL M4
28) t n-Heptacosane (C27)	40.210	41748115	52.154	ug/mL M4
29) t n-Octacosane (C28)	41.385	43058010	51.741	ug/mL M4
30) t n-Nonacosane (C29)	42.518	43021913	51.911	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021978.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 9:40 pm
 Operator : FID6:WR
 Sample : WG1315720-4
 Misc : WG1315720,FRBB72,ICAL16308
 ALS Vial : 39 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 17:26:43 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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)	43.612	42487273	51.711 ug/mL M4
32) t n-Hentriacontane (C31)	44.677	43210321	52.223 ug/mL M4
33) t n-Dotriacontane (C32)	45.706	43098139	52.672 ug/mL M4
34) t n-Tritriacontane (C33)	46.704	43241457	53.257 ug/mL M4
35) t n-tetratriacontane (C34)	47.720	45417660	54.080 ug/mL M4
36) t n-Pentatriacontane (C35)	48.864	44333103	54.740 ug/mL M4
37) t n-Hexatriacontane (C36)	50.173	47229760	55.028 ug/mL M4
38) t n-Heptatriacontane (C37)	51.686	44281741	55.018 ug/mL M4
39) t n-Octatriacontane (C38)	53.451	47668509	54.877 ug/mL M4
41) t n-Tetracontane (C40)	57.963	41555386	51.231 ug/mL M4

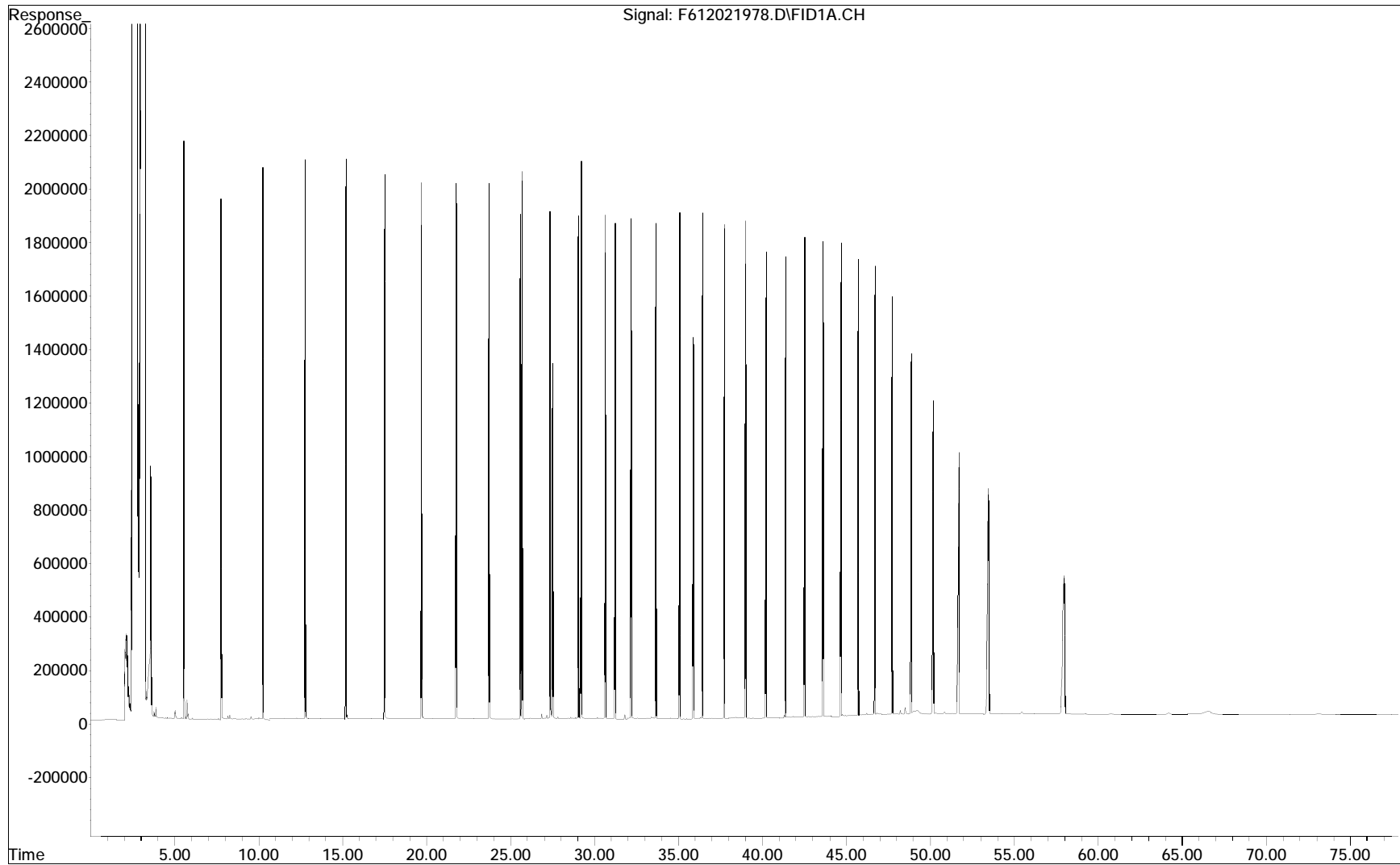
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021978.D
Operator : FID6:WR
Acquired : 04 Dec 2019 9:40 pm using AcqMethod FID6A.M
Sample Name: WG1315720-4
Instrument: FID6
Misc Info : WG1315720,FRBB72,ICAL16308
Vial Number: 39
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021970.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 3:46 pm
 Operator : FID6:WR
 Sample : L1954309-08
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 35 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 16:44:18 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021903F
 Blank File : F612021968.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.250	52866164	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.231	37855919	34.321	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	68.64%	
24) s d50-Tetracosane	35.889	30853952	35.725	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	71.45%	
Target Compounds				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t n-Nonane (C9)	7.741	100170	0.115	ug/mL M4
4) t n-Decane (C10)	10.251	266807	0.296	ug/mL M4
5) t n-Undecane (C11)	12.754	559480	0.609	ug/mL M4
6) t n-Dodecane (C12)	15.188	222859	0.238	ug/mL M4
7) t n-Tridecane (C13)	17.476	2239348	2.356	ug/mL M4
8) t 1380	19.179	3860126	3.979	ug/mL M4
9) t n-Tetradecane (C14)	19.687	1790821	1.846	ug/mL M4
10) t 1470	20.972	3252584	3.335	ug/mL M4
11) t n-Pentadecane (C15)	21.778	39648590G	40.650	ug/mL M4
12) t n-Hexadecane (C16)	23.725	22690910G	22.905	ug/mL M4
13) t 1650	24.617	4158464	4.207	ug/mL M4
14) t n-Heptadecane (C17)	25.551	329358	0.333	ug/mL M4
15) t Pristane	25.663	8095810	8.054	ug/mL M4
16) T n-Octadecane (C18)	27.315	903740	0.902	ug/mL M4
17) t Phytane	27.500	3747534	4.149	ug/mL M4
18) t n-Nonadecane (C19)	29.012	3167569	3.170	ug/mL M4
20) t n-Eicosane (C20)	30.637	3089895	3.081	ug/mL M4
21) t n-Heneicosane (C21)	32.181	2579021	2.534	ug/mL M4
22) t n-Docosane (C22)	33.676	2047655	2.011	ug/mL M4
23) t n-Tricosane (C23)	35.051	7356375	7.194	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021970.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 3:46 pm
 Operator : FID6:WR
 Sample : L1954309-08
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 35 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 16:44:18 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021903F
 Blank File : F612021968.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units
25) t n-Tetracosane (C24)	36.420	1221883	1.191	ug/mL M4
26) t n-Pentacosane (C25)	37.718	2047332	2.015	ug/mL M4
27) t n-Hexacosane (C26)	38.983	1058846	1.035	ug/mL M4
28) t n-Heptacosane (C27)	40.202	4016146	4.037	ug/mL M4
29) t n-Octacosane (C28)	41.364	1933747	1.870	ug/mL M4
30) t n-Nonacosane (C29)	42.502	2706149	2.627	ug/mL M4
31) t n-Triacontane (C30)	43.589	2374475	2.325	ug/mL M4
32) t n-Hentriacontane (C31)	44.664	1026478	0.998	ug/mL M4
33) t n-Dotriacontane (C32)	45.678	3857970	3.794	ug/mL M4
34) t n-Tritriacontane (C33)	46.675	5763660	5.711	ug/mL M4
35) t n-tetratriacontane (C34)	47.682	2491882	2.387	ug/mL M4
36) t n-Pentatriacontane (C35)	48.809	3799345	3.774	ug/mL M4
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL d
38) t n-Heptatriacontane (C37)	51.650	1825936	1.825	ug/mL M4
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL d
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL d
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d
42) h C9-C44 Total Petroleu...	40.477	4305562296	4321.813	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	3917067702	3931.852	ug/mLm
43) h C10-C25 DRO	0.000	0	N.D.	ug/mL d
44) h C25-C44 ORO	0.000	0	N.D.	ug/mL d
45) h C9-C40 Total Petroleu...	32.826	4041932916	4057.189	ug/ml m
45) h C9-C40 Total Petroleu BS	32.826	3821515045	3835.939	ug/mlm
46) h C10-C28 DRO	25.817	2983312454	2994.573	ug/mL m
46) h C10-C28 DRO BS	25.817	2869175077	2880.004	ug/mLm
47) h C8-C40 Total Petroleu...	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO BS	0.000	0	N.D.	ug/mLd
49) h Total Resolved Hydroc...	37.081	1934458312	1941.760	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
Data File : F612021970.D
Signal(s) : FID1A.CH
Acq On : 04 Dec 2019 3:46 pm
Operator : FID6:WR
Sample : L1954309-08
Misc : WG1315720,WG1312512,ICAL16308
ALS Vial : 35 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Dec 13 16:44:18 2019
Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
Quant Title : FID Forensics
QLast Update : Thu Dec 05 15:01:36 2019
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 : IB612021903F
Blank File : F612021968.D

Sub List : Default - All compounds listed

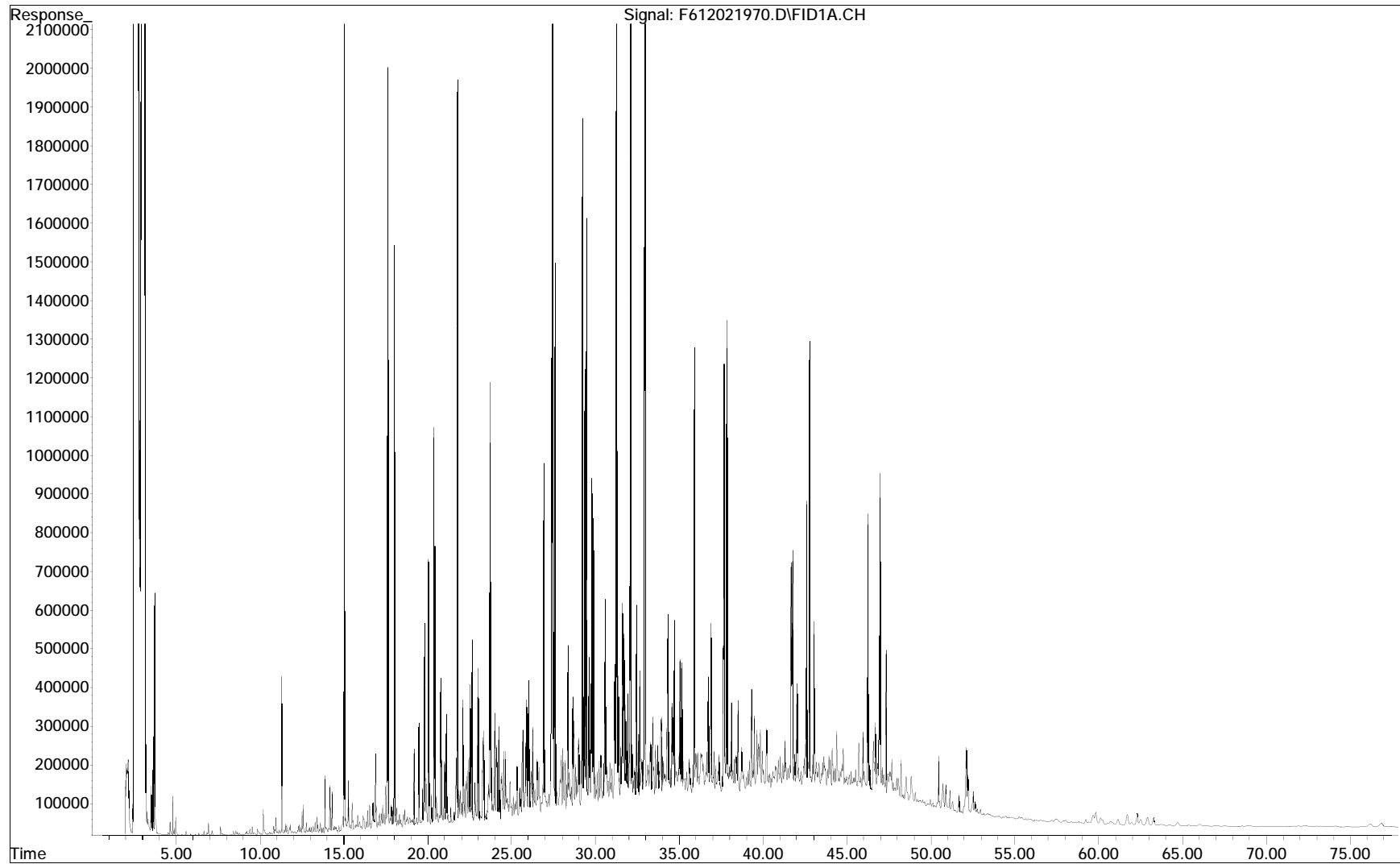
Compound	R.T.	Response	Conc Units
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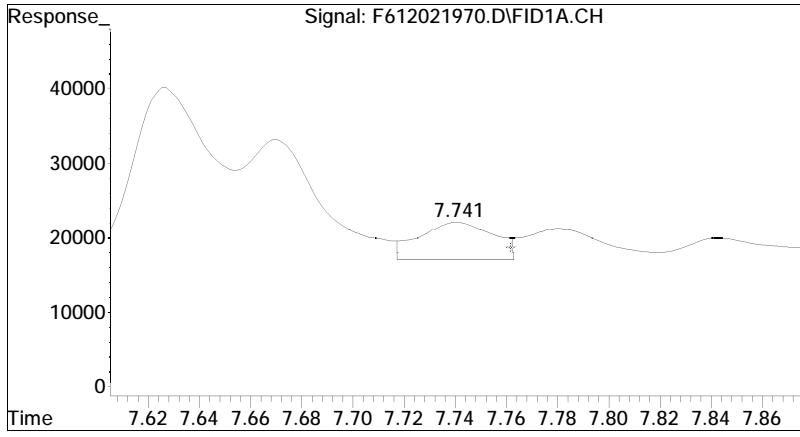
(f)=RT Delta > 1/2 Window

(m)=manual int.

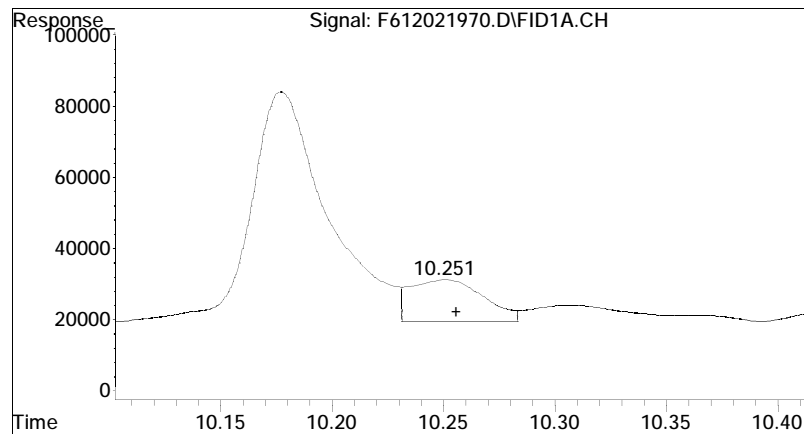
Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021970.D
Operator : FID6:WR
Acquired : 04 Dec 2019 3:46 pm using AcqMethod FID6A.M
Sample Name: L1954309-08
Instrument: FID6
Misc Info : WG1315720, WG1312512, ICAL16308
Vial Number: 35
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



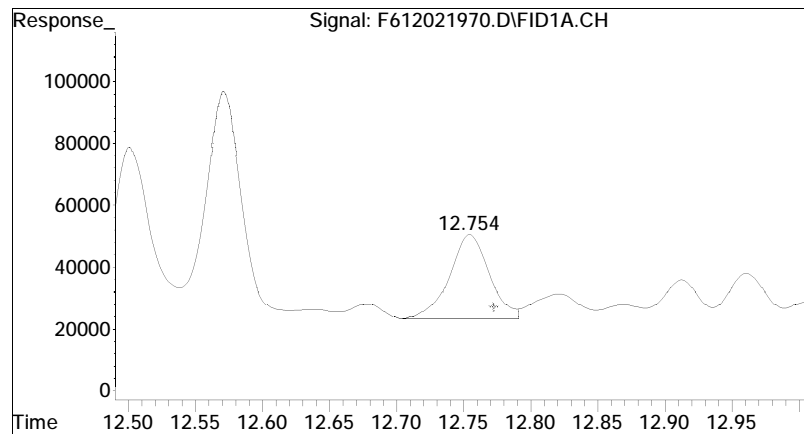


#3 n-Nonane (C9)
R.T.: 7.741 min
Delta R.T.: -0.021 min
Response: 100170
Conc: 0.12 ug/mL M4



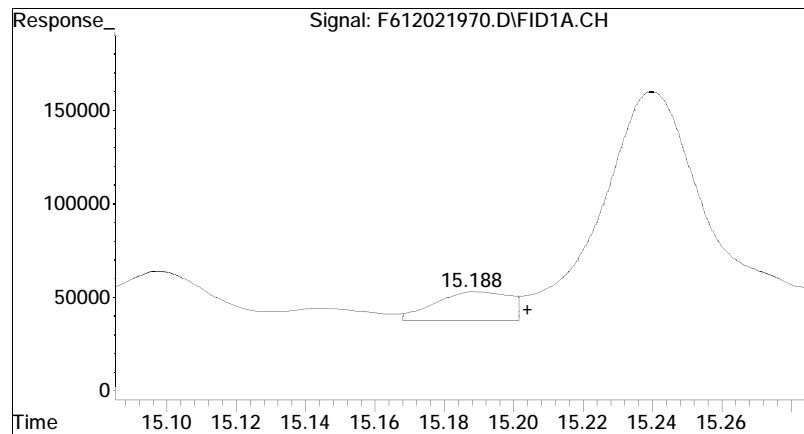
#4 n-Decane (C10)

R.T.: 10.251 min
Delta R.T.: -0.005 min
Response: 266807
Conc: 0.30 ug/mL M4



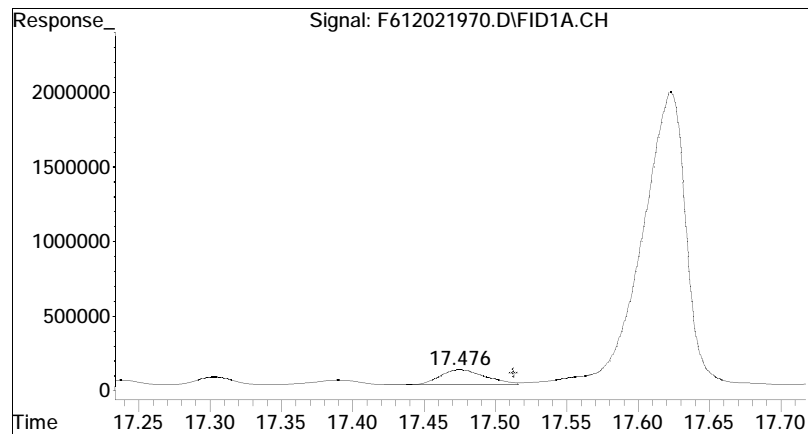
#5 n-Undecane (C11)

R.T.: 12.754 min
Delta R.T.: -0.018 min
Response: 559480
Conc: 0.61 ug/mL M4



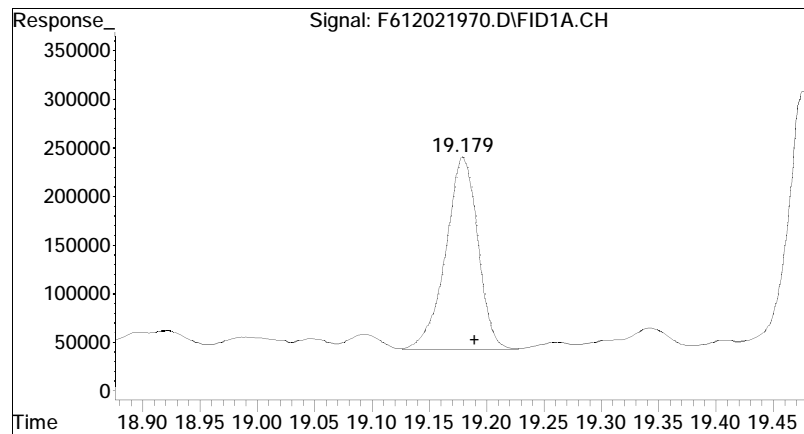
#6 n-Dodecane (C12)

R.T.: 15.188 min
Delta R.T.: -0.016 min
Response: 222859
Conc: 0.24 ug/mL M4



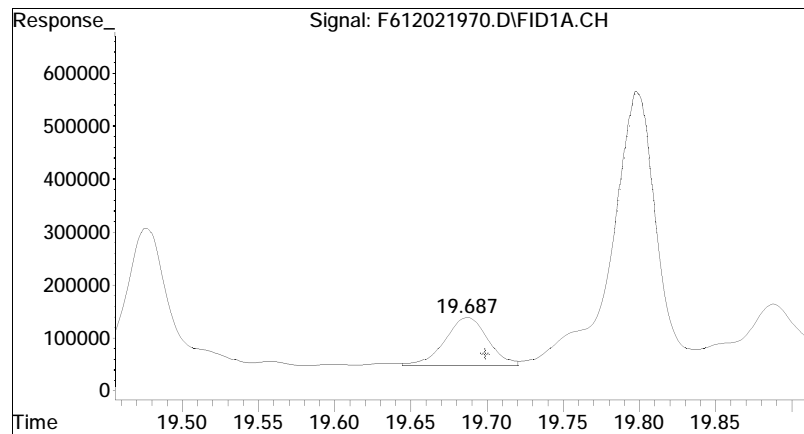
#7 n-Tridecane (C13)

R.T.: 17.476 min
Delta R.T.: -0.037 min
Response: 2239348
Conc: 2.36 ug/mL M4

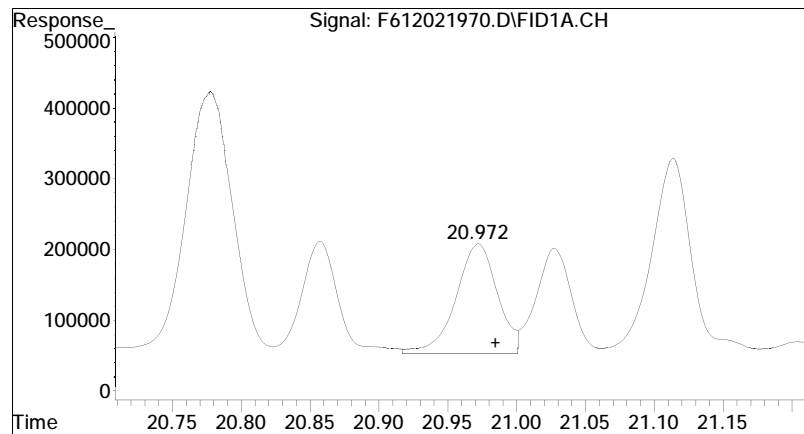


#8 1380

R.T.: 19.179 min
Delta R.T.: -0.011 min
Response: 3860126
Conc: 3.98 ug/mL M4

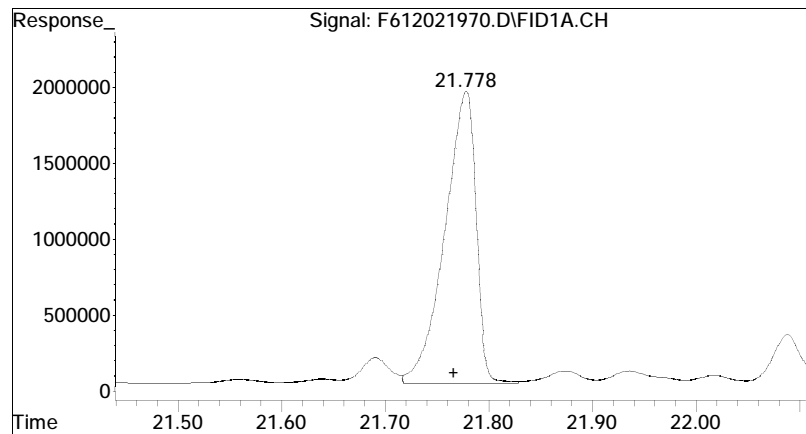


#9 n-Tetradecane (C14)
R.T.: 19.687 min
Delta R.T.: -0.012 min
Response: 1790821
Conc: 1.85 ug/mL M4

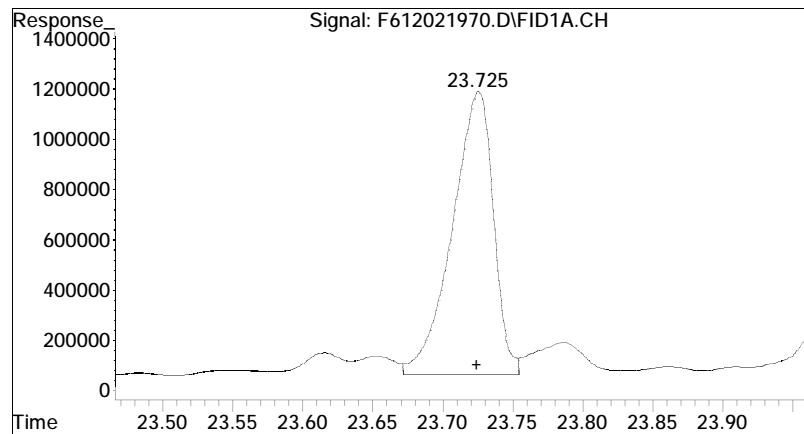


#10 1470

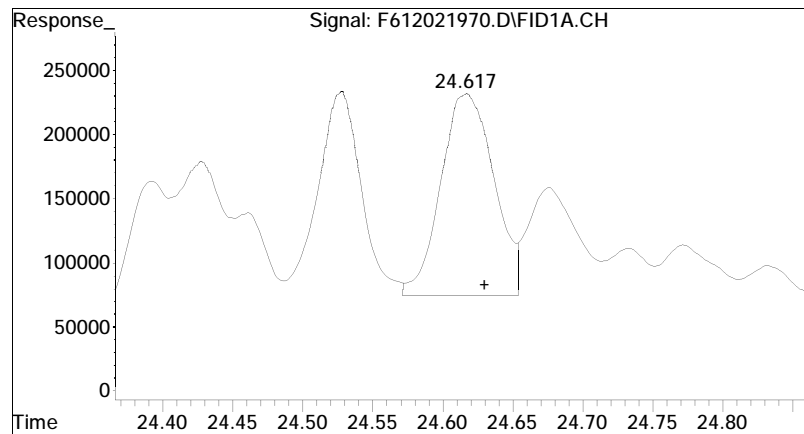
R.T.: 20.972 min
Delta R.T.: -0.013 min
Response: 3252584
Conc: 3.33 ug/mL M4



#11 n-Pentadecane (C15)
R.T.: 21.778 min
Delta R.T.: 0.012 min
Response: 39648590
Conc: 40.65 ug/mL M4

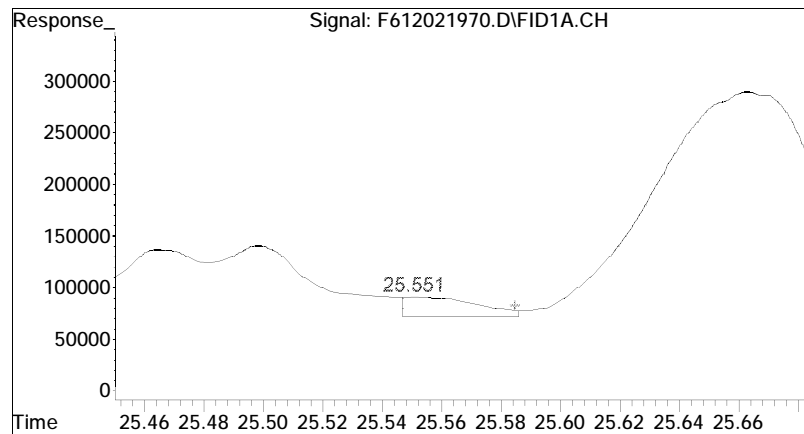


#12 n-Hexadecane (C16)
R.T.: 23.725 min
Delta R.T.: 0.001 min
Response: 22690910
Conc: 22.91 ug/mL M4



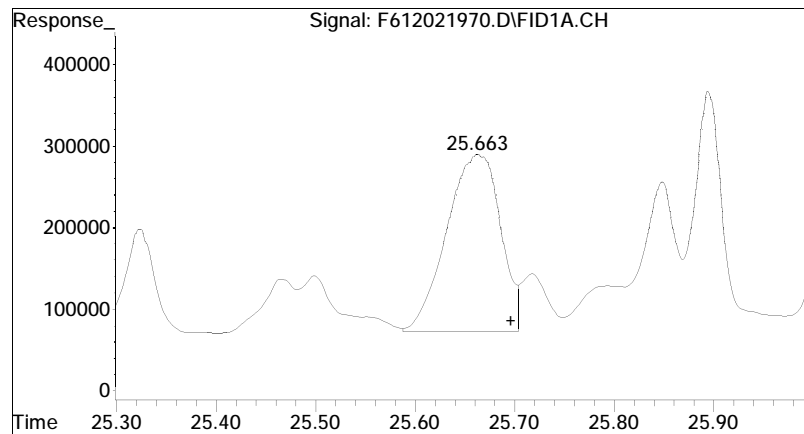
#13 1650

R.T.: 24.617 min
Delta R.T.: -0.013 min
Response: 4158464
Conc: 4.21 ug/mL M4



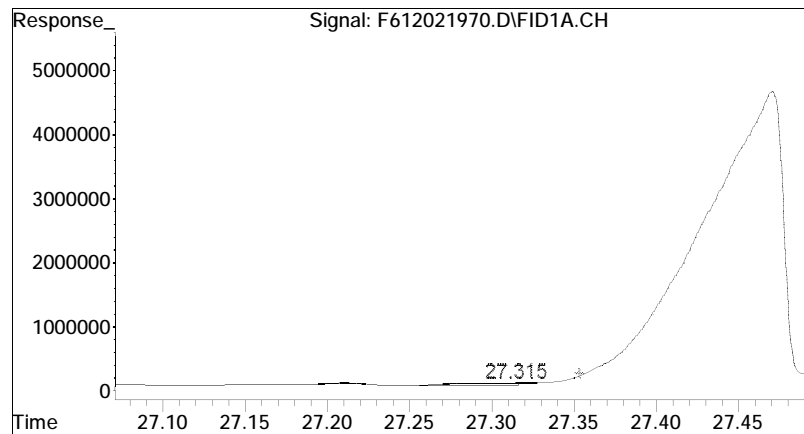
#14 n-Heptadecane (C17)

R.T.: 25.551 min
Delta R.T.: -0.034 min
Response: 329358
Conc: 0.33 ug/mL M4



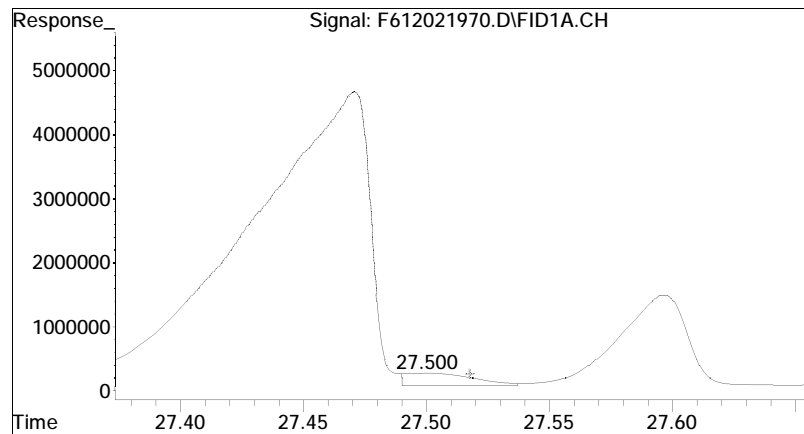
#15 Pristane

R.T.: 25.663 min
Delta R.T.: -0.034 min
Response: 8095810
Conc: 8.05 ug/mL M4



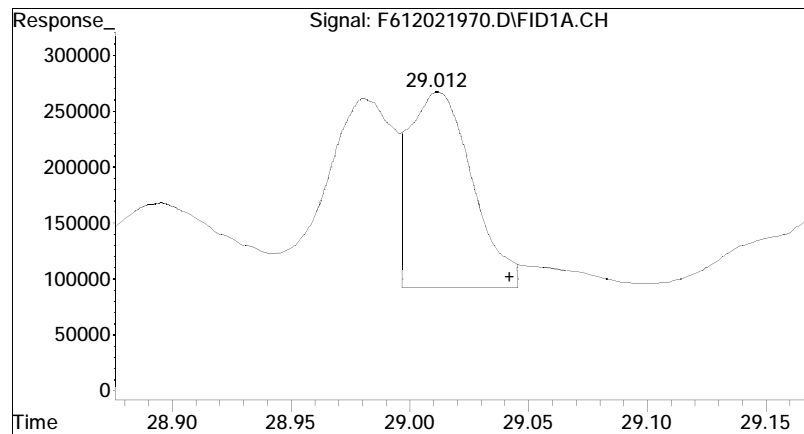
#16 n-Octadecane (C18)

R.T.: 27.315 min
Delta R.T.: -0.039 min
Response: 903740
Conc: 0.90 ug/mL M4

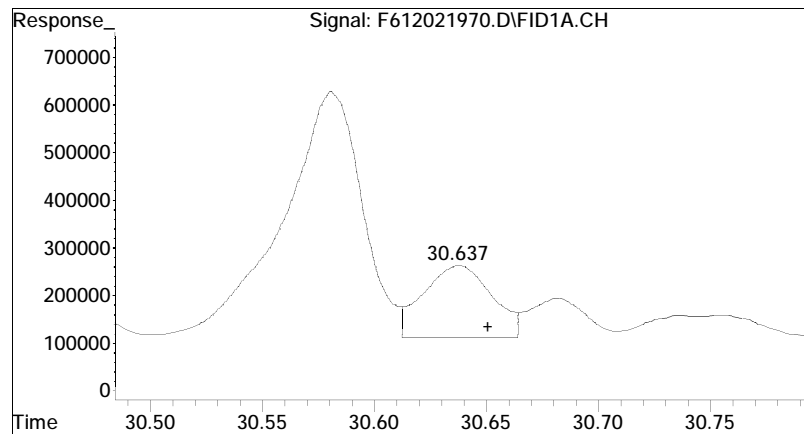


#17 Phytane

R.T.: 27.500 min
Delta R.T.: -0.018 min
Response: 3747534
Conc: 4.15 ug/mL M4

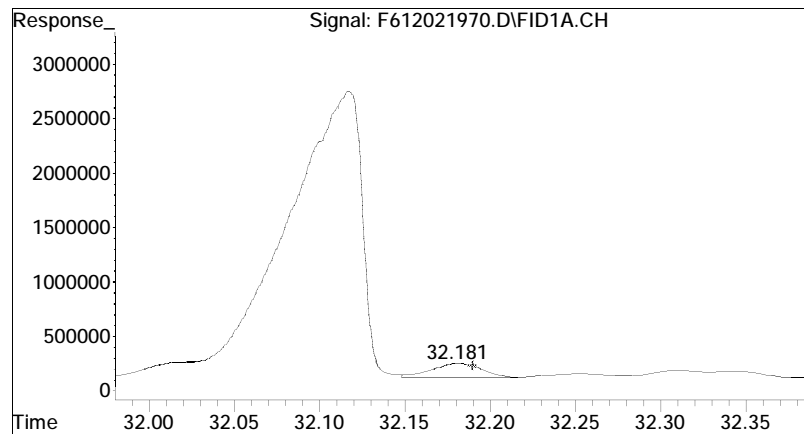


#18 n-Nonadecane (C19)
R.T.: 29.012 min
Delta R.T.: -0.031 min
Response: 3167569
Conc: 3.17 ug/mL M4



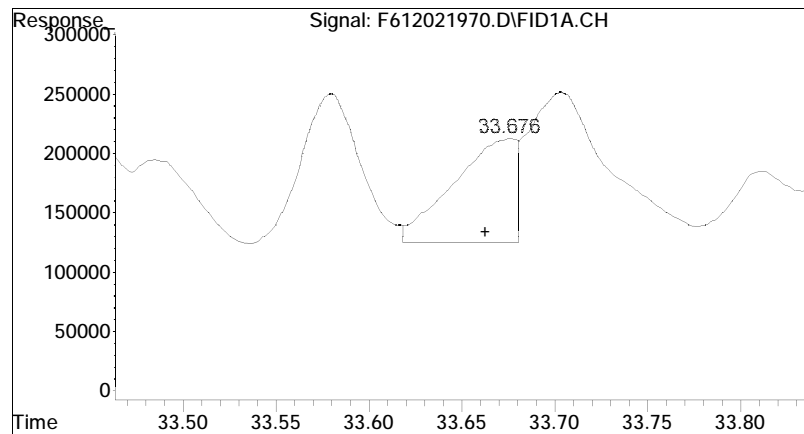
#20 n-Eicosane (C20)

R.T.: 30.637 min
Delta R.T.: -0.013 min
Response: 3089895
Conc: 3.08 ug/mL M4



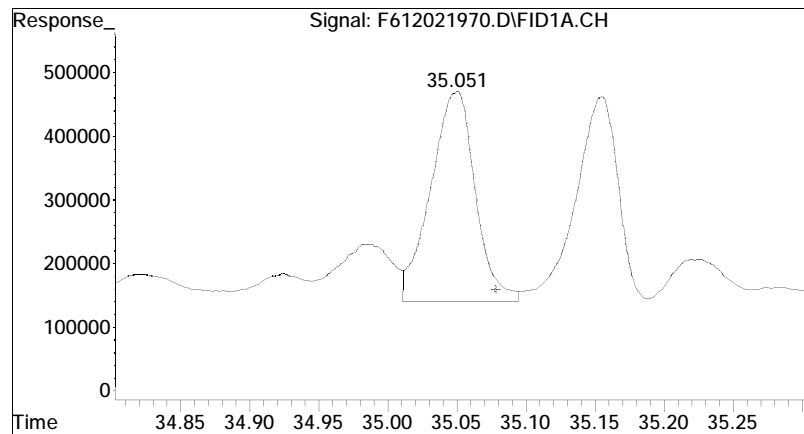
#21 n-Heneicosane (C21)

R.T.: 32.181 min
Delta R.T.: -0.009 min
Response: 2579021
Conc: 2.53 ug/mL M4



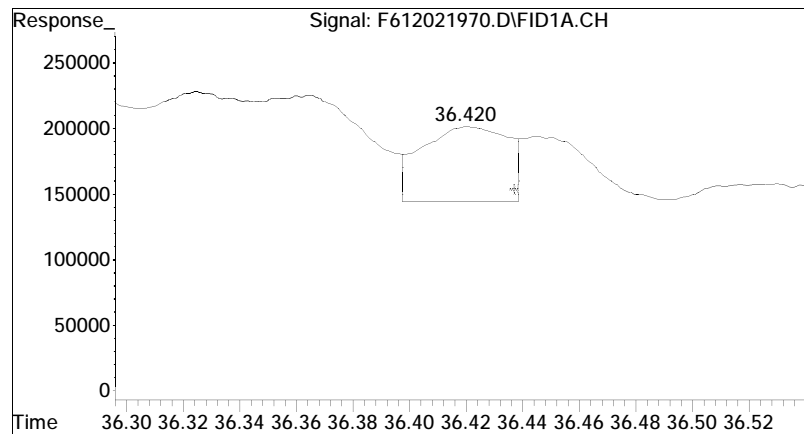
#22 n-Docosane (C22)

R.T.: 33.676 min
Delta R.T.: 0.013 min
Response: 2047655
Conc: 2.01 ug/mL M4



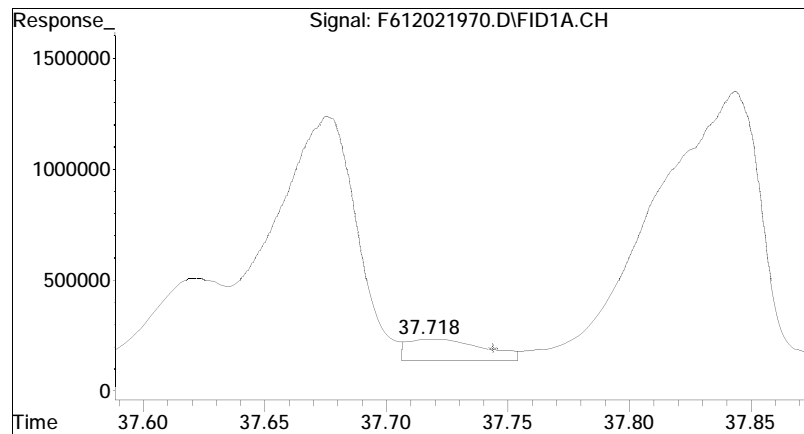
#23 n-Tricosane (C23)

R.T.: 35.051 min
Delta R.T.: -0.028 min
Response: 7356375
Conc: 7.19 ug/mL M4



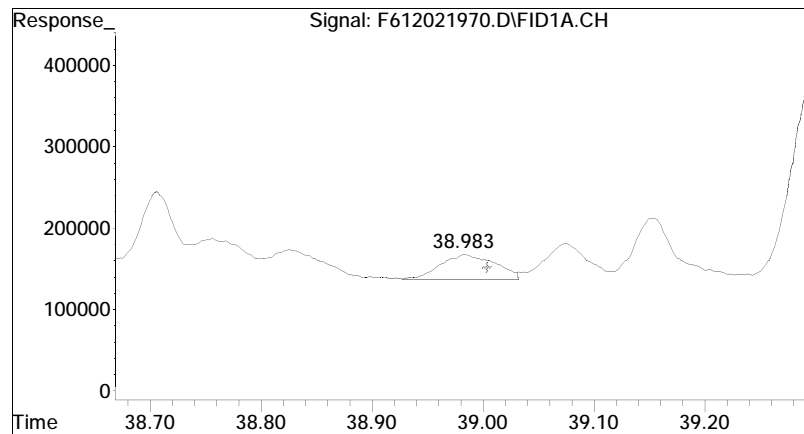
#25 n-Tetracosane (C24)

R.T.: 36.420 min
Delta R.T.: -0.017 min
Response: 1221883
Conc: 1.19 ug/mL M4



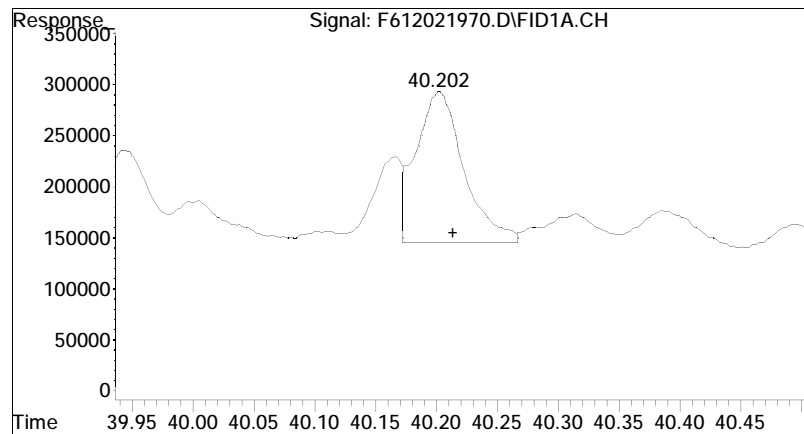
#26 n-Pentacosane (C25)

R.T.: 37.718 min
Delta R.T.: -0.026 min
Response: 2047332
Conc: 2.01 ug/mL M4



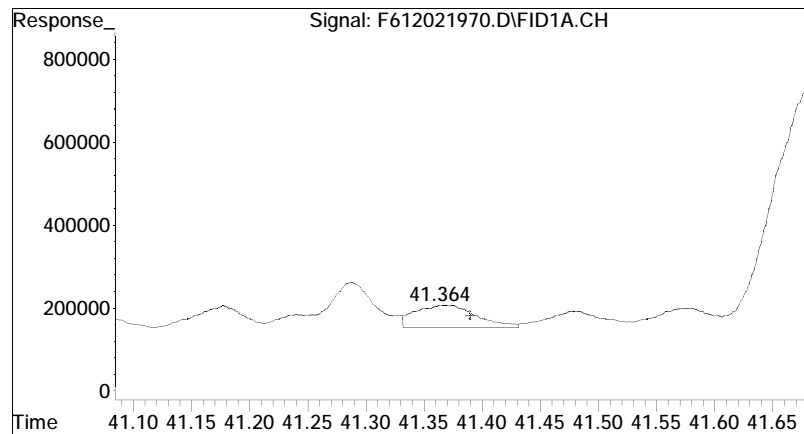
#27 n-Hexacosane (C26)

R.T.: 38.983 min
Delta R.T.: -0.022 min
Response: 1058846
Conc: 1.04 ug/mL M4



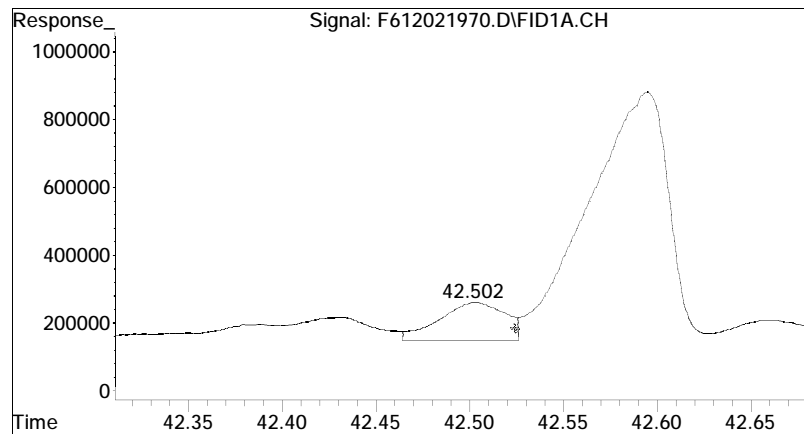
#28 n-Heptacosane (C27)

R.T.: 40.202 min
Delta R.T.: -0.012 min
Response: 4016146
Conc: 4.04 ug/mL M4



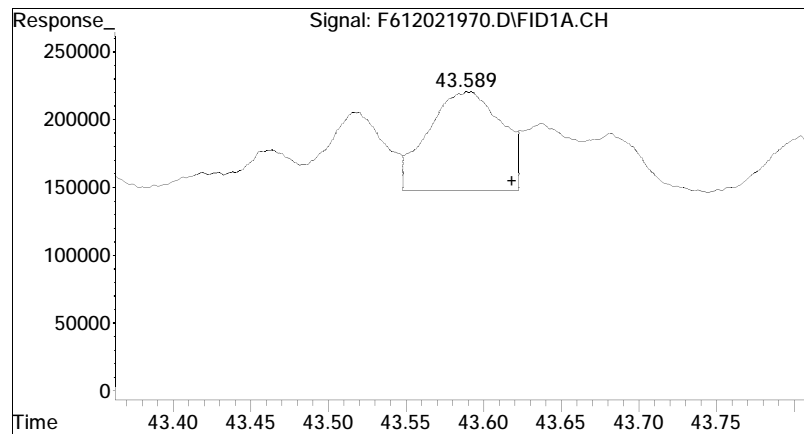
#29 n-Octacosane (C28)

R.T.: 41.364 min
Delta R.T.: -0.026 min
Response: 1933747
Conc: 1.87 ug/mL M4



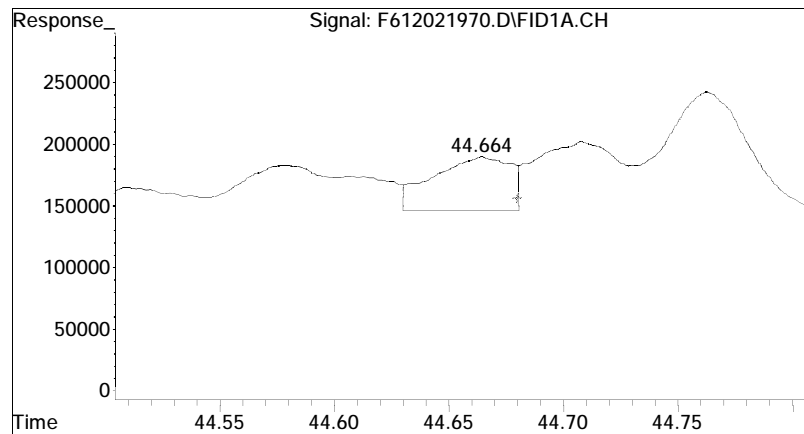
#30 n-Nonacosane (C29)

R.T.: 42.502 min
Delta R.T.: -0.023 min
Response: 2706149
Conc: 2.63 ug/mL M4



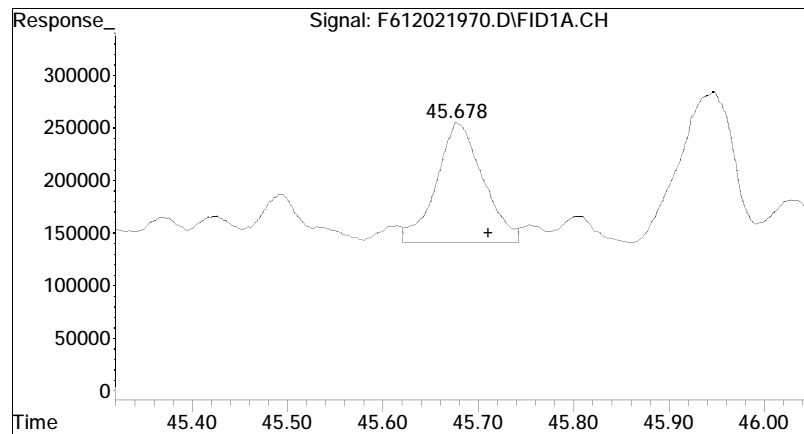
#31 n-Triacontane (C30)

R.T.: 43.589 min
Delta R.T.: -0.029 min
Response: 2374475
Conc: 2.33 ug/mL M4

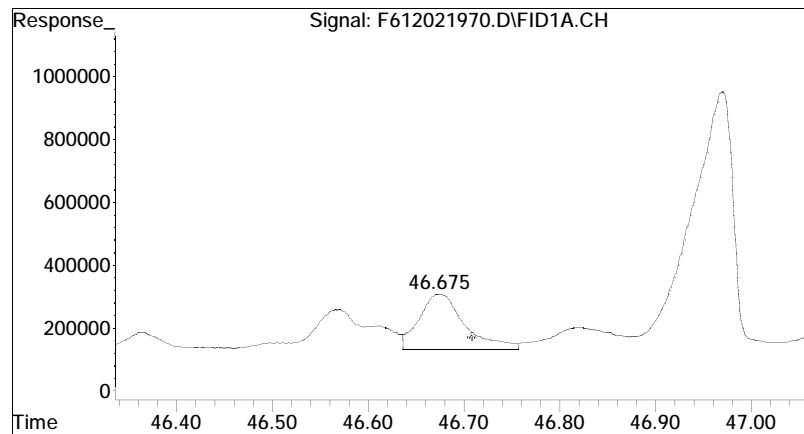


#32 n-Hentriacontane (C31)

R.T.: 44.664 min
Delta R.T.: -0.016 min
Response: 1026478
Conc: 1.00 ug/mL M4

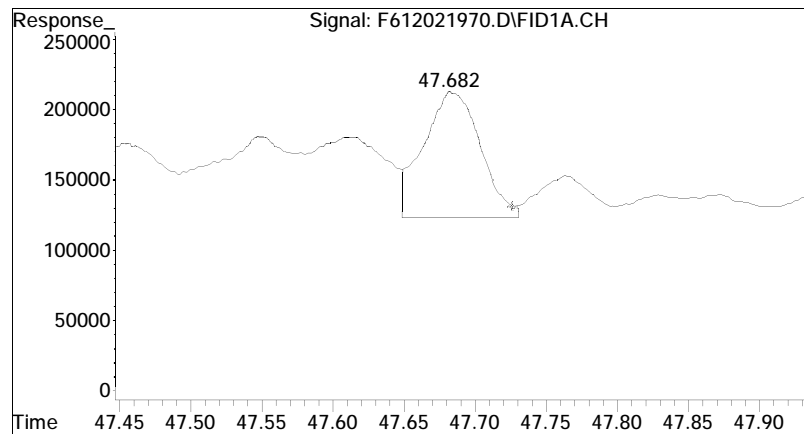


#33 n-Dotriacontane (C32)
R.T.: 45.678 min
Delta R.T.: -0.033 min
Response: 3857970
Conc: 3.79 ug/mL M4



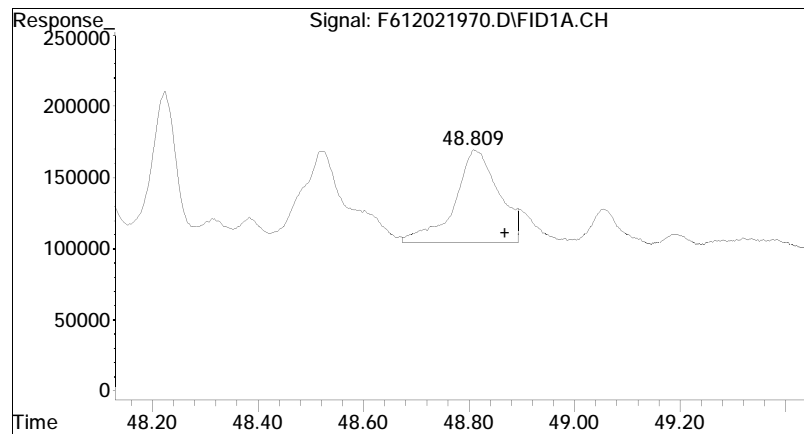
#34 n-Tritriacontane (C33)

R.T.: 46.675 min
Delta R.T.: -0.034 min
Response: 5763660
Conc: 5.71 ug/mL M4



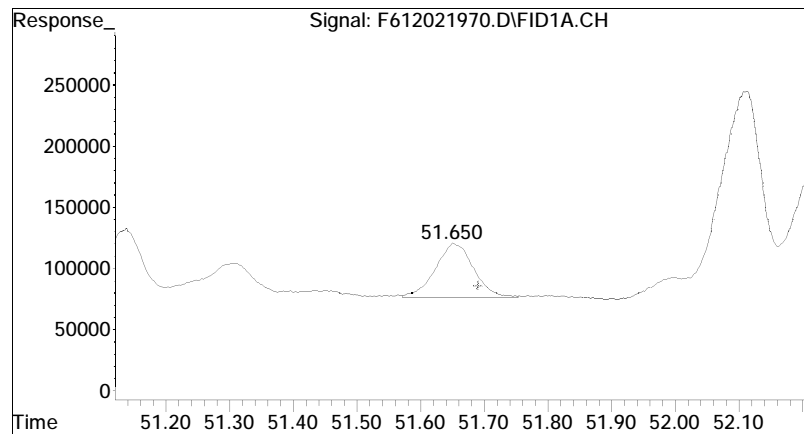
#35 n-tetratriacontane (C34)

R.T.: 47.682 min
Delta R.T.: -0.045 min
Response: 2491882
Conc: 2.39 ug/mL M4



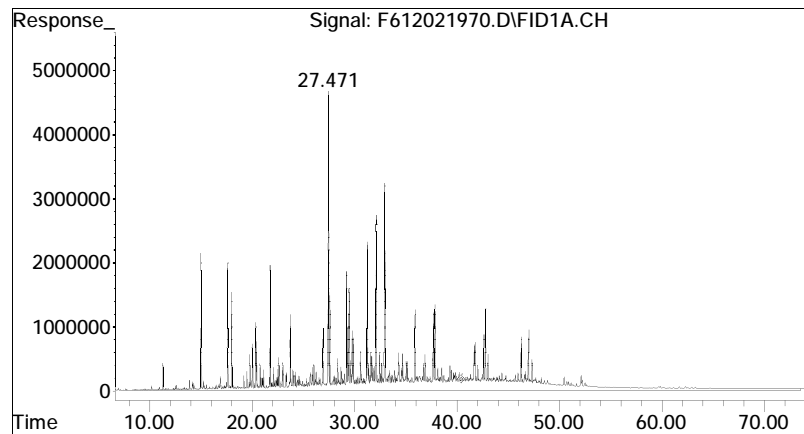
#36 n-Pentatriacontane (C35)

R.T.: 48.809 min
Delta R.T.: -0.060 min
Response: 3799345
Conc: 3.77 ug/mL M4



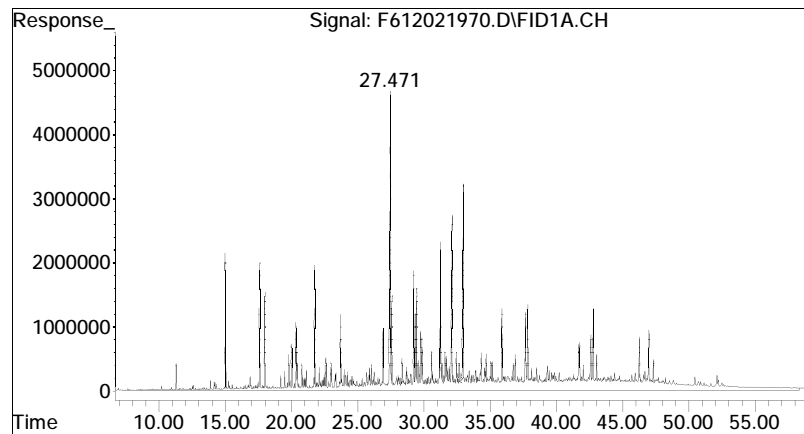
#38 n-Heptatriacontane (C37)

R.T.: 51.650 min
Delta R.T.: -0.041 min
Response: 1825936
Conc: 1.83 ug/mL M4



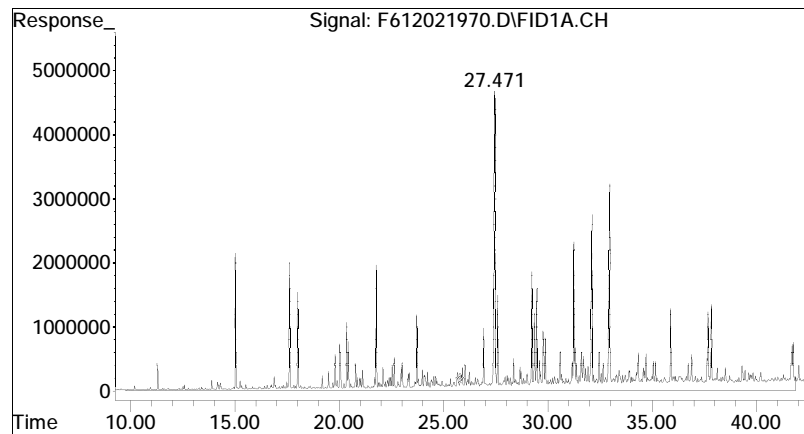
#42 C9-C44 Total Petroleum Hy

R.T.: 40.477 min
Delta R.T.: 0.000 min
Response: 4305562296
Conc: 4321.81 ug/mL m



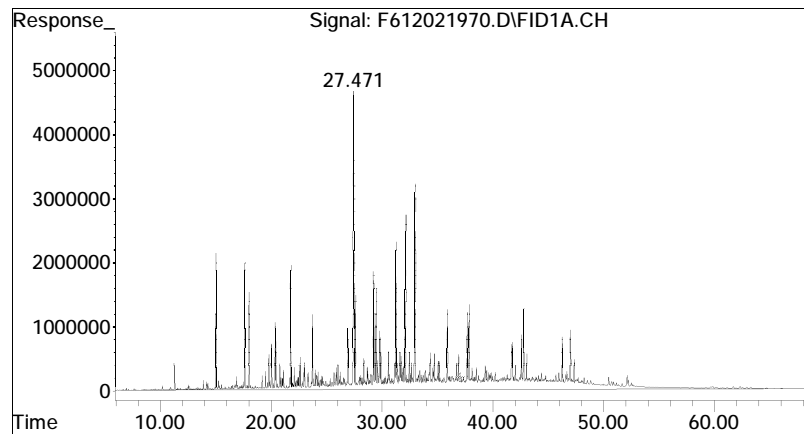
#45 C9-C40 Total Petroleum Hy

R.T.: 32.826 min
Delta R.T.: 0.000 min
Response: 4041932916
Conc: 4057.19 ug/ml m



#46 C10-C28 DRO

R.T.: 25.817 min
Delta R.T.: 0.000 min
Response: 2983312454
Conc: 2994.57 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 1934458312
Conc: 1941.76 ug/mL m

Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021912.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 8:19 pm
 Operator : FID6:WR
 Sample : WG1312512-1
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:40:26 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.239	39979857	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.208	18847332	22.595	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	45.19%#	
24) s d50-Tetracosane	35.874	15484091	23.707	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	47.41%#	
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)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL
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)	19.682	3849	0.005	ug/mL M4
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)	23.710	5409	0.007	ug/mL M4
13) t 1650	0.000	0	N.D.	ug/mL
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)	27.304	311448C	0.411	ug/mL M4
17) t Phytane	0.000	0	N.D.	ug/mL
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)	33.639	5494	0.007	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\FID6\2019\DEC\DEC02\
 Data File : F612021912.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 8:19 pm
 Operator : FID6:WR
 Sample : WG1312512-1
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:40:26 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.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 d
26) t n-Pentacosane (C25)	37.695	407885C	0.531	ug/mL M4
27) t n-Hexacosane (C26)	38.979	9987	0.013	ug/mL M4
28) t n-Heptacosane (C27)	40.189	12320	0.016	ug/mL M4
29) t n-Octacosane (C28)	41.363	50626	0.065	ug/mL M4
30) t n-Nonacosane (C29)	42.499	26092	0.033	ug/mL M4
31) t n-Triacontane (C30)	43.593	20426	0.026	ug/mL M4
32) t n-Hentriacontane (C31)	44.655	30826	0.040	ug/mL M4
33) t n-Dotriacontane (C32)	45.688	18470	0.024	ug/mL M4
34) t n-Tritriacontane (C33)	46.678	18340	0.024	ug/mL M4
35) t n-tetratriacontane (C34)	47.697	13593	0.017	ug/mL M4
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	51.699	171091	0.226	ug/mL M4
39) t n-Octatriacontane (C38)	53.452	40661	0.050	ug/mL M4
40) t n-Nonatriacontane (C39)	55.529	685954	0.900	ug/mL M4
41) t n-Tetracontane (C40)	57.966	72342	0.095	ug/mL M4
42) h C9-C44 Total Petroleu...	40.477	344770784	457.618	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	-2987475	N.D.	ug/mLm
43) h C10-C25 DRO	0.000	0	N.D.	ug/mL d
44) h C25-C44 ORO	0.000	0	N.D.	ug/mL d
45) h C9-C40 Total Petroleu...	32.826	195713293	259.772	ug/ml m
45) h C9-C40 Total Petroleu BS	32.826	1865611	2.476	ug/mlm
46) h C10-C28 DRO	25.817	47892156	63.568	ug/mL m
46) h C10-C28 DRO BS	25.817	4711300	6.253	ug/mLm
47) h C8-C40 Total Petroleu...	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO BS	0.000	0	N.D.	ug/mLd
49) h Total Resolved Hydroc...	37.081	8205255	10.891	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
Data File : F612021912.D
Signal(s) : FID1A.CH
Acq On : 02 Dec 2019 8:19 pm
Operator : FID6:WR
Sample : WG1312512-1
Misc : WG1315720,WG1312512,ICAL16308
ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Dec 13 14:40:26 2019
Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
Quant Title : FID Forensics
QLast Update : Thu Dec 05 15:01:36 2019
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 : IB612021901F
Blank File : F612021910.D

Sub List : Default - All compounds listed

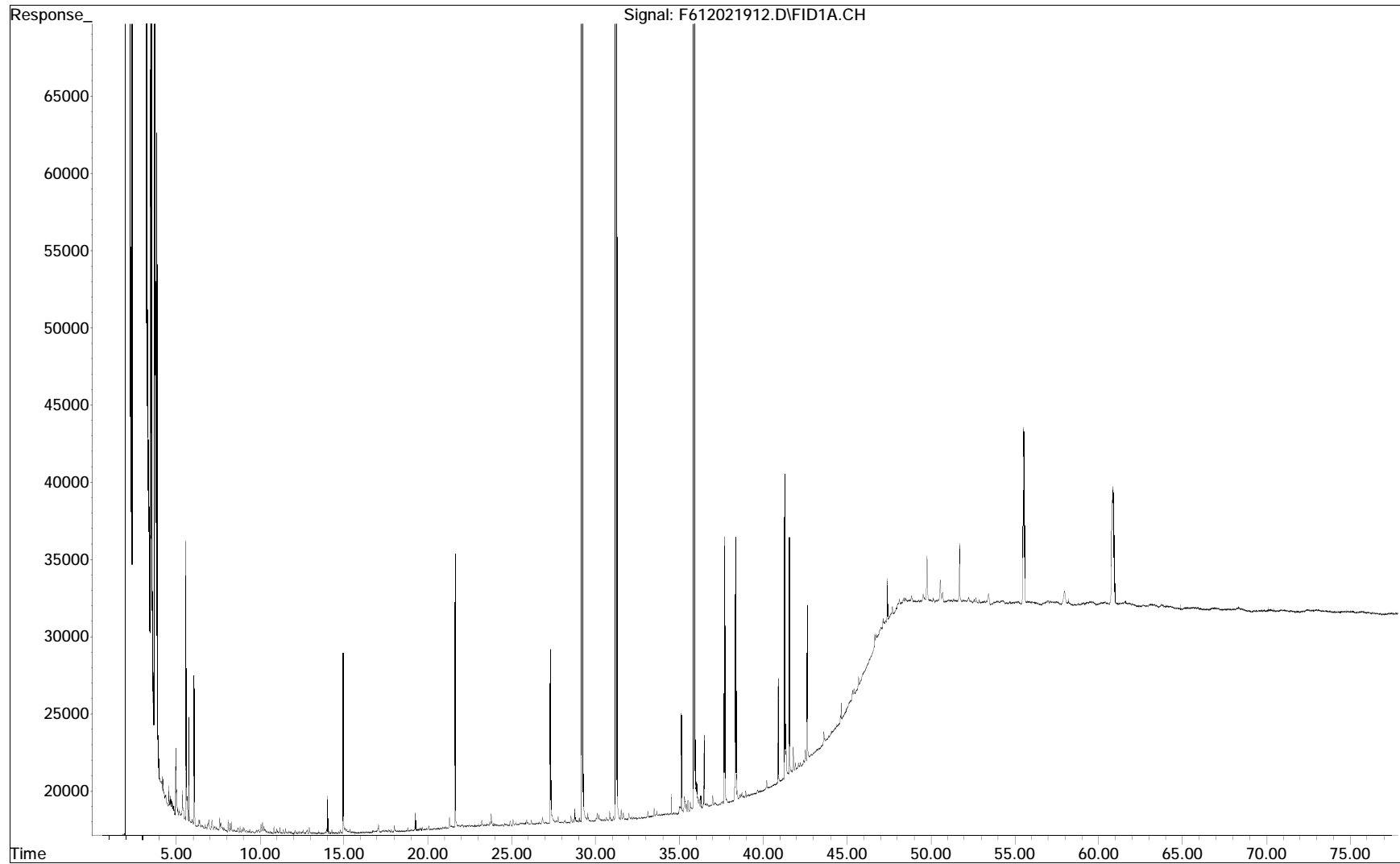
Compound	R.T.	Response	Conc Units
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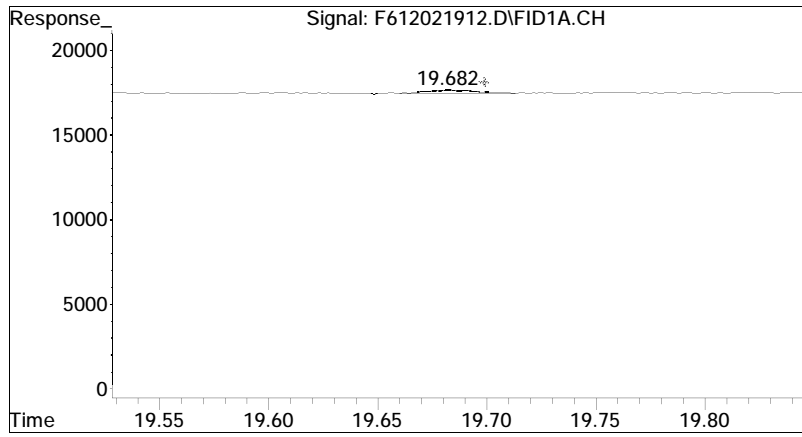
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021912.D
Operator : FID6:WR
Acquired : 02 Dec 2019 8:19 pm using AcqMethod FID6A.M
Sample Name: WG1312512-1
Instrument: FID6
Misc Info : WG1315720, WG1312512, ICAL16308
Vial Number: 6
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M





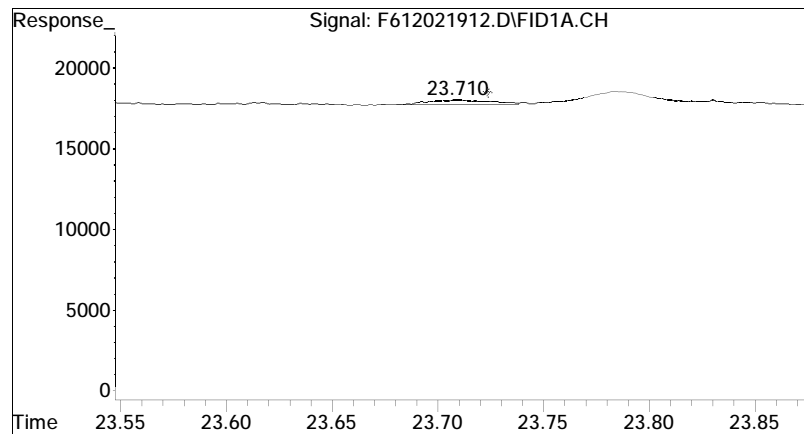
#9 n-Tetradecane (C14)

R.T.: 19.682 min

Delta R.T.: -0.017 min

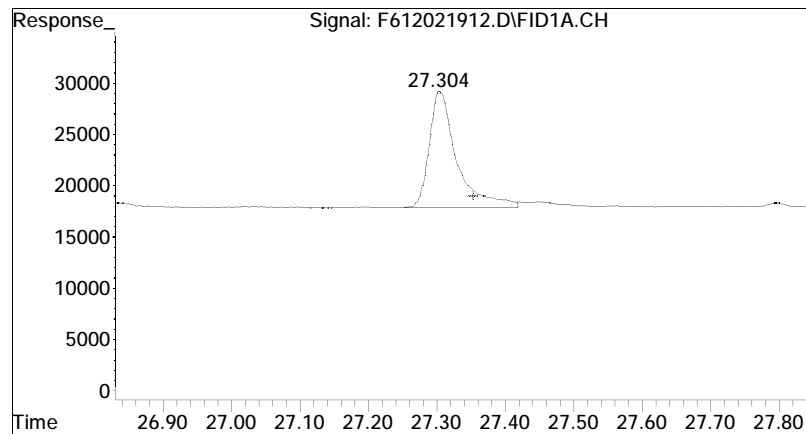
Response: 3849

Conc: 0.01 ug/mL M4



#12 n-Hexadecane (C16)

R.T.: 23.710 min
Delta R.T.: -0.015 min
Response: 5409
Conc: 0.01 ug/mL M4



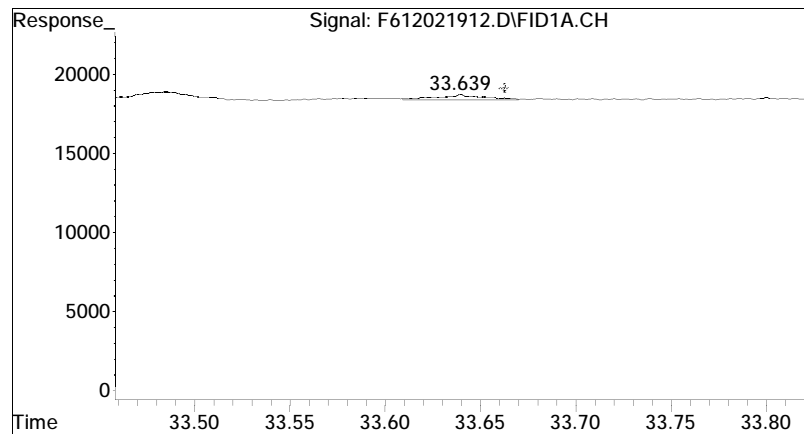
#16 n-Octadecane (C18)

R.T.: 27.304 min

Delta R.T.: -0.050 min

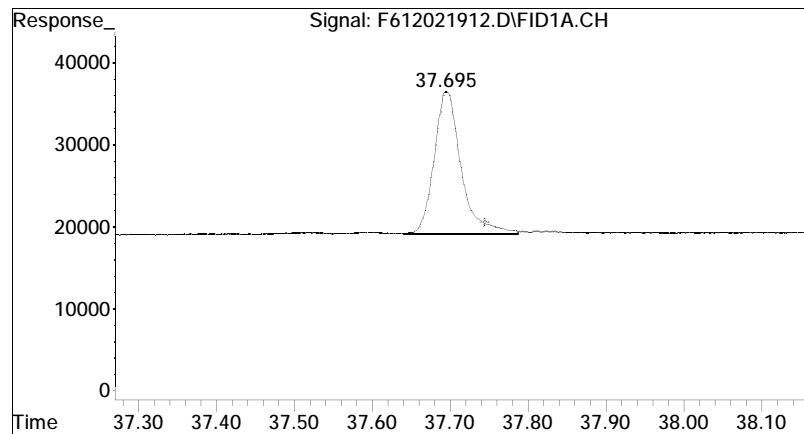
Response: 311448

Conc: 0.41 ug/mL M4



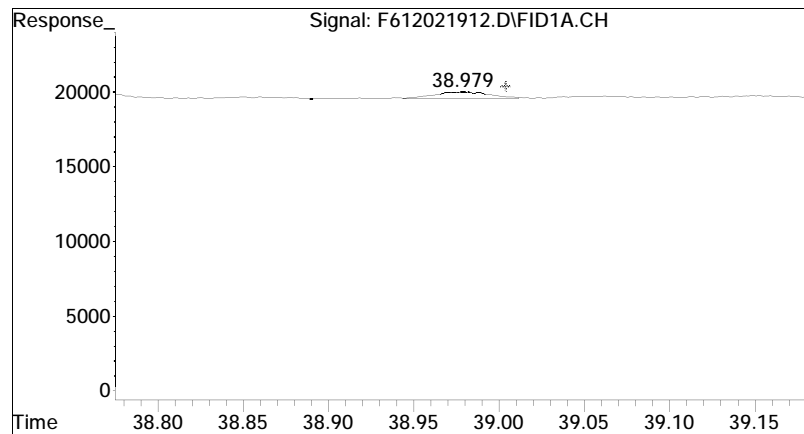
#22 n-Docosane (C22)

R.T.: 33.639 min
Delta R.T.: -0.023 min
Response: 5494
Conc: 0.01 ug/mL M4



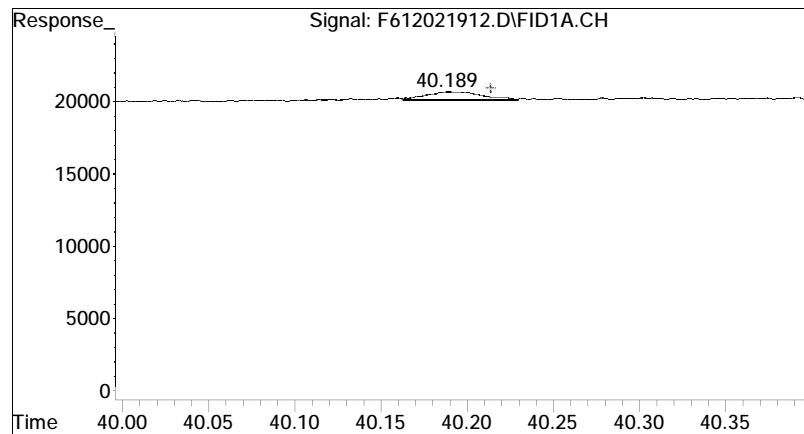
#26 n-Pentacosane (C25)

R.T.: 37.695 min
Delta R.T.: -0.049 min
Response: 407885
Conc: 0.53 ug/mL M4



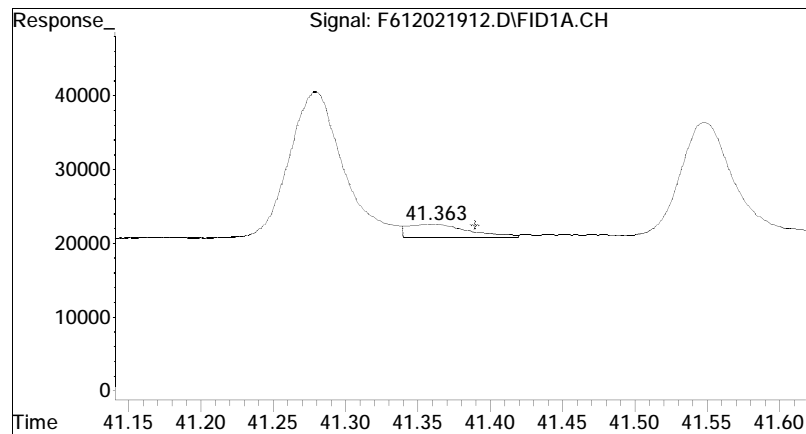
#27 n-Hexacosane (C26)

R.T.: 38.979 min
Delta R.T.: -0.025 min
Response: 9987
Conc: 0.01 ug/mL M4



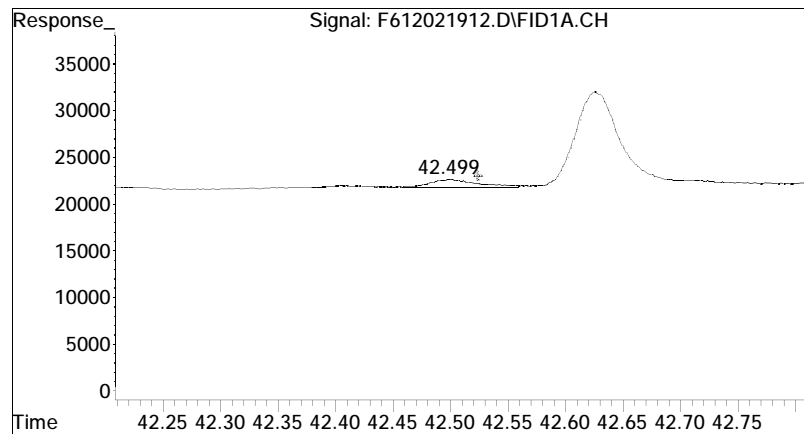
#28 n-Heptacosane (C27)

R.T.: 40.189 min
Delta R.T.: -0.025 min
Response: 12320
Conc: 0.02 ug/mL M4



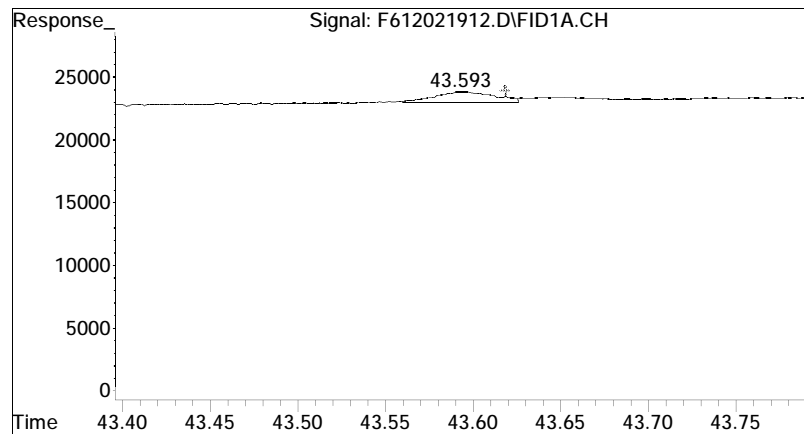
#29 n-Octacosane (C28)

R.T.: 41.363 min
Delta R.T.: -0.027 min
Response: 50626
Conc: 0.06 ug/mL M4



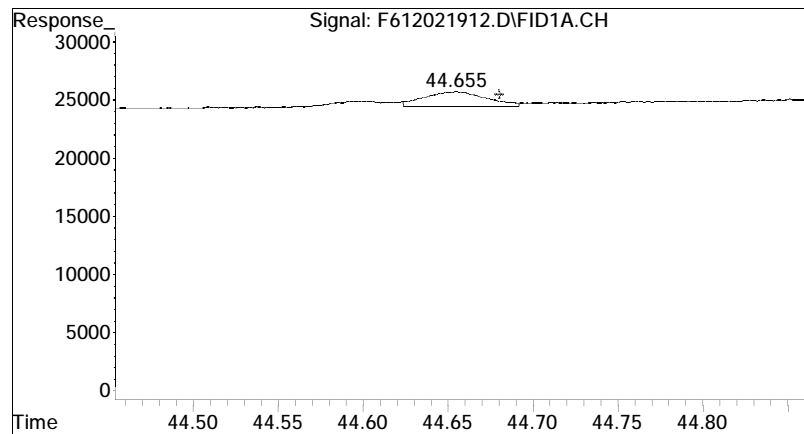
#30 n-Nonacosane (C29)

R.T.: 42.499 min
Delta R.T.: -0.026 min
Response: 26092
Conc: 0.03 ug/mL M4



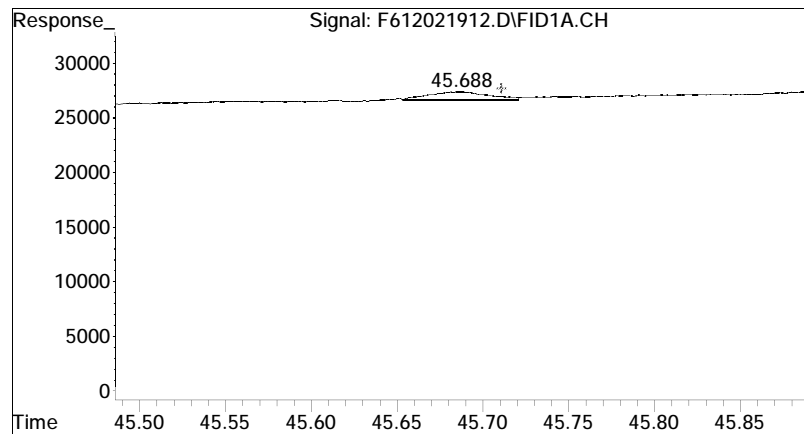
#31 n-Triacontane (C30)

R.T.: 43.593 min
Delta R.T.: -0.025 min
Response: 20426
Conc: 0.03 ug/mL M4



#32 n-Hentriacontane (C31)

R.T.: 44.655 min
Delta R.T.: -0.025 min
Response: 30826
Conc: 0.04 ug/mL M4



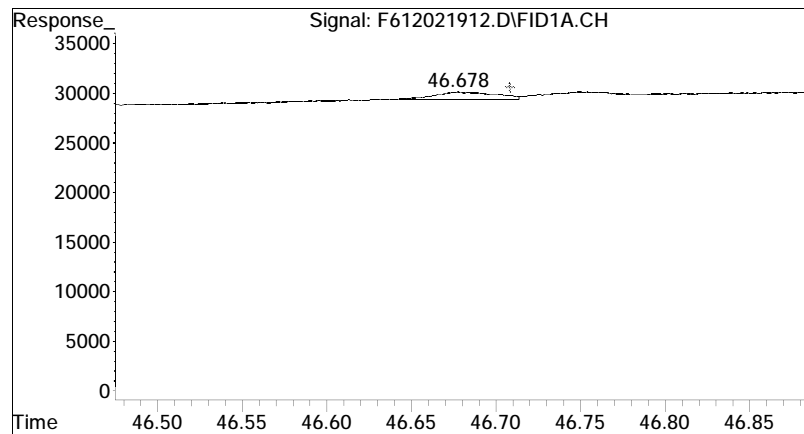
#33 n-Dotriacontane (C32)

R.T.: 45.688 min

Delta R.T.: -0.023 min

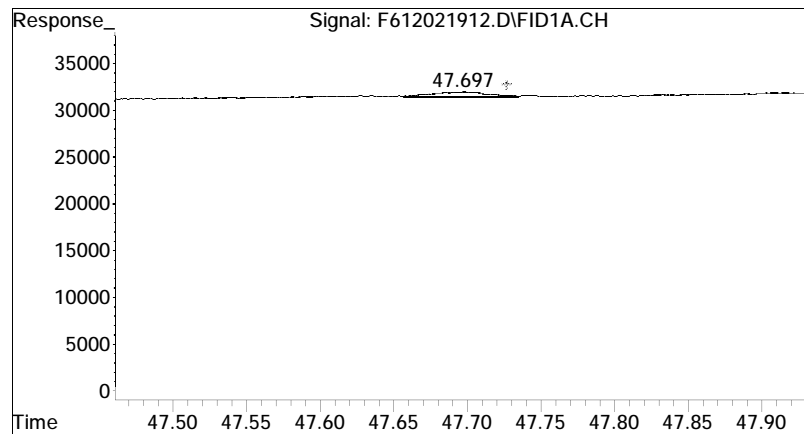
Response: 18470

Conc: 0.02 ug/mL M4



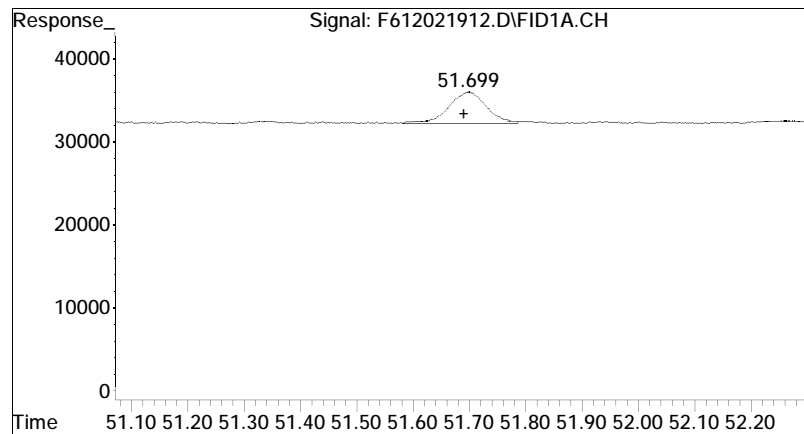
#34 n-Tritriacontane (C33)

R.T.: 46.678 min
Delta R.T.: -0.031 min
Response: 18340
Conc: 0.02 ug/mL M4



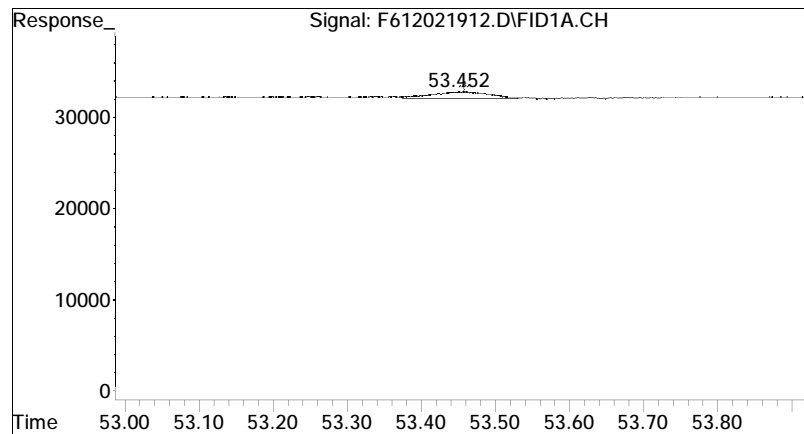
#35 n-tetratriacontane (C34)

R.T.: 47.697 min
Delta R.T.: -0.029 min
Response: 13593
Conc: 0.02 ug/mL M4



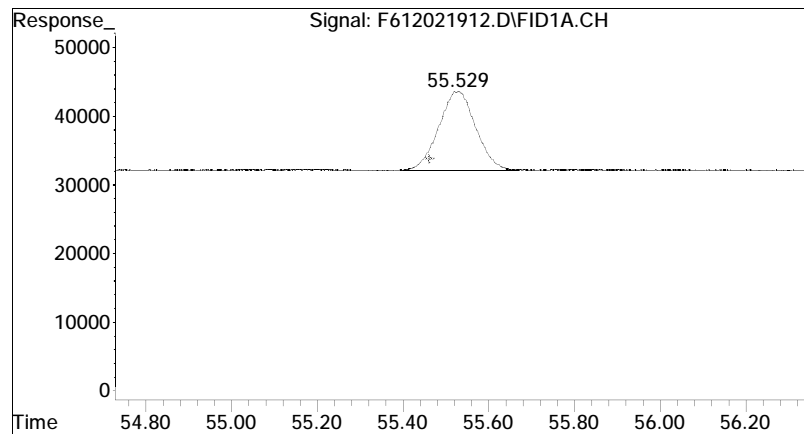
#38 n-Heptatriacontane (C37)

R.T.: 51.699 min
Delta R.T.: 0.009 min
Response: 171091
Conc: 0.23 ug/mL M4



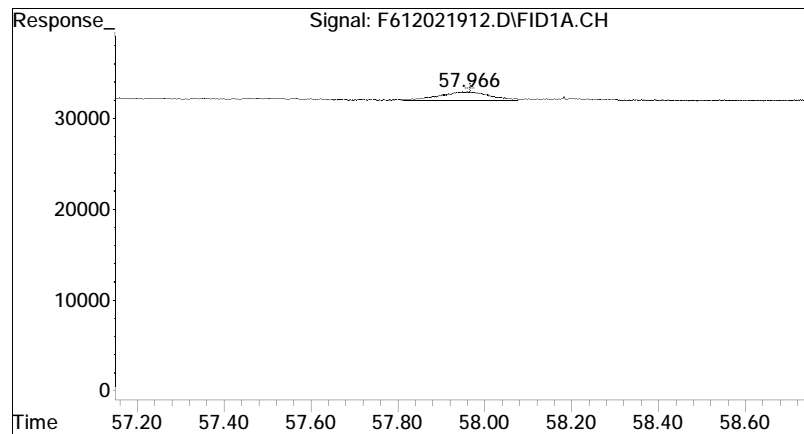
#39 n-Octatriacontane (C38)

R.T.: 53.452 min
Delta R.T.: -0.007 min
Response: 40661
Conc: 0.05 ug/mL M4



#40 n-Nonatriacontane (C39)

R.T.: 55.529 min
Delta R.T.: 0.065 min
Response: 685954
Conc: 0.90 ug/mL M4



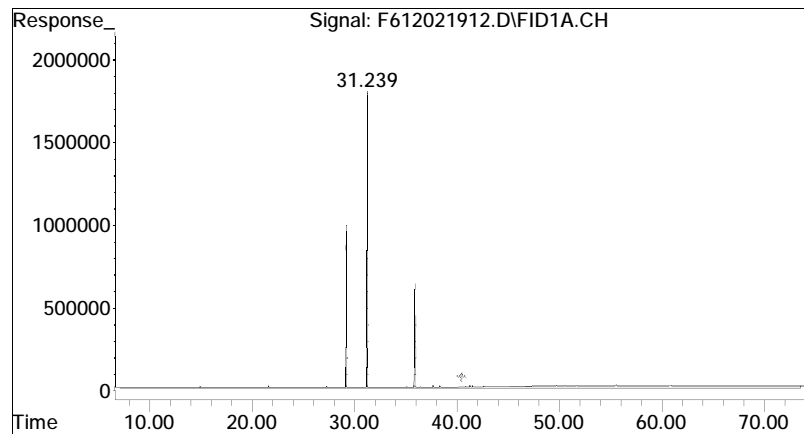
#41 n-Tetracontane (C40)

R.T.: 57.966 min

Delta R.T.: -0.002 min

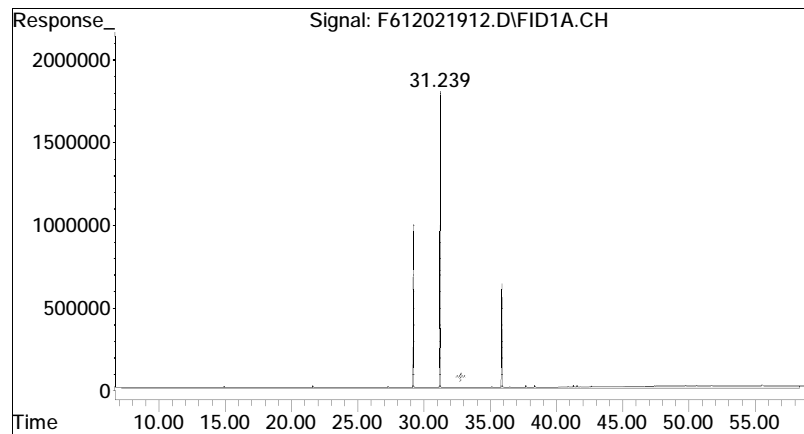
Response: 72342

Conc: 0.09 ug/mL M4



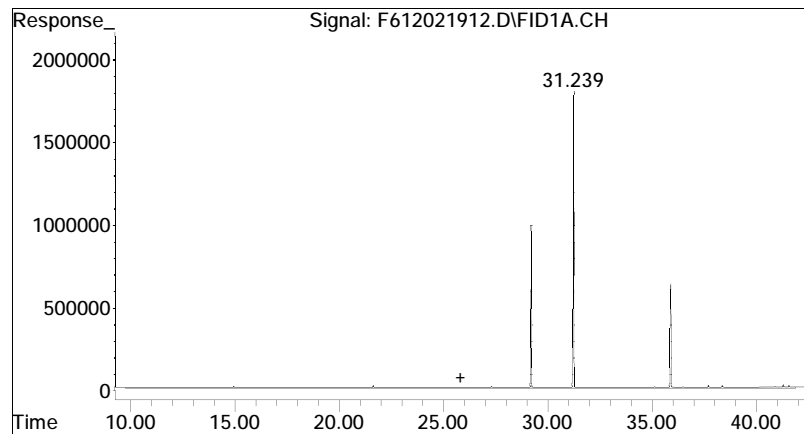
#42 C9-C44 Total Petroleum Hy

R.T.: 40.477 min
Delta R.T.: 0.000 min
Response: 344770784
Conc: 457.62 ug/mL m



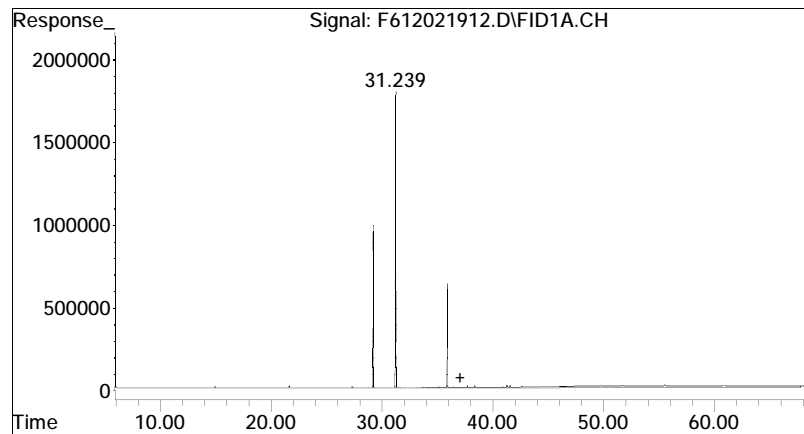
#45 C9-C40 Total Petroleum Hy

R.T.: 32.826 min
Delta R.T.: 0.000 min
Response: 195713293
Conc: 259.77 ug/ml m



#46 C10-C28 DRO

R.T.: 25.817 min
Delta R.T.: 0.000 min
Response: 47892156
Conc: 63.57 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 8205255
Conc: 10.89 ug/mL m

LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021916.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 11:17 pm
 Operator : FID6:WR
 Sample : WG1312512-2
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:43:02 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.238	41200655	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.209	21127740	24.578	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	49.16%#	
24) s d50-Tetracosane	35.876	17093438	25.396	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	50.79%	
Target Compounds				
3) t n-Nonane (C9)	7.742	4675508	6.916	ug/mL M4
4) t n-Decane (C10)	10.241	5834901	8.307	ug/mL M4
6) t n-Dodecane (C12)	15.189	6521300	8.925	ug/mL M4
9) t n-Tetradecane (C14)	19.683	6761100	8.943	ug/mL M4
12) t n-Hexadecane (C16)	23.708	7625777	9.877	ug/mL M4
16) T n-Octadecane (C18)	27.335	7737618	9.911	ug/mL M4
18) t n-Nonadecane (C19)	29.024	7621890	9.788	ug/mL M4
20) t n-Eicosane (C20)	30.631	7728539	9.888	ug/mL M4
22) t n-Docosane (C22)	33.643	7856370	9.901	ug/mL M4
25) t n-Tetracosane (C24)	36.416	8194122	10.246	ug/mL M4
27) t n-Hexacosane (C26)	38.981	7975021	10.004	ug/mL M4
29) t n-Octacosane (C28)	41.367	8090344	10.037	ug/mL M4
31) t n-Triacontane (C30)	43.596	7918785	9.950	ug/mL M4
37) t n-Hexatriacontane (C36)	50.142	7352268	8.844	ug/mL M4
42) h C9-C44 Total Petroleu...	40.477	433781082	558.702	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	86022823	110.796	ug/mLm
49) h Total Resolved Hydroc...	37.081	114062219	146.910	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
Data File : F612021916.D
Signal(s) : FID1A.CH
Acq On : 02 Dec 2019 11:17 pm
Operator : FID6:WR
Sample : WG1312512-2
Misc : WG1315720,WG1312512,ICAL16308
ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Dec 05 15:43:02 2019
Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
Quant Title : FID Forensics
QLast Update : Thu Dec 05 15:01:36 2019
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

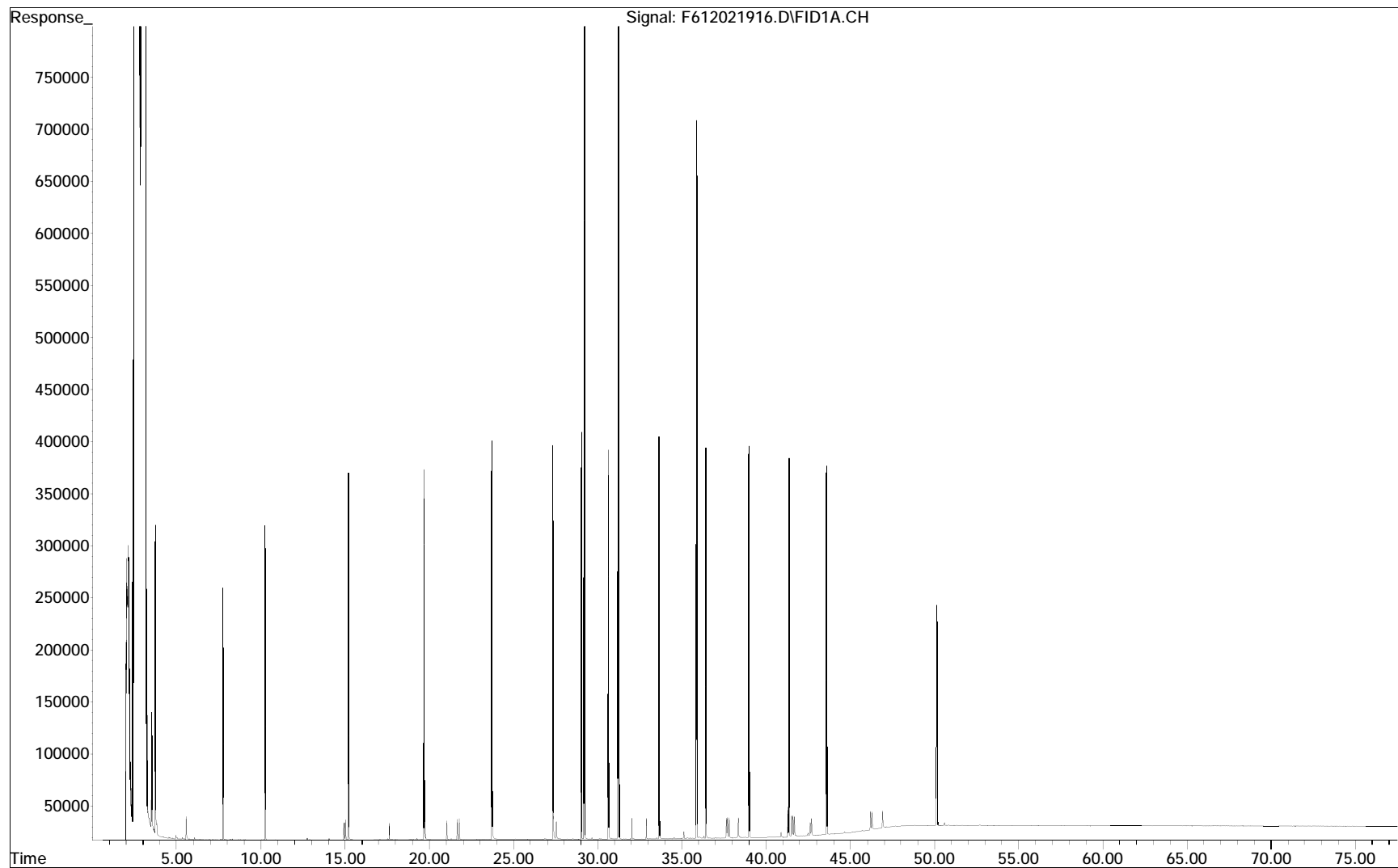
Blank Name : IB612021901F
Blank File : F612021910.D

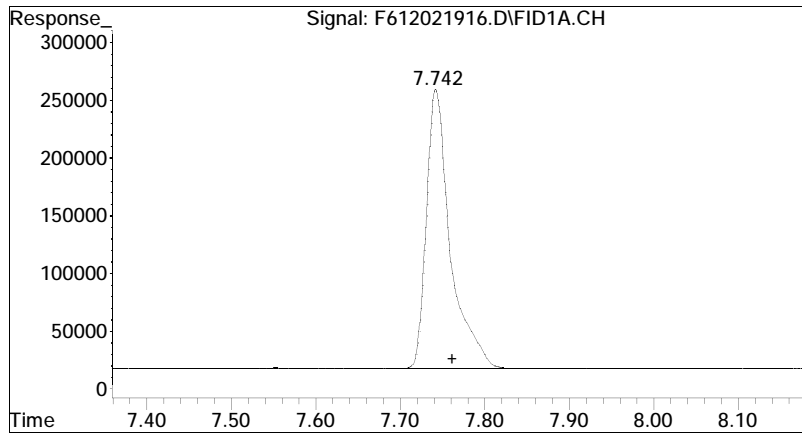
Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc Units
-----			-----
(f)=RT Delta > 1/2 Window			(m)=manual int.

Quantitation Report (QT Reviewed)

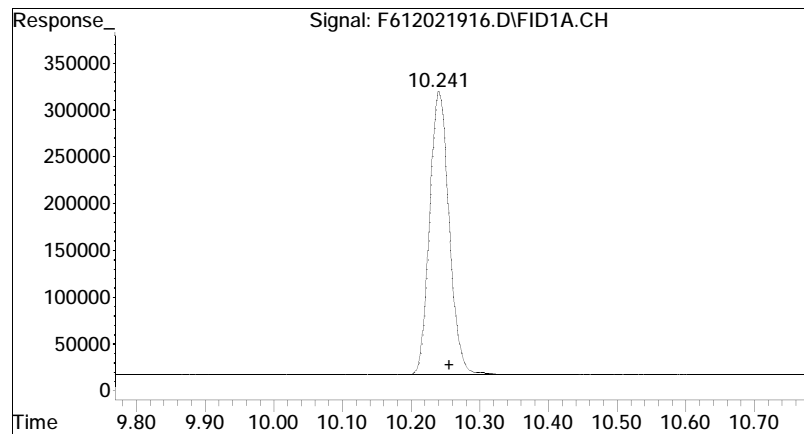
File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021916.D
Operator : FID6:WR
Acquired : 02 Dec 2019 11:17 pm using AcqMethod FID6A.M
Sample Name: WG1312512-2
Instrument: FID6
Misc Info : WG1315720, WG1312512, ICAL16308
Vial Number: 8
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M





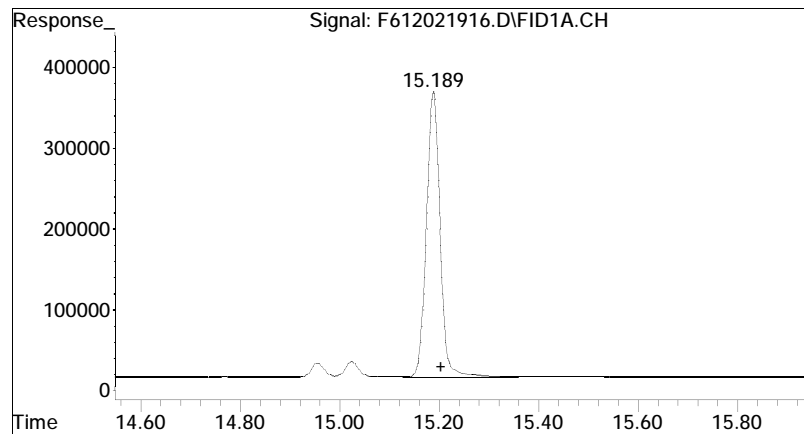
#3 n-Nonane (C9)

R.T.: 7.742 min
Delta R.T.: -0.020 min
Response: 4675508
Conc: 6.92 ug/mL M4



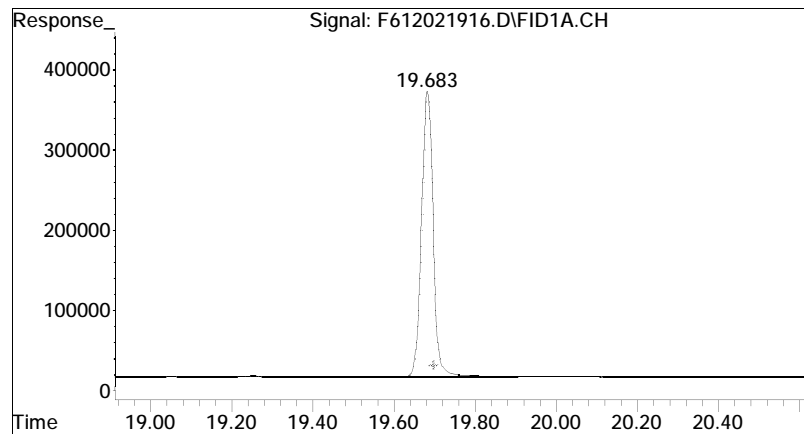
#4 n-Decane (C10)

R.T.: 10.241 min
Delta R.T.: -0.015 min
Response: 5834901
Conc: 8.31 ug/mL M4



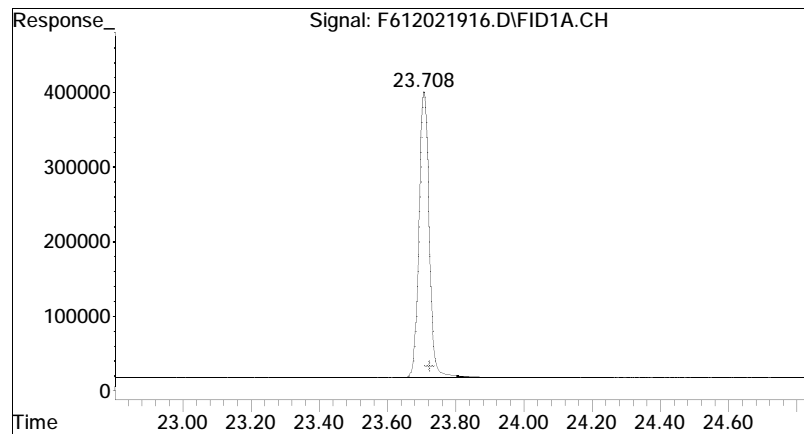
#6 n-Dodecane (C12)

R.T.: 15.189 min
Delta R.T.: -0.015 min
Response: 6521300
Conc: 8.92 ug/mL M4



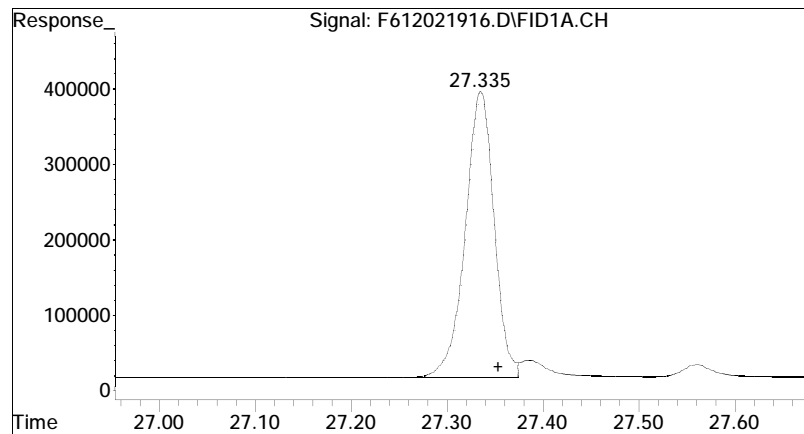
#9 n-Tetradecane (C14)

R.T.: 19.683 min
Delta R.T.: -0.016 min
Response: 6761100
Conc: 8.94 ug/mL M4



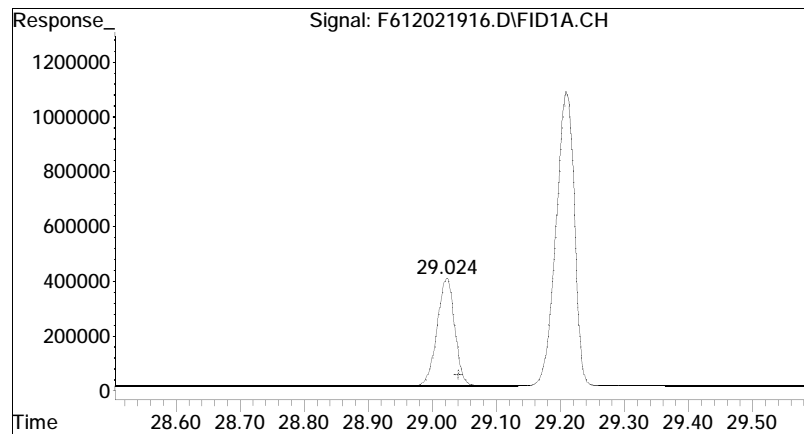
#12 n-Hexadecane (C16)

R.T.: 23.708 min
Delta R.T.: -0.017 min
Response: 7625777
Conc: 9.88 ug/mL M4



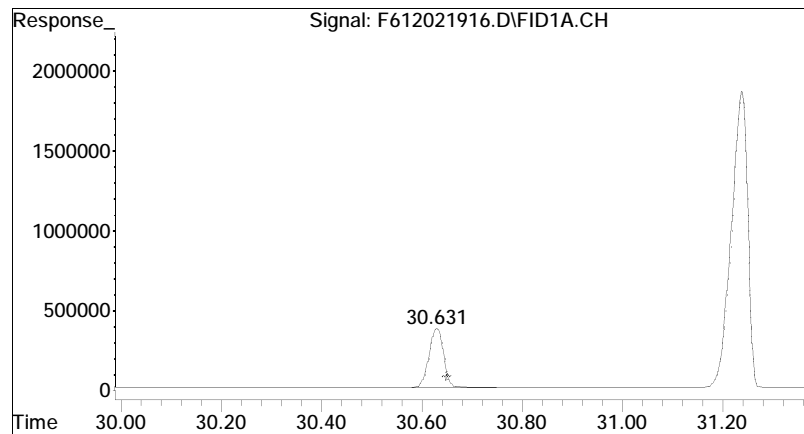
#16 n-Octadecane (C18)

R.T.: 27.335 min
Delta R.T.: -0.019 min
Response: 7737618
Conc: 9.91 ug/mL M4



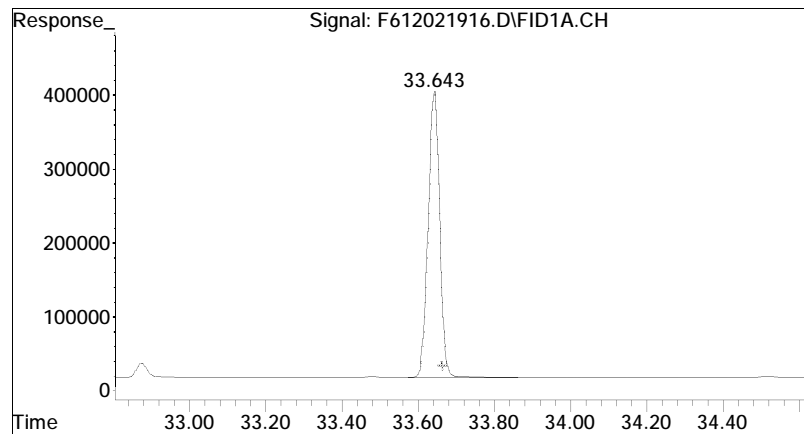
#18 n-Nonadecane (C19)

R.T.: 29.024 min
Delta R.T.: -0.018 min
Response: 7621890
Conc: 9.79 ug/mL M4



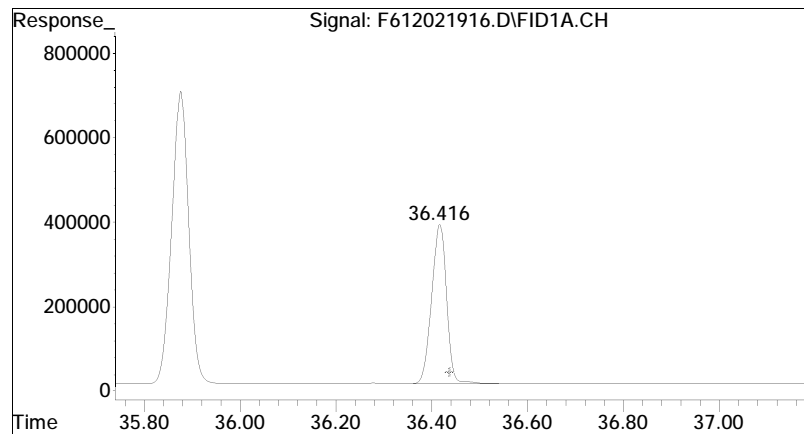
#20 n-Eicosane (C20)

R.T.: 30.631 min
Delta R.T.: -0.020 min
Response: 7728539
Conc: 9.89 ug/mL M4



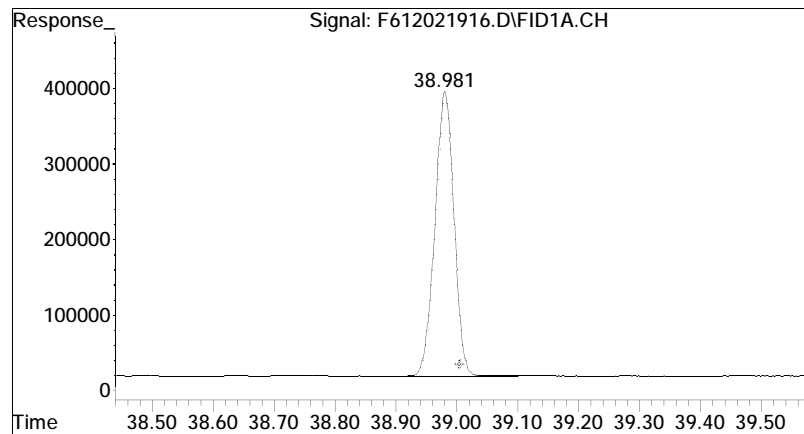
#22 n-Docosane (C22)

R.T.: 33.643 min
Delta R.T.: -0.020 min
Response: 7856370
Conc: 9.90 ug/mL M4



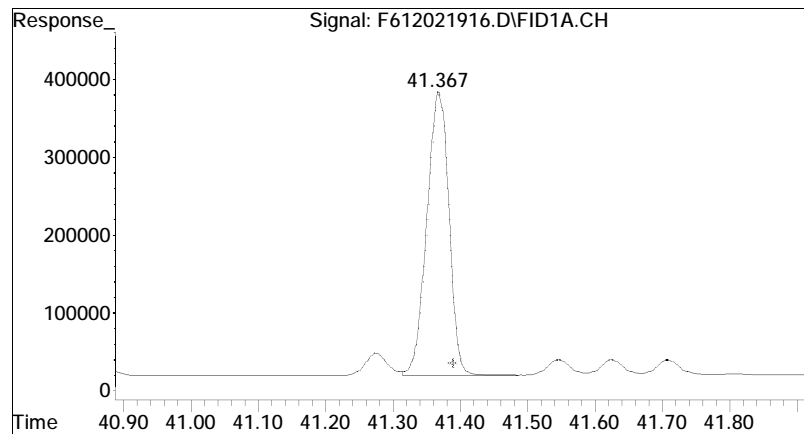
#25 n-Tetracosane (C24)

R.T.: 36.416 min
Delta R.T.: -0.021 min
Response: 8194122
Conc: 10.25 ug/mL M4



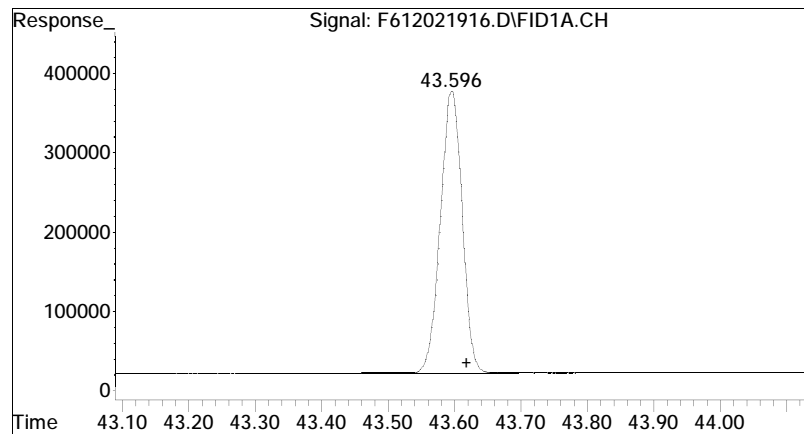
#27 n-Hexacosane (C26)

R.T.: 38.981 min
Delta R.T.: -0.024 min
Response: 7975021
Conc: 10.00 ug/mL M4



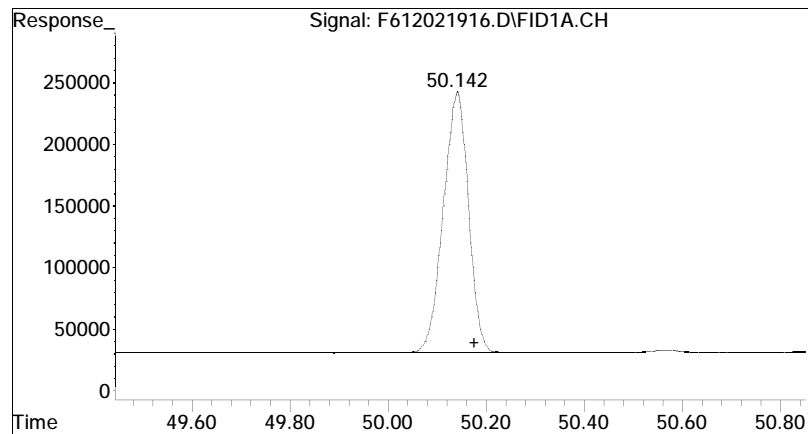
#29 n-Octacosane (C28)

R.T.: 41.367 min
Delta R.T.: -0.023 min
Response: 8090344
Conc: 10.04 ug/mL M4



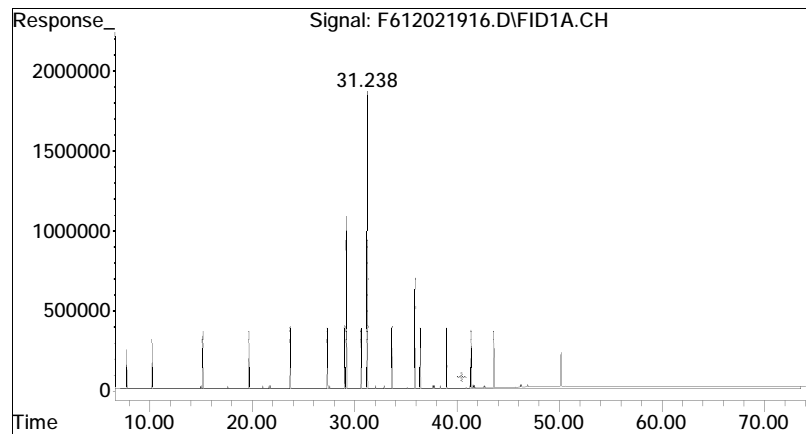
#31 n-Triacontane (C30)

R.T.: 43.596 min
Delta R.T.: -0.023 min
Response: 7918785
Conc: 9.95 ug/mL M4



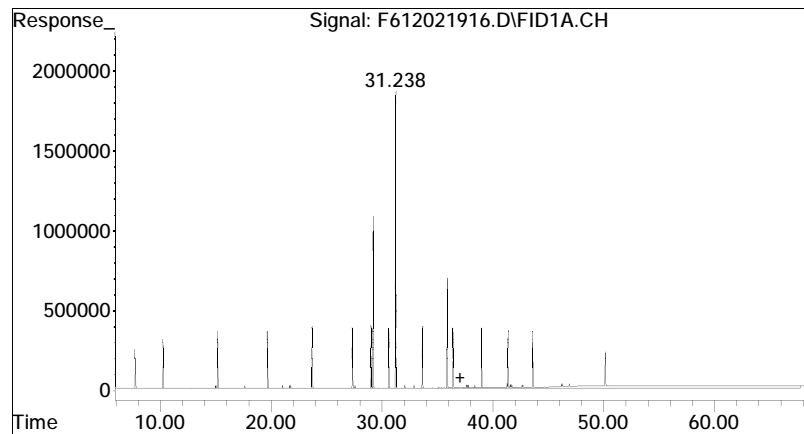
#37 n-Hexatriacontane (C36)

R.T.: 50.142 min
Delta R.T.: -0.034 min
Response: 7352268
Conc: 8.84 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.477 min
Delta R.T.: 0.000 min
Response: 433781082
Conc: 558.70 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 114062219
Conc: 146.91 ug/mL m

LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021918.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 12:45 am
 Operator : FID6:WR
 Sample : WG1312512-3
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:47:19 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I 5-alpha-androstane	31.238	41556217	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.209	20218912	23.320	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 46.64%#
24) s d50-Tetracosane	35.875	16505545	24.313	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 48.63%#
Target Compounds				
3) t n-Nonane (C9)	7.742	4174901	6.122	ug/mL M4
4) t n-Decane (C10)	10.241	5115001	7.220	ug/mL M4
6) t n-Dodecane (C12)	15.188	5682717	7.710	ug/mL M4
9) t n-Tetradecane (C14)	19.682	6088796	7.984	ug/mL M4
12) t n-Hexadecane (C16)	23.708	7229109	9.283	ug/mL M4
16) T n-Octadecane (C18)	27.336	7511571	9.539	ug/mL M4
18) t n-Nonadecane (C19)	29.023	7447255	9.482	ug/mL M4
20) t n-Eicosane (C20)	30.630	7560238	9.590	ug/mL M4
22) t n-Docosane (C22)	33.641	7707580	9.631	ug/mL M4
25) t n-Tetracosane (C24)	36.416	8062694	9.995	ug/mL M4
27) t n-Hexacosane (C26)	38.981	7825502	9.732	ug/mL M4
29) t n-Octacosane (C28)	41.366	7945334	9.773	ug/mL M4
31) t n-Triacontane (C30)	43.595	7616821	9.489	ug/mL M4
37) t n-Hexatriacontane (C36)	50.134	7150112	8.527	ug/mL M4
42) h C9-C44 Total Petroleu...	40.477	420212292	536.595	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	72454033	92.521	ug/mLm
49) h Total Resolved Hydroc...	37.081	109049908	139.253	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021918.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 12:45 am
 Operator : FID6:WR
 Sample : WG1312512-3
 Misc : WG1315720,WG1312512,ICAL16308
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 05 15:47:19 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.D

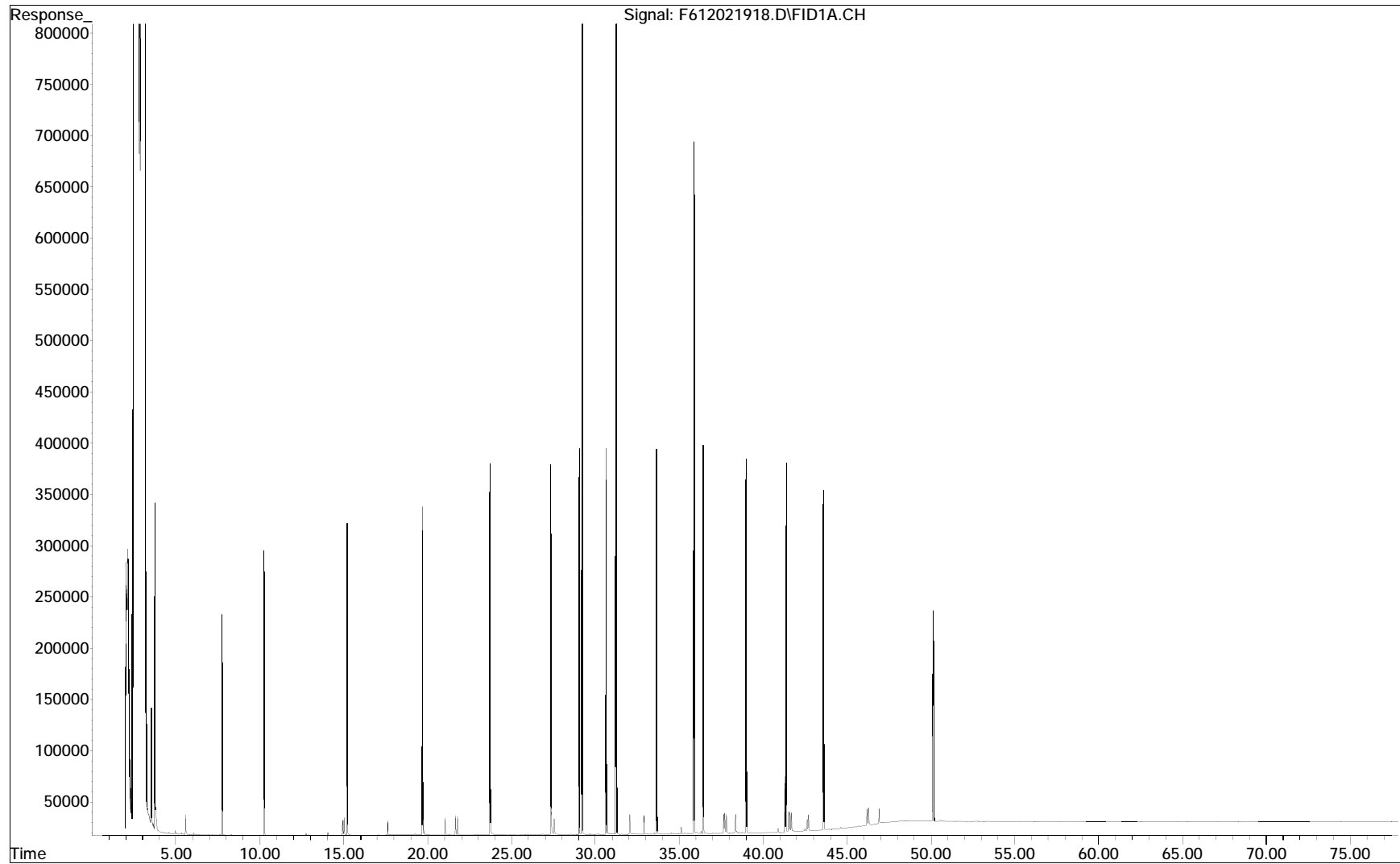
Sub List : SHC_QC_Samples - SHC_QC_Samples

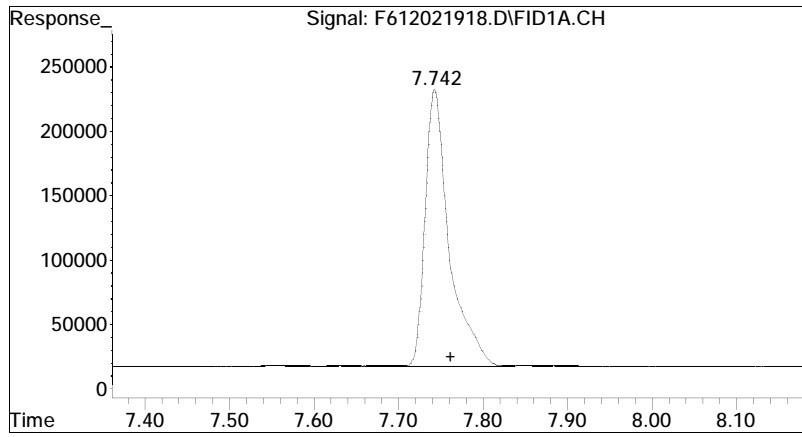
Compound	R.T.	Response	Conc Units

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

Quantitation Report (QT Reviewed)

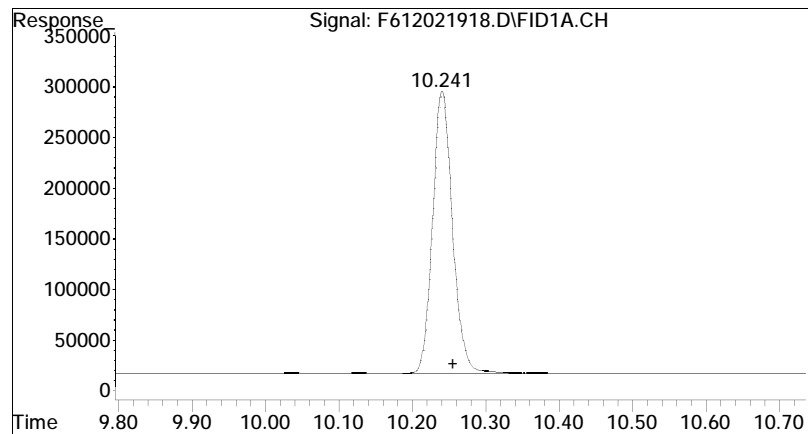
File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021918.D
Operator : FID6:WR
Acquired : 03 Dec 2019 12:45 am using AcqMethod FID6A.M
Sample Name: WG1312512-3
Instrument: FID6
Misc Info : WG1315720, WG1312512, ICAL16308
Vial Number: 9
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M





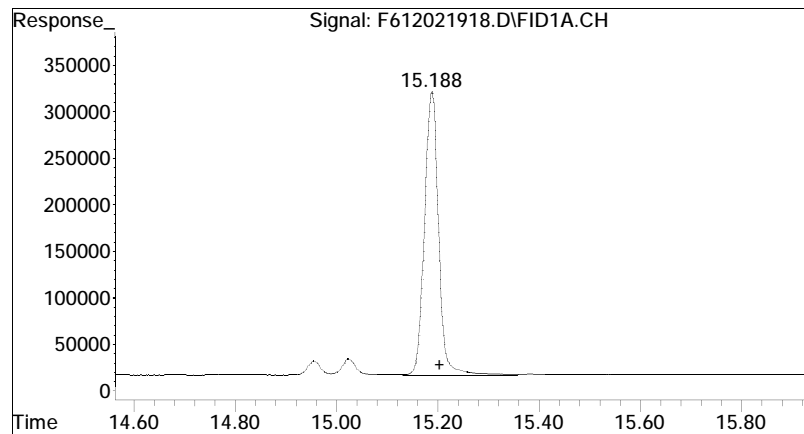
#3 n-Nonane (C9)

R.T.: 7.742 min
Delta R.T.: -0.019 min
Response: 4174901
Conc: 6.12 ug/mL M4



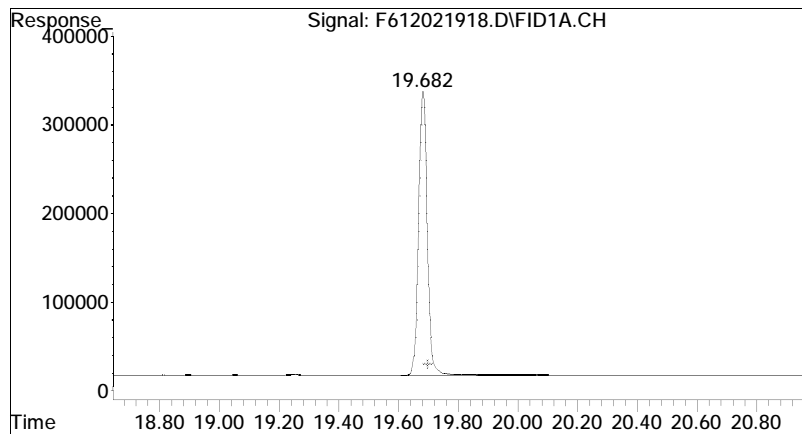
#4 n-Decane (C10)

R.T.: 10.241 min
Delta R.T.: -0.015 min
Response: 5115001
Conc: 7.22 ug/mL M4



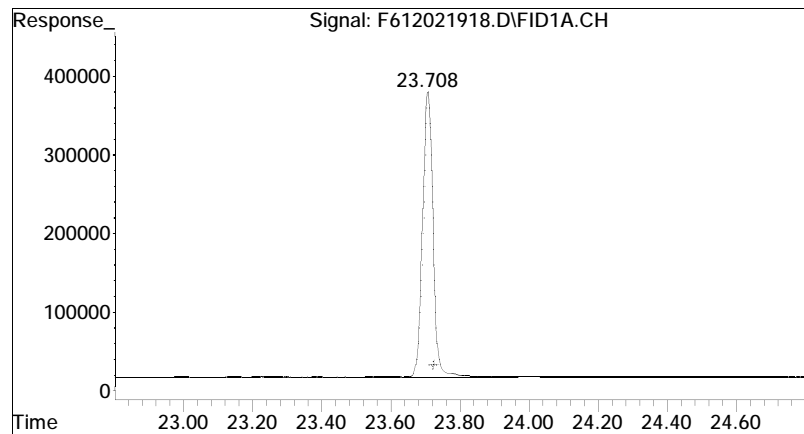
#6 n-Dodecane (C12)

R.T.: 15.188 min
Delta R.T.: -0.016 min
Response: 5682717
Conc: 7.71 ug/mL M4



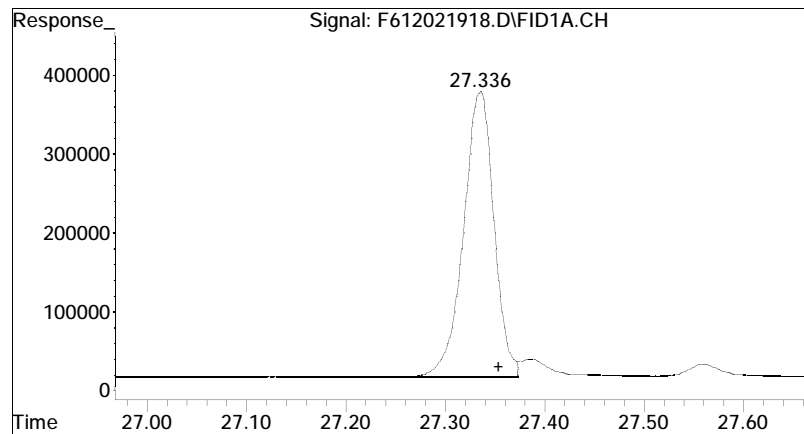
#9 n-Tetradecane (C14)

R.T.: 19.682 min
Delta R.T.: -0.017 min
Response: 6088796
Conc: 7.98 ug/mL M4



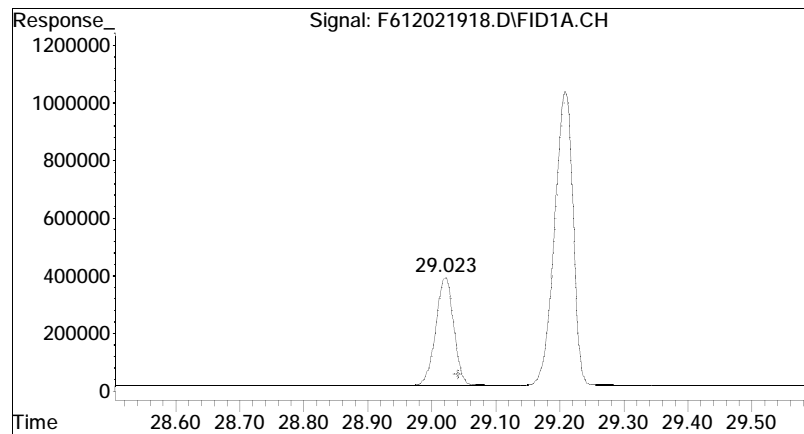
#12 n-Hexadecane (C16)

R.T.: 23.708 min
Delta R.T.: -0.017 min
Response: 7229109
Conc: 9.28 ug/mL M4



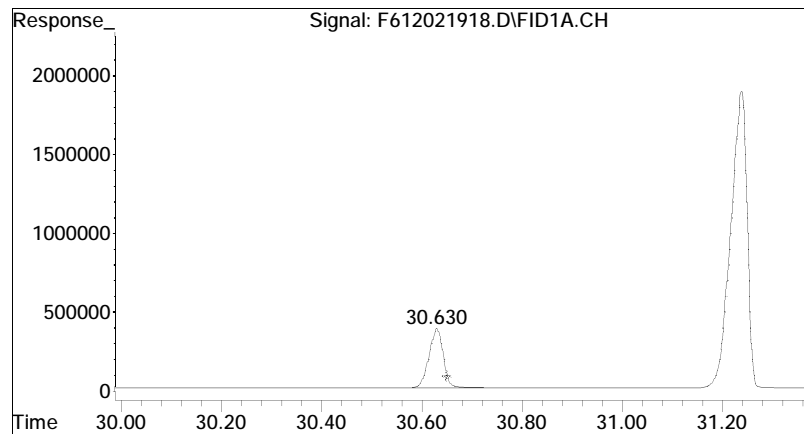
#16 n-Octadecane (C18)

R.T.: 27.336 min
Delta R.T.: -0.018 min
Response: 7511571
Conc: 9.54 ug/mL M4



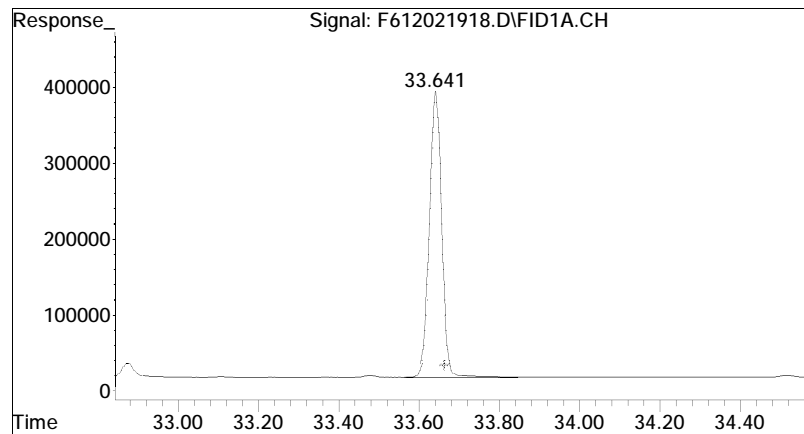
#18 n-Nonadecane (C19)

R.T.: 29.023 min
Delta R.T.: -0.020 min
Response: 7447255
Conc: 9.48 ug/mL M4



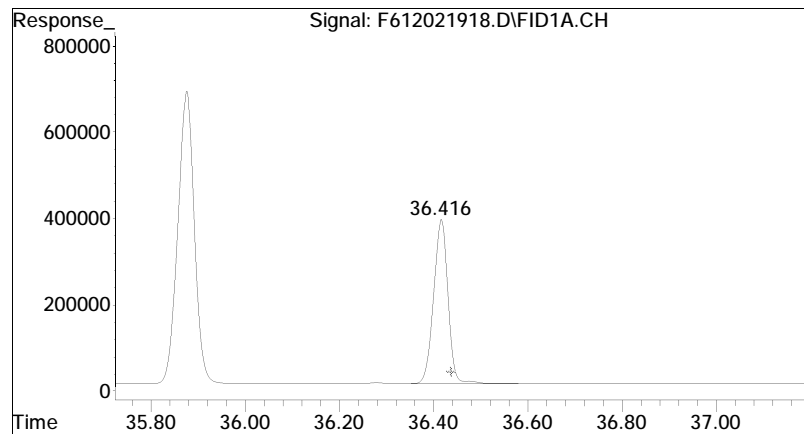
#20 n-Eicosane (C20)

R.T.: 30.630 min
Delta R.T.: -0.021 min
Response: 7560238
Conc: 9.59 ug/mL M4



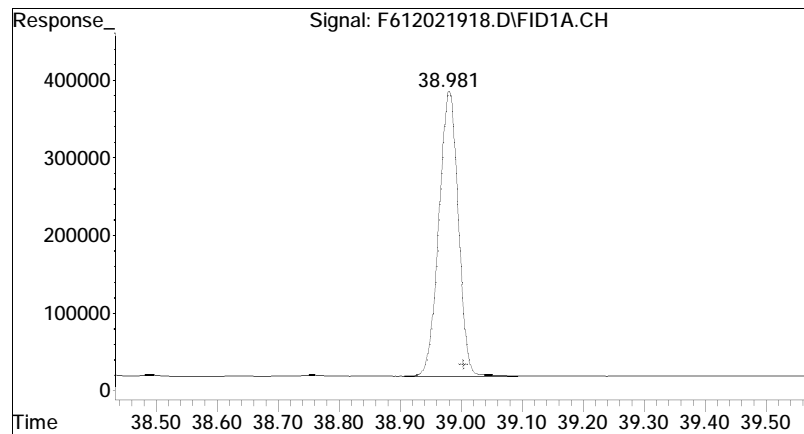
#22 n-Docosane (C22)

R.T.: 33.641 min
Delta R.T.: -0.022 min
Response: 7707580
Conc: 9.63 ug/mL M4



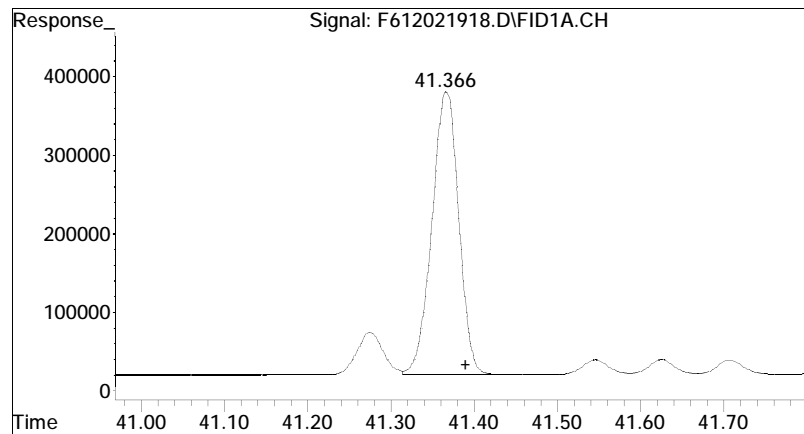
#25 n-Tetracosane (C24)

R.T.: 36.416 min
Delta R.T.: -0.022 min
Response: 8062694
Conc: 10.00 ug/mL M4



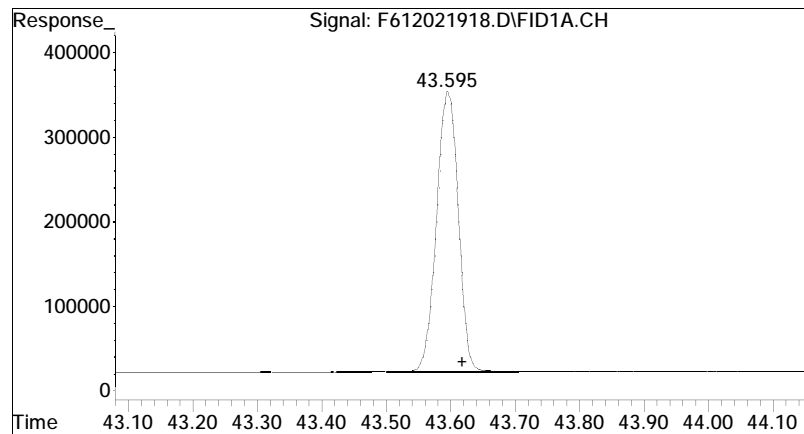
#27 n-Hexacosane (C26)

R.T.: 38.981 min
Delta R.T.: -0.024 min
Response: 7825502
Conc: 9.73 ug/mL M4



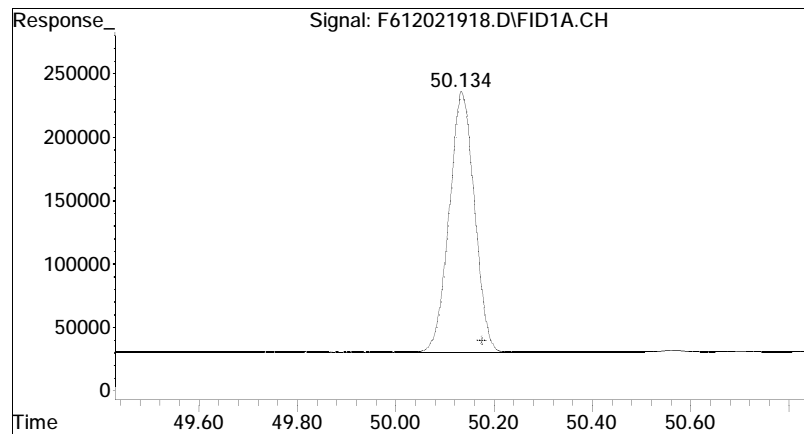
#29 n-Octacosane (C28)

R.T.: 41.366 min
Delta R.T.: -0.024 min
Response: 7945334
Conc: 9.77 ug/mL M4



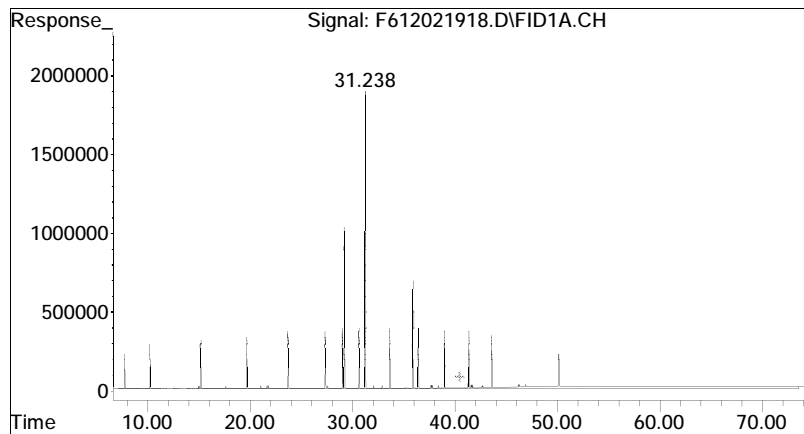
#31 n-Triacontane (C30)

R.T.: 43.595 min
Delta R.T.: -0.023 min
Response: 7616821
Conc: 9.49 ug/mL M4



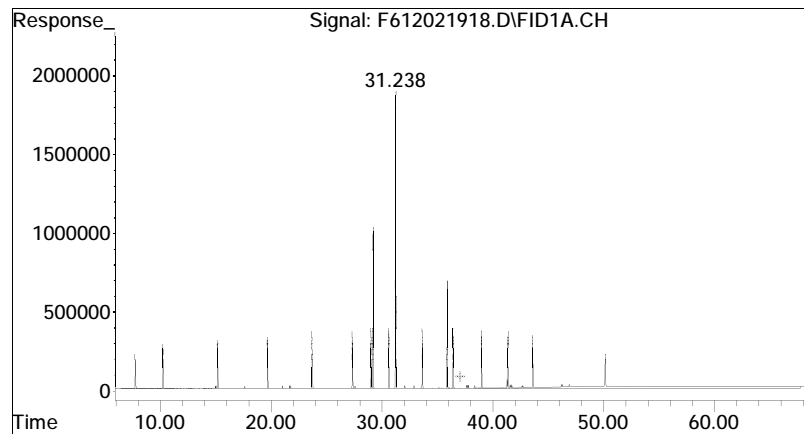
#37 n-Hexatriacontane (C36)

R.T.: 50.134 min
Delta R.T.: -0.042 min
Response: 7150112
Conc: 8.53 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.477 min
Delta R.T.: 0.000 min
Response: 420212292
Conc: 536.60 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 37.081 min
Delta R.T.: 0.000 min
Response: 109049908
Conc: 139.25 ug/mL m

Instrument Blank Raw Data

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021940.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 4:59 pm
 Operator : FID6:WR
 Sample : IB612021902F
 Misc :
 ALS Vial : 20 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:25 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	31.364f	7354	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				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL
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
13) t 1650	0.000	0	N.D.	ug/mL
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)	0.000	0	N.D.	ug/mL
17) t Phytane	0.000	0	N.D.	ug/mL
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
25) t n-Tetracosane (C24)	0.000	0	N.D.	ug/mL
26) t n-Pentacosane (C25)	0.000	0	N.D.	ug/mL
27) t n-Hexacosane (C26)	0.000	0	N.D.	ug/mL
28) t n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL
31) t n-Triacontane (C30)	0.000	0	N.D.	ug/mL

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021940.D
 Signal(s) : FID1A.CH
 Acq On : 03 Dec 2019 4:59 pm
 Operator : FID6:WR
 Sample : IB612021902F
 Misc :
 ALS Vial : 20 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:44:25 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021901F
 Blank File : F612021910.D

Sub List : Default - All compounds listed

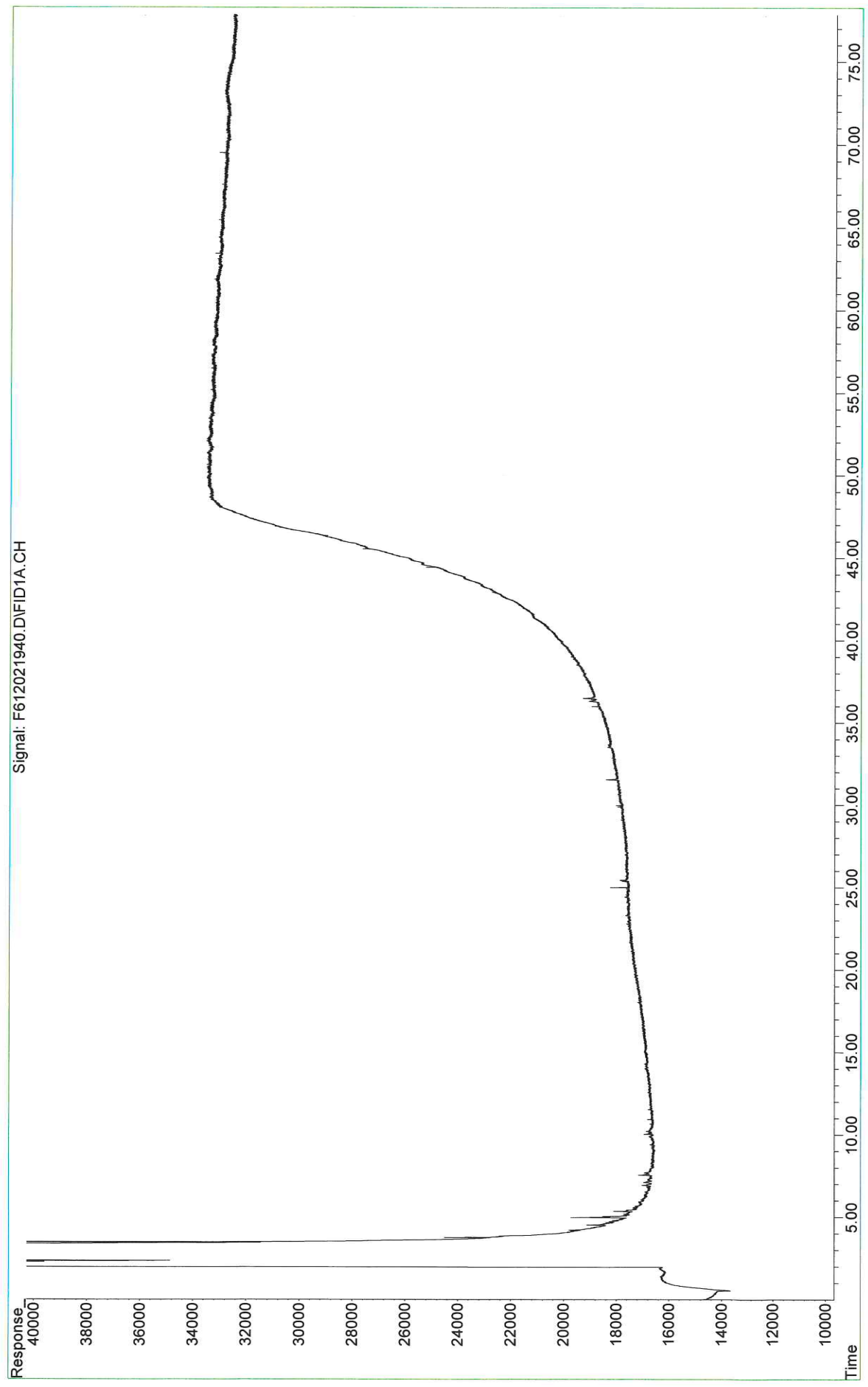
Compound	R.T.	Response	Conc	Units
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL
42) h C9-C44 Total Petroleu...	40.477	352306197	2542197.405	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	4547938	32817.348	ug/mLm
43) h C10-C25 DRO	0.000	0	N.D.	ug/mL d
44) h C25-C44 ORO	0.000	0	N.D.	ug/mL d
45) h C9-C40 Total Petroleu...	32.826	193651304	1397363.562	ug/ml m
45) h C9-C40 Total Petroleu BS	32.826	-196378	N.D.	ug/mlm
46) h C10-C28 DRO	25.817	39633144	285987.804	ug/mL m
46) h C10-C28 DRO BS	25.817	-3547712	N.D.	ug/mLm
47) h C8-C40 Total Petroleu...	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO BS	0.000	0	N.D.	ug/mLd
49) h Total Resolved Hydroc...	37.081	2095950	15124.114	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021940.D
Operator : FID6:WR
Acquired : 03 Dec 2019 4:59 pm using AcqMethod FID6A.M
Sample Name: IB612021902F
Instrument: FID6
Misc Info :
Vial Number: 20
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021910.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 6:51 pm
 Operator : FID6:WR
 Sample : IB612021901F
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:40:08 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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	31.305	7568	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				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL
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
13) t 1650	0.000	0	N.D.	ug/mL
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)	0.000	0	N.D.	ug/mL
17) t Phytane	0.000	0	N.D.	ug/mL
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
25) t n-Tetracosane (C24)	36.477	161286	1097.911	ug/mL
26) t n-Pentacosane (C25)	0.000	0	N.D.	ug/mL
27) t n-Hexacosane (C26)	0.000	0	N.D.	ug/mL
28) t n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL
31) t n-Triacontane (C30)	0.000	0	N.D.	ug/mL
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021910.D
 Signal(s) : FID1A.CH
 Acq On : 02 Dec 2019 6:51 pm
 Operator : FID6:WR
 Sample : IB612021901F
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:40:08 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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

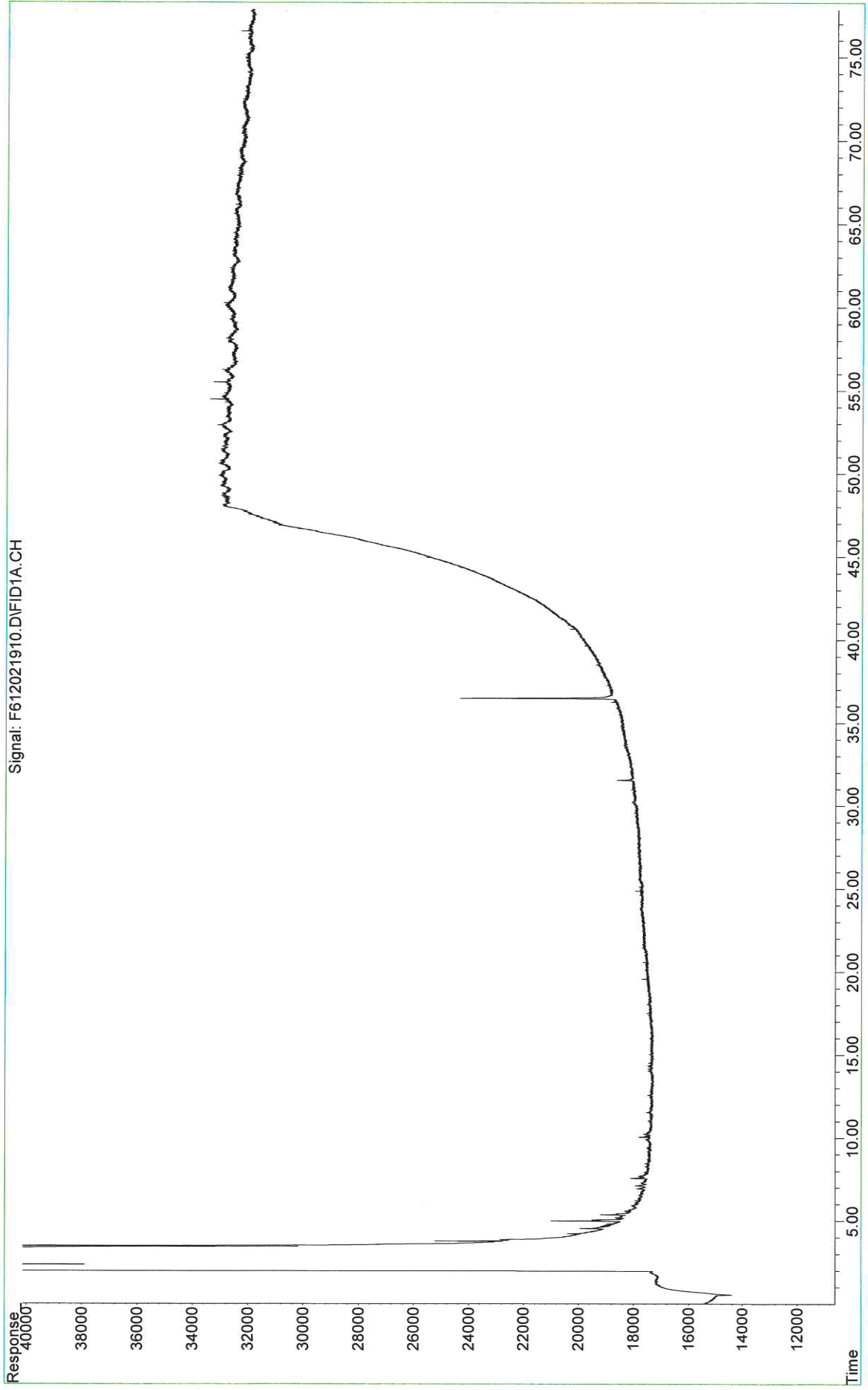
Compound	R.T.	Response	Conc	Units
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL
42) h C9-C44 Total Petroleu...	40.477	347758259	2438476.767	ug/mL M5
43) h C10-C25 DRO	0.000	0	N.D.	ug/mL d
44) h C25-C44 ORO	0.000	0	N.D.	ug/mL d
45) h C9-C40 Total Petroleu...	32.826	193847682	1359257.638	ug/ml M5
46) h C10-C28 DRO	25.817	43180856	302783.647	ug/mL M5
47) h C8-C40 Total Petroleu...	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
49) h Total Resolved Hydroc...	37.081	1335069	9361.485	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021910.D
Operator : FID6:WR
Acquired : 02 Dec 2019 6:51 pm using AcqMethod FID6A.M
Sample Name: IB612021901F
Instrument: FID6
Misc Info :
Vial Number: 5
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919100.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 12:16 pm
 Operator : FID17:WR
 Sample : IB1712091904F
 Misc :
 ALS Vial : 50 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:16:54 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091903F
 Blank File : F17120919070.d

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.001	7409	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				
2) t n-Octane (C8)	0.000	0	N.D.	ug/mL
3) t n-Nonane (C9)	0.000	0	N.D.	ug/mL
4) t n-Decane (C10)	0.000	0	N.D.	ug/mL
5) t n-Undecane (C11)	0.000	0	N.D.	ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D.	ug/mL
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
13) t 1650	0.000	0	N.D.	ug/mL
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)	0.000	0	N.D.	ug/mL
17) t Phytane	0.000	0	N.D.	ug/mL
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
25) t n-Tetracosane (C24)	0.000	0	N.D.	ug/mL
26) t n-Pentacosane (C25)	0.000	0	N.D.	ug/mL
27) t n-Hexacosane (C26)	0.000	0	N.D.	ug/mL
28) t n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t n-Nonacosane (C29)	0.000	0	N.D.	ug/mL
31) t n-Triacontane (C30)	0.000	0	N.D.	ug/mL

Data Path : O:\Forensics\Data\FID17\2019\DEC\DEC09\
 Data File : F17120919100.d
 Signal(s) : FID1A.CH
 Acq On : 12 Dec 2019 12:16 pm
 Operator : FID17:WR
 Sample : IB1712091904F
 Misc :
 ALS Vial : 50 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 14:16:54 2019
 Quant Method : O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M
 Quant Title : FID Forensics
 QLast Update : Wed Dec 11 14:26:11 2019
 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 : IB1712091903F
 Blank File : F17120919070.d

Sub List : Default - All compounds listed

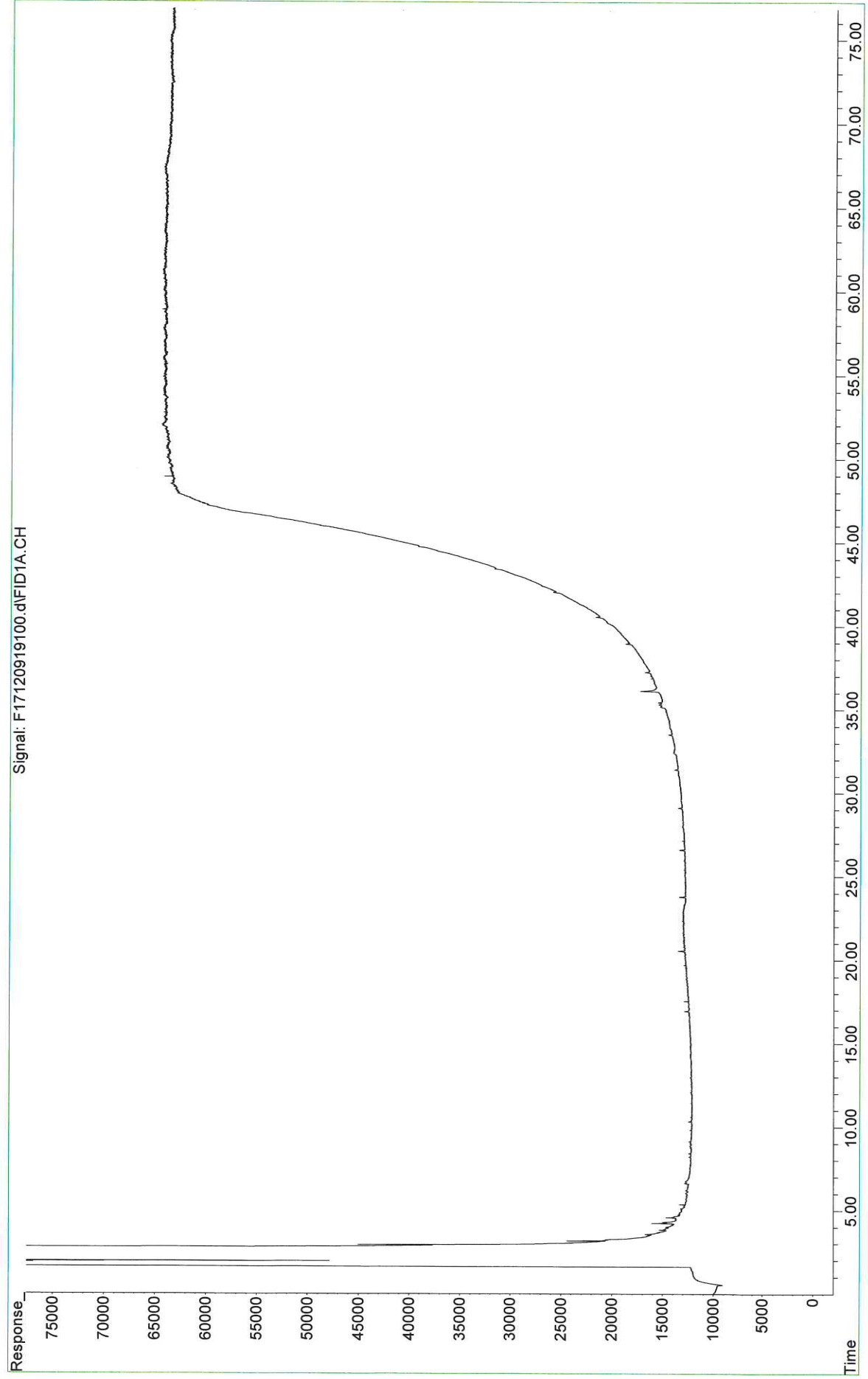
Compound	R.T.	Response	Conc	Units
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL
42) h C9-C44 Total Petroleu...	36.918	838001712	5922522.781	ug/mL m
42) h C9-C44 Total Petroleu BS	36.918	-168470267	N.D.	ug/mLm
43) h C9-C40 Total Petroleu...	30.823	505194237	3570427.527	ug/ml M5
43) h C9-C40 Total Petroleu BS	30.823	4580031	32369.074	ug/mlM5
44) h C10-C28 DRO	24.733	70779217	500227.528	ug/mL M5
44) h C10-C28 DRO BS	24.733	29777503	210450.571	ug/mL M5
45) h C28-C40 ORO	47.590	354901141	2508240.814	ug/mL M5
45) h C28-C40 ORO BS	47.590	-11804174	N.D.	ug/mL M5
46) h Total Resolved Hydroc...	38.937	2386121	16863.753	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID17\2019\DEC\DEC09\F17120919100.d
Operator : FID17:WR
Acquired : 12 Dec 2019 12:16 pm using AcqMethod FID17.M
Sample Name: IB1712091904F
Instrument: FID17
Misc Info :
Vial Number: 50
CurrentMeth: O:\Forensics\Data\FID17\2019\DEC\DEC09\HC17040319F.M



Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021968.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 2:18 pm
 Operator : FID6:WR
 Sample : IB612021903F
 Misc : dcm
 ALS Vial : 34 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 16:42:45 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I 5-alpha-androstane	31.199	3553	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	0.000	0	N.D.	ug/mL d
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				
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
8) t 1380	0.000	0	N.D.	ug/mL d
9) t n-Tetradecane (C14)	0.000	0	N.D.	ug/mL d
10) t 1470	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
13) t 1650	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
31) t n-Triacontane (C30)	0.000	0	N.D.	ug/mL d

Data Path : O:\Forensics\Data\FID6\2019\DEC\DEC02\
 Data File : F612021968.D
 Signal(s) : FID1A.CH
 Acq On : 04 Dec 2019 2:18 pm
 Operator : FID6:WR
 Sample : IB612021903F
 Misc : dcm
 ALS Vial : 34 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Dec 13 16:42:45 2019
 Quant Method : O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M
 Quant Title : FID Forensics
 QLast Update : Thu Dec 05 15:01:36 2019
 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 : IB612021902F
 Blank File : F612021940.D

Sub List : Default - All compounds listed

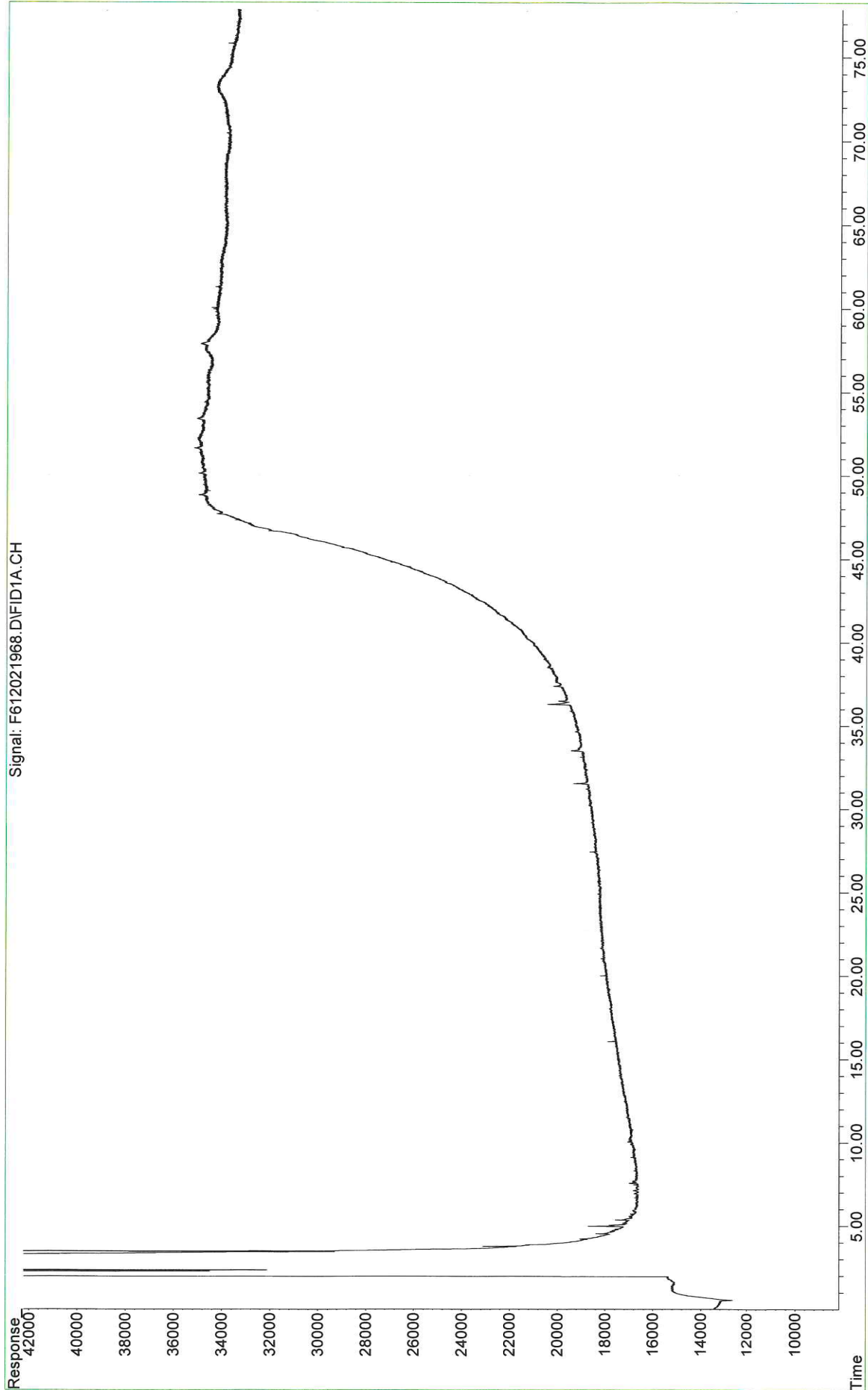
Compound	R.T.	Response	Conc	Units
32) t n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL d
33) t n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL d
34) t n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL d
35) t n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL d
36) t n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL d
37) t n-Hexatriacontane (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
40) t n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL d
41) t n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d
42) h C9-C44 Total Petroleu...	40.477	388494594	5802457.908	ug/mL m
42) h C9-C44 Total Petroleu BS	40.477	36188397	540500.834	ug/mLm
43) h C10-C25 DRO	0.000	0	N.D.	ug/mL d
44) h C25-C44 ORO	0.000	0	N.D.	ug/mL d
45) h C9-C40 Total Petroleu...	32.826	220417871	3292106.083	ug/ml m
45) h C9-C40 Total Petroleu BS	32.826	26766567	399778.734	ug/mlm
46) h C10-C28 DRO	25.817	114137377	1704727.256	ug/mL m
46) h C10-C28 DRO BS	25.817	74504233	1112776.548	ug/mLm
47) h C8-C40 Total Petroleu...	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO	0.000	0	N.D.	ug/mL d
48) h C28-C40 ORO BS	0.000	0	N.D.	ug/mLd
49) h Total Resolved Hydroc...	37.081	2021609	30194.250	ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID6\2019\DEC\DEC02\F612021968.D
Operator : FID6:WR
Acquired : 04 Dec 2019 2:18 pm using AcqMethod FID6A.M
Sample Name: IB612021903F
Instrument: FID6
Misc Info : dcm
Vial Number: 34
CurrentMeth: O:\Forensics\Data\FID6\2019\DEC\DEC02\HC6110519F.M



Sample Preparation

Workgroup: WG1312512

<p>Prep Method: ALPHA OP-013 Solvent Type: DCM Lot #: DX536-US Surrogate Type: A2-PAH/SHC Lot #: FRBB96 Spike Type: A2-PAH/SHC Lot #: FRBB73 Spike Verify by: N/A Lims Spikelot: A2-PAH/SHC Additional Reagents/Std</p> <table border="1"> <tr> <td>Na2SO4</td> <td>0000235304</td> </tr> <tr> <td>BIOMARKER</td> <td>FRBB26</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Na2SO4	0000235304	BIOMARKER	FRBB26			<p>Conc.Method: S-EVAP Solvent Type: DCM Lot #: DX536-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Glass Wool</td> <td>01119999</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR112619B</td> </tr> <tr> <td>Na2SO4</td> <td>0000235304</td> </tr> </table>	Glass Wool	01119999	Granulated Copper	OWR112619B	Na2SO4	0000235304	<p>Cleanup 1 Cleanup Method 1: EPA 3611B Cleanup Method 2: Solvent Type: DCM Lot #: DX536-US Additional Reagents/Std</p> <table border="1"> <tr> <td>Alumina</td> <td>85</td> </tr> <tr> <td>Glass Wool</td> <td>01119999</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR112619A</td> </tr> <tr> <td>RIS</td> <td>FRBB76</td> </tr> <tr> <td>Na2SO4</td> <td>0000235304</td> </tr> </table>	Alumina	85	Glass Wool	01119999	Granulated Copper	OWR112619A	RIS	FRBB76	Na2SO4	0000235304
Na2SO4	0000235304																							
BIOMARKER	FRBB26																							
Glass Wool	01119999																							
Granulated Copper	OWR112619B																							
Na2SO4	0000235304																							
Alumina	85																							
Glass Wool	01119999																							
Granulated Copper	OWR112619A																							
RIS	FRBB76																							
Na2SO4	0000235304																							

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
L1954309-01 SOIL	11/22/19 12:48	Lauren Batalon	15.15	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-02 SOIL	11/22/19 12:48	Lauren Batalon	15.42	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-03 SOIL	11/22/19 12:48	Lauren Batalon	15.88	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-04 SOIL	11/22/19 12:48	Lauren Batalon	2.46	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-05 SOIL	11/22/19 12:48	Lauren Batalon	5.02	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-06 SOIL	11/22/19 12:48	Lauren Batalon	30.31	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3

Workgroup: WG1312512

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
L1954309-07 SOIL	11/22/19 12:48	Lauren Batalon	20.77	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1954309-08 SOIL	11/22/19 12:48	Lauren Batalon	15.51	BAL-7	0.5		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1955791-01 SOIL	11/22/19 12:48	Lauren Batalon	30.01	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1955791-02 SOIL	11/22/19 12:48	Lauren Batalon	30.67	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
L1955791-03 SOIL	11/22/19 12:48	Lauren Batalon	30.31	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
WG1312512- 1 BLANK	11/22/19 12:48	Lauren Batalon	30	BAL-7	0.1		11/26/19 09:00	Sean Morris	4	SEVAP 3
QC SHARED WITH WG1312511 11/22/19 LB										
WG1312512- 2 LCS	11/22/19 12:48	Lauren Batalon	30	BAL-7	0.1	0.1	11/26/19 09:00	Sean Morris	4	SEVAP 3
WG1312512- 3 LCSD	11/22/19 12:48	Lauren Batalon	30	BAL-7	0.1	0.1	11/26/19 09:00	Sean Morris	4	SEVAP 3

Workgroup: WG1312512

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
L1954309-01 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-02 SOIL	11/26/19 13:00	1	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-03 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-04 SOIL	11/26/19 13:00	.4	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-05 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-06 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-07 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1954309-08 SOIL	11/26/19 13:00	.7	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1955791-01 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1955791-02 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
L1955791-03 SOIL	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
WG1312512-1 BLANK	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1	All samples spiked with 100uL RIS SM 11/26/19					

Workgroup: WG1312512

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
WG1312512- 2 LCS	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						
WG1312512- 3 LCSD	11/26/19 13:00	2	11/26/19 14:00	SEAN MORRIS	SEVAP3/ NEVAP4	1						

Supporting Documentation

Wet Chemistry

Total Solids / Percent Moisture Analysis

Sample Raw Data

WorkGroup WG1312615	Temp In (C) 105	Temp In (C) 105	Temp In (C) 105	Temp In (C) 105
Title Solids, Total	Temp Out (C) 105	Temp Out (C) 105	Temp Out (C) 105	Temp Out (C) 105
Method SM2540G	Time In 22-NOV-19 15:20	Time In 23-NOV-19 07:27	Time In 23-NOV-19 07:27	Time In 23-NOV-19 07:27
Instrument BALANCE#18	Time Out 23-NOV-19 07:23	Time Out 23-NOV-19 08:38	Time Out 23-NOV-19 08:38	Time Out 23-NOV-19 08:38

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
L1954309-01	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.156	7.598	4.82	4.818			56.85	
L1954309-02	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.163	9.652	6.405	6.403			61.73	
L1954309-03	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.156	8.595	5.741	5.739			61.61	
L1954309-04	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.169	7.321	5.549	5.549			71.20	
L1954309-05	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.162	7.598	4.791	4.792			56.39	
L1954309-06	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.161	8.011	6.034	6.038			71.14	
L1954309-07	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.158	7.351	5.835	5.835			75.52	
L1954309-08	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.165	8.659	5.804	5.8			61.85	
L1955602-01	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.173	8.544	3.644	3.638			33.44	
L1955791-01	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.169	8.084	6.726	6.724			80.33	
L1955791-02	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.18	7.333	5.99	5.984			78.08	
L1955791-03	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.166	7.488	6.076	6.074			77.63	
L1955818-01	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.175	8.267	3.442	3.444			31.97	
L1955818-02	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.175	8.92	4.775	4.773			46.46	
L1955818-05	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.176	7.949	3.352	3.35			32.10	
L1955818-06	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.163	9.745	4.04	4.035			33.47	
L1955896-01	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.187	8.483	2.008	2.008			11.25	
L1955896-02	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.142	6.607	1.933	1.932			14.46	
L1955896-03	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.194	6.571	2.008	2.007			15.12	
WG1312615-1	22-NOV-19 14:45	CHRISTIAAN VAN ZYL	1.173	7.62	4.14	4.14			46.02	

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 25 2019, 05:39 pm

Work Group: WG1312615 for Department: 7 Wet Chemistry

Created: 22-NOV-19 Due: Operator: cvz

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1954309-01	PDI-090SC-B-06-08-191012	S A2-TS	SOIL	DONE	U	1019	1213	S0	Glass-A.120
L1954309-02	PDI-084SC-B-06-08-191002	S A2-TS	SOIL	DONE	U	1009	1213	S0	Glass-A.120
L1954309-03	PDI-079SC-B-06-08-191014	S A2-TS	SOIL	DONE	U	1021	1213	S0	Glass-A.120
L1954309-04	PDI-071SC-B-06-08-191001	S A2-TS	SOIL	DONE	U	1008	1213	S0	Glass-A.120
L1954309-05	PDI-066SC-B-06-08-191011	S A2-TS	SOIL	DONE	U	1018	1213	S0	Glass-A.120
L1954309-06	PDI-059SC-B-06-08-191016	S A2-TS	SOIL	DONE	U	1023	1213	S0	Glass-A.120
L1954309-07	PDI-049SC-B-06-08-191015	S A2-TS	SOIL	DONE	U	1022	1213	S0	Glass-A.120
L1954309-08	PDI-1079SC-B-06-08-191014	S A2-TS	SOIL	DONE	U	1021	1213	S0	Glass-A.120
L1955602-01	EB1073SC-B-015075-20191107	S A2-TS	SOIL	DONE	U	1114	1206	2E	Glass-A.25
L1955791-01	MW-003-191120-SO-A06	S A2-TS	SOIL	DONE	U	1127	1206	S0	Plastic-A-TS
L1955791-02	MW-003-191120-SO-B08	S A2-TS	SOIL	DONE	U	1127	1206	S0	Plastic-A-TS
L1955791-03	DUP-01-191120	S A2-TS	SOIL	DONE	U	1127	1206	S0	Plastic-A-TS
L1955818-01	MH19-01	S A2-TS	SOIL	DONE	U	1126	1213	S0	Plastic-A-TS
L1955818-02	MH19-02	S A2-TS	SOIL	DONE	U	1126	1213	S0	Plastic-A-TS
L1955818-05	MH19-04/05	S A2-TS	SOIL	DONE	U	1126	1213	S0	Plastic-A-TS
L1955818-06	MH19-04/05-D	S A2-TS	SOIL	DONE	U	1126	1213	S0	Plastic-A-TS
L1955896-01	ALA-WWTP-WEST CLARIFIER	S A2-TS	SOLID	DONE	U	1126	1202	S0	Plastic-A-TS
L1955896-02	ALA-WWTP-EAST CLARIFIER	S A2-TS	SOLID	DONE	U	1126	1202	S0	Plastic-A-TS
L1955896-03	ALA-WWTP-FINAL CLARIFIER	S A2-TS	SOLID	DONE	U	1126	1202	S0	Plastic-A-TS
WG1312615-1	Duplicate Sample	S A2-TS	SOIL	DONE	U				

Comments:

WG1312615-1 L1955818-02

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 : 11/4/2019
 Curve Identifier: 11042019 Env Express High spec 3
 Analysis: COD
 Method: SM 5220D(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: 12/11/19 22:10 12/12/19 0:10
 Technician: TLH
 Work group: WG1319633
 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:	112519
0	0.000	1.0	0.000433	0.00067405	Low LCS:	112519
20	0.009	1.0			CCV:	112519
50	0.020	1.0			MS:	101719
100	0.044	1.0			COD Tubes:	WC-2685
200	0.090	1.0				
400	0.178	1.0				
800	0.336	1.0				
1000	0.444	1.0				
1250	0.539	1.0				
			Correlation Coefficient			
			0.999601			

Time	Date	Sample number	Sample Weight (g)	Final Volume (ml)	Absorbance	RESULT (mg/l)	Dilution Factor	RDL Multiplier	FINAL RESULT (mg/kg)	Recovery %
0:45	12/12/2019	ICB			0	0.000	1	1	0.00	
0:46	12/12/2019	ICV - 50 PPM			0.022	49.554	1	1	49.55	
0:46	12/12/2019	ICV - 500 PPM			0.217	499.576	1	1	499.58	
0:46	12/12/2019	L1954309-01	10.0695	100	0.166	381.878	4	4	15169.70	
0:46	12/12/2019	L1954309-02	10.0711	100	0.095	218.024	4	4	8659.40	
0:47	12/12/2019	L1954309-03	10.0004	100	0.105	241.102	4	4	9643.70	
0:47	12/12/2019	L1954309-04	10.0082	100	0.143	328.799	4	4	13141.17	
0:47	12/12/2019	L1954309-05	10.0048	100	0.142	326.491	4	4	13053.37	
0:47	12/12/2019	L1954309-06	10.0275	100	0.046	104.942	4	4	4188.16	
0:47	12/12/2019	L1954309-07	10.0484	100	0.023	51.862	4	4	2064.50	
0:47	12/12/2019	L1954309-08	10.0031	100	0.113	259.565	4	4	10379.37	
0:48	12/12/2019	400PPM CCV			0.177	407.264	1	1	407.26	
0:48	12/12/2019	CCB			0	0.000	1	1	0.00	
0:49	12/12/2019	WG1319633-1	10.0003	100	0.003	5.706	1	1	57.06	
0:49	12/12/2019	WG1319633-4	10.0313	100	0.137	314.952	4	4	12558.77	DUP

Time	Date	Sample number	Sample Weight (g)	Final volume (ml)	Absorbance	Sample Result mg/kg	Dilution Factor	Spike conc. mg/kg	Spike Result mg/kg	Recovery %
0:49	12/12/2019	WG1319633-3	10.0199	100	0.133	13141.17	4	2495.03	12375.93	-31
0:50	12/12/2019	WG1319633-2	10.0008	100	0.115	264.18	1	2499.80	2674.66	96
							1	0.00	499.58	
							1	0.00		

COMMENTS & OBSERVATIONS								SAMPLE RESULTS	
								150	ICB
Result in mg/l.									ICV - 50 PPM
Result in mg/l.									ICV - 500 PPM
								150	L1954309-01
								150	L1954309-02
								150	L1954309-03
								150	L1954309-04
								150	L1954309-05
								150	L1954309-06
								150	L1954309-07
								150	L1954309-08
								150	400PPM CCV
								150	CCB
L1954309-04									

L1954309-04									
LCS									

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Dec 13 2019, 05:41 pm

Work Group: WG1319633 for Department: 7 Wet Chemistry

Created: 11-DEC-19 Due: Operator: tlh

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1954309-01	PDI-090SC-B-06-08-191012	S COD-5220	SOIL	DONE	U	1109	1213	S0	Glass-A.120
L1954309-02	PDI-084SC-B-06-08-191002	S COD-5220	SOIL	DONE	U	1030	1213	S0	Glass-A.120
L1954309-03	PDI-079SC-B-06-08-191014	S COD-5220	SOIL	DONE	U	1111	1213	S0	Glass-A.120
L1954309-04	PDI-071SC-B-06-08-191001	S COD-5220	SOIL	DONE	U	1029	1213	S0	Glass-A.120
L1954309-05	PDI-066SC-B-06-08-191011	S COD-5220	SOIL	DONE	U	1108	1213	S0	Glass-A.120
L1954309-06	PDI-059SC-B-06-08-191016	S COD-5220	SOIL	DONE	U	1113	1213	S0	Glass-A.120
L1954309-07	PDI-049SC-B-06-08-191015	S COD-5220	SOIL	DONE	U	1112	1213	S0	Glass-A.120
L1954309-08	PDI-1079SC-B-06-08-191014	S COD-5220	SOIL	DONE	U	1111	1213	S0	Glass-A.120
WG1319633-1	Laboratory Method Bl	S COD-5220	SOIL	DONE	U				
WG1319633-2	Laboratory Control S	S COD-5220	SOIL	DONE	U				
WG1319633-3	Matrix Spike	S COD-5220	SOIL	DONE	U				
WG1319633-4	Duplicate Sample	S COD-5220	SOIL	DONE	U				

Comments:

WG1319633-3 L1954309-04
 WG1319633-4 L1954309-04

Alpha Report



ANALYTICAL REPORT

Lab Number:	L1954309
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:	12/13/19

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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).

Six Park Row, Mansfield, MA 02048
508-261-7467 (Fax) -- -- - emccarter@mansfieldma.com



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1954309-01	PDI-090SC-B-06-08-191012	SEDIMENT	SEATTLE, WA	10/12/19 14:22	11/14/19
L1954309-02	PDI-084SC-B-06-08-191002	SEDIMENT	SEATTLE, WA	10/02/19 11:39	11/14/19
L1954309-03	PDI-079SC-B-06-08-191014	SEDIMENT	SEATTLE, WA	10/14/19 13:15	11/14/19
L1954309-04	PDI-071SC-B-06-08-191001	SEDIMENT	SEATTLE, WA	10/01/19 14:00	11/14/19
L1954309-05	PDI-066SC-B-06-08-191011	SEDIMENT	SEATTLE, WA	10/11/19 08:40	11/14/19
L1954309-06	PDI-059SC-B-06-08-191016	SEDIMENT	SEATTLE, WA	10/16/19 07:57	11/14/19
L1954309-07	PDI-049SC-B-06-08-191015	SEDIMENT	SEATTLE, WA	10/15/19 13:32	11/14/19
L1954309-08	PDI-1079SC-B-06-08-191014	SEDIMENT	SEATTLE, WA	10/14/19 13:15	11/14/19

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

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: L1954309
Report Date: 12/13/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1954309-02: A container for the Alkylated PAHs & Biomarkers, Total Solids - SM2540, Saturated Hydrocarbons - EPA 8015D(M) analyses was received broken; however, there was adequate sample remaining to perform the requested analyses.

L1954309-08: A sample identified as "PDI-1079SC-B-06-08-191014" was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

The samples were received at the laboratory below the required temperature range. The samples were transported to the laboratory in a cooler with ice and were not received frozen.

Alkylated PAHs & Biomarkers

L1954309: Sediment samples were frozen upon receipt in order to arrest the holding time.

L1954309-01, -02, -03, -04, -05, -07, and -08: 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.

L1954309-01, -03, -04, -05, and -08: The sample has elevated detection limits due to the dilution required by the sample matrix.

Saturated Hydrocarbons

L1954309: Sediment samples were frozen upon receipt in order to arrest the holding time.

L1954309-01, -02, -03, -04, and -05: The sample has elevated detection limits due to the dilution required by the sample matrix.

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Case Narrative (continued)

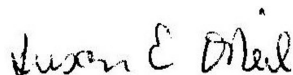
Chemical Oxygen Demand

L1954309-01 through -08 were analyzed with the method required holding time exceeded.

The WG1319633-3 MS recovery, performed on L1954309-04, is outside the acceptance criteria (0%); however, the associated LCS recovery is within criteria. No further action was taken.

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:



Susan O'Neil

Title: Technical Director/Representative

Date: 12/13/19

ORGANICS

SEMIVOLATILES

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01 D2
 Client ID: PDI-090SC-B-06-08-191012
 Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/06/19 03:27
 Analyst: MJS
 Percent Solids: 57%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Phenanthrene	129000		ug/kg	398	132.	40
Pyrene	74400		ug/kg	398	105.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	86		50-130
Phenanthrene-d10	97		50-130
Benzo(a)pyrene-d12	90		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01 D
 Client ID: PDI-090SC-B-06-08-191012
 Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/06/19 02:00
 Analyst: MJS
 Percent Solids: 57%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	318.		ug/kg	19.9	10.0	4
C1-Decalins	814.		ug/kg	39.8	10.0	4
C2-Decalins	1120		ug/kg	39.8	10.0	4
C3-Decalins	861.		ug/kg	39.8	10.0	4
C4-Decalins	935.		ug/kg	39.8	10.0	4
Naphthalene	9040		ug/kg	39.8	11.4	4
C1-Naphthalenes	37300		ug/kg	39.8	11.4	4
C2-Naphthalenes	21300		ug/kg	39.8	11.4	4
C3-Naphthalenes	10200		ug/kg	39.8	11.4	4
C4-Naphthalenes	3940		ug/kg	39.8	11.4	4
2-Methylnaphthalene	37100		ug/kg	39.8	10.3	4
1-Methylnaphthalene	20200		ug/kg	39.8	12.6	4
Benzothiophene	959.		ug/kg	39.8	12.5	4
C1-Benzo(b)thiophenes	2950		ug/kg	39.8	12.5	4
C2-Benzo(b)thiophenes	3130		ug/kg	39.8	12.5	4
C3-Benzo(b)thiophenes	2220		ug/kg	39.8	12.5	4
C4-Benzo(b)thiophenes	1220		ug/kg	39.8	12.5	4
Biphenyl	933.		ug/kg	39.8	12.3	4
2,6-Dimethylnaphthalene	9930		ug/kg	39.8	9.47	4
Dibenzofuran	2490		ug/kg	39.8	12.5	4
Acenaphthylene	1610		ug/kg	39.8	7.60	4
Acenaphthene	30000		ug/kg	39.8	7.02	4
2,3,5-Trimethylnaphthalene	1450		ug/kg	39.8	6.52	4
Fluorene	17600		ug/kg	39.8	10.6	4
C1-Fluorenes	4060		ug/kg	39.8	10.6	4
C2-Fluorenes	2750		ug/kg	39.8	10.6	4
C3-Fluorenes	2070		ug/kg	39.8	10.6	4
Dibenzothiophene	12000		ug/kg	39.8	11.0	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01 D
 Client ID: PDI-090SC-B-06-08-191012
 Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	1120		ug/kg	39.8	11.0	4
2/3-Methyl dibenzothiophene(2MDT)	1330		ug/kg	39.8	11.0	4
1-Methyl dibenzothiophene(1MDT)	376.		ug/kg	39.8	11.0	4
C1-Dibenzothiophenes BS	3450		ug/kg	39.8	11.0	4
C2-Dibenzothiophenes	2510		ug/kg	39.8	11.0	4
C3-Dibenzothiophenes	1440		ug/kg	39.8	11.0	4
C4-Dibenzothiophenes	606.		ug/kg	39.8	11.0	4
Phenanthrene	108000	E	ug/kg	39.8	13.2	4
3-Methylphenanthrene (3MP)	4480		ug/kg	39.8	13.2	4
2-Methylphenanthrene (2MP)	5560		ug/kg	39.8	13.2	4
2-Methylanthracene (2MA)	1430		ug/kg	39.8	13.2	4
9/4-Methylphenanthrene (9MP)	3260		ug/kg	39.8	13.2	4
C1-Phenanthrenes/Anthracenes	17400		ug/kg	39.8	13.2	4
C2-Phenanthrenes/Anthr BS	7460		ug/kg	39.8	13.2	4
C3-Phenanthrenes/Anthracenes	3050		ug/kg	39.8	13.2	4
C4-Phenanthrenes/Anthracenes	1870		ug/kg	39.8	13.2	4
Retene	2880		ug/kg	39.8	9.77	4
Anthracene	17200		ug/kg	39.8	8.21	4
Carbazole	2440		ug/kg	39.8	13.0	4
1-Methylphenanthrene	3470		ug/kg	39.8	10.5	4
Fluoranthene	50400		ug/kg	39.8	12.6	4
Benzo(b)fluorene	2650		ug/kg	39.8	11.5	4
7H-Benzo(c)fluorene	1200		ug/kg	39.8	11.5	4
2-Methylpyrene ¹	1650		ug/kg	39.8	10.5	4
4-Methylpyrene ¹	1400		ug/kg	39.8	10.5	4
1-Methylpyrene ¹	1600		ug/kg	39.8	10.5	4
Pyrene	62100	E	ug/kg	39.8	10.5	4
C1-Fluoranthenes/Pyrenes	12600		ug/kg	39.8	10.5	4
C2-Fluoranthenes/Pyrenes	3450		ug/kg	39.8	10.5	4
C3-Fluoranthenes/Pyrenes	1480		ug/kg	39.8	10.5	4
C4-Fluoranthenes/Pyrenes	864.		ug/kg	39.8	10.5	4
Naphthobenzothiophenes	4190		ug/kg	39.8	11.1	4
C1-Naphthobenzothiophenes	1350		ug/kg	39.8	11.1	4
C2-Naphthobenzothiophenes	858.		ug/kg	39.8	11.1	4
C3-Naphthobenzothiophenes	698.		ug/kg	39.8	11.1	4
C4-Naphthobenzothiophenes	237.		ug/kg	39.8	11.1	4
Benz(a)anthracene	16100		ug/kg	39.8	8.12	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01 D
 Client ID: PDI-090SC-B-06-08-191012
 Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	19000		ug/kg	39.8	8.05	4
C1-Chrysenes	5410		ug/kg	39.8	8.05	4
C2-Chrysenes BS	2550		ug/kg	39.8	8.05	4
C3-Chrysenes	1400		ug/kg	39.8	8.05	4
C4-Chrysenes	734.		ug/kg	39.8	8.05	4
Benzo(b)fluoranthene	12700		ug/kg	39.8	10.4	4
Benzo(j)+(k)fluoranthene	11300		ug/kg	39.8	7.91	4
Benzo(a)fluoranthene	3110		ug/kg	39.8	7.91	4
Benzo(e)pyrene	12300		ug/kg	39.8	8.22	4
Benzo(a)pyrene	21400		ug/kg	39.8	11.4	4
Perylene	5720		ug/kg	39.8	7.69	4
Indeno(1,2,3-cd)pyrene	15000		ug/kg	39.8	10.8	4
Dibenz(a,h)+(a,c)anthracene	2590		ug/kg	39.8	10.8	4
Benzo(g,h,i)perylene	18800		ug/kg	39.8	10.6	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	85		50-130
Phenanthrene-d10	80		50-130
Benzo(a)pyrene-d12	81		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02
 Client ID: PDI-084SC-B-06-08-191002
 Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/04/19 02:30
 Analyst: MJS
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	179.		ug/kg	3.15	1.58	1
C1-Decalins	438.		ug/kg	6.31	1.58	1
C2-Decalins	755.		ug/kg	6.31	1.58	1
C3-Decalins	589.		ug/kg	6.31	1.58	1
C4-Decalins	611.		ug/kg	6.31	1.58	1
Naphthalene	2340		ug/kg	6.31	1.81	1
C1-Naphthalenes	2250		ug/kg	6.31	1.81	1
C2-Naphthalenes	5290		ug/kg	6.31	1.81	1
C3-Naphthalenes	4670		ug/kg	6.31	1.81	1
C4-Naphthalenes	2440		ug/kg	6.31	1.81	1
2-Methylnaphthalene	1600		ug/kg	6.31	1.63	1
1-Methylnaphthalene	1880		ug/kg	6.31	1.99	1
Benzothiophene	210.		ug/kg	6.31	1.98	1
C1-Benzo(b)thiophenes	283.		ug/kg	6.31	1.98	1
C2-Benzo(b)thiophenes	754.		ug/kg	6.31	1.98	1
C3-Benzo(b)thiophenes	842.		ug/kg	6.31	1.98	1
C4-Benzo(b)thiophenes	588.		ug/kg	6.31	1.98	1
Biphenyl	280.		ug/kg	6.31	1.95	1
2,6-Dimethylnaphthalene	2300		ug/kg	6.31	1.50	1
Dibenzofuran	505.		ug/kg	6.31	1.99	1
Acenaphthylene	531.		ug/kg	6.31	1.20	1
Acenaphthene	5520		ug/kg	6.31	1.11	1
2,3,5-Trimethylnaphthalene	640.		ug/kg	6.31	1.03	1
Fluorene	3490		ug/kg	6.31	1.68	1
C1-Fluorenes	1730		ug/kg	6.31	1.68	1
C2-Fluorenes	1870		ug/kg	6.31	1.68	1
C3-Fluorenes	1370		ug/kg	6.31	1.68	1
Dibenzothiophene	3180		ug/kg	6.31	1.74	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02
 Client ID: PDI-084SC-B-06-08-191002
 Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	636.		ug/kg	6.31	1.74	1
2/3-Methyl dibenzothiophene(2MDT)	761.		ug/kg	6.31	1.74	1
1-Methyl dibenzothiophene(1MDT)	204.		ug/kg	6.31	1.74	1
C1-Dibenzothiophenes BS	1900		ug/kg	6.31	1.74	1
C2-Dibenzothiophenes	1700		ug/kg	6.31	1.74	1
C3-Dibenzothiophenes	1090		ug/kg	6.31	1.74	1
C4-Dibenzothiophenes	482.		ug/kg	6.31	1.74	1
Phenanthrene	27200	E	ug/kg	6.31	2.09	1
3-Methylphenanthrene (3MP)	2300		ug/kg	6.31	2.09	1
2-Methylphenanthrene (2MP)	2790		ug/kg	6.31	2.09	1
2-Methylanthracene (2MA)	870.		ug/kg	6.31	2.09	1
9/4-Methylphenanthrene (9MP)	1850		ug/kg	6.31	2.09	1
C1-Phenanthrenes/Anthracenes	9270		ug/kg	6.31	2.09	1
C2-Phenanthrenes/Anthr BS	5680		ug/kg	6.31	2.09	1
C3-Phenanthrenes/Anthracenes	3770		ug/kg	6.31	2.09	1
C4-Phenanthrenes/Anthracenes	5520		ug/kg	6.31	2.09	1
Retene	13700	E	ug/kg	6.31	1.55	1
Anthracene	5550		ug/kg	6.31	1.30	1
Carbazole	199.		ug/kg	6.31	2.06	1
1-Methylphenanthrene	1770		ug/kg	6.31	1.66	1
Fluoranthene	15000	E	ug/kg	6.31	2.00	1
Benzo(b)fluorene	1150		ug/kg	6.31	1.83	1
7H-Benzo(c)fluorene	422.		ug/kg	6.31	1.83	1
2-Methylpyrene ¹	824.		ug/kg	6.31	1.66	1
4-Methylpyrene ¹	742.		ug/kg	6.31	1.66	1
1-Methylpyrene ¹	696.		ug/kg	6.31	1.66	1
Pyrene	18300	E	ug/kg	6.31	1.66	1
C1-Fluoranthenes/Pyrenes	5720		ug/kg	6.31	1.66	1
C2-Fluoranthenes/Pyrenes	2110		ug/kg	6.31	1.66	1
C3-Fluoranthenes/Pyrenes	1090		ug/kg	6.31	1.66	1
C4-Fluoranthenes/Pyrenes	612.		ug/kg	6.31	1.66	1
Naphthobenzothiophenes	1640		ug/kg	6.31	1.76	1
C1-Naphthobenzothiophenes	749.		ug/kg	6.31	1.76	1
C2-Naphthobenzothiophenes	536.		ug/kg	6.31	1.76	1
C3-Naphthobenzothiophenes	340.		ug/kg	6.31	1.76	1
C4-Naphthobenzothiophenes	140.		ug/kg	6.31	1.76	1
Benz(a)anthracene	5310		ug/kg	6.31	1.28	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02
 Client ID: PDI-084SC-B-06-08-191002
 Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	6270		ug/kg	6.31	1.27	1
C1-Chrysenes	2490		ug/kg	6.31	1.27	1
C2-Chrysenes BS	1480		ug/kg	6.31	1.27	1
C3-Chrysenes	849.		ug/kg	6.31	1.27	1
C4-Chrysenes	371.		ug/kg	6.31	1.27	1
Benzo(b)fluoranthene	4040		ug/kg	6.31	1.64	1
Benzo(j)+(k)fluoranthene	2760		ug/kg	6.31	1.25	1
Benzo(a)fluoranthene	981.		ug/kg	6.31	1.25	1
Benzo(e)pyrene	3340		ug/kg	6.31	1.30	1
Benzo(a)pyrene	5980		ug/kg	6.31	1.80	1
Perylene	1480		ug/kg	6.31	1.22	1
Indeno(1,2,3-cd)pyrene	3780		ug/kg	6.31	1.71	1
Dibenz(a,h)+(a,c)anthracene	784.		ug/kg	6.31	1.70	1
Benzo(g,h,i)perylene	4520		ug/kg	6.31	1.68	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	76		50-130
Phenanthrene-d10	66		50-130
Benzo(a)pyrene-d12	73		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02 D
 Client ID: PDI-084SC-B-06-08-191002
 Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/06/19 00:34
 Analyst: MJS
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Phenanthrene	31900		ug/kg	63.1	20.9	10
Retene	13100		ug/kg	63.1	15.5	10
Fluoranthene	15200		ug/kg	63.1	20.0	10
Pyrene	18400		ug/kg	63.1	16.6	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	77		50-130
Phenanthrene-d10	82		50-130
Benzo(a)pyrene-d12	79		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03 D2
 Client ID: PDI-079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/06/19 11:03
 Analyst: MJS
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
C1-Naphthalenes	49100		ug/kg	350	101.	40
2-Methylnaphthalene	46500		ug/kg	350	90.4	40
Phenanthrene	153000		ug/kg	350	116.	40
Fluoranthene	57300		ug/kg	350	111.	40
Pyrene	73300		ug/kg	350	92.2	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	79		50-130
Phenanthrene-d10	88		50-130
Benzo(a)pyrene-d12	93		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03 D
Client ID: PDI-079SC-B-06-08-191014
Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/05/19 21:39
Analyst: MJS
Percent Solids: 62%

Extraction Method: ALPHA OP-013
Extraction Date: 11/22/19 12:48
Cleanup Method: EPA 3611B
Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	174.		ug/kg	17.5	8.80	4
C1-Decalins	553.		ug/kg	35.0	8.80	4
C2-Decalins	1090		ug/kg	35.0	8.80	4
C3-Decalins	846.		ug/kg	35.0	8.80	4
C4-Decalins	876.		ug/kg	35.0	8.80	4
Naphthalene	31100		ug/kg	35.0	10.1	4
C1-Naphthalenes	49200	E	ug/kg	35.0	10.1	4
C2-Naphthalenes	42600		ug/kg	35.0	10.1	4
C3-Naphthalenes	24800		ug/kg	35.0	10.1	4
C4-Naphthalenes	9620		ug/kg	35.0	10.1	4
2-Methylnaphthalene	47400	E	ug/kg	35.0	9.04	4
1-Methylnaphthalene	28300		ug/kg	35.0	11.0	4
Benzothiophene	2350		ug/kg	35.0	11.0	4
C1-Benzo(b)thiophenes	4920		ug/kg	35.0	11.0	4
C2-Benzo(b)thiophenes	6180		ug/kg	35.0	11.0	4
C3-Benzo(b)thiophenes	4290		ug/kg	35.0	11.0	4
C4-Benzo(b)thiophenes	2250		ug/kg	35.0	11.0	4
Biphenyl	4670		ug/kg	35.0	10.8	4
2,6-Dimethylnaphthalene	21100		ug/kg	35.0	8.33	4
Dibenzofuran	2730		ug/kg	35.0	11.0	4
Acenaphthylene	2160		ug/kg	35.0	6.69	4
Acenaphthene	34600		ug/kg	35.0	6.18	4
2,3,5-Trimethylnaphthalene	3510		ug/kg	35.0	5.73	4
Fluorene	18500		ug/kg	35.0	9.35	4
C1-Fluorenes	9920		ug/kg	35.0	9.35	4
C2-Fluorenes	9840		ug/kg	35.0	9.35	4
C3-Fluorenes	6880		ug/kg	35.0	9.35	4
Dibenzothiophene	15900		ug/kg	35.0	9.66	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03 D
 Client ID: PDI-079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	3680		ug/kg	35.0	9.66	4
2/3-Methyl dibenzothiophene(2MDT)	4380		ug/kg	35.0	9.66	4
1-Methyl dibenzothiophene(1MDT)	1130		ug/kg	35.0	9.66	4
C1-Dibenzothiophenes BS	11000		ug/kg	35.0	9.66	4
C2-Dibenzothiophenes	9880		ug/kg	35.0	9.66	4
C3-Dibenzothiophenes	5540		ug/kg	35.0	9.66	4
C4-Dibenzothiophenes	2150		ug/kg	35.0	9.66	4
Phenanthrene	129000	E	ug/kg	35.0	11.6	4
3-Methylphenanthrene (3MP)	16100		ug/kg	35.0	11.6	4
2-Methylphenanthrene (2MP)	20400		ug/kg	35.0	11.6	4
2-Methylanthracene (2MA)	4560		ug/kg	35.0	11.6	4
9/4-Methylphenanthrene (9MP)	9510		ug/kg	35.0	11.6	4
C1-Phenanthrenes/Anthracenes	57700		ug/kg	35.0	11.6	4
C2-Phenanthrenes/Anthr BS	35800		ug/kg	35.0	11.6	4
C3-Phenanthrenes/Anthracenes	14600		ug/kg	35.0	11.6	4
C4-Phenanthrenes/Anthracenes	4710		ug/kg	35.0	11.6	4
Retene	ND		ug/kg	35.0	8.60	4
Anthracene	23900		ug/kg	35.0	7.22	4
Carbazole	7290		ug/kg	35.0	11.5	4
1-Methylphenanthrene	9450		ug/kg	35.0	9.26	4
Fluoranthene	49800	E	ug/kg	35.0	11.1	4
Benzo(b)fluorene	4290		ug/kg	35.0	10.2	4
7H-Benzo(c)fluorene	1350		ug/kg	35.0	10.2	4
2-Methylpyrene ¹	4400		ug/kg	35.0	9.22	4
4-Methylpyrene ¹	3620		ug/kg	35.0	9.22	4
1-Methylpyrene ¹	3580		ug/kg	35.0	9.22	4
Pyrene	65700	E	ug/kg	35.0	9.22	4
C1-Fluoranthenes/Pyrenes	25800		ug/kg	35.0	9.22	4
C2-Fluoranthenes/Pyrenes	12000		ug/kg	35.0	9.22	4
C3-Fluoranthenes/Pyrenes	6380		ug/kg	35.0	9.22	4
C4-Fluoranthenes/Pyrenes	3140		ug/kg	35.0	9.22	4
Naphthobenzothiophenes	6170		ug/kg	35.0	9.81	4
C1-Naphthobenzothiophenes	3620		ug/kg	35.0	9.81	4
C2-Naphthobenzothiophenes	2770		ug/kg	35.0	9.81	4
C3-Naphthobenzothiophenes	1770		ug/kg	35.0	9.81	4
C4-Naphthobenzothiophenes	698.		ug/kg	35.0	9.81	4
Benz(a)anthracene	18500		ug/kg	35.0	7.14	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03 D
 Client ID: PDI-079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	21800		ug/kg	35.0	7.08	4
C1-Chrysenes	12500		ug/kg	35.0	7.08	4
C2-Chrysenes BS	8440		ug/kg	35.0	7.08	4
C3-Chrysenes	4620		ug/kg	35.0	7.08	4
C4-Chrysenes	1870		ug/kg	35.0	7.08	4
Benzo(b)fluoranthene	11000		ug/kg	35.0	9.12	4
Benzo(j)+(k)fluoranthene	11000		ug/kg	35.0	6.96	4
Benzo(a)fluoranthene	3110		ug/kg	35.0	6.96	4
Benzo(e)pyrene	11500		ug/kg	35.0	7.23	4
Benzo(a)pyrene	20200		ug/kg	35.0	10.0	4
Perylene	5120		ug/kg	35.0	6.76	4
Indeno(1,2,3-cd)pyrene	13200		ug/kg	35.0	9.51	4
Dibenz(a,h)+(a,c)anthracene	2540		ug/kg	35.0	9.47	4
Benzo(g,h,i)perylene	16200		ug/kg	35.0	9.31	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	84		50-130
Phenanthrene-d10	74		50-130
Benzo(a)pyrene-d12	73		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04 D2
 Client ID: PDI-071SC-B-06-08-191001
 Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/05/19 20:12
 Analyst: MJS
 Percent Solids: 71%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Naphthalene	3540000		ug/kg	3420	984.	40
Acenaphthene	556000		ug/kg	3420	604.	40
Phenanthrene	2080000		ug/kg	3420	1140	40
Fluoranthene	979000		ug/kg	3420	1090	40
Pyrene	1140000		ug/kg	3420	901.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	87		50-130
Phenanthrene-d10	97		50-130
Benzo(a)pyrene-d12	91		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04 D
 Client ID: PDI-071SC-B-06-08-191001
 Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/05/19 18:44
 Analyst: MJS
 Percent Solids: 71%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	1020		ug/kg	171	86.0	4
C1-Decalins	4250		ug/kg	342	86.0	4
C2-Decalins	8550		ug/kg	342	86.0	4
C3-Decalins	7030		ug/kg	342	86.0	4
C4-Decalins	6250		ug/kg	342	86.0	4
Naphthalene	2960000	E	ug/kg	342	98.4	4
C1-Naphthalenes	470000		ug/kg	342	98.4	4
C2-Naphthalenes	201000		ug/kg	342	98.4	4
C3-Naphthalenes	79400		ug/kg	342	98.4	4
C4-Naphthalenes	28900		ug/kg	342	98.4	4
2-Methylnaphthalene	450000		ug/kg	342	88.3	4
1-Methylnaphthalene	273000		ug/kg	342	108.	4
Benzothiophene	148000		ug/kg	342	107.	4
C1-Benzo(b)thiophenes	42900		ug/kg	342	107.	4
C2-Benzo(b)thiophenes	34100		ug/kg	342	107.	4
C3-Benzo(b)thiophenes	19300		ug/kg	342	107.	4
C4-Benzo(b)thiophenes	9370		ug/kg	342	107.	4
Biphenyl	155000		ug/kg	342	106.	4
2,6-Dimethylnaphthalene	93000		ug/kg	342	81.4	4
Dibenzofuran	39600		ug/kg	342	108.	4
Acenaphthylene	129000		ug/kg	342	65.4	4
Acenaphthene	490000	E	ug/kg	342	60.4	4
2,3,5-Trimethylnaphthalene	12400		ug/kg	342	56.0	4
Fluorene	264000		ug/kg	342	91.4	4
C1-Fluorenes	48600		ug/kg	342	91.4	4
C2-Fluorenes	29200		ug/kg	342	91.4	4
C3-Fluorenes	19100		ug/kg	342	91.4	4
Dibenzothiophene	225000		ug/kg	342	94.4	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04 D
 Client ID: PDI-071SC-B-06-08-191001
 Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	14200		ug/kg	342	94.4	4
2/3-Methyl dibenzothiophene(2MDT)	16800		ug/kg	342	94.4	4
1-Methyl dibenzothiophene(1MDT)	4860		ug/kg	342	94.4	4
C1-Dibenzothiophenes BS	44200		ug/kg	342	94.4	4
C2-Dibenzothiophenes	26500		ug/kg	342	94.4	4
C3-Dibenzothiophenes	13800		ug/kg	342	94.4	4
C4-Dibenzothiophenes	5430		ug/kg	342	94.4	4
Phenanthrene	1760000	E	ug/kg	342	114.	4
3-Methylphenanthrene (3MP)	55000		ug/kg	342	114.	4
2-Methylphenanthrene (2MP)	68000		ug/kg	342	114.	4
2-Methylanthracene (2MA)	20800		ug/kg	342	114.	4
9/4-Methylphenanthrene (9MP)	40000		ug/kg	342	114.	4
C1-Phenanthrenes/Anthracenes	216000		ug/kg	342	114.	4
C2-Phenanthrenes/Anthr BS	77200		ug/kg	342	114.	4
C3-Phenanthrenes/Anthracenes	27200		ug/kg	342	114.	4
C4-Phenanthrenes/Anthracenes	8400		ug/kg	342	114.	4
Retene	ND		ug/kg	342	84.0	4
Anthracene	280000		ug/kg	342	70.6	4
Carbazole	64800		ug/kg	342	112.	4
1-Methylphenanthrene	43600		ug/kg	342	90.4	4
Fluoranthene	875000	E	ug/kg	342	109.	4
Benzo(b)fluorene	44600		ug/kg	342	99.2	4
7H-Benzo(c)fluorene	11200		ug/kg	342	99.2	4
2-Methylpyrene ¹	23300		ug/kg	342	90.1	4
4-Methylpyrene ¹	20300		ug/kg	342	90.1	4
1-Methylpyrene ¹	24300		ug/kg	342	90.1	4
Pyrene	1010000	E	ug/kg	342	90.1	4
C1-Fluoranthenes/Pyrenes	186000		ug/kg	342	90.1	4
C2-Fluoranthenes/Pyrenes	48300		ug/kg	342	90.1	4
C3-Fluoranthenes/Pyrenes	20000		ug/kg	342	90.1	4
C4-Fluoranthenes/Pyrenes	10500		ug/kg	342	90.1	4
Naphthobenzothiophenes	78800		ug/kg	342	95.8	4
C1-Naphthobenzothiophenes	20600		ug/kg	342	95.8	4
C2-Naphthobenzothiophenes	10800		ug/kg	342	95.8	4
C3-Naphthobenzothiophenes	8710		ug/kg	342	95.8	4
C4-Naphthobenzothiophenes	2620		ug/kg	342	95.8	4
Benz(a)anthracene	252000		ug/kg	342	69.8	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04 D
 Client ID: PDI-071SC-B-06-08-191001
 Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	303000		ug/kg	342	69.2	4
C1-Chrysenes	71400		ug/kg	342	69.2	4
C2-Chrysenes BS	30700		ug/kg	342	69.2	4
C3-Chrysenes	15700		ug/kg	342	69.2	4
C4-Chrysenes	9220		ug/kg	342	69.2	4
Benzo(b)fluoranthene	207000		ug/kg	342	89.1	4
Benzo(j)+(k)fluoranthene	167000		ug/kg	342	68.0	4
Benzo(a)fluoranthene	45000		ug/kg	342	68.0	4
Benzo(e)pyrene	188000		ug/kg	342	70.7	4
Benzo(a)pyrene	329000		ug/kg	342	97.8	4
Perylene	87500		ug/kg	342	66.1	4
Indeno(1,2,3-cd)pyrene	224000		ug/kg	342	93.0	4
Dibenz(a,h)+(a,c)anthracene	39400		ug/kg	342	92.5	4
Benzo(g,h,i)perylene	269000		ug/kg	342	91.0	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	88		50-130
Phenanthrene-d10	80		50-130
Benzo(a)pyrene-d12	81		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05 D2
 Client ID: PDI-066SC-B-06-08-191011
 Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/06/19 12:30
 Analyst: MJS
 Percent Solids: 56%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Naphthalene	831000		ug/kg	1210	348.	40
C1-Naphthalenes	238000		ug/kg	1210	348.	40
2-Methylnaphthalene	238000		ug/kg	1210	312.	40
Acenaphthene	186000		ug/kg	1210	213.	40
Phenanthrene	735000		ug/kg	1210	401.	40
Fluoranthene	367000		ug/kg	1210	385.	40
Pyrene	436000		ug/kg	1210	318.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	90		50-130
Phenanthrene-d10	98		50-130
Benzo(a)pyrene-d12	101		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05 D
 Client ID: PDI-066SC-B-06-08-191011
 Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/05/19 15:50
 Analyst: MJS
 Percent Solids: 56%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	760.		ug/kg	60.5	30.4	4
C1-Decalins	2310		ug/kg	121	30.4	4
C2-Decalins	4210		ug/kg	121	30.4	4
C3-Decalins	3770		ug/kg	121	30.4	4
C4-Decalins	3800		ug/kg	121	30.4	4
Naphthalene	890000	E	ug/kg	121	34.8	4
C1-Naphthalenes	274000	E	ug/kg	121	34.8	4
C2-Naphthalenes	124000		ug/kg	121	34.8	4
C3-Naphthalenes	53000		ug/kg	121	34.8	4
C4-Naphthalenes	20200		ug/kg	121	34.8	4
2-Methylnaphthalene	277000	E	ug/kg	121	31.2	4
1-Methylnaphthalene	144000		ug/kg	121	38.2	4
Benzothiophene	56300		ug/kg	121	37.9	4
C1-Benzo(b)thiophenes	24200		ug/kg	121	37.9	4
C2-Benzo(b)thiophenes	20600		ug/kg	121	37.9	4
C3-Benzo(b)thiophenes	12600		ug/kg	121	37.9	4
C4-Benzo(b)thiophenes	6430		ug/kg	121	37.9	4
Biphenyl	85400		ug/kg	121	37.4	4
2,6-Dimethylnaphthalene	59500		ug/kg	121	28.8	4
Dibenzofuran	18900		ug/kg	121	38.1	4
Acenaphthylene	8670		ug/kg	121	23.1	4
Acenaphthene	197000	E	ug/kg	121	21.3	4
2,3,5-Trimethylnaphthalene	7900		ug/kg	121	19.8	4
Fluorene	113000		ug/kg	121	32.3	4
C1-Fluorenes	23100		ug/kg	121	32.3	4
C2-Fluorenes	14600		ug/kg	121	32.3	4
C3-Fluorenes	9330		ug/kg	121	32.3	4
Dibenzothiophene	94200		ug/kg	121	33.4	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05 D
 Client ID: PDI-066SC-B-06-08-191011
 Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	6860		ug/kg	121	33.4	4
2/3-Methyl dibenzothiophene(2MDT)	8180		ug/kg	121	33.4	4
1-Methyl dibenzothiophene(1MDT)	2210		ug/kg	121	33.4	4
C1-Dibenzothiophenes BS	21200		ug/kg	121	33.4	4
C2-Dibenzothiophenes	13100		ug/kg	121	33.4	4
C3-Dibenzothiophenes	6880		ug/kg	121	33.4	4
C4-Dibenzothiophenes	2620		ug/kg	121	33.4	4
Phenanthrene	734000	E	ug/kg	121	40.1	4
3-Methylphenanthrene (3MP)	25900		ug/kg	121	40.1	4
2-Methylphenanthrene (2MP)	33400		ug/kg	121	40.1	4
2-Methylanthracene (2MA)	10200		ug/kg	121	40.1	4
9/4-Methylphenanthrene (9MP)	19600		ug/kg	121	40.1	4
C1-Phenanthrenes/Anthracenes	103000		ug/kg	121	40.1	4
C2-Phenanthrenes/Anthr BS	38700		ug/kg	121	40.1	4
C3-Phenanthrenes/Anthracenes	14000		ug/kg	121	40.1	4
C4-Phenanthrenes/Anthracenes	6360		ug/kg	121	40.1	4
Retene	7450		ug/kg	121	29.7	4
Anthracene	131000		ug/kg	121	25.0	4
Carbazole	16600		ug/kg	121	39.6	4
1-Methylphenanthrene	18600		ug/kg	121	32.0	4
Fluoranthene	391000	E	ug/kg	121	38.5	4
Benzo(b)fluorene	20800		ug/kg	121	35.1	4
7H-Benzo(c)fluorene	5930		ug/kg	121	35.1	4
2-Methylpyrene ¹	10800		ug/kg	121	31.8	4
4-Methylpyrene ¹	8940		ug/kg	121	31.8	4
1-Methylpyrene ¹	10600		ug/kg	121	31.8	4
Pyrene	464000	E	ug/kg	121	31.8	4
C1-Fluoranthenes/Pyrenes	86700		ug/kg	121	31.8	4
C2-Fluoranthenes/Pyrenes	20400		ug/kg	121	31.8	4
C3-Fluoranthenes/Pyrenes	7570		ug/kg	121	31.8	4
C4-Fluoranthenes/Pyrenes	4090		ug/kg	121	31.8	4
Naphthobenzothiophenes	37200		ug/kg	121	33.9	4
C1-Naphthobenzothiophenes	9040		ug/kg	121	33.9	4
C2-Naphthobenzothiophenes	4560		ug/kg	121	33.9	4
C3-Naphthobenzothiophenes	3750		ug/kg	121	33.9	4
C4-Naphthobenzothiophenes	960.		ug/kg	121	33.9	4
Benz(a)anthracene	121000		ug/kg	121	24.7	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05 D
 Client ID: PDI-066SC-B-06-08-191011
 Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	137000		ug/kg	121	24.5	4
C1-Chrysenes	31300		ug/kg	121	24.5	4
C2-Chrysenes BS	12200		ug/kg	121	24.5	4
C3-Chrysenes	5720		ug/kg	121	24.5	4
C4-Chrysenes	3370		ug/kg	121	24.5	4
Benzo(b)fluoranthene	92300		ug/kg	121	31.5	4
Benzo(j)+(k)fluoranthene	85200		ug/kg	121	24.0	4
Benzo(a)fluoranthene	23200		ug/kg	121	24.0	4
Benzo(e)pyrene	86700		ug/kg	121	25.0	4
Benzo(a)pyrene	156000		ug/kg	121	34.6	4
Perylene	40600		ug/kg	121	23.4	4
Indeno(1,2,3-cd)pyrene	108000		ug/kg	121	32.9	4
Dibenz(a,h)+(a,c)anthracene	20100		ug/kg	121	32.7	4
Benzo(g,h,i)perylene	126000		ug/kg	121	32.2	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	112		50-130
Phenanthrene-d10	100		50-130
Benzo(a)pyrene-d12	95		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-06
 Client ID: PDI-059SC-B-06-08-191016
 Sample Location: SEATTLE, WA

Date Collected: 10/16/19 07:57
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/04/19 08:19
 Analyst: MJS
 Percent Solids: 71%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	0.243	J	ug/kg	0.696	0.350	1
C1-Decalins	0.870	J	ug/kg	1.39	0.350	1
C2-Decalins	ND		ug/kg	1.39	0.350	1
C3-Decalins	ND		ug/kg	1.39	0.350	1
C4-Decalins	ND		ug/kg	1.39	0.350	1
Naphthalene	40.5		ug/kg	1.39	0.400	1
C1-Naphthalenes	81.4		ug/kg	1.39	0.400	1
C2-Naphthalenes	55.3		ug/kg	1.39	0.400	1
C3-Naphthalenes	14.0		ug/kg	1.39	0.400	1
C4-Naphthalenes	3.37		ug/kg	1.39	0.400	1
2-Methylnaphthalene	11.9		ug/kg	1.39	0.359	1
1-Methylnaphthalene	117.		ug/kg	1.39	0.438	1
Benzothiophene	17.6		ug/kg	1.39	0.436	1
C1-Benzo(b)thiophenes	31.7		ug/kg	1.39	0.436	1
C2-Benzo(b)thiophenes	16.3		ug/kg	1.39	0.436	1
C3-Benzo(b)thiophenes	4.84		ug/kg	1.39	0.436	1
C4-Benzo(b)thiophenes	1.20	J	ug/kg	1.39	0.436	1
Biphenyl	3.70		ug/kg	1.39	0.430	1
2,6-Dimethylnaphthalene	21.4		ug/kg	1.39	0.331	1
Dibenzofuran	9.06		ug/kg	1.39	0.438	1
Acenaphthylene	9.87		ug/kg	1.39	0.266	1
Acenaphthene	354.		ug/kg	1.39	0.245	1
2,3,5-Trimethylnaphthalene	1.91		ug/kg	1.39	0.228	1
Fluorene	107.		ug/kg	1.39	0.371	1
C1-Fluorenes	8.52		ug/kg	1.39	0.371	1
C2-Fluorenes	2.96		ug/kg	1.39	0.371	1
C3-Fluorenes	2.00		ug/kg	1.39	0.371	1
Dibenzothiophene	48.1		ug/kg	1.39	0.384	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-06
 Client ID: PDI-059SC-B-06-08-191016
 Sample Location: SEATTLE, WA

Date Collected: 10/16/19 07:57
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	1.49		ug/kg	1.39	0.384	1
2/3-Methyl dibenzothiophene(2MDT)	1.06	J	ug/kg	1.39	0.384	1
1-Methyl dibenzothiophene(1MDT)	0.575	J	ug/kg	1.39	0.384	1
C1-Dibenzothiophenes BS	3.98		ug/kg	1.39	0.384	1
C2-Dibenzothiophenes	1.95		ug/kg	1.39	0.384	1
C3-Dibenzothiophenes	1.42		ug/kg	1.39	0.384	1
C4-Dibenzothiophenes	ND		ug/kg	1.39	0.384	1
Phenanthrene	327.		ug/kg	1.39	0.461	1
3-Methylphenanthrene (3MP)	5.66		ug/kg	1.39	0.461	1
2-Methylphenanthrene (2MP)	6.78		ug/kg	1.39	0.461	1
2-Methylanthracene (2MA)	1.66		ug/kg	1.39	0.461	1
9/4-Methylphenanthrene (9MP)	4.35		ug/kg	1.39	0.461	1
C1-Phenanthrenes/Anthracenes	22.0		ug/kg	1.39	0.461	1
C2-Phenanthrenes/Anthr BS	5.30		ug/kg	1.39	0.461	1
C3-Phenanthrenes/Anthracenes	2.30		ug/kg	1.39	0.461	1
C4-Phenanthrenes/Anthracenes	1.46		ug/kg	1.39	0.461	1
Retene	1.81		ug/kg	1.39	0.342	1
Anthracene	44.4		ug/kg	1.39	0.287	1
Carbazole	80.4		ug/kg	1.39	0.455	1
1-Methylphenanthrene	4.04		ug/kg	1.39	0.368	1
Fluoranthene	70.7		ug/kg	1.39	0.442	1
Benzo(b)fluorene	3.25		ug/kg	1.39	0.403	1
7H-Benzo(c)fluorene	1.47		ug/kg	1.39	0.403	1
2-Methylpyrene ¹	1.83		ug/kg	1.39	0.366	1
4-Methylpyrene ¹	1.70		ug/kg	1.39	0.366	1
1-Methylpyrene ¹	1.85		ug/kg	1.39	0.366	1
Pyrene	79.7		ug/kg	1.39	0.366	1
C1-Fluoranthenes/Pyrenes	16.5		ug/kg	1.39	0.366	1
C2-Fluoranthenes/Pyrenes	3.89		ug/kg	1.39	0.366	1
C3-Fluoranthenes/Pyrenes	2.29		ug/kg	1.39	0.366	1
C4-Fluoranthenes/Pyrenes	1.37	J	ug/kg	1.39	0.366	1
Naphthobenzothiophenes	4.87	J	ug/kg	1.39	0.390	1
C1-Naphthobenzothiophenes	1.89		ug/kg	1.39	0.390	1
C2-Naphthobenzothiophenes	1.25	J	ug/kg	1.39	0.390	1
C3-Naphthobenzothiophenes	1.61		ug/kg	1.39	0.390	1
C4-Naphthobenzothiophenes	ND		ug/kg	1.39	0.390	1
Benz(a)anthracene	18.0		ug/kg	1.39	0.284	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-06
 Client ID: PDI-059SC-B-06-08-191016
 Sample Location: SEATTLE, WA

Date Collected: 10/16/19 07:57
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	22.8		ug/kg	1.39	0.281	1
C1-Chrysenes	5.79		ug/kg	1.39	0.281	1
C2-Chrysenes BS	2.63		ug/kg	1.39	0.281	1
C3-Chrysenes	ND		ug/kg	1.39	0.281	1
C4-Chrysenes	ND		ug/kg	1.39	0.281	1
Benzo(b)fluoranthene	13.0		ug/kg	1.39	0.362	1
Benzo(j)+(k)fluoranthene	12.2		ug/kg	1.39	0.276	1
Benzo(a)fluoranthene	4.59		ug/kg	1.39	0.276	1
Benzo(e)pyrene	11.7		ug/kg	1.39	0.287	1
Benzo(a)pyrene	20.4		ug/kg	1.39	0.397	1
Perylene	79.7		ug/kg	1.39	0.269	1
Indeno(1,2,3-cd)pyrene	13.7		ug/kg	1.39	0.378	1
Dibenz(a,h)+(a,c)anthracene	2.60		ug/kg	1.39	0.376	1
Benzo(g,h,i)perylene	15.8		ug/kg	1.39	0.370	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	60		50-130
Phenanthrene-d10	79		50-130
Benzo(a)pyrene-d12	67		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07
 Client ID: PDI-049SC-B-06-08-191015
 Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/04/19 09:47
 Analyst: MJS
 Percent Solids: 76%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	4.19	J	ug/kg	0.956	0.480	1
C1-Decalins	15.0		ug/kg	1.91	0.480	1
C2-Decalins	23.7		ug/kg	1.91	0.480	1
C3-Decalins	16.6		ug/kg	1.91	0.480	1
C4-Decalins	16.3		ug/kg	1.91	0.480	1
Naphthalene	218.		ug/kg	1.91	0.550	1
C1-Naphthalenes	69.5		ug/kg	1.91	0.550	1
C2-Naphthalenes	244.		ug/kg	1.91	0.550	1
C3-Naphthalenes	163.		ug/kg	1.91	0.550	1
C4-Naphthalenes	61.5		ug/kg	1.91	0.550	1
2-Methylnaphthalene	55.1		ug/kg	1.91	0.493	1
1-Methylnaphthalene	52.3		ug/kg	1.91	0.603	1
Benzothiophene	35.4		ug/kg	1.91	0.599	1
C1-Benzo(b)thiophenes	20.3		ug/kg	1.91	0.599	1
C2-Benzo(b)thiophenes	43.2		ug/kg	1.91	0.599	1
C3-Benzo(b)thiophenes	35.2		ug/kg	1.91	0.599	1
C4-Benzo(b)thiophenes	16.8		ug/kg	1.91	0.599	1
Biphenyl	22.6		ug/kg	1.91	0.591	1
2,6-Dimethylnaphthalene	116.		ug/kg	1.91	0.455	1
Dibenzofuran	45.6		ug/kg	1.91	0.602	1
Acenaphthylene	37.3		ug/kg	1.91	0.365	1
Acenaphthene	818.		ug/kg	1.91	0.337	1
2,3,5-Trimethylnaphthalene	23.0		ug/kg	1.91	0.313	1
Fluorene	503.		ug/kg	1.91	0.510	1
C1-Fluorenes	99.0		ug/kg	1.91	0.510	1
C2-Fluorenes	56.1		ug/kg	1.91	0.510	1
C3-Fluorenes	37.0		ug/kg	1.91	0.510	1
Dibenzothiophene	443.		ug/kg	1.91	0.528	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07
 Client ID: PDI-049SC-B-06-08-191015
 Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	28.5		ug/kg	1.91	0.528	1
2/3-Methyl dibenzothiophene(2MDT)	50.1		ug/kg	1.91	0.528	1
1-Methyl dibenzothiophene(1MDT)	8.66		ug/kg	1.91	0.528	1
C1-Dibenzothiophenes BS	101.		ug/kg	1.91	0.528	1
C2-Dibenzothiophenes	49.0		ug/kg	1.91	0.528	1
C3-Dibenzothiophenes	27.5		ug/kg	1.91	0.528	1
C4-Dibenzothiophenes	14.6		ug/kg	1.91	0.528	1
Phenanthrene	3650	E	ug/kg	1.91	0.634	1
3-Methylphenanthrene (3MP)	103.		ug/kg	1.91	0.634	1
2-Methylphenanthrene (2MP)	120.		ug/kg	1.91	0.634	1
2-Methylanthracene (2MA)	23.3		ug/kg	1.91	0.634	1
9/4-Methylphenanthrene (9MP)	82.2		ug/kg	1.91	0.634	1
C1-Phenanthrenes/Anthracenes	393.		ug/kg	1.91	0.634	1
C2-Phenanthrenes/Anthr BS	161.		ug/kg	1.91	0.634	1
C3-Phenanthrenes/Anthracenes	62.8		ug/kg	1.91	0.634	1
C4-Phenanthrenes/Anthracenes	34.3		ug/kg	1.91	0.634	1
Retene	35.9		ug/kg	1.91	0.469	1
Anthracene	218.		ug/kg	1.91	0.394	1
Carbazole	15.0		ug/kg	1.91	0.626	1
1-Methylphenanthrene	78.4		ug/kg	1.91	0.505	1
Fluoranthene	1700		ug/kg	1.91	0.608	1
Benzo(b)fluorene	99.7		ug/kg	1.91	0.554	1
7H-Benzo(c)fluorene	22.6		ug/kg	1.91	0.554	1
2-Methylpyrene ¹	45.8		ug/kg	1.91	0.503	1
4-Methylpyrene ¹	37.5		ug/kg	1.91	0.503	1
1-Methylpyrene ¹	40.4		ug/kg	1.91	0.503	1
Pyrene	2120		ug/kg	1.91	0.503	1
C1-Fluoranthenes/Pyrenes	350.		ug/kg	1.91	0.503	1
C2-Fluoranthenes/Pyrenes	78.0		ug/kg	1.91	0.503	1
C3-Fluoranthenes/Pyrenes	36.7		ug/kg	1.91	0.503	1
C4-Fluoranthenes/Pyrenes	21.3		ug/kg	1.91	0.503	1
Naphthobenzothiophenes	119.		ug/kg	1.91	0.535	1
C1-Naphthobenzothiophenes	35.7		ug/kg	1.91	0.535	1
C2-Naphthobenzothiophenes	22.4		ug/kg	1.91	0.535	1
C3-Naphthobenzothiophenes	17.7		ug/kg	1.91	0.535	1
C4-Naphthobenzothiophenes	5.70		ug/kg	1.91	0.535	1
Benz(a)anthracene	510.		ug/kg	1.91	0.390	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07
 Client ID: PDI-049SC-B-06-08-191015
 Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	607.		ug/kg	1.91	0.387	1
C1-Chrysenes	152.		ug/kg	1.91	0.387	1
C2-Chrysenes BS	73.1		ug/kg	1.91	0.387	1
C3-Chrysenes	38.5		ug/kg	1.91	0.387	1
C4-Chrysenes	23.2		ug/kg	1.91	0.387	1
Benzo(b)fluoranthene	402.		ug/kg	1.91	0.498	1
Benzo(j)+(k)fluoranthene	378.		ug/kg	1.91	0.380	1
Benzo(a)fluoranthene	96.4		ug/kg	1.91	0.380	1
Benzo(e)pyrene	394.		ug/kg	1.91	0.395	1
Benzo(a)pyrene	673.		ug/kg	1.91	0.546	1
Perylene	216.		ug/kg	1.91	0.369	1
Indeno(1,2,3-cd)pyrene	486.		ug/kg	1.91	0.519	1
Dibenz(a,h)+(a,c)anthracene	82.6		ug/kg	1.91	0.517	1
Benzo(g,h,i)perylene	603.		ug/kg	1.91	0.508	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	67		50-130
Phenanthrene-d10	73		50-130
Benzo(a)pyrene-d12	74		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07 D
 Client ID: PDI-049SC-B-06-08-191015
 Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/05/19 14:22
 Analyst: MJS
 Percent Solids: 76%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Phenanthrene	4260		ug/kg	7.65	2.54	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	73		50-130
Phenanthrene-d10	84		50-130
Benzo(a)pyrene-d12	82		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08 D2
 Client ID: PDI-1079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/05/19 12:54
 Analyst: MJS
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Phenanthrene	99100		ug/kg	358	118.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	77		50-130
Phenanthrene-d10	90		50-130
Benzo(a)pyrene-d12	79		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08 D
 Client ID: PDI-1079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/05/19 11:26
 Analyst: MJS
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
cis/trans-Decalin	142.		ug/kg	17.9	8.98	4
C1-Decalins	460.		ug/kg	35.8	8.98	4
C2-Decalins	881.		ug/kg	35.8	8.98	4
C3-Decalins	654.		ug/kg	35.8	8.98	4
C4-Decalins	654.		ug/kg	35.8	8.98	4
Naphthalene	24300		ug/kg	35.8	10.3	4
C1-Naphthalenes	27100		ug/kg	35.8	10.3	4
C2-Naphthalenes	24700		ug/kg	35.8	10.3	4
C3-Naphthalenes	14900		ug/kg	35.8	10.3	4
C4-Naphthalenes	5930		ug/kg	35.8	10.3	4
2-Methylnaphthalene	25000		ug/kg	35.8	9.22	4
1-Methylnaphthalene	16600		ug/kg	35.8	11.3	4
Benzothiophene	1740		ug/kg	35.8	11.2	4
C1-Benzo(b)thiophenes	2860		ug/kg	35.8	11.2	4
C2-Benzo(b)thiophenes	3620		ug/kg	35.8	11.2	4
C3-Benzo(b)thiophenes	2580		ug/kg	35.8	11.2	4
C4-Benzo(b)thiophenes	1390		ug/kg	35.8	11.2	4
Biphenyl	2770		ug/kg	35.8	11.0	4
2,6-Dimethylnaphthalene	11800		ug/kg	35.8	8.50	4
Dibenzofuran	1720		ug/kg	35.8	11.3	4
Acenaphthylene	1480		ug/kg	35.8	6.82	4
Acenaphthene	22200		ug/kg	35.8	6.30	4
2,3,5-Trimethylnaphthalene	2120		ug/kg	35.8	5.85	4
Fluorene	12000		ug/kg	35.8	9.54	4
C1-Fluorenes	6050		ug/kg	35.8	9.54	4
C2-Fluorenes	6060		ug/kg	35.8	9.54	4
C3-Fluorenes	4070		ug/kg	35.8	9.54	4
Dibenzothiophene	10100		ug/kg	35.8	9.86	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08 D
 Client ID: PDI-1079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
4-Methyl dibenzothiophene(4MDT)	2160		ug/kg	35.8	9.86	4
2/3-Methyl dibenzothiophene(2MDT)	2600		ug/kg	35.8	9.86	4
1-Methyl dibenzothiophene(1MDT)	666.		ug/kg	35.8	9.86	4
C1-Dibenzothiophenes BS	6530		ug/kg	35.8	9.86	4
C2-Dibenzothiophenes	5690		ug/kg	35.8	9.86	4
C3-Dibenzothiophenes	3200		ug/kg	35.8	9.86	4
C4-Dibenzothiophenes	1290		ug/kg	35.8	9.86	4
Phenanthrene	80100	E	ug/kg	35.8	11.8	4
3-Methylphenanthrene (3MP)	9210		ug/kg	35.8	11.8	4
2-Methylphenanthrene (2MP)	11700		ug/kg	35.8	11.8	4
2-Methylanthracene (2MA)	3080		ug/kg	35.8	11.8	4
9/4-Methylphenanthrene (9MP)	5800		ug/kg	35.8	11.8	4
C1-Phenanthrenes/Anthracenes	34000		ug/kg	35.8	11.8	4
C2-Phenanthrenes/Anthr BS	20600		ug/kg	35.8	11.8	4
C3-Phenanthrenes/Anthracenes	8590		ug/kg	35.8	11.8	4
C4-Phenanthrenes/Anthracenes	2850		ug/kg	35.8	11.8	4
Retene	ND		ug/kg	35.8	8.78	4
Anthracene	16200		ug/kg	35.8	7.37	4
Carbazole	5320		ug/kg	35.8	11.7	4
1-Methylphenanthrene	5490		ug/kg	35.8	9.44	4
Fluoranthene	33500		ug/kg	35.8	11.4	4
Benzo(b)fluorene	2790		ug/kg	35.8	10.4	4
7H-Benzo(c)fluorene	911.		ug/kg	35.8	10.4	4
2-Methylpyrene ¹	2630		ug/kg	35.8	9.41	4
4-Methylpyrene ¹	2160		ug/kg	35.8	9.41	4
1-Methylpyrene ¹	2190		ug/kg	35.8	9.41	4
Pyrene	43900		ug/kg	35.8	9.41	4
C1-Fluoranthenes/Pyrenes	16000		ug/kg	35.8	9.41	4
C2-Fluoranthenes/Pyrenes	7080		ug/kg	35.8	9.41	4
C3-Fluoranthenes/Pyrenes	3780		ug/kg	35.8	9.41	4
C4-Fluoranthenes/Pyrenes	1850		ug/kg	35.8	9.41	4
Naphthobenzothiophenes	4110		ug/kg	35.8	10.0	4
C1-Naphthobenzothiophenes	2180		ug/kg	35.8	10.0	4
C2-Naphthobenzothiophenes	1610		ug/kg	35.8	10.0	4
C3-Naphthobenzothiophenes	1050		ug/kg	35.8	10.0	4
C4-Naphthobenzothiophenes	398.		ug/kg	35.8	10.0	4
Benz(a)anthracene	13300		ug/kg	35.8	7.29	4

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08 D
 Client ID: PDI-1079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/Biomarkers - Mansfield Lab						
Chrysene	15700		ug/kg	35.8	7.23	4
C1-Chrysenes	7990		ug/kg	35.8	7.23	4
C2-Chrysenes BS	5180		ug/kg	35.8	7.23	4
C3-Chrysenes	2940		ug/kg	35.8	7.23	4
C4-Chrysenes	1280		ug/kg	35.8	7.23	4
Benzo(b)fluoranthene	8500		ug/kg	35.8	9.30	4
Benzo(j)+(k)fluoranthene	8180		ug/kg	35.8	7.10	4
Benzo(a)fluoranthene	2460		ug/kg	35.8	7.10	4
Benzo(e)pyrene	8750		ug/kg	35.8	7.38	4
Benzo(a)pyrene	15700		ug/kg	35.8	10.2	4
Perylene	4100		ug/kg	35.8	6.90	4
Indeno(1,2,3-cd)pyrene	10200		ug/kg	35.8	9.71	4
Dibenz(a,h)+(a,c)anthracene	1930		ug/kg	35.8	9.66	4
Benzo(g,h,i)perylene	12900		ug/kg	35.8	9.50	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	77		50-130
Phenanthrene-d10	70		50-130
Benzo(a)pyrene-d12	74		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/03/19 14:47
Analyst: MJS

Extraction Method: ALPHA OP-013
Extraction Date: 11/22/19 12:48
Cleanup Method: EPA 3611B
Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL
PAHs/Biomarkers - Mansfield Lab for sample(s): 01-08 Batch: WG1312512-1					
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	ND		ug/kg	1.00	0.287
C1-Naphthalenes	ND		ug/kg	1.00	0.287
C2-Naphthalenes	ND		ug/kg	1.00	0.287
C3-Naphthalenes	ND		ug/kg	1.00	0.287
C4-Naphthalenes	ND		ug/kg	1.00	0.287
2-Methylnaphthalene	ND		ug/kg	1.00	0.258
1-Methylnaphthalene	ND		ug/kg	1.00	0.315
Benzo(b)thiophene	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	ND		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: L1954309
Report Date: 12/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/03/19 14:47
Analyst: MJS

Extraction Method: ALPHA OP-013
Extraction Date: 11/22/19 12:48
Cleanup Method: EPA 3611B
Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL
PAHs/Biomarkers - Mansfield Lab for sample(s): 01-08 Batch: WG1312512-1					
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	ND		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	ND		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: L1954309
Report Date: 12/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/03/19 14:47
Analyst: MJS

Extraction Method: ALPHA OP-013
Extraction Date: 11/22/19 12:48
Cleanup Method: EPA 3611B
Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL
PAHs/Biomarkers - Mansfield Lab for sample(s): 01-08 Batch: WG1312512-1					
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	61		50-130
Phenanthrene-d10	80		50-130
Benzo(a)pyrene-d12	76		50-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs/Biomarkers - Mansfield Lab Associated sample(s): 01-08 Batch: WG1312512-2 WG1312512-3								
Naphthalene	84		77		50-130	9		30
2-Methylnaphthalene	81		74		50-130	9		30
Acenaphthylene	78		71		50-130	9		30
Acenaphthene	85		83		50-130	2		30
Fluorene	85		83		50-130	2		30
Phenanthrene	87		89		50-130	2		30
Anthracene	99		99		50-130	0		30
Fluoranthene	75		76		50-130	1		30
Pyrene	75		76		50-130	1		30
Benz(a)anthracene	83		84		50-130	1		30
Chrysene	93		92		50-130	1		30
Benzo(b)fluoranthene	81		77		50-130	5		30
Benzo(j)+(k)fluoranthene	101		103		50-130	2		30
Benzo(a)pyrene	90		85		50-130	6		30
Indeno(1,2,3-cd)pyrene	79		74		50-130	7		30
Dibenz(a,h)+(a,c)anthracene	82		77		50-130	6		30
Benzo(g,h,i)perylene	84		81		50-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

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/Biomarkers - Mansfield Lab Associated sample(s): 01-08 Batch: WG1312512-2 WG1312512-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Naphthalene-d8	85		76		50-130
Phenanthrene-d10	90		87		50-130
Benzo(a)pyrene-d12	85		78		50-130

PETROLEUM HYDROCARBONS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01 D
 Client ID: PDI-090SC-B-06-08-191012
 Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/12/19 13:44
 Analyst: WR
 Percent Solids: 57%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	6.64	1.97	10
n-Decane (C10)	ND		mg/kg	6.64	2.12	10
n-Undecane (C11)	ND		mg/kg	6.64	1.98	10
n-Dodecane (C12)	1.47	J	mg/kg	6.64	1.45	10
n-Tridecane (C13)	33.0	G	mg/kg	6.64	1.82	10
2,6,10-Trimethyldodecane (1380)	2.90	J	mg/kg	6.64	0.999	10
n-Tetradecane (C14)	4.91	J	mg/kg	6.64	0.999	10
2,6,10-Trimethyltridecane (1470)	5.87	J	mg/kg	6.64	0.792	10
n-Pentadecane (C15)	ND		mg/kg	6.64	0.792	10
n-Hexadecane (C16)	ND		mg/kg	6.64	1.00	10
Norpristane (1650)	4.48	J	mg/kg	6.64	2.19	10
n-Heptadecane (C17)	ND		mg/kg	6.64	2.19	10
Pristane	6.51	J	mg/kg	6.64	1.42	10
n-Octadecane (C18)	129	G	mg/kg	6.64	1.33	10
Phytane	31.9	G	mg/kg	6.64	0.834	10
n-Nonadecane (C19)	ND		mg/kg	6.64	1.71	10
n-Eicosane (C20)	2.06	J	mg/kg	6.64	0.940	10
n-Heneicosane (C21)	0.956	J	mg/kg	6.64	0.795	10
n-Docosane (C22)	0.863	J	mg/kg	6.64	0.693	10
n-Tricosane (C23)	4.07	J	mg/kg	6.64	0.845	10
n-Tetracosane (C24)	ND		mg/kg	6.64	1.11	10
n-Pentacosane (C25)	28.1	G	mg/kg	6.64	3.51	10
n-Hexacosane (C26)	1.24	J	mg/kg	6.64	0.975	10
n-Heptacosane (C27)	4.13	J	mg/kg	6.64	0.800	10
n-Octacosane (C28)	1.57	J	mg/kg	6.64	1.42	10
n-Nonacosane (C29)	ND		mg/kg	6.64	4.42	10
n-Triacontane (C30)	1.44	J	mg/kg	6.64	0.762	10
n-Hentriacontane (C31)	2.26	J	mg/kg	6.64	0.941	10

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01 D
 Client ID: PDI-090SC-B-06-08-191012
 Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	ND		mg/kg	6.64	0.837	10
n-Tritriacontane (C33)	1.67	J	mg/kg	6.64	0.934	10
n-Tetratriacontane (C34)	ND		mg/kg	6.64	1.06	10
n-Pentatriacontane (C35)	2.70	J	mg/kg	6.64	1.16	10
n-Hexatriacontane (C36)	ND		mg/kg	6.64	1.32	10
n-Heptatriacontane (C37)	ND		mg/kg	6.64	1.47	10
n-Octatriacontane (C38)	ND		mg/kg	6.64	1.55	10
n-Nonatriacontane (C39)	ND		mg/kg	6.64	2.16	10
n-Tetracontane (C40)	ND		mg/kg	6.64	2.16	10
Total Petroleum Hydrocarbons (C9-C44)	2540		mg/kg	219	48.2	10
Total Petroleum Hydrocarbons (C9-C40)	2560		mg/kg	219	48.2	10
DRO (C10-C28)	1920		mg/kg	139	28.7	10
Total Saturated Hydrocarbons	271	J	mg/kg	6.64	3.32	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	84		50-130
d50-Tetracosane	87		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02 D
 Client ID: PDI-084SC-B-06-08-191002
 Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/12/19 15:11
 Analyst: WR
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	4.20	1.25	10
n-Decane (C10)	ND		mg/kg	4.20	1.34	10
n-Undecane (C11)	ND		mg/kg	4.20	1.26	10
n-Dodecane (C12)	ND		mg/kg	4.20	0.916	10
n-Tridecane (C13)	ND		mg/kg	4.20	1.15	10
2,6,10-Trimethyldodecane (1380)	2.06	J	mg/kg	4.20	0.632	10
n-Tetradecane (C14)	ND		mg/kg	4.20	0.632	10
2,6,10-Trimethyltridecane (1470)	2.76	J	mg/kg	4.20	0.502	10
n-Pentadecane (C15)	ND		mg/kg	4.20	0.502	10
n-Hexadecane (C16)	1.68	J	mg/kg	4.20	0.633	10
Norpristane (1650)	3.82	J	mg/kg	4.20	1.39	10
n-Heptadecane (C17)	ND		mg/kg	4.20	1.39	10
Pristane	5.32		mg/kg	4.20	0.898	10
n-Octadecane (C18)	34.8	G	mg/kg	4.20	0.844	10
Phytane	12.8	G	mg/kg	4.20	0.528	10
n-Nonadecane (C19)	ND		mg/kg	4.20	1.08	10
n-Eicosane (C20)	1.19	J	mg/kg	4.20	0.595	10
n-Heneicosane (C21)	0.757	J	mg/kg	4.20	0.503	10
n-Docosane (C22)	ND		mg/kg	4.20	0.438	10
n-Tricosane (C23)	1.74	J	mg/kg	4.20	0.535	10
n-Tetracosane (C24)	ND		mg/kg	4.20	0.703	10
n-Pentacosane (C25)	11.8	G	mg/kg	4.20	2.22	10
n-Hexacosane (C26)	1.05	J	mg/kg	4.20	0.618	10
n-Heptacosane (C27)	3.62	J	mg/kg	4.20	0.506	10
n-Octacosane (C28)	1.56	J	mg/kg	4.20	0.902	10
n-Nonacosane (C29)	ND		mg/kg	4.20	2.80	10
n-Triacontane (C30)	0.534	J	mg/kg	4.20	0.482	10
n-Hentriacontane (C31)	1.06	J	mg/kg	4.20	0.596	10

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02 D
 Client ID: PDI-084SC-B-06-08-191002
 Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	ND		mg/kg	4.20	0.530	10
n-Tritriacontane (C33)	0.694	J	mg/kg	4.20	0.592	10
n-Tetracontane (C34)	ND		mg/kg	4.20	0.669	10
n-Pentatriacontane (C35)	ND		mg/kg	4.20	0.734	10
n-Hexatriacontane (C36)	ND		mg/kg	4.20	0.836	10
n-Heptatriacontane (C37)	ND		mg/kg	4.20	0.934	10
n-Octatriacontane (C38)	ND		mg/kg	4.20	0.980	10
n-Nonatriacontane (C39)	ND		mg/kg	4.20	1.36	10
n-Tetracontane (C40)	ND		mg/kg	4.20	1.36	10
Total Petroleum Hydrocarbons (C9-C44)	1240		mg/kg	139	30.5	10
Total Petroleum Hydrocarbons (C9-C40)	1310		mg/kg	139	30.5	10
DRO (C10-C28)	1040		mg/kg	88.3	18.2	10
Total Saturated Hydrocarbons	87.2	J	mg/kg	4.20	2.10	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	79		50-130
d50-Tetracosane	80		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03 D
 Client ID: PDI-079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/12/19 16:39
 Analyst: WR
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	5.84	1.73	10
n-Decane (C10)	ND		mg/kg	5.84	1.86	10
n-Undecane (C11)	ND		mg/kg	5.84	1.74	10
n-Dodecane (C12)	2.96	J	mg/kg	5.84	1.27	10
n-Tridecane (C13)	42.5	G	mg/kg	5.84	1.60	10
2,6,10-Trimethyldodecane (1380)	2.67	J	mg/kg	5.84	0.878	10
n-Tetradecane (C14)	8.91		mg/kg	5.84	0.878	10
2,6,10-Trimethyltridecane (1470)	4.52	J	mg/kg	5.84	0.697	10
n-Pentadecane (C15)	ND		mg/kg	5.84	0.697	10
n-Hexadecane (C16)	4.43	J	mg/kg	5.84	0.880	10
Norpristane (1650)	4.70	J	mg/kg	5.84	1.93	10
n-Heptadecane (C17)	2.22	J	mg/kg	5.84	1.93	10
Pristane	6.47		mg/kg	5.84	1.25	10
n-Octadecane (C18)	152	G	mg/kg	5.84	1.17	10
Phytane	35.2	G	mg/kg	5.84	0.734	10
n-Nonadecane (C19)	ND		mg/kg	5.84	1.50	10
n-Eicosane (C20)	ND		mg/kg	5.84	0.826	10
n-Heneicosane (C21)	ND		mg/kg	5.84	0.699	10
n-Docosane (C22)	ND		mg/kg	5.84	0.609	10
n-Tricosane (C23)	6.62		mg/kg	5.84	0.743	10
n-Tetracosane (C24)	ND		mg/kg	5.84	0.977	10
n-Pentacosane (C25)	31.2	G	mg/kg	5.84	3.09	10
n-Hexacosane (C26)	1.22	J	mg/kg	5.84	0.858	10
n-Heptacosane (C27)	2.08	J	mg/kg	5.84	0.703	10
n-Octacosane (C28)	1.25	J	mg/kg	5.84	1.25	10
n-Nonacosane (C29)	ND		mg/kg	5.84	3.89	10
n-Triacontane (C30)	ND		mg/kg	5.84	0.670	10
n-Hentriacontane (C31)	ND		mg/kg	5.84	0.828	10

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03 D
 Client ID: PDI-079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	ND		mg/kg	5.84	0.736	10
n-Tritriacontane (C33)	1.15	J	mg/kg	5.84	0.822	10
n-Tetratriacontane (C34)	ND		mg/kg	5.84	0.929	10
n-Pentatriacontane (C35)	1.28	J	mg/kg	5.84	1.02	10
n-Hexatriacontane (C36)	ND		mg/kg	5.84	1.16	10
n-Heptatriacontane (C37)	ND		mg/kg	5.84	1.30	10
n-Octatriacontane (C38)	ND		mg/kg	5.84	1.36	10
n-Nonatriacontane (C39)	ND		mg/kg	5.84	1.90	10
n-Tetracontane (C40)	ND		mg/kg	5.84	1.90	10
Total Petroleum Hydrocarbons (C9-C44)	2820		mg/kg	193	42.4	10
Total Petroleum Hydrocarbons (C9-C40)	2980		mg/kg	193	42.4	10
DRO (C10-C28)	2590		mg/kg	123	25.3	10
Total Saturated Hydrocarbons	311	J	mg/kg	5.84	2.92	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	81		50-130
d50-Tetracosane	90		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04 D
 Client ID: PDI-071SC-B-06-08-191001
 Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/12/19 18:07
 Analyst: WR
 Percent Solids: 71%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	57.1	16.9	10
n-Decane (C10)	ND		mg/kg	57.1	18.2	10
n-Undecane (C11)	ND		mg/kg	57.1	17.0	10
n-Dodecane (C12)	299		mg/kg	57.1	12.4	10
n-Tridecane (C13)	469	G	mg/kg	57.1	15.7	10
2,6,10-Trimethyldodecane (1380)	22.3	J	mg/kg	57.1	8.59	10
n-Tetradecane (C14)	12.2	J	mg/kg	57.1	8.59	10
2,6,10-Trimethyltridecane (1470)	148		mg/kg	57.1	6.81	10
n-Pentadecane (C15)	ND		mg/kg	57.1	6.81	10
n-Hexadecane (C16)	ND		mg/kg	57.1	8.60	10
Norpristane (1650)	37.1	J	mg/kg	57.1	18.8	10
n-Heptadecane (C17)	ND		mg/kg	57.1	18.8	10
Pristane	36.0	J	mg/kg	57.1	12.2	10
n-Octadecane (C18)	2150	G	mg/kg	57.1	11.4	10
Phytane	422	G	mg/kg	57.1	7.17	10
n-Nonadecane (C19)	ND		mg/kg	57.1	14.7	10
n-Eicosane (C20)	ND		mg/kg	57.1	8.08	10
n-Heneicosane (C21)	ND		mg/kg	57.1	6.83	10
n-Docosane (C22)	ND		mg/kg	57.1	5.95	10
n-Tricosane (C23)	47.7	J	mg/kg	57.1	7.26	10
n-Tetracosane (C24)	ND		mg/kg	57.1	9.55	10
n-Pentacosane (C25)	414	G	mg/kg	57.1	30.2	10
n-Hexacosane (C26)	ND		mg/kg	57.1	8.39	10
n-Heptacosane (C27)	ND		mg/kg	57.1	6.87	10
n-Octacosane (C28)	12.7	J	mg/kg	57.1	12.2	10
n-Nonacosane (C29)	ND		mg/kg	57.1	38.0	10
n-Triacontane (C30)	19.7	J	mg/kg	57.1	6.55	10
n-Hentriacontane (C31)	ND		mg/kg	57.1	8.09	10

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04 D
 Client ID: PDI-071SC-B-06-08-191001
 Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	11.8	J	mg/kg	57.1	7.19	10
n-Tritriacontane (C33)	8.39	J	mg/kg	57.1	8.03	10
n-Tetratriacontane (C34)	ND		mg/kg	57.1	9.08	10
n-Pentatriacontane (C35)	ND		mg/kg	57.1	9.96	10
n-Hexatriacontane (C36)	ND		mg/kg	57.1	11.4	10
n-Heptatriacontane (C37)	22.6	J	mg/kg	57.1	12.7	10
n-Octatriacontane (C38)	ND		mg/kg	57.1	13.3	10
n-Nonatriacontane (C39)	ND		mg/kg	57.1	18.5	10
n-Tetracontane (C40)	ND		mg/kg	57.1	18.5	10
Total Petroleum Hydrocarbons (C9-C44)	22700		mg/kg	1880	414.	10
Total Petroleum Hydrocarbons (C9-C40)	24900		mg/kg	1880	414.	10
DRO (C10-C28)	23000		mg/kg	1200	247.	10
Total Saturated Hydrocarbons	4130	J	mg/kg	57.1	28.5	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	85		50-130
d50-Tetracosane	94		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05 D
 Client ID: PDI-066SC-B-06-08-191011
 Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/12/19 19:35
 Analyst: WR
 Percent Solids: 56%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	20.2	5.99	10
n-Decane (C10)	ND		mg/kg	20.2	6.44	10
n-Undecane (C11)	ND		mg/kg	20.2	6.03	10
n-Dodecane (C12)	79.8		mg/kg	20.2	4.40	10
n-Tridecane (C13)	226	G	mg/kg	20.2	5.54	10
2,6,10-Trimethyldodecane (1380)	8.44	J	mg/kg	20.2	3.04	10
n-Tetradecane (C14)	32.6		mg/kg	20.2	3.04	10
2,6,10-Trimethyltridecane (1470)	27.6		mg/kg	20.2	2.41	10
n-Pentadecane (C15)	ND		mg/kg	20.2	2.41	10
n-Hexadecane (C16)	ND		mg/kg	20.2	3.04	10
Norpristane (1650)	18.1	J	mg/kg	20.2	6.66	10
n-Heptadecane (C17)	ND		mg/kg	20.2	6.66	10
Pristane	18.8	J	mg/kg	20.2	4.31	10
n-Octadecane (C18)	738	G	mg/kg	20.2	4.05	10
Phytane	164	G	mg/kg	20.2	2.53	10
n-Nonadecane (C19)	ND		mg/kg	20.2	5.19	10
n-Eicosane (C20)	ND		mg/kg	20.2	2.86	10
n-Heneicosane (C21)	ND		mg/kg	20.2	2.42	10
n-Docosane (C22)	ND		mg/kg	20.2	2.10	10
n-Tricosane (C23)	16.2	J	mg/kg	20.2	2.57	10
n-Tetracosane (C24)	ND		mg/kg	20.2	3.38	10
n-Pentacosane (C25)	159	G	mg/kg	20.2	10.7	10
n-Hexacosane (C26)	ND		mg/kg	20.2	2.96	10
n-Heptacosane (C27)	4.92	J	mg/kg	20.2	2.43	10
n-Octacosane (C28)	5.51	J	mg/kg	20.2	4.33	10
n-Nonacosane (C29)	ND		mg/kg	20.2	13.4	10
n-Triacontane (C30)	6.44	J	mg/kg	20.2	2.31	10
n-Hentriacontane (C31)	8.74	J	mg/kg	20.2	2.86	10

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05 D
 Client ID: PDI-066SC-B-06-08-191011
 Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	ND		mg/kg	20.2	2.54	10
n-Tritriacontane (C33)	4.12	J	mg/kg	20.2	2.84	10
n-Tettratriacontane (C34)	ND		mg/kg	20.2	3.21	10
n-Pentatriacontane (C35)	6.70	J	mg/kg	20.2	3.52	10
n-Hexatriacontane (C36)	ND		mg/kg	20.2	4.01	10
n-Heptatriacontane (C37)	9.36	J	mg/kg	20.2	4.48	10
n-Octatriacontane (C38)	ND		mg/kg	20.2	4.70	10
n-Nonatriacontane (C39)	ND		mg/kg	20.2	6.55	10
n-Tetracontane (C40)	ND		mg/kg	20.2	6.55	10
Total Petroleum Hydrocarbons (C9-C44)	8680		mg/kg	666	146.	10
Total Petroleum Hydrocarbons (C9-C40)	9570		mg/kg	666	146.	10
DRO (C10-C28)	8650		mg/kg	424	87.4	10
Total Saturated Hydrocarbons	1530	J	mg/kg	20.2	10.1	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	87		50-130
d50-Tetracosane	91		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-06
 Client ID: PDI-059SC-B-06-08-191016
 Sample Location: SEATTLE, WA

Date Collected: 10/16/19 07:57
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/04/19 07:42
 Analyst: WR
 Percent Solids: 71%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	0.093	0.028	1
n-Decane (C10)	ND		mg/kg	0.093	0.030	1
n-Undecane (C11)	ND		mg/kg	0.093	0.028	1
n-Dodecane (C12)	ND		mg/kg	0.093	0.020	1
n-Tridecane (C13)	ND		mg/kg	0.093	0.026	1
2,6,10-Trimethyldodecane (1380)	ND		mg/kg	0.093	0.014	1
n-Tetradecane (C14)	ND		mg/kg	0.093	0.014	1
2,6,10-Trimethyltridecane (1470)	ND		mg/kg	0.093	0.011	1
n-Pentadecane (C15)	0.431	G	mg/kg	0.093	0.011	1
n-Hexadecane (C16)	0.139	G	mg/kg	0.093	0.014	1
Norpristane (1650)	ND		mg/kg	0.093	0.031	1
n-Heptadecane (C17)	ND		mg/kg	0.093	0.031	1
Pristane	ND		mg/kg	0.093	0.020	1
n-Octadecane (C18)	0.034	JC	mg/kg	0.093	0.019	1
Phytane	ND		mg/kg	0.093	0.012	1
n-Nonadecane (C19)	ND		mg/kg	0.093	0.024	1
n-Eicosane (C20)	ND		mg/kg	0.093	0.013	1
n-Heneicosane (C21)	0.012	J	mg/kg	0.093	0.011	1
n-Docosane (C22)	0.011	J	mg/kg	0.093	0.010	1
n-Tricosane (C23)	0.040	J	mg/kg	0.093	0.012	1
n-Tetracosane (C24)	ND		mg/kg	0.093	0.016	1
n-Pentacosane (C25)	0.154	C	mg/kg	0.093	0.049	1
n-Hexacosane (C26)	0.036	J	mg/kg	0.093	0.014	1
n-Heptacosane (C27)	0.500		mg/kg	0.093	0.011	1
n-Octacosane (C28)	0.055	J	mg/kg	0.093	0.020	1
n-Nonacosane (C29)	0.222		mg/kg	0.093	0.062	1
n-Triacontane (C30)	0.022	J	mg/kg	0.093	0.011	1
n-Hentriacontane (C31)	0.146		mg/kg	0.093	0.013	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-06
Client ID: PDI-059SC-B-06-08-191016
Sample Location: SEATTLE, WA

Date Collected: 10/16/19 07:57
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	0.016	J	mg/kg	0.093	0.012	1
n-Tritriacontane (C33)	0.216		mg/kg	0.093	0.013	1
n-Tetratriacontane (C34)	0.029	J	mg/kg	0.093	0.015	1
n-Pentatriacontane (C35)	0.155		mg/kg	0.093	0.016	1
n-Hexatriacontane (C36)	ND		mg/kg	0.093	0.018	1
n-Heptatriacontane (C37)	ND		mg/kg	0.093	0.021	1
n-Octatriacontane (C38)	ND		mg/kg	0.093	0.022	1
n-Nonatriacontane (C39)	ND		mg/kg	0.093	0.030	1
n-Tetracontane (C40)	ND		mg/kg	0.093	0.030	1
Total Petroleum Hydrocarbons (C9-C44)	29.9		mg/kg	3.06	0.674	1
Total Petroleum Hydrocarbons (C9-C40)	23.7		mg/kg	3.06	0.674	1
DRO (C10-C28)	9.18		mg/kg	1.95	0.402	1
Total Saturated Hydrocarbons	2.22	J	mg/kg	0.093	0.046	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	81		50-130
d50-Tetracosane	79		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07
 Client ID: PDI-049SC-B-06-08-191015
 Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/04/19 09:11
 Analyst: WR
 Percent Solids: 76%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	0.128	0.038	1
n-Decane (C10)	ND		mg/kg	0.128	0.041	1
n-Undecane (C11)	ND		mg/kg	0.128	0.038	1
n-Dodecane (C12)	ND		mg/kg	0.128	0.028	1
n-Tridecane (C13)	ND		mg/kg	0.128	0.035	1
2,6,10-Trimethyldodecane (1380)	0.064	J	mg/kg	0.128	0.019	1
n-Tetradecane (C14)	0.022	J	mg/kg	0.128	0.019	1
2,6,10-Trimethyltridecane (1470)	0.070	J	mg/kg	0.128	0.015	1
n-Pentadecane (C15)	1.02	G	mg/kg	0.128	0.015	1
n-Hexadecane (C16)	0.605	G	mg/kg	0.128	0.019	1
Norpristane (1650)	0.071	J	mg/kg	0.128	0.042	1
n-Heptadecane (C17)	ND		mg/kg	0.128	0.042	1
Pristane	0.111	J	mg/kg	0.128	0.027	1
n-Octadecane (C18)	0.270	C	mg/kg	0.128	0.026	1
Phytane	0.122	J	mg/kg	0.128	0.016	1
n-Nonadecane (C19)	0.039	J	mg/kg	0.128	0.033	1
n-Eicosane (C20)	0.036	J	mg/kg	0.128	0.018	1
n-Heneicosane (C21)	0.053	J	mg/kg	0.128	0.015	1
n-Docosane (C22)	0.019	J	mg/kg	0.128	0.013	1
n-Tricosane (C23)	0.118	J	mg/kg	0.128	0.016	1
n-Tetracosane (C24)	ND		mg/kg	0.128	0.021	1
n-Pentacosane (C25)	0.150	C	mg/kg	0.128	0.068	1
n-Hexacosane (C26)	0.032	J	mg/kg	0.128	0.019	1
n-Heptacosane (C27)	0.287		mg/kg	0.128	0.015	1
n-Octacosane (C28)	0.048	J	mg/kg	0.128	0.027	1
n-Nonacosane (C29)	0.134		mg/kg	0.128	0.085	1
n-Triacontane (C30)	0.077	J	mg/kg	0.128	0.015	1
n-Hentriacontane (C31)	0.094	J	mg/kg	0.128	0.018	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07
Client ID: PDI-049SC-B-06-08-191015
Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	0.101	J	mg/kg	0.128	0.016	1
n-Tritriacontane (C33)	0.196		mg/kg	0.128	0.018	1
n-Tetratriacontane (C34)	0.125	J	mg/kg	0.128	0.020	1
n-Pentatriacontane (C35)	0.066	J	mg/kg	0.128	0.022	1
n-Hexatriacontane (C36)	ND		mg/kg	0.128	0.025	1
n-Heptatriacontane (C37)	0.057	J	mg/kg	0.128	0.028	1
n-Octatriacontane (C38)	ND		mg/kg	0.128	0.030	1
n-Nonatriacontane (C39)	ND		mg/kg	0.128	0.041	1
n-Tetracontane (C40)	ND		mg/kg	0.128	0.041	1
Total Petroleum Hydrocarbons (C9-C44)	108		mg/kg	4.21	0.926	1
Total Petroleum Hydrocarbons (C9-C40)	93.5		mg/kg	4.21	0.926	1
DRO (C10-C28)	58.0		mg/kg	2.68	0.552	1
Total Saturated Hydrocarbons	3.99	J	mg/kg	0.128	0.064	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	85		50-130
d50-Tetracosane	88		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08
 Client ID: PDI-1079SC-B-06-08-191014
 Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
 Date Received: 11/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Sediment
 Analytical Method: 1,8015D(M)
 Analytical Date: 12/04/19 15:46
 Analyst: WR
 Percent Solids: 62%

Extraction Method: ALPHA OP-013
 Extraction Date: 11/22/19 12:48
 Cleanup Method: EPA 3611B
 Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	0.596	0.177	1
n-Decane (C10)	ND		mg/kg	0.596	0.190	1
n-Undecane (C11)	0.363	J	mg/kg	0.596	0.178	1
n-Dodecane (C12)	0.142	J	mg/kg	0.596	0.130	1
n-Tridecane (C13)	1.40		mg/kg	0.596	0.164	1
2,6,10-Trimethyldodecane (1380)	2.37		mg/kg	0.596	0.090	1
n-Tetradecane (C14)	1.10		mg/kg	0.596	0.090	1
2,6,10-Trimethyltridecane (1470)	1.99		mg/kg	0.596	0.071	1
n-Pentadecane (C15)	24.2	G	mg/kg	0.596	0.071	1
n-Hexadecane (C16)	13.6	G	mg/kg	0.596	0.090	1
Norpristane (1650)	2.51		mg/kg	0.596	0.197	1
n-Heptadecane (C17)	0.198	J	mg/kg	0.596	0.197	1
Pristane	4.80		mg/kg	0.596	0.127	1
n-Octadecane (C18)	0.538	J	mg/kg	0.596	0.120	1
Phytane	2.47		mg/kg	0.596	0.075	1
n-Nonadecane (C19)	1.89		mg/kg	0.596	0.153	1
n-Eicosane (C20)	1.84		mg/kg	0.596	0.084	1
n-Heneicosane (C21)	1.51		mg/kg	0.596	0.071	1
n-Docosane (C22)	1.20		mg/kg	0.596	0.062	1
n-Tricosane (C23)	4.29		mg/kg	0.596	0.076	1
n-Tetracosane (C24)	0.710		mg/kg	0.596	0.100	1
n-Pentacosane (C25)	1.20		mg/kg	0.596	0.316	1
n-Hexacosane (C26)	0.617		mg/kg	0.596	0.088	1
n-Heptacosane (C27)	2.41		mg/kg	0.596	0.072	1
n-Octacosane (C28)	1.11		mg/kg	0.596	0.128	1
n-Nonacosane (C29)	1.57		mg/kg	0.596	0.397	1
n-Triacontane (C30)	1.39		mg/kg	0.596	0.068	1
n-Hentriacontane (C31)	0.595	J	mg/kg	0.596	0.085	1

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08
Client ID: PDI-1079SC-B-06-08-191014
Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	2.26		mg/kg	0.596	0.075	1
n-Tritriacontane (C33)	3.40		mg/kg	0.596	0.084	1
n-Tetracontane (C34)	1.42		mg/kg	0.596	0.095	1
n-Pentatriacontane (C35)	2.25		mg/kg	0.596	0.104	1
n-Hexatriacontane (C36)	ND		mg/kg	0.596	0.118	1
n-Heptatriacontane (C37)	1.09		mg/kg	0.596	0.132	1
n-Octatriacontane (C38)	ND		mg/kg	0.596	0.139	1
n-Nonatriacontane (C39)	ND		mg/kg	0.596	0.194	1
n-Tetracontane (C40)	ND		mg/kg	0.596	0.194	1
Total Petroleum Hydrocarbons (C9-C44)	2340		mg/kg	19.7	4.33	1
Total Petroleum Hydrocarbons (C9-C40)	2290		mg/kg	19.7	4.33	1
DRO (C10-C28)	1720		mg/kg	12.5	2.58	1
Total Saturated Hydrocarbons	86.4	J	mg/kg	0.596	0.298	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	78		50-130
d50-Tetracosane	82		50-130

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 12/02/19 20:19
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 11/22/19 12:48
Cleanup Method: EPA 3611B
Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 01-08 Batch: WG1312512-1					
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)	0.027	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)	0.035	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: L1954309
Report Date: 12/13/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8015D(M)
Analytical Date: 12/02/19 20:19
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 11/22/19 12:48
Cleanup Method: EPA 3611B
Cleanup Date: 11/26/19

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 01-08 Batch: WG1312512-1					
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)	0.015	J	mg/kg	0.067	0.015
n-Octatriacontane (C38)	ND		mg/kg	0.067	0.016
n-Nonatriacontane (C39)	0.060	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)	ND		mg/kg	2.20	0.484
DRO (C10-C28)	0.417	J	mg/kg	1.40	0.288
Total Saturated Hydrocarbons	0.138	J	mg/kg	0.067	0.033

Surrogate	%Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	90		50-130
d50-Tetracosane	95		50-130

Lab Control Sample Analysis Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01-08 Batch: WG1312512-2 WG1312512-3								
Nonane (C9)	69		61		50-130	12		30
n-Decane (C10)	83		72		50-130	14		30
n-Dodecane (C12)	89		77		50-130	14		30
n-Tetradecane (C14)	89		80		50-130	11		30
n-Hexadecane (C16)	99		93		50-130	6		30
n-Octadecane (C18)	99		95		50-130	4		30
n-Nonadecane (C19)	98		95		50-130	3		30
n-Eicosane (C20)	99		96		50-130	3		30
n-Docosane (C22)	99		96		50-130	3		30
n-Tetracosane (C24)	102		100		50-130	2		30
n-Hexacosane (C26)	100		97		50-130	3		30
n-Octacosane (C28)	100		98		50-130	2		30
n-Triacontane (C30)	100		95		50-130	5		30
n-Hexatriacontane (C36)	88		85		50-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
ortho-terphenyl	98		93		50-130
d50-Tetracosane	102		97		50-130



INORGANICS & MISCELLANEOUS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-01
Client ID: PDI-090SC-B-06-08-191012
Sample Location: SEATTLE, WA

Date Collected: 10/12/19 14:22
Date Received: 11/14/19
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	26700		mg/kg	1410	1410	4	12/11/19 22:10	12/12/19 00:46	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	56.8		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-02
Client ID: PDI-084SC-B-06-08-191002
Sample Location: SEATTLE, WA

Date Collected: 10/02/19 11:39
Date Received: 11/14/19
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	14000		mg/kg	1300	1300	4	12/11/19 22:10	12/12/19 00:46	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	61.7		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-03
Client ID: PDI-079SC-B-06-08-191014
Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
Date Received: 11/14/19
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	15600		mg/kg	1300	1300	4	12/11/19 22:10	12/12/19 00:47	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	61.6		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-04
Client ID: PDI-071SC-B-06-08-191001
Sample Location: SEATTLE, WA

Date Collected: 10/01/19 14:00
Date Received: 11/14/19
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	18400		mg/kg	1120	1120	4	12/11/19 22:10	12/12/19 00:47	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	71.2		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-05
Client ID: PDI-066SC-B-06-08-191011
Sample Location: SEATTLE, WA

Date Collected: 10/11/19 08:40
Date Received: 11/14/19
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	23100		mg/kg	1420	1420	4	12/11/19 22:10	12/12/19 00:47	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	56.4		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-06
Client ID: PDI-059SC-B-06-08-191016
Sample Location: SEATTLE, WA

Date Collected: 10/16/19 07:57
Date Received: 11/14/19
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	5890		mg/kg	1120	1120	4	12/11/19 22:10	12/12/19 00:47	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	71.1		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-07
Client ID: PDI-049SC-B-06-08-191015
Sample Location: SEATTLE, WA

Date Collected: 10/15/19 13:32
Date Received: 11/14/19
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	2730		mg/kg	1060	1060	4	12/11/19 22:10	12/12/19 00:47	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	75.5		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

SAMPLE RESULTS

Lab ID: L1954309-08
Client ID: PDI-1079SC-B-06-08-191014
Sample Location: SEATTLE, WA

Date Collected: 10/14/19 13:15
Date Received: 11/14/19
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	16800		mg/kg	1290	1290	4	12/11/19 22:10	12/12/19 00:47	121,5220D(M)	TL
General Chemistry - Mansfield Lab										
Solids, Total	61.8		%	0.100	0.100	1	-	11/22/19 14:45	121,2540G	CZ



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

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): 01-08 Batch: WG1319633-1									
Chemical Oxygen Demand	ND	mg/kg	200	200.	1	12/11/19 22:10	12/12/19 00:49	121,5220D(M)	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1319633-2								
Chemical Oxygen Demand	107		-		85-115	-		

Matrix Spike Analysis Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

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): 01-08 QC Batch ID: WG1319633-3 QC Sample: L1954309-04 Client ID: PDI-071SC-B-06-08-191001												
Chemical Oxygen Demand	18400	3500	17400	0	Q	-	-		75-125	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1312615-1 QC Sample: L1955818-02 Client ID: DUP Sample						
Solids, Total	46.5	46.0	%	1		10
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1319633-4 QC Sample: L1954309-04 Client ID: PDI-071SC-B-06-08-191001						
Chemical Oxygen Demand	18400	17600	mg/kg	4		20



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

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(*)
L1954309-01A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-01B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-02A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-02B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-03A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-03B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-04A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-04B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-05A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-05B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-06A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-06B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-07A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-07B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)
L1954309-08A	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		A2-SHC(14),A2-TS(7),A2-ALKPAH/BIOMARKER(14)
L1954309-08B	Glass 120ml/4oz unpreserved	A	NA		.5	Y	Absent		COD-5220(28)

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

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
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

- 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.

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 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.)

Report Format: DU Report with 'J' Qualifiers



Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1954309
Report Date: 12/13/19

Data Qualifiers

- 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: L1954309
Report Date: 12/13/19

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

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.

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, SM4500Cl-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

PAGE 1 OF 1



Project Information

Project Name: Gasco PDI

Project Location:

Project #: 000029-02.59

Project Manager: Delaney Peterson

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

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

Client Information

Client: Anchor QEA

Address: 6720 SW Macadam Ave.

Portland, Oregon 97219

Phone: 360-715-2707

Fax: Standard Rush (ONLY IF PRE-APPROVED)

Email: dpeterson@anchorqea.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Samples frozen to extend hold time for PAHs. Hold samples frozen until extraction

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

Date Rec'd in Lab: 11/14/19

ALPHA Job #: L1951309

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																
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SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 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		
-01	PDI-090SC-B-06-08-191012	10/12/19	14:22	SE	SN
-02	PDI-084SC-B-06-08-191002	10/2/19	11:39	SE	SN
-03	PDI-079SC-B-06-08-191014	10/14/19	13:15	SE	SN
-04	PDI-071SC-B-06-08-191001	10/01/19	14:00	SE	SN
-05	PDI-066SC-B-06-08-191011	10/11/19	8:40	SE	SN
-06	PDI-059SC-B-06-08-191016	10/16/19	7:57	SE	SN
-07	PDI-049SC-B-06-08-191015	10/15/19	13:32	SE	SN

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By: <i>Sasha Norwood</i> @ UPS FedEx	Date/Time 11/13/19 @ 13:00 11/14/19 09:28	Received By: <i>[Signature]</i> @ UPS FedEx	Date/Time 11/14/19 09:28
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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. 101-09(1-NU)
(rev. 9-10-12)

Alpha Summary Forms

Organic Summary Forms

Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-01D
 Client ID : PDI-090SC-B-06-08-191012
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051914
 Sample Amount : 15.15 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/12/19 14:22
 Date Received : 11/14/19
 Date Analyzed : 12/06/19 02:00
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 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	318.	19.9	10.0	
DECALINSC1	C1-Decalins	814.	39.8	10.0	
DECALINSC2	C2-Decalins	1120	39.8	10.0	
DECALINSC3	C3-Decalins	861.	39.8	10.0	
DECALINSC4	C4-Decalins	935.	39.8	10.0	
91-20-3	Naphthalene	9040	39.8	11.4	
91-20-3C1	C1-Naphthalenes	37300	39.8	11.4	
91-20-3C2	C2-Naphthalenes	21300	39.8	11.4	
91-20-3C3	C3-Naphthalenes	10200	39.8	11.4	
91-20-3C4	C4-Naphthalenes	3940	39.8	11.4	
91-57-6	2-Methylnaphthalene	37100	39.8	10.3	
90-12-0	1-Methylnaphthalene	20200	39.8	12.6	
95-15-8	Benzothiophene	959.	39.8	12.5	
95-15-8C1	C1-Benzo(b)thiophenes	2950	39.8	12.5	
95-15-8C2	C2-Benzo(b)thiophenes	3130	39.8	12.5	
95-15-8C3	C3-Benzo(b)thiophenes	2220	39.8	12.5	
95-15-8C4	C4-Benzo(b)thiophenes	1220	39.8	12.5	
92-52-4	Biphenyl	933.	39.8	12.3	
581-42-0	2,6-Dimethylnaphthalene	9930	39.8	9.47	
132-64-9	Dibenzofuran	2490	39.8	12.5	
208-96-8	Acenaphthylene	1610	39.8	7.60	
83-32-9	Acenaphthene	30000	39.8	7.02	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-01D
 Client ID : PDI-090SC-B-06-08-191012
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051914
 Sample Amount : 15.15 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/12/19 14:22
 Date Received : 11/14/19
 Date Analyzed : 12/06/19 02:00
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 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	1450	39.8	6.52	
86-73-7	Fluorene	17600	39.8	10.6	
86-73-7C1	C1-Fluorenes	4060	39.8	10.6	
86-73-7C2	C2-Fluorenes	2750	39.8	10.6	
86-73-7C3	C3-Fluorenes	2070	39.8	10.6	
132-65-0	Dibenzothiophene	12000	39.8	11.0	
7372-88-5	4-Methyldibenzothiophene(4MDT)	1120	39.8	11.0	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	1330	39.8	11.0	
31317-07-4	1-Methyldibenzothiophene(1MDT)	376.	39.8	11.0	
132-65-0C1	C1-Dibenzothiophenes BS	3450	39.8	11.0	
132-65-0C2	C2-Dibenzothiophenes	2510	39.8	11.0	
132-65-0C3	C3-Dibenzothiophenes	1440	39.8	11.0	
132-65-0C4	C4-Dibenzothiophenes	606.	39.8	11.0	
85-01-8	Phenanthrene	108000	39.8	13.2	E
832-71-3	3-Methylphenanthrene (3MP)	4480	39.8	13.2	
2531-84-2	2-Methylphenanthrene (2MP)	5560	39.8	13.2	
613-12-7	2-Methylanthracene (2MA)	1430	39.8	13.2	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	3260	39.8	13.2	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	17400	39.8	13.2	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	7460	39.8	13.2	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	3050	39.8	13.2	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	1870	39.8	13.2	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-01D
 Client ID : PDI-090SC-B-06-08-191012
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051914
 Sample Amount : 15.15 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/12/19 14:22
 Date Received : 11/14/19
 Date Analyzed : 12/06/19 02:00
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	2880	39.8	9.77	
120-12-7	Anthracene	17200	39.8	8.21	
86-74-8	Carbazole	2440	39.8	13.0	
832-69-9	1-Methylphenanthrene	3470	39.8	10.5	
206-44-0	Fluoranthene	50400	39.8	12.6	
243-17-4	Benzo(b)fluorene	2650	39.8	11.5	
205-12-9	7H-Benzo(c)fluorene	1200	39.8	11.5	
3442-78-2	2-Methylpyrene	1650	39.8	10.5	
3353-12-6	4-Methylpyrene	1400	39.8	10.5	
2381-21-7	1-Methylpyrene	1600	39.8	10.5	
129-00-0	Pyrene	62100	39.8	10.5	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	12600	39.8	10.5	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	3450	39.8	10.5	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	1480	39.8	10.5	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	864.	39.8	10.5	
61523-34-0	Naphthobenzothiophenes	4190	39.8	11.1	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	1350	39.8	11.1	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	858.	39.8	11.1	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	698.	39.8	11.1	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	237.	39.8	11.1	
56-55-3	Benz(a)anthracene	16100	39.8	8.12	
218-01-9	Chrysene	19000	39.8	8.05	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-01D
 Client ID : PDI-090SC-B-06-08-191012
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051914
 Sample Amount : 15.15 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/12/19 14:22
 Date Received : 11/14/19
 Date Analyzed : 12/06/19 02:00
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 57
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	5410	39.8	8.05	
218-01-9C2	C2-Chrysenes BS	2550	39.8	8.05	
218-01-9C3	C3-Chrysenes	1400	39.8	8.05	
218-01-9C4	C4-Chrysenes	734.	39.8	8.05	
205-99-2	Benzo(b)fluoranthene	12700	39.8	10.4	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	11300	39.8	7.91	
203-33-8	Benzo(a)fluoranthene	3110	39.8	7.91	
192-97-2	Benzo(e)pyrene	12300	39.8	8.22	
50-32-8	Benzo(a)pyrene	21400	39.8	11.4	
198-55-0	Perylene	5720	39.8	7.69	
193-39-5	Indeno(1,2,3-cd)pyrene	15000	39.8	10.8	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	2590	39.8	10.8	
191-24-2	Benzo(g,h,i)perylene	18800	39.8	10.6	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC Project Name : GASCO PDI Lab ID : L1954309-01D2 Client ID : PDI-090SC-B-06-08-191012 Sample Location : SEATTLE, WA Sample Matrix : Sediment Analytical Method : 1,8270D-SIM(M) Lab File ID : F212051915 Sample Amount : 15.15 g Extraction Method : ALPHA OP-013 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L1954309 Project Number : 000029-02.59 Date Collected : 10/12/19 14:22 Date Received : 11/14/19 Date Analyzed : 12/06/19 03:27 Date Extracted : 11/22/19 Dilution Factor : 40 Analyst : MJS Instrument ID : PAH2 GC Column : ZB-5 %Solids : 57 Injection Volume : 1 uL
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CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
85-01-8	Phenanthrene	129000	398	132.	
129-00-0	Pyrene	74400	398	105.	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-02
 Client ID : PDI-084SC-B-06-08-191002
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011928
 Sample Amount : 15.42 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/02/19 11:39
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 02:30
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	179.	3.15	1.58	
DECALINSC1	C1-Decalins	438.	6.31	1.58	
DECALINSC2	C2-Decalins	755.	6.31	1.58	
DECALINSC3	C3-Decalins	589.	6.31	1.58	
DECALINSC4	C4-Decalins	611.	6.31	1.58	
91-20-3	Naphthalene	2340	6.31	1.81	
91-20-3C1	C1-Naphthalenes	2250	6.31	1.81	
91-20-3C2	C2-Naphthalenes	5290	6.31	1.81	
91-20-3C3	C3-Naphthalenes	4670	6.31	1.81	
91-20-3C4	C4-Naphthalenes	2440	6.31	1.81	
91-57-6	2-Methylnaphthalene	1600	6.31	1.63	
90-12-0	1-Methylnaphthalene	1880	6.31	1.99	
95-15-8	Benzothiophene	210.	6.31	1.98	
95-15-8C1	C1-Benzo(b)thiophenes	283.	6.31	1.98	
95-15-8C2	C2-Benzo(b)thiophenes	754.	6.31	1.98	
95-15-8C3	C3-Benzo(b)thiophenes	842.	6.31	1.98	
95-15-8C4	C4-Benzo(b)thiophenes	588.	6.31	1.98	
92-52-4	Biphenyl	280.	6.31	1.95	
581-42-0	2,6-Dimethylnaphthalene	2300	6.31	1.50	
132-64-9	Dibenzofuran	505.	6.31	1.99	
208-96-8	Acenaphthylene	531.	6.31	1.20	
83-32-9	Acenaphthene	5520	6.31	1.11	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-02
 Client ID : PDI-084SC-B-06-08-191002
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011928
 Sample Amount : 15.42 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/02/19 11:39
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 02:30
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	640.	6.31	1.03	
86-73-7	Fluorene	3490	6.31	1.68	
86-73-7C1	C1-Fluorenes	1730	6.31	1.68	
86-73-7C2	C2-Fluorenes	1870	6.31	1.68	
86-73-7C3	C3-Fluorenes	1370	6.31	1.68	
132-65-0	Dibenzothiophene	3180	6.31	1.74	
7372-88-5	4-Methyldibenzothiophene(4MDT)	636.	6.31	1.74	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	761.	6.31	1.74	
31317-07-4	1-Methyldibenzothiophene(1MDT)	204.	6.31	1.74	
132-65-0C1	C1-Dibenzothiophenes BS	1900	6.31	1.74	
132-65-0C2	C2-Dibenzothiophenes	1700	6.31	1.74	
132-65-0C3	C3-Dibenzothiophenes	1090	6.31	1.74	
132-65-0C4	C4-Dibenzothiophenes	482.	6.31	1.74	
85-01-8	Phenanthrene	27200	6.31	2.09	E
832-71-3	3-Methylphenanthrene (3MP)	2300	6.31	2.09	
2531-84-2	2-Methylphenanthrene (2MP)	2790	6.31	2.09	
613-12-7	2-Methylanthracene (2MA)	870.	6.31	2.09	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	1850	6.31	2.09	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	9270	6.31	2.09	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	5680	6.31	2.09	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	3770	6.31	2.09	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	5520	6.31	2.09	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-02
 Client ID : PDI-084SC-B-06-08-191002
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011928
 Sample Amount : 15.42 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/02/19 11:39
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 02:30
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	13700	6.31	1.55	E
120-12-7	Anthracene	5550	6.31	1.30	
86-74-8	Carbazole	199.	6.31	2.06	
832-69-9	1-Methylphenanthrene	1770	6.31	1.66	
206-44-0	Fluoranthene	15000	6.31	2.00	E
243-17-4	Benzo(b)fluorene	1150	6.31	1.83	
205-12-9	7H-Benzo(c)fluorene	422.	6.31	1.83	
3442-78-2	2-Methylpyrene	824.	6.31	1.66	
3353-12-6	4-Methylpyrene	742.	6.31	1.66	
2381-21-7	1-Methylpyrene	696.	6.31	1.66	
129-00-0	Pyrene	18300	6.31	1.66	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	5720	6.31	1.66	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	2110	6.31	1.66	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	1090	6.31	1.66	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	612.	6.31	1.66	
61523-34-0	Naphthobenzothiophenes	1640	6.31	1.76	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	749.	6.31	1.76	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	536.	6.31	1.76	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	340.	6.31	1.76	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	140.	6.31	1.76	
56-55-3	Benz(a)anthracene	5310	6.31	1.28	
218-01-9	Chrysene	6270	6.31	1.27	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-02
 Client ID : PDI-084SC-B-06-08-191002
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011928
 Sample Amount : 15.42 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/02/19 11:39
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 02:30
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	2490	6.31	1.27	
218-01-9C2	C2-Chrysenes BS	1480	6.31	1.27	
218-01-9C3	C3-Chrysenes	849.	6.31	1.27	
218-01-9C4	C4-Chrysenes	371.	6.31	1.27	
205-99-2	Benzo(b)fluoranthene	4040	6.31	1.64	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	2760	6.31	1.25	
203-33-8	Benzo(a)fluoranthene	981.	6.31	1.25	
192-97-2	Benzo(e)pyrene	3340	6.31	1.30	
50-32-8	Benzo(a)pyrene	5980	6.31	1.80	
198-55-0	Perylene	1480	6.31	1.22	
193-39-5	Indeno(1,2,3-cd)pyrene	3780	6.31	1.71	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	784.	6.31	1.70	
191-24-2	Benzo(g,h,i)perylene	4520	6.31	1.68	



Results Summary
Form 1
PAHs/Biomarkers

Client : Anchor QEA, LLC Project Name : GASCO PDI Lab ID : L1954309-02D Client ID : PDI-084SC-B-06-08-191002 Sample Location : SEATTLE, WA Sample Matrix : Sediment Analytical Method : 1,8270D-SIM(M) Lab File ID : F212051913 Sample Amount : 15.42 g Extraction Method : ALPHA OP-013 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L1954309 Project Number : 000029-02.59 Date Collected : 10/02/19 11:39 Date Received : 11/14/19 Date Analyzed : 12/06/19 00:34 Date Extracted : 11/22/19 Dilution Factor : 10 Analyst : MJS Instrument ID : PAH2 GC Column : ZB-5 %Solids : 62 Injection Volume : 1 uL
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CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
85-01-8	Phenanthrene	31900	63.1	20.9	
483-65-8	Retene	13100	63.1	15.5	
206-44-0	Fluoranthene	15200	63.1	20.0	
129-00-0	Pyrene	18400	63.1	16.6	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-03D
 Client ID : PDI-079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051911
 Sample Amount : 15.88 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 21:39
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	174.	17.5	8.80	
DECALINSC1	C1-Decalins	553.	35.0	8.80	
DECALINSC2	C2-Decalins	1090	35.0	8.80	
DECALINSC3	C3-Decalins	846.	35.0	8.80	
DECALINSC4	C4-Decalins	876.	35.0	8.80	
91-20-3	Naphthalene	31100	35.0	10.1	
91-20-3C1	C1-Naphthalenes	49200	35.0	10.1	E
91-20-3C2	C2-Naphthalenes	42600	35.0	10.1	
91-20-3C3	C3-Naphthalenes	24800	35.0	10.1	
91-20-3C4	C4-Naphthalenes	9620	35.0	10.1	
91-57-6	2-Methylnaphthalene	47400	35.0	9.04	E
90-12-0	1-Methylnaphthalene	28300	35.0	11.0	
95-15-8	Benzothiophene	2350	35.0	11.0	
95-15-8C1	C1-Benzo(b)thiophenes	4920	35.0	11.0	
95-15-8C2	C2-Benzo(b)thiophenes	6180	35.0	11.0	
95-15-8C3	C3-Benzo(b)thiophenes	4290	35.0	11.0	
95-15-8C4	C4-Benzo(b)thiophenes	2250	35.0	11.0	
92-52-4	Biphenyl	4670	35.0	10.8	
581-42-0	2,6-Dimethylnaphthalene	21100	35.0	8.33	
132-64-9	Dibenzofuran	2730	35.0	11.0	
208-96-8	Acenaphthylene	2160	35.0	6.69	
83-32-9	Acenaphthene	34600	35.0	6.18	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-03D
 Client ID : PDI-079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051911
 Sample Amount : 15.88 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 21:39
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	3510	35.0	5.73	
86-73-7	Fluorene	18500	35.0	9.35	
86-73-7C1	C1-Fluorenes	9920	35.0	9.35	
86-73-7C2	C2-Fluorenes	9840	35.0	9.35	
86-73-7C3	C3-Fluorenes	6880	35.0	9.35	
132-65-0	Dibenzothiophene	15900	35.0	9.66	
7372-88-5	4-Methyldibenzothiophene(4MDT)	3680	35.0	9.66	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	4380	35.0	9.66	
31317-07-4	1-Methyldibenzothiophene(1MDT)	1130	35.0	9.66	
132-65-0C1	C1-Dibenzothiophenes BS	11000	35.0	9.66	
132-65-0C2	C2-Dibenzothiophenes	9880	35.0	9.66	
132-65-0C3	C3-Dibenzothiophenes	5540	35.0	9.66	
132-65-0C4	C4-Dibenzothiophenes	2150	35.0	9.66	
85-01-8	Phenanthrene	129000	35.0	11.6	E
832-71-3	3-Methylphenanthrene (3MP)	16100	35.0	11.6	
2531-84-2	2-Methylphenanthrene (2MP)	20400	35.0	11.6	
613-12-7	2-Methylanthracene (2MA)	4560	35.0	11.6	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	9510	35.0	11.6	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	57700	35.0	11.6	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	35800	35.0	11.6	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	14600	35.0	11.6	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	4710	35.0	11.6	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-03D
 Client ID : PDI-079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051911
 Sample Amount : 15.88 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 21:39
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	ND	35.0	8.60	U
120-12-7	Anthracene	23900	35.0	7.22	
86-74-8	Carbazole	7290	35.0	11.5	
832-69-9	1-Methylphenanthrene	9450	35.0	9.26	
206-44-0	Fluoranthene	49800	35.0	11.1	E
243-17-4	Benzo(b)fluorene	4290	35.0	10.2	
205-12-9	7H-Benzo(c)fluorene	1350	35.0	10.2	
3442-78-2	2-Methylpyrene	4400	35.0	9.22	
3353-12-6	4-Methylpyrene	3620	35.0	9.22	
2381-21-7	1-Methylpyrene	3580	35.0	9.22	
129-00-0	Pyrene	65700	35.0	9.22	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	25800	35.0	9.22	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	12000	35.0	9.22	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	6380	35.0	9.22	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	3140	35.0	9.22	
61523-34-0	Naphthobenzothiophenes	6170	35.0	9.81	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	3620	35.0	9.81	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	2770	35.0	9.81	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	1770	35.0	9.81	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	698.	35.0	9.81	
56-55-3	Benz(a)anthracene	18500	35.0	7.14	
218-01-9	Chrysene	21800	35.0	7.08	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-03D	Date Collected : 10/14/19 13:15
Client ID : PDI-079SC-B-06-08-191014	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/05/19 21:39
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 4
Lab File ID : F212051911	Analyst : MJS
Sample Amount : 15.88 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 62
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	12500	35.0	7.08	
218-01-9C2	C2-Chrysenes BS	8440	35.0	7.08	
218-01-9C3	C3-Chrysenes	4620	35.0	7.08	
218-01-9C4	C4-Chrysenes	1870	35.0	7.08	
205-99-2	Benzo(b)fluoranthene	11000	35.0	9.12	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	11000	35.0	6.96	
203-33-8	Benzo(a)fluoranthene	3110	35.0	6.96	
192-97-2	Benzo(e)pyrene	11500	35.0	7.23	
50-32-8	Benzo(a)pyrene	20200	35.0	10.0	
198-55-0	Perylene	5120	35.0	6.76	
193-39-5	Indeno(1,2,3-cd)pyrene	13200	35.0	9.51	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	2540	35.0	9.47	
191-24-2	Benzo(g,h,i)perylene	16200	35.0	9.31	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-03D2	Date Collected : 10/14/19 13:15
Client ID : PDI-079SC-B-06-08-191014	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/06/19 11:03
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 40
Lab File ID : F212051919	Analyst : MJS
Sample Amount : 15.88 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 62
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
91-20-3C1	C1-Naphthalenes	49100	350	101.	
91-57-6	2-Methylnaphthalene	46500	350	90.4	
85-01-8	Phenanthrene	153000	350	116.	
206-44-0	Fluoranthene	57300	350	111.	
129-00-0	Pyrene	73300	350	92.2	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-04D
 Client ID : PDI-071SC-B-06-08-191001
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051909
 Sample Amount : 2.46 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/01/19 14:00
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 18:44
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 71
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	1020	171	86.0	
DECALINSC1	C1-Decalins	4250	342	86.0	
DECALINSC2	C2-Decalins	8550	342	86.0	
DECALINSC3	C3-Decalins	7030	342	86.0	
DECALINSC4	C4-Decalins	6250	342	86.0	
91-20-3	Naphthalene	2960000	342	98.4	E
91-20-3C1	C1-Naphthalenes	470000	342	98.4	
91-20-3C2	C2-Naphthalenes	201000	342	98.4	
91-20-3C3	C3-Naphthalenes	79400	342	98.4	
91-20-3C4	C4-Naphthalenes	28900	342	98.4	
91-57-6	2-Methylnaphthalene	450000	342	88.3	
90-12-0	1-Methylnaphthalene	273000	342	108.	
95-15-8	Benzothiophene	148000	342	107.	
95-15-8C1	C1-Benzo(b)thiophenes	42900	342	107.	
95-15-8C2	C2-Benzo(b)thiophenes	34100	342	107.	
95-15-8C3	C3-Benzo(b)thiophenes	19300	342	107.	
95-15-8C4	C4-Benzo(b)thiophenes	9370	342	107.	
92-52-4	Biphenyl	155000	342	106.	
581-42-0	2,6-Dimethylnaphthalene	93000	342	81.4	
132-64-9	Dibenzofuran	39600	342	108.	
208-96-8	Acenaphthylene	129000	342	65.4	
83-32-9	Acenaphthene	490000	342	60.4	E



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-04D
 Client ID : PDI-071SC-B-06-08-191001
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051909
 Sample Amount : 2.46 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/01/19 14:00
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 18:44
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 71
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	12400	342	56.0	
86-73-7	Fluorene	264000	342	91.4	
86-73-7C1	C1-Fluorenes	48600	342	91.4	
86-73-7C2	C2-Fluorenes	29200	342	91.4	
86-73-7C3	C3-Fluorenes	19100	342	91.4	
132-65-0	Dibenzothiophene	225000	342	94.4	
7372-88-5	4-Methyldibenzothiophene(4MDT)	14200	342	94.4	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	16800	342	94.4	
31317-07-4	1-Methyldibenzothiophene(1MDT)	4860	342	94.4	
132-65-0C1	C1-Dibenzothiophenes BS	44200	342	94.4	
132-65-0C2	C2-Dibenzothiophenes	26500	342	94.4	
132-65-0C3	C3-Dibenzothiophenes	13800	342	94.4	
132-65-0C4	C4-Dibenzothiophenes	5430	342	94.4	
85-01-8	Phenanthrene	1760000	342	114.	E
832-71-3	3-Methylphenanthrene (3MP)	55000	342	114.	
2531-84-2	2-Methylphenanthrene (2MP)	68000	342	114.	
613-12-7	2-Methylanthracene (2MA)	20800	342	114.	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	40000	342	114.	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	216000	342	114.	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	77200	342	114.	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	27200	342	114.	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	8400	342	114.	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-04D
 Client ID : PDI-071SC-B-06-08-191001
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051909
 Sample Amount : 2.46 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/01/19 14:00
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 18:44
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 71
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	ND	342	84.0	U
120-12-7	Anthracene	280000	342	70.6	
86-74-8	Carbazole	64800	342	112.	
832-69-9	1-Methylphenanthrene	43600	342	90.4	
206-44-0	Fluoranthene	875000	342	109.	E
243-17-4	Benzo(b)fluorene	44600	342	99.2	
205-12-9	7H-Benzo(c)fluorene	11200	342	99.2	
3442-78-2	2-Methylpyrene	23300	342	90.1	
3353-12-6	4-Methylpyrene	20300	342	90.1	
2381-21-7	1-Methylpyrene	24300	342	90.1	
129-00-0	Pyrene	1010000	342	90.1	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	186000	342	90.1	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	48300	342	90.1	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	20000	342	90.1	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	10500	342	90.1	
61523-34-0	Naphthobenzothiophenes	78800	342	95.8	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	20600	342	95.8	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	10800	342	95.8	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	8710	342	95.8	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	2620	342	95.8	
56-55-3	Benz(a)anthracene	252000	342	69.8	
218-01-9	Chrysene	303000	342	69.2	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-04D
 Client ID : PDI-071SC-B-06-08-191001
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051909
 Sample Amount : 2.46 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/01/19 14:00
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 18:44
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 71
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	71400	342	69.2	
218-01-9C2	C2-Chrysenes BS	30700	342	69.2	
218-01-9C3	C3-Chrysenes	15700	342	69.2	
218-01-9C4	C4-Chrysenes	9220	342	69.2	
205-99-2	Benzo(b)fluoranthene	207000	342	89.1	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	167000	342	68.0	
203-33-8	Benzo(a)fluoranthene	45000	342	68.0	
192-97-2	Benzo(e)pyrene	188000	342	70.7	
50-32-8	Benzo(a)pyrene	329000	342	97.8	
198-55-0	Perylene	87500	342	66.1	
193-39-5	Indeno(1,2,3-cd)pyrene	224000	342	93.0	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	39400	342	92.5	
191-24-2	Benzo(g,h,i)perylene	269000	342	91.0	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-04D2	Date Collected : 10/01/19 14:00
Client ID : PDI-071SC-B-06-08-191001	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/05/19 20:12
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 40
Lab File ID : F212051910	Analyst : MJS
Sample Amount : 2.46 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 71
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
91-20-3	Naphthalene	3540000	3420	984.	
83-32-9	Acenaphthene	556000	3420	604.	
85-01-8	Phenanthrene	2080000	3420	1140	
206-44-0	Fluoranthene	979000	3420	1090	
129-00-0	Pyrene	1140000	3420	901.	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-05D
 Client ID : PDI-066SC-B-06-08-191011
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051907
 Sample Amount : 5.02 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/11/19 08:40
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 15:50
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 56
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	760.	60.5	30.4	
DECALINSC1	C1-Decalins	2310	121	30.4	
DECALINSC2	C2-Decalins	4210	121	30.4	
DECALINSC3	C3-Decalins	3770	121	30.4	
DECALINSC4	C4-Decalins	3800	121	30.4	
91-20-3	Naphthalene	890000	121	34.8	E
91-20-3C1	C1-Naphthalenes	274000	121	34.8	E
91-20-3C2	C2-Naphthalenes	124000	121	34.8	
91-20-3C3	C3-Naphthalenes	53000	121	34.8	
91-20-3C4	C4-Naphthalenes	20200	121	34.8	
91-57-6	2-Methylnaphthalene	277000	121	31.2	E
90-12-0	1-Methylnaphthalene	144000	121	38.2	
95-15-8	Benzo(b)thiophene	56300	121	37.9	
95-15-8C1	C1-Benzo(b)thiophenes	24200	121	37.9	
95-15-8C2	C2-Benzo(b)thiophenes	20600	121	37.9	
95-15-8C3	C3-Benzo(b)thiophenes	12600	121	37.9	
95-15-8C4	C4-Benzo(b)thiophenes	6430	121	37.9	
92-52-4	Biphenyl	85400	121	37.4	
581-42-0	2,6-Dimethylnaphthalene	59500	121	28.8	
132-64-9	Dibenzofuran	18900	121	38.1	
208-96-8	Acenaphthylene	8670	121	23.1	
83-32-9	Acenaphthene	197000	121	21.3	E



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-05D
 Client ID : PDI-066SC-B-06-08-191011
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051907
 Sample Amount : 5.02 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/11/19 08:40
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 15:50
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 56
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	7900	121	19.8	
86-73-7	Fluorene	113000	121	32.3	
86-73-7C1	C1-Fluorenes	23100	121	32.3	
86-73-7C2	C2-Fluorenes	14600	121	32.3	
86-73-7C3	C3-Fluorenes	9330	121	32.3	
132-65-0	Dibenzothiophene	94200	121	33.4	
7372-88-5	4-Methyldibenzothiophene(4MDT)	6860	121	33.4	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	8180	121	33.4	
31317-07-4	1-Methyldibenzothiophene(1MDT)	2210	121	33.4	
132-65-0C1	C1-Dibenzothiophenes BS	21200	121	33.4	
132-65-0C2	C2-Dibenzothiophenes	13100	121	33.4	
132-65-0C3	C3-Dibenzothiophenes	6880	121	33.4	
132-65-0C4	C4-Dibenzothiophenes	2620	121	33.4	
85-01-8	Phenanthrene	734000	121	40.1	E
832-71-3	3-Methylphenanthrene (3MP)	25900	121	40.1	
2531-84-2	2-Methylphenanthrene (2MP)	33400	121	40.1	
613-12-7	2-Methylanthracene (2MA)	10200	121	40.1	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	19600	121	40.1	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	103000	121	40.1	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	38700	121	40.1	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	14000	121	40.1	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	6360	121	40.1	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-05D	Date Collected : 10/11/19 08:40
Client ID : PDI-066SC-B-06-08-191011	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/05/19 15:50
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 4
Lab File ID : F212051907	Analyst : MJS
Sample Amount : 5.02 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 56
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	7450	121	29.7	
120-12-7	Anthracene	131000	121	25.0	
86-74-8	Carbazole	16600	121	39.6	
832-69-9	1-Methylphenanthrene	18600	121	32.0	
206-44-0	Fluoranthene	391000	121	38.5	E
243-17-4	Benzo(b)fluorene	20800	121	35.1	
205-12-9	7H-Benzo(c)fluorene	5930	121	35.1	
3442-78-2	2-Methylpyrene	10800	121	31.8	
3353-12-6	4-Methylpyrene	8940	121	31.8	
2381-21-7	1-Methylpyrene	10600	121	31.8	
129-00-0	Pyrene	464000	121	31.8	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	86700	121	31.8	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	20400	121	31.8	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	7570	121	31.8	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	4090	121	31.8	
61523-34-0	Naphthobenzothiophenes	37200	121	33.9	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	9040	121	33.9	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	4560	121	33.9	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	3750	121	33.9	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	960.	121	33.9	
56-55-3	Benz(a)anthracene	121000	121	24.7	
218-01-9	Chrysene	137000	121	24.5	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-05D	Date Collected : 10/11/19 08:40
Client ID : PDI-066SC-B-06-08-191011	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/05/19 15:50
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 4
Lab File ID : F212051907	Analyst : MJS
Sample Amount : 5.02 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 56
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	31300	121	24.5	
218-01-9C2	C2-Chrysenes BS	12200	121	24.5	
218-01-9C3	C3-Chrysenes	5720	121	24.5	
218-01-9C4	C4-Chrysenes	3370	121	24.5	
205-99-2	Benzo(b)fluoranthene	92300	121	31.5	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	85200	121	24.0	
203-33-8	Benzo(a)fluoranthene	23200	121	24.0	
192-97-2	Benzo(e)pyrene	86700	121	25.0	
50-32-8	Benzo(a)pyrene	156000	121	34.6	
198-55-0	Perylene	40600	121	23.4	
193-39-5	Indeno(1,2,3-cd)pyrene	108000	121	32.9	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	20100	121	32.7	
191-24-2	Benzo(g,h,i)perylene	126000	121	32.2	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-05D2
 Client ID : PDI-066SC-B-06-08-191011
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051920
 Sample Amount : 5.02 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/11/19 08:40
 Date Received : 11/14/19
 Date Analyzed : 12/06/19 12:30
 Date Extracted : 11/22/19
 Dilution Factor : 40
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 56
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
91-20-3	Naphthalene	831000	1210	348.	
91-20-3C1	C1-Naphthalenes	238000	1210	348.	
91-57-6	2-Methylnaphthalene	238000	1210	312.	
83-32-9	Acenaphthene	186000	1210	213.	
85-01-8	Phenanthrene	735000	1210	401.	
206-44-0	Fluoranthene	367000	1210	385.	
129-00-0	Pyrene	436000	1210	318.	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-06
 Client ID : PDI-059SC-B-06-08-191016
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011932
 Sample Amount : 30.31 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/16/19 07:57
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 08:19
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 71
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	0.243	0.696	0.350	J
DECALINSC1	C1-Decalins	0.870	1.39	0.350	J
DECALINSC2	C2-Decalins	ND	1.39	0.350	U
DECALINSC3	C3-Decalins	ND	1.39	0.350	U
DECALINSC4	C4-Decalins	ND	1.39	0.350	U
91-20-3	Naphthalene	40.5	1.39	0.400	
91-20-3C1	C1-Naphthalenes	81.4	1.39	0.400	
91-20-3C2	C2-Naphthalenes	55.3	1.39	0.400	
91-20-3C3	C3-Naphthalenes	14.0	1.39	0.400	
91-20-3C4	C4-Naphthalenes	3.37	1.39	0.400	
91-57-6	2-Methylnaphthalene	11.9	1.39	0.359	
90-12-0	1-Methylnaphthalene	117.	1.39	0.438	
95-15-8	Benzothiophene	17.6	1.39	0.436	
95-15-8C1	C1-Benzo(b)thiophenes	31.7	1.39	0.436	
95-15-8C2	C2-Benzo(b)thiophenes	16.3	1.39	0.436	
95-15-8C3	C3-Benzo(b)thiophenes	4.84	1.39	0.436	
95-15-8C4	C4-Benzo(b)thiophenes	1.20	1.39	0.436	J
92-52-4	Biphenyl	3.70	1.39	0.430	
581-42-0	2,6-Dimethylnaphthalene	21.4	1.39	0.331	
132-64-9	Dibenzofuran	9.06	1.39	0.438	
208-96-8	Acenaphthylene	9.87	1.39	0.266	
83-32-9	Acenaphthene	354.	1.39	0.245	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-06	Date Collected : 10/16/19 07:57
Client ID : PDI-059SC-B-06-08-191016	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 08:19
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011932	Analyst : MJS
Sample Amount : 30.31 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 71
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	1.91	1.39	0.228	
86-73-7	Fluorene	107.	1.39	0.371	
86-73-7C1	C1-Fluorenes	8.52	1.39	0.371	
86-73-7C2	C2-Fluorenes	2.96	1.39	0.371	
86-73-7C3	C3-Fluorenes	2.00	1.39	0.371	
132-65-0	Dibenzothiophene	48.1	1.39	0.384	
7372-88-5	4-Methyldibenzothiophene(4MDT)	1.49	1.39	0.384	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	1.06	1.39	0.384	J
31317-07-4	1-Methyldibenzothiophene(1MDT)	0.575	1.39	0.384	J
132-65-0C1	C1-Dibenzothiophenes BS	3.98	1.39	0.384	
132-65-0C2	C2-Dibenzothiophenes	1.95	1.39	0.384	
132-65-0C3	C3-Dibenzothiophenes	1.42	1.39	0.384	
132-65-0C4	C4-Dibenzothiophenes	ND	1.39	0.384	U
85-01-8	Phenanthrene	327.	1.39	0.461	
832-71-3	3-Methylphenanthrene (3MP)	5.66	1.39	0.461	
2531-84-2	2-Methylphenanthrene (2MP)	6.78	1.39	0.461	
613-12-7	2-Methylanthracene (2MA)	1.66	1.39	0.461	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	4.35	1.39	0.461	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	22.0	1.39	0.461	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	5.30	1.39	0.461	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	2.30	1.39	0.461	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	1.46	1.39	0.461	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-06	Date Collected : 10/16/19 07:57
Client ID : PDI-059SC-B-06-08-191016	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 08:19
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011932	Analyst : MJS
Sample Amount : 30.31 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 71
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	1.81	1.39	0.342	
120-12-7	Anthracene	44.4	1.39	0.287	
86-74-8	Carbazole	80.4	1.39	0.455	
832-69-9	1-Methylphenanthrene	4.04	1.39	0.368	
206-44-0	Fluoranthene	70.7	1.39	0.442	
243-17-4	Benzo(b)fluorene	3.25	1.39	0.403	
205-12-9	7H-Benzo(c)fluorene	1.47	1.39	0.403	
3442-78-2	2-Methylpyrene	1.83	1.39	0.366	
3353-12-6	4-Methylpyrene	1.70	1.39	0.366	
2381-21-7	1-Methylpyrene	1.85	1.39	0.366	
129-00-0	Pyrene	79.7	1.39	0.366	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	16.5	1.39	0.366	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	3.89	1.39	0.366	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	2.29	1.39	0.366	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	1.37	1.39	0.366	J
61523-34-0	Naphthobenzothiophenes	4.87	1.39	0.390	J
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	1.89	1.39	0.390	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	1.25	1.39	0.390	J
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	1.61	1.39	0.390	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	1.39	0.390	U
56-55-3	Benz(a)anthracene	18.0	1.39	0.284	
218-01-9	Chrysene	22.8	1.39	0.281	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-06
 Client ID : PDI-059SC-B-06-08-191016
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011932
 Sample Amount : 30.31 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/16/19 07:57
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 08:19
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 71
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	5.79	1.39	0.281	
218-01-9C2	C2-Chrysenes BS	2.63	1.39	0.281	
218-01-9C3	C3-Chrysenes	ND	1.39	0.281	U
218-01-9C4	C4-Chrysenes	ND	1.39	0.281	U
205-99-2	Benzo(b)fluoranthene	13.0	1.39	0.362	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	12.2	1.39	0.276	
203-33-8	Benzo(a)fluoranthene	4.59	1.39	0.276	
192-97-2	Benzo(e)pyrene	11.7	1.39	0.287	
50-32-8	Benzo(a)pyrene	20.4	1.39	0.397	
198-55-0	Perylene	79.7	1.39	0.269	
193-39-5	Indeno(1,2,3-cd)pyrene	13.7	1.39	0.378	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	2.60	1.39	0.376	
191-24-2	Benzo(g,h,i)perylene	15.8	1.39	0.370	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-07
 Client ID : PDI-049SC-B-06-08-191015
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011933
 Sample Amount : 20.77 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/15/19 13:32
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 09:47
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 76
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	4.19	0.956	0.480	J
DECALINSC1	C1-Decalins	15.0	1.91	0.480	
DECALINSC2	C2-Decalins	23.7	1.91	0.480	
DECALINSC3	C3-Decalins	16.6	1.91	0.480	
DECALINSC4	C4-Decalins	16.3	1.91	0.480	
91-20-3	Naphthalene	218.	1.91	0.550	
91-20-3C1	C1-Naphthalenes	69.5	1.91	0.550	
91-20-3C2	C2-Naphthalenes	244.	1.91	0.550	
91-20-3C3	C3-Naphthalenes	163.	1.91	0.550	
91-20-3C4	C4-Naphthalenes	61.5	1.91	0.550	
91-57-6	2-Methylnaphthalene	55.1	1.91	0.493	
90-12-0	1-Methylnaphthalene	52.3	1.91	0.603	
95-15-8	Benzothiophene	35.4	1.91	0.599	
95-15-8C1	C1-Benzo(b)thiophenes	20.3	1.91	0.599	
95-15-8C2	C2-Benzo(b)thiophenes	43.2	1.91	0.599	
95-15-8C3	C3-Benzo(b)thiophenes	35.2	1.91	0.599	
95-15-8C4	C4-Benzo(b)thiophenes	16.8	1.91	0.599	
92-52-4	Biphenyl	22.6	1.91	0.591	
581-42-0	2,6-Dimethylnaphthalene	116.	1.91	0.455	
132-64-9	Dibenzofuran	45.6	1.91	0.602	
208-96-8	Acenaphthylene	37.3	1.91	0.365	
83-32-9	Acenaphthene	818.	1.91	0.337	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-07
 Client ID : PDI-049SC-B-06-08-191015
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011933
 Sample Amount : 20.77 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/15/19 13:32
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 09:47
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 76
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	23.0	1.91	0.313	
86-73-7	Fluorene	503.	1.91	0.510	
86-73-7C1	C1-Fluorenes	99.0	1.91	0.510	
86-73-7C2	C2-Fluorenes	56.1	1.91	0.510	
86-73-7C3	C3-Fluorenes	37.0	1.91	0.510	
132-65-0	Dibenzothiophene	443.	1.91	0.528	
7372-88-5	4-Methyldibenzothiophene(4MDT)	28.5	1.91	0.528	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	50.1	1.91	0.528	
31317-07-4	1-Methyldibenzothiophene(1MDT)	8.66	1.91	0.528	
132-65-0C1	C1-Dibenzothiophenes BS	101.	1.91	0.528	
132-65-0C2	C2-Dibenzothiophenes	49.0	1.91	0.528	
132-65-0C3	C3-Dibenzothiophenes	27.5	1.91	0.528	
132-65-0C4	C4-Dibenzothiophenes	14.6	1.91	0.528	
85-01-8	Phenanthrene	3650	1.91	0.634	E
832-71-3	3-Methylphenanthrene (3MP)	103.	1.91	0.634	
2531-84-2	2-Methylphenanthrene (2MP)	120.	1.91	0.634	
613-12-7	2-Methylanthracene (2MA)	23.3	1.91	0.634	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	82.2	1.91	0.634	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	393.	1.91	0.634	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	161.	1.91	0.634	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	62.8	1.91	0.634	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	34.3	1.91	0.634	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-07
 Client ID : PDI-049SC-B-06-08-191015
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212011933
 Sample Amount : 20.77 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/15/19 13:32
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 09:47
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 76
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	35.9	1.91	0.469	
120-12-7	Anthracene	218.	1.91	0.394	
86-74-8	Carbazole	15.0	1.91	0.626	
832-69-9	1-Methylphenanthrene	78.4	1.91	0.505	
206-44-0	Fluoranthene	1700	1.91	0.608	
243-17-4	Benzo(b)fluorene	99.7	1.91	0.554	
205-12-9	7H-Benzo(c)fluorene	22.6	1.91	0.554	
3442-78-2	2-Methylpyrene	45.8	1.91	0.503	
3353-12-6	4-Methylpyrene	37.5	1.91	0.503	
2381-21-7	1-Methylpyrene	40.4	1.91	0.503	
129-00-0	Pyrene	2120	1.91	0.503	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	350.	1.91	0.503	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	78.0	1.91	0.503	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	36.7	1.91	0.503	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	21.3	1.91	0.503	
61523-34-0	Naphthobenzothiophenes	119.	1.91	0.535	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	35.7	1.91	0.535	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	22.4	1.91	0.535	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	17.7	1.91	0.535	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	5.70	1.91	0.535	
56-55-3	Benz(a)anthracene	510.	1.91	0.390	
218-01-9	Chrysene	607.	1.91	0.387	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-07	Date Collected : 10/15/19 13:32
Client ID : PDI-049SC-B-06-08-191015	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 09:47
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011933	Analyst : MJS
Sample Amount : 20.77 g	Instrument ID : PAH2
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 76
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	152.	1.91	0.387	
218-01-9C2	C2-Chrysenes BS	73.1	1.91	0.387	
218-01-9C3	C3-Chrysenes	38.5	1.91	0.387	
218-01-9C4	C4-Chrysenes	23.2	1.91	0.387	
205-99-2	Benzo(b)fluoranthene	402.	1.91	0.498	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	378.	1.91	0.380	
203-33-8	Benzo(a)fluoranthene	96.4	1.91	0.380	
192-97-2	Benzo(e)pyrene	394.	1.91	0.395	
50-32-8	Benzo(a)pyrene	673.	1.91	0.546	
198-55-0	Perylene	216.	1.91	0.369	
193-39-5	Indeno(1,2,3-cd)pyrene	486.	1.91	0.519	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	82.6	1.91	0.517	
191-24-2	Benzo(g,h,i)perylene	603.	1.91	0.508	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC Project Name : GASCO PDI Lab ID : L1954309-07D Client ID : PDI-049SC-B-06-08-191015 Sample Location : SEATTLE, WA Sample Matrix : Sediment Analytical Method : 1,8270D-SIM(M) Lab File ID : F212051906 Sample Amount : 20.77 g Extraction Method : ALPHA OP-013 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L1954309 Project Number : 000029-02.59 Date Collected : 10/15/19 13:32 Date Received : 11/14/19 Date Analyzed : 12/05/19 14:22 Date Extracted : 11/22/19 Dilution Factor : 4 Analyst : MJS Instrument ID : PAH2 GC Column : ZB-5 %Solids : 76 Injection Volume : 1 uL
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CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
85-01-8	Phenanthrene	4260	7.65	2.54	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-08D
 Client ID : PDI-1079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051904
 Sample Amount : 15.51 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 11:26
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	142.	17.9	8.98	
DECALINSC1	C1-Decalins	460.	35.8	8.98	
DECALINSC2	C2-Decalins	881.	35.8	8.98	
DECALINSC3	C3-Decalins	654.	35.8	8.98	
DECALINSC4	C4-Decalins	654.	35.8	8.98	
91-20-3	Naphthalene	24300	35.8	10.3	
91-20-3C1	C1-Naphthalenes	27100	35.8	10.3	
91-20-3C2	C2-Naphthalenes	24700	35.8	10.3	
91-20-3C3	C3-Naphthalenes	14900	35.8	10.3	
91-20-3C4	C4-Naphthalenes	5930	35.8	10.3	
91-57-6	2-Methylnaphthalene	25000	35.8	9.22	
90-12-0	1-Methylnaphthalene	16600	35.8	11.3	
95-15-8	Benzo(b)thiophene	1740	35.8	11.2	
95-15-8C1	C1-Benzo(b)thiophenes	2860	35.8	11.2	
95-15-8C2	C2-Benzo(b)thiophenes	3620	35.8	11.2	
95-15-8C3	C3-Benzo(b)thiophenes	2580	35.8	11.2	
95-15-8C4	C4-Benzo(b)thiophenes	1390	35.8	11.2	
92-52-4	Biphenyl	2770	35.8	11.0	
581-42-0	2,6-Dimethylnaphthalene	11800	35.8	8.50	
132-64-9	Dibenzofuran	1720	35.8	11.3	
208-96-8	Acenaphthylene	1480	35.8	6.82	
83-32-9	Acenaphthene	22200	35.8	6.30	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-08D
 Client ID : PDI-1079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051904
 Sample Amount : 15.51 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 11:26
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
2245-38-7	2,3,5-Trimethylnaphthalene	2120	35.8	5.85	
86-73-7	Fluorene	12000	35.8	9.54	
86-73-7C1	C1-Fluorenes	6050	35.8	9.54	
86-73-7C2	C2-Fluorenes	6060	35.8	9.54	
86-73-7C3	C3-Fluorenes	4070	35.8	9.54	
132-65-0	Dibenzothiophene	10100	35.8	9.86	
7372-88-5	4-Methyldibenzothiophene(4MDT)	2160	35.8	9.86	
20928-02-3/16587-52-3	2/3-Methyldibenzothiophene(2MDT)	2600	35.8	9.86	
31317-07-4	1-Methyldibenzothiophene(1MDT)	666.	35.8	9.86	
132-65-0C1	C1-Dibenzothiophenes BS	6530	35.8	9.86	
132-65-0C2	C2-Dibenzothiophenes	5690	35.8	9.86	
132-65-0C3	C3-Dibenzothiophenes	3200	35.8	9.86	
132-65-0C4	C4-Dibenzothiophenes	1290	35.8	9.86	
85-01-8	Phenanthrene	80100	35.8	11.8	E
832-71-3	3-Methylphenanthrene (3MP)	9210	35.8	11.8	
2531-84-2	2-Methylphenanthrene (2MP)	11700	35.8	11.8	
613-12-7	2-Methylanthracene (2MA)	3080	35.8	11.8	
883-20-5/832-64-4	9/4-Methylphenanthrene (9MP)	5800	35.8	11.8	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	34000	35.8	11.8	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	20600	35.8	11.8	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	8590	35.8	11.8	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	2850	35.8	11.8	



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-08D
 Client ID : PDI-1079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051904
 Sample Amount : 15.51 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 11:26
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
483-65-8	Retene	ND	35.8	8.78	U
120-12-7	Anthracene	16200	35.8	7.37	
86-74-8	Carbazole	5320	35.8	11.7	
832-69-9	1-Methylphenanthrene	5490	35.8	9.44	
206-44-0	Fluoranthene	33500	35.8	11.4	
243-17-4	Benzo(b)fluorene	2790	35.8	10.4	
205-12-9	7H-Benzo(c)fluorene	911.	35.8	10.4	
3442-78-2	2-Methylpyrene	2630	35.8	9.41	
3353-12-6	4-Methylpyrene	2160	35.8	9.41	
2381-21-7	1-Methylpyrene	2190	35.8	9.41	
129-00-0	Pyrene	43900	35.8	9.41	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	16000	35.8	9.41	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	7080	35.8	9.41	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	3780	35.8	9.41	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	1850	35.8	9.41	
61523-34-0	Naphthobenzothiophenes	4110	35.8	10.0	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	2180	35.8	10.0	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	1610	35.8	10.0	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	1050	35.8	10.0	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	398.	35.8	10.0	
56-55-3	Benz(a)anthracene	13300	35.8	7.29	
218-01-9	Chrysene	15700	35.8	7.23	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-08D
 Client ID : PDI-1079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8270D-SIM(M)
 Lab File ID : F212051904
 Sample Amount : 15.51 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/05/19 11:26
 Date Extracted : 11/22/19
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH2
 GC Column : ZB-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
218-01-9C1	C1-Chrysenes	7990	35.8	7.23	
218-01-9C2	C2-Chrysenes BS	5180	35.8	7.23	
218-01-9C3	C3-Chrysenes	2940	35.8	7.23	
218-01-9C4	C4-Chrysenes	1280	35.8	7.23	
205-99-2	Benzo(b)fluoranthene	8500	35.8	9.30	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	8180	35.8	7.10	
203-33-8	Benzo(a)fluoranthene	2460	35.8	7.10	
192-97-2	Benzo(e)pyrene	8750	35.8	7.38	
50-32-8	Benzo(a)pyrene	15700	35.8	10.2	
198-55-0	Perylene	4100	35.8	6.90	
193-39-5	Indeno(1,2,3-cd)pyrene	10200	35.8	9.71	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	1930	35.8	9.66	
191-24-2	Benzo(g,h,i)perylene	12900	35.8	9.50	



**Results Summary
Form 1
PAHs/Biomarkers**

Client : Anchor QEA, LLC Project Name : GASCO PDI Lab ID : L1954309-08D2 Client ID : PDI-1079SC-B-06-08-191014 Sample Location : SEATTLE, WA Sample Matrix : Sediment Analytical Method : 1,8270D-SIM(M) Lab File ID : F212051905 Sample Amount : 15.51 g Extraction Method : ALPHA OP-013 Extract Volume : 4000 uL GPC Cleanup : N	Lab Number : L1954309 Project Number : 000029-02.59 Date Collected : 10/14/19 13:15 Date Received : 11/14/19 Date Analyzed : 12/05/19 12:54 Date Extracted : 11/22/19 Dilution Factor : 40 Analyst : MJS Instrument ID : PAH2 GC Column : ZB-5 %Solids : 62 Injection Volume : 1 uL
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CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
85-01-8	Phenanthrene	99100	358	118.	



Results Summary

Form 1

PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1312512-1	Date Collected : NA
Client ID : WG1312512-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/03/19 14:47
Sample Matrix : SOIL	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011922	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH2
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	ND	1.00	0.287	U
91-20-3C1	C1-Naphthalenes	ND	1.00	0.287	U
91-20-3C2	C2-Naphthalenes	ND	1.00	0.287	U
91-20-3C3	C3-Naphthalenes	ND	1.00	0.287	U
91-20-3C4	C4-Naphthalenes	ND	1.00	0.287	U
91-57-6	2-Methylnaphthalene	ND	1.00	0.258	U
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	ND	1.00	0.176	U



Results Summary Form 1 PAHs/Biomarkers

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1312512-1	Date Collected : NA
Client ID : WG1312512-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/03/19 14:47
Sample Matrix : SOIL	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011922	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH2
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	ND	1.00	0.331	U
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/Biomarkers**

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1312512-1	Date Collected : NA
Client ID : WG1312512-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/03/19 14:47
Sample Matrix : SOIL	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011922	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH2
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	ND	1.00	0.263	U
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/Biomarkers**

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1312512-1	Date Collected : NA
Client ID : WG1312512-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/03/19 14:47
Sample Matrix : SOIL	Date Extracted : 11/22/19
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F212011922	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH2
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: L1954309
Project Number: 000029-02.59
Matrix: Sediment

CLIENT ID (LAB SAMPLE NO.)	S1 (ND8)	S2 (PHE)	S3 (BAP)	S4 ()	S5 ()	S6 ()	TOT OUT
PDI-090SC-B-06-08-191012 (L1954309-01D)	85	80	81	--	--	--	0
PDI-090SC-B-06-08-191012 (L1954309-01D2)	86	97	90	--	--	--	0
PDI-084SC-B-06-08-191002 (L1954309-02)	76	66	73	--	--	--	0
PDI-084SC-B-06-08-191002 (L1954309-02D)	77	82	79	--	--	--	0
PDI-079SC-B-06-08-191014 (L1954309-03D)	84	74	73	--	--	--	0
PDI-079SC-B-06-08-191014 (L1954309-03D2)	79	88	93	--	--	--	0
PDI-071SC-B-06-08-191001 (L1954309-04D)	88	80	81	--	--	--	0
PDI-071SC-B-06-08-191001 (L1954309-04D2)	87	97	91	--	--	--	0
PDI-066SC-B-06-08-191011 (L1954309-05D)	112	100	95	--	--	--	0
PDI-066SC-B-06-08-191011 (L1954309-05D2)	90	98	101	--	--	--	0
PDI-059SC-B-06-08-191016 (L1954309-06)	60	79	67	--	--	--	0
PDI-049SC-B-06-08-191015 (L1954309-07)	67	73	74	--	--	--	0
PDI-049SC-B-06-08-191015 (L1954309-07D)	73	84	82	--	--	--	0
PDI-1079SC-B-06-08-191014 (L1954309-08D)	77	70	74	--	--	--	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/BIOMARKER



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Anchor QEA, LLC
 Project Name: GASCO PDI

Lab Number: L1954309
 Project Number: 000029-02.59
 Matrix: Sediment

CLIENT ID (LAB SAMPLE NO.)	S1 (ND8)	S2 (PHE)	S3 (BAP)	S4 ()	S5 ()	S6 ()	TOT OUT
PDI-1079SC-B-06-08-191014 (L1954309-08D2)	77	90	79	--	--	--	0
WG1312512-1BLANK	61	80	76	--	--	--	0
WG1312512-2LCS	85	90	85	--	--	--	0
WG1312512-3LCSD	76	87	78	--	--	--	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/BIOMARKER



Laboratory Control Sample Summary
Form 3
Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Matrix : SOIL	
LCS Sample ID : WG1312512-2	Analysis Date : 12/03/19 16:16
LCSD Sample ID : WG1312512-3	Analysis Date : 12/03/19 17:44
	File ID : F212011923
	File ID : F212011924

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	28.0	84	33.3	25.8	77	9	50-130	30
2-Methylnaphthalene	33.3	27.1	81	33.3	24.6	74	9	50-130	30
Acenaphthylene	33.3	25.9	78	33.3	23.8	71	9	50-130	30
Acenaphthene	33.3	28.4	85	33.3	27.6	83	2	50-130	30
Fluorene	33.3	28.3	85	33.3	27.8	83	2	50-130	30
Phenanthrene	33.3	29.0	87	33.3	29.8	89	2	50-130	30
Anthracene	33.3	32.9	99	33.3	33.1	99	0	50-130	30
Fluoranthene	33.3	25.1	75	33.3	25.5	76	1	50-130	30
Pyrene	33.3	25.0	75	33.3	25.3	76	1	50-130	30
Benz(a)anthracene	33.3	27.6	83	33.3	27.8	84	1	50-130	30
Chrysene	33.3	31.0	93	33.3	30.8	92	1	50-130	30
Benzo(b)fluoranthene	33.3	27.1	81	33.3	25.6	77	5	50-130	30
Benzo(j)+(k)fluoranthene	33.3	33.6	101	33.3	34.2	103	2	50-130	30
Benzo(a)pyrene	33.3	29.9	90	33.3	28.4	85	6	50-130	30
Indeno(1,2,3-cd)pyrene	33.3	26.3	79	33.3	24.8	74	7	50-130	30
Dibenz(a,h)+(a,c)anthracene	33.3	27.4	82	33.3	25.7	77	6	50-130	30
Benzo(g,h,i)perylene	33.3	27.9	84	33.3	27.1	81	4	50-130	30



Method Blank Summary

Form 4

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab Sample ID : WG1312512-1
Instrument ID : PAH2
Matrix : SOIL
Level : LOW

Lab Number : L1954309
Project Number : 000029-02.59
Lab File ID : F212011922
Extraction Date : 11/22/19
Analysis Date : 12/03/19 14:47

Client Sample No.	Lab Sample ID	Analysis Date
WG1312512-2LCS	WG1312512-2	12/03/19 16:16
WG1312512-3LCSD	WG1312512-3	12/03/19 17:44
PDI-084SC-B-06-08-191002	L1954309-02	12/04/19 02:30
PDI-059SC-B-06-08-191016	L1954309-06	12/04/19 08:19
PDI-049SC-B-06-08-191015	L1954309-07	12/04/19 09:47
PDI-1079SC-B-06-08-191014	L1954309-08D	12/05/19 11:26
PDI-1079SC-B-06-08-191014	L1954309-08D2	12/05/19 12:54
PDI-049SC-B-06-08-191015	L1954309-07D	12/05/19 14:22
PDI-066SC-B-06-08-191011	L1954309-05D	12/05/19 15:50
PDI-071SC-B-06-08-191001	L1954309-04D	12/05/19 18:44
PDI-071SC-B-06-08-191001	L1954309-04D2	12/05/19 20:12
PDI-079SC-B-06-08-191014	L1954309-03D	12/05/19 21:39
PDI-084SC-B-06-08-191002	L1954309-02D	12/06/19 00:34
PDI-090SC-B-06-08-191012	L1954309-01D	12/06/19 02:00
PDI-090SC-B-06-08-191012	L1954309-01D2	12/06/19 03:27
PDI-079SC-B-06-08-191014	L1954309-03D2	12/06/19 11:03
PDI-066SC-B-06-08-191011	L1954309-05D2	12/06/19 12:30



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : PAH2
Calibration dates : 10/08/19 18:46 10/09/19 11:41

Lab Number : L1954309
Project Number : 000029-02.59
Ical Ref : ICAL16207

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
1) i Acenaphthene-d10	-----ISTD-----								
2) A1 trans-Decalin	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
3) t cis-Decalin	0.310	0.283	0.286	0.273	0.302	0.291	0.336	0.297	7.08
4) A2 C1-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
5) A2 C2-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
6) A2 C3-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
7) A2 C4-Decalins	0.407	0.374	0.365	0.353	0.385	0.377	0.437	0.385	7.34
8) s Naphthalene-d8	1.802	1.742	1.790	1.787	1.887	1.870	2.024	1.843	5.09
9) A1 Naphthalene	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
10) A2 C1-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
11) A2 C2-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
12) A2 C3-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
13) A2 C4-Naphthalenes	2.045	2.010	1.995	1.970	2.096	2.044	2.186	2.049	3.56
14) t 2-Methylnaphthalene	1.317	1.305	1.302	1.316	1.396	1.376	1.452	1.352	4.24
15) t 1-Methylnaphthalene	1.303	1.258	1.268	1.261	1.339	1.307	1.354	1.299	2.94
16) A1 Benzothiophene	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
17) A2 C1-Benzo(b)thi	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
18) A2 C2-Benzo(b)thi	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
19) A2 C3-Benzo(b)thi	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
20) A2 C4-Benzo(b)thi	1.517	1.505	1.560	1.559	1.671	1.630	1.740	1.597	5.41
21) t Biphenyl	1.615	1.565	1.596	1.654	1.719	1.649	1.720	1.646	3.59
22) t 2,6-Dimethylnaphthalene	1.208	1.156	1.158	1.191	1.276	1.219	1.261	1.210	3.86
23) t Dibenzofuran	1.692	1.655	1.739	1.788	1.864	1.748	1.760	1.749	3.85
24) t Acenaphthylene	2.018	1.965	1.995	1.996	2.086	1.976	2.089	2.018	2.49
25) t Acenaphthene	1.239	1.253	1.244	1.263	1.306	1.250	1.265	1.260	1.76
26) t 2,3,5-Trimethylnaphthalen	1.148	1.063	1.060	1.105	1.158	1.088	1.115	1.105	3.49
27) A1 Fluorene	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
28) A2 C1-Fluorenes	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
29) A2 C2-Fluorenes	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
30) A2 C3-Fluorenes	1.392	1.371	1.413	1.462	1.512	1.421	1.419	1.427	3.28
31) A1 Dibenzothiophene	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
32) A2 4-Methyldibenz	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
33) A2 2/3-Methyldibe	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
34) A2 1-Methyldibenz	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
35) A2 OTP	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
36) A2 C1-Dibenzothio	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : PAH2	Ical Ref : ICAL16207
Calibration dates : 10/08/19 18:46 10/09/19 11:41	

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
37) A2 C2-Dibenzothio	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
38) A2 C3-Dibenzothio	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
39) A2 C4-Dibenzothio	1.889	1.804	1.876	1.977	2.058	1.967	1.961	1.933	4.31
40) s Phenanthrene-d10	1.550	1.531	1.593	1.672	1.740	1.627	1.631	1.621	4.42
41) A1 Phenanthrene	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
42) A2 3-Methylphenan	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
43) A2 2-Methylphenan	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
44) A2 2-Methylanthra	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
45) A2 9/4-Methylphen	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
46) A2 1-Methylphenan	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
47) A2 C1-Phenanthren	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
48) A2 C2-Phenanthren	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
49) A2 5AA IS BKGD	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
50) A2 C3-Phenanthren	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
51) A2 C4-Phenanthren	1.994	1.985	2.080	2.172	2.163	2.016	1.985	2.056	4.01
52) t Retene	0.638	0.671	0.660	0.716	0.759	0.742	0.742	0.704	6.72
53) t Anthracene	1.735	1.782	1.922	1.926	1.598	1.415	1.893	1.753	10.86
54) t Carbazole	1.384	1.360	1.534	1.714	1.900	1.815	1.773	1.640	13.08
55) t 1-Methylphenanthrene	1.484	1.461	1.488	1.597	1.640	1.565	1.545	1.540	4.28
56) A1 Fluoranthene	2.353	2.223	2.264	2.413	2.489	2.358	2.316	2.345	3.80
57) A1 Benzo(b)fluorene	1.457	1.359	1.387	1.489	1.611	1.539	1.485	1.475	5.84
58) A2 7H-Benzo(c)flu	1.457	1.359	1.387	1.489	1.611	1.539	1.485	1.475	5.84
59) A1 Pyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
60) A2 2-Methylpyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
61) A2 4-Methylpyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
62) A2 1-Methylpyrene	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
63) A2 C1-Fluoranthen	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
64) A2 C2-Fluoranthen	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
65) A2 C3-Fluoranthen	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
66) A2 C4-Fluoranthen	2.513	2.326	2.360	2.480	2.568	2.429	2.371	2.435	3.66
67) A1 Naphthobenzothiophene-2,1	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
68) A2 Naphthobenzoth	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
69) A2 Naphthobenzoth	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
70) A2 C1-Naphthobenz	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
71) A2 C2-Naphthobenz	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
72) A2 C3-Naphthobenz	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : PAH2	Ical Ref : ICAL16207
Calibration dates : 10/08/19 18:46 10/09/19 11:41	

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
73) A2 C4-Naphthobenz	2.095	2.048	2.030	2.106	2.203	2.083	2.016	2.083	3.00
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.200	1.122	1.128	1.143	1.189	1.119	1.091	1.142	3.44
76) A1 Chrysene	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
77) A2 Chrysene/Triphenylene	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
78) A2 C1-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
79) A2 C2-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
80) A2 BBF-D12 Surr BKGD	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
81) A2 C3-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
82) A2 C4-Chrysenes	1.247	1.209	1.174	1.182	1.183	1.101	1.044	1.163	5.89
83) s Benzo[b]fluoranthene-d12	1.001	0.975	0.937	0.961	1.027	1.001	0.952	0.979	3.27
84) t Benzo[b]fluoranthene	1.511	1.459	1.324	1.354	1.437	1.341	1.252	1.383	6.48
85) A1 Benzo[j]+[k]fluoranthene	1.500	1.421	1.441	1.468	1.443	1.295	1.169	1.391	8.43
86) A2 Benzo[a]fluora	1.500	1.421	1.441	1.468	1.443	1.295	1.169	1.391	8.43
87) t Benzo[e]pyrene	1.501	1.391	1.331	1.340	1.346	1.240	1.146	1.328	8.42
88) s Benzo[a]pyrene-d12	0.789	0.767	0.759	0.762	0.789	0.729	0.703	0.757	4.12
89) t Benzo[a]pyrene	1.343	1.263	1.256	1.273	1.242	1.104	1.029	1.216	8.97
90) t Perylene	1.246	1.219	1.245	1.262	1.195	1.081	1.065	1.188	6.86
91) t Indeno[1,2,3-cd]pyrene	1.383	1.344	1.400	1.390	1.554	1.543	1.510	1.446	5.98
92) t Dibenz[ah]+[ac]anthracene	1.351	1.299	1.278	1.299	1.389	1.330	1.291	1.320	2.98
93) t Benzo[g,h,i]perylene	1.551	1.486	1.434	1.423	1.473	1.403	1.349	1.446	4.47
94) A1 Hopane (T19)	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
95) A2 C23 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
96) A2 C24 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
97) A2 C25 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
98) A2 C24 Tetracycli	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
99) A2 C26 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
100) A2 C26 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
101) A2 C28 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
102) A2 C28 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
103) A2 C29 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
104) A2 C29 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
105) A2 18a-22,29,30-T	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
106) A2 C30 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
107) A2 C30 Tricyclic	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
108) A2 17a(H)-22,29,3	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : PAH2
Calibration dates : 10/08/19 18:46 10/09/19 11:41

Lab Number : L1954309
Project Number : 000029-02.59
Ical Ref : ICAL16207

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
109) A2 17a/b, 21b/a 28	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
110) A2 17a (H) , 21b (H) -	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
111) A2 30-Norhopane (	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
112) A2 18a (H) -30-Norn	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
113) A2 17a (H) -Diahopa	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
114) A2 30-Normoretane	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
115) A2 18a (H) & 18b (H) -	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
116) A2 Moretane (T20)	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
117) A2 30-Homohopane-	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
118) A2 30-Homohopane-	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
119) A2 Gammacerane/C3	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
120) A2 30, 31-Bishomoh	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
121) A2 30, 31-Bishomoh	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
122) A2 30, 31-Trishomo	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
123) A2 30, 31-Trishomo	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
124) A2 Tetrakishomoho	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
125) A2 Tetrakishomoho	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
126) A2 Pentakishomoho	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
127) A2 Pentakishomoho	0.264	0.247	0.246	0.244	0.253	0.240		0.249	3.37
128) SA1 5B(H)Cholane - Surr	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
129) A2 13b (H) , 17a (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
130) A2 13b (H) , 17a (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
131) A2 13b, 17a-20S-Me	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
132) A2 14a, 17a-20S-Ch	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
133) A2 14a, 17a-20R-Ch	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
134) A2 Unknown Steran	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
135) A2 13a, 17b-20S-Et	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
136) A2 14a, 17a-20S-Me	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
137) A2 14a, 17a-20R-Me	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
138) A2 14a (H) , 17a (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
139) A2 14a (H) , 17a (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
140) A2 14b (H) , 17b (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
141) A2 14b (H) , 17b (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
142) A2 14b, 17b-20R-Me	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
143) A2 14b, 17b-20S-Me	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
144) A2 14b (H) , 17b (H) -	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : PAH2
Calibration dates : 10/08/19 18:46 10/09/19 11:41

Lab Number : L1954309
Project Number : 000029-02.59
Ical Ref : ICAL16207

Calibration Files

10 =F210081904.D 25 =F210081905.D 100 =F210081906.D 500 =F210081907.D 5000=F210081908.D
 1e4 =F210081909.D 2e4 =F210081915.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
145) A2 14b(H),17b(H)-	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
146) A2 C20 Pregnane	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
147) A2 C21 20-Methylp	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
148) A2 C22 20-Ethylpr	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
149) A2 C22 20-Ethylpr	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
150) A2 C26,20S TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
151) A2 C26,20R+C27,20	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
152) A2 C28,20S TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
153) A2 C27,20R TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
154) A2 C28,20R TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
155) A2 C29,20S TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
156) A2 C29,20R TAS	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
157) A2 5b(H)-C27 (20S	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
158) A2 5b(H)-C27 (20R	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
159) A2 5a(H)-C27 (20S	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
160) A2 5b(H)-C28 (20S	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
161) A2 5a(H)-C27 (20R	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
162) A2 5a(H)-C28 (20S	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
163) A2 5b(H)-C28 (20R	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
164) A2 5b(H)-C29 (20S	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
165) A2 5a(H)-C29 (20S	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
166) A2 5a(H)-C28 (20R	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
167) A2 5b(H)-C29 (20R	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50
168) A2 5a(H)-C29 (20R	0.173	0.174	0.159	0.166	0.170	0.160	0.163	0.166	3.50



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212011919
 Sample No : WG1316430-1
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/03/19 08:25
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	116	.01
trans-Decalin	0.385	0.392	.05	-1.8	25	129	-.03
cis-Decalin	0.297	0.294	.05	1	25	125	-.03
Naphthalene-d8	1.843	1.758	.05	4.6	25	114	0
Naphthalene	2.049	1.992	.05	2.8	25	118	0
2-Methylnaphthalene	1.352	1.263	.05	6.6	25	111	.07
1-Methylnaphthalene	1.299	1.237	.05	4.8	25	114	.04
Benzothiophene	1.597	1.489	.05	6.8	25	111	0
Biphenyl	1.646	1.585	.05	3.7	25	111	.07
2,6-Dimethylnaphthalene	1.21	1.152	.05	4.8	25	112	.07
Dibenzofuran	1.749	1.714	.05	2	25	111	.08
Acenaphthylene	2.018	1.974	.05	2.2	25	115	.03
Acenaphthene	1.26	1.245	.05	1.2	25	114	.03
2,3,5-Trimethylnaphthalene	1.105	1.067	.05	3.4	25	112	.06
Fluorene	1.427	1.387	.05	2.8	25	110	.08
Dibenzothiophene	1.933	1.828	.05	5.4	25	107	.05
Phenanthrene-d10	1.621	1.597	.05	1.5	25	111	.05
Phenanthrene	2.056	2.042	.05	0.7	25	109	.05
Retene	0.704	0.63	.05	10.5	25	102	.07
Anthracene	1.753	1.799	.05	-2.6	25	109	.07
Carbazole	1.64	1.675	.05	-2.1	25	114	.09
1-Methylphenanthrene	1.54	1.461	.05	5.1	25	106	.07
Fluoranthene	2.345	2.172	.05	7.4	25	105	.08
Benzo(b)fluorene	1.475	1.378	.05	6.6	25	108	.07
Pyrene	2.435	2.28	.05	6.4	25	107	.06
Naphthobenzothiophene-2,1-	2.083	1.9	.05	8.8	25	105	.09
Chrysene-d12	1	1	.05	0	25	103	.03
Benz[a]anthracene	1.142	1.131	.05	1	25	102	.04
Chrysene	1.163	1.223	.05	-5.2	25	107	.05
Chrysene/Triphenylene	1.163	1.223	.05	-5.2	25	107	.05
Benzo[b]fluoranthene-d12	0.979	0.913	.05	6.7	25	98	.03
Benzo[b]fluoranthene	1.383	1.232	.05	10.9	25	94	.03
Benzo[j]+[k]fluoranthene	1.391	1.501	.05	-7.9	25	106	.05
Benzo[e]pyrene	1.328	1.279	.05	3.7	25	99	.03
Benzo[a]pyrene-d12	0.757	0.723	.05	4.5	25	98	.05
Benzo[a]pyrene	1.216	1.135	.05	6.7	25	92	.05
Perylene	1.188	1.248	.05	-5.1	25	102	.05
Indeno[1,2,3-cd]pyrene	1.446	1.265	.05	12.5	25	94	.1
Dibenz[ah]+[ac]anthracene	1.32	1.146	.05	13.2	25	91	.08
Benzo[g,h,i]perylene	1.446	1.271	.05	12.1	25	92	.11
Hopane (T19)	0.249	0.252	.05	-1.2	25	107	-.02
5B(H)Cholane - Surr	0.166	0.169	.05	-1.8	25	105	-.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212011926
 Sample No : WG1316430-2
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/03/19 23:35
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	108	0
trans-Decalin	0.385	0.401	.05	-4.2	25	123	-.03
cis-Decalin	0.297	0.298	.05	-0.3	25	118	-.03
Naphthalene-d8	1.843	1.721	.05	6.6	25	104	0
Naphthalene	2.049	1.933	.05	5.7	25	106	0
2-Methylnaphthalene	1.352	1.378	.05	-1.9	25	113	.04
1-Methylnaphthalene	1.299	1.319	.05	-1.5	25	113	0
Benzothiophene	1.597	1.4	.05	12.3	25	97	0
Biphenyl	1.646	1.495	.05	9.2	25	98	.03
2,6-Dimethylnaphthalene	1.21	1.352	.05	-11.7	25	122	.03
Dibenzofuran	1.749	1.599	.05	8.6	25	96	.05
Acenaphthylene	2.018	1.896	.05	6	25	102	.01
Acenaphthene	1.26	1.192	.05	5.4	25	102	0
2,3,5-Trimethylnaphthalene	1.105	1.174	.05	-6.2	25	115	.03
Fluorene	1.427	1.339	.05	6.2	25	99	.03
Dibenzothiophene	1.933	1.739	.05	10	25	95	.04
Phenanthrene-d10	1.621	1.6	.05	1.3	25	103	.05
Phenanthrene	2.056	1.923	.05	6.5	25	96	.04
Retene	0.704	0.639	.05	9.2	25	96	.07
Anthracene	1.753	1.701	.05	3	25	95	.06
Carbazole	1.64	1.551	.05	5.4	25	98	.09
1-Methylphenanthrene	1.54	1.448	.05	6	25	98	.07
Fluoranthene	2.345	2.042	.05	12.9	25	91	.08
Benzo(b)fluorene	1.475	1.312	.05	11.1	25	95	.08
Pyrene	2.435	2.151	.05	11.7	25	94	.08
Naphthobenzothiophene-2,1-	2.083	1.77	.05	15	25	91	.09
Chrysene-d12	1	1	.05	0	25	99	.05
Benz[a]anthracene	1.142	1.028	.05	10	25	89	.05
Chrysene	1.163	1.146	.05	1.5	25	96	.06
Chrysene/Triphenylene	1.163	1.146	.05	1.5	25	96	.06
Benzo[b]fluoranthene-d12	0.979	0.941	.05	3.9	25	97	.05
Benzo[b]fluoranthene	1.383	1.218	.05	11.9	25	89	.03
Benzo[j]+[k]fluoranthene	1.391	1.378	.05	0.9	25	93	.06
Benzo[e]pyrene	1.328	1.221	.05	8.1	25	90	.05
Benzo[a]pyrene-d12	0.757	0.751	.05	0.8	25	97	.06
Benzo[a]pyrene	1.216	1.057	.05	13.1	25	82	.06
Perylene	1.188	1.18	.05	0.7	25	92	.06
Indeno[1,2,3-cd]pyrene	1.446	1.241	.05	14.2	25	88	.11
Dibenz[ah]+[ac]anthracene	1.32	1.121	.05	15.1	25	85	.11
Benzo[g,h,i]perylene	1.446	1.24	.05	14.2	25	86	.11
Hopane (T19)	0.249	0.233	.05	6.4	25	94	-.04
5B(H)Cholane - Surr	0.166	0.164	.05	1.2	25	97	-.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212011935
 Sample No : WG1316430-3
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/04/19 12:43
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	101	.08
trans-Decalin	0.385	0.412	.05	-7	25	118	-.03
cis-Decalin	0.297	0.303	.05	-2	25	112	-.03
Naphthalene-d8	1.843	1.981	.05	-7.5	25	112	.09
Naphthalene	2.049	1.963	.05	4.2	25	101	.12
2-Methylnaphthalene	1.352	1.135	.05	16.1	25	87	.17
1-Methylnaphthalene	1.299	1.361	.05	-4.8	25	109	.13
Benzothiophene	1.597	1.527	.05	4.4	25	99	.11
Biphenyl	1.646	1.453	.05	11.7	25	89	.16
2,6-Dimethylnaphthalene	1.21	1.072	.05	11.4	25	91	.19
Dibenzofuran	1.749	1.623	.05	7.2	25	92	.17
Acenaphthylene	2.018	1.865	.05	7.6	25	95	.09
Acenaphthene	1.26	1.158	.05	8.1	25	93	.08
2,3,5-Trimethylnaphthalene	1.105	1.031	.05	6.7	25	95	.12
Fluorene	1.427	1.394	.05	2.3	25	97	.15
Dibenzothiophene	1.933	1.823	.05	5.7	25	93	.11
Phenanthrene-d10	1.621	1.742	.05	-7.5	25	106	.12
Phenanthrene	2.056	1.961	.05	4.6	25	91	.12
Retene	0.704	0.743	.05	-5.5	25	105	.08
Anthracene	1.753	2.044	.05	-16.6	25	107	.13
Carbazole	1.64	1.821	.05	-11	25	108	.13
1-Methylphenanthrene	1.54	1.531	.05	0.6	25	97	.12
Fluoranthene	2.345	2.269	.05	3.2	25	95	.11
Benzo(b)fluorene	1.475	1.53	.05	-3.7	25	104	.11
Pyrene	2.435	2.345	.05	3.7	25	96	.09
Naphthobenzothiophene-2,1-	2.083	1.924	.05	7.6	25	93	.12
Chrysene-d12	1	1	.05	0	25	102	.06
Benz[a]anthracene	1.142	1.038	.05	9.1	25	93	.06
Chrysene	1.163	1.088	.05	6.4	25	94	.08
Chrysene/Triphenylene	1.163	1.088	.05	6.4	25	94	.08
Benzo[b]fluoranthene-d12	0.979	0.882	.05	9.9	25	93	.06
Benzo[b]fluoranthene	1.383	0.97	.05	29.9*	25	73	.06
Benzo[j]+[k]fluoranthene	1.391	1.293	.05	7	25	90	.06
Benzo[e]pyrene	1.328	1.013	.05	23.7	25	77	.06
Benzo[a]pyrene-d12	0.757	0.678	.05	10.4	25	91	.06
Benzo[a]pyrene	1.216	0.944	.05	22.4	25	76	.08
Perylene	1.188	1.026	.05	13.6	25	83	.06
Indeno[1,2,3-cd]pyrene	1.446	1.192	.05	17.6	25	87	.14
Dibenz[ah]+[ac]anthracene	1.32	1.121	.05	15.1	25	88	.11
Benzo[g,h,i]perylene	1.446	1.131	.05	21.8	25	81	.14
Hopane (T19)	0.249	0.194	.05	22.1	25	81	-.04
5B(H)Cholane - Surr	0.166	0.159	.05	4.2	25	98	-.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212051902
 Sample No : WG1316430-4
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/05/19 08:31
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	100	0
trans-Decalin	0.385	0.394	.05	-2.3	25	112	0
cis-Decalin	0.297	0.305	.05	-2.7	25	112	0
Naphthalene-d8	1.843	1.818	.05	1.4	25	102	0
Naphthalene	2.049	1.915	.05	6.5	25	97	0
2-Methylnaphthalene	1.352	1.279	.05	5.4	25	97	0
1-Methylnaphthalene	1.299	1.205	.05	7.2	25	95	0
Benzothiophene	1.597	1.473	.05	7.8	25	94	0
Biphenyl	1.646	1.539	.05	6.5	25	93	0
2,6-Dimethylnaphthalene	1.21	1.157	.05	4.4	25	97	0
Dibenzofuran	1.749	1.651	.05	5.6	25	92	0
Acenaphthylene	2.018	1.902	.05	5.7	25	95	0
Acenaphthene	1.26	1.188	.05	5.7	25	94	0
2,3,5-Trimethylnaphthalene	1.105	1.072	.05	3	25	97	0
Fluorene	1.427	1.349	.05	5.5	25	92	0
Dibenzothiophene	1.933	1.74	.05	10	25	88	0
Phenanthrene-d10	1.621	1.604	.05	1	25	96	0
Phenanthrene	2.056	1.965	.05	4.4	25	90	0
Retene	0.704	0.662	.05	6	25	92	0
Anthracene	1.753	1.874	.05	-6.9	25	97	0
Carbazole	1.64	1.707	.05	-4.1	25	99	0
1-Methylphenanthrene	1.54	1.451	.05	5.8	25	91	0
Fluoranthene	2.345	2.18	.05	7	25	90	0
Benzo(b)fluorene	1.475	1.421	.05	3.7	25	95	0
Pyrene	2.435	2.23	.05	8.4	25	90	0
Naphthobenzothiophene-2,1-	2.083	1.842	.05	11.6	25	87	0
Chrysene-d12	1	1	.05	0	25	93	0
Benz[a]anthracene	1.142	1.105	.05	3.2	25	90	0
Chrysene	1.163	1.129	.05	2.9	25	89	0
Chrysene/Triphenylene	1.163	1.129	.05	2.9	25	89	0
Benzo[b]fluoranthene-d12	0.979	0.906	.05	7.5	25	88	0
Benzo[b]fluoranthene	1.383	1.234	.05	10.8	25	85	0
Benzo[j]+[k]fluoranthene	1.391	1.282	.05	7.8	25	81	0
Benzo[e]pyrene	1.328	1.187	.05	10.6	25	82	0
Benzo[a]pyrene-d12	0.757	0.721	.05	4.8	25	88	0
Benzo[a]pyrene	1.216	1.147	.05	5.7	25	84	0
Perylene	1.188	1.117	.05	6	25	82	0
Indeno[1,2,3-cd]pyrene	1.446	1.326	.05	8.3	25	89	0
Dibenz[ah]+[ac]anthracene	1.32	1.191	.05	9.8	25	85	0
Benzo[g,h,i]perylene	1.446	1.249	.05	13.6	25	82	0
Hopane (T19)	0.249	0.2	.05	19.7	25	76	0
5B(H)Cholane - Surr	0.166	0.162	.05	2.4	25	91	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212051916
 Sample No : WG1316430-5
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/06/19 04:54
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	114	0
trans-Decalin	0.385	0.388	.05	-0.8	25	125	0
cis-Decalin	0.297	0.299	.05	-0.7	25	125	0
Naphthalene-d8	1.843	1.802	.05	2.2	25	115	0
Naphthalene	2.049	1.934	.05	5.6	25	112	0
2-Methylnaphthalene	1.352	1.277	.05	5.5	25	110	0
1-Methylnaphthalene	1.299	1.233	.05	5.1	25	111	-.02
Benzothiophene	1.597	1.47	.05	8	25	107	0
Biphenyl	1.646	1.562	.05	5.1	25	108	0
2,6-Dimethylnaphthalene	1.21	1.137	.05	6	25	109	0
Dibenzofuran	1.749	1.676	.05	4.2	25	107	0
Acenaphthylene	2.018	1.937	.05	4	25	111	-.02
Acenaphthene	1.26	1.217	.05	3.4	25	110	0
2,3,5-Trimethylnaphthalene	1.105	1.06	.05	4.1	25	109	0
Fluorene	1.427	1.359	.05	4.8	25	106	-.02
Dibenzothiophene	1.933	1.749	.05	9.5	25	101	0
Phenanthrene-d10	1.621	1.597	.05	1.5	25	109	0
Phenanthrene	2.056	1.968	.05	4.3	25	103	0
Retene	0.704	0.643	.05	8.7	25	102	0
Anthracene	1.753	1.874	.05	-6.9	25	111	0
Carbazole	1.64	1.691	.05	-3.1	25	112	-.02
1-Methylphenanthrene	1.54	1.467	.05	4.7	25	105	-.02
Fluoranthene	2.345	2.156	.05	8.1	25	102	-.02
Benzo(b)fluorene	1.475	1.41	.05	4.4	25	108	0
Pyrene	2.435	2.203	.05	9.5	25	101	-.02
Naphthobenzothiophene-2,1-	2.083	1.849	.05	11.2	25	100	-.02
Chrysene-d12	1	1	.05	0	25	103	-.02
Benz[a]anthracene	1.142	1.127	.05	1.3	25	102	-.02
Chrysene	1.163	1.154	.05	0.8	25	101	0
Chrysene/Triphenylene	1.163	1.154	.05	0.8	25	101	0
Benzo[b]fluoranthene-d12	0.979	0.924	.05	5.6	25	99	-.02
Benzo[b]fluoranthene	1.383	1.363	.05	1.4	25	104	0
Benzo[j]+[k]fluoranthene	1.391	1.281	.05	7.9	25	90	-.02
Benzo[e]pyrene	1.328	1.234	.05	7.1	25	95	0
Benzo[a]pyrene-d12	0.757	0.727	.05	4	25	99	0
Benzo[a]pyrene	1.216	1.203	.05	1.1	25	98	-.02
Perylene	1.188	1.184	.05	0.3	25	97	-.02
Indeno[1,2,3-cd]pyrene	1.446	1.404	.05	2.9	25	104	-.02
Dibenz[ah]+[ac]anthracene	1.32	1.263	.05	4.3	25	100	-.02
Benzo[g,h,i]perylene	1.446	1.336	.05	7.6	25	97	-.03
Hopane (T19)	0.249	0.216	.05	13.3	25	91	0
5B(H)Cholane - Surr	0.166	0.163	.05	1.8	25	101	-.02

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212051918
 Sample No : WG1316430-6
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/06/19 08:35
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	116	0
trans-Decalin	0.385	0.387	.05	-0.5	25	127	0
cis-Decalin	0.297	0.297	.05	0	25	126	0
Naphthalene-d8	1.843	1.808	.05	1.9	25	117	0
Naphthalene	2.049	1.958	.05	4.4	25	115	0
2-Methylnaphthalene	1.352	1.291	.05	4.5	25	114	0
1-Methylnaphthalene	1.299	1.24	.05	4.5	25	114	-.02
Benzothiophene	1.597	1.48	.05	7.3	25	110	0
Biphenyl	1.646	1.569	.05	4.7	25	110	0
2,6-Dimethylnaphthalene	1.21	1.169	.05	3.4	25	114	0
Dibenzofuran	1.749	1.674	.05	4.3	25	109	0
Acenaphthylene	2.018	1.941	.05	3.8	25	113	-.02
Acenaphthene	1.26	1.219	.05	3.3	25	112	0
2,3,5-Trimethylnaphthalene	1.105	1.071	.05	3.1	25	112	0
Fluorene	1.427	1.373	.05	3.8	25	109	-.02
Dibenzothiophene	1.933	1.774	.05	8.2	25	104	0
Phenanthrene-d10	1.621	1.577	.05	2.7	25	109	0
Phenanthrene	2.056	1.984	.05	3.5	25	106	0
Retene	0.704	0.646	.05	8.2	25	105	0
Anthracene	1.753	1.86	.05	-6.1	25	112	0
Carbazole	1.64	1.718	.05	-4.8	25	116	-.02
1-Methylphenanthrene	1.54	1.46	.05	5.2	25	106	0
Fluoranthene	2.345	2.158	.05	8	25	104	-.02
Benzo(b)fluorene	1.475	1.395	.05	5.4	25	109	0
Pyrene	2.435	2.251	.05	7.6	25	105	-.02
Naphthobenzothiophene-2,1-	2.083	1.834	.05	12	25	101	-.02
Chrysene-d12	1	1	.05	0	25	104	-.02
Benz[a]anthracene	1.142	1.147	.05	-0.4	25	105	-.02
Chrysene	1.163	1.159	.05	0.3	25	102	0
Chrysene/Triphenylene	1.163	1.159	.05	0.3	25	102	0
Benzo[b]fluoranthene-d12	0.979	0.933	.05	4.7	25	101	-.02
Benzo[b]fluoranthene	1.383	1.368	.05	1.1	25	105	0
Benzo[j]+[k]fluoranthene	1.391	1.317	.05	5.3	25	94	-.02
Benzo[e]pyrene	1.328	1.265	.05	4.7	25	98	0
Benzo[a]pyrene-d12	0.757	0.745	.05	1.6	25	102	0
Benzo[a]pyrene	1.216	1.216	.05	0	25	100	-.02
Perylene	1.188	1.202	.05	-1.2	25	99	-.02
Indeno[1,2,3-cd]pyrene	1.446	1.416	.05	2.1	25	106	-.02
Dibenz[ah]+[ac]anthracene	1.32	1.284	.05	2.7	25	103	-.02
Benzo[g,h,i]perylene	1.446	1.349	.05	6.7	25	99	-.02
Hopane (T19)	0.249	0.222	.05	10.8	25	95	0
5B(H)Cholane - Surr	0.166	0.163	.05	1.8	25	103	-.02

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Lab File ID : F212051921
 Sample No : WG1316430-7
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/06/19 13:58
 Init. Calib. Date(s) : 10/08/19 10/09/19
 Init. Calib. Times : 18:46 11:41

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	87	0
trans-Decalin	0.385	0.391	.05	-1.6	25	96	0
cis-Decalin	0.297	0.299	.05	-0.7	25	95	0
Naphthalene-d8	1.843	1.802	.05	2.2	25	88	0
Naphthalene	2.049	1.953	.05	4.7	25	86	0
2-Methylnaphthalene	1.352	1.278	.05	5.5	25	84	0
1-Methylnaphthalene	1.299	1.231	.05	5.2	25	85	-.02
Benzothiophene	1.597	1.479	.05	7.4	25	82	0
Biphenyl	1.646	1.569	.05	4.7	25	82	0
2,6-Dimethylnaphthalene	1.21	1.15	.05	5	25	84	0
Dibenzofuran	1.749	1.675	.05	4.2	25	81	0
Acenaphthylene	2.018	1.929	.05	4.4	25	84	-.02
Acenaphthene	1.26	1.226	.05	2.7	25	84	0
2,3,5-Trimethylnaphthalene	1.105	1.056	.05	4.4	25	83	0
Fluorene	1.427	1.354	.05	5.1	25	80	-.02
Dibenzothiophene	1.933	1.759	.05	9	25	77	0
Phenanthrene-d10	1.621	1.566	.05	3.4	25	81	0
Phenanthrene	2.056	1.968	.05	4.3	25	79	0
Retene	0.704	0.624	.05	11.4	25	76	0
Anthracene	1.753	1.852	.05	-5.6	25	83	0
Carbazole	1.64	1.67	.05	-1.8	25	85	-.02
1-Methylphenanthrene	1.54	1.448	.05	6	25	79	-.02
Fluoranthene	2.345	2.144	.05	8.6	25	77	-.02
Benzo(b)fluorene	1.475	1.379	.05	6.5	25	80	0
Pyrene	2.435	2.192	.05	10	25	77	-.02
Naphthobenzothiophene-2,1-	2.083	1.841	.05	11.6	25	76	-.02
Chrysene-d12	1	1	.05	0	25	78	-.02
Benz[a]anthracene	1.142	1.133	.05	0.8	25	77	-.02
Chrysene	1.163	1.169	.05	-0.5	25	77	0
Chrysene/Triphenylene	1.163	1.169	.05	-0.5	25	77	0
Benzo[b]fluoranthene-d12	0.979	0.931	.05	4.9	25	76	-.02
Benzo[b]fluoranthene	1.383	1.376	.05	0.5	25	79	0
Benzo[j]+[k]fluoranthene	1.391	1.316	.05	5.4	25	70	-.02
Benzo[e]pyrene	1.328	1.271	.05	4.3	25	74	0
Benzo[a]pyrene-d12	0.757	0.738	.05	2.5	25	76	0
Benzo[a]pyrene	1.216	1.214	.05	0.2	25	74	-.02
Perylene	1.188	1.208	.05	-1.7	25	75	-.02
Indeno[1,2,3-cd]pyrene	1.446	1.428	.05	1.2	25	80	-.02
Dibenz[ah]+[ac]anthracene	1.32	1.292	.05	2.1	25	78	-.02
Benzo[g,h,i]perylene	1.446	1.359	.05	6	25	74	-.03
Hopane (T19)	0.249	0.219	.05	12	25	70	-.02
5B(H)Cholane - Surr	0.166	0.16	.05	3.6	25	75	-.02

* Value outside of QC limits.



Internal Standard Area and RT Summary

Form 8a

Semivolatiles

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : PAH2
 Sample No : WG1316430-1

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/03/19 08:25
 Lab File ID : F212011919

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1316430-1	80126	26.95	137483	43.45		
Upper Limit	160252	27.45	274966	43.95		
Lower Limit	40063	26.45	68742	42.95		
Sample ID						
WG1312512-1 BLANK	67070	26.98	111219	43.51		
WG1312512-2 LCS	68391	26.93	116086	43.45		
WG1312512-3 LCSD	61768	26.93	106428	43.45		
WG1316430-2 CCAL	74415	26.93	131350	43.46		

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 : PAH2
 Sample No : WG1316430-2

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/03/19 23:35
 Lab File ID : F212011926

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1316430-2	74415	26.93	131350	43.46		
Upper Limit	148830	27.43	262700	43.96		
Lower Limit	37208	26.43	65675	42.96		
Sample ID						
PDI-084SC-B-06-08-191002	83148	26.92	144236	43.43		
PDI-059SC-B-06-08-191016	89117	26.92	139880	43.45		
PDI-049SC-B-06-08-191015	85957	26.92	126228	43.43		
WG1316430-3 CCAL	69856	27.01	135486	43.48		

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 : PAH2
 Sample No : WG1316430-4

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/05/19 08:31
 Lab File ID : F212051902

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1316430-4	68873	26.78	123633	43.27		
Upper Limit	137746	27.28	247266	43.77		
Lower Limit	34437	26.28	61817	42.77		
Sample ID						
PDI-1079SC-B-06-08-191014	67092	26.78	106260	43.27		
PDI-1079SC-B-06-08-191014	73540	26.78	122652	43.27		
PDI-049SC-B-06-08-191015	74241	26.78	115623	43.27		
PDI-066SC-B-06-08-191011	58621	26.78	105625	43.28		
PDI-071SC-B-06-08-191001	61616	26.78	106386	43.27		
PDI-071SC-B-06-08-191001	70374	26.78	116965	43.27		
PDI-079SC-B-06-08-191014	60414	26.78	102199	43.27		
PDI-084SC-B-06-08-191002	67681	26.78	105375	43.27		
PDI-090SC-B-06-08-191012	65216	26.78	103380	43.27		
PDI-090SC-B-06-08-191012	69912	26.78	115264	43.25		
WG1316430-5 CCAL	78540	26.78	137290	43.25		

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 : PAH2
 Sample No : WG1316430-6

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/06/19 08:35
 Lab File ID : F212051918

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1316430-6	79920	26.78	138750	43.25		
Upper Limit	159840	27.28	277500	43.75		
Lower Limit	39960	26.28	69375	42.75		
Sample ID						
PDI-079SC-B-06-08-191014	58972	26.78	85970	43.25		
PDI-066SC-B-06-08-191011	56625	26.78	87779	43.25		
WG1316430-7 CCAL	59868	26.78	103673	43.25		

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 : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-01D	Date Collected : 10/12/19 14:22
Client ID : PDI-090SC-B-06-08-191012	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 13:44
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919102	Analyst : WR
Sample Amount : 15.15 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 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	6.64	1.97	U
124-18-5	n-Decane (C10)	ND	6.64	2.12	U
1120-21-4	n-Undecane (C11)	ND	6.64	1.98	U
112-40-3	n-Dodecane (C12)	1.47	6.64	1.45	J
629-50-5	n-Tridecane (C13)	33.0	6.64	1.82	G
3891-98-3	2,6,10-Trimethyldodecane (1380)	2.90	6.64	0.999	J
629-59-4	n-Tetradecane (C14)	4.91	6.64	0.999	J
TMTD1470	2,6,10-Trimethyltridecane (1470)	5.87	6.64	0.792	J
629-62-9	n-Pentadecane (C15)	ND	6.64	0.792	U
544-76-3	n-Hexadecane (C16)	ND	6.64	1.00	U
3892-00-0	Norpristane (1650)	4.48	6.64	2.19	J
629-78-7	n-Heptadecane (C17)	ND	6.64	2.19	U
1921-70-6	Pristane	6.51	6.64	1.42	J
593-45-3	n-Octadecane (C18)	129	6.64	1.33	G
638-36-8	Phytane	31.9	6.64	0.834	G
629-92-5	n-Nonadecane (C19)	ND	6.64	1.71	U
112-95-8	n-Eicosane (C20)	2.06	6.64	0.940	J
629-94-7	n-Heneicosane (C21)	0.956	6.64	0.795	J
629-97-0	n-Docosane (C22)	0.863	6.64	0.693	J
638-67-5	n-Tricosane (C23)	4.07	6.64	0.845	J
646-31-1	n-Tetracosane (C24)	ND	6.64	1.11	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-01D	Date Collected : 10/12/19 14:22
Client ID : PDI-090SC-B-06-08-191012	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 13:44
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919102	Analyst : WR
Sample Amount : 15.15 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 57
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)	28.1	6.64	3.51	G
630-01-3	n-Hexacosane (C26)	1.24	6.64	0.975	J
593-49-7	n-Heptacosane (C27)	4.13	6.64	0.800	J
630-02-4	n-Octacosane (C28)	1.57	6.64	1.42	J
630-03-5	n-Nonacosane (C29)	ND	6.64	4.42	U
638-68-6	n-Triacontane (C30)	1.44	6.64	0.762	J
630-04-6	n-Hentriacontane (C31)	2.26	6.64	0.941	J
544-85-4	n-Dotriacontane (C32)	ND	6.64	0.837	U
630-05-7	n-Tritriacontane (C33)	1.67	6.64	0.934	J
14167-59-0	n-Tettratriacontane (C34)	ND	6.64	1.06	U
630-07-9	n-Pentatriacontane (C35)	2.70	6.64	1.16	J
630-06-8	n-Hexatriacontane (C36)	ND	6.64	1.32	U
7194-84-5	n-Heptatriacontane (C37)	ND	6.64	1.47	U
7194-85-6	n-Octatriacontane (C38)	ND	6.64	1.55	U
7194-86-7	n-Nonatriacontane (C39)	ND	6.64	2.16	U
4181-95-7	n-Tetracontane (C40)	ND	6.64	2.16	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	2540	219	48.2	
NONE	Total Petroleum Hydrocarbons (C9-C40)	2560	219	48.2	
NONE	DRO (C10-C28)	1920	139	28.7	
TSATHC	Total Saturated Hydrocarbons	271	6.64	3.32	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-02D	Date Collected : 10/02/19 11:39
Client ID : PDI-084SC-B-06-08-191002	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 15:11
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919104	Analyst : WR
Sample Amount : 15.42 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 62
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	4.20	1.25	U
124-18-5	n-Decane (C10)	ND	4.20	1.34	U
1120-21-4	n-Undecane (C11)	ND	4.20	1.26	U
112-40-3	n-Dodecane (C12)	ND	4.20	0.916	U
629-50-5	n-Tridecane (C13)	ND	4.20	1.15	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	2.06	4.20	0.632	J
629-59-4	n-Tetradecane (C14)	ND	4.20	0.632	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	2.76	4.20	0.502	J
629-62-9	n-Pentadecane (C15)	ND	4.20	0.502	U
544-76-3	n-Hexadecane (C16)	1.68	4.20	0.633	J
3892-00-0	Norpristane (1650)	3.82	4.20	1.39	J
629-78-7	n-Heptadecane (C17)	ND	4.20	1.39	U
1921-70-6	Pristane	5.32	4.20	0.898	
593-45-3	n-Octadecane (C18)	34.8	4.20	0.844	G
638-36-8	Phytane	12.8	4.20	0.528	G
629-92-5	n-Nonadecane (C19)	ND	4.20	1.08	U
112-95-8	n-Eicosane (C20)	1.19	4.20	0.595	J
629-94-7	n-Heneicosane (C21)	0.757	4.20	0.503	J
629-97-0	n-Docosane (C22)	ND	4.20	0.438	U
638-67-5	n-Tricosane (C23)	1.74	4.20	0.535	J
646-31-1	n-Tetracosane (C24)	ND	4.20	0.703	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-02D	Date Collected : 10/02/19 11:39
Client ID : PDI-084SC-B-06-08-191002	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 15:11
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919104	Analyst : WR
Sample Amount : 15.42 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 62
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)	11.8	4.20	2.22	G
630-01-3	n-Hexacosane (C26)	1.05	4.20	0.618	J
593-49-7	n-Heptacosane (C27)	3.62	4.20	0.506	J
630-02-4	n-Octacosane (C28)	1.56	4.20	0.902	J
630-03-5	n-Nonacosane (C29)	ND	4.20	2.80	U
638-68-6	n-Triacontane (C30)	0.534	4.20	0.482	J
630-04-6	n-Hentriacontane (C31)	1.06	4.20	0.596	J
544-85-4	n-Dotriacontane (C32)	ND	4.20	0.530	U
630-05-7	n-Tritriacontane (C33)	0.694	4.20	0.592	J
14167-59-0	n-Tetracontane (C34)	ND	4.20	0.669	U
630-07-9	n-Pentatriacontane (C35)	ND	4.20	0.734	U
630-06-8	n-Hexatriacontane (C36)	ND	4.20	0.836	U
7194-84-5	n-Heptatriacontane (C37)	ND	4.20	0.934	U
7194-85-6	n-Octatriacontane (C38)	ND	4.20	0.980	U
7194-86-7	n-Nonatriacontane (C39)	ND	4.20	1.36	U
4181-95-7	n-Tetracontane (C40)	ND	4.20	1.36	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	1240	139	30.5	
NONE	Total Petroleum Hydrocarbons (C9-C40)	1310	139	30.5	
NONE	DRO (C10-C28)	1040	88.3	18.2	
TSATHC	Total Saturated Hydrocarbons	87.2	4.20	2.10	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-03D	Date Collected : 10/14/19 13:15
Client ID : PDI-079SC-B-06-08-191014	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 16:39
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919106	Analyst : WR
Sample Amount : 15.88 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 62
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	5.84	1.73	U
124-18-5	n-Decane (C10)	ND	5.84	1.86	U
1120-21-4	n-Undecane (C11)	ND	5.84	1.74	U
112-40-3	n-Dodecane (C12)	2.96	5.84	1.27	J
629-50-5	n-Tridecane (C13)	42.5	5.84	1.60	G
3891-98-3	2,6,10-Trimethyldodecane (1380)	2.67	5.84	0.878	J
629-59-4	n-Tetradecane (C14)	8.91	5.84	0.878	
TMTD1470	2,6,10-Trimethyltridecane (1470)	4.52	5.84	0.697	J
629-62-9	n-Pentadecane (C15)	ND	5.84	0.697	U
544-76-3	n-Hexadecane (C16)	4.43	5.84	0.880	J
3892-00-0	Norpristane (1650)	4.70	5.84	1.93	J
629-78-7	n-Heptadecane (C17)	2.22	5.84	1.93	J
1921-70-6	Pristane	6.47	5.84	1.25	
593-45-3	n-Octadecane (C18)	152	5.84	1.17	G
638-36-8	Phytane	35.2	5.84	0.734	G
629-92-5	n-Nonadecane (C19)	ND	5.84	1.50	U
112-95-8	n-Eicosane (C20)	ND	5.84	0.826	U
629-94-7	n-Heneicosane (C21)	ND	5.84	0.699	U
629-97-0	n-Docosane (C22)	ND	5.84	0.609	U
638-67-5	n-Tricosane (C23)	6.62	5.84	0.743	
646-31-1	n-Tetracosane (C24)	ND	5.84	0.977	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-03D	Date Collected : 10/14/19 13:15
Client ID : PDI-079SC-B-06-08-191014	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 16:39
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919106	Analyst : WR
Sample Amount : 15.88 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 62
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)	31.2	5.84	3.09	G
630-01-3	n-Hexacosane (C26)	1.22	5.84	0.858	J
593-49-7	n-Heptacosane (C27)	2.08	5.84	0.703	J
630-02-4	n-Octacosane (C28)	1.25	5.84	1.25	J
630-03-5	n-Nonacosane (C29)	ND	5.84	3.89	U
638-68-6	n-Triacontane (C30)	ND	5.84	0.670	U
630-04-6	n-Hentriacontane (C31)	ND	5.84	0.828	U
544-85-4	n-Dotriacontane (C32)	ND	5.84	0.736	U
630-05-7	n-Tritriacontane (C33)	1.15	5.84	0.822	J
14167-59-0	n-Tetracontane (C34)	ND	5.84	0.929	U
630-07-9	n-Pentatriacontane (C35)	1.28	5.84	1.02	J
630-06-8	n-Hexatriacontane (C36)	ND	5.84	1.16	U
7194-84-5	n-Heptatriacontane (C37)	ND	5.84	1.30	U
7194-85-6	n-Octatriacontane (C38)	ND	5.84	1.36	U
7194-86-7	n-Nonatriacontane (C39)	ND	5.84	1.90	U
4181-95-7	n-Tetracontane (C40)	ND	5.84	1.90	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	2820	193	42.4	
NONE	Total Petroleum Hydrocarbons (C9-C40)	2980	193	42.4	
NONE	DRO (C10-C28)	2590	123	25.3	
TSATHC	Total Saturated Hydrocarbons	311	5.84	2.92	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-04D	Date Collected : 10/01/19 14:00
Client ID : PDI-071SC-B-06-08-191001	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 18:07
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919108	Analyst : WR
Sample Amount : 2.46 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 71
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	57.1	16.9	U
124-18-5	n-Decane (C10)	ND	57.1	18.2	U
1120-21-4	n-Undecane (C11)	ND	57.1	17.0	U
112-40-3	n-Dodecane (C12)	299	57.1	12.4	
629-50-5	n-Tridecane (C13)	469	57.1	15.7	G
3891-98-3	2,6,10-Trimethyldodecane (1380)	22.3	57.1	8.59	J
629-59-4	n-Tetradecane (C14)	12.2	57.1	8.59	J
TMTD1470	2,6,10-Trimethyltridecane (1470)	148	57.1	6.81	
629-62-9	n-Pentadecane (C15)	ND	57.1	6.81	U
544-76-3	n-Hexadecane (C16)	ND	57.1	8.60	U
3892-00-0	Norpristane (1650)	37.1	57.1	18.8	J
629-78-7	n-Heptadecane (C17)	ND	57.1	18.8	U
1921-70-6	Pristane	36.0	57.1	12.2	J
593-45-3	n-Octadecane (C18)	2150	57.1	11.4	G
638-36-8	Phytane	422	57.1	7.17	G
629-92-5	n-Nonadecane (C19)	ND	57.1	14.7	U
112-95-8	n-Eicosane (C20)	ND	57.1	8.08	U
629-94-7	n-Heneicosane (C21)	ND	57.1	6.83	U
629-97-0	n-Docosane (C22)	ND	57.1	5.95	U
638-67-5	n-Tricosane (C23)	47.7	57.1	7.26	J
646-31-1	n-Tetracosane (C24)	ND	57.1	9.55	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-04D	Date Collected : 10/01/19 14:00
Client ID : PDI-071SC-B-06-08-191001	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 18:07
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919108	Analyst : WR
Sample Amount : 2.46 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 71
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)	414	57.1	30.2	G
630-01-3	n-Hexacosane (C26)	ND	57.1	8.39	U
593-49-7	n-Heptacosane (C27)	ND	57.1	6.87	U
630-02-4	n-Octacosane (C28)	12.7	57.1	12.2	J
630-03-5	n-Nonacosane (C29)	ND	57.1	38.0	U
638-68-6	n-Triacontane (C30)	19.7	57.1	6.55	J
630-04-6	n-Hentriacontane (C31)	ND	57.1	8.09	U
544-85-4	n-Dotriacontane (C32)	11.8	57.1	7.19	J
630-05-7	n-Tritriacontane (C33)	8.39	57.1	8.03	J
14167-59-0	n-Tetracontane (C34)	ND	57.1	9.08	U
630-07-9	n-Pentatriacontane (C35)	ND	57.1	9.96	U
630-06-8	n-Hexatriacontane (C36)	ND	57.1	11.4	U
7194-84-5	n-Heptatriacontane (C37)	22.6	57.1	12.7	J
7194-85-6	n-Octatriacontane (C38)	ND	57.1	13.3	U
7194-86-7	n-Nonatriacontane (C39)	ND	57.1	18.5	U
4181-95-7	n-Tetracontane (C40)	ND	57.1	18.5	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	22700	1880	414.	
NONE	Total Petroleum Hydrocarbons (C9-C40)	24900	1880	414.	
NONE	DRO (C10-C28)	23000	1200	247.	
TSATHC	Total Saturated Hydrocarbons	4130	57.1	28.5	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-05D	Date Collected : 10/11/19 08:40
Client ID : PDI-066SC-B-06-08-191011	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 19:35
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919110	Analyst : WR
Sample Amount : 5.02 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 56
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	20.2	5.99	U
124-18-5	n-Decane (C10)	ND	20.2	6.44	U
1120-21-4	n-Undecane (C11)	ND	20.2	6.03	U
112-40-3	n-Dodecane (C12)	79.8	20.2	4.40	
629-50-5	n-Tridecane (C13)	226	20.2	5.54	G
3891-98-3	2,6,10-Trimethyldodecane (1380)	8.44	20.2	3.04	J
629-59-4	n-Tetradecane (C14)	32.6	20.2	3.04	
TMTD1470	2,6,10-Trimethyltridecane (1470)	27.6	20.2	2.41	
629-62-9	n-Pentadecane (C15)	ND	20.2	2.41	U
544-76-3	n-Hexadecane (C16)	ND	20.2	3.04	U
3892-00-0	Norpristane (1650)	18.1	20.2	6.66	J
629-78-7	n-Heptadecane (C17)	ND	20.2	6.66	U
1921-70-6	Pristane	18.8	20.2	4.31	J
593-45-3	n-Octadecane (C18)	738	20.2	4.05	G
638-36-8	Phytane	164	20.2	2.53	G
629-92-5	n-Nonadecane (C19)	ND	20.2	5.19	U
112-95-8	n-Eicosane (C20)	ND	20.2	2.86	U
629-94-7	n-Heneicosane (C21)	ND	20.2	2.42	U
629-97-0	n-Docosane (C22)	ND	20.2	2.10	U
638-67-5	n-Tricosane (C23)	16.2	20.2	2.57	J
646-31-1	n-Tetracosane (C24)	ND	20.2	3.38	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-05D	Date Collected : 10/11/19 08:40
Client ID : PDI-066SC-B-06-08-191011	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/12/19 19:35
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F17120919110	Analyst : WR
Sample Amount : 5.02 g	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 56
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)	159	20.2	10.7	G
630-01-3	n-Hexacosane (C26)	ND	20.2	2.96	U
593-49-7	n-Heptacosane (C27)	4.92	20.2	2.43	J
630-02-4	n-Octacosane (C28)	5.51	20.2	4.33	J
630-03-5	n-Nonacosane (C29)	ND	20.2	13.4	U
638-68-6	n-Triacontane (C30)	6.44	20.2	2.31	J
630-04-6	n-Hentriacontane (C31)	8.74	20.2	2.86	J
544-85-4	n-Dotriacontane (C32)	ND	20.2	2.54	U
630-05-7	n-Tritriacontane (C33)	4.12	20.2	2.84	J
14167-59-0	n-Tettratriacontane (C34)	ND	20.2	3.21	U
630-07-9	n-Pentatriacontane (C35)	6.70	20.2	3.52	J
630-06-8	n-Hexatriacontane (C36)	ND	20.2	4.01	U
7194-84-5	n-Heptatriacontane (C37)	9.36	20.2	4.48	J
7194-85-6	n-Octatriacontane (C38)	ND	20.2	4.70	U
7194-86-7	n-Nonatriacontane (C39)	ND	20.2	6.55	U
4181-95-7	n-Tetracontane (C40)	ND	20.2	6.55	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	8680	666	146.	
NONE	Total Petroleum Hydrocarbons (C9-C40)	9570	666	146.	
NONE	DRO (C10-C28)	8650	424	87.4	
TSATHC	Total Saturated Hydrocarbons	1530	20.2	10.1	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-06	Date Collected : 10/16/19 07:57
Client ID : PDI-059SC-B-06-08-191016	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 07:42
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021960	Analyst : WR
Sample Amount : 30.31 g	Instrument ID : FID6
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 71
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	0.093	0.028	U
124-18-5	n-Decane (C10)	ND	0.093	0.030	U
1120-21-4	n-Undecane (C11)	ND	0.093	0.028	U
112-40-3	n-Dodecane (C12)	ND	0.093	0.020	U
629-50-5	n-Tridecane (C13)	ND	0.093	0.026	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	ND	0.093	0.014	U
629-59-4	n-Tetradecane (C14)	ND	0.093	0.014	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	ND	0.093	0.011	U
629-62-9	n-Pentadecane (C15)	0.431	0.093	0.011	G
544-76-3	n-Hexadecane (C16)	0.139	0.093	0.014	G
3892-00-0	Norpristane (1650)	ND	0.093	0.031	U
629-78-7	n-Heptadecane (C17)	ND	0.093	0.031	U
1921-70-6	Pristane	ND	0.093	0.020	U
593-45-3	n-Octadecane (C18)	0.034	0.093	0.019	JC
638-36-8	Phytane	ND	0.093	0.012	U
629-92-5	n-Nonadecane (C19)	ND	0.093	0.024	U
112-95-8	n-Eicosane (C20)	ND	0.093	0.013	U
629-94-7	n-Heneicosane (C21)	0.012	0.093	0.011	J
629-97-0	n-Docosane (C22)	0.011	0.093	0.010	J
638-67-5	n-Tricosane (C23)	0.040	0.093	0.012	J
646-31-1	n-Tetracosane (C24)	ND	0.093	0.016	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-06	Date Collected : 10/16/19 07:57
Client ID : PDI-059SC-B-06-08-191016	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 07:42
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021960	Analyst : WR
Sample Amount : 30.31 g	Instrument ID : FID6
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 71
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)	0.154	0.093	0.049	C
630-01-3	n-Hexacosane (C26)	0.036	0.093	0.014	J
593-49-7	n-Heptacosane (C27)	0.500	0.093	0.011	
630-02-4	n-Octacosane (C28)	0.055	0.093	0.020	J
630-03-5	n-Nonacosane (C29)	0.222	0.093	0.062	
638-68-6	n-Triacontane (C30)	0.022	0.093	0.011	J
630-04-6	n-Hentriacontane (C31)	0.146	0.093	0.013	
544-85-4	n-Dotriacontane (C32)	0.016	0.093	0.012	J
630-05-7	n-Tritriacontane (C33)	0.216	0.093	0.013	
14167-59-0	n-Tettratriacontane (C34)	0.029	0.093	0.015	J
630-07-9	n-Pentatriacontane (C35)	0.155	0.093	0.016	
630-06-8	n-Hexatriacontane (C36)	ND	0.093	0.018	U
7194-84-5	n-Heptatriacontane (C37)	ND	0.093	0.021	U
7194-85-6	n-Octatriacontane (C38)	ND	0.093	0.022	U
7194-86-7	n-Nonatriacontane (C39)	ND	0.093	0.030	U
4181-95-7	n-Tetracontane (C40)	ND	0.093	0.030	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	29.9	3.06	0.674	
NONE	Total Petroleum Hydrocarbons (C9-C40)	23.7	3.06	0.674	
NONE	DRO (C10-C28)	9.18	1.95	0.402	
TSATHC	Total Saturated Hydrocarbons	2.22	0.093	0.046	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-07	Date Collected : 10/15/19 13:32
Client ID : PDI-049SC-B-06-08-191015	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 09:11
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021962	Analyst : WR
Sample Amount : 20.77 g	Instrument ID : FID6
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 76
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	0.128	0.038	U
124-18-5	n-Decane (C10)	ND	0.128	0.041	U
1120-21-4	n-Undecane (C11)	ND	0.128	0.038	U
112-40-3	n-Dodecane (C12)	ND	0.128	0.028	U
629-50-5	n-Tridecane (C13)	ND	0.128	0.035	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	0.064	0.128	0.019	J
629-59-4	n-Tetradecane (C14)	0.022	0.128	0.019	J
TMTD1470	2,6,10-Trimethyltridecane (1470)	0.070	0.128	0.015	J
629-62-9	n-Pentadecane (C15)	1.02	0.128	0.015	G
544-76-3	n-Hexadecane (C16)	0.605	0.128	0.019	G
3892-00-0	Norpristane (1650)	0.071	0.128	0.042	J
629-78-7	n-Heptadecane (C17)	ND	0.128	0.042	U
1921-70-6	Pristane	0.111	0.128	0.027	J
593-45-3	n-Octadecane (C18)	0.270	0.128	0.026	C
638-36-8	Phytane	0.122	0.128	0.016	J
629-92-5	n-Nonadecane (C19)	0.039	0.128	0.033	J
112-95-8	n-Eicosane (C20)	0.036	0.128	0.018	J
629-94-7	n-Heneicosane (C21)	0.053	0.128	0.015	J
629-97-0	n-Docosane (C22)	0.019	0.128	0.013	J
638-67-5	n-Tricosane (C23)	0.118	0.128	0.016	J
646-31-1	n-Tetracosane (C24)	ND	0.128	0.021	U



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-07	Date Collected : 10/15/19 13:32
Client ID : PDI-049SC-B-06-08-191015	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 09:11
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021962	Analyst : WR
Sample Amount : 20.77 g	Instrument ID : FID6
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 76
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)	0.150	0.128	0.068	C
630-01-3	n-Hexacosane (C26)	0.032	0.128	0.019	J
593-49-7	n-Heptacosane (C27)	0.287	0.128	0.015	
630-02-4	n-Octacosane (C28)	0.048	0.128	0.027	J
630-03-5	n-Nonacosane (C29)	0.134	0.128	0.085	
638-68-6	n-Triacontane (C30)	0.077	0.128	0.015	J
630-04-6	n-Hentriacontane (C31)	0.094	0.128	0.018	J
544-85-4	n-Dotriacontane (C32)	0.101	0.128	0.016	J
630-05-7	n-Tritriacontane (C33)	0.196	0.128	0.018	
14167-59-0	n-Tetracontane (C34)	0.125	0.128	0.020	J
630-07-9	n-Pentatriacontane (C35)	0.066	0.128	0.022	J
630-06-8	n-Hexatriacontane (C36)	ND	0.128	0.025	U
7194-84-5	n-Heptatriacontane (C37)	0.057	0.128	0.028	J
7194-85-6	n-Octatriacontane (C38)	ND	0.128	0.030	U
7194-86-7	n-Nonatriacontane (C39)	ND	0.128	0.041	U
4181-95-7	n-Tetracontane (C40)	ND	0.128	0.041	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	108	4.21	0.926	
NONE	Total Petroleum Hydrocarbons (C9-C40)	93.5	4.21	0.926	
NONE	DRO (C10-C28)	58.0	2.68	0.552	
TSATHC	Total Saturated Hydrocarbons	3.99	0.128	0.064	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : L1954309-08	Date Collected : 10/14/19 13:15
Client ID : PDI-1079SC-B-06-08-191014	Date Received : 11/14/19
Sample Location : SEATTLE, WA	Date Analyzed : 12/04/19 15:46
Sample Matrix : Sediment	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021970	Analyst : WR
Sample Amount : 15.51 g	Instrument ID : FID6
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 4000 uL	%Solids : 62
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	0.596	0.177	U
124-18-5	n-Decane (C10)	ND	0.596	0.190	U
1120-21-4	n-Undecane (C11)	0.363	0.596	0.178	J
112-40-3	n-Dodecane (C12)	0.142	0.596	0.130	J
629-50-5	n-Tridecane (C13)	1.40	0.596	0.164	
3891-98-3	2,6,10-Trimethyldodecane (1380)	2.37	0.596	0.090	
629-59-4	n-Tetradecane (C14)	1.10	0.596	0.090	
TMTD1470	2,6,10-Trimethyltridecane (1470)	1.99	0.596	0.071	
629-62-9	n-Pentadecane (C15)	24.2	0.596	0.071	G
544-76-3	n-Hexadecane (C16)	13.6	0.596	0.090	G
3892-00-0	Norpristane (1650)	2.51	0.596	0.197	
629-78-7	n-Heptadecane (C17)	0.198	0.596	0.197	J
1921-70-6	Pristane	4.80	0.596	0.127	
593-45-3	n-Octadecane (C18)	0.538	0.596	0.120	J
638-36-8	Phytane	2.47	0.596	0.075	
629-92-5	n-Nonadecane (C19)	1.89	0.596	0.153	
112-95-8	n-Eicosane (C20)	1.84	0.596	0.084	
629-94-7	n-Heneicosane (C21)	1.51	0.596	0.071	
629-97-0	n-Docosane (C22)	1.20	0.596	0.062	
638-67-5	n-Tricosane (C23)	4.29	0.596	0.076	
646-31-1	n-Tetracosane (C24)	0.710	0.596	0.100	



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Lab ID : L1954309-08
 Client ID : PDI-1079SC-B-06-08-191014
 Sample Location : SEATTLE, WA
 Sample Matrix : Sediment
 Analytical Method : 1,8015D(M)
 Lab File ID : F612021970
 Sample Amount : 15.51 g
 Extraction Method : ALPHA OP-013
 Extract Volume : 4000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L1954309
 Project Number : 000029-02.59
 Date Collected : 10/14/19 13:15
 Date Received : 11/14/19
 Date Analyzed : 12/04/19 15:46
 Date Extracted : 11/22/19
 Dilution Factor : 1
 Analyst : WR
 Instrument ID : FID6
 GC Column : RTX-5
 %Solids : 62
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	1.20	0.596	0.316	
630-01-3	n-Hexacosane (C26)	0.617	0.596	0.088	
593-49-7	n-Heptacosane (C27)	2.41	0.596	0.072	
630-02-4	n-Octacosane (C28)	1.11	0.596	0.128	
630-03-5	n-Nonacosane (C29)	1.57	0.596	0.397	
638-68-6	n-Triacontane (C30)	1.39	0.596	0.068	
630-04-6	n-Hentriacontane (C31)	0.595	0.596	0.085	J
544-85-4	n-Dotriacontane (C32)	2.26	0.596	0.075	
630-05-7	n-Tritriacontane (C33)	3.40	0.596	0.084	
14167-59-0	n-Tetracontane (C34)	1.42	0.596	0.095	
630-07-9	n-Pentatriacontane (C35)	2.25	0.596	0.104	
630-06-8	n-Hexatriacontane (C36)	ND	0.596	0.118	U
7194-84-5	n-Heptatriacontane (C37)	1.09	0.596	0.132	
7194-85-6	n-Octatriacontane (C38)	ND	0.596	0.139	U
7194-86-7	n-Nonatriacontane (C39)	ND	0.596	0.194	U
4181-95-7	n-Tetracontane (C40)	ND	0.596	0.194	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	2340	19.7	4.33	
NONE	Total Petroleum Hydrocarbons (C9-C40)	2290	19.7	4.33	
NONE	DRO (C10-C28)	1720	12.5	2.58	
TSATHC	Total Saturated Hydrocarbons	86.4	0.596	0.298	J



Results Summary
Form 1
Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1312512-1	Date Collected : NA
Client ID : WG1312512-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/02/19 20:19
Sample Matrix : SOIL	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021912	Analyst : WR
Sample Amount : 30 g	Instrument ID : FID6
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)	0.027	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 : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Lab ID : WG1312512-1	Date Collected : NA
Client ID : WG1312512-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/02/19 20:19
Sample Matrix : SOIL	Date Extracted : 11/22/19
Analytical Method : 1,8015D(M)	Dilution Factor : 1
Lab File ID : F612021912	Analyst : WR
Sample Amount : 30 g	Instrument ID : FID6
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)	0.035	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)	0.015	0.067	0.015	J
7194-85-6	n-Octatriacontane (C38)	ND	0.067	0.016	U
7194-86-7	n-Nonatriacontane (C39)	0.060	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)	ND	2.20	0.484	U
NONE	DRO (C10-C28)	0.417	1.40	0.288	J
TSATHC	Total Saturated Hydrocarbons	0.138	0.067	0.033	J



Surrogate Recovery Summary

Form 2

Petroleum

Client: Anchor QEA, LLC
 Project Name: GASCO PDI

Lab Number: L1954309
 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-090SC-B-06-08-191012 (L1954309-01D)	87	84	--	--			0
PDI-084SC-B-06-08-191002 (L1954309-02D)	80	79	--	--			0
PDI-079SC-B-06-08-191014 (L1954309-03D)	90	81	--	--			0
PDI-071SC-B-06-08-191001 (L1954309-04D)	94	85	--	--			0
PDI-066SC-B-06-08-191011 (L1954309-05D)	91	87	--	--			0
PDI-059SC-B-06-08-191016 (L1954309-06)	79	81	--	--			0
PDI-049SC-B-06-08-191015 (L1954309-07)	88	85	--	--			0
PDI-1079SC-B-06-08-191014 (L1954309-08)	82	78	--	--			0
WG1312512-1BLANK	95	90	--	--			0
WG1312512-2LCS	102	98	--	--			0
WG1312512-3LCSD	97	93	--	--			0

QC LIMITS

(50-130) d50- = D50-TETRACOSANE

(50-130) OTP = O-TERPHENYL

* Values outside of QC limits

FORM II A2-SHC



Laboratory Control Sample Summary

Form 3

Petroleum

Client : Anchor QEA, LLC **Lab Number** : L1954309
Project Name : GASCO PDI **Project Number** : 000029-02.59
Matrix : SOIL
LCS Sample ID : WG1312512-2 **Analysis Date** : 12/02/19 23:17 **File ID** : F612021916
LCSD Sample ID : WG1312512-3 **Analysis Date** : 12/03/19 00:45 **File ID** : F612021918

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (mg/kg)	Found (mg/kg)	%R	True (mg/kg)	Found (mg/kg)	%R			
Nonane (C9)	0.667	0.461	69	0.667	0.408	61	12	50-130	30
n-Decane (C10)	0.667	0.554	83	0.667	0.481	72	14	50-130	30
n-Dodecane (C12)	0.667	0.595	89	0.667	0.514	77	14	50-130	30
n-Tetradecane (C14)	0.667	0.596	89	0.667	0.532	80	11	50-130	30
n-Hexadecane (C16)	0.667	0.658	99	0.667	0.619	93	6	50-130	30
n-Octadecane (C18)	0.667	0.661	99	0.667	0.636	95	4	50-130	30
n-Nonadecane (C19)	0.667	0.652	98	0.667	0.632	95	3	50-130	30
n-Eicosane (C20)	0.667	0.659	99	0.667	0.639	96	3	50-130	30
n-Docosane (C22)	0.667	0.660	99	0.667	0.642	96	3	50-130	30
n-Tetracosane (C24)	0.667	0.683	102	0.667	0.666	100	2	50-130	30
n-Hexacosane (C26)	0.667	0.667	100	0.667	0.649	97	3	50-130	30
n-Octacosane (C28)	0.667	0.669	100	0.667	0.652	98	2	50-130	30
n-Triacontane (C30)	0.667	0.663	100	0.667	0.633	95	5	50-130	30
n-Hexatriacontane (C36)	0.667	0.590	88	0.667	0.568	85	3	50-130	30



Method Blank Summary

Form 4

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Lab Sample ID : WG1312512-1
Instrument ID : FID6
Matrix : SOIL
Level : LOW

Lab Number : L1954309
Project Number : 000029-02.59
Lab File ID : F612021912
Extraction Date : 11/22/19
Analysis Date : 12/02/19 20:19

Client Sample No.	Lab Sample ID	Analysis Date
WG1312512-2LCS	WG1312512-2	12/02/19 23:17
WG1312512-3LCSD	WG1312512-3	12/03/19 00:45
PDI-059SC-B-06-08-191016	L1954309-06	12/04/19 07:42
PDI-049SC-B-06-08-191015	L1954309-07	12/04/19 09:11
PDI-1079SC-B-06-08-191014	L1954309-08	12/04/19 15:46
PDI-090SC-B-06-08-191012	L1954309-01D	12/12/19 13:44
PDI-084SC-B-06-08-191002	L1954309-02D	12/12/19 15:11
PDI-079SC-B-06-08-191014	L1954309-03D	12/12/19 16:39
PDI-071SC-B-06-08-191001	L1954309-04D	12/12/19 18:07
PDI-066SC-B-06-08-191011	L1954309-05D	12/12/19 19:35



Initial Calibration Summary

Form 6

Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L1954309
Project Name	: GASCO PDI	Project Number	: 000029-02.59
Instrument ID	: FID17	Ical Ref	: ICAL15688
Calibration dates	: 04/03/19 23:29 04/04/19 06:51		

Calibration Files

1 =F1704031914.d 10 =F1704031916.d 50 =F1704031918.d 100 =F1704031920.d 200 =F1704031922.d
 500 =F1704031924.d

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.848	0.842	0.833	0.847	0.821		0.838	1.34
3) t n-Nonane (C9)	0.908	0.889	0.908	0.896	0.874		0.895	1.58
4) t n-Decane (C10)	0.902	0.911	0.940	0.917	0.897		0.914	1.82
5) t n-Undecane (C11)	0.911	0.921	0.950	0.925	0.909		0.923	1.77
6) t n-Dodecane (C12)	0.919	0.926	0.956	0.930	0.917		0.929	1.66
7) t n-Tridecane (C13)	0.910	0.927	0.957	0.930	0.919		0.928	1.89
8) t 1380	0.928	0.938	0.968	0.939	0.929		0.940	1.71
9) t n-Tetradecane (C14)	0.928	0.938	0.968	0.939	0.929		0.940	1.71
10) t 1470	0.925	0.939	0.968	0.938	0.929		0.940	1.79
11) t n-Pentadecane (C15)	0.925	0.939	0.968	0.938	0.929		0.940	1.79
12) t n-Hexadecane (C16)	0.931	0.943	0.974	0.944	0.934		0.945	1.78
13) t 1650	0.925	0.939	0.971	0.946	0.959		0.948	1.86
14) t n-Heptadecane (C17)	0.925	0.939	0.971	0.946	0.959		0.948	1.86
15) t Pristane	0.954	0.957	0.985	0.949	0.914		0.952	2.66
16) t n-Octadecane (C18)	0.941	0.951	0.982	0.950	0.943		0.953	1.72
17) t Phytane	0.856	0.863	0.890	0.870	0.859		0.868	1.53
18) t n-Nonadecane (C19)	0.939	0.949	0.978	0.947	0.936		0.950	1.76
19) s ortho-terphenyl	1.085	1.059	1.098	1.076	1.063	1.089	1.078	1.41
20) t n-Eicosane (C20)	0.944	0.951	0.979	0.947	0.939		0.952	1.63
21) t n-Heneicosane (C21)	0.963	0.969	0.992	0.960	0.952		0.967	1.60
22) t n-Docosane (C22)	0.961	0.965	0.992	0.960	0.951		0.966	1.61
23) t n-Tricosane (C23)	0.973	0.970	0.998	0.966	0.955		0.972	1.63
24) s d50-Tetracosane	0.869	0.846	0.877	0.857	0.849	0.880	0.863	1.68
25) t n-Tetracosane (C24)	0.979	0.974	1.003	0.966	0.956		0.976	1.78
26) t n-Pentacosane (C25)	0.968	0.965	0.994	0.958	0.947		0.966	1.78
27) t n-Hexacosane (C26)	0.974	0.972	1.002	0.965	0.955		0.973	1.79
28) t n-Heptacosane (C27)	0.953	0.946	0.975	0.938	0.928		0.948	1.87
29) t n-Octacosane (C28)	0.978	0.984	1.015	0.974	0.965		0.983	1.96
30) t n-Nonacosane (C29)	0.979	0.977	1.006	0.967	0.959		0.978	1.83
31) t n-Triacontane (C30)	0.971	0.965	0.994	0.955	0.949		0.967	1.78
32) t n-Hentriacontane (C31)	0.981	0.970	0.998	0.959	0.955		0.973	1.78
33) t n-Dotriacontane (C32)	0.969	0.957	0.985	0.946	0.945		0.960	1.74
34) t n-Tritriacontane (C33)	0.958	0.946	0.974	0.936	0.937		0.950	1.66
35) t n-tetratriacontane (C34)	0.990	0.981	1.008	0.970	0.974		0.985	1.52
36) t n-Pentatriacontane (C35)	0.961	0.947	0.973	0.938	0.943		0.952	1.51



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : FID17	Ical Ref : ICAL15688
Calibration dates : 04/03/19 23:29 04/04/19 06:51	

Calibration Files

1 =F1704031914.d 10 =F1704031916.d 50 =F1704031918.d 100 =F1704031920.d 200 =F1704031922.d
 500 =F1704031924.d

Compound	1	10	50	100	200	500	Avg	%RSD
37) t n-Hexatriacontane (C36)	1.007	1.002	1.031	0.995	1.003		1.008	1.37
38) t n-Heptatriacontane (C37)	0.968	0.942	0.969	0.936	0.946		0.952	1.61
39) t n-Octatriacontane (C38)	1.016	1.019	1.049	1.013	1.027		1.025	1.40
40) t n-Nonatriacon	0.974	0.965	0.993	0.960	0.978		0.974	1.33
41) t n-Tetracontane (C40)	0.974	0.965	0.993	0.960	0.978		0.974	1.33
42) h C9-C44 Total	0.952	0.952	0.980	0.948	0.942		0.955	1.55
43) h C9-C40 Total	0.952	0.952	0.980	0.948	0.942		0.955	1.55
44) h C10-C28 DRO	0.952	0.952	0.980	0.948	0.942		0.955	1.55
45) h C28-C40 ORO	0.952	0.952	0.980	0.948	0.942		0.955	1.55
46) h Total Resolve	0.952	0.952	0.980	0.948	0.942		0.955	1.55



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC	Lab Number : L1954309
Project Name : GASCO PDI	Project Number : 000029-02.59
Instrument ID : FID6	Ical Ref : ICAL16308
Calibration dates : 11/05/19 23:44 11/06/19 07:04	

Calibration Files

1 =F611051922.D 10 =F611051924.D 50 =F611051926.D 100 =F611051928.D 200 =F611051930.D
 500 =F611051932.D

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.802	0.781	0.769	0.761	0.798		0.782	2.24
3) t n-Nonane (C9)	0.832	0.821	0.810	0.808	0.832		0.820	1.39
4) t n-Decane (C10)	0.857	0.852	0.844	0.847	0.862		0.852	0.86
5) t n-Undecane (C11)	0.863	0.870	0.865	0.867	0.880		0.869	0.78
6) t n-Dodecane (C12)	0.883	0.890	0.882	0.883	0.896		0.887	0.66
7) t n-Tridecane (C13)	0.903	0.901	0.893	0.893	0.904		0.899	0.58
8) t 1380	0.927	0.919	0.911	0.910	0.921		0.918	0.80
9) t n-Tetradecane (C14)	0.927	0.919	0.911	0.910	0.921		0.918	0.80
10) t 1470	0.931	0.925	0.917	0.914	0.925		0.922	0.76
11) t n-Pentadecane (C15)	0.931	0.925	0.917	0.914	0.925		0.922	0.76
12) t n-Hexadecane (C16)	0.956	0.940	0.928	0.925	0.935		0.937	1.29
13) t 1650	0.940	0.935	0.926	0.925	0.948		0.935	1.04
14) t n-Heptadecane (C17)	0.940	0.935	0.926	0.925	0.948		0.935	1.04
15) t Pristane	0.971	0.958	0.945	0.940	0.938		0.951	1.47
16) T n-Octadecane (C18)	0.955	0.953	0.942	0.937	0.950		0.947	0.82
17) t Phytane	0.863	0.858	0.849	0.845	0.857		0.854	0.87
18) t n-Nonadecane (C19)	0.957	0.954	0.941	0.931	0.942		0.945	1.14
19) s ortho-terphenyl	1.039	1.064	1.055	1.029	1.048	1.024	1.043	1.49
20) t n-Eicosane (C20)	0.963	0.959	0.942	0.932	0.947		0.949	1.37
21) t n-Heneicosane (C21)	0.979	0.974	0.956	0.946	0.958		0.962	1.43
22) t n-Docosane (C22)	0.982	0.975	0.955	0.946	0.957		0.963	1.55
23) t n-Tricosane (C23)	0.986	0.980	0.959	0.950	0.961		0.967	1.57
24) s d50-Tetracosane	0.819	0.837	0.823	0.801	0.815	0.806	0.817	1.58
25) t n-Tetracosane (C24)	0.992	0.984	0.961	0.955	0.961		0.971	1.66
26) t n-Pentacosane (C25)	0.985	0.975	0.951	0.943	0.951		0.961	1.88
27) t n-Hexacosane (C26)	0.988	0.981	0.959	0.951	0.958		0.967	1.67
28) t n-Heptacosane (C27)	0.960	0.954	0.932	0.925	0.932		0.941	1.62
29) t n-Octacosane (C28)	0.998	0.991	0.969	0.962	0.971		0.978	1.57
30) t n-Nonacosane (C29)	0.996	0.987	0.963	0.958	0.966		0.974	1.71
31) t n-Triacontane (C30)	0.990	0.977	0.954	0.949	0.958		0.966	1.80
32) t n-Hentriacontane (C31)	0.996	0.984	0.961	0.956	0.966		0.973	1.75
33) t n-Dotriacontane (C32)	0.983	0.972	0.951	0.947	0.956		0.962	1.57
34) t n-Tritriacontane (C33)	0.980	0.964	0.942	0.939	0.947		0.954	1.78
35) t n-tetratriacontane (C34)	1.007	0.998	0.976	0.973	0.982		0.987	1.50
36) t n-Pentatriacontane (C35)	0.968	0.964	0.942	0.939	0.947		0.952	1.38



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : FID6
Calibration dates : 11/05/19 23:44 11/06/19 07:04

Lab Number : L1954309
Project Number : 000029-02.59
Ical Ref : ICAL16308

Calibration Files

1 =F611051922.D 10 =F611051924.D 50 =F611051926.D 100 =F611051928.D 200 =F611051930.D
 500 =F611051932.D

Compound	1	10	50	100	200	500	Avg	%RSD
37) t n-Hexatriacontane (C36)	1.030	1.022	0.997	0.994	1.002		1.009	1.58
38) t n-Heptatriacontane (C37)	0.967	0.959	0.934	0.932	0.938		0.946	1.68
39) t n-Octatriacontane (C38)	1.051	1.032	1.007	1.004	1.010		1.021	1.96
40) t n-Nonatriacon	0.979	0.966	0.941	0.938	0.943		0.953	1.92
41) t n-Tetracontane (C40)	0.979	0.966	0.941	0.938	0.943		0.953	1.92
42) h C9-C44 Total	0.958	0.951	0.933	0.929	0.939		0.942	1.28
43) h C10-C25 DRO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
44) h C25-C44 ORO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
45) h C9-C40 Total	0.958	0.951	0.933	0.929	0.939		0.942	1.28
46) h C10-C28 DRO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
47) h C8-C40 Total	0.958	0.951	0.933	0.929	0.939		0.942	1.28
48) h C28-C40 ORO	0.958	0.951	0.933	0.929	0.939		0.942	1.28
49) h Total Resolve	0.958	0.951	0.933	0.929	0.939		0.942	1.28



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID6
 Lab File ID : F612021906
 Sample No : WG1315720-1
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/02/19 15:54
 Init. Calib. Date(s) : 11/05/19 11/06/19
 Init. Calib. Times : 23:44 07:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	72	0
n-Octane (C8)	0.782	0.858	.05	-9.7	25	80	0
n-Nonane (C9)	0.82	0.896	.05	-9.3	25	79	0
n-Decane (C10)	0.852	0.918	.05	-7.7	25	78	0
n-Undecane (C11)	0.869	0.929	.05	-6.9	25	77	0
n-Dodecane (C12)	0.887	0.941	.05	-6.1	25	77	0
n-Tridecane (C13)	0.899	0.947	.05	-5.3	25	76	0
n-Tetradecane (C14)	0.918	0.96	.05	-4.6	25	76	0
n-Pentadecane (C15)	0.922	0.964	.05	-4.6	25	75	0
n-Hexadecane (C16)	0.937	0.974	.05	-3.9	25	75	0
n-Heptadecane (C17)	0.935	0.967	.05	-3.4	25	75	0
Pristane	0.951	0.998	.05	-4.9	25	76	0
n-Octadecane (C18)	0.947	0.981	.05	-3.6	25	75	0
Phytane	0.854	0.889	.05	-4.1	25	75	0
n-Nonadecane (C19)	0.945	0.983	.05	-4	25	75	0
ortho-terphenyl	1.043	1.081	.05	-3.6	25	74	0
n-Eicosane (C20)	0.949	0.994	.05	-4.7	25	76	0
n-Heneicosane (C21)	0.962	1.009	.05	-4.9	25	76	0
n-Docosane (C22)	0.963	1.013	.05	-5.2	25	76	0
n-Tricosane (C23)	0.967	1.023	.05	-5.8	25	76	0
d50-Tetracosane	0.817	0.873	.05	-6.9	25	76	0
n-Tetracosane (C24)	0.971	1.026	.05	-5.7	25	77	0
n-Pentacosane (C25)	0.961	1.018	.05	-5.9	25	77	0
n-Hexacosane (C26)	0.967	1.029	.05	-6.4	25	77	0
n-Heptacosane (C27)	0.941	1.004	.05	-6.7	25	77	0
n-Octacosane (C28)	0.978	1.042	.05	-6.5	25	77	0
n-Nonacosane (C29)	0.974	1.036	.05	-6.4	25	77	0
n-Triacontane (C30)	0.966	1.021	.05	-5.7	25	77	0
n-Hentriacontane (C31)	0.973	1.025	.05	-5.3	25	77	0
n-Dotriacontane (C32)	0.962	1.017	.05	-5.7	25	77	0
n-Tritriacontane (C33)	0.954	1.016	.05	-6.5	25	77	0
n-tetratriacontane (C34)	0.987	1.065	.05	-7.9	25	78	0
n-Pentatriacontane (C35)	0.952	1.036	.05	-8.8	25	79	0
n-Hexatriacontane (C36)	1.009	1.103	.05	-9.3	25	79	0
n-Heptatriacontane (C37)	0.946	1.035	.05	-9.4	25	79	0
n-Octatriacontane (C38)	1.021	1.11	.05	-8.7	25	79	0
n-Tetracontane (C40)	0.953	0.99	.05	-3.9	25	75	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID6
 Lab File ID : F612021936
 Sample No : WG1315720-2
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/03/19 14:02
 Init. Calib. Date(s) : 11/05/19 11/06/19
 Init. Calib. Times : 23:44 07:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	75	0
n-Octane (C8)	0.782	0.821	.05	-5	25	80	0
n-Nonane (C9)	0.82	0.889	.05	-8.4	25	82	0
n-Decane (C10)	0.852	0.924	.05	-8.5	25	82	0
n-Undecane (C11)	0.869	0.937	.05	-7.8	25	81	0
n-Dodecane (C12)	0.887	0.949	.05	-7	25	80	0
n-Tridecane (C13)	0.899	0.954	.05	-6.1	25	80	0
n-Tetradecane (C14)	0.918	0.968	.05	-5.4	25	79	0
n-Pentadecane (C15)	0.922	0.969	.05	-5.1	25	79	0
n-Hexadecane (C16)	0.937	0.979	.05	-4.5	25	79	0
n-Heptadecane (C17)	0.935	0.97	.05	-3.7	25	78	0
Pristane	0.951	1.004	.05	-5.6	25	79	0
n-Octadecane (C18)	0.947	0.984	.05	-3.9	25	78	0
Phytane	0.854	0.894	.05	-4.7	25	79	0
n-Nonadecane (C19)	0.945	0.986	.05	-4.3	25	78	0
ortho-terphenyl	1.043	1.083	.05	-3.8	25	77	0
n-Eicosane (C20)	0.949	0.996	.05	-5	25	79	0
n-Heneicosane (C21)	0.962	1.01	.05	-5	25	79	0
n-Docosane (C22)	0.963	1.013	.05	-5.2	25	79	0
n-Tricosane (C23)	0.967	1.022	.05	-5.7	25	80	0
d50-Tetracosane	0.817	0.871	.05	-6.6	25	79	0
n-Tetracosane (C24)	0.971	1.024	.05	-5.5	25	80	0
n-Pentacosane (C25)	0.961	1.015	.05	-5.6	25	80	0
n-Hexacosane (C26)	0.967	1.022	.05	-5.7	25	80	0
n-Heptacosane (C27)	0.941	0.994	.05	-5.6	25	80	0
n-Octacosane (C28)	0.978	1.035	.05	-5.8	25	80	0
n-Nonacosane (C29)	0.974	1.038	.05	-6.6	25	81	0
n-Triacontane (C30)	0.966	1.04	.05	-7.7	25	81	0
n-Hentriacontane (C31)	0.973	1.062	.05	-9.1	25	83	0
n-Dotriacontane (C32)	0.962	1.069	.05	-11.1	25	84	0
n-Tritriacontane (C33)	0.954	1.079	.05	-13.1	25	86	0
n-tetratriacontane (C34)	0.987	1.138	.05	-15.3	25	87	0
n-Pentatriacontane (C35)	0.952	1.114	.05	-17	25	88	0
n-Hexatriacontane (C36)	1.009	1.193	.05	-18.2	25	89	.01
n-Heptatriacontane (C37)	0.946	1.126	.05	-19	25	90	.01
n-Octatriacontane (C38)	1.021	1.217	.05	-19.2	25	90	.02
n-Tetracontane (C40)	0.953	1.069	.05	-12.2	25	85	.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID6
 Lab File ID : F612021964
 Sample No : WG1315720-3
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/04/19 10:39
 Init. Calib. Date(s) : 11/05/19 11/06/19
 Init. Calib. Times : 23:44 07:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	87	0
n-Octane (C8)	0.782	0.692	.05	11.5	25	78	0
n-Nonane (C9)	0.82	0.825	.05	-0.6	25	89	0
n-Decane (C10)	0.852	0.893	.05	-4.8	25	92	0
n-Undecane (C11)	0.869	0.923	.05	-6.2	25	93	0
n-Dodecane (C12)	0.887	0.941	.05	-6.1	25	93	0
n-Tridecane (C13)	0.899	0.947	.05	-5.3	25	92	0
n-Tetradecane (C14)	0.918	0.961	.05	-4.7	25	92	0
n-Pentadecane (C15)	0.922	0.966	.05	-4.8	25	92	0
n-Hexadecane (C16)	0.937	0.977	.05	-4.3	25	92	0
n-Heptadecane (C17)	0.935	0.967	.05	-3.4	25	91	0
Pristane	0.951	1.001	.05	-5.3	25	92	0
n-Octadecane (C18)	0.947	0.983	.05	-3.8	25	91	0
Phytane	0.854	0.892	.05	-4.4	25	92	0
n-Nonadecane (C19)	0.945	0.984	.05	-4.1	25	91	0
ortho-terphenyl	1.043	1.088	.05	-4.3	25	90	0
n-Eicosane (C20)	0.949	0.992	.05	-4.5	25	92	0
n-Heneicosane (C21)	0.962	1.01	.05	-5	25	92	0
n-Docosane (C22)	0.963	1.013	.05	-5.2	25	92	0
n-Tricosane (C23)	0.967	1.023	.05	-5.8	25	93	0
d50-Tetracosane	0.817	0.881	.05	-7.8	25	93	0
n-Tetracosane (C24)	0.971	1.024	.05	-5.5	25	93	0
n-Pentacosane (C25)	0.961	1.017	.05	-5.8	25	93	0
n-Hexacosane (C26)	0.967	1.021	.05	-5.6	25	93	0
n-Heptacosane (C27)	0.941	0.993	.05	-5.5	25	93	0
n-Octacosane (C28)	0.978	1.032	.05	-5.5	25	93	0
n-Nonacosane (C29)	0.974	1.032	.05	-6	25	93	0
n-Triacontane (C30)	0.966	1.029	.05	-6.5	25	94	0
n-Hentriacontane (C31)	0.973	1.046	.05	-7.5	25	95	0
n-Dotriacontane (C32)	0.962	1.046	.05	-8.7	25	96	0
n-Tritriacontane (C33)	0.954	1.047	.05	-9.7	25	97	0
n-tetratriacontane (C34)	0.987	1.096	.05	-11	25	98	0
n-Pentatriacontane (C35)	0.952	1.065	.05	-11.9	25	99	0
n-Hexatriacontane (C36)	1.009	1.132	.05	-12.2	25	99	0
n-Heptatriacontane (C37)	0.946	1.059	.05	-11.9	25	99	0
n-Octatriacontane (C38)	1.021	1.132	.05	-10.9	25	98	0
n-Tetracontane (C40)	0.953	0.956	.05	-0.3	25	89	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID6
 Lab File ID : F612021978
 Sample No : WG1315720-4
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/04/19 21:40
 Init. Calib. Date(s) : 11/05/19 11/06/19
 Init. Calib. Times : 23:44 07:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	85	0
n-Octane (C8)	0.782	0.754	.05	3.6	25	83	0
n-Nonane (C9)	0.82	0.82	.05	0	25	86	0
n-Decane (C10)	0.852	0.885	.05	-3.9	25	89	0
n-Undecane (C11)	0.869	0.915	.05	-5.3	25	90	0
n-Dodecane (C12)	0.887	0.934	.05	-5.3	25	90	0
n-Tridecane (C13)	0.899	0.941	.05	-4.7	25	89	0
n-Tetradecane (C14)	0.918	0.954	.05	-3.9	25	89	0
n-Pentadecane (C15)	0.922	0.957	.05	-3.8	25	88	0
n-Hexadecane (C16)	0.937	0.967	.05	-3.2	25	88	0
n-Heptadecane (C17)	0.935	0.957	.05	-2.4	25	87	0
Pristane	0.951	0.988	.05	-3.9	25	89	0
n-Octadecane (C18)	0.947	0.97	.05	-2.4	25	87	0
Phytane	0.854	0.882	.05	-3.3	25	88	0
n-Nonadecane (C19)	0.945	0.974	.05	-3.1	25	88	0
ortho-terphenyl	1.043	1.075	.05	-3.1	25	86	0
n-Eicosane (C20)	0.949	0.982	.05	-3.5	25	88	0
n-Heneicosane (C21)	0.962	0.997	.05	-3.6	25	88	0
n-Docosane (C22)	0.963	0.999	.05	-3.7	25	89	0
n-Tricosane (C23)	0.967	1.008	.05	-4.2	25	89	0
d50-Tetracosane	0.817	0.864	.05	-5.8	25	89	0
n-Tetracosane (C24)	0.971	1.009	.05	-3.9	25	89	0
n-Pentacosane (C25)	0.961	1.002	.05	-4.3	25	89	0
n-Hexacosane (C26)	0.967	1.008	.05	-4.2	25	89	0
n-Heptacosane (C27)	0.941	0.981	.05	-4.3	25	89	0
n-Octacosane (C28)	0.978	1.012	.05	-3.5	25	88	0
n-Nonacosane (C29)	0.974	1.011	.05	-3.8	25	89	0
n-Triacontane (C30)	0.966	0.999	.05	-3.4	25	89	0
n-Hentriacontane (C31)	0.973	1.016	.05	-4.4	25	90	0
n-Dotriacontane (C32)	0.962	1.013	.05	-5.3	25	90	0
n-Tritriacontane (C33)	0.954	1.017	.05	-6.6	25	91	0
n-tetratriacontane (C34)	0.987	1.068	.05	-8.2	25	93	0
n-Pentatriacontane (C35)	0.952	1.042	.05	-9.5	25	94	0
n-Hexatriacontane (C36)	1.009	1.11	.05	-10	25	94	0
n-Heptatriacontane (C37)	0.946	1.041	.05	-10	25	94	0
n-Octatriacontane (C38)	1.021	1.121	.05	-9.8	25	94	0
n-Tetracontane (C40)	0.953	0.977	.05	-2.5	25	88	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID17
 Lab File ID : F17120919096
 Sample No : WG1315720-5
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/12/19 09:21
 Init. Calib. Date(s) : 04/03/19 04/04/19
 Init. Calib. Times : 23:29 06:51

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	88	-.03
n-Octane (C8)	0.838	0.772	.05	7.9	25	82	-.02
n-Nonane (C9)	0.895	0.833	.05	6.9	25	81	-.02
n-Decane (C10)	0.914	0.868	.05	5	25	82	-.02
n-Undecane (C11)	0.923	0.894	.05	3.1	25	83	-.03
n-Dodecane (C12)	0.929	0.911	.05	1.9	25	84	-.03
n-Tridecane (C13)	0.928	0.922	.05	0.6	25	85	-.03
n-Tetradecane (C14)	0.94	0.942	.05	-0.2	25	86	-.03
n-Pentadecane (C15)	0.94	0.948	.05	-0.9	25	87	-.03
n-Hexadecane (C16)	0.945	0.961	.05	-1.7	25	87	-.03
n-Heptadecane (C17)	0.948	0.955	.05	-0.7	25	87	-.03
Pristane	0.952	0.976	.05	-2.5	25	88	-.03
n-Octadecane (C18)	0.953	0.975	.05	-2.3	25	88	-.03
Phytane	0.868	0.874	.05	-0.7	25	87	-.03
n-Nonadecane (C19)	0.95	0.973	.05	-2.4	25	88	-.03
ortho-terphenyl	1.078	1.088	.05	-0.9	25	88	-.03
n-Eicosane (C20)	0.952	0.973	.05	-2.2	25	88	-.03
n-Heneicosane (C21)	0.967	0.986	.05	-2	25	88	-.03
n-Docosane (C22)	0.966	0.984	.05	-1.9	25	88	-.03
n-Tricosane (C23)	0.972	0.991	.05	-2	25	88	-.03
d50-Tetracosane	0.863	0.846	.05	2	25	85	-.04
n-Tetracosane (C24)	0.976	0.987	.05	-1.1	25	87	-.04
n-Pentacosane (C25)	0.966	0.977	.05	-1.1	25	87	-.04
n-Hexacosane (C26)	0.973	0.982	.05	-0.9	25	87	-.04
n-Heptacosane (C27)	0.948	0.956	.05	-0.8	25	87	-.04
n-Octacosane (C28)	0.983	1.003	.05	-2	25	87	-.04
n-Nonacosane (C29)	0.978	0.99	.05	-1.2	25	87	-.04
n-Triacontane (C30)	0.967	0.981	.05	-1.4	25	87	-.04
n-Hentriacontane (C31)	0.973	0.988	.05	-1.5	25	88	-.04
n-Dotriacontane (C32)	0.96	0.977	.05	-1.8	25	88	-.04
n-Tritriacontane (C33)	0.95	0.97	.05	-2.1	25	88	-.05
n-tetratriacontane (C34)	0.985	1.001	.05	-1.6	25	88	-.05
n-Pentatriacontane (C35)	0.952	0.965	.05	-1.4	25	88	-.05
n-Hexatriacontane (C36)	1.008	1.021	.05	-1.3	25	88	-.06
n-Heptatriacontane (C37)	0.952	0.955	.05	-0.3	25	87	-.07
n-Octatriacontane (C38)	1.025	1.029	.05	-0.4	25	87	-.08
n-Tetracontane (C40)	0.974	0.965	.05	0.9	25	86	-.1

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID17
 Lab File ID : F17120919112
 Sample No : WG1315720-6
 Channel :

Lab Number : L1954309
 Project Number : 000029-02.59
 Calibration Date : 12/12/19 21:02
 Init. Calib. Date(s) : 04/03/19 04/04/19
 Init. Calib. Times : 23:29 06:51

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	86	-.04
n-Octane (C8)	0.838	0.799	.05	4.7	25	82	-.02
n-Nonane (C9)	0.895	0.842	.05	5.9	25	80	-.03
n-Decane (C10)	0.914	0.877	.05	4	25	80	-.03
n-Undecane (C11)	0.923	0.894	.05	3.1	25	81	-.03
n-Dodecane (C12)	0.929	0.914	.05	1.6	25	82	-.04
n-Tridecane (C13)	0.928	0.925	.05	0.3	25	83	-.04
n-Tetradecane (C14)	0.94	0.941	.05	-0.1	25	83	-.04
n-Pentadecane (C15)	0.94	0.947	.05	-0.7	25	84	-.04
n-Hexadecane (C16)	0.945	0.96	.05	-1.6	25	85	-.04
n-Heptadecane (C17)	0.948	0.953	.05	-0.5	25	84	-.04
Pristane	0.952	0.977	.05	-2.6	25	85	-.04
n-Octadecane (C18)	0.953	0.985	.05	-3.4	25	86	-.04
Phytane	0.868	0.879	.05	-1.3	25	85	-.04
n-Nonadecane (C19)	0.95	0.973	.05	-2.4	25	85	-.04
ortho-terphenyl	1.078	1.084	.05	-0.6	25	85	-.04
n-Eicosane (C20)	0.952	0.973	.05	-2.2	25	85	-.05
n-Heneicosane (C21)	0.967	0.988	.05	-2.2	25	85	-.05
n-Docosane (C22)	0.966	0.986	.05	-2.1	25	85	-.05
n-Tricosane (C23)	0.972	0.991	.05	-2	25	85	-.05
d50-Tetracosane	0.863	0.847	.05	1.9	25	83	-.05
n-Tetracosane (C24)	0.976	0.99	.05	-1.4	25	85	-.05
n-Pentacosane (C25)	0.966	0.978	.05	-1.2	25	84	-.05
n-Hexacosane (C26)	0.973	0.983	.05	-1	25	84	-.05
n-Heptacosane (C27)	0.948	0.957	.05	-0.9	25	84	-.05
n-Octacosane (C28)	0.983	0.993	.05	-1	25	84	-.05
n-Nonacosane (C29)	0.978	0.988	.05	-1	25	84	-.06
n-Triacontane (C30)	0.967	0.978	.05	-1.1	25	84	-.06
n-Hentriacontane (C31)	0.973	0.984	.05	-1.1	25	85	-.06
n-Dotriacontane (C32)	0.96	0.973	.05	-1.4	25	85	-.07
n-Tritriacontane (C33)	0.95	0.964	.05	-1.5	25	85	-.06
n-tetratriacontane (C34)	0.985	0.997	.05	-1.2	25	85	-.07
n-Pentatriacontane (C35)	0.952	0.962	.05	-1.1	25	85	-.07
n-Hexatriacontane (C36)	1.008	1.017	.05	-0.9	25	85	-.08
n-Heptatriacontane (C37)	0.952	0.953	.05	-0.1	25	84	-.09
n-Octatriacontane (C38)	1.025	1.028	.05	-0.3	25	84	-.12
n-Tetracontane (C40)	0.974	0.963	.05	1.1	25	83	-.16

* Value outside of QC limits.



**Internal Standard Area and RT Summary
Form 8a
Petroleum**

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID6
 Sample No : WG1315720-1

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/02/19 15:54
 Lab File ID : F612021906

	5-a-androstane		Area	RT	Area	RT
	Area	RT				
WG1315720-1	36036439	31.24				
Upper Limit	72072878	31.74				
Lower Limit	18018220	30.74				
Sample ID						
WG1312512-1 BLANK	39979857	31.24				
WG1312512-2 LCS	41200655	31.24				
WG1312512-3 LCSD	41556217	31.24				
WG1315720-2 CCAL	37540750	31.24				

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

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID6
 Sample No : WG1315720-2

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/03/19 14:02
 Lab File ID : F612021936

	5-a-androstane		Area	RT	Area	RT
	Area	RT				
WG1315720-2	37540750	31.24				
Upper Limit	75081500	31.74				
Lower Limit	18770375	30.74				
Sample ID						
PDI-059SC-B-06-08-191016	53924767	31.24				
PDI-049SC-B-06-08-191015	48590399	31.24				
WG1315720-3 CCAL	43809813	31.24				

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

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO PDI
Instrument ID : FID6
Sample No : WG1315720-3

Lab Number : L1954309
Project Number : 000029-02.59
Analysis Date : 12/04/19 10:39
Lab File ID : F612021964

	5-a-androstane		Area	RT	Area	RT	Area	RT
	Area	RT						
WG1315720-3	43809813	31.24						
Upper Limit	87619626	31.74						
Lower Limit	21904907	30.74						
Sample ID								
PDI-1079SC-B-06-08-191014	52866164	31.25						
WG1315720-4 CCAL	42535505	31.23						

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

Petroleum

Client : Anchor QEA, LLC
 Project Name : GASCO PDI
 Instrument ID : FID17
 Sample No : WG1315720-5

Lab Number : L1954309
 Project Number : 000029-02.59
 Analysis Date : 12/12/19 09:21
 Lab File ID : F17120919096

	5-a-androstane		Area	RT	Area	RT
	Area	RT				
WG1315720-5	61240409	29.95				
Upper Limit	122480818	30.45				
Lower Limit	30620205	29.45				
Sample ID						
PDI-090SC-B-06-08-191012	61368009	29.94				
PDI-084SC-B-06-08-191002	62357307	29.94				
PDI-079SC-B-06-08-191014	64141455	29.94				
PDI-071SC-B-06-08-191001	62090661	29.93				
PDI-066SC-B-06-08-191011	59562058	29.93				
WG1315720-6 CCAL	59345594	29.93				

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

